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2013 AS-BUILT COMPLETION REPORT

BNSF FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON
CONSENT DECREE NO. 07-2-33672-9 SEA

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APPENDICES

(Provided on compact disc in print copy)

ACRONYMS AND ABBREVIATIONS

AECOM	AECOM Environment
As-Built Report	*2013 As-Built Completion Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington,* Consent Decree No. 07-2-33672-9 SEA dated April 28, 2014 prepared by Farallon Consulting, L.L.C. (this report)
bgs	below ground surface
BNSF	BNSF Railway Company
CAP	Cleanup Action Plan dated October 2007, prepared by the Washington State Department of Ecology
Ecology	Washington State Department of Ecology
EMB Consulting	EMB Consulting, LLC
Farallon	Farallon Consulting, L.L.C.
G&O	Gray & Osborne, Inc.
HCC	Hydraulic control and containment
HRA	Historical Research Associates, Inc.
Inca	Inca Engineers
LNAPL	light nonaqueous-phase liquid
MARVAC	Marine Vacuum Service, Inc.
mg/kg	milligrams per kilogram
SAP	Sampling and Analysis Plan
Schoolyard	schoolyard adjacent to the Skykomish School
Site	BNSF Railway Company Former Maintenance and Fueling Facility in Skykomish, Washington
SHF	soil handling facility
Strider	Strider Construction Co. Inc.
Town	Town of Skykomish, Washington
UST	underground storage tank
VDL	vertical delineation limit
2010 CMP	2010 Compliance Monitoring Plan Update dated April 30, 2010 prepared by AECOM Environment
2010 EDR	2010 Engineering Design Report dated May 3, 2010 prepared by AECOM Environment
2013 AMP	Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 prepared by EMB Consulting, LLC
2013 CMP	Addendum #2 2010 Compliance Monitoring Plan Update dated June 26, 2013 prepared by Farallon Consulting, L.L.C.

2013 CPS	2013 Schoolyard Excavation Supplement Construction Plans and Specifications dated June 5, 2013 prepared by Farallon Consulting, L.L.C.
2013 TEP	2013 Technical Execution Plan dated June 10, 2013, prepared by Strider Construction Co. Inc.

1.0 INTRODUCTION

This 2013 As-Built Completion Report (As-Built Report) was prepared pursuant to the requirements of Section 400 of Chapter 173-340 of the Washington Administrative Code and describes the 2013 remediation construction activities completed at the Skykomish School for the BNSF Railway Company (BNSF) as part of the remedial action underway at the Former Maintenance and Fueling Facility in Skykomish, Washington (herein referred to as the Site) (Figure 1). Site remediation activities are being conducted in accordance with the Cleanup Action Plan for BNSF Former Maintenance and Fueling Facility dated October 2007, prepared by the Washington State Department of Ecology (Ecology) (CAP). The remediation activities completed at the Site in 2013 were approved by Ecology and undertaken by BNSF pursuant to Consent Decree No. 07-2-33672-9 SEA between BNSF and Ecology, and are part of an integrated and comprehensive remedial action for the Site. The overall cleanup approach for the Site is described in the Master Engineering Design Report (RETEC Group, Inc. 2008).

The original Skykomish Schoolyard excavation prism was outlined in the 2010 Construction Specifications dated March 29, 2010 prepared by AECOM (2010a) (2010 CPS). This excavation was partially completed during 2010 construction under a limited access agreement with the Skykomish School District. In 2013, BNSF obtained access to the Skykomish School property to complete excavation of the schoolyard. Farallon Consulting, L.L.C. (Farallon) was selected by BNSF to provide supplemental design services for the 2013 excavation of the remaining portions of the schoolyard adjacent to the Skykomish School (herein referred to as the Schoolyard). Farallon retained the Schoolyard excavation prism as described in the 2010 CPS with the exception of the northeast corner. Cleanup in this area is anticipated to be completed beginning in 2015 as part of remediation beneath the School Building. The 2013 scope of work is described in the 2013 Schoolyard Excavation Supplement Construction Plans and Specifications dated June, 5, 2013, prepared by Farallon (2013a) (2013 CPS).

The remediation and compliance monitoring work is also described in the 2010 Engineering Design Report dated May 3, 2010, prepared by AECOM Environment (AECOM) (2010d) (2010 EDR); the Compliance Monitoring Plan Update dated April 30, 2010, prepared by AECOM (2010b) (2010 CMP); the 2011 Remediation As-Built Completion Report dated June 22, 2012, prepared by AECOM (2012); and the Addendum #2 2010 Compliance Monitoring Plan Update dated June 26, 2013, prepared by Farallon (2013b) (2013 CMP). This 2013 As-Built Report summarizes the remediation construction activities that were completed at the Site in 2013. This report also summarizes the monitoring activities completed in association with the Schoolyard remediation.

The remainder of this As-Built Report is organized into the following sections:

- **Section 2**: **Project Management and Organization.** This section describes the roles and responsibilities of BNSF; the general contractor, Strider Construction Co. Inc. (Strider) and its subcontractors; and Farallon and its subcontractors in the completion of the 2013 remediation activities.
- **Section 3: Site Preparation.** This section describes the general Site preparation activities that were completed prior to the start of construction.

- **Section 4**: **Remediation Construction Activities.** This section describes the 2013 remediation construction activities, including activities described in the 2010 EDR, the Sampling and Analysis Plan dated April 30, 2010 prepared by AECOM (2010c) (SAP), and the 2013 CPS.
- **Section 5**: **Restoration Activities.** This section describes the restoration activities that occurred following the removal of petroleum- and metals-contaminated soil from the Site, including the restoration activities described in the 2013 CPS.
- **Section 6: Remaining Work to be Completed.** This section describes the remaining remediation activities described in the planning documents that will begin or will be completed after 2013.
- **Section 7: Summary and Conclusions.** This section provides an overview of the 2013 remediation activities at the Site and includes summary conclusions of the activities and work completed.
- **Section 8: References.** This section lists the documents cited in this report.

2.0 PROJECT MANAGEMENT AND ORGANIZATION

As described in the 2010 CPS, AECOM prepared the cleanup action planning documentation pertaining to the excavation of petroleum- and metals-contaminated soil in the Schoolyard within the Site (Figure 2). In 2013, Farallon was selected by BNSF to provide supplemental design and construction observation services for the excavation and load-out of contaminated soil from the Schoolyard, and the associated Schoolyard restoration. In this capacity, Farallon served as liaison for BNSF with contractors, the Town of Skykomish (Town), the Skykomish School District, and local stakeholders. During remediation and construction activities, Farallon provided weekly status updates to BNSF, the Skykomish School, the Town, and Ecology representatives. Copies of the 2013 Weekly Status Updates are provided in Appendix A. Ecology retained responsibility for regulatory oversight of the remediation project. Brief descriptions of the roles of each contractor, subcontractor, and consultant involved in the 2013 remediation activities are provided below.

2.1 GENERAL CONTRACTOR

Strider was selected by BNSF to perform the construction activities in accordance with the 2013 CPS, as well as the development and implementation of the 2013 Technical Execution Plan dated June 10, 2013, prepared by Strider (2013) for BNSF (2013 TEP). Strider performed excavation, backfilling, and grading of remediation areas; loading of excavated material for disposal; restoration; and infrastructure improvements.

Subcontractors to Strider and the services they provided included the following:

- Inca Engineers (Inca): Land surveying;
- National Fence Rentals: Temporary site security fencing;
- Holocene Drilling Inc.: Inclinometer installation;
- Lakeside Industries: Paving for soil-handling facility expansion;
- Marine Vacuum Service, Inc. (MARVAC): Oil recovery;
- GeoTest Services, Inc.: Compaction testing;
- Woodinville Custom Concrete: Concrete pathway restoration;
- P&G Landscaping: Schoolyard sod installation;
- Burke-Darrow, Inc.: Irrigation system installation; and
- Economy Fence: Permanent fence installation.

2.2 CONSULTANTS AND CONTRACTORS TO BNSF

The following firms provided the services indicated below under contract to BNSF in support of this project:

- Farallon: Supplemental design; construction observation; compliance monitoring in accordance with the 2010 CMP, the 2013 CMP, and the 2013 CPS; and BNSF liaison with contractors, the Town, and local stakeholders;
- TestAmerica Laboratories, Inc.: Laboratory analysis of soil samples;
- Republic Services, Inc.: Disposal of contaminated soil; and
- Jacobs Associates: Geotechnical monitoring and construction support.

2.3 SUBCONSULTANTS TO FARALLON

The following firms provided the services indicated below under contract to Farallon in support of this project:

- EMB Consulting, LLC (EMB Consulting): Development and implementation of the Skykomish School Air and Noise Monitoring Plan;
- Sayler Data Solutions, Inc.: Third-party data validation services; and
- Historical Research Associates, Inc. (HRA): Development and implementation of the Archaeological Monitoring Plan.

2.4 CONSULTANTS TO TOWN OF SKYKOMISH

Gray & Osborne, Inc. (G&O) provided design and construction observation of the sanitary side sewer connection.

3.0 SITE PREPARATION

The following section describes the general site preparation activities that were completed prior to the start of construction for the BNSF excavation and stockpile load-out activities.

3.1 PRE-CONSTRUCTION MEETING

A pre-construction meeting was held on June 13, 2013 in the Town prior to mobilization. Meeting attendees included representatives of BNSF, Strider, Farallon, the Skykomish School, the Town, HRA, Jacobs Associates, EMB Consulting, and Ecology. The key items discussed in the meeting included:

- Roles and responsibilities;
- Key Site documents;
- Communication protocol;
- Site health and safety;
- Daily health and safety briefings;
- Project contacts;
- Submittal procedures; and
- Anticipated construction schedule.

3.2 TEMPORARY FACILITIES AND CONTROLS

The temporary facilities and controls implemented were outlined in the 2013 CPS and the 2013 TEP. This section documents the temporary facilities and controls employed during the project work to define the limits of work, control surface water runoff during construction operations, coordinate truck traffic, and maintain Site security.

3.2.1 Construction Trailer

Strider provided a construction trailer that was located south of the soil-handling facility (SHF) within the BSNF railyard. The construction trailer included separate field offices for the Site Superintendent and the Project Engineer, and a meeting room for daily health and safety meetings. Portable restrooms were provided during construction activities at the SHF and at Schoolyard locations within the Site (Figure 1).

3.2.2 Temporary Erosion and Sediment Controls

Temporary erosion and sediment controls were set up prior to breaking ground for the construction activities. Catch basin inserts were installed in stormwater catch basins along West River Drive and Sixth Street. Silt fencing was installed around the remediation excavation area to control sediment and silt runoff.

3.2.3 Temporary Traffic Control

3.2.3.1 Street Traffic Controls

West River Drive between Sixth Street and the Shawver Property was closed during the hours of construction. To minimize truck traffic on Town streets, Strider hauled soil from the Schoolyard to the SHF (see Section 3.2.6) located in the BNSF railyard (Figure 1).

During school bus loading and unloading at the Skykomish School, construction vehicle traffic was temporarily stopped. School bus loading and unloading occurred along Railroad Avenue between Fifth and Sixth Streets between 7:20 and 7:40 a.m., and between 11:55 a.m. and 12:15 p.m. Monday through Wednesday.

3.2.3.2 Railroad Flagger Traffic Controls

On June 20, 2013, the Strider Superintendent, Farallon Project Engineer, and BNSF Roadmaster met to coordinate ingress and egress to the SHF. The railroad track adjacent to the SHF was locked out to allow Strider to transport soil to the facility. No railroad flaggers were required for this work.

3.2.4 Temporary Site Security

A 6-foot-tall temporary fence was installed around the perimeter of the Schoolyard to maintain Site security throughout the duration of the project. The fence was installed to allow ingress and egress to the School doors on the east side of the Schoolyard. Fence access along West River Drive was locked at the completion of work each day. Signs were posted around the play area south of the Schoolyard as notification that the play area was closed for the duration of construction.

3.2.5 Construction Water Treatment System

Two 20,000-gallon temporary storage tanks were set up in series at the SHF for collection of runoff from the SHF stockpile. Stockpile runoff was pumped to the temporary storage tank to allow for settling. Once settling had occurred and water was no longer turbid, construction water was pumped to the water treatment plant for the Site hydraulic control and containment (HCC) system for further treatment, and was subsequently discharged to the South Fork of the Skykomish River under the existing National Pollutant Discharge Elimination System permit. After the SHF pad had been cleaned, construction water in the temporary storage tanks appeared to remain moderately turbid following a period of settling. Bag and cartridge filters were set up in series to remove fine sediment from construction water before it was pumped to the HCC system. A total of approximately 65,000 gallons of construction water from the SHF was treated and discharged during 2013 remediation activities.

3.2.6 Soil Handling Facility

The SHF is located on BNSF railyard property and is covered by asphalt pavement placed over a high-density polyethylene liner (Figure 1). The east end of the SHF is surrounded by two rows of ecology blocks to contain the stockpiled contaminated soil. A surface water collection sump was installed at the low point of the SHF to collect runoff from within the footprint of the SHF.

A small trash pump conveyed surface water from the sump to the Construction Water Treatment System through polyvinyl chloride piping.

3.3 SURVEYING

In accordance with the 2013 CPS, Inca conducted a professional land survey on June 20, 2013 to collect baseline survey data of the settlement monitoring points prior to the start of construction. Following the baseline survey, Strider performed settlement monitoring during construction using a total station. The survey data generated prior to and during construction were provided to Jacobs Associates for analysis. In addition to performing settlement monitoring, Strider collected topographical survey data of the excavation prior to groundbreaking, and after each of the following events: removal of overburden material, removal of contaminated soil, placement of stabilization aggregate fill, placement of structural aggregate fill, and replacement of overburden.

3.4 UTILITY POTHOLING

Strider construction provided a one-call utility locate of the Schoolyard block prior to commencement of construction activities to locate utilities up to the Skykomish School property line. Strider subcontracted Applied Professional Services, Inc. to perform an additional locate of all utilities within the Skykomish School property. A utility locate marking indicated that a conduit containing a power line was present along the north edge of the excavation area and within the bounds of the excavation. To document the exact location and depth of the power conduit, a representative from the utility company was contacted to observe Strider digging a series of potholes using hand tools to expose the surface of the conduit. Prior to backfilling the potholes, the Strider Field Surveyor collected survey data of the conduit location.

3.5 PROTECTION MONITORING

Protection monitoring was performed during the remediation and construction activities conducted at the Schoolyard, as defined in the 2010 CMP and the 2013 CMP. EMB Consulting (2013) prepared the Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 (2013 AMP) to provide the methods and procedures for the baseline and protection monitoring to be performed during the 2013 remediation and construction activities conducted at the Site.

3.5.1 Air Monitoring

In accordance with the 2013 AMP, air monitoring was performed at the Site by EMB Consulting and Farallon. Prior to the commencement of remediation and construction activities, air samples were collected inside the Skykomish School building to establish baseline petroleum concentrations. During the remediation and construction activities, air samples were collected as part of protection monitoring to measure concentrations of respirable dust, lead and arsenic, petroleum, and diesel exhaust. Air monitoring activities were documented in weekly Air and Noise Monitoring Reports. None of the contaminants of concern were detected during the 2013 construction activities at or above the project action limits specified in the 2013 AMP. Weekly Air and Noise Monitoring Reports are provided in Appendix B.

3.5.2 Noise Monitoring

In accordance with the 2013 AMP, noise monitoring was performed at the Site by EMB Consulting and Farallon. Prior to commencement of remediation and construction activities, noise monitoring was performed to establish baseline noise levels. Measurements were collected outside and inside the Skykomish School building, and inside the Community Center on the east side of Sixth Street. During remediation and construction activities, noise measurements were collected outside the Skykomish School building and outside the Community Center. Noise monitoring activities were documented in weekly Air and Noise Monitoring Reports. During the 2013 construction activities, no noise levels were measured at or above the project action limits specified in the 2013 AMP. Air and Noise Monitoring Reports are provided in Appendix B.

3.5.3 Weather Monitoring

Weather monitoring was performed by EMB Consulting and Farallon in accordance with the 2013 AMP. A weather station on the roof of the HCC treatment building recorded temperature, wind speed and direction, and precipitation at 30-minute intervals during daylight hours. Recorded weather data are summarized in the Air and Noise Monitoring Reports provided in Appendix B.

3.6 SETTLEMENT AND VIBRATION MONITORING

In accordance with the 2013 CPS, structure settlement points were placed on the Skykomish School building, and surface settlement points were installed around the Teacherage and Shawver Property as shown in the 2013 CPS. Two inclinometer devices were installed in the Schoolyard adjacent to the Skykomish School building. Prior to commencement of construction and remediation activities, Inca collected a baseline survey of each established settlement monitoring point.

During construction activities, Strider monitored settlement points using a total station as described in the 2013 CPS. The survey data were provided to Jacobs Associates, which reviewed the survey, vibration monitoring, and inclinometer data; and summarized conclusions in weekly reports provided to Farallon. Following the construction activities, Jacobs Associates provided Farallon with a *Schoolyard Excavation Supplement Final Summary Instrument & Survey Monitoring Report* (2013), which is provided in Appendix C.

3.7 ARCHAEOLOGICAL MONITORING, PROTECTION, AND DOCUMENTATION

During excavation, archaeological monitoring was performed by HRA from the surface level to an excavation depth of approximately 5 feet below ground surface (bgs) in accordance with the protocols and recommendations documented in an Archaeological Resources Monitoring and Discovery Plan for the BNSF Railway Former Maintenance and Fueling Facility being prepared by Northwest Archaeological Associates, Inc. as referenced in the *DRAFT—Archaeological Monitoring Report for the Skykomish Schoolyard Area Remediation, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington* dated December 2013, prepared by HRA (2013) (HRA Draft Archaeological Report). On June 25, 2013 HRA observed historic-period archaeological site 45KI1157 (a former outhouse building). The 45KI1157 site was left

undisturbed and was monitored by HRA until June 26, 2013, when the Washington State Department of Archaeology and Historic Preservation gave approval to demolish the 45KI1157 site and continue construction. No additional archaeological sites were observed during construction activities. A detailed summary of the archaeological monitoring that occurred during the 2013 Schoolyard excavation is provided in the HRA Draft Archaeological Report (Appendix D).

4.0 REMEDIATION CONSTRUCTION ACTIVITIES

The 2013 remediation construction scope of work included the following activities that were described in the 2010 EDR and the 2013 CPS:

- Pre-characterization of overburden soil;
- Excavation and load-out of metals-contaminated soil from the Schoolyard;
- Excavation and stockpiling of overburden soil;
- Excavation and load-out of petroleum-contaminated soil from the Schoolyard; and
- Oil recovery during excavation below groundwater elevation.

4.1 REMEDIATION DESIGN BASIS AND OBJECTIVES

The remediation design basis and objectives are described in the 2013 CPS and 2010 CMP. The excavation prism shown in the 2013 CPS was carried forward from the 2010 CPS prepared by AECOM (2010a). The excavation prism defined by AECOM was approved by Ecology and BNSF prior to the 2010 construction activities. A portion of the Schoolyard area was excavated in 2010 under a limited access agreement with the Skykomish School District. The excavation prism described in the 2013 CPS was modified by Farallon to overlap the 2010 excavation described in the 2011 Remediation As-Built Completion Report (AECOM 2012) except for a section of the northeast Schoolyard. Remediation in this area is anticipated to begin in 2015 as part of the final phase of cleanup in Skykomish. The objectives of the 2013 remediation are described in the 2013 CMP. In general, soil inside the Schoolyard with concentrations exceeding established Site cleanup and remediation levels as defined in the CAP were to be excavated and removed to a disposal facility off the Site. Soil with concentrations exceeding the remediation level left in place was covered with a geomembrane liner and will be addressed during future remediation phases, as described in Section 4.4.3, Installation and Removal of Geomembrane Liner.

4.2 OVERBURDEN SAMPLING AND TEST PIT EXCAVATIONS

In accordance with the 2010 CMP and the 2013 CMP, prior to excavation the areas within the excavation boundaries were divided into approximately 25- by 25-foot grids that were measured off surveyed excavation corners, and marked using construction staking as shown on Figure 3. Samples were collected from the approximate center of each grid at a depth that was approximately halfway between the vertical delineation limit (VDL) and the ground surface (i.e., approximately 2.5 feet bgs). The sample locations for the overburden soil area are depicted on Figure 3. Soil samples were collected directly from the excavator bucket. The overburden soil samples were analyzed for total petroleum hydrocarbons as diesel-range organics (DRO) and as oil-range organics (ORO) by Northwest Method NWTPH-Dx. No odor or staining was noted in the overburden soil samples. DRO and ORO (collectively herein referred to as NWTPH-Dx) were not detected at concentrations at or exceeding the level established for reuse of 1,870 milligrams per kilogram (mg/kg) based on the sum of the concentrations of these constituents in

the overburden soil samples. The overburden soil sample analytical results are summarized in Table 1.

Following receipt of the laboratory analytical results for the overburden soil samples, the overburden soil was excavated, loaded, and stockpiled in designated areas adjacent to the SHF pending reuse. The exception to this approach was the overburden soil from the area designated as the metals excavation area as shown on Figure 4. Soil from the ground surface down to 2 feet bgs from the metals excavation area was excavated and stockpiled in the SHF as described in Section 4.3, Metals-Contaminated Soil Excavation.

The 2010 CPS described an isolated "Bull's-Eye" excavation area in grids G11 and G12 as not contiguous with the overall excavation prism because the elevated NWTPH-Dx concentrations at this location were determined to be anomalous. The 2013 CPS maintained the excavation prism to include this excavation area and required additional test pit excavations to further investigate soil quality at this location.

On June 24, 2013, three exploratory test pits were excavated in the vicinity of the "Bull's-Eye" in grid locations G11, G12, and G13 to depths of approximately 8.0, 8.0, and 7.5 feet bgs, respectively. Groundwater was encountered at approximately 6 feet bgs in each of the test pits. No staining, odor, or sheen was noted in any of the test pits. The limits of the Schoolyard excavation were later extended to incorporate grids G11, G12, and G13 based on staining and the presence of light nonaqueous-phase liquid (LNAPL) observed along the south wall of the excavation in grid F11 as described in Section 4.4.2., Schoolyard Petroleum-Contaminated Soil Over Excavation.

4.3 METALS-CONTAMINATED SOIL EXCAVATION

As required by the CAP, areas within the School property contaminated by lead and arsenic at concentrations exceeding the cleanup levels of 250 and 20 mg/kg, respectively, were to be excavated to a minimum depth of 2 feet bgs, or to a depth that resulted in soil concentrations less than cleanup levels. The metals-contaminated area in the 2013 CPS was clearly marked using survey staking and caution tape prior to excavation. This area was divided into 25- by 25-foot grids designated as MT1, MT2, and MT3 as shown on Figure 4.

In accordance with the 2010 CMP and the 2013 CMP, confirmation soil samples were collected from the center of each of grids MT1, MT2, and MT3 at a depth of 2 feet bgs and at a maximum spacing of 25-foot intervals along the excavation sidewalls as shown on Figure 4. The metals confirmation soil samples collected from grids MT1, MT2, and MT3 were analyzed for lead and arsenic content by U.S. Environmental Protection Agency (EPA) Method 6020. Neither lead nor arsenic was detected at concentrations exceeding the cleanup levels of 250 and 20 mg/kg, respectively, in the confirmation soil samples collected. The analytical data for the metals area soil samples are summarized in Table 2.

Following receipt of the laboratory analysis data for metals-contaminated soil samples, grids MT1, MT2, and MT3 were excavated to a depth of 2 feet bgs. This soil was stockpiled in the SHF and covered with plastic sheeting.

4.4 PETROLEUM-CONTAMINATED SOIL EXCAVATION

As required by the CAP, soil in areas within the northwest portion of the Skykomish School property contaminated by NWTPH-Dx at concentrations exceeding the cleanup level of 3,400 mg/kg was to be excavated and disposed of at an appropriate Subtitle D waste disposal facility. The petroleum-contaminated area defined in the 2013 CPS was clearly marked using survey staking and marking paint. This area was divided into 25- by 25-foot grids as shown on Figure 5. The excavation activities were divided by the VDL. As defined in the 2013 CMP, the Schoolyard VDL and the overburden extents have been conservatively designated such that soil above the VDL is above the water table fluctuation zone and generally is not contaminated with petroleum hydrocarbons.

4.4.1 Schoolyard Petroleum Confirmation Sampling

In accordance with the 2010 CMP and the 2013 CMP, performance soil samples were collected from each of the grid locations. Samples were collected at the excavation bottom in the approximate center of each grid. The planned bottom of excavation was generally defined in the 2013 CPS as elevation 910 feet above mean sea level in the northwest Schoolyard and 913 feet above mean sea level in the southeast Schoolyard. Soil from these approximate elevations included a layer of silt that occurred near these elevations that served to constrain the vertical migration of petroleum contamination. For the grids with sloping sidewalls along the excavation boundaries, soil samples were collected at the toe of the excavation slope at the approximate center of the grid. Additional discrete samples were collected from visually impacted areas within the excavation, which included grid locations C14, D14, E14, F13, and F14 (Figure 5). Following collection of soil confirmation samples, the final excavation elevations were surveyed using the total station. The locations of the soil samples collected at the final limits of the excavation are shown on Figure 5.

NWTPH-Dx was detected at concentrations exceeding the cleanup level of 3,400 mg/kg in the discrete soil samples collected from the east sidewalls of grids C14 and D14 (Figure 5). Soil adjacent to grids C14 and D14 toward the east was left in place and covered with a liner as described in Section 4.4.3, Installation and Removal of Geomembrane Liner. This soil will be addressed during implementation of the Hot Water Flushing cleanup planned for the area beneath and adjacent to the Skykomish School building which is anticipated to occur in 2015.

NWTPH-Dx was not detected at concentrations exceeding the cleanup level of 3,400 mg/kg in the remaining confirmation soil samples collected. The confirmation soil sample results are summarized in Table 3.

4.4.2 Schoolyard Petroleum-Contaminated Soil Over Excavation

On July 27, 2013, staining and LNAPL were observed along the south wall of the excavation in grid F11. As a result, the extent of the excavation was expanded approximately 35 feet south to incorporate grid G11 and portions of grids G10 and G12 to remove the contaminated soil along the wall in grid F11. This additional area of excavation was initially staked using survey staking. At the request of Jacobs Associates, additional structural settlement monitoring points were installed along the covered play area southwest of these grids before over-excavation commenced in grids G11, G12, and G13. Following the additional excavation, confirmation soil

samples were collected from the toe of the excavation slope in grids G11, G12, and G13. Additional discrete soil samples were collected from the excavation slopes at a depth of approximately 7 feet bgs. NWTPH-Dx was not detected at concentrations at or exceeding the cleanup level of 3,400 mg/kg in the soil samples collected from grids G11, G12, or G13 following over-excavation. The soil sample analytical results are summarized in Table 3. Figure 6 shows the final excavation limits prior to backfill activities.

4.4.3 Installation and Removal of Geomembrane Liner

In accordance with the 2013 CPS, the existing geomembrane liner previously installed during the 2006 and 2011 remediation activities in the area was removed where encountered in the excavation. Geomembrane liner was removed from the northern and western excavation slopes. Prior to backfilling, a 36-millimeter geomembrane liner was installed along the eastern excavation slope based on the results obtained from confirmation soil samples from grids C14 and D14 with concentrations of NWTPH-Dx exceeding the remediation level. A 36-millimeter geomembrane liner was also installed as a conservative measure along the southern excavation slope, even though soil confirmation samples from the area contained NWTPH-Dx at concentrations less than the remediation level. Figure 6 shows the approximate limits of liner sections removed during the 2013 excavation and the liner installed along the eastern and southern slopes.

4.5 SOIL SAMPLE ANALYTICAL DATA VALIDATION

Sayler Data Solutions, Inc. reviewed the resultant analytical data to ensure that the quality assurance/quality control criteria established in the 2010 CMP, 2013 CMP, and SAP were satisfied. The laboratory analytical reports for the samples collected during the 2013 remediation excavation activities are provided in Appendix E. The Data Validation Report prepared by Sayler Data Solutions, Inc. is provided in Appendix F.

4.6 OIL RECOVERY

In accordance with the 2013 CPS and as described in the 2013 TEP, oil recovery was performed by MARVAC during excavation and backfill activities that occurred below groundwater elevation. MARVAC used a combination of booms, absorbent pads, water jets, and vacuum trucks to divert and collect oil from the excavation so that clean soil and backfill would not be contaminated. Approximately 7,600 gallons of oily water was recovered from the excavation and transported to the MARVAC oil recycling facility in Seattle, Washington.

4.7 BIRD CONTROL

In accordance with the 2013 CPS and as described in the 2013 TEP, bird deterrents were installed around the excavation during periods when groundwater was exposed. Strider placed reflective spin wheels and plastic owl decoys along the perimeter of the excavation to keep birds from flying into the excavation and coming into contact with LNAPL. No birds were observed to come into contact with LNAPL over the duration of the excavation.

4.8 SOIL HANDLING FACILITY EXPANSION

On July 1, 2013 following the start of excavation for petroleum-contaminated soil, Farallon received notice that railcars for loading out the soil from the SHF would not be available until late July. This required that the petroleum-contaminated soil excavated from the Schoolyard be stockpiled in the SHF pending arrival of the railcars. The capacity of the existing SHF was insufficient for this purpose, requiring expansion of the facility area. During the week of July 1, 2013, approximately 5,000 square feet of area adjacent to the SHF was paved with asphalt, and one additional water collection sump was installed to accommodate storage of the additional petroleum-contaminated soil.

5.0 RESTORATION ACTIVITIES

The following sections describe the Site restoration activities that were completed following the 2013 soil excavation at the Skykomish School property.

5.1 BACKFILL, PLACEMENT, AND COMPACTION

In accordance with the 2013 CPS and as described in the 2013 TEP, following excavation and receipt of confirmation sampling results, the Schoolyard excavation area was backfilled. Backfill material placed below the groundwater table elevation of approximately 917 feet above mean sea level at the conclusion of the excavation was not tested for compaction. The stabilization aggregate below this elevation consisted of well-graded coarse angular rock with little fines, which is designed to self-compact. Following placement of the stabilization aggregate, the excavation was backfilled with imported structural aggregate, and overburden soil that had been stockpiled adjacent to the SHF. This material was placed in approximately 8-inch lifts and compacted by driving a bulldozer and a filled dump truck over the material. No vibratory equipment was used for compaction to minimize vibration to adjacent building foundations. Contractor submittals for the structural and stabilization fill materials are provided in Appendix G.

Compaction testing of the structural and native overburden fill material was completed by Jacobs Associates and GeoTest Services, Inc. Jacobs Associates performed field compaction testing using a field probe. GeoTest Services, Inc. performed field density tests of the structural backfill and native overburden fill material at eight separate locations within the excavation. Each of the field tests measured the percent compaction to be equal to or greater than the specified 85 percent compaction required, as defined in the 2013 CPS. The field density test results are summarized in Appendix H.

5.2 SCHOOL SANITARY SEWER IMPROVEMENTS

In accordance with the 2013 CPS, the existing septic tank drain field piping was removed and replaced with a septic tank effluent side sewer pipe connecting the School sewer system to the existing public sanitary sewer stub located along Railroad Avenue. Prior to installation of the sanitary side sewer pipe, the connection points were potholed and surveyed to confirm elevations. During potholing, it was observed that the 15- to 20-foot length of the existing pipe connecting the effluent junction box (D-Box) to the drain field consisted of 4-inch perforated pipe that was in poor condition. In addition, the D-Box was not fully sealed, and had an additional abandoned sewer connection to the north that had not been shown on the existing system as-built drawing.

On July 18, 2013, Farallon met with the G&O Design Engineer and the Town Public Works representative to discuss the connection to the D-Box. To avoid excessive inflow into the Town sanitary sewer system, the existing perforated pipe was removed, the D-Box was sealed using grout at each pipe connection point, and the abandoned sewer connection to the north was plugged using grout. Approximately 220 linear feet of Schedule 80 polyvinyl chloride sanitary sewer pipe was installed to connect the existing D-Box to the public sanitary sewer line located

along Railroad Avenue. G&O was on the Site to observe the sanitary sewer pipe installation and pressure testing of the new side sewer connection. The sanitary sewer pipeline as-built is provided in Appendix I.

5.3 SCHOOLYARD IRRIGATION SYSTEM

In accordance with the 2013 CPS, an irrigation system was installed to provide irrigation coverage to the grass-covered area of the Schoolyard. The irrigation system plans presented in the 2013 CPS provided only the framework for the irrigation system. A detailed irrigation design was provided by Burke-Darrow, Inc. to achieve full coverage of the Schoolyard. The irrigation piping and connections were pressure-tested prior to backfilling. The irrigation system as-built is provided in Appendix J.

5.4 SCHOOLYARD SURFACE RESTORATION

In accordance with the 2013 CPS, the surface of the Schoolyard was restored to match existing Site conditions. Schoolyard restoration activities included placement of 12 inches of topsoil and sod in disturbed areas, installation of permanent fencing along West River Drive, placement of supplemental pea gravel in the play area, replacement of concrete pathways adjacent to the play structure, restoration of a drip-line trench along the covered play area slab, and removal of settlement monitoring, bird deterrent, and erosion-control equipment.

On August 16, 2013 following substantial completion of the restoration activities, Farallon met with Strider and the Skykomish School District at the Schoolyard to develop a final punch list of remaining restoration items to be completed. The following week, Strider completed all of the remaining restoration tasks at the Schoolyard. Photographs of Schoolyard surface conditions following site restoration are provided in Appendix K.

5.5 STOCKPILE SOIL HANDLING AND DISPOSAL

The metals- and petroleum-contaminated soil was temporarily stockpiled in the SHF, loaded into railcars, and transported off the Site to the Republic Services, Inc. Subtitle D waste disposal facility in Roosevelt, Washington. Metals-contaminated soil was stockpiled separately and covered with plastic sheeting to control dust. The soil was loaded into the railcars using a front-end loader with an on-board scale to maximize the quantity of soil loaded into each railcar without exceeding load limits. A total of 232 tons of metals-contaminated soil and 7,675 tons of petroleum-contaminated soil were transported to the disposal facility. Soil disposal documentation from Republic Services Inc. is provided in Appendix L.

5.5.1 Waste Classification Soil Sampling

Additional soil samples were collected from soil stockpiles for waste classification. To determine the disposal requirements for soil excavated from the metals-contaminated area, stockpile samples were collected from the metals stockpile in the SHF. Lead was detected at a concentration at or exceeding the cleanup level of 250 mg/kg in three of the stockpile soil samples. The soil sample with the highest concentration of lead was analyzed following extraction using the toxicity characteristic leaching procedure (TCLP) by EPA Method 1311.

The TCLP data showed that the metals stockpile in the SHF could be disposed of as non-hazardous material. The TCLP data results are provided in Appendix E. The waste classification soil sample results are summarized in Table 4.

Following removal of the petroleum- and metals-contaminated soil stockpiled in the SHF, the SHF pad was cleaned by Strider. The pad cleaning resulted in generation of a stockpile of residual soil. To determine the disposal requirements for residual soil collected during cleaning of the SHF pad, three stockpile samples were collected from the residual soil stockpile. NWTPH-Dx was detected at a concentration exceeding the reuse level of 1,870 mg/kg in one of the three stockpile samples collected. The waste classification soil sample results are summarized in Table 4. The 7 tons of residual soil was removed from the SHF and transported to the Republic Services, Inc. Subtitle D waste disposal facility in Roosevelt, Washington.

6.0 WORK TO BE COMPLETED AFTER 2013

This section describes the remediation activities identified in the 2010 EDR and the 2010 CPS that were either not completed during the 2013 construction season or were rescheduled for a later time. Subsequent as-built report documentation will describe the completion of these activities.

6.1 HYDRAULIC CONTROL AND CONTAINMENT SYSTEM OPERATION

The HCC system is operated on a 24-hour, 7-day-per-week basis, in accordance with the *Operations and Maintenance Manual for Hydraulic Control and Containment System* (AECOM 2011). 2013 HCC system operations covered the period from January 1 through December 31, 2013. The 2013 HCC System Operations Report will be completed by Farallon in 2014.

6.2 CLEANUP BENEATH THE SCHOOL BUILDING

The final phase of cleanup in Skykomish involves remediation of petroleum-contaminated soil and groundwater beneath and immediately adjacent to the Skykomish School building. The final phase of cleanup will be accomplished with a Hot Water Flushing remediation system. Access agreement negotiations and development of plans and specifications are ongoing in conjunction with the Skykomish School District. At this time, BNSF anticipates installing the Hot Water Flushing remediation system in 2015, subject to access negotiations.

6.3 UTILITY AND TOWN RESTORATION

Final Town right-of-way restoration was completed east of Sixth Street during the 2011 construction season. Permanent storm sewer, water, electrical utilities, roadways, sidewalks, and landscaping were installed east of Sixth Street. Final restoration from Sixth Street westward is anticipated to be completed after the remedial work at the School has been completed.

7.0 SUMMARY AND CONCLUSIONS

During 2013, soil excavation, loading, transport, and disposal activities occurred at the Site on behalf of BNSF. The quantities of material removed from the Site and disposed of during the 2013 Skykomish remediation activities included the following:

- A total of 232 tons of metals-contaminated soil was excavated from the Schoolyard and transported to the Republic Services, Inc. Subtitle D landfill in Roosevelt, Washington for disposal.
- A total of 7,675 tons of petroleum-contaminated soil was excavated from the Schoolyard and transported to the Republic Services, Inc. Subtitle D landfill in Roosevelt, Washington for disposal.

Metals-contaminated soil in the areas described in the 2010 CPS was excavated and loaded out for disposal and this effort is complete. The only remaining soil and groundwater requiring remediation at the Site, as described in the 2010 CPS, is beneath and immediately adjacent to the Skykomish School Building. Remediation of this remaining petroleum-contaminated soil and groundwater is planned to begin following installation of the Hot Water Flushing remediation system. Installation of the Hot Water Flushing remediation system is anticipated to be completed in 2015, subject to access negotiations with the School District. Planning, design, and engineering efforts to implement this remediation approach are currently underway.

8.0 REFERENCES

AECOM Environment (AECOM). 2010a. *Specifications – 2010 Remediation, Skykomish, Washington.* Prepared for The BNSF Railway Company. February.

———. 2010b. *Compliance Monitoring Plan Update, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington.* Prepared for BNSF Railway Company. April 30.

———. 2010c. *Appendix D, Sampling and Analysis Plan – Environmental Sampling and Monitoring for the Remediation Activities, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington* of the *2010 Compliance Monitoring Plan Update, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. April 30.

———. 2010d. *2010 Engineering Design Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington.* Prepared for The BNSF Railway Company. May 3.

———. 2011. *2011 Operation and Maintenance Manual for the Hydraulic Control and Containment System, Former Maintenance and Fueling Facility – Skykomish, WA.* Prepared for The BNSF Railway Company. April 8.

———. 2012. *2011 Remediation - As-Built Completion Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington.* Prepared for The BNSF Railway Company. June 22.

EMB Consulting. 2013. *Skykomish Schoolyard Area Air and Noise Monitoring Plan, Skykomish, Washington.* Prepared for Farallon Consulting, L.L.C. June 4.

Farallon Consulting, L.L.C. (Farallon). 2013a. *Specifications - Schoolyard Excavation Supplement*. Prepared for The BNSF Railway Company. June 5.

———. 2013b. *Addendum #2 2010 Compliance Monitoring Plan Update, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington.* Prepared for BNSF Railway Company. June 26.

Historical Research Associates, Inc. (HRA). 2013. *DRAFT--Archaeological Monitoring Report for the Skykomish Schoolyard Area Remediation, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington.* Prepared for Farallon Consulting, L.L.C. and BNSF Railway Company. December.

Jacobs Associates. 2013. Memorandum Regarding Final Report / Skykomish, WA, Schoolyard Excavation Supplement / Instrument Evaluation & Survey Control Report. From Kerellos Youssef and Frank Pita. To Jeff Hamlin and Andrew Vining, Farallon Consulting, L.L.C. August 12.

RETEC Group, Inc. 2008. *Master Engineering Design Report, BNSF Former Maintenance and Fueling Facility - Skykomish, Washington*. Prepared for BNSF Railway Company. January.

Strider Construction Co. Inc. 2013. *2013 Technical Execution Plan*. Prepared for BNSF Railway Company. June 10.

Washington State Department of Ecology (Ecology). 2007a. *Exhibit B, Cleanup Action Plan for BNSF Former Maintenance and Fueling Facility, Skykomish, Washington* of Consent Decree No. 07-2-33672-9 SEA between Ecology and BNSF. October 18.

FIGURES

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

SKYKOMISH RIVER

SKYKOMISH RIVER

WEST RIVER DRIVE

EAST RIVER DRIVE

SCHOOLYARD EXCAVATION AREA

SCHOOL BUILDING

SIXTH STREET

FIFTH STREET

FOURTH STREET

THIRD STREET

SECOND STREET

RAILROAD AVE.

RAILROAD AVE.

FIFTH STREET

SOIL HANDLING FACILITY

OLD CASCADE HIGHWAY

MALONEY CREEK

LEGEND

BNSF PROPERTY LINE

SOIL HANDLING FACILITY LIMITS

SOIL HANDLING FACILITY LIMITS

100 0 200

SCALE IN FEET

N

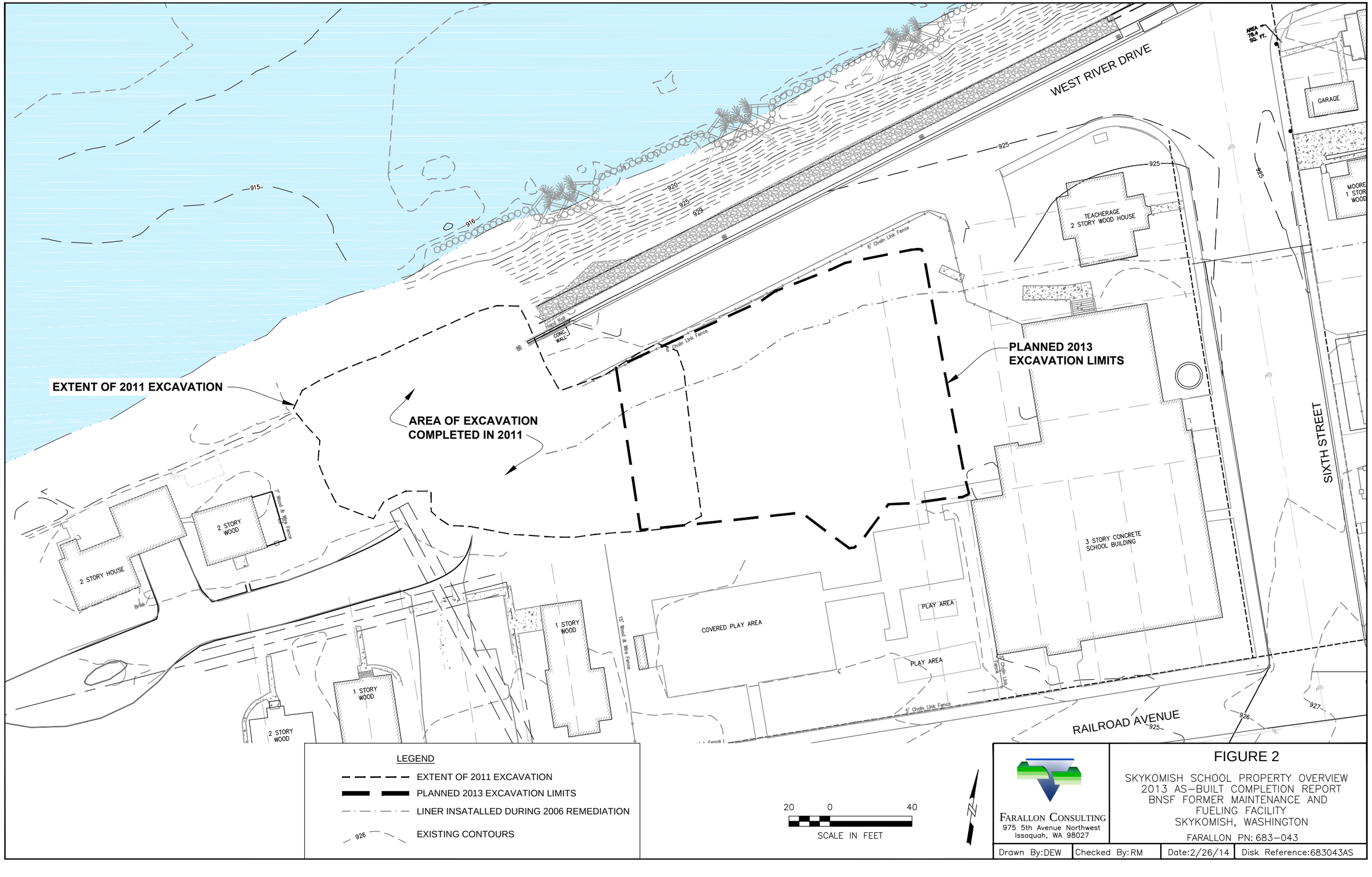
FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 1

TOWN OF SKYKOMISH OVERVIEW
2013 AS-BUILT COMPLETION REPORT
BNSF FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

FARALLON PN: 683-043

Drawn By: DEW	Checked By: RM	Date: 2/26/14	Disk Reference: 683043AS



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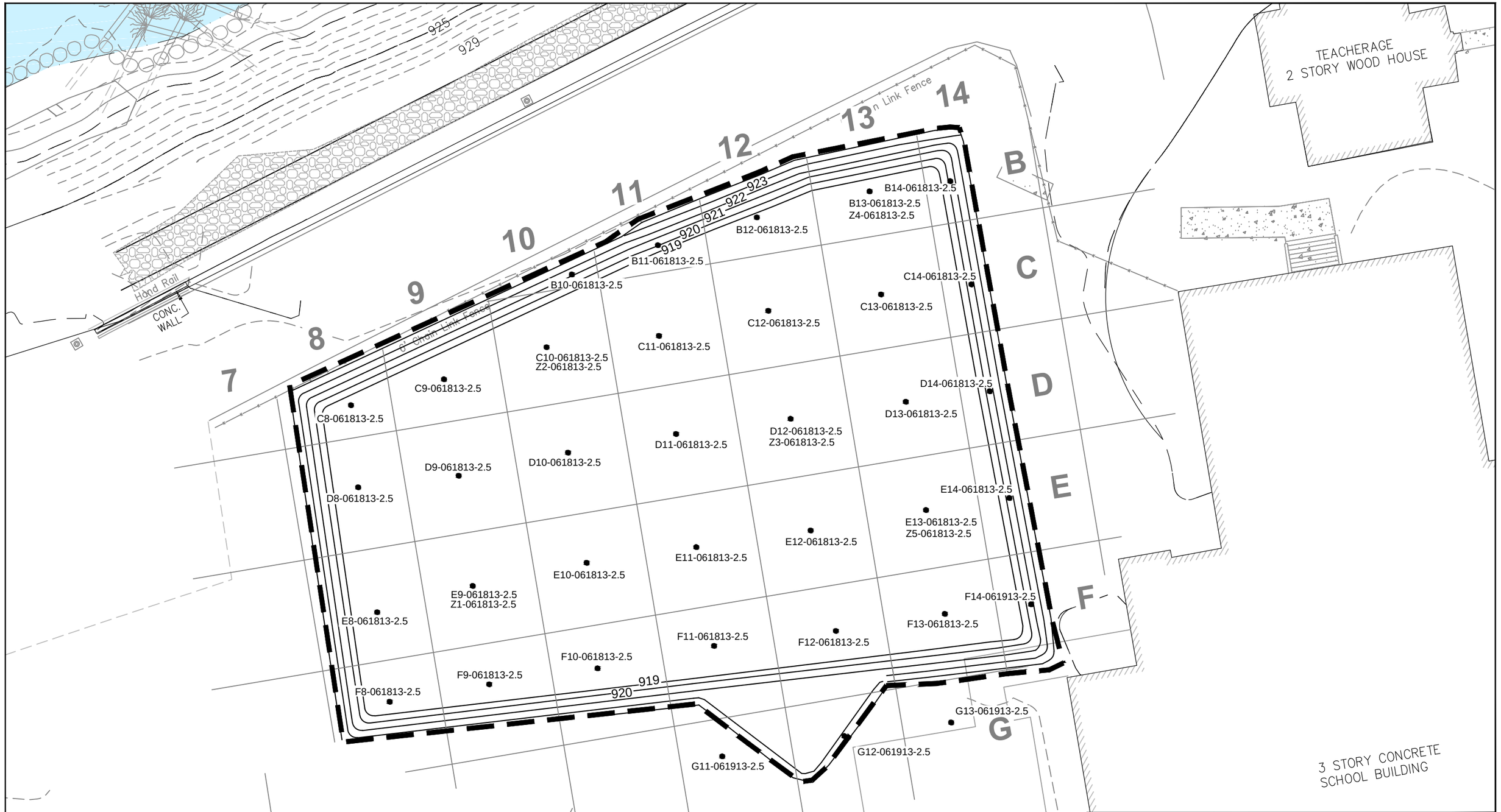
Issaquah, WA 98027

FIGURE 2

SKYKOMISH SCHOOL PROPERTY OVERVIEW
2013 AS-BUILT COMPLETION REPORT
BNSF FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

FARALLON PN: 683-043

Drawn By: DEW	Checked By: RM	Date: 2/26/14	Disk Reference: 683043AS



LEGEND

G11-061913-2.5 ● APPROXIMATE LOCATION OF OVERBURDEN SOIL SAMPLE

PLANNED 2013 EXCAVATION LIMITS

920 PLANNED 2013 OVERBURDEN EXCAVATION CONTOURS

926 EXISTING CONTOURS

10 0 20

SCALE IN FEET

N

FIGURE 3

OVERBURDEN SOIL SAMPLE LOCATIONS
2013 AS-BUILT COMPLETION REPORT
BNSF FORMER MAINTENANCE AND
FUELING FACILITY
SKYKOMISH, WASHINGTON

FARALLON PN: 683-043

FARALLON CONSULTING
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Issaquah, WA 98027

Drawn By: DEW	Checked By: RM	Date: 2/26/14	Disk Reference: 683043AS

925
929
6' Chain Link Fence
Hand Rail
CONC. WALL
6' Chain Link Fence
TEACHERAGE
2 STORY WOOD HOUSE
MT1-NE-WL-061913-2.0
MT1-NW-WL-061913-2.0
MT1-061913-2.0
MT4-061913-2.0
MT1
MT1-SE-WL-061913-2.0
MT2-NW-WL-061913-2.0
MT2-061913-2.0
MT3-NW-WL-061913-2.0
MT2
MT3
MT2-SE-WL-061913-2.0
MT5-061913-2.0
MT3-061913-2.0
MT3-SW-WL-061913-2.0
MT3-SE-WL-061913-2.0
3 STORY CONCRETE
SCHOOL BUILDING

LEGEND

MT3-061913-2.0 ◆ APPROXIMATE LOCATION OF METALS SOIL SAMPLE

PLANNED 2013 EXCAVATION LIMITS

METALS EXCAVATIION

926 EXISTING CONTOURS

10 0 20

SCALE IN FEET

N

FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 4

METALS EXCAVATION SOIL SAMPLE LOCATIONS
2013 AS-BUILT COMPLETION REPORT
BNSF FORMER MAINTENANCE AND
FUELING FACILITY
SKYKOMISH, WASHINGTON

FARALLON PN: 683-043

Drawn By: DEW	Checked By: RM	Date: 2/26/14	Disk Reference: 683043AS

LEGEND

G10-TOE-071313-13.0 ◉ APPROXIMATE LOCATION OF SOIL SAMPLE

EXTENT OF 2013 EXCAVATION

915 2013 EXCAVATION CONTOURS

10 0 20

SCALE IN FEET

N

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Issaquah, WA 98027

FIGURE 5

BELOW VDL SOIL SAMPLE LOCATIONS
2013 AS-BUILT COMPLETION REPORT
BNSF FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

FARALLON PN: 683-043

Drawn By: DEW	Checked By: RM	Date: 2/26/14	Disk Reference: 683043AS

WEST RIVER DRIVE

SIXTH STREET

RAILROAD AVENUE

2006 LINER
(STILL IN PLACE)

2006 LINER
(REMOVED DURING
2013 EXCAVATION)

2011 LINER
(REMOVED DURING 2013
EXCAVATION)

APPROXIMATE LIMITS OF
GEOMEMBRANE LINER INSTALLED
ALONG SOUTHERN AND EASTERN
SIDESLOPE PRIOR BACKFILL

AREA
78.4
SQ. FT.

GARAGE

TEACHERAGE
2 STORY WOOD HOUSE

3 STORY CONCRETE
SCHOOL BUILDING

COVERED PLAY AREA

PLAY AREA

PLAY AREA

2 STORY HOUSE

2 STORY
WOOD

1 STORY
WOOD

1 STORY
WOOD

2 STORY
WOOD

Brick

Hand Rail

CONC.
WALL

6' Chain Link Fence

5' Chain Link Fence

7' Wood & Wire Fence

15' Wood & Wire Fence

915

916

920

925

926

927

LEGEND

EXTENT OF 2013 EXCAVATION

2013 EXCAVATION CONTOURS

GEOMEMBRANE LINER INSTALLED IN 2013

20 0 40

SCALE IN FEET

N

FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 6

FINAL EXCAVATION CONTOURS
2013 AS-BUILT COMPLETION REPORT
BNSF FORMER MAINTENANCE AND
FUELING FACILITY
SKYKOMISH, WASHINGTON

FARALLON PN: 683-043

Drawn By: DEW	Checked By: RM	Date: 2/26/14	Disk Reference: 683043AS

TABLES

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

Table 1
Overburden Soil Analytical Data
Skykomish Ongoing Cleanup Activities
Skykomish, Washington
Farallon PN: 683-043

Sample Identification	Sample Location	Sample Date	Analytical Results (milligrams per kilogram)[1]		NWTPH-Dx (DRO+ORO) (milligrams per kilogram)
			DRO	ORO	
B10-061813-2.5	B10	6/18/2013	< 26	< 51	< 38.5
B11-061813-2.5	B11	6/18/2013	< 25	< 50	< 37.5
B12-061813-2.5	B12	6/18/2013	< 25	< 50	< 37.5
B13-061813-2.5	B13	6/18/2013	< 25	< 51	< 38
Z4-061813-2.5[3]	B13	6/18/2013	< 25	< 49	< 37
B14-061813-2.5	B14	6/18/2013	< 26	< 51	< 38.5
C8-061813-2.5	C8	6/18/2013	< 26	< 52	< 39
C9-061813-2.5	C9	6/18/2013	< 25	< 50	< 37.5
C10-061813-2.5	C10	6/18/2013	< 27	< 54	< 40.5
Z2-061813-2.5[3]	C10	6/18/2013	< 24	< 48	< 36
C11-061813-2.5	C11	6/18/2013	< 25	< 50	< 37.5
C12-061813-2.5	C12	6/18/2013	< 24	< 49	< 36.5
C13-061813-2.5	C13	6/18/2013	< 30	< 60	< 45
C14-061813-2.5	C14	6/18/2013	< 25	< 50	< 37.5
D8-061813-2.5	D8	6/18/2013	< 26	< 53	< 39
D9-161813-2.5	D9	6/18/2013	140 Y	330 Y	470
D10-061813-2.5	D10	6/18/2013	< 27	< 54	< 40.5
D11-061813-2.5	D11	6/18/2013	170 Y	170 Y	340
D12-061813-2.5	D12	6/18/2013	110 Y	< 56	110
Z3-061813-2.5[3]	D12	6/18/2013	270 Y	86 Y	356
D13-061813-2.5	D13	6/18/2013	88 Y	< 53	88
D14-061813-2.5	D14	6/18/2013	< 26	< 51	< 38.5
E8-061813-2.5	E8	6/18/2013	<26	< 51	< 39.5
E9-061813-2.5	E9	6/18/2013	< 28	< 56	< 42
Z1-061813-2.5[3]	E9	6/18/2013	< 28	< 55	< 41.5
E10-061813-2.5	E10	6/18/2013	< 32	< 64	< 48
E11-061813-2.5	E11	6/18/2013	< 28	< 56	< 42
E12-061813-2.5	E12	6/18/2013	< 26	< 52	< 39
E13-061813-2.5	E13	6/18/2013	160 J	80	240
Z5-061813-2.5[3]	E13	6/18/2013	< 29	< 58 J	< 43.5
E14-061813-2.5	E14	6/18/2013	< 26	< 52	< 39
F8-061813-2.5	F8	6/18/2013	< 26	< 52	< 39
F9-061813-2.5	F9	6/18/2013	< 25	< 50	< 37.5
F10-061813-2.5	F10	6/18/2013	< 25	< 50	< 37.5
F11-061813-2.5	F11	6/18/2013	< 26	< 52	< 39
F12-061913-2.5	F12	6/19/2013	< 26	< 52	< 39
F13-061813-2.5	F13	6/18/2013	< 29	< 58	< 45.5
F14-061913-2.5	F14	6/19/2013	< 25	< 50	< 37.5
G11-061913-2.5	G11	6/19/2013	< 26	< 52	< 39
G12-061913-2.5	G12	6/19/2013	< 26	< 51	< 38.5
G13-061913-2.5	G13	6/19/2013	< 26	< 51	< 38.5
Remediation Level for Soil[2]					**1,870**

NOTES:

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

Samples collected at 2.5 feet below ground surface.

[1]Analyzed by Northwest Method NWTPH-Dx.

[2]Remediation and Cleanup Levels as defined in the *Cleanup Action Plan for BNSF Former Maintenance and Fueling Facility, Skykomish, Washington.* Prepared by the Washington State Department of Ecology. October 2007.

[3] Duplicate of sample collected from the same grid sample location.

DRO = total petroleum hydrocarbon (TPH) as diesel-range organics

J = The analyte was not detected above the sample-specific reporting limit and is an estimated value.

ORO = TPH as oil-range organics

Y = Denotes that the chromatograph associated with the sample does not match that typical of the Site.

Table 2
Metals Excavation Confirmation Sample Soil Analytical Data
Skykomish Ongoing Cleanup Activities
Skykomish, Washington
Farallon PN: 683-043

Excavation Sample Location	Sample Identification	Grid Sample Location	Sample Date	Analytical Results (milligrams per kilogram)[1]	
				Arsenic	Lead
Bottom	MT1-061913-2.0	MT1	6/19/2013	9.0	110 J
	MT4-061913-2.0[3]	MT1	6/19/2013	7.8	130
	MT2-061913-2.0	MT2	6/19/2013	7.6	130
	MT3-061913-2.0	MT3	6/19/2013	5.9	11
Sidewall	MT1-NW-WL-061913-2.0	Northwest MT1	6/19/2013	13	34
	MT1-NE-WL-061913-2.0	Northeast MT1	6/19/2013	8.9	180
	MT1-SE-WL-061913-2.0	Southeast MT1	6/19/2013	7.4	20
	MT2-NW-WL-061913-2.0	Northwest MT2	6/19/2013	10	40
	MT2-SE-WL-061913-2.0	Southeast MT2	6/19/2013	7.6	78
	MT5-061913-2.0[3]	Southeast MT2	6/19/2013	5.5	110
	MT3-NW-WL-061913-2.0	Northwest MT3	6/19/2013	13	11
	MT3-SE-WL-061913-2.0	Southeast MT3	6/19/2013	9.4	5.6
	MT3-SW-WL-061913-2.0	Southwest MT3	6/19/2013	9.4	140
Cleanup Levels for Soil [2]				**20**	**250**

NOTES:

Samples collected at 2.0 feet below ground surface.

[1] Analyzed by U.S. Environmental Protection Agency Method 6020.

[2] Cleanup Levels as defined in the *Cleanup Action Plan for BNSF Former Maintenance and Fueling Facility, Skykomish, Washington.* Prepared by the Washington State Department of Ecology. October 2007.

[3] Duplicate of sample collected from the same grid sample location.

J = The analyte was not detected above the sample-specific reporting limit and is an estimated value.

Table 3
Below VDL Excavation Soil Analytical Data
Skykomish Ongoing Cleanup Activities
Skykomish, Washington
Farallon PN: 683-043

Excavation Area	Sample Identification	Grid Sample Location	Sample Date	Sample Depth (feet)[1]	Analytical Results (milligrams per kilogram)[2]		NWTPH-Dx (DRO+ORO) (milligrams per kilogram)
					DRO	ORO	
Bottom	D9-062713-14.0	D9	6/27/2013	14.0	<35	<69	< 52
	E9-062713-14.0	E9	6/27/2013	14.0	<35	<70	< 52.5
	D10-070113-13.0	D10	7/1/2013	13.0	<36	<72	< 54
	E10-070113-14.0	E10	7/1/2013	14.0	< 34	< 68	< 51
	F10-070113-14.0	F10	7/1/2013	14.0	< 36	< 72	< 54
	F10-071013-13.0	F10	7/10/2013	13.0	< 32 J	< 64 J	< 48
	Z6-071013-13.0[4]	F10	7/10/2013	13.0	< 31 J	< 62 J	< 46.5
	C11-070213-13.0	C11	7/2/2013	13.0	< 33	< 65	< 48
	D11-070213-13.0	D11	7/2/2013	13.0	< 33	< 65	< 48
	Z5-070213-13.0[4]	D11	7/2/2013	13.0	< 35	< 70	< 52.5
	E11-070213-13.0	E11	7/2/2013	13.0	< 32	< 65	< 48.5
	F11-070213-13.0	F11	7/2/2013	13.0	< 34	< 68	< 51
	F11-070313-14.0	F11	7/3/2013	14.0	< 36	< 73	< 54.5
	C12-071213-13.0	C12	7/12/2013	13.0	< 33	< 66	< 49.5
	D12-071113-13.0	D12	7/11/2013	13.0	< 33	< 66	< 49.5
	Z-071113-13.0[4]	D12	7/11/2013	13.0	< 33	< 66	< 48.5
	E12-071013-12.0	E12	7/10/2013	12.0	< 34 J	< 69 J	< 51.5
	Z7-071013-12.0[4]	E12	7/10/2013	12.0	< 35 J	< 70 J	< 52.5
	C13-071213-13.0	C13	7/12/2013	13.0	< 31	< 63	< 47
	D13-071113-13.0	D13	7/11/2013	13.0	< 33	< 67	< 50
	E13-071013-12.0	E13	7/10/2013	12.0	< 35 J	< 69 J	< 52
	F13-071013-13.0	F13	7/10/2013	13.0	< 33 J	< 65 J	< 48
Remediation Level for Soil[3]							**3,400**

Table 3
Below VDL Excavation Soil Analytical Data
Skykomish Ongoing Cleanup Activities
Skykomish, Washington
Farallon PN: 683-043

Excavation Area	Sample Identification	Grid Sample Location	Sample Date	Sample Depth (feet)[1]	Analytical Results (milligrams per kilogram)[2]		NWTPH-Dx (DRO+ORO) (milligrams per kilogram)
					DRO	ORO	
Toe of Sidewall	C8-TOE-062713-12.0	C8	6/28/2013	12.0	< 23	< 46	< 34.5
	D8-TOE-062713-12.0	D8	6/28/2013	12.0	< 17	< 34	< 26.5
	E8-TOE-062713-12.0	E8	6/28/2013	12.0	310 Y	640 Y	950
	F8-TOE-062713-12.0	F8	6/28/2013	12.0	79 Y	150 Y	229
	C9-TOE-062713-14.0	C9	6/28/2013	14.0	< 34	< 68	< 51
	F9-TOE-062713-14.0	F9	6/28/2013	14.0	< 27	< 54	< 40.5
	C10-TOE-070113-13.0	C10	7/1/2013	13.0	< 19	< 38	< 28.5
	G10-TOE-070313-14.0	G10	7/3/2013	14.0	< 34	< 68	< 51
	C11-TOE-070213-13.0	C11	7/2/2013	13.0	< 34	< 67	< 50.5
	Z4-070213-13.0[4]	C11	7/2/2013	13.0	< 33	< 67	< 50
	G11-TOE-070313-13.0	G11	7/3/2013	7.0	< 34	< 69	< 51.5
	C12-TOE-071213-13.0	C12	7/12/2013	13.0	< 31	< 62	< 46.5
	Z9-TOE-071213-13.0[4]	C12	7/12/2013	13.0	< 32	< 63	< 47.5
	G12-TOE-070313-13.0	G12	7/3/2013	13.0	< 32	< 64	< 48
	C13-TOE-071213-12.0	C13	7/12/2013	12.0	< 32	< 65	< 48.5
	D14-TOE-071113-13.0	D14	7/11/2013	13.0	< 34	< 67	< 50.5
	E14-TOE-071013-12.0	E14	7/10/2013	12.0	< 32 J	< 64 J	< 48
	F14-TOE-071013-13.0	F14	7/10/2013	13.0	< 35 J	< 70 J	< 52.5
Remediation Level for Soil[3]							**3,400**

Table 3
Below VDL Excavation Soil Analytical Data
Skykomish Ongoing Cleanup Activities
Skykomish, Washington
Farallon PN: 683-043

Excavation Area	Sample Identification	Grid Sample Location	Sample Date	Sample Depth (feet)[1]	Analytical Results (milligrams per kilogram)[2]		NWTPH-Dx (DRO+ORO) (milligrams per kilogram)
					DRO	ORO	
Sidewall	G11-SW-071513-7.0	G11	7/15/2013	7.0	< 27	< 54	< 40.5
	G12-SW-071513-7.0	G12	7/15/2013	7.0	< 26	52	< 32.5
	F13-SW-071213-7.0	F13	7/12/2013	7.0	100 JY	290 JY	390
	Z10-SW-071213-7.0[4]	F13	7/12/2013	7.0	< 26 J	< 52	< 39
	C14-SW-071213-7.0	C14	7/12/2013	7.0	940 Y	4,600	**5,540**
	D14-SW-071113-8.0	D14	7/11/2013	8.0	3,200 Y	3,000 Y	**6,200**
	E14-SW-071213-6.5	E14	7/12/2013	6.5	71 Y	160 Y	231
	F14-SW-071213-7.0	F14	7/12/2013	7.0	330 Y	620 Y	950
Remediation Level for Soil[3]							**3,400**

NOTES:

Results in **bold** denote concentration exceeded applicable cleanup levels.

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

[1]Depth in feet below ground surface.

[2]Analyzed by Northwest Method NWTPH-Dx.

[3]Remediation and Cleanup Levels as defined in the *Cleanup Action Plan for BNSF Former Maintenance and Fueling Facility, Skykomish, Washington* . Prepared by the Washington State Department of Ecology for BNSF Railway Company, October 2007.

[4] Duplicate of sample collected from the same grid sample location.

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

J = The analyte was not detected above the sample-specific reporting limit, which is an estimated value.

ORO = TPH as oil-range organics

Y = Laboratory qualifier denotes that the chromatograph associated with the sample does not match that typical of the Site.

Table 4
Soil Characterization Analytical Data for Disposal
Skykomish Ongoing Cleanup Activities
Skykomish, Washington
Farallon PN: 683-043

Stockpile Type in Soil Handling Facility	Sample Identification	Sample Date	Analytical Results (milligrams per kilogram)				NWTPH-Dx (DRO + ORO) (milligrams per kilogram)
			Arsenic[2]	Lead[2]	DRO[1]	ORO[1]	
Residual Soil from Soil Handling Facility Pad Cleaning	SHF-1-100713	10/7/2013	3.3	17	170 Y	1,300 Y	1,470
	SHF-2-100713	10/7/2013	4.4	35	150 Y	980 Y	1,130
	SHF-3-100713	10/7/2013	3.3	7.9	210	2,000	**2,210**
Soil from Metals Hot Spot Area	MT-STP-1-071013	7/10/2013	8.6	170	-	-	-
	MT-STP-2-071013	7/10/2013	7.0	160	-	-	-
	MT-STP-3-071013	7/10/2013	10	**830**	-	-	-
	MT-STP-4-071013	7/10/2013	9.6	**300**	-	-	-
	MT-STP-5-071013	7/10/2013	8.9	250	-	-	-
Cleanup/Reuse Levels for Soil[3]			**20**	**250**			**1,870**

NOTES:

Results in **bold** denote concentration exceeded applicable cleanup levels.

-- denotes sample was not analyzed.

[1]Analyzed by Northwest Method NWTPH-Dx.

[2]Analyzed by U.S. Environmental Protection Agency Method 6020.

[3]Resuse and Cleanup Levels as defined in the *Cleanup Action Plan for BNSF Former Maintenance and Fueling Facility, Skykomish, Washington.* Prepared by the Washington State Department of Ecology. October 2007.

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

ORO = TPH as oil-range organics

Y = Laboratory qualifier denotes that the chromatograph associated with the sample does not match that typical of the Site.

APPENDIX A
2013 WEEKLY STATUS UPDATES

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

From: Amy Essig Desai
Sent: Tuesday, June 25, 2013 9:22 AM
To: 'Sheppard, Bruce A'; Trueblood, Craig
Cc: Andrew Vining; Kristin Darnell; Jeff Hamlin; Jerry Portele; Rich McManus
Subject: Skykomish Schoolyard Excavation Progress Report - Week of June 17

Provided below is a summary of activities that were completed at the Skykomish schoolyard during the week of June 17 and work to be performed the week of June 24.

Would you like me to provide this to Brian each week? I was thinking I could do so along with the lab data. Let me know if okay.

Week of June 17

- Equipment and job trailer mobilization occurred.
- Excavation limits and soil sampling grids were staked.
- Project signs were placed on 6th Street and Railroad Avenue, 6th Street and West River Drive, West River Drive near the west levee and on the playground.
- Temporary fencing was placed around the schoolyard area.
- Silt fencing was installed around the schoolyard and catch basin inserts were installed in drains along west River Drive and 6th Street.
- Test pits were excavated within each 25 x 25 foot grid and one soil sample was collected from each grid for laboratory analysis of NWTPH-Dx.
- Daily air and noise monitoring was performed in accordance with the Air and Noise Monitoring Plan.
- Historical Research Associates performed archaeological monitoring during overburden sampling.
- Jacobs Associates installed inclinometers at two locations around the school building to monitor vibration levels at the school building.
- Structure settlement points were installed on the school and surface settlement points were installed around the school and teacherage to monitor any settling.
- A water collection sump was installed and ramps were constructed for truck access to the soil handling facility.

Work to be performed the week of June 24:

- Overburden excavation is scheduled to occur starting Monday, June 24. Clean overburden (i.e. NTWPH Dx less than 1,800 mg/kg) will be stockpiled east of the HCC remediation building and reused later as backfill. Overburden that cannot be reused will be loaded in trucks and transported to the temporary soil handling facility in the railyard.
- Water management equipment will be mobilized and installed at the soil handling facility.
- Excavation of impacted soil may begin mid week. Excavated soil will be stockpiled in the soil handling facility prior to being loaded out in railcars.

Amy Essig Desai
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, Washington 98027
Direct: 425.295.0810
Cell: 425.241.1540

From: Amy Essig Desai
Sent: Tuesday, July 02, 2013 10:55 AM
To: Sato, Brian (ECY); Edwina Hargrave; Clint Stanovsky; Cheri Hendricks
Cc: Sheppard, Bruce A; Andrew Vining; Jeff Hamlin; Kristin Darnell; Jerry Portele
Subject: Skykomish Schoolyard Excavation Progress Report - Weeks of June 24 and July 1

Provided below is a summary of activities that were completed at the Skykomish schoolyard during the week of June 24 and work to be performed the week of July 1.

Week of June 24

- Three exploratory test pits were excavated near the "bulls eye" area located on along the south-central portion of the excavation to a depth of approximately 8 feet below ground surface. No evidence of contamination was observed in any of the test pits.
- Daily air and noise monitoring was performed in accordance with the Air and Noise Monitoring Plan.
- Historical Research Associates (HRA) performed archaeological monitoring during overburden excavation. A concrete foundation was discovered in the western half of the schoolyard excavation. HRA determined that the foundation is related to a play shed associated with the old school building (source: 1926-1930 Sanborn Map). HRA recorded and photographed the find and will document it in a report. Approval to proceed with removal and disposal of the foundation was granted by King County and the Washington State Department of Historical and Archaeological Preservation on June 26.
- Jacobs Associates collected data from inclinometers at two locations around the school building to monitor any soil movement near the school building. Data results from the inclinometer readings were below action levels defined in the Geotechnical Action Plan.
- Structure settlement points on the school and surface settlement points around the school and teacherage were monitored to check for any settling. Data results from the school and surface settlement points indicate that no settling has occurred.
- A water collection sump and additional Ecology blocks were installed at the soil handling facility.
- Water management equipment was mobilized and installed at the soil handling facility.
- Street sweeping was performed to maintain road conditions along the haul route.
- Metals impacted soil was excavated and stockpiled in the soil handling facility. The stockpile is covered with visqueen.
- Excavation below the vertical delineation limit (VDL) began on the western portion of the excavation and impacted material was hauled to the soil handling facility.
- Oil recovery was performed during impacted soil excavation.
- Bird deterrents (i.e. plastic owls and reflective pin wheels) were installed around the excavation limits.

Work to be performed the week of July 1:

- Impacted soil excavation below the VDL will continue July 1 through July 3. Due to the holiday, no work will be performed July 4 and 5. Impacted material will be stockpiled in the soil handling facility prior to begin loaded out in railcars.
- Oil recovery will be performed during excavation activities.
- Backfill using stabilization aggregate may begin in the western portion of the excavation on July 3.

Let me know if you have any questions.

Amy Essig Desai
Farallon Consulting, LLC

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Issaquah, Washington 98027
Direct: 425.295.0810
Cell: 425.241.1540

New Seattle Office: Farallon now has a downtown Seattle office, joining its Issaquah and Bellingham locations.

From: Amy Essig Desai
Sent: Tuesday, July 09, 2013 9:49 PM
To: Edwina Hargrave; John -FS Robinson; Danial Woodford; Michael Pierce; bobmackner@gmail.com; Sato, Brian (ECY); Cheri Hendricks; Christine Daniels; Clint Stanovsky
Cc: Sheppard, Bruce A; Kristin Darnell; Andrew Vining; Rich McManus; Jeff Hamlin; Jerry Portele
Subject: Skykomish Schoolyard Excavation Progress Report - Weeks of July 1 and July 8

Provided below is a summary of activities that were completed at the Skykomish schoolyard during the week of July 1 and work to be performed the week of July 8.

Week of July 1

- Daily air and noise monitoring was performed in accordance with the Air and Noise Monitoring Plan.
- Jacobs Associates collected data from inclinometers at two locations around the school building to monitor any soil movement near the school building. Data results from the inclinometer readings were below action levels defined in the Geotechnical Action Plan.
- Structure settlement points on the school and surface settlement points around the school and teacherage were monitored to check for any settling. Data results from the school and surface settlement points indicate that no settling has occurred.
- Street sweeping was performed to maintain road conditions along the haul route.
- Excavation below the vertical delineation limit (VDL) continued towards the east and impacted material was hauled to the soil handling facility.
- Excavation below the VDL was extended south in grid rows 10, 11, and 12 to the location of the clean test pits that were excavated by the "Bulls Eye" area. The soil was excavated and transported to the soil handling facility.
- Four additional structure settlement points (SSPs) were installed on the north face of the school play structure. These points were monitored to check for any settling.
- The bottom floor of the excavation was surveyed to confirm limits of excavation.
- Oil recovery was performed during impacted soil excavation.
- Backfill using stabilization aggregate occured below the VDL in the northwest portion of the excavation.
- Additional bird deterrents (i.e. plastic owls and reflective pin wheels) were installed around the excavation limits.
- Additional site security signage was installed around the excavation fencing and play area fencing prior to the 4-day weekend. Construction signage along haul route was temporarily removed.
- No work was performed July 5th.

Work to be performed the week of July 8:

- Excavation below the VDL will be completed and impacted material will be transported to the soil handling facility.
- Oil recovery will be performed during excavation activities.
- Backfill using stabilization aggregate will continue towards the west and south excavation limits. The geomembrane liner may be installed along the east and south walls of the excavation.
- Improvements will be made to the soil handling facility to expand its storage capacity. Approximately 5,000 additional square feet of asphalt paved area will be added and one additional water collection sump will be installed to collect surface water runoff.

Let me know if you have any questions.

Amy Essig Desai

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Cell: 425.241.1540

New Seattle Office: Farallon now has a downtown Seattle office, joining its Issaquah and Bellingham locations.

From: Amy Essig Desai
Sent: Tuesday, July 16, 2013 8:13 PM
To: Edwina Hargrave; John -FS Robinson; Danial Woodford; Michael Pierce; bobmackner@gmail.com; Sato, Brian (ECY); Cheri Hendricks; Christine Daniels; Clint Stanovsky
Cc: Sheppard, Bruce A; Kristin Darnell; Andrew Vining; Rich McManus; Jeff Hamlin; Jerry Portele; Trueblood, Craig
Subject: Skykomish Schoolyard Excavation Progress Report - Weeks of July 8 and July 15

Provided below is a summary of activities that were completed at the Skykomish schoolyard during the week of July 8 and work to be performed the week of July 15.

Week of July 8

- Daily air and noise monitoring was performed in accordance with the Air and Noise Monitoring Plan.
- Jacobs Associates collected data from inclinometers at two locations around the school building to monitor any soil movement near the school building. Data results from the inclinometer readings were below action levels defined in the Geotechnical Action Plan.
- Structure settlement points on the school and surface settlement points around the school and teacherage were monitored to check for any settling. Data results from the school and surface settlement points indicate that no settling has occurred.
- Street sweeping was performed to maintain road conditions along the haul route.
- Excavation below the vertical delineation limit (VDL) was completed and impacted material was hauled to the soil handling facility.
- The bottom floor of the excavation was surveyed to confirm limits of excavation.
- Oil recovery was performed during impacted soil excavation.
- Backfill using stabilization aggregate occurred below the VDL in the western three quarters of the excavation.
- Improvements to the soil handling facility were made to expand its storage capacity. Approximately 5,000 additional square feet of asphalt paved area was added and one additional water collection sump was installed to collect surface water runoff.
- The geomembrane liner was installed along the south wall of the excavation prior to backfilling.

Work to be performed the week of July 15:

- Backfill using stabilization aggregate will be completed below the VDL.
- Backfill using clean overburden material and import fill will occur above the VDL.
- A sewer lateral will be installed connecting the school-teacherage septic system to the town sewer system.
- One foot of topsoil will be placed above clean overburden and import fill material.
- Oil recovery will occur during all work below the VDL.

Let me know if you have any questions.

From: Amy Essig Desai
Sent: Tuesday, July 23, 2013 9:35 PM
To: Edwina Hargrave; John -FS Robinson; Danial Woodford; Michael Pierce; bobmackner@gmail.com; Sato, Brian (ECY); Cheri Hendricks; Christine Daniels; Clint Stanovsky
Cc: Sheppard, Bruce A; Kristin Darnell; Andrew Vining; Rich McManus; Jeff Hamlin; Jerry Portele; Trueblood, Craig
Subject: Skykomish Schoolyard Excavation Progress Report - Weeks of July 15 and July 22

Provided below is a summary of activities that were completed at the Skykomish schoolyard during the week of July 15 and work to be performed the week of July 22.

Week of July 15

- Daily air and noise monitoring was performed in accordance with the Air and Noise Monitoring Plan.
- Jacobs Associates collected data from inclinometers at two locations around the school building to monitor any soil movement near the school building. Data results from the inclinometer readings were below action levels defined in the Geotechnical Action Plan.
- Structure settlement points on the school and surface settlement points around the school and teacherage were monitored to check for any settling. Data results from the school and surface settlement points indicate that no settling has occurred.
- Street sweeping was performed to maintain road conditions along the haul route.
- Oil recovery was performed during backfill operations below the VDL.
- Strider equipment was decontaminated. All process water and debris from decontamination activities was added to stockpile of impacted soils in the soil handling facility or trucked offsite for disposal.
- Backfill using stabilization aggregate occurred below the VDL in the remainder of the excavation.
- The geomembrane liner was installed along the east wall of the excavation prior to backfilling.
- Backfill using clean overburden material occurred above the VDL .
- Backfill using imported structural fill occurred above clean overburden to depth of one foot below ground surface.
- The sewer lateral pipe was placed in a trench and connection points were potholed.
- Geotest was on site to test the compaction of backfill above the VDL.

Work to be performed the week of July 22:

- Backfill using imported structural fill will continue to a depth of one foot below ground surface.
- The sewer lateral pipe connecting the school-teacherage septic system to the town sewer system will be tied in and pressure tested.
- Installation of the electrical conduit along the sewer lateral trench for future power connections to the septic tank system.
- Placement of one foot of topsoil above the clean overburden and import fill material.
- Installation of the irrigation system.
- Impacted soil will be loaded from the soil handling facility into railcars and hauled offsite to the Roosevelt Regional Landfill.

Let me know if you have any questions.

From: Andrew Vining
Sent: Tuesday, July 30, 2013 3:40 PM
To: Edwina Hargrave; John -FS Robinson; Danial Woodford; Michael Pierce; bobmackner@gmail.com; Sato, Brian (ECY); Cheri Hendricks; Christine Daniels; Clint Stanovsky
Cc: Sheppard, Bruce A; Kristin Darnell; Andrew Vining; Rich McManus; Jeff Hamlin; Jerry Portele; Trueblood, Craig; Amy Essig Desai
Subject: Skykomish Schoolyard Excavation Progress Report - Weeks of July 22 and July 29

Provided below is a summary of activities that were completed at the Skykomish schoolyard during the week of July 22 and work to be performed the week of July 29.

Week of July 22

- Daily air and noise monitoring was performed in accordance with the Air and Noise Monitoring Plan.
- Jacobs Associates collected data from inclinometers at two locations around the school building to monitor any soil movement near the school building. Data results from the inclinometer readings were below action levels defined in the Geotechnical Action Plan.
- Structure settlement points on the school and surface settlement points around the school and teacherage were surveyed by INCA to check for any settling.
- Street sweeping was performed to maintain road conditions along the haul route.
- Backfilling occurred using imported structural fill above clean overburden to a depth of one foot below ground surface.
- The sewer lateral pipe was pressure tested. Test results indicate that the integrity of the lateral pipe meets 2012 WSDOT Standard Specifications 7-17.3 (2) F.
- The sewer lateral pipe was connected to the town sewer line and the septic effluent junction box for the school and teacherage.
- An electrical conduit along the sewer lateral trench was installed for future power connections to the septic tank system.
- Geotest was on site to test the compaction of structural backfill above the VDL. Test results indicate that specified compaction levels were attained.
- Impacted soil was loaded from the soil handling facility into railcars for transport to the Roosevelt Regional Landfill.
- The school irrigation system was partially installed and pressure tested.

Work to be performed the week of July 29:

- Placement of one foot of topsoil above the clean overburden and imported fill material.
- Concrete disturbed during the excavation will be restored.
- The remaining portion of the school irrigation system will be installed.
- Impacted soil will be loaded from the soil handling facility into railcars and transported to the Roosevelt Regional Landfill.

Let me know if you have any questions.

FARALLON
Going Greener

Please consider the environment before printing this e-mail.

Andrew Vining, E.I.T.
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Cell: (425) 765-4501

New Portland Office: Farallon now has a Portland, Oregon office, joining its Issaquah, Seattle, and Bellingham locations.

From: Andrew Vining
Sent: Wednesday, August 07, 2013 5:07 PM
To: Amy Essig Desai
Cc: Jerry Portele; Russell Luiten
Subject: Skykomish Schoolyard Excavation Progress Report - Weeks of July 29 and August 5

Provided below is a summary of activities that were completed at the Skykomish schoolyard during the week of July 29 and work to be performed the week of August 5.

Week of July 29

- Daily air and noise monitoring was performed in accordance with the Air and Noise Monitoring Plan.
- Street sweeping was performed to maintain road conditions along the haul route.
- Impacted soil was loaded from the soil handling facility into railcars for transport to the Roosevelt Regional Landfill.
- The school irrigation system was partially installed and pressure tested. No leaks were detected.
- Concrete disturbed during the excavation was restored.
- One foot of topsoil was placed over the overburden and stabilization aggregate layer, and other disturbed areas.
- Two inclinometers were removed and backfilled with bentonite.
- Surface settlement monitoring points were removed from the teacherage and adjacent property.
- The contractor job trailer was demobilized from its location adjacent to the soil handling facility.

Work to be performed the week of August 5

- No work was performed Monday August 5.
- One foot of topsoil will continue to be placed over the overburden and stabilization aggregate layer, and other disturbed areas.
- The remaining portion of the school irrigation system will be installed.
- Impacted soil will be loaded from the soil handling facility into railcars and transported to the Roosevelt Regional Landfill.
- Sod will be placed on top of topsoil if schedule permits.
- A permanent fence will be reinstalled along West River Drive if schedule permits.

Let me know if you have any questions.

FARALLON
Going Greener

Please consider the environment before printing this e-mail.

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New Portland Office: Farallon now has a Portland, Oregon office, joining its Issaquah, Seattle, and Bellingham locations.

APPENDIX B
WEEKLY AIR AND NOISE MONITORING REPORTS

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

January 13, 2014

Ms. Amy Essig Desai
Farallon Consulting
975 5th Ave Northwest
Issaquah, Washington 98027

RE: Weekly AIR AND NOISE MONITORING REPORT WEEK 1
JUNE 17 – JUNE 21, 2013
BNSF SKYKOMISH SCHOOLYARD AREA REMEDIATION
SKYKOMISH, WASHINGTON

Ms. Essig Desai,

This represents the first report of weekly air and noise monitoring data for the BNSF Skykomish Schoolyard Area Remediation in Skykomish, Washington coordinated by EMB Consulting, LLC (EMB Consulting) and conducted by Farallon Consulting, LLC (Farallon) during the week of June 17 to June 21, 2013. The purpose of this report is to summarize and interpret air and noise sampling data collected around the Skykomish Schoolyard Area project during weekly monitoring. Farallon conducted monitoring in general accordance with the Skykomish Schoolyard Area, Air and Noise Monitoring Plan, Skykomish, Washington issued by EMB Consulting on June 4, 2013.

WORK ACTIVITIES

Farallon staff collected an Air-Phase Petroleum Hydrocarbon (APH) sample in the Skykomish School building on July 20, 2013. During the first week, the remediation contractor mobilized on the site and began excavation of overburden soils. No other air or noise data were collected this week.

SAMPLING METHODOLOGY

All samples were collected in general accordance with the methods specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013. Please refer to this Plan for specific details on sampling methodology.

On June 20, 2013, Farallon collected an APH air sample from inside the Skykomish School in the first floor classroom labeled Special Services. Only APH sampling took

place during the first week of construction activities. The approximate air sample location is indicated on the attached Figure 1: APH Air Monitoring Location Plan.

SAMPLING RESULTS

The sample results indicate contaminant concentrations below Monitoring Plan action limits. The APH laboratory report is attached to this report.

AIR PHASE PETROLEUM HYDROCARBONS (APH)

SAMPLE ID	COMPOUND	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
SCHOOL RM 062013	1,3-Butadiene	<2.0	0.083[a]
	Methyl tert butyl ether	<2.0	1,400.000 [a]
	Benzene	<2.0	0.320 [a]
	Toluene	16	2,300.000 [a]
	Ethylbenzene	<2.0	460.000 [a]
	Xylene, p,m	8.4	46.000 [a]
	Xylene, o	2.6	46.000 [a]
	Naphthalene	<2.0	1.400 [a]
	Aliphatics, C5 to C8	210	No CLARC criteria available
	Aliphatics, C9 to C12	32	No CLARC criteria available
	Aromatics, C9 to C10	<10.0	No CLARC criteria available
	Total APH	**278**	**1,346.00[b]**

µg/m^3= micrograms per cubic meter

CLARC = Washington State Department of Ecology Cleanup Levels and Risk Calculations

a = CLARC Method B values for protection of all populations

b = Risk-based cleanup level established for Town of Skykomish and private property during this project by the Washington State Department of Ecology

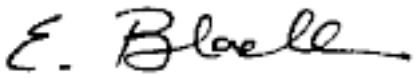
Conditions identified during the sampling event were measured as follows. Local barometric pressure on the day of sampling was steady, averaging 29.98 in Hg. Ambient temperature ranged from 49.6 to 53.2 degrees Fahrenheit. There was light rain throughout the day, with average relative humidity of 93%. Wind was below six miles per hour during the sampling period in a westerly direction.

CONCLUSIONS

Based on this data, contaminants of concern were not detected at or above the project action limits, as specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 for the area monitored. It should be noted that the laboratory reportable detection limit (RDL) is above the CLARC Method B criteria for 1,3-butadiene, benzene, and naphthalene. Farallon did not request selective ion monitoring (SIM) analysis for these compounds as specified in the Monitoring Plan when submitting these samples to the laboratory. All future APH samples will be supplemented with SIM for those compounds to lower the RDL to below the MTCA criteria.

We appreciate this opportunity to be of service to you. Please contact us at 206.915.2395 if you have questions regarding this report, or if you require additional information.

Sincerely,



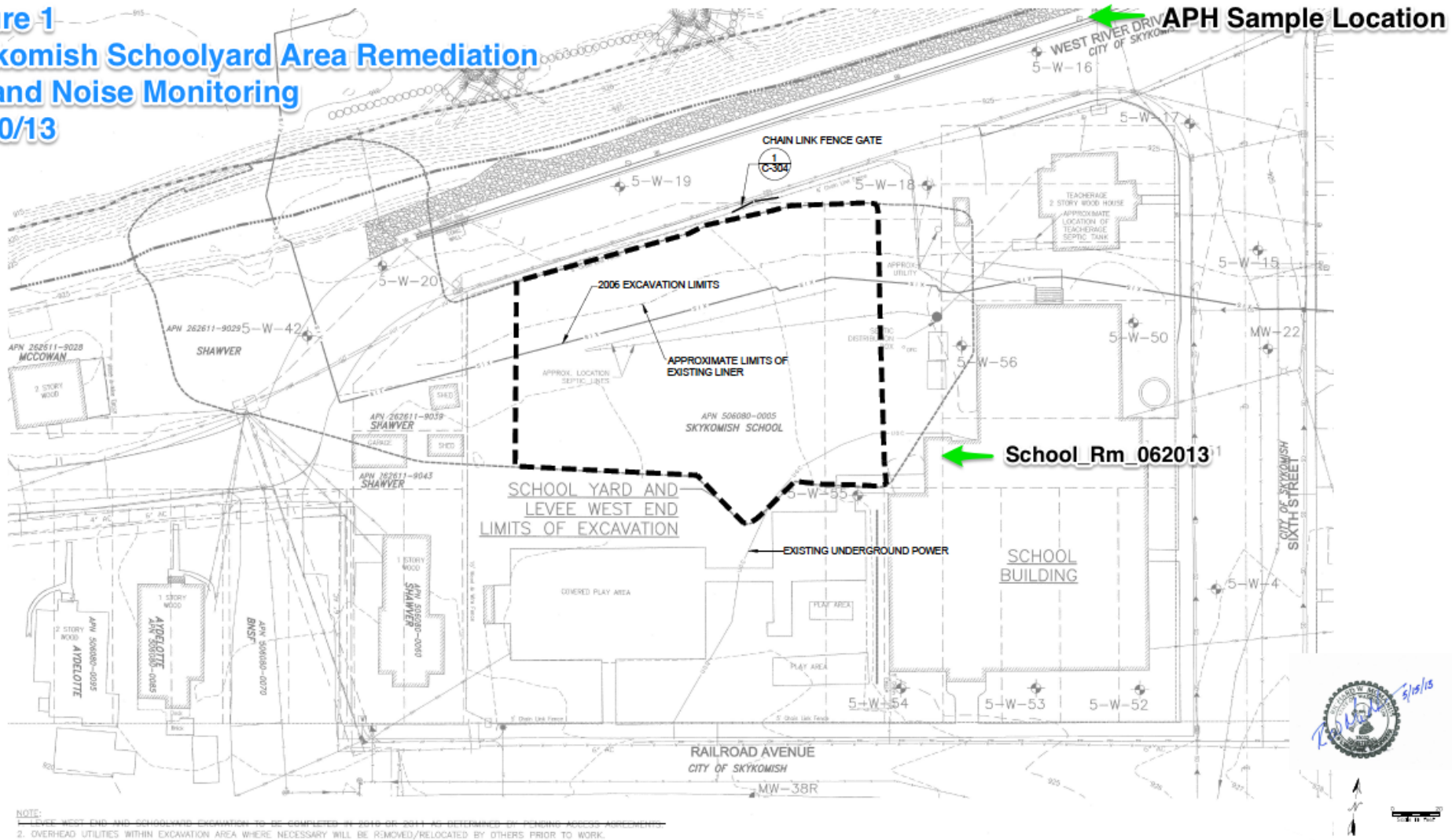
Elisabeth Black, CIH

Attachments:

Figure 1: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 06/20/13

Laboratory Certificates of Analysis
Alpha Analytical, Lab Number L1311640

Figure 1
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
06/20/13



NOTE:
1. LEVEE WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2012 OR 2013 AS DETERMINED BY PENDING ACCESS AGREEMENTS.
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
3. BUILDINGS WITHIN ACTIVE REMEDIATION AREAS MAY BE IN TEMPORARY STORAGE LOCATIONS AND NOT AS DEPICTED ON THIS DRAWING.
4. UTILITIES WITHIN THE ACTIVE REMEDIATION AREAS MAY NOT BE AS DEPICTED ON THIS DRAWING.

ISSUED FOR CONSTRUCTION

	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

BASE DRAWING REPRODUCED FROM 2010 REMEDIATION DESIGN FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON ISSUED FOR CONSTRUCTION (ISSUE NO.4) 5/30/2011

PREPARED BY
FARALLON CONSULTING

PREPARED FOR
THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE
AS SHOWN
PROJECT NO.
883-043
FILE NAME
COMPREPORT.dwg
SHEET NO.
C-210

ANALYTICAL REPORT

Lab Number:	L1311640
Client:	EMB Consulting P.O. Box 5171 Lynnwood, WA 98046
ATTN:	Elisabeth Black
Phone:	(206) 915-2395
Project Name:	SCHOOLYARD EXCAVATION
Project Number:	683-038
Report Date:	06/25/13

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: SCHOOLYARD EXCAVATION
Project Number: 683-038

Lab Number: L1311640
Report Date: 06/25/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1311640-01	SCHOOL_RM_062013	SKYKOMISH, WA	06/20/13 14:54

Project Name:	SCHOOLYARD EXCAVATION	**Lab Number:**	L1311640
Project Number:	683-038	**Report Date:**	06/25/13

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name:	SCHOOLYARD EXCAVATION	**Lab Number:**	L1311640
Project Number:	683-038	**Report Date:**	06/25/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	SCHOOLYARD EXCAVATION	**Lab Number:**	L1311640
Project Number:	683-038	**Report Date:**	06/25/13

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on June 18, 2013. The canister certification results are provided as an addendum.

Petroleum Hydrocarbons in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 06/25/13

AIR

Project Name: SCHOOLYARD EXCAVATION **Lab Number:** L1311640

Project Number: 683-038 **Report Date:** 06/25/13

SAMPLE RESULTS

Lab ID:	L1311640-01	Date Collected:	06/20/13 14:54
Client ID:	SCHOOL_RM_062013	Date Received:	06/24/13
Sample Location:	SKYKOMISH, WA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/24/13 19:04		
Analyst:	MB		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	210		ug/m3	12	--	1
Toluene	16		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	8.4		ug/m3	4.0	--	1
o-Xylene	2.6		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	32		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		50-200
Bromochloromethane	89		50-200
Chlorobenzene-d5	85		50-200

Project Name: SCHOOLYARD EXCAVATION
Project Number: 683-038
Lab Number: L1311640
Report Date: 06/25/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 06/24/13 14:11
Analyst: MB

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01 Batch: WG617190-4					
1,3-Butadiene	ND		ug/m3	2.0	--
Methyl tert butyl ether	ND		ug/m3	2.0	--
Benzene	ND		ug/m3	2.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--
Toluene	ND		ug/m3	2.0	--
Ethylbenzene	ND		ug/m3	2.0	--
p/m-Xylene	ND		ug/m3	4.0	--
o-Xylene	ND		ug/m3	2.0	--
Naphthalene	ND		ug/m3	2.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCHOOLYARD EXCAVATION

Project Number: 683-038

Lab Number: L1311640

Report Date: 06/25/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 Batch: WG617190-3								
1,3-Butadiene	101		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		
Benzene	100		-		70-130	-		
C5-C8 Aliphatics, Adjusted	106		-		70-130	-		
Toluene	91		-		70-130	-		
Ethylbenzene	90		-		70-130	-		
p/m-Xylene	90		-		70-130	-		
o-Xylene	92		-		70-130	-		
Naphthalene	100		-		50-150	-		
C9-C12 Aliphatics, Adjusted	106		-		70-130	-		
C9-C10 Aromatics Total	79		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: SCHOOLYARD EXCAVATION
Project Number: 683-038

Lab Number: L1311640
Report Date: 06/25/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG617190-5 QC Sample: L1311640-01 Client ID: SCHOOL_RM_062013						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	2.4	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	210	250	ug/m3	17		30
Toluene	16	18	ug/m3	12		30
Ethylbenzene	ND	2.2	ug/m3	NC		30
p/m-Xylene	8.4	9.3	ug/m3	10		30
o-Xylene	2.6	2.9	ug/m3	11		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	32	33	ug/m3	3		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

Project Name: SCHOOLYARD EXCAVATION

Lab Number: L1311640

Project Number: 683-038

Report Date: 06/25/13

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1311640-01	SCHOOL_RM_062013	0409	#16 AMB	06/18/13	89732		-	-	-	Pass	4.4	4.5	2
L1311640-01	SCHOOL_RM_062013	341	2.7L Can	06/18/13	89732	L1310597-01	Pass	-29.5	-11.6	-	-	-	-

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1310597

Project Number: CANISTER QC BAT **Report Date:** 06/25/13

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1310597-01	Date Collected:	06/10/13 17:53
Client ID:	CAN 208 SHELF 2	Date Received:	06/11/13
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/11/13 19:31		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: SCHOOLYARD EXCAVATION
Project Number: 683-038

Lab Number: L1311640
Report Date: 06/25/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**
Cooler
N/A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311640-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	APH-10(30)

*Values in parentheses indicate holding time in days

Project Name:	SCHOOLYARD EXCAVATION	**Lab Number:**	L1311640
Project Number:	683-038	**Report Date:**	06/25/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report

Project Name:	SCHOOLYARD EXCAVATION	**Lab Number:**	L1311640
Project Number:	683-038	**Report Date:**	06/25/13

Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	SCHOOLYARD EXCAVATION	**Lab Number:**	L1311640
Project Number:	683-038	**Report Date:**	06/25/13

REFERENCES

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Serial_No:06251315:34

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1311640

Client Information

Client: EMB CONSULTING/FARALLON
Address: 975 5TH AVE. NW
ISSAQUAH, WA 98027
Phone: (425) 765-4501
Fax: (206) 915-7395
Email: aving@farallonconsulting.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: SCHOOLYARD EXCAVATION
Project Location: SNOHOMISH, WA
Project #: 683-034
Project Manager: ELIZABETH BLACK
ALPHA Quote #:

Turn-Around Time

☐ Standard ☑ RUSH (only confirmed if pre-approved!)

Date Due: 6-24-13 Time: 17:00

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)
ELIZABETH BLACK
emblackconsult@gmail.com

Billing Information

☐ Same as Client info PO #:

EMB CONSULTING LLC
PO Box 5171 LYNNWOOD, WA 98046

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
WA	CLARC MTCA B	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
11690-01	SCHOOL-RM-062613	6/20/13	7:53	14:54	-29.0	-11.18	AA	AEV	2.7L	341	409				X				

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
Fed Ex	6-21-13 12:00	Fed Ex	
	6/24/13 9:47		6/24/13 9:47

January 13, 2014

Ms. Amy Essig Desai
Farallon Consulting
975 5th Ave Northwest
Issaquah, Washington 98027

RE: Weekly Air and Noise Monitoring Report Week 2
June 24 – June 28, 2013
BNSF Skykomish Schoolyard Area Remediation
Skykomish, Washington

Ms. Essig Desai,

This represents the second report of weekly air and noise monitoring data for the BNSF Skykomish Schoolyard Area Remediation in Skykomish, Washington coordinated by EMB Consulting, LLC (EMB Consulting) and conducted by Farallon Consulting, LLC (Farallon) during the week of June 24 to June 28, 2013. The purpose of this report is to summarize and interpret air and noise sampling data collected around the Skykomish Schoolyard Area project during weekly monitoring. Farallon conducted monitoring in general accordance with the Skykomish Schoolyard Area, Air and Noise Monitoring Plan, Skykomish, Washington issued by EMB Consulting on June 4, 2013.

Work Activities

Farallon staff collected air samples and noise measurements during excavation activities from June 24 to June 27, 2013. Project activities during the period consisted primarily of excavation of contaminated soils in the schoolyard. There were no site activities on Friday, June 28, 2013.

Sampling Methodology

All samples were collected in general accordance with the methods specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013. Please refer to this Plan for specific details on sampling methodology.

- Conditions identified during the four days of site activities were measured as follows. Ambient temperature was in the 50s and 60s for all days, with light precipitation. Relative humidity averaged between 84 and 96 percent on the four days. Wind was light, with no measurements greater than 8 miles per hour for any of the days sampled. Wind direction was typically in a westerly direction, with a few days with southerly winds.

- No APH sampling occurred during the second week. Farallon planned to collect a sample on Friday, June 28, but then field activities were cancelled for that day.

- Farallon conducted respirable dust monitoring at the Schoolyard sampling downwind (DW) station near the Teacherage on June 25 and 26, 2013. Farallon also conducted respirable dust monitoring at the sampling station nearest to an occupied building (NOB) (southwest corner of the excavation) on June 25 and 26, 2013.

- On June 24 and 25, 2013, Farallon collected air samples from two locations around the excavation in the schoolyard for detection of metals (lead and arsenic). Metals had been identified in those areas during environmental characterization of the site. The first station was positioned downwind of construction operations and was located near the Teacherage (samples designated DW). The second air monitoring station was located at the nearest occupied building (samples designated NOB).

- Farallon conducted noise monitoring at two locations on June 26 and 27, 2013. The first location was between the School building and the Teacherage. The second location was outside of the Community Center (CC) on the northwest corner, closest to construction activities.

Approximate air and noise sample locations are indicated on the attached Figures 1 through 4 providing sample locations for each day where sampling took place.

SAMPLING RESULTS

AIR MONITORING

DOWNWIND SAMPLES

These samples were collected to represent conditions downwind of excavation on the schoolyard.

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D738 Tag 3	06/25/13	8:16 to 9:22*	1.01	2	5,000
DataRam4, Serial #D738 Tag 4	06/26/13	8:20 to 10:45*	4.37	138	

µg/m^3= micrograms per cubic meter

** The clock on the DataRam4, Serial #D738 was not correctly set, as reflected in the attached raw data set. The sample period cited here is an estimate of the actual period measured. It is anticipated to be correct within a few minutes of actual sampling period.*

LEAD AND ARSENIC

SAMPLE ID	COMPOUND	SAMPLE TIME IN MINUTES	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
062413-MT-DW	Arsenic	297	<0.66	5
	Lead		<0.33	30
062513-MT-DW	Arsenic	246	<1.50	5
	Lead		<0.77	30

µg/m^3= micrograms per cubic meter

NEAREST OCCUPIED BUILDING SAMPLES

These samples were collected to represent conditions at the nearest occupied building near the Schoolyard excavation.

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D201 Tag 1	06/25/13	10:45 to 11:21	1.19	22	5,000
DataRam4, Serial #D201 Tag 3	06/26/13	14:35 to 16:51	0.54	108	

µg/m^3= micrograms per cubic meter

LEAD AND ARSENIC

SAMPLE ID	COMPOUND	SAMPLE TIME IN MINUTES	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
062413-MT-NOB	Arsenic	287	<0.67	5
	Lead		<0.33	30
062513-MT-NOB	Arsenic	247	<0.71	5
	Lead		<0.36	30

µg/m^3= micrograms per cubic meter

COMMUNITY NOISE MONITORING

The following data were collected between the School building and the Teacherage (Larson Davis SoundTrack LxT 3279).

DATE OF MONITORING	SAMPLE PERIOD	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
06/26/13	8:12 to 17:00	64.0	97.8	85
06/27/13	8:25 to 19:18	65.3	90.9	

The following data were collected on the northwest corner of the Community Center property (Larson Davis SoundTrack LxT 3278).

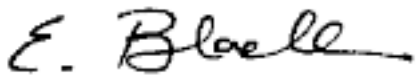
DATE OF MONITORING	SAMPLE PERIOD	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
06/26/13	7:13 to 14:58	68.1	103.7	85
06/27/13	8:23 to 19:14	62.6	99.6	

CONCLUSIONS

Based on this data, contaminants of concern were not detected at or above the project action limits, as specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 for the area monitored. In addition, noise limits were not exceeded.

We appreciate this opportunity to be of service to you. Please contact us at 206.915.2395 if you have questions regarding this report, or if you require additional information.

Sincerely,



Elisabeth Black, CIH

Attachments

Figure 1: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 06/24/13
Figure 2: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 06/25/13
Figure 3: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 06/26/13
Figure 4: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 06/27/13

Laboratory Certificates of Analysis

ALS Laboratory Group – Workorder 34-1317862 (June 28, 2013)

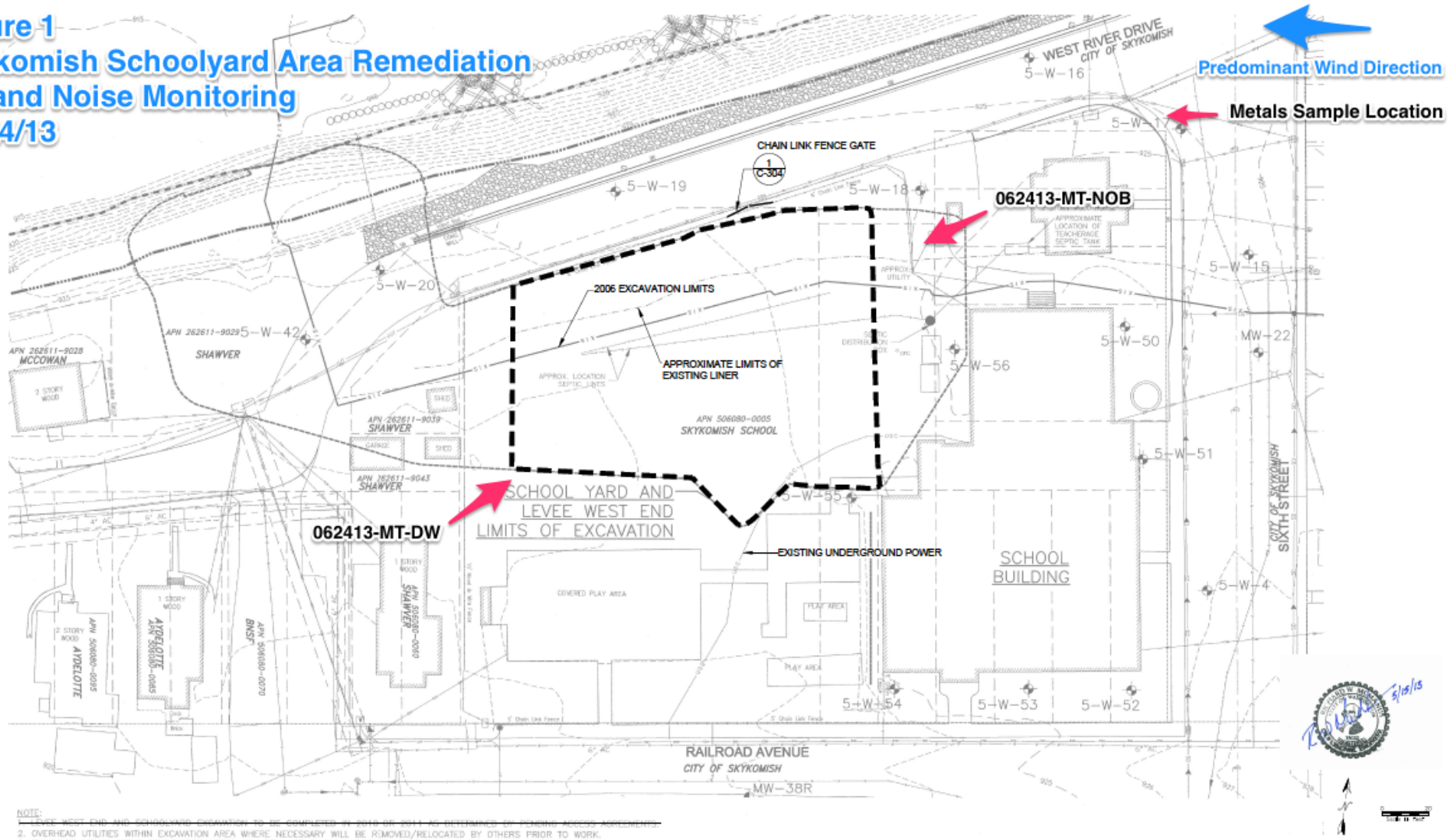
DataRam4 Data

DataRam4 data for instrument #D738 (June 25 and 26, 2013)
DataRam4 data for instrument #D201 (June 25 and 26, 2013)

Larson Davis Sound Track LxT Data

LxT data for instrument 3278 (June 26 and 27, 2013)
LxT data for instrument 3279 (June 26 and 27, 2013)

Figure 1
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
06/24/13



NOTE:
1. LEVEE WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2012 OR 2013 AS DETERMINED BY FUNDING ACCESS AGREEMENTS.
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
3. BUILDINGS WITHIN ACTIVE REMEDIATION AREAS MAY BE IN TEMPORARY STORAGE LOCATIONS AND NOT AS DEPICTED ON THIS DRAWING.
4. UTILITIES WITHIN THE ACTIVE REMEDIATION AREAS MAY NOT BE AS DEPICTED ON THIS DRAWING.

ISSUED FOR CONSTRUCTION

	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

BASE DRAWING REPRODUCED FROM 2010 REMEDIATION DESIGN FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON ISSUED FOR CONSTRUCTION (ISSUE NO.4) 5/30/2011

PREPARED BY: Farallon Consulting

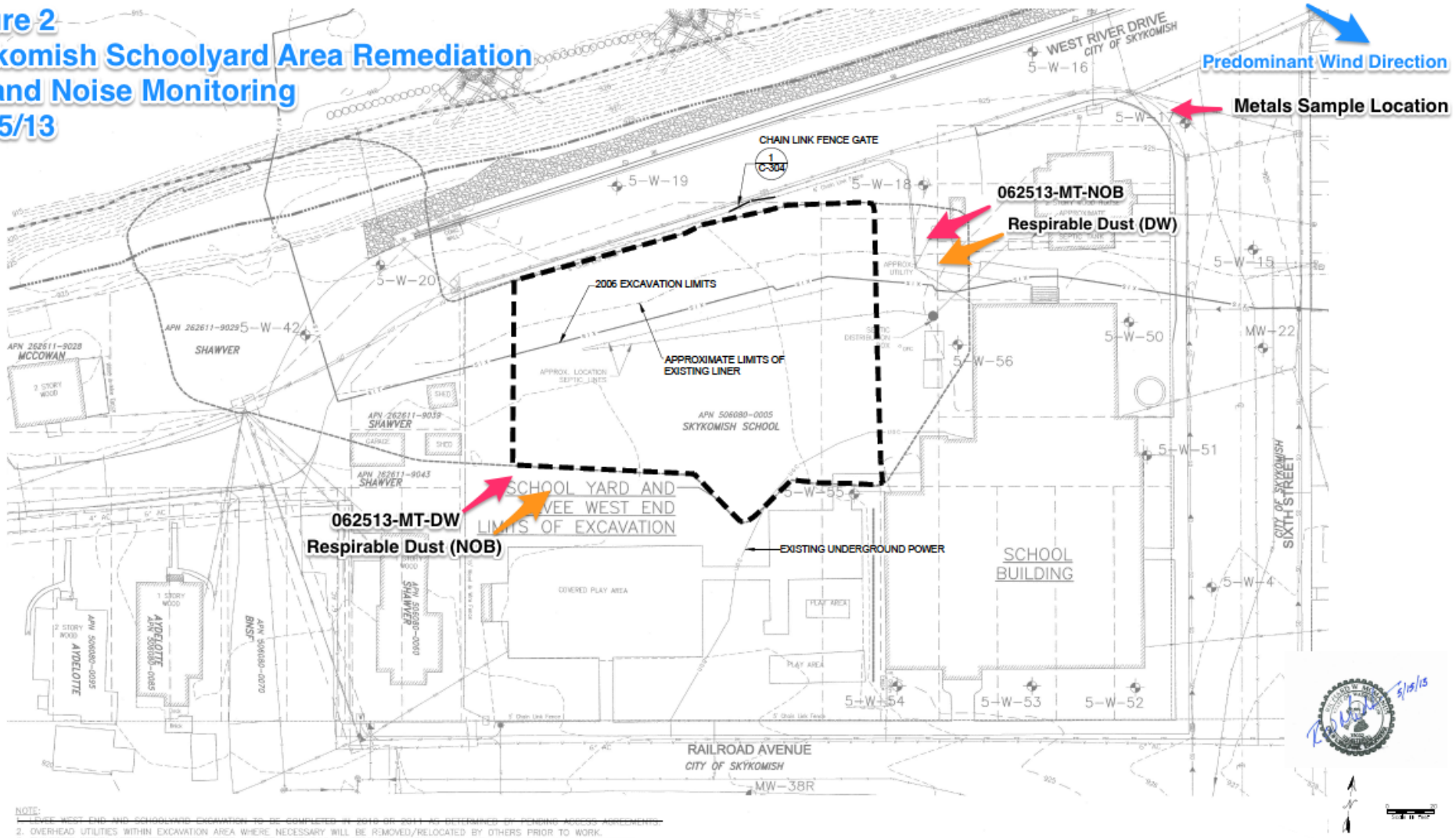
PREPARED FOR: THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 683-043
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-210

Figure 2
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
06/25/13



NOTE:
1. ~~EVEE WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2012 OR 2013 AS DETERMINED BY FUNDING ACCESS AGREEMENTS.~~
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
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	DATE	DESCRIPTION	BY	CKD.	APP.

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PREPARED BY
FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

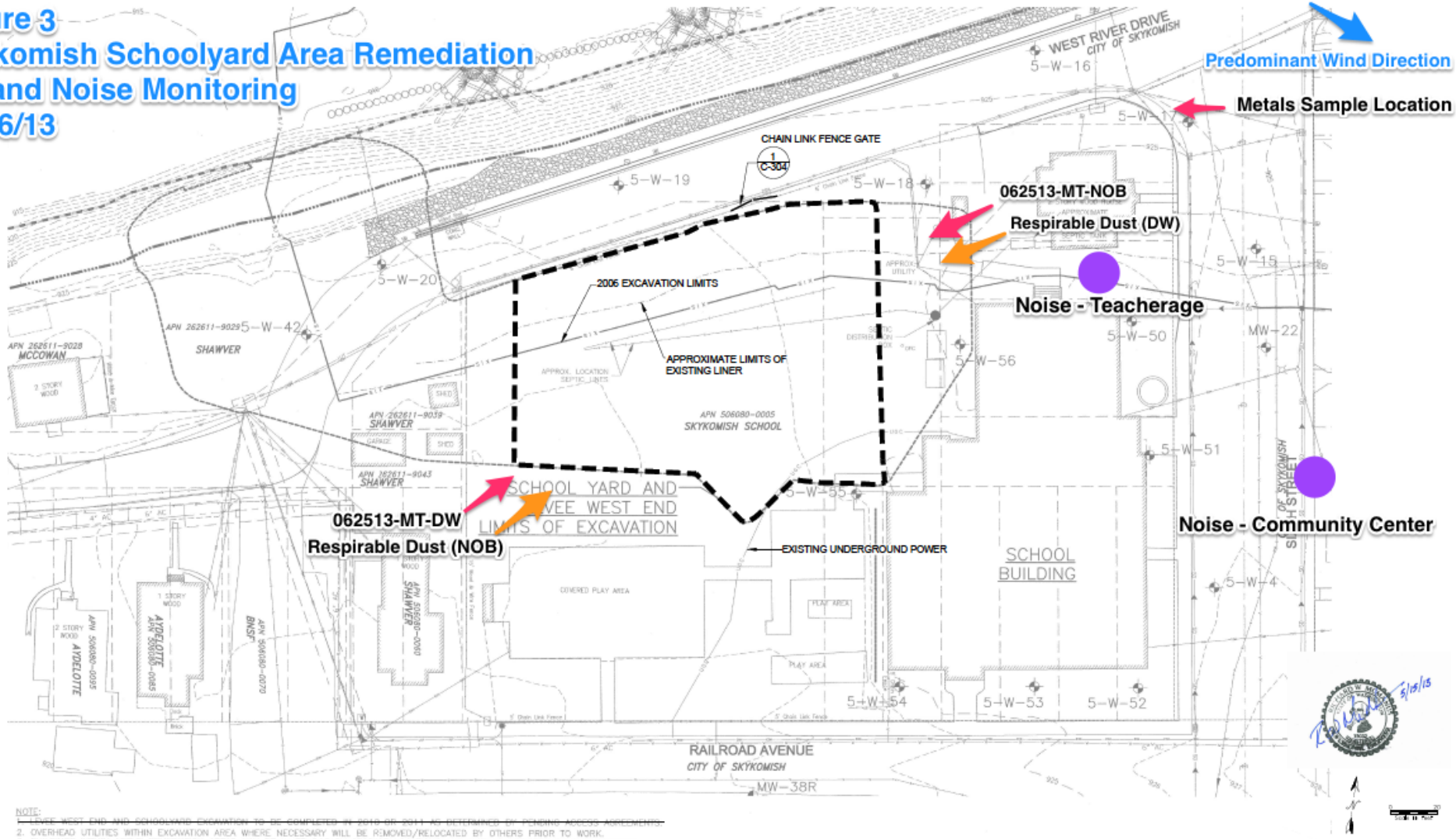
PREPARED FOR
THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE
AS SHOWN
PROJECT NO.
683-043
FILE NAME
COMPREPORT.dwg
SHEET NO.
C-210

Figure 3
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
06/26/13



NOTE:
1. BASE, WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN PHASE OR PHASES AS DETERMINED BY FUNDING AGENCY AGREEMENTS.
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ISSUED FOR CONSTRUCTION

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	DATE	DESCRIPTION	BY	CKD.	APP.

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PREPARED BY
FARALLON CONSULTING

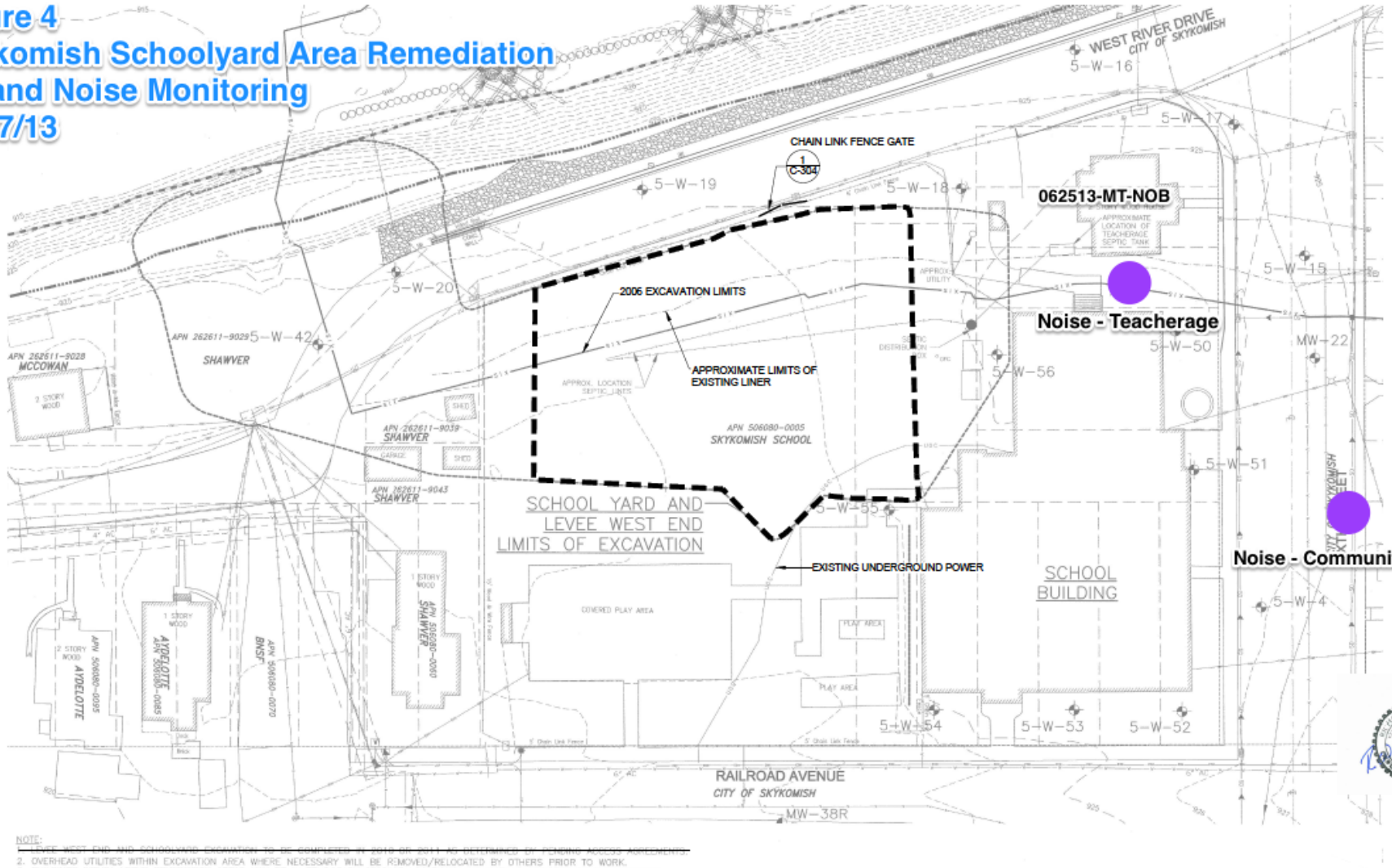
PREPARED FOR
THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE
AS SHOWN
PROJECT NO.
883-043
FILE NAME
COMPREPORT.dwg
SHEET NO.
C-210

Figure 4
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
06/27/13



NOTE:
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5/15/13

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	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

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PREPARED BY
FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

PREPARED FOR
THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE
AS SHOWN
PROJECT NO.
683-043
FILE NAME
COMPREPORT.dwg
SHEET NO.
C-210

ALS Laboratory
Certificates of Analysis

ANALYTICAL REPORT

Report Date: June 28, 2013

Elisabeth Black
EMB Consulting, LLC.
P.O. Box 5171 or
3607 219th Street, SW
Lynnwood, WA 98036

E-mail: EMBlackconsult@gmail.com

Workorder: **34-1317862**
Client Project ID: Skykomish Schoolyard Ex 062713
Purchase Order: Skykomish Schoolyard
Project Manager: Paul Pope

Analytical Results

Sample ID: **062413-MT-DW** Media: MCE Filter Collected: 06/24/2013
Lab ID: 1317862001 Sampling Location: Skykomish Schoolyard Received: 06/27/2013

Method: NIOSH 7300 Mod. **Sampling Parameter: Air Volume 1141.22 L** **Prepared:** 06/27/2013 **Analyzed:** 06/27/2013

Analyte	ug/sample	mg/m³	LOD (ug/sample)	RL (ug/sample)
Arsenic	<0.75	<0.00066	0.75	2.5
Lead	<0.38	<0.00033	0.38	1.3

Sample ID: **062413-MT-NOB** Media: MCE Filter Collected: 06/24/2013
Lab ID: 1317862002 Sampling Location: Skykomish Schoolyard Received: 06/27/2013

Method: NIOSH 7300 Mod. **Sampling Parameter: Air Volume 1127.19 L** **Prepared:** 06/27/2013 **Analyzed:** 06/27/2013

Analyte	ug/sample	mg/m³	LOD (ug/sample)	RL (ug/sample)
Arsenic	<0.75	<0.00067	0.75	2.5
Lead	<0.38	<0.00033	0.38	1.3

Sample ID: **062513-MT-DW** Media: MCE Filter Collected: 06/25/2013
Lab ID: 1317862003 Sampling Location: Skykomish Schoolyard Received: 06/27/2013

Method: NIOSH 7300 Mod. **Sampling Parameter: Air Volume 485.48 L** **Prepared:** 06/27/2013 **Analyzed:** 06/27/2013

Analyte	ug/sample	mg/m³	LOD (ug/sample)	RL (ug/sample)
Arsenic	<0.75	<0.0015	0.75	2.5
Lead	<0.38	<0.00077	0.38	1.3

ANALYTICAL REPORT

Workorder: **34-1317862**
Client Project ID: Skykomish Schoolyard Ex 062713
Purchase Order: Skykomish Schoolyard
Project Manager: Paul Pope

Analytical Results

Sample ID: **062513-MT-NOB** Media: MCE Filter Collected: 06/25/2013
Lab ID: 1317862004 Sampling Location: Skykomish Schoolyard Received: 06/27/2013

Method: **NIOSH 7300 Mod.** **Sampling Parameter:** **Air Volume 1051.85 L** **Prepared:** 06/27/2013 **Analyzed:** 06/27/2013

Analyte	ug/sample	mg/m³	LOD (ug/sample)	RL (ug/sample)
Arsenic	<0.75	<0.00071	0.75	2.5
Lead	<0.38	<0.00036	0.38	1.3

Comments

Quality Control: **NIOSH 7300 Mod. - (HBN: 109290)**

The MCE LMB 340204 was above the reporting limit for magnesium (2.62 µg/sample) so the LCS 340205 and LCSD 340206 results have been media blank corrected for magnesium with LMB 340204.

The copper recoveries for quartz fiber filter LCS 340276 (92.2%) and LCS 340277 (93.4%) were outside current Horizon limits but within method limits of +/- 20%. The results are reported without further comment.

Report Authorization

Method	Analyst	Peer Review
NIOSH 7300 Mod.	Penny A. Foote	Neil A. Edwards

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT

Workorder: **34-1317862**
Client Project ID: Skykomish Schoolyard Ex 062713
Purchase Order: Skykomish Schoolyard
Project Manager: Paul Pope

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
** No result could be reported, see sample comments for details.
< This testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

DataRam4 Data

"Model Number"	"DataRAM 4 "	106	**Downwind**	
"Serial no. "	"D738 "		**25-Jun-13**	
"Device no. "	1			
"Tag Number "	3			
"Start Time "	04:59:19			
"Start Date "	25-Jan-2000			
"Log Period "	00:01:00			
"Number "	67			
"CalFactor "	1			
"Unit "	0			
"Unit Name "	"(MASS)ug/m3"			
"SIZE_CORRECT"	"DISABLED"			
"TEMPUNITS "	C			
"Max MASS "	9.14237			
"Max MASS @ "	2	5:01:19	25-Jan-00	
"Avg MASS "	1.005249			
"Max Diam "	1.491507			
"Max Diam @ "	2	5:01:19	25-Jan-00	
"Avg Diam "	0.479411			
"ALARM "	"DISABLED"			
"ALARM_LEVEL "	0			
"AUTO_ZERO "	"DISABLED"			
"AZ INTERVAL "	1			
"Errors "	0			

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	1	19.4	61	0.3313	5:00:19	25-Jan-00
2	9.1	19.6	61	1.4915	5:01:19	25-Jan-00
3	4.4	19.8	60	1.1197	5:02:19	25-Jan-00
4	2	20	60	0.5933	5:03:19	25-Jan-00
5	1.1	20.2	59	0.4805	5:04:19	25-Jan-00
6	1.2	20.4	59	0.4975	5:05:19	25-Jan-00
7	0.9	20.6	59	0.4444	5:06:19	25-Jan-00
8	2.9	20.8	58	0.8207	5:07:19	25-Jan-00
9	2	21	57	0.5289	5:08:19	25-Jan-00
10	2.4	21.1	57	0.7818	5:09:19	25-Jan-00
11	2.7	21.3	56	0.7395	5:10:19	25-Jan-00
12	0.9	21.5	56	0.4455	5:11:19	25-Jan-00
13	2.4	21.6	55	0.7121	5:12:19	25-Jan-00
14	2.1	21.8	54	0.6232	5:13:19	25-Jan-00
15	0.6	22	54	0.4003	5:14:19	25-Jan-00
16	0.6	22.2	53	0.4012	5:15:19	25-Jan-00
17	0.5	22.3	53	0.3892	5:16:19	25-Jan-00
18	1.6	22.5	52	0.5726	5:17:19	25-Jan-00
19	0.4	22.6	52	0.3651	5:18:19	25-Jan-00
20	0	22.8	52	0.3392	5:19:19	25-Jan-00
21	0.5	22.9	51	0.3711	5:20:19	25-Jan-00
22	0.7	23.1	51	0.3901	5:21:19	25-Jan-00
23	0.3	23.2	50	0.3574	5:22:19	25-Jan-00

24	0.7	23.4	50	0.3892	5:23:19	25-Jan-00
25	0.3	23.6	49	0.3547	5:24:19	25-Jan-00
26	0.4	23.7	49	0.3621	5:25:19	25-Jan-00
27	0.3	23.9	48	0.3558	5:26:19	25-Jan-00
28	1.7	24	48	0.6104	5:27:19	25-Jan-00
29	0.1	24.2	48	0.3487	5:28:19	25-Jan-00
30	0	24.4	48	0.3416	5:29:19	25-Jan-00
31	1.1	24.5	47	0.4788	5:30:19	25-Jan-00
32	0.5	24.7	47	0.3966	5:31:19	25-Jan-00
33	0.8	24.8	46	0.4429	5:32:19	25-Jan-00
34	0.1	25	46	0.3508	5:33:19	25-Jan-00
35	0	25.1	45	0.3408	5:34:19	25-Jan-00
36	0.6	25.3	45	0.4098	5:35:19	25-Jan-00
37	0.5	25.4	45	0.4064	5:36:19	25-Jan-00
38	0	25.6	44	0.3404	5:37:19	25-Jan-00
39	0.2	25.7	44	0.3603	5:38:19	25-Jan-00
40	0	25.8	44	0.3413	5:39:19	25-Jan-00
41	0.3	26	45	0.3716	5:40:19	25-Jan-00
42	1	26.2	46	0.4664	5:41:19	25-Jan-00
43	0.6	26.3	46	0.4128	5:42:19	25-Jan-00
44	0.5	26.5	45	0.4021	5:43:19	25-Jan-00
45	0.7	26.6	45	0.4315	5:44:19	25-Jan-00
46	0.5	26.8	45	0.4012	5:45:19	25-Jan-00
47	0.1	27	45	0.3493	5:46:19	25-Jan-00
48	0.7	27.1	44	0.4286	5:47:19	25-Jan-00
49	0.2	27.1	44	0.3632	5:48:19	25-Jan-00
50	0.9	27.2	44	0.4599	5:49:19	25-Jan-00
51	0.6	27.2	44	0.4105	5:50:19	25-Jan-00
52	0.1	27.3	44	0.3536	5:51:19	25-Jan-00
53	0.2	27.3	44	0.3566	5:52:19	25-Jan-00
54	0.5	27.3	44	0.4066	5:53:19	25-Jan-00
55	0.4	27.3	44	0.3808	5:54:19	25-Jan-00
56	1.1	27.3	44	0.4773	5:55:19	25-Jan-00
57	1.3	27.3	44	0.5148	5:56:19	25-Jan-00
58	1.3	27.3	44	0.4729	5:57:19	25-Jan-00
59	0.6	27.2	44	0.393	5:58:19	25-Jan-00
60	3.7	27.2	43	1.307	5:59:19	25-Jan-00
61	1.2	27.2	43	0.6975	6:00:19	25-Jan-00
62	0.5	27.1	43	0.4132	6:01:19	25-Jan-00
63	0.6	27.1	43	0.419	6:02:19	25-Jan-00
64	0	27.1	42	0.3375	6:03:19	25-Jan-00
65	1.7	27	42	0.5822	6:04:19	25-Jan-00
66	0.1	26.9	42	0.3449	6:05:19	25-Jan-00
67	0	26.9	42	0.3394	6:06:19	25-Jan-00

"Model Number"	"DataRAM 4 "	106	**Nearest Occupied Building**
"Serial no. "	"D201 "		**25-Jun-13**
"Device no. "	1		
"Tag Number "	1		
"Start Time "	10:43:48		
"Start Date "	25-Jun-2013		
"Log Period "	00:01:00		
"Number "	38		
"CalFactor "	1		
"Unit "	0		
"Unit Name "	"(MASS)ug/m3"		
"SIZE_CORRECT"	"DISABLED"		
"TEMPUNITS "	C		
"Max MASS "	5.970167		
"Max MASS @ "	22	11:05:48	25-Jun-13
"Avg MASS "	1.195585		
"Max Diam "	2.588372		
"Max Diam @ "	22	11:05:48	25-Jun-13
"Avg Diam "	0.547274		
"ALARM "	"DISABLED"		
"ALARM_LEVEL "	0		
"AUTO_ZERO "	"DISABLED"		
"AZ INTERVAL "	1		
"Errors "	0		

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	2.8	17.6	60	0.3147	10:44:48	25-Jun-13
2	0.7	17.7	62	0.3277	10:45:48	25-Jun-13
3	1.8	17.8	63	0.3109	10:46:48	25-Jun-13
4	0.8	18	64	0.3252	10:47:48	25-Jun-13
5	0.8	18.1	64	0.3258	10:48:48	25-Jun-13
6	0.5	18.2	64	0.3298	10:49:48	25-Jun-13
7	0.6	18.2	65	0.3277	10:50:48	25-Jun-13
8	0.4	18.3	65	0.3311	10:51:48	25-Jun-13
9	0.3	18.4	65	0.3329	10:52:48	25-Jun-13
10	0.8	18.4	65	0.3259	10:53:48	25-Jun-13
11	0.8	18.5	65	0.3261	10:54:48	25-Jun-13
12	0.9	18.5	65	0.3245	10:55:48	25-Jun-13
13	1.6	18.6	65	0.3141	10:56:48	25-Jun-13
14	0.7	18.6	66	0.3275	10:57:48	25-Jun-13
15	0.5	18.7	66	0.3299	10:58:48	25-Jun-13
16	0.4	18.7	66	0.3307	10:59:48	25-Jun-13
17	3.7	18.7	65	0.4281	11:00:48	25-Jun-13
18	1.6	18.7	66	0.4505	11:01:48	25-Jun-13
19	0.5	18.8	66	0.364	11:02:48	25-Jun-13
20	0.5	18.9	66	0.3633	11:03:48	25-Jun-13
21	0.7	18.9	66	0.3785	11:04:48	25-Jun-13
22	6	19	66	2.5884	11:05:48	25-Jun-13
23	1.4	19	66	0.6087	11:06:48	25-Jun-13

24	1.6	19	66	0.6831	11:07:48	25-Jun-13
25	0.8	19	66	0.4803	11:08:48	25-Jun-13
26	0.7	19	66	0.4499	11:09:48	25-Jun-13
27	0.6	19.1	66	0.4539	11:10:48	25-Jun-13
28	0.6	19.1	65	0.4584	11:11:48	25-Jun-13
29	0.6	19.1	66	0.4368	11:12:48	25-Jun-13
30	0.6	19.1	65	0.4299	11:13:48	25-Jun-13
31	0.6	19.1	65	0.4479	11:14:48	25-Jun-13
32	3.4	19.1	65	1.5969	11:15:48	25-Jun-13
33	2.3	19.1	65	1.4846	11:16:48	25-Jun-13
34	0.5	19.1	65	0.4776	11:17:48	25-Jun-13
35	0.3	19.2	65	0.3911	11:18:48	25-Jun-13
36	1.8	19.2	65	1.0586	11:19:48	25-Jun-13
37	1.8	19.2	65	1.0818	11:20:48	25-Jun-13
38	0.6	19.2	65	0.4798	11:21:48	25-Jun-13

Model Number	DataRAM 4	106	**Down Wind**	
Serial no.	D738		**26-Jun-13**	
Device no.	1			
Tag Number	4			
Start Time	5:03:35			
Start Date	26-Jan-00			
Log Period	0:01:00			
Number	146			
CalFactor	1			
Unit	0			
Unit Name	(MASS)ug/m3			
SIZE_CORRECT	DISABLED			
TEMPUNITS	C			
Max MASS	24.07871			
Max MASS @	138	7:21:35	26-Jan-00	
Avg MASS	4.372423			
Max Diam	2.530689			
Max Diam @	111	6:54:35	26-Jan-00	
Avg Diam	0.710165			
ALARM	DISABLED			
ALARM_LEVEL	0			
AUTO_ZERO	DISABLED			
AZ INTERVAL	1			
Errors	0			

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	2.4	19.8	47	0.3242	5:04:35	26-Jan-00
2	1.8	20	50	0.3284	5:05:35	26-Jan-00
3	1.9	20.1	52	0.3278	5:06:35	26-Jan-00
4	2	20.2	54	0.3366	5:07:35	26-Jan-00
5	3	20.3	56	0.3504	5:08:35	26-Jan-00
6	2.1	20.4	57	0.3725	5:09:35	26-Jan-00
7	2	20.5	58	0.3835	5:10:35	26-Jan-00
8	3	20.6	59	0.4672	5:11:35	26-Jan-00
9	6.1	20.7	60	1.0042	5:12:35	26-Jan-00
10	5.3	20.8	60	1.2861	5:13:35	26-Jan-00
11	3.8	20.9	61	0.6533	5:14:35	26-Jan-00
12	4.2	21	62	0.6276	5:15:35	26-Jan-00
13	4.9	21.1	62	1.0128	5:16:35	26-Jan-00
14	3.7	21.1	62	0.7995	5:17:35	26-Jan-00
15	4.8	21.2	62	0.7377	5:18:35	26-Jan-00
16	3.1	21.2	62	0.5587	5:19:35	26-Jan-00
17	3.7	21.3	62	0.6672	5:20:35	26-Jan-00
18	2.5	21.4	62	0.4684	5:21:35	26-Jan-00
19	3.7	21.5	63	0.5758	5:22:35	26-Jan-00
20	3.8	21.5	62	0.5175	5:23:35	26-Jan-00
21	4.4	21.5	62	0.5046	5:24:35	26-Jan-00
22	11.9	21.6	62	1.7809	5:25:35	26-Jan-00
23	9.4	21.6	63	1.7967	5:26:35	26-Jan-00

24	5.8	21.6	63	1.0911	5:27:35	26-Jan-00
25	3.2	21.7	63	0.6291	5:28:35	26-Jan-00
26	1.7	21.7	63	0.4657	5:29:35	26-Jan-00
27	3.5	21.8	63	0.8827	5:30:35	26-Jan-00
28	4.3	21.8	63	0.8251	5:31:35	26-Jan-00
29	4.8	21.9	63	0.8811	5:32:35	26-Jan-00
30	2.9	21.9	63	0.5559	5:33:35	26-Jan-00
31	3.7	21.9	63	0.6457	5:34:35	26-Jan-00
32	1.7	22	63	0.4602	5:35:35	26-Jan-00
33	2.7	22	63	0.5259	5:36:35	26-Jan-00
34	7.2	22	62	1.3341	5:37:35	26-Jan-00
35	4.5	22	63	0.8011	5:38:35	26-Jan-00
36	8.8	22	62	1.049	5:39:35	26-Jan-00
37	3.2	22	62	0.5643	5:40:35	26-Jan-00
38	16.6	22	62	1.4112	5:41:35	26-Jan-00
39	2.6	22.1	62	0.6696	5:42:35	26-Jan-00
40	2.6	22.1	61	0.523	5:43:35	26-Jan-00
41	4.2	22.1	61	0.516	5:44:35	26-Jan-00
42	5.8	22.1	61	0.8266	5:45:35	26-Jan-00
43	4.1	22.1	61	0.5498	5:46:35	26-Jan-00
44	5.9	22.1	61	0.791	5:47:35	26-Jan-00
45	2.5	22.1	61	0.5254	5:48:35	26-Jan-00
46	4.5	22.1	61	0.7933	5:49:35	26-Jan-00
47	2.7	22.1	61	0.5865	5:50:35	26-Jan-00
48	2.5	22.1	60	0.5548	5:51:35	26-Jan-00
49	4.4	22.1	60	0.696	5:52:35	26-Jan-00
50	1.9	22.1	60	0.3986	5:53:35	26-Jan-00
51	1.9	22.1	60	0.3999	5:54:35	26-Jan-00
52	3.6	22.1	60	0.4447	5:55:35	26-Jan-00
53	2.3	22.1	60	0.3958	5:56:35	26-Jan-00
54	1.7	22.1	60	0.3791	5:57:35	26-Jan-00
55	1.4	22.1	60	0.3733	5:58:35	26-Jan-00
56	1.6	22.1	60	0.3772	5:59:35	26-Jan-00
57	1.6	22.1	60	0.378	6:00:35	26-Jan-00
58	7.4	22.1	60	0.9306	6:01:35	26-Jan-00
59	8.6	22.2	60	1.035	6:02:35	26-Jan-00
60	2.9	22.2	60	0.4578	6:03:35	26-Jan-00
61	4.8	22.2	60	0.861	6:04:35	26-Jan-00
62	2.5	22.2	60	0.4799	6:05:35	26-Jan-00
63	2.9	22.2	60	0.5204	6:06:35	26-Jan-00
64	2.5	22.3	60	0.5091	6:07:35	26-Jan-00
65	2.2	22.3	61	0.4836	6:08:35	26-Jan-00
66	2.4	22.4	60	0.5008	6:09:35	26-Jan-00
67	2	22.4	60	0.471	6:10:35	26-Jan-00
68	2.8	22.5	60	0.7668	6:11:35	26-Jan-00
69	6.6	22.5	60	2.1794	6:12:35	26-Jan-00
70	4.4	22.5	61	0.6876	6:13:35	26-Jan-00
71	4.5	22.6	60	0.6949	6:14:35	26-Jan-00

72	16.8	22.6	60	1.8761	6:15:35	26-Jan-00
73	6.1	22.7	60	1.3126	6:16:35	26-Jan-00
74	4	22.7	60	0.7357	6:17:35	26-Jan-00
75	3.4	22.7	60	0.6405	6:18:35	26-Jan-00
76	3	22.8	60	0.6185	6:19:35	26-Jan-00
77	2.4	22.8	60	0.5184	6:20:35	26-Jan-00
78	4	22.9	59	0.6714	6:21:35	26-Jan-00
79	2.4	22.9	59	0.4749	6:22:35	26-Jan-00
80	2.2	22.9	59	0.4385	6:23:35	26-Jan-00
81	4.2	22.9	59	0.7289	6:24:35	26-Jan-00
82	7.9	22.9	58	0.7947	6:25:35	26-Jan-00
83	5.6	22.9	58	0.7753	6:26:35	26-Jan-00
84	7.5	22.9	58	0.9631	6:27:35	26-Jan-00
85	2.8	22.9	58	0.6086	6:28:35	26-Jan-00
86	3.6	23	58	0.7696	6:29:35	26-Jan-00
87	4	22.9	58	0.6728	6:30:35	26-Jan-00
88	4.6	23	58	0.6178	6:31:35	26-Jan-00
89	1.6	22.9	58	0.4001	6:32:35	26-Jan-00
90	2.4	22.9	58	0.4276	6:33:35	26-Jan-00
91	3.8	22.9	57	0.5868	6:34:35	26-Jan-00
92	1.9	22.9	57	0.4833	6:35:35	26-Jan-00
93	3.2	22.9	57	0.7112	6:36:35	26-Jan-00
94	2.3	22.8	58	0.5289	6:37:35	26-Jan-00
95	3.9	22.8	57	0.8146	6:38:35	26-Jan-00
96	1.8	22.7	57	0.4547	6:39:35	26-Jan-00
97	1.6	22.7	57	0.4378	6:40:35	26-Jan-00
98	3.2	22.7	57	0.6912	6:41:35	26-Jan-00
99	3.1	22.6	57	0.6305	6:42:35	26-Jan-00
100	3.2	22.6	58	0.5385	6:43:35	26-Jan-00
101	1.9	22.6	58	0.456	6:44:35	26-Jan-00
102	4	22.6	58	0.6625	6:45:35	26-Jan-00
103	3	22.5	58	0.5598	6:46:35	26-Jan-00
104	5.5	22.5	58	0.906	6:47:35	26-Jan-00
105	4.8	22.5	59	1.3407	6:48:35	26-Jan-00
106	2.8	22.5	59	0.5907	6:49:35	26-Jan-00
107	4.9	22.5	59	0.9262	6:50:35	26-Jan-00
108	2.9	22.5	59	0.5484	6:51:35	26-Jan-00
109	4.2	22.5	59	0.6531	6:52:35	26-Jan-00
110	4.6	22.5	59	0.6276	6:53:35	26-Jan-00
111	14.5	22.5	60	2.5307	6:54:35	26-Jan-00
112	7.7	22.5	60	0.8845	6:55:35	26-Jan-00
113	5.9	22.5	60	0.6108	6:56:35	26-Jan-00
114	4.3	22.5	59	0.5279	6:57:35	26-Jan-00
115	4.2	22.4	59	0.4628	6:58:35	26-Jan-00
116	2.6	22.4	59	0.3981	6:59:35	26-Jan-00
117	7	22.4	59	0.7256	7:00:35	26-Jan-00
118	2.7	22.4	60	0.4652	7:01:35	26-Jan-00
119	2.1	22.3	60	0.4361	7:02:35	26-Jan-00

120	2.7	22.3	60	0.4717	7:03:35	26-Jan-00
121	7.4	22.3	60	0.6315	7:04:35	26-Jan-00
122	4.5	22.3	60	0.5245	7:05:35	26-Jan-00
123	3	22.2	60	0.4705	7:06:35	26-Jan-00
124	4	22.2	60	0.6733	7:07:35	26-Jan-00
125	4.8	22.2	60	0.9647	7:08:35	26-Jan-00
126	16	22.1	60	2.1863	7:09:35	26-Jan-00
127	2.6	22.1	60	0.4894	7:10:35	26-Jan-00
128	2.9	22.1	60	0.5066	7:11:35	26-Jan-00
129	4.7	22.1	60	0.4696	7:12:35	26-Jan-00
130	7	22	60	0.7121	7:13:35	26-Jan-00
131	3.8	22	61	0.4752	7:14:35	26-Jan-00
132	6.6	22	61	0.8664	7:15:35	26-Jan-00
133	3.6	22	61	0.733	7:16:35	26-Jan-00
134	9.6	21.9	61	2.0168	7:17:35	26-Jan-00
135	5.5	21.9	61	0.9089	7:18:35	26-Jan-00
136	2.8	21.9	61	0.4281	7:19:35	26-Jan-00
137	9.5	21.8	61	1.1526	7:20:35	26-Jan-00
138	24.1	21.8	61	1.863	7:21:35	26-Jan-00
139	5.5	21.7	61	0.9436	7:22:35	26-Jan-00
140	2.3	21.7	61	0.4753	7:23:35	26-Jan-00
141	3.3	21.7	62	0.522	7:24:35	26-Jan-00
142	3.9	21.7	62	0.4835	7:25:35	26-Jan-00
143	2.4	21.6	62	0.3777	7:26:35	26-Jan-00
144	2	21.6	62	0.3683	7:27:35	26-Jan-00
145	2.2	21.6	62	0.3792	7:28:35	26-Jan-00
146	3.3	21.5	62	0.594	7:29:35	26-Jan-00

"Model Nu	"DataRAM	106		**Nearest Occupied Building**			
"Serial no.	"D201 "			**26-Jun-13**			
"Device no	1						
"Tag Numb	2						
"Start Time	14:04:19						
"Start Date	26-Jun-2013						
"Log Period	00:01:00						
"Number	87						
"CalFactor	1						
"Unit "	0						
"Unit Name	"(MASS)ug/m3"						
"SIZE_COR	"DISABLED"						
"TEMPUNI	C						
"Max MASS	3.259718						
"Max MASS	5	14:09:19	26-Jun-13				
"Avg MASS	0.210515						
"Max Diam	0.895656						
"Max Diam	36	14:40:19	26-Jun-13				
"Avg Diam	0.357881						
"ALARM	"DISABLED"						
"ALARM_L	0						
"AUTO_ZEI	"DISABLED"						
"AZ INTERV	1						
"Errors "	0						

record	(MASS)ug/	Temp	RHumidity	Diameter		
1	0.9	20.5	63	0.332	14:05:19	26-Jun-13
2	2.4	20.6	63	0.3383	14:06:19	26-Jun-13
3	2.6	20.7	63	0.3886	14:07:19	26-Jun-13
4	1.1	20.9	63	0.3649	14:08:19	26-Jun-13
5	3.3	21	64	0.5087	14:09:19	26-Jun-13
6	1.8	21.2	63	0.536	14:10:19	26-Jun-13
7	0.2	21.3	63	0.3729	14:11:19	26-Jun-13
8	0.2	21.5	63	0.3702	14:12:19	26-Jun-13
9	0.3	21.6	63	0.3829	14:13:19	26-Jun-13
10	0	21.8	63	0.3382	14:14:19	26-Jun-13
11	0	22	62	0.3375	14:15:19	26-Jun-13
12	0	22.1	62	0.3375	14:16:19	26-Jun-13
13	0.1	22.3	62	0.3525	14:17:19	26-Jun-13
14	0.1	22.4	62	0.3467	14:18:19	26-Jun-13
15	0	22.6	61	0.3375	14:19:19	26-Jun-13
16	0	22.8	61	0.3403	14:20:19	26-Jun-13
17	0	23	61	0.3397	14:21:19	26-Jun-13
18	0	23.1	61	0.3375	14:22:19	26-Jun-13
19	0	23.3	61	0.3375	14:23:19	26-Jun-13
20	0	23.4	60	0.3416	14:24:19	26-Jun-13
21	0	23.5	59	0.3375	14:25:19	26-Jun-13
22	0.2	23.6	59	0.3588	14:26:19	26-Jun-13
23	0	23.7	59	0.3375	14:27:19	26-Jun-13

24	0	23.8	59	0.3375	14:28:19	26-Jun-13
25	0	23.9	58	0.3375	14:29:19	26-Jun-13
26	0	24	58	0.3375	14:30:19	26-Jun-13
27	0	24.1	58	0.3375	14:31:19	26-Jun-13
28	0.1	24.2	58	0.3526	14:32:19	26-Jun-13
29	0	24.3	58	0.3375	14:33:19	26-Jun-13
30	0	24.4	57	0.3375	14:34:19	26-Jun-13
31	0	24.5	57	0.3375	14:35:19	26-Jun-13
32	0	24.6	57	0.3375	14:36:19	26-Jun-13
33	0	24.6	57	0.3412	14:37:19	26-Jun-13
34	0	24.7	56	0.3391	14:38:19	26-Jun-13
35	0.8	24.8	56	0.4987	14:39:19	26-Jun-13
36	2	24.9	56	0.8957	14:40:19	26-Jun-13
37	0.2	25	56	0.3688	14:41:19	26-Jun-13
38	0.6	25.1	55	0.4297	14:42:19	26-Jun-13
39	0	25.1	54	0.3398	14:43:19	26-Jun-13
40	0	25.2	54	0.3375	14:44:19	26-Jun-13
41	0.9	25.3	54	0.5754	14:45:19	26-Jun-13
42	0	25.3	54	0.3375	14:46:19	26-Jun-13
43	0	25.4	53	0.3375	14:47:19	26-Jun-13
44	0	25.5	53	0.3375	14:48:19	26-Jun-13
45	0	25.5	53	0.3375	14:49:19	26-Jun-13
46	0	25.6	53	0.3375	14:50:19	26-Jun-13
47	0	25.6	53	0.3375	14:51:19	26-Jun-13
48	0	25.7	53	0.3375	14:52:19	26-Jun-13
49	0	25.8	54	0.3375	14:53:19	26-Jun-13
50	0.2	25.8	53	0.376	14:54:19	26-Jun-13
51	0.1	25.9	53	0.3559	14:55:19	26-Jun-13
52	0	26	53	0.3375	14:56:19	26-Jun-13
53	0	26	53	0.3375	14:57:19	26-Jun-13
54	0	26.1	53	0.3375	14:58:19	26-Jun-13
55	0	26.1	52	0.3375	14:59:19	26-Jun-13
56	0	26.2	52	0.3375	15:00:19	26-Jun-13
57	0	26.3	52	0.3375	15:01:19	26-Jun-13
58	0	26.4	52	0.3383	15:02:19	26-Jun-13
59	0	26.5	52	0.3375	15:03:19	26-Jun-13
60	0	26.5	52	0.3375	15:04:19	26-Jun-13
61	0	26.6	52	0.3375	15:05:19	26-Jun-13
62	0	26.7	52	0.3375	15:06:19	26-Jun-13
63	0	26.8	52	0.3375	15:07:19	26-Jun-13
64	0	26.9	52	0.3375	15:08:19	26-Jun-13
65	0	27	52	0.3375	15:09:19	26-Jun-13
66	0	27.1	52	0.3375	15:10:19	26-Jun-13
67	0	27.2	52	0.3375	15:11:19	26-Jun-13
68	0	27.2	51	0.3375	15:12:19	26-Jun-13
69	0	27.3	51	0.3375	15:13:19	26-Jun-13
70	0	27.3	51	0.3375	15:14:19	26-Jun-13
71	0	27.3	51	0.3375	15:15:19	26-Jun-13

72	0	27.3	50	0.3375	15:16:19	26-Jun-13
73	0	27.3	50	0.3375	15:17:19	26-Jun-13
74	0	27.2	50	0.3375	15:18:19	26-Jun-13
75	0	27.2	50	0.3375	15:19:19	26-Jun-13
76	0	27.2	50	0.3375	15:20:19	26-Jun-13
77	0	27.1	51	0.3375	15:21:19	26-Jun-13
78	0	27.1	51	0.3375	15:22:19	26-Jun-13
79	0	27.1	51	0.3375	15:23:19	26-Jun-13
80	0	27.1	51	0.3375	15:24:19	26-Jun-13
81	0	27	50	0.3375	15:25:19	26-Jun-13
82	0	27	50	0.3375	15:26:19	26-Jun-13
83	0	26.9	50	0.3375	15:27:19	26-Jun-13
84	0	26.8	49	0.3375	15:28:19	26-Jun-13
85	0	26.7	49	0.3375	15:29:19	26-Jun-13
86	0	26.6	49	0.3375	15:30:19	26-Jun-13
87	0	26.5	49	0.3375	15:31:19	26-Jun-13

Larson Davis
Sound Track LxT Data

Summary	**Community Center 06/26/13**			
Filename	LxT_Data.006			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/06/26 7:13:29			
Stop	2013/06/26 16:58:35			
Duration	6:13:11.8			
Run Time	6:09:30.3			
Pause	0:03:41.5			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A	**C**	**Z**	
Under Range Peak	99.7	96.7	**101.7**	dB
Under Range Limit	**36.8**	34.8	42.8	dB
Noise Floor	24.1	24.6	32.0	dB
Results				
LAeq	68.1 dB			

LAE		111.6	dB	
EA		15.967	mPa²h	
EA8		20.742	mPa²h	
EA40		103.710	mPa²h	
LZpeak (max)	2013/06/26 15:54:52		115.8	dB
LAFmax	2013/06/26 15:54:46		103.7	dB
LAFmin	2013/06/26 8:12:24		6.8	dB
SEA		-99.9	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		6	17.4	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		74.0	dB	
LAeq		68.1	dB	
LCeq - LAeq		5.9	dB	
LAIeq		70.3	dB	
LAeq		68.1	dB	
LAIeq - LAeq		2.2	dB	
# Overloads		1		
Overload Duration		0.2	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.18	0.19	%
Projected Dose		0.24	0.24	%
TWA (Projected)		46.4	46.6	dB

TWA (t)	44.5	44.7 dB
Lep (t)	67.0	67.0 dB

Statistics	
LAF5.00	62.8 dB
LAF10.00	57.2 dB
LAF33.30	50.4 dB
LAF50.00	48.7 dB
LAF66.60	47.1 dB
LAF90.00	44.3 dB

Summary	**Teacherage 06/26/13**			
Filename	LxT_Data.008			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/06/26 8:12:39			
Stop	2013/06/26 17:00:21			
Duration	6:11:40.2			
Run Time	6:11:34.4			
Pause	0:00:05.8			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	64.0 dB			

LAE		107.5	dB	
EA		6.290	mPa²h	
EA8		8.126	mPa²h	
EA40		40.629	mPa²h	
LZpeak (max)	2013/06/26 16:00:03		110.8	dB
LAFmax	2013/06/26 15:54:58		97.8	dB
LAFmin	2013/06/26 8:12:41		6.7	dB
SEA		-99.9	dB	

LAF > 85.0 dB (Exceedence Counts / Duration)	8	13.9	s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0	s

LCeq	72.8	dB	
LAeq	64.0	dB	
LCeq - LAeq	8.7	dB	
LAIeq	68.3	dB	
LAeq	64.0	dB	
LAIeq - LAeq	4.2	dB	
# Overloads	1		
Overload Duration	0.2	s	

Dose Settings				
Dose Name	OSHA-1	OSHA-2		
Exch. Rate	5	5	dB	
Threshold	90	80	dB	
Criterion Level	90	90	dB	
Criterion Duration	8	8	h	

Results			
Dose	0.06	0.07	%
Projected Dose	0.07	0.09	%
TWA (Projected)	37.9	39.8	dB

TWA (t)	36.1	37.9 dB
Lep (t)	62.9	62.9 dB

Statistics	
LAF5.00	67.3 dB
LAF10.00	65.0 dB
LAF33.30	59.4 dB
LAF50.00	55.6 dB
LAF66.60	53.5 dB
LAF90.00	48.7 dB

Summary	**Community Center 06/27/13**			
Filename	KxT_Data.007			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/06/27 8:23:27			
Stop	2013/06/27 19:14:39			
Duration	10:51:11.6			
Run Time	10:46:10.2			
Pause	0:05:01.4			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	62.6 dB			

LAE		108.4	dB	
EA		7.766	mPa²h	
EA8		5.769	mPa²h	
EA40		28.843	mPa²h	
LZpeak (max)	2013/06/27 16:54:30			113.4 dB
LAFmax	2013/06/27 16:54:30			99.6 dB
LAFmin	2013/06/27 9:01:35			5.6 dB
SEA		-99.9	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		13		22.7 s
LAF > 115.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0		0.0 s
LCeq		72.2	dB	
LAeq		62.6	dB	
LCeq - LAeq		9.7	dB	
LAIeq		65.5	dB	
LAeq		62.6	dB	
LAIeq - LAeq		2.9	dB	
# Overloads		0		
Overload Duration		0.0	s	
Dose Settings				
Dose Name		OSHA-1		OSHA-2
Exch. Rate		5		5 dB
Threshold		90		80 dB
Criterion Level		90		90 dB
Criterion Duration		8		8 h
Results				
Dose		0.07		0.11 %
Projected Dose		0.05		0.08 %
TWA (Projected)		35.0		38.7 dB

TWA (t)	37.2	40.8 dB
Lep (t)	63.9	63.9 dB

Statistics	
LAF5.00	65.5 dB
LAF10.00	59.4 dB
LAF33.30	51.9 dB
LAF50.00	49.5 dB
LAF66.60	47.4 dB
LAF90.00	42.9 dB

Summary	**Teacherage 06/27/13**			
Filename	LxT_Data.009			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/06/27 8:25:11			
Stop	2013/06/27 19:18:12			
Duration	10:53:00.9			
Run Time	10:52:57.4			
Pause	0:00:03.5			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	65.3 dB			

LAE		111.2	dB	
EA		14.734	mPa²h	
EA8		10.831	mPa²h	
EA40		54.155	mPa²h	
LZpeak (max)	2013/06/27	9:20:21	105.7	dB
LAFmax	2013/06/27	8:25:15	90.9	dB
LAFmin	2013/06/27	8:25:12	6.6	dB
SEA		-99.9	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		19	7.7	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		76.0	dB	
LAeq		65.3	dB	
LCeq - LAeq		10.7	dB	
LAIeq		70.6	dB	
LAeq		65.3	dB	
LAIeq - LAeq		5.3	dB	
# Overloads		1		
Overload Duration		0.3	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		-99.9	0.05	%
Projected Dose		-99.9	0.04	%
TWA (Projected)		-99.9	32.7	dB

TWA (t)	-99.9	35.0 dB
Lep (t)	66.6	66.6 dB

Statistics	
LAF5.00	70.4 dB
LAF10.00	68.6 dB
LAF33.30	64.3 dB
LAF50.00	62.1 dB
LAF66.60	58.3 dB
LAF90.00	54.9 dB

January 14, 2014

Ms. Amy Essig Desai
Farallon Consulting
975 5th Ave Northwest
Issaquah, Washington 98027

RE: Weekly AIR AND NOISE MONITORING REPORT WEEK 3
JULY 1 TO JULY 3, 2013
BNSF SKYKOMISH SCHOOLYARD AREA REMEDIATION
SKYKOMISH, WASHINGTON

Ms. Essig Desai,

This represents the third report of weekly air and noise monitoring data for the BNSF Skykomish Schoolyard Area Remediation in Skykomish, Washington coordinated by EMB Consulting, LLC (EMB Consulting) and conducted by Farallon Consulting, LLC (Farallon) during the week of July 1 to July 3, 2013. This was a short holiday week, with no work on July 4 and July 5, 2013. The purpose of this report is to summarize and interpret air and noise sampling data collected around the Skykomish Schoolyard project during weekly monitoring. Farallon conducted monitoring in general accordance with the Skykomish Schoolyard Area, Air and Noise Monitoring Plan, Skykomish, Washington issued by EMB Consulting on June 4, 2013.

WORK ACTIVITIES

Farallon staff collected air samples and noise measurements during excavation activities from July 1 to July 3, 2013. Project activities during the period consisted primarily of excavation of contaminated soils in the schoolyard and the beginning of import and placement of backfill materials. There were no site activities on July 4 and July 5, 2013.

SAMPLING METHODOLOGY

All samples were collected in general accordance with the methods specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013. Please refer to this Plan for specific details on sampling methodology.

- Conditions identified during the three days were measured as follows. Local barometric pressure on July 1 and 2 was steady, but began to drop on July 3. Ambient temperature ranged from 66.5 to 85.7 degrees Fahrenheit on July 1; 62.1 to 79.1 on July 2; and 54.6 to 75.2 on July 3. There was no precipitation during the three-day period, with relative humidity between 50 and 80 percent. Wind was below 8 miles per hour during July 1 and July 2, and below 12 miles per hour on July 3. Wind was in a westerly direction on all three days during monitoring activities.

- On July 1, 2013, Farallon collected APH samples from two locations near construction activities. The first sample was collected downwind of construction activities near the Teacherage (Sample ID HC-DW). The second sample was collected outside of the Teacherage on its east side to represent the nearest occupied building to the excavation (Sample ID HC-TEACH).

- Farallon conducted respirable dust monitoring at two monitoring stations on July 1, 2, and 3, 2013. The first station was positioned downwind of construction operations and was located between the Teacherage and the east edge of the excavation. The second air monitoring station was also located near the Teacherage as the nearest occupied building.

- On July 3, 2013, Farallon collected air samples from two locations around the excavation in the schoolyard for detection of diesel particulate matter (DPM) from heavy equipment exhaust. During that day, there were three or more pieces of heavy equipment in operation, which was the condition that activates the sampling requirement. The first station was positioned downwind of construction operations and was located between the Teacherage and the east edge of the excavation (sample designated 070313-D-DW). The second air monitoring station was located near the Teacherage as the nearest occupied building (sample designated 070313-D-Teach).

- Farallon conducted noise monitoring at two locations on July 1, 2, and 3, 2013. The first location was between the School building and the Teacherage. The second location was outside of the Community Center on the northwest corner, closest to construction activities.

Approximate air and noise sample locations are indicated on the attached Figures 1, 2, and 3.

SAMPLING RESULTS

All sample results indicate contaminant concentrations below Monitoring Plan action limits.

AIR MONITORING

DOWNWIND SAMPLES

These samples were collected to represent conditions downwind of excavation on the schoolyard.

AIR PHASE PETROLEUM HYDROCARBONS (APH)

SAMPLE ID	COMPOUND	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
070113-HC-DW	1,3-Butadiene	<0.044*	0.083[a]
	Methyl tert butyl ether	<2.0	1,400.000 [a]
	Benzene	<0.319*	0.320 [a]
	Toluene	<2.0	2,300.000 [a]
	Ethylbenzene	<2.0	460.000 [a]
	Xylene, p,m	<4.0	46.000 [a]
	Xylene, o	<2.0	46.000 [a]
	Naphthalene	<0.262*	1.400 [a]
	Aliphatics, C5 to C8	100	No CLARC criteria available
	Aliphatics, C9 to C12	300	No CLARC criteria available
	Aromatics, C9 to C10	<10.0	No CLARC criteria available
	Total APH	**411.29**	**1,346.00[b]**

µg/m^3 = micrograms per cubic meter

CLARC = Washington State Department of Ecology Cleanup Levels and Risk Calculations

a = CLARC Method B values for protection of all populations

b = Risk-based cleanup level established for Town of Skykomish and private property during this project by the Washington State Department of Ecology

**SIM analysis performed on compound to achieve a lower analytical detection limit for comparison with project action limits.*

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D738 Tag 4	07/01/13	7:30 to 18:30*	8.58	356	5,000
DataRam4, Serial #D738 Tag 5	07/02/13	7:30 to 18:00*	10.16	29	
DataRam4, Serial #D738 Tag 6	07/03/13	7:30 to 17:00*	20.99	140	

µg/m^3= micrograms per cubic meter

** The clock on the DataRam4, Serial #D738 was not correctly set, as reflected in the attached raw data set. The sample period cited here is an estimate of the actual period measured. It is anticipated to be correct within a few minutes of actual sampling period.*

DIESEL PARTICULATE MATTER

SAMPLE ID	COMPOUND	SAMPLE TIME IN MINUTES	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
070313-D-DW	Diesel Particulate (as Elemental Carbon)	397	2.1	10

µg/m^3= micrograms per cubic meter

NEAREST OCCUPIED BUILDING SAMPLES

These samples were collected to represent conditions at the nearest occupied building near the Schoolyard excavation.

AIR PHASE PETROLEUM HYDROCARBONS (APH)

SAMPLE ID	COMPOUND	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
070113-HC-TEACH	1,3-Butadiene	<0.044*	0.083[a]
	Methyl tert butyl ether	<2.0	1,400.000 [a]
	Benzene	<0.319*	0.320 [a]
	Toluene	<2.0	2,300.000 [a]
	Ethylbenzene	<2.0	460.000 [a]
	Xylene, p,m	<4.0	46.000 [a]
	Xylene, o	<2.0	46.000 [a]
	Naphthalene	<0.262*	1.400 [a]
	Aliphatics, C5 to C8	60	No CLARC criteria available
	Aliphatics, C9 to C12	240	No CLARC criteria available
	Aromatics, C9 to C10	<10.0	No CLARC criteria available
	Total APH	**311.29**	**1,346.00[b]**

µg/m^3= micrograms per cubic meter

CLARC = Washington State Department of Ecology Cleanup Levels and Risk Calculations

a = CLARC Method B values for protection of all populations

b = Risk-based cleanup level established for Town of Skykomish and private property during this project by the Washington State Department of Ecology

**SIM analysis performed on compound to achieve a lower analytical detection limit for comparison with project action limits.*

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D201 Tag 1	07/01/13	7:38 to 18:42	5.36	33	5,000
DataRam4, Serial #D201 Tag 2	07/02/13	7:34 to 18:12	5.72	320	
DataRam4, Serial #D201 Tag 3	07/03/13	7:20 to 17:59	5.01	294	

µg/m^3= micrograms per cubic meter

DIESEL PARTICULATE MATTER

SAMPLE ID	COMPOUND	SAMPLE TIME IN MINUTES	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
070313-D-Teach	Diesel Particulate (as Elemental Carbon)	393	<2.1	10

µg/m^3= micrograms per cubic meter

COMMUNITY NOISE MONITORING

The following data were collected between the School building and the Teacherage (Larson Davis SoundTrack LxT 3279).

DATE OF MONITORING	SAMPLE PERIOD	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/01/13	9:06 to 18:42	68.5	97.1	85
07/02/13	7:15 to 18:11	67.4	94.5	
07/03/13	7:08 to 16:12	65.8	94.3	

The following data were collected on the northwest corner of the Community Center property (Larson Davis SoundTrack LxT 3278).

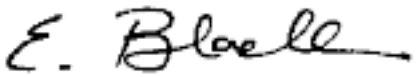
DATE OF MONITORING	SAMPLE PERIOD	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/01/13	7:13 to 8:59	71.6	101.4	85
07/01/13	9:02 to 18:42	68.2	108.8	
07/02/13	7:13 to 18:14	67.1	104.7	
07/03/13	7:09 to 16:12	67.4	102.9	

CONCLUSIONS

Based on this data, contaminants of concern were not detected at or above the project action limits, as specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 for the area monitored. In addition, noise limits were not exceeded.

We appreciate this opportunity to be of service to you. Please contact us at 206.915.2395 if you have questions regarding this report, or if you require additional information.

Sincerely,



Elisabeth Black, CIH

Attachments

Figure 1: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/01/13
Figure 2: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/02/13
Figure 3: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/03/13

Laboratory Certificates of Analysis

ALS Laboratory Group – Workorder 34-1318942, July 11, 2013
Alpha Analytical, Lab Number L1312649, July 15, 2013

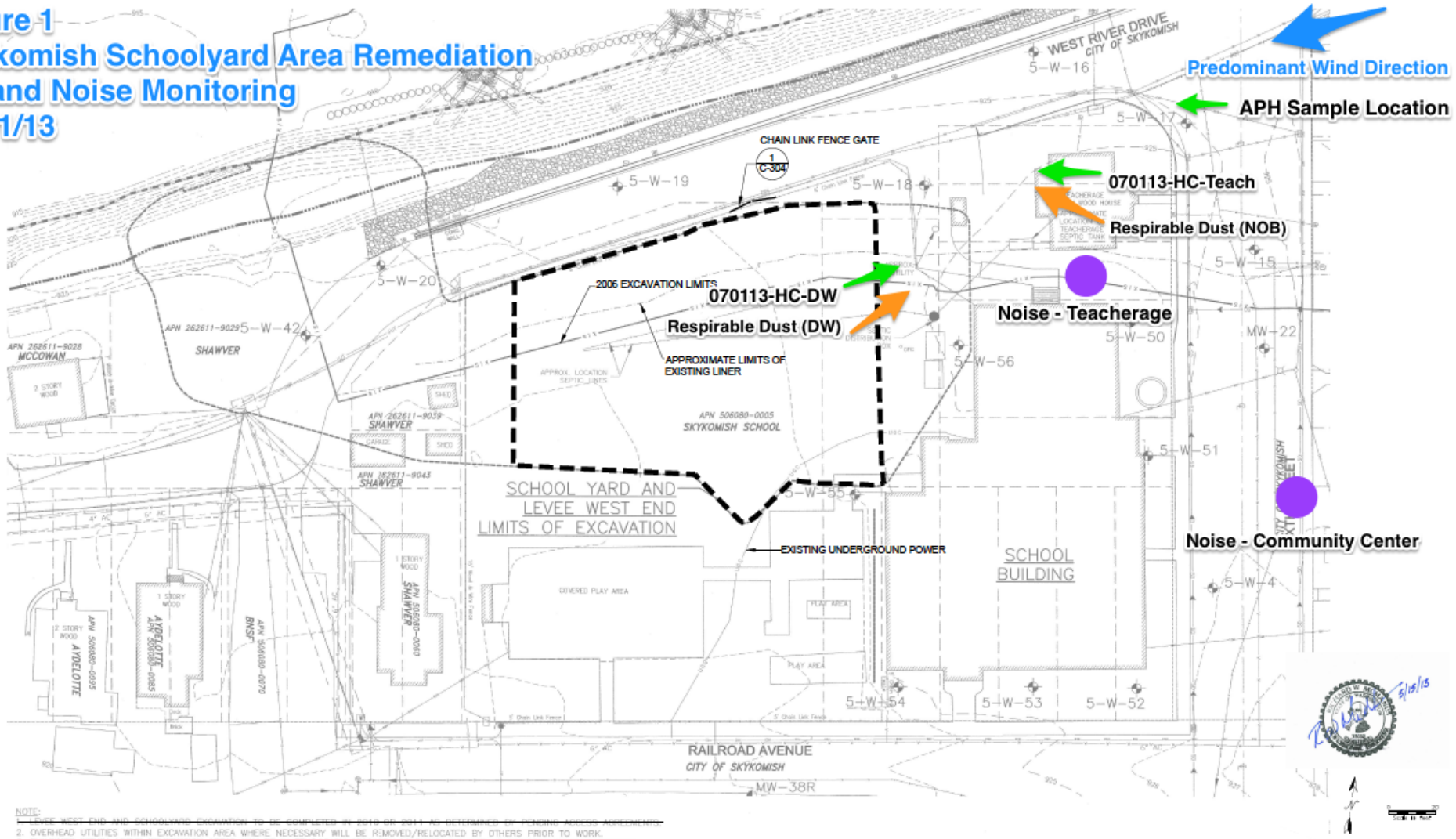
DataRam4 Data

DataRam4 data for instrument #D738 (July 1, 2, and 3, 2013)
DataRam4 data for instrument #D201 (July 1, 2, and 3, 2013)

Larson Davis Sound Track LxT Data

LxT data for instrument 3278 (July 1, 2, and 3, 2013)
LxT data for instrument 3279 (July 1, 2, and 3, 2013)

Figure 1
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/01/13



NOTE:
1. LEVEE WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2012 OR 2013 AS DETERMINED BY FUNDING AGENCY AGREEMENTS.
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
3. BUILDINGS WITHIN ACTIVE REMEDIATION AREAS MAY BE IN TEMPORARY STORAGE LOCATIONS AND NOT AS DEPICTED ON THIS DRAWING.
4. UTILITIES WITHIN THE ACTIVE REMEDIATION AREAS MAY NOT BE AS DEPICTED ON THIS DRAWING.

ISSUED FOR CONSTRUCTION

	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

BASE DRAWING REPRODUCED FROM 2010 REMEDIATION DESIGN FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON ISSUED FOR CONSTRUCTION (ISSUE NO.4) 5/30/2011

PREPARED BY: Farallon Consulting

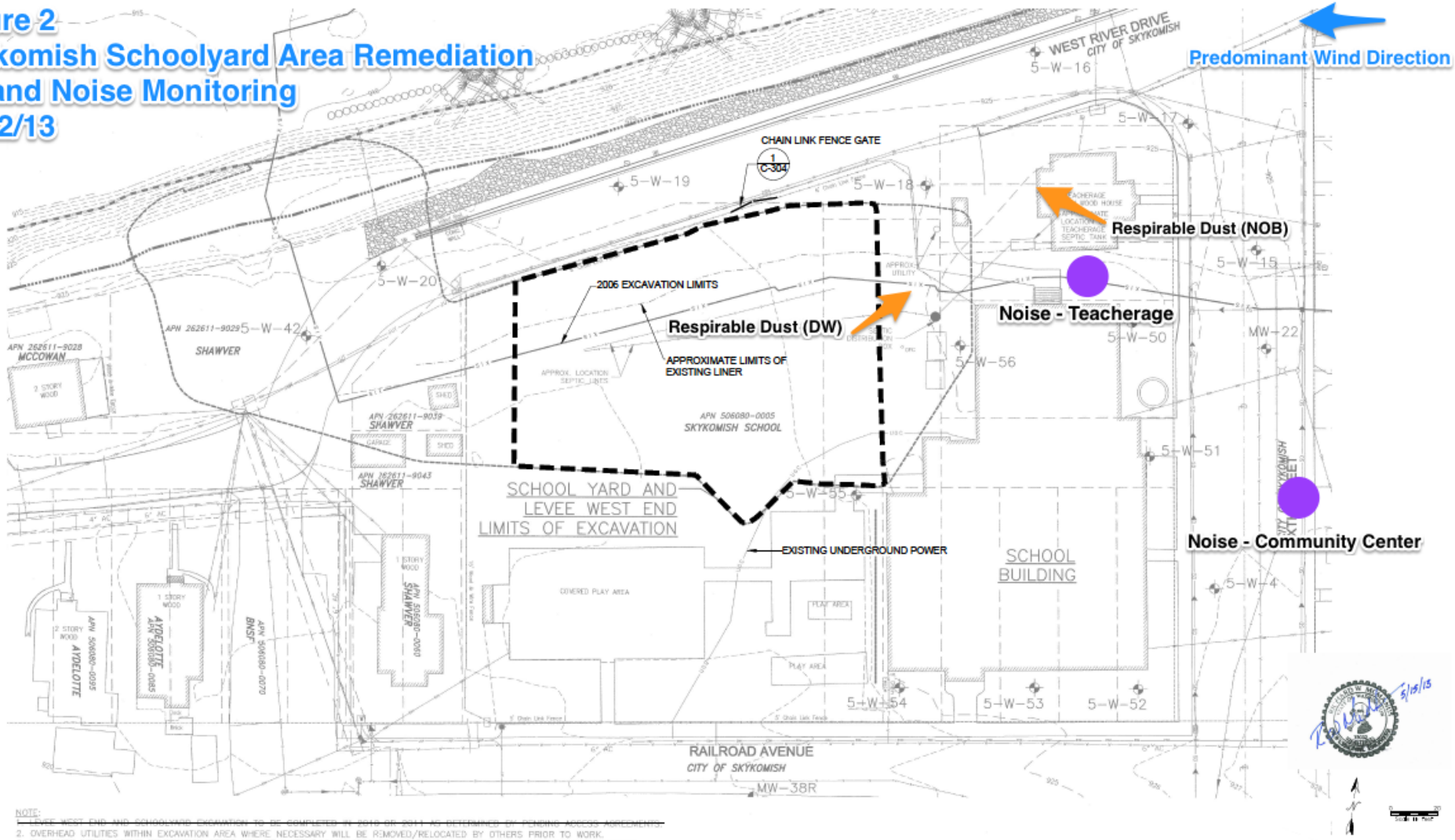
PREPARED FOR: THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 683-043
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-210

Figure 2
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/02/13



NOTE:
1. LEVEE WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2012 OR 2013 AS DETERMINED BY PENDING ACCESS AGREEMENTS.
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
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FARALLON CONSULTING

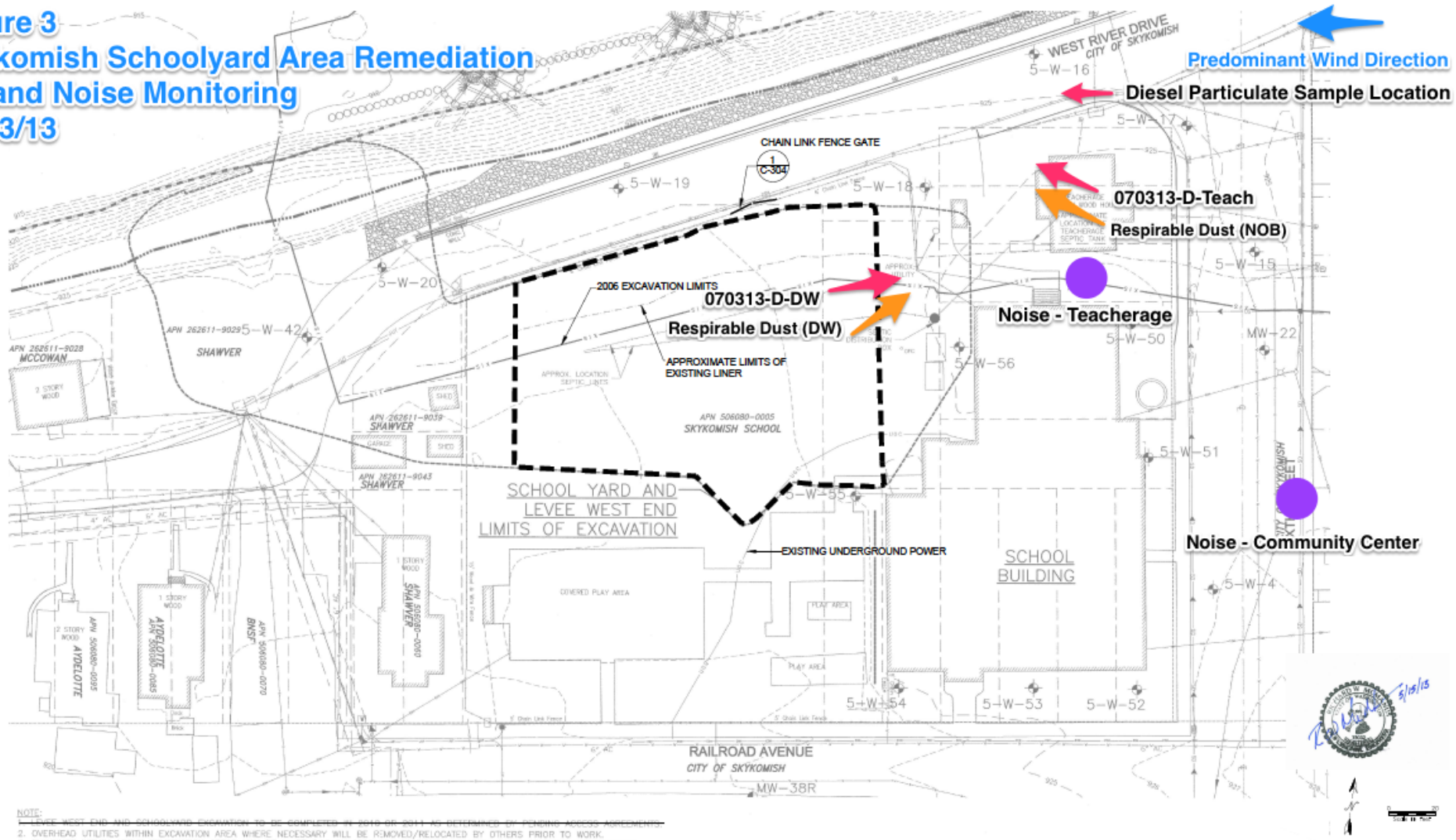
PREPARED FOR
THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE
AS SHOWN
PROJECT NO.
683-043
FILE NAME
COMPREPORT.dwg
SHEET NO.
C-210

Figure 3
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/03/13



NOTE:
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	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

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PREPARED BY: Farallon Consulting

PREPARED FOR: THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 683-043
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-210

ALS Laboratory
Certificates of Analysis

ANALYTICAL REPORT

Report Date: July 11, 2013

Elisabeth Black
EMB Consulting, LLC.
P.O. Box 5171 or
3607 219th Street, SW
Lynnwood, WA 98036

E-mail: EMBlackconsult@gmail.com

Workorder: **34-1318942**
Client Project ID: Skykomish, WA 070813
Purchase Order: Skykomish, WA
Project Manager: Paul Pope

Analytical Results

Sample ID: **070313-D-DW** Media: Impactor for Elemental Carbon Collected: 07/03/2013
Lab ID: 1318942001 Sampling Location: Skykomish, WA Received: 07/08/2013
Method: **NIOSH 5040** **Sampling Parameter:** **Air Volume 786.85 L** **Analyzed:** 07/10/2013

Analyte	ug/sample	ug/m³	RL (ug/sample)
Organic Carbon	**16**	**20**	4.9
Elemental Carbon	**1.7**	**2.1**	1.7
Total Carbon	**18**	**22**	

Sample ID: **070313-D-TEACH** Media: Impactor for Elemental Carbon Collected: 07/03/2013
Lab ID: 1318942002 Sampling Location: Skykomish, WA Received: 07/08/2013
Method: **NIOSH 5040** **Sampling Parameter:** **Air Volume 808.01 L** **Analyzed:** 07/10/2013

Analyte	ug/sample	ug/m³	RL (ug/sample)
Organic Carbon	**16**	**20**	4.9
Elemental Carbon	<1.7	<2.1	1.7
Total Carbon	**16**	**20**	

Report Authorization

Method	Analyst	Peer Review
NIOSH 5040	Neil Brasfield	Thomas T. McKay

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT

Workorder: **34-1318942**
Client Project ID: Skykomish, WA 070813
Purchase Order: Skykomish, WA
Project Manager: Paul Pope

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
** No result could be reported, see sample comments for details.
< This testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

Alpha Analytical
Certificates of Analysis

ANALYTICAL REPORT

Lab Number:	L1312649
Client:	EMB Consulting P.O. Box 5171 Lynnwood, WA 98046
ATTN:	Elisabeth Black
Phone:	(206) 915-2395
Project Name:	SKYKOMISH SCHOOLYARD
Project Number:	1042
Report Date:	07/15/13

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: SKYKOMISH SCHOOLYARD
Project Number: 1042

Lab Number: L1312649
Report Date: 07/15/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1312649-01	070113-HC-DW	SKYKOMISH, WA	07/01/13 16:21
L1312649-02	070113-HC-TEACH	SKYKOMISH, WA	07/01/13 16:15

Project Name: SKYKOMISH SCHOOLYARD **Lab Number:** L1312649

Project Number: 1042 **Report Date:** 07/15/13

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: SKYKOMISH SCHOOLYARD **Lab Number:** L1312649
Project Number: 1042 **Report Date:** 07/15/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: SKYKOMISH SCHOOLYARD **Lab Number:** L1312649
Project Number: 1042 **Report Date:** 07/15/13

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on June 18, 2013. The canister certification results are provided as an addendum.

MCP Related Narratives

Petroleum Hydrocarbons in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

Sample Receipt

No flow controller to sample association could be made. The RPD of the pre- and post-flow controller calibration checks were within acceptable limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 07/15/13

AIR

Project Name: SKYKOMISH SCHOOLYARD
Project Number: 1042
Lab Number: L1312649
Report Date: 07/15/13

SAMPLE RESULTS

Lab ID: L1312649-01
Client ID: 070113-HC-DW
Sample Location: SKYKOMISH, WA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/09/13 18:50
Analyst: MB

Date Collected: 07/01/13 16:21
Date Received: 07/08/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	77		60-140
chlorobenzene-d5	87		60-140

Project Name: SKYKOMISH SCHOOLYARD
Project Number: 1042
Lab Number: L1312649
Report Date: 07/15/13

SAMPLE RESULTS

Lab ID: L1312649-02
Client ID: 070113-HC-TEACH
Sample Location: SKYKOMISH, WA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/09/13 19:22
Analyst: MB

Date Collected: 07/01/13 16:15
Date Received: 07/08/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	81		60-140
chlorobenzene-d5	90		60-140

Project Name: SKYKOMISH SCHOOLYARD
Project Number: 1042
Lab Number: L1312649
Report Date: 07/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 07/09/13 15:49

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG620468-4								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: SKYKOMISH SCHOOLYARD **Lab Number:** L1312649

Project Number: 1042 **Report Date:** 07/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 07/09/13 15:49

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG620468-4								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: SKYKOMISH SCHOOLYARD
Project Number: 1042
Lab Number: L1312649
Report Date: 07/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 07/09/13 15:49

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG620468-4								
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD

Project Number: 1042

Lab Number: L1312649

Report Date: 07/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG620468-3								
Dichlorodifluoromethane	95		-		70-130	-		25
Chloromethane	92		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	96		-		70-130	-		25
Vinyl chloride	94		-		70-130	-		25
1,3-Butadiene	97		-		70-130	-		25
Bromomethane	95		-		70-130	-		25
Chloroethane	92		-		70-130	-		25
Acetone	100		-		70-130	-		25
Trichlorofluoromethane	96		-		70-130	-		25
Acrylonitrile	92		-		70-130	-		25
1,1-Dichloroethene	95		-		70-130	-		25
Methylene chloride	98		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	97		-		70-130	-		25
Halothane	105		-		70-130	-		25
trans-1,2-Dichloroethene	84		-		70-130	-		25
1,1-Dichloroethane	91		-		70-130	-		25
Methyl tert butyl ether	86		-		70-130	-		25
2-Butanone	90		-		70-130	-		25
cis-1,2-Dichloroethene	102		-		70-130	-		25
Chloroform	98		-		70-130	-		25
1,2-Dichloroethane	92		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD

Project Number: 1042

Lab Number: L1312649

Report Date: 07/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG620468-3								
1,1,1-Trichloroethane	96		-		70-130	-		25
Benzene	92		-		70-130	-		25
Carbon tetrachloride	93		-		70-130	-		25
1,2-Dichloropropane	94		-		70-130	-		25
Bromodichloromethane	88		-		70-130	-		25
1,4-Dioxane	89		-		70-130	-		25
Trichloroethene	97		-		70-130	-		25
cis-1,3-Dichloropropene	94		-		70-130	-		25
4-Methyl-2-pentanone	93		-		70-130	-		25
trans-1,3-Dichloropropene	79		-		70-130	-		25
1,1,2-Trichloroethane	101		-		70-130	-		25
Toluene	98		-		70-130	-		25
Dibromochloromethane	88		-		70-130	-		25
1,2-Dibromoethane	102		-		70-130	-		25
Tetrachloroethene	101		-		70-130	-		25
1,1,1,2-Tetrachloroethane	92		-		70-130	-		25
Chlorobenzene	100		-		70-130	-		25
Ethylbenzene	98		-		70-130	-		25
p/m-Xylene	100		-		70-130	-		25
Bromoform	81		-		70-130	-		25
Styrene	98		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD

Project Number: 1042

Lab Number: L1312649

Report Date: 07/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG620468-3								
1,1,2,2-Tetrachloroethane	104		-		70-130	-		25
o-Xylene	100		-		70-130	-		25
Isopropylbenzene	97		-		70-130	-		25
4-Ethyltoluene	86		-		70-130	-		25
1,3,5-Trimethylbenzene	99		-		70-130	-		25
1,2,4-Trimethylbenzene	100		-		70-130	-		25
1,3-Dichlorobenzene	104		-		70-130	-		25
1,4-Dichlorobenzene	101		-		70-130	-		25
sec-Butylbenzene	94		-		70-130	-		25
p-Isopropyltoluene	90		-		70-130	-		25
1,2-Dichlorobenzene	102		-		70-130	-		25
n-Butylbenzene	98		-		70-130	-		25
1,2,4-Trichlorobenzene	116		-		70-130	-		25
Naphthalene	109		-		70-130	-		25
1,2,3-Trichlorobenzene	117		-		70-130	-		25
Hexachlorobutadiene	107		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD
Project Number: 1042

Lab Number: L1312649
Report Date: 07/15/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG620468-5 QC Sample: L1312649-02 Client ID: 070113-HC-TEACH						
1,3-Butadiene	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Naphthalene	ND	ND	ppbV	NC		25

Project Name: SKYKOMISH SCHOOLYARD **Lab Number:** L1312649

Project Number: 1042 **Report Date:** 07/15/13

SAMPLE RESULTS

Lab ID:	L1312649-01	Date Collected:	07/01/13 16:21
Client ID:	070113-HC-DW	Date Received:	07/08/13
Sample Location:	SKYKOMISH, WA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	07/09/13 18:50		
Analyst:	MB		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	100		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	300		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		50-200
Bromochloromethane	78		50-200
Chlorobenzene-d5	89		50-200

Project Name: SKYKOMISH SCHOOLYARD
Lab Number: L1312649
Project Number: 1042
Report Date: 07/15/13

SAMPLE RESULTS

Lab ID:	L1312649-02	Date Collected:	07/01/13 16:15
Client ID:	070113-HC-TEACH	Date Received:	07/08/13
Sample Location:	SKYKOMISH, WA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	07/09/13 19:22		
Analyst:	MB		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	60		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	240		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		50-200
Bromochloromethane	81		50-200
Chlorobenzene-d5	92		50-200

Project Name: SKYKOMISH SCHOOLYARD **Lab Number:** L1312649

Project Number: 1042 **Report Date:** 07/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 07/09/13 15:49
Analyst: MB

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-02 Batch: WG620467-4					
1,3-Butadiene	ND		ug/m3	2.0	--
Methyl tert butyl ether	ND		ug/m3	2.0	--
Benzene	ND		ug/m3	2.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--
Toluene	ND		ug/m3	2.0	--
Ethylbenzene	ND		ug/m3	2.0	--
p/m-Xylene	ND		ug/m3	4.0	--
o-Xylene	ND		ug/m3	2.0	--
Naphthalene	ND		ug/m3	2.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD

Project Number: 1042

Lab Number: L1312649

Report Date: 07/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG620467-3								
1,3-Butadiene	84		-		70-130	-		
Methyl tert butyl ether	80		-		70-130	-		
Benzene	91		-		70-130	-		
C5-C8 Aliphatics, Adjusted	89		-		70-130	-		
Toluene	96		-		70-130	-		
Ethylbenzene	95		-		70-130	-		
p/m-Xylene	95		-		70-130	-		
o-Xylene	96		-		70-130	-		
Naphthalene	97		-		50-150	-		
C9-C12 Aliphatics, Adjusted	101		-		70-130	-		
C9-C10 Aromatics Total	84		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD
Project Number: 1042

Lab Number: L1312649
Report Date: 07/15/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG620467-5 QC Sample: L1312649-02 Client ID: 070113-HC-TEACH						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	60	67	ug/m3	11		30
Toluene	ND	ND	ug/m3	NC		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	240	260	ug/m3	8		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

Project Name: SKYKOMISH SCHOOLYARD

Lab Number: L1312649

Project Number: 1042

Report Date: 07/15/13

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1312649-01	070113-HC-DW	202	2.7L Can	06/18/13	89732	L1310597-01	-	-29.5	-10.1	-	-	-	-
L1312649-02	070113-HC-TEACH	326	2.7L Can	06/18/13	89732	L1310597-01	Pass	-29.4	-9.0	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/15/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 06/11/13 19:31
Analyst: MB

Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/15/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/15/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1310597
Report Date: 07/15/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:

Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1310597

Project Number: CANISTER QC BAT **Report Date:** 07/15/13

Air Canister Certification Results

Lab ID: L1310597-01 Date Collected: 06/10/13 17:53

Client ID: CAN 208 SHELF 2 Date Received: 06/11/13

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/15/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/11/13 19:31
Analyst: MB

Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/15/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1310597

Project Number: CANISTER QC BAT **Report Date:** 07/15/13

Air Canister Certification Results

Lab ID: L1310597-01 Date Collected: 06/10/13 17:53

Client ID: CAN 208 SHELF 2 Date Received: 06/11/13

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1310597

Project Number: CANISTER QC BAT **Report Date:** 07/15/13

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1310597-01	Date Collected:	06/10/13 17:53
Client ID:	CAN 208 SHELF 2	Date Received:	06/11/13
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/11/13 19:31		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: SKYKOMISH SCHOOLYARD
Project Number: 1042

Lab Number: L1312649
Report Date: 07/15/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**
Cooler
N/A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1312649-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM(30)
L1312649-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	SKYKOMISH SCHOOLYARD	**Lab Number:**	L1312649
Project Number:	1042	**Report Date:**	07/15/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report

Project Name:	SKYKOMISH SCHOOLYARD	**Lab Number:**	L1312649
Project Number:	1042	**Report Date:**	07/15/13

Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	SKYKOMISH SCHOOLYARD	**Lab Number:**	L1312649
Project Number:	1042	**Report Date:**	07/15/13

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Serial_No:07151314:09

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1312649

Project Information

Project Name: SKYKOMISH SCHOOLYARD

Project Location: SKYKOMISH, WA

Project #: 1042

Project Manager:

ALPHA Quote #:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Client Information

Client: EMB CONSULTING

Address: PO BOX 5171

LYNNWOOD, WA 98046

Phone: (206) 915 2395

Fax:

Email: EMBLACKCONSULT@GMAIL.COM

☐ These samples have been previously analyzed by Alpha

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Turn-Around Time

☐ Standard ☒ RUSH *(only confirmed if pre-approved!)*

Date Due: Time:

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: APH; Sim (BENZENE, 1,3 BUTADIENE, NAPHTHALENE)

SAMPLE HANDLING
Filtration ________
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	APH	Sim (BENZENE, 1,3 BUTADIENE, NAPHTHALENE)	Sample Specific Comments	TOTAL # BOTTLES
L1312649-1	070113-HC-DW	7/1/13	1621		RL	X	X		
-2	070113-HC-TEACH	7/1/13	1615		RL	↓	↓		

Container Type	
Preservative	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
~~RUSSELL Lori~~		USPS	
USPS	7/8/13 1415	[signature]	7/8/13 1415

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

DataRam4
Respirable Dust Data

"Model Number"	"DataRAM 4 "	106	**Down Wind**
"Serial no. "	"D738 "		**1-Jul-13**
"Device no. "	1		
"Tag Number "	4		
"Start Time "	22:15:37		
"Start Date "	29-Jan-2000		
"Log Period "	00:01:00		
"Number "	659		
"CalFactor "	1		
"Unit "	0		
"Unit Name "	"(MASS)ug/m3"		
"SIZE_CORRECT"	"DISABLED"		
"TEMPUNITS "	C		
"Max MASS "	61.49964		
"Max MASS @ "	356	4:11:37	30-Jan-00
"Avg MASS "	8.58161		
"Max Diam "	1.997449		
"Max Diam @ "	30	22:45:37	29-Jan-00
"Avg Diam "	0.346594		
"ALARM "	"DISABLED"		
"ALARM_LEVEL "	0		
"AUTO_ZERO "	"DISABLED"		
"AZ INTERVAL "	1		
"Errors "	3000		

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	6.5	21.7	59	0.3485	22:16:37	29-Jan-00
2	14.3	21.8	60	0.4354	22:17:37	29-Jan-00
3	22.3	21.9	61	1.0564	22:18:37	29-Jan-00
4	7.5	22.1	61	0.4834	22:19:37	29-Jan-00
5	5.4	22.1	61	0.3771	22:20:37	29-Jan-00
6	6.9	22.3	61	0.4067	22:21:37	29-Jan-00
7	6.5	22.4	61	0.3789	22:22:37	29-Jan-00
8	9.2	22.5	61	0.4519	22:23:37	29-Jan-00
9	16.3	22.7	61	0.8865	22:24:37	29-Jan-00
10	6.3	22.8	61	0.4601	22:25:37	29-Jan-00
11	6.4	23	60	0.3608	22:26:37	29-Jan-00
12	6.8	23.1	60	0.4125	22:27:37	29-Jan-00
13	7.2	23.2	60	0.4266	22:28:37	29-Jan-00
14	12.2	23.3	60	0.7406	22:29:37	29-Jan-00
15	6.3	23.5	59	0.4225	22:30:37	29-Jan-00
16	6.1	23.6	59	0.4282	22:31:37	29-Jan-00
17	5.8	23.7	59	0.421	22:32:37	29-Jan-00
18	6	23.8	59	0.3675	22:33:37	29-Jan-00
19	5.5	24	59	0.3788	22:34:37	29-Jan-00
20	5.5	24.1	58	0.3551	22:35:37	29-Jan-00
21	6.7	24.3	58	0.3941	22:36:37	29-Jan-00
22	5.2	24.4	58	0.3336	22:37:37	29-Jan-00
23	14.7	24.5	57	0.3829	22:38:37	29-Jan-00

24	14.9	24.6	57	0.729	22:39:37	29-Jan-00
25	7	24.8	57	0.4617	22:40:37	29-Jan-00
26	7.1	24.9	56	0.3983	22:41:37	29-Jan-00
27	6.5	25.1	56	0.3845	22:42:37	29-Jan-00
28	5.3	25.2	56	0.3514	22:43:37	29-Jan-00
29	17.2	25.4	55	0.4334	22:44:37	29-Jan-00
30	31.1	25.5	55	1.9974	22:45:37	29-Jan-00
31	7.6	25.6	55	0.5192	22:46:37	29-Jan-00
32	7.3	25.7	54	0.4608	22:47:37	29-Jan-00
33	4.9	25.9	54	0.347	22:48:37	29-Jan-00
34	5.4	26	54	0.3681	22:49:37	29-Jan-00
35	5	26.2	54	0.3634	22:50:37	29-Jan-00
36	4.5	26.3	53	0.3355	22:51:37	29-Jan-00
37	5.1	26.5	53	0.3193	22:52:37	29-Jan-00
38	6.3	26.6	53	0.3425	22:53:37	29-Jan-00
39	5.1	26.7	52	0.3412	22:54:37	29-Jan-00
40	4.4	26.9	52	0.3095	22:55:37	29-Jan-00
41	5.7	27	51	0.3594	22:56:37	29-Jan-00
42	5	27.1	51	0.3605	22:57:37	29-Jan-00
43	5.5	27.3	51	0.374	22:58:37	29-Jan-00
44	4.5	27.4	51	0.3583	22:59:37	29-Jan-00
45	5.6	27.6	51	0.3659	23:00:37	29-Jan-00
46	5	27.7	51	0.3666	23:01:37	29-Jan-00
47	5.3	27.8	50	0.366	23:02:37	29-Jan-00
48	4.7	28	50	0.3491	23:03:37	29-Jan-00
49	4.7	28.1	50	0.3925	23:04:37	29-Jan-00
50	4.8	28.2	50	0.3567	23:05:37	29-Jan-00
51	4.4	28.3	50	0.3137	23:06:37	29-Jan-00
52	4.8	28.5	49	0.3474	23:07:37	29-Jan-00
53	5.4	28.6	49	0.3787	23:08:37	29-Jan-00
54	4.9	28.7	49	0.3461	23:09:37	29-Jan-00
55	4.1	28.9	48	0.3086	23:10:37	29-Jan-00
56	5.2	29	47	0.3223	23:11:37	29-Jan-00
57	5.8	29.1	46	0.3449	23:12:37	29-Jan-00
58	6.1	29.2	46	0.343	23:13:37	29-Jan-00
59	6.6	29.4	46	0.4449	23:14:37	29-Jan-00
60	5.8	29.5	46	0.3735	23:15:37	29-Jan-00
61	5.8	29.7	45	0.3294	23:16:37	29-Jan-00
62	5.4	29.8	45	0.2748	23:17:37	29-Jan-00
63	5.2	30	44	0.3193	23:18:37	29-Jan-00
64	4.4	30.1	44	0.3183	23:19:37	29-Jan-00
65	4	30.2	44	0.2925	23:20:37	29-Jan-00
66	5.3	30.4	45	0.3711	23:21:37	29-Jan-00
67	4.5	30.6	45	0.3006	23:22:37	29-Jan-00
68	7.9	30.7	45	0.3022	23:23:37	29-Jan-00
69	9.7	30.8	45	0.5111	23:24:37	29-Jan-00
70	4.9	31	45	0.3714	23:25:37	29-Jan-00
71	4.3	31.1	45	0.3603	23:26:37	29-Jan-00

72	5.3	31.2	44	0.382	23:27:37	29-Jan-00
73	4.4	31.4	44	0.3207	23:28:37	29-Jan-00
74	5.7	31.5	43	0.3628	23:29:37	29-Jan-00
75	4.5	31.6	42	0.2978	23:30:37	29-Jan-00
76	4.5	31.7	42	0.3024	23:31:37	29-Jan-00
77	4.6	31.9	42	0.3182	23:32:37	29-Jan-00
78	4.7	32	42	0.3247	23:33:37	29-Jan-00
79	11.1	32.1	41	0.4394	23:34:37	29-Jan-00
80	5.5	32.2	41	0.356	23:35:37	29-Jan-00
81	4.8	32.4	41	0.3184	23:36:37	29-Jan-00
82	4.1	32.5	40	0.3299	23:37:37	29-Jan-00
83	4.6	32.6	40	0.3239	23:38:37	29-Jan-00
84	4.5	32.7	40	0.3661	23:39:37	29-Jan-00
85	4.6	32.7	39	0.3161	23:40:37	29-Jan-00
86	4.4	32.8	39	0.3349	23:41:37	29-Jan-00
87	4.5	32.9	39	0.3319	23:42:37	29-Jan-00
88	4.5	33	39	0.358	23:43:37	29-Jan-00
89	4.4	33	39	0.3295	23:44:37	29-Jan-00
90	6.5	33.1	39	0.3594	23:45:37	29-Jan-00
91	7.1	33.2	39	0.3713	23:46:37	29-Jan-00
92	3.8	33.2	38	0.2763	23:47:37	29-Jan-00
93	3.8	33.3	38	0.3052	23:48:37	29-Jan-00
94	4.1	33.4	38	0.2829	23:49:37	29-Jan-00
95	4.3	33.5	38	0.3031	23:50:37	29-Jan-00
96	4.3	33.5	37	0.3374	23:51:37	29-Jan-00
97	8	33.6	37	0.298	23:52:37	29-Jan-00
98	12.4	33.6	37	0.4739	23:53:37	29-Jan-00
99	5.7	33.6	37	0.4079	23:54:37	29-Jan-00
100	4.6	33.6	37	0.3334	23:55:37	29-Jan-00
101	11.3	33.6	37	0.3353	23:56:37	29-Jan-00
102	22.2	33.6	37	0.8523	23:57:37	29-Jan-00
103	13.4	33.6	37	0.7688	23:58:37	29-Jan-00
104	5.2	33.6	37	0.3123	23:59:37	29-Jan-00
105	5.8	33.6	37	0.3348	0:00:37	30-Jan-00
106	4.9	33.5	36	0.3316	0:01:37	30-Jan-00
107	4.7	33.5	37	0.2751	0:02:37	30-Jan-00
108	5.2	33.5	36	0.3243	0:03:37	30-Jan-00
109	6.6	33.5	36	0.3196	0:04:37	30-Jan-00
110	37.7	33.4	36	1.5887	0:05:37	30-Jan-00
111	8.8	33.4	37	0.538	0:06:37	30-Jan-00
112	16	33.3	37	0.4279	0:07:37	30-Jan-00
113	6.5	33.3	37	0.3214	0:08:37	30-Jan-00
114	4.8	33.2	37	0.2778	0:09:37	30-Jan-00
115	4.7	33.2	36	0.26	0:10:37	30-Jan-00
116	4.9	33.1	36	0.262	0:11:37	30-Jan-00
117	5.5	33.1	36	0.2764	0:12:37	30-Jan-00
118	5	33	36	0.2551	0:13:37	30-Jan-00
119	4.6	33	36	0.2609	0:14:37	30-Jan-00

120	4.9	32.9	36	0.2598	0:15:37	30-Jan-00
121	4.9	32.8	36	0.2603	0:16:37	30-Jan-00
122	6	32.7	36	0.2674	0:17:37	30-Jan-00
123	5.5	32.6	36	0.2891	0:18:37	30-Jan-00
124	9	32.6	37	0.2768	0:19:37	30-Jan-00
125	9.1	32.5	37	0.33	0:20:37	30-Jan-00
126	10	32.5	37	0.3808	0:21:37	30-Jan-00
127	6.1	32.4	37	0.2976	0:22:37	30-Jan-00
128	7.4	32.3	37	0.3025	0:23:37	30-Jan-00
129	8	32.2	37	0.3098	0:24:37	30-Jan-00
130	10.9	32.1	37	0.3617	0:25:37	30-Jan-00
131	6.3	32.1	38	0.2752	0:26:37	30-Jan-00
132	5.5	32	38	0.2867	0:27:37	30-Jan-00
133	5.7	31.9	38	0.2513	0:28:37	30-Jan-00
134	6.3	31.9	38	0.2555	0:29:37	30-Jan-00
135	6.9	31.8	38	0.2595	0:30:37	30-Jan-00
136	20.1	31.7	39	0.6041	0:31:37	30-Jan-00
137	13.6	31.6	39	0.6318	0:32:37	30-Jan-00
138	9.7	31.6	39	0.3585	0:33:37	30-Jan-00
139	17.4	31.5	39	0.4755	0:34:37	30-Jan-00
140	10.9	31.4	40	0.3313	0:35:37	30-Jan-00
141	16.2	31.3	40	0.4419	0:36:37	30-Jan-00
142	16.7	31.2	40	0.6638	0:37:37	30-Jan-00
143	8.4	31.1	40	0.2919	0:38:37	30-Jan-00
144	10.7	31.1	40	0.3546	0:39:37	30-Jan-00
145	10.8	31	40	0.3171	0:40:37	30-Jan-00
146	7.6	30.9	40	0.255	0:41:37	30-Jan-00
147	7.4	30.8	40	0.2355	0:42:37	30-Jan-00
148	9.3	30.7	41	0.3324	0:43:37	30-Jan-00
149	9.8	30.7	41	0.3357	0:44:37	30-Jan-00
150	11	30.6	41	0.2884	0:45:37	30-Jan-00
151	9.9	30.6	41	0.2948	0:46:37	30-Jan-00
152	7.7	30.5	41	0.3021	0:47:37	30-Jan-00
153	7.6	30.5	42	0.2218	0:48:37	30-Jan-00
154	9.2	30.5	42	0.2645	0:49:37	30-Jan-00
155	7.4	30.4	42	0.2688	0:50:37	30-Jan-00
156	7.8	30.4	42	0.2821	0:51:37	30-Jan-00
157	6.9	30.4	42	0.269	0:52:37	30-Jan-00
158	7.7	30.3	42	0.2389	0:53:37	30-Jan-00
159	8.4	30.3	43	0.2942	0:54:37	30-Jan-00
160	7.5	30.3	42	0.2275	0:55:37	30-Jan-00
161	7.8	30.3	42	0.2514	0:56:37	30-Jan-00
162	8.4	30.2	43	0.2375	0:57:37	30-Jan-00
163	8.2	30.2	43	0.3035	0:58:37	30-Jan-00
164	6.7	30.2	43	0.2417	0:59:37	30-Jan-00
165	7.5	30.2	43	0.2318	1:00:37	30-Jan-00
166	7.8	30.2	43	0.2744	1:01:37	30-Jan-00
167	8	30.2	43	0.2636	1:02:37	30-Jan-00

168	7.5	30.2	43	0.2727	1:03:37	30-Jan-00
169	7.3	30.2	43	0.2403	1:04:37	30-Jan-00
170	8.2	30.3	43	0.2288	1:05:37	30-Jan-00
171	8.2	30.2	43	0.2739	1:06:37	30-Jan-00
172	7	30.2	43	0.227	1:07:37	30-Jan-00
173	7.3	30.2	43	0.2527	1:08:37	30-Jan-00
174	6.8	30.2	43	0.2416	1:09:37	30-Jan-00
175	7.3	30.1	43	0.2537	1:10:37	30-Jan-00
176	7	30.1	43	0.2496	1:11:37	30-Jan-00
177	7	30.1	43	0.22	1:12:37	30-Jan-00
178	7.7	30.1	43	0.2348	1:13:37	30-Jan-00
179	7	30	43	0.2444	1:14:37	30-Jan-00
180	7.4	30	43	0.2202	1:15:37	30-Jan-00
181	8.4	30	44	0.2448	1:16:37	30-Jan-00
182	10.8	30	44	0.2713	1:17:37	30-Jan-00
183	9.1	30	44	0.3057	1:18:37	30-Jan-00
184	8.1	30	44	0.2549	1:19:37	30-Jan-00
185	9.3	30	44	0.2591	1:20:37	30-Jan-00
186	8.4	30	44	0.2533	1:21:37	30-Jan-00
187	7.2	30	43	0.2452	1:22:37	30-Jan-00
188	8.9	29.9	43	0.2355	1:23:37	30-Jan-00
189	8.7	29.9	44	0.2314	1:24:37	30-Jan-00
190	8.3	29.9	44	0.2497	1:25:37	30-Jan-00
191	18.6	29.9	44	0.4083	1:26:37	30-Jan-00
192	12.9	29.9	44	0.4442	1:27:37	30-Jan-00
193	13.8	29.8	44	0.3375	1:28:37	30-Jan-00
194	8.8	29.8	44	0.286	1:29:37	30-Jan-00
195	9.4	29.8	44	0.2673	1:30:37	30-Jan-00
196	10.3	29.8	45	0.3084	1:31:37	30-Jan-00
197	10.8	29.8	45	0.3305	1:32:37	30-Jan-00
198	7.9	29.8	45	0.2479	1:33:37	30-Jan-00
199	9.7	29.8	45	0.2805	1:34:37	30-Jan-00
200	8.1	29.8	45	0.2517	1:35:37	30-Jan-00
201	8	29.8	45	0.2547	1:36:37	30-Jan-00
202	7.7	29.8	45	0.2381	1:37:37	30-Jan-00
203	7.5	29.8	45	0.2554	1:38:37	30-Jan-00
204	7.6	29.8	45	0.2411	1:39:37	30-Jan-00
205	7.6	29.9	45	0.2588	1:40:37	30-Jan-00
206	8.9	29.9	45	0.24	1:41:37	30-Jan-00
207	8.7	29.9	45	0.2546	1:42:37	30-Jan-00
208	8.2	29.9	45	0.244	1:43:37	30-Jan-00
209	19.3	29.9	45	0.4017	1:44:37	30-Jan-00
210	10	29.9	45	0.3003	1:45:37	30-Jan-00
211	10.4	29.9	45	0.3394	1:46:37	30-Jan-00
212	43.6	30	45	0.6689	1:47:37	30-Jan-00
213	16	30	45	0.4376	1:48:37	30-Jan-00
214	20	30	45	0.5539	1:49:37	30-Jan-00
215	9.9	30	45	0.3675	1:50:37	30-Jan-00

216	14	30	45	0.4351	1:51:37	30-Jan-00
217	19	30.1	45	0.5567	1:52:37	30-Jan-00
218	12.7	30.1	45	0.3708	1:53:37	30-Jan-00
219	9.4	30.1	45	0.2419	1:54:37	30-Jan-00
220	7.2	30.1	44	0.2192	1:55:37	30-Jan-00
221	7.6	30.1	44	0.239	1:56:37	30-Jan-00
222	7.5	30.2	45	0.2358	1:57:37	30-Jan-00
223	9.2	30.2	45	0.2487	1:58:37	30-Jan-00
224	10.1	30.2	45	0.2664	1:59:37	30-Jan-00
225	10.8	30.3	45	0.2816	2:00:37	30-Jan-00
226	29.2	30.3	44	0.6815	2:01:37	30-Jan-00
227	14.7	30.3	44	0.3523	2:02:37	30-Jan-00
228	11.8	30.4	44	0.3202	2:03:37	30-Jan-00
229	10.4	30.4	44	0.3218	2:04:37	30-Jan-00
230	9.8	30.5	44	0.2882	2:05:37	30-Jan-00
231	12.8	30.5	44	0.3506	2:06:37	30-Jan-00
232	8.7	30.5	44	0.2515	2:07:37	30-Jan-00
233	7.6	30.6	44	0.2159	2:08:37	30-Jan-00
234	8.9	30.6	44	0.2634	2:09:37	30-Jan-00
235	8.8	30.6	44	0.2527	2:10:37	30-Jan-00
236	8.5	30.7	44	0.2418	2:11:37	30-Jan-00
237	8.3	30.7	44	0.2787	2:12:37	30-Jan-00
238	8.9	30.8	44	0.249	2:13:37	30-Jan-00
239	18.7	30.9	43	0.4364	2:14:37	30-Jan-00
240	10	30.9	43	0.3112	2:15:37	30-Jan-00
241	8.5	31	44	0.257	2:16:37	30-Jan-00
242	9	31	43	0.2689	2:17:37	30-Jan-00
243	7.1	31.1	43	0.2516	2:18:37	30-Jan-00
244	7.6	31.1	43	0.2407	2:19:37	30-Jan-00
245	6.9	31.2	43	0.2307	2:20:37	30-Jan-00
246	8.3	31.2	43	0.2302	2:21:37	30-Jan-00
247	8.3	31.3	43	0.2664	2:22:37	30-Jan-00
248	8.2	31.4	43	0.2627	2:23:37	30-Jan-00
249	8.6	31.5	43	0.2522	2:24:37	30-Jan-00
250	8.6	31.5	43	0.237	2:25:37	30-Jan-00
251	8.2	31.6	43	0.2245	2:26:37	30-Jan-00
252	7.9	31.6	43	0.251	2:27:37	30-Jan-00
253	9.9	31.7	43	0.2702	2:28:37	30-Jan-00
254	7.2	31.7	43	0.261	2:29:37	30-Jan-00
255	7.4	31.7	43	0.2405	2:30:37	30-Jan-00
256	8.9	31.7	43	0.2937	2:31:37	30-Jan-00
257	9.5	31.8	43	0.3029	2:32:37	30-Jan-00
258	11.8	31.8	43	0.2675	2:33:37	30-Jan-00
259	9.5	31.9	43	0.311	2:34:37	30-Jan-00
260	11.8	31.9	43	0.3283	2:35:37	30-Jan-00
261	9.5	31.9	42	0.2638	2:36:37	30-Jan-00
262	9.4	31.9	42	0.2989	2:37:37	30-Jan-00
263	7.3	31.9	42	0.2505	2:38:37	30-Jan-00

264	7.3	32	42	0.2298	2:39:37	30-Jan-00
265	8.7	32	42	0.2691	2:40:37	30-Jan-00
266	8.4	32	42	0.249	2:41:37	30-Jan-00
267	7.8	31.9	42	0.2711	2:42:37	30-Jan-00
268	9.5	31.9	42	0.3	2:43:37	30-Jan-00
269	7.9	31.9	42	0.2546	2:44:37	30-Jan-00
270	9	31.9	42	0.2399	2:45:37	30-Jan-00
271	13.2	31.9	42	0.3864	2:46:37	30-Jan-00
272	9.3	31.9	42	0.2789	2:47:37	30-Jan-00
273	7.3	31.8	42	0.2429	2:48:37	30-Jan-00
274	7.9	31.8	42	0.2363	2:49:37	30-Jan-00
275	8.4	31.8	42	0.2438	2:50:37	30-Jan-00
276	7.7	31.8	42	0.2603	2:51:37	30-Jan-00
277	7.6	31.8	42	0.2439	2:52:37	30-Jan-00
278	9.3	31.7	42	0.2709	2:53:37	30-Jan-00
279	8.1	31.7	43	0.2495	2:54:37	30-Jan-00
280	8	31.7	43	0.2388	2:55:37	30-Jan-00
281	9.4	31.7	43	0.2616	2:56:37	30-Jan-00
282	10.2	31.7	43	0.2806	2:57:37	30-Jan-00
283	7.4	31.7	43	0.252	2:58:37	30-Jan-00
284	8.2	31.7	43	0.252	2:59:37	30-Jan-00
285	9	31.8	43	0.2649	3:00:37	30-Jan-00
286	10.5	31.8	43	0.3715	3:01:37	30-Jan-00
287	7.8	31.8	43	0.2723	3:02:37	30-Jan-00
288	9.1	31.8	43	0.2711	3:03:37	30-Jan-00
289	8	31.8	43	0.2532	3:04:37	30-Jan-00
290	10.6	31.8	43	0.3527	3:05:37	30-Jan-00
291	8	31.9	42	0.26	3:06:37	30-Jan-00
292	9.1	31.9	42	0.2627	3:07:37	30-Jan-00
293	11.3	31.9	42	0.3573	3:08:37	30-Jan-00
294	8.5	31.9	42	0.3179	3:09:37	30-Jan-00
295	8.5	31.9	42	0.2895	3:10:37	30-Jan-00
296	8	31.9	42	0.3027	3:11:37	30-Jan-00
297	8.3	32	42	0.3176	3:12:37	30-Jan-00
298	8.9	32	42	0.2947	3:13:37	30-Jan-00
299	7.5	32	41	0.28	3:14:37	30-Jan-00
300	9.4	32.1	42	0.2783	3:15:37	30-Jan-00
301	11.6	32	41	0.2633	3:16:37	30-Jan-00
302	9.6	32.1	41	0.3625	3:17:37	30-Jan-00
303	11.5	32.1	41	0.4152	3:18:37	30-Jan-00
304	9	32.1	41	0.39	3:19:37	30-Jan-00
305	9.1	32.1	41	0.316	3:20:37	30-Jan-00
306	9.3	32.1	41	0.313	3:21:37	30-Jan-00
307	7.7	32.1	41	0.2759	3:22:37	30-Jan-00
308	6.8	32.1	41	0.2317	3:23:37	30-Jan-00
309	7.6	32.2	41	0.2558	3:24:37	30-Jan-00
310	8.4	32.2	41	0.2563	3:25:37	30-Jan-00
311	9.5	32.2	41	0.2712	3:26:37	30-Jan-00

312	8	32.2	41	0.2698	3:27:37	30-Jan-00
313	7.9	32.2	41	0.2637	3:28:37	30-Jan-00
314	7.8	32.2	41	0.2239	3:29:37	30-Jan-00
315	7.8	32.3	41	0.2743	3:30:37	30-Jan-00
316	8.9	32.3	41	0.2658	3:31:37	30-Jan-00
317	10.2	32.3	41	0.3085	3:32:37	30-Jan-00
318	9.2	32.3	41	0.2665	3:33:37	30-Jan-00
319	9.6	32.3	41	0.3086	3:34:37	30-Jan-00
320	7.5	32.4	41	0.2666	3:35:37	30-Jan-00
321	8.7	32.4	41	0.2559	3:36:37	30-Jan-00
322	8.1	32.4	41	0.2487	3:37:37	30-Jan-00
323	8.7	32.4	41	0.2543	3:38:37	30-Jan-00
324	7.4	32.4	41	0.2576	3:39:37	30-Jan-00
325	7.8	32.5	41	0.27	3:40:37	30-Jan-00
326	9.7	32.5	41	0.3035	3:41:37	30-Jan-00
327	10.2	32.5	41	0.3279	3:42:37	30-Jan-00
328	8.5	32.5	42	0.2835	3:43:37	30-Jan-00
329	8.8	32.5	41	0.2677	3:44:37	30-Jan-00
330	7.4	32.5	41	0.2562	3:45:37	30-Jan-00
331	9.3	32.6	41	0.3094	3:46:37	30-Jan-00
332	8.4	32.5	42	0.2786	3:47:37	30-Jan-00
333	8	32.5	41	0.2738	3:48:37	30-Jan-00
334	7.9	32.6	42	0.2611	3:49:37	30-Jan-00
335	8	32.6	42	0.2638	3:50:37	30-Jan-00
336	8.9	32.6	42	0.2852	3:51:37	30-Jan-00
337	6.8	32.6	42	0.2585	3:52:37	30-Jan-00
338	7.8	32.6	41	0.2407	3:53:37	30-Jan-00
339	8.5	32.7	42	0.2505	3:54:37	30-Jan-00
340	7.6	32.7	42	0.2365	3:55:37	30-Jan-00
341	7.3	32.7	42	0.2056	3:56:37	30-Jan-00
342	10.7	32.8	41	0.2862	3:57:37	30-Jan-00
343	15.3	32.8	41	0.4606	3:58:37	30-Jan-00
344	56.6	32.9	41	1.1763	3:59:37	30-Jan-00
345	16	32.9	41	0.6728	4:00:37	30-Jan-00
346	13	33	41	0.4145	4:01:37	30-Jan-00
347	10.9	33	41	0.3415	4:02:37	30-Jan-00
348	14.5	33	41	0.3806	4:03:37	30-Jan-00
349	15.2	33	41	0.4544	4:04:37	30-Jan-00
350	14.9	33	41	0.469	4:05:37	30-Jan-00
351	11.4	33.1	41	0.4182	4:06:37	30-Jan-00
352	14	33.1	41	0.3982	4:07:37	30-Jan-00
353	11.5	33.1	41	0.373	4:08:37	30-Jan-00
354	9.5	33.2	41	0.3723	4:09:37	30-Jan-00
355	6.8	33.2	41	0.2689	4:10:37	30-Jan-00
356	61.5	33.3	41	1.242	4:11:37	30-Jan-00
357	14.3	33.4	41	0.6695	4:12:37	30-Jan-00
358	15.2	33.4	41	0.3803	4:13:37	30-Jan-00
359	8.5	33.5	40	0.3379	4:14:37	30-Jan-00

360	7	33.5	40	0.2674	4:15:37	30-Jan-00
361	5.9	33.5	40	0.2613	4:16:37	30-Jan-00
362	8.7	33.6	40	0.2535	4:17:37	30-Jan-00
363	11.7	33.6	40	0.3807	4:18:37	30-Jan-00
364	8.8	33.6	40	0.3317	4:19:37	30-Jan-00
365	9.8	33.6	40	0.3316	4:20:37	30-Jan-00
366	9.9	33.6	39	0.3676	4:21:37	30-Jan-00
367	6	33.6	39	0.2975	4:22:37	30-Jan-00
368	23.7	33.6	39	0.2972	4:23:37	30-Jan-00
369	23.5	33.7	39	0.5963	4:24:37	30-Jan-00
370	8.7	33.7	39	0.3309	4:25:37	30-Jan-00
371	7.4	33.6	39	0.2744	4:26:37	30-Jan-00
372	11.1	33.6	39	0.3591	4:27:37	30-Jan-00
373	14.8	33.6	39	0.5234	4:28:37	30-Jan-00
374	8.3	33.7	39	0.3262	4:29:37	30-Jan-00
375	9.1	33.7	39	0.3076	4:30:37	30-Jan-00
376	7.4	33.7	39	0.2625	4:31:37	30-Jan-00
377	10.6	33.7	39	0.2864	4:32:37	30-Jan-00
378	21.1	33.7	39	0.5435	4:33:37	30-Jan-00
379	33.2	33.7	39	1.2502	4:34:37	30-Jan-00
380	9	33.7	39	0.3471	4:35:37	30-Jan-00
381	9.6	33.8	39	0.3379	4:36:37	30-Jan-00
382	25.5	33.8	40	0.438	4:37:37	30-Jan-00
383	12.8	33.9	39	0.5565	4:38:37	30-Jan-00
384	6.5	34	39	0.3223	4:39:37	30-Jan-00
385	9.1	34	39	0.3725	4:40:37	30-Jan-00
386	10	34.1	39	0.3595	4:41:37	30-Jan-00
387	10.9	34.1	39	0.418	4:42:37	30-Jan-00
388	12	34.1	39	0.4346	4:43:37	30-Jan-00
389	5.8	34.2	38	0.2857	4:44:37	30-Jan-00
390	7.8	34.2	38	0.2637	4:45:37	30-Jan-00
391	6.5	34.2	38	0.2845	4:46:37	30-Jan-00
392	6.8	34.3	38	0.3088	4:47:37	30-Jan-00
393	5.5	34.3	38	0.2724	4:48:37	30-Jan-00
394	9.8	34.3	38	0.3226	4:49:37	30-Jan-00
395	5.6	34.4	38	0.2775	4:50:37	30-Jan-00
396	5.3	34.5	38	0.2664	4:51:37	30-Jan-00
397	5.6	34.5	38	0.2507	4:52:37	30-Jan-00
398	6.1	34.5	39	0.2851	4:53:37	30-Jan-00
399	7.2	34.5	38	0.3087	4:54:37	30-Jan-00
400	11.1	34.6	38	0.4176	4:55:37	30-Jan-00
401	7.5	34.6	38	0.3301	4:56:37	30-Jan-00
402	8.8	34.6	38	0.274	4:57:37	30-Jan-00
403	9.6	34.6	38	0.3352	4:58:37	30-Jan-00
404	10	34.7	37	0.348	4:59:37	30-Jan-00
405	7.3	34.7	37	0.3055	5:00:37	30-Jan-00
406	5.4	34.7	37	0.263	5:01:37	30-Jan-00
407	5.1	34.7	37	0.2598	5:02:37	30-Jan-00

408	5.9	34.7	37	0.3047	5:03:37	30-Jan-00
409	5.8	34.8	37	0.2906	5:04:37	30-Jan-00
410	6.4	34.8	37	0.2987	5:05:37	30-Jan-00
411	12.5	34.8	37	0.3929	5:06:37	30-Jan-00
412	5	34.8	37	0.2822	5:07:37	30-Jan-00
413	4.6	34.8	37	0.2679	5:08:37	30-Jan-00
414	5.4	34.9	37	0.3026	5:09:37	30-Jan-00
415	4.8	34.9	37	0.2738	5:10:37	30-Jan-00
416	5.1	34.9	37	0.2763	5:11:37	30-Jan-00
417	5.5	34.9	37	0.2925	5:12:37	30-Jan-00
418	5.7	34.9	37	0.29	5:13:37	30-Jan-00
419	5.6	34.9	37	0.2821	5:14:37	30-Jan-00
420	5.2	34.9	37	0.2715	5:15:37	30-Jan-00
421	5.9	35	37	0.2586	5:16:37	30-Jan-00
422	5	35	37	0.2767	5:17:37	30-Jan-00
423	5.1	35	37	0.2778	5:18:37	30-Jan-00
424	6.3	35	37	0.2688	5:19:37	30-Jan-00
425	7.3	35.1	37	0.2805	5:20:37	30-Jan-00
426	8.7	35.1	37	0.3538	5:21:37	30-Jan-00
427	6.1	35.1	37	0.3122	5:22:37	30-Jan-00
428	5.2	35.2	37	0.2763	5:23:37	30-Jan-00
429	8.1	35.2	37	0.3026	5:24:37	30-Jan-00
430	9.5	35.2	37	0.431	5:25:37	30-Jan-00
431	9.5	35.2	37	0.4995	5:26:37	30-Jan-00
432	10.6	35.3	36	0.5285	5:27:37	30-Jan-00
433	6	35.3	37	0.3238	5:28:37	30-Jan-00
434	11.7	35.4	36	0.5433	5:29:37	30-Jan-00
435	6.3	35.4	36	0.3806	5:30:37	30-Jan-00
436	5.6	35.4	36	0.2936	5:31:37	30-Jan-00
437	6.2	35.4	36	0.3046	5:32:37	30-Jan-00
438	6.9	35.5	36	0.3051	5:33:37	30-Jan-00
439	5.4	35.5	36	0.2627	5:34:37	30-Jan-00
440	5.4	35.5	36	0.305	5:35:37	30-Jan-00
441	8.9	35.5	36	0.3481	5:36:37	30-Jan-00
442	8.8	35.5	36	0.3995	5:37:37	30-Jan-00
443	5.6	35.5	36	0.3063	5:38:37	30-Jan-00
444	5.2	35.6	36	0.3234	5:39:37	30-Jan-00
445	5.8	35.6	36	0.3102	5:40:37	30-Jan-00
446	8.6	35.6	36	0.2988	5:41:37	30-Jan-00
447	6.6	35.6	36	0.2713	5:42:37	30-Jan-00
448	6.3	35.6	36	0.3579	5:43:37	30-Jan-00
449	15.1	35.6	36	0.4767	5:44:37	30-Jan-00
450	5.1	35.6	36	0.3712	5:45:37	30-Jan-00
451	5.4	35.6	36	0.3134	5:46:37	30-Jan-00
452	4.9	35.6	36	0.3287	5:47:37	30-Jan-00
453	4.8	35.6	36	0.315	5:48:37	30-Jan-00
454	7.5	35.5	36	0.2995	5:49:37	30-Jan-00
455	6	35.5	36	0.2925	5:50:37	30-Jan-00

456	6	35.5	36	0.3006	5:51:37	30-Jan-00
457	5.2	35.5	36	0.3176	5:52:37	30-Jan-00
458	6.3	35.5	36	0.3168	5:53:37	30-Jan-00
459	4.8	35.5	36	0.3194	5:54:37	30-Jan-00
460	4.8	35.5	36	0.2957	5:55:37	30-Jan-00
461	4	35.5	36	0.3033	5:56:37	30-Jan-00
462	5.6	35.5	36	0.2914	5:57:37	30-Jan-00
463	4.6	35.5	36	0.2919	5:58:37	30-Jan-00
464	4.6	35.5	36	0.299	5:59:37	30-Jan-00
465	9	35.5	36	0.464	6:00:37	30-Jan-00
466	4.7	35.4	36	0.369	6:01:37	30-Jan-00
467	4.6	35.4	36	0.3176	6:02:37	30-Jan-00
468	7.8	35.3	36	0.4208	6:03:37	30-Jan-00
469	5.5	35.2	36	0.3472	6:04:37	30-Jan-00
470	4.2	35.1	36	0.3092	6:05:37	30-Jan-00
471	5.6	35.1	36	0.3224	6:06:37	30-Jan-00
472	4.7	35.1	36	0.3081	6:07:37	30-Jan-00
473	4.2	35.1	36	0.3031	6:08:37	30-Jan-00
474	5.4	35.1	36	0.3419	6:09:37	30-Jan-00
475	4.9	35.1	37	0.2931	6:10:37	30-Jan-00
476	5.7	35.1	37	0.3294	6:11:37	30-Jan-00
477	5.9	35.1	37	0.3171	6:12:37	30-Jan-00
478	5.5	35.1	37	0.2977	6:13:37	30-Jan-00
479	6	35.1	37	0.3424	6:14:37	30-Jan-00
480	6.3	35.1	37	0.3613	6:15:37	30-Jan-00
481	5.8	35.2	37	0.2996	6:16:37	30-Jan-00
482	21.5	35.2	36	0.5128	6:17:37	30-Jan-00
483	7.1	35.2	36	0.5134	6:18:37	30-Jan-00
484	9.8	35.2	36	0.4328	6:19:37	30-Jan-00
485	12.8	35.2	36	0.6589	6:20:37	30-Jan-00
486	13.3	35.2	36	0.754	6:21:37	30-Jan-00
487	10.6	35.2	36	0.4675	6:22:37	30-Jan-00
488	9.9	35.2	36	0.4768	6:23:37	30-Jan-00
489	9.1	35.2	36	0.4269	6:24:37	30-Jan-00
490	6.9	35.2	36	0.3478	6:25:37	30-Jan-00
491	5.3	35.2	36	0.3337	6:26:37	30-Jan-00
492	5	35.2	37	0.3393	6:27:37	30-Jan-00
493	5.3	35.2	37	0.3227	6:28:37	30-Jan-00
494	6.3	35.3	37	0.3172	6:29:37	30-Jan-00
495	8	35.3	36	0.3714	6:30:37	30-Jan-00
496	7.4	35.3	36	0.4323	6:31:37	30-Jan-00
497	9.7	35.3	36	0.3817	6:32:37	30-Jan-00
498	6	35.3	36	0.3997	6:33:37	30-Jan-00
499	6.4	35.3	36	0.3393	6:34:37	30-Jan-00
500	6.2	35.3	36	0.3292	6:35:37	30-Jan-00
501	4.3	35.3	36	0.3147	6:36:37	30-Jan-00
502	5.4	35.3	36	0.3209	6:37:37	30-Jan-00
503	6.1	35.2	36	0.3153	6:38:37	30-Jan-00

504	7.1	35.2	36	0.3676	6:39:37	30-Jan-00
505	5.1	35.2	36	0.3428	6:40:37	30-Jan-00
506	5.9	35.2	36	0.3181	6:41:37	30-Jan-00
507	5.6	35.2	36	0.3903	6:42:37	30-Jan-00
508	5.5	35.2	36	0.322	6:43:37	30-Jan-00
509	5.5	35.2	36	0.3196	6:44:37	30-Jan-00
510	5.5	35.2	36	0.333	6:45:37	30-Jan-00
511	4.5	35.2	36	0.3329	6:46:37	30-Jan-00
512	4.9	35.2	36	0.3101	6:47:37	30-Jan-00
513	4.1	35.2	36	0.311	6:48:37	30-Jan-00
514	4	35.2	36	0.2992	6:49:37	30-Jan-00
515	4.6	35.2	36	0.3164	6:50:37	30-Jan-00
516	4.6	35.2	36	0.3378	6:51:37	30-Jan-00
517	5.3	35.2	36	0.3058	6:52:37	30-Jan-00
518	5	35.2	36	0.3086	6:53:37	30-Jan-00
519	17.6	35.2	36	0.727	6:54:37	30-Jan-00
520	9	35.2	36	0.4675	6:55:37	30-Jan-00
521	6.5	35.2	36	0.3072	6:56:37	30-Jan-00
522	11.6	35.2	36	0.4021	6:57:37	30-Jan-00
523	8.6	35.2	36	0.3416	6:58:37	30-Jan-00
524	8.3	35.2	36	0.3982	6:59:37	30-Jan-00
525	6.5	35.2	36	0.3698	7:00:37	30-Jan-00
526	8	35.2	36	0.3621	7:01:37	30-Jan-00
527	7.1	35.2	36	0.3019	7:02:37	30-Jan-00
528	7.5	35.1	36	0.3478	7:03:37	30-Jan-00
529	7.9	35.1	36	0.3602	7:04:37	30-Jan-00
530	6.4	35.1	36	0.3268	7:05:37	30-Jan-00
531	6.4	35.1	36	0.3143	7:06:37	30-Jan-00
532	8.7	35.1	36	0.3414	7:07:37	30-Jan-00
533	12.7	35.1	36	0.4959	7:08:37	30-Jan-00
534	9.2	35.1	36	0.5544	7:09:37	30-Jan-00
535	8.5	35.1	36	0.3179	7:10:37	30-Jan-00
536	7.4	35.1	36	0.3445	7:11:37	30-Jan-00
537	9	35.1	36	0.4143	7:12:37	30-Jan-00
538	6.6	35.1	36	0.4179	7:13:37	30-Jan-00
539	7.1	35.1	36	0.3872	7:14:37	30-Jan-00
540	7.7	35.1	36	0.3389	7:15:37	30-Jan-00
541	9	35.1	36	0.3279	7:16:37	30-Jan-00
542	30.1	35.1	36	0.6391	7:17:37	30-Jan-00
543	14.2	35	36	0.4626	7:18:37	30-Jan-00
544	8.3	35	36	0.3644	7:19:37	30-Jan-00
545	7.2	35	36	0.3359	7:20:37	30-Jan-00
546	5.1	35	36	0.3229	7:21:37	30-Jan-00
547	8.8	34.9	36	0.3355	7:22:37	30-Jan-00
548	7.6	34.9	36	0.3883	7:23:37	30-Jan-00
549	8.5	34.9	36	0.3594	7:24:37	30-Jan-00
550	8.8	34.9	36	0.3975	7:25:37	30-Jan-00
551	7.1	34.9	36	0.3582	7:26:37	30-Jan-00

552	8.3	34.9	36	0.4363	7:27:37	30-Jan-00
553	5.4	34.8	36	0.3483	7:28:37	30-Jan-00
554	11.4	34.8	36	0.424	7:29:37	30-Jan-00
555	7.5	34.8	36	0.3255	7:30:37	30-Jan-00
556	10.2	34.8	36	0.3284	7:31:37	30-Jan-00
557	7.8	34.8	36	0.2924	7:32:37	30-Jan-00
558	12.2	34.8	36	0.3944	7:33:37	30-Jan-00
559	8.8	34.7	36	0.4622	7:34:37	30-Jan-00
560	8.4	34.7	36	0.3279	7:35:37	30-Jan-00
561	18.5	34.7	36	0.5174	7:36:37	30-Jan-00
562	13.7	34.7	36	0.5625	7:37:37	30-Jan-00
563	15.5	34.8	36	0.7224	7:38:37	30-Jan-00
564	9.1	34.8	36	0.3312	7:39:37	30-Jan-00
565	13.8	34.8	36	0.4875	7:40:37	30-Jan-00
566	8.7	34.9	36	0.4239	7:41:37	30-Jan-00
567	6.4	34.9	36	0.3652	7:42:37	30-Jan-00
568	7.2	34.9	36	0.3501	7:43:37	30-Jan-00
569	8.1	34.9	36	0.357	7:44:37	30-Jan-00
570	6.9	35	36	0.3222	7:45:37	30-Jan-00
571	6.6	34.9	36	0.2875	7:46:37	30-Jan-00
572	6	35	36	0.2983	7:47:37	30-Jan-00
573	6.8	35	36	0.307	7:48:37	30-Jan-00
574	5.9	35	35	0.269	7:49:37	30-Jan-00
575	7.4	35	35	0.2975	7:50:37	30-Jan-00
576	7	35.1	35	0.3059	7:51:37	30-Jan-00
577	9.3	35.1	35	0.3255	7:52:37	30-Jan-00
578	4.9	35.1	35	0.314	7:53:37	30-Jan-00
579	5	35.1	35	0.3111	7:54:37	30-Jan-00
580	5.1	35.2	35	0.3364	7:55:37	30-Jan-00
581	5.8	35.2	35	0.2845	7:56:37	30-Jan-00
582	6.4	35.2	35	0.2934	7:57:37	30-Jan-00
583	5.6	35.2	35	0.3224	7:58:37	30-Jan-00
584	4.7	35.3	35	0.3075	7:59:37	30-Jan-00
585	12.2	35.2	35	0.4008	8:00:37	30-Jan-00
586	10.9	35.3	35	0.4957	8:01:37	30-Jan-00
587	7.5	35.3	35	0.3978	8:02:37	30-Jan-00
588	11.5	35.2	35	0.4371	8:03:37	30-Jan-00
589	10.3	35.3	34	0.4951	8:04:37	30-Jan-00
590	13.3	35.2	34	0.5162	8:05:37	30-Jan-00
591	10.7	35.2	34	0.4269	8:06:37	30-Jan-00
592	5.9	35.2	35	0.3779	8:07:37	30-Jan-00
593	16.7	35.2	35	0.3854	8:08:37	30-Jan-00
594	7.7	35.2	35	0.3428	8:09:37	30-Jan-00
595	6.7	35.2	35	0.3046	8:10:37	30-Jan-00
596	32.3	35.2	34	0.589	8:11:37	30-Jan-00
597	12.2	35.2	35	0.6066	8:12:37	30-Jan-00
598	5.9	35.1	35	0.3445	8:13:37	30-Jan-00
599	6.9	35.1	35	0.3618	8:14:37	30-Jan-00

600	8.4	35.1	35	0.3369	8:15:37	30-Jan-00
601	12.7	35.1	35	0.5445	8:16:37	30-Jan-00
602	5.7	35	35	0.3232	8:17:37	30-Jan-00
603	4.9	35	35	0.2589	8:18:37	30-Jan-00
604	5.6	35	35	0.3108	8:19:37	30-Jan-00
605	4.5	35	35	0.2954	8:20:37	30-Jan-00
606	6.1	34.9	35	0.2686	8:21:37	30-Jan-00
607	4.2	34.8	35	0.2763	8:22:37	30-Jan-00
608	5.3	34.7	35	0.2587	8:23:37	30-Jan-00
609	6.7	34.7	35	0.2672	8:24:37	30-Jan-00
610	6.8	34.6	35	0.2499	8:25:37	30-Jan-00
611	6.8	34.5	35	0.2725	8:26:37	30-Jan-00
612	6.9	34.3	35	0.3126	8:27:37	30-Jan-00
613	10.2	34.2	36	0.371	8:28:37	30-Jan-00
614	5.3	34.2	36	0.311	8:29:37	30-Jan-00
615	5.5	34.1	36	0.286	8:30:37	30-Jan-00
616	4.6	34	36	0.2876	8:31:37	30-Jan-00
617	4.7	33.8	36	0.3001	8:32:37	30-Jan-00
618	4.3	33.7	37	0.2864	8:33:37	30-Jan-00
619	5.2	33.6	37	0.2827	8:34:37	30-Jan-00
620	6.5	33.5	37	0.3098	8:35:37	30-Jan-00
621	5.3	33.3	37	0.318	8:36:37	30-Jan-00
622	4.9	33.2	38	0.2805	8:37:37	30-Jan-00
623	8	33.1	38	0.3108	8:38:37	30-Jan-00
624	13.1	33	38	0.3471	8:39:37	30-Jan-00
625	5.9	32.9	38	0.3215	8:40:37	30-Jan-00
626	5.9	32.8	38	0.2765	8:41:37	30-Jan-00
627	6.1	32.7	39	0.2938	8:42:37	30-Jan-00
628	5.9	32.7	39	0.2666	8:43:37	30-Jan-00
629	16.2	32.6	39	0.4628	8:44:37	30-Jan-00
630	12.8	32.6	39	0.4116	8:45:37	30-Jan-00
631	9.5	32.6	39	0.3923	8:46:37	30-Jan-00
632	16.7	32.6	39	0.5044	8:47:37	30-Jan-00
633	8.1	32.6	39	0.3655	8:48:37	30-Jan-00
634	10.4	32.6	39	0.5354	8:49:37	30-Jan-00
635	9.4	32.6	40	0.3245	8:50:37	30-Jan-00
636	5.5	32.6	40	0.3182	8:51:37	30-Jan-00
637	4.9	32.6	40	0.2891	8:52:37	30-Jan-00
638	8	32.6	39	0.2634	8:53:37	30-Jan-00
639	11.5	32.6	39	0.3932	8:54:37	30-Jan-00
640	10.6	32.6	39	0.3805	8:55:37	30-Jan-00
641	8.3	32.6	39	0.305	8:56:37	30-Jan-00
642	8.3	32.6	39	0.3071	8:57:37	30-Jan-00
643	8.1	32.6	39	0.3139	8:58:37	30-Jan-00
644	8.4	32.5	39	0.3933	8:59:37	30-Jan-00
645	9.1	32.5	39	0.3818	9:00:37	30-Jan-00
646	6.6	32.5	40	0.3073	9:01:37	30-Jan-00
647	6.3	32.5	39	0.293	9:02:37	30-Jan-00

648	7.5	32.5	39	0.3008	9:03:37	30-Jan-00
649	20.4	32.5	39	0.3921	9:04:37	30-Jan-00
650	6.5	32.5	39	0.3355	9:05:37	30-Jan-00
651	12.6	32.5	39	0.3442	9:06:37	30-Jan-00
652	11.3	32.5	39	0.5037	9:07:37	30-Jan-00
653	4.9	32.4	39	0.2907	9:08:37	30-Jan-00
654	7.3	32.4	39	0.2831	9:09:37	30-Jan-00
655	5.9	32.4	39	0.2911	9:10:37	30-Jan-00
656	6.7	32.3	39	0.3225	9:11:37	30-Jan-00
657	5.8	32.3	39	0.2864	9:12:37	30-Jan-00
658	5.7	32.3	39	0.3141	9:13:37	30-Jan-00
659	5.6	32.2	39	0.3119	9:14:37	30-Jan-00

"Model Number"	"DataRAM 4 "	106	**Down Wind**
"Serial no. "	"D738 "		**2-Jul-13**
"Device no. "	1		
"Tag Number "	5		
"Start Time "	12:49:35		
"Start Date "	25-Jan-2000		
"Log Period "	00:01:00		
"Number "	637		
"CalFactor "	1		
"Unit "	0		
"Unit Name "	"(MASS)ug/m3"		
"SIZE_CORRECT"	"DISABLED"		
"TEMPUNITS "	C		
"Max MASS "	55.69518		
"Max MASS @ "	29	13:18:35	25-Jan-00
"Avg MASS "	10.15941		
"Max Diam "	2.424586		
"Max Diam @ "	554	22:03:35	25-Jan-00
"Avg Diam "	0.495828		
"ALARM "	"DISABLED"		
"ALARM_LEVEL "	0		
"AUTO_ZERO "	"DISABLED"		
"AZ INTERVAL "	1		
"Errors "	0		

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	12.1	23.3	41	0.5553	12:50:35	25-Jan-00
2	9.1	23.4	45	0.4042	12:51:35	25-Jan-00
3	12.8	23.4	48	0.4701	12:52:35	25-Jan-00
4	20.3	23.4	50	0.6494	12:53:35	25-Jan-00
5	8.6	23.4	51	0.4195	12:54:35	25-Jan-00
6	8.3	23.3	52	0.3084	12:55:35	25-Jan-00
7	8.5	23.3	53	0.3702	12:56:35	25-Jan-00
8	9.6	23.2	54	0.4005	12:57:35	25-Jan-00
9	9.5	23.2	54	0.427	12:58:35	25-Jan-00
10	10.6	23.1	55	0.4489	12:59:35	25-Jan-00
11	8.5	23.1	56	0.3435	13:00:35	25-Jan-00
12	9.4	23	56	0.3634	13:01:35	25-Jan-00
13	9.7	23	57	0.3849	13:02:35	25-Jan-00
14	15.3	23	57	0.629	13:03:35	25-Jan-00
15	16.9	22.9	58	0.6759	13:04:35	25-Jan-00
16	13.6	22.9	58	0.5986	13:05:35	25-Jan-00
17	11.2	22.9	58	0.525	13:06:35	25-Jan-00
18	10	22.8	58	0.4276	13:07:35	25-Jan-00
19	11	22.8	59	0.4401	13:08:35	25-Jan-00
20	11.3	22.8	59	0.4845	13:09:35	25-Jan-00
21	9.6	22.7	59	0.446	13:10:35	25-Jan-00
22	8.6	22.7	60	0.3601	13:11:35	25-Jan-00
23	9.6	22.7	60	0.4018	13:12:35	25-Jan-00

24	18	22.7	60	0.6698	13:13:35	25-Jan-00
25	22.9	22.7	60	0.8172	13:14:35	25-Jan-00
26	16.4	22.7	61	0.6313	13:15:35	25-Jan-00
27	10.5	22.7	61	0.4516	13:16:35	25-Jan-00
28	12.5	22.7	61	0.4211	13:17:35	25-Jan-00
29	55.7	22.7	61	0.6963	13:18:35	25-Jan-00
30	53.5	22.7	61	1.6373	13:19:35	25-Jan-00
31	17	22.8	61	0.6834	13:20:35	25-Jan-00
32	11.7	22.8	61	0.4775	13:21:35	25-Jan-00
33	10.9	22.9	61	0.3629	13:22:35	25-Jan-00
34	15.3	22.9	62	0.4662	13:23:35	25-Jan-00
35	21	22.9	62	0.6578	13:24:35	25-Jan-00
36	9.9	23	61	0.3905	13:25:35	25-Jan-00
37	18.4	23	62	0.5079	13:26:35	25-Jan-00
38	24.7	23	62	0.69	13:27:35	25-Jan-00
39	20.7	23.1	62	0.8737	13:28:35	25-Jan-00
40	12.2	23.1	61	0.5313	13:29:35	25-Jan-00
41	9.7	23.1	62	0.3712	13:30:35	25-Jan-00
42	9.9	23.2	61	0.3704	13:31:35	25-Jan-00
43	12.1	23.2	61	0.5049	13:32:35	25-Jan-00
44	11.6	23.3	61	0.444	13:33:35	25-Jan-00
45	11.4	23.3	61	0.4535	13:34:35	25-Jan-00
46	10.3	23.4	61	0.3846	13:35:35	25-Jan-00
47	11.1	23.4	61	0.3599	13:36:35	25-Jan-00
48	19.3	23.5	61	0.6934	13:37:35	25-Jan-00
49	14.5	23.5	61	0.777	13:38:35	25-Jan-00
50	13.3	23.5	61	0.5085	13:39:35	25-Jan-00
51	9.4	23.6	61	0.4308	13:40:35	25-Jan-00
52	9.3	23.6	61	0.3861	13:41:35	25-Jan-00
53	8.4	23.6	61	0.3191	13:42:35	25-Jan-00
54	8.9	23.7	61	0.3481	13:43:35	25-Jan-00
55	8.7	23.7	61	0.3268	13:44:35	25-Jan-00
56	9.3	23.7	61	0.3498	13:45:35	25-Jan-00
57	9.9	23.7	61	0.4421	13:46:35	25-Jan-00
58	9	23.8	61	0.3207	13:47:35	25-Jan-00
59	10.9	23.9	61	0.3341	13:48:35	25-Jan-00
60	9.8	23.9	61	0.3617	13:49:35	25-Jan-00
61	17.2	23.9	60	0.4778	13:50:35	25-Jan-00
62	19.9	24	60	0.7046	13:51:35	25-Jan-00
63	16	24.1	60	0.62	13:52:35	25-Jan-00
64	21.8	24.1	60	0.8031	13:53:35	25-Jan-00
65	13.1	24.1	60	0.5959	13:54:35	25-Jan-00
66	8.6	24.2	60	0.3305	13:55:35	25-Jan-00
67	8.6	24.2	60	0.3124	13:56:35	25-Jan-00
68	9.1	24.3	60	0.2987	13:57:35	25-Jan-00
69	9.4	24.4	60	0.3571	13:58:35	25-Jan-00
70	10.7	24.4	59	0.4139	13:59:35	25-Jan-00
71	28	24.5	59	0.8156	14:00:35	25-Jan-00

72	26.9	24.5	59	0.7834	14:01:35	25-Jan-00
73	23.6	24.6	59	0.9555	14:02:35	25-Jan-00
74	16.3	24.6	59	0.5052	14:03:35	25-Jan-00
75	19.3	24.7	59	0.744	14:04:35	25-Jan-00
76	10.4	24.7	59	0.4855	14:05:35	25-Jan-00
77	9.6	24.7	59	0.3478	14:06:35	25-Jan-00
78	9.7	24.8	58	0.3048	14:07:35	25-Jan-00
79	10.3	24.9	58	0.3632	14:08:35	25-Jan-00
80	9.3	24.9	58	0.3212	14:09:35	25-Jan-00
81	10.6	24.9	58	0.3131	14:10:35	25-Jan-00
82	9.7	24.9	58	0.3101	14:11:35	25-Jan-00
83	16.9	24.9	57	0.4788	14:12:35	25-Jan-00
84	14.5	24.9	57	0.5165	14:13:35	25-Jan-00
85	13.2	24.9	57	0.4847	14:14:35	25-Jan-00
86	11.1	25	57	0.3348	14:15:35	25-Jan-00
87	9.6	25	57	0.329	14:16:35	25-Jan-00
88	9.5	25	57	0.2959	14:17:35	25-Jan-00
89	10.4	25	57	0.3142	14:18:35	25-Jan-00
90	9.8	25	57	0.3301	14:19:35	25-Jan-00
91	9.7	25	57	0.306	14:20:35	25-Jan-00
92	10.1	25	57	0.3501	14:21:35	25-Jan-00
93	10	25	57	0.3339	14:22:35	25-Jan-00
94	11.6	25	57	0.3462	14:23:35	25-Jan-00
95	14.4	25.1	57	0.4252	14:24:35	25-Jan-00
96	12.3	25.1	57	0.4654	14:25:35	25-Jan-00
97	9.9	25.1	57	0.3455	14:26:35	25-Jan-00
98	8.5	25.1	57	0.2823	14:27:35	25-Jan-00
99	8.5	25.1	56	0.289	14:28:35	25-Jan-00
100	9.4	25.1	56	0.3606	14:29:35	25-Jan-00
101	9.4	25.1	56	0.353	14:30:35	25-Jan-00
102	9.6	25.1	56	0.4063	14:31:35	25-Jan-00
103	9.4	25.1	56	0.3745	14:32:35	25-Jan-00
104	8.4	25.1	56	0.3195	14:33:35	25-Jan-00
105	13.5	25.1	56	0.3944	14:34:35	25-Jan-00
106	13.2	25.1	56	0.4424	14:35:35	25-Jan-00
107	9.2	25.2	56	0.3154	14:36:35	25-Jan-00
108	10.8	25.2	56	0.4002	14:37:35	25-Jan-00
109	9.4	25.2	56	0.4034	14:38:35	25-Jan-00
110	9.4	25.2	56	0.3339	14:39:35	25-Jan-00
111	8.8	25.2	56	0.2923	14:40:35	25-Jan-00
112	9.1	25.3	56	0.3111	14:41:35	25-Jan-00
113	9.6	25.3	56	0.3311	14:42:35	25-Jan-00
114	9.2	25.4	56	0.4174	14:43:35	25-Jan-00
115	9.4	25.4	56	0.401	14:44:35	25-Jan-00
116	9.3	25.4	56	0.3631	14:45:35	25-Jan-00
117	17.9	25.4	55	0.6512	14:46:35	25-Jan-00
118	22.3	25.5	56	0.7704	14:47:35	25-Jan-00
119	14.9	25.5	56	0.7194	14:48:35	25-Jan-00

120	13.2	25.6	56	0.5584	14:49:35	25-Jan-00
121	10.2	25.6	56	0.4757	14:50:35	25-Jan-00
122	8.3	25.7	55	0.3112	14:51:35	25-Jan-00
123	9.3	25.7	55	0.3541	14:52:35	25-Jan-00
124	21.1	25.8	55	0.6779	14:53:35	25-Jan-00
125	17.5	25.8	55	0.7729	14:54:35	25-Jan-00
126	9.5	25.9	55	0.4178	14:55:35	25-Jan-00
127	11.6	25.9	54	0.4846	14:56:35	25-Jan-00
128	10.2	26	54	0.4411	14:57:35	25-Jan-00
129	15.6	26	54	0.5278	14:58:35	25-Jan-00
130	20.2	26.1	54	0.8425	14:59:35	25-Jan-00
131	13.5	26.1	54	0.6328	15:00:35	25-Jan-00
132	23.7	26.1	54	0.6982	15:01:35	25-Jan-00
133	24.8	26.2	53	0.9352	15:02:35	25-Jan-00
134	10.9	26.2	53	0.527	15:03:35	25-Jan-00
135	8	26.2	53	0.3529	15:04:35	25-Jan-00
136	9.2	26.3	53	0.3803	15:05:35	25-Jan-00
137	8.7	26.3	53	0.3836	15:06:35	25-Jan-00
138	9.2	26.4	53	0.3699	15:07:35	25-Jan-00
139	8.9	26.5	53	0.3368	15:08:35	25-Jan-00
140	9.5	26.5	53	0.4564	15:09:35	25-Jan-00
141	11.1	26.5	52	0.4718	15:10:35	25-Jan-00
142	17.1	26.5	52	0.5867	15:11:35	25-Jan-00
143	16.1	26.6	52	0.5234	15:12:35	25-Jan-00
144	15.3	26.6	52	0.5522	15:13:35	25-Jan-00
145	9.3	26.6	52	0.4756	15:14:35	25-Jan-00
146	9	26.6	52	0.3598	15:15:35	25-Jan-00
147	8.7	26.6	52	0.3646	15:16:35	25-Jan-00
148	9.3	26.6	52	0.3748	15:17:35	25-Jan-00
149	9.2	26.6	52	0.3599	15:18:35	25-Jan-00
150	9.1	26.7	52	0.3902	15:19:35	25-Jan-00
151	8.5	26.7	52	0.3515	15:20:35	25-Jan-00
152	21.9	26.8	52	0.6483	15:21:35	25-Jan-00
153	16.9	26.8	52	0.6423	15:22:35	25-Jan-00
154	13.1	26.9	51	0.5673	15:23:35	25-Jan-00
155	10.1	26.9	51	0.4823	15:24:35	25-Jan-00
156	9.6	27	51	0.4294	15:25:35	25-Jan-00
157	10.9	27	51	0.4547	15:26:35	25-Jan-00
158	9	27.1	51	0.3619	15:27:35	25-Jan-00
159	8.6	27.1	51	0.3748	15:28:35	25-Jan-00
160	12.4	27.1	51	0.4273	15:29:35	25-Jan-00
161	9.7	27.2	51	0.3797	15:30:35	25-Jan-00
162	11.3	27.2	50	0.4209	15:31:35	25-Jan-00
163	11.4	27.2	50	0.4126	15:32:35	25-Jan-00
164	12.5	27.2	50	0.3863	15:33:35	25-Jan-00
165	17.1	27.2	50	0.6915	15:34:35	25-Jan-00
166	12.3	27.3	50	0.5586	15:35:35	25-Jan-00
167	9.6	27.3	50	0.36	15:36:35	25-Jan-00

168	7.9	27.4	50	0.3736	15:37:35	25-Jan-00
169	8.9	27.4	50	0.4399	15:38:35	25-Jan-00
170	8.4	27.5	50	0.4192	15:39:35	25-Jan-00
171	8.5	27.6	50	0.3629	15:40:35	25-Jan-00
172	19.6	27.6	50	0.357	15:41:35	25-Jan-00
173	34.7	27.7	50	0.8368	15:42:35	25-Jan-00
174	18.1	27.7	50	0.6744	15:43:35	25-Jan-00
175	10.5	27.8	50	0.4511	15:44:35	25-Jan-00
176	9.5	27.8	49	0.473	15:45:35	25-Jan-00
177	8.7	27.9	49	0.3607	15:46:35	25-Jan-00
178	10.3	27.9	49	0.3846	15:47:35	25-Jan-00
179	8.6	27.9	49	0.3285	15:48:35	25-Jan-00
180	7.4	27.9	49	0.3257	15:49:35	25-Jan-00
181	25.7	28	49	0.5834	15:50:35	25-Jan-00
182	10	28	49	0.4509	15:51:35	25-Jan-00
183	19.5	28	49	0.6815	15:52:35	25-Jan-00
184	19.4	28.1	49	0.8362	15:53:35	25-Jan-00
185	24.8	28.1	49	1.0542	15:54:35	25-Jan-00
186	9.8	28.1	49	0.4775	15:55:35	25-Jan-00
187	14.2	28.1	49	0.4937	15:56:35	25-Jan-00
188	12	28.2	49	0.4516	15:57:35	25-Jan-00
189	7.7	28.1	49	0.3575	15:58:35	25-Jan-00
190	22.1	28.2	49	0.4347	15:59:35	25-Jan-00
191	23.1	28.2	48	1.1619	16:00:35	25-Jan-00
192	14	28.2	48	0.5439	16:01:35	25-Jan-00
193	8	28.2	48	0.3783	16:02:35	25-Jan-00
194	7.7	28.2	48	0.3148	16:03:35	25-Jan-00
195	9.8	28.2	48	0.3871	16:04:35	25-Jan-00
196	14.5	28.2	48	0.684	16:05:35	25-Jan-00
197	12.4	28.2	48	0.5181	16:06:35	25-Jan-00
198	8.5	28.2	48	0.3493	16:07:35	25-Jan-00
199	21.4	28.1	48	0.5863	16:08:35	25-Jan-00
200	15.2	28.1	48	0.7056	16:09:35	25-Jan-00
201	14.1	28.1	48	0.4724	16:10:35	25-Jan-00
202	11.7	28.1	48	0.4658	16:11:35	25-Jan-00
203	10	28	48	0.3246	16:12:35	25-Jan-00
204	8.1	28	48	0.3588	16:13:35	25-Jan-00
205	8	28	48	0.3012	16:14:35	25-Jan-00
206	12	27.9	48	0.3768	16:15:35	25-Jan-00
207	9.5	27.9	48	0.3904	16:16:35	25-Jan-00
208	11	27.9	48	0.3791	16:17:35	25-Jan-00
209	15.7	27.8	49	0.5974	16:18:35	25-Jan-00
210	11.8	27.8	49	0.4776	16:19:35	25-Jan-00
211	9.8	27.8	49	0.3757	16:20:35	25-Jan-00
212	10.1	27.7	49	0.3916	16:21:35	25-Jan-00
213	10.6	27.7	49	0.3441	16:22:35	25-Jan-00
214	9.2	27.7	49	0.3861	16:23:35	25-Jan-00
215	12.2	27.7	49	0.4078	16:24:35	25-Jan-00

216	20.4	27.7	49	0.7713	16:25:35	25-Jan-00
217	13.8	27.6	49	0.7156	16:26:35	25-Jan-00
218	9.3	27.6	49	0.4468	16:27:35	25-Jan-00
219	10.2	27.6	49	0.4465	16:28:35	25-Jan-00
220	9.7	27.6	49	0.3892	16:29:35	25-Jan-00
221	8.2	27.6	49	0.3831	16:30:35	25-Jan-00
222	10.3	27.6	49	0.3276	16:31:35	25-Jan-00
223	9.8	27.6	50	0.3376	16:32:35	25-Jan-00
224	9.1	27.6	49	0.3694	16:33:35	25-Jan-00
225	13.4	27.5	49	0.4693	16:34:35	25-Jan-00
226	15.5	27.5	50	0.5585	16:35:35	25-Jan-00
227	9.4	27.5	50	0.4245	16:36:35	25-Jan-00
228	10.1	27.5	50	0.4177	16:37:35	25-Jan-00
229	12.5	27.5	50	0.4973	16:38:35	25-Jan-00
230	9	27.5	50	0.4772	16:39:35	25-Jan-00
231	9.9	27.5	50	0.4092	16:40:35	25-Jan-00
232	12.5	27.5	51	0.4661	16:41:35	25-Jan-00
233	27.5	27.5	51	0.5772	16:42:35	25-Jan-00
234	28.4	27.6	52	1.2809	16:43:35	25-Jan-00
235	15.7	27.6	51	0.5177	16:44:35	25-Jan-00
236	9.3	27.7	51	0.4574	16:45:35	25-Jan-00
237	8.8	27.7	51	0.4187	16:46:35	25-Jan-00
238	8.3	27.7	50	0.3123	16:47:35	25-Jan-00
239	8.6	27.7	50	0.3247	16:48:35	25-Jan-00
240	9	27.7	50	0.3274	16:49:35	25-Jan-00
241	9.4	27.8	50	0.3225	16:50:35	25-Jan-00
242	11.3	27.8	50	0.3761	16:51:35	25-Jan-00
243	11.3	27.8	50	0.4238	16:52:35	25-Jan-00
244	10.7	27.8	50	0.3873	16:53:35	25-Jan-00
245	11.4	27.8	50	0.4255	16:54:35	25-Jan-00
246	8.5	27.8	50	0.3631	16:55:35	25-Jan-00
247	8.8	27.8	50	0.3985	16:56:35	25-Jan-00
248	9.2	27.8	50	0.3184	16:57:35	25-Jan-00
249	9.7	27.9	50	0.4139	16:58:35	25-Jan-00
250	11.5	27.9	50	0.3763	16:59:35	25-Jan-00
251	10.4	27.9	50	0.4153	17:00:35	25-Jan-00
252	9.2	28	50	0.3453	17:01:35	25-Jan-00
253	9.2	28	50	0.3735	17:02:35	25-Jan-00
254	8.4	28	50	0.3398	17:03:35	25-Jan-00
255	12.8	28	50	0.4118	17:04:35	25-Jan-00
256	10.7	28	50	0.4207	17:05:35	25-Jan-00
257	8.9	28	50	0.3512	17:06:35	25-Jan-00
258	19.3	28	50	0.6075	17:07:35	25-Jan-00
259	18.3	28	50	0.7457	17:08:35	25-Jan-00
260	9.2	28	50	0.3971	17:09:35	25-Jan-00
261	9.1	28	50	0.3298	17:10:35	25-Jan-00
262	10.2	28.1	50	0.3648	17:11:35	25-Jan-00
263	9.6	28.1	50	0.4177	17:12:35	25-Jan-00

264	15.3	28.1	50	0.491	17:13:35	25-Jan-00
265	39.9	28.1	50	1.1011	17:14:35	25-Jan-00
266	20.8	28.1	50	0.6982	17:15:35	25-Jan-00
267	10.4	28.2	49	0.4744	17:16:35	25-Jan-00
268	13.4	28.1	49	0.5455	17:17:35	25-Jan-00
269	11.3	28.2	49	0.4942	17:18:35	25-Jan-00
270	12.1	28.2	49	0.5581	17:19:35	25-Jan-00
271	11.8	28.2	49	0.4301	17:20:35	25-Jan-00
272	12.7	28.2	49	0.5369	17:21:35	25-Jan-00
273	9.4	28.2	49	0.413	17:22:35	25-Jan-00
274	7.8	28.2	49	0.3117	17:23:35	25-Jan-00
275	10.4	28.2	49	0.3562	17:24:35	25-Jan-00
276	11.4	28.2	49	0.3618	17:25:35	25-Jan-00
277	10.4	28.2	49	0.3646	17:26:35	25-Jan-00
278	9.4	28.2	49	0.3383	17:27:35	25-Jan-00
279	12.3	28.1	49	0.4824	17:28:35	25-Jan-00
280	19.5	28.1	49	0.7487	17:29:35	25-Jan-00
281	9.9	28.1	49	0.4907	17:30:35	25-Jan-00
282	8.6	28.1	49	0.3341	17:31:35	25-Jan-00
283	11.3	28.1	49	0.3915	17:32:35	25-Jan-00
284	10.7	28	49	0.4739	17:33:35	25-Jan-00
285	8.7	28.1	49	0.3472	17:34:35	25-Jan-00
286	12.3	28.1	49	0.5335	17:35:35	25-Jan-00
287	8.4	28.1	49	0.3709	17:36:35	25-Jan-00
288	8.8	28	49	0.3498	17:37:35	25-Jan-00
289	9.1	28	49	0.3627	17:38:35	25-Jan-00
290	7.5	28	50	0.307	17:39:35	25-Jan-00
291	7.8	28	50	0.3175	17:40:35	25-Jan-00
292	9.3	28	50	0.3781	17:41:35	25-Jan-00
293	8.7	28	50	0.3852	17:42:35	25-Jan-00
294	7.9	28	49	0.358	17:43:35	25-Jan-00
295	8.9	28	49	0.3899	17:44:35	25-Jan-00
296	7.9	28	50	0.3133	17:45:35	25-Jan-00
297	8.3	28	50	0.3415	17:46:35	25-Jan-00
298	7.7	28.1	50	0.3019	17:47:35	25-Jan-00
299	10.5	28	49	0.4549	17:48:35	25-Jan-00
300	8.4	28	49	0.4387	17:49:35	25-Jan-00
301	12.2	28.1	49	0.5668	17:50:35	25-Jan-00
302	12.6	28.1	49	0.6023	17:51:35	25-Jan-00
303	11.2	28	49	0.5639	17:52:35	25-Jan-00
304	7.5	28	49	0.3049	17:53:35	25-Jan-00
305	9.8	28	49	0.3943	17:54:35	25-Jan-00
306	7.6	28	49	0.343	17:55:35	25-Jan-00
307	8.9	28	49	0.3417	17:56:35	25-Jan-00
308	14.1	27.9	49	0.4324	17:57:35	25-Jan-00
309	7	27.9	49	0.3616	17:58:35	25-Jan-00
310	7.7	27.9	49	0.3336	17:59:35	25-Jan-00
311	8.5	27.9	49	0.3611	18:00:35	25-Jan-00

312	8.3	27.9	49	0.3168	18:01:35	25-Jan-00
313	6.6	27.9	49	0.3384	18:02:35	25-Jan-00
314	8.6	27.8	49	0.4122	18:03:35	25-Jan-00
315	8.3	27.8	50	0.4435	18:04:35	25-Jan-00
316	10.3	27.8	50	0.4496	18:05:35	25-Jan-00
317	8.3	27.8	50	0.4635	18:06:35	25-Jan-00
318	6.6	27.8	49	0.3206	18:07:35	25-Jan-00
319	7.8	27.8	49	0.3876	18:08:35	25-Jan-00
320	7.3	27.8	49	0.3711	18:09:35	25-Jan-00
321	8	27.8	49	0.3463	18:10:35	25-Jan-00
322	6.6	27.8	49	0.356	18:11:35	25-Jan-00
323	11.2	27.7	49	0.4588	18:12:35	25-Jan-00
324	9.3	27.7	50	0.5541	18:13:35	25-Jan-00
325	8.6	27.8	50	0.4544	18:14:35	25-Jan-00
326	7.4	27.8	50	0.4047	18:15:35	25-Jan-00
327	7	27.8	50	0.359	18:16:35	25-Jan-00
328	7	27.9	50	0.3905	18:17:35	25-Jan-00
329	6.9	27.9	50	0.3842	18:18:35	25-Jan-00
330	7.8	27.9	50	0.3967	18:19:35	25-Jan-00
331	8.1	28	50	0.4475	18:20:35	25-Jan-00
332	9.4	28.1	50	0.5531	18:21:35	25-Jan-00
333	9	28.1	50	0.5818	18:22:35	25-Jan-00
334	7.1	28.1	49	0.3366	18:23:35	25-Jan-00
335	7.2	28.1	49	0.3731	18:24:35	25-Jan-00
336	10.4	28.2	49	0.4383	18:25:35	25-Jan-00
337	14.5	28.2	49	0.6333	18:26:35	25-Jan-00
338	6.9	28.3	49	0.4145	18:27:35	25-Jan-00
339	9	28.3	49	0.3683	18:28:35	25-Jan-00
340	12	28.3	49	0.5059	18:29:35	25-Jan-00
341	12	28.3	49	0.5352	18:30:35	25-Jan-00
342	9.5	28.4	49	0.4449	18:31:35	25-Jan-00
343	7.7	28.4	49	0.4012	18:32:35	25-Jan-00
344	6.6	28.4	49	0.3539	18:33:35	25-Jan-00
345	6.6	28.4	49	0.3439	18:34:35	25-Jan-00
346	6.5	28.5	49	0.3242	18:35:35	25-Jan-00
347	7.4	28.5	49	0.3313	18:36:35	25-Jan-00
348	6.7	28.5	49	0.3336	18:37:35	25-Jan-00
349	7.6	28.5	48	0.3758	18:38:35	25-Jan-00
350	8.6	28.5	48	0.4861	18:39:35	25-Jan-00
351	7.7	28.6	49	0.4005	18:40:35	25-Jan-00
352	8.3	28.6	49	0.4362	18:41:35	25-Jan-00
353	8.1	28.6	48	0.4038	18:42:35	25-Jan-00
354	7.4	28.7	48	0.3552	18:43:35	25-Jan-00
355	7	28.6	48	0.3583	18:44:35	25-Jan-00
356	7.8	28.6	48	0.3619	18:45:35	25-Jan-00
357	7	28.6	48	0.3394	18:46:35	25-Jan-00
358	6.7	28.7	48	0.3365	18:47:35	25-Jan-00
359	29.2	28.7	48	0.9185	18:48:35	25-Jan-00

360	13.3	28.7	48	0.5707	18:49:35	25-Jan-00
361	12.4	28.7	48	0.568	18:50:35	25-Jan-00
362	18.8	28.7	48	0.9057	18:51:35	25-Jan-00
363	7.6	28.7	48	0.4557	18:52:35	25-Jan-00
364	7	28.7	48	0.4257	18:53:35	25-Jan-00
365	7	28.7	48	0.3515	18:54:35	25-Jan-00
366	20.5	28.7	48	0.6441	18:55:35	25-Jan-00
367	7.5	28.7	48	0.4439	18:56:35	25-Jan-00
368	6.9	28.8	48	0.3494	18:57:35	25-Jan-00
369	6.9	28.8	48	0.3421	18:58:35	25-Jan-00
370	6.6	28.8	48	0.3735	18:59:35	25-Jan-00
371	14.8	28.9	48	0.5037	19:00:35	25-Jan-00
372	16.4	28.9	48	0.4886	19:01:35	25-Jan-00
373	16.4	28.9	47	1.1132	19:02:35	25-Jan-00
374	8.9	28.9	47	0.4601	19:03:35	25-Jan-00
375	9.4	28.9	47	0.5105	19:04:35	25-Jan-00
376	9.1	28.9	47	0.3512	19:05:35	25-Jan-00
377	12.1	29	47	0.6009	19:06:35	25-Jan-00
378	6.5	29	47	0.4114	19:07:35	25-Jan-00
379	7.1	29	47	0.432	19:08:35	25-Jan-00
380	6.4	29.1	48	0.3956	19:09:35	25-Jan-00
381	8.2	29.1	47	0.5521	19:10:35	25-Jan-00
382	7.7	29.2	47	0.5677	19:11:35	25-Jan-00
383	6.2	29.2	47	0.4294	19:12:35	25-Jan-00
384	7.1	29.2	46	0.3836	19:13:35	25-Jan-00
385	7.9	29.3	46	0.6172	19:14:35	25-Jan-00
386	10.8	29.3	46	0.4699	19:15:35	25-Jan-00
387	7.5	29.3	46	0.4277	19:16:35	25-Jan-00
388	7.8	29.3	46	0.4685	19:17:35	25-Jan-00
389	12.4	29.4	46	0.6704	19:18:35	25-Jan-00
390	10	29.4	46	0.56	19:19:35	25-Jan-00
391	11.5	29.4	46	0.4795	19:20:35	25-Jan-00
392	12.7	29.5	46	0.6389	19:21:35	25-Jan-00
393	7.1	29.5	46	0.4106	19:22:35	25-Jan-00
394	7.5	29.5	46	0.4491	19:23:35	25-Jan-00
395	8	29.5	45	0.5658	19:24:35	25-Jan-00
396	7.1	29.5	45	0.4933	19:25:35	25-Jan-00
397	6.4	29.6	45	0.4621	19:26:35	25-Jan-00
398	6.5	29.6	45	0.404	19:27:35	25-Jan-00
399	5.8	29.6	45	0.3883	19:28:35	25-Jan-00
400	8.7	29.6	45	0.3996	19:29:35	25-Jan-00
401	9	29.6	45	0.427	19:30:35	25-Jan-00
402	10.2	29.7	45	0.4743	19:31:35	25-Jan-00
403	7.9	29.7	45	0.3928	19:32:35	25-Jan-00
404	18.2	29.7	45	0.896	19:33:35	25-Jan-00
405	8.8	29.8	45	0.6859	19:34:35	25-Jan-00
406	7.5	29.8	45	0.4131	19:35:35	25-Jan-00
407	6.9	29.8	45	0.4031	19:36:35	25-Jan-00

408	7.1	29.8	44	0.3873	19:37:35	25-Jan-00
409	10.3	29.9	44	0.6018	19:38:35	25-Jan-00
410	9	29.9	44	0.5677	19:39:35	25-Jan-00
411	8.5	29.9	44	0.5789	19:40:35	25-Jan-00
412	6.6	29.9	44	0.4274	19:41:35	25-Jan-00
413	7.1	29.9	44	0.5396	19:42:35	25-Jan-00
414	11.1	29.9	44	0.6676	19:43:35	25-Jan-00
415	12.3	30	44	0.5833	19:44:35	25-Jan-00
416	10	30	44	0.5012	19:45:35	25-Jan-00
417	6.9	30	43	0.4783	19:46:35	25-Jan-00
418	8.7	30	43	0.4922	19:47:35	25-Jan-00
419	8.3	30	44	0.6039	19:48:35	25-Jan-00
420	6.7	30	43	0.484	19:49:35	25-Jan-00
421	6.8	30	43	0.4693	19:50:35	25-Jan-00
422	7.9	30	43	0.6596	19:51:35	25-Jan-00
423	7.2	30.1	43	0.4837	19:52:35	25-Jan-00
424	8	30.1	43	0.5784	19:53:35	25-Jan-00
425	15.7	30.1	43	0.9426	19:54:35	25-Jan-00
426	7.2	30.1	42	0.4579	19:55:35	25-Jan-00
427	10.2	30.1	42	0.8624	19:56:35	25-Jan-00
428	11.6	30.1	42	0.6649	19:57:35	25-Jan-00
429	9.4	30.1	42	0.7831	19:58:35	25-Jan-00
430	7.3	30.1	42	0.6073	19:59:35	25-Jan-00
431	7.8	30.1	42	0.5696	20:00:35	25-Jan-00
432	9.7	30.1	42	0.6603	20:01:35	25-Jan-00
433	15.1	30.1	41	1.4249	20:02:35	25-Jan-00
434	7.5	30.1	42	0.6866	20:03:35	25-Jan-00
435	6.7	30.1	42	0.4147	20:04:35	25-Jan-00
436	9.7	30.1	41	0.7319	20:05:35	25-Jan-00
437	8.5	30.1	41	0.8373	20:06:35	25-Jan-00
438	6.4	30.1	41	0.4886	20:07:35	25-Jan-00
439	6.4	30.1	41	0.4881	20:08:35	25-Jan-00
440	14	30.1	41	0.6986	20:09:35	25-Jan-00
441	9.4	30.1	41	0.6273	20:10:35	25-Jan-00
442	8.3	30.1	41	0.6203	20:11:35	25-Jan-00
443	8.1	30.1	41	0.7557	20:12:35	25-Jan-00
444	6.1	30.1	41	0.552	20:13:35	25-Jan-00
445	5.5	30.1	41	0.4385	20:14:35	25-Jan-00
446	6.6	30.2	41	0.5509	20:15:35	25-Jan-00
447	5.8	30.1	41	0.5245	20:16:35	25-Jan-00
448	5.7	30.1	41	0.4666	20:17:35	25-Jan-00
449	5.3	30.1	41	0.4041	20:18:35	25-Jan-00
450	4.8	30.2	40	0.4125	20:19:35	25-Jan-00
451	5.2	30.1	40	0.3496	20:20:35	25-Jan-00
452	5.8	30.1	40	0.4682	20:21:35	25-Jan-00
453	13.2	30.2	40	0.5439	20:22:35	25-Jan-00
454	6.7	30.1	40	0.6108	20:23:35	25-Jan-00
455	6.9	30.1	40	0.4793	20:24:35	25-Jan-00

456	10.3	30.2	40	0.5143	20:25:35	25-Jan-00
457	5.6	30.1	40	0.4245	20:26:35	25-Jan-00
458	4.2	30.1	40	0.4119	20:27:35	25-Jan-00
459	10.2	30.1	40	0.6898	20:28:35	25-Jan-00
460	7.3	30.1	40	0.4926	20:29:35	25-Jan-00
461	3.7	30.2	40	0.3596	20:30:35	25-Jan-00
462	5.2	30.2	40	0.3989	20:31:35	25-Jan-00
463	7.6	30.2	40	0.5967	20:32:35	25-Jan-00
464	5.8	30.2	39	0.5513	20:33:35	25-Jan-00
465	5.8	30.2	40	0.4387	20:34:35	25-Jan-00
466	6.3	30.2	40	0.4189	20:35:35	25-Jan-00
467	5.9	30.2	40	0.5711	20:36:35	25-Jan-00
468	4.6	30.2	40	0.4367	20:37:35	25-Jan-00
469	5.2	30.2	40	0.4593	20:38:35	25-Jan-00
470	6.5	30.3	40	0.5874	20:39:35	25-Jan-00
471	4.7	30.3	39	0.494	20:40:35	25-Jan-00
472	6	30.3	39	0.5177	20:41:35	25-Jan-00
473	8.4	30.4	39	0.7257	20:42:35	25-Jan-00
474	5.6	30.4	39	0.5366	20:43:35	25-Jan-00
475	8.2	30.4	39	0.6881	20:44:35	25-Jan-00
476	6.7	30.4	39	0.744	20:45:35	25-Jan-00
477	6.1	30.4	39	0.5326	20:46:35	25-Jan-00
478	6.6	30.4	39	0.5219	20:47:35	25-Jan-00
479	8.1	30.4	39	0.6404	20:48:35	25-Jan-00
480	7.2	30.4	39	0.5234	20:49:35	25-Jan-00
481	8.6	30.4	39	0.6505	20:50:35	25-Jan-00
482	16.4	30.4	39	1.1143	20:51:35	25-Jan-00
483	7.6	30.5	38	0.7017	20:52:35	25-Jan-00
484	8.8	30.5	39	0.6951	20:53:35	25-Jan-00
485	11.7	30.5	39	0.9194	20:54:35	25-Jan-00
486	8.6	30.5	39	0.6223	20:55:35	25-Jan-00
487	6.2	30.5	39	0.5421	20:56:35	25-Jan-00
488	4.3	30.5	39	0.4452	20:57:35	25-Jan-00
489	5.7	30.6	39	0.5145	20:58:35	25-Jan-00
490	6.6	30.6	39	0.3878	20:59:35	25-Jan-00
491	5.7	30.7	39	0.4194	21:00:35	25-Jan-00
492	6.9	30.7	38	0.4871	21:01:35	25-Jan-00
493	4.7	30.8	38	0.4718	21:02:35	25-Jan-00
494	4.9	30.8	38	0.4256	21:03:35	25-Jan-00
495	4.2	30.8	38	0.4272	21:04:35	25-Jan-00
496	3.9	30.8	38	0.4225	21:05:35	25-Jan-00
497	3.8	30.8	38	0.3847	21:06:35	25-Jan-00
498	4.7	30.8	38	0.4026	21:07:35	25-Jan-00
499	3.8	30.8	38	0.4055	21:08:35	25-Jan-00
500	3.9	30.8	38	0.4039	21:09:35	25-Jan-00
501	4.2	30.9	38	0.3878	21:10:35	25-Jan-00
502	4.4	30.9	38	0.3709	21:11:35	25-Jan-00
503	4.4	30.9	38	0.4068	21:12:35	25-Jan-00

504	6.2	30.8	38	0.508	21:13:35	25-Jan-00
505	4.8	30.9	38	0.462	21:14:35	25-Jan-00
506	4.5	30.9	38	0.451	21:15:35	25-Jan-00
507	4.3	30.8	38	0.4244	21:16:35	25-Jan-00
508	14.1	30.9	38	0.7736	21:17:35	25-Jan-00
509	7.6	30.9	38	0.6928	21:18:35	25-Jan-00
510	6.1	30.9	38	0.4396	21:19:35	25-Jan-00
511	17.4	30.9	38	0.8339	21:20:35	25-Jan-00
512	10.9	30.9	38	0.7141	21:21:35	25-Jan-00
513	9.3	30.9	39	0.5313	21:22:35	25-Jan-00
514	6.8	30.9	39	0.3938	21:23:35	25-Jan-00
515	12.6	30.9	38	0.5012	21:24:35	25-Jan-00
516	8.8	30.9	38	0.8558	21:25:35	25-Jan-00
517	18.6	30.9	38	0.7664	21:26:35	25-Jan-00
518	8.7	30.9	38	0.7624	21:27:35	25-Jan-00
519	4.9	31	39	0.3713	21:28:35	25-Jan-00
520	3.8	30.9	39	0.3505	21:29:35	25-Jan-00
521	4.6	30.9	39	0.3889	21:30:35	25-Jan-00
522	22.1	30.9	38	1.1812	21:31:35	25-Jan-00
523	8.4	30.9	38	0.772	21:32:35	25-Jan-00
524	5.8	30.9	39	0.402	21:33:35	25-Jan-00
525	11.3	30.9	38	0.6679	21:34:35	25-Jan-00
526	11	30.9	38	0.9908	21:35:35	25-Jan-00
527	10.4	30.9	39	0.6791	21:36:35	25-Jan-00
528	7.8	30.9	38	0.4621	21:37:35	25-Jan-00
529	5.9	30.9	39	0.3669	21:38:35	25-Jan-00
530	5.5	30.9	39	0.3904	21:39:35	25-Jan-00
531	6.9	31	39	0.4353	21:40:35	25-Jan-00
532	10.8	31	38	0.6883	21:41:35	25-Jan-00
533	7	31	38	0.542	21:42:35	25-Jan-00
534	8	31	39	0.6887	21:43:35	25-Jan-00
535	6.8	31	39	0.5867	21:44:35	25-Jan-00
536	4.2	31.1	39	0.4325	21:45:35	25-Jan-00
537	3.7	31.1	38	0.3913	21:46:35	25-Jan-00
538	4.4	31.1	38	0.3894	21:47:35	25-Jan-00
539	4.1	31.1	39	0.4058	21:48:35	25-Jan-00
540	4	31.1	38	0.3659	21:49:35	25-Jan-00
541	4.4	31.1	38	0.3728	21:50:35	25-Jan-00
542	7.8	31.2	38	0.5284	21:51:35	25-Jan-00
543	12.7	31.2	38	0.6594	21:52:35	25-Jan-00
544	5.4	31.2	38	0.4572	21:53:35	25-Jan-00
545	4.1	31.2	38	0.3916	21:54:35	25-Jan-00
546	4.6	31.2	38	0.3785	21:55:35	25-Jan-00
547	4.6	31.2	38	0.3454	21:56:35	25-Jan-00
548	4	31.3	38	0.3467	21:57:35	25-Jan-00
549	4.3	31.3	38	0.363	21:58:35	25-Jan-00
550	4.7	31.3	38	0.4276	21:59:35	25-Jan-00
551	9.9	31.3	38	0.4037	22:00:35	25-Jan-00

552	22.7	31.3	38	1.2904	22:01:35	25-Jan-00
553	20.9	31.3	38	1.0381	22:02:35	25-Jan-00
554	34.7	31.3	38	2.4246	22:03:35	25-Jan-00
555	5.6	31.3	38	0.844	22:04:35	25-Jan-00
556	4.2	31.3	38	0.4347	22:05:35	25-Jan-00
557	4.4	31.3	38	0.4134	22:06:35	25-Jan-00
558	4.1	31.3	38	0.376	22:07:35	25-Jan-00
559	5	31.3	38	0.4219	22:08:35	25-Jan-00
560	5.7	31.2	38	0.4176	22:09:35	25-Jan-00
561	9.5	31.2	38	0.5724	22:10:35	25-Jan-00
562	11	31.2	38	0.5579	22:11:35	25-Jan-00
563	9.9	31.2	38	0.5984	22:12:35	25-Jan-00
564	17.6	31.2	38	0.6896	22:13:35	25-Jan-00
565	23.1	31.2	38	1.6196	22:14:35	25-Jan-00
566	12.2	31.1	38	0.8426	22:15:35	25-Jan-00
567	5.6	31.2	38	0.4151	22:16:35	25-Jan-00
568	4.6	31.1	38	0.3886	22:17:35	25-Jan-00
569	4.1	31.1	38	0.3884	22:18:35	25-Jan-00
570	4.9	31.1	38	0.4174	22:19:35	25-Jan-00
571	7.5	31	38	0.4953	22:20:35	25-Jan-00
572	17.3	31	38	0.8291	22:21:35	25-Jan-00
573	5.2	31	38	0.4804	22:22:35	25-Jan-00
574	10.9	30.9	39	0.574	22:23:35	25-Jan-00
575	4.2	30.9	39	0.4133	22:24:35	25-Jan-00
576	7.2	30.9	39	0.5325	22:25:35	25-Jan-00
577	7.2	30.9	39	0.559	22:26:35	25-Jan-00
578	8.3	30.9	39	0.5167	22:27:35	25-Jan-00
579	6.5	30.9	39	0.4586	22:28:35	25-Jan-00
580	8.6	30.9	39	0.5268	22:29:35	25-Jan-00
581	6.5	30.9	39	0.461	22:30:35	25-Jan-00
582	5.4	30.9	39	0.432	22:31:35	25-Jan-00
583	6.7	30.9	39	0.4465	22:32:35	25-Jan-00
584	11.7	31	39	0.6684	22:33:35	25-Jan-00
585	4.6	31	39	0.4189	22:34:35	25-Jan-00
586	8	30.9	39	0.4825	22:35:35	25-Jan-00
587	10.2	30.9	39	0.4955	22:36:35	25-Jan-00
588	21.7	30.9	39	0.6803	22:37:35	25-Jan-00
589	16.2	30.9	39	0.7777	22:38:35	25-Jan-00
590	6.1	30.9	39	0.4648	22:39:35	25-Jan-00
591	5.4	30.9	39	0.4158	22:40:35	25-Jan-00
592	4.1	30.9	39	0.3725	22:41:35	25-Jan-00
593	5.4	30.8	39	0.5015	22:42:35	25-Jan-00
594	10	30.8	39	0.6612	22:43:35	25-Jan-00
595	7.3	30.7	39	0.4845	22:44:35	25-Jan-00
596	8.6	30.7	39	0.563	22:45:35	25-Jan-00
597	7.2	30.6	39	0.6451	22:46:35	25-Jan-00
598	4.7	30.6	40	0.465	22:47:35	25-Jan-00
599	5.5	30.6	40	0.4851	22:48:35	25-Jan-00

600	4.9	30.5	40	0.4588	22:49:35	25-Jan-00
601	5	30.5	40	0.4002	22:50:35	25-Jan-00
602	6	30.5	39	0.511	22:51:35	25-Jan-00
603	11.8	30.4	40	0.7156	22:52:35	25-Jan-00
604	13.7	30.4	39	0.7678	22:53:35	25-Jan-00
605	5.7	30.3	40	0.5961	22:54:35	25-Jan-00
606	5	30.3	40	0.4656	22:55:35	25-Jan-00
607	6	30.3	40	0.444	22:56:35	25-Jan-00
608	4.4	30.2	40	0.384	22:57:35	25-Jan-00
609	5.1	30.2	39	0.3541	22:58:35	25-Jan-00
610	5.2	30.1	39	0.4296	22:59:35	25-Jan-00
611	6.4	30.1	39	0.4833	23:00:35	25-Jan-00
612	5.4	30.1	39	0.4582	23:01:35	25-Jan-00
613	10.1	30	39	0.6077	23:02:35	25-Jan-00
614	5.7	30	39	0.5471	23:03:35	25-Jan-00
615	7	30	39	0.5343	23:04:35	25-Jan-00
616	4.8	30	39	0.424	23:05:35	25-Jan-00
617	10.7	29.9	39	0.838	23:06:35	25-Jan-00
618	4.6	29.9	39	0.4325	23:07:35	25-Jan-00
619	5.3	29.8	39	0.4119	23:08:35	25-Jan-00
620	4	29.8	39	0.3795	23:09:35	25-Jan-00
621	4.8	29.8	39	0.3941	23:10:35	25-Jan-00
622	5.2	29.7	39	0.3876	23:11:35	25-Jan-00
623	4.3	29.7	39	0.4377	23:12:35	25-Jan-00
624	4	29.7	39	0.3922	23:13:35	25-Jan-00
625	5.2	29.6	39	0.4107	23:14:35	25-Jan-00
626	5.1	29.6	39	0.4158	23:15:35	25-Jan-00
627	7.5	29.6	39	0.4721	23:16:35	25-Jan-00
628	9.7	29.5	40	0.4704	23:17:35	25-Jan-00
629	4.9	29.5	40	0.4264	23:18:35	25-Jan-00
630	5	29.5	40	0.4209	23:19:35	25-Jan-00
631	4.4	29.5	40	0.4127	23:20:35	25-Jan-00
632	4.3	29.5	40	0.3699	23:21:35	25-Jan-00
633	6.1	29.4	40	0.4647	23:22:35	25-Jan-00
634	5.6	29.4	40	0.459	23:23:35	25-Jan-00
635	4.9	29.3	40	0.4731	23:24:35	25-Jan-00
636	4.8	29.3	39	0.5	23:25:35	25-Jan-00
637	4.9	29.3	40	0.4879	23:26:35	25-Jan-00

"Model Number"	"DataRAM 4 "	106	**Down Wind**
"Serial no. "	"D738 "		**3-Jul-13**
"Device no. "	1		
"Tag Number "	6		
"Start Time "	00:07:22		
"Start Date "	25-Jan-2000		
"Log Period "	00:01:00		
"Number "	522		
"CalFactor "	1		
"Unit "	0		
"Unit Name "	"(MASS)ug/m3"		
"SIZE_CORRECT"	"DISABLED"		
"TEMPUNITS "	C		
"Max MASS "	459.7639		
"Max MASS @ "	140	2:27:22	25-Jan-00
"Avg MASS "	20.999		
"Max Diam "	4.127007		
"Max Diam @ "	32	0:39:22	25-Jan-00
"Avg Diam "	1.191682		
"ALARM "	"DISABLED"		
"ALARM_LEVEL "	0		
"AUTO_ZERO "	"DISABLED"		
"AZ INTERVAL "	1		
"Errors "	0		

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	9.7	18.2	40	0.5042	0:08:22	25-Jan-00
2	8.3	18.2	43	0.6767	0:09:22	25-Jan-00
3	7.4	18.2	45	0.5524	0:10:22	25-Jan-00
4	7.4	18.2	47	0.6021	0:11:22	25-Jan-00
5	7	18.1	48	0.596	0:12:22	25-Jan-00
6	6.4	18.2	50	0.6042	0:13:22	25-Jan-00
7	7.2	18.2	51	0.6668	0:14:22	25-Jan-00
8	9.6	18.2	52	1.0558	0:15:22	25-Jan-00
9	6.6	18.2	53	0.5282	0:16:22	25-Jan-00
10	6.5	18.2	54	0.6757	0:17:22	25-Jan-00
11	19	18.3	54	2.0438	0:18:22	25-Jan-00
12	15.8	18.4	55	2.9556	0:19:22	25-Jan-00
13	7.8	18.4	56	0.8094	0:20:22	25-Jan-00
14	8.2	18.5	56	0.6661	0:21:22	25-Jan-00
15	7	18.6	56	0.6439	0:22:22	25-Jan-00
16	40.5	18.7	56	1.0543	0:23:22	25-Jan-00
17	171.1	18.7	56	3.3142	0:24:22	25-Jan-00
18	20.4	18.8	57	3.5863	0:25:22	25-Jan-00
19	8.1	18.9	57	1.2318	0:26:22	25-Jan-00
20	8	18.9	57	0.7897	0:27:22	25-Jan-00
21	7.1	19	57	0.5839	0:28:22	25-Jan-00
22	6.8	19.1	57	0.5415	0:29:22	25-Jan-00
23	6.2	19.1	56	0.459	0:30:22	25-Jan-00

24	209.3	19.2	56	1.8578	0:31:22	25-Jan-00
25	20.5	19.3	56	4.0909	0:32:22	25-Jan-00
26	11.1	19.4	56	1.8936	0:33:22	25-Jan-00
27	6.3	19.5	56	0.6062	0:34:22	25-Jan-00
28	6.6	19.5	56	0.5936	0:35:22	25-Jan-00
29	16.6	19.6	56	0.6691	0:36:22	25-Jan-00
30	12.8	19.7	56	2.0879	0:37:22	25-Jan-00
31	70.4	19.7	56	3.0397	0:38:22	25-Jan-00
32	415.1	19.9	56	4.127	0:39:22	25-Jan-00
33	71.4	20	56	4.0745	0:40:22	25-Jan-00
34	79.6	20.1	56	3.1096	0:41:22	25-Jan-00
35	25.9	20.1	56	2.1674	0:42:22	25-Jan-00
36	9.2	20.2	56	0.5386	0:43:22	25-Jan-00
37	199.9	20.3	56	3.0566	0:44:22	25-Jan-00
38	8.7	20.4	56	1.5358	0:45:22	25-Jan-00
39	21	20.5	55	1.7302	0:46:22	25-Jan-00
40	15	20.5	55	2.5167	0:47:22	25-Jan-00
41	8.5	20.6	54	1.2707	0:48:22	25-Jan-00
42	8.7	20.6	54	0.6653	0:49:22	25-Jan-00
43	8.2	20.7	55	0.7913	0:50:22	25-Jan-00
44	5.3	20.8	54	0.4777	0:51:22	25-Jan-00
45	5.2	20.9	54	0.466	0:52:22	25-Jan-00
46	4.9	21	54	0.4336	0:53:22	25-Jan-00
47	5.2	21.1	54	0.5229	0:54:22	25-Jan-00
48	4.9	21.2	54	0.4827	0:55:22	25-Jan-00
49	4.8	21.2	54	0.4429	0:56:22	25-Jan-00
50	5.1	21.4	53	0.5482	0:57:22	25-Jan-00
51	18.8	21.5	53	0.6639	0:58:22	25-Jan-00
52	55.2	21.6	53	3.5597	0:59:22	25-Jan-00
53	234.9	21.7	53	3.2928	1:00:22	25-Jan-00
54	142	21.7	52	2.8469	1:01:22	25-Jan-00
55	195.2	21.9	52	4.127	1:02:22	25-Jan-00
56	75.6	22	53	4.127	1:03:22	25-Jan-00
57	7.2	22.1	52	1.8644	1:04:22	25-Jan-00
58	28.4	22.2	52	2.5184	1:05:22	25-Jan-00
59	54.8	22.2	51	2.645	1:06:22	25-Jan-00
60	19.6	22.4	51	1.3981	1:07:22	25-Jan-00
61	7.7	22.5	51	0.6854	1:08:22	25-Jan-00
62	7.2	22.6	50	0.661	1:09:22	25-Jan-00
63	5.6	22.7	50	0.5507	1:10:22	25-Jan-00
64	5.7	22.8	50	0.5105	1:11:22	25-Jan-00
65	8.4	22.9	50	0.8956	1:12:22	25-Jan-00
66	7.7	23	49	0.8378	1:13:22	25-Jan-00
67	14.3	23.1	49	0.8064	1:14:22	25-Jan-00
68	309.3	23.2	49	3.0858	1:15:22	25-Jan-00
69	12.6	23.4	49	1.3078	1:16:22	25-Jan-00
70	9	23.5	48	0.6397	1:17:22	25-Jan-00
71	11.9	23.6	48	0.8321	1:18:22	25-Jan-00

72	13.5	23.7	48	0.8245	1:19:22	25-Jan-00
73	5	23.8	48	0.5286	1:20:22	25-Jan-00
74	5.1	24	47	0.4915	1:21:22	25-Jan-00
75	4.5	24.1	47	0.3734	1:22:22	25-Jan-00
76	4.2	24.2	47	0.3992	1:23:22	25-Jan-00
77	16.2	24.2	46	0.8405	1:24:22	25-Jan-00
78	14.8	24.4	46	0.9459	1:25:22	25-Jan-00
79	11.1	24.5	46	0.7403	1:26:22	25-Jan-00
80	9.7	24.6	46	0.6452	1:27:22	25-Jan-00
81	37	24.7	46	3.0346	1:28:22	25-Jan-00
82	23.2	24.7	45	2.1831	1:29:22	25-Jan-00
83	6.6	24.8	45	0.6719	1:30:22	25-Jan-00
84	8.6	24.9	45	0.6141	1:31:22	25-Jan-00
85	7.6	24.9	44	0.5467	1:32:22	25-Jan-00
86	106.7	25	44	0.5804	1:33:22	25-Jan-00
87	261.9	25	44	3.8861	1:34:22	25-Jan-00
88	33.5	25.1	44	3.0547	1:35:22	25-Jan-00
89	375.7	25.1	44	3.7078	1:36:22	25-Jan-00
90	122.6	25.2	44	3.5983	1:37:22	25-Jan-00
91	450.6	25.2	44	3.8179	1:38:22	25-Jan-00
92	12.9	25.3	44	1.4797	1:39:22	25-Jan-00
93	10.6	25.4	44	1.0558	1:40:22	25-Jan-00
94	40.2	25.4	43	2.1413	1:41:22	25-Jan-00
95	45.2	25.5	43	3.05	1:42:22	25-Jan-00
96	20.9	25.5	43	0.9421	1:43:22	25-Jan-00
97	41.5	25.6	43	1.9885	1:44:22	25-Jan-00
98	12.7	25.6	42	1.2418	1:45:22	25-Jan-00
99	17.4	25.7	42	1.2488	1:46:22	25-Jan-00
100	12.6	25.7	42	0.6882	1:47:22	25-Jan-00
101	11.8	25.8	42	0.9353	1:48:22	25-Jan-00
102	23.9	25.8	42	0.9919	1:49:22	25-Jan-00
103	42.8	25.9	42	2.5686	1:50:22	25-Jan-00
104	17.8	25.9	42	2.119	1:51:22	25-Jan-00
105	5.7	26	42	0.7785	1:52:22	25-Jan-00
106	6.3	26	42	0.7547	1:53:22	25-Jan-00
107	55.4	26	42	2.2569	1:54:22	25-Jan-00
108	17.1	26.1	42	2.3002	1:55:22	25-Jan-00
109	24.9	26.1	42	1.686	1:56:22	25-Jan-00
110	46.4	26.2	41	1.9639	1:57:22	25-Jan-00
111	6.3	26.2	41	0.9108	1:58:22	25-Jan-00
112	4.6	26.2	41	0.6275	1:59:22	25-Jan-00
113	5.9	26.3	40	0.5081	2:00:22	25-Jan-00
114	6.1	26.3	40	0.5505	2:01:22	25-Jan-00
115	4.1	26.4	40	0.4063	2:02:22	25-Jan-00
116	8.5	26.4	40	0.5959	2:03:22	25-Jan-00
117	3.8	26.4	40	0.4151	2:04:22	25-Jan-00
118	7	26.5	40	0.5568	2:05:22	25-Jan-00
119	8.3	26.5	40	0.6757	2:06:22	25-Jan-00

120	21.9	26.6	40	0.9847	2:07:22	25-Jan-00
121	6	26.6	40	0.4763	2:08:22	25-Jan-00
122	7.6	26.7	40	0.6074	2:09:22	25-Jan-00
123	8.1	26.7	40	0.9209	2:10:22	25-Jan-00
124	8.9	26.7	40	0.9393	2:11:22	25-Jan-00
125	5.8	26.8	40	0.6962	2:12:22	25-Jan-00
126	8.2	26.9	40	0.886	2:13:22	25-Jan-00
127	42.3	26.9	40	0.7814	2:14:22	25-Jan-00
128	231.2	27	40	3.85	2:15:22	25-Jan-00
129	46.1	27	40	2.955	2:16:22	25-Jan-00
130	28.3	27.1	40	1.5425	2:17:22	25-Jan-00
131	5.3	27.1	40	0.4979	2:18:22	25-Jan-00
132	5	27.2	39	0.5258	2:19:22	25-Jan-00
133	6.5	27.2	39	0.5973	2:20:22	25-Jan-00
134	6.2	27.3	39	0.5438	2:21:22	25-Jan-00
135	123.9	27.4	39	0.9522	2:22:22	25-Jan-00
136	284.8	27.5	39	2.3068	2:23:22	25-Jan-00
137	79.3	27.5	39	3.9529	2:24:22	25-Jan-00
138	40	27.5	39	1.8934	2:25:22	25-Jan-00
139	65.1	27.6	39	2.3954	2:26:22	25-Jan-00
140	459.8	27.6	39	3.9427	2:27:22	25-Jan-00
141	158.3	27.6	39	3.5173	2:28:22	25-Jan-00
142	6.6	27.7	39	0.6575	2:29:22	25-Jan-00
143	9.5	27.7	38	0.7696	2:30:22	25-Jan-00
144	14.5	27.8	38	2.0376	2:31:22	25-Jan-00
145	9.3	27.8	38	1.0267	2:32:22	25-Jan-00
146	36.7	27.9	38	1.7046	2:33:22	25-Jan-00
147	147.6	27.9	38	3.4211	2:34:22	25-Jan-00
148	150	28	38	2.4274	2:35:22	25-Jan-00
149	37	28	38	3.6267	2:36:22	25-Jan-00
150	64.5	28	37	3.4892	2:37:22	25-Jan-00
151	46.7	28	37	0.9174	2:38:22	25-Jan-00
152	21.9	28	37	1.661	2:39:22	25-Jan-00
153	72.1	28	37	3.6731	2:40:22	25-Jan-00
154	16.9	28.1	37	2.9557	2:41:22	25-Jan-00
155	15.9	28	37	1.9186	2:42:22	25-Jan-00
156	9.2	28	37	0.8757	2:43:22	25-Jan-00
157	18.6	28	36	1.454	2:44:22	25-Jan-00
158	8	27.9	36	0.7805	2:45:22	25-Jan-00
159	6.6	27.9	36	0.5588	2:46:22	25-Jan-00
160	6.9	27.8	36	0.5891	2:47:22	25-Jan-00
161	7.5	27.7	35	0.4497	2:48:22	25-Jan-00
162	13.1	27.7	35	0.6141	2:49:22	25-Jan-00
163	34.7	27.6	35	2.766	2:50:22	25-Jan-00
164	17.2	27.6	36	3.2568	2:51:22	25-Jan-00
165	192.3	27.5	36	2.6332	2:52:22	25-Jan-00
166	15.2	27.5	36	1.7566	2:53:22	25-Jan-00
167	30.2	27.5	36	1.3071	2:54:22	25-Jan-00

168	18.1	27.4	36	3.5336	2:55:22	25-Jan-00
169	12.3	27.3	36	1.0677	2:56:22	25-Jan-00
170	11.7	27.3	36	0.9029	2:57:22	25-Jan-00
171	8.5	27.2	36	0.7594	2:58:22	25-Jan-00
172	5	27.2	36	0.4912	2:59:22	25-Jan-00
173	8.6	27.2	37	0.7022	3:00:22	25-Jan-00
174	9.7	27.1	37	0.942	3:01:22	25-Jan-00
175	11	27.1	37	1.3628	3:02:22	25-Jan-00
176	6.6	27.1	37	0.5803	3:03:22	25-Jan-00
177	8.4	27.1	37	0.5865	3:04:22	25-Jan-00
178	5.6	27	38	0.4778	3:05:22	25-Jan-00
179	5.9	27	37	0.5088	3:06:22	25-Jan-00
180	11.1	26.9	38	0.8023	3:07:22	25-Jan-00
181	12.4	26.9	38	0.7885	3:08:22	25-Jan-00
182	8.2	26.9	38	0.7042	3:09:22	25-Jan-00
183	8.3	26.8	38	0.7932	3:10:22	25-Jan-00
184	9.2	26.7	38	0.9172	3:11:22	25-Jan-00
185	8.5	26.7	38	0.6198	3:12:22	25-Jan-00
186	10.4	26.7	38	0.7288	3:13:22	25-Jan-00
187	7.7	26.6	38	0.57	3:14:22	25-Jan-00
188	16.1	26.6	38	0.9382	3:15:22	25-Jan-00
189	8.1	26.6	38	0.8556	3:16:22	25-Jan-00
190	15.5	26.6	38	1.553	3:17:22	25-Jan-00
191	14.7	26.6	38	2.1651	3:18:22	25-Jan-00
192	14.7	26.6	38	1.0988	3:19:22	25-Jan-00
193	14.6	26.6	39	0.983	3:20:22	25-Jan-00
194	46.8	26.5	38	1.4189	3:21:22	25-Jan-00
195	29.4	26.5	39	2.9954	3:22:22	25-Jan-00
196	9.8	26.5	39	0.8521	3:23:22	25-Jan-00
197	9.1	26.5	39	0.7474	3:24:22	25-Jan-00
198	32.2	26.4	39	1.7669	3:25:22	25-Jan-00
199	40.9	26.4	39	3.405	3:26:22	25-Jan-00
200	18.2	26.4	39	2.6477	3:27:22	25-Jan-00
201	14.9	26.4	39	1.5375	3:28:22	25-Jan-00
202	14.5	26.4	39	2.4311	3:29:22	25-Jan-00
203	6.9	26.4	39	0.9475	3:30:22	25-Jan-00
204	22.2	26.5	39	1.1865	3:31:22	25-Jan-00
205	19	26.4	39	1.6593	3:32:22	25-Jan-00
206	9.6	26.5	39	0.9966	3:33:22	25-Jan-00
207	9.8	26.4	39	1.1	3:34:22	25-Jan-00
208	9.9	26.4	39	1.1999	3:35:22	25-Jan-00
209	19	26.5	39	1.4476	3:36:22	25-Jan-00
210	29.5	26.5	39	1.9335	3:37:22	25-Jan-00
211	24.1	26.5	38	1.8027	3:38:22	25-Jan-00
212	9	26.5	38	0.923	3:39:22	25-Jan-00
213	5.9	26.5	38	0.7894	3:40:22	25-Jan-00
214	15.9	26.5	37	1.3786	3:41:22	25-Jan-00
215	13.4	26.5	37	0.9078	3:42:22	25-Jan-00

216	8.5	26.5	37	0.6548	3:43:22	25-Jan-00
217	11.6	26.5	37	0.729	3:44:22	25-Jan-00
218	7.4	26.6	37	1.0433	3:45:22	25-Jan-00
219	4.8	26.6	37	0.523	3:46:22	25-Jan-00
220	11.2	26.6	37	0.8645	3:47:22	25-Jan-00
221	6.4	26.6	37	0.6594	3:48:22	25-Jan-00
222	10.8	26.6	36	2.051	3:49:22	25-Jan-00
223	15.1	26.6	36	0.988	3:50:22	25-Jan-00
224	12.8	26.7	36	1.4329	3:51:22	25-Jan-00
225	41.6	26.7	36	3.0588	3:52:22	25-Jan-00
226	9.2	26.7	36	1.6536	3:53:22	25-Jan-00
227	9	26.7	36	1.352	3:54:22	25-Jan-00
228	4.1	26.7	36	0.5634	3:55:22	25-Jan-00
229	7.4	26.8	36	0.7109	3:56:22	25-Jan-00
230	5.7	26.8	36	0.7954	3:57:22	25-Jan-00
231	41.6	26.8	36	3.8175	3:58:22	25-Jan-00
232	9.9	26.8	36	2.3454	3:59:22	25-Jan-00
233	10.4	26.8	36	1.0283	4:00:22	25-Jan-00
234	7.2	26.8	36	1.2164	4:01:22	25-Jan-00
235	21.7	26.7	36	2.1916	4:02:22	25-Jan-00
236	10.7	26.8	36	1.3098	4:03:22	25-Jan-00
237	8.2	26.8	36	1.9788	4:04:22	25-Jan-00
238	7.7	26.8	36	0.9992	4:05:22	25-Jan-00
239	6.4	26.8	36	0.8643	4:06:22	25-Jan-00
240	10.2	26.8	36	0.8174	4:07:22	25-Jan-00
241	9.4	26.8	36	1.1614	4:08:22	25-Jan-00
242	13.5	26.8	36	1.4001	4:09:22	25-Jan-00
243	14.3	26.7	36	2.6299	4:10:22	25-Jan-00
244	8	26.7	36	0.8563	4:11:22	25-Jan-00
245	9.8	26.6	36	0.7027	4:12:22	25-Jan-00
246	6.8	26.6	36	0.6618	4:13:22	25-Jan-00
247	6.5	26.6	36	0.8425	4:14:22	25-Jan-00
248	4.7	26.6	36	0.528	4:15:22	25-Jan-00
249	7	26.5	36	0.8179	4:16:22	25-Jan-00
250	15.9	26.5	36	1.2913	4:17:22	25-Jan-00
251	24.3	26.5	36	3.9025	4:18:22	25-Jan-00
252	33.3	26.4	36	3.0136	4:19:22	25-Jan-00
253	10.3	26.4	36	2.3845	4:20:22	25-Jan-00
254	58.7	26.3	36	3.3265	4:21:22	25-Jan-00
255	15.1	26.3	36	2.6285	4:22:22	25-Jan-00
256	14.3	26.2	36	2.7838	4:23:22	25-Jan-00
257	8.6	26.2	36	1.007	4:24:22	25-Jan-00
258	10.1	26.1	36	1.0809	4:25:22	25-Jan-00
259	8.3	26.1	37	1.2931	4:26:22	25-Jan-00
260	6	26	37	0.7286	4:27:22	25-Jan-00
261	5.5	26	37	0.7289	4:28:22	25-Jan-00
262	8	25.9	37	0.9501	4:29:22	25-Jan-00
263	17.5	25.8	37	1.6811	4:30:22	25-Jan-00

264	12.3	25.8	37	2.8277	4:31:22	25-Jan-00
265	9.5	25.7	37	1.0179	4:32:22	25-Jan-00
266	27.5	25.7	38	3.369	4:33:22	25-Jan-00
267	10.3	25.6	38	2.8377	4:34:22	25-Jan-00
268	6	25.6	38	1.6146	4:35:22	25-Jan-00
269	5.2	25.5	38	1.2203	4:36:22	25-Jan-00
270	5.1	25.5	38	1.2217	4:37:22	25-Jan-00
271	5.2	25.5	38	0.6144	4:38:22	25-Jan-00
272	20	25.4	38	1.575	4:39:22	25-Jan-00
273	4.6	25.3	38	0.5082	4:40:22	25-Jan-00
274	6.5	25.3	38	0.6531	4:41:22	25-Jan-00
275	8.3	25.2	38	0.8397	4:42:22	25-Jan-00
276	4.4	25.2	39	0.4917	4:43:22	25-Jan-00
277	4.8	25.2	39	0.5528	4:44:22	25-Jan-00
278	5.8	25.1	39	0.6192	4:45:22	25-Jan-00
279	3.8	25.1	39	0.5315	4:46:22	25-Jan-00
280	5.6	25	39	0.6452	4:47:22	25-Jan-00
281	10.8	25	39	2.4266	4:48:22	25-Jan-00
282	6	25	39	1.0411	4:49:22	25-Jan-00
283	4.3	24.9	39	0.4523	4:50:22	25-Jan-00
284	4.5	24.8	40	0.5413	4:51:22	25-Jan-00
285	5.8	24.8	40	0.5775	4:52:22	25-Jan-00
286	11.9	24.8	40	1.4565	4:53:22	25-Jan-00
287	5.5	24.7	40	0.7521	4:54:22	25-Jan-00
288	4	24.7	40	0.4233	4:55:22	25-Jan-00
289	4.1	24.7	40	0.4159	4:56:22	25-Jan-00
290	4.7	24.7	40	0.5086	4:57:22	25-Jan-00
291	5.5	24.7	41	0.7962	4:58:22	25-Jan-00
292	20.7	24.7	41	1.0932	4:59:22	25-Jan-00
293	7.3	24.7	41	0.9211	5:00:22	25-Jan-00
294	6.6	24.7	41	0.7423	5:01:22	25-Jan-00
295	8.5	24.7	41	1.7762	5:02:22	25-Jan-00
296	8.6	24.7	41	0.8109	5:03:22	25-Jan-00
297	27.7	24.7	41	2.7655	5:04:22	25-Jan-00
298	7	24.7	41	1.2424	5:05:22	25-Jan-00
299	7.5	24.7	41	1.0292	5:06:22	25-Jan-00
300	6.9	24.6	42	0.9152	5:07:22	25-Jan-00
301	5.1	24.7	41	0.6923	5:08:22	25-Jan-00
302	5	24.6	41	0.5356	5:09:22	25-Jan-00
303	4.1	24.6	42	0.4704	5:10:22	25-Jan-00
304	5.1	24.6	41	0.6084	5:11:22	25-Jan-00
305	5.2	24.6	42	0.5569	5:12:22	25-Jan-00
306	4.1	24.6	41	0.5703	5:13:22	25-Jan-00
307	7.5	24.6	42	0.9856	5:14:22	25-Jan-00
308	7	24.6	42	1.086	5:15:22	25-Jan-00
309	6.6	24.5	42	1.2943	5:16:22	25-Jan-00
310	4.9	24.6	42	0.6417	5:17:22	25-Jan-00
311	6.7	24.6	42	0.667	5:18:22	25-Jan-00

312	6.3	24.6	42	1.2083	5:19:22	25-Jan-00
313	7	24.6	42	0.6923	5:20:22	25-Jan-00
314	7.2	24.6	42	0.6645	5:21:22	25-Jan-00
315	9.3	24.6	42	1.0875	5:22:22	25-Jan-00
316	5.8	24.6	42	0.9806	5:23:22	25-Jan-00
317	10.8	24.6	42	2.2801	5:24:22	25-Jan-00
318	10.8	24.7	42	2.5103	5:25:22	25-Jan-00
319	4.6	24.7	42	0.6288	5:26:22	25-Jan-00
320	7.2	24.7	42	0.6042	5:27:22	25-Jan-00
321	5.2	24.7	42	0.5181	5:28:22	25-Jan-00
322	5.3	24.8	42	0.6103	5:29:22	25-Jan-00
323	4.1	24.8	42	0.5948	5:30:22	25-Jan-00
324	11.2	24.8	42	0.7056	5:31:22	25-Jan-00
325	6.1	24.9	42	0.6482	5:32:22	25-Jan-00
326	5.9	24.9	42	0.6549	5:33:22	25-Jan-00
327	4.8	24.9	42	0.6489	5:34:22	25-Jan-00
328	7.6	24.9	42	0.7205	5:35:22	25-Jan-00
329	4	25	42	0.4537	5:36:22	25-Jan-00
330	5.2	25	42	0.5249	5:37:22	25-Jan-00
331	5.3	25	42	0.6158	5:38:22	25-Jan-00
332	12.6	25	42	0.6875	5:39:22	25-Jan-00
333	4.9	25	42	0.568	5:40:22	25-Jan-00
334	16.3	25.1	42	1.6443	5:41:22	25-Jan-00
335	8.3	25.1	42	1.523	5:42:22	25-Jan-00
336	8.5	25.1	42	0.9057	5:43:22	25-Jan-00
337	46.3	25.1	42	1.7349	5:44:22	25-Jan-00
338	4.4	25.2	42	0.5162	5:45:22	25-Jan-00
339	10.2	25.2	42	0.8951	5:46:22	25-Jan-00
340	5.4	25.3	42	0.7638	5:47:22	25-Jan-00
341	6.1	25.3	42	0.9779	5:48:22	25-Jan-00
342	5.2	25.4	42	0.5585	5:49:22	25-Jan-00
343	9.7	25.4	42	1.9999	5:50:22	25-Jan-00
344	4.7	25.5	42	0.6635	5:51:22	25-Jan-00
345	7.5	25.5	42	0.7775	5:52:22	25-Jan-00
346	4.8	25.5	42	0.5433	5:53:22	25-Jan-00
347	7.9	25.5	42	0.812	5:54:22	25-Jan-00
348	7.1	25.6	42	1.2167	5:55:22	25-Jan-00
349	6.3	25.6	42	0.8223	5:56:22	25-Jan-00
350	5.1	25.7	42	0.7211	5:57:22	25-Jan-00
351	6	25.7	41	0.9573	5:58:22	25-Jan-00
352	4.5	25.7	41	0.557	5:59:22	25-Jan-00
353	5.8	25.8	41	0.676	6:00:22	25-Jan-00
354	4	25.8	41	0.6471	6:01:22	25-Jan-00
355	3.7	25.8	41	0.5016	6:02:22	25-Jan-00
356	5	25.8	41	0.7825	6:03:22	25-Jan-00
357	5.2	25.9	41	0.8053	6:04:22	25-Jan-00
358	5	25.9	41	0.6706	6:05:22	25-Jan-00
359	4.7	25.9	41	0.6264	6:06:22	25-Jan-00

360	4.4	25.9	41	0.5447	6:07:22	25-Jan-00
361	7.3	25.9	41	0.6811	6:08:22	25-Jan-00
362	3.8	26	41	0.4598	6:09:22	25-Jan-00
363	6.8	26	41	0.6571	6:10:22	25-Jan-00
364	4.9	26	40	0.6259	6:11:22	25-Jan-00
365	10.1	26.1	40	0.8026	6:12:22	25-Jan-00
366	4.7	26.1	40	0.6621	6:13:22	25-Jan-00
367	4.7	26.1	40	0.5275	6:14:22	25-Jan-00
368	4	26.1	40	0.483	6:15:22	25-Jan-00
369	6.3	26.2	40	0.8029	6:16:22	25-Jan-00
370	4.5	26.2	40	0.5056	6:17:22	25-Jan-00
371	4.2	26.2	40	0.5774	6:18:22	25-Jan-00
372	5.2	26.2	40	0.6211	6:19:22	25-Jan-00
373	30	26.2	40	2.0533	6:20:22	25-Jan-00
374	18.5	26.3	40	2.6547	6:21:22	25-Jan-00
375	18.3	26.3	40	1.5806	6:22:22	25-Jan-00
376	28.8	26.3	40	4.1267	6:23:22	25-Jan-00
377	10	26.3	40	1.4382	6:24:22	25-Jan-00
378	7.8	26.3	40	1.101	6:25:22	25-Jan-00
379	14.9	26.4	39	2.9736	6:26:22	25-Jan-00
380	7.8	26.4	39	1.9991	6:27:22	25-Jan-00
381	6.6	26.4	39	0.7773	6:28:22	25-Jan-00
382	7.9	26.5	39	1.4136	6:29:22	25-Jan-00
383	10.8	26.5	39	1.1255	6:30:22	25-Jan-00
384	8.2	26.5	39	1.233	6:31:22	25-Jan-00
385	5	26.5	39	0.6311	6:32:22	25-Jan-00
386	8	26.6	39	1.0242	6:33:22	25-Jan-00
387	14.1	26.6	39	1.0968	6:34:22	25-Jan-00
388	4.6	26.6	39	0.6948	6:35:22	25-Jan-00
389	7.4	26.7	39	1.2912	6:36:22	25-Jan-00
390	6	26.7	39	1.1501	6:37:22	25-Jan-00
391	4.4	26.7	39	0.5473	6:38:22	25-Jan-00
392	4.6	26.7	39	0.5689	6:39:22	25-Jan-00
393	3.9	26.8	39	0.4912	6:40:22	25-Jan-00
394	6.9	26.8	38	0.6181	6:41:22	25-Jan-00
395	8.4	26.8	39	0.8321	6:42:22	25-Jan-00
396	5.3	26.9	39	0.6292	6:43:22	25-Jan-00
397	11.5	26.9	39	1.127	6:44:22	25-Jan-00
398	6.4	27	39	0.746	6:45:22	25-Jan-00
399	3.4	27	38	0.4675	6:46:22	25-Jan-00
400	3.5	27	38	0.4796	6:47:22	25-Jan-00
401	6.2	27	38	0.6258	6:48:22	25-Jan-00
402	8.7	27	38	0.6945	6:49:22	25-Jan-00
403	9.5	27.1	38	0.9386	6:50:22	25-Jan-00
404	5.3	27.1	38	0.6427	6:51:22	25-Jan-00
405	17.1	27.1	38	0.9242	6:52:22	25-Jan-00
406	7.6	27.2	38	0.8407	6:53:22	25-Jan-00
407	4.2	27.2	38	0.5299	6:54:22	25-Jan-00

408	4.9	27.2	38	0.5389	6:55:22	25-Jan-00
409	9.6	27.3	38	1.1116	6:56:22	25-Jan-00
410	9.7	27.3	38	1.208	6:57:22	25-Jan-00
411	6.5	27.4	38	1.1076	6:58:22	25-Jan-00
412	9.9	27.4	38	0.8595	6:59:22	25-Jan-00
413	4.6	27.4	38	0.5696	7:00:22	25-Jan-00
414	5	27.4	38	0.6173	7:01:22	25-Jan-00
415	4	27.5	38	0.593	7:02:22	25-Jan-00
416	5.1	27.5	38	0.5968	7:03:22	25-Jan-00
417	5.4	27.5	38	1.1329	7:04:22	25-Jan-00
418	4.2	27.5	38	0.6014	7:05:22	25-Jan-00
419	4.8	27.5	38	0.6903	7:06:22	25-Jan-00
420	4.8	27.5	38	0.591	7:07:22	25-Jan-00
421	9.1	27.5	38	0.8323	7:08:22	25-Jan-00
422	11.6	27.6	38	1.0489	7:09:22	25-Jan-00
423	10.2	27.6	38	1.1642	7:10:22	25-Jan-00
424	9	27.6	38	1.0476	7:11:22	25-Jan-00
425	3.6	27.6	38	0.5073	7:12:22	25-Jan-00
426	4.2	27.7	38	0.5884	7:13:22	25-Jan-00
427	5.1	27.7	38	0.9721	7:14:22	25-Jan-00
428	8.5	27.7	38	0.8848	7:15:22	25-Jan-00
429	4.9	27.7	38	0.6759	7:16:22	25-Jan-00
430	9.1	27.7	38	1.1426	7:17:22	25-Jan-00
431	3.9	27.7	38	0.535	7:18:22	25-Jan-00
432	4.6	27.8	38	0.4816	7:19:22	25-Jan-00
433	7	27.8	38	0.911	7:20:22	25-Jan-00
434	6.4	27.8	38	0.7216	7:21:22	25-Jan-00
435	10.4	27.8	38	0.9288	7:22:22	25-Jan-00
436	4.9	27.8	38	0.5141	7:23:22	25-Jan-00
437	4.3	27.8	38	0.4954	7:24:22	25-Jan-00
438	4	27.8	38	0.4604	7:25:22	25-Jan-00
439	5.7	27.8	38	0.4846	7:26:22	25-Jan-00
440	5.4	27.8	38	0.4341	7:27:22	25-Jan-00
441	4.7	27.8	38	0.6729	7:28:22	25-Jan-00
442	7.9	27.8	38	0.9493	7:29:22	25-Jan-00
443	5.2	27.8	38	0.6356	7:30:22	25-Jan-00
444	5	27.8	38	0.5185	7:31:22	25-Jan-00
445	6.5	27.8	38	0.7642	7:32:22	25-Jan-00
446	8.7	27.8	38	1.4762	7:33:22	25-Jan-00
447	7.7	27.8	37	0.7351	7:34:22	25-Jan-00
448	5.9	27.7	37	1.1242	7:35:22	25-Jan-00
449	9.7	27.7	37	0.7637	7:36:22	25-Jan-00
450	14.3	27.7	37	0.7587	7:37:22	25-Jan-00
451	8.4	27.7	38	0.885	7:38:22	25-Jan-00
452	9.8	27.7	38	0.9271	7:39:22	25-Jan-00
453	6.3	27.7	37	0.8225	7:40:22	25-Jan-00
454	5.8	27.7	38	0.6598	7:41:22	25-Jan-00
455	6.1	27.7	38	0.8221	7:42:22	25-Jan-00

456	7.1	27.7	38	0.942	7:43:22	25-Jan-00
457	14.8	27.7	37	1.3841	7:44:22	25-Jan-00
458	6	27.7	37	0.9395	7:45:22	25-Jan-00
459	16.3	27.7	37	0.9132	7:46:22	25-Jan-00
460	8.3	27.7	37	1.1486	7:47:22	25-Jan-00
461	5.4	27.7	38	0.7942	7:48:22	25-Jan-00
462	4.6	27.7	38	0.6558	7:49:22	25-Jan-00
463	15.3	27.6	38	1.2538	7:50:22	25-Jan-00
464	7.8	27.6	38	1.0092	7:51:22	25-Jan-00
465	5.6	27.7	38	0.592	7:52:22	25-Jan-00
466	7.5	27.6	38	0.5572	7:53:22	25-Jan-00
467	6.4	27.6	38	0.6233	7:54:22	25-Jan-00
468	12.3	27.7	37	0.982	7:55:22	25-Jan-00
469	6.3	27.7	37	0.6849	7:56:22	25-Jan-00
470	5.6	27.7	38	0.8155	7:57:22	25-Jan-00
471	7.7	27.6	38	1.2359	7:58:22	25-Jan-00
472	11.8	27.6	38	0.9364	7:59:22	25-Jan-00
473	10.1	27.6	38	0.7498	8:00:22	25-Jan-00
474	6.3	27.6	37	0.8275	8:01:22	25-Jan-00
475	5.4	27.6	38	0.685	8:02:22	25-Jan-00
476	6.6	27.6	37	0.7945	8:03:22	25-Jan-00
477	6.5	27.6	37	0.6865	8:04:22	25-Jan-00
478	18.4	27.6	37	1.3686	8:05:22	25-Jan-00
479	9.1	27.6	38	0.8008	8:06:22	25-Jan-00
480	15.5	27.6	38	1.0936	8:07:22	25-Jan-00
481	6.9	27.6	38	1.3004	8:08:22	25-Jan-00
482	5.3	27.7	38	0.7699	8:09:22	25-Jan-00
483	4.2	27.7	38	0.5855	8:10:22	25-Jan-00
484	8.1	27.7	37	0.7076	8:11:22	25-Jan-00
485	11.2	27.7	38	1.9249	8:12:22	25-Jan-00
486	12.7	27.7	37	1.206	8:13:22	25-Jan-00
487	12.2	27.7	37	1.0748	8:14:22	25-Jan-00
488	7.7	27.7	37	0.9695	8:15:22	25-Jan-00
489	15.9	27.8	37	0.9294	8:16:22	25-Jan-00
490	9.6	27.8	37	1.3072	8:17:22	25-Jan-00
491	10.4	27.9	37	1.0518	8:18:22	25-Jan-00
492	4.7	27.9	37	0.7022	8:19:22	25-Jan-00
493	23.3	27.9	37	1.5363	8:20:22	25-Jan-00
494	4.6	27.9	37	0.4952	8:21:22	25-Jan-00
495	7.9	28	37	0.6253	8:22:22	25-Jan-00
496	6.8	27.9	37	0.6839	8:23:22	25-Jan-00
497	4.4	28	37	0.4975	8:24:22	25-Jan-00
498	4	28	37	0.5333	8:25:22	25-Jan-00
499	3.4	28	37	0.4482	8:26:22	25-Jan-00
500	5.9	28	37	0.629	8:27:22	25-Jan-00
501	6.8	28	37	0.8363	8:28:22	25-Jan-00
502	5.8	28	37	0.6273	8:29:22	25-Jan-00
503	4.9	28	37	0.5441	8:30:22	25-Jan-00

504	6.4	28	37	0.6479	8:31:22	25-Jan-00
505	8.5	28	37	0.9218	8:32:22	25-Jan-00
506	9.1	28	37	1.3808	8:33:22	25-Jan-00
507	9.9	28	37	0.9725	8:34:22	25-Jan-00
508	5.9	28	37	0.6714	8:35:22	25-Jan-00
509	10.9	28	37	0.8303	8:36:22	25-Jan-00
510	6.4	28	37	0.5734	8:37:22	25-Jan-00
511	6	28	37	0.5059	8:38:22	25-Jan-00
512	9.7	28	37	0.8223	8:39:22	25-Jan-00
513	4.1	28	37	0.4553	8:40:22	25-Jan-00
514	7.6	28	37	0.565	8:41:22	25-Jan-00
515	5.4	28	37	0.4906	8:42:22	25-Jan-00
516	21.1	28	37	0.6273	8:43:22	25-Jan-00
517	6.6	28	37	0.8342	8:44:22	25-Jan-00
518	17.1	28	37	1.5766	8:45:22	25-Jan-00
519	4.9	28	37	0.6251	8:46:22	25-Jan-00
520	6	28	37	0.6506	8:47:22	25-Jan-00
521	37.1	28	37	1.2923	8:48:22	25-Jan-00
522	21.6	28	36	1.3622	8:49:22	25-Jan-00

"Model Number"	"DataRAM 4 "	106	**Nearest Occupied Building**	
"Serial no. "	"D201 "		**1-Jul-13**	
"Device no. "	1			
"Tag Number "	1			
"Start Time "	07:37:21			
"Start Date "	01-Jul-2013			
"Log Period "	00:01:00			
"Number "	665			
"CalFactor "	1			
"Unit "	0			
"Unit Name "	"(MASS)ug/m3"			
"SIZE_CORRECT"	"DISABLED"			
"TEMPUNITS "	C			
"Max MASS "	23.99334			
"Max MASS @ "	33	8:10:21	1-Jul-13	
"Avg MASS "	5.36041			
"Max Diam "	4.127007			
"Max Diam @ "	17	7:54:21	1-Jul-13	
"Avg Diam "	1.492594			
"ALARM "	"DISABLED"			
"ALARM_LEVEL "	0			
"AUTO_ZERO "	"DISABLED"			
"AZ INTERVAL "	1			
"Errors "	0			

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	5.6	23.1	61	1.2667	7:38:21	1-Jul-13
2	13.4	23.2	62	4.074	7:39:21	1-Jul-13
3	8.2	23.2	62	4.0096	7:40:21	1-Jul-13
4	5.9	23.3	63	3.5342	7:41:21	1-Jul-13
5	6.1	23.3	63	3.6444	7:42:21	1-Jul-13
6	8.5	23.4	63	3.8766	7:43:21	1-Jul-13
7	7.7	23.4	63	3.7619	7:44:21	1-Jul-13
8	5.4	23.5	63	2.9238	7:45:21	1-Jul-13
9	5.9	23.6	63	3.4489	7:46:21	1-Jul-13
10	5.9	23.6	63	3.6842	7:47:21	1-Jul-13
11	6.3	23.7	64	3.8767	7:48:21	1-Jul-13
12	7.5	23.8	64	3.7189	7:49:21	1-Jul-13
13	8	23.9	64	3.8417	7:50:21	1-Jul-13
14	6.1	24	64	3.7765	7:51:21	1-Jul-13
15	6.1	24.1	64	3.3195	7:52:21	1-Jul-13
16	10.8	24.1	64	3.7776	7:53:21	1-Jul-13
17	23.5	24.2	64	4.127	7:54:21	1-Jul-13
18	10.7	24.3	63	4.0942	7:55:21	1-Jul-13
19	6.7	24.4	63	3.4416	7:56:21	1-Jul-13
20	5	24.5	63	2.3548	7:57:21	1-Jul-13
21	5.1	24.6	63	2.646	7:58:21	1-Jul-13
22	4.6	24.7	63	2.1228	7:59:21	1-Jul-13
23	6.7	24.7	63	2.7283	8:00:21	1-Jul-13

24	6.4	24.8	63	3.7745	8:01:21	1-Jul-13
25	7.4	24.9	63	4.0096	8:02:21	1-Jul-13
26	7.4	25	62	2.9782	8:03:21	1-Jul-13
27	6.7	25	62	3.1776	8:04:21	1-Jul-13
28	6.3	25.1	62	1.8782	8:05:21	1-Jul-13
29	7.6	25.2	61	3.8407	8:06:21	1-Jul-13
30	6.7	25.3	61	3.7617	8:07:21	1-Jul-13
31	5.7	25.4	61	3.5794	8:08:21	1-Jul-13
32	4.5	25.5	61	3.0203	8:09:21	1-Jul-13
33	24	25.6	61	3.7432	8:10:21	1-Jul-13
34	12.5	25.6	61	3.055	8:11:21	1-Jul-13
35	9.2	25.7	61	3.9675	8:12:21	1-Jul-13
36	6.7	25.8	61	3.2282	8:13:21	1-Jul-13
37	4.6	25.9	60	2.3746	8:14:21	1-Jul-13
38	4.4	26	60	2.0421	8:15:21	1-Jul-13
39	4.9	26.1	60	2.2422	8:16:21	1-Jul-13
40	4.9	26.1	60	2.443	8:17:21	1-Jul-13
41	5.1	26.2	60	2.7345	8:18:21	1-Jul-13
42	3.9	26.3	60	1.6506	8:19:21	1-Jul-13
43	3.7	26.4	59	1.7265	8:20:21	1-Jul-13
44	4.5	26.5	59	1.6767	8:21:21	1-Jul-13
45	3.8	26.6	59	1.0431	8:22:21	1-Jul-13
46	5.1	26.7	59	2.973	8:23:21	1-Jul-13
47	3.7	26.8	59	2.1226	8:24:21	1-Jul-13
48	7.1	27	59	3.9114	8:25:21	1-Jul-13
49	4.7	27.1	59	2.1755	8:26:21	1-Jul-13
50	4.1	27.2	59	1.9621	8:27:21	1-Jul-13
51	4	27.3	58	2.0226	8:28:21	1-Jul-13
52	5	27.5	58	2.4649	8:29:21	1-Jul-13
53	3.9	27.5	58	1.9123	8:30:21	1-Jul-13
54	4.1	27.6	58	2.1225	8:31:21	1-Jul-13
55	3.5	27.7	58	1.1386	8:32:21	1-Jul-13
56	4.1	27.8	58	1.6319	8:33:21	1-Jul-13
57	4.4	28	57	2.757	8:34:21	1-Jul-13
58	3.9	28.1	56	1.6899	8:35:21	1-Jul-13
59	4.4	28.2	56	2.9454	8:36:21	1-Jul-13
60	3.9	28.3	56	1.4084	8:37:21	1-Jul-13
61	3.5	28.4	55	0.7855	8:38:21	1-Jul-13
62	4.2	28.5	55	1.0377	8:39:21	1-Jul-13
63	4.7	28.6	54	1.4502	8:40:21	1-Jul-13
64	3.6	28.7	54	1.1262	8:41:21	1-Jul-13
65	4.8	28.9	54	2.357	8:42:21	1-Jul-13
66	4.1	29	54	1.5035	8:43:21	1-Jul-13
67	4.1	29.1	53	1.7286	8:44:21	1-Jul-13
68	3.4	29.2	53	1.2447	8:45:21	1-Jul-13
69	3.4	29.4	54	1.2217	8:46:21	1-Jul-13
70	3.6	29.5	54	1.3484	8:47:21	1-Jul-13
71	4.1	29.6	54	2.1011	8:48:21	1-Jul-13

72	5.2	29.8	54	2.3683	8:49:21	1-Jul-13
73	5.1	29.9	53	1.7681	8:50:21	1-Jul-13
74	3.6	30.1	53	0.9457	8:51:21	1-Jul-13
75	3.6	30.2	53	1.3688	8:52:21	1-Jul-13
76	3.4	30.4	53	1.2471	8:53:21	1-Jul-13
77	3	30.5	53	1.0059	8:54:21	1-Jul-13
78	2.8	30.6	52	0.9297	8:55:21	1-Jul-13
79	2.7	30.8	52	0.8845	8:56:21	1-Jul-13
80	3.1	30.9	51	1.0049	8:57:21	1-Jul-13
81	3	31	51	1.5017	8:58:21	1-Jul-13
82	6.7	31.1	51	2.4232	8:59:21	1-Jul-13
83	3	31.2	51	0.8774	9:00:21	1-Jul-13
84	2.8	31.2	50	0.7791	9:01:21	1-Jul-13
85	2.3	31.3	50	0.6239	9:02:21	1-Jul-13
86	2.8	31.4	49	0.7455	9:03:21	1-Jul-13
87	2.4	31.4	49	0.7093	9:04:21	1-Jul-13
88	2.6	31.4	49	0.707	9:05:21	1-Jul-13
89	2.4	31.5	49	0.6892	9:06:21	1-Jul-13
90	3.1	31.5	48	0.9818	9:07:21	1-Jul-13
91	2.4	31.5	48	0.9415	9:08:21	1-Jul-13
92	2.8	31.5	48	1.108	9:09:21	1-Jul-13
93	3.1	31.5	48	1.5839	9:10:21	1-Jul-13
94	11.7	31.5	48	3.3776	9:11:21	1-Jul-13
95	3.1	31.6	48	1.1023	9:12:21	1-Jul-13
96	3	31.6	48	1.0013	9:13:21	1-Jul-13
97	3.4	31.7	48	1.6364	9:14:21	1-Jul-13
98	2.9	31.7	47	1.1613	9:15:21	1-Jul-13
99	2.9	31.7	47	1.26	9:16:21	1-Jul-13
100	3.3	31.7	47	1.3865	9:17:21	1-Jul-13
101	8	31.7	47	3.5086	9:18:21	1-Jul-13
102	4.1	31.7	47	2.4202	9:19:21	1-Jul-13
103	7.6	31.8	47	2.796	9:20:21	1-Jul-13
104	5.5	31.9	47	1.445	9:21:21	1-Jul-13
105	6.5	31.9	47	1.5923	9:22:21	1-Jul-13
106	5.3	32	47	1.385	9:23:21	1-Jul-13
107	4.8	32	46	1.3552	9:24:21	1-Jul-13
108	3.5	32	46	1.0726	9:25:21	1-Jul-13
109	3.2	32	46	0.7664	9:26:21	1-Jul-13
110	2.7	32.1	46	0.6704	9:27:21	1-Jul-13
111	2.8	32.1	46	0.6504	9:28:21	1-Jul-13
112	3.8	32.2	46	1.041	9:29:21	1-Jul-13
113	3.6	32.2	46	0.9311	9:30:21	1-Jul-13
114	4	32.3	46	1.2109	9:31:21	1-Jul-13
115	4	32.3	46	1.7496	9:32:21	1-Jul-13
116	3.1	32.4	46	0.8277	9:33:21	1-Jul-13
117	4.4	32.5	45	1.4951	9:34:21	1-Jul-13
118	3.2	32.5	45	0.7471	9:35:21	1-Jul-13
119	3.7	32.5	45	1.0189	9:36:21	1-Jul-13

120	3.2	32.6	45	1.2965	9:37:21	1-Jul-13
121	4.1	32.6	45	1.5019	9:38:21	1-Jul-13
122	5.2	32.6	44	2.4396	9:39:21	1-Jul-13
123	3.9	32.6	44	1.5405	9:40:21	1-Jul-13
124	3.6	32.7	44	1.0001	9:41:21	1-Jul-13
125	4.2	32.7	44	1.6972	9:42:21	1-Jul-13
126	8.5	32.7	43	2.3513	9:43:21	1-Jul-13
127	5.7	32.7	43	1.4257	9:44:21	1-Jul-13
128	4.4	32.7	43	1.6955	9:45:21	1-Jul-13
129	3.8	32.7	44	1.4682	9:46:21	1-Jul-13
130	4	32.7	43	0.8915	9:47:21	1-Jul-13
131	3.8	32.7	43	0.6949	9:48:21	1-Jul-13
132	3.3	32.7	43	0.6338	9:49:21	1-Jul-13
133	3.9	32.7	43	0.7232	9:50:21	1-Jul-13
134	4.6	32.7	43	1.5581	9:51:21	1-Jul-13
135	4.1	32.7	43	1.2789	9:52:21	1-Jul-13
136	4.7	32.6	43	1.0674	9:53:21	1-Jul-13
137	4.1	32.7	43	0.8236	9:54:21	1-Jul-13
138	4	32.7	44	0.936	9:55:21	1-Jul-13
139	4.2	32.6	44	0.944	9:56:21	1-Jul-13
140	5.3	32.7	44	1.8692	9:57:21	1-Jul-13
141	7.1	32.6	44	1.9612	9:58:21	1-Jul-13
142	5.5	32.6	44	1.4043	9:59:21	1-Jul-13
143	5	32.6	44	1.0538	10:00:21	1-Jul-13
144	5.3	32.6	44	2.0229	10:01:21	1-Jul-13
145	5	32.6	44	1.2683	10:02:21	1-Jul-13
146	5.8	32.6	44	2.0631	10:03:21	1-Jul-13
147	5.1	32.5	44	0.9249	10:04:21	1-Jul-13
148	5.4	32.5	44	1.1753	10:05:21	1-Jul-13
149	5.4	32.4	44	1.0059	10:06:21	1-Jul-13
150	5.6	32.4	44	1.1539	10:07:21	1-Jul-13
151	5.7	32.3	44	1.395	10:08:21	1-Jul-13
152	5.9	32.3	44	1.9674	10:09:21	1-Jul-13
153	7.7	32.2	44	1.8801	10:10:21	1-Jul-13
154	6	32.2	44	1.7209	10:11:21	1-Jul-13
155	5.7	32.2	44	1.2976	10:12:21	1-Jul-13
156	5.6	32.2	44	0.88	10:13:21	1-Jul-13
157	5.2	32.2	44	0.9991	10:14:21	1-Jul-13
158	5.6	32.2	44	1.568	10:15:21	1-Jul-13
159	6.4	32.3	44	1.4638	10:16:21	1-Jul-13
160	5.9	32.2	44	1.0902	10:17:21	1-Jul-13
161	5.4	32.3	44	1.0069	10:18:21	1-Jul-13
162	6.8	32.3	44	1.5872	10:19:21	1-Jul-13
163	6.1	32.3	44	1.3539	10:20:21	1-Jul-13
164	6.1	32.3	44	1.5057	10:21:21	1-Jul-13
165	5.9	32.4	44	1.2686	10:22:21	1-Jul-13
166	5.8	32.4	44	1.4558	10:23:21	1-Jul-13
167	6.5	32.4	44	1.6926	10:24:21	1-Jul-13

168	5.8	32.5	44	1.4366	10:25:21	1-Jul-13
169	5.8	32.5	45	1.372	10:26:21	1-Jul-13
170	5.9	32.6	45	1.3168	10:27:21	1-Jul-13
171	5.9	32.7	45	1.3223	10:28:21	1-Jul-13
172	5.6	32.7	45	1.0058	10:29:21	1-Jul-13
173	5.5	32.8	44	0.7826	10:30:21	1-Jul-13
174	5.7	32.8	44	0.8105	10:31:21	1-Jul-13
175	6	32.8	44	0.8503	10:32:21	1-Jul-13
176	6.2	32.8	44	1.4463	10:33:21	1-Jul-13
177	6.1	32.8	44	0.8382	10:34:21	1-Jul-13
178	6	32.8	44	1.114	10:35:21	1-Jul-13
179	5.8	32.8	43	0.9394	10:36:21	1-Jul-13
180	5.6	32.7	43	0.7179	10:37:21	1-Jul-13
181	6.3	32.7	44	1.089	10:38:21	1-Jul-13
182	5.8	32.7	43	0.9936	10:39:21	1-Jul-13
183	6.6	32.8	43	1.2767	10:40:21	1-Jul-13
184	6.1	32.8	43	0.7825	10:41:21	1-Jul-13
185	6	32.8	43	0.9934	10:42:21	1-Jul-13
186	6.4	32.9	43	0.9765	10:43:21	1-Jul-13
187	5.9	32.9	43	0.9518	10:44:21	1-Jul-13
188	5.9	32.9	43	0.8008	10:45:21	1-Jul-13
189	6.2	33	43	0.7645	10:46:21	1-Jul-13
190	6	33	43	0.7469	10:47:21	1-Jul-13
191	6.5	33	43	1.2476	10:48:21	1-Jul-13
192	6.5	33	43	1.0945	10:49:21	1-Jul-13
193	6.5	33.1	43	1.4337	10:50:21	1-Jul-13
194	6.3	33.1	43	1.0616	10:51:21	1-Jul-13
195	6.3	33.1	43	1.144	10:52:21	1-Jul-13
196	6.4	33.2	43	0.9925	10:53:21	1-Jul-13
197	6.5	33.2	43	0.9862	10:54:21	1-Jul-13
198	6.3	33.2	43	0.9119	10:55:21	1-Jul-13
199	6.3	33.2	43	0.9145	10:56:21	1-Jul-13
200	7	33.3	43	1.3418	10:57:21	1-Jul-13
201	6.5	33.3	43	1.0641	10:58:21	1-Jul-13
202	7.4	33.4	43	1.3334	10:59:21	1-Jul-13
203	7.1	33.4	43	1.3234	11:00:21	1-Jul-13
204	7	33.4	42	0.8559	11:01:21	1-Jul-13
205	6.5	33.4	42	0.7827	11:02:21	1-Jul-13
206	5.6	33.5	42	0.8352	11:03:21	1-Jul-13
207	6.1	33.5	42	0.842	11:04:21	1-Jul-13
208	6.7	33.6	42	1.1124	11:05:21	1-Jul-13
209	7	33.6	42	1.5516	11:06:21	1-Jul-13
210	6.4	33.7	42	0.9481	11:07:21	1-Jul-13
211	6.6	33.7	42	0.965	11:08:21	1-Jul-13
212	6.3	33.8	42	0.834	11:09:21	1-Jul-13
213	6.7	34	43	1.2234	11:10:21	1-Jul-13
214	6.5	34	42	1.1726	11:11:21	1-Jul-13
215	6.6	34.1	42	1.338	11:12:21	1-Jul-13

216	6.9	34.2	42	1.3624	11:13:21	1-Jul-13
217	6.9	34.3	41	1.2506	11:14:21	1-Jul-13
218	6.8	34.4	41	0.9413	11:15:21	1-Jul-13
219	6.2	34.4	41	0.9314	11:16:21	1-Jul-13
220	5.8	34.5	41	0.7126	11:17:21	1-Jul-13
221	7.1	34.6	41	1.2909	11:18:21	1-Jul-13
222	6.7	34.6	41	1.0474	11:19:21	1-Jul-13
223	6.4	34.7	41	1.2803	11:20:21	1-Jul-13
224	6.5	34.8	41	1.4242	11:21:21	1-Jul-13
225	6.3	34.9	41	1.2147	11:22:21	1-Jul-13
226	9.3	35	40	2.2462	11:23:21	1-Jul-13
227	6.3	35	40	1.1201	11:24:21	1-Jul-13
228	7.6	35.1	40	1.4279	11:25:21	1-Jul-13
229	8.9	35.1	40	2.1305	11:26:21	1-Jul-13
230	7.2	35.2	40	1.9952	11:27:21	1-Jul-13
231	6.5	35.2	40	1.156	11:28:21	1-Jul-13
232	7.6	35.3	40	1.0727	11:29:21	1-Jul-13
233	7.3	35.4	40	1.387	11:30:21	1-Jul-13
234	6.4	35.4	40	1.2449	11:31:21	1-Jul-13
235	6.1	35.5	40	1.0529	11:32:21	1-Jul-13
236	6	35.5	39	0.8677	11:33:21	1-Jul-13
237	6.3	35.6	39	1.1485	11:34:21	1-Jul-13
238	6.8	35.6	39	1.7736	11:35:21	1-Jul-13
239	6.3	35.7	39	1.0102	11:36:21	1-Jul-13
240	7	35.7	39	1.8825	11:37:21	1-Jul-13
241	7.2	35.8	39	1.4824	11:38:21	1-Jul-13
242	9.5	35.8	39	2.0384	11:39:21	1-Jul-13
243	6.5	35.9	39	1.0105	11:40:21	1-Jul-13
244	5.9	36	39	0.9646	11:41:21	1-Jul-13
245	6.3	36	39	0.9365	11:42:21	1-Jul-13
246	6.6	36.1	39	1.254	11:43:21	1-Jul-13
247	6	36.2	39	0.9107	11:44:21	1-Jul-13
248	6.6	36.3	39	1.1082	11:45:21	1-Jul-13
249	6.5	36.3	39	1.2328	11:46:21	1-Jul-13
250	6.5	36.4	39	1.259	11:47:21	1-Jul-13
251	6.8	36.5	38	1.3709	11:48:21	1-Jul-13
252	6.7	36.5	38	1.212	11:49:21	1-Jul-13
253	6.7	36.6	38	1.322	11:50:21	1-Jul-13
254	6.8	36.6	38	2.1275	11:51:21	1-Jul-13
255	7	36.6	38	1.434	11:52:21	1-Jul-13
256	7.1	36.7	38	1.1658	11:53:21	1-Jul-13
257	6.7	36.7	38	1.3152	11:54:21	1-Jul-13
258	6.5	36.7	38	1.2893	11:55:21	1-Jul-13
259	6.7	36.7	39	1.3406	11:56:21	1-Jul-13
260	6.8	36.7	39	1.9828	11:57:21	1-Jul-13
261	7	36.8	39	1.622	11:58:21	1-Jul-13
262	7	36.8	38	1.1617	11:59:21	1-Jul-13
263	6.4	36.8	38	0.9055	12:00:21	1-Jul-13

264	6.9	36.8	38	1.2938	12:01:21	1-Jul-13
265	6.8	36.8	38	1.1869	12:02:21	1-Jul-13
266	7.1	36.8	37	1.2227	12:03:21	1-Jul-13
267	6.6	36.7	37	1.1962	12:04:21	1-Jul-13
268	7.1	36.7	37	1.0503	12:05:21	1-Jul-13
269	6.4	36.7	38	1.0964	12:06:21	1-Jul-13
270	6.8	36.7	38	1.4653	12:07:21	1-Jul-13
271	17.6	36.7	38	3.4755	12:08:21	1-Jul-13
272	9.8	36.6	37	3.1719	12:09:21	1-Jul-13
273	6.6	36.6	37	0.9267	12:10:21	1-Jul-13
274	8.5	36.6	37	2.2773	12:11:21	1-Jul-13
275	6.6	36.5	37	1.0242	12:12:21	1-Jul-13
276	6.9	36.5	37	0.9928	12:13:21	1-Jul-13
277	6.2	36.4	38	0.7498	12:14:21	1-Jul-13
278	6.6	36.4	38	0.9841	12:15:21	1-Jul-13
279	6.9	36.3	38	1.3726	12:16:21	1-Jul-13
280	6.6	36.3	38	1.2926	12:17:21	1-Jul-13
281	7.3	36.2	38	2.4189	12:18:21	1-Jul-13
282	6.5	36.2	38	1.0606	12:19:21	1-Jul-13
283	6.8	36.2	38	1.2606	12:20:21	1-Jul-13
284	6.5	36.2	39	1.3601	12:21:21	1-Jul-13
285	6.8	36.1	39	1.1759	12:22:21	1-Jul-13
286	6.4	36.1	39	1.1177	12:23:21	1-Jul-13
287	7.1	36.1	39	1.3784	12:24:21	1-Jul-13
288	7.2	36.1	39	1.3446	12:25:21	1-Jul-13
289	7.4	36.1	39	1.4917	12:26:21	1-Jul-13
290	6.6	36.1	39	1.2798	12:27:21	1-Jul-13
291	6.9	36.1	39	1.8607	12:28:21	1-Jul-13
292	7	36.1	39	1.611	12:29:21	1-Jul-13
293	6.8	36.1	39	1.275	12:30:21	1-Jul-13
294	6.6	36.1	39	1.5176	12:31:21	1-Jul-13
295	6.9	36.1	39	2.1006	12:32:21	1-Jul-13
296	6.6	36.1	39	1.0716	12:33:21	1-Jul-13
297	6.2	36.1	38	0.8825	12:34:21	1-Jul-13
298	6.1	36.1	38	0.8784	12:35:21	1-Jul-13
299	6.8	36.1	38	1.1969	12:36:21	1-Jul-13
300	6.8	36.1	38	1.4252	12:37:21	1-Jul-13
301	6.1	36.1	38	0.9352	12:38:21	1-Jul-13
302	6.4	36.1	38	1.0812	12:39:21	1-Jul-13
303	6.6	36.1	38	1.6531	12:40:21	1-Jul-13
304	7.5	36.1	38	1.1019	12:41:21	1-Jul-13
305	6.5	36.1	38	1.0496	12:42:21	1-Jul-13
306	5.9	36.1	39	0.9163	12:43:21	1-Jul-13
307	6.4	36.1	38	1.2301	12:44:21	1-Jul-13
308	6.1	36.1	38	1.0275	12:45:21	1-Jul-13
309	5.9	36.1	39	0.8856	12:46:21	1-Jul-13
310	6.5	36.2	39	1.5393	12:47:21	1-Jul-13
311	6.5	36.2	39	1.616	12:48:21	1-Jul-13

312	6.4	36.2	39	1.3755	12:49:21	1-Jul-13
313	6.8	36.3	38	2.4807	12:50:21	1-Jul-13
314	6.8	36.3	38	1.4606	12:51:21	1-Jul-13
315	7.1	36.3	38	2.5307	12:52:21	1-Jul-13
316	6.9	36.3	38	1.7841	12:53:21	1-Jul-13
317	6	36.3	38	0.9665	12:54:21	1-Jul-13
318	6.4	36.3	39	1.169	12:55:21	1-Jul-13
319	6.5	36.3	38	1.5882	12:56:21	1-Jul-13
320	6.6	36.3	39	1.317	12:57:21	1-Jul-13
321	7.1	36.3	38	1.9682	12:58:21	1-Jul-13
322	6.7	36.3	38	1.6917	12:59:21	1-Jul-13
323	6.4	36.3	39	1.4156	13:00:21	1-Jul-13
324	7.4	36.2	39	1.9307	13:01:21	1-Jul-13
325	6.4	36.2	39	1.062	13:02:21	1-Jul-13
326	7.8	36.2	39	0.9627	13:03:21	1-Jul-13
327	7.1	36.2	39	0.9667	13:04:21	1-Jul-13
328	6	36.2	39	0.9098	13:05:21	1-Jul-13
329	6.5	36.2	39	0.9114	13:06:21	1-Jul-13
330	6.7	36.2	39	1.1517	13:07:21	1-Jul-13
331	6.6	36.2	39	1.4316	13:08:21	1-Jul-13
332	6.5	36.2	39	1.0448	13:09:21	1-Jul-13
333	6.4	36.1	39	1.0122	13:10:21	1-Jul-13
334	7	36.1	39	1.3197	13:11:21	1-Jul-13
335	6.3	36.1	39	1.3183	13:12:21	1-Jul-13
336	6.8	36.1	39	1.2899	13:13:21	1-Jul-13
337	7.7	36.1	39	1.4841	13:14:21	1-Jul-13
338	7	36.1	39	1.6675	13:15:21	1-Jul-13
339	7.2	36.1	39	1.2973	13:16:21	1-Jul-13
340	7.2	36.1	40	1.1379	13:17:21	1-Jul-13
341	7	36.1	39	0.9875	13:18:21	1-Jul-13
342	7	36.1	39	1.4506	13:19:21	1-Jul-13
343	7	36.1	39	1.1436	13:20:21	1-Jul-13
344	6.7	36.1	40	0.9732	13:21:21	1-Jul-13
345	7.1	36.1	40	2.1214	13:22:21	1-Jul-13
346	7.2	36.1	40	1.9503	13:23:21	1-Jul-13
347	6.4	36.1	40	0.9093	13:24:21	1-Jul-13
348	6.6	36.1	40	0.9316	13:25:21	1-Jul-13
349	6.8	36.1	40	1.1229	13:26:21	1-Jul-13
350	6.5	36.1	40	1.1981	13:27:21	1-Jul-13
351	6.4	36.1	40	1.0541	13:28:21	1-Jul-13
352	6.2	36.1	40	1.0331	13:29:21	1-Jul-13
353	6.4	36.1	40	0.9257	13:30:21	1-Jul-13
354	6.6	36.1	40	1.5917	13:31:21	1-Jul-13
355	6.8	36.1	40	1.3668	13:32:21	1-Jul-13
356	5.9	36.1	40	0.7845	13:33:21	1-Jul-13
357	6.2	36.1	40	1.1218	13:34:21	1-Jul-13
358	6.3	36.1	40	1.0585	13:35:21	1-Jul-13
359	7.1	36.1	40	1.3386	13:36:21	1-Jul-13

360	6.4	36.1	40	1.2893	13:37:21	1-Jul-13
361	6.1	36.1	40	1.6031	13:38:21	1-Jul-13
362	6.6	36.1	40	1.6582	13:39:21	1-Jul-13
363	6.5	36.1	40	2.4132	13:40:21	1-Jul-13
364	6.3	36.2	39	1.343	13:41:21	1-Jul-13
365	5.7	36.1	40	1.007	13:42:21	1-Jul-13
366	5.7	36.1	40	0.9165	13:43:21	1-Jul-13
367	5.4	36.1	39	0.8428	13:44:21	1-Jul-13
368	6	36.1	40	1.2494	13:45:21	1-Jul-13
369	8.5	36.1	39	2.5859	13:46:21	1-Jul-13
370	7.2	36.1	39	2.4348	13:47:21	1-Jul-13
371	5.6	36	39	1.1509	13:48:21	1-Jul-13
372	5.9	36	39	1.2404	13:49:21	1-Jul-13
373	5.6	36	39	1.25	13:50:21	1-Jul-13
374	5.2	35.9	39	1.2376	13:51:21	1-Jul-13
375	5.4	35.9	39	1.2425	13:52:21	1-Jul-13
376	5.7	35.9	39	1.5095	13:53:21	1-Jul-13
377	5.8	35.8	39	1.3064	13:54:21	1-Jul-13
378	5.5	35.8	40	1.0414	13:55:21	1-Jul-13
379	5.9	35.8	40	2.774	13:56:21	1-Jul-13
380	5.8	35.7	40	2.0356	13:57:21	1-Jul-13
381	5.9	35.7	40	1.4136	13:58:21	1-Jul-13
382	4.6	35.7	40	0.6983	13:59:21	1-Jul-13
383	5.7	35.7	40	1.2013	14:00:21	1-Jul-13
384	5.2	35.6	40	0.9666	14:01:21	1-Jul-13
385	5.6	35.6	40	1.7274	14:02:21	1-Jul-13
386	5	35.6	40	0.7999	14:03:21	1-Jul-13
387	4.8	35.6	40	0.9606	14:04:21	1-Jul-13
388	5.6	35.5	40	1.2038	14:05:21	1-Jul-13
389	6.1	35.5	41	2.5897	14:06:21	1-Jul-13
390	5.7	35.5	41	2.0484	14:07:21	1-Jul-13
391	5.5	35.5	41	1.9404	14:08:21	1-Jul-13
392	5.5	35.4	40	1.7685	14:09:21	1-Jul-13
393	5.5	35.4	40	1.1445	14:10:21	1-Jul-13
394	5	35.3	40	1.2185	14:11:21	1-Jul-13
395	5.2	35.3	40	1.0069	14:12:21	1-Jul-13
396	6.3	35.2	40	2.4474	14:13:21	1-Jul-13
397	5.7	35.1	41	1.7147	14:14:21	1-Jul-13
398	5.2	35.1	41	0.8747	14:15:21	1-Jul-13
399	5.4	35	41	1.8863	14:16:21	1-Jul-13
400	5.1	35	41	1.2432	14:17:21	1-Jul-13
401	5	34.9	41	1.108	14:18:21	1-Jul-13
402	5.5	34.8	42	1.0076	14:19:21	1-Jul-13
403	5.5	34.8	42	1.1967	14:20:21	1-Jul-13
404	5.3	34.7	41	1.2465	14:21:21	1-Jul-13
405	5.1	34.7	41	1.5875	14:22:21	1-Jul-13
406	4.9	34.6	41	0.9205	14:23:21	1-Jul-13
407	5.3	34.5	41	1.4008	14:24:21	1-Jul-13

408	5.4	34.5	41	1.4983	14:25:21	1-Jul-13
409	5.5	34.4	42	1.171	14:26:21	1-Jul-13
410	5.6	34.4	42	1.3308	14:27:21	1-Jul-13
411	5.4	34.3	42	1.0397	14:28:21	1-Jul-13
412	5.1	34.3	42	1.0633	14:29:21	1-Jul-13
413	5.1	34.2	42	1.4856	14:30:21	1-Jul-13
414	6.3	34.2	42	2.6675	14:31:21	1-Jul-13
415	5.6	34.2	42	1.413	14:32:21	1-Jul-13
416	4.8	34.2	42	1.2799	14:33:21	1-Jul-13
417	5.1	34.2	42	1.3899	14:34:21	1-Jul-13
418	5.2	34.2	42	1.2726	14:35:21	1-Jul-13
419	5.4	34.2	43	1.2908	14:36:21	1-Jul-13
420	4.5	34.2	42	0.9385	14:37:21	1-Jul-13
421	4.5	34.2	43	0.9996	14:38:21	1-Jul-13
422	4.9	34.2	43	0.9353	14:39:21	1-Jul-13
423	5	34.2	43	1.2207	14:40:21	1-Jul-13
424	4.7	34.2	42	0.7725	14:41:21	1-Jul-13
425	4.9	34.3	42	0.955	14:42:21	1-Jul-13
426	4.6	34.3	42	1.1616	14:43:21	1-Jul-13
427	4	34.3	42	0.8566	14:44:21	1-Jul-13
428	4.8	34.3	43	1.1391	14:45:21	1-Jul-13
429	4.1	34.4	43	0.9284	14:46:21	1-Jul-13
430	4.7	34.4	42	1.1817	14:47:21	1-Jul-13
431	5.2	34.4	42	1.4895	14:48:21	1-Jul-13
432	5	34.4	42	1.7568	14:49:21	1-Jul-13
433	4.7	34.5	42	1.7317	14:50:21	1-Jul-13
434	4.5	34.5	42	0.9419	14:51:21	1-Jul-13
435	4.4	34.5	42	0.8469	14:52:21	1-Jul-13
436	4.6	34.5	43	1.002	14:53:21	1-Jul-13
437	4.8	34.6	42	1.5665	14:54:21	1-Jul-13
438	4.6	34.6	42	1.7518	14:55:21	1-Jul-13
439	4.2	34.6	42	1.1832	14:56:21	1-Jul-13
440	4.6	34.6	42	1.3937	14:57:21	1-Jul-13
441	4.1	34.6	42	1.3686	14:58:21	1-Jul-13
442	4.2	34.7	42	1.3598	14:59:21	1-Jul-13
443	4.2	34.7	42	1.4213	15:00:21	1-Jul-13
444	4.7	34.7	42	1.1717	15:01:21	1-Jul-13
445	4.2	34.7	42	1.1378	15:02:21	1-Jul-13
446	4.4	34.8	42	1.214	15:03:21	1-Jul-13
447	10.7	34.8	42	2.0341	15:04:21	1-Jul-13
448	4.6	34.8	42	1.6373	15:05:21	1-Jul-13
449	4.5	34.8	42	1.9063	15:06:21	1-Jul-13
450	4.8	34.8	42	1.4111	15:07:21	1-Jul-13
451	4.4	34.9	42	1.3409	15:08:21	1-Jul-13
452	4.7	34.9	42	1.1988	15:09:21	1-Jul-13
453	3.7	34.9	42	0.5587	15:10:21	1-Jul-13
454	3.8	34.9	42	0.6068	15:11:21	1-Jul-13
455	3.9	34.9	42	0.7143	15:12:21	1-Jul-13

456	4.9	34.9	42	1.9772	15:13:21	1-Jul-13
457	4.7	34.9	41	2.3999	15:14:21	1-Jul-13
458	5.2	34.9	42	2.1741	15:15:21	1-Jul-13
459	4.1	34.9	42	1.8481	15:16:21	1-Jul-13
460	4.8	34.9	41	2.2874	15:17:21	1-Jul-13
461	4.6	34.9	42	1.7837	15:18:21	1-Jul-13
462	4.3	34.9	42	1.1933	15:19:21	1-Jul-13
463	4.1	35	42	1.3337	15:20:21	1-Jul-13
464	3.8	35	42	1.0474	15:21:21	1-Jul-13
465	4.1	35	42	1.4029	15:22:21	1-Jul-13
466	4.1	35	42	1.1316	15:23:21	1-Jul-13
467	3.8	35.1	42	0.9261	15:24:21	1-Jul-13
468	4	35.1	42	1.1384	15:25:21	1-Jul-13
469	4.1	35	41	2.1829	15:26:21	1-Jul-13
470	4.5	35	41	2.1309	15:27:21	1-Jul-13
471	4.5	35	41	1.4446	15:28:21	1-Jul-13
472	3.6	34.9	41	1.2329	15:29:21	1-Jul-13
473	3.7	34.9	42	0.9604	15:30:21	1-Jul-13
474	3.8	34.9	42	1.1936	15:31:21	1-Jul-13
475	4.1	34.8	42	1.9892	15:32:21	1-Jul-13
476	3.3	34.8	42	0.8443	15:33:21	1-Jul-13
477	3.9	34.9	42	1.4796	15:34:21	1-Jul-13
478	4	34.9	42	1.1108	15:35:21	1-Jul-13
479	4	34.9	42	0.9734	15:36:21	1-Jul-13
480	4	35	42	1.5171	15:37:21	1-Jul-13
481	3.9	35	42	1.6584	15:38:21	1-Jul-13
482	3.6	35	42	1.1285	15:39:21	1-Jul-13
483	3.7	35.1	42	0.8113	15:40:21	1-Jul-13
484	3.6	35.1	42	1.0382	15:41:21	1-Jul-13
485	3.3	35.1	42	0.9474	15:42:21	1-Jul-13
486	4.3	35.1	41	2.6152	15:43:21	1-Jul-13
487	4.1	35.2	42	1.4388	15:44:21	1-Jul-13
488	4.3	35.2	42	1.2444	15:45:21	1-Jul-13
489	5.3	35.2	41	1.7865	15:46:21	1-Jul-13
490	4.5	35.2	41	1.7332	15:47:21	1-Jul-13
491	4.2	35.2	41	1.8103	15:48:21	1-Jul-13
492	4.7	35.2	41	2.2924	15:49:21	1-Jul-13
493	4	35.3	42	2.4159	15:50:21	1-Jul-13
494	4.1	35.3	41	1.8928	15:51:21	1-Jul-13
495	3.3	35.4	41	1.0901	15:52:21	1-Jul-13
496	4.1	35.4	41	1.797	15:53:21	1-Jul-13
497	3.8	35.5	42	1.373	15:54:21	1-Jul-13
498	4.1	35.5	42	1.7574	15:55:21	1-Jul-13
499	3.5	35.6	41	1.2079	15:56:21	1-Jul-13
500	3.7	35.6	41	1.0673	15:57:21	1-Jul-13
501	4.1	35.7	41	1.5347	15:58:21	1-Jul-13
502	3.5	35.7	41	1.0744	15:59:21	1-Jul-13
503	3.9	35.7	41	1.3777	16:00:21	1-Jul-13

504	5.2	35.7	40	2.9818	16:01:21	1-Jul-13
505	3.6	35.7	40	1.0722	16:02:21	1-Jul-13
506	3.8	35.7	40	1.0578	16:03:21	1-Jul-13
507	4.5	35.7	40	1.8181	16:04:21	1-Jul-13
508	3.6	35.7	40	1.1639	16:05:21	1-Jul-13
509	4.1	35.7	40	0.901	16:06:21	1-Jul-13
510	4	35.8	40	0.9302	16:07:21	1-Jul-13
511	4.1	35.8	40	1.4721	16:08:21	1-Jul-13
512	3.9	35.7	40	1.1281	16:09:21	1-Jul-13
513	3.6	35.8	40	0.7782	16:10:21	1-Jul-13
514	4	35.8	40	0.909	16:11:21	1-Jul-13
515	4.9	35.8	40	2.2012	16:12:21	1-Jul-13
516	3.9	35.8	40	1.4172	16:13:21	1-Jul-13
517	4.2	35.8	40	2.1377	16:14:21	1-Jul-13
518	4.2	35.8	40	1.89	16:15:21	1-Jul-13
519	4.3	35.8	40	1.7547	16:16:21	1-Jul-13
520	4.7	35.8	40	2.9935	16:17:21	1-Jul-13
521	4.1	35.8	40	2.0778	16:18:21	1-Jul-13
522	9.8	35.8	40	2.9699	16:19:21	1-Jul-13
523	6.1	35.8	40	2.0739	16:20:21	1-Jul-13
524	4	35.8	40	1.0467	16:21:21	1-Jul-13
525	4.2	35.8	40	0.9457	16:22:21	1-Jul-13
526	4.2	35.8	40	1.4377	16:23:21	1-Jul-13
527	4.1	35.8	40	1.394	16:24:21	1-Jul-13
528	3.9	35.8	40	0.9615	16:25:21	1-Jul-13
529	3.6	35.8	40	0.8268	16:26:21	1-Jul-13
530	5.7	35.8	40	2.201	16:27:21	1-Jul-13
531	5.3	35.9	40	2.6825	16:28:21	1-Jul-13
532	4.9	35.9	39	1.5573	16:29:21	1-Jul-13
533	3.8	35.9	39	0.9312	16:30:21	1-Jul-13
534	4.1	35.9	39	1.4185	16:31:21	1-Jul-13
535	4.1	36	40	1.1541	16:32:21	1-Jul-13
536	3.7	36	39	1.4165	16:33:21	1-Jul-13
537	3.3	36	39	0.729	16:34:21	1-Jul-13
538	3.5	36	39	0.7305	16:35:21	1-Jul-13
539	3.8	36.1	39	0.7826	16:36:21	1-Jul-13
540	5.9	36.1	39	1.7636	16:37:21	1-Jul-13
541	4	36.1	39	1.2397	16:38:21	1-Jul-13
542	4.6	36.1	39	1.3345	16:39:21	1-Jul-13
543	3.8	36.1	39	1.4341	16:40:21	1-Jul-13
544	4.4	36.1	39	1.3974	16:41:21	1-Jul-13
545	3.6	36.1	39	1.0675	16:42:21	1-Jul-13
546	4.1	36.1	39	1.5295	16:43:21	1-Jul-13
547	4.2	36.1	39	1.5892	16:44:21	1-Jul-13
548	4.5	36.1	39	2.1908	16:45:21	1-Jul-13
549	4.3	36.1	39	1.7254	16:46:21	1-Jul-13
550	4.3	36.1	39	1.8664	16:47:21	1-Jul-13
551	4.6	36.1	39	2.6741	16:48:21	1-Jul-13

552	3.9	36.1	39	1.5937	16:49:21	1-Jul-13
553	4.1	36.1	39	1.1442	16:50:21	1-Jul-13
554	5.7	36.1	39	2.1117	16:51:21	1-Jul-13
555	6.3	36.1	39	3.1902	16:52:21	1-Jul-13
556	3.7	36.1	39	2.0345	16:53:21	1-Jul-13
557	5	36.1	39	2.9418	16:54:21	1-Jul-13
558	5.9	36.1	39	2.4066	16:55:21	1-Jul-13
559	5	36.1	39	1.4139	16:56:21	1-Jul-13
560	3.4	36.1	39	0.6572	16:57:21	1-Jul-13
561	3.8	36.1	39	0.6962	16:58:21	1-Jul-13
562	3.7	36.1	39	0.6022	16:59:21	1-Jul-13
563	3.3	36.1	39	0.4947	17:00:21	1-Jul-13
564	4.3	36.1	39	0.9606	17:01:21	1-Jul-13
565	3.9	36.1	39	1.6583	17:02:21	1-Jul-13
566	4.4	36.1	39	1.6564	17:03:21	1-Jul-13
567	4.2	36.1	38	1.1284	17:04:21	1-Jul-13
568	3.9	36.2	38	0.8249	17:05:21	1-Jul-13
569	3.7	36.2	38	0.7633	17:06:21	1-Jul-13
570	4.6	36.2	38	1.1346	17:07:21	1-Jul-13
571	3.7	36.2	38	0.9317	17:08:21	1-Jul-13
572	4.1	36.2	38	1.4112	17:09:21	1-Jul-13
573	5	36.2	38	1.9483	17:10:21	1-Jul-13
574	4.4	36.2	38	1.9475	17:11:21	1-Jul-13
575	4.1	36.3	38	1.137	17:12:21	1-Jul-13
576	6.3	36.3	38	1.8175	17:13:21	1-Jul-13
577	4.3	36.3	38	0.819	17:14:21	1-Jul-13
578	3.7	36.4	38	0.7913	17:15:21	1-Jul-13
579	3.6	36.4	38	0.8898	17:16:21	1-Jul-13
580	3.5	36.4	38	0.8856	17:17:21	1-Jul-13
581	4	36.5	38	1.069	17:18:21	1-Jul-13
582	3.6	36.5	37	1.3337	17:19:21	1-Jul-13
583	3.8	36.5	37	1.1687	17:20:21	1-Jul-13
584	4.1	36.5	37	1.1872	17:21:21	1-Jul-13
585	3.7	36.5	37	1.0216	17:22:21	1-Jul-13
586	3.7	36.5	37	0.8273	17:23:21	1-Jul-13
587	3.5	36.5	37	0.7264	17:24:21	1-Jul-13
588	3.5	36.5	37	0.7323	17:25:21	1-Jul-13
589	3.7	36.6	37	0.8487	17:26:21	1-Jul-13
590	3.8	36.6	37	0.8714	17:27:21	1-Jul-13
591	4.1	36.6	37	1.0871	17:28:21	1-Jul-13
592	3.7	36.6	37	1.0278	17:29:21	1-Jul-13
593	3.9	36.6	37	1.0451	17:30:21	1-Jul-13
594	4.2	36.6	37	1.5973	17:31:21	1-Jul-13
595	4	36.6	37	1.5149	17:32:21	1-Jul-13
596	4.7	36.6	37	2.5425	17:33:21	1-Jul-13
597	4.4	36.6	37	2.0397	17:34:21	1-Jul-13
598	4.2	36.6	37	1.6981	17:35:21	1-Jul-13
599	5	36.6	37	2.9626	17:36:21	1-Jul-13

600	4.2	36.6	37	1.3309	17:37:21	1-Jul-13
601	4.1	36.6	37	1.3527	17:38:21	1-Jul-13
602	4.2	36.6	37	1.4279	17:39:21	1-Jul-13
603	4	36.5	37	1.0234	17:40:21	1-Jul-13
604	4.6	36.5	37	1.636	17:41:21	1-Jul-13
605	3.5	36.5	37	1.0218	17:42:21	1-Jul-13
606	4.7	36.4	37	1.8355	17:43:21	1-Jul-13
607	4.7	36.4	37	1.5639	17:44:21	1-Jul-13
608	4.3	36.3	37	1.3812	17:45:21	1-Jul-13
609	4.4	36.2	37	1.194	17:46:21	1-Jul-13
610	4.2	36.2	37	0.8703	17:47:21	1-Jul-13
611	3.9	36.1	37	0.9662	17:48:21	1-Jul-13
612	4.7	36	37	1.4491	17:49:21	1-Jul-13
613	4.4	36	37	1.0583	17:50:21	1-Jul-13
614	4.5	35.8	37	1.5684	17:51:21	1-Jul-13
615	4	35.7	38	1.3644	17:52:21	1-Jul-13
616	3.7	35.6	38	1.0594	17:53:21	1-Jul-13
617	4.4	35.5	38	1.2033	17:54:21	1-Jul-13
618	4.4	35.4	38	1.8068	17:55:21	1-Jul-13
619	4.2	35.3	38	1.0461	17:56:21	1-Jul-13
620	3.7	35.2	38	0.8419	17:57:21	1-Jul-13
621	4.3	35.1	39	0.9187	17:58:21	1-Jul-13
622	4.3	35	39	1.0324	17:59:21	1-Jul-13
623	4	34.8	39	1.4915	18:00:21	1-Jul-13
624	4.3	34.7	39	1.5147	18:01:21	1-Jul-13
625	4.5	34.6	39	1.4582	18:02:21	1-Jul-13
626	4.2	34.5	39	1.8072	18:03:21	1-Jul-13
627	5.5	34.3	40	2.062	18:04:21	1-Jul-13
628	4.5	34.2	40	1.4906	18:05:21	1-Jul-13
629	4.8	34.2	40	1.4568	18:06:21	1-Jul-13
630	4.3	34.1	40	1.3527	18:07:21	1-Jul-13
631	4.3	34.1	40	1.4109	18:08:21	1-Jul-13
632	4.8	34	40	1.5511	18:09:21	1-Jul-13
633	4.5	34	40	1.0247	18:10:21	1-Jul-13
634	4.6	34	41	1.4953	18:11:21	1-Jul-13
635	4.5	33.9	41	1.0354	18:12:21	1-Jul-13
636	4.1	33.9	41	0.7585	18:13:21	1-Jul-13
637	3.8	34	41	0.8315	18:14:21	1-Jul-13
638	4.5	34	41	1.265	18:15:21	1-Jul-13
639	4.9	34	41	1.9627	18:16:21	1-Jul-13
640	4	34	41	0.8276	18:17:21	1-Jul-13
641	4.7	34	41	1.0253	18:18:21	1-Jul-13
642	3.9	34	41	0.8717	18:19:21	1-Jul-13
643	4.3	34	41	1.0814	18:20:21	1-Jul-13
644	4.8	34	41	2.2586	18:21:21	1-Jul-13
645	4.5	34	41	1.9792	18:22:21	1-Jul-13
646	4.6	34	41	1.4754	18:23:21	1-Jul-13
647	4.1	34	41	0.843	18:24:21	1-Jul-13

648	5	34	41	1.4042	18:25:21	1-Jul-13
649	5.9	34	41	1.7753	18:26:21	1-Jul-13
650	4.5	34	41	0.9668	18:27:21	1-Jul-13
651	4.9	34	41	1.939	18:28:21	1-Jul-13
652	5	33.9	41	2.3358	18:29:21	1-Jul-13
653	4.8	33.9	41	2.2924	18:30:21	1-Jul-13
654	5	33.9	41	2.6012	18:31:21	1-Jul-13
655	4.5	33.9	41	1.8083	18:32:21	1-Jul-13
656	4.9	33.9	41	1.4374	18:33:21	1-Jul-13
657	4.5	33.9	41	1.0801	18:34:21	1-Jul-13
658	3.7	33.8	41	0.6859	18:35:21	1-Jul-13
659	4.3	33.8	41	0.7634	18:36:21	1-Jul-13
660	4.1	33.8	41	0.8872	18:37:21	1-Jul-13
661	4.3	33.8	41	0.9729	18:38:21	1-Jul-13
662	4.7	33.7	41	1.3554	18:39:21	1-Jul-13
663	4.7	33.7	41	1.3494	18:40:21	1-Jul-13
664	4.5	33.7	41	1.1799	18:41:21	1-Jul-13
665	4.4	33.7	41	1.1843	18:42:21	1-Jul-13

"Model Number"	"DataRAM 4 "	106	**Nearest Occupied Building**
"Serial no. "	"D201 "		**2-Jul-13**
"Device no. "	1		
"Tag Number "	2		
"Start Time "	07:34:42		
"Start Date "	02-Jul-2013		
"Log Period "	00:01:00		
"Number "	638		
"CalFactor "	1		
"Unit "	0		
"Unit Name "	"(MASS)ug/m3"		
"SIZE_CORRECT"	"DISABLED"		
"TEMPUNITS "	C		
"Max MASS "	20.21895		
"Max MASS @ "	320	12:54:42	2-Jul-13
"Avg MASS "	5.7239		
"Max Diam "	4.127007		
"Max Diam @ "	178	10:32:42	2-Jul-13
"Avg Diam "	2.828033		
"ALARM "	"DISABLED"		
"ALARM_LEVEL "	0		
"AUTO_ZERO "	"DISABLED"		
"AZ INTERVAL "	1		
"Errors "	0		

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	7.2	24.3	49	1.872	7:35:42	2-Jul-13
2	9	24.3	52	3.9586	7:36:42	2-Jul-13
3	7.9	24.4	54	4.0549	7:37:42	2-Jul-13
4	8.1	24.4	55	3.6676	7:38:42	2-Jul-13
5	8	24.4	56	3.9434	7:39:42	2-Jul-13
6	8.4	24.5	57	3.643	7:40:42	2-Jul-13
7	8.2	24.5	57	4.0496	7:41:42	2-Jul-13
8	8.4	24.5	58	4.1076	7:42:42	2-Jul-13
9	8.3	24.6	58	3.8658	7:43:42	2-Jul-13
10	8.5	24.6	58	4.0616	7:44:42	2-Jul-13
11	8.2	24.6	59	3.8809	7:45:42	2-Jul-13
12	8.1	24.6	59	3.6201	7:46:42	2-Jul-13
13	8.4	24.7	59	4.0924	7:47:42	2-Jul-13
14	9	24.7	60	4.1052	7:48:42	2-Jul-13
15	9.4	24.7	60	3.8548	7:49:42	2-Jul-13
16	10.3	24.8	60	3.6417	7:50:42	2-Jul-13
17	8.3	24.8	60	3.4046	7:51:42	2-Jul-13
18	8.6	24.9	60	3.6428	7:52:42	2-Jul-13
19	8.3	24.9	60	3.5194	7:53:42	2-Jul-13
20	8.5	25	60	3.6755	7:54:42	2-Jul-13
21	8.5	25	60	4.0921	7:55:42	2-Jul-13
22	8.6	25.1	60	3.9439	7:56:42	2-Jul-13
23	8.5	25.1	60	3.3817	7:57:42	2-Jul-13

24	8.6	25.2	60	3.7692	7:58:42	2-Jul-13
25	8.2	25.2	60	3.9063	7:59:42	2-Jul-13
26	8.2	25.3	60	2.4432	8:00:42	2-Jul-13
27	8.1	25.4	60	2.544	8:01:42	2-Jul-13
28	8.6	25.4	60	3.8664	8:02:42	2-Jul-13
29	8.4	25.5	60	2.9456	8:03:42	2-Jul-13
30	8.5	25.6	60	3.2089	8:04:42	2-Jul-13
31	8	25.6	60	2.2157	8:05:42	2-Jul-13
32	8.3	25.7	60	3.4533	8:06:42	2-Jul-13
33	8.5	25.7	60	3.442	8:07:42	2-Jul-13
34	8.5	25.8	60	3.7304	8:08:42	2-Jul-13
35	8.9	25.9	59	4.03	8:09:42	2-Jul-13
36	8.7	26	59	3.0352	8:10:42	2-Jul-13
37	7.8	26	59	2.7191	8:11:42	2-Jul-13
38	9.7	26.1	59	3.7369	8:12:42	2-Jul-13
39	12	26.1	59	2.8722	8:13:42	2-Jul-13
40	7.8	26.2	59	2.5947	8:14:42	2-Jul-13
41	7.8	26.2	59	3.2655	8:15:42	2-Jul-13
42	8.3	26.3	59	3.6012	8:16:42	2-Jul-13
43	7.9	26.4	59	3.6216	8:17:42	2-Jul-13
44	7.5	26.4	59	2.0556	8:18:42	2-Jul-13
45	8.9	26.5	58	4.0354	8:19:42	2-Jul-13
46	8	26.5	58	3.8535	8:20:42	2-Jul-13
47	7.9	26.5	58	3.0369	8:21:42	2-Jul-13
48	7.9	26.6	58	3.7522	8:22:42	2-Jul-13
49	7.9	26.6	58	3.1192	8:23:42	2-Jul-13
50	7.7	26.6	58	3.2677	8:24:42	2-Jul-13
51	8	26.6	58	3.8901	8:25:42	2-Jul-13
52	7.6	26.7	58	3.8344	8:26:42	2-Jul-13
53	7.9	26.7	58	3.3454	8:27:42	2-Jul-13
54	7.3	26.7	58	2.6527	8:28:42	2-Jul-13
55	8.3	26.8	58	3.9117	8:29:42	2-Jul-13
56	7.7	26.8	58	3.6678	8:30:42	2-Jul-13
57	7.7	26.9	58	3.1036	8:31:42	2-Jul-13
58	7.8	26.9	58	3.1622	8:32:42	2-Jul-13
59	7.6	27	58	2.6529	8:33:42	2-Jul-13
60	7.6	27	58	3.0396	8:34:42	2-Jul-13
61	7.3	27.1	58	2.9415	8:35:42	2-Jul-13
62	8	27.1	57	3.8796	8:36:42	2-Jul-13
63	7.9	27.2	57	3.9052	8:37:42	2-Jul-13
64	7.6	27.2	57	3.4404	8:38:42	2-Jul-13
65	8	27.3	57	3.679	8:39:42	2-Jul-13
66	8	27.3	57	3.4406	8:40:42	2-Jul-13
67	7.4	27.4	57	2.5655	8:41:42	2-Jul-13
68	7.3	27.4	57	3.3277	8:42:42	2-Jul-13
69	7.6	27.4	56	3.5209	8:43:42	2-Jul-13
70	8	27.5	56	3.8813	8:44:42	2-Jul-13
71	7.8	27.5	56	3.9895	8:45:42	2-Jul-13

72	8.1	27.5	56	4.033	8:46:42	2-Jul-13
73	7.4	27.5	56	2.8247	8:47:42	2-Jul-13
74	7.4	27.5	56	2.5813	8:48:42	2-Jul-13
75	7.9	27.5	56	2.7547	8:49:42	2-Jul-13
76	8.5	27.6	56	3.5664	8:50:42	2-Jul-13
77	8.7	27.6	56	3.1014	8:51:42	2-Jul-13
78	8.6	27.6	56	2.3797	8:52:42	2-Jul-13
79	8.8	27.6	56	1.917	8:53:42	2-Jul-13
80	9.7	27.6	56	2.4807	8:54:42	2-Jul-13
81	8.2	27.6	56	2.0592	8:55:42	2-Jul-13
82	8.1	27.6	55	1.4591	8:56:42	2-Jul-13
83	8.1	27.6	56	2.2297	8:57:42	2-Jul-13
84	8.2	27.6	55	2.3773	8:58:42	2-Jul-13
85	8.4	27.6	55	2.4801	8:59:42	2-Jul-13
86	9	27.6	55	3.1837	9:00:42	2-Jul-13
87	9.1	27.6	55	3.5802	9:01:42	2-Jul-13
88	11.3	27.6	55	2.3219	9:02:42	2-Jul-13
89	7.9	27.6	55	1.5137	9:03:42	2-Jul-13
90	8.1	27.6	55	1.2867	9:04:42	2-Jul-13
91	8.1	27.6	55	2.03	9:05:42	2-Jul-13
92	8	27.6	55	1.6962	9:06:42	2-Jul-13
93	8.2	27.6	55	3.4479	9:07:42	2-Jul-13
94	8	27.6	55	2.4635	9:08:42	2-Jul-13
95	8.5	27.6	55	3.5269	9:09:42	2-Jul-13
96	8	27.6	55	2.9831	9:10:42	2-Jul-13
97	7.8	27.6	55	1.9224	9:11:42	2-Jul-13
98	8.4	27.6	55	3.1838	9:12:42	2-Jul-13
99	7.7	27.6	55	3.4198	9:13:42	2-Jul-13
100	7.7	27.6	55	2.9495	9:14:42	2-Jul-13
101	7.6	27.6	55	3.0898	9:15:42	2-Jul-13
102	8	27.6	55	3.7319	9:16:42	2-Jul-13
103	7.9	27.6	54	3.6112	9:17:42	2-Jul-13
104	7.8	27.6	54	2.9795	9:18:42	2-Jul-13
105	9.2	27.6	55	3.3758	9:19:42	2-Jul-13
106	9.3	27.6	55	3.9128	9:20:42	2-Jul-13
107	8.2	27.6	55	3.0166	9:21:42	2-Jul-13
108	7.8	27.7	55	2.9826	9:22:42	2-Jul-13
109	8.1	27.7	55	3.2383	9:23:42	2-Jul-13
110	7.8	27.7	55	3.136	9:24:42	2-Jul-13
111	8.8	27.7	55	4.0663	9:25:42	2-Jul-13
112	7.7	27.8	54	3.1317	9:26:42	2-Jul-13
113	7.4	27.9	54	3.2503	9:27:42	2-Jul-13
114	8	27.9	54	3.311	9:28:42	2-Jul-13
115	8	28	54	3.5606	9:29:42	2-Jul-13
116	7.6	28	54	3.5029	9:30:42	2-Jul-13
117	7.8	28	54	3.5273	9:31:42	2-Jul-13
118	8	28.1	54	3.7845	9:32:42	2-Jul-13
119	8.6	28.1	54	3.7402	9:33:42	2-Jul-13

120	7.2	28.1	54	2.9449	9:34:42	2-Jul-13
121	8	28.2	54	3.9744	9:35:42	2-Jul-13
122	7.9	28.2	54	3.8893	9:36:42	2-Jul-13
123	7.5	28.2	54	4.0326	9:37:42	2-Jul-13
124	7.5	28.3	53	4.1129	9:38:42	2-Jul-13
125	6.9	28.3	53	3.5613	9:39:42	2-Jul-13
126	7.3	28.4	53	3.9254	9:40:42	2-Jul-13
127	7.7	28.4	53	4.1008	9:41:42	2-Jul-13
128	7.3	28.5	53	3.5585	9:42:42	2-Jul-13
129	7.6	28.5	53	4.1019	9:43:42	2-Jul-13
130	7.5	28.5	53	3.7564	9:44:42	2-Jul-13
131	7.2	28.6	53	3.9648	9:45:42	2-Jul-13
132	7.5	28.6	53	4.0443	9:46:42	2-Jul-13
133	7.1	28.6	52	4.0054	9:47:42	2-Jul-13
134	7.5	28.7	52	3.9369	9:48:42	2-Jul-13
135	7.4	28.7	52	4.0173	9:49:42	2-Jul-13
136	7	28.7	52	3.7503	9:50:42	2-Jul-13
137	7.9	28.8	52	3.3004	9:51:42	2-Jul-13
138	7.8	28.8	52	3.4306	9:52:42	2-Jul-13
139	7.5	28.8	52	3.0658	9:53:42	2-Jul-13
140	7.6	28.8	52	3.4623	9:54:42	2-Jul-13
141	7.9	28.9	52	4.0268	9:55:42	2-Jul-13
142	7.6	28.9	52	3.8896	9:56:42	2-Jul-13
143	7	28.9	52	3.4488	9:57:42	2-Jul-13
144	7.1	29	51	3.7279	9:58:42	2-Jul-13
145	7.1	29	51	3.9037	9:59:42	2-Jul-13
146	7.6	29	51	3.973	10:00:42	2-Jul-13
147	7.5	29	51	3.6676	10:01:42	2-Jul-13
148	7	29	51	2.9023	10:02:42	2-Jul-13
149	6.9	29	51	3.4858	10:03:42	2-Jul-13
150	6.7	29	51	2.8159	10:04:42	2-Jul-13
151	7.6	29	51	3.4228	10:05:42	2-Jul-13
152	7.4	29.1	51	3.6919	10:06:42	2-Jul-13
153	6.9	29.1	51	3.0674	10:07:42	2-Jul-13
154	6.9	29.1	51	3.6872	10:08:42	2-Jul-13
155	6.6	29.2	51	2.906	10:09:42	2-Jul-13
156	5.9	29.2	51	2.5589	10:10:42	2-Jul-13
157	6.3	29.2	51	3.2034	10:11:42	2-Jul-13
158	6.8	29.3	51	3.5279	10:12:42	2-Jul-13
159	6.5	29.3	51	3.8489	10:13:42	2-Jul-13
160	6.3	29.3	50	3.8617	10:14:42	2-Jul-13
161	6.5	29.4	50	3.8556	10:15:42	2-Jul-13
162	6.3	29.4	50	3.5366	10:16:42	2-Jul-13
163	6.4	29.4	50	3.1009	10:17:42	2-Jul-13
164	6.8	29.5	50	3.6524	10:18:42	2-Jul-13
165	6.1	29.5	50	3.1227	10:19:42	2-Jul-13
166	7.1	29.6	50	3.8611	10:20:42	2-Jul-13
167	5.7	29.6	50	1.9705	10:21:42	2-Jul-13

168	6.1	29.7	50	3.317	10:22:42	2-Jul-13
169	6.5	29.8	50	3.4595	10:23:42	2-Jul-13
170	6.5	29.8	50	3.8747	10:24:42	2-Jul-13
171	6	29.9	50	3.1189	10:25:42	2-Jul-13
172	6.2	30	49	3.9882	10:26:42	2-Jul-13
173	5.9	30	49	3.7726	10:27:42	2-Jul-13
174	6.2	30	49	3.3036	10:28:42	2-Jul-13
175	6.5	30.1	49	3.8209	10:29:42	2-Jul-13
176	6.4	30.1	49	3.5703	10:30:42	2-Jul-13
177	6.5	30.1	49	3.8873	10:31:42	2-Jul-13
178	6.8	30.2	49	4.127	10:32:42	2-Jul-13
179	6.9	30.2	49	3.9257	10:33:42	2-Jul-13
180	6.2	30.2	49	3.0312	10:34:42	2-Jul-13
181	6.2	30.3	49	2.3848	10:35:42	2-Jul-13
182	6.8	30.3	49	4.0923	10:36:42	2-Jul-13
183	7.3	30.4	49	4.0438	10:37:42	2-Jul-13
184	6.7	30.4	49	3.876	10:38:42	2-Jul-13
185	6.5	30.4	49	3.6524	10:39:42	2-Jul-13
186	5.3	30.4	49	2.3563	10:40:42	2-Jul-13
187	6.4	30.5	48	2.9565	10:41:42	2-Jul-13
188	5.5	30.5	49	2.7767	10:42:42	2-Jul-13
189	6.2	30.5	48	3.2975	10:43:42	2-Jul-13
190	5.9	30.5	48	3.7615	10:44:42	2-Jul-13
191	5.9	30.6	48	3.8709	10:45:42	2-Jul-13
192	6.1	30.6	48	3.6924	10:46:42	2-Jul-13
193	5.8	30.6	48	3.0004	10:47:42	2-Jul-13
194	6.1	30.7	48	3.8481	10:48:42	2-Jul-13
195	5.9	30.7	48	3.7164	10:49:42	2-Jul-13
196	5.9	30.7	48	3.3591	10:50:42	2-Jul-13
197	5.4	30.7	48	2.4801	10:51:42	2-Jul-13
198	6.2	30.7	48	3.7432	10:52:42	2-Jul-13
199	6	30.8	47	3.2182	10:53:42	2-Jul-13
200	6.1	30.8	47	3.8292	10:54:42	2-Jul-13
201	6.2	30.8	47	3.3668	10:55:42	2-Jul-13
202	6.2	30.8	47	3.3548	10:56:42	2-Jul-13
203	6.1	30.9	47	3.3946	10:57:42	2-Jul-13
204	6.2	30.9	47	3.7046	10:58:42	2-Jul-13
205	5.8	30.9	47	2.9554	10:59:42	2-Jul-13
206	6.1	30.9	47	2.9846	11:00:42	2-Jul-13
207	6.3	30.9	47	3.5874	11:01:42	2-Jul-13
208	6.3	30.9	47	3.9403	11:02:42	2-Jul-13
209	5.9	30.9	47	3.8367	11:03:42	2-Jul-13
210	6.2	30.9	47	3.8682	11:04:42	2-Jul-13
211	5.9	30.9	47	3.7024	11:05:42	2-Jul-13
212	5.9	30.9	47	3.6403	11:06:42	2-Jul-13
213	6.1	30.9	46	3.6108	11:07:42	2-Jul-13
214	6.9	30.9	46	3.9421	11:08:42	2-Jul-13
215	6.8	30.9	46	4.0662	11:09:42	2-Jul-13

216	6.6	30.9	46	3.9795	11:10:42	2-Jul-13
217	6.3	30.9	47	3.7673	11:11:42	2-Jul-13
218	5.7	30.8	47	3.377	11:12:42	2-Jul-13
219	5.9	30.8	47	3.7951	11:13:42	2-Jul-13
220	6.1	30.8	47	3.313	11:14:42	2-Jul-13
221	6.6	30.8	47	3.8977	11:15:42	2-Jul-13
222	6.7	30.8	47	3.6579	11:16:42	2-Jul-13
223	6.4	30.8	47	3.6195	11:17:42	2-Jul-13
224	6.5	30.8	46	3.6129	11:18:42	2-Jul-13
225	5.9	30.8	47	2.5524	11:19:42	2-Jul-13
226	6	30.8	47	2.7535	11:20:42	2-Jul-13
227	6.6	30.8	47	3.897	11:21:42	2-Jul-13
228	6.9	30.8	47	3.8557	11:22:42	2-Jul-13
229	6.6	30.8	47	3.9394	11:23:42	2-Jul-13
230	6.5	30.9	47	3.1188	11:24:42	2-Jul-13
231	6.6	30.9	47	2.78	11:25:42	2-Jul-13
232	6.6	31	47	3.1591	11:26:42	2-Jul-13
233	6.1	31	48	3.2159	11:27:42	2-Jul-13
234	7	31.1	48	3.9472	11:28:42	2-Jul-13
235	6.6	31.1	48	3.4302	11:29:42	2-Jul-13
236	6.6	31.2	47	3.0509	11:30:42	2-Jul-13
237	6.7	31.2	47	2.9428	11:31:42	2-Jul-13
238	6.8	31.3	47	3.7162	11:32:42	2-Jul-13
239	6.9	31.4	47	3.6908	11:33:42	2-Jul-13
240	7.2	31.4	47	3.2395	11:34:42	2-Jul-13
241	6.7	31.5	47	3.751	11:35:42	2-Jul-13
242	8.3	31.5	46	3.7511	11:36:42	2-Jul-13
243	7.7	31.5	47	3.9277	11:37:42	2-Jul-13
244	7.1	31.5	46	3.7105	11:38:42	2-Jul-13
245	6.8	31.6	46	2.8082	11:39:42	2-Jul-13
246	7.1	31.6	46	3.5962	11:40:42	2-Jul-13
247	6.9	31.6	46	3.4917	11:41:42	2-Jul-13
248	6.6	31.6	46	3.1301	11:42:42	2-Jul-13
249	6.7	31.7	46	3.5501	11:43:42	2-Jul-13
250	6.4	31.7	46	2.5797	11:44:42	2-Jul-13
251	6.3	31.8	46	2.5171	11:45:42	2-Jul-13
252	6.3	31.8	46	2.2766	11:46:42	2-Jul-13
253	6.6	31.9	46	3.8387	11:47:42	2-Jul-13
254	6.6	31.9	46	3.0591	11:48:42	2-Jul-13
255	7.2	31.9	46	1.6457	11:49:42	2-Jul-13
256	6.8	32	46	2.1879	11:50:42	2-Jul-13
257	6.6	32	46	3.4597	11:51:42	2-Jul-13
258	6.5	32	46	2.3928	11:52:42	2-Jul-13
259	6.8	32.1	46	3.0044	11:53:42	2-Jul-13
260	7.1	32.1	46	3.3658	11:54:42	2-Jul-13
261	7	32.2	46	2.7515	11:55:42	2-Jul-13
262	7.2	32.2	46	3.0129	11:56:42	2-Jul-13
263	7.6	32.3	46	2.5577	11:57:42	2-Jul-13

264	7.5	32.3	45	3.6036	11:58:42	2-Jul-13
265	7.2	32.3	45	3.5722	11:59:42	2-Jul-13
266	7.1	32.4	45	2.6228	12:00:42	2-Jul-13
267	7.3	32.4	45	3.2862	12:01:42	2-Jul-13
268	6.3	32.4	45	3.1053	12:02:42	2-Jul-13
269	6.9	32.4	45	2.8224	12:03:42	2-Jul-13
270	7	32.4	44	3.2527	12:04:42	2-Jul-13
271	7.2	32.4	44	3.6558	12:05:42	2-Jul-13
272	7	32.4	44	3.3315	12:06:42	2-Jul-13
273	7.1	32.4	45	3.7573	12:07:42	2-Jul-13
274	7.4	32.4	45	3.6399	12:08:42	2-Jul-13
275	7.8	32.3	44	3.8401	12:09:42	2-Jul-13
276	11.9	32.3	44	4.1104	12:10:42	2-Jul-13
277	7.9	32.3	44	3.4798	12:11:42	2-Jul-13
278	7	32.2	44	3.7493	12:12:42	2-Jul-13
279	6.9	32.2	44	3.2346	12:13:42	2-Jul-13
280	7.1	32.1	44	3.5519	12:14:42	2-Jul-13
281	6.6	32.1	44	2.489	12:15:42	2-Jul-13
282	6.3	32.1	45	2.5992	12:16:42	2-Jul-13
283	7.2	32.1	45	4.0148	12:17:42	2-Jul-13
284	7.1	32	45	4.0988	12:18:42	2-Jul-13
285	8.2	32	45	3.9513	12:19:42	2-Jul-13
286	6.9	32	45	3.7126	12:20:42	2-Jul-13
287	7	32	45	2.7494	12:21:42	2-Jul-13
288	6.7	32	45	3.4292	12:22:42	2-Jul-13
289	6.7	31.9	45	3.2445	12:23:42	2-Jul-13
290	6.4	31.9	45	2.8743	12:24:42	2-Jul-13
291	14.2	31.9	45	3.9275	12:25:42	2-Jul-13
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293	6.5	31.9	45	3.6208	12:27:42	2-Jul-13
294	6.6	32	45	2.7626	12:28:42	2-Jul-13
295	6.1	32	45	2.6019	12:29:42	2-Jul-13
296	6.9	32	45	3.763	12:30:42	2-Jul-13
297	6.8	32	45	3.545	12:31:42	2-Jul-13
298	7.9	32	45	3.238	12:32:42	2-Jul-13
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300	11.9	32	45	3.6693	12:34:42	2-Jul-13
301	10.9	31.9	45	4.0797	12:35:42	2-Jul-13
302	6.5	31.9	45	3.2316	12:36:42	2-Jul-13
303	6.8	31.9	45	2.832	12:37:42	2-Jul-13
304	6	31.9	45	2.7988	12:38:42	2-Jul-13
305	5.9	31.8	45	1.8329	12:39:42	2-Jul-13
306	6.6	31.8	45	3.0858	12:40:42	2-Jul-13
307	6	31.8	45	3.3024	12:41:42	2-Jul-13
308	6.1	31.8	45	3.3723	12:42:42	2-Jul-13
309	6	31.7	45	3.2712	12:43:42	2-Jul-13
310	6.3	31.7	45	4.1036	12:44:42	2-Jul-13
311	6.1	31.7	45	3.7446	12:45:42	2-Jul-13

312	6.5	31.7	45	4.0499	12:46:42	2-Jul-13
313	6.2	31.6	45	3.8782	12:47:42	2-Jul-13
314	6	31.6	45	3.9182	12:48:42	2-Jul-13
315	5.8	31.6	45	3.7015	12:49:42	2-Jul-13
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317	5.8	31.6	45	3.9732	12:51:42	2-Jul-13
318	10.1	31.5	45	4.127	12:52:42	2-Jul-13
319	7.2	31.5	45	4.0975	12:53:42	2-Jul-13
320	20.2	31.5	45	4.0603	12:54:42	2-Jul-13
321	10.3	31.4	45	4.1124	12:55:42	2-Jul-13
322	5.8	31.4	45	3.9982	12:56:42	2-Jul-13
323	5.5	31.4	46	3.3193	12:57:42	2-Jul-13
324	9.6	31.4	46	3.6008	12:58:42	2-Jul-13
325	6	31.3	46	3.747	12:59:42	2-Jul-13
326	5.5	31.4	46	3.7072	13:00:42	2-Jul-13
327	5.9	31.4	46	3.9517	13:01:42	2-Jul-13
328	5.8	31.4	46	3.8556	13:02:42	2-Jul-13
329	6.1	31.4	46	3.7909	13:03:42	2-Jul-13
330	6.3	31.4	46	3.9753	13:04:42	2-Jul-13
331	5.9	31.5	46	3.8687	13:05:42	2-Jul-13
332	6.1	31.5	46	4.041	13:06:42	2-Jul-13
333	5.6	31.5	46	4.0412	13:07:42	2-Jul-13
334	6.4	31.5	46	4.0668	13:08:42	2-Jul-13
335	6.2	31.5	46	4.0485	13:09:42	2-Jul-13
336	6.2	31.5	46	3.7072	13:10:42	2-Jul-13
337	5.7	31.6	46	3.0935	13:11:42	2-Jul-13
338	6.3	31.6	46	4.0042	13:12:42	2-Jul-13
339	7.4	31.6	46	3.9524	13:13:42	2-Jul-13
340	6.2	31.6	46	4.0741	13:14:42	2-Jul-13
341	8.4	31.6	46	3.9187	13:15:42	2-Jul-13
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343	6.6	31.6	46	3.4484	13:17:42	2-Jul-13
344	6.2	31.6	46	3.6881	13:18:42	2-Jul-13
345	5.6	31.6	46	2.8697	13:19:42	2-Jul-13
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348	6.5	31.6	46	4.0823	13:22:42	2-Jul-13
349	6.8	31.5	46	2.8444	13:23:42	2-Jul-13
350	6.4	31.5	46	3.8378	13:24:42	2-Jul-13
351	6.7	31.5	46	4.0189	13:25:42	2-Jul-13
352	8.4	31.5	46	3.9574	13:26:42	2-Jul-13
353	7	31.5	46	3.7751	13:27:42	2-Jul-13
354	6.4	31.5	46	4.0747	13:28:42	2-Jul-13
355	6.1	31.4	46	3.8346	13:29:42	2-Jul-13
356	6.3	31.4	46	4.0115	13:30:42	2-Jul-13
357	6.4	31.4	46	4.0948	13:31:42	2-Jul-13
358	6.3	31.4	46	4.0002	13:32:42	2-Jul-13
359	6.1	31.4	46	3.8077	13:33:42	2-Jul-13

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361	9.2	31.3	46	3.8372	13:35:42	2-Jul-13
362	6.6	31.3	46	3.6278	13:36:42	2-Jul-13
363	6	31.2	46	3.4965	13:37:42	2-Jul-13
364	6.4	31.2	46	3.6528	13:38:42	2-Jul-13
365	6.3	31.2	46	4.0734	13:39:42	2-Jul-13
366	5.9	31.2	46	3.8661	13:40:42	2-Jul-13
367	6.2	31.2	46	4.0636	13:41:42	2-Jul-13
368	6.2	31.1	46	3.3078	13:42:42	2-Jul-13
369	6	31.1	46	3.711	13:43:42	2-Jul-13
370	6.3	31.1	47	3.9837	13:44:42	2-Jul-13
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373	6.3	31.1	47	3.9144	13:47:42	2-Jul-13
374	5.9	31.1	47	3.7602	13:48:42	2-Jul-13
375	5.8	31	46	3.9509	13:49:42	2-Jul-13
376	6.2	31	47	4.1037	13:50:42	2-Jul-13
377	5.7	31	47	4.0669	13:51:42	2-Jul-13
378	5.9	31.1	47	4.0205	13:52:42	2-Jul-13
379	5.6	31.1	47	3.6801	13:53:42	2-Jul-13
380	5.5	31.1	47	3.7883	13:54:42	2-Jul-13
381	5.4	31.1	47	3.8929	13:55:42	2-Jul-13
382	5.1	31.2	47	3.2314	13:56:42	2-Jul-13
383	5.5	31.2	47	3.5914	13:57:42	2-Jul-13
384	5.9	31.2	47	3.6587	13:58:42	2-Jul-13
385	5.9	31.2	46	3.9987	13:59:42	2-Jul-13
386	5.5	31.1	46	3.6054	14:00:42	2-Jul-13
387	5.5	31.1	46	3.8409	14:01:42	2-Jul-13
388	6.2	31.1	47	3.9966	14:02:42	2-Jul-13
389	9.7	31.1	46	3.951	14:03:42	2-Jul-13
390	6.3	31	46	3.887	14:04:42	2-Jul-13
391	5.9	31	46	3.8275	14:05:42	2-Jul-13
392	5.3	30.9	46	3.8173	14:06:42	2-Jul-13
393	7.9	30.8	47	4.1115	14:07:42	2-Jul-13
394	5.9	30.8	47	3.7338	14:08:42	2-Jul-13
395	5.6	30.7	47	3.905	14:09:42	2-Jul-13
396	5.7	30.6	47	3.6236	14:10:42	2-Jul-13
397	7.6	30.6	47	4.055	14:11:42	2-Jul-13
398	5.1	30.6	47	3.3297	14:12:42	2-Jul-13
399	5.1	30.5	47	3.7783	14:13:42	2-Jul-13
400	5.3	30.4	47	3.0183	14:14:42	2-Jul-13
401	4.9	30.4	47	2.8393	14:15:42	2-Jul-13
402	5.6	30.3	47	3.4373	14:16:42	2-Jul-13
403	7.5	30.2	48	3.9539	14:17:42	2-Jul-13
404	5.5	30.2	47	3.5787	14:18:42	2-Jul-13
405	5.5	30.1	48	3.7867	14:19:42	2-Jul-13
406	4.9	30.1	48	3.5687	14:20:42	2-Jul-13
407	5.4	30	48	3.8208	14:21:42	2-Jul-13

408	5.3	30	48	3.7281	14:22:42	2-Jul-13
409	6.1	29.9	48	3.8778	14:23:42	2-Jul-13
410	5.4	29.9	48	3.7328	14:24:42	2-Jul-13
411	4.9	29.8	48	3.6674	14:25:42	2-Jul-13
412	4.5	29.7	48	3.4049	14:26:42	2-Jul-13
413	6.1	29.7	48	3.7623	14:27:42	2-Jul-13
414	4.9	29.7	48	3.4273	14:28:42	2-Jul-13
415	5.2	29.6	48	3.4026	14:29:42	2-Jul-13
416	4.6	29.6	48	3.6524	14:30:42	2-Jul-13
417	4.8	29.6	48	3.6696	14:31:42	2-Jul-13
418	4.8	29.6	48	3.4057	14:32:42	2-Jul-13
419	4.3	29.6	48	2.4074	14:33:42	2-Jul-13
420	4.9	29.6	49	3.3348	14:34:42	2-Jul-13
421	4.8	29.6	48	3.5188	14:35:42	2-Jul-13
422	4.4	29.6	48	3.0446	14:36:42	2-Jul-13
423	4.4	29.6	48	3.161	14:37:42	2-Jul-13
424	4.4	29.6	48	3.3075	14:38:42	2-Jul-13
425	4.6	29.6	48	3.2771	14:39:42	2-Jul-13
426	5.6	29.6	48	3.5316	14:40:42	2-Jul-13
427	5.1	29.6	48	3.4353	14:41:42	2-Jul-13
428	7.1	29.6	48	3.5271	14:42:42	2-Jul-13
429	5.8	29.6	48	3.7584	14:43:42	2-Jul-13
430	4.3	29.6	48	2.7364	14:44:42	2-Jul-13
431	4.9	29.7	48	3.1869	14:45:42	2-Jul-13
432	4.7	29.7	47	3.3901	14:46:42	2-Jul-13
433	3.9	29.7	47	2.6714	14:47:42	2-Jul-13
434	4.3	29.7	47	3.0152	14:48:42	2-Jul-13
435	3.8	29.7	47	2.5286	14:49:42	2-Jul-13
436	4.2	29.7	47	2.7794	14:50:42	2-Jul-13
437	3.7	29.7	47	2.4205	14:51:42	2-Jul-13
438	4.1	29.7	47	2.6669	14:52:42	2-Jul-13
439	4.2	29.7	47	2.5124	14:53:42	2-Jul-13
440	3.5	29.7	47	1.7968	14:54:42	2-Jul-13
441	3.7	29.8	47	2.2037	14:55:42	2-Jul-13
442	3.9	29.8	47	2.1863	14:56:42	2-Jul-13
443	3.1	29.8	47	1.805	14:57:42	2-Jul-13
444	3.9	29.8	47	2.42	14:58:42	2-Jul-13
445	5.8	29.9	47	3.2834	14:59:42	2-Jul-13
446	3.6	29.9	46	2.374	15:00:42	2-Jul-13
447	3.7	30	46	2.0223	15:01:42	2-Jul-13
448	3.7	30	46	1.2861	15:02:42	2-Jul-13
449	4.9	30	46	2.6507	15:03:42	2-Jul-13
450	3.1	30	46	1.2115	15:04:42	2-Jul-13
451	3.5	30.1	46	1.8577	15:05:42	2-Jul-13
452	3.9	30.1	46	2.244	15:06:42	2-Jul-13
453	3.2	30.1	46	1.9325	15:07:42	2-Jul-13
454	5.8	30.1	46	2.357	15:08:42	2-Jul-13
455	3.1	30.2	45	1.8461	15:09:42	2-Jul-13

456	3.3	30.1	45	2.3609	15:10:42	2-Jul-13
457	3.3	30.2	45	2.0304	15:11:42	2-Jul-13
458	3.1	30.2	45	1.7686	15:12:42	2-Jul-13
459	3	30.2	45	2.3548	15:13:42	2-Jul-13
460	3	30.2	45	2.3078	15:14:42	2-Jul-13
461	3.1	30.2	45	1.8094	15:15:42	2-Jul-13
462	3.5	30.2	45	2.3055	15:16:42	2-Jul-13
463	2.7	30.2	45	1.7767	15:17:42	2-Jul-13
464	2.4	30.2	44	1.5269	15:18:42	2-Jul-13
465	2.5	30.3	45	1.6724	15:19:42	2-Jul-13
466	2.8	30.3	44	1.4816	15:20:42	2-Jul-13
467	2.5	30.3	45	0.9224	15:21:42	2-Jul-13
468	2.2	30.3	44	0.7504	15:22:42	2-Jul-13
469	2.1	30.4	44	0.8027	15:23:42	2-Jul-13
470	2.1	30.4	44	0.7795	15:24:42	2-Jul-13
471	1.9	30.4	44	0.744	15:25:42	2-Jul-13
472	2.2	30.4	44	0.8042	15:26:42	2-Jul-13
473	2.3	30.5	44	1.0161	15:27:42	2-Jul-13
474	2.3	30.5	44	1.283	15:28:42	2-Jul-13
475	2	30.5	43	1.2025	15:29:42	2-Jul-13
476	2	30.6	43	1.0821	15:30:42	2-Jul-13
477	1.8	30.6	43	0.732	15:31:42	2-Jul-13
478	2.2	30.6	43	0.7732	15:32:42	2-Jul-13
479	1.9	30.6	43	0.6047	15:33:42	2-Jul-13
480	2.4	30.6	43	0.879	15:34:42	2-Jul-13
481	2.8	30.7	43	1.0956	15:35:42	2-Jul-13
482	2.4	30.7	43	1.1437	15:36:42	2-Jul-13
483	2.4	30.7	43	1.3662	15:37:42	2-Jul-13
484	2.3	30.7	43	1.2413	15:38:42	2-Jul-13
485	3	30.7	43	1.9663	15:39:42	2-Jul-13
486	2.6	30.8	43	1.5604	15:40:42	2-Jul-13
487	2.6	30.8	43	1.7077	15:41:42	2-Jul-13
488	2.4	30.8	43	1.4386	15:42:42	2-Jul-13
489	2.4	30.9	43	1.3922	15:43:42	2-Jul-13
490	3.7	31	43	1.9064	15:44:42	2-Jul-13
491	3	31	43	1.6878	15:45:42	2-Jul-13
492	2.5	31.1	43	1.17	15:46:42	2-Jul-13
493	2.7	31.1	43	1.2367	15:47:42	2-Jul-13
494	2.3	31.1	42	0.9116	15:48:42	2-Jul-13
495	1.9	31.2	42	0.629	15:49:42	2-Jul-13
496	2.4	31.2	42	0.6913	15:50:42	2-Jul-13
497	3	31.2	42	0.9128	15:51:42	2-Jul-13
498	3.1	31.2	42	1.7035	15:52:42	2-Jul-13
499	2.6	31.3	42	1.7931	15:53:42	2-Jul-13
500	2.5	31.3	42	1.5948	15:54:42	2-Jul-13
501	2.5	31.3	42	1.6007	15:55:42	2-Jul-13
502	3.2	31.3	42	1.8963	15:56:42	2-Jul-13
503	3.9	31.3	42	2.0957	15:57:42	2-Jul-13

504	2.2	31.3	42	0.8891	15:58:42	2-Jul-13
505	2.4	31.3	42	0.8741	15:59:42	2-Jul-13
506	2.3	31.3	42	0.8546	16:00:42	2-Jul-13
507	2.5	31.4	42	0.8304	16:01:42	2-Jul-13
508	2.1	31.4	42	0.8154	16:02:42	2-Jul-13
509	2.4	31.4	42	0.9989	16:03:42	2-Jul-13
510	3.8	31.5	42	1.928	16:04:42	2-Jul-13
511	2.4	31.5	42	1.3264	16:05:42	2-Jul-13
512	2.1	31.5	42	1.1291	16:06:42	2-Jul-13
513	2.5	31.5	42	1.1313	16:07:42	2-Jul-13
514	2.4	31.6	42	0.991	16:08:42	2-Jul-13
515	2.2	31.6	42	0.9139	16:09:42	2-Jul-13
516	2.3	31.6	42	0.8826	16:10:42	2-Jul-13
517	2.4	31.6	42	0.6611	16:11:42	2-Jul-13
518	2.2	31.7	42	0.6004	16:12:42	2-Jul-13
519	2.6	31.7	42	0.7452	16:13:42	2-Jul-13
520	2.2	31.7	42	0.6872	16:14:42	2-Jul-13
521	2	31.7	42	0.6419	16:15:42	2-Jul-13
522	2.4	31.7	42	0.7053	16:16:42	2-Jul-13
523	1.9	31.7	42	0.6127	16:17:42	2-Jul-13
524	1.9	31.7	41	0.6098	16:18:42	2-Jul-13
525	1.9	31.7	41	0.6247	16:19:42	2-Jul-13
526	2	31.7	41	0.6496	16:20:42	2-Jul-13
527	1.7	31.7	41	0.5757	16:21:42	2-Jul-13
528	1.9	31.8	41	0.6247	16:22:42	2-Jul-13
529	2.2	31.8	41	0.6832	16:23:42	2-Jul-13
530	2.1	31.9	42	0.6646	16:24:42	2-Jul-13
531	2.2	31.9	41	0.6651	16:25:42	2-Jul-13
532	2.4	31.9	41	0.7089	16:26:42	2-Jul-13
533	2.2	32	42	0.6785	16:27:42	2-Jul-13
534	3.3	32	41	1.3477	16:28:42	2-Jul-13
535	2.1	32	42	0.727	16:29:42	2-Jul-13
536	1.9	32	41	0.6417	16:30:42	2-Jul-13
537	2.4	32.1	42	0.7637	16:31:42	2-Jul-13
538	2.6	32.1	41	1.1937	16:32:42	2-Jul-13
539	3.1	32.1	41	1.7457	16:33:42	2-Jul-13
540	2.7	32.2	41	1.6239	16:34:42	2-Jul-13
541	4	32.2	41	2.5354	16:35:42	2-Jul-13
542	2.9	32.3	41	1.8114	16:36:42	2-Jul-13
543	2.6	32.3	41	1.6253	16:37:42	2-Jul-13
544	2.8	32.4	41	1.5203	16:38:42	2-Jul-13
545	2.3	32.4	41	1.3232	16:39:42	2-Jul-13
546	2.6	32.5	41	1.6007	16:40:42	2-Jul-13
547	2.6	32.5	41	1.4461	16:41:42	2-Jul-13
548	2.6	32.5	41	1.8269	16:42:42	2-Jul-13
549	4	32.6	41	2.2071	16:43:42	2-Jul-13
550	3.3	32.6	41	2.1413	16:44:42	2-Jul-13
551	4.5	32.7	41	2.7494	16:45:42	2-Jul-13

552	2.5	32.7	40	1.3038	16:46:42	2-Jul-13
553	2.9	32.7	40	1.9074	16:47:42	2-Jul-13
554	3	32.7	40	2.0324	16:48:42	2-Jul-13
555	2.5	32.7	40	1.1861	16:49:42	2-Jul-13
556	2.5	32.7	40	1.1037	16:50:42	2-Jul-13
557	2.2	32.7	40	0.8447	16:51:42	2-Jul-13
558	1.9	32.7	40	0.6875	16:52:42	2-Jul-13
559	1.9	32.7	40	0.7017	16:53:42	2-Jul-13
560	3	32.7	40	1.6371	16:54:42	2-Jul-13
561	4.7	32.7	40	2.1288	16:55:42	2-Jul-13
562	2.1	32.7	40	0.9846	16:56:42	2-Jul-13
563	2.9	32.6	40	1.5335	16:57:42	2-Jul-13
564	2.3	32.6	40	1.0679	16:58:42	2-Jul-13
565	2.3	32.7	40	0.9335	16:59:42	2-Jul-13
566	2.6	32.6	40	1.2058	17:00:42	2-Jul-13
567	2.8	32.6	40	1.7489	17:01:42	2-Jul-13
568	2.5	32.6	40	1.2322	17:02:42	2-Jul-13
569	8.3	32.6	40	2.805	17:03:42	2-Jul-13
570	3.2	32.6	40	2.0974	17:04:42	2-Jul-13
571	3.1	32.6	40	1.8106	17:05:42	2-Jul-13
572	2.6	32.5	40	1.0876	17:06:42	2-Jul-13
573	2.4	32.5	40	0.7265	17:07:42	2-Jul-13
574	2.1	32.5	40	0.7467	17:08:42	2-Jul-13
575	2.8	32.5	41	1.2887	17:09:42	2-Jul-13
576	3.1	32.5	40	1.523	17:10:42	2-Jul-13
577	5.5	32.5	41	3.433	17:11:42	2-Jul-13
578	3.7	32.6	41	1.7754	17:12:42	2-Jul-13
579	4.7	32.6	41	2.3459	17:13:42	2-Jul-13
580	3.2	32.6	41	1.6447	17:14:42	2-Jul-13
581	2.6	32.6	41	1.4309	17:15:42	2-Jul-13
582	2.9	32.6	41	1.6437	17:16:42	2-Jul-13
583	3.1	32.6	41	1.7116	17:17:42	2-Jul-13
584	2.6	32.6	41	1.3014	17:18:42	2-Jul-13
585	3.5	32.6	41	1.9697	17:19:42	2-Jul-13
586	2.7	32.6	41	1.2725	17:20:42	2-Jul-13
587	3.2	32.6	41	1.9187	17:21:42	2-Jul-13
588	3.1	32.6	41	1.538	17:22:42	2-Jul-13
589	3	32.6	40	1.6677	17:23:42	2-Jul-13
590	3.1	32.6	40	1.7071	17:24:42	2-Jul-13
591	2.6	32.6	40	1.1246	17:25:42	2-Jul-13
592	3.1	32.6	40	1.3283	17:26:42	2-Jul-13
593	2.7	32.6	40	0.9448	17:27:42	2-Jul-13
594	2.3	32.6	40	0.8006	17:28:42	2-Jul-13
595	2.6	32.5	40	0.8917	17:29:42	2-Jul-13
596	3.1	32.5	41	1.1268	17:30:42	2-Jul-13
597	2.8	32.5	40	1.2293	17:31:42	2-Jul-13
598	2.8	32.5	40	1.4854	17:32:42	2-Jul-13
599	3.3	32.4	40	2.0888	17:33:42	2-Jul-13

600	3	32.4	40	1.5294	17:34:42	2-Jul-13
601	6.2	32.4	40	2.7441	17:35:42	2-Jul-13
602	3	32.3	40	1.6907	17:36:42	2-Jul-13
603	2.7	32.3	40	1.2381	17:37:42	2-Jul-13
604	3.2	32.2	40	2.1211	17:38:42	2-Jul-13
605	3	32.2	40	2.3651	17:39:42	2-Jul-13
606	3.5	32.2	40	2.4125	17:40:42	2-Jul-13
607	2.9	32.2	40	2.0583	17:41:42	2-Jul-13
608	3	32.1	40	2.2058	17:42:42	2-Jul-13
609	2.7	32.1	40	1.1342	17:43:42	2-Jul-13
610	3	32.1	40	1.1331	17:44:42	2-Jul-13
611	2.4	32.1	40	0.9165	17:45:42	2-Jul-13
612	2.7	32.1	40	0.9704	17:46:42	2-Jul-13
613	6.4	32.1	40	1.8147	17:47:42	2-Jul-13
614	4	32.2	40	2.2472	17:48:42	2-Jul-13
615	2.5	32.1	40	1.1723	17:49:42	2-Jul-13
616	3.2	32.1	40	1.6409	17:50:42	2-Jul-13
617	2.8	32.1	40	1.085	17:51:42	2-Jul-13
618	3.1	32	40	2.1149	17:52:42	2-Jul-13
619	3	32	40	1.3456	17:53:42	2-Jul-13
620	2.8	32	40	1.0178	17:54:42	2-Jul-13
621	2.8	32	40	0.9528	17:55:42	2-Jul-13
622	2.7	32	40	0.9557	17:56:42	2-Jul-13
623	3.9	32	40	1.7902	17:57:42	2-Jul-13
624	3.9	32	40	2.1501	17:58:42	2-Jul-13
625	3	31.9	40	1.6404	17:59:42	2-Jul-13
626	4.6	31.9	39	2.1623	18:00:42	2-Jul-13
627	6.1	31.9	39	3.6472	18:01:42	2-Jul-13
628	3	31.9	40	1.6971	18:02:42	2-Jul-13
629	3.4	31.9	40	1.7936	18:03:42	2-Jul-13
630	3.2	31.9	40	1.5411	18:04:42	2-Jul-13
631	3.1	31.8	40	1.4337	18:05:42	2-Jul-13
632	2.6	31.8	40	0.9637	18:06:42	2-Jul-13
633	3	31.8	40	0.8386	18:07:42	2-Jul-13
634	3.1	31.8	40	0.8286	18:08:42	2-Jul-13
635	3.5	31.8	40	0.9476	18:09:42	2-Jul-13
636	3.2	31.8	40	1.1006	18:10:42	2-Jul-13
637	3.2	31.7	40	1.5416	18:11:42	2-Jul-13
638	8.9	31.7	40	2.9447	18:12:42	2-Jul-13

"Model Number"	"DataRAM 4 "	106	**Nearest Occupied Building**	
"Serial no. "	"D201 "		**3-Jul-13**	
"Device no. "	1			
"Tag Number "	3			
"Start Time "	07:19:48			
"Start Date "	03-Jul-2013			
"Log Period "	00:01:00			
"Number "	519			
"CalFactor "	1			
"Unit "	0			
"Unit Name "	"(MASS)ug/m3"			
"SIZE_CORRECT"	"DISABLED"			
"TEMPUNITS "	C			
"Max MASS "	216.8801			
"Max MASS @ "	294	12:13:48	3-Jul-13	
"Avg MASS "	5.007858			
"Max Diam "	4.127007			
"Max Diam @ "	2	7:21:48	3-Jul-13	
"Avg Diam "	1.579626			
"ALARM "	"DISABLED"			
"ALARM_LEVEL "	0			
"AUTO_ZERO "	"DISABLED"			
"AZ INTERVAL "	1			
"Errors "	0			

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	5.7	19.7	45	1.9233	7:20:48	3-Jul-13
2	9	19.7	48	4.127	7:21:48	3-Jul-13
3	6.7	19.7	50	4.127	7:22:48	3-Jul-13
4	6.8	19.6	52	4.127	7:23:48	3-Jul-13
5	6.2	19.6	54	4.0684	7:24:48	3-Jul-13
6	5.9	19.6	55	3.9472	7:25:48	3-Jul-13
7	5.9	19.7	56	4.0105	7:26:48	3-Jul-13
8	5.2	19.7	56	3.8056	7:27:48	3-Jul-13
9	5.7	19.7	57	4.0621	7:28:48	3-Jul-13
10	5.4	19.7	57	3.8764	7:29:48	3-Jul-13
11	15	19.8	57	4.0744	7:30:48	3-Jul-13
12	10.4	19.8	58	4.1096	7:31:48	3-Jul-13
13	5.9	19.9	58	4.1143	7:32:48	3-Jul-13
14	6	20	58	4.127	7:33:48	3-Jul-13
15	6.3	20	58	4.0865	7:34:48	3-Jul-13
16	5.6	20.1	58	3.8637	7:35:48	3-Jul-13
17	7.4	20.1	59	4.1176	7:36:48	3-Jul-13
18	5.6	20.2	59	3.7605	7:37:48	3-Jul-13
19	5.4	20.2	59	3.7382	7:38:48	3-Jul-13
20	5.8	20.3	59	3.8968	7:39:48	3-Jul-13
21	5.1	20.3	58	3.834	7:40:48	3-Jul-13
22	4.5	20.4	59	3.321	7:41:48	3-Jul-13
23	4.5	20.4	59	3.2259	7:42:48	3-Jul-13

24	5.2	20.5	59	3.128	7:43:48	3-Jul-13
25	5.4	20.5	58	3.5858	7:44:48	3-Jul-13
26	6.3	20.6	59	4.0066	7:45:48	3-Jul-13
27	5.6	20.6	59	3.7391	7:46:48	3-Jul-13
28	14.9	20.7	59	4.127	7:47:48	3-Jul-13
29	5.7	20.7	59	3.8334	7:48:48	3-Jul-13
30	4.9	20.8	59	3.6575	7:49:48	3-Jul-13
31	7	20.9	59	4.127	7:50:48	3-Jul-13
32	23.9	21	59	4.127	7:51:48	3-Jul-13
33	144.5	21.1	58	4.127	7:52:48	3-Jul-13
34	29.2	21.2	58	4.127	7:53:48	3-Jul-13
35	31.8	21.2	58	4.127	7:54:48	3-Jul-13
36	9.2	21.3	58	4.1061	7:55:48	3-Jul-13
37	38.3	21.4	58	4.0305	7:56:48	3-Jul-13
38	38.2	21.4	58	4.127	7:57:48	3-Jul-13
39	10.3	21.5	58	4.127	7:58:48	3-Jul-13
40	18.2	21.5	58	4.127	7:59:48	3-Jul-13
41	14.2	21.5	58	4.127	8:00:48	3-Jul-13
42	8.6	21.6	57	4.127	8:01:48	3-Jul-13
43	6.9	21.6	57	4.0083	8:02:48	3-Jul-13
44	5.7	21.6	57	4.0217	8:03:48	3-Jul-13
45	5.6	21.6	57	3.9413	8:04:48	3-Jul-13
46	8.6	21.7	58	4.1041	8:05:48	3-Jul-13
47	13.4	21.7	57	4.127	8:06:48	3-Jul-13
48	6.2	21.8	58	3.5942	8:07:48	3-Jul-13
49	7.3	21.8	58	3.6872	8:08:48	3-Jul-13
50	6.2	21.9	58	3.9159	8:09:48	3-Jul-13
51	10.7	22	58	4.127	8:10:48	3-Jul-13
52	16.9	22.1	58	4.127	8:11:48	3-Jul-13
53	46.3	22.1	57	4.127	8:12:48	3-Jul-13
54	149.3	22.2	57	4.127	8:13:48	3-Jul-13
55	37.6	22.3	57	4.127	8:14:48	3-Jul-13
56	24.4	22.4	56	3.9592	8:15:48	3-Jul-13
57	13.5	22.5	56	4.127	8:16:48	3-Jul-13
58	19.5	22.5	56	4.0304	8:17:48	3-Jul-13
59	13.6	22.6	56	4.0574	8:18:48	3-Jul-13
60	13.4	22.7	56	3.7456	8:19:48	3-Jul-13
61	12.2	22.7	56	4.0783	8:20:48	3-Jul-13
62	13.2	22.9	56	4.0971	8:21:48	3-Jul-13
63	7.3	22.9	55	3.2108	8:22:48	3-Jul-13
64	5.6	23	55	3.3539	8:23:48	3-Jul-13
65	4	23.1	55	3.0545	8:24:48	3-Jul-13
66	3.6	23.2	55	2.1001	8:25:48	3-Jul-13
67	3.5	23.3	55	2.146	8:26:48	3-Jul-13
68	18.8	23.4	55	3.5502	8:27:48	3-Jul-13
69	9.7	23.5	54	3.85	8:28:48	3-Jul-13
70	3.2	23.6	54	1.444	8:29:48	3-Jul-13
71	3.4	23.7	54	1.448	8:30:48	3-Jul-13

72	3.5	23.8	54	2.3123	8:31:48	3-Jul-13
73	2.8	23.9	54	1.4022	8:32:48	3-Jul-13
74	3.2	24	53	1.9511	8:33:48	3-Jul-13
75	3.5	24.1	53	2.0401	8:34:48	3-Jul-13
76	3.1	24.2	53	1.5944	8:35:48	3-Jul-13
77	2.3	24.3	53	0.8675	8:36:48	3-Jul-13
78	4.3	24.4	53	2.1043	8:37:48	3-Jul-13
79	2.6	24.5	52	1.6771	8:38:48	3-Jul-13
80	2.6	24.5	52	1.7325	8:39:48	3-Jul-13
81	3.4	24.6	52	2.5985	8:40:48	3-Jul-13
82	3.1	24.6	51	1.7901	8:41:48	3-Jul-13
83	2.6	24.7	51	1.6558	8:42:48	3-Jul-13
84	2.9	24.7	51	1.2451	8:43:48	3-Jul-13
85	1.8	24.8	51	0.7296	8:44:48	3-Jul-13
86	2.5	24.9	50	0.9276	8:45:48	3-Jul-13
87	2.5	24.9	50	0.7886	8:46:48	3-Jul-13
88	4.2	25	51	1.5626	8:47:48	3-Jul-13
89	4.2	25	51	1.8092	8:48:48	3-Jul-13
90	5.2	25.1	50	2.6115	8:49:48	3-Jul-13
91	2.4	25.1	50	1.35	8:50:48	3-Jul-13
92	2.4	25.1	50	1.3608	8:51:48	3-Jul-13
93	2.8	25.2	50	1.826	8:52:48	3-Jul-13
94	2.6	25.2	49	1.572	8:53:48	3-Jul-13
95	2.3	25.2	49	1.147	8:54:48	3-Jul-13
96	2.6	25.2	49	1.5799	8:55:48	3-Jul-13
97	2.4	25.3	49	1.3383	8:56:48	3-Jul-13
98	2.4	25.3	49	1.0969	8:57:48	3-Jul-13
99	2	25.3	49	0.8524	8:58:48	3-Jul-13
100	2.2	25.3	48	0.8977	8:59:48	3-Jul-13
101	2	25.3	48	0.8698	9:00:48	3-Jul-13
102	2.1	25.4	48	0.9103	9:01:48	3-Jul-13
103	2.1	25.4	48	0.8763	9:02:48	3-Jul-13
104	1.9	25.5	48	0.7761	9:03:48	3-Jul-13
105	2	25.5	48	0.8402	9:04:48	3-Jul-13
106	2.1	25.5	48	0.8673	9:05:48	3-Jul-13
107	2.1	25.6	48	0.8956	9:06:48	3-Jul-13
108	2.1	25.6	48	0.8488	9:07:48	3-Jul-13
109	1.9	25.6	48	0.7437	9:08:48	3-Jul-13
110	4.6	25.7	48	2.446	9:09:48	3-Jul-13
111	2.7	25.7	48	1.037	9:10:48	3-Jul-13
112	2.2	25.7	48	0.9034	9:11:48	3-Jul-13
113	1.9	25.8	48	0.6771	9:12:48	3-Jul-13
114	1.7	25.9	47	0.6375	9:13:48	3-Jul-13
115	1.9	25.9	47	0.6827	9:14:48	3-Jul-13
116	2	26	47	0.7029	9:15:48	3-Jul-13
117	2.3	26	47	1.0608	9:16:48	3-Jul-13
118	2.3	26	47	1.11	9:17:48	3-Jul-13
119	2.1	26.1	47	1.0671	9:18:48	3-Jul-13

120	2.1	26.1	47	0.9001	9:19:48	3-Jul-13
121	2	26.1	46	0.9897	9:20:48	3-Jul-13
122	2.3	26.2	46	1.1289	9:21:48	3-Jul-13
123	2	26.2	46	1.1822	9:22:48	3-Jul-13
124	2.2	26.2	46	0.9281	9:23:48	3-Jul-13
125	1.8	26.2	46	0.673	9:24:48	3-Jul-13
126	2	26.2	46	0.6924	9:25:48	3-Jul-13
127	1.7	26.2	46	0.644	9:26:48	3-Jul-13
128	1.8	26.3	46	0.6453	9:27:48	3-Jul-13
129	1.8	26.3	46	0.6584	9:28:48	3-Jul-13
130	2	26.3	46	0.7098	9:29:48	3-Jul-13
131	2.9	26.3	46	1.3679	9:30:48	3-Jul-13
132	2.5	26.4	46	0.9763	9:31:48	3-Jul-13
133	2.3	26.4	46	1.1397	9:32:48	3-Jul-13
134	3.3	26.5	46	2.1921	9:33:48	3-Jul-13
135	2.2	26.5	46	1.1146	9:34:48	3-Jul-13
136	4.4	26.6	46	2.4384	9:35:48	3-Jul-13
137	2.5	26.6	46	1.3063	9:36:48	3-Jul-13
138	2.1	26.6	46	0.9799	9:37:48	3-Jul-13
139	2.8	26.7	46	1.258	9:38:48	3-Jul-13
140	1.9	26.7	45	0.8078	9:39:48	3-Jul-13
141	1.9	26.7	45	0.8575	9:40:48	3-Jul-13
142	2.4	26.8	45	1.2112	9:41:48	3-Jul-13
143	2.1	26.8	45	0.9595	9:42:48	3-Jul-13
144	2.3	26.9	45	1.019	9:43:48	3-Jul-13
145	2.5	26.9	45	1.1164	9:44:48	3-Jul-13
146	25.2	27	45	1.8865	9:45:48	3-Jul-13
147	5.9	27	44	1.8409	9:46:48	3-Jul-13
148	2.8	27.1	44	1.2455	9:47:48	3-Jul-13
149	4.4	27.1	44	2.1324	9:48:48	3-Jul-13
150	4.8	27.1	44	2.5079	9:49:48	3-Jul-13
151	2.6	27.2	44	1.4406	9:50:48	3-Jul-13
152	2	27.2	44	1.1111	9:51:48	3-Jul-13
153	2.9	27.3	44	1.2408	9:52:48	3-Jul-13
154	3.1	27.4	44	1.5694	9:53:48	3-Jul-13
155	3.5	27.5	43	2.2337	9:54:48	3-Jul-13
156	1.6	27.5	43	0.7307	9:55:48	3-Jul-13
157	2.3	27.5	43	0.8986	9:56:48	3-Jul-13
158	4.5	27.5	42	1.2762	9:57:48	3-Jul-13
159	2.3	27.6	42	1.0457	9:58:48	3-Jul-13
160	1.1	27.6	42	0.5521	9:59:48	3-Jul-13
161	1.3	27.6	42	0.5683	10:00:48	3-Jul-13
162	1.2	27.6	41	0.6367	10:01:48	3-Jul-13
163	1.4	27.7	41	0.6066	10:02:48	3-Jul-13
164	1.2	27.7	41	0.642	10:03:48	3-Jul-13
165	1.4	27.7	41	0.7129	10:04:48	3-Jul-13
166	1.5	27.7	41	0.8363	10:05:48	3-Jul-13
167	1	27.7	41	0.6139	10:06:48	3-Jul-13

168	2.7	27.8	41	1.5384	10:07:48	3-Jul-13
169	5	27.8	41	1.2825	10:08:48	3-Jul-13
170	3.4	27.9	41	1.6797	10:09:48	3-Jul-13
171	9.6	27.9	41	3.9283	10:10:48	3-Jul-13
172	7.8	28	41	2.703	10:11:48	3-Jul-13
173	4.8	28	41	2.666	10:12:48	3-Jul-13
174	2.1	28.1	41	1.1677	10:13:48	3-Jul-13
175	1.7	28.2	42	0.8532	10:14:48	3-Jul-13
176	1.5	28.2	41	0.7459	10:15:48	3-Jul-13
177	1.9	28.3	41	0.8659	10:16:48	3-Jul-13
178	2	28.4	41	0.6853	10:17:48	3-Jul-13
179	2	28.5	41	0.6943	10:18:48	3-Jul-13
180	1.9	28.5	41	0.6808	10:19:48	3-Jul-13
181	2.3	28.6	41	0.8944	10:20:48	3-Jul-13
182	1.8	28.7	41	0.6592	10:21:48	3-Jul-13
183	2.3	28.7	41	1.0492	10:22:48	3-Jul-13
184	2.7	28.8	41	1.3848	10:23:48	3-Jul-13
185	2.3	28.8	41	1.4583	10:24:48	3-Jul-13
186	1.6	28.8	40	0.7319	10:25:48	3-Jul-13
187	1.7	28.9	40	0.78	10:26:48	3-Jul-13
188	2.1	28.9	40	1.2512	10:27:48	3-Jul-13
189	2	29	40	1.0485	10:28:48	3-Jul-13
190	1.8	29	40	0.9044	10:29:48	3-Jul-13
191	10.9	29	40	3.7561	10:30:48	3-Jul-13
192	3.9	29	40	2.3683	10:31:48	3-Jul-13
193	3.6	29	40	2.1396	10:32:48	3-Jul-13
194	2	29	40	1.283	10:33:48	3-Jul-13
195	3.1	29.1	40	2.1048	10:34:48	3-Jul-13
196	1.9	29.1	40	1.0196	10:35:48	3-Jul-13
197	2.3	29.1	39	1.2419	10:36:48	3-Jul-13
198	2.8	29.1	40	1.6769	10:37:48	3-Jul-13
199	2.1	29.1	40	0.9478	10:38:48	3-Jul-13
200	2.3	29.1	40	1.1724	10:39:48	3-Jul-13
201	8.5	29.1	40	2.1536	10:40:48	3-Jul-13
202	18.7	29.1	40	2.8477	10:41:48	3-Jul-13
203	1.7	29.2	40	0.9196	10:42:48	3-Jul-13
204	8.7	29.2	40	3.0376	10:43:48	3-Jul-13
205	2.3	29.2	40	1.2498	10:44:48	3-Jul-13
206	2.4	29.2	39	1.0702	10:45:48	3-Jul-13
207	2.8	29.2	39	1.6163	10:46:48	3-Jul-13
208	2.3	29.2	39	1.0801	10:47:48	3-Jul-13
209	1.1	29.3	39	0.5778	10:48:48	3-Jul-13
210	2.4	29.3	39	1.4325	10:49:48	3-Jul-13
211	1.3	29.4	39	0.7574	10:50:48	3-Jul-13
212	1	29.4	39	0.5973	10:51:48	3-Jul-13
213	0.8	29.5	38	0.5334	10:52:48	3-Jul-13
214	3.4	29.5	38	2.2972	10:53:48	3-Jul-13
215	1	29.5	38	0.6246	10:54:48	3-Jul-13

216	0.8	29.6	38	0.5084	10:55:48	3-Jul-13
217	0.6	29.6	38	0.4703	10:56:48	3-Jul-13
218	24.3	29.7	38	3.3598	10:57:48	3-Jul-13
219	1.8	29.7	37	1.0246	10:58:48	3-Jul-13
220	0.8	29.7	37	0.5142	10:59:48	3-Jul-13
221	0.4	29.8	37	0.4131	11:00:48	3-Jul-13
222	0.2	29.8	36	0.3917	11:01:48	3-Jul-13
223	0.5	29.8	36	0.4317	11:02:48	3-Jul-13
224	0.6	29.9	36	0.4537	11:03:48	3-Jul-13
225	0.6	29.9	36	0.4886	11:04:48	3-Jul-13
226	14.6	29.9	36	2.7917	11:05:48	3-Jul-13
227	2.6	30	36	1.565	11:06:48	3-Jul-13
228	1.8	30	36	1.213	11:07:48	3-Jul-13
229	2.7	30.1	36	1.5872	11:08:48	3-Jul-13
230	0.7	30.1	36	0.5154	11:09:48	3-Jul-13
231	1	30.2	36	0.5906	11:10:48	3-Jul-13
232	0.5	30.2	36	0.4887	11:11:48	3-Jul-13
233	0	30.2	35	0.3375	11:12:48	3-Jul-13
234	0.3	30.2	35	0.3975	11:13:48	3-Jul-13
235	0.3	30.3	35	0.4361	11:14:48	3-Jul-13
236	0	30.3	35	0.3386	11:15:48	3-Jul-13
237	0.2	30.3	35	0.3628	11:16:48	3-Jul-13
238	0.1	30.4	35	0.355	11:17:48	3-Jul-13
239	0.2	30.4	35	0.3647	11:18:48	3-Jul-13
240	0.5	30.5	35	0.3975	11:19:48	3-Jul-13
241	3.8	30.5	35	1.4745	11:20:48	3-Jul-13
242	0.5	30.5	35	0.5386	11:21:48	3-Jul-13
243	0.5	30.5	35	0.4584	11:22:48	3-Jul-13
244	1.1	30.5	35	0.7365	11:23:48	3-Jul-13
245	0.3	30.5	34	0.3901	11:24:48	3-Jul-13
246	2.2	30.6	35	1.019	11:25:48	3-Jul-13
247	2.6	30.5	34	0.942	11:26:48	3-Jul-13
248	0.8	30.5	34	0.4923	11:27:48	3-Jul-13
249	0.7	30.5	34	0.5364	11:28:48	3-Jul-13
250	29.8	30.5	34	2.8136	11:29:48	3-Jul-13
251	1.9	30.5	34	1.2329	11:30:48	3-Jul-13
252	2	30.5	34	1.1808	11:31:48	3-Jul-13
253	4.8	30.5	34	2.159	11:32:48	3-Jul-13
254	3	30.5	34	1.2434	11:33:48	3-Jul-13
255	5.6	30.4	34	2.728	11:34:48	3-Jul-13
256	2.6	30.4	34	1.7384	11:35:48	3-Jul-13
257	1.1	30.3	34	0.662	11:36:48	3-Jul-13
258	1.7	30.3	34	0.8485	11:37:48	3-Jul-13
259	0.7	30.2	35	0.5017	11:38:48	3-Jul-13
260	1	30.2	35	0.697	11:39:48	3-Jul-13
261	1.2	30.2	35	0.6225	11:40:48	3-Jul-13
262	2.5	30.1	35	1.6521	11:41:48	3-Jul-13
263	8.9	30.1	35	1.9179	11:42:48	3-Jul-13

264	7.3	30.1	35	3.4303	11:43:48	3-Jul-13
265	1.6	30	35	1.2635	11:44:48	3-Jul-13
266	1.4	30	35	0.9313	11:45:48	3-Jul-13
267	3.3	30	35	2.2696	11:46:48	3-Jul-13
268	3.2	29.9	35	2.0099	11:47:48	3-Jul-13
269	1	29.9	35	0.6435	11:48:48	3-Jul-13
270	2.3	29.8	35	0.8375	11:49:48	3-Jul-13
271	1	29.8	35	0.5719	11:50:48	3-Jul-13
272	1.7	29.7	35	1.1215	11:51:48	3-Jul-13
273	2	29.7	35	1.4056	11:52:48	3-Jul-13
274	1.4	29.6	35	0.8144	11:53:48	3-Jul-13
275	1.3	29.6	35	0.7525	11:54:48	3-Jul-13
276	1.3	29.6	35	0.6761	11:55:48	3-Jul-13
277	5.4	29.5	36	1.5743	11:56:48	3-Jul-13
278	2.8	29.5	36	1.3171	11:57:48	3-Jul-13
279	0.7	29.5	36	0.5265	11:58:48	3-Jul-13
280	1.1	29.4	36	0.6009	11:59:48	3-Jul-13
281	2.6	29.3	36	1.4731	12:00:48	3-Jul-13
282	5	29.3	36	2.3201	12:01:48	3-Jul-13
283	2.9	29.2	36	1.6067	12:02:48	3-Jul-13
284	1.7	29.2	36	0.8997	12:03:48	3-Jul-13
285	1.5	29.1	36	0.8752	12:04:48	3-Jul-13
286	3.8	29.1	36	1.3187	12:05:48	3-Jul-13
287	1.6	29.1	37	0.7501	12:06:48	3-Jul-13
288	1.4	29	37	0.6727	12:07:48	3-Jul-13
289	1.7	29	37	0.7677	12:08:48	3-Jul-13
290	1.4	29	37	0.681	12:09:48	3-Jul-13
291	1.9	29	37	0.986	12:10:48	3-Jul-13
292	1.9	29	37	0.9184	12:11:48	3-Jul-13
293	2	29	37	1.1163	12:12:48	3-Jul-13
294	216.9	29	37	2.5852	12:13:48	3-Jul-13
295	7	29	37	3.0916	12:14:48	3-Jul-13
296	3.3	29	38	2.3475	12:15:48	3-Jul-13
297	1.3	29	38	1.0788	12:16:48	3-Jul-13
298	2.2	29	38	1.4143	12:17:48	3-Jul-13
299	2.3	29	38	1.3194	12:18:48	3-Jul-13
300	4	29	37	1.8327	12:19:48	3-Jul-13
301	1.9	29	37	0.9839	12:20:48	3-Jul-13
302	2.7	29	37	1.8339	12:21:48	3-Jul-13
303	1.6	29	37	0.8086	12:22:48	3-Jul-13
304	2	28.9	37	1.2167	12:23:48	3-Jul-13
305	3.1	28.9	37	1.4961	12:24:48	3-Jul-13
306	1.5	28.9	37	1.0768	12:25:48	3-Jul-13
307	1.4	28.8	37	0.9011	12:26:48	3-Jul-13
308	4.8	28.8	38	2.7407	12:27:48	3-Jul-13
309	2.5	28.8	38	1.612	12:28:48	3-Jul-13
310	2	28.8	38	1.0673	12:29:48	3-Jul-13
311	1.3	28.8	38	0.7111	12:30:48	3-Jul-13

312	3	28.8	38	1.4308	12:31:48	3-Jul-13
313	4.9	28.8	38	2.3597	12:32:48	3-Jul-13
314	1.8	28.7	38	0.8567	12:33:48	3-Jul-13
315	2	28.7	38	0.8441	12:34:48	3-Jul-13
316	1.6	28.7	38	0.6607	12:35:48	3-Jul-13
317	24.6	28.7	38	2.8556	12:36:48	3-Jul-13
318	4.2	28.7	38	2.8517	12:37:48	3-Jul-13
319	2.3	28.7	38	1.0899	12:38:48	3-Jul-13
320	8.5	28.7	38	2.9227	12:39:48	3-Jul-13
321	3	28.7	39	1.3019	12:40:48	3-Jul-13
322	10.3	28.7	38	2.867	12:41:48	3-Jul-13
323	1.5	28.7	38	0.8857	12:42:48	3-Jul-13
324	1.9	28.7	38	1.066	12:43:48	3-Jul-13
325	1.5	28.7	38	0.7266	12:44:48	3-Jul-13
326	4	28.7	39	2.3928	12:45:48	3-Jul-13
327	6.8	28.7	38	2.6869	12:46:48	3-Jul-13
328	2.3	28.7	39	1.2641	12:47:48	3-Jul-13
329	1.3	28.7	39	0.663	12:48:48	3-Jul-13
330	1.5	28.7	39	0.7263	12:49:48	3-Jul-13
331	1.7	28.7	39	0.8165	12:50:48	3-Jul-13
332	1.7	28.7	39	0.7609	12:51:48	3-Jul-13
333	1.6	28.7	39	0.8036	12:52:48	3-Jul-13
334	2.8	28.7	39	1.4562	12:53:48	3-Jul-13
335	1.7	28.7	39	0.7994	12:54:48	3-Jul-13
336	1.7	28.7	39	1.0799	12:55:48	3-Jul-13
337	1.8	28.8	39	1.1487	12:56:48	3-Jul-13
338	1.4	28.8	39	0.8352	12:57:48	3-Jul-13
339	3	28.8	39	1.598	12:58:48	3-Jul-13
340	1.5	28.9	39	0.7524	12:59:48	3-Jul-13
341	3.7	28.9	39	1.7283	13:00:48	3-Jul-13
342	12.9	28.9	39	2.4842	13:01:48	3-Jul-13
343	33	28.9	39	3.746	13:02:48	3-Jul-13
344	2.1	28.9	39	1.209	13:03:48	3-Jul-13
345	3.6	28.9	39	2.053	13:04:48	3-Jul-13
346	3	28.9	39	1.8355	13:05:48	3-Jul-13
347	3.2	28.9	39	2.0206	13:06:48	3-Jul-13
348	2.1	29	39	1.3231	13:07:48	3-Jul-13
349	1.8	29	39	1.1756	13:08:48	3-Jul-13
350	2.2	29	40	1.485	13:09:48	3-Jul-13
351	2.2	29	39	1.4809	13:10:48	3-Jul-13
352	2.3	29	39	1.6075	13:11:48	3-Jul-13
353	2.5	29	39	1.8936	13:12:48	3-Jul-13
354	1.9	29	39	1.3076	13:13:48	3-Jul-13
355	2.1	29	39	1.1446	13:14:48	3-Jul-13
356	2.4	29	39	1.1277	13:15:48	3-Jul-13
357	1.7	29	39	0.757	13:16:48	3-Jul-13
358	3.2	28.9	39	1.769	13:17:48	3-Jul-13
359	6	29	39	2.4861	13:18:48	3-Jul-13

360	1.6	28.9	39	0.8524	13:19:48	3-Jul-13
361	1.3	28.9	39	0.8411	13:20:48	3-Jul-13
362	2.4	28.9	39	1.5757	13:21:48	3-Jul-13
363	1.6	28.9	39	0.7281	13:22:48	3-Jul-13
364	2.7	28.9	39	1.3611	13:23:48	3-Jul-13
365	2.1	28.9	39	1.0575	13:24:48	3-Jul-13
366	1.4	28.9	39	0.6975	13:25:48	3-Jul-13
367	1.9	28.9	39	0.9626	13:26:48	3-Jul-13
368	1.7	28.9	39	0.8784	13:27:48	3-Jul-13
369	2.2	28.8	39	1.1196	13:28:48	3-Jul-13
370	1.3	28.8	39	0.6494	13:29:48	3-Jul-13
371	1.6	28.8	39	0.6909	13:30:48	3-Jul-13
372	1.7	28.8	39	0.7581	13:31:48	3-Jul-13
373	1.6	28.8	39	0.7619	13:32:48	3-Jul-13
374	1.3	28.8	39	0.653	13:33:48	3-Jul-13
375	3.5	28.8	39	1.3368	13:34:48	3-Jul-13
376	2.2	28.8	39	0.8302	13:35:48	3-Jul-13
377	3	28.8	39	1.1348	13:36:48	3-Jul-13
378	4.3	28.8	39	2.2708	13:37:48	3-Jul-13
379	3.3	28.8	38	2.0381	13:38:48	3-Jul-13
380	1.4	28.8	38	0.7473	13:39:48	3-Jul-13
381	3.3	28.8	39	1.36	13:40:48	3-Jul-13
382	3.7	28.8	39	1.6171	13:41:48	3-Jul-13
383	2.8	28.8	38	1.835	13:42:48	3-Jul-13
384	1.7	28.8	39	1.09	13:43:48	3-Jul-13
385	1.8	28.8	39	1.0126	13:44:48	3-Jul-13
386	1.6	28.8	39	1.0297	13:45:48	3-Jul-13
387	1.3	28.8	39	0.781	13:46:48	3-Jul-13
388	1.3	28.8	39	0.7322	13:47:48	3-Jul-13
389	6.4	28.9	39	2.1326	13:48:48	3-Jul-13
390	5.8	28.9	39	2.6652	13:49:48	3-Jul-13
391	2	28.9	39	1.3302	13:50:48	3-Jul-13
392	1.7	28.9	38	0.8364	13:51:48	3-Jul-13
393	2.1	28.9	39	1.2526	13:52:48	3-Jul-13
394	2.3	28.9	38	1.6833	13:53:48	3-Jul-13
395	1.3	28.9	38	0.892	13:54:48	3-Jul-13
396	1.9	28.8	39	1.2052	13:55:48	3-Jul-13
397	2.5	28.8	39	1.5973	13:56:48	3-Jul-13
398	2.1	28.8	39	0.9858	13:57:48	3-Jul-13
399	1.7	28.8	39	0.7227	13:58:48	3-Jul-13
400	1.4	28.8	39	0.763	13:59:48	3-Jul-13
401	1.6	28.8	39	0.6656	14:00:48	3-Jul-13
402	2.8	28.8	39	1.1854	14:01:48	3-Jul-13
403	2.9	28.7	39	1.7025	14:02:48	3-Jul-13
404	19.3	28.7	39	2.5526	14:03:48	3-Jul-13
405	51.6	28.7	39	3.5461	14:04:48	3-Jul-13
406	1.6	28.6	39	0.8364	14:05:48	3-Jul-13
407	1.6	28.6	39	0.804	14:06:48	3-Jul-13

408	2.1	28.5	39	0.9414	14:07:48	3-Jul-13
409	1.8	28.5	40	0.5819	14:08:48	3-Jul-13
410	5.2	28.4	40	2.6014	14:09:48	3-Jul-13
411	2.2	28.4	40	1.0225	14:10:48	3-Jul-13
412	1.5	28.3	40	0.7763	14:11:48	3-Jul-13
413	2.2	28.3	40	1.2104	14:12:48	3-Jul-13
414	2	28.2	40	1.0118	14:13:48	3-Jul-13
415	1.9	28.2	41	1.2389	14:14:48	3-Jul-13
416	2.8	28.1	41	1.9948	14:15:48	3-Jul-13
417	3.5	28.1	41	1.7788	14:16:48	3-Jul-13
418	2.2	28	40	1.0697	14:17:48	3-Jul-13
419	2.5	28	40	1.3377	14:18:48	3-Jul-13
420	2.4	27.9	41	0.9431	14:19:48	3-Jul-13
421	2.6	27.8	41	0.7503	14:20:48	3-Jul-13
422	3.1	27.8	41	0.8206	14:21:48	3-Jul-13
423	2.3	27.7	41	0.639	14:22:48	3-Jul-13
424	2.1	27.7	41	1.0991	14:23:48	3-Jul-13
425	2	27.7	41	0.8647	14:24:48	3-Jul-13
426	2.3	27.6	41	1.1276	14:25:48	3-Jul-13
427	2.3	27.6	41	1.2763	14:26:48	3-Jul-13
428	2.3	27.6	41	1.2226	14:27:48	3-Jul-13
429	1.4	27.6	41	0.7196	14:28:48	3-Jul-13
430	6.3	27.6	42	2.7516	14:29:48	3-Jul-13
431	2.1	27.6	42	1.2818	14:30:48	3-Jul-13
432	2.4	27.6	42	1.4001	14:31:48	3-Jul-13
433	2	27.6	42	1.0107	14:32:48	3-Jul-13
434	1.8	27.6	42	0.9302	14:33:48	3-Jul-13
435	2	27.6	42	1.0423	14:34:48	3-Jul-13
436	2.4	27.6	42	1.4824	14:35:48	3-Jul-13
437	1.8	27.6	42	1.1903	14:36:48	3-Jul-13
438	2	27.7	42	1.3151	14:37:48	3-Jul-13
439	2.9	27.7	42	2.0411	14:38:48	3-Jul-13
440	2.8	27.7	42	1.9875	14:39:48	3-Jul-13
441	3.3	27.7	42	1.8868	14:40:48	3-Jul-13
442	2.2	27.8	42	0.927	14:41:48	3-Jul-13
443	2.5	27.8	42	0.9766	14:42:48	3-Jul-13
444	2.2	27.9	42	0.8676	14:43:48	3-Jul-13
445	2.5	27.9	42	1.1687	14:44:48	3-Jul-13
446	4	28	41	1.8478	14:45:48	3-Jul-13
447	2.9	27.9	41	1.369	14:46:48	3-Jul-13
448	2.3	28	41	1.1139	14:47:48	3-Jul-13
449	2.4	28	41	1.0926	14:48:48	3-Jul-13
450	2.2	28	41	0.803	14:49:48	3-Jul-13
451	1.9	28	41	0.6011	14:50:48	3-Jul-13
452	1.8	28.1	41	0.5824	14:51:48	3-Jul-13
453	2.1	28.1	41	0.735	14:52:48	3-Jul-13
454	1.8	28.1	42	0.6433	14:53:48	3-Jul-13
455	2.5	28.2	41	0.7851	14:54:48	3-Jul-13

456	1.7	28.2	41	0.6256	14:55:48	3-Jul-13
457	3.9	28.2	41	1.7287	14:56:48	3-Jul-13
458	2.7	28.2	41	1.3623	14:57:48	3-Jul-13
459	2.3	28.3	41	1.1841	14:58:48	3-Jul-13
460	2.8	28.3	41	1.1172	14:59:48	3-Jul-13
461	3.6	28.3	41	1.3877	15:00:48	3-Jul-13
462	2.4	28.4	41	0.9093	15:01:48	3-Jul-13
463	2.5	28.4	41	0.9923	15:02:48	3-Jul-13
464	5.9	28.5	41	2.7614	15:03:48	3-Jul-13
465	2	28.5	41	1.2043	15:04:48	3-Jul-13
466	4.6	28.5	41	2.5401	15:05:48	3-Jul-13
467	2.6	28.5	40	1.6528	15:06:48	3-Jul-13
468	2	28.6	40	1.3077	15:07:48	3-Jul-13
469	2.1	28.6	40	1.3979	15:08:48	3-Jul-13
470	3	28.6	40	1.7629	15:09:48	3-Jul-13
471	2	28.6	40	0.8068	15:10:48	3-Jul-13
472	1.8	28.6	40	0.7675	15:11:48	3-Jul-13
473	2.6	28.6	40	1.1058	15:12:48	3-Jul-13
474	2	28.7	40	0.8891	15:13:48	3-Jul-13
475	1.9	28.7	40	0.7631	15:14:48	3-Jul-13
476	2.5	28.7	40	1.1475	15:15:48	3-Jul-13
477	2.1	28.7	40	0.8519	15:16:48	3-Jul-13
478	2.4	28.8	40	1.0885	15:17:48	3-Jul-13
479	2.5	28.8	40	1.1186	15:18:48	3-Jul-13
480	1.9	28.9	40	0.8006	15:19:48	3-Jul-13
481	1.9	29	40	0.837	15:20:48	3-Jul-13
482	2.3	29	40	0.8637	15:21:48	3-Jul-13
483	2.1	29.1	40	0.7943	15:22:48	3-Jul-13
484	2.9	29.1	39	1.3649	15:23:48	3-Jul-13
485	1.5	29.1	39	0.7306	15:24:48	3-Jul-13
486	2.1	29.2	39	0.8771	15:25:48	3-Jul-13
487	2.1	29.2	39	0.934	15:26:48	3-Jul-13
488	2	29.3	39	0.8607	15:27:48	3-Jul-13
489	1.8	29.3	39	0.7947	15:28:48	3-Jul-13
490	2	29.3	39	0.8913	15:29:48	3-Jul-13
491	2	29.4	39	0.9688	15:30:48	3-Jul-13
492	1.9	29.5	39	0.8181	15:31:48	3-Jul-13
493	2.2	29.5	39	0.9971	15:32:48	3-Jul-13
494	2.1	29.5	39	0.915	15:33:48	3-Jul-13
495	1.7	29.5	39	0.7501	15:34:48	3-Jul-13
496	1.7	29.6	39	0.6507	15:35:48	3-Jul-13
497	1.6	29.6	38	0.6151	15:36:48	3-Jul-13
498	2.3	29.6	38	0.959	15:37:48	3-Jul-13
499	1.8	29.7	38	0.7197	15:38:48	3-Jul-13
500	1.7	29.7	38	0.6861	15:39:48	3-Jul-13
501	2	29.7	38	0.7899	15:40:48	3-Jul-13
502	2.1	29.8	38	0.8424	15:41:48	3-Jul-13
503	2.1	29.8	38	0.8632	15:42:48	3-Jul-13

504	1.6	29.9	38	0.6763	15:43:48	3-Jul-13
505	2.1	29.9	38	0.8021	15:44:48	3-Jul-13
506	1.6	29.9	38	0.5997	15:45:48	3-Jul-13
507	1.9	29.9	38	0.6309	15:46:48	3-Jul-13
508	1.6	30	38	0.5737	15:47:48	3-Jul-13
509	2	30	38	0.6567	15:48:48	3-Jul-13
510	2	30	38	0.6445	15:49:48	3-Jul-13
511	1.8	30	38	0.6118	15:50:48	3-Jul-13
512	2.1	30.1	38	0.846	15:51:48	3-Jul-13
513	1.8	30.1	38	0.7955	15:52:48	3-Jul-13
514	2	30.1	38	0.9202	15:53:48	3-Jul-13
515	2	30.1	38	1.0283	15:54:48	3-Jul-13
516	4.9	30.1	38	1.9307	15:55:48	3-Jul-13
517	7.1	30.2	38	2.5402	15:56:48	3-Jul-13
518	3.3	30.2	37	1.7273	15:57:48	3-Jul-13
519	9.5	30.2	37	2.7778	15:58:48	3-Jul-13

Larson Davis
Sound Track LxT Data

Summary	Teacherage July 1, 2013			
Filename	LxT_Data.002			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomsih Schoolyard Excavation			
Note	Jobsite Location (between school and teacherage)			
Measurement Description				
Start	2013/07/01 9:06:25			
Stop	2013/07/01 18:42:38			
Duration	9:36:13.4			
Run Time	9:36:13.4			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A	**C**	**Z**	
Under Range Peak	99.8	96.8	**101.8**	dB
Under Range Limit	**36.9**	34.9	42.9	dB
Noise Floor	24.1	24.6	32.1	dB
Results				
LAeq	68.5 dB			

LAE		113.9	dB	
EA		27.159	mPa²h	
EA8		22.624	mPa²h	
EA40		113.118	mPa²h	
LZpeak (max)	2013/07/01 15:08:23		119.7	dB
LAFmax	2013/07/01 18:12:22		97.1	dB
LAFmin	2013/07/01 10:26:59		45.4	dB
SEA		-99.9	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		112	62.5	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		78.3	dB	
LAeq		68.5	dB	
LCeq - LAeq		9.8	dB	
LAIeq		73.2	dB	
LAeq		68.5	dB	
LAIeq - LAeq		4.7	dB	
# Overloads		0		
Overload Duration		0.0	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.02	0.25	%
Projected Dose		0.02	0.21	%
TWA (Projected)		26.8	45.5	dB

TWA (t)	28.1	46.8 dB
Lep (t)	69.3	69.3 dB

Statistics	
LAF5.00	73.2 dB
LAF10.00	71.4 dB
LAF33.30	67.1 dB
LAF50.00	64.7 dB
LAF66.60	62.1 dB
LAF90.00	54.7 dB

Summary	**Teacherage July 2, 2013**			
Filename	LxT_Data.003			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomsih Schoolyard Excavation			
Note	Jobsite Location (between school and teacherage)			
Measurement Description				
Start	2013/07/02 7:15:14			
Stop	2013/07/02 18:11:45			
Duration	10:56:31.4			
Run Time	10:56:31.4			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A	**C**	**Z**	
Under Range Peak	99.8	96.8	**101.8**	dB
Under Range Limit	**36.9**	34.9	42.9	dB
Noise Floor	24.1	24.6	32.1	dB
Results				
LAeq	67.4 dB			

LAE	113.4 dB		
EA	24.261 mPa²h		
EA8	17.738 mPa²h		
EA40	88.688 mPa²h		
LZpeak (max)	2013/07/02 14:16:02	126.4 dB	
LAFmax	2013/07/02 17:38:59	94.5 dB	
LAFmin	2013/07/02 7:22:50	46.1 dB	
SEA	146.8 dB		
LAF > 85.0 dB (Exceedence Counts / Duration)	68	43.7 s	
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	78.9 dB		
LAeq	67.4 dB		
LCeq - LAeq	11.4 dB		
LAIeq	72.9 dB		
LAeq	67.4 dB		
LAIeq - LAeq	5.5 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	0.01	0.22 %	
Projected Dose	0.01	0.16 %	
TWA (Projected)	22.2	43.5 dB	

TWA (t)	24.4	45.8 dB
Lep (t)	68.8	68.8 dB

Statistics	
LAF5.00	72.4 dB
LAF10.00	70.2 dB
LAF33.30	65.9 dB
LAF50.00	63.3 dB
LAF66.60	59.5 dB
LAF90.00	53.6 dB

Summary	**Teacherage July 3, 2013**			
Filename	LxT_Data.004			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomsih Schoolyard Excavation			
Note	Jobsite Location (between school and teacherage)			
Measurement Description				
Start	2013/07/03 7:08:27			
Stop	2013/07/03 16:12:00			
Duration	9:03:33.1			
Run Time	9:03:33.1			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A	**C**	**Z**	
Under Range Peak	99.8	96.8	**101.8**	dB
Under Range Limit	**36.9**	34.9	42.9	dB
Noise Floor	24.1	24.6	32.1	dB
Results				
LAeq	65.8 dB			

LAE	110.9 dB		
EA	13.622 mPa²h		
EA8	12.029 mPa²h		
EA40	60.146 mPa²h		
LZpeak (max)	2013/07/03 12:12:40	122.6 dB	
LAFmax	2013/07/03 7:47:08	94.3 dB	
LAFmin	2013/07/03 7:21:33	43.9 dB	
SEA	142.3 dB		
LAF > 85.0 dB (Exceedence Counts / Duration)	28	25.0 s	
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	78.4 dB		
LAeq	65.8 dB		
LCeq - LAeq	12.6 dB		
LAIeq	70.3 dB		
LAeq	65.8 dB		
LAIeq - LAeq	4.6 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h
Results			
Dose	0.02	0.09	%
Projected Dose	0.02	0.08	%
TWA (Projected)	28.4	38.6	dB

TWA (t)	29.3	39.5 dB
Lep (t)	66.3	66.3 dB

Statistics	
LAF5.00	69.7 dB
LAF10.00	68.2 dB
LAF33.30	64.9 dB
LAF50.00	62.3 dB
LAF66.60	60.2 dB
LAF90.00	56.4 dB

Summary	**Community Center 070113**			
Filename	LxT_Data.001			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomish Schoolyard Excavation			
Note	Community Center Location			
Measurement Description				
Start	2013/07/01 7:13:32			
Stop	2013/07/01 8:59:06			
Duration	1:45:34.4			
Run Time	1:44:57.1			
Pause	0:00:37.3			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	71.6 dB			

LAE		109.6	dB	
EA		10.153	mPa²h	
EA8		46.434	mPa²h	
EA40		232.171	mPa²h	
LZpeak (max)	2013/07/01 8:15:18		114.9	dB
LAFmax	2013/07/01 8:15:09		101.4	dB
LAFmin	2013/07/01 7:14:22		5.9	dB
SEA		-99.9	dB	

LAF > 85.0 dB (Exceedence Counts / Duration)	4	13.5 s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

LCeq	75.7	dB
LAeq	71.6	dB
LCeq - LAeq	4.1	dB
LAIeq	73.5	dB
LAeq	71.6	dB
LAIeq - LAeq	1.9	dB
# Overloads	0	
Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.13	0.14	%
Projected Dose	0.59	0.62	%
TWA (Projected)	53.0	53.4	dB

TWA (t)	42.1	42.4 dB
Lep (t)	65.0	65.0 dB

Statistics	
LAF5.00	66.8 dB
LAF10.00	61.5 dB
LAF33.30	53.0 dB
LAF50.00	50.7 dB
LAF66.60	49.0 dB
LAF90.00	46.4 dB

Summary	Community Center July 1, 2013			
Filename	LxT_Data.002			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomish Schoolyard Excavation			
Note	Community Center Location			
Measurement Description				
Start	2013/07/01 9:02:02			
Stop	2013/07/01 18:42:24			
Duration	9:40:22.5			
Run Time	9:40:22.5			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	68.2 dB			

LAE		113.6	dB	
EA		25.425	mPa²h	
EA8		21.028	mPa²h	
EA40		105.140	mPa²h	
LZpeak (max)	2013/07/01 17:23:34			123.8 dB
LAFmax	2013/07/01 15:58:06			108.8 dB
LAFmin	2013/07/01 11:00:59			39.4 dB
SEA		136.7	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		14		28.9 s
LAF > 115.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0		0.0 s
LCeq		74.4	dB	
LAeq		68.2	dB	
LCeq - LAeq		6.2	dB	
LAIeq		71.0	dB	
LAeq		68.2	dB	
LAIeq - LAeq		2.8	dB	
# Overloads		0		
Overload Duration		0.0	s	
Dose Settings				
Dose Name		OSHA-1		OSHA-2
Exch. Rate		5		5 dB
Threshold		90		80 dB
Criterion Level		90		90 dB
Criterion Duration		8		8 h
Results				
Dose		0.24		0.29 %
Projected Dose		0.20		0.24 %
TWA (Projected)		45.2		46.5 dB

TWA (t)	46.6	47.9 dB
Lep (t)	69.0	69.0 dB

Statistics	
LAF5.00	63.8 dB
LAF10.00	59.9 dB
LAF33.30	52.3 dB
LAF50.00	50.5 dB
LAF66.60	49.1 dB
LAF90.00	46.5 dB

Summary	**Community Center 07/02/13**			
Filename	LxT_Data.003			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomish Schoolyard Excavation			
Note	Community Center Location			
Measurement Description				
Start	2013/07/02 7:13:06			
Stop	2013/07/02 18:14:22			
Duration	11:01:15.9			
Run Time	11:01:15.9			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	67.1 dB			

LAE	113.1 dB		
EA	22.500 mPa²h		
EA8	16.332 mPa²h		
EA40	81.660 mPa²h		
LZpeak (max)	2013/07/02 14:22:23	124.5 dB	
LAFmax	2013/07/02 9:43:38	104.7 dB	
LAFmin	2013/07/02 7:22:50	40.6 dB	
SEA	134.5 dB		
LAF > 85.0 dB (Exceedence Counts / Duration)	15	44.5 s	
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	76.7 dB		
LAeq	67.1 dB		
LCeq - LAeq	9.6 dB		
LAIeq	71.3 dB		
LAeq	67.1 dB		
LAIeq - LAeq	4.2 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	0.19	0.38 %	
Projected Dose	0.14	0.28 %	
TWA (Projected)	42.6	47.5 dB	

TWA (t)	44.9	49.8 dB
Lep (t)	68.5	68.5 dB

Statistics	
LAF5.00	69.1 dB
LAF10.00	65.6 dB
LAF33.30	55.1 dB
LAF50.00	51.9 dB
LAF66.60	49.8 dB
LAF90.00	46.5 dB

Summary	**Community Center July 3, 2013**			
Filename	LxT_Data.004			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Skykomish			
Job Description	Skykomish Schoolyard Excavation			
Note	Community Center Location			
Measurement Description				
Start	2013/07/03 7:09:54			
Stop	2013/07/03 16:12:02			
Duration	9:02:08.4			
Run Time	8:56:43.3			
Pause	0:05:25.1			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	67.4 dB			

LAE		112.5 dB	
EA		19.639 mPa²h	
EA8		17.563 mPa²h	
EA40		87.815 mPa²h	
LZpeak (max)	2013/07/03 13:10:51		119.7 dB
LAFmax	2013/07/03 13:40:44		102.9 dB
LAFmin	2013/07/03 8:26:11		40.4 dB
SEA		-99.9 dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		14	35.2 s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0 s
LCeq		75.8 dB	
LAeq		67.4 dB	
LCeq - LAeq		8.5 dB	
LAIeq		69.8 dB	
LAeq		67.4 dB	
LAIeq - LAeq		2.4 dB	
# Overloads		0	
Overload Duration		0.0 s	
Dose Settings			
Dose Name		OSHA-1	OSHA-2
Exch. Rate		5	5 dB
Threshold		90	80 dB
Criterion Level		90	90 dB
Criterion Duration		8	8 h
Results			
Dose		0.23	0.27 %
Projected Dose		0.21	0.24 %
TWA (Projected)		45.5	46.6 dB

TWA (t)	46.3	47.4 dB
Lep (t)	67.9	67.9 dB

Statistics	
LAF5.00	65.2 dB
LAF10.00	60.3 dB
LAF33.30	53.4 dB
LAF50.00	51.5 dB
LAF66.60	49.8 dB
LAF90.00	46.3 dB

January 14, 2014

Ms. Amy Essig Desai
Farallon Consulting
975 5th Ave Northwest
Issaquah, Washington 98027

RE: Weekly AIR AND NOISE MONITORING REPORT WEEK 4
JULY 8 TO JULY 12, 2013
BNSF SKYKOMISH SCHOOLYARD AREA REMEDIATION
SKYKOMISH, WASHINGTON

Ms. Essig Desai,

This represents the fourth report of weekly air and noise monitoring data for the BNSF Skykomish Schoolyard Area Remediation in Skykomish, Washington coordinated by EMB Consulting, LLC (EMB Consulting) and conducted by Farallon Consulting, LLC (Farallon) during the week of July 8 to July 12, 2013. The purpose of this report is to summarize and interpret air and noise sampling data collected around the Skykomish Schoolyard project during weekly monitoring. Farallon conducted monitoring in general accordance with the Skykomish Schoolyard Area, Air and Noise Monitoring Plan, Skykomish, Washington issued by EMB Consulting on June 4, 2013.

WORK ACTIVITIES

Farallon staff collected air samples and noise measurements during excavation activities from July 8 to July 12, 2013. Project activities during the period consisted primarily of excavation in the schoolyard and import and placement of backfill materials.

SAMPLING METHODOLOGY

All samples were collected in general accordance with the methods specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013. Please refer to this Plan for specific details on sampling methodology.

- On July 10, 2013, Farallon collected APH samples from three locations near construction activities, as follows. The first sample was collected downwind of construction activities near the Teacherage (Sample ID APH-DW). The second

sample was collected outside of the Teacherage on its east side to represent the nearest occupied building to the excavation (Sample ID APH-TEACH). The third sample was collected outside of the Community Center (Sample ID APH-CC).

- Farallon conducted respirable dust monitoring at two monitoring stations on July 9, 10, 11, and 12, 2013. The first station was positioned downwind of construction operations and was located between the Teacherage and the east edge of the excavation. The second air monitoring station was also located near the Teacherage as the nearest occupied building.

- On July 10, 2013, Farallon collected air samples from three locations around the excavation in the schoolyard for detection of diesel particulate matter (DPM) from heavy equipment exhaust. During that day, there were three or more pieces of heavy equipment in operation, which was the condition that activates the sampling requirement. The first station was positioned downwind of construction operations and was located between the Teacherage and the east edge of the excavation (sample designated 071013-DE-DW). The second air monitoring station was located near the Teacherage as the nearest occupied building (sample designated 071013-DE-Teach). The third air monitoring station was located near the Community Center as the nearest occupied building (sample designated 071013-DE-CC).

- Weather conditions during the week were as follows. The temperature was in the 70s and 80s degrees Fahrenheit for all days, with no precipitation. Winds were generally less than 10 miles per hour in a westerly direction. Relative humidity was between 70 and 80 percent. Barometric pressure fell steadily during the day of APH sampling from 29.925 to 29.839 inches of mercury.

- Farallon conducted noise monitoring at two locations on July 9, 10, 11, and 12, 2013. The first location was between the School building and the Teacherage. The second location was outside of the Community Center on the northwest corner, closest to construction activities.

Approximate air and noise sample locations are indicated on the attached Figures 1, 2, 3, and 4.

SAMPLING RESULTS

All sample results indicate contaminant concentrations below Monitoring Plan action limits.

AIR MONITORING

DOWNWIND SAMPLES

These samples were collected to represent conditions downwind of excavation on the schoolyard.

AIR PHASE PETROLEUM HYDROCARBONS (APH)

SAMPLE ID	COMPOUND	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
071013-APH-DW	1,3-Butadiene	<0.044*	0.083[a]
	Methyl tert butyl ether	<2.0	1,400.000 [a]
	Benzene	<0.319*	0.320 [a]
	Toluene	<2.0	2,300.000 [a]
	Ethylbenzene	<2.0	460.000 [a]
	Xylene, p,m	<4.0	46.000 [a]
	Xylene, o	<2.0	46.000 [a]
	Naphthalene	<0.262*	1.400 [a]
	Aliphatics, C5 to C8	29	No CLARC criteria available
	Aliphatics, C9 to C12	160	No CLARC criteria available
	Aromatics, C9 to C10	<10.0	No CLARC criteria available
	Total APH	**200.29**	**1,346.00[b]**

µg/m^3 = micrograms per cubic meter

CLARC = Washington State Department of Ecology Cleanup Levels and Risk Calculations

a = CLARC Method B values for protection of all populations

b = Risk-based cleanup level established for Town of Skykomish and private property during this project by the Washington State Department of Ecology

**SIM analysis performed on compound to achieve a lower analytical detection limit for comparison with project action limits.*

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D738 Tag 7	07/09/13	12:30 to 19:28*	17.8	92.9	5,000
DataRam4, Serial #D738 Tag 8	07/10/13	7:30 to 16:15*	12.5	126.5	
DataRam4, Serial #D738 Tag 9	07/11/13	7:30 to 18:00*	9.4	405.2	
DataRam4, Serial #D738 Tag 10	07/12/13	7:30 to 17:30*	12.8	144.7	

µg/m^3 = micrograms per cubic meter

** The clock on the DataRam4, Serial #D738 was not correctly set, as reflected in the attached raw data set. The sample period cited here is an estimate of the actual period measured. In addition, the instrument malfunctioned and could not provide full data sets for download. Summary statistics are provided here and in the attachments.*

DIESEL PARTICULATE MATTER

SAMPLE ID	COMPOUND	SAMPLE TIME IN MINUTES	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
071013-DE-DW	Diesel Particulate (as Elemental Carbon)	547	1.6	10

µg/m^3 = micrograms per cubic meter

NEAREST OCCUPIED BUILDING SAMPLES

These samples were collected to represent conditions at the nearest occupied building near the Schoolyard excavation.

AIR PHASE PETROLEUM HYDROCARBONS (APH)

SAMPLE ID	COMPOUND	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
071013-APH-TEACH	1,3-Butadiene	<0.044*	0.083[a]
	Methyl tert butyl ether	<2.0	1,400.000 [a]
	Benzene	<0.319*	0.320 [a]
	Toluene	<2.0	2,300.000 [a]
	Ethylbenzene	<2.0	460.000 [a]
	Xylene, p,m	<4.0	46.000 [a]
	Xylene, o	<2.0	46.000 [a]
	Naphthalene	<0.262*	1.400 [a]
	Aliphatics, C5 to C8	14	No CLARC criteria available
	Aliphatics, C9 to C12	23	No CLARC criteria available
	Aromatics, C9 to C10	<10.0	No CLARC criteria available
	Total APH	**48.29**	**1,346.00[b]**

SAMPLE ID	COMPOUND	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
071013-APH-CC	1,3-Butadiene	<0.044*	0.083[a]
	Methyl tert butyl ether	<2.0	1,400.000 [a]
	Benzene	<0.319*	0.320 [a]
	Toluene	<2.0	2,300.000 [a]
	Ethylbenzene	<2.0	460.000 [a]
	Xylene, p,m	<4.0	46.000 [a]
	Xylene, o	<2.0	46.000 [a]
	Naphthalene	<0.262*	1.400 [a]
	Aliphatics, C5 to C8	16	No CLARC criteria available
	Aliphatics, C9 to C12	<14.0	No CLARC criteria available
	Aromatics, C9 to C10	<10.0	No CLARC criteria available
	Total APH	**34.29**	**1,346.00[b]**

µg/m^3= micrograms per cubic meter

CLARC = Washington State Department of Ecology Cleanup Levels and Risk Calculations

a = CLARC Method B values for protection of all populations

b = Risk-based cleanup level established for Town of Skykomish and private property during this project by the Washington State Department of Ecology

**SIM analysis performed on compound to achieve a lower analytical detection limit for comparison with project action limits.*

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D201 Tag 3	07/09/13	12:37 to 16:01	9.47	22.47	5,000
DataRam4, Serial #D201 Tag 4	07/10/13	7:38 to 14:23	6.61	167.32	
DataRam4, Serial #D201 Tag 5	07/11/13	7:45 to 15:51	0.72	14.46	
DataRam4, Serial #D201 Tag 6	07/12/13	7:46 to 15:28	9.88	981.44	

µg/m^3 = micrograms per cubic meter

DIESEL PARTICULATE MATTER

SAMPLE ID	COMPOUND	SAMPLE TIME IN MINUTES	RESULT IN µg/m^3	MONITORING PLAN ACTION LIMIT IN µg/m^3
071013-DE-Teach	Diesel Particulate (as Elemental Carbon)	536	<1.6	10
071013-DE-CC	Diesel Particulate (as Elemental Carbon)	530	<1.7	10

µg/m^3 = micrograms per cubic meter

COMMUNITY NOISE MONITORING

The following data were collected between the School building and the Teacherage (Larson Davis SoundTrack LxT 3279).

DATE OF MONITORING	SAMPLE PERIOD IN MINUTES*	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/09/13	6:03	67.8	95.0	85
07/10/13	10:24	70.6	108.3	
07/11/13	11:28	70.0	105.1	
07/12/13	9:32	68.7	98.0	

** The calendar and clock on the instrument were not correctly set, as reflected in the attached raw data set. The sample period cited here represents the duration measured.*

The following data were collected on the northwest corner of the Community Center property (Larson Davis SoundTrack LxT 3278).

DATE OF MONITORING	SAMPLE PERIOD IN MINUTES*	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/09/13	6:07	64.6	101.2	85
07/10/13	10:22	65.6	96.1	
07/11/13	10:39	69.0	94.6	
07/12/13	9:23	68.0	105.0	

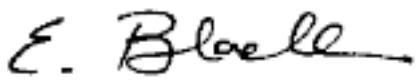
** The calendar and clock on the instrument were not correctly set, as reflected in the attached raw data set. The sample period cited here represents the duration measured.*

CONCLUSIONS

Based on this data, contaminants of concern were not detected at or above the project action limits, as specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 for the area monitored. In addition, noise limits were not exceeded.

We appreciate this opportunity to be of service to you. Please contact me at 206.915.2395 if you have questions regarding this report, or if you require additional information.

Sincerely,



Elisabeth Black, CIH

Attachments:

Figure 1: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/09/13
Figure 2: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/10/13
Figure 3: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/11/13
Figure 4: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/12/13

Laboratory Certificates of Analysis

ALS Laboratory Group – Workorder 34-1319667, July 18, 2013
Alpha Analytical - Lab Number L1313181, July 22, 2013

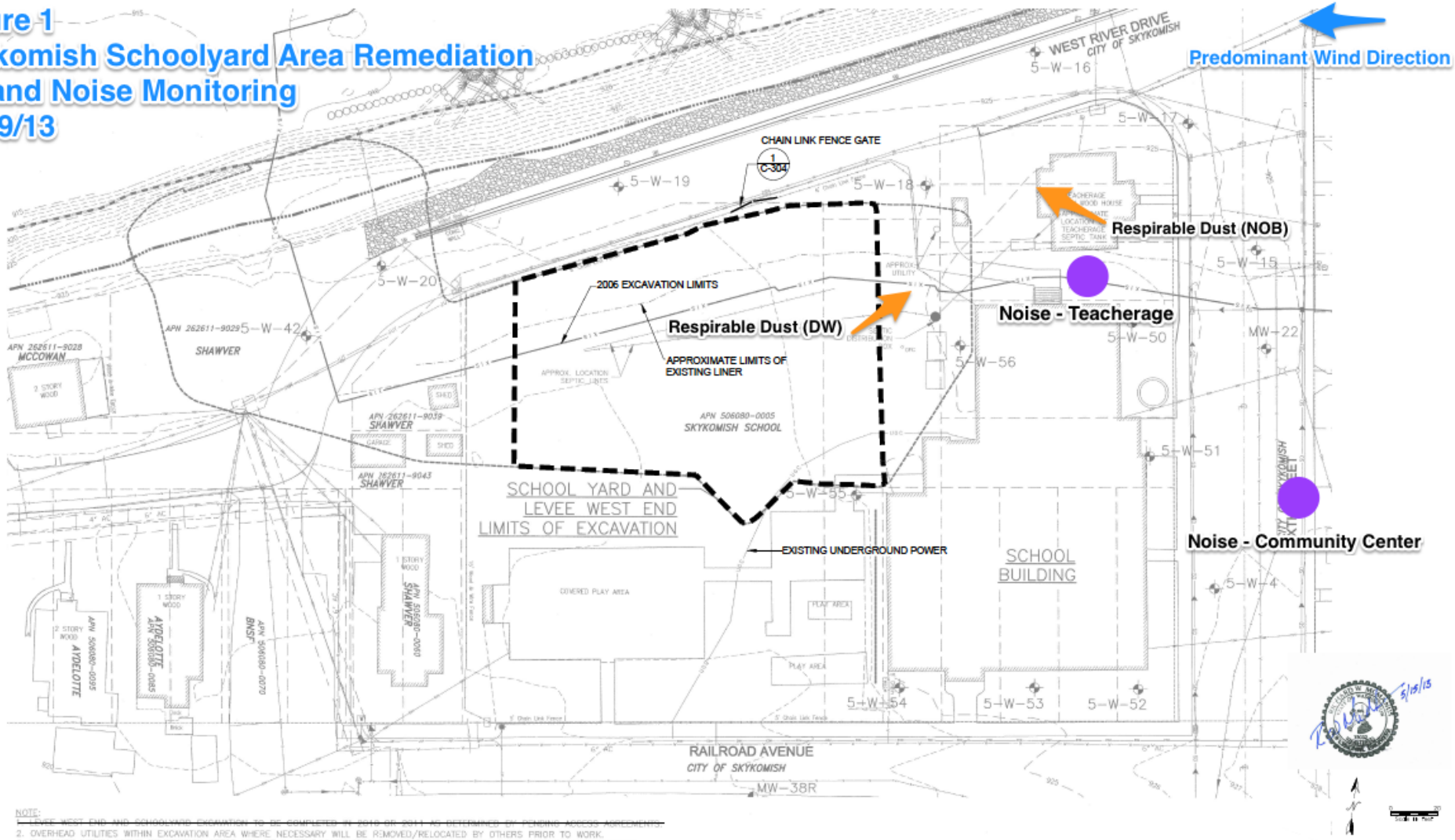
DataRam4 Data

DataRam4 data for instrument #D738 (July 9, 10, 11, and 12, 2013) – summary only
DataRam4 data for instrument #D201 (July 9, 10, 11, and 12, 2013)

Larson Davis Sound Track LxT Data

LxT data for instrument 3278 (July 9, 10, 11, and 12, 2013)
LxT data for instrument 3279 (July 9, 10, 11, and 12, 2013)

Figure 1
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/09/13



NOTE:
1. ~~LEVEE WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2012 OR 2013 AS DETERMINED BY FUNDING ACCESS AGREEMENTS.~~
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
3. ~~BUILDINGS WITHIN ACTIVE REMEDIATION AREAS MAY BE IN TEMPORARY STORAGE LOCATIONS AND NOT AS DEPICTED ON THIS DRAWING.~~
4. UTILITIES WITHIN THE ACTIVE REMEDIATION AREAS MAY NOT BE AS DEPICTED ON THIS DRAWING.

ISSUED FOR CONSTRUCTION

	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

BASE DRAWING REPRODUCED FROM 2010 REMEDIATION DESIGN FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON ISSUED FOR CONSTRUCTION (ISSUE NO.4) 5/30/2011

PREPARED BY: Farallon Consulting

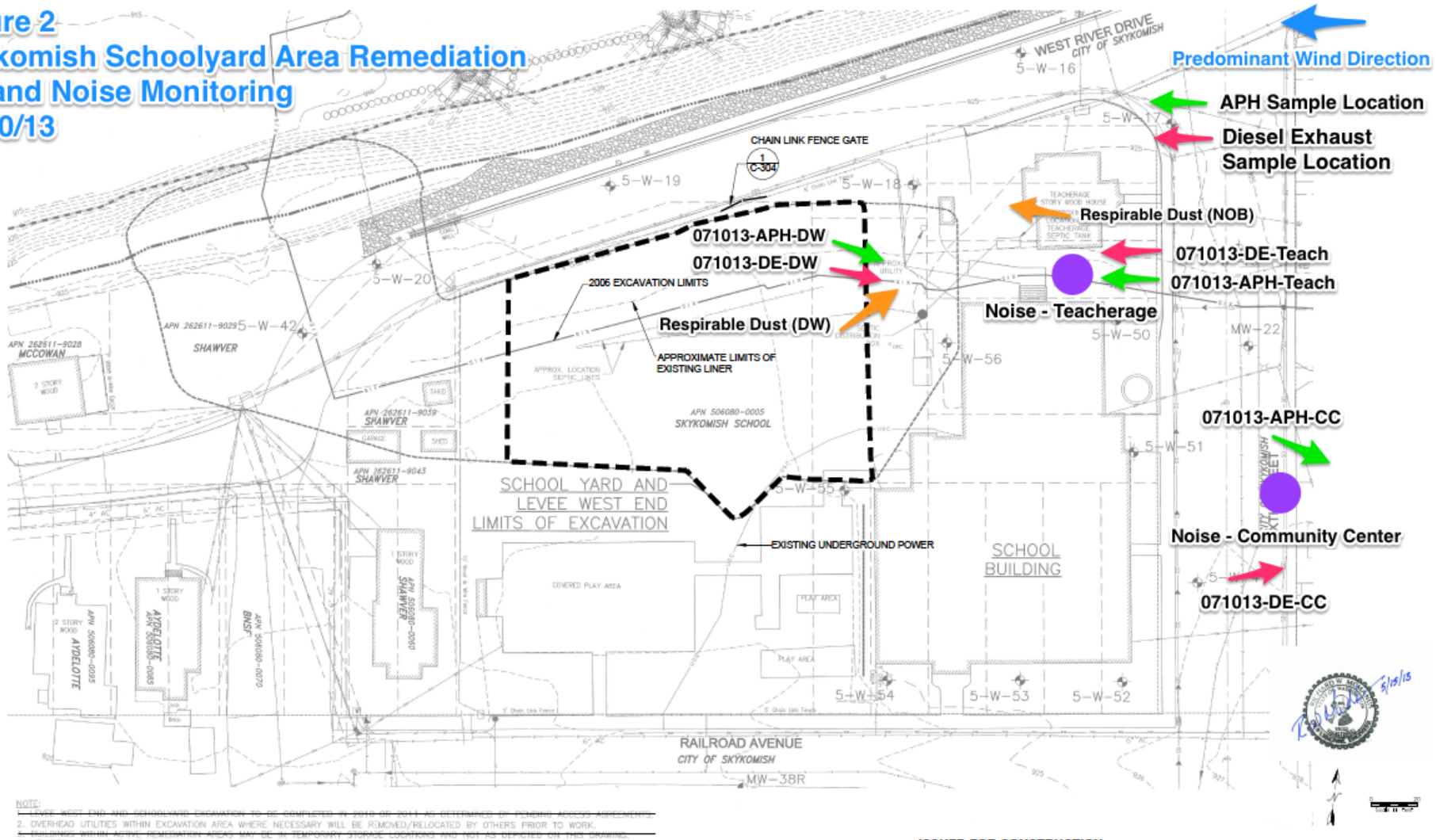
PREPARED FOR: THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 683-043
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-210

Figure 2
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/10/13



NOTE:
1. WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2013 OR 2014 AS DETERMINED BY PENDING ACCESS AGREEMENTS.
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
3. ~~EXCAVATING WITHIN ACTIVE REMEDIATION AREAS MAY BE IN TEMPORARY STORAGE LOCATIONS AND NOT AS DEPICTED ON THIS DRAWING.~~
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	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM

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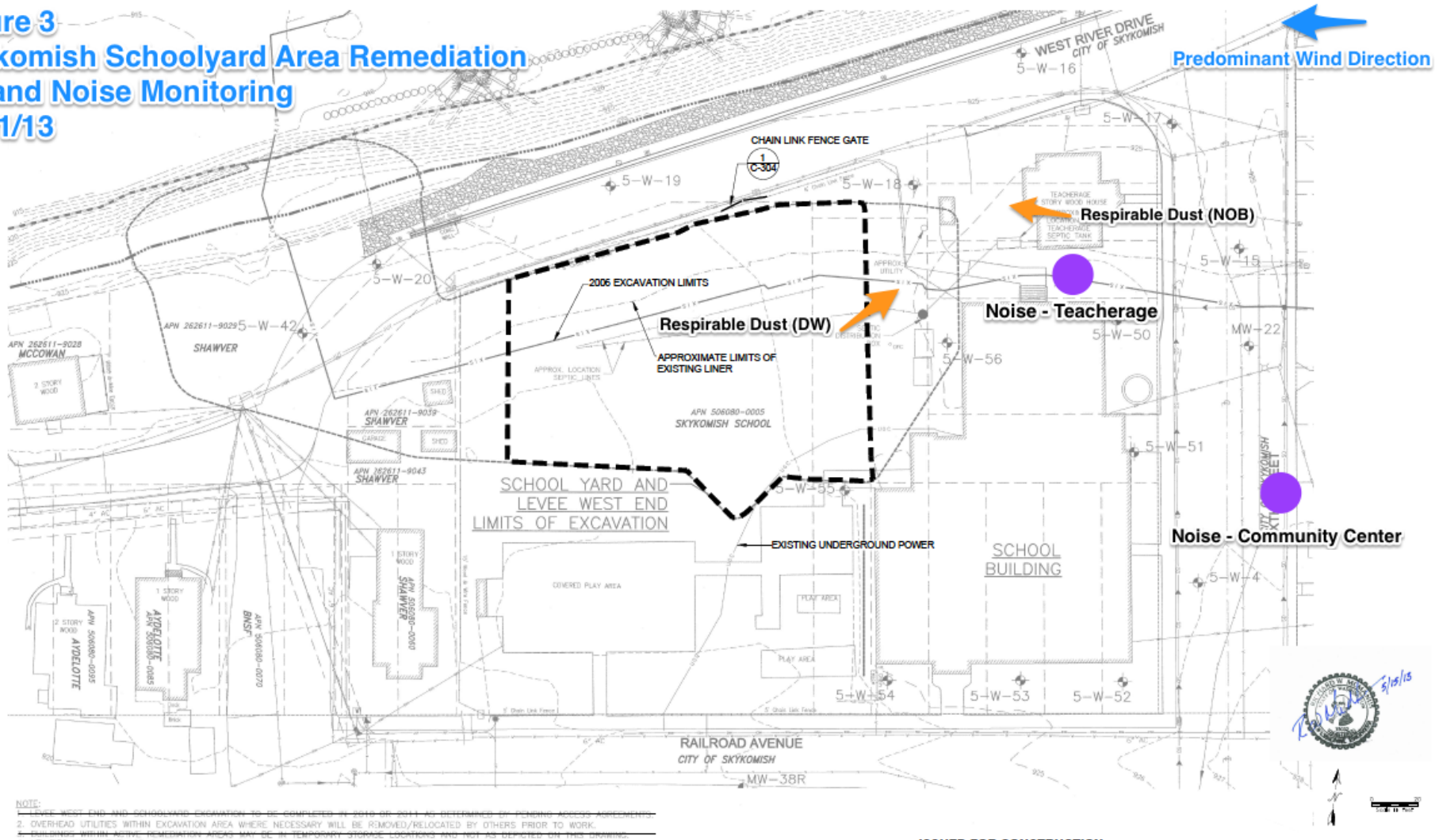
PREPARED FOR: THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 660-043
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-210

Figure 3
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/11/13



NOTE:
1. WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2013 OR 2014 AS DETERMINED BY CLOSING ACCESS AGREEMENTS.
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	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM

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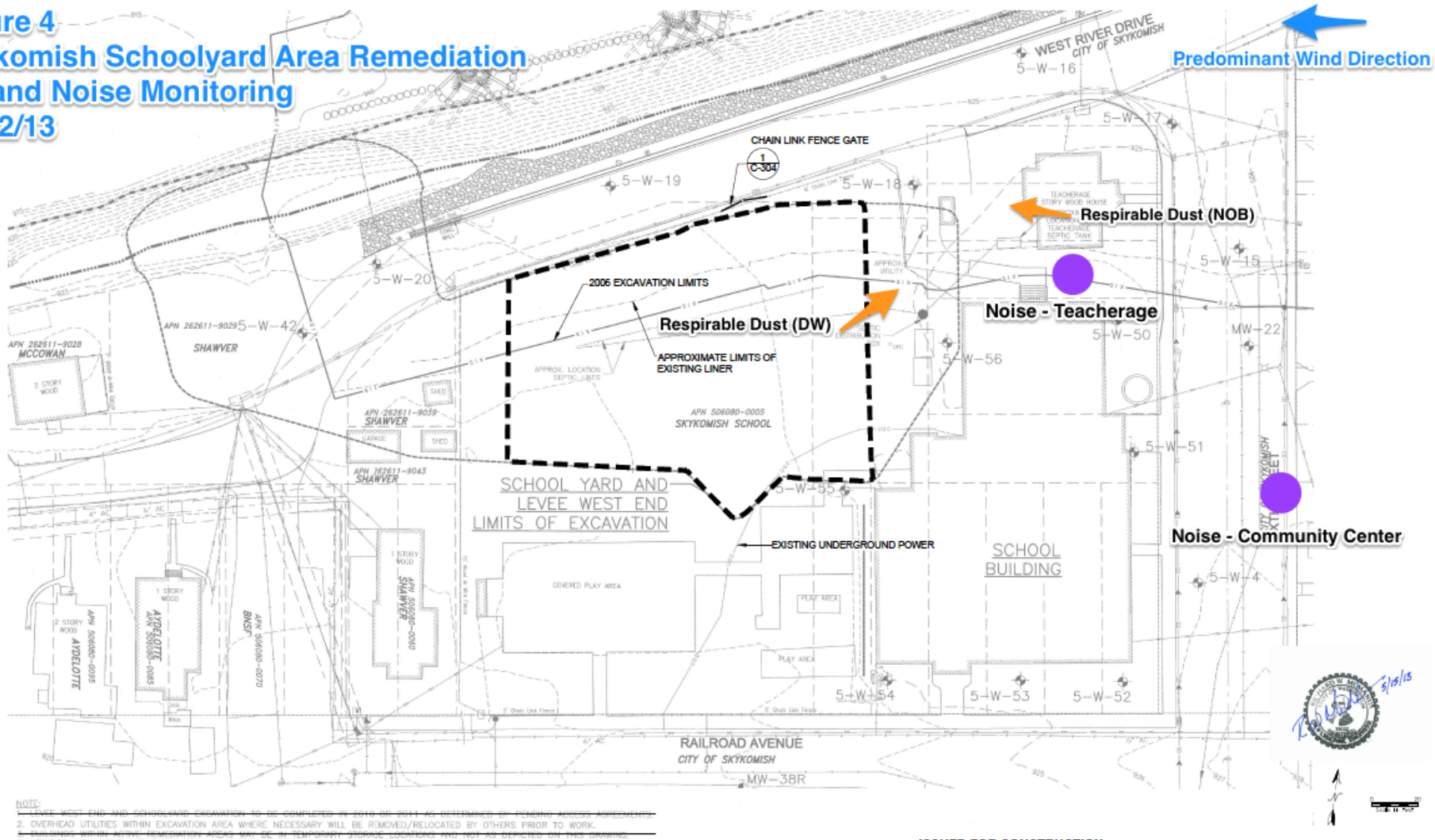
PREPARED FOR: THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 680-043
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-210

Figure 4
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/12/13



NOTE:
1. EAST, WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2013 OR 2014 AS DETERMINED BY CLOSING ACCESS AGREEMENTS.
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FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 660-043
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-210

ALS Laboratory
Certificates of Analysis

ANALYTICAL REPORT

Report Date: July 18, 2013

Elisabeth Black
EMB Consulting, LLC.
P.O. Box 5171 or
3607 219th Street, SW
Lynnwood, WA 98036

E-mail: EMBlackconsult@gmail.com

Workorder: **34-1319667**
Client Project ID: Skykomish, WA
Purchase Order: NA
Project Manager: Paul Pope

Analytical Results

Sample ID: **071013-DE-TEACH** Media: Impactor for Elemental Carbon Collected: 07/10/2013
Lab ID: 1319667001 Sampling Location: Skykomish, WA Received: 07/15/2013
Method: **NIOSH 5040** **Sampling Parameter:** **Air Volume 1062.89 L** **Analyzed:** 07/17/2013

Analyte	ug/sample	ug/m³	RL (ug/sample)
Organic Carbon	**16**	**15**	4.9
Elemental Carbon	<1.7	<1.6	1.7
Total Carbon	**16**	**15**	

Sample ID: **071013-DE-DW** Media: Impactor for Elemental Carbon Collected: 07/10/2013
Lab ID: 1319667002 Sampling Location: Skykomish, WA Received: 07/15/2013
Method: **NIOSH 5040** **Sampling Parameter:** **Air Volume 1071.54 L** **Analyzed:** 07/17/2013

Analyte	ug/sample	ug/m³	RL (ug/sample)
Organic Carbon	**21**	**20**	4.9
Elemental Carbon	**1.7**	**1.6**	1.7
Total Carbon	**23**	**22**	

Sample ID: **071013-DE-CC** Media: Impactor for Elemental Carbon Collected: 07/10/2013
Lab ID: 1319667003 Sampling Location: Skykomish, WA Received: 07/15/2013
Method: **NIOSH 5040** **Sampling Parameter:** **Air Volume 1009.65 L** **Analyzed:** 07/17/2013

Analyte	ug/sample	ug/m³	RL (ug/sample)
Organic Carbon	**14**	**14**	4.9
Elemental Carbon	<1.7	<1.7	1.7
Total Carbon	**14**	**14**	

Report Authorization

Method	Analyst	Peer Review
NIOSH 5040	Neil Brasfield	Thomas T. McKay

ANALYTICAL REPORT

Workorder: **34-1319667**
Client Project ID: Skykomish, WA
Purchase Order: NA
Project Manager: Paul Pope

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
** No result could be reported, see sample comments for details.
< This testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

Alpha Analytical
Certificates of Analysis

ANALYTICAL REPORT

Lab Number:	L1313181
Client:	EMB Consulting P.O. Box 5171 Lynnwood, WA 98046
ATTN:	Elisabeth Black
Phone:	(206) 915-2395
Project Name:	SKYKOMISH SCHOOLYARD AREA
Project Number:	1042
Report Date:	07/22/13

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: SKYKOMISH SCHOOLYARD AREA
Project Number: 1042

Lab Number: L1313181
Report Date: 07/22/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1313181-01	071013-APH-DW	SKYKOMISH, WA	07/10/13 07:40
L1313181-02	071013-APH-CC	SKYKOMISH, WA	07/10/13 08:10
L1313181-03	071013-APH-TEACH	SKYKOMISH, WA	07/10/13 07:45

Project Name: SKYKOMISH SCHOOLYARD AREA **Lab Number:** L1313181

Project Number: 1042 **Report Date:** 07/22/13

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: SKYKOMISH SCHOOLYARD AREA **Lab Number:** L1313181
Project Number: 1042 **Report Date:** 07/22/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	SKYKOMISH SCHOOLYARD AREA	**Lab Number:**	L1313181
Project Number:	1042	**Report Date:**	07/22/13

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on June 18, 2013. The canister certification results are provided as an addendum.

Petroleum Hydrocarbons in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

Sample Receipt

No flow controller to sample association could be made. The RPD of the pre- and post-flow controller calibration checks were within acceptable limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 07/22/13

AIR

Project Name: SKYKOMISH SCHOOLYARD AREA
Project Number: 1042
Lab Number: L1313181
Report Date: 07/22/13

SAMPLE RESULTS

Lab ID: L1313181-01
Client ID: 071013-APH-DW
Sample Location: SKYKOMISH, WA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/16/13 22:00
Analyst: MB

Date Collected: 07/10/13 07:40
Date Received: 07/15/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	80		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140

Project Name: SKYKOMISH SCHOOLYARD AREA
Project Number: 1042
Lab Number: L1313181
Report Date: 07/22/13

SAMPLE RESULTS

Lab ID: L1313181-02
Client ID: 071013-APH-CC
Sample Location: SKYKOMISH, WA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/16/13 23:04
Analyst: MB

Date Collected: 07/10/13 08:10
Date Received: 07/15/13
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	85		60-140

Project Name: SKYKOMISH SCHOOLYARD AREA
Project Number: 1042
Lab Number: L1313181
Report Date: 07/22/13

SAMPLE RESULTS

Lab ID: L1313181-03
Client ID: 071013-APH-TEACH
Sample Location: SKYKOMISH, WA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/16/13 23:35
Analyst: MB

Date Collected: 07/10/13 07:45
Date Received: 07/15/13
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	75		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	83		60-140

Project Name: SKYKOMISH SCHOOLYARD AREA
Project Number: 1042
Lab Number: L1313181
Report Date: 07/22/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 07/16/13 16:33

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG622030-4								
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD AREA

Project Number: 1042

Lab Number: L1313181

Report Date: 07/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG622030-3								
1,3-Butadiene	110		-		70-130	-		25
Benzene	107		-		70-130	-		25
Naphthalene	101		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD AREA
Project Number: 1042

Lab Number: L1313181
Report Date: 07/22/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG622030-5 QC Sample: L1313181-01 Client ID: 071013-APH-DW						
1,3-Butadiene	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Naphthalene	ND	ND	ppbV	NC		25

Project Name: SKYKOMISH SCHOOLYARD AREA **Lab Number:** L1313181

Project Number: 1042 **Report Date:** 07/22/13

SAMPLE RESULTS

Lab ID:	L1313181-01	Date Collected:	07/10/13 07:40
Client ID:	071013-APH-DW	Date Received:	07/15/13
Sample Location:	SKYKOMISH, WA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	07/16/13 22:00		
Analyst:	MB		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	29		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	160		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		50-200
Bromochloromethane	90		50-200
Chlorobenzene-d5	90		50-200

Project Name: SKYKOMISH SCHOOLYARD AREA **Lab Number:** L1313181

Project Number: 1042 **Report Date:** 07/22/13

SAMPLE RESULTS

Lab ID:	L1313181-02	Date Collected:	07/10/13 08:10
Client ID:	071013-APH-CC	Date Received:	07/15/13
Sample Location:	SKYKOMISH, WA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	07/16/13 23:04		
Analyst:	MB		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	16		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		50-200
Bromochloromethane	81		50-200
Chlorobenzene-d5	87		50-200

Project Name: SKYKOMISH SCHOOLYARD AREA **Lab Number:** L1313181

Project Number: 1042 **Report Date:** 07/22/13

SAMPLE RESULTS

Lab ID:	L1313181-03	Date Collected:	07/10/13 07:45
Client ID:	071013-APH-TEACH	Date Received:	07/15/13
Sample Location:	SKYKOMISH, WA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	07/16/13 23:35		
Analyst:	MB		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	14		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	23		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	76		50-200
Bromochloromethane	84		50-200
Chlorobenzene-d5	86		50-200

Project Name: SKYKOMISH SCHOOLYARD AREA **Lab Number:** L1313181

Project Number: 1042 **Report Date:** 07/22/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 07/16/13 16:33
Analyst: MB

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-03 Batch: WG622029-4					
1,3-Butadiene	ND		ug/m3	2.0	--
Methyl tert butyl ether	ND		ug/m3	2.0	--
Benzene	ND		ug/m3	2.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--
Toluene	ND		ug/m3	2.0	--
Ethylbenzene	ND		ug/m3	2.0	--
p/m-Xylene	ND		ug/m3	4.0	--
o-Xylene	ND		ug/m3	2.0	--
Naphthalene	ND		ug/m3	2.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD AREA

Project Number: 1042

Lab Number: L1313181

Report Date: 07/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG622029-3								
1,3-Butadiene	98		-		70-130	-		
Methyl tert butyl ether	90		-		70-130	-		
Benzene	96		-		70-130	-		
C5-C8 Aliphatics, Adjusted	103		-		70-130	-		
Toluene	84		-		70-130	-		
Ethylbenzene	85		-		70-130	-		
p/m-Xylene	85		-		70-130	-		
o-Xylene	87		-		70-130	-		
Naphthalene	86		-		50-150	-		
C9-C12 Aliphatics, Adjusted	100		-		70-130	-		
C9-C10 Aromatics Total	73		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: SKYKOMISH SCHOOLYARD AREA
Project Number: 1042

Lab Number: L1313181
Report Date: 07/22/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG622029-5 QC Sample: L1313181-01 Client ID: 071013-APH-DW						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	29	33	ug/m3	13		30
Toluene	ND	ND	ug/m3	NC		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	160	170	ug/m3	6		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

Project Name: SKYKOMISH SCHOOLYARD AREA

Lab Number: L1313181

Project Number: 1042

Report Date: 07/22/13

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1313181-01	071013-APH-DW	456	2.7L Can	06/18/13	89732	L1310597-01	Pass	-29.6	-5.4	-	-	-	-
L1313181-02	071013-APH-CC	492	2.7L Can	06/18/13	89732	L1310597-01	Pass	-29.4	-5.8	-	-	-	-
L1313181-03	071013-APH-TEACH	484	2.7L Can	06/18/13	89732	L1310597-01	Pass	-29.0	-6.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/22/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 06/11/13 19:31
Analyst: MB

Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/22/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/22/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1310597
Report Date: 07/22/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:

Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/22/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/22/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/11/13 19:31
Analyst: MB

Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1310597
Report Date: 07/22/13

Air Canister Certification Results

Lab ID: L1310597-01
Client ID: CAN 208 SHELF 2
Sample Location:
Date Collected: 06/10/13 17:53
Date Received: 06/11/13
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1310597

Project Number: CANISTER QC BAT **Report Date:** 07/22/13

Air Canister Certification Results

Lab ID: L1310597-01 Date Collected: 06/10/13 17:53

Client ID: CAN 208 SHELF 2 Date Received: 06/11/13

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1310597

Project Number: CANISTER QC BAT **Report Date:** 07/22/13

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1310597-01	Date Collected:	06/10/13 17:53
Client ID:	CAN 208 SHELF 2	Date Received:	06/11/13
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/11/13 19:31		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: SKYKOMISH SCHOOLYARD AREA
Project Number: 1042

Lab Number: L1313181
Report Date: 07/22/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**
Cooler
N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1313181-01A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM(30)
L1313181-02A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM(30)
L1313181-03A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	SKYKOMISH SCHOOLYARD AREA	**Lab Number:**	L1313181
Project Number:	1042	**Report Date:**	07/22/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report

Project Name:	SKYKOMISH SCHOOLYARD AREA	**Lab Number:**	L1313181
Project Number:	1042	**Report Date:**	07/22/13

Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Serial_No:07221316:17

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab:

ALPHA Job #: L1313181

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: EMB CONSULTING

Address: PO BOX 5171 LYNNWOOD WA 98046

Phone: (206) 915 2395

Fax: ——

Email: EMBLACKCONSULT@GMAIL.COM

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: SKYKOMISH SCHOOLYARD AREA

Project Location: SKYKOMISH, WA

Project #: 1072

Project Manager: E

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

SAMPLE HANDLING

Filtration ______
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ANALYSIS: APH (~~SIM BENZ~~); SIM BENZENE, 13 BUTADIENE, NAPHTHALENE

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	APH	SIM BENZENE, 13 BUTADIENE, NAPHTHALENE	Sample Specific Comments	TOTAL # BOTTLES
L1313181-1	071013-APH-DW	07/10	0740	AIR	RL	X	X		
-2	071013-APH-CC	↓	0810	↓	↓	X	X		
-3	071013-APH-TEACH	↓	0745	↓	↓	X	X		

Container Type

Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
USPS	7/15/13	USPS [signature]	7/15/13

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

DataRam4
Respirable Dust Data

DataRam	**Downwind**		**Week 4**		
Start date and time	End date and time	Average Concentration(µg/m)	Maximum Concentration (µg/m)	Average Diameter (µm)	
7/9/13 0:05	7/9/13 6:03	17.8	92.9	0.78	7/9/13
7/10/13 19:01	7/10/13 5:16	12.5	126.5	0.86	7/10/13
7/11/13 0:08	7/11/13 11:27	9.4	405.2	0.83	7/11/13
7/12/13 12:40	7/12/13 21:40	12.8	144.7	1.19	7/12/13

Serial no.	"D201 "		**Nearest Occupied Building**				
Device no.		1	**70913**				
Tag Number		3					
Start Time	12:36:21						
Start Date	09-Jul-2013						
Log Period	00:01:00						
Number		355					
CalFactor		1					
Unit		0					
Unit Name	"(MASS)ug/m3"						
SIZE_CORRECT	"DISABLED"						
TEMPUNITS	C						
Max MASS		22.46615					
Max MASS @			12:35:21	9-Jul-13			
Avg MASS		9.466226					
Max Diam		4.127007					
Max Diam @		2					
Avg Diam		4.1223	13:56:21	19-Nov-15			
ALARM	"DISABLED"						
ALARM_LEVEL		0					
AUTO_ZERO	"DISABLED"						
AZ INTERVAL		1					
Errors		0					

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	22.5	26.1	47	2.64	12:37:21	9-Jul-13
2	11.7	26.3	49	4.12	12:38:21	9-Jul-13
3	10.3	26.6	50	4.12	12:39:21	9-Jul-13
4	10.6	26.8	50	4.12	12:40:21	9-Jul-13
5	10.3	27	51	4.12	12:41:21	9-Jul-13
6	9.7	27.3	51	4.12	12:42:21	9-Jul-13
7	9.4	27.5	50	4.12	12:43:21	9-Jul-13
8	8.7	27.8	51	4.12	12:44:21	9-Jul-13
9	9.4	28	51	4.12	12:45:21	9-Jul-13
10	9.3	28.2	50	4.12	12:46:21	9-Jul-13
11	9	28.5	50	4.12	12:47:21	9-Jul-13
12	9.1	28.7	50	4.12	12:48:21	9-Jul-13
13	9.6	28.9	49	4.12	12:49:21	9-Jul-13
14	10.1	29.1	49	4.12	12:50:21	9-Jul-13
15	9.5	29.3	49	4.12	12:51:21	9-Jul-13
16	8.9	29.5	48	4.12	12:52:21	9-Jul-13
17	10.1	29.7	48	4.12	12:53:21	9-Jul-13
18	10.7	29.8	48	4.12	12:54:21	9-Jul-13
19	8.9	30	47	4.12	12:55:21	9-Jul-13
20	9	30.1	47	4.12	12:56:21	9-Jul-13
21	10.7	30.2	47	4.12	12:57:21	9-Jul-13
22	9.4	30.4	46	4.12	12:58:21	9-Jul-13
23	9.5	30.5	46	4.12	12:59:21	9-Jul-13
24	8.9	30.6	46	4.12	13:00:21	9-Jul-13

25	8.7	30.7	46	4.12	13:01:21	9-Jul-13
26	8.8	30.8	45	4.12	13:02:21	9-Jul-13
27	9.2	30.9	45	4.12	13:03:21	9-Jul-13
28	9.2	31	45	4.12	13:04:21	9-Jul-13
29	9.3	31	45	4.12	13:05:21	9-Jul-13
30	8.9	31.1	45	4.12	13:06:21	9-Jul-13
31	8.3	31.2	45	4.12	13:07:21	9-Jul-13
32	8.5	31.3	45	4.12	13:08:21	9-Jul-13
33	9.2	31.4	45	4.12	13:09:21	9-Jul-13
34	9.3	31.5	44	4.12	13:10:21	9-Jul-13
35	9.3	31.5	44	4.12	13:11:21	9-Jul-13
36	8.8	31.6	44	4.12	13:12:21	9-Jul-13
37	9.6	31.7	44	4.12	13:13:21	9-Jul-13
38	8.7	31.8	44	4.12	13:14:21	9-Jul-13
39	9.4	31.8	43	4.12	13:15:21	9-Jul-13
40	8.8	31.9	43	4.12	13:16:21	9-Jul-13
41	9	32	43	4.12	13:17:21	9-Jul-13
42	11.2	32	43	4.12	13:18:21	9-Jul-13
43	8.9	32	43	4.12	13:19:21	9-Jul-13
44	8.6	32.1	43	4.12	13:20:21	9-Jul-13
45	9.5	32.1	43	4.12	13:21:21	9-Jul-13
46	9.4	32.1	43	4.12	13:22:21	9-Jul-13
47	9.2	32.1	42	4.12	13:23:21	9-Jul-13
48	9.7	32.2	42	4.12	13:24:21	9-Jul-13
49	9	32.2	42	4.12	13:25:21	9-Jul-13
50	9.1	32.2	42	4.12	13:26:21	9-Jul-13
51	10.5	32.2	43	4.12	13:27:21	9-Jul-13
52	13.5	32.3	42	4.12	13:28:21	9-Jul-13
53	9.5	32.3	42	4.12	13:29:21	9-Jul-13
54	9.5	32.3	42	4.12	13:30:21	9-Jul-13
55	8.8	32.3	42	4.12	13:31:21	9-Jul-13
56	9.7	32.4	42	4.12	13:32:21	9-Jul-13
57	9.8	32.4	42	4.12	13:33:21	9-Jul-13
58	10.2	32.4	42	4.12	13:34:21	9-Jul-13
59	9.6	32.5	42	4.12	13:35:21	9-Jul-13
60	10.3	32.5	42	4.12	13:36:21	9-Jul-13
61	9.1	32.5	42	4.12	13:37:21	9-Jul-13
62	10	32.6	42	4.12	13:38:21	9-Jul-13
63	10	32.6	42	4.12	13:39:21	9-Jul-13
64	10	32.7	42	4.12	13:40:21	9-Jul-13
65	9.6	32.7	42	4.12	13:41:21	9-Jul-13
66	9.7	32.7	42	4.12	13:42:21	9-Jul-13
67	9.6	32.7	41	4.12	13:43:21	9-Jul-13
68	9.8	32.8	41	4.12	13:44:21	9-Jul-13
69	9	32.8	41	4.12	13:45:21	9-Jul-13
70	9.2	32.8	41	4.12	13:46:21	9-Jul-13
71	9.3	32.8	41	4.12	13:47:21	9-Jul-13
72	9.4	32.8	41	4.12	13:48:21	9-Jul-13

73	11.8	32.8	41	4.12	13:49:21	9-Jul-13
74	9	32.8	41	4.12	13:50:21	9-Jul-13
75	9.3	32.8	42	4.12	13:51:21	9-Jul-13
76	9.3	32.9	41	4.12	13:52:21	9-Jul-13
77	9.1	32.9	41	4.12	13:53:21	9-Jul-13
78	9.5	32.9	41	4.12	13:54:21	9-Jul-13
79	9.7	32.9	41	4.12	13:55:21	9-Jul-13
80	8.9	32.9	41	4.12	13:56:21	9-Jul-13
81	9	32.9	41	4.12	13:57:21	9-Jul-13
82	10.7	33	41	4.12	13:58:21	9-Jul-13
83	8.5	33	41	4.12	13:59:21	9-Jul-13
84	9.9	33	41	4.12	14:00:21	9-Jul-13
85	10.8	33	41	4.12	14:01:21	9-Jul-13
86	9.2	33	41	4.12	14:02:21	9-Jul-13
87	9.6	33	41	4.12	14:03:21	9-Jul-13
88	11	33	41	4.12	14:04:21	9-Jul-13
89	10.1	33	40	4.12	14:05:21	9-Jul-13
90	8.9	33	40	4.12	14:06:21	9-Jul-13
91	10.4	32.9	40	4.12	14:07:21	9-Jul-13
92	9.2	32.9	40	4.12	14:08:21	9-Jul-13
93	8.7	32.8	40	4.12	14:09:21	9-Jul-13
94	8.4	32.7	40	4.12	14:10:21	9-Jul-13
95	9.5	32.7	40	4.12	14:11:21	9-Jul-13
96	9.3	32.6	40	4.12	14:12:21	9-Jul-13
97	9.3	32.6	40	4.12	14:13:21	9-Jul-13
98	9.3	32.5	40	4.12	14:14:21	9-Jul-13
99	9.3	32.4	41	4.12	14:15:21	9-Jul-13
100	10	32.4	41	4.12	14:16:21	9-Jul-13
101	9.4	32.3	41	4.12	14:17:21	9-Jul-13
102	10.1	32.2	41	4.12	14:18:21	9-Jul-13
103	9.7	32.2	41	4.12	14:19:21	9-Jul-13
104	9.4	32.1	41	4.12	14:20:21	9-Jul-13
105	9.2	32.1	41	4.12	14:21:21	9-Jul-13
106	10.2	32.1	41	4.12	14:22:21	9-Jul-13
107	9.4	32	41	4.12	14:23:21	9-Jul-13
108	9	32	41	4.12	14:24:21	9-Jul-13
109	10	32	41	4.12	14:25:21	9-Jul-13
110	9.4	32	41	4.12	14:26:21	9-Jul-13
111	9.2	31.9	42	4.12	14:27:21	9-Jul-13
112	10	31.9	42	4.12	14:28:21	9-Jul-13
113	9.9	31.9	42	4.12	14:29:21	9-Jul-13
114	10.2	31.9	42	4.12	14:30:21	9-Jul-13
115	9.9	31.9	42	4.12	14:31:21	9-Jul-13
116	9.1	31.9	42	4.12	14:32:21	9-Jul-13
117	9.3	31.9	42	4.12	14:33:21	9-Jul-13
118	8.9	32	42	4.12	14:34:21	9-Jul-13
119	9.6	32	42	4.12	14:35:21	9-Jul-13
120	9.6	32	42	4.12	14:36:21	9-Jul-13

		121	9.9	32	42	4.12	14:37:21	9-Jul-13
		122	9.6	32	41	4.12	14:38:21	9-Jul-13
		123	9.6	32	41	4.12	14:39:21	9-Jul-13
		124	9.4	32	41	4.12	14:40:21	9-Jul-13
		125	9.8	32	41	4.12	14:41:21	9-Jul-13
		126	9.6	32.1	41	4.12	14:42:21	9-Jul-13
		127	9.8	32	41	4.12	14:43:21	9-Jul-13
		128	9.1	32.1	41	4.12	14:44:21	9-Jul-13
		129	9.8	32.1	41	4.12	14:45:21	9-Jul-13
		130	9.6	32.1	41	4.12	14:46:21	9-Jul-13
		131	9.2	32.1	41	4.12	14:47:21	9-Jul-13
		132	10	32.1	41	4.12	14:48:21	9-Jul-13
		133	9.9	32.2	41	4.12	14:49:21	9-Jul-13
		134	10	32.2	41	4.12	14:50:21	9-Jul-13
13	8.7		34.9	36	4.12	14:51:21	9-Jul-13	
		286	8.9	34.8	36	4.12	14:52:21	9-Jul-13
		287	9.2	34.8	36	4.12	14:53:21	9-Jul-13
		288	9	34.8	36	4.12	14:54:21	9-Jul-13
		289	8.9	34.7	36	4.12	14:55:21	9-Jul-13
		290	8.8	34.7	36	4.12	14:56:21	9-Jul-13
		291	8.6	34.7	36	4.12	14:57:21	9-Jul-13
		292	8.4	34.7	36	4.12	14:58:21	9-Jul-13
		293	9	34.6	36	4.12	14:59:21	9-Jul-13
		294	10.1	34.7	36	4.12	15:00:21	9-Jul-13
		295	8.5	34.7	36	4.12	15:01:21	9-Jul-13
		296	8.6	34.7	36	4.12	15:02:21	9-Jul-13
		297	9	34.7	36	4.12	15:03:21	9-Jul-13
		298	8.7	34.7	36	4.05	15:04:21	9-Jul-13
		299	9.3	34.7	36	4.12	15:05:21	9-Jul-13
		300	9.1	34.7	36	4.12	15:06:21	9-Jul-13
		301	8.5	34.7	36	4.12	15:07:21	9-Jul-13
		302	8.9	34.8	36	4.12	15:08:21	9-Jul-13
		303	12.6	34.8	36	4.12	15:09:21	9-Jul-13
		304	9.4	34.8	36	4.12	15:10:21	9-Jul-13
		305	8.5	34.8	36	4.12	15:11:21	9-Jul-13
		306	9.1	34.7	36	4.12	15:12:21	9-Jul-13
		307	8.4	34.7	36	4.12	15:13:21	9-Jul-13
		308	8.6	34.7	36	4.12	15:14:21	9-Jul-13
		309	9.5	34.7	36	4.12	15:15:21	9-Jul-13
		310	8.6	34.7	36	4.12	15:16:21	9-Jul-13
		311	8.3	34.6	36	4.12	15:17:21	9-Jul-13
		312	8.3	34.6	36	4.12	15:18:21	9-Jul-13
		313	8.8	34.6	36	4.12	15:19:21	9-Jul-13
		314	9	34.5	36	4.12	15:20:21	9-Jul-13
		315	8.8	34.5	36	4.12	15:21:21	9-Jul-13
		316	8.9	34.5	36	4.12	15:22:21	9-Jul-13
		317	8.9	34.4	36	4.12	15:23:21	9-Jul-13
		318	8.3	34.4	36	4.12	15:24:21	9-Jul-13

319	8.4	34.3	36	4.12	15:25:21	9-Jul-13
320	9.4	34.3	36	4.12	15:26:21	9-Jul-13
321	8.1	34.2	36	4.12	15:27:21	9-Jul-13
322	8.6	34.2	36	4.12	15:28:21	9-Jul-13
323	8.8	34.2	36	4.12	15:29:21	9-Jul-13
324	8.6	34.1	36	4.12	15:30:21	9-Jul-13
325	8.9	34.1	36	4.12	15:31:21	9-Jul-13
326	8.7	34	37	4.12	15:32:21	9-Jul-13
327	8.6	34	37	4.12	15:33:21	9-Jul-13
328	9	34	37	4.12	15:34:21	9-Jul-13
329	9.8	33.9	37	4.12	15:35:21	9-Jul-13
330	9	33.9	37	4.12	15:36:21	9-Jul-13
331	8.7	33.9	37	4.12	15:37:21	9-Jul-13
332	8.6	33.9	37	4.12	15:38:21	9-Jul-13
333	8.6	33.9	37	4.12	15:39:21	9-Jul-13
334	8.3	33.9	37	4.12	15:40:21	9-Jul-13
335	8.3	33.8	36	4.1	15:41:21	9-Jul-13
336	11.9	33.8	37	4.12	15:42:21	9-Jul-13
337	8.1	33.8	37	4.1	15:43:21	9-Jul-13
338	9.3	33.7	37	4.12	15:44:21	9-Jul-13
339	8.5	33.7	37	4.12	15:45:21	9-Jul-13
340	8.6	33.6	37	4.12	15:46:21	9-Jul-13
341	8.2	33.6	37	4.12	15:47:21	9-Jul-13
342	8.5	33.6	37	4.12	15:48:21	9-Jul-13
343	8.5	33.5	37	4.12	15:49:21	9-Jul-13
344	8.6	33.5	37	4.12	15:50:21	9-Jul-13
345	8	33.5	37	4.12	15:51:21	9-Jul-13
346	8.7	33.4	37	4.12	15:52:21	9-Jul-13
347	8.7	33.4	37	4.12	15:53:21	9-Jul-13
348	8.6	33.4	37	4.12	15:54:21	9-Jul-13
349	8.8	33.4	37	4.12	15:55:21	9-Jul-13
350	9.1	33.4	37	4.12	15:56:21	9-Jul-13
351	8.8	33.3	37	4.12	15:57:21	9-Jul-13
352	9.8	33.3	37	4.12	15:58:21	9-Jul-13
353	8.7	33.2	37	4.12	15:59:21	9-Jul-13
354	8.9	33.2	38	4.12	16:00:21	9-Jul-13
355	8.3	33.2	38	4.12	16:01:21	9-Jul-13

Model Number	"DataRAM 4 "	106	**Nearest Occupied Building**	
Serial no.	"D201 "		**7/10/13**	
Device no.	1			
Tag Number	4			
Start Time	07:32:08			
Start Date	10-Jul-2013			
Log Period	00:01:00			
Number	612			
CalFactor	1			
Unit	0			
Unit Name	"(MASS)ug/m3"			
SIZE_CORRECT	"DISABLED"			
TEMPUNITS	C			
Max MASS	167.3165			
Max MASS @	1			
Avg MASS	6.608	0:02:08	10-Jan-14	
Max Diam	4.127007			
Max Diam @		7:31:08	10-Jul-13	
Avg Diam	3.041648			
ALARM	"DISABLED"			
ALARM_LEVEL	0			
AUTO_ZERO	"DISABLED"			
AZ INTERVAL	1			
Errors	0			

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	167.3	20.2	44	2.84	7:33:08	10-Jul-13
2	37.5	20.2	47	4.12	7:34:08	10-Jul-13
3	12.5	20.2	50	4	7:35:08	10-Jul-13
4	8.5	20.3	52	4.09	7:36:08	10-Jul-13
5	8.7	20.3	53	4.12	7:37:08	10-Jul-13
6	7.9	20.3	54	4.04	7:38:08	10-Jul-13
7	8.6	20.4	55	4.12	7:39:08	10-Jul-13
8	9.1	20.5	56	4.11	7:40:08	10-Jul-13
9	8.4	20.5	56	4.12	7:41:08	10-Jul-13
10	8.4	20.6	57	3.95	7:42:08	10-Jul-13
11	12.3	20.6	57	4.1	7:43:08	10-Jul-13
12	8	20.7	58	4.05	7:44:08	10-Jul-13
13	8.1	20.7	58	4.12	7:45:08	10-Jul-13
14	8.4	20.8	58	4.12	7:46:08	10-Jul-13
15	8.6	20.9	58	4.12	7:47:08	10-Jul-13
16	8.2	21	59	4.12	7:48:08	10-Jul-13
17	7.9	21	59	4.1	7:49:08	10-Jul-13
18	8.4	21.1	59	4.12	7:50:08	10-Jul-13
19	7.7	21.2	59	4.12	7:51:08	10-Jul-13
20	8.5	21.3	59	4.12	7:52:08	10-Jul-13
21	10.6	21.5	60	4.12	7:53:08	10-Jul-13
22	8	21.6	60	4.12	7:54:08	10-Jul-13
23	8.6	21.7	60	4.12	7:55:08	10-Jul-13

24	11.3	21.8	60	4.11	7:56:08	10-Jul-13
25	7.5	21.9	59	4.12	7:57:08	10-Jul-13
26	8.3	22	59	4.12	7:58:08	10-Jul-13
27	7.3	22.2	59	4.12	7:59:08	10-Jul-13
28	7.7	22.3	59	4.1	8:00:08	10-Jul-13
29	12.7	22.4	59	4.09	8:01:08	10-Jul-13
30	10	22.5	59	4.12	8:02:08	10-Jul-13
31	8.1	22.7	59	4.12	8:03:08	10-Jul-13
32	7.2	22.8	58	4.03	8:04:08	10-Jul-13
33	6.6	22.9	58	4.12	8:05:08	10-Jul-13
34	7.7	23	58	4.12	8:06:08	10-Jul-13
35	7.9	23.1	57	4.12	8:07:08	10-Jul-13
36	7.6	23.2	57	4.12	8:08:08	10-Jul-13
37	7.2	23.3	57	4.1	8:09:08	10-Jul-13
38	6.8	23.5	57	3.95	8:10:08	10-Jul-13
39	9.4	23.5	56	4.12	8:11:08	10-Jul-13
40	6.7	23.6	56	4.11	8:12:08	10-Jul-13
41	6.5	23.6	56	3.84	8:13:08	10-Jul-13
42	7.7	23.7	56	4.12	8:14:08	10-Jul-13
43	13.9	23.7	56	4.12	8:15:08	10-Jul-13
44	8.3	23.8	56	3.73	8:16:08	10-Jul-13
45	6.4	23.9	56	3.2	8:17:08	10-Jul-13
46	7.2	23.9	56	4.11	8:18:08	10-Jul-13
47	6.4	24	56	3.78	8:19:08	10-Jul-13
48	47.6	24	55	4.09	8:20:08	10-Jul-13
49	17.2	24.1	55	4.07	8:21:08	10-Jul-13
50	8.3	24.1	55	4.05	8:22:08	10-Jul-13
51	12.4	24.2	55	4.12	8:23:08	10-Jul-13
52	6.8	24.2	55	3.98	8:24:08	10-Jul-13
53	6.1	24.2	55	3.88	8:25:08	10-Jul-13
54	6	24.3	55	3.96	8:26:08	10-Jul-13
55	6.3	24.3	55	3.77	8:27:08	10-Jul-13
56	8.6	24.4	55	4.09	8:28:08	10-Jul-13
57	6.6	24.5	55	3.83	8:29:08	10-Jul-13
58	6.4	24.5	55	4.06	8:30:08	10-Jul-13
59	5.7	24.6	55	4.06	8:31:08	10-Jul-13
60	6.7	24.6	54	4.12	8:32:08	10-Jul-13
61	6.1	24.7	54	4.06	8:33:08	10-Jul-13
62	6.4	24.7	54	3.9	8:34:08	10-Jul-13
63	6	24.8	54	3.67	8:35:08	10-Jul-13
64	6.6	24.8	54	4.09	8:36:08	10-Jul-13
65	6.6	24.9	54	4.11	8:37:08	10-Jul-13
66	7.1	24.9	54	4.11	8:38:08	10-Jul-13
67	6.6	25	54	4.08	8:39:08	10-Jul-13
68	6.3	25	53	4.03	8:40:08	10-Jul-13
69	7.3	25	53	3.81	8:41:08	10-Jul-13
70	6.2	25.1	53	3.92	8:42:08	10-Jul-13
71	6.1	25.1	53	3.7	8:43:08	10-Jul-13

72	5.9	25.1	53	3.87	8:44:08	10-Jul-13
73	5.7	25.1	53	3.46	8:45:08	10-Jul-13
74	5.6	25.2	53	3.78	8:46:08	10-Jul-13
75	5.9	25.2	52	3.45	8:47:08	10-Jul-13
76	5.6	25.2	52	3.28	8:48:08	10-Jul-13
77	4.9	25.2	52	2.68	8:49:08	10-Jul-13
78	6.1	25.3	52	4	8:50:08	10-Jul-13
79	5.9	25.3	52	3.97	8:51:08	10-Jul-13
80	5.7	25.3	52	3.86	8:52:08	10-Jul-13
81	5.9	25.3	52	3.77	8:53:08	10-Jul-13
82	6.7	25.3	52	3.95	8:54:08	10-Jul-13
83	4.9	25.3	51	2.84	8:55:08	10-Jul-13
84	5.6	25.3	52	3.75	8:56:08	10-Jul-13
85	5.6	25.4	52	3.6	8:57:08	10-Jul-13
86	5.7	25.4	51	3.92	8:58:08	10-Jul-13
87	7.7	25.4	51	4.12	8:59:08	10-Jul-13
88	5.5	25.4	51	3.77	9:00:08	10-Jul-13
89	4.8	25.5	51	2.78	9:01:08	10-Jul-13
90	6.1	25.5	51	4.05	9:02:08	10-Jul-13
91	5.6	25.5	51	3.7	9:03:08	10-Jul-13
92	8.5	25.5	51	3.95	9:04:08	10-Jul-13
93	9.5	25.5	51	4.01	9:05:08	10-Jul-13
94	8.2	25.6	51	3.56	9:06:08	10-Jul-13
95	5.2	25.6	51	2.43	9:07:08	10-Jul-13
96	5.7	25.6	51	3.69	9:08:08	10-Jul-13
97	5.7	25.7	51	3.03	9:09:08	10-Jul-13
98	6.6	25.7	51	3.88	9:10:08	10-Jul-13
99	6.1	25.8	50	4.03	9:11:08	10-Jul-13
100	6.5	25.9	50	3.69	9:12:08	10-Jul-13
101	5.6	25.9	50	3.71	9:13:08	10-Jul-13
102	6.5	26	50	3.57	9:14:08	10-Jul-13
103	5.6	26	50	3.74	9:15:08	10-Jul-13
104	5.5	26.1	50	3.76	9:16:08	10-Jul-13
105	4.9	26.1	50	3.07	9:17:08	10-Jul-13
106	5.7	26.2	50	3.47	9:18:08	10-Jul-13
107	5	26.2	49	2.82	9:19:08	10-Jul-13
108	5.1	26.2	49	2.67	9:20:08	10-Jul-13
2.6	28.5	40	1.49	9:21:08	10-Jul-13	
260	2	28.5	40	0.88	9:22:08	10-Jul-13
261	3.6	28.5	40	2.37	9:23:08	10-Jul-13
262	1.9	28.5	40	0.8	9:24:08	10-Jul-13
263	1.9	28.5	40	0.79	9:25:08	10-Jul-13
264	12.7	28.5	41	1.88	9:26:08	10-Jul-13
265	4.4	28.5	41	2	9:27:08	10-Jul-13
266	3	28.6	41	1.7	9:28:08	10-Jul-13
267	3.8	28.6	41	2.19	9:29:08	10-Jul-13
268	6.2	28.6	40	2.06	9:30:08	10-Jul-13
269	2.6	28.6	41	1.15	9:31:08	10-Jul-13

270	1.8	28.6	40	0.63	9:32:08	10-Jul-13
271	2.7	28.7	41	1	9:33:08	10-Jul-13
272	2.5	28.7	41	1.15	9:34:08	10-Jul-13
273	2.5	28.7	40	0.9	9:35:08	10-Jul-13
274	1.9	28.7	40	0.66	9:36:08	10-Jul-13
275	2.2	28.7	40	0.71	9:37:08	10-Jul-13
276	2.3	28.7	40	0.77	9:38:08	10-Jul-13
277	2.2	28.7	40	0.74	9:39:08	10-Jul-13
278	2.4	28.8	41	0.68	9:40:08	10-Jul-13
279	3.2	28.8	41	0.99	9:41:08	10-Jul-13
280	2.8	28.9	41	1.26	9:42:08	10-Jul-13
281	2.3	28.9	41	0.92	9:43:08	10-Jul-13
282	2.2	28.9	40	0.71	9:44:08	10-Jul-13
283	2.5	28.9	40	0.76	9:45:08	10-Jul-13
284	2.1	29	40	0.69	9:46:08	10-Jul-13
285	2	29	40	0.66	9:47:08	10-Jul-13
286	2.4	29	41	0.75	9:48:08	10-Jul-13
287	2.3	29	41	0.61	9:49:08	10-Jul-13
288	2.1	29	40	0.59	9:50:08	10-Jul-13
289	2.5	29	40	0.73	9:51:08	10-Jul-13
290	2.4	29	40	0.91	9:52:08	10-Jul-13
291	2.4	29	40	1.02	9:53:08	10-Jul-13
292	3	29	40	1.47	9:54:08	10-Jul-13
293	2.6	29	40	0.82	9:55:08	10-Jul-13
294	9.1	29	40	2.24	9:56:08	10-Jul-13
295	35.4	29	40	4.12	9:57:08	10-Jul-13
296	4	29	40	2.61	9:58:08	10-Jul-13
297	8.1	29	40	3.49	9:59:08	10-Jul-13
298	3.2	28.9	40	1.76	10:00:08	10-Jul-13
299	3.7	28.9	40	1.4	10:01:08	10-Jul-13
300	6.5	28.8	40	3.36	10:02:08	10-Jul-13
301	2.6	28.8	40	1.44	10:03:08	10-Jul-13
302	4.3	28.7	40	2.41	10:04:08	10-Jul-13
303	24.8	28.7	40	3.68	10:05:08	10-Jul-13
304	3.7	28.7	40	2.48	10:06:08	10-Jul-13
305	3.7	28.7	40	2.32	10:07:08	10-Jul-13
306	3.4	28.6	41	2.02	10:08:08	10-Jul-13
307	5.2	28.6	41	3.22	10:09:08	10-Jul-13
308	7.9	28.6	41	2.77	10:10:08	10-Jul-13
309	3.7	28.6	41	2.57	10:11:08	10-Jul-13
310	3.3	28.6	40	2.34	10:12:08	10-Jul-13
311	3.1	28.6	40	2	10:13:08	10-Jul-13
312	2.9	28.6	41	1.32	10:14:08	10-Jul-13
313	3.9	28.6	41	1.73	10:15:08	10-Jul-13
314	3.8	28.6	40	2.57	10:16:08	10-Jul-13
315	2.5	28.6	40	1.42	10:17:08	10-Jul-13
316	2.7	28.5	41	1.93	10:18:08	10-Jul-13
317	6.8	28.5	41	2.76	10:19:08	10-Jul-13

318	6.8	28.5	41	3.95	10:20:08	10-Jul-13
319	3.3	28.5	41	2.37	10:21:08	10-Jul-13
320	5.6	28.5	41	3.09	10:22:08	10-Jul-13
321	2.9	28.6	41	1.75	10:23:08	10-Jul-13
322	5.8	28.6	41	2.6	10:24:08	10-Jul-13
323	3.4	28.6	41	1.59	10:25:08	10-Jul-13
324	2.9	28.6	41	1.06	10:26:08	10-Jul-13
325	3.2	28.6	41	1.44	10:27:08	10-Jul-13
326	3.4	28.6	41	2.26	10:28:08	10-Jul-13
327	3.4	28.6	41	2.26	10:29:08	10-Jul-13
328	3.4	28.6	41	2	10:30:08	10-Jul-13
329	3.1	28.6	41	1.76	10:31:08	10-Jul-13
330	3	28.7	42	1.24	10:32:08	10-Jul-13
331	3	28.7	42	1.24	10:33:08	10-Jul-13
332	3.2	28.7	42	1.73	10:34:08	10-Jul-13
333	2.6	28.8	42	1.25	10:35:08	10-Jul-13
334	3.2	28.9	41	1.24	10:36:08	10-Jul-13
335	2.9	28.9	41	1.16	10:37:08	10-Jul-13
336	3.4	28.9	41	1.57	10:38:08	10-Jul-13
337	3.5	28.9	41	1.98	10:39:08	10-Jul-13
338	3.6	28.9	41	2.38	10:40:08	10-Jul-13
339	4.1	29	41	2.77	10:41:08	10-Jul-13
340	3.7	28.9	41	2.52	10:42:08	10-Jul-13
341	6.7	28.9	40	3.32	10:43:08	10-Jul-13
342	5.5	28.9	40	3.32	10:44:08	10-Jul-13
343	17.3	28.8	40	2.83	10:45:08	10-Jul-13
344	3.9	28.8	40	2.55	10:46:08	10-Jul-13
345	3.1	28.7	40	1.52	10:47:08	10-Jul-13
346	2.7	28.7	41	1.05	10:48:08	10-Jul-13
347	3.7	28.7	41	1.7	10:49:08	10-Jul-13
348	3	28.7	41	1.76	10:50:08	10-Jul-13
349	3	28.7	41	1.86	10:51:08	10-Jul-13
350	3.7	28.7	41	2.12	10:52:08	10-Jul-13
351	2.9	28.7	41	1.47	10:53:08	10-Jul-13
352	43.7	28.7	41	2.52	10:54:08	10-Jul-13
353	140	28.7	41	4.12	10:55:08	10-Jul-13
354	8.1	28.7	41	3.51	10:56:08	10-Jul-13
355	11.9	28.7	41	3.74	10:57:08	10-Jul-13
356	6.4	28.7	41	27.5	10:58:08	10-Jul-13
409	9.4	27.5	45	3.72	10:59:08	10-Jul-13
410	6.8	27.4	45	3.55	11:00:08	10-Jul-13
411	5.1	27.4	45	3.27	11:01:08	10-Jul-13
412	4.8	27.4	45	3.4	11:02:08	10-Jul-13
413	6	27.4	45	4.06	11:03:08	10-Jul-13
414	9.1	27.3	45	4.04	11:04:08	10-Jul-13
415	11.7	27.3	45	4.05	11:05:08	10-Jul-13
416	7.1	27.3	45	4.11	11:06:08	10-Jul-13
417	5.6	27.3	45	3.86	11:07:08	10-Jul-13

418	11.6	27.3	45	4.1	11:08:08	10-Jul-13
419	7.9	27.2	45	4.12	11:09:08	10-Jul-13
420	14.1	27.2	45	4.12	11:10:08	10-Jul-13
421	5.8	27.2	45	4.02	11:11:08	10-Jul-13
422	5.8	27.2	45	4.12	11:12:08	10-Jul-13
423	14.2	27.2	46	4.12	11:13:08	10-Jul-13
424	6.1	27.2	46	3.99	11:14:08	10-Jul-13
425	6.6	27.2	45	4.1	11:15:08	10-Jul-13
426	6.7	27.2	45	4.12	11:16:08	10-Jul-13
427	6.7	27.2	46	4.12	11:17:08	10-Jul-13
428	5.9	27.2	46	3.81	11:18:08	10-Jul-13
429	6.7	27.3	46	4.12	11:19:08	10-Jul-13
430	10.3	27.3	46	4.07	11:20:08	10-Jul-13
431	7.2	27.3	46	4.12	11:21:08	10-Jul-13
432	7.3	27.4	46	4.02	11:22:08	10-Jul-13
433	6.3	27.4	46	4.12	11:23:08	10-Jul-13
434	6.1	27.5	46	3.79	11:24:08	10-Jul-13
435	6.4	27.5	46	4.1	11:25:08	10-Jul-13
436	6.2	27.5	46	4.12	11:26:08	10-Jul-13
437	6.1	27.5	45	4.12	11:27:08	10-Jul-13
438	6.9	27.5	46	4.12	11:28:08	10-Jul-13
439	6.2	27.5	46	4.02	11:29:08	10-Jul-13
440	6.6	27.6	46	4.1	11:30:08	10-Jul-13
441	11.3	27.6	46	4.12	11:31:08	10-Jul-13
442	6	27.6	46	3.98	11:32:08	10-Jul-13
443	6.7	27.6	46	4.11	11:33:08	10-Jul-13
444	6.5	27.7	45	4.06	11:34:08	10-Jul-13
445	6.8	27.7	45	4.12	11:35:08	10-Jul-13
446	7	27.7	45	3.99	11:36:08	10-Jul-13
447	5.9	27.7	45	3.88	11:37:08	10-Jul-13
448		11:38:08	10-Jul-13			
8.1	27.7	45	4.12	11:39:08	10-Jul-13	
449	9.9	27.8	45	4.12	11:40:08	10-Jul-13
450	7.9	27.8	45	4.12	11:41:08	10-Jul-13
451	8.7	27.7	45	4.12	11:42:08	10-Jul-13
452	8.8	27.8	45	4.12	11:43:08	10-Jul-13
453	6.4	27.7	45	4.12	11:44:08	10-Jul-13
454	7.4	27.7	45	4.12	11:45:08	10-Jul-13
455	8.3	27.7	45	4.12	11:46:08	10-Jul-13
456	26.9	27.7	45	4.1	11:47:08	10-Jul-13
457	7.7	27.8	45	4.12	11:48:08	10-Jul-13
458	8.4	27.7	45	4.12	11:49:08	10-Jul-13
459	7.7	27.7	45	4.12	11:50:08	10-Jul-13
460	6.3	27.7	45	4.11	11:51:08	10-Jul-13
461	6.9	27.7	45	4.12	11:52:08	10-Jul-13
462	7.2	27.7	45	4.12	11:53:08	10-Jul-13
463	7	27.7	45	4.12	11:54:08	10-Jul-13
464	12.9	27.8	45	4.12	11:55:08	10-Jul-13

465	8.1	27.8	45	4.12	11:56:08	10-Jul-13
466	7	27.8	45	4.12	11:57:08	10-Jul-13
467	7.1	27.8	45	4.12	11:58:08	10-Jul-13
468	6.9	27.9	45	4.06	11:59:08	10-Jul-13
469	9.6	27.9	45	4.07	12:00:08	10-Jul-13
470	8.1	28	45	4.12	12:01:08	10-Jul-13
471	7.4	28	45	4.08	12:02:08	10-Jul-13
472	7.4	28	45	4.12	12:03:08	10-Jul-13
473	7.4	28	45	4.12	12:04:08	10-Jul-13
474	7.3	28	45	4.12	12:05:08	10-Jul-13
475	7.2	28	45	4.1	12:06:08	10-Jul-13
476	6.4	28	45	4.06	12:07:08	10-Jul-13
477	7	28	45	4.12	12:08:08	10-Jul-13
478	6.8	28	45	4.11	12:09:08	10-Jul-13
479	7	28	45	4.08	12:10:08	10-Jul-13
480	7.9	28.1	45	4.12	12:11:08	10-Jul-13
481	6.8	28.1	45	4.12	12:12:08	10-Jul-13
482	7	28.1	45	4.12	12:13:08	10-Jul-13
483	7.3	28.2	45	4.12	12:14:08	10-Jul-13
484	9.2	28.2	45	4.12	12:15:08	10-Jul-13
485	7.9	28.2	45	4.12	12:16:08	10-Jul-13
486	8.6	28.2	45	4.12	12:17:08	10-Jul-13
487	9.3	28.3	44	4.12	12:18:08	10-Jul-13
488	7.6	28.3	45	4.12	12:19:08	10-Jul-13
489	8.2	28.3	44	4.12	12:20:08	10-Jul-13
490	7.4	28.3	44	4.12	12:21:08	10-Jul-13
491	10	28.3	44	4.12	12:22:08	10-Jul-13
492	7.1	28.3	44	4.09	12:23:08	10-Jul-13
493	7.3	28.3	45	4.12	12:24:08	10-Jul-13
494	6.9	28.3	44	4.12	12:25:08	10-Jul-13
495	9.6	28.3	44	4.12	12:26:08	10-Jul-13
496	8	28.3	44	4.12	12:27:08	10-Jul-13
497	7.7	28.3	44	4.09	12:28:08	10-Jul-13
498	11.1	28.3	44	4.12	12:29:08	10-Jul-13
499	7.7	28.3	44	4.12	12:30:08	10-Jul-13
500	7.2	28.4	44	4.12	12:31:08	10-Jul-13
501	7.2	28.3	44	4.12	12:32:08	10-Jul-13
502	7.1	28.4	44	4.12	12:33:08	10-Jul-13
503	7.2	28.4	44	4.12	12:34:08	10-Jul-13
504	7.1	28.4	44	4.12	12:35:08	10-Jul-13
505	8.2	28.5	44	4.12	12:36:08	10-Jul-13
506	8	28.5	44	4.12	12:37:08	10-Jul-13
507	7.6	28.5	44	4.12	12:38:08	10-Jul-13
508	7.3	28.6	44	4.12	12:39:08	10-Jul-13
509	7	28.6	44	4.12	12:40:08	10-Jul-13
510	22.4	28.6	44	4.12	12:41:08	10-Jul-13
511	8.5	28.7	44	4.12	12:42:08	10-Jul-13
512	8.5	28.7	44	4.1	12:43:08	10-Jul-13

513	8.2	28.7	44	4.12	12:44:08	10-Jul-13
514	9.6	28.8	44	4.1	12:45:08	10-Jul-13
515	7.6	28.8	44	4.12	12:46:08	10-Jul-13
516	8.2	28.9	44	4.12	12:47:08	10-Jul-13
517	6.8	28.9	44	4.03	12:48:08	10-Jul-13
518	7.5	28.9	44	4.12	12:49:08	10-Jul-13
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522	6.9	29	44	4.12	12:53:08	10-Jul-13
523	6.3	29.1	43	4.09	12:54:08	10-Jul-13
524	6.4	29.1	44	4.02	12:55:08	10-Jul-13
525	7.7	29.2	44	4.12	12:56:08	10-Jul-13
526	9.2	29.2	43	4.12	12:57:08	10-Jul-13
527	7.1	29.3	43	4.12	12:58:08	10-Jul-13
528	7	29.3	43	4.12	12:59:08	10-Jul-13
529	6.5	29.4	43	4.12	13:00:08	10-Jul-13
530	6.8	29.4	43	4.12	13:01:08	10-Jul-13
531	6.8	29.5	43	4.12	13:02:08	10-Jul-13
532	6.6	29.5	43	4.09	13:03:08	10-Jul-13
533	6	29.6	43	4.06	13:04:08	10-Jul-13
534	6.7	29.6	43	4.12	13:05:08	10-Jul-13
535	7.2	29.6	43	4.12	13:06:08	10-Jul-13
536	6.6	29.6	43	4.12	13:07:08	10-Jul-13
537	6.4	29.7	42	3.97	13:08:08	10-Jul-13
538	7.2	29.7	43	4.11	13:09:08	10-Jul-13
539	7.2	29.7	42	4.1	13:10:08	10-Jul-13
540	6.2	29.7	42	4.04	13:11:08	10-Jul-13
541	7.1	29.8	42	4.11	13:12:08	10-Jul-13
542	7	29.8	42	4.12	13:13:08	10-Jul-13
543	7.4	29.8	42	4.12	13:14:08	10-Jul-13
544	8.6	29.7	42	4.1	13:15:08	10-Jul-13
545	7.2	29.7	42	4.12	13:16:08	10-Jul-13
546	7.1	29.7	42	4.12	13:17:08	10-Jul-13
547	6.6	29.7	42	4.12	13:18:08	10-Jul-13
548	7	29.7	42	3.99	13:19:08	10-Jul-13
549	6.7	29.7	42	4.08	13:20:08	10-Jul-13
550	6.5	29.8	42	4.08	13:21:08	10-Jul-13
551	6.8	29.8	42	4.12	13:22:08	10-Jul-13
552	7	29.8	42	4.12	13:23:08	10-Jul-13
553	6.3	29.8	42	4.05	13:24:08	10-Jul-13
554	7	29.8	41	4.12	13:25:08	10-Jul-13
555	6.8	29.8	41	4.11	13:26:08	10-Jul-13
556	6.7	29.8	41	4.12	13:27:08	10-Jul-13
557	6.8	29.8	42	4.09	13:28:08	10-Jul-13
558	7	29.8	42	4.12	13:29:08	10-Jul-13
559	6.6	29.8	42	3.96	13:30:08	10-Jul-13
560	7.2	29.8	42	4.12	13:31:08	10-Jul-13

561	6.9	29.9	42	4.11	13:32:08	10-Jul-13
562	6.9	29.8	41	4.12	13:33:08	10-Jul-13
563	6.5	29.8	41	4.12	13:34:08	10-Jul-13
564	6.9	29.8	41	4.12	13:35:08	10-Jul-13
565	6.7	29.7	41	4.12	13:36:08	10-Jul-13
566	7.3	29.7	42	4.09	13:37:08	10-Jul-13
567	7.5	29.7	41	4.12	13:38:08	10-Jul-13
568	6.8	29.6	41	3.78	13:39:08	10-Jul-13
569	7.1	29.6	41	4.12	13:40:08	10-Jul-13
570	8.1	29.6	41	4.12	13:41:08	10-Jul-13
571	7.5	29.5	42	4.12	13:42:08	10-Jul-13
572	6.4	29.5	41	4.09	13:43:08	10-Jul-13
573	7	29.5	41	4.12	13:44:08	10-Jul-13
574	7.1	29.4	41	4.12	13:45:08	10-Jul-13
575	6.9	29.4	42	4.12	13:46:08	10-Jul-13
576	8.4	29.3	42	4.07	13:47:08	10-Jul-13
577	7.4	29.3	42	4.07	13:48:08	10-Jul-13
578	7.2	29.2	42	4.12	13:49:08	10-Jul-13
579	6.9	29.2	42	4.08	13:50:08	10-Jul-13
580	6.9	29.2	42	4.12	13:51:08	10-Jul-13
581	7.1	29.1	42	4.12	13:52:08	10-Jul-13
582	9.7	29.1	42	4.12	13:53:08	10-Jul-13
583	7.3	29.1	42	4.12	13:54:08	10-Jul-13
584	7.4	29	42	4.12	13:55:08	10-Jul-13
585	8.1	29	42	4.02	13:56:08	10-Jul-13
586	7.3	29	43	4.11	13:57:08	10-Jul-13
587	6.9	29	42	4.12	13:58:08	10-Jul-13
588	7.8	29	43	4.12	13:59:08	10-Jul-13
589	7.4	28.9	42	4.12	14:00:08	10-Jul-13
590	7	28.9	43	4.12	14:01:08	10-Jul-13
591	8	28.9	43	4.12	14:02:08	10-Jul-13
592	7	28.9	43	4.1	14:03:08	10-Jul-13
593	6.8	28.9	43	4.12	14:04:08	10-Jul-13
594	6.7	29	43	4.09	14:05:08	10-Jul-13
595	7.6	29	43	4.12	14:06:08	10-Jul-13
596	7.2	29	43	4.12	14:07:08	10-Jul-13
597	11.9	29	43	4.12	14:08:08	10-Jul-13
598	10.9	29	43	4.12	14:09:08	10-Jul-13
599	6.9	29	43	4.12	14:10:08	10-Jul-13
600	7.8	29	43	4.12	14:11:08	10-Jul-13
601	7.8	28.9	43	4.12	14:12:08	10-Jul-13
602	8.8	28.9	42	4.12	14:13:08	10-Jul-13
603	7.2	28.9	42	4.1	14:14:08	10-Jul-13
604	7.9	28.9	42	4.12	14:15:08	10-Jul-13
605	7.4	28.8	43	4.12	14:16:08	10-Jul-13
606	6.9	28.7	42	4.12	14:17:08	10-Jul-13
607	6.8	28.7	43	4.12	14:18:08	10-Jul-13
608	7.6	28.7	43	4.1	14:19:08	10-Jul-13

609	7.5	28.7	43	4.12	14:20:08	10-Jul-13
610	7.5	28.6	43	4.12	14:21:08	10-Jul-13
611	8.1	28.6	43	4.12	14:22:08	10-Jul-13
612	9.4	28.6	43	4.12	14:23:08	10-Jul-13

>"Model Number"	"DataRAM 4 "	106	**Nearest Occupied Building**
Serial no.	"D201 "		**7/11/13**
Device no.	1		
Tag Number	5		
Start Time	07:44:21		
Start Date	11-Jul-2013		
Log Period	00:01:00		
Number	625		
CalFactor	1		
Unit	0		
Unit Name	"(MASS)ug/m3"		
SIZE_CORRECT	"DISABLED"		
TEMPUNITS	C		
Max MASS	14.46267		
Max MASS @	6:03:21	11-Nov-62	
Avg MASS	0.715669		
Max Diam	4.038342		
Max Diam @	7:43:21	11-Jul-13	
Avg Diam	0.585208		
ALARM	"DISABLED"		
ALARM_LEVEL	0		
AUTO_ZERO	"DISABLED"		
AZ INTERVAL	1		
Errors	0		

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	8.9	18	46	1.37	7:45:21	11-Jul-13
2	8.8	17.9	48	2.75	7:46:21	11-Jul-13
3	2.6	17.8	50	1.43	7:47:21	11-Jul-13
4	2.6	17.7	51	1.46	7:48:21	11-Jul-13
5	2.6	17.6	51	1.35	7:49:21	11-Jul-13
6	2.6	17.5	52	1.08	7:50:21	11-Jul-13
7	3.5	17.4	53	2.1	7:51:21	11-Jul-13
8	3.1	17.3	53	1.92	7:52:21	11-Jul-13
9	4.3	17.2	54	2.75	7:53:21	11-Jul-13
10	5.9	17.1	54	3.64	7:54:21	11-Jul-13
11	4.7	17.1	54	3.1	7:55:21	11-Jul-13
12	3.7	17	55	2.09	7:56:21	11-Jul-13
13	3.5	17	55	1.82	7:57:21	11-Jul-13
14	4.2	16.9	56	2.53	7:58:21	11-Jul-13
15	3.4	16.8	56	1.94	7:59:21	11-Jul-13
16	3.4	16.8	56	1.74	8:00:21	11-Jul-13
17	3.1	16.7	56	1.19	8:01:21	11-Jul-13
18	3.8	16.7	56	1.29	8:02:21	11-Jul-13
19	3.3	16.7	57	1.5	8:03:21	11-Jul-13
20	3.5	16.7	57	1.79	8:04:21	11-Jul-13
21	3.3	16.6	57	1.4	8:05:21	11-Jul-13
22	3.3	16.6	57	1.17	8:06:21	11-Jul-13
23	3	16.6	57	0.95	8:07:21	11-Jul-13

24	3	16.5	58	0.99	8:08:21	11-Jul-13
25	3.3	16.5	58	1.1	8:09:21	11-Jul-13
26	3.5	16.5	58	1.52	8:10:21	11-Jul-13
27	3.5	16.5	58	2.15	8:11:21	11-Jul-13
28	3.7	16.5	58	2.14	8:12:21	11-Jul-13
29	14.5	16.5	58	3.5	8:13:21	11-Jul-13
30	8.7	16.4	58	4.03	8:14:21	11-Jul-13
31	5.4	16.4	58	3.55	8:15:21	11-Jul-13
32	4.2	16.4	58	2.93	8:16:21	11-Jul-13
33	4	16.4	58	2.69	8:17:21	11-Jul-13
34	3.7	16.4	58	2.42	8:18:21	11-Jul-13
35	4	16.3	58	1.68	8:19:21	11-Jul-13
36	4	16.3	58	1.27	8:20:21	11-Jul-13
37	4	16.3	58	1.22	8:21:21	11-Jul-13
38	5	16.3	59	1.57	8:22:21	11-Jul-13
39	4	16.3	59	1.98	8:23:21	11-Jul-13
40	3.5	16.3	59	2.05	8:24:21	11-Jul-13
41	3.8	16.2	59	2.34	8:25:21	11-Jul-13
42	3.7	16.2	59	2.56	8:26:21	11-Jul-13
43	4	16.3	59	2.73	8:27:21	11-Jul-13
44	4.1	16.3	59	2.1	8:28:21	11-Jul-13
45	3.7	16.3	59	1.57	8:29:21	11-Jul-13
46	5.3	16.4	59	3.1	8:30:21	11-Jul-13
47	5.8	16.5	59	3.71	8:31:21	11-Jul-13
48	3.9	16.5	59	2.96	8:32:21	11-Jul-13
49	3.7	16.6	59	2.42	8:33:21	11-Jul-13
50	3.7	16.6	59	1.96	8:34:21	11-Jul-13
51	3	16.6	59	1.37	8:35:21	11-Jul-13
52	3.7	16.7	59	2.1	8:36:21	11-Jul-13
53	3.2	16.7	59	1.79	8:37:21	11-Jul-13
54	3	16.9	58	1.48	8:38:21	11-Jul-13
55	3.6	17	58	2.02	8:39:21	11-Jul-13
56	3.4	17	58	1.78	8:40:21	11-Jul-13
57	3.8	17.1	58	2.3	8:41:21	11-Jul-13
58	3.2	17.2	58	2.15	8:42:21	11-Jul-13
59	3.4	17.3	58	2.07	8:43:21	11-Jul-13
60	2.8	17.4	58	1.38	8:44:21	11-Jul-13
61	4.5	17.4	58	2.35	8:45:21	11-Jul-13
62	3.7	17.5	58	2.06	8:46:21	11-Jul-13
63	3.1	17.6	58	1.81	8:47:21	11-Jul-13
64	2.4	17.8	58	1.06	8:48:21	11-Jul-13
65	2.3	17.9	57	1.05	8:49:21	11-Jul-13
66	2.2	18	57	1.1	8:50:21	11-Jul-13
67	2.1	18.2	57	1	8:51:21	11-Jul-13
68	2.1	18.3	57	0.9	8:52:21	11-Jul-13
69	1.6	18.5	57	0.76	8:53:21	11-Jul-13
70	1.2	18.6	56	0.61	8:54:21	11-Jul-13
71	1.4	18.7	56	0.66	8:55:21	11-Jul-13

72	1.2	18.9	56	0.58	8:56:21	11-Jul-13
73	1.6	19.1	56	0.75	8:57:21	11-Jul-13
74	1.3	19.2	56	0.64	8:58:21	11-Jul-13
75	1	19.3	55	0.56	8:59:21	11-Jul-13
76	1.1	19.5	55	0.56	9:00:21	11-Jul-13
77	1.2	19.6	54	0.62	9:01:21	11-Jul-13
78	1.1	19.7	54	0.57	9:02:21	11-Jul-13
79	0.8	19.8	54	0.49	9:03:21	11-Jul-13
80	1.2	19.9	54	0.59	9:04:21	11-Jul-13
81	1.1	20	53	0.58	9:05:21	11-Jul-13
82	0.8	20.1	53	0.49	9:06:21	11-Jul-13
83	1.1	20.2	53	0.58	9:07:21	11-Jul-13
84	0.7	20.3	53	0.48	9:08:21	11-Jul-13
85	0.9	20.3	52	0.54	9:09:21	11-Jul-13
86	0.8	20.4	52	0.5	9:10:21	11-Jul-13
87	1.1	20.4	52	0.61	9:11:21	11-Jul-13
88	0.9	20.4	51	0.53	9:12:21	11-Jul-13
89	0.9	20.5	51	0.52	9:13:21	11-Jul-13
90	0.6	20.5	51	0.44	9:14:21	11-Jul-13
91	0.4	20.5	51	0.41	9:15:21	11-Jul-13
92	0.5	20.633	9:16:21	11-Jul-13		
231	0	27.5	36	0.33	9:17:21	11-Jul-13
232	0	27.6	36	0.33	9:18:21	11-Jul-13
233	0	27.6	36	0.33	9:19:21	11-Jul-13
234	0.7	27.7	36	0.5	9:20:21	11-Jul-13
235	0.1	27.7	36	0.35	9:21:21	11-Jul-13
236	0	27.8	36	0.33	9:22:21	11-Jul-13
237	0	27.9	35	0.33	9:23:21	11-Jul-13
238	0	27.9	35	0.33	9:24:21	11-Jul-13
239	0	28	35	0.33	9:25:21	11-Jul-13
240	0	28	35	0.33	9:26:21	11-Jul-13
241	0.6	28	35	0.42	9:27:21	11-Jul-13
242	0	28	35	0.33	9:28:21	11-Jul-13
243	0	28	34	0.33	9:29:21	11-Jul-13
244	0.1	28	34	0.34	9:30:21	11-Jul-13
245	0	28	35	0.33	9:31:21	11-Jul-13
246	0	28	34	0.33	9:32:21	11-Jul-13
247	0	28	34	0.33	9:33:21	11-Jul-13
248	0	28	34	0.33	9:34:21	11-Jul-13
249	0	27.9	34	0.33	9:35:21	11-Jul-13
250	0.7	27.9	34	0.56	9:36:21	11-Jul-13
251	2.2	27.8	34	1.32	9:37:21	11-Jul-13
252	0.5	27.8	34	0.49	9:38:21	11-Jul-13
253	0.3	27.7	34	0.4	9:39:21	11-Jul-13
254	0	27.7	34	0.33	9:40:21	11-Jul-13
255	2	27.7	34	1.29	9:41:21	11-Jul-13
256	1.4	27.7	34	1.15	9:42:21	11-Jul-13
257	0	27.7	34	0.33	9:43:21	11-Jul-13

258	0	27.6	33	0.33	9:44:21	11-Jul-13
259	0	27.6	33	0.33	9:45:21	11-Jul-13
260	0	27.6	33	0.33	9:46:21	11-Jul-13
261	0.3	27.6	33	0.46	9:47:21	11-Jul-13
262	0	27.6	33	0.33	9:48:21	11-Jul-13
263	0	27.6	33	0.33	9:49:21	11-Jul-13
264	0	27.6	34	0.33	9:50:21	11-Jul-13
265	0	27.6	34	0.33	9:51:21	11-Jul-13
266	0	27.6	34	0.33	9:52:21	11-Jul-13
267	4.1	27.6	34	1.72	9:53:21	11-Jul-13
268	0.4	27.6	34	0.59	9:54:21	11-Jul-13
269	0	27.7	34	0.34	9:55:21	11-Jul-13
270	0	27.7	33	0.35	9:56:21	11-Jul-13
271	0	27.7	33	0.33	9:57:21	11-Jul-13
272	0	27.7	34	0.33	9:58:21	11-Jul-13
273	0	27.7	34	0.34	9:59:21	11-Jul-13
274	0	27.7	34	0.33	10:00:21	11-Jul-13
275	1	27.8	34	0.85	10:01:21	11-Jul-13
276	0	27.8	33	0.33	10:02:21	11-Jul-13
277	0	27.8	33	0.33	10:03:21	11-Jul-13
278	0.2	27.9	33	0.37	10:04:21	11-Jul-13
279	0	27.9	34	0.33	10:05:21	11-Jul-13
280	0.2	27.9	33	0.36	10:06:21	11-Jul-13
281	0	28	33	0.33	10:07:21	11-Jul-13
282	0	28	33	0.33	10:08:21	11-Jul-13
283	0	28	33	0.33	10:09:21	11-Jul-13
284	0	28	33	0.33	10:10:21	11-Jul-13
285	0	28	33	0.33	10:11:21	11-Jul-13
286	0	28.1	33	0.33	10:12:21	11-Jul-13
287	0	28	33	0.33	10:13:21	11-Jul-13
288	0	28	33	0.33	10:14:21	11-Jul-13
289	0	28	32	0.33	10:15:21	11-Jul-13
290	0	28	32	0.33	10:16:21	11-Jul-13
291	0	28	33	0.33	10:17:21	11-Jul-13
292	0	27.9	32	0.33	10:18:21	11-Jul-13
293	0	27.9	32	0.33	10:19:21	11-Jul-13
294	0	27.8	32	0.33	10:20:21	11-Jul-13
295	0.2	27.8	32	0.35	10:21:21	11-Jul-13
296	0	27.7	32	0.33	10:22:21	11-Jul-13
297	0	27.7	33	0.33	10:23:21	11-Jul-13
298	0	27.7	32	0.33	10:24:21	11-Jul-13
299	0.2	27.6	33	0.35	10:25:21	11-Jul-13
300	1.8	27.6	32	0.67	10:26:21	11-Jul-13
301	0	27.6	33	0.33	10:27:21	11-Jul-13
302	0	27.5	33	0.33	10:28:21	11-Jul-13
303	0	27.5	33	0.33	10:29:21	11-Jul-13
304	0	27.5	33	0.33	10:30:21	11-Jul-13
305	1.4	27.5	33	0.95	10:31:21	11-Jul-13

306	0.3	27.5	33	0.49	10:32:21	11-Jul-13
307	0	27.5	33	0.33	10:33:21	11-Jul-13
308	2.1	27.5	33	1.22	10:34:21	11-Jul-13
309	0	27.5	33	0.33	10:35:21	11-Jul-13
310	0	27.5	34	0.33	10:36:21	11-Jul-13
311	0	27.5	34	0.33	10:37:21	11-Jul-13
312	0	27.5	34	0.33	10:38:21	11-Jul-13
313	0	27.5	34	0.33	10:39:21	11-Jul-13
314	0	27.5	33	0.33	10:40:21	11-Jul-13
315	0	27.4	33	0.33	10:41:21	11-Jul-13
316	0	27.4	33	0.33	10:42:21	11-Jul-13
317	0.1	27.4	34	0.35	10:43:21	11-Jul-13
318	0	27.3	34	0.33	10:44:21	11-Jul-13
319	0	27.3	34	0.33	10:45:21	11-Jul-13
320	0	27.3	34	0.33	10:46:21	11-Jul-13
321	0	27.2	34	0.33	10:47:21	11-Jul-13
322	0.1	27.2	34	0.36	10:48:21	11-Jul-13
323	0	27.2	34	0.33	10:49:21	11-Jul-13
324	0	27.2	34	0.33	10:50:21	11-Jul-13
325	0.1	27.3	34	0.34	10:51:21	11-Jul-13
326	0.1	27.3	34	0.34	10:52:21	11-Jul-13
327	0.1	27.3	34	0.34	10:53:21	11-Jul-13
328	0.5	27.3	34	0.43	10:54:21	11-Jul-13
329	0.2	27.3	34	0.36	10:55:21	11-Jul-13
330	0	27.4	34	0.33	10:56:21	11-Jul-13
331	0	27.4	34	0.33	10:57:21	11-Jul-13
332	0	27.4	34	0.34	10:58:21	11-Jul-13
333	0	27.4	34	0.33	10:59:21	11-Jul-13
334	1.5	27.4	34	0.73	11:00:21	11-Jul-13
335	0.2	27.4	34	0.39	11:01:21	11-Jul-13
336	1.1	27.4	33	0.73	11:02:21	11-Jul-13
337	0.2	27.4	33	0.37	11:03:21	11-Jul-13
338	0	27.3	33	0.33	11:04:21	11-Jul-13
339	0.1	27.3	33	0.34	11:05:21	11-Jul-13
340	0.1	27.2	33	0.34	11:06:21	11-Jul-13
341	0.1	27.2	33	0.35	11:07:21	11-Jul-13
342	0.1	27.1	33	0.35	11:08:21	11-Jul-13
343	0.2	27.1	33	0.37	11:09:21	11-Jul-13
344	0	27.1	33	0.34	11:10:21	11-Jul-13
345	0	27	33	0.33	11:11:21	11-Jul-13
346	0.2	27	33	0.37	11:12:21	11-Jul-13
347	0.6	26.9	33	0.49	11:13:21	11-Jul-13
348	0	26.9	33	0.34	11:14:21	11-Jul-13
349	0.3	26.8	33	0.37	11:15:21	11-Jul-13
350	0.4	26.8	33	0.39	11:16:21	11-Jul-13
351	0.2	26.7	33	0.36	11:17:21	11-Jul-13
352	0.5	26.7	33	0.39	11:18:21	11-Jul-13
353	0	26.7	33	0.33	11:19:21	11-Jul-13

354	0.2	26.6	33	0.35	11:20:21	11-Jul-13
355	1	26.6	33	0.47	11:21:21	11-Jul-13
356	1.2	26.5	33	0.75	11:22:21	11-Jul-13
357	1.7	26.5	33	1.01	11:23:21	11-Jul-13
358	0.1	26.4	33	0.37	11:24:21	11-Jul-13
359	0.3	26.3	34	0.4	11:25:21	11-Jul-13
360	0	26.3	34	0.33	11:26:21	11-Jul-13
361	0	26.2	34	0.34	11:27:21	11-Jul-13
362	1.1	26.2	34	0.82	11:28:21	11-Jul-13
363	0	26.2	34	0.33	11:29:21	11-Jul-13
364	0.2	26.1	34	0.39	11:30:21	11-Jul-13
365	0.2	26.1	34	0.36	11:31:21	11-Jul-13
366	0.4	26	35	0.42	11:32:21	11-Jul-13
367	0	26	35	0.34	11:33:21	11-Jul-13
368	0.1	26	35	0.36	11:34:21	11-Jul-13
369	0	26	35	0.33	11:35:21	11-Jul-13
370	1.4	26	35	0.74	11:36:21	11-Jul-13
371	0.7	26	34	0.46	11:37:21	11-Jul-13
372	0.2	26	34	0.38	11:38:21	11-Jul-13
373	0	26	35	0.33	11:39:21	11-Jul-13
374	0.2	26	35	0.41	11:40:21	11-Jul-13
375	0	25.9	35	0.34	11:41:21	11-Jul-13
376	0.1	25.9	35	0.36	11:42:21	11-Jul-13
377	0.1	25.9	35	0.35	11:43:21	11-Jul-13
378	0.1	25.9	35	0.35	11:44:21	11-Jul-13
379	0.8	25.9	35	0.72	11:45:21	11-Jul-13
380	0.3	25.9	35	0.4	11:46:21	11-Jul-13
381	0	25.8	35	0.34	11:47:21	11-Jul-13
382	0	25.8	35	0.33	11:48:21	11-Jul-13
383	0	25.7	35	0.34	11:49:21	11-Jul-13
384	1.7	25.7	35	1.06	11:50:21	11-Jul-13
385	0.6	25.6	35	0.5	11:51:21	11-Jul-13
386	0.2	25.6	35	0.37	11:52:21	11-Jul-13
387	0	25.5	35	0.33	11:53:21	11-Jul-13
388	1.8	25.5	35	1.14	11:54:21	11-Jul-13
389	0.8	25.4	35	0.76	11:55:21	11-Jul-13
390	0.1	25.4	35	0.35	11:56:21	11-Jul-13
391	0.1	25.3	35	0.36	11:57:21	11-Jul-13
392	0	25.3	35	0.33	11:58:21	11-Jul-13
393	0.4	25.2	35	0.44	11:59:21	11-Jul-13
394	0.2	25.2	35	0.39	12:00:21	11-Jul-13
395	0	25.2	35	0.33	12:01:21	11-Jul-13
396	0	25.1	35	0.34	12:02:21	11-Jul-13
397	0.4	25.1	35	0.42	12:03:21	11-Jul-13
398	0.3	25	35	0.47	12:04:21	11-Jul-13
399	0.3	25	35	0.43	12:05:21	11-Jul-13
400	0	25	35	0.34	12:06:21	11-Jul-13
401	0.3	24.9	35	0.4	12:07:21	11-Jul-13

402	0.2	24.9	35	0.38	12:08:21	11-Jul-13
403	0.2	24.9	35	0.39	12:09:21	11-Jul-13
404	0	24.9	35	0.33	12:10:21	11-Jul-13
405	0.3	24.8	35	0.43	12:11:21	11-Jul-13
406	0.4	24.8	35	0.45	12:12:21	11-Jul-13
407	5.2	24.8	35	1.05	12:13:21	11-Jul-13
408	0.4	24.8	35	0.48	12:14:21	11-Jul-13
409	0.4	24.8	35	0.42	12:15:21	11-Jul-13
410	0.3	24.8	35	0.41	12:16:21	11-Jul-13
411	0.2	24.7	35	0.38	12:17:21	11-Jul-13
412	0.3	24.8	35	0.4	12:18:21	11-Jul-13
413	0.2	24.7	35	0.37	12:19:21	11-Jul-13
414	0.3	24.7	35	0.41	12:20:21	11-Jul-13
415	0.2	24.7	35	0.38	12:21:21	11-Jul-13
416	0.4	24.7	35	0.45	12:22:21	11-Jul-13
417	0.3	24.8	36	0.4	12:23:21	11-Jul-13
418	0.8	24.8	36	0.61	12:24:21	11-Jul-13
419	0.4	24.8	36	0.43	12:25:21	11-Jul-13
420	0.2	24.9	36	0.37	12:26:21	11-Jul-13
421	0.3	24.9	36	0.4	12:27:21	11-Jul-13
422	0.1	25	36	0.35	12:28:21	11-Jul-13
423	0.9	25	36	0.62	12:29:21	11-Jul-13
424	0.3	25	36	0.42	12:30:21	11-Jul-13
425	0	25.1	36	0.34	12:31:21	11-Jul-13
426	1.2	25.1	36	0.66	12:32:21	11-Jul-13
427	0.1	25.1	35	0.38	12:33:21	11-Jul-13
428	0.3	25.2	35	0.37	12:34:21	11-Jul-13
429	1.2	25.2	35	0.6	12:35:21	11-Jul-13
430	0	25.2	36	0.34	12:36:21	11-Jul-13
431	0	25.3	35	0.33	12:37:21	11-Jul-13
432	0.4	25.3	35	0.38	12:38:21	11-Jul-13
433	0	25.4	35	0.33	12:39:21	11-Jul-13
434	0	25.4	35	0.33	12:40:21	11-Jul-13
435	0.2	25.4	35	0.35	12:41:21	11-Jul-13
436	0	25.4	34	0.33	12:42:21	11-Jul-13
437	0.1	25.5	34	0.34	12:43:21	11-Jul-13
438	0.3	25.5	34	0.36	12:44:21	11-Jul-13
439	0.2	25.5	34	0.35	12:45:21	11-Jul-13
440	0.1	25.5	34	0.34	12:46:21	11-Jul-13
441	0	25.5	34	0.33	12:47:21	11-Jul-13
442	0	25.5	34	0.33	12:48:21	11-Jul-13
443	0.1	25.5	34	0.34	12:49:21	11-Jul-13
444	0	25.5	34	0.33	12:50:21	11-Jul-13
445	0	25.5	34	0.33	12:51:21	11-Jul-13
446	0.2	25.5	34	0.35	12:52:21	11-Jul-13
447	0	25.5	34	0.33	12:53:21	11-Jul-13
448	0	25.6	34	0.33	12:54:21	11-Jul-13
449	0	25.6	34	0.33	12:55:21	11-Jul-13

450	0	25.6	34	0.33	12:56:21	11-Jul-13
451	0	25.7	34	0.33	12:57:21	11-Jul-13
452	0.1	25.7	34	0.34	12:58:21	11-Jul-13
453	0.3	25.7	34	0.41	12:59:21	11-Jul-13
454	0	25.8	34	0.33	13:00:21	11-Jul-13
455	0	25.9	34	0.33	13:01:21	11-Jul-13
456	0	25.9	34	0.33	13:02:21	11-Jul-13
457	0	26	34	0.33	13:03:21	11-Jul-13
458	0	26	34	0.33	13:04:21	11-Jul-13
459	0.1	26.1	34	0.34	13:05:21	11-Jul-13
460	0	26.1	33	0.33	13:06:21	11-Jul-13
461	0	26.2	33	0.33	13:07:21	11-Jul-13
462	0	26.2	33	0.33	13:08:21	11-Jul-13
463	0	26.2	33	0.33	13:09:21	11-Jul-13
464	0	26.2	33	0.33	13:10:21	11-Jul-13
465	0	26.3	33	0.33	13:11:21	11-Jul-13
466	0	26.3	33	0.33	13:12:21	11-Jul-13
467	0	26.4	33	0.33	13:13:21	11-Jul-13
468	0	26.4	33	0.33	13:14:21	11-Jul-13
469	0	26.5	33	0.33	13:15:21	11-Jul-13
470	0	26.5	33	0.33	13:16:21	11-Jul-13
471	0.4	26.6	33	0.38	13:17:21	11-Jul-13
472	0.2	26.6	33	0.35	13:18:21	11-Jul-13
473	0.2	26.6	33	0.36	13:19:21	11-Jul-13
474	0	26.6	33	0.34	13:20:21	11-Jul-13
475	0.4	26.7	33	0.39	13:21:21	11-Jul-13
476	0.2	26.7	33	0.35	13:22:21	11-Jul-13
477	0	26.8	33	0.33	13:23:21	11-Jul-13
478	0.1	26.8	33	0.34	13:24:21	11-Jul-13
479	0.4	26.9	33	0.38	13:25:21	11-Jul-13
480	0	26.9	33	0.33	13:26:21	11-Jul-13
481	0.1	27	33	0.35	13:27:21	11-Jul-13
482	0	27	33	0.33	13:28:21	11-Jul-13
483	0	27.1	33	0.34	13:29:21	11-Jul-13
484	1.1	27.1	33	0.52	13:30:21	11-Jul-13
485	0	27.2	33	0.33	13:31:21	11-Jul-13
486	0.9	27.2	33	0.47	13:32:21	11-Jul-13
487	1.1	27.2	33	0.57	13:33:21	11-Jul-13
488	1	27.3	33	0.55	13:34:21	11-Jul-13
489	0.3	27.3	33	0.4	13:35:21	11-Jul-13
490	0.1	27.4	33	0.35	13:36:21	11-Jul-13
491	0	27.4	33	0.34	13:37:21	11-Jul-13
492	0.2	27.5	33	0.36	13:38:21	11-Jul-13
493	0	27.5	33	0.33	13:39:21	11-Jul-13
494	0.3	27.6	32	0.42	13:40:21	11-Jul-13
495	0.3	27.6	32	0.38	13:41:21	11-Jul-13
496	0	27.6	32	0.34	13:42:21	11-Jul-13
497	1	27.7	32	0.52	13:43:21	11-Jul-13

498	0	27.7	32	0.34	13:44:21	11-Jul-13
499	0.4	27.7	32	0.39	13:45:21	11-Jul-13
500	0.1	27.8	32	0.35	13:46:21	11-Jul-13
501	0	27.8	32	0.33	13:47:21	11-Jul-13
502	0	27.9	32	0.33	13:48:21	11-Jul-13
503	0	27.9	32	0.33	13:49:21	11-Jul-13
504	0.1	27.9	32	0.34	13:50:21	11-Jul-13
505	0	28	32	0.33	13:51:21	11-Jul-13
506	0	28	32	0.33	13:52:21	11-Jul-13
507	0	28	32	0.33	13:53:21	11-Jul-13
508	0.3	28	32	0.38	13:54:21	11-Jul-13
509	8.7	28	32	1.63	13:55:21	11-Jul-13
510	5.6	28.1	32	1.53	13:56:21	11-Jul-13
511	0.6	28.1	32	0.42	13:57:21	11-Jul-13
512	0.3	28.1	32	0.35	13:58:21	11-Jul-13
513	0	28.2	32	0.33	13:59:21	11-Jul-13
514	0	28.2	31	0.33	14:00:21	11-Jul-13
515	0	28.2	32	0.33	14:01:21	11-Jul-13
516	0	28.2	32	0.33	14:02:21	11-Jul-13
517	0.1	28.3	31	0.34	14:03:21	11-Jul-13
518	0	28.3	31	0.33	14:04:21	11-Jul-13
519	0	28.3	31	0.34	14:05:21	11-Jul-13
520	0.1	28.3	31	0.34	14:06:21	11-Jul-13
521	0	28.3	32	0.33	14:07:21	11-Jul-13
522	0	28.3	31	0.33	14:08:21	11-Jul-13
523	0	28.4	31	0.33	14:09:21	11-Jul-13
524	0	28.4	31	0.33	14:10:21	11-Jul-13
525	0	28.4	31	0.33	14:11:21	11-Jul-13
526	0.1	28.5	31	0.34	14:12:21	11-Jul-13
527	0.4	28.5	31	0.36	14:13:21	11-Jul-13
528	0.3	28.5	31	0.36	14:14:21	11-Jul-13
529	0	28.5	31	0.33	14:15:21	11-Jul-13
530	0.3	28.5	31	0.35	14:16:21	11-Jul-13
531	0.3	28.5	31	0.36	14:17:21	11-Jul-13
532	0	28.5	31	0.33	14:18:21	11-Jul-13
533	0	28.5	31	0.34	14:19:21	11-Jul-13
534	0	28.5	31	0.33	14:20:21	11-Jul-13
535	0	28.5	31	0.34	14:21:21	11-Jul-13
536	0.1	28.5	31	0.34	14:22:21	11-Jul-13
537	0.3	28.6	31	0.35	14:23:21	11-Jul-13
538	0.2	28.6	31	0.34	14:24:21	11-Jul-13
539	0	28.6	31	0.33	14:25:21	11-Jul-13
540	0	28.6	31	0.33	14:26:21	11-Jul-13
541	0	28.6	31	0.33	14:27:21	11-Jul-13
542	0.1	28.6	31	0.34	14:28:21	11-Jul-13
543	0.1	28.7	31	0.34	14:29:21	11-Jul-13
544	0.1	28.7	31	0.34	14:30:21	11-Jul-13
545	0.3	28.7	31	0.36	14:31:21	11-Jul-13

546	0.2	28.8	31	0.35	14:32:21	11-Jul-13
547	0.1	28.8	31	0.34	14:33:21	11-Jul-13
548	0	28.8	30	0.33	14:34:21	11-Jul-13
549	0	28.9	30	0.33	14:35:21	11-Jul-13
550	0.2	28.9	30	0.35	14:36:21	11-Jul-13
551	0.4	28.9	30	0.36	14:37:21	11-Jul-13
552	0.6	28.8	30	0.38	14:38:21	11-Jul-13
553	0	28.8	30	0.33	14:39:21	11-Jul-13
554	0.1	28.8	30	0.34	14:40:21	11-Jul-13
555	0.3	28.8	30	0.35	14:41:21	11-Jul-13
556	0	28.8	30	0.34	14:42:21	11-Jul-13
557	0.2	28.8	30	0.35	14:43:21	11-Jul-13
558	0.2	28.7	30	0.35	14:44:21	11-Jul-13
559	0.4	28.7	30	0.36	14:45:21	11-Jul-13
560	0.5	28.7	30	0.37	14:46:21	11-Jul-13
561	0.3	28.7	30	0.36	14:47:21	11-Jul-13
562	0.4	28.7	30	0.36	14:48:21	11-Jul-13
563	1.1	28.7	30	0.48	14:49:21	11-Jul-13
564	0.8	28.8	30	0.52	14:50:21	11-Jul-13
565	0.2	28.8	30	0.37	14:51:21	11-Jul-13
566	0.1	28.7	30	0.35	14:52:21	11-Jul-13
567	0.2	28.7	30	0.37	14:53:21	11-Jul-13
568	1.6	28.7	30	0.94	14:54:21	11-Jul-13
569	0.4	28.7	30	0.4	14:55:21	11-Jul-13
570	0.1	28.6	30	0.36	14:56:21	11-Jul-13
571	0.1	28.6	30	0.34	14:57:21	11-Jul-13
572	0	28.6	30	0.33	14:58:21	11-Jul-13
573	0.3	28.5	30	0.38	14:59:21	11-Jul-13
574	0.1	28.5	30	0.36	15:00:21	11-Jul-13
575	0.3	28.5	30	0.37	15:01:21	11-Jul-13
576	0.1	28.5	30	0.35	15:02:21	11-Jul-13
577	1	28.5	30	0.72	15:03:21	11-Jul-13
578	0.1	28.5	30	0.35	15:04:21	11-Jul-13
579	0.7	28.4	30	0.48	15:05:21	11-Jul-13
580	0.2	28.4	30	0.36	15:06:21	11-Jul-13
581	0.1	28.3	30	0.35	15:07:21	11-Jul-13
582	0.2	28.3	30	0.37	15:08:21	11-Jul-13
583	0.1	28.3	30	0.35	15:09:21	11-Jul-13
584	0.2	28.3	30	0.37	15:10:21	11-Jul-13
585	0	28.3	30	0.33	15:11:21	11-Jul-13
586	0.2	28.2	30	0.37	15:12:21	11-Jul-13
587	0.3	28.2	30	0.38	15:13:21	11-Jul-13
588	0.4	28.2	30	0.4	15:14:21	11-Jul-13
589	0	28.2	30	0.34	15:15:21	11-Jul-13
590	0.5	28.2	30	0.4	15:16:21	11-Jul-13
591	0.4	28.2	30	0.39	15:17:21	11-Jul-13
592	0.1	28.2	30	0.34	15:18:21	11-Jul-13
593	0.6	28.1	30	0.39	15:19:21	11-Jul-13

594	0.5	28.2	30	0.47	15:20:21	11-Jul-13
595	0.5	28.2	30	0.4	15:21:21	11-Jul-13
596	0.4	28.1	30	0.39	15:22:21	11-Jul-13
597	0.2	28.1	30	0.36	15:23:21	11-Jul-13
598	0.1	28.1	30	0.34	15:24:21	11-Jul-13
599	0.5	28.1	30	0.41	15:25:21	11-Jul-13
600	0.1	28.1	30	0.34	15:26:21	11-Jul-13
601	0.3	28.1	30	0.37	15:27:21	11-Jul-13
602	0.4	28	30	0.41	15:28:21	11-Jul-13
603	0.4	28	30	0.4	15:29:21	11-Jul-13
604	0.4	28	30	0.4	15:30:21	11-Jul-13
605	0.2	28	30	0.36	15:31:21	11-Jul-13
606	0.2	27.9	30	0.36	15:32:21	11-Jul-13
607	0.4	27.9	30	0.39	15:33:21	11-Jul-13
608	0.5	27.8	30	0.41	15:34:21	11-Jul-13
609	1	27.8	30	0.54	15:35:21	11-Jul-13
610	0.3	27.8	30	0.37	15:36:21	11-Jul-13
611	0	27.8	30	0.33	15:37:21	11-Jul-13
612	0	27.7	30	0.33	15:38:21	11-Jul-13
613	0.6	27.7	30	0.39	15:39:21	11-Jul-13
614	0.1	27.7	30	0.34	15:40:21	11-Jul-13
615	0.1	27.7	30	0.34	15:41:21	11-Jul-13
616	0.4	27.6	30	0.38	15:42:21	11-Jul-13
617	0.5	27.6	30	0.39	15:43:21	11-Jul-13
618	0.8	27.5	30	0.43	15:44:21	11-Jul-13
619	0.1	27.5	30	0.35	15:45:21	11-Jul-13
620	0.3	27.5	30	0.36	15:46:21	11-Jul-13
621	0.6	27.4	30	0.39	15:47:21	11-Jul-13
622	0.5	27.4	30	0.38	15:48:21	11-Jul-13
623	0.1	27.4	30	0.34	15:49:21	11-Jul-13
624	0.2	27.3	31	0.35	15:50:21	11-Jul-13
625	0.4	27.3	31	0.37	15:51:21	11-Jul-13

>"Model Number"	"DataRAM 4 "	106	**Nearest Occupied Building**	
Serial no.	"D201 "		**71213**	
Device no.	1			
Tag Number	6			
Start Time	07:45:59			
Start Date	12-Jul-2013			
Log Period	00:01:00			
Number	539			
CalFactor	1			
Unit	0			
Unit Name	"(MASS)ug/m3"			
SIZE_CORRECT	"DISABLED"			
TEMPUNITS	C			
Max MASS	981.4401			
Max MASS @		6:04:59	12-Nov-62	
Avg MASS	9.884418			
Max Diam	4.127007			
Max Diam @		7:44:59	12-Jul-13	
Avg Diam	2.235929			
ALARM	"DISABLED"			
ALARM_LEVEL	0			
AUTO_ZERO	"DISABLED"			
AZ INTERVAL	1			
Errors	0			

record	(MASS)ug/m3	Temp	RHumidity	Diameter		
1	10.5	18.1	37	0.65	7:46:59	12-Jul-13
2	3.1	18	40	0.53	7:47:59	12-Jul-13
3	5	17.9	42	1.82	7:48:59	12-Jul-13
4	8	17.7	43	4.09	7:49:59	12-Jul-13
5	6.4	17.7	45	3.55	7:50:59	12-Jul-13
6	10.4	17.6	46	4.12	7:51:59	12-Jul-13
7	9.6	17.5	46	4.1	7:52:59	12-Jul-13
8	9	17.4	47	4.08	7:53:59	12-Jul-13
9	5.7	17.2	48	3.51	7:54:59	12-Jul-13
10	21	17.1	48	3.25	7:55:59	12-Jul-13
11	7.8	17	49	3.85	7:56:59	12-Jul-13
12	114.3	16.9	49	4.12	7:57:59	12-Jul-13
13	235.6	16.8	50	4.12	7:58:59	12-Jul-13
14	53.4	16.7	50	4.12	7:59:59	12-Jul-13
15	981.4	16.6	51	4.12	8:00:59	12-Jul-13
16	70.3	16.5	51	4.12	8:01:59	12-Jul-13
17	34.8	16.3	51	4.12	8:02:59	12-Jul-13
18	161.2	16.2	52	4.12	8:03:59	12-Jul-13
19	165.8	16.1	52	4.12	8:04:59	12-Jul-13
20	172.2	16	53	4.12	8:05:59	12-Jul-13
21	21.8	15.9	53	4.12	8:06:59	12-Jul-13
22	14.9	15.8	54	4.12	8:07:59	12-Jul-13
23	10.7	15.7	54	4.12	8:08:59	12-Jul-13

24	11	15.6	54	4.12	8:09:59	12-Jul-13
25	8.7	15.6	55	4.12	8:10:59	12-Jul-13
26	6.4	15.5	55	4.02	8:11:59	12-Jul-13
27	6	15.5	56	3.96	8:12:59	12-Jul-13
28	5.8	15.3	56	4.05	8:13:59	12-Jul-13
29	5.7	15.3	56	4	8:14:59	12-Jul-13
30	6.7	15.2	56	4.07	8:15:59	12-Jul-13
31	7.1	15.2	56	4.06	8:16:59	12-Jul-13
32	7.2	15.1	57	4.1	8:17:59	12-Jul-13
33	6.9	15.1	57	4.11	8:18:59	12-Jul-13
34	7.3	15.1	57	4.11	8:19:59	12-Jul-13
35	7.7	15	58	4.12	8:20:59	12-Jul-13
36	7.5	15	58	4.12	8:21:59	12-Jul-13
37	7.1	15	58	4.12	8:22:59	12-Jul-13
38	7	14.9	58	4.12	8:23:59	12-Jul-13
39	9.7	14.9	58	4.12	8:24:59	12-Jul-13
40	7.9	14.9	59	4.12	8:25:59	12-Jul-13
41	7.6	14.8	59	4.12	8:26:59	12-Jul-13
42	16.3	14.8	59	4.02	8:27:59	12-Jul-13
43	11	14.8	59	3.39	8:28:59	12-Jul-13
44	7.5	14.7	59	4.12	8:29:59	12-Jul-13
45	7.3	14.7	59	4.12	8:30:59	12-Jul-13
46	7.5	14.7	59	4.12	8:31:59	12-Jul-13
47	9	14.7	59	4.12	8:32:59	12-Jul-13
48	17.6	14.7	59	4.12	8:33:59	12-Jul-13
49	14.5	14.7	60	4.12	8:34:59	12-Jul-13
50	7.5	14.7	60	4.12	8:35:59	12-Jul-13
51	7.3	14.7	60	4.12	8:36:59	12-Jul-13
52	7.8	14.7	60	4.12	8:37:59	12-Jul-13
53	7.6	14.6	60	4.12	8:38:59	12-Jul-13
54	9.2	14.6	60	4.09	8:39:59	12-Jul-13
55	8.1	14.6	60	4.12	8:40:59	12-Jul-13
56	8	14.6	60	4.12	8:41:59	12-Jul-13
57	25.4	14.6	60	4.12	8:42:59	12-Jul-13
58	38.8	14.6	61	4.12	8:43:59	12-Jul-13
59	18.1	14.6	61	4.12	8:44:59	12-Jul-13
60	25.8	14.6	61	4.12	8:45:59	12-Jul-13
61	9.5	14.6	61	4.12	8:46:59	12-Jul-13
62	21.4	14.6	61	4.12	8:47:59	12-Jul-13
63	11.3	14.7	61	4.12	8:48:59	12-Jul-13
64	10.3	14.6	61	4.12	8:49:59	12-Jul-13
65	11.5	14.7	61	4.12	8:50:59	12-Jul-13
66	9.2	14.7	61	4.12	8:51:59	12-Jul-13
67	7.4	14.7	61	4.12	8:52:59	12-Jul-13
68	8.1	14.7	61	4.12	8:53:59	12-Jul-13
69	10.6	14.7	61	4.12	8:54:59	12-Jul-13
70	7.7	14.7	61	4.12	8:55:59	12-Jul-13
71	8	14.7	61	4.12	8:56:59	12-Jul-13

72	97.1	14.7	61	4.12	8:57:59	12-Jul-13
73	166.4	14.7	61	4.12	8:58:59	12-Jul-13
74	40.6	14.7	61	4.12	8:59:59	12-Jul-13
75	54.2	14.8	61	4.12	9:00:59	12-Jul-13
76	122.6	14.7	61	4.12	9:01:59	12-Jul-13
77	133.2	14.8	62	4.12	9:02:59	12-Jul-13
78	139.6	14.8	62	4.12	9:03:59	12-Jul-13
79	34.6	14.8	61	4.12	9:04:59	12-Jul-13
80	12	14.8	61	4.12	9:05:59	12-Jul-13
81	21.9	14.8	61	4.12	9:06:59	12-Jul-13
82	24.5	14.8	61	4.12	9:07:59	12-Jul-13
83	8.8	14.8	61	4.12	9:08:59	12-Jul-13
84	7.6	14.8	61	4.12	9:09:59	12-Jul-13
85	6.9	14.8	61	4.12	9:10:59	12-Jul-13
86	6.9	14.9	61	4.11	9:11:59	12-Jul-13
87	6.3	14.9	61	4.09	9:12:59	12-Jul-13
88	6.2	14.9	61	4.09	9:13:59	12-Jul-13
89	6.6	14.9	61	4.12	9:14:59	12-Jul-13
90	6	15	61	4.11	9:15:59	12-Jul-13
91	7.4	15	61	4.12	9:16:59	12-Jul-13
92	6.8	15.0 55	2.46	9:17:59	12-Jul-13	
169	3.2	18.7	55	1.5	9:18:59	12-Jul-13
170	6.2	18.7	55	2.35	9:19:59	12-Jul-13
171	4.4	18.8	55	2.66	9:20:59	12-Jul-13
172	2.4	18.9	55	0.92	9:21:59	12-Jul-13
173	6.6	19	54	2.07	9:22:59	12-Jul-13
174	2.8	19	54	1.48	9:23:59	12-Jul-13
175	2.8	19.1	54	1.42	9:24:59	12-Jul-13
176	2.8	19.1	54	1.65	9:25:59	12-Jul-13
177	2.9	19.2	54	1.78	9:26:59	12-Jul-13
178	2.6	19.2	54	1.36	9:27:59	12-Jul-13
179	5.2	19.3	54	1.93	9:28:59	12-Jul-13
180	3.5	19.3	54	1.48	9:29:59	12-Jul-13
181	3.1	19.4	54	1.67	9:30:59	12-Jul-13
182	2.6	19.5	53	1.18	9:31:59	12-Jul-13
183	2.7	19.5	53	1.41	9:32:59	12-Jul-13
184	4.4	19.5	53	1.8	9:33:59	12-Jul-13
185	2.5	19.6	53	1.02	9:34:59	12-Jul-13
186	2.4	19.6	53	0.86	9:35:59	12-Jul-13
187	2.6	19.7	53	0.87	9:36:59	12-Jul-13
188	6.1	19.7	53	1.35	9:37:59	12-Jul-13
189	3.1	19.7	53	1.39	9:38:59	12-Jul-13
190	2.5	19.8	53	1.61	9:39:59	12-Jul-13
191	3	19.9	52	2.06	9:40:59	12-Jul-13
192	3.6	19.9	52	1.92	9:41:59	12-Jul-13
193	2.6	20	52	1.15	9:42:59	12-Jul-13
194	2.7	20.1	52	1.17	9:43:59	12-Jul-13
195	5.7	20.1	52	2.33	9:44:59	12-Jul-13

196	2.8	20.2	52	1.37	9:45:59	12-Jul-13
197	2.3	20.3	51	0.9	9:46:59	12-Jul-13
198	4.1	20.4	51	1.63	9:47:59	12-Jul-13
199	3.4	20.5	51	1.5	9:48:59	12-Jul-13
200	2.4	20.6	51	0.98	9:49:59	12-Jul-13
201	2	20.7	51	0.73	9:50:59	12-Jul-13
202	2.3	20.8	51	0.86	9:51:59	12-Jul-13
203	2.4	20.9	51	0.92	9:52:59	12-Jul-13
204	2.2	21	50	0.81	9:53:59	12-Jul-13
205	2.7	21.1	50	1	9:54:59	12-Jul-13
206	2.4	21.2	50	0.88	9:55:59	12-Jul-13
207	2.1	21.3	50	0.81	9:56:59	12-Jul-13
208	2.6	21.3	50	0.93	9:57:59	12-Jul-13
209	5.6	21.4	50	1.63	9:58:59	12-Jul-13
210	2.5	21.5	49	0.98	9:59:59	12-Jul-13
211	5.5	21.5	49	2.88	10:00:59	12-Jul-13
212	9.8	21.6	49	3.4	10:01:59	12-Jul-13
213	3.4	21.6	49	1.77	10:02:59	12-Jul-13
214	1.9	21.7	49	0.72	10:03:59	12-Jul-13
215	23.9	21.7	49	2.74	10:04:59	12-Jul-13
216	7.7	21.7	49	2.79	10:05:59	12-Jul-13
217	5.3	21.8	48	1.76	10:06:59	12-Jul-13
218	5.6	21.8	48	1.57	10:07:59	12-Jul-13
219	5.4	21.8	48	2.01	10:08:59	12-Jul-13
220	1.7	21.8	48	0.82	10:09:59	12-Jul-13
221	1.8	21.8	47	0.69	10:10:59	12-Jul-13
222	1.9	21.8	47	0.71	10:11:59	12-Jul-13
223	1.7	21.9	47	0.71	10:12:59	12-Jul-13
224	1.8	21.8	47	0.7	10:13:59	12-Jul-13
225	3.4	21.8	47	2.13	10:14:59	12-Jul-13
226	3.2	21.8	47	2.21	10:15:59	12-Jul-13
227	2.3	21.8	47	1.44	10:16:59	12-Jul-13
228	2.2	21.8	47	1.19	10:17:59	12-Jul-13
229	9.5	21.8	47	3.07	10:18:59	12-Jul-13
230	2.8	21.8	47	1.65	10:19:59	12-Jul-13
231	2.9	21.7	46	1.73	10:20:59	12-Jul-13
232	3.2	21.7	46	1.58	10:21:59	12-Jul-13
233	7.6	21.6	46	1.78	10:22:59	12-Jul-13
234	3.5	21.6	46	2.1	10:23:59	12-Jul-13
235	2.5	21.5	46	1.26	10:24:59	12-Jul-13
236	2.1	21.5	46	0.95	10:25:59	12-Jul-13
237	1.8	21.4	46	0.79	10:26:59	12-Jul-13
238	1.7	21.4	47	0.78	10:27:59	12-Jul-13
239	5.1	21.3	47	2.83	10:28:59	12-Jul-13
240	3.8	21.2	47	2.2	10:29:59	12-Jul-13
241	2.8	21.2	47	1.69	10:30:59	12-Jul-13
242	2.3	21.1	47	1.47	10:31:59	12-Jul-13
243	11.8	21.1	47	2.49	10:32:59	12-Jul-13

244	2.7	21	47	1.4	10:33:59	12-Jul-13
245	2.1	21	47	1	10:34:59	12-Jul-13
246	2	21	47	0.73	10:35:59	12-Jul-13
247	2.2	20.9	47	0.88	10:36:59	12-Jul-13
248	1.8	20.8	48	0.7	10:37:59	12-Jul-13
249	2.5	20.8	48	1.01	10:38:59	12-Jul-13
250	2.3	20.7	48	0.93	10:39:59	12-Jul-13
251	3.5	20.7	48	1.43	10:40:59	12-Jul-13
252	2.5	20.6	48	1.13	10:41:59	12-Jul-13
253	2.4	20.6	48	1.35	10:42:59	12-Jul-13
254	2.1	20.5	48	1.26	10:43:59	12-Jul-13
255	3	20.5	48	1.83	10:44:59	12-Jul-13
256	2.6	20.5	49	1.5	10:45:59	12-Jul-13
257	3.7	20.4	49	2.75	10:46:59	12-Jul-13
258	2.5	20.4	49	1.74	10:47:59	12-Jul-13
259	5.8	20.3	49	2.8	10:48:59	12-Jul-13
260	2.9	20.3	49	1.99	10:49:59	12-Jul-13
261	2.6	20.3	49	1.37	10:50:59	12-Jul-13
262	3.2	20.2	49	1.75	10:51:59	12-Jul-13
263	4.2	20.2	49	2.25	10:52:59	12-Jul-13
264	3	20.2	49	1.94	10:53:59	12-Jul-13
265	2.3	20.2	50	1.1	10:54:59	12-Jul-13
266	3.4	20.1	50	1.96	10:55:59	12-Jul-13
267	2.7	20.1	50	1.43	10:56:59	12-Jul-13
268	2.7	20.1	50	1.53	10:57:59	12-Jul-13
269	2.7	20.1	50	1.48	10:58:59	12-Jul-13
270	2.4	20.1	50	1.14	10:59:59	12-Jul-13
271	2.6	20.1	50	1.25	11:00:59	12-Jul-13
272	5.4	20	50	1.82	11:01:59	12-Jul-13
273	4.2	20	50	2.27	11:02:59	12-Jul-13
274	2.8	20	50	1.99	11:03:59	12-Jul-13
275	2.9	20	50	1.96	11:04:59	12-Jul-13
276	2.1	19.9	51	0.92	11:05:59	12-Jul-13
277	2.4	19.8	51	1.05	11:06:59	12-Jul-13
278	3	19.8	51	1.39	11:07:59	12-Jul-13
279	2.6	19.8	51	1.15	11:08:59	12-Jul-13
280	2.7	19.7	51	1.1	11:09:59	12-Jul-13
281	2.3	19.7	51	0.92	11:10:59	12-Jul-13
282	3.2	19.6	51	1.74	11:11:59	12-Jul-13
283	3.2	19.6	52	2.05	11:12:59	12-Jul-13
284	3	19.6	52	2.03	11:13:59	12-Jul-13
285	3	19.6	52	2.06	11:14:59	12-Jul-13
286	3.1	19.5	52	2.44	11:15:59	12-Jul-13
287	19.7	19.5	52	3.42	11:16:59	12-Jul-13
288	12.8	19.5	52	2.54	11:17:59	12-Jul-13
289	4.3	19.5	52	2.86	11:18:59	12-Jul-13
290	5.3	19.5	52	3.16	11:19:59	12-Jul-13
291	3.2	19.5	52	2.21	11:20:59	12-Jul-13

292	3.9	19.5	52	2.93	11:21:59	12-Jul-13
293	3.3	19.5	52	2.06	11:22:59	12-Jul-13
294	7.2	19.5	52	2.73	11:23:59	12-Jul-13
295	4.1	19.5	52	2.41	11:24:59	12-Jul-13
296	4.4	19.5	52	3.04	11:25:59	12-Jul-13
297	4.9	19.5	53	2.77	11:26:59	12-Jul-13
298	3.2	19.5	53	1.88	11:27:59	12-Jul-13
299	3.2	19.5	53	1.63	11:28:59	12-Jul-13
300	3.7	19.5	53	2.28	11:29:59	12-Jul-13
301	4.4	19.5	53	2.98	11:30:59	12-Jul-13
302	2.4	19.5	53	1.21	11:31:59	12-Jul-13
303	3.1	19.5	53	1.98	11:32:59	12-Jul-13
304	3.3	19.5	53	2.09	11:33:59	12-Jul-13
305	3.1	19.5	53	2.13	11:34:59	12-Jul-13
306	3.4	19.5	53	2.43	11:35:59	12-Jul-13
307	2.7	19.5	53	1.77	11:36:59	12-Jul-13
308	2.6	19.5	53	1.71	11:37:59	12-Jul-13
309	2.7	19.5	53	1.33	11:38:59	12-Jul-13
310	3.2	19.5	53	1.61	11:39:59	12-Jul-13
311	3.8	19.5	53	2.18	11:40:59	12-Jul-13
312	2.8	19.5	53	1.65	11:41:59	12-Jul-13
313	9.3	19.5	53	2.27	11:42:59	12-Jul-13
314	16	19.5	53	3.96	11:43:59	12-Jul-13
315	4.8	19.5	53	3.12	11:44:59	12-Jul-13
316	3.2	19.5	53	1.93	11:45:59	12-Jul-13
317	2.4	19.5	53	1.09	11:46:59	12-Jul-13
318	3.8	19.5	53	2.94	11:47:59	12-Jul-13
319	6.7	19.5	53	3.82	11:48:59	12-Jul-13
320	7.5	19.5	53	3.24	11:49:59	12-Jul-13
321	3.1	19.5	53	1.66	11:50:59	12-Jul-13
322	3.7	19.5	53	2.09	11:51:59	12-Jul-13
323	3.6	19.5	53	1.45	11:52:59	12-Jul-13
324	3	19.5	53	1.92	11:53:59	12-Jul-13
325	3.7	19.5	53	2.53	11:54:59	12-Jul-13
326	2.6	19.6	53	1.21	11:55:59	12-Jul-13
327	2.8	19.6	53	1.39	11:56:59	12-Jul-13
328	2.8	19.6	53	1.76	11:57:59	12-Jul-13
329	2.5	19.6	53	1.49	11:58:59	12-Jul-13
330	2.6	19.7	53	1.53	11:59:59	12-Jul-13
331	2.6	19.7	53	1.6	12:00:59	12-Jul-13
332	2.7	19.7	53	1.7	12:01:59	12-Jul-13
333	2.5	19.8	53	1.46	12:02:59	12-Jul-13
334	2.7	19.8	53	1.33	12:03:59	12-Jul-13
335	2.2	19.9	53	0.93	12:04:59	12-Jul-13
336	2.5	20	53	1.06	12:05:59	12-Jul-13
337	2.2	20	53	0.94	12:06:59	12-Jul-13
338	3.2	20	53	1.53	12:07:59	12-Jul-13
339	2.3	20.1	53	1.15	12:08:59	12-Jul-13

340	2.7	20.1	53	1.5	12:09:59	12-Jul-13
341	2.8	20.1	52	1.92	12:10:59	12-Jul-13
342	2.6	20.1	53	1.88	12:11:59	12-Jul-13
343	2.7	20.1	53	1.72	12:12:59	12-Jul-13
344	2.2	20.2	53	1.07	12:13:59	12-Jul-13
345	3	20.2	52	1.69	12:14:59	12-Jul-13
346	2.7	20.2	52	1.77	12:15:59	12-Jul-13
347	2.3	20.2	53	1.35	12:16:59	12-Jul-13
348	2.2	20.2	53	1.31	12:17:59	12-Jul-13
349	3.1	20.2	53	2.4	12:18:59	12-Jul-13
350	2.5	20.3	53	1.56	12:19:59	12-Jul-13
351	2.9	20.3	53	2.04	12:20:59	12-Jul-13
352	2.1	20.3	53	1.44	12:21:59	12-Jul-13
353	4.2	20.3	53	2.8	12:22:59	12-Jul-13
354	10.1	20.4	53	3.67	12:23:59	12-Jul-13
355	2.8	20.4	53	1.75	12:24:59	12-Jul-13
356	3	20.4	53	1.88	12:25:59	12-Jul-13
357	2.7	20.5	53	1.64	12:26:59	12-Jul-13
358	4	20.5	53	2.22	12:27:59	12-Jul-13
359	3.1	20.6	53	1.45	12:28:59	12-Jul-13
360	2.4	20.6	53	0.89	12:29:59	12-Jul-13
361	2.3	20.7	53	0.92	12:30:59	12-Jul-13
362	2.8	20.7	53	1.35	12:31:59	12-Jul-13
363	2.3	20.8	53	1	12:32:59	12-Jul-13
364	2.2	20.8	53	0.96	12:33:59	12-Jul-13
365	2.7	20.9	53	1.43	12:34:59	12-Jul-13
366	2.4	20.9	52	1.32	12:35:59	12-Jul-13
367	2.3	20.9	52	1.32	12:36:59	12-Jul-13
368	2.2	21	52	1.16	12:37:59	12-Jul-13
369	2.6	21	52	1.61	12:38:59	12-Jul-13
370	2.5	21	52	1.45	12:39:59	12-Jul-13
371	2.1	21	52	1.22	12:40:59	12-Jul-13
372	2.4	21.1	52	1.39	12:41:59	12-Jul-13
373	2.1	21.1	52	1.24	12:42:59	12-Jul-13
374	2.3	21.1	52	1.47	12:43:59	12-Jul-13
375	2.3	21.2	51	1.29	12:44:59	12-Jul-13
376	2.3	21.1	51	1.27	12:45:59	12-Jul-13
377	2.3	21.2	51	1.36	12:46:59	12-Jul-13
378	2.1	21.2	51	1.27	12:47:59	12-Jul-13
379	3.8	21.2	52	1.94	12:48:59	12-Jul-13
380	2.4	21.2	52	1.1	12:49:59	12-Jul-13
381	2.7	21.2	52	1.78	12:50:59	12-Jul-13
382	2.1	21.3	52	1.21	12:51:59	12-Jul-13
383	2.1	21.3	52	1.15	12:52:59	12-Jul-13
384	1.9	21.4	52	0.9	12:53:59	12-Jul-13
385	2	21.5	52	0.93	12:54:59	12-Jul-13
386	2	21.5	52	0.99	12:55:59	12-Jul-13
387	1.7	21.6	52	0.74	12:56:59	12-Jul-13

388	1.8	21.6	51	0.89	12:57:59	12-Jul-13
389	2	21.7	51	0.95	12:58:59	12-Jul-13
390	2.2	21.7	51	1.06	12:59:59	12-Jul-13
391	1.9	21.8	50	1.06	13:00:59	12-Jul-13
392	1.4	21.9	50	0.8	13:01:59	12-Jul-13
393	1.6	22	50	0.87	13:02:59	12-Jul-13
394	1.7	22	49	0.92	13:03:59	12-Jul-13
395	1.9	22.1	49	1.15	13:04:59	12-Jul-13
396	1.5	22.1	49	0.85	13:05:59	12-Jul-13
397	1.3	22.1	49	0.78	13:06:59	12-Jul-13
398	1.3	22.2	49	0.75	13:07:59	12-Jul-13
399	1.6	22.2	49	0.9	13:08:59	12-Jul-13
400	1.7	22.3	49	1	13:09:59	12-Jul-13
401	1.6	22.4	49	0.94	13:10:59	12-Jul-13
402	1.5	22.4	49	0.89	13:11:59	12-Jul-13
403	1.1	22.5	49	0.64	13:12:59	12-Jul-13
404	1.3	22.6	49	0.74	13:13:59	12-Jul-13
405	1.5	22.7	48	0.85	13:14:59	12-Jul-13
406	1.4	22.7	48	0.76	13:15:59	12-Jul-13
407	1.5	22.8	48	0.88	13:16:59	12-Jul-13
408	1.2	22.8	48	0.65	13:17:59	12-Jul-13
409	1.2	22.9	48	0.76	13:18:59	12-Jul-13
410	1.2	22.9	48	0.65	13:19:59	12-Jul-13
411	3.9	23	48	2.39	13:20:59	12-Jul-13
412	1.4	23.1	48	0.78	13:21:59	12-Jul-13
413	1.4	23.2	48	0.83	13:22:59	12-Jul-13
414	0.8	23.2	47	0.53	13:23:59	12-Jul-13
415	1.9	23.3	47	1.14	13:24:59	12-Jul-13
416	5.3	23.4	47	3.26	13:25:59	12-Jul-13
417	10.9	23.5	47	2.36	13:26:59	12-Jul-13
418	10.2	23.6	46	3.04	13:27:59	12-Jul-13
419	2.2	23.6	46	1.21	13:28:59	12-Jul-13
420	4.2	23.7	46	2.43	13:29:59	12-Jul-13
421	8.9	23.7	46	1.75	13:30:59	12-Jul-13
422	11.7	23.7	46	2.79	13:31:59	12-Jul-13
423	35.8	23.8	46	3.39	13:32:59	12-Jul-13
424	1.9	23.8	46	0.93	13:33:59	12-Jul-13
425	0.8	23.8	46	0.49	13:34:59	12-Jul-13
426	10.6	23.9	46	2.56	13:35:59	12-Jul-13
427	5.3	23.9	46	2.22	13:36:59	12-Jul-13
428	2.4	23.9	46	1.57	13:37:59	12-Jul-13
429	1.5	23.9	46	0.98	13:38:59	12-Jul-13
430	1.2	23.8	46	0.67	13:39:59	12-Jul-13
431	1.3	23.8	45	0.75	13:40:59	12-Jul-13
432	6	23.8	46	2.65	13:41:59	12-Jul-13
433	1.3	23.8	46	0.83	13:42:59	12-Jul-13
434	2	23.8	46	1.27	13:43:59	12-Jul-13
435	1.2	23.8	46	0.68	13:44:59	12-Jul-13

436	1.1	23.7	46	0.62	13:45:59	12-Jul-13
437	1.5	23.7	46	0.77	13:46:59	12-Jul-13
438	1.4	23.7	45	0.77	13:47:59	12-Jul-13
439	3.5	23.7	46	1.75	13:48:59	12-Jul-13
440	2.9	23.6	45	1.64	13:49:59	12-Jul-13
441	2	23.6	45	1.08	13:50:59	12-Jul-13
442	2.1	23.5	45	1.28	13:51:59	12-Jul-13
443	1.7	23.5	45	0.94	13:52:59	12-Jul-13
444	2.3	23.4	45	1.42	13:53:59	12-Jul-13
445	5.6	23.4	46	2.34	13:54:59	12-Jul-13
446	1.4	23.3	45	0.73	13:55:59	12-Jul-13
447	4.2	23.2	45	1.36	13:56:59	12-Jul-13
448	1.9	23.1	45	0.88	13:57:59	12-Jul-13
449	1.7	23	46	0.88	13:58:59	12-Jul-13
450	1.6	22.9	46	0.76	13:59:59	12-Jul-13
451	4.5	22.8	46	1.36	14:00:59	12-Jul-13
452	6	22.7	46	2.71	14:01:59	12-Jul-13
453	2.1	22.6	46	1.19	14:02:59	12-Jul-13
454	1.8	22.6	47	0.74	14:03:59	12-Jul-13
455	3.6	22.5	47	1.86	14:04:59	12-Jul-13
456	2.2	22.4	47	0.93	14:05:59	12-Jul-13
457	1.8	22.3	47	0.78	14:06:59	12-Jul-13
458	2.2	22.2	47	1.28	14:07:59	12-Jul-13
459	1.9	22.1	47	1.22	14:08:59	12-Jul-13
460	1.7	22	47	1.05	14:09:59	12-Jul-13
461	3	22	47	1.34	14:10:59	12-Jul-13
462	2.4	21.9	48	1.4	14:11:59	12-Jul-13
463	2.5	21.8	48	1.41	14:12:59	12-Jul-13
464	2.5	21.7	48	1.3	14:13:59	12-Jul-13
465	2.1	21.6	48	1.08	14:14:59	12-Jul-13
466	2.6	21.5	48	1.43	14:15:59	12-Jul-13
467	2.2	21.5	49	1.23	14:16:59	12-Jul-13
468	3.3	21.4	49	2.61	14:17:59	12-Jul-13
469	2.5	21.3	49	1.54	14:18:59	12-Jul-13
470	2	21.2	49	1.09	14:19:59	12-Jul-13
471	2.4	21.2	49	1.19	14:20:59	12-Jul-13
472	2.1	21.1	49	0.95	14:21:59	12-Jul-13
473	2.6	21	49	1.22	14:22:59	12-Jul-13
474	2	21	50	0.86	14:23:59	12-Jul-13
475	2.2	20.9	50	0.95	14:24:59	12-Jul-13
476	2.2	20.8	50	0.91	14:25:59	12-Jul-13
477	1.9	20.8	50	0.8	14:26:59	12-Jul-13
478	2.2	20.7	50	0.96	14:27:59	12-Jul-13
479	2.6	20.6	50	1.04	14:28:59	12-Jul-13
480	2.9	20.6	50	1.52	14:29:59	12-Jul-13
481	3.1	20.5	50	1.66	14:30:59	12-Jul-13
482	4.7	20.5	50	2.66	14:31:59	12-Jul-13
483	3.4	20.4	50	2.01	14:32:59	12-Jul-13

484	2.7	20.4	50	1.96	14:33:59	12-Jul-13
485	2.2	20.3	51	1.19	14:34:59	12-Jul-13
486	2.8	20.2	51	2.16	14:35:59	12-Jul-13
487	3.1	20.2	51	2.03	14:36:59	12-Jul-13
488	2.4	20.1	51	0.88	14:37:59	12-Jul-13
489	3	20.1	51	1.52	14:38:59	12-Jul-13
490	3.7	20.1	51	2.18	14:39:59	12-Jul-13
491	2.6	20	52	1.43	14:40:59	12-Jul-13
492	3.5	20	52	2.4	14:41:59	12-Jul-13
493	3.3	20	52	2.13	14:42:59	12-Jul-13
494	2.4	20	52	1.15	14:43:59	12-Jul-13
495	2.8	19.9	52	1.94	14:44:59	12-Jul-13
496	3.3	19.9	52	2.16	14:45:59	12-Jul-13
497	2.5	19.9	52	1.4	14:46:59	12-Jul-13
498	2.8	19.8	52	1.66	14:47:59	12-Jul-13
499	3	19.8	52	1.99	14:48:59	12-Jul-13
500	2.5	19.8	52	0.99	14:49:59	12-Jul-13
501	2.9	19.8	53	1.3	14:50:59	12-Jul-13
502	2	19.7	53	0.72	14:51:59	12-Jul-13
503	2.6	19.7	53	1	14:52:59	12-Jul-13
504	2.8	19.7	53	1.11	14:53:59	12-Jul-13
505	2.2	19.7	53	0.85	14:54:59	12-Jul-13
506	3.2	19.7	53	1.71	14:55:59	12-Jul-13
507	3.6	19.8	53	2.35	14:56:59	12-Jul-13
508	8.1	19.7	53	2.79	14:57:59	12-Jul-13
509	4.3	19.8	53	2.75	14:58:59	12-Jul-13
510	2.8	19.8	53	1.89	14:59:59	12-Jul-13
511	2.6	19.8	53	1.15	15:00:59	12-Jul-13
512	3.3	19.8	53	1.5	15:01:59	12-Jul-13
513	3.4	19.9	53	1.19	15:02:59	12-Jul-13
514	2.7	19.9	53	0.8	15:03:59	12-Jul-13
515	2.5	19.9	53	0.74	15:04:59	12-Jul-13
516	2.3	20	53	0.7	15:05:59	12-Jul-13
517	2.5	20	53	0.76	15:06:59	12-Jul-13
518	2.6	20	53	0.8	15:07:59	12-Jul-13
519	2.8	20	53	0.9	15:08:59	12-Jul-13
520	2.5	20.1	53	0.85	15:09:59	12-Jul-13
521	2.5	20.1	53	0.99	15:10:59	12-Jul-13
522	2.3	20.1	53	1.15	15:11:59	12-Jul-13
523	2.8	20.2	53	1.63	15:12:59	12-Jul-13
524	2.9	20.2	53	1.9	15:13:59	12-Jul-13
525	2.3	20.2	53	1.02	15:14:59	12-Jul-13
526	2.6	20.2	53	1.22	15:15:59	12-Jul-13
527	2.2	20.3	53	0.93	15:16:59	12-Jul-13
528	2.6	20.3	53	1.18	15:17:59	12-Jul-13
529	2.5	20.3	53	0.99	15:18:59	12-Jul-13
530	2.7	20.3	53	1.41	15:19:59	12-Jul-13
531	2.6	20.4	53	1.61	15:20:59	12-Jul-13

532	2.5	20.4	52	1.29	15:21:59	12-Jul-13
533	2.2	20.4	52	0.87	15:22:59	12-Jul-13
534	2	20.4	53	0.7	15:23:59	12-Jul-13
535	2	20.4	53	0.7	15:24:59	12-Jul-13
536	2.6	20.5	53	0.88	15:25:59	12-Jul-13
537	2.1	20.5	53	0.74	15:26:59	12-Jul-13
538	2.3	20.5	53	0.89	15:27:59	12-Jul-13
539	2.2	20.5	53	0.81	15:28:59	12-Jul-13

Larson Davis
Sound Track LxT Data

Summary				
Filename	LxT_Data.005			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell			
Location	Community Center			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/07 8:21:52			
Stop	2013/07/07 14:29:04			
Duration	6:07:12.1			
Run Time	6:07:12.1			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	64.6 dB			

LAE		108.0	dB	
EA		7.086	mPa²h	
EA8		9.263	mPa²h	
EA40		46.314	mPa²h	
LZpeak (max)	2013/07/07 12:32:36			117.8 dB
LAFmax	2013/07/07 14:17:54			101.2 dB
LAFmin	2013/07/07 13:27:50			40.3 dB
SEA		-99.9	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		6		12.0 s
LAF > 115.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0		0.0 s
LCeq		76.2	dB	
LAeq		64.6	dB	
LCeq - LAeq		11.5	dB	
LAIeq		67.0	dB	
LAeq		64.6	dB	
LAIeq - LAeq		2.3	dB	
# Overloads		0		
Overload Duration		0.0	s	
Dose Settings				
Dose Name		OSHA-1		OSHA-2
Exch. Rate		5		5 dB
Threshold		90		80 dB
Criterion Level		90		90 dB
Criterion Duration		8		8 h
Results				
Dose		0.05		0.10 %
Projected Dose		0.07		0.13 %
TWA (Projected)		37.5		41.9 dB

TWA (t)	35.6	40.0 dB
Lep (t)	63.5	63.5 dB

Statistics	
LAF5.00	67.3 dB
LAF10.00	62.1 dB
LAF33.30	52.4 dB
LAF50.00	50.4 dB
LAF66.60	48.8 dB
LAF90.00	46.1 dB

Summary				
Filename	LxT_Data.001			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/07 9:09:35			
Stop	2013/07/07 15:18:30			
Duration	6:08:53.2			
Run Time	6:03:21.6			
Pause	0:05:31.6			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	67.8 dB			

LAE		111.2	dB	
EA		14.557	mPa²h	
EA8		19.229	mPa²h	
EA40		96.147	mPa²h	
LZpeak (max)	2013/07/07 11:16:55		121.9	dB
LAFmax	2013/07/07 10:22:52		95.0	dB
LAFmin	2013/07/07 9:10:23		6.7	dB
SEA		134.3	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		89	47.0	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		78.4	dB	
LAeq		67.8	dB	
LCeq - LAeq		10.6	dB	
LAIeq		73.6	dB	
LAeq		67.8	dB	
LAIeq - LAeq		5.8	dB	
# Overloads		1		
Overload Duration		0.3	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.01	0.19	%
Projected Dose		0.02	0.25	%
TWA (Projected)		27.7	46.8	dB

TWA (t)	25.7	44.8 dB
Lep (t)	66.6	66.6 dB

Statistics	
LAF5.00	72.6 dB
LAF10.00	70.4 dB
LAF33.30	65.8 dB
LAF50.00	60.9 dB
LAF66.60	56.5 dB
LAF90.00	52.8 dB

Summary				
Filename	LxT_Data.006			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/08 3:13:57			
Stop	2013/07/08 13:36:05			
Duration	10:22:07.5			
Run Time	10:21:09.5			
Pause	0:00:58.0			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	70.6 dB			

LAE		116.3	dB	
EA		47.174	mPa²h	
EA8		36.454	mPa²h	
EA40		182.270	mPa²h	
LZpeak (max)	2013/07/08 11:46:02		120.5	dB
LAFmax	2013/07/08 11:46:03		108.3	dB
LAFmin	2013/07/08 3:14:06		6.6	dB
SEA		135.2	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		17	36.8	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		77.0	dB	
LAeq		70.6	dB	
LCeq - LAeq		6.4	dB	
LAIeq		73.7	dB	
LAeq		70.6	dB	
LAIeq - LAeq		3.1	dB	
# Overloads		1		
Overload Duration		0.1	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.41	0.45	%
Projected Dose		0.32	0.35	%
TWA (Projected)		48.6	49.2	dB

TWA (t)	50.4	51.0 dB
Lep (t)	71.7	71.7 dB

Statistics	
LAF5.00	63.9 dB
LAF10.00	59.9 dB
LAF33.30	52.3 dB
LAF50.00	50.0 dB
LAF66.60	48.2 dB
LAF90.00	45.4 dB

Summary				
Filename	LxT_Data.002			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/08 4:01:08			
Stop	2013/07/08 14:25:36			
Duration	10:24:27.9			
Run Time	10:24:24.4			
Pause	0:00:03.5			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	65.6 dB			

LAE	111.3 dB		
EA	15.147 mPa²h		
EA8	11.644 mPa²h		
EA40	58.219 mPa²h		
LZpeak (max)	2013/07/08 9:57:35	123.0 dB	
LAFmax	2013/07/08 12:33:23	96.1 dB	
LAFmin	2013/07/08 4:02:41	6.6 dB	
SEA	140.2 dB		
LAF > 85.0 dB (Exceedence Counts / Duration)	50	41.5 s	
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	76.1 dB		
LAeq	65.6 dB		
LCeq - LAeq	10.5 dB		
LAIeq	71.2 dB		
LAeq	65.6 dB		
LAIeq - LAeq	5.6 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	0.07	0.17 %	
Projected Dose	0.06	0.13 %	
TWA (Projected)	36.0	42.1 dB	

TWA (t)	37.9	44.0 dB
Lep (t)	66.8	66.8 dB

Statistics	
LAF5.00	69.7 dB
LAF10.00	67.5 dB
LAF33.30	62.5 dB
LAF50.00	58.9 dB
LAF66.60	55.7 dB
LAF90.00	52.6 dB

Summary				
Filename	LxT_Data.003			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/09 4:16:52			
Stop	2013/07/09 15:46:09			
Duration	11:29:17.0			
Run Time	11:28:12.3			
Pause	0:01:04.7			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	69.0 dB			

LAE		115.2	dB	
EA		36.583	mPa²h	
EA8		25.515	mPa²h	
EA40		127.577	mPa²h	
LZpeak (max)	2013/07/09 10:07:45		123.2	dB
LAFmax	2013/07/09 15:10:29		94.6	dB
LAFmin	2013/07/09 4:17:04		6.6	dB
SEA		135.2	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		236	132.5	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		78.2	dB	
LAeq		69.0	dB	
LCeq - LAeq		9.2	dB	
LAIeq		74.9	dB	
LAeq		69.0	dB	
LAIeq - LAeq		5.9	dB	
# Overloads		0		
Overload Duration		0.0	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.04	0.56	%
Projected Dose		0.03	0.39	%
TWA (Projected)		31.3	50.0	dB

TWA (t)	33.9	52.6 dB
Lep (t)	70.6	70.6 dB

Statistics	
LAF5.00	74.0 dB
LAF10.00	71.5 dB
LAF33.30	66.5 dB
LAF50.00	63.8 dB
LAF66.60	59.4 dB
LAF90.00	54.4 dB

Summary				
Filename	LxT_Data.007			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/09 3:29:21			
Stop	2013/07/09 14:10:39			
Duration	10:41:17.5			
Run Time	10:39:15.1			
Pause	0:02:02.4			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	70.0 dB			

LAE		115.8	dB	
EA		42.357	mPa²h	
EA8		31.805	mPa²h	
EA40		159.025	mPa²h	
LZpeak (max)	2013/07/09 11:29:06		119.7	dB
LAFmax	2013/07/09 4:41:33		105.1	dB
LAFmin	2013/07/09 3:29:25		6.7	dB
SEA		-99.9	dB	

LAF > 85.0 dB (Exceedence Counts / Duration)	29	67.9	s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0	s

LCeq	77.4	dB	
LAeq	70.0	dB	
LCeq - LAeq	7.5	dB	
LAIeq	73.5	dB	
LAeq	70.0	dB	
LAIeq - LAeq	3.5	dB	
# Overloads	0		
Overload Duration	0.0	s	

Dose Settings				
Dose Name	OSHA-1	OSHA-2		
Exch. Rate	5	5	dB	
Threshold	90	80	dB	
Criterion Level	90	90	dB	
Criterion Duration	8	8	h	

Results			
Dose	0.41	0.57	%
Projected Dose	0.31	0.43	%
TWA (Projected)	48.3	50.7	dB

TWA (t)	50.4	52.7 dB
Lep (t)	71.2	71.2 dB

Statistics	
LAF5.00	68.3 dB
LAF10.00	64.2 dB
LAF33.30	52.2 dB
LAF50.00	50.1 dB
LAF66.60	48.4 dB
LAF90.00	45.7 dB

Summary				
Filename	LxT_Data.008			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/10 3:26:39			
Stop	2013/07/10 12:49:49			
Duration	9:23:09.7			
Run Time	9:23:09.7			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	68.7 dB			

LAE	114.0 dB		
EA	27.620 mPa²h		
EA8	23.542 mPa²h		
EA40	117.708 mPa²h		
LZpeak (max)	2013/07/10 7:18:45	114.0 dB	
LAFmax	2013/07/10 5:25:06	98.0 dB	
LAFmin	2013/07/10 12:37:10	45.3 dB	
SEA	-99.9 dB		
LAF > 85.0 dB (Exceedence Counts / Duration)	110	76.9 s	
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	78.2 dB		
LAeq	68.7 dB		
LCeq - LAeq	9.5 dB		
LAIeq	73.1 dB		
LAeq	68.7 dB		
LAIeq - LAeq	4.4 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	0.08	0.31 %	
Projected Dose	0.07	0.27 %	
TWA (Projected)	37.2	47.2 dB	

TWA (t)	38.3	48.4 dB
Lep (t)	69.4	69.4 dB

Statistics	
LAF5.00	72.8 dB
LAF10.00	71.0 dB
LAF33.30	66.8 dB
LAF50.00	63.9 dB
LAF66.60	60.9 dB
LAF90.00	56.2 dB

Summary				
Filename	LxT_Data.004			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/10 4:12:18			
Stop	2013/07/10 13:44:50			
Duration	9:32:32.3			
Run Time	9:32:25.5			
Pause	0:00:06.8			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	68.0 dB			

LAE			113.3	dB	
EA			23.935	mPa²h	
EA8			20.071	mPa²h	
EA40			100.353	mPa²h	
LZpeak (max)	2013/07/10	4:17:13	118.5	dB	
LAFmax	2013/07/10	6:12:27	105.0	dB	
LAFmin	2013/07/10	4:17:01	6.6	dB	
SEA			-99.9	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)			45	64.3	s
LAF > 115.0 dB (Exceedence Counts / Duration)			0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)			0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)			0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)			0	0.0	s
LCeq			75.5	dB	
LAeq			68.0	dB	
LCeq - LAeq			7.5	dB	
LAIeq			71.0	dB	
LAeq			68.0	dB	
LAIeq - LAeq			3.1	dB	
# Overloads			0		
Overload Duration			0.0	s	
Dose Settings					
Dose Name			OSHA-1	OSHA-2	
Exch. Rate			5	5	dB
Threshold			90	80	dB
Criterion Level			90	90	dB
Criterion Duration			8	8	h
Results					
Dose			0.25	0.36	%
Projected Dose			0.21	0.30	%
TWA (Projected)			45.5	48.1	dB

TWA (t)	46.8	49.3 dB
Lep (t)	68.7	68.7 dB

Statistics	
LAF5.00	67.7 dB
LAF10.00	63.5 dB
LAF33.30	53.9 dB
LAF50.00	51.6 dB
LAF66.60	49.9 dB
LAF90.00	46.3 dB

January 14, 2014

Ms. Amy Essig Desai
Farallon Consulting
975 5th Ave Northwest
Issaquah, Washington 98027

RE: Weekly Air and Noise Monitoring Report Week 5
July 15 to July 19, 2013
BNSF Skykomish Schoolyard Area Remediation
Skykomish, Washington

Ms. Essig Desai,

This represents the fifth report of weekly air and noise monitoring data for the BNSF Skykomish Schoolyard Area Remediation in Skykomish, Washington coordinated by EMB Consulting, LLC (EMB Consulting) and conducted by Farallon Consulting, LLC (Farallon) during the week of July 15 to July 19, 2013. The purpose of this report is to summarize and interpret air and noise sampling data collected around the Skykomish Schoolyard project during weekly monitoring. Farallon conducted monitoring in general accordance with the Skykomish Schoolyard Area, Air and Noise Monitoring Plan, Skykomish, Washington issued by EMB Consulting on June 4, 2013.

Work Activities

Farallon staff collected air samples and noise measurements during excavation activities from July 15 to July 19, 2013. Project activities during the period consisted primarily of import and placement of backfill materials, installation of the geomembrane liner, and site restoration.

Sampling Methodology

All samples were collected in general accordance with the methods specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013. Please refer to this Plan for specific details on sampling methodology.

- Farallon conducted respirable dust monitoring at one monitoring station on July 15, 16, 17, and 18, 2013. The station was positioned downwind of construction operations and was located between the Teacherage and the east edge of the excavation.

- Farallon conducted noise monitoring at two locations on July 15, 16, 17, and 18, 2013. The first location was between the School building and the Teacherage. The second location was outside of the Community Center on the northwest corner, closest to construction activities.

- No other air sampling was collected during this week because work with contaminated media was complete and the use of heavy equipment on site was minimal.

- The weather was mild with little precipitation and temperatures in the 70s and 80s degrees Fahrenheit during sampling periods. Wind was light in the westerly direction. Barometric pressure was steady and high. Relative humidity was between 70 and 80 percent for the entire week.

Approximate air and noise sample locations are indicated on the attached Figure 1.

SAMPLING RESULTS

All sample results indicate contaminant concentrations below Monitoring Plan action limits.

AIR MONITORING

DOWNWIND SAMPLES

These samples were collected to represent conditions downwind of excavation on the schoolyard.

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D738 Tag 11	07/15/13	8:07 to 18:37	15.4	1,525.9	5,000
DataRam4, Serial #D738 Tag 12	07/16/13	8:24 to 17:57	11.7	262.1	
DataRam4, Serial #D738 Tag 13	07/17/13	10:34 to 17:42	19.4	80.5	
DataRam4, Serial #D738 Tag 14	07/18/13	8:55 to 16:48	20.0	368.0	

µg/m^3 = micrograms per cubic meter

The instrument malfunctioned and could not provide full data sets for download. Summary statistics are provided here and in the attachments.

COMMUNITY NOISE MONITORING

The following data were collected between the School building and the Teacherage (Larson Davis SoundTrack LxT 3279).

DATE OF MONITORING	SAMPLE PERIOD IN MINUTES*	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/15/13	10:39	67.6	108.1	85
07/16/13	9:16	67.7	105.8	
07/17/13	4:00	63.5	87.7	
07/18/13	8:06	65.9	95.8	

The following data were collected on the northwest corner of the Community Center property (Larson Davis SoundTrack LxT 3278).

DATE OF MONITORING	SAMPLE PERIOD IN MINUTES*	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/15/13	10:38	65.3	100.3	85
07/16/13	9:33	65.0	97.8	
07/17/13	9:09	65.5	102.4	
07/18/13	4:28	64.9	99.4	

CONCLUSIONS

Based on this data, contaminants of concern were not detected at or above the project action limits, as specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 for the area monitored. In addition, noise limits were not exceeded.

We appreciate this opportunity to be of service to you. Please contact me at 206.915.2395 if you have questions regarding this report, or if you require additional information.

Sincerely,

E. Black

Elisabeth Black, CIH

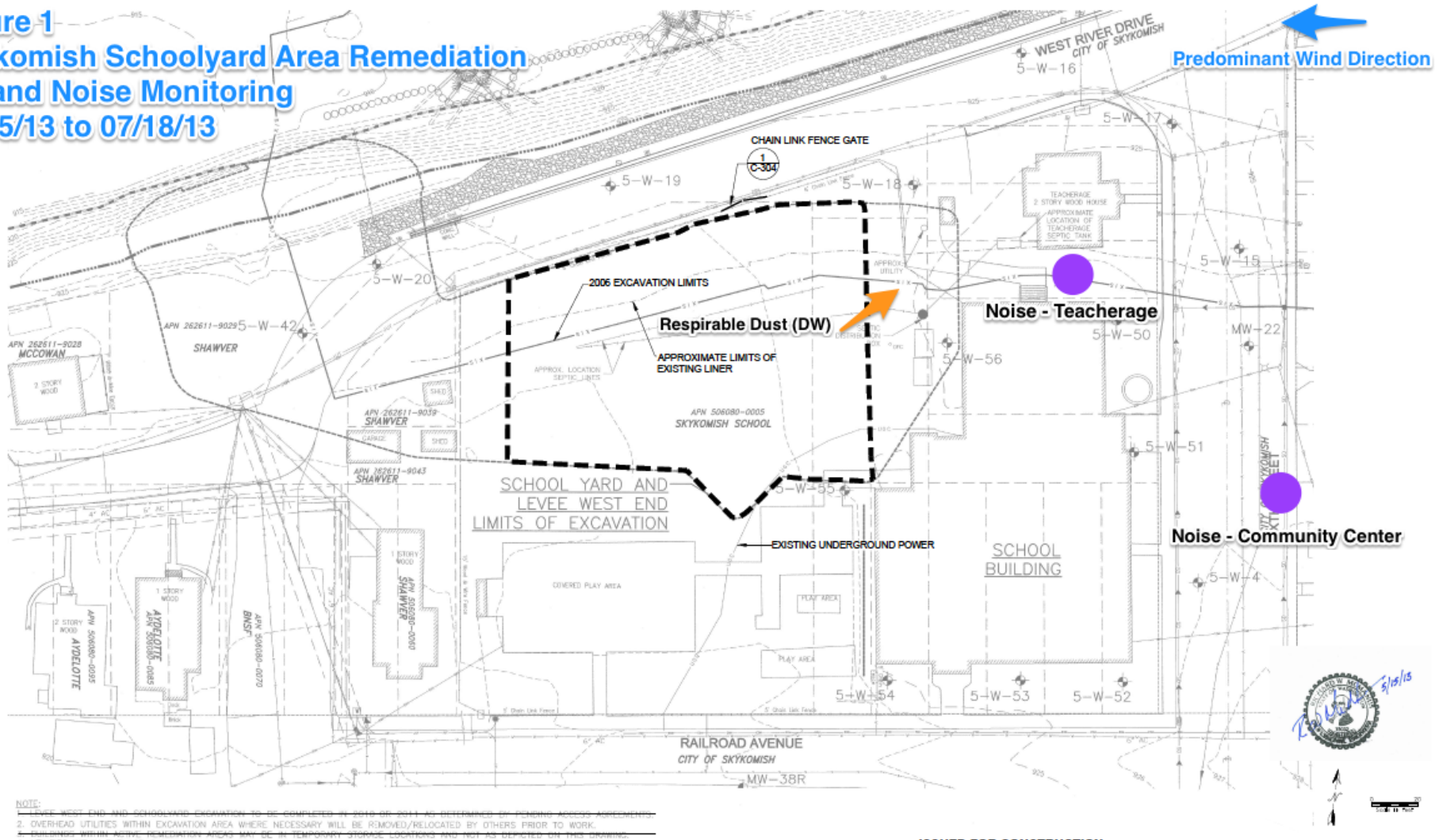
Attachments:

Figure 1: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/15/13 to 07/18/13

DataRam4 Data
DataRam4 data for instrument #D738 (July 15, 16, 17, and 18, 2013) – summary only

Larson Davis Sound Track LxT Data
LxT data for instrument 3278 (July 15, 16, 17, and 18, 2013)
LxT data for instrument 3279 (July 15, 16, 17, and 18, 2013)

Figure 1
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/15/13 to 07/18/13



NOTE:
1. EAST, WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2013 OR 2014 AS DETERMINED BY CLOSING ACCESS AGREEMENTS.
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
3. ~~FOR DIRECT WITHIN ACTIVE REMEDIATION AREAS MAY BE A TEMPORARY STORAGE LOCATIONS AND NOT AS DEPICTED ON THIS DRAWING.~~
4. UTILITIES WITHIN THE ACTIVE REMEDIATION AREAS MAY NOT BE AS DEPICTED ON THIS DRAWING.

ISSUED FOR CONSTRUCTION

	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

BASE DRAWING REPRODUCED FROM 2010 REMEDIATION DESIGN FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON ISSUED FOR CONSTRUCTION (ISSUE NO.4) 5/30/2011

PREPARED BY FARALLON CONSULTING	PREPARED FOR THE BNSF RAILWAY COMPANY	FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON EXISTING CONDITIONS SCHOOLYARD	SCALE AS SHOWN PROJECT NO. 683-043 FILE NAME COMPREPORT.dwg SHEET NO. C-210

DataRam4
Respirable Dust Data

DataRam 4 Data Summary Downwind

Start date and time	End date and time	Average Concentration(µg/m)	Maximum Concentration (µg/m)	Average Diameter (µm)
7/15/13 8:07	7/15/13 18:37	15.4	1525.9	2.13
7/16/13 8:24	7/16/13 17:57	11.7	262.1	2.87
7/17/13 10:34	7/17/13 17:42	19.4	80.5	4.11
7/18/13 8:55	7/18/13 16:48	20.0	368.0	3.99

Larson Davis
Sound Track LxT Data

Summary				
Filename	LxT_Data.009			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Community Center			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/11 15:54:58			
Stop	2013/07/15 18:35:49			
Duration	10:38:28.7			
Run Time	10:38:24.6			
Pause	0:00:04.1			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A	**C**	**Z**	
Under Range Peak	99.7	96.7	**101.7**	dB
Under Range Limit	**36.8**	34.8	42.8	dB
Noise Floor	24.1	24.6	32.0	dB
Results				
LAeq	65.3 dB			

LAE			111.2	dB
EA			14.520	mPa²h
EA8			10.917	mPa²h
EA40			54.587	mPa²h
LZpeak (max)	2013/07/15	14:08:52	121.7	dB
LAFmax	2013/07/15	18:09:47	100.3	dB
LAFmin	2013/07/11	15:56:36	6.7	dB
SEA			135.6	dB

LAF > 85.0 dB (Exceedence Counts / Duration)	14	16.2 s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

LCeq	76.0	dB
LAeq	65.3	dB
LCeq - LAeq	10.7	dB
LAIeq	68.4	dB
LAeq	65.3	dB
LAIeq - LAeq	3.1	dB
# Overloads	0	
Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.03	0.11	%
Projected Dose	0.02	0.08	%
TWA (Projected)	29.4	38.8	dB

TWA (t)	31.5	40.9 dB
Lep (t)	66.6	66.6 dB

Statistics	
LAF5.00	69.6 dB
LAF10.00	67.6 dB
LAF33.30	63.8 dB
LAF50.00	61.5 dB
LAF66.60	59.1 dB
LAF90.00	53.7 dB

Summary				
Filename	LxT_Data.005			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Teacherage/Jobsite			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/15 7:58:33			
Stop	2013/07/15 18:38:13			
Duration	10:39:39.9			
Run Time	10:39:11.6			
Pause	0:00:28.3			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A	**C**	**Z**	
Under Range Peak	99.8	96.8	**101.8**	dB
Under Range Limit	**36.9**	34.9	42.9	dB
Noise Floor	24.1	24.6	32.1	dB
Results				
LAeq	67.6 dB			

LAE		113.5	dB	
EA		24.769	mPa²h	
EA8		18.600	mPa²h	
EA40		93.002	mPa²h	
LZpeak (max)	2013/07/15 15:55:40		123.3	dB
LAFmax	2013/07/15 18:09:46		108.1	dB
LAFmin	2013/07/15 9:44:26		36.7	dB
SEA		136.5	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		21	26.4	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		74.3	dB	
LAeq		67.6	dB	
LCeq - LAeq		6.6	dB	
LAIeq		70.2	dB	
LAeq		67.6	dB	
LAIeq - LAeq		2.5	dB	
# Overloads		0		
Overload Duration		0.0	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.21	0.30	%
Projected Dose		0.16	0.22	%
TWA (Projected)		43.3	46.0	dB

TWA (t)	45.4	48.1 dB
Lep (t)	68.9	68.9 dB

Statistics	
LAF5.00	65.0 dB
LAF10.00	59.4 dB
LAF33.30	51.9 dB
LAF50.00	49.7 dB
LAF66.60	47.7 dB
LAF90.00	44.4 dB

Summary				
Filename	LxT_Data.010			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Community Center			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/16 7:53:54			
Stop	2013/07/16 17:28:22			
Duration	9:33:21.8			
Run Time	9:33:21.8			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	65.0 dB			

LAE		110.4 dB	
EA		12.109 mPa²h	
EA8		10.137 mPa²h	
EA40		50.684 mPa²h	
LZpeak (max)	2013/07/16 14:24:08		115.9 dB
LAFmax	2013/07/16 9:39:46		97.8 dB
LAFmin	2013/07/16 11:47:52		39.8 dB
SEA		-99.9 dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		25	18.7 s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0 s
LCeq		74.7 dB	
LAeq		65.0 dB	
LCeq - LAeq		9.6 dB	
LAIeq		69.3 dB	
LAeq		65.0 dB	
LAIeq - LAeq		4.3 dB	
# Overloads		0	
Overload Duration		0.0 s	
Dose Settings			
Dose Name		OSHA-1	OSHA-2
Exch. Rate		5	5 dB
Threshold		90	80 dB
Criterion Level		90	90 dB
Criterion Duration		8	8 h
Results			
Dose		0.02	0.10 %
Projected Dose		0.02	0.08 %
TWA (Projected)		27.4	38.7 dB

TWA (t)	28.7	39.9 dB
Lep (t)	65.8	65.8 dB

Statistics	
LAF5.00	70.3 dB
LAF10.00	68.3 dB
LAF33.30	63.0 dB
LAF50.00	60.4 dB
LAF66.60	57.2 dB
LAF90.00	49.7 dB

Summary				
Filename	LxT_Data.006			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Teacherage/Jobsite			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/16 8:08:40			
Stop	2013/07/16 17:25:28			
Duration	9:16:47.7			
Run Time	9:16:46.4			
Pause	0:00:01.3			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	67.7 dB			

LAE		112.9 dB	
EA		21.865 mPa²h	
EA8		18.850 mPa²h	
EA40		94.248 mPa²h	
LZpeak (max)	2013/07/16 9:39:40		118.1 dB
LAFmax	2013/07/16 9:39:39		105.8 dB
LAFmin	2013/07/16 11:55:40		37.6 dB
SEA		-99.9 dB	

LAF > 85.0 dB (Exceedence Counts / Duration)	27	32.2 s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

LCeq	76.6 dB	
LAeq	67.7 dB	
LCeq - LAeq	8.9 dB	
LAIeq	70.6 dB	
LAeq	67.7 dB	
LAIeq - LAeq	2.9 dB	
# Overloads	0	
Overload Duration	0.0 s	

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.17	0.29	%
Projected Dose	0.14	0.25	%
TWA (Projected)	42.8	46.9	dB

TWA (t)	43.9	48.0 dB
Lep (t)	68.3	68.3 dB

Statistics	
LAF5.00	69.0 dB
LAF10.00	64.2 dB
LAF33.30	52.4 dB
LAF50.00	49.1 dB
LAF66.60	47.1 dB
LAF90.00	44.0 dB

Summary				
Filename	LxT_Data.011			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Community Center			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/17 8:32:30			
Stop	2013/07/17 17:42:00			
Duration	9:09:29.6			
Run Time	9:09:29.6			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A	**C**	**Z**	
Under Range Peak	99.7	96.7	**101.7**	dB
Under Range Limit	**36.8**	34.8	42.8	dB
Noise Floor	24.1	24.6	32.0	dB
Results				
LAeq	65.5 dB			

LAE			110.7	dB
EA			13.030	mPa²h
EA8			11.382	mPa²h
EA40			56.910	mPa²h
LZpeak (max)	2013/07/17	14:56:44	120.7	dB
LAFmax	2013/07/17	12:06:32	102.4	dB
LAFmin	2013/07/17	11:31:49	37.7	dB
SEA			135.4	dB

LAF > 85.0 dB (Exceedence Counts / Duration)	27	35.9 s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

LCeq	76.7	dB
LAeq	65.5	dB
LCeq - LAeq	11.2	dB
LAIeq	68.9	dB
LAeq	65.5	dB
LAIeq - LAeq	3.4	dB
# Overloads	0	
Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.14	0.20	%
Projected Dose	0.13	0.18	%
TWA (Projected)	41.9	44.3	dB

TWA (t)	42.8	45.3 dB
Lep (t)	66.1	66.1 dB

Statistics	
LAF5.00	63.1 dB
LAF10.00	59.0 dB
LAF33.30	53.0 dB
LAF50.00	51.1 dB
LAF66.60	49.3 dB
LAF90.00	45.6 dB

Summary				
Filename	LxT_Data.007			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Teacherage/Jobsite			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/17 13:37:35			
Stop	2013/07/17 17:37:38			
Duration	4:00:03.0			
Run Time	4:00:03.0			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A	**C**	**Z**	
Under Range Peak	99.8	96.8	**101.8**	dB
Under Range Limit	**36.9**	34.9	42.9	dB
Noise Floor	24.1	24.6	32.1	dB
Results				
LAeq	63.5 dB			

LAE		105.1 dB	
EA		3.589 mPa²h	
EA8		7.176 mPa²h	
EA40		35.882 mPa²h	
LZpeak (max)	2013/07/17 14:46:12		127.3 dB
LAFmax	2013/07/17 14:55:52		87.7 dB
LAFmin	2013/07/17 17:25:17		45.6 dB
SEA		148.9 dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		1	0.3 s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0 s
LCeq		81.3 dB	
LAeq		63.5 dB	
LCeq - LAeq		17.8 dB	
LAIeq		67.5 dB	
LAeq		63.5 dB	
LAIeq - LAeq		4.0 dB	
# Overloads		0	
Overload Duration		0.0 s	
Dose Settings			
Dose Name		OSHA-1	OSHA-2
Exch. Rate		5	5 dB
Threshold		90	80 dB
Criterion Level		90	90 dB
Criterion Duration		8	8 h
Results			
Dose		-99.9	0.00 %
Projected Dose		-99.9	0.01 %
TWA (Projected)		-99.9	22.8 dB

TWA (t)	-99.9	17.8 dB
Lep (t)	60.5	60.5 dB

Statistics	
LAF5.00	69.8 dB
LAF10.00	67.3 dB
LAF33.30	61.0 dB
LAF50.00	57.6 dB
LAF66.60	54.7 dB
LAF90.00	51.1 dB

Summary					
Filename	LxT_Data.012				
Serial Number	3278				
Model	SoundTrack LxT®				
Firmware Version	2.202				
User	Russell Luiten				
Location	Community Center				
Job Description	Skykomish Schoolyard Excavation				
Note					
Measurement Description					
Start	2013/07/18 12:22:38				
Stop	2013/07/18 16:51:04				
Duration	4:28:25.8				
Run Time	4:28:20.0				
Pause	0:00:05.8				
Pre Calibration	None				
Post Calibration	None				
Calibration Deviation	---				
Overall Settings					
RMS Weight	A Weighting				
Peak Weight	Z Weighting				
Detector	Fast				
Preamp	Direct				
Microphone Correction	Off				
Integration Method	Linear				
Overload	119.8	dB			
	A		**C**	**Z**	
Under Range Peak	76.0		73.0	**78.0**	dB
Under Range Limit	**25.0**		23.0	31.0	dB
Noise Floor	11.8		12.5	20.1	dB
Results					
LAeq	64.9	dB			

LAE			107.0	dB
EA			5.515	mPa²h
EA8			9.866	mPa²h
EA40			49.330	mPa²h
LZpeak (max)	2013/07/18	13:28:46	115.5	dB
LAFmax	2013/07/18	14:52:28	99.4	dB
LAFmin	2013/07/18	16:50:58	41.9	dB
SEA			-99.9	dB
LAF > 85.0 dB (Exceedence Counts / Duration)			8	19.4 s
LAF > 115.0 dB (Exceedence Counts / Duration)			0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)			0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)			0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)			0	0.0 s
LCeq			73.1	dB
LAeq			64.9	dB
LCeq - LAeq			8.2	dB
LAIeq			68.0	dB
LAeq			64.9	dB
LAIeq - LAeq			3.1	dB
# Overloads			0	
Overload Duration			0.0	s
Dose Settings				
Dose Name			OSHA-1	OSHA-2
Exch. Rate			5	5 dB
Threshold			90	80 dB
Criterion Level			90	90 dB
Criterion Duration			8	8 h
Results				
Dose			0.07	0.10 %
Projected Dose			0.13	0.17 %
TWA (Projected)			41.9	44.1 dB

TWA (t)	37.7	39.9 dB
Lep (t)	62.4	62.4 dB

Statistics	
LAF5.00	63.9 dB
LAF10.00	60.2 dB
LAF33.30	54.2 dB
LAF50.00	52.4 dB
LAF66.60	50.9 dB
LAF90.00	48.0 dB

Summary				
Filename	LxT_Data.008			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Russell Luiten			
Location	Teacherage/Jobsite			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/18 8:38:47			
Stop	2013/07/18 16:45:23			
Duration	8:06:35.5			
Run Time	8:06:33.8			
Pause	0:00:01.7			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	65.9 dB			

LAE			110.5	dB
EA			12.559	mPa²h
EA8			12.390	mPa²h
EA40			61.950	mPa²h
LZpeak (max)	2013/07/18	15:00:15	122.5	dB
LAFmax	2013/07/18	14:52:25	95.8	dB
LAFmin	2013/07/18	16:26:25	43.4	dB
SEA			134.8	dB

LAF > 85.0 dB (Exceedence Counts / Duration)	25	17.2 s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

LCeq	75.0	dB
LAeq	65.9	dB
LCeq - LAeq	9.2	dB
LAIeq	70.0	dB
LAeq	65.9	dB
LAIeq - LAeq	4.1	dB
# Overloads	0	
Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.01	0.07	%
Projected Dose	0.01	0.07	%
TWA (Projected)	24.3	37.6	dB

TWA (t)	24.4	37.7 dB
Lep (t)	65.9	65.9 dB

Statistics	
LAF5.00	71.1 dB
LAF10.00	69.4 dB
LAF33.30	64.5 dB
LAF50.00	61.4 dB
LAF66.60	58.1 dB
LAF90.00	52.3 dB

January 14, 2014

Ms. Amy Essig Desai
Farallon Consulting
975 5th Ave Northwest
Issaquah, Washington 98027

RE: Weekly Air and Noise Monitoring Report Week 6
July 22 to July 26, 2013
BNSF Skykomish Schoolyard Area Remediation
Skykomish, Washington

Ms. Essig Desai,

This represents the sixth report of weekly air and noise monitoring data for the BNSF Skykomish Schoolyard Area Remediation in Skykomish, Washington coordinated by EMB Consulting, LLC (EMB Consulting) and conducted by Farallon Consulting, LLC (Farallon) during the week of July 22 to July 26, 2013. The purpose of this report is to summarize and interpret air and noise sampling data collected around the Skykomish Schoolyard project during weekly monitoring. Farallon conducted monitoring in general accordance with the Skykomish Schoolyard Area, Air and Noise Monitoring Plan, Skykomish, Washington issued by EMB Consulting on June 4, 2013.

Work Activities

Farallon staff collected air samples and noise measurements during excavation activities from July 22 to July 26, 2013. Project activities during the period consisted primarily of import and placement of backfill materials, loading out of contaminated soil, and street sweeping.

Sampling Methodology

All samples were collected in general accordance with the methods specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013. Please refer to this Plan for specific details on sampling methodology.

- Farallon conducted respirable dust monitoring at one monitoring station on July 22, 2013. The station was positioned downwind of construction operations and was located between the Teacherage and the east edge of the excavation.

- Farallon conducted noise monitoring at two locations on July 22, 23, and 24, 2013. The first location was between the School building and the Teacherage. The second location was outside of the Community Center on the northwest corner, closest to construction activities.

- The weather was mild with little precipitation and temperatures in the 70s and 80s degrees Fahrenheit during sampling periods. Wind was light in the westerly direction. Barometric pressure was steady and high. Relative humidity was between 70 and 80 percent for the entire week.

- No other air sampling was collected during this week because work with contaminated media was complete and the use of heavy equipment on site was minimal.

Approximate air and noise sample locations are indicated on the attached Figure 1.

SAMPLING RESULTS

All sample results indicate contaminant concentrations below Monitoring Plan action limits.

AIR MONITORING

DOWNWIND SAMPLES

This sample was collected to represent conditions downwind of excavation on the schoolyard.

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D738 Tag 15	07/22/13	8:12 to 17:25	29.3	1025.8	5,000

µg/m^3 = micrograms per cubic meter

The instrument malfunctioned and could not provide full data sets for download. Summary statistics are provided here and in the attachments.

COMMUNITY NOISE MONITORING

The following data were collected between the School building and the Teacherage.

DATE OF MONITORING	SAMPLE PERIOD IN MINUTES*	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/22/13	9:35	62.8	95.1	85
07/23/13	8:54	64.5	95.7	
07/24/13	3:44	58.1	92.3	

The following data were collected on the northwest corner of the Community Center property.

DATE OF MONITORING	SAMPLE PERIOD IN MINUTES*	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/23/13	8:54	69.1	105.1	85
07/24/13	3:40	65.8	98.9	

CONCLUSIONS

Based on this data, contaminants of concern were not detected at or above the project action limits, as specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 for the area monitored. In addition, noise limits were not exceeded.

We appreciate this opportunity to be of service to you. Please contact me at 206.915.2395 if you have questions regarding this report, or if you require additional information.

Sincerely,

E. Black

Elisabeth Black, CIH

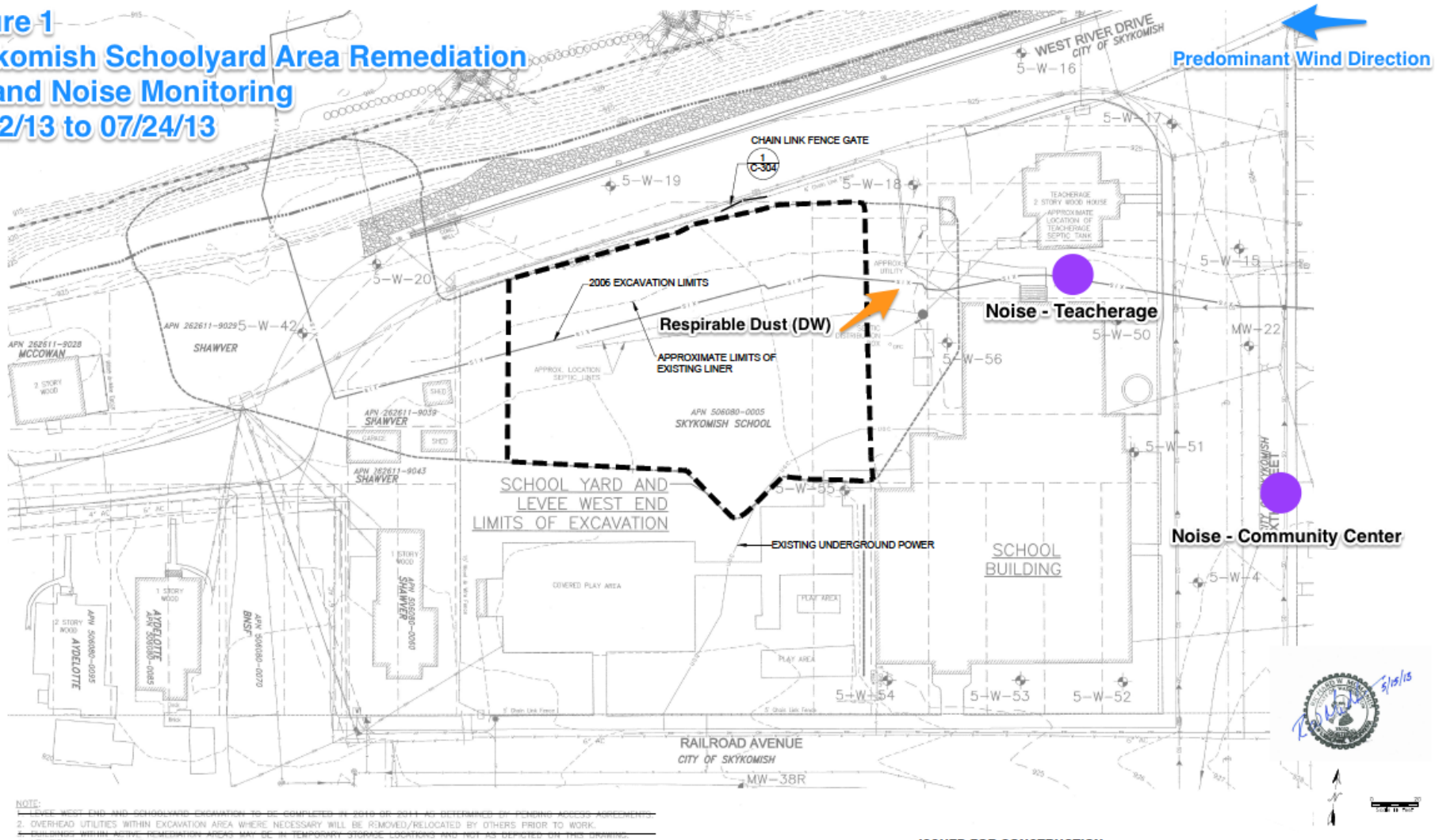
Attachments:

Figure 1: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/22/13 to 07/24/13

DataRam4 Data
DataRam4 data for instrument #D738 (July 22, 2013) – summary only

Larson Davis Sound Track LxT Data
LxT data for instrument 3278 (July 22 and 23, 2013)
LxT data for instrument 3279 (July 22, 23, and 24, 2013)

Figure 1
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/22/13 to 07/24/13



NOTE:
1. WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2013 OR 2014 AS DETERMINED BY CLOSING ACCESS AGREEMENTS.
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
3. ~~EXCAVATING WITHIN ACTIVE REMEDIATION AREAS MAY BE IN TEMPORARY STORAGE LOCATIONS AND NOT AS DEPICTED ON THIS DRAWING.~~
4. UTILITIES WITHIN THE ACTIVE REMEDIATION AREAS MAY NOT BE AS DEPICTED ON THIS DRAWING.

ISSUED FOR CONSTRUCTION

	DATE	DESCRIPTION	BY	CKD.	APP.
	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM

BASE DRAWING REPRODUCED FROM 2010 REMEDIATION DESIGN FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON ISSUED FOR CONSTRUCTION (ISSUE NO.4) 5/30/2011

PREPARED BY: FARALLON CONSULTING

PREPARED FOR: THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 680-043
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-210

DataRam4
Respirable Dust Data

DataRam **Downwind**

Start date and time	End date and time	Average Concentration(µg/m)	Maximum Concentration (µg/m)	Average Diameter (µm)
7/22/13 8:12	7/22/13 17:25	29.3	1025.8	4.1

Larson Davis
Sound Track LxT Data

Summary				
Filename	LxT_Data.001			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Andrew Vining			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/22 7:49:54			
Stop	2013/07/22 17:25:04			
Duration	9:35:09.6			
Run Time	9:35:08.4			
Pause	0:00:01.2			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	62.8 dB			

LAE	108.1 dB		
EA	7.228 mPa²h		
EA8	6.032 mPa²h		
EA40	30.160 mPa²h		
LZpeak (max)	2013/07/22 13:37:15	120.2 dB	
LAFmax	2013/07/22 12:47:50	95.1 dB	
LAFmin	2013/07/22 8:52:54	42.4 dB	
SEA	130.2 dB		
LAF > 85.0 dB (Exceedence Counts / Duration)	9	10.4 s	
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	74.0 dB		
LAeq	62.8 dB		
LCeq - LAeq	11.2 dB		
LAIeq	66.3 dB		
LAeq	62.8 dB		
LAIeq - LAeq	3.6 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	0.02	0.04 %	
Projected Dose	0.01	0.03 %	
TWA (Projected)	26.3	31.9 dB	

TWA (t)	27.6	33.2 dB
Lep (t)	63.5	63.5 dB

Statistics	
LAF5.00	68.6 dB
LAF10.00	65.4 dB
LAF33.30	58.9 dB
LAF50.00	56.1 dB
LAF66.60	53.5 dB
LAF90.00	49.4 dB

Summary				
Filename	LxT_Data.002			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Andrew Vining			
Location	Community Center			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/23 8:30:50			
Stop	2013/07/23 17:25:06			
Duration	8:54:15.6			
Run Time	8:54:02.5			
Pause	0:00:13.1			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A	**C**	**Z**	
Under Range Peak	99.8	96.8	**101.8**	dB
Under Range Limit	**36.9**	34.9	42.9	dB
Noise Floor	24.1	24.6	32.1	dB
Results				
LAeq	69.1 dB			

LAE		114.1	dB	
EA		28.890	mPa²h	
EA8		25.966	mPa²h	
EA40		129.832	mPa²h	
LZpeak (max)	2013/07/23 14:56:35		118.8	dB
LAFmax	2013/07/23 14:50:50		105.1	dB
LAFmin	2013/07/23 8:35:03		6.6	dB
SEA		-99.9	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		25	45.0	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		75.4	dB	
LAeq		69.1	dB	
LCeq - LAeq		6.3	dB	
LAIeq		72.6	dB	
LAeq		69.1	dB	
LAIeq - LAeq		3.5	dB	
# Overloads		0		
Overload Duration		0.0	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.33	0.38	%
Projected Dose		0.30	0.34	%
TWA (Projected)		48.1	49.1	dB

TWA (t)	48.9	49.9 dB
Lep (t)	69.6	69.6 dB

Statistics	
LAF5.00	59.5 dB
LAF10.00	55.6 dB
LAF33.30	50.7 dB
LAF50.00	48.8 dB
LAF66.60	47.2 dB
LAF90.00	44.3 dB

Summary					
Filename	LxT_Data.002				
Serial Number	3278				
Model	SoundTrack LxT®				
Firmware Version	2.202				
User	Andrew Vining				
Location	School/Teacherage				
Job Description	Skykomish Schoolyard Excavation				
Note					
Measurement Description					
Start	2013/07/23 8:31:23				
Stop	2013/07/23 17:29:00				
Duration	8:54:06.4				
Run Time	8:54:05.3				
Pause	0:00:01.1				
Pre Calibration	None				
Post Calibration	None				
Calibration Deviation	---				
Overall Settings					
RMS Weight	A Weighting				
Peak Weight	Z Weighting				
Detector	Fast				
Preamp	Direct				
Microphone Correction	Off				
Integration Method	Linear				
Overload	119.8	dB			
	A		**C**	**Z**	
Under Range Peak	76.0		73.0	**78.0**	dB
Under Range Limit	**25.0**		23.0	31.0	dB
Noise Floor	11.8		12.5	20.1	dB
Results					
LAeq	64.5	dB			

LAE		109.5	dB	
EA		9.964	mPa²h	
EA8		8.955	mPa²h	
EA40		44.775	mPa²h	
LZpeak (max)	2013/07/23 16:32:47		122.1	dB
LAFmax	2013/07/23 14:50:40		95.7	dB
LAFmin	2013/07/23 8:31:47		5.9	dB
SEA		141.3	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		18	21.9	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		75.9	dB	
LAeq		64.5	dB	
LCeq - LAeq		11.4	dB	
LAIeq		67.9	dB	
LAeq		64.5	dB	
LAIeq - LAeq		3.4	dB	
# Overloads		0		
Overload Duration		0.0	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.02	0.07	%
Projected Dose		0.01	0.06	%
TWA (Projected)		26.2	36.9	dB

TWA (t)	27.0	37.7 dB
Lep (t)	64.9	64.9 dB

Statistics	
LAF5.00	70.1 dB
LAF10.00	67.7 dB
LAF33.30	62.5 dB
LAF50.00	57.7 dB
LAF66.60	54.2 dB
LAF90.00	49.0 dB

Summary				
Filename	LxT_Data.003			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Andrew Vining			
Location				
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/24 9:15:18			
Stop	2013/07/24 12:58:43			
Duration	3:43:24.4			
Run Time	3:40:37.5			
Pause	0:02:46.9			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A		**C**	**Z**
Under Range Peak	99.7		96.7	**101.7** dB
Under Range Limit	**36.8**		34.8	42.8 dB
Noise Floor	24.1		24.6	32.0 dB
Results				
LAeq	65.8 dB			

LAE		107.0	dB	
EA		5.607	mPa²h	
EA8		12.198	mPa²h	
EA40		60.992	mPa²h	
LZpeak (max)	2013/07/24 12:54:58		119.9	dB
LAFmax	2013/07/24 11:50:30		98.9	dB
LAFmin	2013/07/24 9:15:26		6.0	dB
SEA		-99.9	dB	

LAF > 85.0 dB (Exceedence Counts / Duration)	11	16.6 s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

LCeq	75.5	dB
LAeq	65.8	dB
LCeq - LAeq	9.7	dB
LAIeq	69.4	dB
LAeq	65.8	dB
LAIeq - LAeq	3.6	dB
# Overloads	0	
Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.07	0.09	%
Projected Dose	0.15	0.21	%
TWA (Projected)	43.2	45.4	dB

TWA (t)	37.6	39.8 dB
Lep (t)	62.4	62.4 dB

Statistics	
LAF5.00	65.8 dB
LAF10.00	62.1 dB
LAF33.30	51.2 dB
LAF50.00	48.7 dB
LAF66.60	46.6 dB
LAF90.00	42.9 dB

Summary				
Filename	LxT_Data.003			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Andrew Vining			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description				
Start	2013/07/24 9:11:40			
Stop	2013/07/24 12:56:37			
Duration	3:44:57.3			
Run Time	3:44:46.3			
Pause	0:00:11.0			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A		**C**	**Z**
Under Range Peak	99.8		96.8	**101.8** dB
Under Range Limit	**36.9**		34.9	42.9 dB
Noise Floor	24.1		24.6	32.1 dB
Results				
LAeq	58.1 dB			

LAE		99.4	dB	
EA		957.967	µPa²h	
EA8		2.046	mPa²h	
EA40		10.229	mPa²h	
LZpeak (max)	2013/07/24 12:39:27		121.4	dB
LAFmax	2013/07/24 9:13:11		92.3	dB
LAFmin	2013/07/24 9:12:41		6.6	dB
SEA		134.3	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		5	4.7	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		73.7	dB	
LAeq		58.1	dB	
LCeq - LAeq		15.7	dB	
LAIeq		62.5	dB	
LAeq		58.1	dB	
LAIeq - LAeq		4.5	dB	
# Overloads		1		
Overload Duration		0.6	s	
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.00	0.01	%
Projected Dose		0.00	0.03	%
TWA (Projected)		13.3	31.6	dB

TWA (t)	7.8	26.1 dB
Lep (t)	54.8	54.8 dB

Statistics	
LAF5.00	61.2 dB
LAF10.00	59.3 dB
LAF33.30	53.5 dB
LAF50.00	51.4 dB
LAF66.60	49.5 dB
LAF90.00	45.8 dB

January 14, 2014

Ms. Amy Essig Desai
Farallon Consulting
975 5th Ave Northwest
Issaquah, Washington 98027

RE: Weekly Air and Noise Monitoring Report Week 7
July 29 to August 2, 2013
BNSF Skykomish Schoolyard Area Remediation
Skykomish, Washington

Ms. Essig Desai,

This represents the seventh report of weekly air and noise monitoring data for the BNSF Skykomish Schoolyard Area Remediation in Skykomish, Washington coordinated by EMB Consulting, LLC (EMB Consulting) and conducted by Farallon Consulting, LLC (Farallon) during the week of July 29 to August 2, 2013. This represents the last report of weekly air monitoring as project activities are nearly complete and remaining activities have low potential for release of site contaminants or significant noise generation.

The purpose of this report is to summarize and interpret air and noise sampling data collected around the Skykomish Schoolyard project during weekly monitoring. Farallon conducted monitoring in general accordance with the Skykomish Schoolyard Area, Air and Noise Monitoring Plan, Skykomish, Washington issued by EMB Consulting on June 4, 2013.

Work Activities

Farallon staff collected air samples and noise measurements during site activities from July 29 to August 2, 2013. Project activities during the period consisted primarily of site restoration including concrete placement, irrigation trenching, and placement of topsoil.

Sampling Methodology

All samples were collected in general accordance with the methods specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013. Please refer to this Plan for specific details on sampling methodology.

- Farallon conducted respirable dust monitoring at one monitoring station on July 29 and August 1, 2013. The station was positioned downwind of construction

operations and was located between the Teacherage and the east edge of the remediation area.

- Farallon conducted noise monitoring at two locations on July 29 and August 1 and 2, 2013. The first location was between the School building and the Teacherage. The second location was outside of the Community Center on the northwest corner, closest to remediation activities.

- Weather data were not available for this week from the on-site weather station. In general, the weather was cooler with little to no precipitation during the week.

- No other monitoring was conducted during this week because work with contaminated media was complete and the use of heavy equipment on site was minimal.

Approximate air and noise sample locations are indicated on the attached Figure 1.

SAMPLING RESULTS

All sample results indicate contaminant concentrations below Monitoring Plan action limits.

AIR MONITORING

DOWNWIND SAMPLES

This sample was collected to represent conditions downwind of excavation on the schoolyard.

Respirable Dust

SAMPLE ID	DATE	SAMPLE PERIOD	AVERAGE CONCENTRATION IN µg/m^3	PEAK CONCENTRATION IN µg/m^3 (ONE MINUTE)	MONITORING PLAN LIMIT IN µg/m^3
DataRam4, Serial #D738	07/29/13	8:38 to 16:28	15.4	120.6	5,000
DataRam4, Serial #D738	08/01/13	8:15 to 15:19	22.0	263.0	5,000

µg/m^3= micrograms per cubic meter

The instrument malfunctioned and could not provide full data sets for download. Summary statistics are provided here and in the attachments.

COMMUNITY NOISE MONITORING

The following data were collected between the School building and the Teacherage.

DATE OF MONITORING	SAMPLE PERIOD IN MINUTES*	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/29/13	8:01	56.8	90.0	85
08/01/13	7:27	62.8	92.4	
08/02/13	6:53	61.8	92.7	

The following data were collected on the northwest corner of the Community Center property.

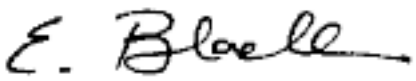
DATE OF MONITORING	SAMPLE PERIOD IN MINUTES*	AVERAGE NOISE LEVEL IN dBA	MAXIMUM NOISE LEVEL IN dBA	MONITORING PLAN LIMIT : AVERAGE IN dBA
07/29/13	7:59	59.0	96.6	85
08/01/13	7:28	64.6	102.9	
08/02/13	6:54	63.7	97.4	

CONCLUSIONS

Based on this data, contaminants of concern were not detected at or above the project action limits, as specified in the BNSF Skykomish Schoolyard Area Air and Noise Monitoring Plan dated June 4, 2013 for the area monitored. In addition, noise limits were not exceeded.

We appreciate this opportunity to be of service to you. Please contact me at 206.915.2395 if you have questions regarding this report, or if you require additional information.

Sincerely,



Elisabeth Black, CIH

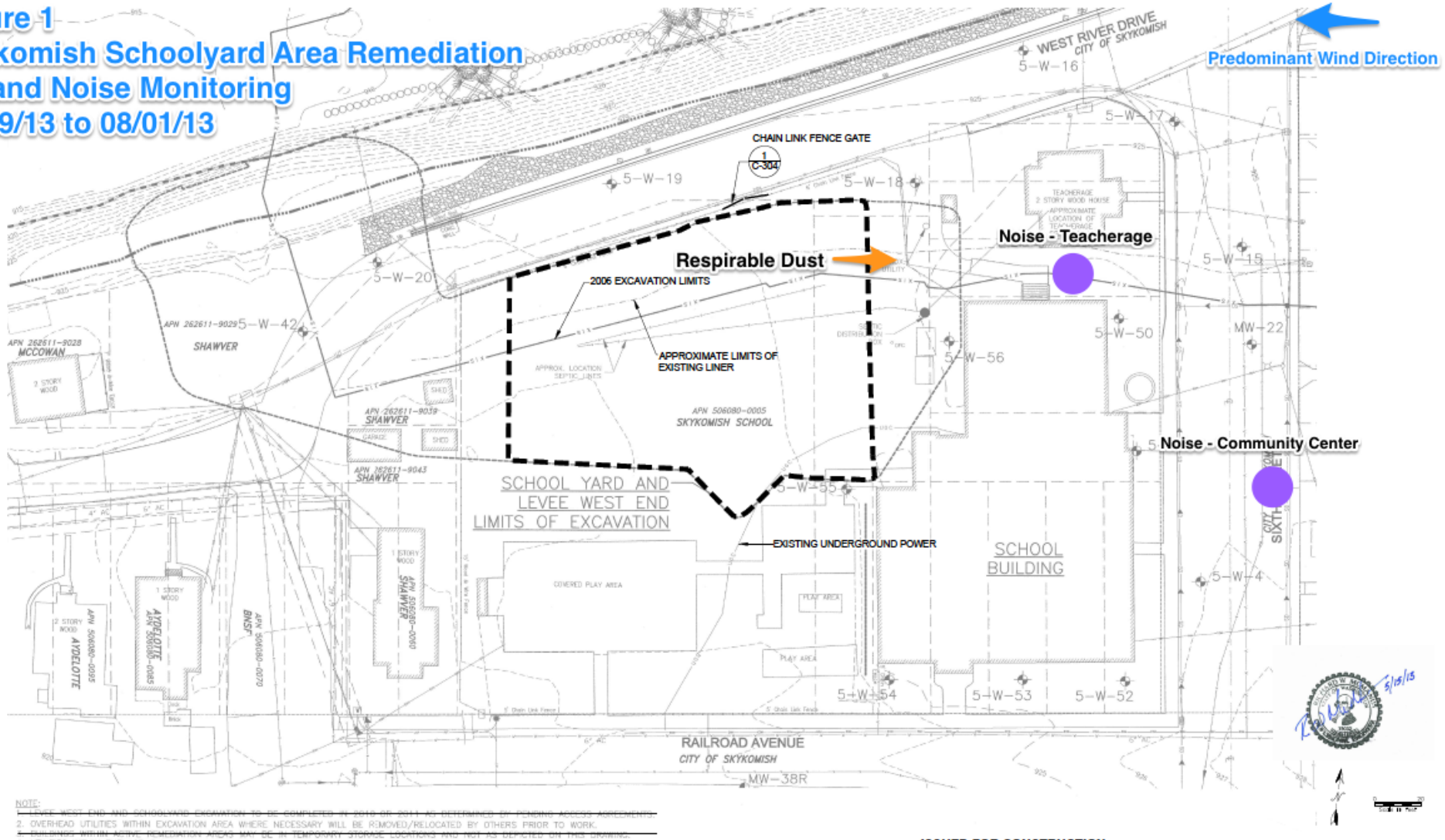
Attachments:

Figure 1: Skykomish Schoolyard Area Remediation, Air and Noise Monitoring, 07/29/13 to 08/02/13

DataRam4 Data
DataRam4 data for instrument #D738 (July 29 and August 1, 2013) – summary only

Larson Davis Sound Track LxT Data
LxT data for instrument 3278 (July 29 and August 1 and 2, 2013)
LxT data for instrument 3279 (July 29 and August 1 and 2, 2013)

Figure 1
Skykomish Schoolyard Area Remediation
Air and Noise Monitoring
07/29/13 to 08/01/13



NOTE:
1. LEVEE WEST END AND SCHOOLYARD EXCAVATION TO BE COMPLETED IN 2012 OR 2013 AS DETERMINED BY ONGOING ACCESS AGREEMENTS.
2. OVERHEAD UTILITIES WITHIN EXCAVATION AREA WHERE NECESSARY WILL BE REMOVED/RELOCATED BY OTHERS PRIOR TO WORK.
3. BUILDINGS WITHIN ACTIVE REMEDIATION AREAS MAY BE IN TEMPORARY STORAGE LOCATIONS AND NOT AS DEPICTED ON THIS DRAWING.
4. UTILITIES WITHIN THE ACTIVE REMEDIATION AREAS MAY NOT BE AS DEPICTED ON THIS DRAWING.

ISSUED FOR CONSTRUCTION

	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

BASE DRAWING REPRODUCED FROM 2010 REMEDIATION DESIGN FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON ISSUED FOR CONSTRUCTION (ISSUE NO.4) 5/30/2011

PREPARED BY
FARALLON CONSULTING

PREPARED FOR
THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXISTING CONDITIONS
SCHOOLYARD

SCALE
AS SHOWN
PROJECT NO.
683-043
FILE NAME
COMPREPORT.dwg
SHEET NO.
C-210

DataRam4
Respirable Dust Data

DataRam **Downwind**

Start date and time	End date and time	Average Concentration(µg/m)	Maximum Concentration (µg/m)	Average Diameter (µm)
7/29/13 8:38	7/29/13 16:28	15.4	120.6	4.13
8/1/13 8:15	8/1/13 15:19	22	263	2.77

Larson Davis
Sound Track LxT Data

Summary				
Filename	LxT_Data.001			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Andrew Vining			
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description			Estimated Date/Time	
Start	2013/07/25 7:58:10		7/29/13 8:00	
Stop	2013/07/29 16:30:14		7/29/13 16:10	
Duration	8:01:14.3			
Run Time	8:01:06.1			
Pause	0:00:08.2			
Pre Calibration	None			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	Direct			
Microphone Correction	Off			
Integration Method	Linear			
Overload	119.8 dB			
	A	**C**	**Z**	
Under Range Peak	76.0	73.0	**78.0** dB	
Under Range Limit	**25.0**	23.0	31.0 dB	
Noise Floor	11.8	12.5	20.1 dB	
Results				
LAeq	56.8 dB			

LAE		101.4	dB	
EA		1.537	mPa²h	
EA8		1.533	mPa²h	
EA40		7.667	mPa²h	
LZpeak (max)	2013/07/29 14:25:14			125.5 dB
LAFmax	2013/07/29 8:34:33			90.0 dB
LAFmin	2013/07/29 8:33:14			6.6 dB
SEA		144.0	dB	
LAF > 85.0 dB (Exceedence Counts / Duration)		1		0.2 s
LAF > 115.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0		0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0		0.0 s
LCeq		77.0	dB	
LAeq		56.8	dB	
LCeq - LAeq		20.2	dB	
LAIeq		67.8	dB	
LAeq		56.8	dB	
LAIeq - LAeq		11.0	dB	
# Overloads		1		
Overload Duration		0.2	s	
Dose Settings				
Dose Name		OSHA-1		OSHA-2
Exch. Rate		5		5 dB
Threshold		90		80 dB
Criterion Level		90		90 dB
Criterion Duration		8		8 h
Results				
Dose		-99.9		0.00 %
Projected Dose		-99.9		0.00 %
TWA (Projected)		-99.9		15.6 dB

TWA (t)	-99.9	15.6 dB
Lep (t)	56.8	56.8 dB

Statistics	
LAF5.00	60.8 dB
LAF10.00	58.8 dB
LAF33.30	54.9 dB
LAF50.00	53.1 dB
LAF66.60	51.4 dB
LAF90.00	47.9 dB

Summary				
Filename	LxT_Data.001			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Andrew Vining			
Location	Community Center			
Job Description	sh Schoolyard Excavation			
Note				
Measurement Description			Estimated	Date/Time
Start	2013/07/25 10:37:17			7/29/13 8:00
Stop	2013/07/29 16:27:23			7/29/13 16:10
Duration	7:59:22.9			
Run Time	7:57:29.6			
Pause	0:01:53.3			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A	**C**	**Z**	
Under Range Peak	99.7	96.7	**101.7**	dB
Under Range Limit	**36.8**	34.8	42.8	dB
Noise Floor	24.1	24.6	32.0	dB
Results				
LAeq	59.0 dB			

LAE	103.6 dB		
EA	2.538 mPa²h		
EA8	2.552 mPa²h		
EA40	12.758 mPa²h		
LZpeak (max)	2013/07/29 13:03:27	118.8	dB
LAFmax	2013/07/29 10:43:10	96.6	dB
LAFmin	2013/07/29 8:28:57	5.9	dB
SEA	-99.9 dB		
LAF > 85.0 dB (Exceedence Counts / Duration)	3	7.9	s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0	s
LCeq	72.4 dB		
LAeq	59.0 dB		
LCeq - LAeq	13.4 dB		
LAIeq	61.7 dB		
LAeq	59.0 dB		
LAIeq - LAeq	2.7 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h
Results			
Dose	0.02	0.04	%
Projected Dose	0.02	0.04	%
TWA (Projected)	30.1	33.2	dB

TWA (t)	30.1	33.2 dB
Lep (t)	59.0	59.0 dB

Statistics	
LAF5.00	61.4 dB
LAF10.00	58.0 dB
LAF33.30	52.3 dB
LAF50.00	50.2 dB
LAF66.60	48.3 dB
LAF90.00	44.1 dB

Summary				
Filename	LxT_Data.002			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Andrew Vining			
Location	Community Center			
Job Description	sh Schoolyard Excavation			
Note				
Measurement Description			Estimated Date/Time	
Start	2013/07/30 16:23:25		8/1/13 7:50	
Stop	2013/07/30 23:52:39		8/1/12 15:20	
Duration	7:28:03.4			
Run Time	7:28:03.4			
Pause	0:00:00.0			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A	**C**	**Z**	
Under Range Peak	99.7	96.7	**101.7** dB	
Under Range Limit	**36.8**	34.8	42.8 dB	
Noise Floor	24.1	24.6	32.0 dB	
Results				
LAeq	64.6 dB			

LAE		108.9	dB	
EA		8.569	mPa²h	
EA8		9.180	mPa²h	
EA40		45.902	mPa²h	
LZpeak (max)	2013/07/30 23:05:43		119.7	dB
LAFmax	2013/07/30 23:00:41		102.9	dB
LAFmin	2013/07/30 16:23:46		6.7	dB
SEA		-99.9	dB	

LAF > 85.0 dB (Exceedence Counts / Duration)	16	24.5	s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0	s

LCeq	73.2	dB
LAeq	64.6	dB
LCeq - LAeq	8.6	dB
LAIeq	68.3	dB
LAeq	64.6	dB
LAIeq - LAeq	3.7	dB
# Overloads	0	
Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.06	0.12	%
Projected Dose	0.07	0.13	%
TWA (Projected)	37.2	42.0	dB

TWA (t)	36.7	41.5 dB
Lep (t)	64.3	64.3 dB

Statistics	
LAF5.00	65.5 dB
LAF10.00	60.9 dB
LAF33.30	51.3 dB
LAF50.00	49.1 dB
LAF66.60	47.0 dB
LAF90.00	42.5 dB

Summary				
Filename	LxT_Data.003			
Serial Number	3279			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User				
Location	School/Teacherage			
Job Description	Skykomish Schoolyard Excavation			
Note				
Measurement Description			Estimated Date/Time	
Start	2013/07/31 18:15:21		8/2/13 7:50	
Stop	2013/08/01 1:08:45		8/2/13 14:44	
Duration	6:53:23.8			
Run Time	6:53:18.6			
Pause	0:00:05.2			
Pre Calibration	2013/06/11 14:41:52			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.5 dB			
	A	**C**	**Z**	
Under Range Peak	99.8	96.8	**101.8** dB	
Under Range Limit	**36.9**	34.9	42.9 dB	
Noise Floor	24.1	24.6	32.1 dB	
Results				
LAeq	61.8 dB			

LAE		105.8	dB	
EA		4.194	mPa²h	
EA8		4.871	mPa²h	
EA40		24.355	mPa²h	
LZpeak (max)	2013/07/31 18:41:15		109.3	dB
LAFmax	2013/07/31 23:54:00		92.7	dB
LAFmin	2013/07/31 18:26:26		6.5	dB
SEA		-99.9	dB	

LAF > 85.0 dB (Exceedence Counts / Duration)	4	5.9 s
LAF > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

LCeq	68.1	dB
LAeq	61.8	dB
LCeq - LAeq	6.2	dB
LAIeq	65.7	dB
LAeq	61.8	dB
LAIeq - LAeq	3.9	dB
# Overloads	0	
Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.01	0.02	%
Projected Dose	0.01	0.03	%
TWA (Projected)	25.3	30.9	dB

TWA (t)	24.2	29.8 dB
Lep (t)	61.2	61.2 dB

Statistics	
LAF5.00	67.2 dB
LAF10.00	64.9 dB
LAF33.30	58.6 dB
LAF50.00	55.3 dB
LAF66.60	52.7 dB
LAF90.00	45.8 dB

Summary				
Filename	LxT_Data.003			
Serial Number	3278			
Model	SoundTrack LxT®			
Firmware Version	2.202			
User	Skykomish			
Location				
Job Description				
Note				
Measurement Description			Estimated Date/Time	
Start	2013/07/31 16:44:59		8/2/13 7:50	
Stop	2013/07/31 23:39:51		8/2/13 14:44	
Duration	6:54:52.0			
Run Time	6:53:11.4			
Pause	0:01:40.6			
Pre Calibration	2013/06/11 15:00:25			
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Fast			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Linear			
Overload	143.4 dB			
	A	**C**	**Z**	
Under Range Peak	99.7	96.7	**101.7** dB	
Under Range Limit	**36.8**	34.8	42.8 dB	
Noise Floor	24.1	24.6	32.0 dB	
Results				
LAeq	63.7 dB			

LAE		107.7		dB
EA		6.472		mPa²h
EA8		7.518		mPa²h
EA40		37.591		mPa²h
LZpeak (max)	2013/07/31 22:22:36		110.9	dB
LAFmax	2013/07/31 22:22:39		97.4	dB
LAFmin	2013/07/31 17:19:53		5.8	dB
SEA		-99.9		dB
LAF > 85.0 dB (Exceedence Counts / Duration)		9	25.9	s
LAF > 115.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0	0.0	s
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0	0.0	s
LCeq		70.7		dB
LAeq		63.7		dB
LCeq - LAeq		7.0		dB
LAIeq		66.5		dB
LAeq		63.7		dB
LAIeq - LAeq		2.7		dB
# Overloads		0		
Overload Duration		0.0		s
Dose Settings				
Dose Name		OSHA-1	OSHA-2	
Exch. Rate		5	5	dB
Threshold		90	80	dB
Criterion Level		90	90	dB
Criterion Duration		8	8	h
Results				
Dose		0.05	0.11	%
Projected Dose		0.06	0.13	%
TWA (Projected)		36.4	42.1	dB

TWA (t)	35.3	41.0 dB
Lep (t)	63.1	63.1 dB

Statistics	
LAF5.00	67.5 dB
LAF10.00	58.7 dB
LAF33.30	50.8 dB
LAF50.00	48.9 dB
LAF66.60	46.9 dB
LAF90.00	39.9 dB

APPENDIX C
GEOTECHNICAL MONITORING FINAL REPORT

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

JACOBS ASSOCIATES

Engineers/Consultants

12Aug13

To: Jeff Hamlin & Andrew Vining / Farallon Consulting

From: Kerellos Youssef & Frank Pita, PE/LHG

Subject: **Final Report / Skykomish, WA, Schoolyard Excavation Supplement / Instrument Evaluation & Surveying Control Report**

Jacobs Associates is pleased to submit this final summary report on the results of geotechnical instruments monitoring performed by Jacobs Associates (JA) and the evaluation of the survey data provided to the engineering team by the contractor during the Skykomish Schoolyard excavation and backfilling. The excavation, backfilling, subsurface instrument installation and surveying were performed by or under the direction of the Strider Construction Company from 26 Jun13 through 27Jul13.

JA provided periodic visits to evaluate the progress of the work and to retrieve the instrument data from the monitoring devices during the excavation and backfill process. JA also monitored the subsurface instrument installation process and collected the Strider survey data when at the site for the movement control points on the building structure. Daily reports of JA's site visits and a summary of the data to that date from the previous visit were presented in the fourteen (14) daily reports. All the reports have been submitted to Farallon Consulting via PDF attachment to an email.

The objective of JA's work was to fulfill the requirements of the contract documents requiring threshold monitoring of soil movement, building movement and vibration levels and, if exceeded, then stop and/or alter the construction work so the parameters are not exceeded.

Project drawing showing instrument locations and photos of the excavation / backfilling are presented in each of the daily reports. Included in Appendix A of this report are the last subsurface readings from the instruments since our last daily report (26Jul13) up to the day the instruments were removed on 27Jul13. A drawing of their approximate location is included as well.

Background Information

The Skykomish School is located in the Town of Skykomish in King County, Washington. It is located on the Northwest corner of the intersection of 6th Street North and Railroad Avenue. The building address is 105 6th Street North.

The school was built in 1936 to replace a two story, wood framed schoolhouse on the same property. It is a three story concrete building on a spread footing foundation. The building is still in use and serves grades kindergarten through twelve. The east side of the building along 6th Street North is 156'10" long, and the south side along Railroad Avenue is 111'2". The northern side of the building is 61'10" and then steps out three times to the 111'2" length.

On the west side of the building is a covered play area and a playing field. On the north side is a 2,100 square foot wood frame teacherage building built in 1920 that is a residence. Both the school building and the teacherage are landmark structures that are part of the Skykomish Historic Commercial District.

Construction Activities & Comment

A summary of excavation and backfilling activities is as follows:

- Excavate and stockpile of the clean overburden soil from approximately elevation 924 to 919 was the first construction task.
- Excavate and dispose of contaminated soil from approximately elevation 919 to 910 occurred next.
- During excavation of contaminated soil, backfilling began with stabilization aggregates from approximately elevation 910 to 918. When backfilling was above the water table, a JA staff engineer using a 0.5 inch probe in random locations checked the apparent density of the placed soil. The results were always a dense to very dense condition due to the materials composition and its ease of compaction. No vibratory compaction was needed or allowed by the contract design.
- Above the stabilization material, the stockpiled clean native soil was re-placed from approximately elevation 918 to 921. This soil, according to Farallon staff, had the testing laboratory of GeoTest perform compaction tests in various locations across the site; the results were all above the required 85% compaction density.
- Vibration instruments were monitored through this entire process and the data have been uploaded on regular bases. The instruments have an alarm, so if they were exceeded, then staff would be alerted who would then notify JA if we were not on site at that time. A review of the data shows that the construction activities during the entire work time period did not produced vibration levels above the threshold levels except for one unique ‘spike’ reading. A spike vibration reading appears to be the result of someone accidentally kicking or bumping the instrument and not the result of construction work. This discussion is in the daily report that contains these data.
- Inclinometer readings have been collected and uploaded automatically to an Atlas database site on daily bases, which allowed viewing from any connected computer. From these data, it appears that construction activities have produced movement below the threshold or action levels in both subsurface instruments. This means that no subsurface ground movement occurred toward the excavation in the areas near the building.
- The contractor provided the contract required survey settlement point (SSP) readings starting 24Jun13 till 27Jul13. The readings were compared to the initial readings performed by the surveying firm of Tetratec / INCA.
- Also provided after JA’s last daily report, were the final building settlement/movement points surveying by Tetratec / INCA. A review of these data by both Farallon and JA staff indicates that no movement exceeded the allowable levels. In JA’s opinion, this surveying data corroborates the other instrument data and JA believes that the survey monitoring can be halted now that the excavation has been backfilled.

Summary

Based on these data collected in the field and onsite observations of the work being conducted; JA concludes that NO elevated vibrations reached the two structures. Also, JA does NOT believe movement has occurred in the monitored structures because of these low vibrations reading and the very small, to no, movement shown in the slope indicator readings. Some survey points did show possible movement, which caused JA to thoroughly evaluate all these data several times during the excavation work. In each case, as reported in the daily reports, JA has concluded that the higher readings are from surveying instrument or operator error introduced by the contractor's staff and NOT real movement in the buildings. In all cases, JA asked for the field surveying to be repeated as we monitored the construction work closely, but we still received questionable survey data.

However, to restate, JA believes that the NO movement in the structures conclusion is based on the results of the subsurface instruments showing no movement, the vibration readings being so low that they are not able to generate movement, and our geotechnical engineering experience that this type of construction work, using this equipment, does not produce forces that can result in movement when in the Skykomish type soils.

Closure

This report has been prepared exclusively for the use of BNSF and Farallon Consulting, and their subconsultants and contractors, for specific application for the Skykomish School – schoolyard excavation and backfilling project. The conclusions and recommendations presented in this report are based on the subsurface explorations and construction by JA and others in the project area, and conversations with Farallon Consulting regarding the project, and are not intended as, nor should they be construed to represent, a warranty, but are forwarded to assist in understanding current construction process and its effect on existing structures.

Please contact us if you have questions

Sincerely yours,

JACOBS ASSOCIATES

Kerellos Youssef, P. Eng.
Staff Engineer

Frank Pita, PE, LHG
Senior Project Manager / Principal

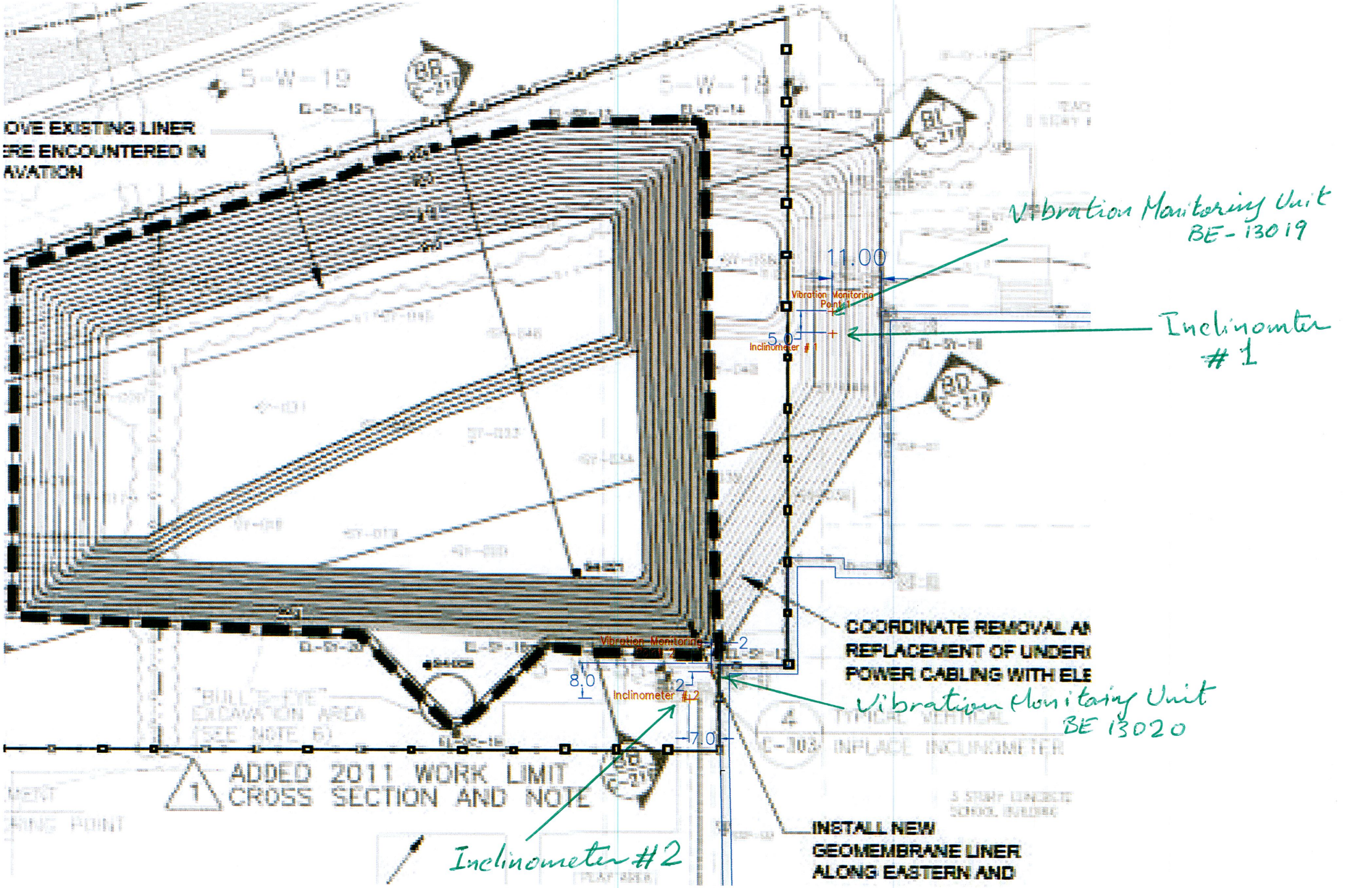
Attachments: Appendix A Slope Indicator final summary plots

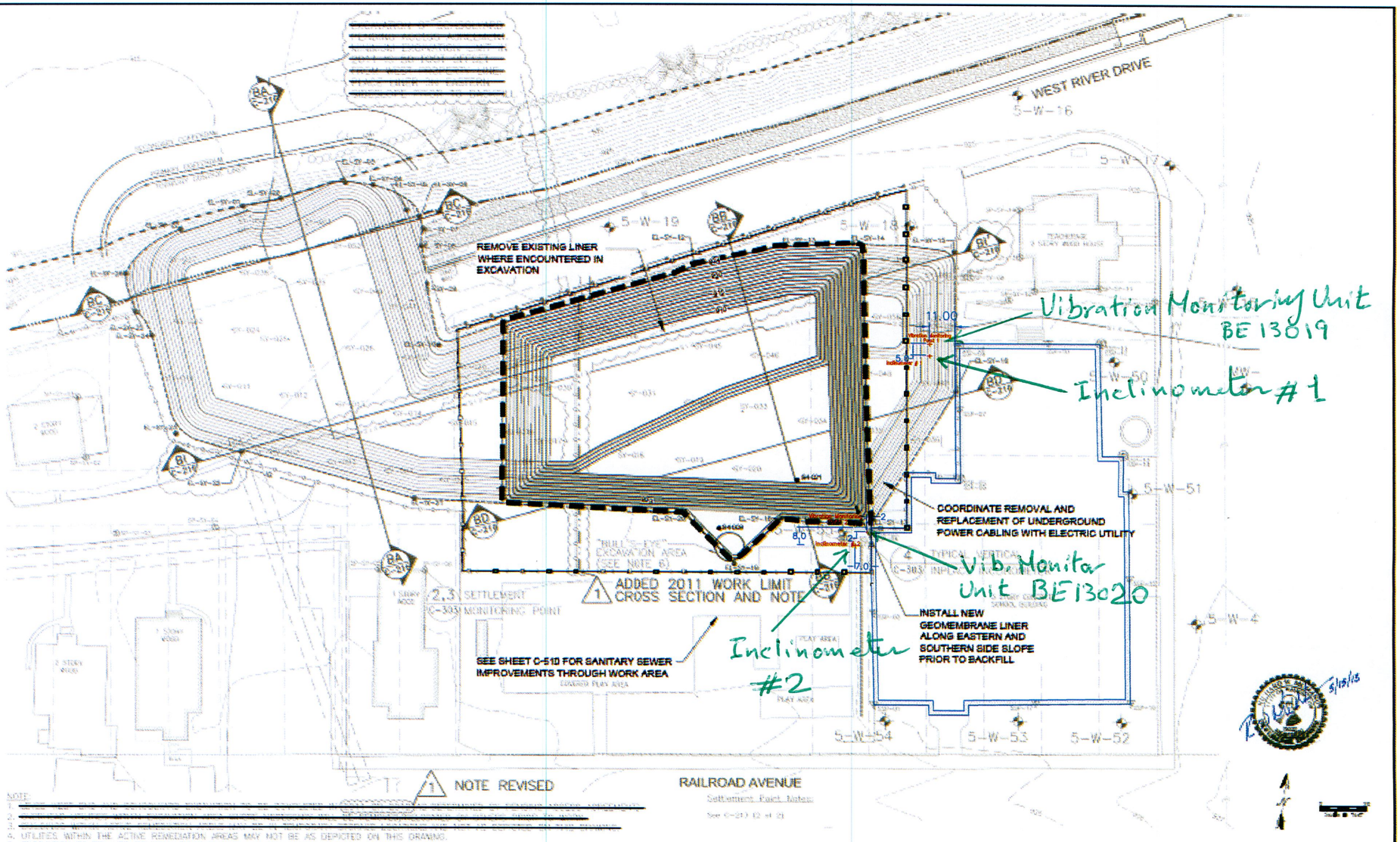
Appendix A

Final Slope Indicator Readings

(between JA's last report on 26Jul13 & the instruments' decommissioning on 27Jul13)

Sketch of Inclinometers and Vibration Monitoring Units





ISSUED FOR CONSTRUCTION

	5/15/2013	ISSUED FOR CONSTRUCTION	DEW	AV	RM
	DATE	DESCRIPTION	BY	CKD.	APP.

BASE DRAWING REPRODUCED FROM 2010 REMEDIATION DESIGN FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON ISSUED FOR CONSTRUCTION (ISSUE NO.4) 5/30/2011

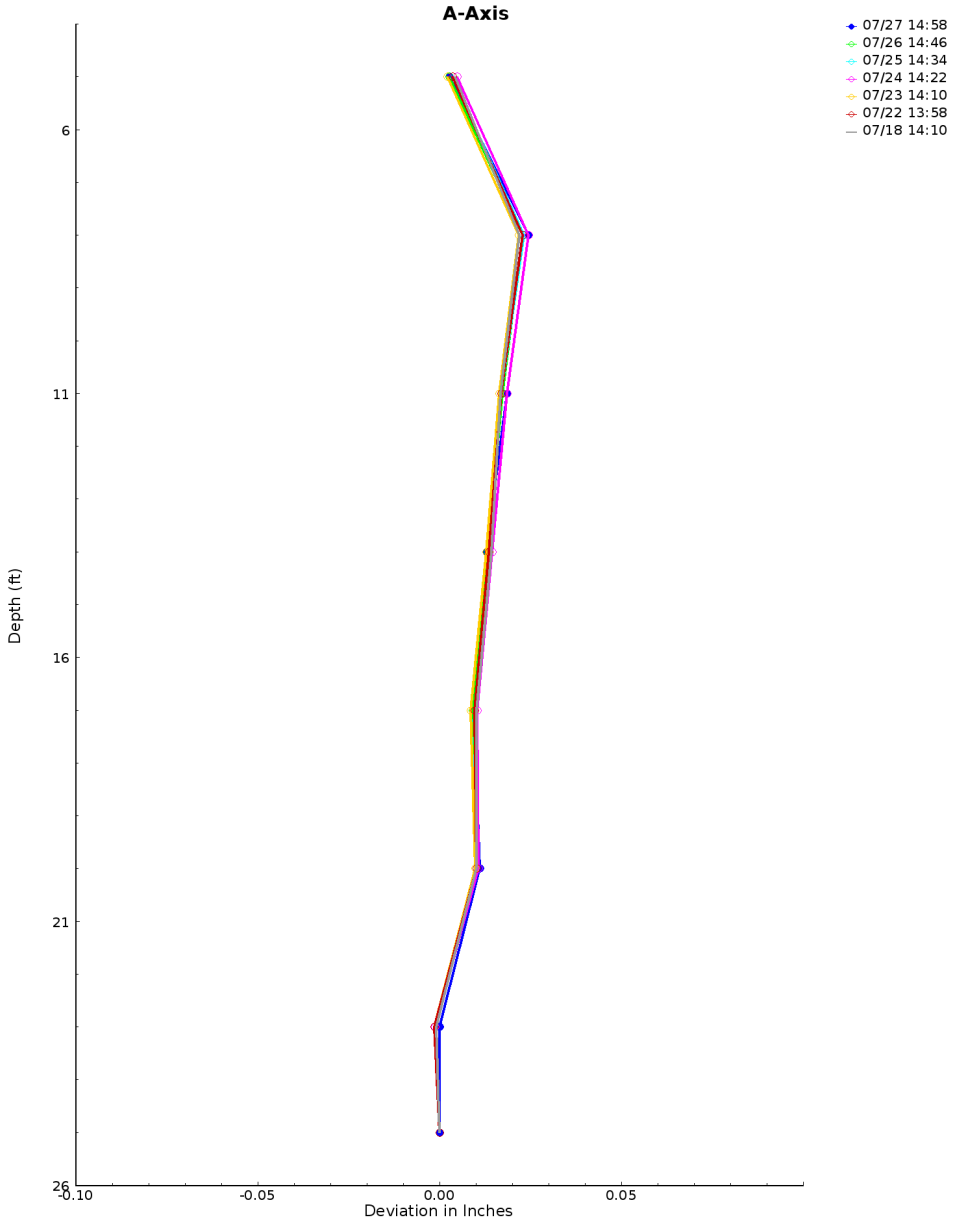
PREPARED BY: FARALLON CONSULTING

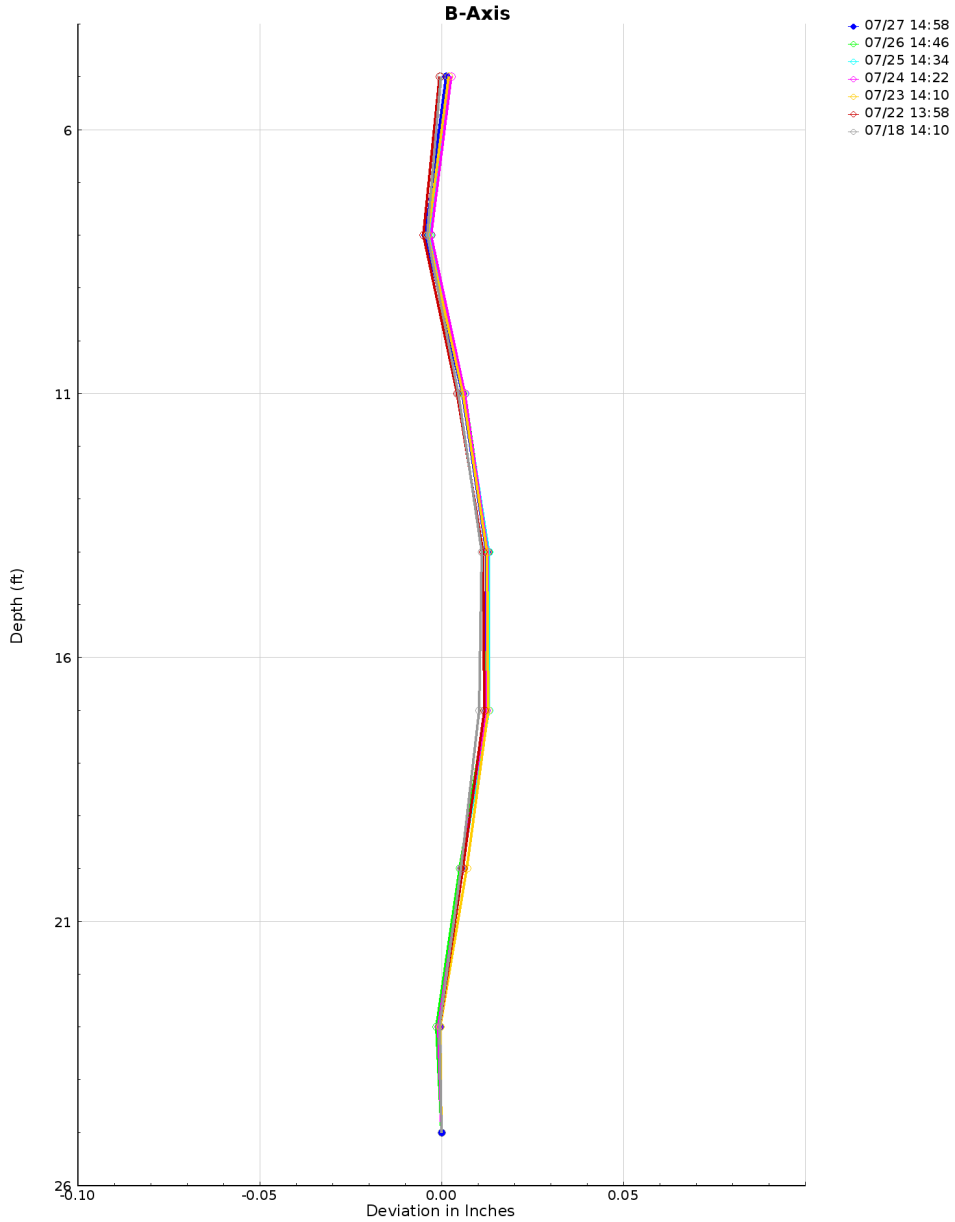
PREPARED FOR: THE BNSF RAILWAY COMPANY

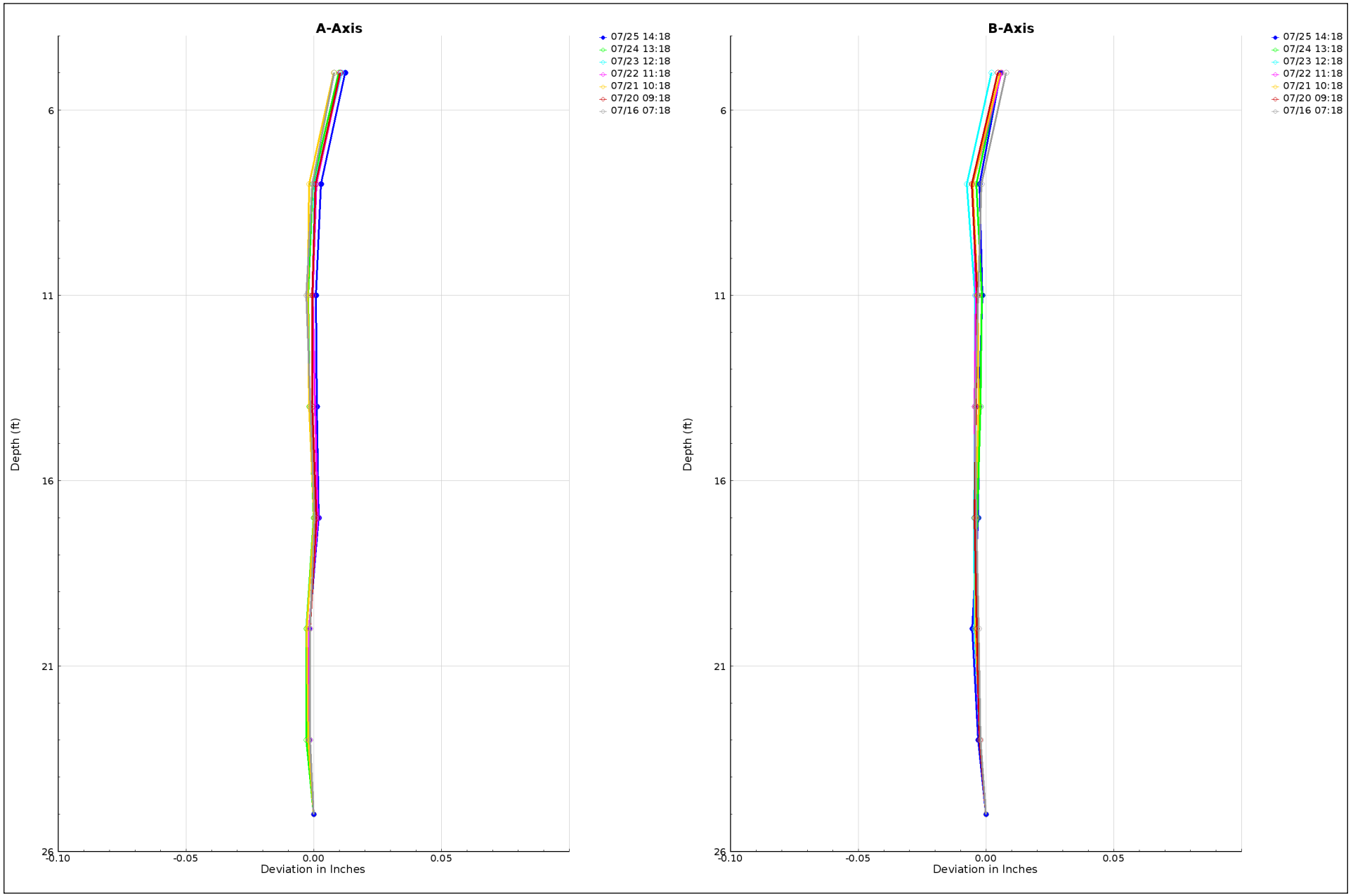
FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

EXCAVATION PLAN
SCHOOLYARD

SCALE: AS SHOWN
PROJECT NO.: 492-063
FILE NAME: COMPREPORT.dwg
SHEET NO.: C-213(1)


A-Axis
07/27 14:58
07/26 14:46
07/25 14:34
07/24 14:22
07/23 14:10
07/22 13:58
07/18 14:10
Depth (ft)
6
11
16
21
26
-0.10
-0.05
0.00
0.05
Deviation in Inches


B-Axis
07/27 14:58
07/26 14:46
07/25 14:34
07/24 14:22
07/23 14:10
07/22 13:58
07/18 14:10
Depth (ft)
6
11
16
21
26
-0.10
-0.05
0.00
0.05
Deviation in Inches


A-Axis
B-Axis
07/25 14:18
07/24 13:18
07/23 12:18
07/22 11:18
07/21 10:18
07/20 09:18
07/16 07:18
Depth (ft)
6
11
16
21
26
-0.10
-0.05
0.00
0.05
Deviation in Inches

APPENDIX D
ARCHAEOLOGICAL MONITORING FINAL REPORT

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

DRAFT—Archaeological Monitoring Report for the Skykomish Schoolyard Area Remediation, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington

Submitted to:
Farallon Consulting, LLC/BNSF Railway Company

Submitted by:
Historical Research Associates, Inc.
Colin Lothrop, B.A.
Jennifer Gilpin, M.A.

Seattle, Washington
December 2013

Historical Research Associates, Inc.

This report was prepared by Jennifer Gilpin, M.A., who meets the Secretary of the Interior's professional qualifications standards for archaeology and by Colin Lothrop, B.A.. This report is intended for the exclusive use of the Client and its representatives. It contains professional conclusions regarding the results of archaeological monitoring during the project. This report should be submitted to the appropriate state and local review agencies for their records.

Executive Summary

The BNSF Railway Company (BNSF) and the Washington State Department of Ecology (the DOE) are continuing efforts to remove contamination associated with the BNSF Former Maintenance and Fueling Facility, located in the historic town of Skykomish, Washington. The project area and exclusion zone are located immediately west of the main school building along River St., north of the school's playground and covered basketball court, and east of an established 15-foot (ft) fence. Project elements included the creation of a controlled exclusion zone for construction activities; installation of air, noise, and ground vibration monitoring equipment; sediment sampling for contamination within the exclusion zone; and excavation and removal of overburden and contaminated sediments within the Skykomish Schoolyard area. This report documents the results of archaeological monitoring conducted from June 18 to June 26, 2013.

Historical Research Associates, Inc. (HRA), archaeologist Colin Lothrop, B.A., monitored all ground disturbance to 5 ft below ground surface within the established exclusion zone, as outlined in the archaeological resources monitoring and discovery plan prepared for the project by Northwest Archaeological Associates, Inc., (NWAA 2010). A partial foundation of a former school structure was encountered, exposed, and recorded as Site 45KI1157 on June 24 and 25, 2013. The foundation is associated with toilet facilities of the former Skykomish school, a complex whose construction began in 1902 and added to through the succeeding decades until its demolition in the mid-1930s. A 5-ft buffer and no work zone were established around the foundation once the limits of Site 45KI1157 were clarified. Details of the discovery were communicated to cultural resources officials at King County and the Department of Archaeological and Historical Preservation (DAHP) to notify them of the find and to recommend that the site was not eligible for listing in the National Register of Historic Places (NRHP). On June 26, 2013, DAHP concurred that the site was not eligible and approval for removal was given. The foundation was systematically removed, and the process was recorded by Lothrop.

No additional intact archaeological materials were observed, and no further cultural resource work is recommended in the project area. Excavation of contaminated sediments within the exclusion zone will continue through August 2013. If additional archaeological properties are inadvertently discovered, Farallon will notify DAHP and affected parties, as appropriate, with support provided, as requested, by HRA.

Table of Contents

List of Figures

1. Introduction and Project Description

The BNSF Railway Company (BNSF) and the Washington State Department of Ecology (the DOE) are continuing efforts to remove subsurface contamination associated with the BNSF Former Maintenance and Fueling Facility, located in the historic town of Skykomish, King County, Washington. The project area is in the southwest quarter of Section 26, Township 26 North, Range 11 East (Figure 1-1). More specifically, the project area is located in the play field west and northwest of the existing Skykomish school (Figure 1-2). Elements included in the Skykomish Schoolyard Remediation Project (project) are: the creation of a controlled exclusion zone for construction activities; installation of air, noise, and ground vibration monitoring equipment; sediment sampling for contamination within the exclusion zone; and excavation and removal of overburden and contaminated sediments within the Skykomish school yard.

Historical Research Associates, Inc. (HRA), was retained by Farallon Consulting (Farallon) to monitor excavations from surface level to approximately 5 feet (ft) below surface, following protocol and recommendations outlined in the *Archaeological Resources Monitoring and Discovery Plan for the BNSF Railway Former Maintenance and Fueling Facility, 2010 Cleanup Activites, Skykomish, Washington* prepared by Northwest Archaeological Associates, Inc. (NWAA 2010), and to prepare an Archaeological Monitoring Report. Section 1.2 of this document provides a description of the project's Area of Impacts. Sections 2 and 3 provide a summary of cultural and environmental information pertinent to the project. Sections 4 and 5 outline the methods and results of archaeological monitoring, while Section 6 contains an evaluation of newly-recorded historic-period site 45KI1157 (temporary ID HRA-2102-1). Section 7 summarizes HRA's results and recommendations regarding further cultural resources work.

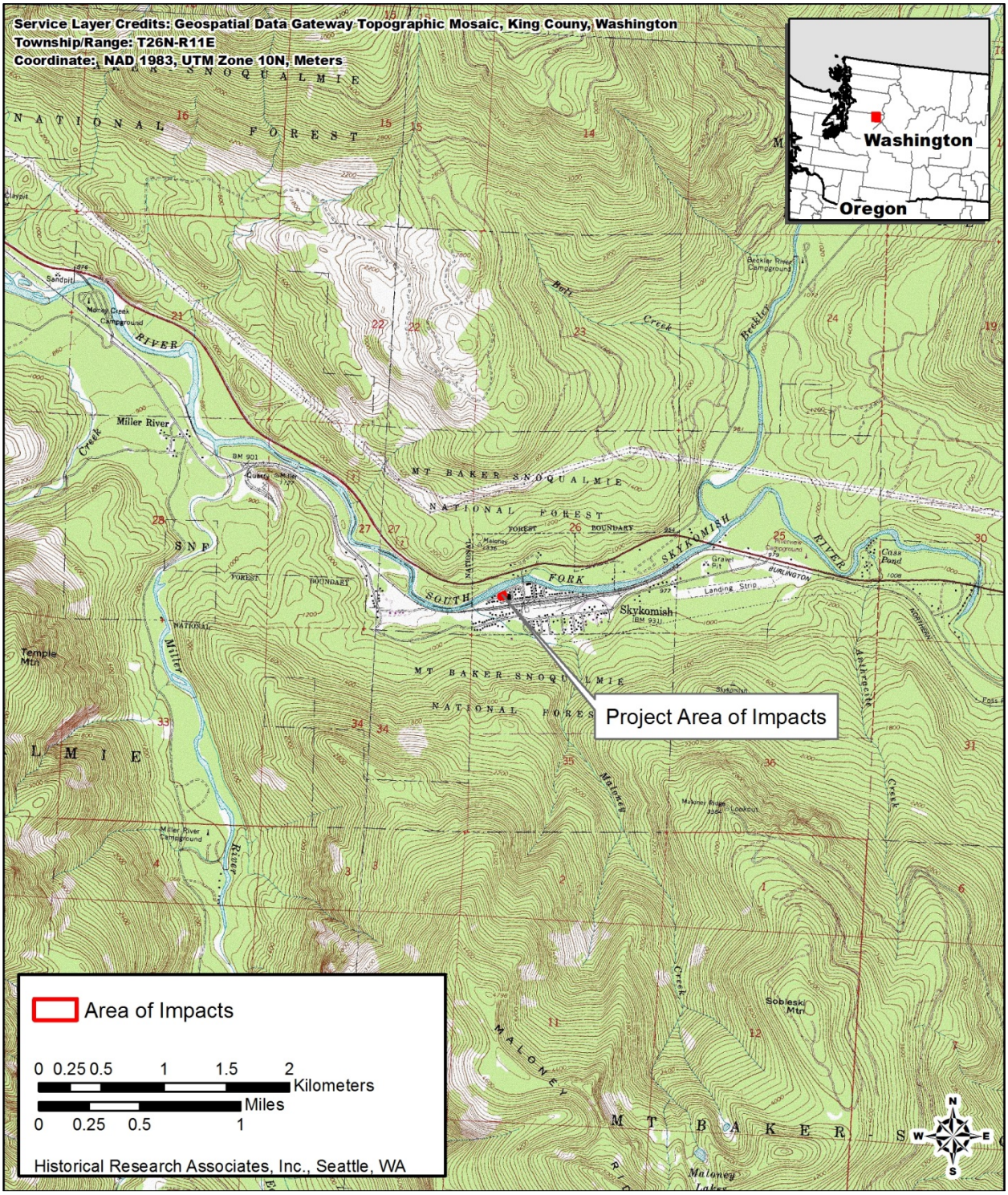


Figure 1-1. Location of the Project.

Figure 1-2. Project area shown in relation to the existing Skykomish School.

1.1 Regulatory Context

The Project is subject to regulations regarding the consideration of cultural resources outlined in the State Environmental Policy Act (SEPA). During SEPA review of the proposed Project, BNSF and the DOE made a commitment to provide a Professional Archaeologist to monitor overburden excavation activities in soils of the Skykomish school yard. Procedures utilized during archaeological monitoring are therefore meant to comply with applicable State laws and regulations, particularly Title 27, Revised Code of Washington (RCW), Chapter 27.44, Indian Graves and Records, and Chapter 27.53 Archaeological Sites and Resources.

1.2 Area of Impacts

The Area of Impacts (AI) is defined as the portions of the proposed Project wherein ground-disturbing activities could impact human remains or archaeological deposits that are eligible for listing in national, state, or local registers (Figure 1-3). The remediation excavations within the Skykomish school play field exclusion zone encompass approximately 13,500 square ft (0.31 acres), to a final depth approximately 15 ft below surface. Archaeological monitoring within the AI was only required for the upper 5 ft below surface, to cover the intersections of imported fill, top soils, and native soils.

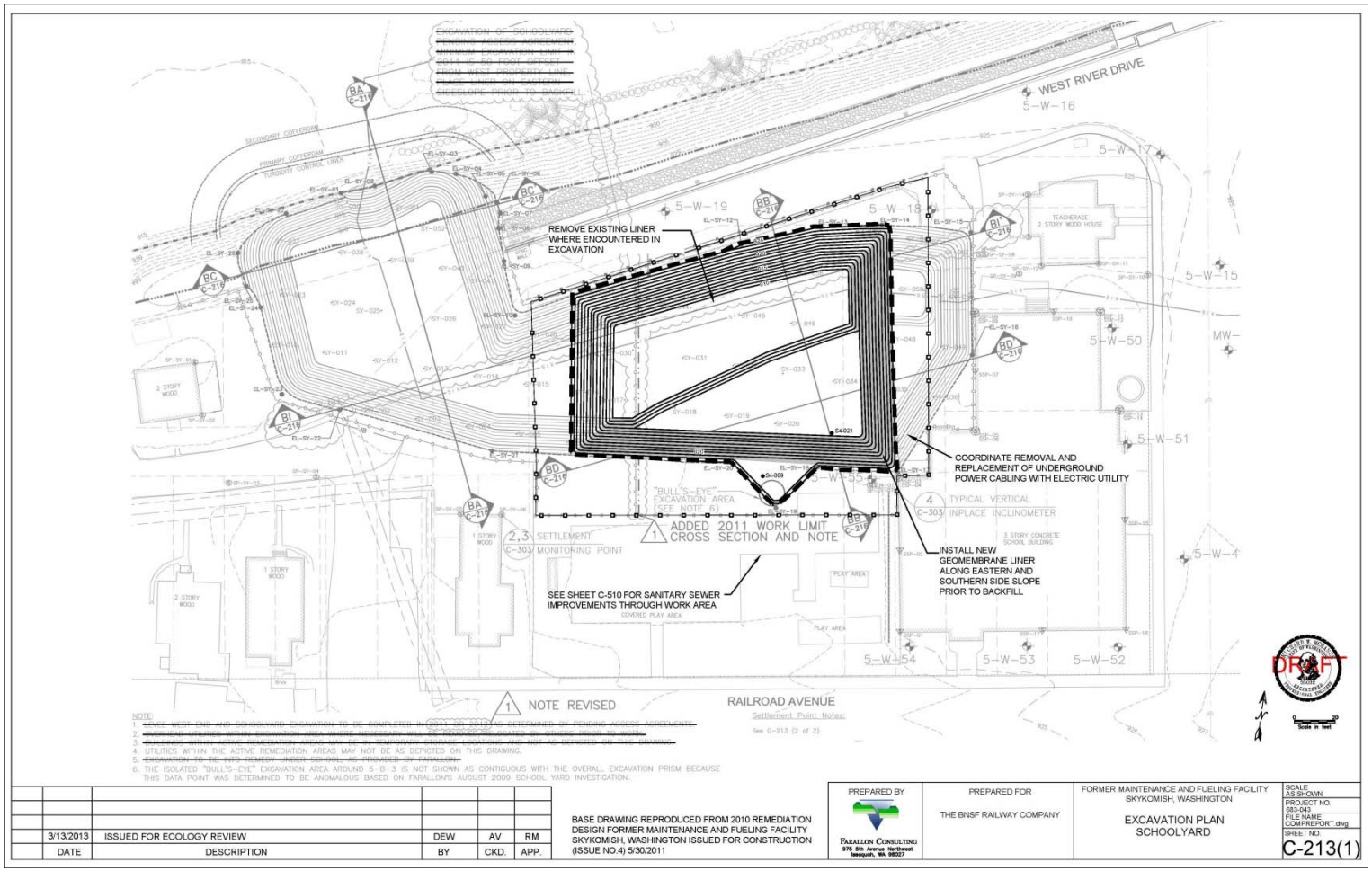


Figure 1-3. Excavation Area of Impacts shown on Project plans (courtesy of Farallon Consulting).

2. Environmental Setting

The following sections provide a brief overview of the environmental and cultural background for the Project vicinity. This overview is primarily drawn from *Archaeological Resources Monitoring and Discovery Plan for the BNSF Railway Former Maintenance and Fueling Facility, 2010 Cleanup Activities, Skykomish, Washington* (NWAA 2010), *Cultural Resource Assessment for the Former Maintenance and Fueling Facility Project, Skykomish, King County, Washington* (Boswell and Hodges 2005), and *Historical Resource Survey, Skykomish, Washington* (Sheridan 1998).

2.1 Topography and Geology

The AI lies in the upper South Fork Skykomish River basin, on the western slopes of the North Cascades geologic province of the Cascade Range. The northern portion of the North Cascade Range extends from Snoqualmie Pass north to the Fraser River. It is bounded on the west by a large north-south-trending structural trough called the Puget Lowland, extending from British Columbia south through western Washington to the Willamette Valley in Oregon (Boswell and Hodges 2005; Porter 1976; Waitt and Thorson 1983).

The terrain of the North Cascades is a complex geologic landscape, characterized by the erosion of metamorphic, sedimentary, and igneous rock. The landscape has been further impacted by the advance and retreat of continental glaciers through multiple episodes during the Pleistocene era (2.8 million to 10,000 years ago). The latest advance of the Puget Lobe, the southwestern-most portion of the glacial ice sheets, began about 18,000 years ago and reached as far south as the town of Centralia, Washington. During its advance the Puget Lobe pushed into the lower ends of west-draining Cascade valleys, blocking streams and depositing thick glacial till (Booth 1990; Boswell and Hodges 2005; Porter 1976).

Alpine glaciers in the Cascade Range advanced to valley mouths, developed moraines, and retreated into the mountains. This process broadened and deepened river valleys, leaving many U-shaped gullies and drainages. Glacial Lake Skykomish was one of a series of lakes formed during ice retreat in the west-draining Skykomish River basin. The surface geology in the vicinity of the project area consists primarily of alpine glacial drift, outwash sand, and gravels, with till, silt, and clay (Booth 1990; Boswell and Hodges 2005; Porter 1976).

The river begins near the crest of the Cascade Range east of Skykomish, and flows west to join the Snoqualmie River below Monroe, Washington. The project area is located near the left (south) bank of the South Fork Skykomish River at an elevation of approximately 933 ft.

3. Cultural Setting

3.1 Prehistory

A number of archaeological sites provide evidence of the presence of people in coastal western Washington and the southern British Columbia by at least 11,000 years ago (Carlson 1990; Matson and Coupland 1995). People living in North America during this time period are referred to as Paleoindian, and associated cultural materials are marked by the highly distinctive projectile point style called Clovis. Other Holocene-era archaeological sites in western North America contain stemmed, shouldered and lanceolate fluted points. Site assemblages from these earlier periods also contain flakes, cores, and weathered cobble tools.

The succeeding phases of cultural change and adaptation in the Pacific Northwest have been grouped into the following periods: Archaic (10,500 to 4400 B.C.), Early Pacific (4400 to 1800 B.C.), Middle Pacific (1800 B.C. to A.D. 500), and Late Pacific (A.D. 500 to 1775). Pacific period archaeological sites are represented by increasingly diverse assemblages of stone, bone, and wood tools. Additional characteristics of these later cultural periods include socioeconomic developments represented by the elaboration of complex societal hierarchy, permanent villages and structures, specialized resource economies, and complex trade between communities (Ames and Maschner 1999).

3.2 Ethnography and Traditional Land Use

The project area is in the traditional territory of the Skykomish, a riverine and mountain people who maintained villages in the Sultan, Skykomish, and Foss River basins. Their territory encompassed the drainage system of the Skykomish River with boundaries marked by the Stillaguamish watershed and Snoqualmie River (Boswell and Hodges 2005; Horr 1974).

The Skykomish were members of the Lushootseed language group. Social networks based on intermarriage, economic cooperation, and ritual activities linked them with other tribes of the Lushootseed language group, for instance, the neighboring Snohomish and Snoqualmie bands (Boswell and Hodges 2005; Haeberlin and Gunther 1930; Suttles and Lane 1990). The Skykomish were loosely divided into two closely related groups. The lower group lived around Sultan, which is located approximately 22 miles (mi) northwest of the AI, and the upper group inhabited the Cascade Mountain Range. Villages consisted of cedar plank homes along the Skykomish River in proximity to permanent fishery resource sites. The closest Skykomish villages were located over 12 mi

downstream, at the current towns of Index and Gold Bar (Boswell and Hodges 2005:10–11; Stein 1999).

The Skykomish were signatories to the Point Elliot Treaty of 1855, which removed them to the Tulalip Indian Reservation north of Everett, Washington. By the early nineteenth century, the Skykomish ceased to function as a tribal entity due to severe depopulation. The Skykomish disappear from government records at Tulalip after 1871 (Boswell and Hodges 2005:11).

3.3 Historic Period

The town of Skykomish was founded by John Maloney, who erected a general store and post office in 1893, the year the cross-Cascades Great Northern Railroad was completed. Six years later, in 1899, he and his wife Louisa Maloney filed the plat for the Town of Skykomish. Four additional plats were filed over the next 30 years. By the early 1900s, the town was a community of 150 with a hotel, school, a general store, restaurant, barber, and baker, in addition to a shingle mill and saw and planing mill (Sheridan 1998:3–4). A major fire on April 11, 1904, destroyed the majority of the commercial center of Skykomish, including the hotel, several saloons, and homes. By the end of 1905, the town had rebuilt the damaged commercial district (Figure 3-1). The evolution of the town has been most heavily influenced by three industries: the Great Northern Railroad development, logging, and the development of Washington State Highway 2 (Sheridan 1998:4).

3.3.1 Industry in Skykomish

The Great Northern Railroad began construction of the trans-Cascade crossing in and around Skykomish in 1891. The railway connected Everett to Wenatchee in Washington State, and it opened in 1893. The work was never entirely completed due to heavy winter snow, steep terrain, and numerous track switchbacks. A tunnel was constructed along the route in 1897, though it was unable to mitigate entirely the Cascade snows. In 1910, an avalanche struck two trains near Wellington, Washington, killing nearly 100 passengers. Following the disaster, additional rail infrastructure was developed, bringing jobs and additional population to Skykomish (Boswell and Hodges 2005:15; Sheridan 1998:4–5). Skykomish provided housing and entertainment to the permanent population and railroad associated influx, and served as a point for railroad maintenance, repair, and consumable stockpiling. As the railway grew, so did Skykomish's population and development.

Logging associated with the timber industry began in the Skykomish Valley about 1860. The Skykomish Lumber Company, established in 1898, prospered from the growth of logging in Washington as well as railroad and war contracts associated with two world wars. The mill was sold to Empire Millwork Corporation in 1946 and was downsized significantly (Sheridan 1998:5).

Figure 3-1. Overview photograph of the Town of Skykomish, view to the northeast, dating to ca. 1902 to 1914. A small coal shed to rear of school is circled. Photograph courtesy of the Skykomish Historical Society.

Following the conclusion of World War I, development of Highway 2 began, utilizing partially complete rail features. By 1925, the road, a winding dirt road, was opened. In the late 1930s, the highway was improved through labor and funds acquired by the Works Progress Administration (WPA) and US Forest Service. This realigned the highway to its current location. Skykomish's 5th Street bridge to Railroad Avenue was built in 1939 to join the town to the improved roadway (Sheridan 1998:5–6).

3.3.2 The Development of the Skykomish School

With the increased population in the late 1890s and early 1900s, due in large part to the railroad and lumber industries, the Town of Skykomish invested in its first formal schoolhouse in 1902, accompanied by a small, one-story wood frame coal shed to the rear (Figures 3-1, 3-2). The wood

frame, two-story building was a centerpiece of the community (Boswell and Hodges 2005:27). The 1908 Sanborn Map Company Fire Insurance Map for Skykomish shows the 1902 "Public School," with a smaller "W.C." out back, adjoining the present Riverside Ave (Sanborn Map Company 1908).

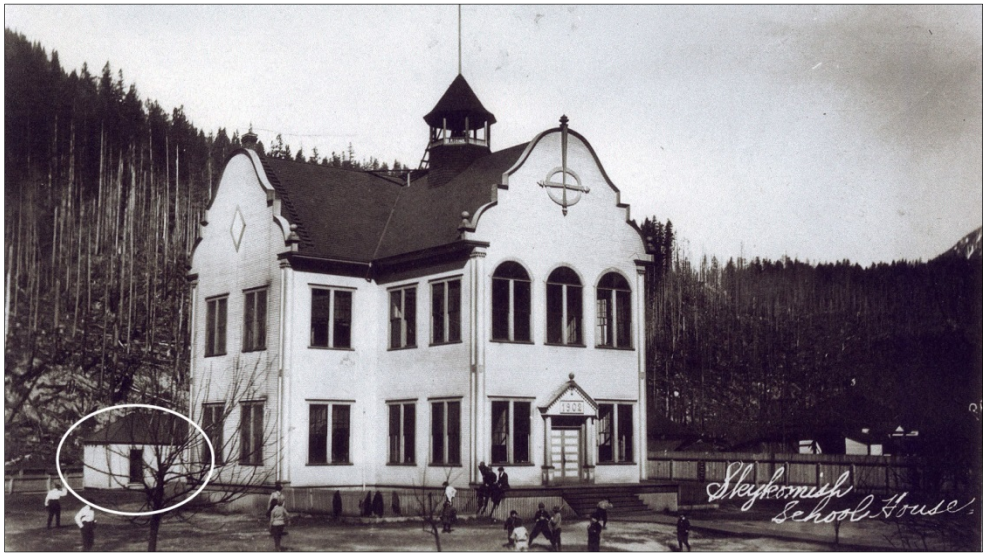


Figure 3-2. 1902 School and coal shed (circled), predating the construction of the gymnasium in 1914. Photograph courtesy of the Skykomish Historical Society.

In the following decades, as fortunes waxed in Skykomish, additional facilities were added, including a separate two-story gymnasium in 1914; the "teacherage"—a residence for out-of-town teachers—in 1920; and a manual training center, built by the students themselves, in 1926. At some point in the later 1920s, both a large covered play shed and additions to the school were constructed to the rear of the 1902 building (Bob Kelly, personal communication 2013; Sanborn Map Company 1926, 1926–1930; Sheridan 1998:6).

The later additions to the school complex likely included separate boys and girls toilets. As detailed in Monitoring Results (Section 5), HRA observed the remnants of a small, poured concrete foundation that may have been one of these toilet facilities. The foundation remnants contained rubble of the superstructure (including concrete and brick) as well as metal pipes and fragments of sanitary porcelain. The foundation appeared to be located too far south to represent the remains of the "W.C." shown in the 1908 Sanborn (Figure 3-3).

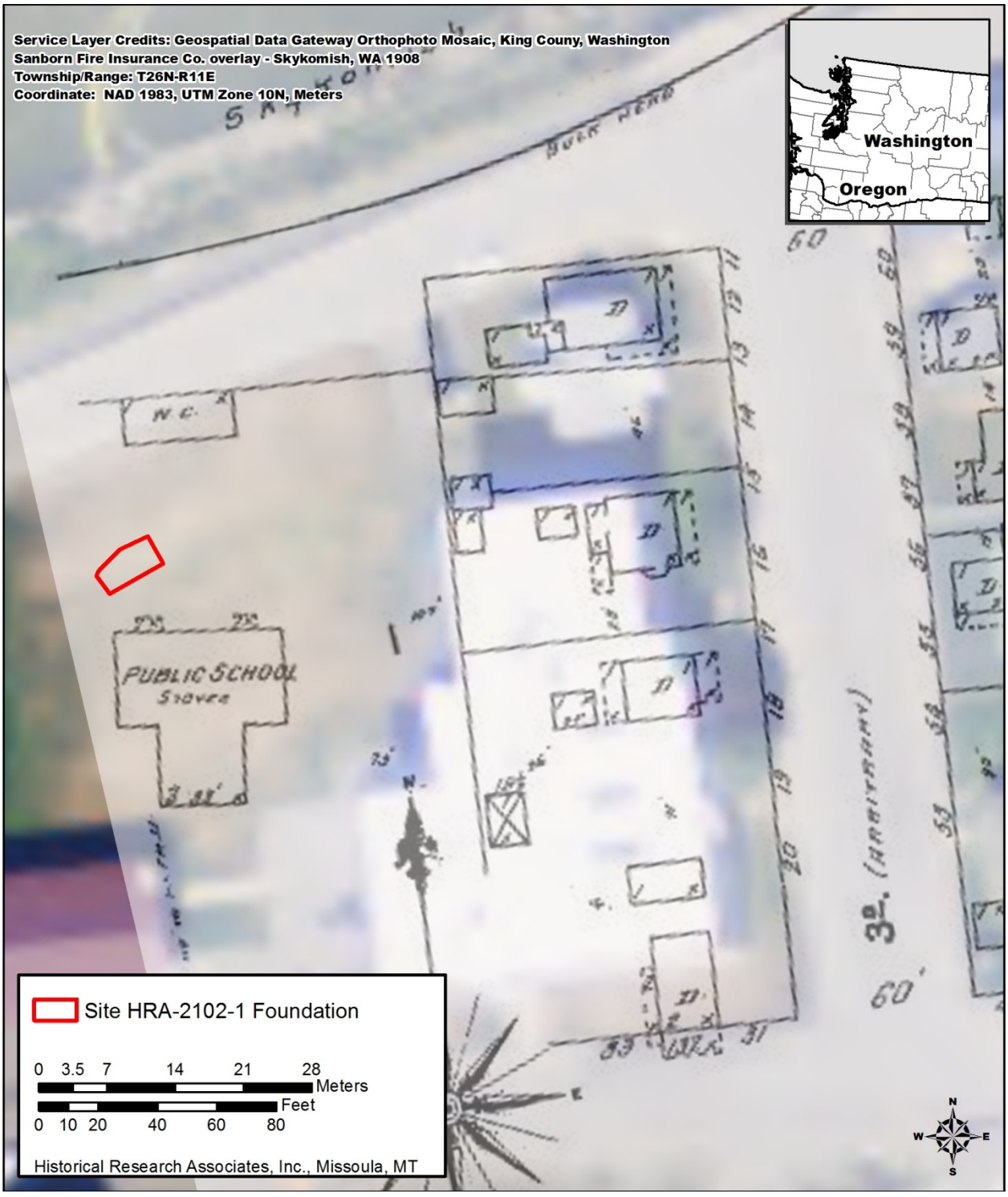


Figure 3-3. Georeferenced Sanborn Fire Insurance Map from 1908 showing the approximate location of the foundation site between the 1902 school house and the "W.C." to the north, adjacent to what is now Riverview Ave.

A plan of the school, provided by Bob Kelly of the Skykomish Historical Society, depicts a smaller building, whose dimensions (20- by 9-ft) closely match those of the foundation (Knutson n.d.) (Figure 3-4). This small building is unlabeled, but it is shown between the main school building and the playshed; this location fits well with the location of the foundation as shown in the 1926 and 1926–1930 Sanborn Maps (Figure 3-5; Sanborn Map Company 1926, 1926–1930).

The blueprint is undated, but the presence on the plan of the "manual shop" (built in 1926) and the playshed (constructed by 1930) suggests that it was prepared in the late 1920s or early 1930s. A second plan set, dating to 1928, depicts "Plans for Remodeling the Skykomish School" and helps to narrow down the identification of the foundation further (Mallis 1928). While it is uncertain which of the plans were eventually adopted, one plan shows a "boys toilet" to the north of the existing building (Figure 3-6). Next to the existing building, the plan also shows a "new girls toilet" with an adjacent storage room. An aerial photograph from the Historical Society's collection, dated circa 1930, does not show this small building (Figure 3-7). It is likely, based on the size of the foundation, and the presence of plumbing and sanitary porcelain fragments, that the site is associated with one of the proposed toilet structures. The wall separating the proposed "girls toilet" from the storage room on the plan (Historic Map 4) may reflect the two-roomed nature of the foundation site.

The identification of the foundation with a toilet dating to the 1920s is interesting, given that privies (or outhouses) have been recorded in the Skykomish townsite archaeological site (45KI831), east of 6th Street, that contain materials from the 1910s and 1920s (Shong 2009). This would be roughly concurrent with the duration of use at the former Skykomish School complex. The much larger City of Seattle, in the late 1800s, had indoor plumbing and a large, public sewer system, which was improved in the early 1900s (Thomson 1950). It is likely that the increased investments from the town, due to railroading and the timber companies boosting the economy, provided funding for indoor plumbing at the Skykomish School.

The former Skykomish School complex was demolished by 1936, when the "new" school building was constructed (Sheridan 1999:7-7 to 7-8). The new building was constructed southeast of the "old" school, by the WPA. The Manual Training building was moved to 4th Ave and has been adapted for other uses. The teacherage remains in place. All other outbuildings appear to have been razed (Boswell and Hodges 2005:27).

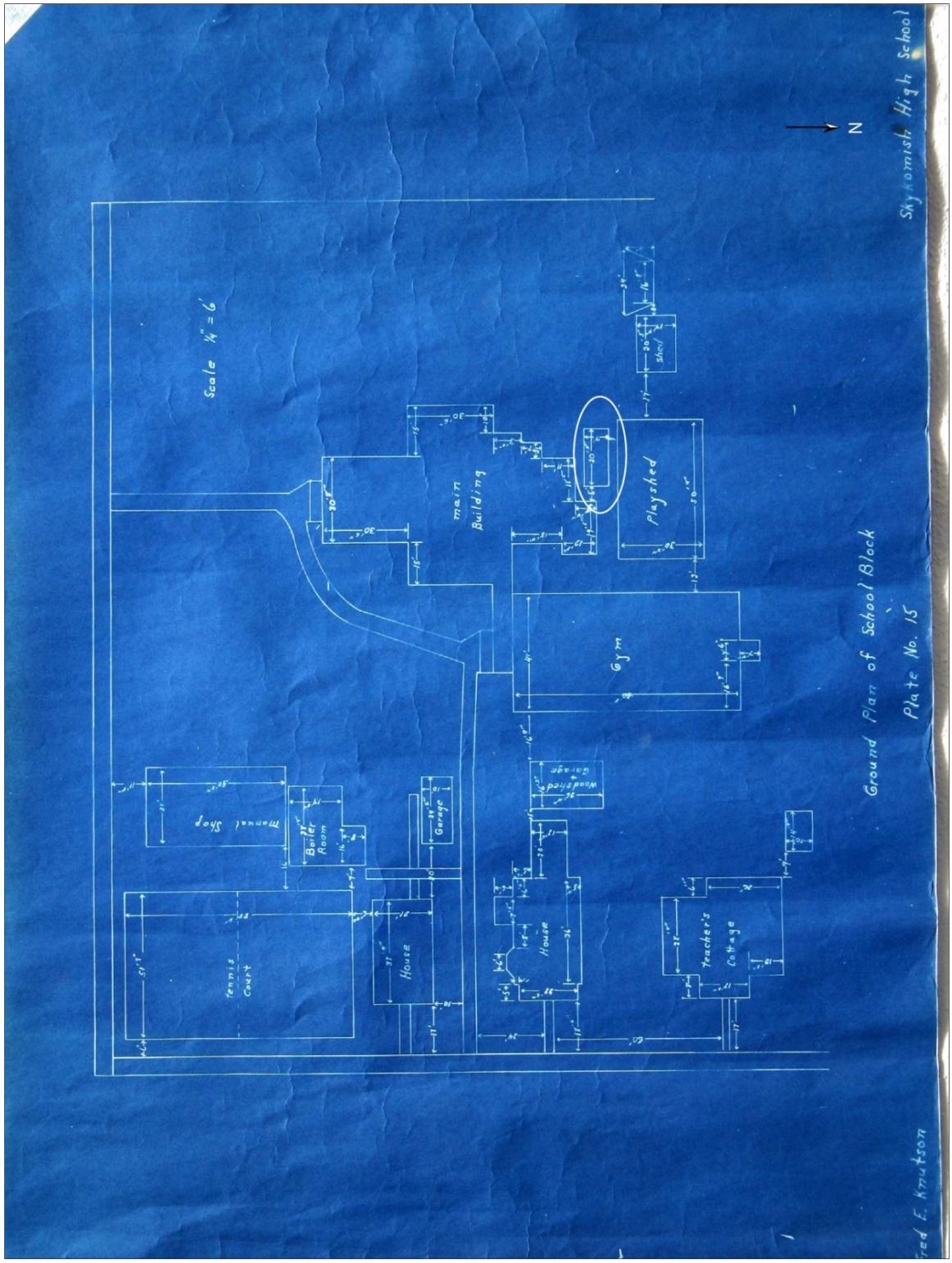


Figure 3-4. Plan of Skykomish High School, dating to the late 1920s to early 1930s (Knutson n.d.). Note small structure south of playshed (circled). Plan courtesy of the Skykomish Historical Society.

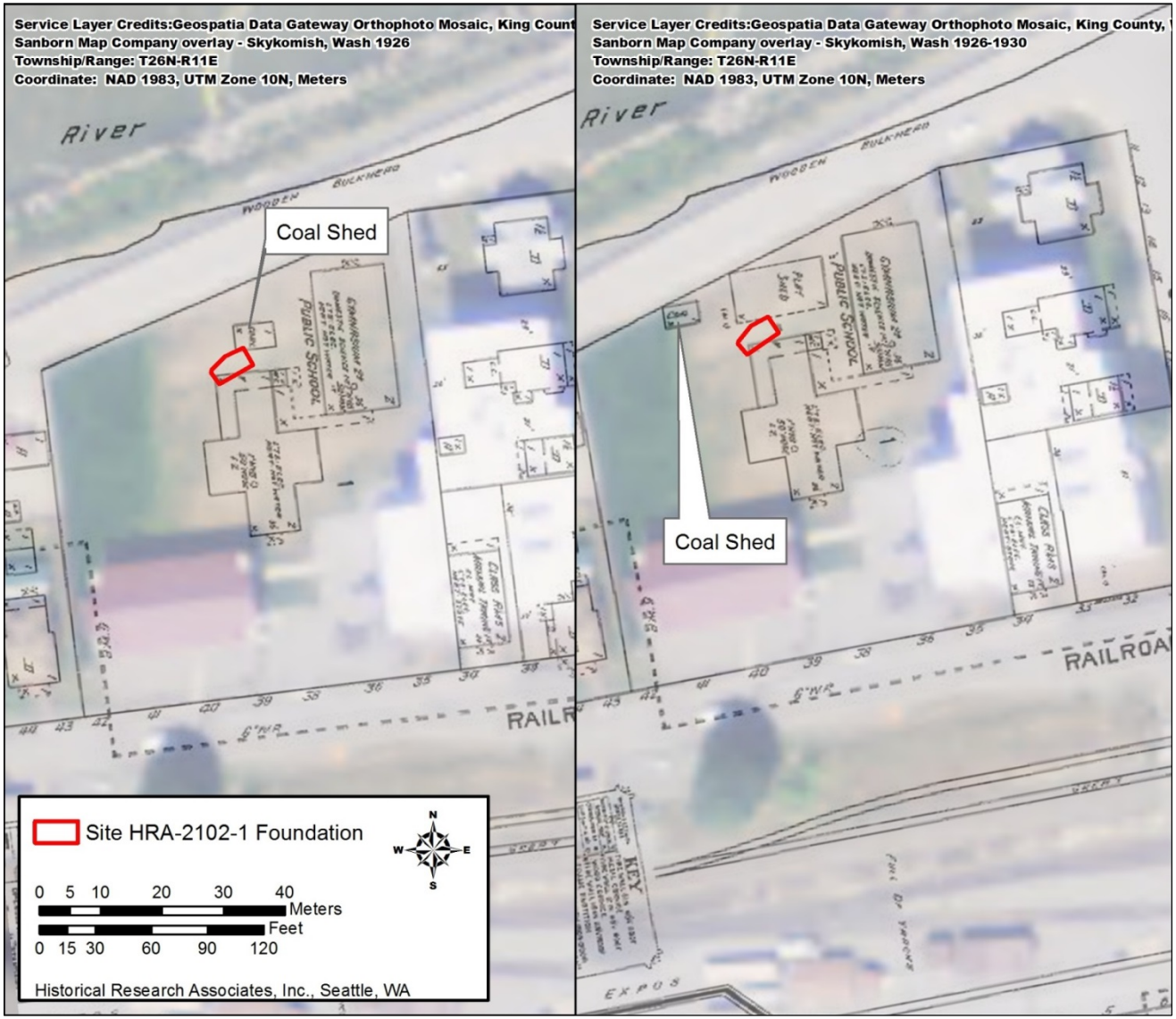


Figure 3-5. Georeferenced Sanborn Fire Insurance Maps from 1926 (left) and 1926–1930 (right), showing the location of the foundation site.

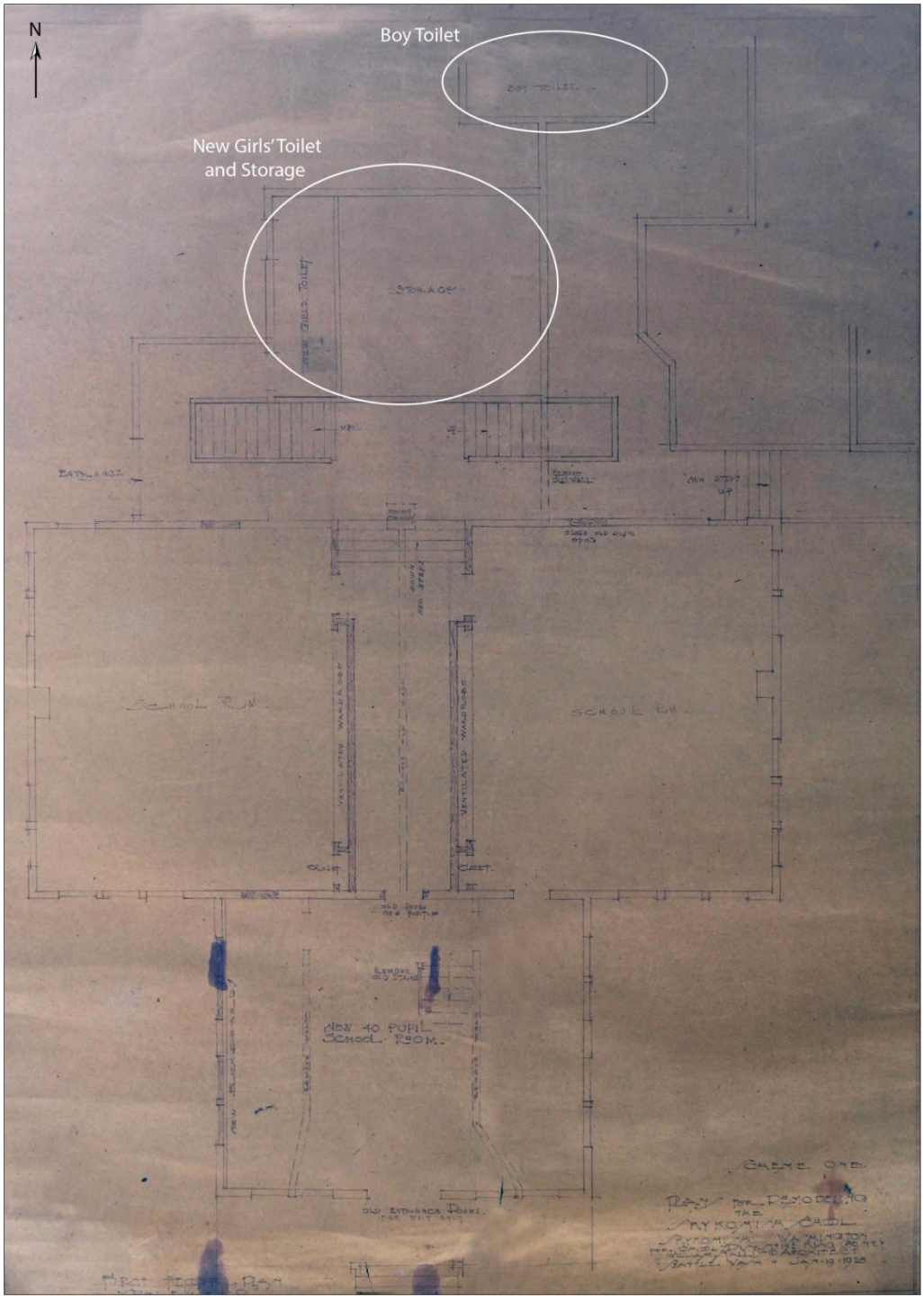


Figure 3-6. Plan of proposed changes to Skykomish School (Mallis 1928). Note proposed Boys and Girls Toilets at top of page. Plan courtesy of the Skykomish Historical Society.

Figure 3-7. Aerial photograph of Skykomish, ca. 1930. The school is circled, and note the presence of the playshed and shed to the west, but no small structure as seen in Historic Map 2. Photograph courtesy of the Skykomish Historical Society.

4. Procedures for Archaeological Monitoring and the Treatment of Archaeological Resources

The State of Washington requires oversight of all cultural resources related activities to be overseen by a Professional Archaeologist who meets the Secretary of the Interior's qualifications (36 CFR part 61; RCW 27.53.030.8). The Archaeological Monitor and Monitor Supervisor followed the plan set out in the "Procedures for Archaeological Monitoring" for this Project (NWAA 2010) and in the "Supervisory Plan for Archaeological Monitoring" (HRA 2013).

The Archaeological Monitor followed these procedures:

- Monitor conformed to all on site safety regulations including wearing a hard had, safety glasses, steel-toed boots, and high visibility vest, as well as safe behaviors such as making eye contact with the operator when approaching heavy machinery, notifying them to stop work when approaching within the swing zone of their machine, and staying away from all unsecured ledges and pits over 5 ft.
- Monitor carried a cellphone, camera, trowel, notebook, and tape measure at all times on the construction site.
- Daily notes were recorded on a notebook, transcribed to HRA's standard monitoring form, and submitted for the Supervisor's review. These notes recorded the depth, location, and description of soil strata, finds, and debris not considered significant. Locations monitored as well as discussions regarding the site and findings were also recorded.
- All soil deposits with the potential for cultural materials were examined carefully in excavations and spoil piles using equipment, as appropriate, a shovel, trowel, and screen of ¼-inch mesh.
- One or more photographs were taken daily to record the work progress, as well as overviews of particular construction areas, soil profiles, cultural materials, and work in progress. Photographs of cultural materials were sent to the supervisor for discussion of treatment measures and decisions.

- When historic-period archaeological site 45KI1157, a concrete foundation, was discovered, HRA's Senior Archaeologist, Lynn Compas, informed Farallon, who asked HRA to contact the King County Historic Preservation Program (KCHPP) and Washington Department of Archaeology and Historic Preservation (DAHP) on their behalf. Before contacting DAHP, the Construction Project Manager and Construction Crew took appropriate steps to protect Site 45KI1157 by installing a buffer of approximately 5 ft, and prohibiting all machinery, other vehicles, and unauthorized individuals from crossing the buffer.
- Under RCW 27.53, it is presumed that historic-period resources are eligible for listing on the National Register of Historic Places (NRHP) until and unless DAHP makes a determination that they are not. After reviewing photographs of Site 45KI1157 and historic maps of the area, DAHP concurred that it was not eligible for the NRHP. Farallon and their contractors were allowed to remove the foundation and continue with construction activities.
- The Monitor kept in close contact with the Monitoring Supervisor by calling daily to describe construction work, monitoring methods, and findings, and to discuss questions.

The Monitor Supervisor followed these procedures:

- Supervisor conformed to on site safety regulations as described above.
- Supervisor was available to visit site on short notice to view finds that were questionable and/or need immediate attention.

5. Monitoring Results

Archaeological monitoring was conducted by Colin Lothrop, M.A., and supervised by Professional Archaeologists Jennifer Gilpin, M.A., and Lynn Compas, M.A., who both meet the Secretary of the Interior's qualifications. The Archaeological Monitor was present during all days when ground-disturbing activities were conducted to a depth of 5 ft below surface. The days monitored were: June 18 and 19, 2013 and June 24 to 26, 2013.

5.1 Sample Excavations

Initially, archaeological monitoring within the AI included the excavation of soil samples. These extended approximately 2.5 ft below surface to facilitate the sampling of sediments to test for shallow contaminants. Thirty-eight sample test excavations were completed within an established grid in the AI (Figure 5-1). Thirty-five sample excavations were recorded with designations (Sample#/Grid#) corresponding to their location in the grid, in addition to three excavations for Heavy Metal contamination 4 ft below surface designated Sample # and Metal Test (MT) #. These excavations were performed by Strider Construction using a Kubota KX121-3 mini excavator.

Sample excavations were utilized by the archaeological monitor to record the sediments and previous work boundaries prior to large-scale excavation of the overburden using a larger more powerful John Deere 450D excavator. Previous contamination cleanup excavations were performed in 2010 by AECOM Environmental along the north and west boundary of the AI and encroaching approximately 25 to 30 ft from those boundaries. The archaeological monitor confirmed this ground disturbance from observations of gray gravelly coarse sand modern imported fill material "crush," 12 inches below surface throughout Column 8 and Rows B and C of Farallon's designed AI grid (Figure 5-1). Other grid excavations were composed of 10 to 13 inches of imported top soil followed by gray and brown gravelly medium sandy silts and silty sands with 30 to 50 percent rounded river pebbles, cobbles, and boulders to the 2.5 ft excavation limit (Figure 5-2).

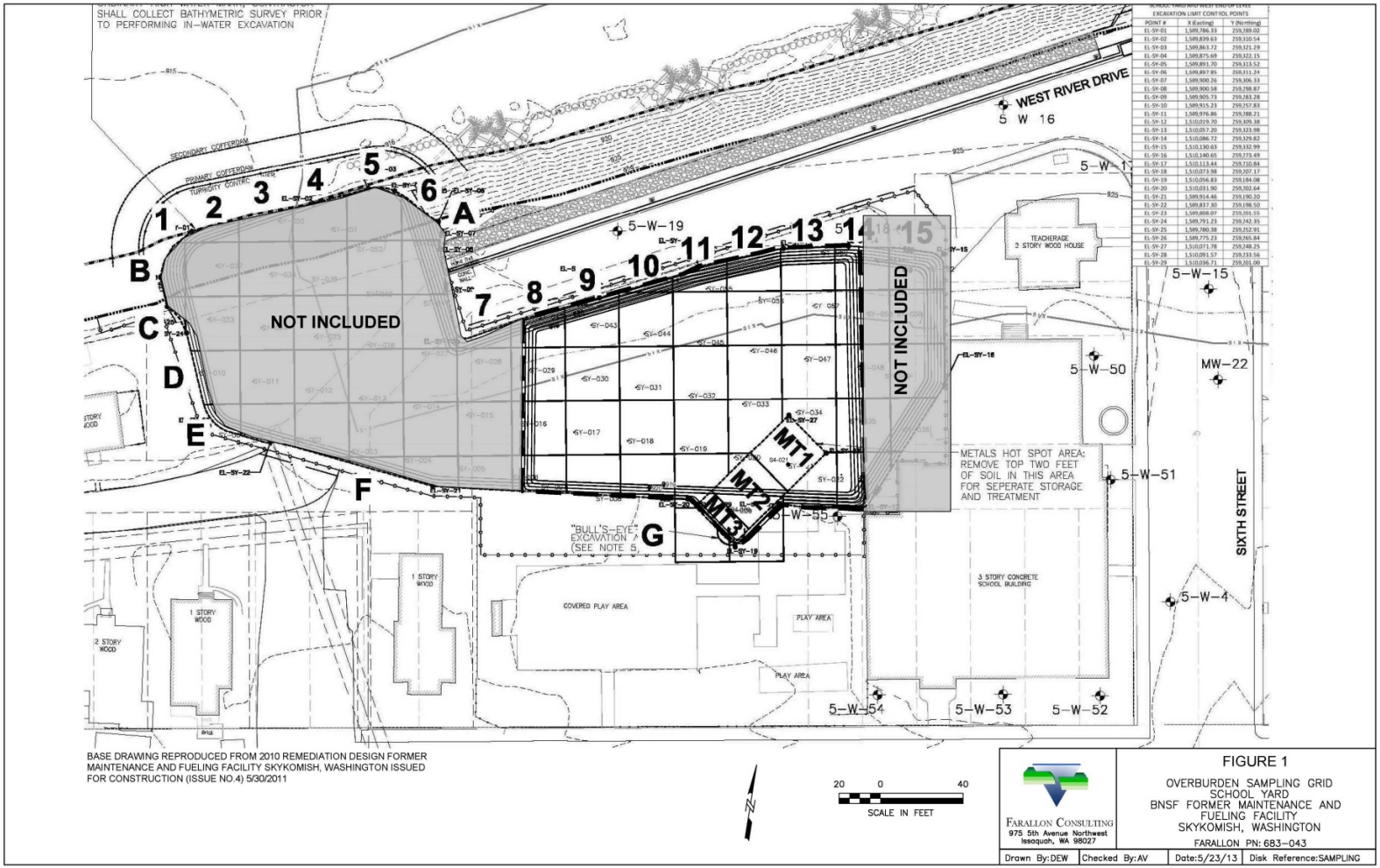


Figure 5-1. Sample Grid figure prepared by Farallon Consulting, showing the layout for environmental sampling at the AI.

Figure 5-2. View to west of the fill and overburden sediments exposed in Sample S35-G-11 (0 to 27 inches below surface). Note gravelly and cobbly fill and truncated utility pipe.

Historic-period cultural material was observed and documented in several sample test excavations. In particular test excavations S15/D-10, S16/D-11, S21/E-13, and S23/E-11, produced materials probably associated with the historic-period structural foundation discovered during overburden excavation/removal and discussed below (Section 5.2). This material was observed in the overburden (which was non-native fill) and included numerous red brick fragments, oxidized wire nails of varying size, structural concrete with rebar support, thick white sanitary porcelain , cement piping, charcoal, ash, and melted glass and metal (slag). No diagnostic artifacts were discovered, and all historic material was re-deposited with backfill.

5.2 Excavation of Overburden

Overburden excavation and removal throughout the AI confirmed observations of the sediment stratigraphy from sample test excavations. Observed sediments throughout the AI consisted of 10 to 13 inches of organic top soil, overlying 4 ft of crushed gravel fill along the north and west boundaries, or gray and brown disturbed river bed sediments (used as fill) elsewhere. The archaeological monitor continued to observe historic period cultural materials around the center of the grid. Such material included over 100 red bricks, non-diagnostic metal (nails, shovel head, scrap), a few shards of bottle and plate glass, and several large concrete foundation blocks (disassociated and within fill). Located approximately in grid squares D-10 and D-11, an unanticipated historic structural foundation was discovered on June 24, 2013. The foundation remained secured onsite until its removal on June 26th, 2013. Overburden excavation was allowed to continue and was completed without work stoppage by the end of the day on June 26, 2013.

Figure 5-3. Overview of overburden excavations at the northwest portion of the AI, showing the transition from gravelly fill associated with the 2010 Levee Remediation to the yellowish-brown, siltier sandy and cobbly overburden and fill observed elsewhere (view to north).

5.3 Site 45KI1157

The concrete foundation (temporary ID HRA-2102-1) was first encountered on June 24, 2013, about mid-afternoon. The upper (west) half of what would later be described as the south wall was hit by the JD 450D excavator operator. Clearing by the excavator exposed a wall of structural concrete with visible interior support rebar. With assistance from machine excavation, the monitor was able to expose much of the south wall, as well as concrete flooring in the west section with a metal pipe, one interior wall and the upper portion of an eastern wall (Figure 5-4). The monitor halted excavation immediately around the exposed foundation and initiated protocol for unanticipated discovery of historic resources detailed in the 2010 monitoring plan (NWAA 2010).

Figure 5-4. Overview photograph of partially cleared foundation remnants (view to northeast).

Further exploration and clearing of the foundation revealed three largely intact walls, and a partially truncated north wall (Figure 5-5). The sediments overlying and in the interior of the foundation were

largely composed of sandy silts with concrete rubble, intermixed with historic-period metal and ceramic artifacts. These artifacts included wire nails; brick fragments; metal piping; sanitary porcelain shards from a historic manufacturer from Trenton NJ, "Thos Maddock Sons Co." (Figure 5-6); and a metal pulley from a window frame (Figure 5-7). Overburden excavation was allowed to continue within the AI once the foundation had been secured and a buffer established.

Figure 5-5. Overview photograph of cleared foundation remnants (view to northwest).

Figure 5-6. View of sanitary porcelain fragments, refit, with "Thos Maddocks Sons Co" makers mark.

Figure 5-7. View of two-inch pulley from overburden around foundation.

On June 25, 2013, Colin Lothrop was joined by HRA archaeologist Jennifer Gilpin, M.A. Work continued to expose the foundation using machine and hand excavation. A sketch map was produced detailing dimensions, depths, and surrounding sediments to scale. The foundation and associated artifacts were documented through photography and written descriptions, and remained within the AI at all times. Once the foundation was fully documented, HRA Senior Archaeologist Lynn Compas, on behalf of Farallon, initiated communication with the DAHP and KCHPP. On June 26, 2013, at 12:45 pm, the foundation was removed by machine excavation on the approval and conclusion from the DAHP and KCHPP that the site was not eligible for listing in the NRHP.

The foundation was removed systematically. The western section, which consisted of an 8-inch thick concrete pad, with no south wall, was removed first, exposing fill sediments below and a small catch basin installed directly into the sewer pipe. Next the south wall was collapsed, followed by the east

wall. After the east wall was removed, a mixture of ground water, fuel, and human waste began to pour from the interior of the foundation and permeate up from the exposed fill soils. It is possible that a historic-period privy was directly under the eastern section of the foundation, or that waste from the toilet facilities had collected beneath the foundation. This waste had been sealed, preventing natural decomposition processes, and was mixing with contamination, which presented an immediate hazard to personnel within the Exclusion Zone. The archaeological monitor closely observed and photographed the removal process, but did not interact with material once waste and contamination was observed. No cultural material usually associated with a historic-period privy was observed, such as glass beverage bottles, house wares, and discarded personal artifacts; however, there is a potential for identifying historic cultural deposits as the base is exposed through contamination removal below 5 ft within the AI.

As detailed in Section 3.3.1, after consulting historic maps and schematics, and with assistance of Bob Kelly from the Skykomish Historical Society and Museum, it appears that the foundation was the remains of a lavatory that was a part of the original 1902–1936 Skykomish school complex, separated from the main building.

6. Evaluation of Recorded Resources

6.1 National, State, and Local Register Criteria

The standards for evaluating and listing properties in the NRHP require that a historic property be at least 50 years old; possess integrity of location, design, setting, materials, workmanship, feeling, and association; and meet at least one of the following criteria:

A. Property is associated with events that have made a significant contribution to the broad patterns of our history; or

B. Property is associated with the lives of persons significant in our past; or

C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction; or

D. Property has yielded, or is likely to yield information important in prehistory or history (United States Department of the Interior 2002).

The criteria for listing properties in the Washington Heritage Register (WHR) are:

A. A building, site, structure, or object must be at least 50 years old. If newer, the resource should have documented exceptional significance.

B. The resource should have a high to medium level of integrity, i.e. it should retain important character defining features from its historic period of construction.

C. The resource should have documented historical significance at the local, state, or federal level (DAHP 2013).

The criteria for listing a building, site, structure, object, or district to the King County Landmarks List (KCLL) include that it:

- Be more than 40 years old;
- Possess integrity of location, design, setting, materials, workmanship, feeling, and association; and
- Meet at least one of the following criteria:
    - Be associated with events that have made a significant contribution to the broad patterns of national, state, or local history; or

- Be associated with the life of a person or persons significant in national, state, or local history; or
- Embody the distinctive characteristics of a type, period, style or method of design or construction, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- Be an outstanding work of a designer or builder who has made a substantial contribution to the art; or
- Yield or be likely to yield information important in prehistory or history (King County 2012).

6.2 Site 45KI1157

Archaeological site 45KI1157 was recorded on June 25 and 26, 2013. The site consists of a partially intact concrete foundation and associated concrete rubble, as well as assorted historic-period artifacts contained in gravelly fill material above and within the vicinity of the foundation. Archival map research, along with artifacts at the site—including the presence of metal plumbing and sanitary porcelain (possibly from a toilet or sink)—suggests that the foundation was part of toilet facilities associated with the old Skykomish School complex. The site may date to the late 1920s to early 1930s. However, the site does not appear to meet any of the criteria for listing in local through national registers.

Since the superstructure of the foundation was demolished, and the construction materials and potentially associated artifacts intermixed with fill, the site has lost a large degree of integrity. The foundation retains integrity of location and materials, but the demolition of the superstructure lessens integrity of design and workmanship. Since the old Skykomish School complex was razed to make room for the existing school (constructed in 1936), the site's integrity of setting, feeling, and association have also been impacted.

The foundation, as part of the overall school complex, is associated with research themes pertaining to the development of sanitation and the design and operation of children's educational institutions in a rural setting. However, the site represents a small portion of the overall school campus: by itself (i.e., out of context), the site contains little information to contribute to our knowledge beyond the fact that the Old Skykomish School, by the late 1920s to early 1930s, boasted a toilet and, it appears, indoor plumbing. Thus, the site is recommended not eligible under Criterion A of the NRHP, the third criterion of the WHR, or Criterion A of the KCLL.

The foundation is not known to be directly associated with important persons locally, regionally, or nationally. Although the toilet almost certainly was utilized by a variety of local children and adults, no characteristics of the site are present to provide more than a tenuous association with any person.

Therefore, the site is recommended not eligible under Criterion B of the NRHP, the third criterion of the WHR, or Criterion B of the KCLL.

The site does not appear to have been a unique example of construction techniques or design. Medium to large-aggregate concrete, poured in levels and strengthened with ribbed rebar, is a commonly observed building method that is not unique to this time period or location. Thus, the site is recommended not eligible under Criterion C of the NRHP, the third criterion of the WHR, or Criterion C and D of the KCLL.

Finally, the site does not contribute information important to the history of Skykomish that is not already available via archival research. The most temporally diagnostic artifact—the "Maddocks Sons" sanitary porcelain fragments—complements map research into the potential dates and function of the site. No other cultural materials were observed to inform us of the lives of school children and their teachers in the early twentieth century in a railroading and logging town. Thus, the site is recommended not eligible under Criterion D of the NRHP, the third criterion of the WHR, or Criterion E of the KCLL.

On behalf of Farallon, HRA archaeologist Lynn Compas contacted Gretchen Kaehler, Local Government Archaeologist, and Stephenie Kramer, Assistant State Archaeologist at the DAHP, about the find on June 25 and 26, 2013. On June 26, 2013, Kramer concurred that the foundation was not eligible for the NRHP. As a result, Farallon was given approval to demolish the site so that they could continue to excavate contaminated soils.

7. Conclusions

An HRA archaeologist monitored all ground disturbing activities at the AI up to 5 ft below surface. This included sample excavations to test for contaminant levels, and overburden removal across the AI.

One historic-period archaeological site, 45KI1157, was recorded on June 25 and 26, 2013, and was recommended not eligible for listing in the NRHP, WHR, or KCLL. DAHP concurred and gave approval to demolish the site and continue construction. As the site is not eligible, no impacts to historic properties resulted from this Project. No further cultural resources work is recommended.

7.1 Inadvertent Discovery of Cultural Materials

If additional subsurface work occurs in the project area and archaeological deposits are inadvertently discovered during construction, ground-disturbing activities at the encounter location should be halted immediately, and Farallon should be notified. Farallon would then contact the KCCHP, DAHP, and the interested Tribes, as appropriate, with support provided, as requested, by HRA.

7.2 Inadvertent Discovery of Human Remains

Any human remains that are discovered during construction of the Project will be treated with dignity and respect.

If additional ground-disturbing activities encounter human skeletal remains during the course of construction, then all activity that may cause further disturbance to those remains **must** cease, and the area of the find must be secured, covered from view, and protected from further disturbance. In addition, the finding of human skeletal remains **must** be reported to the King County Medical Examiner (ME) **and** local law enforcement (King County Sheriff's Office) in the most expeditious manner possible. The remains should not be touched, moved, or further disturbed.

The ME will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the ME determines the remains are non-forensic, the ME will report that finding to the DAHP, which will then take jurisdiction over the remains and report them to the appropriate cemeteries and the affected Tribes. The State Physical Anthropologist will make a determination of whether the remains are Indian or Non-Indian, and report that finding to any appropriate cemeteries and the affected tribes. The DAHP will then

handle consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

8. References Cited

Ames, K. M., and H. D. G. Maschner

1999 *Peoples of the Northwest Coast, Their Archaeology and Prehistory.* Thames and Hudson Ltd., London, England.

Booth, Derek B

1990 *Surficial Geologic Map of the Skykomish and Snoqualmie Rivers Area, Snohomish and King Counties, Washington.* US Geological Survey Miscellaneous Investigations Series Map I-1745. US Geological Survey, Washington, D.C.

Boswell, Sharon A., and Charles M. Hodges

2005 *Cultural Resource Assessment for the Former Maintenance and Fueling Facility Project, Skykomish, King County, Washington.* Prepared for The RETEC Group, Inc. Seattle, Washington.

Carlson, Roy L.

1990 History of Research Archaeology. In *Northwest Coast,* edited by W. Suttles, pp. 107–115. Handbook of North American Indians, Vol. 7, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Haeberlin, Hermann, and Erna Gunther

1930 *The Indians of Puget Sound.* University of Washington Publications in Anthropology, Seattle.

Historical Research Associates, Inc.

2013 *Supervisory Plan for Archaeological Monitoring – Skykomish Soil Remediation Project.* Prepared for the Department of Archaeology and Historic Preservation on behalf of Farallon Consulting.

Horr, David A.

1974 *Coast Salish and Western Washington Indians V: Commission Findings, Indian Claims Commission.* Garland Publishing, Inc., New York.

King County

2012 King County Landmark Designation and Certificate of Appropriateness Process. Technical Paper No. 4, King County Historic Preservation Program, Department of Natural Resources and Parks, Seattle. Electronic document, http://www.kingcounty.gov/property/historic-preservation/resources-links.aspx, accessed February 28, 2013.

Knutson, Fred E.

n.d. Ground Plan of School Block, Plate No. 15, Skykomish High School. Plan courtesy of Skykomish Historical Society, Skykomish, Washington.

1926 *Kroll's Atlas of King County, Wash.* (T.25N, R7E, W.M.). Kroll Map Company, Seattle, Washington. Available at Seattle Public Libraries, Seattle Room, Central Branch.

Mallis, Williams
1928 Plans for Remodeling the Skykomish School for School District H#192, King County. Prepared by Williams Mallis, Architect, Seattle, Washington. Plan courtesy of Skykomish Historical Society, Skykomish, Washington.

Matson, R. G., and G. C. Coupland
1995 *The Prehistory of the Northwest Coast.* Academic Press, San Diego, California.

Northwest Archaeological Associates, Inc.
2010 *Archaeological Resources Monitoring and Discovery Plan for the BNSF Railway Former Maintenance and Fueling Facility, 2010 Cleanup Activities, Skykomish, Washington.* Northwest Archaeological Associates, Inc., Seattle, Washington. Prepared for AECOM Environment, Bellingham, Washington.

Porter, Stephen C.
1976 Pleistocene Glaciation in the Southern Part of the North Cascade Range, Washington. *Geological Society of America Bulletin* 87:61–75.

Sanborn Map Company
1908 Skykomish, Wash. Electronic document, http://sanborn.umi.com.ezproxy.spl.org:2048/wa/9324/dateid-000002.htm?CCSI=2565n, accessed June 24, 2013.

1926 Skykomish, Wash. Electronic document, http://sanborn.umi.com.ezproxy.spl.org:2048/wa/9324/dateid-000002.htm?CCSI=2565n, accessed June 24, 2013.

1926–1930 Skykomish, Wash. Electronic document, http://sanborn.umi.com.ezproxy.spl.org:2048/wa/9324/dateid-000002.htm?CCSI=2565n, accessed June 24, 2013.

Sheridan, Mimi
1998 *Historic Resource Survey, Skykomish, Washington.* Landmarks and Heritage Program, King County Office of Cultural Resources, Seattle, Washington.

Shong, Michael
2009 Old Skykomish Site 45KI831 Update to State of Washington Archaeological Site Inventory Form. On file at the Department of Archaeology and Historic Preservation, Olympia, Washington.

Stein, Alan J.
1999 Skykomish – Thumbnail History. HistoryLink Essay 1623. Electronic document, http://www.historylink.org/index.cfm?DisplayPage=output.cfm&file_id=1623, accessed July 1, 2013.

Suttles, Wayne, and Barbara Lane
1990 Southern Coast Salish. In *Northwest Coast,* edited by Wayne Suttles, pp. 485–502. Handbook of North American Indians, Vol. 7, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Thomson, R. H.
1950 *That Man Thomson.* Edited by Grant H. Redford. University of Washington Press, Seattle.

United States Department of the Interior
2002 How to Apply the National Register Criteria for Evaluation. Bulletin 15, US Department of the Interior, National Park Service. Original date of publication 1990, revised for internet 2002. Electronic document, http://www.nps.gov/nr/publications/bulletins/pdfs/nrb15.pdf, accessed February 28, 2013.

Waitt, Richard B., Jr., and Robert M. Thorson
1983 The Cordilleran Ice Sheet in Washington, Idaho, and Montana. In *Late-Quaternary Environments of the United States,* edited by Stephen C. Porter, pp. 53–70. University of Minnesota. Minneapolis.

Appendix A. Washington State Archaeological Site Inventory Form: Site 45KI1157

STATE OF WASHINGTON
ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian No.: 45KI1157
***County:** King

***Date:** 6/26/2013 ***Compiler:** Jennifer Gilpin, Colin Lothrop **Human Remains?** ☐
Location Information Restrictions *(Yes/No/Unknown)*: Yes **DAHP Case No.:**

SITE DESIGNATION

Site Name: Old Skykomish School Toilet Structure Foundation
Field/ Temporary ID: HRA-2102-1
***Site Type(s):** Historic Schools

SITE LOCATION

***USGS Quad Map Name(s):** Skykomish, WA 1982
***Legal Description: T**26N **R** 11E **Section(s):** 26
Quarter Section(s): SW ¼ SW ¼
UTM: Zone 10T **Easting** 172747 **Northing** 5293244
Latitude: **Longitude:** **Elevation (ft/m):** 922 ft /
Other Maps: **Type:**
Scale: **Source:**
Drainage, Major: Skykomish River **Drainage, Minor:** **River Mile:** N/A
Aspect: Northwest **Slope:** <1 percent

***Location Description** *(General to Specific)*: The site was located in northeast King County, on the south bank of the Skykomish River in the western foothills of the Cascade Range. The foundation was observed buried within the existing school yard of the Skykomish School, approximately 30 meters (m) west of the northwest corner of the school and 35 m southeast of the river.

***Directions** *(For Relocation Purposes)*: From the corner of 6th Street and West Riverside Drive, walk 60 m west along the south side of the road. The site was located 10 m south of the street at this location.

SITE DESCRIPTION

***Narrative Description:**

Site 45KI1157 was encountered during archaeological monitoring of remediation excavations of contaminated soils west and northwest of the Skykomish School (Location Map). It was located approximately 30 m west of the northwest corner of the existing school building (Photograph 1), which was built in1936 and is a contributing element to the Skykomish Historic Commercial District (Sheridan 1999).

The site consists of a largely-intact foundation of poured medium- to large-aggregate concrete measuring 20 foot (ft), 11 inches (in) west-east by 11 ft 10 in north-south on the east side (Photograph 2, sketch map). The orientation of the foundation was slightly off-true north, 350 degrees by 80 degrees, which places its longer side roughly parallel to West Riverside Drive, the road to the north of the school parcel. The foundation was covered with between 10 in and 3 ft of fill, which included around 10 in of dark brown silty sod (and grass), overlying increasingly gravelly to cobbly sandy and silty fill. The southwest corner of the foundation was observed 3 ft 1 in below surface; the southeast corner was observed 10 in below surface; and the base of the south side was observed 5 ft 9 in below surface. The fill, overlying and within the foundation, contained chunks of concrete of differing sizes, suggesting that the superstructure and portions of the foundation itself were demolished and used to fill the base. One interior wall, oriented north-south and roughly bisecting the structure, suggests that the building had at least two rooms.

Sanborn Fire Insurance Maps from 1908, 1926 and 1928-30 indicate that the foundation was located in the approximate vicinity of the previous Skykomish school grounds. The buildings in the vicinity of the site included:

- The 1902 "t-shaped" Skykomish School and associated "W.C." (depicted on the 1908 Sanborn)
- The Skykomish School and its gymnasium (depicted on both 1926 and 1926-30 maps; the gym was built in 1914);
- A coal shed (1926, moved to the west by 1926-30); and
- a play shed which replaced the location of the coal shed by 1926-30.

Historic Maps 1 and 2 show georeferenced Sanborn maps overlying the modern aerial of the town and depicts the site in relation to the buildings.

SITE DESCRIPTION (Continued)

***Narrative Description:**

Upon reaching the project area and assessing the more exact location of the foundation, it appeared too far north to be the main school building, and too far west to be the gymnasium. It also seems to be too far south to be the "W.C." shown on the 1908 Sanborn Map, which was located much closer to Riverview Ave (Historic Maps 1 and 2). When more of the foundation was cleared, it was also evident that the site was smaller than the playshed depicted in the Sanborn maps (Historic Map 2). It was still possible that the foundation represented the coal shed, as coal pieces were observed in fill sediments in the vicinity of the foundation. However, archaeologists also observed fragments of sanitary porcelain (see Cultural Materials and Features, below) and metal piping extending through the foundation, suggestive of sewer or water connection to the structure.

HRA visited the Skykomish Historical Society, and Mr. Bob Kelly conducted a search of their archived images. Mr. Kelly obtained overview photographs of the school complex (Historic Photographs 1 and 2), along with several useful plans of the school building and grounds. One of the plans (Historic Map 3) depicts a smaller building, whose dimensions (20- by 9-ft) more closely match those of the foundation (Knutson n.d.). This small building is unlabeled, but it is shown between the main school building and the playshed – this location fits well with the location of the foundation as shown in Historic Map 2. The blueprint is undated, but the presence on the plan of the "manual shop" (built in 1926) and the playshed (constructed by 1930) suggests that it was prepared in the late 1920s or early 1930s. A second plan set, dating to 1928, depicts "Plans for Remodeling the Skykomish School" and helps to narrow down the identification of the foundation further (Mallis 1928). While it is uncertain which of the plans were eventually adopted, one plan shows a "boys toilet" to the north of the existing building (Historic Map 4). Next to the existing building, the plan also shows a “new girls toilet” with an adjacent storage room. An aerial photograph from the Historical Society's collection, dated ca. 1930, does not show this small building (Historic Photograph 3). It is likely, based on the size of the foundation, and the presence of plumbing and sanitary porcelain fragments, that the site is associated with one of the proposed toilet structures. The wall separating the proposed “girls toilet” from the storage room on the plan (Historic Map 4) may reflect the two-roomed nature of the foundation site.

SITE DESCRIPTION (Continued)

***Narrative Description:**

The old Skykomish School complex was demolished by 1936, when the "new" school building was constructed (Sheridan 1999:7-7 to 7-8). The site was presumably covered by fill at that time.

On June 26, 2013, Historical Research Associates, Inc., provided information on the site to Stephenie Kramer, Assistant Washington State Archaeologist. Kramer concurred that the site was not eligible for listing in the National Register of Historic Places, and the foundation was removed so that soil remediation could continue. No artifacts were collected due to the likelihood for contamination.

Site Dimensions** *(Overall Site Dimensions):**

***Length:** 7 m ***Direction: SW-NE** x ***Width:** 3.5 m ***Direction:** SE-NW

***Method of Horizontal Measurement:** Tape measure

***Depth:** 1.9 m * **Method of Vertical Measurement:** Tape measure

Vegetation** *(On Site):** Grasses

Local: Maple trees, Douglas fir, introduced species **Regional:** Tsuga heteropylla association

Landforms *(On Site)***:** River terrace

Local: Same

Water Resources *(Type)***:** Skykomish River **Distance:** 35 m NW **Permanence:** Permanent

CULTURAL MATERIALS AND FEATURES

Narrative Description** *(Specific Inventory Details):**

The outer walls of the concrete foundation was poured in courses measuring approximately 7 in high by 6 in wide, using wood cribbing. The wood grain pattern was visible on the exterior foundation walls and some remnant wood was observed during clearing of the foundation (Photograph 3). Ribbed rebar extended from the upper surface of the walls (Photograph 4), spaced approximately 1 to 1 ½ ft apart. The western 7 ft 6 in of the foundation was comprised of a poured concrete exterior wall and base, forming a pad overlying cobbly silty sands for approximately 6 in, which in turn overlay a bed of very well-sorted pea gravels (Photograph 5).

The western concrete pad contained a 5-in diameter metal pipe extending vertically from the northwest corner of the exposed pad (see Photograph 3). This pipe extended beneath the pad, presumably bending into or connecting with a horizontal metal pipe of the same diameter that extended west from within the foundation to the 2010 excavation limits for the Levee Zone Cleanup Project (NWAA 2007), suggesting that the pipe was truncated during that project. Due to the nearby presence of fragments of sanitary porcelain, the pipe is interpreted as an outlet for water or sewage. When the concrete pad was removed, a catch basin or holding area was observed beneath the pad, suggesting a modern sewage system was in place.

At the east end of this "pad," an interior wall oriented north-south separated the pad from deeper foundation walls comprised of eight poured courses at the south wall (Photograph 6), and ten courses on the east wall (Photograph 7). The walls were filled with rubble, and another poured concrete base was observed at the bottom of the fill (approximately 70 in below the top of the foundation walls). When this base was removed, the monitoring archaeologist observed a mixture of crude oil and human waste (Photograph 8). Fragments of wood and metal were observed at the base of the foundation walls, but no glass was observed, suggesting that, if a privy was originally located here, that construction of the foundation may have demolished it.

CULTURAL MATERIALS AND FEATURES

Narrative Description** *(Specific Inventory Details):**

Two concentrations of metal debris were observed in the fill and rubble overlying the foundation. The western concentration was located on the east side of the vertical pipe and including a few dozen wire nail of varying sizes, wire mesh remnants (crushed and heavily oxidized), and some sheet metal fragments (Photograph 9). The second concentration was located approximately 6 ft west of the northeast corner of the foundation and included some small sheet metal fragments and a large, thin piece of crushed metal, possibly part of a barrel (no distinguishing marks or seams were found).

Isolated concrete blocks and brick fragments, and small pockets of ash and charcoal were observed in fill soils within approximately 25 m south, southeast, and east of the foundation, but far enough away so that they were not recorded as part of the site. Although they probably represent remnants of the older Skykomish school buildings, their context is uncertain, and none represented intact features.

Artifacts observed above, within, and immediately surrounding the foundation, and therefore recorded as part of the site, included:

- Moderate to large chunks of broken concrete foundation and flooring (rebar included)
- Reddish-orange bricks and brick fragments
    - No makers marks were observed
    - Some bricks displayed beveled edges on the long sides
- Plumbing pipe
    - One observed piece measured 20 ½ in, including a 2-in "t"-joint
- Assorted wire nails (Photograph 10)
    - Up to two dozen identified initially, many concentrated in western portion of the foundation
    - Measurements include:
        - 4 in by 3/8 to ½-in head
        - 3 in by 3/8-in head
        - 3 ½ in by ¼-in head
        - 2 ½ in by ¼-in head
        - 2 ¼ in by ¼-in head

CULTURAL MATERIALS AND FEATURES (Continued)

***Narrative Description** *(Specific Inventory Details)*:**

- Metal wire mesh
  - Decomposing, heavily oxidized, observed in small (<5-in) chunks
- Clear window glass
  - ~1/16 to 1/8-in thick, varying sizes
- Brown vessel glass
  - Seam visible on body shard (no base or neck); machine made
- Coal and slag (vitrified glass)
- Metal straps
  - ~7/8-in thick with 1/8-in holes spaced approximately ½ in apart
- Small metal pulley (Photograph 11)
  - 2-in diameter wheel in casing measuring 4 in long and 1 in wide.
  - Two ½-in holes to either end on casing
- Sheet metal fragments (small to large) – possible barrel
- Tin pot with handle (Photograph 12)
  - ~5-in height with 6 ½ in handle. Soldered on, as no bolts observed.
- Electrical wire insulation, protective casing
  - Ribbed, segment is 5 in long by ½ in diameter
- Wire hanger
  - Small coat hook, 3-in long
- Cast iron piece (Photograph 13)
  - Decorative, possibly furniture but uncertain use
  - Approximately 10 by 10 in, with bolts on one end that are ½ in with 1 ¾-in diameter washers
- Sanitary porcelain fragments (Photograph 14)
  - Several pieces observed in and around fill
  - Two refit with makers mark

CULTURAL MATERIALS AND FEATURES (Continued)

***Narrative Description** *(Specific Inventory Details)*:**
Two sanitary porcelain fragments refit and depicted an almost-entire maker's mark for "THOS MADDOCKS SONS CO" (Photographs 14, 15). The Maddock family operated three separate potteries in Trenton, New Jersey, in the late 1800s to early 1900s. Thomas Maddock became sole owner of what was the "Astbury and Maddock" company in 1882, renaming it "Thomas Maddock" and then "Thomas Maddock and Sons." The "Thomas Maddock's Son's Company" was formed in 1902, reincorporated from Thomas Maddock and Sons. By 1929, the company had been bought by the "American Standard" company (Lehner 1988:275). The ceramic pieces, therefore, date to the first three decades of the twentieth century, which corresponds with the archival map and documentary research to date.

***Method of Collection:** Not collected (assumed to be contaminated)

***Location of Artifacts** *(Temporary/Permanent)*:** Returned to site

SITE AGE

***Component:** Historic *__Dates__ *(Overall Site Age Approximation)*:** ca. 1926-1936

***Dating Method:** Archival research **Phase:** **Basis for Phase Designation:**

(Only those historic sites that meet the minimum National Register (36CFR60) age threshold (50 years of age or older) will be retained as historic archaeological records and assigned Smithsonian Trinomials by DAHP.)

SITE RECORDERS

Observed by: Colin Lothrop, Jennifer Gilpin **Address:** HRA (see below)

***Date Recorded:** June 25-26, 2013

Recorded by** *(Professional Archaeologist):** Jennifer Gilpin, M.A.

***Organization:** Historical Research Associates, Inc. ***Organization Phone Number:** 206-343-0226

***Organization Address:** 1904 Third Ave, Suite 240, Seattle

***Organization E-mail:** jgilpin@hrassoc.com

Date Revisited: **Revisited By:**

SITE HISTORY

Previous Archaeological Work** *(Done at Site):**

In 2005, Northwest Archaeological Associates, Inc. (NWAA) prepared a Cultural Resource Assessment for the overall remediation project, known as the "Former Maintenance and Fueling Facility Project" (Boswell and Hodges 2005). NWAA conducted archival research into the prehistory and history of Skykomish, and then performed fieldwork to identify archaeologically and architecturally sensitive zones. Historic-period archaeological remains were deemed "likely to be found anywhere within the proposed project boundaries except where already occupied by buildings and structures" (Boswell and Hodges 2005:52).

In 2006, NWAA performed archaeological monitoring directly north of the site, as part of the Levee Zone Cleanup Project (NWAA 2007). Archaeologists monitored excavations that extended along West Riverside Drive: the southern limit of remediation excavations was located in the grassy playfield of the Skykomish School. Some sediments and contaminated soils – notably within the Skykomish River and in the northwest portion of the excavation area – were excavated without a monitor present. No intact cultural materials were observed in the immediate vicinity of the site, although historic-period artifacts were observed in the excavated area between 5th and 65th Streets (NWAA 2007:3).

LAND OWNERSHIP

***Owner:** Skykomish School District 404

***Address:** 105 Railroad Ave, Skykomish WA, 98288

***Tax Lot/ Parcel No:** 5060800005

RESEARCH REFERENCES

***Items/Documents Used In Research** *(Specify)*:**

Boswell, Sharon A. and Charles M. Hodges
2005 *Cultural Resource Assessment for the Former Maintenance and Fueling Facility Project, Skykomish, King County, Washington*. Prepared for The RETEC Group, Inc., Seattle by Northwest Archaeological Associates, Inc., Seattle. On file at the Department of Archaeology and Historic Preservation, Olympia.

Knutson, Fred E.
n.d. Ground Plan of School Block, Plate No. 15, Skykomish High School. Plan courtesy of Skykomish Historical Society, Skykomish, Washington.

Kroll Map Company
1912 *Kroll's Atlas of King County, Wash*. Kroll Map Company, Seattle, Washington. Available at Seattle Public Libraries, Seattle Room, Central Branch.

1926 *Kroll's Atlas of King County, Wash.* (T.25N, R7E, W.M.). Kroll Map Company, Seattle, Washington. Available at Seattle Public Libraries, Seattle Room, Central Branch.

Lehner, Lois
1988 *Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain, & Clay*. Collector Books: Paducah, KT.

Mallis, Williams
1928 Plans for Remodeling the Skykomish School for School District H#192, King County. Prepared by Williams Mallis, Architect, Seattle Washington. Plan courtesy of Skykomish Historical Society, Skykomish, Washington.

Northwest Archaeological Associates, Inc.,
2006 *Technical Memorandum: Results of Archaeological Monitoring Interim Action for Levee Zone Cleanup in Skykomish, King County, Washington*. Prepared for The RETEC Group, Inc., Seattle by Northwest Archaeological Associates, Inc., Seattle. On file at the Department of Archaeology and Historic Preservation, Olympia.

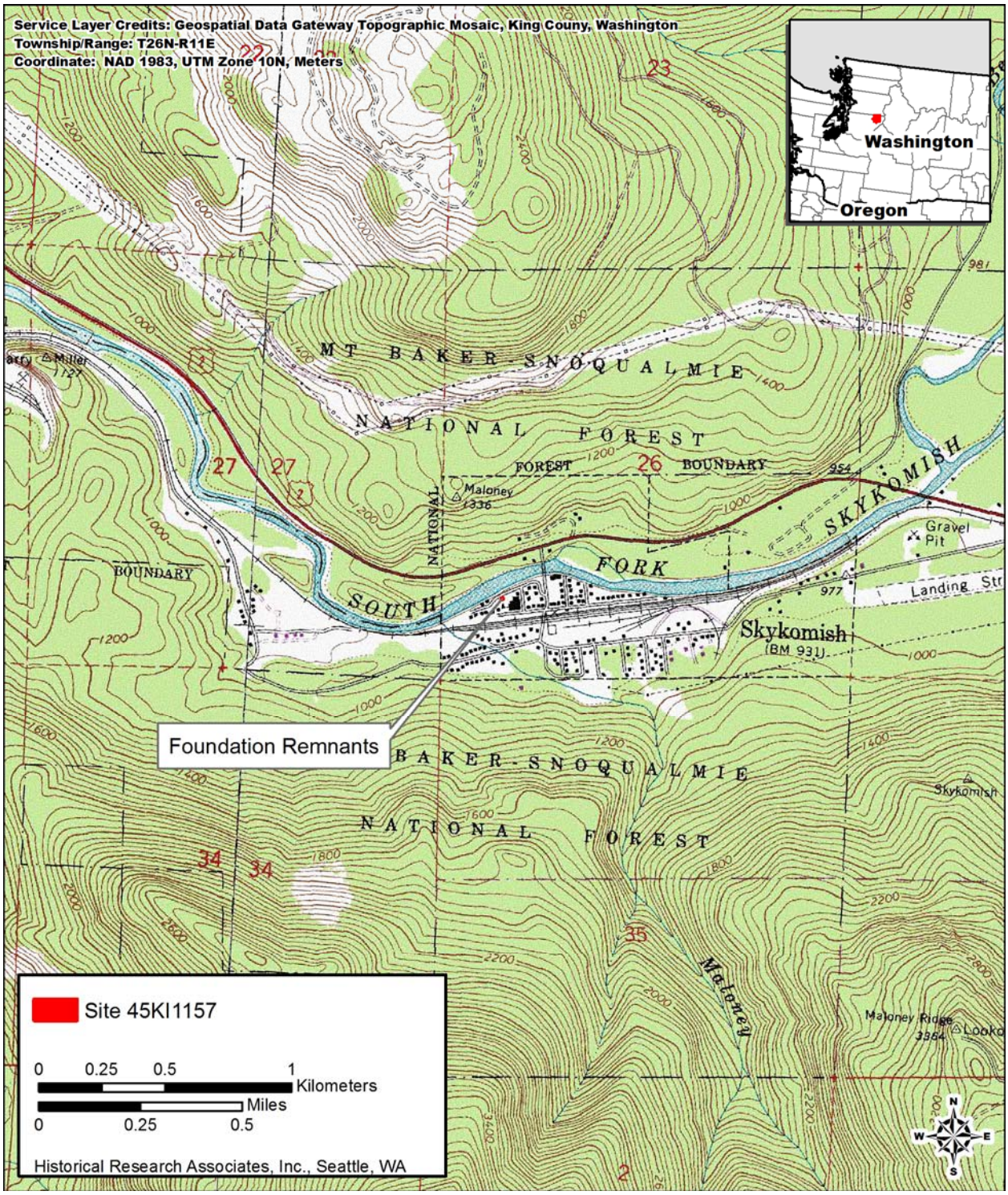
Sanborn Map Company
1908 Skykomish, Wash. Electronic resource http://sanborn.umi.com.ezproxy.spl.org:2048/wa/9324/dateid-000002.htm?CCSI=2565n accessed June 24, 2013.

1926 Skykomish, Wash. Electronic resource http://sanborn.umi.com.ezproxy.spl.org:2048/wa/9324/dateid-000002.htm?CCSI=2565n accessed June 24, 2013.

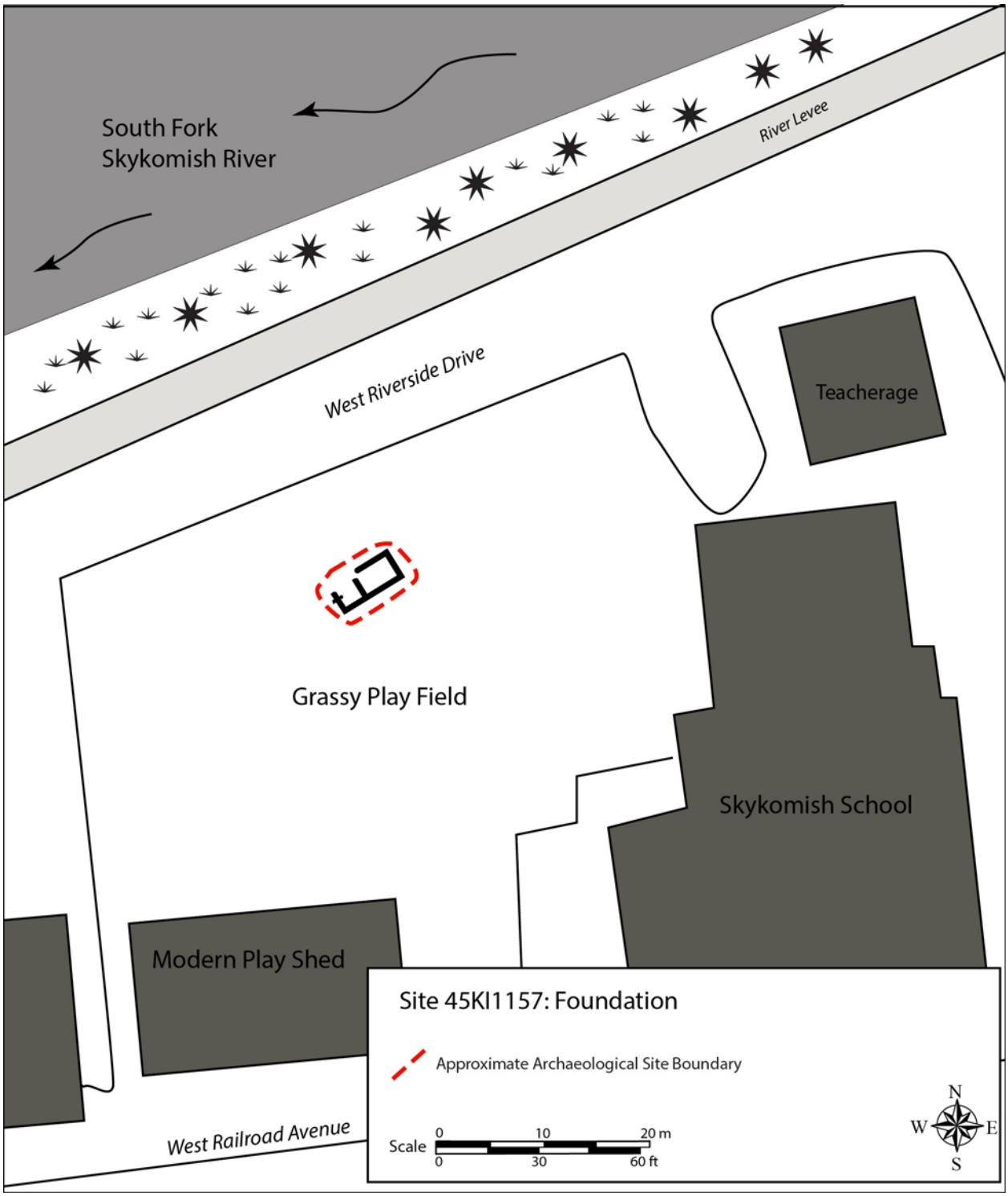
1926-1930 Skykomish, Wash. Electronic resource http://sanborn.umi.com.ezproxy.spl.org:2048/wa/9324/dateid-000002.htm?CCSI=2565n accessed June 24, 2013.

Sheridan, Mimi
1999 45DT134 Skykomish Historic Commercial District National Register of Historic Places Registration Form. On file at the Department of Archaeology and Historic Preservation, Olympia.

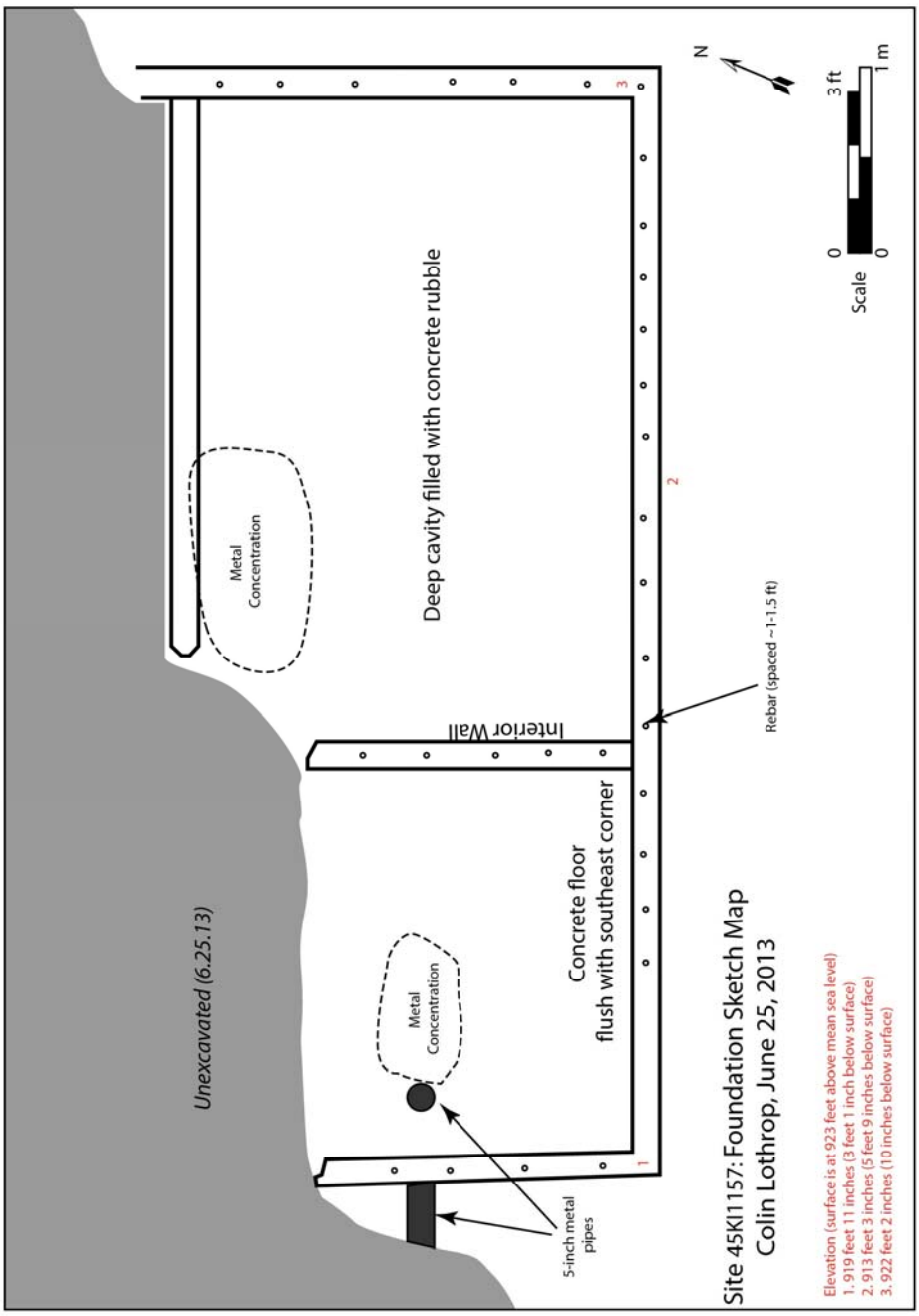
USGS MAP


Service Layer Credits: Geospatial Data Gateway Topographic Mosaic, King County, Washington
Township/Range: T26N-R11E
Coordinate: NAD 1983, UTM Zone 10N, Meters
Washington
Oregon
MT BAKER-SNOQUALMIE NATIONAL FOREST
SOUTH FORK SKYKOMISH
Foundation Remnants
Skykomish
Maloney Ridge
Site 45KI1157
0 0.25 0.5 1 Kilometers
0 0.25 0.5 Miles
Historical Research Associates, Inc., Seattle, WA

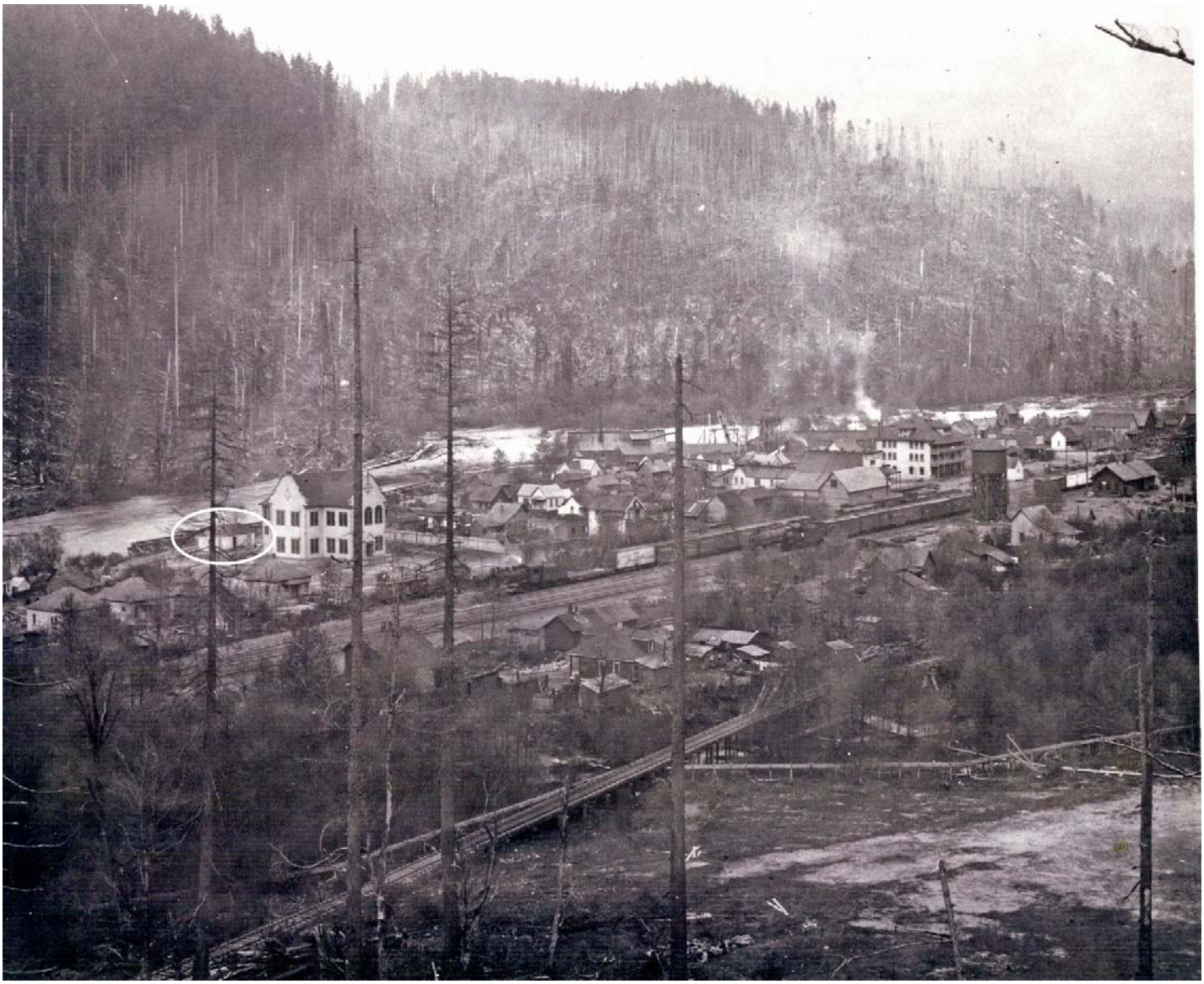
SKETCH MAP


South Fork
Skykomish River
River Levee
West Riverside Drive
Teacherage
Grassy Play Field
Skykomish School
Modern Play Shed
West Railroad Avenue
Site 45KI1157: Foundation
Approximate Archaeological Site Boundary
Scale
0
10
20 m
0
30
60 ft
N
W
E
S

SKETCH MAP - Foundation



HISTORIC PHOTOGRAPH 1



Overview photograph of Skykomish, view to the northeast, dating to ca. 1902 to 1914. Note small coal shed to rear of school (circled). Photograph courtesy of the Skykomish Historical Society.

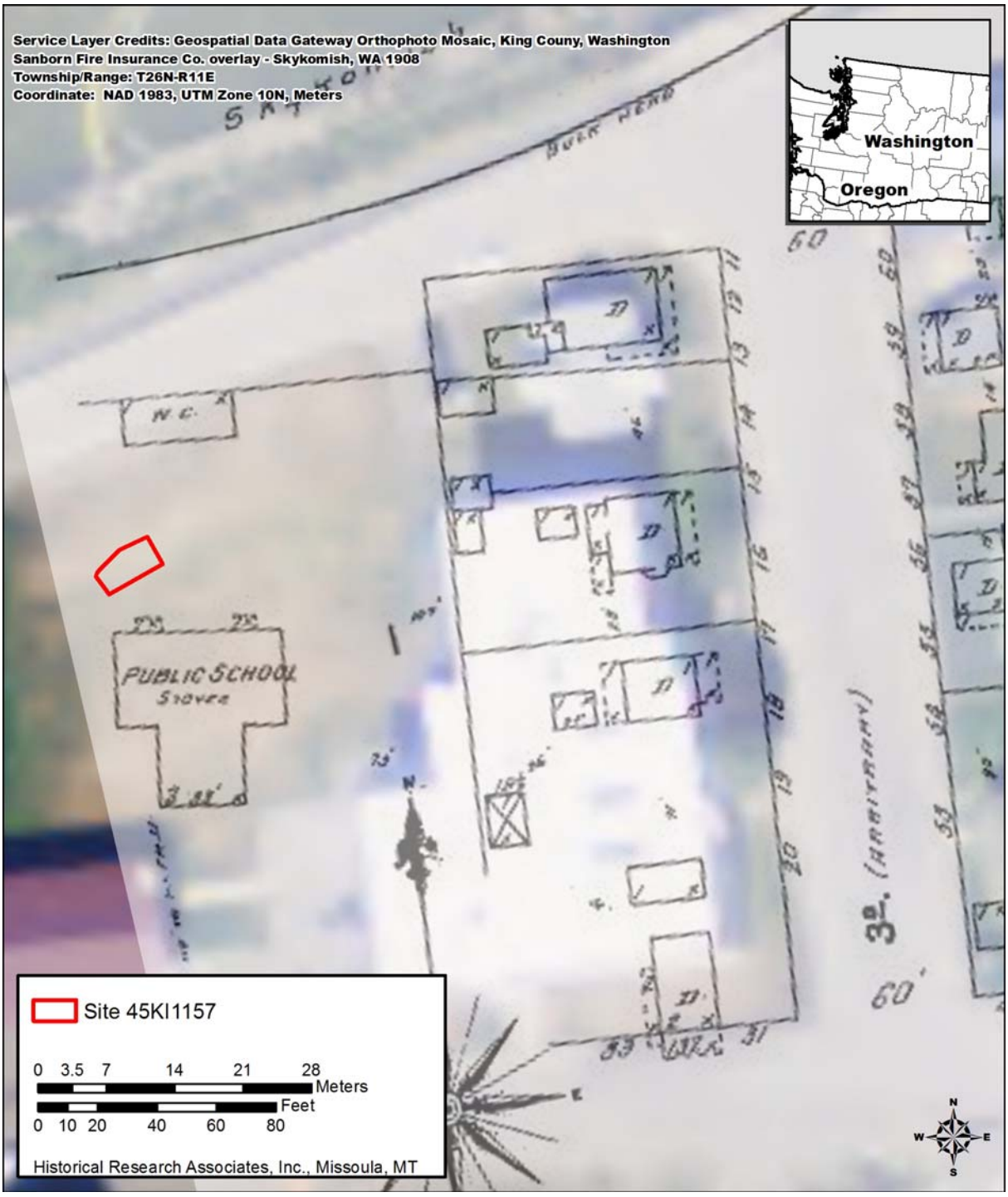
HISTORIC PHOTOGRAPH 2

Closer view of 1902 School and coal shed (circled), predating the construction of the gymnasium in 1914. Photograph courtesy of the Skykomish Historical Society.

HISTORIC PHOTOGRAPH 3

Aerial photograph of Skykomish, ca. 1930. The school is circled, and note the presence of the playshed and shed to the west, but no small structure as seen in Historic Map 2. Photograph courtesy of the Skykomish Historical Society.

HISTORIC MAP 1

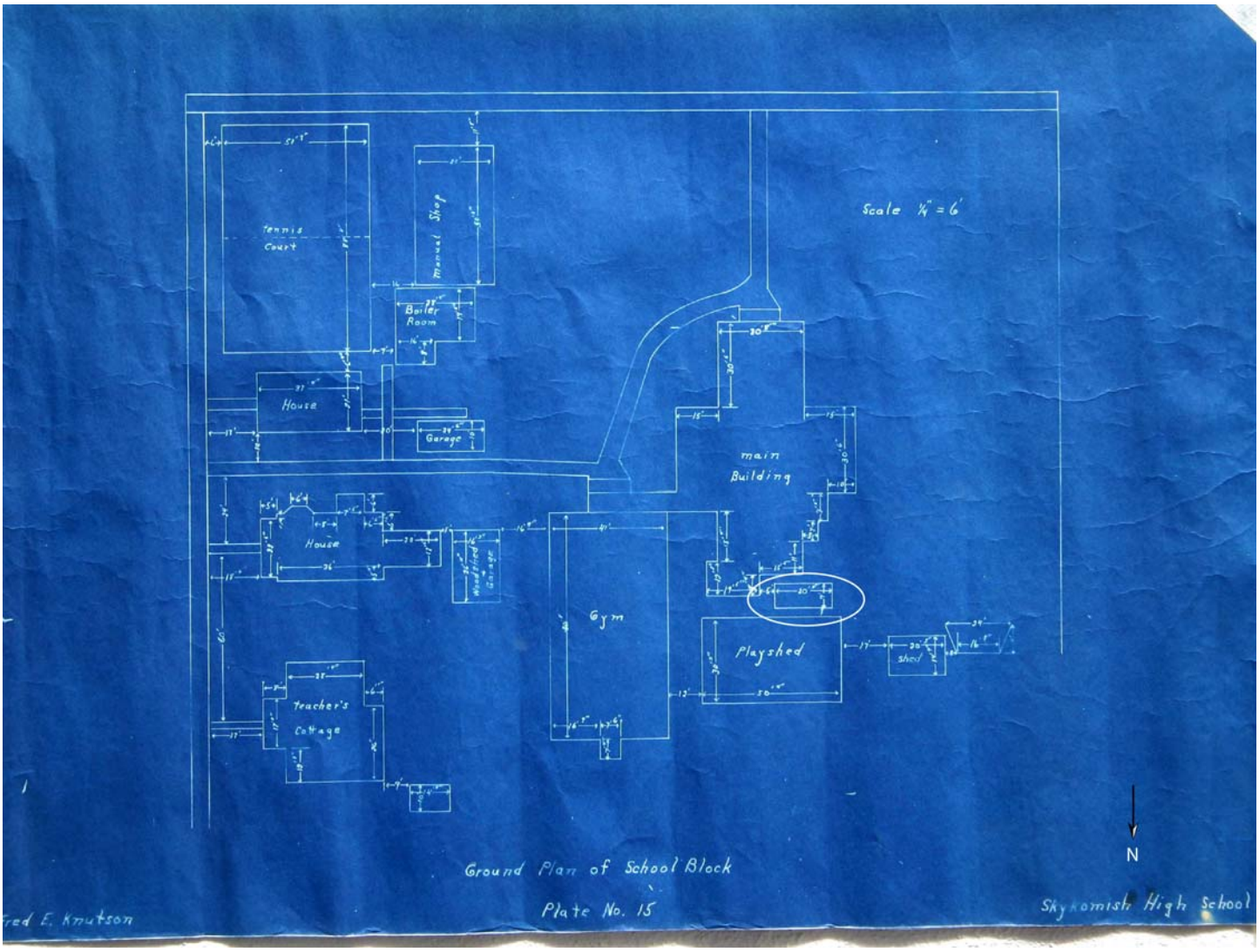


Georeferenced Sanborn Fire Insurance Map from 1908 showing the approximate location of the foundation site between the 1902 school house and the "W.C." to the north, adjacent to what is now Riverview Ave.

HISTORIC MAP 2

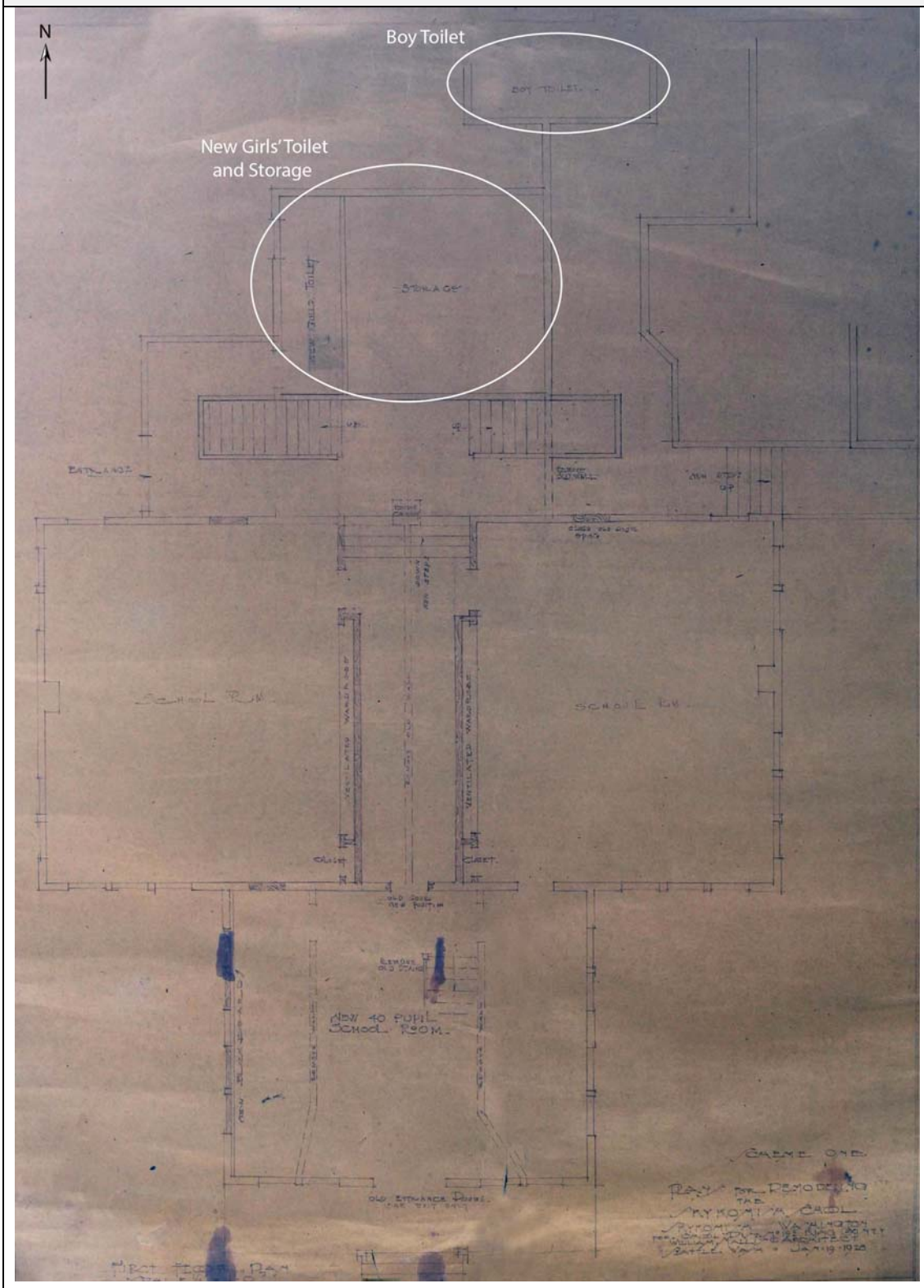
Georeferenced Sanborn Fire Insurance Maps from 1926 (left) and 1926-1930 (right), showing the location of the foundation site.

HISTORIC MAP 3



Plan of Skykomish High School, potentially dating to the late 1920s to early 1930s (Knutson n.d.). Note small structure south of playshed (circled). Plan courtesy of the Skykomish Historical Society.

HISTORIC MAP 4



Plan of proposed changes to Skykomish School (Mallis 1928). Note proposed Boys and Girls Toilets at top of page. Plan courtesy of the Skykomish Historical Society.

PHOTOGRAPH(S)

Photograph 1: Overview of foundation (in foreground), looking southeast to existing school.

Photograph 2. View east-northeast of foundation, showing rubble in fill. Note vertical pipe to the northwest corner of the concrete foundation base.

PHOTOGRAPH(S)

Photograph 3. View of southwest corner of foundation, showing remnants of wood cribbing (view to north-northeast). Also note vertical pipe (topped with ceramic, middle upper frame) and horizontal pipe extending from west foundation wall.

Photograph 4. View of outer (south) wall of foundation (right) with inner wall extending north (aligned with tape). View to southeast. Note rebar spaced along upper portion of concrete wall.

PHOTOGRAPH(S)

Photograph 5. View north of the south wall of foundation. Western 7 ½ ft is comprised of a concrete pad overlying packed sediments, while the remaining portion of the foundation consists of poured courses.

PHOTOGRAPH(S)

Photograph 6. Overview of the poured concrete courses on the south wall (eight in total)

PHOTOGRAPH(S)

Photograph 7. Overview looking southwest of the east wall of the foundation.

Photograph 8. Overview of water table, containing contaminated materials, beneath foundation (view to southeast).

PHOTOGRAPH(S)

Photograph 9. Overview of vertical pipe and metal concentration to the east (note sanitary porcelain fragments). Ruler at 22 inches.

Photograph 10. Assorted wire nails observed within rubble and fill.

PHOTOGRAPH(S)

Photograph 11. Overview of 2-inch pulley observed within rubble and fill.

Photograph 12. Overview of tin pot with handle, observed within rubble and fill.

PHOTOGRAPH(S)

Photograph 13. Cast iron fragment observed in within rubble and fill.

Photograph 14. Sanitary porcelain fragments observed in rubble and fill overlying foundation. Note makers mark on two (refit) fragments to right.

PHOTOGRAPH(S)

Photograph 15. Sanitary porcelain fragments, refit, with "Thos Maddocks Sons Co" makers mark.

APPENDIX E
LABORATORY ANALYTICAL REPORTS

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-38961-1
Client Project/Site: SCHOOLYARD EXCAVATION

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Gerald Portele

Authorized for release by:
6/19/2013 6:03:21 PM
Melissa Armstrong, Project Manager I
(253)922-2310 x135
melissa.armstrong@testamericainc.com

Designee for

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 580-38961-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 6/18/2013 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 11.9º C.

GC Semi VOA - Method(s) NWTPH-Dx
For sample D9-061813-2.5 (580-38961-14), the results in the C10-C24 and Motor Oil (>C24-C36) ranges are due primarily to overlap from the motor oil range.

For samples D12-061813-2.5 (580-38961-17), D13-061813-2.5 (580-38961-18) and Z3-061813-2.5 (580-38961-21), the results in the #2 Diesel (C10-C24) and Motor Oil (>C24-C36) ranges are due to what most closely resembles a complex mixture of heavily weathered/degraded diesel fuel, weathered motor oil and/or mineral/transformer oil range product.

The affected analyte ranges have been "Y" qualified and reported.

Duplicate of sample C9-061813-2.5 (580-38961-11) surrogate was mistakenly not added in the duplicate sample. All other batch QC and sample QC including the parent sample for the duplicate pass criteria. Sample is non-detect in both the parent and duplicate.

No other analytical or quality issues were noted.

General Chemistry - Method(s) D 2216
The RPD for Moisture of sample B10-061813-2.5 (580-38961-1) in the duplicate analysis was outside advisory QC limits due to analyte concentration near the reporting limit.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
Y	The chromatographic response resembles a typical fuel pattern.

General Chemistry

Qualifier	Qualifier Description
F	Duplicate RPD exceeds the control limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: B10-061813-2.5
Date Collected: 06/18/13 09:39
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-1
Matrix: Solid
Percent Solids: 96.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/19/13 05:09	06/19/13 10:46	1
Motor Oil (>C24-C36)	ND		51		mg/Kg	☼	06/19/13 05:09	06/19/13 10:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*06/19/13 05:09*	*06/19/13 10:46*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10		%			06/18/13 16:54	1
Percent Moisture	3.1		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: B11-061813-2.5
Date Collected: 06/18/13 09:44
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-2
Matrix: Solid
Percent Solids: 96.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/19/13 05:09	06/19/13 11:22	1
Motor Oil (>C24-C36)	ND		50		mg/Kg	☼	06/19/13 05:09	06/19/13 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*06/19/13 05:09*	*06/19/13 11:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/18/13 16:54	1
Percent Moisture	3.5		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: B12-061813-2.5
Date Collected: 06/18/13 09:54
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-3
Matrix: Solid
Percent Solids: 97.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/19/13 05:09	06/19/13 11:39	1
Motor Oil (>C24-C36)	ND		50		mg/Kg	☼	06/19/13 05:09	06/19/13 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*06/19/13 05:09*	*06/19/13 11:39*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**97**		0.10		%			06/18/13 16:54	1
Percent Moisture	**2.6**		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: B13-061813-2.5
Date Collected: 06/18/13 10:03
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-4
Matrix: Solid
Percent Solids: 96.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/19/13 05:09	06/19/13 11:57	1
Motor Oil (>C24-C36)	ND		51		mg/Kg	☼	06/19/13 05:09	06/19/13 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*06/19/13 05:09*	*06/19/13 11:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**96**		0.10		%			06/18/13 16:54	1
Percent Moisture	**3.9**		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: B14-061813-2.5
Date Collected: 06/18/13 10:09
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-5
Matrix: Solid
Percent Solids: 96.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/19/13 05:09	06/19/13 12:15	1
Motor Oil (>C24-C36)	ND		51		mg/Kg	☼	06/19/13 05:09	06/19/13 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*06/19/13 05:09*	*06/19/13 12:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**96**		0.10		%			06/18/13 16:54	1
Percent Moisture	**3.7**		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: C14-061813-2.5
Date Collected: 06/18/13 10:10
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-6
Matrix: Solid
Percent Solids: 95.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/19/13 05:09	06/19/13 12:33	1
Motor Oil (>C24-C36)	ND		50		mg/Kg	☼	06/19/13 05:09	06/19/13 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*06/19/13 05:09*	*06/19/13 12:33*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/18/13 16:54	1
Percent Moisture	4.9		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: C13-061813-2.5
Date Collected: 06/18/13 10:11
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-7
Matrix: Solid
Percent Solids: 83.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		30		mg/Kg	☼	06/19/13 05:09	06/19/13 13:27	1
Motor Oil (>C24-C36)	ND		60		mg/Kg	☼	06/19/13 05:09	06/19/13 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*06/19/13 05:09*	*06/19/13 13:27*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		0.10		%			06/18/13 16:54	1
Percent Moisture	16		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: C12-061813-2.5
Date Collected: 06/18/13 10:13
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-8
Matrix: Solid
Percent Solids: 95.2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		24		mg/Kg	☼	06/19/13 05:09	06/19/13 13:44	1
Motor Oil (>C24-C36)	ND		49		mg/Kg	☼	06/19/13 05:09	06/19/13 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*06/19/13 05:09*	*06/19/13 13:44*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/18/13 16:54	1
Percent Moisture	4.8		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: C11-061813-2.5
Date Collected: 06/18/13 10:25
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-9
Matrix: Solid
Percent Solids: 96.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/19/13 05:09	06/19/13 14:02	1
Motor Oil (>C24-C36)	ND		50		mg/Kg	☼	06/19/13 05:09	06/19/13 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*06/19/13 05:09*	*06/19/13 14:02*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10		%			06/18/13 16:54	1
Percent Moisture	3.1		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: C10-061813-2.5
Date Collected: 06/18/13 10:30
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-10
Matrix: Solid
Percent Solids: 92.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		27		mg/Kg	☼	06/19/13 05:09	06/19/13 14:20	1
Motor Oil (>C24-C36)	ND		54		mg/Kg	☼	06/19/13 05:09	06/19/13 14:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*06/19/13 05:09*	*06/19/13 14:20*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	92		0.10		%			06/18/13 16:54	1
Percent Moisture	8.0		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: C9-061813-2.5
Date Collected: 06/18/13 10:35
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-11
Matrix: Solid
Percent Solids: 97.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/19/13 05:09	06/19/13 14:38	1
Motor Oil (>C24-C36)	ND		50		mg/Kg	☼	06/19/13 05:09	06/19/13 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*06/19/13 05:09*	*06/19/13 14:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10		%			06/18/13 16:54	1
Percent Moisture	3.0		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: C8-061813-2.5
Date Collected: 06/18/13 10:49
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-12
Matrix: Solid
Percent Solids: 95.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/19/13 05:36	06/19/13 10:46	1
Motor Oil (>C24-C36)	ND		52		mg/Kg	☼	06/19/13 05:36	06/19/13 10:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*06/19/13 05:36*	*06/19/13 10:46*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**95**		0.10		%			06/18/13 16:54	1
Percent Moisture	**4.6**		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: D8-061813-2.5
Date Collected: 06/18/13 10:52
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-13
Matrix: Solid
Percent Solids: 94.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/19/13 05:36	06/19/13 11:22	1
Motor Oil (>C24-C36)	ND		53		mg/Kg	☼	06/19/13 05:36	06/19/13 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*06/19/13 05:36*	*06/19/13 11:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/18/13 16:54	1
Percent Moisture	5.1		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: D9-061813-2.5
Date Collected: 06/18/13 11:00
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-14
Matrix: Solid
Percent Solids: 94.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	140	Y	26		mg/Kg	☼	06/19/13 05:36	06/19/13 11:39	1
Motor Oil (>C24-C36)	330	Y	52		mg/Kg	☼	06/19/13 05:36	06/19/13 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*50 - 150*	*06/19/13 05:36*	*06/19/13 11:39*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/18/13 16:54	1
Percent Moisture	5.5		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: D10-061813-2.5
Date Collected: 06/18/13 11:03
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-15
Matrix: Solid
Percent Solids: 91.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		27		mg/Kg	☼	06/19/13 05:36	06/19/13 11:57	1
Motor Oil (>C24-C36)	ND		54		mg/Kg	☼	06/19/13 05:36	06/19/13 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*06/19/13 05:36*	*06/19/13 11:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**92**		0.10		%			06/18/13 16:54	1
Percent Moisture	**8.4**		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: D11-061813-2.5
Date Collected: 06/18/13 11:35
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-16
Matrix: Solid
Percent Solids: 89.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	170	Y	27		mg/Kg	☼	06/19/13 05:36	06/19/13 12:15	1
Motor Oil (>C24-C36)	170	Y	55		mg/Kg	☼	06/19/13 05:36	06/19/13 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*06/19/13 05:36*	*06/19/13 12:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89		0.10		%			06/18/13 16:54	1
Percent Moisture	11		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: D12-061813-2.5
Date Collected: 06/18/13 11:37
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-17
Matrix: Solid
Percent Solids: 87.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**110**	**Y**	28		mg/Kg	☼	06/19/13 05:36	06/19/13 12:33	1
Motor Oil (>C24-C36)	ND		56		mg/Kg	☼	06/19/13 05:36	06/19/13 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*06/19/13 05:36*	*06/19/13 12:33*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**88**		0.10		%			06/18/13 16:54	1
Percent Moisture	**12**		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: D13-061813-2.5
Date Collected: 06/18/13 11:42
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-18
Matrix: Solid
Percent Solids: 93.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**88**	**Y**	27		mg/Kg	☼	06/19/13 05:36	06/19/13 13:27	1
Motor Oil (>C24-C36)	ND		53		mg/Kg	☼	06/19/13 05:36	06/19/13 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*06/19/13 05:36*	*06/19/13 13:27*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**93**		0.10		%			06/18/13 16:54	1
Percent Moisture	**6.6**		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: D14-061813-2.5
Date Collected: 06/18/13 11:59
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-19
Matrix: Solid
Percent Solids: 93.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/19/13 05:36	06/19/13 13:44	1
Motor Oil (>C24-C36)	ND		51		mg/Kg	☼	06/19/13 05:36	06/19/13 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*06/19/13 05:36*	*06/19/13 13:44*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	93		0.10		%			06/18/13 16:54	1
Percent Moisture	6.9		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: Z2-061813-2.5
Date Collected: 06/18/13 10:29
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-20
Matrix: Solid
Percent Solids: 97.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		24		mg/Kg	☼	06/19/13 05:36	06/19/13 14:02	1
Motor Oil (>C24-C36)	ND		48		mg/Kg	☼	06/19/13 05:36	06/19/13 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*06/19/13 05:36*	*06/19/13 14:02*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**97**		0.10		%			06/18/13 16:54	1
Percent Moisture	**2.7**		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: Z3-061813-2.5
Date Collected: 06/18/13 11:38
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-21
Matrix: Solid
Percent Solids: 86.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	270	Y	28		mg/Kg	☼	06/19/13 05:36	06/19/13 14:20	1
Motor Oil (>C24-C36)	86	Y	57		mg/Kg	☼	06/19/13 05:36	06/19/13 14:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*06/19/13 05:36*	*06/19/13 14:20*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10		%			06/18/13 16:54	1
Percent Moisture	14		0.10		%			06/18/13 16:54	1

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: Z4-061813-2.5
Date Collected: 06/18/13 10:04
Date Received: 06/18/13 15:45

Lab Sample ID: 580-38961-22
Matrix: Solid
Percent Solids: 96.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/19/13 05:36	06/19/13 14:38	1
Motor Oil (>C24-C36)	ND		49		mg/Kg	☼	06/19/13 05:36	06/19/13 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*06/19/13 05:36*	*06/19/13 14:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/18/13 16:54	1
Percent Moisture	3.5		0.10		%			06/18/13 16:54	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-138053/1-A
Matrix: Solid
Analysis Batch: 138057

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		06/19/13 05:09	06/19/13 09:52	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		06/19/13 05:09	06/19/13 09:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*06/19/13 05:09*	*06/19/13 09:52*	*1*

Lab Sample ID: LCS 580-138053/2-A
Matrix: Solid
Analysis Batch: 138057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138053

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	471		mg/Kg		94	70 - 125		
Motor Oil (>C24-C36)			500	507		mg/Kg		101	64 - 127		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl			*93*		*50 - 150*

Lab Sample ID: LCSD 580-138053/3-A
Matrix: Solid
Analysis Batch: 138057

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138053

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	493		mg/Kg		99	70 - 125	5	16
Motor Oil (>C24-C36)			500	537		mg/Kg		107	64 - 127	6	17

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl			*98*		*50 - 150*

Lab Sample ID: 580-38961-1 DU
Matrix: Solid
Analysis Batch: 138057

Client Sample ID: B10-061813-2.5
Prep Type: Total/NA
Prep Batch: 138053

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			14	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*87*		*50 - 150*

Lab Sample ID: 580-38961-11 DU
Matrix: Solid
Analysis Batch: 138057

Client Sample ID: C9-061813-2.5
Prep Type: Total/NA
Prep Batch: 138053

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			NC	35

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-38961-11 DU
Matrix: Solid
Analysis Batch: 138057

Client Sample ID: C9-061813-2.5
Prep Type: Total/NA
Prep Batch: 138053

Surrogate	DU %Recovery	DU Qualifier	Limits
o-Terphenyl	0.01	X	50 - 150

Lab Sample ID: MB 580-138054/1-A
Matrix: Solid
Analysis Batch: 138058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138054

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		06/19/13 05:36	06/19/13 09:52	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		06/19/13 05:36	06/19/13 09:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94		50 - 150	06/19/13 05:36	06/19/13 09:52	1

Lab Sample ID: LCS 580-138054/2-A
Matrix: Solid
Analysis Batch: 138058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138054

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	480		mg/Kg		96	70 - 125		
Motor Oil (>C24-C36)			500	515		mg/Kg		103	64 - 127		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	100		50 - 150

Lab Sample ID: LCSD 580-138054/3-A
Matrix: Solid
Analysis Batch: 138058

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138054

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	457		mg/Kg		91	70 - 125	5	16
Motor Oil (>C24-C36)			500	492		mg/Kg		98	64 - 127	5	17

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	95		50 - 150

Lab Sample ID: 580-38961-12 DU
Matrix: Solid
Analysis Batch: 138058

Client Sample ID: C8-061813-2.5
Prep Type: Total/NA
Prep Batch: 138054

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			14	35

Surrogate	DU %Recovery	DU Qualifier	Limits
o-Terphenyl	90		50 - 150

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-38961-22 DU
Matrix: Solid
Analysis Batch: 138058

Client Sample ID: Z4-061813-2.5
Prep Type: Total/NA
Prep Batch: 138054

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			19	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*96*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-38961-1 DU
Matrix: Solid
Analysis Batch: 138041

Client Sample ID: B10-061813-2.5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	97			96		%				1	20
Percent Moisture	3.1			4.3	F	%				33	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: B10-061813-2.5

Lab Sample ID: 580-38961-1
Date Collected: 06/18/13 09:39
Matrix: Solid
Date Received: 06/18/13 15:45
Percent Solids: 96.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 10:46	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: B11-061813-2.5

Lab Sample ID: 580-38961-2
Date Collected: 06/18/13 09:44
Matrix: Solid
Date Received: 06/18/13 15:45
Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 11:22	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: B12-061813-2.5

Lab Sample ID: 580-38961-3
Date Collected: 06/18/13 09:54
Matrix: Solid
Date Received: 06/18/13 15:45
Percent Solids: 97.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 11:39	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: B13-061813-2.5

Lab Sample ID: 580-38961-4
Date Collected: 06/18/13 10:03
Matrix: Solid
Date Received: 06/18/13 15:45
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 11:57	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: B14-061813-2.5

Lab Sample ID: 580-38961-5
Date Collected: 06/18/13 10:09
Matrix: Solid
Date Received: 06/18/13 15:45
Percent Solids: 96.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 12:15	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: C14-061813-2.5

Lab Sample ID: 580-38961-6

Date Collected: 06/18/13 10:10

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 12:33	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: C13-061813-2.5

Lab Sample ID: 580-38961-7

Date Collected: 06/18/13 10:11

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 13:27	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: C12-061813-2.5

Lab Sample ID: 580-38961-8

Date Collected: 06/18/13 10:13

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 13:44	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: C11-061813-2.5

Lab Sample ID: 580-38961-9

Date Collected: 06/18/13 10:25

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 96.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 14:02	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: C10-061813-2.5

Lab Sample ID: 580-38961-10

Date Collected: 06/18/13 10:30

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 92.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 14:20	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: C9-061813-2.5

Lab Sample ID: 580-38961-11

Date Collected: 06/18/13 10:35

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 97.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138053	06/19/13 05:09	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138057	06/19/13 14:38	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: C8-061813-2.5

Lab Sample ID: 580-38961-12

Date Collected: 06/18/13 10:49

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 95.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 10:46	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: D8-061813-2.5

Lab Sample ID: 580-38961-13

Date Collected: 06/18/13 10:52

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 11:22	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: D9-061813-2.5

Lab Sample ID: 580-38961-14

Date Collected: 06/18/13 11:00

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 11:39	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: D10-061813-2.5

Lab Sample ID: 580-38961-15

Date Collected: 06/18/13 11:03

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 11:57	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: D11-061813-2.5

Lab Sample ID: 580-38961-16

Date Collected: 06/18/13 11:35

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 12:15	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: D12-061813-2.5

Lab Sample ID: 580-38961-17

Date Collected: 06/18/13 11:37

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 12:33	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: D13-061813-2.5

Lab Sample ID: 580-38961-18

Date Collected: 06/18/13 11:42

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 93.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 13:27	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: D14-061813-2.5

Lab Sample ID: 580-38961-19

Date Collected: 06/18/13 11:59

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 13:44	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: Z2-061813-2.5

Lab Sample ID: 580-38961-20

Date Collected: 06/18/13 10:29

Matrix: Solid

Date Received: 06/18/13 15:45

Percent Solids: 97.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 14:02	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Client Sample ID: Z3-061813-2.5

Lab Sample ID: 580-38961-21

Date Collected: 06/18/13 11:38
Matrix: Solid
Date Received: 06/18/13 15:45
Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 14:20	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Client Sample ID: Z4-061813-2.5

Lab Sample ID: 580-38961-22

Date Collected: 06/18/13 10:04
Matrix: Solid
Date Received: 06/18/13 15:45
Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138054	06/19/13 05:36	EK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138058	06/19/13 14:38	SH	TAL SEA
Total/NA	Analysis	D 2216		1	138041	06/18/13 16:54	RD	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: SCHOOLYARD EXCAVATION

TestAmerica Job ID: 580-38961-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-38961-1	B10-061813-2.5	Solid	06/18/13 09:39	06/18/13 15:45
580-38961-2	B11-061813-2.5	Solid	06/18/13 09:44	06/18/13 15:45
580-38961-3	B12-061813-2.5	Solid	06/18/13 09:54	06/18/13 15:45
580-38961-4	B13-061813-2.5	Solid	06/18/13 10:03	06/18/13 15:45
580-38961-5	B14-061813-2.5	Solid	06/18/13 10:09	06/18/13 15:45
580-38961-6	C14-061813-2.5	Solid	06/18/13 10:10	06/18/13 15:45
580-38961-7	C13-061813-2.5	Solid	06/18/13 10:11	06/18/13 15:45
580-38961-8	C12-061813-2.5	Solid	06/18/13 10:13	06/18/13 15:45
580-38961-9	C11-061813-2.5	Solid	06/18/13 10:25	06/18/13 15:45
580-38961-10	C10-061813-2.5	Solid	06/18/13 10:30	06/18/13 15:45
580-38961-11	C9-061813-2.5	Solid	06/18/13 10:35	06/18/13 15:45
580-38961-12	C8-061813-2.5	Solid	06/18/13 10:49	06/18/13 15:45
580-38961-13	D8-061813-2.5	Solid	06/18/13 10:52	06/18/13 15:45
580-38961-14	D9-061813-2.5	Solid	06/18/13 11:00	06/18/13 15:45
580-38961-15	D10-061813-2.5	Solid	06/18/13 11:03	06/18/13 15:45
580-38961-16	D11-061813-2.5	Solid	06/18/13 11:35	06/18/13 15:45
580-38961-17	D12-061813-2.5	Solid	06/18/13 11:37	06/18/13 15:45
580-38961-18	D13-061813-2.5	Solid	06/18/13 11:42	06/18/13 15:45
580-38961-19	D14-061813-2.5	Solid	06/18/13 11:59	06/18/13 15:45
580-38961-20	Z2-061813-2.5	Solid	06/18/13 10:29	06/18/13 15:45
580-38961-21	Z3-061813-2.5	Solid	06/18/13 11:38	06/18/13 15:45
580-38961-22	Z4-061813-2.5	Solid	06/18/13 10:04	06/18/13 15:45

BNSF RAILWAY

CHAIN OF CUSTODY

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Address: 5755 8TH ST EAST
City/State/ZIP: TACOMA 98424
Project Manager: KRIS ALLEN
Phone: (253) 922-2310
Fax:

LAB WORK ORDER:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number: 683-038
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
Project State of Origin: WA
Project City: SNOHOMISH
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number:
Project Manager: AMY DESAI
Email: adesai@farallonconsulting.com
Phone: (425) 295-0810 Fax:

TURNAROUND TIME

- [X] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	NWTPH-Dx	COMMENTS	LAB USE
1	B10-061813-2.5	1	6-18-13	9:39	AV	N	GRAB	S	X		1
2	B11-061813-2.5			9:44					X		2
3	B12-061813-2.5			9:54					X		3
4	B13-061813-2.5			10:03					X		4
5	B14-061813-2.5			10:09					X		5
6	C14-061813-2.5			10:10					X		6
7	C13-061813-2.5			10:11					X		7
8	C12-061813-2.5			10:13					X		8
9	C11-061813-2.5			10:25					X		9
10	C10-061813-2.5			10:30					X		10
11	C9-061813-2.5			10:35					X		11
12	C8-061813-2.5			10:49					X		12
13	D8-061813-2.5			10:52					X		13
14	D9-061813-2.5			11:00					X		14
15	D10-061813-2.5			11:03					X		15

	Date/Time	Received By	Date/Time
Relinquished By:	6-18-13 13:22		6/18/13 1322
Relinquished By:	6/18/13 1555		
Relinquished By:			
Received by Laboratory:		Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements:
CC-RESULTS:
avining@farallonconsulting.com
Vdarnell@farallonconsulting.com

Custody Seal No.
BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES
DUPLICATE - CONSULTANT
TAL-1001 (0912)

6/19/2013

BNSF RAILWAY

CHAIN OF CUSTODY

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Address: 5755 8TH ST. EAST
City/State/ZIP: TACOMA 98424
Project Manager: KRIS ALLEN
Phone: (253) 922-2310
Fax:

LAB WORK ORDER:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number: 683-038
Project State of Origin: WA
Project City: SNOQUALMIE
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH AVE. NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number:
Project Manager: AMY DESAI
Email: adesai@farallonconsulting.com
Phone: (425) 295-0810 Fax:

TURNAROUND TIME

- [X] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

NWTPH-Dx (Without Silica Gel Cleanup)

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Sample Collection Time	Sample Collection Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	NWTPH-Dx (Without Silica Gel Cleanup)	COMMENTS	LAB USE
1	D11-061813-2.5	1	6-18-13	11:35	AV	N	GRAB	S	X		16
2	D12-061813-2.5			11:37					X		17
3	D13-061813-2.5			11:42					X		18
4	D14-061813-2.5			11:59					X		19
5	ZZ-061813-2.5			10:29					X		20
6	Z3-061813-2.5			11:38					X		21
7	Z4-061813-2.5			10:04					X		22
8											
9											
10											
11											
12											
13											
14											
15											

AV

Cooler/TB Dig/IR cor 11.9 °C uncor 11.4°
Cooler Dsc Lg Blue/white @ Lab 1545
Wet/Packs Packing Other

Relinquished By:	Date/Time: 6-18-13 13:22	Received By:	Date/Time: 6/18/13 1322	Comments and Special Analytical Requirements:
Relinquished By:	Date/Time: 6/18/13 1555	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No	Custody Seal No. / BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)

6/19/2013

BNSF RAILWAY — CHAIN OF CUSTODY

LAB WORK ORDER: 389U1

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Address: 5755 8TH ST EAST
City/State/ZIP: TACOMA 98424
Project Manager: KRIS ALLEN
Phone: (253) 922-2310
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number: 683-038
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
Project State of Origin: WA
Project City: SNOQUALMIE
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number:
Project Manager: AMY DESAI
Email: aedesai@farallonconsulting.com
Phone: (425) 295-0810 Fax:

TURNAROUND TIME

- [X] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Sample Collection Time	Sampler	Filtered Y/N	Type (Comp/ Grab)	Matrix	NWTPH-Dx (without silica gel cleanup)	COMMENTS	LAB USE
1	B10-061813-2.5	1	6-18-13	9:39	AV	N	GRAB	S	X		1
2	B11-061813-2.5			9:44					X		2
3	B12-061813-2.5			9:54					X		3
4	B13-061813-2.5			10:03					X		4
5	B14-061813-2.5			10:09					X		5
6	C14-061813-2.5			10:10					X		6
7	C13-061813-2.5			10:11					X		7
8	C12-061813-2.5			10:13					X		8
9	C11-061813-2.5			10:25					X		9
10	C10-061813-2.5			10:30					X		10
11	C9-061813-2.5			10:35					X		11
12	C8-061813-2.5			10:49					X		12
13	D8-061813-2.5			10:52					X		13
14	D9-061813-2.5			11:00					X		14
15	D10-061813-2.5	V	V	11:03	V	V	V	V	X		15

580-38961 Chain of

	Date/Time:	Received By:	Date/Time:
Relinquished By:	6-18-13 13:22		6/18/13 1322
Relinquished By:	6/18/13 1555		6/18/13 15:55
Relinquished By:			

Received by Laboratory:

Lab Remarks:

Lab: Custody Intact? [ ] Yes [ ] No

Custody Seal No.

BNSF COC No

Comments and Special Analytical Requirements:
CC-RESULTS:
aviring@farallonconsulting.com
kdarrel@farallonconsulting.com

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)

6/19/2013

BNSF RAILWAY — CHAIN OF CUSTODY

LAB WORK ORDER: 389611

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Address: 5755 8TH ST. EAST
City/State/ZIP: TACOMA 98424
Project Manager: KRIS ALLEN
Phone: (253) 922-2310
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number: 683-038
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
Project State of Origin: WA
Project City: SNOHOMISH
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH AVE. NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number:
Project Manager: AMY DESAI
Email: adesai@farallonconsulting.com
Phone: (425) 295-0810 Fax:

TURNAROUND TIME

- [X] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

NWTPH-Dx (without silica gel cleanup)

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	NWTPH-Dx	COMMENTS	LAB USE
1	D11-061813-2.5	1	6-18-13	11:35	AV	N	GRAB	S	X		16
2	D12-061813-2.5			11:37					X		17
3	D13-061813-2.5			11:42					X		18
4	D14-061813-2.5			11:59					X		19
5	ZZ-061813-2.5			10:29					X		20
6	Z3-061813-2.5			11:38					X		21
7	Z4-061813-2.5			10:04					X		22
8											
9											
10											
11											
12					AV						
13											
14											
15											

Cooler/TB Dig/IR cor 11.9 °C uncor 12.4
Cooler Dsc Lg Blue/white @ Lab ISUS
Wet/Packs Packing Other

	Date/Time		Date/Time	
Relinquished By:	6-18-13 13:22	Received By:	6/18/13 1322	Comments and Special Analytical Requirements:
Relinquished By:	6/18/13 1555	Received By:	6/18/13 1555	
Relinquished By:		Received By:		
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody intact? ☐ Yes ☐ No	Custody Seal No. / BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES — DUPLICATE - CONSULTANT — TAL-1001 (0912)

6/19/2013

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-38961-1

Login Number: 38961

List Source: TestAmerica Seattle

List Number: 1

Creator: Balles, Racheal M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present.
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-38982-1
Client Project/Site: Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Authorized for release by:
6/20/2013 4:53:43 PM
Melissa Armstrong, Project Manager I
(253)922-2310 x135
melissa.armstrong@testamericainc.com

Designee for

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Job ID: 580-38982-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 6/19/2013 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.5º C.

GC Semi VOA - Method(s) NWTPH-Dx
For sample E13-061813-2.5 (580-38982-2), the results in the #2 Diesel Fuel (C10-C24) and Motor Oil (>C24-C36) range(s) are due primarily to a mineral/transformer oil range product. The affected analyte range(s) have been Y qualified and reported.

In analytical batch 138167, a continuing calibration blank (CCB) was not analyzed after the continuing calibration verification (CCV) standard. Sample G11-061913-2.5 (580-38982-17) was analyzed after the CCV and was non-detected for all target analyte ranges; thereby serving the purpose of the CCB.

In analytical batch 138167, the continuing calibration verification (CCV) associated with sample from preparation batch 138152 recovered above the upper control limit for Motor Oil (>C24-C36). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been "^" qualified and reported. The following samples are impacted: (CCV 580-138167/21), G11-061913-2.5 (580-38982-17), G12-061913-2.5 (580-38982-18), G13-061913-2.5 (580-38982-19).

In analytical batch 138169, the matrix duplicate RPD for #2 Diesel Fuel (C10-C24) associated with preparation batch 138152 was outside the control limits due to non homogeneity of the sample.

Note: The associated samples were split into two run on two different instrument as such there are two runs reported. The QC was performed on each instrument run as has been reported.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: E14-061813-2.5
Date Collected: 06/18/13 13:45
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-1
Matrix: Solid
Percent Solids: 91.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 10:52	1
Motor Oil (>C24-C36)	ND		52		mg/Kg	☼	06/20/13 06:53	06/20/13 10:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*06/20/13 06:53*	*06/20/13 10:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**91**		0.10		%			06/20/13 07:23	1
Percent Moisture	**9.0**		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: E13-061813-2.5
Date Collected: 06/18/13 13:48
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-2
Matrix: Solid
Percent Solids: 92.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	160		26		mg/Kg	☼	06/20/13 06:53	06/20/13 11:28	1
Motor Oil (>C24-C36)	80		53		mg/Kg	☼	06/20/13 06:53	06/20/13 11:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*06/20/13 06:53*	*06/20/13 11:28*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	92		0.10		%			06/20/13 07:23	1
Percent Moisture	7.9		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: E12-061813-2.5
Date Collected: 06/18/13 13:52
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-3
Matrix: Solid
Percent Solids: 90.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 11:46	1
Motor Oil (>C24-C36)	ND		52		mg/Kg	☼	06/20/13 06:53	06/20/13 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*06/20/13 06:53*	*06/20/13 11:46*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**90**		0.10		%			06/20/13 07:23	1
Percent Moisture	**9.6**		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: E11-061813-2.5
Date Collected: 06/18/13 14:05
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-4
Matrix: Solid
Percent Solids: 86.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		28		mg/Kg	☼	06/20/13 06:53	06/20/13 12:04	1
Motor Oil (>C24-C36)	ND		56		mg/Kg	☼	06/20/13 06:53	06/20/13 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*06/20/13 06:53*	*06/20/13 12:04*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87		0.10		%			06/20/13 07:23	1
Percent Moisture	13		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: E10-061813-2.5
Date Collected: 06/18/13 14:10
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-5
Matrix: Solid
Percent Solids: 74.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	06/20/13 06:53	06/20/13 12:22	1
Motor Oil (>C24-C36)	ND		64		mg/Kg	☼	06/20/13 06:53	06/20/13 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*06/20/13 06:53*	*06/20/13 12:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	74		0.10		%			06/20/13 07:23	1
Percent Moisture	26		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: E9-061813-2.5
Date Collected: 06/18/13 14:18
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-6
Matrix: Solid
Percent Solids: 86.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		28		mg/Kg	☼	06/20/13 06:53	06/20/13 12:40	1
Motor Oil (>C24-C36)	ND		56		mg/Kg	☼	06/20/13 06:53	06/20/13 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*06/20/13 06:53*	*06/20/13 12:40*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10		%			06/20/13 07:23	1
Percent Moisture	14		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: E8-061813-2.5
Date Collected: 06/18/13 14:24
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-7
Matrix: Solid
Percent Solids: 94.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 13:34	1
Motor Oil (>C24-C36)	ND		51		mg/Kg	☼	06/20/13 06:53	06/20/13 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*06/20/13 06:53*	*06/20/13 13:34*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**94**		0.10		%			06/20/13 07:23	1
Percent Moisture	**5.5**		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: F8-061813-2.5
Date Collected: 06/18/13 14:25
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-8
Matrix: Solid
Percent Solids: 93.2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 13:52	1
Motor Oil (>C24-C36)	ND		52		mg/Kg	☼	06/20/13 06:53	06/20/13 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*06/20/13 06:53*	*06/20/13 13:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**93**		0.10		%			06/20/13 07:23	1
Percent Moisture	**6.8**		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: F9-061813-2.5
Date Collected: 06/18/13 14:31
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-9
Matrix: Solid
Percent Solids: 93.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/20/13 06:53	06/20/13 14:10	1
Motor Oil (>C24-C36)	ND		50		mg/Kg	☼	06/20/13 06:53	06/20/13 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*06/20/13 06:53*	*06/20/13 14:10*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**93**		0.10		%			06/20/13 07:23	1
Percent Moisture	**7.0**		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: F10-061813-2.5
Date Collected: 06/18/13 14:40
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-10
Matrix: Solid
Percent Solids: 94.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/20/13 06:53	06/20/13 14:28	1
Motor Oil (>C24-C36)	ND		50		mg/Kg	☼	06/20/13 06:53	06/20/13 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*06/20/13 06:53*	*06/20/13 14:28*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/20/13 07:23	1
Percent Moisture	5.1		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: F11-061813-2.5
Date Collected: 06/18/13 14:45
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-11
Matrix: Solid
Percent Solids: 95.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 10:52	1
Motor Oil (>C24-C36)	ND		52		mg/Kg	☼	06/20/13 06:53	06/20/13 10:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*06/20/13 06:53*	*06/20/13 10:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/20/13 07:23	1
Percent Moisture	4.4		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: F13-061813-2.5
Date Collected: 06/18/13 15:00
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-12
Matrix: Solid
Percent Solids: 86.2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		29		mg/Kg	☼	06/20/13 06:53	06/20/13 11:28	1
Motor Oil (>C24-C36)	ND		58		mg/Kg	☼	06/20/13 06:53	06/20/13 11:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*06/20/13 06:53*	*06/20/13 11:28*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10		%			06/20/13 07:23	1
Percent Moisture	14		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: Z1-061813-2.5
Date Collected: 06/18/13 14:20
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-13
Matrix: Solid
Percent Solids: 86.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		28		mg/Kg	☼	06/20/13 06:53	06/20/13 11:46	1
Motor Oil (>C24-C36)	ND		55		mg/Kg	☼	06/20/13 06:53	06/20/13 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*06/20/13 06:53*	*06/20/13 11:46*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87		0.10		%			06/20/13 07:23	1
Percent Moisture	13		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: Z5-061813-2.5
Date Collected: 06/18/13 15:01
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-14
Matrix: Solid
Percent Solids: 85.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		29		mg/Kg	☼	06/20/13 06:53	06/20/13 12:04	1
Motor Oil (>C24-C36)	ND		58		mg/Kg	☼	06/20/13 06:53	06/20/13 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*06/20/13 06:53*	*06/20/13 12:04*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		0.10		%			06/20/13 07:23	1
Percent Moisture	15		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: F14-061913-2.5
Date Collected: 06/19/13 09:29
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-15
Matrix: Solid
Percent Solids: 94.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	06/20/13 06:53	06/20/13 12:22	1
Motor Oil (>C24-C36)	ND		50		mg/Kg	☼	06/20/13 06:53	06/20/13 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*06/20/13 06:53*	*06/20/13 12:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/20/13 07:23	1
Percent Moisture	5.3		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: F12-061913-2.5
Date Collected: 06/19/13 12:09
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-16
Matrix: Solid
Percent Solids: 95.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 12:40	1
Motor Oil (>C24-C36)	ND		52		mg/Kg	☼	06/20/13 06:53	06/20/13 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*06/20/13 06:53*	*06/20/13 12:40*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/20/13 07:23	1
Percent Moisture	4.3		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: G11-061913-2.5
Date Collected: 06/19/13 09:50
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-17
Matrix: Solid
Percent Solids: 92.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 13:34	1
Motor Oil (>C24-C36)	ND	^	52		mg/Kg	☼	06/20/13 06:53	06/20/13 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*06/20/13 06:53*	*06/20/13 13:34*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**92**		0.10		%			06/20/13 07:23	1
Percent Moisture	**8.0**		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: G12-061913-2.5
Date Collected: 06/19/13 09:40
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-18
Matrix: Solid
Percent Solids: 94.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 13:52	1
Motor Oil (>C24-C36)	ND	^	51		mg/Kg	☼	06/20/13 06:53	06/20/13 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*06/20/13 06:53*	*06/20/13 13:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**95**		0.10		%			06/20/13 07:23	1
Percent Moisture	**5.4**		0.10		%			06/20/13 07:23	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: G13-061913-2.5
Date Collected: 06/19/13 09:32
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38982-19
Matrix: Solid
Percent Solids: 92.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/20/13 06:53	06/20/13 14:10	1
Motor Oil (>C24-C36)	ND	^	51		mg/Kg	☼	06/20/13 06:53	06/20/13 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*06/20/13 06:53*	*06/20/13 14:10*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	93		0.10		%			06/20/13 07:23	1
Percent Moisture	7.4		0.10		%			06/20/13 07:23	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-138152/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138169 — **Prep Batch: 138152**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		06/20/13 06:53	06/20/13 10:34	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		06/20/13 06:53	06/20/13 10:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*50 - 150*	*06/20/13 06:53*	*06/20/13 10:34*	*1*

Lab Sample ID: LCS 580-138152/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138169 — **Prep Batch: 138152**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	460		mg/Kg		92	70 - 125		
Motor Oil (>C24-C36)			500	482		mg/Kg		96	64 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*94*		*50 - 150*

Lab Sample ID: LCSD 580-138152/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138169 — **Prep Batch: 138152**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	477		mg/Kg		95	70 - 125	4	16
Motor Oil (>C24-C36)			500	495		mg/Kg		99	64 - 127	3	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*98*		*50 - 150*

Lab Sample ID: 580-38982-1 DU — **Client Sample ID: E14-061813-2.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138169 — **Prep Batch: 138152**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			34.3		mg/Kg	☼			37	35
Motor Oil (>C24-C36)	ND			55.0		mg/Kg	☼			10	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*83*		*50 - 150*

Lab Sample ID: 580-38982-11 DU — **Client Sample ID: F11-061813-2.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138167 — **Prep Batch: 138152**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			NC	35

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-38982-11 DU
Matrix: Solid
Analysis Batch: 138167

Client Sample ID: F11-061813-2.5
Prep Type: Total/NA
Prep Batch: 138152

Surrogate	DU %Recovery	DU Qualifier	Limits
o-Terphenyl	91		50 - 150

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RA

Lab Sample ID: MB 580-138152/1-A
Matrix: Solid
Analysis Batch: 138167

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138152

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24) - RA	ND		25		mg/Kg		06/20/13 06:53	06/20/13 10:34	1
Motor Oil (>C24-C36) - RA	ND		50		mg/Kg		06/20/13 06:53	06/20/13 10:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl - RA	91		50 - 150	06/20/13 06:53	06/20/13 10:34	1

Lab Sample ID: LCS 580-138152/2-A
Matrix: Solid
Analysis Batch: 138167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138152

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24) - RA			500	509		mg/Kg		102	70 - 125		
Motor Oil (>C24-C36) - RA			500	537		mg/Kg		107	64 - 127		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl - RA	101		50 - 150

Lab Sample ID: LCSD 580-138152/3-A
Matrix: Solid
Analysis Batch: 138167

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138152

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24) - RA			500	510		mg/Kg		102	70 - 125	0	16
Motor Oil (>C24-C36) - RA			500	538		mg/Kg		108	64 - 127	0	17

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl - RA	96		50 - 150

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-38982-1 DU
Matrix: Solid
Analysis Batch: 138158

Client Sample ID: E14-061813-2.5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	91			91		%				0.3	20
Percent Moisture	9.0			8.8		%				3	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: E14-061813-2.5

Lab Sample ID: 580-38982-1
Date Collected: 06/18/13 13:45
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 91.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 10:52	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: E13-061813-2.5

Lab Sample ID: 580-38982-2
Date Collected: 06/18/13 13:48
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 11:28	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: E12-061813-2.5

Lab Sample ID: 580-38982-3
Date Collected: 06/18/13 13:52
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 11:46	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: E11-061813-2.5

Lab Sample ID: 580-38982-4
Date Collected: 06/18/13 14:05
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 12:04	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: E10-061813-2.5

Lab Sample ID: 580-38982-5
Date Collected: 06/18/13 14:10
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 74.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 12:22	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: E9-061813-2.5

Lab Sample ID: 580-38982-6

Date Collected: 06/18/13 14:18

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 12:40	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: E8-061813-2.5

Lab Sample ID: 580-38982-7

Date Collected: 06/18/13 14:24

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 13:34	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: F8-061813-2.5

Lab Sample ID: 580-38982-8

Date Collected: 06/18/13 14:25

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 13:52	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: F9-061813-2.5

Lab Sample ID: 580-38982-9

Date Collected: 06/18/13 14:31

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 14:10	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: F10-061813-2.5

Lab Sample ID: 580-38982-10

Date Collected: 06/18/13 14:40

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138169	06/20/13 14:28	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: F11-061813-2.5

Lab Sample ID: 580-38982-11

Date Collected: 06/18/13 14:45
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 10:52	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: F13-061813-2.5

Lab Sample ID: 580-38982-12

Date Collected: 06/18/13 15:00
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 11:28	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: Z1-061813-2.5

Lab Sample ID: 580-38982-13

Date Collected: 06/18/13 14:20
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 11:46	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: Z5-061813-2.5

Lab Sample ID: 580-38982-14

Date Collected: 06/18/13 15:01
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 12:04	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: F14-061913-2.5

Lab Sample ID: 580-38982-15

Date Collected: 06/19/13 09:29
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 12:22	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Client Sample ID: F12-061913-2.5

Lab Sample ID: 580-38982-16

Date Collected: 06/19/13 12:09
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 12:40	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: G11-061913-2.5

Lab Sample ID: 580-38982-17

Date Collected: 06/19/13 09:50
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 92.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 13:34	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: G12-061913-2.5

Lab Sample ID: 580-38982-18

Date Collected: 06/19/13 09:40
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 13:52	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Client Sample ID: G13-061913-2.5

Lab Sample ID: 580-38982-19

Date Collected: 06/19/13 09:32
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138152	06/20/13 06:53	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138167	06/20/13 14:10	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138158	06/20/13 07:23	ALC	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38982-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-38982-1	E14-061813-2.5	Solid	06/18/13 13:45	06/19/13 16:15
580-38982-2	E13-061813-2.5	Solid	06/18/13 13:48	06/19/13 16:15
580-38982-3	E12-061813-2.5	Solid	06/18/13 13:52	06/19/13 16:15
580-38982-4	E11-061813-2.5	Solid	06/18/13 14:05	06/19/13 16:15
580-38982-5	E10-061813-2.5	Solid	06/18/13 14:10	06/19/13 16:15
580-38982-6	E9-061813-2.5	Solid	06/18/13 14:18	06/19/13 16:15
580-38982-7	E8-061813-2.5	Solid	06/18/13 14:24	06/19/13 16:15
580-38982-8	F8-061813-2.5	Solid	06/18/13 14:25	06/19/13 16:15
580-38982-9	F9-061813-2.5	Solid	06/18/13 14:31	06/19/13 16:15
580-38982-10	F10-061813-2.5	Solid	06/18/13 14:40	06/19/13 16:15
580-38982-11	F11-061813-2.5	Solid	06/18/13 14:45	06/19/13 16:15
580-38982-12	F13-061813-2.5	Solid	06/18/13 15:00	06/19/13 16:15
580-38982-13	Z1-061813-2.5	Solid	06/18/13 14:20	06/19/13 16:15
580-38982-14	Z5-061813-2.5	Solid	06/18/13 15:01	06/19/13 16:15
580-38982-15	F14-061913-2.5	Solid	06/19/13 09:29	06/19/13 16:15
580-38982-16	F12-061913-2.5	Solid	06/19/13 12:09	06/19/13 16:15
580-38982-17	G11-061913-2.5	Solid	06/19/13 09:50	06/19/13 16:15
580-38982-18	G12-061913-2.5	Solid	06/19/13 09:40	06/19/13 16:15
580-38982-19	G13-061913-2.5	Solid	06/19/13 09:32	06/19/13 16:15

BNSF RAILWAY

CHAIN OF CUSTODY

LAB WORK ORDER: 38982

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address: 5755 8TH ST. EAST
Phone: (253) 922-2310
City/State/ZIP: TACOMA 98424
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number: 683-038
Project State of Origin: WA
Project City: SW KIRKLAND
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Project Number: 683-038
Project Manager: AMY DESAI
Address: 975 5TH AVE. NW
Email: adesai@farallonconsulting.com
City/State/ZIP: ISSAQUAH, WA 98027
Phone: (425) 295-0810
Fax:

TURNAROUND TIME

- [x] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Sample Collection Time	Sampler	Filtered Y/N	Type (Comp/ Grab)	Matrix	NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)	COMMENTS	LAB USE
1	E14-061813-2.5	1	6-18-13	1345	AV	N	GRAB	SOIL	X		
2	E13-061813-2.5			1348					X		
3	E12-061813-2.5			1352					X		
4	E11-061813-2.5			1405					X		
5	E10-061813-2.5			1410					X		
6	E9-061813-2.5			1418					X		
7	E8-061813-2.5			1429					X	TIME= 1424	
8	F8-061813-2.5			1425					X		
9	F9-061813-2.5			1431					X		
10	F10-061813-2.5			1440					X		
11	F11-061813-2.5			1445					X		
12	F13-061813-2.5		↓	1500					X		
13	Z1-061813-2.5		6-18-13	1420					X		
14	Z5-061813-2.5		6-18-13	1501					X		
15	F14-061913-2.5	↓	6-19-13	9:29	↓	↓	↓		X		

580-38982 COC

580-38982 Chain of

Relinquished By: Andrew Vining	Date/Time: 6-19-13 13:52	Received By:	Date/Time: 6/19/13 1352	Comments and Special Analytical Requirements: CC: ANDREW VINING & KRISTIN DARNELL
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No	Custody Seal No. / BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)

6/20/2013

BNSF RAILWAY

CHAIN OF CUSTODY

LAB WORK ORDER: 38982

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address: 5755 8TH ST. EAST
Phone: (253) 922-2310
City/State/ZIP: TACOMA, WA
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number: 683-038
Project State of Origin: WA
Project City: SNOHOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON
Project Number: 683-038
Project Manager: ANNE DESAI
Address: 975 5TH AVE. NW
Email: adesai@farallonconsulting.com
City/State/ZIP: ISSAQUAH, WA 98027
Phone: (425) 295-0810
Fax:

TURNAROUND TIME

- [x] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Sample Collection Time	Sample Collection Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	METHODS FOR ANALYSIS: NWTPH-Dx (with Silica Gel Cleanup)	COMMENTS	LAB USE
1	F12-061913-2.5	1	6-19-13	12:09	AV	N	G	S	X		
2	G11-061913-2.5			9:50					X		
3	G12-061913-2.5			9:40					X		
4	G13-061913-2.5			9:32					X		
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

Cooler/CB Dig/IR cor 0.5 °C unc 1.0
Cooler Dsc Lg Blue/White @ Lab 1615
Wet/Packs Packing Other
w/o AI

Relinquished By	Date/Time	Received By	Date/Time
Andrew Vining	6-19-13 1352		
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

Comments and Special Analytical Requirements:
cc: ANDREW VINING & KRISTIN DARNELL.

Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No	Custody Seal No.	BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES
DUPLICATE - CONSULTANT

TAL-1001 (0912)

6/20/2013

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-38982-1

Login Number: 38982

List Source: TestAmerica Seattle

List Number: 1

Creator: Luna, Francisco

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-38981-1
Client Project/Site: Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Authorized for release by:
6/20/2013 4:19:05 PM
Melissa Armstrong, Project Manager I
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Designee for

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Job ID: 580-38981-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 6/19/2013 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 0.5º C.

Metals - Method(s) 6020
The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 138241 were outside control limits for Lead. The associated laboratory control sample (LCS) recovery met acceptance criteria. Affected data has been "F" qualified and reported.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Qualifiers

Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT1-061913-2.0
Date Collected: 06/19/13 10:41
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38981-1
Matrix: Solid
Percent Solids: 96.9

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.0		0.45		mg/Kg	☼	06/20/13 11:04	06/20/13 13:40	10
Lead	110		0.18		mg/Kg	☼	06/20/13 11:04	06/20/13 13:40	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10		%			06/20/13 08:35	1
Percent Moisture	3.1		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT2-061913-2.0
Date Collected: 06/19/13 11:58
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38981-4
Matrix: Solid
Percent Solids: 96.5

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		0.50		mg/Kg	☼	06/20/13 11:04	06/20/13 14:55	10
Lead	130		0.20		mg/Kg	☼	06/20/13 11:04	06/20/13 14:55	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/20/13 08:35	1
Percent Moisture	3.5		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT3-061913-2.0
Date Collected: 06/19/13 11:06
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38981-7
Matrix: Solid
Percent Solids: 97.6

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		0.44		mg/Kg	☼	06/20/13 11:04	06/20/13 14:05	10
Lead	11		0.17		mg/Kg	☼	06/20/13 11:04	06/20/13 14:05	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	98		0.10		%			06/20/13 08:35	1
Percent Moisture	2.4		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT4-061913-2.0
Date Collected: 06/19/13 10:42
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38981-10
Matrix: Solid
Percent Solids: 96.1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.8		0.48		mg/Kg	☼	06/20/13 11:04	06/20/13 14:09	10
Lead	130		0.19		mg/Kg	☼	06/20/13 11:04	06/20/13 14:09	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/20/13 08:35	1
Percent Moisture	3.9		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT5-061913-2.0 — **Lab Sample ID: 580-38981-11**

Date Collected: 06/19/13 12:16 — **Matrix: Solid**

Date Received: 06/19/13 16:15 — **Percent Solids: 95.2**

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.5		0.49		mg/Kg	☼	06/20/13 11:04	06/20/13 14:13	10
Lead	110		0.20		mg/Kg	☼	06/20/13 11:04	06/20/13 14:13	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/20/13 08:35	1
Percent Moisture	4.8		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT1-NW-WL-061913-2.0 — **Lab Sample ID: 580-38981-12**
Date Collected: 06/19/13 11:03 — **Matrix: Solid**
Date Received: 06/19/13 16:15 — **Percent Solids: 94.2**

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		0.45		mg/Kg	☼	06/20/13 11:04	06/20/13 14:59	10
Lead	34		0.18		mg/Kg	☼	06/20/13 11:04	06/20/13 14:59	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10		%			06/20/13 08:35	1
Percent Moisture	5.8		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT1-NE-WL-061913-2.0
Lab Sample ID: 580-38981-13
Date Collected: 06/19/13 11:34
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 95.7

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9		0.49		mg/Kg	☼	06/20/13 11:04	06/20/13 14:26	10
Lead	180		0.20		mg/Kg	☼	06/20/13 11:04	06/20/13 14:26	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/20/13 08:35	1
Percent Moisture	4.3		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT1-SE-WL-061913-2.0 — **Lab Sample ID: 580-38981-14**

Date Collected: 06/19/13 11:01 — **Matrix: Solid**

Date Received: 06/19/13 16:15 — **Percent Solids: 96.6**

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		0.46		mg/Kg	☼	06/20/13 11:04	06/20/13 14:30	10
Lead	20		0.18		mg/Kg	☼	06/20/13 11:04	06/20/13 14:30	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10		%			06/20/13 08:35	1
Percent Moisture	3.4		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT2-NW-WL-061913-2.0 — **Lab Sample ID: 580-38981-15**

Date Collected: 06/19/13 12:20 — **Matrix: Solid**

Date Received: 06/19/13 16:15 — **Percent Solids: 95.1**

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		0.43		mg/Kg	☼	06/20/13 11:04	06/20/13 14:34	10
Lead	40		0.17		mg/Kg	☼	06/20/13 11:04	06/20/13 14:34	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/20/13 08:35	1
Percent Moisture	4.9		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT2-SE-WL-061913-2.0
Date Collected: 06/19/13 12:15
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38981-16
Matrix: Solid
Percent Solids: 95.9

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		0.46		mg/Kg	☼	06/20/13 11:04	06/20/13 14:38	10
Lead	78		0.18		mg/Kg	☼	06/20/13 11:04	06/20/13 14:38	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/20/13 08:35	1
Percent Moisture	4.1		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT3-NW-WL-061913-2.0
Date Collected: 06/19/13 11:28
Date Received: 06/19/13 16:15

Lab Sample ID: 580-38981-17
Matrix: Solid
Percent Solids: 92.6

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		0.49		mg/Kg	☼	06/20/13 11:04	06/20/13 14:42	10
Lead	11		0.20		mg/Kg	☼	06/20/13 11:04	06/20/13 14:42	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	93		0.10		%			06/20/13 08:35	1
Percent Moisture	7.4		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT3-SE-WL-061913-2.0
Lab Sample ID: 580-38981-18
Date Collected: 06/19/13 11:25
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 97.3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.4		0.44		mg/Kg	☼	06/20/13 11:04	06/20/13 14:46	10
Lead	5.6		0.17		mg/Kg	☼	06/20/13 11:04	06/20/13 14:46	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10		%			06/20/13 08:35	1
Percent Moisture	2.7		0.10		%			06/20/13 08:35	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT3-SW-WL-061913-2.0 — **Lab Sample ID: 580-38981-19**

Date Collected: 06/19/13 11:30 — **Matrix: Solid**

Date Received: 06/19/13 16:15 — **Percent Solids: 96.1**

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.4		0.50		mg/Kg	☼	06/20/13 11:04	06/20/13 14:50	10
Lead	140		0.20		mg/Kg	☼	06/20/13 11:04	06/20/13 14:50	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/20/13 08:35	1
Percent Moisture	3.9		0.10		%			06/20/13 08:35	1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-138216/18-A
Matrix: Solid
Analysis Batch: 138241

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50		mg/Kg		06/20/13 11:04	06/20/13 13:14	10
Lead	ND		0.20		mg/Kg		06/20/13 11:04	06/20/13 13:14	10

Lab Sample ID: LCS 580-138216/19-A
Matrix: Solid
Analysis Batch: 138241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138216

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			200	199		mg/Kg		99	80 - 120		
Lead			50.0	48.1		mg/Kg		96	80 - 120		

Lab Sample ID: LCSD 580-138216/20-A
Matrix: Solid
Analysis Batch: 138241

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138216

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			200	199		mg/Kg		100	80 - 120	0	20
Lead			50.0	47.9		mg/Kg		96	80 - 120	1	20

Lab Sample ID: 580-38981-1 MS
Matrix: Solid
Analysis Batch: 138241

Client Sample ID: MT1-061913-2.0
Prep Type: Total/NA
Prep Batch: 138216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	9.0		182	196		mg/Kg	☼	103	80 - 120		
Lead	110		45.5	183	F	mg/Kg	☼	153	80 - 120		

Lab Sample ID: 580-38981-1 MSD
Matrix: Solid
Analysis Batch: 138241

Client Sample ID: MT1-061913-2.0
Prep Type: Total/NA
Prep Batch: 138216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	9.0		171	188		mg/Kg	☼	104	80 - 120	4	20
Lead	110		42.8	153		mg/Kg	☼	92	80 - 120	18	20

Lab Sample ID: 580-38981-1 DU
Matrix: Solid
Analysis Batch: 138241

Client Sample ID: MT1-061913-2.0
Prep Type: Total/NA
Prep Batch: 138216

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	9.0		9.76		mg/Kg	☼	8	20
Lead	110		124		mg/Kg	☼	8	20

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-38959-A-1 DU
Matrix: Solid
Analysis Batch: 138172

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	82			84		%				2	20
Percent Moisture	18			16		%				8	20

Client Sample ID: MT1-061913-2.0

Lab Sample ID: 580-38981-1

Date Collected: 06/19/13 10:41

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 96.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 13:40	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT2-061913-2.0

Lab Sample ID: 580-38981-4

Date Collected: 06/19/13 11:58

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:55	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT3-061913-2.0

Lab Sample ID: 580-38981-7

Date Collected: 06/19/13 11:06

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 97.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:05	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT4-061913-2.0

Lab Sample ID: 580-38981-10

Date Collected: 06/19/13 10:42

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:09	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT5-061913-2.0

Lab Sample ID: 580-38981-11

Date Collected: 06/19/13 12:16

Matrix: Solid

Date Received: 06/19/13 16:15

Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:13	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT1-NW-WL-061913-2.0

Lab Sample ID: 580-38981-12

Date Collected: 06/19/13 11:03
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 94.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:59	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT1-NE-WL-061913-2.0

Lab Sample ID: 580-38981-13

Date Collected: 06/19/13 11:34
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:26	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT1-SE-WL-061913-2.0

Lab Sample ID: 580-38981-14

Date Collected: 06/19/13 11:01
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:30	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT2-NW-WL-061913-2.0

Lab Sample ID: 580-38981-15

Date Collected: 06/19/13 12:20
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:34	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT2-SE-WL-061913-2.0

Lab Sample ID: 580-38981-16

Date Collected: 06/19/13 12:15
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:38	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Client Sample ID: MT3-NW-WL-061913-2.0

Lab Sample ID: 580-38981-17

Date Collected: 06/19/13 11:28
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:42	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT3-SE-WL-061913-2.0

Lab Sample ID: 580-38981-18

Date Collected: 06/19/13 11:25
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 97.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:46	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Client Sample ID: MT3-SW-WL-061913-2.0

Lab Sample ID: 580-38981-19

Date Collected: 06/19/13 11:30
Matrix: Solid
Date Received: 06/19/13 16:15
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			138216	06/20/13 11:04	PAB	TAL SEA
Total/NA	Analysis	6020		10	138241	06/20/13 14:50	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	138172	06/20/13 08:35	RBD	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-38981-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-38981-1	MT1-061913-2.0	Solid	06/19/13 10:41	06/19/13 16:15
580-38981-4	MT2-061913-2.0	Solid	06/19/13 11:58	06/19/13 16:15
580-38981-7	MT3-061913-2.0	Solid	06/19/13 11:06	06/19/13 16:15
580-38981-10	MT4-061913-2.0	Solid	06/19/13 10:42	06/19/13 16:15
580-38981-11	MT5-061913-2.0	Solid	06/19/13 12:16	06/19/13 16:15
580-38981-12	MT1-NW-WL-061913-2.0	Solid	06/19/13 11:03	06/19/13 16:15
580-38981-13	MT1-NE-WL-061913-2.0	Solid	06/19/13 11:34	06/19/13 16:15
580-38981-14	MT1-SE-WL-061913-2.0	Solid	06/19/13 11:01	06/19/13 16:15
580-38981-15	MT2-NW-WL-061913-2.0	Solid	06/19/13 12:20	06/19/13 16:15
580-38981-16	MT2-SE-WL-061913-2.0	Solid	06/19/13 12:15	06/19/13 16:15
580-38981-17	MT3-NW-WL-061913-2.0	Solid	06/19/13 11:28	06/19/13 16:15
580-38981-18	MT3-SE-WL-061913-2.0	Solid	06/19/13 11:25	06/19/13 16:15
580-38981-19	MT3-SW-WL-061913-2.0	Solid	06/19/13 11:30	06/19/13 16:15

BNSF RAILWAY

CHAIN OF CUSTODY

LAB WORK ORDER: 38981

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address: 5755 8TH ST. EAST
Phone: (253) 2310
City/State/ZIP: TACOMA, WA
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

Project State of Origin: WA
BNSF Project Number:
Project City: SKYKOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Project Number: 683-038
Company: FARALLON
Project Manager: AMY DEGAI
Address: 975 5TH AVE. NW
Email: adegai@farallonconsulting.com
City/State/ZIP: ISSAQUAH, WA 98027
Phone: (425) 295-0810
Fax:

TURNAROUND TIME

- [x] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

LEAD BY PSEP EPA 6020

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Sample Collection Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix		COMMENTS	LAB USE
1	MT1-061913-2.0	1	6/19/13	1041	AV	N	G	S	1		
2	MT1-061913-3.0			1043					X	HOLD	
3	MT1-061913-4.0			1047					X	HOLD	
4	MT2-061913-2.0			1158					1		
5	MT2-061913-3.0			1203					X	HOLD	
6	MT2-061913-4.0			1208					X	HOLD	
7	MT3-061913-2.0			1106					1		
8	MT3-061913-3.0			1108					X	HOLD	
9	MT3-061913-4.0			1115					X	HOLD	
10	MT4-061913-2.0			1042					1		
11	MT5-061913-2.0			1210					1		
12	MT1-NW-WL-061913-2.0			1103					1		
13	MT1-NE-WL-061913-2.0			1134					1		
14	MT1-SE-WL-061913-2.0			1101					1		
15	MT2-NW-WL-061913-2.0			1220					1		

580-38981 COC

580-38981 Chain of

Relinquished By: Andrew Unin	Date/Time: 6-19-13 13:52	Received By:	Date/Time: 6/19/13 1352
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements:
CC: ANDREW UNIN & KRISTEN DARNELL

Custody Seal No.

BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)

6/20/2013

BNSF RAILWAY

CHAIN OF CUSTODY

LAB WORK ORDER: 38981

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address: 5755 8TH ST. E
Phone: (253) 922-2310
City/State/ZIP: TACOMA, WA
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number: —
Project State of Origin: WA
Project City: SNOHOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON
Project Number: 683-038
Project Manager: AMY DESAI
Address: 975 5TH AVE NW
Email: ae desai@faralloncONSULTING.COM
City/State/ZIP: ISSAQUAH, WA 98027
Phone: (425) 295-0810
Fax:

TURNAROUND TIME

- [x] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

LEAD & ARSENIC EPA 6020

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Time	Sampler	Filtered Y/N	Type (Comp/ Grab)	Matrix	COMMENTS	LAB USE
1	MT2-SE-WL-061913-2.0	1	~~6/19/13 1215~~	1215	AV	N	G	S		
2	MT3-NW-WL-061913-2.0	↓	↓	1128	↓	↓	↓	↓		
3	MT3-SE-WL-061913-2.0	↓	↓	1125	↓	↓	↓	↓		
4	MT3-SW-WL-061913-2.0	↓	↓	1130	↓	↓	↓	↓		
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

AV

Cooler/TB Dig/IR cor ~~0.5~~ 0.5 °C unc 1.0
Cooler Dsc Lg Blue/white @ Lab 1615
Wet/Packs Packing other
w/o AI

Relinquished By: Charles Vining	Date/Time: 6-19-13 1352	Received By:	Date/Time: 6/19/13 1352
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements:
CC: ANDREW VINING
KRISTEN DARNELL

Custody Seal No.
BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES
DUPLICATE - CONSULTANT
TAL-1001 (0912)

6/20/2013

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-38981-1

Login Number: 38981

List Source: TestAmerica Seattle

List Number: 1

Creator: Luna, Francisco

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39118-1
Client Project/Site: Skykomish Schoolyard

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Authorized for release by:
6/28/2013 4:03:01 PM
Melissa Armstrong, Project Manager I
(253)922-2310 x135
melissa.armstrong@testamericainc.com

Designee for

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Job ID: 580-39118-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 6/28/2013 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.4º C.

GC Semi VOA - Method(s) NWTPH-Dx
In analytical batch 138825, the batch QC samples from preparation batch 138836: method blank, laboratory control sample and laboratory control sample duplicate were re-analyzed in order to split the samples onto two columns to meet the same-day rush turn around time.

For the following sample(s) from preparation batch 138836: E8-TOE-062713-12.0 (580-39118-3), F8-TOE-062713-12.0 (580-39118-4), the results in the #2 Diesel Fuel (C10-C24) and Motor Oil (>C24-C36) ranges are due to what most closely resembles a complex mixture of heavily weathered/degraded diesel fuel, a mineral/transformer oil range product and motor oil. The affected analyte ranges have been "Y" qualified and reported.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: C8-TOE-062713-12.0
Date Collected: 06/27/13 16:25
Date Received: 06/28/13 08:00

Lab Sample ID: 580-39118-1
Matrix: Solid
Percent Solids: 99.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		23		mg/Kg	☼	06/28/13 09:27	06/28/13 12:17	1
Motor Oil (>C24-C36)	ND		46		mg/Kg	☼	06/28/13 09:27	06/28/13 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*06/28/13 09:27*	*06/28/13 12:17*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**100**		0.10		%			06/28/13 08:46	1
Percent Moisture	**0.41**		0.10		%			06/28/13 08:46	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: D8-TOE-062713-12.0
Date Collected: 06/27/13 16:28
Date Received: 06/28/13 08:00

Lab Sample ID: 580-39118-2
Matrix: Solid
Percent Solids: 99.2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		17		mg/Kg	☼	06/28/13 09:27	06/28/13 12:53	1
Motor Oil (>C24-C36)	ND		34		mg/Kg	☼	06/28/13 09:27	06/28/13 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*06/28/13 09:27*	*06/28/13 12:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**99**		0.10		%			06/28/13 08:46	1
Percent Moisture	**0.78**		0.10		%			06/28/13 08:46	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: E8-TOE-062713-12.0
Date Collected: 06/27/13 16:32
Date Received: 06/28/13 08:00

Lab Sample ID: 580-39118-3
Matrix: Solid
Percent Solids: 72.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	310	Y	34		mg/Kg	☼	06/28/13 09:27	06/28/13 13:11	1
Motor Oil (>C24-C36)	640	Y	68		mg/Kg	☼	06/28/13 09:27	06/28/13 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*73*		*50 - 150*	*06/28/13 09:27*	*06/28/13 13:11*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	73		0.10		%			06/28/13 08:46	1
Percent Moisture	27		0.10		%			06/28/13 08:46	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: F8-TOE-062713-12.0
Date Collected: 06/27/13 16:35
Date Received: 06/28/13 08:00

Lab Sample ID: 580-39118-4
Matrix: Solid
Percent Solids: 74.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	79	Y	31		mg/Kg	☼	06/28/13 09:27	06/28/13 13:29	1
Motor Oil (>C24-C36)	150	Y	61		mg/Kg	☼	06/28/13 09:27	06/28/13 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*75*		*50 - 150*	*06/28/13 09:27*	*06/28/13 13:29*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			06/28/13 08:46	1
Percent Moisture	25		0.10		%			06/28/13 08:46	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: C9-TOE-062713-14.0
Lab Sample ID: 580-39118-5
Date Collected: 06/27/13 18:28
Matrix: Solid
Date Received: 06/28/13 08:00
Percent Solids: 69.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	06/28/13 09:27	06/28/13 12:17	1
Motor Oil (>C24-C36)	ND		68		mg/Kg	☼	06/28/13 09:27	06/28/13 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*06/28/13 09:27*	*06/28/13 12:17*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	69		0.10		%			06/28/13 08:46	1
Percent Moisture	31		0.10		%			06/28/13 08:46	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: D9-062713-14.0
Date Collected: 06/27/13 18:32
Date Received: 06/28/13 08:00

Lab Sample ID: 580-39118-6
Matrix: Solid
Percent Solids: 70.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		35		mg/Kg	☼	06/28/13 09:27	06/28/13 12:35	1
Motor Oil (>C24-C36)	ND		69		mg/Kg	☼	06/28/13 09:27	06/28/13 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*06/28/13 09:27*	*06/28/13 12:35*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			06/28/13 09:58	1
Percent Moisture	29		0.10		%			06/28/13 09:58	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: E9-062713-14.0
Date Collected: 06/27/13 18:40
Date Received: 06/28/13 08:00

Lab Sample ID: 580-39118-7
Matrix: Solid
Percent Solids: 68.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		35		mg/Kg	☼	06/28/13 09:27	06/28/13 12:53	1
Motor Oil (>C24-C36)	ND		70		mg/Kg	☼	06/28/13 09:27	06/28/13 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*06/28/13 09:27*	*06/28/13 12:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	69		0.10		%			06/28/13 09:58	1
Percent Moisture	31		0.10		%			06/28/13 09:58	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: F9-TOE-062713-14.0
Date Collected: 06/27/13 16:40
Date Received: 06/28/13 08:00

Lab Sample ID: 580-39118-8
Matrix: Solid
Percent Solids: 86.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		27		mg/Kg	☼	06/28/13 09:27	06/28/13 13:11	1
Motor Oil (>C24-C36)	ND		54		mg/Kg	☼	06/28/13 09:27	06/28/13 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*06/28/13 09:27*	*06/28/13 13:11*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10		%			06/28/13 09:58	1
Percent Moisture	14		0.10		%			06/28/13 09:58	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-138836/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138824 — **Prep Batch: 138836**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		06/28/13 09:27	06/28/13 11:23	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		06/28/13 09:27	06/28/13 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*06/28/13 09:27*	*06/28/13 11:23*	*1*

Lab Sample ID: LCS 580-138836/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138824 — **Prep Batch: 138836**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	452		mg/Kg		90	70 - 125		
Motor Oil (>C24-C36)			500	518		mg/Kg		104	64 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*93*		*50 - 150*

Lab Sample ID: LCSD 580-138836/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138824 — **Prep Batch: 138836**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	444		mg/Kg		89	70 - 125	2	16
Motor Oil (>C24-C36)			500	513		mg/Kg		103	64 - 127	1	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*90*		*50 - 150*

Lab Sample ID: 580-39118-1 DU — **Client Sample ID: C8-TOE-062713-12.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138824 — **Prep Batch: 138836**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			0.1	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*85*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RA

Lab Sample ID: MB 580-138836/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138825 — **Prep Batch: 138836**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24) - RA	ND		25		mg/Kg		06/28/13 09:27	06/28/13 11:23	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RA (Continued)

Lab Sample ID: MB 580-138836/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138825 — **Prep Batch: 138836**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil (>C24-C36) - RA	ND		50		mg/Kg		06/28/13 09:27	06/28/13 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl - RA	*88*		*50 - 150*	*06/28/13 09:27*	*06/28/13 11:23*	*1*

Lab Sample ID: LCS 580-138836/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138825 — **Prep Batch: 138836**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24) - RA	500	412		mg/Kg		82	70 - 125
Motor Oil (>C24-C36) - RA	500	497		mg/Kg		99	64 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl - RA	*93*		*50 - 150*

Lab Sample ID: LCSD 580-138836/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138825 — **Prep Batch: 138836**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24) - RA	500	421		mg/Kg		84	70 - 125	2	16
Motor Oil (>C24-C36) - RA	500	512		mg/Kg		102	64 - 127	3	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl - RA	*94*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39118-4 DU — **Client Sample ID: F8-TOE-062713-12.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 138828

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	75		74		%		2	20
Percent Moisture	25		26		%		4	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: C8-TOE-062713-12.0 — Lab Sample ID: 580-39118-1

Date Collected: 06/27/13 16:25 — **Matrix: Solid**
Date Received: 06/28/13 08:00 — **Percent Solids: 99.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138836	06/28/13 09:27	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138824	06/28/13 12:17	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138828	06/28/13 08:46	AMA	TAL SEA

Client Sample ID: D8-TOE-062713-12.0 — Lab Sample ID: 580-39118-2

Date Collected: 06/27/13 16:28 — **Matrix: Solid**
Date Received: 06/28/13 08:00 — **Percent Solids: 99.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138836	06/28/13 09:27	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138824	06/28/13 12:53	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138828	06/28/13 08:46	AMA	TAL SEA

Client Sample ID: E8-TOE-062713-12.0 — Lab Sample ID: 580-39118-3

Date Collected: 06/27/13 16:32 — **Matrix: Solid**
Date Received: 06/28/13 08:00 — **Percent Solids: 72.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138836	06/28/13 09:27	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138824	06/28/13 13:11	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138828	06/28/13 08:46	AMA	TAL SEA

Client Sample ID: F8-TOE-062713-12.0 — Lab Sample ID: 580-39118-4

Date Collected: 06/27/13 16:35 — **Matrix: Solid**
Date Received: 06/28/13 08:00 — **Percent Solids: 74.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138836	06/28/13 09:27	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138824	06/28/13 13:29	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138828	06/28/13 08:46	AMA	TAL SEA

Client Sample ID: C9-TOE-062713-14.0 — Lab Sample ID: 580-39118-5

Date Collected: 06/27/13 18:28 — **Matrix: Solid**
Date Received: 06/28/13 08:00 — **Percent Solids: 69.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138836	06/28/13 09:27	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138825	06/28/13 12:17	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138828	06/28/13 08:46	AMA	TAL SEA

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Client Sample ID: D9-062713-14.0

Lab Sample ID: 580-39118-6

Date Collected: 06/27/13 18:32
Matrix: Solid
Date Received: 06/28/13 08:00
Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138836	06/28/13 09:27	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138825	06/28/13 12:35	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138828	06/28/13 09:58	AMA	TAL SEA

Client Sample ID: E9-062713-14.0

Lab Sample ID: 580-39118-7

Date Collected: 06/27/13 18:40
Matrix: Solid
Date Received: 06/28/13 08:00
Percent Solids: 68.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138836	06/28/13 09:27	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138825	06/28/13 12:53	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138828	06/28/13 09:58	AMA	TAL SEA

Client Sample ID: F9-TOE-062713-14.0

Lab Sample ID: 580-39118-8

Date Collected: 06/27/13 16:40
Matrix: Solid
Date Received: 06/28/13 08:00
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			138836	06/28/13 09:27	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	138825	06/28/13 13:11	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	138828	06/28/13 09:58	AMA	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard

TestAmerica Job ID: 580-39118-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39118-1	C8-TOE-062713-12.0	Solid	06/27/13 16:25	06/28/13 08:00
580-39118-2	D8-TOE-062713-12.0	Solid	06/27/13 16:28	06/28/13 08:00
580-39118-3	E8-TOE-062713-12.0	Solid	06/27/13 16:32	06/28/13 08:00
580-39118-4	F8-TOE-062713-12.0	Solid	06/27/13 16:35	06/28/13 08:00
580-39118-5	C9-TOE-062713-14.0	Solid	06/27/13 18:28	06/28/13 08:00
580-39118-6	D9-062713-14.0	Solid	06/27/13 18:32	06/28/13 08:00
580-39118-7	E9-062713-14.0	Solid	06/27/13 18:40	06/28/13 08:00
580-39118-8	F9-TOE-062713-14.0	Solid	06/27/13 16:40	06/28/13 08:00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☒ Rush
☐ Short Hold

Chain of Custody Record

Client: FARALLON	Client Contact: AMY DESIA	Date: 06/27/13	Chain of Custody Number: 18987
Address: 975 5th AVE NW	Telephone Number (Area Code)/Fax Number: (425) 295 0800	Lab Number: 39118	Page 1 of 1
City: ISSAQUAH / State: WA / Zip Code: 98027	Sampler: AV RL	Lab Contact:	
Project Name and Location (State): SKYKOMISH SCHOOLYARD	Billing Contact:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed): XMWTPH-Dx (W/ SILICA GEL CLEANUP)

Special Instructions/ Conditions of Receipt

	Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	XMWTPH-Dx (W/ SILICA GEL CLEANUP)
1	C8-TOE-062713-12.0	6/27	16:25				X	X						X
2	D8-TOE-062713-12.0		16:28											
3	E8-TOE-062713-12.0		16:32											
4	F8-TOE-062713-12.0		16:35											
5	C9-TOE-062713-14.0		18:28											
6	D9-062713-14.0		18:32											
7	E9-062713-14.0		18:46											
8	F9-TOE-062713-14.0		16:40											

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580-39118 Chain of Custody

Cooler: ☐ Yes ☐ No Cooler Temp:_____

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☒ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By Sign/Print: RUSSELL LAITEN	6/28/13	08:00	1. Received By Sign/Print: Tom Blankinship	6/28/13	0800
2. Relinquished By Sign/Print:			2. Received By Sign/Print:		
3. Relinquished By Sign/Print:			3. Received By Sign/Print:		

6/28/2013

Comments: Sm. Blu/wh wet/other client dept IR = 5.4/5.3 w/o

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274 580 (0210)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39118-1

Login Number: 39118

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39170-1
Client Project/Site: Skykomish, WA - Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
7/2/2013 1:55:41 PM

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Farallon Consulting LLC
Project/Site: Skykomish, WA - Schoolyard Excavation

TestAmerica Job ID: 580-39170-1

Job ID: 580-39170-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 7/2/2013 8:02 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

GC Semi VOA - Method(s) NWTPH-Dx
In analytical batch 139040, the matrix duplicate %RPD for Motor Oil associated with preparation batch 139056 was outside the control limits due to matrix interference: sample was all rocks.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Skykomish, WA - Schoolyard Excavation

TestAmerica Job ID: 580-39170-1

Client Sample ID: C10-TOE-070113-13.0
Date Collected: 07/01/13 15:50
Date Received: 07/02/13 08:02

Lab Sample ID: 580-39170-1
Matrix: Solid
Percent Solids: 97.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		19		mg/Kg	☼	07/02/13 07:40	07/02/13 10:49	1
Motor Oil (>C24-C36)	ND		38		mg/Kg	☼	07/02/13 07:40	07/02/13 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*07/02/13 07:40*	*07/02/13 10:49*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	98		0.10		%			07/02/13 08:45	1
Percent Moisture	2.4		0.10		%			07/02/13 08:45	1

Client: Farallon Consulting LLC
Project/Site: Skykomish, WA - Schoolyard Excavation

TestAmerica Job ID: 580-39170-1

Client Sample ID: D10-070113-13.0
Date Collected: 07/01/13 15:57
Date Received: 07/02/13 08:02

Lab Sample ID: 580-39170-2
Matrix: Solid
Percent Solids: 65.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		36		mg/Kg	☼	07/02/13 07:40	07/02/13 11:25	1
Motor Oil (>C24-C36)	ND		72		mg/Kg	☼	07/02/13 07:40	07/02/13 11:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*07/02/13 07:40*	*07/02/13 11:25*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**65**		0.10		%			07/02/13 08:45	1
Percent Moisture	**35**		0.10		%			07/02/13 08:45	1

Client: Farallon Consulting LLC
Project/Site: Skykomish, WA - Schoolyard Excavation

TestAmerica Job ID: 580-39170-1

Client Sample ID: E10-070113-14.0
Date Collected: 07/01/13 16:01
Date Received: 07/02/13 08:02

Lab Sample ID: 580-39170-3
Matrix: Solid
Percent Solids: 70.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	07/02/13 07:40	07/02/13 11:43	1
Motor Oil (>C24-C36)	ND		68		mg/Kg	☼	07/02/13 07:40	07/02/13 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*07/02/13 07:40*	*07/02/13 11:43*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**71**		0.10		%			07/02/13 08:45	1
Percent Moisture	**29**		0.10		%			07/02/13 08:45	1

Client: Farallon Consulting LLC
Project/Site: Skykomish, WA - Schoolyard Excavation

TestAmerica Job ID: 580-39170-1

Client Sample ID: F10-070113-14.0
Date Collected: 07/01/13 16:05
Date Received: 07/02/13 08:02

Lab Sample ID: 580-39170-4
Matrix: Solid
Percent Solids: 65.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		36		mg/Kg	☼	07/02/13 07:40	07/02/13 12:01	1
Motor Oil (>C24-C36)	ND		72		mg/Kg	☼	07/02/13 07:40	07/02/13 12:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*07/02/13 07:40*	*07/02/13 12:01*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	66		0.10		%			07/02/13 08:45	1
Percent Moisture	34		0.10		%			07/02/13 08:45	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-139056/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139040 — **Prep Batch: 139056**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/02/13 07:40	07/02/13 09:55	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/02/13 07:40	07/02/13 09:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*07/02/13 07:40*	*07/02/13 09:55*	*1*

Lab Sample ID: LCS 580-139056/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139040 — **Prep Batch: 139056**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	446		mg/Kg		89	70 - 125		
Motor Oil (>C24-C36)			500	491		mg/Kg		98	64 - 127		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl			*94*		*50 - 150*

Lab Sample ID: LCSD 580-139056/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139040 — **Prep Batch: 139056**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	442		mg/Kg		88	70 - 125	1	16
Motor Oil (>C24-C36)			500	492		mg/Kg		98	64 - 127	0	17

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl			*93*		*50 - 150*

Lab Sample ID: 580-39170-1 DU — **Client Sample ID: C10-TOE-070113-13.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139040 — **Prep Batch: 139056**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			51	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*92*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39170-4 DU — **Client Sample ID: F10-070113-14.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139060

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	66			65		%				0.5	20

Method: D 2216 - Percent Moisture (Continued)

Lab Sample ID: 580-39170-4 DU
Matrix: Solid
Analysis Batch: 139060

Client Sample ID: F10-070113-14.0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	34			35		%				1	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Skykomish, WA - Schoolyard Excavation

TestAmerica Job ID: 580-39170-1

Client Sample ID: C10-TOE-070113-13.0

Lab Sample ID: 580-39170-1

Date Collected: 07/01/13 15:50
Matrix: Solid
Date Received: 07/02/13 08:02
Percent Solids: 97.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139056	07/02/13 07:40	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139040	07/02/13 10:49	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139060	07/02/13 08:45	RBD	TAL SEA

Client Sample ID: D10-070113-13.0

Lab Sample ID: 580-39170-2

Date Collected: 07/01/13 15:57
Matrix: Solid
Date Received: 07/02/13 08:02
Percent Solids: 65.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139056	07/02/13 07:40	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139040	07/02/13 11:25	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139060	07/02/13 08:45	RBD	TAL SEA

Client Sample ID: E10-070113-14.0

Lab Sample ID: 580-39170-3

Date Collected: 07/01/13 16:01
Matrix: Solid
Date Received: 07/02/13 08:02
Percent Solids: 70.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139056	07/02/13 07:40	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139040	07/02/13 11:43	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139060	07/02/13 08:45	RBD	TAL SEA

Client Sample ID: F10-070113-14.0

Lab Sample ID: 580-39170-4

Date Collected: 07/01/13 16:05
Matrix: Solid
Date Received: 07/02/13 08:02
Percent Solids: 65.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139056	07/02/13 07:40	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139040	07/02/13 12:01	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139060	07/02/13 08:45	RBD	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Skykomish, WA - Schoolyard Excavation

TestAmerica Job ID: 580-39170-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Skykomish, WA - Schoolyard Excavation

TestAmerica Job ID: 580-39170-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39170-1	C10-TOE-070113-13.0	Solid	07/01/13 15:50	07/02/13 08:02
580-39170-2	D10-070113-13.0	Solid	07/01/13 15:57	07/02/13 08:02
580-39170-3	E10-070113-14.0	Solid	07/01/13 16:01	07/02/13 08:02
580-39170-4	F10-070113-14.0	Solid	07/01/13 16:05	07/02/13 08:02

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☒ Rush
☐ Short Hold

Chain of Custody Record

Client	Client Contact	Date	Chain of Custody Number
FARALLON (FOR BNSF)	KRISTIN DARNELL	070113	18989

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
975 5TH AVE NW	(425) 295-0800	39170	Page 1 of 1

City	State	Zip Code	Sampler	Lab Contact
ISSAQUAH	WA	98027	QV	KRIS ALLEN

Project Name and Location (State): SKYKOMISH, WA - SCHOOLYARD EXCAVATION

Billing Contact: BRUCE SHEPPARD (BNSF)

Contract/Purchase Order/Quote No.: 653-038

Analysis (Attach list if more space is needed): NWTPH-DX (WITHOUT SILICA GEL CLEANUP)

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NWTPH-DX (WITHOUT SILICA GEL CLEANUP)
C10-TOE-070113-13.0	7/1/13	15:50				X							X
D10-070113-13.0	7/1/13	15:57				X							X
E10-070113-14.0	7/1/13	16:01				X							X
F10-070113-14.0	7/1/13	16:05				X							X

580-39170 Chain of Custody

Special Instructions/Conditions of Receipt:
client drop
MedRec/wk wet/other
IR = 4.0 / 3.8 w/o

Cooler: ☑ Yes ☐ No Cooler Temp: ______

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ______ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☑ Other SAME DAY

QC Requirements (Specify):

1. Relinquished By Sign/Print	Date	Time	1. Received By Sign/Print	Date	Time
[signature] Jared Kerr	7/2/13	8:02 AM	[signature] Tom Blankinship	7/2/13	0802
2. Relinquished By Sign/Print	Date	Time	2. Received By Sign/Print	Date	Time
3. Relinquished By Sign/Print	Date	Time	3. Received By Sign/Print	Date	Time

Comments

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39170-1

Login Number: 39170

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39214-1
Client Project/Site: Skykomish Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
7/5/2013 3:09:48 PM

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Job ID: 580-39214-1

Laboratory: TestAmerica Seattle

Narrative

Receipt

The samples were received on 7/3/2013 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 2.3º C.

Except:

The client failed to relinquish the samples by signing/dating/timing the chain of custody.

GC Semi VOA

No analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: C11-TOE-070213-13.0
Date Collected: 07/02/13 15:04
Date Received: 07/03/13 16:15

Lab Sample ID: 580-39214-1
Matrix: Solid
Percent Solids: 70.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	07/04/13 06:21	07/04/13 16:58	1
Motor Oil (>C24-C36)	ND		67		mg/Kg	☼	07/04/13 06:21	07/04/13 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*07/04/13 06:21*	*07/04/13 16:58*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			07/04/13 10:55	1
Percent Moisture	29		0.10		%			07/04/13 10:55	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: Z4-070213-13.0
Date Collected: 07/02/13 15:04
Date Received: 07/03/13 16:15

Lab Sample ID: 580-39214-2
Matrix: Solid
Percent Solids: 70.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	07/04/13 06:21	07/04/13 17:37	1
Motor Oil (>C24-C36)	ND		67		mg/Kg	☼	07/04/13 06:21	07/04/13 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*07/04/13 06:21*	*07/04/13 17:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**70**		0.10		%			07/04/13 10:55	1
Percent Moisture	**30**		0.10		%			07/04/13 10:55	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: C11-070213-13.0
Date Collected: 07/02/13 15:10
Date Received: 07/03/13 16:15

Lab Sample ID: 580-39214-3
Matrix: Solid
Percent Solids: 70.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	07/04/13 06:21	07/04/13 17:56	1
Motor Oil (>C24-C36)	ND		65		mg/Kg	☼	07/04/13 06:21	07/04/13 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*07/04/13 06:21*	*07/04/13 17:56*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			07/04/13 10:55	1
Percent Moisture	29		0.10		%			07/04/13 10:55	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: D11-070213-13.0
Date Collected: 07/02/13 15:07
Date Received: 07/03/13 16:15

Lab Sample ID: 580-39214-4
Matrix: Solid
Percent Solids: 69.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	07/04/13 06:21	07/04/13 18:15	1
Motor Oil (>C24-C36)	ND		65		mg/Kg	☼	07/04/13 06:21	07/04/13 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*07/04/13 06:21*	*07/04/13 18:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**70**		0.10		%			07/04/13 10:55	1
Percent Moisture	**30**		0.10		%			07/04/13 10:55	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: Z5-070213-13.0
Date Collected: 07/02/13 15:07
Date Received: 07/03/13 16:15

Lab Sample ID: 580-39214-5
Matrix: Solid
Percent Solids: 69.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		35		mg/Kg	☼	07/04/13 06:21	07/04/13 18:34	1
Motor Oil (>C24-C36)	ND		70		mg/Kg	☼	07/04/13 06:21	07/04/13 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*07/04/13 06:21*	*07/04/13 18:34*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	69		0.10		%			07/04/13 10:55	1
Percent Moisture	31		0.10		%			07/04/13 10:55	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: E11-070213-13.0
Date Collected: 07/02/13 15:18
Date Received: 07/03/13 16:15

Lab Sample ID: 580-39214-6
Matrix: Solid
Percent Solids: 71.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	07/04/13 06:21	07/04/13 19:33	1
Motor Oil (>C24-C36)	ND		65		mg/Kg	☼	07/04/13 06:21	07/04/13 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*07/04/13 06:21*	*07/04/13 19:33*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			07/04/13 10:55	1
Percent Moisture	29		0.10		%			07/04/13 10:55	1

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: F11-070213-13.0
Date Collected: 07/02/13 15:20
Date Received: 07/03/13 16:15

Lab Sample ID: 580-39214-7
Matrix: Solid
Percent Solids: 73.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	07/04/13 06:21	07/04/13 19:52	1
Motor Oil (>C24-C36)	ND		68		mg/Kg	☼	07/04/13 06:21	07/04/13 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*07/04/13 06:21*	*07/04/13 19:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	74		0.10		%			07/04/13 10:55	1
Percent Moisture	26		0.10		%			07/04/13 10:55	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-139229/1-A
Matrix: Solid
Analysis Batch: 139233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/04/13 06:21	07/04/13 11:48	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/04/13 06:21	07/04/13 11:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*07/04/13 06:21*	*07/04/13 11:48*	*1*

Lab Sample ID: LCS 580-139229/2-A
Matrix: Solid
Analysis Batch: 139233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139229

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	412		mg/Kg		82	70 - 125		
Motor Oil (>C24-C36)			500	443		mg/Kg		89	64 - 127		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl			*82*		*50 - 150*

Lab Sample ID: LCSD 580-139229/3-A
Matrix: Solid
Analysis Batch: 139233

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 139229

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	440		mg/Kg		88	70 - 125	6	16
Motor Oil (>C24-C36)			500	471		mg/Kg		94	64 - 127	6	17

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl			*87*		*50 - 150*

Lab Sample ID: 580-39214-1 DU
Matrix: Solid
Analysis Batch: 139233

Client Sample ID: C11-TOE-070213-13.0
Prep Type: Total/NA
Prep Batch: 139229

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			NC	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*94*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39214-1 DU
Matrix: Solid
Analysis Batch: 139234

Client Sample ID: C11-TOE-070213-13.0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	71			71		%				0.6	20

Method: D 2216 - Percent Moisture (Continued)

Lab Sample ID: 580-39214-1 DU
Matrix: Solid
Analysis Batch: 139234

Client Sample ID: C11-TOE-070213-13.0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	29			29		%				1	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: C11-TOE-070213-13.0

Lab Sample ID: 580-39214-1
Date Collected: 07/02/13 15:04
Matrix: Solid
Date Received: 07/03/13 16:15
Percent Solids: 70.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139229	07/04/13 06:21	SGH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139233	07/04/13 16:58	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139234	07/04/13 10:55	RBD	TAL SEA

Client Sample ID: Z4-070213-13.0

Lab Sample ID: 580-39214-2
Date Collected: 07/02/13 15:04
Matrix: Solid
Date Received: 07/03/13 16:15
Percent Solids: 70.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139229	07/04/13 06:21	SGH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139233	07/04/13 17:37	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139234	07/04/13 10:55	RBD	TAL SEA

Client Sample ID: C11-070213-13.0

Lab Sample ID: 580-39214-3
Date Collected: 07/02/13 15:10
Matrix: Solid
Date Received: 07/03/13 16:15
Percent Solids: 70.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139229	07/04/13 06:21	SGH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139233	07/04/13 17:56	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139234	07/04/13 10:55	RBD	TAL SEA

Client Sample ID: D11-070213-13.0

Lab Sample ID: 580-39214-4
Date Collected: 07/02/13 15:07
Matrix: Solid
Date Received: 07/03/13 16:15
Percent Solids: 69.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139229	07/04/13 06:21	SGH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139233	07/04/13 18:15	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139234	07/04/13 10:55	RBD	TAL SEA

Client Sample ID: Z5-070213-13.0

Lab Sample ID: 580-39214-5
Date Collected: 07/02/13 15:07
Matrix: Solid
Date Received: 07/03/13 16:15
Percent Solids: 69.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139229	07/04/13 06:21	SGH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139233	07/04/13 18:34	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139234	07/04/13 10:55	RBD	TAL SEA

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Client Sample ID: E11-070213-13.0

Lab Sample ID: 580-39214-6

Date Collected: 07/02/13 15:18
Matrix: Solid
Date Received: 07/03/13 16:15
Percent Solids: 71.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139229	07/04/13 06:21	SGH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139233	07/04/13 19:33	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139234	07/04/13 10:55	RBD	TAL SEA

Client Sample ID: F11-070213-13.0

Lab Sample ID: 580-39214-7

Date Collected: 07/02/13 15:20
Matrix: Solid
Date Received: 07/03/13 16:15
Percent Solids: 73.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139229	07/04/13 06:21	SGH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139233	07/04/13 19:52	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139234	07/04/13 10:55	RBD	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Skykomish Schoolyard Excavation

TestAmerica Job ID: 580-39214-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39214-1	C11-TOE-070213-13.0	Solid	07/02/13 15:04	07/03/13 16:15
580-39214-2	Z4-070213-13.0	Solid	07/02/13 15:04	07/03/13 16:15
580-39214-3	C11-070213-13.0	Solid	07/02/13 15:10	07/03/13 16:15
580-39214-4	D11-070213-13.0	Solid	07/02/13 15:07	07/03/13 16:15
580-39214-5	Z5-070213-13.0	Solid	07/02/13 15:07	07/03/13 16:15
580-39214-6	E11-070213-13.0	Solid	07/02/13 15:18	07/03/13 16:15
580-39214-7	F11-070213-13.0	Solid	07/02/13 15:20	07/03/13 16:15

39214

BNSF RAILWAY

CHAIN OF CUSTODY

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address:
Phone:
City/State/ZIP: TACOMA, WA
Fax:

LAB WORK ORDER:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

Project State of Origin: WA
BNSF Project Number:
Project City: SKYKOMISH
BNSF Project Name: SKYKOMISH SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHERRARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON
Address: 975 5TH AVE NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 683-039
Project Manager: AMY DESAI
Email: adesai@farallonconsulting.com
Phone:
Fax:

TURNAROUND TIME

- [x] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [x] Other ~~FR~~ JULY 5TH PM

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)

SAMPLE INFORMATION

	Sample identification	Containers	Sample Collection Date	Sample Collection Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	NWTPH-Dx (without silica gel cleanup)	COMMENTS	LAB USE
1	C11-TOE-070213-13.0	1	7/2/13	15:04	AV	N	GRAB	S	X		
2	~~E24~~-070213-13.0			15:04	AV				X		
3	C11-070213-13.0			15:10	AV				X		
4	D11-070213-13.0			15:07	AV				X		
5	~~Z5~~-070213-13.0			15:07	AV				X		
6	E11-070213-13.0			15:13	AV				X		
7	F11-070213-13.0	↓	↓	15:20	AV	↓	↓	↓	X		
8											
9											
10											
11											
12											
13											
14											
15											

580-39214 Chain of Custody

~~Cooler~~/TB Dig/IR cor 2.3 C2.2C unc
Cooler Dsc Lg Wht @ Lab
~~Wet~~/Packs Packing Other 1613
W/CS

	Date/Time		Date/Time
Relinquished By:		Received By:	7/3/13 1615
Relinquished By:		Received By:	
Relinquished By:		Received By:	
Received by Laboratory:	Date/Time	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements:
CC- KRISTEN DARNELL AND ANDREW VINING

Custody Seal No.:
BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES
DUPLICATE - CONSULTANT
TAL-1001 (06/08)

Page 19 of 19
7/5/2013

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39214-1

Login Number: 39214

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	COC not relinquished.
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39222-1
Client Project/Site: Schoolyard Excavation
Revision: 1

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
7/8/2013 4:45:18 PM

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39222-1

Job ID: 580-39222-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 7/5/2013 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 4.9º C.

GC Semi VOA
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39222-1

Client Sample ID: G10-TOE-070313-14.0
Date Collected: 07/03/13 09:40
Date Received: 07/05/13 08:00

Lab Sample ID: 580-39222-1
Matrix: Solid
Percent Solids: 69.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	07/05/13 08:55	07/05/13 11:48	1
Motor Oil (>C24-C36)	ND		68		mg/Kg	☼	07/05/13 08:55	07/05/13 11:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*50 - 150*	*07/05/13 08:55*	*07/05/13 11:48*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	69		0.10		%			07/05/13 08:59	1
Percent Moisture	31		0.10		%			07/05/13 08:59	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39222-1

Client Sample ID: F11-070313-14.0
Date Collected: 07/03/13 10:12
Date Received: 07/05/13 08:00

Lab Sample ID: 580-39222-3
Matrix: Solid
Percent Solids: 68.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		36		mg/Kg	☼	07/05/13 08:55	07/05/13 12:42	1
Motor Oil (>C24-C36)	ND		73		mg/Kg	☼	07/05/13 08:55	07/05/13 12:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*07/05/13 08:55*	*07/05/13 12:42*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	68		0.10		%			07/05/13 08:59	1
Percent Moisture	32		0.10		%			07/05/13 08:59	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39222-1

Client Sample ID: G11-TOE-070313-13.0
Date Collected: 07/03/13 10:25
Date Received: 07/05/13 08:00

Lab Sample ID: 580-39222-4
Matrix: Solid
Percent Solids: 70.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	07/05/13 08:55	07/05/13 13:00	1
Motor Oil (>C24-C36)	ND		69		mg/Kg	☼	07/05/13 08:55	07/05/13 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*07/05/13 08:55*	*07/05/13 13:00*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			07/05/13 08:59	1
Percent Moisture	29		0.10		%			07/05/13 08:59	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39222-1

Client Sample ID: G12-TOE-070313-13.0
Date Collected: 07/03/13 10:33
Date Received: 07/05/13 08:00

Lab Sample ID: 580-39222-5
Matrix: Solid
Percent Solids: 75.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	07/05/13 08:55	07/05/13 13:18	1
Motor Oil (>C24-C36)	ND		64		mg/Kg	☼	07/05/13 08:55	07/05/13 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*07/05/13 08:55*	*07/05/13 13:18*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			07/05/13 08:59	1
Percent Moisture	25		0.10		%			07/05/13 08:59	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-139263/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139240 — **Prep Batch: 139263**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/05/13 08:55	07/05/13 10:55	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/05/13 08:55	07/05/13 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*07/05/13 08:55*	*07/05/13 10:55*	*1*

Lab Sample ID: LCS 580-139263/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139240 — **Prep Batch: 139263**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	541		mg/Kg		108	70 - 125		
Motor Oil (>C24-C36)			500	585		mg/Kg		117	64 - 127		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl			*92*		*50 - 150*

Lab Sample ID: LCSD 580-139263/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139240 — **Prep Batch: 139263**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	533		mg/Kg		107	70 - 125	1	16
Motor Oil (>C24-C36)			500	577		mg/Kg		115	64 - 127	1	17

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl			*92*		*50 - 150*

Lab Sample ID: 580-39222-1 DU — **Client Sample ID: G10-TOE-070313-14.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139240 — **Prep Batch: 139263**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			NC	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*84*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39222-1 DU — **Client Sample ID: G10-TOE-070313-14.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139265

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	69			69		%				0.09	20

Method: D 2216 - Percent Moisture (Continued)

Lab Sample ID: 580-39222-1 DU
Matrix: Solid
Analysis Batch: 139265

Client Sample ID: G10-TOE-070313-14.0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	31			31		%				0.2	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39222-1

Client Sample ID: G10-TOE-070313-14.0

Lab Sample ID: 580-39222-1

Date Collected: 07/03/13 09:40
Matrix: Solid
Date Received: 07/05/13 08:00
Percent Solids: 69.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139263	07/05/13 08:55	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139240	07/05/13 11:48	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139265	07/05/13 08:59	WW	TAL SEA

Client Sample ID: F11-070313-14.0

Lab Sample ID: 580-39222-3

Date Collected: 07/03/13 10:12
Matrix: Solid
Date Received: 07/05/13 08:00
Percent Solids: 68.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139263	07/05/13 08:55	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139240	07/05/13 12:42	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139265	07/05/13 08:59	WW	TAL SEA

Client Sample ID: G11-TOE-070313-13.0

Lab Sample ID: 580-39222-4

Date Collected: 07/03/13 10:25
Matrix: Solid
Date Received: 07/05/13 08:00
Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139263	07/05/13 08:55	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139240	07/05/13 13:00	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139265	07/05/13 08:59	WW	TAL SEA

Client Sample ID: G12-TOE-070313-13.0

Lab Sample ID: 580-39222-5

Date Collected: 07/03/13 10:33
Matrix: Solid
Date Received: 07/05/13 08:00
Percent Solids: 75.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139263	07/05/13 08:55	EKK	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139240	07/05/13 13:18	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139265	07/05/13 08:59	WW	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39222-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39222-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39222-1	G10-TOE-070313-14.0	Solid	07/03/13 09:40	07/05/13 08:00
580-39222-3	F11-070313-14.0	Solid	07/03/13 10:12	07/05/13 08:00
580-39222-4	G11-TOE-070313-13.0	Solid	07/03/13 10:25	07/05/13 08:00
580-39222-5	G12-TOE-070313-13.0	Solid	07/03/13 10:33	07/05/13 08:00

1 2 3 4 5 6 7 8 9 10 11

BNSF RAILWAY

CHAIN OF CUSTODY

LABORATORY INFORMATION

Laboratory: TEST AMERICA | Project Manager: KRIS ALLEN
Address: | Phone:
City/State/ZIP: TACOMA, WA | Fax:

LAB WORK ORDER: 39222

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number:
Project State of Origin: WA
Project City: SNOHOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH AVE NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 683-038
Project Manager: AMY DESAI
Email: adesai@farallonconsulting.com
Phone: (425) 295-0800
Fax:

TURNAROUND TIME

- [x] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other 7-5-13 AM

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	METHODS FOR ANALYSIS: NWTPH-Dx (without silica gel cleanup)	COMMENTS	LAB USE
1	G10-TOE-070313-14.0	1	7/3/13	9:40	AV	N	GRAB	S	X		
2	F10-070313-14.0	↓	↓	9:52	↓	↓	↓	↓		HOLD	
3	F11-070313-14.0	↓	↓	10:02	↓	↓	↓	↓	X		
4	G11-TOE-070313-13.0	↓	↓	10:25	↓	↓	↓	↓	X		
5	G12-TOE-070313-13.0	↓	↓	10:33	↓	↓	↓	↓	X		
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

580-39222 Chain of Custody

Cooler/TB Dig (IR) cor 7.9 unc 5.5
Cooler Dsc lg blue wh @ Lab —
(Wet) Packs Packing none
w/o client drop off

Relinquished By	Date/Time	Received By	Date/Time
Relinquished By: RUSSELL LUITEN	7/5/13 800	Received By: Cathy Gamble	7/5/13 8:05
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements: CC KRISTIN DAREELL AND ANDREW VINING

Custody Seal No.:
BNSF COC No.:

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES DUPLICATE - CONSULTANT

TAL-1001 (06/08)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39222-1

Login Number: 39222

List Source: TestAmerica Seattle

List Number: 1

Creator: Gamble, Cathy L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39294-1
Client Project/Site: Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
7/12/2013 10:45:30 AM

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

Table of Contents

Case Narrative

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Job ID: 580-39294-1

Laboratory: TestAmerica Seattle

Narrative

Receipt

The samples were received on 7/11/2013 8:30 AM. The temperature of the cooler at receipt was 7.4° C.

The following samples were received at the laboratory outside the required temperature criteria at 7.4°: CE12-071013-12.0 (580-39294-7), E13-071013-12.0 (580-39294-6), E14-TOE-071013-12.0 (580-39294-5), F10-071013-13.0 (580-39294-2), F13-071013-13.0 (580-39294-4), F14-TOE-071013-13.0 (580-39294-1), Z6-071013-13.0 (580-39294-3), Z7-071013-12.0 (580-39294-8).

GC Semi VOA

No analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: F14-TOE-071013-13.0
Date Collected: 07/10/13 14:49
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39294-1
Matrix: Solid
Percent Solids: 71.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		35		mg/Kg	☼	07/11/13 12:15	07/11/13 20:40	1
Motor Oil (>C24-C36)	ND		70		mg/Kg	☼	07/11/13 12:15	07/11/13 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*75*		*50 - 150*	*07/11/13 12:15*	*07/11/13 20:40*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**72**		0.10		%			07/11/13 09:32	1
Percent Moisture	**28**		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: F10-071013-13.0
Date Collected: 07/10/13 14:40
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39294-2
Matrix: Solid
Percent Solids: 75.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	07/11/13 12:15	07/11/13 21:16	1
Motor Oil (>C24-C36)	ND		64		mg/Kg	☼	07/11/13 12:15	07/11/13 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*07/11/13 12:15*	*07/11/13 21:16*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			07/11/13 09:32	1
Percent Moisture	25		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: Z6-071013-13.0
Date Collected: 07/10/13 14:41
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39294-3
Matrix: Solid
Percent Solids: 77.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		31		mg/Kg	☼	07/11/13 12:15	07/11/13 21:34	1
Motor Oil (>C24-C36)	ND		62		mg/Kg	☼	07/11/13 12:15	07/11/13 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*07/11/13 12:15*	*07/11/13 21:34*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	77		0.10		%			07/11/13 09:32	1
Percent Moisture	23		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: F13-071013-13.0
Date Collected: 07/10/13 14:45
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39294-4
Matrix: Solid
Percent Solids: 73.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	07/11/13 12:15	07/11/13 21:52	1
Motor Oil (>C24-C36)	ND		65		mg/Kg	☼	07/11/13 12:15	07/11/13 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*07/11/13 12:15*	*07/11/13 21:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**74**		0.10		%			07/11/13 09:32	1
Percent Moisture	**26**		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: E14-TOE-071013-12.0
Date Collected: 07/10/13 16:55
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39294-5
Matrix: Solid
Percent Solids: 74.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	07/11/13 12:15	07/11/13 22:09	1
Motor Oil (>C24-C36)	ND		64		mg/Kg	☼	07/11/13 12:15	07/11/13 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*07/11/13 12:15*	*07/11/13 22:09*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			07/11/13 09:32	1
Percent Moisture	25		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: E13-071013-12.0
Date Collected: 07/10/13 16:58
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39294-6
Matrix: Solid
Percent Solids: 71.2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		35		mg/Kg	☼	07/11/13 12:15	07/11/13 22:27	1
Motor Oil (>C24-C36)	ND		69		mg/Kg	☼	07/11/13 12:15	07/11/13 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*07/11/13 12:15*	*07/11/13 22:27*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			07/11/13 09:32	1
Percent Moisture	29		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: E12-071013-12.0
Date Collected: 07/10/13 17:05
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39294-7
Matrix: Solid
Percent Solids: 70.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	07/11/13 12:17	07/11/13 23:21	1
Motor Oil (>C24-C36)	ND		69		mg/Kg	☼	07/11/13 12:17	07/11/13 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*07/11/13 12:17*	*07/11/13 23:21*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			07/11/13 09:32	1
Percent Moisture	29		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: Z7-071013-12.0
Date Collected: 07/10/13 17:06
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39294-8
Matrix: Solid
Percent Solids: 70.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		35		mg/Kg	☼	07/11/13 12:17	07/11/13 23:39	1
Motor Oil (>C24-C36)	ND		70		mg/Kg	☼	07/11/13 12:17	07/11/13 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*50 - 150*	*07/11/13 12:17*	*07/11/13 23:39*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			07/11/13 09:32	1
Percent Moisture	29		0.10		%			07/11/13 09:32	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-139762/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139728 — **Prep Batch: 139762**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/11/13 12:15	07/11/13 19:46	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/11/13 12:15	07/11/13 19:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*07/11/13 12:15*	*07/11/13 19:46*	*1*

Lab Sample ID: LCS 580-139762/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139728 — **Prep Batch: 139762**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	452		mg/Kg		90	70 - 125		
Motor Oil (>C24-C36)			500	477		mg/Kg		95	64 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*95*		*50 - 150*

Lab Sample ID: LCSD 580-139762/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139728 — **Prep Batch: 139762**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	484		mg/Kg		97	70 - 125	7	16
Motor Oil (>C24-C36)			500	528		mg/Kg		106	64 - 127	10	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*94*		*50 - 150*

Lab Sample ID: 580-39294-1 DU — **Client Sample ID: F14-TOE-071013-13.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139728 — **Prep Batch: 139762**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			NC	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*74*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39295-A-5 DU — **Client Sample ID: Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139743

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	90			91		%				1	20

Method: D 2216 - Percent Moisture (Continued)

Lab Sample ID: 580-39295-A-5 DU
Matrix: Solid
Analysis Batch: 139743

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	9.9			9.0		%				10	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: F14-TOE-071013-13.0

Lab Sample ID: 580-39294-1
Date Collected: 07/10/13 14:49
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 71.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139762	07/11/13 12:15	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139728	07/11/13 20:40	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: F10-071013-13.0

Lab Sample ID: 580-39294-2
Date Collected: 07/10/13 14:40
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 75.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139762	07/11/13 12:15	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139728	07/11/13 21:16	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: Z6-071013-13.0

Lab Sample ID: 580-39294-3
Date Collected: 07/10/13 14:41
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139762	07/11/13 12:15	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139728	07/11/13 21:34	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: F13-071013-13.0

Lab Sample ID: 580-39294-4
Date Collected: 07/10/13 14:45
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 73.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139762	07/11/13 12:15	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139728	07/11/13 21:52	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: E14-TOE-071013-12.0

Lab Sample ID: 580-39294-5
Date Collected: 07/10/13 16:55
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 74.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139762	07/11/13 12:15	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139728	07/11/13 22:09	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Client Sample ID: E13-071013-12.0

Lab Sample ID: 580-39294-6

Date Collected: 07/10/13 16:58
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 71.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139762	07/11/13 12:15	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139728	07/11/13 22:27	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: E12-071013-12.0

Lab Sample ID: 580-39294-7

Date Collected: 07/10/13 17:05
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 70.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139762	07/11/13 12:17	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139728	07/11/13 23:21	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: Z7-071013-12.0

Lab Sample ID: 580-39294-8

Date Collected: 07/10/13 17:06
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 70.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139762	07/11/13 12:17	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139728	07/11/13 23:39	EKK	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39294-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39294-1	F14-TOE-071013-13.0	Solid	07/10/13 14:49	07/11/13 08:30
580-39294-2	F10-071013-13.0	Solid	07/10/13 14:40	07/11/13 08:30
580-39294-3	Z6-071013-13.0	Solid	07/10/13 14:41	07/11/13 08:30
580-39294-4	F13-071013-13.0	Solid	07/10/13 14:45	07/11/13 08:30
580-39294-5	E14-TOE-071013-12.0	Solid	07/10/13 16:55	07/11/13 08:30
580-39294-6	E13-071013-12.0	Solid	07/10/13 16:58	07/11/13 08:30
580-39294-7	E12-071013-12.0	Solid	07/10/13 17:05	07/11/13 08:30
580-39294-8	Z7-071013-12.0	Solid	07/10/13 17:06	07/11/13 08:30

BNSF RAILWAY
CHAIN OF CUSTODY

LAB WORK ORDER: 39294

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address:
Phone:
City/State/ZIP: TACOMA, WA
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

Project State of Origin: WA
BNSF Project Number:
Project City: SKYKOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH AVENUE NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 683-038
Project Manager: AMY DESAI
Email: adesai@farallonconsulting.com
Phone: 425 Fax: 295 0800

TURNAROUND TIME

- [X] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [X] Other 7-11-13 PM

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS: NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)

SAMPLE INFORMATION

#	Sample Identification	Containers	Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	NWTPH-Dx (without silica gel cleanup)	COMMENTS	LAB USE
1	F14-TOE-071013-13.0	1	7/10/13	14:29	av	N	G	S	X		
2	F10-071013-13.0	↓	↓	14:40	↓	↓	↓	↓	X		
3	Z6-071013-13.0	↓	↓	14:41	↓	↓	↓	↓	X		
4	F13-071013-13.0	↓	↓	14:45	↓	↓	↓	↓	X		
5	E14-TOE-071013-12.0	↓	↓	16:55	↓	↓	↓	↓	X		
6	E13-071013-12.0	↓	↓	16:58	↓	↓	↓	↓	X		
7	E12-071013-12.0	↓	↓	17:05	↓	↓	↓	↓	X		
8	Z7-071013-12.0	↓	↓	17:06	↓	↓	↓	↓	X		
9											
10											
11											
12											
13											
14											
15											

580-39294 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	7/11/13 08:30	Tom Blankinship	7/11/13 0830
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? [ ] Yes [ ] No

Comments and Special Analytical Requirements:
CC - KRISTEN DARNELL
ANDREW VINING
client/cor Med Blk/rlk wet/other R=7.4/7.7 c/o

Custody Seal No.:
BNSF COC No:

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES
DUPLICATE - CONSULTANT
TAL-1001 (0912)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39294-1

Login Number: 39294

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39320-1
Client Project/Site: Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Authorized for release by:
7/12/2013 3:32:13 PM
Ai Pham, Analyst I
(253)922-2310
ai.pham@testamericainc.com

Designee for

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39320-1

Job ID: 580-39320-1

Laboratory: TestAmerica Seattle

Narrative

Receipt

The samples were received on 7/12/2013 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 5.0º C.

GC Semi VOA

No analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39320-1

Client Sample ID: D14-TOE-071113-13.0
Date Collected: 07/11/13 15:50
Date Received: 07/12/13 08:00

Lab Sample ID: 580-39320-1
Matrix: Solid
Percent Solids: 71.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	07/12/13 08:40	07/12/13 12:15	1
Motor Oil (>C24-C36)	ND		67		mg/Kg	☼	07/12/13 08:40	07/12/13 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*07/12/13 08:40*	*07/12/13 12:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			07/12/13 08:22	1
Percent Moisture	29		0.10		%			07/12/13 08:22	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39320-1

Client Sample ID: D13-071113-13.0
Date Collected: 07/11/13 15:52
Date Received: 07/12/13 08:00

Lab Sample ID: 580-39320-2
Matrix: Solid
Percent Solids: 72.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	07/12/13 08:40	07/12/13 12:51	1
Motor Oil (>C24-C36)	ND		67		mg/Kg	☼	07/12/13 08:40	07/12/13 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*07/12/13 08:40*	*07/12/13 12:51*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	72		0.10		%			07/12/13 08:22	1
Percent Moisture	28		0.10		%			07/12/13 08:22	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39320-1

Client Sample ID: D12-071113-13.0
Date Collected: 07/11/13 16:01
Date Received: 07/12/13 08:00

Lab Sample ID: 580-39320-3
Matrix: Solid
Percent Solids: 74.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	07/12/13 08:40	07/12/13 13:09	1
Motor Oil (>C24-C36)	ND		66		mg/Kg	☼	07/12/13 08:40	07/12/13 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*07/12/13 08:40*	*07/12/13 13:09*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			07/12/13 08:22	1
Percent Moisture	25		0.10		%			07/12/13 08:22	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39320-1

Client Sample ID: Z-071113-13.0
Date Collected: 07/11/13 20:20
Date Received: 07/12/13 08:00

Lab Sample ID: 580-39320-4
Matrix: Solid
Percent Solids: 72.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	07/12/13 08:40	07/12/13 13:27	1
Motor Oil (>C24-C36)	ND		66		mg/Kg	☼	07/12/13 08:40	07/12/13 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*07/12/13 08:40*	*07/12/13 13:27*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	72		0.10		%			07/12/13 08:22	1
Percent Moisture	28		0.10		%			07/12/13 08:22	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-139801/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139805 — **Prep Batch: 139801**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/12/13 08:40	07/12/13 11:21	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/12/13 08:40	07/12/13 11:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*50 - 150*	*07/12/13 08:40*	*07/12/13 11:21*	*1*

Lab Sample ID: LCS 580-139801/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139805 — **Prep Batch: 139801**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	486		mg/Kg		97	70 - 125		
Motor Oil (>C24-C36)			500	507		mg/Kg		101	64 - 127		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl			*91*		*50 - 150*

Lab Sample ID: LCSD 580-139801/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139805 — **Prep Batch: 139801**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	510		mg/Kg		102	70 - 125	5	16
Motor Oil (>C24-C36)			500	536		mg/Kg		107	64 - 127	6	17

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl			*93*		*50 - 150*

Lab Sample ID: 580-39320-1 DU — **Client Sample ID: D14-TOE-071113-13.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139805 — **Prep Batch: 139801**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			NC	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*81*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39320-4 DU — **Client Sample ID: Z-071113-13.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139793

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	72			72		%				0.2	20

Method: D 2216 - Percent Moisture (Continued)

Lab Sample ID: 580-39320-4 DU
Matrix: Solid
Analysis Batch: 139793

Client Sample ID: Z-071113-13.0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	28			28		%				0.4	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39320-1

Client Sample ID: D14-TOE-071113-13.0

Lab Sample ID: 580-39320-1

Date Collected: 07/11/13 15:50
Matrix: Solid
Date Received: 07/12/13 08:00
Percent Solids: 71.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139801	07/12/13 08:40	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139805	07/12/13 12:15	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	139793	07/12/13 08:22	WW	TAL SEA

Client Sample ID: D13-071113-13.0

Lab Sample ID: 580-39320-2

Date Collected: 07/11/13 15:52
Matrix: Solid
Date Received: 07/12/13 08:00
Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139801	07/12/13 08:40	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139805	07/12/13 12:51	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	139793	07/12/13 08:22	WW	TAL SEA

Client Sample ID: D12-071113-13.0

Lab Sample ID: 580-39320-3

Date Collected: 07/11/13 16:01
Matrix: Solid
Date Received: 07/12/13 08:00
Percent Solids: 74.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139801	07/12/13 08:40	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139805	07/12/13 13:09	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	139793	07/12/13 08:22	WW	TAL SEA

Client Sample ID: Z-071113-13.0

Lab Sample ID: 580-39320-4

Date Collected: 07/11/13 20:20
Matrix: Solid
Date Received: 07/12/13 08:00
Percent Solids: 72.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			139801	07/12/13 08:40	AJHW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139805	07/12/13 13:27	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	139793	07/12/13 08:22	WW	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39320-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39320-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39320-1	D14-TOE-071113-13.0	Solid	07/11/13 15:50	07/12/13 08:00
580-39320-2	D13-071113-13.0	Solid	07/11/13 15:52	07/12/13 08:00
580-39320-3	D12-071113-13.0	Solid	07/11/13 16:01	07/12/13 08:00
580-39320-4	Z-071113-13.0	Solid	07/11/13 20:20	07/12/13 08:00

BNSF RAILWAY

CHAIN OF CUSTODY

LAB WORK ORDER: 39320

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address:
Phone:
City/State/ZIP: TACOMA, WA
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number:
Project State of Origin: WA
Project City: SKYKOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Work Order No.:
BNSF Contact: BRUCE SHEPPARD

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH AVE N
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 683-038
Project Manager: AMY DESAI
Email: aedesai@farallonconsulting.com
Phone: 425 295 0800
Fax:

TURNAROUND TIME

- [X] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [X] Other FRIDAY 7-12-13 PM

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

SAMPLE INFORMATION

	Sample Identification	Containers	Sample Collection Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	Methods for Analysis: NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)								Comments	Lab Use
1	D14-TOE-071113-13.0	1	7/11/13	15:50	AV	N	G	S	X									-1
2	D13-071113-13.0	1	↓	15:52	↓	↓	↓	↓	X									-2
3	D12-071113-13.0	1	↓	16:01	↓	↓	↓	↓	X									-3
4	Z-071113-13.0	1	↓	20:20	↓	↓	↓	↓	X									-4
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

580-39320 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
Russell Luttrell	7/12 0800	Tom Blankinship / Blankinship	7/12/13 0800
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements: CC- KRISTEN DARNELL, ANDREW UNING

client drop
Sm. Blu/wh
wet/other
IR = 5.0/5.0 w/o

Custody Seal No.
BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39320-1

Login Number: 39320

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39399-1
Client Project/Site: Skykomish - Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
7/29/2013 11:02:53 AM

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Job ID: 580-39399-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 7/18/2013 3:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.7º C.

GC Semi VOA - Method(s) NWTPH-Dx
In analytical batch 140820, for the following sample(s) from preparation batch 140732: E14-SW-071213-6.5 (580-39399-4), F13-SW-071213-7.0 (580-39399-2), F14-SW-071213-7.0 (580-39399-1), the results in the #2 Diesel Fuel (C10-C24) and Motor Oil (>C24-C36) range(s) are due to what most closely resembles a complex mixture of heavily weathered/degraded diesel fuel and/or a mineral/transformer oil range product, motor oil, possible biogenic interference; method 3630 silica gel cleanup procedure is recommended. The affected analyte range(s) have been Y qualified and reported.

In analytical batch 140820, for the following sample(s) from preparation batch 140732: C14-SW-071213-7.0 (580-39399-5), the results in the #2 Diesel Fuel (C10-C24) range(s) are due to what most closely resembles overlap from the Motor Oil (>C24-C36) range. The affected analyte range(s) have been Y qualified and reported.

In analytical batch 140820, for the following sample(s) from preparation batch 140732: D14-SW-071113-8.0 (580-39399-6), the results in the #2 Diesel Fuel (C10-C24) and Motor Oil (>C24-C36) range(s) are due to what most closely resembles a complex mixture of heavily weathered/degraded diesel fuel, motor oil, and possible biogenic interference; method 3630 silica gel cleanup procedure is recommended. The affected analyte range(s) have been Y qualified and reported.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Client Sample ID: F14-SW-071213-7.0
Date Collected: 07/12/13 14:25
Date Received: 07/18/13 15:55

Lab Sample ID: 580-39399-1
Matrix: Solid
Percent Solids: 88.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	330	Y	27		mg/Kg	☼	07/24/13 08:58	07/25/13 16:32	1
Motor Oil (>C24-C36)	620	Y	54		mg/Kg	☼	07/24/13 08:58	07/25/13 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*74*		*50 - 150*	*07/24/13 08:58*	*07/25/13 16:32*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88		0.10		%			07/26/13 09:36	1
Percent Moisture	12		0.10		%			07/26/13 09:36	1

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Client Sample ID: F13-SW-071213-7.0
Date Collected: 07/12/13 14:31
Date Received: 07/18/13 15:55

Lab Sample ID: 580-39399-2
Matrix: Solid
Percent Solids: 88.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	100	Y	27		mg/Kg	☼	07/24/13 08:58	07/25/13 16:48	1
Motor Oil (>C24-C36)	290	Y	53		mg/Kg	☼	07/24/13 08:58	07/25/13 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*07/24/13 08:58*	*07/25/13 16:48*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88		0.10		%			07/26/13 09:36	1
Percent Moisture	12		0.10		%			07/26/13 09:36	1

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Client Sample ID: Z10-SW-071213-7.0
Date Collected: 07/12/13 14:33
Date Received: 07/18/13 15:55

Lab Sample ID: 580-39399-3
Matrix: Solid
Percent Solids: 92.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	07/24/13 09:06	07/25/13 17:35	1
Motor Oil (>C24-C36)	ND		52		mg/Kg	☼	07/24/13 09:06	07/25/13 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*07/24/13 09:06*	*07/25/13 17:35*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**92**		0.10		%			07/26/13 09:36	1
Percent Moisture	**7.7**		0.10		%			07/26/13 09:36	1

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Client Sample ID: E14-SW-071213-6.5
Date Collected: 07/12/13 14:40
Date Received: 07/18/13 15:55

Lab Sample ID: 580-39399-4
Matrix: Solid
Percent Solids: 93.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	71	Y	27		mg/Kg	☼	07/24/13 09:06	07/25/13 17:51	1
Motor Oil (>C24-C36)	160	Y	53		mg/Kg	☼	07/24/13 09:06	07/25/13 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*78*		*50 - 150*	*07/24/13 09:06*	*07/25/13 17:51*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	93		0.10		%			07/26/13 09:36	1
Percent Moisture	6.7		0.10		%			07/26/13 09:36	1

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Client Sample ID: C14-SW-071213-7.0
Date Collected: 07/12/13 15:35
Date Received: 07/18/13 15:55

Lab Sample ID: 580-39399-5
Matrix: Solid
Percent Solids: 86.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	940	Y	28		mg/Kg	☼	07/24/13 09:06	07/25/13 18:06	1
Motor Oil (>C24-C36)	4600		56		mg/Kg	☼	07/24/13 09:06	07/25/13 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*07/24/13 09:06*	*07/25/13 18:06*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10		%			07/26/13 09:36	1
Percent Moisture	14		0.10		%			07/26/13 09:36	1

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Client Sample ID: D14-SW-071113-8.0
Date Collected: 07/11/13 15:45
Date Received: 07/18/13 15:55

Lab Sample ID: 580-39399-6
Matrix: Solid
Percent Solids: 84.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	3200	Y	28		mg/Kg	☼	07/24/13 09:06	07/25/13 18:38	1
Motor Oil (>C24-C36)	3000	Y	56		mg/Kg	☼	07/24/13 09:06	07/25/13 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*07/24/13 09:06*	*07/25/13 18:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		0.10		%			07/26/13 09:36	1
Percent Moisture	16		0.10		%			07/26/13 09:36	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-140732/1-A
Matrix: Solid
Analysis Batch: 140820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 140732

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/24/13 08:58	07/25/13 11:17	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/24/13 08:58	07/25/13 11:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*75*		*50 - 150*	*07/24/13 08:58*	*07/25/13 11:17*	*1*

Lab Sample ID: LCS 580-140732/2-A
Matrix: Solid
Analysis Batch: 140820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140732

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	377		mg/Kg		75	70 - 125		
Motor Oil (>C24-C36)			500	434		mg/Kg		87	64 - 127		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl			*77*		*50 - 150*

Lab Sample ID: LCSD 580-140732/3-A
Matrix: Solid
Analysis Batch: 140820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 140732

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	423		mg/Kg		85	70 - 125	11	16
Motor Oil (>C24-C36)			500	491		mg/Kg		98	64 - 127	12	17

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl			*82*		*50 - 150*

Lab Sample ID: 580-39396-A-1-B MS
Matrix: Solid
Analysis Batch: 140820

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 140732

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)	ND		547	442		mg/Kg	☼	81	70 - 125		
Motor Oil (>C24-C36)	ND		547	510		mg/Kg	☼	93	64 - 127		

Surrogate			*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl			*84*		*50 - 150*

Lab Sample ID: 580-39396-A-1-C MSD
Matrix: Solid
Analysis Batch: 140820

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 140732

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	ND		547	450		mg/Kg	☼	82	70 - 125	2	16
Motor Oil (>C24-C36)	ND		547	522		mg/Kg	☼	95	64 - 127	2	17

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-39396-A-1-C MSD
Matrix: Solid
Analysis Batch: 140820

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 140732

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*82*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39430-A-2 DU
Matrix: Solid
Analysis Batch: 140909

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	85			86		%				0.3	20
Percent Moisture	15			14		%				2	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Client Sample ID: F14-SW-071213-7.0

Lab Sample ID: 580-39399-1
Date Collected: 07/12/13 14:25
Matrix: Solid
Date Received: 07/18/13 15:55
Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140732	07/24/13 08:58	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	140820	07/25/13 16:32	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140909	07/26/13 09:36	WW	TAL SEA

Client Sample ID: F13-SW-071213-7.0

Lab Sample ID: 580-39399-2
Date Collected: 07/12/13 14:31
Matrix: Solid
Date Received: 07/18/13 15:55
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140732	07/24/13 08:58	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	140820	07/25/13 16:48	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140909	07/26/13 09:36	WW	TAL SEA

Client Sample ID: Z10-SW-071213-7.0

Lab Sample ID: 580-39399-3
Date Collected: 07/12/13 14:33
Matrix: Solid
Date Received: 07/18/13 15:55
Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140732	07/24/13 09:06	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	140820	07/25/13 17:35	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140909	07/26/13 09:36	WW	TAL SEA

Client Sample ID: E14-SW-071213-6.5

Lab Sample ID: 580-39399-4
Date Collected: 07/12/13 14:40
Matrix: Solid
Date Received: 07/18/13 15:55
Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140732	07/24/13 09:06	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	140820	07/25/13 17:51	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140909	07/26/13 09:36	WW	TAL SEA

Client Sample ID: C14-SW-071213-7.0

Lab Sample ID: 580-39399-5
Date Collected: 07/12/13 15:35
Matrix: Solid
Date Received: 07/18/13 15:55
Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140732	07/24/13 09:06	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	140820	07/25/13 18:06	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140909	07/26/13 09:36	WW	TAL SEA

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Client Sample ID: D14-SW-071113-8.0
Date Collected: 07/11/13 15:45
Date Received: 07/18/13 15:55

Lab Sample ID: 580-39399-6
Matrix: Solid
Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140732	07/24/13 09:06	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	140820	07/25/13 18:38	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140909	07/26/13 09:36	WW	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Skykomish - Schoolyard Excavation

TestAmerica Job ID: 580-39399-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39399-1	F14-SW-071213-7.0	Solid	07/12/13 14:25	07/18/13 15:55
580-39399-2	F13-SW-071213-7.0	Solid	07/12/13 14:31	07/18/13 15:55
580-39399-3	Z10-SW-071213-7.0	Solid	07/12/13 14:33	07/18/13 15:55
580-39399-4	E14-SW-071213-6.5	Solid	07/12/13 14:40	07/18/13 15:55
580-39399-5	C14-SW-071213-7.0	Solid	07/12/13 15:35	07/18/13 15:55
580-39399-6	D14-SW-071113-8.0	Solid	07/11/13 15:45	07/18/13 15:55

BNSF RAILWAY

CHAIN OF CUSTODY

LAB WORK ORDER: 39399

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: Kris Allen
Address:
Phone:
City/State/ZIP: Tacoma, WA
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

Project State of Origin: WA
BNSF Project Number:
Project City: Sky Komish
BNSF Project Name: Skykomish School yard Excavation
BNSF Contact: Bruce Shepard
BNSF Work Order No.:

CONSULTANT INFORMATION

Project Number: 683-038
Company: Farallon Consulting
Project Manager: Amy Desai
Address: 975 5th Ave. NW
Email: aedesai@farallonconsulting.com
City/State/ZIP: Issaquah WA 98027
Phone:
Fax:

TURNAROUND TIME

- [ ] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [x] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

SAMPLE INFORMATION

	Sample identification	Containers	Sample Collection Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	NWTPH-Dx w/ silica gel cleanup	COMMENTS	LAB USE
1	F14-SW-071213-7.0	1	7/12/13	14:25	AV	N	GRAB	S	X		
2	F13-SW-071213-7.0	1	"	14:31	"	"	"	"	X		
3	Z10-SW-071213-7.0	1	"	14:33	"	"	"	"	X		
4	E14-SW-071213-6.5	1	"	14:40	"	"	"	"	X		
5	C14-SW-071213-7.0	1	"	15:35	"	"	"	"	X		
6	D14-SW-071113-8.0	1	7/11/13	15:45	RL	N	GRAB	S	X		
7											
8											
9											
10											
11											
12											
13											
14											
15											

580-39399 COC

580-39399 Chain of Custody

~~Cooler/TB~~ Dig/IR cor 5.7°C unc 5.8°
Cooler Dsc 5m Radiation @ Lab 1555
Wet/Packs Packing Other
w/o CS

	Date/Time	Received By	Date/Time
Relinquished By:	7/18/13 11:10		7/18/13 1555
Relinquished By:			
Relinquished By:			

Received by Laboratory:
Lab Remarks:
Lab: Custody Intact? ☐ Yes ☐ No
Custody Seal No.:
BNSF COC No

Comments and Special Analytical Requirements:
cc kjdernell@farallonconsulting.com
& avining@ " "

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES
DUPLICATE - CONSULTANT
TAL-1001 (06/08)

Page 7 of 15
7/20/2013

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39399-1

Login Number: 39399

List Source: TestAmerica Seattle

List Number: 1

Creator: Luna, Francisco

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39343-1
Client Project/Site: Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
7/16/2013 12:25:46 PM

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

Table of Contents

Case Narrative

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Job ID: 580-39343-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 7/15/2013 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 3.8º C.

GC Semi VOA
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Client Sample ID: C12-TOE-071213-13.0
Date Collected: 07/12/13 10:40
Date Received: 07/15/13 14:00

Lab Sample ID: 580-39343-1
Matrix: Solid
Percent Solids: 78.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		31		mg/Kg	☼	07/15/13 14:48	07/15/13 19:00	1
Motor Oil (>C24-C36)	ND		62		mg/Kg	☼	07/15/13 14:48	07/15/13 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*07/15/13 14:48*	*07/15/13 19:00*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	78		0.10		%			07/15/13 15:54	1
Percent Moisture	22		0.10		%			07/15/13 15:54	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Client Sample ID: Z9-TOE-071213-13.0
Date Collected: 07/12/13 20:20
Date Received: 07/15/13 14:00

Lab Sample ID: 580-39343-2
Matrix: Solid
Percent Solids: 75.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	07/15/13 14:48	07/15/13 19:35	1
Motor Oil (>C24-C36)	ND		63		mg/Kg	☼	07/15/13 14:48	07/15/13 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*78*		*50 - 150*	*07/15/13 14:48*	*07/15/13 19:35*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	76		0.10		%			07/15/13 15:54	1
Percent Moisture	24		0.10		%			07/15/13 15:54	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Client Sample ID: C12-071213-13.0
Date Collected: 07/12/13 10:45
Date Received: 07/15/13 14:00

Lab Sample ID: 580-39343-3
Matrix: Solid
Percent Solids: 73.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	07/15/13 14:48	07/15/13 19:53	1
Motor Oil (>C24-C36)	ND		66		mg/Kg	☼	07/15/13 14:48	07/15/13 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*07/15/13 14:48*	*07/15/13 19:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**74**		0.10		%			07/15/13 15:54	1
Percent Moisture	**26**		0.10		%			07/15/13 15:54	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Client Sample ID: C13-071213-13.0
Date Collected: 07/12/13 15:33
Date Received: 07/15/13 14:00

Lab Sample ID: 580-39343-4
Matrix: Solid
Percent Solids: 75.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		31		mg/Kg	☼	07/15/13 14:48	07/15/13 20:11	1
Motor Oil (>C24-C36)	ND		63		mg/Kg	☼	07/15/13 14:48	07/15/13 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*07/15/13 14:48*	*07/15/13 20:11*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**76**		0.10		%			07/15/13 15:54	1
Percent Moisture	**24**		0.10		%			07/15/13 15:54	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Client Sample ID: C13-TOE-071213-12.0
Date Collected: 07/12/13 15:29
Date Received: 07/15/13 14:00

Lab Sample ID: 580-39343-5
Matrix: Solid
Percent Solids: 76.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	07/15/13 14:50	07/15/13 20:29	1
Motor Oil (>C24-C36)	ND		65		mg/Kg	☼	07/15/13 14:50	07/15/13 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*07/15/13 14:50*	*07/15/13 20:29*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	76		0.10		%			07/15/13 15:54	1
Percent Moisture	24		0.10		%			07/15/13 15:54	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-140013/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139955 — **Prep Batch: 140013**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/15/13 14:48	07/15/13 18:06	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/15/13 14:48	07/15/13 18:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*07/15/13 14:48*	*07/15/13 18:06*	*1*

Lab Sample ID: LCS 580-140013/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139955 — **Prep Batch: 140013**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	443		mg/Kg		89	70 - 125		
Motor Oil (>C24-C36)			500	478		mg/Kg		96	64 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*84*		*50 - 150*

Lab Sample ID: LCSD 580-140013/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139955 — **Prep Batch: 140013**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	440		mg/Kg		88	70 - 125	1	16
Motor Oil (>C24-C36)			500	473		mg/Kg		95	64 - 127	1	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*82*		*50 - 150*

Lab Sample ID: 580-39343-1 DU — **Client Sample ID: C12-TOE-071213-13.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139955 — **Prep Batch: 140013**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			NC	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*73*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39343-5 DU — **Client Sample ID: C13-TOE-071213-12.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 140016

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	76			76		%				1	20

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Method: D 2216 - Percent Moisture (Continued)

Lab Sample ID: 580-39343-5 DU
Matrix: Solid
Analysis Batch: 140016

Client Sample ID: C13-TOE-071213-12.0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	24			24		%				3	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Client Sample ID: C12-TOE-071213-13.0

Lab Sample ID: 580-39343-1

Date Collected: 07/12/13 10:40
Matrix: Solid
Date Received: 07/15/13 14:00
Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140013	07/15/13 14:48	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139955	07/15/13 19:00	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140016	07/15/13 15:54	WW	TAL SEA

Client Sample ID: Z9-TOE-071213-13.0

Lab Sample ID: 580-39343-2

Date Collected: 07/12/13 20:20
Matrix: Solid
Date Received: 07/15/13 14:00
Percent Solids: 75.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140013	07/15/13 14:48	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139955	07/15/13 19:35	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140016	07/15/13 15:54	WW	TAL SEA

Client Sample ID: C12-071213-13.0

Lab Sample ID: 580-39343-3

Date Collected: 07/12/13 10:45
Matrix: Solid
Date Received: 07/15/13 14:00
Percent Solids: 73.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140013	07/15/13 14:48	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139955	07/15/13 19:53	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140016	07/15/13 15:54	WW	TAL SEA

Client Sample ID: C13-071213-13.0

Lab Sample ID: 580-39343-4

Date Collected: 07/12/13 15:33
Matrix: Solid
Date Received: 07/15/13 14:00
Percent Solids: 75.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140013	07/15/13 14:48	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139955	07/15/13 20:11	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140016	07/15/13 15:54	WW	TAL SEA

Client Sample ID: C13-TOE-071213-12.0

Lab Sample ID: 580-39343-5

Date Collected: 07/12/13 15:29
Matrix: Solid
Date Received: 07/15/13 14:00
Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			140013	07/15/13 14:50	RL	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	139955	07/15/13 20:29	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140016	07/15/13 15:54	WW	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39343-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39343-1	C12-TOE-071213-13.0	Solid	07/12/13 10:40	07/15/13 14:00
580-39343-2	Z9-TOE-071213-13.0	Solid	07/12/13 20:20	07/15/13 14:00
580-39343-3	C12-071213-13.0	Solid	07/12/13 10:45	07/15/13 14:00
580-39343-4	C13-071213-13.0	Solid	07/12/13 15:33	07/15/13 14:00
580-39343-5	C13-TOE-071213-12.0	Solid	07/12/13 15:29	07/15/13 14:00

BNSF RAILWAY — CHAIN OF CUSTODY

LAB WORK ORDER: 39343

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Address:
City/State/ZIP: TACOMA, WA
Project Manager: KRIS ALLEN
Phone:
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

7/16/2013

BNSF PROJECT INFORMATION

BNSF Project Number:
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
Project State of Origin: WA
Project City: SKYKOMISH
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH AVE NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 683-038
Project Manager: AMY DESAI
Email: adesai@farallonconsulting.com
Phone: 425 295-0800
Fax:

TURNAROUND TIME

- [x] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [x] Other 7-15-13 PM

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

METHODS FOR ANALYSIS

NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)

SAMPLE INFORMATION

	Sample identification	Containers	Sample Collection Date	Time	Sampler	Filtered Y/N	Type (Comp/ Grab)	Matrix	NWTPH-Dx (WITHOUT SILICA GEL CLEANUP)	COMMENTS	LAB USE
1	C12-TOE-071213-13.0	1	7/12/13	10:40	QW	N	G	S	X		1
2	Z9-TOE-071213-13.0	1	7/12/13	20:20	QW	N	G	S	X		2
3	C12-071213-13.0	1	7/12/13	10:45	QW	N	G	S	X		3
4	C13-071213-13.0	1	7/12/13	15:33	QW	N	G	S	X		4
5	C13-TOE-071213-12.0	1	7/12/13	15:29	QW	N	G	S	X		5
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

580-39343 Chain of Custody

Cooler/TB Dig IR cor 3.8 unc 3.7
Cooler Dsc Med blue wtr @ Lab 4.0
Wet Packs Packing other
W/O

	Date/Time		Date/Time	
Relinquished By:	7-14-13 6:00	Received By:	7/15/13 1157	Comments and Special Analytical Requirements: CC - KAISTEN DARNELL, ANDREW VINING
Relinquished By:	7/15/13 1400	Received By:	7/15/13 14:00	
Relinquished By:	Date/Time.	Received By:	Date/Time	
Received by Laboratory:	Date/Time	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No	Custody Seal No.. / BNSF COC No

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES — DUPLICATE - CONSULTANT — TAL-1001 (06/08)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39343-1

Login Number: 39343

List Source: TestAmerica Seattle

List Number: 1

Creator: Gamble, Cathy L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39488-1

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
8/21/2013 12:49:02 PM

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 580-39488-1

Laboratory: TestAmerica Seattle

Narrative

Receipt

The samples were received on 7/25/2013 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

Client initially requested samples extracted and put on hold. Analysis by method NWTPH-Dx was requested on 8/19/13 via email.

GC Semi VOA - Method(s) NWTPH-Dx

In analytical batch 141190, for the following sample(s) from preparation batch 141079: G12-SW-071513-7.0 (580-39488-1), the results in the Motor Oil (>C24-C36) range(s) are due to what most closely resembles a complex mixture of a mineral/transformer oil range product and motor oil. The affected analyte range(s) have been Y qualified and reported.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-39488-1

Client Sample ID: G12-SW-071513-7.0

Lab Sample ID: 580-39488-1

Date Collected: 07/15/13 14:28

Matrix: Solid

Date Received: 07/25/13 16:30

Percent Solids: 93.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	07/29/13 09:18	07/30/13 12:01	1
Motor Oil (>C24-C36)	**52**	**Y**	52		mg/Kg	☼	07/29/13 09:18	07/30/13 12:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*07/29/13 09:18*	*07/30/13 12:01*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**93**		0.10		%			07/26/13 09:25	1
Percent Moisture	**6.7**		0.10		%			07/26/13 09:25	1

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-39488-1

Client Sample ID: G11-SW-071513-7.0

Lab Sample ID: 580-39488-2

Date Collected: 07/15/13 14:37

Matrix: Solid

Date Received: 07/25/13 16:30

Percent Solids: 91.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		27		mg/Kg	☼	07/29/13 09:27	07/30/13 12:37	1
Motor Oil (>C24-C36)	ND		54		mg/Kg	☼	07/29/13 09:27	07/30/13 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*07/29/13 09:27*	*07/30/13 12:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**92**		0.10		%			07/26/13 09:25	1
Percent Moisture	**8.1**		0.10		%			07/26/13 09:25	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-141079/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 141190 — **Prep Batch: 141079**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/29/13 09:18	07/30/13 11:07	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/29/13 09:18	07/30/13 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*07/29/13 09:18*	*07/30/13 11:07*	*1*

Lab Sample ID: LCS 580-141079/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 141190 — **Prep Batch: 141079**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	481		mg/Kg		96	70 - 125		
Motor Oil (>C24-C36)			500	474		mg/Kg		95	64 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*90*		*50 - 150*

Lab Sample ID: LCSD 580-141079/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 141190 — **Prep Batch: 141079**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	470		mg/Kg		94	70 - 125	2	16
Motor Oil (>C24-C36)			500	467		mg/Kg		93	64 - 127	1	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*93*		*50 - 150*

Lab Sample ID: 580-39488-1 DU — **Client Sample ID: G12-SW-071513-7.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 141190 — **Prep Batch: 141079**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			23	35
Motor Oil (>C24-C36)	52	Y		ND		mg/Kg	☼			19	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*84*		*50 - 150*

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39430-A-2 DU — **Client Sample ID: Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 140909

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	85			86		%				0.3	20
Percent Moisture	15			14		%				2	20

Lab Chronicle

Client Sample ID: G12-SW-071513-7.0

Lab Sample ID: 580-39488-1

Date Collected: 07/15/13 14:28

Matrix: Solid

Date Received: 07/25/13 16:30

Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			141079	07/29/13 09:18	RES	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	141190	07/30/13 12:01	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140909	07/26/13 09:25	WW1	TAL SEA

Client Sample ID: G11-SW-071513-7.0

Lab Sample ID: 580-39488-2

Date Collected: 07/15/13 14:37

Matrix: Solid

Date Received: 07/25/13 16:30

Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			141079	07/29/13 09:27	RES	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	141190	07/30/13 12:37	JL1	TAL SEA
Total/NA	Analysis	D 2216		1	140909	07/26/13 09:25	WW1	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-39488-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-39488-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39488-1	G12-SW-071513-7.0	Solid	07/15/13 14:28	07/25/13 16:30
580-39488-2	G11-SW-071513-7.0	Solid	07/15/13 14:37	07/25/13 16:30

BNSF RAILWAY

CHAIN OF CUSTODY

LAB WORK ORDER: 29488

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: VRIS ALLEN
Address:
Phone:
City/State/ZIP: TACOMA, WA
Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

Project State of Origin: WA
BNSF Project Number:
Project City: SUQUAMISH
BNSF Project Name:
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH AVE. NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 693-038
Project Manager: AMY DESAI
Email: adesai@farallonconsulting.com
Phone: (425) 295-0800
Fax:

TURNAROUND TIME

- [ ] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [x] Standard 10-Day
- [ ] Other

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

SAMPLE INFORMATION

	Sample identification	Containers	Sample Collection Date	Time	Sampler	Filtered Y/N	Type (Comp/ Grab)	Matrix	NWTPH-Dx (Unfiltered Silica Gel Cleanup)							COMMENTS	LAB USE
1	G12-SW-071513-7.0	1	7/15/13	11:28	AV	N	G	S	X							Hold	1
2	G11-SW-071513-7.0	1	7/15/13	11:37	AV	N	G	S	X							Hold	2
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

580-39488 Chain of Custody

~~Cooler/TB~~ Dig/IR cor 3.4°C unc 3.2°C
Cooler Dsc Sm Blue/wht@ Lab 1630
Wet/Packs Packing Other
w/o

Relinquished By: Andrew Vining	Date/Time: 7-25-13	Received By:	Date/Time: 7/25/13 1630	Comments and Special Analytical Requirements: CC-ANDREW VINING, KRISTEN DARNELL	
Relinquished By:	Date/Time:	Received By:	Date/Time:		
Relinquished By:	Date/Time:	Received By:	Date/Time:		
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No	Custody Seal No..	BNSF COC No .

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES | DUPLICATE - CONSULTANT | TAL-1001 (06/08)

8/21/2013

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39488-1

Login Number: 39488

List Source: TestAmerica Seattle

List Number: 1

Creator: Balles, Racheal M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39295-1
Client Project/Site: Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Authorized for release by:
7/15/2013 12:25:41 PM
Leah Klingensmith, Senior Project Manager
leah.klingensmith@testamericainc.com

Designee for

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 580-39295-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-39295-1

Comments
No additional comments.

Receipt
The samples were received on 7/11/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 7.4° C.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Client Sample ID: MT-STP-1-071013
Date Collected: 07/10/13 11:01
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39295-1
Matrix: Solid
Percent Solids: 94.6

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.6		0.42		mg/Kg	☼	07/11/13 14:38	07/12/13 13:09	10
Lead	170		0.17		mg/Kg	☼	07/11/13 14:38	07/12/13 13:09	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			07/11/13 09:32	1
Percent Moisture	5.4		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Client Sample ID: MT-STP-2-071013
Date Collected: 07/10/13 11:02
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39295-2
Matrix: Solid
Percent Solids: 90.7

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		0.42		mg/Kg	☼	07/11/13 14:38	07/12/13 13:13	10
Lead	160		0.17		mg/Kg	☼	07/11/13 14:38	07/12/13 13:13	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91		0.10		%			07/11/13 09:32	1
Percent Moisture	9.3		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Client Sample ID: MT-STP-3-071013
Date Collected: 07/10/13 11:03
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39295-3
Matrix: Solid
Percent Solids: 93.8

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		0.38		mg/Kg	☼	07/11/13 14:38	07/12/13 13:17	10
Lead	830		0.15		mg/Kg	☼	07/11/13 14:38	07/12/13 13:17	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10		%			07/11/13 09:32	1
Percent Moisture	6.2		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Client Sample ID: MT-STP-4-071013
Date Collected: 07/10/13 11:04
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39295-4
Matrix: Solid
Percent Solids: 87.3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.6		0.50		mg/Kg	☼	07/11/13 14:38	07/12/13 13:21	10
Lead	300		0.20		mg/Kg	☼	07/11/13 14:38	07/12/13 13:21	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87		0.10		%			07/11/13 09:32	1
Percent Moisture	13		0.10		%			07/11/13 09:32	1

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Client Sample ID: MT-STP-5-071013
Date Collected: 07/10/13 11:05
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39295-5
Matrix: Solid
Percent Solids: 90.1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9		0.54		mg/Kg	☼	07/11/13 14:38	07/12/13 13:25	10
Lead	250		0.21		mg/Kg	☼	07/11/13 14:38	07/12/13 13:25	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90		0.10		%			07/11/13 09:32	1
Percent Moisture	9.9		0.10		%			07/11/13 09:32	1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-139775/22-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139846 — **Prep Batch: 139775**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50		mg/Kg		07/11/13 14:38	07/12/13 11:08	10
Lead	ND		0.20		mg/Kg		07/11/13 14:38	07/12/13 11:08	10

Lab Sample ID: LCS 580-139775/23-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139846 — **Prep Batch: 139775**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	202		mg/Kg		101	80 - 120
Lead	50.0	51.2		mg/Kg		102	80 - 120

Lab Sample ID: LCSD 580-139775/24-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139846 — **Prep Batch: 139775**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	200	202		mg/Kg		101	80 - 120	0	20
Lead	50.0	51.2		mg/Kg		102	80 - 120	0	20

Lab Sample ID: LCSSRM 580-139775/25-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139846 — **Prep Batch: 139775**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	237	264		mg/Kg		111.4	71.3 - 129.1
Lead	103	110		mg/Kg		106.5	70.9 - 128.2

Lab Sample ID: 580-39204-A-10-I MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139846 — **Prep Batch: 139775**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	13		269	300		mg/Kg	☼	107	80 - 120
Lead	1700		67.3	2160	4	mg/Kg	☼	733	80 - 120

Lab Sample ID: 580-39204-A-10-J MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 139846 — **Prep Batch: 139775**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	13		315	361		mg/Kg	☼	111	80 - 120	18	20
Lead	1700		78.8	2030	4	mg/Kg	☼	465	80 - 120	6	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-39204-A-10-H DU
Matrix: Solid
Analysis Batch: 139846

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 139775

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	13			12.1		mg/Kg	☼			4	20
Lead	1700			1620		mg/Kg	☼			3	20

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-39295-5 DU
Matrix: Solid
Analysis Batch: 139743

Client Sample ID: MT-STP-5-071013
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	90			91		%				1	20
Percent Moisture	9.9			9.0		%				10	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Client Sample ID: MT-STP-1-071013

Lab Sample ID: 580-39295-1
Date Collected: 07/10/13 11:01
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			139775	07/11/13 14:38	PAB	TAL SEA
Total/NA	Analysis	6020		10	139846	07/12/13 13:09	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: MT-STP-2-071013

Lab Sample ID: 580-39295-2
Date Collected: 07/10/13 11:02
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			139775	07/11/13 14:38	PAB	TAL SEA
Total/NA	Analysis	6020		10	139846	07/12/13 13:13	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: MT-STP-3-071013

Lab Sample ID: 580-39295-3
Date Collected: 07/10/13 11:03
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 93.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			139775	07/11/13 14:38	PAB	TAL SEA
Total/NA	Analysis	6020		10	139846	07/12/13 13:17	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: MT-STP-4-071013

Lab Sample ID: 580-39295-4
Date Collected: 07/10/13 11:04
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			139775	07/11/13 14:38	PAB	TAL SEA
Total/NA	Analysis	6020		10	139846	07/12/13 13:21	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Client Sample ID: MT-STP-5-071013

Lab Sample ID: 580-39295-5
Date Collected: 07/10/13 11:05
Matrix: Solid
Date Received: 07/11/13 08:30
Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			139775	07/11/13 14:38	PAB	TAL SEA
Total/NA	Analysis	6020		10	139846	07/12/13 13:25	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	139743	07/11/13 09:32	WW	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39295-1	MT-STP-1-071013	Solid	07/10/13 11:01	07/11/13 08:30
580-39295-2	MT-STP-2-071013	Solid	07/10/13 11:02	07/11/13 08:30
580-39295-3	MT-STP-3-071013	Solid	07/10/13 11:03	07/11/13 08:30
580-39295-4	MT-STP-4-071013	Solid	07/10/13 11:04	07/11/13 08:30
580-39295-5	MT-STP-5-071013	Solid	07/10/13 11:05	07/11/13 08:30

BNSF RAILWAY

CHAIN OF CUSTODY

LAB WORK ORDER:

LABORATORY INFORMATION

Laboratory: TEST AMERICA | Project Manager: KRIS ALLEN
Address: | Phone:
City/State/ZIP: TACOMA, WA | Fax:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number:
Project State of Origin: WA
Project City: SKYKOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON CONSULTING
Address: 975 5TH AVE NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 683-038
Project Manager: AMY DESAI
Email: aedesai@farallonconsulting.com
Phone: 425-295-0800
Fax:

TURNAROUND TIME

- [ ] 1-day Rush
- [x] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other ______

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

SAMPLE INFORMATION

	Sample Identification	Containers	Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	EPA 6020 (LEAD, ARSENIC)								COMMENTS	LAB USE
1	MT-STP-1-071013	1	7-10-13	11:01	AV	N	G	S	X									
2	MT-STP-2-071013	↓	↓	11:02	↓	↓	↓	↓	X									
3	MT-STP3-071013	↓	↓	11:03	↓	↓	↓	↓	X									
4	MT-STP-4-071013	↓	↓	11:04	↓	↓	↓	↓	X									
5	MT-STP-5-071013	↓	↓	11:05	↓	↓	↓	↓	X									
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

580-39295 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	7/11/13 08:30	Tom Blankenship [signature] / Blankenship	7/11/13 0830
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements:
CC-RESULTS TO KRISTIN DARNELL
ANDREW UHING
client drop
Med Bl/Sch
wet/other IR=7.4/7.7°C

Custody Seal No.: | BNSF COC No.:

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES | DUPLICATE - CONSULTANT

TAL-1001 (0912)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39295-1

Login Number: 39295

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-39295-2
Client Project/Site: Schoolyard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
9/10/2013 8:58:43 AM

Kristine Allen, Project Manager I
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-2

Client Sample ID: MT-STP-3-071013
Date Collected: 07/10/13 11:03
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39295-3
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.97		0.030		mg/L		09/09/13 11:14	09/09/13 17:00	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 580-144429/1-B
Matrix: Solid
Analysis Batch: 144557

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 144495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.030		mg/L		09/09/13 11:14	09/09/13 16:47	1

Lab Sample ID: LCS 580-144429/2-B
Matrix: Solid
Analysis Batch: 144557

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 144495

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			1.00	1.02		mg/L		102	80 - 120		

Lab Sample ID: LCSD 580-144429/3-B
Matrix: Solid
Analysis Batch: 144557

Client Sample ID: Lab Control Sample Dup
Prep Type: TCLP
Prep Batch: 144495

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			1.00	1.01		mg/L		101	80 - 120	1	20

Lab Sample ID: 580-39295-3 MS
Matrix: Solid
Analysis Batch: 144557

Client Sample ID: MT-STP-3-071013
Prep Type: TCLP
Prep Batch: 144495

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	0.97		1.00	2.03		mg/L		106	50 - 150		

Lab Sample ID: 580-39295-3 MSD
Matrix: Solid
Analysis Batch: 144557

Client Sample ID: MT-STP-3-071013
Prep Type: TCLP
Prep Batch: 144495

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.97		1.00	2.06		mg/L		109	50 - 150	2	20

Lab Sample ID: 580-39295-3 DU
Matrix: Solid
Analysis Batch: 144557

Client Sample ID: MT-STP-3-071013
Prep Type: TCLP
Prep Batch: 144495

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	0.97		0.995		mg/L		3	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-2

Client Sample ID: MT-STP-3-071013
Date Collected: 07/10/13 11:03
Date Received: 07/11/13 08:30

Lab Sample ID: 580-39295-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			144429	09/08/13 09:45	RES	TAL SEA
TCLP	Prep	3010A			144495	09/09/13 11:14	PAB	TAL SEA
TCLP	Analysis	6010B		1	144557	09/09/13 17:00	HJM	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-2

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	NFESC		N/A	05-24-08 *
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

* Expired certification is currently pending renewal and is considered valid.

Sample Summary

Client: Farallon Consulting LLC
Project/Site: Schoolyard Excavation

TestAmerica Job ID: 580-39295-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-39295-3	MT-STP-3-071013	Solid	07/10/13 11:03	07/11/13 08:30

BNSF RAILWAY

CHAIN OF CUSTODY

LABORATORY INFORMATION

Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address:
Phone:
City/State/ZIP: TACOMA, WA
Fax:

LAB WORK ORDER:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

Project State of Origin: WA
BNSF Project Number:
Project City: SKYKOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION

Project Number: 683-038
Company: FARALLON CONSULTING
Project Manager: AMY DESAI
Address: 975 5TH AVE NW
Email: aedesai@farallonconsulting.com
City/State/ZIP: ISSAQUAH, WA 98027
Phone: 425-295-0800
Fax:

TURNAROUND TIME

- [ ] 1-day Rush
- [x] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other ______

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables? ______
- [ ] EDD Req, Format? ______

SAMPLE INFORMATION / **METHODS FOR ANALYSIS**

#	Sample Identification	Containers	Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	EPA 6020 (LEAD, ARSENIC)								COMMENTS	LAB USE
1	MT-STP-1-071013	1	7-10-13	11:01	AV	N	G	S	X									
2	MT-STP-2-071013	↓	↓	11:02	↓	↓	↓	↓	X									
3	MT-STP-3-071013	↓	↓	11:03	↓	↓	↓	↓	X									
4	MT-STP-4-071013	↓	↓	11:04	↓	↓	↓	↓	X									
5	MT-STP-5-071013	↓	↓	11:05	↓	↓	↓	↓	X									
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

580-39295 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	7/10/13 08:30	Tom Blankenship / Blankenship	7/11/13 0830
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements:
CC-RESULTS to KRISTIN DARNELL
ANDREW UHLING
client drop
Med Bl/ofch wet/other IR=7.4/7.7°c

Custody Seal No.:
BNSF COC No.:

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES
DUPLICATE - CONSULTANT
TAL-1001 (0912)

BNSF RAILWAY
CHAIN OF CUSTODY

LABORATORY INFORMATION
Laboratory: TEST AMERICA
Project Manager: KRIS ALLEN
Address:
Phone:
City/State/ZIP: TACOMA, WA
Fax:

LAB WORK ORDER:

SHIPMENT INFORMATION
Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION
Project State of Origin: WA
BNSF Project Number:
Project City: SKYKOMISH
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
BNSF Work Order No.:

CONSULTANT INFORMATION
Company: FARALLON CONSULTING
Address: 975 5TH AVE NW
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 683-038
Project Manager: AMY DESAI
Email: aedesai@farallonconsulting.com
Phone: 425-295-0800
Fax:

TURNAROUND TIME
- [ ] 1-day Rush
- [x] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other ______

DELIVERABLES
- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

SAMPLE INFORMATION

#	Sample Identification	Containers	Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	EPA 6020 (LEAD, ARSENIC)	TCLP Lead (EPA 6020/1311)							COMMENTS	LAB USE
1	MT-STP-1-071013	1	7-10-13	11:01	AV	N	G	S	X									
2	MT-STP-2-071013	↓	↓	11:02	↓	↓	↓	↓	X									
3	MT-STP3-071013	↓	↓	11:03	↓	↓	↓	↓	X	X ADP 09-05-13								
4	MT-STP-4-071013	↓	↓	11:04	↓	↓	↓	↓	X									
5	MT-STP-5-071013	↓	↓	11:05	↓	↓	↓	↓	X									
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

580-39295 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	7/11/13 08:30	Tom Blankenship / Blankenship	7/11/13 0830
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements: CC-results to KRISTIN DARNELL, ANDREW UNING
client drop Med Bluish wet/other IR = 7.4/7.7 °/o

Custody Seal No.:
BNSF COC No.:

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES DUPLICATE - CONSULTANT TAL-1001 (0912)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-39295-2

Login Number: 39295

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom X

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-40778-1
Client Project/Site: SchoolYard Excavation

For:
Farallon Consulting LLC
975 5th Avenue NW
Suite 100
Issaquah, Washington 98027

Attn: Amy Essig Desai

Kristine D. Allen

Authorized for release by:
10/10/2013 4:40:10 PM

Kristine Allen, Project Manager I
(253)922-2310
kristine.allen@testamericainc.com

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Case Narrative

Client: Farallon Consulting LLC
Project/Site: SchoolYard Excavation

TestAmerica Job ID: 580-40778-1

Job ID: 580-40778-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 10/9/2013 12:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.0º C.

GC Semi VOA - Method(s) NWTPH-Dx
In analytical batch 146943, for the following sample(s) from preparation batch 146910: SHF_1_100713 (580-40778-1), SHF_2_100713 (580-40778-2), SHF_3_100713 (580-40778-3), the results in the #2 Diesel Fuel (C10-C24) and Motor Oil (>C24-C36) range(s) are due to what most closely resembles a complex mixture of a mineral/transformer oil range product and motor oil. The affected analyte range(s) have been Y qualified and reported.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Farallon Consulting LLC
Project/Site: SchoolYard Excavation

TestAmerica Job ID: 580-40778-1

Client Sample ID: SHF_1_100713
Date Collected: 10/07/13 15:35
Date Received: 10/09/13 12:00

Lab Sample ID: 580-40778-1
Matrix: Solid
Percent Solids: 84.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	170	Y	28		mg/Kg	☼	10/09/13 15:40	10/10/13 09:54	1
Motor Oil (>C24-C36)	1300	Y	57		mg/Kg	☼	10/09/13 15:40	10/10/13 09:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*10/09/13 15:40*	*10/10/13 09:54*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.44		mg/Kg	☼	10/09/13 15:43	10/10/13 09:50	10
Lead	17		0.18		mg/Kg	☼	10/09/13 15:43	10/10/13 09:50	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		0.10		%			10/09/13 17:13	1
Percent Moisture	16		0.10		%			10/09/13 17:13	1

Client: Farallon Consulting LLC
Project/Site: SchoolYard Excavation

TestAmerica Job ID: 580-40778-1

Client Sample ID: SHF_2_100713
Date Collected: 10/07/13 15:40
Date Received: 10/09/13 12:00

Lab Sample ID: 580-40778-2
Matrix: Solid
Percent Solids: 81.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	150	Y	30		mg/Kg	☼	10/09/13 15:40	10/10/13 10:30	1
Motor Oil (>C24-C36)	980	Y	60		mg/Kg	☼	10/09/13 15:40	10/10/13 10:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*10/09/13 15:40*	*10/10/13 10:30*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		0.51		mg/Kg	☼	10/09/13 15:43	10/10/13 09:54	10
Lead	35		0.20		mg/Kg	☼	10/09/13 15:43	10/10/13 09:54	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82		0.10		%			10/09/13 17:13	1
Percent Moisture	18		0.10		%			10/09/13 17:13	1

Client: Farallon Consulting LLC
Project/Site: SchoolYard Excavation

TestAmerica Job ID: 580-40778-1

Client Sample ID: SHF_3_100713
Date Collected: 10/07/13 15:45
Date Received: 10/09/13 12:00

Lab Sample ID: 580-40778-3
Matrix: Solid
Percent Solids: 95.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	210	Y	25		mg/Kg	☼	10/09/13 15:40	10/10/13 10:47	1
Motor Oil (>C24-C36)	2000	Y	50		mg/Kg	☼	10/09/13 15:40	10/10/13 10:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*10/09/13 15:40*	*10/10/13 10:47*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.49		mg/Kg	☼	10/09/13 15:43	10/10/13 09:58	10
Lead	7.9		0.19		mg/Kg	☼	10/09/13 15:43	10/10/13 09:58	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			10/09/13 17:13	1
Percent Moisture	4.3		0.10		%			10/09/13 17:13	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-146910/1-A
Matrix: Solid
Analysis Batch: 146854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		10/09/13 15:40	10/09/13 19:02	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		10/09/13 15:40	10/09/13 19:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*73*		*50 - 150*	*10/09/13 15:40*	*10/09/13 19:02*	*1*

Lab Sample ID: LCS 580-146910/2-A
Matrix: Solid
Analysis Batch: 146854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 146910

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	419		mg/Kg		84	70 - 125		
Motor Oil (>C24-C36)			500	438		mg/Kg		88	64 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*89*		*50 - 150*

Lab Sample ID: LCSD 580-146910/3-A
Matrix: Solid
Analysis Batch: 146854

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 146910

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	411		mg/Kg		82	70 - 125	2	16
Motor Oil (>C24-C36)			500	431		mg/Kg		86	64 - 127	2	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*80*		*50 - 150*

Lab Sample ID: 580-40778-1 DU
Matrix: Solid
Analysis Batch: 146943

Client Sample ID: SHF_1_100713
Prep Type: Total/NA
Prep Batch: 146910

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	170	Y		127		mg/Kg	☼			26	35
Motor Oil (>C24-C36)	1300	Y		1060		mg/Kg	☼			21	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*82*		*50 - 150*

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-146911/21-A
Matrix: Solid
Analysis Batch: 146969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50		mg/Kg		10/09/13 15:43	10/10/13 07:59	10

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 580-146911/21-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 146969 — **Prep Batch: 146911**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.20		mg/Kg		10/09/13 15:43	10/10/13 07:59	10

Lab Sample ID: LCS 580-146911/22-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 146969 — **Prep Batch: 146911**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	203		mg/Kg		101	80 - 120
Lead	50.0	51.5		mg/Kg		103	80 - 120

Lab Sample ID: LCSD 580-146911/23-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 146969 — **Prep Batch: 146911**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	200	204		mg/Kg		102	80 - 120	1	20
Lead	50.0	51.1		mg/Kg		102	80 - 120	1	20

Lab Sample ID: LCSSRM 580-146911/24-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 146969 — **Prep Batch: 146911**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	237	260		mg/Kg		109.6	71.3 - 129.1
Lead	103	107		mg/Kg		104.0	70.9 - 128.2

Lab Sample ID: 580-40586-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 146969 — **Prep Batch: 146911**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.6		166	172		mg/Kg	☼	102	80 - 120
Lead	2.3		41.5	45.3		mg/Kg	☼	104	80 - 120

Lab Sample ID: 580-40586-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 146969 — **Prep Batch: 146911**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	2.6		166	171		mg/Kg	☼	102	80 - 120	1	20
Lead	2.3		41.4	48.9		mg/Kg	☼	113	80 - 120	8	20

Lab Sample ID: 580-40586-A-1-C DU — **Client Sample ID: Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 146969 — **Prep Batch: 146911**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	2.6		2.42		mg/Kg	☼	7	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-40586-A-1-C DU
Matrix: Solid
Analysis Batch: 146969

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 146911

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lead	2.3			2.12		mg/Kg	☼			6	20

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-40770-A-1 DU
Matrix: Solid
Analysis Batch: 146922

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	90			91		%				0.7	20
Percent Moisture	9.7			9.1		%				6	20

Lab Chronicle

Client: Farallon Consulting LLC
Project/Site: SchoolYard Excavation

TestAmerica Job ID: 580-40778-1

Client Sample ID: SHF_1_100713

Lab Sample ID: 580-40778-1

Date Collected: 10/07/13 15:35
Matrix: Solid
Date Received: 10/09/13 12:00
Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			146910	10/09/13 15:40	RBD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	146943	10/10/13 09:54	JL1	TAL SEA
Total/NA	Prep	3050B			146911	10/09/13 15:43	PAB	TAL SEA
Total/NA	Analysis	6020		10	146969	10/10/13 09:50	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	146922	10/09/13 17:13	PAB	TAL SEA

Client Sample ID: SHF_2_100713

Lab Sample ID: 580-40778-2

Date Collected: 10/07/13 15:40
Matrix: Solid
Date Received: 10/09/13 12:00
Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			146910	10/09/13 15:40	RBD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	146943	10/10/13 10:30	JL1	TAL SEA
Total/NA	Prep	3050B			146911	10/09/13 15:43	PAB	TAL SEA
Total/NA	Analysis	6020		10	146969	10/10/13 09:54	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	146922	10/09/13 17:13	PAB	TAL SEA

Client Sample ID: SHF_3_100713

Lab Sample ID: 580-40778-3

Date Collected: 10/07/13 15:45
Matrix: Solid
Date Received: 10/09/13 12:00
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			146910	10/09/13 15:40	RBD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	146943	10/10/13 10:47	JL1	TAL SEA
Total/NA	Prep	3050B			146911	10/09/13 15:43	PAB	TAL SEA
Total/NA	Analysis	6020		10	146969	10/10/13 09:58	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	146922	10/09/13 17:13	PAB	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Farallon Consulting LLC
Project/Site: SchoolYard Excavation

TestAmerica Job ID: 580-40778-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Farallon Consulting LLC
Project/Site: SchoolYard Excavation

TestAmerica Job ID: 580-40778-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-40778-1	SHF_1_100713	Solid	10/07/13 15:35	10/09/13 12:00
580-40778-2	SHF_2_100713	Solid	10/07/13 15:40	10/09/13 12:00
580-40778-3	SHF_3_100713	Solid	10/07/13 15:45	10/09/13 12:00

BNSF RAILWAY

CHAIN OF CUSTODY

LABORATORY INFORMATION

Laboratory: Test America | Project Manager:
Address: | Phone:
City/State/ZIP: | Fax:

LAB WORK ORDER:

SHIPMENT INFORMATION

Shipment Method:
Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number: 683-038 AV
BNSF Project Name: SCHOOLYARD EXCAVATION
BNSF Contact: BRUCE SHEPPARD
Project State of Origin: WA
Project City: SKYKOMISH
BNSF Work Order No.:

CONSULTANT INFORMATION

Company: FARALLON
Address: 975 5TH AVE.
City/State/ZIP: ISSAQUAH, WA 98027
Project Number: 683-038
Project Manager: AMY DESAI
Email: aedesai@farallonconsulting.com
Phone: 425-295-0800 | Fax:

TURNAROUND TIME

- [x] 1-day Rush
- [ ] 2-day Rush
- [ ] 3-day Rush
- [ ] 5- to 8-day Rush
- [ ] Standard 10-Day
- [ ] Other ______

DELIVERABLES

- [ ] BNSF Standard (Level II)
- [ ] Level III
- [ ] Level IV
- [ ] Other Deliverables?
- [ ] EDD Req, Format?

SAMPLE INFORMATION / **METHODS FOR ANALYSIS**

#	Sample identification	Containers	Date	Time	Sampler	Filtered Y/N	Type (Comp/Grab)	Matrix	NWTPH-Dx	EPA 6020 Lead and arsenic only						COMMENTS	LAB USE
1	SHF-1-100713	2	10/7/13	15:35	AV	N	G	S	X	X							
2	SHF-2-100713	2	10/7/13	15:40	AV	N	G	S	X	X							
3	SHF-3-100713	2	10/7/13	15:45	AV	N	G	S	X	X							
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

JR

Relinquished By: [signature]	Date/Time: 10/9/13 1115	Received By: [signature]	Date/Time: 10/9/13 1200
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:		Date/Time:
Received by Laboratory:	Date/Time:		Lab: Custody Intact? ☐ Yes ☐ No

Comments and Special Analytical Requirements:

Custody Seal No.: | BNSF COC No.:

580-40778 Chain of Custody

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

TAL-1001 (06/08)

Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-40778-1

Login Number: 40778

List Source: TestAmerica Seattle

List Number: 1

Creator: Presley, Kim A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX F
DATA VALIDATION REPORT

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

Data Validation Report

14257 93rd Court NE
Kirkland, Washington 98034
(425) 820-7504
cari@saylerdata.com

Sayler Data Solutions, Inc.

DATA VALIDATION REPORT

Skykomish Schoolyard 2013 Data

Prepared for:
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, Washington 98027

February 7, 2014

1.0 Introduction

Analytical Schedule: The following samples were submitted for review:

Sample ID	Sample Date/Time	LabID	Analyses
B10-061813-2.5	06/18/13 09:39	580-38961-1	TPH
B11-061813-2.5	06/18/13 09:44	580-38961-2	TPH
B12-061813-2.5	06/18/13 09:54	580-38961-3	TPH
B13-061813-2.5	06/18/13 10:03	580-38961-4	TPH
B14-061813-2.5	06/18/13 10:09	580-38961-5	TPH
C14-061813-2.5	06/18/13 10:10	580-38961-6	TPH
C13-061813-2.5	06/18/13 10:11	580-38961-7	TPH
C12-061813-2.5	06/18/13 10:13	580-38961-8	TPH
C11-061813-2.5	06/18/13 10:25	580-38961-9	TPH
C10-061813-2.5	06/18/13 10:30	580-38961-10	TPH
C9-061813-2.5	06/18/13 10:35	580-38961-11	TPH
C8-061813-2.5	06/18/13 10:49	580-38961-12	TPH
D8-061813-2.5	06/18/13 10:52	580-38961-13	TPH
D9-061813-2.5	06/18/13 11:00	580-38961-14	TPH
D10-061813-2.5	06/18/13 11:03	580-38961-15	TPH
D11-061813-2.5	06/18/13 11:35	580-38961-16	TPH
D12-061813-2.5	06/18/13 11:37	580-38961-17	TPH
D13-061813-2.5	06/18/13 11:42	580-38961-18	TPH
D14-061813-2.5	06/18/13 11:59	580-38961-19	TPH
Z2-061813-2.5	06/18/13 10:29	580-38961-20	TPH
Z3-061813-2.5	06/18/13 11:38	580-38961-21	TPH
Z4-061813-2.5	06/18/13 10:04	580-38961-22	TPH

Sample ID	Sample Date/Time	LabID	Analyses
MT1-061913-2.0	06/19/13 10:41	580-38981-1	Metals
MT2-061913-2.0	06/19/13 11:58	580-38981-4	Metals
MT3-061913-2.0	06/19/13 11:06	580-38981-7	Metals
MT4-061913-2.0	06/19/13 10:42	580-38981-10	Metals
MT5-061913-2.0	06/19/13 12:16	580-38981-11	Metals
MT1-NW-WL-061913-2.0	06/19/13 11:03	580-38981-12	Metals
MT1-NE-WL-061913-2.0	06/19/13 11:34	580-38981-13	Metals
MT1-SE-WL-061913-2.0	06/19/13 11:01	580-38981-14	Metals
MT2-NW-WL-061913-2.0	06/19/13 12:20	580-38981-15	Metals
MT2-SE-WL-061913-2.0	06/19/13 12:15	580-38981-16	Metals
MT3-NW-WL-061913-2.0	06/19/13 11:28	580-38981-17	Metals
MT3-SE-WL-061913-2.0	06/19/13 11:25	580-38981-18	Metals
MT3-SW-WL-061913-2.0	06/19/13 11:30	580-38981-19	Metals
E14-061813-2.5	06/18/13 13:45	580-38982-1	TPH
E13-061813-2.5	06/18/13 13:48	580-38982-2	TPH
E12-061813-2.5	06/18/13 13:52	580-38982-3	TPH
E11-061813-2.5	06/18/13 14:05	580-38982-4	TPH
E10-061813-2.5	06/18/13 14:10	580-38982-5	TPH
E9-061813-2.5	06/18/13 14:18	580-38982-6	TPH
E8-061813-2.5	06/18/13 14:24	580-38982-7	TPH
F8-061813-2.5	06/18/13 14:25	580-38982-8	TPH
F9-061813-2.5	06/18/13 14:31	580-38982-9	TPH
F10-061813-2.5	06/18/13 14:40	580-38982-10	TPH
F11-061813-2.5	06/18/13 14:45	580-38982-11	TPH
F13-061813-2.5	06/18/13 15:00	580-38982-12	TPH
Z1-061813-2.5	06/18/13 14:20	580-38982-13	TPH
Z5-061813-2.5	06/18/13 15:01	580-38982-14	TPH
F14-061913-2.5	06/19/13 09:29	580-38982-15	TPH
F12-061913-2.5	06/19/13 12:09	580-38982-16	TPH
G11-061913-2.5	06/19/13 09:50	580-38982-17	TPH
G12-061913-2.5	06/19/13 09:40	580-38982-18	TPH
G13-061913-2.5	06/19/13 09:32	580-38982-19	TPH
C8-TOE-062713-12.0	06/27/13 16:25	580-39118-1	TPH
D8-TOE-062713-12.0	06/27/13 16:28	580-39118-2	TPH
E8-TOE-062713-12.0	06/27/13 16:32	580-39118-3	TPH
F8-TOE-062713-12.0	06/27/13 16:35	580-39118-4	TPH
C9-TOE-062713-14.0	06/27/13 18:28	580-39118-5	TPH
D9-062713-14.0	06/27/13 18:32	580-39118-6	TPH
E9-062713-14.0	06/27/13 18:40	580-39118-7	TPH
F9-TOE-062713-14.0	06/27/13 16:40	580-39118-8	TPH
C10-TOE-070113-13.0	07/01/13 15:50	580-39170-1	TPH
D10-070113-13.0	07/01/13 15:57	580-39170-2	TPH
E10-070113-14.0	07/01/13 16:01	580-39170-3	TPH
F10-070113-14.0	07/01/13 16:05	580-39170-4	TPH
C11-TOE-070213-13.0	07/02/13 15:04	580-39214-1	TPH
Z4-070213-13.0	07/02/13 15:04	580-39214-2	TPH

Sample ID	Sample Date/Time	LabID	Analyses
C11-070213-13.0	07/02/13 15:10	580-39214-3	TPH
D11-070213-13.0	07/02/13 15:07	580-39214-4	TPH
Z5-070213-13.0	07/02/13 15:07	580-39214-5	TPH
E11-070213-13.0	07/02/13 15:18	580-39214-6	TPH
F11-070213-13.0	07/02/13 15:20	580-39214-7	TPH
G10-TOE-070313-14.0	07/03/13 09:40	580-39222-1	TPH
F11-070313-14.0	07/03/13 10:12	580-39222-3	TPH
G11-TOE-070313-13.0	07/03/13 10:25	580-39222-4	TPH
G12-TOE-070313-13.0	07/03/13 10:33	580-39222-5	TPH
F14-TOE-071013-13.0	07/10/13 14:49	580-39294-1	TPH
F10-071013-13.0	07/10/13 14:40	580-39294-2	TPH
Z6-071013-13.0	07/10/13 14:41	580-39294-3	TPH
F13-071013-13.0	07/10/13 14:45	580-39294-4	TPH
E14-TOE-071013-12.0	07/10/13 16:55	580-39294-5	TPH
E13-071013-12.0	07/10/13 16:58	580-39294-6	TPH
E12-071013-12.0	07/10/13 17:05	580-39294-7	TPH
Z7-071013-12.0	07/10/13 17:06	580-39294-8	TPH
MT-STP-1-071013	07/10/13 11:01	580-39295-1	Metals
MT-STP-2-071013	07/10/13 11:02	580-39295-2	Metals
MT-STP-3-071013	07/10/13 11:03	580-39295-3	Metals
MT-STP-4-071013	07/10/13 11:04	580-39295-4	Metals
MT-STP-5-071013	07/10/13 11:05	580-39295-5	Metals
D14-TOE-071113-13.0	07/11/13 15:50	580-39320-1	TPH
D13-071113-13.0	07/11/13 15:52	580-39320-2	TPH
D12-071113-13.0	07/11/13 16:01	580-39320-3	TPH
Z-071113-13.0	07/11/13 20:20	580-39320-4	TPH
C12-TOE-071213-13.0	07/12/13 10:40	580-39343-1	TPH
Z9-TOE-071213-13.0	07/12/13 20:20	580-39343-2	TPH
C12-071213-13.0	07/12/13 10:45	580-39343-3	TPH
C13-071213-13.0	07/12/13 15:33	580-39343-4	TPH
C13-TOE-071213-12.0	07/12/13 15:29	580-39343-5	TPH
F14-SW-071213-7.0	07/12/13 14:25	580-39399-1	TPH
F13-SW-071213-7.0	07/12/13 14:31	580-39399-2	TPH
Z10-SW-071213-7.0	07/12/13 14:33	580-39399-3	TPH
E14-SW-071213-6.5	07/12/13 14:40	580-39399-4	TPH
C14-SW-071213-7.0	07/12/13 15:35	580-39399-5	TPH
D14-SW-071113-8.0	07/11/13 15:45	580-39399-6	TPH
G12-SW-071513-7.0	07/15/13 14:28	580-39488-1	TPH
G11-SW-071513-7.0	07/15/13 14:37	580-39488-2	TPH
SHF_1_100713	10/07/13 15:35	580-40778-1	TPH, Metals
SHF_2_100713	10/07/13 15:40	580-40778-2	TPH, Metals
SHF_3_100713	10/07/13 15:45	580-40778-3	TPH, Metals

Sample IDs in the laboratory report matched the chain of custody.

Analyses: Analysis was performed by TestAmerica Laboratories Inc, in Tacoma,

Washington. The following methods were utilized:

Analysis	Analysis method	Preparation method
TPH-D	NWTPH-Dx	SW3550B
Total Metals	SW6020	SW3050B

Please note: TPH-D analysis was performed without silica gel cleanup.

Validation: A stage 2A summary validation was performed on the electronic data deliverable and the hardcopy (portable document format) analytical results, earning EPA OSWER validation label code S2AVEM. Validation was performed by Cari Sayler.

Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory narrative. Validation qualifiers are summarized in section 4.0 of this report.

2.0 Diesel Range Petroleum Hydrocarbon Analysis

Quality control analysis frequencies: The method specifies that a method blank must be analyzed one per analytical batch or one per twenty samples, whichever is more frequent and a laboratory duplicate must be analyzed one per ten samples. In addition, surrogate compounds must be measured in each field and quality control sample.

Each batch included a method blank, LCS, and LCSD, as well as appropriate surrogates. No qualifiers are assigned based on the absence of the laboratory duplicate.

Holding times: Soil samples must be extracted within 14 days of collection. Extracts must be analyzed within 40 days of extraction. Samples are also required to be stored refrigerated. All analyses were extracted and analyzed within holding time.

Samples in lab SDGs 580-38961 (11.9 ^{o}C) and 580-39294 (7.4 ^{o}C) were received with cooler temperatures above the recommended 2 to 6 ^{o}C. Samples in Lab SDG 580-38961 were received within hours of sample collection, and on ice and did not have sufficient time to cool. No qualifiers are assigned. Samples in Lab SDG 580-39294 were received the day after sample collection and are qualified as estimated.

Laboratory blank results: Criteria for blanks are that analyte concentrations must be below the PQL, or below 5% of the lowest associated sample concentration. No target analytes was detected in a method blanks.

Surrogate recoveries: Laboratory control limits were 50-150%. Surrogate recoveries were within limits with one exception: Surrogate was not recovered in the duplicate of sample C9-061813-2.5. According to the narrative, the surrogate was mistakenly not added to this extract. No target analytes were detected in the sample or the duplicate and no qualifiers are required.

LCS recoveries: Laboratory control limits ranged from 64-127 to 70-125%. LCS recoveries were within limits.

LCS/LCSD RPDs: The laboratory control limit for RPDs was 16%. LCS/LCSD RPDs were within limits.

Laboratory duplicate RPDs: The laboratory control limit for RPDs was 35%. RPDs were within limits.

Field duplicate RPDs: Field duplicate RPDs were below 35% with the following exception:

FD ID	Analyte	FD Result (mg/kg)	Sample Result (mg/kg)	RPD
Z5-061813-2.5 / E13-061813-2.5	#2 Diesel (C10-C24)	29 U	160	139
Z10-SW-071213-7.0 / F13-SW-071213-7.0	#2 Diesel (C10-C24)	26 U	100	117
Z10-SW-071213-7.0 / F13-SW-071213-7.0	Motor Oil (>C24-C36)	52 U	290	139

These results are qualified as estimated in both the samples and field duplicates.

Laboratory narrative and flags: No qualifiers were assigned based on a review of the laboratory narrative or data flags.

Diesel range petroleum hydrocarbon data are acceptable for use as qualified.

3.0 Total Metals Analysis

Quality control analysis frequencies: The method specifies that the following QA samples must be analyzed one per analytical batch or one per twenty samples, whichever is more frequent: a method blank, a LCS, a MS, and a duplicate pair (either MS/MSD or field sample/laboratory duplicate).

One of the three batches included a method blank, LCS, LCSD, MS, MSD, and lab duplicate. Two batches included a method blank, LCS, and LCSD, and SRM. No qualifiers are assigned based on the lack of duplicate pair.

Holding times: Water samples must be analyzed within 6 months of collection. Samples were analyzed within the holding time.

Laboratory blank results: Criteria for method blanks are that analyte concentrations must be below the PQL, or below 5% of the lowest associated sample concentration. No target analytes were detected in the method blanks.

LCS and SRM recoveries: Laboratory control limits were 80-120%. LCS recoveries were within limits.

MS recoveries: Laboratory control limits were also 80-120%. MS recoveries were within limits with one exception:

QC ID	Analyte	% Recovery	Lab Control Limit
MT1-061913-2.0 MS	Lead	153	80 - 120

The lead result is qualified as estimated in the native sample.

LCS/LCSD RPDs: The laboratory control limit for RPDs was 20%. RPDs were within limits.

MS/MSD RPDs: The laboratory control limit for RPDs was 20%. RPDs were within limits.

Laboratory duplicate RPDs: The laboratory control limit for RPDs was 20%. Either concentrations of both sample and duplicate were below twice the RL, or RPDs were within limits, meeting performance criteria.

Laboratory narrative and flags: No qualifiers were assigned based on a review of the laboratory narrative or data flags.

Total metals data are acceptable for use as qualified.

4.0 Validation Qualifiers

Client ID	Analyte	DV Qualifier	Reason
Diesel Range Petroleum Hydrocarbon Analyses			
E12-071013-12.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	Sample Receipt Temperature.
E13-061813-2.5	#2 Diesel (C10-C24)	J	FD Variability
E13-071013-12.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	Sample Receipt Temperature.
E14-TOE-071013-12.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	Sample Receipt Temperature.
F10-071013-13.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	Sample Receipt Temperature.
F13-071013-13.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	Sample Receipt Temperature.
F13-SW-071213-7.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	J	FD Variability
F14-TOE-071013-13.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	Sample Receipt Temperature.
Z10-SW-071213-7.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	FD Variability
Z5-061813-2.5	#2 Diesel (C10-C24)	UJ	FD Variability
Z6-071013-13.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	Sample Receipt Temperature.
Z7-071013-12.0	#2 Diesel (C10-C24), Motor Oil (<C24-C36)	UJ	Sample Receipt Temperature.
Total Metals Analyses			
MT1-061913-2.0	Lead	J	MS recovery

5.0 Abbreviations and Definitions

DV Qualifier	Definition
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.
R1	The sample result has been replaced by a more reliable or more conservative result.
R2	The sample result has been replaced by a result from a different analysis method.

Abbreviation	Definition
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RL	Reporting limit
RPD	Relative percent difference
RSD	Relative standard deviation

6.0 References

USEPA Contract Laboratory Program National Functional Guidelines For Superfund Organic Methods Data Review, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, June 2008, USEPA-540-R-008-01.

USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Superfund Data Review, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, January 2010, USEPA-540-R-10-011.

USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, January 2009, EPA 540-R-08-005.

APPENDIX G
CONTRACTOR SUBMITTALS

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

STRIDER construction co., inc.

4721 Northwest Drive
Bellingham, WA 98226
(360) 380-1234
(360) 380-3456 (FAX)

LETTER OF TRANSMITTAL

To:	Andrew Vining	**Date:**	June 26, 2013
Company:	Farrallon Consulting	**Project Name:**	Schoolyard Excavation Supplement
Address:	975 5th Avenue Northwest	**SCCI Project #:**	13SS
	Issaquah, WA, WA 98027	**PW #:**	
		Federal Aid #:	

ITEM:

☒ Attached ☐ Under separate cover via: _____

No. of Copies	Document Description
1	Side Sewer Materials

TRANSMITTED BY:

☐ Mail ☐ Hand Delivery ☒ E-mail ☐ Faxed ____ pages to fax no.: ( ) -
☐ Overnight Mail ☐ Courier ☐ Original to follow

TRANSMITTED FOR:

☐ For your information ☒ Review and Approve
☐ For your use ☐ Revise and resubmit
☐ As requested ☐ Other: _____

REMARKS:

Copies to: file

Signed: _____
Kyle Gebhardt, PE

Washington State Department of Transportation

Request for Approval of Material

Contract Number	FA Number	SR	Date
			6/25/2013

Section / Title of Project	County
SKYKOMISH SCHOOL SITE	SNOHOMISH

Contractor	Subcontractor
STRIDER CONSTRUCTION	HD FOWLER CO.

This form shall be completed prior to submittal. If this form is not complete at time of submittal it may be returned for information that was omitted.
For assistance in completing, see Instructions and Example

For WSDOT Use Only
RAM #

Bid Item No.	Material or Product/Type	Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference	PE/QPL Code	Hdqtr./QPL Code
	PVC SEWER PIPE	JM EAGLE, UMATILLA, OR			
	PVC SEWER FITTINGS	GPK PRODUCTS KENT, WA			
	GRIPPER PLUG	CHERNE LODI, CA			
	LOCKING CLEANOUT COVER	OLYMPIC FOUNDY SEATTLE, WA			
	ABS DIVERTER VALVE	NDS LYNNWOOD, WA			
	TRUE UNION BALL VALVE	SPEARS AUBURN, WA			
	VALVE BOX	OLYMPIC FOUNDRY SEATTLE, WA			
	DETECTABLE SERVICE WIRE	GENERAL CABLE CHINO, CA			

Project Engineer	Date	State Materials Engineer	Date

Acceptance Action Codes for use by Project Engineer and State Materials Laboratory

1. Acceptance Criteria: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
2. Acceptance Criteria: Mfg. Cert. of Compliance for 'Acceptance' prior to use of material.
3. Acceptance Criteria: Catalog Cuts for 'Acceptance' prior to use of material. Catalog Cut Approved ☐ Yes ☐ No
4. Acceptance Criteria: Submit Shop Drawings for 'Approval' prior to fabrication of material.
5. Acceptance Criteria: Only 'Approved for Shipment', 'WSDOT Inspected' or 'Fabrication Approved Decal' material shall be used.
6. Acceptance Criteria: Submit Certificate of Materials Origin to Project Engineer Office.
7. Acceptance Criteria: Request Transmitted to State Materials Laboratory for Approval Action.
8. Source Approved: _____
9. Approval Withheld: Submit samples for preliminary evaluation.
10. Approval Withheld:
11. Miscellaneous Acceptance Criteria.

Remarks:

Project Engineer Distribution

☐ Contractor
☐ Region Operations Engineer
☐ Fabrication Inspection
☐ Region Materials
☐ State Materials Lab M/S 47365

State Materials Engineer Distribution

☐ General File
☐ Signing Inspection
☐ Other _____

DOT Form 350-071 EF
Revised 12/2012

B219182

H.D. FOWLER COMPANY

SUBMITTAL

Date:

To
Company: Strider Construction
Contact: Kyle Gebhardt
Phone: (360) 380-3456
Fax:
Email:

Project Information
Project: Skykomish School Side Sewer
Owner: Skykomish School District 404
Contractor: Strider Construction Co. Inc
Engineer:

Submittal Information
Submittal Type: New
Revision:
Subject:
Spec Section:

Contact Information
Prepared By:
Salesman:

The following items are submitted:

Spec No	Item Submitted	Comments	Pages
	SEWER PIPE SDR35	JM EAGLE, SUNNYSIDE, WA	
	SEWER FITTINGS SDR35	GPK PRODUCTS, KENT, WA	
	GRIPPER PLUG	CHERNE, LODI, CA	
	LOCKING CLEANOUT COVER	OLYMPIC FOUNDRY, SEATTLE, WA	
	ABS DIVERTER VALVE	NDS, LYNNWOOD, WA	
	TRUE UNION BALL VALVE	SPEARS, AUBURN, WA	
	VALVE BOX	OLYMPIC FOUNDRY, SEATTLE, WA	
	DETECTABLE SERVICE WIRE	GENERAL CABLE, CHINO, CA	

HD Fowler Company Submittal
Sec. 1: Ln 1
Vendor: 74630

JM Eagle *Building essentials for a better tomorrow™*

GRAVITY SEWER

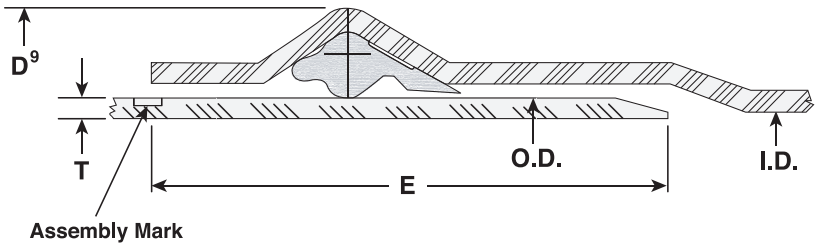
SUBMITTAL AND DATA SHEET

PIPE SIZE (IN)	AVERAGE O.D. (IN)	NOM. I.D. (IN)	MIN. T. (IN)	MIN. E (IN)	APPROX. D (IN)	APPROX. WEIGHT (LBS/FT)
SDR 35 (PS46) ASTM D3034						
4	4.215	3.975	0.120	3.50	4.695	1.05
6	6.275	5.915	0.180	4.25	6.995	2.36
8	8.400	7.920	0.240	4.75	9.360	4.24
10	10.500	9.900	0.300	6.00	11.700	6.64
12	12.500	11.780	0.360	6.25	13.940	9.50
15	15.300	14.426	0.437	7.25	17.048	14.19
SDR 26 (PS115) ASTM D3034						
4	4.215	3.891	0.162	3.50	4.863	1.40
6	6.275	5.793	0.241	4.25	7.239	3.11
8	8.400	7.754	0.323	4.75	9.692	5.63
10	10.500	9.692	0.404	6.00	12.116	8.84
12	12.500	11.538	0.481	6.25	14.424	12.56
15	15.300	14.124	0.588	7.25	17.652	18.90
PS46, ASTM F679						
18	18.701	17.629	0.499	8.00	20.845	21.43
21	22.047	20.783	0.588	9.50	24.575	29.88
24	24.803	23.381	0.661	9.60	27.647	38.96
27	27.953	26.351	0.745	10.10	31.157	49.47
30 CIOD	32.000	30.194	0.853	16.75	35.612	64.18
36 CIOD	38.300	36.042	1.021	19.02	42.816	93.00
42 CIOD	44.500	41.948	1.187	22.43	49.604	—
48 CIOD	50.800	47.888	1.355	24.78	56.624	—
PS115, ASTM F679						
18	18.701	17.261	0.671	8.00	21.581	28.49
21	22.047	20.349	0.791	9.50	25.443	—
24	24.803	22.891	0.889	9.60	28.627	—
27	27.953	25.799	1.002	10.10	32.261	—
30 CIOD	32.000	29.070	1.148	16.75	36.348	—
36 CIOD	38.300	35.464	1.373	19.02	45.438	—
42 CIOD	44.500	41.072	1.596	22.43	51.356	—
48 CIOD	50.800	46.886	1.822	24.78	58.628	—

HD Fowler Company Submittal

Sec. 1: Ln 1

Vendor: 74630



I.D. : Inside Dameter

O.D. : Outside Diameter

T. : Wall Thickness

D^9 : Bell Outside Diameter

E : Distance between Assembly Mark to the end of spigot.

Product Standard:	ASTM 3034 (4”–15”) ASTM F679 (18”–48”)
Pipe Compound:	ASTM D1784 Cells Class 12454 or 12364
Gasket:	ASTM F477
Integral Bell Joint:	ASTM D3212
Pipe Stiffness:	ASTM D2412 F/ΔY = 46 PSI or 115 PSI
Pipe Length:	14 or 20 feet laying length
Installation:	ASTM D 2321 JM Eagle™ Installation Guide

GPK FITTING SUBMITTAL SHEET

Intro: GPK manufactures PVC sewer fittings in accordance with either ASTM D 3034, F 1336 or F 679 to be used in gravity flow or low pressure applications. Injection molded fittings are produced in sizes 4" (100mm) through 12" (300mm) diameter. Fabricated fittings are produced in sizes 4" (100mm) through 36" (973mm) diameter.

Material: Fabricated fittings are manufactured from PVC pipe and molded components meeting the requirements of either ASTM D 3034, F 1336 or F 679 for workmanship, extrusion quality, stiffness, impact resistance, dimensions and structural performance.

Extruded pipe components are made from PVC material with a minimum cell classification of 12454, 13343 or12364 as defined in ASTM D 1784.

Injection molded fittings are made from PVC material with a minimum cell classification of 12454 or 13343 as defined in ASTM D 1784.

Extrusion Quality: Extruded components are tested in accordance with and meet the requirements of ASTM D 2152 for properly fused PVC.

Impact Resistance: Extruded components are tested in accordance with ASTM D 2444 using a 20 lb (9.07kg). Tup A and a Flat Plate Holder B. The strength shall equal or exceed the values shown below:

4" - 5" 150 Ft-Lbs	6" - 8" 210 Ft-Lbs	10" - 36" 220 Ft-Lbs
(100mm - 125mm 203 J)	(150mm - 200mm 284 J)	(250mm - 973mm 299 J)

Impact Resistance: Injection molded fittings are tested in accordance with ASTM D 2444 using a 20 lb (9.07kg). Tup A and a Flat Plate Holder B. The strength shall equal or exceed the values shown below:

4" 50 Ft-Lbs	6" - 8" 75 Ft-Lbs	10"-12" 90 FT-Lbs
(100mm 68 J)	(150mm - 200mm 102 J)	(250mm - 300mm 122 J)

Pipe Stiffness: Extruded components are tested in accordance with ASTM D 2412. The stiffness equals or exceeds the requirements of ASTM D 3034 and F 679.

Pipe Flattening: Extruded components are flattened as described in ASTM D 3034 and F 679 until the distance between the plates is 40% of the outside diameter of the pipe. There shall be no splitting, cracking or breaking.

Pressure/Pressure Deflection: Gasketed joints are tested in accordance with ASTM D 3212.
Pressure: 10 minutes @ 10.8 psi (74.5 kPa) + 10 minutes deflected @ 10.8 psi (74.5 kPa).
Vacuum: 10 minutes @ 22 in. Hg (74 kPa) + 10 minutes deflected @ 22 in. Hg (74 kPa).

Branch Bending: The chemically fused areas around the fabricated branches of tee, wye and tee-wye fittings are tested to ASTM F 1336 to verify their strength and integrity.

Pipe Stop Support: Tee and tee-wye fittings are tested to requirements of ASTM F1336 for pipe stop load support. No cracking or splitting shall occur and pipe spigot shall not protrude into waterway of the fitting.

Joining Methods: Chemically Fused Solvent Weld Joints
Solvent cement is handled and tested in accordance with ASTM D 2564 and D 2855. The Lap Shear Strength shall equal or exceed 900 psi (6205 kPa) @ 72 hours.

Heat Fusion Welded Joints (Butt Fusion Welds)

Elastomeric Seals (Gaskets)
Must meet all requirements of ASTM F 477 and D 3212.

Saddles: Injection molded saddle tees and saddle wyes shall have skirts with a minimum of 80 square inches (516 square cm) surface area which can be bonded to pipe.

Fabricated saddle tees and saddle wyes shall have skirts with a minimum of 160 square inches (1032 square cm) surface area which can be bonded to pipe.

GPK does not recommend gasket skirts where air tests are required.

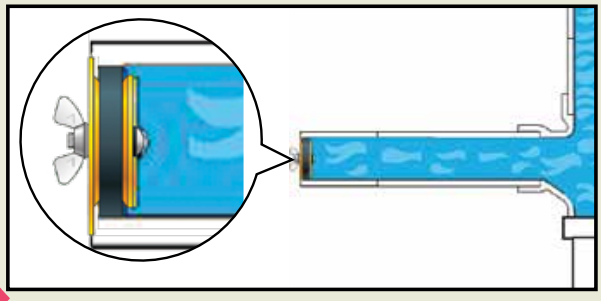
Epoxy Reinforced Welds.

Original Gripper®

Cherne's Gripper plugs can be used in a variety of applications including DWV (drain, waste and vent) testing and stack testing. End-of-Pipe design won't fall in, whereas the Inside-of-Pipe design allows you to locate the plug inside the pipe as far as you need. Time tested, the Gripper® remains one of the most popular mechanical plugs on the market.

Original Gripper® Plug Features:
- Ideal for sewer testing and long-term applications
- Made with glass-reinforced ABS plastic
- End-of-pipe design seals only at the end of a pipe
- Inside-of-pipe design seals inside pipe as far as needed

Equipped with:
- Easy to install extra large zinc wing nut – won't rust
- Natural rubber o-ring
- Galvanized carriage bolt to prevent corrosion



End-of-Pipe Gripper® plug

Inside-of-Pipe Gripper® plug

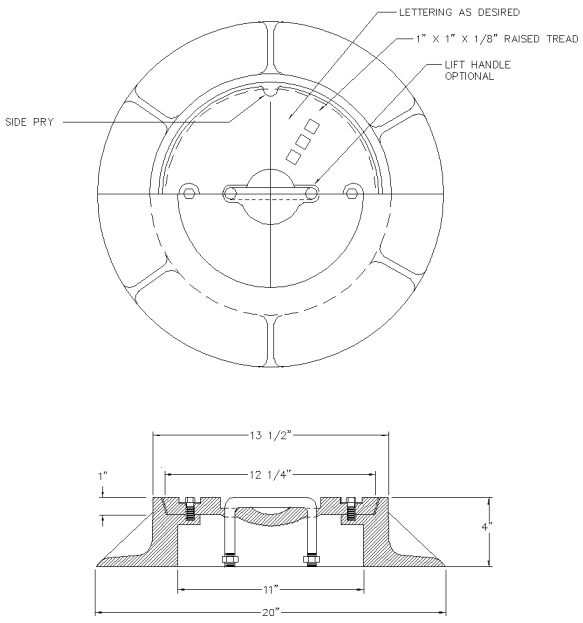
Part Number	Nominal Size	Range of Use	MaximumBack Pressure		Length	Product Weight
End-of-Pipe Gripper						
270210	**1 1/2"** (40 mm)	1.48"-1.65" (39-42 mm)	17 psi (1,2 bar)	40 ft. (12 M)	1.75" (44.5 mm)	0.13 lbs (0.05 kg)
270229	**2"** (50 mm)	1.9"-2.17" (49-55 mm)	17 psi (1,2 bar)	40 ft. (12 M)	1.87" (47.5 mm)	0.19 lbs (0.09 kg)
270237	**3"** (75 mm)	2.8"-3.1" (71-79 mm)	17 psi (1,2 bar)	40 ft. (12 M)	2.5" (63.5 mm)	0.375 lbs (0.16 kg)
270245	**4"** (100 mm)	3.8"-4.06" (96-103 mm)	17 psi (1,2 bar)	40 ft. (12 M)	2.5" (63.5 mm)	0.5 lbs (0.23 kg)
270261	**6"** (150 mm)	5.77"-6.08" (147-154 mm)	17 psi (1,2 bar)	40 ft. (12 M)	3.75" (95.3 mm)	2.5 lbs (1.14 kg)
270270	**8"** (200 mm)	7.7"-8.03" (196-204 mm)	17 psi (1,2 bar)	40 ft. (12 M)	3.75" (95.3 mm)	3 lbs (1.37 kg)
Inside-of-Pipe Gripper						
270296	**4"** (100 mm)	3.8"-4.06" (96-103 mm)	17 psi (1,2 bar)	40 ft. (12 M)	2.5" (63.5 mm)	.5 lbs (0.23 kg)
270253	**6"** (150 mm)	5.77"-6.08" (147-154 mm)	17 psi (1,2 bar)	40 ft. (12 M)	3.75" (95.3 mm)	2.5 lbs (1.14 kg)
270288	**8"** (200 mm)	7.7"-8.03" (196-204 mm)	17 psi (1,2 bar)	40 ft. (12 M)	3.75" (95.3 mm)	3 lbs (1.37 kg)

Always block plugs when conducting air tests.

HD Fowler Company Submittal

Sec. 1: Ln 7

Vendor: 79700



NOTES:
*Machine surface on ring & cover.
*Typical 8" locking clean-out

OLYMPIC FOUNDRY INC.

11" X 4" LOCKING FLANGE DOWN RING & COVER

MATL: Cast Iron ASTM A48, CL30			RATING: H-20	PART NO. MH5 D/T
APPROX WT: Ring 70 Lbs, Cover 26 Lbs			REV: A DATE: 6/23/2003 New border	REV A
DOCUMENT APPROVED BY: DATE:	DWN: CL DATE: 6/23/2003	TOLERANCE XX +- .1 XXX +- .06 XXXX +- .030 < +- 2 DEG	REV: DATE:	
	CHKD: CL DATE: 6/23/2003		DWG #: MH05 D/T	SCALE: N/A SHEET: 1 OF 1

DIVERTER AND BACKWATER VALVES

Diverter Valve

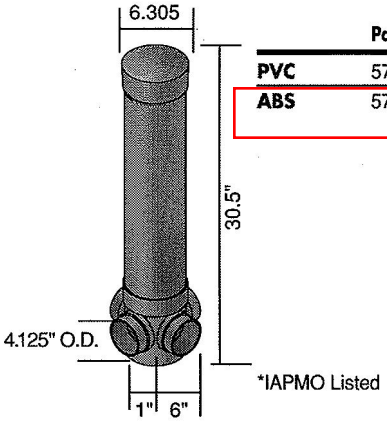
Here's the simplest, strongest, and most economical diverter valve ever invented for septic tank leach fields. It is made of tough molded plastic that will not shatter, bend, rust or corrode. It is lighter in weight, easier to handle and less expensive to ship.

Functional

The diverter valve stem flow may be controlled to individual or multiple fields (up to three) in any combination. With a three-way valve stem, flow may be diverted to any two outlets. To allow flow through all outlets, the valve stem may be removed from the assembly.

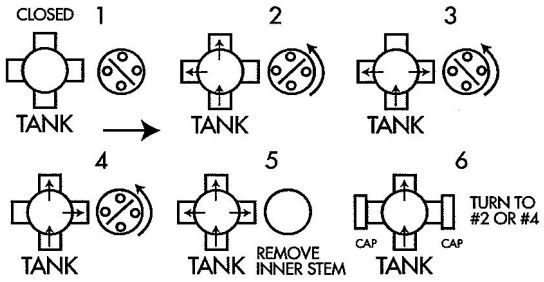
Easy To Install

Connect 4" plastic sewer and drain pipe to inlets and outlets on the four way distribution box. (Unwanted outlets may be sealed by installing caps). The Diverter shield which houses the diverter stem may be cut to desired length.



*IAPMO Listed

	Part No.	Description	Color	Pkg. Qty.	Wt. Ea. (lbs.)	Product Class
PVC	575P	4" PVC Diverter Valve	White	4	9.50	35PV
ABS	575	4" ABS Diverter Valve	Black	4	7.50	35AB



Gravity Backwater Valve

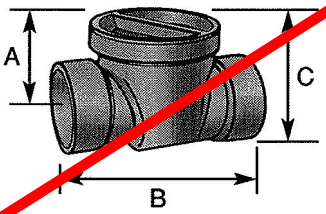
The NDS gravity flow Backwater Valve is designed to protect low areas or basements from the backflow of waste from street sewers. It is available in 2", 3", 4" and 6" sizes PVC material. It is a cost effective and a chemically resistant alternative to cast iron valves.

Backwater Valve

The quick action flapper allows unrestricted uni-directional flow. Elastomeric gasket in the flapper ensures a watertight seal. Flapper can be easily removed and replaced if required.

Threaded access cap is designed for hand tightening. Access cap neoprene gasket provides a positive seal. Valve hub outlets fit 2", 3", 4", or 6" DWV pipe and may be adapted to 2", 3", 4", or 6" sewer and drain pipe with NDS DWV to Sewer & Drain Adapters.

Lightweight, easy to install. Horizontal installation required, with arrows on top of the valve hub pointing in the direction of the flow of water. Access riser with cover offers a simple, economical assess to the valve for inspection and maintenance. The riser may be cut to the desired length.



Item Number	A	B	C	Riser Height	Riser Dia.
275P, 275	2.18	5.03	3.53	16	4
275PR	2.18	5.03	3.53	16	4
375P, 375	3.51	7.56	6.10	16	6
375PR, 375R	3.51	7.56	6.10	16	6
475P, 475	4.47	11.18	7.18	16	8
475PR, 475R	4.47	11.18	7.18	16	8
675P, 675	5.50	15.25	9.90	16	10

Approvals applicable to valve only.

Note: All dimensions are nominal. All weights are for shipping purposes only. Availability is subject to change.

TRUE UNION BALL VALVES
(REGULAR STYLE)

Sample Engineering Specification

All thermoplastic ball valves shall be True Union type constructed from PVC Type I, ASTM D 1784 Cell Classification 12454 or CPVC Type IV, ASTM D 1784 Cell Classification 23447. All O-rings shall be EPDM or Viton®. All valves shall have Safe-T-Shear® stem and double stop Polypropylene handle. All valve union nuts shall have Buttress threads. All seal carriers shall be Safe-T-Blocked®. All valve components shall be replaceable. All EPDM valves shall be certified by NSF International for use in potable water service. All 1/2" - 2" valves shall be pressure rated at 235 psi and all 2-1/2" - 6" and all flanged valves shall be pressure rated at 150 psi for water at 73° F, as manufactured by Spears® Manufacturing Company.

Features – PVC, CPVC

This versatile, quarter-turn shutoff valve is well suited for industrial and chemical processing applications. Available in IPS Sizes 1/2"- 4" with socket, threaded or flanged end connectors. 6" Venturied valve (4" valve with 4 x 6 adapter) available with either socket or flanged end connection. Also available with metric 20mm - 110mm or 1/2" - 4" BSP threaded end connectors.

- Chemical & Corrosion Resistant PVC or CPVC Construction
- Schedule 80 Full-Bore Design
- Strong, Buttress Thread Union Nuts
- Fully Serviceable, Replaceable Components
- Spears® Safe-T-Blocked® Seal Carrier
- Self Adjusting PTFE Floating Seat Design
- EPDM or Viton® O-rings
- High Impact Polypropylene Handle
- Spears® Safe-T-Shear® Stem Design
- Sizes 1/2" - 2" Pressure Rated to 235 psi @ 73° F, Sizes 2-1/2" - 6" and all flanged Pressure Rated to 150 psi @ 73° F
- EPDM valves NSF Certified for Potable Water use
- Suitable for Vacuum Service
- Assembled with Silicone-Free, Water Soluble Lubricants
- Manufactured to ASTM F 1970

Quick-View Valve Selection Chart

Valve Size	O-ring Material	PVC Part Number[1]			Pressure Rating
		Threaded	Socket	Flanged	
1/2	EPDM	2329-005	included	2323-005	235 psi Non-Shock Water @ 73° F (Flanged 150 psi Non-Shock) Water @ 73° F
	Viton®	2339-005	included	2333-005	
3/4	EPDM	2329-007	included	2323-007	
	Viton®	2339-007	included	2333-007	
1	EPDM	2329-010	included	2323-010	
	Viton®	2339-010	included	2333-010	
1-1/4	EPDM	2329-012	included	2323-012	
	Viton®	2339-012	included	2333-012	
1-1/2	EPDM	2329-015	included	2323-015	
	Viton®	2339-015	included	2333-015	
2	EPDM	2329-020	included	2323-020	
	Viton®	2339-020	included	2333-020	
2-1/2	EPDM	2321-025	2322-025	2323-025	150 psi Non-Shock Water @ 73° F
	Viton®	2331-025	2332-025	2333-025	
3	EPDM	2321-030	2322-030	2323-030	
	Viton®	2331-030	2332-030	2333-030	
4	EPDM	2321-040	2322-040	2323-040	
	Viton®	2331-040	2332-040	2333-040	
6[2] venturied	EPDM	---	2322-060	2323-060	
	Viton®	---	2332-060	2333-060	

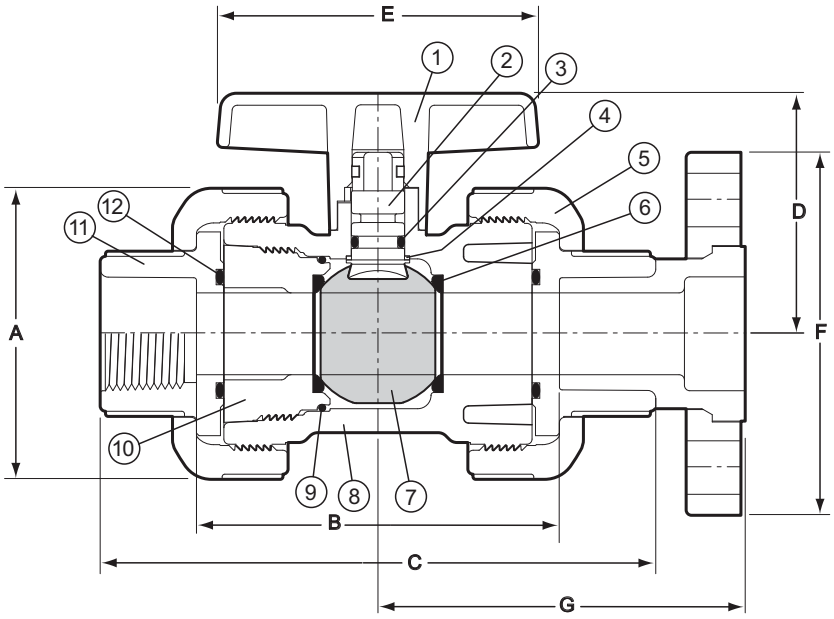
1: For CPVC valves, add the letter "C" to part numbers listed (e.g., 2339-005**C**).
2: Consists of 4" True Union Ball Valve with two 4" x 6" Adapters.

Optional Accessories*

- Round Safety Handle
- Stem Extension Kit
- 2" Square / T-Style Operator Nut

* See ***"BALL VALVE ACCESSORIES"*** section for details of individual products.

TRUE UNION BALL VALVES
(REGULAR STYLE)



Replacement Parts

No.	Component	Qty.	Material
1	Handle	1	PP
2	Stem	1	PVC/CPVC
3	Stem O-ring	1	EPDM/Viton®
4	Stem Bearing*	1	PP
5	Union Nut	2	PVC/CPVC
6	Seat**	2	PTFE
7	Ball	1	PVC/CPVC
8	Body	1	PVC/CPVC
9	Carrier O-ring	1	EPDM/Viton®
10	Seal Carrier	1	PVC/CPVC
11	End Connector	2	PVC/CPVC
12	End Connector O-ring	2	EPDM/Viton®

* Sizes 1-1/4" and larger.

** Seat O-ring (not shown) on sizes 2-1/2" and larger.

Dimensions, Weights, Operating Torque & C_V Values

Nominal Size	Dimension Reference (inches, ± 1/16)							Approx. Wt. (Lbs.)				Oper.[2] Torque (in.-lb.)	C_V[4] Values	
	A	B[1]	C	D	E	F	G	PVC		CPVC				
								Soc/Thd	Flanged	Soc/Thd	Flanged		Soc/Thd	Flanged
1/2	2-9/16	3-7/16	5-3/16	2-13/32	2-23/32	3-1/2	3-15/32	1.05	1.23	.95	1.14	20	25	18
3/4	3-1/32	4-1/16	6-3/16	2-5/8	3-3/16	3-7/8	4	1.44	1.64	1.50	1.73	30	51	36
1	3-13/32	4-5/16	6-9/16	2-13/16	3-23/32	4-1/4	4-5/16	1.91	2.22	2.08	2.43	40	97	67
1-1/4	3-11/16	4-1/2	7-1/16	2-31/32	4-1/8	4-5/8	4-19/32	2.38	2.78	2.52	2.91	60	204	142
1-1/2	4-3/8	5-5/16	8-1/32	3-9/32	4-15/32	5	5-9/32	3.63	4.00	3.82	4.26	80	285	201
2	5-3/16	5-13/16	8-13/16	4-13/32	5-1/4	6	5-23/32	5.40	6.14	5.70	6.54	90	540	381
2-1/2	7-7/16	8-3/8	11-7/8	4-29/32	9-7/8	7	7-3/16	12.87	14.26	13.44	15.85	300	712	512
3	7-7/16	8-3/16	11-15/16	4-29/32	9-7/8	7-1/2	7-11/32	13.24	15.67	13.85	16.96	300	1294	925
4	8-15/16	8-11/16	13-3/16	5-19/32	10-13/16	9-1/16	8-5/32	19.58	24.32	20.49	25.83	400	2629	1868
6 Socket[3]	8-15/16	19-5/8	26-1/16	6-3/4	10-13/16	11-1/4	14-11/16	22.66	30.98	26.11	34.78	400	N/A	N/A
6 Flanged[3]	11-3/16	29-3/8	N/A	6-3/4	10-13/16	11-1/4	14-11/16	N/A	N/A	N/A	N/A	400	N/A	N/A

1: Valve Lay Lengths.
2: Torque required at valve maximum internal pressure rating, 5 ft./sec. flow velocity.
3: Consists of 4" True Union Ball Valve with two 4" x 6" Adapters.
4: Gallons per minute at 1 psi pressure drop. Values calculated from valve laying length, based on derivative of Hazen-Williams equation with surface roughness factor of C=150.
C_V Valves for 6" venturied flange and socket valves are not available.

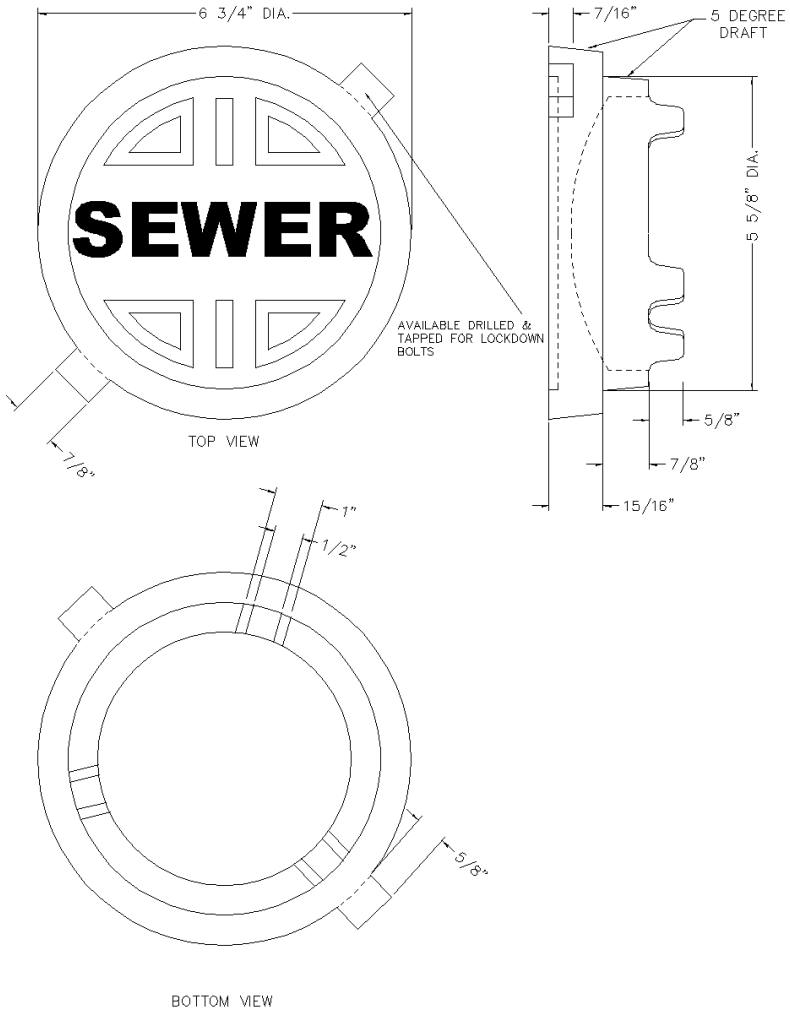
Temperature Pressure Rating

System Operating Temperature ° F (° C)			100 (38)	110 (43)	120 (49)	130 (54)	140 (60)	150 (66)	160 (71)	170 (77)	180 (82)	190 (88)	200 (93)	210 (99)
Valve Pressure Rating psi (MPa)	1/2" - 2"	PVC	235 (1.62)	211 (1.45)	150 (1.03)	75 (.52)	50 (.34)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)
		CPVC	235 (1.62)	219 (1.51)	170 (1.17)	145 (1.00)	130 (.90)	110 (.76)	90 (.62)	80 (.55)	70 (.48)	60 (.41)	50 (.34)	-0- (-0-)
	2-1/2" - 6"	PVC	150 (1.03)	135 (.93)	110 (.76)	75 (.52)	50 (.34)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)
		CPVC	150 (1.03)	140 (.97)	130 (.90)	120 (.83)	110 (.76)	100 (.70)	90 (.62)	80 (.55)	70 (.48)	60 (.41)	50 (.34)	-0- (-0-)

NOTE: Flanged Valves have a base pressure rating of 150 psi.

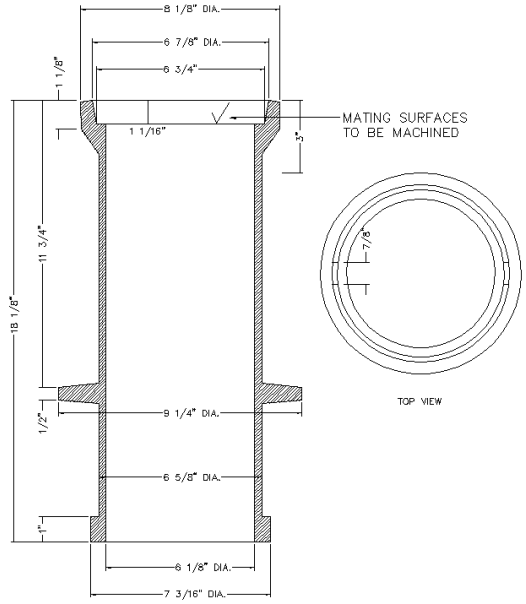
NOT FOR USE WITH COMPRESSED AIR OR GASES

HD Fowler Company Submittal
Sec. 1: Ln 11
Vendor: 79700



NOTES:			OLYMPIC FOUNDRY INC.		
			940 SEWER LID		
MATL: Cast Iron ASTM A48, Class 30			RATING: H-20	PART NO. 940 S	
APPROX WT: 10 Lbs			REV: A DATE: 4/22/2003 Inserted new border		REV A
DOCUMENT APPROVED BY: DATE:	DWN: CL DATE: 4/22/2003	TOLERANCE XX +- .1 XXX +- .06 XXXX +- .030 < +- 2 DEG	REV: DATE:		
	CHKD: CL DATE: 4/22/2003		DWG #: 940 SEWER LID	SCALE: N/A	SHEET: 1 OF 1

HD Fowler Company Submittal
Sec. 1: Ln 12
Vendor: 79700

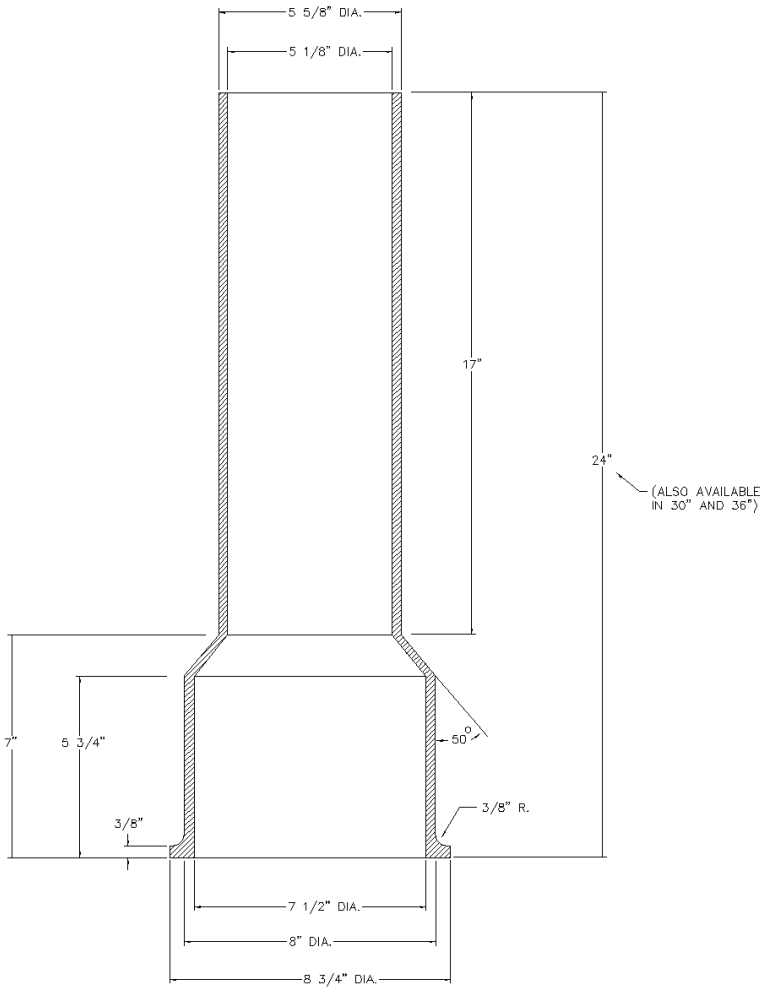


NOTES:			OLYMPIC FOUNDRY INC.		
			18" VALVE BOX TOP		
MATL: Cast Iron ASTM A48, CL30			RATING: H-20	PART NO. 940	
APPROX WT: 33 Lbs			REV: A DATE: 7/16/2003 New border		REV A
DOCUMENT APPROVED BY: DATE:	DWN: CL DATE: 7/16/2003	TOLERANCE XX +- .1 XXX +- .06 XXXX +- .030 < +- 2 DEG	REV: DATE:		
	CHKD: CL DATE: 7/16/2003		DWG #: 940 18 TOP	SCALE: N/A	SHEET: 1 OF 1

HD Fowler Company Submittal

Sec. 1: Ln 13

Vendor: 79700



NOTES:

OLYMPIC FOUNDRY INC.

24", 30" 36" VALVE BOX BASE

MATL: Cast Iron ASTM A48, CL30

RATING: H-20

PART NO. 940

APPROX WT: 35 Lbs

REV: A DATE: 7/16/2003 New border

REV A

DOCUMENT APPROVED BY: DATE:

DWN: CL DATE: 7/16/2003

CHKD: CL DATE: 7/16/2003

TOLERANCE
XX +- .1
XXX +- .06
XXXX +- .030
< +- 2 DEG

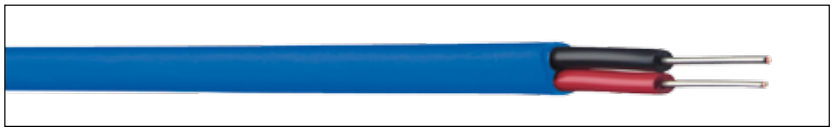
REV: DATE:

DWG #: 940 24 BOTTOM

SCALE: N/A

SHEET: 1 OF 1

Decoder Cable



ISOTEC PART NUMBER	NO. OF COND.	AWG/STRANDING*	INSULATION THICKNESS & TYPE	JACKET THICKNESS & TYPE	NOMINAL O.D. INCHES
142DBCC	2 Cond. Parallel	14 (Solid) Tinned Copper	.060" PVC	.045" Polyethylene	.285 x .470
122DBCC	2 Cond. Parallel	12 (Solid) Tinned Copper	.060" PVC	.045" Polyethylene	.300 x .505

*Other AWG sizes available upon request.

Applications:
- For use with golf course irrigation control systems

Standard Put-Ups:
- 2500'

Standard Color Code:
- Various jacket colors
- Red and black insulation

Submersible Pump Cable 600 V Multi-Conductor, PVC Insulated

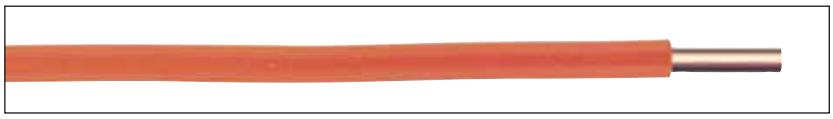
ISOTEC PART NUMBER	NO. OF COND.	NOM. INS. THICKNESS INCHES	JACKET THICKNESS INCHES	NOMINAL O.D. INCHES
143SPC1	14 (Solid)	3	0.060	93
123SPC1	12 (Solid)	3	0.060	120
103SPC1	10 (Solid)	3	0.060	162

Applications:
- For use within well casing supplying power to submersible pumps
- Maximum conductor operating temperature of 75°C in circuits not exceeding 600 V

Standard Put-Ups:
- 500'
- 2500'

Standard Color Code:
- Black, red, yellow

Underground Feeder (UF) Cable 600 V Single Conductor, PVC Insulated



ISOTEC PART NUMBER	AWG/STRANDING	INSULATION THICKNESS INCHES	NOMINAL O.D. INCHES	WEIGHT PER MFT
181UF*	18 (Solid)	0.045	0.134	13
161UF*	16 (Solid)	0.045	0.144	17
141UF	14 (Solid)	0.060	0.186	28
121UF	12 (Solid)	0.060	0.205	37
101UF	10 (Solid)	0.060	0.225	52

Note: PE UF cable is available upon special request. Please consult customer service.

Applications:
- For use in irrigation as described in Article 339 of the National Electric Code (NEC)
- 18 AWG and 16 AWG are not permitted to be UL Listed as Type UF*

Standard Put-Ups:
- 500'
- 1000'
- 2500'

Standard Colors:
- Please consult customer service for information on available colors

Underground Low-Voltage Landscape Lighting Cable 150 V Flat Parallel, PVC Insulated

ISOTEC PART NUMBER	AWG/STRANDING	NOM. INS. THICKNESS INCHES	NOMINAL O.D. INCHES	WEIGHT PER MFT
182ULC-00	18 16/30 B/C	0.041	.209 X .145	26
162ULC-00	16 26/30 B/C	0.041	.315 X .155	36
142ULC-00	14 41/30 B/C	0.041	.350 X .170	46
122ULC-00	12 65/30 B/C	0.041	.390 X .195	86
102ULC-00	10 105/30 B/C	0.062	.470 X .240	122
802ULC-00	8 133/.0125 B/C	0.078	.630 X .316	199

Applications:
- For use in wiring low-voltage outdoor landscape lighting and security lighting circuits where cable must be suitable for direct burial

Standard Put-Ups:
- 250'
- 500'
- 1000'

Standard Jacket Color:
- Black

ISOTEC® BRAND

General Cable

STRIDER construction co., inc.

4721 Northwest Drive
Bellingham, WA 98226
(360) 380-1234
(360) 380-3456 (FAX)

LETTER OF TRANSMITTAL

To:	Andrew Vining	**Date:**	June 27, 2013
Company:	Farrallon Consulting	**Project Name:**	Schoolyard Excavation Supplement
Address:	975 5th Avenue Northwest	**SCCI Project #:**	13SS
	Issaquah, WA, WA 98027	**PW #:**	
		Federal Aid #:	

ITEM:

☒ Attached ☐ Under separate cover via: _____

No. of Copies	Document Description
1	Aggregate Materials
1	Structural Fill Sieve 02060-4
1	Stabilization Aggregate Sieve 02060-5

TRANSMITTED BY:

☐ Mail ☐ Hand Delivery ☒ E-mail ☐ Faxed ____ pages to fax no.: ( ) -
☐ Overnight Mail ☐ Courier ☐ Original to follow

TRANSMITTED FOR:

☐ For your information ☒ Review and Approve
☐ For your use ☐ Revise and resubmit
☐ As requested ☐ Other: _____

REMARKS:

Copies to: file

Signed: _____

Kyle Gebhardt, PE

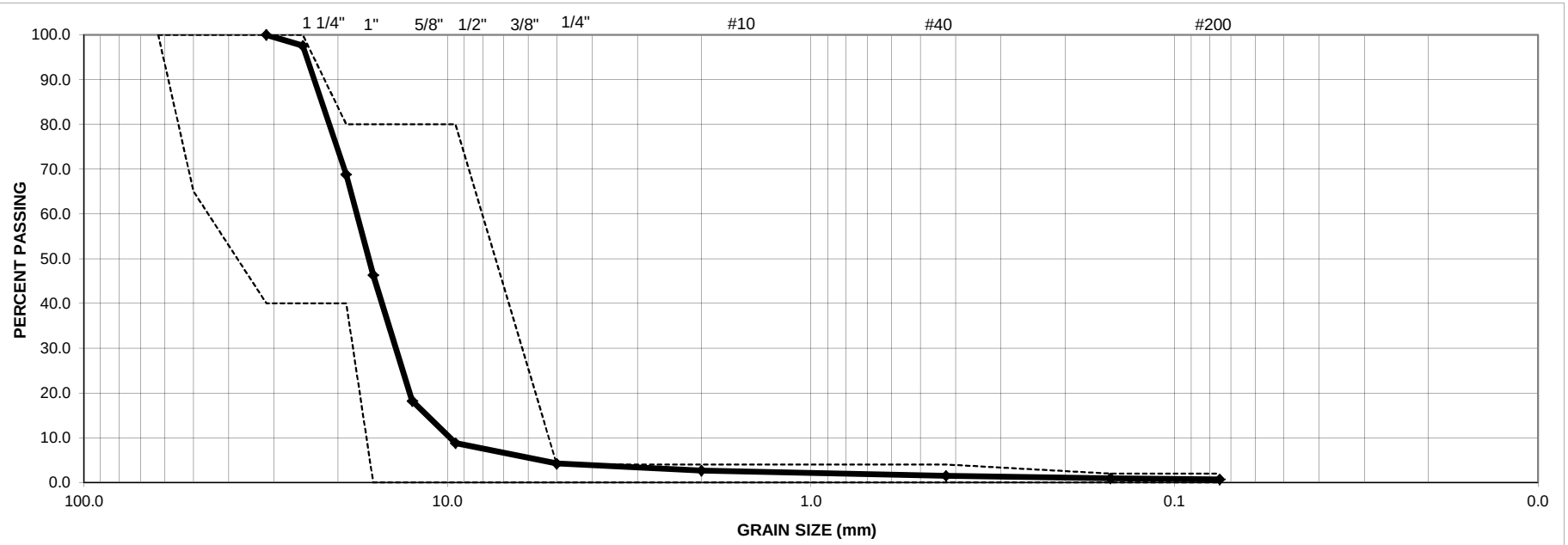
CADMAN

Gravel Borrow **Gold Bar**

		SIEVE SIZE	METRIC SIEVE SIZE (mm)	ACCUM. WT. RETAINED	ACCUM. % RETAINED	ACCUM. % PASSING	G. BORROW 9-03.14(1)		
DATE SAMPLED:	**6/20/13**	4"	100.0	0.00	0.0	**100.0**			
SOURCE:	**D351**	3"	75.0	0.00	0.0	**100.0**			
TESTED BY:	**Devon L**	2 1/2"	62.5	0.00	0.0	**100.0**			
SAMPLED BY:	**Chad E.**	2"	50.0	0.00	0.0	**100.0**	**75-100**		
		1 1/4"	31.3	182.20	1.6	**98.4**			
		1"	25.0	2462.90	22.2	**77.8**			
		3/4"	19.0	4421.70	39.8	**60.2**			
		3/8"	9.5	5273.80	47.5	**52.5**			
		1/4"	6.3	5295.00	47.7	**52.3**			
		#4	4.75	5311.30	47.8	**52.2**	**50-80**		
		#16	1.18	281.7	69.1	**30.9**			
		#40	0.425	519.2	87.1	**12.9**	**0-30**		
		#100	0.150	649.1	96.9	**3.1**			
		WET#200	0.075	663.9	98.0	**2.0**	**0-7**		
SPLIT PAN WT.=	690.3		SAMPLE WT	11100.00			**50 Min**		
			S.E.=	**78**					

CADMAN

Stabilization Fill **Gold Bar**



		SIEVE SIZE	METRIC SIEVE SIZE (mm)	ACCUM. WT. RETAINED	ACCUM. % RETAINED	ACCUM. % PASSING	SPECIFICATION WSDOT 9-03.9(2)
DATE SAMPLED:	**6/25/13**	2 1/2"	62.5	0.00	0.0	**100.0**	100
SOURCE:	**D351**	2"	50.0	0.00	0.0	**100.0**	65-100
TESTED BY:	**Devon L**	1 1/4"	31.5	0.00	0.0	**100.0**	
SAMPLED BY:	**Chad E**	1"	25.0	146.10	2.4	**97.6**	
		3/4"	19.0	1875.00	31.2	**68.8**	40-80
		5/8"	16.0	3224.00	53.7	**46.3**	
		1/2"	12.5	4915.90	81.8	**18.2**	
		3/8"	9.5	5478.70	91.2	**8.8**	
		#4	5.0	5754.00	95.8	**4.2**	0-5
		#10	2.0	5848.20	97.3	**2.7**	
		#40	0.425	5917.40	98.5	**1.5**	
		#100	0.150	5950.40	99.0	**1.0**	0-2
		WET#200	0.075	5965.20	99.3	**0.7**	
			SAMPLE WT	6008.20			

STRIDER construction co., inc.

4721 Northwest Drive
Bellingham, WA 98226
(360) 380-1234
(360) 380-3456 (FAX)

LETTER OF TRANSMITTAL

To:	Andrew Vining	**Date:**	June 27, 2013
Company:	Farrallon Consulting	**Project Name:**	Schoolyard Excavation Supplement
Address:	975 5th Avenue Northwest	**SCCI Project #:**	13SS
	Issaquah, WA, WA 98027	**PW #:**	
		Federal Aid #:	

ITEM:

☒ Attached ☐ Under separate cover via: _____

No. of Copies	Document Description
1	Aggregate Materials
1	Structural Fill Chemical Analysis 02060-4
1	Stabilization Aggregate Chemical Analysis 02060-5

TRANSMITTED BY:

☐ Mail ☐ Hand Delivery ☒ E-mail ☐ Faxed ____ pages to fax no.: ( ) -
☐ Overnight Mail ☐ Courier ☐ Original to follow

TRANSMITTED FOR:

☐ For your information ☒ Review and Approve
☐ For your use ☐ Revise and resubmit
☐ As requested ☐ Other: _____

REMARKS:

Copies to: file

Signed:

Kyle Gebhardt, PE

DRAFT

Date of Report: 06/27/13
Date Received: 06/25/13
Project: Skykomish, F&BI 306405
Date Extracted: 06/25/13
Date Analyzed: 06/25/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 56-165)
Structural Fill S.1 306405-01	<50	<250	104
Structural Fill S.2 306405-02	<50	<250	104
Stabilization Agg Source Product S.1 306405-03	<50	<250	110
Stabilization Agg Source Product S.2 306405-04	<50	<250	118
Method Blank 03-1248 MB2	<50	<250	106

Analysis For Total Metals By EPA Method 200.8

Client ID:	Structural Fill S.1	Client:	4721 Northwest Dr
Date Received:	06/25/13	Project:	Skykomish, F&BI 306405
Date Extracted:	06/26/13	Lab ID:	306405-01
Date Analyzed:	06/27/13	Data File:	306405-01.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	93	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	6.03
Arsenic	2.51
Cadmium	<1
Lead	2.94

Analysis For Total Metals By EPA Method 200.8

Client ID:	Structural Fill S.2	Client:	4721 Northwest Dr
Date Received:	06/25/13	Project:	Skykomish, F&BI 306405
Date Extracted:	06/26/13	Lab ID:	306405-02
Date Analyzed:	06/27/13	Data File:	306405-02.024
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	98	60	125
Indium	87	60	125
Holmium	85	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.92
Arsenic	2.94
Cadmium	<1
Lead	2.86

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stabilization Agg Source Product S.1		Client: 4721 Northwest Dr
Date Received:	06/25/13	Project:	Skykomish, F&BI 306405
Date Extracted:	06/26/13	Lab ID:	306405-03
Date Analyzed:	06/27/13	Data File:	306405-03.026
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	104	60	125
Indium	94	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.80
Arsenic	2.31
Cadmium	<1
Lead	2.48

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stabilization Agg Source Product S.2	Client:	4721 Northwest Dr
Date Received:	06/25/13	Project:	Skykomish, F&BI 306405
Date Extracted:	06/26/13	Lab ID:	306405-04
Date Analyzed:	06/27/13	Data File:	306405-04.027
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	91	60	125
Indium	79	60	125
Holmium	76	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	7.94
Arsenic	3.14
Cadmium	<1
Lead	3.03

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	4721 Northwest Dr
Date Received:	NA	Project:	Skykomish, F&BI 306405
Date Extracted:	06/26/13	Lab ID:	I3-377 mb
Date Analyzed:	06/27/13	Data File:	I3-377 mb.018
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	89	60	125
Indium	90	60	125
Holmium	89	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Cadmium	<1
Lead	<1

Date of Report: 06/27/13
Date Received: 06/25/13
Project: Skykomish, F&BI 306405
Date Extracted: 06/26/13
Date Analyzed: 06/26/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL MERCURY
USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
Structural Fill S.1 306405-01	<0.1
Structural Fill S.2 306405-02	<0.1
Stabilization Agg Source Product S.1 306405-03	<0.1
Stabilization Agg Source Product S.2 306405-04	<0.1
Method Blank	<0.1

** KYLE@STADIARCONSTRUCTION.COM

306405

CHAIN OF CUSTODY ME 06-25-13 BE2

Send Report To

Company KYLE GERHARDT

Address 4721 NORTHWEST DR

City, State, ZIP BELLINGHAM, WA

Phone # (360)380-1234 Fax # (360)380-3456

SAMPLERS *(signature)*

PROJECT NAME/NO. Sky Komish

PO #

REMARKS

PLEASE E-MAIL TO BLONL@CAOMAN.COM ALSO

Page # _____ of _____

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 2 DAY

Rush charges authorized by: KYLE GERHARDT

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	NWTPH-Dx	MTCA 5	Cr VI				Notes
STRUCTURAL FILL S.1	01	6/24/12	4:00 pm	SOIL	1							X	X	X				X - per KL 6/25/13 MQ
STRUCTURAL FILL S.2	02	↓	↓	SOIL	1							X	X	X				
STABILIZATION AGG SOURCE PRODUCT S.1	03			ROCK	1							X	X	X				
STABILIZATION AGG SOURCE PRODUCT S.2	04	↓	↓	ROCK	1							X	X	X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	BRYCE LONG	CAOMAN INC	6/25/13	9:40
Received by:	Nhan Phan	Fe B I	6/25/13	9:40
Relinquished by:				
Received by:			Samples received at	22 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
3012 16th Ave. W.
Seattle, Washington 98119

RE: 306405
Lab ID: 1306183

June 26, 2013

Attention Michael Erdahl:

Fremont Analytical, Inc. received 4 sample(s) on 6/25/2013 for the analyses presented in the following report.

Hexavalent Chromium by EPA Method 7196
Sample Moisture (Percent Moisture)

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Michael Dee
Sr. Chemist / Principal

Date: *06/26/2013*

CLIENT: Friedman & Bruya
Project: 306405
Lab Order: 1306183

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1306183-001	Structural Fill S-1	06/24/2013 4:00 PM	06/25/2013 2:30 PM
1306183-002	Structural Fill S-2	06/24/2013 4:00 PM	06/25/2013 2:30 PM
1306183-003	Stabilization Source Product S.1	06/24/2013 4:00 PM	06/25/2013 2:30 PM
1306183-004	Stabilization Source Product S.2	06/24/2013 4:00 PM	06/25/2013 2:30 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **1306183**
Date: **6/26/2013**

CLIENT: Friedman & Bruya
Project: 306405

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Analytical Report

WO#: **1306183**
Date Reported: **6/26/2013**

CLIENT: Friedman & Bruya
Project: 306405

Lab ID: 1306183-001 **Collection Date:** 6/24/2013 4:00:00 PM
Client Sample ID: **Structural Fill S-1** **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R9034		Analyst: JS
Percent Moisture	7.34			wt%	1	6/26/2013 2:38:47 PM
Hexavalent Chromium by EPA Method 7196				Batch ID: 4885		Analyst: SG
Chromium, Hexavalent	ND	0.540		mg/Kg-dry	1	6/26/2013 2:07:22 PM

Lab ID: 1306183-002 **Collection Date:** 6/24/2013 4:00:00 PM
Client Sample ID: **Structural Fill S-2** **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R9034		Analyst: JS
Percent Moisture	7.83			wt%	1	6/26/2013 2:38:47 PM
Hexavalent Chromium by EPA Method 7196				Batch ID: 4885		Analyst: SG
Chromium, Hexavalent	ND	0.542		mg/Kg-dry	1	6/26/2013 2:07:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1306183**
Date Reported: **6/26/2013**

CLIENT: Friedman & Bruya
Project: 306405

Lab ID: 1306183-003 **Collection Date:** 6/24/2013 4:00:00 PM
Client Sample ID: **Stabilization Source Product S.1** **Matrix:** Rock/Gravel

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R9034		Analyst: JS
Percent Moisture	0.758			wt%	1	6/26/2013 2:38:47 PM
Hexavalent Chromium by EPA Method 7196				Batch ID: 4885		Analyst: SG
Chromium, Hexavalent	ND	0.504		mg/Kg-dry	1	6/26/2013 2:07:22 PM

Lab ID: 1306183-004 **Collection Date:** 6/24/2013 4:00:00 PM
Client Sample ID: **Stabilization Source Product S.2** **Matrix:** Rock/Gravel

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R9034		Analyst: JS
Percent Moisture	1.01			wt%	1	6/26/2013 2:38:47 PM
Hexavalent Chromium by EPA Method 7196				Batch ID: 4885		Analyst: SG
Chromium, Hexavalent	ND	0.505		mg/Kg-dry	1	6/26/2013 2:07:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Fremont Analytical

Date: *6/26/2013*

Work Order: 1306183
CLIENT: Friedman & Bruya
Project: 306405

QC SUMMARY REPORT

Hexavalent Chromium by EPA Method 7196

Sample ID: **MB-4885**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **6/26/2013**	RunNo: **9031**
Client ID: **MBLKS**	Batch ID: **4885**		Analysis Date: **6/26/2013**	SeqNo: **181650**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.500									

Sample ID: **LCS-4885**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **6/26/2013**	RunNo: **9031**
Client ID: **LCSS**	Batch ID: **4885**		Analysis Date: **6/26/2013**	SeqNo: **181651**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	2.53	0.500	2.500	0	101	65	135				

Sample ID: **1306183-001ADUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **6/26/2013**	RunNo: **9031**
Client ID: **Structural Fill S-1**	Batch ID: **4885**		Analysis Date: **6/26/2013**	SeqNo: **181653**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.540						0	0	30	R

NOTES:
R - High RPD due to low analyte concentration. In this range, high RPD's may be expected.

Sample ID: **1306183-001AMS**	SampType: **MS**	Units: **mg/Kg-dry**	Prep Date: **6/26/2013**	RunNo: **9031**
Client ID: **Structural Fill S-1**	Batch ID: **4885**		Analysis Date: **6/26/2013**	SeqNo: **181654**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	2.82	0.540	2.698	0.07555	102	65	135				

Sample ID: **1306183-001AMSD**	SampType: **MSD**	Units: **mg/Kg-dry**	Prep Date: **6/26/2013**	RunNo: **9031**
Client ID: **Structural Fill S-1**	Batch ID: **4885**		Analysis Date: **6/26/2013**	SeqNo: **181655**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	2.73	0.540	2.698	0.07555	98.4	65	135	2.817	3.11	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Date: *6/26/2013*

Work Order: 1306183
CLIENT: Friedman & Bruya
Project: 306405

QC SUMMARY REPORT

Hexavalent Chromium by EPA Method 7196

Sample ID: **1306183-001AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/26/2013** RunNo: **9031**
Client ID: **Structural Fill S-1** Batch ID: **4885** Analysis Date: **6/26/2013** SeqNo: **181655**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Sample Log-In Check List

Client Name: **FB**	Work Order Number: **1306183**
Logged by: **Clare Griggs**	Date Received: **6/25/2013 2:30:00 PM**

Chain of Custody

1.	Were custodial seals present?	Yes	☐	No	☐	Not Required	☑
2.	Is Chain of Custody complete?	Yes	☑	No	☐	Not Present	☐
3.	How was the sample delivered?	Courier					

Log In

4.	Coolers are present?	Yes	☐	No	☑	NA	☐
	Samples received straight from FB Lab fridge.						
5.	Was an attempt made to cool the samples?	Yes	☐	No	☐	NA	☑
6.	Were all coolers received at a temperature of >0° C to 10.0°C	Yes	☐	No	☐	NA	☑
7.	Sample(s) in proper container(s)?	Yes	☑	No	☐		
8.	Sufficient sample volume for indicated test(s)?	Yes	☑	No	☐		
9.	Are samples properly preserved?	Yes	☑	No	☐		
10.	Was preservative added to bottles?	Yes	☐	No	☑	NA	☐
11.	Is there headspace present in VOA vials?	Yes	☐	No	☐	NA	☑
12.	Did all sample containers arrive in good condition?(unbroken)	Yes	☑	No	☐		
13.	Does paperwork match bottle labels?	Yes	☑	No	☐		
14.	Are matrices correctly identified on Chain of Custody?	Yes	☑	No	☐		
15.	Is it clear what analyses were requested?	Yes	☑	No	☐		
16.	Were all holding times able to be met?	Yes	☑	No	☐		

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes	☐	No	☐	NA	☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

18. Additional remarks/Disrepancies

Item Information

SUBCONTRACT SAMPLE CHAIN OF CUSTODY 1306183

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER Fremont

PROJECT NAME/NO.	PO #
306405	C-378

REMARKS

Please Email Results

TURNAROUND TIME

~~Standard (2 Weeks)~~

~~RUSH~~ 2-Day 6/27/13

Rush charges authorized by: MG

SAMPLE DISPOSAL

- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Dioxins and Furans by 8290	EPH	VPH	Nitrate	Sulfate	Alkalinity	cr VI				Notes
Structural Fill S-1		6/24/13	4 PM	Soil	1							X				
Structural Fill S2		"	"	"	1							X				
Stabilization Source Product S1		"	"	Rock	1							X				
Stabilization Source Product S.2		"	"	"	1							X				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	6/25/13	1130
Received by:		Clare Griggs	FAI	6/25/13	14:30
Relinquished by:					
Received by:					

FARALLON SUBMITTAL REVIEW TRANSMITTAL

Project: BNSF Schoolyard Excavation Supplement

Reviewed By: Jeff Hamlin, PE

Date: July 1, 2013

Farallon PN: 683-038

Submittal: Aggregates

Specifications Section: 02060

The attached submittal information has been reviewed for general compliance with the contract documents and design intent with the following comments:

X No Exceptions Taken

☐ Revise and Resubmit

☐ Make Corrections Noted

Notes:

No exceptions taken – Submittals 2-Aggregates (grain size) and 2a-Aggregates (chem. Analyses)

Reviewed only as to general conformity with the project contract document requirements. Farallon does not warrant or represent that the information in the submittal or on the shop drawing is either accurate or complete. The sole responsibility for contract document compliance will remain with the contractor submitting the information.

By: _____ Date: 07/02/13

STRIDER construction co., inc.

4721 Northwest Drive
Bellingham, WA 98226
(360) 380-1234
(360) 380-3456 (FAX)

LETTER OF TRANSMITTAL

To:	Andrew Vining	**Date:**	June 28, 2013
Company:	Farrallon Consulting	**Project Name:**	Schoolyard Excavation Supplement
Address:	975 5th Avenue Northwest	**SCCI Project #:**	13SS
	Issaquah, WA, WA 98027	**PW #:**	
		Federal Aid #:	

ITEM:

☒ Attached ☐ Under separate cover via: _____

No. of Copies	Document Description
1	Topsoil 02055

TRANSMITTED BY:

☐ Mail ☐ Hand Delivery ☒ E-mail ☐ Faxed ____ pages to fax no.: ( ) -
☐ Overnight Mail ☐ Courier ☐ Original to follow

TRANSMITTED FOR:

☐ For your information ☒ Review and Approve
☐ For your use ☐ Revise and resubmit
☐ As requested ☐ Other: _____

REMARKS:

Submitting a loamy sand in lieu of a silty loam as specified. Loamy sand will provide an optimum planting medium. Physical sample available upon request.

Copies to: file

Signed: _____
Kyle Gebhardt, PE

PACIFIC
TOPSOILS,INC.
a service company

805 80TH ST SW EVERETT, WA 98203
(425) 337-2700 * 1-800-884-SOIL

2WAY TOPSOIL

COMPOSITION:	**2/3**	**SANDY LOAM SOIL**
	1/3	**PACIFIC GARDEN MULCH**
SCREEN SIZE:	**½ INCH**	

soiltest farm consultants, inc.

2925 Driggs Dr. Moses Lake, WA 98837
Phone: (509) 765-1622 Fax: (509) 765-0314 Web: www.soiltestlab.com

WE PUT QUALITY IN YOUR HANDS!

PAP-Accredited 2012

PACIFIC TOPSOIL
805 80TH ST SW

Everett, WA 98203

Date Received: 12/03/2012
Grower: SEATTLE CHILDREN'S
Sampled By:
Field: **2 THRDS SANDY LOA**
1 THRD PAC GRDN MLCH
Lab # S345

Soil Test Results

Phosphorus	Bray	mg/kg	43
Potassium	NH4OAC	mg/kg	271
Boron	DTPA	mg/kg	0.49
Zinc	DTPA	mg/kg	6.3
Manganese	DTPA	mg/kg	195.6
Copper	DTPA	mg/kg	2.4
Iron	DTPA	mg/kg	203
Calcium	NH4OAC	meq/100g	8.6
Magnesium	NH4OAC	meq/100g	1.2
Sodium	NH4OAC	meq/100g	0.22
Buffer pH	SMP		7.1
Lime Req		Tons/Acre	0
CEC		meq/100g	10.2
Total Bases		meq/100g	10.7
Base Saturation		%	105.2
Chloride		mg/kg	
Gypsum Req.		Tons/Acre	

pH	1:1		7.5 $CaCl_2$ pH = 6.7
E. C.	1:1	m.mhos/cm	0.76
Est Sat Paste E.C.		m.mhos/cm	1.98
Effervescence			

			Lbs/Acre
Ammonium - N	mg/kg	2.4 @ 12"	8
Organic Matter	%		

Depth	Cad. Red. Nitrate-N		Ext Sulfate-S	Moisture
inches	mg/kg	lbs/acre	mg/kg	inches
0 - 12	4.1	13	39	
Totals	4.1	13	39	

Sum of Tested N 20.68 + Est. N 0 = 21 lbs/acre N

Texture
Other Tests:

Interpretation Guide

		Low	Medium	High
Nitrogen	21 lbs/acre	***		
Phosphorus	43 ppm	******		
Potassium	271 ppm	**********	**********	**
Sulfur	39 ppm	**********	**********	*****
Boron	0.5 ppm	**********	*	
Zinc	6.3 ppm	**********	**********	****

Fertilizer Recommendations for LANDSCAPE after LANDSCAPE

- 80 lbs of Actual Nitrogen
- 50 lbs of Actual P_2O_5
- 0 lbs of Actual K_2O
- 0 lbs of Actual Sulfur
- 1 lbs of Actual Boron
- 0 lbs of Actual Zinc

Divide recommendation in lbs/ac by 43 to obtain lbs per 1000 sq ft

LOI OM= 13.6%, Sat. Paste B= 0.1 mg/L SAR= 1.0

Infiltration= 4.4 in/hr, NEMATODE = 5, WEED GERMINATION = 0, TOTAL N = 0.27%

We make every effort to provide an accurate analysis of your sample. For reasonable cause we will repeat tests, but because of factors beyond our control in sampling procedures and the inherent variability of soil, our liability is limited to the price of the tests. Recommendations are to be used as general guides and should be modified for specific field conditions and situations.

This is your Invoice. S191165 Acct #: 5500 PO #: Reviewed by: Brent Thyssen CPSSc List Price:**$237.00**

PACIFIC TOPSOILS,INC.
a service company

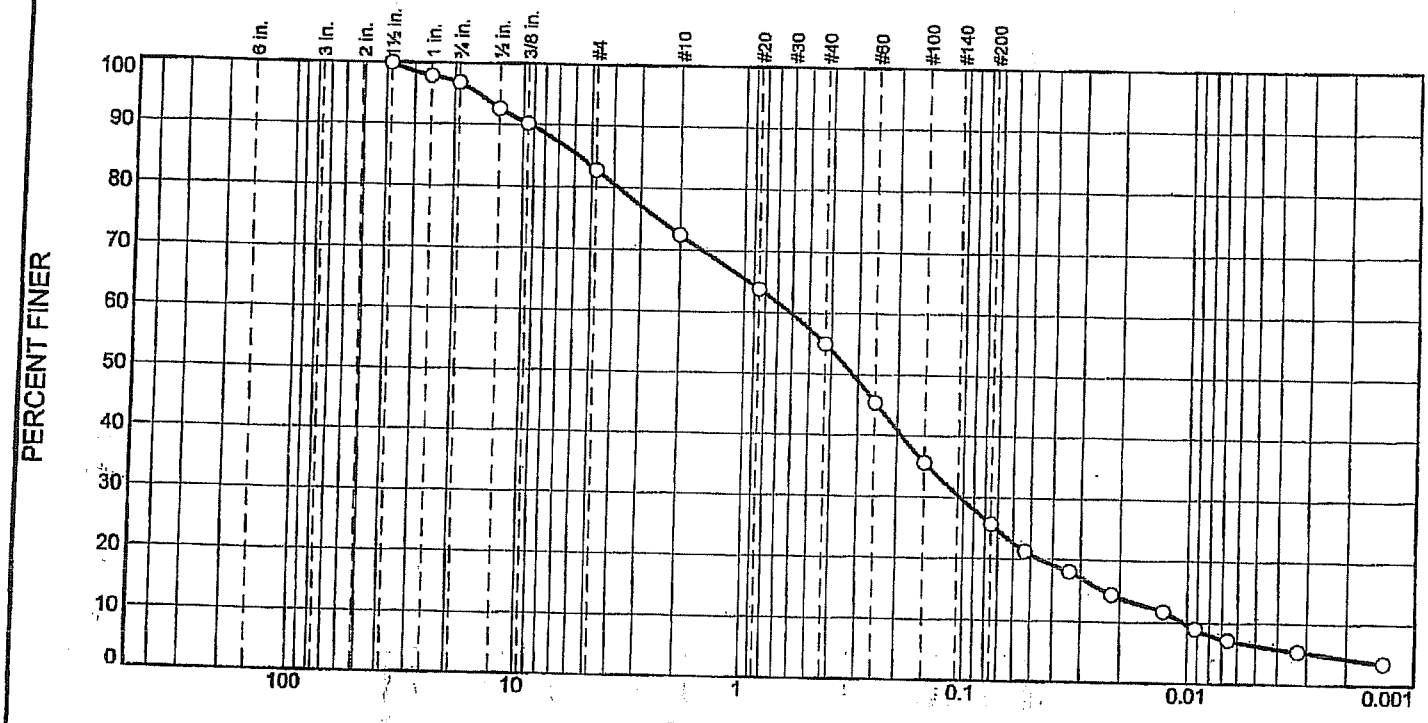
805 80TH ST SW EVERETT, WA 98203
(425) 337-2700 * 1-800-884-SOIL

SCREENED SANDY LOAM SOIL

COMPOSITION: SANDY CLAY LOAM, SANDY LOAM, LOAM, CLAY LOAM, SILTY CLAY LOAM OR SILT LOAM SOIL. WITH MINIMUM 5% ORGANIC CONTENT & MINIMUM CEC 5 MILLEQUIVALENT/100 GRAMS

SCREEN SIZE: 1/2 INCH SCREEN

Krazan & Assoc. Sieve Analysis



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	3.2	14.1	10.3	17.5	29.3	19.3	6.3

Test Results (ASTM D-421 & ASTM D-422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1.5	100.0		
1	97.9		
.75	96.8		
.5	92.6		
.375	90.2		
#4	82.7		
#10	72.4		
#20	63.8		
#40	54.9		
#60	45.3		
#100	35.6		
#200	25.6		
#270	21.2		
0.0335 mm.	18.0		
0.0217 mm.	14.4		
0.0128 mm.	11.7		
0.0092 mm.	9.0		
0.0066 mm.	7.2		
0.0033 mm.	5.4		
0.0014 mm.	3.6		

* (no specification provided)

Material Description

"Sandy Loam"
USDA Classification: Loamy Sand

Atterberg Limits (ASTM D 4318)

PL= NP LL= NV PI=

Classification

USCS (D 2487)= SM AASHTO (M 145)= A-2-4(0)

Coefficients

D_{90}= 9.2856 D_{85}= 5.7325 D_{60}= 0.6105
D_{50}= 0.3191 D_{30}= 0.1037 D_{15}= 0.0235
D_{10}= 0.0104 C_u= 58.69 C_c= 1.69

Remarks

Sample ID: 44773-A.
Organic Content (ASTM D-2974): 10.93%

Date Received: 5/20/13 **Date Tested:** 5/22/13
Tested By: Corbett Mercer
Checked By: Corbett Mercer
Title: Lab Manager

Location: Client Supplied
Sample Number: 44773-A
Date Sampled: 5/20/13

Krazan

Client: Pacific Topsoils
Project: Fort Lawton Navy Housing
Project No: 09613062

PACIFIC TOPSOILS, INC.
a service company

805 80TH ST SW EVERETT, WA 98203
(425) 337-2700 * 1-800-884-SOIL

PACIFIC GARDEN MULCH

COMPOSITION: 100% RECYCLED YARD WASTE COMPOST

SCREEN SIZE: ½ INCH

US COMPOSTING COUNCIL

Seal of Testing Assurance

Washington State Department of Transportation

Client Info: Pacific Topsoils
Attn: Josh Roden
805 80th ST SW
Everett, WA 98203
425-231-3278

Product Identification: Fine Compost

Date Sampled/Received: 04/03/13

Compost Technical Data Sheet for Washington State DOT Projects

LABORATORY: Soiltest Farm Consultants, 2926 Driggs Dr. Moses Lake, WA. 98837 1-509-765-1622

Compost Parameters	Specification Requirements	Test Results
Size Classification TMECC02.02-B	%, dry weight passing through Sieve Size: Fine / Medium / Coarse 3": 100 / 100 / 100 2": 100 / 100 1": 95 – 100 / 95 – 100 / 90 – 100 ¾": 70 – 100 5/8": 90 – 100 / 90 – 100 ¼": 75 - 100 / 70 – 85 / 40 – 60 Maximum Particle Length 6	%, dry weight passing through Sieve Size 3": 100.0 2": 100.0 1": 100.0 ¾": 100.0 5/8": 100.0 ¼": 87.2 Maximum Particle Length < 6"
pH TMECC 04.11-A 1:5 slurry	6.0 min. and 8.5 max.	7.00
Manufactured Inerts TMECC 03.08-A % dry weight basis	1.0 max.	0.00
Organic Matter Content TMECC 05.07 A Loss-on-Ignition % dry weight basis	40 min.	50
C:N Ratio calculation Total Carbon TMECC 04.01A Total Nitrogen TMECC 04.02D		29 24.7 0.86
Soluble Salts TMECC 04.10-A 1:5 Slurry dS/m (mmohs/cm)	4.0* max.	1.01
Maturity Indicator TMECC 05.05 A Cucumber Bioassay % average of control	Germination: 80% or greater Vigor: 80% or greater	Germination: 100 Vigor: 96
Stability Indicator TMECC 05.08-B Carbon Dioxide Evolution Rate	7 or below mg CO2-C/g OM/day	2.7

*Check for special provisions in Columbia River basin

This compost product has been sampled and tested by the Seal of Testing Assurance Program of the United States Composting Council (USCC), using certain methods from the Test Methods for the Examination of Compost and Composting Manual. Test results are available upon request by contacting the compost producer (address at top of page). The USCC makes no warranties regarding this product or its content, quality, or suitability for any particular use.*

Laboratory Number:	C13-355	Date Reported : 04/19/13	
Analyst:	Fine Compost	brent@soiltestlab.com	

US Composting Council
STA Certified Lab

soiltest
farm consultants, inc.
2925 Driggs Dr., Moses Lake, Wa 98837 - www.soiltestlab.com
Office: (509)765-1622 - Fax:(509)765-0314 - (800)764-1622

Client: Pacific Topsoils
Attn: Josh Roden
805 80th ST SW
Everett, WA 98203
425-231-3278

Product: Fine Compost
Date Sampled: 04/03/13
Date Received: 04/04/13

Date Reported: 04/19/13
Laboratory # C13-355
Reveiwed by Brent Thyssen, CPSSc

Amount: $ 225.00

Nutrients

	Method	As Rcvd.	Dry Wt.	Units	Low	Normal	High	Typical Range
Moisture	70 C	43		%	**********			15 to 40
Solids	70 C	57		%	**********			60 to 85
pH	1:5	7.0	NA	SU	**********			5.5 to 8.5
E.C	1:5	0.57	1.01	mmhos/cm	******			below 5.0
Total N	TMECC 04.02D	0.49	0.86	%	******			1 to 5
Organic C	TMECC 04.01A	14.0	24.7	%	**********			18 to 45
Organic Matter	TMECC 05.07A	28	50	%	**********			40 to 60
Ash	550 C	28.4	50.2	%	**********			40 to 60
Phosphorous	TMECC 04.12B/04.14A	0.07	0.13	%				
P_2O_5		0.17	0.30	%	***			1 to 8
Potassium	TMECC 04.12B/04.14A	0.25	0.44	%				
K_2O		0.30	0.52	%	****			3 to 12
Calcium	TMECC 04.12B/04.14A	0.76	1.3	%	**********			0.5 to 10
Magnesium	TMECC 04.12B/04.14A	0.22	0.39	%	**********			0.06 to 0.7
Sodium	TMECC 04.12B/04.14A	0.02	0.03	%	****			0.06 to 0.7
Sulfur	TMECC 04.12B/04.14A	0.06	0.11	%	**********			0.1 to 1.0
Boron	TMECC 04.12B/04.14A	6	10	mg/kg	**********			25 to 150
Zinc	TMECC 04.12B/04.14A	71	126	mg/kg	**********			100 to 600
Manganese	TMECC 04.12B/04.14A	307	544	mg/kg	**********			250 to 750
Copper	TMECC 04.12B/04.14A	19	34	mg/kg	***			100 to 500
Iron	TMECC 04.12B/04.14A	7246	12820	mg/kg	**********			1000 to 25000
C/N ratio			29	ratio	**********			18 to 24
C/P Ratio			186	ratio	**********			80 to 140

Respiration & Stability

	Method		Units	Low	Normal	High	Normal
CO2 Evolution	TMECC 05.08	2.7	mg CO_2-C/g OM/day	**********			1 to 7
	TMECC 05.08	3.5	mg CO_2-C/g TS/day	**********			0.5 to 5
	TMECC 05.08	0.1	mg NH_3-N /kg /day	***			10 to 100
Stability Rating		Stable					

Sample was received, handled and tested in accordance with TMECC procedures

US Composting Council
STA Certified Lab

soiltest
farm consultants, inc.
2925 Driggs Dr., Moses Lake, Wa 98837 - www.soiltestlab.com
Office: (509)765-1622 - Fax:(509)765-0314 - (800)764-1622

Client:	Pacific Topsoils	Product: Fine Compost	Date Reported: 04/19/13
	805 80th ST SW	Date Sampled: 04/03/13	Laboratory # C13-355
	805 80th ST SW	Date Received: 04/04/13	Reveiwed by Brent Thyssen, CPSSc
	425-231-3278		

Cucumber Bioassay

	Method		Units	Low	Normal	Normal
Emergence	TMECC 05.05A	100	%	**********		80 to 100
Vigor	TMECC 05.05A	96	%	**********		85 to 100
Plant Description		Mature				

Pathogens

	Method		Date Tested	4/9/2013					
			units		Low	Normal	High		Normal
Fecal Coliforms	TMECC 07.01B	Not Tested	MPN/g						Less than 1000
Salmonella	TMECC 07.01c	ND	MPN/4g	Pass	*				Less than 3

ND = None Detected

WAC 173-350-220

	Method	Dry Wt.	Units	Low	Normal	High	WAC Limit
Arsenic	TMECC 04.12B/04.14A	3.1	mg/kg	****			20
Cadmium	TMECC 04.12B/04.14A	0.4	mg/kg	**			10
Chromium	TMECC 04.12B/04.14A	32.6	mg/kg				-
Cobalt	TMECC 04.12B/04.14A	7.4	mg/kg				-
Copper	TMECC 04.12B/04.14A	34	mg/kg	****			750
Lead	TMECC 04.12B/04.14A	23.9	mg/kg	****			150
Mercury	TMECC 04.12B/04.14A	0.06	mg/kg	**			8
Molybdenum	TMECC 04.12B/04.14A	4.8	mg/kg	**********			9
Nickel	TMECC 04.12B/04.14A	25	mg/kg	****			210
Selenium	TMECC 04.12B/04.14A	0.8	mg/kg	****			18
Zinc	TMECC 04.12B/04.14A	126	mg/kg	****			1400
		Pass					

Particle Size Distribution TMECC 2.02 B &C

inches	mm	% Passing
3	76.2	100
2	50	100
1	25	100
3/4	19.1	100
5/8	16	100
3/8	9.5	97
1/4	6.3	87
1/8	4.0	71

Inerts	% by wt.
Total Plastic	0.00
Film Plastic	0.00
Glass	0.00
Metal	0.00
Sharps	0.00

Sample was received, handled and tested in accordance with TMECC procedures

US COMPOSTING COUNCIL

Seal of Testing Assurance

Pacific Topsoils
Attn: Josh Roden
805 80th ST SW
Everett, WA 98203
Phone: 425-231-3278

Product Name: Fine Compost
Sample Date: 3-Apr-13
Laboratory ID: C13-355

COMPOST TECHNICAL DATA SHEET

Laboratory: SOILTEST farm consultants; 2925 Driggs Dr.; Moses Lake, WA 98837; tel. 509-765-1622 fax. 509-765-0314

Compost Parameters	Reported as (units of measure)	Test Results	Test Results
Plant Nutrients:	%, weight basis	%, wet weight basis	%, dry weight basis
Nitrogen	Total N	0.5	0.86
Phosphorus	P_2O_5	0.17	0.30
Potassium	K_2O	0.30	0.52
Calcium	Ca	0.76	1.35
Magnesium	Mg	0.22	0.39
Moisture Content	%, wet weight basis	43.5	
Organic Matter Content	%, dry weight basis	50	
pH	pH units	7	
Soluble Salts (electrical conductivity EC_e)	dS/m (mmhos/cm)	1.01	
Particle Size	% < 9.5 mm (⅜ in.), dw basis	97.0	
Stability Indicator (respirometry)			Stability Rating
CO_2 Evolution	mg CO2-C/g OM/day	2.7	Stable
	mg CO2-C/g TS/day	3.5	
Maturity Indicator (bioassay)			
Percent Emergence	average % of control	100	
Relative Seedling Vigor	average % of control	96	
Select Pathogens	PASS/FAIL: per USEPA Class A standard, 40 CFR § 503.32(a)	Pass	Salmonella
Trace Metals	PASS/FAIL: per USEPA Class A standard, 40 CFR § 503.13, Tables 1 and 3.	Pass	As,Cd,Cr,Cu,Pb,Hg, Mo,Ni,Se,Zn

Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost end use instructions, as a means to better serve the needs of their compost customers.

Date Received: 4-Apr-13 Date Reported 19-Apr-13

Laboratory QA/QC Brent Thyssen, CPSSc brent@soiltestlab.com www.soiltestlab.com

US COMPOSTING COUNCIL

Seal of Testing Assurance

Pacific Topsoils
Attn: Josh Roden
805 80th ST SW
Everett, WA 98203
Phone: 425-231-3278

Product Name: Fine Compost
Sample Date: 3-Apr-13
Laboratory ID: C13-355

COMPOST TECHNICAL DATA SHEET

Laboratory: SOILTEST farm consultants; 2925 Driggs Dr.; Moses Lake, WA 98837; tel. 509-765-1622 fax. 509-765-0314

Compost Parameters	Reported as (units of measure)	Test Results	Test Results
Plant Nutrients:	%, weight basis	%, wet weight basis	%, dry weight basis
Nitrogen	Total N	Not Reported	Not Reported
Phosphorus	P_2O_5	Not Reported	Not Reported
Potassium	K_2O	Not Reported	Not Reported
Calcium	Ca	Not Reported	Not Reported
Magnesium	Mg	Not Reported	Not Reported
Moisture Content	%, wet weight basis	43.5	
Organic Matter Content	%, dry weight basis	50	
pH	pH units	7	
Soluble Salts (electrical conductivity EC_e)	dS/m (mmhos/cm)	1.01	
Particle Size	% < 9.5 mm (⅜ in.), dw basis	97.0	
Stability Indicator (respirometry)			Stability Rating
CO_2 Evolution	mg CO2-C/g OM/day	2.7	Stable
	mg CO2-C/g TS/day	3.5	
Maturity Indicator (bioassay)			
Percent Emergence	average % of control	100	
Relative Seedling Vigor	average % of control	96	
Select Pathogens	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.32(a)	Pass	Salmonella
Trace Metals	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3.	Pass	As,Cd,Cr,Cu,Pb,Hg, Mo,Ni,Se,Zn

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Date Received: 4-Apr-13 Date Reported 19-Apr-13

Laboratory QA/QC Brent Thyssen, CPSSc brent@soiltestlab.com www.soiltestlab.com

SNOHOMISH HEALTH DISTRICT
WWW.SNOHD.ORG

RECEIVED
JUN 18 2012

Environmental Health Division

SOLID WASTE FACILITY PERMIT #SW-093

Issued by the Snohomish Health District in accordance with the provisions of Chapter 70.95 of the Revised Code of Washington (RCW), Chapter 173-350 of the Washington Administrative Code (WAC) and the Snohomish Health District Sanitary Codes, Chapter 3.1 and 3.2 (Adopted text of WAC 173-350).

PERMIT PERIOD: JULY 1, 2012 TO JUNE 30, 2013

PERMITTEE AND ADMINISTRATIVE INFORMATION

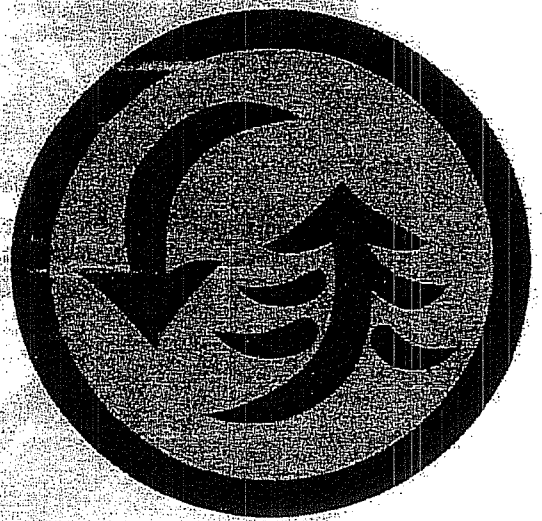
NAME OF FACILITY:	Pacific Topsoils, Inc. Composting - Maltby
FACILITY LOCATION:	8616 219th Street SE, Woodinville, Washington 98072
FACILITY OWNER:	Sandra Forman
FACILITY OPERATOR:	Janusz Bajsarowicz
PHONE:	425.337.2700
PERMIT TYPE:	Composting Facility over 30,000 tons
ANNUAL FEE:	$4,368.00 plus $168 per hour for each additional hour over 26 hours

The conditions of this permit are contained on the following pages. This permit is the property of the Snohomish Health District and may be suspended or revoked upon violation of any rules and regulations applicable hereto. This permit is not transferable to a different site, and must be renewed annually. This permit or a legible copy must be displayed or stored in a manner, which allows easy access, by operating personnel.

Aran Engen, R.S.
Solid Waste and Toxics Section
Environmental Health Division

June 1, 2012
Date of Issuance

3020 Rucker Avenue, Suite 104 ■ Everett, WA 98201-3900 ■ tel: 425.339.5250 ■ fax: 425.339.5254



Valid 4/12/2013 to 4/12/2014

PARTICIPANT

US COMPOSTING COUNCIL

Seal of Testing Assurance

Pacific Topsoils, Inc.

If it isn't STA compost.....

What is it??

US COMPOSTING COUNCIL

FARALLON SUBMITTAL REVIEW TRANSMITTAL

Project: BNSF Schoolyard Excavation Supplement

Reviewed By: Jeff Hamlin, PE

Date: July 1, 2013

Farallon PN: 683-038

Submittal: Topsoil

Specifications Section: 02055

The attached submittal information has been reviewed for general compliance with the contract documents and design intent with the following comments:

X No Exceptions Taken

☐ Revise and Resubmit

☐ Make Corrections Noted

Notes:

Reviewed only as to general conformity with the project contract document requirements. Farallon does not warrant or represent that the information in the submittal or on the shop drawing is either accurate or complete. The sole responsibility for contract document compliance will remain with the contractor submitting the information.

By: _____ Date: 07/01/13

STRIDER construction co., inc.

4721 Northwest Drive
Bellingham, WA 98226
(360) 380-1234
(360) 380-3456 (FAX)

LETTER OF TRANSMITTAL

To:	Andrew Vining	**Date:**	July 8, 2013
Company:	Farrallon Consulting	**Project Name:**	Schoolyard Excavation Supplement
Address:	975 5th Avenue Northwest	**SCCI Project #:**	13SS
	Issaquah, WA, WA 98027	**PW #:**	
		Federal Aid #:	

ITEM:

☒ Attached ☐ Under separate cover via: _____

No. of Copies	Document Description
1	Sod

TRANSMITTED BY:

☐ Mail ☐ Hand Delivery ☒ E-mail ☐ Faxed ____ pages to fax no.: ( ) -
☐ Overnight Mail ☐ Courier ☐ Original to follow

TRANSMITTED FOR:

☐ For your information ☒ Review and Approve
☐ For your use ☐ Revise and resubmit
☐ As requested ☐ Other: _____

REMARKS:

Copies to: file

Signed: _____
Kyle Gebhardt, PE

P&G LANDSCAPING, INC.
15912 73rd Ave. SE #B
Snohomish, WA 98296

PGLAN**200NO

(425) 485-6091 (360) 668-7344
FAX (425) 485-7999

LETTER OF TRANSMITTAL

Date:	Job #:
7/8/13	1305
Attention: Kyle Gebhardt	
Regarding 2013 Skykomish Schoolyard	

TO: Strider Construction

4721 Northwest Drive

Bellingham, WA 98226

WE ARE SENDING YOU _ Attached _ Under separate cover via_____the following items:

QUANTITY	DESCRIPTION
1	**WSDOT Request for Approval of Material**
1	**Purchase Order**
2	**Letter of Certification & Technical Sheet**

REMARKS

Strider Project #13SS
02938 - Sod Submittal
The data submitted hereinafter deviates from the contract documents. The deviation is as follows: We are unable to locate sod that meets the material composition and "non-netted" requirement as set out in section 2.01 of the "Sod Restoration" section of the specifications. The sod submitted is as close to meeting the specifications as we were able to locate. This sod was previously approved for use in other areas on this project.

COPY TO:_____ SIGNED:_____

Washington State Department of Transportation

Request for Approval of Material

Contract	FA Number	SR	Date
683-043			7/8/2013

Section	County
2013 Skykomish Schoolyard	King

Contractor	Subcontractor
P&G Landscaping, Inc.	

For assistance in completing, see Instructions and Example

For WSDOT Use Only
RAM #

Bid Item No.	Material or Manufacturer's Product/Type	Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference	PE Appr'l Code	Hdqtr. Appr'l Code	File No.
12	Sod Perfect Green Sod Mix	Country Green Turf Farms Olympia, WA	02938 2.01			

Project Engineer	Date	State Materials Engineer	Date

Approval Action Codes for use by Project Engineer and State Materials Laboratory

1. Conditionally Approved: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
2. Conditionally Approved: Submit Mfg. Cert. of Compliance for 'Approval' prior to use of material.
3. Conditionally Approved: Submit Catalog Cuts for 'Approval' prior to use of material.
4. Conditionally Approved: Submit Shop Drawings for 'Approval' prior to fabrication of material.
5. Conditionally Approved: Only 'Approved for Shipment' or 'WSDOT Inspected' material *shall* be used.
6. Conditionally Approved: Submit Materials Certificate of Origin to Project Engineer.
7. Approval Pending: Request Transmitted to State Materials Laboratory for Approval Action.
8. Source Approved:
9. Approval Withheld: Submit samples for preliminary evaluation.
10. Approval Withheld:
11.

Remarks:

Project Engineer Distribution

☐ Contractor ☐ Region Materials
☐ Region Operations Engineer ☐ State Materials Lab

State Materials Engineer Distribution

☐ General File ☐ Signing Inspection
☐ Fabrication Inspection ☐ Other _____

DOT Form 350-071 EF
Revised 8/04

542546

Purchase Order

TO Country Green Turf Farms	DATE 7-8-13
ADDRESS Merle 360-456-1006	DATE REQUIRED mid-late July
CITY, STATE, ZIP Olympia, WA	TERMS
SHIP TO Strider Construction	HOW SHIPPED FOB Jobsite
ADDRESS 2013 Skykomish Schoolyard	REQ. NO. OR DEPT.
CITY, STATE, ZIP Skykomish, WA	FOR 1305

	QUANTITY	DESCRIPTION	PRICE	UNIT
1	24,000 sf	Perfect Green Sod		
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

P&G LANDSCAPING, INC.
~~15912 73rd Ave. S.E. #B~~
Snohomish, WA 98296
Ph: 425 485-6091 Fx: 425 485-7999

IMPORTANT

Purchase Order Number must appear on all invoices - packaging, etc.

Please notify us immediately if you are unable to complete the order by date specified.

Please send _____ copies of your INVOICE with ORIGINAL BILL OF LADING.

PURCHASING AGENT Cassie

A-5831
T-46140/46141

ORIGINAL

01-11

Country Green
TURF FARMS
1-800-300-1763

To: Whom It May Concern:

RE: **Submittal for Country Green Perfect Green Sod**

Sodded Lawns:
The sod for this project shall be Country Green Premium Netted "Perfect Green". The sod is grown with netting. The blend shall consist of (by weight):

60%	Perennial Ryegrass
20%	Kentucky Bluegrass
20%	Hard Fescue

A representative seed tag is available. Varieties subject to change.

If you have any questions, please call us at the office at 360-456-1006 or 1-800-300-1763.

Sincerely,

Customer Service

Enclosures

SOD SUBMITTAL 02-10

Olympia
7725 Yelm Hwy SE
Olympia, WA 98513
Local (360) 456-1006
FAX (360) 459-9688

Mt. Vernon
8539 Chuckanut Dr.
Bow, WA 98232
Local (360) 707-2011
FAX (360) 707-2172

Monroe
23010 Soffie Rd.
Monroe, WA 98272
Local (360) 794-1050
FAX (360) 794-1048

TPI Turfgrass Producers International

Western WA Golf Course Superintendents Association

Country Green
TURF FARMS
7725 Yelm Hwy, SE; Olympia, WA 98513
1-800-300-1763

PERFECT GREEN SOD MIXTURE

60% Perennial Ryegrass, 20% Hard Fescue, 20 % Kentucky Bluegrass

VARIETY	PURITY	GERMINATION	TEST DATE
MANHATTAN 4 Perennial Ryegrass	19.78	90%	02/09
SILVER DOLLAR Perennial Ryegrass	19.76	90%	02/09
BRIGHTSTAR SLT Perennial Ryegrass	19.84	90%	02/09
AURORA II Hard Fescue	19.40	85%	02/09
MIDNIGHT II Kentucky Bluegrass	9.93	90%	02/09
PROSPERITY Kentucky Bluegrass	9.92	80%	02/09

CROP: 0.00
INERT: 1.37
WEED: 0.00
NOXIOUS WEED: NONE FOUND
AMS 655

LOT #: M12-8-115
ORIGIN: Oregon

*** Varieties subject to change as improved varieties become available.**

FARALLON SUBMITTAL REVIEW TRANSMITTAL

Project: BNSF Schoolyard Excavation Supplement

Reviewed By: Jeff Hamlin, PE

Date: July 10, 2013

Farallon PN: 683-038

Submittal: Sod

Specifications Section: 02938

The attached submittal information has been reviewed for general compliance with the contract documents and design intent with the following comments:

X No Exceptions Taken

☐ Revise and Resubmit

☐ Make Corrections Noted

Notes:

Reviewed only as to general conformity with the project contract document requirements. Farallon does not warrant or represent that the information in the submittal or on the shop drawing is either accurate or complete. The sole responsibility for contract document compliance will remain with the contractor submitting the information.

By: _____ Date: 7/10/13

STRIDER construction co., inc.

4721 Northwest Drive
Bellingham, WA 98226
(360) 380-1234
(360) 380-3456 (FAX)

LETTER OF TRANSMITTAL

To:	Andrew Vining	**Date:**	July 17, 2013
Company:	Farrallon Consulting	**Project Name:**	Schoolyard Excavation Supplement
Address:	975 5th Avenue Northwest	**SCCI Project #:**	13SS
	Issaquah, WA, WA 98027	**PW #:**	
		Federal Aid #:	

ITEM:

☒ Attached ☐ Under separate cover via: _____

No. of Copies	Document Description
1	Irrigation 02810

TRANSMITTED BY:

☐ Mail ☐ Hand Delivery ☒ E-mail ☐ Faxed ____ pages to fax no.: ( ) -
☐ Overnight Mail ☐ Courier ☐ Original to follow

TRANSMITTED FOR:

☐ For your information ☒ Review and Approve
☐ For your use ☐ Revise and resubmit
☐ As requested ☐ Other: _____

REMARKS:

Copies to: file

Signed: _____
Kyle Gebhardt, PE

P&G LANDSCAPING, INC.
15912 73rd Ave. SE #B
Snohomish, WA 98296

PGLAN**200NO

(425) 485-6091 (360) 668-7344
FAX (425) 485-7999

LETTER OF TRANSMITTAL

Date: 7/15/13	Job #: 1305
Attention: Kyle Gebhardt	
Regarding: 2013 Skykomish Schoolyard	

RECEIVED
JUL 17 2013
BY:

TO: Strider Construction

4721 Northwest Drive

Bellingham, WA 98226

WE ARE SENDING YOU _ Attached _ Under separate cover via_____the following items:

QUANTITY	DESCRIPTION
1	**WSDOT Request for Approval of Material**
1	**Irrigation Submittal**

REMARKS

Strider Project #13SS
02810 - Irrigation Submittal
Irrigation system School Yard (Drawing #C-218)
The data submitted conforms to the contract documents without deviation.

COPY TO:_____ SIGNED:_____

Washington State Department of Transportation

Request for Approval of Material

Contract	FA Number	SR	Date
683-043			7/15/2013

Section	County
2013 Skykomish Schoolyard	King

Contractor	Subcontractor
Stider Construction, Inc.	Burke-Darrow, Inc. (Sub for P&G Landscaping, Inc.)

For assistance in completing, see Instructions and Example

For WSDOT Use Only

RAM #

Bid Item No.	Material or Manufacturer's Product/Type	Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference	PE Appr'l Code	Hdqtr. Appr'l Code	File No.
12	Irrigation System - all components	H.D. Fowler Company Marysville, WA	02810			

Project Engineer	Date	State Materials Engineer	Date

Approval Action Codes for use by Project Engineer and State Materials Laboratory

1. Conditionally Approved: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
2. Conditionally Approved: Submit Mfg. Cert. of Compliance for 'Approval' prior to use of material.
3. Conditionally Approved: Submit Catalog Cuts for 'Approval' prior to use of material.
4. Conditionally Approved: Submit Shop Drawings for 'Approval' prior to fabrication of material.
5. Conditionally Approved: Only 'Approved for Shipment' or 'WSDOT Inspected' material *shall* be used.
6. Conditionally Approved: Submit Materials Certificate of Origin to Project Engineer.
7. Approval Pending: Request Transmitted to State Materials Laboratory for Approval Action.
8. Source Approved:
9. Approval Withheld: Submit samples for preliminary evaluation.
10. Approval Withheld:
11.

Remarks:

Project Engineer Distribution

☐ Contractor ☐ Region Materials
☐ Region Operations Engineer ☐ State Materials Lab

State Materials Engineer Distribution

☐ General File ☐ Signing Inspection
☐ Fabrication Inspection ☐ Other _____

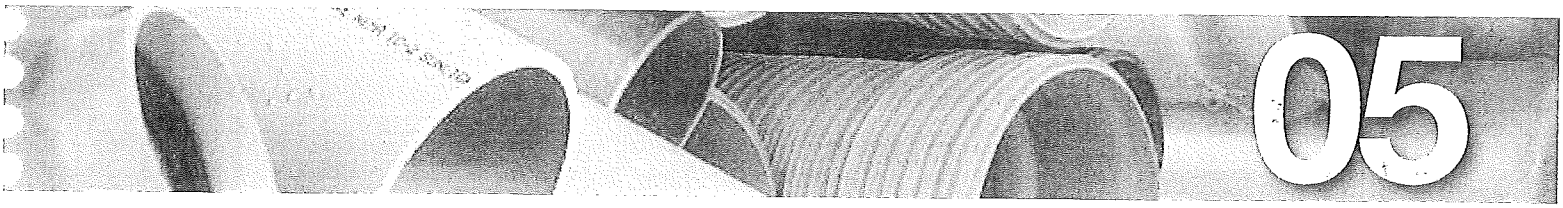
DATE: JULY 15, 2013

JOB NAME: 2013 SKYKOMISH SCHOOLYARD

CONTRACTED BY: BURKE - DARROW, INC.

IRRIGATION PRODUCTS

MANUFACTURER	DESCRIPTION	MFG. PT#
	PVC PIPE	
JM EAGLE	PVC Pipe	Sch 40
CRESLINE	PVC Pipe	Sch 40
RIDGELINE	PVC Pipe	Sch 40
	PVC FITTINGS	
LASCO	PVC Fittings	SCH 40
SPEARS MFG	PVC Fittings	SCH 40
	BATTERY OPERATED CONTROLLERS	
RAINBIRD	Batt. Operated Field Transmitter	TBOSFTUS
RAINBIRD	Batt. Operated 1 Station Modules	TBOS1CMUS
RAINBIRD	Potted Latching Solenoids	TBOSPSOL
3M COPRORATION	Wire Splices	DBY
	BACKFLOW	
WILKINS	Backflow	950XLT-BV 1"
CARSON	Valve Boxes	1220
	AUTO CONTROL VALVES	
RAINBIRD	Auto Control Valves	PEB Series
CARSON	Valve Boxes	1419
	QUICK COUPLERS	
RAINBIRD	Quick Couplers	44RC
	ISOLATION VALVES	
LEGEND	Brass Gate Valves	T-401
KBI INDUSTRIES	Sch 80 TXT PVC Ball Valves	LT-XXXX-T 1/2"
	SPRAY HEADS	
RAINBIRD	Spray Heads	1806 SAM PRS
RAINBIRD	Spray Nozzles	MPR - Varies



05

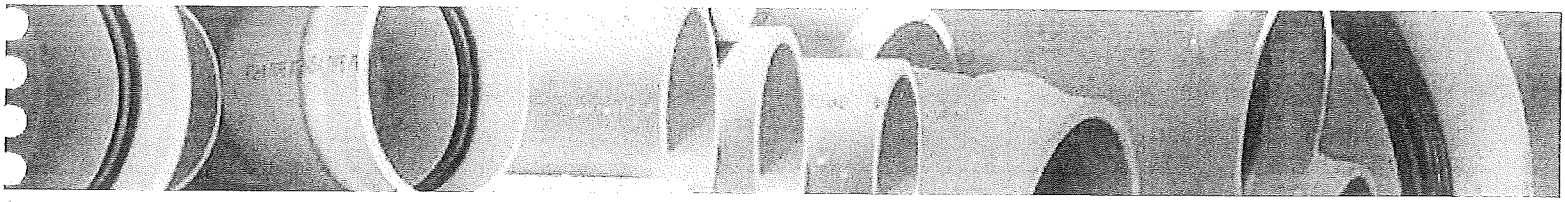
FLOW/FRICTION CHARTS

FLOW/FRICTION LOSS, SOLVENT WELD PVC PIPE

SCHEDULE 40

SIZE (IN)	FLOW (GAL/MIN)	FRICTION LOSS (psi)	FRICTION HEAD (FT)	VELOCITY (FT/S)
½	1	0.90	2.08	1.13
	2	1.80	4.16	2.26
	5	10.15	23.44	5.64
	7	13.64	43.06	7.90
	10	35.51	82.02	11.28
¾	1	0.22	0.51	0.63
	2	0.44	1.02	1.26
	5	2.48	5.73	3.16
	7	4.56	10.52	4.43
	10	8.68	20.04	6.32
	15	18.39	42.46	9.48
	20	31.32	72.34	12.65
1	1	—	—	—
	2	0.24	0.55	0.77
	5	0.75	1.72	1.93
	7	1.37	3.17	2.72
	10	2.61	6.02	3.86
	15	5.53	12.77	5.79
	20	9.42	21.75	7.72
	25	14.22	32.88	9.65
	30	19.95	46.08	11.58
1¼	1	—	—	—
	2	0.06	0.14	0.44
	5	0.19	0.44	1.11
	7	0.35	0.81	1.55
	10	0.67	1.55	2.21
	15	1.42	3.28	3.31
	20	2.42	5.59	4.42
	25	3.66	8.45	5.52
	30	5.13	11.85	6.63
	35	6.82	15.76	7.73
	40	8.74	20.18	8.84
	45	10.87	25.10	9.94
	50	13.21	30.51	11.05
1½	1	—	—	—
	2	0.03	0.07	0.33
	5	0.09	0.22	0.81
	7	0.17	0.38	1.13
	10	0.31	0.72	1.62
	15	0.66	1.53	2.42
	20	1.13	2.61	3.23
	25	1.71	3.95	4.04
	30	2.39	5.53	4.85
	35	3.19	7.36	5.66
	40	4.08	9.43	6.47
	45	5.08	11.73	7.27
	50	6.17	14.25	8.08
	60	8.65	19.98	9.70
2	1	—	—	—
	2	—	—	—
	5	0.029	0.066	0.49
	7	0.048	0.11	0.69
	10	0.091	0.21	0.98
	15	0.19	0.45	1.46
	20	0.33	0.76	1.95
	25	0.50	1.15	2.44
	30	0.70	1.62	2.93
	35	0.93	2.15	3.41
	40	1.19	2.75	3.90
	45	1.49	3.43	4.39
	50	1.80	4.16	4.88
	60	2.53	5.84	5.85
	70	3.36	7.76	6.83
	75	3.82	8.82	7.32
	80	4.30	9.94	7.80
	90	5.36	12.37	8.78
	100	6.51	15.03	9.75
2-½	1	—	—	—
	2	—	—	—
	5	0.016	0.038	0.30
	7	0.023	0.051	0.49
	10	0.039	0.09	0.68
	15	0.082	0.19	1.03
	20	0.14	0.32	1.37
	25	0.21	0.49	1.71
	30	0.29	0.68	2.05
	35	0.39	0.91	2.39
	40	0.50	1.16	3.73
	45	0.62	1.44	3.08
	50	0.76	1.75	3.42
	60	1.07	2.46	4.10
	70	1.42	3.27	4.79
	75	1.61	3.71	5.13
	80	1.81	4.19	5.47
	90	2.26	5.21	6.15
	100	2.74	6.33	6.84
	125	4.15	9.58	8.55
	150	5.81	13.41	10.26
3	1	—	—	—
	2	—	—	—
	5	0.007	0.015	0.22
	7	0.009	0.021	0.31
	10	0.013	0.03	0.44
	15	0.030	0.07	0.66
	20	0.048	0.11	0.88
	25	0.074	0.17	1.10
	30	0.10	0.23	1.33
	35	0.13	0.31	1.55
	40	0.17	0.40	1.77
	45	0.22	0.50	1.99
	50	0.26	0.60	2.21
	60	0.37	0.85	2.65
	70	0.49	1.13	3.09
	75	0.55	1.28	3.31
	80	0.62	1.44	3.53
	90	0.78	1.80	3.98
	100	0.94	2.18	4.42
	125	1.43	3.31	5.52
	150	2.00	4.63	6.63
	175	2.67	6.16	7.73
	200	3.41	7.88	8.83
	250	5.17	11.93	11.04

* For data, sizes, or classes not reflected in these charts, please contact JM Eagle™ for assistance.



FLOW/FRICTION CHARTS
(CONTINUED)

FLOW/FRICTION LOSS, SOLVENT WELD PVC PIPE

SCHEDULE 40 (CONTINUED)

SIZE (IN)	FLOW (GAL/MIN)	FRICTION LOSS (psi)	FRICTION HEAD (FT)	VELOCITY (FT/S)
	20	0.013	0.03	0.51
	25	0.017	0.04	0.64
	30	0.026	0.06	0.77
	35	0.035	0.08	0.89
	40	0.048	0.11	1.02
	45	0.056	0.13	1.15
	50	0.069	0.16	1.28
	60	0.095	0.22	1.53
	70	0.13	0.30	1.79
	75	0.15	0.34	1.92
4	80	0.16	0.38	2.05
	90	0.20	0.47	2.30
	100	0.25	0.58	2.56
	125	0.38	0.88	3.20
	150	0.53	1.22	3.84
	175	0.71	1.63	4.48
	200	0.90	2.08	5.11
	250	1.36	3.15	6.40
	300	1.91	4.41	7.67
	350	2.55	5.87	8.95
	400	3.26	7.52	10.23
	30	0.009	0.02	0.49
	35	0.013	0.03	0.57
	40	0.013	0.03	0.65
	45	0.017	0.04	0.73
	50	0.022	0.05	0.81
	60	0.030	0.07	0.97
	70	0.043	0.10	1.14
	75	0.048	0.11	1.22
	80	0.056	0.13	1.30
	90	0.069	0.16	1.46
5	100	0.082	0.19	1.62
	125	0.125	0.29	2.03
	150	0.17	0.40	2.44
	175	0.235	0.54	2.84
	200	0.30	0.69	3.25
	250	0.45	1.05	4.06
	300	0.63	1.46	4.87
	350	0.85	1.95	5.69
	400	1.08	2.49	6.50
	450	1.34	3.09	7.31
	500	1.63	3.76	8.12
	50	0.009	0.02	0.56
	60	0.013	0.03	0.67
	70	0.017	0.04	0.79
	75	0.022	0.05	0.84
6	80	0.022	0.05	0.90
	90	0.026	0.06	1.01
	100	0.035	0.08	1.12
	125	0.052	0.12	1.41
	150	0.069	0.16	1.69

SIZE (IN)	FLOW (GAL/MIN)	FRICTION LOSS (psi)	FRICTION HEAD (FT)	VELOCITY (FT/S)
	175	0.096	0.22	1.97
	200	0.12	0.28	2.25
	250	0.19	0.43	2.81
	300	0.26	0.60	3.37
6	350	0.34	0.79	3.94
	400	0.44	1.01	4.49
	450	0.55	1.26	5.06
	500	0.66	1.53	5.62
	750	1.41	3.25	8.43
	1000	2.40	5.54	11.24
	100	0.012	0.03	0.65
	125	0.015	0.035	0.81
	150	0.017	0.04	0.97
	175	0.024	0.055	1.14
	200	0.030	0.07	1.30
	250	0.048	0.11	1.63
	300	0.069	0.16	1.94
8	350	0.091	0.21	2.27
	400	0.12	0.27	2.59
	450	0.14	0.33	2.92
	500	0.17	0.40	3.24
	750	0.37	0.85	4.86
	1000	0.63	1.45	6.48
	1250	0.95	2.20	8.11
	1500	1.33	3.07	9.72
	200	0.012	0.027	0.82
	250	0.015	0.035	1.03
	300	0.022	0.05	1.23
	350	0.028	0.065	1.44
	400	0.039	0.09	1.64
	450	0.048	0.11	1.85
10	500	0.056	0.13	2.05
	750	0.12	0.28	3.08
	1000	0.21	0.48	4.11
	1250	0.32	0.73	5.14
	1500	0.44	1.01	6.16
	2000	0.74	1.72	8.21
	2500	1.13	2.61	10.27
	350	0.012	0.027	1.01
	400	0.017	0.04	1.16
	450	0.022	0.05	1.30
	500	0.026	0.06	1.45
	750	0.052	0.12	2.17
	1000	0.087	0.20	2.89
12	1250	0.13	0.31	3.62
	1500	0.19	0.43	4.34
	2000	0.32	0.73	5.78
	2500	0.49	1.11	7.23
	3000	0.67	1.55	8.68
	3500	0.90	2.07	10.12
	4000	1.15	2.66	11.07

* For data, sizes, or classes not reflected in these charts, please contact JM Eagle™ for assistance.

CRESLINE-Northwest, LLC®

PVC PRESSURE PIPE SCH-40 & SCH-80

CNWPVC-3

MAY, 2006

PLEASE ORDER BY PART NUMBER.

SCH 40
PRESSURE PIPE
PVC1120
ASTM D-1785
NSF
POTABLE WATER

SIZE	O.D.	MIN. WALL	WEIGHT PER 100'	FEET PER PALLET	PALLETS PER T.L.	LGTH.	PART NO.
½"	.840	.109	16.18	8400	44	20'	42015
¾	1.050	.113	21.58	6600	40	20	42030
1	1.315	.133	32.00	5400	32	20	42046
1¼	1.660	.140	43.40	4000	32	20	42056
1½	1.900	.145	51.83	3600	28	20	42070
2	2.375	.154	69.71	2800	24	20	42085
2½	2.875	.203	110.57	2240	20	20	42102
3	3.500	.216	144.82	1500	20	20	42111
4	4.500	.237	213.06	580	28	20	47675
6	6.625	.280	375.47	400	20	20	47720
8	8.625	.322	581.77	280	16	20	47735

SCH 40 PIPE IS FURNISHED IN BELLED END LENGTHS AND IS NOT RECOMMENDED FOR THREADING.

SCH 80
PRESSURE PIPE
PVC1120
ASTM D-1785
NSF
POTABLE WATER

½"	.840	.147	20.63	5200	60	20'	43010
¾	1.050	.154	28.02	4400	48	20	43025
1	1.315	.179	41.23	5200	32	20	43045
1¼	1.660	.191	57.06	4000	32	20	43065
1½	1.900	.200	69.19	2360	40	20	43080
2	2.375	.218	95.89	1860	32	20	43095
2½	2.875	.276	146.24	1160	36	20	43115
3	3.500	.300	195.88	1500	20	20	43120
4	4.500	.337	286.26	580	28	20	43135
6	6.625	.432	546.56	400	20	20	43150
8	8.625	.500	830.24	280	16	20	43165

SCH-80 PIPE IS RECOMMENDED FOR THREADING.
SCH-80 PIPE IS FURNISHED IN PLAIN END LENGTHS AND IS GRAY COLOR.

PRESSURE RATINGS
FOR CRESLINE - PVC PIPES
AT 73.4° F

SIZE	½	¾	1	1¼	1½	2	2½	3	4	6	8
SCH-40	600	480	450	370	330	280	300	260	220	180	160
SCH-80	850	690	630	520	470	400	420	370	320	280	250

CONVERSION CHART FOR PRESSURE RATINGS
AT VARIOUS TEMPERATURES FOR CRESLINE - PVC PIPES

TEMPERATURE °F	73.4°	80°	90°	100°	110°	120°	130°	140°
CONVERSION FACTOR	1.00	.88	.75	.62	.50	.40	.30	.22

PRESSURE RATING IS THE ESTIMATED MAXIMUM PRESSURE THAT WATER AS THE MEDIUM IN THE PIPE CAN EXERT CONTINOUSLY FOR A LONG TIME WITH A HIGH DEGREE OF CERTAINTY THAT FAILURE OF THE PIPE WILL NOT OCCUR.

DO NOT USE PLASTIC PIPE AND FITTINGS FOR COMPRESSED AIR.

PALLET QUANTITIES PVC PRESSURE PIPE

PIPE SIZE	FEET PER PALLET	WT. PER PALLET SCH-40
½	8400	1359
¾	6600	1424
1	5400	1728
1¼	4000	1736
1½	3600	1850
2	2800	1952
2½	2240	2477
3	1500	2172
4	580	1236
6	400	1502
8	280	1629

PIPE SIZE	FEET PER PALLET	WT. PER PALLET SCH-80
½	5200	1073
¾	4400	1233
1	5200	2144
1¼	4000	2282
1½	2360	1633
2	1860	1784
2½	1160	1696
3	1500	2938
4	580	1660
6	360	1968
8	280	2325

NSF

CRESLINE-NORTHWEST, LLC.
CORPORATE HEADQUARTERS: 600 CROSS POINTE BOULEVARD · EVANSVILLE, IN 47715 · TELEPHONE (812) 428-9300
PLANT: 223 MAURIN ROAD · CHEHALIS, WA 98532 · TELEPHONE (360) 740-0708
www.cresline-northwest.com

Ridgeline Pipe Manufacturing

Pressure Rated Pipe

IPS Pressure-Rated PVC

NSF

Conforms to ASTM D 1785 &
ASTM D 1784, cell class 12454

- Certified to ANSI/NSF Standard 61 for potability.
- Product manufactured with one integral solvent-weld bells standard per length. Plain end may be available.
- Standard coloring of Schedule 40 pipe is white.
- All pipe is produced in 20-foot lengths. 10-foot lengths may be available.
- Available in purple for reclaimed water.

Schedule 40

Part Number	Size	Dimensions (inches)		Minimum Wall (inches)	Approximate Weight per 100'	Water Pressure Rating (psi)	Standard Crate Quantity
		OD (Avg)	ID (Approx)				
5405020	½"	0.840	0.60	0.109	16	600	7,200
5407520	¾"	1.050	0.80	0.113	22	480	8,000
5410020	1"	1.315	1.03	0.133	32	450	5,600
5412520	1 ¼"	1.660	1.36	0.140	43	370	4,400
5415020	1 ½"	1.900	1.59	0.145	52	330	3,600
5420020	2"	2.375	2.04	0.154	69	280	2,100
5425020	2 ½"	2.875	2.44	0.203	110	300	1,460
5430020	3"	3.500	3.03	0.216	144	260	1,500
5440020	4"	4.500	3.99	0.237	205	220	1,140
5460020	6"	6.625	6.02	0.280	360	180	520

2220 Nugget Way - Eugene, OR 97403 - Phone (877) 811-7473 - Fax (541) 746-6066

LASCO®
Fittings, Inc.

DISCOUNT CODES	
01	Schedule 40 through 8"
91	Schedule 40 10" and larger
96	Class 125
09	Pool and Spa
14	LASCOtite Compression Fittings

PVC - White Pressure Fittings

Includes:

- **Schedule 40** - through 8"
- **Schedule 40** - 10" and larger
- **Class 125**
- **Pool and Spa**
- **LASCOtite** - Compression Fittings

List Prices

Effective:
March 26, 2008

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Fittings, Inc.

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Fax: 731/772-0835

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630/597-0150
888/995-7414
Fax: 630/597-0156

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Carrollton, TX 75006
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800/642-8104
Fax: 972/417-9733

8212 South 228th Street
Kent, WA 98032
425/272-0990
888/285-2726
Fax: 425/272-0995

Printed in U.S.A.
L06-40P-5M 3/08

Limited Warranty

LASCO Fittings, Inc. products are warranted to be free from manufacturing defects in materials and workmanship. They are warranted against rot, rust, and electrolytic corrosion for a period of three years from date of installation. If LASCO products prove defective due to manufacturing defects in material or workmanship during that period, the manufacturer will provide new replacement units of the same type and size. No remedy will be granted under this warranty if LASCO products are not used strictly in accordance with LASCO's directions with respect to use and storage or if the products have been modified in any way. THE MANUFACTURER'S LIABILITY UNDER EXPRESSED OR IMPLIED WARRANTY OR FOR ANY REASON IS LIMITED TO FURNISHING REPLACEMENT UNITS OR GRANTING A CREDIT FOR DEFECTIVE UNITS. NO LABOR EXPENSE OR CONSEQUENTIAL DAMAGES WILL BE PAID BY LASCO. THIS WARRANTY IS IN LIEU OF ALL OTHER GUARANTEES AND WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE, EXCEPT FOR ANY WARRANTIES IMPLIED BY LAW FOR NONCOMMERCIAL CONSUMERS. ANY SUCH WARRANTIES ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.

DO NOT USE LASCO FITTINGS FOR COMPRESSED AIR OR GASES.
DO NOT TEST PVC PIPING SYSTEMS WITH COMPRESSED AIR OR GASES.
DO NOT USE FITTINGS WITH LIQUIDS NOT RECOMMENDED BY LASCO.
MODIFICATIONS OF FITTINGS VOIDS THE WARRANTY.

STANDARDS AND SPECIFICATIONS – Schedule 40

ASTM D-1784 –	Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
ASTM D-2466 –	Socket Type Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.
ASTM F-1970 –	Standard Specification for Special Engineered Fittings, Appurtenances or Valves for use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Systems.
MATERIAL –	LASCO Schedule 40 Fittings are produced from PVC Type 1, Cell Classification 12454-B.
–	O-rings are produced from a Buna-N (Nitrile) material.
LISTINGS –	NSF/ANSI Standard 61: Drinking Water System Components NSF/ANSI Standard 14: Plastics Piping system Components and Related Materials.

Standard Terms and Conditions of Sale

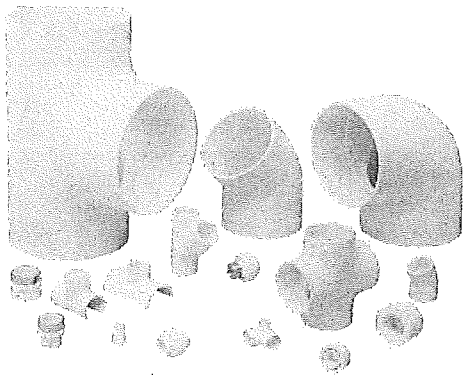
1. **Terms:** 2% 35 days, net 45 days.
2. **Freight:** FOB LASCO warehouses. Prepaid on orders totaling $1500 net for one shipment to single destination within the contiguous United States.
3. **Minimum Order:** $50 net. Smaller orders billed at this minimum charge.
4. **Claims** for shipping errors must be made within 15 days to LASCO. Claims for damage or shortages should be directed promptly to the common carrier by the consignee.
5. **Returns** will be accepted only by prior authorization and if shipped freight prepaid. Returned merchandise subject to a MINIMUM 20% handling/restocking charge.
6. **Pricing** is subject to change without prior notice. However, prior notification will be given in the event of price changes in the period between order placement and scheduled shipment.
7. **Offer** to sell is not implied by possession of this or other LASCO price lists.

Visit our worldwide website
http://www.lascofittings.com

PVC SCHEDULE 40 FITTINGS

40-2-0604

Performance Engineered & Tested



SPEARS® Schedule 40 PVC fitting designs combine years of proven experience with computer generated stress analysis to yield the optimum physical structure and performance for each fitting. Material reinforcement is uniformly placed in stress concentration areas for substantially improved pressure handling capability. Resulting products are subjected to numerous verification tests to assure the very best PVC fittings available.

Full 1/4" Through 12" Availability

Spears® comprehensive line of PVC fittings offers a variety of injection molded configurations in Schedule 40 sizes 1/4" through 12" conforming to ASTM D 2466.

Exceptional Chemical & Corrosion Resistance

Unlike metal, PVC fittings never rust, scale, or pit, and will provide many years of maintenance-free service and extended system life.

High Temperature Ratings

PVC thermoplastic can handle fluids at service temperatures up to 140°F (60°C), allowing a wide range of process applications, including corrosive fluids.

Lower Installation Costs

Substantially lower material costs than steel alloys or lined steel, combined with lighter weight and ease of installation, can reduce installation costs by as much as 60% over conventional metal systems.

Higher Flow Capacity

Smooth interior walls result in lower pressure loss and higher volume than conventional metal fittings.

Additional Fabricated Configurations through 36"

Extra large, hard-to-find, and custom configurations are fabricated from NSF Certified pipe. Fittings are engineered and tested to provide full pressure handling capabilities according to Spears® specifications.

PVC Valves

SPEARS® PVC Valve products are available for total system compatibility and uniformity; see SPEARS® THERMOPLASTIC VALVES PRODUCT GUIDE & ENGINEERING SPECIFICATIONS (V-4).

Advanced Design Specialty Fittings

Spears® wide range of innovative, improved products include numerous metal-to-plastic transition fittings and unions with Spears® patented special reinforced (SR) plastic threads.

Sample Engineering Specifications

All PVC Schedule 40 fittings shall be produced by Spears® Manufacturing Company from PVC Type I cell classification 12454, conforming to ASTM D 1784. All injection molded PVC Schedule 40 fittings shall be Certified for potable water service by NSF International and manufactured in strict compliance to ASTM D 2466. All fabricated fittings shall be produced in accordance with Spears® General Specifications for Fabricated Fittings.

MADE IN THE U.S.A. WITH PRIDE

LOSS PREVENTION CERTIFICATION BOARD LPCB UKAS QUALITY MANAGEMENT 007

Quality Systems Certificate No. 293 Corporate Facilities, Sylmar, CA Assessed to ISO 9001: 2000

PROGRESSIVE PRODUCTS FROM SPEARS® INNOVATION & TECHNOLOGY

Visit our web site: www.spearsmfg.com

PVC Thermoplastic Pipe Temperature Pressure De-Rating

To determine the maximum internal pressure rating at an elevated temperature, simply multiply the pipe pressure rating at 73°F by the percentage specified for the desired temperature.

System Operating Temperature °F (°C)	73 (23)	80 (27)	90 (32)	100 (38)	110 (43)	120 (49)	130 (54)	140 (60)
PVC	100%	90%	75%	62%	50%	40%	30%	22%

NOTE: Valves, Unions and Specialty Products have different elevated temperature ratings than pipe.

PVC Basic Physical Properties

Properties	ASTM Test Method	PVC
Mechanical Properties, 73°F		
Specific Gravity, g/cm³	D 792	1.41
Tensile Strength, psi	D 638	7,200
Modulus of Elasticity, psi	D 638	440,000
Compressive Strength, psi	D 695	9,000
Flexural Strength, psi	D 790	13,200
Izod Impact, notched, ft-lb/in	D 256	.65
Thermal Properties		
Heat Deflection Temperature, °F at 66 psi	D 648	165
Thermal Conductivity, BTU/hr/sq ft/°F/in	C 177	1.2
Coefficient of Linear Expansion, in/in/°F	D 696	3.1 X 10^5
Flammability		
Limiting Oxygen Index, %	D 2863	43
UL 94 rating	94V-0	
Other Properties		
Water Absorption, % 24 hr.	D 570	.05
Industry Standard Color	White / Dark Gray	
ASTM Cell Classification	D 1784	12454
NSF Potable Water Approved	Yes	

PVC Chemical Resistance

PVC is generally inert to most mineral acids, bases, salts and paraffinic hydrocarbon solutions. For more information on PVC chemical resistance refer to the Chemical Resistance of Rigid Vinyls Based on Immersion Test, published by the GEON® Company.

NOT FOR USE WITH COMPRESSED AIR OR GAS

Spears® Manufacturing Company DOES NOT RECOMMEND the use of thermoplastic piping products for systems to transport or store compressed air or gases, or the testing of thermoplastic piping systems with compressed air or gases in above and below ground locations. The use of our product in compressed air or gas systems automatically voids any warranty for such products, and its use against our recommendation is entirely the responsibility and liability of the installer.

WARNING: DO NOT USE COMPRESSED AIR OR GAS TO TEST ANY PVC OR CPVC THERMOPLASTIC PIPING PRODUCT OR SYSTEM, AND DO NOT USE DEVICES PROPELLED BY COMPRESSED AIR OR GAS TO CLEAR SYSTEMS. THESE PRACTICES MAY RESULT IN EXPLOSIVE FRAGMENTATION OF SYSTEM PIPING COMPONENTS CAUSING SERIOUS OR FATAL BODILY INJURY.

SPEARS® MANUFACTURING COMPANY • CORPORATE OFFICE
15853 Olden St., Sylmar, CA 91342 • PO Box 9203, Sylmar, CA 91392
(818) 364-1611 • www.spearsmfg.com

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Sylmar (Los Angeles), CA 91342
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4880 Florence St.
Denver, CO 80238
(303) 371-9430 • (800) 777-4154
Fax (303) 375-9546

UTAH
5395 West 1520 South
Salt Lake City, UT 84104
(303) 371-9430 • (800) 777-4154
Fax (303) 375-9546

SOUTHEAST
4205 Newpoint Pl. Suite 100
Lawrenceville (Atlanta), GA 30043
(678) 985-1263 • (800) 662-6326
Fax (678) 985-5642

MIDWEST
1 Gateway Ct . Suite A
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(630) 759-7529 • (800) 662-6330
Fax (630) 759-7515

NORTHWEST
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4250 Patriot Dr. Suite 300
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Fax (972) 691-4404

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590 Industrial Dr. Suite 100
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RAIN BIRD®

TECH SPECS

TBOS™

No Power...No Problem

The TBOS battery-operated line of buriable controllers allows the use of automatic irrigation in the absence of AC power. TBOS is easy to program, vandal-resistant, and reliable. With a host of flexible features, the TBOS will meet all your irrigation needs with only a 9V alkaline battery.

Features

- Ideal for commercial applications, including municipal parks, street and highway landscape projects and construction projects.
- Convenient temporary option for providing uninterrupted irrigation while repairs are made to an AC-powered system.
- 365-day calendar (adjusts for leap year).
- AM/PM or 24-hour display.
- Basic programming (standard mode) includes 3 independent programs, each with 8 start times per day. Run time is from 1 minute to 12 hours in 1-minute increments on a 7-day calendar.
- Additional cycles (turbo mode) include even, odd, odd-31 and 1-6 day program cycles for maximum flexibility.
- The low battery indicator warns of failing batteries in the TBOS field transmitter or TBOS control module.
- Independent station operation allows simultaneous start times or sequential start times based on system hydraulic capacity.
- The TBOS field transmitter has a large Liquid Crystal Display (LCD) with self-explanatory function icons. Each function is indicated by an easy-to-understand symbol.
- The 7-key keypad is equipped with a "beep" sound to confirm that a key has been pressed for fast and sure programming.
- One TBOS field transmitter programs an unlimited number of TBOS and UNIK™ Control Modules.
- Fully backward compatible – operates in standard mode with all components of Rain Bird's UNIK controller line.
- Field transmitter and control module have external optical connectors for easy plug-in.
- It is possible to transmit information even if the module is under water.
- The TBOS potted latching solenoid will mount on all Rain Bird valves in the DV, DVF, ASVF, PGA, PEB, PESB, GB, EFB-CP, BPE and BPES series.
- The TBOS solenoid adapters will adapt the potted latching solenoid for use in retrofit applications with selected Irritrol® (Hardie/Richdel) and Buckner® valves or Champion® and Superior® valve actuators.

TBOS Control Modules

- Available in 4 models: 1, 2, 4, or 6 stations.
- Operates one valve per station.
- Station timing: 1 minute to 12 hours in 1-minute increments with a 365-day calendar. Stations are assigned to a single program.
- Direct Rain Sensor Connection accommodates the Rain Bird RSD-BEx Rain Sensor.
- Operates with only one 9V alkaline battery (Energizer and Duracell are recommended) type 6AM6 (international standard) or 6LR61 (European standard): battery not included.
- Battery life is one year with a high-quality 9V alkaline battery.
- Waterproof case and dual-sealed battery compartment for reliable operation under water.
- Dimensions: 3¾ x 5⅛ x 2 inches (9,5 x 13,0 x 5,3 cm)
- Weight: 17.64 ounces (500 g)
- Maximum wire run between the module and solenoid:

Wire Size (AWG)	18	16	14
Maximum Distance (ft)	32	50	80
Wire Size (mm²)	0,75	1,5	2,5
Maximum Distance (M)	10	15	24

TBOS Field Transmitter

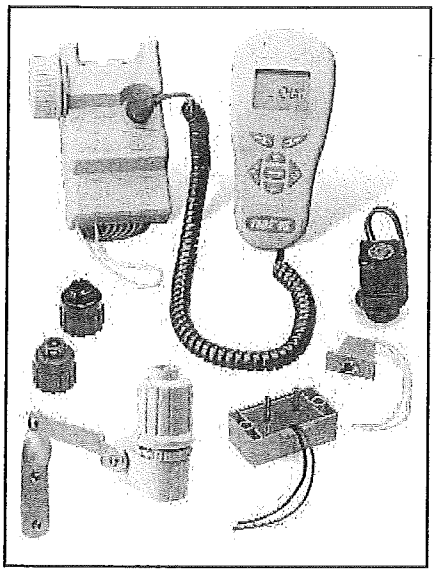
- Field transmitter required for programming control module.
- Dimensions: 3⅛ x 7½ x 1⅛ inches (9,0 x 19,0 x 4,5 cm)
- Weight: 7.05 ounces (200 g)
- Operating temperature: 32° to 140° F (0° to 60° C)

TBOS Potted Latching Solenoid

- Two 18 gauge (0,75 mm2) wires are supplied: 23.6 inches (60 cm) long.
- Plastic adapter included for Rain Bird valves: DV, DVF, ASVF, PGA, PEB, PESB, GB, EFB-CP, BPE and BPES series.
- 150 psi (10 bars) maximum operating pressure.

TBOS Solenoid Adapters

- Easy to install.
- Black adapter for plastic valves allows the TBOS potted latching solenoid to be used with selected Irritrol (Hardie/Richel) and Buckner valves.
- Brown adapter for brass valves allows the TBOS potted latching solenoid to be used with selected Champion and Superior valve actuators.



TBOS Rain Shutoff Device

- Operates with TBOS control modules and latching solenoids.
- Designed to prevent programmed irrigation when a significant amount of natural rainfall makes watering unnecessary.
- Unit measures the moisture level in the site area where it is installed in sand outside the irrigated area.
- Prevents irrigation as soon as the area has sufficient water to meet plant needs.
- Does not interrupt irrigation taking place, but subsequent program starts will be prevented.
- Automatic return to normal watering schedule when the moisture level decreases as a result of natural evaporation.
- Includes on-off switch to bypass when necessary.

How to Specify

TBOSFTUS

Models

- *TBOSFTUS: Field Transmitter*
- *TBOS1CMUS: 1-Station Control Module*
- *TBOS2CMUS: 2-Station Control Module*
- *TBOS4CMUS: 4-Station Control Module*
- *TBOS6CMUS: 6-Station Control Module*
- *TBOSPSOL: Potted Latching Solenoid*
- *TBOSADAPP: Solenoid Adapter for plastic valves*
- *TBOSADAPB: Solenoid Adapter for brass valves*
- *TBOSRAINSO: Rain Shut-Off Device*

Specifications

TBOS™ Control Module

The irrigation controller (control module) shall be programmable by a separate transmitter device only. The program shall be communicated to the Control Module from the Field Transmitter via an infrared connection. The controller shall be of a module type which may be installed in a valve box underground. The controller shall function normally if submerged in water and the communication from the transmitter shall function if submerged in water.

The Control Module shall be housed in an ABS plastic cabinet and shall be potted to insure waterproof operation. The Control Module battery compartment shall be dual-sealed to prevent water from entering the compartment. The Control Module shall have two mounting slots for screws allowing the module to be securely mounted inside a valve box.

The controller shall operate on one 9V alkaline battery for one full year regardless of the number of stations utilized. The controller shall operate _____ (1, 2, 4, or 6) stations either sequentially or independently.

The controller shall have station run time capability from one minute to twelve hours in one minute increments, a 365-day calendar and three programs with eight start times each. The controller shall be capable of independent program operation using a seven day cycle. The controller shall be capable of dependent program operation using Even, Odd, Odd-31 or 1–6 day cycles. The controller shall turn on stations via latching solenoids installed on the valves. Manual operations shall be initiated by attaching the Field Transmitter to the Control Module and programming a manual start. The controller shall be capable of manual single station or manual program operation.

The controller shall be as manufactured by Rain Bird Corporation, Glendora, California USA.

TBOS Field Transmitter

The irrigation controller shall be programmable by a separate transmitter device (Field Transmitter) only. The Field Transmitter shall communicate to the Control Module via an infrared connection. The Field Transmitter shall be water resistant and housed in ABS plastic and have a removable, reversible protective sheath. The Field Transmitter shall operate on one 9V alkaline battery.

The Field Transmitter shall have a large LCD screen and a seven-key programming pad. A beep sound shall confirm every key stroke. The screen shall automatically turn off after one minute when not in use.

The Field Transmitter shall be capable of programming an unlimited number of TBOS and UNIK™ Control Modules.

The Field Transmitter shall have a low battery indicator capable of indicating low battery voltage in the Field Transmitter or TBOS Control Module.

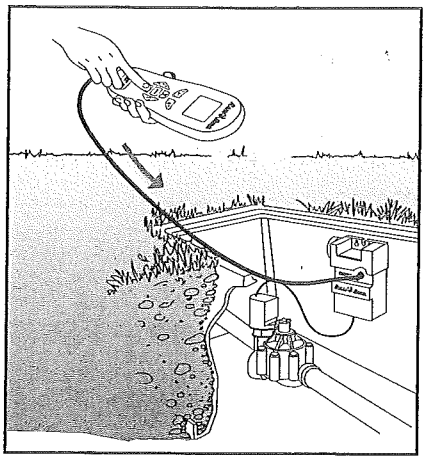
The Field Transmitter shall be as manufactured by Rain Bird Corporation, Glendora, California USA.

TBOS Potted Latching Solenoid

The Potted Latching Solenoid shall fit onto any Rain Bird DV, DVF, ASVF, PGA, PEB, PESB, GB, EFB-CP, or BPE or BPES series valve.

The Potted Latching Solenoid shall fit onto selected Irritrol® and Buckner® valves and Superior® and Champion® valve actuators using plastic solenoid adapters.

The Potted Latching Solenoid and adapters shall be as manufactured by Rain Bird Corporation, Glendora, California USA.



TBOS Rain Shutoff Device

The Rain Shutoff Device shall function correctly only when buried under 2" (5 cm) of sand. The device shall be pre-set and non-adjustable. The device shall function with a DC system only. The device shall have a bypass switch.

The Rain Shutoff Device shall be as manufactured by Rain Bird Corporation, Glendora, California USA.

Rain Bird Corporation
Contractor Division
970 West Sierra Madre Avenue, Azusa, CA 91702
Phone: (626) 963-9311 Fax: (626) 812-3411

Rain Bird Corporation
Commercial Division
6991 East Southpoint Road, Tucson, AZ 85706
Phone: (520) 741-6100 Fax: (520) 741-6522

Rain Bird International, Inc.
145 North Grand Avenue, Glendora, CA 91741
Phone: (626) 963-9311 Fax: (626) 963-4287

Rain Bird Technical Service
(800) 247-3782 (U.S. & Canada only)

www.rainbird.com

Data Sheet

DBY
Direct Bury Splice Kit

Application:

Use part DBY, which includes a Scotchlok® Y Electrical Spring Connector, to electrically connect two or more pre–stripped copper wire ends in a pigtail application and moisture seal the connection for direct burial.

Wire:

Common AWG wire combinations
(Copper wire only, sol or str)

2–3 # 16	1 # 18 to 1–2 # 14
2–3 # 14	1 # 18 to 1–2 # 12
2 # 12	1 # 16 to 1–2 # 12
	1 # 14 to 1 # 12

Consult technical service for complete list of wire combinations.

Construction:

Connector – steel spring , shell , flame retardant pvc insulator

Tube – polypropylene

Gel – thixotropic calcium organic complex

Application Data:

Application Temperature:	32°F to 120°F (0°C to 40°C)
Operating Temperature:	221°F to –40°F (105°C to –40°C)
Voltage Rating:	30 Volts

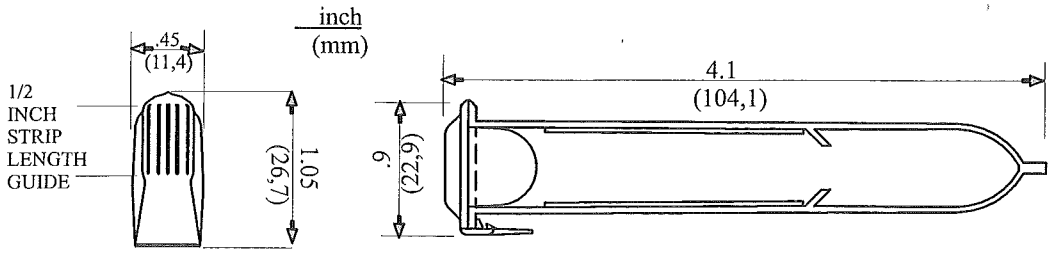
Not for use in direct ultraviolet exposure

Weight of one kit: (2 splices)	.0612 lbs (27,92gm)

Storage: Do not store above 120°F (49°C)

Engineering Specification:

The device, 3M Brand DBY Direct Bury Splice Kit, shall splice and effectively moisture seal two or more conductors. The electrical connector shall be a Scotchlok® Y. The device shall be installed per manufacturer's instructions and all applicable codes.



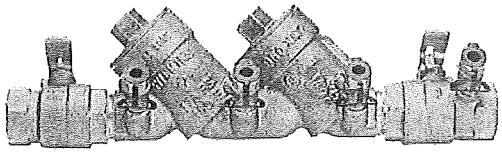
3M Electrical Products Division

6801 River Place Blvd.
Austin, Texas 78726 – 9000

11 / 1 / 91

WILKINS
a ZURN company

Model 950XLT
Top Access Double Check Valve Assembly
SPECIFICATION SUBMITTAL SHEET



APPLICATION
Designed for installation on potable water lines to protect against both backsiphonage and backpressure of polluted water into the potable water supply. A tethered test cock cap is provided to protect against fouling caused by insects, dirt and debris. Assembly shall provide protection where a potential non-health hazard exists.

FEATURES
Sizes: ❑3/4" ❑ 1" ❑ 1 1/4" ❑ 1 1/2" ❑ 2"

Maximum working water pressure	175 PSI
Maximum working water temperature	180°F
Hydrostatic test pressure	350 PSI
End connections Threaded	ANSI B1.20.1

STANDARDS COMPLIANCE
(unless otherwise noted, applies to 3/4" thru 2" Horizontal)

- ASSE® Listed 1015 (Vertical flow-up:1 1/4" thru 2")
- IAPMO® Listed
- AWWA Compliant C510
- CSA® Certified (Vertical flow-up:1 1/2" & 2")
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California

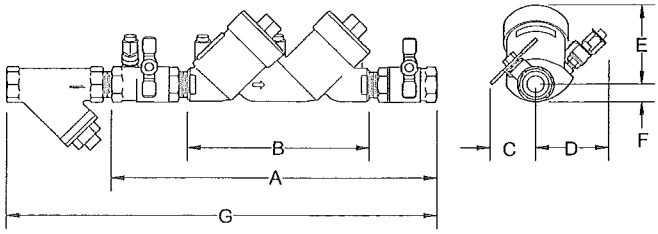
OPTIONS
(Suffixes can be combined)

- ❑ L - less ball valves
- ❑ FT - with "Fast Test" testcocks
- ❑ U - with union ball valves
- ❑ S - with bronze "Y" type strainer

MATERIALS

Main valve body	Cast Bronze ASTM B 584
Access covers	Cast Bronze ASTM B 584
Fasteners	Stainless Steel, 300 Series
Elastomers	Silicone (FDA approved) Buna Nitrile (FDA approved)
Polymers	Noryl™, NSF Listed
Springs	Stainless steel, 300 series
Test cock cover	Plastic

ACCESSORIES
- ❑ Repair kit (rubber only)
- ❑ Thermal expansion tank (Model WXTP)
- ❑ Bronze wye strainer
- ❑ Stainless steel ball valve handles
- ❑ QT-SET Quick Test Fitting Set

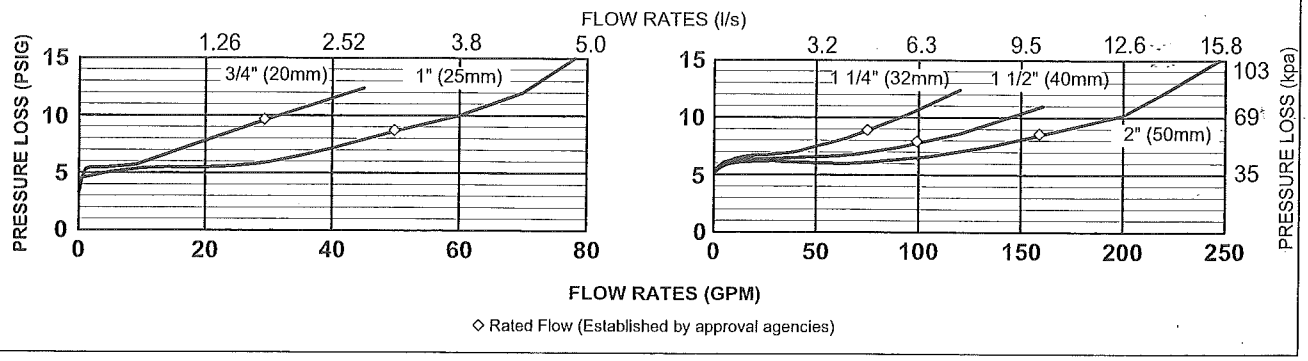


DIMENSIONS & WEIGHTS (do not include pkg.)

MODEL SIZE		DIMENSIONS (approximate)																WEIGHT			
		A		A UNION BALL		B LESS BALL		C		D		E		F		G		LESS BALL		WITH BALL	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg
3/4	20	13	330	14 5/16	364	8 3/4	222	2 3/8	60	2 5/16	59	3 5/16	84	3/4	19	17 5/8	448	4	1.8	6	2.7
1	25	14 3/4	375	15 1/2	394	8 3/4	222	2 1/2	64	2 5/16	59	3 5/16	84	3/4	19	19 3/4	502	8	3.6	12	5.4
1 1/4	32	19 5/8	499	21 5/8	549	13 3/4	349	4	102	3 5/8	92	4 3/8	111	1 5/16	33	24 3/4	629	16	7.3	22	10
1 1/2	40	20 5/16	516	22 5/16	567	13 3/4	349	5 3/8	137	3 5/8	92	4 3/8	111	1 5/16	33	25 15/16	659	16	7.3	22	10
2	50	21 3/8	543	23 1/4	591	13 3/4	349	5 13/16	148	3 5/8	92	4 3/8	111	1 5/16	33	28 5/16	719	17	7.7	29	13.2

FLOW CHARACTERISTICS

MODEL 950XLT 3/4", 1", 1 1/4", 1 1/2" & 2" (STANDARD & METRIC)

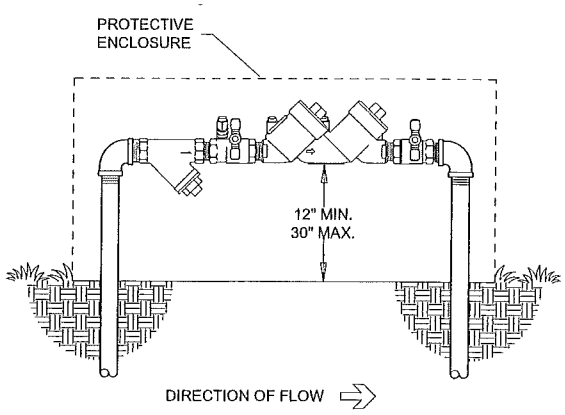


◇ Rated Flow (Established by approval agencies)

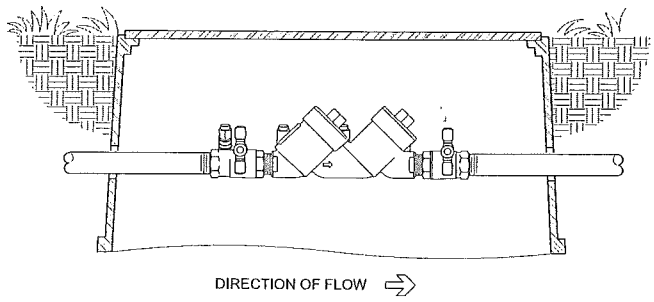
TYPICAL INSTALLATION

Local codes shall govern installation requirements. To be installed in accordance with the manufacturer's instructions and the latest edition of the Uniform Plumbing Code. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

Capacity thru Schedule 40 Pipe				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
1/8"	1	1	2	3
1/4"	2	2	3	5
3/8"	3	4	6	9
1/2"	5	7	9	14
3/4"	8	12	17	25
1"	13	20	27	40
1 1/4"	23	35	47	70
1 1/2"	32	48	63	95
2"	52	78	105	167



OUTDOOR INSTALLATION



PIT INSTALLATION

SPECIFICATIONS

The Double Check Type Backflow Preventer shall be ASSE Listed 1015, rated to 180°F and supplied with full port ball valves. The main body and access covers shall be bronze (ASTM B 584), the seat ring and all internal polymers shall be NSF® Listed Noryl™ and the seat disc elastomers shall be SILICONE. The first and second check shall be located at a 45° angle and accessible for maintenance from the top of the device, without removing the device from the line. Each check shall have separate access covers and testcocks shall be accessible from the top of the device. Testcocks shall be protected from debris by a tethered cap. The Double Check Type Backflow Preventer shall be a WILKINS Model 950XLT.

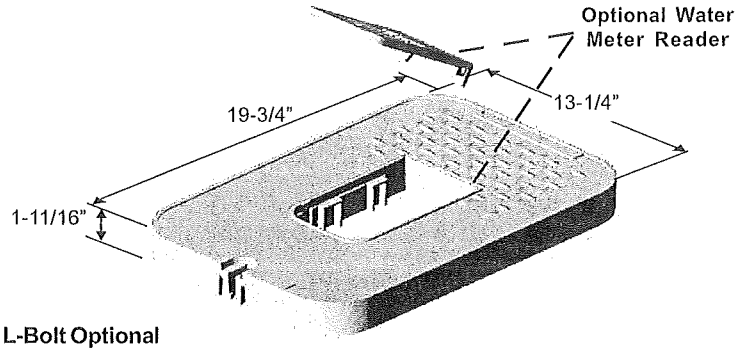
WILKINS OPERATION OF ZURN INDUSTRIES, 1747 Commerce Way, Paso Robles, CA 93446 Phone:805/238-7100 Fax:805/238-5766
IN CANADA: ZURN INDUSTRIES LIMITED, 3544 Nashua Dr., Mississauga, Ontario L4V 1L2 Phone:905/405-8272 Fax:905/405-1292
Product Support Help Line: 1-877-BACKFLOW (1-877-222-5356) • Website: http://www.zurn.com

CARSON INDUSTRIES LLC
1160 Nicole Court
Glendora, CA 91740
800-735-5566 • 909-592-6272
Fax: 909-592-7971
www.carsonind.com

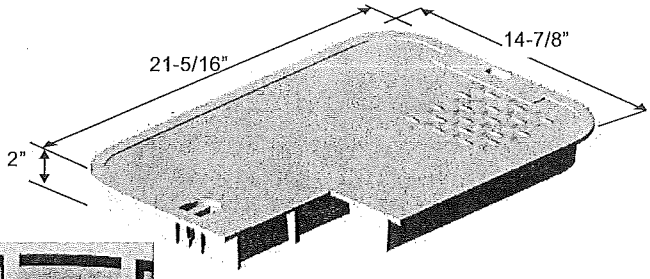
Specification Grade

1220

12" Jumbo

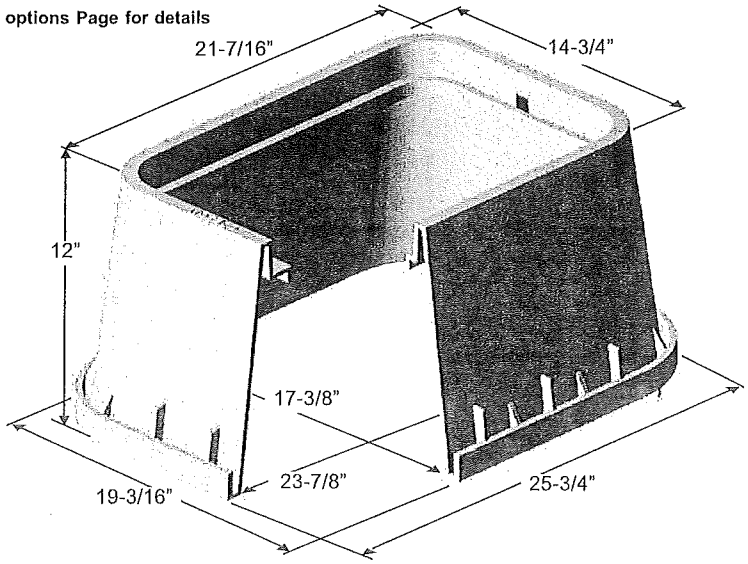


L-Bolt Optional
(See options Page for details)



Bolt Down Loc-Kit™
(Patent Pending)

See options Page for details



FLUSH COVER
Models:
1220-3

1220-5 With Plastic Reader

1220-6 With Cast Iron Reader

T-COVER
Models:
1220-4

L-Bolt Down Optional-Special Order)

BODY
Model:
1220-12

COLORS AVAILABLE: Green, Gray, Black, Tan or Violet/Lavender

Note: For use in non-vehicular traffic situations only. We do not recommend installation in concrete or asphalt. Weights and dimensions may vary slightly.

RAIN BIRD®

TECH SPECS

PEB and PESB Series Valves

Durable valves. Patented technology.

Pressure surges? Effluent water? Clogging debris? No problem. PEB and PESB Series valves offer long life and efficient, trouble-free performance—even under harsh conditions. Constructed of heavy-duty, glass-filled nylon, these valves resist clogging. And the PESB model features a patented scrubber to actively fight dirt, debris and particles.

Features

- Durable glass-filled nylon construction for long life and heavy-duty performance at 200 psi (13,80 bars) pressure.
- Stainless steel studs molded into the body. Bonnet can be attached and removed more easily and more often without damaging threads.
- One-piece solenoid design with captured plunger and spring for easy servicing. Prevents loss of parts during field service.
- External bleed does not allow debris to go through the solenoid ports when system is flushed.
- Internal bleed operates the valve without allowing water into the valve box; allows pressure regulator to be adjusted without turning on the valve at the controller first.
- Low flow operating capability (0.25 gpm; 0,06 m³/h; 0,02 l/s) for a wide range of applications. For flows below 3 gpm (0,75 m³/h; 0,21 l/s) or any Xerigation® application, install Rain Bird Y filter upstream.
- Slow closing to prevent water hammer and subsequent system damage.
- **PESB only:** Nylon scrubber scrapes its stainless steel screen clean to break down grit and plant material. Prevents debris build-up and clogging.

Options (order separately)

- Accommodate optional, field installed PRS-D pressure regulating module to ensure optimum sprinkler performance.
- Optional purple flow control handles for non-potable water applications
  PEB-NP-HAN1(1")
  PEB-NP-HAN2 (1½" and 2")
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10,35 bars).

Operating Range

- Pressure: 20 to 200 psi (1,38 to 13,80 Bars)
- Flow: 0.25 to 200 gpm (0,06 to 45,40 m³/h; 0,02 to 12,60 l/s)
- Flow with PRS-D: 5 to 200 gpm (1,14 to 45,40 m³/h; 0,32 to 12,60 l/s)
- Temperature: up to 150° F (66° C)

Electrical Specifications

- Power: 24 VAC 50/60 cycle solenoid
- Inrush current: 0.41 A (9.9 VA)
- Holding current: 0.28 A (6.72 VA)

Models

• 100PEB and 100PESB	1"	(26/34)
• 150PEB and 150PESB	1½"	(40/49)
• 200PEB and 200PESB	2"	(50/60)

BSP threads available, specify when ordering.

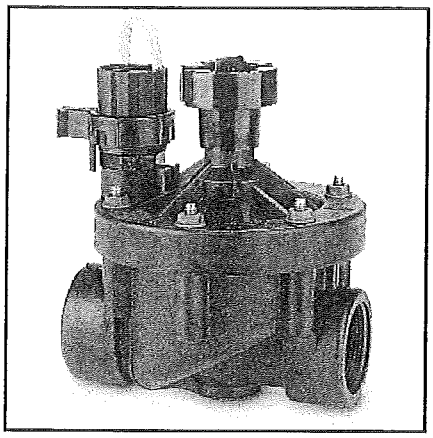
Pressure Loss (psi)

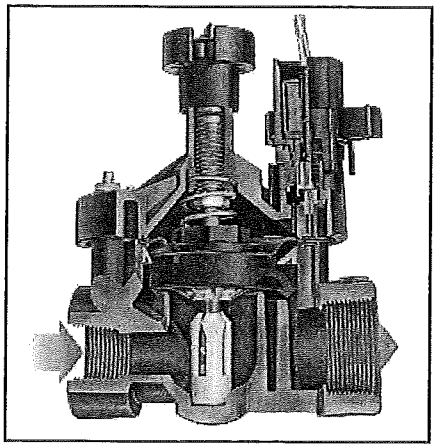
gpm	100 - 1"	150 - 1½"	200 - 2"
0.25	0.8	-	-
0.5	1.0	-	-
1	1.3	-	-
5	1.7	-	-
10	1.8	-	-
20	2.9	4.0	-
30	5.6	3.6	-
40	10.0	2.7	-
50	15.6	2.4	3.1
75	-	4.2	2.9
100	-	8.5	3.9
125	-	14.6	6.8
150	-	21.2	10.0
175	-	-	13.6
200	-	-	17.5

Pressure Loss (bars)

m³/h	l/s	100 - 1"	150 - 1½"	200 - 2"
0,06	0,02	0,05	-	-
1	0,28	0,11	-	-
2	0,56	0,12	-	-
3	0,83	0,15	-	-
4	1,11	0,18	-	-
5	1,39	0,24	0,27	-
6	1,67	0,32	0,26	-
7	1,94	0,41	0,24	-
8	2,22	0,54	0,21	-
9	2,50	0,68	0,19	-
10	2,78	0,84	0,18	-
12	3,33	-	0,18	0,21
14	3,89	-	0,22	0,21
16	4,44	-	0,26	0,20
22	6,11	-	0,55	0,26
28	7,78	-	0,98	0,46
34	9,45	-	1,46	0,69
40	11,11	-	-	0,95
45	12,50	-	-	1,18

Notes
1) Loss values are with flow control fully open.
2) PRS-D module recommended for use below bold line.
Recommendations
1) Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft./sec. (2,29 m/s) in order to reduce the effects of water hammer.
2) For flows below 5 gpm (1,14 m³/h; 0,32 l/s), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm.
3) For flows below 10 gpm (2,27 m³/h; 0,63 l/s) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position.





Dimensions

Size	Height	Length	Width
100	6½"(16,5 cm)	4" (10,2 cm)	4" (10,2 cm)
150	8" (20,3 cm)	6" (15,2 cm)	6" (15,2 cm)
200	8" (20,3 cm)	6" (15,2 cm)	6" (15,2 cm)

Note: The PRS-D option adds 2" (5,1 cm) to valve height.

How to Specify

100-PEB-PRS-D

Size	Model	Optional Feature
100: 1"	PEB	PRS-D: pressure
150: 1½"	PESB: scrubber	regulating
200: 2"	model	module

Note: Valve and PRS-D module must be ordered separately.

Specifications

The electric remote control valve shall be a normally closed 24 VAC 50/60 cycle solenoid actuated globe pattern design. The valve pressure rating shall not be less than 200 psi (13,80 bars). The valve shall have the following characteristics (circle one):

Flow rate: _____ gpm m^3/h l/s

Pressure loss not to exceed: _____ psi bars

The valve body and bonnet shall be constructed of heavy-duty glass-filled UV-resistant nylon and have stainless steel studs and flange nuts; diaphragm shall be of nylon reinforced nitrile rubber.

The valve shall have both internal and external manual open/close control (internal and external bleed) to manually open and close the valve without electrically energizing the solenoid. The valve's internal bleed shall prevent flooding of the valve box.

The valve shall house a fully-encapsulated, one-piece solenoid. The solenoid shall have a captured plunger with a removable retainer for easy servicing and a leverage handle for easy turning. This 24 VAC 50/60 Hz solenoid shall open with 19.6 volt minimum at 200 psi (13,80 bars). At 24 VAC, average inrush current shall not exceed 0.41 amps. Average holding current shall not exceed 0.23 amps.

The valve shall have a brass flow control stem for accurate manual regulation and/or shut-off of outlet flow. The valve must open or close in less than 1 minute at 200 psi (13,80 bars), and less than 30 seconds at 20 psi (1,38 bars).

The PESB valve shall have a self-cleaning stainless steel screen designed for use in dirty water applications.

The valve construction shall be such as to provide for all internal parts to be removable from the top of the valve without disturbing the valve installation.

Optional Feature Specification

PRS-D Pressure Regulating Module:
100PEB-PRS-D 100PESB-PRS-D
150PEB-PRS-D 150PESB-PRS-D
200PEB-PRS-D 200PESB-PRS-D

When so indicated on the design, the 1", 1½" and 2" electric remote control plastic valves shall have a pressure regulating module (PRS-D) capable of regulating outlet pressure between 15 and 100 psi (±3 psi) (1,04 and 6,90 bars (±0,21 bars)).

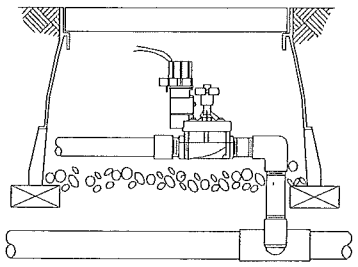
The PRS-D module shall have an adjusting screw for setting pressure and Schrader valve connection for monitoring pressure. The pressure shall be adjustable from the PRS-D when the valve is internally manually bled or electrically activated.

Non-Potable Flow Control Handle
PEB-NP-HAN1 - Fits 1"
PEB-NP-HAN2 - Fits 1½" and 2"

When so indicated on the design, the valve shall have a purple flow control handle to indicate to the user that non-potable water is being used. There shall be no difference between the black and purple handles except for the color.

The valve shall be as manufactured by Rain Bird Sprinkler Mfg. Corp., Glendora, California.

Plastic Electric Remote Control PEB or PESB Valve (with PRS-D)



Rain Bird Corporation
Contractor Division
970 West Sierra Madre Avenue, Azusa, CA 91702
Phone: (626) 963-9311 Fax: (626) 812-3411

Rain Bird Corporation
Commercial Division
6991 East Southpoint Road, Tucson, AZ 85706
Phone: (520) 741-6100 Fax: (520) 741-6522

Rain Bird International, Inc.
145 North Grand Avenue, Glendora, CA 91741
Phone: (626) 963-9311 Fax: (626) 963-4287

Rain Bird Technical Service
(800) 247-3782 (U.S. only)

www.rainbird.com

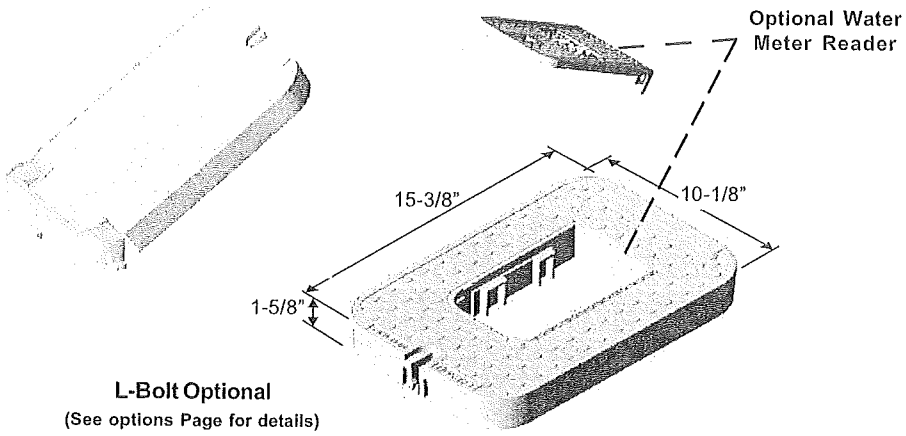
Rain Bird. Conserving More Than Water.

CARSON INDUSTRIES LLC
1160 Nicole Court
Glendora, CA 91740
800-735-5566 ● 909-592-6272
Fax: 909-592-7971
www.carsonind.com

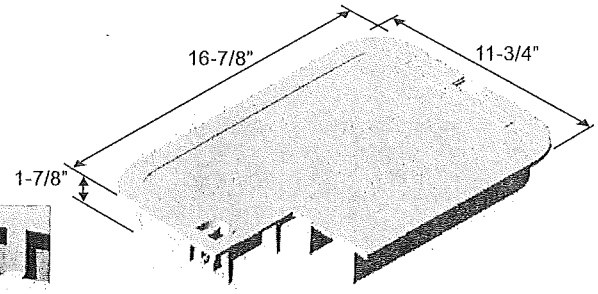
Specification Grade

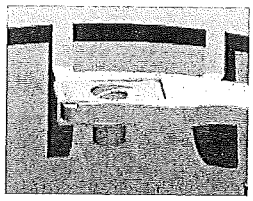
1419

12" Standard

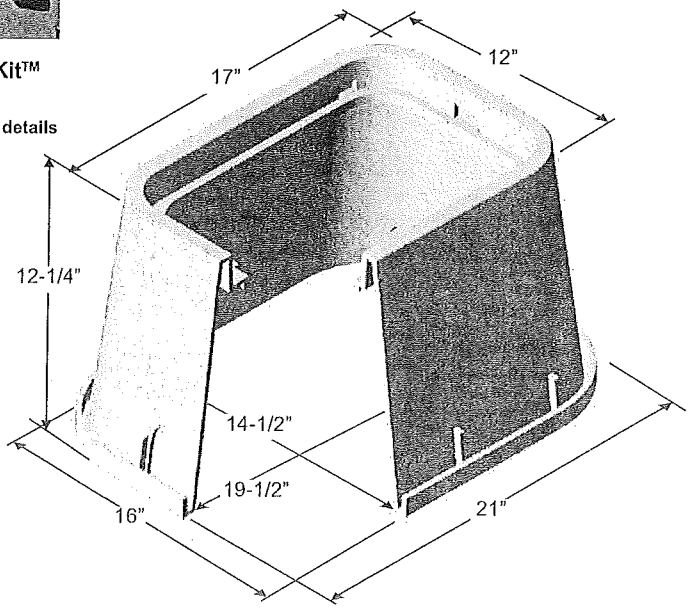


L-Bolt Optional
(See options Page for details)





Bolt Down Loc-Kit™
(Patent Pending)
See options Page for details



FLUSH COVER
Models:

1419-2	Hinged Cover
1419-3	Flush cover
1419-5	With plastic Reader
1419-6	With Cast Iron Reader

T-COVER
Models:
1419-4

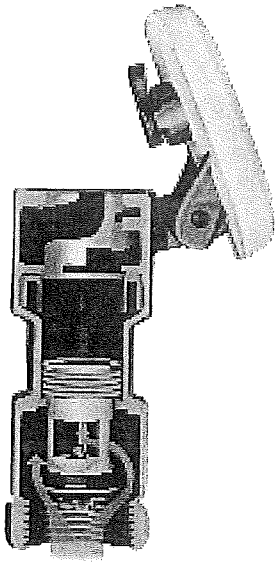
(L-Bolt Down Optional-Special Order)

BODY
Model:
1419-12

COLORS AVAILABLE: Green, Gray, Black, Tan or Violet / Lavender

Note: For use in non-vehicular traffic situations only. We do not recommend installation in concrete or asphalt. Weights and dimensions may vary slightly.

Quick-Coupling Valves



Quick-Coupling Valve Cutaway

Quick-Coupling Valves

Primary Application

Industrial-strength brass quick-coupling valves for convenient water access.

Features

- *Red brass construction for long life and rugged performance.*
- *Yellow thermoplastic cover for durability. Optional locking cover on models 33DLRC, 44LRC, and 5LRC (use 2049 key to unlock). Metal cover on model 7 only.*
- *One-piece body design (models 3RC, 5RC, and 7).*
- *Two-piece body design for easy servicing (models 33DRC, 44LRC, and 44RC).*
- *Strong corrosion-resistant stainless steel spring prevents leakage.*

Operating Range

- *Pressure: 5 to 125 psi (0,35 to 8,63 bar)*
- *Flow: 10 to 125 gpm (2,27 to 28,38 m³/h; 0,63 to 7,88 l/s)*

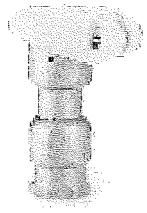
Dimensions

- *3RC Height: 4¼" (10,8 cm)*
- *33DRC Height: 4⅜" (11,1 cm)*
- *33DLRC Height: 4⅜" (11,1 cm)*
- *44RC Height: 6" (15,2 cm)*
- *44LRC Height: 6" (15,2 cm)*
- *5RC Height: 5½" (14,0 cm)*
- *5LRC Height: 5½" (14,0 cm)*
- *7 Height: 5¾" (14,6 cm)*

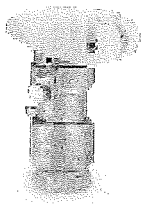
Models

- *3RC: ¾" (20/27) Rubber Cover, 1-Piece Body*
- *33DRC: ¾" (20/27) Double Track Key Lug, Rubber Cover, 2-Piece Body*
- *33DLRC: ¾" (20/27) Double Track Key Lug, Locking Rubber Cover, 2-Piece Body*
- *44RC: 1" (26/34) Rubber Cover, 2-Piece Body*
- *44LRC: 1" (26/34) Locking Rubber Cover, 2-Piece Body*
- *5RC: 1" (26/34) Rubber Cover, 1-Piece Body*
- *5LRC: 1" (26/34) Locking Rubber Cover, 1-Piece Body*
- *7: 1½" (40/49) Metal Cover, 1-Piece Body*
- *5RC-BSP: 1" (26/34) Rubber Cover, 1-Piece Body, BSP threaded*
- *5LRC-BSP: 1" (26/34) Locking Rubber Cover, 1-Piece Body, BSP threaded*

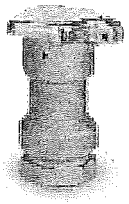
Note: *For non-US applications, it is necessary to specify NPT or BSP thread type.*



3 RC



33 DRC



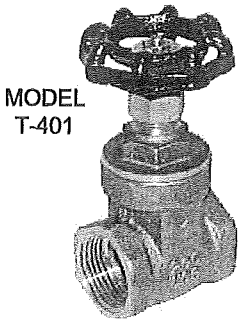
7

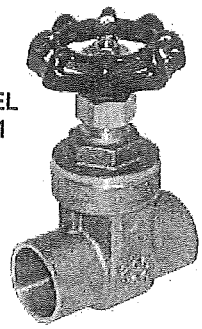
LEGEND VALVE

BRASS GATE VALVES

I.P.S. AND CxC

ISO-9002





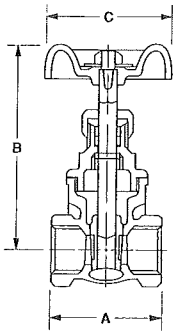
LEGEND MODELS T-401/S-401 gate valves are constructed of heavy duty cast brass. Body and bonnet are connected with a tight metal to metal leakproof seat. The T401/S-401 have a screwed bonnet, non-rising stem, solid wedge disc, and integral seats. Recommended for non-steam use in residential and commercial applications. May be repacked while in service under pressure.

The T-401/S-401 is the finest valve in its class on the market.

MATERIAL SPECIFICATION	
PART	MATERIAL
BODY	BRASS
BONNET	BRASS
STEM	BRASS
PACKING NUT	BRASS
DISC	BRASS
HAND WHEEL	CAST IRON
WHEEL NUT	BRASS
LOCK NUT	BRASS
GLAND	BRASS
PACKING	ASBESTOS FREE GRAPHITE

PRESSURE RATING
200 W.O.G.
NON-SHOCK to 200 F

DIMENSIONS IN INCHES

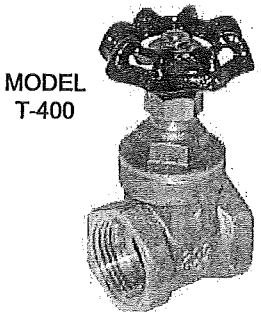


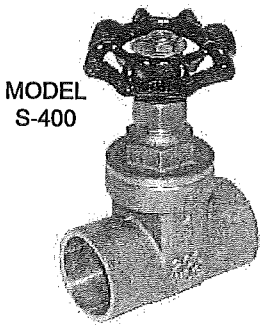
VALVE SIZE	A (I.P.S.)	A (CxC)	B	C
1/4"	1.62		3.27	2.13
3/8"	1.62		3.29	2.13
1/2"	1.69	1.77	3.52	2.13
3/4"	1.85	2.33	4.02	2.13
1"	2.13	2.76	4.57	2.40
1 1/4"	2.40	2.88	5.38	2.96
1 1/2"	2.44	3.19	6.03	2.96
2"	2.84	3.90	7.50	3.19
2 1/2"	3.51	4.53	9.25	4.14
3"	3.98	5.18	10.75	4.45
4"	4.57		12.60	5.20

BRASS GATE VALVES

COMPACT PATTERN
I.P.S. AND CxC

ISO-9002



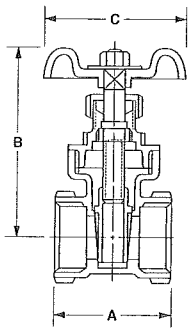


LEGEND MODELS T-400/S-400 gate valves are constructed of cast brass. Body and bonnet are connected with a tight metal to metal leakproof seat. They have a screwed bonnet, non-rising stem, solid wedge disc and integral seats. Recommended for non-steam use in residential and commercial applications. They are an excellent competitive alternative where port size is not critical.

MATERIAL SPECIFICATION	
PART	MATERIAL
BODY	BRASS
BONNET	BRASS
STEM	BRASS
PACKING NUT	BRASS
DISC	BRASS
HAND WHEEL	CAST IRON
WHEEL NUT	BRASS
LOCK NUT	BRASS
GLAND	BRASS
PACKING	ASBESTOS FREE GRAPHITE

PRESSURE RATING
200 W.O.G.
NON-SHOCK to 200 F

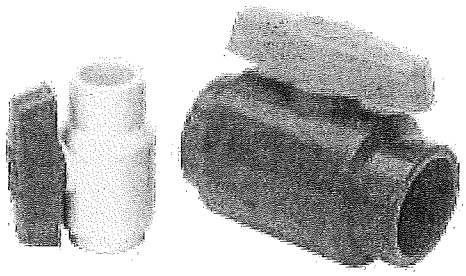
DIMENSIONS IN INCHES



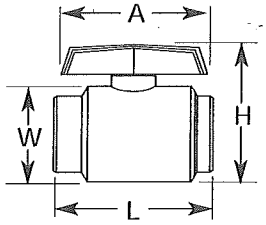
VALVE SIZE	A (I.P.S.)	A (CxC)	B	C
1/2"	1.54	1.62	2.72	2.13
3/4"	1.73	2.13	2.92	2.13
1"	1.85	2.48	3.31	2.13
1 1/4"	2.09	2.64	3.86	2.40
1 1/2"	2.25	2.96	4.57	2.96
2"	2.40	3.51	4.93	2.96
2 1/2"	2.80		6.03	3.19
3"	3.43		7.33	4.14
4"	3.96		8.67	4.41

LO-TORQUE™ BALL VALVES

MODELS				
White Schedule 40 Material			Grey Schedule 80 Material	
Size	Socket	Thread	Socket	Thread
1/2"	WLT-0500-S	WLT-0500-T	LT-0500-S	LT-0500-T
3/4"	WLT-0750-S	WLT-0750-T	LT-0750-S	LT-0750-T
1"	WLT-1000-S	WLT-1000-T	LT-1000-S	LT-1000-T
1 1/4"	WLT-1250-S	WLT-1250-T	LT-1250-S	LT-1250-T
1 1/2"	WLT-1500-S	WLT-1500-T	LT-1500-S	LT-1500-T
2"	WLT-2000-S	WLT-2000-T	LT-2000-S	LT-2000-T



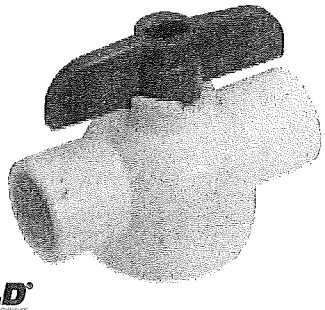
- Low torque required to operate unit manually.
- Precision molded micro-finish ball provides longer life.
- Ball seats are self-adjusting HMW-HDPE to compensate for wear.
- Patented "pre-loaded" stem seal for longer life of seal.
- Both styles made of material with HI-IMPACT PVC type II material, impact resistant ABS handle, and EPDM O'rings.
- Complies with all applicable ASTM & ANSI standards.
- 150 psi working pressure @ 73˚.
- Full port flow through design - Cv factor is same as equal length Sch 80 pipe.
- Note: FIPT "-T" models not IAPMO (UPC) listed.



DIMENSIONS				
Size	L	H	A	W
1/2"	3.22	2.57	3.01	1.60
3/4"	3.81	3.13	3.64	2.00
1"	4.38	3.56	4.23	2.33
1 1/4"	5.30	4.50	5.00	3.15
1 1/2"	5.30	4.50	5.00	3.15
2"	6.00	5.45	5.50	3.80

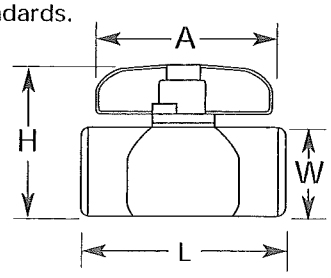
CPVC BALL VALVES

MODELS		
1/2"	CBV-0500-S	CTS Socket x CTS Socket
3/4"	CBV-0750-S	CTS Socket x CTS Socket
1"	CBV-1000-S	CTS Socket x CTS Socket
1 1/4"	CBV-1250-S	CTS Socket x CTS Socket
1 1/2"	CBV-1500-S	CTS Socket x CTS Socket
2"	CBV-2000-S	CTS Socket x CTS Socket



- EPDM stem O'ring.
- Full Port.
- Patented Cam-Lok design. With Acetal Copolymer ball.
- Durable ABS red handle (blue available also).
- Complies with all applicable ASTM & ANSI standards.
- 180 psi working pressure @ 73˚.
- Manufactured under Patent # 5,308,039.
- Made with FlowGuard Gold material.

FLOWGUARD GOLD

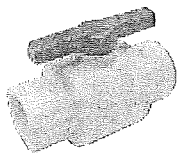


DIMENSIONS				
Size	A	L	H	W
1/2"	2.10	2.31	2.00	0.85
3/4"	2.65	3.10	2.38	1.10
1"	3.00	3.70	2.80	1.70
1 1/4"	3.50	4.00	4.00	2.75
1 1/2"	4.00	4.75	4.50	3.00
2"	5.00	5.25	5.50	4.00

LO-TORQUE™ CPVC BALL VALVE

MODELS		
1/2"	CLT-0500-S	CTS Socket x CTS Socket
3/4"	CLT-0750-S	CTS Socket x CTS Socket
1"	CLT-1000-S	CTS Socket x CTS Socket
1 1/4"	CLT-1250-S	CTS Socket x CTS Socket
1 1/2"	CLT-1500-S	CTS Socket x CTS Socket
2"	CLT-2000-S	CTS Socket x CTS Socket

Available August 2002!



RAIN BIRD

TECH SPECS

1800 Series Spray Heads

Industry's Leading Spray Head

For over 25 years, 1800 Series Spray Heads have provided unmatched durability, reliability, and performance.

In comparison tests, 1800 Series Spray Heads are 3 times as durable, 2 times as reliable, and #1 in performance-remember 3-2-1*.

Superior components and features make the 1800 the spray head of choice for a wide variety of applications.

Features

- Co-molded, pressure-activated, multi-functional wiper seal assures positive seal without excess "flow-by" which enables more heads to be installed on the same valve.
- Designed for use with all Rain Bird plastic spray head nozzles-U-series, MPR and VAN.
- Precision controlled flush at pop-down clears debris from unit, assuring positive stem retraction in all soil types.
- Strong stainless steel spring provides reliable stem retraction.
- Ratchet mechanism on all models allows easy nozzle pattern alignment without tools.
- Pre-installed 1800 Pop-Top™ flush plug blocks debris from entering after flushing. Allows for easy nozzle installation.
- Constructed of time-proven UV-resistant plastic and corrosion resistant stainless steel parts, assuring long product life.
- All sprinkler components are removable from the top without special tools, providing for quick and easy flushing and maintenance of the sprinkler.
- Side and bottom inlets featured on 1806 and 1812 models.
- Five-year trade warranty.

* *Based on tests conducted at Rain Bird's Product Research Center in Glendora, CA. Test results reflect a comparison with Rain Bird's principal competitors.*

Operating Range

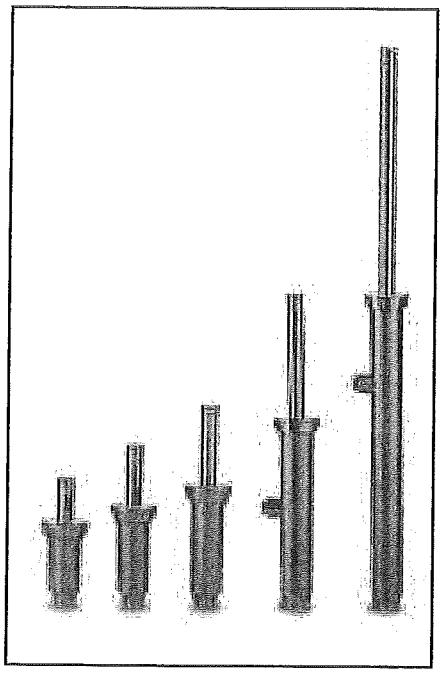
- Spacing: 3 to 20 feet (0,9 to 6,1 m)
- Pressure: 15 to 70 psi (1,0 to 4,8 bar)

Specifications

- Flow-by: 0 at 8 psi (0,6 bar) or greater; 0.50 gpm (0,11 m^3/h; 0,03 l/s) otherwise

Dimensions/Models

- ½" (15/21) NPT female threaded inlet
- Models and height:
  - 1802: 4" (10 cm) body height; 2" pop-up height (5 cm)
  - 1803: 4⅞" (12 cm) body height; 3" pop-up height (7,6 cm)
  - 1804: 6" (15 cm) body height; 4" pop-up height (10 cm)
  - 1806: 9⅜" (24 cm) body height; 6" pop-up height (15 cm)
  - 1812: 16" (40 cm) body height; 12" pop-up height (30 cm)
- Exposed surface diameter: 2¼" (5,7 cm)



How to Specify

1804-SAM-PRS

Model	Optional Feature	Optional Feature
1804	SAM: Seal-A-Matic™ check valve	PRS: In-stem pressure regulator

RAIN BIRD

1800 SAM Series

Ideal for use in areas with changing elevations, the 1800 SAM Series offers all 1800 Series features plus:

- Built-in Seal-A-Matic™ (SAM) check valve. Eliminates the need for under-the-head check valves. No parts to be installed at the site.
- Stronger retract spring accommodates elevation changes up to 14' (4, 2m). One of the strongest springs in the industry.
- Prevents drainage from spray heads at lower elevations. Stops water waste. Ends landscape damage due to flooding and/or erosion.
- Helps retain water in lateral pipes which reduces wear on system components by minimizing water hammer during start-up.
- Designed for use with all Rain Bird plastic spray head nozzles.
- "SAM" stamped on cap for easy identification and maintenance.
- Five-year trade warranty.

Operating Range

- Spacing: 3 to 20 feet (0,9 to 6,1 m)
- Pressure: 25 to 70 psi (1,7 to 4,8 bar)

Specifications

- SAM capability: holds up to 14 feet (4,2 m) of head; 6 psi (0,3 bar)
- Flow-by: 0 at 8 psi (0,6 bar) or greater; 0.50 gpm (0,11 m^3/h; 0,03 l/s) otherwise
- SAM operable only when installed by bottom inlet

Dimensions

- ½" (15/21) NPT female threaded inlets
- Body height: 1804 SAM - 6" (15 cm), 1806 SAM - 9⅜" (24 cm), 1812 SAM-16" (40 cm)
- Exposed surface diameter: 2¼" (5,7 cm)

Models

- 1804 SAM: 4" pop-up height (10 cm)
- 1806 SAM: 6" pop-up height (15 cm)
- 1812 SAM: 12" pop-up height (30 cm)

1800 PRS Series

Designed for areas with high and/or widely fluctuating water pressures, the 1800 PRS Series has all 1800 Series features plus:

- **PATENTED** PRS pressure regulator built into the stem. No parts to be installed at the site. Saves time and money.
- Maintains constant outlet pressure at 30 psi (2,1 bar). Spray heads and nozzles perform best at 30 psi. Ensures maximum spray head and nozzle performance, even with varying inlet pressures. Maintains constant pressure regardless of nozzle used.
- Restricts water loss by up to 70% if nozzle is removed or damaged. Saves water and money. Reduces possibility of accidents and property damage. Recommended for vandal-prone areas.
- Ensures consistent performance throughout zone if nozzle is removed or damaged. Keeps plant life covered by other spray heads properly irrigated.
- Ends misting and fogging caused by high pressure. Stops water waste. Ensures necessary watering occurs in high pressure or wind conditions.
- Designed for use with all Rain Bird plastic spray head nozzles.
- "PRS" stamped on cap for easy identification and maintenance.
- Five-year trade warranty.

Operating Range

- Spacing: 3 to 20 feet (0,9 to 6,1 m)
- Pressure: 15 to 70 psi (1 to 5 bar)

Specifications

- Regulates nozzle pressure to an average 30 psi (2,1 bar) with inlet pressures of up to 70 psi (4,8 bar)
- Flow-by: 0 at 8 psi (0,6 bar) or greater; 0.50 gpm (0,11 m^3/h; 0,03 l/s) otherwise
- Installation: side or bottom inlet
- Side inlet installation not recommended in freezing climates

Dimensions

- ½" (15/21) NPT female threaded inlets
- Body height: 1804 PRS - 6" (15 cm), 1806 PRS - 9⅜" (24 cm), 1812 PRS - 16" (40 cm)
- Exposed surface diameter: 2¼" (5,7 cm)

Models

- 1804 PRS: 4" pop-up height (10 cm)
- 1806 PRS: 6" pop-up height (15 cm)
- 1812 PRS: 12" pop-up height (30 cm)

1800 SAM-PRS Series

Meets the needs of all spray areas, regardless of changing elevation or water pressures. Incorporates all 1800 Series SAM and PRS features. "SAM-PRS" stamped on the cap for easy identification and maintenance.

Operating Range

- Spacing: 3 to 20 feet (0,9 to 6,1 m)
- Pressure: 25 to 70 psi (1,7 to 4,8 bar)

Specifications

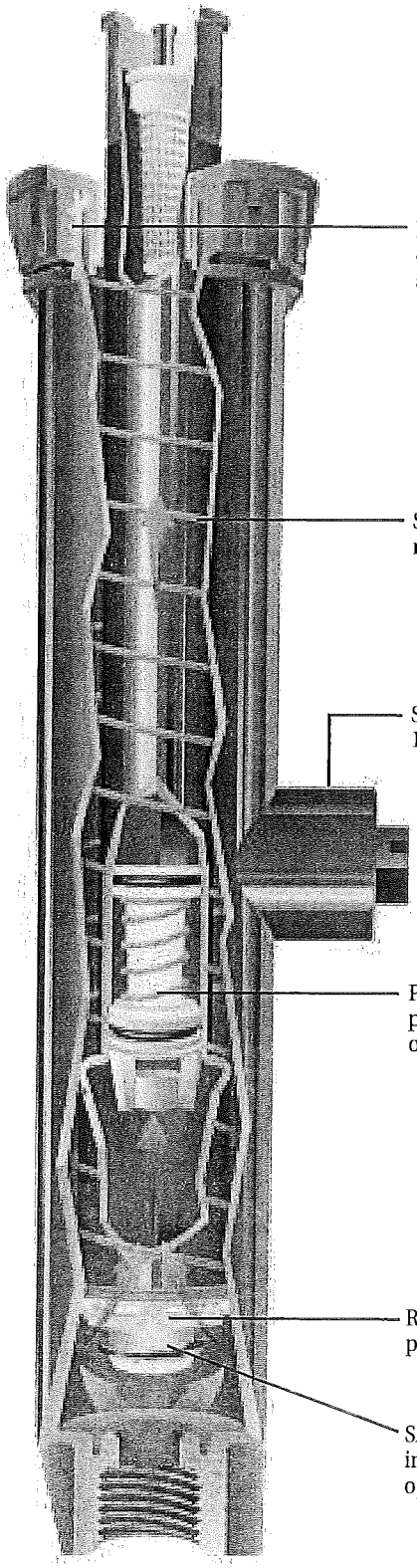
- SAM capability: holds up to 14 feet (4,2 m) of head; 6 psi (0,3 bar)
- Flow-by: 0 at 8 psi (0,6 bar) or greater; 0.50 gpm (0,11 m^3/h; 0,03 l/s) otherwise
- SAM operable only when installed by bottom inlet
- Regulates nozzle pressure to an average 30 psi (2,1 bar) with inlet pressures of up to 70 psi (4,8 bar)

Dimensions

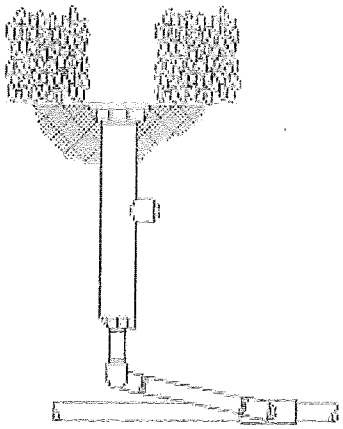
- ½" (15/21) NPT female threaded inlets
- Body height: 1804 SAM-PRS - 6" (15 cm), 1806 SAM-PRS - 9⅜" (24 cm), 1812 SAM-PRS - 16" (40 cm)
- Exposed diameter: 2¼" (5,7 cm)

Models

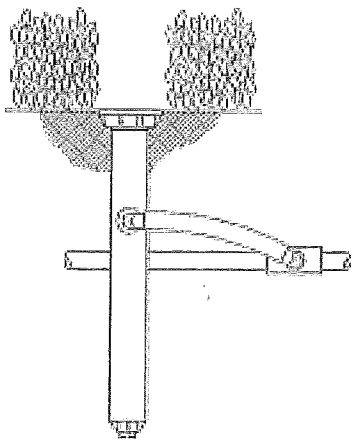
- ~~1804 SAM-PRS: 4" pop-up height (10 cm)~~
- 1806 SAM-PRS: 6" pop-up height (15 cm)
- ~~1812 SAM-PRS: 12" pop-up height (30 cm)~~



1806 with Swing Joint on Bottom Inlet



1812 with Swing Pipe on Side Inlet



Specifications

1802, 1803, 1804, 1806 and 1812 Pop-up Full or Part Circle Spray Sprinkler

The full or part circle pop-up sprinkler shall be capable of covering a _____ feet radius (m) at _____ pounds per square inch (bar) with a discharge rate of _____ gallons per minute (m^3/h; l/s). The overall pop-up height shall be _____ inches (cm).

The sprinkler body, stem, nozzle and screen shall be constructed of heavy-duty, ultra-violet resistant plastic. It shall have a heavy-duty stainless steel retract spring for positive pop-down and a ratcheting system for easy alignment of the pattern. The sprinkler shall have a soft elastomer pressure-activated co-molded wiper seal for cleaning debris from the pop-up stem as it retracts into the case to prevent the sprinkler from sticking up to minimize "flow-by."

The sprinkler shall have a matched precipitation rate (MPR) plastic or brass nozzle with an adjusting screw capable of regulating the radius and flow. The sprinkler shall be capable of housing protective, non-clogging filter screens or pressure compensating screens (PCS) under the nozzle. The screen shall be used in conjunction with the adjusting screw for regulating. The 6" (15 cm) and 12" (30 cm) models shall have both a side and a bottom ½" (15/21) (FNPT) inlet for ease of installation.

The sprinkler shall have a Pop-Top™ Flush Plug pre-installed. The plug shall prevent debris from clogging the sprinkler during installation and allow for the system to be flushed before nozzling. The plug shall be bright orange in color and constructed of polypropylene material.

1804 SAM, 1806 SAM and 1812 SAM Full or Part Circle Seal-A-Matic™ Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinklers shall also include a Seal-A-Matic (SAM) check valve to prevent low-head drainage of up to 14 feet of head. This feature shall require the use of the bottom inlet only. These units shall be identifiable from the top with "SAM" marking on the cap. The sealing device shall be an integral part of the pop-up stem, removable through the top of the sprinkler, and shall seal against the bottom case inlet. It shall create no more than 1 psi pressure drop at the maximum rated flow.

1804 PRS, 1806 PRS and 1812 PRS Full or Part Circle Pressure Regulating Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinkler shall also include a pressure regulating (PRS) device to prevent high pressure fogging to the nozzle stream. This regulating device shall be an integral part of the pop-up stem, removable through the top of the case. These units shall be identifiable from the top with "PRS" markings on the cap.

The device shall regulate the nozzle pressure to 30 psi for inlet pressures from 35 to 70 psi. Below 35 psi the pressure loss shall not exceed 6 psi.

1804 SAM-PRS, 1806 SAM-PRS and 1812 SAM-PRS Seal-A-Matic Pressure Regulating Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinkler shall also include a Seal-A-Matic (SAM) check valve and a pressure regulating (PRS) device. These units shall be identifiable from the top with "SAM-PRS" markings on the cap.

The check valve shall prevent low-head drainage of up to 14 feet of head. The pressure regulating device shall prevent high pressure fogging of the nozzle stream by regulating the nozzle pressure to 30 psi for inlet pressures from 35 to 70 psi. Below 35 psi the pressure loss shall not exceed 6 psi. These models shall utilize the bottom inlet only.

The sprinkler shall be as manufactured by Rain Bird Corporation, Glendora, California.

Rain Bird Corporation
Contractor Division
970 West Sierra Madre Avenue, Azusa, CA 91702
Phone: (626) 963-9311 Fax: (626) 812-3411

Rain Bird Corporation
Commercial Division
6991 East Southpoint Road, Tucson, AZ 85706
Phone: (520) 741-6100 Fax: (520) 741-6522

Rain Bird International, Inc.
145 North Grand Avenue, Glendora, CA 91741
Phone: (626) 963-9311 Fax: (626) 963-4287

Rain Bird Technical Service
(800) 247-3782 (U.S. only)

www.rainbird.com

Rain Bird. Conserving More Than Water.

RAIN BIRD®

TECH SPECS

Matched Precipitation Rate (MPR) Nozzles

Primary Application

Matched Precipitation Rate (MPR) nozzles simplify the design process by allowing sprinklers with various arcs and radii to be mixed on the same circuit. Fit all Rain Bird spray heads and shrub adapters.

Features

- Matched precipitation rates across sets and across patterns in new 5 Series, 8 Series, 10 Series, 12 Series, and 15 Series for even water distribution and design flexibility.
- New 5 Series nozzles meet small-area shrub or turf requirements.
- New and improved 8 Series nozzles now have a lower water flow which allows more spray heads per zone.
- 1800 Series white filter (.035" x .045") screens (shipped with nozzles) maintain precise radius adjustment and prevent clogging. (New and improved 5 and 8 Series nozzles are shipped with blue fine-mesh (.02" x .02") filter screens.)
- Stainless steel adjustment screw to adjust flow and radius.

Operating Range

- Spacing: 5 to 15 feet (1,5 to 4,5 m)
- Pressure: 15 to 30 psi (1 to 2,1 Bars)
- Optimum pressure: 30 psi (2,1 Bars)

Specifications

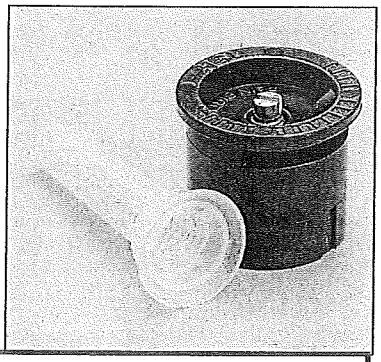
5, 8, 10, 12 and 15 Series MPR Nozzles

The nozzles shall have precipitation rates matched across sets and across patterns. The nozzle shall be capable of covering a ___ feet radius (FT. RAD)/(meter) at ___ pounds per square inch (psi)/(bars) with a discharge rate of ___ gallons per minute (GPM)/(m3/h,l/s).

The plastic MPR nozzle shall be constructed of UV resistant plastic. The radius adjustment screw shall be constructed of stainless steel.

The nozzle shall accept the non-clogging 1800 Series filter screens to allow for radius adjustment and the MPR Plastic Nozzles shall also accept the pressure compensating screens (PCS Series).

The Plastic MPR nozzles shall be manufactured by Rain Bird Sprinkler Mfg. Corp., Glendora, California.



Models

- 5 Series **New**
- 5 Series: bubbler nozzles
- 8 Series **Improved**
- 10 Series
- 12 Series
- 15 Series
- 15 Strip Series
- 16 Series: stream spray
- 22 Series: standard stream spray

5 Series MPR - New!

Nozzle	Pressure psi	Radius ft.	Flow GPM	■ Precip. in/h	▲ Precip. in/h
	5° Trajectory				
5F	15	2	0.09	2.07	2.39
	20	3	0.19	2.01	2.32
	25	4	0.27	1.62	1.87
	30	5	0.41	1.58	1.83
5H	15	2	0.04	2.07	2.39
	20	3	0.09	2.01	2.32
	25	4	0.13	1.62	1.87
	30	5	0.20	1.58	1.83
5T	15	2	0.03	2.07	2.39
	20	3	0.06	2.01	2.32
	25	4	0.09	1.62	1.87
	30	5	0.13	1.58	1.83
5Q	15	2	0.02	2.07	2.39
	20	3	0.05	2.01	2.32
	25	4	0.07	1.62	1.87
	30	5	0.10	1.58	1.83

METRIC

Nozzle	Pressure Bars	Radius m	Flow m³/h	■ Precip. mm/h	▲ Precip. mm/h
	5° Trajectory				
5F	1,0	0,6	0,02	52	60
	1,5	1,0	0,05	47	55
	2,0	1,4	0,08	41	48
	2,1	1,5	0,09	40	46
5H	1,0	0,6	0,01	52	60
	1,5	1,0	0,02	47	55
	2,0	1,4	0,04	41	48
	2,1	1,5	0,05	40	46
5T	1,0	0,6	0,01	52	60
	1,5	1,0	0,02	47	55
	2,0	1,4	0,03	41	48
	2,1	1,5	0,03	40	46
5Q	1,0	0,6	0,01	52	60
	1,5	1,0	0,01	47	55
	2,0	1,4	0,02	41	48
	2,1	1,5	0,02	40	46

How to Specify/Order:

1804-SAM-15H-PCS-060

- **Model**
- **Optional Feature**
- **Nozzle Series Pattern**
- **Optional Performance Screen**

This specifies an 1800 Series sprayhead with 4" (10 cm) pop-up height; Seal-A-Matic™ check valve; 15 Series nozzle providing 180° coverage and pressure compensating screen to reduce radius to 5' (1,5 m) at 30 psi (2,1 bars) and bring flow down to .6 GPM (0,14m³/h, 0,04 l/s).

■ *Square spacing based on 50% diameter of throw.*

▲ *Triangular spacing based on 50% diameter of throw.*

NOTE: Specify sprinkler body and nozzles separately. Refer to Price List for shipping quantities.

NOTE: Radius reduction over 25% of the normal throw of the nozzle is not recommended.

8 Series MPR - New and Improved!

10° Trajectory

Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip. in/h ■	Precip. in/h ▲
8F	15	5	0.54	2.07	2.39
	20	6	0.75	2.01	2.32
	25	7	0.82	1.62	1.87
	30	8	1.05	1.58	1.83
8H	15	5	0.27	2.07	2.39
	20	6	0.38	2.01	2.32
	25	7	0.41	1.62	1.87
	30	8	0.52	1.58	1.83
8T	15	5	0.18	2.07	2.39
	20	6	0.25	2.01	2.32
	25	7	0.27	1.62	1.87
	30	8	0.35	1.58	1.83
8Q	15	5	0.13	2.07	2.39
	20	6	0.19	2.01	2.32
	25	7	0.21	1.62	1.87
	30	8	0.26	1.58	1.83

METRIC

10° Trajectory

Nozzle	Pressure Bars	Radius m	Flow m³/h	Flow l/s	Precip. mm/h ■	Precip. mm/h ▲
8F	1,0	1,5	0,12	0,03	52	60
	1,5	1,9	0,16	0,05	47	55
	2,0	2,3	0,22	0,06	41	48
	2,1	2,4	0,23	0,06	40	46
8H	1,0	1,5	0,06	0,02	52	60
	1,5	1,9	0,09	0,02	47	55
	2,0	2,3	0,11	0,03	41	48
	2,1	2,4	0,12	0,03	40	46
8T	1,0	1,5	0,04	0,01	52	60
	1,5	1,9	0,06	0,02	47	55
	2,0	2,3	0,07	0,02	41	48
	2,1	2,4	0,08	0,02	40	46
8Q	1,0	1,5	0,03	0,01	52	60
	1,5	1,9	0,04	0,01	47	55
	2,0	2,3	0,05	0,02	41	48
	2,1	2,4	0,06	0,02	40	46

10 Series MPR

15° Trajectory

Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip. in/h ■	Precip. in/h ▲
10F	15	7	1.16	2.28	2.63
	20	8	1.30	1.96	2.26
	25	9	1.44	1.71	1.98
	30	10	1.58	1.52	1.75
10H	15	7	0.58	2.28	2.63
	20	8	0.65	1.96	2.26
	25	9	0.72	1.71	1.98
	30	10	0.79	1.52	1.75
10T	15	7	0.39	2.28	2.63
	20	8	0.43	1.96	2.26
	25	9	0.48	1.71	1.98
	30	10	0.53	1.52	1.75
10Q	15	7	0.29	2.28	2.63
	20	8	0.33	1.96	2.26
	25	9	0.36	1.71	1.98
	30	10	0.39	1.52	1.75

METRIC

15° Trajectory

Nozzle	Pressure Bars	Radius m	Flow m³/h	Flow l/s	Precip. mm/h ■	Precip. mm/h ▲
10F	1,0	2,1	0,26	0,07	58	67
	1,5	2,4	0,29	0,08	50	58
	2,0	3,0	0,35	0,10	39	45
	2,1	3,1	0,36	0,10	37	43
10H	1,0	2,1	0,13	0,04	58	67
	1,5	2,4	0,14	0,04	50	58
	2,0	3,0	0,18	0,05	39	45
	2,1	3,1	0,18	0,05	37	43
10T	1,0	2,1	0,09	0,03	58	67
	1,5	2,4	0,10	0,03	50	58
	2,0	3,0	0,12	0,03	39	45
	2,1	3,1	0,12	0,03	37	43
10Q	1,0	2,1	0,06	0,02	58	67
	1,5	2,4	0,07	0,02	50	58
	2,0	3,0	0,09	0,03	39	45
	2,1	3,1	0,09	0,03	37	43

12 Series MPR

30° Trajectory

Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip. in/h ■	Precip. in/h ▲
12F	15	9	1.80	2.14	2.47
	20	10	2.10	2.02	2.34
	25	11	2.40	1.91	2.21
	30	12	2.60	1.74	2.01
12TQ	15	9	1.35	2.14	2.47
	20	10	1.58	2.02	2.34
	25	11	1.80	1.91	2.21
	30	12	1.95	1.74	2.01
12TT	15	9	1.20	2.14	2.47
	20	10	1.40	2.02	2.34
	25	11	1.60	1.91	2.71
	30	12	1.74	1.74	2.01
12H	15	9	0.90	2.14	2.47
	20	10	1.05	2.02	2.34
	25	11	1.20	1.91	2.21
	30	12	1.30	1.74	2.01
12T	15	9	0.60	2.14	2.47
	20	10	0.70	2.02	2.34
	25	11	0.80	1.91	2.21
	30	12	0.87	1.74	2.01
12Q	15	9	0.45	2.14	2.47
	20	10	0.53	2.02	2.34
	25	11	0.60	1.91	2.21
	30	12	0.65	1.74	2.01

METRIC

30° Trajectory

Nozzle	Pressure Bars	Radius m	Flow m³/h	Flow l/s	Precip. mm/h ■	Precip. mm/h ▲
12F	1,0	2,7	0,40	0,11	55	63
	1,5	3,2	0,48	0,14	47	54
	2,0	3,6	0,59	0,16	46	53
	2,1	3,7	0,60	0,16	44	51
12TQ	1,0	2,7	0,30	0,09	55	63
	1,5	3,2	0,36	0,10	47	54
	2,0	3,6	0,45	0,12	46	53
	2,1	3,7	0,45	0,12	44	51
12TT	1,0	2,7	0,26	0,08	55	63
	1,5	3,2	0,32	0,09	47	54
	2,0	3,6	0,40	0,11	46	53
	2,1	3,7	0,40	0,11	44	51
12H	1,0	2,7	0,20	0,06	55	63
	1,5	3,2	0,24	0,07	47	54
	2,0	3,6	0,30	0,08	46	53
	2,1	3,7	0,30	0,08	44	51
12T	1,0	2,7	0,13	0,04	55	63
	1,5	3,2	0,16	0,05	47	54
	2,0	3,6	0,20	0,05	46	53
	2,1	3,7	0,20	0,05	44	51
12Q	1,0	2,7	0,10	0,03	55	63
	1,5	3,2	0,12	0,03	47	54
	2,0	3,6	0,15	0,04	46	53
	2,1	3,7	0,15	0,04	44	51

15 Series MPR

30° Trajectory

Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip. in/h ■	Precip. in/h ▲
15F	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
15TQ	15	11	1.95	2.07	2.39
	20	12	2.25	2.01	2.32
	25	14	2.48	1.62	1.87
	30	15	2.78	1.58	1.83
15TT	15	11	1.74	2.07	2.39
	20	12	2.01	2.01	2.32
	25	14	2.21	1.62	1.87
	30	15	2.48	1.58	1.83
15H	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
15T	15	11	0.87	2.07	2.39
	20	12	1.00	2.01	2.32
	25	14	1.10	1.62	1.87
	30	15	1.23	1.58	1.83
15Q	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83

METRIC

30° Trajectory

Nozzle	Pressure Bars	Radius m	Flow m³/h	Flow l/s	Precip. mm/h ■	Precip. mm/h ▲
15F	1,0	3,4	0,60	0,16	52	60
	1,5	3,9	0,72	0,19	47	55
	2,0	4,5	0,84	0,23	41	48
	2,1	4,6	0,84	0,23	40	46
15TQ	1,0	3,4	0,45	0,12	52	60
	1,5	3,9	0,54	0,15	47	55
	2,0	4,5	0,63	0,17	41	48
	2,1	4,6	0,63	0,18	40	46
15TT	1,0	3,4	0,40	0,11	52	60
	1,5	3,9	0,48	0,13	47	55
	2,0	4,5	0,55	0,15	41	48
	2,1	4,6	0,56	0,16	40	46
15H	1,0	3,4	0,30	0,08	52	60
	1,5	3,9	0,36	0,10	47	55
	2,0	4,5	0,42	0,11	41	48
	2,1	4,6	0,42	0,12	40	46
15T	1,0	3,4	0,20	0,05	52	60
	1,5	3,9	0,24	0,07	47	55
	2,0	4,5	0,28	0,08	41	48
	2,1	4,6	0,28	0,08	40	46
15Q	1,0	3,4	0,15	0,04	52	60
	1,5	3,9	0,18	0,05	47	55
	2,0	4,5	0,21	0,06	41	48
	2,1	4,6	0,21	0,06	40	46

Note: All MPR nozzles tested on 4" pop-ups.
Performance data taken in zero wind conditions.
Note: Radius reduction over 25% of the normal throw of the nozzle is not recommended.

■ *Square spacing based on 50% diameter of throw.*
▲ *Triangular spacing based on 50% diameter of throw.*

15 Strip Series

30° Trajectory

Nozzle	Pressure psi	W x L ft.	Flow GPM
15SQ	15	18 x 18	2.68
	20	19 x 19	3.06
	25	21 x 21	3.42
	30	23 x 23	3.73
15EST	15	4 x 13	0.45
	20	4 x 14	0.50
	25	4 x 14	0.56
	30	4 x 15	0.61
15CST	15	4 x 25	0.89
	20	4 x 28	1.00
	25	4 x 28	1.11
	30	4 x 30	1.21
15SST	15	4 x 26	0.89
	20	4 x 28	1.00
	25	4 x 28	1.11
	30	4 x 30	1.21
9SST	15	9 x 15	1.34
	20	9 x 16	1.47
	25	9 x 18	1.60
	30	9 x 18	1.73

METRIC

30° Trajectory

Nozzle	Pressure Bars	Radius m	Flow m³/h	Flow l/s
15SQ	1,0	5,5 x 5,5	0,61	0,17
	1,5	5,8 x 5,8	0,69	0,19
	2,0	6,4 x 6,4	0,78	0,22
	2,1	7,0 x 7,0	0,85	0,23
15EST	1,0	1,2 x 4,0	0,10	0,03
	1,5	1,2 x 4,3	0,11	0,03
	2,0	1,2 x 4,3	0,13	0,04
	2,1	1,2 x 4,6	0,14	0,04
15CST	1,0	1,2 x 7,9	0,20	0,06
	1,5	1,2 x 8,5	0,23	0,06
	2,0	1,2 x 8,5	0,25	0,07
	2,1	1,2 x 9,2	0,27	0,08
15SST	1,0	1,2 x 7,9	0,20	0,06
	1,5	1,2 x 8,5	0,23	0,06
	2,0	1,2 x 8,5	0,25	0,07
	2,1	1,2 x 9,2	0,27	0,08
9SST	1,0	2,7 x 4,6	0,30	0,08
	1,5	2,7 x 4,9	0,33	0,09
	2,0	2,7 x 5,5	0,36	0,10
	2,1	2,7 x 5,5	0,39	0,11

16 Series MPR

15° Trajectory

Nozzle	Pressure psi	Radius ft.	Flow GPM
16F-SLA	15	13	2.37
	20	14	2.66
	25	15	2.96
	30	16	3.22
16H-SLA	15	13	1.18
	20	14	1.33
	25	15	1.48
	30	16	1.61
16Q-SLA	15	13	0.59
	20	14	0.67
	25	15	0.74
	30	20	0.81

METRIC

15° Trajectory

Nozzle	Pressure Bars	Radius m	Flow m³/h	Flow l/s
16F-SLA	1,0	4,0	0,54	0,15
	1,5	4,3	0,60	0,17
	2,0	4,6	0,67	0,19
	2,1	4,9	0,73	0,20
16H-SLA	1,0	4,0	0,27	0,07
	1,5	4,3	0,30	0,08
	2,0	4,6	0,34	0,09
	2,1	4,9	0,37	0,10
16Q-SLA	1,0	4,0	0,13	0,04
	1,5	4,3	0,15	0,04
	2,0	4,6	0,17	0,05
	2,1	4,9	0,18	0,05

22 Series MPR

35° Trajectory

Nozzle	Pressure psi	Radius ft.	Flow GPM
22F-SS	15	17	2.37
	20	18	2.66
	25	19	2.96
	30	20	3.22
22H-SS	15	17	1.18
	20	18	1.33
	25	19	1.48
	30	20	1.61
22Q-SS	15	17	0.59
	20	18	0.67
	25	19	0.74
	30	20	0.81

METRIC

35° Trajectory

Nozzle	Pressure Bars	Radius m	Flow m³/h	Flow l/s
22F-SS	1,0	5,2	0,54	0,15
	1,5	5,5	0,60	0,17
	2,0	5,8	0,67	0,19
	2,1	6,1	0,73	0,20
22H-SS	1,0	5,2	0,27	0,07
	1,5	5,5	0,30	0,08
	2,0	5,8	0,34	0,09
	2,1	6,1	0,37	0,10
22Q-SS	1,0	5,2	0,13	0,04
	1,5	5,5	0,15	0,04
	2,0	5,8	0,17	0,05
	2,1	6,1	0,18	0,05

Note: 16 Series and 22 Series recommended for ground cover or shrub areas only.

5 Series MPR Stream Bubbler Nozzles

0° Trajectory

Nozzle	Pressure psi	Radius ft.	Flow GPM
5F-B	15	5	1.50
	20	5	1.50
	25	5	1.50
	30	5	1.50
5H-B	15	5	1.00
	20	5	1.00
	25	5	1.00
	30	5	1.00
5Q-B	15	5	0.50
	20	5	0.50
	25	5	0.50
	30	5	0.50
5CST-B	15	5	0.50
	20	5	0.50
	25	5	0.50
	30	5	0.50

METRIC

0° Trajectory

Nozzle	Pressure Bars	Radius m	Flow m³/h	Flow l/s
5F-B	1,0	1,5	0,35	0,09
	1,5	1,5	0,35	0,09
	2,0	1,5	0,35	0,09
	2,1	1,5	0,35	0,09
5H-B	1,0	1,5	0,23	0,06
	1,5	1,5	0,23	0,06
	2,0	1,5	0,23	0,06
	2,1	1,5	0,23	0,06
5Q-B	1,0	1,5	0,12	0,03
	1,5	1,5	0,12	0,03
	2,0	1,5	0,12	0,03
	2,1	1,5	0,12	0,03
5CST-B	1,0	1,5	0,12	0,03
	1,5	1,5	0,12	0,03
	2,0	1,5	0,12	0,03
	2,1	1,5	0,12	0,03

Note: Indicates adjusted radius @ psi shown. Note GPM @ adjusted radius of 5'.

STRIDER construction co., inc.

4721 Northwest Drive
Bellingham, WA 98226
(360) 380-1234
(360) 380-3456 (FAX)

LETTER OF TRANSMITTAL

To:	Andrew Vining	**Date:**	July 24, 2013
Company:	Farrallon Consulting	**Project Name:**	Schoolyard Excavation Supplement
Address:	975 5th Avenue Northwest	**SCCI Project #:**	13SS
	Issaquah, WA, WA 98027	**PW #:**	
		Federal Aid #:	

ITEM:

☒ Attached ☐ Under separate cover via: _____

No. of Copies	Document Description
1	Irrigation 02810 - Revision, Sprinkler Head

TRANSMITTED BY:

☐ Mail ☐ Hand Delivery ☒ E-mail ☐ Faxed _____ pages to fax no.: ( ) -
☐ Overnight Mail ☐ Courier ☐ Original to follow

TRANSMITTED FOR:

☐ For your information ☒ Review and Approve
☐ For your use ☐ Revise and resubmit
☐ As requested ☐ Other: _____

REMARKS:

Copies to: file

Signed:

Kyle Gebhardt, PE

P&G LANDSCAPING, INC.
15912 73rd Ave. SE #B
Snohomish, WA 98296

PGLAN**200NO

(425) 485-6091 (360) 668-7344
FAX (425) 485-7999

LETTER OF TRANSMITTAL

Date: 7/24/13	Job #: 1305
Attention: Kyle Gebhardt	
Regarding: 2013 Skykomish Schoolyard	

TO: Strider Construction

4721 Northwest Drive

Bellingham, WA 98226

WE ARE SENDING YOU _ Attached _ Under separate cover via_____the following items:

QUANTITY	DESCRIPTION
1	**Revision to Irrigation Submittal - New Sprinkler heads**

REMARKS

Due to the irrigation system redesign, a different sprinkler head is required for optimum coverage. We will use the Hunter PGP spray head in place of the originally submitted Rain Bird 1800 Series spray head.

Strider Project #13SS
02810 - Irrigation Submittal
Irrigation system School Yard (Drawing #C-218)
The data submitted conforms to the contract documents without deviation.

COPY TO:_____ SIGNED:_____

PGP®

Application: **Residential**
Radius: **22' to 52'**
Flow Rate: **0.5 to 14.1 GPM**
Inlet Size: **¾" NPT**

FEATURES

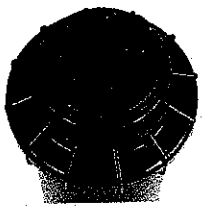
- Model: 4"
- Arc setting: 40 to 360 degrees
- Factory installed rubber cover
- Through-the-top arc adjustment
- Quick check arc mechanism
- Water lubricated gear-drive
- Nozzle choices: 27 total
- Nozzle racks: Red, Blue, Grey Low Angle
- Warranty period: 2 years

OPERATING SPECIFICATIONS

- Radius: 22' to 52'
- Flow rate: 0.5 to 14.1 GPM
- Recommended pressure range: 25 to 70 PSI
- Operating pressure range: 20 to 100 PSI
- Precipitation rates: 0.4 in/hr approx.
- Nozzle trajectory: Std = 25 degrees, Low angle = 13 degrees

PGP-ADJ
Overall height: 7⅜"
Pop-up height: 4"
Exposed diameter: 1¾"
Inlet size: ¾" female NPT

PGP-ATR
Advanced Technology Replacement for impact rotors



PGP-ADJ
Easy arc and radius adjustment

PGP GRAY LOW ANGLE NOZZLE PERFORMANCE DATA

Nozzle	Pressure (PSI)	Radius (FT.)	Flow (GPM)	Precip in/hr ■	Precip in/hr ▲
4LA ● Gray	30	22	1.4	0.56	0.64
	40	24	1.7	0.57	0.66
	50	**26**	**1.8**	**0.51**	**0.59**
	60	28	2.0	0.49	0.57
5LA ● Gray	30	25	1.6	0.49	0.57
	40	27	1.9	0.50	0.58
	50	**28**	**2.1**	**0.52**	**0.60**
	60	30	2.3	0.49	0.57
6LA ● Gray	30	27	2.1	0.55	0.64
	40	30	2.5	0.53	0.62
	50	**33**	**2.8**	**0.49**	**0.57**
	60	35	3.0	0.47	0.54
7LA ● Gray	30	29	2.8	0.64	0.74
	40	32	3.1	0.58	0.67
	50	**35**	**3.5**	**0.55**	**0.64**
	60	37	3.8	0.53	0.62
8LA ● Gray	30	31	3.4	0.68	0.79
	40	34	3.9	0.65	0.75
	50	**37**	**4.4**	**0.62**	**0.71**
	60	38	4.7	0.63	0.72
9LA ● Gray	30	33	4.3	0.76	0.88
	40	37	5.0	0.70	0.81
	50	**40**	**5.6**	**0.67**	**0.78**
	60	42	6.1	0.67	0.77
10LA● Gray	40	38	6.5	0.87	1.00
	50	40	7.3	0.88	1.01
	60	**42**	**8.0**	**0.87**	**1.01**
	70	44	8.6	0.86	0.99

Bold = Recommended pressure

Notes:
All precipitation rates calculated for 180 degree operation. For the precipitation rate for a 360 degree sprinkler, divide by 2.

PGP-ADJ - SPECIFICATION BUILDER: ORDER 1 + 2 + 3

1 Model	2 Standard Features	3 Feature Options
PGP-ADJ-B = 4" Pop-up	Adjustable arc with Blue nozzle rack	**(blank)** = No option
PGP-ADJ = 4" Pop-up	Adjustable arc with Red nozzle rack	**1.5 to 4.0** = Factory-installed Blue nozzle number
PGP-ATR = Impact replacement	Adjustable arc with Red nozzle rack	**#5 to #8** = Factory-installed Red nozzle number
		#7 = Factory-installed Red nozzle number

Examples:
PGP-ADJ = 4" pop-up, adjustable arc
PGP-ADJ-B - 3.0 = 4" pop-up, adjustable arc, and 3.0 Blue nozzle
PGP-ADJ - 07 = 4" pop-up, adjustable arc, and #7 Red nozzle

PGP RED NOZZLE PERFORMANCE DATA

Nozzle	Pressure (PSI)	Radius (FT.)	Flow (GPM)	Precip in/hr ■	Precip in/hr ▲
1 ● Red	30	28	0.5	0.12	0.14
	40	29	0.6	0.14	0.16
	50	**29**	**0.7**	**0.16**	**0.19**
	60	30	0.8	0.17	0.20
2 ● Red	30	29	0.7	0.16	0.19
	40	30	0.8	0.17	0.20
	50	**30**	**0.9**	**0.19**	**0.22**
	60	31	1.0	0.20	0.23
3 ● Red	30	30	0.9	0.19	0.22
	40	31	1.0	0.20	0.23
	50	**31**	**1.2**	**0.24**	**0.28**
	60	32	1.3	0.24	0.28
4 ● Red	30	32	1.2	0.23	0.26
	40	33	1.4	0.25	0.29
	50	**34**	**1.6**	**0.27**	**0.31**
	60	34	1.8	0.30	0.35
5 ● Red	30	32	1.6	0.30	0.35
	40	36	1.8	0.27	0.31
	50	**38**	**2.0**	**0.27**	**0.31**
	60	38	2.2	0.29	0.34
6 ● Red	30	34	2.0	0.33	0.38
	40	36	2.4	0.36	0.41
	50	**38**	**2.7**	**0.36**	**0.42**
	60	38	2.9	0.39	0.45
7 ● Red	30	34	2.6	0.43	0.5
	40	38	3.0	0.40	0.46
	50	**40**	**3.4**	**0.41**	**0.47**
	60	40	3.7	0.45	0.51
8 ● Red	30	37	3.2	0.45	0.52
	40	39	3.7	0.47	0.54
	50	**41**	**3.9**	**0.45**	**0.52**
	60	42	4.6	0.50	0.58
9 ● Red	30	38	3.6	0.48	0.55
	40	41	4.3	0.49	0.57
	50	**44**	**5.2**	**0.52**	**0.60**
	60	45	5.5	0.52	0.60
10 ● Red	40	44	6.0	0.60	0.69
	50	**46**	**6.8**	**0.62**	**0.71**
	60	47	7.6	0.66	0.76
	70	49	8.2	0.66	0.76
11 ● Red	40	46	8.0	0.73	0.84
	50	**48**	**8.9**	**0.74**	**0.86**
	60	50	9.8	0.75	0.87
	70	51	10.5	0.78	0.90
12 ● Red	40	46	10.5	0.96	1.10
	50	**48**	**11.9**	**0.99**	**1.15**
	60	50	12.7	0.98	1.13
	70	52	14.1	1.00	1.16

Bold = Recommended pressure

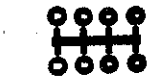
Notes:
All precipitation rates calculated for 180 degree operation. For the precipitation rate for a 360 degree sprinkler, divide by 2.

PGP BLUE NOZZLE PERFORMANCE DATA

Nozzle	Pressure (PSI)	Radius (FT.)	Flow (GPM)	Precip in/hr ■	Precip in/hr ▲
1.5 ● Blue	25	29	1.2	0.27	0.32
	35	31	1.4	0.28	0.32
	45	**31**	**1.5**	**0.30**	**0.35**
	55	32	1.8	0.34	0.39
	65	32	1.9	0.36	0.41
2.0 ● Blue	25	33	1.4	0.25	0.29
	35	33	1.7	0.30	0.35
	45	**34**	**2.0**	**0.33**	**0.38**
	55	34	2.1	0.35	0.40
	65	32	2.3	0.43	0.50
2.5 ● Blue	25	33	1.7	0.30	0.35
	35	35	2.1	0.33	0.38
	45	**35**	**2.5**	**0.39**	**0.45**
	55	35	2.6	0.41	0.47
	65	35	2.9	0.46	0.53
3.0 ● Blue	25	35	2.2	0.35	0.40
	35	36	2.7	0.40	0.46
	45	**38**	**3.0**	**0.40**	**0.46**
	55	39	3.4	0.43	0.50
	65	39	3.7	0.47	0.54
4.0 ● Blue	25	37	3.0	0.42	0.49
	35	39	3.5	0.44	0.51
	45	**40**	**4.0**	**0.48**	**0.56**
	55	41	4.5	0.52	0.60
	65	41	4.8	0.55	0.63
5.0 ● Blue	25	37	3.7	0.52	0.60
	35	39	4.5	0.57	0.66
	45	**42**	**5.0**	**0.55**	**0.63**
	55	42	5.7	0.62	0.72
	65	42	6.2	0.68	0.78
6.0 ● Blue	25	38	4.3	0.57	0.66
	35	40	5.6	0.67	0.78
	45	**43**	**6.0**	**0.62**	**0.72**
	55	44	6.7	0.67	0.77
	65	44	7.3	0.73	0.84
8.0 ● Blue	25	37	6.0	0.84	0.97
	35	41	7.0	0.80	0.93
	45	**44**	**8.0**	**0.80**	**0.92**
	55	46	9.0	0.82	0.95
	65	46	9.8	0.89	1.03

PGP NOZZLES


Red (P/N 130900)


Blue (P/N 665300)


Gray(P/N 233200)

ROTORS

FARALLON SUBMITTAL REVIEW TRANSMITTAL

Project: BNSF Schoolyard Excavation Supplement

Reviewed By: Jeff Hamlin, PE

Date: August 8, 2013

Farallon PN: 683-038

Submittal: **Irrigation**

Specifications Section: **02810**

The attached submittal information has been reviewed for general compliance with the contract documents and design intent with the following comments:

- □ No Exceptions Taken
- □ Revise and Resubmit
- X Make Corrections Noted

Notes:

Irrigation submittal is acceptable with the following conditions:

1. Irrigation control panel shall require new wire and conduit in accordance with Sheet C-218, Note 8. Reuse of the existing buried wiring is not acceptable.

2. Substitution of Rainbird sprinkler heads with the Hunter sprinkler heads is acceptable.

FARALLON SUBMITTAL REVIEW TRANSMITTAL

Reviewed only as to general conformity with the project contract document requirements. Farallon does not warrant or represent that the information in the submittal or on the shop drawing is either accurate or complete. The sole responsibility for contract document compliance will remain with the contractor submitting the information.

By:_____ Date:_____

APPENDIX H
COMPACTION TEST RESULTS

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

GEOTEST

741 Marine Drive, Bellingham, WA 98225 www.geotest-inc.com
20611 67th Ave. NE. Unit A. Arlington, WA 98223
phone: (360) 733.7318 toll free: (888) 251.5276 fax: (360) 733.7418

FIELD DENSITY/MOISTURE REPORT
Nuclear Gauge * ASTM D6938

PROJECT: Skykomish School Yard Supplemental Action **JOB #:** 13-0407

ADDRESS: N. 6th Street and West River Drive, Skykomish, WA **REPORT #:** FD002

PERMIT #: **DATE:** 7/22/2013

CLIENT: Strider Construction Co. **PAGE #:** 1 of 1

CONTRACTOR: Strider Construction Co. **INSPECTOR:** Ben Fox

Compaction Of: Structural Fill

Field Data:

Test #	Location	Depth/ Elev (ft)	DT/ BS (in)	Wet Density (pcf)	Field Moisture (%)	Dry Density (pcf)	Lab #	Compaction % Attained	Compaction % Required	Pass/ Fail
1	65' N and 90' E of SW Corner of Excavation	-0.5	DT/12	130.3	3.2	126.3	1	**94**	85	P
2	35' N and 93' E of SW Corner of Excavation	-0.5	DT/12	129.5	3.0	125.8	1	**94**	85	P
3	51' N and 32' E of SW Corner of Excavation	-0.5	DT/12	130.1	3.0	126.3	1	**94**	85	P
4	4' N and 100' E of SW Corner of Excavation	-1	DT/12	126.2	3.7	121.7	1	**91**	85	P

Lab Sample #	Soil Type	Source	Max. Dry Density (pcf)	Optimum Moisture (%)	Retained On #4 (%)	Test Method
1-1416A	PGSw/G	Cadman - Goldbar	133.9	7.3	41	ASTM D1557/D4718
2-			0.0			None
3-			0.0			None

Gauge Make/Model/Serial#: Troxler 3440P / 60560 M/D Standard Count: 654 / 2640

Comments: Elevations referenced from top of existing ground surface.

GeoTest arrived on-site as requested to perform compaction testing on the imported structural fill being placed. All tests attained the required compaction.

COPIES: Strider Construction Co.

Grant Richardson
Reviewed by

GEOTEST

741 Marine Drive, Bellingham, WA 98225 www.geotest-inc.com
20611 67th Ave. NE. Unit A. Arlington, WA 98223
phone: (360) 733.7318 toll free: (888) 251.5276 fax: (360) 733.7418

FIELD DENSITY/MOISTURE REPORT
Nuclear Gauge * ASTM D6938

PROJECT: Skykomish School Yard Supplemental Action **JOB #:** 13-0407

ADDRESS: N. 6th Street and West River Drive, Skykomish, WA **REPORT #:** FD001

PERMIT #: **DATE:** 7/17/2013

CLIENT: Strider Construction Co. **PAGE #:** 1 of 1

CONTRACTOR: Strider Construction Co. **INSPECTOR:** Ben Fox

Compaction Of: Native Structural Fill

Field Data:

Test #	Location	Depth/ Elev (ft)	DT/ BS (in)	Wet Density (pcf)	Field Moisture (%)	Dry Density (pcf)	Lab #	Compaction % Attained	Compaction % Required	Pass/ Fail
1	15' N and 18' E of SW Corner of Excavation	-4	DT/12	128.0	8.4	118.1	1	**87**	85	P
2	12.5' S and 65' E of SW Corner ov Excavation	-4	DT/12	127.5	9.6	116.4	1	**85**	85	P
3	45' N and 82' E of SW Corner of Excavation	-4	DT/12	134.5	12.0	120.1	1	**88**	85	P
4	25' N and 30' E of SW Corner of Excavation	-3	DT/12	134.2	9.1	123.1	1	**90**	85	P

Lab Sample #	Soil Type	Source	Max. Dry Density (pcf)	Optimum Moisture (%)	Retained On #4 (%)	Test Method
1-1415	PGS w/ S & G	Native	136.2	7.2	38	ASTM D1557/D4718
2-			0.0			None
3-			0.0			None

Gauge Make/Model/Serial#: Troxler 3440P / 60560 M/D Standard Count: 679 / 2634

Comments: Elevations were referenced from top of existing grade near excavation.

GeoTest was on-site to perform density testing of the native material placed as structural fill. Strider Construction dug 1' deep holes for Tests 1-3, while Test 4 was at the top of native fill grade.

All tests attained the required compaction.

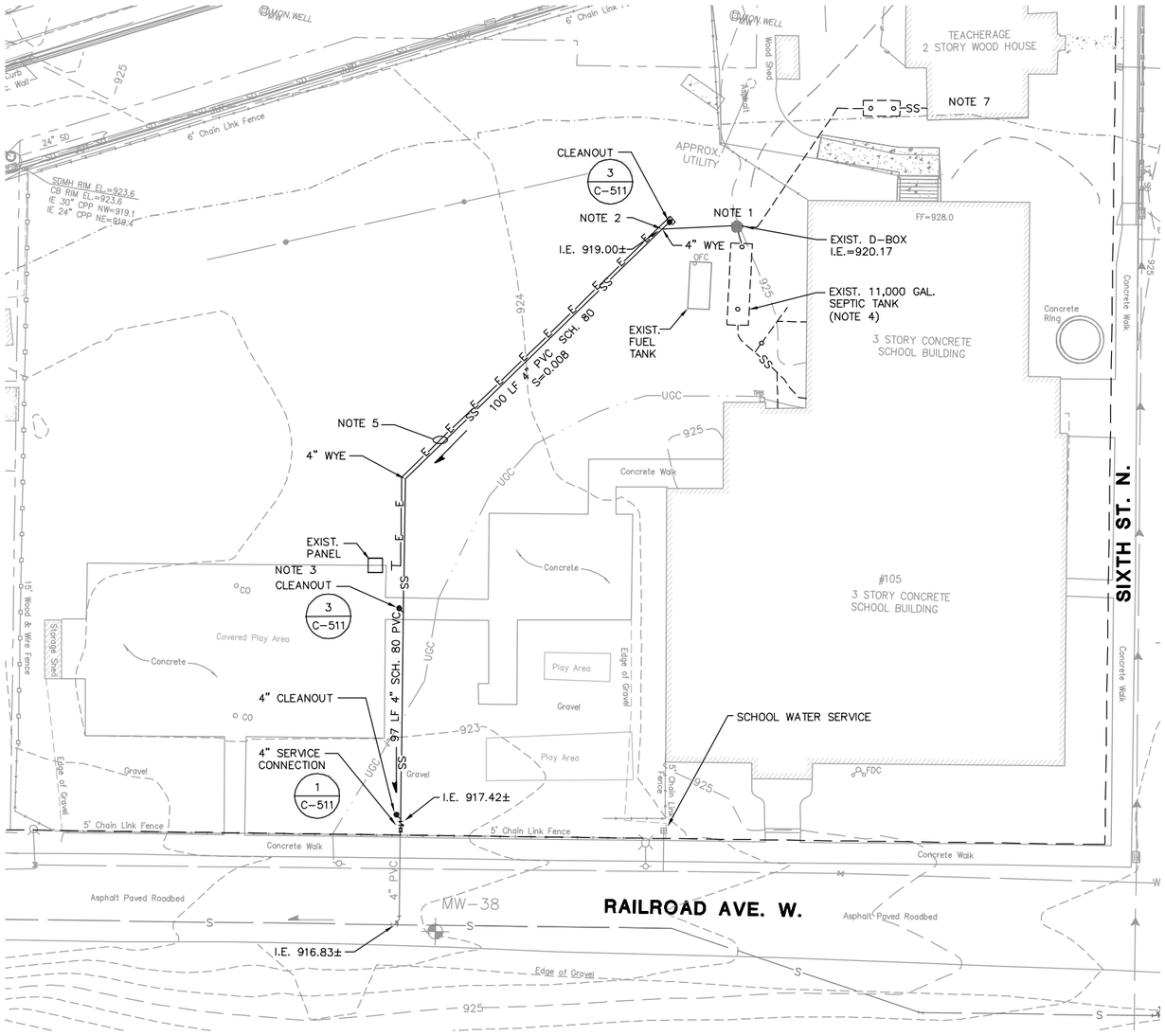
COPIES: Strider Construction Co.

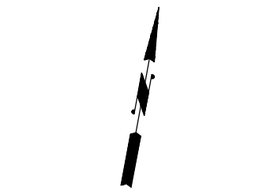
Grant Richardson
Reviewed by

APPENDIX I
SEWER PIPELINE AS-BUILT

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

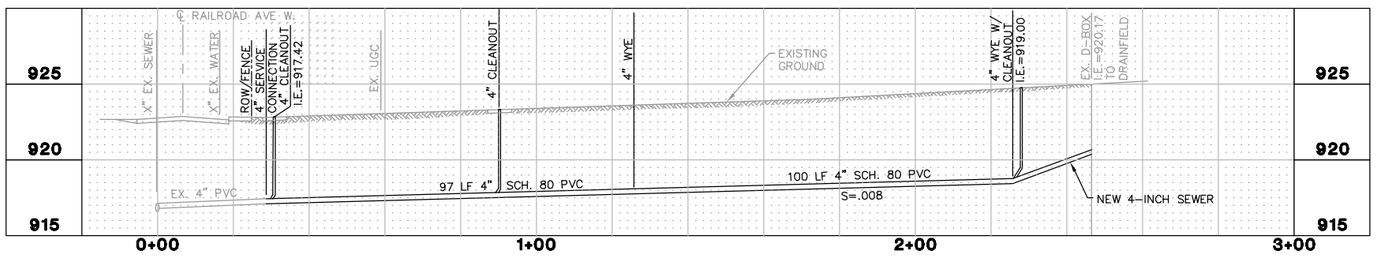
Farallon PN: 683-043





CONSTRUCTION NOTES:

1. FOUND: 4–INCH PERFORATED PIPE BETWEEN NEW WYE AND EXISTING "D" BOX. FOR NEW SEWER CONNECTION, REPLACED 20 FEET OF 4–INCH PERFORATED PIPE WITH NEW 4–INCH SCHEDULE 80 PIPE, I.E. WYE=919.00, I.E. "D" BOX = 920.17.
2. TRANSITION AT 4" WYE (I.E.=919.00) INCLUDES TWO 45° EL. AND A LENGTH OF 4" SCH 80 PVC PIPE TO I.E.=920.0±.
3. CLEANOUT IS LOCATED 17'–3" FROM EDGE OF COVERED CONCRETE SLAB.
4. EXISTING 11,000 GAL. SEPTIC TANK WILL BE USED FOR TEMPORARY CONNECTION IN 2013 AND REPLACED IN 2014. PUMP CONTENTS OF TANK PRIOR TO CONNECTION TO TOWN'S SEWER SYSTEM. SCHOOL PUMPED SEPTIC TANK IN MAY 2013.
5. BURIED CONDUIT SHALL BE 3/4" PVC SCHEDULE 40. ALL ELBOWS SHALL BE 3/4" PVC COATED RGS. ALL EXPOSED (ABOVE GRADE) CONDUIT SHALL BE 3/4" PVC COATED RGS. CONDUIT SHALL BE INSTALLED IN PIPE TRENCH AT 2'–6" DEEP (MIN.) AND 4" TO SIDE OF PIPE (MIN.) CAP EACH END.
6. SEWER TEST: 7–22–2013 AIR TESTED FOR 3 MINUTES AT 4 PSI. PASSED.
7. TEACHERAGE SEPTIC SYSTEM IS CONNECTED TO EXISTING D–BOX. ALL INLET AND OUTLET CONNECTIONS AT D–BOX WERE GROUTED IN PLACE.



RECORD DRAWING

Based upon best available information obtained during construction.

Date: 09/26/13

By: M.S.

Checked By: H.E.S.

	3/13/2013	ISSUED FOR ECOLOGY REVIEW	DEW	AV	RM
	DATE	DESCRIPTION	BY	CHK	APP

HARRY E. SELLERS — STATE OF WASHINGTON — 27906 — REGISTERED PROFESSIONAL ENGINEER

PREPARED BY

FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

PREPARED FOR

THE BNSF RAILWAY COMPANY

FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

SANITARY SEWER PLAN

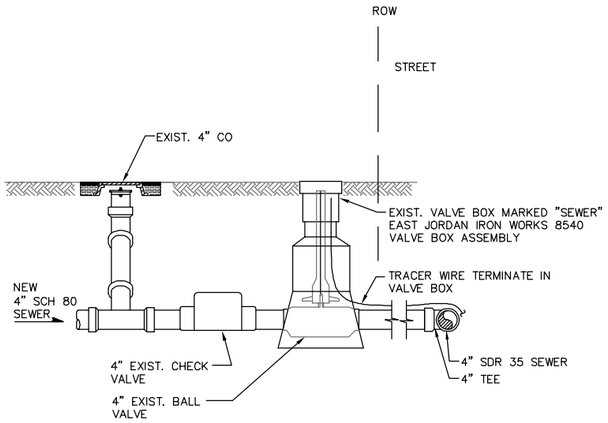
PIPELINE TO TOWN SEWER

SCALE
AS SHOWN

PROJECT NO.
683-043

FILE NAME
COMPREPORT.dwg

SHEET NO.
C-510

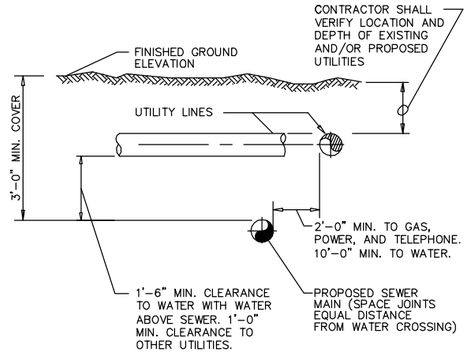


NOTE: REFER TO PHOTO THIS SHEET.

4" SERVICE CONNECTION

SCALE: 3/4"=1'-0"
VERTICAL: NOT TO SCALE

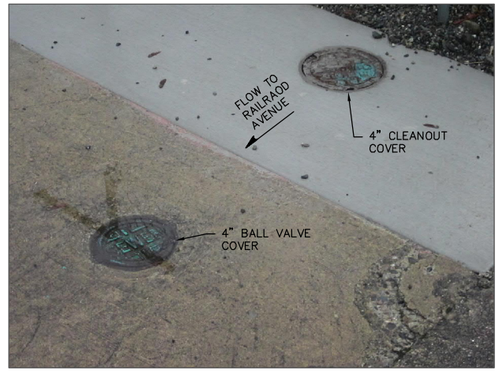
1 C-510



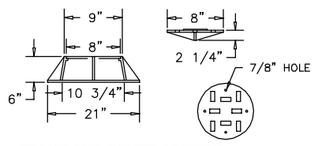
TYPICAL UTILITY CROSSING

NOT TO SCALE

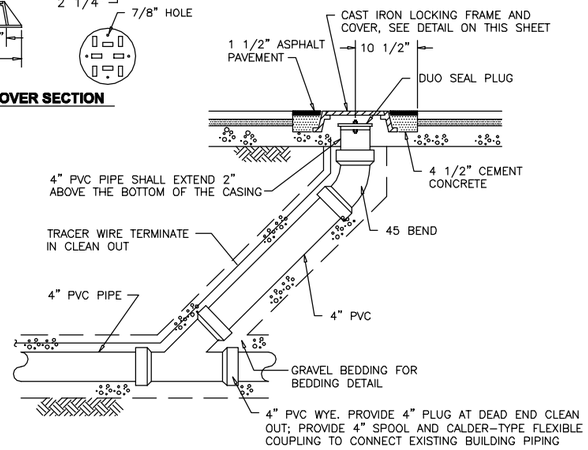
2 C-510



VALVE/CLEANOUT ASSEMBLY



FRAME AND COVER SECTION



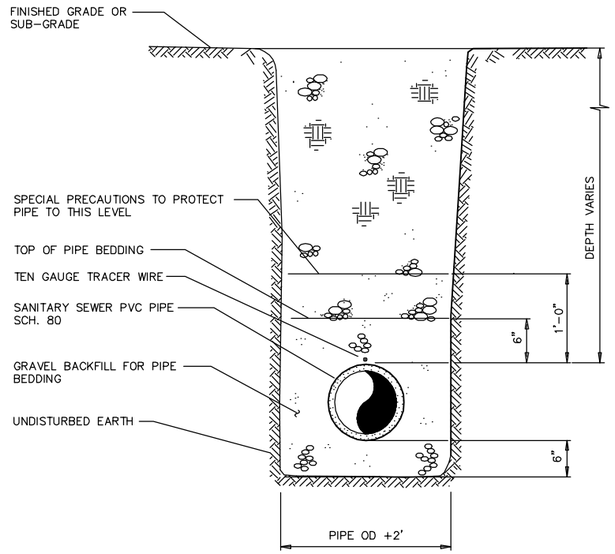
NOTES:

1. MACHINE BEARING FACES OF FRAME AND COVER TO INSURE POSITIVE FIT.
2. CLEANOUT ASSEMBLY SHALL BE DUCTILE IRON WHERE NOTED ON DRAWINGS.

SEWER MAIN CLEAN OUT ASSEMBLY

NOT TO SCALE

3 C-510



NOTES:

1. BACKFILL MATERIAL SHALL CONFORM TO WSDOT STANDARDS
2. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
3. UPON COMPLETION OF SANITARY SEWER, CLEAN AND FLUSH SEWER AND CONDUCT LEAKAGE TEST IN ACCORDANCE WITH 7-17.3 (2) F OF THE 2012 WSDOT STANDARD SPECIFICATIONS.

SANITARY SEWER TRENCH SECTION

NOT TO SCALE

4 C-510

RECORD DRAWING

Based upon best available information obtained during construction.

Date: 09/26/13

By: M.S.

Checked By: H.E.S.

	3/13/2013	ISSUED FOR ECOLOGY REVIEW	DEW	AV	RM
	DATE	DESCRIPTION	BY	CHK	APP

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FORMER MAINTENANCE AND FUELING FACILITY
SKYKOMISH, WASHINGTON

SANITARY SEWER PLAN

SEWER DETAILS

SCALE	AS SHOWN
PROJECT NO.	683-043
FILE NAME	COMPREPORT.dwg
SHEET NO.	C-511

APPENDIX J
IRRIGATION SYSTEM AS-BUILT

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

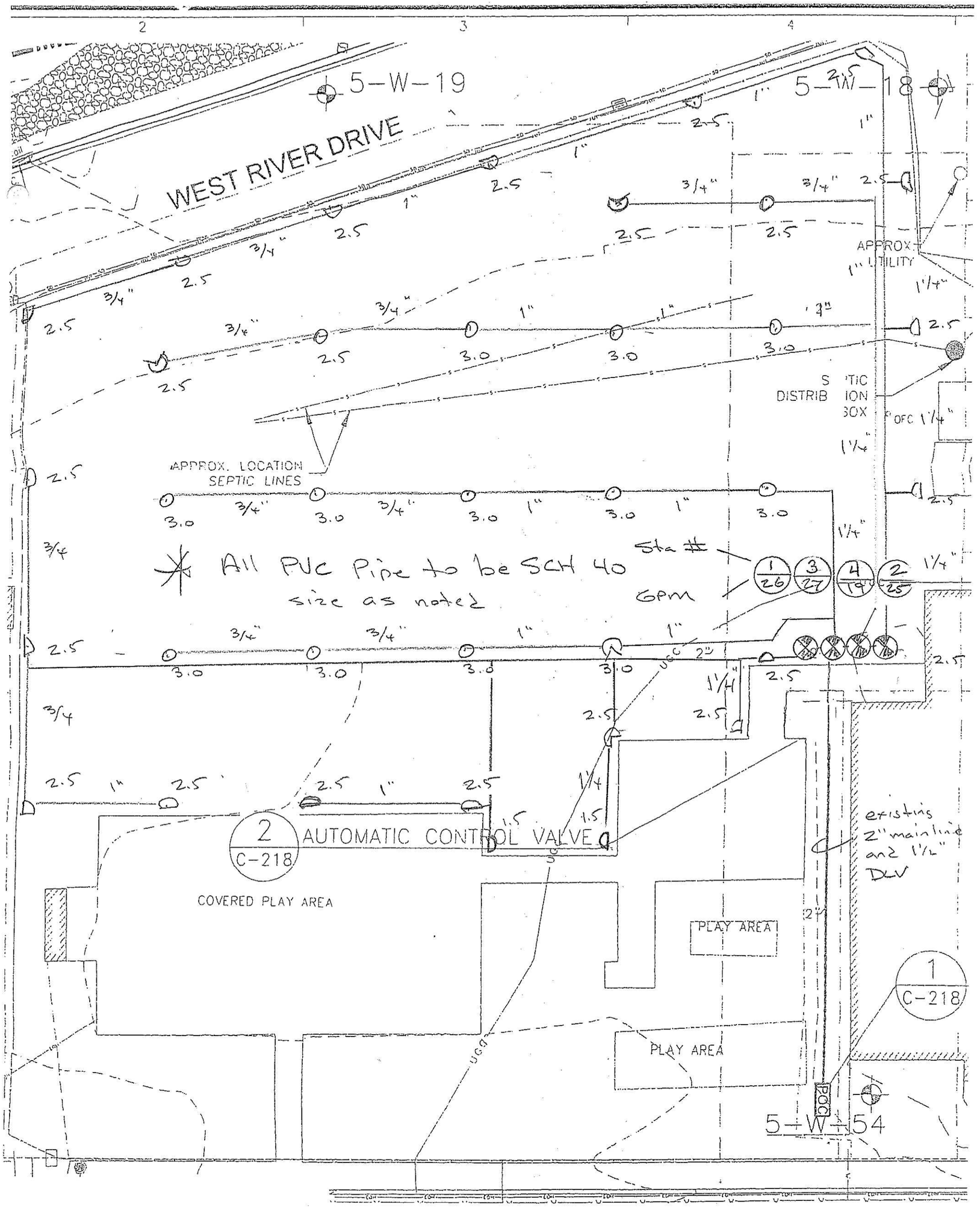
Farallon PN: 683-043

Irrigation Legend — Skykomish School — As-Built 8/2013

△ ○ Hunter PGP Gear Drive Sprinklers
nozzles as shown 1.5 = 31' rad. @ 1.5 gpm
2.0 = 34' rad. @ 2.0 gpm
2.5 = 35' rad. @ 2.5 gpm
3.0 = 38' rad @ 3.0 gpm

Rainbird PEB Electric Valve 1"

C Rainbird ESP-4 Controller (power by others)
As located by owner



APPENDIX K
SITE PHOTOGRAPHS

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

SITE PHOTOGRAPHS

2013 As-Built Completion Report
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Farallon PN: 683-043

Photograph 1: Site preparation activities, looking southeast from West River Drive.

Photograph 2: Overburden removal, looking southeast from grid location C8.

Photograph 3: Excavating below the vertical delineation limit (VDL).

Photograph 4: Excavating below the VDL, removing liner installed in 2006.

Photograph 5: Oil recovery, looking south from grid location B12.

Photograph 6: Excavation looking west from grid location G12.

Photograph 7: Schoolyard excavation, looking south from grid location B14.

Photograph 8: Over-excavation in grid locations G10 and G11, looking west from grid location G12.

Photograph 9: Oil recovery, looking west from grid location G13.

Photograph 10: Liner installation and backfilling, looking north from grid location F14.

Photograph 11: Paving for soil-handling facility expansion, looking south.

Photograph 12: Soil-handling facility, looking southeast.

Photograph 13: Stabilization backfill activities, looking southwest from grid location B12.

Photograph 14: Side sewer installation, looking north.

Photograph 15: Overburden backfill activities, looking east from grid location C8.

Photograph 16: Air monitoring activities east of excavation.

Photograph 17: Restoration activities, looking southeast.

Photograph 18: Schoolyard following restoration activities, looking south.

Photograph 1: Site preparation activities, looking southeast from West River Drive.

Photograph 2: Overburden removal, looking southeast from grid location C8.

Photograph 3: Excavating below the vertical delineation limit (VDL).

Photograph 4: Excavating below the VDL, removing liner installed in 2006.

Photograph 5: Oil recovery, looking south from grid location B12.

Photograph 6: Excavation looking west from grid location G12.

Photograph 7: Schoolyard excavation, looking south from grid location B14.

Photograph 8: Over-excavation in grid locations G10 and G11, looking west from grid location G12.

Photograph 9: Oil recovery, looking west from grid location G13.

Photograph 10: Liner installation and backfilling, looking north from grid location F14.

Photograph 11: Paving for soil-handling facility expansion, looking south.

Photograph 12: Soil-handling facility, looking southeast.

Photograph 13: Stabilization backfill activities, looking southwest from grid location B12.

Photograph 14: Side sewer installation, looking north.

Photograph 15: Overburden backfill activities, looking east from grid location C8.

Photograph 16: Air monitoring activities east of excavation.

Photograph 17: Restoration activities, looking southeast.

Photograph 18: Schoolyard following restoration activities, looking south.

APPENDIX L
SOIL DISPOSAL DOCUMENTATION

2013 AS-BUILT COMPLETION REPORT
BNSF Former Maintenance and Fueling Facility
Skykomish, Washington
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-043

2335025

RABANCO REGIONAL DISPOSAL
P.O. BOX 238
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653816	000000

WEIGHMASTER	
GH00036 GAIL H	
DATE IN	**TIME IN**
29 July 2013	6:42 am
DATE OUT	**TIME OUT**
29 July 2013	7:09 am
VEHICLE	**ROLL OFF**
3450	GCEU425935
REFERENCE	**ORIGIN**
GCEU425935	

1 Gross Weight 109,360.00 LB
  Tare Weight 46,800.00 LB
  Net Weight 62,560.00 LB 31.28 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.28	TN	34 [B6] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX620133 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________________

RS-F04-4p

2335031

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653822	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 29 July 2013 TIME IN: 4:47 am

DATE OUT: 29 July 2013 TIME OUT: 7:18 am

VEHICLE: 1454 ROLL OFF: GCEU430548

REFERENCE: GCEU430548 ORIGIN:

1 Gross Weight 110,040.00 LB
Tare Weight 47,860.00 LB
Net Weight 62,180.00 LB 31.09 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.09	TN	34 [86] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX620133 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2335035

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653926	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 29 July 2013 — TIME IN: 7:02 am

DATE OUT: 29 July 2013 — TIME OUT: 7:34 am

VEHICLE: 5833 — ROLL OFF: UPCU411443

REFERENCE: UPCU411443 — ORIGIN:

1 Gross Weight 110,640.00 LB
Tare Weight 47,060.00 LB
Net Weight 63,580.00 LB 31.79 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.79	TN	34 [D63] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX620133 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2335039

EVERGREEN REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5541

001935 - 0099
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653830	000000

WEIGHMASTER
GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	9:11 am

DATE OUT	TIME OUT
29 July 2013	9:31 am

VEHICLE	ROLL OFF
6180	EGTLK20279

REFERENCE	ORIGIN
EGTLK20279	

1 Gross Weight 109,380.00 LB
Tare Weight 46,200.00 LB
Net Weight 63,080.00 LB 31.54 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.54	TN	34 CD&D PCS 34				
		07/24/13				
		Inbound - RAIL TICKET				
		DTTX620133				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2335042

RABANCO REGIONAL DISPOSAL
P.O. BOX 238
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	653823	000000

WEIGHMASTER
GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	7:15 am

DATE OUT	TIME OUT
29 July 2013	7:39 am

VEHICLE	ROLL OFF
5648	UPCU411522

REFERENCE	ORIGIN
UPCU411522	

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10196

1 Gross Weight 105,600.00 LB
Tare Weight 43,520.00 LB
Net Weight 62,080.00 LB 31.14 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.14	TN	34 EB61 PCS 34				
		07/24/13				
		Inbound - RAIL TICKET				
		DTTX620139				
		BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2335043

RABANCO REGIONAL DISPOSAL
P.O. BOX 233
Roosevelt, WA 99356
(509) 384-5641

001937 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10178

SITE	TICKET	GRID
45	450894	000000

WEIGHMASTER
GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	7:29 am

DATE OUT	TIME OUT
29 July 2013	7:45 am

VEHICLE	ROLL OFF
7331	GCEU4253642

REFERENCE	ORIGIN
GCEU4253642	

1 Gross Weight 105,500.00 LB
Tare Weight 44,200.00 LB
Net Weight 61,300.00 LB 30.65 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
30.65	TN	34 CRGT PCS 34				
		07/29/13				
		Inbound - RAIL TICKET				
		DTTX665983				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2335046

FRANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	4539937	000000

WEIGHTMASTER
0100036 GAIL H

DATE IN	TIME IN
29 July 2013	5:30 am

DATE OUT	TIME OUT
29 July 2013	7:22 am

VEHICLE	ROLL OFF
6811	TOLU4459214

REFERENCE	ORIGIN
TOLU4459214	

001935 - 0099
RNSF / Bruce Sheppard
RNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 108,120.00 LB
Tare Weight 45,760.00 LB
Net Weight 62,360.00 LB 31.19 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.19	TN	34 CB61 PCS 34				
		07/29/13 Inbound - FAIL TICKET DTTX4459214 RNSF-SKYKOMISH				

29.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2335051

RAINIER REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

SITE	TICKET	GRID
49	4533842	000000

WEIGHTMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	9:24 am

DATE OUT	TIME OUT
29 July 2013	2:59 pm

VEHICLE	ROLL OFF
9387	EGTU420167

REFERENCE	ORIGIN
EGTU420167	

001935 - 0039
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10126

1 Gross Weight 109,560.00 LB
Tare Weight 46,540.00 LB
Net Weight 63,020.00 LB 31.51 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.51	TN	34 EB61 FCS 34				
		07/24/13 Inbound - RAIL TICKET DTTX620133 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2335052

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653843	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	7:37 am

DATE OUT	TIME OUT
29 July 2013	8:00 am

VEHICLE	ROLL OFF
7330	GCEU435114

REFERENCE	ORIGIN
GCEU435114	

1 Gross Weight 108,660.00 LB
Tare Weight 46,240.00 LB
Net Weight 62,420.00 LB 31.21 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.21	TN	34 [B63] PCS 34				
		07/24/13 Inbound - RAIL TICKET BNSF208030 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2335054

SABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	452845	000000

WEIGHTMASTER: 0400036 CATL H

DATE IN	TIME IN
29 July 2013	8:36 am
DATE OUT	**TIME OUT**
29 July 2013	8:01 am
VEHICLE	**ROLL OFF**
1565	EGTU4205529
REFERENCE	**ORIGIN**
EGTU4205529	

001935 - 0099
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 109,200.00 LB
Tare Weight 46,120.00 LB
Net Weight 63,580.00 LB 31.79 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.79	TN	34 CD61 FCS 34				
		07/24/13 Inbound - RAIL TICKET DTTX625650 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2335056

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	653847	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	7:33 am

DATE OUT	TIME OUT
29 July 2013	8:05 am

VEHICLE	ROLL OFF
7329	EGTU420135

REFERENCE	ORIGIN
EGTU420135	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 103,800.00 LB
Tare Weight 42,040.00 LB
Net Weight 61,760.00 LB 30.88 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
30.88	TN	34 [B6] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX655658 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2335058

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653849	000000

WEIGHTMASTER: 0400036 GAIL H

DATE IN	TIME IN
29 July 2013	7:39 am

DATE OUT	TIME OUT
29 July 2013	8:06 am

VEHICLE	ROLL OFF
3450	OCEU4322468

REFERENCE	ORIGIN
OCEU4322468	Skykomish

1 Gross Weight 109,380.00 LB
Tare Weight 66,640.00 LB
Net Weight 42,740.00 LB 21.37 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
21.37	TN	34 EB61 PDS 34				
		07/24/13				
		Inbound - RAIL TICKET				
		DTD6694468				
		BNSF-SKYKOMISH				

20.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

RABANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5441

2335060

SITE	TICKET	GRID
49	553951	000000

WEIGHTMASTER
0000036 GAIL H

DATE IN	TIME IN
29 July 2013	8:56 am
DATE OUT	**TIME OUT**
29 July 2013	8:10 am
VEHICLE	**ROLL OFF**
5933	TOL1456297
REFERENCE	**ORIGIN**
TOL1456297	

001935 - 0068
BNSF / Bruce Shepherd
BNSF / Bruce Shepherd

Contract#: LW-10178

1 Gross Weight 111,140.00 LB
Tare Weight 48,520.00 LB
Net Weight 62,620.00 LB 31.31 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.31	TN	34 LR61 POS 34 07/24/13 Inbound - RAIL TICKET DTTX469058 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2335062

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653853	000000

WEIGHMASTER	GH00036 GAIL H
DATE IN	29 July 2013
TIME IN	7:39 am
DATE OUT	29 July 2013
TIME OUT	8:11 am
VEHICLE	6181
ROLL OFF	EGTU420050
REFERENCE	EGTU420050
ORIGIN	

1 Gross Weight 108,600.00 LB
Tare Weight 45,640.00 LB
Net Weight 62,960.00 LB 31.48 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.48	TN	34 EB63 PCS 34				
		07/24/13 Inbound - RAIL TICKET BNSF208030 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT	
TENDERED	
CHANGE	
CHECK NO.	

REPUBLIC SERVICES

SIGNATURE ____________________

REV 11/09

RS-F04-4

2335066

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-2441

001925 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10176

SITE	TICKET	GRID
49	453857	000000

WEIGHMASTER
GH00036 DATL H

DATE IN	TIME IN
29 July 2013	8:00 am

DATE OUT	TIME OUT
29 July 2013	9:18 am

VEHICLE	ROLL OFF
4180	UPCU411446

REFERENCE	ORIGIN
UPCU411446	

1 Gross Weight 107,030.00 LB
Tare Weight 45,120.00 LB
Net Weight 61,960.00 LB 30.98 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
30.98	TN	3rd Class PCS 34				
		07/24/13 Inbound - RATL TICKET DTTD6468058 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2335069

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Shepeard
BNSF / Bruce Shepeard

Contract#: LW-10176

SITE	TICKET	GRID
49	453860	000000

WEIGHTMASTER
0H00036 DAIL H

DATE IN	TIME IN
29 July 2013	7:52 am

DATE OUT	TIME OUT
29 July 2013	8:20 am

VEHICLE	ROLL OFF
14554	EGTU420299

REFERENCE	ORIGIN
EGTU420299	

1 Gross Weight 111,120.00 LB
Tare Weight 47,100.00 LB
Net Weight 64,020.00 LB 32.01 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.01	TN	34 EB61 FSS 34				
		07/24/13				
		Inbound - RAIL TICKET				
		DTTX646468				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2335072

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653863	000000

WEIGHTMASTER: 0100036 DAIL H

DATE IN	TIME IN
29 July 2013	8:06 am

DATE OUT	TIME OUT
29 July 2013	8:26 am

VEHICLE	ROLL OFF
0648	DCELM30340

REFERENCE	ORIGIN
DCELM30340	

1 Gross Weight 105,440.00 LB
Tare Weight 42,640.00 LB
Net Weight 62,820.00 LB 31.41 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.41	TN	34 DRST PCS 34				
		07/29/13 Inbound - RAIL TICKET DTTX665839 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04-4

2335076

RABANCO REGIONAL DISPOSAL
P. O. BOX 338
Roosevelt, WA 99356
(509) 384-5541

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	653867	000000

WEIGHTMASTER: 0100036 GOIL H

DATE IN	TIME IN
29 July 2013	9:15 am
DATE OUT	**TIME OUT**
29 July 2013	8:36 am
VEHICLE	**ROLL OFF**
2331	UPCU411465
REFERENCE	**ORIGIN**
UPCU411465	

1 Gross Weight: 105,020.00 LB
Tare Weight: 43,160.00 LB
Net Weight: 61,860.00 LB 30.93 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
30.93	TN	34 CB61 FCS 34				
		07/24/13 Inbound - RAIL TICKET DTTX466839 BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, Wa 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

2335078

SITE	TICKET	GRID
49	653869	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	8:26 am

DATE OUT	TIME OUT
29 July 2013	8:47 am

VEHICLE	ROLL OFF
6811	UFCU411426

REFERENCE	ORIGIN
UFCU411426	

1 Gross Weight 109,120.00 LB
Tare Weight 46,860.00 LB
Net Weight 62,260.00 LB 31.13 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.13	TN	34 CB63 PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX657041 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2335082

FARRINGTON REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-3641

001935 - 0033
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	2335082	000000

WEIGHTMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	8:39 am

DATE OUT	TIME OUT
29 July 2013	8:53 am

VEHICLE	ROLL OFF
1565	TRLU900584

REFERENCE	ORIGIN
TRLU900584	

1 Gross Weight 109,480.00 LB
Tare Weight 46,700.00 LB
Net Weight 62,780.00 LB 31.39 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.39	TN	34 EB61 PCS 34				
		07/26/13				
		Inbound - RAIL TICKET				
		DTTX66457E8				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2335085

BABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5541

001935 - 0083
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
42	653826	000000

WEIGHTMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	8:37 am

DATE OUT	TIME OUT
29 July 2013	8:53 am

VEHICLE	ROLL OFF
7329	0CE1642593

REFERENCE	ORIGIN
0CE1642593	

1 Gross Weight 106,340.00 LB
Tare Weight 42,680.00 LB
Net Weight 63,660.00 LB 31.83 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.83	TN	34 CR63 PCS 34				
		07/24/13				
		Inbound - RAIL TICKET				
		DTTX625951P				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2335088

KARANDO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653879	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	8:28 am

DATE OUT	TIME OUT
29 July 2013	9:01 am

VEHICLE	ROLL OFF
2322	EGTU420172

REFERENCE	ORIGIN
EGTU420172	

1 Gross Weight 108,980.00 LB
Tare Weight 47,280.00 LB
Net Weight 61,700.00 LB 30.85 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
30.85	TN	34 EB63 PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX657041 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ______

REV 11/09

RS-F04-4

2335090

SITE	TICKET	GRID
49	653881	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	8:40 am

DATE OUT	TIME OUT
29 July 2013	9:04 am

VEHICLE	ROLL OFF
3450	TOLU425710

REFERENCE	ORIGIN
TOLU425710	

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 109,820.00 LB
Tare Weight 46,940.00 LB
Net Weight 62,880.00 LB 31.44 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.44	TN	34 [B6] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX659912 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ____________________

RS-F04-4

REV 11/09

2335093

BARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	4503684	000000

WEIGHMASTER
0400036 DATL H

DATE IN	TIME IN
29 July 2013	8:34 am

DATE OUT	TIME OUT
29 July 2013	9:05 am

VEHICLE	ROLL OFF
7330	EOTU420229

REFERENCE	ORIGIN
EOTU420229	

1 Gross Weight 112,820.00 LB
Tare Weight 47,260.00 LB
Net Weight 65,560.00 LB 32.78 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.78	TN	34 DMSW POS 34				
		07/24/13 Inbound - RAIL TICKET DTTX64465B BNSF-SKYKOMISH				

20.00 TF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2335097

FARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0066
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6536898	000000

WEIGHTMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	8:42 am

DATE OUT	TIME OUT
29 July 2013	9:10 am

VEHICLE	ROLL OFF
6181	QCEU644017S

REFERENCE	ORIGIN
QCEU644017S	

1 Gross Weight 109,260.00 LB
Tare Weight 45,720.00 LB
Net Weight 63,540.00 LB 31.76 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.76	TN	34 C&D FOS 34				
		07/29/13 Inbound - RAIL TICKET DTTX471692 BNSF-SKYKOMISH				

20.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04-4

2335099

SITE	TICKET	GRID
49	653890	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	8:41 am

DATE OUT	TIME OUT
29 July 2013	9:12 am

VEHICLE	ROLL OFF
5833	EGTU420248

REFERENCE	ORIGIN
EGTU420248	

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 109,440.00 LB
Tare Weight 47,000.00 LB
Net Weight 62,440.00 LB 31.22 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.22	TN	34 [B6] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX471695 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ______________________

REV 11/09

RS-F04-4

2335108

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0080
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	653899	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	9:54 am

DATE OUT	TIME OUT
29 July 2013	9:34 am

VEHICLE	ROLL OFF
4180	TOLU457079

REFERENCE	ORIGIN
TOLU457079	

1 Gross Weight 107,780.00 LB
Tare Weight 44,920.00 LB
Net Weight 62,860.00 LB 31.43 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.43	TN	34 CB63 PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX475587 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ____________________

RS-F04-

REV 11/09

2335111

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001925 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10178

SITE	TICKET	GRID
49	453902	000000

WEIGHTMASTER: GH00036 GAIL H

DATE IN	TIME IN
29 July 2013	9:04 am

DATE OUT	TIME OUT
29 July 2013	9:42 am

VEHICLE	ROLL OFF
7331	EGTU6206487

REFERENCE	ORIGIN
EGTU6206487	

1 Gross Weight 104,540.00 LB
Tare Weight 42,300.00 LB
Net Weight 62,240.00 LB 31.12 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.12	TN	36 EMGT PCS 36				
		07/29/13 Inbound - RAIL TICKET DTTX453902 BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2335112

Roosevelt Regional Disposal
P.O. Box 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
42	453503	000000

WEIGHTMASTER: 0H00036 DATL H

DATE IN	TIME IN
29 July 2013	9:55 am

DATE OUT	TIME OUT
29 July 2013	9:56 am

VEHICLE	ROLL OFF
8648	GCEU632025

REFERENCE	ORIGIN
GCEU632025	

1 Gross Weight 104,640.00 LB
Tare Weight 62,060.00 LB
Net Weight 42,580.00 LB 21.29 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
21.29	TN	34 CDGI PCS 34				
		07/24/13				
		Inbound - FATL TICKET				
		DTTX656885				
		BNSF-SKYKOMISH				
		29.00 FP				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2335120

SITE	TICKET	GRID
49	653911	000000

WEIGHMASTER	
GH00036 GAIL H	
DATE IN 29 July 2013	**TIME IN** 8:47 am
DATE OUT 29 July 2013	**TIME OUT** 9:57 am
VEHICLE 1454	**ROLL OFF** GCEU445181
REFERENCE GCEU445181	**ORIGIN**

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 109,360.00 LB
Tare Weight 46,740.00 LB
Net Weight 62,620.00 LB 31.31 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.31	TN	34 [B6] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX475587 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT	
TENDERED	
CHANGE	
CHECK NO.	

REPUBLIC SERVICES

SIGNATURE ____________________

RS-F04-

REV 11/09

2341401

PASANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-1012

SITE	TICKET	GRID
45	6362145	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
2 August 2013	12:01 pm

DATE OUT	TIME OUT
2 August 2013	12:58 pm

VEHICLE	ROLL OFF
9648	TRLU9016405

REFERENCE	ORIGIN
TRLU9016405	

1 Gross Weight 105,200.00 LB
Tare Weight 40,740.00 LB
Net Weight 64,460.00 LB 32.23 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.23	TN	34 DR61 FCS 34				
		07/26/13 Inbound - RAIL TICKET DTTX470193 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

RAINIER REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001936 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

2341403

SITE	TICKET	GRID
45	485212	000000

WEIGHMASTER: JF00025 TANICE F

DATE IN	TIME IN
2 August 2013	12:13 pm

DATE OUT	TIME OUT
2 August 2013	12:57 pm

VEHICLE	ROLL OFF
1454	TOLUM60314

REFERENCE	ORIGIN
TOLUM60314	

1 Gross Weight 110,560.00 LB
Tare Weight 76,240.00 LB
Net Weight 64,320.00 LB 32.16 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.16	TN	36 LB61 PCS 34				
		07/26/13				
		Inbound - RAIL TICKET				
		DTTX470193				
		BNSF-SKYKOMISH				
		28.00 FT				

REPUBLIC SERVICES

REV 11/09

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

RS-F04-4pt

2341404

FAIRBANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0036
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	4552118	000000

WEIGHTMASTER
TP00025 JANICE F

DATE IN	TIME IN
2 August 2013	12:19 pm
DATE OUT	**TIME OUT**
2 August 2013	13:59 pm
VEHICLE	**ROLL OFF**
7289	GCEU4201246
REFERENCE	**ORIGIN**
GCEU4201246	

1 Gross Weight 105,840.00 LB
Tare Weight 42,480.00 LB
Net Weight 63,360.00 LB 31.68 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.68	TN	34 LB61 PCS 34				
		07/26/13				
		Inbound - RAIL TICKET				
		DTTX456666				
		BNSF-SKYKOMISH				
		28.00 FF				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2341406

RAINIER REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Shepperd
BNSF / Bruce Shepperd

Contract: LW-10126

SITE	TICKET	GRID
49	2852220	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
2 August 2013	12:38 pm
DATE OUT	**TIME OUT**
2 August 2013	1:00 pm
VEHICLE	**ROLL OFF**
1565	TOLU4692221
REFERENCE	**ORIGIN**
TOLU4692221	

Gross Weight 113,440.00 LB
Tare Weight 49,400.00 LB
Net Weight 64,040.00 LB 32.02 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.02	TN	34 CB63 FOS 34				
		07/24/13				
		Inbound - FAIL TICKET				
		DTTX620616				
		BNSF-SKYKOMISH				

20.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2341407

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	655221	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN: 2 August 2013 | TIME IN: 12:32 pm

DATE OUT: 2 August 2013 | TIME OUT: 1:01 pm

VEHICLE: 6811 | ROLL OFF: GCEU425366

REFERENCE: GCEU425366 | ORIGIN:

1 Gross Weight 109,120.00 LB
Tare Weight 46,080.00 LB
Net Weight 63,040.00 LB 31.52 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.52	TN	34 [B6] PCS 34 07/26/13 Inbound - RAIL TICKET DTTX656666 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2341411

BARANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	6852295	000000

WEIGHTMASTER
JF00025 JANICE F

DATE IN	TIME IN
2 August 2013	12:49 pm
DATE OUT	**TIME OUT**
2 August 2013	1:10 pm
VEHICLE	**ROLL OFF**
4101	GCEU4305566
REFERENCE	**ORIGIN**
GCEU4305566	

001525 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 108,380.00 LB
Tare Weight 45,480.00 LB
Net Weight 62,900.00 LB 31.45 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.45	TN	34 CB67 FOS 34 07/26/13 Inbound - RAIL TICKET DTFX620616 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

2341413

SITE	TICKET	GRID
48	455227	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN: 2 August 2013 — TIME IN: 12:54 pm

DATE OUT: 2 August 2013 — TIME OUT: 1:14 pm

VEHICLE: 7331 — ROLL OFF: TOLU422275

REFERENCE: TOLU422275 — ORIGIN:

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 106,800.00 LB
Tare Weight 43,840.00 LB
Net Weight 62,960.00 LB 31.48 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.48	TN	34 [B6] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX620616 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2341416

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	655230	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
2 August 2013	1:04 pm

DATE OUT	TIME OUT
2 August 2013	1:26 pm

VEHICLE	ROLL OFF
5833	TOLU475437

REFERENCE	ORIGIN
TOLU475437	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,440.00 LB
Tare Weight 47,640.00 LB
Net Weight 62,800.00 LB 31.40 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.40	TN	34 [363] PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX620616 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

2341422

ROSANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0083
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	4552234	000000

WEIGHTMASTER: TF00025 TANICE F

DATE IN	TIME IN
2 August 2013	1:11 pm
DATE OUT	**TIME OUT**
2 August 2013	1:36 pm
VEHICLE	**ROLL OFF**
3450	OCEU6302223
REFERENCE	**ORIGIN**
OCEU6302223	

1 Gross Weight 109,380.00 LB
Tare Weight 46,660.00 LB
Net Weight 62,720.00 LB 31.36 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.36	TN	34 LB63 PCS 34				
		02/26/13 Inbound - RAIL TICKET DTTX620616 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2341426

BASANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0083
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	6556240	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
2 August 2013	1:26 pm
DATE OUT	**TIME OUT**
2 August 2013	1:52 pm
VEHICLE	**ROLL OFF**
9648	EGTU620560
REFERENCE	**ORIGIN**
EGTU620560	

1 Gross Weight 104,080.00 LB
Tare Weight 41,200.00 LB
Net Weight 62,880.00 LB 31.19 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.19	TN	34 CB&I FOS 34 07/24/13 Inbound - RAIL TICKET DTTX620616 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2341430

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	655244	000000

WEIGHMASTER: IF00025 JANICE F

DATE IN	TIME IN
2 August 2013	1:37 pm

DATE OUT	TIME OUT
2 August 2013	1:59 pm

VEHICLE	ROLL OFF
7329	ITEU133071

REFERENCE	ORIGIN
ITEU133071	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 105,860.00 LB
Tare Weight 42,800.00 LB
Net Weight 63,060.00 LB 31.53 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.53	TN	34 CB63 PCS 34				
	07/24/13	Inbound - RAIL TICKET DTTX646317 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT	
TENDERED	
CHANGE	
CHECK NO.	

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

2341431

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	655245	000000

WEIGHMASTER
JF00025 JANICE F

DATE IN	TIME IN
2 August 2013	1:36 pm

DATE OUT	TIME OUT
2 August 2013	2:00 pm

VEHICLE	ROLL OFF
1454	GCEU435067

REFERENCE	ORIGIN
GCEU435067	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 108,940.00 LB
Tare Weight 46,700.00 LB
Net Weight 62,240.00 LB 31.12 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.12	TN	34 [B6J PCS 34				
	07/26/13	Inbound - RAIL TICKET DTTX471836 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

2341435

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	655249	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN: 2 August 2013 — TIME IN: 1:38 pm

DATE OUT: 2 August 2013 — TIME OUT: 2:08 pm

VEHICLE: 1565 — ROLL OFF: GCEU425177

REFERENCE: GCEU425177 — ORIGIN:

001935 - 0008
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 112,580.00 LB
Tare Weight 47,320.00 LB
Net Weight 65,260.00 LB 32.63 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.63	TN	34 [B6] PCS 34				
	07/26/13	Inbound - RAIL TICKET DTTX646317 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

RAYMOND REGIONAL DISPOSAL
P. O. BOX 338
Roosevelt, WA 99356
(509) 384-3641

2341436

SITE	TICKET	GRID
49	4695250	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
2 August 2013	1:42 pm
DATE OUT	**TIME OUT**
2 August 2013	2:08 pm
VEHICLE	**ROLL OFF**
0330	DCEU4309129
REFERENCE	**ORIGIN**
DCEU4309129	

001935 - 0093
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10126

1 Gross Weight 108,460.00 LB
Tare Weight 46,120.00 LB
Net Weight 62,320.00 LB 31.16 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.16	TN	34 C1467 FOS 34				
		07/24/13				
		Inbound - RAIL TICKET				
		DTTX65264562				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2341437

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5541

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10126

SITE	TICKET	GRID
49	4852251	000000

WEIGHTMASTER: TF000235 JANICE F

DATE IN	TIME IN
2 August 2013	1:35 pm
DATE OUT	**TIME OUT**
2 August 2013	2:09 pm
VEHICLE	**ROLL OFF**
6182	AWLU81130
REFERENCE	**ORIGIN**
AWLU81130	

1 Gross Weight 110,160.00 LB
Tare Weight 47,920.00 LB
Net Weight 62,220.00 LB 31.11 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.11	TN	34 CM63 FCS 34				
		07/24/13				
		Inbound - FAIL TICKET				
		DTTX471636				
		BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2341449

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	655263	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN: 2 August 2013
TIME IN: 1:39 pm
DATE OUT: 2 August 2013
TIME OUT: 2:23 pm
VEHICLE: 6811
ROLL OFF: TOLU469391
REFERENCE: TOLU469391
ORIGIN:

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 107,340.00 LB
Tare Weight 45,360.00 LB
Net Weight 61,980.00 LB 30.99 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
30.99	TN	34 CD63 PCS 34				
	07/26/13	Inbound - RAIL TICKET DTTX652662 BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2327661

FARRENCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001925 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
47	4564469	000000

WEIGHTMASTER: 0100036 GAIL H

DATE IN	TIME IN
8 August 2013	7:16 am
DATE OUT	**TIME OUT**
8 August 2013	9:41 am
VEHICLE	**ROLL OFF**
1865	GCELK25926
REFERENCE	**ORIGIN**
GCELK25926	

1 Gross Weight 109,100.00 LB
Tare Weight 46,620.00 LB
Net Weight 62,480.00 LB 31.24 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.24	TN	34 1865 PCS 34				
		08/08/13				
		Inbound - FAIL TICKET				
		DTTX62013J				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327665

ROSANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0098
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

SITE	TICKET	GRID
42	6564723	000000

WEIGHTMASTER
GH000036 GAIL H

DATE IN	TIME IN
6 August 2013	7:18 am

DATE OUT	TIME OUT
6 August 2013	7:43 am

VEHICLE	ROLL OFF
7029	OCEL430548

REFERENCE	ORIGIN
OCEL430548	

1 Gross Weight 110,160.00 LB
Tare Weight 47,200.00 LB
Net Weight 62,960.00 LB 31.48 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.48	TN	34 CB67 PCS 34 08/02/13 Inbound - RAIL TICKET DTTX620133 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2327669

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	656477	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
8 August 2013	7:20 am

DATE OUT	TIME OUT
8 August 2013	7:51 am

VEHICLE	ROLL OFF
6181	UPCU411443

REFERENCE	ORIGIN
UPCU411443	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 108,940.00 LB
Tare Weight 45,580.00 LB
Net Weight 63,360.00 LB 31.68 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.68	TN	34 DB61 PCS 34				
	08/02/13	Inbound - RAIL TICKET DTTX620133 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

2327674

FARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	2564492	000000

WEIGHTMASTER
OHOOO36 GAIL H

DATE IN	TIME IN
8 August 2013	9:45 am

DATE OUT	TIME OUT
8 August 2013	11:00 am

VEHICLE	ROLL OFF
9939	DCEU4253442

REFERENCE	ORIGIN
DCEU4253442	

001935 - 0089
BNSF / Bruce Shepherd
BNSF / Bruce Shepherd

Contract: LW-10176

1 Gross Weight 111,920.00 LB
Tare Weight 47,760.00 LB
Net Weight 64,160.00 LB 32.07 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.07	TN	34 ERGT FOB 34				
		08/02/13				
		Inbound - RAIL TICKET				
		DTTX620133				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327676

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	656484	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 8 August 2013 — TIME IN: 7:26 am

DATE OUT: 8 August 2013 — TIME OUT: 8:01 am

VEHICLE: 6182 — ROLL OFF: EGTU420778

REFERENCE: EGTU420778 — ORIGIN:

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 109,460.00 LB
Tare Weight 46,040.00 LB
Net Weight 63,420.00 LB 31.71 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.71	TN	34 [D6] FCS 34 08/02/13 Inbound - RAIL TICKET DTTX620133 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________

RS-F04-4pt

2327677

BENNCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10176

SITE	TICKET	GRID
59	6564485	000000

WEIGHMASTER
0400036 GAIL H

DATE IN	TIME IN
8 August 2013	9:29 am

DATE OUT	TIME OUT
8 August 2013	9:04 am

VEHICLE	ROLL OFF
1454	UFCU411522

REFERENCE	ORIGIN
UFCU411522	

1 Gross Weight 111,320.00 LB
Tare Weight 47,960.00 LB
Net Weight 63,360.00 LB 31.68 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.68	TN	34 FB61 PCS 34				
		08/08/13				
		Inbound - RAIL TICKET				
		DTTX420133				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327681

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
4-S	6564489	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
8 August 2013	7:52 am
DATE OUT	**TIME OUT**
8 August 2013	8:08 am
VEHICLE	**ROLL OFF**
8648	TOLL645214
REFERENCE	**ORIGIN**
TOLL645214	

1 Gross Weight 105,140.00 LB
Tare Weight 41,900.00 LB
Net Weight 63,240.00 LB 31.62 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.62	TN	34 LMAT FCS 34				
		08/08/13				
		Inbound - FAIL TICKET				
		DTTX645963				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327686

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	656494	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
8 August 2013	7:54 am

DATE OUT	TIME OUT
8 August 2013	8:18 am

VEHICLE	ROLL OFF
3450	EGTU420167

REFERENCE	ORIGIN
EGTU420167	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 108,860.00 LB
Tare Weight 45,860.00 LB
Net Weight 63,000.00 LB 31.50 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.50	TN	34 CB61 FCS 34				
	08/02/13	Inbound - RAIL TICKET DTTX645983 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ________________

RS-F04-4pt

2327694

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	656502	000000

WEIGHMASTER
GH00036 GAIL H

DATE IN	TIME IN
8 August 2013	8:16 am

DATE OUT	TIME OUT
8 August 2013	8:36 am

VEHICLE	ROLL OFF
7322	GCEU435114

REFERENCE	ORIGIN
GCEU435114	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 109,740.00 LB
Tare Weight 45,900.00 LB
Net Weight 63,840.00 LB 31.92 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.92	TN	34 D863 PCS 34				
	08/02/13	Inbound - RAIL TICKET DTTX655658 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2327697

FARMINGTON REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0000
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contracts: LW-10124

SITE	TICKET	GRID
40	456505	000000

WEIGHMASTER: 0100036 CATL H

DATE IN	TIME IN
8 August 2013	8:18 am

DATE OUT	TIME OUT
8 August 2013	8:41 am

VEHICLE	ROLL OFF
1565	EGTUM201335

REFERENCE	ORIGIN
EGTUM201335	

1 Gross Weight 110,300.00 LB
Tare Weight 46,100.00 LB
Net Weight 64,200.00 LB 32.10 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.10	TN	34 DB61 FOS 34				
		08/08/13				
		Inbound - RAIL TICKET				
		BNSF2080030				
		BNSF-SKYKOMISH				
28.00	FT					

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pl

2327698

RAINIER REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0028
BNSF / Bruce Shepperd
BNSF / Bruce Shepperd

Contract: LW-10124

SITE	TICKET	GRID
49	656506	000000

WEIGHTMASTER: 0H00036 DAIL H

DATE IN	TIME IN
8 August 2013	8:16 am

DATE OUT	TIME OUT
8 August 2013	8:41 am

VEHICLE	ROLL OFF
7389	EQTU4205823

REFERENCE	ORIGIN
EQTU4205823	

1 Gross Weight 109,500.00 LB
Tare Weight 45,680.00 LB
Net Weight 63,820.00 LB 31.91 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.91	TN	34 CB67 FOB 34				
		08/08/13 Inbound - RAIL TICKET DTTX455658 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327699

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	456509	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 8 August 2013 — TIME IN: 8:22 am

DATE OUT: 8 August 2013 — TIME OUT: 8:42 am

VEHICLE: 6181 — ROLL OFF: OCEU432248

REFERENCE: OCEU432248 — ORIGIN:

1 Gross Weight 109,060.00 LB
Tare Weight 45,740.00 LB
Net Weight 63,320.00 LB 31.66 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.66	TN	34 CB63 PCS 34 08/02/13 Inbound - RAIL TICKET BNSF208030 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4pt

2327701

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0003
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	456509	000000

WEIGHTMASTER: CH00034 GAIL H

DATE IN	TIME IN
8 August 2013	8:29 am

DATE OUT	TIME OUT
8 AUGUST 2013	8:44 am

VEHICLE	ROLL OFF
5333	TOLK562779

REFERENCE	ORIGIN
TOLK562779	

1 Gross Weight 111,320.00 LB
Tare Weight 48,440.00 LB
Net Weight 62,880.00 LB 31.44 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.44	TN	36 EB61 PCS 34				
		08/02/13 Inbound - RAIL TICKET DTTX469468 BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2327711

FAIRBANKS REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5441

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10126

SITE	TICKET	GRID
49	456519	000000

WEIGHTMASTER: CH00036 RAIL H

DATE IN	TIME IN
8 August 2013	8:41 am

DATE OUT	TIME OUT
8 August 2013	9:00 am

VEHICLE	ROLL OFF
7331	DCEU4309340

REFERENCE	ORIGIN
DCEU4309340	

1 Gross Weight 108,180.00 LB
Tare Weight 42,880.00 LB
Net Weight 65,300.00 LB 32.65 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.65	TN	34 CR61 POS 34				
		08/02/13				
		Inbound - RAIL TICKET				
		DTTX4-680058				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2327712

RAINIER REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	656520	000000

WEIGHTMASTER
0400036 DAVE H

DATE IN	TIME IN
8 August 2013	8:42 am

DATE OUT	TIME OUT
8 August 2013	9:01 am

VEHICLE	ROLL OFF
3648	GCEU4321443

REFERENCE	ORIGIN
GCEU4321443	

001935 - 0098
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 105,620.00 LB
Tare Weight 42,120.00 LB
Net Weight 63,500.00 LB 31.75 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.75	TN	34 EB61 PCS 34				
		08/02/13				
		Inbound - RAIL TICKET				
		DTTX446839				
		BNSF-SKYKOMISH				

20.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327719

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	656527	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 8 August 2013 | TIME IN: 8:48 am

DATE OUT: 8 August 2013 9:10 am | TIME OUT: 9:10 am

VEHICLE: 3450 | ROLL OFF: UPCU411455

REFERENCE: UPCU411455 | ORIGIN:

1 Gross Weight 109,700.00 LB
Tare Weight 46,540.00 LB
Net Weight 63,160.00 LB 31.58 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.58	TN	34 [B6] PCS 34				
	08/02/13	Inbound - RAIL TICKET DTTX466839 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

2327720

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	656528	000000

WEIGHMASTER: 0H00036 GAIL H

DATE IN: 8 August 2013 TIME IN: 8:35 am

DATE OUT: 8 August 2013 TIME OUT: 9:12 am

VEHICLE: 6182 ROLL OFF: EGTU420050

REFERENCE: EGTU420050 ORIGIN:

1 Gross Weight 110,880.00 LB
Tare Weight 45,500.00 LB
Net Weight 65,380.00 LB 32.69 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.69	TN	34 DB6I PCS 34 08/02/13 Inbound - RAIL TICKET DTTX469468 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2327723

BASSANCO REGIONAL DISPOSAL
P.O. BOX 330
Roosevelt, WA 99356
(509) 384-5441

SITE	TICKET	GRID
49	454831	000000

WEIGHTMASTER
0H00034 GAIL H

DATE IN	TIME IN
8 August 2013	8:37 am
DATE OUT	**TIME OUT**
8 August 2013	9:15 am
VEHICLE	**ROLL OFF**
1454	EGTU4202293
REFERENCE	**ORIGIN**
EGTU4202293	

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 109,500.00 LB
Tare Weight 47,040.00 LB
Net Weight 62,460.00 LB 31.23 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.23	TN	34 DM&I FCS 34 08/08/13 Inbound - RAIL TICKET DTTX468058 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2327731

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	656539	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
8 August 2013	5:58 am

DATE OUT	TIME OUT
8 August 2013	9:34 am

VEHICLE	ROLL OFF
4811	UPCU411424

REFERENCE	ORIGIN
UPCU411424	

1 Gross Weight 109,860.00 LB
Tare Weight 47,000.00 LB
Net Weight 62,860.00 LB 31.43 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.43	TN	34 [B6] PCS 34 08/02/13 Inbound - RAIL TICKET DTTX657041 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4pt

2327733

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	656541	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 8 August 2013 — TIME IN: 9:10 am

DATE OUT: 8 August 2013 — TIME OUT: 9:35 am

VEHICLE: 1565 — ROLL OFF: EGTU420172

REFERENCE: EGTU420172 — ORIGIN:

1 Gross Weight 110,180.00 LB
Tare Weight 46,540.00 LB
Net Weight 63,640.00 LB 31.82 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.82	TN	34 EB63 PCS 34 08/02/13 Inbound - RAIL TICKET DTTX646588 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2327737

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
42	454545	000000

WEIGHTMASTER
0400036 GAIL H

DATE IN	TIME IN
8 August 2013	7:07 am
DATE OUT	**TIME OUT**
8 August 2013	9:40 am
VEHICLE	**ROLL OFF**
7327	TRLU900684
REFERENCE	**ORIGIN**
TRLU900684	

1 Gross Weight 109,660.00 LB
Tare Weight 46,340.00 LB
Net Weight 63,320.00 LB 31.66 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.66	TN	34 EB63 POS 34				
		08/08/13 Inbound - RAIL TICKET DTTX65704 BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2327738

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	656546	000000

WEIGHMASTER	
GH00036 GAIL H	
DATE IN	**TIME IN**
8 August 2013	7:13 am
DATE OUT	**TIME OUT**
8 August 2013	9:40 am
VEHICLE	**ROLL OFF**
6181	TOLU425710
REFERENCE	**ORIGIN**
TOLU425710	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

I Gross Weight 109,040.00 LB
Tare Weight 45,980.00 LB
Net Weight 63,060.00 LB 31.53 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.53	TN	34 CB&D PCS 34				
	08/02/13	Inbound - RAIL TICKET DTTX659912 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2327739

BARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10126

SITE	TICKET	GRID
49	4545547	000000

WEIGHTMASTER
CHOOCH6 GAIL H

DATE IN	TIME IN
8 August 2013	9:12 am

DATE OUT	TIME OUT
8 August 2013	9:40 am

VEHICLE	ROLL OFF
7320	DCEU4295932

REFERENCE	ORIGIN
DCEU4295932	

1 Gross Weight 110,360.00 LB
Tare Weight 46,720.00 LB
Net Weight 63,640.00 LB 31.82 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.82	TN	3% EB61 FOS 04				
		08/02/13 Inbound - RAIL TICKET DTTX464582 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2327742

FRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001928 - 0028
ENSF / Bruce Sheppard
ENSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	6565550	000000

WEIGHTMASTER: GH00036 GATE H

DATE IN	TIME IN
8 August 2013	2:16 am

DATE OUT	TIME OUT
8 August 2013	2:44 am

VEHICLE	ROLL OFF
5833	EGTLM420229

REFERENCE	ORIGIN
EGTLM420229	

1 Gross Weight 110,920.00 LB
Tare Weight 47,580.00 LB
Net Weight 63,340.00 LB 31.67 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.67	TN	34 EB67 PCS 34				
		08/08/13				
		Inbound - FAIL TICKET				
		DTTX459912				
		ENSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327748

FARRENCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10126

SITE	TICKET	GRID
49	4565354	000000

WEIGHTMASTER
0H00036 DAIL H

DATE IN	TIME IN
8 August 2013	9:32 am
DATE OUT	**TIME OUT**
8 August 2013	9:57 am
VEHICLE	**ROLL OFF**
7931	OCEU440175
REFERENCE	**ORIGIN**
OCEU440175	

1 Gross Weight 106,100.00 LB
Tare Weight 42,540.00 LB
Net Weight 63,560.00 LB 31.78 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.78	TN	34 CM61 POS 34				
		08/02/13 Inbound - RAIL TICKET DTTX472695 BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327755

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	656563	000000

WEIGHMASTER: BH00036 GAIL H

DATE IN: 8 August 2013 — TIME IN: 2:30 am

DATE OUT: 8 August 2013 — TIME OUT: 10:09 am

VEHICLE: 3648 — ROLL OFF: EGTU420248

REFERENCE: EGTU420248 — ORIGIN:

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 105,360.00 LB
Tare Weight 42,040.00 LB
Net Weight 63,320.00 LB 31.66 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.66	TN	34 CB63 PCS 34				
	08/02/13	Inbound - RAIL TICKET DTTX471695 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2327756

BASANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Shepperd
BNSF / Bruce Shepperd

Contract: LW-10126

SITE	TICKET	GRID
49	456564	000000

WEIGHTMASTER: 0100036 DAIL H

DATE IN	TIME IN
8 August 2013	9:44 am

DATE OUT	TIME OUT
8 August 2013	10:10 am

VEHICLE	ROLL OFF
5182	TOLU457095

REFERENCE	ORIGIN
TOLU457095	

1 Gross Weight 108,960.00 LB
Tare Weight 44,700.00 LB
Net Weight 64,260.00 LB 32.13 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.13	TN	34 CB61 POS 34				
		08/02/13				
		Inbound - RAIL TICKET				
		DTTX472568?				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2327757

KABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0002
BNSF / Bruce Shepeard
BNSF / Bruce Shepeard

Contract: LW-10176

SITE	TICKET	GRID
49	4545655	000000

WEIGHTMASTER: 0H00036 GAIL H

DATE IN	TIME IN
8 August 2013	9:45 am

DATE OUT	TIME OUT
8 August 2013	10:10 am

VEHICLE	ROLL OFF
3450	GCEU4320285

REFERENCE	ORIGIN
GCEU4320285	

1 Gross Weight 109,140.00 LB
Tare Weight 46,140.00 LB
Net Weight 63,000.00 LB 31.50 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.50	TN	34 EM63 POS 34				
		08/02/13				
		Inbound - RAIL TICKET				
		DTTX475583				
		BNSF-SKYKOMISH				
		20.00 FF				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2327759

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0008
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	656567	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 8 August 2013 TIME IN: 7:42 am

DATE OUT: 8 August 2013 TIME OUT: 10:14 am

VEHICLE: 1454 ROLL OFF: GCEU431190

REFERENCE: GCEU431190 ORIGIN:

1 Gross Weight 109,660.00 LB
Tare Weight 47,100.00 LB
Net Weight 62,560.00 LB 31.28 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.28	TN	34 [B6] PCS 34				
	08/02/13	Inbound - RAIL TICKET DTTX656885 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

2327765

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10196

SITE	TICKET	GRID
49	656573	000000

WEIGHMASTER: GH00034 GAIL H

DATE IN	TIME IN
8 August 2013	10:04 am

DATE OUT	TIME OUT
8 August 2013	10:27 am

VEHICLE	ROLL OFF
6811	GCEU445181

REFERENCE	ORIGIN
GCEU445181	

1 Gross Weight 109,100.00 LB
Tare Weight 1.00 LB
Net Weight 109,099.00 LB 54.55 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
54.55	TN	34 [B6] PCS 34				
	08/02/13	Inbound - RAIL TICKET DTTX656885 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2327968

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	656775	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
9 August 2013	5:42 am

DATE OUT	TIME OUT
9 August 2013	7:11 am

VEHICLE	ROLL OFF
1454	EGTU420292

REFERENCE	ORIGIN
EGTU420292	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

I Gross Weight 110,540.00 LB
Tare Weight 46,740.00 LB
Net Weight 63,800.00 LB 31.90 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.90	TN	34 CB61 PCS 34 07/26/13 Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2327983

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	656090	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
2 August 2013	2:15 am
DATE OUT	**TIME OUT**
2 August 2013	7:31 am
VEHICLE	**ROLL OFF**
98332	DCEU4302113
REFERENCE	**ORIGIN**
DCEU4302113	

1 Gross Weight 112,420.00 LB
Tare Weight 47,960.00 LB
Net Weight 64,460.00 LB 32.23 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.23	TN	34 CD67 PCS 34				
		07/26/13				
		Inbound - RAIL TICKET				
		DTTX420346				
		BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327987

ARLINGTON REGIONAL DISPOSAL
P.O. BOX 338
Arlington, WA 98223
(360) 386-5541

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	6567956	000000

WEIGHTMASTER: IF-00025 TANICE F

DATE IN	TIME IN
2 August 2013	7:25 am
DATE OUT	**TIME OUT**
2 August 2013	7:44 am
VEHICLE	**ROLL OFF**
3450	TOLU467944
REFERENCE	**ORIGIN**
TOLU467944	

1 Gross Weight 110,160.00 LB
Tare Weight 46,980.00 LB
Net Weight 63,180.00 LB 31.59 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.59	TN	3# CB&I FCS 34				
		07/26/13				
		Inbound - RAIL TICKET				
		DTTX620346				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2327992

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	656799	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
9 August 2013	7:25 am

DATE OUT	TIME OUT
9 August 2013	7:52 am

VEHICLE	ROLL OFF
6811	UPCU411467

REFERENCE	ORIGIN
UPCU411467	

I Gross Weight 109,240.00 LB
Tare Weight 46,100.00 LB
Net Weight 63,140.00 LB 31.57 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.57	TN	34 CB63 PCS 34				
		07/26/13 Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2426004

BABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, UA 99356
(509) 384-5441

001985 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10176

SITE	TICKET	GRID
49	6546811	000000

WEIGHTMASTER
TF00025 JANICE F

DATE IN	TIME IN
9 August 2013	9:35 am
DATE OUT	**TIME OUT**
9 August 2013	9:43 am
VEHICLE	**ROLL OFF**
7330	TOTLW46837
REFERENCE	**ORIGIN**
TOTLW46837	

1 Gross Weight 110,620.00 LB
Tare Weight 45,960.00 LB
Net Weight 64,660.00 LB 32.33 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.33	TN	34 CD&I PCS 34				
		08/26/13				
		Inbound - RAIL TICKET				
		DTTX620344				
		BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

FARANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5661

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

2426007

SITE	TICKET	GRID
40	4546314	000000

WEIGHMASTER
TF00025 JANICE F

DATE IN	TIME IN
9 August 2013	7:44 am
DATE OUT	**TIME OUT**
9 August 2013	8:22 am
VEHICLE	**ROLL OFF**
1454	EQTL420590
REFERENCE	**ORIGIN**
EQTL420590-	

1 Gross Weight 110,700.00 LB
Tare Weight 47,140.00 LB
Net Weight 63,560.00 LB 31.78 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.78	TN	34 DRY FOS 34				
		08/26/13				
		Inbound - RAIL TICKET				
		DTTX620034				
		BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2426615

RABANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	857414	000000

WEIGHMASTER: 0H00036 GAIL H

DATE IN	TIME IN
12 August 2013	2:06 pm

DATE OUT	TIME OUT
12 August 2013	2:21 pm

VEHICLE	ROLL OFF
1545	TTEU133071

REFERENCE	ORIGIN
TTEU133071	

1 Gross Weight 110,620.00 LB
Tare Weight 47,280.00 LB
Net Weight 63,340.00 LB 31.67 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.67	TN	34 [illegible] POS 34 08/09/13 Inbound - RAIL TICKET DTTX644317 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426616

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0028
ENSF / Bruce Sheppard
ENSF / Bruce Sheppard

Contract: LU-10126

SITE	TICKET	GRID
49	4574-15	000000

WEIGHTMASTER: GHOOGIE GAIL H

DATE IN	TIME IN
12 August 2013	9:03 am

DATE OUT	TIME OUT
12 August 2013	9:21 am

VEHICLE	ROLL OFF
2181	DCEU4308 12

REFERENCE	ORIGIN
DCEU4308 12	

1 Gross Weight 108,260.00 LB
Tare Weight 44,880.00 LB
Net Weight 63,380.00 LB 31.69 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.69	TN	34 CB61 PCS 34				
		08/08/13				
		Inbound - RAIL TICKET				
		DTTX652662				
		ENSF-SKYKOMISH				
20.00	FF					

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2426618

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	657417	000000

WEIGHMASTER	
GH00036 GAIL H	
DATE IN: 12 August 2013	TIME IN: 9:05 am
DATE OUT: 12 August 2013	TIME OUT: 9:24 am
VEHICLE: 6811	ROLL OFF: GCEU435067
REFERENCE: GCEU435067	ORIGIN:

I Gross Weight 109,080.00 LB
Tare Weight 45,800.00 LB
Net Weight 63,280.00 LB 31.64 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.64	TN	34 [B6] PCS 34				
	08/08/13	Inbound - RAIL TICKET DTTX646317 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4pt

2426626

BENANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6374425	000000

WEIGHTMASTER
0100036 GAIL H

DATE IN	TIME IN
12 August 2013	9:11 am

DATE OUT	TIME OUT
12 August 2013	2:34 am

VEHICLE	ROLL OFF
2330	GCEU4251727

REFERENCE	ORIGIN
GCEU4251727	

1 Gross Weight 110,080.00 LB
Tare Weight 46,160.00 LB
Net Weight 63,920.00 LB 31.96 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.96	TN	34 E963 PCS 34 08/08/13 Inbound - SAIL TICKET DTTX652662 BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426630

BASANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5441

001935 - 0060
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	457429	000000

WEIGHTMASTER: GH00036 GATE H

DATE IN	TIME IN
12 August 2013	9:19 am

DATE OUT	TIME OUT
12 August 2013	9:37 am

VEHICLE	ROLL OFF
7829	BCEU430223

REFERENCE	ORIGIN
BCEU430223	

1 Gross Weight 110,180.00 LB
Tare Weight 46,220.00 LB
Net Weight 63,960.00 LB 31.98 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.98	TN	34 EM61 PCS 34				
		08/08/13 Inbound - RAIL TICKET DTTX421836 BNSF-SKYKOMISH				

20.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426632

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 -- 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
42	657431	000000

WEIGHTMASTER
GH000036 GAIL H

DATE IN	TIME IN
12 August 2013	9:29 am

DATE OUT	TIME OUT
12 August 2013	9:46 am

VEHICLE	ROLL OFF
3450	TOLU422275

REFERENCE	ORIGIN
TOLU422275	

1 Gross Weight 110,220.00 LB
Tare Weight 46,580.00 LB
Net Weight 63,640.00 LB 31.82 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.82	TN	34 CB61 PCS 34				
		08/08/13 Inbound - RAIL TICKET DTTX420616 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426634

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0080
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10126

SITE	TICKET	GRID
49	657433	000000

WEIGHTMASTER: 0400036 DAVID H

DATE IN	TIME IN
12 August 2013	9:17 am

DATE OUT	TIME OUT
12 August 2013	9:40 am

VEHICLE	ROLL OFF
3444B	EGTU420560

REFERENCE	ORIGIN
EGTU420560	

1 Gross Weight 109,600.00 LB
Tare Weight 46,320.00 LB
Net Weight 63,280.00 LB 31.64 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.64	TN	34 EB61 PCS 34				
		08/09/13 Inbound - RAIL TICKET DTTX421636 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426641

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0099
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	4572440	000000

WEIGHTMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 August 2013	9:32 am

DATE OUT	TIME OUT
12 August 2013	10:02 am

VEHICLE	ROLL OFF
8633	TCLU4725437

REFERENCE	ORIGIN
TCLU4725437	

1 Gross Weight 111,700.00 LB
Tare Weight 46,880.00 LB
Net Weight 64,820.00 LB 32.41 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.41	TN	94 EM61 PCS 94				
		08/09/13				
		Inbound - FAIL TICKET				
		DTTX620616				
		BNSF-SKYKOMISH				

29.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426642

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
42	657441	000000

WEIGHMASTER: CHOO036 GAIL H

DATE IN	TIME IN
12 August 2013	9:45 am

DATE OUT	TIME OUT
12 August 2013	10:03 am

VEHICLE	ROLL OFF
7231	DCEU4305646

REFERENCE	ORIGIN
DCEU4305646	

1 Gross Weight 106,160.00 LB
Tare Weight 42,240.00 LB
Net Weight 63,920.00 LB 31.96 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.96	TN	94 CR61 FOB 94				
		08/08/13				
		Inbound - RAIL TICKET				
		DTTX620616				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426646

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	657445	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 August 2013	9:46 am

DATE OUT	TIME OUT
12 August 2013	10:06 am

VEHICLE	ROLL OFF
1454	GCEU425366

REFERENCE	ORIGIN
GCEU425366	

1 Gross Weight 109,400.00 LB
Tare Weight 46,780.00 LB
Net Weight 62,620.00 LB 31.31 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.31	TN	34 [B6] PCS 34				
	08/08/13	Inbound - RAIL TICKET DTTX620616 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2426647

EVERGREEN REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	457644	000000

WEIGHTMASTER
0100036 GAIL H

DATE IN	TIME IN
12 August 2013	9:48 am

DATE OUT	TIME OUT
12 August 2013	10:06 am

VEHICLE	ROLL OFF
1565	TOLU465922

REFERENCE	ORIGIN
TOLU465922	

1 Gross Weight 112,180.00 LB
Tare Weight 47,200.00 LB
Net Weight 64,980.00 LB 32.49 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.49	TN	34 LB63 PCS 34				
		08/08/13				
		Inbound - RAIL TICKET				
		DTTX620616				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426648

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	657442	000000

WEIGHMASTER
GH00036 GAIL H

DATE IN	TIME IN
12 August 2013	9:49 am

DATE OUT	TIME OUT
12 August 2013	10:07 am

VEHICLE	ROLL OFF
6181	GCEU420126

REFERENCE	ORIGIN
GCEU420126	

001925 - 0080
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

I Gross Weight 108,960.00 LB
Tare Weight 45,540.00 LB
Net Weight 63,420.00 LB 31.71 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.71	TN	34 CB&I PCS 34				
	08/08/13	Inbound - RAIL TICKET DTTX620616 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4p

2426652

BARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0069
BNSF / Bruce Shepard
BNSF / Bruce Shepard

Contract# LW-10176

SITE	TICKET	GRID
49	652451	000000

WEIGHTMASTER: 0H00036 GAIL H

DATE IN	TIME IN
12 August 2013	9:58 am

DATE OUT	TIME OUT
12 August 2013	10:15 am

VEHICLE	ROLL OFF
4911	TRLU901605

REFERENCE	ORIGIN
TRLU901605	

1 Gross Weight 108,360.00 LB
Tare Weight 44,580.00 LB
Net Weight 63,800.00 LB 31.90 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.90	TN	34 CB67 PCS 34				
		08/08/13 Inbound - RAIL TICKET DTTX656666 BNSF-SKYKOMISH				

39.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2426656

RAINIER REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5441

001935 -- 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10126

SITE	TICKET	GRID
49	6579455	000000

WEIGHTMASTER: 0H00036 GAIL H

DATE IN	TIME IN
12 August 2013	9:57 am

DATE OUT	TIME OUT
12 August 2013	10:18 am

VEHICLE	ROLL OFF
5182	TOLU665514

REFERENCE	ORIGIN
TOLU665514	

1 Gross Weight 104,120.00 LB
Tare Weight 40,640.00 LB
Net Weight 63,480.00 LB 31.74 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.74	TN	34 EB61 PCS 34				
		08/08/13				
		Inbound - RAIL TICKET				
		DTTX665666				
		BNSF-SKYKOMISH				

23.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2426665

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	657464	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 August 2013	10:09 am

DATE OUT	TIME OUT
12 August 2013	10:31 am

VEHICLE	ROLL OFF
7329	OCEU431966

REFERENCE	ORIGIN
OCEU431966	

001935 - 0080
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 109,180.00 LB
Tare Weight 44,920.00 LB
Net Weight 64,260.00 LB 32.13 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.13	TN	34 CB63 FCS 34				
	08/08/13	Inbound - RAIL TICKET DTTX470193 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04

2426669

FARRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001535 - 0039
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contracts LW-10176

SITE	TICKET	GRID
49	452460	000000

WEIGHTMASTER
0H00036 GAIL H

DATE IN	TIME IN
12 August 2013	10:12 am
DATE OUT	**TIME OUT**
12 August 2013	10:43 am
VEHICLE	**ROLL OFF**
9330	DEEM420050
REFERENCE	**ORIGIN**
DEEM420050	

1 Gross Weight 110,540.00 LB
Tare Weight 45,240.00 LB
Net Weight 64,300.00 LB 32.40 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.40	TN	34 EB63 PCS 34				
		08/08/13				
		Inbound - RAIL TICKET				
		DTTX470193				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

RAINIER REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

2428179

SITE	TICKET	GRID
49	6585725	000000

WEIGHTMASTER: TF00025 JANICE F

DATE IN	TIME IN
12 August 2013	6:12 am

DATE OUT	TIME OUT
12 August 2013	6:40 am

VEHICLE	ROLL OFF
6011	TOLI4-692316

REFERENCE	ORIGIN
TOLI4-692316	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LUF-10176

1 Gross Weight 109,400.00 LB
Tare Weight 46,200.00 LB
Net Weight 63,200.00 LB 31.60 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.60	TN	34 EB61 FOS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX620133				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2428187

FARRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0002
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

SITE	TICKET	GRID
49	459983	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	6:20 am
DATE OUT	**TIME OUT**
17 August 2013	6:50 am
VEHICLE	**ROLL OFF**
3450	TCSU4644239
REFERENCE	**ORIGIN**
TCSU4644239	

1 Gross Weight 109,920.00 LB
Tare Weight 46,400.00 LB
Net Weight 63,520.00 LB 31.76 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.76	TN	36 CB63 PCS 36				
		08/17/13				
		Inbound - FAIL TICKET				
		DTTX620139				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428190

BABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LU-10126

SITE	TICKET	GRID
49	4289986	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
12 AUGUST 2013	6:25 am

DATE OUT	TIME OUT
12 AUGUST 2013	6:36 am

VEHICLE	ROLL OFF
1454	GCEU4295209

REFERENCE	ORIGIN
GCEU4295209	

1 Gross Weight 111,140.00 LB
Tare Weight 46,820.00 LB
Net Weight 64,320.00 LB 32.16 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.16	TN	34 CB61 FCS 34				
		08/12/13				
		Inbound - RAIL TICKET				
		DTTX620133				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE

RS-F04-4pt

2428191

FARRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	4589987	000000

WEIGHTMASTER: JF00023 JANICE F

DATE IN	TIME IN
17 August 2013	6:33 am

DATE OUT	TIME OUT
17 August 2013	2:59 pm

VEHICLE	ROLL OFF
7230	TOLU454005

REFERENCE	ORIGIN
TOLU454005	

1 Gross Weight 111,490.00 LB
Tare Weight 47,720.00 LB
Net Weight 63,760.00 LB 31.88 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.88	TN	34 CB61 PCS 34 08/14/13 Inbound - RAIL TICKET DTTX620133 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428202

BABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	4589598	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	6:56 am
DATE OUT	**TIME OUT**
17 August 2013	7:14 am
VEHICLE	**ROLL OFF**
5939	GCEU4305448
REFERENCE	**ORIGIN**
GCEU4305448	

1 Gross Weight 111,800.00 LB
Tare Weight 47,500.00 LB
Net Weight 64,300.00 LB 32.15 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.15	TN	34 CB63 PCS 34				
		08/17/13				
		Inbound - RAIL TICKET				
		DTTX620132				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428205

FARRAGO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	6559001	000000

WEIGHTMASTER: TF00025 JANICE F

DATE IN	TIME IN
12 August 2013	2:00 am

DATE OUT	TIME OUT
12 August 2013	2:18 am

VEHICLE	ROLL OFF
1565	OCEU4295935

REFERENCE	ORIGIN
OCEU4295935	

1 Gross Weight 109,660.00 LB
Tare Weight 46,640.00 LB
Net Weight 63,020.00 LB 31.51 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.51	TN	34 CB63 PDS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX620139				
		BNSF-SKYKOMISH				
		28.00 FF				

NET AMOUNT	
TENDERED	
CHANGE	
CHECK NO.	

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2428213

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

SITE	TICKET	GRID
49	489009	000000

WEIGHMASTER
JF000025 JANICE F

DATE IN	TIME IN
12 August 2013	9:10 am
DATE OUT	**TIME OUT**
12 August 2013	2:31 pm
VEHICLE	**ROLL OFF**
6811	UFCU411443
REFERENCE	**ORIGIN**
UFCU411443	

001935 - 0080
ENSF / Bruce Sheppard
ENSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 108,540.00 LB
Tare Weight 45,800.00 LB
Net Weight 62,740.00 LB 31.37 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.37	TN	34 LB63 PCS 34				
		08/12/13				
		Inbound - RATL TICKET				
		DTTX645983				
		ENSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2428219

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	489015	000000

WEIGHMASTER
TF000025 JANICE F

DATE IN	TIME IN
19 AUGUST 2013	7:22 am
DATE OUT	**TIME OUT**
19 AUGUST 2013	7:45 am
VEHICLE	**ROLL OFF**
3450	DCEU430213
REFERENCE	**ORIGIN**
DCEU430213	

1 Gross weight 110,560.00 LB
Tare weight 47,080.00 LB
Net weight 63,480.00 LB 31.74 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.74	TN	34 CB63 PCS 34				
		08/19/13 Inbound - RAIL TICKET DTX620340 BNSF-SKYKOMISH				
		23.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2428223

FRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0080
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	455019	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
12 August 2013	7:16 am

DATE OUT	TIME OUT
12 August 2013	7:40 am

VEHICLE	ROLL OFF
6181	OCEU4253642

REFERENCE	ORIGIN
OCEU4253642	

1 Gross Weight 106,460.00 LB
Tare Weight 44,440.00 LB
Net Weight 62,020.00 LB 31.01 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.01	TN	34 EB61 PCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX64599B3				
		BNSF-SKYKOMISH				
		23.00 FP				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2428225

FARRINGO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0099
ENSF / Bruce Sheppard
ENSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	659021	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	7:20 am
DATE OUT	**TIME OUT**
17 August 2013	2:50 pm
VEHICLE	**ROLL OFF**
2029	EGTU420292
REFERENCE	**ORIGIN**
EGTU420292	

1 Gross Weight 108,820.00 LB
Tare Weight 46,100.00 LB
Net Weight 62,720.00 LB 31.36 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.36	TN	34 CB61 PCS 34				
		08/17/13				
		Inbound - RAIL TICKET				
		DTTX620048				
		ENSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2428226

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5441

SITE	TICKET	GRID
49	4590332	000000

WEIGHTMASTER
IF00025 JANICE F

DATE IN	TIME IN
17 August 2013	7:29 am

DATE OUT	TIME OUT
17 August 2013	7:50 am

VEHICLE	ROLL OFF
1484	BCEU4401897

REFERENCE	ORIGIN
BCEU4401897	

001535 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 111,100.00 LB
Tare Weight 67,360.00 LB
Net Weight 43,740.00 LB 21.87 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
21.87	TN	34 C863 PDS 34 08/14/13 Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428232

FARANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-3641

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	659028	000000

WEIGHTMASTER: TF00025 JANICE F

DATE IN	TIME IN
17 August 2013	9:47 am

DATE OUT	TIME OUT
17 August 2013	9:03 am

VEHICLE	ROLL OFF
1565	TOLU456137

REFERENCE	ORIGIN
TOLU456137	

1 Gross Weight 111,620.00 LB
Tare Weight 47,900.00 LB
Net Weight 63,720.00 LB 31.86 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.86	TN	34 CBCJ PCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX620346				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428233

BENTON REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6590259	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	7:44 am

DATE OUT	TIME OUT
17 August 2013	8:03 am

VEHICLE	ROLL OFF
5833	DCEU4314453

REFERENCE	ORIGIN
DCEU4314453	

1 Gross Weight 108,240.00 LB
Tare Weight 45,880.00 LB
Net Weight 62,360.00 LB 31.43 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.43	TN	34 EB61 PCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				
		25.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428241

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0083
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	459097	000000

WEIGHTMASTER: TF00025 JANICE F

DATE IN	TIME IN
17 August 2013	7:54 am
DATE OUT	**TIME OUT**
17 August 2013	8:19 am
VEHICLE	**ROLL OFF**
2330	TCLU4683??
REFERENCE	**ORIGIN**
TCLU4683??	

1 Gross Weight 109,480.00 LB
Tare Weight 45,800.00 LB
Net Weight 62,680.00 LB 31.34 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.34	TN	34 CB63 PCS 34				
		08/17/13				
		Inbound - RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2428247

FRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	459043	000000

WEIGHTMASTER
JF000025 JANICE F

DATE IN	TIME IN
17 August 2013	8:00 am
DATE OUT	**TIME OUT**
17 August 2013	8:26 am
VEHICLE	**ROLL OFF**
6811	EGTU6207763
REFERENCE	**ORIGIN**
EGTU6207763	

1 Gross Weight 108,840.00 LB
Tare Weight 45,900.00 LB
Net Weight 62,940.00 LB 31.47 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.47	TN	34 EB63 PCS 34 08/14/13 Inbound - RAIL TICKET DTTX655656 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2428253

BABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	4829049	000000

WEIGHTMASTER
TF00025 JANICE F

DATE IN	TIME IN
17 August 2013	8:13 am
DATE OUT	**TIME OUT**
17 August 2013	2:36 am
VEHICLE	**ROLL OFF**
3450	UPCU411522
REFERENCE	**ORIGIN**
UPCU411522	

1 Gross Weight 110,360.00 LB
Tare Weight 46,960.00 LB
Net Weight 63,400.00 LB 31.70 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.70	TN	34 ER61 PCS 34				
		08/16/13				
		Inbound - RAIL TICKET				
		DTTX655658				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428256

FARRAND REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10174

SITE	TICKET	GRID
49	459052	000000

WEIGHTMASTER: JT00025 JANICE F

DATE IN	TIME IN
17 AUGUST 2013	8:20 am
DATE OUT	**TIME OUT**
17 AUGUST 2013	9:39 am
VEHICLE	**ROLL OFF**
7328	TOLUM459316
REFERENCE	**ORIGIN**
TOLUM459316	

1 Gross Weight 108,600.00 LB
Tare Weight 45,500.00 LB
Net Weight 63,100.00 LB 31.55 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.55	TN	34 CB63 PCS 34				
		08/17/13				
		Inbound - RAIL TICKET				
		BNSF2080030				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2428262

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5441

SITE	TICKET	GRID
47	6590658	000000

WEIGHTMASTER
JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	8:30 am
DATE OUT	**TIME OUT**
17 August 2013	8:48 am
VEHICLE	**ROLL OFF**
9838	GCEU4351114
REFERENCE	**ORIGIN**
GCEU4351114	

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 111,320.00 LB
Tare Weight 46,600.00 LB
Net Weight 64,720.00 LB 32.36 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.36	TN	34 CR61 PCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX469468				
		BNSF-SKYKOMISH				
		28.00 FF				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428267

RABANCO REGIONAL DISPOSAL
P.O. BOX 328
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	659063	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
12 August 2013	8:22 am

DATE OUT	TIME OUT
12 August 2013	8:25 am

VEHICLE	ROLL OFF
1464	EDTU420167

REFERENCE	ORIGIN
EDTU420167	

1 Gross Weight 109,940.00 LB
Tare Weight 46,380.00 LB
Net Weight 63,560.00 LB 31.78 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.78	TN	34 CB61 FCS 34 08/16/13 Inbound - RAIL TICKET BNSF20080 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428269

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Shepherd
BNSF / Bruce Shepherd

Contract: LW-10176

SITE	TICKET	GRID
49	659065	000000

WEIGHTMASTER: TF00025 JANICE F

DATE IN	TIME IN
17 August 2013	9:37 am
DATE OUT	**TIME OUT**
17 August 2013	9:00 am
VEHICLE	**ROLL OFF**
1565	EGTU4205229
REFERENCE	**ORIGIN**
EGTU4205229	

1 Gross Weight 109,420.00 LB
Tare Weight 49,860.00 LB
Net Weight 59,560.00 LB 31.78 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.78	TN	34 CB63 FOS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX469468				
		BNSF-SKYKOMISH				
		28.00 FF				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2428277

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	659073	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN: 17 August 2013 | TIME IN: 8:57 am

DATE OUT: 17 August 2013 | TIME OUT: 9:14 am

VEHICLE: 6811 | ROLL OFF: GCEU432248

REFERENCE: GCEU432248 | ORIGIN:

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

I Gross Weight 109,420.00 LB
Tare Weight 45,680.00 LB
Net Weight 63,740.00 LB 31.87 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.87	TN	34 [B63] PCS 34				
	08/14/13	Inbound - RAIL TICKET DTTX468058 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

2428283

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	4590??	000000

WEIGHTMASTER: JF000025 JANICE F

DATE IN	TIME IN
17 August 2013	9:06 am
DATE OUT	**TIME OUT**
17 August 2013	9:26 am
VEHICLE	**ROLL OFF**
3450	TOLL#4560??
REFERENCE	**ORIGIN**
TOLL#4560??	

1 Gross Weight 110,300.00 LB
Tare Weight 47,180.00 LB
Net Weight 63,120.00 LB 31.56 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.56	TN	34 CD61 PCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DYTX4-568639				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2428284

FAIRBANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 – 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	659080	000000

WEIGHMASTER: TF00025 JANICE F

DATE IN	TIME IN
17 August 2013	8:35 am

DATE OUT	TIME OUT
17 August 2013	8:36 am

VEHICLE	ROLL OFF
7530	EDTU4201235

REFERENCE	ORIGIN
EDTU4201235	

1 Gross Weight 109,640.00 LB
Tare Weight 45,660.00 LB
Net Weight 63,980.00 LB 31.99 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.99	TN	34 ER61 POS 34				
		08/17/13				
		Inbound – RAIL TICKET				
		DTTX468058				
		BNSF–SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428286

BARANCO REGIONAL DISPOSAL
P. O. BOX 336
Roosevelt, WA 99356
(509) 384-3641

001935 - 0039
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

SITE	TICKET	GRID
49	459092	000000

WEIGHMASTER: JF0025 JANICE F

DATE IN	TIME IN
17 August 2013	9:15 am

DATE OUT	TIME OUT
17 August 2013	9:32 am

VEHICLE	ROLL OFF
5303	DCEU4303340

REFERENCE	ORIGIN
DCEU4303340	

1 Gross Weight 110,540.00 LB
Tare Weight 46,960.00 LB
Net Weight 63,580.00 LB 31.79 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.79	TN	34 CB&I FCS 34				
		08/16/13				
		Inbound - RAIL TICKET				
		DTTX466829				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2428298

EVERGREEN REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001929 - 0069
BNSF / Bruce Shepeard
BNSF / Bruce Shepeard

Contract: LW-10126

SITE	TICKET	GRID
49	659094	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	9:30 am

DATE OUT	TIME OUT
17 August 2013	9:50 am

VEHICLE	ROLL OFF
1565	EGTU620050

REFERENCE	ORIGIN
EGTU620050	

1 Gross Weight 111,880.00 LB
Tare Weight 46,160.00 LB
Net Weight 65,720.00 LB 32.86 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.86	TN	34 ER61 FCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX657041				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428299

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10174

SITE	TICKET	GRID
49	6599095	000000

WEIGHTMASTER
TF00025 JANICE F

DATE IN	TIME IN
17 August 2013	9:29 am

DATE OUT	TIME OUT
17 August 2013	9:51 am

VEHICLE	ROLL OFF
1454	GCEU432143

REFERENCE	ORIGIN
GCEU432143	

1 Gross Weight 110,280.00 LB
Tare Weight 46,360.00 LB
Net Weight 63,920.00 LB 31.96 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.96	TN	34 CR63 PCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX657041				
		BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428305

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0000
ENSF / Bruce Sheppard
ENSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	659101	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	9:23 am

DATE OUT	TIME OUT
17 August 2013	10:05 am

VEHICLE	ROLL OFF
7331	EGTLM420298

REFERENCE	ORIGIN
EGTLM420298	

1 Gross Weight 105,240.00 LB
Tare Weight 42,360.00 LB
Net Weight 63,360.00 LB 31.68 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.68	TN	34 CMGJ PDS 34 08/14/13 Inbound - FATL TICKET DTTX64-6589 ENSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428311

RABANCO REGIONAL DISPOSAL
P.O. BOX 3338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Shepherd
BNSF / Bruce Shepherd

Contract: LW-10176

SITE	TICKET	GRID
45	659107	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	9:47 am

DATE OUT	TIME OUT
17 August 2013	10:13 am

VEHICLE	ROLL OFF
6511	EGTU4201729

REFERENCE	ORIGIN
EGTU4201729	

1 Gross Weight 109,160.00 LB
Tare Weight 45,960.00 LB
Net Weight 63,200.00 LB 31.60 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.60	TN	34 EB67 PCB 34				
		08/17/13				
		Inbound - RAIL TICKET				
		DTTX659912				
		BNSF-SKYKOMISH				

23.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2428315

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
42	659111	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	9:58 am

DATE OUT	TIME OUT
17 August 2013	10:17 am

VEHICLE	ROLL OFF
5450	TOLU625710

REFERENCE	ORIGIN
TOLU625710	

1 Gross Weight 110,540.00 LB
Tare Weight 46,380.00 LB
Net Weight 64,160.00 LB 32.08 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.08	TN	34 [863] POS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX659912				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2428316

FARMCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

SITE	TICKET	GRID
49	659112	000000

WEIGHTMASTER: JF000025 JANICE F

DATE IN	TIME IN
17 August 2013	10:02 am

DATE OUT	TIME OUT
17 August 2013	10:18 am

VEHICLE	ROLL OFF
5800	OCEU4259233

REFERENCE	ORIGIN
OCEU4259233	

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

1 Gross Weight 110,630.00 LB
Tare Weight 47,160.00 LB
Net Weight 63,440.00 LB 31.72 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.72	TN	34 ER61 PCS 34				
		08/17/13				
		Inbound - RAIL TICKET				
		DTTX472695				
		BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

2428327

FARMCO REGIONAL DISPOSAL
P. O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0083
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	4591223	000000

WEIGHTMASTER: TF00035 JANICE F

DATE IN	TIME IN
17 August 2013	10:21 am
DATE OUT	**TIME OUT**
17 August 2013	10:46 am
VEHICLE	**ROLL OFF**
1565	TOLL457052
REFERENCE	**ORIGIN**
TOLL457052	

1 Gross Weight 108,090.00 LB
Tare Weight 44,700.00 LB
Net Weight 63,390.00 LB 31.69 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.69	TN	34 DE63 PCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX475683				
		BNSF-SKYKOMISH				
		20.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pl

FRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0003
ENGF / Bruce Sheppard
ENGF / Bruce Sheppard

Contract: LW-10172

2428329

SITE	TICKET	GRID
49	459125	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
12 August 2013	10:10 am

DATE OUT	TIME OUT
12 August 2013	10:44 am

VEHICLE	ROLL OFF
7330	EGTLM220225

REFERENCE	ORIGIN
EGTLM220225	

1 Gross Weight 109,320.00 LB
Tare Weight 46,440.00 LB
Net Weight 62,880.00 LB 31.44 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.44	TN	34 CD63 PCS 34				
		08/14/13				
		Inbound - RAIL TICKET				
		DTTX472165				
		ENGF-SKYKOMISH				

23.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

2428339

SITE	TICKET	GRID
49	659135	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	11:21 am

DATE OUT	TIME OUT
17 August 2013	12:07 pm

VEHICLE	ROLL OFF
5833	GCEU435342

REFERENCE	ORIGIN
GCEU435342	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10174

I Gross Weight 111,760.00 LB
Tare Weight 47,440.00 LB
Net Weight 64,320.00 LB 32.16 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.16	TN	34 [B6] PCS 34 08/14/13 Inbound - RAIL TICKET DTTX656885 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4pt

2428342

KENNCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Shepherd
BNSF / Bruce Shepherd

Contract: LW-10178

SITE	TICKET	GRID
49	459138	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
17 August 2013	11:29 am
DATE OUT	**TIME OUT**
17 August 2013	12:11 pm
VEHICLE	**ROLL OFF**
1454	TOLU442833
REFERENCE	**ORIGIN**
TOLU442833	

1 Gross Weight 114,540.00 LB
Tare Weight 49,280.00 LB
Net Weight 65,260.00 LB 32.63 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.63	TN	34 ED61 PCS 34				
		08/17/13				
		Inbound - RAIL TICKET				
		DYTX425582				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4pt

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

2428343

SITE	TICKET	GRID
49	659139	000000

WEIGHMASTER: IF00025 JANICE F

DATE IN	TIME IN
17 August 2013	11:33 am

DATE OUT	TIME OUT
17 August 2013	12:11 pm

VEHICLE	ROLL OFF
6811	TOLU465401

REFERENCE	ORIGIN
TOLU465401	

1 Gross Weight 110,460.00 LB
Tare Weight 46,360.00 LB
Net Weight 64,100.00 LB 32.05 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.05	TN	34 DB6J PCS 34 08/14/13 Inbound - RAIL TICKET DTTX656885 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4pt

2428346

FARMINGTON REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0008
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

SITE	TICKET	GRID
49	652142	000000

WEIGHTMASTER: JF000025 JANICE F

DATE IN	TIME IN
17 August 2013	11:20 am
DATE OUT	**TIME OUT**
17 August 2013	12:15 pm
VEHICLE	**ROLL OFF**
5180	UPCU411426
REFERENCE	**ORIGIN**
UPCU411426	

1 Gross Weight 110,260.00 LB
Tare Weight 46,200.00 LB
Net Weight 64,580.00 LB 32.29 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.29	TN	94 EB63 PCS 34				
		08/16/13				
		Inbound - RAIL TICKET				
		DTTX646568				
		BNSF-SKYKOMISH				

25.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2433103

BASINCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001925 - 0082
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-L0126

SITE	TICKET	GRID
49	6460992	000000

WEIGHTMASTER
JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	6:20 am
DATE OUT	**TIME OUT**
24 August 2013	6:53 am
VEHICLE	**ROLL OFF**
3450	TOLU422275
REFERENCE	**ORIGIN**
TOLU422275	

1. Gross Weight 109,820.00 LB
Tare Weight 46,320.00 LB
Net Weight 63,500.00 LB 31.75 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.75	TN	34 CR63 FOS 34				
		08/24/13				
		Inbound - RAIL TICKET				
		DTTX470193				
		BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2433109

YAKIMA REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660904	000000

WEIGHTMASTER: TF00025 TANTOE F

DATE IN	TIME IN
24 August 2013	6:32 am

DATE OUT	TIME OUT
24 August 2013	6:56 am

VEHICLE	ROLL OFF
6191	OCEU4302223

REFERENCE	ORIGIN
OCEU4302223	

1 Gross Weight 108,640.00 LB
Tare Weight 45,560.00 LB
Net Weight 63,080.00 LB 31.54 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.54	TN	34 C&D FCS 34				
		08/30/13				
		Inbound - RAIL TICKET				
		DTTX656666				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433115

BANNCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5541

001935 -- 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
42	660910	000000

WEIGHMASTER
JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	4:36 am

DATE OUT	TIME OUT
24 August 2013	7:04 am

VEHICLE	ROLL OFF
3648	OCEL425177

REFERENCE	ORIGIN
OCEL425177	

1 Gross Weight 105,220.00 LB
Tare Weight 41,720.00 LB
Net Weight 63,500.00 LB 31.75 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.75	TN	36 ER60 FOS 36				
		08/20/13				
		Inbound -- RAIL TICKET				
		DTTX656666				
		BNSF-SKYKOMISH				

26.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2433119

EPHRATA REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	460914	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	6:44 am

DATE OUT	TIME OUT
24 August 2013	2:13 pm

VEHICLE	ROLL OFF
2330	GCEU4350672

REFERENCE	ORIGIN
GCEU4350672	

1 Gross Weight 109,660.00 LB
Tare Weight 45,820.00 LB
Net Weight 63,840.00 LB 31.92 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.92	TN	34 CD63 PCS 34				
		08/20/13				
		Inbound - RAIL TICKET				
		DTTX620616				
		BNSF-SKYKOMISH				

28.00 TP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433120

FARRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-2541

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	650915	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	6:24 am

DATE OUT	TIME OUT
24 August 2013	7:13 am

VEHICLE	ROLL OFF
1454	EDTU420540

REFERENCE	ORIGIN
EDTU420540	

1 Gross Weight 109,640.00 LB
Tare Weight 46,420.00 LB
Net Weight 63,220.00 LB 31.61 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.61	TN	34 CR&I FCS 34				
		08/20/13				
		Inbound - RAIL TICKET				
		DTTX420199				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433121

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	660916	000000

WEIGHMASTER
JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	6:37 am

DATE OUT	TIME OUT
24 August 2013	7:14 am

VEHICLE	ROLL OFF
7329	AWIU8214

REFERENCE	ORIGIN
AWIU8214	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1. Gross Weight 105,800.00 LB
Tare Weight 42,760.00 LB
Net Weight 63,040.00 LB 31.52 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.52	TN	34 [B6] PCS 34				
	08/20/13	Inbound - RAIL TICKET DTTX620616 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2433126

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660921	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	6:50 am

DATE OUT	TIME OUT
24 August 2013	7:21 am

VEHICLE	ROLL OFF
1565	TOLU467559

REFERENCE	ORIGIN
TOLU467559	

1 Gross Weight 106,980.00 LB
Tare Weight 44,100.00 LB
Net Weight 62,880.00 LB 31.44 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.44	TN	34 [B6] PCS 34				
	08/20/13 Inbound - RAIL TICKET DTTX620616 BNSF-SKYKOMISH					

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2433127

BABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660922	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
29 August 2013	6:54 am

DATE OUT	TIME OUT
29 August 2013	7:22 am

VEHICLE	ROLL OFF
7327	DCEU4306812

REFERENCE	ORIGIN
DCEU4306812	

1 Gross Weight 109,320.00 LB
Tare Weight 45,940.00 LB
Net Weight 63,380.00 LB 31.69 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.69	TN	34 CB67 PCS 34				
		08/29/13				
		Inbound - RAIL TICKET				
		DTTX620616				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433129

FABENCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660924	000000

WEIGHTMASTER: TF00025 JANICE F

DATE IN	TIME IN
24 August 2013	9:04 am
DATE OUT	**TIME OUT**
24 August 2013	9:23 am
VEHICLE	**ROLL OFF**
7329	SCXU630152
REFERENCE	**ORIGIN**
SCXU630152	

1 Gross Weight 111,880.00 LB
Tare Weight 48,040.00 LB
Net Weight 63,840.00 LB 31.92 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.92	TN	34 CB61 FCS 34				
		08/20/13				
		Inbound - RAIL TICKET				
		DTTX620616				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433130

BANANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660935	000000

WEIGHTMASTER
JF000025 JANICE F

DATE IN	TIME IN
24 August 2013	7:02 am

DATE OUT	TIME OUT
24 August 2013	7:24 am

VEHICLE	ROLL OFF
7331	ITEU1330721

REFERENCE	ORIGIN
ITEU1330721	

1 Gross Weight 106,200.00 LB
Tare Weight 43,600.00 LB
Net Weight 63,100.00 LB 31.55 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.55	TN	34 C863 PCS 34				
		08/20/13				
		Inbound - RAIL TICKET				
		DTTX620616				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433138

RABANCO REGIONAL DISPOSAL
P. O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	4609233	000000

WEIGHMASTER
JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	7:07 am

DATE OUT	TIME OUT
24 August 2013	7:39 am

VEHICLE	ROLL OFF
5833	AUTU80052

REFERENCE	ORIGIN
AUTU80052	

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

1 Gross Weight 110,800.00 LB
Tare Weight 47,180.00 LB
Net Weight 63,620.00 LB 31.81 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.81	TN	34 EB67 FCS 34				
		08/20/13				
		Inbound - RAIL TICKET				
		DTTX421836				
		BNSF-SICYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2433140

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0000
BNSF / Bruce Shepcard
BNSF / Bruce Shepcard

Contract: LW-10174

SITE	TICKET	GRID
49	2600935	000000

WEIGHTMASTER: JFOGGS JANICE F

DATE IN	TIME IN
24 August 2013	7:23 am

DATE OUT	TIME OUT
24 August 2013	7:41 am

VEHICLE	ROLL OFF
3450	GCEU4451181

REFERENCE	ORIGIN
GCEU4451181	

1 Gross Weight 103,680.00 LB
Tare Weight 45,600.00 LB
Net Weight 63,080.00 LB 31.54 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.54	TN	34 EB61 PCS 34				
		08/20/13				
		Inbound - RAIL TICKET				
		DTTX472636				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04

2433146

RABANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660941	000000

WEIGHMASTER
TF00025 JANICE F

DATE IN	TIME IN
24 August 2013	7:27 am

DATE OUT	TIME OUT
24 August 2013	7:50 am

VEHICLE	ROLL OFF
6181	UPCU411490

REFERENCE	ORIGIN
UPCU411490	

1 Gross Weight 108,780.00 LB
Tare Weight 45,920.00 LB
Net Weight 62,860.00 LB 31.43 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.43	TN	3# LB61 PCS 34				
		08/24/13				
		Inbound - RAIL TICKET				
		DTTX64463I7				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2433148

BARANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	5600943	000000

WEIGHMASTER
JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	7:33 am

DATE OUT	TIME OUT
24 August 2013	7:55 am

VEHICLE	ROLL OFF
8648	OCEU431190

REFERENCE	ORIGIN
OCEU431190	

1 Gross Weight 105,080.00 LB
Tare Weight 42,640.00 LB
Net Weight 62,440.00 LB 31.22 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.22	TN	34 CD67 PCS 34				
		08/30/13 Inbound - FATL TICKET DTTX644317 BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2433152

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660947	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	7:43 am

DATE OUT	TIME OUT
24 August 2013	8:04 am

VEHICLE	ROLL OFF
7330	TOLU459438

REFERENCE	ORIGIN
TOLU459438	

1 Gross Weight 108,580.00 LB
Tare Weight 45,060.00 LB
Net Weight 63,520.00 LB 31.76 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.76	TN	34 DB63 PCS 34				
	08/20/13 Inbound - RAIL TICKET DTTX652662 BNSF-SKYKOMISH					

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2433158

RABANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
47	6402523	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	7:46 am

DATE OUT	TIME OUT
24 August 2013	8:12 am

VEHICLE	ROLL OFF
1456	TRLU9004465

REFERENCE	ORIGIN
TRLU9004465	

1 Gross Weight 110,540.00 LB
Tare Weight 46,500.00 LB
Net Weight 64,040.00 LB 32.02 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.02	TN	34 [illegible] PCS 34				
		08/23/13				
		Inbound - RAIL TICKET				
		DTTX452662				
		BNSF-SKYKOMISH				

29.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433161

FABIANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0008
BNSF / Bruce Shepperd
BNSF / Bruce Shepperd

Contract: LW-10176

SITE	TICKET	GRID
49	660956	000000

WEIGHTMASTER: TF00025 JANICE F

DATE IN	TIME IN
24 August 2013	7:55 am

DATE OUT	TIME OUT
24 August 2013	8:16 am

VEHICLE	ROLL OFF
7387	TOLU625037

REFERENCE	ORIGIN
TOLU625037	

1 Gross Weight 109,040.00 LB
Tare Weight 45,580.00 LB
Net Weight 63,460.00 LB 31.73 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.73	TN	34 CB61 PCS 34				
		08/24/13				
		Inbound - RAIL TICKET				
		DTTX620969				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433163

FABIANO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

001939 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10174

SITE	TICKET	GRID
49	660958	000000

WEIGHMASTER: TF00025 JANICE F

DATE IN	TIME IN
24 August 2013	7:57 am

DATE OUT	TIME OUT
24 August 2013	8:19 am

VEHICLE	ROLL OFF
2320	TRLU900536

REFERENCE	ORIGIN
TRLU900536	

1 Gross Weight 105,420.00 LB
Tare Weight 43,000.00 LB
Net Weight 62,420.00 LB 31.21 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.21	TN	34 CB61 FCS 34				
		09/30/13				
		Inbound - RAIL TICKET				
		DTTX620969				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04

2433165

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0085
BNSF / Bruce Shepperd
BNSF / Bruce Shepperd

Contract: LW-10176

SITE	TICKET	GRID
49	660960	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	8:00 am

DATE OUT	TIME OUT
24 August 2013	9:22 am

VEHICLE	ROLL OFF
9339	DCEU4354072

REFERENCE	ORIGIN
DCEU4354072	

1 Gross Weight 109,220.00 LB
Tare Weight 46,060.00 LB
Net Weight 63,160.00 LB 31.58 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.58	TN	94 CB61 PCS 94				
		08/30/13				
		Inbound - RAIL TICKET				
		DTTX620969				
		BNSF-SKYKOMISH				

20.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433167

RAMANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	660962	000000

WEIGHTMASTER
JF00025 JANICE F

DATE IN	TIME IN
29 August 2013	8:06 am
DATE OUT	**TIME OUT**
29 August 2013	8:29 am
VEHICLE	**ROLL OFF**
2331	TOLU425167
REFERENCE	**ORIGIN**
TOLU425167	

1 Gross Weight 106,520.00 LB
Tare Weight 41,620.00 LB
Net Weight 64,900.00 LB 32.45 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.45	TN	34 [E61 PCS 34				
		08/29/13 Inbound - RAIL TICKET DTTX620965 BNSF-SKYKOMISH				

29.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433172

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660967	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
29 August 2013	7:53 am

DATE OUT	TIME OUT
29 August 2013	8:02 am

VEHICLE	ROLL OFF
1965	EQTU420583

REFERENCE	ORIGIN
EQTU420583	

1 Gross Weight 105,520.00 LB
Tare Weight 43,260.00 LB
Net Weight 62,260.00 LB 31.13 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.13	TN	34 CB63 PCS 34				
		08/29/13				
		Inbound - RAIL TICKET				
		DTTX620969				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433174

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0065
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	660969	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	8:13 am

DATE OUT	TIME OUT
24 August 2013	9:33 am

VEHICLE	ROLL OFF
5933	OCEU440064

REFERENCE	ORIGIN
OCEU440064	

1 Gross Weight 112,120.00 LB
Tare Weight 47,320.00 LB
Net Weight 64,800.00 LB 32.40 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.40	TN	34 EB61 POS 36				
		08/23/13				
		Inbound - RAIL TICKET				
		DTTX620949				
		BNSF-SKYKOMISH				

23.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2433179

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	660974	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	8:19 am

DATE OUT	TIME OUT
24 August 2013	8:41 am

VEHICLE	ROLL OFF
3450	TPHU252029

REFERENCE	ORIGIN
TPHU252029	

1 Gross Weight 110,780.00 LB
Tare Weight 45,600.00 LB
Net Weight 65,180.00 LB 32.59 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.59	TN	34 [B6] PCS 34				
	08/20/13	Inbound - RAIL TICKET DTTX680937 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-

2433182

RAINIER REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	6609???	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
24 August 2013	8:21 am

DATE OUT	TIME OUT
24 August 2013	8:43 am

VEHICLE	ROLL OFF
4181	DCEU4303389

REFERENCE	ORIGIN
DCEU4303389	

001905 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

1 Gross Weight 109,500.00 LB
Tare Weight 44,500.00 LB
Net Weight 64,000.00 LB 32.00 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.00	TN	24 EB61 PCS 24				
		08/20/13				
		Inbound - RAIL TICKET				
		DTTX660????				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04

2431327

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662120	000000

WEIGHMASTER	
VR00020 VICKY R	

DATE IN	TIME IN
29 August 2013	7:22 am

DATE OUT	TIME OUT
29 August 2013	7:56 am

VEHICLE	ROLL OFF
6811	TRLU902611

REFERENCE	ORIGIN
TRLU902611	

1 Gross Weight 110,380.00 LB
Tare Weight 46,400.00 LB
Net Weight 63,980.00 LB 31.99 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.99	TN	34 CB63 PCS 34				
	08/23/13	Inbound - RAIL TICKET DTTX645983 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2431331

BANNCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10176

SITE	TICKET	GRID
49	662124	000000

WEIGHTMASTER: 0000220 UTCKY R

DATE IN	TIME IN
29 August 2013	7:22 am

DATE OUT	TIME OUT
29 August 2013	8:00 am

VEHICLE	ROLL OFF
1565	GCEU4305548

REFERENCE	ORIGIN
GCEU4305548	

1 Gross Weight 111,160.00 LB
Tare Weight 46,700.00 LB
Net Weight 64,460.00 LB 32.23 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.23	TN	34 CD&I PCS 34				
		08/29/13 Inbound - RAIL TICKET DTTX645923 BNSF-SKYKOMISH				

26.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431335

RABANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

001925 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662128	000000

WEIGHTMASTER: 0000020 VICKY R

DATE IN	TIME IN
29 August 2013	7:42 am

DATE OUT	TIME OUT
29 August 2013	8:04 am

VEHICLE	ROLL OFF
7331	GCEU4259795

REFERENCE	ORIGIN
GCEU4259795	

1 Gross Weight 106,360.00 LB
Tare Weight 42,560.00 LB
Net Weight 63,800.00 LB 31.90 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.90	TN	34 CB61 FCS 34 08/29/13 Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431337

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662130	000000

WEIGHTMASTER: VR00020 VICKY R

DATE IN	TIME IN
29 August 2013	7:29 am

DATE OUT	TIME OUT
29 August 2013	8:08 am

VEHICLE	ROLL OFF
9648	TOLU459921

REFERENCE	ORIGIN
TOLU459921	

1 Gross Weight 106,000.00 LB
Tare Weight 42,540.00 LB
Net Weight 63,460.00 LB 31.73 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.73	TN	34 D863 FOS 34 08/29/13 Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431340

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662133	000000

WEIGHTMASTER: 0R00020 UICKY R

DATE IN	TIME IN
29 August 2013	7:44 am

DATE OUT	TIME OUT
29 August 2013	8:08 am

VEHICLE	ROLL OFF
3450	UPCU611443

REFERENCE	ORIGIN
UPCU611443	

1 Gross Weight 111,940.00 LB
Tare Weight 46,120.00 LB
Net Weight 65,820.00 LB 32.91 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.91	TN	34 LB61 PCS 34				
		08/23/13				
		Inbound - RAIL TICKET				
		DTTX620342				
		BNSF-SKYKOMISH				

25.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431345

FARANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662138	000000

WEIGHMASTER: PROOO20 UTICY E

DATE IN	TIME IN
29 August 2013	8:03 am

DATE OUT	TIME OUT
29 August 2013	8:25 am

VEHICLE	ROLL OFF
1434	GCEU430213

REFERENCE	ORIGIN
GCEU430213	

1 Gross Weight 111,540.00 LB
Tare Weight 47,400.00 LB
Net Weight 64,140.00 LB 32.07 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.07	TN	34 CB61 PCS 34				
		08/29/13				
		Inbound - RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				
		28.00 FT				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431351

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	562144	000000

WEIGHTMASTER: UR00020 UICKY R

DATE IN	TIME IN
29 August 2013	8:07 am

DATE OUT	TIME OUT
29 August 2013	8:39 am

VEHICLE	ROLL OFF
7327	EGTU420292

REFERENCE	ORIGIN
EGTU420292	

1 Gross Weight 106,400.00 LB
Tare Weight 42,240.00 LB
Net Weight 64,160.00 LB 32.08 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.08	TN	34 LB61 FCS 34				
		08/23/13				
		Inbound - RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				

29.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431355

FARMINGTON REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

SITE	TICKET	GRID
49	6622148	000000

WEIGHTMASTER
U000020 UTICKY R

DATE IN	TIME IN
29 August 2013	8:20 am

DATE OUT	TIME OUT
29 August 2013	8:36 am

VEHICLE	ROLL OFF
5323	DCEU4401897

REFERENCE	ORIGIN
DCEU4401897	

001905 - 0002
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,840.00 LB
Tare Weight 47,200.00 LB
Net Weight 63,640.00 LB 31.82 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.82	TN	34 DR63 FCS 34				
		08/23/13				
		Inbound - RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431361

FARANCO REGIONAL DISPOSAL
P.O. BOX 330
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	262154	000000

WEIGHMASTER
0000020 UICKY R

DATE IN	TIME IN
29 August 2013	8:29 am

DATE OUT	TIME OUT
29 August 2013	8:44 am

VEHICLE	ROLL OFF
4911	TOLU45613?

REFERENCE	ORIGIN
TOLU45613?	

1 Gross Weight 110,830.00 LB
Tare Weight 46,620.00 LB
Net Weight 64,260.00 LB 32.13 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.13	TN	34 EB61 POS 34				
		08/23/13				
		Inbound - FAIL TICKET				
		BNSF20830				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431363

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662156	000000

WEIGHMASTER: VR00020 VICKY R

DATE IN	TIME IN
29 August 2013	8:30 am

DATE OUT	TIME OUT
29 August 2013	8:47 am

VEHICLE	ROLL OFF
1565	TOLU468379

REFERENCE	ORIGIN
TOLU468379	

1 Gross Weight 110,020.00 LB
Tare Weight 46,180.00 LB
Net Weight 63,840.00 LB 31.92 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.92	TN	34 [B6] PCS 34				
	08/23/13	Inbound - RAIL TICKET BNSF208030 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2431370

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

SITE	TICKET	GRID
49	662163	000000

WEIGHTMASTER: 0500020 UTCKY R

DATE IN	TIME IN
29 August 2013	8:37 am

DATE OUT	TIME OUT
29 August 2013	8:52 am

VEHICLE	ROLL OFF
3643	TOLM469316

REFERENCE	ORIGIN
TOLM469316	

1 Gross Weight 105,000.00 LB
Tare Weight 41,500.00 LB
Net Weight 63,500.00 LB 31.75 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.75	TN	34 LD61 PDS 34				
		08/23/13				
		Inbound - FAIL TICKET				
		DTTX466869				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2431375

RAMANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

SITE	TICKET	GRID
49	662168	000000

WEIGHMASTER: 0R00020 UICKY R

DATE IN	TIME IN
29 August 2013	9:35 am

DATE OUT	TIME OUT
29 August 2013	9:00 am

VEHICLE	ROLL OFF
2331	ESTL420523

REFERENCE	ORIGIN
ESTL420523	

1 Gross Weight 105,660.00 LB
Tare Weight 41,920.00 LB
Net Weight 63,740.00 LB 31.87 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.87	TN	34 CMCJ PCS 34				
		08/22/13				
		Inbound - RAIL TICKET				
		DTTX466639				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2431378

BARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

SITE	TICKET	GRID
49	462171	000000

WEIGHTMASTER
000020 VICKY K

DATE IN	TIME IN
29 August 2013	8:41 am

DATE OUT	TIME OUT
29 August 2013	9:02 am

VEHICLE	ROLL OFF
3450	TCLU4562??

REFERENCE	ORIGIN
TCLU4562??	

001938 - 0038
BNSF / Bruce Shepperd
BNSF / Bruce Shepperd

Contract: LW-10176

1 Gross Weight 110,200.00 LB
Tare Weight 46,820.00 LB
Net Weight 63,380.00 LB 31.94 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.94	TN	34 LB67 FCS 34				
		08/23/13 Inbound - RAIL TICKET DTTX646568 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2431386

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662178	000000

WEIGHTMASTER
0000020 VICKY R

DATE IN	TIME IN
29 August 2013	8:58 am

DATE OUT	TIME OUT
29 August 2013	9:17 am

VEHICLE	ROLL OFF
1454	GCEU430340

REFERENCE	ORIGIN
GCEU430340	

1 Gross Weight 111,300.00 LB
Tare Weight 46,720.00 LB
Net Weight 64,580.00 LB 32.29 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.29	TN	36 C863 FOS 36				
		08/23/13				
		Inbound - RAIL TICKET				
		DTTX646583				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2431388

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10176

SITE	TICKET	GRID
49	462180	000000

WEIGHTMASTER
UR00020 UTICKY R

DATE IN	TIME IN
29 August 2013	9:09 am
DATE OUT	**TIME OUT**
29 August 2013	9:19 am
VEHICLE	**ROLL OFF**
7327	EDTU420135
REFERENCE	**ORIGIN**
EDTU420135	

1 Gross Weight 106,480.00 LB
Tare Weight 42,400.00 LB
Net Weight 64,080.00 LB 32.04 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.04	TN	34 CB67 FOS 34				
		08/23/13				
		Inbound - RAIL TICKET				
		DTTX459912				
		BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2431390

BABANCO REGIONAL DISPOSAL
P. O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0093
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
45	662182	000000

WEIGHMASTER: UR00030 UTECY R

DATE IN	TIME IN
29 August 2013	9:06 am

DATE OUT	TIME OUT
29 August 2013	9:23 am

VEHICLE	ROLL OFF
5263	EGTU420050

REFERENCE	ORIGIN
EGTU420050	

1 Gross Weight 110,900.00 LB
Tare Weight 46,660.00 LB
Net Weight 64,240.00 LB 32.12 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.12	TN	34 D&H FCS 34				
		08/23/13				
		Inbound - RAIL TICKET				
		DTTX459912				
		BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2431395

SITE	TICKET	GRID
49	662187	000000

WEIGHMASTER
VR00020 VICKY R

DATE IN	TIME IN
29 August 2013	9:16 am

DATE OUT	TIME OUT
29 August 2013	9:30 am

VEHICLE	ROLL OFF
1565	GCEU425933

REFERENCE	ORIGIN
GCEU425933	

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,700.00 LB
Tare Weight 46,780.00 LB
Net Weight 63,920.00 LB 31.96 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.96	TN	34 [B6] PCS 34				
	08/22/13	Inbound - RAIL TICKET DTTX656805 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ____________________

REV 11/09

RS-F04

2431400

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662192	000000

WEIGHMASTER: VR00020 VICKY R

DATE IN	TIME IN
29 August 2013	9:16 am

DATE OUT	TIME OUT
29 August 2013	9:36 am

VEHICLE	ROLL OFF
6811	EGTU420172

REFERENCE	ORIGIN
EGTU420172	

1 Gross Weight 110,120.00 LB
Tare Weight 45,960.00 LB
Net Weight 64,160.00 LB 32.08 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.08	TN	34 CB61 PCS 34				
	08/29/13	Inbound - RAIL TICKET DTTX656885 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ____________________

RS-F04

REV 11/09

2436009

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10172

SITE	TICKET	GRID
49	642800	000000

WEIGHTMASTER: TF00025 TANTICE F

DATE IN	TIME IN
31 August 2013	11:35 am

DATE OUT	TIME OUT
31 August 2013	12:05 pm

VEHICLE	ROLL OFF
7551	DCEU4314553

REFERENCE	ORIGIN
DCEU4314553	

1 Gross Weight 106,460.00 LB
Tare Weight 41,800.00 LB
Net Weight 64,660.00 LB 32.33 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.33	TN	34 CB61 PCS 34				
		08/28/13				
		Inbound - RAIL TICKET				
		DTTX625565B				
		BNSF-SKYKOMISH				

29.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2436010

SITE	TICKET	GRID
49	662801	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	11:38 am

DATE OUT	TIME OUT
31 August 2013	2:07 pm

VEHICLE	ROLL OFF
5161	GCEU425342

REFERENCE	ORIGIN
GCEU425342	

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 106,940.00 LB
Tare Weight 41,320.00 LB
Net Weight 65,620.00 LB 32.81 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.81	TN	34 [B6] PCS 34				
	08/28/13	Inbound - RAIL TICKET DTTX655658 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ____________________

RS-F0

REV 11/09

2436017

BASANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5241

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6628908	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	11:51 am

DATE OUT	TIME OUT
31 August 2013	12:20 pm

VEHICLE	ROLL OFF
1565	EGTU620778

REFERENCE	ORIGIN
EGTU620778	

1 Gross Weight 112,160.00 LB
Tare Weight 46,700.00 LB
Net Weight 65,460.00 LB 32.73 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.73	TN	34 CB61 PCS 34				
		08/28/13 Inbound - RAIL TICKET DTTX46946B BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2436020

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	662811	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	11:54 am

DATE OUT	TIME OUT
31 August 2013	2:25 pm

VEHICLE	ROLL OFF
1456	UFCU411522

REFERENCE	ORIGIN
UFCU411522	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 112,840.00 LB
Tare Weight 47,300.00 LB
Net Weight 65,540.00 LB 32.77 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.77	TN	34 [B6] PCS 34				
	08/28/13	Inbound - RAIL TICKET DTTX469468 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ________________

RS-F04

2436033

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662824	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	12:38 pm

DATE OUT	TIME OUT
31 August 2013	12:56 pm

VEHICLE	ROLL OFF
7331	GCEU435114

REFERENCE	ORIGIN
GCEU435114	Skykomish

1 Gross Weight 105,520.00 LB
Tare Weight 42,760.00 LB
Net Weight 62,760.00 LB 31.38 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.38	TN	34 CB63 PCS 34				
	08/28/13	Inbound - RAIL TICKET DTTX468058 BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ______________________

REV 11/09

RS-F04

2436043

EVERGREEN REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contracts: LW-10176

SITE	TICKET	GRID
49	662834	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	12:40 pm

DATE OUT	TIME OUT
31 August 2013	1:09 pm

VEHICLE	ROLL OFF
4161	EGTU420167

REFERENCE	ORIGIN
EGTU420167	

1 Gross Weight 105,420.00 LB
Tare Weight 41,060.00 LB
Net Weight 64,360.00 LB 32.18 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.18	TN	34 CD61 PCS 34				
		08/29/13				
		Inbound - RAIL TICKET				
		DTTX463058				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2436048

RABANCO REGIONAL DISPOSAL
P.O. BOX 328
Roosevelt, WA 99356
(509) 384-5541

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6522837	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	12:58 pm

DATE OUT	TIME OUT
31 August 2013	1:14 pm

VEHICLE	ROLL OFF
1565	GEEU632243

REFERENCE	ORIGIN
GEEU632243	Skykomish

1 Gross Weight 109,920.00 LB
Tare Weight 46,600.00 LB
Net Weight 63,320.00 LB 31.66 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.66	TN	34 ED61 FOS 34 08/28/13 Inbound - RAIL TICKET DTTX657041 BNSF-SKYKOMISH				

22.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2436052

ROOSEVELT REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6622642	000000

WEIGHTMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	12:59 pm

DATE OUT	TIME OUT
31 August 2013	1:20 pm

VEHICLE	ROLL OFF
1454	TOL0625491

REFERENCE	ORIGIN
TOL0625491	Skykomish

1 Gross Weight 112,260.00 LB
Tare Weight 46,960.00 LB
Net Weight 65,300.00 LB 32.90 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.90	TN	34 DMSW FOS 34				
		08/29/13				
		Inbound - RAIL TICKET				
		TTTX625041				
		BNSF-SKYKOMISH				

29.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2436060

ROSANCO REGIONAL DISPOSAL
P.O. BOX 333
Roosevelt, WA 99356
(509) 384-5641

001935 - 0038
BNSF / Bruce Shepeard
BNSF / Bruce Shepeard

Contract: LU-10176

SITE	TICKET	GRID
49	662951	000000

WEIGHTMASTER: TF00025 JANICE F

DATE IN	TIME IN
31 August 2013	1:22 pm

DATE OUT	TIME OUT
31 August 2013	1:41 pm

VEHICLE	ROLL OFF
6511	TOL1625124

REFERENCE	ORIGIN
TOL1625124	

1 Gross Weight 113,540.00 LB
Tare Weight 48,300.00 LB
Net Weight 65,240.00 LB 32.62 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.62	TN	34 CD&I FOB 24				
		08/29/13 Inbound - RAIL TICKET DTTX42165 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2436070

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10176

SITE	TICKET	GRID
47	662361	000000

WEIGHMASTER: TF00025 JANICE F

DATE IN	TIME IN
31 August 2013	1:28 pm

DATE OUT	TIME OUT
31 August 2013	1:55 pm

VEHICLE	ROLL OFF
7321	EGTL4202598

REFERENCE	ORIGIN
EGTL4202598	

1 Gross Weight 105,220.00 LB
Tare Weight 42,660.00 LB
Net Weight 62,560.00 LB 31.28 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.28	TN	34 EB61 FOS 34 08/29/13 Inbound - RAIL TICKET DTTX471695 BNSF-SKYKOMISH				

20.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2436071

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662862	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	1:37 pm

DATE OUT	TIME OUT
31 August 2013	1:57 pm

VEHICLE	ROLL OFF
6181	TCSU464551

REFERENCE	ORIGIN
TCSU464551	

1 Gross Weight 107,020.00 LB
Tare Weight 42,560.00 LB
Net Weight 64,460.00 LB 32.23 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.23	TN	34 [B6] PCS 34				
	08/28/13	Inbound - RAIL TICKET DTTX475587 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ____________________

REV 11/09

RS-F04

2436077

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662868	000000

WEIGHMASTER: JF00025 JANICE F

DATE IN	TIME IN
31 August 2013	1:43 pm

DATE OUT	TIME OUT
31 August 2013	2:05 pm

VEHICLE	ROLL OFF
1565	GCEU432143

REFERENCE	ORIGIN
GCEU432143	

1 Gross Weight 109,560.00 LB
* Tare Weight 45,880.00 LB
Net Weight 63,680.00 LB 31.84 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.84	TN	34 [B6] PCS 34				
	08/28/13	Inbound - RAIL TICKET DTTX475587 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

SIGNATURE ______________________

REV 11/09

RS-F

2430887

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	665670	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 September 2013	6:23 am

DATE OUT	TIME OUT
12 September 2013	6:53 am

VEHICLE	ROLL OFF
7330	ICSU464551

REFERENCE	ORIGIN
ICSU464551	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,700.00 LB
Tare Weight 45,920.00 LB
Net Weight 64,780.00 LB 32.39 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.39	TN	34 [B6] PCS 34				
	09/09/13	Inbound - RAIL TICKET DTTX475587 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ______________________

REV 11/09

RS-F04-

2430888

FABIANO REGIONAL DISPOSAL
P.O. BOX 330
Roosevelt, WA 99356
(509) 384-5641

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
45	665671	000000

WEIGHTMASTER: CH00036 GAIL H

DATE IN	TIME IN
12 September 2013	6:31 am

DATE OUT	TIME OUT
12 September 2013	6:54 am

VEHICLE	ROLL OFF
6011	EGTU420278

REFERENCE	ORIGIN
EGTU420278	

1 Gross Weight 109,420.00 LB
Tare Weight 45,920.00 LB
Net Weight 63,500.00 LB 31.75 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.75	TN	94 EB61 PCS 34				
		09/05/13				
		Inbound - RAIL TICKET				
		DTTX475587				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430891

BALANCED REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract#: LW-10176

SITE	TICKET	GRID
49	665474	000000

WEIGHTMASTER: CH00036 GAIL H

DATE IN	TIME IN
12 September 2013	6:34 am

DATE OUT	TIME OUT
12 September 2013	6:57 am

VEHICLE	ROLL OFF
7320	TOLU425124

REFERENCE	ORIGIN
TOLU425124	

1 Gross Weight 112,040.00 LB
Tare Weight 48,940.00 LB
Net Weight 63,100.00 LB 31.55 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.55	TN	34 LH61 PCS 34				
		09/09/13				
		Inbound - RAIL TICKET				
		DTTX472695				
		BNSF-SKYKOMISH				
		20.00 FT				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4p

2430892

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665675	000000

WEIGHMASTER: GH00036 DAIL H

DATE IN	TIME IN
12 September 2013	6:39 am

DATE OUT	TIME OUT
12 September 2013	6:57 am

VEHICLE	ROLL OFF
7331	TOLU467491

REFERENCE	ORIGIN
TOLU467491	

1 Gross Weight 107,660.00 LB
Tare Weight 42,780.00 LB
Net Weight 64,880.00 LB 32.44 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.44	TN	34 [B6] FCS 34				
	09/09/13	Inbound - RAIL TICKET DTTX471695 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE

RS-F04-4

2430894

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	665677	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 September 2013	6:41 am

DATE OUT	TIME OUT
12 September 2013	6:59 am

VEHICLE	ROLL OFF
4181	GCEU432248

REFERENCE	ORIGIN
GCEU432248	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,500.00 LB
Tare Weight 45,640.00 LB
Net Weight 64,860.00 LB 32.43 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.43	TN	34 [B6] FCS 34				
	09/09/13	Inbound - RAIL TICKET DTTX657041 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________________

RS-F04-4p

2430897

RADIANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-3641

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract# LW-10176

SITE	TICKET	GRID
45	665480	000000

WEIGHTMASTER: GH00036 GATE H

DATE IN	TIME IN
12 September 2013	6:46 am

DATE OUT	TIME OUT
12 September 2013	7:03 am

VEHICLE	ROLL OFF
7529	DCEU4251114

REFERENCE	ORIGIN
DCEU4251114	

1 Gross Weight 106,100.00 LB
Tare Weight 42,060.00 LB
Net Weight 64,040.00 LB 32.02 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.02	TN	1 34 CDGI FGS 34 09/09/13 Inbound - RAIL TICKET DTTX468058 BNSF-SKYKOMISH				

29.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430904

BARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665697	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 September 2013	6:44 am

DATE OUT	TIME OUT
12 September 2013	7:16 am

VEHICLE	ROLL OFF
1454	EGTUR20167

REFERENCE	ORIGIN
EGTUR20167	

1 Gross Weight 110,580.00 LB
Tare Weight 46,460.00 LB
Net Weight 64,120.00 LB 32.06 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.06	TN	34 CBCI FCS 34				
		09/09/13				
		Inbound - RAIL TICKET				
		DTTX657041				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430905

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 — 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6656698	000000

WEIGHMASTER: CH00036 GAIL H

DATE IN	TIME IN
12 September 2013	6:50 am

DATE OUT	TIME OUT
12 September 2013	7:16 am

VEHICLE	ROLL OFF
7328	UPCU411522

REFERENCE	ORIGIN
UPCU411522	

1 Gross Weight 111,100.00 LB
Tare Weight 46,440.00 LB
Net Weight 64,660.00 LB 32.33 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.33	TN	34 CB63 PCS 34				
		09/09/13				
		Inbound - FAIL TICKET				
		DTTX468058				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430906

FRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0003
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
42	6656689	000000

WEIGHTMASTER: 0H00036 GAIL H

DATE IN	TIME IN
12 September 2013	6:52 am

DATE OUT	TIME OUT
12 September 2013	2:18 am

VEHICLE	ROLL OFF
6182	EDTU420776

REFERENCE	ORIGIN
EDTU420776	

1 Gross Weight 112,120.00 LB
Tare Weight 46,180.00 LB
Net Weight 65,940.00 LB 32.97 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.97	TN	34 CB63 FCS 34 09/07/13 Inbound - RAIL TICKET DTTX46944G BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430920

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
RNSF / Bruce Sheppard
RNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665703	000000

WEIGHTMASTER: 0H00036 GAIL H

DATE IN	TIME IN
12 September 2013	7:19 am

DATE OUT	TIME OUT
12 September 2013	7:43 am

VEHICLE	ROLL OFF
1565	0CEU625342

REFERENCE	ORIGIN
0CEU625342	

1 Gross Weight 109,360.00 LB
Tare Weight 46,360.00 LB
Net Weight 63,000.00 LB 31.49 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.49	TN	34 CD63 FOS 34 09/09/13 Inbound - RAIL TICKET DTTX469468 RNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430923

KASANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
ENSF / Bruce Sheppard
ENSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665706	000000

WEIGHMASTER: CH00036 DATE H

DATE IN	TIME IN
12 September 2013	7:29 am

DATE OUT	TIME OUT
12 September 2013	7:47 am

VEHICLE	ROLL OFF
6811	GCEU425021

REFERENCE	ORIGIN
GCEU425021	

1 Gross Weight 110,420.00 LB
Tare Weight 46,600.00 LB
Net Weight 63,820.00 LB 31.91 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.91	TN	34 LB63 POS 34				
		09/09/13				
		Inbound - RAIL TICKET				
		DTTX455456				
		ENSF-SKYKOMISH				

23.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430924

BABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001925 - 0093
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6657027	000000

WEIGHTMASTER: GHOOD36 GAIL H

DATE IN	TIME IN
12 September 2013	7:33 am

DATE OUT	TIME OUT
12 September 2013	7:50 am

VEHICLE	ROLL OFF
7331	TRLU900515

REFERENCE	ORIGIN
TRLU900515	

1 Gross Weight 120,280.00 LB
Tare Weight 41,620.00 LB
Net Weight 78,660.00 LB 39.33 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
39.33	TN	34 CR61 PCS 34				
		09/09/13				
		Inbound - RAIL TICKET				
		DTTX656885				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430926

FARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5541

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665709	000000

WEIGHTMASTER: GH00036 DATL H

DATE IN	TIME IN
12 September 2013	7:26 am

DATE OUT	TIME OUT
12 September 2013	7:51 am

VEHICLE	ROLL OFF
7330	DCEU4014538

REFERENCE	ORIGIN
DCEU4014538	

1 Gross Weight 108,120.00 LB
Tare Weight 44,960.00 LB
Net Weight 63,160.00 LB 31.58 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.58	TN	34 IB61 PCS 34				
		09/09/13 Inbound - FATL TICKET DTTX452646 BNSF-SKYKOMISH				

23.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430927

BARANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0098
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665710	000000

WEIGHTMASTER: BHOOO36 GATL H

DATE IN	TIME IN
12 September 2013	7:34 am

DATE OUT	TIME OUT
12 September 2013	7:59 am

VEHICLE	ROLL OFF
7327	GCEU4259233

REFERENCE	ORIGIN
GCEU4259233	

1 Gross Weight 110,580.00 LB
Tare Weight 47,080.00 LB
Net Weight 63,500.00 LB 31.75 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.75	TN	34 CR&I PCS 34				
		09/09/13				
		Inbound - RAIL TICKET				
		DTTX465685				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430932

BASANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665715	000000

WEIGHTMASTER: CH00036 GAIL H

DATE IN	TIME IN
12 September 2013	7:34 am

DATE OUT	TIME OUT
12 September 2013	8:00 am

VEHICLE	ROLL OFF
6161	EGTU4200550

REFERENCE	ORIGIN
EGTU4200550	

1 Gross Weight 110,040.00 LB
Tare Weight 45,280.00 LB
Net Weight 64,760.00 LB 32.38 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.38	TN	34 CR61 FCS 34 09/09/13 Inbound - RAIL TICKET DTTX659912 BNSF-SKYKOMISH				

23.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430933

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665716	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 September 2013	7:35 am

DATE OUT	TIME OUT
12 September 2013	8:01 am

VEHICLE	ROLL OFF
7329	EGTU420135

REFERENCE	ORIGIN
EGTU420135	

1 Gross Weight 107,180.00 LB
Tare Weight 41,860.00 LB
Net Weight 65,320.00 LB 32.66 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.66	TN	34 CB63 PCS 34				
	09/09/13	Inbound - RAIL TICKET DTTX659912 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4

2430936

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-3641

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LU-10176

SITE	TICKET	GRID
49	665719	000000

WEIGHTMASTER
GK00036 GAIL H

DATE IN	TIME IN
12 September 2013	7:47 am

DATE OUT	TIME OUT
12 September 2013	8:02 am

VEHICLE	ROLL OFF
1456	TCLU469316

REFERENCE	ORIGIN
TCLU469316	

1 Gross Weight 111,320.00 LB
Tare Weight 46,140.00 LB
Net Weight 65,180.00 LB 32.59 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.59	TN	34 EB61 POS 34 09/09/13 Inbound - RAIL TICKET DTTX466689 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2430940

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	665723	000000

WEIGHMASTER
GH00036 GAIL H

DATE IN	TIME IN
12 September 2013	7:54 am

DATE OUT	TIME OUT
12 September 2013	8:13 am

VEHICLE	ROLL OFF
6182	TOLU468379

REFERENCE	ORIGIN
TOLU468379	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 108,640.00 LB
Tare Weight 45,360.00 LB
Net Weight 63,280.00 LB 31.64 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.64	TN	34 CB63 PCS 34				
		09/09/13 Inbound - RAIL TICKET BNSF208030 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ______________________________

RS-F04-

REV 11/09

2430946

RAINIER REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0089
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665729	000000

WEIGHTMASTER: 0H00036 GAIL H

DATE IN	TIME IN
12 September 2013	9:50 am

DATE OUT	TIME OUT
12 September 2013	8:20 am

VEHICLE	ROLL OFF
7328	EDTU420529

REFERENCE	ORIGIN
EDTU420529	

1 Gross Weight 109,460.00 LB
Tare Weight 45,440.00 LB
Net Weight 64,020.00 LB 32.01 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.01	TN	34 LB63 PCS 34				
		09/09/13 Inbound - RAIL TICKET DTTX466839 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430950

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	665733	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 September 2013	8:12 am

DATE OUT	TIME OUT
12 September 2013	8:31 am

VEHICLE	ROLL OFF
1565	TOLU456137

REFERENCE	ORIGIN
TOLU456137	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,700.00 LB
Tare Weight 47,560.00 LB
Net Weight 63,140.00 LB 31.57 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.57	TN	34 CB63 PCS 34				
	09/07/13	Inbound - RAIL TICKET BNSF208030 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2430954

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001925 - 0066
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6457137	000000

WEIGHMASTER: GH00036 GATE H

DATE IN	TIME IN
12 September 2013	8:18 am

DATE OUT	TIME OUT
12 September 2013	8:34 am

VEHICLE	ROLL OFF
6811	DCEU440187

REFERENCE	ORIGIN
DCEU440187	

1 Gross Weight 110,420.00 LB
Tare Weight 66,240.00 LB
Net Weight 64,360.00 LB 32.19 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.19	TN	34 CR61 PCS 34 09/09/13 Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430964

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
45	665747	000000

WEIGHMASTER	
GH00036 GAIL H	

DATE IN	TIME IN
12 September 2013	8:30 am

DATE OUT	TIME OUT
12 September 2013	8:50 am

VEHICLE	ROLL OFF
6181	TOLU459921

REFERENCE	ORIGIN
TOLU459921	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,160.00 LB
Tare Weight 45,640.00 LB
Net Weight 64,520.00 LB 32.26 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.26	TN	34 CB61 PCS 34				
	09/09/13	Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4

2430965

SITE	TICKET	GRID
47	665748	000000

WEIGHTMASTER: CH00006 GAIL H

DATE IN	TIME IN
12 September 2013	8:34 am

DATE OUT	TIME OUT
12 September 2013	8:53 am

VEHICLE	ROLL OFF
73259	OCEU4259735

REFERENCE	ORIGIN
OCEU4259735	

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001925 - 0008
BNSF / Bruce Shepherd
BNSF / Bruce Shepherd

Contract: LW-10176

1 Gross Weight 105,500.00 LB
Tare Weight 41,960.00 LB
Net Weight 63,540.00 LB 31.77 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.77	TN	34 DB63 PCS 34				
		09/09/13 Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04

2430967

RADIANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	4657350	000000

WEIGHTMASTER
0100036 DAIL H

DATE IN	TIME IN
12 September 2013	8:22 am

DATE OUT	TIME OUT
12 September 2013	8:54 am

VEHICLE	ROLL OFF
7331	EGTU4202922

REFERENCE	ORIGIN
EGTU4202922	

1 Gross Weight 106,600.00 LB
Tare Weight 42,420.00 LB
Net Weight 64,180.00 LB 32.09 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.09	TN	34 CB61 FCS 34 09/09/13 Inbound - RAIL TICKET DTTX620046 BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04-

2430969

FARMINGTON REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0098
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665752	000000

WEIGHMASTER
0H00036 DATL H

DATE IN	TIME IN
12 September 2013	8:25 am

DATE OUT	TIME OUT
12 September 2013	8:55 am

VEHICLE	ROLL OFF
2330	GCEU430213

REFERENCE	ORIGIN
GCEU430213	

1 Gross Weight 111,340.00 LB
Tare Weight 46,800.00 LB
Net Weight 64,540.00 LB 32.27 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.27	TN	34 ERMI FOS 34 09/09/13 Inbound - RAIL TICKET DTTX620346 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430973

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0038
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10126

SITE	TICKET	GRID
49	665756	000000

WEIGHTMASTER: GH0036 GAIL H

DATE IN	TIME IN
12 September 2013	8:31 am

DATE OUT	TIME OUT
12 September 2013	9:01 am

VEHICLE	ROLL OFF
7587	UPCU411443

REFERENCE	ORIGIN
UPCU411443	

1 Gross Weight 111,420.00 LB
Tare Weight 46,560.00 LB
Net Weight 64,860.00 LB 32.43 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.43	TN	34 CB51 PCS 34				
		09/09/13				
		Inbound - RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2430975

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	665758	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
12 September 2013	8:40 am
DATE OUT	**TIME OUT**
12 September 2013	9:04 am
VEHICLE	**ROLL OFF**
1454	GCEU430548
REFERENCE	**ORIGIN**
GCEU430548	Skykomish

1 Gross Weight 111,060.00 LB
Tare Weight 46,940.00 LB
Net Weight 64,120.00 LB 32.06 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.06	TN	34 [B6] PCS 34				
	09/07/13	Inbound - RAIL TICKET DTTX645983 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2430980

FABIANO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5441

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6657963	000000

WEIGHTMASTER: 0H00036 DAIL H

DATE IN	TIME IN
12 September 2013	9:46 am

DATE OUT	TIME OUT
12 September 2013	9:09 am

VEHICLE	ROLL OFF
6162	TRLU902611

REFERENCE	ORIGIN
TRLU902611	

1 Gross Weight 110,660.00 LB
Tare Weight 46,160.00 LB
Net Weight 64,300.00 LB 32.15 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.15	TN	34 CB61 PCS 34				
		09/09/13				
		Inbound - RAIL TICKET				
		DTTX645983				
		BNSF-SKYKOMISH				

22.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2435167

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6579802	000000

WEIGHTMASTER: OH00036 GALL H

DATE IN	TIME IN
20 September 2013	8:19 am

DATE OUT	TIME OUT
20 September 2013	8:34 am

VEHICLE	ROLL OFF
3648	TRLUP02611

REFERENCE	ORIGIN
TRLUP02611	

1 Gross Weight 109,060.00 LB
Tare Weight 42,960.00 LB
Net Weight 66,120.00 LB 33.06 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.06	TN	34 EB63 FOS 34				
		09/17/13				
		Inbound - RAIL TICKET				
		DTTX645963				
		BNSF-SKYKOMISH				

25.00 TF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2435175

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667890	000000

WEIGHMASTER: GH0006 GAIL H

DATE IN	TIME IN
20 September 2013	8:23 am

DATE OUT	TIME OUT
20 September 2013	8:49 am

VEHICLE	ROLL OFF
2331	EGTU420292

REFERENCE	ORIGIN
EGTU420292	

1 Gross Weight 108,960.00 LB
Tare Weight 42,720.00 LB
Net Weight 66,240.00 LB 33.12 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.12	TN	34 EB61 FCS 34				
		09/17/13				
		Inbound - RAIL TICKET				
		DTTX645983				
		BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2435178

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667893	000000

WEIGHMASTER	
GH00036 GAIL M	
DATE IN	**TIME IN**
20 September 2013	8:29 am
DATE OUT	**TIME OUT**
20 September 2013	8:49 am
VEHICLE	**ROLL OFF**
6811	GCEU430548
REFERENCE	**ORIGIN**
GCEU430548	

1 Gross Weight 111,420.00 LB
Tare Weight 45,940.00 LB
Net Weight 65,480.00 LB 32.74 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.74	TN	34 CB63 PCS 34				
	09/17/13	Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2435179

FARANCO REGIONAL DISPOSAL
P.O. BOX 333
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
47	657894	000000

WEIGHTMASTER
0400036 GAIL H

DATE IN	TIME IN
20 September 2013	8:33 am

DATE OUT	TIME OUT
20 September 2013	8:52 am

VEHICLE	ROLL OFF
1565	GCEU4259935

REFERENCE	ORIGIN
GCEU4259935	

1 Gross Weight 112,700.00 LB
Tare Weight 46,700.00 LB
Net Weight 66,000.00 LB 33.00 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.00	TN	34 CBSI FOS 34				
		09/17/13				
		Inbound - FAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				

23.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2435180

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667895	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 20 September 2013 | TIME IN: 8:36 am

DATE OUT: 20 September 2013 | TIME OUT: 8:53 am

VEHICLE: 3450 | ROLL OFF: TOLU459921

REFERENCE: TOLU459921 | ORIGIN:

1 Gross Weight 113,320.00 LB
Tare Weight 46,380.00 LB
Net Weight 66,940.00 LB 33.47 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.47	TN	34 [B6] PCS 34				
	09/17/13	Inbound - RAIL TICKET DTTX620348 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE ____________________

REV 11/09

RS-F04-

2435182

RAINIER REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001925 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6572897	000000

WEIGHTMASTER
GH00036 GAIL H

DATE IN	TIME IN
20 September 2013	8:26 am

DATE OUT	TIME OUT
20 September 2013	8:55 am

VEHICLE	ROLL OFF
73327	UFCU611443

REFERENCE	ORIGIN
UFCU611443	

1 Gross Weight 107,280.00 LB
Tare Weight +42,260.00 LB
Net Weight 65,020.00 LB 32.51 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.51	TN	34 CB51 PC3 34				
		09/17/13				
		Inbound - RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2435185

SITE	TICKET	GRID
45	647900	000000

WEIGHMASTER: GH00036 GATL H

DATE IN	TIME IN
20 September 2013	8:33 am

DATE OUT	TIME OUT
20 September 2013	9:00 am

VEHICLE	ROLL OFF
5633	DCEU4302213

REFERENCE	ORIGIN
DCEU4302213	

FARMINGTON REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 113,220.00 LB
Tare Weight 47,880.00 LB
Net Weight 65,340.00 LB 32.67 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.67	TN	34 LB63 POS 34				
		09/11/13				
		Inbound - RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				

38.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2435187

BASANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	6679502	000000

WEIGHTMASTER
0400036 GAIL H

DATE IN	TIME IN
20 September 2013	8:49 am

DATE OUT	TIME OUT
20 September 2013	9:04 am

VEHICLE	ROLL OFF
7330	GCEU440185

REFERENCE	ORIGIN
GCEU440185	

1 Gross Weight 112,520.00 LB
Tare Weight 46,420.00 LB
Net Weight 66,100.00 LB 33.05 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.05	TN	34 CB61 PUS 34				
		09/19/13				
		Inbound -- RAIL TICKET				
		DTTX620348				
		BNSF-SKYKOMISH				

20.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2435197

BASINCO REGIONAL DISPOSAL
P.O. BOX 333
Roosevelt, WA 99356
(509) 384-5611

001935 - 0080
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LWF-10176

SITE	TICKET	GRID
49	667912	000000

WEIGHMASTER: CHOOO36 GAIL H

DATE IN	TIME IN
20 September 2013	9:01 am

DATE OUT	TIME OUT
20 September 2013	9:21 am

VEHICLE	ROLL OFF
1454	TOLU456137

REFERENCE	ORIGIN
TOLU456137	

1 Gross Weight 113,780.00 LB
Tare Weight 47,740.00 LB
Net Weight 66,040.00 LB 33.02 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.02	TN	34 EM61 FCS 34				
		09/12/13				
		Inbound - RAIL TICKET				
		BNSF208030				
		BNSF-SKYKOMISH				

29.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04

2435200

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5541

001935 -- 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	462915	000000

WEIGHTMASTER: 0100036 GAIL H

DATE IN	TIME IN
20 September 2013	9:04 am

DATE OUT	TIME OUT
20 September 2013	9:26 am

VEHICLE	ROLL OFF
6190	TOLU466379

REFERENCE	ORIGIN
TOLU466379	

1 Gross Weight 110,200.00 LB
Tare Weight 40,820.00 LB
Net Weight 69,380.00 LB 34.69 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
34.69	TN	34 EB63 PC8 34				
		09/17/13				
		Inbound - RAIL TICKET				
		DTTX466379				
		BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04

2435201

SITE	TICKET	GRID
49	667916	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
20 September 2013	9:02 am

DATE OUT	TIME OUT
20 September 2013	9:26 am

VEHICLE	ROLL OFF
6181	EGTU420523

REFERENCE	ORIGIN
EGTU420523	

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0080
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 111,340.00 LB
Tare Weight 44,980.00 LB
Net Weight 66,360.00 LB 33.18 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.18	TN	04 LB63 PCS 04				
		09/17/13 Inbound - RAIL TICKET BNSF20B030 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04

2435203

SITE	TICKET	GRID
49	467918	000000

WEIGHMASTER: 0100036 GAIL H

DATE IN	TIME IN
20 September 2013	9:08 am

DATE OUT	TIME OUT
20 September 2013	9:28 am

VEHICLE	ROLL OFF
72329	TCLU4693146

REFERENCE	ORIGIN
TCLU4693146	

RABANCO REGIONAL DISPOSAL
P.O. BOX 336
Roosevelt, WA 99356
(509) 384-5641

001925 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,360.00 LB
Tare Weight 45,460.00 LB
Net Weight 64,900.00 LB 32.47 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.47	TN	34 CB61 FOB 34				
		09/17/13				
		Inbound - RAIL TICKET				
		DTTX466839				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE _____

REV 11/09

RS-F04-

2435210

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	669925	000000

WEIGHMASTER	
GH00036 GAIL H	

DATE IN	TIME IN
20 September 2013	9:11 am
DATE OUT	**TIME OUT**
20 September 2013	9:40 am
VEHICLE	**ROLL OFF**
8648	EGTU420135
REFERENCE	**ORIGIN**
EGTU420135	

1 Gross Weight 108,880.00 LB
Tare Weight 42,080.00 LB
Net Weight 66,800.00 LB 33.40 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.40	TN	34 [B6] PCS 34				
	09/17/13	Inbound - RAIL TICKET DTTX659912 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-

2435211

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001535 - 0065
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	465922	000000

WEIGHTMASTER
0100036 DAIL N

DATE IN	TIME IN
20 September 2013	9:23 am
DATE OUT	**TIME OUT**
20 September 2013	9:42 am
VEHICLE	**ROLL OFF**
7331	EGTLK20050
REFERENCE	**ORIGIN**
EGTLK20050	

1 Gross Weight 110,640.00 LB
Tare Weight 42,740.00 LB
Net Weight 67,900.00 LB 33.95 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.95	TN	34 CB61 PCS 34				
		09/12/13 Inbound - RAIL TICKET DTTX65912 BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2435213

KABANCO REGIONAL DISPOSAL
P.O. BOX 339
Roosevelt, WA 99356
(509) 384-5641

001935 - 0068
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667929	000000

WEIGHTMASTER: GH00036 GATE H

DATE IN	TIME IN
20 September 2013	9:27 am

DATE OUT	TIME OUT
20 September 2013	9:45 am

VEHICLE	ROLL OFF
3450	TRLUP005115

REFERENCE	ORIGIN
TRLUP005115	

1 Gross Weight 109,280.00 LB
Tare Weight 45,160.00 LB
Net Weight 64,120.00 LB 32.06 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.06	TN	34 EB61 POS 34				
		09/17/13				
		Inbound - RAIL TICKET				
		DTTX655645G				
		BNSF-SKYKOMISH				

20.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2435214

FRANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667930	000000

WEIGHTMASTER
BROOKS DALL H

DATE IN	TIME IN
20 September 2013	9:26 am

DATE OUT	TIME OUT
20 September 2013	9:45 am

VEHICLE	ROLL OFF
1565	QCEU4314532

REFERENCE	ORIGIN
QCEU4314532	

1 Gross Weight 109,660.00 LB
Tare Weight 45,360.00 LB
Net Weight 64,300.00 LB 32.15 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.15	TN	34 EB61 FOS 34				
		09/12/13				
		Inbound - RAIL TICKET				
		DTTX65656865				
		BNSF-SKYKOMISH				
		28.00 FP				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-

2435217

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

SITE	TICKET	GRID
49	667932	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
20 September 2013	9:25 am

DATE OUT	TIME OUT
20 September 2013	9:47 am

VEHICLE	ROLL OFF
6182	GCEU425923

REFERENCE	ORIGIN
GCEU425923	

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

1 Gross Weight 110,060.00 LB
Tare Weight 45,860.00 LB
Net Weight 64,200.00 LB 32.10 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.10	TN	34 [B6] PCS 34				
	09/12/13	Inbound - RAIL TICKET DTTX656885 BNSF-SKYKOMISH				

28.00 FF

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2435223

BENCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0083
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contracts LW-10176

SITE	TICKET	GRID
49	667928	000000

WEIGHTMASTER: GH00036 GAIL H

DATE IN	TIME IN
20 September 2013	9:33 am

DATE OUT	TIME OUT
20 September 2013	9:58 am

VEHICLE	ROLL OFF
6811	DCEU4253442

REFERENCE	ORIGIN
DCEU4253442	

1 Gross Weight 111,580.00 LB
Tare Weight 45,440.00 LB
Net Weight 66,140.00 LB 33.07 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.07	TN	34 CB63 PCS 34				
		09/13/13				
		Inbound - RAIL TICKET				
		DTTX469468				
		BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE _____

RS-F04-4

2435225

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	662940	090000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
20 September 2013	9:42 am

DATE OUT	TIME OUT
20 September 2013	10:02 am

VEHICLE	ROLL OFF
7327	GCEU425021

REFERENCE	ORIGIN
GCEU425021	

1 Gross Weight 108,480.00 LB
Tare Weight 42,860.00 LB
Net Weight 65,620.00 LB 32.81 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
32.81	TN	34 [B6] PCS 34				
	09/17/13	Inbound - RAIL TICKET DTTX655658 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ______________________

RS-F04-4

2435227

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667942	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
20 September 2013	9:35 am

DATE OUT	TIME OUT
20 September 2013	10:03 am

VEHICLE	ROLL OFF
5833	EGTU420778

REFERENCE	ORIGIN
EGTU420778	

1 Gross Weight 114,700.00 LB
Tare Weight 48,200.00 LB
Net Weight 66,500.00 LB 33.25 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.25	TN	34 DB63 PCS 34				
	09/17/13	Inbound - RAIL TICKET DTTX469468 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4

2435228

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667943	000000

WEIGHMASTER: QH00036 GAIL H

DATE IN	TIME IN
20 September 2013	9:39 am

DATE OUT	TIME OUT
20 September 2013	10:03 am

VEHICLE	ROLL OFF
7330	UPCU411522

REFERENCE	ORIGIN
UPCU411522	

1 Gross Weight 109,900.00 LB
Tare Weight 46,740.00 LB
Net Weight 63,160.00 LB 31.58 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
31.58	TN	34 CB61 PCS 34				
	09/17/13	Inbound - RAIL TICKET DTTX468058 BNSF-SKYKOMISH				

28.00 FT

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4p

2435240

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667955	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN	TIME IN
20 September 2013	10:05 am

DATE OUT	TIME OUT
20 September 2013	10:28 am

VEHICLE	ROLL OFF
4181	GCEU435114

REFERENCE	ORIGIN
GCEU435114	

1 Gross Weight 114,120.00 LB
Tare Weight 45,440.00 LB
Net Weight 68,680.00 LB 34.34 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
34.34	TN	34 [B6] PCS 34				
	09/17/13	/Inbound - RAIL TICKET DTTX657041 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4

2435243

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(506) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	667958	000000

WEIGHMASTER	
GH00036 GAIL H	
DATE IN	TIME IN
20 September 2013	10:06 am
DATE OUT	TIME OUT
20 September 2013	10:32 am
VEHICLE	ROLL OFF
7328	GCEU432248
REFERENCE	ORIGIN
GCEU432248	

1 Gross Weight 112,600.00 LB
Tare Weight 46,140.00 LB
Net Weight 66,460.00 LB 33.23 TN

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.23	TN	34 EB6J PCS 34				
	09/17/13	Inbound - RAIL TICKET DTTX657041 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

REV 11/09

SIGNATURE ____________________

RS-F04-4

2435244

RABANCO REGIONAL DISPOSAL
P.O. BOX 338
Roosevelt, WA 99356
(509) 384-5641

001935 - 0088
BNSF / Bruce Sheppard
BNSF / Bruce Sheppard

Contract: LW-10176

SITE	TICKET	GRID
49	367959	000000

WEIGHMASTER: GH00036 GAIL H

DATE IN: 20 September 2013 | TIME IN: 10:04 am

DATE OUT: 20 September 2013 | TIME OUT: 10:34 am

VEHICLE: 1454 | ROLL OFF: EGTU420167

REFERENCE: EGTU420167 | ORIGIN:

1 Gross Weight 113,000.00 LB
Tare Weight 46,280.00 LB
Net Weight 66,720.00 LB 33.36 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
33.36	TN	34 EB63 PCS 34				
	09/17/13	Inbound - RAIL TICKET DTTX468058 BNSF-SKYKOMISH				

28.00 FP

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES

SIGNATURE

RS-F04

/ 11/09

SITE
REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014209
Strider Const
4721 Northwest Road
Bellingham, WA 98225
LW-13433

SITE	TICKET #	CELL
01	900770	

WEIGHMASTER: IN - JAMIE B. OUT - Kim L.

DATE/TIME IN	DATE/TIME OUT
10-28-2013 11:22 am	10-28-2013 11:56 am

VEHICLE	CONTAINER
SOIL	

REFERENCE: MD-09 STRIDER INVOICE

BILL OF LADING:

SCALE IN	GROSS WEIGHT	41,760	NET TONS	6.94
SCALE OUT	TARE WEIGHT	27,880	NET WEIGHT	13,880

INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
6.94	TN	SW-CONT SOIL W/FUEL Skykomish				

NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _____

SITE
REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014209
Strider Const
4721 Northwest Road
Bellingham, WA 98225
LW-13433

SITE 01 | TICKET # 900770 | CELL

WEIGHMASTER: IN - JAMIE B. OUT - Kim L.

DATE/TIME IN 10-28-2013 11:22 am | DATE/TIME OUT 10-28-2013 11:56 am

VEHICLE SOIL | CONTAINER

REFERENCE MD-09 STRIDER INVOICE

BILL OF LADING

SCALE IN GROSS WEIGHT 41,760 NET TONS 6.94
SCALE OUT TARE WEIGHT 27,880 NET WEIGHT 13,880 INBOUND

QTY. | UNIT | DESCRIPTION | RATE | EXTENSION | TAX | TOTAL
0.00 YD TRACKING QTY
6.94 TN SW-CONT SOIL W/FUEL Skykomish

NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _____