DRAFT FOCUSED SITE ASSESSMENT REPORT

FORMER CREAM WINE PROPERTY

Prepared for
PORT OF SUNNYSIDE

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FOCUSED SITE ASSESSMENT FORMER CREAM WINE PROPERTY The material and data in this report were prepared under the supervision and direction of the undersigned.

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ASTM	American Society for Testing and Materials, International
bgs	below ground surface
BMEC	Blue Mountain Environmental Consulting, Inc.
CEL	Calscience Environmental Laboratories, Inc.
COI	chemical of interest
CSIA	compound-specific isotope analysis
CSM	conceptual site model
CUL	cleanup level
Ecology	Washington State Department of Ecology
ESA	environmental site assessment
IHS	indicator hazardous substance
ISCO	in situ chemical oxidation
MFA	Maul Foster & Alongi, Inc.
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTBE	methyl-tert-butylether
MTCA	Model Toxics Control Act
μg/L	micrograms per liter
PCE	tetrachloroethene (perchloroethylene)
PID	photoionization detector
POC	point of compliance
the Port	Port of Sunnyside
the Property	the former Cream Wine property
RCRA	Resource Conservation and Recovery Act
SA	Specialty Analytical
SES	Sound Environmental Strategies Corporation;
	SoundEarth Strategies, Inc.
TCE	trichloroethene
TPH	total petroleum hydrocarbons
TOC	Time Oil Company
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound
VVM	Valley View Market
WAC	Washington Administrative Code
WHC	Washington Hills Cellars
ZF	Zymax Forensics

INTRODUCTION

On behalf of our client, the Port of Sunnyside (the Port), Maul Foster & Alongi, Inc. (MFA) has prepared this focused site assessment report for the former Cream Wine property (the Property) located at 111 East Lincoln Avenue in Sunnyside, Washington (see Figure 1). The Property is currently vacant but was used historically as a winery and originally as a milk plant. Former activities at the Property include chemical storage, truck washing and repair, coal and bunker fuel storage associated with a railroad spur, and other activities ancillary to the historical milk plant and winery operations.

1.1 Regulatory Framework

The Port received an Integrated Planning Grant from the Washington State Department of Ecology (Ecology) in fall 2011 to support planning for cleaning up the Property and redeveloping it into a revitalized asset for the community. The purpose of this focused site assessment is to characterize the nature and extent of the hazardous substance contamination, evaluate potential risk to human health, and screen potential cleanup alternatives. This assessment has been completed for the Property to address the substantive requirements of Washington Administrative Code (WAC) 173-340 of the Model Toxics Control Act (MTCA). The assessment was conducted generally consistent with the Ecology-approved work plan (MFA, 2011).

1.2 Site Assessment Objectives

Historical site assessments identified hazardous substances, including volatile organic compounds (VOCs), in particular tetrachloroethene (also known as perchloroethylene, or PCE) and methyl tertbutyl ether (MTBE), and petroleum hydrocarbons in groundwater at the Property. Site assessment objectives included the following:

- Review of the results of the historical investigations.
- Assessing the validity of historical data and data quality objectives for additional site characterization.
- Further characterization of the nature and extent of hazardous substances in environmental media above MTCA cleanup levels (CULs) and sources of contamination.
- Developing a conceptual site model (CSM) and evaluate potential risk to current and reasonably likely future human receptors at the Property.
- Evaluating potential cleanup options for impacted media on the Property.

This section describes the physical location and characteristics of the Property, including the geology and hydrogeology, and summarizes the site history and previous investigations.

2.1 Site Description

The Property is located at 111 East Lincoln Avenue, Sunnyside, Washington, and is zoned heavy industrial. The Property comprises approximately 4.67 acres and is located in section 36, township 10 north, and range 22 east of the Willamette Meridian, on tax lots 221036-22006 (see Figure 1).

The Property is bordered by Lincoln Avenue and residential areas to the north; industrial development to the south; First Street, a residential area, and Valley View Market (VVM) to the west; and a commercial development to the east (Ken's Auto Wash & Quick Lube). The VVM property once included a dry cleaner or laundry that, based on Polk directory records, may have operated between 1964 and 1995 (see Appendix A).

For the Property's current site features, see Figure 2. The Property has three structures:

- The winery/main building covers approximately 36,309 square feet. It is composed of many rooms, including processing rooms, storage room, cold rooms, boiler room, office rooms, rest rooms, a warehouse area, and a product testing laboratory. The building structure consists of various materials, including wood, metal, brick, and concrete block. There is one production water well (Well No. 1) inside the building, northwest of the boiler room.
- The former chemical storage building covers approximately 200 square feet. It has a concrete floor and is constructed of concrete blocks.
- The remediation building covers approximately 200 square feet and houses the VVM groundwater remediation system.

2.2 Site History

The building was originally constructed for the Morning Milk Company, which operated on the Property from approximately 1942 to 1946. Carnation acquired the Property and operated from approximately 1946 to 1986. The Port bought the Property in 1986 and leased the facility to a winery in 1988, then sold it to the Seitz family in 1990. In 1992 the Property was bought by Washington Hills Cellars (WHC) and used as a winery. Federal Agricultural Mortgage Corporation foreclosed on the Property in 2007 because WHC was unable to make loan payments. Cream Wine leased the Property for operation of a winery in 2007 and vacated it in 2010.

2.3 Previous Investigations

Site investigations have been conducted on the Property since 2006 to assess the impacts related to the underground storage tank (UST) leak at the VVM property at 107 West Lincoln Avenue, Sunnyside, Washington. In 1996, Time Oil Company (TOC) discovered petroleum hydrocarbon contamination on the VVM property during installation of cathodic protection on the UST system. TOC initiated a remedial investigation on the VVM site and discovered that the release had resulted in migration of petroleum hydrocarbons onto the Property. TOC installed a "bioslurp" remedial system in May 2000 on the VVM site and the Property. The bioslurp system operated between August 2000 and August 2006. Groundwater monitoring was conducted on the VVM site on a quarterly to semiannual basis between March 1997 and December 2008.

Investigations for the VVM project have also detected PCE on the Property. The source for the PCE contamination was not conclusively identified in previous investigations.

The following is a list of reports that have been completed in association with the evaluation of petroleum hydrocarbon and PCE impacts and remediation activities as well as to identify any additional environmental concerns on the Property. Environmental concerns identified by MFA are discussed in the next section (Section 2.4).

- Environmental Site Assessment (ESA). 2006. Prepared by Blue Mountain Environmental Consulting, Inc. (BMEC).
- Phase II Environmental Site Investigation and Retro Underground Storage Tanks (USTs) Site Closure. 2007. Prepared by BMEC.
- Final Alternate Source Evaluation. 2008. Prepared by Kennedy/Jenks Consultants.
- Revised Aquifer Evaluation for Production Well Use. 2008. Prepared by Kennedy/Jenks Consultants.
- Summary of Shallow Soil and Groundwater Investigation. 2008. Prepared by Kennedy/Jenks Consultants.
- Completion of Cleanup at Former Apex Winery Site Adjacent to Time Oil Property. 2009. Prepared by Kennedy/Jenks Consultants.
- Report of Independent Actions Facility ID #46552116. 2010. Prepared by Kennedy/Jenks Consultants.
- Phase I ESA. 2011. Prepared by MFA.

Multiple environmental studies have also been completed on the VVM property, including.

- ESA. 1997. Prepared by Alisto Engineering Group.
- Remedial Investigation/Feasibility Study Report. 1991. Prepared by Maxim Technologies, Inc.

- Corrective Action Plan and January 2000 Groundwater Monitoring Report. 2000. Prepared by TOC.
- Monitoring Well Installation Report. 2000. Prepared by TOC and Brown and Caldwell.
- Bioslurping System Installation Report. 2000. Prepared by Brown and Caldwell.
- Remedial Investigation Report. 2009. Prepared by SES (SoundEarth Strategies, Inc., formerly known as Sound Environmental Strategies Corporation).
- In Situ Chemical Oxidation Work Plan. 2010. Prepared by SES.
- Simulation of well capture and advective transport with the operation of the on-site remediation system memorandum. 2011. Prepared by SES.
- Quarterly Groundwater Monitoring Reports. 2010. Prepared by SES.

2.4 Known or Potential Environmental Conditions

A number of features were identified as known or potential environmental conditions for the Property. The sampling approach was designed to investigate these features as well as to address data gaps, including the following:

- **Confirmed groundwater impacts:** Environmental assessments and investigations completed at the Property from 2006 through 2009 indicated detections of VOCs (e.g., MTBE and PCE) at levels exceeding MTCA Method A groundwater CULs for unrestricted land use. The MTBE is related to a confirmed off-site source. Groundwater flows in a southeasterly direction, based on historical groundwater monitoring. The PCE source was not identified in previous investigations. Possible sources identified include on-site features (e.g., former truck shop) or off-property sources (e.g., dry cleaner). The extent of the PCE impacts also was not fully delineated.
- Former chemical/ether storage building: Evaluated whether a drain inside the building, which appears to discharge directly to the ground outside on the north end of the building, had resulted in impacts to soil and/or groundwater.
- **Truck washing area:** MFA observed a drain inside the truck washing area and evaluated whether the drain could be a conduit for soil and/or groundwater contamination.
- Stormwater swale: During the site visit, MFA observed a large, open swale in the southeast portion of the Property. The swale appeared to be about 5 feet deep. There was an 8-inch diameter polyvinyl chloride pipe entering the swale from the direction of the main building. The pit was installed by the Port in 2011 and is used for stormwater infiltration. MFA evaluated whether this swale could be a conduit for soil and/or groundwater contamination.
- Former in-ground hydraulic lifts in the former truck repair building: There are records of petroleum hydrocarbon impacts in soil near the lifts; however, there are no records indicating that the extent of the impacts was delineated.

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- **Coal pit/bunker fuel UST:** According to a Sanborn Fire Insurance Map from 1944, a coal pit was located just south of the main building, next to an old railroad spur. According to Vern Anderson (former engineer for the Port), there may have been a bunker fuel UST located in the same area. No environmental investigations had been conducted in the area. MFA evaluated whether these features have impacted the Property.
- Former open drainage ditch: According to previous reports, a former wastewater line may have discharged into an open drainage ditch along the south property line (see Figure 2). The composition of the historical wastewater is unknown.
- Lower confining unit: The elevation of the upper surface of the lower confining unit for the shallow aquifer may exert a controlling influence on the nature and extent of groundwater impacts. This elevation was verified along the groundwater flow path from upgradient to downgradient.

2.5 Geology and Hydrogeology

The Property is located on late Pliocene lacustrine deposits composed of interbedded silt and finegrain sands deposited by the Missoula Floods (Maxim, 1999). The lacustrine deposits may be up to 90 feet thick; they overlie coarse-grained fluvial deposits from former channels of the Columbia River. These fluvial deposits compose the Snipes Mountain Conglomerate and may range in thickness from 90 up to 450 feet (Maxim, 1999). Unconsolidated deposits in the area may be up to 2,000 feet thick and are underlain by the Wanapum Basalt, which is part of the Columbia River Basalt Group (SES, 2009). In the Sunnyside area, unconsolidated deposits are typically up to 400 feet thick (SES, 2009). Multiple aquifers are present in both the unconsolidated deposits and the basalts (SES, 2009).

A cross-sectional interpretation of the property geology, based on soil boring observations (see Appendix B), was completed along the transect shown in Figure 3. The cross section is provided as Figure 4. Soil boring observations indicate that most of the Property is underlain by 10 to 15 feet of silt overlying an approximately 20- to 35-foot-thick deposit of interbedded silty sand and sandy silt, which most likely represent the lacustrine deposits discussed above. A dense silt and clay unit underlies the silty sand and sandy silt, generally at a depth of 40 feet below ground surface (bgs).

The silty sand and sandy silt deposits make up an unconsolidated, shallow aquifer that has been observed to be hydraulically disconnected from deeper groundwater present beneath the Property (Kennedy/Jenks, 2008). Groundwater was typically encountered between 11.5 and 22 feet bgs, and the average groundwater flow direction historically observed at the Property is toward the southeast (SES, 2011). The underlying silt and clay unit was characterized as unsaturated and likely acts as a fully confining unit, based on the observed absence of moisture and the hydraulic discontinuity between the shallow and deep groundwater units identified by previous investigations (Kennedy/Jenks, 2008).

The site assessment was conducted in two phases. The first phase of investigation was conducted in January 2012, and focused on assessing data gaps associated with the potential environmental conditions mentioned above. The investigation included evaluation of soil and groundwater for potential chemicals of interest (COIs), including diesel- and lube-oil-range total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons, lead, and VOCs. An additional objective of the work was to further evaluate detections of PCE in groundwater on the Property and in inferred upgradient locations, and to fingerprint potential PCE sources.

The second phase of the investigation included further evaluation of the lateral extent of PCE impacts to groundwater downgradient of the Property, based on analytical results from the first phase. The second phase of the investigation was conducted in June 2012.

The investigations included collection of groundwater and soil samples at the following locations (see Figure 2):

GP01: West of First Avenue and south of the remediation discharge line. This sample was collected to evaluate the extent of PCE impacts.

GP02 and GP03: West of First Avenue. These samples were collected to evaluate the extent of PCE impacts.

GP04: South of the drain inside the truck washing area. This sample was collected to evaluate the drain as a possible source of PCE.

GP05: Near the southwest corner of the Property. This sample was collected to evaluate the extent of PCE impacts.

GP06 and GP07: The former truck shop area. These samples were collected to evaluate the extent of PCE impacts and any potential impacts related to the hydraulic lift and the former UST.

GP08: The former drainage ditch. This sample was collected to evaluate the potential impacts related to the wastewater.

GP09: The former chemical/ether storage building. This sample was collected next to the drain from the building to evaluate impacts.

GP10 and GP11: The former coal pit and suspected bunker fuel UST. These samples were collected to investigate these two features.

GP12: Stormwater swale. Four soil samples were planned in this area to evaluate potential impacts related to stormwater discharge. However, only one surface soil sample was collected at the open stormwater swale because of access issues (the swale was underwater).

RW04, RMW09, and MW18: Groundwater samples were collected to further delineate the extent of groundwater impacts.

GP13 to GP17: Soil and groundwater samples were collected from the property to the south to further delineate the extent of groundwater impacts.

3.1 Soil Sampling

Soil samples were collected from soil borings (see Figure 2 for sample locations). Seventeen continuous soil cores were advanced with a direct-push drilling rig from the ground surface to the top of the lower confining unit, which was generally encountered between 32 and 44 feet bgs. In the first-phase investigation, soil samples were collected at the ground surface, 5.0 feet bgs, 10.0 feet bgs, and 15.0 feet bgs. In the second-phase investigation, soil samples were collected from above the water table, which was generally encountered between 11.5 and 22.0 feet bgs, and from approximately mid-depth between the ground surface and the water table. Soil conditions were described and visual and olfactory observations of the soil were recorded. Soil collected during the first-phase investigation was also screened for organic vapors, using a photoionization detector (PID). Boring logs are provided as Appendix B.

Samples were submitted to Specialty Analytical (SA) of Clackamas, Oregon, for analysis under standard chain-of-custody procedures. A subset of the soil samples collected was analyzed. Samples were selected for analysis based on observed impacts, on elevated head-space readings collected with a PID, and/or on information from previous investigations. Table 1 summarizes soil samples submitted for analysis.

Soil samples collected during the first-phase investigation were analyzed for the following:

- Gasoline-range organics by Method NWTPH-Gx with U.S. Environmental Protection Agency (USEPA) 5035 sample preparation.
- Diesel-range organics by Method NWTPH-Dx.
- VOCs by USEPA Method 8260B with USEPA 5035 sample preparation.
- Lead was analyzed by USEPA Method 6010 if gasoline-range organics were detected.

Based on initial analytical results, follow-up analyses were performed on one sample: GP08-S-5.0 (5 feet) for diesel-range organics by NWTPH-Dx, gasoline-range organics by NWTPH-Gx, and lead by USEPA Method 6010.

Soil samples collected during the second-phase investigation were analyzed for VOCs by USEPA Method 8260B with USEPA 5035 sample preparation.

3.2 Groundwater Sampling

Groundwater samples were collected from the water table and from the lower extent of the surficial aquifer¹ in order to evaluate potential density-driven impacts characteristic of a dense nonaqueousphase liquid release (e.g., PCE). Groundwater samples were collected from borings and monitoring wells both on and off site (see Figure 2 for sample locations). All groundwater sampling was conducted using the methods and protocols outlined in the sampling and analysis plan provided as Appendix C. Groundwater field sampling data sheets are provided as Appendix D.

Groundwater samples were analyzed for petroleum hydrocarbons by SA, using Methods NWTPH-Dx and NWTPH-Gx. Groundwater samples analyzed for VOCs by USEPA Method 8260B and compound-specific isotope analysis (CSIA) were sent to Zymax Forensics (ZF) of Escondido, California. ZF completed the CSIA and submitted the samples to Calscience Environmental Laboratories, Inc. (CEL) for VOC analysis.

ANALYTICAL RESULTS

Laboratory analytical reports are provided as Appendix E. Analytical data and the laboratory's internal quality assurance and quality control data were reviewed to assess whether they meet project-specific data quality objectives. This review was performed consistent with accepted USEPA procedures for evaluating laboratory analytical data (USEPA, 2004, 2008a) and appropriate laboratory and method-specific guidelines (CEL, 2012; SA, 2012; ZF, 2012). Data validation memoranda summarizing data evaluation procedures, usability of data, and deviations from specific field and/or laboratory methods for the January and June 2012 investigation data are presented as Appendix F. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

4.1 Soil

Soil analytical results are summarized in Table 1. Fifty-nine soil samples (including one field duplicate from GP11 [15 feet bgs]) were collected from 17 boring locations (see Figure 2). Twenty-two of the soil samples collected were analyzed. Twenty-one samples were analyzed for VOCs and only one VOC was detected in one sample: acetone at 199 micrograms per kilogram at GP12 (1 foot bgs). Fifteen samples were analyzed for TPH and lead. Gasoline-, diesel-, and lube-oil-range organics were detected at 49 milligrams per kilogram (mg/kg), 155 mg/kg, and 399 mg/kg, respectively, at GP08 (1 foot bgs). Lead was detected in 14 out of 15 samples analyzed at concentrations ranging from 2.93 mg/kg at GP11 (15 feet bgs) to 876 mg/kg at GP08 (1 foot bgs). The risk screening section (Section 7) includes a discussion of soil chemical detections compared to their respective CULs.

¹ The lower screened interval extended from the bottom of the silty sand and sandy silt unit to the top of the lower confining unit.

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4.2 Groundwater

The groundwater analytical results are summarized in Table 2, and PCE results (current and historical) are shown in Figure 5. Thirty-seven groundwater samples (including two field duplicates from GP14 [32 feet bgs] and RMW09 [25 feet bgs]) were collected from 16 boring and three monitoring well locations. All samples collected were analyzed for VOCs. The following VOCs were detected in groundwater: chloroform, toluene, MTBE, and PCE. Chloroform was detected in four samples at concentrations ranging from 1.2 micrograms per liter (μ g/L) at GP05 (35 feet bgs) to 2.1 μ g/L at GP02 (37.5 feet bgs). Toluene was detected in one sample at 6.2 μ g/L at GP17 (20 feet bgs). MTBE was detected in three samples: 15 μ g/L at RM04 (25 feet bgs) and 250 μ g/L in the parent and duplicate samples collected at RMW09 (25 feet bgs). PCE was detected in eight samples at concentrations ranging from 1 μ g/L at GP02 (22.5 feet bgs) to 17 μ g/L at GP07 (42.5 feet bgs).

Groundwater samples collected during the first-phase investigation were also analyzed for TPH. Twenty-six samples were analyzed. Diesel-range organics were detected in 11 samples at concentrations ranging from 0.0998 milligrams per liter (mg/L) at GP03 (37.5 feet bgs) to 0.266 mg/L at GP11 (22.5 feet bgs). Lube-oil-range organics were detected in seven samples at concentrations ranging from 0.292 mg/L at RMW09 (25 feet bgs) to 1.33 mg/L at GP11 (22.5 feet bgs).

PCE isotopes were analyzed in eight samples collected during the first-phase investigation. The CSIA results are discussed in the next section. The risk screening section (Section 7) includes a discussion of groundwater chemical detections compared to their respective CULs.

D PCE FORENSIC ANALYSIS

MFA collected groundwater samples for VOC analysis and CSIA to identify the source and the nature and extent of PCE impacts in groundwater. CSIA measures the ratios of the two most abundant isotopes of carbon and chlorine (^{13/12}C and ^{37/35}Cl) to fingerprint sources and plumes of chlorinated hydrocarbons (Schmidt et al., 2004). Carbon and chlorine isotope ratios are commonly denoted as δ^{13} C and δ^{37} Cl, respectively, which represents the delta, or relative abundance, of ¹³C or ³⁷Cl in the sample compared to a reference sample measured in parts per thousand (per mil).

The isotopic composition of PCE in groundwater depends on the isotope ratio of the source materials and on isotope fractionation during production of PCE. Therefore, carbon and chlorine isotopic signatures for PCE produced by one manufacturer during one production phase will be similar. Further, concurrent analysis of multiple elements reduces the likelihood of observing patterns that show a single source when multiple sources exist (USEPA, 2008b). In addition, an advantage of CSIA is that transport and partitioning processes impact isotope values minimally; these processes therefore will generally not mask the variation in isotope signatures that may be present in original source compounds. For further stable isotope background, see the discussion provided as Appendix G.

Groundwater samples were collected near potential sources (e.g., the former dry cleaner, the former truck servicing shop, the truck washing area, the chemical shed) for PCE forensic analysis. Groundwater samples were also collected downgradient of the former dry cleaner, along the presumed flow path from the dry cleaner to the Property, to evaluate this potential source.

Table 2 and Figure 6 show that PCE isotope signatures of all groundwater samples are very similar, with both δ^{13} C and δ^{37} Cl varying less than 1 per mil. A difference of less than 1 per mil between samples, as observed here, is consistent with a single source (USEPA, 2008b).

Evidence for a single source is particularly compelling because even as groundwater locations, depths, and concentrations vary, chlorine isotopic signatures are consistent. Specifically, samples (1) were collected from locations spanning both upgradient and downgradient areas of the Property, (2) were collected from both shallow and deep groundwater at depths ranging from 22.5 feet bgs to 45 feet bgs, and (3) there is a wide range in PCE concentrations from 1 μ g/L to 17 μ g/L. A single source scenario best explains the pattern observed—similar isotope signatures under varying conditions.

While isotopic signatures derived from a single source will be similar, isotopes of PCE produced by different manufacturers or by the same manufacturer but during different production phases likely will be dissimilar (USEPA, 2008b). Isotope signatures of PCE produced by different manufacturers and during separate production phases are shown in Figure 6. Both pure-phase and dissolved manufactured PCE isotopes are highly variable, with δ^{13} C and δ^{37} Cl ratios differing by approximately 13 per mil and 2.5 per mil, respectively. This variability contrasts strongly with the similarity in PCE isotopes observed in groundwater samples collected at and near the Property (see Figure 6).

Figure 6 also shows that variability between production phases for both the Dow Chemical Company PCE (1993 vs. 1995) and PPG Industries PCE (1993 vs. 1995) occurs in δ^{13} C, with ratios differing by as much as 5 per mil (Beneteau, Aravena, and Frape, 1999; USEPA, 2008b; van Warmerdam et al., 1995). The groundwater samples collected at the Property, however, vary minimally in their δ^{13} C values (< 1 per mil), indicating that PCE in the groundwater likely stems from a single PCE production phase. This supports a single manufacturer, single production phase scenario. Therefore, current stable isotope data show that PCE contamination likely was released to groundwater from a single source during a single spill event. However, without data from the source area, multiple release events cannot be ruled out definitively.

6 CONCEPTUAL SITE MODEL

The CSM describes potential chemical sources, release mechanisms, environmental transport processes, exposure routes, and receptors. The primary purpose of the CSM is to describe pathways by which human and ecological receptors could be exposed to site-related chemicals. A complete exposure pathway consists of four necessary elements: (1) a source and mechanism of chemical release to the environment, (2) an environmental transport medium for a released chemical, (3) a point of potential contact with the impacted medium (referred to as the exposure point), and (4) an

exposure route (e.g., soil ingestion) at the exposure point. The CSM describes potential exposure scenarios based on information collected during the site assessment. Elements of potentially complete exposure scenarios relevant to human health and ecological receptors are discussed below and are presented in Figure 7.

6.1 Source Characterization

The Property was used as a milk plant from approximately 1942 to 1986 and as a winery from 1988 to 2010. The Property is currently vacant. Chemicals of potential concern on the Property include TPH, lead, and acetone in soil; and TPH and VOCs (primarily MTBE and PCE) in groundwater. There are no continuing sources of hazardous-substance releases at the Property. Based on previous investigations, the sources of soil contaminants are likely surface releases from former site operations, including truck washing and repair and chemical storage.

The TPH and MTBE in groundwater are related to a confirmed off-site source (Maxim, 1999; SES, 2009). On-site features (e.g., former truck shop) and off-property operations (e.g., dry cleaner) have been identified as potential sources of PCE in groundwater. However, stable isotope data indicate that a single source is responsible for PCE contamination. The presence of PCE upgradient of the Property and downgradient of a former dry cleaner suggests that the upgradient dry cleaner is the most likely source. Although the stable isotope data and observed PCE concentration trends along the groundwater flow direction support a single source, single event release from the former dry cleaner, further characterization of the source area is needed to definitively confirm the source.

A previous investigator suggests that contamination observed upgradient of the Property may not be attributable to the VVM site (SES, 2011). In their report, SES suggested that historically elevated PCE at the Property is the result of hydraulic conditions (lateral transport) imposed by the remediation system operating from 2000 through 2006, with PCE possibly originating to the north and south of MW18 at the former truck washing and/or truck repair facilities, respectively (see Figure 2) (SES, 2011). However, absence of PCE at MW10 and GP04, and the single source, single spill inference supported by the PCE stable isotope data, indicate that the truck washing facility is unlikely to be a source of PCE (see Figure 6).

The former dry cleaner's potential as a release site may have been missed by previous investigations. The dry cleaner is located southwest of the sample locations previously analyzed by SES and outside the groundwater flow path sampled during remediation of the TOC release (SES, 2011). Current data show that PCE is upgradient of the Property and downgradient of the former dry cleaner. Specifically, GP01, GP02, and GP03 have PCE detections (see Figure 5). Based on PCE forensics described above, PCE contamination observed at these locations likely originated from the same release (i.e., a single source and spill event) as that impacting the Property. Furthermore, PCE contamination at GP01, GP02, and GP03 likely cannot be explained by lateral transport that occurred during remediation, suggesting an upgradient source. These findings also correspond with previous work. In their 2009 memo, Kennedy/Jenks Consultants reported that there were no identifiable on-site VOC releases and concluded that PCE in groundwater likely was migrating onto the Property from an upgradient, off-site source (Kennedy/Jenks, 2009). Further characterization is needed to define the PCE contamination source.

6.2 Fate and Transport of Contaminants

The primary mechanisms likely to influence the fate and transport of chemicals at the Property include natural biodegradation of organic chemicals, sorption to soil, advection and dispersion in groundwater, volatilization from soil or groundwater to air, and leaching of chemicals from soil to groundwater. The relative importance of these processes will vary, depending on the chemical and physical properties of a released contaminant. The properties of soil and the dynamics of groundwater flow also shape contaminant fate and transport.

Chemicals with sufficiently high solubility could leach from soil to pore water, and dissolved chemicals could be transported downward to local groundwater. PCE, however, was not detected in soil, indicating an upgradient, off-site source. In the dissolved phase, volatilization, dispersion, retardation, and biodegradation may act to further reduce concentrations of chemicals in groundwater downgradient of a source area. The fate and transport of PCE is discussed in more detail in the next section.

Much of the Property is paved, with localized unpaved areas to the north of the main building and on the eastern end of the Property. Drains inside the former chemical/ether storage building and in the truck washing area were evaluated as potential conduits to soil and/or groundwater. No contamination associated with these features was identified; therefore, they were deemed incomplete migration pathways. Soil impacts are limited to one lead exceedance near the exterior of the storage building. No potential soil-to-groundwater migration pathways were identified for the lead contamination. The lead exceedance is vertically bounded and is not located near the drain inside the storage building, and no lead impacts were found in groundwater.

According to previous reports, a former wastewater line may have discharged into an open drainage ditch along the south property line; this could have created a localized area where dissolved contaminants reach groundwater and transport via diffusion and advection away from the original source. Similarly, an open swale installed for stormwater infiltration in 2011 could act as a conduit for soil and/or groundwater contamination. However, soil and groundwater exceedances were not observed in these areas. Therefore, these features are deemed incomplete migration pathways. See Figure 7 for a CSM summarizing potential transport pathways.

6.2.1 PCE Fate and Transport

Analysis of the PCE data from the Property indicates that PCE concentrations are declining and that they will decline to below detectable levels by the time the PCE plume center of mass reaches the downgradient Property boundary.

MFA evaluated historical PCE concentrations in groundwater from two on-site monitoring wells and found that PCE concentrations exhibit a strong decreasing trend. Ongoing groundwater monitoring has been conducted at two on-site monitoring wells, locations RW04 and MW18, which historically have exhibited some of the highest PCE concentrations in groundwater (see Figure 5 for monitoring well locations and the most recent PCE results). PCE concentrations observed in 2012, compared to historical data (SES, 2011), show that PCE concentrations have decreased significantly

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since 2005 (see Figure 8). Linear regressions of these data indicate a declining trend, as indicated by the downward (i.e., negative) slope in the trend line. The coefficients of determination, referred to as " R^2 values," which represent a "goodness of fit" of the trend line to the data (1.0 representing a perfect fit), were 0.8 for both regressions, indicating that the declining trends are statistically significant. PCE concentrations show a continual decreasing trend since the remediation system was shut down in 2006, which indicates that PCE concentrations are being reduced under natural conditions (see Figure 8).

Advection, dispersion, and sorption likely are the most significant mechanisms for naturally attenuating PCE concentrations at the Property. Biodegradation by anaerobic reductive dechlorination is not a likely mechanism, based on the lack of detections of PCE daughter products (e.g., trichloroethene [TCE], cis-1,2-dichlorethene, vinyl chloride), and the aerobic groundwater conditions. Aerobic conditions are characterized by dissolved oxygen concentrations greater than 1 mg/L (USEPA, 1998), as observed at most of the groundwater sampling points on the Property (see Appendix D). Abiotic degradation (e.g., hydrolysis and dehydrohalogenation) of PCE may also be occurring. While these processes may potentially be significant attenuation mechanisms, it is not practical to demonstrate that these processes are occurring at the Property, given the difficulties of detecting the unstable breakdown products (e.g., acids and alcohols) on a field scale (USEPA, 1998). These findings correspond with those reported by Kennedy/Jenks Consultants. They evaluated PCE concentration trends and natural attenuation parameters at the Property and found that PCE concentrations are decreasing and that the most likely mechanism is mechanical or abiotic degradation (Kennedy/Jenks, 2009). However, without additional data, we cannot exclude the possibility that sequential dechlorination is occurring. There may be no evidence of sequential dechlorination (i.e., no detection of daughter products) because PCE concentrations are not high enough to support the production of daughter products at concentrations above laboratory detection limits. Likewise, we cannot exclude the possibility that mechanical processes alone are responsible for PCE attenuation if, for instance, PCE concentrations are too low to support significant growth of PCE-degrading bacteria.

Given the rate of PCE decay exhibited by the historical groundwater data and an empirically derived plume migration velocity, it is possible to demonstrate that PCE concentrations in groundwater will decrease to below CULs by the time the plume's center of mass reaches the downgradient Property boundary, as follows.

The most likely source identified is a potential single event, single source release from the former dry cleaner at the VVM property, as indicated by the CSIA forensic data and the observed hydraulic gradients. Although additional data would be required from the source area to definitively characterize the source and the nature of the release, based on the evidence provided, it is fair to assume that the plume center of mass originated at the former dry cleaner from a single release event and has since migrated downgradient in the direction of observed groundwater flow. Based on this assumption, it is likely that the plume center of mass is currently located at GP07 (the highest PCE concentration observed in 2012), which would indicate that the plume has traveled a distance of approximately 200 feet from the assumed source area. A PCE release originating at the former dry cleaner would have occurred during active operations, which spanned from 1964 and 1995. Given this timeframe, 17 to 48 years have passed since the release and migration of the plume's center of mass to GP07, based on the 2012 PCE detection, approximately 200 feet downgradient, R:\0346.04 Port of Sunnyside\03_Carnation Dairy Supplemental Investigation\Reports\03-2012.09.24 Draft Focused Site Assessment Report\Rf-Draft Focused Site Assessment Report\Rf-Draft Focused Site Assessment Report\Rf-Draft Focused Site Assessment Report\Rf-Draft Focused Site Assessment Report.

which corresponds to a range of velocities from 4 to 12 feet per year. This range of velocities is consistent with the aquifer transport parameters used in a previous PCE transport modeling exercise (SES, 2011).

Location GP07 is approximately 50 feet upgradient of the Property boundary. The plume center of mass, based on this empirically derived plume velocity, would reach the Property boundary within 4 to 12 years. The rate of PCE decay indicated by the slope of the trend line of the historical data (see Figure 8) likely is between approximately -5.5 to -7.4 μ g/L per year. Based on these rates of decay, the PCE concentration of 17 μ g/L observed at GP07 in 2012 would decrease to the Method A CUL of 5 μ g/L after two to three years, before reaching the Property boundary. If PCE concentrations continue to decay at these rates, PCE concentrations will have decreased to below detectable levels by the time the plume's center of mass reaches the Property boundary.

6.3 Potential Soil Exposure Scenarios

The Property is vacant, consists of several buildings, and is currently zoned as heavy industrial. It is likely that the Property will be redeveloped for industrial or commercial use, which may include ground floor commercial with retail, restaurants, and lodging, service industries, or other types of commercial use. Therefore, it is possible that industrial, commercial, and/or construction workers will occupy the Property at some time in the foreseeable future.

Soil impacts at the Property are limited to one lead exceedance in shallow soil; the exceedance is vertically bounded at 5 feet bgs. The potential for human exposure to lead is currently complete, but if remediation includes removal of the affected soil, future exposure would not be expected. VOCs were not detected in soils, indicating that inhalation of vapors emanating from soil is an incomplete pathway.

There is substantial on-site human disturbance and development, and no important resources for wildlife. The surrounding area consists of industrial and residential properties unlikely to provide quality ecological habitat. Given low habitat quality, ecological exposure to soil on the Property is expected to be insignificant. A simplified terrestrial ecological evaluation was completed for the Property; it was determined that the site does not pose a substantial threat to potential ecological receptors (see Appendix H). Therefore, soil analytical results will not be compared to ecological screening values.

Therefore, the following pathways are potentially complete for human health exposure to soil:

On-site industrial/commercial workers—Workers could occupy the Property in the future. It is assumed that future workers could contact chemicals in the top 15 feet of the current ground surface.

The pathways by which future workers could potentially be exposed to chemicals in soil include direct skin contact with soil, incidental ingestion of soil, and inhalation of soil particulates.

On-site construction workers—There are currently no construction workers (e.g., excavation workers, trench workers) on the Property. However, construction activities likely will be performed

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as part of property redevelopment. Construction workers could contact chemicals in soil through incidental ingestion, dermal contact, and inhalation of impacted soil particulates.

6.4 Potential Groundwater Exposure Scenarios

The depth to shallow groundwater at the Property is between approximately 11.5 and 22 feet bgs. Groundwater flows in a southeasterly direction, based on historical groundwater monitoring. Two historical production water wells associated with the former milk plant exist on the Property. One production well (Well No. 1) is located inside the main building northwest of the boiler room (see Figure 2). A second production well is located east of the main building, inside a small building in the southeast corner of the Property (Well No. 2), outside the area of known shallow groundwater contamination.

The production wells on the Property draw water from a deep aquifer (from approximately 70 feet bgs up to 420 feet bgs). Previous investigation has confirmed that the deep aquifer is segregated from shallow groundwater containing the PCE plume (Kennedy/Jenks, 2008) and that VOCs (including PCE) were not detected in deep groundwater production well WHC (see Figure 2) during four years of groundwater monitoring (from 2005 through 2008) (SES, 2009). Shallow groundwater is not currently used and is not likely to be used in the future. In addition, future construction activities would not include excavation to depths approaching the groundwater table. Therefore, the ingestion, direct contact, and inhalation pathways for groundwater are currently incomplete and are reasonably likely to remain incomplete in the future.

PCE volatilizing from groundwater to outdoor air is an insignificant exposure pathway, considering the relatively low maximum detection (17 μ g/L) and rapid dispersion in outdoor air. PCE exceeds the Ecology vapor-intrusion-to-indoor-air Method B groundwater screening level of 1 µg/L (Ecology, 2009). However, according to Ecology vapor guidance, groundwater is not generally considered a vapor intrusion source if contamination is not present in shallow groundwater at the water table or in perched zones above the water table (Ecology, 2009). In the borings, groundwater samples were collected from both the water table and deep groundwater in order to evaluate PCE concentrations with respect to depth. PCE concentrations were highest at depth and PCE was not detected, with one exception, in shallow groundwater (see Figure 4). The one exception was a PCE detection of 1 μ g/L (equal to, but not above, the screening level) in the sample collected from the water table in off-site boring GP02. PCE results from the monitoring wells are not applicable for evaluating shallow groundwater impact, as they are generally screened across the water table and into deeper groundwater. Therefore, a mixture of shallow and deep groundwater may be contributing to the observed PCE concentrations. In addition, current development plans account for situating buildings in the northern portion of the Property, where the plume is absent (i.e., where PCE was non-detect in groundwater, based on a reporting limit of 1 μ g/L). Since PCE contamination is not present in shallow groundwater and PCE has not been detected beneath any occupied existing buildings or sites for planned buildings, vapor intrusion does not currently pose a threat and the groundwater-volatilization-to-indoor pathway is incomplete.

6.5 Cleanup Standards

According to MTCA, the cleanup standards for a particular site have two primary components: chemical-specific CULs and points of compliance (POCs). The CUL is the concentration of a chemical in a specific environmental medium that will not pose unacceptable risks to human health or the environment. The POC is the location where the CUL must be met.

MTCA provides three different options for establishing CULs for human health: Method A, Method B, and Method C. For Methods B and C, either the standard or the modified approach can be used. The standard method uses generic default assumptions to calculate CULs, and the modified method allows for site-specific adjustments to some assumptions when calculating CULs.

MTCA Method A is designed for cleanups at relatively simple sites, such as small sites that have only a few hazardous substances. Method B can be used at any site. Method C is used primarily for industrial sites.

6.5.1 Soil Cleanup Levels

The Property historically has been used for industrial purposes and it is anticipated that it will be used for industrial or commercial purposes in the future. Soil on the Property is impacted mainly with lead, and impacts appear to be limited in extent. As an initial conservative screening step, soil was screened to Method B CULs where standard table values were available, but Method A CULs are deemed applicable at the site.

These CULs are calculated to derive concentrations that are estimated to result in no acute or chronic toxic effects on human health for noncarcinogens, and concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to one in one million (1 x 10⁻⁶) for carcinogens. For petroleum hydrocarbons, lead, PCE, and TCE, Method B standard table value CULs are not available and Method A CULs for unrestricted land use were applied. Method B CULs may be calculated for TCE and PCE, using updated toxicity information provided by Ecology, but these values were not calculated, as TCE and PCE were not detected in soil and Method A CULs were deemed applicable at the site.

Soil CULs for the protection of potable groundwater (leaching to groundwater pathway) are not recommended as potential cleanup targets for soil on the Property because empirical evidence indicates that soil impacts are not causing unacceptable groundwater concentrations and the soil-todrinking-water pathway was deemed incomplete, based on the current and likely future uses of shallow groundwater and the hydraulic segregation of shallow groundwater from the deep aquifer.

6.5.1.1 Points of Compliance in Soil

The soil POC is the depth bgs at which soil CULs shall be attained. The standard POC is soil within 15 feet of the ground surface throughout the entire site. This standard POC is applied to soil on the Property. As discussed below, impacts have not been detected in soil below approximately 1 foot bgs.

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6.5.2 Groundwater Cleanup Levels

The Property historically has been used for industrial purposes and it is anticipated that it will be used for industrial or commercial purposes in the future. Shallow groundwater at the Property is impacted mainly with PCE. With few exceptions, groundwater was screened to Method B CULs, but Method A values are deemed applicable for the site.

6.5.2.1 Points of Compliance in Groundwater

For groundwater, the POC is the point or points where the groundwater CULs must be attained for a site to be in compliance with the cleanup standards. Groundwater CULs shall be attained in all groundwaters from the POC to the outer boundary of the hazardous substance plume. A conditional POC may be established if it is not practicable to meet the CULs throughout the site within a reasonable restoration timeframe (WAC 173-340-720(8)(c)). A conditional POC for groundwater is not proposed for the Property at this time.

RISK SCREENING

The soil and groundwater sample results were compared to MTCA Method A CULs for unrestricted use and Method B CULs (see Tables 1 and 2). Indicator hazardous substances (IHSs) are evaluated below by comparing the concentrations found in soil and groundwater to their respective CULs. An IHS is defined as a chemical exceeding a CUL at one or more locations.

7.1 Soil

Soil analytical results are compared to MTCA Methods A and B soil CULs for unrestricted land use. Diesel-, gasoline-, and lube-oil-range organics; lead; and acetone were detected in soil. All concentrations were below MTCA Methods A and B soil CULs, except for lead in the 1.0-foot-bgs sample collected from GP08 (see Table 1).

The lead concentration of 876 mg/kg detected in the 1.0-foot-bgs sample collected from boring GP08 exceeded the Method A soil CUL of 250 mg/kg. Because of this elevated concentration, follow-up analysis was performed on the sample collected at 5 feet bgs from the same location. The lead concentration of 8.01 mg/kg detected in the GP08-S-5.0 sample was well below the Method A soil CUL. No other samples had lead concentrations above the Method A CUL.

7.2 Groundwater

Groundwater analytical results are compared to MTCA Method A (table value) and Method B (standard formula value) groundwater CULs. Groundwater detections included diesel- and lube-oil-range organics, toluene, chloroform, MTBE, and PCE. All concentrations were below MTCA Methods A and B groundwater CULs, except for PCE (see Table 2 and Figure 5).

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7.3 Summary

The only IHS identified in soil is lead, which is limited to one exceedance in shallow soil at GP08 (1.0 foot bgs). Lead contamination is vertically bounded at GP08 at 5 feet bgs. The only IHS identified in groundwater is PCE. Stable isotope data indicate that a single source is responsible for the PCE contamination, and the presence of PCE upgradient of the Property and downgradient of a former dry cleaner suggests that the source likely originated upgradient. However, further characterization of the source area is needed. Historical data indicate that there is a strong declining trend in PCE concentrations, and PCE has not been detected in groundwater downgradient of the Property. Given the estimated plume travel times and the rate of decline in concentrations, and based on the extent of current PCE detections as reported to the 1 μ g/L method reporting limit, PCE concentrations in groundwater downgradient of the Property boundary are not expected to exceed CULs at any time in the future.

8 conclusions

A site investigation was completed in order to evaluate the nature and extent of the following COIs in soil and groundwater at the Property: diesel- and lube-oil-range TPH, polycyclic aromatic hydrocarbons, lead, and VOCs. The site investigation results and risk screening indicate that of these COIs, only lead in soil and PCE in groundwater are IHSs. Lead exceedances are limited to surface soil in the vicinity of the former chemical storage building. PCE impacts are generally constrained to deep groundwater. Human and ecological exposure pathways were deemed incomplete for PCE in groundwater. Ecological exposure pathways were deemed incomplete for lead. The potential for human exposure to lead is currently complete, but if remediation includes removal of the affected soil, future exposure would not be expected.

A fate and transport analysis indicates that PCE in groundwater beneath the Property originated from an off-site upgradient source and appears to be attenuating under natural conditions. Additional sampling is recommended in the PCE source area and to the west of the Property to confirm the extent of the PCE plume, to verify the findings of the PCE forensics, and to evaluate assumptions made in the PCE fate and transport analysis. While these additional data would reduce uncertainty in our findings, the available data indicate a single event, single source release most likely originating from the former dry cleaner at the upgradient VVM property. In addition, additional data from the PCE source area are not expected to change our current understanding of PCE decay and the downgradient plume extent, and therefore are not necessary in order to move forward with the site cleanup.

This section summarizes two remedial alternatives for addressing the contamination identified on the Property. These alternatives are not all-inclusive, but represent the most likely cleanup scenarios and encompass a range from relatively aggressive to relatively limited remedial actions. Depending on the configuration of the Property redevelopment, additional cleanup alternatives could be developed and evaluated.

9.1 Alternative 1: In situ Treatment

This alternative represents one of two options for groundwater remediation, but both Alternatives 1 and 2 include the same proposed remedy for lead-contaminated soil. Alternative 1 includes the following actions:

- Lead-Contaminated Soil
 - Excavate impacted soil to 4 feet bgs, characterize, and dispose of off site at a permitted disposal facility. The initial area of excavation will be determined based on field screening results; the final excavation area will be determined by confirmation sampling of excavation sidewalls and floor. For cost estimating purposes, the volume of excavated soil, based upon limited characterization results, is assumed to be 17 cubic yards. A range of costs is presented that is driven by whether the material is nonhazardous and suitable for disposal at a Resource Conservation and Recovery Act (RCRA) Subtitle D landfill or if it is hazardous or special-listed waste that would require disposal at a RCRA Subtitle C landfill.
 - Backfill excavation area with clean, imported fill to existing ground surface elevation and compact to a minimum of 92 percent, based on the Modified Proctor Test (ASTM, 2012).
- PCE in Groundwater
 - For in situ chemical oxidation (ISCO): obtain an underground injection control permit and conduct a pilot study to determine the effectiveness of this remedy. The pilot study will be conducted in the monitoring well that has exhibited the highest PCE concentrations on the Property (MW17) and will include two rounds of groundwater monitoring (one pre-injection and one post-injection) for VOC analysis at the pilot study well and one downgradient monitoring well (MW20).
 - If the pilot study results are favorable, conduct treatment injections in the eight monitoring wells exhibiting PCE CUL exceedances (wells RW02 through RW05, MW08, MW11, MW15, and MW17). Injection treatment at monitoring well MW17

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would require permission to access the public right-of-way. A range of potential costs is provided for the ISCO treatment.

- Conduct quarterly monitoring and VOC analysis at four existing on-site monitoring wells (MW13, MW17, MW19, and MW20; see Figure 2) for two years, followed by semiannual monitoring for a minimum of one additional year to meet the following objectives: (1) confirm effectiveness of the ISCO treatment; (2) collect the necessary data for making a determination of No Further Action, based on compliance with CULs; and (3) confirm that PCE-impacted groundwater is not migrating past the POC or downgradient of the Property boundary.
- The estimated low- and high-end cost ranges for this alternative are presented in Tables 3 and 4. The estimated cost range for Alternative 1 is \$274,200 to \$338,300.

9.2 Alternative 2: Monitored Natural Attenuation

It includes the same approach for remediation of lead-contaminated soil and groundwater monitoring, but excludes the in situ groundwater treatment. The estimated low- and high-end cost ranges for this alternative are presented in Tables 5 and 6. The estimated cost range for Alternative 2 is \$176,700 to \$182,300.

9.3 Evaluation of Cleanup Alternatives

Alternative 1 provides a more aggressive, and therefore more conservative, approach to remediation of PCE in groundwater. Alternative 2 provides a protective but lower-cost approach than Alternative 1. Alternative 2 poses a higher risk of migration of groundwater with elevated PCE concentrations onto the downgradient neighboring property and requires a longer restoration timeframe for obtaining compliance with PCE CULs.

9.3.1 MTCA Threshold Requirements

Cleanup actions are subject to the threshold requirements set forth in WAC 173-340-360 (2)(a). Under the threshold requirements, the cleanup action shall:

- Protect human health and the environment.
- Comply with cleanup standards.
- Comply with applicable state and federal laws.
- Provide for compliance monitoring.

9.3.1.1 Protect Human Health and the Environment and Comply with Cleanup Standards

Alternatives 1 and 2 reduce or eliminate risk from contaminated soil and groundwater through a combination of removal and monitored natural attenuation, or removal and chemical treatment. These remedial actions would eliminate exposure pathways and protect human health and the environment and would comply with cleanup standards.

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9.3.1.2 Comply with Applicable State and Federal Laws

The selected CULs are consistent with MTCA. Additionally, local, state and federal laws related to environmental protection, health and safety, transportation, and disposal apply to each proposed alternative. During remedial design, the selected alternative would be designed to comply with applicable, relevant, and appropriate requirements.

9.3.1.3 Provide for Compliance Monitoring

There are three types of compliance monitoring: protection, performance, and confirmational. Protection monitoring is designed to protect human health and the environment during the construction and operation and maintenance phases of the cleanup action. Performance monitoring confirms that the cleanup action has met cleanup and/or performance standards. Confirmational monitoring confirms the long-term effectiveness of the cleanup action once cleanup standards have been met or other performance standards have been attained. Both cleanup alternatives would meet this provision, as both would require varying levels of all three types of compliance monitoring.

9.4 Other Criteria

MTCA states that when selecting a cleanup alternative, preference shall be given to "permanent solutions to the maximum extent practicable." "Permanent" is defined in WAC 173-340-200 as a cleanup action in which the cleanup standards of WAC 173-340-700 through 760 are met without further action being required at the site being cleaned up or at any other site involved with the cleanup action, other than the approved disposal of any residue from the treatment of hazardous substances.

In order to determine the "maximum extent practicable" for each alternative, a disproportionatecost analysis outlined in WAC 173-340-360(3)(e) is used. Costs are determined to be disproportionate to benefits if the incremental cost of a more expensive alternative over that of a lower-cost alternative exceeds the incremental degree of benefits achieved by the more expensive alternative. As outlined in WAC 173-340-360(3)(f), the evaluation criteria used were a mix of qualitative and quantitative factors, including protectiveness, permanence, effectiveness over the long term, management of short-term risks, technical and administrative implementability, and consideration of public concerns.

The cleanup alternatives are evaluated by the criteria below.

9.4.1 Protectiveness

Protectiveness is a factor by which human health and the environment are protected by the cleanup action, including the degree to which existing risks are reduced; time required to reduce risk at the facility and attain cleanup standards; on-site and off-site risks resulting from implementing the cleanup action alternative; and improvement of the overall environmental quality. Both of the cleanup alternatives are protective. Alternative 1 has the highest degree of protectiveness because it would reduce groundwater PCE concentrations below CULs in a shorter timeframe. Alternative 2 is

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slightly less protective because a longer remediation timeframe would be required to meet groundwater CULs; however, exposure pathways are deemed incomplete for both human and ecological receptors and PCE is not expected to migrate off the Property at detectable concentrations.

9.4.2 Permanence

Permanence is a factor by which the cleanup action alternative permanently reduces the toxicity, mobility, or volume of hazardous substances. It takes into account the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of the waste-treatment process, and the characteristics and quantity of treatment residuals generated. Removal of soils is a permanent remedial action because it permanently eliminates the source of releases at the Property. Both alternatives are equivalently permanent with respect to groundwater, as PCE is destroyed by either natural or chemically-enhanced attenuation processes in both alternatives. Therefore, Alternatives 1 and 2 are ranked equally for permanence.

9.4.3 Effectiveness over Long Term

Long-term effectiveness includes the degree of certainty that the alternative will be successful; the reliability of the alternative for the expected duration of hazardous substances remaining on site at concentrations that exceed CULs; the magnitude of residual risk with the alternative in place; and the effectiveness of controls required to manage treatment residues or remaining wastes. Long-term effectiveness of Alternative 1 is considered slightly higher than Alternative 2, since it has a greater likelihood of successfully decreasing PCE concentrations to below CULs over a shorter timeframe.

9.4.4 Management of Short-Term Risks

Short-term risks to remediation workers, the public, and the environment are assessed under this criterion. Generally, short-term risks are expected to be linearly related to the amount of material handled, treated, and/or transported and disposed of (e.g., worker injury per cubic yard excavated [equipment failure], public exposure per cubic yard-mile transported [highway accident]).

This factor addresses the risk to human health and the environment associated with the alternative during construction and implementation, and the effectiveness of measures that will be taken to manage such risks. Potential exposure via transport, handling, and excavation required for both of the alternatives could lead to short-term risks. Alternative 2 requires less handling of treatment chemicals and mobilization of heavy equipment, and therefore involves lower short-term risks than Alternative 1.

9.4.5 Technical and Administrative Implementability

This factor addresses whether the alternative can be implemented and is technically possible. The availability of necessary materials; regulatory requirements; scheduling; access for construction operations and monitoring; and integration with existing and neighboring site uses must be

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considered. The proposed alternatives are both well proven and have been employed at many sites throughout the United States; both are readily implementable and rank equivalently.

9.4.6 Public Concerns

This factor includes considering concerns from individuals; community groups; and local governments, tribes, federal and state agencies, and any other organization that may have an interest in or knowledge of the site and that may have a preferred alternative. Both alternatives provide opportunity for members of the public to review and comment on plans.

9.4.7 Disproportionate-Cost Analysis

In accordance with WAC 173-340-360(3)(e), the most practicable permanent solution evaluated will be the baseline cleanup action alternative to which the other cleanup action alternatives are compared. On this basis, Alternative 2 is the baseline alternative for this analysis. Table 7 summarizes the comparative analysis. Each alternative was given a rating between 1 and 5 (5 being optimal, 1 being inadequate). Where there were only slight differences, fractional ratings were applied.

Based on these criteria, Alternatives 1 and 2 have equivalent ratings of 4.6 (see Table 7). However, the cost for Alternative 1 (\$338,300) is almost twice the cost of Alternative 2 (\$182,300).

9.4.8 Recommended Cleanup Alternative

To be determined upon review with Ecology.

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

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TABLES



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Analyte	MTCA Cleanup Level	GP01	GP01	GP02	GP03	GP04	GP04	GP05	GP06	GP07	GP08	GP08
Sa	mple Date:	01/26/2012	01/26/2012	01/26/2012	01/26/2012	01/25/2012	01/25/2012	01/24/2012	01/24/2012	01/23/2012	01/24/2012	01/24/2012
Dept	th (feet bgs)	5	15	15	15	5	15	15	15	15	1	5
VOCs (µg/kg)							•					
1,1,1,2-Tetrachloroethane	38000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,1,1-Trichloroethane	160000000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,1,2,2-Tetrachloroethane	5000	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,1,2-Trichloroethane	18000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,1-Dichloroethane	16000000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,1-Dichloroethene	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,1-Dichloropropene	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2,3-Trichlorobenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2,3-Trichloropropane	33	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2,4-Trichlorobenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2,4-Trimethylbenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2-Dibromo-3-chloropropane	13000	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2-Dibromoethane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2-Dichlorobenzene	7200000	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2-Dichloroethane	11000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,2-Dichloropropane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,3,5-Trimethylbenzene	800000	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,3-Dichlorobenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,3-Dichloropropane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
1,4-Dichlorobenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
2,2-Dichloropropane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
2-Butanone	NV	27 U	56.2 U	62.5 U	56.1 U	57.7 U	60.1 U	53.4 U	61 U	51.5 U	53.4 U	NV
2-Chlorotoluene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
2-Hexanone	NV	13.5 U	28.1 U	31.3 U	28.1 U	28.9 U	30 U	26.7 U	30.5 U	25.7 U	26.7 U	NV
4-Chlorotoluene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
4-Isopropyltoluene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
4-Methyl-2-pentanone	NV	27 U	56.2 U	62.5 U	56.1 U	57.7 U	60.1 U	53.4 U	61 U	51.5 U	53.4 U	NV
Acetone	72000000	67.4 U	141 U	156 U	140 U	144 U	150 U	133 U	153 U	129 U	133 U	NV
Benzene	18000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Bromobenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Bromodichloromethane	16000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Bromoform	130000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Bromomethane	110000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Carbon disulfide	8000000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Carbon tetrachloride	14000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Chlorobenzene	1600000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV

DRAFT—Table 1 Soil Analytical Results Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

Analyte	MTCA Cleanup Level	GP01	GP01	GP02	GP03	GP04	GP04	GP05	GP06	GP07	GP08	GP08
Sa	mple Date:	01/26/2012	01/26/2012	01/26/2012	01/26/2012	01/25/2012	01/25/2012	01/24/2012	01/24/2012	01/23/2012	01/24/2012	01/24/2012
Depth (feet bgs)		5	15	15	15	5	15	15	15	15	1	5
Chlorobromomethane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Chloroethane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Chloroform	800000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Chloromethane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
cis-1,2-Dichloroethene	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
cis-1,3-Dichloropropene	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Dibromochloromethane	12000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Dibromomethane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Dichlorodifluoromethane	16000000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Ethylbenzene	8000000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Hexachlorobutadiene	13000	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Isopropylbenzene	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
m,p-Xylene	16000000	13.5 U	28.1 U	31.3 U	28.1 U	28.9 U	30 U	26.7 U	30.5 U	25.7 U	26.7 U	NV
Methyl tert-butyl ether	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Methylene chloride	130000	33.7 U	70.3 U	78.2 U	70.1 U	72.2 U	75.1 U	66.7 U	76.3 U	64.3 U	66.7 U	NV
Naphthalene	1600000	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
n-Butylbenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
n-Propylbenzene	8000000	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
o-Xylene	16000000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
sec-Butylbenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Styrene	16000000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
tert-Butylbenzene	NV	6.74 U	14.1 U	15.6 U	15.7 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Tetrachloroethene	50*	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Toluene	6400000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
trans-1,2-dichloroethene	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
trans-1,3-Dichloropropene	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Trichloroethene	30*	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Trichlorofluoromethane	NV	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Vinyl chloride	240000	6.74 U	14.1 U	15.6 U	14 U	14.4 U	15 U	13.3 U	15.3 U	12.9 U	13.3 U	NV
Metals (mg/kg)												
Lead	250*	NV	7.13	2.45 U	6.55	NV	5.18	6.63	9.14	6.95	876	8.01
Hydrocarbons (mg/kg)	Hydrocarbons (mg/kg)											
Gasoline	100*	NV	3.61 U	4.34 U	3.75 U	NV	3.68 U	3.25 U	3.83 U	5.44 U	49	4.07 UJ
Diesel	2000*	NV	19.7 U	19.1 U	19.5 U	NV	20.1 U	18.5 U	19.7 U	18.1 U	155	19.6 UJ
Lube Oil	2000*	NV	65.8 U	63.7 U	65 U	NV	66.9 U	61.7 U	65.7 U	60.3 U	399	65.4 UJ

DRAFT—Table 1 Soil Analytical Results Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

												Ju
Analyte	MTCA Cleanup Level	GP08	GP09	GP10	GP11	GP11-DUP	GP12	GP13	GP14	GP15	GP16	GP17
Sa	mple Date:	01/24/2012	01/25/2012	01/27/2012	01/27/2012	01/27/2012	01/27/2012	06/19/2012	06/19/2012	06/19/2012	06/18/2012	06/18/2012
Dept	h (feet bgs)	15	15	15	15	15	1	12	12	14	15	15
VOCs (µg/kg)					-			<u> </u>	• •		-	
1,1,1,2-Tetrachloroethane	38000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,1,1-Trichloroethane	16000000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,1,2,2-Tetrachloroethane	5000	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,1,2-Trichloroethane	18000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,1-Dichloroethane	16000000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,1-Dichloroethene	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,1-Dichloropropene	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2,3-Trichlorobenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2,3-Trichloropropane	33	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2,4-Trichlorobenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2,4-Trimethylbenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2-Dibromo-3-chloropropane	13000	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2-Dibromoethane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2-Dichlorobenzene	7200000	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2-Dichloroethane	11000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,2-Dichloropropane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,3,5-Trimethylbenzene	800000	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,3-Dichlorobenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,3-Dichloropropane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
1,4-Dichlorobenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
2,2-Dichloropropane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
2-Butanone	NV	68.3 U	48.8 U	66.3 U	63.4 U	69.2 U	49.7 U	49.8 U	45.4 U	41.4 U	39.1 U	47.6 U
2-Chlorotoluene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
2-Hexanone	NV	34.2 U	24.4 U	33.1 U	31.7 U	34.6 U	24.9 U	24.9 U	22.7 U	20.7 U	19.6 U	23.8 U
4-Chlorotoluene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
4-Isopropyltoluene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
4-Methyl-2-pentanone	NV	68.3 U	48.8 U	66.3 U	63.4 U	69.2 U	49.7 U	49.8 U	45.4 U	41.4 U	39.1 U	47.6 U
Acetone	72000000	171 U	122 U	166 U	159 U	173 U	199	124 U	113 U	103 U	97.8 U	119 U
Benzene	18000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Bromobenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Bromodichloromethane	16000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Bromoform	130000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Bromomethane	110000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Carbon disulfide	8000000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Carbon tetrachloride	14000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Chlorobenzene	1600000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U

DRAFT—Table 1 Soil Analytical Results Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

Analyte	MTCA Cleanup Level	GP08	GP09	GP10	GP11	GP11-DUP	GP12	GP13	GP14	GP15	GP16	GP17
S	ample Date:	01/24/2012	01/25/2012	01/27/2012	01/27/2012	01/27/2012	01/27/2012	06/19/2012	06/19/2012	06/19/2012	06/18/2012	06/18/2012
Dep	oth (feet bgs)	15	15	15	15	15	1	12	12	14	15	15
Chlorobromomethane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Chloroethane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Chloroform	800000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Chloromethane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
cis-1,2-Dichloroethene	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
cis-1,3-Dichloropropene	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Dibromochloromethane	12000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Dibromomethane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Dichlorodifluoromethane	16000000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Ethylbenzene	8000000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Hexachlorobutadiene	13000	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
lsopropylbenzene	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
m,p-Xylene	16000000	34.2 U	24.4 U	33.1 U	31.7 U	34.6 U	24.9 U	24.9 U	22.7 U	20.7 U	19.6 U	23.8 U
Methyl tert-butyl ether	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Methylene chloride	130000	85.4 U	61 U	82.8 U	79.3 U	86.5 U	62.1 U	62.2 U	56.7 U	51.7 U	48.9 U	59.5 U
Naphthalene	1600000	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
n-Butylbenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
n-Propylbenzene	8000000	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
o-Xylene	16000000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
sec-Butylbenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Styrene	16000000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
tert-Butylbenzene	NV	17.1 U	12.2 U	15.5 U	12.7 U	658 U	11.9 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Tetrachloroethene	50*	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Toluene	6400000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
trans-1,2-dichloroethene	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
trans-1,3-Dichloropropene	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Trichloroethene	30*	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Trichlorofluoromethane	NV	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Vinyl chloride	240000	17.1 U	12.2 U	16.6 U	15.9 U	17.3 U	12.4 U	12.4 U	11.3 U	10.3 U	9.78 U	11.9 U
Metals (mg/kg)												
Lead	250*	7.15	5.93	5.24	2.93	4.38	6.18	NV	NV	NV	NV	NV
Hydrocarbons (mg/kg)												
Gasoline	100*	3.99 U	3.24 U	3.38 U	6 U	3.49 U	3.17 U	NV	NV	NV	NV	NV
Diesel	2000*	19.1 U	18.4 U	19.5 U	19 U	19.7 U	18.2 U	NV	NV	NV	NV	NV
Lube Oil	2000*	63.7 U	61.4 U	64.9 U	63.4 U	65.8 U	60.5 U	NV	NV	NV	NV	NV

NOTES:

Exceedances in **bold**.

bgs = below ground surface.

J = Result is an estimated quantity. Associated numerical value is approximate concentration of analyte in sample.

mg/kg = milligrams per kilogram (parts per million).

MTCA = Model Toxics and Control Act. MTCA cleanup levels are from Method B unless otherwise noted.

µg/kg = micrograms per kilogram (parts per billion).

NV = no value.

U = Analyte not detected at or above method detection limit.

VOC = volatile organic compound.

*MTCA Method A unrestricted land use cleanup level.

Analyte	MTCA Cleanup Level	GP01	GP01	GP02	GP02	GP03	GP03	GP04	GP04	GP05	GP05	GP06	GP06	GP07
Analyte		01/26/2012	01/26/2012	01/26/2012	01/26/2012	01/26/2012	01/26/2012	01/25/2012	01/25/2012	01/24/2012	01/24/2012	01/24/2012	01/24/2012	01/23/2012
	Sample Date: Depth (feet bgs)	22.5	37.5	22.5	37.5	22.5	37.5	22.5	37.5		35	22.5	42.5	22.5
	Deptin (reet bys)	22.3	37.5	22.3	37.5	22.3	37.5	22.5	37.5	20	30	22.5	42.5	22.5
VOCs (µg/L) 1,1,1,2-Tetrachloroethane	1.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	16000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.22	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	0.22	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1600	1 U	1 U	1 U	1 U	1 U	1 U	10	10	1 U	10	1 U	10	1 U
1,1-Dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10	1 U
1,1-Dichloropropene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10	1 U
1,2,3-Trichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	10	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichloropropane	0.0015	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	NV	3 U 1 U	5 U 1 U	1 U	1 U	5 U 1 U	1 U	1 U	1 U	5 U 1 U	1 U	5 U 1 U	1 U	5 U 1 U
1,2,4-Trimethylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10	1 U	1 U
1,2-Dibromo-3-chloropropane	0.055	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	720	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.48	0.5 U												
1,2-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	80	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	NV	10 U												
2-Chlorotoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	NV	10 U												
4-Chlorotoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Isopropyltoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	NV	10 U												
Acetone	7200	20 U												
Benzene	0.8	0.5 U												
Bromobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	0.71	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	5.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	11	10 U												
Carbon disulfide	800	10 U												
Carbon tetrachloride	0.63	0.5 U												
Chlorobenzene	160	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobromomethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Analyte	MTCA Cleanup Level	GP01	GP01	GP02	GP02	GP03	GP03	GP04	GP04	GP05	GP05	GP06	GP06	GP07
	Sample Date:	01/26/2012	01/26/2012	01/26/2012	01/26/2012	01/26/2012	01/26/2012	01/25/2012	01/25/2012	01/24/2012	01/24/2012	01/24/2012	01/24/2012	01/23/2012
	Depth (feet bgs)	22.5	37.5	22.5	37.5	22.5	37.5	22.5	37.5	20	35	22.5	42.5	22.5
Chloroethane	NV	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	80	1 U	1.7	1.5	2.1	1 U	1 U	1 U	1 U	1 U	1.2	1 U	1 U	1 U
Chloromethane	NV	10 U												
cis-1,2-Dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	NV	0.5 U												
Dibromochloromethane	0.52	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	800	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Freon 113	NV	10 U												
lsopropylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m,p-Xylene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5.8	10 U												
Naphthalene	160	10 U												
n-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	800	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5*	1 U	1.9	1	4	1 U	2.6	1 U	1 U	1 U	10	1 U	1 U	1 U
Toluene	640	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NV	0.5 U												
Trichloroethene	5*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	NV	10 U												
Vinyl Acetate	NV	10 U												
Vinyl chloride	24	0.5 U												
Hydrocarbons (mg/L)														
Gasoline	1*	0.1 U												
Diesel	0.5*	0.101	0.0783 U	0.0769 U	0.0762 U	0.0771 U	0.0998	0.1	0.0763 U	0.118	0.0769 U	0.166	0.0773 U	0.0766 U
Lube Oil	0.5*	0.381	0.196 U	0.192 U	0.19 U	0.193 U	0.382	0.192 U	0.191 U	0.195 U	0.192 U	0.191 U	0.193 U	0.192 U
CSIA of Tetrachloroethylene (PC	E)													
δ ³⁷ CI ‰ (SMOC)	NV	NV	1.5	1.6	1	NV	1.1	NV	NV	NV	1.3	NV	NV	NV
δ ¹³ C ‰ (PDB)	NV	NV	-27.7	-27.9	-28.1	NV	-27.9	NV	NV	NV	-27.6	NV	NV	NV

Analyte	MTCA Cleanup Level	GP07	GP08	GP08	GP09	GP09	GP10	GP10	GP11	GP11	GP13	GP13	GP14	GP14
	Sample Date:	01/23/2012	01/25/2012	01/25/2012	01/25/2012	01/25/2012	01/27/2012	01/27/2012	01/27/2012	01/27/2012	06/19/2012	06/19/2012	06/19/2012	06/19/2012
	Depth (feet bgs)	42.5	22.5	32.5	22.5	35	22.5	37.5	22.5	37.5	21	29	22	32
VOCs (µg/L)		•					•						•	
1,1,1,2-Tetrachloroethane	1.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	16000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.22	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	0.77	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloropropene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichloropropane	0.0015	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	0.055	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	720	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.48	0.5 U												
1,2-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	80	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	NV	10 U												
2-Chlorotoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	NV	10 U												
4-Chlorotoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Isopropyltoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	NV	10 U												
Acetone	7200	20 U												
Benzene	0.8	0.5 U												
Bromobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	0.71	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	5.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	11	10 U												
Carbon disulfide	800	10 U												
Carbon tetrachloride	0.63	0.5 U												
Chlorobenzene	160	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobromomethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Analyte	MTCA Cleanup Level	GP07	GP08	GP08	GP09	GP09	GP10	GP10	GP11	GP11	GP13	GP13	GP14	GP14
	Sample Date:	01/23/2012	01/25/2012	01/25/2012	01/25/2012	01/25/2012	01/27/2012	01/27/2012	01/27/2012	01/27/2012	06/19/2012	06/19/2012	06/19/2012	06/19/2012
	Depth (feet bgs)	42.5	22.5	32.5	22.5	35	22.5	37.5	22.5	37.5	21	29	22	32
Chloroethane	NV	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	80	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	NV	10 U												
cis-1,2-Dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	NV	0.5 U												
Dibromochloromethane	0.52	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	800	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Freon 113	NV	10 U												
Isopropylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m,p-Xylene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5.8	10 U												
Naphthalene	160	10 U												
n-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	800	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5*	17	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	640	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NV	0.5 U												
Trichloroethene	5*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	NV	10 U												
Vinyl Acetate	NV	10 U												
Vinyl chloride	24	0.5 U												
Hydrocarbons (mg/L)														
Gasoline	1*	0.1 U	NV	NV	NV	NV								
Diesel	0.5*	0.0771 U	0.207	0.0773 U	0.0798 U	0.0806 U	0.0768 U	0.0763 U	0.266	0.114	NV	NV	NV	NV
Lube Oil	0.5*	0.193 U	0.479	0.193 U	0.199 U	0.202 U	0.192 U	0.191 U	1.33	0.318	NV	NV	NV	NV
CSIA of Tetrachloroethylene (PCE	.)													
δ^{37} CI ‰ (SMOC)	NV	1.1	NV											
δ ¹³ C ‰ (PDB)	NV	-27.9	NV											

												Juniya
Analyte	MTCA Cleanup Level	GP14-W-DUP	GP15	GP15	GP16	GP16	GP17	GP17	MW18	RW04	RMW09-DUP	RMW09
	Sample Date:	06/19/2012	06/19/2012	06/19/2012	06/19/2012	06/18/2012	06/19/2012	06/18/2012	01/23/2012	01/25/2012	01/26/2012	01/26/2012
	Depth (feet bgs)	32	22	34	22	32	20	30	25	25	25	25
VOCs (µg/L)												
1,1,1,2-Tetrachloroethane	1.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	16000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.22	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	0.77	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloropropene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichloropropane	0.0015	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	0.055	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	720	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.48	0.5 U										
1,2-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	80	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-Dichloropropane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	NV	10 U										
2-Chlorotoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	NV	10 U										
4-Chlorotoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Isopropyltoluene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	NV	10 U										
Acetone	7200	20 U										
Benzene	0.8	0.5 U										
Bromobenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	0.71	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	5.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	11	10 U										
Carbon disulfide	800	10 U										
Carbon tetrachloride	0.63	0.5 U										
Chlorobenzene	160	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobromomethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Analyta	MTCA Cleanup Level	GP14-W-DUP	GP15	GP15	GP16	GP16	GP17	GP17	MW18	RW04	RMW09-DUP	RMW09
Analyte												
	Sample Date:	06/19/2012	06/19/2012	06/19/2012	06/19/2012	06/18/2012	06/19/2012	06/18/2012	01/23/2012	01/25/2012	01/26/2012	01/26/2012
	Depth (feet bgs)	32	22	34	22	32	20	30	25	25	25	25
Chloroethane	NV	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	80	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	NV	10 U	10 U	10 U	10 U							
cis-1,2-Dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	NV	0.5 U	0.5 U	0.5 U	0.5 U							
Dibromochloromethane	0.52	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	800	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Freon 113	NV	10 U	10 U	10 U	10 U							
Isopropylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m,p-Xylene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	15	250	250
Methylene chloride	5.8	10 U	10 U	10 U	10 U							
Naphthalene	160	10 U	10 U	10 U	10 U							
n-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	800	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	15	1.9	1 U	1 U
Toluene	640	1 U	1 U	1 U	1 U	1 U	6.2	1 U	1 U	1 U	1 U	1 U
trans-1,2-dichloroethene	NV	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NV	0.5 U	0.5 U	0.5 U	0.5 U							
Trichloroethene	5*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	NV	10 U	10 U	10 U	10 U							
Vinyl Acetate	NV	10 U	10 U	10 U	10 U							
Vinyl chloride	24	0.5 U	0.5 U	0.5 U	0.5 U							
Hydrocarbons (mg/L)											•	
Gasoline	1*	NV	0.1 U	0.1 U	0.1 U	0.1 U						
Diesel	0.5*	NV	0.191	0.0764 U	0.244	0.241						
Lube Oil	0.5*	NV	0.984	0.191 U	0.191 U	0.292						
CSIA of Tetrachloroethylene (PCI									· · · · · · · · · · · · · · · · · · ·	_	-	
δ ³⁷ Cl ‰ (SMOC)	NV	NV	NV	NV	NV	NV	NV	NV	1	1.5	NV	NV
δ ¹³ C ‰ (PDB)	NV	NV	NV	NV	NV	NV	NV	NV	-28.4	-27.9	NV	NV
	1 1 1		INV	INV	INV	INV	INV		20.4	<u> </u>		INV

NOTES: Exceedances in **bold**. δ^{13} C (PDB) = ratio of carbon-13 to carbon-12 stable isotopes relative to the Pee Dee Belemnite standard. δ^{37} Cl (SMOC) = ratio of chlorine-37 to chlorine-35 stable isotopes relative to the Standard Mean Ocean Chloride. $\%_{0}$ = per mil. bgs = below ground surface. CSIA = compound-specific isotope analyses. mg/L = milligrams per liter (parts per million). MTCA = Model Toxics Control Act. MTCA cleanup levels are from Method B unless otherwise noted. $\mu g/L$ = micrograms per liter (parts per billion). NV = no value. U = Analyte not detected at or above method detection limit. VOC = volatile organic compound. *MTCA Method A groundwater cleanup level.

DRAFT—Table 3 Remedial Cost Estimate (Low End)—Alternative 1: In Situ Treatment Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

Remedy Components

1 Excavate lead-impacted soil and dispose of off site.

- 2 Backfill with clean, imported material.
- 3 In situ remediation of groundwater, using chemical oxidation.
- 4 Conduct groundwater monitoring for three years—quarterly the first two years and semiannually the third year.

Assumptions

- 1 Density of soil = 1.85 tons/CY.
- 2 Density of select borrow = 1.85 tons/CY.
- 3 Chemical storage building removed before the beginning of work.
- 4 The volume of lead-impacted soil assumes a 12-foot-diameter excavation to a depth of 4 feet.
- 5 Excavated material will be characterized before off-site disposal. For cost estimating purposes, it is assumed that the material will not be hazardous, and the disposal cost assumes Subtitle D Landfill.
- 6 Excavation extent and hazardous/non-hazardous nature will be characterized before equipment mobilization to confirm assumptions (one day of field labor with XRF).
- 7 Excavation will be screened using field equipment (XRF) to guide the excavation extent before confirmation sampling.
- 8 Remedial excavations will be backfilled with clean, imported material and compacted 92%, based on the Modified Proctor Test (ASTM, 2012).
- 9 30% contingency.

tem Description	Quantity	Units	Unit Cost	Total Cost
Remedial Action				
Preconstruction preparation	1	LS	\$5,000	\$5,000
Erosion and sediment control	1	LS	\$500	\$500
Excavation				
Mobilize excavator, excavate, and direct load impacted material (excavator and operator)	1	DAY	\$2,200	\$2,200
Confirmation sampling	12	ΕA	\$140	\$1,680
Imported backfill	31	TON	\$15	\$465
Mobilize equipment, backfill, and compact excavation	1	DAY	\$2,200	\$2,200
Transport and disposal of excavated material	31	TON	\$60	\$1,860
Groundwater treatment				
Pilot study	1	EA	\$20,000	\$20,000
In situ chemical oxidation	1	ΕA	\$50,000	\$50,000
Groundwater monitoring				
Monitoring	10	LS	\$3,300	\$33,000
Analytical	10	EA	\$1,600	\$16,000
Reporting	10	ΕA	\$3,000	\$30,000
Remedial Action Subtotal				\$162,900
rofessional Services				
Permitting and agency negotiations	1	LS	\$2,500	\$2,500
Environmental covenant	1	LS	\$2,000	\$2,000
Survey	1	LS	\$5,000	\$5,000
Remedial design	1	LS	\$15,000	\$15,000
Procurement	1	LS	\$2,000	\$2,000
Construction oversight	1	LS	\$7,000	\$7,000
Data analysis	1	LS	\$2,500	\$2,500
Reporting	1	LS	\$12,000	\$12,000
Professional Services Subtotal				\$48,000
Remedial Action and Professional Services Subtotal				\$210,900
Contingency			30%	\$63,300
TOTAL COST				\$274,200

DRAFT—Table 4 Remedial Cost Estimate (High End)—Alternative 1: In Situ Treatment Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

Remedy Components

1 Excavate lead-impacted soil and dispose of off site.

- 2 Backfill with clean, imported material.
- 3 In situ remediation of groundwater using chemical oxidation.
- 4 Conduct groundwater monitoring for three years—quarterly the first two years and semiannually the third year.

Assumptions

- 1 Density of soil = 1.85 tons/CY.
- 2 Density of select borrow = 1.85 tons/CY.
- 3 Chemical storage building removed before the beginning of work.
- 4 The volume of lead-impacted soil assumes a 12-foot-diameter excavation to a depth of 4 feet.
- 5 Excavated material will be characterized before off-site disposal. For cost estimating purposes, it is assumed that the material will be hazardous, and the disposal cost assumes Subtitle C Landfill.
- 6 Excavation extent and hazardous/nonhazardous nature will be characterized before equipment mobilization to confirm assumptions (one day of field labor with XRF).
- 7 Excavation will be screened using field equipment (XRF) to guide the excavation extent before confirmation sampling.
- 8 Remedial excavations will be backfilled with clean, imported material and compacted 92%, based on the Modified Proctor Test (ASTM, 2012).

9.30% contingency

tem Description	Quantity	Units	Unit Cost	Total Cost
Remedial Action				
Preconstruction preparation	1	LS	\$5,000	\$5,000
Erosion and sediment control	1	LS	\$500	\$500
Excavation				
Mobilize excavator, excavate, and direct load impacted material (excavator and operator)	1	DAY	\$2,200	\$2,200
Confirmation sampling	12	EA	\$140	\$1,680
Imported backfill	31	TON	\$15	\$465
Mobilize equipment, backfill, and compact excavation	1	DAY	\$2,200	\$2,200
Transport and disposal of excavated material	31	TON	\$200	\$6,199
Groundwater treatment				
Pilot study	1	EA	\$40,000	\$40,000
In situ chemical oxidation	1	EA	\$75,000	\$75,000
Groundwater monitoring				
Monitoring	10	LS	\$3,300	\$33,000
Analytical	10	EA	\$1,600	\$16,000
Reporting	10	EA	\$3,000	\$30,000
Remedial Action Subtotal				\$212,200
Professional Services				
Permitting and agency negotiations	1	LS	\$2,500	\$2,500
Environmental covenant	1	LS	\$2,000	\$2,000
Survey	1	LS	\$5,000	\$5,000
Remedial design	1	LS	\$15,000	\$15,000
Procurement	1	LS	\$2,000	\$2,000
Construction oversight	1	LS	\$7,000	\$7,000
Data analysis	1	LS	\$2,500	\$2,500
Reporting	1	LS	\$12,000	\$12,000
Professional Services Subtotal				\$48,000
Remedial Action and Professional Services Subtotal				\$260,200
Contingency			30%	\$78,100
TOTAL COST				\$338,300

DRAFT—Table 5 Remedial Cost Estimate (Low End)—Alternative 2: Monitored Natural Attenuation Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

Remedy Components

- 1 Excavate lead-impacted soil and dispose of off site.
- 2 Backfill with clean, imported material.
- 3 Conduct groundwater monitoring for three years—quarterly the first two years and semiannually the thirrd year.

Assumptions

- 1 Density of soil = 1.85 tons/CY.
- 2 Density of select borrow = 1.85 tons/CY.
- 3 Chemical storage building removed before the beginning of work.
- 4 The volume of lead-impacted soil assumes a 12-foot-diameter excavation to a depth of 4 feet.
- 5 Excavated material will be characterized before off-site disposal. For cost estimating purposes, it is assumed that the material will not be hazardous, and disposal cost assumes Subtitle D Landfill.
- 6 Excavation extent and hazardous/nonhazardous nature will be characterized before equipment mobilization to confirm assumptions (one day of field labor with XRF).
- 7 Excavation will be screened using field equipment (XRF) to guide the excavation extent before confirmation sampling.
- 8 Remedial excavations will be backfilled with clean, imported material and compacted 92%, based on the Modified Proctor Test (ASTM, 2012).
- 9 30% contingency.

Item Description	Quantity	Units	Unit Cost	Total Cos
Remedial Action				
Preconstruction preparation	1	LS	\$5,000	\$5,000
Erosion and sediment control	1	LS	\$500	\$500
Excavation				
Mobilize excavator, excavate, and direct load impacted material (excavator and operator)	1	DAY	\$2,200	\$2,200
Confirmation sampling	12	EA	\$140	\$1,680
Imported backfill	31	TON	\$15	\$465
Mobilize equipment, backfill, and compact excavation	1	DAY	\$2,200	\$2,200
Transport and disposal of excavated material	31	TON	\$60	\$1,860
Groundwater monitoring				
Monitoring	10	LS	\$3,300	\$33,000
Analytical	10	EA	\$1,600	\$16,000
Reporting	10	EA	\$3,000	\$30,000
	Remedia	al Actio	n Subtotal	\$92,900
Professional Services				
Permitting and agency negotiations	1	LS	\$2,500	\$2,500
Environmental covenant	1	LS	\$2,000	\$2,000
Survey	1	LS	\$5,000	\$5,000
Remedial design	1	LS	\$10,000	\$10,000
Procurement	1	LS	\$2,000	\$2,000
Construction oversight	1	LS	\$7,000	\$7,000
Data analysis	1	LS	\$2,500	\$2,500
Reporting	1	LS	\$12,000	\$12,000
	Professional	Service	es Subtotal	\$43,000
Remedial Action and Professional Services Subtotal				\$135,900
Contingency			30%	\$40,800
		TO	TAL COST	\$176,70

Notes: CY = cubic yard; EA = each; LS = lump sum; XRF = x-ray fluorescence.

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DRAFT—Table 6 Remedial Cost Estimate (High End)—Alternative 2: Monitored Natural Attenuation Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

Remedy Components

1 Excavate lead-impacted soil and dispose of off site.

- 2 Backfill with clean, imported material.
- 3 Conduct groundwater monitoring for three years—quarterly the first two years and semiannually the third year.

Assumptions

- 1 Density of soil = 1.85 tons/CY.
- 2 Density of select borrow = 1.85 tons/CY.
- 3 Chemical storage building removed before the beginning of work.
- 4 The volume of lead-impacted soil assumes a 12-foot-diameter excavation to a depth of 4 feet.
- 5 Excavated material will be characterized before off-site disposal. For cost estimating purposes, it is assumed that the material will be hazardous, and disposal cost assumes Subtitle C Landfill.
- 6 Excavation extent and hazardous/nonhazardous nature will be characterized before equipment mobilization to confirm assumptions (one day of field labor with XRF).
- 7 Excavation will be screened using field equipment (XRF) to guide the excavation extent before confirmation sampling.
- 8 Remedial excavations will be backfilled with clean, imported material and compacted 92%, based on the Modified Proctor Test (ASTM, 2012).
- 9 30% contingency.

Item	Description	Quantity	Units	Unit Cost	Total Cost
Remedial Action					
Preconstruct	tion preparation	1	LS	\$5,000	\$5,000
Erosion and	sediment control	1	LS	\$500	\$500
Excavation					
	excavator, excavate, and direct load I material (excavator and operator)	1	DAY	\$2,200	\$2,200
Confirmat	tion sampling	12	EA	\$140	\$1,680
Imported	backfill	31	TON	\$15	\$465
Mobilize e	equipment, backfill, and compact excavation	1	DAY	\$2,200	\$2,200
Transport	and disposal of excavated material	31	TON	\$200	\$6,199
Groundwate	er monitoring				
Monitoring	g	10	LS	\$3,300	\$33,000
Analytical		10	EA	\$1,600	\$16,000
Reporting		10	EA	\$3,000	\$30,000
			Remedial Ad	ction Subtotal	\$97,200
Professional Servio	ces				
Permitting a	nd agency negotiations	1	LS	\$2,500	\$2,500
Environment	tal covenant	1	LS	\$2,000	\$2,000
Survey		1	LS	\$5,000	\$5,000
Remedial de	esign	1	LS	\$10,000	\$10,000
Procuremen	t	1	LS	\$2,000	\$2,000
Constructior	n oversight	1	LS	\$7,000	\$7,000
Data analysi	is	1	LS	\$2,500	\$2,500
Reporting		1	LS	\$12,000	\$12,000
		Prof	essional Serv	ices Subtotal	\$43,000
Remedial Action	and Professional Services Subtotal				\$140,200
Contingency				30%	\$42,100
				TOTAL COST	\$182,300

Notes: CY = cubic yard; EA = each; LS = lump sum; XRF = x-ray fluorescence.

R:\0346.04 Port of Sunnyside\03_Carnation Dairy Supplemental Investigation\Reports\03-2012.09.24 Draft Focused Site Assessment Report\Tables\Tables 3 to 6 - Remediation Costs.xlsx Page DRAFT—Table 7 Disproportionate-Cost Analysis Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

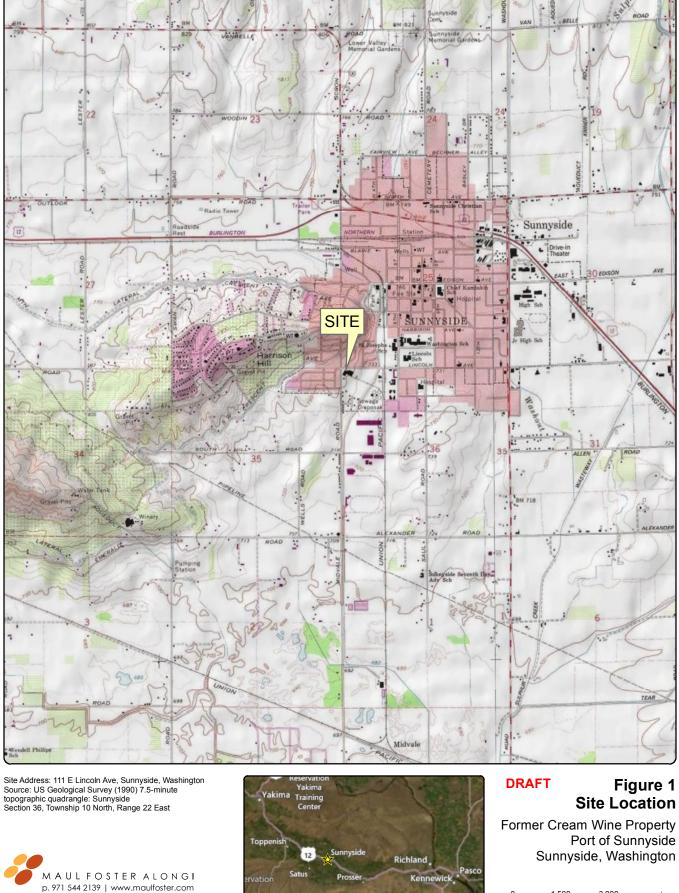
Alternative	Description	/	* *	otectives of	ET LORE	S PARAS	E ^{HERES}	nd ^{enen}	addin public of	TOTAL COST
Alternative 1	In situ treatment with excavation and off-site disposal of all impacted soil	5	5	5	4	4	4.6	TBD	\$ 338,300	
Alternative 2	Monitored natural attenuation with excavation and off-site disposal of all impacted soil	4.5	5	4.5	5	4	4.6	TBD	\$ 182,300	

FIGURES







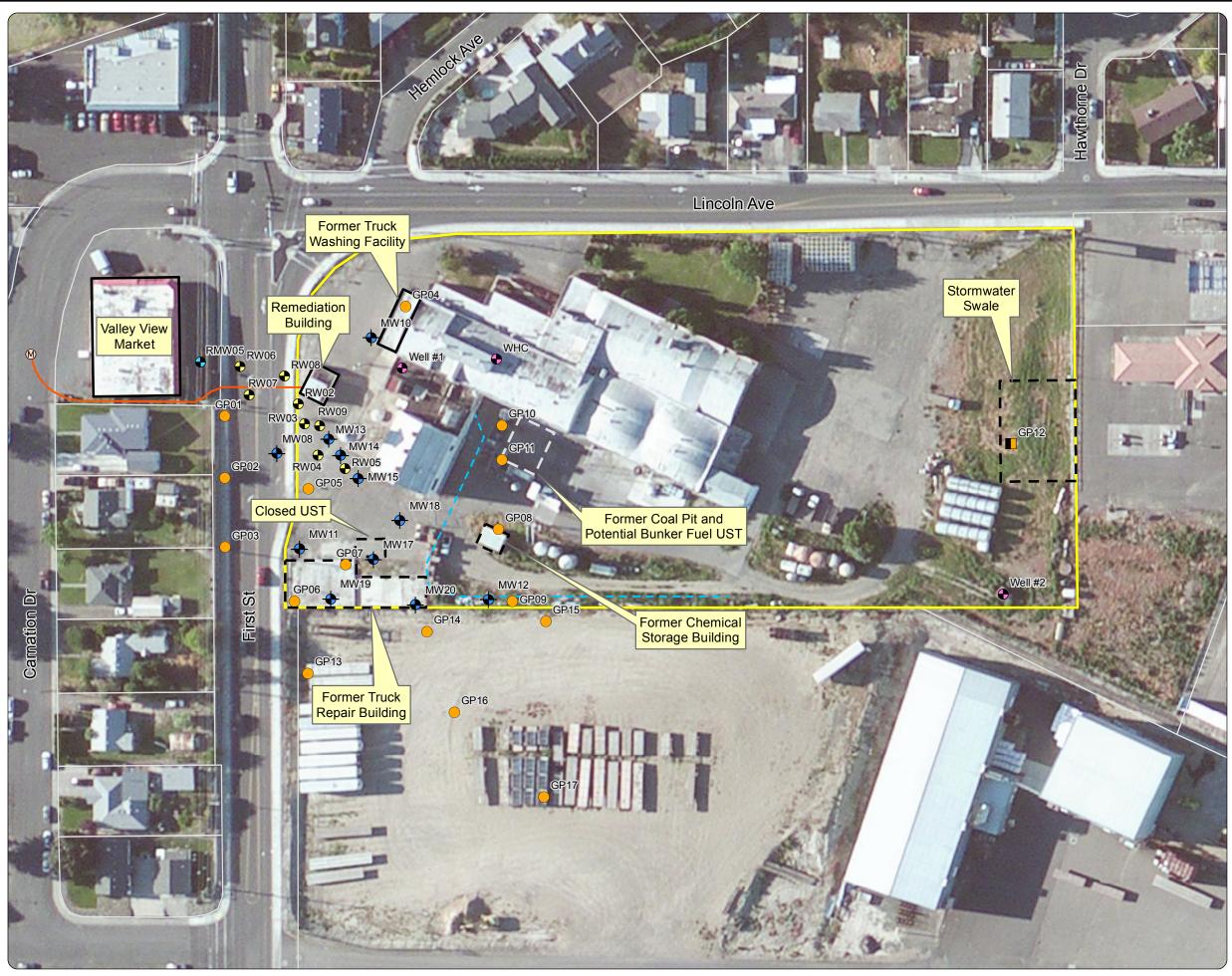


This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. 0 1,500 Feet

82



3,000



ect 0346.04.02 Produced By: J. Schane Approved By: J. Pounds Print Date: 9/19/20

Figure 2 Site Features

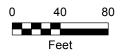
Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

DRAFT

Legend

•	Boring Location
+	Monitoring Well
	Monitoring/Recovery Well
P	Production Well
Ð	Recovery Well
	Soil Sample Location
M	Existing Manhole Sanitary Sewer
	Former Wastewater Line/ Former Open Ditch
\sim	Discharge Line from Remediation Building
	Site Boundary (Approximate)
	Tax Lots (Approximate)

Note: Sample locations were surveyed by Gray's Survey and Engineering on June 18 and 19, 2012.

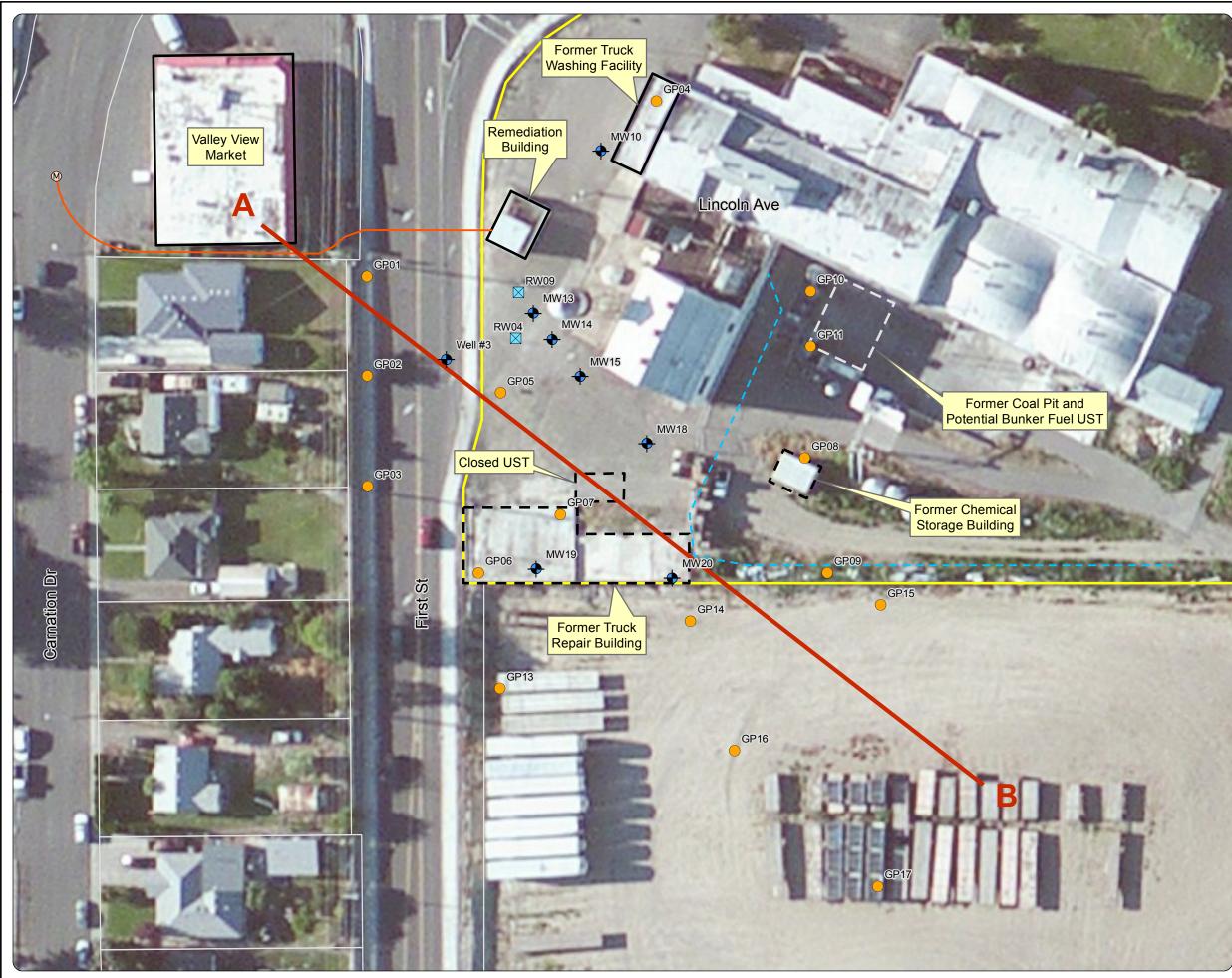




Source: Aerial photograph obtained from ESRI, Inc. ArcGIS Online/Bing Maps



This product is for informational purposes and may not have been prepared for, or be suitable for kgal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



0346.04.02 Produced By: J. Schane Approved By: H. Hirsch Print Date: 9/19

Figure 3 Cross Section Transect

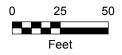
Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

DRAFT

Legend

	Cross Section A-B
•	Boring Location
\boxtimes	Vault Location
+	Monitoring Well Location
M	Existing Manhole Sanitary Sewer
\sim	Discharge Line from Remediation Building
	Former Wastewater Line/ Former Open Ditch
	Site Boundary (Approximate)
	Tax Lots (Approximate)

Note: Sample locations were surveyed by Gray's Survey and Engineering on June 18 and 19, 2012.

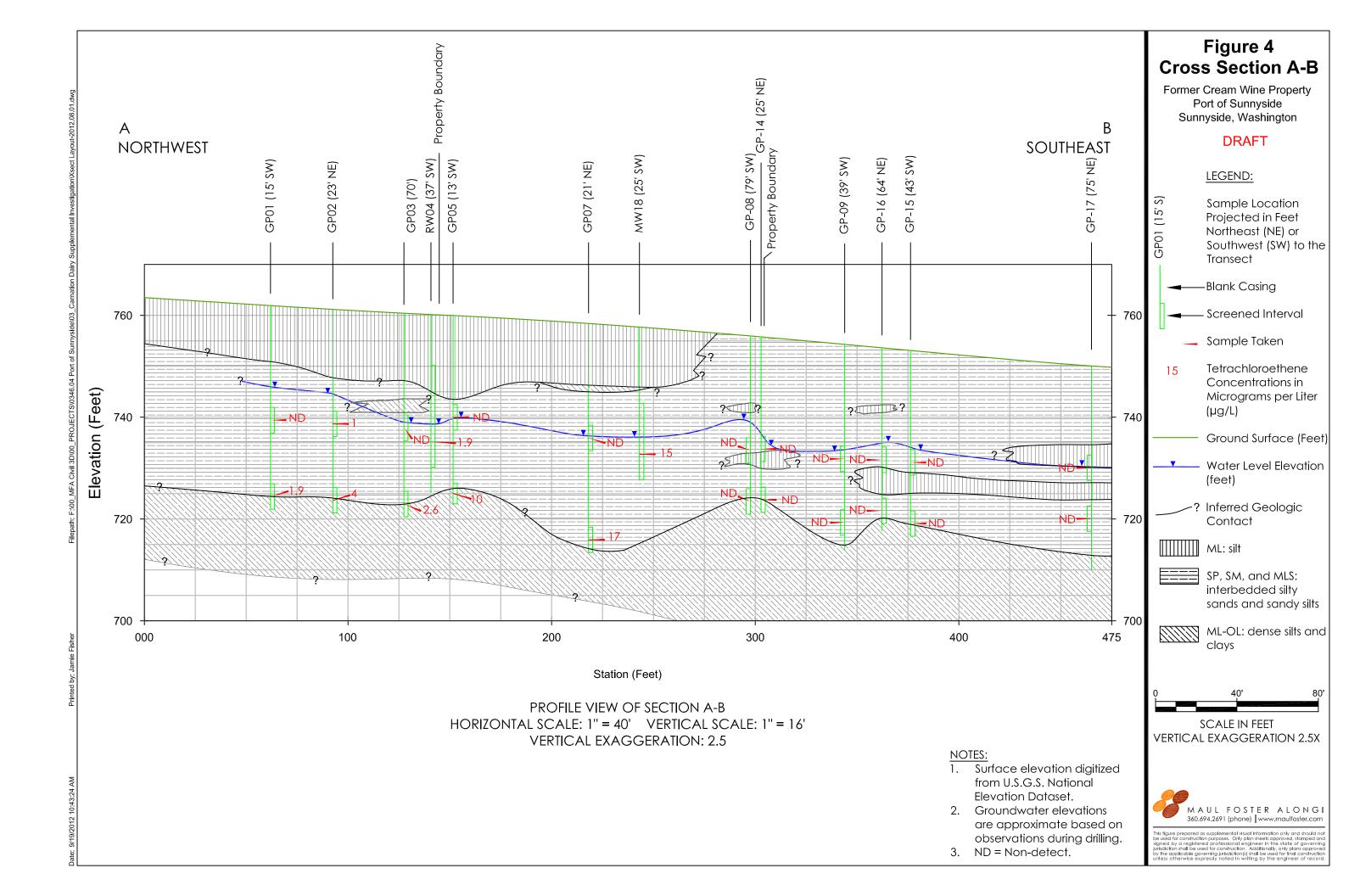


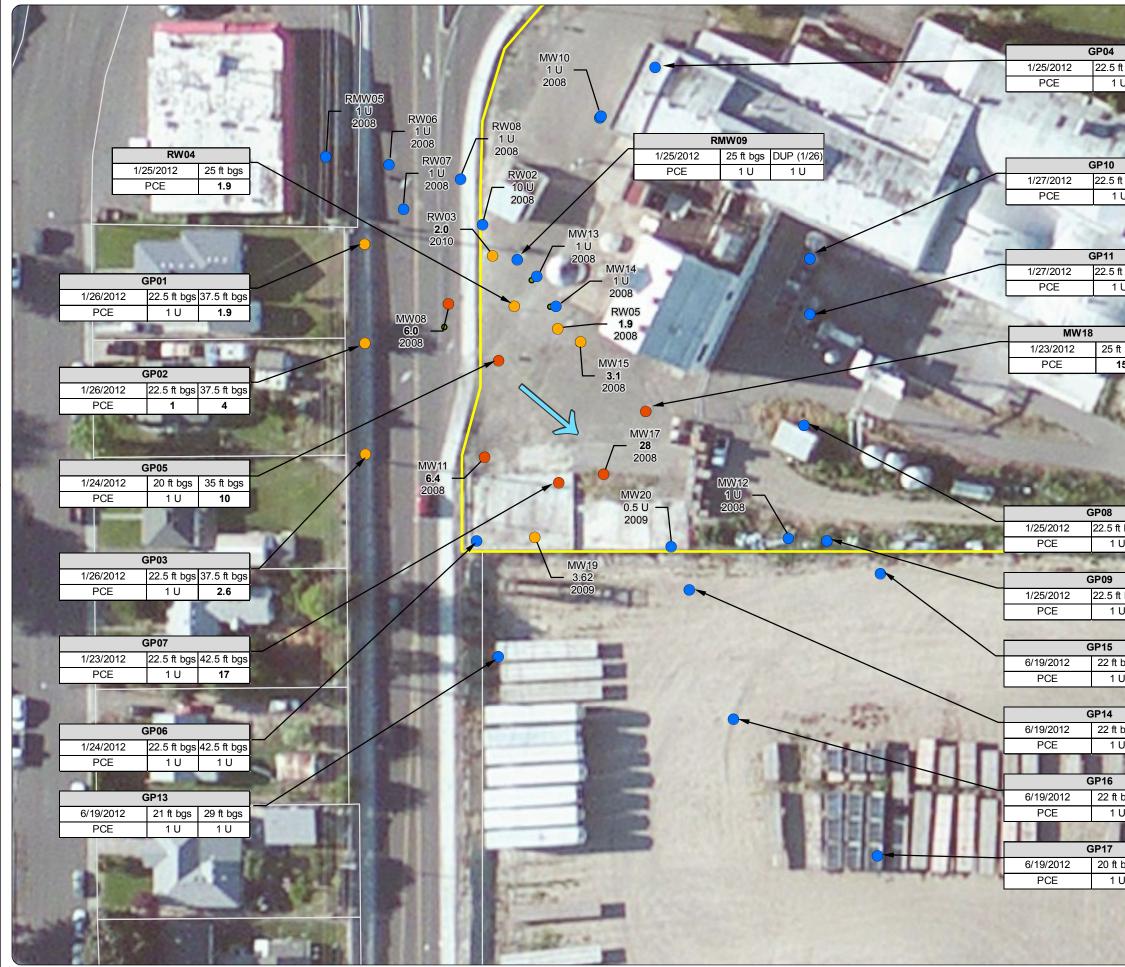


Source: Aerial photograph obtained from ESRI, Inc. ArcGIS Online/Bing Maps



This product is for informational purposes and may not have been prepared for, or be suitable for kgal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.





Produced By: Jaxelrod Approved By: H. Hirsch Print Date: 9/17/20

S.	1	S
ft bgs U	37.5 ft bgs 1 U	
18	9.67	
ft bgs U	37.5 ft bgs 1 U	
4		
ft bgs U	37.5 ft bgs 1 U	
ft bgs 15		7
8	Ro	2
2		S
-	and a	R
ft bgs U	32.5 ft bgs 1 U	
U		C INCI
U ft bgs	1 U 35 ft bgs	CO INI
U ft bgs U t bgs U	1 U 35 ft bgs 1 U 34 ft bgs 1 U	
U ft bgs U	1 U 35 ft bgs 1 U 34 ft bgs	
U ft bgs U t bgs U t bgs U	1 U 35 ft bgs 1 U 34 ft bgs 1 U 32 ft bgs 1 U 32 ft bgs 32 ft bgs	
U ft bgs U t bgs U t bgs U	1 U 35 ft bgs 1 U 34 ft bgs 1 U 32 ft bgs 1 U	
U ft bgs U t bgs U t bgs U	1 U 35 ft bgs 1 U 34 ft bgs 1 U 32 ft bgs 1 U 32 ft bgs 32 ft bgs	
U ft bgs U t bgs U t bgs U t bgs U U	1 U 35 ft bgs 1 U 34 ft bgs 1 U 32 ft bgs 1 U 32 ft bgs 1 U 32 ft bgs 1 U 32 ft bgs 30 ft bgs	

Figure 5 Groundwater PCE Results

Former Cream Wine Property Sunnyside, Washington

DRAFT

Legend

Sample Locations

- PCE Non-Detection
- PCE Detection Below CUL
- PCE Detection Above CUL

MW10 1 U 2008

M

Historical PCE Data (Location, Concentration, Date)

Current PCE Data

Groundwater Flow Direction

Site Boundary (Approximate)

Tax Lots (Approximate)

Notes:

- $\overline{1. \text{ PCE}}$ = Tetrachloroethene
- 2. All concentrations are measured in micrograms per liter (µg/L).
- 3. Bold values exceed cleanup levels.
- 4. ft bgs = feet below ground surface
- 5. DUP = duplicate sample
- 6. U = Analyte was not detected at or above method detection limit
- 7. Average historical groundwater flow direction as reported by SES, 2011.
- 8. Historical data were obtained from SES, 2011.
- 9. Historical data for monitoring wells MW19 and MW20 were obtained from Kennedy/Jenks, 2009.
- 10. CUL = Model Toxics Control Act Method A Cleanup Level for PCE of 5 ug/L.

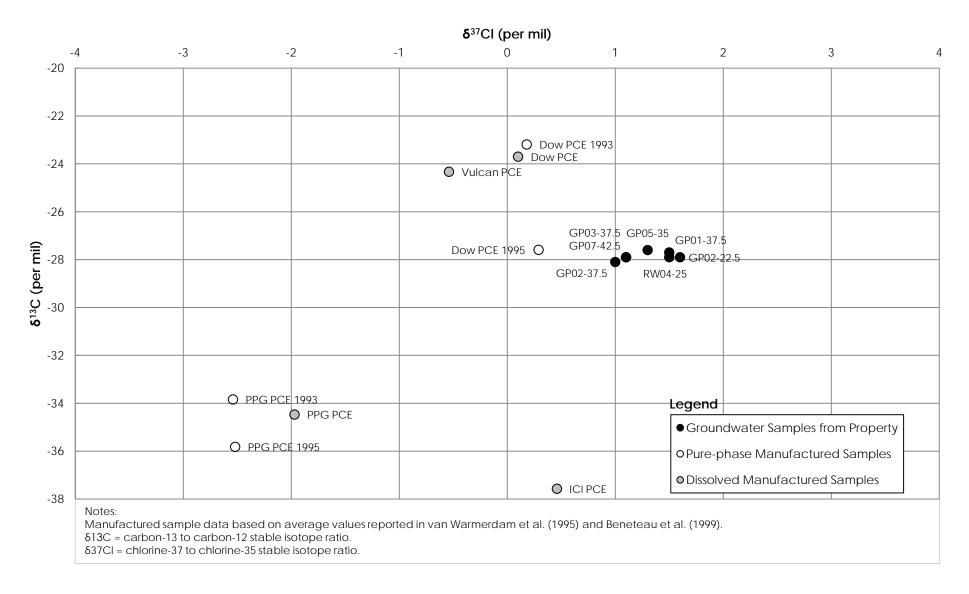


Source: Aerial photograph obtained from ESRI, Inc. ArcGIS Online/Bing Maps. Historical well data from SoundEarth Strategies (2011).



This product is for informational purposes and may not have been prepared for, or be suitable for kgal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

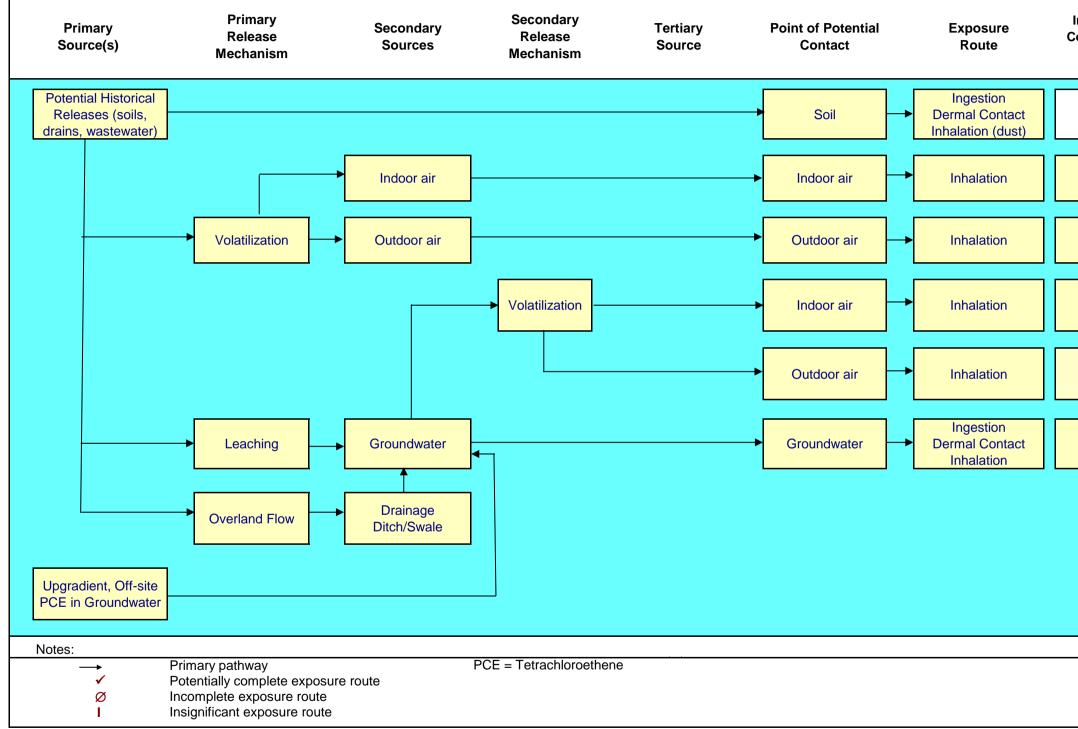
Figure 6 PCE Isotope Results Former Cream Wine Property Port of Sunnyside Sunnyside, Washington



R:\0346.04 Port of Sunnyside\03_Carnation Dairy Supplemental Investigation\Reports\03-2012.09.24 Draft Focused Site Assessment Report\Figures\Fig6_PCE Isotope Results.x IBxage 1 of 1

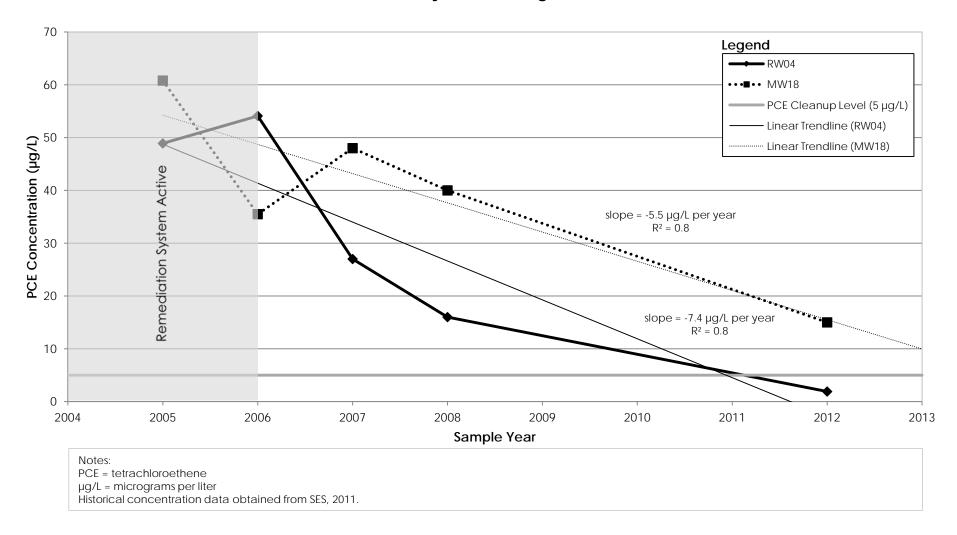
DRAFT

Figure 7 Conceptual Site Model Former Cream Wine Property Port of Sunnyside Sunnyside, Washington



Industrial/ commercial Worker	Construction Worker	Ecological Receptors
✓ ✓ ✓	✓ ✓ ✓	
Ø	Ø	Ø
Ø	Ø	Ø
Ø	ø	Ø
I	1	1
Ø Ø Ø	Ø Ø Ø	Ø Ø Ø

Figure 8 PCE Decay Former Cream Wine Property Port of Sunnyside Sunnyside, Washington



DRAFT









APPENDIX C SAMPLING AND ANALYSIS PLAN



APPENDIX D FIELD SAMPLING DATA SHEETS



APPENDIX E LABORATORY ANALYTICAL REPORTS



APPENDIX F DATA VALIDATION MEMORANDA



APPENDIX G STABLE ISOTOPE FUNDAMENTALS AND APPLICATIONS



APPENDIX H TERRESTRIAL ECOLOGICAL EVALUATION



APPENDIX A

POLK CITY DIRECTORY



Port of Sunnyside

111 E Lincoln Ave Sunnyside, WA 98944

Inquiry Number: 3142706.6 August 11, 2011

The EDR-City Directory Abstract



440 Wheelers Farms Road Milford, CT 06461 800.352.0050 www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

Thank you for your business. Please contact EDR at 1-800-352-0050 with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	Source	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2011	Polk's City Directory	Х	Х	Х	-
2007	Polk's City Directory	Х	Х	Х	-
2001	Polk's City Directory	Х	х	Х	-
1996	Polk's City Directory	Х	Х	Х	-
1990	Polk's City Directory	Х	Х	Х	-
1985	Polk's City Directory	Х	Х	Х	-
1979	Polk's City Directory	-	Х	Х	-
1974	Polk's City Directory	-	Х	Х	-
1968	Polk's City Directory	-	Х	Х	-
1963	Polk's City Directory	-	Х	Х	-

TARGET PROPERTY INFORMATION

ADDRESS

111 E Lincoln Ave Sunnyside, WA 98944

FINDINGS DETAIL

Target Property research detail.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2011	Time Oil Co (conv str)	Polk's City Directory
2007	Apex Cellars (winery)	Polk's City Directory
	Time Oil Co (conv str)	Polk's City Directory
2001	Time Oil Co	Polk's City Directory
	W H C (grape farm)	Polk's City Directory
1996	Washington Hills Cellars Inc	Polk's City Directory
1990	Vacant	Polk's City Directory
1985	Carnation Co (dairy)	Polk's City Directory

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

E Lincoln Ave

E Lincoln Ave

<u>Year</u>	<u>Uses</u>
2011	No addresses listed prior to 111
2007	No addresses listed prior to 111
2001	No addresses listed prior to 111
1996	No addresses listed prior to 111
1990	No addresses listed prior to 111
1985	No addresses listed prior to 111
1979	No addresses listed prior to 105
1974	No addresses listed prior to 105
1968	No addresses listed prior to 105
1963	No addresses listed prior to 112

105 E Lincoln Ave

Year Uses

1979	Carnation Co (dairy)
1974	Carnation Co (dairy)
1968	Carnation Co (dairy)

112 E Lincoln Ave

<u>Year</u>	<u>Uses</u>
2011	No current listing
2007	No current listing
2001	Not Verified
1996	Residential
1990	Residential
1985	Residential
1979	Residential
1974	Residential
1968	No Return
1963	Residential

<u>Source</u>

Polk's City Directory
Polk's City Directory

<u>Source</u>

Polk's City Directory Polk's City Directory Polk's City Directory

<u>Source</u>

Polk's City Directory Polk's City Directory

124 E Lincoln Ave

<u>Year</u>	<u>Uses</u>
2011	No current listing
2007	Residential
2001	Residential
1996	Residential
1990	Residential
1985	Residential
1979	Residential
1974	No Return
1968	Residential
1963	Residential

128 E Lincoln Ave

<u>Year</u>

1990	Residential

<u>Uses</u>

200 E Lincoln Ave

<u>Uses</u>
Residential

Unnumbered E Lincoln Ave

<u>Year</u>	<u>Uses</u>
1963	Carnation Co

W Lincoln Ave

100 W Lincoln Ave

<u>Year</u>	<u>Uses</u>
2011	Agitation Station (laundry)
2007	Agitation Station (laundry)
2001	Agitation Station (laundry)
1996	Agitation Station (laundry)

Polk's City Directory
Polk's City Directory

<u>Source</u>

Polk's City Directory

<u>Source</u>

Polk's City Directory
Polk's City Directory

<u>Source</u>

Polk's City Directory

<u>Source</u>

Polk's City Directory Polk's City Directory Polk's City Directory Polk's City Directory

107 W Lincoln Ave

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2011	Valley View Market (conv str)	Polk's City Directory
2007	Valley View Market (conv str)	Polk's City Directory
2001	Valley View Market (conv str)	Polk's City Directory
1996	Valley View Market (conv str)	Polk's City Directory
1990	Valley View Center (groc)	Polk's City Directory
	Valley View Laundry	Polk's City Directory
1985	Valley View Center (groc)	Polk's City Directory
	Valley View Laundry	Polk's City Directory
1979	Valley View Laundry	Polk's City Directory
	Valley View Market	Polk's City Directory
1974	Valley View Laundry	Polk's City Directory
	Valley View Market	Polk's City Directory
1968	Valley View Barber Shop	Polk's City Directory
	Valley View Laundry	Polk's City Directory
	Valley View Market	Polk's City Directory
1963	Valley View Barber Shop	Polk's City Directory
	Valley View Market	Polk's City Directory

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
111 E Lincoln Ave	1979, 1974, 1968, 1963

1979, 1974, 1968, 1963

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
E Lincoln Ave	No Years Found
100 W Lincoln Ave	1990, 1985, 1979, 1974, 1968, 1963
105 E Lincoln Ave	1963
107 W Lincoln Ave	No Years Found
112 E Lincoln Ave	No Years Found
124 E Lincoln Ave	No Years Found
128 E Lincoln Ave	1985, 1979, 1974, 1968, 1963
200 E Lincoln Ave	1968
Unnumbered E Lincoln Ave	No Years Found

APPENDIX B

BORING LOGS



Maul Foster & Alongi, Inc. Project Number Well Number Sheet Project Number Former Cham Wine Property TO C Buvation (left) Project Joanna TH East Lincoh Awa, Samzyaka, Washington Samie Mendo Task 2012 to 1738/012 Delenforquemer J. Pounds Samie Mendo Samie Mendo Cecopati Ergineer J. Pounds Samie Mendo Samie Mendo									Borehole Log/Well Con	struction	
Project Location Startized Data Geologist Engineer 111 East Lincoln Ave, Sumyside, Washington 128/2012 to 128/2012 Northing Surface Data Northing Surface Data Depth 40.0-feet 2.25-inch Sample Method J. Pounds J. Pounds 40.0-feet 2.25-inch 300 Description Image Method Image Method Soil Description 2.25-inch Image Method Image Method Soil Description 2.25-inch Image Method Image Method Image Method Image Method Soil Description Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method Image Method	Maul Fost	ter &	Along	i, Inc.		-					
1 GRAE GP01-S-1.0 0.0 to 0.4 feet: CONCRETE 2 0.4 to 1.5 feet: SILTY SAND WITH GRAVEL (SM); dark brown; 40% fines, non-plastic; 50% sand; 10% gravel, sub-angular, dry. 3 4 5 GRAE GP01-S-1.0 4 5 GRAE 5 GRAE GP01-S-5.0 6 PID = 3.6 ppm 1.5 to 11.0 feet: SILT (ML); dark brown; 100% fines, dense, non-plastic; dry. 10 GRAE GP01-S-5.0 11 GRAE GP01-S-5.0 9 10 GRAE GP01-S-10.0 11 FID = 8.6 ppm 11.0 to 11.4 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry. 12 11.1 to 11.4 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry. 13 11.1 to 11.1 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry.	Project Loca Start/End Da Driller/Equip Geologist/En	tion ate ment ngineer	111 Eas 1/26/20 Tyler D	st Lincoln 12 to 1/26 ay, Casca	Ave, /2012	Sunnyside,		-	TOC Elevation (feet) Surface Elevation (feet) Northing Easting Hole Depth 40.0		
1 GRAE GP01-S-1.0 0.0 to 0.4 feet: CONCRETE 2 0.4 to 1.5 feet: SILTY SAND WITH GRAVEL (SM); dark brown; 40% fines, non-plastic; 50% sand; 10% gravel, sub-angular, dry. 3 4 5 GRAE GP01-S-1.0 4 5 GRAE 5 GRAE GP01-S-5.0 6 PID = 3.6 ppm 1.5 to 11.0 feet: SILT (ML); dark brown; 100% fines, dense, non-plastic; dry. 10 GRAE GP01-S-5.0 11 GRAE GP01-S-5.0 9 10 GRAE GP01-S-10.0 11 FID = 8.6 ppm 11.0 to 11.4 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry. 12 11.1 to 11.4 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry. 13 11.1 to 11.1 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry.	N D		al ent	very ction od sc		Data	s/6"	ogic nn	Soil Descriptio	n	
1 GRAB GP01-S-1.0 2 0.4 to 1.5 teet: SILTY SAND WITH GRAVEL (SM); dark brown; 40% fines, non-plastic; 50% sand; 10% gravel, sub-angular, dry. 3 1.5 to 11.0 feet: SILT (ML); dark brown; 100% fines, dense, non-plastic; dry. 3 6 4 5 6 RAB 9 10 11 GRAB 9 10 11 11.0 to 11.4 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry. 12 11.1 to 11.1 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry. 13 11.1 to 11.1 feet: SAND (SP); light brown; 100% sand, loose, non-plastic; dry.	Depth (feet,		Interv Perce	Reco Collec Metho	Numt	Name (Type)	Blows	Lithol Colun			
4 5 6 7 8 9 10 11 12 13	2			GRAB		GP01-S-1.0			0.4 to 1.5 feet: SILTY SAND WITH Gi fines, non-plastic; 50% sand; 10% 1.5 to 11.0 feet: SILT (ML); dark brow	6 gravel, sub-angular; dry.	
9 10 11 11 12 13	- _ 4 _ 5 _ 6			GRAB			n				
12 11.4 to 11.8 feet: SANDY SILT (MLS); dark brown; 90% fines, dense, non-plastic; 10% sand; dry. 13 11.8 to 12.2 feet: SAND (SP); light brown; 100% sand, loose; non-plastic; dry. 14 15 16 15.5 to 16.0 feet: SILTY SAND (SM); dark brown; 10% fines, soft, non-plastic; 10% sand; damp. 17 16.5 to 16.0 feet: SILTY SAND (SM); dark brown; 10% fines, soft, non-plastic; Wet. 18 18 19 20	9 10			GRAB	F				11.0 to 11.4 feet: SAND (SP); light bro	own; 100% sand, Toose,	
16 Image: Second S	_ 13								11.4 to 11.8 feet: SANDY SILT (MLS) non-plastic; 10% sand; dry. 11.8 to 12.2 feet: SAND (SP); light bro non-plastic; dry. 12.2 to 15.5 feet: SANDY SILT (MLS)	own; 100% sand, loose;	
20 NOTES :	_ 16 _ 17 _ 18 _ 19	Ž	7	GRAB					sand, loose, non-plastic; wet. 16.0 to 16.5 feet: SANDY SILT (MLS) plasticity; 10% sand; wet. 16.5 to 18.0 feet: SILTY SAND (SM); non-plastic; 80% sand; wet. 18.0 to 20.0 feet: SANDY SILT (MLS)	; dark brown; 90% fines, soft, low dark brown; 20% fines, soft,	
NOTES:	20										
	NOTES:										
\overline{igsim} Water level depth at time of drilling.		ovel de-	th at tim	o of drilli-	20						

wau	I Foster &	Alongi,	Inc.	Project Nu 0346.04			Well Number Sheet GP01 2 of 2	
S)	Well		_c San	nple Data		0	Soil Description	
Depth (feet, BGS)	Details	Interval Percent Recovery	Collection Method S	Name (Type)	Blows/6"	Lithologic Column		
21							20.0 to 22.0 feet: SANDY SILT (MLS); dark brown; 80% fines, de non-plastic; 20% sand; wet.	ənse,
22 23			GW	GP01-W-22.5			22.0 to 23.5 feet: SANDY SILT (MLS); dark brown; 50% fines, so 50% sand; wet.	oft; —
24							23.5 to 24.4 feet: SANDY SILT (MLS); dark brown; 90% fines, so plasticity; 10% sand; wet.	oft, To
25				PID = 3.2 ppm			24.4 to 25.0 feet: SANDY SILT (MLS); dark brown; 60% fines, de non-plastic; 40% sand; dry. 25.0 to 29.5 feet: SANDY SILT (MLS); dark brown; 60% fines, so	
26							plasticity; 40% sand; wet.	
27 28								
29								
30							29.5 to 31.0 feet: SANDY SILT (MLS); dark brown; 80% fines, de non-plastic; 20% sand; wet.	ense
31							31.0 to 32.5 feet: SANDY SILT (MLS); dark brown; 90% fines, so 10% sand; wet.	oft;
32 33							32.5 to 33.0 feet: SANDY SILTY CLAY (OL); dark brown; 90% fir	nes,
34							dense, low plasticity; 10% sand; moist. 33.0 to 36.0 feet: SANDY SILT; dark brown; 90% fines, dense, non-plastic; 10% sand.	
35								
36							36.0 to 37.5 feet: SANDY SILT (MLS); dark brown; 80% fines, so plasticity; 20% sand; wet.	oft, Ic
37 38			GW	GP01-W-37.5			37.5 to 40.0 feet: SANDY CLAYEY SILT (OL); dark brown; 90%	fines
							very dense, low plasticity; 10% sand; dry.	
39 40								
*			·	I				
NOTE	S:							

				Borehole Log/Well Constru	
Maul Foster &	Alongi, Inc.	Project Numl 0346.04.02		Well Number GP02	Sheet 1 of 2
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	1/26/2012 to 1/26/	Ave, Sunnyside, Was	-	TOC Elevation (feet) Surface Elevation (feet) Northing Easting Hole Depth Outer Hole Diam	40.0-feet 2.25-inch
Mepth Depth Details Meth BGS)	- <u>5</u> . 0 . 1	mple Data Jagung Name (Type)	Lithologic Column	Soil Description	
(fee	Interval Percen Recove Collecti Method	Name (Type) o	Lith		
1 2 3	GRAB	GP02-S-5.0 PID = 1.6 ppm		 0.0 to 0.4 feet: CONCRETE. 0.4 to 2.0 feet: SILTY SAND WITH GRAVEL fines, non-plastic; 50% sand; 10% grave 2.0 to 13.5 feet: SANDY SILT (MLS); dark be non-plastic; 10% sand; dry. 	el, sub-angular; dry.
4 5 6 7	GRAB	GP02-S-5.0 PID = 0.5 ppm			
8 9 10 11 12	GRAB	GP02-S-10.0 PID = 0.7 ppm			
13 14 15 16	GRAB	GP02-S-15.0 PID = 1.2 ppm		 13.5 to 14.5 feet: SANDY SILT (MLS); dark non-plastic; 10% sand; moist. 14.5 to 14.8 feet: SILTY SAND (SM); dark binnen-plastic; 60% sand; dry. 14.8 to 16.0 feet: SANDY SILT (MLS); dark non-plastic; 20% sand; dry. 	rown; 40% fines, dense,
				16.0 to 19.0 feet: SANDY SILT (MLS); dark i plasticity; 20% sand; wet. 19.0 to 20.0 feet: SANDY SILT (MLS); dark i non plastic; 40% sand; moist.	
20				non piasuo, 7070 sana, MOISI.	
NOTES:					
$\overline{\sum}$ Water level de	pth at time of drilling	g.			

GW	Project I 0346. ample Data		Lithologic Column	Well Number GP02 Soil Description 20.0 to 23.5 feet: SANDY SILT (MLS); non-plastic; 10% sand; wet.	
Interval Percent Recover Collectio Method		Blows/6"	1 1	20.0 to 23.5 feet: SANDY SILT (MLS);	
			1 1	20.0 to 23.5 feet: SANDY SILT (MLS);	
	GP02-W-22.	5		non-piasuc, 10% sana; wet.	dark brown; 90% fines, soft,
			$\frac{1}{1}$		
					dark brown; 50% fines, soft, —
				non-plastic; 10% sand; dry.	
				34.0 to 37.0 feet: SANDY SILT (MLS); non-plastic; 10% sand; moist.	dark brown; 90% fines, firm,
GW	GP02-W-37.	5		37.0 to 40.0 feet: SANDY SILT (MLS); non-plastic; 10% sand; dry.	dark brown; 90% fines, dense,
	<u> </u>	<u> </u>			
		th at time of drilling.		GW GP02-W-37.5	GW GP02-W-37.5

				Borehole Log/Well Constru	uction
Maul Foster &	Alongi, Inc.	Project Numi 0346.04.02		Well Number GP03	Sheet 1 of 2
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	1/26/2012 to 1/26/2	Ave, Sunnyside, Was		TOC Elevation (feet) Surface Elevation (feet) Northing Easting Hole Depth Outer Hole Diam	
Mell (feet, BGS) (feet, BGS)	Interval Percent Recovery Method Sollection	Name (Type)	Lithologic Column	Soil Description	
1 2 3 4 5 6 7 8 9 10 11	GRAB GRAB	GP03-S-1.0 PID = 0.6 ppm GP03-S-5.0 PID = 0.5 ppm GP03-S-10.0 PID = 0.6 ppm		0.0 to 0.3 feet: CONCRETE. 0.3 to 1.0 feet: SILTY SAND WITH GRAVE fines, non-plastic; 50% sand; 10% grav 1.0 to 13.0 feet: SANDY SILT (MLS); dark non-plastic; 10% sand; dry.	/el, sub-angular; dry.
12 13 14 15 16 17 18 19 20 NOTES: ∑ Water level dep	GRAB	GP03-S-15.0 PID = 0.9 ppm		 13.0 to 13.3 feet: SILTY SAND (SM); light l non-plastic; soft; 90% sand; dry. 13.3 to 14.0 feet: SANDY SILT (MLS); dark non-plastic; 10% sand; dry. 14.0 to 16.5 feet: SILTY SAND (SM); dark non-plastic, firm; 50% sand; dry. 16.5 to 16.8 feet: SILTY SAND (SM); light l non-plastic; 90% sand; dry. 16.8 to 19.5 feet: CLAYEY SILT (OL); dark dense, medium plasticity; dry. 19.5 to 20.0 feet: SANDY SILT (MLS); dark 	k brown; 90% fines, firm, brown; 50% fines, brown; 10% fines, soft, brown; 100% fines, very
20 00000000000000000000000000000000000			<u> </u>		,, ,
${ar ar D}$ Water level dep	oth at time of drilling	<i>j.</i>			

Mau	I Foster & A	loi	ngi, I	nc.		Project N	lumb		-		C Borehole Log/Well Construction	
<u>(</u>)	Well				mple	0346.0	14.02				GP03 2 of 2 Soil Description	
(feet, BGS)	Details	Interval	Percent Recovery	Collection Method S	Number 2	Name (Type)	Blows/6"		Lithologic Column			
											non-plastic, 40% sand; dry.	
21											20.0 to 21.5 feet: SANDY SILT (MLS); dark brown; 80% fines, firm non-plastic; 20% sand; damp.	,
.	Σ							-		-	21.5 to 24.0 feet: SANDY SILT (MLS); dark brown; 60% fines, low	
22											plasticity, firm; 40% sand; wet.	
23				GW		GP03-W-22.5	5					
74												
24								-			24.0 to 26.0 feet: SILTY SAND (SM); dark brown; 40% fines, soft, plasticity; 60% sand; wet.	ov
25							-					
					,	PID = 0.9 ppr	1					
26											26.0 to 28.5 feet: SANDY SILT (MLS); dark brown; 90% fines, soft plasticity; 10% sand; wet.	lc
27											prasticity, 10% sand, wet.	
28												
29											28.5 to 31.5 feet: SILTY SAND (SM); dark brown; 40% fines, soft, non-plastic; 60% sand; wet.	
80												
81												
								-			31.5 to 33.5 feet: SANDY SILT (MLS); dark brown; 80% fines, firm	
32											medium plasticity; 20% sand; damp.	'
33												
											33.5 to 34.0 feet: SILTY SAND (SM); dark brown; 40% fines, soft,	
34									- -	-	non-plastic; 60% sand; wet. 34.0 to 35.0 feet: SANDY SILT (MLS); dark brown; 80% fines, firm	_
35									_ _		plasticity; 20% sand; damp.	
											35.0 to 37.0 feet: SANDY SILT (MLS); dark brown; 50% fines, soft non-plastic; 50% sand; wet.	
36												
37												
				GW		GP03-W-37.5	;				37.0 to 38.5 feet: SANDY SILT (MLS); dark brown; 80% fines, firm plasticity; 20% sand; wet.	, <i>I</i> ¢
38							•					
89											38.5 to 40.0 feet: SANDY SILT (MLS); dark brown; 90% fines, very firm, non-plastic; 10% sand; damp.	,
40										100	1	
_												
IOTE	S:											
Z	Water level depti	hati	time of	f drillin	g.							

				Borehole Log/Well Const	
Maul Foster &	Alongi, Inc.	Project Nu 0346.04		Well Number GP04	Sheet 1 of 2
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	1/25/2012 to 1/25/	Ave, Sunnyside, W	-	TOC Elevation (feet) Surface Elevation (fee Northing Easting Hole Depth Outer Hole Diam	et) 40.0-feet 2.25-inch
Mell Depth (feet, BGS) Details	Interval Percent Recovery Collection Method S	mple Data	Blows/6" Lithologic Column	Soil Description	
- 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	GRAB	GP04-S-1.0 PID = 3.4 ppm GP04-S-5.0 PID = 5.2 ppm		0.0 to 0.4 feet: CONCRETE. 0.4 to 12.0 feet: SANDY SILT (MLS); dar non-plastic; 10% sand; dry.	k brown; 90% fines,
. 11 . 12 . 13 . 14 . 15 . 16 . 17 . 18 . 19 20 NOTES: ♀ Water level dep	GRAB	GP04-S-10.0 PID = 3.2 ppm GP04-S-15.0		 12.0 to 13.0 feet: SANDY SILT (MLS); da non-plastic; 20% sand; dry. 13.0 to 14.5 feet: CLAYEY SILT (CL-ML) medium plasticity, soft; moist. 14.5 to 16.0 feet: SANDY SILT (MLS); da non-plastic, firm; 20% sand; dry. 16.0 to 18.0 feet: SANDY SILT (MLS); da plastic, soft; 50% sand; wet. 18.0 to 21.0 feet: SANDY SILT (MLS); da plastic, firm; 20% sand; moist. 	; dark brown; 100% fines, ark brown; 80% fines, ark brown; 50% fines, non
20					
NOTES:					
∑ Water level dep	th at time of drillin	g.			

22 23 GW GP04-W-22.5 21 0 to 22 0 teet: SAND Y SIL T (MLS); dark brown; 50% fines,
Operation Details Details
22 23 GW GP04-W-22.5 21 0 to 22 0 feet: SANDY SIL T (MLS); dark brown; 50% fines,
40 ******

aul Foster &	Alonai. Inc.	Project Num		Borehole Log/Well Constru	Sheet	
		0346.04.0		GP05	1 of 2	
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	1/24/2012 to 1/24	Ave, Sunnyside, Was	-	TOC Elevation (feet)Surface Elevation (feet)NorthingEastingHole DepthOuter Hole Diam2.25-in		
(S) Ba Details		mple Data	Lithologic Column	Soil Description		
(feet, E	Interval Percen Recove Collecti Methoa	Name (Type) Name (Type)	Litho Colu			
1 2 3	GRAB	GP05-S-1.0 PID = 0.4 ppm		0.0 to 0.2 feet: ASPHALT. 0.2 to 0.6 feet: SILTY SANDY GRAVEL (Gi fines; 30% sand, fine to medium; 50% 0.6 to 2.5 feet: SANDY SILT (MLS); brown; non-plastic; 40% sand, fine; dry. 2.5 to 5.0 feet: NO RECOVERY.	gravel, sub-angular; dry.	
4 5 6 7	GRAB	GP05-S-5.0 PID = 1.2 ppm		5.0 to 9.6 feet: SANDY SILT (MLS); brown; 20% sand, fine; dry.	80% fine, non-plastic, stiff	
8 9 10 11	GRAB	GP05-S-10.0 PID = 0.9 ppm		9.6 to 10.0 feet: NO RECOVERY. 10.0 to 12.1 feet: SANDY SILT (MLS); brow stiff; 20% sand, fine; dry.	vn; 80% fine, non-plastic,	
12 13 14 15	GRAB	GP05-S-15.0		12.1 to 12.5 feet: SILTY SAND (SM); brown fine to medium; dry. 12.5 to 17.5 feet: SANDY SILT (MLS); brown non-plastic; 10% sand, fine; dry.		
16 17 18 19		PID = 0.6 ppm		17.5 to 17.8 feet: SILTY SAND (SM); brown fine; damp. 17.8 to 18.4 feet: SANDY SILT (MLS); brown 18.4 to 18.6 feet: SAND (SP); black and mu medium to coarse; wet. 18.6 to 20.0 feet: SANDY SILT (MLS); dark	vn; damp ulti-colored; 100% sand,	
20 ₩₩₩₩₩ Varea	-			plasticity; 20% sand, fine; damp.		
IOTES:						

Mail Foster & Alongi, Inc. Proget Numeer Well Number South and the stand 99 Well with the stand Sample Data Sall Description Sall Description 99 Well with the stand Sall Description Sall Description Sall Description 21 Well with the stand Sall Description Sall Description Sall Description 22 Sall Description Sall Description Sall Description Sall Description 23 GW GW CP05-M-20.8 Sall Description Sall Description 23 GW GW CP05-M-20.8 Sall Description Sall Description 24 GW GW CP05-M-20.8 Sall Description Sall Description 25 Sall Description Sall Description Sall Description Sall Description 24 GW GW CP05-M-20.8 Sall Description Sall Description 25 Sall Description Sall Description Sall Description Sall Description 26 GW GW CP05-M-20.8 Sall Description								G	eologia	Borehole Log/Well Cons	struction
Org Well Details Sample Data Soil Description 21 500 Description 000000000000000000000000000000000000	Mau	I Foster & /	Alor	ngi, l	nc.			lumb	er	Well Number	Sheet
21 plasticity: 20% sand, fine; wet. 22 23 23 24 25 25 26 25.0 to 34.0 feet: SANDY SILT (MLS); dark brown; 60% fines, non-plastic, soft 40% sand; wet. 28 29 30 31 32 33	Depth (feet, BGS)	Well Details	Interval	Percent Recovery	Collection Method S		Data				
27 28 29 30 31 32 33	_ 22 _ 23 _ 24 _ 25				GW		GP05-W-20.)		plasticity; 20% sand, fine; wet.	
. 35	_ 27 _ 28 _ 29 _ 30 _ 31 _ 32 _ 33										2000/0
_ 36 37	_ 35 _ 36 _ 37				GW		GP05-W-35.0)		34.0 to 37.0 feet: SILT (ML); dark brow	vn; 100% tines, stift; damp.
	NOTE	'S:									
NOTES:	Ā	Water level dep	th at i	time of	f drillin	ıg.					

				Borehole Log/Well Const	ruction	
Maul Foster &	Alongi, Inc.	Project Nul 0346.04.		Well Number GP06	Sheet 1 of 3	
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	1/24/2012 to 1/24/	Ave, Sunnyside, Wa	-	TOC Elevation (feet) Surface Elevation (fe Northing Easting Hole Depth Outer Hole Diam	et) 45.0-feet 2.25-inch	
Meeth Depth Details	Interval Percent Recovery Collection Wethod S	nple Data	Blows/6" Lithologic Column	Soil Description		
	Acc Re Int					
_ 1	GRAB	GP06-S-1.0 PID = 0.8 ppm		0.0 to 0.3 feet: CONCRETE. 0.3 to 0.6 feet: SANDY SILTY GRAVEL (sand; 50% gravel, sub-angular; dry. 0.6 to 3.0 feet: SANDY SILT (MLS); brov		
- ³ - ⁴				3.0 to 11.1 feet: SILT (ML); dark brown; dry.	100% fines; non-plastic; stiff;	
_ 5 _ 6	GRAB	GP06-S-5.0 PID = 1.4 ppm				
8						
_ 9 _ 10	GRAB	GP06-S-10.0 PID = 0.4 ppm				
. 12				11.1 to 11.5 feet: SAND (SP); brown; 20 Medium; dry. 11.5 to 12.5 feet: SANDY SILT (MLS); bi non-plastic; 20% sand, fine; dry.	rown; 80% fines; stiff,	
. 13 . 14				12.5 to 12.8 feet: SAND (SP); brown; 20 medium; dry. 12.8 to 14.8 feet: SANDY SILT (MLS); bi non-plastic; 20% sand, fine; dry.		
15				14.8 to 15.0 feet: NO RECOVERY.		
. 16	GRAB	GP06-S-15.0 PID = 0.3 ppm		15.0 to 21.8 feet: SANDY SILT (MLS); da non-plastic, stiff; 10% sand, fine; da	ark brown; 90% fines, np.	
17						
18 19 20						
20						
_ 14 _ 15 _ 16 _ 17 _ 18 _ 19 _ 20 NOTES: \[\overline{vel dep}\]						
\bigtriangledown Water level de	pth at time of drilling	q.				

lau	I Foster & A	lor	ngi, I	nc.		Project I					Well Number Sheet
S)	Well			_ Sa	mple	0346.0 Data					GP06 2 of 3 Soil Description
Uepun (feet, BGS)	Details	Interval	Percent Recovery	Collection Method C	Number 7	Name (Type) Balows/e		Column			
21											
22	Σ			014			-				21.8 to 22.9 feet: SILTY SAND (SM); dark brown; 30% fine; 70% sand fine to medium; wet.
23				GW		GP06-W-22.	•			Î	22.9 to 25.5 feet: SILT (ML); dark brown; 100% fines, non-plastic, stift damp.
24 25											
26											25.5 to 28.9 feet: SILTY SAND (SM); dark brown; 50% fines; 50% sand; wet.
27											
28											
29											28.9 to 37.8 feet: SANDY SILT (MLS); dark brown; 80% fines, non-plastic, soft; 20% sand, fine; wet.
30											
31 32											
32 33											
34											
35											
36											
37											
38											37.8 to 38.9 feet: SILTY SAND (SM); dark brown.
39 40											38.9 to 40.0 feet: SANDY SILT (MLS); dark brown; 80% fines, stiff, non-plastic; 20% sand, fine; damp.
41											40.0 to 44.1 feet: SILTY SAND (MLS); dark brown; 60% fines, soft; 40% sand, fine; wet.
42											
IOTE	:: :::::::::::::::::::::::::::::::::::							<u> </u>	<u></u>	<u></u>	

M.~	I Eastar O	<u>~ ما ۸</u>	a: 1	na			G	eologic	C Borehole Log/Well Construction Well Number Sheet		
viau	Il Foster & A	AION	gi, I	nc.		Project N 0346.0		er	Well Number GP06		Sheet 3 of 3
(St	Well		~	s Sa	mple			U.	Soil Des	scription	
Depth (feet, BGS)	Details	Interval	Percent Recovery	Collection Method S	Number		Blows/6"	Lithologic Column			
(fee		Inte	Per Rec	Col. Met	Nur	Name (Type)	Bloi	Lith Colu			
43				GW		GP06-W-42.5	;				
43											
44											
									44.1 to 45.0 feet: CLAY/SILT (C plasticity; damp.	DL); dark brou	wn; 100% fines, mediun
45								[plasticity, damp.		
NOTE	Ξ5:										
NOTE	ΞS:										

				Borehole Log/Well Const	ruction	
Maul Foster &	Alongi, Inc.	Project Numb 0346.04.02		Well Number GP07	Sheet 1 of 3	
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	1/23/2012 to 1/23/	Ave, Sunnyside, Wasi	-	TOC Elevation (feet) Surface Elevation (feet) Northing Easting Hole Depth Outer Hole Diam		
Meepth Depth Details	Interval Percent Recovery Collection Method S	mple Data	Lithologic Column	Soil Description		
	GRAB	GP07-S-1.0 PID = 0.6 ppm GP07-S-5.0 PID = 0.7 ppm GP07-S-10.0 PID = 1.1 ppm GP07-S-15.0 PID = 0.8 ppm		 0.0 to 0.4 feet: CONCRETE; grey. 0.4 to 0.9 feet: SILTY SANDY GRAVEL (30% sand; 50% gravel, fine to coarse 0.9 to 3.2 feet: SANDY SILT (MLS); dark 3.2 to 10.7 feet: SILT (ML); dark brown; i dry. 	e, angular; dry. brown; soft, non-plastic; dry. 100% fines, non-plastic, soft; 100% fines, non-plastic; soft; 100% fines, soft; 100% fines, stiff, 100% fines, stiff, 100% fines, stiff, 100% fines, stiff, medium	
_ 17 _ 18 _ 19 _ 20				16.9 to 21.2 feet: SANDY SILT (MLS); br sand; damp.	own; 90% fines, stiff; 10%	
20 00000000000000000000000000000000000						
HUILS.						
V Mator loval dar	ath at time of drilling	~				
Vater level dep	oth at time of drilling	g.				

Mau	I Foster & A	4loi	ngi, I	nc.		Project I	Numb	ər	<u> </u>	Borehole Log/Well Construction Well Number Sheet
	1	-				0346.				GP07 2 of 3
Depth (feet, BGS)	Well Details	Interval	Percent Recovery	Collection Method S	Inmber Number					Soil Description
21	∑									
22										21.2 to 33.7 feet: SANDY SILT (MLS); brown; 60% fines; 40% sand, fine; wet.
23				GW		GP07-W-22.	5			
24										
25										
26										
27										
28										
29										
80										
81										
82										
33										
34										33.7 to 37.8 feet: SILTY SAND (SP); brown; 40% fines, soft; 60% sand, fine to medium; wet.
85										
86										
87										
88										37.8 to 40.8 feet: SANDY SILT (MLS); brown; 70% fine, soft, low plasticity; 30% sand, wet.
9										
40										
41										40.8 to 41.9 feet: SAND (SP); gray; 100% sand, fine to medium; wet
12										41.9 to 44.0 feet: SANDY SILT (MLS); brown; 70% fines, stiff; 30%
IOTE	S:									

Мэч	Il Foster &	مالا	nai I	nc		Drainat *	G	eologic	Borehole Log/Well Co Well Number	nstruction	
vidU	III USLEI OL		ıyı, I	п с .		Project N 0346.0			GP07	Sheet 3 of 3	
(St	Well		~	_E Sa	ample				Soil Description		
Depth (feet, BGS)	Details	Interval	Percent Recovery	Collection Method	Number		Blows/6"	Lithologic Column			
fee (fee		Inte	Per Rec	Col. Met	Nur	Name (Type)	Blo	Lith Col			
43				GW		GP07-W-42.5	i				
10											
44											
									44.0 to 45.0 feet: SILT/CLAY (OL); medium plasticity; damp.	brown; 90% fines, very stiff,	
45											
NOTE	ES:										
$\overline{\Delta}$	Water level dep	th at a	time o	f drillir	ıg.						

Aul Foster & Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method Image: Description Image: Description Image: Description Image: Description	Former Cream W 111 East Lincoln 1/24/2012 to 1/24	Ave, Sunnyside, Was	2	Well Number GP08 TOC Elevation (feet)	Sheet 1 of 2	
Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	111 East Lincoln 1/24/2012 to 1/24 Tyler Day, Casca	Ave, Sunnyside, Was /2012	hington			
S Well			Geoprobe	TOC Elevation (feet)Surface Elevation (feet)NorthingEastingHole DepthOuter Hole Diam2.25-in		
Well Weth BCS)	Interval Percent Recovery Collection Method	mple Data	Lithologic Column	Soil Description		
1 2 3	GRAB	GP08-S-1.0 PID = 1.2 ppm		0.0 to 0.4 feet: SILTY SAND (SM); dark i sand, organics; dry. 0.4 to 2.2 feet: SILTY SAND (SM); dark i fine to medium; dry. 2.2 to 2.4 feet: BRICK; red. 2.4 to 5.0 feet: NO RECOVERY.		
4 5 6 7 8	GRAB	GP08-S-5.0 PID = 0.7 ppm		5.0 to 13.1 feet: SANDY SILT (MLS); da non-plastic, soft; 20% sand, fine to n	k brown; 80% fines, nedium; dry.	
9 10 11 12	GRAB	GP08-S-10.0 PID = 0.4 ppm				
13 14 15				13.1 to 15.0 feet: SILT (ML); dark brown	100% fines, stiff.	
16	GRAB	GP08-S-15.0 PID = 0.3 ppm		15.0 to 23.0 feet: SANDY SILT (MLS); do sand, fine to medium; wet.	ark brown; 80% fines; 20%	
19						
NOTES:						
$\overline{ar{bar}}$ Water level dep	pth at time of drillin	g.				

Maul	Foster &	Alon	igi, l	nc.		Project N	lumb	er	Borehole Log/Well Constr Well Number GP08	Sheet	
s)	Well			Se	mole	0346.0 Data			GP08 2 of 2 Soil Description		
Depth (feet, BGS)	Details	Interval	Percent Recovery	Collection Method	Number 7	Name (Type)	Blows/6"	Lithologic Column			
21 22											
23 24				GW		GP08-W-22.5	5		23.0 to 25.0 feet: SILT (ML); dark brown;	100% fines, stiff; damp.	
25									25.0 to 33.4 feet: SANDY SILT (MLS); da sand; wet.	rk brown; 80% fines; 20%	
26 27											
28											
29											
30 31											
32											
33				GW		GP08-W-32.5	5		33.4 to 35.0 feet: SANDY SILT (MLS); da stiff, low plasticity; 10% sand; damp.	rk brown; 90% fines, very	
34 35									stiff, low plasticity; 10% sand; damp.		
NOTES	S:										

					Borehole Log/Well Cons	
Mau	II Foster &	Alongi, Inc.	Project No. 0346.04		Well Number GP09	Sheet 1 of 2
Proje Star Drille Geo	ect Name ect Location t/End Date er/Equipment logist/Engineer nple Method	1/25/2012 to 1/25/	Ave, Sunnyside, V	-	TOC Elevation (fee Surface Elevation (f Northing Easting Hole Depth Outer Hole Diam	
Depth (feet, BGS)	Well Details	Interval Percent Recovery Collection Method S	mple Data	Blows/6" Lithologic Column	Soil Description	
Q (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		GRAB	≥ GP09-S-1.0 PID = 0.5 ppm GP09-S-5.0 PID = 0.6 ppm		0.0 to 0.4 feet: SILTY SANDY GRAVEL 30% sand, 50% gravel; dry. 0.4 to 9.0 feet: SANDY SILT (MLS); lig soft; 20% sand, fine; dry.	ht brown; 80% fines, non-plastic, - - - - - - - - - - - - - - - - - - -
		GRAB	GP09-S-10.0 PID = 0.2 ppm		non-plastic; 20% sand, fine; dry.	-
12 13 14 15 16 17 18 19 20 NOTE		GRAB	GP09-S-15.0 PID = 0.2 ppm			-
20 NOTE				<u> </u>		
$\bar{\Sigma}$	Water level dep	oth at time of drilling	g.			

		_							Borehole Log/Well Construction	
Mau	Il Foster & A	lor	ngi, l	nc.		Project I 0346.				eet of 2
(SE	Well Details		2	ج Sa	mple				Soil Description	
Depth (feet, BGS)	Details	Interval	Percent Recovery	Collection Method C	Number	Name (Type)	Blows/6"	Lithologic Column		
21 22 23 24	Ţ			GW		GP09-W-22.	5		21.0 to 25.0 feet: SANDY SILT (MLS); dark brown; 50% plasticity, soft; 50% sand, fine; wet.	6 fines, low
25 26 27 28									25.0 to 29.0 feet: SANDY SILT (MLS); dark brown; 50% plasticity, soft; 50% sand, fine; wet.	- 6 fines, low
29 30 31 32				GW		GP09-W-32.:	5		29.0 to 33.0 feet: SANDY SILT (MLS); dark brown; 50% non-plastic; 50% sand; damp.	6 fines,
33									33.0 to 35.0 feet: SANDY SILT (MLS); dark brown; 50% plasticity; 50% sand; damp.	6 fines, stiff, low
34 35 36 37 38 39 40 NOTE									35.0 to 39.5 feet: SANDY SILT (MLS); dark brown; 90% plasticity, soft; 10% sand; wet.	6 fines, low
40									39.5 to 40.0 feet: SANDY CLAYEY SILT (CL-ML); dark fines, low plasticity, stiff; 10% sand; damp.	brown; 90%
NOTE	ES:									
Ţ	Water level depth	n at t	time of	drillin	a					

Maul Foster & Alongi, Inc. Proper Number Well Number Well Number Shert Proget Number Former Cream Mine Property TOC Elevation (heal) TOC Elevation (heal) StartEnd Date Former Cream Mine Property TOC Elevation (heal) Suther Elevation (heal) StartEnd Date J. Pounds Samte Mine Property Sold Description Name StartEnd Date J. Pounds Samte Mine Property Sold Description Sold Description StartEnd Date Samte Mine Property Sold Description Sold Description Sold Description StartEnd Date Samte Mine Property Sold Description Sold Description Sold Description Samte Mine Property Samte Mine Property Sold Description Sold Description Sold Description Samte Mine Property Samte Mine Property Sold Description Sold Description Sold Description Samte Mine Property Samte Mine Property Sold Description Sold Description Sold Description Samte Mine Property Samte Mine Property Sold Description Sold Description Sold Description	Vaul Fostor 8				Borehole Log/Well Constr	Sheet	
Construction 111 East Lincoln Ave, Sumpside, Washington Surface Elevation (feet) Dille/Equipment 12720712 Northing Dille/Equipment J. Pounds Easting Sample Method J. Pounds Easting Sample Method J. Pounds Soil Description Sample Method Soil Description 40.04ret Sample Method Soil Description 50 ib 0.51 feet: SAMDY SiLT (MLS); dark brown; 60% fines, firm; non-plastic: 20% samd; dry, 1 Sample Data GRAB GP10-5-5.0 FID = 0.5 ppn 6 GRAB GP10-5-5.0 FID = 0.4 ppn 715 to 25 feet: SULTY SAMD (SM); fair, brown; 80% fines, firm; non-plastic: 20% sand; dry. 10 GRAB GP10-5.5.0 FID = 0.4 ppn FID = 0.4 ppn 11 GRAB GP10-5.5.0 FID = 0.4 ppn FID = 0.4 ppn 11 GRAB				#I	Well Number GP10		
Bit	Project Location Start/End Date Driller/Equipment Geologist/Engineer	111 East Lincoln 1/27/2012 to 1/27/ Tyler Day, Cascad	Ave, Sunnyside, Washi 2012	-	Surface Elevation (feet) Northing Easting Hole Depth 40.0-fe		
1 GRAB GP10.5-1.0 F = 0.2 + 0.0 (0.3 feet: CONCRETE 2 0.3 to 0.6 feet: SANDY SLT (MLS); dark brown; 80% fines, firm; 3 0.7 to 1.5 feet: GPX/ELLY SAND SLT (MLS); dark brown; 80% fines, firm; 4 0.7 to 1.5 feet: GPX/ELLY SAND SLT (MLS); dark brown; 80% fines, firm; 5 0.7 to 1.5 feet: SANDY SLT (MLS); dark brown; 80% fines, firm; 6 7 7 1.5 to 5.0 NO RECOVERY. 8 GRAB 9 1.1 to 1.0 feet: SANDY SLT (MLS); dark brown; 80% fines, firm; 10 GRAB 11 2.5 to 5.0 NO RECOVERY. 8 9 10 GRAB 11 QC 12 GRAB 13 GRAB 14 15 15 GRAB 16 GRAB 17 GRAB 18 GRAB 19 GRAB 112 GRAB 114 GRAB 115 GRAB 116 GRAB 117 To 1.5 h	Well Details	rval cent overy hod hod	nple Data	ologic umn			
1 33 to 0.6 feet: SANDY SUT (MLS); dark brown; 80% fines, firm; 2 0.3 to 0.6 feet: SANDY SUT (MLS); dark brown; 80% fines, firm; 3 0.6 to 17.5 feet: SUT Y SAND (SM); dark brown; 80% fines, firm; 3 1.5 to 2.5 feet: SUT Y SAND (SM); dark brown; 80% fines, firm; 4 5 6 8 9 1.5 to 5.5 SUT Y SAND (SM); dark brown; 80% fines, firm; 7 1.5 to 5.5 SUT Y SAND (SM); dark brown; 80% fines, firm; 8 9 10 67.6 SUT (MLS); dark brown; 80% fines, firm; 7 1.6 to 11.0 feet: SUTY SAND (SM); dark brown; 80% fines, firm; 8 9 11 2 12 5.0 to 11.0 feet: SUTY SAND (SM); light brown; 20% fines, firm; 13 11.0 to 11.3 feet: SUTY SAND (SM); light brown; 20% fines, firm; 14 15 15 67.6 SUT (MLS); dark brown; 70% fines, soft; 16 11.0 to 11.3 feet: SUTY SAND (SM); light brown; 20% fines, firm; 17 11.0 to 11.3 feet: SUTY SAND (SM); light brown; 20% fines, soft; 18 11.1 to 11.1 feet: SUTY SAND (SM); light brown; 20% fines, soft; 19 68.8 E 11 11.0 to 11.3 feet: SUTY SAND (SM); light brown; 20%	(feer	Inter Perc Rec Coll Met	Name (Type) o Name (Type) o B	Colu Colu			
6 GRAB GP10-S-10.0 FID = 0.4 ppm 5.0 to 11.0 feet: SANDY SLLT (MLS): dark brown; 80% lines, firm, non-plastic; 20% sand; dry. 8 9 10 GRAB GP10-S-10.0 FID = 0.3 ppm 11 ✓ GRAB GP10-S-10.0 FID = 0.3 ppm 12 11.1 bit 1.3 heet: SILTY SAND (SM): light brown; 20% lines, firm, non-plastic; 20% sand; molt. 11.1 bit 1.3 heet: SILTY SAND (SM): light brown; 20% lines, firm, non-plastic; 20% sand; molt. 13 GRAB GP10-S-10.0 FID = 0.3 ppm 11.1 bit 1.3 heet: SILTY SAND (SM): light brown; 20% lines, firm, non-plastic; 20% sand; molt. 13 FID = 0.3 ppm 11.3 bit 1.8 heet: SANDY SILT (MLS); dark brown; 80% lines, soft, low plasticity; 20% sand; wet. 14 FID = 1.2 ppm 14.8 ho 17.0 heet: SANDY SILT, (MLS); dark brown; 70% lines, soft, low plasticity; 30% sand; wet. 16 FID = 1.2 ppm 14.8 ho 17.0 heet: SANDY SILT, (MLS); dark brown; 70% lines, soft, low plasticit; 30% sand; wet. 17 FID = 1.2 ppm 17.0 ho 22.5 heet: SANDY SILT (MLS); dark brown; 70% lines, firm, non-plastic; 30% sand; wet. 19 20 FID = 1.2 ppm 17.0 ho 22.5 heet: SANDY SILT (MLS); dark brown; 70% lines, firm, non-plastic; 30% sand; wet.	2 3	GRAB			0.3 to 0.6 feet: SANDY SILT (MLS); dark non-plastic; 20% sand; dry. 0.6 to 0.7 feet: GRAVELLY SANDY SILT 20% sand; 20% gravel; dry. 0.7 to 1.5 feet: SANDY SILT (MLS); dark non-plastic; 40% sand; dry. 1.5 to 2.5 feet: SILTY SAND (SM); dark b non-plastic; 40% sand; dry.	(MLS); red; 60% fines, firm; brown; 60% fines, firm,	
10 Image: SP10-S-10.0 PHD = 0.3 ppm 11.0 to 11.3 feet: SILTY SAND (SM); light brown; 20% fines, firm,	6 7	GRAB				k brown; 80% fines, firm, —	
13 14 14 15 15 14.8 to 17.0 feet: SANDY SILT; dark brown; 50% fines, soft, low plasticity; 50% sand; wet. 16 14.8 to 17.0 feet: SANDY SILT; dark brown; 70% fines, soft, non-plastic; 30% sand; wet. 17 17.0 to 22.5 feet: SANDY SILT (MLS); dark brown; 70% fines, firm, non-plastic; 30% sand; wet. 18 19 20 20	10 11				non-plastic; 80% sand; moist. 11.3 to 11.8 feet: SANDY SILT (MLS); da		
16 PID = 1.2 ppm non-plastic; 30% sand; wet. 17 17.0 to 22.5 feet: SANDY SILT (MLS); dark brown; 70% fines, firm, non-plastic; 30% sand; wet. 18 19 20	14				11.8 to 14.8 feet: SANDY SILT (MLS); da plasticity; 50% sand; wet.		
18 19 20 non-plastic; 30% sand; wet.		GRAB			non-plastic; 30% sand; wet.		
	18					rk brown; 70% fines, firm, —	
		I	- I - I	<u>, , , , , , , , , , , , , , , , , , , </u>			

		Al				G	eologic	Borehole Log/Well Construction	
Mau	Il Foster &	Alongi,	inc.		Project I 0346.			Well Number Sheet GP10 2 of 2	
(SS)	Well Details	t ery	Loi Ja	mple	Data	6"	gic	Soil Description	
Depth (feet, BGS)		Interval Percent Recovery	Collection Method	Number .	Name (Type)	Blows/6"	Lithologic Column		
21									
22									
23			GW		GP10-W-22.	5		22.5 to 24.8 feet: SANDY SILT (MLS); dark brown; 70% fine	s, firm,
20								non-plastic; 30% sand; dry.	
24									
25					PID = 0.4 ppr	n		24.8 to 39.0 feet: SANDY SILT (MLS); dark brown; 70% fine	s, firm, —
26				,				non-plastic; 30% sand; wet.	
27									
28									
29									
30									
31									
32									
33									
24									
34									
35									
36									
37									
			GW		GP10-W-37.	5			
38									
39								39.0 to 40.0 feet: CLAYEY SILT (CL-ML); dark brown; 100%	fines,
40								very firm, medium plasticity; moist.	
NOTE	ES:								
Ā	Water level dep	th at time o	f drillin	ıg.					

									Borehole Log/Well Cons	struction
Mau	Il Foster &	Alc	ongi, I	nc.		Project I 0346 .			Well Number GP11	Sheet 1 of 2
Proj Star Drill Geo	ect Name ect Location t/End Date er/Equipment logist/Engineer nple Method	11 1/2 Ty	27/2012 t	incoln o 1/27	Ave, /2012	Sunnyside,			TOC Elevation (fee Surface Elevation (Northing Easting Hole Depth Outer Hole Diam	,
Depth (feet, BGS)	Well Details	lei	ai ent very	Collection Method	ample	Data 	s/6"	logic nn	Soil Description	1
Deptl (feet,		Inter	Percent Recovery	Colle Meth	Number	Name (Type)	Blows/6"	Lithologic Column		
2				GRAB		GP11-S-1.0 PID = 1.0 ppi	n		0.0 to 0.3 feet: CONCRETE. 0.3 to 0.6 feet: SANDY GRAVELLY SI 0.6 to 1.0 feet: SILTY SAND (SM); ligh fine; dry. 1.0 to 4.0 feet: SANDY SILT (MLS); de non-plastic; 10% sand; dry.	t brown; 10% fines; 90% sand,
4									4.0 to 5.0 feet: NO RECOVERY	
6				GRAB		GP11-S-5.0 ID = 1.8 ppr	n		5.0 to 6.5 feet: SANDY SILT (MLS); da non-plastic; 10% sand; dry.	ark brown; 90% fines, firm,
8								김희희의	6.5 to 7.3 feet: SILTY SAND (SM); ligh non-plastic; 70% sand; dry. 7.3 to 11.0 feet: SANDY SILT (MLS); o non-plastic; 20% sand; dry.	-
10 11 12	5	Z		GRAB		GP11-S-10.0 ND = 1.6 ppr			11.0 to 13.0 feet: CLAYEY SILT (OL); medium plasticity; wet.	dark brown; 100% fines, firm,
12 13 14 15 16 17 18 19 20 NOTE									13.0 to 14.5 feet: SANDY SILT (MLS); non-plastic; 10% sand; moist.	dark brown; 90% fines, firm,
15				GRAB		GP11-S-15.(14.5 to 15.0 feet: SANDY SILT (MLS); non-plastic; 50% sand; dry. 15.0 to 20.5 feet: SANDY SILT (MLS);	-
16					F	PID = 1.1 ppi	n		non-plastic; 30% sand; wet.	uain biown, 70% IInes, SON, .
17										
18										-
20 NOTE										
$\overline{\nabla}$	Water level dep	oth a	t time of	f drillin	ng.					

Maul	Foster &	Along	gi, Inc		Project N			Well Number	Sheet
			_		0346.0	04.02	?	GP11	2 of 2
Depth (feet, BGS)	Well Details	Interval	Recovery Collection	Method Number	le Data Name (Type)	Blows/6"	Lithologic Column	Soil Description	
21								20.5 to 21.8 feet: CLAYEY SILT (OL); dark brown; medium plasticity; wet.	100% fines, soft,
22			6	w	GP11-W-22.\$	5		21.8 to 24.0 feet: SILTY SAND (SM); dark brown; 2 non-plastic; 80% sand; wet.	20% fines, soft,
23					01 11-00-22.0				
25								24.0 to 25.0 feet: SANDY SILT (MLS); dark brown; non-plastic; 20% sand; wet.	
26					PID = 2.4 ppr	n		25.0 to 26.5 feet: SANDY CLAYEY SILT (CLS); da soft, medium plasticity; 20% sand; wet.	rk brown; 80% fine
27								26.5 to 32.0 feet: SANDY SILT (MLS); dark brown; non-plastic, firm; 20% sand; moist.	80% fines,
28									
29									
30									
31 32									
33								32.0 to 32.5 feet: SANDY SILT (MLS); dark brown; non-plastic; 20% sand; wet. 32.5 to 35.5 feet: SANDY SILT (MLS); dark brown;	
34								non-plastic; 50% sand; moist.	
35									
36								35.5 to 40.0 feet: SANDY CLAYEY SILT (CLS); da firm, medium plasticity; 20% sand; moist.	rk brown; 80% find
37						F			
38			G	w	GP11-W-37.5	D			
39 40									
NOTES	S:								

Maul Foster & Alongi, Inc. Project Number Well Number Since I Project Name Organization Auss. Project Number 1 of 2 Project Landon Project Number If East Landon Auss. Differ Gupmer If East Landon Auss. Startier Auss. Offer Gupmer If East Landon Auss. Startier Auss. Image Landon If East Landon Startier Auss. Image Landon Image Landon Image Landon Image Landon Image Landon <th>. . . .</th> <th></th> <th></th> <th></th> <th></th> <th>Borehole Log/Well Constr</th> <th></th>					Borehole Log/Well Constr		
Project Name Project Location Former Cream Wine Property 111 East Lincoln Ave, Sunnyside, Washington Start/End Data TOC Elevation (feet) Surface Elevation (feet) Start/End Data Marc Chalona, Cascade Drilling L.P./6600 Geoprobe J. Pounds Surface Data Sample Method Sample Data Easting Veil Details Sample Method Soil Description Veil Sample Method Name (Type) Soil Description 1 Veil Soil Description Soil Description 2 Soil Description Soil Description Soil Description 1 Veil Soil Description Soil Description 2 Soil Description Soil Description Soil Description 4 Soil Description Soil Description Soil Description 2 Soil Description Soil Description Soil Description 3 Soil Description Soil Description Soil Soil Soil Soil Soil Soil Soil Soil	Maul Foster &	Alongi, Inc.						
understand Details understand understand	Project Location Start/End Date Driller/Equipment Geologist/Engineer	111 East Linco 6/18/2012 to 6/1 Marc Chalona,	Wine Property In Ave, Sunnyside, 18/2012	Wash	nington	TOC Elevation (feet) Surface Elevation (feet Northing Easting Hole Depth	t) 29.8-feet	
1 0.0 to 0.5 feet: SANDY SILTY GRAVEL (GM): light brown; 30% fines; 20% sand, fine to medium; 50% gravel, rounded; dry. 2 0.5 to 7.0 feet: SANDY SILTY (MLS); dark brown; 80% fines, low plasticity; 20% sand, fine; dry. 3 4 5 6 7 7 8 7 9 10 11 11	Menth Depath Details Menth Details	Interval Percent Recovery Collection Method	Sample Data	Blows/6"	Lithologic Column			
NOTES:	2 3 4 5 6 7 8 9 10	GRA		0		 20% sand, fine to medium; 50% grave 0.5 to 7.0 feet: SANDY SILT (MLS); dark is plasticity; 20% sand, fine; dry. 7.0 to 7.5 feet: SAND (SP): dark brown; 10 dry. 7.5 to 11.0 feet: SANDY SILT (MLS); dark plasticity; 20% sand, fine; dry. 11.0 to 11.5 feet: SILTY SAND (SM); dark fine; dry. 11.0 to 11.5 feet: SANDY SILT (MLS); dark non-plastic, medium stiff; 10% sand, r 16.0 to 21.2 feet: SANDY SILT (MLS); dark fine; dry. 	el, rounded; dry brown; 80% fines, low 00% sand, fine to medium; brown; 80% fines, low brown; 10% fine, 90% sand, k brown; 90% fine, medium; dry.	
	NOTES:							

<i>l</i> laul F	oster &	Alongi, I	Inc.	Project I	Vumbe		Borehole Log/Well Construction Well Number Sheet		
6	Well	_	Sam	0346.0	04.02		GP13 Soil Desc	2 of 2	
(feet, BGS)	Details	Interval Percent Recovery		Name (Type)	Blows/6"	Lithologic Column		i pusi	
221 222 23 24			GW	GP13-W-21.(0		21.2 to 25.2 feet: SILT (ML); darf	k brown; 100% fines, stiff; damp.	
25 26 27 28							25.2 to 29.0 feet: SILTY SAND (S sand, fine to medium; wet.	SM); dark brown; 30% fines; 70%	
			GW	GP13-W-29.()		\ damp.	CL-ML); dark brown; 100% fines, stil L (GM); dark brown; 40% fines; 60% rounded, packed; damp.	
OTES:									

Maul Foster &	Alongi Inc	Project Numb		Borehole Log/Well Cons	truction Sheet
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	Former Cream W 111 East Lincoln 6/18/2012 to 6/18/	0346.04.02 ine Property Ave, Sunnyside, Wasi	2 hington	<i>GP14</i> TOC Elevation (feet Surface Elevation (f Northing	1 of 2
Clearth Depth Details Details	Interval Percent Recovery Collection Method	mple Data Jagump Name (Type)	Lithologic Column	Soil Description	
$\Box = 1$ 1 2 3 4 5 6 7 8 9 10 11 12 11 12 13 14 15 16 17 18 19 20 <i>Notes:</i>	GRAB	GP14-S-12.0		 0.0 to 0.5 feet: SANDY SILTY GRAVEL 20% sand, fine to medium; 50% gra 0.5 to 6.5 feet: SANDY SILT (MLS); dat plasticity; 20% sand, fine; dry. 6.5 to 7.2 feet: SAND (SP): dark brown, dry. 7.2 to 12.0 feet: SANDY SILT (MLS); dat plasticity; 20% sand, fine; dry. 12.0 to 12.4 feet: SILTY SAND (SM); dat fine; dry. 12.4 to 15.8 feet: SANDY SILT (MLS); of non-plastic, medium stiff; 10% sand 15.8 to 22.1 feet: SANDY SILT (MLS); of non-plastic, medium stiff; 10% sand 	avel, rounded; dry. k brown; 80% fines, low i 100% sand, fine to medium; ark brown; 80% fines, low ark brown; 10% fine, 90% sand, dark brown; 90% fine, d, medium; dry.
NOTES:		II	<u></u>		
$ar{}$ Water level dep	oth at time of drillin	g.			

/ aul	Foster & A	long	ji, In	С.	Project I			Well Number	Sheet
		-			0346.0	04.02	·	GP14	2 of 2
Uepun (feet, BGS)	Well Details	Interval Percent	Recovery	Sam	ple Data יפק Name (Type) א	Blows/6"	Lithologic Column	Soil Description	1
21	Σ								
22			0	W	GP14-W-22.0	b		22.1 to 26.1 feet: SILT (ML); dark brow	vn: 100% fines. stiff: damp.
23								· · · · · · · · · · · · · · · · · · ·	,,, , ,
24 25									
26									
27								26.1 to 32.0 feet: SILTY SAND (SM); o sand, fine to medium; wet.	lark brown; 30% fines; 70%
28									
29									
30									
31									
32									
33			0	ЭW	GP14-W-32.0	b		32.0 to 34.5 feet: SILTY CLAY (CL-ML damp.	.); dark brown; 100% fines, si
34									
IOTES	S:								

									Borehole Log/Well Constru	ction	
Mau	Il Foster &	Alor	ngi, l	nc.		Project I 0346 .0			Well Number GP15	Sheet 1 of 2	
Proj Star Drill Geo	ect Name iect Location t/End Date er/Equipment ologist/Engineer ople Method	111 6/19/ Marc	East Li /2012 t	ncoln o 6/19	Ave, /2012	roperty Sunnyside, le Drilling L.			TOC Elevation (feet) Surface Elevation (feet) Northing		
Depth (feet, BGS)	Well Details	Interval	Percent Recovery	Collection Method co	Number ald	Data Name (Type)	Blows/6"	Lithologic Column	Soil Description		
1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 NOTE				GRAB		GP15-S-14.0			 D. to 0.5 feet: SANDY SILTY GRAVEL (GM 20% sand, fine to medium; 50% gravel, 20% sand, fine; 50% gravel, 5 to 6.7 feet: SANDY SILT (MLS); dark brown; 100 dry. D. 7 to 7.2 feet: SAND (SP): dark brown; 100 dry. D. 11.2 feet: SANDY SILT (MLS); dark b plasticity; 20% sand, fine; dry. D. 11.2 feet: SILTY SAND (SM); dark b fine; dry. D. 12.0 feet: SILTY SAND (SM); dark b fine; dry. D. 17.0 feet: SANDY SILT (MLS); dark mon-plastic, medium stiff; 10% sand, me D. 10. 24.0 feet: SANDY SILT (MLS); dark mon-plastic, medium stiff; 10% sand, me 	rown; 80% fines, low	
NOTE	<u>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</u>					1	L	<u>1, 1, 1, 1, 1, 1, 1</u>			
Ţ	Water level de	oth at t	time of	drillin	ig.						

Maul Foster & Alongi, Inc. Project Number 0346.04.02 Well Number GP15 Sheet 2 of 2 09 09 09 00 00 00 00 00 00 00 00 00 00 0	N <i>A</i>	I Castan P	A I			_		<u>, 9010</u>	gic	Borehole Log/Well Cons	struction
Well Details Sample Data Sail Description 21 August 2000 August	wau	I FOSTER &	Along	yı, in	IC.					Well Number GP15	Sheet 2 of 2
22 23 24 25 26 27 28 29 30 31 32 34 35 GW GP15-W-34.0 GW GP15-W-	Depth (feet, BGS)		Interval Percent	Recovery	Collection Method Method	ple Data				Soil Description	
	21 22 23 24 25 26 27 28 29 30 31 32 33				GW	GP15-W	-22.0			28.0 to 34.2 feet: SILTY SAND (SM); o sand, fine to medium; wet. 34.2 to 36.0 feet: SILTY CLAY (CL-ML	lark brown; 30% fines; 70%
										aamp.	
	NOTE	ïS:									
NOTES:											

Mault Foster & Alongi, Inc. Project Number (34.04.02 Weil Number (PTP) Weil Number (PTP) Sheet (1 of 2 Project Loadon Start End Date Geologie Engineer Project (2000) Project (2000) TO Elivation (Red) Nothing (PTP) TO Elivation (Red) Nothing (PTP) Start End (PTP) Bit End Date Geologie Engineer Project (2000) Start End (PTP) Start End (PTP) Start End (PTP) Start End (PTP) Start End (PTP) Start End (PTP) Image Marching Geologie Engineer Image Marching Cancer (PTP) Start End (PTP) Start End (PTP)							G	eologic	Borehole Log/Well Cons	struction
Project Name Project Location Former Cream Wine Property 111 East Lincoln Ave, Sunnyside, Washington Start/End Dilar Education (feet) TOC Elevation (feet) Surface Elevation (feet) Start/End Dilar Geologist/Engineer J. Pounds Sample Action (feet) Sample Delta Sample Method J. Pounds Sample Delta Sail Description (fig. grave) (fig. grave) Sample Delta Sail Description (fig. grave) (fig. grave) (fig. grave) (fig. grave) Sail Description (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave) (fig. grave)	Maul	Foster &	Alongi, l	nc.		-			Well Number GP16	
Solid Description Solid Description 1	Project Start/E Driller/ Geolog	t Location End Date /Equipment gist/Engineer	111 East L 6/19/2012 t Marc Chale	incoln to 6/19	Ave, /2012	Sunnyside,		-	Surface Elevation (i Northing e Easting Hole Depth	feet) 35.0-feet
1 2 0.0 to 0.5 feet: SANDY SILTY GRAVEL (GM); light brown; 30% fines; 20% sand, fine to medium; 50% gravel, rounded; dry. 1 0.5 to 3.5 feet: SANDY SILT (MLS); dark brown; 80% fines, low 2 0.5 to 9.2 feet: SANDY SILT (MLS); dark brown; 80% fines, low 4 5 6 7 8 9 10 11 11 11 12 11.2 to 12.7 feet: SILT (ML); dark brown; 100% fines, stiff.	i			~ Sa	ample	Data		6		
1 20% stand, time to meduum, 50% gravel, rounded; dry. 2 0.5 to 8.5 feet; SANDD VSLT (MLS); dark brown; 80% fines, low 9 8.5 to 9.2 feet: SAND (SP); gray; 100% sand; wet. 9 9.2 to 11.2 feet: SAND (SP); gray; 100% sand; wet. 10 11.2 to 12.7 feet: SILT (ML); dark brown; 50% fines, low 11 11.2 to 12.7 feet: SILT (ML); dark brown; 100% fines; stiff.	Depth (feet, BG	Details	Interval Percent Recovery	Collectio Method			Blows/6"	Lithologic Column		
NOTES:	_ 2 _ 3 _ 4 _ 4 _ 5 _ 5 _ 6 _ 7 _ 6 _ 7 _ 7 _ 8 _ 7 _ 7 _ 8 _ 7 _ 7 _ 10 _ 11 _ 11	Ž		GRAB		GP16-S-15.0			20% sand, fine to medium; 50% gr 0.5 to 8.5 feet: SANDY SILT (MLS); da plasticity; 20% sand, fine; dry. 8.5 to 9.2 feet: SAND (SP); gray; 100% 9.2 to 11.2 feet: SANDY SILT (MLS); d plasticity; 50% sand, fine; dry. 11.2 to 12.7 feet: SILT (ML); dark brow 12.7 to 23.0 feet: SANDY SILT (MLS);	avel, rounded; dry rk brown; 80% fines, low sand; wet ark brown; 50% fines, low n; 100% fines; stiff dark brown; 80% fines, soft,
	NOTES:	:								
\bigtriangledown Water level depth at time of drilling.	\	Vator lavel de-	th at times -1	f drilli-	a					

Mau	I Foster &	Alongi,	Inc.		Project N	lumb	er	Borehole Log/Well C Well Number GP16	Sheet 2 of 2
S)	Well		~ Si	ample	0346.04.02			GP16 Soil Descr	
Depth (feet, BGS)	Details	Interval Percent Recoverv	Collection Method 20	Number ⁻	Name (Type)	Blows/6"	Lithologic Column		,
21									
22			GW		GP16-W-22.0)			
23								23.0 to 29.0 feet: SILT; dark brow	n; 100% fines; low plasticity; stiff; d
24									
25									
26									
27 28									
20									
30								29.0 to 33.2 feet: SANDY SILT (N 50% sand, fine; wet.	ILS); dark brown; 50% fines, soft; [–]
31									
32									
33			GW		GP16-W-32.0	,			
34								33.2 to 35.0 feet: SILT; dark brow	n; 100% fines, stiff, dry.
35									
NOTE	S:								
$\overline{\Delta}$	Water level dep								

Mail Foster & Alongi, Inc. Propert Number 036.002 Weit Number 0471 Weit Number 0471 Weit Number 1 of 2 Propert Loads Former Cream Wine Property 111 East Lindon Are, Samyakin, Mashington Sandschulze Divation (feet) TOC Elevision (feet) Nothing Elevision (feet) TOC Elevision (feet) Nothing Differ Equipment J. Founds Sample Loads Sample Loads Sample Loads Gen 2000 Marc Chalance, Cascade Datting LP.6600 Geoprobe Easting Hole Capits Botting 40.0-feet Cater Hole Dam 225-inch Gen 2000 Marc Chalance, Cascade Datting LP.6600 Geoprobe Sal Description 0.0 to 5 feet. SALPY Stut TY GRAVEL (604), Bipt hown; 30% fines, 20% sand, fine to medium; 30% grade.counted: dr; 0.5 to 11.3 feet. SALPY Stut TY GRAVEL (604), Bipt hown; 30% fines, Jow 1 Image: Cause of the same fine of the tot medium; 30% grade.counted: dr; 0.5 to 11.3 feet. SALPY Stut TY GRAVEL (604), Bipt hown; 30% fines, Jow 2 Gen 2 Image: Cause of the same fine of the tot medium; 30% grade.counted: dr; 0.5 to 11.3 feet. Stut TY GRAVEL (604), Bipt hown; 30% fines, Jow 1 Image: Cause of the same fine	Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	Former Cream W 111 East Lincoln 6/19/2012 to 6/19 Marc Chalona, Ca J. Pounds	0346.04 /ine Property / Ave, Sunnyside, W //2012 ascade Drilling L.P.	4.02 /ashington	GP17 TOC Elevation (feet) Surface Elevation (feet) Northing	
Project Name Project Location Former Cream Wine Property 111 East Lincoln Ave, Sumpside, Washington TOC Elevation (feet) Start/End Date 6/9/2012 to 6/19/2012 Northing Driller/Equipment Marc Chalona, Cascade Drilling L.P./6600 Geoprobe Sample Method Easting Viel J. Pounds Sample Data Viel Veli Veli Viel Veli Veli Viel Veli Veli Viel Veli 0.0 to 0.5 feet: SANDY SiLTY GRAVEL (GM); light brown; 30% fines, low 1 Veli Veli 0.0 to 0.5 feet: SANDY Silt (MLS); dark brown; 60% fines; roy-	Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	111 East Lincoln 6/19/2012 to 6/19 Marc Chalona, C J. Pounds	Ave, Sunnyside, W /2012 ascade Drilling L.P.	_	TOC Elevation (feet) Surface Elevation (feet) Northing	
1 2 0	bth BGSS) Details	al snt very Sd Sd Sd			Hole Depth	
1 2 0	e e l	nterv Perce Seco Colle		8lows/6" .ithologic Column	Soil Description	
20	1 2 3 4 5 6 7 8 9 10	GRAB			 20% sand, fine to medium; 50% gravel, rd 0.5 to 10.5 feet: SANDY SILT (MLS); dark bro plasticity; 20% sand, fine; dry. 10.5 to 11.9 feet: SILTY SAND (SM); dark bro sand, fine; damp. 11.9 to 15.6 feet: SILT (ML); dark brown; 100 15.6 to 19.5 feet: SANDY SILT (MLS); dark br medium plasticity; 20% sand, fine; damp 	ounded; dry wn; 80% fines, low

								Borehole Log/Well Con	
Mau	I Foster & /	Alongi,	Inc.	Project Number 0346.04.02				Well Number GP17	Sheet 2 of 2
Depth (feet, BGS)	Well Details	Interval Percent Recovery	Collection Method	Number ald	Data Name (Type)	Blows/6"	Lithologic Column	Soil Description	on
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_ 40									
NOTE	S:								
$\overline{\nabla}$	Water level dept	th at time o	of drillin	na.					

APPENDIX C

SAMPLING AND ANALYSIS PLAN



SAMPLING AND ANALYSIS PLAN

FORMER CREAM WINE PROPERTY

Prepared for **PORT OF SUNNYSIDE** SUNNYSIDE, WA

September 24, 2012 Project No. 0346.04.02

Prepared by Maul Foster & Alongi, Inc. 2001 NW 19th Avenue, Suite 200 Portland, Oregon 97209



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SAMPLING AND ANALYSIS PLAN

FORMER CREAM WINE PROPERTY

The material and data in this report were prepared under the supervision and direction of the undersigned.

MAUL FOSTER & ALONGI, INC.

James Peale, LHG Senior Geologist

Justin Pounds Project Environmental Scientist

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bgs COC CSIA DNAPL Ecology FSDS IDW IPG LCS MFA ml MS/MSD MTCA PCE PID Port Property QA QC RI SAP	 below ground surface chain of custody compound-specific isotope analysis dense nonaqueous-phase liquid Washington State Department of Ecology field sampling data sheet investigation-derived waste Integrated Planning Grant laboratory control sample Maul Foster & Alongi, Inc. milliliter matrix spike and matrix spike duplicate Model Toxics Control Act tetrachloroethene photoionization detector Port of Sunnyside 111 East Lincoln Avenue, Sunnyside, Washington quality assurance quality control remedial investigation sampling and analysis plan
RI	remedial investigation
-	
SDG	sample delivery group
USEPA	U.S. Environmental Protection Agency
VOA	volatile organic analysis
VOC	volatile organic compound
WAC	Washington Administrative Code
ZymaX	ZymaX Forensics

Maul Foster and Alongi, Inc. (MFA) has prepared this Sampling and Analysis Plan (SAP) consistent with the requirements of Washington Administrative Code (WAC) 173-340-820 for the Port of Sunnyside (Port) to guide the collection of soil and groundwater samples during the remedial investigation (RI) at 111 East Lincoln Avenue, Sunnyside, Washington (the Property) (see Figure 1 of the RI work plan).

The work described in this SAP is being conducted under an Integrated Planning Grant (IPG) for the Port awarded by the Washington State Department of Ecology (Ecology). The IPG will allow the Port to assess the environmental condition of the Property. This SAP describes procedures for collection, preservation, and analysis of samples of various environmental media at the site, and will be used for the various phases and tasks of the project. The goal of the sampling is to obtain reliable data about physical, environmental, and chemical conditions at the site that will support the goals and objectives of the RI.

This SAP has been prepared consistent with the requirements of Ecology's Guidance on Sampling and Data Analysis Methods (Ecology, 1995) and Guidance for Preparing Quality Assurance Project Plans for Environmental Studies (Ecology, 2004), as well as the 1993 Model Toxics Control Act (MTCA) (WAC Chapter 173-340).

1.1 Investigation Objectives

The primary objective of the SAP is to establish procedures for the collection of data of sufficient quality to evaluate the nature and extent of impacted soil and groundwater at the site. The RI work plan references relevant procedures and protocols from this SAP, and identifies specific media to be sampled and the locations, frequency, and types of field or laboratory analyses that will be conducted.

Soil and groundwater monitoring will be investigated on the Property to better define the nature and extent of impacts. Soil borings will be advanced to approximately 40 feet below ground surface (bgs). Soil samples will be collected from the surface, 5.0 feet bgs, 10.0 feet bgs, 15.0 feet bgs, and the top of the water table, if applicable. All soil samples will be screened using a photoionization detector (PID) or an organic vapor monitor. Visual and olfactory observations concerning each sample will also be recorded. If there is visual or olfactory evidence of impacts, the sample depths may be altered in order to collect samples in and just beneath the impacted areas. Once the investigation is complete, at least one soil sample will be analyzed from each boring; the sample will be taken at the depth at which the feature of interest may have impacted soil. For example, the samples collected at the level of the underground piping, if established by the utility clearance contractor, will be analyzed if there is no evidence of soil impacts. If impacts are identified, the sample in and just below the impacted areas will be analyzed. Groundwater impacts will be further delineated in the shallow water-bearing zone and from the lower extent of the surficial aquifer to evaluate potential density-driven impacts characteristic of a dense nonaqueous-phase liquid (DNAPL) release. These depths vary and will be verified during the reconnaissance drilling prior to groundwater sampling.

The SAP is meant to ensure that reliable data about physical, environmental, and chemical conditions at the site are obtained in support of the development of remedial actions at the site if these are necessary to protect human health and the environment. It provides a consistent set of procedures that will be used throughout the various work phases identified in the work plan. If a phase of work or otherwise unforeseen change in methodology requires modification to the SAP, an addendum may be prepared that describes the specific revision(s), or the revisions will be documented in the RI report. Procedures are provided that will be used to direct the investigation process so that the following conditions are met:

- Data collected are of high quality, representative, and verifiable.
- Use of resources is cost effective.
- Data can be used by the Port and Ecology to support selection and implementation of remedial actions, if necessary.

This SAP describes methods that will be used for sampling environmental media, decontaminating equipment, and managing investigation-derived waste (IDW). It also includes procedures for collecting, analyzing, evaluating, and reporting useful data. The SAP includes all currently foreseen analytical methods that may be used for analyzing environmental samples. The document includes quality assurance (QA) procedures for field activities, sampling QA and quality control (QC) procedures, and data validation.

2.1 Access

MFA personnel will notify the Port, the operator of the Property, and the Ecology project manager before beginning each phase of work at the site. Access to the Property is allowed at all reasonable times for the purpose of overseeing work performed under the IPG.

2.2 Site Preparation and Coordination

Before field sampling programs begin at the site, public and private utility-locating services and other information sources will be used to check for underground utilities or pipelines near each boring or test pit location. MFA will coordinate fieldwork with the Port to define the locations of possible on-site utilities and piping, or other subsurface obstructions. Ecology will be notified a minimum of 48 hours before site activities begin.

Exploratory borings will be used to evaluate the nature and extent of potential soil and groundwater impacts at the site. The proposed locations of soil and reconnaissance groundwater borings are shown on Figure 2 of the RI work plan.

Soil and groundwater samples will be collected using a truck-mounted hydraulic direct probe (i.e., GeoprobeTM). The Geoprobe will be used to advance all soil borings and collect soil and reconnaissance groundwater samples. Additional details are provided below.

3.1 Geoprobe Borings

Continuous soil samples will be collected with the Geoprobe, using a closed-piston sampling method. Sampling will be completed as follows: coring will start at the surface with a 60-inch-long, 1.5-inch-inside-diameter, stainless steel macrocore sampler equipped with a new acetate liner and a piston tip. The sampler will then be pushed to the top of the desired sample depth. The piston tip will be pulled back to the surface, and the macrocore sampler will then be driven 60 inches to collect the sample. If loose or saturated soils are encountered, a basket retainer will be placed inside the shoe of the macrocore sampler. When the macrocore sampler has been extracted, the acetate liner will be removed and cut open, exposing the soil sample. This procedure will be repeated until the boring is completed.

Soil and groundwater samples will be collected with the Geoprobe, as described in Sections 4 and 5.

Grab groundwater samples will be collected from the Geoprobe borings as follows:

- Samples will be collected from the water table and from the lower extent of the surficial aquifer to evaluate potential density-driven impacts characteristic of a DNAPL release. These depths vary and will be verified during the reconnaissance drilling prior to groundwater sampling.
- Groundwater samples will be collected from each boring, using a stainless steel, 2-inch-outer-diameter, 4-foot-long Geoprobe water sampler. The water sampler will be advanced to the desired depth. The casing around the water sampler will be pulled back, exposing 3 to 4 feet of screen. Water will then be allowed to flow into the screen. The water level will be allowed to stabilize for at least 15 minutes. Wherever possible, one casing volume (and a minimum of 1 liter) will be purged before sample collection. Groundwater will be purged using 0.25-inch polyethylene tubing attached to a vacuum pump.

- Some of the water will be decanted into a small beaker, and field parameters (pH, specific conductance, dissolved oxygen, temperature, and oxidation/reduction potential) will be measured.
- Approximately 20 milliliters (ml) of sample will also be placed in an unpreserved volatile organic analysis (VOA) vial. The vial will be covered with aluminum foil and allowed to sit in a warm environment for approximately ten minutes; the foil will be pierced with the tip of a PID, and the headspace will be measured. This information will provide a semiquantitative measurement of the presence of volatile organic compounds (VOCs) in groundwater.
- Samples will be labeled, preserved, and shipped to the analytical laboratory under standard chain-of-custody (COC) procedures.
- Only one groundwater sample will be collected with disposable tubing, which will then be disposed of properly. Other equipment used for water sample collection will be decontaminated both before its use at the facility and after each sample is collected.

3.2 Boring Decommissioning

After each boring is completed, it will be decommissioned with bentonite chips or bentonite grout in accordance with the WAC for Minimum Standards for Construction and Maintenance of Wells (WAC 173-160, 1998). If a temporary well was installed, the polyvinyl chloride casing will be removed before decommissioning. The boreholes will be abandoned by filling them with bentonite chips, granules, or grout slurry through the Geoprobe rod as these rods are removed. When the top of the bentonite chip or granule layer has been brought above the static water level, water will be added to hydrate the bentonite chips or granules. The volume required to fill the borehole and the actual amount of bentonite chips, granules, or grout added will be recorded on a standard MFA boring log.

3.3 Exploratory Boring Logging and Documentation

A log of soil samples from each boring will be prepared in the field by a geologist, hydrogeologist, or engineer licensed in the state of Washington or working under the direct supervision of a geologist or engineer licensed in the state of Washington. Boring logs will include the project name and location, the name of the drilling contractor, the drilling method, the sampling method, soil sample depths, blow counts, and a description of soil encountered. Soil samples will be described using American Society for Testing and Materials designation D2488-00, Standard Practice for Description and Identification of Soils (Visual-Manual Procedures). The standard involves describing color, grain size, moisture content, density, organic matter, and other observed characteristics.

3.4 Surveying

The horizontal location of all borings will be surveyed using a Trimble[™] global positioning unit capable of subfoot accuracy.

3.5 Equipment Cleaning and Decontamination

3.5.1 Drilling Equipment

The working area of the drill rig and all downhole drilling equipment will be steamcleaned or hot-water pressure-washed both after arrival on site and after use in each borehole or monitoring well. The drilling equipment will be thoroughly cleaned, in designated areas, before it leaves the site. Decontamination fluids will be transferred to 55-gallon drums approved by the Washington State Department of Transportation, and will be managed according to the procedures outlined in Section 3.6.

3.5.2 Sampling Equipment

Sampling equipment and reusable materials that contact the soil will be decontaminated on site and between sampling locations. Decontamination will consist of the following:

- Tap-water rinse (may consist of an equivalent high-pressure, hot-water rinse)
- Nonphosphate detergent wash, consisting of a dilute mixture of Liqui-Nox and tap water (visible soil to be removed by scrubbing)
- Distilled-water rinse
- Methanol solution rinse (1:1 solution with distilled water)
- Final distilled-water rinse

Before the electronic meter used to measure water levels is used at the site, the entire reel of water-level line will be decontaminated as described above. The portion of the water-level detector that enters the water (the tip) and a 5-foot section above it will also be decontaminated after use in each well.

Liquid generated by decontamination will be properly handled, according to procedures specified in Section 3.6.

3.6 Management of Investigation-Derived Waste

IDW will include disposable unsaturated and saturated soil cuttings, purged groundwater, decontamination fluids, and sampling debris. The IDW will be segregated into solids; liquids; and sampling debris consisting of personal protective equipment, disposable pump discharge tubing, and disposable bailers. IDW will be

stored in a designated area on the Property, in 55-gallon drums approved by the Washington Department of Transportation.

Drums (tops and sides) will be labeled with their contents, the volume of material, the date of collection, and the origin of the material. The waste drums will be sealed, secured, and transferred to a designated, secured area on the Property at the end of each workday. The waste will be stored in the designated holding area until it has been characterized. Hazardous-waste and/or risk labels will be placed on the drums after characterization, if necessary.

Analytical data from the soil-sampling and groundwater sampling activities previously described will be used to characterize the soil cuttings, drilling fluids, purge water, and decontamination fluids generated during drilling and monitoring well sampling. After the work is complete and analytical results are received, IDW will be characterized and disposed of appropriately.

4 SOIL SAMPLING

During drilling, soil samples will be collected for lithologic description, field screening, and chemical analyses, as described below. The sampling interval and depth are specified in the work plan.

4.1 Procedure

Before soil samples are collected for chemical analyses, the sample collection device will be decontaminated according to the procedures described in Section 3.6. After the sampling device is retrieved from the borehole, it will be placed on clean plastic sheeting before it is opened. New disposable gloves will be used before the collection of each sample. Samples will be prepared, handled, and documented as follows:

- Soil sampling equipment will be decontaminated before it is used at each sampling location (see Section 3.5).
- Samples will be obtained from intervals specified in the work plan, using a gloved hand or decontaminated stainless steel spoon, trowel, or knife.
- Soil that will be analyzed for VOCs will be transferred directly from freshly exposed soil into laboratory-supplied containers, using the appropriate 5035A sampling procedures. The samples will be collected with a new 5-milligram sampler and placed in 40-ml VOA vials. Three pre-tarred VOA vials will be collected, two with 5 milligrams of soil and preserved with sodium bisulfate monohydrate and one with 10 milligrams of soil and preserved with methanol. A soil sample in a jar with a minimum 8-ounce capacity will accompany the VOA vials that may be analyzed for petroleum hydrocarbons and metals.
- Coarse-grained particles (larger than 0.25 inch) may be removed before the sample is placed in a laboratory-supplied container. The amount of coarse-grained material will be recorded on the soil field sampling data sheet (FSDS; see sample form in the appendix).
- The percentage of coarse-grained material (larger than 0.25 inch) to finegrained material (smaller than 0.25 inch) will be estimated.
- Soil samples will be transferred directly from the sampling device or stainless steel bowl into laboratory-supplied glass jars, using a gloved hand or decontaminated stainless steel spoon, trowel, or knife.
- Filled containers will be labeled, packed in iced shipping containers with COC documentation (see Section 6), and delivered to the contract laboratory.

- Sampling information will be recorded in a field notebook, on an FSDS, and on the COC form.
- QC samples will include at least one duplicate sample for every 20 samples collected.

4.2 Nomenclature

Soil samples will be labeled with a prefix to describe the type of sampling, a location identification number, and sample depth. For example, a soil sample collected from a Geoprobe boring at location 3 and at 20 feet bgs will have the sample number GP3-S-20.0.

Duplicate soil samples will replace the location number with "DUP" and the sample will have the same sample name as the primary sample. A duplicate of the abovementioned sample would appear as GP3DUP-S-20.0.

The depth interval will be specified as the middle of the sampling interval. Samples will be documented on an FSDS (see the appendix) and the exploratory boring log. The sample interval and the amount of material recovered will be recorded on the boring log.

4.3 Laboratory Analyses for Soil Samples

Soil samples will be analyzed for the parameters specified in the work plan, using the following methods:

- Gasoline- and diesel-range organics by the Northwest Total Petroleum Hydrocarbon Method (NWTPH-Gx and NWTPH-Dx, respectively)
- Metals (lead), if gasoline-range organics are detected, using U.S. Environmental Protection Agency (USEPA) Method 6010/6020
- VOCs by USEPA Method 8260B, using a closed-system purge and trap; and extraction for VOCs in soil, using USEPA Method 5035A

During drilling, reconnaissance groundwater samples will be collected for chemical analyses, as described below. The sampling depth is specified in the work plan.

5.1 Procedure

Groundwater samples will be collected using a 4-foot-long, 1.5-inch-outsidediameter, Geoprobe-type water sampler. The sampler will be pushed to the desired depth and pulled back approximately 4 feet, exposing the internal stainless steel well point screen. Groundwater samples will be collected using conventional methods associated with the direct-push drilling method (e.g., inertia or peristaltic pump). Before groundwater sampling, the borehole will be purged to minimize solids and ensure that a representative sample is collected.

Sampling methods will be designed to collect samples representative of in situ groundwater. Reconnaissance groundwater samples will be extracted using a peristaltic pump and dedicated tubing if head levels allow use of a suction lift pump. Water samples will be collected in 500-ml polyethylene bottles, 1-liter glass amber bottles, and VOA vials.

The inertia pump will be used if the groundwater is too deep to retrieve with a peristaltic pump. Groundwater will be drawn into single-use tubing with a foot-valve using the tubing as an inertia pump. After groundwater is drawn into the tubing, the tubing will be retracted slowly from the rods and coiled. Groundwater collected for VOC analysis will be transferred directly from the tubing into the laboratory-supplied containers during retraction, in a manner that will minimize the loss of VOCs.

Groundwater will be transferred directly into laboratory-supplied containers specific to the analysis required. The following field parameters will be measured: temperature, specific conductance, pH, and turbidity.

5.2 Nomenclature

Reconnaissance groundwater samples will be labeled with a prefix to describe the type of sampling, a location identification number, and the midpoint of the screened or open area sample depth. For example, a reconnaissance groundwater sample collected from a Geoprobe boring at location 4 and with an open screen from 30 feet to 35 feet bgs will have the sample number GP4-W-32.5.

Duplicate reconnaissance groundwater samples will replace the location number with "DUP" and the sample will have the same sample name as the primary sample. A duplicate sample of the abovementioned sample would appear as GP4DUP-W-32.5.

Samples will be documented on an FSDS (see the appendix) and the exploratory boring log; documentation will include the screened interval or open space, equipment used, water parameters (i.e., temperature, specific conductance, pH, and turbidity), and the amount of water purged before sampling. The screened interval or open borehole will be recorded on the boring log.

5.3 Laboratory Analyses for Groundwater Samples

Groundwater samples will be analyzed for the parameters specified in the work plan, using the following methods:

- Gasoline- and diesel-range organics by NWTPH-Gx and NWTPH-Dx, respectively
- Total and dissolved metals (lead), using USEPA Method 6010/6020 if gasoline-range organics are detected
- VOCs by USEPA Method 8260B
- Compound-specific isotope analysis (CSIA) if tetrachloroethene (PCE) is detected by USEPA Method 8260B

6.1 Chemicals of Interest

Potential chemicals of interest include diesel- and lube-oil-range total petroleum hydrocarbons, lead, and VOCs.

6.2 Laboratory Test Methods and Reporting Limits

In accordance with the QA/QC requirements set forth in sampling plan, Specialty Analytical of Clackamas, Oregon, will perform the analyses for gasoline and diesel, using NWTPH-Gx and -Dx methods for gasoline- and diesel-range organics, respectively; for metals (lead), using USEPA Method 6010/6020; and for VOCs, using USEPA Methods 8260B and prep method for soil, 5035A.

ZymaX Forensics (ZymaX) will conduct groundwater analysis for VOCs and CSIA. Samples will initially be analyzed for VOCs; in the event that VOCs/PCE is detected, CSIA will be completed.

6.3 QA/QC Samples Generated in Field

To ensure that field samples and quantitative field measurements are representative of the media collected and the conditions being measured, sample collection and measurement methods will follow procedures documented in Section 4. QC samples collected in the field include field equipment rinsate blanks, trip blanks, and field duplicates. Duplicate field samples and field blanks will be submitted blind to the laboratory. Field QC samples will be clearly identified on the FSDSs. Field and trip blank results may indicate possible contamination introduced by field or laboratory procedures; field duplicates indicate overall precision both in field and in laboratory procedures.

6.4 Laboratory Operations

In the laboratory, QC samples will include matrix spike/matrix spike duplicate (MS/MSD) samples, laboratory control samples (LCSs), surrogate spike samples, and method blanks, as well as other QC samples and procedures as required by the individual methods.

6.5 Sample Containers, Preservation, and Handling

6.5.1 Preservation

Water samples for gasoline and VOC analyses will be collected in hydrochloric-acidpreserved, 40-ml, glass VOA vials. Water samples for diesel-range organics will be collected in unpreserved, 1-liter, amber glass bottles. Water samples for metals will be collected in sulfuric-acid-preserved, 500-ml, polyethylene bottles. Soil samples for VOC analysis will be collected in jars, using the 5035A syringe method. All other soil samples will be collected in glass jars. The samples will be stored in iced coolers at 4° \pm 2° Celsius. Sample containers will be supplied by the laboratory.

6.5.2 Sample Packaging and Shipping

Samples will be stored in iced shipping containers or a refrigerator designated for samples, and then transported by courier to Specialty Analytical and ZymaX in iced shipping containers with a custody seal affixed.

6.6 Sample Custody

Sample custody will be tracked from point of origin through final analysis and disposal, using a COC form, which will be filled out with the appropriate sample and analytical information as soon as possible after samples are collected. For purposes of this work, custody will be defined as follows:

- In plain view of MFA field representatives
- Inside a cooler that is in plain view of MFA field representatives
- Inside any locked space such as a cooler, locker, car, or truck to which the MFA field representatives have the only available key(s)

The following items will be recorded on the COC form:

- Project name
- Project number
- MFA project manager
- Sampler name(s)
- Sample number, date and time collected, media, number of bottles submitted
- Requested analyses for each sample
- Type of data package required
- Turnaround requirements
- Signatures and printed names of all persons having custody of samples, organization name, date, and time of transfer
- Additional instructions or considerations that would affect analysis (nonaqueous layers, archiving, etc.)

Persons in possession of the samples will be required to sign and date the COC form whenever samples are transferred between individuals or organizations. The COC will be included in the shipping containers with the samples, and the containers will be sealed with a laboratory custody seal. The laboratory will implement its in-house custody procedures, which begin when sample custody is transferred to laboratory personnel.

If samples are shipped via air or ground transportation (by a third party), the following custody procedures will be followed. The COC will be signed and custody will be relinquished. The signed COC(s) will be packed in shipping containers with the samples, and a custody seal will be placed on the container to reduce the potential for tampering. The samples will be shipped with proper shipping insurance. Signed documentation will be obtained from the shipper, acknowledging receipt of the samples. The shipping document will be used to track the samples while they are in transit to the laboratory.

At the analytical laboratory, a designated sample custodian will accept custody of the received samples and will verify that the COC form matches the samples received. The shipping container or set of containers is given a laboratory identification number, and each sample is assigned a unique sequential identification number that includes the original shipping container identification number.

6.7 Field Instrumentation

Field instruments will be used during the investigations. The following field equipment will require calibration before use and periodically during sampling activities:

- pH meter
- Conductivity meter
- Dissolved oxygen
- Oxygen/reduction potential meter
- Turbidity meter
- Thermometer
- PID
- Electronic water level probe

Field instrument calibration and preventive maintenance will follow the manufacturers' guidelines, and any deviation from the established guidelines will be documented. Generally, field instruments will be calibrated daily before work begins. Field personnel may decide to calibrate more than once a day if inconsistent or unusual readings occur, or if conditions warrant more frequent calibration. Calibration activities will be recorded in instrument-specific logbooks or field notebooks.

6.7.1 Field Calibration

Calibration procedures, calibration frequency, and standards for measurement will be conducted according to manufacturers' guidelines. To ensure that field instruments are properly calibrated and remain operable, the following procedures will be used, at a minimum:

- Operation, maintenance, and calibration will be performed in accordance with the instrument manufacturers' specifications.
- All standards used to calibrate field instruments will meet the minimum requirements for source and purity recommended in the equipment operation manual. Standards will be used before any expiration dates that may be printed on the bottle.
- Acceptable criteria for calibration will be based on the limits set in the operations manual.
- All users of the equipment will be trained in the proper calibration and operation of the instrument.
- Operation and maintenance manuals for each field instrument will be brought to the site.
- Field instruments will be inspected before they are taken to the site.
- Field instruments will be calibrated at the start and end of each work period. Meters will be recalibrated, as necessary, during the work period.
- Calibration procedures (including time, standards used, and calibration results) will be recorded in a field notebook. Although not reviewed during routine QA/QC checks, the data will be available if problems are encountered.

6.7.2 Preventive Maintenance

Preventive maintenance of field instruments and equipment will follow the operations manuals. A schedule of preventive maintenance activities will be followed to minimize downtime and ensure the accuracy of measurement systems. Maintenance will be documented in the field notebook.

6.8 Laboratory Instrumentation

Specific laboratory instrument calibration procedures, frequency of calibration, and preparation of calibration standards will be according to the method requirements as developed by the USEPA, following procedures presented in SW-846 (USEPA, 1986).

6.9 Laboratory Calibration and Preventive Maintenance

The laboratory calibration ranges specified in SW-846 (USEPA, 1986) will be followed.

R:\0346.04 Port of Sunnyside\03_Carnation Dairy Supplemental Investigation\Reports\03-2012.09.24 Draft Focused Site Assessment

Preventive maintenance of laboratory equipment will be the responsibility of the laboratory personnel and analysts. This maintenance includes routine care and cleaning of instruments and inspection and monitoring of carrier gases, solvents, and glassware used in analyses. The preventive-maintenance approach for specific equipment will follow the manufacturers' specifications and good laboratory practices.

Precision and accuracy data will be examined for trends and excursions beyond control limits to determine evidence of instrument malfunction. Maintenance will be performed when an instrument begins to change, as indicated by the degradation of peak resolution, shift in calibration curves, decrease in sensitivity, or failure to meet any of the QC criteria.

6.10 Laboratory QA/QC Checks

USEPA Method 8260 includes specific instructions for the analysis of QC samples and the completion of QC procedures during sample analysis. These QC samples and procedures verify that the instrument is calibrated properly and remains in calibration throughout the analytical sequence, and that the sample preparation procedures have been effective and have not introduced contaminants into the samples. Additional QC samples are used to identify and quantify positive or negative interference caused by the sample matrix. The following laboratory QC procedures are required for most analytical procedures:

- **Calibration Verification**—Initial calibration of instruments will be performed at the start of the project or sample run, as required, and when any ongoing calibration does not meet control criteria. The number of points used in the initial calibration is defined in the analytical method. Continuing calibration will be performed as specified in the analytical method to track instrument performance. If a continuing calibration does not meet control limits, analysis of project samples will be suspended until the source of the control failure is either eliminated or reduced to within control specifications. Any project samples analyzed while the instrument was outside of control limits will be reanalyzed.
- Method Blanks—Method blanks are used to assess possible laboratory contamination of samples associated with all stages of preparation and analysis of samples and extracts. The laboratory will not apply blank corrections to the original data. A minimum of one method blank will be analyzed for every sample extraction group, or one for every 20 samples, whichever is more frequent.
- **MS/MSD Samples**—MS samples are analyzed to assess the matrix effects on the accuracy of analytical measurements. A minimum of one MS will be analyzed for each sample delivery group (SDG), or one for every 20 samples, whichever is more frequent. For VOAs, MSD samples will be analyzed for each SDG, or one for every 20 samples, whichever is more frequent. Because the spike is a duplicate sample, it

measures the quality of laboratory preparatory techniques and the heterogeneity of the sample.

- **Surrogate Spike Compounds**—Surrogate spikes are used to evaluate the recovery of an analyte from individual samples. All project samples to be analyzed for organic compounds will be spiked with appropriate surrogate compounds as defined in the analysis method. Recoveries determined using these surrogate compounds will be reported by the laboratory; however, the laboratory will not correct sample results using these recoveries.
- **LCSs**—Although not required by the referenced methods, the laboratory will analyze LCSs for VOCs by USEPA Method 8260B. One LCS will be analyzed for every SDG, or one for every 20 samples, whichever is more frequent. The source of the LCSs must be included in the data package.

6.11 Field QC

The following samples will be prepared by the sampling personnel in the field and submitted to the laboratory:

- Equipment Rinsate Blanks—To ensure that decontamination procedures are sufficient, an equipment rinsate blank will be collected when nondedicated equipment is used. At least one equipment rinsate blank will be collected for each sampling event or for every 20 samples collected. If more than 20 samples are collected with the same equipment, or if high concentrations of contaminants are encountered, additional equipment rinsate blanks will be collected by passing deionized/distilled water through or over sampling equipment.
- **Trip Blanks**—A trip blank monitors the potential of sample-to-sample cross-contamination during sample collection and transport. A trip blank consists of reagent-grade water in a new sample container, which is prepared at the same time as the sample containers. The trip blank will accompany the samples throughout collection, shipment, and storage. One trip blank will be included with each cooler in which samples for VOC analyses are stored.
- **Field Duplicates**—Field duplicates are collected to measure sampling and laboratory precision. For soil samples, when sufficient sample volume is available, an individual sample will be split into two separate sample containers and labeled as two different samples. Care will be taken when collecting duplicate soil samples to ensure that the same ratio of fine to coarse material is included in each sample. For groundwater samples, VOA vials (three vials per sample) will be collected. At least one duplicate sample will be collected during each sampling event, or one for every 20 samples of each matrix type.

6.12 Data Reduction, Validation, and Reporting

The analytical laboratory will submit analytical data packages that include laboratory QA/QC results to permit independent and conclusive determination of data quality. Data quality will be determined by MFA, using the data evaluation procedures described in this section. The results of the MFA evaluation will be used to determine if the project data quality objectives are being met.

6.12.1 Field Data Reduction

Daily internal QC checks will be performed for field activities. Checks will consist of reviewing field notes and field activity memoranda to confirm that the specified measurements, calibrations, and procedures are being followed. The need for corrective action will be assessed on an ongoing basis, in consultation with the project manager.

6.12.2 Laboratory Evaluation

Initial data reduction, evaluation, and reporting at the analytical laboratory will be carried out as described in USEPA SW-846 manuals for organic analyses (USEPA, 1986), as appropriate. Additional laboratory data qualifiers may be defined and reported to further explain the laboratory's QC concerns about a particular sample result. All additional data qualifiers will be defined in the laboratory's case narrative reports associated with each case.

6.12.3 Data Deliverables

Laboratory data deliverables are listed below. Electronic deliverables will contain the same data presented in the hard-copy report.

- Transmittal cover letter
- Case narrative
- Analytical results
- COC
- Surrogate recoveries
- Method blank results
- MS/MSD results
- Laboratory duplicate results

6.12.4 MFA Evaluation

6.12.4.1 Data QA/QC Review

MFA will evaluate the laboratory data for precision, completeness, accuracy, and compliance with the analytical method. MFA will review data and assign data qualifiers to sample results, following applicable sections of the USEPA procedures for organics data review (USEPA, 1986, 2004).

Data qualifiers, as defined by the USEPA, are used to classify sample data according to their conformance to QC requirements. The most common qualifiers are listed below:

- J—Estimate, qualitatively correct but quantitatively suspect.
- R—Reject, data not suitable for any purpose.
- U—Not detected at a specified reporting limit.

Poor surrogate recovery, blank contamination, or calibration problems, among other things, can cause the sample data to be qualified. Whenever sample data are qualified, the reasons for the qualification will be stated in the data evaluation report.

QC criteria not defined in the guidelines for evaluating analytical data are adopted, where appropriate, from the analytical method.

The following information will be reviewed during data evaluation, as applicable:

- Sampling locations and blind sample numbers
- Sampling dates
- Requested analysis
- COC documentation
- Sample preservation
- Holding times
- Method blanks
- Surrogate recoveries
- MS/MSD results
- Laboratory duplicates (if analyzed)
- Field duplicates
- Field blanks
- LCSs
- Method reporting limits above requested levels
- Any additional comments or difficulties reported by the laboratory
- Overall assessment

The results of the data evaluation review will be summarized for each data package. Data qualifiers will be assigned to sample results on the basis of USEPA guidelines, as applicable.

6.12.4.2 Data Management and Reduction

MFA uses EQuis to manage all laboratory data. The laboratory will provide the analytical results in electronic EQuis-deliverable format. Following data evaluation, data qualifiers will be entered into the EQuis database.

Data may be reduced to summarize particular data sets and to aid interpretation of the results. Statistical analyses may also be applied to results. Data reduction QC

checks will be performed on all hand-entered data, any calculations, and any data graphically displayed. Data may be further reduced and managed using one or more of the following computer software applications:

- Microsoft Excel (spreadsheet)
- EQuis (database)
- AutoCad and/or Arc GIS (graphics)
- USEPA ProUCL (statistical software)

6.12.4.3 Reporting

After completion of data collection, evaluation, and reduction, the data will be incorporated into reports. Copies of the reports will be kept in MFA's main project files, submitted to the client for review, and then submitted to Ecology.

7 REPORTING

After the data are received, MFA will generate a data report, which will summarize and screen the data against the MTCA cleanup levels. Estimates of the nature and extent of soil and groundwater contamination, as well as work-product documentation (e.g., data validation reports), will be provided. The services undertaken in completing this plan were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This plan is solely for the use and information of our client unless otherwise noted. Any reliance on this plan by a third party is at such party's sole risk.

Opinions and recommendations contained in this plan apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this plan. Ecology. 1995. Guidance on sampling and data analysis methods. Publication No. 94-49. Washington State Department of Ecology Toxics Cleanup Program. January.

Ecology. 2004. Guidance for preparing quality assurance project plans for environmental studies. Publication No. 04-03-030. Washington State Department of Ecology. July.

USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. EPA-530/SW-846. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. September (revision 6, February 2007).

USEPA. 2004. USEPA contract laboratory program, national functional guidelines for inorganics data review. EPA 540/R-94/013. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. October.

APPENDIX

FIELD SAMPLING DATA SHEET FORMS



Maul Foster & Alongi, Inc.

7223 NE Hazel Dell Avenue, Suite B, Vancouver, WA 98665 (360) 694-2691 Fax. (360) 906-1958

Soil Field Sampling Data Sheet

Client Name	Sample Location	
Project Number	Sampler	
Project Name	Sampling Date	
Sampling Event	Sample Name	
Sub Area	Sample Depth	
FSDS QA:	Easting	Northing TOC

Sample Information

Sampling Method	Sample Type	Sample Category	PID/FID	Sampling Time	Container Code	#
(1) Backhoe	Liquid	Composite			2 oz. soil	
					4 oz. soil	
					8 oz. soil	
					Other	
					Total Containers	0
	_					

Sample Description:	
l	
Concerci Comming Comments	
General Sampling Comments	

Sampling Method Code:

(1) Backhoe, (2) Hand Auger, (3) Drill Bit Cutting Head, (4) Geoprobe, (5) Split Spoon, (6) Shelbey Tube, (7) Grab, (8) Other (Specify)

Signature

7223 NE Hazel Dell Avenue, Suite B, Vancouver, WA 98665 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	Sample Location	
Project #	Sampler	
Project Name	Sampling Date	
Sampling Event	Sample Name	
Sub Area	Sample Depth	
FSDS QA:	Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW DTB-DTW		Pore Volume
4							

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.653 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.653 gal/ft) (4" = 0.653 gal/ft) (5" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.653 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
Final Field Parameters									

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
	Groundwater		VOA-Glass		
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	0	

General Sampling Comments

APPENDIX D

FIELD SAMPLING DATA SHEETS



400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-01
Project #	0346.04.02	Sampler	JJÞ
Project Name	Former Cream Wine Property	Sampling Date	1/26/2012
Sampling Event	January 2012	Sample Name	GP01-W-22.5
Sub Area		Sample Depth	22.5
FSDS QA:		Easting	Northing

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/26/2012	11:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	11:00:00 AM	4.5		7.51	12.54	542	2.14	-34.4	15.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	11:00:00 AM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-01
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	1/26/2012
Sampling Event	January 2012	Sample Name	GP01-W-37.5
Sub Area		Sample Depth	37.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

				(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)	
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/26/2012	11:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	11:30:00 AM	4		7.85	10.52	518	2.13	-21.4	28.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	11:30:00 AM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-02		
Project #	0346.04.02	Sampler JJP			
Project Name	Former Cream Wine Property	Sampling Date	1/26/2012		
Sampling Event	January 2012	Sample Name	GP02-W-22.5		
Sub Area		Sample Depth	22.5		
FSDS QA:		Easting	Northing TOC		

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/26/2012	15:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	3:00:00 PM	3		8.88	16.29	687	6.85	133.4	120.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations: Turbid.

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	3:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments Screen 20-25 ft bgs.

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-02
Project #	0346.04.02	Sampler	JJb
Project Name	Former Cream Wine Property	Sampling Date	1/26/2012
Sampling Event	January 2012	Sample Name	GP02-W-37.5
Sub Area		Sample Depth	37.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/26/2012	15:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	3:30:00 PM	4		7.87	14.84	492	2.19	-12.4	38.5

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	3:30:00 PM	VOA-Glass	10	No
L			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-03
Project #	0346.04.02	Sampler	JJb
Project Name	Former Cream Wine Property	Sampling Date	1/26/2012
Sampling Event	January 2012	Sample Name	GP03-W-22.5
Sub Area		Sample Depth	22.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/26/2012	16:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	4:30:00 PM	5		7.54	12.44	784	3.54	-44.1	31.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:30:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-03
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	1/26/2012
Sampling Event	January 2012	Sample Name	GP03-W-37.5
Sub Area		Sample Depth	37.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/26/2012	17:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	5:00:00 PM	3.5		7.89	13.87	740	3.9	-37.3	38.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	5:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments Screen 35-40 ft bgs.

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-04		
Project #	0346.04.02	Sampler JJP			
Project Name	Former Cream Wine Property	Sampling Date 1/25/2012			
Sampling Event	January 2012	Sample Name	GP04-W-22.5		
Sub Area		Sample Depth	22.5		
FSDS QA:		Easting	Northing TOC		

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/25/2012	16:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	4:00:00 PM	4.25		11.02	12.62	800	5.24	-34.5	35.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	'

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-04		
Project #	0346.04.02	Sampler JJP			
Project Name	Former Cream Wine Property	Sampling Date	1/25/2012		
Sampling Event	January 2012	Sample Name	GP04-W-37.5		
Sub Area		Sample Depth	37.5		
FSDS QA:		Easting	Northing		

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/25/2012	16:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	4:30:00 PM	4.75		9.21	10.24	650	3.21	-21.4	15.13

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:30:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-05
Project #	0346.04.02	Sampler	JJÞ
Project Name	Former Cream Wine Property	Sampling Date	1/24/2012
Sampling Event	January 2012	Sample Name	GP05-W-20.0
Sub Area		Sample Depth	20
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

				(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)	
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/24/2012	15:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	3:30:00 PM	3.5		8.04	11.52	558	6.34	52.9	40.2

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	3:30:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	'

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-05
Project #	0346.04.02	Sampler	JJb
Project Name	Former Cream Wine Property	Sampling Date	1/24/2012
Sampling Event	January 2012	Sample Name	GP05-W-35.0
Sub Area		Sample Depth	35
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/24/2012	16:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	4:00:00 PM	3.5		8.03	14.1	503	6	46.1	32.1

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-06
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	1/24/2012
Sampling Event	January 2012	Sample Name	GP06-W-22.5
Sub Area		Sample Depth	22.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/24/2012	13:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	1:00:00 PM	3		8.5	10.34	669	6.34	77.1	21.1

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	1:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-06
Project #	0346.04.02	Sampler	JJÞ
Project Name	Former Cream Wine Property	Sampling Date	1/24/2012
Sampling Event	January 2012	Sample Name	GP06-W-42.5
Sub Area		Sample Depth	42.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

Date Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/24/2012 12:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	12:00:00 PM	4.5		7.89	11.59	696	2	-79.3	41.3

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	12:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments Screen 40-45 ft bgs.

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-07
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	1/23/2012
Sampling Event	January 2012	Sample Name	GP07-W-22.5
Sub Area		Sample Depth	22.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/23/2012	17:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	5:30:00 PM	3.5		7.49	9.56	982	7.59	96.7	34.5

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	5:30:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments Screen 20-25 ft bgs.

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-07
Project #	0346.04.02	Sampler	JJÞ
Project Name	Former Cream Wine Property	Sampling Date	1/23/2012
Sampling Event	January 2012	Sample Name	GP07-W-42.5
Sub Area		Sample Depth	42.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/23/2012	17:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	5:00:00 PM	4		7.89	13.34	802	1.47	-149.5	42.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	5:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-08
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	1/25/2012
Sampling Event	January 2012	Sample Name	GP08-W-22.5
Sub Area		Sample Depth	22.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

D (
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/25/2012	11:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	11:30:00 AM	3.5		7.55	10.06	1256	4.01	82.61	29.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	11:30:00 AM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-08
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	1/25/2012
Sampling Event	January 2012	Sample Name	GP08-W-32.5
Sub Area		Sample Depth	32.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/25/2012	11:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	11:00:00 AM	4		7.51	12.32	1089	4.01	-38.1	45.2

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	11:00:00 AM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-09
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	1/25/2012
Sampling Event	January 2012	Sample Name	GP09-W-22.5
Sub Area		Sample Depth	22.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/25/2012	12:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	12:30:00 PM	3.5		7.7	13.94	1189	6.01	67.4	40.1

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	12:30:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-09
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	1/25/2012
Sampling Event	January 2012	Sample Name	GP09-W-35.0
Sub Area		Sample Depth	35
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/25/2012	12:30			21.51			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ЕН	Turbidity
(2) Peristaltic Pump	10:50:00 AM	1.25		7.45	12.36	1028	0.73	170.3	16.85
	11:45:00 AM	3		7.33	12.59	1003	0.42	191.8	9.52
Final Field Parameters	12:30:00 PM	5		7.28	12.7	947	0.4	201.1	1.05

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	12:30:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-10
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	1/27/2012
Sampling Event	January 2012	Sample Name	GP10-W-22.5
Sub Area		Sample Depth	22.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/27/2012	11:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	11:00:00 AM	4.25		8.01	12.19	1258	8.41	211.8	27.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	11:00:00 AM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-10
Project #	0346.04.02	Sampler	JJb
Project Name	Former Cream Wine Property	Sampling Date	1/27/2012
Sampling Event	January 2012	Sample Name	GP10-W-37.5
Sub Area		Sample Depth	37.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

			(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)		
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
	10:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	10:30:00 AM	3		7.85	12.5	1050	6.38	83.5	50

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	10:30:00 AM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-11
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	1/27/2012
Sampling Event	January 2012	Sample Name	GP11-W-22.5
Sub Area		Sample Depth	22.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/27/2012	14:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	2:00:00 PM	4		7.49	10.15	1355	7.73	102.5	16.2

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	2:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-11
Project #	0346.04.02	Sampler	JJb
Project Name	Former Cream Wine Property	Sampling Date	1/27/2012
Sampling Event	January 2012	Sample Name	GP11-W-37.5
Sub Area		Sample Depth	37.5
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/27/2012	14:30						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	2:30:00 PM	4.25		8.06	10.47	1106	7.94	103.4	19.14

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	2:30:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-13
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	6/19/2012
Sampling Event	June 2012	Sample Name	GP13-W-21.0
Sub Area		Sample Depth	21
FSDS QA:	JJP 7/19/2012	Easting	Northing

Hydrology/Level Measurements

			(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)		
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/19/2012	10:05			16.28			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	10:30:00 AM	4		7.72	16.61	930	2.84	67.8	41.2

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	10:30:00 AM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-13
Project #	0346.04.02	Sampler	JJb
Project Name	Former Cream Wine Property	Sampling Date	6/18/2012
Sampling Event	June 2012	Sample Name	GP13-W-29.0
Sub Area		Sample Depth	29
FSDS QA:	JJP 7/19/2012	Easting	Northing

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/19/2012	9:30			16.24			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.023 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.023 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.023 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (8" = 2.611 gal/ft) (3" = 0.023 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.367 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	10:00:00 AM	4.75		7.92	16.65	884	1.03	9.6	34.3

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	10:00:00 AM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-14
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	6/19/2012
Sampling Event	June 2012	Sample Name	GP14-W-22.0
Sub Area		Sample Depth	22
FSDS QA:	JJP 7/19/2012	Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/19/2012	12:30			18.98			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	1:30:00 PM	6		7.52	16.5	1085	3.21	47.9	44.45

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	1:30:00 PM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-14
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	6/19/2012
Sampling Event	June 2012	Sample Name	GP14-W-32.0
Sub Area		Sample Depth	32
FSDS QA:	JJP 7/19/2012	Easting	Northing

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/19/2012	13:30			18.45			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.023 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.023 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.023 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (8" = 2.611 gal/ft) (3" = 0.023 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft) (3" = 0.367 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	2:30:00 PM	5		7.5	16.04	872	1.41	40.5	31.34

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	2:30:00 PM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-15
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	6/19/2012
Sampling Event	June 2012	Sample Name	GP15-W-22.0
Sub Area		Sample Depth	22
FSDS QA:	JJP 7/19/2012	Easting	Northing

Hydrology/Level Measurements

				(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)	
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/19/2012	15:00			19.98			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	3:45:00 PM	4.5		7.53	20.34	1137	3.27	52.5	31.31

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	3:45:00 PM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-15
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	6/19/2012
Sampling Event	June 2012	Sample Name	GP15-W-34.0
Sub Area		Sample Depth	34
FSDS QA:	JJP 7/19/2012	Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/19/2012	16:45			19.6			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	5:00:00 PM	6		7.43	17	1185	1.81	28.5	38.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	5:00:00 PM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-16
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	6/19/2012
Sampling Event	June 2012	Sample Name	GP16-W-22.0
Sub Area		Sample Depth	22
FSDS QA:	JJP 7/19/2012	Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/19/2012	7:30			18.4			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	8:05:00 AM	4.5		7.64	16.34	550	1.67	64.5	23.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	8:05:00 AM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-16
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	6/18/2012
Sampling Event	June 2012	Sample Name	GP16-W-30.0
Sub Area		Sample Depth	30
FSDS QA:	JJP 7/19/2012	Easting	Northing

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/18/2012	15:45			19.45			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	4:30:00 PM	5.5		7.64	13.45	657	1.02	42.5	38.24

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:30:00 PM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-17
Project #	0346.04.02	Sampler	11b
Project Name	Former Cream Wine Property	Sampling Date	6/19/2012
Sampling Event	June 2012	Sample Name	GP17-W-20.0
Sub Area		Sample Depth	20
FSDS QA:	JJP 7/19/2012	Easting	Northing

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/19/2012	6:30			19.5			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	7:30:00 AM	5.5		7.15	18.34	746	4.05	28.9	45.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	7:30:00 AM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	GP-17
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	6/18/2012
Sampling Event	June 2012	Sample Name	GP17-W-30.0
Sub Area		Sample Depth	30
FSDS QA:	JJP 7/19/2012	Easting	Northing

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
6/18/2012	14:00			19.85			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters	3:00:00 PM	5.25		7.25	14.34	631	1.33	30.6	24.25

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	3:00:00 PM	VOA-Glass	10	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	MW18
Project #	0346.04.02	Sampler	JJP
Project Name	Former Cream Wine Property	Sampling Date	1/23/2012
Sampling Event	January 2012	Sample Name	MW18-W-25.0
Sub Area		Sample Depth	25
FSDS QA:		Easting	Northing

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/23/2012	14:00			21.51			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ЕН	Turbidity
(2) Peristaltic Pump	10:50:00 AM	1.25		7.45	12.36	1028	0.73	170.3	16.85
	11:45:00 AM	3		7.33	12.59	1003	0.42	191.8	9.52
Final Field Parameters	12:30:00 PM	5		7.28	12.7	947	0.4	201.1	1.05

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	12:30:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	RMW-09
Project #	0346.04.02	Sampler	JIb
Project Name	Former Cream Wine Property	Sampling Date	1/26/2012
Sampling Event	January 2012	Sample Name	RMW09-DUP
Sub Area		Sample Depth	25
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/26/2012	9:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump									
Final Field Parameters									

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	9:00:00 AM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

Duplicate sample of RMW-09

Maul Foster & Alongi, Inc.

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Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	RMW-09
Project #	0346.04.02	Sampler	JIP
Project Name	Former Cream Wine Property	Sampling Date	1/26/2012
Sampling Event	January 2012	Sample Name	RMW09-W-25.0
Sub Area		Sample Depth	25
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

Date Time DT-Bottom DT-Product DT-Water DTP-DTW DTB-DTW Pore Volume 9:00 38.01 20.94 <th></th> <th></th> <th></th> <th></th> <th></th> <th>(Product Thickness)</th> <th>(Water Column)</th> <th>(Gallons/ft x Water Column)</th>						(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
9:00 38.01 20.94	Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
		9:00	38.01		20.94			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump	7:00:00 AM	5		7.37	14.64	2410	4.01	180.5	3.01
	8:30:00 AM	10		7.36	14.58	2285	4.1	176.1	1.52
Final Field Parameters	9:00:00 AM	20		7.39	14.5	2240	4.2	175.3	1.06

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	9:00:00 AM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

General Sampling Comments

<u>Signature</u>

Maul Foster & Alongi, Inc.

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	Port of Sunnyside	Sample Location	RW04
Project #	0346.04.02	Sampler	JIP
Project Name	Former Cream Wine Property	Sampling Date	1/25/2012
Sampling Event	January 2012	Sample Name	RW04-W-25.0
Sub Area		Sample Depth	25
FSDS QA:		Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume
1/25/2012	13:00						

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump	10:30:00 AM	7		7.73	12.69	1321	7.14	182.1	3.59
	12:00:00 PM	15		7.78	15.96	1235	7.05	178.6	2.03
Final Field Parameters	1:00:00 PM	25		7.8	18.39	1170	7.02	175.3	1.5

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	1:00:00 PM	VOA-Glass	10	No
			Amber Glass	1	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly	1	Yes
			Total Bottles	13	

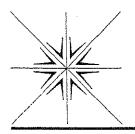
General Sampling Comments

<u>Signature</u>

APPENDIX E

LABORATORY ANALYTICAL REPORTS





11711 SE Capps Road Clackamas, OR 97015 (503) 607-1331 Fax (503) 607-1336

February 14, 2012

Justin Pounds Maul, Foster & Alongi 400 East Mill Plain Blvd Suite 400 Vancouver, WA 98660

TEL: (360) 694-2691 FAX: (360) 906-1958

RE: Former Carnation Property / 0346.04.02 Dear Justin Pounds:

Order No.: 1201252

Specialty Analytical received 76 samples on 1/30/2012 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Project Manager

Téchnical Review

	Iaul, Foster & Alongi ormer Carnation Prope	erty / 0346	5.04.02			Lab Orde	r: 1201252
Lab ID:	1201252-01			(Collection D	ate: 1/26/20	012 11:00:00 AM
Client Sample ID:	GP01-W-22.5				Mat	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		0.101	0.0780	A1	mg/L	1	1/31/2012
Lube Oil		0.381	0.195		mg/L	1	1/31/2012
Surr: o-Terphenyl		94.7	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	obenzene	96.7	50-150		%REC	1	1/31/2012
Lab ID:	1201252-02			(Collection D	ate: 1/26/20	012 11:30:00 AM
Client Sample ID:	GP01-W-37.5		Matrix: AQUEOUS				OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0783		mg/L	1	1/31/2012
Lube Oil		ND	0.196		mg/L	1	1/31/2012
Surr: o-Terphenyl		82.8	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	obenzene	95.8	50-150		%REC	1	1/31/2012
Lab ID:	1201252-03			(Collection D	ate: 1/26/20	012 3:00:00 PM
Client Sample ID:	GP02-W-22.5				Mat	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0769		mg/L	1	1/31/2012
Lube Oil		ND	0.192		mg/L	1	1/31/2012
Surr: o-Terphenyl		80.3	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012

	Maul, Foster & Alongi Former Carnation Prop	erty / 034	6.04.02			Lab Orde	r: 1201252
Lab ID:	1201252-04				Collection D	ate: 1/26/2	012 3:30:00 PM
Client Sample ID:	GP02-W-37.5				Ma	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0762		mg/L	1	1/31/2012
Lube Oil		ND	0.190		mg/L	1	1/31/2012
Surr: o-Terphenyl		71.9	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	obenzene	95.8	50-150		%REC	1	1/31/2012
Lab ID:	1201252-05				Collection D	ate: 1/26/2	012 4:30:00 PM
Client Sample ID:	GP03-W-22.5	Matrix: AQUEOUS				OUS	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0771		mg/L	1	1/31/2012
Lube Oil		ND	0.193		mg/L	1	1/31/2012
Surr: o-Terphenyl		66.3	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	obenzene	95.8	50-150		%REC	1	1/31/2012
Lab ID:	1201252-06			(Collection D	ate: 1/26/2	012 5:00:00 PM
Client Sample ID:	GP03-W-37.5				Mat	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		0.0998	0.0771	A1	mg/L	1	1/31/2012
Lube Oil		0.382	0.193		mg/L	1	1/31/2012
Surr: o-Terphenyl		66.9	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX	,			Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	abanzana	96.1	50-150		%REC	1	1/31/2012

	Maul, Foster & Along Former Carnation Pro	-	5.04.02			Lab Orde	r: 1201252
Lab ID:	1201252-07				Collection D	ate: 1/25/20	012 4:00:00 PM
Client Sample ID	: GP04-W-22.5				Mat	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		0.100	0.0766	A1	mg/L	1	1/31/2012
Lube Oil		ND	0.192		mg/L	1	1/31/2012
Surr: o-Terpheny	I	78.4	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromoflue	probenzene	95.8	50-150		%REC	1	1/31/2012
Lab ID:	1201252-08			(Collection D	ate: 1/25/20	012 4:30:00 PM
Client Sample ID	: GP04-W-37.5				Mat	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0763		mg/L	1	1/31/2012
Lube Oil		ND	0.191		mg/L	1	1/31/2012
Surr: o-Terpheny	l	76.3	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromoflue	probenzene	96.0	50-150		%REC	1	1/31/2012
Lab ID:	1201252-09				Collection D	ate: 1/24/20	012 3:30:00 PM
Client Sample ID	: GP05-W-20.0				Mat	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		0.118	0.0780	A1	mg/L	1	1/31/2012
Lube Oil		ND	0.195		mg/L	1	1/31/2012
Surr: o-Terpheny	l	72.9	50-150		%REC	1	1/31/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromoflue	orohenzene	96.0	50-150		%REC	1	1/31/2012

	laul, Foster & Alongi					Lab Orde	r: 1201252
Project: F	ormer Carnation Prope	erty / 034	5.04.02				
Lab ID:	1201252-10				Collection D	ate: 1/24/20	012 4:00:00 PM
Client Sample ID:	GP05-W-35.0				Mat	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0769		mg/L	1	2/1/2012
Lube Oil		ND	0.192		mg/L	1	2/1/2012
Surr: o-Terphenyl		93.6	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	bbenzene	95.6	50-150		%REC	1	1/31/2012
Lab ID:	1201252-11			(Collection D	ate: 1/24/20	012 1:00:00 PM
Client Sample ID:			Matrix: AQUEOUS				
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		0.166	0.0763	A1	mg/L	1	2/1/2012
Lube Oil		ND	0.191		mg/L	1	2/1/2012
Surr: o-Terphenyl		103	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	bbenzene	95.8	50-150		%REC	1	1/31/2012
Lab ID:	1201252-12			(Collection D	ate: 1/24/20	012 12:00:00 PM
Client Sample ID:	GP06-W-42.5				Mat	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0773		mg/L	1	2/1/2012
Lube Oil		ND	0.193		mg/L	1	2/1/2012
Surr: o-Terphenyl		77.4	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor		95.9	50-150		%REC	1	1/31/2012

	Iaul, Foster & Alongi former Carnation Prope	erty / 034	6.04.02			Lab Orde	r: 1201252
Lab ID:	1201252-13				Collection D	ate: 1/23/20	012 5:30:00 PM
Client Sample ID:						trix: AQUE	
Analyses		Result	Limit	Qual		DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0766		mg/L	1	2/1/2012
Lube Oil		ND	0.192		mg/L	1	2/1/2012
Surr: o-Terphenyl		88.0	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	obenzene	96.1	50-150		%REC	1	1/31/2012
Lab ID:	1201252-14			(Collection D	ate: 1/23/20	012 5:00:00 PM
Client Sample ID:	GP07-W-42.5				Ma	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0771		mg/L	1	2/1/2012
Lube Oil		ND	0.193		mg/L	1	2/1/2012
Surr: o-Terphenyl		87.2	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	obenzene	95.8	50-150		%REC	1	1/31/2012
Lab ID:	1201252-15			(Collection D	ate: 1/25/20	012 11:30:00 AM
Client Sample ID:	GP08-W-22.5				Ma	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		0.207	0.0765	A1	mg/L	1	2/1/2012
Lube Oil		0.479	0.191	A2	mg/L	1	2/1/2012
Surr: o-Terphenyl		81.9	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluor	abanzana	96.1	50-150		%REC	1	1/31/2012

CLIENT: N	laul, Foster & Alongi					Lab Orde	r: 1201252
Project: F	ormer Carnation Prope	erty / 034	6.04.02				
Lab ID:	1201252-16				Collection D	Date: 1/25/20	012 11:00:00 AM
Client Sample ID:	GP08-W-32.5				Ma	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0773		mg/L	1	2/1/2012
Lube Oil		ND	0.193		mg/L	1	2/1/2012
Surr: o-Terphenyl		94.4	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluoro	bbenzene	96.2	50-150		%REC	1	1/31/2012
Lab ID:	1201252-17				Collection D	Date: 1/25/20	012 12:30:00 PM
Client Sample ID:	GP09-W-22.5	Matrix: AQUEOUS				OUS	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0798		mg/L	1	2/1/2012
Lube Oil		ND	0.199		mg/L	1	2/1/2012
Surr: o-Terphenyl		64.1	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX	,			Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluoro	bbenzene	97.3	50-150		%REC	1	1/31/2012
Lab ID:	1201252-18			(Collection D	Date: 1/25/20	012 12:30:00 PM
Client Sample ID:	GP09-W-35.0				Ma	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0806		mg/L	1	2/1/2012
Lube Oil		ND	0.202		mg/L	1	2/1/2012
Surr: o-Terphenyl		70.5	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX	ζ.			Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluoro		97.3	50-150		%REC	1	1/31/2012

CLIENT: M	laul, Foster & Alongi					Lab Orde	r: 1201252
	ormer Carnation Prope	rty / 034	6.04.02				
Lab ID:	1201252-19				Collection D	Date: 1/27/20	012 11:00:00 AM
Client Sample ID:	GP10-W-22.5				Ma	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0768		mg/L	1	2/1/2012
Lube Oil		ND	0.192		mg/L	1	2/1/2012
Surr: o-Terphenyl		78.8	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX	,			Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluoro	benzene	97.4	50-150		%REC	1	1/31/2012
Lab ID:	1201252-20			(Collection D	Date: 1/27/20	012 10:30:00 AM
Client Sample ID:	GP10-W-37.5	Matrix: AQUEOUS				OUS	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0763		mg/L	1	2/1/2012
Lube Oil		ND	0.191		mg/L	1	2/1/2012
Surr: o-Terphenyl		60.3	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluoro	benzene	97.4	50-150		%REC	1	1/31/2012
Lab ID:	1201252-21			(Collection D	Date: 1/27/20	012 2:00:00 PM
Client Sample ID:	GP11-W-22.5				Ma	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		0.266	0.0825	A1	mg/L	1	2/1/2012
Lube Oil		1.33	0.206		mg/L	1	2/1/2012
Surr: o-Terphenyl		81.6	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX	,			Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluoro	benzene	97.2	50-150		%REC	1	1/31/2012

	Iaul, Foster & Alongi ormer Carnation Prop	erty / 034	6.04.02			Lab Orde	er: 1201252	
Lab ID:	1201252-22				Collection D	ate: 1/27/2	012 2:30:00 PM	
Client Sample ID:						trix: AQUE		
Analyses		Result	Limit	Qual		DF	Date Analyzed	
NWTPH-DX			NWTPH-DX				Analyst: kh	
Diesel		0.114	0.0794		mg/L	1	2/1/2012	
Lube Oil		0.318	0.199	A2	mg/L	1	2/1/2012	
Surr: o-Terphenyl		80.8	50-150		%REC	1	2/1/2012	
NWTPH-GX			NWTPH-GX				Analyst: jrp	
Gasoline		ND	100		µg/L	1	1/31/2012	
Surr: 4-Bromofluor	obenzene	97.6	50-150		%REC	1	1/31/2012	
Lab ID:	1201252-23				Collection D	ate: 1/26/20	012 9:00:00 AM	
Client Sample ID:	RMW09-W-25.0				Matrix: AQUEOUS			
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed	
NWTPH-DX			NWTPH-DX				Analyst: kh	
Diesel		0.241	0.0766	A1	mg/L	1	2/1/2012	
Lube Oil		0.292	0.192		mg/L	1	2/1/2012	
Surr: o-Terphenyl		74.1	50-150		%REC	1	2/1/2012	
NWTPH-GX			NWTPH-GX				Analyst: jrp	
Gasoline		ND	100		µg/L	1	1/31/2012	
Surr: 4-Bromofluor	obenzene	97.5	50-150		%REC	1	1/31/2012	
Lab ID:	1201252-24				Collection D	ate: 1/26/2	012 9:00:00 AM	
Client Sample ID:	RMW09-DUP				Mat	trix: AQUE	OUS	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed	
NWTPH-DX			NWTPH-DX				Analyst: kh	
Diesel		0.244	0.0763	A1	mg/L	1	2/1/2012	
Lube Oil		ND	0.191		mg/L	1	2/1/2012	
Surr: o-Terphenyl		78.1	50-150		%REC	1	2/1/2012	
NWTPH-GX			NWTPH-GX				Analyst: jrp	
Gasoline		ND	100		µg/L	1	1/31/2012	
Surr: 4-Bromofluor		97.2	50-150		%REC	1	1/31/2012	

	Maul, Foster & Along Former Carnation Pro		5.04.02			Lab Orde	r: 1201252
Lab ID:	1201252-25				Collection I	Date: 1/25/20	012 1:00:00 PM
Client Sample ID	: RW04-W-25.0				Ma	trix: AQUE	OUS
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		ND	0.0764		mg/L	1	2/1/2012
Lube Oil		ND	0.191		mg/L	1	2/1/2012
Surr: o-Terphenyl		59.7	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluc	probenzene	97.5	50-150		%REC	1	1/31/2012
Lab ID:	1201252-26				Collection I	Date: 1/23/20	012 2:00:00 PM
Client Sample ID	: MW18-W-25.0	Matrix: AQUEOUS				OUS	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX			NWTPH-DX				Analyst: kh
Diesel		0.191	0.0766	A1	mg/L	1	2/1/2012
Lube Oil		0.984	0.191	A2	mg/L	1	2/1/2012
Surr: o-Terphenyl		115	50-150		%REC	1	2/1/2012
NWTPH-GX			NWTPH-GX				Analyst: jrp
Gasoline		ND	100		µg/L	1	1/31/2012
Surr: 4-Bromofluc	probenzene	97.5	50-150		%REC	1	1/31/2012
Lab ID:	1201252-27				Collection I	Date: 1/26/20	012 9:00:00 AM
Client Sample ID	GP01-S-1.0				Ma	trix: SOIL	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIEN	т		1	Analyst: kn 2/14/2012

CLIENT: Maul, Foster & Project: Former Carnatio	Alongi on Property / 0346.	04.02		Lab Orde	r: 1201252	
Lab ID: 1201252-28			Collection D	ate: 1/26/20	012 9:10:00 AM	
Client Sample ID: GP01-S-5.0			Mat	Matrix: SOIL		
Analyses	Result	Limit	Qual Units	DF	Date Analyzed	
VOLATILES BY GC/MS		SW8260B			Analyst: rkg	
1,1,1,2-Tetrachloroethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,1,1-Trichloroethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,1,2,2-Tetrachloroethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,1,2-Trichloroethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,1-Dichloroethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,1-Dichloroethene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,1-Dichloropropene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2,3-Trichlorobenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2,3-Trichloropropane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2,4-Trichlorobenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2,4-Trimethylbenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2-Dibromo-3-chloropropane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2-Dibromoethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2-Dichlorobenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2-Dichloroethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,2-Dichloropropane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,3,5-Trimethylbenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,3-Dichlorobenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,3-Dichloropropane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
1,4-Dichlorobenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
2,2-Dichloropropane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
2-Butanone	ND	27.0	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
2-Chlorotoluene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
2-Hexanone	ND	13.5	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
4-Chlorotoluene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
4-Isopropyltoluene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
4-Methyl-2-pentanone	ND	27.0	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Acetone	ND	67.4	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Benzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Bromobenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Bromochloromethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Bromodichloromethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Bromoform	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Bromomethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Carbon Disulfide	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Carbon tetrachloride	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Chlorobenzene	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Chloroethane	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	
Chloroform	ND	6.74	ug/Kg-dry	1	2/5/2012 7:08:00 PM	

	Iaul, Foster & Ale ormer Carnation	-	04.02			Lab Order:	1201252
VOLATILES BY GO	/MS	;	SW8260B				Analyst: rkg
Chloromethane		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
cis-1,2-Dichloroethen	e	ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
cis-1,3-Dichloroprope	ne	ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Dibromochloromethar	ne	ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Dibromomethane		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Dichlorodifluorometha	ine	ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Ethylbenzene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Hexachlorobutadiene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Isopropylbenzene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
m,p-Xylene		ND	13.5		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Methyl tert-butyl ether		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Methylene Chloride		ND	33.7		ug/Kg-dry	1	2/5/2012 7:08:00 PM
n-Butylbenzene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
n-Propylbenzene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Naphthalene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
o-Xylene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
sec-Butylbenzene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Styrene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
tert-Butylbenzene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Tetrachloroethene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Toluene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
trans-1,2-Dichloroeth	ene	ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
trans-1,3-Dichloropro	pene	ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Trichloroethene		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Trichlorofluoromethar	ie	ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Vinyl Chloride		ND	6.74		ug/Kg-dry	1	2/5/2012 7:08:00 PM
Surr: 1,2-Dichloroe	thane-d4	126	71.5-112	S	%REC	1	2/5/2012 7:08:00 PM
Surr: 4-Bromofluor	obenzene	93.2	75.7-122		%REC	1	2/5/2012 7:08:00 PM
Surr: Dibromofluor	omethane	127	64.3-124	S	%REC	1	2/5/2012 7:08:00 PM
Surr: Toluene-d8		99.2	74.9-120		%REC	1	2/5/2012 7:08:00 PM

Lab ID:	1201252-29		Collection Da	ate: 1/26/20)12 9:20:00 AM
Client Sample ID:	GP01-S-10.0		Mat	rix: SOIL	
Analyses		Result	Limit Qual Units	DF	Date Analyzed
HOLD PER CLIENT	REQUEST	P Hold	ER CLIENT	1	Analyst: knt 2/14/2012
Tiolu		Tiolu			2/14/2012

CLIENT:Maul, Foster & AlorProject:Former Carnation Project:	-	5.04.02		Lab Orde	er: 1201252
Lab ID: 1201252-30			Collection Da	te: 1/26/20	012 9:30:00 AM
Client Sample ID: GP01-S-15.0				ix: SOIL	
Analyses	Result	Limit Qu	al Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	19.7	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	65.8	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	72.7	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.61	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	64.0	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cm t
Lead	7.13	2.44	mg/Kg-dry	1	2/6/2012 11:34:44 AM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,1,1-Trichloroethane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,1,2,2-Tetrachloroethane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,1,2-Trichloroethane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,1-Dichloroethane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,1-Dichloroethene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,1-Dichloropropene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2,3-Trichlorobenzene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2,3-Trichloropropane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2,4-Trichlorobenzene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2,4-Trimethylbenzene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2-Dibromo-3-chloropropane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2-Dibromoethane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2-Dichlorobenzene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2-Dichloroethane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,2-Dichloropropane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,3,5-Trimethylbenzene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,3-Dichlorobenzene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,3-Dichloropropane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
1,4-Dichlorobenzene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
2,2-Dichloropropane	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
2-Butanone	ND	56.2	ug/Kg-dry	1	2/5/2012 7:42:00 PM
2-Chlorotoluene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
2-Hexanone	ND	28.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
4-Chlorotoluene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
4-Isopropyltoluene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM
4-Methyl-2-pentanone	ND	56.2	ug/Kg-dry	1	2/5/2012 7:42:00 PM
Acetone	ND	141	ug/Kg-dry	1	2/5/2012 7:42:00 PM
Benzene	ND	14.1	ug/Kg-dry	1	2/5/2012 7:42:00 PM

CLIENT: M	aul, Foster & Alo	ngi				Lab Order:	1201252
Project: Fo	ormer Carnation F	Property / 0346.	04.02				
VOLATILES BY GC/	MS		SW8260B				Analyst: rkg
Bromobenzene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Bromochloromethane		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Bromodichloromethane	9	ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Bromoform		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Bromomethane		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Carbon Disulfide		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Carbon tetrachloride		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Chlorobenzene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Chloroethane		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Chloroform		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Chloromethane		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
cis-1,2-Dichloroethene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
cis-1,3-Dichloropropen	e	ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Dibromochloromethane	9	ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Dibromomethane		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Dichlorodifluoromethar	e	ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Ethylbenzene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Hexachlorobutadiene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Isopropylbenzene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
m,p-Xylene		ND	28.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Methyl tert-butyl ether		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Methylene Chloride		ND	70.3		ug/Kg-dry	1	2/5/2012 7:42:00 PM
n-Butylbenzene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
n-Propylbenzene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Naphthalene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
o-Xylene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
sec-Butylbenzene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Styrene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
tert-Butylbenzene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Tetrachloroethene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Toluene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
trans-1,2-Dichloroethe	ne	ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
trans-1,3-Dichloroprop	ene	ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Trichloroethene		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Trichlorofluoromethane	9	ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Vinyl Chloride		ND	14.1		ug/Kg-dry	1	2/5/2012 7:42:00 PM
Surr: 1,2-Dichloroeth	nane-d4	115	71.5-112	s	%REC	1	2/5/2012 7:42:00 PM
Surr: 4-Bromofluoro	benzene	91.6	75.7-122		%REC	1	2/5/2012 7:42:00 PM
Surr: Dibromofluoro	nethane	119	64.3-124		%REC	1	2/5/2012 7:42:00 PM
Surr: Toluene-d8		107	74.9-120		%REC	1	2/5/2012 7:42:00 PM

	Maul, Foster & Alongi Former Carnation Prope	erty / 0346	5.04.02]	Lab Order:	1201252
Lab ID:	1201252-31			(Collection Dat	e: 1/26/201	2 11:30:00 AM
Client Sample ID	: GP02-S-1.0				Matri	x: SOIL	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-32			(Collection Dat	e: 1/26/201	2 11:40:00 AM
Client Sample ID	: GP02-S-5.0				Matri	x: SOIL	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-33			(Collection Dat	e: 1/26/201	2 11:50:00 PM
Client Sample ID	: GP02-S-10.0				Matri	x: SOIL	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012

CLIENT:Maul, Foster & AlorProject:Former Carnation Project:	•	5.04.02		Lab Orde	er: 1201252
Lab ID: 1201252-34			Collection Da	te: 1/26/20	012 12:00:00 PM
Client Sample ID: GP02-S-15.0			Matr	ix: SOIL	
Analyses	Result	Limit Qual	Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	19.1	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	63.7	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	97.7	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	4.34	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	69.3	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cmt
Lead	ND	2.45	mg/Kg-dry	1	2/3/2012 5:53:23 PM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,1,1-Trichloroethane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,1,2,2-Tetrachloroethane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,1,2-Trichloroethane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,1-Dichloroethane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,1-Dichloroethene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,1-Dichloropropene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2,3-Trichlorobenzene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2,3-Trichloropropane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2,4-Trichlorobenzene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2,4-Trimethylbenzene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2-Dibromo-3-chloropropane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2-Dibromoethane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2-Dichlorobenzene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2-Dichloroethane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,2-Dichloropropane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,3,5-Trimethylbenzene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,3-Dichlorobenzene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,3-Dichloropropane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
1,4-Dichlorobenzene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
2,2-Dichloropropane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
2-Butanone	ND	62.5	ug/Kg-dry	1	2/5/2012 8:17:00 PM
2-Chlorotoluene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
2-Hexanone	ND	31.3	ug/Kg-dry	1	2/5/2012 8:17:00 PM
4-Chlorotoluene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
4-Isopropyltoluene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
4-Methyl-2-pentanone	ND	62.5	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Acetone	ND	156	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Benzene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM

CLIENT:	Maul, Foster & Ald	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
VOLATILES BY G	C/MS	:	SW8260B			Analyst: rkg
Bromobenzene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Bromochlorometha	ne	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Bromodichlorometh	ane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Bromoform		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Bromomethane		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Carbon Disulfide		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Carbon tetrachloride	e	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Chlorobenzene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Chloroethane		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Chloroform		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Chloromethane		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
cis-1,2-Dichloroethe	ene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
cis-1,3-Dichloropro	pene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Dibromochlorometh	ane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Dibromomethane		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Dichlorodifluoromet	hane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Ethylbenzene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Hexachlorobutadier	e	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Isopropylbenzene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
m,p-Xylene		ND	31.3	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Methyl tert-butyl eth	er	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Methylene Chloride		ND	78.2	ug/Kg-dry	1	2/5/2012 8:17:00 PM
n-Butylbenzene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
n-Propylbenzene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Naphthalene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
o-Xylene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
sec-Butylbenzene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Styrene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
tert-Butylbenzene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Tetrachloroethene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Toluene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
trans-1,2-Dichloroe	thene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
trans-1,3-Dichlorop	ropene	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Trichloroethene		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Trichlorofluorometh	ane	ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Vinyl Chloride		ND	15.6	ug/Kg-dry	1	2/5/2012 8:17:00 PM
Surr: 1,2-Dichlor	pethane-d4	111	71.5-112	%REC	1	2/5/2012 8:17:00 PM
Surr: 4-Bromoflu	orobenzene	96.2	75.7-122	%REC	1	2/5/2012 8:17:00 PM
Surr: Dibromoflu	promethane	124	64.3-124	%REC	1	2/5/2012 8:17:00 PM
Surr: Toluene-d8		102	74.9-120	%REC	1	2/5/2012 8:17:00 PM

	Maul, Foster & Alongi Former Carnation Prope	erty / 0346	5.04.02		La	b Order:	1201252
Lab ID:	1201252-35			(Collection Date:	1/26/201	2 2:00:00 PM
Client Sample ID	: GP03-S-1.0				Matrix:	SOIL	
Analyses		Result	Limit Q)ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-36			(Collection Date:	1/26/201	2 2:10:00 PM
Client Sample ID	: GP03-S-5.0				Matrix:	SOIL	
Analyses		Result	Limit Q)ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-37			(Collection Date:	1/26/201	2 2:20:00 PM
Client Sample ID	GP03-S-10.0				Matrix:	SOIL	
Analyses		Result	Limit Q)ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alon Project: Former Carnation Pr	-	5.04.02		Lab Orde	er: 1201252
•	1 2				012 2 20 00 DM
Lab ID: 1201252-38					012 2:30:00 PM
Client Sample ID: GP03-S-15.0			Ma	trix: SOIL	
Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	19.5	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	65.0	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	81.2	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.75	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	67.9	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cmt
Lead	6.55	2.60	mg/Kg-dry	1	2/3/2012 5:58:22 PM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,1,1-Trichloroethane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,1,2,2-Tetrachloroethane	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,1,2-Trichloroethane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,1-Dichloroethane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,1-Dichloroethene	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,1-Dichloropropene	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,2,3-Trichlorobenzene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,2,3-Trichloropropane	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,2,4-Trichlorobenzene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,2,4-Trimethylbenzene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,2-Dibromo-3-chloropropane	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,2-Dibromoethane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,2-Dichlorobenzene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,2-Dichloroethane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,2-Dichloropropane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,3,5-Trimethylbenzene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,3-Dichlorobenzene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
1,3-Dichloropropane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
1,4-Dichlorobenzene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
2,2-Dichloropropane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
2-Butanone	ND	56.1	ug/Kg-dry	1	2/5/2012 8:51:00 PM
2-Chlorotoluene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
2-Hexanone	ND	28.1	ug/Kg-dry	1	2/5/2012 8:51:00 PM
4-Chlorotoluene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
4-Isopropyltoluene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
4-Methyl-2-pentanone	ND	56.1	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Acetone	ND	140	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Benzene	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM

CLIENT:	Maul, Foster & Ale	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
VOLATILES BY	GC/MS		SW8260B			Analyst: rkg
Bromobenzene		ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
Bromochlorometha	ane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Bromodichloromet	hane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Bromoform		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Bromomethane		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Carbon Disulfide		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Carbon tetrachlorie	de	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Chlorobenzene		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Chloroethane		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Chloroform		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Chloromethane		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
cis-1,2-Dichloroeth	nene	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
cis-1,3-Dichloropro	opene	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Dibromochloromet	hane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Dibromomethane		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Dichlorodifluorome	ethane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Ethylbenzene		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Hexachlorobutadie	ene	ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
Isopropylbenzene		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
m,p-Xylene		ND	28.1	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Methyl tert-butyl et	her	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Methylene Chloride	е	ND	70.1	ug/Kg-dry	1	2/5/2012 8:51:00 PM
n-Butylbenzene		ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
n-Propylbenzene		ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
Naphthalene		ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
o-Xylene		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
sec-Butylbenzene		ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
Styrene		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
tert-Butylbenzene		ND	15.7	ug/Kg-dry	1	2/7/2012 10:16:00 AM
Tetrachloroethene		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Toluene		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
trans-1,2-Dichloro	ethene	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
trans-1,3-Dichloro	propene	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Trichloroethene		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Trichlorofluoromet	hane	ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Vinyl Chloride		ND	14.0	ug/Kg-dry	1	2/5/2012 8:51:00 PM
Surr: 1,2-Dichlo	proethane-d4	110	71.5-112	%REC	1	2/5/2012 8:51:00 PM
Surr: 4-Bromofl	uorobenzene	94.1	75.7-122	%REC	1	2/5/2012 8:51:00 PM
Surr: Dibromofle	uoromethane	122	64.3-124	%REC	1	2/5/2012 8:51:00 PM
Surr: Toluene-d	8	105	74.9-120	%REC	1	2/5/2012 8:51:00 PM

CLIENT: Project:	Maul, Foster & Alor Former Carnation P	0	4.02	Lab Order	: 1201252
Lab ID: Client Sample	1201252-39 e ID: GP04-S-1.0			Date: 1/25/201 trix: SOIL	12 1:30:00 PM
Analyses		Result	Limit Qual Units	DF	Date Analyzed
HOLD PER CL	IENT REQUEST	P Hold	PER CLIENT	1	Analyst: knt 2/14/2012

Date: 14-Feb-12

CLIENT:Maul, Foster & AlonProject:Former Carnation Pr	-	04.02		Lab Order	:: 1201252			
Lab ID: 1201252-40			Collection D	ate: 1/25/20	12 1:40:00 PM			
Client Sample ID: GP04-S-5.0		Matrix: SOIL						
Analyses	Result	Limit	Qual Units	DF	Date Analyzed			
VOLATILES BY GC/MS		SW8260B			Analyst: rkg			
1,1,1,2-Tetrachloroethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,1,1-Trichloroethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,1,2,2-Tetrachloroethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,1,2-Trichloroethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,1-Dichloroethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,1-Dichloroethene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,1-Dichloropropene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2,3-Trichlorobenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2,3-Trichloropropane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2,4-Trichlorobenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2,4-Trimethylbenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2-Dibromo-3-chloropropane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2-Dibromoethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2-Dichlorobenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2-Dichloroethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,2-Dichloropropane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,3,5-Trimethylbenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,3-Dichlorobenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,3-Dichloropropane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
1,4-Dichlorobenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
2,2-Dichloropropane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
2-Butanone	ND	57.7	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
2-Chlorotoluene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
2-Hexanone	ND	28.9	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
4-Chlorotoluene	ND	14.4		1	2/5/2012 5:59:00 PM			
	ND	14.4	ug/Kg-dry ug/Kg-dry	1	2/5/2012 5:59:00 PM			
4-Isopropyltoluene 4-Methyl-2-pentanone	ND	57.7	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
				1				
Acetone	ND	144	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Benzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Bromobenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Bromochloromethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Bromodichloromethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Bromoform	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Bromomethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Carbon Disulfide	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Carbon tetrachloride	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Chlorobenzene	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Chloroethane	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			
Chloroform	ND	14.4	ug/Kg-dry	1	2/5/2012 5:59:00 PM			

CLIENT: Project:	Maul, Foster & Alongi Former Carnation Prop		04.02			Lab Order:	1201252
VOLATILES BY	GC/MS		SW8260B				Analyst: rkg
Chloromethane		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
cis-1,2-Dichloroet	hene	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
cis-1,3-Dichloropr	opene	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Dibromochlorome	thane	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Dibromomethane		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Dichlorodifluorome	ethane	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Ethylbenzene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Hexachlorobutadie	ene	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Isopropylbenzene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
m,p-Xylene		ND	28.9		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Methyl tert-butyl et	ther	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Methylene Chlorid	e	ND	72.2		ug/Kg-dry	1	2/5/2012 5:59:00 PM
n-Butylbenzene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
n-Propylbenzene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Naphthalene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
o-Xylene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
sec-Butylbenzene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Styrene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
tert-Butylbenzene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Tetrachloroethene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Toluene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
trans-1,2-Dichloro	ethene	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
trans-1,3-Dichloro	propene	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Trichloroethene		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Trichlorofluoromet	hane	ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Vinyl Chloride		ND	14.4		ug/Kg-dry	1	2/5/2012 5:59:00 PM
Surr: 1,2-Dichlo	proethane-d4	117	71.5-112	S	%REC	1	2/5/2012 5:59:00 PM
Surr: 4-Bromofl	uorobenzene	92.0	75.7-122		%REC	1	2/5/2012 5:59:00 PM
Surr: Dibromofl	uoromethane	116	64.3-124		%REC	1	2/5/2012 5:59:00 PM
Surr: Toluene-d	18	99.0	74.9-120		%REC	1	2/5/2012 5:59:00 PM

Lab ID:	1201252-41		Collection Da	ate: 1/25/20	012 1:50:00 PM
Client Sample ID:	GP04-S-10.0		Mat	rix: SOIL	
Analyses		Result	Limit Qual Units	DF	Date Analyzed
HOLD PER CLIENT Hold	REQUEST	P Hold	ER CLIENT	1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alon Project: Former Carnation Pr	-	5.04.02		Lab Orde	er: 1201252
•	operty / 05 K		~ ~ ~ ~		
Lab ID: 1201252-42					012 2:00:00 PM
Client Sample ID: GP04-S-15.0			Ma	trix: SOIL	
Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	20.1	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	66.9	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	70.8	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.68	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	60.8	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cmt
Lead	5.18	2.68	mg/Kg-dry	1	2/3/2012 5:23:40 PM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,1,1-Trichloroethane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,1,2,2-Tetrachloroethane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,1,2-Trichloroethane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,1-Dichloroethane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,1-Dichloroethene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,1-Dichloropropene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2,3-Trichlorobenzene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2,3-Trichloropropane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2,4-Trichlorobenzene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2,4-Trimethylbenzene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2-Dibromo-3-chloropropane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2-Dibromoethane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2-Dichlorobenzene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2-Dichloroethane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,2-Dichloropropane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,3,5-Trimethylbenzene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,3-Dichlorobenzene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,3-Dichloropropane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
1,4-Dichlorobenzene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
2,2-Dichloropropane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
2-Butanone	ND	60.1	ug/Kg-dry	1	2/5/2012 6:34:00 PM
2-Chlorotoluene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
2-Hexanone	ND	30.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
4-Chlorotoluene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
4-Isopropyltoluene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
4-Methyl-2-pentanone	ND	60.1	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Acetone	ND	150	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Benzene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM

CLIENT:	Maul, Foster & Alo	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
VOLATILES BY G	C/MS		SW8260B			Analyst: rkg
Bromobenzene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Bromochloromethan	е	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Bromodichlorometha	ne	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Bromoform		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Bromomethane		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Carbon Disulfide		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Carbon tetrachloride		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Chlorobenzene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Chloroethane		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Chloroform		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Chloromethane		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
cis-1,2-Dichloroethe	ne	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
cis-1,3-Dichloroprop	ene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Dibromochlorometha	ane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Dibromomethane		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Dichlorodifluorometh	ane	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Ethylbenzene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Hexachlorobutadien	e	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Isopropylbenzene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
m,p-Xylene		ND	30.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Methyl tert-butyl ethe	er	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Methylene Chloride		ND	75.1	ug/Kg-dry	1	2/5/2012 6:34:00 PM
n-Butylbenzene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
n-Propylbenzene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Naphthalene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
o-Xylene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
sec-Butylbenzene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Styrene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
tert-Butylbenzene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Tetrachloroethene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Toluene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
trans-1,2-Dichloroet	nene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
trans-1,3-Dichloropr	opene	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Trichloroethene		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Trichlorofluorometha	ine	ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Vinyl Chloride		ND	15.0	ug/Kg-dry	1	2/5/2012 6:34:00 PM
Surr: 1,2-Dichlord	ethane-d4	105	71.5-112	%REC	1	2/5/2012 6:34:00 PM
Surr: 4-Bromofluc	robenzene	90.4	75.7-122	%REC	1	2/5/2012 6:34:00 PM
Surr: Dibromofluc	romethane	116	64.3-124	%REC	1	2/5/2012 6:34:00 PM
Surr: Toluene-d8		104	74.9-120	%REC	1	2/5/2012 6:34:00 PM

	Maul, Foster & Alongi Former Carnation Prope	erty / 0346	5.04.02	La	b Order:	1201252
Lab ID:	1201252-43			Collection Date:	1/24/201	2 1:00:00 PM
Client Sample ID	: GP05-S-1.0			Matrix:	SOIL	
Analyses		Result	Limit Qua	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012
Lab ID:	1201252-44			Collection Date:	1/24/201	2 1:10:00 PM
Client Sample ID	: GP05-S-5.0			Matrix:	SOIL	
Analyses		Result	Limit Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012
Lab ID:	1201252-45			Collection Date:	1/24/201	2 1:20:00 PM
Client Sample ID	: GP05-S-10.0			Matrix:	SOIL	
Analyses		Result	Limit Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alor Project: Former Carnation Pr	0	5 04 02		Lab Orde	er: 1201252
•	operty / 05 K	5.01.02			
Lab ID: 1201252-46			Collection Da	te: 1/24/2	012 1:30:00 PM
Client Sample ID: GP05-S-15.0			Matr	ix: SOIL	
Analyses	Result	Limit (Qual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	18.5	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	61.7	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	81.6	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.25	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	67.6	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cmt
Lead	6.63	2.13	mg/Kg-dry	1	2/3/2012 6:03:21 PM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,1,1-Trichloroethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,1,2,2-Tetrachloroethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,1,2-Trichloroethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,1-Dichloroethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,1-Dichloroethene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,1-Dichloropropene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2,3-Trichlorobenzene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2,3-Trichloropropane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2,4-Trichlorobenzene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2,4-Trimethylbenzene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2-Dibromo-3-chloropropane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2-Dibromoethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2-Dichlorobenzene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2-Dichloroethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,2-Dichloropropane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,3,5-Trimethylbenzene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,3-Dichlorobenzene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,3-Dichloropropane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
1,4-Dichlorobenzene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
2,2-Dichloropropane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
2-Butanone	ND	53.4	ug/Kg-dry	1	2/5/2012 3:09:00 PM
2-Chlorotoluene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
2-Hexanone	ND	26.7	ug/Kg-dry	1	2/5/2012 3:09:00 PM
4-Chlorotoluene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
4-Isopropyltoluene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
4-Methyl-2-pentanone	ND	53.4	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Acetone	ND	133	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Benzene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM

CLIENT:	Maul, Foster & Alo	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
VOLATILES BY GC/MS			SW8260B			Analyst: rkg
Bromobenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Bromochlorometh	nane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Bromodichlorome	ethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Bromoform		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Bromomethane		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Carbon Disulfide		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Carbon tetrachlor	ide	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Chlorobenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Chloroethane		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Chloroform		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Chloromethane		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
cis-1,2-Dichloroe	thene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
cis-1,3-Dichlorop	ropene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Dibromochlorome	ethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Dibromomethane		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Dichlorodifluorom	lethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Ethylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Hexachlorobutad	ene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Isopropylbenzene	9	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
m,p-Xylene		ND	26.7	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Methyl tert-butyl e	ether	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Methylene Chlori	de	ND	66.7	ug/Kg-dry	1	2/5/2012 3:09:00 PM
n-Butylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
n-Propylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Naphthalene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
o-Xylene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
sec-Butylbenzen	e	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Styrene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
tert-Butylbenzene	•	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Tetrachloroethen	e	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Toluene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
trans-1,2-Dichlor	pethene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
trans-1,3-Dichlor	opropene	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Trichloroethene		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Trichlorofluorome	ethane	ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Vinyl Chloride		ND	13.3	ug/Kg-dry	1	2/5/2012 3:09:00 PM
Surr: 1,2-Dichl	oroethane-d4	106	71.5-112	%REC	1	2/5/2012 3:09:00 PM
Surr: 4-Bromo	luorobenzene	94.8	75.7-122	%REC	1	2/5/2012 3:09:00 PM
Surr: Dibromot	luoromethane	113	64.3-124	%REC	1	2/5/2012 3:09:00 PM
Surr: Toluene-	d8	99.4	74.9-120	%REC	1	2/5/2012 3:09:00 PM

	Maul, Foster & Alongi Former Carnation Prope	erty / 0346	5.04.02		Lab Order:	1201252
Lab ID:	1201252-47			Collection	Date: 1/24/201	2 8:30:00 AM
Client Sample ID	: GP06-S-1.0			Μ	atrix: SOIL	
Analyses		Result	Limit Qua	al Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012
Lab ID:	1201252-48			Collection	Date: 1/24/201	2 8:40:00 AM
Client Sample ID	: GP06-S-5.0			Μ	atrix: SOIL	
Analyses		Result	Limit Qua	al Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012
Lab ID:	1201252-49			Collection	Date: 1/24/201	2 8:50:00 AM
Client Sample ID	: GP06-S-10.0			Μ	atrix: SOIL	
Analyses		Result	Limit Qua	al Units	DF	Date Analyzed
HOLD PER CLIEN	IT REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alor Project: Former Carnation Pr	0	5.04.02		Lab Orde	er: 1201252
•					
Lab ID: 1201252-50			Collection Da	te: 1/24/2	012 9:00:00 AM
Client Sample ID: GP06-S-15.0			Matu	ix: SOIL	
Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	19.7	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	65.7	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	78.0	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.83	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	66.8	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cm
Lead	9.14	2.35	mg/Kg-dry	1	2/6/2012 11:39:43 AM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,1,1-Trichloroethane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,1,2,2-Tetrachloroethane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,1,2-Trichloroethane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,1-Dichloroethane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,1-Dichloroethene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,1-Dichloropropene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2,3-Trichlorobenzene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2,3-Trichloropropane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2,4-Trichlorobenzene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2,4-Trimethylbenzene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2-Dibromo-3-chloropropane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2-Dibromoethane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2-Dichlorobenzene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2-Dichloroethane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,2-Dichloropropane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,3,5-Trimethylbenzene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,3-Dichlorobenzene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,3-Dichloropropane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
1,4-Dichlorobenzene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
2,2-Dichloropropane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
2-Butanone	ND	61.0	ug/Kg-dry	1	2/5/2012 3:42:00 PM
2-Chlorotoluene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
2-Hexanone	ND	30.5	ug/Kg-dry	1	2/5/2012 3:42:00 PM
4-Chlorotoluene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
4-Isopropyltoluene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
4-Methyl-2-pentanone	ND	61.0	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Acetone	ND	153	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Benzene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM

CLIENT:	Maul, Foster & Ale	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
/OLATILES BY GC/MS		:	SW8260B			Analyst: rkg
Bromobenzene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Bromochloromethar	e	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Bromodichlorometha	ane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Bromoform		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Bromomethane		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Carbon Disulfide		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Carbon tetrachloride	e	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Chlorobenzene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Chloroethane		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Chloroform		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Chloromethane		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
cis-1,2-Dichloroethe	ene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
cis-1,3-Dichloroprop	bene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Dibromochlorometh	ane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Dibromomethane		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Dichlorodifluoromet	hane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Ethylbenzene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Hexachlorobutadien	e	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Isopropylbenzene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
m,p-Xylene		ND	30.5	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Methyl tert-butyl eth	er	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Methylene Chloride		ND	76.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
n-Butylbenzene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
n-Propylbenzene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Naphthalene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
o-Xylene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
sec-Butylbenzene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Styrene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
tert-Butylbenzene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Tetrachloroethene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Toluene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
trans-1,2-Dichloroet	hene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
trans-1,3-Dichloropi	opene	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Trichloroethene		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Trichlorofluorometha	ane	ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Vinyl Chloride		ND	15.3	ug/Kg-dry	1	2/5/2012 3:42:00 PM
Surr: 1,2-Dichloro	bethane-d4	106	71.5-112	%REC	1	2/5/2012 3:42:00 PM
Surr: 4-Bromoflue	probenzene	95.2	75.7-122	%REC	1	2/5/2012 3:42:00 PM
Surr: Dibromofluc	promethane	110	64.3-124	%REC	1	2/5/2012 3:42:00 PM
Surr: Toluene-d8		97.3	74.9-120	%REC	1	2/5/2012 3:42:00 PM

	Maul, Foster & Alongi Former Carnation Prope	erty / 0346	5.04.02		La	b Order:	1201252
Lab ID:	1201252-51			(Collection Date:	1/23/201	2 1:30:00 PM
Client Sample ID	GP07-S-1.0				Matrix:	SOIL	
Analyses		Result	Limit Q	ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	NT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-52			(Collection Date:	1/23/201	2 1:40:00 PM
Client Sample ID	GP07-S-5.0				Matrix:	SOIL	
Analyses		Result	Limit Q	ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	NT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-53			(Collection Date:	1/23/201	2 1:50:00 PM
Client Sample ID	: GP07-S-10.0				Matrix:	SOIL	
Analyses		Result	Limit Q	ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	NT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alor Project: Former Carnation Pr	e	5 04 02		Lab Orde	er: 1201252
•	operty / 05 k	5.01.02			
Lab ID: 1201252-54			Collection Da	te: 1/23/2	012 2:00:00 PM
Client Sample ID: GP07-S-15.0			Matı	rix: SOIL	
Analyses	Result	Limit (Qual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	18.1	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	60.3	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	86.2	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	5.44	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	72.8	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cm t
Lead	6.95	2.32	mg/Kg-dry	1	2/6/2012 11:00:00 AM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,1,1-Trichloroethane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,1,2,2-Tetrachloroethane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,1,2-Trichloroethane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,1-Dichloroethane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,1-Dichloroethene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,1-Dichloropropene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2,3-Trichlorobenzene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2,3-Trichloropropane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2,4-Trichlorobenzene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2,4-Trimethylbenzene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2-Dibromo-3-chloropropane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2-Dibromoethane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2-Dichlorobenzene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2-Dichloroethane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,2-Dichloropropane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,3,5-Trimethylbenzene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,3-Dichlorobenzene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,3-Dichloropropane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
1,4-Dichlorobenzene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
2,2-Dichloropropane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
2-Butanone	ND	51.5	ug/Kg-dry	1	2/5/2012 2:35:00 PM
2-Chlorotoluene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
2-Hexanone	ND	25.7	ug/Kg-dry	1	2/5/2012 2:35:00 PM
4-Chlorotoluene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
4-Isopropyltoluene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
4-Methyl-2-pentanone	ND	51.5	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Acetone	ND	129	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Benzene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM

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CLIENT:	Maul, Foster & Alo	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
VOLATILES BY G	C/MS	:	SW8260B			Analyst: rkg
Bromobenzene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Bromochloromethar	e	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Bromodichlorometha	ane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Bromoform		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Bromomethane		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Carbon Disulfide		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Carbon tetrachloride	9	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Chlorobenzene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Chloroethane		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Chloroform		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Chloromethane		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
cis-1,2-Dichloroethe	ne	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
cis-1,3-Dichloroprop	bene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Dibromochlorometh	ane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Dibromomethane		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Dichlorodifluoromet	nane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Ethylbenzene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Hexachlorobutadien	е	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Isopropylbenzene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
m,p-Xylene		ND	25.7	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Methyl tert-butyl eth	er	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Methylene Chloride		ND	64.3	ug/Kg-dry	1	2/5/2012 2:35:00 PM
n-Butylbenzene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
n-Propylbenzene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Naphthalene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
o-Xylene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
sec-Butylbenzene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Styrene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
tert-Butylbenzene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Tetrachloroethene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Toluene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
trans-1,2-Dichloroet	hene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
trans-1,3-Dichloropi	opene	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Trichloroethene		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Trichlorofluorometha	ane	ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Vinyl Chloride		ND	12.9	ug/Kg-dry	1	2/5/2012 2:35:00 PM
Surr: 1,2-Dichloro	bethane-d4	105	71.5-112	%REC	1	2/5/2012 2:35:00 PM
Surr: 4-Bromoflue	probenzene	92.4	75.7-122	%REC	1	2/5/2012 2:35:00 PM
Surr: Dibromofluc	promethane	108	64.3-124	%REC	1	2/5/2012 2:35:00 PM
Surr: Toluene-d8		101	74.9-120	%REC	1	2/5/2012 2:35:00 PM

CLIENT: Maul, Foster & Alo Project: Former Carnation F	•	5 04 02			Lab Order:	1201252
Toject. Tormer Carnation T	Toperty / 034	5.04.02				
Lab ID: 1201252-55			(Collection D	ate: 1/24/201	2 5:00:00 PM
Client Sample ID: GP08-S-1.0				Mat	trix: SOIL	
Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX				Analyst: kh
Diesel	155	16.3	A1	mg/Kg-dry	1	2/6/2012
Lube Oil	399	54.4	A2	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	99.0	50-150		%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX				Analyst: jrp
Gasoline	49.0	3.77		mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	75.7	50-150		%REC	1	2/3/2012
FOTAL METALS BY ICP		E6010				Analyst: cm
Lead	876	1.88		mg/Kg-dry	1	2/6/2012 11:04:58 AM
VOLATILES BY GC/MS		SW8260B				Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,1,1-Trichloroethane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,1,2,2-Tetrachloroethane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,1,2-Trichloroethane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,1-Dichloroethane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,1-Dichloroethene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,1-Dichloropropene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2,3-Trichlorobenzene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2,3-Trichloropropane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2,4-Trichlorobenzene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2,4-Trimethylbenzene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2-Dibromo-3-chloropropane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2-Dibromoethane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2-Dichlorobenzene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2-Dichloroethane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,2-Dichloropropane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,3,5-Trimethylbenzene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,3-Dichlorobenzene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,3-Dichloropropane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
1,4-Dichlorobenzene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
2,2-Dichloropropane	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
2-Butanone	ND	53.4		ug/Kg-dry	1	2/5/2012 4:17:00 PM
2-Chlorotoluene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
2-Hexanone	ND	26.7		ug/Kg-dry	1	2/5/2012 4:17:00 PM
4-Chlorotoluene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
4-Isopropyltoluene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM
4-Methyl-2-pentanone	ND	53.4		ug/Kg-dry	1	2/5/2012 4:17:00 PM
Acetone	ND	133		ug/Kg-dry	1	2/5/2012 4:17:00 PM
Benzene	ND	13.3		ug/Kg-dry	1	2/5/2012 4:17:00 PM

CLIENT:	Maul, Foster & Alo	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
VOLATILES BY G	C/MS	:	SW8260B			Analyst: rkg
Bromobenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Bromochloromethar	e	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Bromodichlorometha	ane	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Bromoform		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Bromomethane		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Carbon Disulfide		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Carbon tetrachloride	9	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Chlorobenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Chloroethane		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Chloroform		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Chloromethane		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
cis-1,2-Dichloroethe	ne	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
cis-1,3-Dichloroprop	bene	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Dibromochlorometh	ane	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Dibromomethane		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Dichlorodifluoromet	nane	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Ethylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Hexachlorobutadien	е	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Isopropylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
m,p-Xylene		ND	26.7	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Methyl tert-butyl eth	er	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Methylene Chloride		ND	66.7	ug/Kg-dry	1	2/5/2012 4:17:00 PM
n-Butylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
n-Propylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Naphthalene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
o-Xylene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
sec-Butylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Styrene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
tert-Butylbenzene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Tetrachloroethene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Toluene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
trans-1,2-Dichloroet	hene	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
trans-1,3-Dichloropi	opene	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Trichloroethene		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Trichlorofluorometha	ane	ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Vinyl Chloride		ND	13.3	ug/Kg-dry	1	2/5/2012 4:17:00 PM
Surr: 1,2-Dichloro	bethane-d4	105	71.5-112	%REC	1	2/5/2012 4:17:00 PM
Surr: 4-Bromoflue	probenzene	88.3	75.7-122	%REC	1	2/5/2012 4:17:00 PM
Surr: Dibromofluc	promethane	109	64.3-124	%REC	1	2/5/2012 4:17:00 PM
Surr: Toluene-d8		103	74.9-120	%REC	1	2/5/2012 4:17:00 PM

	Maul, Foster & Alon Former Carnation Pr	0	5.04.02		Lab Order	: 1201252
Lab ID: Client Sample ID:	1201252-56 GP08-S-5.0				Date: 1/24/201 [atrix: SOIL	12 5:10:00 PM
Analyses		Result	Limit Qu	al Units	DF	Date Analyzed
HOLD PER CLIEN	T REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012
Lab ID:	1201252-57			Collection	Date: 1/24/201	12 5:20:00 PM
Client Sample ID:	GP08-S-10.0			Μ	latrix: SOIL	
Analyses		Result	Limit Qu	al Units	DF	Date Analyzed
HOLD PER CLIEN	T REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alor Project: Former Carnation Pr	0	5 04 02		Lab Orde	er: 1201252
•	operty / 054	5.04.02			
Lab ID: 1201252-58			Collection Da	te: 1/24/2	012 5:30:00 PM
Client Sample ID: GP08-S-15.0			Matı	rix: SOIL	
Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	19.1	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	63.7	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	82.0	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.99	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	72.1	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cm
Lead	7.15	2.27	mg/Kg-dry	1	2/6/2012 11:09:53 AM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,1,1-Trichloroethane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,1,2,2-Tetrachloroethane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,1,2-Trichloroethane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,1-Dichloroethane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,1-Dichloroethene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,1-Dichloropropene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2,3-Trichlorobenzene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2,3-Trichloropropane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2,4-Trichlorobenzene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2,4-Trimethylbenzene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2-Dibromo-3-chloropropane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2-Dibromoethane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2-Dichlorobenzene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2-Dichloroethane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,2-Dichloropropane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,3,5-Trimethylbenzene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,3-Dichlorobenzene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,3-Dichloropropane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
1,4-Dichlorobenzene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
2,2-Dichloropropane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
2-Butanone	ND	68.3	ug/Kg-dry	1	2/5/2012 4:51:00 PM
2-Chlorotoluene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
2-Hexanone	ND	34.2	ug/Kg-dry	1	2/5/2012 4:51:00 PM
4-Chlorotoluene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
4-Isopropyltoluene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
4-Methyl-2-pentanone	ND	68.3	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Acetone	ND	171	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Benzene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM

CLIENT:	Maul, Foster & Ald	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
VOLATILES BY G	C/MS	:	SW8260B			Analyst: rkg
Bromobenzene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Bromochlorometha	ne	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Bromodichlorometh	ane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Bromoform		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Bromomethane		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Carbon Disulfide		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Carbon tetrachloride	e	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Chlorobenzene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Chloroethane		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Chloroform		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Chloromethane		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
cis-1,2-Dichloroethe	ene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
cis-1,3-Dichloropro	pene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Dibromochlorometh	ane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Dibromomethane		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Dichlorodifluoromet	hane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Ethylbenzene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Hexachlorobutadier	ie	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Isopropylbenzene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
m,p-Xylene		ND	34.2	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Methyl tert-butyl eth	er	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Methylene Chloride		ND	85.4	ug/Kg-dry	1	2/5/2012 4:51:00 PM
n-Butylbenzene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
n-Propylbenzene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Naphthalene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
o-Xylene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
sec-Butylbenzene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Styrene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
tert-Butylbenzene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Tetrachloroethene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Toluene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
trans-1,2-Dichloroe	thene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
trans-1,3-Dichlorop	ropene	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Trichloroethene		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Trichlorofluorometh	ane	ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Vinyl Chloride		ND	17.1	ug/Kg-dry	1	2/5/2012 4:51:00 PM
Surr: 1,2-Dichlor	oethane-d4	112	71.5-112	%REC	1	2/5/2012 4:51:00 PM
Surr: 4-Bromoflu	orobenzene	94.0	75.7-122	%REC	1	2/5/2012 4:51:00 PM
Surr: Dibromoflu	oromethane	121	64.3-124	%REC	1	2/5/2012 4:51:00 PM
Surr: Toluene-d8		99.4	74.9-120	%REC	1	2/5/2012 4:51:00 PM

	Maul, Foster & Alongi Former Carnation Prope	erty / 0346	5.04.02		La	b Order:	1201252
Lab ID:	1201252-59			(Collection Date:	1/25/201	2 8:30:00 AM
Client Sample ID	GP09-S-1.0				Matrix:	SOIL	
Analyses		Result	Limit Q)ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	T REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-60			(Collection Date:	1/25/201	2 8:40:00 AM
Client Sample ID	GP09-S-5 .0				Matrix:	SOIL	
Analyses		Result	Limit Q)ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-61			(Collection Date:	1/25/201	2 8:50:00 AM
Client Sample ID	GP09-S-10.0				Matrix:	SOIL	
Analyses		Result	Limit Q)ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	T REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alor Project: Former Carnation Pr	0	5.04.02		Lab Orde	er: 1201252
•	openty , ee				
Lab ID: 1201252-62			Collection Da	te: 1/25/2	012 9:00:00 AM
Client Sample ID: GP09-S-15.0			Matı	rix: SOIL	
Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	18.4	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	61.4	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	84.6	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.24	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	70.8	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cm t
Lead	5.93	2.12	mg/Kg-dry	1	2/6/2012 11:14:51 AM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,1,1-Trichloroethane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,1,2,2-Tetrachloroethane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,1,2-Trichloroethane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,1-Dichloroethane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,1-Dichloroethene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,1-Dichloropropene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2,3-Trichlorobenzene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2,3-Trichloropropane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2,4-Trichlorobenzene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2,4-Trimethylbenzene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2-Dibromo-3-chloropropane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2-Dibromoethane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2-Dichlorobenzene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2-Dichloroethane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,2-Dichloropropane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,3,5-Trimethylbenzene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,3-Dichlorobenzene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,3-Dichloropropane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
1,4-Dichlorobenzene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
2,2-Dichloropropane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
2-Butanone	ND	48.8	ug/Kg-dry	1	2/5/2012 5:26:00 PM
2-Chlorotoluene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
2-Hexanone	ND	24.4	ug/Kg-dry	1	2/5/2012 5:26:00 PM
4-Chlorotoluene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
4-Isopropyltoluene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
4-Methyl-2-pentanone	ND	48.8	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Acetone	ND	122	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Benzene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM

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CLIENT:	Maul, Foster & Ale	ongi			Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02			
VOLATILES BY C	GC/MS	:	SW8260B			Analyst: rkg
Bromobenzene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Bromochlorometha	ne	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Bromodichlorometh	nane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Bromoform		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Bromomethane		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Carbon Disulfide		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Carbon tetrachlorid	e	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Chlorobenzene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Chloroethane		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Chloroform		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Chloromethane		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
cis-1,2-Dichloroeth	ene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
cis-1,3-Dichloropro	pene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Dibromochlorometh	nane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Dibromomethane		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Dichlorodifluorome	thane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Ethylbenzene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Hexachlorobutadier	ne	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Isopropylbenzene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
m,p-Xylene		ND	24.4	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Methyl tert-butyl eth	ner	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Methylene Chloride		ND	61.0	ug/Kg-dry	1	2/5/2012 5:26:00 PM
n-Butylbenzene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
n-Propylbenzene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Naphthalene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
o-Xylene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
sec-Butylbenzene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Styrene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
tert-Butylbenzene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Tetrachloroethene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Toluene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
trans-1,2-Dichloroe	thene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
trans-1,3-Dichlorop	oropene	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Trichloroethene		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Trichlorofluorometh	nane	ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Vinyl Chloride		ND	12.2	ug/Kg-dry	1	2/5/2012 5:26:00 PM
Surr: 1,2-Dichlor	oethane-d4	104	71.5-112	%REC	1	2/5/2012 5:26:00 PM
Surr: 4-Bromoflu	orobenzene	95.9	75.7-122	%REC	1	2/5/2012 5:26:00 PM
Surr: Dibromoflu	oromethane	118	64.3-124	%REC	1	2/5/2012 5:26:00 PM
Surr: Toluene-d8	3	99.7	74.9-120	%REC	1	2/5/2012 5:26:00 PM

	Maul, Foster & Alongi Former Carnation Prope	erty / 0346	5.04.02		La	b Order:	1201252
Lab ID:	1201252-63			(Collection Date:	1/27/201	2 8:30:00 AM
Client Sample ID	GP10-S-1.0				Matrix:	SOIL	
Analyses		Result	Limit ()ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-64			(Collection Date:	1/27/201	2 8:40:00 AM
Client Sample ID	GP10-S-5 .0				Matrix:	SOIL	
Analyses		Result	Limit ()ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012
Lab ID:	1201252-65			(Collection Date:	1/27/201	2 8:50:00 AM
Client Sample ID	GP10-S-10.0				Matrix:	SOIL	
Analyses		Result	Limit ()ual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT			1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alor Project: Former Carnation Project	•	5 04 02		Lab Orde	er: 1201252
•	toperty / 05-w	5.04.02			
Lab ID: 1201252-66			Collection I	Date: 1/27/2	012 9:00:00 AM
Client Sample ID: GP10-S-15.0			Ma	trix: SOIL	
Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	19.5	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	64.9	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	75.8	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.38	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	63.7	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cmt
Lead	5.24	2.32	mg/Kg-dry	1	2/6/2012 11:19:49 AM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,1,1-Trichloroethane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,1,2,2-Tetrachloroethane	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,1,2-Trichloroethane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,1-Dichloroethane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,1-Dichloroethene	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,1-Dichloropropene	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,2,3-Trichlorobenzene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,2,3-Trichloropropane	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,2,4-Trichlorobenzene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,2,4-Trimethylbenzene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,2-Dibromo-3-chloropropane	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,2-Dibromoethane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,2-Dichlorobenzene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,2-Dichloroethane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,2-Dichloropropane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,3,5-Trimethylbenzene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,3-Dichlorobenzene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
1,3-Dichloropropane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
1,4-Dichlorobenzene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
2,2-Dichloropropane	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM
2-Butanone	ND	66.3	ug/Kg-dry	1	2/5/2012 9:26:00 PM
2-Chlorotoluene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
2-Hexanone	ND	33.1	ug/Kg-dry	1	2/5/2012 9:26:00 PM
4-Chlorotoluene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
4-Isopropyltoluene	ND	15.5	ug/Kg-dry	1	2/7/2012 10:50:00 AM
4-Methyl-2-pentanone	ND	66.3	ug/Kg-dry	1	2/5/2012 9:26:00 PM
Acetone	ND	166	ug/Kg-dry	1	2/5/2012 9:26:00 PM
Benzene	ND	16.6	ug/Kg-dry	1	2/5/2012 9:26:00 PM

CLIENT:	Maul, Foster & Ale	ongi				Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02				
VOLATILES BY	GC/MS		SW8260B				Analyst: rkg
Bromobenzene		ND	15.5		ug/Kg-dry	1	2/7/2012 10:50:00 AM
Bromochloromet	nane	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Bromodichlorom	ethane	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Bromoform		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Bromomethane		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Carbon Disulfide		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Carbon tetrachlo	ride	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Chlorobenzene		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Chloroethane		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Chloroform		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Chloromethane		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
cis-1,2-Dichloroe	thene	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
cis-1,3-Dichlorop	propene	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Dibromochlorom	ethane	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Dibromomethane	9	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Dichlorodifluoron	nethane	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Ethylbenzene		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Hexachlorobutad	iene	ND	15.5		ug/Kg-dry	1	2/7/2012 10:50:00 AM
Isopropylbenzen	e	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
m,p-Xylene		ND	33.1		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Methyl tert-butyl	ether	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Methylene Chlori	de	ND	82.8		ug/Kg-dry	1	2/5/2012 9:26:00 PM
n-Butylbenzene		ND	15.5		ug/Kg-dry	1	2/7/2012 10:50:00 AM
n-Propylbenzene		ND	15.5		ug/Kg-dry	1	2/7/2012 10:50:00 AM
Naphthalene		ND	15.5		ug/Kg-dry	1	2/7/2012 10:50:00 AM
o-Xylene		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
sec-Butylbenzen	е	ND	15.5		ug/Kg-dry	1	2/7/2012 10:50:00 AM
Styrene		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
tert-Butylbenzene	e	ND	15.5		ug/Kg-dry	1	2/7/2012 10:50:00 AM
Tetrachloroethen	e	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Toluene		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
trans-1,2-Dichlor	oethene	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
trans-1,3-Dichlor	opropene	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Trichloroethene		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Trichlorofluorom	ethane	ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Vinyl Chloride		ND	16.6		ug/Kg-dry	1	2/5/2012 9:26:00 PM
Surr: 1,2-Dich	loroethane-d4	113	71.5-112	S	%REC	1	2/5/2012 9:26:00 PM
Surr: 4-Bromo	fluorobenzene	86.3	75.7-122		%REC	1	2/5/2012 9:26:00 PM
Surr: Dibromo	fluoromethane	97.7	64.3-124		%REC	1	2/5/2012 9:26:00 PM
Surr: Toluene-	d8	103	74.9-120		%REC	1	2/5/2012 9:26:00 PM

	Maul, Foster & Alongi Former Carnation Prope	erty / 0346	5.04.02		L	ab Order:	1201252
Lab ID:	1201252-67			(Collection Date:	1/27/201	2 11:30:00 AM
Client Sample ID	: GP11-S-1.0				Matrix	SOIL	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT	T		1	Analyst: knt 2/14/2012
Lab ID:	1201252-68			(Collection Date:	1/27/201	2 11:40:00 AM
Client Sample ID	: GP11-S-5.0				Matrix	SOIL	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT	Г		1	Analyst: knt 2/14/2012
Lab ID:	1201252-69			(Collection Date:	1/27/201	2 11:50:00 AM
Client Sample ID	GP11-S-10.0				Matrix	SOIL	
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIEN Hold	IT REQUEST	Hold	PER CLIENT	Г		1	Analyst: knt 2/14/2012

CLIENT:Maul, Foster & AlorProject:Former Carnation Project:	•	5.04.02		Lab Orde	er: 1201252
Lab ID: 1201252-70			Collection Da	te: 1/27/20	012 12:00:00 PM
Client Sample ID: GP11-S-15.0				ix: SOIL	
Analyses	Result	Limit Qua	l Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	19.0	mg/Kg-dry	1	2/6/2012
Lube Oil	ND	63.4	mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	78.8	50-150	%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	6.00	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	71.5	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cm
Lead	2.93	2.53	mg/Kg-dry	1	2/6/2012 11:24:47 AM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,1,1-Trichloroethane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,1,2,2-Tetrachloroethane	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,1,2-Trichloroethane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,1-Dichloroethane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,1-Dichloroethene	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,1-Dichloropropene	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,2,3-Trichlorobenzene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,2,3-Trichloropropane	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,2,4-Trichlorobenzene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,2,4-Trimethylbenzene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,2-Dibromo-3-chloropropane	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,2-Dibromoethane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,2-Dichlorobenzene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,2-Dichloroethane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,2-Dichloropropane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,3,5-Trimethylbenzene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,3-Dichlorobenzene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
1,3-Dichloropropane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
1,4-Dichlorobenzene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
2,2-Dichloropropane	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM
2-Butanone	ND	63.4	ug/Kg-dry	1	2/5/2012 10:00:00 PM
2-Chlorotoluene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
2-Hexanone	ND	31.7	ug/Kg-dry	1	2/5/2012 10:00:00 PM
4-Chlorotoluene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
4-Isopropyltoluene	ND	12.7	ug/Kg-dry	1	2/7/2012 11:26:00 AM
4-Methyl-2-pentanone	ND	63.4	ug/Kg-dry	1	2/5/2012 10:00:00 PM
Acetone	ND	159	ug/Kg-dry	1	2/5/2012 10:00:00 PM
Benzene	ND	15.9	ug/Kg-dry	1	2/5/2012 10:00:00 PM

CLIENT:	Maul, Foster & Ale	ongi				Lab Order:	1201252
Project:	Former Carnation	Property / 0346.	04.02				
VOLATILES BY (GC/MS	:	SW8260B				Analyst: rkg
Bromobenzene		ND	12.7		ug/Kg-dry	1	2/7/2012 11:26:00 AM
Bromochlorometha	ne	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Bromodichlorometh	nane	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Bromoform		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Bromomethane		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Carbon Disulfide		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Carbon tetrachlorid	e	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Chlorobenzene		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Chloroethane		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Chloroform		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Chloromethane		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
cis-1,2-Dichloroeth	ene	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
cis-1,3-Dichloropro	pene	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Dibromochlorometh	nane	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Dibromomethane		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Dichlorodifluorome	thane	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Ethylbenzene		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Hexachlorobutadie	ne	ND	12.7		ug/Kg-dry	1	2/7/2012 11:26:00 AM
Isopropylbenzene		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
m,p-Xylene		ND	31.7		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Methyl tert-butyl eth	ner	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Methylene Chloride		ND	79.3		ug/Kg-dry	1	2/5/2012 10:00:00 PM
n-Butylbenzene		ND	12.7		ug/Kg-dry	1	2/7/2012 11:26:00 AM
n-Propylbenzene		ND	12.7		ug/Kg-dry	1	2/7/2012 11:26:00 AM
Naphthalene		ND	12.7		ug/Kg-dry	1	2/7/2012 11:26:00 AM
o-Xylene		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
sec-Butylbenzene		ND	12.7		ug/Kg-dry	1	2/7/2012 11:26:00 AM
Styrene		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
tert-Butylbenzene		ND	12.7		ug/Kg-dry	1	2/7/2012 11:26:00 AM
Tetrachloroethene		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Toluene		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
trans-1,2-Dichloroe	thene	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
trans-1,3-Dichlorop		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Trichloroethene		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Trichlorofluorometh	nane	ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Vinyl Chloride		ND	15.9		ug/Kg-dry	1	2/5/2012 10:00:00 PM
Surr: 1,2-Dichlor	oethane-d4	110	71.5-112		%REC	1	2/5/2012 10:00:00 PM
Surr: 4-Bromoflu		97.7	75.7-122		%REC	1	2/5/2012 10:00:00 PM
Surr: Dibromoflu		129	64.3-124	s	%REC	1	2/5/2012 10:00:00 PM
Surr: Toluene-da		91.9	74.9-120	5	%REC	1	2/5/2012 10:00:00 PM

CLIENT: Maul, Foster & Alor	e	6 0 4 0 2		Lab Orde	er: 1201252
Project: Former Carnation P	roperty / 034	5.04.02			
Lab ID: 1201252-71			Collection Da	te: 1/27/2	012 2:30:00 PM
Client Sample ID: GP12-S-1.0			Matr	ix: SOIL	
Analyses	Result	Limit Q	ual Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX			Analyst: kh
Diesel	ND	18.2	mg/Kg-dry	1	2/1/2012
Lube Oil	ND	60.5	mg/Kg-dry	1	2/1/2012
Surr: o-Terphenyl	95.7	50-150	%REC	1	2/1/2012
5035A/NWTPH-GX		NWTPH-GX			Analyst: jrp
Gasoline	ND	3.17	mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	68.7	50-150	%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010			Analyst: cmt
Lead	6.18	2.09	mg/Kg-dry	1	2/1/2012 4:16:48 PM
VOLATILES BY GC/MS		SW8260B			Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,1,1-Trichloroethane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,1,2,2-Tetrachloroethane	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,1,2-Trichloroethane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,1-Dichloroethane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,1-Dichloroethene	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,1-Dichloropropene	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,2,3-Trichlorobenzene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,2,3-Trichloropropane	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,2,4-Trichlorobenzene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,2,4-Trimethylbenzene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,2-Dibromo-3-chloropropane	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,2-Dibromoethane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,2-Dichlorobenzene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,2-Dichloroethane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,2-Dichloropropane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,3,5-Trimethylbenzene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,3-Dichlorobenzene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
1,3-Dichloropropane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
1,4-Dichlorobenzene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
2,2-Dichloropropane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
2-Butanone	ND	49.7	ug/Kg-dry	1	2/5/2012 10:36:00 PM
2-Chlorotoluene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
2-Hexanone	ND	24.9	ug/Kg-dry	1	2/5/2012 10:36:00 PM
4-Chlorotoluene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
4-Isopropyltoluene	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
4-Methyl-2-pentanone	ND	49.7	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Acetone	199	124	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Benzene	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM

CLIENT:	Maul, Foster & Alo	ongi			Lab Order:	1201252
Project:	Former Carnation 1	Property / 0346.	04.02			
VOLATILES BY G	C/MS		SW8260B			Analyst: rkg
Bromobenzene		ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
Bromochloromethane	e	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Bromodichlorometha	ne	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Bromoform		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Bromomethane		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Carbon Disulfide		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Carbon tetrachloride		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Chlorobenzene		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Chloroethane		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Chloroform		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Chloromethane		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
cis-1,2-Dichloroether	ne	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
cis-1,3-Dichloroprop	ene	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Dibromochlorometha	ne	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Dibromomethane		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Dichlorodifluorometh	ane	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Ethylbenzene		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Hexachlorobutadiene	•	ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
Isopropylbenzene		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
m,p-Xylene		ND	24.9	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Methyl tert-butyl ethe	r	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Methylene Chloride		ND	62.1	ug/Kg-dry	1	2/5/2012 10:36:00 PM
n-Butylbenzene		ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
n-Propylbenzene		ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
Naphthalene		ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
o-Xylene		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
sec-Butylbenzene		ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
Styrene		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
tert-Butylbenzene		ND	11.9	ug/Kg-dry	1	2/7/2012 11:59:00 AM
Tetrachloroethene		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Toluene		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
trans-1,2-Dichloroeth	iene	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
trans-1,3-Dichloropro	pene	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Trichloroethene		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Trichlorofluorometha	ne	ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Vinyl Chloride		ND	12.4	ug/Kg-dry	1	2/5/2012 10:36:00 PM
Surr: 1,2-Dichloro	ethane-d4	108	71.5-112	%REC	1	2/5/2012 10:36:00 PM
Surr: 4-Bromofluo	robenzene	98.9	75.7-122	%REC	1	2/5/2012 10:36:00 PM
Surr: Dibromofluo	omethane	122	64.3-124	%REC	1	2/5/2012 10:36:00 PM
Surr: Toluene-d8		105	74.9-120	%REC	1	2/5/2012 10:36:00 PM

Date:	14-Feb-12
Ducci	1.100 12

	Maul, Foster & Alongi Former Carnation Prop	erty / 0346	5.04.02	La	b Order:	1201252
Lab ID:	1201252-72			Collection Date:	1/27/201	2 1:00:00 PM
Client Sample ID:	GP11-S-1.0-DUP			Matrix:	SOIL	
Analyses		Result	Limit Qual	Units	DF	Date Analyzed
HOLD PER CLIENT Hold	REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012
Lab ID:	1201252-73			Collection Date:	1/27/201	2 1:10:00 PM
Client Sample ID:	GP11-S-5.0-DUP			Matrix:	SOIL	
Analyses		Result	Limit Qual	Units	DF	Date Analyzed
HOLD PER CLIENT Hold	REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012
Lab ID:	1201252-74			Collection Date:	1/27/201	2 1:20:00 PM
Client Sample ID:	GP11-S-10.0-DUP			Matrix:	SOIL	
Analyses		Result	Limit Qual	Units	DF	Date Analyzed
HOLD PER CLIENT	REQUEST	Hold	PER CLIENT		1	Analyst: knt 2/14/2012

CLIENT: Maul, Foster & Alongi Project: Former Carnation Prop	erty / 034	6.04.02			Lab Order	: 1201252
	,				4 1/27/20	12 1.20.00 DM
Lab ID: 1201252-75			(12 1:30:00 PM
Client Sample ID: GP11-S-15.0-DUP				Matr	ix: SOIL	
Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		NWTPH-DX				Analyst: kh
Diesel	ND	19.7		mg/Kg-dry	1	2/6/2012
Lube Oil	ND	65.8		mg/Kg-dry	1	2/6/2012
Surr: o-Terphenyl	66.6	50-150		%REC	1	2/6/2012
5035A/NWTPH-GX		NWTPH-GX				Analyst: jrp
Gasoline	ND	3.49		mg/Kg-dry	1	2/3/2012
Surr: 4-Bromofluorobenzene	70.4	50-150		%REC	1	2/3/2012
TOTAL METALS BY ICP		E6010				Analyst: cmt
Lead	4.38	2.35		mg/Kg-dry	1	2/6/2012 11:29:46 AM
VOLATILES BY GC/MS		SW8260B				Analyst: rkg
1,1,1,2-Tetrachloroethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,1,1-Trichloroethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,1,2,2-Tetrachloroethane	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,1,2-Trichloroethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,1-Dichloroethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,1-Dichloroethene	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,1-Dichloropropene	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,2,3-Trichlorobenzene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,2,3-Trichloropropane	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,2,4-Trichlorobenzene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,2,4-Trimethylbenzene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,2-Dibromo-3-chloropropane	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,2-Dibromoethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,2-Dichlorobenzene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,2-Dichloroethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,2-Dichloropropane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,3,5-Trimethylbenzene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,3-Dichlorobenzene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
1,3-Dichloropropane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
1,4-Dichlorobenzene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
2,2-Dichloropropane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
2-Butanone	ND	69.2		ug/Kg-dry	1	2/5/2012 11:10:00 PM
2-Chlorotoluene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
2-Hexanone	ND	34.6		ug/Kg-dry	1	2/5/2012 11:10:00 PM
4-Chlorotoluene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
4-Isopropyltoluene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
4-Methyl-2-pentanone	ND	69.2		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Acetone	ND	173		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Benzene	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM

CLIENT:	Maul, Foster & Alo	ongi				Lab Order:	1201252
Project:	Former Carnation I	Property / 0346	.04.02				
VOLATILES B	Y GC/MS		SW8260B				Analyst: rkg
Bromobenzene		ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
Bromochlorome	thane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Bromodichlorom	nethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Bromoform		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Bromomethane		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Carbon Disulfide	e	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Carbon tetrachlo	oride	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Chlorobenzene		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Chloroethane		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Chloroform		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Chloromethane		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
cis-1,2-Dichloro	ethene	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
cis-1,3-Dichloro	propene	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Dibromochlorom	nethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Dibromomethan	e	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Dichlorodifluoro	methane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Ethylbenzene		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Hexachlorobuta	diene	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
Isopropylbenzen	ne	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
m,p-Xylene		ND	34.6		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Methyl tert-butyl	ether	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Methylene Chlor	ide	ND	86.5		ug/Kg-dry	1	2/5/2012 11:10:00 PM
n-Butylbenzene		ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
n-Propylbenzen	e	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
Naphthalene		ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
o-Xylene		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
sec-Butylbenzer	ne	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
Styrene		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
tert-Butylbenzen	e	ND	658	Q	ug/Kg-dry	50	2/7/2012 3:50:00 PM
Tetrachloroethe	ne	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Toluene		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
trans-1,2-Dichlo	roethene	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
trans-1,3-Dichlo	ropropene	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Trichloroethene		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Trichlorofluorom	nethane	ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Vinyl Chloride		ND	17.3		ug/Kg-dry	1	2/5/2012 11:10:00 PM
Surr: 1,2-Dich	nloroethane-d4	106	71.5-112		%REC	1	2/5/2012 11:10:00 PM
Surr: 4-Brome	ofluorobenzene	105	75.7-122		%REC	1	2/5/2012 11:10:00 PM
Surr: Dibromo	ofluoromethane	129	64.3-124	S	%REC	1	2/5/2012 11:10:00 PM
Surr: Toluene	è-d8	109	74.9-120		%REC	1	2/5/2012 11:10:00 PM

CLIENT:Maul, Foster & AlongiWork Order:1201252Project:Former Carnation Property / 0346.04.02

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID:	MBLK-30625	SampType:	MBLK	TestCod	e: 6010_S	Units: mg/Kg		Prep Date	e: 1/31/20	12	Run ID: TJ	A IRIS_12020	1H
Client ID:	ZZZZZ	Batch ID:	30625	TestN	o: E6010			Analysis Date	e: 2/1/201	2	SeqNo: 812	2551	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			ND	2.00									
Sample ID:	MBLK-30652	SampType:	MBLK	TestCod	e: 6010_S	Units: mg/Kg		Prep Date	e: 2/3/201	2	Run ID: TJ	A IRIS_12020	3D
Client ID:	ZZZZZ	Batch ID:	30652	TestN	o: E6010			Analysis Date	e: 2/3/201	2	SeqNo: 813	8088	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			ND	2.00									
Sample ID:	LCS-30625	SampType:	LCS	TestCod	e: 6010_S	Units: mg/Kg		Prep Date	e: 1/31/20)12	Run ID: TJ	A IRIS_12020)1H
Client ID:	ZZZZZ	Batch ID:	30625	TestN	o: E6010			Analysis Date	e: 2/1/201	2	SeqNo: 812	2555	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			106.3	2.00	100	0	106	84.9	109	0	0		
Sample ID:	LCS-30652	SampType:	LCS	TestCod	e: 6010_S	Units: mg/Kg		Prep Date	e: 2/3/201	2	Run ID: TJ	A IRIS_12020	3D
Client ID:	ZZZZZ	Batch ID:	30652	TestN	o: E6010			Analysis Date	e: 2/3/201	2	SeqNo: 813	8089	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			108.2	2.00	100	0	108	84.9	109	0	0		
Sample ID:	1201228-34AMS	SampType:	MS	TestCod	e: 6010_S	Units: mg/Kg		Prep Date	e: 1/31/20	12	Run ID: TJ	A IRIS_12020	01H
Client ID:	ZZZZZ	Batch ID:	30625	TestN	o: E6010			Analysis Date	e: 2/1/201	2	SeqNo: 812	2557	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			87.4	1.92	96.15	2.538	88.3	84.9	109	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

TestCode: 6010_S

Sample ID: 1201252-42AMS SampType: MS TestCode: 6010 S Units: mg/Kg-dry Prep Date: 2/3/2012 Run ID: TJA IRIS 120203D Client ID: GP04-S-15.0 Batch ID: 30652 TestNo: E6010 Analysis Date: 2/3/2012 SeqNo: 813093 Result %RPD RPDLimit Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Qual 121.1 2.57 128.7 5.181 90 84.9 109 0 0 Lead Prep Date: Sample ID: 1201228-34AMSD SampType: MSD TestCode: 6010 S Units: mg/Kg 1/31/2012 Run ID: TJA IRIS 120201H Client ID: ZZZZZ Batch ID: 30625 TestNo: E6010 Analysis Date: 2/1/2012 SeqNo: 812558 PQL SPK value SPK Ref Val HighLimit RPD Ref Val RPDLimit Qual Analyte Result %REC LowLimit %RPD 84.2 1.92 96.15 2.538 84.9 109 87.4 3.73 20 Lead 84.9 Sample ID: 1201252-42AMSD SampType: MSD TestCode: 6010_S Units: mg/Kg-dry Prep Date: 2/3/2012 Run ID: TJA IRIS_120203D Client ID: GP04-S-15.0 Batch ID: 30652 TestNo: E6010 Analysis Date: 2/3/2012 SeqNo: 813094 RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD Qual 123.2 2.57 109 20 Lead 128.7 5.181 91.7 84.9 121.1 1.73 Sample ID: 1201228-34ADUP SampType: DUP TestCode: 6010 S Units: mg/Kg Prep Date: 1/31/2012 Run ID: TJA IRIS 120201H Client ID: ZZZZZ Batch ID: 30625 TestNo: E6010 Analysis Date: 2/1/2012 SeaNo: 812554 PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Analyte Result Lead ND 1.92 0 0 0 0 0 2.276 0 20 Sample ID: 1201252-42ADUP SampType: DUP TestCode: 6010_S Units: mg/Kg-dry Prep Date: 2/3/2012 Run ID: TJA IRIS_120203D Client ID: GP04-S-15.0 Batch ID: 30652 TestNo: E6010 Analysis Date: 2/3/2012 SeaNo: 813092 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual RF Lead 6.801 2.68 0 0 0 0 0 5.181 27.0 20 Sample ID: CCV SampType: CCV TestCode: 6010_S Units: mg/Kg Prep Date: Run ID: TJA IRIS_120201H Client ID: ZZZZZ Batch ID: 30625 TestNo: E6010 Analysis Date: 2/1/2012 SeaNo: 812550 Analyte Result POL SPK value SPK Ref Val %RFC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Qualifiers:

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

TestCode: 6010_S

Sample ID:	ссу	SampType:	CCV	TestCod	e: 6010_S	Units: mg/Kg		Prep Date	2:		Run ID: TJ/	A IRIS_12020	D1H
Client ID:		Batch ID:			o: E6010	jj		Analysis Date		2	SeqNo: 812	_	
			D <i>K</i>	501									o 1
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			96.36	2.00	100	0	96.4	90	110	0	0		
Sample ID:	CCV	SampType:	ссу	TestCod	e: 6010_S	Units: mg/Kg		Prep Date	9:		Run ID: TJ	A IRIS_12020	D1H
Client ID:	ZZZZZ	Batch ID:	30625	TestN	o: E6010			Analysis Date	e: 2/1/201	2	SeqNo: 812	2556	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			100.9	2.00	100	0	101	90	110	0	0		
Sample ID:	CCV	SampType:	CCV	TestCod	e: 6010_S	Units: mg/Kg		Prep Date):		Run ID: TJ	A IRIS_12020	D1H
Client ID:	ZZZZZ	Batch ID:	30625	TestN	o: E6010			Analysis Date	e: 2/1/201	2	SeqNo: 812	2566	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			102.4	2.00	100	0	102	90	110	0	0		
Sample ID:	CCV	SampType:	CCV	TestCod	e: 6010_S	Units: mg/Kg		Prep Date):		Run ID: TJ	A IRIS_12020	D1H
Client ID:	ZZZZZ	Batch ID:	30625	TestN	o: E6010			Analysis Date	e: 2/1/201	2	SeqNo: 812	2576	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			99.81	2.00	100	0	99.8	90	110	0	0		
Sample ID:	CCV	SampType:	ссу	TestCod	e: 6010_S	Units: mg/Kg		Prep Date):		Run ID: TJ/	A IRIS_12020)3D
Client ID:	ZZZZZ	Batch ID:	30652	TestN	o: E6010			Analysis Date	e: 2/3/201	2	SeqNo: 813	8090	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			91.27	2.00	100	0	91.3	90	110	0	0		
Sample ID:	CCV	SampType:	CCV	TestCod	e: 6010_S	Units: mg/Kg		Prep Date):		Run ID: TJ	A IRIS_12020)3D
Client ID:	ZZZZZ	Batch ID:	30652	TestN	o: E6010			Analysis Date	e: 2/3/201	2	SeqNo: 813	3100	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

TestCode: 6010 S

Sample ID: CCV SampType: CCV TestCode: 6010 S Units: mg/Kg Prep Date: Run ID: TJA IRIS 120203D Client ID: ZZZZZ Batch ID: 30652 TestNo: E6010 Analysis Date: 2/3/2012 SeqNo: 813100 SPK value SPK Ref Val %RPD RPDLimit Analyte Result PQL %REC LowLimit HighLimit RPD Ref Val Qual 98.46 2.00 100 0 98.5 90 0 0 Lead 110 Sample ID: CCV SampType: CCV TestCode: 6010 S Units: mg/Kg Prep Date: Run ID: TJA IRIS 120203D Client ID: ZZZZZ Batch ID: 30652 TestNo: E6010 Analysis Date: 2/6/2012 SeqNo: 813136 PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Analyte Result Lead 97.15 2.00 100 0 97.2 90 110 0 0 Sample ID: ICV SampType: ICV TestCode: 6010_S Units: mg/Kg Prep Date: Run ID: TJA IRIS_120201H Analysis Date: 2/1/2012 Client ID: ZZZZZ Batch ID: 30625 TestNo: E6010 SeqNo: 812549 RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD Qual 100 0 102 90 0 0 Lead 101.9 2.00 110 Run ID: TJA IRIS_120203D Sample ID: ICV SampType: ICV TestCode: 6010 S Units: mg/Kg Prep Date: Client ID: ZZZZZ Batch ID: 30652 TestNo: E6010 Analysis Date: 2/3/2012 SeqNo: 813087 PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Analyte Result Qual 0 Lead 100.3 2.00 100 0 100 90 110 0 Sample ID: ICV SampType: ICV TestCode: 6010_S Units: mg/Kg Prep Date: Run ID: TJA IRIS_120203D Client ID: ZZZZZ Batch ID: 30652 TestNo: E6010 Analysis Date: 2/6/2012 SeqNo: 813125 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 100 0 98.6 90 110 0 Lead 98.59 2.00 0

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

CLIENT: Maul, Foster & Alongi

Work Order: 1201252

Project: Former Carnation Property / 0346.04.02

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_5035

Sample ID: MBLK-30658	SampType: MBLK	TestCode: 8260_5035	Units: ug/Kg	Prep Date:	Run ID: 5973J_120205A
Client ID: ZZZZZ	Batch ID: 30658	TestNo: SW8260B		Analysis Date: 2/5/2012	SeqNo: 813213
Analyte	Result	PQL SPK value SPK	Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qua
1,1,1,2-Tetrachloroethane	ND	10.0			
1,1,1-Trichloroethane	ND	10.0			
1,1,2,2-Tetrachloroethane	ND	10.0			
1,1,2-Trichloroethane	ND	10.0			
1,1-Dichloroethane	ND	10.0			
1,1-Dichloroethene	ND	10.0			
1,1-Dichloropropene	ND	10.0			
1,2,3-Trichlorobenzene	1.48	10.0			J
1,2,3-Trichloropropane	ND	10.0			
1,2,4-Trichlorobenzene	0.97	10.0			J
1,2,4-Trimethylbenzene	ND	10.0			
1,2-Dibromo-3-chloropropane	ND	10.0			
1,2-Dibromoethane	ND	10.0			
1,2-Dichlorobenzene	ND	10.0			
1,2-Dichloroethane	ND	10.0			
1,2-Dichloropropane	ND	10.0			
1,3,5-Trimethylbenzene	ND	10.0			
1,3-Dichlorobenzene	ND	10.0			
1,3-Dichloropropane	ND	10.0			
1,4-Dichlorobenzene	ND	10.0			
2,2-Dichloropropane	ND	10.0			
2-Butanone	ND	40.0			
2-Chlorotoluene	ND	10.0			
2-Hexanone	ND	20.0			
4-Chlorotoluene	ND	10.0			
4-Isopropyltoluene	ND	10.0			
4-Methyl-2-pentanone	ND	40.0			
Acetone	ND	100			
Benzene	ND	10.0			
Bromobenzene	ND	10.0			
Bromochloromethane	ND	10.0			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

Maul, Foster & Alongi **CLIENT:**

Work Order: 1201252

Former Carnation Property / 0346.04.02 **Project:**

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_5035

Sample ID: MBLK-30658	SampType: MBLK	TestCode: 8260_503	TestCode: 8260_5035 Units: ug/Kg			:	Run ID: 5973J_120205A				
Client ID: ZZZZZ	Batch ID: 30658	TestNo: SW8260E	3	Analysis Date: 2/5/2012			SeqNo: 813213				
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon Disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	2.18	10.0								J	
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene Chloride	ND	50.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
Naphthalene	2.78	10.0								J	
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

CLIENT: Maul, Foster & Alongi

Work Order: 1201252

Project: Former Carnation Property / 0346.04.02

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_5035

Sample ID: MBLK-30658	SampType: MBLK	TestCode: 8260_5035 Units: ug/Kg				Prep Date:				Run ID: 5973J_120205A			
Client ID: ZZZZZ	Batch ID: 30658	TestNo: SW8260B				Analysis Date	e: 2/5/201	SeqNo: 813213					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Trichloroethene	ND	10.0											
Trichlorofluoromethane	ND	10.0											
Vinyl Chloride	ND	10.0											
Surr: 1,2-Dichloroethane-d4	103	0	100	0	103	71.5	112	0	0				
Surr: 4-Bromofluorobenzene	91.54	0	100	0	91.5	75.7	122	0	0				
Surr: Dibromofluoromethane	105.7	0	100	0	106	64.3	124	0	0				
Surr: Toluene-d8	101.2	0	100	0	101	74.9	120	0	0				
Sample ID: LCS-30658	SampType: LCS	TestCod	le: 8260_5035	Units: ug/Kg		Prep Date:			Run ID: 5973J_120205A				
Client ID: ZZZZZ	Batch ID: 30658	TestN	lo: SW8260B		Analysis Date: 2/5/2012			SeqNo: 813211					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
1,1-Dichloroethene	60.11	10.0	60	0	100	65.4	133	0	0				
Benzene	60.12	10.0	60	0	100	78	123	0	0				
Chlorobenzene	57.41	10.0	60	0	95.7	79.5	125	0	0				
Toluene	59.88	10.0	60	0	99.8	77.5	132	0	0				
Trichloroethene	62.24	10.0	60	0	104	72.4	124	0	0				
Sample ID: LCSD-30658	SampType: LCSD	TestCod	le: 8260_5035	Units: ug/Kg		Prep Date	ə:		Run ID: 597	3J_120205A			
Client ID: ZZZZZ	Batch ID: 30658	TestN	lo: SW8260B			Analysis Date	e: 2/5/201	2	SeqNo: 813	212			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
1,1-Dichloroethene	58.18	10.0	60	0	97	65.4	133	60.11	3.26	20			
Benzene	57.96	10.0	60	0	96.6	78	123	60.12	3.66	20			
Chlorobenzene	58.36	10.0	60	0	97.3	79.5	125	57.41	1.64	20			
Toluene	60.21	10.0	60	0	100	77.5	132	59.88	0.550	20			
Trichloroethene	60.19	10.0	60	0	100	72.4	124	62.24	3.35	20			
				-		· · ·			2.00				

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

Maul, Foster & Alongi **CLIENT:**

Work Order: 1201252

Former Carnation Property / 0346.04.02 **Project:**

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_5035

Sample ID: CCB-30658	SampType: CCB	TestCode: 8260_5035 Units: ug/Kg				Prep Dat	te:	Run ID: 5973J_120205A					
Client ID: ZZZZZ	Batch ID: 30658	TestNo: SW8260B				Analysis Dat	e: 2/7/201	2	SeqNo: 813518				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
1,1,1,2-Tetrachloroethane	ND	10.0	0	0	0	0	0	0	0				
1,1,1-Trichloroethane	ND	10.0	0	0	0	0	0	0	0				
1,1,2,2-Tetrachloroethane	ND	10.0	0	0	0	0	0	0	0				
1,1,2-Trichloroethane	ND	10.0	0	0	0	0	0	0	0				
1,1-Dichloroethane	ND	10.0	0	0	0	0	0	0	0				
1,1-Dichloroethene	ND	10.0	0	0	0	0	0	0	0				
1,1-Dichloropropene	ND	10.0	0	0	0	0	0	0	0				
1,2,3-Trichlorobenzene	1.3	10.0	0	0	0	0	0	0	0				
1,2,3-Trichloropropane	ND	10.0	0	0	0	0	0	0	0				
1,2,4-Trichlorobenzene	0.88	10.0	0	0	0	0	0	0	0				
1,2,4-Trimethylbenzene	0.13	10.0	0	0	0	0	0	0	0				
1,2-Dibromo-3-chloropropane	ND	10.0	0	0	0	0	0	0	0				
1,2-Dibromoethane	ND	10.0	0	0	0	0	0	0	0				
1,2-Dichlorobenzene	0.28	10.0	0	0	0	0	0	0	0				
1,2-Dichloroethane	ND	10.0	0	0	0	0	0	0	0				
1,2-Dichloropropane	ND	10.0	0	0	0	0	0	0	0				
1,3,5-Trimethylbenzene	ND	10.0	0	0	0	0	0	0	0				
1,3-Dichlorobenzene	0.28	10.0	0	0	0	0	0	0	0				
1,3-Dichloropropane	ND	10.0	0	0	0	0	0	0	0				
1,4-Dichlorobenzene	0.43	10.0	0	0	0	0	0	0	0				
2,2-Dichloropropane	ND	10.0	0	0	0	0	0	0	0				
2-Butanone	ND	40.0	0	0	0	0	0	0	0				
2-Chlorotoluene	0.12	10.0	0	0	0	0	0	0	0				
2-Hexanone	1.06	20.0	0	0	0	0	0	0	0				
4-Chlorotoluene	0.19	10.0	0	0	0	0	0	0	0				
4-Isopropyltoluene	0.13	10.0	0	0	0	0	0	0	0				
4-Methyl-2-pentanone	ND	40.0	0	0	0	0	0	0	0				
Acetone	ND	100	0	0	0	0	0	0	0				
Benzene	ND	10.0	0	0	0	0	0	0	0				
Bromobenzene	ND	10.0	0	0	0	0	0	0	0				
Bromochloromethane	ND	10.0	0	0	0	0	0	0	0				

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

Maul, Foster & Alongi **CLIENT:**

Work Order: 1201252

Former Carnation Property / 0346.04.02 **Project:**

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_5035

Sample ID: CCB-30658	SampType: CCB	TestCoo	TestCode: 8260_5035 Units: ug/Kg			Prep Dat	e:	Run ID: 5973J_120205A				
Client ID: ZZZZZ	Batch ID: 30658	Test	No: SW8260B		Analysis Date: 2/7/2012				SeqNo: 813518			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Bromodichloromethane	ND	10.0	0	0	0	0	0	0	0			
Bromoform	ND	10.0	0	0	0	0	0	0	0			
Bromomethane	0.31	10.0	0	0	0	0	0	0	0			
Carbon Disulfide	ND	10.0	0	0	0	0	0	0	0			
Carbon tetrachloride	ND	10.0	0	0	0	0	0	0	0			
Chlorobenzene	ND	10.0	0	0	0	0	0	0	0			
Chloroethane	ND	10.0	0	0	0	0	0	0	0			
Chloroform	1.01	10.0	0	0	0	0	0	0	0			
Chloromethane	0.18	10.0	0	0	0	0	0	0	0			
cis-1,2-Dichloroethene	0.28	10.0	0	0	0	0	0	0	0			
cis-1,3-Dichloropropene	ND	10.0	0	0	0	0	0	0	0			
Dibromochloromethane	ND	10.0	0	0	0	0	0	0	0			
Dibromomethane	ND	10.0	0	0	0	0	0	0	0			
Dichlorodifluoromethane	ND	10.0	0	0	0	0	0	0	0			
Ethylbenzene	0.15	10.0	0	0	0	0	0	0	0			
Hexachlorobutadiene	ND	10.0	0	0	0	0	0	0	0			
Isopropylbenzene	ND	10.0	0	0	0	0	0	0	0			
m,p-Xylene	0.27	20.0	0	0	0	0	0	0	0			
Methyl tert-butyl ether	ND	10.0	0	0	0	0	0	0	0			
Methylene Chloride	ND	50.0	0	0	0	0	0	0	0			
n-Butylbenzene	0.37	10.0	0	0	0	0	0	0	0			
n-Propylbenzene	0.12	10.0	0	0	0	0	0	0	0			
Naphthalene	2.19	10.0	0	0	0	0	0	0	0			
o-Xylene	ND	10.0	0	0	0	0	0	0	0			
sec-Butylbenzene	0.11	10.0	0	0	0	0	0	0	0			
Styrene	ND	10.0	0	0	0	0	0	0	0			
tert-Butylbenzene	ND	10.0	0	0	0	0	0	0	0			
Tetrachloroethene	ND	10.0	0	0	0	0	0	0	0			
Toluene	ND	10.0	0	0	0	0	0	0	0			
trans-1,2-Dichloroethene	ND	10.0	0	0	0	0	0	0	0			
trans-1,3-Dichloropropene	ND	10.0	0	0	0	0	0	0	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

Maul, Foster & Alongi **CLIENT:** Work Order:

1201252

ANALYTICAL QC SUMMARY REPORT

Former Carnation Property / 0346.04.02 **Project:**

TestCode: 8260_5035

Sample ID: CCB-30658	SampType: CCB	TestCoo	de: 8260_5035	Units: ug/Kg		Prep Dat	te:		Run ID: 5973J_120205A				
Client ID: ZZZZZ	Batch ID: 30658	TestN	lo: SW8260B			Analysis Dat	te: 2/7/201	2	SeqNo: 813	518			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua		
Trichloroethene	ND	10.0	0	0	0	0	0	0	0				
Trichlorofluoromethane	ND	10.0	0	0	0	0	0	0	0				
Vinyl Chloride	ND	10.0	0	0	0	0	0	0	0				
Surr: 1,2-Dichloroethane-d4	101.1	0	100	0	101	71.5	112	0	0				
Surr: 4-Bromofluorobenzene	85.72	0	100	0	85.7	75.7	122	0	0				
Surr: Dibromofluoromethane	109.3	0	100	0	109	64.3	124	0	0				
Surr: Toluene-d8	109.1	0	100	0	109	74.9	120	0	0				
Sample ID: CCV-30658	SampType: CCV	TestCode: 8260_5035 Units: ug/Kg				Prep Dat	te:		Run ID: 5973J_120205A				
Client ID: ZZZZZ	Batch ID: 30658	TestN	lo: SW8260B		Analysis Date: 2/5/2012			2	SeqNo: 813	210			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qu		
1,1-Dichloroethene	69.34	10.0	60	0	116	80	120	0	0				
1,2-Dichloropropane	60.8	10.0	60	0	101	80	120	0	0				
Chloroform	60.47	10.0	60	0	101	80	120	0	0				
Ethylbenzene	57.82	10.0	60	0	96.4	80	120	0	0				
Toluene	60.92	10.0	60	0	102	80	120	0	0				
Vinyl Chloride	66.13	10.0	60	0	110	80	120	0	0				
Sample ID: CCV-30658	SampType: CCV	TestCoo	de: 8260_5035	υnits: μg/L		Prep Dat	te:		Run ID: 597	′3J_120205A	1		
Client ID: ZZZZZ	Batch ID: 30658	TestN	lo: SW8260B			Analysis Dat	te: 2/7/201	2	SeqNo: 813	517			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qu		
1,1-Dichloroethene	59.13	1.00	60	0	98.6	80	120	0	0				
1,2-Dichloropropane	71.16	1.00	60	0	119	80	120	0	0				
Chloroform	63.76	1.00	60	0	106	80	120	0	0				
Ethylbenzene	69.1	1.00	60	0	115	80	120	0	0				
							400	0	0				
Toluene	68.63	1.00	60	0	114	80	120	0	0				

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

Maul, Foster & Alongi Work Order: 1201252

Former Carnation Property / 0346.04.02

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX S

Sample ID: MB-30631 SampType: MBLK TestCode: NWTPHDX S Units: mg/Kg Prep Date: 2/1/2012 Run ID: GC-M 120201B Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812224 Analyte SPK value SPK Ref Val HighLimit RPD Ref Val Result PQL %REC LowLimit %RPD RPDLimit Qual ND Diesel 15.0 Lube Oil ND 50.0 0 0 0 Surr: o-Terphenyl 34.14 33.33 102 50 150 0 Sample ID: MB-30648 SampType: MBLK TestCode: NWTPHDX S Units: mg/Kg 2/3/2012 Run ID: GC-M 120206A Prep Date: Analysis Date: Client ID: ZZZZZ Batch ID: 30648 TestNo: NWTPH-Dx 2/6/2012 SeqNo: 813152 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual ND 15.0 Diesel Lube Oil ND 50.0 0 0 50 150 0 0 Surr: o-Terphenyl 34.5 33.33 104 Sample ID: LCS-30631 SampType: LCS TestCode: NWTPHDX_S Units: mg/Kg 2/1/2012 Run ID: GC-M_120201B Prep Date: Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812225 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Diesel 196.3 15.0 166.6 0 118 76.3 125 0 0 0 Lube Oil 154.7 50.0 166.6 92.8 69.9 127 0 0 Sample ID: LCS-30648 SampType: LCS TestCode: NWTPHDX_S Units: mg/Kg Prep Date: 2/3/2012 Run ID: GC-M_120206A ZZZZZ TestNo: NWTPH-Dx Analysis Date: 2/6/2012 Client ID: Batch ID: 30648 SeqNo: 813153 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 0 Diesel 196.8 15.0 166.6 0 118 76.3 125 0 127 0 Lube Oil 171.1 50.0 166.6 0 103 69.9 0 Sample ID: 1201252-71ADUP SampType: DUP TestCode: NWTPHDX S Units: ma/Ka-drv Prep Date: 2/1/2012 Run ID: GC-M 120201B Client ID: GP12-S-1.0 Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812228 Result POL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Analyte

Oualifiers:

CLIENT:

Project:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

TestCode: NWTPHDX_S

Sample ID: 1201252-71ADUP SampType: DUP TestCode: NWTPHDX S Units: mg/Kg-dry Prep Date: 2/1/2012 Run ID: GC-M 120201B Client ID: GP12-S-1.0 Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812228 Result HighLimit RPD Ref Val %RPD RPDLimit Analyte PQL SPK value SPK Ref Val %REC LowLimit Qual ND 18.2 0 0 0 0 0 0 0 20 Diesel 0 0 Lube Oil ND 60.5 0 0 0 0 0 20 Sample ID: 1202013-01ADUP TestCode: NWTPHDX_S Units: mg/Kg-dry Prep Date: Run ID: GC-M 120201B SampType: DUP 2/2/2012 Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/3/2012 SeqNo: 812802 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 0 0 Diesel 8.403 18.0 0 0 0 7.495 0 20 J ND 0 0 0 0 Lube Oil 60.0 0 0 0 20 Sample ID: 1201252-42ADUP SampType: DUP TestCode: NWTPHDX_S Units: mg/Kg-dry Prep Date: 2/3/2012 Run ID: GC-M_120206A Client ID: TestNo: NWTPH-Dx Analysis Date: 2/6/2012 SeqNo: 813290 GP04-S-15.0 Batch ID: 30648 HighLimit RPD Ref Val RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit %RPD Qual ND 20.1 0 0 0 0 0 0 0 20 Diesel Lube Oil ND 66.9 0 0 0 0 0 0 0 20 Sample ID: 1201252-54ADUP SampType: DUP TestCode: NWTPHDX_S Units: mg/Kg-dry Prep Date: 2/3/2012 Run ID: GC-M 120206A Client ID: GP07-S-15.0 Batch ID: 30648 TestNo: NWTPH-Dx Analysis Date: 2/6/2012 SeqNo: 813294 RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD Qual Diesel ND 18.1 0 0 0 0 0 0 0 20 Lube Oil ND 60.3 0 0 0 0 0 0 0 20 Sample ID: CCB TestCode: NWTPHDX_S Units: mg/Kg Run ID: GC-M_120201B SampType: CCB Prep Date: Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812503 SPK value SPK Ref Val HighLimit RPD Ref Val Result PQL %REC LowLimit %RPD RPDLimit Qual Analyte Diesel 1.766 15.0 0 0 0 0 0 0 0 0 Lube Oil 1.267 50.0 0 0 0 0 0 0

Qualifiers:

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

ANAL

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID: CCB SampType: CCB TestCode: NWTPHDX S Units: mg/Kg Prep Date: Run ID: GC-M 120201B Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812503 Result Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Surr: o-Terphenyl 34.32 0 33.33 0 103 50 0 0 150 Sample ID: CCB SampType: CCB TestCode: NWTPHDX S Units: mg/Kg Prep Date: Run ID: GC-M 120201B Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/3/2012 SeqNo: 812800 PQL SPK Ref Val HighLimit RPD Ref Val %RPD RPDLimit Qual Analyte Result SPK value %REC LowLimit Diesel 1.703 15.0 0 0 0 0 0 0 0 0 Lube Oil ND 50.0 0 0 0 0 0 0 0 0 Surr: o-Terphenyl 34.57 33.33 0 104 50 150 0 Sample ID: CCB SampType: CCB TestCode: NWTPHDX_S Units: mg/Kg Run ID: GC-M_120206A Prep Date: TestNo: NWTPH-Dx Client ID: ZZZZZ Batch ID: 30648 Analysis Date: 2/6/2012 SeqNo: 813285 HighLimit RPD Ref Val RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit %RPD Qual Diesel 2.476 15.0 0 0 0 0 0 0 0 Lube Oil ND 50.0 0 0 0 0 0 0 0 Surr: o-Terphenyl 34.77 0 33.33 0 104 50 150 0 0 Sample ID: CCV SampType: CCV TestCode: NWTPHDX S Units: mg/Kg Prep Date: Run ID: GC-M 120201B Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812223 PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Analyte Result Qual Diesel 1476 15.0 1368 0 108 85 115 0 0 0 Lube Oil 665.7 50.0 704.5 0 94.5 85 115 0 Sample ID: CCV SampType: CCV Run ID: GC-M 120201B TestCode: NWTPHDX_S Units: mg/Kg Prep Date: Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812229 PQL SPK value SPK Ref Val LowLimit HighLimit RPD Ref Val %RPD RPDLimit Analyte Result %REC Qual Diesel 1145 15.0 1026 0 112 85 115 0 0

Qualifiers:

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

TestCode: NWTPHDX_S

Sample ID: CCV SampType: CCV TestCode: NWTPHDX S Units: mg/Kg Prep Date: Run ID: GC-M 120201B Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812229 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Lube Oil 513.3 528.4 0 97.2 85 0 0 50.0 115 Sample ID: CCV SampType: CCV TestCode: NWTPHDX S Units: mg/Kg Prep Date: Run ID: GC-M 120201B Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812502 PQL SPK value SPK Ref Val %REC HighLimit RPD Ref Val %RPD RPDLimit Qual Analyte Result LowLimit Diesel 1146 15.0 1026 0 112 85 115 0 0 0 85 0 Lube Oil 540.7 50.0 528.4 102 115 0 Sample ID: CCV SampType: CCV TestCode: NWTPHDX S Units: ma/Ka Prep Date: Run ID: GC-M 120201B ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812511 Client ID: PQL SPK value SPK Ref Val %REC HighLimit RPD Ref Val %RPD RPDLimit Analyte Result LowLimit Qual 1559 0 85 0 0 Diesel 15.0 1368 114 115 Lube Oil 691.4 704.5 0 85 0 0 50.0 98.1 115 Sample ID: CCV SampType: CCV TestCode: NWTPHDX S Units: mg/Kg Run ID: GC-M 120201B Prep Date: Client ID: ZZZZZ Batch ID: 30631 TestNo: NWTPH-Dx Analysis Date: 2/3/2012 SeqNo: 812799 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Diesel 1154 15.0 1026 0 112 85 115 0 0 0 Lube Oil 523.2 50.0 528.4 0 99 85 115 0 Run ID: GC-M_120201B Sample ID: CCV SampType: CCV TestCode: NWTPHDX_S Units: mg/Kg Prep Date: ZZZZZ TestNo: NWTPH-Dx Analysis Date: SeqNo: 812808 Client ID: Batch ID: 30631 2/3/2012 Analvte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 0 85 0 0 Diesel 1468 15.0 1368 107 115 Lube Oil 701.4 50.0 704.5 0 99.6 85 115 0 0

Qualifiers:

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

TestCode: NWTPHDX S

Sample ID: CCV SampType: CCV TestCode: NWTPHDX S Units: mg/Kg Prep Date: Run ID: GC-M 120206A Client ID: ZZZZZ Batch ID: 30648 TestNo: NWTPH-Dx Analysis Date: 2/6/2012 SeqNo: 813151 HighLimit RPD Ref Val %RPD RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit Qual Diesel 1096 15.0 1026 0 107 85 115 0 0 0 Lube Oil 510.4 50.0 528.4 0 96.6 85 115 0 Sample ID: CCV SampType: CCV TestCode: NWTPHDX_S Units: mg/Kg Prep Date: Run ID: GC-M_120206A Batch ID: 30648 TestNo: NWTPH-Dx Analysis Date: SeqNo: 813155 Client ID: ZZZZZ 2/6/2012 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 1421 0 85 Diesel 15.0 1368 104 115 0 0 Lube Oil 688.8 50.0 704.5 0 97.8 85 0 0 115 Sample ID: CCV SampType: CCV TestCode: NWTPHDX_S Units: mg/Kg Prep Date: Run ID: GC-M_120206A Batch ID: 30648 TestNo: NWTPH-Dx Analysis Date: 2/6/2012 SeqNo: 813301 Client ID: ZZZZZ HighLimit RPD Ref Val RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit %RPD Qual Diesel 1131 15.0 1026 0 110 85 115 0 0 Lube Oil 533.8 50.0 528.4 0 101 85 115 0 0

Project: Former Carnation Property / 0346.04.02

Maul, Foster & Alongi

1201252

CLIENT:

Work Order:

CLIENT: Maul, Foster & Alongi

Work Order: 1201252

Project: Former Carnation Property / 0346.04.02

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID:	MB-30621	SampType: N	IBLK	TestCod	e: NWTPHD)	(LL Units: mg/L		Prep Dat	e: 1/31/20	12	Run ID: GC-M_120201A			
Client ID:	ZZZZZ	Batch ID: 3	0621	TestNo: NWTPH-Dx				Analysis Dat	e: 2/1/201	SeqNo: 812200				
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel			ND	0.0800										
Lube Oil			ND	0.200										
Surr: o-T	erphenyl	(0.1509	0	0.2	0	75.5	50	150	0	0			
Sample ID:	MB-30618	SampType: N	IBLK	TestCod	e: NWTPHD)	(LL Units: mg/L		Prep Dat	e: 1/31/20	12	Run ID: GC	-M_120131A	١	
Client ID:	ZZZZZ	Batch ID: 3	0618	TestN	o: NWTPH-D	x		Analysis Dat	e: 1/31/20	12	SeqNo: 812	2410		
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel			ND	0.0800										
Lube Oil			ND	0.200										
Surr: o-T	erphenyl	(0.1197	0	0.2	0	59.8	50	150	0	0			
Sample ID:	LCS-30621	SampType: L	.CS	TestCode: NWTPHDXLL Units: mg/L				Prep Dat	e: 1/31/20	12	Run ID: GC-M_120201A			
Client ID:	ZZZZZ	Batch ID: 3	0621	TestN	o: NWTPH-D	x		Analysis Dat	e: 2/1/201	2	SeqNo: 812201			
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel		().7564	0.0800	1	0	75.6	60.7	121	0	0			
Lube Oil		().6906	0.200	1	0	69.1	64	126	0	0			
Sample ID:	LCS-30618	SampType: L	.CS	TestCod	e: NWTPHD)	(LL Units: mg/L		Prep Dat	e: 1/31/20	12	Run ID: GC	-M_120131A	l l	
Client ID:	ZZZZZ	Batch ID: 3	0618	TestN	o: NWTPH-D	x		Analysis Dat	e: 1/31/20	12	SeqNo: 812	2411		
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel		().7862	0.0800	1	0	78.6	60.7	121	0	0			
Lube Oil		0).7319	0.200	1	0	73.2	64	126	0	0			
Sample ID:	LCSD-30621	SampType: L	.CSD	TestCod	e: NWTPHD)	(LL Units: mg/L		Prep Dat	e: 1/31/20	12	Run ID: GC	-M_120201A	\	
Client ID:	ZZZZZ	Batch ID: 3	0621	TestN	o: NWTPH-D	x		Analysis Dat	e: 2/1/201	SeqNo: 812202				
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

TestCode: NWTPHDXLL W

Sample ID: LCSD-30621 SampType: LCSD TestCode: NWTPHDXLL Units: mg/L Prep Date: 1/31/2012 Run ID: GC-M 120201A Client ID: ZZZZZ Batch ID: 30621 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812202 SPK value SPK Ref Val Analyte Result PQL %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 0.7285 0.0800 0 72.9 60.7 3.75 20 Diesel 1 121 0.7564 Lube Oil 0.7089 0.200 1 0 70.9 64 126 0.6906 2.62 20 Sample ID: CCB TestCode: NWTPHDXLL Units: mg/L Run ID: GC-M_120131A SampType: CCB Prep Date: Analysis Date: Client ID: ZZZZZ Batch ID: 30618 TestNo: NWTPH-Dx 2/1/2012 SeqNo: 812424 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 0 Diesel 0.031 0.0800 0 0 0 0 0 0 0.01338 0.200 0 0 0 0 Lube Oil 0 0 0 Sample ID: CCV SampType: CCV TestCode: NWTPHDXLL Units: mg/L Prep Date: Run ID: GC-M_120201A Analysis Date: 2/1/2012 SeqNo: 812199 Client ID: ZZZZZ Batch ID: 30621 TestNo: NWTPH-Dx Result RPDLimit Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD Qual 9.296 0.0800 8.21 0 113 85 115 0 0 Diesel Lube Oil 4.143 0.200 4.227 0 98 85 115 0 0 Sample ID: CCV SampType: CCV TestCode: NWTPHDXLL Units: mg/L Run ID: GC-M 120201A Prep Date: Client ID: ZZZZZ Batch ID: 30621 TestNo: NWTPH-Dx Analysis Date: 2/1/2012 SeqNo: 812210 %RPD RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Qual Diesel 6.523 0.0800 6.158 0 106 85 115 0 0 Lube Oil 3.105 0.200 3.17 0 97.9 85 115 0 0 Sample ID: CCV Run ID: GC-M_120131A SampType: CCV TestCode: NWTPHDXLL Units: mg/L Prep Date: Client ID: ZZZZZ Batch ID: 30618 TestNo: NWTPH-Dx Analysis Date: 1/31/2012 SeqNo: 812409 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Analyte Diesel 6.473 0.0800 6.158 0 105 85 115 0 0 Lube Oil 3.11 0.200 3.17 0 98.1 85 115 0 0

Qualifiers:

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

CLIENT: Maul, Foster & Alongi Work Order: 1201252

Project: Former Carnation Property / 0346.04.02

TestCode: NWTPHDXLL_W

Sample ID:	CCV	SampType: CCV	TestCode: NWTPHE	DXLL Units: mg/L		Prep Dat	te:		Run ID: GC	-M_120131A	۱.
Client ID:	ZZZZZ	Batch ID: 30618	TestNo: NWTPH-	Dx		Analysis Dat	e: 1/31/20	12	SeqNo: 812	422	
Analyte		Result	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel		9.087	0.0800 8.21	0	111	85	115	0	0		
Lube Oil		4.102	0.200 4.227	0	97	85	115	0	0		
Sample ID:	CCV	SampType: CCV	TestCode: NWTPHE	OXLL Units: mg/L		Prep Dat	te:		Run ID: GC	-M_120131 <i>A</i>	L Contraction of the second se
Client ID:	ZZZZZ	Batch ID: 30618	TestNo: NWTPH-	Dx		Analysis Dat	e: 2/1/201	2	SeqNo: 812	423	
Analyte		Result	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel		6.523	0.0800 6.158	8 0	106	85	115	0	0		
Lube Oil		3.105	0.200 3.17	0	97.9	85	115	0	0		
Sample ID:	CCV	SampType: CCV	TestCode: NWTPHE	OXLL Units: mg/L		Prep Dat	te:		Run ID: GC	-M_120131 <i>A</i>	١
Client ID:	ZZZZZ	Batch ID: 30618	TestNo: NWTPH-	Dx		Analysis Dat	e: 1/31/20	12	SeqNo: 812	436	
Analyte		Result	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel		8.857	0.0800 8.21	0	108	85	115	0	0		
Lube Oil		3.994	0.200 4.227	0	94.5	85	115	0	0		

TestCode: NWTPHGX_SA

Sample ID: MB-30649 SampType: MBLK TestCode: NWTPHGX S Units: mg/Kg Prep Date: 2/3/2012 Run ID: GC-S 120203A Client ID: ZZZZZ Batch ID: 30649 TestNo: NWTPH-Gx Analysis Date: 2/3/2012 SeqNo: 812936 Analyte SPK value SPK Ref Val Result PQL %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Gasoline 1.944 J 2.50 Surr: 4-Bromofluorobenzene 3.623 0 5 0 72.5 50 150 0 0 Sample ID: LCS-30649 SampType: LCS TestCode: NWTPHGX_S Units: mg/Kg Run ID: GC-S 120203A Prep Date: 2/3/2012 Client ID: ZZZZZ Batch ID: 30649 TestNo: NWTPH-Gx Analysis Date: 2/3/2012 SeqNo: 812935 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Gasoline 45.72 2.50 50 0 91.4 53.5 121 0 0 Sample ID: 1201252-30CDUP SampType: DUP TestCode: NWTPHGX_S Units: mg/Kg-dry Prep Date: 2/3/2012 Run ID: GC-S 120203A GP01-S-15.0 Batch ID: 30649 TestNo: NWTPH-Gx Analysis Date: 2/3/2012 SeqNo: 812938 Client ID: PQL SPK value SPK Ref Val %REC HighLimit RPD Ref Val %RPD RPDLimit Analyte Result LowLimit Qual ND 0 0 0 0 0 0 20 Gasoline 3.61 1.386 Sample ID: 1201252-75CDUP SampType: DUP TestCode: NWTPHGX_S Units: mg/Kg-dry Prep Date: 2/3/2012 Run ID: GC-S 120203A Client ID: GP11-S-15.0-DUP Batch ID: 30649 TestNo: NWTPH-Gx Analysis Date: 2/3/2012 SeqNo: 812952 SPK value SPK Ref Val RPDLimit Analyte Result PQL %REC LowLimit HighLimit RPD Ref Val %RPD Qual 0 Gasoline 1.311 3.49 0 0 0 0 0 0 20 J Sample ID: CCV SampType: CCV TestCode: NWTPHGX_S Units: mg/Kg Prep Date: Run ID: GC-S_120203A Client ID: ZZZZZ Batch ID: 30649 TestNo: NWTPH-Gx Analysis Date: 2/3/2012 SeqNo: 812934 RPDLimit Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD Qual 80 0 Gasoline 94.83 2.50 100 0 94.8 120 0

Qualifiers: ND - Not Detected at the Reporting Limit

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

CLIENT: Maul, Foster & Alongi Work Order: 1201252

ANALYTICAL QC SUMMARY REPORT

Former Carnation Property / 0346.04.02 **Project:**

TestCode: NWTPHGX_SA

Sample ID: CCV	SampType: CCV	TestCoo	de: NWTPHG)	(_S Units: mg/Kg		Prep Dat	te:		Run ID: GC	-S_120203A	
Client ID: ZZZZZ	Batch ID: 30649	TestN	lo: NWTPH-G	x		Analysis Dat	e: 2/3/201	2	SeqNo: 812	2953	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	141.5	2.50	150	0	94.3	80	120	0	0		

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

TestCode: NWTPHGX_W

Sample ID: MB-30626 SampType: MBLK TestCode: NWTPHGX Units: µq/L Prep Date: 1/31/2012 Run ID: GC-S 120131A Client ID: ZZZZZ Batch ID: 30626 TestNo: NWTPH-Gx Analysis Date: 1/31/2012 SeqNo: 811974 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 40.82 100 J Gasoline Surr: 4-Bromofluorobenzene 96.64 0 100 0 96.6 50 150 0 0 TestCode: NWTPHGX_ Units: µg/L Sample ID: MB-30628 SampType: MBLK Prep Date: 1/31/2012 Run ID: GC-S 120131B Client ID: ZZZZZ Batch ID: 30628 TestNo: NWTPH-Gx Analysis Date: 1/31/2012 SeqNo: 811995 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual J Gasoline 47.43 100 97.1 0 Surr: 4-Bromofluorobenzene 100 0 97.1 50 150 0 0 Sample ID: LCS-30626 SampType: LCS Prep Date: 1/31/2012 Run ID: GC-S_120131A TestCode: NWTPHGX_ Units: µg/L Analysis Date: 1/31/2012 SeqNo: 811973 Client ID: ZZZZZ Batch ID: 30626 TestNo: NWTPH-Gx Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Gasoline 1942 100 2000 0 97.1 74.4 128 0 0 Sample ID: LCS-30628 SampType: LCS TestCode: NWTPHGX Run ID: GC-S 120131B Units: µg/L Prep Date: 1/31/2012 Client ID: ZZZZZ Batch ID: 30628 TestNo: NWTPH-Gx Analysis Date: 1/31/2012 SeqNo: 811994 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Gasoline 1901 100 2000 0 95.1 74.4 128 0 0 Sample ID: 1201252-01BDUP SampType: DUP TestCode: NWTPHGX_ Prep Date: 1/31/2012 Run ID: GC-S_120131A Units: µg/L Client ID: GP01-W-22.5 Batch ID: 30626 TestNo: NWTPH-Gx Analysis Date: 1/31/2012 SeaNo: 811976 HighLimit RPD Ref Val Analyte Result POL SPK value SPK Ref Val %RFC LowLimit %RPD RPDI imit Qual 22.61 0 0 0 0 0 36.78 0 20 J Gasoline 100

Qualifiers: ND - Not Detected at the Reporting Limit

CLIENT:

Project:

Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

TestCode: NWTPHGX_W

Sample ID:	1201252-16BDUP	SampType:	DUP	TestCoc	le: NWTPHG	K _ Units: μg/L		Prep Date	e: 1/31/20)12	Run ID: GC	-S_120131A	
Client ID:	GP08-W-32.5	Batch ID:	30626	TestN	lo: NWTPH-G	x		Analysis Date	e: 1/31/20)12	SeqNo: 81 1	1992	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			22.53	100	0	0	0	0	0	23.13	0	20	J
Sample ID:	1201252-17BDUP	SampType:	DUP	TestCoc	le: NWTPHG	κ _ Units: μg/L		Prep Date	e: 1/31/2 0)12	Run ID: GC	-S_120131B	
Client ID:	GP09-W-22.5	Batch ID:	30628	TestN	lo: NWTPH-G	x		Analysis Date	e: 1/31/20)12	SeqNo: 811	1997	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			ND	100	0	0	0	0	0	0	0	20	
Sample ID:	CCV	SampType:	ссу	TestCoc	le: NWTPHG	X _ Units: μg/L		Prep Date	9:		Run ID: GC	-S_120131A	
	CCV ZZZZZ	SampType: Batch ID:			le: NWTPHG	- 10		Prep Date Analysis Date)12	Run ID: GC SeqNo: 811		
•					lo: NWTPH-G	- 10	%REC	Analysis Date	e: 1/31/20	012 RPD Ref Val			Qual
Client ID:			30626	TestN	lo: NWTPH-G	- io		Analysis Date	e: 1/31/20		SeqNo: 811	1993	
Client ID: Analyte	ZZZZZ		30626 Result 1901	TestN PQL 100	lo: NWTPH-G SPK value	SPK Ref Val	%REC	Analysis Date	e: 1/31/2(HighLimit 120	RPD Ref Val	SeqNo: 81 [,] %RPD 0	1993	Qual
Client ID: Analyte Gasoline	CCV	Batch ID:	30626 Result 1901 CCV	TestN PQL 100 TestCoo	lo: NWTPH-G SPK value 2000	SPK Ref Val 0 Κ _ Units: μg/L	%REC 95.1	Analysis Date	e: 1/31/20 HighLimit 120 e:	RPD Ref Val 0	SeqNo: 81 [,] %RPD 0	1993 RPDLimit	Qual
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Work Order:

Maul, Foster & Alongi

Former Carnation Property / 0346.04.02

1201252

KEY TO FLAGS

- A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
- A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
- A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
- A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4 The product appears to be aged or degraded diesel.
- B The blank exhibited a positive result great than the reporting limit for this compound.
- CN See Case Narrative.
- D Result is based from a dilution.
- E Result exceeds the calibration range for this compound. The result should be considered as estimate.
- F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- G Result may be biased high due to biogenic interferences. Clean up is recommended.
- H Sample was analyzed outside recommended holding time.
- HT At clients request, samples was analyzed outside of recommended holding time.
- J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
- K Diesel result is biased high due to amount of Oil contained in the sample.
- L Diesel result is biased high due to amount of Gasoline contained in the sample.
- M Oil result is biased high due to amount of Diesel contained in the sample.
- MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI Result is outside control limits due to matrix interference.
- MSA Value determined by Method of Standard Addition.
- O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
- Q Detection levels elevated due to sample matrix.
- R RPD control limits were exceeded.
- RF Duplicate failed due to result being at or near the method-reporting limit.
- RP Matrix spike values exceed established QC limits; post digestion spike is in control.
- S Recovery is outside control limits.
- SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
- * The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

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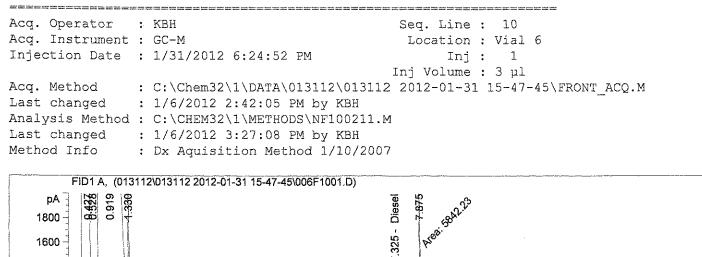
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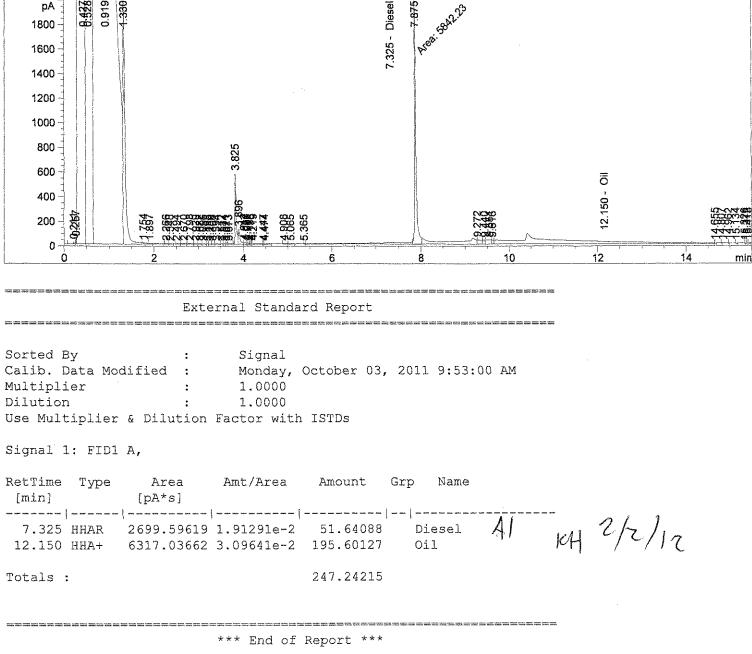
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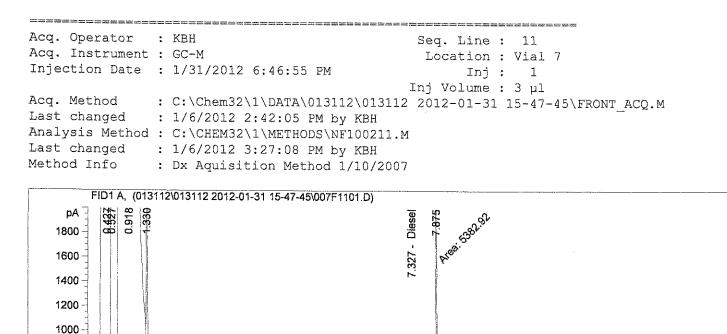
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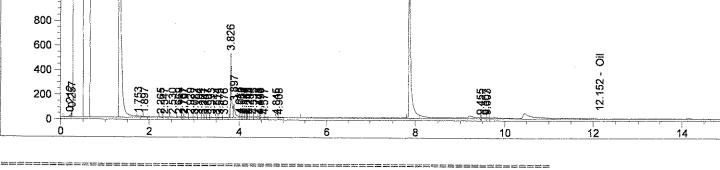




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External Standard Report

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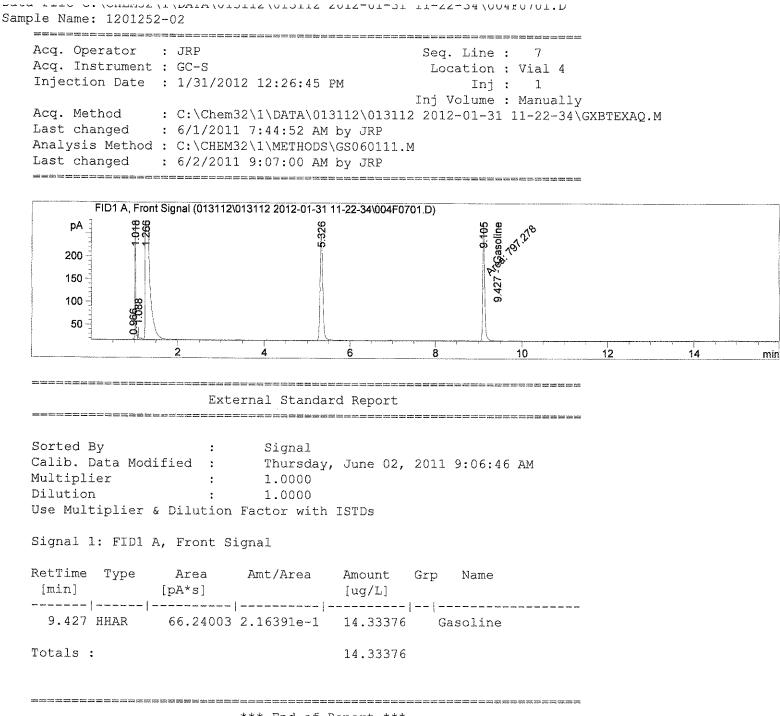
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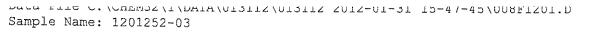
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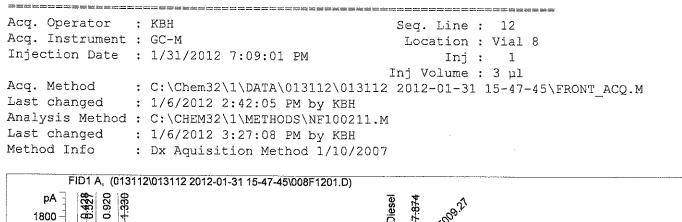
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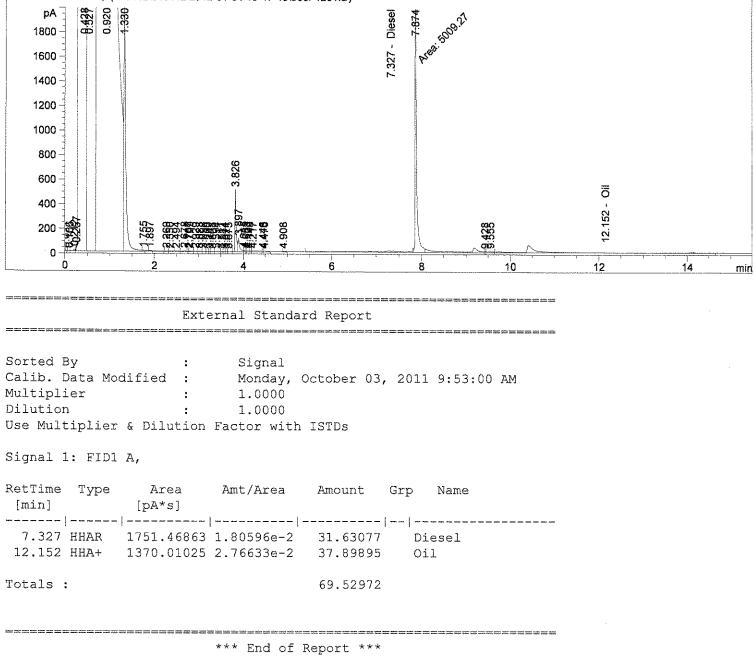
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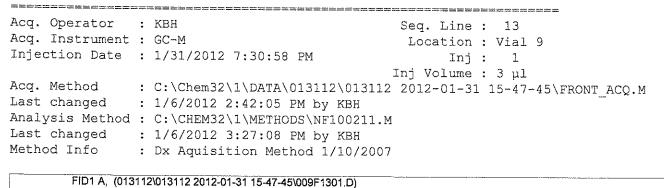


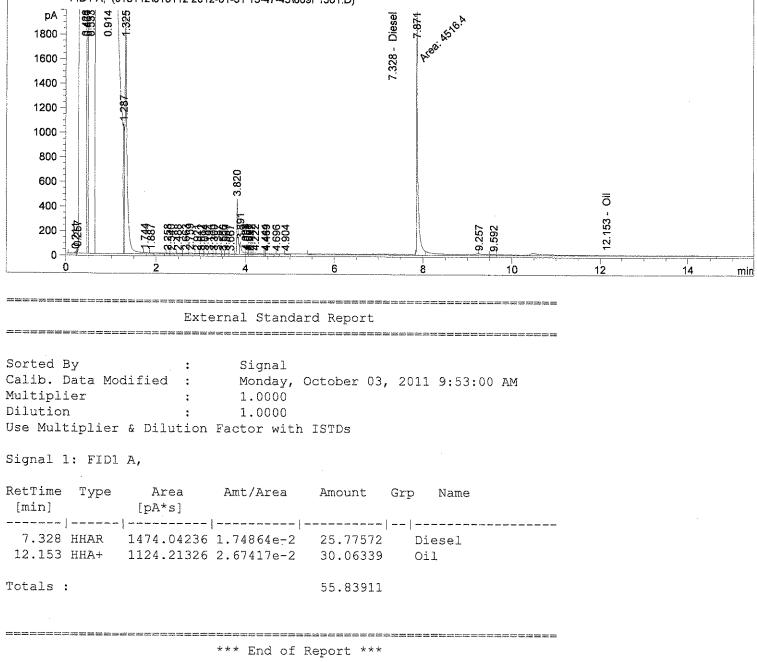


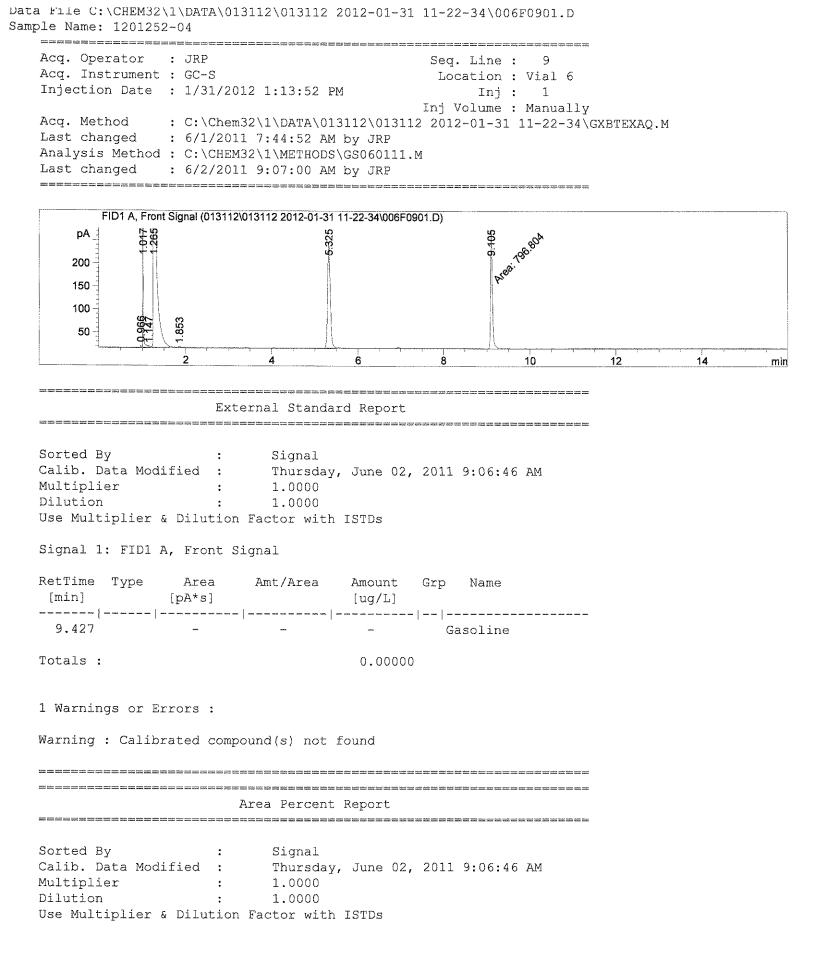


Acq. In Injecti	strumen on Date		.2 12:50:20 32\1\DATA\01		Loca Inj Vo	Line : ation : Inj : olume :	1 Manually	YETTYAO M		
Last ch Analysi Last ch	anged s Methoo anged	: 6/1/2013 d : C:\CHEM3 : 6/2/2013	2 7:44:52 AM 32\1\METHODS 9:07:00 AM	by JRP \GS060111. by JRP	М			ADIEANY.M		
	FID1 A, Fro	nt Signal (013112))13112 2012-01-31	11-22-34\005F0	801.D)					
pA _ 200 - 150 - 100 - 50 -	0.966 1.0881-018 265		5.3 25			9.427 26 asoline				
Ĺ		2	4	6	8		10	12	14	
		 Exte	ernal Standa							
Multipl Dilutio Use Mul Signal	Data Moo ier n tiplier 1: FID1	dified : : & Dilution A, Front Si	1.0000 1.0000 Factor with gnal	, June 02, ISTDs	2011 9	.06:46	AM			
RetTime [min]		[pA*s]		Amount [ug/L]	*	Name				
	HHAR	123.72907	2.16391e-1	26.77389	-) Gas	oline				
9.427										

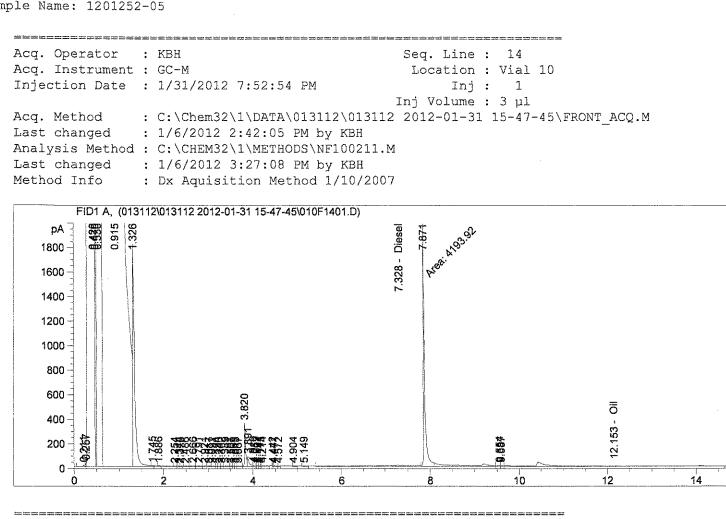
Data file C:\CHEM32\1\DATA\013112\013112 2012-01-31 15-47-45\009F1301.D Sample Name: 1201252-04







Jaca file C:\CHEM32\1\DATA\013112\013112 2012-01-31 15-47-45\010F1401.D Sample Name: 1201252-05



External Standard Report

Sorted By : Calib. Data Modified :	2	October 03	2011 9:53:00 AM
Multiplier :		OCLODEL 00,	2011 9.33.00 AM
Dilution : Use Multiplier & Dilutic		h ISTDs	

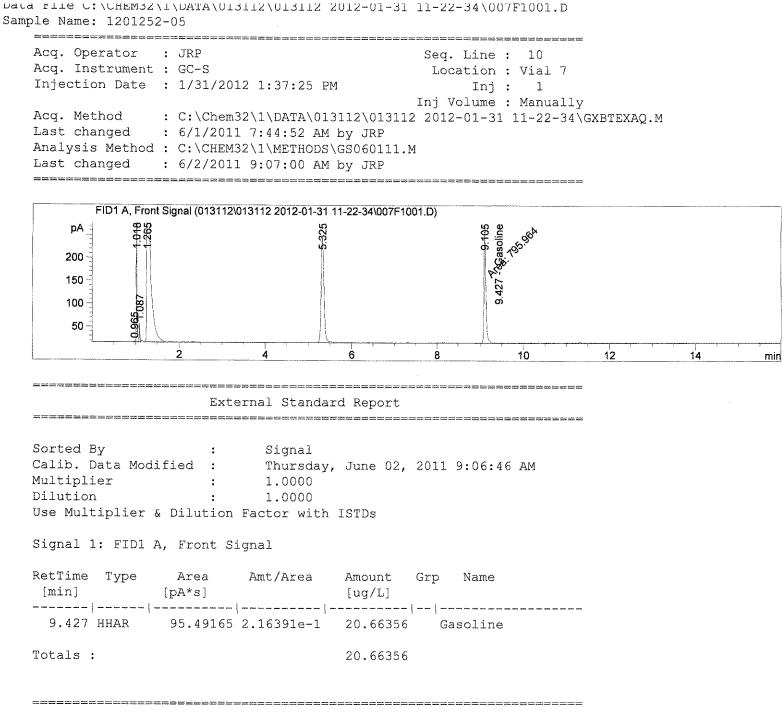
Signal 1: FID1 A,

Totals :

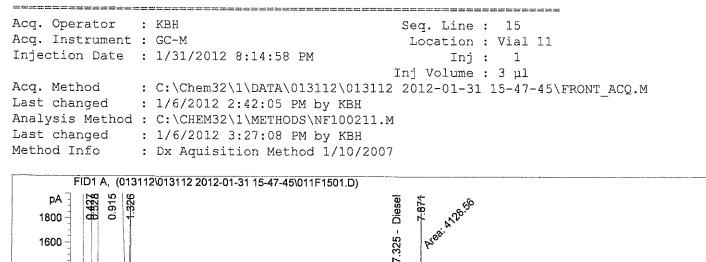
66.86368

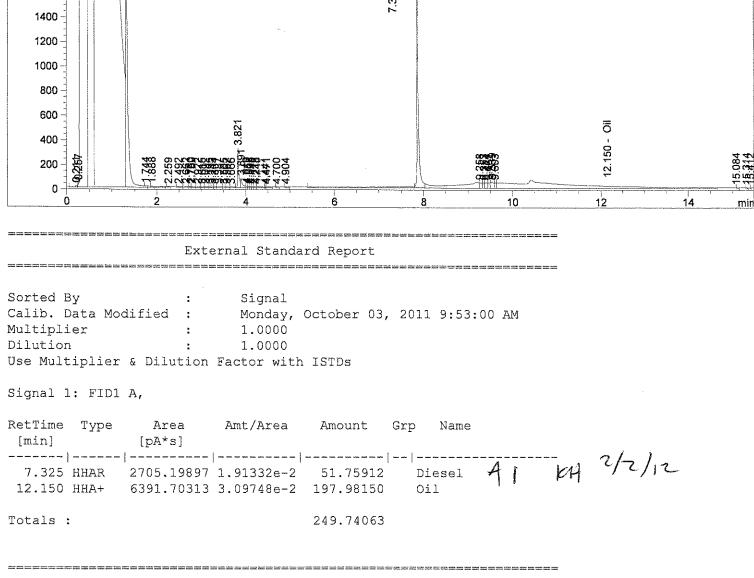
*** End of Report ***

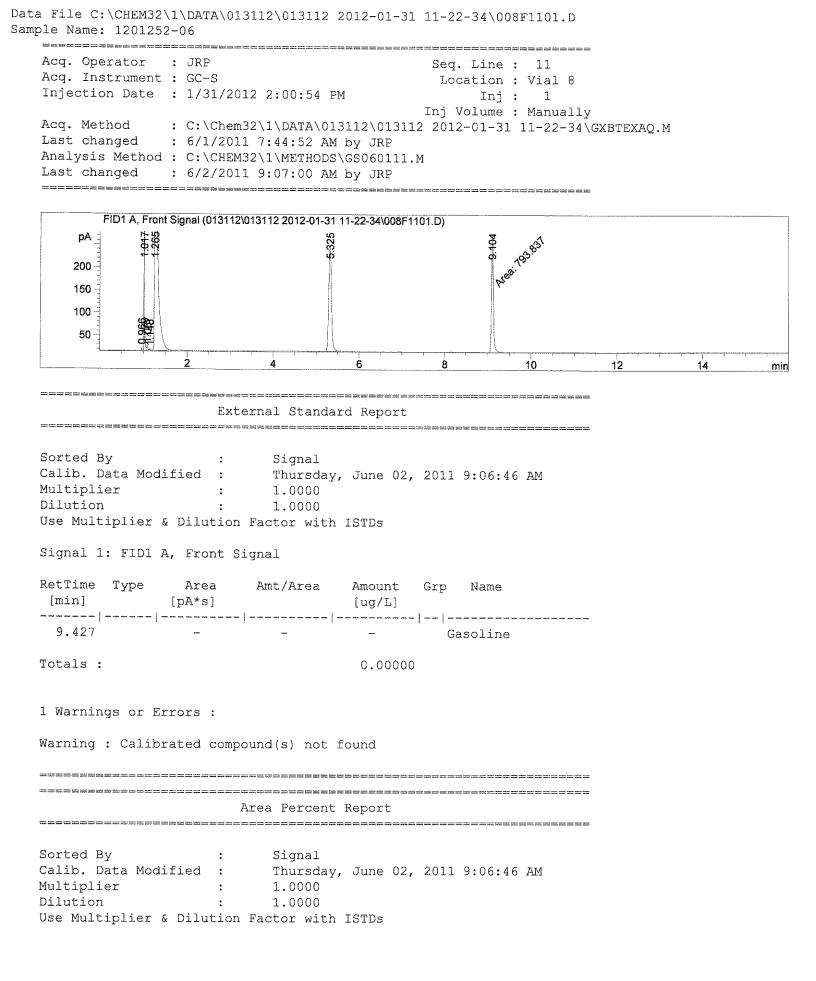
min



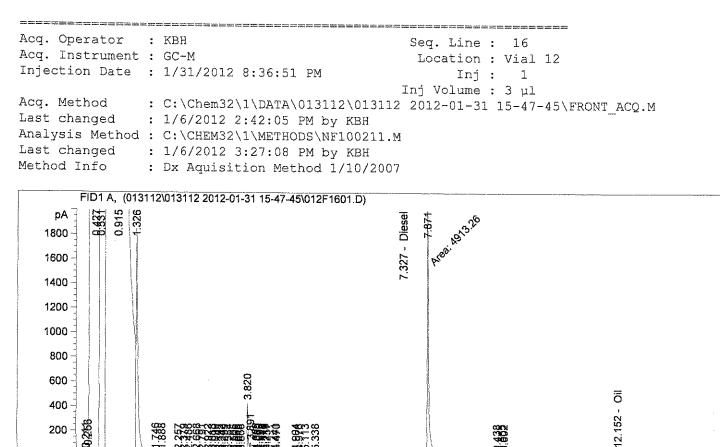
Data File C:\CHEM32\1\DATA\013112\013112 2012-01-31 15-47-45\011F1501.D Sample Name: 1201252-06







Data file C:\CHEM32\1\DATA\013112\013112 2012-01-31 15-47-45\012F1601.D Sample Name: 1201252-07



n n 6 8 10 12 External Standard Report Sorted By : Signal Calib. Data Modified : Monday, October 03, 2011 9:53:00 AM Multiplier 1.0000 : Dilution 1.0000 : Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

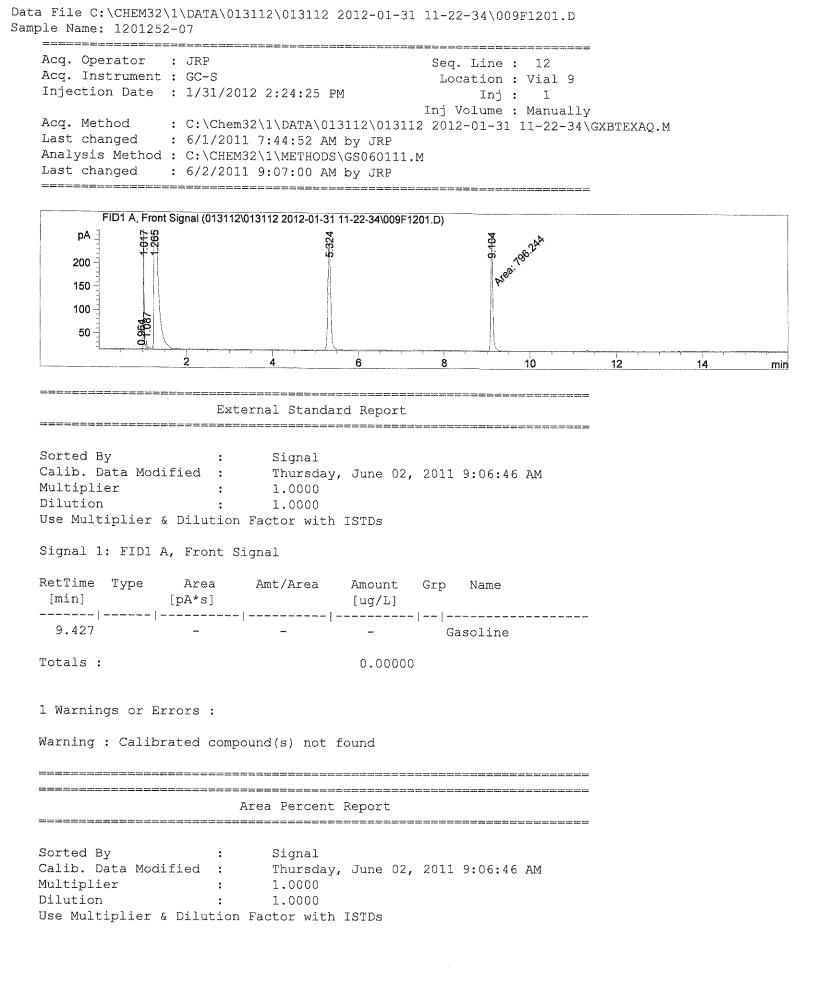
88

RetTime Type Area Amt/Area Amount Grp Name [min] [pA*s] KH 2/2/12 7.327 HHAR 2734.27612 1.91542e-2 52.37279 A) Diesel 12.152 HHA+ 1500.45593 2.80297e-2 42.05733 Oil Totals : 94,43012

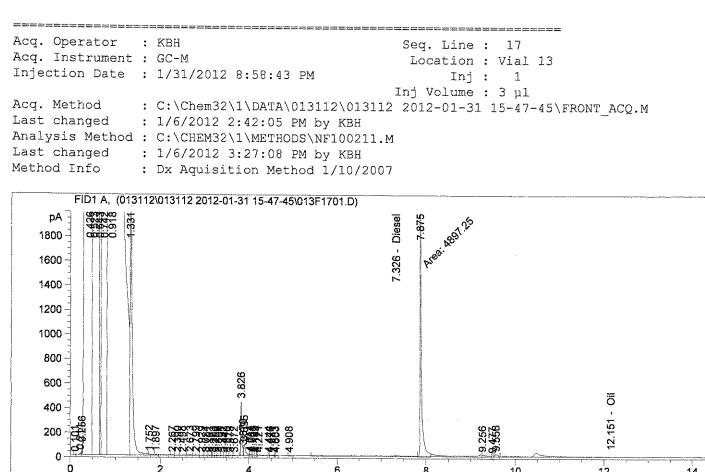
*** End of Report ***

14

min



Data File C:\CHEM32\1\DATA\013112\013112 2012-01-31 15-47-45\013F1701.D Sample Name: 1201252-08



External Standard Report

6

Sorted By	:	Signal					
Calib. Data Modified	:	Monday	, October	03,	2011	9:53:00	AM
Multiplier	:	1.0000					
Dilution	:	1.0000					
Use Multiplier & Dilut	ion Fa	actor wi	th ISTDs				

Signal 1: FID1 A,

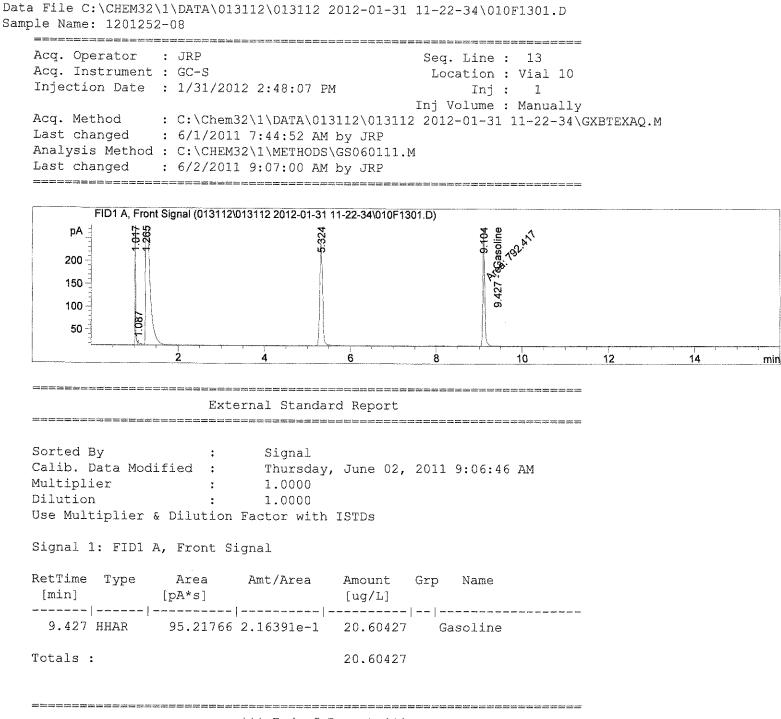
RetTime Type Area Amt/Area Amount Grp Name [min] [pA*s] 7.326 HHAR 1086.37024 1.61952e-2 17.59396 Diesel 12.151 HHA+ 922.61285 2.56193e-2 23.63673 Oil Totals : 41.23068

*** End of Report ***

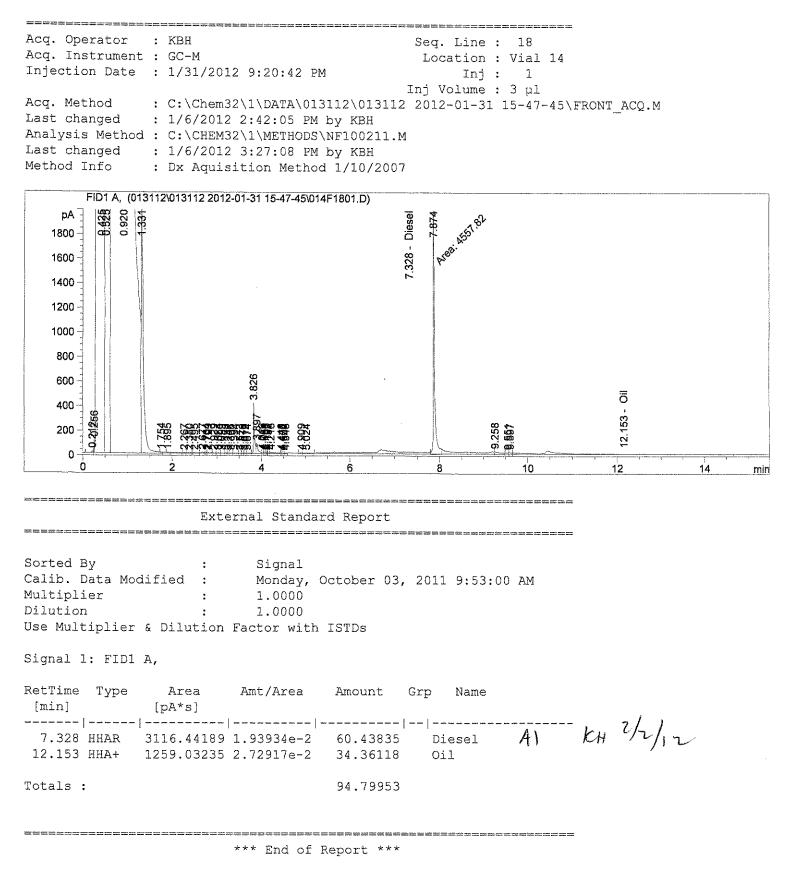
12

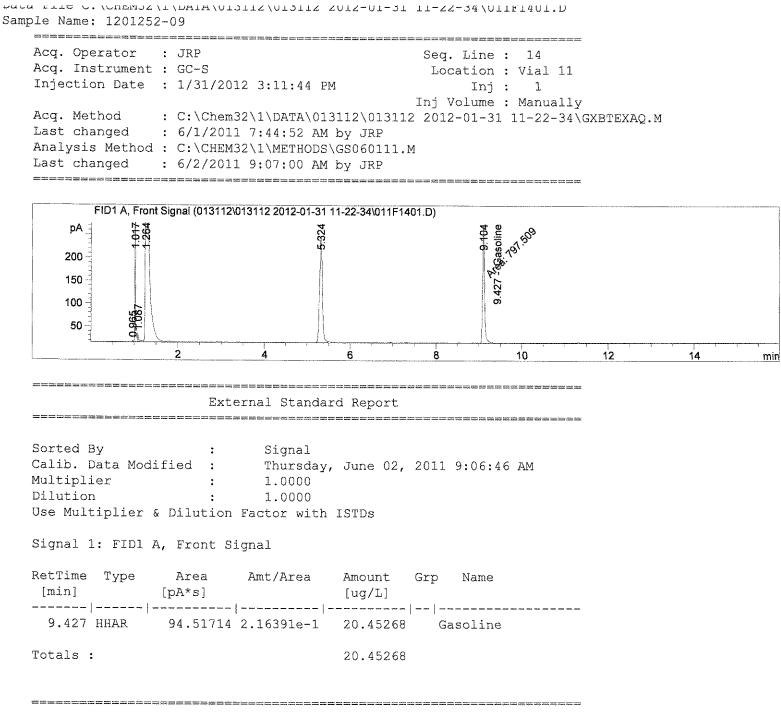
14

10

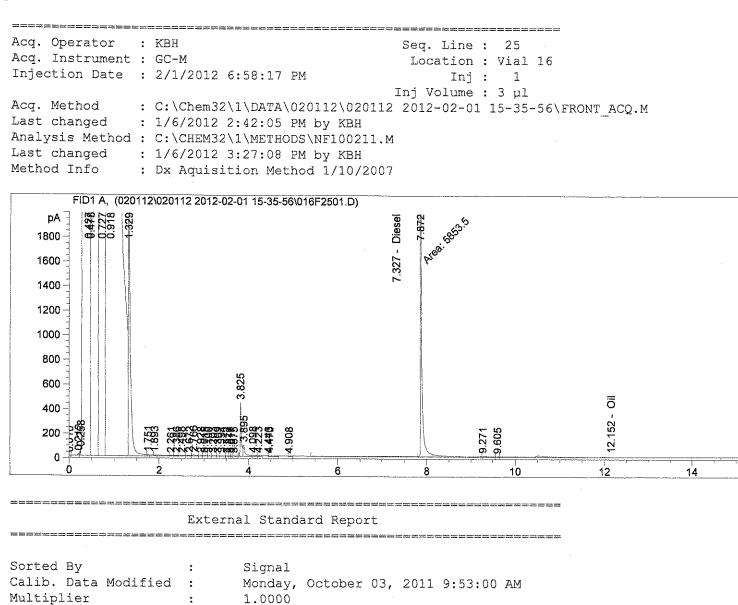


Data File C:\CHEM32\1\DATA\013112\013112 2012-01-31 15-47-45\014F1801.D Sample Name: 1201252-09





Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\016F2501.D Sample Name: 1201252-10



Signal 1: FID1 A,

Dilution

RetTime [min]	~ *	Area [pA*s]	Amt/Area	Amount	-	Name
				_ ~ ~ ~ ~ ~ ~ ~ ~ ~		
7.327			1.52702e-2			esel
12.152	HHA+	372.22455	1.63647e-2	6.09134	Oi	1
Totals :				20.05041		

1.0000

:

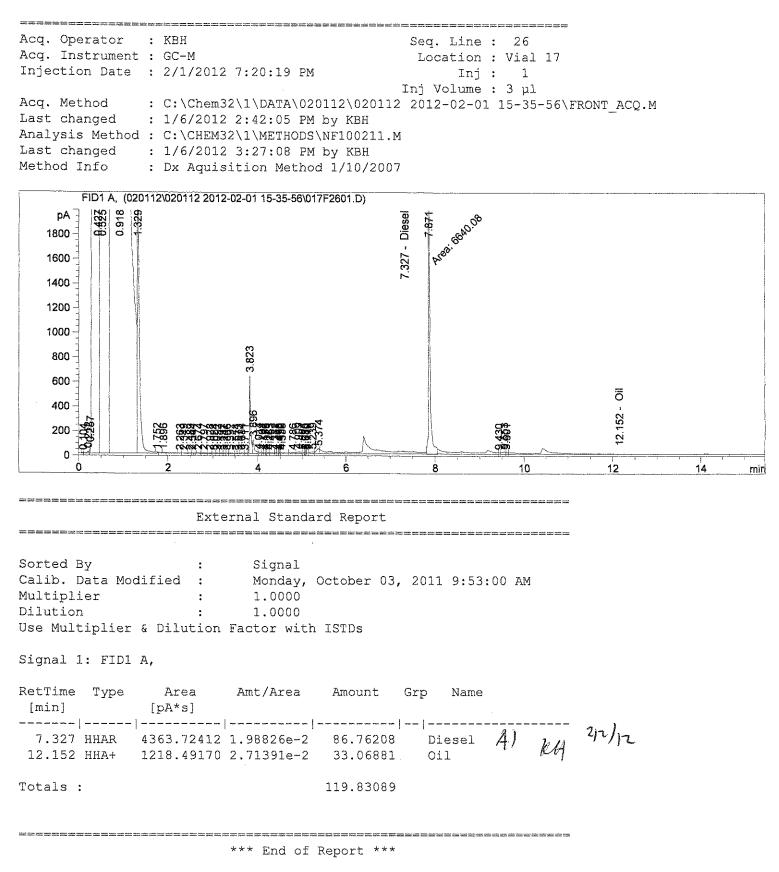
Use Multiplier & Dilution Factor with ISTDs

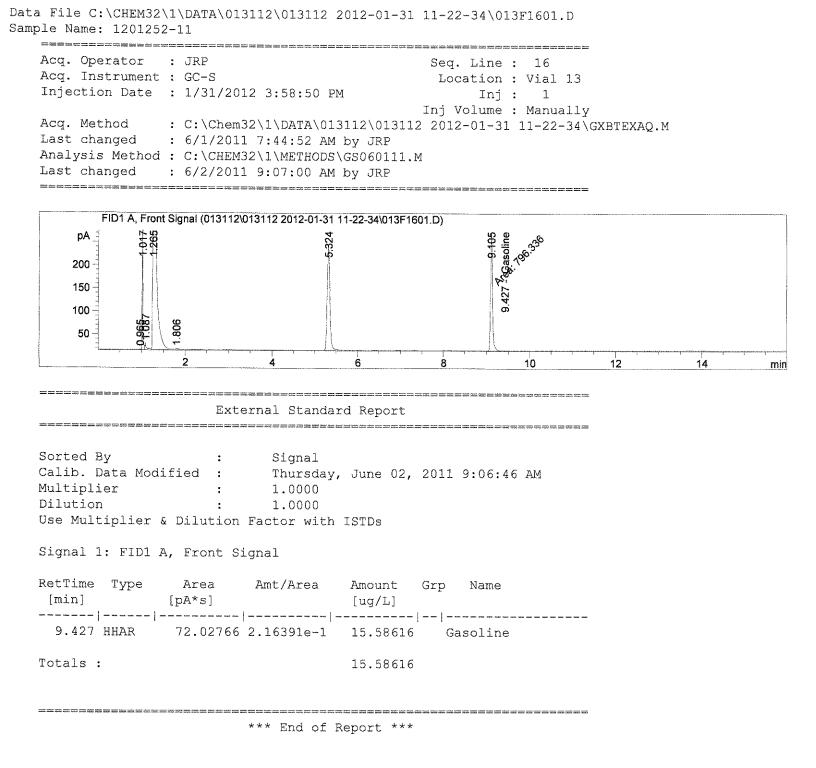
*** End of Report ***

min

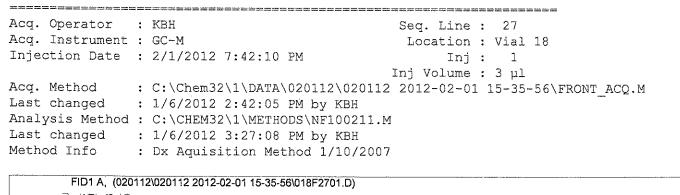
	rument Date	: 1/31/201	.2 3:35:17 P		Lo Inj	Inj : Volume :	Vial 12 1 Manually			
Last char Analysis Last char	iged Method iged	: 6/1/2011 : C:\CHEM3 : 6/2/2011	32\1\DATA\01. 7:44:52 AM 32\1\METHODS` 9:07:00 AM	by JRP \GS060111. by JRP		2-01-31	11-22-34\G	XBTEXAQ.M		
F	D1 A, Fron	t Signal (013112))13112 2012-01-31	11-22-34\012F1	501.D)					.F
pA _ 200 _ 150 _ 100 _ 50 _	21.149988 1.017 21.149988 1.017		5.324			9.104 9.427 - Cassoline	8 ² b			
		2	4	6	8	·····	10	12	14	
<u> 200 100</u>		 Fxte	ernal Standa							
				-						
Sorted By Calib. Da Multiplie Dilution Use Multi	ta Mod: r	ified : : :	Signal Thursday, 1.0000 1.0000 Factor with	June 02, ISTDs	2011	9:06:46	AM			
Signal 1:	FID1 /	A, Front Si	gnal							
RetTime [min]		[pA*s]	Amt/Area	[uq/L]	Grp	Name				
9.427 ['] H	HAR	112.39552	2.16391e-1	24.32141	G	asoline				

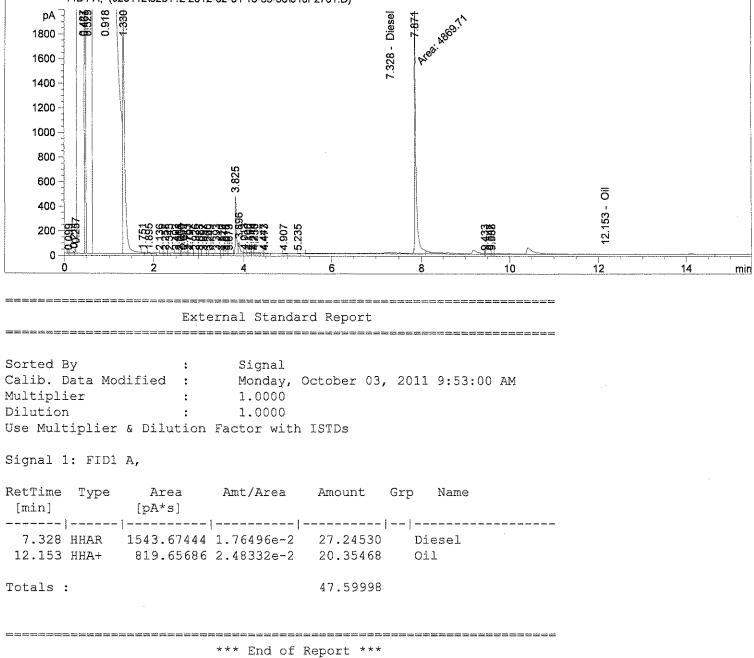
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\017F2601.D Sample Name: 1201252-11

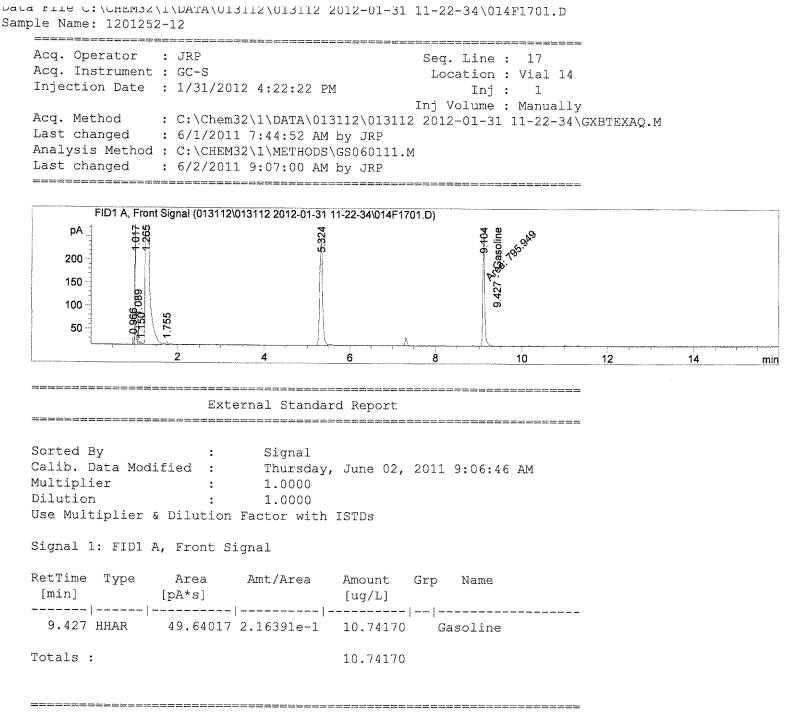




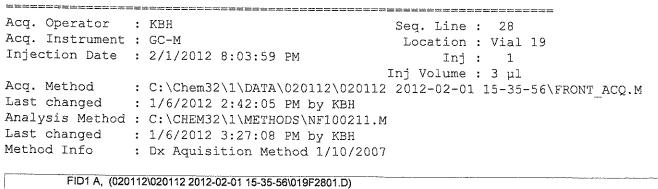
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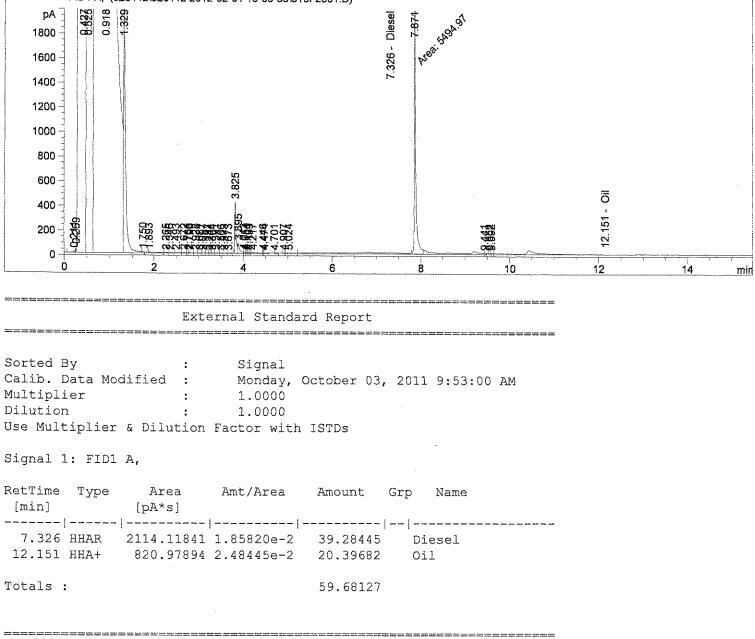


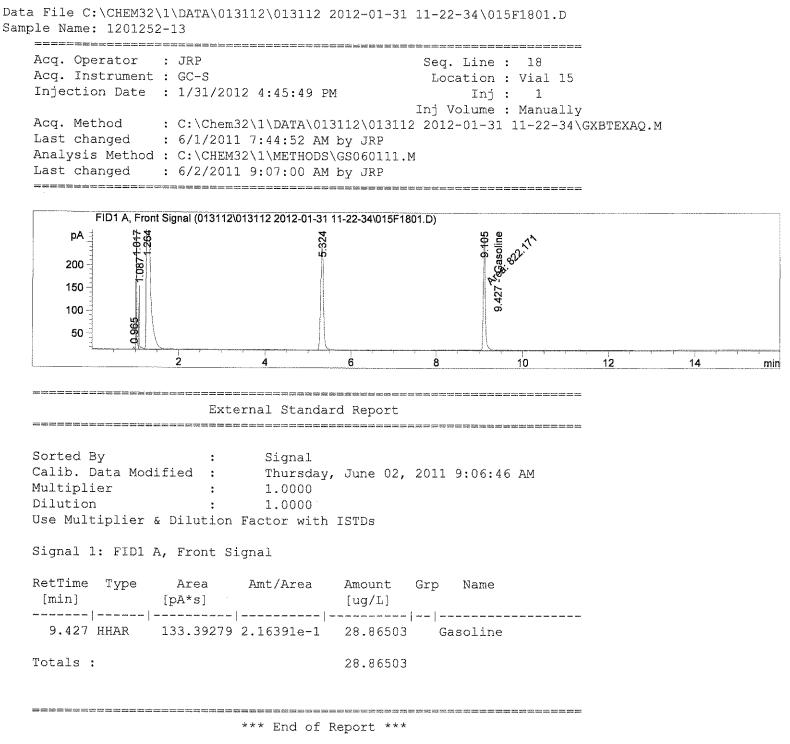




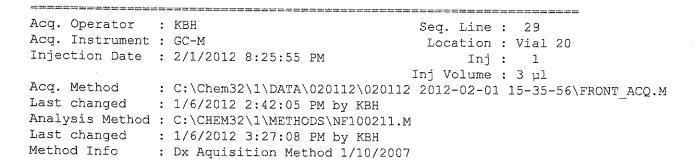
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\019F2801.D Sample Name: 1201252-13

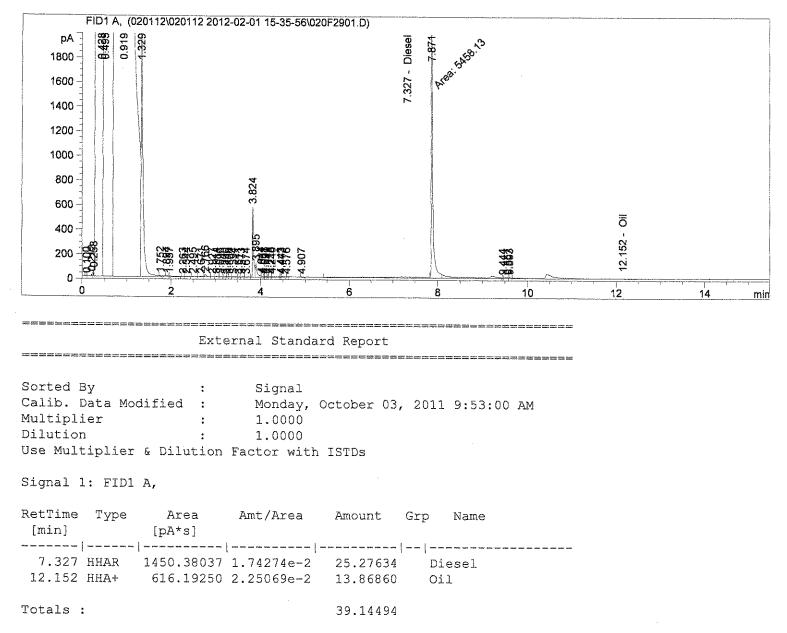


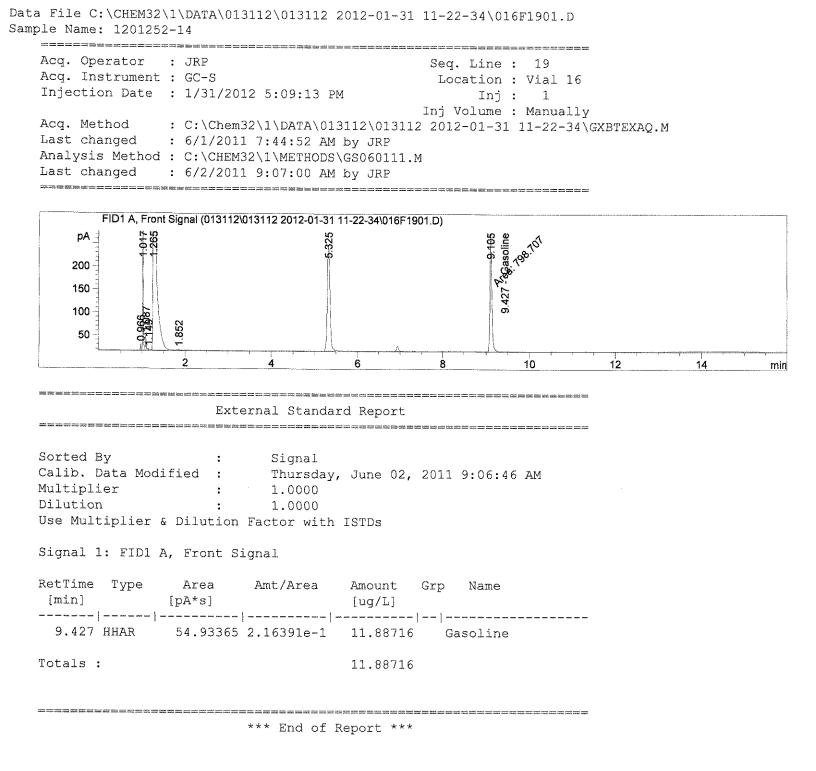




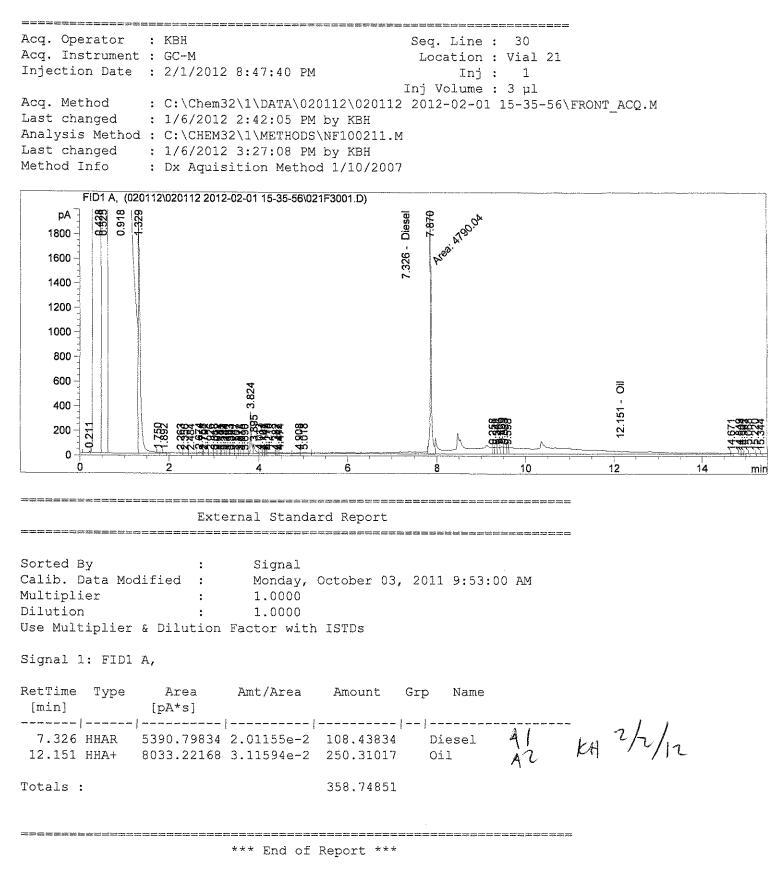
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\020F2901.D Sample Name: 1201252-14

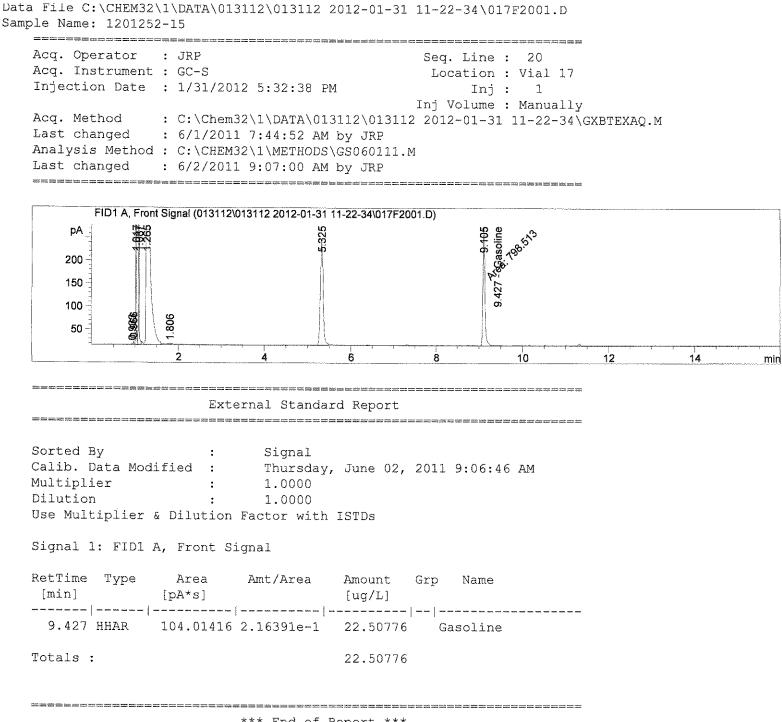




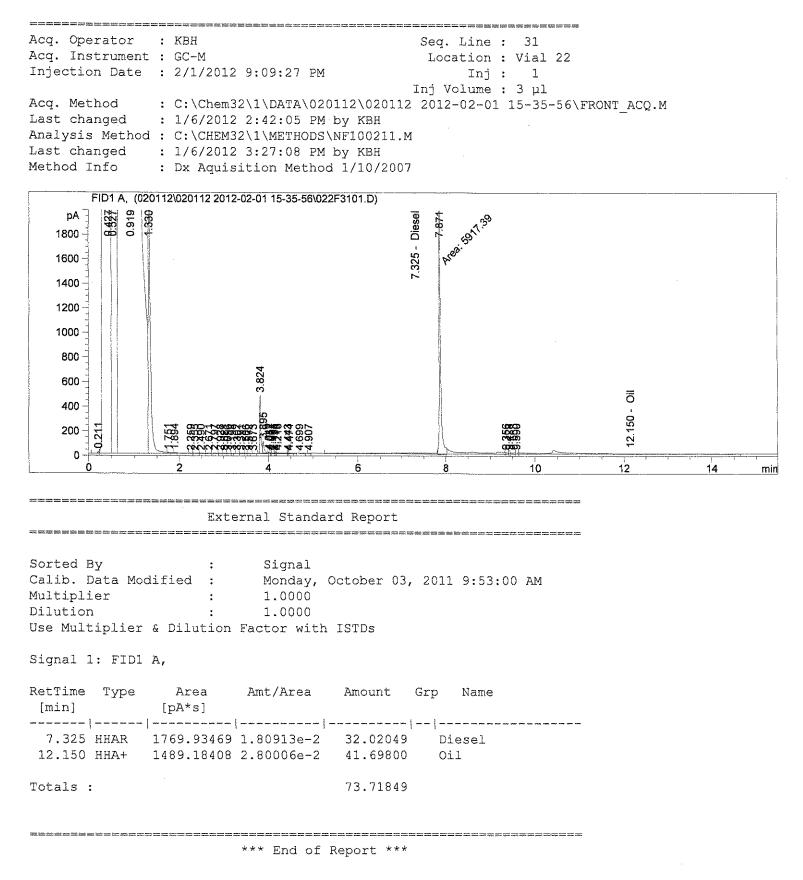


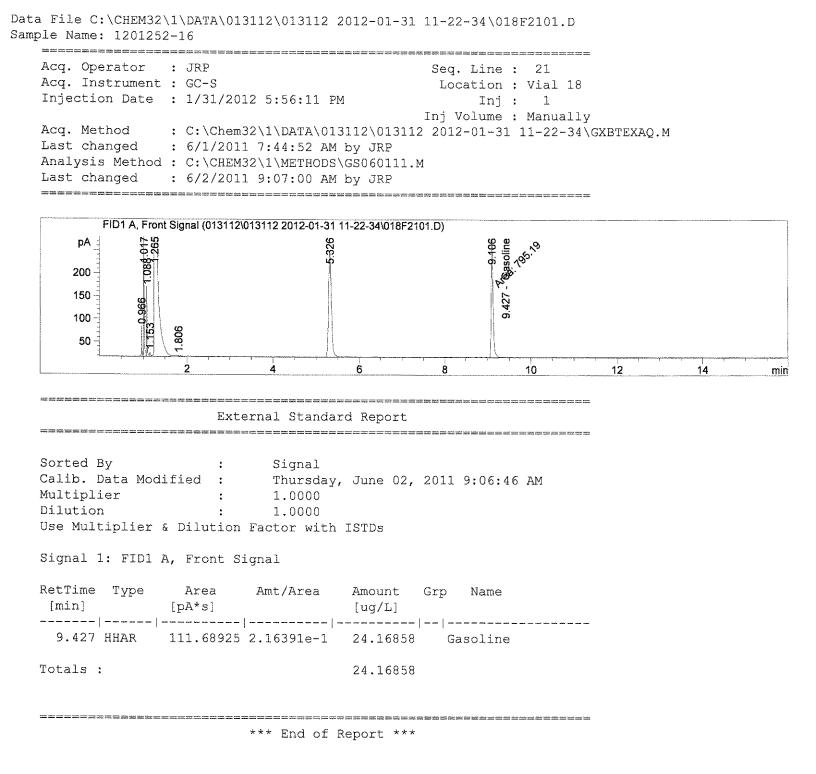
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\021F3001.D Sample Name: 1201252-15



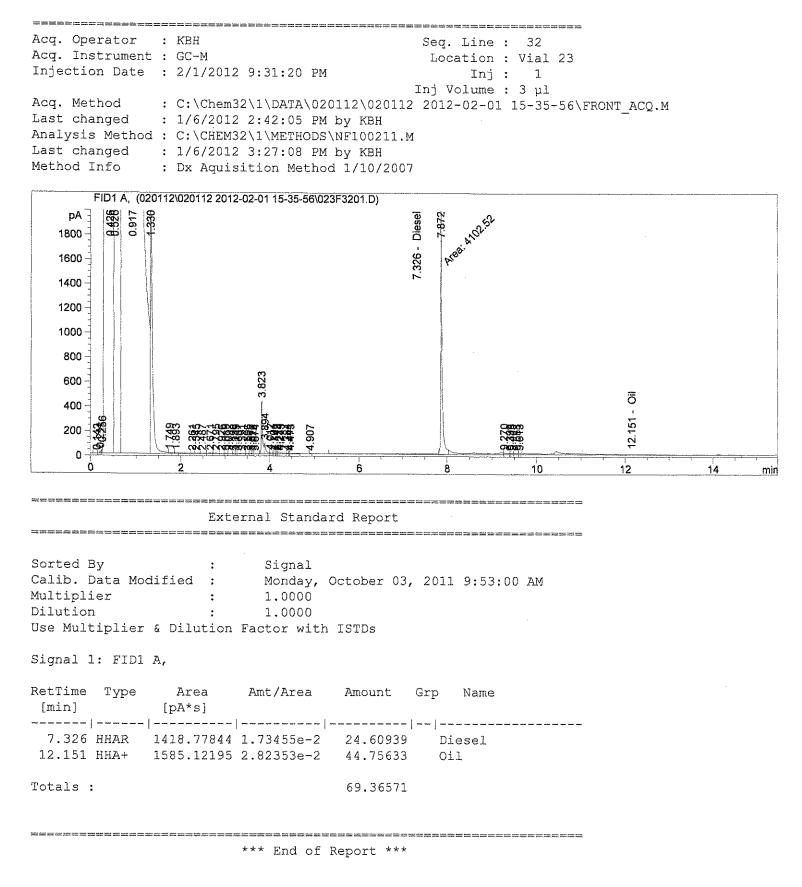


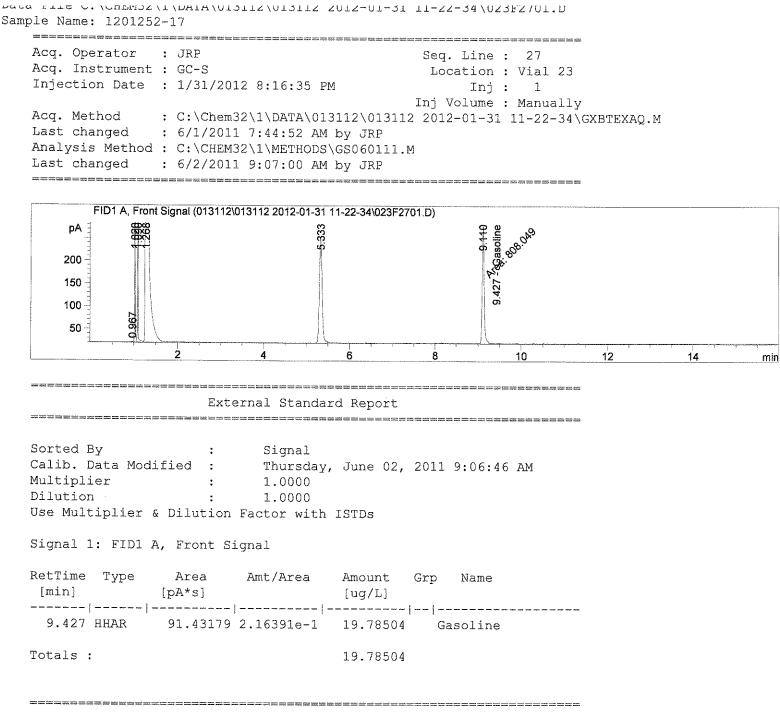
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\022F3101.D Sample Name: 1201252-16



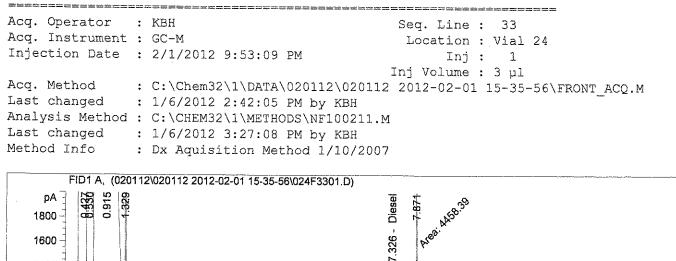


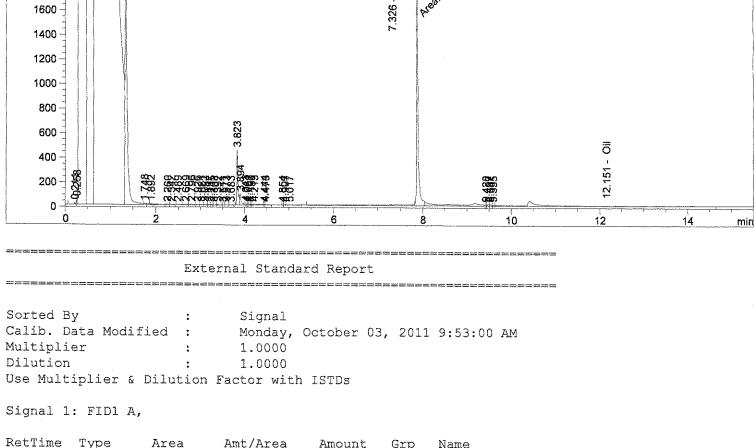
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\023F3201.D Sample Name: 1201252-17



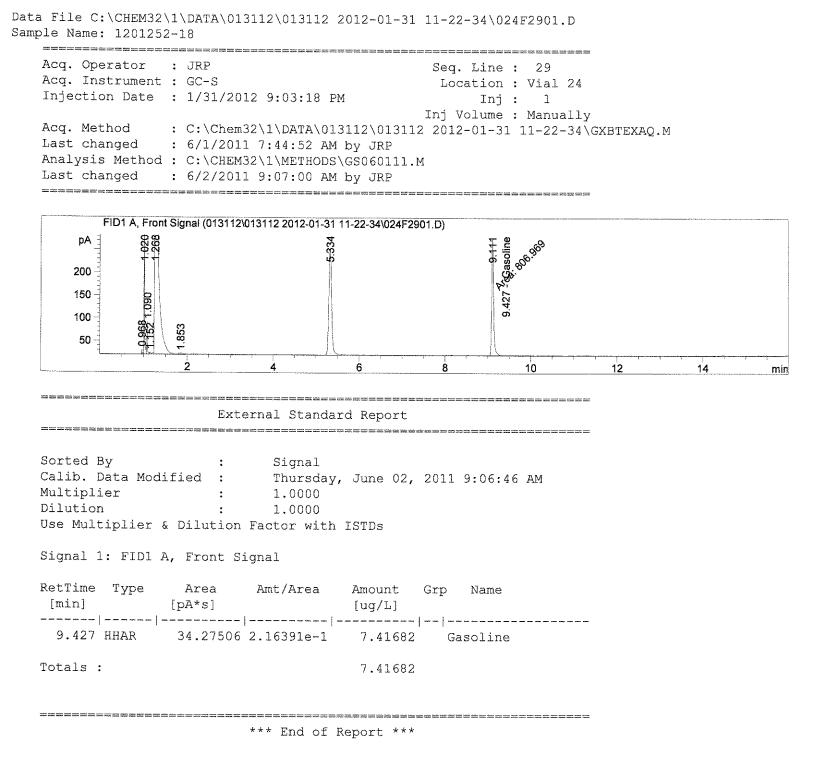


Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\024F3301.D Sample Name: 1201252-18

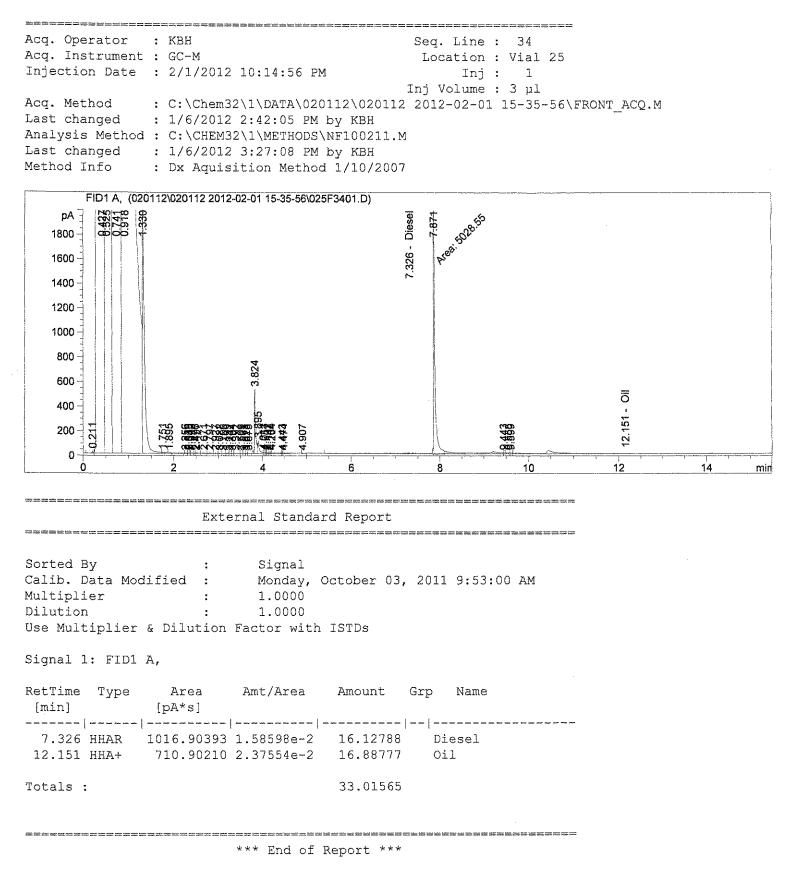


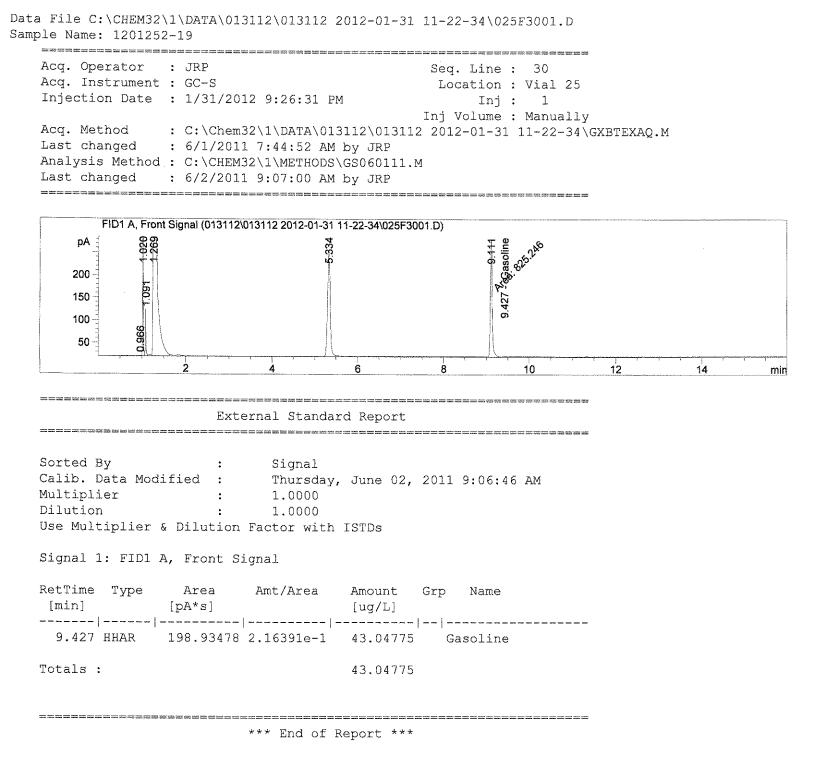


		[pA*s]			
7.326	HHAR		1.80755e-2	31.82481	Diesel Oil
Totals	:			67.26223	

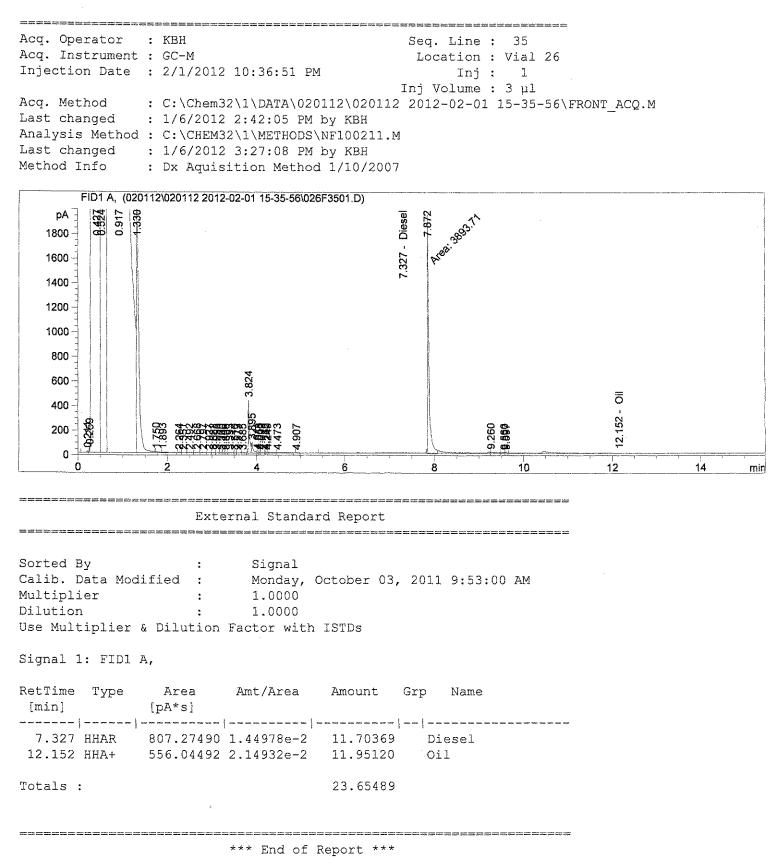


Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\025F3401.D Sample Name: 1201252-19

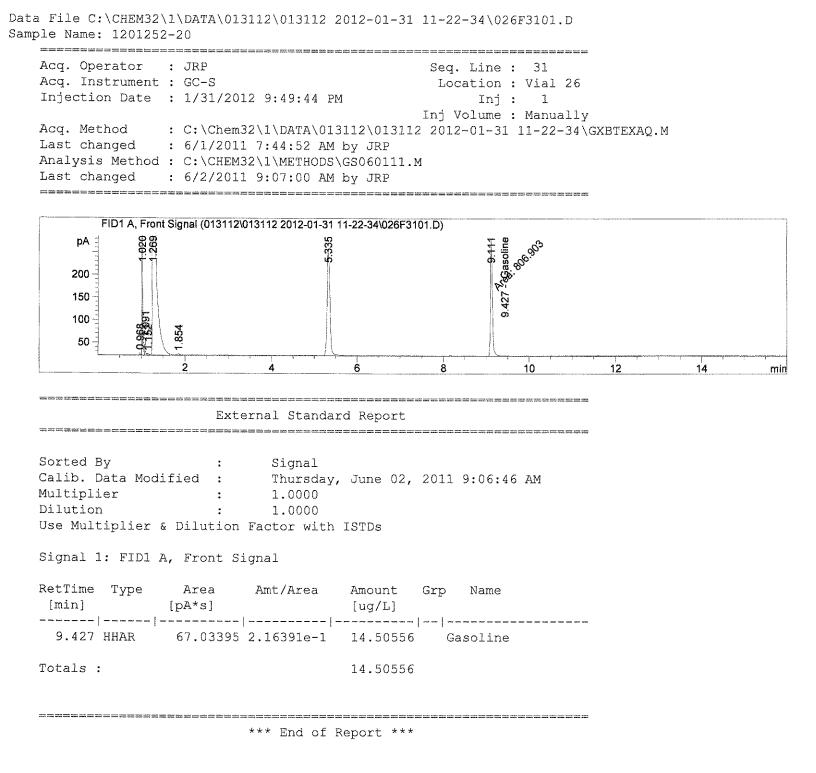




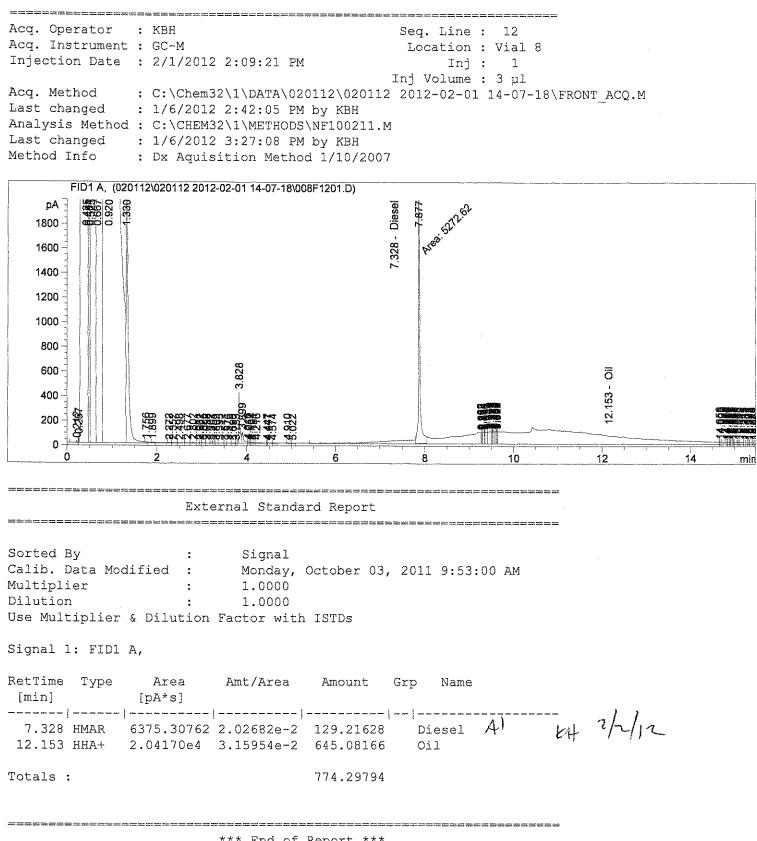
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\026F3501.D Sample Name: 1201252-20

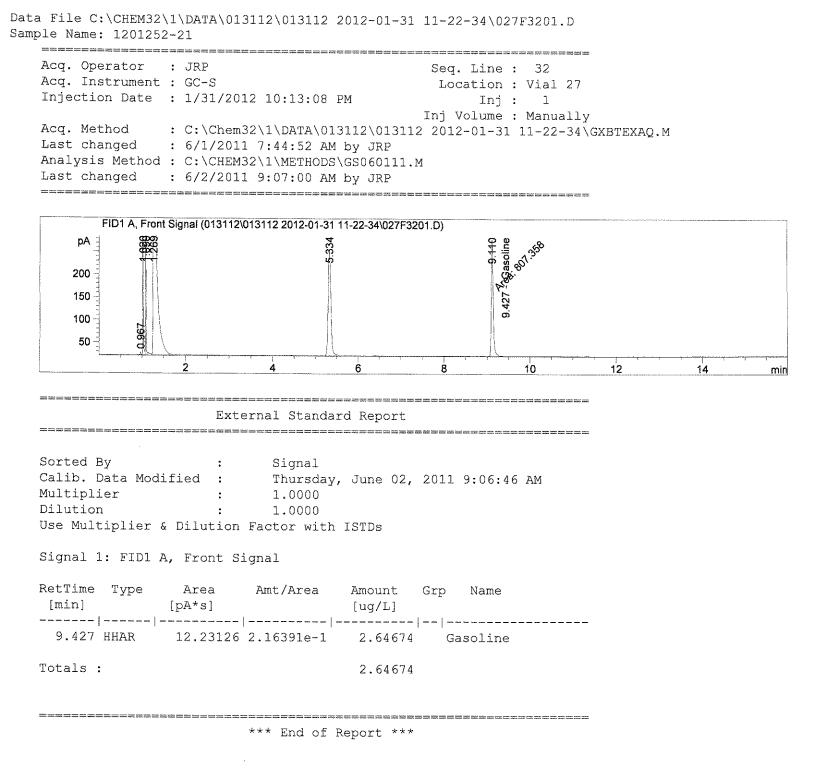


103

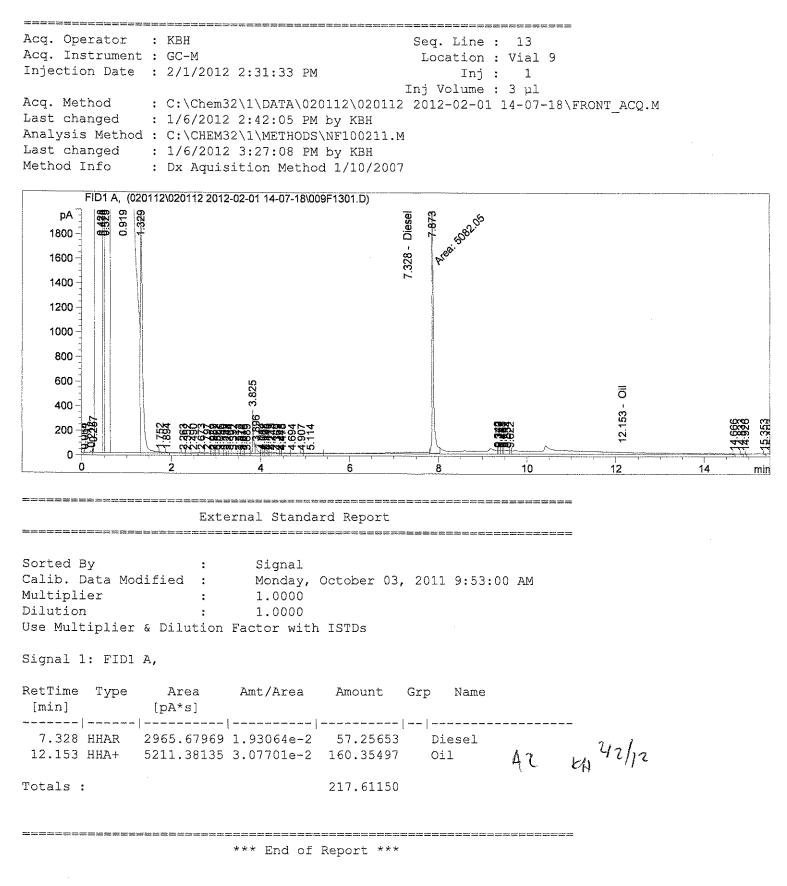


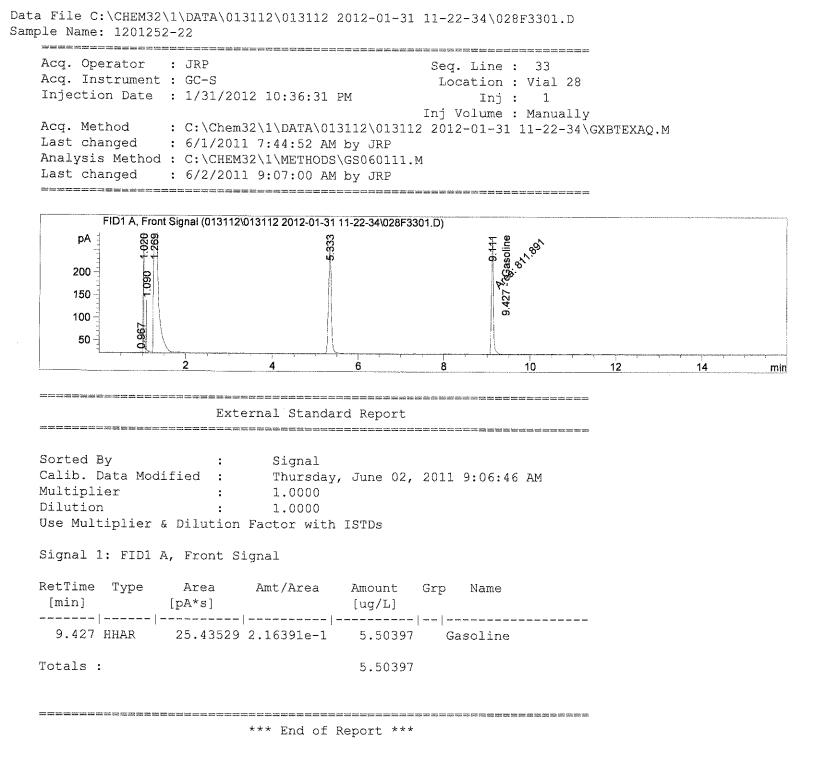
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 14-07-18\008F1201.D Sample Name: 1201252-21



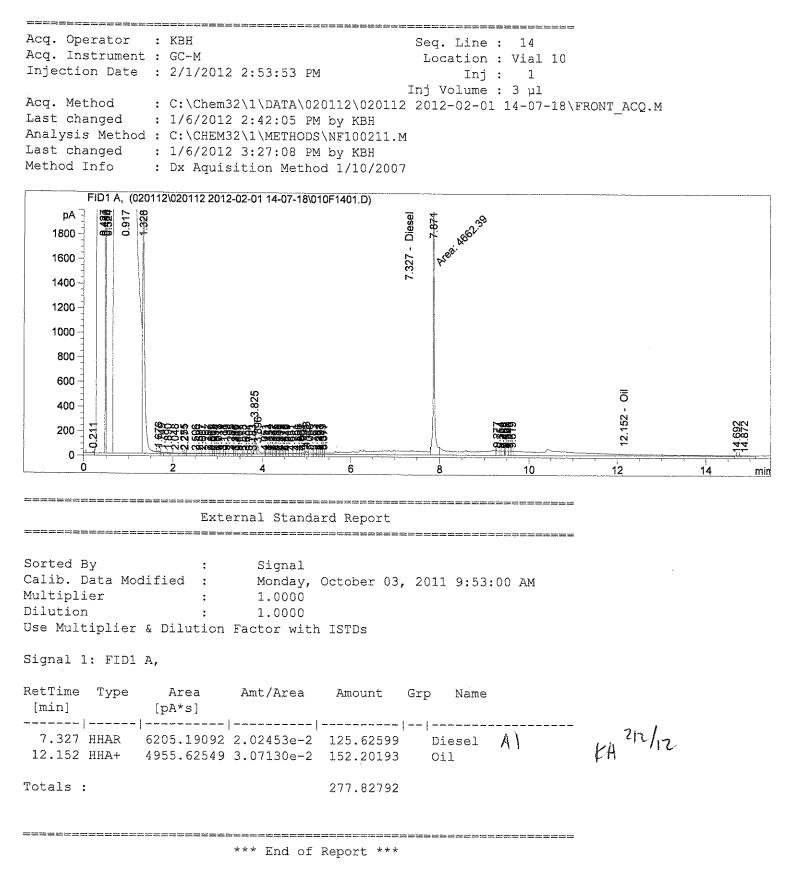


Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 14-07-18\009F1301.D Sample Name: 1201252-22

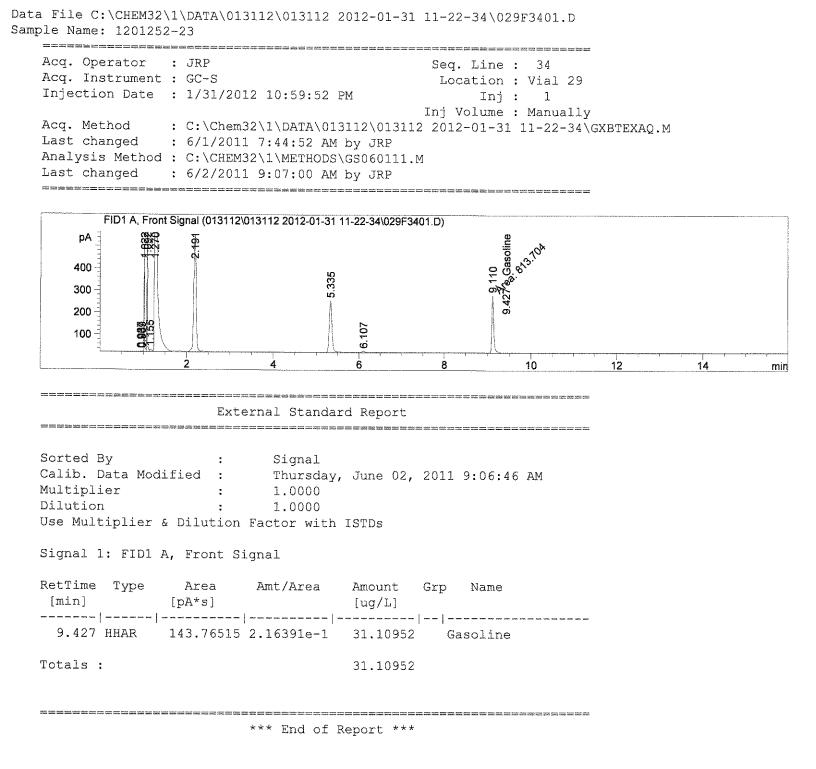




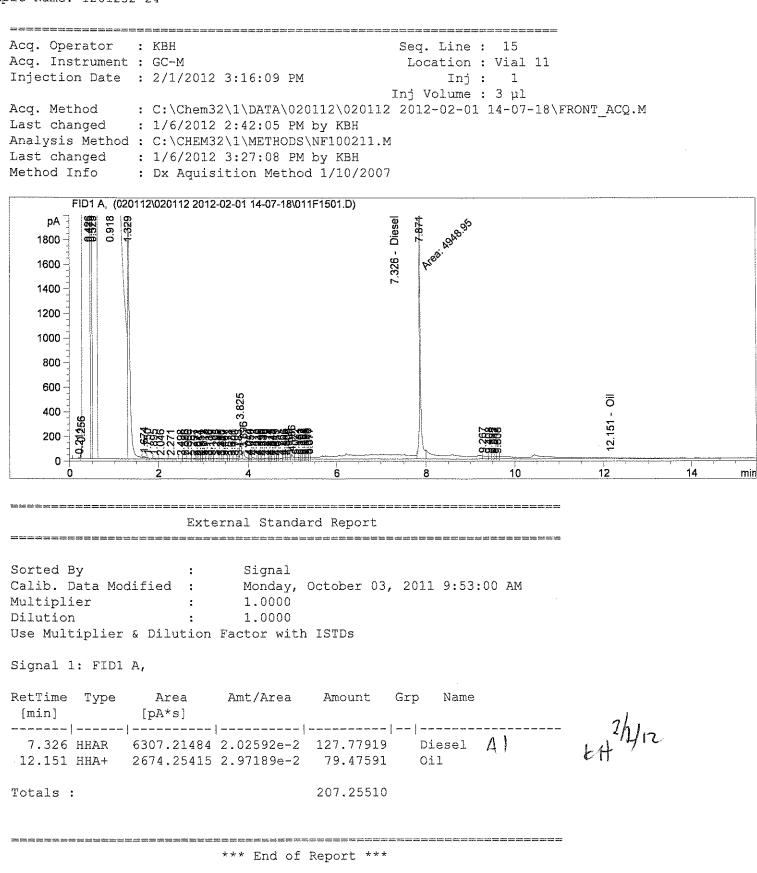
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 14-07-18\010F1401.D Sample Name: 1201252-23

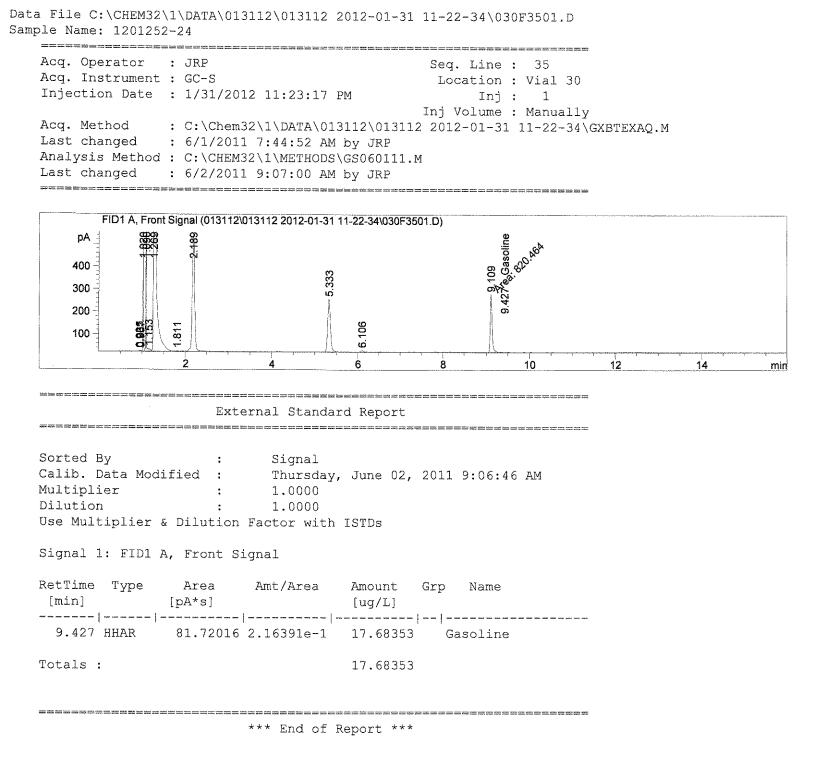


·~; .

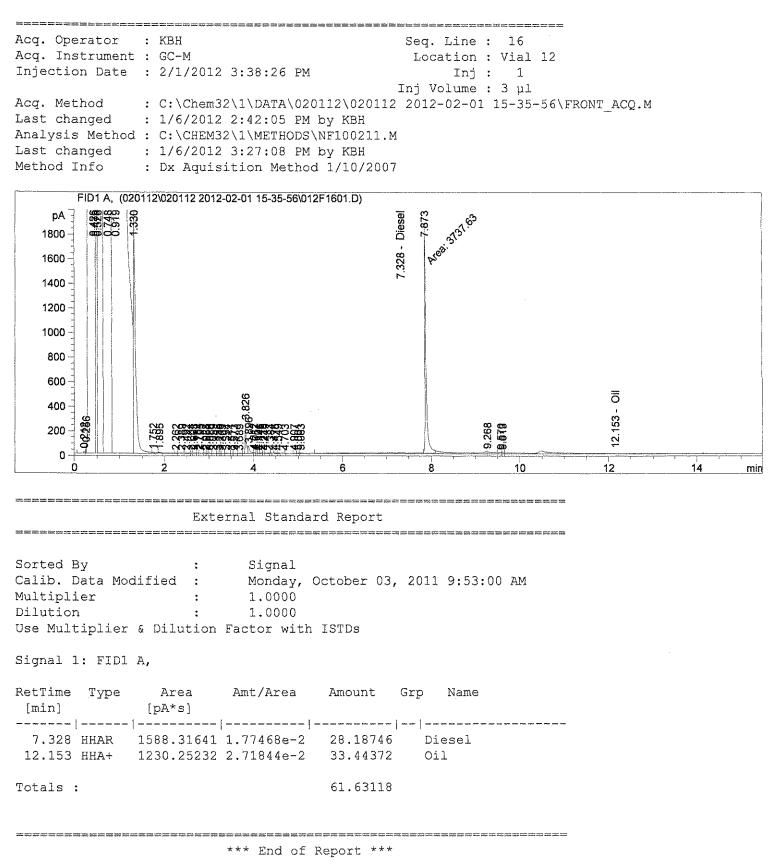


Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 14-07-18\011F1501.D Sample Name: 1201252-24



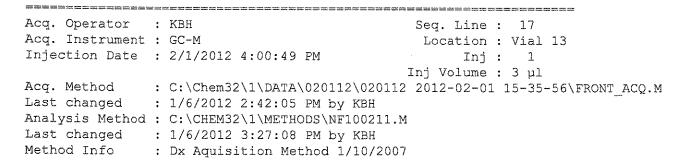


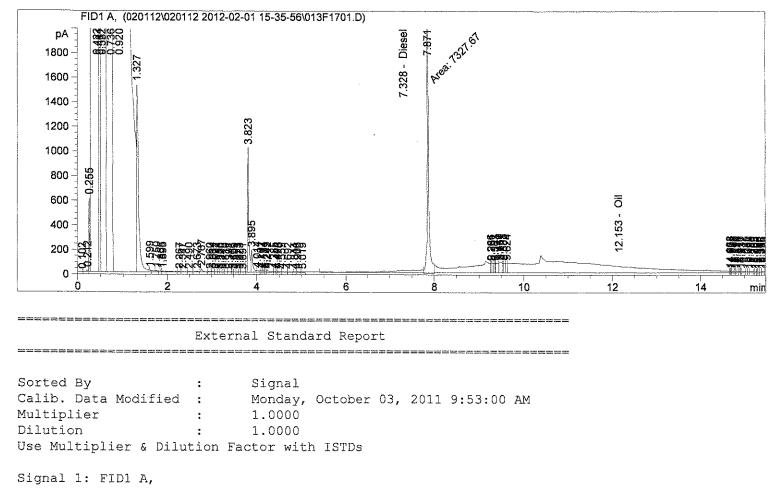
Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\012F1601.D Sample Name: 1201252-25



Acq. Operator : JRP Acq. Instrument : GC-S			~ ~ ·				
			Seq. Line	: 36 : Vial 31			
Injection Date : 1/31/2	012 11:46:41	PM	Inj				
Aca Method . C.) Cha		10110\01011	Inj Volume	: Manually			
Acq. Method : C:\Che Last changed : 6/1/20	m32\1\DATA\0 11 7:44:52 A	I3II2\0I3II M bv JRP	2 2012-01-3	1 11-22-34\0	SXBTEXAQ.N	4	
Analysis Method : C:\CHE	M32\1\METHOD	s\GS060111.	М				
Last changed : 6/2/20	11 9:07:00 A	M by JRP					
FID1 A, Front Signal (01311			601.D)				
1 2 68 Ad		6 99 90	-9.4 1 0	9.427 "Seasoline			
200			ĺ.	Se or Se or			
150 - 8			8	² 727			
100 0 <u>0</u> 001 001 001 001 001 001 001 001 001 0				6 6			
150 60 100 100 50 50 50 50 50 50 50 50 50 50 50 50 50 50 5							
- <u>L/%,</u>	4	6		10	12	14	mi
			<u> </u>	10			
Ex	ternal Stand	ard Report					
an and part the and the and this have and this law and the same the same and the same and			nne weir den alste iter stad was wer ann finst sin	1999 WWW DAME VALUE ALLS. Lakes some delse sides some some			
Sorted By :	Signal						
Calib. Data Modified :		y, June 02,	2011 9:06:	46 AM			
Multiplier : Dilution :	1.0000 1.0000						
Jse Multiplier & Dilutio		h ISTDs					
Signal 1: FID1 A, Front	Signal						
RetTime Type Area	Amt/Area	Amount	Grp Name				
[min] [pA*s]	4	[ug/L]					
9.427 HHAR 301.1630	9 2.16391e-1						
fotals :		65.16906					

Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\013F1701.D Sample Name: 1201252-26





 RetTime Type
 Area
 Amt/Area
 Amount
 Grp
 Name

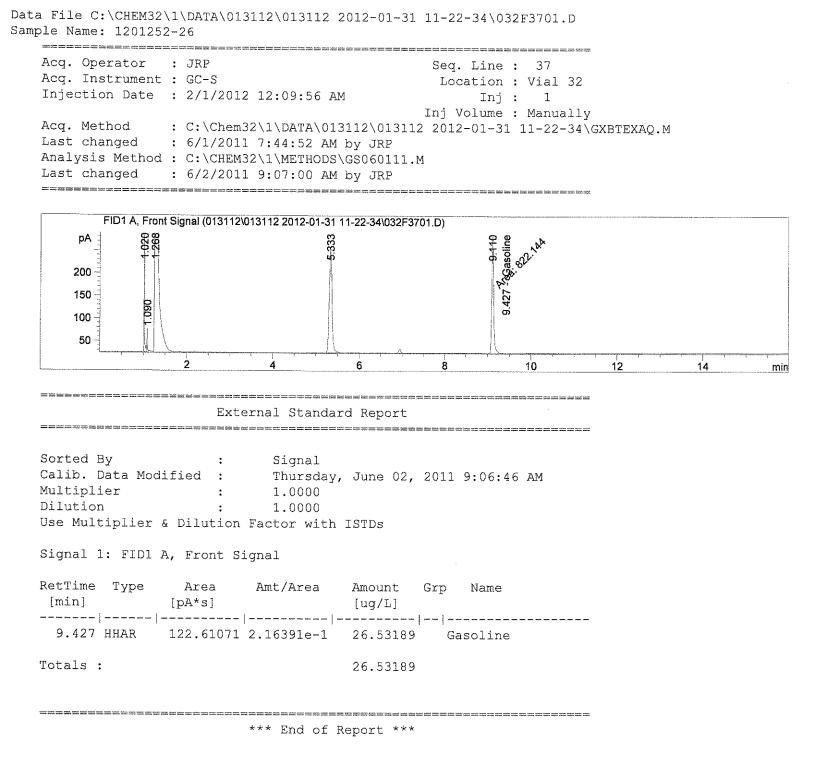
 [min]
 [pA*s]

 ----- ----- ----- ----- -----

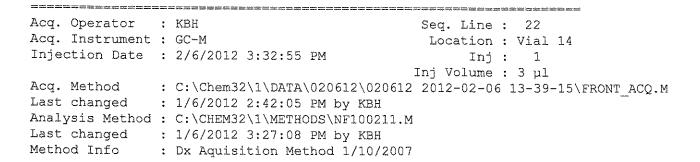
 7.328
 HHAR
 4985.21729
 2.00350e-2
 99.87861
 Diesel
 Al

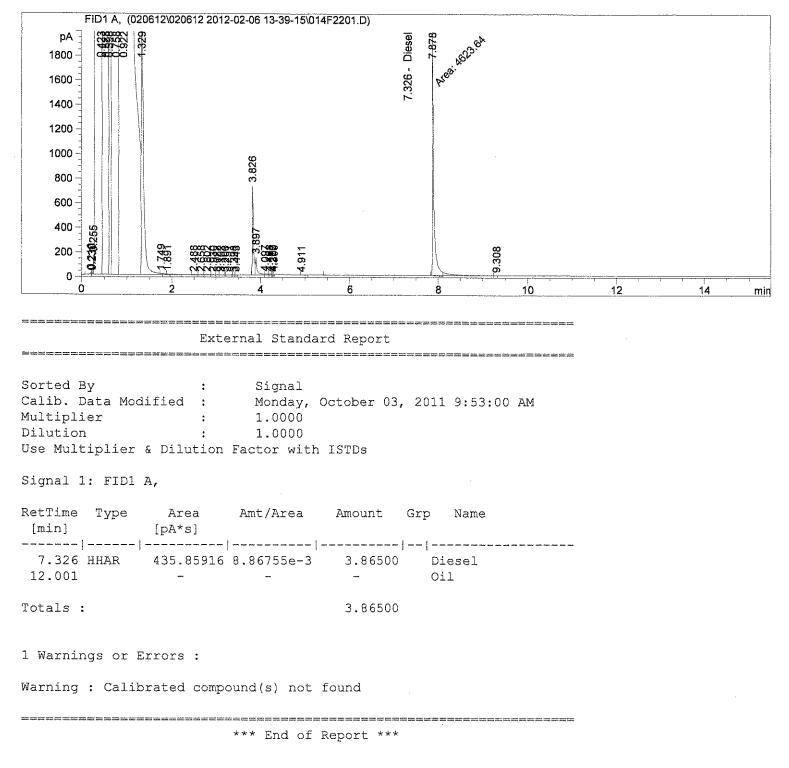
 12.153
 HHA+
 1.63115e4
 3.15242e-2
 514.20703
 Oil
 AZ
 V/1

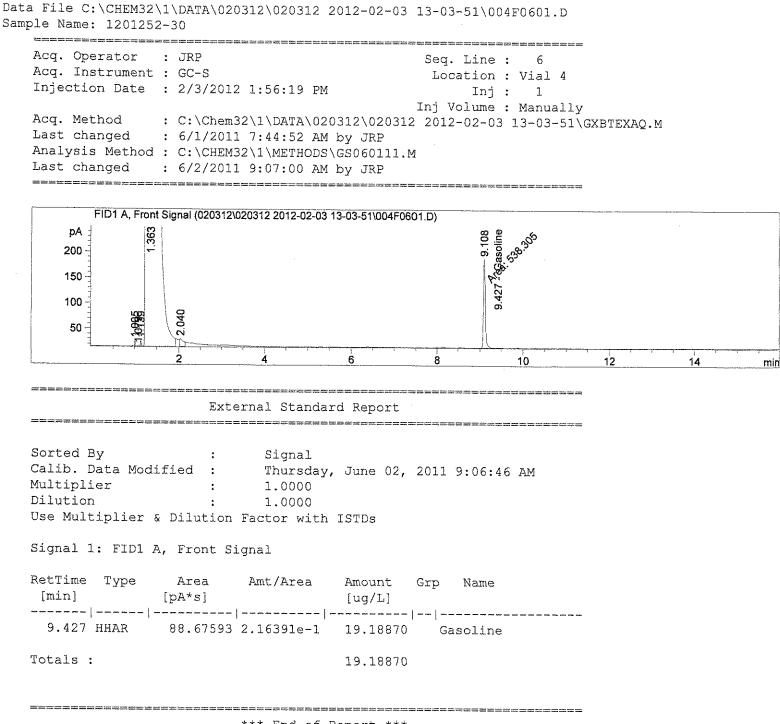
 Totals :
 614.08564
 614.08564
 614.08564
 Max
 Max



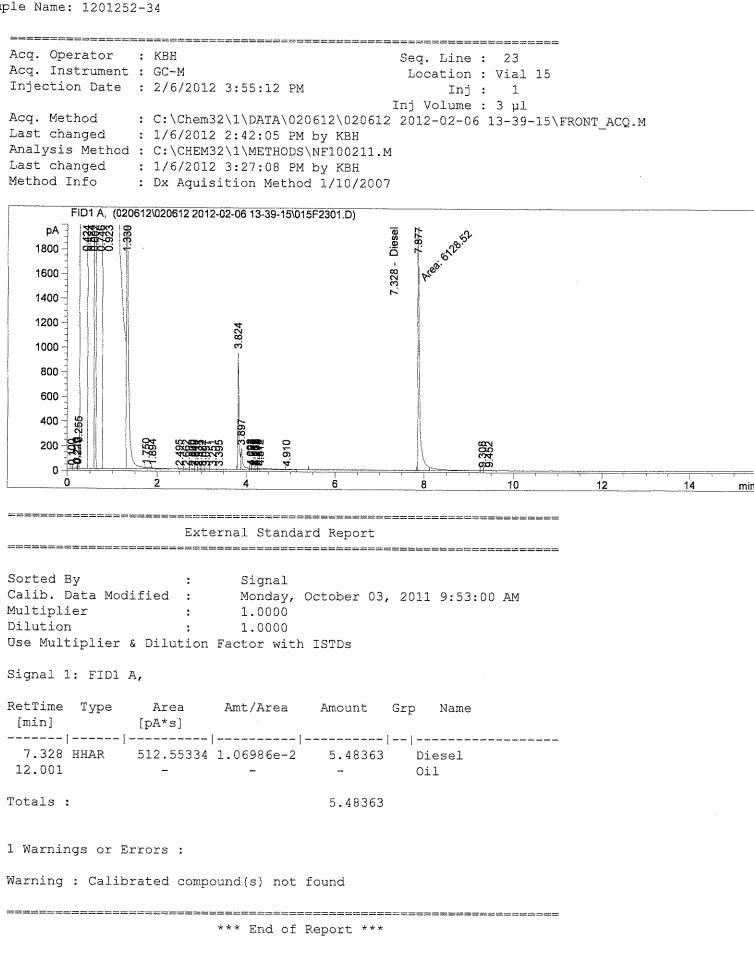
Sample Name: 1201252-30





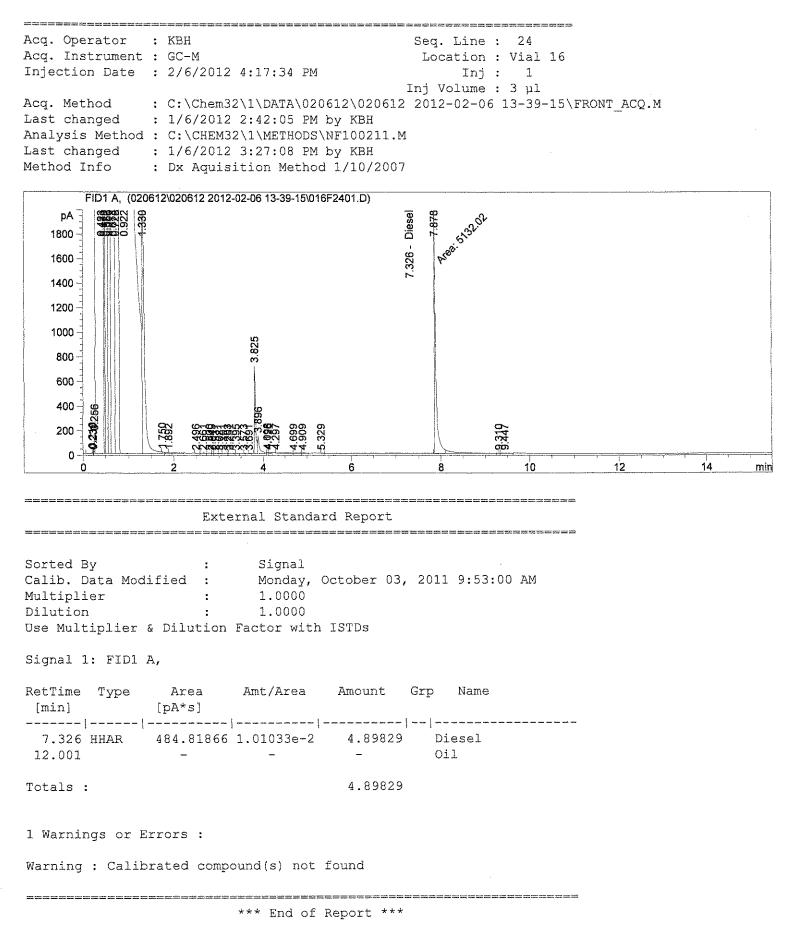


Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\015F2301.D Sample Name: 1201252-34



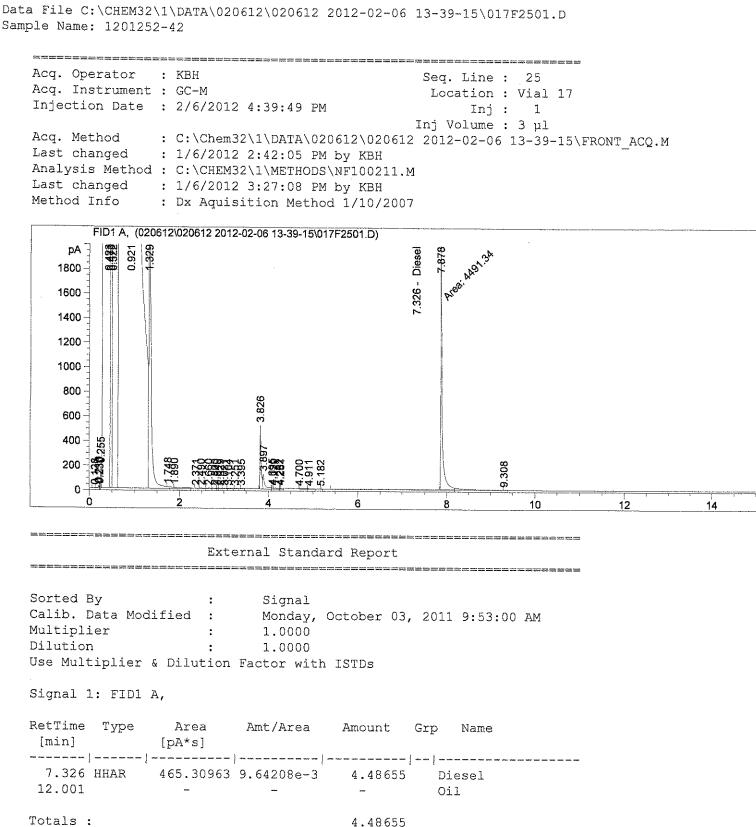
Acq. Ins			2:43:22 PM		Loc	Line : cation : V: Inj : Volume : Ma	1			
Last cha	nged Method nged	: 6/1/2011 : C:\CHEM3 : 6/2/2011	2\1\DATA\020 7:44:52 AM 2\1\METHODS\ 9:07:00 AM	by JRP GS060111.1	2 2012	2-02-03 13-	-03-51\GX	BTEXAQ.M		
pA -		nt Signal (020312\0	020312 2012-02-03 1	======================================	01.D)	asoline	 }			
175 150 125 100 75 50 25	1.003	2.040				9.427 9.407 9.427 9.427 9.407 0.00				
		2	4	6	8	10	······	12	14	,
		Exte	ernal Standar	d Report		20 700 700 700 100 100 100 100 100 100 10				
Multipli Dilutior)ata Mod .er	:			2011	9:06:46 AI				
	: FID1	A, Front Si	Ignal							
Signal 1		Area	Amt/Area	Amount [ug/L]	Grp	Name				
RetTime [min]	Туре	[pA*s]			t r					
RetTime [min] 			2.16391e-1							

Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\016F2401.D Sample Name: 1201252-38



Acq. Operator Acq. Instrumen Injection Date	: 2/3/201			Inj Inj Volume	: Vial 7 : 1 : Manually			
Acq. Method Last changed Analysis Method Last changed	: 6/1/201 d : C:\CHEM	1 7:44:52 AM 32\1\METHODS	by JRP \GS060111.1		3 13-03-51	GXBTEXAQ.M	Ι	
FID1 A, Fro	ont Signal (020312	\020312 2012-02-03	13-03-51\007F09	01.D)				
pA 175 150 125 100 75 50 25	1.355				9.427 "Seasoline So			
	2	4	6	8	10	12	14	
	======================================	ernal Standa	rd Report	ی کی کی دیک میں میں میں میں میں میں میں اور		-		
Sorted By Calib. Data Mo Multiplier Dilution Use Multiplier	: & Dilution	1.0000 1.0000 Factor with		2011 9:06:	46 AM	=		
Signal 1: FIDI	and which the c							
Signal 1: FID1 RetTime Type [min]	Area [pA*s]	Amt/Area	Amount [ug/L]	Grp Name				
RetTime Type	[pA*s]	•	[ug/L]			-		

Sample Name: 1201252-42

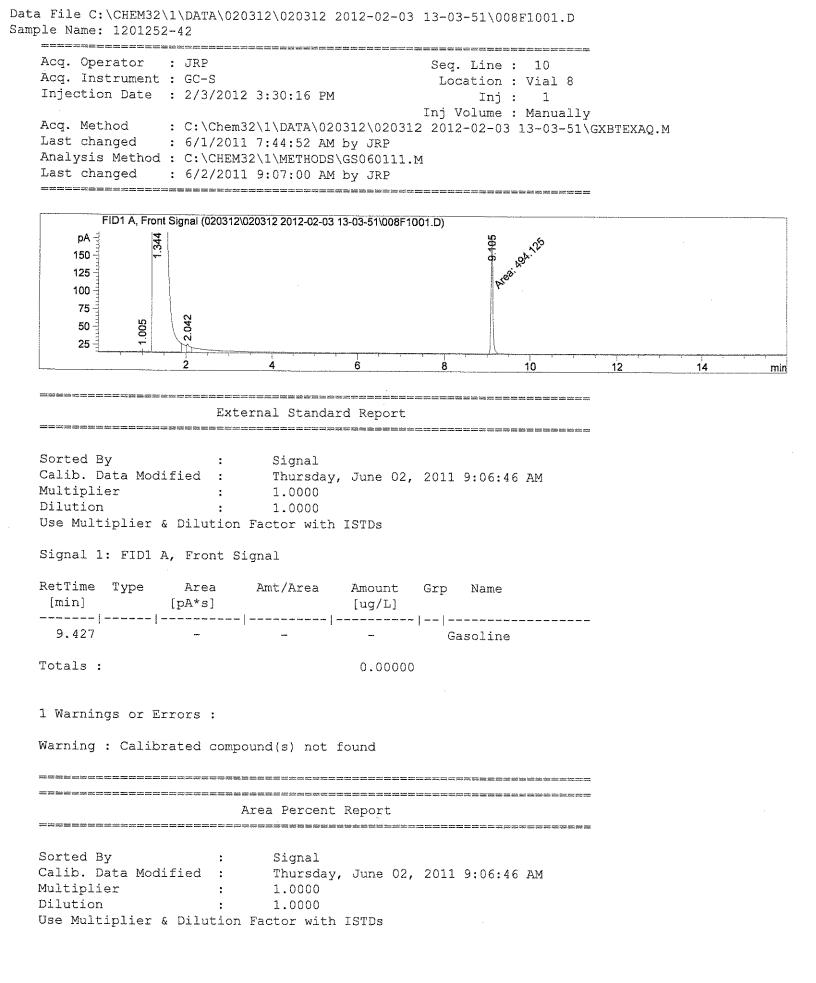


1 Warnings or Errors :

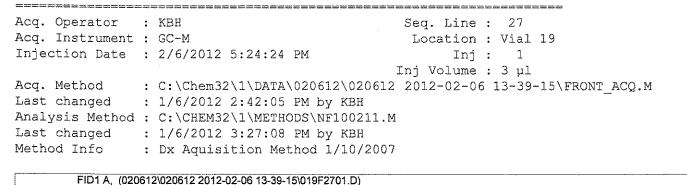
Warning : Calibrated compound(s) not found

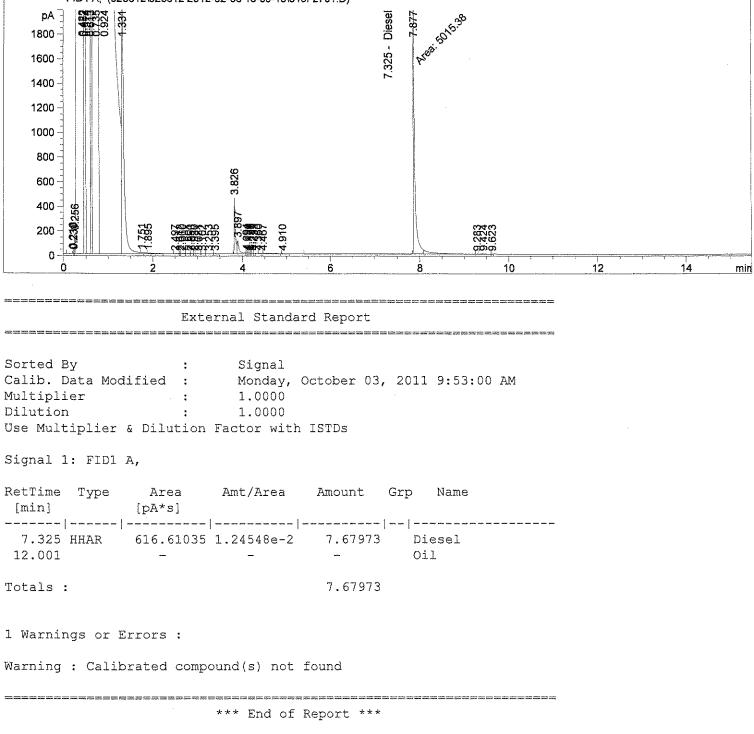
*** End of Report ***

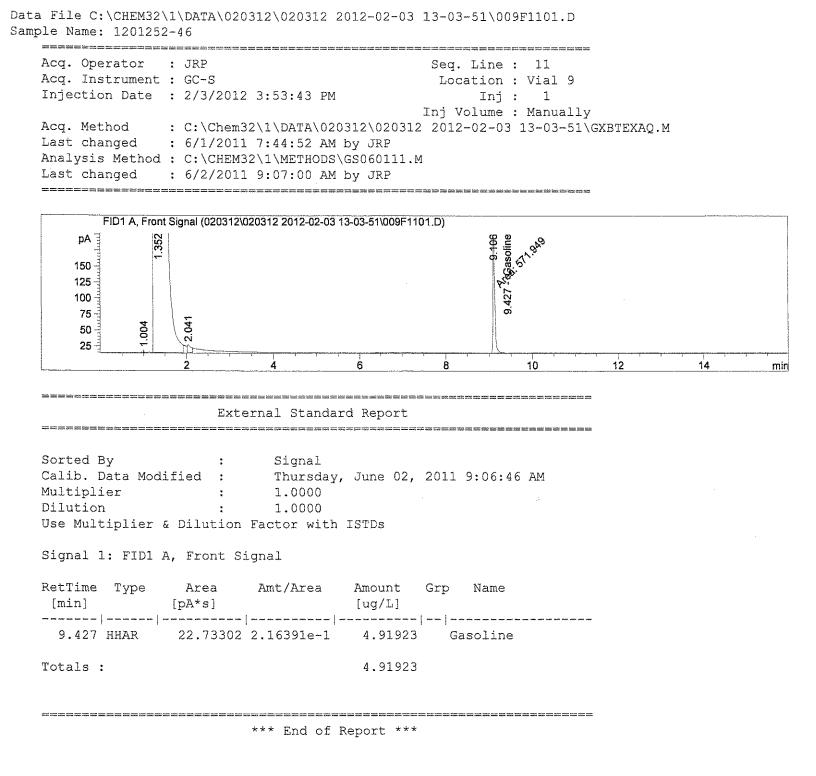
min



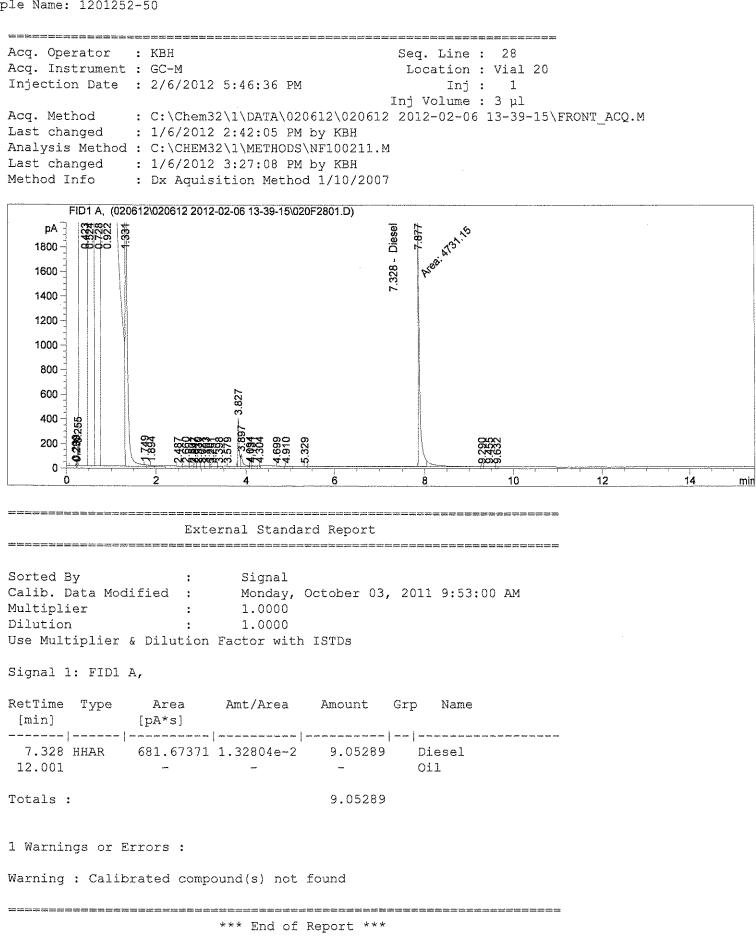
Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\019F2701.D Sample Name: 1201252-46





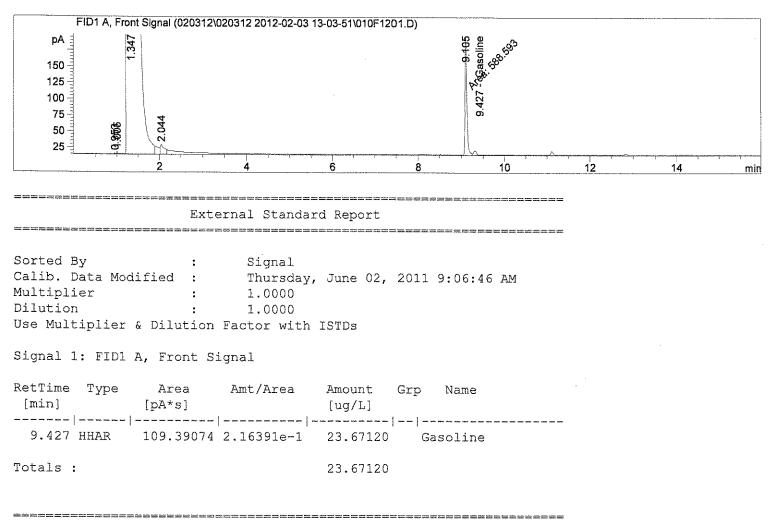


Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\020F2801.D Sample Name: 1201252-50

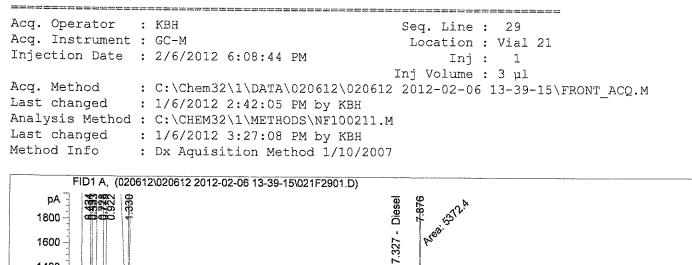


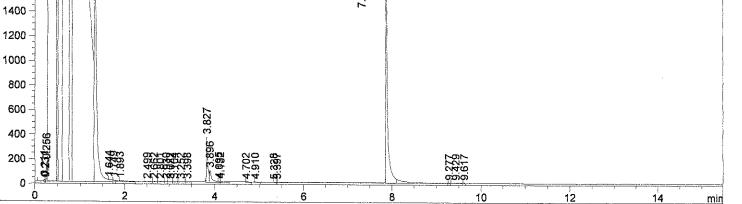
Data file C:\CHEM32\1\DATA\020312\020312 2012-02-03 13-03-51\010F1201.D Sample Name: 1201252-50

	Acq. Operator			Seq. Line : 12
	Acq. Instrument			Location : Vial 10
I	Injection Date	:	2/3/2012 4:17:16 PM	Inj: 1
				Inj Volume : Manually
A	Acq. Method	:	C:\Chem32\1\DATA\020312\0	20312 2012-02-03 13-03-51\GXBTEXAQ.M
I	ast changed	:	6/1/2011 7:44:52 AM by JR	P
A	malysis Method	:	C:\CHEM32\1\METHODS\GS060	111.M
			6/2/2011 9:07:00 AM by JR	



Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\021F2901.D Sample Name: 1201252-54





External Standard Report

Sorted By : Signal Calib. Data Modified : Monday, October 03, 2011 9:53:00 AM Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

 RetTime Type
 Area
 Amt/Area
 Amount
 Grp
 Name

 [min]
 [pA*s]

 ----- ----- ----- -----

 7.327
 HHAR
 528.22601
 1.10074e-2
 5.81440
 Diesel

 12.001
 Oil

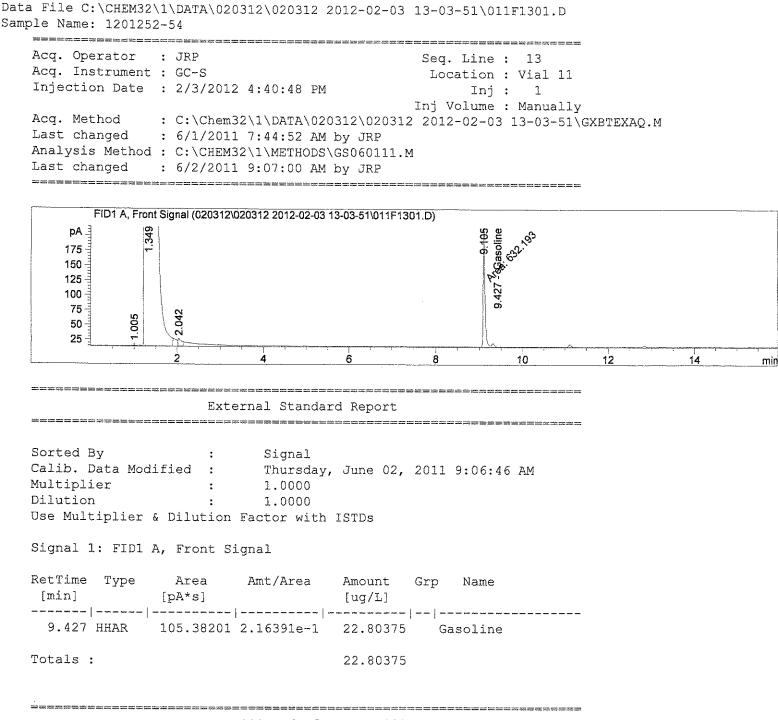
Totals :

1 Warnings or Errors :

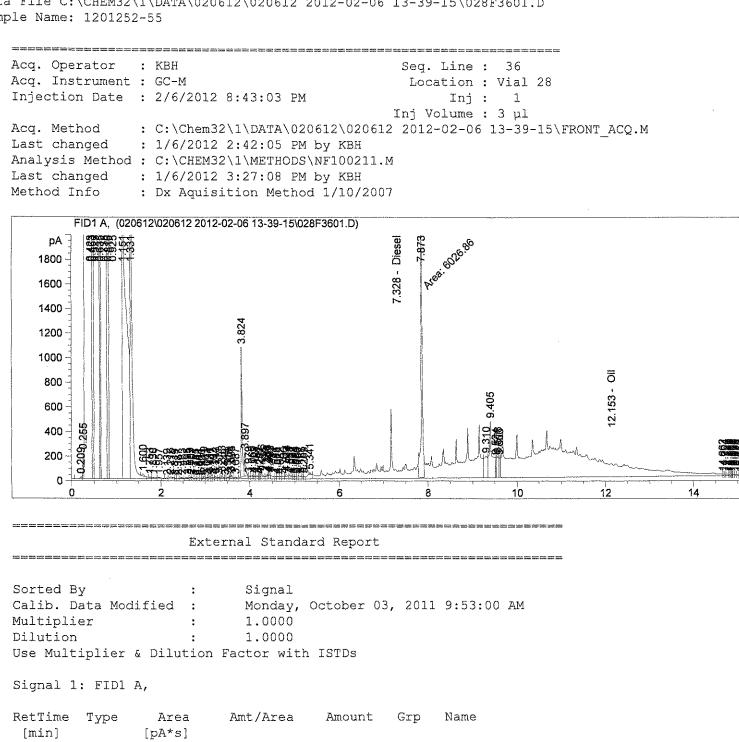
Warning : Calibrated compound(s) not found

*** End of Report ***

5.81440



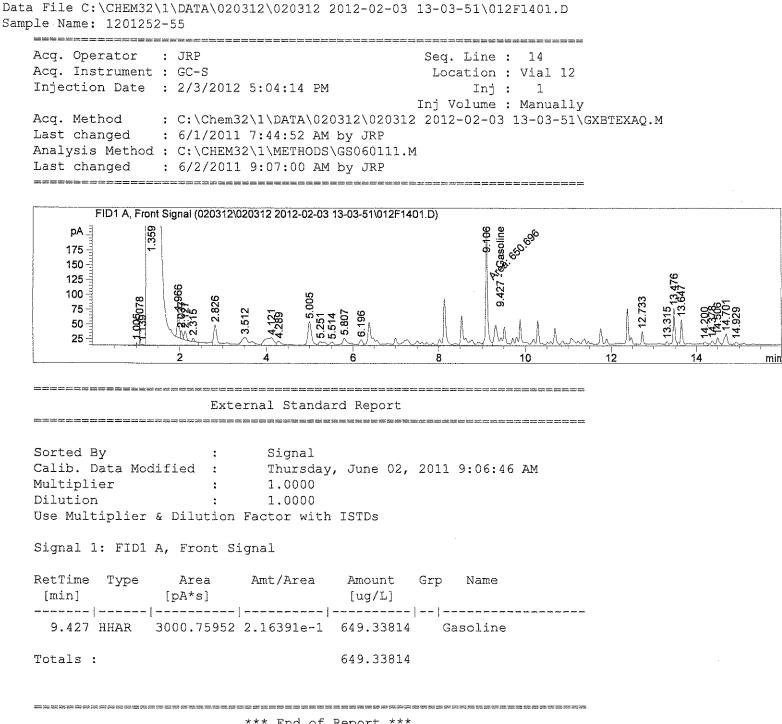
Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\028F3601.D Sample Name: 1201252-55



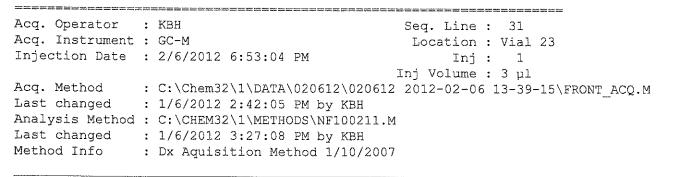
KH 77/12 7.328 HHAR 2.04250e4 2.08437e-2 425.73360 Diesel 12.153 HHA+ 3.46569e4 3.17116e-2 1099.02480 Oil A7.

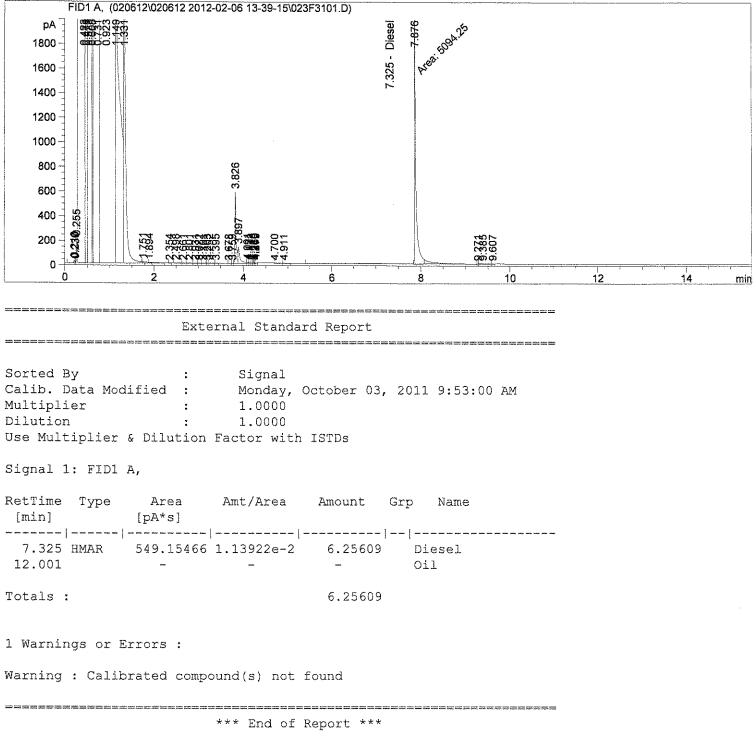
Totals :

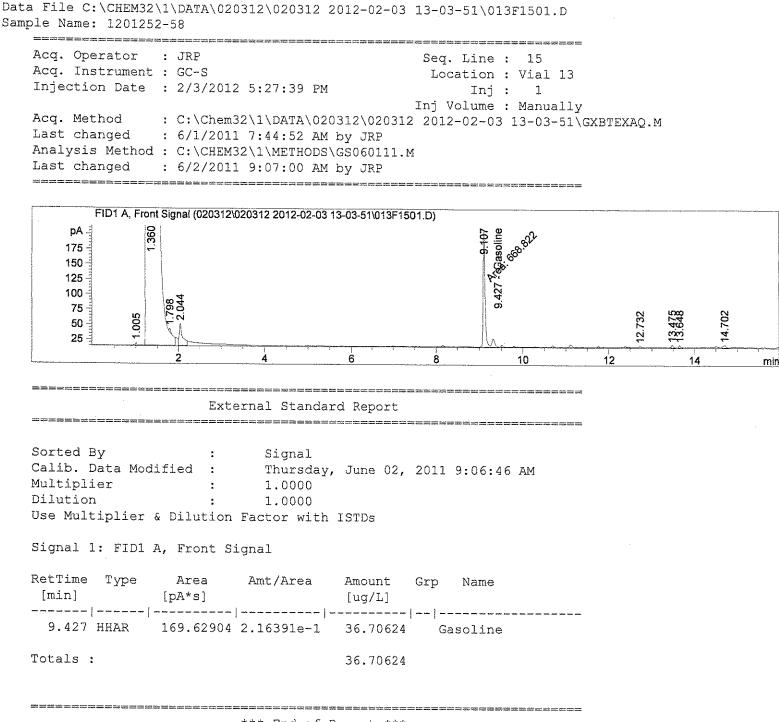
1524.75840



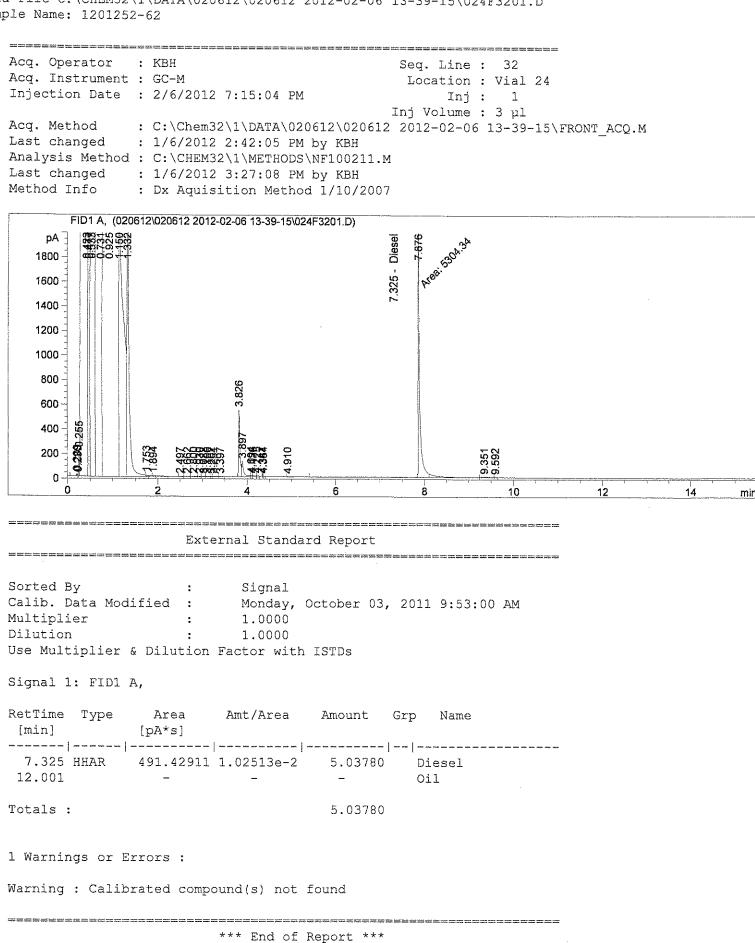
Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\023F3101.D Sample Name: 1201252-58





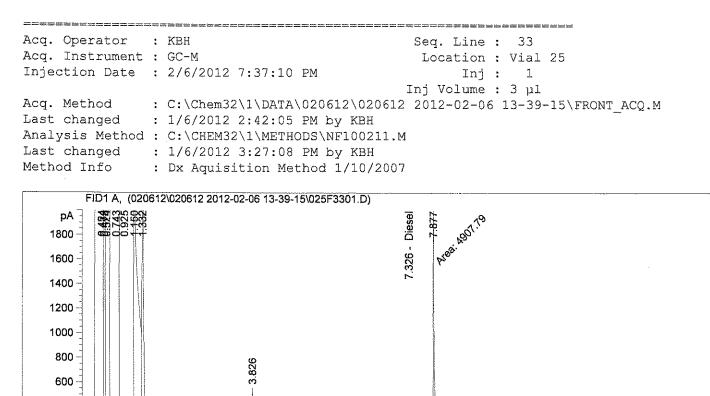


Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\024F3201.D Sample Name: 1201252-62



Acq. Operator Acq. Instrume Injection Dat	nt : GC-S e : 2/3/2012			Loo Inj V	/olume : M	Vial 14 1 Manually			
Acq. Method Last changed Analysis Meth Last changed	: 6/1/2011 od : C:\CHEM3	7:44:52 AM 2\1\METHODS	by JRP \GS060111.1			3-03-51\G.	XBTEXAQ.M	1	
FID1 A, I pA = 175 =	Front Signal (020312)	20312 2012-02-03	13-03-51\014F16	01.D)	9.107 soline %				
150 125 100 75 50 25	2.044				9.427 ²⁶ 66 asoline				processory sugarshire
	<u>2</u>	4	6	8		<u> 0</u>	12	14	m
1880 1881 1884 1985 1997 1997 1997 1998 1998 1998 1998 1998	Exte	ernal Standa	rd Report						
Sorted By Calib. Data M Multiplier Dilution Use Multiplie	:	Thursday 1.0000 1.0000	, June 02, ISTDs	2011	9:06:46	AM			
Signal 1: FID	1 A, Front S	ignal							
RetTime Type [min]	[pA*s]	Amt/Area	Amount [ug/L]	Grp	Name				
	149.09258								

Data file C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\025F3301.D Sample Name: 1201252-66



9.256 9.591

8

10

12

14

min

	Exte	rnal Standard Report
Sorted By	:	Signal
Calib. Data Modified	:	Monday, October 03, 2011 9:53:00 AM
Multiplier	:	1.0000
Dilution	:	1.0000
Use Multiplier & Dilu	tion	Factor with ISTDs
Signal 1: FID1 A,		

911

6

RetTime Type Area Amt/Area Amount Grp Name [min] [pA*s] 7.326 HHAR 318.14108 4.33952e-3 1.38058 Diesel 12.001 Oil _ Totals : 1.38058 1 Warnings or Errors :

Warning : Calibrated compound(s) not found

*** End of Report ***

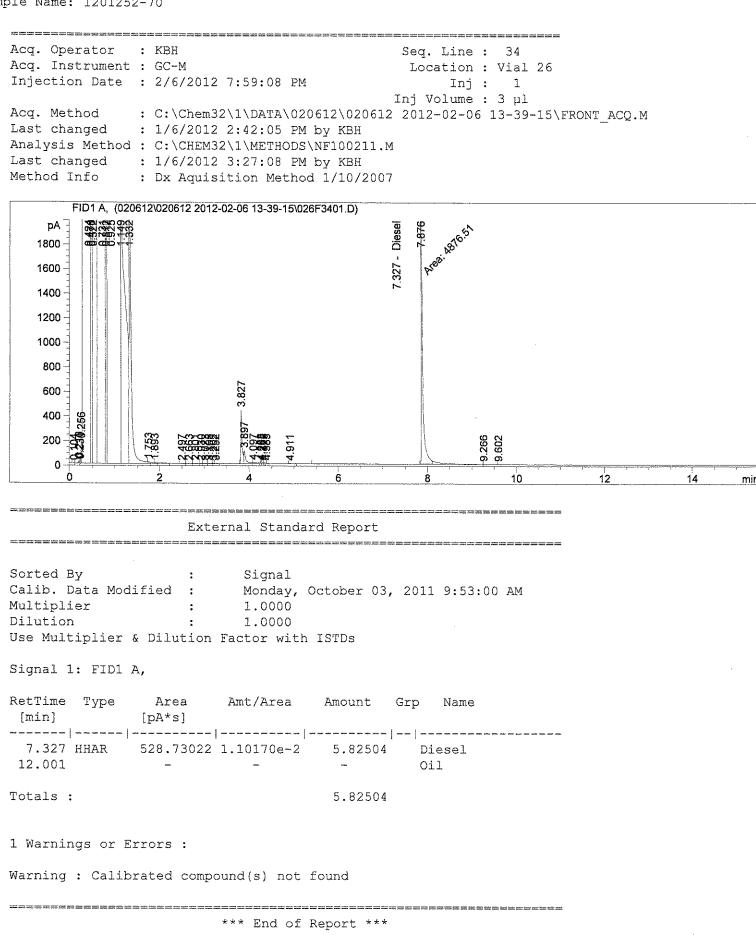
400 -

200

n

Acq. In:		: JRP : : GC-S	2 6:14:19 PM		Lo	Inj :	Vial 15 1			
Last cha Analysia	anged s Methoc anged	: 6/1/2013 d : C:\CHEM3 : 6/2/2013	32\1\DATA\020 L 7:44:52 AM 1 32\1\METHODS\ L 9:07:00 AM 1	by JRP GS060111.1	2 2012		Manually 13-03-51\G	XBTEXAQ.M		
	FID1 A, Fro	nt Signal (020312)	020312 2012-02-03 1	3-03-51\015F17	01.D)					
pA 150 125 100 75 50 25		2.046			,	9.427 200 0.108	51.04 ⁴			
		2	4	6	8		10	12	14	
		Ext	ernal Standar	d Report						
Multipl: Dilution	Data Moo ier	:	Signal Thursday, 1.0000 1.0000 Factor with		2011	9:06:46	АМ			
Signal :	1: FID1	A, Front S.	ignal							
		Area [pA*s]		Amount [ug/L]	Grp	Name				
[min]										
		144.95021	2.16391e-1	31.36596	G	asorrue				

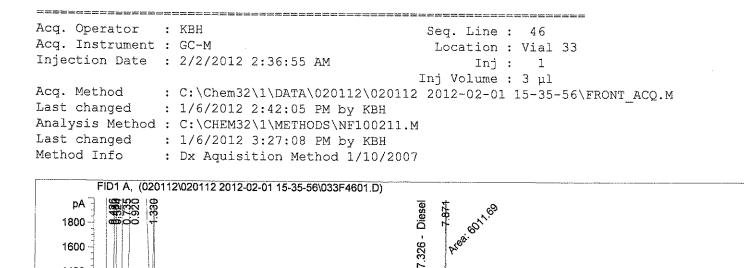
Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\026F3401.D Sample Name: 1201252-70



Acq. Operat Acq. Instru Injection D	ment : GC-S	012 6:37:41 PM		Loc	Line : 18 ation : Vial 1 Inj : 1 Colume : Manual	-		
Last change	d : 6/1/2 thod : C:\CH d : 6/2/2	em32\1\DATA\02 011 7:44:52 AM EM32\1\METHODS 011 9:07:00 AM	by JRP \GS060111.	L2 2012	-02-03 13-03-5		1	
FID1 pA 200 150 100 50	A, Front Signal (0203	312\020312 2012-02-03	13-03-51\016F1	801.D)	9.427 ⁷ seasoline			
	2	4	6	8	10	12	14	mi
	E	xternal Standa	rd Report					
Multiplier Dilution	: Modified : : ier & Diluti	Thursday 1.0000		, 2011	9:06:46 AM			
Signal 1: F	ID1 A, Front	Signal						
RetTime Ty [min]	[pA*s]	Amt/Area	Amount [ug/L]	Grp	Name			
		45 2.16391e-1			soline			

Data File C:\CHEM32\1\DATA\020112\020112 2012-02-01 15-35-56\033F4601.D Sample Name: 1201252-71

3.824

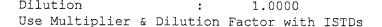


6

Monday, October 03, 2011 9:53:00 AM

8

10



:

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80,

Signal 1: FID1 A,

Calib. Data Modified :

1400 -1200 1000 -

> 800 -600

400 255

Sorted By

Multiplier

Dilution

÷ 200 ----

2 Ö

RetTime Type Area Amt/Area Amount Grp Name [min] [pA*s] 646.62225 1.28562e-2 Diesel 7.326 HHAR 8.31313 12.151 HHA+ 158.27843 0.00000 0.00000 Oil Totals : 8.31313 1 Warnings or Errors : Warning : Negative results set to zero (cal. curve intercept), (Oil)

External Standard Report

Signal

1.0000

1.0000

*** End of Report ***

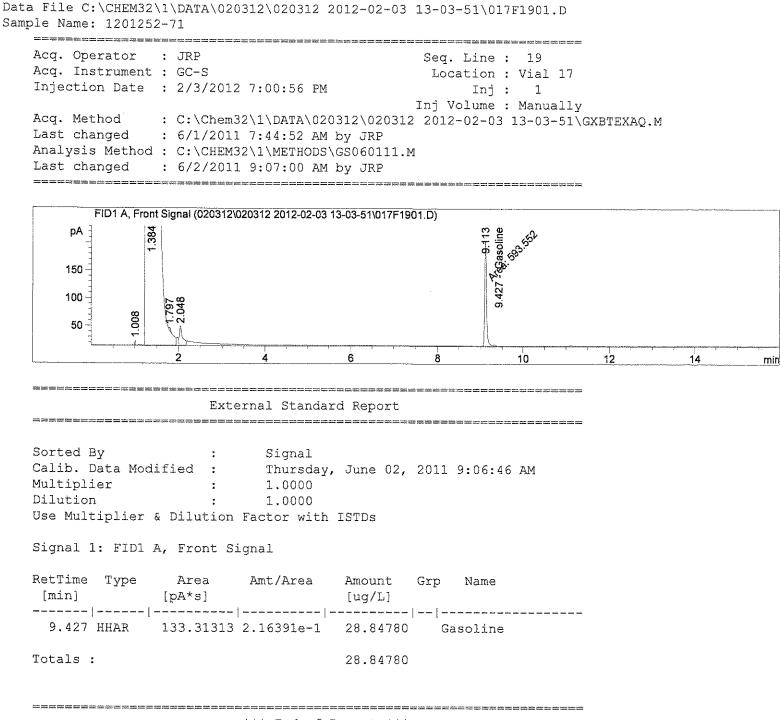
ö

12.151 - 1

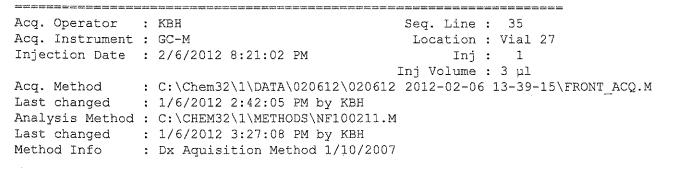
12

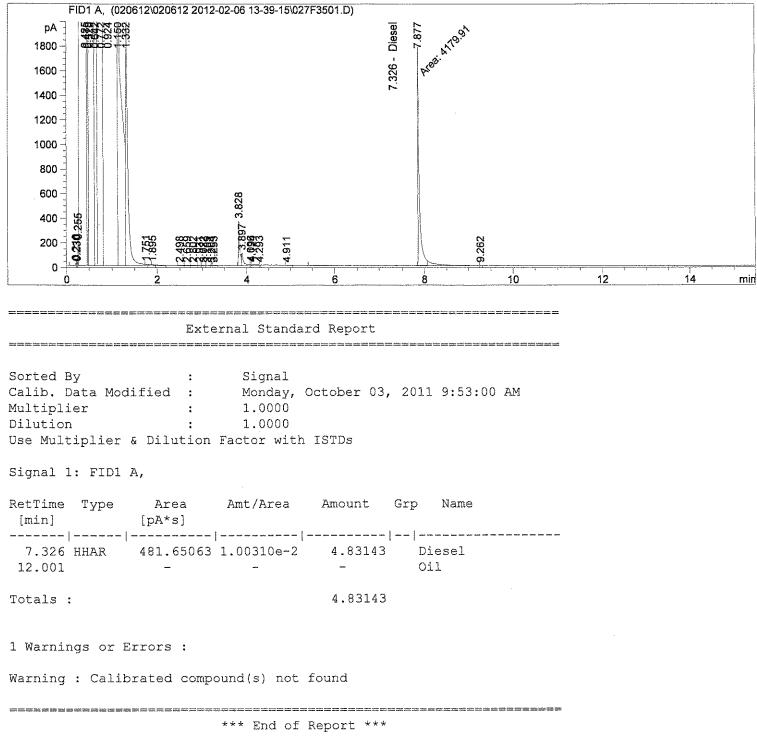
14

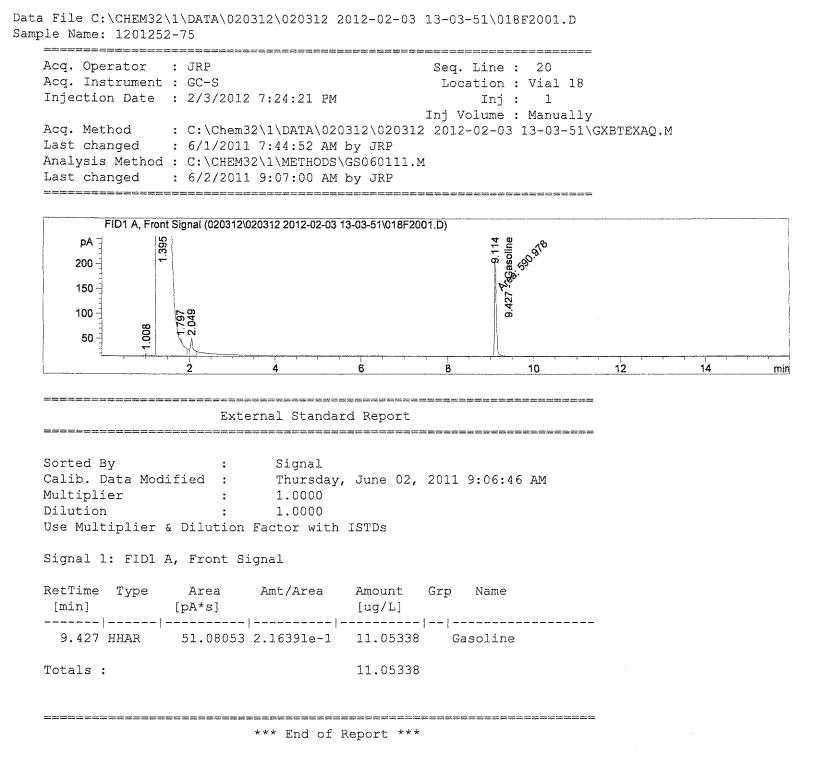
min

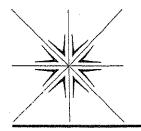


Data File C:\CHEM32\1\DATA\020612\020612 2012-02-06 13-39-15\027F3501.D Sample Name: 1201252-75









Specialty Analytical

11711 SE Capps Road Clackamas, OR 97015 (503) 607-1331 Fax (503) 607-1336

February 15, 2012

Justin Pounds Maul, Foster & Alongi 400 East Mill Plain Blvd Suite 400 Vancouver, WA 98660

TEL: (360) 694-2691 FAX (360) 906-1958

RE: Former Carnation Prop / 0346.04.02

Dear Justin Pounds:

Order No.: 1202077

Specialty Analytical received 1 sample on 1/30/2012 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Cindy Hilly

Project Manager

Specialty Analytical, An Oregon Corporation

Specialty Analytical

Lab ID:

Maul, Foster & Alongi **CLIENT:**

Lab Order: 1202077

Former Carnation Prop / 0346.04.02 **Project:**

1202077-01

Client Sample ID: GP08-S-5.0 Collection Date: 1/24/2012 5:10:00 PM

Matrix: SOIL

Analyses	Result	Limit (Qual	Units	DF	Date Analyzed
NWTPH-DX	Ν	IWTPH-DX				Analyst: kh
Diesel	ND	19.6	ΗT	mg/Kg-dry	1	2/13/2012
Lube Oil	ND	65.4	ΗT	mg/Kg-dry	1	2/13/2012
Surr: o-Terphenyl	87.7	50-150	ΗT	%REC	1	2/13/2012
5035A/NWTPH-GX	Ν	IWTPH-GX				Analyst: jrp
Gasoline	ND	4.07	ΗT	mg/Kg-dry	1	2/13/2012
Surr: 4-Bromofluorobenzene	69.4	50-150	ΗT	%REC	1	2/13/2012
TOTAL METALS BY ICP	E	6010				Analyst: cmt
Lead	8.01	2.33		mg/Kg-dry	1	2/14/2012 12:08:52 PM

Specialty Analytical

CLIENT:Maul, Foster & AlongiWork Order:1202077Project:Former Carnation Prop / 0346.04.02

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: MBLK-30710	SampType: MBLK	TestCode: 6010 S	Units: mg/Kg	Prep Date: 2/	10/2012	Run ID: TJA IRIS_120213A
	Batch ID: 30710	TestNo: E6010	orms. mg/Kg	•		-
Client ID: ZZZZZ	Batch ID: 30/10	Testino: E6010		Analysis Date: 2/	14/2012	SeqNo: 814727
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit Highl	Limit RPD Ref Val	%RPD RPDLimit Qual
Lead	ND	2.00				
Sample ID: LCS-30710	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 2/	/10/2012	Run ID: TJA IRIS_120213A
Client ID: ZZZZZ	Batch ID: 30710	TestNo: E6010		Analysis Date: 2/	14/2012	SeqNo: 814728
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit Highl	Limit RPD Ref Val	%RPD RPDLimit Qual
Lead	106.6	2.00 100	0	107 84.9	109 0	0
Sample ID: 1202061-21AMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg-dı	ry Prep Date: 2/	/10/2012	Run ID: TJA IRIS_120213A
Client ID: ZZZZZ	Batch ID: 30710	TestNo: E6010		Analysis Date: 2/	14/2012	SeqNo: 814745
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit Highl	Limit RPD Ref Val	%RPD RPDLimit Qual
Lead	112.9	2.08 104	2.733	106 84.9	109 0	0
Sample ID: 1202061-21AMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg-di	ry Prep Date: 2/	/10/2012	Run ID: TJA IRIS_120213A
Client ID: ZZZZZ	Batch ID: 30710	TestNo: E6010		Analysis Date: 2/	/14/2012	SeqNo: 814746
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit Highl	Limit RPD Ref Val	%RPD RPDLimit Qual
Lead	111.1	2.08 104	2.733	104 84.9	109 112.9	1.58 20
Sample ID: 1202061-21ADUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg-di	ry Prep Date: 2/	(10/2012	Run ID: TJA IRIS_120213A
Client ID: ZZZZZ	Batch ID: 30710	TestNo: E6010		Analysis Date: 2/	(13/2012	SeqNo: 814578
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit Highl	Limit RPD Ref Val	%RPD RPDLimit Qual
Lead	1.966	2.16 0	0	0 0	0 2.344	0 20 J

Qualifiers: ND -

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID:		SampType:	CC)/	TestCo	de: 6010_S	Units: mg/Kg		Prep Date					12.4
		1 31			_	Units: mg/kg		•				A IRIS_1202'	13A
Client ID:		Batch ID:	30710	lesti	lo: E6010			Analysis Date	e: 2/13/20)12	SeqNo: 814	1574	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			102.3	2.00	100	0	102	90	110	0	0		
Sample ID:	CCV	SampType:	CCV	TestCo	de: 6010_S	Units: mg/Kg		Prep Date	9:		Run ID: TJ	A IRIS_1202'	13A
Client ID:	ZZZZZ	Batch ID:	30710	Test	lo: E6010			Analysis Date	e: 2/13/20	12	SeqNo: 814	1584	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			102.7	2.00	100	0	103	90	110	0	0		
Sample ID:	CCV	SampType:	CCV	TestCo	de: 6010_S	Units: mg/Kg		Prep Date	e:		Run ID: TJ	A IRIS_1202	13A
Client ID:	<u>ZZZZZ</u>	Batch ID:	30710	Test	lo: E6010			Analysis Date	e: 2/14/20)12	SeqNo: 814	1736	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			105.7	2.00	100	0	106	90	110	0	0		
Sample ID:	CCV	SampType:	CCV	TestCo	de: 6010_S	Units: mg/Kg		Prep Date	9:		Run ID: TJ	A IRIS_1202	13A
Client ID:	<u>ZZZZZ</u>	Batch ID:	30710	Test	lo: E6010			Analysis Date	e: 2/14/20)12	SeqNo: 814	1748	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			102.9	2.00	100	0	103	90	110	0	0		
Sample ID:	: ICV	SampType:	ICV	TestCo	de: 6010_S	Units: mg/Kg		Prep Date	9:		Run ID: TJ	A IRIS_1202	13A
Client ID:	ZZZZZ	Batch ID:	30710	Test	lo: E6010			Analysis Date	e: 2/13/20)12	SeqNo: 814	1571	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			98.48	2.00	100	0	98.5	90	110	0	0		
Sample ID:		SampType:	ICV	TestCo	de: 6010_S	Units: mg/Kg		Prep Date):		Run ID: TJ	A IRIS_1202	13A
Client ID:	<u>ZZZZZ</u>	Batch ID:	30710	Test	lo: E6010			Analysis Date	e: 2/14/20)12	SeqNo: 814	1726	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

ND - Not Detected at the Reporting Limit

Maul, Foster & Alongi

Former Carnation Prop / 0346.04.02

1202077

CLIENT:

Project:

Work Order:

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

CLIENT:Maul, Foster & AlongiWork Order:1202077Project:Former Carnation Prop / 0346.04.02

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: ICV	SampType: ICV	TestCode	: 6010_S	Units: mg/Kg		Prep Da	te:		Run ID: TJ	A IRIS_12021	13A
Client ID: ZZZZZ	Batch ID: 30710	TestNo	: E6010			Analysis Da	te: 2/14/20	12	SeqNo: 814	1726	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	103.2	2.00	100	0	103	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID: MB-30721	SampType: MBLK	TestCode: NWTPHDX_S Units: mg/Kg	Prep Date: 2/10/2012	Run ID: GC-M_120213B
Client ID: ZZZZZ	Batch ID: 30721	TestNo: NWTPH-Dx	Analysis Date: 2/13/2012	SeqNo: 814369
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Diesel	ND	15.0		
Lube Oil	ND	50.0		
Surr: o-Terphenyl	35.08	0 33.33 0	105 50 150 0	0
Sample ID: LCS-30721	SampType: LCS	TestCode: NWTPHDX_S Units: mg/Kg	Prep Date: 2/10/2012	Run ID: GC-M_120213B
Client ID: ZZZZZ	Batch ID: 30721	TestNo: NWTPH-Dx	Analysis Date: 2/13/2012	SeqNo: 814370
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Diesel	194.8	15.0 166.6 0	117 76.3 125 0	0
Lube Oil	167.7	50.0 166.6 0	101 69.9 127 0	0
Sample ID: 1202077-01ADUP	SampType: DUP	TestCode: NWTPHDX_S Units: mg/Kg-	dry Prep Date: 2/10/2012	Run ID: GC-M_120213B
Client ID: GP08-S-5.0	Batch ID: 30721	TestNo: NWTPH-Dx	Analysis Date: 2/13/2012	SeqNo: 814372
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Diesel	ND	19.6 0 0	0 0 0 8.636	0 20 HT
Lube Oil	ND	65.4 0 0	0 0 0 0	0 20 HT
Sample ID: CCV	SampType: CCV	TestCode: NWTPHDX_S Units: mg/Kg	Prep Date:	Run ID: GC-M_120213B
Client ID: ZZZZZ	Batch ID: 30721	TestNo: NWTPH-Dx	Analysis Date: 2/13/2012	SeqNo: 814368
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Diesel	1108	15.0 1026 0	108 85 115 0	0
Lube Oil	486.9	50.0 528.4 0	92.1 85 115 0	0
Sample ID: CCV	SampType: CCV	TestCode: NWTPHDX_S Units: mg/Kg	Prep Date:	Run ID: GC-M_120213B
Client ID: ZZZZZ	Batch ID: 30721	TestNo: NWTPH-Dx	Analysis Date: 2/13/2012	SeqNo: 814373
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Diesel	1397	15.0 1368 0	102 85 115 0	0

Qualifiers:

ND - Not Detected at the Reporting Limit

Maul, Foster & Alongi

Former Carnation Prop / 0346.04.02

1202077

CLIENT:

Project:

Work Order:

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

CLIENT:Maul, Foster & AlongiWork Order:1202077Project:Former Carnation Prop / 0346.04.02

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID: CCV	SampType: CCV	TestCo	de: NWTPHD	K_S Units: mg/Kg		Prep Da	te:		Run ID: GC	-M_120213B	
Client ID: ZZZZZ	Batch ID: 30721	Test	No: NWTPH-D	x		Analysis Da	te: 2/13/20	12	SeqNo: 814	4373	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	616.7	50.0	704.5	0	87.5	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_SA

Sample ID: MB-30732	SampType: MBLK	TestCode: NWTPHGX_S Units: mg/Kg	Prep Date: 2/13/2012	Run ID: GC-S_120213B
Client ID: ZZZZZ	Batch ID: 30732	TestNo: NWTPH-Gx	Analysis Date: 2/13/2012	SeqNo: 814384
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Gasoline Surr: 4-Bromofluorobenzene	ND 3.954	2.50 0 5 0	79.1 50 150 0	0
Sample ID: LCS-30732	SampType: LCS	TestCode: NWTPHGX_S Units: mg/Kg	Prep Date: 2/13/2012	Run ID: GC-S_120213B
Client ID: ZZZZZ	Batch ID: 30732	TestNo: NWTPH-Gx	Analysis Date: 2/13/2012	SeqNo: 814385
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Gasoline	42.56	2.50 50 0	85.1 53.5 121 0	0
Sample ID: 1202077-01CDUP Client ID: GP08-S-5.0	SampType: DUP Batch ID: 30732	TestCode: NWTPHGX_S Units: mg/Kg- TestNo: NWTPH-Gx	Iry Prep Date: 2/13/2012 Analysis Date: 2/13/2012	Run ID: GC-S_120213B SeqNo: 814387
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Gasoline	ND	4.07 0 0	0 0 0 0	0 20 HT
Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_S Units: mg/Kg	Prep Date:	Run ID: GC-S_120213B
Client ID: ZZZZZ	Batch ID: 30732	TestNo: NWTPH-Gx	Analysis Date: 2/13/2012	SeqNo: 814383
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Gasoline	94.84	2.50 100 0	94.8 80 120 0	0
Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_S Units: mg/Kg	Prep Date:	Run ID: GC-S_120213B
Client ID: ZZZZZ	Batch ID: 30732	TestNo: NWTPH-Gx	Analysis Date: 2/13/2012	SeqNo: 814388
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Gasoline	149.9	2.50 150 0	100 80 120 0	0

Qualifiers:

ND - Not Detected at the Reporting Limit

Maul, Foster & Alongi

Former Carnation Prop / 0346.04.02

1202077

CLIENT:

Project:

Work Order:

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

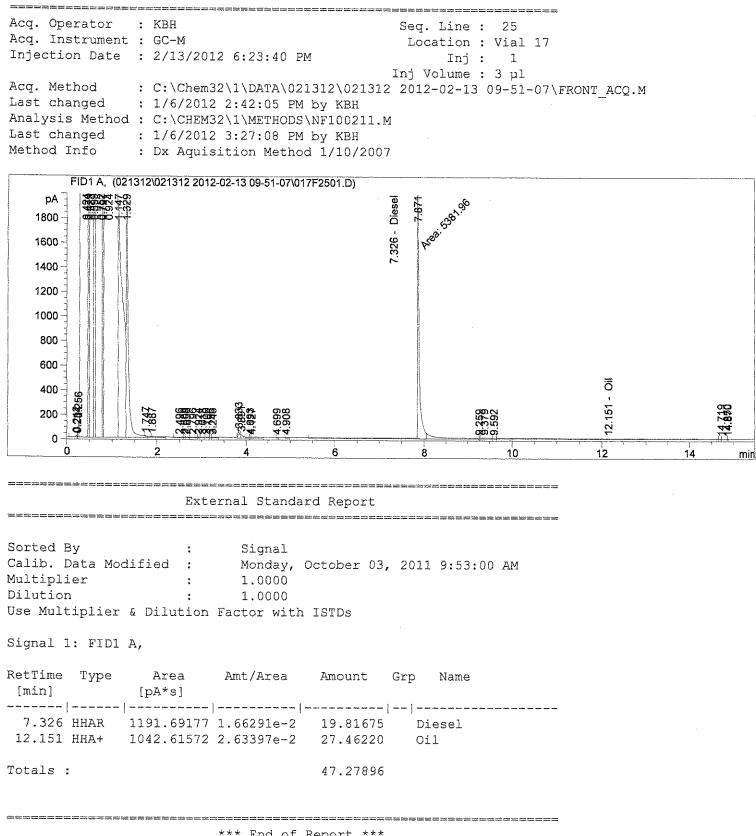
R - RPD outside accepted recovery limits

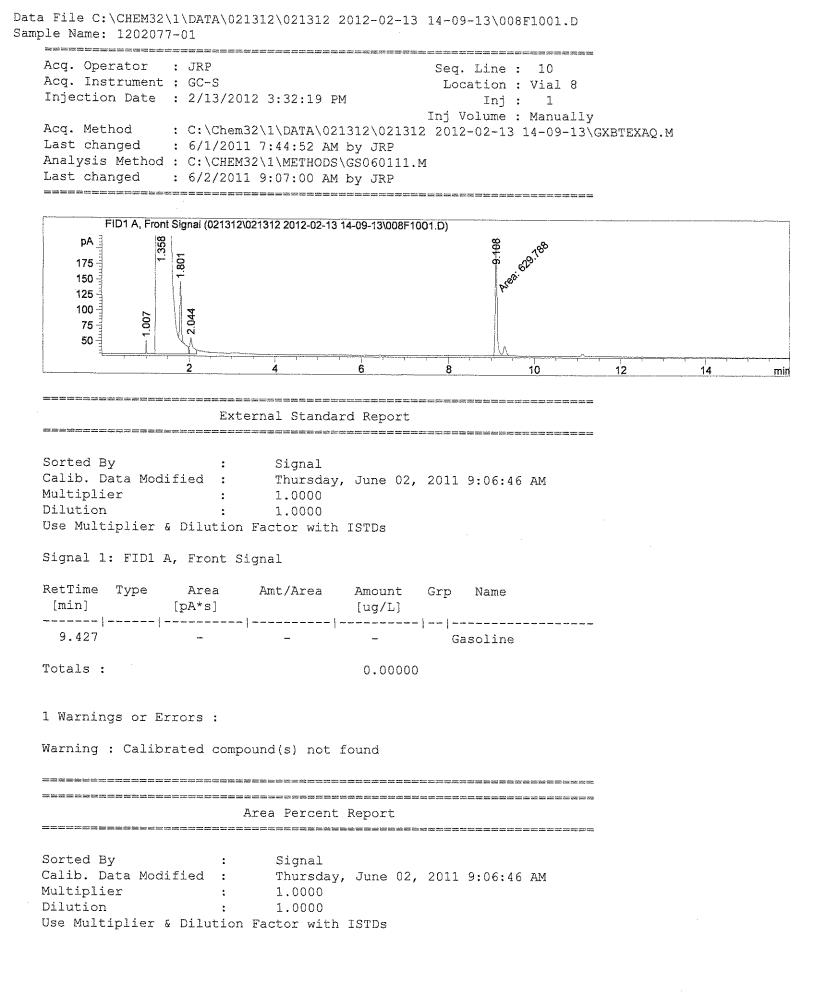
KEY TO FLAGS

- A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
- A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
- A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
- A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4 The product appears to be aged or degraded diesel.
- B The blank exhibited a positive result great than the reporting limit for this compound.
- CN See Case Narrative.
- D Result is based from a dilution.
- E Result exceeds the calibration range for this compound. The result should be considered as estimate.
- F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- G Result may be biased high due to biogenic interferences. Clean up is recommended.
- H Sample was analyzed outside recommended holding time.
- HT At clients request, samples was analyzed outside of recommended holding time.
- J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
- K Diesel result is biased high due to amount of Oil contained in the sample.
- L Diesel result is biased high due to amount of Gasoline contained in the sample.
- M Oil result is biased high due to amount of Diesel contained in the sample.
- MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI Result is outside control limits due to matrix interference.
- MSA Value determined by Method of Standard Addition.
- O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
- Q Detection levels elevated due to sample matrix.
- R RPD control limits were exceeded.
- RF Duplicate failed due to result being at or near the method-reporting limit.
- RP Matrix spike values exceed established QC limits; post digestion spike is in control.
- S Recovery is outside control limits.
- SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
- * The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

)	CHAIN OF		CUSTODY RECORD	ORD		Page	Page Sof & 7
Specialty Analytical 11711 SE Capps Road Clackamas, OR 97015 Phone: 503-607-1331		004	Contact Person/Project Manager_ Company MFA Address 2con NW 151	2	Justin Perudo eve Suite 200		
Collected BV			Phone		Fax Project Name Forward C	ernatier	Rep
Signature A Distrim Parinds			Project Site Location OR Invoice To 1464	Ň	P.O. N		
Signature			Analyses		For Laboratory	N Use	Dad
Printed.	iners		Ð.		Shipped Via SPLU	Tur	
A Normal 5-7 Business Days	einoO	- <u>-</u>	שייכ		Temperature On Receipt	ိ	
Specify Rush Analyses Must Be Scheduled With The Lab In Advance	10. Of	- HOTL			Specialty Analytical Containers? Specialty Analytical Trip Blanks?	ners? Y/N anks? Y/N	~ Z
Date Time Sample I.D.	Matrix		ЛС		Comments		Lab I.D.
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4 900 SPUL-5-		8	8				06-
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Relinquished By: U Bate Time Company: U 30 800	Received By: Company: C	NULUN	Parpper	Relinquished By:	, A.	Date	Time
Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt. Samples held beyond 60 days subject to storage fee(s)				Received For Lab By.	Dipow I	Date 20/12	$\frac{1}{2}$
Copies: White-Original Yellow-Project File Pink-	Pink-Customer Copy						

Data File C:\CHEM32\1\DATA\021312\021312 2012-02-13 09-51-07\017F2501.D Sample Name: 1202077-01







ClientMaul Foster
2001 NW 19th Ave, Suite 200
Portland, OR 97209ProjectFormer Carnation PropertyProject #0346.04.02Report toJustin Pounds (jpounds@maulfoster.com)

Dr. Yi Wang Director, ZymaX Forensics Isotope 600 South Andreasen Drive, Suite B Escondido, CA 92029 Tel: 760.781.3338 ext 43 Email: yi.wang@zymaxusa.com

REPORT OF ISOTOPIC ANALYTICAL RESULTS

Samples Received:1/31/2012 Isotope Report Sent: 2/21/2012

Samples submitted for δ^{13} C (‰ PDB) and δ^{37} Cl (‰ SMOC) isotope ratios of dissolved tetrachloroethylene (PCE)

ZymaX	Sample ID	δ ¹³ C	δ ³⁷ Cl	ZymaX	Sample ID	δ ¹³ C	δ ³⁷ Cl
Lab Number	Description	PCE	PCE	Lab Number	Description	PCE	PCE
42523-01	GP01-W-22.5	N/A	N/A	42523-15	GP08-W-22.5	N/A	N/A
42523-02	GP01-W-37,5	-27.7	1.5	42523-16	GP08-W-32.5	N/A	N/A
42523-03	GP02-W-22.5	-27.9	°1,6	42523-17	GP09-W-22.5	N/A	N/A
42523-04	GP02-W-37.5	-28.1	1.0	42523-18	GP09-W-35.0	N/A	N/A
42523-05	GP03-W-22.5	N/A	N/A	42523-19	GP10-W-22.5	N/A	N/A
42523-06	GP03-W-37,5	-27.9	1.1	42523-20	GP10-W-37.5	N/A	N/A
42523-07	GP04-W-22.5	N/A	N/A	42523-21	GP11-W-22.5	N/A	N/A
42523-08	GP04-W-37.5	N/A	N/A	42523-22	GP11-W-37.5	N/A	N/A
42523-09	GP05-W-20.0	N/A	N/A	42523-23	RMW09-W-25.0	N/A	N/A
42523-10	GP05-W-35.0	-27.6	1.3	42523-24	RMW09-DUP	N/A	N/A
42523-11	GP06-W-22.5	N/A	N/A	42523-25	RW04-W-25.0	-27.9	1.5
42523-12	GP06-W-42.5	N/A	N/A	42523-26	MW18-W-25.0	-28.4	1.0
42523-13	GP07-W-22.5	N/A	N/A	42523-27	Trip Blank	N/A	N/A
42523-14	GP07-W-42.5	-27.9	1.1		۴	•	

^aIsotope ratio obtained at low concentration, 3xSTDEV apply

N/A: Sample not analyzed for 2D-CSIA when PCE was not detected

	δ ¹³ C	δ ³⁷ Cl
Quality Control STDs	PCE	PCE
QC-1	-32.8	1.3
QC-2	-32.1	2.0
Mean	-32,4	1.7
Analytical Precision STDEV (1σ)	0.5	0.5

ZymaX Forensics Isotope Services

Product or Dissolved Organics: Chlorinated Solvents, Oil, Extract, Fraction and Kerogen

3D-CSIA of ¹³C, ³⁷Cl, and ²H for PCE, TCE, DCE, MTBE, BTEX, PAHs, Pesticides, Alkanes, Gasoline and Oil; Bulk ¹³C, ²H, ¹⁸O, ³⁴S, and ¹⁵N Gas Sample

2D-CSIA of ¹³C and ²H of C1 to C5; ¹³C of CO₂; ¹⁴C of C1 and CO₂; ³⁴S of H₂S; ¹⁵N and ¹⁸O of N₂O gas Water and Dissolved Inorganics

²H, ³H and ¹⁸O; ³⁴S and ¹⁸O of dissolved sulfate; ³⁴S of dissolved H₂S.

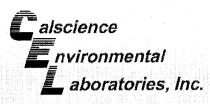
¹⁵N and ¹⁸O of dissolved Nitrate; ¹⁵N of Ammonia; ¹³C of dissolved CO₂ and Carbonate/Bicarbonate

Soil and Minerals

¹³C, ¹⁸O, ¹⁵N, ³⁴S, D/H; ¹⁴C of carbonate or organics

	Correct container types Po#: Quote yes no	Custody seals	Samples received intact	Sample integrity upon receipt:		Address:	company:	Bill To: Same as Above		-17 GPOL -W-42,5	-11 GPeL - W- 27.5	-10 GPOS-W-35,0	2,22 - m - 2040 12-		~1 6By -w-22.5	-6 GPc3 -w-31,5	5 6703 - w-22.5	-4 6202-w-37.5	-3 GP02 - W-22,5	-2 GPe1-W-37,5	12523-1 GPOI-W-22.5	ZymaX use only SAMPLE DESCRIPTION	Lovi	Pertand no man she was			600 S Andreasen Dr. Ste. B tel Escondido, California 92029 fax
	- Date Time	Company	Signature	Relinquished by:	Date 130/2017 Time	my May Fos	Print Justin Pends	Relinquished by:			1/24 1300	1/24 1600 /	1/24 1530 1 1	1/25 1630	1/25 1600 1	1/20 1700	1/20 1030	1/26 1530 /	1/26 1500 /	1/24 1130 1 1	1/26 1100 W HCL	Date Sampled Time Matrix Preserve	JiPasuds	0344.04.02	The Max	1503 531-5721 fax	760.781.3338 760.781.3339
			Signature	Received by ZymaX	ACO Date	Alensi	Print Print	Received by:			*	× ×	*		*	*	×	*	*	*	*	P(E 2D	- (5)			ANALYSIS REQUESTED	
Page 1 of 3	1/12 Time 10:04		Van Wassin	The internet	Time				0	~	02	£	3	တ	7	~	8	S.	S	かり	\$ RUNDESIA	# of cc	ontaine	rs	ASAP 3 Days	Turnaround Time	ISOTOPE CHAIN of CUSTODY

	Correct container types Quote yes no	Samples received intact	Sample integrity upon receipt:		Address:	Bill to: Same as Above OR Company:		-27 R-100-00P	-23 24-009-00-25.0	-22 6011-10-37,5	-21 GP11-W-22.5	-20 GP10-w-37,5	-19 6P10-w-22.5	-18 6009-W-3510	-17 6205-m-21.5	-11 cros-w-32.5	-15 GP08 - W- 22,5	-14 GP07 42,5	42523-13 GPE7-W-22.5	ZymaX use only SAMPLE DESCRIPTION	Ļ	OR ADDO	address 2001 WW 197 and 12 Sin 200	company Maul Fester 3 Aleusi	report to Justin Pands	600 S Andreasen Dr. Ste. B Escondido, California 92029 fax
	Date	Print	Relinquished by: Signature	Date 1/36/0212	Company HFA	Signature	Balianuirhad hur	1/26 900 -	1/24 900	1/17 1436	1/27 1400	1/27 1630	1/27 1106	1/25 1230	1/25 1230 1		1/25 130	1/23 1700 /	1730 W	Date Sampled Time Matrix	JiPaunds	sampler	proj # may have have have	Former Connation 1	(523)501-5201 fax	1 760.781.3338 x 760.781.3339
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Page	<u>v</u>	- Ryan Zumai	Received by ZymaX:	e Time	Print	Signature														# of c	ontaine	>rs			ANALYSIS REQUESTED	ISOTOPE CHAIN of CUSTODY
9e 2 of 3	10:06																			Remarks	SWK 🛐 Std 1Month	_		ASAP 3 Days	Turnaround Time	V of CUSTODY





The difference is service



AIR SOIL WATER MARINE CHEMISTRY

Analytical Report For Client: DPRA Zymax Forensics Client Project Name: 42523 Attention: Dr. Yi Wang 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

1. In

Approved for release on 02/6/2012 by: Kristin Beckley Project Manager



Email your PM)

ResultLink)

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

A M 2440 Lincoln Way, Garden Grove, CA 92841-1432 - TEL (714) 895-549412 (AXC(714) 894-7501 - WWW.calscience.con

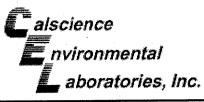
NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830



Contents

Client Project Name: 42523 Work Order Number: 12-01-1819

1	Detections Summary	3
2	Client Sample Data	4 4
3	Quality Control Sample DataQuality Control Sample Data3.1 MS/MSD and/or Duplicate3.2 LCS/LCSD3.2 LCS/LCSD	34 34 37
4	Glossary of Terms and Qualifiers	40
5	Chain of Custody/Sample Receipt Form	41





Client:DPRA Zymax ForensicsWork Order:12-01-1819600 South Andreasen Drive, Suite BProject name:42523Escondido, CA 92029-1917Received:01/31/12 18:30Attn:Dr. Yi WangDr. Yi WangDr. Yi Wang

DETECTIONS SUMMARY

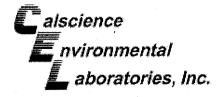
Client Sample ID			Reporting	1 1	Method	Extraction
Analyte	Result	Qualifiers	Limit	Units	Metriod	
GP01-W-37.5				•		
Chloroform	1.7		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	1.9		1.0	ug/L	EPA 8260B	EPA 5030C
1 et action cettione						
GP02-W-22.5						
Chloroform	1.5		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	1,0		1.0	ug/L	EPA 8260B	EPA 5030C
GP02-W-37.5						
Chloroform	2.1		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.0		1.0	ug/L	EPA 8260B	EPA 5030C
0000 11/ 07 5			· · ·			
GP03-W-37.5					EPA 8260B	EPA 5030C
Tetrachloroethene	2.6		1.0	. ug/L	EFA 0200B	El X 20000
GP05-W-35.0			r	a		
	1.2		1.0	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.2		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	10		110	-3-		
GP07-W-42.5	· · ·					
Tetrachloroethene	17		1.0	ug/L	EPA 8260B	EPA 5030C
					1	
RMW09-W-25.0						
Methyl-t-Butyl Ether (MTBE)	250		5.0	ug/l_	EPA 8260B	EPA 5030C
· · · · · · · ·						
RMW09-DUP			· •		· · · · · · · · · · · · · · · · · · ·	
Methyl-t-Butyl Ether (MTBE)	250		5.0	ug/L	EPA 8260B	EPA 5030C
						•
RMW04-W-25.0					EPA 8260B	EPA 5030C
Tetrachloroethene	1.9		1.0	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	15		1.0	ug/L		LI / 00000
MW18-W-25.0						
	15		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	10		1.0			

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 FAX: (714) 894-7501

Return to Contents



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STREACT

DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

	Date Received:	01/31/12
	Work Order No:	12-01-1819
	Preparation:	EPA 5030C
•	Method:	EPA 8260B
•	Units:	ug/L
		Page 1 of 30

Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected Matrix	Instrument	Date Prepared	Date/Time Analyzed		QC Batch	ו ID
GP01-W-22.5			12-0	1-1819-1-A	01/26/12 Aqueous 11:00	GC/MS R	02/01/12	02/0 16:		120201L	01
Parameter	Result	RL	DE	Qual	Parameter		<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	
Acetone	ND	20	1		1,3-Dichloropropane		ND	1.0	1		1
Benzene	ND	0.50	1		2,2-Dichloropropane		ND	1.0	1 :		•
Bromobenzene	ND	1.0	1		1,1-Dichloropropene		ND	1.0	1		
Bromochloromethane	ND	1.0	1		c-1,3-Dichloropropene		ND	0,50	1		
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloropropene		ND	0.50	1		
Bromoform	ND	1.0	1		Ethylbenzene		ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone		ND	10	1		
2-Butanone	ND	10	1		Isopropylbenzene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1		p-Isopropyltoluene		ND	1.0	1		
sec-Butylbenzene	ND	1.0	1		Methylene Chloride		ND	10	1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pentanone		ND	10	1		
Carbon Disulfide	ND	10	1		Naphthalene		ND	10	1		
Carbon Tetrachloride	ND	0.50	1		n-Propylbenzene		ND	1.0	1		
Chlorobenzene	ND	1.0	1		Styrene		ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane		ND	1.0	1		
Chloroform	ND	1.0	1	1. A.	1,1,2,2-Tetrachloroethane		ND	1.0	1		
Chloromethane	ND	10	1		Tetrachloroethene		ND	1.0	_ 1		
2-Chlorotoluene	ND	1.0	. 1		Toluene		ND	1.0	1		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlorobenzene		ND	.1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlorobenzene		ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichloroethane		ND	1.0	1		
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichloro-1,2,2-Triflu	uoroethane	ND	10	1		
Dibromomethane	ND	1.0	1.		1,1,2-Trichloroethane		ND	1.0	1		
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethene		ND	1.0	1		
1.3-Dichlorobenzene	ND	1.0	1		Trichlorofluoromethane	•	ND	10	1		
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichloropropane		ND	5.0	1		
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimethylbenzene		ND	1.0	1		
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimethylbenzene		ND	1.0	1		
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate		ND	10	1		
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride		ND	0.50	1		
c-1,2-Dichloroethene	ND	1.0	. 1		p/m-Xylene		ND	1.0	1		
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene		ND	1.0	1		
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Butyl Ether (MTB	BE)	ND	1.0	1	.	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	. <u>C</u>	Qual	Surrogates:		<u>REC (%)</u>	<u>Control</u> Limits		Qual	•
1.4-Bromofluorobenzene	98	80-120			Dibromofluoromethane		102	80-126			
1,2-Dichloroethane-d4	102	80-134			Toluene-d8		99	80-120			
1,2-Dichloroethane-u4	I UL	50-104									

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917 Date Received: Work Order No: Preparation: Method: Units: 01/31/12 12-01-1819 EPA 5030C EPA 8260B ug/L

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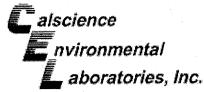
Project: 42523

Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch ID
GP01-W-37.5			12-01	-1819-2-A	01/26/12 11:30	Aqueous	GC/MS R	02/01/12	02/0 18:		120201L01
Parameter	<u>Result</u>	RL	DE	Qual	Parameter			Result	RL	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	ropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	ropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	ropene		ND	1,0	1	
Bromochloromethane	ND	1.0	1.		c-1,3-Dichlor	opropene		ND	0,50	1	
Bromodichloromethane	ND	1.0	i		t-1,3-Dichloro	propene		ND	0,50	1	
Bromoform	ND	1.0	i		Ethylbenzene	•		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto			ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl			ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P			ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene		· · ·	ND	10	1	
Carbon Tetrachloride	ND	0.50	4		n-Propylbenz	ene		ND	1.0	1	
	ND	1.0	1		Styrene	0,10		ND	1.0	1	•
Chlorobenzene	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1	
•••••••••••••	1.7	1.0	1.		1,1,2,2-Tetra			ND	1.0	1	
Chloroform	ND	10	-1		Tetrachloroe			1.9	1.0	1	
Chloromethane	ND	1.0	4		Toluene	10.10		ND	1.0	1	
2-Chlorotoluene	ND	1.0			1,2,3-Trichlo	obenzene		ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1	
Dibromochloromethane		1.0 5.0	1		1.1.1-Trichlo			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND		1		1,1,2-Trichlo		loroethane	ND	10	1	
1,2-Dibromoethane	ND '	1.0			1,1,2-Trichlo		loioonano	ND	1.0	1	
Dibromomethane	ND	1.0	1		Trichloroethe			ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichlorofluo			ND	10	1	
1,3-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo			ND	5.0	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,4-Trimetl			ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1		1.3.5-Trimet			ND	1.0	4	
1,1-Dichloroethane	ND	1.0	1					ND	10	1	
1,2-Dichloroethane	ND	0,50	1		Vinyl Acetate			ND	0.50	1.	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	3		ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene		\ F \	ND	1.0	4	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty		»⊏)	REC (%)	Control	1	Qual
Surrogates:	<u>REC (%)</u>	<u>Control</u> <u>Limits</u>	Q	<u>1al</u>	Surrogates:				Limits	-	<u>auai</u>
1.4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		102	80-126		
1.2-Dichloroethane-d4	115	80-134			Toluene-d8			97	80-120		

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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Somelao

DPRA Zymax Forensics 600 South Andreasen Drive, Suite E Escondido, CA 92029-1917

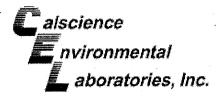
Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 3 of 30
	Work Order No: Preparation: Method:

Project: 42523

Client Sample Number	· · · · · · · · · · · · · · · · · · ·		Lab Sam Numbe		Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GP02-W-22.5			12-01-1819-3	A 01/26/12 Aqueous 15:00	GC/MS R	02/01/12	02/01/12 19:22	120201L01
Parameter	<u>Result</u>	<u>RL</u>	DF Qual	Parameter		Result	<u>RL DF</u>	Qual
Acetone	ND	20	1	1,3-Dichloropropane		ND	1.0 1	
Benzene	ND	0.50	1	2,2-Dichloropropane		ND	1.0 1	
Bromobenzene	ND	1.0	1	1,1-Dichloropropene		ND	1.0 1	
Bromochloromethane	ND	1.0	1.	c-1,3-Dichloropropene		ND	0.50 1	
Bromodichloromethane	ND	1.0	1	t-1,3-Dichloropropene		ND	0.50 1	
Bromoform	ND	1.0	1	Ethylbenzene		ND	1.0 1	1
Bromomethane	ND	10	1	2-Hexanone		ND	10 1	
2-Butanone	ND	10	1	Isopropylbenzene		ND	1.0 1	
n-Butylbenzene	ND	1.0	1	p-lsopropyltoluene		ND	1.0 1	
sec-Butylbenzene	ND	1.0	1	Methylene Chloride		ND	10 [.] 1	
tert-Butylbenzene	ND	1.0	1	4-Methyl-2-Pentanone		ND	10 1	
Carbon Disulfide	ND	10	1	Naphthalene		ND	10 1	
Carbon Tetrachloride	ND	0.50	1	n-Propylbenzene		ND	1.0 1	
Chlorobenzene	ND	1.0		Styrene	• • •	ND	1.0 1	
Chloroethane	ND	5.0	1	1,1,1,2-Tetrachloroethane		ND	1.0 1	
Chloroform	1.5	1.0	1	1,1,2,2-Tetrachloroethane		ND	1.0 1	
Chloromethane	ND	10	1	Tetrachloroethene		1.0	1.0 1	
2-Chlorotoluene	ND	1.0	1	Toluene		ND	1.0 1	
4-Chlorotoluene	ND	1.0	1	1,2,3-Trichlorobenzene		ND'	1.0 1	
Dibromochloromethane	ND	1.0	1	1,2,4-Trichlorobenzene		ND	1.0 1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	1,1,1-Trichloroethane		ND	1.0 1	
1.2-Dibromoethane	ND	1.0	1	1,1,2-Trichloro-1,2,2-Trifluc	proethane	ND	10 1	·
Dibromomethane	ND	1.0	1	1 1.2-Trichloroethane		ND	1.0 1	
1.2-Dichlorobenzene	ND	1.0	1	Trichloroethene		ND	1.0 1	
1,3-Dichlorobenzene	ND	1.0	1	Trichlorofluoromethane		ND	10 1	
1,4-Dichlorobenzene	ND	1.0	1	1,2,3-Trichloropropane		ND	5.0 1	
Dichlorodifluoromethane	ND	1.0	1	1,2,4-Trimethylbenzene		ND	1.0 1	
1.1-Dichloroethane	ND	1.0	1	1.3.5-Trimethylbenzene		ND	1.0 1	
	ND	0.50	1	Vinvl Acetate		ND	10 1	
1,2-Dichloroethane 1,1-Dichloroethene	ND	1.0	1	Vinyl Chloride		ND	0.50 1	
•	ND	1.0	1	p/m-Xylene	•	ND	1.0 1	
c-1,2-Dichloroethene	ND	1.0	4	o-Xylene		ND	1.0 1	
t-1,2-Dichloroethene	ND ·	1.0	4 .	Methyl-t-Butyl Ether (MTBE	=)	ND	1.0 1	
1,2-Dichloropropane			Qual	Surrogates:	-/	REC (%)		Qual
Surrogates:	<u>REC (%)</u>	Limits	Qual	ourroyates.		<u>, , , , , , , , , , , , , , , , , , , </u>	Limits	
· · · · · · · · · · · · · · · · · · ·	97			Dibromofluoromethane		106	80-126	
1,4-Bromofluorobenzene		80-120				100	80-120	
1,2-Dichloroethane-d4	107	80-134		Toluene-d8		100	00-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Analytical Report

Preparation:

Method:

Units:



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EPA 8260B

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Ratum ta Contents

	•	
Date Received:		01/31/12
Work Order No:		12-01-1819
Preparation:		EPA 5030C

Project: 42523

Client Sample Number	•			Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch	h ID
GP02-W-37.5			12-0	1-1819-4-A	01/26/12 15:30	Aqueous	GC/MS R	02/01/12	02/0 19:		120201L	.01
Parameter	Result	RL	<u>DF</u>	Qual	Parameter	- -		<u>Result</u>	RL	DF	<u>Qual</u>	
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	1		
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1.0	1		
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1		
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1		
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0,50	1		
Bromoform	ND	1.0	1		Ethylbenzene)	1. A.	ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone			ND	10	1		
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1		
sec-Butylbenzene	ND	1.0	1		Methylene Cl	nloride		ND	10	. 1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1		
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1		
Carbon Tetrachloride	ND	0.50	1.		n-Propylbenz	ene		ND	1.0	1		
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1		
Chloroform	2.1	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1,0	1		
Chloromethane	ND	10	1		Tetrachloroe	hene		4.0	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	- 1		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND .	1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1		
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	oroethane	ND	10 .	1		
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1		
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1		
1,3-Dichlorobenzene	ND .	1.0	1		Trichlorofluo	omethane		ND	10	1		
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo			ND	5.0	1		
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimet	nylbenzene		ND	1.0	1,		
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimet	nylbenzene		ND	1.0	1		
1,2-Dichloroethane	·ND	0.50	1		Vinyl Acetate	۱.		ND	10	1		
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	е .		ND	0.50	1		
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1		
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1		
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTB	E)	ND	1.0	1		
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	<u>tual</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> <u>Limits</u>	<u> </u>	<u>Qual</u>	
1.4-Bromofluorobenzene	99	80-120			Dibromofluor	omethane		103	80-126			
1,2-Dichloroethane-d4	105	80-134			Toluene-d8			100	80-120			

RL - Reporting Limit ,

Qual - Qualifiers DF - Dilution Factor .

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FAX: (714) 894-7501 7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 •



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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

01/31/12
12-01-1819
EPA 5030C
EPA 8260B
ug/L
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Project: 42523

Client Sample Number			. L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time yzed	QC Batch ID	
GP03-W-22.5			12-01	-1819-5-A	01/26/12 16:30	Aqueous	GC/MS R	02/01/12		1/12 :21	120201L01	
Parameter	Result	<u>RL</u>	DF	Qual	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	1		
Benzene	ND	0.50	1		2,2-Dichloro	propane		ND	1.0	1		
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1		
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0,50	. 1		
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlor	opropene		ND	0.50	1		
Bromoform	ND	1.0	1		Ethylbenzen	Э		ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone			ND	10	1 -		
2-Butanone	ND	10	.1		Isopropylben	zene	•	ND	1.0	. 1		
n-Butylbenzene	ND	1.0	1		p-Isopropyito	luene		ND	1.0	1		
sec-Butylbenzene	ND ·	1.0	1		Methylene C	hloride		ND	10	1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1		
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1		
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	zene		ND	1.0	1	• •	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	•	ND	1.0	1		
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	1	ND	1.0	1		
Chloromethane	ND	10	1		Tetrachloroe	thene		ND	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo			ND	1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo			ND	1.0	1		
1.2-Dibromoethane	ND .	1.0	1			ro-1,2,2-Trifl	uoroethane	ND	10	1		
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane	· · ·	ND	1.0	1		
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe			ND	1.0	1		
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo			ND	10	1		
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo			ND	5.0	1		
Dichlorodifluoromethane	ND	1.0	1	i.	1,2,4-Trimet			ND	1.0	1		
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimet	hylbenzene		ND	1.0 *	1		
1,2-Dichloroethane	ND	0:50	1		Vinyl Acetate	Э [.]		ND	10	1		
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND	0,50	1		
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1		
t-1,2-Dichloroethene	ND	1.0	1.		o-Xylene			ND	1.0	1		
1,2-Dichloropropane	ND	1.0	1		Methyl-t-But	yl Ether (MTE	BE)	ND	1.0	1	~ .	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Q	ual	Surrogates:			<u>REC (%)</u>	<u>Limits</u>		Qual	
1,4-Bromofluorobenzene	99	80-120			Dibromofluo	romethane		103	80-126			
1,2-Dichloroethane-d4	108	80-134			Toluene-d8			99	80-120			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L

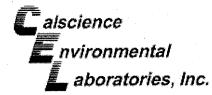
Project: 42523

Client Sample Number				o Sample lumber	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch	ID
GP03-W-37.5			12-01-1	819-6-A	01/26/12 17:00	Aqueous	GC/MS R	02/01/12)1/12 :50	120201L0	1
Parameter	Result	<u>RL</u>	<u>DF</u>	Qual	Parameter			Result	<u>RL</u>	DF	Qual	
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	1		
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1.0	1		
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	. 1		
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0,50	. 1		
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlor	opropene		ND	0,50	1		
Bromoform	ND	1.0	1		Ethylbenzene	•		ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone			ND	10	1		
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1		p-isopropylto	luene		ND	1.0	1		
sec-Butylbenzene	ND	1.0	1		Methylene C	nloride		ND	10	1 -		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1		
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1.		
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1		
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5.0	1	•	1,1,1,2-Tetra	chloroethane		ND	1.0	1	5 A	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1		
Chloromethane	ND	10	1		Tetrachloroe	hene		2.6	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichio	robenzene		ND	1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1		
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	oroethane	ND	['] 10	1		
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1		
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1		
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	omethane		ND	.10	1		
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	. 1		
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeti	ylbenzene		ND	1.0	1		
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeti	ylbenzene		ND	1.0	. 1		
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate	1		ND	10	1	١.	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	е .		ND	0.50	1		
c-1.2-Dichloroethene	ND	1.0	1		p/m-Xylene	1		ND	1.0	1		
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1		
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTB	E)	ND	1.0	1	•	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	l	Surrogates:	, , , , , , , , , , , , , , , , , , ,	•	<u>REC (%)</u>	<u>Contro</u> Limits	<u> (</u>	Qual	
1,4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		108	80-126	3		
	108	80-134			Toluene-d8			100	80-120)		
1,2-Dichloroethane-d4	100	00-134			1 Juene-uo		м.		30 ,40			

RL - Reporting Limit ,

Qual - Qualifiers DF - Dilution Factor ,

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

 Date Received:			01/31/12
Work Order No:			12-01-1819
Preparation:		÷.,	EPA 5030C
Method:			EPA 8260B
Units:			ug/L
			Page 7 of 30

Project: 42523

Client Sample Number				ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch II	<u>)</u>
GP04-W-22.5			12-01-	1819-7-A	01/25/12 16:00	Aqueous	GC/MS R	02/01/12	02/0 21:		120201L01	
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	Parameter	• .		<u>Result</u>	RL	<u>DF</u>	Qual	
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1		
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1		
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1		
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene	·	ND	0.50	1		
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	· · ·	
Bromoform	ND	1.0	1		Ethylbenzene)		ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone			ND	10	1		
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1		p-Isopropylto			ND ·	1,0	1		
sec-Butylbenzene	ND	1.0	1		Methylene Cl	nloride		ND	10	1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P			ND	10	1		
Carbon Disulfide	ND.	10	1		Naphthalene			ND	10	. 1		
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz			ND	1.0	1	•	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1		
Chloroform	ND	1.0	1		1,1,2,2-Tetra			ND	1.0	1		
Chloromethane	ND	1.0	1		Tetrachloroe			ND	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1		
4-Chlorotoluene	ND	1.0	4		1,2,3-Trichlo	robenzene		ND	1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1	•	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1.1.1-Trichlo			ND	1.0	1		
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo		oroethane	ND	10	1		
Dibromomethane	ND	1.0	1		1,1,2-Trichlo			ND	1.0	1.		
	ND	1.0	1		Trichloroethe			ND	1.0	1		
1,2-Dichlorobenzene 1,3-Dichlorobenzene	ND	1.0	4		Trichlorofluo			ND	10	1		
	ND	1.0	1		1,2,3-Trichlo		· · · · · ·	ND	5.0	1		
1,4-Dichlorobenzene Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimet			ND	1.0	1		
	ND	1.0	1		1,3,5-Trimet			ND	1.0	1		
1,1-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1		
1,2-Dichloroethane	ND	1.0			Vinyl Chlorid			ND	0.50	1		
1,1-Dichloroethene	ND	1.0	4		p/m-Xylene	• · ·		ND	1.0	1		
c-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	- i :		
t-1,2-Dichloroethene	ND ND		1	· .		Ether (MTB	E)	ND	1.0	1		
1,2-Dichloropropane		1.0 Control			Surrogates:			REC (%)	Control		Qual	
Surrogates:	<u>REC (%)</u>	Limits	Qu	a	<u>Surroyates:</u>				<u>Limits</u>			
1,4-Bromofluorobenzene	99	80-120			Dibromofluo	omethane		104	80-126			
1,2-Dichloroethane-d4	107	80-134			Toluene-d8			99	80-120			

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

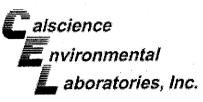
Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 8 of 30

Project: 42523

Client Sample Number	· · · · · · · · · · · · · · · · · · ·			ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch ID
GP04-W-37.5			12-01-	1819-8-A	01/25/12 16:30	Aqueous	GC/MS R	02/01/12	02/0 21:		120201L01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	Parameter			Result	RL	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	ropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop			ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0,50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro			ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene)		ND	1,0	1	
Bromomethane	ND	10	1		2-Hexanone		•	ND	10	1	
2-Butanone	ND	10	1		isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND .	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	- 1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra			ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroel			ND	1.0	1	· .
2-Chlorotoluene	ND	1.0	i	•	Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1	1 A 1	1.2.4-Trichlo			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1.1.1-Trichlo			ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1	•	1.1.2-Trichlo		oroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	oethane		ND	1.0	1	
1.2-Dichlorobenzene	ND	1.0	1		Trichloroethe			ND	1.0	1	
1.3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	opropane		ND	5.0	1	1
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth			ND	1.0	1.	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth			ND	1,0	1	
1.2-Dichloroethane	ND	.0.50	i		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid			ND	0,50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	Ether (MTB	E)	ND	1.0	1	
	REC (%)	Control	Qu	al	Surrogates:		_,	REC (%)	Control	C	Qual
Surrogates:	<u>NEO (70)</u>	Limits	20	<u>.</u>	<u>carrogatos</u> ,				Limits	-	
1.4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		98	80-126		
••••	106	80-120 80-134			Toluene-d8	on our our o		100	80-120		
1,2-Dichloroethane-d4	100	00-134			roluene-uo			,00	00 120		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917



Anal	lytic	al F	Re	por	t
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Date Received:

Work Order No:

Preparation:

Method:

Units:

01/31/12 12-01-1819 EPA 5030C EPA 8260B

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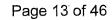
Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/1 Analy		QC Batc	h ID
GP05-W-20.0			12-	01-1819-9-A	01/24/12 15:30	Aqueous	GC/MS R	02/01/12	02/01 22:1		120201L	.01
Parameter	<u>Result</u>	RL	DF	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	Qual	•
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	.1		
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1.0	1		
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1		
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1		
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1		
Bromoform	ND	1.0	1		Ethylbenzene	÷ .		ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone			ND	10	1,		
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1		
sec-Butylbenzene	ND	1.0	1		Methylene C	nloride		ND	10	1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1		
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1.		
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1,0	1		
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1		
Chloroform	ND	1.0	. 1		1,1,2,2-Tetra	chioroethane		ND	1.0	1		
Chloromethane	ND	10	1		Tetrachloroe	lhene		ND	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo			ND	1.0	1		
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	loroethane	ND	10	1		
Dibromomethane	ND	1.0	1		1,1,2-Trichlo			ND	1.0	1		
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe			ND	1.0	1		
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1		
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo			ND	5.0	1		
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimetl			ND	1.0	1		
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimet			ND	1.0	1		
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1		
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND	0.50	1		
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	. 1		
t-1.2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1		
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	/I Ether (MTB	E)	ND	1.0	· 1	N . 1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits		Qual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual	
1,4-Bromofluorobenzene	99	80-120			Dibromofluor	omethane		105	80-126			
•	109	80-134			Toluene-d8			99	80-120			
1,2-Dichloroethane-d4	100	00-104										

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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Analytical Report



DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

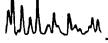
Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 10 of 30

Project: 42523

Client Sample Number			l	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch ID
GP05-W-35.0			12-01	I-1819-10-A	01/24/12 16:00	Aqueous	GC/MS R	02/01/12	02/0 22:		120201L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	propane	•	ND	1.0	1	
Bromobenzene	ND	1.0	1	. *	1,1-Dichlorop			ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor			ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	opropene		ND	0,50	1	•
Bromoform	ND	1.0	1		Ethylbenzene	e		ND	1.0	- 1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben			ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto			ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl			ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P			ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1.	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1	-	Styrene			ND	1.0	1	÷
Chloroethane	ND	5.0	1		1,1,1,2-Tetra			ND	1.0	1	
Chloroform	1.2	1.0	1		1,1,2,2-Tetra			ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroe	thené	•	10	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	÷ *	1,2,3-Trichlo			ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1	•
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo			ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	• •	oroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo			ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe			ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo			ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo		1	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimetl	•		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimetl			ND	1.0	1	
1,2-Dichloroethane	ND	0,50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1,0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	/I Ether (MTB	E)	ND	1.0	1	~ .
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	ual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	. <u>(</u>	Qual
1.4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		96	80-126		
1,2-Dichloroethane-d4	126	80-134			Toluene-d8			99	80-120		

RL - Reporting Limit , DF - Dilution Factor , (

, Qual - Qualifiers





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Analytical Report



DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917 Date Received:01/31/12Work Order No:12-01-1819Preparation:EPA 5030CMethod:EPA 8260BUnits:ug/LPage 11 of 30

Project: 42523

Client Sample Number	· .			lb Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GP06-W-22.5			12-01-	1819-11-A	01/24/12 13:00	Aqueous	GC/MS R	02/01/12	02/01/12 23:16	120201L01
<u>Parameter</u>	Result	<u>RL</u>	DE	<u>Qual</u>	Parameter			Result	RL DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane	· · · · · ·	ND	1,0 1	
Benzene	ND	0.50	1		2,2-Dichlorop	ropane		ND	1.0 1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	ropene		ND	1.0 1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50 1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0,50 1	
Bromoform	ND	1.0	1		Ethylbenzene)		ND	1.0 1	
Bromomethane	ND	10	1		2-Hexanone			ND	10 1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0 1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto			ND .	1.0 1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl			ND	10 1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P			ND	10 1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10 1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0 1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0 1	
Chloroethane	ND	5.0	4		1,1,1,2-Tetra	chloroethane		ŇD	1.0 1	
Chloroform	ND	1.0	4		1,1,2,2-Tetra			ND	1.0 1	
Chloromethane	ND	10	4		Tetrachloroel			ND	1.0 1	
	ND	1.0	4		Toluene	none		ND	1.0 1	
2-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	obenzene		ND	1.0 1	
4-Chlorotoluene	ND	1.0 1.0	4		1,2,4-Trichio			ND	1.0 1	
Dibromochloromethane	ND	1.0 5.0	4		1,1,1-Trichlo			ND	1.0 1	
1,2-Dibromo-3-Chloropropane	ND	5.0 1.0	1		1,1,2-Trichlo		oroethane	ND	10 1	
1,2-Dibromoethane	ND	1.0	1 .: 4		1,1,2-Trichlo		oroculario	ND	1.0 1	
Dibromomethane	ND	1.0	1		Trichloroethe			ND	1.0 1	
1,2-Dichlorobenzene			1		Trichlorofluor			ND	10 1	
1,3-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo			ND	5.0 1	
1,4-Dichlorobenzene	ND	1.0 1.0	1		1,2,4-Trimeth			ND	1.0 1	
Dichlorodifluoromethane	ND		1		1,3,5-Trimet			ND	1.0 1	
1,1-Dichloroethane	ND	1.0	1		Vinvl Acetate			ND	10 1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Chlorid			ND	0.50 1	•
1,1-Dichloroethene	ND	1.0	1			3		ND	1.0 1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0 1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene		(FT)	ND ND	1.0 1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	n ⊨ther (MTB		REC (%)	<u>Control</u>	Qual
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control</u> Limits	Qua	<u>al</u> -	Surrogates:				Limits	Qual
1,4-Bromofluorobenzene	97	80-120			Dibromofluor	omethane		104	80-126	
1,2-Dichloroethane-d4	104	80-134			Toluene-d8			100	80-120	

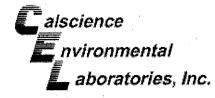
RL - Reporting Limit , DF - Dilution Factor

- Dilution Factor , Qual - Qualifiers

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Analytical Report

DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:		01/31/12
Work Order No:		12-01-1819
Preparation:	• •	EPA 5030C
Method:		EPA 8260B
Units:	,	ug/L
		Page 12 of 30

Project: 42523

Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		Time vzed	QC Batch ID
GP06-W-42.5			12-01	-1819-12-A	01/24/12 12:00	Aqueous	GC/MS R	02/01/12		1/12 :45	120201L01
Parameter	Result	RL	DF	Qual	Parameter			Result	RL	DE	<u>Qual</u>
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	1	•
Benzene	ND	0.50	1		2.2-Dichloror	propane		ND	1.0	1	· · · · ·
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0,50	1	
Bromoform	ND	1.0	1		Ethylbenzene)		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1,0	.1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra			ND	1,0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroe	thene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1,0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene	* +	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1,0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	loroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimet	nylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimetl	nylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate	•		ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND	0,50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	/I Ether (MTB	E)	ND	1.0	1	. .
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qu	al	Surrogates:		• .	<u>REC (%)</u>	<u>Contro</u> Limits		Qual
1.4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane	•	101	80-126		
1,2-Dichloroethane-d4	105	80-134			Toluene-d8			100	80-120		

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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Analytical Report



DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received	1: 01/31/12
Work Order N	o: 12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 13 of 30

Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch	ID
GP07-W-22.5			12-0'	1-1819-13-A	01/23/12 17:30	Aqueous	GC/MS R	02/01/12)2/12 :15	120201L0	1
Parameter	Result	RL	DE	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual	
Acetone	ND ·	20	.1		1,3-Dichlorop	propane		ND	1.0	. 1		
Benzene	ND	0.50	1		2,2-Dichlorop			ND .	1.0	. 1		
Bromobenzene	ND	1.0	1		1,1-Dichlorop			ND	1.0	1		
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0,50	1		1.1
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1		
Bromoform	ND	1.0	1		Ethylbenzene	•		ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone			ND	10	1		
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1		
sec-Butylbenzene	ND	1.0	1		Methylene Cl	nloride		ND	10	1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1		
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1		
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1		
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	1. · · · · · · · · · · · · · · · · · · ·	ND	1.0	1		
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	1	ND	1,0	. 1		
Chloromethane	ND	10	1		Tetrachloroe	thene		ND	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1		
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	uoroethane	ND	10	1	-	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1,0	1		
1,2-Dichlorobenzene	ND	1.0	1	•	Trichloroethe	ene		ND	1.0	1		
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1		
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1		
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimetl	nylbenzene		ND	1.0	1		
1.1-Dichloroethane	ND	1.0	1		1,3,5-Trimet	nylbenzene	•	ND	1.0	1		
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate	;		ND	10	1		
1,1-Dichloroethene	ND	1.0	1	•	Vinyl Chlorid	e		ND	0.50	- 1		
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND .	1.0	. 1		
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1		
1,2-Dichloropropane	ND	1.0	1.		Methyl-t-Buty	I Ether (MTE	BE)	ND	1.0	1		
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Q	lual	Surrogates:			<u>REC (%)</u>	Contro Limits	,	Qual	
1.4-Bromofluorobenzene	96	80-120			Dibromofluor	omethane		106	80-126	3		
1,2-Dichloroethane-d4	108	80-134			Toluene-d8		· ·	99	80-120	D		

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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	Date Received: Work Order No: Preparation: Method: Units:	01/31/12 12-01-1819 EPA 5030C EPA 8260B ug/L
н Тара		Page 14 of 30
		Doto Date/Time

Project: 42523

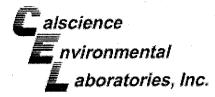
Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch II	D.
GP07-W-42.5			12-	01-1819-14-4	01/23/12 17:00	Aqueous	GC/MS Q	02/01/12	02/02 05:		120201L02	
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual	
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1,0	1		
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1.0	1		
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	•	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0,50	1		
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlor	opropene		ND	0,50	1		
Bromoform	ND	1.0	1	•	Ethylbenzen	Э		ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone			ND	10	1		
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1		p-lsopropylto	luene		ND	1.0	1		
sec-Butylbenzene	ND	1.0	1		Methylene C	hloride		ND	10	1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1		
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1		
Carbon Tetrachloride	ND .	0,50	1		n-Propylbenz	zene		ND	1.0	1		
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5,0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1		
Chloroform	ND	1,0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1		
Chloromethane	ND	10	1		Tetrachloroe	thene		17	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo			ND	1.0	1		
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	uoroethane	ND	10	1		
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1		
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ene		ND	1.0	1		
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1		
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5,0	1		
Dichlorodifluoromethane	ND	1:0	1		1,2,4-Trimet	hylbenzene		ND	1.0	1		
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimet	hylbenzene		ND	1.0	1		
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate	e l		ND .	10	1	e	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	е		ND	0.50	1		
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1		
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene		•	ND	1.0	1		
1,2-Dichloropropane	ND	1.0	1		Methyl-t-But	d Ether (MTE	BE)	ND	1.0	1		
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	·	Qual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	. <u>(</u>	Qual	
1.4 Bromofluorobonzono	98	80-120			Dibromofluo	romethane		96	80-126			
1,4-Bromofluorobenzene	96	80-134			Toluene-d8			100	80-120			
1,2-Dichloroethane-d4	30	00-134			i oluene-uo				=-			

RL - Reporting Limit ,

DF - Dilution Factor Qual - Qualifiers ,



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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Analytical Report



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Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 15 of 30

Project: 42523

Client Sample Number		•		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch ID
GP08-W-22.5			12-(01-1819-15-A	01/25/12 11:30	Aqueous	GC/MS Q	02/01/12	02/02 06:		120201L02
Parameter	Result	RL	DF	Qual	Parameter			Result	RL	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1,0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0,50	1	÷
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	Э		ND	1.0	1	· · · · ·
Bromomethane	ND	10	1		2-Hexanone		•	ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1,0	1	
sec-Butylbenzene	ND	1.0	1	•	Methylene Cl	hloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene	· · · ·		ND	1.0	1	
Chloroethane	ND	5,0	1		1,1,1,2-Tetra			ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroe	thene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1	· · ·	1,2,4-Trichlo	robenzene		ND	1.0	1	·
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1 -	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	loroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1.2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5,0	1	
Dichlorodifluoromethane	ND	1.0	1	· .	1,2,4-Trimet	nylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimetl	nylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate)		ND	10	· 1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND	0,50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	/I Ether (MTB	E)	ND	1.0	1	ан. С
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual	Surrogates:			<u>REC (%)</u>	Control Limits	<u>(</u>	Qual
	04				Dibromofilia	omothene		101	80-126		
1,4-Bromofluorobenzene	94	80-120			Dibromofluor	omethane		97	80-120		
1,2-Dichloroethane-d4	98	80-134			Toluene-d8			וט	00-120		

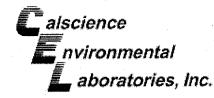
RL - Reporting Limit ,

DF - Dilution Factor Qual - Qualifiers ,

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

01/31/12
12-01-1819
EPA 5030C
EPA 8260B
ug/L
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Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch ID
GP08-W-32.5			12-	01-1819-16-A	01/25/12 11:00	Aqueous	GC/MS Q	02/01/12	02/02 03;4		120201L02
Parameter	Result	<u>RL</u>	DF	Qual	Parameter			<u>Result</u>	RL	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	-1	
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlor	propene		ND	0,50	1	
Bromoform	ND	1.0	1	**	Ethylbenzene	•		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1.		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl	hloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	•
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1	. ·	n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene	· · · · · ·		ND	1,0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1.2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	ioroethane	ND	10	1	•
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	omethane		ND	10	1	- 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	nylbenzene		ND	1.0	1 1	
1.1-Dichloroethane	ND	1,0	1		1,3,5-Trimetl	nylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Viny Acetate	1		ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	е		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTB	E)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits		Qual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual
1,4-Bromofluorobenzene	97	80-120			Dibromofluor	omethane		101	80-126		
	98	80-120 80-134			Toluene-d8	0,0110110		97	80-120		
1,2-Dichloroethane-d4	90	00-134			roluene-uo			2.	50 120		

RL - Reporting Limit ,

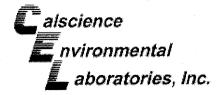
DF - Dilution Factor ,

Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:		01/31/12
Work Order No:	•	12-01-1819
Preparation:		EPA 5030C
Method:		EPA 8260B
Units:		ug/L
<u>.</u>		Page 17 of 30

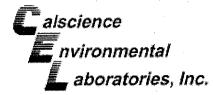
Project: 42523

Client Sample Number				b Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal	/Time γzed	QC Batch ID
GP09-W-22.5			12-01-1	1819-17-A	01/25/12 12:30	Aqueous	GC/MS Q	02/01/12		2/12 :32	120201L02
Parameter	Result	<u>RL</u>	DF	Qual	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	propane	· .	ND	1,0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlor	opropene		ND	0,50	1	
Bromoform	ND	1.0	1		Ethylbenzene	e		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1	· .	Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	•
sec-Butylbenzene	ND .	1.0	1		Methylene C	hloride		ND .	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	.1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	tene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra			ND .	1.0	1	
Chloromethane	ND	10	1		Tetrachloroe	thene	·	ND	1.0	1	
2-Chlorotoluene	ND	1.0	4		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1,0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1.2-Dibromoethane	ND	1.0	1		1.1.2-Trichlo		uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	· ·
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe			ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	•
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimet			ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimet	•		ND	1.0	1	
1.2-Dichloroethane	ND	0.50	1		Vinvl Acetate	•		ND	10	1	•
1.1-Dichloroethene	ND	1.0	1		Vinyl Chlorid			ND	0,50	1	
c-1.2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1.2-Dichloroethene	ND	1.0	1		o-Xylene	1.		ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	/ Ether (MTE	BE)	ND	1.0	1	
	REC (%)		Qua	al	Surrogates:			REC (%)			Qual
Surrogates:	<u>REU (%)</u>	Limits	<u>wuc</u>	<u>u</u> .	canogatoo.				Limits		
1.4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		99	80-126		
••••	98	80-120			Toluene-d8	Children		98	80-120		
1,2-Dichloroethane-d4	90	00-134			i oluene-uo				00 120		

RL - Reporting Limit , DI

DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

	Date Received:	01/31/12
3	Work Order No:	12-01-1819
-	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
		Page 18 of 30

Project: 42523

Client Sample Number				ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Ana		QC Batch ID
GP09-W-35.0			12-01-	-1819-18-A	01/25/12 12:30	Aqueous	GC/MS Q	02/01/12		2/12 :59	120201L02
Parameter	Result	RL	DE	Qual	Parameter	-		Result	RL	DE	Qual
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1,0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1.0	1	· · · · ·
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene .		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlor	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	•		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto			ND	1.0	· 1	
sec-Butylbenzene	ND	1.0	1		Methylene C	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND.	10	1	· .
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	. 1	
Carbon Tetrachloride	ND	0,50	1		n-Propylbenz	ene		ND	1.0	1	a de la composición d
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	.1	•
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	•	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroe	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	loroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1.2-Dichlorobenzene	ND .	1.0	1		Trichloroethe	ne		ND	1.0	1	
1.3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1	
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	1.1.1
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimet	nylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimet	nylbenzene		ND	1.0	1	
1.2-Dichloroethane	ŃD	0.50	1		Vinyl Acetate	,		ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1.		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xvlene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	/ Ether (MTB	E)	ND	1.0	່ 1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qu</u>	al	Surrogates:	•		<u>REC (%)</u>	Contro Limits	<u> (</u>	Qual
4.4. Dueweeft teach engrane	95	80-120			Dibromofluo	omethane		102	80-126		
1,4-Bromofluorobenzene	30 101	80-120 80-134			Toluene-d8	on lourano		100	80-120		
1,2-Dichloroethane-d4	101	80-134			i oluene-ag				00 120		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42523

Client Sample Number	•			Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch	ID
GP10-W-22.5			12-()1-1819-19-A	01/27/12 11:00	Aqueous	GC/MS Q	02/01/12	02/0 07:		120201L0	2
Parameter	<u>Result</u>	RL	DE	Qual	Parameter		-	<u>Result</u>	<u>RL</u>	DF	Qual	
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1.0	1.		
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND .	1.0	1	· .	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND .	1.0	1 -		
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	1. A. A. A.	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	opropene		ND	0.50	1		
Bromoform	ND	1.0	1	•	Ethylbenzene	Э		ND	1.0	1		
Bromomethane	ND	10	1		2-Hexanone			ND	10	1		
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1		p-Isopropylto			ND	1,0	1		
sec-Butylbenzene	ND	1.0	1		Methylene Cl	hloride		ND	10	1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1		
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1		
Carbon Tetrachloride	ND	0.50	1.		n-Propylbenz	ene		ND	1.0	1		
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1	•	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1		
Chloromethane	ND	10	1		Tetrachloroe	thene		ND	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1.		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1		
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	loroethane	ND	10	1		
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1		
1.2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ene		ND	1.0	1		
1,3-Dichlorobenzene	ND	1,0	. 1		Trichlorofluo	romethane		ND	10	1		
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1		
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimet			ND	1.0	1		
1.1-Dichloroethane	ND	1,0	1		1,3,5-Trimetl	nylbenzene		ND	1.0	1		
1.2-Dichloroethane	ND	0,50	1		Vinyl Acetate			ND	10	1		
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND	0,50	1		
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1,0	1		
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	. 1		
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTB	E) .	ND	1.0	1		
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u> </u>	Qual	
1.4-Bromofluorobenzene	95	80-120			Dibromofluor	omethane		100	80-126			
•	100	80-134			Toluene-d8			97	80-120		•	
1,2-Dichloroethane-d4	100	00-104						·				

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RL - Reporting Limit

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Qual - Qualifiers DF - Dilution Factor ,

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Analytical Report

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch ID
GP10-W-37.5			12-	01-1819-20-A	01/27/12 10:30	Aqueous	GC/MS Q	02/01/12	02/0 07:		120201L02
Parameter	Result	RL	DE	Qual	Parameter			<u>Result</u>	RL	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	propane	· · · ·	ND	1.0	1	
Benzene	ND	0.50	1	· .	2,2-Dichlorop	propane	•	ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropène		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0,50	1	
Bromoform	ND	1.0	1		Ethylbenzene	;	· ·	ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1,0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene	•	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl	nloride		ND	10	. 1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	· .
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene	21 - C	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1	1	1,1,1,2-Tetra	chloroethane		ND .	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	•	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	.1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	. 1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	loroethane	ND	10	1	· .
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND .	10	1	
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	- 1	•
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	ylbenzene	•	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	· •	Vinyl Acetate	i i serie		ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	Э		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1.2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTB	E)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits		Qual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual
1.4-Bromofluorobenzene	96	80-120			Dibromofluor	omethane		101	80-126		
	99	80-134			Toluene-d8	-,		99	80-120		
1,2-Dichloroethane-d4	00	00-134							20 120		

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:		
Work Order No:		
Preparation:		
Method:		
Units:		

01/31/12
12-01-1819
EPA 5030C
EPA 8260B
ug/L

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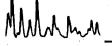
Project: 42523

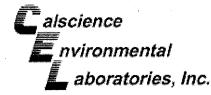
Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch ID
GP11-W-22.5			12-0	1-1819-21-A	01/27/12 14:00	Aqueous	GC/MS Q	02/01/12	02/0; 08:		120201L02
Parameter	Result	RL	DF	Qual	Parameter	· · ·		Result	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2.2-Dichlorop	ropane		ND	1.0	.1	
Bromobenzene	ND	1,0	1		1,1-Dichlorop	ropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor		. •	ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	• •		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene))		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1,0	1	ter tak
sec-Butylbenzene	ND	1.0	1		Methylene Cl			ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P			ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	. 1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chioroethane		ND	1.0	1	
Chloroform	ND	1.0	1	1	1,1,2,2-Tetra	chloroethane		ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroel	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene	÷ 4	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5,0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1.2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	loroethane	ND	10	1	- ¹
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	<u></u> 1	
1.2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne	•	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	romethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5,0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimetl	nylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	nylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	в		ND	0,50	1.	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTB	E)	ND	1.0	1	
Surrogates:	REC (%)	<u>Control</u>	<u>C</u>	Qual	Surrogates:			<u>REC (%)</u>	<u>Control</u>	. 9	Qual
<u></u>		Limits							<u>Limits</u>		
1,4-Bromofluorobenzene	96	80-120			Dibromofluor	omethane		98	80-126		· .
1.2-Dichloroethane-d4	99	80-134			Toluene-d8			100	80-120		•
1,2-DIGHOIDELIIAHE-U-		20 101									

RL - Reporting Limit ,

DF - Dilution Factor , Qual

, Qual - Qualifiers







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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42523

Client Sample Number			1	_ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Tir Analyze		QC Batch ID
GP11-W-37.5			12-01	I-1819-22-A	01/27/12 14:30	Aqueous	GC/MS Q	02/01/12	02/02/1 08:48		120201L02
Parameter	Result	RL	DF	Qual	Parameter			<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>
Acetone	ND	20	1		1,3-Dichlorop	ropane		ND	1.0	1	•
Benzene	ND	0.50	1		2,2-Dichlorop			ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	•		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1.3-Dichlor			ND	0,50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlord	propene		ND	0,50	1	
Bromoform	ND	1.0	1		Ethylbenzene			ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylbenz	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1	•	p-Isopropyltol		· . · ·	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch			ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pe			ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene ·		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1	1
Chloroform	ND	1.0	1.		1,1,2,2-Tetra			ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet			ND	1.0	1	
2-Chlorotoluene	ND	1.0	4		Toluene			ND	1.0	1	
	ND	1.0	4		1,2,3-Trichlor	obenzene		ND	1.0	1	
4-Chlorotoluene Dibromochloromethane	ND	1.0	1.		1,2,4-Trichlor			ND	1.0	1	
	ND	5.0	4		1.1.1-Trichlor			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0 1.0	1		1,1,2-Trichlor		loroethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor		loroculturio	ND	1.0	1	
Dibromomethane		1.0	1.		Trichloroethe			ND	1.0	1	
1,2-Dichlorobenzene	ND ND	1.0	1		Trichlorofluor			ND	10	1	
1,3-Dichlorobenzene			•		1,2,3-Trichlor			ND	5.0	1	
1,4-Dichlorobenzene	ND	1.0	1 1		1,2,4-Trimeth			ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	•		1,3,5-Trimeth	•		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		Vinyl Acetate	lyibelizelle		ND	10	4	
1,2-Dichloroethane	ND	0.50	1		Vinyl Chloride			ND .	0.50	4	
1,1-Dichloroethene	ND	1.0	1			÷		ND	1.0	4	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty			REC (%)	Control	<u>'</u> ر	Qual
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control</u> Limits	Q	ual	Surrogates:				Limits	2	<u>Kuui</u>
1,4-Bromofluorobenzene	97	80-120			Dibromofluor	omethane		100	80-126		
1,2-Dichloroethane-d4	99	80-134			Toluene-d8		•	98	80-120		

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch ID
RMW09-W-25.0			12-	01-1819-23-A	01/26/12 09:00	Aqueous	GC/MS Q	02/01/12	02/0 09:		120201L02
Parameter	Result	RL	DF	Qual	Parameter			Result	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene)		ND	1,0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto			ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl	loride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	. 1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ŅD	1.0	1	
Chiorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1,0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	· · · · · · · · · · · · · · · · · · ·
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	. 1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1.2-Dibromoethane	ND	1.0	<u>1</u>		1,1,2-Trichlo	ro-1,2,2-Triflu	loroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	. 1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimetl	ylbenzene		ND	1.0	1	
1.1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth			ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1	· · ·	Vinyl Chlorid	e	•	ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTB	E)	250	5.0	5	
	REC (%)	Control	•	Qual	Surrogates:	•	•	<u>REC (%)</u>	<u>Control</u>		Qual
<u>Surrogates:</u>		Limits		, <u></u>					Limits		
1,4-Bromofluorobenzene	96	80-120		•	Dibromofluor	omethane		98	80-126		
•	99	80-134			Toluene-d8			99	80-120		
1,2-Dichloroethane-d4	55	00-134			i oluene-uo						

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42523

Client Sample Number	······································			Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch ID
RMW09-DUP			12-0)1-1819-24-A	01/26/12 10:00	Aqueous	GC/MS Q	02/01/12	02/0 09:		120201L02
Parameter	Result	<u>RL</u>	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	ropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	ropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	ropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlore	opropene		ND	0,50	1	
Bromodichloromethane	ND	1,0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene			ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylbenz	ene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropyltol	uene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	loride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pe	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor			ND	1.0	1	
1.2-Dibromo-3-Chloropropane	ND	5.0	1		1.1.1-Trichlor		•	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor	o-1,2,2-Triflu	loroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlor	oethane		ND	1.0	1	
1.2-Dichlorobenzene	ND	1.0	1	· .	Trichloroethe	ne		ND	1.0	- 1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10.	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlor	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1	
1.1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	ylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate	-		ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	•		ND	0,50	1	+ ¹
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1,0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	Ether (MTB	E)	250	5.0	.2	
	REC (%)	Control	•	Qual	Surrogates:		•	<u>REC (%)</u>	Control	<u> </u>	Qual
Surrogates:		Limits	-	<u>arri</u>					Limits		
1.4-Bromofluorobenzene	96	80-120			Dibromofluor	omethane		99	80-126		
	100	80-134			Toluene-d8			100	80-120		
1,2-Dichloroethane-d4	100	00-104			TOILIC-UD						

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

D-t-Æines	Date	Date/Time
	•	Page 25 of 30
Units:		ug/L
Method:		EPA 8260B
Preparation:	•	EPA 5030C
Work Order No:		12-01-1819
Date Received:		01/31/12

Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/1 Analy		QC Batch ID
RMW04-W-25.0			12-(01-1819-25-A	01/25/12 13:00	Aqueous	GC/MS Q	02/01/12	02/02 10:1		120201L02
Parameter	Result	<u>RL</u>	<u>DF</u>	Qual	Parameter			Result	RL	DE	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0,50	1		2,2-Dichlorop	propane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlor	opropene		ND	0.50	1	
Bromoform	ND	1.0	1	· · · · · · · · · · · · · · · · · · ·	Ethylbenzene	Э		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene C	hloride		ND	10	1.	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	. 1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	zene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	· · ·
Chloroethane	ND	5.0	1	÷	1,1,1,2-Tetra	chloroethane		ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1,0	1	
Chloromethane	ND	10	1		Tetrachloroe	thene		1.9	1.0	<u>1</u>	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1,0	1 -	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Triflu	oroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND ·	1.0	.1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ene		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1	
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	nylbenzene		ND	1.0	1	
1.1-Dichloroethane	ND	1.0	1		1,3,5-Trimetł	nylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate)		ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND .	0,50	1	
c-1.2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1,0	1	
t-1,2-Dichloroethene	ND	1.0	1	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTB	E)	15 [.]	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>c</u>	Qual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual
1.4-Bromofluorobenzene	96	80-120			Dibromofluor	omethane		97	80-126		
	99	80-134		.•	Toluene-d8			98	80-120		
1,2-Dichloroethane-d4		00-104			000010-00	•		1.0			

RL - Reporting Limit , DF -

DF - Dilution Factor , Qual - Qualifiers

MM





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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

01/31/12 Date Received: Work Order No: Preparation: Method: Units: Page 26 of 30

12-01-1819 EPA 5030C EPA 8260B ug/L

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Project: 42523

Client Sample Number	• .				b Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/T Analy		QC Batch ID
MW18-W-25.0			1	2-01-1	1819-26-A	01/23/12 14:00	Aqueous	GC/MS Q	02/01/12	02/02 10:3		120201L02
Parameter	Res	ult <u>RL</u>	Ţ	DE	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20		1		1,3-Dichlorop	ropane		ND	1.0	1	
Benzene	ND	0.50		1		2,2-Dichlorop	ropane		ND	1.0	1	
Bromobenzene	ND	1.0		1		1,1-Dichlorop	ropene		ND	1.0	1	
Bromochloromethane	ND	1.0		1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0		1		t-1,3-Dichloro	propene		ND	0,50	1	
Bromoform	ND	1.0		1		Ethylbenzene			ND	1.0	1	
Bromomethane	ND	10		1		2-Hexanone			ND	10	_1	
2-Butanone	ND	10		1	· ·	Isopropylbenz	zene		ND	1.0	1	1
n-Butylbenzene	ND	1.0		1		p-Isopropyltol			ND	1.0	1	
sec-Butylbenzene	ND	1.0		1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0		1		4-Methyl-2-Pe			ND	10	1	
Carbon Disulfide	ND	10		1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50		1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0		1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0		1		1,1,1,2-Tetra	chioroethane		ND	1.0	1	
Chloroform	ND	1.0		1		1,1,2,2-Tetra			ND	1.0	1	
Chloromethane	ND	10		1		Tetrachloroet			15	1.0	1	
2-Chlorotoluene	ND	1.0		1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0		1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0		1		1,2,4-Trichlor			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0		1		1,1,1-Trichlor			ND	1.0	.1	
	ND	1.0		1		1,1,2-Trichlor		Joroethane	ND	10	1	:
1,2-Dibromoethane Dibromomethane	ND	1.0		4		1,1,2-Trichlor			ND	1.0	1	
	ND	1.0		1		Trichloroethe			ND	1.0	1	1
1,2-Dichlorobenzene	ND	1.0		1		Trichlorofluor			ND	10	1	
1,3-Dichlorobenzene	ND	1.0		1 A		1,2,3-Trichlor			ND	5.0	1	
1,4-Dichlorobenzene	ND	1.0		1		1,2,4-Trimeth			ND	1.0	1	
Dichlorodifluoromethane	ND	1.0		1. A		1,3,5-Trimeth			ND	1.0	1	
1,1-Dichloroethane	ND ND	0.50		1		Vinyl Acetate			ND	10	1	
1,2-Dichloroethane	ND ND	1.0	,	1		Vinyl Chloride			ND	0.50	1	
1,1-Dichloroethene				1		p/m-Xylene			ND	1.0	. i	
c-1,2-Dichloroethene	ND	1.0		1 1		o-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0		1 ·		Methyl-t-Buty	LEther MTH		ND	1.0	1	
1,2-Dichloropropane	ND	1.0		1				· - /	REC (%)	Control	•	Qual
Surrogates:	<u>RE</u>		trol .	Qua	<u>al</u>	Surrogates:				Limits	-	
	60	Lim				Dillement	th		101	80-126		
1,4-Bromofluorobenzene	96	80-1				Dibromofluor	ometnane		99	80-120		
1,2-Dichloroethane-d4	101	80-1	34			Toluene-d8			99	00-120		

DF - Dilution Factor RL - Reporting Limit ,

Qual - Qualifiers

FAX: (714) 894-7501 7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 •





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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

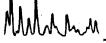
Date Received:	01/31/12
Work Order No;	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L

Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
Trip Blank			12-(01-1819-27-A	01/26/12 00:00	Aqueous	GC/MS Q	02/01/12)2/12 1:22	120201L02
Parameter	Result	RL	<u>DF</u>	Qual	Parameter			Result	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichloropr	opane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichloropr	opane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichloropr	opene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichloro	propene		ND	0,50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichlorop	propene		ND	0,50	1	
Bromoform	ND	1.0	1		Ethylbenzene			ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylbenz	ene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropyltolu	lene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Chl	oride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pe	ntanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenze	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrac	hloroethane		ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetrac			ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroeth	nene		ND	1,0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlord	obenzene		ND .	1.0	1	· · ·
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlord			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlord	bethane		ND	1.0	1	
1.2-Dibromoethane	ND	1.0	1		1,1,2-Trichlord	5-1,2,2-Triflu	loroethane	ND	10	- 1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlord	bethane		ND	1.0	1.	
1.2-Dichlorobenzene	ND	1.0	1		Trichloroethen	e		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluoro	methane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichloro	opropane		ND	5,0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimethy	Ibenzene		ND	1.0	. 1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimethy	Ibenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate		•	ND	10	1	
1.1-Dichloroethene	ND	1.0	1		Vinyl Chloride			ND	0,50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Butyl	Ether (MTB	E)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual	Surrogates:			<u>REC (%)</u>	<u>Contro</u> Limits	<u>) (</u>	Qual
1,4-Bromofluorobenzene	97	80-120			Dibromofluoro	methane		96	80-120	3	
	96	80-134			Toluene-d8			99	80-120	כ	
1,2-Dichloroethane-d4	30	00-104			roluene-uo						

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers







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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

01/31/12 Date Received: 12-01-1819 Work Order No: EPA 5030C Preparation: EPA 8260B Method: Units:

Project: 42523

Client Sample Number	-		-	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		Time yzed	QC Batch ID
Method Blank			099	-14-001-6,961	N/A	Aqueous	GC/MS R	02/01/12		1/12 :51	120201L01
Parameter	Result	RL	DF	Qual	Parameter			<u>Result</u>	RL	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	ropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene	·	ND	0,50	1.	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0,50	1	
Bromoform	ND	1.0	1		Ethylbenzene)		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND.	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1,0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	•
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene	•	ND	1,0	1	
Chlorobenzene	ND	1.0	1		Styrene	· ·		ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	1	
Chloromethane	ND	10	1	• . · · ·	Tetrachloroe			ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1.2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo		loroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1.2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ine :		ND	1.0	- 1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluo	romethane		ND	10	1	
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	1 A S
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimet	ylbenzene		ND	1.0	1	
1.1-Dichloroethane	ND	1.0	1		1.3.5-Trimet	vibenzene		ND	1.0	1	
1.2-Dichloroethane	ND	0.50	1		Vinyl Acetate)		ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	e		ND	0.50	1	
c-1.2-Dichloroethene	ND	1.0	1	k	p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	/I Ether (MTB	E)	ND	1.0	1	
	REC (%)	Control	•	Qual	Surrogates:			<u>REC (%)</u>	Contro	1 1	Qual
Surrogates:		Limits		<u></u>					Limits		
1.4-Bromofluorobenzene	99	80-120			Dibromofluo	omethane		105	80-126	6	
	101	80-134			Toluene-d8			99	80-120)	
1,2-Dichloroethane-d4	101	00-194									

RL - Reporting Limit ,

DF - Dilution Factor .

Qual - Qualifiers

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STREE ACCORDANCE

DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

	Date Received:	01/31/12
te B	Work Order No:	12-01-1819
	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
		Page 29 of 30

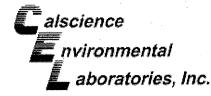
Project: 42523

Client Sample Number				Lab Sample Number	Date/Time Collected Matrix	Instrument	Date Prepared	Date/ Anal		QC Batch ID
Method Blank			099	-14-001-6,971	N/A Aqueous	GC/MS Q	02/01/12	02/0 02		120201L02
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	Parameter		<u>Result</u>	RL	<u>DF</u>	<u>Qual</u>
Acetone	ND	20	1		1,3-Dichloropropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichloropropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichloropropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1	·	c-1,3-Dichloropropene		ND	0.50	- 1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloropropene		ND	0,50	1	
Bromoform	ND	1.0	1		Ethylbenzene		ND	1,0	1	
Bromomethane	ND	10	1		2-Hexanone		ND	10 ·	1	
2-Butanone	ND	10	1		Isopropylbenzene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropyltoluene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Chloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pentanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene		ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenzene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene		ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane		ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetrachloroethane		ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroethene	•	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene		ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlorobenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlorobenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	· '	1,1,1-Trichloroethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichloro-1,2,2-Triflu	loroethane	ŃD	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichloroethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethene	•	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluoromethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1	÷	1,2,3-Trichloropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1.		1,2,4-Trimethylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimethylbenzene		ND	1.0	1	
1.2-Dichloroethane	ND	0,50	1		Vinyl Acetate		ND	10	1	
1.1-Dichloroethene	ND	1.0	1		Vinyl Chloride		ND	0.50	. 1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene		ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene		ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Butyl Ether (MTB	E) ·	ND	1.0	1	• •
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits		Qual	Surrogates:		<u>REC (%)</u>	<u>Control</u> Limits	. <u>(</u>	Qual
1.4-Bromofluorobenzene	95	80-120		•	Dibromofluoromethane		98	80-126		• •
1,2-Dichloroethane-d4	97	80-134			Toluene-d8		100	80-120		
1,2-DIGINOI Dethane-u4		00 104					-			

RL - Reporting Limit

DF - Dilution Factor , Qual - Qualifiers

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

01/31/12
12-01-1819
EPA 5030C
EPA 8260B
ug/L
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Project: 42523

Client Sample Number			Ĺ	.ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch	h ID
Method Blank			099-1	4-001-6,972	N/A	Aqueous	GC/MS Q	02/02/12)2/12 :48	120202L	.01
Parameter	Result	RL	DF	Qual	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	
Acetone	ND	20	1		1,3-Dichlorop	propane		ND	1,0	1		
Benzene	ND	0.50	1		2,2-Dichlorop	•		ND	1.0	1		
Bromobenzene	ND	1.0	1		1,1-Dichlorop			ND	1.0	1		
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor		N.	ND	0,50	1		
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro			ND	0.50	1		
Bromoform	ND	1.0	1		Ethylbenzene	• •		ND	1.0	. 1		
Bromomethane	ND	10	1		2-Hexanone	• .		ND	10	1		
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1		
n-Butylbenzene	ND	1.0	1	•	p-Isopropylto	luene		ND	1.0	1		
sec-Butylbenzene	ND	1.0	1		Methylene Cl	nloride		ND	10	· 1		
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	- 1		
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1		
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1		
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane		ND	1.0	1		
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane		ND	1.0	. 1		
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1		
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1 ·		
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1		
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	1		
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1		
1.2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor	ro-1,2,2-Triflu	loroethane	ND	10	1		
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1		
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1		
1.4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1		
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1		
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	nylbenzene		ND	1.0	1		
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1		
1,1-Dichloroethene	ND	1.0	1		Vinyl Chlorid	Э		ND	0.50	1		
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1		
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene	÷		ND	1.0	1		
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTB	E)	ND	1.0	1		
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qu	ual	Surrogates:			<u>REC (%)</u>	<u>Contro</u> Limits		Qual	
1.4-Bromofluorobenzene	95	80-120		*	Dibromofluor	omethane		97	80-126	;		
1,2-Dichloroethane-d4	100	80-134			Toluene-d8			100	80-120)		
1,2-DIGNOIDelnane-u4	100	00-104										

DF - Dilution Factor Qual - Qualifiers ı.

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Quality Control - Spike/Spike Duplicate



DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	01/31/12
Work Order No:	12-01-1819
Preparation:	EPA 5030C
Method:	EPA 8260B

Project 42523

Quality Control Sample ID GP01-W-22.5		Matrix	instrument		Date Prepared		MS/MSD Batch Number		
		Aqueous	GC/MS R	02/01/12		02/01/12	120201501		
Parameter		SPIKE ADDED	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL Qualifiers		
Benzene	•	50.00	111	109	78-120	1	0-20		
Carbon Tetrachloride		50.00	122	121	67-139	1	0-20		
Chlorobenzene		50.00	109	108	80-120	1	0-20		
1,2-Dibromoethane	· · ·	50,00	111	109	80-123	. 1 .	0-20		
1,2-Dichlorobenzene		50,00	112	110	76-120	1	0-20		
1,2-Dichloroethane		50,00	104	104	76-130	1	0-20		
1,1-Dichloroethene		50.00	108	106	70-130	2	0-27		
Ethylbenzene		50,00	113	112	73-127	1	0-20		
Toluene		50,00	111	110	72-126	1	0-20		
Trichloroethene	·	50,00	113	111	74-122	1	0-20		
Vinyl Chloride		50.00	115	113	65-131	2	0-24		
Methyl-t-Butyl Ether (MTBE)		50.00	107	107	69-123	. 1	0-20		

RPD - Relative Percent Difference, CL - Control Limit

Return to Contents



Quality Control - Spike/Spike Duplicate



DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917	Date Received: Work Order No: Preparation: Method:	01/31/12 12-01-1819 EPA 5030C EPA 8260B

Project 42523

Quality Control Sample ID		Matrix	Instrumen		ate pared	Date Analyzed		ISD Batch lumber
GP08-W-32.5		Aqueous	GC/MS Q	02/0	1/12	02/02/12	120	201502
Parameter		SPIKE ADDED	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Benzene		50.00	105	91	78-120	14	0-20	
Carbon Tetrachloride		50,00	99	84	67-139	16	0-20	
Chlorobenzene		50.00	100	88	80-120	13	0-20	
1,2-Dibromoethane		50.00	106	91	80-123	15	0-20	
.2-Dichlorobenzene	- -	50,00	100	85	76-120	16	0-20	
,2-Dichloroethane		50,00	102	88	76-130	14	0-20	
1,1-Dichloroethene	· .	50.00	94	82	70-130	14	0-27	
Ethylbenzene		50.00	102	89	73-127	14	0-20	
Foluene		50.00	105	90	72-126	15	0-20	
Frichloroethene		50.00	105	88	74-122	17	0-20	
/inyl Chloride		50.00	94	91	65-131	3	0-24	
Methyl-t-Butyl Ether (MTBE)		50.00	104	90	69-123	14	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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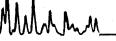
Quality Control - Spike/Spike Duplicate



DPRA Zymax Forensics	Date Received:	01/31/12
600 South Andreasen Drive, Suite B	Work Order No:	12-01-1819
Escondido, CA 92029-1917	Preparation:	EPA 5030C
	Method:	EPA 8260B

Project 42523

Quality Control Sample ID	Matrix	Instrumen		Date epared	Date Analyzed	1.07.1.11	ISD Batch umber
12-02-0085-2	Aqueous	GC/MS Q	02/	02/12	02/02/12	120	202501
					-		
Parameter	SPIKE ADDED	MS %REC	MSD %REC	<u>%REC CL</u>	RPD	RPD CL	<u>Qualifiers</u>
Benzene	50.00	106	92	78-120	11	0-20	
Carbon Tetrachloride	50,00	107	89	67-139	18	0-20	
Chlorobenzene	50.00	106	90	80-120	17	0-20	
1,2-Dibromoethane	50.00	113	96	80-123	16	0-20	
1,2-Dichlorobenzene	50,00	103	89	76-120	14	0-20	
1,2-Dichloroethane	50,00	103	89	76-130	14	0-20	
1,1-Dichloroethene	50,00	97	82	70-130	17	0-27	1
Ethylbenzene	50,00	110	92	73-127	17	0-20	
Toluene	50,00	108	95	72-126	13	0-20	
Trichloroethene	50,00	109	93	74-122	15	0-20	
Vinyl Chloride	50.00	105	92	65-131	13	0-24	•
Methyl-t-Butyl Ether (MTBE)	50.00	110	95	69-123	14	0-20	



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Quality Control - LCS/LCS Duplicate



DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917	Date Received: Work Order No: Preparation: Method:	N/A 12-01-1819 EPA 5030C EPA 8260B
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Project: 42523

Quality Control Sample ID	Matrix	Instrument	Date Prepare	-	Date alyzed	LCS	S/LCSD Batc Number	h .
099-14-001-6,961	Aqueous	GC/MS R	02/01/	12 02/0	1/12		120201L01	
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME_CL	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	50.00	107	109	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	123	119	66-138	54-150	4	0-20	
Chlorobenzene	50.00	105	108	80-120	73-127	2	0-20	
1,2-Dibromoethane	50,00	108	109	80-120	73-127	-1	0-20	
1,2-Dichlorobenzene	50.00	107	110	80-120	73-127	3	0-20	· · · ·
1,2-Dichloroethane	50.00	100	103	80-129	72-137	3	0-20	
1,1-Dichloroethene	50.00	105	106	71-131	61-141	. 1	0-20	
Ethylbenzene	50.00	111	111	80-123	73-130	0	0-20	
Toluene	 50.00	107	110	79-121	72-128	2	0-20	
Trichloroethene	50.00	110	110	80-120	73-127	1	0-20	•
Vinyl Chloride	50.00	121	114	70-136	59-147	6	0-20	
Methyl-t-Butyl Ether (MTBE)	50,00	108	109	72-126	63-135	1	0-22	

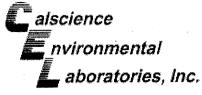
Total number of LCS compounds :12Total number of ME compounds :0Total number of ME compounds allowed :LCS ME CL validation result :Pass

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Quality Control - LCS/LCS Duplicate



DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917	Date Received: Work Order No: Preparation: Method:	N/A 12-01-1819 EPA 5030C EPA 8260B
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Project: 42523

Quality Control Sample ID		Matrix	Instrument	Date Prepare		Date alyzed	LCS	/LCSD Batch Number	· · · ·
099-14-001-6,971		Aqueous	GC/MS Q	02/01/ [,]	12 02/0	2/12	1	20201L02	
Parameter		SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME_CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene		50,00	104	101	80-120	73-127	3	0-20	
Carbon Tetrachloride	•	50.00	99	98	66-138	54-150	0	0-20	
Chlorobenzene		50.00	102	102	80-120	73-127	1	0-20	
1,2-Dibromoethane		50.00	105	105	80-120	73-127	1	0-20	
1.2-Dichlorobenzene		50.00	99	96	80-120	73-127	3	0-20	
1,2-Dichloroethane		50.00	101	99	80-129	72-137	2	0-20	•
1,1-Dichloroethene		50.00	97	93	71-131	61-141	4	0-20	•
Ethylbenzene		50.00	102	102	80-123	73-130	1.	0-20	
Toluene		50.00	103	101	79-121	72-128	2	0-20	
Trichloroethene		50,00	105	101	80-120	73-127	4	0-20	
Vinyl Chloride		50.00	97	96	70-136	59-147	1	0-20	
Methyl-t-Butyl Ether (MTBE)		50.00	104	103	72-126	63-135	1	0-22	

Total number of LCS compounds : 12

Total number of ME compounds : 0

Total number of ME compounds allowed :

LCS ME CL validation result : Pass

CL - Control Limit RPD - Relative Percent Difference,

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Quality Control - LCS/LCS Duplicate



DPRA Zymax Forensics	Date Received:	N/A
600 South Andreasen Drive, Suite B	Work Order No:	12-01-1819
Escondido, CA 92029-1917	Preparation:	EPA 5030C
	Method:	EPA 8260B
•		•

Project: 42523

Quality Control Sample ID				Matrix		Instrument	Date Prepar)ate alyzed	LC	S/LCSD Batch Number	
099-14-001-6,972			A	queous		GC/MS Q	02/02	2/12	02/0	2/12		120202L01	
Parameter			S	PIKE AD	DED	LCS %REC	LCSD %REC	Ö	KEC CL	ME_CL	RPD	<u>RPD CL</u>	Qualifiers
Benzene				50.00		105	103		80-120	73-127	2	0-20	· .
Carbon Tetrachloride				50,00		104	102		66-138	54-150	2	0-20	
Chlorobenzene				50.00	÷.,	104	103		80-120	73-127	2	0-20	
1,2-Dibromoethane			•	50.00		109	108		80-120	73-127	1	0-20	
1,2-Dichlorobenzene		•		50.00		101	101		80-120	73-127	1	0-20	·
1,2-Dichloroethane				50.00		105	104		80-129	72-137	1 -	0-20	
1,1-Dichloroethene				50.00		98	95		71-131	61-141	2	0-20	
Ethylbenzene				50.00		106	104		80-123	73-130	2	0-20	
Toluene				50.00		104	102		79-121	72-128	2	0-20	
Trichloroethene				50.00		105	103		80-120	73-127	2	0-20	
Vinyl Chloride				50.00	•	102	102		70-136	59-147	1	0-20	
Methyl-t-Butyl Ether (MTE	BE)			50.00		104	106		72-126	63-135	2	0-22	

Total number of LCS compounds: 12 Total number of ME compounds : 0 Total number of ME compounds allowed : LCS ME CL validation result ; Pass

> RPD - Relative Percent Difference , CL - Control Limit

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Glossary of Terms and Qualifiers



Work Order Number: 12-01-1819

O	Definition
<u>Qualifier</u>	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution.
	Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The
	associated method blank surrogate spike compound was in control and, therefore, the
	sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out
	of control due to matrix interference. The associated LCS and/or LCSD was in control
	and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD
	was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control
	due to a matrix interference effect. The associated batch LCS/LCSD was in control and,
	hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel
	standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of
	the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of
	the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the
	laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit
	range. Parameter not detected at the indicated reporting limit.
ND	Spike recovery and RPD control limits do not apply resulting from the parameter
Q	concentration in the sample exceeding the spike concentration by a factor of four or
SG	greater. The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not
	corrected for % moisture. All QC results are reported on a wet weight basis.
	MPN - Most Probable Number

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ZYTTAX 600 South Andreasen Drive Suite B Escondido, CA. 92029	en Drive Suite B 329	vox 760.781.3338 fax 760.781.3339					CLIEN	CLENT LUFT DW	, 1-1	CHAIN of CUSTODY	
			and a second second second								
Report to: Dr. Yi Wang (Email: yi.wang@zymaxusa.com)	ng@zymaxusa.com)	. () xov		fax		. 4	ANALYSIS REQUESTED	QUESTED		Turnaround Time	
Company: ZymaX Forensics		Project: 42523				უ/ <u></u> ეე ი				ASAP 🔲 48hr	
Address: 600 South Andreasen Drive, Suite B, Escondido, CA 92029	e, Suite B, Escondido, CA 92029	Project#						· · · · · · · · · · · · · · · · · · ·	112	12hr 🔲 72hr	
		Sampler:			1/ 090	300.0 [v		· · · · · · · · · · · · · · · · · · ·	enistro	🔲 24hr 🔟 std	
Zymax	SAMPLE DISCRIPTION	ipied	Time	Matrix P	Preserve				10 #	Remarks	
42523-1	GP01-W-22.5	1/26/2012	11:00	Water	HCL				80N		(
42523-2	GP01-W-37.5	1/26/2012	11:30	Water		×			1018 		Ģ
42523-3	GP02-W-22.5	1/26/2012	15:00	Water					64 <i>in</i>		
42523-4	GP02-W-37.5	1/26/2012	15:30	Water		<pre></pre>		-	N HC		
42020-0 40503-6	GP03-W-22.0 GP03-W-37.5	1/26/2012	17:00	Water		(×			1963		
42523-7	GP04-W-22.5	1/25/2012	16:00	Water		×			2		
42523-8	GP04-W-37.5	1/25/2012	16:30	Water	HCL	×			5		
42523-9	GP05-W-20.0	1/24/2012	15:30	Water	HCL	×			ŝ		
42523-10	GP05-W-35.0	1/24/2012	16:00	Water		×			- 6 9		
42523-11	GP06-W-22.5	1/24/2012	13:00	Water	HCL	×					
. 42523-12	GP06-W-42.5	1/24/2012	12:00	Water	+	×					
42523-13	GP07-W-22.5	1/23/2012	17:30	Water		×			8		
42523-14	GP07-W-42.5	1/23/2012	17:00	Water		×					
42523-15	GP08-W-22.5	1/25/2012	11:30	Water	\uparrow	×					
42523-16	GP08-W-32.5	1/25/2012	11:00	Water							
42523-17	GP09-W-22.5	1/25/2012	12:30	Water	HCL	× :		·			
42523-18	GP09-W-35.0	1/27/2012	12:30	Water	HCL						
42523-19	GP10-W-22.5	1/27/2012	11:00	Water	-	×					
42523-20	GP10-W-37.5	1/27/2012	10:30	Water							
42523-21	GP11-W-22.5	1/27/2012	14:00	Water	HGL				- 		
		Relinquished by ZymaX Forensics:	by ZymaX	Forensics:			Reciever	- Colic			
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Samnle integrity upon reciept:		Date 1/3	21/1	μ	Time 124:	:00	Date	0131	2 1	Time 14 GU	
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Samples received cold		I.	Valttiant) Y WW	1		Print	2	DANN	VIE	
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Email: yi.wang@ZymaXusa.com				h			•	· · ·)			

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3	Escondulo, V.A. 82028	8000-101.001 XBI											
Report to: Dr. YI Wan	Report to: Dr. YI Wanq (Email: yi,wanq@zymaxusa.com)	vox ()	19	fax			ANAL	ANALYSIS REQUESTED	QUESTE	a a		Turnaround Time	
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Zymax use only	SAMPLE DISCRIPTION	pled	Time	Matrix	Preserve		C 443				,0 <u>,</u> 0 #	temarks	
42523-22	GP11-W-37.5	1/27/2012	14:30	Water	HCL	×							
42523-23	RMW09-W-25.0	1/26/2012	00:6	Water	HCL								
42523-24	RMW09-DUP	.1/26/2012	00:6	Water	HCL	×					530	0	
42523-25	RMW04-W-25.0	1/25/2012	13.00	Water	ΗĊΓ	×						2	
42523-26	MW18-W-25.0	1/23/2012	14:00	Water	ΗĞ	×							Τ
42523-27	Trip Blank	NA	AN	Water	ц	×	-					24	
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Email: yi.wang@Zy	maXusa.com			h					<u>ں</u>			1 2	

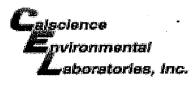
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(<u>819</u>

			Page 43 of 46
E pvironmental	WORK ORDER #: 12	2-01-[7879
Laboratories, Inc. SAMPLE	RECEIPT FORM		er <u></u> of
CLIENT: ZYMAX			1/31/12
TEMPERATURE: Thermometer ID: SC3 (Criteria Temperature 1.9 °C - 0.3 °C (CF) Sample(s) outside temperature criteria (PM/APM Sample(s) outside temperature criteria but received Received at ambient temperature, placed on Ambient Temperature: Air Filter	= <u> </u>	f sampling.	Sample Initial:
CUSTODY SEALS INTACT: □ Cooler □ □ Sample □		□ N/A	Initial: Initial:7
SAMPLE CONDITION: Chain-Of-Custody (COC) document(s) received w COC document(s) received complete	iged in based on sample labels.		
 □ No analysis requested. □ Not relinquished. □ Sampler's name indicated on COC Sample container label(s) consistent with COC 	🛛		
Sample container(s) intact and good condition Proper containers and sufficient volume for analy	z ses requested z		
Analyses received within holding time pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen	received within 24 hours \Box		
Proper preservation noted on COC or sample cor			
Volatile analysis container(s) free of headspace Tedlar bag(s) free of condensation CONTAINER TYPE:			
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □S Water: □VOA ☑VOAh □VOAna₂ □125AGB	□125AGBh □125AGBp □1		GB na₂ □1AGB s
□ 500AGB □ 500AGJ □ 500AGJs □ 250AGB □ 250PB □ 250PBn □ 125PB □ 125PBznna □ Air: □ Tedlar [®] □ Summa [®] Other: □ Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bot Preservative: h: HCL n: HNO ₃ na ₂ :Na ₂ S ₂ O ₃ na: NaOH p: H ₃ PO ₄ s	100PJ □100PJna₂ □ Trip Blank Lot#: <u>N/A</u> La tle Z: Ziploc/Resealable Bag E: Enve	abeled/Chec	ked by: <u>PT</u> wed by: <u>TM</u>

SOP T100_090 (12/06/11)

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WORK ORDER #: 12-01-1 8 1 9

SAMPLE ANOMALY FORM

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☐ Leaking □ Other:	(transf	erred inte	o Client's Te	edlar [®] Ba	ag*)				
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		[]		1		1		Anglusia	
	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis	
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			4					SOP T100_090 (08	3/31/11

Kristin Beckley

From: Sent: To: Subject: Ryan Woon [ryan.woon@dpra.com] Wednesday, February 01, 2012 11:48 AM Kristin Beckley RE: Sample Date and Time 42523

Kristin,

If you can please revise the date and time on those two samples. I made a mistake when typing that out on the COC. Thanks for checking on that.

Ryan

Ryan Woon Laboratory Technician Zymax Forensics, a DPRA Company Tel : (760)-781-3338 ext. 41 600 S. Andreasen Drive, Suite B Escondido, CA 92029

> -----Original Message----- **From:** Kristin Beckley [mailto:KBeckley@calscience.com] **Sent:** Wednesday, February 01, 2012 9:01 AM **To:** Ryan Woon **Subject:** Sample Date and Time 42523

Ryan,

Sample #18 (GP-9-W-35.0) listed on COC as sampled on 1/27/12, but listed on container as 1/25/12 collection

Sample #24 (RMW09-DUP) listed on COC as sampled at 9:00, but listed on container as 10:00 collection

1

We've logged these in based on the COC information, but please let me know if you would like these revised to match the sample containers.

Thank you,

Kristin Beckley Project Manager Calscience Environmental Laboratories, Inc. 7440 Lincoln Way Garden Grove, CA 92841-1427 Phone: 714-895-5494 x230 Fax: 714-894-7501 KBeckley@calscience.com

From: Ryan Woon [mailto:ryan.woon@dpra.com] Sent: Monday, January 30, 2012 12:08 PM To: Kristin Beckley Subject: Sample Pick Up

Hi Kristin,

Can you please schedule a sample pick up for us, tomorrow in the afternoon for VOC analysis. Thanks.

Ryan

Ryan Woon Laboratory Technician Zymax Forensics, a DPRA Company Tel : (760)-781-3338 ext. 41 600 S. Andreasen Drive, Suite B Escondido, CA 92029

· · · · · · · · · · · · · · · · · · ·	Email: yi.wang@ZymaXusa.com	Custody seals			Sample Integrity upon reciept:			Comments:		42523-21	42523-20	42523-19	42523-18	42523-16	42523-15	42523-14	42523-13	42523-12	49593-11	42523-10	42523-8	42523-7	42523-6	42523-5	42523-4	42523-3	42523-2	42523-1	Zymax use only		Address: 600 South Andreasen Drive, Suite B, Escondido, CA 92029	Company: ZymaX Forensics	Report to: Dr. Yi Wang (Email: yi.wang@zymaxusa.com)	Zymax 600 South Andreasen Drive Suite B Escondido, CA. 92029	
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WORK ORDER NUMBER: 12-06-1519

The difference is service



AIR SOIL WATER MARINE CHEMISTRY

Analytical Report For Client: DPRA Zymax Forensics Client Project Name: 42668 Attention: Dr. Yi Wang 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

-H.Burg

Approved for release on 06/27/2012 by: Kristin Beckley Project Manager



Email your PM

ResultLink)

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2	Client Sample Data	4 4
3	Quality Control Sample Data	17 17 18
4	Glossary of Terms and Qualifiers	19
5	Chain of Custody/Sample Receipt Form	20





Client: DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917 Attn: Dr. Yi Wang
 Work Order:
 12-06-1519

 Project name:
 42668

 Received:
 06/21/12 17:50

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
GP17-W-20.0 (12-06-1519-9)						
Toluene	6.2		1.0	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Seneracian Maccondration

DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 1 of 13

Project: 42668

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Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		'Time yzed	QC Batch ID
GP13-W-21.0			12-06	-1519-1-A	06/19/12 10:30	Aqueous	GC/MS CC	06/23/12	06/2 15:	3/12 :30	120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	9		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	;	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	;	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor	robenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Trifl	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	ylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qı</u>	<u>ual</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u> </u>	<u>Qual</u>
1,4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		99	80-126		
1.2-Dichloroethane-d4	100	80-134			Toluene-d8			99	80-120		
		00 104							55 120		



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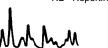
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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 2 of 13

Project: 42668

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Client Sample Number			L	.ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP13-W-29.0			12-06	-1519-2-A	06/19/12 10:00	Aqueous	GC/MS CC	06/23/12		23/12 :58	120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	;		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	9	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	;	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	obenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	o-1,2,2-Trifle	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	lylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	lylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qı</u>	ual	Surrogates:			<u>REC (%)</u>	Control Limits	<u> (</u>	Qual
1,4-Bromofluorobenzene	99	80-120			Dibromofluor	omethane		98	80-126		
1.2-Dichloroethane-d4	99	80-134			Toluene-d8			100	80-120		
		50 104							20 120		



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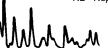
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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42668

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Client Sample Number			L	.ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time yzed	QC Batch ID
GP14-W-22.0			12-06	-1519-3-A	06/19/12 13:30	Aqueous	GC/MS CC	06/23/12		3/12 :27	120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	;		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane)	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	;	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor	obenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	o-1,2,2-Trifl	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	oethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	lylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	lylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qı</u>	ual	Surrogates:			<u>REC (%)</u>	Control Limits	<u> </u>	Qual
1,4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		104	80-126		
1.2-Dichloroethane-d4	104	80-134			Toluene-d8			100	80-120		
		50 104							20 120		



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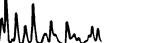
STREAM IN ACCOMPANY

DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 4 of 13

Project: 42668

-]											
Client Sample Number			l	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP14-W-32.0			12-06	6-1519-4-A	06/19/12 14:30	Aqueous	GC/MS CC	06/23/12		23/12 :55	120623L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	;		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	•	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	•	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlor			ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor	, ,	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlor	oethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe			ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlor	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	iylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	ual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	L <u>(</u>	<u>Qual</u>
1,4-Bromofluorobenzene	97	80-120			Dibromofluor	omethane		98	80-126		
1,2-Dichloroethane-d4	97	80-134			Toluene-d8			101	80-120		



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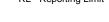
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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42668

										· ~ 9	
Client Sample Number			L	ab Sample. Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP15-W-22.0			12-06	-1519-5-A	06/19/12 15:45	Aqueous	GC/MS CC	06/23/12		23/12 :24	120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	9		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	;	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	;	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor	robenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Trifl	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlor	ropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	nylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	nylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	Э		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qı</u>	ual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>L (</u>	Qual
1,4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		98	80-126		
1,2-Dichloroethane-d4	98	80-134			Toluene-d8			100	80-120		



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Qual - Qualifiers ,



Seneracian Maccondration

DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42668

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Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP15-W-34.0			12-0	6-1519-6-A	06/19/12 17:00	Aqueous	GC/MS CC	06/23/12		23/12 :53	120623L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	;		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylbenz	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropyltol	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pe	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	9	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane)	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor	obenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlor	oethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor	o-1,2,2-Trifl	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlor	oethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlor	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	ylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	ual	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	L <u>(</u>	Qual
1,4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		103	80-126		
1,2-Dichloroethane-d4	100	80-134			Toluene-d8			101	80-120		

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Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42668

Client Sample Number			L	ab Sample. Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP16-W-22.0			12-06	-1519-7-A	06/19/12 08:05	Aqueous	GC/MS CC	06/23/12		23/12 :21	120623L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	;		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylbenz	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropyltol	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pe	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	•	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	;	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor	obenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlor	oethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor	o-1,2,2-Trifl	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlor	oethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlor	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	lylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	lylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qı</u>	<u>ial</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u> (</u>	Qual
1,4-Bromofluorobenzene	96	80-120			Dibromofluor	omethane		96	80-126		
1,2-Dichloroethane-d4	97	80-134			Toluene-d8			100	80-120		
c-1,2-Dichloroethene t-1,2-Dichloroethene 1,2-Dichloropropane <u>Surrogates:</u> 1,4-Bromofluorobenzene	ND ND <u>REC (%)</u> 96	1.0 1.0 <u>Control</u> <u>Limits</u> 80-120	1 1 1	ual	p/m-Xylene o-Xylene Methyl-t-Buty <u>Surrogates:</u> Dibromofluoro	1 Ether (MTE	BE)	ND ND ND <u>REC (%)</u> 96	1.0 1.0 1.0 <u>Control</u> <u>Limits</u> 80-126	1 1 1 <u>(</u>	Qual

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Qual - Qualifiers

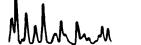




Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42668

Client Sample Number				Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP16-W-32.0			12-0	06-1519-8-A	06/18/12 16:30	Aqueous	GC/MS CC	06/23/12		23/12 :50	120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			Result	<u>RL</u>	DF	<u>Qual</u>
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	propane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	 ?		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto			ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Cl			ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P			ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene			ND	1.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	;	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra			ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet			ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo			ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo			ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo		uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo			ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe			ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor			ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo			ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth			ND	1.0	1	
1.1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth			ND	1.0	1	
1.2-Dichloroethane	ND	0.50	1		Vinyl Acetate	,		ND	10	1	
1.1-Dichloroethene	ND	1.0	1		Vinyl Chloride			ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	RE)	ND	1.0	1	
		-	-	Qual)	<u>REC (%)</u>	Control		Qual
Surrogates:	<u>REC (%)</u>	Limits	<u> </u>	<u>angi</u>	Surrogates:			. ,	Limits		
1,4-Bromofluorobenzene	100	80-120			Dibromofluor	omethane		100	80-126		
1,2-Dichloroethane-d4	98	80-134			Toluene-d8			101	80-120	1	



7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



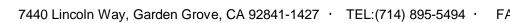


Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP17-W-20.0			12-06-1519-9-A		06/19/12 07:30	Aqueous	Aqueous GC/MS CC		06/23/12 19:18		120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	9		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene	ND	10	1			
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ND	1.0	1			
Chlorobenzene	ND	1.0	1		Styrene	ND	1.0	1			
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	ND	1.0	1			
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	e	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			6.2	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	robenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	ro-1,2,2-Trifl	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	ropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	nylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	ylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qı</u>	<u>ial</u>	Surrogates:			<u>REC (%)</u>	Control Limits		Qual
1,4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		102	80-126		
1,2-Dichloroethane-d4	105	80-134			Toluene-d8			100	80-120		

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FAX: (714) 894-7501





Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42668

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Client Sample Number			I	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP17-W-30.0			12-06	6-1519-10-A	06/18/12 15:00	Aqueous	GC/MS CC	06/23/12	06/23/12 19:47		120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	;		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene		ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	•	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	•	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor	obenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlor	oethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor	o-1,2,2-Triflu	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlor	oethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlor	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	ylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>		-	ual	Surrogates:		,	<u>REC (%)</u>	Control Limits	-	<u>Qual</u>
1,4-Bromofluorobenzene	99	80-120			Dibromofluor	omethane		97	80-126		
1,2-Dichloroethane-d4	98	80-134			Toluene-d8			100	80-120		

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Qual - Qualifiers





Analytical Report

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DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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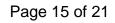
Project: 42668

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Client Sample Number			L	ab Sample. Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
Trip Blank			12-06-1519-11-A		06/18/12 00:00	Aqueous	Aqueous GC/MS CC		06/23/12 12:10		120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	;		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylbenz	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropyltol	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pe	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene	ND	10	1			
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ND	1.0	1			
Chlorobenzene	ND	1.0	1		Styrene	ND	1.0	1			
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	ND	1.0	1			
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	•	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor	obenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlor	oethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor	o-1,2,2-Trifl	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlor	oethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlor	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	iylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	lylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	Э		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	I Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qı</u>	<u>ial</u>	Surrogates:			<u>REC (%)</u>	<u>Contro</u> Limits	<u>L (</u>	<u>Qual</u>
1,4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		99	80-126		
1,2-Dichloroethane-d4	101	80-134			Toluene-d8			99	80-120		

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Analytical Report



ACCORD ١N ACCRED.

DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
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Project: 42668

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Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
GP14-W-Dup			12-06-1519-12-A		06/19/12 14:30	Aqueous	Aqueous GC/MS CC		06/23/12 20:15		120623L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	oropene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene)		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-P	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene	ND	10	1			
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ND	1.0	1			
Chlorobenzene	ND	1.0	1		Styrene	ND	1.0	1			
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	ND	1.0	1			
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	•	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlo	obenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlo	obenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlor	oethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlo	o-1,2,2-Trifl	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	oethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlo	opropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	ylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	e		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	Control Limits	<u>Qı</u>	ual	Surrogates:	·		<u>REC (%)</u>	<u>Control</u> Limits	<u> </u>	<u>Qual</u>
1,4-Bromofluorobenzene	99	80-120			Dibromofluor	omethane		101	80-126		
1,2-Dichloroethane-d4	104	80-134			Toluene-d8			100	80-120		
		00 104			1010010-00				50 120		

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7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report

Page 16 of 21



DPRA Zymax Forensics 600 South Andreasen Drive, Suite B Escondido, CA 92029-1917

Date Received:	06/21/12
Work Order No:	12-06-1519
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L
	Page 13 of 13

Project: 42668

,										3-	
Client Sample Number			l	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
Method Blank			099- 1	14-001-8,129	N/A	Aqueous	GC/MS CC	06/23/12	06/23/12 11:41		120623L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Acetone	ND	20	1		1,3-Dichlorop	oropane		ND	1.0	1	
Benzene	ND	0.50	1		2,2-Dichlorop	oropane		ND	1.0	1	
Bromobenzene	ND	1.0	1		1,1-Dichlorop	propene		ND	1.0	1	
Bromochloromethane	ND	1.0	1		c-1,3-Dichlor	opropene		ND	0.50	1	
Bromodichloromethane	ND	1.0	1		t-1,3-Dichloro	propene		ND	0.50	1	
Bromoform	ND	1.0	1		Ethylbenzene	9		ND	1.0	1	
Bromomethane	ND	10	1		2-Hexanone			ND	10	1	
2-Butanone	ND	10	1		Isopropylben	zene		ND	1.0	1	
n-Butylbenzene	ND	1.0	1		p-Isopropylto	luene		ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Methylene Ch	nloride		ND	10	1	
tert-Butylbenzene	ND	1.0	1		4-Methyl-2-Pe	entanone		ND	10	1	
Carbon Disulfide	ND	10	1		Naphthalene			ND	10	1	
Carbon Tetrachloride	ND	0.50	1		n-Propylbenz	ene		ND	1.0	1	
Chlorobenzene	ND	1.0	1		Styrene		ND	1.0	1		
Chloroethane	ND	5.0	1		1,1,1,2-Tetra	chloroethane	•	ND	1.0	1	
Chloroform	ND	1.0	1		1,1,2,2-Tetra	chloroethane	•	ND	1.0	1	
Chloromethane	ND	10	1		Tetrachloroet	hene		ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		Toluene			ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,3-Trichlor	robenzene		ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,2,4-Trichlor	robenzene		ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,1-Trichlo	roethane		ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichlor	ro-1,2,2-Triflu	uoroethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,1,2-Trichlo	roethane		ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichloroethe	ne		ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Trichlorofluor	omethane		ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,3-Trichlor	ropropane		ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,2,4-Trimeth	ylbenzene		ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		1,3,5-Trimeth	ylbenzene		ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Acetate			ND	10	1	
1,1-Dichloroethene	ND	1.0	1		Vinyl Chloride	Э		ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1		p/m-Xylene			ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		o-Xylene			ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	1.0	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Q	ual	Surrogates:			<u>REC (%)</u>	<u>Contro</u> Limits	<u>L</u> <u>C</u>	Qual
1,4-Bromofluorobenzene	98	80-120			Dibromofluor	omethane		98	80-126	i	
1,2-Dichloroethane-d4	98	80-134			Toluene-d8			98	80-120	I	

FAX: (714) 894-7501





 Date Received:
 06/21/12

 Work Order No:
 12-06-1519

 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

Project 42668

Quality Control Sample ID			Matrix	rix Instrument		Date Prepared		Date Analyzed		ISD Batch umber
12-06-1570-1			Aqueous	GC/N	IS CC	06/2	3/12	06/23/12	120	623S01
<u>Parameter</u>	<u>SAMPLE</u> <u>CONC</u>	<u>SPIKE</u> ADDED	MS CONC	<u>MS</u> <u>%REC</u>	MSD CONC	<u>MSD</u> <u>%REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Benzene	ND	50.00	55.88	112	59.25	118	78-120	6	0-20	
Carbon Tetrachloride	ND	50.00	52.07	104	54.01	108	67-139	4	0-20	
Chlorobenzene	ND	50.00	55.57	111	58.99	118	80-120	6	0-20	
1,2-Dibromoethane	ND	50.00	51.91	104	54.14	108	80-123	4	0-20	
1,2-Dichlorobenzene	ND	50.00	54.45	109	59.80	120	76-120	9	0-20	
1,2-Dichloroethane	ND	50.00	57.18	114	59.34	119	76-130	4	0-20	
1,1-Dichloroethene	ND	50.00	47.13	94	49.45	99	70-130	5	0-27	
Ethylbenzene	ND	50.00	55.63	111	59.08	118	73-127	6	0-20	
Toluene	ND	50.00	56.05	112	58.44	117	72-126	4	0-20	
Trichloroethene	ND	50.00	54.01	108	56.54	113	74-122	5	0-20	
Vinyl Chloride	ND	50.00	54.74	109	56.78	114	65-131	4	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	48.10	96	48.78	98	69-123	1	0-20	

Return to Contents

RPD - Relative Percent Difference, CL - Control Limit

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Date Received:N/AWork Order No:12-06-1519Preparation:EPA 5030CMethod:EPA 8260B

Project: 42668

Quality Control Sample ID	Ma	Matrix		Instrument			ate Ilyzed	LCS	1	
099-14-001-8,129	Aque	Aqueous		GC/MS CC		06/23	3/12	1		
Parameter	<u>SPIKE</u> ADDED	LCS CONC	LCS <u>%REC</u>	LCSD CONC	<u>LCSD</u> <u>%REC</u>	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	50.00	55.45	111	56.47	113	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	52.18	104	54.19	108	66-138	54-150	4	0-20	
Chlorobenzene	50.00	55.91	112	56.31	113	80-120	73-127	1	0-20	
1,2-Dibromoethane	50.00	51.93	104	52.27	105	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	50.00	55.50	111	56.54	113	80-120	73-127	2	0-20	
1,2-Dichloroethane	50.00	55.74	111	57.10	114	80-129	72-137	2	0-20	
1,1-Dichloroethene	50.00	46.62	93	48.42	97	71-131	61-141	4	0-20	
Ethylbenzene	50.00	56.06	112	56.09	112	80-123	73-130	0	0-20	
Toluene	50.00	56.19	112	57.01	114	79-121	72-128	1	0-20	
Trichloroethene	50.00	55.36	111	54.98	110	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	56.12	112	57.93	116	70-136	59-147	3	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	47.79	96	49.02	98	72-126	63-135	3	0-22	

Total number of LCS compounds : 12 Total number of ME compounds : 0 Total number of ME compounds allowed :

LCS ME CL validation result : Pass

L M

RPD - Relative Percent Difference, CL - Control Limit

1

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Glossary of Terms and Qualifiers



Work Order Number: 12-06-1519

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
Х	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

MPN - Most Probable Number

lhi

600 South Andreasen Drive Suite B	vox 760.781.3338					Ç				CHAIN 6	CHAIN of CUSTODY	≻
LATING Escondido, CA. 92029	fax 760.781.3339			AIGI-90-ZI		5						
/mcc.com/mc/mcc/////////////////////////	xov	<u>4</u>	fax			ANALYSI	ANALYSIS REQUESTED	TED		1 1	Turnaround Time	e
Report to: Dr. 11 Wang (Email: yi.wang@zyinaxusa.com)	Project: 42668									AS.	ASAP 🔲 48hr	
Company: zymax rorensics	Project #					IL ISON			SIE	121	12hr 🔲 72hr	
Address: 600 South Andreasen Urive, Suite B, Esconaruo, CA 32023	Sampler:				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1] 0.005			ontaine:		24hr 😰 std	
Zymax SAMPLE DISCRIPTION SAMPLE DISCRIPTION	Ipled	Time	Matrix	Preserve					o 10 #		Remarks	
	6/19/2012	10:30	Water	HCI	×				2			
	6/19/2012	10:00	Water	HCI	×				~		-	
	6/19/2012	13:30	Water	P	× ;				~ ~			
	6/19/2012	14:30	Water						4 0			
42668-5 GP15-W-22.0	6/19/2012 6/10/2012	17:00	Water	P P					2			
	6/19/2012	8:05	Water	HCI	×				2			
42000-1 C. 10 10 10 10 10 10 10 10 10 10 10 10 10	6/18/2012	16:30	Water	HCI	×				2			
	6/19/2012	7:30	Water	HCI	×				N		e e e e e e e e e e e e e e e e e e e	
	6/18/2012	15:00	Water	HCI	×				8			
	AN		Water	HCI	×				2			
	6/19/2012	14:30	Water	HCI	×				2			
		_										
	Relinquished by ZymaX Forensics:	by ZymaX	Forensics			Re	Recieved by	Æ				
Comments:	3	yar We	Ś			Drint				1		
	Print Ruch	いく	Moon					24 61	177	TIAN	2	
Bill 3rd party:	Company A	X S M N				<u>රි</u>	Company	Ő	ل		¢ L	Ļ
Sample integrity upon reciept:		1112/3		Time 15	2	5 B B B B B B B B B B B B B B B B B B B	Date OD		7	, Tir	Time U.A	δ
Samples received intact	Signature					Sic	Signature	Å	DANNIG	L		
Samples received cold	Print (B	K PIS	CRISTIAN C	P		Print	nt	<u> </u>	DANK	νΥ	5	
Custody seals	Company	0	Cet			<u>، 8 ا</u>	Company	611-	Car	1	í de la compañía de	C
	Date CO	4117		Time		V Date	2 2			Page		2

		Page 21 of 21
WORK ORDER #: 1	2-06	-7579
SAMPLE RECEIPT FOR		oler <u></u> of <u></u>
		06/21/12
TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)	/	
Temperature $1 \cdot 9 \circ C - 0.3 \circ C (CF) = 1 \cdot 6 \circ C $	lank	□ Sample
□ Sample(s) outside temperature criteria (PM/APM contacted by:).		
Sample(s) outside temperature criteria but received on ice/chilled on same day of	of sampling	I.
Received at ambient temperature, placed on ice for transport by Courie		
Ambient Temperature: Air Filter		Initial: 10
CUSTODY SEALS INTACT:		
	□ N/A	Initial: VA
□ Sample □ □ No (Not Intact) ☑ Not Present		Initial:
SAMPLE CONDITION: Yes	\$	No N/A
Chain-Of-Custody (COC) document(s) received with samples	•	
COC document(s) received complete	-	
\Box Collection date/time, matrix, and/or # of containers logged in based on sample labels.		
\Box No analysis requested. \Box Not relinquished. \Box No date/time relinquished.		
Sampler's name indicated on COC \Box		
Sample container label(s) consistent with COC		
Sample container(s) intact and good condition	-	
Proper containers and sufficient volume for analyses requested		
Analyses received within holding time		
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours \Box		
Proper preservation noted on COC or sample container		
□ Unpreserved vials received for Volatiles analysis		
Volatile analysis container(s) free of headspace		
Tedlar bag(s) free of condensation		
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores [®] [∃TerraCo	ores [®] □
Water: □VOA	IAGB 🗆 1	IAGB na₂ ⊡1AGB s
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs □]1PB □′	1PB na □500PB
□250PB □250PBn □125PB □125PBznna □100PJ □100PJna ₂ □	□	□
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#: N/A L Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Enve Preservative: h: HCL n: HNO ₃ na ₂ :Na ₂ S ₂ O ₃ na: NaOH p: H ₃ PO ₄ s: H ₂ SO ₄ u: Ultra-pure znna: ZnAc ₂ +NaOH	elope Re v	viewed by: <u>////</u> viewed by: <u>b</u> ·C canned by: <u>b</u> ·C

SOP T100_090 (12/06/11)



Specialty Analytical

11711 SE Capps Road, Ste B Clackamas, Oregon 97015 TEL: 503-607-1331 FAX: 503-607-1336 Website: <u>www.specialtyanalytical.com</u>

June 29, 2012

James Peale Maul Foster & Alongi 400 E. Mill Plain Blvd. Suite 400 Vancouver, Washington 98660 TEL: (360) 694-2691 FAX (360) 906-1958 RE: Sunnyside / 0346.04.02 Dear James Peale:

Order No.: 1206163

Specialty Analytical received 10 sample(s) on 6/21/2012 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

anud

Marty French Lab Director

CLIENT: Project:	Maul Foster & Alongi Sunnyside / 0346.04.02			Collec	tion Date:	: 6/19/2012 8:30:00 AM		
Lab ID:	1206163-001							
Client Sample ID:	GP13-S-7.5		Matrix: SOIL					
Chefte Bample ID:	GI 15 D 7.5				iviati ixi	DOIL		
Analyses	0110 0 7.0	Result	RL	Qual	Units	DF	Date Analyzed	
			RL PER CLIENT	Qual			Date Analyzed Analyst: knb	

Date Reported: 29-Jun-12

Maul Foster & Alongi

Collection Date: 6/19/2012 8:40:00 AM

CLIENT: Project: Sunnyside / 0346.04.02 1206163-002 Lab ID: **Client Sample ID:** GP13-S-12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	S BY GC/MS	SW8260B				Analyst: ep
1,1,1,2-Tetrachloroethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,1,1-Trichloroethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,1,2,2-Tetrachloroethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,1,2-Trichloroethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,1-Dichloroethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,1-Dichloroethene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,1-Dichloropropene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2,3-Trichlorobenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2,3-Trichloropropane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2,4-Trichlorobenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2,4-Trimethylbenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2-Dibromo-3-chloropropane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2-Dibromoethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2-Dichlorobenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2-Dichloroethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,2-Dichloropropane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,3,5-Trimethylbenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,3-Dichlorobenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,3-Dichloropropane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
1,4-Dichlorobenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
2,2-Dichloropropane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
2-Butanone	ND	49.8		µg/Kg-dry	1	6/25/2012 11:54:00 AM
2-Chlorotoluene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
2-Hexanone	ND	24.9		µg/Kg-dry	1	6/25/2012 11:54:00 AM
4-Chlorotoluene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
4-Isopropyltoluene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
4-Methyl-2-pentanone	ND	49.8		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Acetone	ND	124		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Benzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Bromobenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Bromochloromethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Bromodichloromethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Bromoform	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Bromomethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Carbon Disulfide	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Carbon tetrachloride	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Chlorobenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Chloroethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Chloroform	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM

Date Reported: 29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-002

Client Sample ID: GP13-S-12.0

Collection Date: 6/19/2012 8:40:00 AM

nalyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS		SW8260B				Analyst: ep
Chloromethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
cis-1,2-Dichloroethene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
cis-1,3-Dichloropropene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Dibromochloromethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Dibromomethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Dichlorodifluoromethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Ethylbenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Hexachlorobutadiene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Hexane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AN
Isopropylbenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
m,p-Xylene	ND	24.9		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Methyl tert-butyl ether	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Methylene Chloride	ND	62.2		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Naphthalene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AN
n-Butylbenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AN
n-Propylbenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
o-Xylene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
sec-Butylbenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Styrene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
tert-Butylbenzene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Tetrachloroethene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Toluene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
trans-1,2-Dichloroethene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
trans-1,3-Dichloropropene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Trichloroethene	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Trichlorofluoromethane	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AM
Vinyl Chloride	ND	12.4		µg/Kg-dry	1	6/25/2012 11:54:00 AN
Surr: 1,2-Dichloroethane-d4	97.9	71.5-112		%REC	1	6/25/2012 11:54:00 AM
Surr: 4-Bromofluorobenzene	108	75.7-122		%REC	1	6/25/2012 11:54:00 AM
Surr: Dibromofluoromethane	97.9	64.3-124		%REC	1	6/25/2012 11:54:00 AM
Surr: Toluene-d8	102	74.9-120		%REC	1	6/25/2012 11:54:00 AM

CLIENT: Project:	Maul Foster & Alongi Sunnyside / 0346.04.02			Collec	tion Date:	012 10:30:00 AM	
Lab ID:	1206163-003						
Client Sample ID:	GP14-S-7.5		Matrix: SOIL				
enene sampre 121					11111111	DOIL	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed
			RL PER CLIENT	Qual			Date Analyzed Analyst: knb

Date Reported: 29-J

29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-004Client Sample ID:GP14-S-12.0

Collection Date: 6/19/2012 10:40:00 AM

nalyses	Result	RL	Qual	Units	DF	Date Analyzed
/OLATILE ORGANIC COMPOUNDS BY GC/MS		SW8260B				Analyst: ep
1,1,1,2-Tetrachloroethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,1,1-Trichloroethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,1,2,2-Tetrachloroethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,1,2-Trichloroethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,1-Dichloroethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,1-Dichloroethene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,1-Dichloropropene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2,3-Trichlorobenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2,3-Trichloropropane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2,4-Trichlorobenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2,4-Trimethylbenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2-Dibromo-3-chloropropane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2-Dibromoethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2-Dichlorobenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2-Dichloroethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,2-Dichloropropane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,3,5-Trimethylbenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,3-Dichlorobenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,3-Dichloropropane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
1,4-Dichlorobenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
2,2-Dichloropropane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
2-Butanone	ND	45.4		µg/Kg-dry	1	6/25/2012 12:21:00 PM
2-Chlorotoluene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
2-Hexanone	ND	22.7		µg/Kg-dry	1	6/25/2012 12:21:00 PM
4-Chlorotoluene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
4-Isopropyltoluene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
4-Methyl-2-pentanone	ND	45.4		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Acetone	ND	113		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Benzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Bromobenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Bromochloromethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Bromodichloromethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Bromoform	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Bromomethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Carbon Disulfide	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Carbon tetrachloride	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Chlorobenzene	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Chloroethane	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM
Chloroform	ND	11.3		µg/Kg-dry	1	6/25/2012 12:21:00 PM

Date Reported: 29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-004

Client Sample ID: GP14-S-12.0

Collection Date: 6/19/2012 10:40:00 AM

nalyses	Result	RL	Qual Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	SW8260B			Analyst: ep	
Chloromethane	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
cis-1,2-Dichloroethene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
cis-1,3-Dichloropropene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
Dibromochloromethane	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
Dibromomethane	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
Dichlorodifluoromethane	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
Ethylbenzene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
Hexachlorobutadiene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
Hexane	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Isopropylbenzene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
m,p-Xylene	ND	22.7	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Methyl tert-butyl ether	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Methylene Chloride	ND	56.7	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Naphthalene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
n-Butylbenzene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
n-Propylbenzene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
o-Xylene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
sec-Butylbenzene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Styrene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
tert-Butylbenzene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Tetrachloroethene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Toluene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
trans-1,2-Dichloroethene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PM
trans-1,3-Dichloropropene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Trichloroethene	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Trichlorofluoromethane	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Vinyl Chloride	ND	11.3	µg/Kg-dry	1	6/25/2012 12:21:00 PN
Surr: 1,2-Dichloroethane-d4	95.5	71.5-112	%REC	1	6/25/2012 12:21:00 PN
Surr: 4-Bromofluorobenzene	108	75.7-122	%REC	1	6/25/2012 12:21:00 PN
Surr: Dibromofluoromethane	98.9	64.3-124	%REC	1	6/25/2012 12:21:00 PN
Surr: Toluene-d8	103	74.9-120	%REC	1	6/25/2012 12:21:00 PM

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02				Collec	tion Date:	6/19/2	6/19/2012 4:00:00 PM		
Lab ID:	1206163-005								
Client Sample ID:	GP15-S-5.0				Matrix	SOIL			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed		
HOLD PER CLIENT	REQUEST	F	PER CLIENT				Analyst: knb		
Hold		Hold	0			1	6/28/2012 8:49:54 AM		

Date Reported: 29-J

29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-006Client Sample ID:GP15-S-14.0

Collection Date: 6/19/2012 4:10:00 PM

nalyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS		SW8260B				Analyst: ep
1,1,1,2-Tetrachloroethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,1,1-Trichloroethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,1,2,2-Tetrachloroethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,1,2-Trichloroethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,1-Dichloroethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,1-Dichloroethene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,1-Dichloropropene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2,3-Trichlorobenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2,3-Trichloropropane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2,4-Trichlorobenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2,4-Trimethylbenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2-Dibromo-3-chloropropane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2-Dibromoethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2-Dichlorobenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2-Dichloroethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,2-Dichloropropane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,3,5-Trimethylbenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,3-Dichlorobenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
1,3-Dichloropropane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
1,4-Dichlorobenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
2,2-Dichloropropane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
2-Butanone	ND	41.4		µg/Kg-dry	1	6/25/2012 12:47:00 PM
2-Chlorotoluene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
2-Hexanone	ND	20.7		µg/Kg-dry	1	6/25/2012 12:47:00 PN
4-Chlorotoluene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
4-Isopropyltoluene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
4-Methyl-2-pentanone	ND	41.4		µg/Kg-dry	1	6/25/2012 12:47:00 PN
Acetone	ND	103		µg/Kg-dry	1	6/25/2012 12:47:00 PN
Benzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
Bromobenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Bromochloromethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Bromodichloromethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Bromoform	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Bromomethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
Carbon Disulfide	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
Carbon tetrachloride	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
Chlorobenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
Chloroethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN
Chloroform	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PN

Date Reported: 29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-006

Client Sample ID: GP15-S-14.0

Collection Date: 6/19/2012 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	SW8260B				Analyst: ep	
Chloromethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
cis-1,2-Dichloroethene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
cis-1,3-Dichloropropene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Dibromochloromethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Dibromomethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Dichlorodifluoromethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Ethylbenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Hexachlorobutadiene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Hexane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Isopropylbenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
m,p-Xylene	ND	20.7		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Methyl tert-butyl ether	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Methylene Chloride	ND	51.7		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Naphthalene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
n-Butylbenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
n-Propylbenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
o-Xylene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
sec-Butylbenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Styrene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
tert-Butylbenzene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Tetrachloroethene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Toluene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
trans-1,2-Dichloroethene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
trans-1,3-Dichloropropene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Trichloroethene	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Trichlorofluoromethane	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Vinyl Chloride	ND	10.3		µg/Kg-dry	1	6/25/2012 12:47:00 PM
Surr: 1,2-Dichloroethane-d4	104	71.5-112		%REC	1	6/25/2012 12:47:00 PM
Surr: 4-Bromofluorobenzene	110	75.7-122		%REC	1	6/25/2012 12:47:00 PM
Surr: Dibromofluoromethane	101	64.3-124		%REC	1	6/25/2012 12:47:00 PM
Surr: Toluene-d8	101	74.9-120		%REC	1	6/25/2012 12:47:00 PM

CLIENT: Project:	Maul Foster & A Sunnyside / 0346	e		Collec	tion Date:	6/18/2	2012 3:00:00 PM
Lab ID:	1206163-007						
Client Sample ID:	GP16-S-7.5				Matrix	SOIL	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT	REQUEST		PER CLIENT				Analyst: knb
Hold		Hold	0			1	6/28/2012 8:49:54 AM

Date Reported: 29-J

29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-008Client Sample ID:GP16-S-15.0

Collection Date: 6/18/2012 3:10:00 PM

nalyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	S BY GC/MS	SW8260B				Analyst: ep
1,1,1,2-Tetrachloroethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
1,1,1-Trichloroethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
1,1,2,2-Tetrachloroethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
1,1,2-Trichloroethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
1,1-Dichloroethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
1,1-Dichloroethene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,1-Dichloropropene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
1,2,3-Trichlorobenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
1,2,3-Trichloropropane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,2,4-Trichlorobenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
1,2,4-Trimethylbenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,2-Dibromo-3-chloropropane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,2-Dibromoethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,2-Dichlorobenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,2-Dichloroethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,2-Dichloropropane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,3,5-Trimethylbenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,3-Dichlorobenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,3-Dichloropropane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
1,4-Dichlorobenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
2,2-Dichloropropane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
2-Butanone	ND	39.1		µg/Kg-dry	1	6/25/2012 1:14:00 PM
2-Chlorotoluene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
2-Hexanone	ND	19.6		µg/Kg-dry	1	6/25/2012 1:14:00 PM
4-Chlorotoluene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
4-Isopropyltoluene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
4-Methyl-2-pentanone	ND	39.1		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Acetone	ND	97.8		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Benzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Bromobenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Bromochloromethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Bromodichloromethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Bromoform	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Bromomethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Carbon Disulfide	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Carbon tetrachloride	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Chlorobenzene	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PM
Chloroethane	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN
Chloroform	ND	9.78		µg/Kg-dry	1	6/25/2012 1:14:00 PN

Date Reported: 29-J

Matrix: SOIL

Collection Date: 6/18/2012 3:10:00 PM

29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-008Client Sample ID:GP16-S-15.0

nalyses	Result	RL	Qual U	nits DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	S BY GC/MS	SW8260B			Analyst: ep
Chloromethane	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
cis-1,2-Dichloroethene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
cis-1,3-Dichloropropene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
Dibromochloromethane	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PN
Dibromomethane	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PN
Dichlorodifluoromethane	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PN
Ethylbenzene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PN
Hexachlorobutadiene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
Hexane	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
lsopropylbenzene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
m,p-Xylene	ND	19.6	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
Methyl tert-butyl ether	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
Methylene Chloride	ND	48.9	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
Naphthalene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PN
n-Butylbenzene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
n-Propylbenzene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
o-Xylene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
sec-Butylbenzene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PN
Styrene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
tert-Butylbenzene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
Tetrachloroethene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
Toluene	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PN
trans-1,2-Dichloroethene	ND	9.78	μg	/Kg-dry 1	6/25/2012 1:14:00 PN
trans-1,3-Dichloropropene	ND	9.78	μg	/Kg-dry 1	6/25/2012 1:14:00 PN
Trichloroethene	ND	9.78	μg	/Kg-dry 1	6/25/2012 1:14:00 PN
Trichlorofluoromethane	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PN
Vinyl Chloride	ND	9.78	μg/	/Kg-dry 1	6/25/2012 1:14:00 PM
Surr: 1,2-Dichloroethane-d4	105	71.5-112	%F	REC 1	6/25/2012 1:14:00 PM
Surr: 4-Bromofluorobenzene	112	75.7-122	%F	REC 1	6/25/2012 1:14:00 PM
Surr: Dibromofluoromethane	104	64.3-124	%F	REC 1	6/25/2012 1:14:00 PM
Surr: Toluene-d8	101	74.9-120	%F	REC 1	6/25/2012 1:14:00 PM

Date Reported: 29-Jun-12

CLIENT: Project:	Maul Foster & Al Sunnyside / 0346.	U		Collec	tion Date:	6/18/2	012 12:40:00 PM
Lab ID:	1206163-009						
Client Sample ID:	GP17-S-7.5				Matrix:	SOIL	
						5012	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed
-	REQUEST		RL PER CLIENT	Qual			Date Analyzed Analyst: knb

Date Reported: 29-J

29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-010Client Sample ID:GP17-S-15.0

Collection Date: 6/18/2012 12:50:00 PM

nalyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	S BY GC/MS	SW8260B				Analyst: ep
1,1,1,2-Tetrachloroethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,1,1-Trichloroethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,1,2,2-Tetrachloroethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,1,2-Trichloroethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,1-Dichloroethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,1-Dichloroethene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,1-Dichloropropene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2,3-Trichlorobenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2,3-Trichloropropane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2,4-Trichlorobenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2,4-Trimethylbenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2-Dibromo-3-chloropropane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2-Dibromoethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2-Dichlorobenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2-Dichloroethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,2-Dichloropropane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,3,5-Trimethylbenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,3-Dichlorobenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,3-Dichloropropane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
1,4-Dichlorobenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
2,2-Dichloropropane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
2-Butanone	ND	47.6		µg/Kg-dry	1	6/25/2012 1:41:00 PM
2-Chlorotoluene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
2-Hexanone	ND	23.8		µg/Kg-dry	1	6/25/2012 1:41:00 PM
4-Chlorotoluene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
4-Isopropyltoluene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
4-Methyl-2-pentanone	ND	47.6		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Acetone	ND	119		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Benzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Bromobenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Bromochloromethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Bromodichloromethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Bromoform	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Bromomethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Carbon Disulfide	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Carbon tetrachloride	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Chlorobenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Chloroethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Chloroform	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM

Date Reported: 29-Jun-12

CLIENT:Maul Foster & AlongiProject:Sunnyside / 0346.04.02Lab ID:1206163-010Client Sample ID:GP17-S-15.0

Collection Date: 6/18/2012 12:50:00 PM

nalyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	S BY GC/MS	SW8260B				Analyst: ep
Chloromethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
cis-1,2-Dichloroethene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
cis-1,3-Dichloropropene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Dibromochloromethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Dibromomethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Dichlorodifluoromethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Ethylbenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Hexachlorobutadiene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Hexane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Isopropylbenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
m,p-Xylene	ND	23.8		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Methyl tert-butyl ether	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Methylene Chloride	ND	59.5		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Naphthalene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
n-Butylbenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
n-Propylbenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
o-Xylene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
sec-Butylbenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Styrene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
tert-Butylbenzene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Tetrachloroethene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Toluene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
trans-1,2-Dichloroethene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
trans-1,3-Dichloropropene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Trichloroethene	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Trichlorofluoromethane	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Vinyl Chloride	ND	11.9		µg/Kg-dry	1	6/25/2012 1:41:00 PM
Surr: 1,2-Dichloroethane-d4	112	71.5-112	S	%REC	1	6/25/2012 1:41:00 PM
Surr: 4-Bromofluorobenzene	114	75.7-122		%REC	1	6/25/2012 1:41:00 PM
Surr: Dibromofluoromethane	105	64.3-124		%REC	1	6/25/2012 1:41:00 PM
Surr: Toluene-d8	99.1	74.9-120		%REC	1	6/25/2012 1:41:00 PM

WO#: 1206163

29-Jun-12

	oster & Alongi ide / 0346.04.02						Т	estCode: 8	260_5035		
Sample ID: CCV-2903	SampType: CCV	TestCoo	le: 8260_5035	Units: μg/Kg		Prep Date):		RunNo: 49 4	15	
Client ID: CCV	Batch ID: 2903	TestN	lo: SW8260B	SW5035A		Analysis Date	e: 6/25/20	12	SeqNo: 659	33	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qu
1,1-Dichloroethene	56.8	10.0	60.00	0	94.7	80	120				
1,2-Dichloropropane	62.2	10.0	60.00	0	104	80	120				
Chloroform	55.0	10.0	60.00	0	91.7	80	120				
Ethylbenzene	59.1	10.0	60.00	0	98.6	80	120				
Toluene	59.3	10.0	60.00	0	98.9	80	120				
Vinyl Chloride	67.6	10.0	60.00	0	113	80	120				
Sample ID: LCS-2903	SampType: LCS	TestCoo	le: 8260_5035	Units: µg/Kg		Prep Date	e: 6/25/20	12	RunNo: 49 4	15	
Client ID: LCSS	Batch ID: 2903	TestN	lo: SW8260B	SW5035A		Analysis Date	e: 6/25/20	12	SeqNo: 659	34	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qu
1,1-Dichloroethene	48.5	10.0	60.00	0	80.8	82.4	121				S
Benzene	56.0	10.0	60.00	0	93.4	74.3	136				
Chlorobenzene	54.8	10.0	60.00	0	91.4	85.9	121				
Toluene	55.7	10.0	60.00	0	92.9	85.1	123				
Trichloroethene	53.4	10.0	60.00	0	89.0	87.8	119				
Sample ID: LCSD-2903	SampType: LCSD	TestCoo	le: 8260_5035	Units: µg/Kg		Prep Date	e: 6/25/20	12	RunNo: 49 4	15	
Client ID: LCSS02	Batch ID: 2903	TestN	lo: SW8260B	SW5035A		Analysis Date	e: 6/25/20	12	SeqNo: 659	35	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qı
1,1-Dichloroethene	49.2	10.0	60.00	0	82.1	82.4	121	47.95	2.63	20	S
Benzene	58.1	10.0	60.00	0	96.9	74.3	136	56.02	3.66	20	
Chlorobenzene	55.6	10.0	60.00	0	92.6	85.9	121	54.82	1.32	20	
	56.5	10.0	60.00	0	94.2	85.1	123	55.74	1.35	20	

R RPD outside accepted recovery limits

Specialty Analytical

S Spike Recovery outside accepted recovery limits

WO#: **1206163**

	ter & Alongi e / 0346.04.02					1	FestCode: 8	3260_5035		
Sample ID: LCSD-2903 Client ID: LCSS02	SampType: LCSD Batch ID: 2903	TestCode: 8260_5 0 TestNo: SW8260			Prep Date Analysis Date	e: 6/25/20 e: 6/25/20		RunNo: 49 SeqNo: 65	-	
Analyte	Result	PQL SPK value	e SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	54.9	10.0 60.0	0 0	91.4	87.8	119	53.40	2.70	20	
Sample ID: MB-2903	SampType: MBLK	TestCode: 8260_50	035 Units: µg/Kg		Prep Date	e: 6/25/20	012	RunNo: 494	45	
Client ID: PBS	Batch ID: 2903	TestNo: SW8260	DB SW5035A		Analysis Date	e: 6/25/20	012	SeqNo: 65	937	
Analyte	Result	PQL SPK value	e SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0								
1,1,1-Trichloroethane	ND	10.0								
1,1,2,2-Tetrachloroethane	ND	10.0								
1,1,2-Trichloroethane	ND	10.0								
1,1-Dichloroethane	ND	10.0								
1,1-Dichloroethene	ND	10.0								
1,1-Dichloropropene	ND	10.0								
1,2,3-Trichlorobenzene	ND	10.0								
1,2,3-Trichloropropane	ND	10.0								
1,2,4-Trichlorobenzene	ND	10.0								
1,2,4-Trimethylbenzene	ND	10.0								
1,2-Dibromo-3-chloropropane	ND	10.0								
1,2-Dibromoethane	ND	10.0								
1,2-Dichlorobenzene	ND	10.0								
1,2-Dichloroethane	ND	10.0								
1,2-Dichloropropane	ND	10.0								
1,3,5-Trimethylbenzene	ND	10.0								
1,3-Dichlorobenzene	ND	10.0								
1,3-Dichloropropane	ND	10.0								

Qualifiers:

В

Specialty Analytical

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Page 2 of 4

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

WO#: 1206163

29-Jun-12

	oster & Alongi de / 0346.04.02						Ţ	FestCode: 8	3260_5035		
Sample ID: MB-2903	SampType: MBLK		de: 8260_503				e: 6/25/2		RunNo: 494		
Client ID: PBS	Batch ID: 2903	Test	lo: SW8260B	SW5035A		Analysis Date	e: 6/25/20	012	SeqNo: 659	937	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
I-Isopropyltoluene	ND	10.0									
-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon Disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									

Qualifiers: B Analyte detected in the associated Method Blank

Specialty Analytical

H Holding times for preparation or analysis exceeded

S

ND Not Detected at the Reporting Limit

Page 3 of 4

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

WO#: 1206163

29-Jun-12

Client: Maul Foste Project: Sunnyside	er & Alongi / 0346.04.02					Те	estCode: 8	260_5035		
Sample ID: MB-2903	SampType: MBLK	TestCode: 8260_503	5 Units: μg/Kg		Prep Date:	6/25/201	12	RunNo: 49 4	15	
Client ID: PBS	Batch ID: 2903	TestNo: SW8260E	3 SW5035A	Α	Analysis Date:	6/25/201	12	SeqNo: 659	937	
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit H	ighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	10.0								
Hexachlorobutadiene	ND	10.0								
Hexane	ND	10.0								
Isopropylbenzene	ND	10.0								
m,p-Xylene	ND	20.0								
Methyl tert-butyl ether	ND	10.0								
Methylene Chloride	ND	50.0								
Naphthalene	ND	10.0								
n-Butylbenzene	ND	10.0								
n-Propylbenzene	ND	10.0								
o-Xylene	ND	10.0								
sec-Butylbenzene	ND	10.0								
Styrene	ND	10.0								
tert-Butylbenzene	ND	10.0								
Tetrachloroethene	ND	10.0								
Toluene	ND	10.0								
trans-1,2-Dichloroethene	ND	10.0								
trans-1,3-Dichloropropene	ND	10.0								
Trichloroethene	ND	10.0								
Trichlorofluoromethane	ND	10.0								
Vinyl Chloride	ND	10.0								
Surr: 1,2-Dichloroethane-d4	87.1	100.0		87.1	71.5	112				
Surr: 4-Bromofluorobenzene	98.1	100.0		98.1	75.7	122				
Surr: Dibromofluoromethane	94.5	100.0		94.5	64.3	124				
Surr: Toluene-d8	105	100.0		105	74.9	120				

Qualifiers:

В

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Page 4 of 4

R RPD outside accepted recovery limits

Specialty Analytical

S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

- A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
- A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
- A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
- A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4 The product appears to be aged or degraded diesel.
- B The blank exhibited a positive result great than the reporting limit for this compound.
- CN See Case Narrative.
- D Result is based from a dilution.
- E Result exceeds the calibration range for this compound. The result should be considered as estimate.
- F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- G Result may be biased high due to biogenic interferences. Clean up is recommended.
- H Sample was analyzed outside recommended holding time.
- HT At clients request, samples was analyzed outside of recommended holding time.
- J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
- K Diesel result is biased high due to amount of Oil contained in the sample.
- L Diesel result is biased high due to amount of Gasoline contained in the sample.
- M Oil result is biased high due to amount of Diesel contained in the sample.
- MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI Result is outside control limits due to matrix interference.
- MSA Value determined by Method of Standard Addition.
- O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
- Q Detection levels elevated due to sample matrix.
- R RPD control limits were exceeded.
- RF Duplicate failed due to result being at or near the method-reporting limit.
- RP Matrix spike values exceed established QC limits; post digestion spike is in control.
- S Recovery is outside control limits.
- SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
- * The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

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APPENDIX F

DATA VALIDATION MEMORANDA



DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. 0346.04.02 | FEBRUARY 27, 2012 | PORT OF SUNNYSIDE

This report reviews the analytical results for water and soil samples collected by the Maul Foster & Alongi, Inc. project team on the former Cream Wine property. The samples were collected in January 2012.

Specialty Analytical (SA), Zymax Forensics (ZF), and Calscience Environmental Laboratories Inc. (CEL) performed the analyses. SA report numbers 1201252 and 1202077, ZF report number 42523, and CEL report number 12-01-1819 were reviewed. The analyses performed are listed below.

Analysis	Reference
Diesel- and lube-oil-range organics	NWTPH-DX
Gasoline-range organics	NWTPH-GX
Volatile organic compounds	USEPA 8260
Total metals	USEPA 6010
Tetrachloroethylene (PCE) Compound-Specific Isotope Analysis	2D-CSIA
NM/TDU NorthWest Total Datroloum Undragorhans	

NWTPH = NorthWest Total Petroleum Hydrocarbons.

USEPA = U.S. Environmental Protection Agency.

DATA QUALIFICATIONS

Analytical results were evaluated according to applicable sections of USEPA procedures (USEPA, 2004, 2008), and appropriate laboratory and method-specific guidelines (CEL, 2012; SA, 2012; USEPA, 1986; ZF, 2012). The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

Holding Times

Sample GP08-S-5.0 was analyzed outside the recommended hold time for NWTPH-DX and NWTPH-GX. The samples were qualified as being not detected at or above the estimated detection limit (UJ):

Sample	Component	Original Result	Qualified Result
GP08-S-5.0	Diesel	19.6 HT	19.6 UJ
GP08-S-5.0	Lube Oil	65.4 HT	65.4 UJ
GP08-S-5.0	Gasoline	4.07 HT	4.07 UJ

All other extractions and analyses were performed within the recommended holding time criteria.

R:\0346.04 Port of Sunnyside\03_Carnation Dairy Supplemental Investigation\Reports\03-2012.09.24 Draft Focused Site Assessment Report\Appendices\Appendix F - DVM\DVM-Former Cream Wine Property_January 2012.doc PAGE **1**

Preservation and Sample Storage

The samples were preserved and stored appropriately.

BLANKS

Method Blanks

Laboratory method blank analyses were performed at the required frequencies. No target analytes were detected above the laboratory reporting limits (RLs).

Trip Blanks

Trip blanks were not required for this sampling event.

Equipment Rinsate Blanks

Equipment rinsate blanks were not required for this sampling event, as all samples were collected using dedicated, single-use equipment.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance on individual samples.

The reviewer took no action based on surrogate percent recoveries that were above acceptance limits, as all associated results were non-detects.

The laboratory appropriately documented and qualified surrogate outliers. Associated batch quality assurance/quality control for samples with surrogate outliers were within acceptance limits. All remaining surrogate recoveries were within acceptance limits.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

MS/MSD results are used to evaluate laboratory precision and accuracy. All MS/MSD samples were extracted and analyzed at the required frequency. All recoveries were within acceptance limits for percent recovery and relative percent differences (RPDs).

LABORATORY DUPLICATE RESULTS

Duplicate results are used to evaluate laboratory precision. All duplicate samples were extracted and analyzed at the required frequency. The 6010 batch duplicate for work order 1201252 failed RPD criteria because it was at or near the method reporting limit; no action was taken. All other RPDs were within acceptance limits.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

An LCS/LCSD is spiked with target analytes to provide information on laboratory precision and accuracy. The LCS/LCSD samples were extracted and analyzed at the required frequency. All LCS/LCSD analytes were within acceptance limits for percent recovery.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. All analytes were within the acceptance criteria.

REPORTING LIMITS

The laboratories used routine RLs for non-detect results, except for samples requiring dilutions because of high analyte concentrations and/or matrix interferences.

DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies. None were found.

- CEL 2012. Quality assurance manual. Calscience Environmental Laboratories Inc., Garden Grove, California.
- SA 2012. Quality assurance manual. Specialty Analytical, Clackamas, Oregon.
- USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. EPA-530/SW-846. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. September (revision 6, February 2007).
- USEPA. 2004. USEPA contract laboratory program, national functional guidelines for inorganics data review. EPA 540/R-94/013. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. October.
- USEPA. 2008. USEPA contract laboratory program, national functional guidelines for organics data review. EPA 540/R-08/01. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. June.
- ZF. 2012. Quality assurance manual. Zymax Forensics, Escondido, California.

DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. 0346.04.03 | JULY 9, 2012 | PORT OF SUNNYSIDE

This report reviews the analytical results for groundwater samples collected by Zymax Forensics and soil samples collected by the Maul Foster & Alongi, Inc. (MFA) project team on the former Cream Wine property. The samples were collected in June 2012.

Calscience Environmental Laboratories, Inc. (CEL) in Escondido, California, performed the groundwater analyses. Specialty Analytical (SA) in Clackamas, Oregon, performed the soil analyses. CEL report number 12-06-1519 and SA report number 1206163 were reviewed. The analysis performed is listed below.

Analysis	Reference		
VOCs	USEPA 8260B		
VOC - volatile organic compound			

VOC = volatile organic compound. USEPA = U.S. Environmental Protection Agency.

DATA QUALIFICATIONS

Analytical results were evaluated according to applicable sections of USEPA procedures (USEPA, 2008) and appropriate laboratory and method-specific guidelines (USEPA, 1986).

The data are considered acceptable for their intended use, and no data qualifiers were assigned.

HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

Holding Times

Extractions and analyses were performed within the recommended holding time criteria.

Preservation and Sample Storage

The samples were preserved and stored appropriately.

BLANKS

Method Blanks

Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the method blanks were associated with all samples prepared in the analytical batch. All laboratory method blanks were non-detect.

Trip Blanks

A trip blank was submitted for CEL report 12-06-1519. The trip blank was analyzed for VOCs, using USEPA Method 8260B, and no VOCs were detected.

Equipment Rinsate Blanks

Equipment rinsate blanks were not required for this sampling event, as all samples were collected using dedicated, single-use equipment.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance on individual samples.

In SA report 1206163, USEPA Method 8260B, the surrogate 1,2-dichloroethane-d4 was slightly above the upper acceptance limit for sample GP17-S-15.0. This exceedance was considered minor and associated data were not qualified.

All remaining surrogate recoveries were within acceptance limits.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

MS/MSD results are used to evaluate laboratory precision and accuracy. All MS/MSD samples were extracted and analyzed at the required frequency. All recoveries were within acceptance limits for percent recovery and relative percent differences (RPDs).

LABORATORY DUPLICATE RESULTS

Duplicate results are used to evaluate laboratory precision. No laboratory duplicates were analyzed.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

A LCS/LCSD sample is spiked with target analytes to provide information on laboratory precision and accuracy. The LCS/LCSD samples were extracted and analyzed at the required frequency.

In SA report 1206163, USEPA Method 8260B, the LCS and LCSD were below the lower acceptance limit for 1,1-dichloroethene. These exceedances were considered minor and were appropriately flagged by the laboratory; the associated data were not qualified.

All remaining LCS/LCSD analytes were within acceptance limits for percent recovery.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. Field duplicates were submitted for analysis in CEL report 12-06-1519 (GP14-W-32.0 and GP14-W-Dup). MFA uses acceptance criteria of 100 percent RPD for results that are less than five times the reporting limit (RL), or 50 percent RPD for results that are greater than five times the RL. Non-detect data are not used in the evaluation of field duplicate results. All analytes were within the acceptance criteria.

REPORTING LIMITS

SA and CEL used routine RLs for non-detect results, except for samples requiring dilutions because of high analyte concentrations and/or matrix interferences.

DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies. None were found.

- USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. EPA-530/SW-846. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. September (revision 6, February 2007).
- USEPA. 2008. USEPA contract laboratory program, national functional guidelines for organics data review. EPA 540/R-08/01. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. June.

APPENDIX G

STABLE ISOTOPE FUNDAMENTALS AND APPLICATIONS



Fundamentals and Application of Environmental Isotopes in Chlorinated Solvent Investigations

Article Prepared for:

US EPA Technical Support Project/State Coalition for Remediation of Dry

Cleaners Annual Meeting, San Antonio, Texas

Article Prepared by:

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ZymaX Environmental Forensics, Escondido, California 92029

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November 2009

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1 The Environmental Isotopes

1.1 Elements, nuclides, and isotopes

The nuclear structure of a nuclide is classically defined by its number of protons which defines the element, and the number of neutrons which defines the isotope of that element. The sum of protons and neutrons gives the atomic weight. Unstable isotopes or radioactive nuclides will decay with time, while stable isotopes do not. For example, hydrogen has three isotopes (¹H to ³H) although only ¹H and ²H are stable. ³H is radioactive with a half-life of 12.4 years. Carbon has 11 isotopes (⁸C to ¹⁸C) although only ¹²C and ¹³C are stable. The others are radioactive with half-lives varying from 5730 years (¹⁴C) to less than a millisecond.

1.2 Why "Environmental" isotopes?

Environmental isotopes are important to us. They are the naturally occurring isotopes of elements found in abundance in our environment: H, C, N, O, S, and Cl, etc. Stable isotopes of these elements serve as tracers of water, carbon, nutrient and solute cycling. As they are light elements, the relative mass differences between their isotopes are large, imparting measurable fractionations during physical and chemical reactions. For example, ²H has 100% more mass than ¹H, whereas the two stable isotopes of bromine (⁸¹Br and ⁷⁹Br) have a mass difference of only 2.5%. Radioactive environmental isotopes are also important. ¹⁴C and ³H, for example, are often applied to estimate the age or circulation of groundwater (Clark and Fritz, 1997).

1.3 Isotope ratios and delta (δ) notation

The variations in numbers of neutrons in an element provides for the different masses (atomic weights) of the element and the molecules of which they may be a part. For example, heavy water, ${}^{2}H_{2}{}^{16}O$, has a mass of 20 compared to normal water, ${}^{1}H_{2}{}^{16}O$, which has a mass of 18.

Stable isotopes are measured as the ratio of the two most abundant isotopes of a given element. For carbon it is the ratio of 13 C, with a terrestrial abundance of 1.11%, to common 12 C which represents 98.89% of terrestrial carbon. Thus the 13 C/ 12 C ratio is about 0.011.

Measuring an absolute isotope ratio requires rather sophisticated mass spectrometers. Rather than measuring a "true ratio", measuring its "apparent ratio" can be easily done by gas source mass spectrometry. To cancel the instrumental error due to operational variations in different labs and instruments, etc., a known reference can be measured on the same instrument at the same time (Clark and Fritz, 1997). The difference between the measured ratios of the sample and reference is expressed by the delta (δ) notation. Further, δ values are expressed as the parts per thousand or permil (‰) difference from the reference:

$$\delta^{13}C_{sample} = [({}^{13}C/{}^{12}C_{sample})/({}^{13}C/{}^{12}C_{reference})-1] \times 1000\% PDB$$

Where PDB is the name of the reference used, in this case Pee Dee Belemnite, a carbonate formation. A δ -‰ value that is positive, say +5‰, signifies that the sample has 5 permil or 0.5% more ¹³C than the reference, or is enriched by 5‰. Similarly, a sample that is depleted from the reference by this amount would be expressed as $\delta^{13}C = -5\%$ PDB.

The ratios for the other elements such as O, H, Cl, S or N are expressed in the same way relative to their specific standard. For oxygen and hydrogen isotopes, the accepted reference is Standard Mean Ocean Water (SMOW); for chlorine isotope, it is Standard Mean Ocean Chloride (SMOC); for sulfur isotope, it is the troilite (FeS) phase of the Canon Diablo meteorite (CDT); for nitrogen isotope, it is atmospheric nitrogen (AIR).

1.4 Isotope fractionation

When one of the above heavy isotopes is a part of a compound, its bond to adjacent atoms is slightly stronger than the equivalent bond of the lighter isotope when it is in the same position in another molecule of the same compound. When molecules of this compound enter into chemical or biologically mediated reactions, the molecules with the lighter isotopes react a little faster than the ones with the equivalent heavier isotopes. This means that as the reaction proceeds, the reactant that remains has a progressively higher content of the heavy isotope since the molecules containing light isotopes have reacted to form product faster than those containing heavier isotopes. Such process is called "isotope fractionation" (Urey, 1947). Fractionation processes will slightly modify the isotope ratio for any compounds containing target isotope such as carbon, but these variations are normally seen only at the fifth or sixth decimal place (Clark and Fritz, 1997).

2 Stable Isotope Analyses of Environmental Contaminants

2.1 Inorganic and organic contaminants

Stable isotope analysis has long been realized to be a valuable technique to investigate the sources and the subsurface behavior of inorganic contaminants, such as nitrate (Aravena et al., 1993). A combination of Elemental Analyzer-Isotope ratio mass spectrometry (EA-IRMS) is often applied for isotope analysis of inorganic contaminants. The basis of IRMS is to bend a beam of charged molecules in a magnetic field into a spectrum of masses; the beam of charged molecules is usually generated by ionization of a gaseous sample.

Stable isotope analysis has also been applied to organic contaminants, such as trichloroethene (Poulson and Drever, 1999). By definition, all organic contaminants of environmental concern contain carbon, and hydrogen virtually, while many may also contain elements such as chlorine (e.g., chlorinated solvents), oxygen (e.g., gasoline additive MTBE), nitrogen (e.g., herbicides such as Atrazine), and/or sulfur (e.g., various pesticides). Using multiple stable isotope analyses of a single individual contaminant would provide additional discriminants to be used to investigate the sources and the subsurface behavior of an organic contaminant.

2.2 Gas chromatography-isotope ratio mass spectrometry

The ability to measure the isotopic composition of the organic contaminant itself has been facilitated by gas chromatography-isotope ratio mass spectrometry (GC-IRMS), which allows for the measurement of the isotopic composition of individual compounds within a complex mixture (Freeman et al., 1990; Hayes et al., 1990; Hilkert et al., 1999). GC-IRMS provides rapid, cost-effective analysis with four to five orders of magnitude more sensitivity than conventional labor-intensive "offline preparation then dual-inlet measurement" techniques.

The basic concept for the determination of the carbon isotopic composition of individual compounds, for example, is the same as for the bulk isotopic values in that the components are completely combusted to CO₂ and water and the isotopic composition of the resulting CO₂ determined. However, the big difference is that these values are determined in real time as the individual compounds elute from the GC column. These separated compounds pass through a combustion tube where they are combusted, the CO₂ and water pass through a separator, such as a "Nafion" tube to remove the water, and the CO₂ continues into the IRMS (Philp, 2002). Samples can readily be prepared for GC-IRMS analyses by a number of techniques including solvent extraction, direct injection of headspace gas, and rapid extraction from either gas or aqueous solution by solid-phase micro-extraction (SPME), purge and trap, etc. Preparation methods have been developed and improved to convert different sample compounds separated by GC to an appropriate gas (CO₂, H₂, N₂ and SO₂).

Presented at US EPA Environmental Forensics/State Coalition for Remediation of Dry Cleaners Meeting, San Antonio, TX, Nov. 2009

2.3 Compound-specific isotope analysis

Sample preparation and GC-IRMS techniques can permit compound-specific isotope analysis (CSIA) of contaminants in low-parts per billion (ppb) concentration ranges. The typical analytical uncertainty is ±0.5‰ for carbon, and within similar ranges for hydrogen, chlorine, nitrogen, sulfur. Recently, U.S. EPA has issued a guide for assessing biodegradation and source identification of organics using CSIA (Hunkeler et al., 2008). CSIA technique can variously be used to measure the isotopic composition of many types of contaminants, and CSIA has been applied to study the sources and behavior of subsurface contaminants including mono-aromatic hydrocarbons such as Benzene, Toluene, Ethyl-benzene, and Xylenes (BTEX) (Kelly et al., 1997), polycyclic aromatic hydrocarbons (Hammer et al., 1998; Wang et al., 2004), crude oils and other refined hydrocarbon products (Wang et al., 2001, 2003; Pond et al., 2002).

Unlike commonly used carbon and hydrogen isotope analyses, chlorine isotope analysis by traditional methods can't be carried out without upstream, lab-intensive, offline pretreatments to convert chlorinated compounds into a molecule containing a single chlorine atom, such as methyl chloride (CH₃CI). After such conversion, the chlorine isotope ratio is determined using dual-inlet isotope ratio mass spectrometer. These complex sample preparation processes are disadvantages of conventional chlorine isotope methods although high-precision isotopic analysis ($\pm 0.1\%$) is achievable with these techniques.

Recently, simple online methods for compound-specific chlorine isotope analysis have substantially expanded the application range of CSIA in this area. Shouakar-Stash et al., (2006) carried out CSIA analyzing chlorinated solvents for their chlorine isotopes. This method does not involve time-consuming, offline chemical conversion process; however, a special GC-IRMS configuration is required. Sakaguchi-Soder et al., (2007) presented a simple, quick and sensitive CSIA method for chlorine isotope of chlorinated solvents by conventional quadrupole GC-MS. The chlorine isotope ratios of target compounds such as PCE and TCE are calculated from the peak areas of selected molecular ions and fragment ions of the substances, using a set of unique mathematical equations. The precision of the method was demonstrated to be better than ±0.5‰. This CSIA can be performed with sufficient accuracy using conventional quadrupole GC-MS especially when significant fractionation takes place during the biotic and abiotic remediations, which involve dechlorination process.

3 Stable Isotopes in Chlorinated Solvent Investigations

3.1 Chlorinated solvents

Chlorinated solvents, such as tetrachloroethylene (PCE) and trichloroethene (TCE), are the most frequently detected contaminants in groundwater due to their widespread use since early 1940s. These compounds are designed as priority pollutants by the U.S. EPA and are known or suspected to be carcinogenic or mutagenic in humans. Spills, leaks and improper disposal of these compounds have resulted in soil and water contamination to varying degrees. Their concentration in groundwater can range from non-detectable to the solubility limit (Mackay and Cherry, 1989). Chlorinated solvents are dense non-aqueous phase liquids and they tend to persist for extended periods of time in groundwater systems (van Warmerdam et al., 1995). In many cases, source of the chlorinated solvent plume is unknown.

As a rapidly emerging analytical method, especially in environmental sciences, CSIA has an array of applications for chlorinated solvents. The molecular isotopic signature (¹³C, ³⁷Cl and ²H) of chlorinated solvents acquired by CSIA can be used to: 1) trace their sources on a local to global scale, serving as an ideal tool in "environmental forensics"; 2) identify, characterize and quantify biotic and abiotic transformation reactions, help achieve site closure in some cases (Hunkeler et al., 1999; Pirkle, 2006).

3.2 CSIA data may distinguish different chlorinated solvent sources

The use of stable isotopes to differentiate manufacturers of chlorinated solvents has been proposed as a means to distinguish sources contributing to a co-mingled groundwater plume (Morrison, 1999). CSIA may also provide evidence of the time sequence of multiple releases at a site. The principle behind this is that in older releases biodegradation may have altered the isotope ratio of the target component so the oldest release may be the most altered from the fresh one.

The low abundance of ³⁷Cl isotope fraction in chlorinated solvents is bound more tightly to carbon than are ³⁵Cl atoms (Bartholomew et al., 1954). The difference in bond strength results in chlorine isotope fractionation due to temperature and pressure differences during the manufacturing of the chlorinated solvents (Tanaka and Rye, 1991). For example, the isotopic range of ACE grade TCE (>99.5% TCE) is: δ^{13} C=-48.0 to -27.8‰, δ^{37} Cl=-2.54 to +4.08‰, δ^{2} H=-30 to +530‰ (Poulson and Drever, 1999). In one case, the isotopic ratios for ¹³C/¹²C and ³⁷Cl/³⁵Cl were used to distinguish among three chlorinated solvent manufacturers (van Warnerdam et al., 1995). Each measured chlorinated solvent showed a significant range in δ^{37} Cl and δ^{13} C values. In a similar application, ¹³C and ³⁷Cl were used to discriminate between two different pure phase chlorinated solvent batches obtained from various manufacturers using CSIA (Beneteau et al., 1996).

Shouakar-Stash et al. (2003) have characterized selected chlorinated solvents in terms of their hydrogen, carbon and chlorine isotopic composition. They have noted that δ^2 H for a range of manufactured TCE varied between +466.9‰ and +681.9‰ due to the dehydrochlorination reactions used in the industrial production of TCE, whereas TCE generated as a dechlorination (a degradation pathways) product of PCE was significantly depleted, δ^2 H < -300‰, a result of H atom incorporation from the environmental water. This suggests that δ^2 H of certain chlorinated solvents such as TCE may be a powerful means of distinguishing between degradation products and manufactured solvents. The combination of carbon, chlorine and hydrogen isotopic data in addition to concentration will no doubt significantly enhance the ability to unravel the source of contaminants at complex sites (Hunkeler et al., 2005).

Since early 2007, compound-specific carbon, hydrogen, and chlorine isotope analysis have been established in our lab to measure the isotope ratios of the chlorinated solvents in soil and groundwater at more than 10 dry cleaner sites that are the focus of litigation (Presentation by Wang Y., 2009). At a site in Los Angeles, we were able to demonstrate that the PCE, which was the major component in the soils and groundwater, had the same carbon isotopic signature in all the samples. This indicated that the PCE released on the site was produced by the same manufacturer, and by comparison with published isotope data on the small number of US producers, the manufacturer was identified. At another site in New York, carbon, chlorine and hydrogen isotope ratios of PCE, TCE and cis-DCE were measured in groundwater samples. The carbon and chlorine isotope ratios indicate that the chlorinated solvents at the site have at least three sources represented by two PCE plumes and one TCE plume. The hydrogen isotope ratios of TCE further indicate that the TCE in the above TCE plume has not migrated into adjacent wells (Presentation by Wang Y., 2009).

\cdot 3.3 CSIA data may guide remediation decision and help achieve site closure

Whilst carbon, hydrogen, and chlorine isotopes are now being used in a fairly regular and systematic manner for evaluating the origin of chlorinated solvents and the correlation of these contaminants with their suspected sources, there are a number of other potential applications in environmental chemistry based on changes in isotopic compositions. The most important application for their isotopic values, in addition to source correlations, would be monitoring the rate and/or extent of degradation of individual compounds in the environment (Philp 2002; Murry and Morrison, 2002).

Presented at US EPA Environmental Forensics/State Coalition for Remediation of Dry Cleaners Meeting, San Antonio, TX, Nov. 2009

A promising means for mitigating chlorinated solvent contamination in soil and groundwater is in situ bioremediation, in which microbes convert chlorinated solvents to environmentally benign products such as CO₂, chloride and biomass. One of the most severe limitations of in situ bioremediation is the difficulty of proving that it works. Demonstration of natural attenuation for the volatile chlorinated solvents is particularly difficult due to their slow biodegradation rates. Also these contaminants are mobile and concentrations changing at the monitoring wells do not necessary reflect changes in concentration resulting from degradation (Philp, 2002). The changes in concentration at specific water wells may simply reflect movement of the samples within the plume, or physical processes such as adsorption, mixing, and dispersion, etc.

Because biodegradation cause significant isotopic fractionation between residual chlorinated solvents and their degradation products, isotope ratios can provide evidence that in situ bioremediation is occurring in situations where chemical measurements alone may provide insufficient or ambiguous data. Sturchio et al. (1998) reported stable isotope ratios of chlorine in TCE in groundwater from an aerobic aquifer beneath an extensively contaminated industrial site in western Kentucky. Variations in the concentrations and chlorine isotope ratios of TCE are consistent with those expected from natural attenuation. They demonstrated that stable chlorine isotope ratios provide a powerful tool for evaluating the effectiveness of natural attenuation. Isotopic measurements support partial natural attenuation of TCE, which is consistent with the available hydrogeologic data and the history of activities at this site.

Isotopic enrichment occurs to the parent compound during the sequential degradation processes such as the well known biodegradation of PCE to ethane. In general it has been found (Lollar et al., 1999; Bloom et al., 2000; Slater et al., 2001) that the enrichment factors increase with each step in the sequence from PCE to TCE (-2 to -5.5‰), TCE to cis-DCE (-7.1 to -13.8‰), cis-DCE to vinyl chloride (-15.1 to -20.4‰), and vinyl chloride to ethane (-22.4 to -24.1‰). The fact that enrichment factors fall into distinct ranges allows one to estimate the relative extent of degradation of a chlorinated ethane. The consistent observation of isotopic fractionation during reductive dechlorination suggests that CSIA is a useful tool to identify the occurrence of biodegradation (Pirkle, 2006).

Hunkeler et al. (2005) have used stable carbon isotope analysis in conjunction with concentration data to clarify and confirm the active degradation pathways at a former waste solvent disposal site where at least 14 different chlorinated hydrocarbons were present in groundwater. One of several issues which were resolved using carbon isotopic data was the observation of TCE at down gradient locations with δ^{13} C in the range of -41.0 to -45‰ which is well below the range of values known for pure-phase industrial TCE which has been determined in the range -24.3 to -31.0‰ (Hunkeler et al., 2004). Although PCE was not a major contaminant at the site, it was present with δ^{13} C in the range -28.3 to -30.5‰. Enrichment factors for degradation of PCE to TCE (-2 to -5.5‰) suggest that the observed TCE was not a degradation product of PCE.

As we have discussed above, more and more laboratory and field studies have demonstrated that the incorporation of CSIA constraints into remediation project may guide remediation decision and help achieve site closure. The isotopic data provided by CSIA can be used to unambiguously determine that biodegradation of chlorinated solvents is occurring; may be able to identify the process of degradation as aerobic or anaerobic; and in some cases determine the rate and extent of degradation; and may become a powerful predictive tool for assessing the extent and duration of contaminant plumes (Pirkle, 2006), thus CSIA may significantly decrease monitoring and remediation costs.

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APPENDIX H

TERRESTRIAL ECOLOGICAL EVALUATION



TERRESTRIAL ECOLOGICAL EVALUATION PROJECT NO. 0346.04.03 | SEPTEMBER 13, 2012 | PORT OF SUNNYSIDE

The simplified terrestrial ecological evaluation (TEE) procedure is structured with the intent to protect terrestrial wildlife at industrial or commercial sites, and terrestrial plants, soil biota, and terrestrial wildlife at other sites, as provided under Washington Administrative Code (WAC) 173-340-7490(3)(b). The Model Toxics Control Act (MTCA) of WAC 173-340 specifies that the simplified TEE process is intended to identify only those sites that do not have substantial potential for posing a threat of significant adverse effects to terrestrial ecological receptors and that therefore may be removed from further ecological consideration during the remedial investigation and cleanup process (WAC 173-340-7492).

WAC 173-340-7492(2) provides the steps necessary for conducting the simplified TEE. MTCA Table 749-1 may be used to determine whether land use at a site and surrounding area is unlikely to result in substantial wildlife exposure. If this is demonstrated, MTCA specifies that no further evaluation is necessary to conclude that a site does not pose a substantial threat to potential ecological receptors.

The attached completed MTCA Table 749-1 shows that the site is unlikely to pose a threat to ecological receptors and that no further evaluation is necessary. The attached table shows the rationale for the scoring on Table 749-1. The attached figure shows the areas of contiguous undeveloped land included in the evaluation.

Attachments: Table Figure MTCA Table 749-1

TABLE



DRAFT—Appendix H Table Simplified TEE Scoresheet Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

Line Number	Scoring Parameters	Score	Rationale
1	Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre). From the table below, find the number of points corresponding to the area and enter this number in the field to the right.		
	Area (acres) Points 0.25 or less 4 0.5 5 1.0 6 1.5 7 2.0 8 2.5 9 3.0 10 3.5 11 4.0 or more 12	6	Undeveloped land indicates areas not covered by buildings, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil (WAC 173-340-7491(1)(c)(iii)). The on-site and off-site contiguous undeveloped land consists of a patch totaling 1.06 acres. The off-site portion within 500 feet is primarily developed commercial/residential properties with one noncontiguous (with respect to the site) patch of disturbed undeveloped land totaling approximately 1 acre (see Figure).
2	Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1.	3	Commercial zoning.
3	Enter a score in the box to the right for the habitat quality of the site, using the following rating system. High=1, Intermediate=2, Low=3.	1	A conservative score of one was entered because a field evaluation has not been conducted. However, the site is highly disturbed/developed and dominated by asphalt, buildings, and likely ruderal vegetation. Site vegetation consists of landscaped grasses and fewer than ten trees. No significant wildlife (e.g., threatened or endangered species) is likely to occur in this highly developed area surrounded by urban/residential development.
4	Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.	1	A conservative score of one was entered because a field evaluation has not been conducted. However, the tracts of undeveloped land are small (i.e., the largest "habitat island" is less than 1 acre) and the area surrounding the site is primarily developed residential lots with yards. Therefore, the undeveloped land is likely unattractive to wildlife.
5	Are any of the following soil contaminants present: chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4	The listed contaminants are not known to be present; all contaminants analyzed, with the exception of lead at one location (GP-08), were non-detect or below Table 749-2 screening criteria.
	bers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is the number in the box on line 1, the simplified evaluation may be ended.	9	Simplified evaluation ended. Total score exceeds 6.
	l from Model Toxics Control Act Table 749-1. ecological evaluation.	1	

FIGURE



2.1 TELER V T I Charles Store State State ation Dr Carn INNE -INT C.MINCH



Figure Site Features

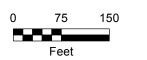
Former Cream Wine Property Port of Sunnyside Sunnyside, Washington

DRAFT

Legend



Site Boundary (Approximate) Tax Lots (Approximate) 500-foot Radius Undeveloped Areas





Source: Aerial photograph obtained from ESRI, Inc. ArcGIS Online/Bing Maps



This product is for informational purposes and may not have been prepared for, or be suitable for kgal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

ATTACHMENT

MTCA TABLE 749-1





Table 749-1

Simplified Terrestrial Ecological Evaluation-Exposure Analysis Procedure

 Estimate the area of contiguous (connected) <u>undeveloped land</u> on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre).

 1) From the table below, find the number of points corresponding to the area and enter this number in the field to the right.

 Area (acres)
 Points

 0.25 or less
 4

$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	6
2) Is this an <u>industrial</u> or <u>commercial</u> property? If yes, enter a score of 3. If no, enter a score of 1	3
$(3)^{a}$ Enter a score in the box to the right for the habitat quality of the site, using the following rating system ^b . High=1, Intermediate=2, Low=3	1. Jable
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of $2.^{\circ}$	1-sec Table
5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4
6) Add the numbers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified evaluation may be ended.	9

Notes for Table 749-1

^a It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score of (1) for questions 3 and 4.

^b **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:

Low: Early <u>successional</u> vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.