ADDENDUM NO. 3
SAMPLING AND ANALYSIS PLAN AND QUALITY ASSURANCE PROJECT PLAN

South State Street Manufactured Gas Plant
Remedial Investigation/Feasibility Study

Prepared for

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Parks and Recreation Department
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September 7, 2012

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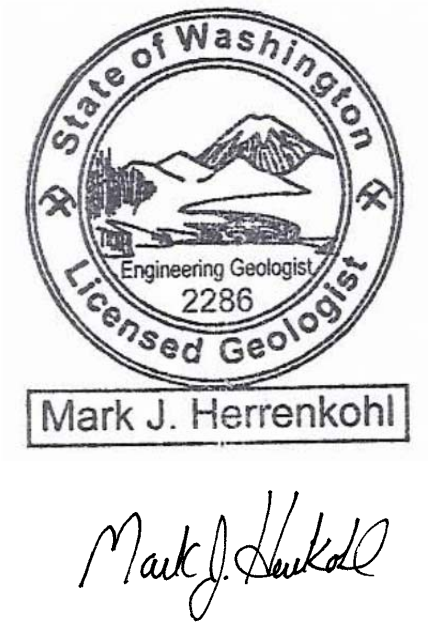
ACRONYMS AND ABBREVIATIONS

ARI	Analytical Resources Inc.
City	City of Bellingham
cPAHs	carcinogenic polycyclic aromatic hydrocarbons
Ecology	Washington State Department of Ecology
ft	foot or feet
HASP	Health and Safety Plan
Herrenkohl Consulting	Herrenkohl Consulting LLC
IHS	indicator hazardous substance
Landau Associates	Landau Associates, Inc.
MTCA	Model Toxics Control Act
PAHs	polycyclic aromatic hydrocarbons
PSE	Puget Sound Energy
QA/QC	quality assurance/quality control
QAPP	quality assurance project plan
RI/FS	remedial investigation and feasibility study
SAP	sampling and analysis plan
SOP	standard operating procedure
SSSMGP	South State Street Manufactured Gas Plant
WAC	Washington Administrative Code
WAD	weak acid dissociable
WISHA	Washington Industrial Safety and Health Act

CERTIFICATION

I, Mark J. Herrenkohl, a licensed engineering geologist in the State of Washington, certify that I have reviewed the geosciences portions of this document.

Signature and Stamp of Geologist:



Name: Mark J. Herrenkohl Date: September 7, 2012

1 INTRODUCTION

This document is the third addendum to the sampling and analysis plan (SAP) and quality assurance project plan (QAPP) for the South State Street Manufactured Gas Plant (SSSMGP) Site remedial investigation and feasibility study (RI/FS) in Bellingham, Washington. It outlines additional sampling and testing activities proposed for the SSSMGP Site, activities supplementary to work conducted under the August 6, 2010 Work Plan (Herrenkohl Consulting and Landau Associates 2010) based on recommendations in the *Remedial Investigation Interim Data Report* (Interim Data Report, Herrenkohl Consulting and Landau Associates 2011a) and further discussions with the Washington State Department of Ecology (Ecology).

This addendum provides specific guidance for field and laboratory methodology and quality assurance procedures that will be followed by Herrenkohl Consulting LLC (Herrenkohl Consulting), Landau Associates, Inc. (Landau Associates), and subcontractors. Herrenkohl Consulting and Landau Associates are conducting this work under contract with the City of Bellingham, Parks and Recreation Department (City), with direction from the Ecology Toxics Cleanup Program. The addendum to the SAP and QAPP was prepared in accordance with an Agreed Order and Scope of Work negotiated between the City, Puget Sound Energy (PSE), and Ecology and signed April 30, 2010 (Document No. 7655), and was developed to meet the requirements of an RI/FS as defined by the Washington State Model Toxics Control Act (MTCA) Cleanup Regulation [Washington Administrative Code (WAC) 173-340; Ecology 2007].

Several documents are cited in this addendum. Altogether, these documents are referred to as the Work Plans for the SSSMGP Site RI/FS:

- ***Work Plan*** for the RI/FS of the SSSMGP Site Bellingham, Washington. The Work Plan provides information on existing data for the SSSMGP Site and the sampling strategy and design to meet the data needs for completing the RI/FS. The Work Plan also describes the project management strategy for implementing and reporting RI/FS activities for the Site, including project team responsibilities and schedule.
- ***Sampling and Analysis Plan*** (Appendix B of the Work Plan) for the RI/FS of the SSSMGP Site, Bellingham, Washington. The SAP describes the procedures for conducting field activities and presents the proposed laboratory analyses for samples collected in the field.
- ***Quality Assurance Project Plan*** (QAPP; Appendix C of the Work Plan) for the RI/FS of the SSSMGP Site, Bellingham, Washington. The QAPP describes analytical method reporting limit goals, field and laboratory quality assurance/quality control (QA/QC) requirements and reporting requirements for the RI/FS for the Site.

- ***Project Health and Safety Plan*** (Appendix D of the Work Plan) for the RI/FS of the SSSMGP Site, Bellingham, Washington. The HASP has been prepared in accordance with WAC 173-340-810, applicable Washington Industrial Safety and Health Act (WISHA) regulations, and project requirements. It addresses those activities associated with work to be performed at the Site.

The Work Plan described an environmental investigation designed to meet the data needs for completing the RI/FS. Data collected in that investigation were summarized in the Interim Data Report (Herrenkohl Consulting and Landau Associates 2011a). An evaluation of that data resulted in the identification of remaining data gaps and recommendations for additional investigation activities to fulfill the data needs for completing the RI/FS. Some of those additional investigation activities were conducted in July 2011 and February 2012, in accordance with *Addendums No. 1 and No. 2, Sampling and Analysis Plan and Quality Assurance Project Plan*, respectively (SAP Addendums 1 and 2, Herrenkohl Consulting and Landau Associates 2011b, 2011c). Sampling and testing completed in accordance with Addendum 1 included laboratory analysis of some archived soil and sediment samples, additional soil vapor sampling, and a bivalve reconnaissance within the pocket beach area of the Site. For Addendum 2, soil and sediment borings were drilled and monitoring wells installed at four additional locations (HS/MW-46, HS/MW-53, HS/MW-54 and HS/MW-55) to further delineate contamination associated with the Site and define the Site boundary.

1.1 PURPOSE AND APPROACH

Based on our review of data collected in accordance with Addendum 2, additional sampling and testing is warranted southwest of locations HS/MW-53, HS/MW-54 and HS/MW-55 to further define the Site boundary and complete the RI/FS for the Site. Soil samples collected in all three borings contained concentrations of carcinogenic polycyclic aromatic hydrocarbons (cPAHs) that exceed preliminary screening levels (Table 1). Carcinogenic PAHs are a site-related chemical class; therefore, these results indicate that further sampling is warranted to characterize impacts from the Site. With the sole exception of WAD cyanide in the MW-53 groundwater sample, chemicals in groundwater did not exceed preliminary screening levels for the Site in these three wells (Table 2).

Additional soil borings are required to further evaluate the extent of cPAHs to the southwest of the Site boundary in the lower portion of the Site. Two additional soil borings are proposed southwest of stations HS-54 and HS-55, located approximately 75 ft apart (refer to Figure 1). The proposed borings (GP-56 and GP-57) will be drilled to bedrock or refusal, whichever comes first, using a limited-access, track-mounted, direct push, drilling rig. Use of this equipment will limit the impact to park grounds and reduce the amount of investigation-derived waste generated during the investigation. Selected soil samples will be collected and analyzed for cPAHs.

WAD cyanide concentrations in groundwater from monitoring wells MW-31 and MW-53 indicate that the edge of the preliminary site boundary is apparently impacted by Site-related contaminants. For each proposed soil boring, a groundwater "grab sample" will be collected and

analyzed for WAD cyanide to define the extent of groundwater contamination associated with the Site.

Additional (contingent) locations will be considered further southwest of GP-56 and GP-57 (Figure 1). These borings would be completed, and soil samples archived, only in the event heavy sheen or NAPL are observed at depth in one or both of the new borings (GP-56 and GP-57). Drilling the additional borings will be a field decision coordinated with City, PSE and Ecology project representatives. Archived soil samples collected from the contingent borings will be analyzed for cPAHs only if analytical results from GP-56 or GP-57 exceed screening levels.

2 FIELD SAMPLING AND TESTING METHODS

Additional environmental investigation activities will be completed during the summer/fall of 2012 to address data gaps identified after completion of work described in Addendum 2 to the SAP/QAPP. Field investigation and laboratory analysis methods described in the SAP and QAPP will be used for the additional investigation, except for activities that warrant the use of new or modified methods. This section presents only those field sampling and laboratory testing methods that are not contained in the SAP and QAPP or that deviate from the methods described therein.

2.1 SOIL INVESTIGATION

Soil samples will be collected from the two borings (GP-56 and GP-57) located southwest of existing borings/monitoring wells HS/MW-54 and HS/MW-55 (Figure 1). This section describes sampling and analysis procedures that differ from those described in the SAP and QAPP.

2.1.1 Sample Depth Intervals

Soil samples in GP-56 and GP-57 will be collected using a limited access, track-mounted Geoprobe® direct-push drilling rig in accordance with the methodology described in the SAP.

2.1.2 Laboratory Analyses

Soil samples from the two borings will be analyzed only for those preliminary indicator hazardous substances (IHSs) that were detected at concentrations exceeding preliminary screening levels in nearby borings HS/MW-53, HS/MW-54, and/or HS/MW-55. All samples from the borings will be analyzed for cPAHs following the analytical method specified in the SAP and QAPP.

2.2 GROUNDWATER INVESTIGATION

A groundwater "grab sample" will be collected from each boring and analyzed for WAD cyanide. This section describes the sampling and analysis procedures that differ from those described in the SAP and QAPP.

2.2.1 Groundwater Grab Sample

Groundwater samples will be collected from each soil boring using a groundwater sampler consisting of a 4 ft long, wire-wrapped, stainless-steel screen (0.010-inch slot size) with a retractable protective steel sheath[1]. The groundwater sampler will be advanced with the

[1] Groundwater will be collected at each boring during lower tide elevations to reduce the influence of marine waters on the samples.

Geoprobe® direct-push drilling rig to the desired sample depth (bottom of screen resting on bedrock) and the protective sheath will be retracted to expose the stainless-steel screen to the formation. Low-flow purging will be performed for 10 minutes or until the purge water is clear using a peristaltic pump. During purging, pH, conductivity, and temperature will be measured using a flow-through cell and recorded on a field sample collection form. Groundwater samples will be collected directly into the appropriate sample containers using disposable polyethylene tubing and a peristaltic pump. Samples will be chilled to 4°C immediately after collecting the sample for transport to the laboratory for analysis.

2.2.2 Laboratory Analyses

The groundwater samples collected from the new borings will be analyzed for WAD cyanide following the method described in the SAP and QAPP with one exception. Since water samples are expected to be turbid upon collection by this type of groundwater sampler, samples will be centrifuged at the laboratory before analysis, following Analytical Resource Inc. (ARI) standard operating procedure (SOP) 1151 for separation of solids by centrifuge (Modified Method EPA-823-B-01-002, refer to Attachment A). Water samples will be placed in unpreserved bottles (500 mL each sample) supplied by the laboratory and delivered to the laboratory within 24 hours. Once at the laboratory, samples will be centrifuged as described in SOP 1151 to remove the suspended solids, and the decant water will be preserved with 2 ml 10N NaOH before analyzing for WAD cyanide.

3 REFERENCES

Ecology. 2007. Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 WAC. Washington State Department of Ecology. Publication No. 94-06. Olympia, WA. Last updated October 12, 2007.

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Herrenkohl Consulting and Landau Associates. 2011a. Remedial Investigation Interim Data Report, South State Street Manufactured Gas Plant Remedial Investigation and Feasibility Study, Bellingham, Washington. Prepared for the City of Bellingham, Parks & Recreation Department, Bellingham, Washington and Puget Sound Energy, Environmental Services, Bellevue, Washington. Prepared by Herrenkohl Consulting LLC of Bellingham, Washington and Landau Associates Inc., of Edmonds, Washington. June 29.

Herrenkohl Consulting and Landau Associates. 2011b. Addendum No. 1 Sampling and Analysis Plan, Quality Assurance Project Plan, South State Street Manufactured Gas Plant Remedial Investigation and Feasibility Study, Bellingham, Washington. Prepared for the City of Bellingham, Parks & Recreation Department, Bellingham, Washington and Puget Sound Energy, Environmental Services, Bellevue, Washington. Prepared by Herrenkohl Consulting LLC of Bellingham, Washington and Landau Associates Inc., of Edmonds, Washington. July 25.

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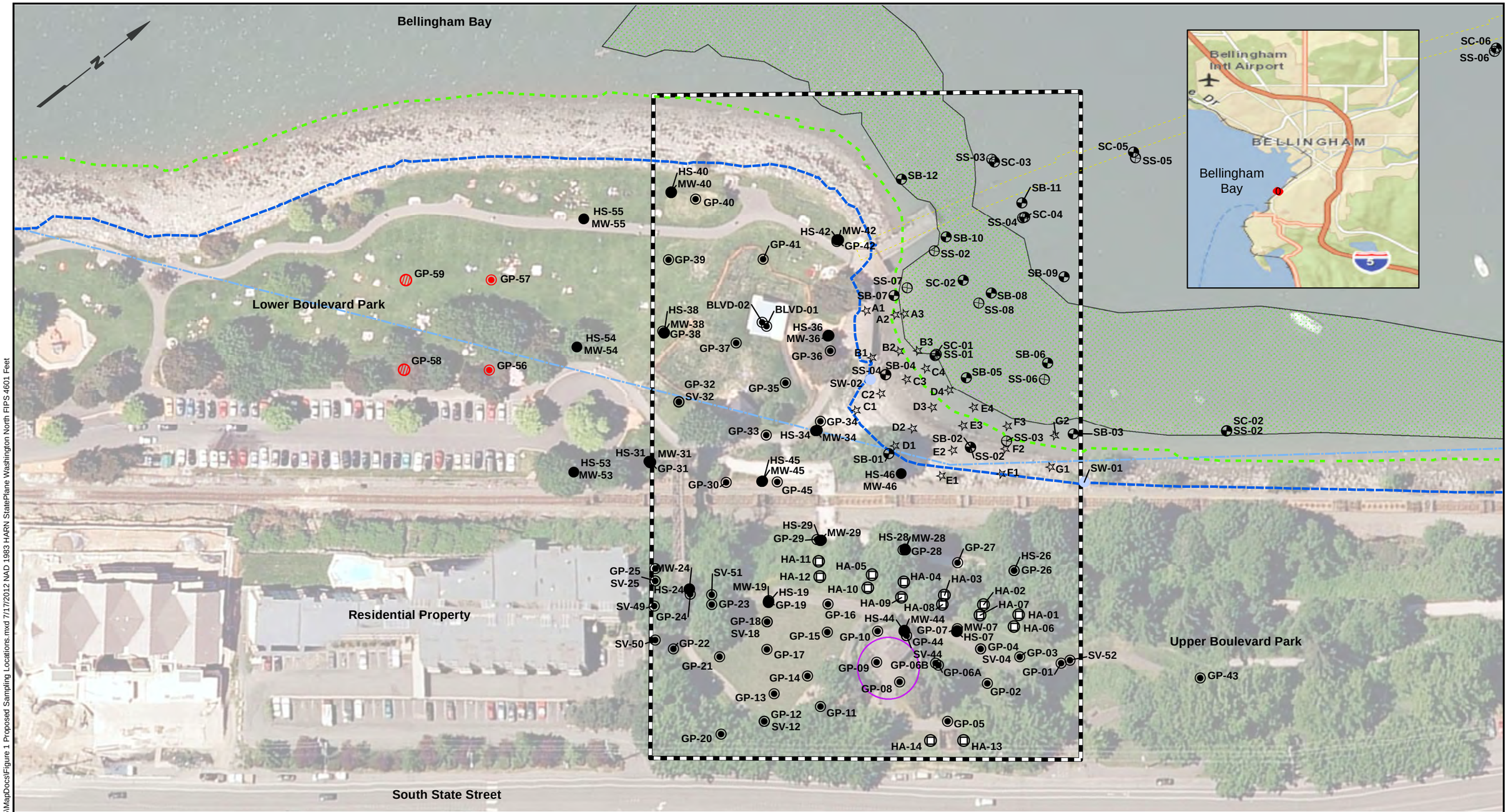

Y:\Projects\01501\050\055\MapDocs\Figure 1 Proposed Sampling Locations.mxd 7/17/2012 NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet

Legend

- Proposed Sample Locations
- Bivalve Sample Locations
- GeoProbe
- Hand Auger
- Monitoring Well
- Sediment Boring
- Surface Sediment
- Stormwater
- Contingency Borings
- Existing Gas Holder Tank
- Mean Lower Low Water (Elev = 0)
- Mean High Tide
- Inner Harbor Line
- Proposed Over Water Walkway
- Site Boundary
- Eelgrass Survey

Notes

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.
2. Horizontal Datum: NAD 83 (HARN), U.S. Survey Feet.
3. Vertical Datum: Mean Lower Low Water (MLLW), Feet.

0 80 160

Scale in Feet

Data Sources: BergerABAM, 2010: Steele and Assoc, 2011; ESRI World Imagery.

LANDAU ASSOCIATES

Herrenkohl Consulting LLC

South State Street
Manufactured Gas Plant
RI/FS
Bellingham, Washington

Proposed Sampling Locations

Figure
1

TABLE 1
SOIL DATA - FEBRUARY 2012
SOUTH STATE STREET MANUFACTURED GAS PLANT SITE
BELLINGHAM, WASHINGTON

Analyte	Preliminary Screening Level (a)	MGP-HS-53-1.0-2.0 2/1/2012	MGP-HS-53-4.0-5.0 2/1/2012	MGP-HS-53-10.5-11.5 2/1/2012	MGP-HS-54-1.0-1.5 2/3/2012	MGP-HS-54-5.5-6.0 2/3/2012	MGP-HS-54-13.0-14.0 2/3/2012	MGP-HS-55-1.0-2.0 2/2/2012	MGP-HS-55-2.5-3.5 2/2/2012	MGP-HS-55-11.5-12.5 2/2/2012	MGP-HS-55-17.5-18.5 2/2/2012
TOTAL PETROLEUM HYDROCARBONS (mg/kg)											
Gasoline range	30	--	--	--	--	--	9.1 U	--	--	--	0.1 U
VOLATILES (µg/kg)											
Benzene	290	--	--	--	--	--	23 U	--	--	--	0.2 U
PAHs (µg/kg)											
Benzo(a)anthracene	TEQ (b)	990	160	4.7 U	71	4600	9100	10	32	310	170
Benzo(a)pyrene	140	**1200**	**280**	2.7 J	96	**7300**	**9900**	20	35	**420**	82
Chrysene	TEQ (b)	1100	290	2.6 J	180	5100	9900	16	71	340	280
Dibenz(a,h)anthracene	TEQ (b)	250	79	4.7 U	22	1000	1000	2.9 J	14	70	49 U
Indeno(1,2,3-cd)pyrene	TEQ (b)	710	240	4.7 U	63	3400	3700	8.1	27	250	49 U
Total Benzofluoranthenes	TEQ (b)	1600	490	4.7 U	240	10000	11000	23	64	570	120
TEQ cPAH	140	**1566 T**	**379.8 T**	2.726 JT	137.4 T	**9251 T**	**12479 T**	24.56 JT	49.41 T	**543.4 T**	113.8 T

"--" = Not analyzed in sample.
PQL = Practical Quantitation Limits.
TEQ = Toxicity Equivalency Quotient. TEQ is based on individual Toxicity Equivalency Factors (TEFs) of benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene.

Notes:
(a) Preliminary Cleanup Screening Level based on lowest soil criteria, excluding terrestrial ecological criteria, corrected for PQL and background, as described in the *Remedial Investigation Interim Data Report.*
(b) A TEQ will be computed for each sample containing carcinogenic PAHs above reporting limits and compared to the benzo(a)pyrene screening level in accordance with WAC 173-340-708(8)(e).
1566 T Detected concentration exceeds preliminary screening level.

TABLE 2
GROUNDWATER DATA - FEBRUARY 2012
SOUTH STATE STREET MANUFACTURED GAS PLANT SITE
BELLINGHAM, WASHINGTON

Analyte	Preliminary Screening Level (a)		MW-19 2/7/2012	MW-28 2/7/2012	MW-29 2/7/2012	MW-31 2/6/2012	MW-38 2/8/2012	MW-40 2/6/2012	MW-46 2/6/2012	MW-53 2/7/2012	MW-54 2/7/2012	MW-55 2/7/2012
TOTAL PETROLEUM HYDROCARBONS (mg/L)												
Gasoline range	0.8		**5.5**	**16**	0.1 U	**2.3**	0.1 U	0.1 U	0.32	0.1 U	0.1 U	0.1 U
METALS (µg/L)												
Arsenic	5	(b)	50 U	50 U	50 U	50 U	100 U	100 U	50 U	50 U	100 U	100 U
Lead	8.1		20 U	20 U	20 U	20 U	40 U	40 U	20 U	20 U	40 U	40 U
Selenium	71		50 U	50 U	50 U	50 U	100 U	100 U	50 U	50 U	100 U	100 U
Silver	1.9		3 U	3 U	3 U	3 U	6 U	6 U	3 U	3 U	6 U	6 U
VOLATILES (µg/L)												
Benzene	51	(c)	**460**	**4400**	0.25 U	48	0.25 U	0.25 U	0.73	0.25 U	0.25 U	0.27
PAHs (µg/L)												
Benzo(a)anthracene	0.1	(d)	0.07 J	0.1 J	0.06 J	0.1 U	0.1 U	0.1 U	**0.33**	0.1 U	0.1 U	0.1 U
Benzo(a)pyrene	0.1	(d)	0.09 J	0.1 U	0.08 J	0.1 U	0.1 U	0.1 U	**0.26**	0.1 U	0.1 U	0.1 U
Chrysene	0.1	(d)	**0.11**	**0.11**	0.1 U	0.1 U	0.1 U	0.1 U	**0.34**	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	0.1	(d)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Indeno(1,2,3-cd)pyrene	0.1	(d)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 J	0.1 U	0.1 U	0.1 U
Total Benzofluoranthenes	0.1	(d)	0.1 U	0.1 U	**0.11**	0.1 U	0.1 U	0.1 U	**0.32**	0.1 U	0.1 U	0.1 U
TEQ cPAH	0.1	(d)	0.0981 JT	0.0111 JT	0.097 JT	0.1 UT	0.1 UT	0.1 UT	**0.3329 JT**	0.1 UT	0.1 UT	0.1 UT
WAD Cyanide (mg/L)	0.005	(d)	**0.009**	**0.03**	**0.089**	**0.009**	**0.006**	0.005 U	**0.025**	**0.012**	0.005 U	0.005 UJ

PQL = Practical Quantitation Limits.

Notes:

(a) Screening level based on lowest water quality standard or PQL or background, as described in the *Remedial Investigation Interim Data Report.*

(b) Screening level is based on background concentrations of arsenic in groundwater (WAC 173-340-900; Table 720-1).

(c) Selected cleanup standard is based on the federal criteria because it represents an acceptable risk less than 1E-05, consistent with WAC 173-340-740(3)(b)(i).

(d) The preliminary screening level is based on the PQL.

5.5 Detected concentration exceeds preliminary screening level.

ATTACHMENT A

Standard Operating Procedure

Separation of Solids by Centrifuge
Modified EPA-823-B-01-002 Methods

SOP 1151
Revision 001

Revision Date: 4/17/09

Prepared By:

Alexandra Spielhagen

Approvals:

Laboratory / Section Manager

Annual Review

SOP Number:

Title: Separation of Solids by Centrifuge

Revision: 001

Revision Date: 4/17/09

Effective date:

The ARI employee named below certifies that this SOP is accurate, complete and requires no revisions.

Reviewer's Name	Reviewer's Signature	Date

1.0 PURPOSE AND SCOPE

This procedure describes the method, materials, equipment, and special conditions required to isolate and separate the solids in a given sample. This procedure is for extraction of solid material from a matrix in preparation for various chemical and physical analyses.

2.0 EQUIPMENT

2.1 Refrigerated centrifuge
2.2 500 ml decontaminated glass centrifuge bottles
2.3 Unused 1 L amber glass bottles
2.4 Balance for balancing the centrifuge bottles, accurate to 0.1 g
2.5 Decontaminated spoons
2.6 Aluminum foil
2.7 Unused glass sample jars of appropriate sizes
2.8 Deionized (DI) water

3.0 DEFINITIONS

3.1 Test Environment
3.1.1 The test environment should be a fairly constant temperature of approximately 4° C during centrifuging. Fluctuations in temperature may introduce changes in chemical makeup that are of practical significance.

4.0 DOCUMENTATION

4.1 1151F - Separation of Solids by Centrifuging Data Sheet

5.0 PROCEDURE

5.1 Decontamination
5.1.1 Decontamination of glass centrifuge bottles must include the following steps:
- wash the bottles with a Citranox detergent and rinse with tap water to remove any residue
- soak with a 5% nitric acid solution for at least four hours
- rinse with DI water
- air dry
- rinse with dichloromethane
- air dry

5.1.2 Decontamination of miscellaneous spoons must include the following steps:
- wash the spoons with a detergent and rinse with DI water to remove any residue
- air dry
- rinse with dichloromethane

5.2 Sediment samples will be maintained at 4°C prior to centrifuging. Care must be taken at each step to ensure that the temperature of the sample is maintained at or below 10°C during processing.
5.3 Remove the samples from the cooler/refrigerator. Verify sample ID numbers, and notify supervisor for ID discrepancies. Review the job folder and check for any possible special client instructions that might require additional quality control samples, special reporting limits, or special sample handling. Obtain blank data sheets and record all handwritten raw data including project information, date, technician initials, sample IDs, etc.
5.4 Sample preparation

5.4.1 For a given sample, label a 1 L amber glass bottle with the both the ARI and client sample IDs, the date, and a note indicating "water from centrifuging for solids."
5.4.2 Open the sample bottle. Without pouring out any sediment, pour the top water layer, if present, into the labeled 1 L amber glass bottle.
5.4.3 Pour any extra water volume into the evaporation pans for disposal.
5.4.4 Pour all sediment and other solid material from the sample bottle into a decontaminated glass centrifuge bottle that has been labeled with the ARI sample ID. You may use a decontaminated spoon to scrape out solid material; save the spoon for later use on a piece of aluminum foil labeled with the sample ID. You may also use some of the saved sample water in the amber glass bottle to rinse the sample bottle out.
5.4.5 There are usually two sample bottles provided for any given sample. Repeat steps 5.4.1-5.4.4 for the second sample bottle, using the same centrifuge and amber glass bottles. Only 1 L of saved sample water is required, but another centrifuge bottle may be used if there is too much solid material present.
5.4.6 Repeat steps 5.4.1 through 5.4.5 for all samples.
5.4.7 Equalize the weights of all glass centrifuge bottles with a balance; the bottle weights must be within 0.1 g of each other. To balance each sample, you may use the corresponding saved sample water from the amber glass bottles. Remember to include the centrifuge bottle caps when balancing.
5.5 Centrifuging
5.5.1 The process of centrifugation separates the solids and liquid phases based on their specific gravity. During the spinning process, the denser materials move to the bottom of the bottle while the lighter materials float to the top. Extraction requires a significant difference between the specific gravity of the matrix and the specific gravity of the separated material. Some organic materials may not be significantly denser than the pore water and thus may not separate. For instance, seed pods generally float on top of the water layer.
The rate of separation in a centrifuge depends on temperature, the speed and radius of the rotor, and variations in the specific gravity and particle size of the materials. Also, the centrifuge rotor's design affects calculations, as the angle of the rotor, and thus the effective radius, will change the centrifugal force.
5.5.2 The temperature of the centrifuge should be set to 4°C. It should be allowed come to this temperature prior to use.
5.5.3 Pad the centrifuge wells with rubber pads on the bottom and with foam on the sides to prevent breakage. Ensure the glass centrifuge bottles do not touch any metal of the centrifuge well. Place the glass centrifuge bottles within the padded wells, and place the wells within the centrifuge.
5.5.4 Turn on the centrifuge and set the dials to spin at 1000 times the force of gravity for 30 minutes. Record the sample centrifugation start time, as well as all other pertinent information, such as centrifugation speed, temperature, duration, etc.
5.5.5 If necessary, repeat steps 5.5.2-5.5.4 for additional samples. If centrifuging a sample twice in order to appropriately balance the centrifuge, record the second starting time rather than the first.
5.6 Extraction
5.6.1 After the samples have been centrifuged for 30 minutes, remove the samples from the centrifuge.
5.6.2 For a given sample, pour the separated water from the centrifuge bottle into the corresponding amber glass bottle. Pour any excess into the evaporation pans for disposal.
5.6.3 Estimate the amount of isolated solids to determine the appropriately sized sample jar. Label the sample jar with the corresponding stickers. If stickers have not been provided, label the jar using a sample label with the ARI and client sample IDs, the ARI job number, and sampling date and time (same as the decant time on the data sheet, step 5.6.7). Label the sample jar lid with the ARI job number and sample ID using permanent marker.

5.6.4 Place the labeled sample jar without the lid on the balance. Zero out the balance.
5.6.5 Using either the corresponding spoon saved from step 5.4.4 or an unused decontaminated spoon, transfer all solid material from the centrifuge bottle into the labeled sample jar. Record the sample weight under "Estimated Recovery" on the data sheet. Remove the sample from the balance and screw on the appropriate lid.
5.6.6 If necessary, a sample's solid material may be spooned into more than one sample jar. Repeat steps 5.6.3-5.6.5 and add the individual "Estimated Recovery" weights to obtain a total "Estimated Recovery" weight. Record the total weight on the data sheet instead of the individual weights.
5.6.7 Record the time at step 5.6.5 under "Decant Time" on the data sheet.
5.6.8 Repeat steps 5.6.2-5.6.7 for all samples.
5.7 Keep the workstation clean. Initial and date the data sheet and record any spills or corrective actions.

6.0 SAFETY

6.1 Keep all laboratory areas clean and follow all safety requirements.

7.0 REFERENCE

7.1 EPA-823-B-01-002, *Methods for Collection, Storage and Manipulation of Sediments for Chemical and Toxicological Analyses: Technical Manual,* 2001