

Technical Memorandum

To: Chris Maurer, Washington Department of Ecology
From: Janet Knox, Pacific Groundwater Group
Re: Scougal Rubber Remedial Action Update (VCP Site NW 1707)
Date: December 14, 2015

This technical memorandum summarizes the remedial actions conducted at Scougal Rubber between November 2014 and November 2015. Remedial action at the site focuses on reduction of chlorinated solvent concentrations in soil and groundwater. Previous remedial actions at the site are described in other documents, including:

- *Scougal Rubber Remedial Action Update (VCP Site NW 1707)* (PGG, 2014)
- *Scougal Rubber Remedial Action Update (VCP Site NW 1707)* (PGG, 2013)
- *Scougal Rubber Remedial Action Update (VCP Site NW 1707)* (PGG, 2012)
- *Scougal Rubber Remedial Action Update (VCP Site NW 1707)* (PGG, 2011)
- *Scougal Rubber Remedial Action Update (VCP Site NW 1707)* (PGG, 2009)
- *Scougal Rubber Final Remedial Action Plan* (PGG, 2007)
- *Independent Remedial Action Report* (Retec, 2002)

The work was performed using generally accepted hydrogeologic practices at this time and in this vicinity, for exclusive application to the Scougal Rubber site and for the exclusive use of Scougal Rubber. This statement is in lieu of other warranties, express or implied.

INTRODUCTION

Scougal Rubber is located in the Georgetown neighborhood of Seattle, Washington at 6239 Corson Avenue (Figure 1). Remedial efforts have been underway at the site for over 20 years and have been successful in significantly reducing contaminant concentrations (Table 1). Source area groundwater concentrations have decreased, but were above MTCA Method A cleanup levels in the most recent sampling event.

The Scougal property overlies fine to medium silty sands with scattered, discontinuous silt and gravel stringers. These soils are commonly observed throughout the lower Duwamish area. Depth to groundwater at the site is between 7 and 9 feet. The regional groundwater flow direction is to the southwest toward the Duwamish River, approximately 0.5 miles away (Retec, 2003). Soil cores collected in 2009 identified a 6- to 12-inch thick silt layer at approximately 16 feet below ground surface (bgs) that appears to be laterally continuous within at least the alleyway area of the site.

Petroleum- and chlorinated solvent-impacted soil was identified on the Scougal property in the late 1980s. This discovery led to remedial action at the site including removal of underground storage tanks, hotspot excavation, hydraulic containment, and operation of an air sparging soil vapor extraction (SVE) system (Retec, 2002). The SVE system was designed to reduce contaminant concentrations in soil and groundwater behind the Scougal main plant and beneath the Machinists Inc. property to the west. The SVE system was operated intermittently from 1994 through 1999.

Operation of the SVE system reduced groundwater concentrations by approximately 90 percent, and had inconsistent effectiveness in soil. In 1994, TCE (1,000 ug/L) and vinyl chloride (1,300 ug/L) concentrations at MW-14 exceeded cleanup levels. After operation of the SVE system, concentrations of TCE and vinyl chloride had decreased, but groundwater concentrations rebounded each time the system was shut down. The SVE system was effective at reducing contaminant mass, but soil and groundwater concentrations remained above cleanup levels.

Scougal Rubber contacted Pacific Groundwater Group (PGG) in 2006 to develop a plan to further reduce contaminant concentrations to below cleanup levels. PGG performed additional site investigation in 2006 as the basis for further remediation and found concentrations as high as TCE (110 ug/L) and vinyl chloride (33 ug/L) in groundwater.

PGG developed a Final Remedial Action Plan to address residual contamination. With that plan, Scougal Rubber chose to enter the Washington Department of Ecology's Voluntary Cleanup Program (VCP) to receive Ecology's approval of the cleanup approach and to obtain a No Further Action (NFA) letter once the cleanup goals are achieved.

Upon review of the existing site documents and the Final Remedial Action Plan, Ecology provided approval of the plan on April 12, 2007. PGG then implemented the planned removal of shallow impacted soil, in-situ chemical oxidation with potassium permanganate, and confirmation sampling (PGG, 2009). All confirmation soil samples within the treatment area were non-detect for chlorinated solvents. Groundwater petroleum compound concentrations were reduced to below cleanup levels. Groundwater chlorinated ethene concentrations were reduced an additional 90 percent to approximately 1 percent of the pre-remediation (1993) levels. However, TCE and vinyl chloride concentrations remained above MTCA Method A groundwater cleanup values at the end of 2008. In 2009, PGG developed and implemented a targeted ozone injection system to further reduce concentrations. This system is described in the following sections.

OZONE REMEDIATION

PGG designed and observed installation of an ozone remediation system in May-June 2009. A second phase of ozone sparge points was added in June 2010. Ozone was selected to address residual groundwater contamination because of the ability to distribute oxidant to soil and groundwater in areas with difficult access with minimal disturbance to site structures and manufacturing operations. The ozone system installation included (Figures 2 and 3):

- An H2O Engineering model OSU-52 cabinet capable of producing 2.7 pounds of ozone per day at a concentration of 3,570 ppm in a 90% oxygen stream.
- 8 soil injection points screened between 5 and 6.5 feet bgs.
- 8 groundwater sparge points screened between 15 and 16.5 feet bgs (keyed to top of silt) with micro-bubble screens to enhance ozone dispersal.
- 3 groundwater sparge points screened between 18.5 and 20 feet bgs (below silt interval) with micro-bubble screens to enhance ozone dispersal.

Between 2,500 and 3,000 lbs of ozone were delivered to groundwater sparge points¹ during ozone operations through November 2015.

SOIL AND GROUNDWATER MONITORING

SUPPLEMENTAL SOIL AND GROUNDWATER CHARACTERIZATION

In March 2015, additional soil and groundwater samples were collected in the vicinity of the Mix Room and the NW corner of the Main Plant. Sampling points SR-32 through SR-35 are located in the Mix Room. Sampling points SR-36 through SR-38 are located in the Main Plant.

Groundwater samples show no exceedances for PCE, cis-1,2 DCE, or Vinyl Chloride, but contain a slight exceedances of TCE of 6.7 ug/L at SR-32 and 5.4 ug/L at SR-37.

Groundwater TCE concentrations ranged from 1.2 ug/L to 6.7 ug/L. cis-1,2-Dichloroethene concentrations ranges from non-detect to 1.9 ug/L. PCE and Vinyl Chloride concentrations were all non-detect. The two exceedances for TCE were located at SR-32 (6.7 ug/L) and SR-37 (5.4 ug/L).

All soil samples in 2015 show no exceedances for PCE, TCE, cis-1,2 DCE, or Vinyl Chloride. The lack of TCE soil exceedances suggests that the hotspot identified from the 2013 sampling near the southwest corner of the Mix Room is isolated and does not ex-

¹ The ozone system had intermittent down time when oxygen was delivered to sparge points without ozone. For safety, when the cabinet detects a problem, ozone production to that point is discontinued.

tend under the rest of the building, or that ozone delivery has successfully reduced TCE concentrations to below MTCA Method A cleanup levels in those areas.

Sampling Methods

Soil samples were collected directly from direct-push probes. Samples were collected using stainless-steel spoons and bowls for mixing into sampling jars with protective gloves. Soil samples were collected at SR-32 through SR-38 into laboratory-provided sample containers and placed in coolers with ice.

Groundwater samples were collected from temporary well points. Well points were purged using a peristaltic pump and low flow methods to minimize volatilization. Temporary wells were purged until turbidity decreased and stabilized before sampling. Groundwater samples were collected at SR-32, SR-33, and SR-35 through SR-38 into laboratory-provided sample containers, and placed in coolers with ice. Well points, attached pipe, and PEX liner was decontaminated between samples.

Chain of custody was maintained for all samples through delivery to Friedman and Bruya for analysis.

GROUNDWATER MONITORING

All monitoring wells were surveyed to NAD'83 in order to facilitate water-level mapping. MW-2 was located and decommissioned in accordance with WAC 173-160 Minimum Standards for Construction and Maintenance of Wells.

NEXT STEPS

Ozone treatment has reduced chlorinated ethene concentrations to below MTCA Method A groundwater cleanup levels several times during the course of the ozone treatment, followed by rebound to above MTCA cleanup levels. Ozone treatment is continuing to address residual concentrations leading to rebound with additional sparge points added in 2010. Groundwater monitoring will be continued in a spring/summer 2016 sampling event.

Attachments:

Table 1.	Remedial Investigation and Action Timeline
Table 2.	Groundwater Sampling Result Summary
Table 3.	Soil Sampling Results Summary
Figure 1.	Site Map
Appendix A.	Analytical Lab Reports April 2015

References:

Pacific Groundwater Group, 2007. *Final Remedial Action Plan, Scougal Rubber*. January 17, 2007.

Pacific Groundwater Group, 2009. *Letter to Chris Maurer, Washington Department of Ecology, RE: Scougal Rubber Remedial Action Update (VCP Site NW 1707)*. January 22, 2009.

Pacific Groundwater Group, 2011. *Letter to Chris Maurer, Washington Department of Ecology, RE: Scougal Rubber Remedial Action Update (VCP Site NW 1707)*. September 20, 2011.

Retec, 2002. *Independent Remedial Action Report*. March 28, 2002. Retec Project Number SRC00-02417-400.

Washington Administrative Code (WAC), 2015. Chapter 173-160 WAC Minimum Standards for Construction and Maintenance of Wells.

cc: Rob Anderson, Scougal Rubber Corporation

APPENDIX A**ANALYTICAL LAB REPORTS - APRIL 2015, FROM MARCH 2013 SAMPLING EVENT**

Table 1. Remedial Investigation and Action Timeline

Scougal Rubber Corporation, Seattle, Washington

Date	Location*	Event	Result	Reference
1980s	AW, EW	Contamination identified on site	Contamination recognized; finding initiated remedial investigation and cleanup process.	Retec (2002)
1992	AW	UST removal, hotspot excavation	Bulk of contaminant mass removed; soil and groundwater impacts remained	Retec (2002)
1994-1999	AW	Air sparge and soil vapor extraction	Reduced contaminant mass; soil and groundwater remained above cleanup levels	Retec (2002)
2006	AW	Soil and groundwater sampling	Contamination in alleyway area delineated; provided baseline for remedial action	PGG (2006)
2007	AW	Soil hotspot excavation and permanganate application	Reduced soil VOC concentrations to non-detect; groundwater concentrations reduced by approximately 90%	PGG (2009)
2008	AW	Confirmation groundwater sampling	Groundwater rebound noted at MW-14 to above cleanup levels	PGG (2009)
2009-2012	AW	Ozone injection in two phases	Reduced groundwater VOC concentrations to near cleanup levels (ongoing)	Table 2
2009	EW	Soil and groundwater sampling	Identified remaining soil hotspot; groundwater concentrations at EW and down gradient below cleanup levels	PGG (2011)
2010	EW	Permanganate application	Reduced soil VOC concentrations to non-detect	PGG (2011)
2013	PB	Paint Booth Investigation	Identified soil hotspot beneath building; GW below or near cleanup levels	PGG (2013)

* Location Acronyms: AW- Alleyway; EW- East Warehouse; PB Paint Booth Area

Table 2. Groundwater Sampling Result Summary

Scougal Rubber Corporation, Seattle, Washington

Sample Location	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
Pre-Permanganate Concentrations					
MW-11	8/3/2006	0.3	9.4	8.7	U 0.2
MW-12	8/3/2006	U 1	0.2	0.4	0.7
MW-13	8/3/2006	U 1	46	11	2.6
MW-14	8/3/2006	4.1	110	26	33
MW-4	8/3/2006	0.2	3.3	U 1	U 0.2
OW-10	8/3/2006	U 1	9.6	18	3.5
Post-Permanganate Concentrations					
MW-11	6/10/2008	U 1	10	3.7	U 0.2
MW-12	6/10/2008	U 1	U 1	U 1	U 0.2
MW-14	6/10/2008	U 1	13	3.7	15
MW-11	9/5/2008	U 1	13	2.9	U 0.2
MW-12	9/5/2008	U 1	U 1	U 1	1
MW-14	9/5/2008	U 1	14	3.4	25
Ozone Install Reconnaissance Samples					
OP-10	6/29/2010	U 1	U 1	U 1	U 0.2
OP-11	6/29/2010	U 1	U 1	U 1	0.51
OP-9	6/29/2010	U 1	U 1	U 1	0.7
Ozone Operational Data					
MW-11	1/23/2009	U 1	12	U 1	U 0.2
MW-12	1/23/2009	U 1	U 1	U 1	U 0.2
MW-14	1/23/2009	1.6	41	1.3	13
MW-14	7/20/2009	0.8	19	5.8	9.2
MW-14	9/23/2009	U 0.2	4	1.7	1.9
MW-14	12/4/2009	0.3	3.7	1.3	0.5
MW-14	1/22/2010	0	1.4	1.8	1
MW-14	3/10/2010	0	2.3	2.3	5.7
MW-14	4/22/2010	U 1	1.6	U 1	U 0.2
MW-11	5/24/2010	U 1	U 1	U 1	U 0.2
MW-12	5/24/2010	U 1	U 1	U 1	U 0.2
MW-14	5/24/2010	U 1	3.1	U 1	1.5
MW-14	9/15/2010	U 1	U 1	U 1	U 0.2
MW-14	10/14/2010	U 1	0.89 J	U 1	1.1
MW-14	3/9/2011	0.39 J	1.6	0.12 J	0.08 J
MW-14	5/6/2011	0.18 J	1.9	0.34 J	0.15 J
MW-14	7/15/2011	U 0.11	0.49 J	U 1	0.1 UJ
MW-11	9/16/2011	U 0.5	2.6	U 1	U 0.2
MW-12	9/16/2011	U 0.5	U 0.5	U 1	0.89
MW-14	9/16/2011	U 0.5	2.8	U 1	0.69
MW-11	11/23/2011	U 0.12	2.5	U 1	U 0.2
MW-12	11/23/2011	U 0.12	0.22 J	U 1	0.32
MW-13	11/23/2011	0.24 J	8.4	3.3	0.6
MW-14	11/23/2011	0.3 J	4.2	1.5	2.1
MW-11	6/14/2013	U 1	6.8	U 1	U 0.2
MW-12	6/14/2013	U 1	U 1	U 1	U 0.2
MW-13	6/14/2013	U 1	11	U 1	0.32
MW-14	6/14/2013	U 1	5	U 1	0.44

Table 2. Groundwater Sampling Result Summary

Scougal Rubber Corporation, Seattle, Washington

Sample Location	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-11	11/25/2014	U 1	U 1	U 1	U 0.2
MW-12	11/25/2014	U 1	U 1	U 1	U 0.2
MW-13	11/25/2014	U 1	6.2	2.8	0.29
MW-14	11/25/2014	U 1	3.9	U 1	U 0.2
East Warehouse Reconnaissance Samples					
SR-18	5/1/2009	U 1	U 1	U 1	U 0.2
SR-19	5/1/2009	U 1	U 1	U 1	U 0.2
SR-20	5/1/2009	U 1	U 1	U 1	U 0.2
SR-21	5/1/2009	U 1	1.1	U 1	U 0.2
SR-22	5/1/2009	U 1	1.1	U 1	U 0.2
SR-23	5/1/2009	U 1	U 1	1.4	U 0.2
Paint Booth Building Reconnaissance Samples					
SR-27	5/14/2013	U 1	2.7	U 1	U 0.2
SR-28	5/14/2013	U 1	5.9	U 1	U 0.2
SR-31	5/14/2013	U 1	3.5	U 1	U 0.2
2015 Extent Investigations					
SR-32	3/6/2015	U 1	6.7	U 1	U 0.2
SR-33	3/6/2015	U 1	1.9	1.9	U 0.2
SR-34	--	--	--	--	--
SR-35	3/6/2015	U 1	2.3	U 1	U 0.2
SR-36	3/6/2015	U 1	2.9	U 1	U 0.2
SR-37	3/6/2015	U 1	5.4	1.1	U 0.2
SR-38	3/6/2015	U 1	1.2	1.1	U 0.2
MTCA Method A table values		5	5	80	0.2

Bold indicates exceedance of MTCA Method A table value.

U indicates non-detect at the shown reporting limit.

J indicates an estimated value. J-flag values occur where concentrations are reported between the method detection limit and reporting limit.

All Results ug/L.

Table 3. Soil Sampling Results Summary

Scougal Rubber Corporation, Seattle, Washington

Sample	Date	Depth feet	Tetrachloroethene mg/kg	Trichloroethene mg/kg	cis-1,2-Dichloroethene mg/kg	Vinyl Chloride mg/kg
Paint Booth Investigation						
SR-27	5/13/13	5.1	U 0.025	U 0.03	U 0.05	U 0.05
SR-28	5/13/13	5.5	U 0.025	U 0.03	U 0.05	U 0.05
SR-29	5/13/13	2.5	U 0.025	0.29	U 0.05	U 0.05
SR-30	5/13/13	2.7	0.05	0.67	U 0.05	U 0.05
SR-31	5/13/13	5.1	0.081	0.23	U 0.05	U 0.05
2015 Extent Investigation						
SR-32	3/6/2015	5.0	U 0.025	U 0.02	U 0.05	U 0.05
SR-33	3/6/2015	5.0	U 0.025	U 0.02	U 0.05	U 0.05
SR-34	3/6/2015	5.0	U 0.025	U 0.02	U 0.05	U 0.05
SR-35	3/6/2015	5.0	U 0.025	0.029	U 0.05	U 0.05
SR-36	3/6/2015	5.0	U 0.025	U 0.02	U 0.05	U 0.05
SR-37	3/6/2015	5.0	U 0.025	U 0.02	U 0.05	U 0.05
SR-38	3/6/2015	5.0	U 0.025	U 0.02	U 0.05	U 0.05
SR-38	3/6/2015	7.0	U 0.025	U 0.02	U 0.05	U 0.05
MTCA Method A table values			0.05	0.03	8000	0.67

Bold indicates exceedance of MTCA Method A table value.

U indicates non-detect at the shown reporting limit.



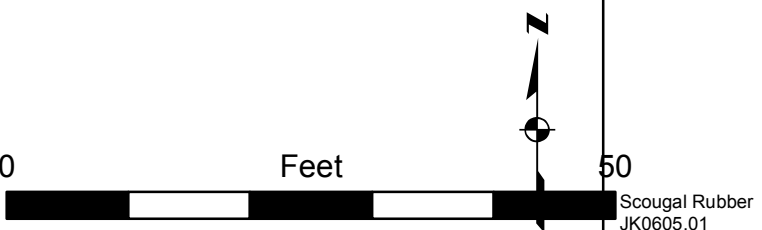
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Sample Results for TCE

- ⊕ Monitoring Well
- Sample Point
- Air Sparging Well
- Ozone
- ◆ Direct Push
- Test Pit
- ⬡ Catch Basin

Figure 2
2015 Sampling Map

Scougal Rubber Corporation
Seattle, Washington



K:\JANET\JK0605-ScougalRubber\GIS\SitedrainageMap_2015Exceedances.mxd 12/14/2015

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 16, 2015

Glen Wallace, Project Manger
Pacific Groundwater Group
2377 Eastlake Ave East
Seattle, WA 98102

Dear Mr. Wallace:

Included are the results from the testing of material submitted on March 6, 2015 from the Scougal Rubber JK0605, F&BI 503114 project. There are 24 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
PGG0316R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 6, 2015 by Friedman & Bruya, Inc. from the Pacific Groundwater Group Scougal Rubber JK0605, F&BI 503114 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Pacific Groundwater Group</u>
503114 -01	SR-34-S
503114 -02	SR-32-S
503114 -03	SR-32-W
503114 -04	SR-33-S
503114 -05	SR-33-W
503114 -06	SR-35-S
503114 -07	SR-35-W
503114 -08	SR-36-S
503114 -09	SR-36-W
503114 -10	SR-37-S
503114 -11	SR-37-W
503114 -12	SR-38-S
503114 -13	SR-38-W
503114 -14	SR-38-S-7

Several 8260C compounds failed below the acceptance criteria in the water matrix spike sample. The laboratory control samples met the acceptance criteria, therefore the data were likely due to sample matrix effect.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/15
Date Received: 03/06/15
Project: Scougal Rubber JK0605, F&BI 503114
Date Extracted: 03/09/15
Date Analyzed: 03/09/15

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
SR-38-S-7 503114-14	<50	<250	96
Method Blank 05-478 MB	<50	<250	106

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-34-S	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-01
Date Analyzed:	03/09/15	Data File:	030912.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	89	113
Toluene-d8	97	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.02	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-32-S	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-02
Date Analyzed:	03/09/15	Data File:	030913.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	89	113
Toluene-d8	96	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.02	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-33-S	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-04
Date Analyzed:	03/09/15	Data File:	030914.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	89	113
Toluene-d8	97	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.02	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-35-S	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-06
Date Analyzed:	03/09/15	Data File:	030915.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	89	113
Toluene-d8	95	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	0.029	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-36-S	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-08
Date Analyzed:	03/09/15	Data File:	030916.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	89	113
Toluene-d8	97	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.02	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-37-S	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-10
Date Analyzed:	03/09/15	Data File:	030917.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	95	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.02	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-38-S	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-12
Date Analyzed:	03/09/15	Data File:	030918.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	89	113
Toluene-d8	94	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.02	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-38-S-7	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-14
Date Analyzed:	03/09/15	Data File:	030919.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	89	113
Toluene-d8	97	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.02	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Pacific Groundwater Group
Date Received:	Not Applicable	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	05-0448 mb
Date Analyzed:	03/09/15	Data File:	030906.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	89	113
Toluene-d8	96	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.02	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-32-W	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-03
Date Analyzed:	03/09/15	Data File:	030912.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	3.0
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	14
Methylene chloride	<5	o-Xylene	5.3
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	1.1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	0.72	1,2,4-Trimethylbenzene	4.6
Trichloroethene	6.7	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	12	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-33-W	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-05
Date Analyzed:	03/09/15	Data File:	030913.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	3.8
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	18
Methylene chloride	<5	o-Xylene	6.4
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	1.9	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	1.4
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	1.1	1,2,4-Trimethylbenzene	5.7
Trichloroethene	1.9	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	16	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-35-W	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-07
Date Analyzed:	03/09/15	Data File:	030914.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	4.2
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	19
Methylene chloride	<5	o-Xylene	6.9
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	1.5
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	1.1	1,2,4-Trimethylbenzene	6.2
Trichloroethene	2.3	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	18	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-36-W	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-09
Date Analyzed:	03/09/15	Data File:	030915.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	3.0
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	14
Methylene chloride	<5	o-Xylene	4.9
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	1.2
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	0.71	1,2,4-Trimethylbenzene	4.9
Trichloroethene	2.9	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	13	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-37-W	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-11
Date Analyzed:	03/09/15	Data File:	030916.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	3.4
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	16
Methylene chloride	<5	o-Xylene	6.0
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	1.1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	1.3
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	0.85	1,2,4-Trimethylbenzene	5.3
Trichloroethene	5.4	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	14	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SR-38-W	Client:	Pacific Groundwater Group
Date Received:	03/06/15	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	503114-13
Date Analyzed:	03/09/15	Data File:	030917.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	2.7
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	13
Methylene chloride	<5	o-Xylene	4.7
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	1.1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	1.2
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	0.52	1,2,4-Trimethylbenzene	4.8
Trichloroethene	1.2	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	11	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Pacific Groundwater Group
Date Received:	Not Applicable	Project:	Scougal Rubber JK0605, F&BI 503114
Date Extracted:	03/09/15	Lab ID:	05-0461 mb
Date Analyzed:	03/09/15	Data File:	030907.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/15

Date Received: 03/06/15

Project: Scougal Rubber JK0605, F&BI 503114

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL
SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL EXTENDED USING METHOD NWTPH-Dx**

Laboratory Code: 503117-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	102	63-146	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	101	79-144

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/15

Date Received: 03/06/15

Project: Scougal Rubber JK0605, F&BI 503114

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 502386-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	28	24	10-56	15
Chloromethane	mg/kg (ppm)	2.5	<0.5	48	44	10-90	9
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	50	48	10-91	4
Bromomethane	mg/kg (ppm)	2.5	<0.5	65	59	10-110	10
Chloroethane	mg/kg (ppm)	2.5	<0.5	60	57	10-101	5
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	57	56	10-95	2
Acetone	mg/kg (ppm)	12.5	<0.5	76	65	11-141	16
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	58	58	11-103	0
Methylene chloride	mg/kg (ppm)	2.5	<0.5	70	66	14-128	6
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	77	71	17-134	8
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	65	64	13-112	2
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	69	65	23-115	6
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	71	68	18-117	4
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	72	67	25-120	7
Chloroform	mg/kg (ppm)	2.5	<0.05	72	68	29-117	6
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	79	72	20-133	9
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	76	69	22-124	10
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	69	69	27-112	0
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	64	64	26-107	0
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	66	63	22-115	5
Benzene	mg/kg (ppm)	2.5	<0.03	64	60	26-114	6
Trichloroethene	mg/kg (ppm)	2.5	<0.02	66	64	30-112	3
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	72	66	31-119	9
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	72	69	31-131	4
Dibromomethane	mg/kg (ppm)	2.5	<0.05	73	67	27-124	9
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	91	80	16-147	13
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	76	71	28-137	7
Toluene	mg/kg (ppm)	2.5	<0.05	63	63	34-112	0
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	77	76	30-136	1
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	74	71	32-126	4
2-Hexanone	mg/kg (ppm)	12.5	<0.5	83	75	17-147	10
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	73	69	29-125	6
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	55	57	25-114	4
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	78	72	32-143	8
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	80	74	32-126	8
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	67	66	37-113	2
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	65	65	34-115	0
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	74	71	35-126	4
m,p-Xylene	mg/kg (ppm)	5	<0.1	64	65	25-125	2
o-Xylene	mg/kg (ppm)	2.5	<0.05	67	68	27-126	1
Styrene	mg/kg (ppm)	2.5	<0.05	73	72	39-121	1
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	68	70	34-123	3
Bromoform	mg/kg (ppm)	2.5	<0.05	75	67	18-155	11
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	62	64	31-120	3
Bromobenzene	mg/kg (ppm)	2.5	<0.05	69	69	40-115	0
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	61	64	24-130	5
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	86	83	27-148	4
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	74	69	33-123	7
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	63	65	39-110	3
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	65	66	39-111	2
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	69	71	36-116	3
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	0.042	63	64	35-116	2
sec-Butylbenzene	mg/kg (ppm)	2.5	0.10	67	69	33-118	3
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	65	67	32-119	3
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	65	65	38-111	0
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	64	64	39-109	0
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	69	68	40-111	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	84	80	37-122	5
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	71	69	31-121	3
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	87	86	24-128	1
Naphthalene	mg/kg (ppm)	2.5	<0.05	80	75	24-139	6
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	69	67	35-117	3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/15

Date Received: 03/06/15

Project: Scougal Rubber JK0605, F&BI 503114

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Acceptance Criteria
			Recovery LCS	
Dichlorodifluoromethane	mg/kg (ppm)	2.5	52	10-76
Chloromethane	mg/kg (ppm)	2.5	67	34-98
Vinyl chloride	mg/kg (ppm)	2.5	75	42-107
Bromomethane	mg/kg (ppm)	2.5	77	46-113
Chloroethane	mg/kg (ppm)	2.5	77	47-115
Trichlorofluoromethane	mg/kg (ppm)	2.5	84	53-112
Acetone	mg/kg (ppm)	12.5	104	39-147
1,1-Dichloroethene	mg/kg (ppm)	2.5	86	65-110
Methylene chloride	mg/kg (ppm)	2.5	98	50-127
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	99	72-122
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	89	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	89	74-109
2,2-Dichloropropane	mg/kg (ppm)	2.5	92	64-151
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	92	73-110
Chloroform	mg/kg (ppm)	2.5	91	76-110
2-Butanone (MEK)	mg/kg (ppm)	12.5	107	60-121
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	97	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	93	72-116
1,1-Dichloropropene	mg/kg (ppm)	2.5	90	72-112
Carbon tetrachloride	mg/kg (ppm)	2.5	91	67-123
Benzene	mg/kg (ppm)	2.5	85	72-106
Trichloroethene	mg/kg (ppm)	2.5	89	72-107
1,2-Dichloropropane	mg/kg (ppm)	2.5	94	74-115
Bromodichloromethane	mg/kg (ppm)	2.5	98	75-126
Dibromomethane	mg/kg (ppm)	2.5	97	76-116
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	108	80-128
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	102	71-138
Toluene	mg/kg (ppm)	2.5	90	74-111
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	108	77-135
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	98	77-116
2-Hexanone	mg/kg (ppm)	12.5	101	70-129
1,3-Dichloropropane	mg/kg (ppm)	2.5	97	75-115
Tetrachloroethene	mg/kg (ppm)	2.5	84	73-111
Dibromochloromethane	mg/kg (ppm)	2.5	108	64-152
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	106	77-117
Chlorobenzene	mg/kg (ppm)	2.5	92	76-109
Ethylbenzene	mg/kg (ppm)	2.5	92	75-112
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	99	76-125
m,p-Xylene	mg/kg (ppm)	5	92	77-115
o-Xylene	mg/kg (ppm)	2.5	95	76-115
Styrene	mg/kg (ppm)	2.5	102	76-119
Isopropylbenzene	mg/kg (ppm)	2.5	96	76-120
Bromoform	mg/kg (ppm)	2.5	105	50-174
n-Propylbenzene	mg/kg (ppm)	2.5	90	77-115
Bromobenzene	mg/kg (ppm)	2.5	97	76-112
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	94	77-121
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	101	74-121
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	96	74-116
2-Chlorotoluene	mg/kg (ppm)	2.5	91	75-113
4-Chlorotoluene	mg/kg (ppm)	2.5	93	77-115
tert-Butylbenzene	mg/kg (ppm)	2.5	97	77-123
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	93	77-119
sec-Butylbenzene	mg/kg (ppm)	2.5	95	78-120
p-Isopropyltoluene	mg/kg (ppm)	2.5	93	77-120
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	93	76-112
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	91	74-109
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	95	75-114
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	112	68-122
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	102	75-122
Hexachlorobutadiene	mg/kg (ppm)	2.5	97	74-130
Naphthalene	mg/kg (ppm)	2.5	106	73-122
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	99	75-117

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/15

Date Received: 03/06/15

Project: Scougal Rubber JK0605, F&BI 503114

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 503114-09 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	90	10-172
Chloromethane	ug/L (ppb)	50	<10	89	25-166
Vinyl chloride	ug/L (ppb)	50	<0.2	91	36-166
Bromomethane	ug/L (ppb)	50	<1	83	47-169
Chloroethane	ug/L (ppb)	50	<1	91	46-160
Trichlorofluoromethane	ug/L (ppb)	50	<1	87	44-165
Acetone	ug/L (ppb)	250	<10	80	10-182
1,1-Dichloroethene	ug/L (ppb)	50	<1	81	60-136
Methylene chloride	ug/L (ppb)	50	<5	74	67-132
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	76	74-127
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	77	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	78	70-128
2,2-Dichloropropane	ug/L (ppb)	50	<1	75	36-154
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	78	71-127
Chloroform	ug/L (ppb)	50	<1	76	65-132
2-Butanone (MEK)	ug/L (ppb)	250	<10	76	10-129
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	76	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	77	60-146
1,1-Dichloropropene	ug/L (ppb)	50	<1	78	69-133
Carbon tetrachloride	ug/L (ppb)	50	<1	78	56-152
Benzene	ug/L (ppb)	50	0.71	76	76-125
Trichloroethene	ug/L (ppb)	50	2.9	78	66-135
1,2-Dichloropropane	ug/L (ppb)	50	<1	77 vo	78-125
Bromodichloromethane	ug/L (ppb)	50	<1	82	61-150
Dibromomethane	ug/L (ppb)	50	<1	78	66-141
4-Methyl-2-pentanone	ug/L (ppb)	250	<10	82	10-185
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	81	72-132
Toluene	ug/L (ppb)	50	13	78 b	76-122
trans-1,3-Dichloropropene	ug/L (ppb)	50	<1	81	76-130
1,1,2-Trichloroethane	ug/L (ppb)	50	<1	76	68-131
2-Hexanone	ug/L (ppb)	250	<10	75	10-185
1,3-Dichloropropane	ug/L (ppb)	50	<1	78	71-128
Tetrachloroethene	ug/L (ppb)	50	<1	76	10-226
Dibromochloromethane	ug/L (ppb)	50	<1	84	70-139
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	76	69-134
Chlorobenzene	ug/L (ppb)	50	<1	76 vo	77-122
Ethylbenzene	ug/L (ppb)	50	3.0	76	69-135
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	81	73-137
m,p-Xylene	ug/L (ppb)	100	14	76	69-135
o-Xylene	ug/L (ppb)	50	4.9	78	60-140
Styrene	ug/L (ppb)	50	<1	78	71-133
Isopropylbenzene	ug/L (ppb)	50	<1	76	65-142
Bromoform	ug/L (ppb)	50	<1	83	65-142
n-Propylbenzene	ug/L (ppb)	50	<1	75	58-144
Bromobenzene	ug/L (ppb)	50	<1	76	75-124
1,3,5-Trimethylbenzene	ug/L (ppb)	50	1.2	76	66-137
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	74	51-154
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	76	53-150
2-Chlorotoluene	ug/L (ppb)	50	<1	76	66-127
4-Chlorotoluene	ug/L (ppb)	50	<1	73	65-130
tert-Butylbenzene	ug/L (ppb)	50	<1	77	65-137
1,2,4-Trimethylbenzene	ug/L (ppb)	50	4.9	76	59-146
sec-Butylbenzene	ug/L (ppb)	50	<1	76	64-140
p-Isopropyltoluene	ug/L (ppb)	50	<1	75	65-141
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	75	72-123
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	75	69-126
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	77	69-128
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	78	32-164
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	74	66-136
Hexachlorobutadiene	ug/L (ppb)	50	<1	76	60-143
Naphthalene	ug/L (ppb)	50	<1	80	44-164
1,2,3-Trichlorobenzene	ug/L (ppb)	50	<1	77	69-148

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/15

Date Received: 03/06/15

Project: Scougal Rubber JK0605, F&BI 503114

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	120	114	25-158	5
Chloromethane	ug/L (ppb)	50	106	106	45-156	0
Vinyl chloride	ug/L (ppb)	50	109	106	50-154	3
Bromomethane	ug/L (ppb)	50	99	101	55-143	2
Chloroethane	ug/L (ppb)	50	107	106	58-146	1
Trichlorofluoromethane	ug/L (ppb)	250	109	109	50-150	0
Acetone	ug/L (ppb)	250	95	95	53-131	0
1,1-Dichloroethene	ug/L (ppb)	50	100	98	67-136	2
Methylene chloride	ug/L (ppb)	50	90	89	39-148	1
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	93	90	64-147	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	92	91	68-128	1
1,1-Dichloroethane	ug/L (ppb)	50	93	92	79-121	1
2,2-Dichloropropane	ug/L (ppb)	50	97	91	55-143	6
cis-1,2-Dichloroethene	ug/L (ppb)	50	94	91	80-123	3
Chloroform	ug/L (ppb)	50	92	90	80-121	2
2-Butanone (MEK)	ug/L (ppb)	250	99	100	57-149	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	91	91	73-132	0
1,1,1-Trichloroethane	ug/L (ppb)	50	93	92	83-130	1
1,1-Dichloropropene	ug/L (ppb)	50	97	94	77-129	3
Carbon tetrachloride	ug/L (ppb)	50	97	94	75-158	3
Benzene	ug/L (ppb)	50	91	90	69-134	1
Trichloroethene	ug/L (ppb)	50	96	93	80-120	3
1,2-Dichloropropane	ug/L (ppb)	50	93	92	77-123	1
Bromodichloromethane	ug/L (ppb)	50	98	98	81-133	0
Dibromomethane	ug/L (ppb)	50	91	91	82-125	0
4-Methyl-2-pentanone	ug/L (ppb)	250	102	98	65-138	4
cis-1,3-Dichloropropene	ug/L (ppb)	50	98	97	82-132	1
Toluene	ug/L (ppb)	50	93	91	72-122	2
trans-1,3-Dichloropropene	ug/L (ppb)	50	99	98	80-136	1
1,1,2-Trichloroethane	ug/L (ppb)	50	91	90	75-124	1
2-Hexanone	ug/L (ppb)	250	91	90	60-136	1
1,3-Dichloropropane	ug/L (ppb)	50	95	94	76-126	1
Tetrachloroethene	ug/L (ppb)	50	95	93	76-121	2
Dibromochloromethane	ug/L (ppb)	50	103	101	84-133	2
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	93	93	82-125	0
Chlorobenzene	ug/L (ppb)	50	93	91	83-114	2
Ethylbenzene	ug/L (ppb)	50	93	92	77-124	1
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	99	97	84-127	2
m,p-Xylene	ug/L (ppb)	100	93	91	83-125	2
o-Xylene	ug/L (ppb)	50	92	91	81-121	1
Styrene	ug/L (ppb)	50	94	93	84-119	1
Isopropylbenzene	ug/L (ppb)	50	93	91	85-117	2
Bromoform	ug/L (ppb)	50	102	100	74-136	2
n-Propylbenzene	ug/L (ppb)	50	93	90	74-126	3
Bromobenzene	ug/L (ppb)	50	95	91	80-121	4
1,3,5-Trimethylbenzene	ug/L (ppb)	50	94	92	78-123	2
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	91	90	66-126	1
1,2,3-Trichloropropane	ug/L (ppb)	50	92	90	67-124	2
2-Chlorotoluene	ug/L (ppb)	50	91	89	77-127	2
4-Chlorotoluene	ug/L (ppb)	50	90	88	78-128	2
tert-Butylbenzene	ug/L (ppb)	50	95	93	80-123	2
1,2,4-Trimethylbenzene	ug/L (ppb)	50	92	90	79-122	2
sec-Butylbenzene	ug/L (ppb)	50	94	92	80-125	2
p-Isopropyltoluene	ug/L (ppb)	50	93	92	81-123	1
1,3-Dichlorobenzene	ug/L (ppb)	50	91	90	85-116	1
1,4-Dichlorobenzene	ug/L (ppb)	50	92	89	84-121	3
1,2-Dichlorobenzene	ug/L (ppb)	50	93	92	85-116	1
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	96	95	57-141	1
1,2,4-Trichlorobenzene	ug/L (ppb)	50	90	89	72-130	1
Hexachlorobutadiene	ug/L (ppb)	50	93	92	53-141	1
Naphthalene	ug/L (ppb)	50	97	95	64-133	2
1,2,3-Trichlorobenzene	ug/L (ppb)	50	94	92	65-136	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

503114

SAMPLE CHAIN OF CUSTODY ME 03-06-15

US 1 / 02

Send Report To Glen Well sec

Company PLG

Address 2377 E-51st Ave

City, State, ZIP Seattle, WA 98102

Phone # 206 327-0141 Fax #

SAMPLERS (signature) [Signature]

PROJECT NAME/NO. Scoring Pile

REMARKS Site 0605

PO#

Page # 1 of 2

TURNAROUND TIME
 Standard (2 Weeks)
 RUSH

Rush charges authorized by

SAMPLE DISPOSAL
 Dispose after 30 days

Return samples
 Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS		
SR-34-S	01A	3-6-15	750	S	4				X				
SR-32-S	02		900	S	4				X				
SR-32-L	03		905	L	4				X				
SR-33-S	04		805	S	4				X				
SR-33-L	05		815	L	4				X				
SR-35-S	06		825	S	4				X				
SR-35-L	07		830	L	4				X				
SR-36-S	08		930	S	4				X				
SR-36-L	09	3-6-15	935	L	4				X				

Samples received at 4 06

SIGNATURE

Relinquished by: [Signature]

PRINT NAME

Travis

COMPANY

PLG

DATE

3/6/15

TIME

14:30

Received by:

Relinquished by: [Signature]

D & W

FBZ

"

14:30

Received by:

Friedman & Bryna, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044
FORMS\COC\COC.DOC

503114

SAMPLE CHAIN OF CUSTODY

ME 03-06-15

US 1/02

Send Report To Glen Wallace

Company PLC

Address 2377 Eastlake Aves

City, State, ZIP Seattle, WA 98102

Phone # 206 329-0141 Fax # _____

SAMPLERS (signature) [Signature]

PROJECT NAME/NO. Seagrass Pellets

PO# 5K0605

REMARKS

Page # 2 of 2

TURNAROUND TIME
 Standard (2 Weeks)
 RUSH

Rush charges authorized by _____

SAMPLE DISPOSAL
 Dispose after 30 days
 Return samples
 Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS		
SR-37-S	105	3-6-15	945	S	4				X				Open CW 3/9/15 M4.
SR-37-L	11	↓	950	L	4				X				Sample label (copy) SR-38-S-4 3/6/1
SR-38-S	12	↓	1010	S	4				X				
SR-38-L	13	3-6-15	1015	L	4				X				
SR-38-S-7	14	3-6-15	1030	S	4				O				(copy) 3/6/15 Added at lab
													Samples received at 4 °C

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282
 Fax (206) 283-5044
 FORMS\COC\COC.DOC

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
<u>[Signature]</u>	<u>[Signature]</u>	Travis		FGA		3/6/15	14:30
<u>[Signature]</u>	<u>[Signature]</u>	D d V O		FGA		11	14:30
Received by:							