MAUL FOSTER ALONGI
400 East Mill Plain Blvd., Suite 400 | Vancouver, WA 98660 | 360 694 2691 | www.maulfoster.com

June 23, 2016
Project No. 0564.02.04

Mr. Nicholas Acklam
Washington State Department of Ecology
PO Box 47775
Olympia, Washington 98504-7775

Re: Quarterly Groundwater Monitoring for the 32nd Street Property, Washougal, Washington
Voluntary Cleanup Program Site Number SW1430

Dear Mr. Acklam:

On behalf of George Schmid & Sons, Inc., Maul Foster & Alongi, Inc. (MFA) has completed the collection of a groundwater samples at the 32nd Street Property located at 1411 32nd Street, Washougal, Washington (the property) per the cleanup action plan.[1]

The potentiometric groundwater surface from the April 2016 monitoring event shows that flow is generally to the west and is consistent with past events (see attached Figure). Field parameters are shown on the field sampling data sheets included as Attachment A. Groundwater samples were analyzed for total petroleum hydrocarbons (TPH) by the Northwest Total Petroleum Hydrocarbons (NWTPH) Method NWTPH-Dx and for total arsenic by U.S. Environmental Protection Agency Method 6020. The analyses were completed by Specialty Analytical in Clackamas, Oregon, and the results are included as Attachment B. Groundwater monitoring results from March 2014 to April 2016 are summarized in the attached Table. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned (see Attachment C).

The April 2016 monitoring results for TPH and/or arsenic in the former diesel underground storage tank and fill areas were below Model Toxics Control Act Method A cleanup levels of 0.5 milligram per liter (mg/L) and 0.005 mg/L, respectively (see attached Table). The highest detected TPH in the groundwater remedial action (RA) area prior to treatment was in MW03 at 1.695 mg/L (March 2014). The three post-RA quarterly groundwater samples from MW03 have been below the CULs and show a decrease in TPH concentration from 0.430 mg/L to not detected.

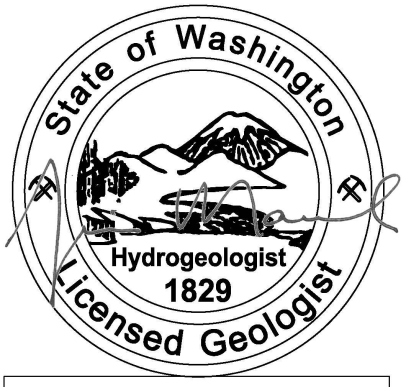
The next monitoring event will be conducted in July 2016.

[1] MFA. 2016. Soil remedial action completion report: Schmid 32nd Street property—remedial action. Prepared for George Schmid & Sons, Inc. Maul Foster and Alongi, Inc., Vancouver, Washington. January 21.

Please contact either one of us if you have any questions.

Sincerely,

Maul Foster & Alongi, Inc.



Alan R. Hughes, LG
Senior Geologist

Jim J. Maul, LHG
Principal Hydrogeologist

Attachments: Limitations
Table
Figure
A - Water Field Sampling Data Sheets
B - Laboratory Analytical Results
C - Data Validation Memorandum

cc: Cindy Schmid, George Schmid & Sons, Inc.

LIMITATIONS

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

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

Table
Groundwater Analytical Results (mg/L)
32nd Street Property
George Schmid & Sons, Inc.
Washougal, Washington

		Former Diesel UST Area																		
Location		MW01			MW02			MW03							MW07					
Date Collected		19-Mar-14	6-Oct-14	12-Jan-15	19-Mar-14	24-Apr-15	26-Jan-16	18-Mar-14	6-Oct-14	12-Jan-15	24-Apr-15	16-Sep-15	26-Jan-16	18-Apr-16	6-Oct-14	12-Jan-15	24-Apr-15	16-Sep-15	26-Jan-16	18-Apr-16
	MTCA A CULs																			
Total Metals																				
Arsenic	0.005	--	--	--	--	--	0.00076	--	--	--	--	--	0.00012	0.00027	--	0.00026	--	--	0.00016	0.000202
Barium	NV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons																				
Diesel	0.5	**0.610**	0.353 J	0.489	0.0787 U	0.0768 U	0.0799 U	0.225	0.0755 U	0.0798 U	0.12	0.191	0.0799 U	0.0787 U	0.0753 U	0.0769 U	0.0755 U	0.0816 U	0.0772 U	0.0809 U
Lube Oil	0.5	0.314	0.194	0.191 U	0.197 U	0.192 U	0.2 U	**1.47**	0.189 U	0.2 U	0.217	0.239	0.2 U	0.197 U	0.188 U	0.192 U	0.189 U	0.204 U	0.193 U	0.202 U
TPH	0.5	**0.924**	**0.547**	**0.5845**	ND	ND	ND	**1.695**	ND	ND	0.317	0.430	ND	ND	ND	ND	ND	ND	ND	ND
Groundwater Parameters																				
BOD	NV	--	--	2 U	--	--	--	--	--	2 U	--	--	--	--	--	--	--	--	--	--
COD	NV	--	--	10 U	--	--	--	--	--	10 U	--	--	--	--	--	--	--	--	--	--
Iron (total)	NV	--	--	7.51	--	--	--	--	--	0.1 U	--	--	--	--	--	--	--	--	--	--
Iron (dis)	NV	--	--	5.56	--	--	--	--	--	0.1 U	--	--	--	--	--	--	--	--	--	--
Manganese (total)	NV	--	--	2.75	--	--	--	--	--	0.00148	--	--	--	--	--	--	--	--	--	--
Manganese (dis)	NV	--	--	2.43	--	--	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--
Methane	NV	--	--	0.0665 U	--	--	--	--	--	0.0665 U	--	--	--	--	--	--	--	--	--	--

Table
Groundwater Analytical Results (mg/L)
32nd Street Property
George Schmid & Sons, Inc.
Washougal, Washington

		Former Fill Area																	
Location		MW04							MW05					MW06					
Date Collected		18-Mar-14	6-Oct-14	12-Jan-15	26-Jan-16	26-Jan-16 (DUP)	18-Apr-16	18-Apr-16 (DUP)	18-Mar-14	6-Oct-14	12-Jan-15	26-Jan-16	18-Apr-16	18-Mar-14	6-Oct-14	12-Jan-15	26-Jan-16	18-Apr-16	
	MTCA A CULs																		
Total Metals																			
Arsenic	0.005	**0.00618**	**0.00735**	0.00476	0.00180	0.00184	0.00315	0.00334	0.00030	0.0005 U	0.0003	0.00019	0.00021	0.00046	0.0005 U	0.00027	0.00032	0.00053	
Barium	NV	0.507	--	--	--	--	--	--	0.00712	--	--	--	--	0.00666	--	--	--	--	
Chromium	0.05	0.00044	--	--	--	--	--	--	0.00023	--	--	--	--	0.00025	--	--	--	--	
Lead	0.015	0.00233	--	--	--	--	--	--	0.0001 U	--	--	--	--	0.0001 U	--	--	--	--	
Petroleum Hydrocarbons																			
Diesel	0.5	0.114	0.118	0.0757 U	0.0832 U	0.0847 U	0.0791 U	0.0774 U	0.0766 U	0.0753 U	0.0762 U	0.0808 U	0.0783 U	0.0760 U	0.076 U	0.0764 U	0.0761 U	0.0827 U	
Lube Oil	0.5	0.320	0.316	0.189 U	0.239	0.212 U	0.198 U	0.193 U	0.196	0.188 U	0.19 U	0.202 U	0.196 U	0.230	0.19 U	0.191 U	0.19 U	0.207 U	
TPH	0.5	0.434	0.434	ND	0.281	ND	ND	ND	0.2343	ND	ND	ND	ND	0.268	ND	ND	ND	ND	
Groundwater Parameters																			
BOD	NV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
COD	NV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Iron (total)	NV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Iron (dis)	NV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Manganese (total)	NV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Manganese (dis)	NV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Methane	NV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table
Groundwater Analytical Results (mg/L)
32nd Street Property
George Schmid & Sons, Inc.
Washougal, Washington

NOTES:
Bold results exceed MTCA Method A groundwater CULs.
-- = not analyzed.
BOD = biological oxygen demand.
COD = chemical oxygen demand.
CUL = cleanup level.
dis = dissolved.
DUP = duplicate.
J = estimated.
mg/L = milligrams per liter.
MTCA A CULs = Model Toxics Control Act, Method A cleanup levels.
ND = not detected; TPH value was not calculated because petroleum hydrocarbons were not detected.
NV = no value.
TPH = sum of diesel- and lube-oil-range hydrocarbons, using half the method reporting limit where non-detect.
U = not detected.
UST = underground storage tank.

Figure
Groundwater Elevation
April 2016

32nd Street Property
George Schmid & Sons, Inc.
Washougal, Washington

MW06
54.92 ft

MW04
68.32 ft

MW05
55.27 ft

MW03
63.74 ft

MW07
57.94 ft

MW01

MW02
62.43 ft

68
66
64
62
60
58
56

Legend

- Monitoring Well Location
- Decommissioned Monitoring Well
- Groundwater Elevation Contour (in feet NGVD88)
- Groundwate Elevation Contour Interpolated
- Groundwater Flow Direction
- Subject Property

0 25 50
Feet

Notes:
NGVD88 = North American Vertical Datum of 1988

Source: Aerial photograph obtained from Esri ArcGIS Online

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Path: X:\0564.01\02\Projects\Groundwater Monitoring\Fig_32nd Street Property WLE_2016_04.mxd
Print Date: 04/21/2016
Approved By: ehess
Produced By: jmiller
Project:

ATTACHMENT A

WATER FIELD SAMPLING DATA SHEETS

Maul Foster & Alongi, Inc.

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

Water Field Sampling Data Sheet

Client Name	George Schmid & Sons, Inc.	**Sample Location**	MW02
Project #	0564.02.04	**Sampler**	ENH
Project Name	32nd Street	**Sampling Date**	4/18/2016
Sampling Event	April 2016	**Sample Name**	
Sub Area		**Sample Depth**	
FSDS QA:	CRW 4/22/2016	**Easting**	**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
4/18/2016	8:37	28.07		26.45		1.62	0.26

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

Water Quality Data

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

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

Water Quality Observations:

Sample Information

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

General Sampling Comments

Began purging at 10:00. Unable to get water to flow through tubing. Not enough water in well water column to purge and sample.

Signature _____

Maul Foster & Alongi, Inc.

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

Water Field Sampling Data Sheet

Client Name	George Schmid & Sons, Inc.	**Sample Location**	MW03		
Project #	0564.02.04	**Sampler**	ENH		
Project Name	32nd Street	**Sampling Date**	4/18/2016		
Sampling Event	April 2016	**Sample Name**	MW03-041816		
Sub Area		**Sample Depth**	28		
FSDS QA:	CRW 4/22/2016	**Easting**		**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
4/18/2016	8:33	32.85		24		8.85	1.44

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

Water Quality Data

Purge Method	**Time**	**Purge Vol (gal)**	**Flowrate l/min**	**pH**	**Temp (C)**	**E Cond (uS/cm)**	**DO (mg/L)**	**ORP**	**Turbidity**
(2) Peristaltic Pump	9:15:00 AM	0.2	0.17	6.69	14.86	170	7.38	167.1	7.45
	9:19:00 AM	0.3	0.17	6.11	14.39	168	6.97	171.5	4.59
	9:23:00 AM	0.4	0.17	5.89	14.19	167	6.93	169.6	2.91
	9:27:00 AM	0.5	0.17	5.84	14.05	166	6.84	164.7	3.55
Final Field Parameters	9:31:00 AM	0.7	0.17	5.88	14.12	166	6.84	156	2.47

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

Water Quality Observations:

Clear and colorless.

Sample Information

Sampling Method	**Sample Type**	**Sampling Time**	**Container Code/Preservative**	**#**	**Filtered**
(2) Peristaltic Pump	Groundwater	9:31:00 AM	VOA-Glass		
			Amber Glass	2	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly		
			Total Bottles	3	

General Sampling Comments

Began purging at 9:10. Water level for each parameter reading, except for the final parameter (feet below top of casing): 24.02, 24.02, 24.03, 24.03.
Equipment: VANC Turbidity Meter #2, VANC WL Meter #1, VANC Small P-Pump #1, VANC YSI #1.

Signature _____

Maul Foster & Alongi, Inc.

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

Water Field Sampling Data Sheet

Client Name	George Schmid & Sons, Inc.	**Sample Location**	MW04		
Project #	0564.02.04	**Sampler**	ENH		
Project Name	32nd Street	**Sampling Date**	4/18/2016		
Sampling Event	April 2016	**Sample Name**	MW04-041816		
Sub Area		**Sample Depth**	24		
FSDS QA:	CRW 4/22/2016	**Easting**		**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
4/18/2016	8:56	29.78		18.42		11.36	1.85

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

Water Quality Data

Purge Method	**Time**	**Purge Vol (gal)**	**Flowrate l/min**	**pH**	**Temp (C)**	**E Cond (uS/cm)**	**DO (mg/L)**	**ORP**	**Turbidity**
(2) Peristaltic Pump	1:32:00 PM	0.4	0.12	6.27	16.53	1109	0.75	2.5	6.4
	1:37:00 PM	0.5	0.1	6.37	16.82	1106	0.54	-27	6.36
	1:42:00 PM	0.6	0.1	6.38	16.9	1105	0.44	-39.9	8.12
	1:46:00 PM	0.7	0.1	6.39	16.99	1106	0.39	-46	6.71
	1:50:00 PM	0.8	0.1	6.38	16.8	1108	0.34	-55.3	5.17
	1:54:00 PM	0.9	0.1	6.38	16.86	1104	0.32	-59.3	6.73
Final Field Parameters	1:58:00 PM	1	0.1	6.39	16.78	1099	0.31	-62.3	4.99

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

Water Quality Observations: Slightly cloudy and colorless. Very fine (<< 1 mm) flecks of white material in purge water.

Sample Information

Sampling Method	**Sample Type**	**Sampling Time**	**Container Code/Preservative**	**#**	**Filtered**
(2) Peristaltic Pump	Groundwater	1:58:00 PM	VOA-Glass		
			Amber Glass	2	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly		
			Total Bottles	3	

General Sampling Comments

Duplicate collected: MWDUP-041816.
Began purging at 13:18. Water level for each parameter reading was 18.42 feet below top of casing.
Equipment: VANC Turbidity Meter #2, VANC WL Meter #1, PDX Small P-Pump #1, VANC YSI #1.

Signature _____

Maul Foster & Alongi, Inc.

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Water Field Sampling Data Sheet

Client Name	George Schmid & Sons, Inc.	**Sample Location**	MW04
Project #	0564.02.04	**Sampler**	ENH
Project Name	32nd Street	**Sampling Date**	4/18/2016
Sampling Event	April 2016	**Sample Name**	MWDUP-041816
Sub Area		**Sample Depth**	24
FSDS QA:	CRW 4/22/2016	**Easting**	**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
4/18/2016	8:56	29.78		18.42		11.36	1.85

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

Water Quality Data

Purge Method	**Time**	**Purge Vol (gal)**	**Flowrate l/min**	**pH**	**Temp (C)**	**E Cond (uS/cm)**	**DO (mg/L)**	**ORP**	**Turbidity**
(2) Peristaltic Pump	1:32:00 PM	0.4	0.12	6.27	16.53	1109	0.75	2.5	6.4
	1:37:00 PM	0.5	0.1	6.37	16.82	1106	0.54	-27	6.36
	1:42:00 PM	0.6	0.1	6.38	16.9	1105	0.44	-39.9	8.12
	1:46:00 PM	0.7	0.1	6.39	16.99	1106	0.39	-46	6.71
	1:50:00 PM	0.8	0.1	6.38	16.8	1108	0.34	-55.3	5.17
	1:54:00 PM	0.9	0.1	6.38	16.86	1104	0.32	-59.3	6.73
Final Field Parameters	1:58:00 PM	1	0.1	6.39	16.78	1099	0.31	-62.3	4.99

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

Water Quality Observations: Slightly cloudy and colorless. Very fine (<< 1 mm) flecks of white material in purge water.

Sample Information

Sampling Method	**Sample Type**	**Sampling Time**	**Container Code/Preservative**	**#**	**Filtered**
(2) Peristaltic Pump	Groundwater	1:58:00 PM	VOA-Glass		
			Amber Glass	2	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly		
			Total Bottles	3	

General Sampling Comments

Duplicate collected: MW04-041816.
Began purging at 13:18. Water level for each parameter reading was 18.42 feet below top of casing.
Equipment: VANC Turbidity Meter #2, VANC WL Meter #1, PDX Small P-Pump #1, VANC YSI #1.

Signature _____

Maul Foster & Alongi, Inc.

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

Water Field Sampling Data Sheet

Client Name	George Schmid & Sons, Inc.	**Sample Location**	MW05				
Project #	0564.02.04	**Sampler**	ENH				
Project Name	32nd Street	**Sampling Date**	4/18/2016				
Sampling Event	April 2016	**Sample Name**	MW05-041816				
Sub Area		**Sample Depth**	13				
FSDS QA:	CRW 4/22/2016	**Easting**		**Northing**		**TOC**	

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
4/18/2016	8:48	18.77		8.03		10.74	1.75

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

Water Quality Data

Purge Method	**Time**	**Purge Vol (gal)**	**Flowrate l/min**	**pH**	**Temp (C)**	**E Cond (uS/cm)**	**DO (mg/L)**	**ORP**	**Turbidity**
(2) Peristaltic Pump	11:07:00 AM	0.1	0.18	6.25	14.21	127	3.22	115.6	1.23
	11:11:00 AM	0.2	0.16	6.06	14.33	127	2.81	115.5	1.21
	11:15:00 AM	0.3	0.16	5.96	14.51	128	2.92	117.9	2.28
	11:21:00 AM	0.4	0.16	5.98	14.89	128	2.7	114.5	0.92
Final Field Parameters	11:25:00 AM	0.5	0.16	5.97	14.9	127	3.09	114.4	1.02

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

Water Quality Observations:

Clear and colorless.

Sample Information

Sampling Method	**Sample Type**	**Sampling Time**	**Container Code/Preservative**	**#**	**Filtered**
(2) Peristaltic Pump	Groundwater	11:25:00 AM	VOA-Glass		
			Amber Glass	2	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly		
			Total Bottles	3	

General Sampling Comments

Began purging at 11:03. Water level for each parameter reading (feet below top of casing): 8.05, 8.02, 8.02, 8.05, 8.04. Equipment: VANC Turbidity Meter #2, VANC WL Meter #1, VANC Small P-Pump #1, VANC YSI #1.

Signature _____

Maul Foster & Alongi, Inc.

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

Water Field Sampling Data Sheet

Client Name	George Schmid & Sons, Inc.	**Sample Location**	MW06				
Project #	0564.02.04	**Sampler**	ENH				
Project Name	32nd Street	**Sampling Date**	4/18/2016				
Sampling Event	April 2016	**Sample Name**	MW06-041816				
Sub Area		**Sample Depth**	13				
FSDS QA:	CRW 4/22/2016	**Easting**		**Northing**		**TOC**	

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
4/18/2016	8:52	17.95		6.14		11.81	1.93

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

Water Quality Data

Purge Method	**Time**	**Purge Vol (gal)**	**Flowrate l/min**	**pH**	**Temp (C)**	**E Cond (uS/cm)**	**DO (mg/L)**	**ORP**	**Turbidity**
(2) Peristaltic Pump	11:54:00 AM	0.2	0.15	6.26	14.96	130	6.77	109.6	2.43
	11:58:00 AM	0.3	0.15	6.14	15.13	130	6.39	114	1.93
	12:07:00 PM	0.5	0.15	6.03	15.21	130	6.12	114.7	1.38
	12:11:00 PM	0.6	0.15	6.04	15.29	130	6.04	113.6	2.42
Final Field Parameters	12:15:00 PM	0.7	0.15	6.04	15.26	130	6.06	113.8	2.86

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

Water Quality Observations:

Clear and colorless.

Sample Information

Sampling Method	**Sample Type**	**Sampling Time**	**Container Code/Preservative**	**#**	**Filtered**
(2) Peristaltic Pump	Groundwater	12:15:00 PM	VOA-Glass		
			Amber Glass	2	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly		
			Total Bottles	3	

General Sampling Comments

Began purging at 11:50. Water level for each parameter reading was 6.15 feet below top of casing.
Equipment: VANC Turbidity Meter #2, VANC WL Meter #1, VANC Small P-Pump #1, VANC YSI #1.

Signature _____

Maul Foster & Alongi, Inc.

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

Water Field Sampling Data Sheet

Client Name	George Schmid & Sons, Inc.	**Sample Location**	MW07				
Project #	0564.02.04	**Sampler**	ENH				
Project Name	32nd Street	**Sampling Date**	4/18/2016				
Sampling Event	April 2016	**Sample Name**	MW07-041816				
Sub Area		**Sample Depth**	14				
FSDS QA:	CRW 4/22/2016	**Easting**		**Northing**		**TOC**	

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
4/18/2016	8:44	19.29		8.03		11.26	1.84

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

Water Quality Data

Purge Method	**Time**	**Purge Vol (gal)**	**Flowrate l/min**	**pH**	**Temp (C)**	**E Cond (uS/cm)**	**DO (mg/L)**	**ORP**	**Turbidity**
(2) Peristaltic Pump	10:20:00 AM	0.2	0.3	6.37	12.69	161	3.87	127.3	4.9
	10:24:00 AM	0.3	0.14	6.1	13.32	161	3.26	127.4	3.66
	10:28:00 AM	0.4	0.15	6.07	13.46	164	3.12	121.9	2.28
	10:32:00 AM	0.5	0.2	6.07	13.04	162	3.28	114.9	1.84
	10:35:00 AM	0.6	0.22	5.91	12.67	160	3.35	123.5	2.13
Final Field Parameters	10:38:00 AM	0.7	0.2	5.88	12.7	160	3.21	123.9	1.74

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

Water Quality Observations:

Clear and colorless.

Sample Information

Sampling Method	**Sample Type**	**Sampling Time**	**Container Code/Preservative**	**#**	**Filtered**
(2) Peristaltic Pump	Groundwater	10:38:00 AM	VOA-Glass		
			Amber Glass	2	No
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly	1	No
			Red Dissolved Poly		
			Total Bottles	3	

General Sampling Comments

Began purging at 10:17. Water level for each parameter reading (feet below top of casing): 8.10, 8.10, 8.09, 8.10, 8.14, 8.14.
Equipment: VANC Turbidity Meter #2, VANC WL Meter #1, VANC Small P-Pump #1, VANC YSI #1.

Signature _____

ATTACHMENT B

LABORATORY ANALYTICAL RESULTS

Specialty Analytical

11711 SE Capps Road, Ste B
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

May 09, 2016

Alan Hughes
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, WA 98660

TEL: (360) 694-2691
FAX: (360) 906-1958
RE: Schmid 32nd St / 0564.02.04

Dear Alan Hughes: Order No.: 1604182

Specialty Analytical received 6 sample(s) on 4/19/2016 for the analyses presented in the following report.

REVISED REPORT: Please see case narrative for information on revision.

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

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

Sincerely,

Marty French
Lab Director

Case Narrative

WO#: **1604182**

Date: **5/9/2016**

CLIENT: Maul Foster & Alongi

Project: Schmid 32nd St / 0564.02.04

Revision 1.

Report revised to add Silica Clean-Up to samples MW04 and MWDUP.

Specialty Analytical

Date Reported: 09-May-16

CLIENT: Maul Foster & Alongi
Project: Schmid 32nd St / 0564.02.04

Lab Order: 1604182

Lab ID: 1604182-001 **Collection Date:** 4/18/2016 9:31:00 AM
Client Sample ID: MW03-041816 **Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **jw**
Diesel	ND	0.0787		mg/L	1	4/25/2016 11:54:00 AM
Lube Oil	ND	0.197		mg/L	1	4/25/2016 11:54:00 AM
Surr: o-Terphenyl	71.5	50-150		%REC	1	4/25/2016 11:54:00 AM
ICP/MS METALS-TOTAL RECOVERABLE		**SW6020A**				Analyst: **JRC**
Arsenic	0.267	0.100		µg/L	1	4/22/2016 2:34:12 PM

Lab ID: 1604182-002 **Collection Date:** 4/18/2016 10:38:00 AM
Client Sample ID: MW07-041816 **Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **jw**
Diesel	ND	0.0809		mg/L	1	4/25/2016 12:16:00 PM
Lube Oil	ND	0.202		mg/L	1	4/25/2016 12:16:00 PM
Surr: o-Terphenyl	73.6	50-150		%REC	1	4/25/2016 12:16:00 PM
ICP/MS METALS-TOTAL RECOVERABLE		**SW6020A**				Analyst: **JRC**
Arsenic	0.202	0.100		µg/L	1	4/22/2016 2:37:34 PM

Lab ID: 1604182-003 **Collection Date:** 4/18/2016 11:25:00 AM
Client Sample ID: MW05-041816 **Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **jw**
Diesel	ND	0.0783		mg/L	1	4/25/2016 12:39:00 PM
Lube Oil	ND	0.196		mg/L	1	4/25/2016 12:39:00 PM
Surr: o-Terphenyl	75.4	50-150		%REC	1	4/25/2016 12:39:00 PM
ICP/MS METALS-TOTAL RECOVERABLE		**SW6020A**				Analyst: **JRC**
Arsenic	0.212	0.100		µg/L	1	4/22/2016 2:40:57 PM

Specialty Analytical

Date Reported: 09-May-16

CLIENT: Maul Foster & Alongi
Project: Schmid 32nd St / 0564.02.04

Lab Order: 1604182

Lab ID: 1604182-004 **Collection Date:** 4/18/2016 12:15:00 PM
Client Sample ID: MW06-041816 **Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **jw**
Diesel	ND	0.0827		mg/L	1	4/25/2016 1:01:00 PM
Lube Oil	ND	0.207		mg/L	1	4/25/2016 1:01:00 PM
Surr: o-Terphenyl	83.8	50-150		%REC	1	4/25/2016 1:01:00 PM
ICP/MS METALS-TOTAL RECOVERABLE		**SW6020A**				Analyst: **JRC**
Arsenic	0.527	0.100		µg/L	1	4/22/2016 2:44:19 PM

Lab ID: 1604182-005 **Collection Date:** 4/18/2016 1:58:00 PM
Client Sample ID: MW04-041816 **Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX WITH SILICA CLEAN-UP		**NWTPH-DX/SIL**				Analyst: **jw**
Diesel	ND	0.0791		mg/L	1	5/6/2016 10:51:00 PM
Lube Oil	ND	0.198		mg/L	1	5/6/2016 10:51:00 PM
Surr: o-Terphenyl	52.2	50-150		%REC	1	5/6/2016 10:51:00 PM
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **jw**
Diesel	0.373	0.0791		mg/L	1	4/25/2016 1:23:00 PM
Lube Oil	0.287	0.198		mg/L	1	4/25/2016 1:23:00 PM
Surr: o-Terphenyl	51.9	50-150		%REC	1	4/25/2016 1:23:00 PM
ICP/MS METALS-TOTAL RECOVERABLE		**SW6020A**				Analyst: **JRC**
Arsenic	3.15	0.100		µg/L	1	4/22/2016 2:47:42 PM

Specialty Analytical

Date Reported: 09-May-16

CLIENT: Maul Foster & Alongi
Project: Schmid 32nd St / 0564.02.04

Lab Order: 1604182

Lab ID: 1604182-006
Collection Date: 4/18/2016 1:58:00 PM
Client Sample ID: MWDup-041816
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX WITH SILICA CLEAN-UP		**NWTPH-DX/SIL**				Analyst: **jw**
Diesel	ND	0.0774		mg/L	1	5/6/2016 11:13:00 PM
Lube Oil	ND	0.193		mg/L	1	5/6/2016 11:13:00 PM
Surr: o-Terphenyl	51.2	50-150		%REC	1	5/6/2016 11:13:00 PM
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **jw**
Diesel	0.379	0.0774		mg/L	1	4/25/2016 1:45:00 PM
Lube Oil	0.359	0.193		mg/L	1	4/25/2016 1:45:00 PM
Surr: o-Terphenyl	48.9	50-150	S	%REC	1	4/25/2016 1:45:00 PM
ICP/MS METALS-TOTAL RECOVERABLE		**SW6020A**				Analyst: **JRC**
Arsenic	3.34	0.100		µg/L	1	4/22/2016 2:51:04 PM

QC SUMMARY REPORT

WO#: **1604182**

Specialty Analytical

09-May-16

Client: Maul Foster & Alongi

Project: Schmid 32nd St / 0564.02.04 **TestCode:** **6020_W**

Sample ID: **ICV** SampType: **ICV** TestCode: **6020_W** Units: **µg/L** Prep Date: RunNo: **24806**
Client ID: **ICV** Batch ID: **11169** TestNo: **SW6020A** **SW3010A** Analysis Date: **4/22/2016** SeqNo: **334782**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.8	0.100	50.00	0	102	90	110				

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_W** Units: **µg/L** Prep Date: RunNo: **24806**
Client ID: **CCV** Batch ID: **11169** TestNo: **SW6020A** **SW3010A** Analysis Date: **4/22/2016** SeqNo: **334783**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	47.6	0.100	50.00	0	95.2	90	110				

Sample ID: **MB-11169** SampType: **MBLK** TestCode: **6020_W** Units: **µg/L** Prep Date: **4/21/2016** RunNo: **24806**
Client ID: **PBW** Batch ID: **11169** TestNo: **SW6020A** **SW3010A** Analysis Date: **4/22/2016** SeqNo: **334785**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100									

Sample ID: **LCS-11169** SampType: **LCS** TestCode: **6020_W** Units: **µg/L** Prep Date: **4/21/2016** RunNo: **24806**
Client ID: **LCSW** Batch ID: **11169** TestNo: **SW6020A** **SW3010A** Analysis Date: **4/22/2016** SeqNo: **334786**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	51.1	0.100	50.00	0	102	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **1604182**

Specialty Analytical

09-May-16

Client: Maul Foster & Alongi

Project: Schmid 32nd St / 0564.02.04 **TestCode:** **6020_W**

Sample ID: **1604167-009ADUP** SampType: **DUP** TestCode: **6020_W** Units: **µg/L** Prep Date: **4/21/2016** RunNo: **24806**
Client ID: **ZZZZZZ** Batch ID: **11169** TestNo: **SW6020A** **SW3010A** Analysis Date: **4/22/2016** SeqNo: **334792**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100						0	200	20	RF

Sample ID: **1604167-009AMS** SampType: **MS** TestCode: **6020_W** Units: **µg/L** Prep Date: **4/21/2016** RunNo: **24806**
Client ID: **ZZZZZZ** Batch ID: **11169** TestNo: **SW6020A** **SW3010A** Analysis Date: **4/22/2016** SeqNo: **334793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	51.9	0.100	50.00	0.05681	104	70	130				

Sample ID: **1604167-009AMSD** SampType: **MSD** TestCode: **6020_W** Units: **µg/L** Prep Date: **4/21/2016** RunNo: **24806**
Client ID: **ZZZZZZ** Batch ID: **11169** TestNo: **SW6020A** **SW3010A** Analysis Date: **4/22/2016** SeqNo: **334794**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	52.9	0.100	50.00	0.05681	106	70	130	51.92	1.86	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **6020_W** Units: **µg/L** Prep Date: RunNo: **24806**
Client ID: **CCV** Batch ID: **11169** TestNo: **SW6020A** **SW3010A** Analysis Date: **4/22/2016** SeqNo: **334795**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.6	0.100	50.00	0	97.1	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **1604182**

Specialty Analytical

09-May-16

Client: Maul Foster & Alongi

Project: Schmid 32nd St / 0564.02.04 **TestCode:** **DXLLSIL_W**

Sample ID: **MB-11275**	SampType: **MBLK**	TestCode: **DXLLSIL_W**	Units: **mg/L**	Prep Date: **4/22/2016**	RunNo: **25068**
Client ID: **PBW**	Batch ID: **11275**	TestNo: **NWTPH-Dx/Si SW3510C**		Analysis Date: **5/6/2016**	SeqNo: **337790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	0.0800									
Lube Oil	ND	0.200									
Surr: o-Terphenyl	0.173		0.2000		86.3	50	150				

Sample ID: **LCSD-11275**	SampType: **LCSD**	TestCode: **DXLLSIL_W**	Units: **mg/L**	Prep Date: **4/22/2016**	RunNo: **25068**
Client ID: **LCSS02**	Batch ID: **11275**	TestNo: **NWTPH-Dx/Si SW3510C**		Analysis Date: **5/6/2016**	SeqNo: **337791**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.796	0.0800	1.000	0	79.6	60.7	121	0.7651	3.94	20	
Lube Oil	0.707	0.200	1.000	0	70.7	64	126	0.6846	3.22	20	

Sample ID: **LCS-11275**	SampType: **LCS**	TestCode: **DXLLSIL_W**	Units: **mg/L**	Prep Date: **4/22/2016**	RunNo: **25068**
Client ID: **LCSW**	Batch ID: **11275**	TestNo: **NWTPH-Dx/Si SW3510C**		Analysis Date: **5/6/2016**	SeqNo: **337792**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.765	0.0800	1.000	0	76.5	60.7	121				
Lube Oil	0.685	0.200	1.000	0	68.5	64	126				

Sample ID: **CCV**	SampType: **CCV**	TestCode: **DXLLSIL_W**	Units: **mg/L**	Prep Date:	RunNo: **25068**
Client ID: **CCV**	Batch ID: **11275**	TestNo: **NWTPH-Dx/Si SW3510C**		Analysis Date: **5/6/2016**	SeqNo: **337795**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **1604182**

Specialty Analytical

09-May-16

Client: Maul Foster & Alongi

Project: Schmid 32nd St / 0564.02.04 **TestCode:** **DXLLSIL_W**

Sample ID: **CCV** SampType: **CCV** TestCode: **DXLLSIL_W** Units: **mg/L** Prep Date: RunNo: **25068**

Client ID: **CCV** Batch ID: **11275** TestNo: **NWTPH-Dx/Si SW3510C** Analysis Date: **5/6/2016** SeqNo: **337795**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	7.92	0.0800	8.000	0	99.0	85	115				
Lube Oil	3.75	0.200	4.000	0	93.7	85	115				

Sample ID: **CCV** SampType: **CCV** TestCode: **DXLLSIL_W** Units: **mg/L** Prep Date: RunNo: **25068**

Client ID: **CCV** Batch ID: **11275** TestNo: **NWTPH-Dx/Si SW3510C** Analysis Date: **5/7/2016** SeqNo: **337796**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	6.19	0.0800	6.000	0	103	85	115				
Lube Oil	2.70	0.200	3.000	0	90.1	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **1604182**

09-May-16

Specialty Analytical

Client: Maul Foster & Alongi

Project: Schmid 32nd St / 0564.02.04 **TestCode:** **NWTPHDXLL_W**

Sample ID: **MB-11179**	SampType: **MBLK**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **4/22/2016**	RunNo: **24843**
Client ID: **PBW**	Batch ID: **11179**	TestNo: **NWTPH-Dx**	**SW3510B**	Analysis Date: **4/25/2016**	SeqNo: **335151**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	0.0800									
Lube Oil	ND	0.200									
Surr: o-Terphenyl	0.140		0.2000		69.9	50	150				

Sample ID: **LCS-11179**	SampType: **LCS**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **4/22/2016**	RunNo: **24843**
Client ID: **LCSW**	Batch ID: **11179**	TestNo: **NWTPH-Dx**	**SW3510B**	Analysis Date: **4/25/2016**	SeqNo: **335152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.746	0.0800	1.000	0	74.6	60.7	121				
Lube Oil	0.641	0.200	1.000	0	64.1	64	126				

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	RunNo: **24843**
Client ID: **CCV**	Batch ID: **11179**	TestNo: **NWTPH-Dx**	**SW3510B**	Analysis Date: **4/25/2016**	SeqNo: **335160**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	5.76	0.0800	6.000	0	96.0	85	115				
Lube Oil	2.76	0.200	3.000	0	91.9	85	115				

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	RunNo: **24843**
Client ID: **CCV**	Batch ID: **11179**	TestNo: **NWTPH-Dx**	**SW3510B**	Analysis Date: **4/29/2016**	SeqNo: **336170**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **1604182**

Specialty Analytical

09-May-16

Client: Maul Foster & Alongi

Project: Schmid 32nd St / 0564.02.04 **TestCode:** **NWTPHDXLL_W**

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHDXLL** Units: **mg/L** Prep Date: RunNo: **24843**

Client ID: **CCV** Batch ID: **11179** TestNo: **NWTPH-Dx** **SW3510B** Analysis Date: **4/29/2016** SeqNo: **336170**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	8.64	0.0800	8.000	0	108	85	115				
Lube Oil	3.88	0.200	4.000	0	97.0	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted reco

KEY TO FLAGS

Rev. May 12, 2010

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

CHAIN OF CUSTODY RECORD

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Alan Hughes
Company: MFA
Address: 400 E Mill Plain Blvd
Vancouver, WA
Phone: ______ Fax: ______
Project No. 0584.02.04 Project Name: Schmid 32nd st
Project Site Location OR ____ WA X Other ____
Invoice To: MFA P.O. No. ______

Collected By:
Signature: Emily Hess
Printed: EMILY HESS

Signature: ______
Printed: ______

Turn Around Time
☒ Normal 5-7 Business Days
☐ Rush ______
Specify

Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1604182
Shipped Via: SA
Air Bill No. ______
Temperature On Receipt: 4 °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	NWTPH-Dx	Arsenic-USEPA 6020	Silica-Clean-up	Comments	Lab I.D.
4/18/16	0931	MW03-041816	W	3	X	X		held all samples for	
↓	1038	MW07-041816	W	3	X	X		potential silica	
↓	1125	MW05-041816	W	3	X	X		gel cleanup follow	
↓	1215	MW06-041816	W	3	X	X		up for NWTPH-DX	
↓	1358	MW04-041816	W	3	X	X	⊗		
↓	1358	MWDUP-041816	W	3	X	X	⊗	⊗ Added 5/5 [illegible]	

Relinquished By	Date	Time	Received By	Date / Time	Relinquished By	Date	Time
Emily Hess, Company: MFA	4/18/16	1615	[signature], Company: SA	4-19-16 12:21	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: [signature] SA Date: 4-19-16 Time: 14:23

ATTACHMENT C

DATA VALIDATION MEMORANDUM

DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. 0564.02.04 | MAY 13, 2016 | GEORGE SCHMID & SONS, INC.

This report reviews the analytical results for groundwater samples collected by the Maul Foster & Alongi, Inc. (MFA) project team at the 32nd Street property on behalf of George Schmid & Sons, Inc. The samples were collected on April 18, 2016.

Specialty Analytical, Inc. (SA) performed the analyses. SA report number 1604182 was reviewed. The analyses performed and samples analyzed are listed below.

Analysis	Reference
Diesel and Lube Oil	NWTPH-Dx
Diesel and Lube Oil with Silica Gel Cleanup	NWTPH-Dx/SIL
Arsenic, Total	USEPA SW6020A

NWTPH = Northwest Total Petroleum Hydrocarbons.
USEPA = U.S. Environmental Protection Agency.

Samples Analyzed
Report 1604182
MW03-041816
MW07-041816
MW05-041816
MW06-041816
MW04-041816
MWDup-041816

DATA QUALIFICATIONS

Analytical results were evaluated according to applicable sections of USEPA procedures (USEPA, 2014a,b) and appropriate laboratory and method-specific guidelines (SA, 2015; USEPA, 1986).

Data validation procedures were modified, as appropriate, to accommodate quality-control requirements for methods not specifically addressed by the functional guidelines (i.e., NWTPH-Dx).

NWTPH-Dx results for sample locations MW04 historically have been affected by diesel- and oil-range organics not identified as a specific hydrocarbon product and likely the result of biogenic interferences. Silica gel cleanup procedures and reanalysis were requested for the samples from this location (MW04-041816 and MWDup-041816) to eliminate biogenic interferences. Both silica gel cleanup and the original NWTPH-Dx results were reported by the laboratory but only the silica gel cleanup results are reported in the analytical results table.

The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

Holding Times

Extractions and analyses were performed within the recommended holding time criteria.

Preservation and Sample Storage

The samples were preserved and stored appropriately.

BLANKS

Method Blanks

Laboratory method blank analyses were performed at the required frequencies. No target analytes were detected above the method reporting limits (MRLs) in the method blanks.

Trip Blanks

A trip blank was not required for this sampling event.

Equipment Rinsate Blanks

Equipment rinsate blanks were not required for this sampling event, as all samples were collected using dedicated, single-use equipment.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance on individual samples. A NWTPH-Dx minor surrogate percent recovery exceedances were not qualified as all other batch QA/QC met acceptance criteria. All other surrogates met acceptance criteria.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Matrix spike and matrix spike duplicate (MS/MSD) results are used to evaluate laboratory precision and accuracy. All required MS/MSD samples met acceptance criteria.

LABORATORY DUPLICATE RESULTS

Duplicate results are used to evaluate laboratory precision. The laboratory flagged the Method 6020 duplicate as exceeding criteria due to results being at or near the method-reporting limit. No actions were taken because the results were non detect.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

Laboratory control samples and laboratory control sample duplicates (LCS/LCSD) are spiked with target analytes to provide information on laboratory precision and accuracy. All LCS/LCSD percent recoveries and relative percent differences (RPDs) were within acceptance criteria.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. A field duplicate (MW04/04186/MWDUP-041816) was submitted. MFA uses acceptance criteria of 100 percent RPD for results that are less than five times the MRL, or 50 percent RPD for results that are greater than five times the MRL. Non-detect data are not used in the evaluation of field duplicate results. Field duplicate results met acceptance criteria.

CONTINUING CALIBRATION VERIFICATION RESULTS

Continuing calibration verification (CCV) results are used to demonstrate instrument precision and accuracy through the end of the sample batch. All CCV results were within acceptance limits for percent recovery.

REPORTING LIMITS

SA used routine reporting limits for non-detect results.

DATA PACKAGE

The data package was reviewed for transcription errors, omissions, and anomalies. None were found.

SA. 2015. Quality assurance manual. Specialty Analytical, Inc., Clackamas, Oregon.

USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. EPA-530/SW-846 Update V. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. September (revision 1, July 2014).

USEPA. 2014a. USEPA contract laboratory program, national functional guidelines for inorganic Superfund data review. EPA 540/R-013/001. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. August.

USEPA. 2014b. USEPA contract laboratory program, national functional guidelines for Superfund organic methods data review. EPA 540/R-014/002. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. August.