From:	Dean Malte
То:	"Myers, Dale - TCP (ECY)"
Cc:	<u>Ty Schreiner</u>
Subject:	Meeting Notes Jan 24th 2019 Chevron Brooklyn Site
Date:	Monday, January 28, 2019 11:20:00 AM
Attachments:	Meeting Summary Notes 1-24-2019 Chevron Brooklyn Site.docx

Our summary notes for January 24th, 2019 meeting for the Chevon Brooklyn site are attached (MS Word version; let us know if you need a PDF also). Please let us know if you have any questions or comments.

Also, are you still available Wednesday or Thursday for our site visits?

Thank you.

Dean K. MalteGeologistKennedy/JenksConsultants3200132nd AvenueSouth, Suite 100Federal Way, WA 98001P: 253.835.6400F: 253.952.3435Direct: 253.835.6463

From:	Dean Malte
То:	"Myers, Dale - TCP (ECY)"
Cc:	Ty Schreiner
Subject:	January 30th, 2019 Site Visits Summary
Date:	Tuesday, February 5, 2019 9:40:00 AM
Attachments:	<u>Brooklyn 01 20190130.jpg</u>
	<u>Brooklyn 02 20190130.jpq</u>
	<u>Chev209335 01 20190130.jpq</u>
	Site Visit Summary 20190130.docx
	Site Visit Summary 20190130.pdf
	Stickland 01 20190130.jpg
	Strickland 02 20190130.jpg

Our summary notes for the January 30th, 2019 site visits for Brooklyn Chevron, Chevron 209335, and Texaco Strickland are attached. The PDF file includes summary notes and copies of select photos. The native MS Word and photo jpeg files are also attached. We will compile all of our photographs (mine and Ty's) separately for each site and forward to Ecology. Please let us know if you have any questions or comments, thank you.

Dean K. Malte | Geologist Kennedy/Jenks Consultants

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From:	Dean Malte
То:	<u>"Myers, Dale - TCP (ECY)"</u>
Cc:	Ty Schreiner
Subject:	Title and Property Review Tech Memo - Chevron Brooklyn Site
Date:	Friday, February 1, 2019 10:49:00 AM
Attachments:	Title Review Table 1 Brooklyn Chevron 02-01-2019.xlsx
	Tilte Review Tech Memo Brooklyn Chevron 02-01-2019.docx
	Tilte Review Tech Memo Brooklyn Chevron 02-01-2019 ndf

Our Technical Memorandum summarizing property ownership for King County tax parcel 8817400125 (4701 Brooklyn Ave NE, Seattle, WA) is attached. The attached PDF file includes the Memorandum text, summary table, and attachments. Native file formats for the text (MS Word) and summary table (MS Excel) are also attached.

Please let us know if you have any questions or comments, thank you.

Dean K. Malte | Geologist Kennedy/Jenks Consultants 32001 32nd Avenue South, Suite 100 | Federal Way, WA 98001 P: 253.835.6400 | F: 253.952.3435 | Direct: 253.835.6463

From:	Dean Malte
To:	"Myers, Dale - TCP (ECY)"
Cc:	<u>Ty Schreiner</u>
Subject:	Brooklyn Chevron Off-Property HVOC Analyses
Date:	Wednesday, February 6, 2019 2:26:00 PM
Attachments:	Groundwater Map and Data Tables Brooklyn Chervon HVOC.pdf

As you requested during our site visit last week to the Chevron Brooklyn site (4700 Brooklyn Avenue, Seattle, WA), recent reports documenting HVOC analyses in off-property groundwater are summarized below. The referenced reports include the most recent sampling data (samples collected after the recent remedial action), and sampling data for analyses performed prior to the remedial action. The information presented below is based on a review of previous reports included in the site file materials recently provided electronically by Ecology (a review of Ecology's hard-copy files for the Site was not performed).

The most recent off-property groundwater sampling data for HVOCs (multiple samples collected during August 2018) are presented in the January 4th 2019 Interim Action Report prepared by Aspect Consulting (Aspect, 2019). The sampled wells included four wells installed in January 2018 (MW-17, -18, -25, and -26). Wells MW-27 and MW-28, located in the sidewalk south of the main property, were not sampled due to dewatering drawdown and presence of LNAPL. Well locations are shown on the site map from Aspect's January 2019 report included in the attached PDF file. Additional sampling (possibly including additional wells) may have been performed but not yet reported to Ecology; we recommend that Ecology request any recent data from Aspect.

Prior to the remedial action, analysis of HVOCs in groundwater samples was performed by the Riley Group (Riley, 2016) in January 2016 and by Aspect (Aspect, 2017) in November 2016. The wells sampled in 2016 included perimeter wells located near the margin of the property which have since been abandoned (wells MW-3, -6, -9, -13 by Riley and wells MW-9, -11, and -13 by Aspect; see attached location map), and are <u>not</u> the same wells as the off-property wells sampled in 2018, which were installed in January 2018 (analysis of perimeter/off-property groundwater samples for HVOCs does not appear to have been performed prior to 2016 based on the records we have).

The referenced reports are listed below. Copies of the groundwater data summary table from each report are provided in the attached PDF for reference.

- Aspect Consulting. 2019. Interim Action Report, Former Chevron Service Station No. 90129, 4700 Brooklyn Avenue NE, Seattle, WA. Prepared for FH Brooklyn, LLC, and Chevron Environmental Management Company. Dated January 4th, 2019.
- Aspect Consulting. 2017. On-Property Remedial Investigation Data Report, 4700 Brooklyn Avenue NE, Seattle, WA. Memorandum to Dale Myers, Washington State Department of Ecology. Dated January 17th, 2017.
- Riley Group Inc. 2016. Summary of Recent Groundwater Sampling and Summary of Groundwater Data, Chevron Station No. 90129, 4700 Brooklyn Avenue NE, Seattle, WA. Technical Memorandum to Mr. Eran Fields of Fields Holdings, LLC. Dated January 18th, 2016.

Please contact us with any questions or comments. Thank you.

Dean K. MalteGeologistKennedy/Jenks Consultants32001 32nd Avenue South, Suite 100Federal Way, WA 98001P: 253.835.6400F: 253.952.3435Direct: 253.835.6463

From:	Dean Malte
То:	Myers, Dale - TCP (ECY)
Subject:	RE: Chevron 90129 File Schema - 03-05-2019
Date:	Tuesday, March 5, 2019 2:03:00 PM
Attachments:	Chevron 90129 File Schema Updated - 03-05-2019.docx

Dale-The updated Schema is attached

Dean K. MalteGeologistKennedy/JenksConsultants3200132nd AvenueSouth, Suite 100Federal Way, WA 98001P: 253.835.6400F: 253.952.3435Direct: 253.835.6463

From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Sent: Tuesday, March 05, 2019 9:09 AM
To: Dean Malte <DeanMalte@KennedyJenks.com>
Cc: Ty Schreiner <TySchreiner@KennedyJenks.com>; Myers, Dale - TCP (ECY)
<DAMY461@ECY.WA.GOV>
Subject: Chevron 90129 File Schema - 03-05-2019

Morning Dean This is the Site File Schema we will start with We may or may not be making further edits Dale



Table 1 - Soil Results

Table 1 - 2019 Soil Results

			Location Code	MW-20	MW-20	MW-20	MW-20	MW-21	MW-21	MW-21	MW-21	MW-21
			Depth	10.5	18.0	28.0	30.0	10.0	15.0	20.0	25.0	26.5
			Sample Name	MW-20-S-10.5-190810	MW-20-S-18.0-190810	MW-20-28.0-190810	MW-20-S-30.0-190810	MW-21-S-10.0-190809	MW-21-S-15.0-190809	MW-21-20.0-190809	MW-21-25.0-190809	MW-21-S-26.5-190809
			Date	8/10/2019	8/10/2019	8/10/2019	8/10/2019	8/9/2019	8/9/2019	8/9/2019	8/9/2019	8/9/2019
Chemical	Unit	MTCA A Then B	MTCA A Then B note						-			
Total Petroleum Hydrocarbons												
Gasoline-Range Organics	mg/kg	30/100	Method A	0.8	0.4	0.6	1	0.9	1	1.7	0.5	0.9
Total Petroleum Hydrocarbons -	Diesel - without s	ilica gel cleanup										
Diesel-Range Organics	mg/kg	2000	Method A	< 4.4	< 4.5	< 4.9	< 5.2	< 4.3	< 4.3	< 4.7	< 4.6	< 4.6
Oil-Range Organics	mg/kg	2000	Method A	< 11	< 11	18	< 13	< 11	< 11	< 12	< 11	< 11
Semi Volatile Organic Compoun	ds using SIM											
Benzo(a)anthracene	mg/kg	1.37	B Cancer								<0.0008	
Benzo(a)pyrene	mg/kg	0.1	Method A								0.0008	
Benzo(b)Fluoranthene	mg/kg	1.37	B Cancer								0.001	
Benzo(k)Fluoranthene	mg/kg	13.7	B Cancer								<0.0008	
Chrysene	mg/kg	137	B Cancer								0.001	
Dibenz(a,h)Anthracene	mg/kg	0.137	B Cancer								<0.0008	
Indeno(1,2,3-c,d)Pyrene	mg/kg	1.37	B Cancer								<0.0008	
Volatile Organic Compounds												
Benzene	mg/kg	0.03	Method A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0004	0.0008	0.003
cis-1,2-Dichloroethene	mg/kg	160	B Non Cancer	< 0.0005	< 0.0005	< 0.0005	0.0007				0.003	0.019
trans-1,2-Dichloroethene	mg/kg	1600	B Non Cancer	< 0.0005	< 0.0005	< 0.0005	< 0.0005				< 0.0004	0.0007
Ethylbenzene	mg/kg	6	Method A	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0003	< 0.0003	< 0.0004
Tetrachloroethene (PCE)	mg/kg	0.05	Method A	0.068	0.075	0.030	0.06				0.032	0.18
Toluene	mg/kg	7	Method A	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0005	< 0.0006	< 0.0005	< 0.0005	0.0006
Trichloroethene (TCE)	mg/kg	0.03	Method A	< 0.0005	< 0.0005	0.025	0.003				0.063	0.38 E
Vinyl Chloride	mg/kg	0.670	B Cancer	< 0.0006	< 0.0006	< 0.0006	< 0.0006				< 0.0005	< 0.0006
Xylene, total	mg/kg	9	Method A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Metals												
Lead	mg/kg	250	Method A	4.18	3.59	5.42	2.83	8.7	3.64	4.16	4.49	7.44
Moisture												
Percent Moisture	%			9.4	12.9	19.7	23.0	7.7	7.6	14.5	13.5	13.9



Detected concentrations above the cleanup level are shaded yellow and bolded. Non-detect values above the cleanup level are shaded gray and italicized.

Detected concentrations at or above the method detection limit are shown in bold.

Notes: Table was prepared in December 2019 at the request of the Ecology PM.

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.

" < " denotes not detected at or above the indicated method detection limit.

E = Concentrations are estimated since they exceed the calibration range of the instrument. Results of a further diluted analysis performed outside of method holding time is shown in parenthesis. mg/kg = milligrams per kilogram

Cleanup Levels (CUL)

Cleanup Levels (GCL) Cleanup level values based on Model Toxics Control Act (MTCA) Method A values for unrestricted land use (Method A) based on Washington State Administrative Code (WAC) 173-340-740 Table 740-1. Where MTCA Method A values are not available, the lowest

of MTCA Method B values (B Cancer or B Non Cancer) from Cleanup Levels and Risk Calculation (CLARC) tables have been used (Accessed January 2017).



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Table 1 - Soil Results

Table 1 - 2019 Soil Results

			Location Code	MW-22	MW-22	MW-22	MW-23	MW-23	MW-23	MW-29	MW-29	MW-29
			Depth	10.0	23.0	28.5	10.0	25.0	30.0	10.5	20.0	31.5
			Sample Name	MW-22-S-10.0-190808	MW-22-S-23.0-190808	MW-22-S-28.5-190808	MW-23-S-10.0-190808	MW-23-S-25.0-190808	MW-23-S-30.0-190808	MW-29-S-10.5-190810	MW-29-S-20.0-190810	MW-29-S-31.5-190810
			Date	8/8/2019	8/8/2019	8/8/2019	8/8/2019	8/8/2019	8/8/2019	8/10/2019	8/10/2019	8/10/2019
Chemical	Unit	MTCA A Then B	MTCA A Then B note		-							
Total Petroleum Hydrocarbons												
Gasoline-Range Organics	mg/kg	30/100	Method A	< 0.2	< 0.2	< 0.3	4.0	< 0.3	< 0.4	< 0.2	0.7	0.6
Total Petroleum Hydrocarbons - Diesel - without silica gel cleanup												
Diesel-Range Organics	mg/kg	2000	Method A	< 4.2	< 4.7	< 5.2	4.5	< 4.7	< 5.4	< 4.5	< 4.6	< 4.8
Oil-Range Organics	mg/kg	2000	Method A	< 10	< 12	< 13	32	< 12	< 40	16	13	< 12
Semi Volatile Organic Compound	ls using SIM								•	-		
Benzo(a)anthracene	mg/kg	1.37	B Cancer									
Benzo(a)pyrene	mg/kg	0.1	Method A									
Benzo(b)Fluoranthene	mg/kg	1.37	B Cancer									
Benzo(k)Fluoranthene	mg/kg	13.7	B Cancer									
Chrysene	mg/kg	137	B Cancer									
Dibenz(a,h)Anthracene	mg/kg	0.137	B Cancer									
Indeno(1,2,3-c,d)Pyrene	mg/kg	1.37	B Cancer									
Volatile Organic Compounds												
Benzene	mg/kg	0.03	Method A	< 0.0004	0.001	< 0.0006	< 0.0005	0.015	< 0.0006	< 0.0005	< 0.0005	0.002
cis-1,2-Dichloroethene	mg/kg	160	B Non Cancer		0.087	< 0.0006		0.15				
trans-1,2-Dichloroethene	mg/kg	1600	B Non Cancer		< 0.0004	< 0.0006		0.0008				
Ethylbenzene	mg/kg	6	Method A	< 0.0004	< 0.0003	< 0.0004	< 0.0004	< 0.0004	< 0.0005	< 0.0004	< 0.0004	0.0004
Tetrachloroethene (PCE)	mg/kg	0.05	Method A		0.001	< 0.0006		< 0.0005				
Toluene	mg/kg	7	Method A	< 0.0005	< 0.0005	< 0.0007	< 0.0005	<0.0006	< 0.0007	< 0.0006	< 0.0006	0.0007
Trichloroethene (TCE)	mg/kg	0.03	Method A		0.006	< 0.0006		<0.0005				
Vinyl Chloride	mg/kg	0.670	B Cancer		<0.0005	< 0.0007		0.005				
Xylene, total	mg/kg	9	Method A	< 0.001	<0.001	< 0.002	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001
Metals		•			•				•			
Lead	mg/kg	250	Method A	2.89	3.18	9.79	4.40	3.17	13.0			
Moisture	·	·				•		•	•	·		
Percent Moisture	%			5.3	16.5	24.0	8.3	14.7	26.8	11.6	13.0	17.2
h		•								•		



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Table 1 - 2019 Soil Results

			Location Code	DUP-1-S-190810	SUP-1-1-S-6.5-190810
			Depth		6.5
			Sample Name	DUP-1-S-190810	SUP-1-1-S-6.5-190810
			Date	8/10/2019	8/10/2019
Chemical	Unit	MTCA A Then B	MTCA A Then B note		
Total Petroleum Hydrocarbons		•			
Gasoline-Range Organics	mg/kg	30/100	Method A	< 0.3	< 0.3
Total Petroleum Hydrocarbons -	Diesel - without sili	ca gel cleanup			
Diesel-Range Organics	mg/kg	2000	Method A	< 4.5	< 4.4
Oil-Range Organics	mg/kg	2000	Method A	< 11	< 11
Semi Volatile Organic Compound	ds using SIM				
Benzo(a)anthracene	mg/kg	1.37	B Cancer		
Benzo(a)pyrene	mg/kg	0.1	Method A		
Benzo(b)Fluoranthene	mg/kg	1.37	B Cancer		
Benzo(k)Fluoranthene	mg/kg	13.7	B Cancer		
Chrysene	mg/kg	137	B Cancer		
Dibenz(a,h)Anthracene	mg/kg	0.137	B Cancer		
Indeno(1,2,3-c,d)Pyrene	mg/kg	1.37	B Cancer		
Volatile Organic Compounds					
Benzene	mg/kg	0.03	Method A	< 0.0004	< 0.0005
cis-1,2-Dichloroethene	mg/kg	160	B Non Cancer		-
trans-1,2-Dichloroethene	mg/kg	1600	B Non Cancer		
Ethylbenzene	mg/kg	6	Method A	< 0.0004	< 0.0004
Tetrachloroethene (PCE)	mg/kg	0.05	Method A		
Toluene	mg/kg	7	Method A	< 0.0005	< 0.0006
Trichloroethene (TCE)	mg/kg	0.03	Method A		
Vinyl Chloride	mg/kg	0.670	B Cancer		
Xylene, total	mg/kg	9	Method A	< 0.001	< 0.001
Metals					
Lead	mg/kg	250	Method A		
Moisture					
Percent Moisture	%			11.1	9.6



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Revision No. 0 December 2019 1996002*01

Table 2 - 2019 Groundwater Results

						1		T		1	1		1			r		1
																	1	
			Location Code	QA-T1	QA-T2	QA-T3	QA-T4	QA-T5	QA-T6	QA-01	QA-1-T	QA-02	QA-2-T	MW-17-W	MW-18-W	MW-19-W	MW-20-W	MW-21-W
			Sample Type														1	
			Date	8/12/2019	8/12/2019	8/12/2019	8/12/2019	8/12/2019	8/12/2019	8/8/2019	8/13/2019	8/9/2019	8/14/2019	8/15/2019	8/13/2019	8/13/2019	8/15/2019	8/15/2019
														MW-17-W-	MW-18-W-	MW-19-W-	MW-20-W-	MW-21-W-
			Commis ID	QA-11-190812	QA-12-190812	QA-13-190812	QA-14-190812	QA-15-190812	QA-16-190812	QA-01-190808	QA-1-1-190813	QA-O2-190808	QA-2-1-190814	190815 Grab	190813 Grab	190813 Grab	190815 Grab	190815 Grab
			Sample ID Baront ID	NA WATER	NA WATER		NA WATER	NAWATER	NAWATER	Grab Water	INA Waler	Grab Water	INA Waler	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Chemical	Linit	MTCA A Then B	MTCA A Then B Note														[]	
Metals	Onit	INTO A THEILD	INTOX A THEILD NOTE															
Lead	ua/l	15												< 7 1 T	< 7 1 T	< 7 1 T	< 7 1 T	< 7 1 T
ТРН	ugh	10												\$1.11	\$1.11	\$1.11		\$1.11
Gasoline Range Organics-NWTPH	ua/l	800	1	< 19	< 19*	< 19	< 19	< 19	< 19*	< 19	< 19*	< 19	< 19*	500	< 19*	26	30	< 19
Total Petroleum Hydrocarbons - Di	esel - without sili	ica gel cleanup																
Diesel-Range Organics	ug/l	500												710	< 46	< 47	< 45	< 46
Oil-Range Organics	ug/l	500												< 100	< 100	< 100	< 100	< 100
VOCs	•	•			•		•	•	•	•	•	•		•	•	•		•
Benzene	ug/l	5	B Cancer	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2*	< 0.2	< 0.2	6	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichloroethane	ug/l	5	B Cancer											0.5	< 0.3	< 0.3	< 0.3	< 0.3
cis-1,2-Dichloroethene	ug/l		B Non Cancer											52	< 0.2	< 0.2	7	0.4
trans-1,2-Dichloroethene	ug/l		B Non Cancer											0.8	< 0.2	< 0.2	0.5	< 0.2
Ethylbenzene	ug/l	700	B Non Cancer	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4*	< 0.4	< 0.4	14	< 0.4	< 0.4	< 0.4	< 0.4
Methyl tert-Butyl ether	ug/l	20	B Cancer											< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Tetrachloroethene (PCE)	ug/l	5	B Cancer											7	3	< 0.2	64	2
Toluene	ug/l	1000	B Non Cancer	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2*	< 0.2	0.3	0.2	< 0.2	< 0.2	< 0.2	< 0.2
Trichloroethene (TCE)	ug/l	5	B Cancer											3	< 0.2	< 0.2	13	4
Vinyl Chloride	ug/l	0.2	B Cancer, When											< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
			children may be														1	
			exposed, see														1	
			MCL = $2 \mu q/L$.														1	
																	1	
																	1	
Vulene tetel		1000	D Nez Caraca	. 1	. 1						. 4*				. 1	. 1		
Aylerie, total	ug/I	1000	B Non Cancer	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1"	< 1	< 1	6 + 0.0005 D4	< 1	< 1	< 1	< 1
1,2-Dibromoetnahe	ug/i	0.01	B Cancer											< 0.0095 D1	< 0.0096 D1	< 0.0095 D1	< 0.0095 D2	< 0.0095 D1

Detected concentrations above the cleanup level are shaded yellow and bolded. 751 < --

Non-detect values above the cleanup level are shaded gray and italicized.

0.436 Detected concentrations at or above the method detection limit are shown in bold.

Notes: Table was prepared in December 2019 at the request of the Ecology PM.

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.

" < " denotes not detected at or above the indicated method detection limit.

µg/l = micrograms per liter

* = The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.

Concentrations

are estimated

time was not met

for dissolved

sample filtration.

D1 = Indicates for dual column analyses that the result is reported from column 1.

D2 = Indicates for dual column analyses that the result is reported from column 2.

Cleanup Levels (CUL)

Cleanup level values based on Model Toxics Control Act (MTCA) Method A values for unrestricted land use (Method A) based on

Washington State Administrative Code (WAC) 173-340-740 Table 740-1. Where MTCA Method A values are not available, the lowest

of MTCA Method B values (B Cancer or B Non Cancer) from Cleanup Levels and Risk Calculation (CLARC) tables have been used (Accessed January 2017).



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Table 2 - 2019 Groundwater Results

Chemical	MW-22-W 8/14/2019 MW-22-W- 190814 Grab Groundwater	MW-23-W 8/15/2019 MW-23-W- 190815 Grab Groundwater	MW-25-W 8/16/2019 MW-25-W- 190816 Grab Groundwater	MW-26-W 8/13/2019	MW-27-W 8/13/2019	MW-28-W 8/13/2019	DUP-1-WD- 190813 Grab Groundwater DUP 8/13/2019 DUP-1-WD- 190813 Grab Groundwater Unknown	MW-29-W 8/16/2019 MW-29-W- 190816 Grab Groundwater			
Metals		45		.74 T	.74 T	.74 T	.74 T	. 7 4 T	.74 T	.74 T	. 7 4 T
	ug/i	15		< 7.1 1	< 7.1 1	< 7.1 1	< 7.1 1	< 7.1 1	< 7.1 1	< 7.1 1	< 7.1 1
Gasoline Pange Organics-NW/TPH	ug/l	800		30	< 10	250	150	2000	3700	3800*	< 10
Total Petroleum Hydrocarbons - Di	esel - without sili	ca del cleanun		55	< 19	250	150	2300	5700	3000	< 19
Diesel-Range Organics	ua/l	500		< 45	< 49	< 47	< 45	1400	770	840	< 46
Oil-Range Organics	ug/l	500		< 100	< 110	< 100	< 100	< 100	< 100	< 100	< 100
VOCs	0										
Benzene	ug/l	5	B Cancer	10	19	57	24	9	14	15	< 0.2
1,2-Dichloroethane	ug/l	5	B Cancer	< 3	1	3	0.4	< 6	< 6	< 6	4
cis-1,2-Dichloroethene	ug/l		B Non Cancer	740	340	1200	820 E (720)	700	250	270	< 0.2
trans-1,2-Dichloroethene	ug/l		B Non Cancer	6	2	82	230	55	6	5	< 0.2
Ethylbenzene	ug/l	700	B Non Cancer	< 4	< 0.4	10	8	84	220	210	< 0.4
Methyl tert-Butyl ether	ug/l	20	B Cancer	< 2	< 0.2	< 0.2	< 0.2	< 4	< 4	< 4	< 0.2
Tetrachloroethene (PCE)	ug/l	5	B Cancer	< 2	< 0.2	24	5	< 4	260	300	< 0.2
Toluene	ug/l	1000	B Non Cancer	< 2	0.2	4	2	< 4	< 4	< 4	< 0.2
Trichloroethene (TCE)	ug/l	5	B Cancer	370	23	320	2200 E (1700)	780	770	820	< 0.2
Vinyl Chloride	ug/l	0.2	B Cancer, When children may be exposed, see guidance. Federal MCL = 2 ug/L.	5	16	150	38	23	8	8	< 0.2
Xylene, total	ug/l	1000	B Non Cancer	< 14	< 1	2	< 1	30	90	86	< 1
1,2-Dibromoethane	ug/l	0.01	B Cancer	< 0.0094 D1	< 0.0095 D1	< 0.0095 D2	< 0.0094 D2	< 0.0094 D1	< 0.0096 D2	< 0.0095 D1	< 0.0095 D1



Kennedy Jenks

Revision No. 0 December 2019 1996002*01



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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Prepared for:

Chevron L4310 6001 Bollinger Canyon Road San Ramon CA 94583

Report Date: October 17, 2019 13:20

Project: 90129

Account #: 11255 Group Number: 2059029 PO Number: 0015324185 Release Number: BISHOP State of Sample Origin: WA

Electronic Copy To Leidos

Attn: Ruth Otteman

Respectfully Submitted,

mek Carts

Amek Carter Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to <u>https://www.eurofinsus.com/environment-</u> testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratoriesenvironmental/. Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection	ELLE#
	Date/Time	
MW-20-S-10.5-190810 Grab Soil	08/10/2019 08:50	1126287
SUP-1-1-S-6.5-190810 Grab Soil	08/10/2019 08:50	1126288
MW-20-S-18.0-190810 Grab Soil	08/10/2019 09:15	1126289
MW-20-S-28.0-190810 Grab Soil	08/10/2019 09:30	1126290
MW-20-S-30.0-190810 Grab Soil	08/10/2019 10:00	1126291
MW-29-S-20.0-190810 Grab Soil	08/10/2019 13:13	1126292
MW-29-S-31.5-190810 Grab Soil	08/10/2019 13:52	1126293
DUP-1-S-190810 Grab Soil	08/10/2019 14:00	1126294
MW-29-S-10.5-190810 Grab Soil	08/10/2019 13:30	1126295
QA-T1-190812 NA Water	08/12/2019 14:00	1126296
QA-T2-190812 NA Water	08/12/2019 14:05	1126297
QA-T3-190812 NA Water	08/12/2019 14:30	1126298
QA-T4-190812 NA Water	08/12/2019 14:40	1126299
QA-T5-190812 NA Water	08/12/2019 15:40	1126300
QA-T6-190812 NA Water	08/12/2019 15:50	1126301
MW-23-S-10.0-190808 Grab Soil	08/08/2019 11:30	1126302
MW-23-S-25.0-190808 Grab Soil	08/08/2019 12:05	1126303
MW-23-S-30.0-190808 Grab Soil	08/08/2019 12:20	1126304
MW-22-S-10.0-190808 Grab Soil	08/08/2019 15:20	1126305
MW-22-S-23.0-190808 Grab Soil	08/08/2019 15:30	1126306
MW-22-S-28.5-190808 Grab Soil	08/08/2019 15:45	1126307
QA-O1-190808 Grab Water	08/08/2019 17:20	1126308
QA-O2-190809 Grab Water	08/09/2019 08:10	1126309
MW-21-S-10.0-190809 Grab Soil	08/09/2019 09:30	1126310
MW-21-S-15.0-190809 Grab Soil	08/09/2019 09:45	1126311
MW-21-S-20.0-190809 Grab Soil	08/09/2019 10:00	1126312
MW-21-S-25.0-190809 Grab Soil	08/09/2019 10:15	1126313
MW-21-S-26.5-190809 Grab Soil	08/09/2019 10:30	1126314

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



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Analysis Report

1

Sample	e Description: MV Fac 47(V-20-S-10.5-19 cility# 90129 00 Brooklyn A	0810 Grab Soi ve - Seattle, W	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126287 2059029		
Project	: Name: 901	129					
Submitt Collecti	al Date/Time: 08/ on Date/Time: 08/	14/2019 10:05 10/2019 08:50					
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detectio	n Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	mg/kg	mg/kg		
11995	Benzene		71-43-2	N.D.	0.0005		0.88
11995	cis-1,2-Dichloroethene		156-59-2	N.D.	0.0005		0.88
11995	trans-1,2-Dichloroethene		156-60-5	N.D.	0.0005		0.88
11995	Ethylbenzene		100-41-4	N.D.	0.0004		0.88
11995	Tetrachloroethene		127-18-4	0.068	0.0005		0.88
11995	Toluene		108-88-3	N.D.	0.0006		0.88
11995	Trichloroethene		79-01-6	N.D.	0.0005		0.88
11995	Vinyl Chloride		75-01-4	N.D.	0.0006		0.88
11995	Xylene (Total)		1330-20-7	N.D.	0.001		0.88
GC Vol	atiles	ECY 97-602 I	NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C12		n.a.	0.8	0.3		26.3
GC Pet Hydrod	roleum arbons	ECY 97-602 I modified	NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics C	12-C24	n.a.	N.D.	4.4		1
08272	Heavy Range Organics C	24-C40	n.a.	N.D.	11		1
Metals		SW-846 6010 2014	D Rev.4, July	mg/kg	mg/kg		
06955	Lead		7439-92-1	4.18	0.534		1

 00111
 Moisture n.a.
 9.4

 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

SM 2540 G-2011

Sample Comments

%

0.50

%

State of Washington Lab Certification No. C457

Wet Chemistry

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 13:23	Linda C Pape	0.88
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 08:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/10/2019 08:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/10/2019 08:50	Client Supplied	1



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Sample Description:	MW-20-S-10.5-190810 Facility# 90129 4700 Brooklyn Ave - S	Grab Soil eattle, WA		Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126287 2059029	
Project Name:	90129					
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/10/2019 08:50					
		Laboratory S	Sample Analy	/sis Record		
CAT Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution

No.			IIIal#	Batch#	Date and Time	Analyst	Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/10/2019 08:50	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/21/2019 23:44	Jeremy C Giffin	26.3
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 05:13	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 05:55	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

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Analysis Report

Sample Description: SI Fa 47		SUP-1-1-S-6. Facility# 901 4700 Brookly	5-190810 Grab So 29 /n Ave - Seattle, V	bil VA	Chevro ELLE S ELLE G Matrix	n ample #: roup #: Soil	SW 1126288 2059029
Projec	t Name: S	90129				0011	
Submit Collect	tal Date/Time: 0 ion Date/Time: 0	08/14/2019 10 08/10/2019 08	0:05 8:50				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Di Fa	lution actor
GC/MS	S Volatiles	SW-846 8	8260C	mg/kg	mg/kg		
11995	Benzene		71-43-2	N.D.	0.0005	0.9	93
11995	Ethylbenzene		100-41-4	N.D.	0.0004	0.9	93
11995	Toluene		108-88-3	N.D.	0.0006	0.9	93
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.9	93
GC Vo	latiles	ECY 97-6	602 NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C	12	n.a.	N.D.	0.3	28	3.54
GC Pe Hydro	troleum carbons	ECY 97-6 modified	602 NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics	s C12-C24	n.a.	N.D.	4.4	1	
08272	Heavy Range Organics	s C24-C40	n.a.	N.D.	11	1	
Wet Cl	nemistry	SM 2540 %Moistu	G-2011 re Calc	%	%		
00111	Moisture		n.a.	9.6	0.50	1	
	Moisture represents th 103 - 105 degrees Cels as-received basis.	e loss in weight sius. The moistu	of the sample after over re result reported is on	n drying at an			

Sample Comments

State of Washington Lab Certification No. C457

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 18:16	Linda C Pape	0.93
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 08:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 00:19	Jeremy C Giffin	28.54
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 05:35	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1



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Analysis Report

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Sample Description: MW-2 Facilit 4700 I		MW-20-S-18. Facility# 901 4700 Brookly	0-190810 Grab Soi 29 ⁄n Ave - Seattle, W	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126289 2059029		
Project	Project Name: 90						
Submitt Collecti	al Date/Time: (on Date/Time: (08/14/2019 10 08/10/2019 09):05 9:15				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection	Limit F	ilution actor
GC/MS	Volatiles	SW-846 8	3260C	mg/kg	mg/kg		
11995	Benzene		71-43-2	N.D.	0.0005	0	.91
11995	cis-1,2-Dichloroethene	;	156-59-2	N.D.	0.0005	0	.91
11995	trans-1,2-Dichloroethe	ne	156-60-5	N.D.	0.0005	0	.91
11995	Ethylbenzene		100-41-4	N.D.	0.0004	0	.91
11995	Tetrachloroethene		127-18-4	0.075	0.0005	0	.91
11995	Toluene		108-88-3	N.D.	0.0006	0	.91
11995	Trichloroethene		79-01-6	N.D.	0.0005	0	.91
11995	Vinyl Chloride		75-01-4	N.D.	0.0006	0	.91
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0	.91
GC Vol	atiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C	12	n.a.	0.4	0.3	2	5.47
GC Pet Hydrod	roleum arbons	ECY 97-6 modified	02 NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organic	s C12-C24	n.a.	N.D.	4.5	1	
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	11	1	
Metals		SW-846 6	6010D Rev.4, July	mg/kg	mg/kg		

2014 06955 Lead 7439-92-1 3.59 0.478 % % Wet Chemistry SM 2540 G-2011 %Moisture Calc 00111 Moisture n.a. 12.9 0.50 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

State of Washington Lab Certification No. C457

Sample Comments

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 13:45	Linda C Pape	0.91
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 09:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 09:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/10/2019 09:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/10/2019 09:15	Client Supplied	1



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Sample Description:	MW-20-S-18.0-190810 G Facility# 90129 4700 Brooklyn Ave - Se	Brab Soil Brattle, WA		Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126289 2059029	
Project Name:	90129					
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/10/2019 09:15					
	L	aboratory \$	Sample Analy	sis Record		
CAT Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution

CAT No.	Analysis Name	Metriod	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 09:15	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/10/2019 09:15	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 00:54	Jeremy C Giffin	25.47
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 09:15	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 05:56	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 09:35	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1



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Analysis Report

Sample Description: MV Fa 47		MW-20-S-28. Facility# 901 4700 Brookly	0-190810 Grab So 29 /n Ave - Seattle, V	Che ELL ELL	vron E Sample #: E Group #: rix: Soil	SW 1126290 2059029	
Projec	t Name:	90129		Mat			
Submit Collect	tal Date/Time: ion Date/Time:	08/14/2019 10 08/10/2019 09	0:05 9:30				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limi	Dil t Fa	ution ctor
GC/MS	S Volatiles	SW-846 8	8260C	mg/kg	mg/kg		
11995	Benzene		71-43-2	N.D.	0.0005	0.8	31
11995	cis-1,2-Dichloroethene	e	156-59-2	N.D.	0.0005	0.8	31
11995	trans-1,2-Dichloroethe	ene	156-60-5	N.D.	0.0005	0.8	51
11995	Ethylbenzene		100-41-4	N.D.	0.0004	0.8	51
11995	Tetrachloroethene		127-18-4	0.030	0.0005	0.8	51
11995	Toluene		108-88-3	N.D.	0.0006	0.8	51
11995	Trichloroethene		79-01-6	0.025	0.0005	0.8	51
11995	Vinyl Chloride		75-01-4	N.D.	0.0006	0.8	i1
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.8	1
GC Vo	latiles	ECY 97-6	602 NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-0	C12	n.a.	0.6	0.3	26.	.03
GC Pe Hydrod	troleum carbons	ECY 97-6 modified	602 NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organic	s C12-C24	n.a.	N.D.	4.9	1	
08272	Heavy Range Organic	cs C24-C40	n.a.	18	12	1	
M - (- I -		014 0 40 4		malka	malka		

Metals SW-846 6010D Rev.4, July mg/kg mg/kg 2014 06955 Lead 7439-92-1 5.42 0.519 1 % % Wet Chemistry SM 2540 G-2011 %Moisture Calc 00111 Moisture n.a. 19.7 0.50 1 Moisture represents the loss in weight of the sample after oven drying at

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 14:08	Linda C Pape	0.81
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 09:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 09:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/10/2019 09:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/10/2019 09:30	Client Supplied	1



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Sample Description:	MW-20-S-28.0-190810 (Facility# 90129 4700 Brooklyn Ave - So	Grab Soil eattle, WA	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126290 2059029		
Project Name:	90129					
Submittal Date/Time:	08/14/2019 10:05					
Collection Date/Time:	08/10/2019 09:30					
	l	_aboratory S	Sample Analy	sis Record		
CAT Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 09:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/10/2019 09:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 12:00	Jeremy C Giffin	26.03
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 09:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 07:01	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:15	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1



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Analysis Report

Sample Description: M Fa 47		IW-20-S-30.0 acility# 9012 700 Brookly)-190810 Grab So 29 n Ave - Seattle, W	il /A		Chevron ELLE Sample #: SW ELLE Group #: 20! Matrix: Soil		
Projec	t Name: 9	0129						
Submit Collect	tal Date/Time: 0 ion Date/Time: 0	8/14/2019 10 8/10/2019 10):05):00					
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detectior	D Limit F	Dilution	
GC/MS	S Volatiles	SW-846 8	260C	mg/kg	mg/kg			
11995	Benzene		71-43-2	N.D.	0.0005	0	.74	
11995	cis-1,2-Dichloroethene		156-59-2	0.0007	0.0005	0	.74	
11995	trans-1,2-Dichloroethen	е	156-60-5	N.D.	0.0005	0	.74	
11995	Ethylbenzene		100-41-4	N.D.	0.0004	0	.74	
11995	Tetrachloroethene		127-18-4	0.060	0.0005	0	.74	
11995	Toluene		108-88-3	N.D.	0.0006	0	.74	
11995	Trichloroethene		79-01-6	0.003	0.0005	0	.74	
11995	Vinyl Chloride		75-01-4	N.D.	0.0006	0	.74	
The I the m the T allow	LCS and/or LCSD recover narginal exceedance allow NI/DoD Standards. The fu ance: cis-1,2-Dichloroethe	ies are outside t ance of +/- 4 sta ollowing analytes ene	he stated QC window b andard deviations as de s are accepted based o	ut within fined in n this				
GC Vo	latiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg			
02005	NWTPH-GX Soil C7-C1	2	n.a.	1	0.3	2	4.97	
GC Pe Hydro	troleum carbons	ECY 97-6 modified	02 NWTPH-Dx	mg/kg	mg/kg			
08272	Diesel Range Organics	C12-C24	n.a.	N.D.	5.2	1		
08272	Heavy Range Organics	C24-C40	n.a.	N.D.	13	1		
Metals	i	SW-846 6 2014	010D Rev.4, July	mg/kg	mg/kg			
06955	Lead		7439-92-1	2.83	0.639	1		
Wet Cl	hemistry	SM 2540	G-2011	%	%			
		%Moistur	e Calc					
00111	Moisture		n.a.	23.0	0.50	1		
	Moisture represents the 103 - 105 degrees Cels	loss in weight o ius. The moistur	f the sample after oven e result reported is on a	drying at an				

as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 14:30	Linda C Pape	0.74
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 10:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 10:00	Client Supplied	1



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Sample Description:	MW-20-S-30.0-190810 Facility# 90129 4700 Brooklyn Ave - S	Grab Soil eattle, WA		Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126291 2059029	
Project Name:	90129					
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/10/2019 10:00					
		Laboratory S	Sample Analy	ysis Record		
CAT Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution

No.	Analysis Name	motriou	I rial#	Batch#	Analysis Date and Time	Analyst	Factor
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/10/2019 10:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/10/2019 10:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 10:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/10/2019 10:00	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 01:30	Jeremy C Giffin	24.97
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 10:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 07:23	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:18	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

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Analysis Report

Sample Description: MV Fa 47		IW-29-S-20.0 acility# 9012 700 Brooklyı	-190810 Grab So 9 n Ave - Seattle, V	bil VA	Che ELI ELI Mai	evron LE Sample #: LE Group #: trix: Soil	SW 1126292 2059029
Projec	t Name: 9	0129		I I I I I I I I I I I I I I I I I I I			
Submit Collect	tal Date/Time: 0 ion Date/Time: 0	8/14/2019 10 8/10/2019 13	:05 :13				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Lim	Dil Nit Fa	ution ctor
GC/MS Volatiles		SW-846 8260C		mg/kg	mg/kg		
11995 11995 11995	Benzene Ethylbenzene Toluene		71-43-2 100-41-4 108-88-3	N.D. N.D.	0.0005 0.0004 0.0006	8.0 3.0	8 8 8
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.0	88
GC Vo	latiles	ECY 97-60	02 NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C1	2	n.a.	0.7	0.3	25	.72
GC Per Hydrod	troleum carbons	ECY 97-60 modified	02 NWTPH-Dx	mg/kg	mg/kg		
08272 08272	Diesel Range Organics Heavy Range Organics	C12-C24 C24-C40	n.a. n.a.	N.D. 13	4.6 11	1 1	
Wet Cl	nemistry	SM 2540 (%Moistur	G-2011 e Calc	%	%		
00111	Moisture Moisture represents the 103 - 105 degrees Cels as-received basis.	loss in weight of ius. The moisture	n.a. f the sample after over e result reported is on	13.0 n drying at an	0.50	1	

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 14:53	Linda C Pape	0.88
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 13:13	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 13:13	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 13:13	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 02:05	Jeremy C Giffin	25.72
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 13:13	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 07:44	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1



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Sample Description:		MW-29-S-31. Facility# 901 4700 Brookly	5-190810 Grab So 29 /n Ave - Seattle, V	Dil VA	Chevron ELLE Sam ELLE Grou Matrix: Sc	ple #: SW 1126293 .p #: 2059029 งัน	
Project	t Name:	90129					
Submittal Date/Time: Collection Date/Time:		08/14/2019 10 08/10/2019 13	0:05 3:52				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor	
GC/MS	Volatiles	SW-846 8	3260C	mg/kg	mg/kg		
11995	Benzene		71-43-2	0.002	0.0005	0.86	
11995	Ethylbenzene		100-41-4	0.0004	0.0004	0.86	
11995	Toluene		108-88-3	0.0007	0.0006	0.86	
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.86	
GC Vo	atiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C	7-C12	n.a.	0.6	0.3	23.08	
GC Pet Hydrod	roleum carbons	ECY 97-6 modified	602 NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Orga	nics C12-C24	n.a.	N.D.	4.8	1	
08272	Heavy Range Orga	inics C24-C40	n.a.	N.D.	12	1	
Wet Ch	nemistry	SM 2540	G-2011	%	%		
		%Moistu	re Calc				
00111	Moisture		n.a.	17.2	0.50	1	
	Moisture represents the loss in weight of the sample after over		n drying at				

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 15:16	Linda C Pape	0.86
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 13:52	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 13:52	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 13:52	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 02:40	Jeremy C Giffin	23.08
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 13:52	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 08:06	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1



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Sample Description:		DUP-1-S-190 Facility# 901 4700 Brookly	810 Grab Soil 29 ⁄n Ave - Seattle, V	Chevron ELLE San ELLE Gro Matrix: S	nple #: SW 1126294 up #: 2059029 oil	
Projec	Project Name: 90129					
Submit Collect	tal Date/Time:	08/14/2019 10 08/10/2019 14	0:05 4:00			
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles		SW-846 8260C		mg/kg	mg/kg	
11995	Benzene		71-43-2	N.D.	0.0004	0.79
11995	Ethylbenzene		100-41-4	N.D.	0.0004	0.79
11995	Toluene		108-88-3	N.D.	0.0005	0.79
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.79
GC Vo	latiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C	212	n.a.	N.D.	0.3	24.4
GC Pe Hydro	troleum carbons	ECY 97-6 modified	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organic	s C12-C24	n.a.	N.D.	4.5	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	11	1
Wet Cl	hemistry	SM 2540 %Moistu	G-2011 re Calc	%	%	
00111	Moisture Moisture represents th 103 - 105 degrees Cel	ne loss in weight Isius. The moistu	n.a. of the sample after over re result reported is on	11.1 n drying at an	0.50	1

as-received basis.

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 15:38	Linda C Pape	0.79
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 14:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 14:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 14:00	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 03:15	Jeremy C Giffin	24.4
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 14:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 08:28	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1



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Sample Description: MI Fa 47		MW-29-S-10. Facility# 901 4700 Brookly	5-190810 Grab So 29 /n Ave - Seattle, V	bil VA	Chevron ELLE Sam ELLE Grou Matrix: Sc	ple #: SW 1126295 ıp #: 2059029 il
Project Name: Submittal Date/Time: Collection Date/Time:		90129				
		08/14/2019 10:05 08/10/2019 13:30				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	6 Volatiles	SW-846 8	3260C	mg/kg	mg/kg	
11995	Benzene		71-43-2	N.D.	0.0005	0.84
11995	Ethylbenzene		100-41-4	N.D.	0.0004	0.84
11995	Toluene		108-88-3	N.D.	0.0006	0.84
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.84
GC Vo	latiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C	7-C12	n.a.	N.D.	0.2	23.2
GC Pe Hydro	troleum carbons	ECY 97-6 modified	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Orga	nics C12-C24	n.a.	N.D.	4.5	1
08272	Heavy Range Orga	inics C24-C40	n.a.	16	11	1
Wet C	hemistry	SM 2540 %Moistu	G-2011 re Calc	%	%	
00111	Moisture		n.a.	11.6	0.50	1
	Moisture represents the loss in weight of the sample after over		n drving at			

Moisture represents the loss in weight of the sample after oven drying 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 16:01	Linda C Pape	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 13:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 13:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 13:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 03:50	Jeremy C Giffin	23.2
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 13:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 08:50	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1



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Sample Description: Q/ Fa 47		QA-T1-190812 N Facility# 90129 1700 Brooklyn A	A Water .ve - Seattle, V	NA		Chevron ELLE Sample #: ELLE Group #: Matrix: Water		
Project	Name: 9	90129						
Submitt Collecti	al Date/Time: 0 on Date/Time: 0	08/14/2019 10:05 08/12/2019 14:00						
CAT No.	Analysis Name		CAS Number	Result	Method Detection	D Limit Fa	ilution actor	
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l			
13130	Benzene		71-43-2	N.D.	0.2	1		
13130	Ethylbenzene		100-41-4	N.D.	0.4	1		
13130	Toluene		108-88-3	N.D.	0.2	1		
13130	Xylene (Total)		1330-20-7	N.D.	1	1		
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water C7-	C12	n.a.	N.D.	19	1		

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Sample Comments

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192331AA	08/21/2019 16:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192331AA	08/21/2019 16:00	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 02:38	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 02:37	Jeremy C Giffin	1



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Sample Description:		QA-T2-190812 NA Water Facility# 90129 4700 Brooklyn Ave - Seattle, V	VA	Chevron ELLE Samp ELLE Grou Matrix: Wa	∋ #: WW 1126297 #: 2059029 er	
Projec	t Name:	90129				
Submit Collect	tal Date/Time: ion Date/Time:	08/14/2019 10:05 08/12/2019 14:05				
CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor	
GC/MS	S Volatiles	SW-846 8260C	ug/l	ug/l		
13130	Benzene	71-43-2	N.D.	0.2	1	
13130	Ethylbenzene	100-41-4	N.D.	0.4	1	
13130	Toluene	108-88-3	N.D.	0.2	1	
13130	Xylene (Total)	1330-20-7	N.D.	1	1	
GC Vo	latiles	ECY 97-602 NWTPH-Gx	ug/l	ug/l		
08273	NWTPH-Gx water	C7-C12 n.a.	N.D.	19	1	
The i conta	equirement for no he ainer used for the test	adspace at the time of analysis was not me ing had headspace at the time of analysis.	t. The			

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192331AA	08/21/2019 16:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192331AA	08/21/2019 16:23	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 03:05	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 03:04	Jeremy C Giffin	1



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Sample Description: QA Fa 47		QA-T3-190812 N Facility# 90129 1700 Brooklyn A	A Water .ve - Seattle, V	NA		Chevron ELLE Sample #: ELLE Group #: Matrix: Water	e #: WW 1126298 #: 2059029 r	
Project	Name: 9	90129						
Submitt Collecti	al Date/Time: 0 on Date/Time: 0	08/14/2019 10:05 08/12/2019 14:30						
CAT No.	Analysis Name		CAS Number	Result	Method Detection	D Limit Fa	ilution actor	
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l			
13130	Benzene		71-43-2	N.D.	0.2	1		
13130	Ethylbenzene		100-41-4	N.D.	0.4	1		
13130	Toluene		108-88-3	N.D.	0.2	1		
13130	Xylene (Total)		1330-20-7	N.D.	1	1		
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water C7-	C12	n.a.	N.D.	19	1		

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Sample Comments

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192331AA	08/21/2019 16:45	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192331AA	08/21/2019 16:44	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 03:32	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 03:31	Jeremy C Giffin	1



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Sample Description: Q/ Fa 47		QA-T4-190812 N Facility# 90129 1700 Brooklyn A	A Water .ve - Seattle, V	NA		Chevron ELLE Sample #: ELLE Group #: Matrix: Water	9 #: WW 1126299 #: 2059029 r	
Project	Name: 9	90129						
Submitt Collecti	al Date/Time: 0 on Date/Time: 0	08/14/2019 10:05 08/12/2019 14:40						
CAT No.	Analysis Name		CAS Number	Result	Method Detection	D Limit F	ilution actor	
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l			
13130	Benzene		71-43-2	N.D.	0.2	1		
13130	Ethylbenzene		100-41-4	N.D.	0.4	1		
13130	Toluene		108-88-3	N.D.	0.2	1		
13130	Xylene (Total)		1330-20-7	N.D.	1	1		
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water C7-	C12	n.a.	N.D.	19	1		

State of Washington Lab Certification No. C457

Sample Comments

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192331AA	08/21/2019 17:08	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192331AA	08/21/2019 17:07	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 04:00	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 03:59	Jeremy C Giffin	1



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Sample Description: QA Fa 47		QA-T5-190812 N Facility# 90129 4700 Brooklyn A	A Water .ve - Seattle, V	VA		Chevron ELLE Sample #: ELLE Group #: Matrix: Water	e #: WW 1126300 #: 2059029 er	
Project	Project Name: 90129							
Submit	tal Date/Time: (on Date/Time: (08/14/2019 10:05 08/12/2019 15:40						
CAT No.	Analysis Name		CAS Number	Result	Method Detection	Di Limit Fa	ilution actor	
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l			
13130	Benzene		71-43-2	N.D.	0.2	1		
13130	Ethylbenzene		100-41-4	N.D.	0.4	1		
13130	Toluene		108-88-3	N.D.	0.2	1		
13130	Xylene (Total)		1330-20-7	N.D.	1	1		
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water C7-	C12	n.a.	N.D.	19	1		

State of Washington Lab Certification No. C457

Sample Comments

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192332AA	08/21/2019 16:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192332AA	08/21/2019 16:32	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 04:27	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 04:26	Jeremy C Giffin	1



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Sample Description:		QA-T6-190812 NA Water Facility# 90129 4700 Brooklyn Ave - Seattle, V	VA	Chevron ELLE Samı ELLE Grou Matrix: Wa	ole #: WW 1126301 p #: 2059029 tter
Projec	t Name:	90129			
Submit Collect	tal Date/Time: ion Date/Time:	08/14/2019 10:05 08/12/2019 15:50			
CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	S Volatiles	SW-846 8260C	ug/l	ug/l	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Vo	latiles	ECY 97-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water	C7-C12 n.a.	N.D.	19	1
The i conta	equirement for no he ainer used for the test	adspace at the time of analysis was not me ing had headspace at the time of analysis.	t. The		

Sample Comments

State of Washington Lab Certification No. C457

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192332AA	08/21/2019 16:55	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192332AA	08/21/2019 16:54	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 04:54	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 04:53	Jeremy C Giffin	1

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Analysis Report

Sample Description:		/W-23-S-10.0-19 acility# 90129 700 Brooklyn A	90808 Grab Soi we - Seattle, W	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126302 2059029		
Project	t Name: 9	0129					
Submit Collecti	tal Date/Time: 0 on Date/Time: 0	8/14/2019 10:05 8/08/2019 11:30	;)				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detectio	n Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	0C	mg/kg	mg/kg		
11995	Benzene		71-43-2	N.D.	0.0005		0.83
11995	Ethylbenzene		100-41-4	N.D.	0.0004		0.83
11995	Toluene		108-88-3	N.D.	0.0005		0.83
11995	Xylene (Total)		1330-20-7	N.D.	0.001		0.83
GC Vol	latiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C	12	n.a.	4.0	0.3		25.01
GC Pet Hydrod	roleum carbons	ECY 97-602 modified	NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics	C12-C24	n.a.	4.5	4.3		1
08272	Heavy Range Organics	C24-C40	n.a.	32	11		1
Metals		SW-846 6010 2014	0D Rev.4, July	mg/kg	mg/kg		
06955	Lead		7439-92-1	4.40	0.461		1
Wet Ch	nemistry	SM 2540 G-2 %Moisture 0	2011 Calc	%	%		
00111	Moisture		n.a.	8.3	0.50		1
	Moisture represents the 103 - 105 degrees Cels as-received basis.	e loss in weight of the sius. The moisture re	e sample after oven sult reported is on a	drying at n			

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 17:01	Linda C Pape	0.83
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 11:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 11:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 11:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 04:25	Jeremy C Giffin	25.01
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 11:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 09:12	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1



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Sample Description:	MW-23-S-10.0-190808 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126302 2059029	
Project Name:	90129			
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/08/2019 11:30			
	Laboratory Comple Analysi	- Decord		

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:40	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1



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Analysis Report

Sample Description: MW Fac 470		/W-23-S-25.0 acility# 9012 700 Brookly)-190808 Grab So 29 n Ave - Seattle, V	Ch EL EL	evron LE Sample #: LE Group #: atrix: Soil	SW 1126303 2059029	
Projec	t Name: 9	0129			Wit		
Submit Collect	tal Date/Time: 0 ion Date/Time: 0	8/14/2019 10 8/08/2019 12):05 2:05				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Lir	Di nit Fa	lution actor
GC/MS	S Volatiles	SW-846 8	260C	mg/kg	mg/kg		
11995	Benzene		71-43-2	0.015	0.0005	0.	8
11995	cis-1,2-Dichloroethene		156-59-2	0.15	0.0005	0.	8
11995	trans-1,2-Dichloroether	ne	156-60-5	0.0008	0.0005	0.	8
11995	Ethylbenzene		100-41-4	N.D.	0.0004	0.	8
11995	Tetrachloroethene		127-18-4	N.D.	0.0005	0.	8
11995	Toluene		108-88-3	N.D.	0.0006	0.	8
11995	Trichloroethene		79-01-6	N.D.	0.0005	0.	8
11995	Vinyl Chloride		75-01-4	0.005	0.0006	0.	8
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.	8
GC Vo	latiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C	12	n.a.	N.D.	0.3	23	3.83
GC Petroleum Hydrocarbons		ECY 97-6 modified	02 NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics	C12-C24	n.a.	N.D.	4.7	1	
08272	Heavy Range Organics	C24-C40	n.a.	N.D.	12	1	

Metals		SW-846 6010D Rev.4, July 2014	mg/kg	mg/kg	
06955	Lead	7439-92-1	3.17	0.617	1
Wet Cl	nemistry	SM 2540 G-2011 %Moisture Calc	%	%	
00111	Moisture Moisture represents	n.a. the loss in weight of the sample after oven Calsius. The moisture result reported is on a	14.7 drying at	0.50	1

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 17:23	Linda C Pape	0.8
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/08/2019 12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/08/2019 12:05	Client Supplied	1


Sample Description:	MW-23-S-25.0-190808 G Facility# 90129 4700 Brooklyn Ave - Se	rab Soil attle, WA	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126303 2059029							
Project Name:	90129										
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/08/2019 12:05										
	Laboratory Sample Analysis Record										
CAT Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution					

CAT No.	Analysis Name	Metrioa	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 12:05	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/08/2019 12:05	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 05:35	Jeremy C Giffin	23.83
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 12:05	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 14:03	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:43	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

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Analysis Report

Sample	e Description: M Fa 47	W-23-S-30.0-19 acility# 90129 ′00 Brooklyn A	0808 Grab Soi ve - Seattle, W	I A		Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126304 2059029
Project	t Name: 90)129					
Submit Collecti	tal Date/Time: 08 on Date/Time: 08	8/14/2019 10:05 8/08/2019 12:20					
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detectio	n Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C.	mg/kg	mg/kg		
11995	Benzene	011 040 0200	71-43-2	N.D.	0.0006		0.85
11995	Ethylbenzene		100-41-4	N.D.	0.0005		0.85
11995	Toluene		108-88-3	N.D.	0.0007		0.85
11995	Xylene (Total)		1330-20-7	N.D.	0.002		0.85
GC Vo	latiles	ECY 97-602 I	NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C12	2	n.a.	N.D.	0.4		29.5
GC Pet Hydrod	roleum carbons	ECY 97-602 I modified	NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics	C12-C24	n.a.	N.D.	5.4		1
08272	Heavy Range Organics	C24-C40	n.a.	N.D.	40		1
Metals		SW-846 6010 2014	D Rev.4, July	mg/kg	mg/kg		
06955	Lead		7439-92-1	13.0	2.77		5
Wet Ch	nemistry	SM 2540 G-2 %Moisture C	011 alc	%	%		
00111	Moisture		n.a.	26.8	0.50		1
	Moisture represents the 103 - 105 degrees Celsi as-received basis.	loss in weight of the us. The moisture res	sample after oven sult reported is on a	drying at n			

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 17:46	Linda C Pape	0.85
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 12:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 12:20	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 06:10	Jeremy C Giffin	29.5
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 12:20	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192340018A	08/24/2019 02:51	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	2	192340018A	08/22/2019 23:00	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:46	Lisa J Cooke	5



Sample Description:	MW-23-S-30.0-190808 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126304 2059029						
Project Name:	90129								
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/08/2019 12:20								
	Laboratory Sample Analysis Record								

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor			
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1			

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Analysis Report

Sample Description: MW-22-S Facility# 4700 Bro		W-22-S-10.0-19 acility# 90129 ′00 Brooklyn A	22-S-10.0-190808 Grab Soil ty# 90129 Brooklyn Ave - Seattle, WA			Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126305 2059029
Project	Name: 90	129					
Submit Collecti	tal Date/Time: 08 on Date/Time: 08	8/14/2019 10:05 8/08/2019 15:20					
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detectio	n Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C.	mg/kg	mg/kg		
11995	Benzene	011 040 0200	71-43-2	N.D.	0.0004		0.84
11995	Ethylbenzene		100-41-4	N.D.	0.0004		0.84
11995	Toluene		108-88-3	N.D.	0.0005		0.84
11995	Xylene (Total)		1330-20-7	N.D.	0.001		0.84
GC Vo	atiles	ECY 97-602 I	NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C12	2	n.a.	N.D.	0.2		24.7
GC Pet Hydrod	roleum carbons	ECY 97-602 I modified	NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics (C12-C24	n.a.	N.D.	4.2		1
08272	Heavy Range Organics	C24-C40	n.a.	N.D.	10		1
Metals		SW-846 6010 2014	D Rev.4, July	mg/kg	mg/kg		
06955	Lead		7439-92-1	2.89	0.598		1
Wet Ch	nemistry	SM 2540 G-2 %Moisture C	011 alc	%	%		
00111	Moisture		n.a.	5.3	0.50		1
	Moisture represents the 103 - 105 degrees Celsion as-received basis.	loss in weight of the us. The moisture res	sample after oven sult reported is on a	drying at n			

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 18:09	Linda C Pape	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 15:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 15:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 15:20	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 06:45	Jeremy C Giffin	24.7
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 15:20	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 14:49	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1



Sample Description:	MW-22-S-10.0-190808 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126305 2059029
Project Name:	90129		
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/08/2019 15:20		
		_ .	

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:49	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1



GC Petroleum

Hydrocarbons

Lead

Wet Chemistry

08272

08272

Metals

06955

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Analysis Report

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Sample Description: MW-22-S-23.0-190808 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA		bil NA	Chevron ELLE San ELLE Gro Matrix: So	nple #: SW 1126306 up #: 2059029 bil		
Projec	t Name:	90129				
Submit Collect	ttal Date/Time: ion Date/Time:	08/14/2019 1 08/08/2019 1	0:05 5:30			
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	S Volatiles	SW-846	8260C	mg/kg	mg/kg	
11995	Benzene		71-43-2	0.001	0.0004	0.73
11995	cis-1,2-Dichloroethe	ene	156-59-2	0.087	0.0004	0.73
11995	trans-1,2-Dichloroe	thene	156-60-5	N.D.	0.0004	0.73
11995	Ethylbenzene		100-41-4	N.D.	0.0003	0.73
11995	Tetrachloroethene		127-18-4	0.001	0.0004	0.73
11995	Toluene		108-88-3	N.D.	0.0005	0.73
11995	Trichloroethene		79-01-6	0.006	0.0004	0.73
11995	Vinyl Chloride		75-01-4	N.D.	0.0005	0.73
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.73
GC Vo	latiles	ECY 97-	602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C	7-C12	n.a.	N.D.	0.2	22.6

mg/kg

N.D.

N.D.

mg/kg

3.18

%

mg/kg

4.7

12

mg/kg

0.584

%

0.50

00111 Moisture n.a. 16.5 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

SM 2540 G-2011

%Moisture Calc

2014

modified

ECY 97-602 NWTPH-Dx

n.a.

n.a.

7439-92-1

SW-846 6010D Rev.4, July

Sample Comments

State of Washington Lab Certification No. C457

Diesel Range Organics C12-C24

Heavy Range Organics C24-C40

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 18:31	Linda C Pape	0.73
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 15:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 15:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/08/2019 15:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/08/2019 15:30	Client Supplied	1



Sample Description:	MW-22-S-23.0-190808 Gr Facility# 90129 4700 Brooklyn Ave - Sea	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126306 2059029			
Project Name:	90129					
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/08/2019 15:30					
	Lal	poratory Sa	mple Analy	sis Record		
CAT Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution

CAT No.	Analysis Name	Metriou	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 15:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/08/2019 15:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 07:20	Jeremy C Giffin	22.6
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 15:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 15:11	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:53	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1



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Analysis Report

Sample Description: MW-22-S-28. Facility# 9012 4700 Brookly		5-190808 Grab So 29 /n Ave - Seattle, V	oil WA	Chevron ELLE San ELLE Gro Matrix: S	nple #: SW 1126307 up #: 2059029 oil	
Projec	t Name:	90129				
Submit Collect	ttal Date/Time: ion Date/Time:	08/14/2019 10 08/08/2019 1	0:05 5:45			
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	6 Volatiles	SW-846 8	8260C	mg/kg	mg/kg	
11995	Benzene		71-43-2	N.D.	0.0006	0.85
11995	cis-1,2-Dichloroethe	ene	156-59-2	N.D.	0.0006	0.85
11995	trans-1,2-Dichloroe	thene	156-60-5	N.D.	0.0006	0.85
11995	Ethylbenzene		100-41-4	N.D.	0.0004	0.85
11995	Tetrachloroethene		127-18-4	N.D.	0.0006	0.85
11995	Toluene		108-88-3	N.D.	0.0007	0.85
11995	Trichloroethene		79-01-6	N.D.	0.0006	0.85
11995	Vinyl Chloride		75-01-4	N.D.	0.0007	0.85
11995	Xylene (Total)		1330-20-7	N.D.	0.002	0.85
GC Vo	latiles	ECY 97-6	602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C	7-C12	n.a.	N.D.	0.3	26.13
GC Pe Hydro	troleum carbons	ECY 97-6 modified	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Orga	nics C12-C24	n.a.	N.D.	5.2	1

08272	Heavy Range Organics C2	4-C40 i	n.a.	N.D.	13	1	
Metals		SW-846 60100 2014) Rev.4, July	mg/kg	mg/kg		
06955	Lead	-	7439-92-1	9.79	2.69	5	
Wet Ch	emistry	SM 2540 G-20 %Moisture Ca	11 Ic	%	%		
00111	Moisture Moisture represents the los	ہ ss in weight of the s	n.a. ample after oven o	24.0 drying at	0.50	1	

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 18:54	Linda C Pape	0.85
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 15:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 15:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/08/2019 15:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/08/2019 15:45	Client Supplied	1



Sample Description:	MW-22-S-28.5-190808 (Facility# 90129 4700 Brooklyn Ave - Se	Grab Soil eattle, WA		Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126307 2059029	
Project Name:	90129					
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/08/2019 15:45					
	l	aboratory	Sample Analy	sis Record		
CAT Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 15:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/08/2019 15:45	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 07:55	Jeremy C Giffin	26.13
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 15:45	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 16:19	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:56	Lisa J Cooke	5
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1



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Sample	Sample Description: QA-O1-190808 Grab Water Facility# 90129 4700 Brooklyn Ave - Seattle, WA		C E E	WW 1126308 2059029			
Project	Name: 9	90129					
Submit	al Date/Time: 0 on Date/Time: 0	08/14/2019 10:05 08/08/2019 17:20					
CAT No.	Analysis Name		CAS Number	Result	Method Detection	D Limit Fa	ilution actor
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l		
13130	Benzene		71-43-2	N.D.	0.2	1	
13130	Ethylbenzene		100-41-4	N.D.	0.4	1	
13130	Toluene		108-88-3	N.D.	0.2	1	
13130	Xylene (Total)		1330-20-7	N.D.	1	1	
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l		
08273	NWTPH-Gx water C7-	C12	n.a.	N.D.	19	1	

Sample Comments

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САТ	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
13130	BTEX 8260C	SW-846 8260C	1	F192332AA	08/21/2019 17:17	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192332AA	08/21/2019 17:16	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 05:22	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 05:21	Jeremy C Giffin	1



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Sample Description: QA-O2-190809 Grab Water Facility# 90129 4700 Brooklyn Ave - Seattle, WA		NA		Chevron ELLE Sample #: \ ELLE Group #: 2 Matrix: Water				
Project	Name:	90129						
Submitt Collecti	al Date/Time: (on Date/Time: (08/14/2019 10:05 08/09/2019 08:10						
CAT No.	Analysis Name		CAS Number	Result	Method Detection	Limit F	Dilution actor	
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l			
13130	Benzene		71-43-2	N.D.	0.2	1		
13130	Ethylbenzene		100-41-4	N.D.	0.4	1		
13130	Toluene		108-88-3	N.D.	0.2	1		
13130	Xylene (Total)		1330-20-7	N.D.	1	1		
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water C7-	C12	n.a.	N.D.	19	1		

State of Washington Lab Certification No. C457

Sample Comments

	Laboratory Sample Analysis Record				
Method	Trial#	Batch#	Analysis Date and Time	An	

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192332AA	08/21/2019 17:39	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192332AA	08/21/2019 17:38	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 05:49	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 05:48	Jeremy C Giffin	1

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Analysis Report

Sample	ample Description: MW-21-S-10.0-190809 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA		4		Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126310 2059029	
Project	Name:	90129					
Submitt Collecti	al Date/Time: on Date/Time:	08/14/2019 10 08/09/2019 09):05):30				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detectio	n Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8	260C	mg/kg	mg/kg		
11995	Benzene		71-43-2	N.D.	0.0005		0.84
11995	Ethylbenzene		100-41-4	N.D.	0.0004		0.84
11995	Toluene		108-88-3	N.D.	0.0005		0.84
11995	Xylene (Total)		1330-20-7	N.D.	0.001		0.84
GC Vol	atiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-0	C12	n.a.	0.9	0.2		23.67
GC Pet Hydrod	roleum arbons	ECY 97-6 modified	02 NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organic	s C12-C24	n.a.	N.D.	4.3		1
08272	Heavy Range Organic	cs C24-C40	n.a.	N.D.	11		1
Metals		SW-846 6 2014	010D Rev.4, July	mg/kg	mg/kg		
06955	Lead		7439-92-1	8.70	0.570		1
Wet Ch	emistry	SM 2540 %Moistur	G-2011 ·e Calc	%	%		
00111	Moisture		n.a.	7.7	0.50		1
	Moisture represents the 103 - 105 degrees Ce as-received basis.	ne loss in weight o Isius. The moistur	f the sample after oven e result reported is on a	drying at n			

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 16:23	Linda C Pape	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 09:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 09:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 09:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 08:30	Jeremy C Giffin	23.67
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 09:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 16:42	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1



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Sample Description:	MW-21-S-10.0-190809 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126310 2059029
Project Name:	90129		
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/09/2019 09:30		
	Laboratory Sample Analysis	s Record	

		Labo						
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:59	Lisa J Cooke	1	
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1	
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1	

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Analysis Report

Sample	Description: MW-21-S-15.0-190809 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA		A			SW 1126311 2059029	
Project	t Name: 9	0129					
Submit Collecti	tal Date/Time: 0 ion Date/Time: 0	8/14/2019 10:0 8/09/2019 09:4	05 45				
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection	n Limit	Dilution Factor
GC/MS	Volatiles	SW-846 82	60C	mg/kg	mg/kg		
11995	Benzene	011 010 02	71-43-2	N.D.	0.0005		0.95
11995	Ethylbenzene		100-41-4	N.D.	0.0004		0.95
11995	Toluene		108-88-3	N.D.	0.0006		0.95
11995	Xylene (Total)		1330-20-7	N.D.	0.001		0.95
GC Vo	latiles	ECY 97-60	2 NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C1	2	n.a.	1	0.3		27.35
GC Pet Hydrod	roleum carbons	ECY 97-60 modified	2 NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics	C12-C24	n.a.	N.D.	4.3		1
08272	Heavy Range Organics	C24-C40	n.a.	N.D.	11		1
Metals		SW-846 60 2014	10D Rev.4, July	mg/kg	mg/kg		
06955	Lead		7439-92-1	3.64	0.451		1
Wet Ch	nemistry	SM 2540 G %Moisture	-2011 Calc	%	%		
00111	Moisture Moisture represents the 103 - 105 degrees Cels as-received basis.	e loss in weight of ius. The moisture	n.a. the sample after oven result reported is on a	7.6 drying at n	0.50		1

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 16:46	Linda C Pape	0.95
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 09:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 09:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 09:45	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 09:05	Jeremy C Giffin	27.35
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 09:45	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 17:04	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1



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Sample Description:	MW-21-S-15.0-190809 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126311 2059029
Project Name:	90129		
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/09/2019 09:45		
	Laboratory Sample Analysis	s Record	

		Labo							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor		
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 07:08	Lisa J Cooke	1		
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1		
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1		

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Analysis Report

Sample	e Description: M Fa 47	scription: MW-21-S-20.0-190809 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA		A			SW 1126312 2059029
Project	Name: 90	129					
Submit Collect	tal Date/Time: 08 on Date/Time: 08	/14/2019 10:05 /09/2019 10:00					
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detectio	n Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260)C	mg/kg	mg/kg		
11995	Benzene	011 010 0200	71-43-2	N.D.	0.0004		0.7
11995	Ethylbenzene		100-41-4	N.D.	0.0003		0.7
11995	Toluene		108-88-3	N.D.	0.0005		0.7
11995	Xylene (Total)		1330-20-7	N.D.	0.001		0.7
GC Vo	atiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C12	2	n.a.	1.7	0.2		23.04
GC Pet Hydrod	roleum carbons	ECY 97-602 modified	NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics (C12-C24	n.a.	N.D.	4.7		1
08272	Heavy Range Organics (C24-C40	n.a.	N.D.	12		1
Metals		SW-846 6010 2014	D Rev.4, July	mg/kg	mg/kg		
06955	Lead		7439-92-1	4.16	0.644		1
Wet Ch	nemistry	SM 2540 G-2 %Moisture C	011 Calc	%	%		
00111	Moisture		n.a.	14.5	0.50		1
	Moisture represents the l 103 - 105 degrees Celsiu as-received basis.	loss in weight of the us. The moisture res	e sample after oven sult reported is on a	drying at n			

Sample Comments

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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 17:09	Linda C Pape	0.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 10:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 10:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 10:00	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 09:40	Jeremy C Giffin	23.04
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 10:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 17:26	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1



Matrix: Soil	
_	Matrix: Soil

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 07:12	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1



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Sample Description: MW-21-S-25.0-190809 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA Project Name: 90129 Submittal Date/Time: 08/14/2019 10:05

Collection Date/Time: 08/09/2019 10:15

Analysis Report

Chevron ELLE Sample #: ELLE Group #: Matrix: Soil

SW 1126313 2059029

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	mg/kg	mg/kg	
11995	Benzene		71-43-2	0.0008	0.0004	0.75
11995	cis-1,2-Dichloroethene		156-59-2	0.003	0.0004	0.75
11995	trans-1,2-Dichloroethene		156-60-5	N.D.	0.0004	0.75
11995	Ethylbenzene		100-41-4	N.D.	0.0003	0.75
11995	Tetrachloroethene		127-18-4	0.032	0.0004	0.75
11995	Toluene		108-88-3	N.D.	0.0005	0.75
11995	Trichloroethene		79-01-6	0.063	0.0004	0.75
11995	Vinyl Chloride		75-01-4	N.D.	0.0005	0.75
11995	Xylene (Total)		1330-20-7	N.D.	0.001	0.75
the mather the mather the The The Line Line Line Line Line Line Line Lin	CS and/of LCSD recoveries arginal exceedance allowan NI/DoD Standards. The follo ance: cis-1,2-Dichloroethene	ce of +/- 4 standar owing analytes are	ated QC window bu rd deviations as def accepted based or	ined in h this		
GC/MS	Semivolatiles	SW-846 8270	DSIM	mg/kg	mg/kg	
12969	Benzo(a)anthracene		56-55-3	N.D.	0.0008	1
12969	Benzo(a)pyrene		50-32-8	0.0008	0.0008	1
12969	Benzo(b)fluoranthene		205-99-2	0.001	0.0008	1
12969	Benzo(k)fluoranthene		207-08-9	N.D.	0.0008	1
12969	Chrysene		218-01-9	0.001	0.0004	1
12969	Dibenz(a,h)anthracene		53-70-3	N.D.	0.0008	1
12969	Indeno(1,2,3-cd)pyrene		193-39-5	N.D.	0.0008	1
GC Val	atilos	ECV 07-602		ma/ka	ma/ka	
02005	NWTPH-GX Soil C7-C12	LCT 97-0021	n a	0.5	0.2	22.61
02000			n.a.	0.5	0.2	22.01
GC Pet	roleum	ECY 97-602	WTPH-Dx	mg/kg	mg/kg	
Hvdroc	arbons	modified				
08272	Diesel Range Organics C1	2-C24	na	ND	4.6	1
08272	Heavy Range Organics C2	2-C40	n.a.	N.D.	11	1
002.2						
Metals		SW-846 6010 2014	D Rev.4, July	mg/kg	mg/kg	
06955	Lead		7439-92-1	4.49	0.569	1
Wet Ch	emistry	SM 2540 G-2 %Moisture C	011 alc	%	%	
00111	Moisture		n.a.	13.5	0.50	1
	Moisture represents the lo 103 - 105 degrees Celsius as-received basis.	ss in weight of the . The moisture res	sample after oven sult reported is on a	drying at n		

Sample Comments

State of Washington Lab Certification No. C457



Sample Description:	MW-21-S-25.0-190809 Grab Soil Facility# 90129 4700 Brooklyn Ave - Seattle, WA	Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126313 2059029
Project Name:	90129		
Submittal Date/Time: Collection Date/Time:	08/14/2019 10:05 08/09/2019 10:15		

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor			
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 17:31	Linda C Pape	0.75			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 10:15	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 10:15	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/09/2019 10:15	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/09/2019 10:15	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 10:15	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/09/2019 10:15	Client Supplied	1			
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	19231SLE026	08/21/2019 00:47	Ashley R Transue	1			
10811	BNA Soil Microwave SIM	SW-846 3546	1	19231SLE026	08/20/2019 07:00	Joshua S Ruth	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 10:15	Jeremy C Giffin	22.61			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 10:15	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 17:48	Bridget Kovacs	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1			
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 07:15	Lisa J Cooke	1			
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1			



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Analysis Report

Sample Description:		IW-21-S-26.5-19 acility# 90129 700 Brooklyn A	90809 Grab So ve - Seattle, W		Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126314 2059029	
Projec	t Name: 9	0129					
Submit Collect	ttal Date/Time: 0 ion Date/Time: 0	8/14/2019 10:05 8/09/2019 10:30					
CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection	n Limit F	Dilution Factor
GC/MS	S Volatiles	SW-846 8260	C	mg/kg	mg/kg		
11995	Benzene		71-43-2	0.003	0.0005	() 84
11995	cis-1.2-Dichloroethene		156-59-2	0.019	0.0005	C).84
11995	trans-1.2-Dichloroethen	e	156-60-5	0.0007	0.0005	().84
11995	Ethylbenzene		100-41-4	N.D.	0.0004	C).84
11995	Tetrachloroethene		127-18-4	0.18	0.0005	C).84
11995	Toluene		108-88-3	N.D.	0.0006	C).84
11995	Trichloroethene		79-01-6	0.38 E	0.0005	C).84
11995	Vinyl Chloride		75-01-4	N.D.	0.0006	C).84
11995	Xylene (Total)		1330-20-7	N.D.	0.001	C).84
calib from meth	concentration reported for ration range of the instrum a previously opened conta od holding time. The resu	I richloroethene is e hent. A further diluted ainer with headspace ult for Trichloroethene	stimated since it ex analysis was perfo and/or outside of t e is 1.3mg/kg.	ceeds the ormed the			
GC Vo	latiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg		
02005	NWTPH-GX Soil C7-C1	2	n.a.	0.9	0.3	2	23.79
GC Pe Hydro	troleum carbons	ECY 97-602 modified	NWTPH-Dx	mg/kg	mg/kg		
08272	Diesel Range Organics	C12-C24	n.a.	N.D.	4.6	1	l
08272	Heavy Range Organics	C24-C40	n.a.	N.D.	11	1	I
Metals	i	SW-846 6010 2014)D Rev.4, July	mg/kg	mg/kg		
06955	Lead		7439-92-1	7.44	2.62	5	5
Wet C	hemistry	SM 2540 G-2 %Moisture C	2011 Calc	%	%		
00111	Moisture		n.a.	13.9	0.50	1	I

Moisture 13.9 n.a. Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 17:54	Linda C Pape	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 10:30	Client Supplied	1



Samp	le Description:	MW-21-S-26.5-190809 G Facility# 90129 4700 Brooklyn Ave - Sea	rab Soil attle, WA		Chevron ELLE Sample #: ELLE Group #: Matrix: Soil	SW 1126314 2059029	
Project Name: Submittal Date/Time: Collection Date/Time:		90129					
		08/14/2019 10:05 08/09/2019 10:30					
		La	aboratory S	Sample Analysis	s Record		
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02392	GC/MS - Field Preser	ved SW-846 5035A	3	201923154590	08/09/2019 10:30	Client Supplied	1

No.	-				Date and Tin	ne	-	Factor
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/09/2019 1	10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/09/2019 1	10:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 1	10:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/09/2019 1	10:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 1	10:50	Jeremy C Giffin	23.79
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 1	10:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 1	18:10	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 2	21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 (07:18	Lisa J Cooke	5
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 (06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 1	10:41	William C Schwebel	1



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Quality Control Summary

Client Name: Chevron Reported: 10/17/2019 13:20 Group Number: 2059029

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	mg/kg	mg/kg
Batch number: A192331AA	Sample number(s): 1126302-1126307
Benzene	N.D.	0.0005
cis-1,2-Dichloroethene	N.D.	0.0005
trans-1,2-Dichloroethene	N.D.	0.0005
Ethylbenzene	N.D.	0.0004
Tetrachloroethene	N.D.	0.0005
Toluene	N.D.	0.0006
Trichloroethene	N.D.	0.0005
Vinyl Chloride	N.D.	0.0006
Xylene (Total)	N.D.	0.001
Batch number: A192351AA	Sample number(s): 1126287-1126295,1126310-1126314
Benzene	N.D.	0.0005
cis-1,2-Dichloroethene	N.D.	0.0005
trans-1,2-Dichloroethene	N.D.	0.0005
Ethylbenzene	N.D.	0.0004
Tetrachloroethene	N.D.	0.0005
Toluene	N.D.	0.0006
Trichloroethene	N.D.	0.0005
Vinyl Chloride	N.D.	0.0006
Xylene (Total)	N.D.	0.001
	ug/l	ug/l
Batch number: F192331AA	Sample number(s)): 1126296-1126299
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Toluene	N.D.	0.2
Xylene (Total)	N.D.	1
Batch number: F192332AA	Sample number(s): 1126300-1126301,1126308-1126309
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Toluene	N.D.	0.2
Xylene (Total)	N.D.	1
	mg/kg	mg/kg
Batch number: 19231SLE026	Sample number(s)): 1126313
Benzo(a)anthracene	N.D.	0.0007
Benzo(a)pyrene	N.D.	0.0007
Benzo(b)fluoranthene	N.D.	0.0007
Benzo(k)fluoranthene	N.D.	0.0007

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Method Blank (continued)

Analysis Name	Result	MDL ma/ka
Chrysene	N.D.	0.0003
Dibenz(a,h)anthracene	N.D.	0.0007
Indeno(1,2,3-cd)pyrene	N.D.	0.0007
Batch number: 19233A34A	Sample number(s): 1126287-1126295,1126302-1126307,1126310-1126314
NWTPH-GX Soil C7-C12	N.D.	0.2
	ug/l	ug/l
Batch number: 19228A20A	Sample number(s): 1126296-1126301,1126308-1126309
NWTPH-Gx water C7-C12	N.D.	19
	mg/kg	mg/kg
Batch number: 192280023A	Sample number(s): 1126287-1126295,1126302
Diesel Range Organics C12-C24	N.D.	4.0
Heavy Range Organics C24-C40	N.D.	10
Batch number: 192280034A	Sample number(s): 1126303,1126305-1126307,1126310-1126314
Diesel Range Organics C12-C24	N.D.	4.0
Heavy Range Organics C24-C40	35	10
Batch number: 192340018A	Sample number(s): 1126304
Diesel Range Organics C12-C24	N.D.	4.0
Heavy Range Organics C24-C40	N.D.	30
Batch number: 192311404903	Sample number(s): 1126287,1126289-1126291,1126302-1126307,1126310-1126314
Lead	N.D.	0.600

LCS/LCSD

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A192331AA	Sample number	(s): 1126302-1	126307						
Benzene	0.0200	0.0219	0.0200	0.0218	109	109	80-120	0	30
cis-1,2-Dichloroethene	0.0200	0.0232	0.0200	0.0230	116	115	80-125	1	30
trans-1,2-Dichloroethene	0.0200	0.0228	0.0200	0.0228	114	114	80-126	0	30
Ethylbenzene	0.0200	0.0217	0.0200	0.0219	108	109	78-120	1	30
Tetrachloroethene	0.0200	0.0229	0.0200	0.0229	114	115	73-120	0	30
Toluene	0.0200	0.0215	0.0200	0.0218	107	109	80-120	1	30
Trichloroethene	0.0200	0.0221	0.0200	0.0221	111	111	80-120	0	30
Vinyl Chloride	0.0200	0.0202	0.0200	0.0198	101	99	52-120	2	30
Xylene (Total)	0.0600	0.0658	0.0600	0.0660	110	110	75-120	0	30
Batch number: A192351AA	Sample number	(s): 1126287-1	126295,1126310-	1126314					
Benzene	0.0200	0.0224	0.0200	0.0224	112	112	80-120	0	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
cis-1,2-Dichloroethene	0.0200	0.0250	0.0200	0.0251	125	126*	80-125	0	30
trans-1,2-Dichloroethene	0.0200	0.0222	0.0200	0.0221	111	110	80-126	1	30
Ethylbenzene	0.0200	0.0223	0.0200	0.0228	112	114	78-120	2	30
Tetrachloroethene	0.0200	0.0234	0.0200	0.0239	117	120	73-120	2	30
Toluene	0.0200	0.0219	0.0200	0.0220	109	110	80-120	1	30
Trichloroethene	0.0200	0.0225	0.0200	0.0224	112	112	80-120	0	30
Vinyl Chloride	0.0200	0.0200	0.0200	0.0202	100	101	52-120	1	30
Xylene (Total)	0.0600	0.0685	0.0600	0.0692	114	115	75-120	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: F192331AA	Sample number	(s): 1126296-1	126299						
Benzene	20	19.08			95		80-120		
Ethylbenzene	20	19.18			96		80-120		
Toluene	20	19.47			97		80-120		
Xylene (Total)	60	57.17			95		80-120		
Batch number: F192332AA	Sample number	(s): 1126300-1	126301,1126308	-1126309					
Benzene	20	19.52			98		80-120		
Ethylbenzene	20	19.06			95		80-120		
Toluene	20	19.59			98		80-120		
Xylene (Total)	60	56.85			95		80-120		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 19231SLE026	Sample number	(s): 1126313							
Benzo(a)anthracene	0.0333	0.0265			79		61-116		
Benzo(a)pyrene	0.0333	0.0286			86		67-124		
Benzo(b)fluoranthene	0.0333	0.0275			82		68-128		
Benzo(k)fluoranthene	0.0333	0.0279			84		61-119		
Chrysene	0.0333	0.0266			80		63-105		
Dibenz(a,h)anthracene	0.0333	0.0298			89		49-143		
Indeno(1,2,3-cd)pyrene	0.0333	0.0301			90		53-144		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 19233A34A	Sample number	(s): 1126287-1	126295,1126302	-1126307,112	6310-11263	314			
NWTPH-GX Soil C7-C12	11	10.26	11	10.22	93	93	55-145	0	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19228A20A NWTPH-Gx water C7-C12	Sample number 1100	(s): 1126296-1 1112.16	126301,1126308 1100	-1126309 1131.65	101	103	64-131	2	30
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 192280023A	Sample number	(s): 1126287-1	126295,1126302						
Diesel Range Organics C12-C24	133.4	107.12			80		61-115		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron Reported: 10/17/2019 13:20 Group Number: 2059029

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 192280034A	Sample number(s): 1126303,1	126305-1126307,	1126310-112	6314				
Diesel Range Organics C12-C24	133.4	100.17			75		61-115		
Batch number: 192340018A	Sample number(s): 1126304							
Diesel Range Organics C12-C24	133.4	102.41			77		61-115		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 192311404903	Sample number(s): 1126287,1	126289-1126291,	1126302-112	6307,11263	10-112631	4		
Lead	15	16.27			108		90-115		
	%	%	%	%					
Batch number: 19232820013A	Sample number(s): 1126287-1	126295,1126302						
Moisture	89.5	89.46			100		99-101		
Batch number: 19232820013B	Sample number(s): 1126303-1	126307,1126310-	1126314					
Moisture	89.5	89.46			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 192280023A	Sample numbe	er(s): 1126287-	1126295,11	126302 UNSPK	: 1126289					
Diesel Range Organics C12-C24	N.D.	132.51	103.3			78		61-115		
Batch number: 192280034A	Sample numbe	er(s): 1126303,	1126305-11	126307,1126310	0-1126314 เ	JNSPK: 112	26306			
Diesel Range Organics C12-C24	N.D.	132.95	100.7			76		61-115		
Batch number: 192340018A	Sample numbe	er(s): 1126304	UNSPK: 11	26304						
Diesel Range Organics C12-C24	N.D.	132.95	93.83			71		61-115		
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 192311404903	Sample numbe	er(s): 1126287,	1126289-11	126291,1126302	2-1126307,1	126310-11	26314 UN	SPK: 112628	7	
Lead	3.78	13.89	16.65	11.28	13.23	93	84	75-125	23*	20

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
mg/kg	mg/kg		
Sample number(s): 1126287	7-1126295,1126302	BKG: 1126289	
N.D.	N.D.	0 (1)	20
N.D.	N.D.	0 (1)	20
Sample number(s): 1126303	3,1126305-1126307	,1126310-112631	4 BKG: 1126306
N.D.	N.D.	0 (1)	20
N.D.	N.D.	0 (1)	20
Sample number(s): 1126304	4 BKG: 1126304		
N.D.	N.D.	0 (1)	20
N.D.	N.D.	0 (1)	20
mg/kg	mg/kg		
Sample number(s): 1126287	7,1126289-1126291	,1126302-112630	7,1126310-1126314 BKG: 112628
3.78	2.77	31* (1)	20
%	%		
Sample number(s): 1126287	7-1126295,1126302	BKG: 1126293	
17.24	15.61	10*	5
Sample number(s): 1126303	3-1126307,1126310	-1126314 BKG: 1	126305
5.32	6.01	12*	5
	BKG Conc mg/kg Sample number(s): 1126287 N.D. N.D. Sample number(s): 1126303 N.D. N.D. Sample number(s): 1126304 N.D. N.D. Sample number(s): 1126287 3.78 % Sample number(s): 1126287 17.24 Sample number(s): 1126287	BKG Conc DUP Conc mg/kg mg/kg Sample number(s): 1126287-1126295,1126302 N.D. N.D. N.D. N.D. N.D. N.D. N.D. Sample number(s): 1126303,1126305-1126307 N.D. Sample number(s): 1126303,1126305-1126307 N.D. N.D. N.D. Sample number(s): 1126304 BKG: 1126304 N.D. Sample number(s): 1126304 BKG: 1126304 N.D. N.D. N.D. Sample number(s): 1126287,1126289-1126291 3.78 3.78 2.77 % % Sample number(s): 1126287-1126295,1126302 17.24 15.61 Sample number(s): 1126303-1126307,1126310 5.32 6.01	BKG Conc DUP Conc DUP RPD mg/kg mg/kg Sample number(s): 1126287-1126295,1126302 BKG: 1126289 N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D. 0 (1) Sample number(s): 1126303,1126305-1126307,1126310-1126311 N.D. N.D. N.D. 0 (1) Sample number(s): 1126304 BKG: 1126304 N.D. 0 (1) N.D. 0 (1) Sample number(s): 1126304 BKG: 1126304 N.D. 0 (1) N.D. 0 (1) N.D. 0 (1) Sample number(s): 1126287,1126289-1126291,1126302-1126300 3.78 2.77 3.78 2.77 Sample number(s): 1126287-1126295,1126302 BKG: 1126293 17.24 15.61 10* Sample number(s): 1126303-1126307,1126310-1126314 BKG: 1 5.32 6.01 12*

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- Solid by 8260C/D Batch number: A192331AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126302	102	111	99	98
1126303	102	108	99	97
1126304	102	106	108	83
1126305	101	108	98	98
1126306	102	111	98	97
1126307	103	113	97	100
Blank	101	102	98	100
LCS	103	103	99	100
LCSD	101	104	99	100

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

ient Name: Chevron eported: 10/17/2019 13:20				Group Number: 20590
		Su	urrogate Qual	lity Control
Surrogate re attributed to	coveries which are outsic dilution or otherwise note	le of the QC window are o d on the Analysis Report.	onfirmed unless	
Analysis Nar Batch numb	me: VOCs- Solid by 8260 er: A192331AA	C/D		
Limits:	50-141	54-135	52-141	50-131
Analysis Nar Batch numb	me: VOCs- Solid by 8260 er: A192351AA	C/D		
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126287	102	109	97	97
1126288	104	108	97	92
1126289	102	107	97	96
1126290	103	109	101	89
1126291	103	107	97	95
1126202	104	111	96	97
1126202	103	109	101	90
1120293	103	109	101	90
1120294	103	109	90	90
1126295	103	108	97	90
1126310	103	108	97	97
1126311	102	105	97	95
1126312	105	114	95	99
1126313	103	108	97	94
1126314	104	108	97	93
Blank	102	105	96	97
LCS	102	104	97	98
LCSD	102	102	98	99
Limits:	50-141	54-135	52-141	50-131
Analysis Nai Batch numb	me: BTEX 8260C er: F192331AA			
	Dibromotluoromethane	1,2-Dichloroethane-d4	I oluene-d8	4-Bromofluorobenzene
1126296	91	94	102	98
1126297	92	97	102	100
1126298	92	97	102	98
1126299	92	94	101	98
Blank	93	94	101	98
LCS	92	97	103	99
Limits:	80-120	80-120	80-120	80-120
Analysis Nar Batch numb	me: BTEX 8260C er: F192332AA			
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126300	92	95	103	98
4400004	01	08	102	08

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX 8260C Batch number: F192332AA

Daton numbe	1.1102002/01			
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126308	91	97	102	99
1126309	90	96	103	99
Blank	92	94	103	99
LCS	91	99	104	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: SIM SVOAs 8270D (microwave) Batch number: 19231SLE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1126313	66	62	60
Blank	57	57	50
LCS	66	62	62
Limits:	34-135	28-124	27-107

Analysis Name: NWTPH-Gx water C7-C12 Batch number: 19228A20A

	Trifluorotoluene-F
1126296	85
1126297	86
1126298	87
1126299	86
1126300	84
1126301	85
1126308	87
1126309	86
Blank	87
LCS	96
LCSD	95
Limits:	50-150

Analysis Name: NWTPH-GX Soil C7-C12 Batch number: 19233A34A

	Thildolololuerie-F
1126287	70
1126288	74
1126289	77
1126290	60
1126291	59
1126292	68

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron Reported: 10/17/2019 13:20 Group Number: 2059029

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-GX Soil C7-C12 Batch number: 19233A34A

	Trifluorotoluene-F
1126293	72
1126294	72
1126295	77
1126302	88
1126303	69
1126304	62
1126305	71
1126306	74
1126307	61
1126310	71
1126311	88
1126312	75
1126313	72
1126314	75
Blank	93
LCS	104
LCSD	98
Limits:	50-150

Analysis Name: NWTPH-Dx soil Batch number: 192280023A

	Orthoterphenyl
1126287	110
1126288	111
1126289	114
1126290	106
1126291	105
1126292	104
1126293	106
1126294	110
1126295	112
1126302	114
Blank	111
DUP	113
LCS	117
MS	113
Limits:	50-150

Analysis Name: NWTPH-Dx soil Batch number: 192280034A

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron Reported: 10/17/2019 13:20 Group Number: 2059029

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Dx soil Batch number: 192280034A

	Orthoterphenyl
1126303	109
1126305	108
1126306	108
1126307	81
1126310	100
1126311	107
1126312	106
1126313	108
1126314	98
Blank	111
DUP	105
LCS	113
MS	112
Limits:	50-150

Analysis Name: NWTPH-Dx soil Batch number: 192340018A

	Orthoterphenyl
1126304	98
Blank	105
DUP	94
LCS	114
MS	103
Limits:	50-150

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

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🔅 eurofins	Lancaster Laborator Environmental	ies Acc	et. #C	250	5 For	Euro Group	fins Li # 2 struction	ancas VS	ster La	aborato	ories E _ Sam	nviror ple # /ith circl		l use (0 - 2 ers.	only 2. [}]	-31	Ч					
1	Client Inform	nation		(4)	Matrix			5			Ana	lyse	s Re	ques	ted							
$\begin{array}{c} 1\\ \hline \\ Facility #\\ \hline \\ & 0 & 0 \\ \hline \\ Facility #\\ \hline \\ & 0 & 0 \\ \hline \\ \\ Site Address\\ \hline \\ & 4 & 7 \\ \hline \\ Consultant/Office\\ \hline \\ \hline \\ Consultant/Office\\ \hline \\ \\ Consultant/Office\\ \hline \\ \\ Consultant Project Mgr.\\ \hline \\ \\ \hline \\ \\ Consultant Project Mgr.\\ \hline \\ \\ \hline \\ \\ Consultant Project Mgr.\\ \hline \\ \\ \hline \\ \\ Consultant Project Mgr.\\ \hline \\ \\ \\ \\ Consultant Project Mgr.\\ \hline \\ \\ \\ \\ Consultant Project Mgr.\\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	Environmental Client Inform Client	Collected Date Time 8/1/1 0850 071/5 0730 1000	XXX Grab © Composite	XXXXX Soil Sediment (Matrix Potable Ground Mater Surface	Oil Dir Air	The state of Containers	Participation = 2000 1 200 1 1 200 1 1 1 1 1 1 1 1 1 1	8260 full scan	Oxygenates	Ana Contraction of the second with the second with the second sec			Total Diss. Diss. Method COLD Set	ted USC SOUN N				SCR #: Results i J value r Must me limits po compour 8021 MT Confirm Confirm Confirm Run Run	n Dry We eporting et lowesi ssible for nds BE Conf MTBE + highest h all hits by oxy's oxy's	eight needed t detectio 8260 irmation Naphtha hit by 826 y 8260 s on high s on all h	in lene 30 est hit its
Mw-29-5- Aup 1 DUP	315-190810 -1-5-190810 105-190810	1352 1352 140		Ŕ			770											_				
$\frac{1}{18} - 1 - 1$ $\frac{18}{18} - 2 - 1^{\circ}$ $\frac{18}{18} - 3 - 1^{\circ}$ $\frac{18}{18} - 4 - 1^{\circ}$	90812 190812 190812 10812	7.12.19 1400 7.12.19 1400 9.12.19 1408 1430			XXXX		944 44 44															
7 Turnaround Ti	me Requested (TAT) (please circle)	Relinquishe	d by	AR		<u>H</u>	Date		a T	ime //	<u></u>	Rec	eived b	y y		l		Date		Time	9
Standard 72 hour) 5 day 48 hour	4 day 24 hour	Relinquishe	d by		and the state of the		D ate	4 <i>f</i> f		ime		Rec	eived b	У			20070000000000	Date		Time	
B) Data Package (circle if required) EDD (circle if required) Relinqu			Relinquist	alinquished by Commercial Carrier:								/	Date		Time							
Type I - Full		CVX-RTBU-FI_05 (default)	UPS	\neq	Fe	dEx	[Otł	ner			-	L		l an	~	-	8/14	1/19	Į ÖU	15
Type VI (Raw Da	ta)	Other:	Τe	empe	erature U	pon	Rec	eipt	<u>U.S</u>	<u>, </u>	<u>°</u> °C	;) Ć	usto	dy Se	als Ir	ntact?		(Ye	es)	١	lo

Chauran Northwest Design Analysis Desweet/Chain of Custo

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	Chevron	Nor	thw	esi	t R	egio	on	A	na	aly	si	s	R	ÐQ	JU	es	st/C	Sh	ail	n oi	F Cu	sto	dy
🔅 eurofins La Er	ncaster Laboratories wironmental		Acc	st. #	192	G Fo	or Euro Group In	ofins L #	ancas	ster La 903 overse s	aborat Y ide corr	ories _ Sar espond	Envir nple : with ci	onme # rcled n	umbers	ise or	11y 7-3/	Ч			-		
1	Client Information	on			4) Matri	X	I	5			An	alys	ies l	Requ	ieste	ed				# 2"	434	90
Facility # 9027 Site Address 4700 Bridd Chevron PM Consultant/Office 2-202 Boo Consultant Project Mgr 425-422 Sampler B-S-190 TB-C-190 TB-C-190	thy Ave se	WBS	ected Time	Cab C	Composite			Total Number of Containers	Image: Note of the second s	8260 full scan	Oxygenates	NWTPH-GX	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup		Lead Total Diss. Method				SCR Re J v ML Iim coi Co Co Ru Ru G	#:	Weight ng needed rest detection for 8260 onfirmation E + Naphtha st hit by 8260 xy's on high xy's on all h	on Ilene 50 Ilest hit Its
7) Turnaround Time Standard 72 hour	Requested (TAT) (ple 5 day 48 hour	ase circle) 4 day 24 hour		Relinqu	ished by ished by	Z> A	Jail	t.	Date S-3 Date	31-1	9 9	Time /3 Time	30 40	Ð	Receiv Receiv	red by				Dai	e e	Time	9
8 Data Package (circ Type I - Full	cle if required)	D (circle if r -RTBU-FI_08	equired) 5 (default)	Relinq UF	Image: state						N	Dat X	1419	Time	15								
Type VI (Raw Data)	Oth	er:			Tem	perature	Upon	Rec	ceipt	Ű,	51	<u>, </u>	С		Cu	stody	y Seals	s Inta	act?		(Yes)	١	10

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Chevron	Northwe	est l	Re	egio	n	A	na	lly	s i	S	R	ÐQ	Ш	Æ	t/C	Sha	ain	, 10	of C	us	toc	'ly
Lancaster Laboratories Environmental	Acct	.#	250	For	Euro Group	∟ ofins ∂ # struction	ancas	ter La 700 verse s	aborat	ories _ Sar espond	Enviro nple # with cir	onme # rcled ni	ntal u: umbers.	jçon ∕	y-31	Ч						
1 Client Information	tion		(4)	Matrix	55000000000000000000000000000000000000		5			An	alys	es F	Requ	este	ed				о <i>щ. С</i>	14 [13	77
Facility# 90129 Site Address 7700 Brzuklyn Ave	WBS						aphth- E					ير بر	- - -	DO LOOK	10000	0210			Results in J value rep	Dry Weig	jht eeded	
Consultant/Office	Lead Consultant		Sedimer	Ground Surface		containers	□ 8260 J		es		Gel Cleanup	ica Gel Cleanup	D Hd	Diss. Detho	A STW	1014420			Must meet limits poss compound 8021 MTB Confirm M	lowest d ible for 8 s E Confirn TBE + Na	etection 260 nation aphthalei	ne
Consultant Phone # 425-482-3328 Sampler, Rotteman		posite		Potable rr NPDES	Air	Number of C	+-MTBE 8021	ull scan	Oxygenat	H-Gx	H-Dx with Silica	H-Dx without Sill	PH WAE	Total	10CS 82	CINUSEN			Confirm hi Confirm all Run Run	ghest hit hits by 8 oxy's o oxy's o	by 8260 8260 on highes on all hits	t hit
2) Samula Islantification	Collected	oml	oil	/ate	=	otal	Ш	:60 fi		MP	۹۲ ۱	₽ Į	A <f< td=""><td>ad</td><td>5</td><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td></f<>	ad	5	3						
Sample Identification MW - 23 - 5 - 10.0 - 190808 MV - 23 - 5 - 35.0 - 190808 MV - 23 - 5 - 35.0 - 190808 MV - 23 - 5 - 10.0 - 190808 MW - 23 - 5 - 10.0 - 190808 MW - 22 - 5 - 28.5 - 190808 ER - 2 - 19	Date Time 8/8/19 $1/3212051320152015751000115151000100010001000100010001000100010001000100010001000100010001000100010000010000010000010000010000001000000000000000000000000000000000000$					1711771166777720		82										6)	Re	emark	S	(9)
Standard 5 day	4 day	<u>Ama</u> Relinquishe	nol	e. Ar	nou	io	7- a	23	19		33		Receive	d by					Date		me	
72 hour 48 hour	24 hour	1m	(A	4			8/1	[x]/	19	15	Ø				4					/''		
B Data Package (circle if required)	DD (circle if required) /X-RTBU-FI_05 (default)	UPS		Fe	edEx	arrier: (/ Otł	ner _	·			receive	a py		en	Commentation		Date	19	me ICCS	
Type VI (Raw Data)	ther:	Te	empe	erature L	Jpon	Rec	eipt	$\overline{0}$	5-1,	° رد	С		Cus	tody	/ Seals	s Inta	ict?		Yes	フ	No	
n vienne vien Futro	fine Lancaster Laboratori	ies Enviro	amont		2/25	Now	Jollan		a Lon	casta	rDΛ	1760	1.71	7 666	2200						7051	0913

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Lancaster Laboratories Environmental	Sample A Receipt Doo	dministration cumentation Log	Doc Log ID: 256810
Client: <u>Leidos</u>			
	Delivery and	Receipt Information	
Delivery Method:	PS	Arrival Timestamp:	08/13/2019 9:50
Number of Packages: <u>4</u>		Number of Projects:	1
	Arrival Con	dition Summary	
Shipping Container Sealed:	Yes	Sample IDs on COC	match Containers: N/A
Custody Seal Present:	Yes	Sample Date/Times r	natch COC: N/A
Custody Seal Intact:	Yes	Total Trip Blank Qty:	16
Samples Chilled:	Yes	Trip Blank Type:	HCI
Paperwork Enclosed:	No	Air Quality Samples F	Present: No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty or	n COC: N/A		
Unpacked by Simon Nies (25 11	12) at 13:29 on 08/1	3/2019	
	Samples	Chilled Details	/
Thermometer Types: DT = D	Digital (Temp. Bottle,) IR = Infrared (Surface	• Temp) All Temperatures in °C.
Cooler # Thermometer ID Corrected Temp	Therm. Type	Ice Type Ice Present? Ice	e Container Elevated Temp?
1 DT131 0.5	DT	Wet Y	Bagged N

DT

DT

DT

0.8

1.2

0.9

2

3

4

DT131

DT131

DT131

Wet

Wet

Wet

Y

Y

Y

Bagged

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Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log



Comments

Client: Leidos

Paperwork Not Enclosed Details

Sample ID on Label	No. of Containers	Date on Label
MW-21-S-10.0-190809	7	8/09/2019 09:30
MW-21-S-15.0-190809	7	8/09/2019 09:45
MW-21-S-20.0-190809	7	8/09/2019 10:00
MW-21-S-25.0-190809	12	8/09/2019 10:15
MW-21-S-26.5-190809	10	8/09/2019 10:30
MW-22-S-10.0-190808	7	8/08/2019 15:20
MW-22-S-23.0-190808	11	8/08/2019 15:30
MW-22-S-28.5-190808	7	8/08/2019 15:45
MW-23-S-10.0-190808	7	8/08/2019 11:30
MW-23-S-25.0-190808	11	8/08/2019 12:05
MW-22-S-28.5-190808	5	8/08/2019 15:45
MW-23-S-30.0-190808	7	8/08/2019 12:20
MW-20-S-10.5-190810	2	8/10/2019 08:50
MW-20-S-18.0-190810	2	8/10/2019 09:15
ER-1-190808	6	8/08/2019 17:20
ER-2-190809	6	8/09/2019 08:10
TB-1-190812	4	8/12/2019 14:00
TB-2-190812	4	8/12/2019 14:05
TB-3-190812	4	8/12/2019 14:30
TB-4-190812	4	8/12/2019 14:40

T 717-656-2300 F 717-656-2681 www.LancasterLaps.com

Gloup Number(s): _2OS (100 Client: Leidos Delivery and Receipt Information Delivery Method: UPS Arrival Timestamp: 08/14/2019 10:05 Number of Packages: 2 Number of Projects: 1 State/Province of Origin: WA Arrival Condition Summary Shipping Container Sealed: Yes Sample IDs on COC match Containers: Yes Custody Seal Intact: Yes Sample Date/Times match COC: Yes Custody Seal Intact: Yes Trip Blank Qy: 24 Samples Chilled: Yes Trip Blank Qy: 24 Paperwork Enclosed: Yes Air Quality Samples Present: No Samples Intact: Yes Air Quality Samples Present: No Extra Samples: No No No Discrepancy in Container Qty on COC: No Date Times Bottle Deliver Yes Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C. Coder:# Thermometer.ID Conceded Temp <th< th=""><th>Lancaster Laboratorie Environmental</th><th>Sample Receipt D</th><th>e Admini)ocumer</th><th>stration Itation Log</th><th>)</th><th>Doc Log ID:</th><th></th></th<>	Lancaster Laboratorie Environmental	Sample Receipt D	e Admini)ocumer	stration Itation Log)	Doc Log ID:	
Delivery and Receipt Information Delivery Method: UPS Arrival Timestamp: 08/14/2019 10:05 Number of Packages: 2 Number of Projects: 1 State/Province of Origin: WA 1 Arrival Timestamp: 08/14/2019 10:05 State/Province of Origin: WA 1 State/Province of Origin: WA Arrival Condition Summary Shipping Container Sealed: Yes Sample IDs on COC match Containers: Yes Custody Seal Present: Yes Sample Date/Times match COC: Yes Custody Seal Intact: Yes Sample Date/Times match COC: Yes Paperwork Enclosed: Yes Air Quality Samples Present: No Discrepancy in Container Qt on COC: No No Extra Samples: No Dupacked by Simon Nies (25 112) at 17:44 on 08/14/2019 Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C. Codert# ThermometerID Corrected Temp All Temperatures in °C. Samples Chilled Details The	Client: <u>Leidos</u>				6	roup Number(s).	205 100 1
Delivery Method: UPS Arrival Timestamp: 08/14/2019 10:05 Number of Packages: 2 Number of Projects: 1 State/Province of Origin: WA 1 State/Province of Origin: WA Shipping Container Sealed: Yes Shipping Container Sealed: Yes Sample IDs on COC match Containers: Yes Custody Seal Present: Yes Sample Date/Times match COC: Yes Custody Seal Intact: Yes Trip Blank Qty: 24 Samples Chilled: Yes Trip Blank Qty: 24 Paperwork Enclosed: Yes Air Quality Samples Present: No Samples: No No No No Discrepancy in Container Qt on COC: No No No Discrepancy in Container Qt on COC: No IR = Infrared (Surface Temp) All Temperatures in °C. Cooler # Thermometer Types: DT = Digital (Temp. Bothe) IR = Infrared (Surface Temp) All Temperatures in °C. 2 DT131 1.3 DT Wet Y Bagged N 2 DT131		Delivery ar	nd Receip	ot Informati	ion		
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1 DT131 1.3 DT Wet Y Bagged N 2 DT131 0.8 DT Wet Y Bagged N General Comments: Received missing coolers from 8/13/19	Cooler # Thermometer ID Corrected	Temp <u>Therm. Type</u>	<u>Ice Type</u>	Ice Present?	Ice Container	Elevated Temp?	
2 DT131 0.8 DT Wet Y Bagged N General Comments: Received missing coolers from 8/13/19	1 DT131 1.3	DT	Wet	Y	Bagged	N	
General Comments: Received missing coolers from 8/13/19	2 DT131 0.8	DT	Wet	Y	Bagged	N	
	General Comments:	Received missing	coolers from	n 8/13/19			
Explanation of Symbols and Abbreviations

of water has a weight

The following defines common symbols and abbreviations used in reporting technical data:

BMQI	Below Minimum Quantitation Level	ml	milliliter(s)
C	degrees Celsius	MPN	Most Probable Number
cfu	colony forming units		non-detect
CP Unito	colorly forming units	N.D.	
		ng	
F	degrees Fahrenheit	NIU	nephelometric turbidity units
g	gram(s)	pg/L	picogram/liter
IU	International Units	RL	Reporting Limit
kg	kilogram(s)	TNTC	Too Numerous To Count
L	liter(s)	μg	microgram(s)
lb.	pound(s)	μL	microliter(s)
m3	cubic meter(s)	umhos/cm	micromhos/cm
meq	milliequivalents	MCL	Maximum Contamination Limit
mg	milligram(s)		
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent a aqueous liquids, ppm is usually taken to b very close to a kilogram. For gases or va	to one milligram per be equivalent to milli pors, one ppm is eq	kilogram (mg/kg) or one gram per million grams. For grams per liter (mg/l), because one liter of water has a weig uivalent to one microliter per liter of gas.
ppb	parts per billion		
Dry weight basis	Results printed under this heading have b concentration to approximate the value pr	been adjusted for mo resent in a similar sa	pisture content. This increases the analyte weight ample without moisture. All other results are reported on an

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

as-received basis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

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Qualifier	Definition
С	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
Р	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised
	due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Prepared for:

Chevron L4310 6001 Bollinger Canyon Road San Ramon CA 94583

Report Date: October 17, 2019 13:14

Project: 90129

Account #: 11255 Group Number: 2059759 PO Number: 0015324185 Release Number: BISHOP State of Sample Origin: WA

Electronic Copy To Leidos

Attn: Ruth Otteman

Respectfully Submitted,

mek Carts

Amek Carter Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to <u>https://www.eurofinsus.com/environment-</u> testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratoriesenvironmental/. Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection	<u>ELLE#</u>
	Date/Time	
MW-26-W-190813 Grab Groundwater	08/13/2019 09:50	1130871
MW-27-W-190813 Grab Groundwater	08/13/2019 11:15	1130872
MW-28-W-190813 Grab Groundwater	08/13/2019 12:10	1130873
DUP-1-WD-190813 Grab Groundwater	08/13/2019 14:00	1130874
MW-18-W-190813 Grab Groundwater	08/13/2019 16:10	1130875
MW-19-W-190813 Grab Groundwater	08/13/2019 17:00	1130876
MW-22-W-190814 Grab Groundwater	08/14/2019 13:30	1130877
MW-20-W-190815 Grab Groundwater	08/15/2019 10:10	1130878
MW-23-W-190815 Grab Groundwater	08/15/2019 11:15	1130879
MW-21-W-190815 Grab Groundwater	08/15/2019 13:00	1130880
MW-17-W-190815 Grab Groundwater	08/15/2019 14:00	1130881
MW-29-W-190816 Grab Groundwater	08/16/2019 08:46	1130882
MW-25-W-190816 Grab Groundwater	08/16/2019 10:30	1130883
QA-1-T-190813 NA Water	08/13/2019 08:00	1130884
QA-2-T-190814 NA Water	08/14/2019 08:00	1130885

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Collection Date/Time:

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Analysis Report

Sample Description:	MW-26-W-190813 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA			
Project Name:	90129			
Submittal Date/Time:	08/20/2019 10:10			

08/13/2019 09:50

Chevron ELLE Sample #: GW 1130871 ELLE Group #: 2059759 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	С	ug/l	ug/l	
11997	Benzene		71-43-2	24	0.2	1
11997	1,2-Dichloroethane		107-06-2	0.4	0.3	1
11997	cis-1,2-Dichloroethene		156-59-2	820 E	0.2	1
11997	trans-1,2-Dichloroethene		156-60-5	230	0.2	1
11997	Ethylbenzene		100-41-4	8	0.4	1
11997	Methyl Tertiary Butyl Ether		1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene		127-18-4	5	0.2	1
11997	Toluene		108-88-3	2	0.2	1
11997	Trichloroethene		79-01-6	2,200 E	0.2	1
11997	Vinyl Chloride		75-01-4	38	0.2	1
11997	Xylene (Total)		1330-20-7	N.D.	1	1
The re GC Vola 08273	sult for Trichloroethene was atiles NWTPH-Gx water C7-C12	s 1700 ug/l. ECY 97-602 N	IWTPH-Gx n.a.	ug/l 150	ug/l 19	1
Volatilo	s by Extraction	SW-8/6 8011		ug/l	ua/l	
10209	5 Dy LAllaction	300-040 0011	106 02 4		0.0004	1
10390	Ethylene albronniae		100-93-4	N.D. DZ	0.0094	I
GC Petr Hydroca	roleum arbons	ECY 97-602 N modified	IWTPH-Dx	ug/l	ug/l	
12899	DX DRO C12-C24		n.a.	N.D.	45	1
12899	DX HRO C24-C40		n.a.	N.D.	100	1
Metals I	Dissolved	SW-846 6010 2014	D Rev.4, July	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	7.1	1
03277	Lab Filtration - Meta	als met for dissolved s	ample filtration. The	filtration		

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments



07055 Lead

14044 ICP-WW, 3005A (tot rec) - U345

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Cindy M Gehman

Barbara A Kane

1

1

Sample Description: A F 2		W-26-W-190813 Grab Gro acility# 90129 ⁄00 Brooklyn Ave - Seattle	undwat e, WA		Chevron ELLE Sample #: GV ELLE Group #: 20 Matrix: Groundwater	V 1130871 59759	
Proje	ct Name: 90)129					
Subm Collec	ittal Date/Time: 08 tion Date/Time: 08	3/20/2019 10:10 3/13/2019 09:50					
		Labo	ratory S	Sample Analys	is Record		
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/ED	C SW-846 8260C	1	5192392AA	08/27/2019 23:35	Kathrine K Muramatsu	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5192392AA	08/27/2019 23:34	Kathrine K Muramatsu	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-G	K 1	19235B20A	08/24/2019 03:35	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 03:34	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 07:57	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-D> modified	(1	192340012A	08/25/2019 03:41	Nicholas R Rossi	1
12907	Mini-extraction DRO DX (vater) ECY 97-602 NWTPH-D> 06/97	< 1	192340012A	08/22/2019 16:30	Osvaldo R Sanchez	1

192351404401

192351404401

08/25/2019 06:53

08/23/2019 15:30

SW-846 6010D Rev.4, 1

1

July 2014

SW-846 3005A

Page 4 of 43



Collection Date/Time:

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Analysis Report

Sample Description:	MW-27-W-190813 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA			
Project Name:	90129			
Submittal Date/Time:	08/20/2019 10:10			

08/13/2019 11:15

Chevron ELLE Sample #: GW 1130872 ELLE Group #: 2059759 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	С	ug/l	ug/l	
11997	Benzene		71-43-2	9	4	20
11997	1,2-Dichloroethane		107-06-2	N.D.	6	20
11997	cis-1,2-Dichloroethene		156-59-2	700	4	20
11997	trans-1,2-Dichloroethene		156-60-5	55	4	20
11997	Ethylbenzene		100-41-4	84	8	20
11997	Methyl Tertiary Butyl Ether		1634-04-4	N.D.	4	20
11997	Tetrachloroethene		127-18-4	N.D.	4	20
11997	Toluene		108-88-3	N.D.	4	20
11997	Trichloroethene		79-01-6	780	4	20
11997	Vinyl Chloride		75-01-4	23	4	20
11997	Xylene (Total)		1330-20-7	30	28	20
GC Vola	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12		n.a.	2,900	95	5
Volatile	s by Extraction	SW-846 8011		ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D. D1	0.0094	1
GC Peti Hydroc	roleum arbons	ECY 97-602 M modified	NWTPH-Dx	ug/l	ug/l	
12899	DX DRO C12-C24		n.a.	1,400	45	1
12899	DX HRO C24-C40		n.a.	N.D.	100	1
Metals	Dissolved	SW-846 6010 2014	D Rev.4, July	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	7.1	1
03277	Lab Filtration - Meta	als				

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

	Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	5192392AA	08/27/2019 22:33	Kathrine K Muramatsu	20	
01163 08273	GC/MS VOA Water Prep NWTPH-Gx water C7-C12	SW-846 5030C ECY 97-602 NWTPH-Gx	1 1	5192392AA 19235B20A	08/27/2019 22:32 08/24/2019 03:58	Kathrine K Muramatsu Marie D Beamenderfer	20 5	



07055

Lead

14044 ICP-WW, 3005A (tot rec) - U345

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06/97

July 2014

SW-846 3005A

SW-846 6010D Rev.4, 1

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Cindy M Gehman

Barbara A Kane

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Sample Description: MW-27-W-190813 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA				Chevron ELLE Sample #: ELLE Group #: Matrix: Groundwate	GW 1130872 2059759 r			
Project Name:		90129						
Subm Collec	ittal Date/Time: ction Date/Time:	08/20/20 08/13/20	019 10:10 019 11:15	atory	Sample Analys	is Record		
CAT No.	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep		SW-846 5030C	1	19235B20A	08/24/2019 03:57	Marie D Beamende	rfer 5
10398	EDB by 8011		SW-846 8011	1	192340021A	08/24/2019 08:29	Jason Brumbaugh	1
07786	EDB Extraction (8011)		SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water		ECY 97-602 NWTPH-Dx modified	1	192340012A	08/25/2019 04:04	Nicholas R Rossi	1
12907	Mini-extraction DRO D	X (water)	ECY 97-602 NWTPH-Dx	1	192340012A	08/22/2019 16:30	Osvaldo R Sanchez	<u> </u>

192351404401

192351404401

08/25/2019 06:56

08/23/2019 15:30

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Analysis Report

Sample Description:	MW-28-W-190813 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA			
Project Name:	90129			
Submittal Date/Time: Collection Date/Time:	08/20/2019 10:10 08/13/2019 12:10			

Chevron ELLE Sample #: GW 1130873 ELLE Group #: 2059759 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l	
11997	Benzene		71-43-2	14	4	20
11997	1,2-Dichloroethane		107-06-2	N.D.	6	20
11997	cis-1,2-Dichloroethene		156-59-2	250	4	20
11997	trans-1,2-Dichloroethene		156-60-5	6	4	20
11997	Ethylbenzene		100-41-4	220	8	20
11997	Methyl Tertiary Butyl Ether		1634-04-4	N.D.	4	20
11997	Tetrachloroethene		127-18-4	260	4	20
11997	Toluene		108-88-3	N.D.	4	20
11997	Trichloroethene		79-01-6	770	4	20
11997	Vinyl Chloride		75-01-4	8	4	20
11997	Xylene (Total)		1330-20-7	90	28	20
The re contai	equirement for no headspace ner used for the testing had	e at the time of an headspace at the	alysis was not met. time of analysis.	The		
GC Vola	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12		n.a.	3,700	95	5
Volatile	s by Extraction	SW-846 8011		ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D. D2	0.0096	1
GC Pet	roleum	ECY 97-602 I	NWTPH-Dx	ug/l	ug/l	
Hydroc	arbons	modified				
12000		mouniou	n 0	770	45	1
12099	DX URO C12-C24		n.a.	ND	45	1
12099	DX HRU 024-040		n.a.	N.D.	100	I
Metals	Dissolved	SW-846 6010 2014	D Rev.4, July	ug/I	ug/l	
07055	Lead		7439-92-1	N.D.	7.1	1
03277	Lab Filtration - Meta	als				

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

	Laboratory Sample Analysis Record								
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor		
11997 01163	CVOCs+BTEX/MTBE/EDC GC/MS VOA Water Prep	SW-846 8260C SW-846 5030C	1 1	5192392AA 5192392AA	08/27/2019 22:54 08/27/2019 22:53	Kathrine K Muramatsu Kathrine K Muramatsu	20 20		



12907

07055

14044

Lead

Mini-extraction DRO DX (water)

ICP-WW, 3005A (tot rec) - U345

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Osvaldo R Sanchez

Cindy M Gehman

Barbara A Kane

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Sample Description: MW-28-W-190813 Grab Grou Facility# 90129 4700 Brooklyn Ave - Seattle,		undwater », WA			Chevron ELLE Sample #: ELLE Group #: Matrix: Groundwate	GW 1130873 2059759 r		
Proje	ct Name:	90129						
Subm Collec	ittal Date/Time: ction Date/Time:	08/20/20 08/13/20	019 10:10 019 12:10					
			Labora	atory S	Sample Analys	is Record		
CAT No.	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7	-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 04:20	Marie D Beamende	fer 5
01146	GC VOA Water Prep		SW-846 5030C	1	19235B20A	08/24/2019 04:19	Marie D Beamende	fer 5
10398	EDB by 8011		SW-846 8011	1	192340021A	08/24/2019 09:01	Jason Brumbaugh	1
07786	EDB Extraction (801)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water		ECY 97-602 NWTPH-Dx modified	1	192340012A	08/25/2019 04:27	Nicholas R Rossi	1

192340012A

192351404401

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08/22/2019 16:30

08/25/2019 07:08

08/23/2019 15:30

ECY 97-602 NWTPH-Dx 1

SW-846 6010D Rev.4, 1

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Analysis Report

Sample Description:	DUP-1-WD-190813 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA
Project Name:	90129
Submittal Date/Time: Collection Date/Time:	08/20/2019 10:10 08/13/2019 14:00

Chevron ELLE Sample #: GW 1130874 ELLE Group #: 2059759 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor	
GC/MS	Volatiles	SW-846 8260	С	ug/l	ug/l		
11997	Benzene		71-43-2	15	4	20	
11997	1,2-Dichloroethane		107-06-2	N.D.	6	20	
11997	cis-1,2-Dichloroethene		156-59-2	270	4	20	
11997	trans-1,2-Dichloroethene		156-60-5	5	4	20	
11997	Ethylbenzene		100-41-4	210	8	20	
11997	Methyl Tertiary Butyl Ether		1634-04-4	N.D.	4	20	
11997	Tetrachloroethene		127-18-4	300	4	20	
11997	Toluene		108-88-3	N.D.	4	20	
11997	Trichloroethene		79-01-6	820	4	20	
11997	Vinyl Chloride		75-01-4	8	4	20	
11997	Xylene (Total)		1330-20-7	86	28	20	
GC Vola	atiles	ECY 97-602 N	WTPH-Gx	ug/l	ug/l		
08273 The re contair	NWTPH-Gx water C7-C12 quirement for no headspace ner used for the testing had	e at the time of and headspace at the	n.a. alysis was not met. time of analysis.	3,800 The	95	5	
Volatile	s by Extraction	SW-846 8011		uq/l	ug/l		
10398	Ethylene dibromide	011 040 0011	106-93-4	N.D. D1	0.0095	1	
GC Peti	roleum	ECY 97-602 N	WTPH-Dx	ug/l	ug/l		
Hydroc	arbons	modified					
12899	DX DRO C12-C24		n.a.	840	46	1	
12899	DX HRO C24-C40		n.a.	N.D.	100	1	
Metals	Dissolved	SW-846 6010 2014	D Rev.4, July	ug/l	ug/l		
07055	Lead		7439-92-1	N.D.	7.1	1	
03277	Lab Filtration - Meta	als	1 <i>6</i> 14				

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

	Laboratory Sample Analysis Record								
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor		
11997 01163	CVOCs+BTEX/MTBE/EDC GC/MS VOA Water Prep	SW-846 8260C SW-846 5030C	1 1	5192392AA 5192392AA	08/27/2019 23:15 08/27/2019 23:14	Kathrine K Muramatsu Kathrine K Muramatsu	20 20		



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14044 ICP-WW, 3005A (tot rec) - U345 SW-846 3005A

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Barbara A Kane

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Sample Description: DUP-1-W Facility# 4700 Bro			VD-190813 Grab Gro 90129 boklyn Ave - Seattle,	Chevron ELLE Sample #: GV ELLE Group #: 20 Matrix: Groundwater	V 1130874 59759			
Proje	ct Name:	90129						
Submittal Date/Time: 08/2 Collection Date/Time: 08/1			19 10:10 19 14:00					
	Laboratory Sample Analysis Record							
CAT	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-0	C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 04:4	2 Marie D Beamenderfer	5
01146	GC VOA Water Prep		SW-846 5030C	1	19235B20A	08/24/2019 04:4	1 Marie D Beamenderfer	5
10398	EDB Dy 8011 EDB Extraction (9011)		SVV-846 8011	1	192340021A	08/24/2019 09:4	Jason Brumbaugn Mathias Okno	1
12899	NWTPH-Dx water		ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 02:2	4 Heather E Williams	1
12907	Mini-extraction DRO D	X (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:0	0 Mathias Okpo	1
07055	Lead		SW-846 6010D Rev.4,	1	192351404401	08/25/2019 07:1	1 Cindy M Gehman	1

192351404401

08/23/2019 15:30

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Analysis Report

Sample Description:	MW-18-W-190813 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA
Project Name:	90129
Submittal Date/Time: Collection Date/Time:	08/20/2019 10:10 08/13/2019 16:10

Chevron	
ELLE Sample #:	GW 1130875
ELLE Group #:	2059759
Matrix: Groundwa	ater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	3	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Vol	atiles	ECY 97-602 NWTPH-Gx	ug/l	ug/l	
08273 The re contai	NWTPH-Gx water C7-C12 equirement for no headspac ner used for the testing had	n.a. e at the time of analysis was not met. headspace at the time of analysis.	N.D. The	19	1
Volatile	s by Extraction	SW-846 8011	ug/l	ug/l	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1
GC Pet Hydroc	roleum arbons	ECY 97-602 NWTPH-Dx modified	ug/l	ug/l	
12899	DX DRO C12-C24	n.a.	N.D.	46	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals	Dissolved	SW-846 6010D Rev.4, July 2014	ug/l	ug/l	
07055	Lead	7439-92-1	N.D.	7.1	1
03277	Lab Filtration - Meta	als	filtration		

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

	Laboratory Sample Analysis Record								
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor		
11997 01163	CVOCs+BTEX/MTBE/EDC GC/MS VOA Water Prep	SW-846 8260C SW-846 5030C	1 1	5192392AA 5192392AA	08/27/2019 21:52 08/27/2019 21:51	Kathrine K Muramatsu Kathrine K Muramatsu	1 1		



07055 Lead

14044 ICP-WW, 3005A (tot rec) - U345

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SW-846 6010D Rev.4,

July 2014

SW-846 3005A

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Cindy M Gehman

Barbara A Kane

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Sample Description: MW-18-W-190813 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA				Chevron ELLE Sample #: G ELLE Group #: 20 Matrix: Groundwater	W 1130875)59759			
Proje	ct Name:	90129						
Subm Collec	ittal Date/Time: ction Date/Time:	08/20/2019 10:10 08/13/2019 16:10						
	Laboratory Sample Analysis Record							
CAT No	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
08273	NWTPH-Gx water C7-0	C12 ECY 97-602 NWTPH	H-Gx 1	19235B20A	08/23/2019 23:52	Marie D Beamenderfe	r 1	
01146 10398 07786 12899	GC VOA Water Prep EDB by 8011 EDB Extraction (8011) NWTPH-Dx water	SW-846 5030C SW-846 8011 SW-846 8011 ECY 97-602 NWTPH	1 1 1 H-Dx 1	19235B20A 192340021A 192340021A 192350031A	08/23/2019 23:51 08/24/2019 10:04 08/23/2019 04:00 08/28/2019 02:47	Marie D Beamenderfe Jason Brumbaugh Mathias Okpo Heather E Williams	vr 1 1 1 1	
12907	Mini-extraction DRO D	modified X (water) ECY 97-602 NWTPH 06/97	H-Dx 1	192350031A	08/26/2019 03:00	Mathias Okpo	1	

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192351404401

08/25/2019 07:14

08/23/2019 15:30

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Analysis Report

Sample Description:	MW-19-W-190813 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA
Project Name:	90129
Submittal Date/Time:	08/20/2019 10:10

 Submittal Date/Time:
 08/20/2019 10:10

 Collection Date/Time:
 08/13/2019 17:00

Chevron	
ELLE Sample #:	GW 1130876
ELLE Group #:	2059759
Matrix: Groundwa	ater

CAT No.	Analysis Name	CAS Numb	er Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Vola	atiles	ECY 97-602 NWTPH-G	ix ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	26	19	1
Volatile	s by Extraction	SW-846 8011	ug/l	ug/l	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Petr Hydroc	roleum arbons	ECY 97-602 NWTPH-D modified	Ŋx ug/l	ug/l	
12899	DX DRO C12-C24	n.a.	N.D.	47	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals	Dissolved	SW-846 6010D Rev.4, 2014	July ug/l	ug/l	
07055	Lead	7439-92-1	N.D.	7.1	1
02277	Lab Filtration Mate				

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	5192392AA	08/27/2019 22:12	Kathrine K Muramatsu	1
01163 08273	GC/MS VOA Water Prep NWTPH-Gx water C7-C12	SW-846 5030C ECY 97-602 NWTPH-Gx	1 1	5192392AA 19235B20A	08/27/2019 22:11 08/24/2019 00:15	Kathrine K Muramatsu Marie D Beamenderfer	1 1



07055 Lead

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SW-846 6010D Rev.4, 1

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14044 ICP-WW, 3005A (tot rec) - U345 SW-846 3005A

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Cindy M Gehman

Barbara A Kane

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Sample Description: MW-1 Facili 4700 Project Name: 9012		MW-19- Facility 4700 Br	W-190813 Grab Grou # 90129 ooklyn Ave - Seattle,		Chevron ELLE Sample #: ELLE Group #: Matrix: Groundwate	GW 1130876 2059759 er		
		90129						
Subm Collec	ittal Date/Time: tion Date/Time:	08/20/20 08/13/20	19 10:10 19 17:00	atory	Sample Analys	is Record		
CAT No.	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep		SW-846 5030C	1	19235B20A	08/24/2019 00:14	Marie D Beamende	erfer 1
10398	EDB by 8011		SW-846 8011	1	192340021A	08/24/2019 10:19	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water		ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 03:10	Heather E Williams	1
12907	Mini-extraction DRO	DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1

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08/25/2019 07:18

08/23/2019 15:30

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Collection Date/Time:

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Analysis Report

Sample Description:	MW-22-W-190814 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA
Project Name:	90129
Submittal Date/Time:	08/20/2019 10:10

08/14/2019 13:30

Chevron ELLE Sample #: GW 1130877 ELLE Group #: 2059759 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Lin	D nit F	Pilution actor
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l		
11997	Benzene		71-43-2	10	2	1	0
11997	1,2-Dichloroethane		107-06-2	N.D.	3	1	0
11997	cis-1,2-Dichloroethene		156-59-2	740	2	1	0
11997	trans-1,2-Dichloroethene		156-60-5	6	2	1	0
11997	Ethylbenzene		100-41-4	N.D.	4	1	0
11997	Methyl Tertiary Butyl Ethe	r	1634-04-4	N.D.	2	1	0
11997	Tetrachloroethene		127-18-4	N.D.	2	1	0
11997	Toluene		108-88-3	N.D.	2	1	0
11997	Trichloroethene		79-01-6	370	2	1	0
11997	Vinyl Chloride		75-01-4	5	2	1	0
11997	Xylene (Total)		1330-20-7	N.D.	14	1	0
calibra GC Vola	ation range of the system.	ECY 97-602 I	NWTPH-Gx	ug/l	ug/l		
08273	NWTPH-GX water C7-C12	<u>.</u>	n.a.	39	19	I	
Volatile	s by Extraction	SW-846 8011		ug/l	ug/l		
10398	Ethylene dibromide		106-93-4	N.D. D1	0.0094	1	
GC Pet Hydroc	roleum arbons	ECY 97-602 I modified	NWTPH-Dx	ug/l	ug/l		
12899	DX DRO C12-C24		n.a.	N.D.	45	1	
12899	DX HRO C24-C40		n.a.	N.D.	100	1	
Metals	Dissolved	SW-846 6010 2014	D Rev.4, July	ug/l	ug/l		
07055	Lead		7439-92-1	N.D.	7.1	1	
02077	Lob Filtration Mat						

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

		Labo	oratory S	ample Analys	is Record		
	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	L192403AA	08/28/2019 22:00	Kevin A Sposito	10



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14044 ICP-WW, 3005A (tot rec) - U345 SW-846 3005A 1

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Barbara A Kane

Sample Description: MW-2 Facili 4700		MW-22-W-1 Facility# 90 4700 Brook	190814 Grab Grou 0129 klyn Ave - Seattle,		Chevron ELLE Sample #: G ELLE Group #: 24 Matrix: Groundwater	W 1130877 059759		
Project Name: 90129								
Subm Collec	ittal Date/Time: tion Date/Time:	08/20/2019 08/14/2019	10:10 13:30					
			Labora	atory S	ample Analysi	s Record		
CAT No.	Analysis Name	M	ethod	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Pre	ep SV	W-846 5030C	1	L192403AA	08/28/2019 21:59	9 Kevin A Sposito	10
08273	NWTPH-Gx water C7-0	12 E0	CY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 00:37	7 Marie D Beamenderfe	er 1
01146	GC VOA Water Prep	SI	W-846 5030C	1	19235B20A	08/24/2019 00:36	6 Marie D Beamenderfe	er 1
10398	EDB by 8011	SI	W-846 8011	1	192340021A	08/24/2019 10:3	5 Jason Brumbaugh	1
07786	EDB Extraction (8011)	SI	W-846 8011	1	192340021A	08/23/2019 04:00) Mathias Okpo	1
12899	NWTPH-Dx water	E(m	CY 97-602 NWTPH-Dx odified	1	192350031A	08/28/2019 03:33	B Heather E Williams	1
12907	Mini-extraction DRO D	K (water) E0	CY 97-602 NWTPH-Dx 5/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SI Ju	W-846 6010D Rev.4, ıly 2014	1	192351404401	08/25/2019 07:2	1 Cindy M Gehman	1

192351404401

08/23/2019 15:30

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Collection Date/Time:

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Analysis Report

Sample Description:	MW-20-W-190815 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA
Project Name:	90129
Submittal Date/Time:	08/20/2019 10:10

08/15/2019 10:10

Chevron ELLE Sample #: GW 1130878 ELLE Group #: 2059759 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	N	lethod Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	С	ug/l	u	g/l	
11997	Benzene		71-43-2	N.D.	0	.2	1
11997	1,2-Dichloroethane		107-06-2	N.D.	0	.3	1
11997	cis-1,2-Dichloroethene		156-59-2	7	0	.2	1
11997	trans-1,2-Dichloroethene		156-60-5	0.5	0	.2	1
11997	Ethylbenzene		100-41-4	N.D.	0	.4	1
11997	Methyl Tertiary Butyl Ether		1634-04-4	N.D.	0	.2	1
11997	Tetrachloroethene		127-18-4	64	0	.2	1
11997	Toluene		108-88-3	N.D.	0	.2	1
11997	Trichloroethene		79-01-6	13	0	.2	1
11997	Vinyl Chloride		75-01-4	N.D.	0	.2	1
11997	Xylene (Total)		1330-20-7	N.D.	1		1
GC Vol	atiles	ECY 97-602 N	WTPH-Gx	ug/l	u	g/l	
08273	NWTPH-Gx water C7-C12		n.a.	30	1	9	1
Volatile	s by Extraction	SW-846 8011		ug/l	u	g/l	
10398	Ethylene dibromide		106-93-4	N.D. D2	0	.0095	1
GC Pet Hydroc	roleum arbons	ECY 97-602 N modified	IWTPH-Dx	ug/l	u	g/l	
12899	DX DRO C12-C24		n.a.	N.D.	4	5	1
12899	DX HRO C24-C40		n.a.	N.D.	1	00	1
Metals	Dissolved	SW-846 6010 2014	D Rev.4, July	ug/l	u	g/l	
07055	Lead		7439-92-1	N.D.	7	.1	1
02277	Lob Eiltrotion Mot						

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 09:08	Anita M Dale	1
01163 08273	GC/MS VOA Water Prep NWTPH-Gx water C7-C12	SW-846 5030C ECY 97-602 NWTPH-Gx	1 1	P192401AA 19235B20A	08/28/2019 09:07 08/24/2019 00:59	Anita M Dale Marie D Beamenderfer	1 1



07055

Lead

14044 ICP-WW, 3005A (tot rec) - U345

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06/97

July 2014

SW-846 3005A

SW-846 6010D Rev.4,

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Cindy M Gehman

Barbara A Kane

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Sample Description: MW-20-W-190815 Grab Gro Facility# 90129 4700 Brooklyn Ave - Seattle			ındwat , WA	er		Chevron ELLE Sample #: G ELLE Group #: 20 Matrix: Groundwater	W 1130878)59759	
Proje	roject Name: 90129							
Submittal Date/Time: 08/20/2019 10:10 Collection Date/Time: 08/15/2019 10:10								
			Labor	atory S	Sample Analys	is Record		
CAT No.	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep		SW-846 5030C	1	19235B20A	08/24/2019 00:58	Marie D Beamenderfe	er 1
10398	EDB by 8011		SW-846 8011	1	192340021A	08/24/2019 10:51	Jason Brumbaugh	1
07786	EDB Extraction (8011)		SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water		ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 03:55	Heather E Williams	1
12907	Mini-extraction DRO D	X (water)	ECY 97-602 NWTPH-Dx	1	192350031A	08/26/2019 03:00	Mathias Okpo	1

192351404401

192351404401

08/25/2019 07:24

08/23/2019 15:30

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Collection Date/Time:

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Analysis Report

Sample Description:	MW-23-W-190815 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA				
Project Name:	90129				
Submittal Date/Time:	08/20/2019 10:10				

08/15/2019 11:15

Chevron					
ELLE Sample #:	GW 1130879				
ELLE Group #:	2059759				
Matrix: Groundwater					

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l	
11997	Benzene		71-43-2	19	0.2	1
11997	1,2-Dichloroethane		107-06-2	1	0.3	1
11997	cis-1,2-Dichloroethene		156-59-2	340	2	10
11997	trans-1,2-Dichloroethene		156-60-5	2	0.2	1
11997	Ethylbenzene		100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether		1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene		127-18-4	N.D.	0.2	1
11997	Toluene		108-88-3	0.2	0.2	1
11997	Trichloroethene		79-01-6	23	0.2	1
11997	Vinyl Chloride		75-01-4	16	0.2	1
11997	Xylene (Total)		1330-20-7	N.D.	1	1
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12		n.a.	N.D.	19	1
Volatile	s by Extraction	SW-846 8011	1	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D. D1	0.0095	1
GC Pet	roleum arbons	ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l	
12000		mouniou			40	1
12099	DX DRO C12-C24		n.a.	N.D.	49	1
12899	DX HRU C24-C40		n.a.	N.D.	110	1
Metals	Dissolved	SW-846 6010 2014	D Rev.4, July	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	7.1	1
03277	Lab Filtration - Meta	als				

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

Laboratory	Sample	Analysis	Record
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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 07:25	Anita M Dale	1
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192411AA	08/29/2019 15:30	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	P192401AA	08/28/2019 07:24	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	P192411AA	08/29/2019 15:29	Anita M Dale	10



07055 Lead

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Cindy M Gehman

Barbara A Kane

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Sample Description: MW-23-W-19 Facility# 901 4700 Brookl			-190815 Grab Grou 00129 oklyn Ave - Seattle,	indwat WA	Chevron ELLE Sample #: G ELLE Group #: 2 Matrix: Groundwater	W 1130879 059759		
Project Name: 90129		90129						
Subm Collec	ittal Date/Time: tion Date/Time:	08/20/2019 08/15/2019	9 10:10 9 11:15					
			Labora	atory S	ample Analys	is Record		
CAT	Analysis Name	r	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Eactor
08273	NWTPH-Gx water C7-	C12 I	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 01:2	1 Marie D Beamenderf	er 1
01146 10398 07786 12899	GC VOA Water Prep EDB by 8011 EDB Extraction (8011) NWTPH-Dx water		SW-846 5030C SW-846 8011 SW-846 8011 ECY 97-602 NWTPH-Dx podified	1 1 1 1	19235B20A 192340021A 192340021A 192350031A	08/24/2019 01:20 08/24/2019 11:0 08/23/2019 04:00 08/28/2019 04:11	0 Marie D Beamenderf 7 Jason Brumbaugh 0 Mathias Okpo 8 Heather E Williams	er 1 1 1 1
12907	Mini-extraction DRO D	X (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:0	0 Mathias Okpo	1

192351404401

192351404401

08/25/2019 07:27

08/23/2019 15:30

SW-846 6010D Rev.4, 1

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July 2014

14044 ICP-WW, 3005A (tot rec) - U345 SW-846 3005A

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Analysis Report

Sample Description:	MW-21-W-190815 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA
Project Name:	90129
Outras intel Detta (Tiasaa	00/00/0010 10 10

 Submittal Date/Time:
 08/20/2019 10:10

 Collection Date/Time:
 08/15/2019 13:00

Chevron	
ELLE Sample #:	GW 1130880
ELLE Group #:	2059759
Matrix: Groundwa	ater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	0.4	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	2	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	4	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Vol	atiles	ECY 97-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1
Volatile	s by Extraction	SW-846 8011	ug/l	ug/l	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Pet Hydroc	roleum arbons	ECY 97-602 NWTPH-Dx modified	ug/l	ug/l	
12899	DX DRO C12-C24	n.a.	N.D.	46	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals	Dissolved	SW-846 6010D Rev.4, July 2014	ug/l	ug/l	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

Laboratory Sample Analysis Record							
Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 07:51	Anita M Dale	1	
GC/MS VOA Water Prep NWTPH-Gx water C7-C12	SW-846 5030C ECY 97-602 NWTPH-Gx	1 1	P192401AA 19235B20A	08/28/2019 07:50 08/24/2019 01:44	Anita M Dale Marie D Beamenderfer	1 1	
	Analysis Name CVOCs+BTEX/MTBE/EDC GC/MS VOA Water Prep NWTPH-Gx water C7-C12	Labor Analysis Name Method CVOCs+BTEX/MTBE/EDC SW-846 8260C GC/MS VOA Water Prep SW-846 5030C NWTPH-Gx water C7-C12 ECY 97-602 NWTPH-Gx	Analysis NameMethodTrial#CVOCs+BTEX/MTBE/EDCSW-846 8260C1GC/MS VOA Water PrepSW-846 5030C1NWTPH-Gx water C7-C12ECY 97-602 NWTPH-Gx1	Laboratory Sample AnalysisAnalysis NameMethodTrial#Batch#CVOCs+BTEX/MTBE/EDCSW-846 8260C1P192401AAGC/MS VOA Water PrepSW-846 5030C1P192401AANWTPH-Gx water C7-C12ECY 97-602 NWTPH-Gx119235B20A	Laboratory Sample Analysis RecordAnalysis NameMethodTrial#Batch#Analysis Date and TimeCVOCs+BTEX/MTBE/EDCSW-846 8260C1P192401AA08/28/201907:51GC/MS VOA Water PrepSW-846 5030C1P192401AA08/28/201907:50NWTPH-Gx water C7-C12ECY 97-602 NWTPH-Gx119235B20A08/24/201901:44	Laboratory Sample Analysis RecordAnalysis NameMethodTrial#Batch#Analysis Date and TimeAnalysis Date and TimeCVOCs+BTEX/MTBE/EDCSW-846 8260C1P192401AA08/28/201907:51Anita M DaleGC/MS VOA Water PrepSW-846 5030C1P192401AA08/28/201907:50Anita M DaleNWTPH-Gx water C7-C12ECY 97-602 NWTPH-Gx119235B20A08/24/201901:44Marie D Beamenderfer	



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Sample Description: MW-2 ⁻ Facilit 4700 E			W-190815 Grab Grou # 90129 ooklyn Ave - Seattle	Chevron ELLE Sample #: ELLE Group #: Matrix: Groundwate	GW 1130880 2059759 er			
Project Name: 901		90129						
Subm Collec	ittal Date/Time: ction Date/Time:	08/20/20 08/15/20	019 10:10 019 13:00					
			Labor	atory S	Sample Analys	is Record		
CAT No.	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep		SW-846 5030C	1	19235B20A	08/24/2019 01:43	Marie D Beamende	erfer 1
10398	EDB by 8011		SW-846 8011	1	192340021A	08/24/2019 11:23	Jason Brumbaugh	1
07786	EDB Extraction (8011	1	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water		ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 04:41	Heather E Williams	: 1
12907	Mini-extraction DRO	X (water)	ECY 97-602 NWTPH-Dx	1	192350031A	08/26/2019 03:00	Mathias Okpo	1

07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 04:41	Heather E Williams
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:30	Cindy M Gehman
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane

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Analysis Report

Sample Description:	MW-17-W-190815 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA			
Project Name:	90129			
Submittal Date/Time:	08/20/2019 10:10			

 Submittal Date/Time:
 08/20/2019 10:10

 Collection Date/Time:
 08/15/2019 14:00

Chevron	
ELLE Sample #:	GW 1130881
ELLE Group #:	2059759
Matrix: Groundwa	ater

CAT No.	Analysis Name	C	AS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260C		ug/l	ug/l	
11997	Benzene	71	-43-2	6	0.2	1
11997	1,2-Dichloroethane	10)7-06-2	0.5	0.3	1
11997	cis-1,2-Dichloroethene	15	56-59-2	52	0.2	1
11997	trans-1,2-Dichloroethene	15	56-60-5	0.8	0.2	1
11997	Ethylbenzene	10	0-41-4	14	0.4	1
11997	Methyl Tertiary Butyl Ether	16	634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	12	27-18-4	7	0.2	1
11997	Toluene	10)8-88-3	0.2	0.2	1
11997	Trichloroethene	79	9-01-6	3	0.2	1
11997	Vinyl Chloride	75	5-01-4	N.D.	0.2	1
11997	Xylene (Total)	13	330-20-7	6	1	1
GC Vola	atiles	ECY 97-602 NW	VTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a	a.	500	19	1
Volatile	s by Extraction	SW-846 8011		ug/l	ug/l	
10398	Ethylene dibromide	10	06-93-4	N.D. D1	0.0095	1
GC Pet Hydroc	roleum arbons	ECY 97-602 NW modified	VTPH-Dx	ug/l	ug/l	
12899	DX DRO C12-C24	n.a	a.	710	46	1
12899	DX HRO C24-C40	n.a	a.	N.D.	100	1
Metals	Dissolved	SW-846 6010D 2014	Rev.4, July	ug/l	ug/l	
07055	Lead	74	139-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

Laboratory Sample Analysis Record						
Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 09:34	Anita M Dale	1
GC/MS VOA Water Prep NWTPH-Gx water C7-C12	SW-846 5030C ECY 97-602 NWTPH-Gx	1 1	P192401AA 19235B20A	08/28/2019 09:33 08/24/2019 02:06	Anita M Dale Marie D Beamenderfer	1 1
	Analysis Name CVOCs+BTEX/MTBE/EDC GC/MS VOA Water Prep NWTPH-Gx water C7-C12	Labor Analysis Name Method CVOCs+BTEX/MTBE/EDC SW-846 8260C GC/MS VOA Water Prep SW-846 5030C NWTPH-Gx water C7-C12 ECY 97-602 NWTPH-Gx	Analysis NameMethodTrial#CVOCs+BTEX/MTBE/EDCSW-846 8260C1GC/MS VOA Water PrepSW-846 5030C1NWTPH-Gx water C7-C12ECY 97-602 NWTPH-Gx1	Analysis NameMethodTrial#Batch#CVOCs+BTEX/MTBE/EDC GC/MS VOA Water Prep NWTPH-Gx water C7-C12SW-846 8260C1P192401AAP192401AA ECY 97-602 NWTPH-Gx119235B20A	Laboratory Sample Analysis RecordAnalysis NameMethodTrial#Batch#Analysis Date and TimeCVOCs+BTEX/MTBE/EDCSW-846 8260C1P192401AA08/28/201909:34GC/MS VOA Water PrepSW-846 5030C1P192401AA08/28/201909:33NWTPH-Gx water C7-C12ECY 97-602 NWTPH-Gx119235B20A08/24/201902:06	Laboratory Sample Analysis RecordAnalysis NameMethodTrial#Batch#Analysis Date and TimeAnalysis Date and TimeCVOCs+BTEX/MTBE/EDCSW-846 8260C1P192401AA08/28/201909:34Anita M DaleGC/MS VOA Water PrepSW-846 5030C1P192401AA08/28/201909:33Anita M DaleNWTPH-Gx water C7-C12ECY 97-602 NWTPH-Gx119235B20A08/24/201902:06Marie D Beamenderfer



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Samp	nple Description: MW-17-W-190815 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA						Chevron ELLE Sample #: GW 1130881 ELLE Group #: 2059759 Matrix: Groundwater		
Project Name: 90129									
Subm Collec	ittal Date/Time: ction Date/Time:	08/20/20 08/15/20	19 10:10 19 14:00						
			Labora	atory S	Sample Analys	is Record			
CAT No.	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
01146	GC VOA Water Prep		SW-846 5030C	1	19235B20A	08/24/2019 02:05	Marie D Beamende	erfer 1	
10398	EDB by 8011		SW-846 8011	1	192340021A	08/24/2019 11:39	Jason Brumbaugh	1	
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1	
12899	NWTPH-Dx water		ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 05:04	Heather E Williams	s 1	
10007	Mini autroation DDO I	V (watar)		4	4000500044	00/00/0040 00.00	Mathias Olymp	4	

No.					Date and Time		Facto
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 02:05	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 11:39	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 05:04	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:33	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Collection Date/Time:

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Analysis Report

Sample Description:	MW-29-W-190816 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA			
Project Name:	90129			
Submittal Date/Time:	08/20/2019 10:10			

08/16/2019 08:46

Chevron ELLE Sample #: GW 1130882 ELLE Group #: 2059759 Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	4	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Vol	atiles	ECY 97-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1
Volatile	s by Extraction	SW-846 8011	uq/l	uq/l	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Pet Hydroc	roleum arbons	ECY 97-602 NWTPH-Dx modified	ug/l	ug/l	
12899	DX DRO C12-C24	n.a.	N.D.	46	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals	Dissolved	SW-846 6010D Rev.4, July 2014	ug/l	ug/l	
07055	Lead	7439-92-1	N.D.	7.1	1
00077	Lab Filtration Mate	-1-			

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

	Laboratory Sample Analysis Record						
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 10:00	Anita M Dale	1
01163 08273	GC/MS VOA Water Prep NWTPH-Gx water C7-C12	SW-846 5030C ECY 97-602 NWTPH-Gx	1 1	P192401AA 19235B20A	08/28/2019 09:59 08/24/2019 02:28	Anita M Dale Marie D Beamenderfer	1 1



07055 Lead

Lancaster Laboratories Environmental

06/97

14044 ICP-WW, 3005A (tot rec) - U345 SW-846 3005A

July 2014

SW-846 6010D Rev.4, 1

1

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Cindy M Gehman

Barbara A Kane

1

1

Samp	mple Description: MW-29-W-190816 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA						Chevron ELLE Sample #: GW 113088 ELLE Group #: 2059759 Matrix: Groundwater	
Proje	ct Name:	90129						
Subm Collec	ittal Date/Time: tion Date/Time:	08/20/20 08/16/20	019 10:10 019 08:46	atory	Sample Analys	is Pacard		
CAT	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep		SW-846 5030C	1	19235B20A	08/24/2019 02:27	Marie D Beamende	rfer 1
10398	EDB by 8011		SW-846 8011	1	192340021A	08/24/2019 11:54	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water		ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 05:27	Heather E Williams	1
12907	Mini-extraction DRO	DX (water)	ECY 97-602 NWTPH-Dx	1	192350031A	08/26/2019 03:00	Mathias Okpo	1

192351404401

192351404401

08/25/2019 07:36

08/23/2019 15:30

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Analysis Report

Sample Description:	MW-25-W-190816 Grab Groundwater Facility# 90129 4700 Brooklyn Ave - Seattle, WA			
Project Name:	90129			
Submittal Date/Time:	08/20/2019 10:10			

 Submittal Date/Time:
 08/20/2019 10:10

 Collection Date/Time:
 08/16/2019 10:30

Chevron	
ELLE Sample #:	GW 1130883
ELLE Group #:	2059759
Matrix: Groundwa	ater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l	
11997	Benzene		71-43-2	57	0.2	1
11997	1,2-Dichloroethane		107-06-2	3	0.3	1
11997	cis-1,2-Dichloroethene		156-59-2	1,200	2	10
11997	trans-1,2-Dichloroethene		156-60-5	82	0.2	1
11997	Ethylbenzene		100-41-4	10	0.4	1
11997	Methyl Tertiary Butyl Ether		1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene		127-18-4	24	0.2	1
11997	Toluene		108-88-3	4	0.2	1
11997	Trichloroethene		79-01-6	320	2	10
11997	Vinyl Chloride		75-01-4	150	0.2	1
11997	Xylene (Total)		1330-20-7	2	1	1
GC Vola	atiles	ECY 97-602 I	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12		n.a.	250	19	1
Volatile	s by Extraction	SW-846 8011		ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D. D2	0.0095	1
GC Pet	roleum	ECY 97-602 I	WTPH-Dx	ug/l	ug/l	
Hvdroc	arbons	modified				
12800	DX DRO C12-C24		na	ND	47	1
12899	DX HRO C24-C40		n.a.	N.D.	100	1
12033	DX11100024-040		n.a.	N.B.	100	i.
Metals	Dissolved	SW-846 6010 2014	D Rev.4, July	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457 This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 10:26	Anita M Dale	1
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 10:52	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	P192401AA	08/28/2019 10:25	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	P192401AA	08/28/2019 10:51	Anita M Dale	10



07055 Lead

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Cindy M Gehman

Barbara A Kane

1

1

Samp	le Description:	MW-25-V Facility# 4700 Bro	V-190816 Grab Grou 90129 ooklyn Ave - Seattle	Chevron ELLE Sample #: G ELLE Group #: 2 Matrix: Groundwater	W 1130883 059759			
Project Name: 90129		90129						
Subm Collec	ittal Date/Time: ction Date/Time:	08/20/20 08/16/20	19 10:10 19 10:30					
			Labor	atory S	Sample Analys	is Record		
CAT	Analysis Name		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Eactor
08273	NWTPH-Gx water C7-0	C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 03:13	Marie D Beamenderf	er 1
01146 10398	GC VOA Water Prep EDB by 8011		SW-846 5030C SW-846 8011	1 1	19235B20A 192340021A	08/24/2019 03:12 08/24/2019 12:10	2 Marie D Beamenderf J Jason Brumbaugh	er 1 1
07786 12899	EDB Extraction (8011) NWTPH-Dx water		SW-846 8011 ECY 97-602 NWTPH-Dx modified	1 1	192340021A 192350031A	08/23/2019 04:00 08/28/2019 05:50) Mathias Okpo) Heather E Williams	1 1
12907	Mini-extraction DRO D	X (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1

192351404401

192351404401

08/25/2019 07:46

08/23/2019 15:30

SW-846 6010D Rev.4, 1

1

July 2014

14044 ICP-WW, 3005A (tot rec) - U345 SW-846 3005A

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Sample Description: QA-1-T-190813 NA Wa Facility# 90129 4700 Brooklyn Ave - S		QA-1-T-190813 NA Water Facility# 90129 4700 Brooklyn Ave - Seattle, W	Α	Chevron ELLE Sam ELLE Grou Matrix: Wa	ple #: ıp #: ater	GW 1130884 2059759	
Project	Name:	Facility# 90129 Facility# 90129 ELLE Sample #: GW 113088 90129 ELLE Group #: 2059759 e: 08/20/2019 10:10 ne CAS Number Result Method Detection Limit SW-846 8260C ug/l 100-41-4 N.D. 100-41-4 N.D. 108-88-3 0.2 1330-20-7 N.D. 1330-20-7 N.D. 1330-20-7 N.D. 1330-20-7 N.D. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Submitt Collection	al Date/Time: on Date/Time:	08/20/2019 10:10 08/13/2019 08:00					
CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilu Fac	ution stor	
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l			
13130	Benzene	71-43-2	N.D.	0.2	1		
13130	Ethylbenzene	100-41-4	N.D.	0.4	1		
13130	Toluene	108-88-3	0.2	0.2	1		
13130	Xylene (Total)	1330-20-7	N.D.	1	1		
The re contai	equirement for no hea ner used for the testi	adspace at the time of analysis was not met ng had headspace at the time of analysis.	. The				
GC Vol	atiles	ECY 97-602 NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water (C7-C12 n.a.	N.D.	19	1		
The re contai	equirement for no hea ner used for the testi	adspace at the time of analysis was not met ng had headspace at the time of analysis.	. The				

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192352AA	08/23/2019 18:46	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192352AA	08/23/2019 18:45	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/23/2019 23:08	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/23/2019 23:07	Marie D Beamenderfer	1



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Sample Description: QA-2-T-190814 NA Water Facility# 90129 4700 Brooklyn Ave - Seattle, V		Α	Chevron ELLE Samp ELLE Grou Matrix: Wa	ole #: GW 1130885 p #: 2059759 ter	
Projec	t Name:	90129			
Submi Collec	ttal Date/Time: tion Date/Time:	08/20/2019 10:10 08/14/2019 08:00			
CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/M	S Volatiles	SW-846 8260C	ug/l	ug/l	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	0.3	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Vo	latiles	ECY 97-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water (C7-C12 n.a.	N.D.	19	1
The cont	requirement for no he ainer used for the test	adspace at the time of analysis was not met ing had headspace at the time of analysis.	. The		

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192392AA	08/27/2019 12:32	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192392AA	08/27/2019 12:31	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/23/2019 23:30	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/23/2019 23:29	Marie D Beamenderfer	1



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Quality Control Summary

Client Name: Chevron Reported: 10/17/2019 13:14 Group Number: 2059759

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL		
	ug/l	ug/l		
Batch number: 5192392AA	Sample number(s)): 1130871-1130876		
Benzene	N.D.	0.2		
1,2-Dichloroethane	N.D.	0.3		
cis-1,2-Dichloroethene	N.D.	0.2		
trans-1,2-Dichloroethene	N.D.	0.2		
Ethylbenzene	N.D.	0.4		
Methyl Tertiary Butyl Ether	N.D.	0.2		
Tetrachloroethene	N.D.	0.2		
Toluene	N.D.	0.2		
Trichloroethene	N.D.	0.2		
Vinyl Chloride	N.D.	0.2		
Xylene (Total)	N.D.	1		
Batch number: F192352AA	Sample number(s)): 1130884		
Benzene	N.D.	0.2		
Ethylbenzene	N.D.	0.4		
Toluene	N.D.	0.2		
Xylene (Total)	N.D.	1		
Batch number: F192392AA	Sample number(s)	(s): 1130885		
Benzene	N.D.	0.2		
Ethylbenzene	N.D.	0.4		
Toluene	N.D.	0.2		
Xylene (Total)	N.D.	1		
Batch number: L192403AA	Sample number(s)): 1130877		
Benzene	N.D.	0.2		
1,2-Dichloroethane	N.D.	0.3		
cis-1,2-Dichloroethene	N.D.	0.2		
trans-1,2-Dichloroethene	N.D.	0.2		
Ethylbenzene	N.D.	0.4		
Methyl Tertiary Butyl Ether	N.D.	0.2		
Tetrachloroethene	N.D.	0.2		
Toluene	N.D.	0.2		
Trichloroethene	N.D.	0.2		
Vinyl Chloride	N.D.	0.2		
Xylene (Total)	N.D.	1		
Batch number: P192401AA	Sample number(s)): 1130878-1130883		
Benzene	N.D.	0.2		
1,2-Dichloroethane	N.D.	0.3		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron Reported: 10/17/2019 13:14 Group Number: 2059759

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
cis-1,2-Dichloroethene	N.D.	0.2
trans-1,2-Dichloroethene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Methyl Tertiary Butyl Ether	N.D.	0.2
Tetrachloroethene	N.D.	0.2
Toluene	N.D.	0.2
Trichloroethene	N.D.	0.2
Vinyl Chloride	N.D.	0.2
Xylene (Total)	N.D.	1
Batch number: P192411AA	Sample number(s)): 1130879
cis-1,2-Dichloroethene	N.D.	0.2
Batch number: 19235B20A	Sample number(s)): 1130871-1130885
	N.D.	15
Batch number: 192340021A Ethylene dibromide	Sample number(s)): 1130871-1130883 0.010
	o	4400074 4400070
Batch number: 192340012A	Sample number(s): 1130871-1130873
DX URO C12-C24	N.D.	40
DX HRO C24-C40	N.D.	100
Batch number: 192350031A	Sample number(s)): 1130874-1130883
DX DRO C12-C24	N.D.	45
DX HRO C24-C40	N.D.	100
Batch number: 192351404401	Sample number(s) 1130871-1130883
Lead	N.D.	7.1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 5192392AA	Sample number(s): 1130871-1	130876						
Benzene	20	20.27	20	20.54	101	103	80-120	1	30
1,2-Dichloroethane	20	19.1	20	18.74	96	94	73-124	2	30
cis-1,2-Dichloroethene	20	21.4	20	21.36	107	107	80-125	0	30
trans-1,2-Dichloroethene	20	19.6	20	19.83	98	99	80-126	1	30
Ethylbenzene	20	20.24	20	20.4	101	102	80-120	1	30
Methyl Tertiary Butyl Ether	20	18.19	20	17.87	91	89	69-122	2	30
Tetrachloroethene	20	19.58	20	19.79	98	99	80-120	1	30
Toluene	20	20.64	20	20.95	103	105	80-120	1	30
Trichloroethene	20	19.84	20	19.76	99	99	80-120	0	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinvl Chloride	20	19.37	20	19.33	97	97	56-120	0	30
Xylene (Total)	60	62.04	60	62.62	103	104	80-120	1	30
Batch number: F192352AA	Sample number(s): 1130884							
Benzene	20	19.12			96		80-120		
Ethylbenzene	20	18.19			91		80-120		
Toluene	20	18.59			93		80-120		
Xylene (Total)	60	53.72			90		80-120		
Batch number: F192392AA	Sample number(s): 1130885							
Benzene	20	19.73	20	19.61	99	98	80-120	1	30
Ethylbenzene	20	18.94	20	18.94	95	95	80-120	0	30
Toluene	20	19.32	20	19.16	97	96	80-120	1	30
Xylene (Total)	60	55.74	60	55.62	93	93	80-120	0	30
Batch number: L192403AA	Sample number(s): 1130877							
Benzene	20	21.02			105		80-120		
1,2-Dichloroethane	20	21.2			106		73-124		
cis-1,2-Dichloroethene	20	23.64			118		80-125		
trans-1,2-Dichloroethene	20	19.98			100		80-126		
Ethylbenzene	20	20.69			103		80-120		
Methyl Tertiary Butyl Ether	20	19.77			99		69-122		
Tetrachloroethene	20	21.42			107		80-120		
Toluene	20	21.11			106		80-120		
Trichloroethene	20	20.9			104		80-120		
Vinyl Chloride	20	20.32			102		56-120		
Xylene (Total)	60	62.98			105		80-120		
Batch number: P192401AA	Sample number(s): 1130878-1	1130883						
Benzene	20	21.47			107		80-120		
1,2-Dichloroethane	20	23.42			117		73-124		
cis-1,2-Dichloroethene	20	22.35			112		80-125		
trans-1,2-Dichloroethene	20	19.2			96		80-126		
Ethylbenzene	20	21.18			106		80-120		
Methyl Tertiary Butyl Ether	20	20.28			101		69-122		
	20	20.68			103		80-120		
	20	21.84			109		80-120		
	20	20.43			102		80-120		
	20	16.12			81		56-120		
Xylene (Total)	60	60.13			100		80-120		
Batch number: P192411AA	Sample number(s): 1130879			447		00 405		
cis-i,2-Dichloroethene	20	23.39			117		80-125		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19235B20A	Sample number(s): 1130871-′	1130885						

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron	
Reported: 10/17/2019 13:14	ł

Group Number: 2059759

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
NWTPH-Gx water C7-C12	1100	1162.84	1100	1157.27	106	105	64-131	0	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 192340021A									
Ethylene dibromide	0.128	0.167	0.128	0.173	131	135	60-140	3	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 192340012A	Sample number(s): 1130871-1130873								
DX DRO C12-C24	600.1	227.3	600.1	255.9	38	43	11-115	12	20
Batch number: 192350031A	Sample number(s): 1130874-1130883								
DX DRO C12-C24	600.1	371	600.1	416.69	62	69	11-115	12	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 192351404401	Sample number(s): 1130871-1130883								
Lead	150	146.69			98		87-113		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: P192401AA	Sample number(s): 1130878-1130883 UNSPK: 1130880									
Benzene	N.D.	20	22.75	20	22.61	114	113	80-120	1	30
1,2-Dichloroethane	N.D.	20	22.74	20	23.86	114	119	73-124	5	30
cis-1,2-Dichloroethene	0.448	20	23.69	20	23.78	116	117	80-120	0	30
trans-1,2-Dichloroethene	N.D.	20	19.44	20	20.13	97	101	80-120	3	30
Ethylbenzene	N.D.	20	22.38	20	22.32	112	112	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	20	18.8	20	20.34	94	102	69-122	8	30
Tetrachloroethene	1.57	20	24.39	20	23.68	114	111	80-120	3	30
Toluene	N.D.	20	23.18	20	23.2	116	116	80-120	0	30
Trichloroethene	3.78	20	25.21	20	24.86	107	105	80-120	1	30
Vinyl Chloride	N.D.	20	17.38	20	18.38	87	92	56-120	6	30
Xylene (Total)	N.D.	60	64.32	60	63.34	107	106	80-120	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 192340021A	Sample number(s): 1130871-1130883 UNSPK: 1130871									
Ethylene dibromide	N.D.	0.122	0.124			102		60-140		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.


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Quality Control Summary

Client Name: Chevron Reported: 10/17/2019 13:14 Group Number: 2059759

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Batch number: 192340021A	Sample number(s): 1130	871-1130883 BKG: 11	30872	
Ethylene dibromide	N.D.	N.D.	0 (1)	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: CVOCs+BTEX/MTBE/EDC Batch number: 5192392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1130871	96	99	102	99
1130872	95	102	101	100
1130873	95	101	100	99
1130874	95	101	101	100
1130875	94	102	101	99
1130876	95	102	101	99
Blank	94	100	101	99
LCS	97	100	101	99
LCSD	96	102	101	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX 8260C

Batch number: F192352AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1130884	91	95	102	98
Blank	91	93	102	99
LCS	91	99	100	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX 8260C

Batch	number:	F192392AA	

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1130885	91	93	99	99
Blank	91	95	100	98
LCS	90	99	100	103
LCSD	90	98	100	102

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

lient Name: Chevron eported: 10/17/2019 13:14				Group Number: 2059759					
		Surroga	te Quality Co	ntrol (continued)					
Surrogate re attributed to	ecoveries which are outsic dilution or otherwise note	de of the QC window are o ed on the Analysis Report.	confirmed unless						
Analysis Na Batch numb	me: BTEX 8260C er: F192392AA								
Limits:	80-120	80-120	80-120	80-120					
Analysis Na Batch numb	me: CVOCs+BTEX/MTBE er: L192403AA	/EDC							
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene					
1130877	97	99	101	98					
Blank	96	98	102	98					
LCS	100	101	101	98					
Limits:	80-120	80-120	80-120	80-120					
Batch numb	er: P192401AA Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene					
1130878	97	106	105	99					
1130879	96	104	105	100					
1130880	98	104	104	98					
1130881	98	107	103	102					
1130882	98	105	104	100					
1130883	98	106	105	103					
Blank	97	105	104	100					
LCS	99	109	106	105					
MS	94	107	106	105					
MSD	99	109	105	104					
Limits:	80-120	80-120	80-120	80-120					
Analysis Na Batch numb	me: NWTPH-Gx water C7 er: 19235B20A Trifluorotoluene-F	Z-C12							
1130871	86								
1130872	93								
1130873	94								
1130874	91								
1130875	71								
1130876	88								
1130877	88								
1130878	86								
1130879	73								
1130880	82								
1130881	90								

85

1130882

*- Outside of specification (1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Gx water C7-C12 Batch number: 19235B20A

	Trifluorotoluene-F	
1130883	77	_
1130884	90	
1130885	94	
Blank	88	
LCS	93	
LCSD	101	
Lingita	50.450	

Limits: 50-150

Analysis Name: EDB by 8011 Batch number: 192340021A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1130871	86	94
1130872	102	124
1130873	107	123
1130874	105	123
1130875	96	100
1130876	96	99
1130877	96	100
1130878	95	98
1130879	89	91
1130880	87	90
1130881	89	99
1130882	92	94
1130883	94	95
Blank	106	107
DUP	100	120
LCS	118	120
LCSD	115	119
MS	104	110
Limits:	46-136	46-136

Analysis Name: NWTPH-Dx water Batch number: 192340012A

	Orthoterphenyl
1130871	84
1130872	86
1130873	80
Blank	78
LCS	75
LCSD	77

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.



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Quality Control Summary

Client Name: Chevron Reported: 10/17/2019 13:14 Group Number: 2059759

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Dx water Batch number: 192340012A

Limits: 50-150

Analysis Name: NWTPH-Dx water Batch number: 192350031A

	Orthoterphenyl
1130874	93
1130875	85
1130876	88
1130877	88
1130878	88
1130879	88
1130880	88
1130881	90
1130882	88
1130883	88
Blank	90
LCS	90
LCSD	98
Limits:	50-150

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

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72 hour	48 hour	24 hour	i teiniquisrie	uby				Date			I III E		Nece	ved by					Date	Time
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Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Client: Chevron

Doc Log ID:

Group Number(s): 2059759

Delivery and Receipt Information							
D	elivery Method:	Fed	<u>-Ex 3</u>	Arriva	al Timestamp:	<u>08/2</u>	20/2019 10:10
N	umber of Packa	ges: <u>4</u>		Number of Projects:		s: <u>1</u>	
St	tate/Province of	Origin: <u>WA</u>					
			Arrival Co	ndition	Summary		
Sł	nipping Containe	r Sealed:	Yes	Sar	nple IDs on C	OC match Co	ontainers: Yes
С	ustody Seal Pres	sent:	Yes	Sar	nple Date/Tim	nes match CO	C: Yes
С	ustody Seal Intac	ct:	Yes	Tota	al Trip Blank (Qty:	8
Sa	amples Chilled:		Yes	Trip	Trip Blank Type: HCI		
Paperwork Enclosed:		Yes	Air	Quality Samp	les Present:	No	
Sa	amples Intact:		No				
М	issing Samples:		No				
E>	xtra Samples:		No				
Di	iscrepancy in Co	ntainer Qty on 0	COC: No				
UI	npacked by Dari	an Jaynes (29 9	52) at 15:39 on ()8/20/201	9		
			Samples	s Chille	d Details		
The	rmometer Types	: DT = Dig	ital (Temp. Bottle	e) IR =	Infrared (Su	rface Temp)	All Temperatures in °C.
ooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-03	0.5	DT	Wet	Y	Bagged	Ν
2	DT42-03	0.1	DT	Wet	Y	Bagged	Ν
3	DT42-03	0.1	DT	Wet	Y	Bagged	Ν

Samples Not Intact Details

Y

Bagged

Ν

Wet

Sample ID on Label	Bottle Code	Bottle Quantity	Container Salvageable?	Comments
MW-28-W-190813	40 ml glass vial (GC/MS) - HCl	4	Ν	

DT

0.2

4

DT42-03

257650

Explanation of Symbols and Abbreviations

of water has a weight

The following defines common symbols and abbreviations used in reporting technical data:

BMQI	Below Minimum Quantitation Level	ml	milliliter(s)			
C	degrees Celsius	MPN	Most Probable Number			
cfu	colony forming units		non-detect			
CP Unito	colorly forming units	N.D.				
		ng				
F	degrees Fahrenheit	NIU	nephelometric turbidity units			
g	gram(s)	pg/L	picogram/liter			
IU	International Units	RL	Reporting Limit			
kg	kilogram(s)	TNTC	Too Numerous To Count			
L	liter(s)	μg	microgram(s)			
lb.	pound(s)	μL	microliter(s)			
m3	cubic meter(s)	umhos/cm	micromhos/cm			
meq	milliequivalents	MCL	Maximum Contamination Limit			
mg	milligram(s)					
<	less than					
>	greater than					
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weig very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.					
ppb	parts per billion	parts per billion				
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an					

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

as-received basis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier Definition Result confirmed by reanalysis С D1 Indicates for dual column analyses that the result is reported from column 1 D2 Indicates for dual column analyses that the result is reported from column 2 Е Concentration exceeds the calibration range K1 Initial Calibration Blank is above the QC limit and the sample result is ND K2 Continuing Calibration Blank is above the QC limit and the sample result is ND K3 Initial Calibration Verification is above the QC limit and the sample result is ND K4 Continuing Calibration Verification is above the QC limit and the sample result is ND J (or G, I, X) Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL) Р Concentration difference between the primary and confirmation column >40%. The lower result is reported. P^ Concentration difference between the primary and confirmation column > 40%. The higher result is reported. U Analyte was not detected at the value indicated Concentration difference between the primary and confirmation column >100%. The reporting limit is raised V due to this disparity and evident interference.

- W The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
- Z Laboratory Defined see analysis report

Lancaster Laboratories

Environmental

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

From:	Julia Schwarz
To:	Myers, Dale - TCP (ECY)
Cc:	Alice Robinson
Subject:	RE: EIM Data Submission - Study ID AODE13815
Date:	Monday, July 20, 2020 12:46:00 PM
Attachments:	image001.png
	image002.jpg

Dale,

We had several comments on the EIM data submission. Please see below. Please note that these comments were generated prior to receipt of the work plan and some may not be relevant now that we have added context.

- MW-27 and MW-28 have the same coordinates in EIMLocation. These should be fixed.
- MW-29 February 2020 results and duplicate (DUP-1_200218) are outside of usual RPD limits. Please verify results and/or parent and duplicate samples.
- Certain wells were resampled multiple times within the same month (MW-18 in December 2018, MW-25 in December 2018) please check the dates on these entries.
- The water level measuring point file is included in the EIM upload, but the water levels as measured from those points (e.g. EIM_WellWaterLevelTemplate) is not included. Please include groundwater level measurement data in the EIM upload.

Without water level data, we cannot verify groundwater flow direction. Based on the EIM upload data alone, impacts to groundwater have not been fully delineated.

We will continue with our review of the work plan as well.

Thanks, Julia

 Julia Schwarz, L.G. | Project Manager

 32001 32nd Ave S, Suite 100, Federal Way, WA 98001

 Direct: (253) 835-6424

 Teams: JuliaSchwarz@kennedyjenks.com

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From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV> Sent: Monday, June 22, 2020 11:20 AM To: Julia Schwarz <JuliaSchwarz@kennedyjenks.com> Subject: FW: EIM Data Submission - Study ID AODE13815

Julia Please have a look at the EIM data I am looking for data gaps that would prevent us from defining the extent of TPH and benzene especially towards University Way Dale

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From: Sinclair, Gaylen (ECY) Sent: Monday, June 22, 2020 9:01 AM To: riku.kusakabe@arcadis.com Cc: Myers, Dale - TCP (ECY) <<u>DAMY461@ECY.WA.GOV</u>> Subject: EIM Data Submission - Study ID AODE13815

Good Morning Riku,

Thank you for submitting data for Former Chevron Station 90129. Submitted data for this study loaded into EIM successfully. The Ecology Project Manager will verify the data on study, locations, and results.

Below is further information on the loaded data.

Facility Site ID:	81966648
Study ID:	AODE13815
Study Name:	Former Chevron Service Station No. 90129
Date Range:	Aug 2019, Dec 2019, Feb 2020, Apr 2020, May 2020
New Locations:	9
New Results:	982

Information for data submitter:

 You can view the data by using the following link. <u>https://apps.ecology.wa.gov/eim/search/Map/Map.aspx?</u> <u>MapType=EIM&StudyUserIdSearchType=Contains&StudyUserIds=AODE13815&MapLocationExtent=-13615970.0419451%2c6050976.56175084%2c-13615851.7489737%2c6051079.89499462</u>

Information for Ecology employees:

- You can view the data by using the following link. <u>http://ecyeim/search/Map/Map.aspx?</u> <u>MapType=EIM&StudyUserIdSearchType=Contains&StudyUserIds=AODE13815&MapLocationExtent=-13615970.0419451%2c6050976.56175084%2c-13615851.7489737%2c6051079.89499462</u>
- You should verify study, location, and result information.
- The EIM Data Entry Review Checklist, updated May 2018, can be found in the EIM Help Center.
- There is a video training on how to review the data.

Thanks, Gaylen

Gaylen Sinclair, PhD EIM Data Coordinator Washington State Department of Ecology 300 Desmond Dr. SE, P.O. Box 47600 Olympia, WA 98504 e-mail: <u>gsin461@ecc.wa.gov</u> Pronouns: She/her/hers



From:	Julia Schwarz
To:	<u>Myers, Dale - TCP (ECY)</u>
Cc:	Ryan Hultgren
Subject:	RE: Chevron 90129 4700 Brooklyn
Date:	Tuesday, July 28, 2020 8:14:00 AM
Attachments:	image002.png
	image003.png
	90129 Supplemental Investigation Work Plan DRAFT 07142020 KJComments.pdf

Dale,

Please find attached our comments on the Chevron 90129 Work Plan. In general, the work plan would benefit from additional discussion of the existing data and data gaps that the work plan and proposed activities will address, and additional detail explaining the reasoning for the well and SVP locations is necessary. Additional delineation in the up- and cross-gradient direction may also be warranted; if Chevron/Arcadis do not believe data gaps exist other than in the downgradient direction, evidence of that should be included in the work plan.

Also, should soil vapor samples be analyzed for HVOCs, or is delineation of HVOC the responsibility of the Carson Cleaners release? Currently HVOCs are not listed in the soil vapor analyte list, though they are for groundwater.

Please let us know any questions.

Thanks, Julia



Julia Schwarz, L.G. | Project Manager 32001 32nd Ave S, Suite 100, Federal Way, WA 98001 Direct: (253) 835-6424 Teams: JuliaSchwarz@kennedyjenks.com

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From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Sent: Wednesday, July 15, 2020 7:01 AM
To: Julia Schwarz <JuliaSchwarz@kennedyjenks.com>
Subject: FW: Chevron 90129 4700 Brooklyn

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Julia

Please review and comment on the attached supplemental Investigation Work Plan.

In your opinion will this Work Plan accomplish the goal of completing the off-property RI Thank you Dale

From: Hamilton, Ada [mailto:Ada.Hamilton@arcadis.com]
Sent: Tuesday, July 14, 2020 5:28 PM
To: Myers, Dale - TCP (ECY) <<u>DAMY461@ECY.WA.GOV</u>>
Cc: timbishop@chevron.com; Dotson, Christopher <<u>Christopher.Dotson@arcadis.com</u>>
Subject: Chevron 90129 4700 Brooklyn

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Hello,

On behalf of Chevron, please find attached Draft Supplemental Investigation Work Plan for Chevron site 90129 located at 4700 Brooklyn Avenue NE in Seattle, Washington.

Please let me know if you have any questions, or if you would like to schedule a call to discuss.

Thank you,

-Ada

Ada Hamilton | Project Manager | ada.hamilton@arcadis.com Arcadis | Arcadis U.S., Inc. 1100 Olive Way, Suite 800, Seattle, WA | 98101 | USA T. +1 206 413 6430 | M. +1 206 321 3782

Connect with us! www.arcadis.com | LinkedIn | Twitter | Facebook



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From:	Julia Schwarz
То:	<u>Myers, Dale - TCP (ECY)</u>
Cc:	Katie Haskins
Subject:	RE: Request assistance with Chevron 90129 figure
Date:	Friday, January 15, 2021 8:04:00 AM
Attachments:	image004.png
	OffPropHVOC.jpg
	image001.png

Dale,

Please find attached a draft map for Chevron 90129. Please let us know if you have any requested changes.

Thanks, Julia

?

Julia Schwarz, LHG | Project Manager 32001 32nd Ave S, Suite 100, Federal Way, WA 98001 Direct: (253) 835-6424 Teams: JuliaSchwarz@kennedyjenks.com

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From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Sent: Wednesday, January 13, 2021 12:49 PM
To: Julia Schwarz <JuliaSchwarz@kennedyjenks.com>
Subject: RE: Request assistance with Chevron 90129 figure

I believe those were borings made during the drilling of the wells In the legend of the map just state wells and borings

From: Julia Schwarz [mailto:JuliaSchwarz@kennedyjenks.com]
Sent: Wednesday, January 13, 2021 12:41 PM
To: Myers, Dale - TCP (ECY) <<u>DAMY461@ECY.WA.GOV</u>>
Cc: Katie Haskins <<u>KatieHaskins@kennedyjenks.com</u>>
Subject: RE: Request assistance with Chevron 90129 figure

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Dale,

On the map that you sent us, the results boxes below each monitoring well list a boring/location

name different from the monitoring well - it appears that the results are for borings, not wells? What are these B- names and how to they relate to these wells? For example, the result below well MW-23 (bottom left corner) says, "**B-19**, cis - 340, TCE - 23, VC - 16".

Thanks,

Julia

	Julia Schwarz, LHG Project Manager
?	32001 32nd Ave S, Suite 100, Federal Way, WA 98001 Direct: <u>(253) 835-6424</u> Teams: <u>JuliaSchwarz@kennedyjenks.com</u>

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From: Myers, Dale - TCP (ECY) <<u>DAMY461@ECY.WA.GOV</u>>
Sent: Tuesday, January 12, 2021 10:19 AM
To: Julia Schwarz <<u>JuliaSchwarz@kennedyjenks.com</u>>
Subject: Request assistance with Chevron 90129 figure

Julia Time a little work on Chevron 90129 I would like to request assistance with Chevron 90129 figure

Dale Myers Project Manager Department of Ecology Northwest Regional Office Toxics Cleanup Program Cell No.: 425-389-2521

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From:	Ryan Hultgren
То:	<u>Myers, Dale - TCP (ECY)</u>
Cc:	Joshua Sales
Subject:	FW: Chevron 90129 (Brooklyn) draft Supplemental RI
Date:	Friday, January 13, 2023 2:32:00 PM
Attachments:	image002.png
	DRAFT Figures 1 and 2.pdf
	90129 Supplemental Investigation Report Draft for Regulatory Review KJ.docx
	90129 Supplemental Investigation Report Draft for Agency Review KJ.pdf

Hi Dale,

Please find attached our tracked changes review of the Chevron 90129 (Brooklyn) Supplemental RI and comments to the tables and appendices. Also included are the draft figures I sent last week showing estimated extents of impacts. Please let me know when you would like to discuss the comments.

Thank you, Ryan

K

Kennedy Jenks

Ryan Hultgren, P.E. | Project Manager 32001 32nd Avenue South, Suite 100 Federal Way, WA 98001 Direct: 253-835-6432 Mobile: 253-549-9725 Teams: RyanHultgren@KennedyJenks.com

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From: Ryan Hultgren
Sent: Friday, January 6, 2023 4:40 PM
To: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Subject: RE: Chevron 90129 (Brooklyn) draft Supplemental RI

Hello Dale,

I wanted to provide an update on the status of KJ's review of the Chevron 90129 (Brooklyn) Supplemental RI. Due to staff holiday / vacation time, my goal is to get our comments and mapped data to you by Tuesday/Wednesday next week.

The Supplemental RI data is not available in EIM still – as such, we pulled data from the analytical tables in the report PDF and drafted impacts extents maps using data since December 2019 (with inset concentration trend graphs, concentrations on a logarithmic scale). Attached are draft maps for Benzene and GRO results – can you please review these and let me know if these are what you are looking for and if you have any changes / need additional information? For wells with mostly ND results, a concentration chart is not shown. The inferred extents are based on data for existing wells as well as consideration of results for former wells within the property extent.

Thank you, Ryan



Ryan Hultgren, P.E. | Project Manager

32001 32nd Avenue South, Suite 100 Federal Way, WA 98001 Direct: 253-835-6432 Mobile: 253-549-9725 Teams: <u>RyanHultgren@KennedyJenks.com</u>

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From: Ryan Hultgren
Sent: Monday, December 12, 2022 1:50 PM
To: Myers, Dale - TCP (ECY) <<u>DAMY461@ECY.WA.GOV</u>>
Subject: RE: Chevron 90129 (Brooklyn) draft Supplemental RI

Good afternoon Dale,

Study Details Study ID: AODE13815

I just checked EIM - the most recent data on EIM for Chevron 90129 (Brooklyn) is for groundwater sampling from December 2020. Can you please request the data from the Supplemental Investigation?

Download Study Data	
Study Basics	
Study ID	AODE13815
Study Name	Former Chevron Service Station No. 90129
EIM Data Entry Review Status	Not Reviewed
Study Type	Contaminated site investigation (characterization, includes RI/FS and remedial design)
Study Purpose	Removal of petroleum impacted soil, long term groundwater monitoring and soil borings to determine extent of impact.
Field Collection Date Range	11/7/2016 - 12/9/2020
Data First/Last Loaded Date	5/5/2017 - 2/3/2021
Data Last Updated Date	2/3/2021
Ecology Contact	Dale Myers
Ecology Program or Other Responsible Entity	Ecy Toxics Cleanup Program, Northwest Region
Ecology Monitoring Program	
Submitting Organization	Aspect Consulting LLC - Seattle WA
Study QA Planning Level	LEVEL 3: QAPP, SAP, or Equivalent.
Study QA Project Plan Description	
Study QA Assessment Level	Level 4: Data Verified and Assessed for Usability in a Formal Study Report
Study Result Description	
Study Comment	
Ecology Funding Number	
Ecology Facility/Site ID	<u>81966648</u>
Ecology Cleanup Site ID	<u>5046</u>
Study ID Aliases (Alias Type)	

Thank you, Ryan



Ryan Hultgren, P.E. | Project Manager

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From:	Ryan Hultgren
To:	Myers, Dale - TCP (ECY)
Cc:	Joshua Sales
Subject:	RE: Chevron 90129 (Brooklyn) draft Supplemental RI
Date:	Friday, February 10, 2023 6:17:00 AM
Attachments:	image002.png
	Draft Figures GWData 20230210.pdf

Good morning Dale,

Attached are revised draft figures (Figures 1, 2 and 3) presenting groundwater concentration data for benzene, TPH-GRO, and chlorinated VOCs (PCE, TCE, and VC on the same map).

Key edits –

- The aerial photograph is a more current view, circa June 2021
- The locations of monitoring wells have been revised based on review of well location data in EIM, Supplemental RI line drawing maps, and inspection in Google Earth in street view (some well monuments are visible). Please note that spatial data in the EIM database for several of the current wells is estimated and/or likely not accurate (for example, the latitude / longitude data for wells MW-27 and MW-28 are the same values). It is not clear if the location XY data in EIM is based on surveyed coordinates or estimated (GPS) locations.
- Inferred extents of benzene on Figure 1 and TPH-GRO on Figure 2 have been revised to reflect the excavation extent of the former Chevron site.
- Figure 3 for CVOCs is new
 - The map uses pie chart symbols to present the magnitude of the total sum of PCE, TCE, and VC concentrations (higher total concentrations result in larger circle diameter), and the relative size of the pie wedges is based on the concentrations of PCE, TCE, and VC.
 - Note that the dominant CVOC changes from PCE near the suspected source, to TCE in the middle of the inferred plume (e.g., near MW-28 and MW-27), and to VC near the distal end of the plume (to the east), reflecting degradation from the source to plume end.
 - The most recent data available for each well is shown, except for MW-20 (June 2022 data shown). PCE and TCE concentrations decreased from above CULs between December 2019 and June 2022, to non-detect in August 2022.

Please let me know if you would like to discuss the figures (we could squeeze it into our call on Monday).

Thank you, Ryan



Ryan Hultgren, P.E. | Project Manager 32001 32nd Avenue South, Suite 100 Federal Way, WA 98001 Direct: 253-835-6432 Mobile: 253-549-9725 Teams: <u>RyanHultgren@KennedyJenks.com</u>

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From: Ryan Hultgren
Sent: Friday, January 13, 2023 2:33 PM
To: Myers, Dale - TCP (ECY) <damy461@ecy.wa.gov>
Cc: Joshua Sales <JoshuaSales@KennedyJenks.com>
Subject: FW: Chevron 90129 (Brooklyn) draft Supplemental RI

Hi Dale,

Please find attached our tracked changes review of the Chevron 90129 (Brooklyn) Supplemental RI and comments to the tables and appendices. Also included are the draft figures I sent last week showing estimated extents of impacts. Please let me know when you would like to discuss the comments.

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From: Ryan Hultgren
Sent: Friday, January 6, 2023 4:40 PM
To: Myers, Dale - TCP (ECY) <<u>DAMY461@ECY.WA.GOV</u>>
Subject: RE: Chevron 90129 (Brooklyn) draft Supplemental RI

Hello Dale,

I wanted to provide an update on the status of KJ's review of the Chevron 90129 (Brooklyn) Supplemental RI. Due to staff holiday / vacation time, my goal is to get our comments and mapped data to you by Tuesday/Wednesday next week.

The Supplemental RI data is not available in EIM still – as such, we pulled data from the analytical tables in the report PDF and drafted impacts extents maps using data since December 2019 (with inset concentration trend graphs, concentrations on a logarithmic scale). Attached are draft maps for Benzene and GRO results – can you please review these and let me know if these are what you are looking for and if you have any changes / need additional information? For wells with mostly ND results, a concentration chart is not shown. The inferred extents are based on data for existing wells

as well as consideration of results for former wells within the property extent.

Thank you, Ryan



Ryan Hultgren, P.E. | Project Manager

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From: Ryan Hultgren
Sent: Monday, December 12, 2022 1:50 PM
To: Myers, Dale - TCP (ECY) <<u>DAMY461@ECY.WA.GOV</u>>
Subject: RE: Chevron 90129 (Brooklyn) draft Supplemental RI

Good afternoon Dale,

I just checked EIM - the most recent data on EIM for Chevron 90129 (Brooklyn) is for groundwater sampling from December 2020. Can you please request the data from the Supplemental Investigation?

Study Details Study ID: AODE13815

Download Study Data

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= Study Dusits	
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EIM Data Entry Review Status	Not Reviewed
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Field Collection Date Range	11/7/2016 - 12/9/2020
Data First/Last Loaded Date	5/5/2017 - 2/3/2021
Data Last Updated Date	2/3/2021
Ecology Contact	Dale Myers
Ecology Program or Other Responsible Entity	Ecy Toxics Cleanup Program, Northwest Region
Ecology Monitoring Program	
Submitting Organization	Aspect Consulting LLC - Seattle WA
Study QA Planning Level	LEVEL 3: QAPP, SAP, or Equivalent.
Study QA Project Plan Description	
Study QA Assessment Level	Level 4: Data Verified and Assessed for Usability in a Formal Study Report
Study Result Description	
Study Comment	
Ecology Funding Number	
Ecology Facility/Site ID	<u>81966648</u>
Ecology Cleanup Site ID	<u>5046</u>
Study ID Aliases (Alias Type)	

Thank you,

Ryan



Ryan Hultgren, P.E. | Project Manager

32001 32nd Avenue South, Suite 100 Federal Way, WA 98001 Direct: 253-835-6432 Mobile: 253-549-9725 Teams: <u>RyanHultgren@KennedyJenks.com</u>

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From:	Hamilton, Ada
То:	Myers, Dale - TCP (ECY)
Cc:	<u>Kiernan, James; Bowring, Amanda; Ryan Hultgren</u>
Subject:	Chevron 90129 4700 Brooklyn - Status Update 04172023
Date:	Monday, April 17, 2023 6:18:22 PM
Attachments:	Chevron Brooklyn 90129 - Status Update 04172023.pdf

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Hello Dale,

On behalf of Chevron Environmental Management Company (CEMC), the following is a progress update for Chevron site 90129 ("Brooklyn") located at 4700 Brooklyn Avenue NE in Seattle, Washington. This update satisfies the requirements of Agreed Order No. 13815 associated with the site which indicates that quarterly progress reports be submitted to the Washington State Department of Ecology by the 15th of the month following the reporting period. This update summarizes activities completed from January 1 through March 31, 2023.

Description of Actions Taken to Comply with Agreed Order

- Quarterly groundwater monitoring was scheduled for December 21, 2022; however, due to inclement winter weather conditions, it was rescheduled to take place January 4, 2023.
- Q1 2023 groundwater monitoring event was conducted on March 15, 2023
- Arcadis received comments from Ecology on the Supplemental Remedial Investigation Report in January 2023
- Arcadis submitted groundwater data to EIM

Summary of Deviations from Approved Work Plans

• No deviations from approved work plans to report.

Description of Work Planned for the Second Quarter Reporting Period

- Arcadis will submit the revised Supplemental Remedial Investigation Report with responses to Ecology's comments
- Arcadis will continue to prepare and submit quarterly updates to Ecology.
- Arcadis will coordinate and conduct the second quarter 2023 groundwater monitoring event

Please let me know if you have any questions.

Thank you

-Ada

Ada Hamilton

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