



**Adriane Gifford**  
Project Manager

**Upstream EM**  
Environmental Management Company  
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July 29, 2020

Mr. Steven Arauza  
Environmental Protection Specialist, Northwest Area  
Colorado Oil and Gas Conservation Commission  
818 Taughenbaugh Blvd, Suite 103  
Rifle, CO 81650

**Re: Wilson Creek Landfarm - 2020 Background Arsenic Determination**  
**12 miles north of Meeker, Rio Blanco County, Colorado**  
**Centralized EP Waste Management Facility ID: 149002**

Dear Mr. Arauza:

Chevron Environmental Management Company (CEMC) is currently working at the Wilson Creek Unit (Site) on closure activities for the Onsite Landfarm Cell 2. Based on the limited space for stockpile management, CEMC has divided the Landfarm Cell 2 into several areas and planning to collect confirmation samples from each area and then backfill once the results have been confirmed to be less than the Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 Concentration Levels. Analytical results from one of our confirmation samples and one sample we collected from the backfill source have been reviewed and have identified that arsenic exceeded the COGCC Table 910-1 Concentrations Level. The confirmation soil sample (LF-SW-01) was collected from the west wall of the Onsite Landfarm Cell 2 at a depth of 5.5 feet below ground surface (bgs). Arsenic was detected in this sample at 5.50 milligrams per kilogram (mg/kg). The sample of the import soil (Import-Soil-WG) to be used as Landfarm Cell 2 backfill was collected from OWL Western Gravel & Disposal. Arsenic was detected in this sample at 9.83 mg/kg. See attached laboratory analytical reports for the confirmation and import soil samples.

Per the COGCC 2008 Frequently Asked Questions (FAQs) Number 31, Chevron would like to request the Concentration Level of arsenic for the Landfarm Remediation project be established at 11.70 mg/kg. The following justification is provided:

1. The COGCC Table 910-1, Footnote 1 stating "Consideration shall be given to background levels in native soils and ground water."
2. The Colorado Department of Public Health and Environment (CDPHE)-Hazardous Materials and Waste Management Division (HMWMD), Risk management Guidance for Evaluating Arsenic Concentrations in Soil, July 2014 (CDPHE-HMWMD, 2014) the Average of all Land Uses arsenic concentration is 11 mg/kg with a maximum of 14 mg/kg in Native Grassland, Rangeland, or Agriculture Areas.
3. On Friday, July 24, 2020, Stantec collected and had analyzed eight soil samples for background arsenic determination. These samples were collected around the Landfarm in non-impacted, undisturbed native areas. Samples were collected at depths of approximately 2 and 5 feet below ground surface from 4 boring locations. Background soil sample results support that arsenic concentrations onsite are variable and native background concentrations range from 2.35 mg/kg to 11.70 mg/kg as shown on the attached table.

Chevron would like to request the COGCC's concurrence with the data presented and request that concentrations of arsenic up to 11.70 mg/kg be considered background.

Should you have any questions regarding this submittal, please contact Brent Lucyk at (517) 749-9405 or me at (832) 854-5620.

Respectfully,

**Chevron Environmental Management Company**  
**on behalf of**  
**Chevron U.S.A. Inc.**



Adriane Gifford  
Project Manager

Encl.

Table 1 – Soil Sample Confirmation, Import Soil, and Background Results For Inorganic Compounds and Metals  
Laboratory Analytical Results-Samples LF-SW-01 and Import-Soil-WG  
Laboratory Analytical Results-Samples Background Arsenic Concentrations

**Table 1**  
**Soil Sample Confirmation, Import Soil, and Background Results For Inorganic Compounds and Metals**  
**Wilson Creek Landfarm Cell 2**  
**Wilson Creek Unit, Rio Blanco County, Colorado**

Sample ID	Sample Date	Sample Depth (feet bgs)	Electrical Conductivity mmhos/cm	Sodium Absorption Ratio	pH <sup>1</sup>	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
		COGCC Concentration Levels	<4	<12	6 - 9	0.39	15,000	70	23	3,100	400	23	1,600	390	390	23,000
		Analytical Method	9050A	Calculated	9045D	6020B	6020B	6020B	7196A	6020B	6020B	7471B	6020B	6020B	6020B	6020B
<b>Confirmation Soil Samples</b>																
LF-SW-01	7/13/2020	5.5	0.537	0.115	<b>4.8 H</b>	<b>5.50</b>	144	<0.493	1.17 J	216	17.6	<0.0434	<19.7	<1.97	<0.296	78.9
LF-SW-02	7/20/2020	7.7	0.319	1.58	7.23 H	<b>7.18</b>	283	0.648	<2.50	18.0	17.6	<0.0481	<19.8	<1.98	<0.297	90.7
LF-SW-03	7/20/2020	4.16	0.338	1.42	7.76 H	<b>8.85</b>	183	<0.514	<2.38	<15.4	18.1	<0.0475	<20.6	<2.06	<0.308	71.5
LF-FL-01	7/20/2020	7.41	0.804	0.355	7.37 H	<b>9.19</b>	206	0.599	<2.40	111	46.2	0.0646	<20.7	<2.07	<0.310	113
<b>Borrow Pit Samples</b>																
Import-Soil-WG	7/14/2020	10-point Comp	2,660	7.51	8.15 H	<b>9.83</b>	273	0.592	<2.32	17.9	12.1	<0.0434	25.9	<1.97	<0.295	66.7
LF-Comp-Import	7/24/2020	10-point Comp	--	--	--	<b>6.49</b>	--	--	--	--	--	--	--	--	--	--
<b>Background Arsenic Samples</b>																
LF-BG-01-2	7/24/2020	<b>2</b>	--	--	--	<b>3.58</b>	--	--	--	--	--	--	--	--	--	--
LF-BG-01-5	7/24/2020	<b>5</b>	--	--	--	<b>5.18</b>	--	--	--	--	--	--	--	--	--	--
LF-BG-02-2	7/24/2020	<b>2</b>	--	--	--	<b>6.43</b>	--	--	--	--	--	--	--	--	--	--
LF-BG-02-5	7/24/2020	<b>5</b>	--	--	--	<b>11.70</b>	--	--	--	--	--	--	--	--	--	--
LF-BG-03-2	7/24/2020	<b>2</b>	--	--	--	<b>7.77</b>	--	--	--	--	--	--	--	--	--	--
LF-BG-03-4.6	7/24/2020	<b>4.6</b>	--	--	--	<b>3.79</b>	--	--	--	--	--	--	--	--	--	--
LF-BG-04-2	7/24/2020	<b>2</b>	--	--	--	<b>2.35</b>	--	--	--	--	--	--	--	--	--	--
LF-BG-04-3.7	7/24/2020	<b>3.7</b>	--	--	--	<b>4.78</b>	--	--	--	--	--	--	--	--	--	--

**Notes:**  
Concentrations are in milligrams per kilogram (mg/kg) unless otherwise noted.  
Concentrations shaded gray and BOLD are above the Colorado Oil and Gas Conservation Commission (COGCC) Series  
**900 Concentration Levels.**  
Concentration Levels: COGCC Concentration Levels per Series 900 Rules (January 14, 2020) Table 910-1  
1. Adjusted to 25 degrees Celsius  
bgs: below ground surface  
-- : Not available  
mmhos/cm: Millimhos per centimeter  
< represent concentrations below the test method limit unless otherwise noted



Chris Beall  
Stantec Consulting - Denver  
2000 S Colorado Blvd, Suite 2-300  
Denver, CO 80222  
TEL: (970) 214-1126

RE: Chevron Wilson Creek

Dear Chris Beall:

Lab Set ID: 2007598

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American West Analytical Laboratories received sample(s) on 7/21/2020 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

Digitally signed  
by Jose G.  
Rocha  
Date: 2020.07.23  
16:28:27 -06'00'

Laboratory Director or designee

Sample(s) were subcontracted for the following analyses:

Hexavalent Chromium



# INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007598-001  
**Client Sample ID:** LF-SW-02  
**Collection Date:** 7/20/2020 1138h  
**Received Date:** 7/21/2020 1025h

**Contact:** Chris Beall

## Analytical Results

## TOTAL METALS

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	0.494	7.18	
Barium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	4.94	283	2
Boron	mg/kg-dry	7/22/2020 1805h	7/23/2020 1021h	SW6010D	24.7	35.1	
Cadmium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	0.494	0.648	
Chromium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	9.89	35.6	
Copper	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	14.8	18.0	
Lead	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	2.97	17.6	
Mercury	mg/kg-dry	7/22/2020 1150h	7/22/2020 1339h	SW7471B	0.0481	< 0.0481	
Nickel	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	19.8	< 19.8	
Selenium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	1.98	< 1.98	
Silver	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	0.297	< 0.297	
Zinc	mg/kg-dry	7/22/2020 1805h	7/23/2020 1044h	SW6020B	14.8	90.7	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007598-002  
**Client Sample ID:** LF-SW-03  
**Collection Date:** 7/20/2020 1143h  
**Received Date:** 7/21/2020 1025h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	0.514	<b>8.85</b>	
Barium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	5.14	<b>183</b>	
Boron	mg/kg-dry	7/22/2020 1805h	7/23/2020 1036h	SW6010D	25.7	<b>27.1</b>	
Cadmium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	0.514	< 0.514	
Chromium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	10.3	<b>28.8</b>	
Copper	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	15.4	< 15.4	
Lead	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	3.08	<b>18.1</b>	
Mercury	mg/kg-dry	7/22/2020 1150h	7/22/2020 1347h	SW7471B	0.0475	< 0.0475	
Nickel	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	20.6	< 20.6	
Selenium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	2.06	< 2.06	
Silver	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	0.308	< 0.308	
Zinc	mg/kg-dry	7/22/2020 1805h	7/23/2020 1102h	SW6020B	15.4	<b>71.5</b>	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007598-003  
**Client Sample ID:** LF-FL-01  
**Collection Date:** 7/20/2020 1148h  
**Received Date:** 7/21/2020 1025h

**Contact:** Chris Beall

## Analytical Results

## TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	0.517	<b>9.19</b>	
Barium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	5.17	<b>206</b>	
Boron	mg/kg-dry	7/22/2020 1805h	7/23/2020 1038h	SW6010D	25.8	<b>29.3</b>	
Cadmium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	0.517	<b>0.599</b>	
Chromium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	10.3	<b>39.1</b>	
Copper	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	15.5	<b>111</b>	
Lead	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	3.10	<b>46.2</b>	
Mercury	mg/kg-dry	7/22/2020 1150h	7/22/2020 1349h	SW7471B	0.0482	<b>0.0646</b>	
Nickel	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	20.7	< 20.7	
Selenium	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	2.07	< 2.07	
Silver	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	0.310	< 0.310	
Zinc	mg/kg-dry	7/22/2020 1805h	7/23/2020 1105h	SW6020B	15.5	<b>113</b>	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007598-001  
**Client Sample ID:** LF-SW-02  
**Collection Date:** 7/20/2020 1138h  
**Received Date:** 7/21/2020 1025h

**Contact:** Chris Beall

### Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Conductivity	µmhos/cm		7/22/2020 500h	SW9050A	10.0	<b>319</b>	&
pH @ 25° C	pH Units		7/21/2020 1400h	SW9045D	1.00	<b>7.23</b>	H
Sodium Adsorption Ratio			7/22/2020 1615h	Calc.	0.0100	<b>1.58</b>	

& - Analysis is performed on a 1:1 DI water extract for soils.

H - Sample was received outside of the holding time.

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer





## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007598-002  
**Client Sample ID:** LF-SW-03  
**Collection Date:** 7/20/2020 1143h  
**Received Date:** 7/21/2020 1025h

**Contact:** Chris Beall

### Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Conductivity	µmhos/cm		7/22/2020 500h	SW9050A	10.0	<b>338</b>	&
pH @ 25° C	pH Units		7/21/2020 1400h	SW9045D	1.00	<b>7.76</b>	H
Sodium Adsorption Ratio			7/22/2020 1615h	Calc.	0.0100	<b>1.42</b>	

& - Analysis is performed on a 1:1 DI water extract for soils.

H - Sample was received outside of the holding time.

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Laboratory Director

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## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007598-003  
**Client Sample ID:** LF-FL-01  
**Collection Date:** 7/20/2020 1148h  
**Received Date:** 7/21/2020 1025h

**Contact:** Chris Beall

### Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Conductivity	µmhos/cm		7/22/2020 500h	SW9050A	10.0	<b>804</b>	&
pH @ 25° C	pH Units		7/21/2020 1400h	SW9045D	1.00	<b>7.37</b>	H
Sodium Adsorption Ratio			7/22/2020 1615h	Calc.	0.0100	<b>0.355</b>	

& - Analysis is performed on a 1:1 DI water extract for soils.

H - Sample was received outside of the holding time.

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Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-001B

**Client Sample ID:** LF-SW-02

**Collection Date:** 7/20/2020 1138h

**Received Date:** 7/21/2020 1025h

Test Code: 8015-S-TPH-3546

### Analytical Results

TPH-DRO (C10-C28) by Method 8015D/3546

**Analyzed:** 7/22/2020 1004h

**Extracted:** 7/21/2020 1154h

**Units:** mg/kg-dry

**Dilution Factor:** 1

**Method:** SW8015D

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Compound			CAS Number		Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)			68476-34-6		24.1	36.2	
Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene		460-00-4	17.4	40.09	43.5	10-160	

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-002B

**Client Sample ID:** LF-SW-03

**Collection Date:** 7/20/2020 1143h

**Received Date:** 7/21/2020 1025h

Test Code: 8015-S-TPH-3546

### Analytical Results

TPH-DRO (C10-C28) by Method 8015D/3546

**Analyzed:** 7/22/2020 1023h

**Extracted:** 7/21/2020 1154h

**Units:** mg/kg-dry

**Dilution Factor:** 1

**Method:** SW8015D

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Compound			CAS Number		Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)			68476-34-6		23.5	34.4	
Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene		460-00-4	15.9	39.09	40.7	10-160	

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-003B

**Client Sample ID:** LF-FL-01

**Collection Date:** 7/20/2020 1148h

**Received Date:** 7/21/2020 1025h

Test Code: 8015-S-TPH-3546

### **Analytical Results**

TPH-DRO (C10-C28) by Method 8015D/3546

**Analyzed:** 7/22/2020 1120h

**Extracted:** 7/21/2020 1154h

**Units:** mg/kg-dry

**Dilution Factor:** 1

**Method:** SW8015D

Compound			CAS Number		Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)			68476-34-6		23.3	213	
Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene		460-00-4	14.4	38.88	37.1	10-160	

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Jose Rocha

QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-001C

**Client Sample ID:** LF-SW-02

**Collection Date:** 7/20/2020 1138h

**Received Date:** 7/21/2020 1025h

Test Code: 8270E-S-SIM-3546

### Analytical Results

SVOA PNA SIM List by GC/MS Method 8270E/3546

**Analyzed:** 7/23/2020 942h

**Extracted:** 7/21/2020 1145h

**Units:** µg/kg-dry

**Dilution Factor:** 1

**Method:** SW8270E

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	8.18	< 8.18	
Anthracene	120-12-7	8.18	< 8.18	
Benz(a)anthracene	56-55-3	16.4	< 16.4	#
Benzo(a)pyrene	50-32-8	8.18	< 8.18	
Benzo(b)fluoranthene	205-99-2	8.18	< 8.18	#
Benzo(k)fluoranthene	207-08-9	8.18	< 8.18	
Chrysene	218-01-9	8.18	< 8.18	#
Dibenz(a,h)anthracene	53-70-3	8.18	< 8.18	
Fluoranthene	206-44-0	8.18	< 8.18	
Fluorene	86-73-7	8.18	< 8.18	
Indeno(1,2,3-cd)pyrene	193-39-5	8.18	< 8.18	
Naphthalene	91-20-3	8.18	< 8.18	
Pyrene	129-00-0	8.18	< 8.18	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*

*# - This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.*



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-002C

**Client Sample ID:** LF-SW-03

**Collection Date:** 7/20/2020 1143h

**Received Date:** 7/21/2020 1025h

Test Code: 8270E-S-SIM-3546

### Analytical Results

SVOA PNA SIM List by GC/MS Method 8270E/3546

**Analyzed:** 7/23/2020 1004h

**Extracted:** 7/21/2020 1145h

**Units:** µg/kg-dry

**Dilution Factor:** 1

**Method:** SW8270E

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	7.72	< 7.72	
Anthracene	120-12-7	7.72	< 7.72	
Benz(a)anthracene	56-55-3	15.4	< 15.4	#
Benzo(a)pyrene	50-32-8	7.72	< 7.72	
Benzo(b)fluoranthene	205-99-2	7.72	< 7.72	#
Benzo(k)fluoranthene	207-08-9	7.72	< 7.72	
Chrysene	218-01-9	7.72	< 7.72	#
Dibenz(a,h)anthracene	53-70-3	7.72	< 7.72	
Fluoranthene	206-44-0	7.72	< 7.72	
Fluorene	86-73-7	7.72	< 7.72	
Indeno(1,2,3-cd)pyrene	193-39-5	7.72	< 7.72	
Naphthalene	91-20-3	7.72	< 7.72	
Pyrene	129-00-0	7.72	< 7.72	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*

*# - This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.*



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-003C

**Client Sample ID:** LF-FL-01

**Collection Date:** 7/20/2020 1148h

**Received Date:** 7/21/2020 1025h

Test Code: 8270E-S-SIM-3546

### Analytical Results

SVOA PNA SIM List by GC/MS Method 8270E/3546

**Analyzed:** 7/23/2020 1026h

**Extracted:** 7/21/2020 1145h

**Units:** µg/kg-dry

**Dilution Factor:** 1

**Method:** SW8270E

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Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	7.89	< 7.89	
Anthracene	120-12-7	7.89	< 7.89	
Benz(a)anthracene	56-55-3	15.8	29.0	*
Benzo(a)pyrene	50-32-8	7.89	21.1	
Benzo(b)fluoranthene	205-99-2	7.89	28.7	*
Benzo(k)fluoranthene	207-08-9	7.89	9.30	
Chrysene	218-01-9	7.89	38.3	*
Dibenz(a,h)anthracene	53-70-3	7.89	< 7.89	
Fluoranthene	206-44-0	7.89	32.8	
Fluorene	86-73-7	7.89	20.0	
Indeno(1,2,3-cd)pyrene	193-39-5	7.89	8.44	
Naphthalene	91-20-3	7.89	41.8	
Pyrene	129-00-0	7.89	31.5	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*

*\* - This compound exceeded (high) the control limit for the CCV. The compound concentration is estimated and may be biased high.*





# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-001C

**Client Sample ID:** LF-SW-02

**Collection Date:** 7/20/2020 1138h

**Received Date:** 7/21/2020 1025h

Test Code: 8270E-S-3546

## Analytical Results

SVOA PNAs by GC/MS Method 8270E/3546

**Analyzed:** 7/22/2020 1336h

**Extracted:** 7/21/2020 1145h

**Units:** µg/kg-dry

**Dilution Factor:** 1

**Method:** SW8270E

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Laboratory Director

Jose Rocha  
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	415	< 415	
Anthracene	120-12-7	415	< 415	
Benz(a)anthracene	56-55-3	415	< 415	
Benzo(a)pyrene	50-32-8	415	< 415	
Benzo(b)fluoranthene	205-99-2	415	< 415	
Benzo(k)fluoranthene	207-08-9	415	< 415	
Chrysene	218-01-9	415	< 415	
Dibenz(a,h)anthracene	53-70-3	415	< 415	
Fluoranthene	206-44-0	415	< 415	
Fluorene	86-73-7	415	< 415	
Indeno(1,2,3-cd)pyrene	193-39-5	415	< 415	
Naphthalene	91-20-3	415	< 415	
Pyrene	129-00-0	415	< 415	

Surrogate	Units: µg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol		118-79-6	650	813.6	79.9	10-237	
Surr: 2-Fluorobiphenyl		321-60-8	246	406.8	60.4	10-179	
Surr: 2-Fluorophenol		367-12-4	481	813.6	59.1	10-186	
Surr: Nitrobenzene-d5		4165-60-0	226	406.8	55.4	10-166	
Surr: Phenol-d6		13127-88-3	535	813.6	65.7	10-194	
Surr: Terphenyl-d14		1718-51-0	268	406.8	65.9	10-265	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-002C

**Client Sample ID:** LF-SW-03

**Collection Date:** 7/20/2020 1143h

**Received Date:** 7/21/2020 1025h

Test Code: 8270E-S-3546

## Analytical Results

SVOA PNAs by GC/MS Method 8270E/3546

**Analyzed:** 7/22/2020 1359h

**Extracted:** 7/21/2020 1145h

**Units:** µg/kg-dry

**Dilution Factor:** 1

**Method:** SW8270E

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Jose Rocha  
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	392	< 392	
Anthracene	120-12-7	392	< 392	
Benz(a)anthracene	56-55-3	392	< 392	
Benzo(a)pyrene	50-32-8	392	< 392	
Benzo(b)fluoranthene	205-99-2	392	< 392	
Benzo(k)fluoranthene	207-08-9	392	< 392	
Chrysene	218-01-9	392	< 392	
Dibenz(a,h)anthracene	53-70-3	392	< 392	
Fluoranthene	206-44-0	392	< 392	
Fluorene	86-73-7	392	< 392	
Indeno(1,2,3-cd)pyrene	193-39-5	392	< 392	
Naphthalene	91-20-3	392	< 392	
Pyrene	129-00-0	392	< 392	

Surrogate	Units: µg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol		118-79-6	613	768.1	79.8	10-237	
Surr: 2-Fluorobiphenyl		321-60-8	244	384.1	63.5	10-179	
Surr: 2-Fluorophenol		367-12-4	447	768.1	58.3	10-186	
Surr: Nitrobenzene-d5		4165-60-0	213	384.1	55.5	10-166	
Surr: Phenol-d6		13127-88-3	540	768.1	70.3	10-194	
Surr: Terphenyl-d14		1718-51-0	265	384.1	69.0	10-265	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007598-003C  
**Client Sample ID:** LF-FL-01  
**Collection Date:** 7/20/2020 1148h  
**Received Date:** 7/21/2020 1025h

**Contact:** Chris Beall

Test Code: 8270E-S-3546

## Analytical Results

SVOA PNAs by GC/MS Method 8270E/3546

**Analyzed:** 7/22/2020 1421h **Extracted:** 7/21/2020 1145h

**Units:** µg/kg-dry

**Dilution Factor:** 1

**Method:** SW8270E

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Kyle F. Gross  
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Jose Rocha  
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	400	< 400	
Anthracene	120-12-7	400	< 400	
Benz(a)anthracene	56-55-3	400	< 400	
Benzo(a)pyrene	50-32-8	400	< 400	
Benzo(b)fluoranthene	205-99-2	400	< 400	
Benzo(k)fluoranthene	207-08-9	400	< 400	
Chrysene	218-01-9	400	< 400	
Dibenz(a,h)anthracene	53-70-3	400	< 400	
Fluoranthene	206-44-0	400	< 400	
Fluorene	86-73-7	400	< 400	
Indeno(1,2,3-cd)pyrene	193-39-5	400	< 400	
Naphthalene	91-20-3	400	< 400	
Pyrene	129-00-0	400	< 400	

Surrogate	Units: µg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol		118-79-6	779	785.1	99.2	10-237	
Surr: 2-Fluorobiphenyl		321-60-8	290	392.6	73.8	10-179	
Surr: 2-Fluorophenol		367-12-4	560	785.1	71.3	10-186	
Surr: Nitrobenzene-d5		4165-60-0	278	392.6	70.8	10-166	
Surr: Phenol-d6		13127-88-3	596	785.1	75.9	10-194	
Surr: Terphenyl-d14		1718-51-0	321	392.6	81.7	10-265	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-001A

**Client Sample ID:** LF-SW-02

**Collection Date:** 7/20/2020 1138h

**Received Date:** 7/21/2020 1025h

Test Code: 8260D-S-PPM

## Analytical Results

VOAs MBTEXN/GRO by GC/MS Method 8260D

**Analyzed:** 7/21/2020 1328h

**Extracted:**

**Units:** mg/kg-dry

**Dilution Factor:** 2.5

**Method:** SW8260D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzene	71-43-2	0.00312	< 0.00312	<sup>1</sup>
Ethylbenzene	100-41-4	0.00625	< 0.00625	<sup>1</sup> @
Toluene	108-88-3	0.00625	< 0.00625	<sup>1</sup> @
TPH C6-C10 (GRO)		0.0625	< 0.0625	
Xylenes, Total	1330-20-7	0.00625	< 0.00625	@

Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	0.155	0.1562	99.3	70-132	
Surr: 4-Bromofluorobenzene		460-00-4	0.175	0.1562	112	70-125	
Surr: Dibromofluoromethane		1868-53-7	0.149	0.1562	95.4	70-133	
Surr: Toluene-d8		2037-26-5	0.169	0.1562	108	70-123	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

Sampling and analytical preparation performed by method 5030A modified for analysis of soil samples collected in 2 or 4 oz jars.

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Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-002A

**Client Sample ID:** LF-SW-03

**Collection Date:** 7/20/2020 1143h

**Received Date:** 7/21/2020 1025h

Test Code: 8260D-S-PPM

## Analytical Results

VOAs MBTEXN/GRO by GC/MS Method 8260D

**Analyzed:** 7/21/2020 1429h

**Extracted:**

**Units:** mg/kg-dry

**Dilution Factor:** 2.49

**Method:** SW8260D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzene	71-43-2	0.00296	< 0.00296	
Ethylbenzene	100-41-4	0.00592	< 0.00592	
Toluene	108-88-3	0.00592	< 0.00592	
TPH C6-C10 (GRO)		0.0592	< 0.0592	
Xylenes, Total	1330-20-7	0.00592	< 0.00592	

Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	0.148	0.1479	100	70-132	
Surr: 4-Bromofluorobenzene		460-00-4	0.162	0.1479	109	70-125	
Surr: Dibromofluoromethane		1868-53-7	0.142	0.1479	95.8	70-133	
Surr: Toluene-d8		2037-26-5	0.160	0.1479	108	70-123	

*Sampling and analytical preparation performed by method 5030A modified for analysis of soil samples collected in 2 or 4 oz jars.*

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Laboratory Director

Jose Rocha

QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver

**Contact:** Chris Beall

**Project:** Chevron Wilson Creek

**Lab Sample ID:** 2007598-003A

**Client Sample ID:** LF-FL-01

**Collection Date:** 7/20/2020 1148h

**Received Date:** 7/21/2020 1025h

Test Code: 8260D-S-PPM

### Analytical Results

VOAs MBTEXN/GRO by GC/MS Method 8260D

**Analyzed:** 7/21/2020 1450h

**Extracted:**

**Units:** mg/kg-dry

**Dilution Factor:** 2.49

**Method:** SW8260D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzene	71-43-2	0.00300	< 0.00300	
Ethylbenzene	100-41-4	0.00600	<b>0.0936</b>	
Toluene	108-88-3	0.00600	< 0.00600	
TPH C6-C10 (GRO)		0.0600	<b>7.85</b>	
Xylenes, Total	1330-20-7	0.00600	<b>0.119</b>	

Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	0.153	0.1500	102	70-132	
Surr: 4-Bromofluorobenzene		460-00-4	0.157	0.1500	104	70-125	
Surr: Dibromofluoromethane		1868-53-7	0.147	0.1500	98.3	70-133	
Surr: Toluene-d8		2037-26-5	0.161	0.1500	108	70-123	

*Sampling and analytical preparation performed by method 5030A modified for analysis of soil samples collected in 2 or 4 oz jars.*

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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-71326													
Date Analyzed:		07/23/2020 1019h											
Test Code:		6010D-S											
Date Prepared:		07/22/2020 1805h											
Boron	100	mg/kg	SW6010D	5.52	20.0	100.0	0	100	80 - 120				
Lab Sample ID: LCS-71326													
Test Code:		6020B-S											
Date Analyzed:		07/23/2020 1041h											
Date Prepared:		07/22/2020 1805h											
Arsenic	21.1	mg/kg	SW6020B	0.116	0.400	20.00	0	105	85 - 115				
Barium	21.3	mg/kg	SW6020B	2.30	4.00	20.00	0	107	85 - 115				
Cadmium	21.3	mg/kg	SW6020B	0.0640	0.400	20.00	0	106	85 - 115				
Chromium	22.1	mg/kg	SW6020B	2.36	8.00	20.00	0	111	85 - 115				
Copper	21.7	mg/kg	SW6020B	3.08	12.0	20.00	0	109	85 - 115				
Lead	22.6	mg/kg	SW6020B	1.55	2.40	20.00	0	113	85 - 115				
Nickel	22.0	mg/kg	SW6020B	1.36	16.0	20.00	0	110	85 - 115				
Selenium	20.7	mg/kg	SW6020B	0.177	1.60	20.00	0	103	85 - 115				
Silver	21.6	mg/kg	SW6020B	0.0604	0.240	20.00	0	108	85 - 115				
Zinc	109	mg/kg	SW6020B	2.34	12.0	100.0	0	109	85 - 115				
Lab Sample ID: LCS-71303													
Date Analyzed:		07/22/2020 1337h											
Test Code:		HG-S-7471B											
Date Prepared:		07/22/2020 1150h											
Mercury	0.434	mg/kg	SW7471B	0.00938	0.0400	0.4000	0	108	80 - 120				



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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** ME

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-71326													
Test Code:	6010D-S	Date Analyzed:	07/23/2020 1243h										
		Date Prepared:	07/22/2020 1805h										
Boron	< 20.0	mg/kg	SW6010D	5.52	20.0								
Lab Sample ID: MB-71326													
Test Code:	6020B-S	Date Analyzed:	07/23/2020 1037h										
		Date Prepared:	07/22/2020 1805h										
Arsenic	< 0.0500	mg/kg	SW6020B	0.0145	0.0500								
Barium	< 0.500	mg/kg	SW6020B	0.288	0.500								
Cadmium	< 0.0500	mg/kg	SW6020B	0.00800	0.0500								
Chromium	< 1.00	mg/kg	SW6020B	0.296	1.00								
Copper	< 1.50	mg/kg	SW6020B	0.385	1.50								
Lead	< 0.300	mg/kg	SW6020B	0.194	0.300								
Nickel	< 2.00	mg/kg	SW6020B	0.170	2.00								
Selenium	< 0.200	mg/kg	SW6020B	0.0221	0.200								
Silver	< 0.0300	mg/kg	SW6020B	0.00755	0.0300								
Zinc	< 1.50	mg/kg	SW6020B	0.293	1.50								
Lab Sample ID: MB-71303													
Test Code:	HG-S-7471B	Date Analyzed:	07/22/2020 1335h										
		Date Prepared:	07/22/2020 1150h										
Mercury	< 0.0400	mg/kg	SW7471B	0.00938	0.0400								





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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** ME

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007598-001DMS													
Date Analyzed:		07/23/2020 1030h											
Test Code:		6010D-S											
Date Prepared:		07/22/2020 1805h											
Boron	157	mg/kg-dry	SW6010D	7.47	27.0	135.2	35.1	90.2	75 - 125				
Lab Sample ID: 2007598-001DMS													
Date Analyzed:		07/23/2020 1055h											
Test Code:		6020B-S											
Date Prepared:		07/22/2020 1805h											
Arsenic	33.2	mg/kg-dry	SW6020B	0.157	0.541	27.05	7.18	96.1	75 - 125				2
Barium	294	mg/kg-dry	SW6020B	3.12	5.41	27.05	283	39.6	75 - 125				
Cadmium	26.1	mg/kg-dry	SW6020B	0.0866	0.541	27.05	0.648	94.1	75 - 125				
Chromium	60.9	mg/kg-dry	SW6020B	3.20	10.8	27.05	35.6	93.5	75 - 125				
Copper	42.8	mg/kg-dry	SW6020B	4.17	16.2	27.05	18	91.8	75 - 125				
Lead	45.0	mg/kg-dry	SW6020B	2.09	3.25	27.05	17.6	101	75 - 125				
Nickel	43.9	mg/kg-dry	SW6020B	1.84	21.6	27.05	18.5	93.8	75 - 125				
Selenium	26.3	mg/kg-dry	SW6020B	0.239	2.16	27.05	0.64	94.8	75 - 125				
Silver	26.0	mg/kg-dry	SW6020B	0.0817	0.325	27.05	0.161	95.6	75 - 125				
Zinc	224	mg/kg-dry	SW6020B	3.17	16.2	135.2	90.7	98.5	75 - 125				

2 - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** ME

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007598-001DMSD													
Test Code: 6010D-S		Date Analyzed: 07/23/2020 1033h	Date Prepared: 07/22/2020 1805h										
Boron	141	mg/kg-dry	SW6010D	6.73	24.4	122.0	35.1	86.5	75 - 125	157	11.1	20	
Lab Sample ID: 2007598-001DMSD													
Test Code: 6020B-S		Date Analyzed: 07/23/2020 1058h	Date Prepared: 07/22/2020 1805h										
Arsenic	31.9	mg/kg-dry	SW6020B	0.142	0.488	24.40	7.18	101	75 - 125	33.2	3.83	20	
Barium	276	mg/kg-dry	SW6020B	2.81	4.88	24.40	283	-29.0	75 - 125	294	6.25	20	2
Cadmium	22.8	mg/kg-dry	SW6020B	0.0781	0.488	24.40	0.648	90.9	75 - 125	26.1	13.3	20	
Chromium	56.2	mg/kg-dry	SW6020B	2.88	9.76	24.40	35.6	84.4	75 - 125	60.9	8.01	20	
Copper	42.9	mg/kg-dry	SW6020B	3.76	14.6	24.40	18	102	75 - 125	42.8	0.177	20	
Lead	46.7	mg/kg-dry	SW6020B	1.89	2.93	24.40	17.6	119	75 - 125	45	3.66	20	
Nickel	41.1	mg/kg-dry	SW6020B	1.66	19.5	24.40	18.5	92.6	75 - 125	43.9	6.56	20	
Selenium	23.1	mg/kg-dry	SW6020B	0.216	1.95	24.40	0.64	92.0	75 - 125	26.3	13.0	20	
Silver	22.8	mg/kg-dry	SW6020B	0.0737	0.293	24.40	0.161	92.8	75 - 125	26	13.2	20	
Zinc	229	mg/kg-dry	SW6020B	2.86	14.6	122.0	90.7	114	75 - 125	224	2.44	20	

Lab Sample ID: 2007598-001DMSD													
Test Code: HG-S-7471B		Date Analyzed: 07/22/2020 1346h	Date Prepared: 07/22/2020 1150h										
Mercury	0.509	mg/kg-dry	SW7471B	0.0105	0.0446	0.4463	0.0228	109	80 - 120	0.538	5.46	20	

2 - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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Laboratory Director  
  
Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** W/C  
**QC Type:** DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Date Analyzed: 07/22/2020 500h													
Conductivity	323	µmhos/cm	SW9050A	0.500	10.0					319	1.25	10	&
Date Analyzed: 07/21/2020 1400h													
Lab Sample ID: 2007598-001DDUP													
Test Code: PH-9045D													
pH @ 25° C	7.24	pH Units	SW9045D	1.00	1.00					7.23	0.138	10	H

& - Analysis is performed on a 1:1 DI water extract for soils.  
H - Sample was received outside of the holding time.



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** W/C

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Date Analyzed: 07/22/2020 500h													
Conductivity	1,000	µmhos/cm	SW9050A	0.500	10.0	1,000	0	100	98 - 102				
Date Analyzed: 07/21/2020 1400h													
Lab Sample ID:	LCS-R141305												
Test Code:	COND-S-9050A												
Lab Sample ID:	LCS-R141281												
Test Code:	PH-9045D												
pH @ 25° C	8.96	pH Units	SW9045D	1.00	1.00	9,000	0	99.6	98 - 102				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** W/C

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID:	MB-R141305	Date Analyzed:	07/22/2020 500h										
Test Code:	COND-S-9050A												
Conductivity	< 10.0	µmhos/cm	SW9050A	0.500	10.0								



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** GC

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-71266													
Test Code: 8015-S-TPH-3546													
Date Analyzed: 07/22/2020 945h													
Date Prepared: 07/21/2020 1154h													
Diesel Range Organics (DRO) (C10-C28)	114	mg/kg	SW8015D	14.2	20.0	166.7	0	68.6	48 - 115				
Surr: 4-Bromofluorobenzene	10.6	mg/kg	SW8015D			33.33		31.8	24 - 112				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** GC  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-71266	Date Analyzed:	07/22/2020 926h											
<b>Test Code:</b> 8015-S-TPH-3546	Date Prepared:	07/21/2020 1154h											
Diesel Range Organics (DRO) (C10-C28)	< 20.0	mg/kg	SW8015D	14.2	20.0								
Surr: 4-Bromofluorobenzene	10.3	mg/kg	SW8015D			33.33		30.8	24 - 112				



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**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** GC  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Date Analyzed: 07/22/2020 1042h													
Date Prepared: 07/21/2020 1154h													
Diesel Range Organics (DRO) (C10-C28)	155	mg/kg-dry	SW8015D	16.6	23.4	195.0	34.4	62.0	10 - 230				
Surr: 4-Bromofluorobenzene	14.6	mg/kg-dry	SW8015D			38.99		37.5	10 - 160				





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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** GC

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 2007598-002BMSD	Date Analyzed:	07/22/2020 1101h											
Test Code: 8015-S-TPH-3546	Date Prepared:	07/21/2020 1154h											
Diesel Range Organics (DRO) (C10-C28)	192	mg/kg-dry	SW8015D	16.5	23.3	194.0	34.4	81.0	10 - 230	155	20.9	25	
Surr: 4-Bromofluorobenzene	18.5	mg/kg-dry	SW8015D			38.80		47.6	10 - 160				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-71265													
Test Code: 8270E-S-3546													
Date Analyzed: 07/22/2020 1314h													
Date Prepared: 07/21/2020 1145h													
Acenaphthene	512	µg/kg	SW8270E	37.3	340	666.7	0	76.8	24 - 110				
Anthracene	550	µg/kg	SW8270E	37.8	340	666.7	0	82.5	40 - 119				
Benz(a)anthracene	522	µg/kg	SW8270E	42.7	340	666.7	0	78.3	42 - 114				
Benzo(a)pyrene	539	µg/kg	SW8270E	54.8	340	666.7	0	80.8	42 - 119				
Benzo(b)fluoranthene	509	µg/kg	SW8270E	58.4	340	666.7	0	76.4	42 - 119				
Benzo(k)fluoranthene	577	µg/kg	SW8270E	45.9	340	666.7	0	86.5	45 - 121				
Chrysene	539	µg/kg	SW8270E	43.9	340	666.7	0	80.8	26 - 115				
Dibenz(a,h)anthracene	556	µg/kg	SW8270E	58.3	340	666.7	0	83.4	44 - 122				
Fluoranthene	625	µg/kg	SW8270E	64.3	340	666.7	0	93.7	27 - 120				
Fluorene	532	µg/kg	SW8270E	41.5	340	666.7	0	79.8	25 - 110				
Indeno(1,2,3-cd)pyrene	544	µg/kg	SW8270E	50.5	340	666.7	0	81.5	43 - 121				
Naphthalene	462	µg/kg	SW8270E	61.6	340	666.7	0	69.3	23 - 100				
Pyrene	477	µg/kg	SW8270E	63.6	340	666.7	0	71.5	38 - 122				
Surr: 2,4,6-Tribromophenol	402	µg/kg	SW8270E			666.7		60.3	10 - 140				
Surr: 2-Fluorobiphenyl	274	µg/kg	SW8270E			333.3		82.2	25 - 126				
Surr: 2-Fluorophenol	521	µg/kg	SW8270E			666.7		78.1	15 - 121				
Surr: Nitrobenzene-d5	249	µg/kg	SW8270E			333.3		74.8	20 - 117				
Surr: Phenol-d6	613	µg/kg	SW8270E			666.7		92.0	22 - 121				
Surr: Terphenyl-d14	293	µg/kg	SW8270E			333.3		87.8	26 - 143				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** MSSV  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-71265													
Test Code: 8270E-S-3546													
Date Analyzed: 07/22/2020 1251h													
Date Prepared: 07/21/2020 1145h													
Acenaphthene	< 340	µg/kg	SW8270E	37.3	340								
Anthracene	< 340	µg/kg	SW8270E	37.8	340								
Benz(a)anthracene	< 340	µg/kg	SW8270E	42.7	340								
Benzo(a)pyrene	< 340	µg/kg	SW8270E	54.8	340								
Benzo(b)fluoranthene	< 340	µg/kg	SW8270E	58.4	340								
Benzo(k)fluoranthene	< 340	µg/kg	SW8270E	45.9	340								
Chrysene	< 340	µg/kg	SW8270E	43.9	340								
Dibenz(a,h)anthracene	< 340	µg/kg	SW8270E	58.3	340								
Fluoranthene	< 340	µg/kg	SW8270E	64.3	340								
Fluorene	< 340	µg/kg	SW8270E	41.5	340								
Indeno(1,2,3-cd)pyrene	< 340	µg/kg	SW8270E	50.5	340								
Naphthalene	< 340	µg/kg	SW8270E	61.6	340								
Pyrene	< 340	µg/kg	SW8270E	63.6	340								
Surr: 2,4,6-Tribromophenol	273	µg/kg	SW8270E			666.7		41.0	10 - 140				
Surr: 2-Fluorobiphenyl	253	µg/kg	SW8270E			333.3		75.8	25 - 126				
Surr: 2-Fluorophenol	478	µg/kg	SW8270E			666.7		71.7	15 - 121				
Surr: Nitrobenzene-d5	230	µg/kg	SW8270E			333.3		68.9	20 - 117				
Surr: Phenol-d6	571	µg/kg	SW8270E			666.7		85.6	22 - 121				
Surr: Terphenyl-d14	277	µg/kg	SW8270E			333.3		83.1	26 - 143				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007598-003CMS													
Test Code: 8270E-S-3546													
Date Analyzed: 07/22/2020 1444h													
Date Prepared: 07/21/2020 1145h													
Acenaphthene	566	µg/kg-dry	SW8270E	44.2	403	789.8	0	71.6	24 - 110				
Anthracene	577	µg/kg-dry	SW8270E	44.8	403	789.8	0	73.1	40 - 119				
Benz(a)anthracene	567	µg/kg-dry	SW8270E	50.6	403	789.8	0	71.8	42 - 114				
Benzo(a)pyrene	579	µg/kg-dry	SW8270E	64.9	403	789.8	0	73.3	42 - 119				
Benzo(b)fluoranthene	558	µg/kg-dry	SW8270E	69.2	403	789.8	0	70.6	42 - 119				
Benzo(k)fluoranthene	563	µg/kg-dry	SW8270E	54.4	403	789.8	0	71.3	45 - 121				
Chrysene	592	µg/kg-dry	SW8270E	52.0	403	789.8	0	75.0	26 - 115				
Dibenz(a,h)anthracene	599	µg/kg-dry	SW8270E	69.1	403	789.8	0	75.8	44 - 122				
Fluoranthene	680	µg/kg-dry	SW8270E	76.2	403	789.8	0	86.0	27 - 120				
Fluorene	592	µg/kg-dry	SW8270E	49.2	403	789.8	0	74.9	25 - 110				
Indeno(1,2,3-cd)pyrene	586	µg/kg-dry	SW8270E	59.8	403	789.8	0	74.2	43 - 121				
Naphthalene	574	µg/kg-dry	SW8270E	73.0	403	789.8	0	72.7	23 - 100				
Pyrene	538	µg/kg-dry	SW8270E	75.3	403	789.8	0	68.1	38 - 122				
Surr: 2,4,6-Tribromophenol	741	µg/kg-dry	SW8270E			789.8		93.8	10 - 140				
Surr: 2-Fluorobiphenyl	297	µg/kg-dry	SW8270E			394.9		75.3	25 - 126				
Surr: 2-Fluorophenol	566	µg/kg-dry	SW8270E			789.8		71.7	15 - 121				
Surr: Nitrobenzene-d5	277	µg/kg-dry	SW8270E			394.9		70.2	20 - 117				
Surr: Phenol-d6	620	µg/kg-dry	SW8270E			789.8		78.5	22 - 121				
Surr: Terphenyl-d14	294	µg/kg-dry	SW8270E			394.9		74.5	26 - 143				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007598-003C/MSD													
Test Code: 8270E-S-3546													
Date Analyzed: 07/22/2020 1506h													
Date Prepared: 07/21/2020 1145h													
Acenaphthene	496	µg/kg-dry	SW8270E	43.7	398	780.5	0	63.5	24 - 110	566	13.1	35	
Anthracene	522	µg/kg-dry	SW8270E	44.3	398	780.5	0	66.8	40 - 119	577	10.1	35	
Benz(a)anthracene	517	µg/kg-dry	SW8270E	50.0	398	780.5	0	66.2	42 - 114	567	9.25	35	
Benzo(a)pyrene	531	µg/kg-dry	SW8270E	64.2	398	780.5	0	68.1	42 - 119	579	8.60	35	
Benzo(b)fluoranthene	481	µg/kg-dry	SW8270E	68.4	398	780.5	0	61.6	42 - 119	558	14.8	35	
Benzo(k)fluoranthene	520	µg/kg-dry	SW8270E	53.7	398	780.5	0	66.7	45 - 121	563	7.83	35	
Chrysene	539	µg/kg-dry	SW8270E	51.4	398	780.5	0	69.1	26 - 115	592	9.36	35	
Dibenz(a,h)anthracene	528	µg/kg-dry	SW8270E	68.3	398	780.5	0	67.6	44 - 122	599	12.5	35	
Fluoranthene	641	µg/kg-dry	SW8270E	75.3	398	780.5	0	82.2	27 - 120	680	5.77	35	
Fluorene	520	µg/kg-dry	SW8270E	48.6	398	780.5	0	66.6	25 - 110	592	13.0	35	
Indeno(1,2,3-cd)pyrene	523	µg/kg-dry	SW8270E	59.1	398	780.5	0	67.0	43 - 121	586	11.4	35	
Naphthalene	434	µg/kg-dry	SW8270E	72.1	398	780.5	0	55.6	23 - 100	574	27.7	35	
Pyrene	486	µg/kg-dry	SW8270E	74.5	398	780.5	0	62.3	38 - 122	538	10.1	35	
Surr: 2,4,6-Tribromophenol	672	µg/kg-dry	SW8270E			780.5		86.1	10 - 140				
Surr: 2-Fluorobiphenyl	258	µg/kg-dry	SW8270E			390.3		66.0	25 - 126				
Surr: 2-Fluorophenol	321	µg/kg-dry	SW8270E			780.5		41.1	15 - 121				
Surr: Nitrobenzene-d5	198	µg/kg-dry	SW8270E			390.3		50.8	20 - 117				
Surr: Phenol-d6	448	µg/kg-dry	SW8270E			780.5		57.3	22 - 121				
Surr: Terphenyl-d14	267	µg/kg-dry	SW8270E			390.3		68.4	26 - 143				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-71265													
Test Code: 8270E-S-SIM-3546													
Date Analyzed: 07/23/2020 920h													
Date Prepared: 07/21/2020 1145h													
Acenaphthene	602	µg/kg	SW8270E	35.6	134	666.7	0	90.3	26 - 147				
Anthracene	660	µg/kg	SW8270E	51.6	134	666.7	0	98.9	23 - 158				
Benz(a)anthracene	791	µg/kg	SW8270E	92.6	268	666.7	0	119	25 - 155				*
Benzo(a)pyrene	712	µg/kg	SW8270E	65.8	134	666.7	0	107	28 - 145				
Benzo(b)fluoranthene	781	µg/kg	SW8270E	65.6	134	666.7	0	117	29 - 146				*
Benzo(k)fluoranthene	720	µg/kg	SW8270E	82.2	134	666.7	0	108	36 - 149				
Chrysene	816	µg/kg	SW8270E	82.6	134	666.7	0	122	24 - 162				*
Dibenz(a,h)anthracene	701	µg/kg	SW8270E	71.2	134	666.7	0	105	29 - 146				
Fluoranthene	664	µg/kg	SW8270E	80.6	134	666.7	0	99.5	24 - 157				
Fluorene	636	µg/kg	SW8270E	43.2	134	666.7	0	95.4	28 - 158				
Indeno(1,2,3-cd)pyrene	680	µg/kg	SW8270E	70.2	134	666.7	0	102	31 - 142				
Naphthalene	533	µg/kg	SW8270E	78.0	134	666.7	0	80.0	37 - 121				
Pyrene	676	µg/kg	SW8270E	75.8	134	666.7	0	101	22 - 160				

\* - This compound exceeded (high) the control limit for the CCV. The compound concentration is estimated and may be biased high.

LCS-71265: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.



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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** MSSV  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-71265													
Test Code: 8270E-S-SIM-3546													
Date Analyzed: 07/23/2020 858h													
Date Prepared: 07/21/2020 1145h													
Acenaphthene	< 6.70	µg/kg	SW8270E	1.78	6.70								#
Anthracene	< 6.70	µg/kg	SW8270E	2.58	6.70								#
Benz(a)anthracene	< 13.4	µg/kg	SW8270E	4.63	13.4								#
Benzo(a)pyrene	< 6.70	µg/kg	SW8270E	3.29	6.70								#
Benzo(b)fluoranthene	< 6.70	µg/kg	SW8270E	3.28	6.70								#
Benzo(k)fluoranthene	< 6.70	µg/kg	SW8270E	4.11	6.70								#
Chrysene	< 6.70	µg/kg	SW8270E	4.13	6.70								#
Dibenz(a,h)anthracene	< 6.70	µg/kg	SW8270E	3.56	6.70								#
Fluoranthene	< 6.70	µg/kg	SW8270E	4.03	6.70								#
Fluorene	< 6.70	µg/kg	SW8270E	2.16	6.70								#
Indeno(1,2,3-cd)pyrene	< 6.70	µg/kg	SW8270E	3.51	6.70								#
Naphthalene	< 6.70	µg/kg	SW8270E	3.90	6.70								#
Pyrene	< 6.70	µg/kg	SW8270E	3.79	6.70								#

# - This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.  
MB-71265: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.





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**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

## QC SUMMARY REPORT

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007598-003CMS													
Test Code: 8270E-S-SIM-3546													
Date Analyzed: 07/23/2020 1049h													
Date Prepared: 07/21/2020 1145h													
Acenaphthene	603	µg/kg-dry	SW8270E	42.2	159	789.8	5.53	75.6	26 - 147				
Anthracene	620	µg/kg-dry	SW8270E	61.1	159	789.8	6.11	77.8	23 - 158				
Benz(a)anthracene	724	µg/kg-dry	SW8270E	110	317	789.8	29	88.0	25 - 155				*
Benzo(a)pyrene	679	µg/kg-dry	SW8270E	77.9	159	789.8	21.1	83.3	28 - 145				*
Benzo(b)fluoranthene	607	µg/kg-dry	SW8270E	77.7	159	789.8	28.7	73.2	29 - 146				*
Benzo(k)fluoranthene	684	µg/kg-dry	SW8270E	97.4	159	789.8	9.3	85.4	36 - 149				*
Chrysene	698	µg/kg-dry	SW8270E	97.8	159	789.8	38.3	83.5	24 - 162				*
Dibenz(a,h)anthracene	633	µg/kg-dry	SW8270E	84.3	159	789.8	0	80.2	29 - 146				
Fluoranthene	615	µg/kg-dry	SW8270E	95.5	159	789.8	32.8	73.7	24 - 157				
Fluorene	650	µg/kg-dry	SW8270E	51.2	159	789.8	20	79.7	28 - 158				
Indeno(1,2,3-cd)pyrene	641	µg/kg-dry	SW8270E	83.2	159	789.8	8.44	80.1	31 - 142				
Naphthalene	598	µg/kg-dry	SW8270E	92.4	159	789.8	41.8	70.4	37 - 121				
Pyrene	611	µg/kg-dry	SW8270E	89.8	159	789.8	31.5	73.4	22 - 160				

\* - This compound exceeded (high) the control limit for the CCV. The compound concentration is estimated and may be biased high.

2007598-003CMS: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.





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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007598-003C/MSD													
Test Code: 8270E-S-SIM-3546													
Date Analyzed: 07/23/2020 1111h													
Date Prepared: 07/21/2020 1145h													
Acenaphthene	528	µg/kg-dry	SW8270E	41.7	157	780.5	5.53	66.9	26 - 147	603	13.3	35	
Anthracene	552	µg/kg-dry	SW8270E	60.4	157	780.5	6.11	70.0	23 - 158	620	11.6	35	
Benz(a)anthracene	743	µg/kg-dry	SW8270E	108	314	780.5	29	91.5	25 - 155	724	2.55	35	*
Benzo(a)pyrene	659	µg/kg-dry	SW8270E	77.0	157	780.5	21.1	81.7	28 - 145	679	3.00	35	
Benzo(b)fluoranthene	606	µg/kg-dry	SW8270E	76.8	157	780.5	28.7	73.9	29 - 146	607	0.214	35	*
Benzo(k)fluoranthene	683	µg/kg-dry	SW8270E	96.2	157	780.5	9.3	86.3	36 - 149	684	0.138	35	
Chrysene	726	µg/kg-dry	SW8270E	96.7	157	780.5	38.3	88.0	24 - 162	698	3.86	35	*
Dibenz(a,h)anthracene	601	µg/kg-dry	SW8270E	83.4	157	780.5	0	77.0	29 - 146	633	5.24	35	
Fluoranthene	614	µg/kg-dry	SW8270E	94.4	157	780.5	32.8	74.5	24 - 157	615	0.0736	35	
Fluorene	571	µg/kg-dry	SW8270E	50.6	157	780.5	20	70.6	28 - 158	650	12.8	35	
Indeno(1,2,3-cd)pyrene	603	µg/kg-dry	SW8270E	82.2	157	780.5	8.44	76.2	31 - 142	641	6.07	35	
Naphthalene	459	µg/kg-dry	SW8270E	91.3	157	780.5	41.8	53.5	37 - 121	598	26.2	35	
Pyrene	619	µg/kg-dry	SW8270E	88.7	157	780.5	31.5	75.2	22 - 160	611	1.23	35	

\* - This compound exceeded (high) the control limit for the CCV. The compound concentration is estimated and may be biased high.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** MSVOA  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC-3 072120A Date Analyzed: 07/21/2020 903h													
Test Code: 8260D-S-PPM													
Benzene	0.0149	mg/kg	SW8260D	0.000360	0.00100	0.02000	0	74.5	70 - 140				
Ethylbenzene	0.0150	mg/kg	SW8260D	0.000675	0.00200	0.02000	0	75.1	52 - 140				
Toluene	0.0146	mg/kg	SW8260D	0.000612	0.00200	0.02000	0	73.2	54 - 132				
Xylenes, Total	0.0432	mg/kg	SW8260D	0.000942	0.00200	0.06000	0	72.1	44 - 142				
Surr: 1,2-Dichloroethane-d4	0.0489	mg/kg	SW8260D			0.05000		97.8	70 - 132				
Surr: 4-Bromofluorobenzene	0.0491	mg/kg	SW8260D			0.05000		98.2	70 - 125				
Surr: Dibromofluoromethane	0.0494	mg/kg	SW8260D			0.05000		98.8	70 - 133				
Surr: Toluene-d8	0.0503	mg/kg	SW8260D			0.05000		101	70 - 123				



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**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** MSVOA  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC-3 072120A Date Analyzed: 07/21/2020 944h													
Test Code: 8260D-S-PPM													
Benzene	< 0.00100	mg/kg	SW8260D	0.000360	0.00100								
Ethylbenzene	< 0.00200	mg/kg	SW8260D	0.000675	0.00200								
Toluene	< 0.00200	mg/kg	SW8260D	0.000612	0.00200								
TPH C6-C10 (GRO)	< 0.0200	mg/kg	SW8260D	0.00486	0.0200								
Xylenes, Total	< 0.00200	mg/kg	SW8260D	0.000942	0.00200								
Surr: 1,2-Dichloroethane-d4	0.0493	mg/kg	SW8260D			0.05000		98.5	70 - 132				
Surr: 4-Bromofluorobenzene	0.0502	mg/kg	SW8260D			0.05000		100	70 - 125				
Surr: Dibromofluoromethane	0.0484	mg/kg	SW8260D			0.05000		96.8	70 - 133				
Surr: Toluene-d8	0.0513	mg/kg	SW8260D			0.05000		103	70 - 123				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007598  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** MSVOA  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Date Analyzed: 07/21/2020 1349h													
Lab Sample ID: 2007598-001AMS													
Test Code: 8260D-S-PPM													
Benzene	0.0519	mg/kg-dry	SW8260D	0.00113	0.00314	0.06273	0	82.7	70 - 140				
Ethylbenzene	0.0513	mg/kg-dry	SW8260D	0.00212	0.00627	0.06273	0	81.9	52 - 140				
Toluene	0.0522	mg/kg-dry	SW8260D	0.00192	0.00627	0.06273	0	83.2	54 - 132				
Xylenes, Total	0.147	mg/kg-dry	SW8260D	0.00295	0.00627	0.1882	0	78.2	44 - 142				
Surr: 1,2-Dichloroethane-d4	0.159	mg/kg-dry	SW8260D			0.1568		101	70 - 132				
Surr: 4-Bromofluorobenzene	0.175	mg/kg-dry	SW8260D			0.1568		111	70 - 125				
Surr: Dibromofluoromethane	0.158	mg/kg-dry	SW8260D			0.1568		101	70 - 133				
Surr: Toluene-d8	0.167	mg/kg-dry	SW8260D			0.1568		107	70 - 123				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007598

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** MSVOA

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Date Analyzed: 07/21/2020 1409h													
Lab Sample ID: 2007598-001A MSD													
Test Code: 8260D-S-PPM													
Benzene	0.0375	mg/kg-dry	SW8260D	0.00113	0.00314	0.06273	0	59.8	70 - 140	0.0519	32.1	35	1
Ethylbenzene	0.0316	mg/kg-dry	SW8260D	0.00212	0.00627	0.06273	0	50.4	52 - 140	0.0513	47.7	35	1@
Toluene	0.0334	mg/kg-dry	SW8260D	0.00192	0.00627	0.06273	0	53.3	54 - 132	0.0522	43.8	35	1@
Xylenes, Total	0.0904	mg/kg-dry	SW8260D	0.00295	0.00627	0.1882	0	48.0	44 - 142	0.147	47.9	35	@
Surr: 1,2-Dichloroethane-d4	0.160	mg/kg-dry	SW8260D			0.1568		102	70 - 132				
Surr: 4-Bromofluorobenzene	0.155	mg/kg-dry	SW8260D			0.1568		98.6	70 - 125				
Surr: Dibromofluoromethane	0.158	mg/kg-dry	SW8260D			0.1568		101	70 - 133				
Surr: Toluene-d8	0.161	mg/kg-dry	SW8260D			0.1568		103	70 - 123				

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

1 - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

## WORK ORDER Summary

Work Order: **2007598** Page 1 of 3

Client: Stantec Consulting - Denver

Client ID: STA220

Contact: Chris Beall

Project: Chevron Wilson Creek

QC Level: II

WO Type: Standard

Comments: 2 Day Rush; QC 2. CC brent.lucyk@stantec.com & Savannah. Whitaker@stantec.com Consult Table 910-1 (attached to COC). Footnote report, pH received outside of hold. Sample for Cr VI sent to Pace Analytical. Calculate Cr III when Cr VI results received;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
2007598-001A	LF-SW-02	7/20/2020 1138h	7/21/2020 1025h	8260D-S-PPM	Soil	Purge	1
				Test Group: 8260D-S-MBTXN/GRO; # of Analytes: 5 / # of Surr: 4			
2007598-001B				3546-TPH-PR		walkin-dro	
				8015-S-TPH-3546			
				Test Group: 8015-S-TPH-3546; # of Analytes: 1 / # of Surr: 1			
				3546-SVOA-PR			
				8270E-S-3546			
				Test Group: 8270E-S-PNA-3546; # of Analytes: 13 / # of Surr: 6			
				8270E-S-SIM-3546			
				Test Group: 8270E-S-PNA-SIM-3546; # of Analytes: 13 / # of Surr:			
				3051A-ICPMS-PR			
				6010D-S			
				1 SEL Analytes: B			
				6020B-S			
				10 SEL Analytes: AS BA CD CR CU PB NI SE AG ZN			
				COND-S-9050A			
				HG-S-7471B			
				1 SEL Analytes: HG			
				HG-S-PR-B			
				PH-9045D			
				PMOIST			
				SAR-S			
				SOIL-PR			
				OUTSIDE LAB			
2007598-001E						Pace	
2007598-002A	LF-SW-03	7/20/2020 1143h	7/21/2020 1025h	8260D-S-PPM	Soil	Purge	1
				Test Group: 8260D-S-MBTXN/GRO; # of Analytes: 5 / # of Surr: 4			
2007598-002B				3546-TPH-PR		walkin-dro	
				8015-S-TPH-3546			
				Test Group: 8015-S-TPH-3546; # of Analytes: 1 / # of Surr: 1			
2007598-002C				3546-SVOA-PR		Walkin-Semi	

# WORK ORDER Summary

Work Order: **2007598**

Page 2 of 3

Client: Stantec Consulting - Denver

Due Date: 7/23/2020

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
2007598-002C	LF-SW-03	7/20/2020 1143h	7/21/2020 1025h	8270E-S-3546	Soil	Walkin-Semi	1
				Test Group: 8270E-S-PNA-3546; # of Analytes: 13 / # of Surr: 6			
				8270E-S-SIM-3546		Walkin-Semi	
				Test Group: 8270E-S-PNA-SIM-3546; # of Analytes: 13 / # of Surr:			
2007598-002D	3051A-ICPMS-PR					df-metals-share	
	6010D-S				1 SEL Analytes: B	df-metals-share	
	6020B-S					df-metals-share	
				10 SEL Analytes: AS BA CD CR CU PB NI SE AG ZN			
	COND-S-9050A					df-metals-share	
	HG-S-7471B					df-metals-share	
				1 SEL Analytes: HG			
	HG-S-PR-B					df-metals-share	
	PH-9045D					df-metals-share	
	PMOIST					df-metals-share	
	SAR-S					df-metals-share	
	SOIL-PR					df-metals-share	
2007598-002E	OUTSIDE LAB					Pace	
2007598-003A	LF-FL-01	7/20/2020 1148h	7/21/2020 1025h	8260D-S-PPM	Soil	Purge	1
				Test Group: 8260D-S-MBTXN/GRO; # of Analytes: 5 / # of Surr: 4			
2007598-003B	3546-TPH-PR					walkin-dro	
	8015-S-TPH-3546					walkin-dro	
				Test Group: 8015-S-TPH-3546; # of Analytes: 1 / # of Surr: 1			
2007598-003C	3546-SVOA-PR					Walkin-Semi	
	8270E-S-3546					Walkin-Semi	
				Test Group: 8270E-S-PNA-3546; # of Analytes: 13 / # of Surr: 6			
	8270E-S-SIM-3546					Walkin-Semi	
				Test Group: 8270E-S-PNA-SIM-3546; # of Analytes: 13 / # of Surr:			
2007598-003D	3051A-ICPMS-PR					df-metals-share	
	6010D-S				1 SEL Analytes: B	df-metals-share	
	6020B-S					df-metals-share	
				10 SEL Analytes: AS BA CD CR CU PB NI SE AG ZN			
	COND-S-9050A					df-metals-share	
	HG-S-7471B					df-metals-share	
				1 SEL Analytes: HG			
	HG-S-PR-B					df-metals-share	
	PH-9045D					df-metals-share	

## WORK ORDER Summary

Work Order: **2007598**

Page 3 of 3

Client: Stantec Consulting - Denver

Due Date: 7/23/2020

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
2007598-003D	LF-FL-01	7/20/2020 1148h	7/21/2020 1025h	PMOIST	Soil		df-metals-share
				SAR-S			df-metals-share
				SOIL-PR			df-metals-share
2007598-003E				OUTSIDE LAB			Pace

AWAL Use Only - One or more samples expired upon receipt:

Test Code  
PH-9045D





## CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analytic lists and reporting limits (POL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

Phone # (801) 263-8686 Toll Free # (888) 263-8686  
Fax # (801) 263-8687 Email [awa@awal-labs.com](mailto:awa@awal-labs.com)  
[www.awal-labs.com](http://www.awal-labs.com)

Client: STANTEC  
Address: 2000 S. Colorado Blvd. Suite 2-300  
City, State, Zip: Denver, CO 80222  
Contact: Chris Beall  
Phone #: 970-214-1120  
E-mail: Christopher.Beall@stantec.com  
Project Name: Cheyenne Wilson Creek  
Project #:   
PO #:   
Sampler Name: Jacqui Beall

Sampler Name: Jeramie Bacon

	Sample ID:	Date Sampled	Time Sampled
1	LF-SW-02	7-20-20	1138
2	LF-SW-03	7-20-20	1143
3	LF-FL-01	7-20-20	1148
4			
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		Date:	7-20-80	Received by: Signature	
		Time:	1500	Print Name:	
		Date:		Received by: Signature	
		Time:		Print Name:	
		Date:		Received by: Signature	
		Time:		Print Name:	

*By signing this Chain of Custody you are agreeing to permit AWAL to subcontract any analyses not normally performed at AWAL.*

REV 11-21-18

2007598

AWAL Lab Sample Set # \_\_\_\_\_  
Page 7 of 7

Unless other arrangements have been made, signed reports will be emailed by <b>5:00 pm</b> on the day they are due.	Due Date: <b>7-23-20</b>
Unless other arrangements have been made, signed reports will be emailed by <b>5:00 pm</b> on the day they are due.	Laboratory Use Only COC Tape Was: 1 Present on Outer Package Y N (NA) 2 Unbroken on Outer Package Y N (NA) 3 Present on Sample Y N 4 Unbroken on Sample Y N (NA) Samples Were: 1 Shipped or hand delivered Fed X 2 Ambient or Chilled 1.0 °C 3 Temperature 4 Received Intact Y N 5 Properly Preserved Y N Checked at bench 6 Received Within Holding Times Y N pH rec outside of hold
For Compliance With: <input type="checkbox"/> NELAP <input type="checkbox"/> RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/> ELAP / AZLA <input type="checkbox"/> NLLAP <input type="checkbox"/> Non-Compliance <input type="checkbox"/> Other:	Sample Labels and COC Record Match? Y N
Known Hazards & Sample Comments Consult Table 9/10 ↓	Special Instructions:

		Date:	
		Time:	
		Date:	7/2/10
		Time:	1035
		Date:	
		Time:	

a. The unnecessary or excessive venting or flaring of natural gas produced from a well is prohibited.

b. Except for gas flared or vented during an upset condition, well maintenance, well stimulation flowback, purging operations, or a productivity test, gas from a well shall be flared or vented only after notice has been given and approval obtained from the Director on a Sundry Notice, Form 4, stating the estimated volume and content of the gas. The notice shall indicate whether the gas contains more than one (1) ppm of hydrogen sulfide. If necessary to protect the public health, safety or welfare, the Director may require the flaring of gas.

c. Gas flared, vented or used on the lease shall be estimated based on a gas-oil ratio test or other equivalent test approved by the Director, and reported on Operator's Monthly Report of Operations, Form 7.

d. Flared gas that is subject to Sundry Notice, Form 4, shall be directed to a controlled flare in accordance with Rule 903.b.(2) or other combustion device operated as efficiently as possible to provide maximum reduction of air contaminants where practicable and without endangering the safety of the well site personnel and the public.

e. Operators shall notify the local emergency dispatch or the local governmental designee of any natural gas flaring. Notice shall be given prior to flaring when flaring can be reasonably anticipated, or as soon as possible, but in no event more than two (2) hours after the flaring occurs.

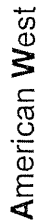
Table 910-1  
CONCENTRATION LEVELS<sup>1</sup>

Contaminant of Concern	Concentrations
<b>Organic Compounds in Soil</b>	
TPH (total volatile and extractable petroleum hydrocarbons)	500 mg/kg
Benzene	0.17 mg/kg <sup>2</sup>
Toluene	85 mg/kg <sup>2</sup>
Ethylbenzene	100 mg/kg <sup>2</sup>
Xylenes (total)	175 mg/kg <sup>2</sup>
Acenaphthene	1,000 mg/kg <sup>2</sup>
Anthracene	1,000 mg/kg <sup>2</sup>
Benz(a)anthracene	0.22 mg/kg <sup>2</sup>
Benzo(b)fluoranthene	0.22 mg/kg <sup>2</sup>
Benzo(k)fluoranthene	2.2 mg/kg <sup>2</sup>
Benzo(a)pyrene	0.022 mg/kg <sup>2</sup>
Chrysene	22 mg/kg <sup>2</sup>
Dibenzo(a,h)anthracene	0.022 mg/kg <sup>2</sup>
Fluoranthene	1,000 mg/kg <sup>2</sup>
Fluorene	1,000 mg/kg <sup>2</sup>
Indeno(1,2,3-c,d)pyrene	0.22 mg/kg <sup>2</sup>
Naphthalene	23 mg/kg <sup>2</sup>
Pyrene	1,000 mg/kg <sup>2</sup>
<b>Organic Compounds in Ground Water</b>	
Benzene	5 µg/l <sup>3</sup>
Toluene	560 to 1,000 µg/l <sup>3</sup>
Ethylbenzene	700 µg/l <sup>3</sup>
Xylenes (Total)	1,400 to 10,000 µg/l <sup>3,4</sup>
<b>Inorganics in Soils</b>	
Electrical Conductivity (EC)	<4 mmhos/cm or 2x background

Sodium Adsorption Ratio (SAR)	<12 <sup>5</sup>
pH	6-9
Inorganics in Ground Water	
Total Dissolved Solids (TDS)	<1.25 x background <sup>3</sup>
Chlorides	<1.25 x background <sup>3</sup>
Sulfates	<1.25 x background <sup>3</sup>
Metals in Soils	
Arsenic	0.39 mg/kg <sup>2</sup>
Barium (LDNR True Total Barium)	15,000 mg/kg <sup>2</sup>
Boron (Hot Water Soluble)	2 mg/l <sup>3</sup>
Cadmium	70 mg/kg <sup>3,6</sup>
Chromium (III)	120,000 mg/kg <sup>2</sup>
Chromium (VI)	23 mg/kg <sup>2,6</sup>
Copper	3,100 mg/kg <sup>2</sup>
Lead (inorganic)	400 mg/kg <sup>2</sup>
Mercury	23 mg/kg <sup>2</sup>
Nickel (soluble salts)	1,600 mg/kg <sup>2,6</sup>
Selenium	390 mg/kg <sup>2,6</sup>
Silver	390 mg/kg <sup>2</sup>
Zinc	23,000 mg/kg <sup>2,6</sup>
Liquid Hydrocarbons in Soils and Ground Water	
Liquid hydrocarbons including condensate	Below detection level
and oil	

COGCC recommends that the latest version of EPA SW 846 analytical methods be used where possible and that analyses of samples be performed by laboratories that maintain state or national accreditation programs.

- <sup>1</sup> Consideration shall be given to background levels in native soils and ground water.
- <sup>2</sup> Concentrations taken from CDPHE-HMMWMD Table 1 Colorado Soil Evaluation Values (December 2007).
- <sup>3</sup> Concentrations taken from CDPHE-WQCC Regulation 41 - The Basic Standards for Ground Water.
- <sup>4</sup> For this range of standards, the first number in the range is a strictly health-based value, based on the WQCC's established methodology for human health-based standards. The second number in the range is a maximum contaminant level (MCL), established under the Federal Safe Drinking Water Act which has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. The WQCC intends that control requirements for this chemical be implemented to attain a level of ambient water quality that is at least equal to the first number in the range except as follows: (1) where ground water quality exceeds the first number in the range due to a release of contaminants that occurred prior to September 14, 2004 (regardless of the date of discovery or subsequent migration of such contaminants) clean-up levels for the entire contaminant plume shall be no more restrictive than the second number in the range or the ground water quality resulting from such release, whichever is more protective, and (2) whenever the WQCC has adopted alternative, site-specific standards for the chemical, the site-specific standards shall apply instead of these statewide standards.
- <sup>5</sup> Analysis by USDA Agricultural Handbook 60 method (20B) with soluble cations determined by method (2). Method (20B) = estimation of exchangeable sodium percentage and exchangeable potassium percentage from soluble cations. Method (2) = saturated paste method (note: each analysis requires a unique sample of at least 500 grams). If soils are saturated, USDA Agricultural Handbook 60 with soluble cations determined by method (3A) saturation extraction method.
- <sup>6</sup> The table value for these inorganic constituents is taken from the CDPHE-HMMWMD Table 1 Colorado Soil Evaluation Values (December 2007). However, because these values are high, it is possible that site-specific geochemical conditions may exist that could allow these constituents to migrate into ground water at levels exceeding ground water standards even though the concentrations are below the table values. Therefore, when these constituents are present as contaminants, a secondary evaluation of their leachability must be performed to ensure ground water protection.



## Analytical Laboratories

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www.awal-labs.com

Client: **American West Analytical Laboratories**

Address: 3440 S. 700 W.

Salt Lake City, UT 84119

Contact: **Elona Hayward**

Phone #: **801-263-8686**

Email: [elona@awal-labs.com](mailto:elona@awal-labs.com) / [jose@awal-labs.com](mailto:jose@awal-labs.com)

**Project Name:**

Project #:

PQ #. 2007598

**Sampler Name:**

Sample ID:		Date Sampled	Time Sampled
1	LF-SW-02	7/20/2020	11:38
2	LF-SW-03	7/20/2020	11:43
3	LF-SW-01	7/20/2020	11:48
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**Relinquished by:**

**Signature**

Print Name: \_\_\_\_\_

### Relinquish

Print Name: \_\_\_\_\_

Received by: \_\_\_\_\_  
Signature: \_\_\_\_\_

Signature

Print Name: \_\_\_\_\_

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**0-2-11-00**

Date: 11/1/00

7-21-21

Time: 1.36

Date: 11.30

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1000

Relinquished by:

**Signature**

Print Name: \_\_\_\_\_

### Relinquish

Print Name: \_\_\_\_\_

## CHAIN OF CUSTODY

Rush

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

Page \_\_\_\_\_ of \_\_\_\_\_  
AWAL Lab Sample Set # \_\_\_\_\_

[illegible]



Chris Beall  
Stantec Consulting, Inc.  
2890 E Cottonwood Pkwy, Suite 300  
Salt Lake City, UT 84121  
TEL: (801) 617-3200

RE: Chevron Wilson Creek / 182603883

Dear Chris Beall:

Lab Set ID: 2007408

3440 South 700 West  
Salt Lake City, UT 84119

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e-mail: [awal@awal-labs.com](mailto:awal@awal-labs.com)  
web: [www.awal-labs.com](http://www.awal-labs.com)

American West Analytical Laboratories received sample(s) on 7/14/2020 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

This is a revision to a report originally issued 2/17/2020. Information herein supersedes that of the previously issued reports. Pages 1-3 have been revised.

Thank You,

Approved by:

Digitally signed  
by Jose G.  
Rocha  
Date: 2020.07.21  
14:43:17 -06'00'

Laboratory Director or designee

Sample(s) were subcontracted for the following analyses:

Hexavalent Chromium



# INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-001  
**Client Sample ID:** LF-SW-01  
**Collection Date:** 7/13/2020 1356h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

## Analytical Results

## TOTAL METALS

3440 South 700 West  
Salt Lake City, UT 84119

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 web: www.awal-labs.com

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	0.493	<b>5.50</b>	
Barium	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	4.93	<b>144</b>	
Boron	mg/kg-dry	7/15/2020 1650h	7/16/2020 1530h	SW6010D	24.6	< 24.6	
Cadmium	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	0.493	< 0.493	
Chromium	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	9.86	<b>27.8</b>	~^*
Copper	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	14.8	<b>216</b>	
Lead	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	2.96	<b>17.6</b>	
Mercury	mg/kg-dry	7/16/2020 1841h	7/17/2020 1322h	SW7471B	0.0434	< 0.0434	
Nickel	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	19.7	< 19.7	
Selenium	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	1.97	< 1.97	
Silver	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	0.296	< 0.296	
Zinc	mg/kg-dry	7/15/2020 1650h	7/16/2020 1725h	SW6020B	14.8	<b>78.9</b>	

^ - Reissue of a previously generated report. Information has been added, updated, or revised. Information herein supersedes that of the previously issued reports. .

\* - This sample was analyzed for Chromium, Hexavalent on 7/17/2020 by Pace Analytical and those results were used in the calculation for Trivalent Chromium.

~ - Based on the results for Total Chromium and Hexavalent Chromium, all the Chromium in the sample is in the Trivalent form. Cr3+ is 27.8 mg/kg-dry. (Calculated from 2 results with Reporting Limits of 9.86 mg/kg-dry and 2.34 mg/kg-dry)



# INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-002  
**Client Sample ID:** Import-Soil-WG  
**Collection Date:** 7/14/2020 1116h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

## Analytical Results

## TOTAL METALS

3440 South 700 West  
Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	0.491	<b>9.83</b>	
Barium	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	4.91	<b>273</b>	
Boron	mg/kg-dry	7/15/2020 1650h	7/16/2020 1533h	SW6010D	24.6	<b>53.4</b>	
Cadmium	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	0.491	<b>0.592</b>	
Chromium	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	9.83	<b>41.7</b>	~^*
Copper	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	14.7	<b>17.9</b>	
Lead	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	2.95	<b>12.1</b>	
Mercury	mg/kg-dry	7/16/2020 1841h	7/17/2020 1331h	SW7471B	0.0434	< 0.0434	
Nickel	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	19.7	<b>25.9</b>	
Selenium	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	1.97	< 1.97	
Silver	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	0.295	< 0.295	
Zinc	mg/kg-dry	7/15/2020 1650h	7/16/2020 1728h	SW6020B	14.7	<b>66.7</b>	

^ - Reissue of a previously generated report. Information has been added, updated, or revised. Information herein supersedes that of the previously issued reports.

\* - This sample was analyzed for Chromium, Hexavalent on 7/17/2020 by Pace Analytical and those results were used in the calculation for Trivalent Chromium.

~ - Based on the results for Total Chromium and Hexavalent Chromium, all the Chromium in the sample is in the Trivalent form. Cr3+ is 41.7 mg/kg-dry. (Calculated from 2 results with Reporting Limits of 9.86 mg/kg-dry and 2.34 mg/kg-dry)



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-001  
**Client Sample ID:** LF-SW-01  
**Collection Date:** 7/13/2020 1356h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

### Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Conductivity	µmhos/cm		7/15/2020 520h	SW9050A	10.0	<b>537</b>	&
pH @ 25° C	pH Units		7/14/2020 1900h	SW9045D	1.00	<b>4.80</b>	H
Sodium Adsorption Ratio			7/16/2020 1219h	Calc.	0.0100	<b>0.115</b>	

& - Analysis is performed on a 1:1 DI water extract for soils.

H - Sample was received outside of the holding time.

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer





## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-002  
**Client Sample ID:** Import-Soil-WG  
**Collection Date:** 7/14/2020 1116h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

### Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Conductivity	µmhos/cm		7/15/2020 520h	SW9050A	10.0	<b>2,660</b>	&
pH @ 25° C	pH Units		7/14/2020 1900h	SW9045D	1.00	<b>8.15</b>	<b>H</b>
Sodium Adsorption Ratio			7/16/2020 1219h	Calc.	0.0100	<b>7.51</b>	

& - Analysis is performed on a 1:1 DI water extract for soils.

H - Sample was received outside of the holding time.

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-001B  
**Client Sample ID:** LF-SW-01  
**Collection Date:** 7/13/2020 1356h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

Test Code: 8015-S-TPH-3546

### **Analytical Results**

TPH-DRO (C10-C28) by Method 8015D/3546

**Analyzed:** 7/16/2020 210h      **Extracted:** 7/15/2020 1242h  
**Units:** mg/kg-dry      **Dilution Factor:** 1      **Method:** SW8015D

Compound			CAS Number		Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)			68476-34-6		23.1	43.9	
Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene		460-00-4	21.9	38.48	56.8	10-160	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-002B  
**Client Sample ID:** Import-Soil-WG  
**Collection Date:** 7/14/2020 1116h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

Test Code: 8015-S-TPH-3546

### Analytical Results

TPH-DRO (C10-C28) by Method 8015D/3546

**Analyzed:** 7/16/2020 306h **Extracted:** 7/15/2020 1242h

**Units:** mg/kg-dry

**Dilution Factor:** 1

**Method:** SW8015D

Compound			CAS Number		Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)			68476-34-6		22.2	< 22.2	
Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene		460-00-4	20.9	36.93	56.6	10-160	

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Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-001C  
**Client Sample ID:** LF-SW-01  
**Collection Date:** 7/13/2020 1356h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

Test Code: 8270E-S-SIM-3546

## Analytical Results

SVOA PNA SIM List by GC/MS Method 8270E/3546

**Analyzed:** 7/16/2020 2330h

**Extracted:** 7/15/2020 1108h

**Units:** µg/kg-dry

**Dilution Factor:** 1

**Method:** SW8270E

3440 South 700 West  
Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	7.76	20.0	
2-Methylnaphthalene	91-57-6	7.76	19.6	
Acenaphthene	83-32-9	7.76	< 7.76	
Acenaphthylene	208-96-8	7.76	< 7.76	
Anthracene	120-12-7	7.76	< 7.76	
Benz(a)anthracene	56-55-3	15.5	< 15.5	
Benzo(a)pyrene	50-32-8	7.76	< 7.76	
Benzo(b)fluoranthene	205-99-2	7.76	< 7.76	
Benzo(g,h,i)perylene	191-24-2	7.76	< 7.76	
Benzo(k)fluoranthene	207-08-9	7.76	< 7.76	
Chrysene	218-01-9	7.76	78.1	
Dibenz(a,h)anthracene	53-70-3	7.76	< 7.76	
Fluoranthene	206-44-0	7.76	8.79	
Fluorene	86-73-7	7.76	< 7.76	
Indene	95-13-6	7.76	< 7.76	
Indeno(1,2,3-cd)pyrene	193-39-5	7.76	< 7.76	
Naphthalene	91-20-3	7.76	10.9	
Phenanthrene	85-01-8	15.5	26.7	
Pyrene	129-00-0	7.76	< 7.76	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-002C  
**Client Sample ID:** Import-Soil-WG  
**Collection Date:** 7/14/2020 1116h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

Test Code: 8270E-S-SIM-3546

## Analytical Results

SVOA PNA SIM List by GC/MS Method 8270E/3546

**Analyzed:** 7/17/2020 858h **Extracted:** 7/15/2020 1108h  
**Units:** µg/kg-dry **Dilution Factor:** 1 **Method:** SW8270E

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	7.55	< 7.55	
2-Methylnaphthalene	91-57-6	7.55	< 7.55	
Acenaphthene	83-32-9	7.55	< 7.55	
Acenaphthylene	208-96-8	7.55	< 7.55	
Anthracene	120-12-7	7.55	< 7.55	
Benz(a)anthracene	56-55-3	15.1	< 15.1	
Benzo(a)pyrene	50-32-8	7.55	< 7.55	
Benzo(b)fluoranthene	205-99-2	7.55	< 7.55	
Benzo(g,h,i)perylene	191-24-2	7.55	< 7.55	
Benzo(k)fluoranthene	207-08-9	7.55	< 7.55	
Chrysene	218-01-9	7.55	< 7.55	
Dibenz(a,h)anthracene	53-70-3	7.55	< 7.55	
Fluoranthene	206-44-0	7.55	< 7.55	
Fluorene	86-73-7	7.55	< 7.55	
Indene	95-13-6	7.55	< 7.55	
Indeno(1,2,3-cd)pyrene	193-39-5	7.55	< 7.55	
Naphthalene	91-20-3	7.55	< 7.55	
Phenanthrene	85-01-8	15.1	< 15.1	
Pyrene	129-00-0	7.55	< 7.55	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-001C  
**Client Sample ID:** LF-SW-01  
**Collection Date:** 7/13/2020 1356h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

Test Code: 8270E-S-3546

## Analytical Results

SVOA PNAs by GC/MS Method 8270E/3546

**Analyzed:** 7/17/2020 136h **Extracted:** 7/15/2020 1108h  
**Units:** µg/kg-dry **Dilution Factor:** 1 **Method:** SW8270E

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	394	< 394	
2-Methylnaphthalene	91-57-6	394	< 394	
Acenaphthene	83-32-9	394	< 394	
Acenaphthylene	208-96-8	394	< 394	
Anthracene	120-12-7	394	< 394	
Benz(a)anthracene	56-55-3	394	< 394	
Benzo(a)pyrene	50-32-8	394	< 394	
Benzo(b)fluoranthene	205-99-2	394	< 394	
Benzo(g,h,i)perylene	191-24-2	394	< 394	
Benzo(k)fluoranthene	207-08-9	394	< 394	
Chrysene	218-01-9	394	< 394	
Dibenz(a,h)anthracene	53-70-3	394	< 394	
Fluoranthene	206-44-0	394	< 394	
Fluorene	86-73-7	394	< 394	
Indene	95-13-6	394	< 394	
Indeno(1,2,3-cd)pyrene	193-39-5	394	< 394	
Naphthalene	91-20-3	394	< 394	
Phenanthrene	85-01-8	394	< 394	
Pyrene	129-00-0	394	< 394	

Surrogate	Units: µg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol		118-79-6	521	772.3	67.5	10-237	
Surr: 2-Fluorobiphenyl		321-60-8	228	386.1	58.9	10-179	
Surr: 2-Fluorophenol		367-12-4	402	772.3	52.0	10-186	
Surr: Nitrobenzene-d5		4165-60-0	204	386.1	52.8	10-166	
Surr: Phenol-d6		13127-88-3	401	772.3	51.9	10-194	
Surr: Terphenyl-d14		1718-51-0	240	386.1	62.1	10-265	

*Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-002C  
**Client Sample ID:** Import-Soil-WG  
**Collection Date:** 7/14/2020 1116h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

Test Code: 8270E-S-3546

## Analytical Results

SVOA PNAs by GC/MS Method 8270E/3546

**Analyzed:** 7/17/2020 245h **Extracted:** 7/15/2020 1108h  
**Units:** µg/kg-dry **Dilution Factor:** 1 **Method:** SW8270E

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	383	< 383	
2-Methylnaphthalene	91-57-6	383	< 383	
Acenaphthene	83-32-9	383	< 383	
Acenaphthylene	208-96-8	383	< 383	
Anthracene	120-12-7	383	< 383	
Benz(a)anthracene	56-55-3	383	< 383	
Benzo(a)pyrene	50-32-8	383	< 383	
Benzo(b)fluoranthene	205-99-2	383	< 383	
Benzo(g,h,i)perylene	191-24-2	383	< 383	
Benzo(k)fluoranthene	207-08-9	383	< 383	
Chrysene	218-01-9	383	< 383	
Dibenz(a,h)anthracene	53-70-3	383	< 383	
Fluoranthene	206-44-0	383	< 383	
Fluorene	86-73-7	383	< 383	
Indene	95-13-6	383	< 383	
Indeno(1,2,3-cd)pyrene	193-39-5	383	< 383	
Naphthalene	91-20-3	383	< 383	
Phenanthrene	85-01-8	383	< 383	
Pyrene	129-00-0	383	< 383	

Surrogate	Units: µg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol		118-79-6	608	751.0	81.0	10-237	
Surr: 2-Fluorobiphenyl		321-60-8	292	375.5	77.8	10-179	
Surr: 2-Fluorophenol		367-12-4	572	751.0	76.1	10-186	
Surr: Nitrobenzene-d5		4165-60-0	279	375.5	74.4	10-166	
Surr: Phenol-d6		13127-88-3	519	751.0	69.1	10-194	
Surr: Terphenyl-d14		1718-51-0	302	375.5	80.4	10-265	



# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-001A  
**Client Sample ID:** LF-SW-01  
**Collection Date:** 7/13/2020 1356h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

Test Code: 8260D-S-PPM

## Analytical Results

VOAs MBTEXN/GRO by GC/MS Method 8260D

**Analyzed:** 7/15/2020 1844h

**Extracted:**

**Units:** mg/kg-dry

**Dilution Factor:** 2.5

**Method:** SW8260D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzene	71-43-2	0.00293	< 0.00293	
Ethylbenzene	100-41-4	0.00585	< 0.00585	
Toluene	108-88-3	0.00585	< 0.00585	
TPH C6-C10 (GRO)		0.0585	<b>0.107</b>	
Xylenes, Total	1330-20-7	0.00585	< 0.00585	

Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	0.144	0.1464	98.4	70-132	
Surr: 4-Bromofluorobenzene		460-00-4	0.153	0.1464	105	70-125	
Surr: Dibromofluoromethane		1868-53-7	0.143	0.1464	98.0	70-133	
Surr: Toluene-d8		2037-26-5	0.148	0.1464	101	70-123	

*Sampling and analytical preparation performed by method 5030A modified for analysis of soil samples collected in 2 or 4 oz jars.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer





# ORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting, Inc.  
**Project:** Chevron Wilson Creek / 182603883  
**Lab Sample ID:** 2007408-002A  
**Client Sample ID:** Import-Soil-WG  
**Collection Date:** 7/14/2020 1116h  
**Received Date:** 7/14/2020 1634h

**Contact:** Chris Beall

Test Code: 8260D-S-PPM

## Analytical Results

VOAs MBTEXN/GRO by GC/MS Method 8260D

**Analyzed:** 7/15/2020 1904h

**Extracted:**

**Units:** mg/kg-dry

**Dilution Factor:** 2.38

**Method:** SW8260D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzene	71-43-2	0.00268	< 0.00268	
Ethylbenzene	100-41-4	0.00537	< 0.00537	
Toluene	108-88-3	0.00537	< 0.00537	
TPH C6-C10 (GRO)		0.0537	< 0.0537	
Xylenes, Total	1330-20-7	0.00537	< 0.00537	

Surrogate	Units: mg/kg-dry	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	0.132	0.1341	98.5	70-132	
Surr: 4-Bromofluorobenzene		460-00-4	0.133	0.1341	98.9	70-125	
Surr: Dibromofluoromethane		1868-53-7	0.129	0.1341	96.3	70-133	
Surr: Toluene-d8		2037-26-5	0.131	0.1341	97.8	70-123	

Sampling and analytical preparation performed by method 5030A modified for analysis of soil samples collected in 2 or 4 oz jars.

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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-71149													
Date Analyzed:		07/16/2020 1258h											
Test Code:		6010D-S											
Date Prepared:		07/15/2020 1650h											
Boron	96.9	mg/kg	SW6010D	5.52	20.0	100.0	0	96.9	80 - 120				
Lab Sample ID: LCS-71149													
Test Code:		6020B-S											
Date Analyzed:		07/16/2020 1707h											
Date Prepared:		07/15/2020 1650h											
Arsenic	18.6	mg/kg	SW6020B	0.116	0.400	20.00	0	92.8	85 - 115				
Barium	18.2	mg/kg	SW6020B	2.30	4.00	20.00	0	90.8	85 - 115				
Cadmium	18.4	mg/kg	SW6020B	0.0640	0.400	20.00	0	92.1	85 - 115				
Chromium	19.5	mg/kg	SW6020B	2.36	8.00	20.00	0	97.7	85 - 115				
Copper	19.8	mg/kg	SW6020B	3.08	12.0	20.00	0	99.2	85 - 115				
Lead	18.9	mg/kg	SW6020B	1.55	2.40	20.00	0	94.5	85 - 115				
Nickel	19.5	mg/kg	SW6020B	1.36	16.0	20.00	0	97.4	85 - 115				
Selenium	17.6	mg/kg	SW6020B	0.177	1.60	20.00	0	88.0	85 - 115				
Silver	18.9	mg/kg	SW6020B	0.0604	0.240	20.00	0	94.6	85 - 115				
Zinc	96.7	mg/kg	SW6020B	2.34	12.0	100.0	0	96.7	85 - 115				
Lab Sample ID: LCS-71187													
Date Analyzed:		07/17/2020 1320h											
Test Code:		HG-S-7471B											
Date Prepared:		07/16/2020 1841h											
Mercury	0.441	mg/kg	SW7471B	0.00938	0.0400	0.4000	0	110	80 - 120				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-71149													
Date Analyzed:		07/16/2020 1256h											
Test Code:		6010D-S											
Date Prepared:		07/15/2020 1650h											
Boron	< 20.0	mg/kg	SW6010D	5.52	20.0								
Lab Sample ID: MB-71149													
Date Analyzed:		07/16/2020 1704h											
Test Code:		6020B-S											
Date Prepared:		07/15/2020 1650h											
Arsenic	< 0.400	mg/kg	SW6020B	0.116	0.400								
Barium	< 4.00	mg/kg	SW6020B	2.30	4.00								
Cadmium	< 0.400	mg/kg	SW6020B	0.0640	0.400								
Chromium	< 8.00	mg/kg	SW6020B	2.36	8.00								
Copper	< 12.0	mg/kg	SW6020B	3.08	12.0								
Lead	< 2.40	mg/kg	SW6020B	1.55	2.40								
Nickel	< 16.0	mg/kg	SW6020B	1.36	16.0								
Selenium	< 1.60	mg/kg	SW6020B	0.177	1.60								
Silver	< 0.240	mg/kg	SW6020B	0.0604	0.240								
Zinc	< 12.0	mg/kg	SW6020B	2.34	12.0								
Lab Sample ID: MB-71187													
Date Analyzed:		07/17/2020 1318h											
Test Code:		HG-S-7471B											
Date Prepared:		07/16/2020 1841h											
Mercury	< 0.0400	mg/kg	SW7471B	0.00938	0.0400								



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Jose Rocha  
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## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 2007449-001AMS</b>													
Date Analyzed:		07/16/2020 1525h											
Test Code:		6010D-S											
Boron	517	mg/kg	SW6010D	29.1	105	526.3	0	98.3	75 - 125				
<b>Lab Sample ID: 2007449-001AMS</b>													
Date Analyzed:		07/17/2020 1029h											
Test Code:		6020B-S											
Arsenic	101	mg/kg	SW6020B	0.611	2.11	105.3	0	96.2	75 - 125				
Barium	100	mg/kg	SW6020B	12.1	21.1	105.3	0	95.4	75 - 125				
Cadmium	99.7	mg/kg	SW6020B	0.337	2.11	105.3	0	94.7	75 - 125				
Chromium	102	mg/kg	SW6020B	12.4	42.1	105.3	0	96.8	75 - 125				
Copper	103	mg/kg	SW6020B	16.2	63.2	105.3	0	98.3	75 - 125				
Lead	105	mg/kg	SW6020B	8.15	12.6	105.3	0	99.7	75 - 125				
Nickel	105	mg/kg	SW6020B	7.16	84.2	105.3	0	99.3	75 - 125				
Selenium	97.4	mg/kg	SW6020B	0.931	8.42	105.3	0	92.5	75 - 125				
Silver	103	mg/kg	SW6020B	0.318	1.26	105.3	0	98.3	75 - 125				
Zinc	514	mg/kg	SW6020B	12.3	63.2	526.3	0	97.7	75 - 125				
<b>Lab Sample ID: 2007408-001DMS</b>													
Date Analyzed:		07/17/2020 1327h											
Test Code:		HG-S-7471B											
Mercury	0.460	mg/kg-dry	SW7471B	0.00981	0.0418	0.4181	0.023	105	80 - 120				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 2007449-001A</b> MSD													
Test Code:	6010D-S												
Boron	434	mg/kg	SW6010D	28.4	103	513.9	0	84.4	75 - 125	517	17.6	20	
<b>Lab Sample ID: 2007449-001A</b> MSD													
Test Code:	6020B-S												
Arsenic	87.3	mg/kg	SW6020B	0.596	2.06	102.8	0	85.0	75 - 125	101	14.8	20	
Barium	87.4	mg/kg	SW6020B	11.8	20.6	102.8	0	85.1	75 - 125	100	13.8	20	
Cadmium	84.8	mg/kg	SW6020B	0.329	2.06	102.8	0	82.5	75 - 125	99.7	16.1	20	
Chromium	87.4	mg/kg	SW6020B	12.1	41.1	102.8	0	85.0	75 - 125	102	15.4	20	
Copper	88.6	mg/kg	SW6020B	15.8	61.7	102.8	0	86.2	75 - 125	103	15.4	20	
Lead	89.6	mg/kg	SW6020B	7.95	12.3	102.8	0	87.1	75 - 125	105	15.8	20	
Nickel	90.7	mg/kg	SW6020B	6.99	82.2	102.8	0	88.3	75 - 125	105	14.1	20	
Selenium	84.0	mg/kg	SW6020B	0.909	8.22	102.8	0	81.8	75 - 125	97.4	14.7	20	
Silver	88.3	mg/kg	SW6020B	0.310	1.23	102.8	0	85.9	75 - 125	103	15.8	20	
Zinc	448	mg/kg	SW6020B	12.0	61.7	513.9	0	87.2	75 - 125	514	13.7	20	
<b>Lab Sample ID: 2007408-001D</b> MSD													
Test Code:	HG-S-7471B												
Mercury	0.468	mg/kg-dry	SW7471B	0.00981	0.0418	0.4181	0.023	106	80 - 120	0.46	1.67	20	



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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.

**Lab Set ID:** 2007408

**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall

**Dept:** W/C

**QC Type:** DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 2007408-002DDUP	Date Analyzed:	07/15/2020 520h											
Test Code: COND-S-9050A													
Conductivity	2,660	µmhos/cm	SW9050A	0.500	10.0					2660	0.188	10	&
<b>Lab Sample ID:</b> 2007371-001ADUP	Date Analyzed:	07/14/2020 1900h											
Test Code: PH-9045D													
pH @ 25° C	6.99	pH Units	SW9045D	1.00	1.00					6.95	0.574	10	H
<b>Lab Sample ID:</b> 2007403-011ADUP	Date Analyzed:	07/14/2020 1900h											
Test Code: PH-9045D													
pH @ 25° C	4.55	pH Units	SW9045D	1.00	1.00					4.54	0.220	10	

& - Analysis is performed on a 1:1 DI water extract for soils.

H - Sample was received outside of the holding time.



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Kyle F. Gross  
Laboratory Director  
  
Jose Rocha  
QA Officer

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**QC SUMMARY REPORT**

**Contact:** Chris Beall  
**Dept:** W/C  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Date Analyzed: 07/15/2020 520h													
Conductivity	1,000	µmhos/cm	SW9050A	0.500	10.0	1,000	0	100	98 - 102				
Date Analyzed: 07/14/2020 1900h													
Lab Sample ID:	LCS-R140951												
Test Code:	PH-9045D												
pH @ 25° C	8.98	pH Units	SW9045D	1.00	1.00	9,000	0	99.8	98 - 102				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** W/C  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID:	MB-R140958	Date Analyzed:	07/15/2020 520h										
Test Code:	COND-S-9050A												
Conductivity	< 10.0	µmhos/cm	SW9050A	0.500	10.0								





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## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** GC  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-71132													
Test Code:		8015-S-TPH-3546	Date Analyzed:		07/16/2020 151h		Date Prepared:		07/15/2020 1242h				
Diesel Range Organics (DRO) (C10-C28)		145	mg/kg	SW8015D	14.2	20.0	166.7	0	87.2	48 - 115			
Surr: 4-Bromofluorobenzene		21.7	mg/kg	SW8015D			33.33		65.1	24 - 112			



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**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** GC  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-71132	Date Analyzed:	07/16/2020 133h											
Test Code: 8015-S-TPH-3546	Date Prepared:	07/15/2020 1242h											
Diesel Range Organics (DRO) (C10-C28)	< 20.0	mg/kg	SW8015D	14.2	20.0								
Surr: 4-Bromofluorobenzene	21.1	mg/kg	SW8015D			33.33		63.2	24 - 112				



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## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** GC  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 2007408-001BMS</b>													
Test Code:	8015-S-TPH-3546												
Diesel Range Organics (DRO) (C10-C28)	246	mg/kg-dry	SW8015D	16.3	22.9	191.0	43.9	106	10 - 230				
Surr: 4-Bromofluorobenzene	21.5	mg/kg-dry	SW8015D			38.20		56.3	10 - 160				
<b>Lab Sample ID: 2007448-001AMS</b>													
Test Code:	8015-S-TPH-3546												
Diesel Range Organics (DRO) (C10-C28)	< 5,380	mg/kg-dry	SW8015D	3,820	5,380	179.4	0	0	10 - 230				S
Surr: 4-Bromofluorobenzene	31.3	mg/kg-dry	SW8015D			35.89		87.1	10 - 160				

2007448-001AMS: The reporting limits were raised due to sample matrix interferences.

S - Sample dilution required due to sample matrix. MS spiking compound recoveries are outside of the control limits as expected due to being diluted out.



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## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** GC  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 2007408-001BMSD</b>													
Test Code:	8015-S-TPH-3546												
Diesel Range Organics (DRO) (C10-C28)	276	mg/kg-dry	SW8015D	16.4	23.1	192.1	43.9	121	10 - 230	246	11.6	25	
Surr: 4-Bromofluorobenzene	22.5	mg/kg-dry	SW8015D			38.42		58.5	10 - 160				
<b>Lab Sample ID: 2007448-001AMS</b>													
Test Code:	8015-S-TPH-3546												
Diesel Range Organics (DRO) (C10-C28)	< 5.410	mg/kg-dry	SW8015D	3.840	5.410	180.3	0	0	10 - 230	0	0	25	S
Surr: 4-Bromofluorobenzene	28.3	mg/kg-dry	SW8015D			36.06		78.4	10 - 160				

2007448-001AMS: The reporting limits were raised due to sample matrix interferences.

S - Sample dilution required due to sample matrix. MS spiking compound recoveries are outside of the control limits as expected due to being diluted out.



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**Client:** Stantec Consulting, Inc.

**Lab Set ID:** 2007408

**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-71124													
Test Code: 8270E-S-3546													
Date Analyzed: 07/16/2020 2210h													
Date Prepared: 07/15/2020 1108h													
1-Methylnaphthalene	517	µg/kg	SW8270E	40.3	340	666.7	0	77.5	23 - 100				
2-Methylnaphthalene	522	µg/kg	SW8270E	38.3	340	666.7	0	78.3	23 - 100				
Acenaphthene	549	µg/kg	SW8270E	37.3	340	666.7	0	82.3	24 - 110				
Acenaphthylene	540	µg/kg	SW8270E	34.6	340	666.7	0	80.9	26 - 100				
Anthracene	577	µg/kg	SW8270E	37.8	340	666.7	0	86.5	40 - 119				
Benz(a)anthracene	562	µg/kg	SW8270E	42.7	340	666.7	0	84.3	42 - 114				
Benzo(a)pyrene	573	µg/kg	SW8270E	54.8	340	666.7	0	85.9	42 - 119				
Benzo(b)fluoranthene	562	µg/kg	SW8270E	58.4	340	666.7	0	84.3	42 - 119				
Benzo(g,h,i)perylene	472	µg/kg	SW8270E	53.8	340	666.7	0	70.8	11 - 100				
Benzo(k)fluoranthene	593	µg/kg	SW8270E	45.9	340	666.7	0	89.0	45 - 121				
Chrysene	577	µg/kg	SW8270E	43.9	340	666.7	0	86.6	26 - 115				
Dibenz(a,h)anthracene	584	µg/kg	SW8270E	58.3	340	666.7	0	87.6	44 - 122				
Fluoranthene	649	µg/kg	SW8270E	64.3	340	666.7	0	97.3	27 - 120				
Fluorene	566	µg/kg	SW8270E	41.5	340	666.7	0	85.0	25 - 110				
Indene	451	µg/kg	SW8270E	39.9	340	666.7	0	67.6	10 - 100				
Indeno(1,2,3-c)pyrene	583	µg/kg	SW8270E	50.5	340	666.7	0	87.4	43 - 121				
Naphthalene	513	µg/kg	SW8270E	61.6	340	666.7	0	76.9	23 - 100				
Phenanthrene	561	µg/kg	SW8270E	63.3	340	666.7	0	84.1	40 - 118				
Pyrene	553	µg/kg	SW8270E	63.6	340	666.7	0	82.9	38 - 122				
Surr: 2,4,6-Tribromophenol	499	µg/kg	SW8270E			666.7		74.9	10 - 140				
Surr: 2-Fluorobiphenyl	242	µg/kg	SW8270E			333.3		72.7	25 - 126				
Surr: 2-Fluorophenol	452	µg/kg	SW8270E			666.7		67.8	15 - 121				
Surr: Nitrobenzene-d5	228	µg/kg	SW8270E			333.3		68.3	20 - 117				
Surr: Phenol-d6	415	µg/kg	SW8270E			666.7		62.3	22 - 121				
Surr: Terphenyl-d14	259	µg/kg	SW8270E			333.3		77.8	26 - 143				

LCS-71124: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.



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Laboratory Director  
  
Jose Rocha  
QA Officer

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** MSSV  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-71124													
Test Code: 8270E-S-3546													
Date Analyzed: 07/16/2020 2147h													
Date Prepared: 07/15/2020 1108h													
1-Methylnaphthalene	< 340	µg/kg	SW8270E	40.3	340								
2-Methylnaphthalene	< 340	µg/kg	SW8270E	38.3	340								
Acenaphthene	< 340	µg/kg	SW8270E	37.3	340								
Acenaphthylene	< 340	µg/kg	SW8270E	34.6	340								
Anthracene	< 340	µg/kg	SW8270E	37.8	340								
Benz(a)anthracene	< 340	µg/kg	SW8270E	42.7	340								
Benzo(a)pyrene	< 340	µg/kg	SW8270E	54.8	340								
Benzo(b)fluoranthene	< 340	µg/kg	SW8270E	58.4	340								
Benzo(g,h,i)perylene	< 340	µg/kg	SW8270E	53.8	340								
Benzo(k)fluoranthene	< 340	µg/kg	SW8270E	45.9	340								
Chrysene	< 340	µg/kg	SW8270E	43.9	340								
Dibenz(a,h)anthracene	< 340	µg/kg	SW8270E	58.3	340								
Fluoranthene	< 340	µg/kg	SW8270E	64.3	340								
Fluorene	< 340	µg/kg	SW8270E	41.5	340								
Indene	< 340	µg/kg	SW8270E	39.9	340								
Indeno(1,2,3-cd)pyrene	< 340	µg/kg	SW8270E	50.5	340								
Naphthalene	< 340	µg/kg	SW8270E	61.6	340								
Phenanthrene	< 340	µg/kg	SW8270E	63.3	340								
Pyrene	< 340	µg/kg	SW8270E	63.6	340								
Surr: 2,4,6-Tribromophenol	413	µg/kg	SW8270E			666.7		61.9	10 - 140				
Surr: 2-Fluorobiphenyl	238	µg/kg	SW8270E			333.3		71.4	25 - 126				
Surr: 2-Fluorophenol	433	µg/kg	SW8270E			666.7		65.0	15 - 121				
Surr: Nitrobenzene-d5	213	µg/kg	SW8270E			333.3		64.0	20 - 117				
Surr: Phenol-d6	383	µg/kg	SW8270E			666.7		57.4	22 - 121				
Surr: Terphenyl-d14	251	µg/kg	SW8270E			333.3		75.2	26 - 143				

MB-71124: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

**Client:** Stantec Consulting, Inc.

**Lab Set ID:** 2007408

**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007408-001CMS													
Test Code: 8270E-S-3546													
Date Analyzed: 07/17/2020 159h													
Date Prepared: 07/15/2020 1108h													
1-Methylnaphthalene	590	µg/kg-dry	SW8270E	46.4	392	767.8	0	76.9	23 - 100				
2-Methylnaphthalene	595	µg/kg-dry	SW8270E	44.1	392	767.8	0	77.5	23 - 100				
Acenaphthene	619	µg/kg-dry	SW8270E	43.0	392	767.8	0	80.6	24 - 110				
Acenaphthylene	617	µg/kg-dry	SW8270E	39.8	392	767.8	0	80.4	26 - 100				
Anthracene	649	µg/kg-dry	SW8270E	43.5	392	767.8	0	84.6	40 - 119				
Benz(a)anthracene	630	µg/kg-dry	SW8270E	49.2	392	767.8	0	82.1	42 - 114				
Benzo(a)pyrene	638	µg/kg-dry	SW8270E	63.1	392	767.8	0	83.1	42 - 119				
Benzo(b)fluoranthene	639	µg/kg-dry	SW8270E	67.3	392	767.8	0	83.2	42 - 119				
Benzo(g,h,i)perylene	505	µg/kg-dry	SW8270E	62.0	392	767.8	0	65.7	11 - 100				
Benzo(k)fluoranthene	638	µg/kg-dry	SW8270E	52.9	392	767.8	0	83.1	45 - 121				
Chrysene	646	µg/kg-dry	SW8270E	50.6	392	767.8	63.2	75.9	26 - 115				
Dibenz(a,h)anthracene	660	µg/kg-dry	SW8270E	67.1	392	767.8	0	86.0	44 - 122				
Fluoranthene	724	µg/kg-dry	SW8270E	74.0	392	767.8	0	94.2	27 - 120				
Fluorene	635	µg/kg-dry	SW8270E	47.8	392	767.8	0	82.7	25 - 110				
Indene	502	µg/kg-dry	SW8270E	45.9	392	767.8	0	65.4	10 - 100				
Indeno(1,2,3-cd)pyrene	649	µg/kg-dry	SW8270E	58.2	392	767.8	0	84.6	43 - 121				
Naphthalene	591	µg/kg-dry	SW8270E	70.9	392	767.8	0	76.9	23 - 100				
Phenanthrene	642	µg/kg-dry	SW8270E	72.9	392	767.8	0	83.6	40 - 118				
Pyrene	620	µg/kg-dry	SW8270E	73.2	392	767.8	0	80.8	38 - 122				
Surr: 2,4,6-Tribromophenol	635	µg/kg-dry	SW8270E			767.8		82.7	10 - 140				
Surr: 2-Fluorobiphenyl	267	µg/kg-dry	SW8270E			383.9		69.6	25 - 126				
Surr: 2-Fluorophenol	490	µg/kg-dry	SW8270E			767.8		63.9	15 - 121				
Surr: Nitrobenzene-d5	249	µg/kg-dry	SW8270E			383.9		64.8	20 - 117				
Surr: Phenol-d6	456	µg/kg-dry	SW8270E			767.8		59.4	22 - 121				
Surr: Terphenyl-d14	282	µg/kg-dry	SW8270E			383.9		73.5	26 - 143				





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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall  
**Dept:** MSSV  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007408-001C/MSD													
Test Code:	8270E-S-3546	Date Analyzed: 07/17/2020 222h Date Prepared: 07/15/2020 1108h											
1-Methylnaphthalene	632	µg/kg-dry	SW8270E	46.3	391	765.7	0	82.5	23 - 100	590	6.75	35	
2-Methylnaphthalene	636	µg/kg-dry	SW8270E	44.0	391	765.7	0	83.1	23 - 100	595	6.67	35	
Acenaphthene	636	µg/kg-dry	SW8270E	42.8	391	765.7	0	83.1	24 - 110	619	2.68	35	
Acenaphthylene	632	µg/kg-dry	SW8270E	39.7	391	765.7	0	82.6	26 - 100	617	2.41	35	
Anthracene	662	µg/kg-dry	SW8270E	43.4	391	765.7	0	86.4	40 - 119	649	1.89	35	
Benz(a)anthracene	636	µg/kg-dry	SW8270E	49.0	391	765.7	0	83.0	42 - 114	630	0.911	35	
Benzo(a)pyrene	642	µg/kg-dry	SW8270E	62.9	391	765.7	0	83.8	42 - 119	638	0.577	35	
Benzo(b)fluoranthene	657	µg/kg-dry	SW8270E	67.1	391	765.7	0	85.7	42 - 119	639	2.74	35	
Benzo(g,h,i)perylene	506	µg/kg-dry	SW8270E	61.8	391	765.7	0	66.0	11 - 100	505	0.190	35	
Benzo(k)fluoranthene	636	µg/kg-dry	SW8270E	52.7	391	765.7	0	83.0	45 - 121	638	0.347	35	
Chrysene	656	µg/kg-dry	SW8270E	50.4	391	765.7	63.2	77.4	26 - 115	646	1.51	35	
Dibenz(a,h)anthracene	661	µg/kg-dry	SW8270E	67.0	391	765.7	0	86.3	44 - 122	660	0.0818	35	
Fluoranthene	754	µg/kg-dry	SW8270E	73.9	391	765.7	0	98.5	27 - 120	724	4.11	35	
Fluorene	646	µg/kg-dry	SW8270E	47.7	391	765.7	0	84.4	25 - 110	635	1.72	35	
Indene	573	µg/kg-dry	SW8270E	45.8	391	765.7	0	74.8	10 - 100	502	13.2	35	
Indeno(1,2,3-cd)pyrene	652	µg/kg-dry	SW8270E	58.0	391	765.7	0	85.2	43 - 121	649	0.455	35	
Naphthalene	636	µg/kg-dry	SW8270E	70.8	391	765.7	0	83.1	23 - 100	591	7.46	35	
Phenanthrene	674	µg/kg-dry	SW8270E	72.7	391	765.7	0	88.0	40 - 118	642	4.87	35	
Pyrene	644	µg/kg-dry	SW8270E	73.1	391	765.7	0	84.1	38 - 122	620	3.79	35	
Surr: 2,4,6-Tribromophenol	630	µg/kg-dry	SW8270E			765.7		82.3	10 - 140				
Surr: 2-Fluorobiphenyl	289	µg/kg-dry	SW8270E			382.9		75.6	25 - 126				
Surr: 2-Fluorophenol	550	µg/kg-dry	SW8270E			765.7		71.9	15 - 121				
Surr: Nitrobenzene-d5	279	µg/kg-dry	SW8270E			382.9		72.7	20 - 117				
Surr: Phenol-d6	499	µg/kg-dry	SW8270E			765.7		65.1	22 - 121				
Surr: Terphenyl-d14	287	µg/kg-dry	SW8270E			382.9		75.0	26 - 143				





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**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** MSSV  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-71124													
Test Code:		8270E-S-SIM-3546	Date Analyzed:		07/16/2020 2307h		Date Prepared:		07/15/2020 1108h				
1-Methylnaphthalene	597	µg/kg	SW8270E	95.8	134	666.7	0	89.6	33 - 123				
2-Methylnaphthalene	598	µg/kg	SW8270E	119	134	666.7	0	89.7	32 - 126				
Acenaphthene	549	µg/kg	SW8270E	35.6	134	666.7	0	82.3	26 - 147				
Acenaphthylene	590	µg/kg	SW8270E	80.6	134	666.7	0	88.5	26 - 144				
Anthracene	587	µg/kg	SW8270E	51.6	134	666.7	0	88.1	23 - 158				
Benz(a)anthracene	731	µg/kg	SW8270E	92.6	268	666.7	0	110	25 - 155				
Benzo(a)pyrene	747	µg/kg	SW8270E	65.8	134	666.7	0	112	28 - 145				
Benzo(b)fluoranthene	704	µg/kg	SW8270E	65.6	134	666.7	0	106	29 - 146				
Benzo(g,h,i)perylene	592	µg/kg	SW8270E	60.8	134	666.7	0	88.8	10 - 146				
Benzo(k)fluoranthene	781	µg/kg	SW8270E	82.2	134	666.7	0	117	36 - 149				
Chrysene	643	µg/kg	SW8270E	82.6	134	666.7	0	96.4	24 - 162				
Dibenz(a,h)anthracene	712	µg/kg	SW8270E	71.2	134	666.7	0	107	29 - 146				
Fluoranthene	627	µg/kg	SW8270E	80.6	134	666.7	0	94.1	24 - 157				
Fluorene	590	µg/kg	SW8270E	43.2	134	666.7	0	88.6	28 - 158				
Indene	496	µg/kg	SW8270E	25.0	134	666.7	0	74.4	33 - 112				
Indeno(1,2,3-cd)pyrene	709	µg/kg	SW8270E	70.2	134	666.7	0	106	31 - 142				
Naphthalene	566	µg/kg	SW8270E	78.0	134	666.7	0	84.9	37 - 121				
Phenanthrene	563	µg/kg	SW8270E	104	268	666.7	0	84.5	23 - 156				
Pyrene	630	µg/kg	SW8270E	75.8	134	666.7	0	94.5	22 - 160				

LCS-71124: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.



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Laboratory Director  
  
Jose Rocha  
QA Officer

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** MSSV  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-71124													
Test Code: 8270E-S-SIM-3546													
Date Analyzed: 07/16/2020 2245h													
Date Prepared: 07/15/2020 1108h													
1-Methylnaphthalene	< 6.70	µg/kg	SW8270E	4.79	6.70								
2-Methylnaphthalene	< 6.70	µg/kg	SW8270E	5.97	6.70								
Acenaphthene	< 6.70	µg/kg	SW8270E	1.78	6.70								
Acenaphthylene	< 6.70	µg/kg	SW8270E	4.03	6.70								
Anthracene	< 6.70	µg/kg	SW8270E	2.58	6.70								
Benz(a)anthracene	< 13.4	µg/kg	SW8270E	4.63	13.4								
Benzo(a)pyrene	< 6.70	µg/kg	SW8270E	3.29	6.70								
Benzo(b)fluoranthene	< 6.70	µg/kg	SW8270E	3.28	6.70								
Benzo(g,h,i)perylene	< 6.70	µg/kg	SW8270E	3.04	6.70								
Benzo(k)fluoranthene	< 6.70	µg/kg	SW8270E	4.11	6.70								
Chrysene	< 6.70	µg/kg	SW8270E	4.13	6.70								
Dibenz(a,h)anthracene	< 6.70	µg/kg	SW8270E	3.56	6.70								
Fluoranthene	< 6.70	µg/kg	SW8270E	4.03	6.70								
Fluorene	< 6.70	µg/kg	SW8270E	2.16	6.70								
Indene	< 6.70	µg/kg	SW8270E	1.25	6.70								
Indeno(1,2,3-cd)pyrene	< 6.70	µg/kg	SW8270E	3.51	6.70								
Naphthalene	< 6.70	µg/kg	SW8270E	3.90	6.70								
Phenanthrene	< 13.4	µg/kg	SW8270E	5.22	13.4								
Pyrene	< 6.70	µg/kg	SW8270E	3.79	6.70								

MB-71124: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.



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**Client:** Stantec Consulting, Inc.

**Lab Set ID:** 2007408

**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007408-001CMS													
Test Code: 8270E-S-SIM-3546													
Date Analyzed: 07/16/2020 2352h													
Date Prepared: 07/15/2020 1108h													
1-Methylnaphthalene	674	µg/kg-dry	SW8270E	110	154	767.8	20	85.2	33 - 123				
2-Methylnaphthalene	708	µg/kg-dry	SW8270E	138	154	767.8	19.6	89.7	32 - 126				
Acenaphthene	606	µg/kg-dry	SW8270E	41.0	154	767.8	3.68	78.4	26 - 147				
Acenaphthylene	660	µg/kg-dry	SW8270E	92.8	154	767.8	0	86.0	26 - 144				
Anthracene	687	µg/kg-dry	SW8270E	59.4	154	767.8	0	89.5	23 - 158				
Benz(a)anthracene	884	µg/kg-dry	SW8270E	107	309	767.8	92.8	103	25 - 155				
Benzo(a)pyrene	822	µg/kg-dry	SW8270E	75.8	154	767.8	0	107	28 - 145				
Benzo(b)fluoranthene	841	µg/kg-dry	SW8270E	75.5	154	767.8	6.27	109	29 - 146				
Benzo(g,h,i)perylene	640	µg/kg-dry	SW8270E	70.0	154	767.8	0	83.3	10 - 146				
Benzo(k)fluoranthene	851	µg/kg-dry	SW8270E	94.7	154	767.8	0	111	36 - 149				
Chrysene	752	µg/kg-dry	SW8270E	95.1	154	767.8	0	98.0	24 - 162				
Dibenz(a,h)anthracene	928	µg/kg-dry	SW8270E	82.0	154	767.8	0	121	29 - 146				
Fluoranthene	766	µg/kg-dry	SW8270E	92.8	154	767.8	8.79	98.6	24 - 157				
Fluorene	645	µg/kg-dry	SW8270E	49.7	154	767.8	4.66	83.4	28 - 158				
Indene	614	µg/kg-dry	SW8270E	28.8	154	767.8	0	79.9	33 - 112				
Indeno(1,2,3-cd)pyrene	880	µg/kg-dry	SW8270E	80.8	154	767.8	0	115	31 - 142				
Naphthalene	671	µg/kg-dry	SW8270E	89.8	154	767.8	10.9	85.9	37 - 121				
Phenanthrene	639	µg/kg-dry	SW8270E	120	309	767.8	26.7	79.8	23 - 156				
Pyrene	769	µg/kg-dry	SW8270E	87.3	154	767.8	7.29	99.1	22 - 160				

2007408-001CMS: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.



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QA Officer

**Client:** Stantec Consulting, Inc.

**Lab Set ID:** 2007408

**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall

**Dept:** MSSV

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 2007408-001C/MSD													
Test Code: 8270E-S-SIM-3546													
Date Analyzed: 07/17/2020 015h													
Date Prepared: 07/15/2020 1108h													
1-Methylnaphthalene	657	µg/kg-dry	SW8270E	110	154	765.7	20	83.2	33 - 123	674	2.52	35	
2-Methylnaphthalene	517	µg/kg-dry	SW8270E	137	154	765.7	19.6	64.9	32 - 126	708	31.3	35	
Acenaphthene	586	µg/kg-dry	SW8270E	40.9	154	765.7	3.68	76.0	26 - 147	606	3.38	35	
Acenaphthylene	631	µg/kg-dry	SW8270E	92.6	154	765.7	0	82.4	26 - 144	660	4.49	35	
Anthracene	647	µg/kg-dry	SW8270E	59.3	154	765.7	0	84.5	23 - 158	687	6.05	35	
Benz(a)anthracene	846	µg/kg-dry	SW8270E	106	308	765.7	92.8	98.4	25 - 155	884	4.30	35	
Benzo(a)pyrene	812	µg/kg-dry	SW8270E	75.6	154	765.7	0	106	28 - 145	822	1.22	35	
Benzo(b)fluoranthene	825	µg/kg-dry	SW8270E	75.3	154	765.7	6.27	107	29 - 146	841	1.97	35	
Benzo(g,h,i)perylene	606	µg/kg-dry	SW8270E	69.8	154	765.7	0	79.2	10 - 146	640	5.33	35	
Benzo(k)fluoranthene	812	µg/kg-dry	SW8270E	94.4	154	765.7	0	106	36 - 149	851	4.74	35	
Chrysene	725	µg/kg-dry	SW8270E	94.9	154	765.7	0	94.7	24 - 162	752	3.69	35	
Dibenz(a,h)anthracene	815	µg/kg-dry	SW8270E	81.8	154	765.7	0	106	29 - 146	928	13.1	35	
Fluoranthene	744	µg/kg-dry	SW8270E	92.6	154	765.7	8.79	96.0	24 - 157	766	2.90	35	
Fluorene	615	µg/kg-dry	SW8270E	49.6	154	765.7	4.66	79.7	28 - 158	645	4.82	35	
Indene	646	µg/kg-dry	SW8270E	28.7	154	765.7	0	84.3	33 - 112	614	5.12	35	
Indeno(1,2,3-cd)pyrene	762	µg/kg-dry	SW8270E	80.6	154	765.7	0	99.5	31 - 142	880	14.4	35	
Naphthalene	685	µg/kg-dry	SW8270E	89.6	154	765.7	10.9	88.1	37 - 121	671	2.20	35	
Phenanthrene	634	µg/kg-dry	SW8270E	120	308	765.7	26.7	79.3	23 - 156	639	0.792	35	
Pyrene	740	µg/kg-dry	SW8270E	87.1	154	765.7	7.29	95.6	22 - 160	769	3.84	35	

2007408-001C/MSD: Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.



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Laboratory Director  
  
Jose Rocha  
QA Officer

**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** MSVOA  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC-3 071420A Date Analyzed: 07/15/2020 1236h													
Test Code: 8260D-S-PPM													
Benzene	0.0192	mg/kg	SW8260D	0.000360	0.00100	0.02000	0	95.8	70 - 140				
Ethylbenzene	0.0197	mg/kg	SW8260D	0.000675	0.00200	0.02000	0	98.3	52 - 140				
Toluene	0.0190	mg/kg	SW8260D	0.000612	0.00200	0.02000	0	95.2	54 - 132				
Xylenes, Total	0.0580	mg/kg	SW8260D	0.000942	0.00200	0.06000	0	96.7	44 - 142				
Surr: 1,2-Dichloroethane-d4	0.0529	mg/kg	SW8260D			0.05000		106	70 - 132				
Surr: 4-Bromofluorobenzene	0.0525	mg/kg	SW8260D			0.05000		105	70 - 125				
Surr: Dibromofluoromethane	0.0524	mg/kg	SW8260D			0.05000		105	70 - 133				
Surr: Toluene-d8	0.0520	mg/kg	SW8260D			0.05000		104	70 - 123				



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**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** MSVOA  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC-3 071420A Date Analyzed: 07/15/2020 1256h													
Test Code: 8260D-S-PPM													
Benzene	< 0.00100	mg/kg	SW8260D	0.000360	0.00100								
Ethylbenzene	< 0.00200	mg/kg	SW8260D	0.000675	0.00200								
Toluene	< 0.00200	mg/kg	SW8260D	0.000612	0.00200								
TPH C6-C10 (GRO)	< 0.0200	mg/kg	SW8260D	0.00486	0.0200								
Xylenes, Total	< 0.00200	mg/kg	SW8260D	0.000942	0.00200								
Surr: 1,2-Dichloroethane-d4	0.0504	mg/kg	SW8260D			0.05000		101	70 - 132				
Surr: 4-Bromofluorobenzene	0.0499	mg/kg	SW8260D			0.05000		99.7	70 - 125				
Surr: Dibromofluoromethane	0.0491	mg/kg	SW8260D			0.05000		98.2	70 - 133				
Surr: Toluene-d8	0.0505	mg/kg	SW8260D			0.05000		101	70 - 123				



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**Client:** Stantec Consulting, Inc.  
**Lab Set ID:** 2007408  
**Project:** Chevron Wilson Creek / 182603883

## QC SUMMARY REPORT

**Contact:** Chris Beall  
**Dept:** MSVOA  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Date Analyzed: 07/15/2020 1438h													
Lab Sample ID: 2007348-001AMS													
Test Code: 8260D-S-PPM													
Benzene	0.194	mg/kg-dry	SW8260D	0.00424	0.0118	0.2355	0	82.2	70 - 140				
Ethylbenzene	0.188	mg/kg-dry	SW8260D	0.00795	0.0236	0.2355	0	79.9	52 - 140				
Toluene	0.193	mg/kg-dry	SW8260D	0.00721	0.0236	0.2355	0	82.0	54 - 132				
Xylenes, Total	0.559	mg/kg-dry	SW8260D	0.0111	0.0236	0.7065	0	79.0	44 - 142				
Surr: 1,2-Dichloroethane-d4	0.592	mg/kg-dry	SW8260D			0.5888		101	70 - 132				
Surr: 4-Bromofluorobenzene	0.615	mg/kg-dry	SW8260D			0.5888		104	70 - 125				
Surr: Dibromofluoromethane	0.596	mg/kg-dry	SW8260D			0.5888		101	70 - 133				
Surr: Toluene-d8	0.598	mg/kg-dry	SW8260D			0.5888		102	70 - 123				





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## QC SUMMARY REPORT

**Client:** Stantec Consulting, Inc.

**Lab Set ID:** 2007408

**Project:** Chevron Wilson Creek / 182603883

**Contact:** Chris Beall

**Dept:** MSVOA

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Date Analyzed: 07/15/2020 1458h													
Lab Sample ID: 2007348-001A MSD													
Test Code: 8260D-S-PPM													
Benzene	0.175	mg/kg-dry	SW8260D	0.00399	0.0111	0.2215	0	78.8	70 - 140	0.194	10.3	35	
Ethylbenzene	0.159	mg/kg-dry	SW8260D	0.00748	0.0221	0.2215	0	71.8	52 - 140	0.188	16.8	35	
Toluene	0.168	mg/kg-dry	SW8260D	0.00678	0.0221	0.2215	0	75.7	54 - 132	0.193	14.1	35	
Xylenes, Total	0.477	mg/kg-dry	SW8260D	0.0104	0.0221	0.6645	0	71.8	44 - 142	0.559	15.7	35	
Surr: 1,2-Dichloroethane-d4	0.561	mg/kg-dry	SW8260D			0.5537		101	70 - 132				
Surr: 4-Bromofluorobenzene	0.594	mg/kg-dry	SW8260D			0.5537		107	70 - 125				
Surr: Dibromofluoromethane	0.560	mg/kg-dry	SW8260D			0.5537		101	70 - 133				
Surr: Toluene-d8	0.569	mg/kg-dry	SW8260D			0.5537		103	70 - 123				



## WORK ORDER Summary

Work Order: **2007408**

Page 1 of 2

Client: Stantec Consulting, Inc.

Client ID: STA200

Contact: Chris Beall

Project: Chevron Wilson Creek / 182603883

QC Level: II

WO Type: Standard

Comments: 2 Day Rush; QC 2. CC.brent.lucyk@stantec.com &amp; Savannah.Whitaker@stantec.com Consult Table 910-1 (attached to COC). Footnote report, Sample #1 pH received outside of hold. Sample for Cr VI sent to Pace Analytical. Calculate Cr III when Cr VI results received.;

DP

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
2007408-001A	LF-SW-01	7/13/2020 1356h	7/14/2020 1634h	8260D-S-PPM	Soil		VOC/Fridge
				Test Group: 8260D-S-MBTXN/GRO; # of Analytes: 5 / # of Surr: 4			
2007408-001B				3546-TPH-PR			df - tph
				8015-S-TPH-3546			df - tph
				Test Group: 8015-S-TPH-3546; # of Analytes: 1 / # of Surr: 1			
2007408-001C				3546-SVOA-PR			df - semi
				8270E-S-3546			df - semi
				Test Group: 8270E-S-PNA-3546; # of Analytes: 19 / # of Surr: 6			
				8270E-S-SIM-3546			df - semi
				Test Group: 8270E-S-PNA-SIM-3546; # of Analytes: 19 / # of Surr:			
2007408-001D				3051A-ICPMS-PR			df - wc / mwr
				6010D-S			df - wc / mwr
				I SEL Analytes: B			
				6020B-S			df - wc / mwr
				10 SEL Analytes: AS BA CD CR CU PB NI SE AG ZN			
				COND-S-9050A			df - wc / mwr
				HG-S-7471B			df - wc / mwr
				HG-S-PR-B			df - wc / mwr
				PH-9045D			df - wc / mwr
				PMOIST			df - wc / mwr
				SAR-S			df - wc / mwr
				SOIL-PR			df - wc / mwr
				OUTSIDE LAB			
2007408-001E							Pace
2007408-002A	Import-Soil-WG	7/14/2020 1116h	7/14/2020 1634h	8260D-S-PPM	Soil		VOC/Fridge
				Test Group: 8260D-S-MBTXN/GRO; # of Analytes: 5 / # of Surr: 4			
2007408-002B				3546-TPH-PR			df - tph
				8015-S-TPH-3546			df - tph
				Test Group: 8015-S-TPH-3546; # of Analytes: 1 / # of Surr: 1			
2007408-002C				3546-SVOA-PR			df - semi

# WORK ORDER Summary

Work Order: **2007408**

Page 2 of 2

Client: Stantec Consulting, Inc.

Due Date: 7/17/2020

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
2007408-002C	Import-Soil-WG	7/14/2020 1116h	7/14/2020 1634h	8270E-S-3546	Soil	df - semi	1
Test Group: 8270E-S-PNA-3546; # of Analytes: 19 / # of Surr: 6							
8270E-S-SIM-3546							
Test Group: 8270E-S-PNA-SIM-3546; # of Analytes: 19 / # of Surr:							
3051A-ICPMS-PR							
6010D-S							
1 SEL Analytes: B							
6020B-S							
10 SEL Analytes: AS BA CD CR CU PB NI SE AG ZN							
COND-S-9050A							
HG-S-7471B							
HG-S-PR-B							
PH-9045D							
PMOIST							
SAR-S							
SOIL-PR							
OUTSIDE LAB							
2007408-002E						Pace	

AWAL Use Only - One or more samples expired upon receipt:

Test Code  
PH-9045D



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 Contact: Chris Beall / Brent Lucyk  
 Phone #: 970-214-1126  
 E-mail: christopher.beall@stantec.com / brent.lucyk@stantec.com  
 Project Name: Cherwon Wilson Creek  
 Project #: 182603883  
 PO #: \_\_\_\_\_  
 Sampler Name: Savannah Turner

	Sample ID:	Date Sampled	Time Sampled
1	UF-SW-01	7/13/2020	13:56
2	Import - Soil - NG	7/14/2020	11:16
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Relinquished by: Signature	<i>Savannah Turner</i>	Date:	7/14/2010	Received by: Signature	<i>Val</i>
Print Name:	Savannah Turner	Time:	10:34	Print Name:	Val
Relinquished by: Signature		Date:		Received by: Signature	
Print Name:		Time:		Print Name:	
Relinquished by: Signature		Date:		Received by: Signature	
Print Name:		Time:		Print Name:	

*By signing this Chain of Custody you are agreeing to permit AWAL to subcontract any analyses not normally performed at AWAL.*

## CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAU's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

2007408

Page 1 of 1

[illegible]

REV 11-21-18

b. Except for gas flared or vented during an upset condition, well maintenance, well stimulation flowback, purging operations, or a productivity test, gas from a well shall be flared or vented only after notice has been given and approval obtained from the Director on a Sundry Notice, Form 4, stating the estimated volume and content of the gas. The notice shall indicate whether the gas contains more than one (1) ppm of hydrogen sulfide. If necessary to protect the public health, safety or welfare, the Director may require the flaring of gas.

c. Gas flared, vented or used on the lease shall be estimated based on a gas-oil ratio test or other equivalent test approved by the Director, and reported on Operator's Monthly Report of Operations, Form 7.

d. Flared gas that is subject to Sundry Notice, Form 4, shall be directed to a controlled flare in accordance with Rule 903.b.(2) or other combustion device operated as efficiently as possible to provide maximum reduction of air contaminants where practicable and without endangering the safety of the well site personnel and the public.

e. Operators shall notify the local emergency dispatch or the local governmental designee of any natural gas flaring. Notice shall be given prior to flaring when flaring can be reasonably anticipated, or as soon as possible, but in no event more than two (2) hours after the flaring occurs.

Table 910-1  
CONCENTRATION LEVELS<sup>1</sup>

Contaminant of Concern	Concentrations
<b>Organic Compounds in Soil</b>	
TPH (total volatile and extractable petroleum hydrocarbons)	500 mg/kg
Benzene	0.17 mg/kg <sup>2</sup>
Toluene	85 mg/kg <sup>2</sup>
Ethylbenzene	100 mg/kg <sup>2</sup>
Xylenes (total)	175 mg/kg <sup>2</sup>
Acenaphthene	1,000 mg/kg <sup>2</sup>
Anthracene	1,000 mg/kg <sup>2</sup>
Benz(a)anthracene	0.22 mg/kg <sup>2</sup>
Benz(b)fluoranthene	0.22 mg/kg <sup>2</sup>
Benz(k)fluoranthene	2.2 mg/kg <sup>2</sup>
Benzo(a)pyrene	0.022 mg/kg <sup>2</sup>
Chrysene	22 mg/kg <sup>2</sup>
Dibenzo(a,h)anthracene	0.022 mg/kg <sup>2</sup>
Fluoranthene	1,000 mg/kg <sup>2</sup>
Fluorene	1,000 mg/kg <sup>2</sup>
Indeno(1,2,3,c,d)pyrene	0.22 mg/kg <sup>2</sup>
Naphthalene	23 mg/kg <sup>2</sup>
Pyrene	1,000 mg/kg <sup>2</sup>
<b>Organic Compounds in Ground Water</b>	
Benzene	5 µg/l <sup>3</sup>
Toluene	560 to 1,000 µg/l <sup>3</sup>
Ethylbenzene	700 µg/l <sup>3</sup>
Xylenes (Total)	1,400 to 10,000 µg/l <sup>3,4</sup>
<b>Inorganics in Soils</b>	
Electrical Conductivity (EC)	<4 mmhos/cm or 2x background
Sodium Adsorption Ratio (SAR)	<12 <sup>5</sup>
pH	6-9

Inorganics in Ground Water	
Total Dissolved Solids (TDS)	<1.25 x background <sup>3</sup>
Chlorides	<1.25 x background <sup>3</sup>
Sulfates	<1.25 x background <sup>3</sup>
Metals in Soils	
Arsenic	0.39 mg/kg <sup>2</sup>
Barium (LDNR True Total Barium)	15,000 mg/kg <sup>2</sup>
Boron (Hot Water Soluble)	2 mg/l <sup>3</sup>
Cadmium	70 mg/kg <sup>3,6</sup>
Chromium (III)	120,000 mg/kg <sup>2</sup>
Chromium (VI)	23 mg/kg <sup>2,6</sup>
Copper	3,100 mg/kg <sup>2</sup>
Lead (inorganic)	400 mg/kg <sup>2</sup>
Mercury	23 mg/kg <sup>2</sup>
Nickel (soluble salts)	1,600 mg/kg <sup>2,6</sup>
Selenium	390 mg/kg <sup>2,6</sup>
Silver	390 mg/kg <sup>2</sup>
Zinc	23,000 mg/kg <sup>2,6</sup>
Liquid Hydrocarbons in Soils and Ground Water	
Liquid hydrocarbons including condensate	Below detection level
and oil	

COGCC recommends that the latest version of EPA SW 846 analytical methods be used where possible and that analyses of samples be performed by laboratories that maintain state or national accreditation programs.

- 1 Consideration shall be given to background levels in native soils and ground water.
- 2 Concentrations taken from CDPHE-HMWMD Table 1 Colorado Soil Evaluation Values (December 2007).
- 3 Concentrations taken from CDPHE-WQCC Regulation 41 - The Basic Standards for Ground Water.
- 4 For this range of standards, the first number in the range is a strictly health-based value, based on the WQCC's established methodology for human health-based standards. The second number in the range is a maximum contaminant level (MCL), established under the Federal Safe Drinking Water Act which has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. The WQCC intends that control requirements for this chemical be implemented to attain a level of ambient water quality that is at least equal to the first number in the range except as follows: 1) where ground water quality exceeds the first number in the range due to a release of contaminants that occurred prior to September 14, 2004 (regardless of the date of discovery or subsequent migration of such contaminants) clean-up levels for the entire contaminant plume shall be no more restrictive than the second number in the range or the ground water quality resulting from such release, whichever is more protective, and 2) whenever the WQCC has adopted alternative, site-specific standards for the chemical, the site-specific standards shall apply instead of these statewide standards.
- 5 Analysis by USDA Agricultural Handbook 60 method (20B) with soluble cations determined by method (2). Method (20B) = estimation of exchangeable sodium percentage and exchangeable potassium percentage from soluble cations. Method (2) = saturated paste method (note: each analysis requires a unique sample of at least 500 grams). If soils are saturated, USDA Agricultural Handbook 60 with soluble cations determined by method (3A) saturation extraction method.
- 6 The table value for these inorganic constituents is taken from the CDPHE-HMWMD Table 1 Colorado Soil Evaluation Values (December 2007). However, because these values are high, it is possible that site-specific geochemical conditions may exist that could allow these constituents to migrate into ground water at levels exceeding ground water standards even though the concentrations are below the table values. Therefore, when these constituents are present as contaminants, a secondary evaluation of their leachability must be performed to ensure ground water protection.



Chris Beall  
Stantec Consulting - Denver  
2000 S Colorado Blvd, Suite 2-300  
Denver, CO 80222  
TEL: (970) 214-1126

RE: Chevron Wilson Creek

Dear Chris Beall:

Lab Set ID: 2007747

3440 South 700 West  
Salt Lake City, UT 84119

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e-mail: [awal@awal-labs.com](mailto:awal@awal-labs.com)  
web: [www.awal-labs.com](http://www.awal-labs.com)

American West Analytical Laboratories received sample(s) on 7/27/2020 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

Digitally signed  
by Jose G.  
Rocha  
Date: 2020.07.28  
09:10:20 -06'00'

Laboratory Director or designee



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-001  
**Client Sample ID:** LF-BG-01-2  
**Collection Date:** 7/24/2020 1307h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1217h	SW6020B	0.576	3.58	

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-002  
**Client Sample ID:** LF-BG-01-5  
**Collection Date:** 7/24/2020 1313h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1221h	SW6020B	0.580	5.18	

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer





## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-003  
**Client Sample ID:** LF-BG-02-2  
**Collection Date:** 7/24/2020 1328h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1224h	SW6020B	0.590	6.43	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-004  
**Client Sample ID:** LF-BG-02-5  
**Collection Date:** 7/24/2020 1336h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1228h	SW6020B	0.561	11.7	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-005  
**Client Sample ID:** LF-BG-03-2  
**Collection Date:** 7/24/2020 1404h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1231h	SW6020B	0.568	7.77	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-006  
**Client Sample ID:** LF-BG-03-4.6  
**Collection Date:** 7/24/2020 1432h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1235h	SW6020B	0.564	<b>3.79</b>	

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-007  
**Client Sample ID:** LF-BG-04-2  
**Collection Date:** 7/24/2020 1504h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1238h	SW6020B	0.590	2.35	

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-008  
**Client Sample ID:** LF-BG-04-3.7  
**Collection Date:** 7/24/2020 1510h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1242h	SW6020B	0.546	<b>4.78</b>	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Stantec Consulting - Denver  
**Project:** Chevron Wilson Creek  
**Lab Sample ID:** 2007747-009  
**Client Sample ID:** LF-COMP-IMPORT  
**Collection Date:** 7/24/2020 1518h  
**Received Date:** 7/27/2020 658h

**Contact:** Chris Beall

### Analytical Results

### TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/kg-dry	7/27/2020 938h	7/27/2020 1256h	SW6020B	0.543	<b>6.49</b>	

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Kyle F. Gross  
Laboratory Director  
  
Jose Rocha  
QA Officer

QC SUMMARY REPORT

Client: Stantec Consulting - Denver  
Lab Set ID: 2007747  
Project: Chevron Wilson Creek

Contact: Chris Beall  
Dept: ME  
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID:	LCS-71370	Date Analyzed:	07/27/2020 1214h										
Test Code:	6020B-S	Date Prepared:	07/27/2020 938h										
Arsenic	19.7	mg/kg	SW6020B	0.145	0.500	20.00	0	98.3	85 - 115				





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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007747  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID:	MB-71370	Date Analyzed:	07/27/2020 1210h										
Test Code:	6020B-S	Date Prepared:	07/27/2020 938h										
Arsenic	< 0.500	mg/kg	SW6020B	0.145	0.500								



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver

**Lab Set ID:** 2007747

**Project:** Chevron Wilson Creek

**Contact:** Chris Beall

**Dept:** ME

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID:	2007747-009AMS	Date Analyzed:	07/27/2020 1306h										
Test Code:	6020B-S	Date Prepared:	07/27/2020 938h										
Arsenic	29.8	mg/kg-dry	SW6020B	0.162	0.560	22.40	6.49	104	75 - 125				



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Kyle F. Gross  
Laboratory Director  
  
Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Stantec Consulting - Denver  
**Lab Set ID:** 2007747  
**Project:** Chevron Wilson Creek

**Contact:** Chris Beall  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID:	2007747-009A	MSD	Date Analyzed:	07/27/2020	1310h								
Test Code:	6020B-S		Date Prepared:	07/27/2020	938h								
Arsenic	31.8	mg/kg-dry	SW6020B	0.169	0.584	23.37	6.49	108	75 - 125	29.8	6.51	20	

## WORK ORDER Summary

Work Order: 2007747

Page 1 of 2

Client: Stantec Consulting - Denver

Client ID: STA220

Project: Chevron Wilson Creek

Comments: Same Day Rush; QC 2;

Contact: Chris Beall

QC Level: II

WO Type: Standard

df

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
2007747-001A	LF-BG-01-2	7/24/2020 1307h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S I SEL Analytes: AS	Soil	df - metals	1
				PMOIST		df - metals	
2007747-002A	LF-BG-01-5	7/24/2020 1313h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S I SEL Analytes: AS	Soil	df - metals	1
				PMOIST		df - metals	
2007747-003A	LF-BG-02-2	7/24/2020 1328h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S I SEL Analytes: AS	Soil	df - metals	1
				PMOIST		df - metals	
2007747-004A	LF-BG-02-5	7/24/2020 1336h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S I SEL Analytes: AS	Soil	df - metals	1
				PMOIST		df - metals	
2007747-005A	LF-BG-03-2	7/24/2020 1404h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S I SEL Analytes: AS	Soil	df - metals	1
				PMOIST		df - metals	
2007747-006A	LF-BG-03-4.6	7/24/2020 1432h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S I SEL Analytes: AS	Soil	df - metals	1
				PMOIST		df - metals	
2007747-007A	LF-BG-04-2	7/24/2020 1504h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S I SEL Analytes: AS	Soil	df - metals	1
				PMOIST		df - metals	

# WORK ORDER Summary

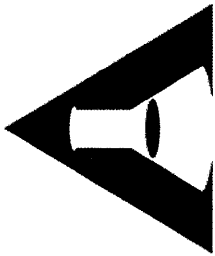
Work Order: **2007747**

Page 2 of 2

Client: Stantec Consulting - Denver

Due Date: 7/27/2020

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage
2007747-007A	LF-BG-04-2	7/24/2020 1504h	7/27/2020 0658h	PMOIST	Soil	df - metals 1
2007747-008A	LF-BG-04-3.7	7/24/2020 1510h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S 1 SEL Analytes: AS	Soil	df - metals 1 df - metals
				PMOIST		df - metals
2007747-009A	LF-COMP-IMPORT	7/24/2020 1518h	7/27/2020 0658h	3051A-ICPMS-PR 6020B-S 1 SEL Analytes: AS	Soil	df - metals 1 df - metals
				PMOIST		df - metals



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[www.awal-labs.com](http://www.awal-labs.com)

## CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (POL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

QC Level:		Turn Around Time:		Due Date:	
1	2	3	3+	7-27-20	
1 @ 2+ 3 3+		RUSH! ASAP 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