

2019

Annual
Ground Water
Monitor Report

RCVD Via Email 4/1/2020

From: [Smith, Cory, EMNRD](#)
To: [Wiley, Joe](#)
Cc: [Griswold, Jim, EMNRD](#); ["Varsa, Steve"](#); [Billings, Bradford, EMNRD](#)
Subject: RE: 3RP-407 GCU #124E-2019 Annual Report
Date: Thursday, April 2, 2020 11:45:00 AM

Mr. Wiley,

OCD has reviewed the 2019 Annual Ground Water report for 3RP-407 located at the GCU #124E Wellsite and has approved the report with the following conditions of approval:

- * Kinder Morgan will hand bail, any/all monitor wells that have LNAPL present at a minimum once a quarter and document product recover going forward (These wells do not need to be sampled during bailing events etc.)

Please keep a copy of this approval for your records as a paper copy will not be sent. A signed version of the AGWM will be scanned in to the online RP# as soon as possible. If you have any additional questions please feel free to give me a call.

In Addition as mentioned on the phone the OCD is transitioning away from RP# as the primary case identifier this incident has been assigned to incident # NAUTOFAB000205. This incident needs to be referenced on all future communication and submittals. Since this is a historic site OCD recommends to also still include the RP# until further notice. The Signed AGWMR will be uploaded to the online incident file as can be found in the same context as the old RP #'s. If you have more question on this process please give me a call and I can help you further if needed.

Cory Smith
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From: Varsa, Steve <steve.varsa@stantec.com>
Sent: Wednesday, April 1, 2020 9:05 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Wiley, Joe <joe_wiley@kindermorgan.com>
Subject: [EXT] 3RP-407 GCU #124E-2019 Annual Report

Hi Cory – on behalf of El Paso CGP Company, please find attached the above-referenced report for your information and records. Please contact Joe Wiley, Project Manager with EPCGP, at 713-420-3475, or me, if you have any questions.

Thank you,
Steve

Stephen Varsa, P.G.

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2019 ANNUAL GROUNDWATER REPORT

**Gallegos Canyon Unit #124E
NMOCD Case#: 3RP-407-0
Meter Code: 95608
T28N, R12W, Sec 35, Unit N**

SITE DETAILS

Site Location: Latitude: 36.614105 N, Longitude: -108.083662 W

Land Type: Navajo

Operator: BP America Production Company

SITE BACKGROUND

Environmental Remediation activities at Gallegos Canyon Unit #124E (Site) are managed pursuant to the procedures set forth in the document entitled, “*Remediation Plan for Groundwater Encountered During Pit Closure Activities*” (Remediation Plan, El Paso Natural Gas Company / El Paso Field Services Company, 1995). This Remediation Plan was conditionally approved by the New Mexico Oil Conservation Division (NMOCD) in correspondence dated November 30, 1995; and the NMOCD approval conditions were adopted into El Paso CGP Company (EPCGP’s) program methods. Currently, the Site is operated by BP America Production Company and is active.

The Site is located on Navajo Agricultural Products Industry land. An initial site assessment was completed in January 1995, and an excavation to approximately 12 feet below ground surface (bgs) was completed in October 1995, removing approximately 196 cubic yards (cy) of soil. Monitoring wells were installed in 1995 (MW-1) and 2013 (MW-2 through MW-7). Monitoring well MW-2 was plugged and abandoned on January 19, 2014. A Site Plan map depicting the locations of monitoring wells and current and historical site features is provided as Figure 1. Three mobile dual phase extraction (MDPE) events were completed in 2017 to help abate free product from monitoring well MW-1, including one 72-hour event and two 24-hour events. Currently, groundwater sampling is conducted on a semi-annual basis.

GROUNDWATER SAMPLING ACTIVITIES

Pursuant to the Remediation Plan, Stantec Consulting Services Inc. (Stantec) provided field work notifications via electronic mail (email) to the NMOCD on May 3, 2019 and November 6, 2019, prior to initiating groundwater sampling activities at the Site. Copies of the 2019 NMOCD notifications are provided in Appendix A. On May 23 and November 11, 2019, water levels were gauged at MW-1, MW-3, MW-4, MW-5, MW-6, and MW-7. During both events, groundwater samples were collected from MW-3, MW-4, and MW-6. During the November 2019 event a groundwater sample was also collected from MW-7. Free product was detected at MW-1 and MW-5 during both events; therefore, no groundwater samples were collected from these locations. Groundwater samples were collected using HydraSleeve™ (HydraSleeve) no-purge groundwater sampling devices. The HydraSleeves were set during the previous sampling event approximately 0.5 foot above the bottom of the well screen using a suspension tether and stainless-steel weights to collect a sample from the screened interval.

Groundwater samples were placed into laboratory-supplied sample containers, packed on ice, and shipped under standard chain-of-custody protocols to Eurofins-TestAmerica Laboratories, Inc. in Pensacola, Florida where they were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX). One laboratory supplied trip blank and one blind field duplicate were also collected during each groundwater sampling event. BTEX constituents were analyzed using United States Environmental Protection Agency (EPA) Method 8260.

The unused sample water was combined in a waste container and transported to Basin Disposal, Inc. (Basin) in Bloomfield, New Mexico for disposal. Waste disposal documentation is included as Appendix B.

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FREE PRODUCT RECOVERY

Free product was observed and recovered in monitoring wells MW-1 and MW-5 during both 2019 semi-annual sampling events. In May 2019, 0.51 feet of free product was measured in MW-1 and 0.08 gallons was recovered, and 0.19 feet of free product was measured in MW-5 and 0.01 gallons was recovered. In November 2019, 0.20 feet of free product was measured in MW-1 and 0.06 gallons was recovered, and 0.11 feet of free product was measured in MW-5 and 0.01 gallons was recovered. Free product was recovered by hand-bailing. The recovered free product was disposed of with wastewater generated during monitoring well sampling activities. Waste disposal documentation is included as Appendix B.

SUMMARY TABLES

Historic analytical and water level data are summarized in Table 1 and Table 2, respectively.

SITE MAPS

Groundwater analytical maps (Figures 2 and 4) and groundwater elevation contour maps (Figures 3 and 5) summarize results of the 2019 groundwater sampling and gauging events.

ANALYTICAL LAB REPORTS

The groundwater analytical lab reports are included as Appendix C.

GROUNDWATER RESULTS

- The groundwater elevations indicate the flow direction at the Site was to the west-southwest during 2019 (see Figures 2 and 4).
- Free product was observed in MW-1 and MW-5 during 2019 groundwater sampling events; therefore, no groundwater samples were collected at these locations.
- Concentrations of benzene were either below the New Mexico Water Quality Control Commission (NMWQCC) standard (10 micrograms per liter [$\mu\text{g}/\text{L}$]) or not detected in the Site monitoring wells sampled in 2019.
- Detectable concentrations of toluene were not reported in groundwater samples collected in 2019 from the Site monitoring wells.
- Ethylbenzene concentrations were either below the NMWQCC standard (750 $\mu\text{g}/\text{L}$) or not detected in the Site monitoring wells sampled in 2019.
- No detectable xylenes concentrations were reported for groundwater samples collected in 2019 from the Site monitoring wells.
- A field duplicate was collected from MW-3 for the May 2019 semi-annual monitoring event. For the November 2019 semi-annual monitoring event, a field duplicate was collected from MW-7. No significant differences were noted between the primary and the duplicate samples for both groundwater sampling events.

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- Detectable concentrations of BTEX constituents were not reported in the trip blanks collected and analyzed as part of the 2019 groundwater monitoring events.

PLANNED FUTURE ACTIVITIES

Semi-annual groundwater monitoring is to continue in 2020. Groundwater samples will be collected from monitoring wells not containing free product. If encountered while on-site, free product will be hand-bailed, and recovered fluids transported to Basin for disposal. A field duplicate and trip blank will also be collected during each groundwater sampling event. The samples, field duplicate and trip blank will be analyzed for BTEX constituents using EPA Method 8260. No additional activities are planned for 2020 at this time.

The activities completed in 2020 and their results will be summarized in the 2020 Annual Report, completed for submittal in early 2021.

TABLES

TABLE 1 – GROUNDWATER ANALYTICAL RESULTS

TABLE 2 – GROUNDWATER ELEVATION RESULTS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Gallegos Canyon Unit #124E					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	06/25/98	340	271	111	510
MW-1	09/14/98	410	251	68.3	220
MW-1	12/15/98	710	1300	160	940
MW-1	03/16/99	2960	5130	367	2890
MW-1	04/19/05	38.8	<1	142	1160
MW-1	07/20/05	125	11.4	371	2640
MW-1	10/20/05	86.8	11.3	125	864
MW-1	01/19/06	77.9	12	101	656
MW-1	04/24/06	45.1	3.5 J	56.1	377
MW-1	07/31/06	60.8	1.5 J	79.3	524
MW-1	10/24/06	21.1	<1	56.6	349
MW-1	01/19/07	22.4	<1	60	367
MW-1	04/24/07	30.3	<1	60.6	407
MW-1	07/31/07	35.3	<2	68.4	416
MW-1	10/25/07	9	<1	33.2	173
MW-1	01/28/08	6	<2	41.6	210
MW-1	04/23/08	14.1	0.59 J	50.1	360
MW-1	07/23/08	72.7	6.7	65.8	210
MW-1	10/08/08	194	<50	43.6 J	328
MW-1	01/07/09	281	6 J	110	653
MW-1	08/25/09	57.9	8.8 J	58.4	298
MW-1	02/15/10	98.3	4.1	80.6	385
MW-1	09/27/10	159	<2	56.4	348
MW-1	02/01/11	109	0.28 J	54.1	436
MW-1	09/23/11	288	<1	116	1020
MW-1	02/22/12	255	<5	145	853
MW-1	06/04/13	33	<0.60	11	0.86
MW-1	09/11/13	25	<0.30	9.8	8.9
MW-1	12/15/13	87	<0.30	50	100
MW-1	04/05/14	31	6.2	23	15
MW-2	12/15/13	<0.14	<0.30	<0.20	<0.23
MW-2	04/05/14	<0.20	<0.38	<0.20	<0.65
MW-2	10/25/14	<0.38	<0.70	<0.50	<1.6
MW-2	Well abandoned 1/19/2014				
MW-3	12/15/13	4.1	<0.30	7.4	27
MW-3	04/05/14	<0.20	<0.38	<0.20	<0.65
MW-3	10/25/14	<0.38	<0.70	<0.50	<1.6
MW-3	05/31/15	<1.0	<5.0	<1.0	<5.0

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Gallegos Canyon Unit #124E					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-3	11/22/15	<1.0	<1.0	<1.0	<3.0
MW-3	04/18/16	<1.0	<5.0	<1.0	<5.0
MW-3	10/14/16	<1.0	<5.0	<1.0	<5.0
MW-3	06/10/17	<1.0	<5.0	<1.0	<5.0
MW-3	11/11/17	<1.0	<1.0	<1.0	<10
MW-3	05/18/18	<1.0	<1.0	<1.0	<10
MW-3	10/28/18	<1.0	<1.0	<1.0	<10
DUP-01(MW-3)*	10/28/18	<1.0	<1.0	<1.0	<10
MW-3	05/23/19	<1.0	<1.0	<1.0	<10
DUP-1(MW-3)*	05/23/19	<1.0	<1.0	<1.0	<10
MW-3	11/11/19	<1.0	<1.0	<1.0	<10
MW-4	12/15/13	<0.14	<0.30	0.28 J	1.4 J
MW-4	04/05/14	<0.20	<0.38	<0.20	<0.65
MW-4	10/25/14	<0.38	<0.70	<0.50	<1.6
MW-4	05/31/15	<1.0	<5.0	<1.0	<5.0
MW-4	11/22/15	<1.0	<1.0	<1.0	<3.0
MW-4	04/18/16	<1.0	<5.0	<1.0	<5.0
MW-4	10/14/16	<1.0	<5.0	<1.0	<5.0
MW-4	06/10/17	<1.0	<5.0	<1.0	<5.0
MW-4	11/11/17	<1.0	<1.0	4	<10
MW-4	05/18/18	<1.0	<1.0	<1.0	<10
MW-4	10/28/18	<1.0	<1.0	<1.0	<10
MW-4	05/23/19	<1.0	<1.0	<1.0	<10
MW-4	11/11/19	<1.0	<1.0	<1.0	<10
MW-5	12/15/13	9.3	<0.30	53	32
MW-5	04/05/14	11	5.8	13	<0.65
MW-5	10/25/14	5.9	<0.70	5.2	<1.6
MW-5	05/31/15	0.65 J	<5.0	<1.0	<5.0
MW-5	11/22/15	1.6	<1.0	2.7	<3.0
MW-5	04/18/16	<1.0	<5.0	<1.0	<5.0
MW-5	10/14/16	<1.0	<5.0	3.6	<5.0
MW-5	06/10/17	1	<5.0	6.5	<5.0
MW-5	11/11/17	2.1	<1.0	14	<10
MW-5	05/18/18	<1.0	<1.0	4.9	<10
DP-01(MW-5)*	05/18/18	<1.0	<1.0	3.5	<10
MW-5	10/28/18	1.0	<1.0	1.9	<10
MW-6	12/15/13	<0.14	<0.30	<0.20	2.0 J

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Gallegos Canyon Unit #124E					
Location	Date	Benzene ($\mu\text{g}/\text{L}$)	Toluene ($\mu\text{g}/\text{L}$)	Ethylbenzene ($\mu\text{g}/\text{L}$)	Total Xylenes ($\mu\text{g}/\text{L}$)
NMWQCC Standards:		10	750	750	620
MW-6	04/05/14	<0.20	<0.38	<0.20	<0.65
MW-6	10/25/14	<0.38	<0.70	<0.50	<1.6
MW-6	05/31/15	<1.0	<5.0	<1.0	<5.0
MW-6	11/22/15	<1.0	<1.0	<1.0	<3.0
MW-6	04/18/16	<1.0	<5.0	<1.0	<5.0
MW-6	10/14/16	<1.0	<5.0	<1.0	<5.0
MW-6	06/10/17	<1.0	<5.0	<1.0	<5.0
MW-6	11/11/17	<1.0	<1.0	<1.0	<10
MW-6	05/18/18	<1.0	<1.0	<1.0	<10
MW-6	10/28/18	<1.0	<1.0	<1.0	<10
MW-6	05/23/19	<1.0	<1.0	<1.0	<10
MW-6	11/11/19	<1.0	<1.0	<1.0	<10
MW-7	12/15/13	<0.14	<0.30	<0.20	<0.23
MW-7	04/05/14	<0.20	<0.38	<0.20	<0.65
MW-7	10/25/14	<0.38	<0.70	<0.50	<1.6
MW-7	05/31/15	<1.0	<5.0	<1.0	<5.0
MW-7	11/22/15	<1.0	<1.0	<1.0	<3.0
MW-7	11/11/17	<1.0	<1.0	<1.0	<10
MW-7	05/18/18	NS	NS	NS	NS
MW-7	10/28/18	NS	NS	NS	NS
MW-7	05/23/19	NS	NS	NS	NS
MW-7	11/11/19	<1.0	<1.0	<1.0	<10
DUP-1(MW-7)*	11/11/19	<1.0	<1.0	<1.0	<10

Notes:

The groundwater monitoring dates for each monitoring well where no groundwater samples were collected and analyzed have been omitted.

$\mu\text{g}/\text{L}$ = micrograms per liter

Results highlighted yellow exceed their respective New Mexico Water Quality Control Commission (NMWQCC) standards.

"J" = Result is less than the reporting limit but greater than or equal to the method detection limit and the result is an approximate value.

"<" = analyte was not detected at the indicated reporting limit (some historic data were reported at the detection limit).

*Field Duplicate results presented immediately below primary sample result

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Gallegos Canyon Unit #124E						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	06/25/98	5949.45	27.21	NR		5922.24
MW-1	09/14/98	5949.45	27.50	NR		5921.95
MW-1	12/15/98	5949.45	28.16	27.61	0.55	5921.70
MW-1	03/16/99	5949.45	29.02	27.60	1.42	5921.50
MW-1	10/05/00	5949.45	29.46	29.04	0.42	5920.31
MW-1	11/15/00	5949.45	28.93	28.93		5920.52
MW-1	12/20/00	5949.45	28.98	NR		5920.47
MW-1	01/09/01	5949.45	29.21	29.18	0.03	5920.26
MW-1	01/15/01	5949.45	29.07	29.04	0.03	5920.40
MW-1	01/22/01	5949.45	28.99	NR		5920.46
MW-1	01/30/01	5949.45	29.09	NR		5920.36
MW-1	03/12/01	5949.45	29.26	NR		5920.19
MW-1	06/05/01	5949.45	29.32	29.28	0.04	5920.16
MW-1	07/13/01	5949.45	29.65	NR		5919.80
MW-1	08/02/01	5949.45	29.53	NR		5919.92
MW-1	08/31/01	5949.45	29.27	NR		5920.18
MW-1	09/21/01	5949.45	29.33	NR		5920.12
MW-1	10/02/01	5949.45	28.98	NR		5920.47
MW-1	01/02/02	5949.45	28.96	28.85	0.11	5920.57
MW-1	01/07/02	5949.45	28.99	28.94	0.05	5920.50
MW-1	01/23/02	5949.45	29.35	26.35	3.00	5922.35
MW-1	01/30/02	5949.45	29.24	29.22	0.02	5920.23
MW-1	02/07/02	5949.45	29.70	29.66	0.04	5919.78
MW-1	02/14/02	5949.45	29.29	29.28	0.01	5920.17
MW-1	02/20/02	5949.45	29.76	29.75	0.01	5919.70
MW-1	03/04/02	5949.45	29.30	NR		5920.15
MW-1	03/11/02	5949.45	29.17	NR		5920.28
MW-1	03/21/02	5949.45	29.47	NR		5919.98
MW-1	03/28/02	5949.45	29.33	NR		5920.12
MW-1	04/03/02	5949.45	29.33	NR		5920.12
MW-1	04/12/02	5949.45	29.70	NR		5919.75
MW-1	04/18/02	5949.45	29.31	NR		5920.14
MW-1	04/25/02	5949.45	30.11	NR		5919.34
MW-1	05/03/02	5949.45	30.18	NR		5919.27
MW-1	05/10/02	5949.45	30.25	NR		5919.20
MW-1	05/17/02	5949.45	29.57	NR		5919.88
MW-1	05/24/02	5949.45	29.70	NR		5919.75
MW-1	05/31/02	5949.45	29.54	NR		5919.91
MW-1	06/07/02	5949.45	29.42	NR		5920.03

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Gallegos Canyon Unit #124E						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	06/12/02	5949.45	29.21	NR		5920.24
MW-1	06/21/02	5949.45	30.12	NR		5919.33
MW-1	06/27/02	5949.45	30.18	NR		5919.27
MW-1	07/02/02	5949.45	29.99	29.98	0.01	5919.47
MW-1	07/11/02	5949.45	30.06	NR		5919.39
MW-1	07/15/02	5949.45	29.63	NR		5919.82
MW-1	10/16/02	5949.45	29.65	29.24	0.41	5920.11
MW-1	01/15/03	5949.45	28.63	ND		5920.82
MW-1	05/05/03	5949.45	27.72	27.69	0.03	5921.75
MW-1	07/18/03	5949.45	27.08	27.06	0.02	5922.39
MW-1	01/29/04	5949.45	25.40	ND		5924.05
MW-1	04/15/04	5949.45	24.98	ND		5924.47
MW-1	07/26/04	5949.45	24.50	ND		5924.95
MW-1	10/15/04	5949.45	24.98	ND		5924.47
MW-1	01/17/05	5949.45	25.49	ND		5923.96
MW-1	04/19/05	5949.45	25.45	ND		5924.00
MW-1	07/20/05	5949.45	24.73	ND		5924.72
MW-1	10/20/05	5949.45	24.85	ND		5924.60
MW-1	01/19/06	5949.45	24.53	ND		5924.92
MW-1	04/24/06	5949.45	24.25	ND		5925.20
MW-1	07/31/06	5949.45	25.68	ND		5923.77
MW-1	10/24/06	5949.45	24.94	ND		5924.51
MW-1	01/19/07	5949.45	26.33	ND		5923.12
MW-1	04/24/07	5949.45	25.97	ND		5923.48
MW-1	07/31/07	5949.45	26.26	ND		5923.19
MW-1	10/25/07	5949.45	26.44	ND		5923.01
MW-1	01/28/08	5949.45	26.67	ND		5922.78
MW-1	04/23/08	5949.45	26.67	ND		5922.78
MW-1	07/23/08	5949.45	23.49	ND		5925.96
MW-1	10/08/08	5949.45	22.30	ND		5927.15
MW-1	01/07/09	5949.45	23.74	ND		5925.71
MW-1	08/25/09	5949.45	26.65	ND		5922.80
MW-1	11/03/09	5949.45	25.62	ND		5923.83
MW-1	02/15/10	5949.45	25.93	ND		5923.52
MW-1	05/24/10	5949.45	19.47	ND		5929.98
MW-1	09/27/10	5949.45	19.78	ND		5929.67
MW-1	11/01/10	5949.45	19.82	ND		5929.63
MW-1	02/01/11	5949.45	21.70	ND		5927.75
MW-1	05/02/11	5949.45	23.32	ND		5926.13

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Gallegos Canyon Unit #124E						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	09/23/11	5949.45	24.71	ND		5924.74
MW-1	02/22/12	5949.45	23.51	ND		5925.94
MW-1	05/07/12	5949.45	24.20	ND		5925.25
MW-1	06/04/13	5949.45	25.87	ND		5923.58
MW-1	09/11/13	5949.45	25.74	ND		5923.71
MW-1	12/15/13	5949.45	25.67	ND		5923.78
MW-1	04/05/14	5949.45	26.27	ND		5923.18
MW-1	10/25/14	5949.45	27.07	27.06	0.01	5922.39
MW-1	05/31/15	5946.64	24.70	24.70	<0.01	5921.94
MW-1	11/22/15	5946.64	24.33	24.33	<0.01	5922.31
MW-1	04/18/16	5946.64	24.99	24.92	0.07	5921.70
MW-1	10/14/16	5946.64	25.21	25.06	0.15	5921.54
MW-1	06/10/17	5946.64	25.50	25.40	0.10	5921.22
MW-1	07/20/17	5946.64	25.59	25.52	0.07	5921.10
MW-1	09/21/17	5946.64	25.42	25.38	0.04	5921.25
MW-1	11/11/17	5946.64	25.57	25.56	0.01	5921.08
MW-1	05/18/18	5946.64	25.97	25.85	0.12	5920.76
MW-1	10/28/18	5946.64	26.41	26.15	0.26	5920.43
MW-1	05/23/19	5946.64	27.02	26.51	0.51	5920.00
MW-1	11/11/19	5946.64	26.85	26.65	0.20	5919.94
MW-2	12/15/13	5950.12	26.46	ND		5923.66
MW-2	04/05/14	5950.12	27.05	ND		5923.07
MW-2	10/25/14	5950.12	27.84	ND		5922.28
MW-2	Well abandoned 1/19/2014					
MW-3	12/15/13	5949.84	26.02	ND		5923.82
MW-3	04/05/14	5949.84	26.59	ND		5923.25
MW-3	10/25/14	5949.84	27.37	ND		5922.47
MW-3	05/31/15	5946.83	24.82	ND		5922.01
MW-3	11/22/15	5946.83	24.50	ND		5922.33
MW-3	04/18/16	5946.83	25.12	ND		5921.71
MW-3	10/14/16	5946.83	25.36	ND		5921.47
MW-3	06/10/17	5946.83	25.61	ND		5921.22
MW-3	11/11/17	5946.83	25.72	ND		5921.11
MW-3	05/18/18	5946.83	26.07	ND		5920.76
MW-3	10/28/18	5946.83	26.37	ND		5920.46
MW-3	05/23/19	5946.83	26.83	ND		5920.00
MW-3	11/11/19	5946.83	26.86	ND		5919.97

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Gallegos Canyon Unit #124E						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-4	12/15/13	5949.57	25.62	ND		5923.95
MW-4	04/05/14	5949.57	26.22	ND		5923.35
MW-4	10/25/14	5949.57	26.98	ND		5922.59
MW-4	05/31/15	5946.52	24.52	ND		5922.00
MW-4	11/22/15	5946.52	24.16	ND		5922.36
MW-4	04/18/16	5946.52	24.80	ND		5921.72
MW-4	10/14/16	5946.52	24.99	ND		5921.53
MW-4	06/10/17	5946.52	25.28	ND		5921.24
MW-4	11/11/17	5946.52	25.37	ND		5921.15
MW-4	05/18/18	5946.52	25.69	ND		5920.83
MW-4	10/28/18	5946.52	25.98	ND		5920.54
MW-4	05/23/19	5946.52	26.83	ND		5919.69
MW-4	11/11/19	5946.52	26.49	ND		5920.03
MW-5	12/15/13	5948.92	25.17	ND		5923.75
MW-5	04/05/14	5948.92	25.85	ND		5923.07
MW-5	10/25/14	5948.92	26.60	ND		5922.32
MW-5	05/31/15	5946.03	24.17	ND		5921.86
MW-5	11/22/15	5946.03	23.83	ND		5922.20
MW-5	04/18/16	5946.03	24.42	ND		5921.61
MW-5	10/14/16	5946.03	24.64	ND		5921.39
MW-5	06/10/17	5946.03	24.93	ND		5921.10
MW-5	11/11/17	5946.03	24.98	ND		5921.05
MW-5	05/18/18	5946.03	25.36	ND		5920.67
MW-5	10/28/18	5946.03	25.65	ND		5920.38
MW-5	05/23/19	5946.03	26.31	26.12	0.19	5919.86
MW-5	11/11/19	5946.03	26.63	26.52	0.11	5919.48
MW-6	12/15/13	5949.34	25.48	ND		5923.86
MW-6	04/05/14	5949.34	26.16	ND		5923.18
MW-6	10/25/14	5949.34	26.90	ND		5922.44
MW-6	05/31/15	5946.31	24.44	ND		5921.87
MW-6	11/22/15	5946.31	24.13	ND		5922.18
MW-6	04/18/16	5946.31	24.66	ND		5921.65
MW-6	10/14/16	5946.31	24.89	ND		5921.42
MW-6	06/10/17	5946.31	24.19	ND		5922.12
MW-6	11/11/17	5946.31	25.29	ND		5921.02
MW-6	05/18/18	5946.31	25.62	ND		5920.69

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Gallegos Canyon Unit #124E						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-6	10/28/18	5946.31	25.91	ND		5920.40
MW-6	05/23/19	5946.31	26.31	ND		5920.00
MW-6	11/11/19	5946.31	26.55	ND		5919.76
MW-7	12/15/13	5948.68	25.34	ND		5923.34
MW-7	04/05/14	5948.68	26.13	ND		5922.55
MW-7	10/25/14	5948.68	26.89	ND		5921.79
MW-7	05/31/15	5945.78	24.41	ND		5921.37
MW-7	11/22/15	5945.78	23.97	ND		5921.81
MW-7	04/18/16	5945.78	24.52	ND		5921.26
MW-7	10/14/16	5945.78	25.29	ND		5920.49
MW-7	06/10/17	5945.78	24.04	ND		5921.74
MW-7	11/11/17	5945.78	25.13	ND		5920.65
MW-7	05/18/18	5945.78	30.40	ND		5915.38
MW-7	10/28/18	5945.78	31.58	ND		5914.20
MW-7	05/23/19	5945.78	32.53	ND		5913.25
MW-7	11/11/19	5945.78	32.76	ND		5913.02

Notes:

"ft" = feet

"TOC" = Top of casing

"LNAPL" = Light non-aqueous phase liquid

"ND" = LNAPL not detected

"NR" = LNAPL not recorded

Groundwater elevation = Top of Casing elevation (TOC, ft) - (Depth to Water [ft] - [LPH thickness [ft] x 0.75]). A specific gravity of 0.75 is within the range of gas condensate (<https://www.sciencedirect.com/topics/earth-and-planetary-sciences/gas-condensate>)

FIGURES

FIGURE 1: SITE PLAN

FIGURE 2: MAY 23, 2019 GROUNDWATER ANALYTICAL RESULTS MAP

FIGURE 3: MAY 23, 2019 GROUNDWATER ELEVATION MAP

FIGURE 4: NOVEMBER 11, 2019 GROUNDWATER ANALYTICAL RESULTS
MAP

FIGURE 5: NOVEMBER 11, 2019 GROUNDWATER ELEVATION MAP











APPENDICES

APPENDIX A – NOTIFICATIONS OF SAMPLING ACTIVITIES

APPENDIX B – WASTEWATER DISPOSAL DOCUMENTATION

APPENDIX C – MAY 23, 2019 GROUNDWATER SAMPLING ANALYTICAL REPORT

NOVEMBER 11, 2019 GROUNDWATER SAMPLING ANALYTICAL
REPORT

APPENDIX A

From: [Varsa, Steve](#)
To: [Smith, Cory_EMNRD](#)
Cc: [Griswold, Jim_EMNRD](#); [Wiley, Joe](#)
Subject: El Paso CGP Company - Notice of upcoming groundwater sampling activities
Date: Friday, May 3, 2019 12:03:07 PM

Hi Cory -

This correspondence is to provide notice to the NMOCD of upcoming semi-annual groundwater sampling and monitoring activities at the following EPCGP project sites:

Site Name	NMOCD Case #	Sample Date
Canada Mesa #2	3RP-155-0	5/21/2019
Fields A#7A	3RP-170-0	5/23/2019
Fogelson 4-1	3RP-068-0	5/23/2019
Gallegos Canyon Unit #124E	3RP-407-0	5/20/2019
GCU Com A #142E	3RP-179-0	5/20/2019
James F. Bell #1E	3RP-196-0	5/20/2019
Johnston Fed #4	3RP-201-0	5/22/2019
Johnston Fed #6A	3RP-202-0	5/22/2019
K27 LDO72	3RP-204-0	5/21/2019
Knight #1	3RP-207-0	5/20/2019
Lateral L 40 Line Drip	3RP-212-0	5/24/2019
Miles Fed #1A	3RP-223-0	5/21/2019
Sandoval GC A #1A	3RP-235-0	5/22/2019
Standard Oil Com #1	3RP-238-0	5/21/2019
State Gas Com N #1	3RP-239-0	5/23/2019

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

Stephen Varsa, P.G.
Senior Hydrogeologist
Stantec Environmental Services
11153 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

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From: [Varsa, Steve](#)
To: [Smith, Cory_EMNRD](#)
Cc: [Griswold, Jim_EMNRD](#); [Wiley, Joe](#)
Subject: El Paso CGP Company - Notice of upcoming groundwater sampling activities
Date: Wednesday, November 06, 2019 8:08:53 AM

Hi Cory -

This correspondence is to provide notice to the NMOCD of upcoming semi-annual groundwater sampling and monitoring activities at the following EPCGP project sites:

Site Name	NMOCD Case #	Sample Date
Canada Mesa #2	3RP-155-0	11/10/2019
Fields A#7A	3RP-170-0	11/13/2019
Fogelson 4-1	3RP-068-0	11/13/2019
Gallegos Canyon Unit #124E	3RP-407-0	11/11/2019
GCU Com A #142E	3RP-179-0	11/11/2019
James F. Bell #1E	3RP-196-0	11/11/2019
Johnston Fed #4	3RP-201-0	11/12/2019
Johnston Fed #6A	3RP-202-0	11/12/2019
K27 LDO72	3RP-204-0	11/10/2019
Knight #1	3RP-207-0	11/14/2019
Lateral L 40 Line Drip	3RP-212-0	11/14/2019
Miles Fed #1A	3RP-223-0	11/10/2019
Sandoval GC A #1A	3RP-235-0	11/12/2019
Standard Oil Com #1	3RP-238-0	11/10/2019
State Gas Com N #1	3RP-239-0	11/13/2019

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

Stephen Varsa, P.G.
Senior Hydrogeologist
Stantec Environmental Services
11153 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

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APPENDIX B

BASIN DISPOSAL

30 Years of Environmental Health and Safety Excellence

200 Montana, Bloomfield, NM 87413

505-632-8936 or 505-334-3013

OPEN 24 Hours per Day

DATE 5-22-14

GENERATOR: El Paso CGP

HAULING CO: Oil Conservation Disposal

ORDERED BY: Rob Gandy Joseph Wilcox

WASTE DESCRIPTION: Exempt Oilfield Waste

Produced Water

Drilling/Completion Fluids

STATE: NM CO AZ UT

TREATMENT/DISPOSAL METHODS: EVAPORATION INJECTION TREATING PLANT

NO.	TRUCK	LOCATION(S)	VOLUME	COST	H2S	COST	TOTAL	TIME
1		James F. Bell #1E Knight #1 60 Hwy Long Val 2446	8	.70			\$5.60	
2		6CU Cim A #142 E Cim 300#2 -27 LD 77 Miles Federal #1A						
3		Standard oil Cim #1						
4								
5								

I, Sarah representative or authorized agent for the above generator and hauler hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination that the above described waste is RCRA Exempt Oil field wastes.

Approved

Denied

ATTENDANT SIGNATURE



30 Years of Environmental Health and Safety Excellence

200 Montana, Bloomfield, NM 87413

505-632-8936 or 505-334-3013

OPEN 24 Hours per Day

DATE 11-11-19

GENERATOR: Starline

HAULING CO. Starline

ORDERED BY: Joseph Wilcox

WASTE DESCRIPTION: Exempt Oilfield Waste Produced Water

STATE: NM CO AZ UT

TREATMENT/DISPOSAL METHODS: EVAPORATION INJECTION TREATING PLANT

NO.	TRUCK	LOCATION(S)	VOLUME	COST	H2S	COST	TOTAL	TIME
1		<u>James E. Bell #15</u>	/	70			70	
2		<u>Milkfield #1, h 27 CDO72,</u> <u>Starline Oil Com #1, Canola Mart #2,</u>						
3		<u>GCU 124E, GCU 142E</u>						
4								
5								

I, Starline, representative or authorized agent for the above generator and hauler hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination that the above described waste is RCRA Exempt Oil field wastes.

Approved

Denied

ATTENDANT SIGNATURE Joe

APPENDIX C



Environment Testing TestAmerica

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170742-1

Client Project/Site: El Paso CGP Company, LLC -GCU#124E

For:

Stantec Consulting Services Inc
1560 Broadway
Suite 1800
Denver, Colorado 80202

Attn: Ms. Sarah Gardner

Authorized for release by:

6/7/2019 3:55:52 PM

Carol Webb, Project Manager II

(850)471-6250

carol.webb@testamericainc.com

LINKS

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results through

TotalAccess

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The
Expert

Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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QC Sample Results	13
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Definitions/Glossary

Client: Stantec Consulting Services Inc

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Job ID: 400-170742-1

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: Stantec Consulting Services Inc
Project/Site: ElPaso CGP Company, LLC -GCU#124E

Job ID: 400-170742-1

Job ID: 400-170742-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-170742-1

Comments

No additional comments.

Receipt

The samples were received on 5/25/2019 8:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Services Inc

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Job ID: 400-170742-1

Client Sample ID: MW-3

Lab Sample ID: 400-170742-1

No Detections.

Client Sample ID: MW-4

Lab Sample ID: 400-170742-2

No Detections.

Client Sample ID: MW-6

Lab Sample ID: 400-170742-3

No Detections.

Client Sample ID: DUP-1

Lab Sample ID: 400-170742-4

No Detections.

Client Sample ID: TRIP BLANK 05/23/19)

Lab Sample ID: 400-170742-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Sample Summary

Client: Stantec Consulting Services Inc

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Job ID: 400-170742-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170742-1	MW-3	Water	05/23/19 16:25	05/25/19 08:55	
400-170742-2	MW-4	Water	05/23/19 16:30	05/25/19 08:55	
400-170742-3	MW-6	Water	05/23/19 16:40	05/25/19 08:55	
400-170742-4	DUP-1	Water	05/23/19 16:15	05/25/19 08:55	
400-170742-5	TRIP BLANK 05/23/19)	Water	05/23/19 16:10	05/25/19 08:55	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Stantec Consulting Services Inc

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Job ID: 400-170742-1

Client Sample ID: MW-3

Date Collected: 05/23/19 16:25

Date Received: 05/25/19 08:55

Lab Sample ID: 400-170742-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		06/03/19 15:18		1
Toluene	<1.0		1.0	ug/L		06/03/19 15:18		1
Ethylbenzene	<1.0		1.0	ug/L		06/03/19 15:18		1
Xylenes, Total	<10		10	ug/L		06/03/19 15:18		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118		06/03/19 15:18	1
Dibromofluoromethane	90		81 - 121		06/03/19 15:18	1
1,2-Dichloroethane-d4 (Surr)	96		67 - 134		06/03/19 15:18	1

Client Sample Results

Client: Stantec Consulting Services Inc

Job ID: 400-170742-1

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Client Sample ID: MW-4

Lab Sample ID: 400-170742-2

Date Collected: 05/23/19 16:30

Matrix: Water

Date Received: 05/25/19 08:55

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		06/03/19 17:18		1
Toluene	<1.0		1.0	ug/L		06/03/19 17:18		1
Ethylbenzene	<1.0		1.0	ug/L		06/03/19 17:18		1
Xylenes, Total	<10		10	ug/L		06/03/19 17:18		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118		06/03/19 17:18	1
Dibromofluoromethane	91		81 - 121		06/03/19 17:18	1
1,2-Dichloroethane-d4 (Surr)	97		67 - 134		06/03/19 17:18	1

Client Sample Results

Client: Stantec Consulting Services Inc

Job ID: 400-170742-1

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Client Sample ID: MW-6

Lab Sample ID: 400-170742-3

Date Collected: 05/23/19 16:40

Matrix: Water

Date Received: 05/25/19 08:55

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		06/03/19 17:42		1
Toluene	<1.0		1.0	ug/L		06/03/19 17:42		1
Ethylbenzene	<1.0		1.0	ug/L		06/03/19 17:42		1
Xylenes, Total	<10		10	ug/L		06/03/19 17:42		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118		06/03/19 17:42	1
Dibromofluoromethane	90		81 - 121		06/03/19 17:42	1
1,2-Dichloroethane-d4 (Surr)	96		67 - 134		06/03/19 17:42	1

Client Sample Results

Client: Stantec Consulting Services Inc

Job ID: 400-170742-1

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Client Sample ID: DUP-1

Lab Sample ID: 400-170742-4

Date Collected: 05/23/19 16:15

Matrix: Water

Date Received: 05/25/19 08:55

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		06/03/19 18:06		1
Toluene	<1.0		1.0	ug/L		06/03/19 18:06		1
Ethylbenzene	<1.0		1.0	ug/L		06/03/19 18:06		1
Xylenes, Total	<10		10	ug/L		06/03/19 18:06		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118		06/03/19 18:06	1
Dibromofluoromethane	91		81 - 121		06/03/19 18:06	1
1,2-Dichloroethane-d4 (Surr)	96		67 - 134		06/03/19 18:06	1

Client Sample Results

Client: Stantec Consulting Services Inc

Job ID: 400-170742-1

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Client Sample ID: TRIP BLANK 05/23/19)

Lab Sample ID: 400-170742-5

Matrix: Water

Date Collected: 05/23/19 16:10

Date Received: 05/25/19 08:55

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		06/03/19 16:54		1
Toluene	<1.0		1.0	ug/L		06/03/19 16:54		1
Ethylbenzene	<1.0		1.0	ug/L		06/03/19 16:54		1
Xylenes, Total	<10		10	ug/L		06/03/19 16:54		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		78 - 118		06/03/19 16:54	1
Dibromofluoromethane	89		81 - 121		06/03/19 16:54	1
1,2-Dichloroethane-d4 (Surr)	98		67 - 134		06/03/19 16:54	1

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: Stantec Consulting Services Inc

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Job ID: 400-170742-1

GC/MS VOA

Analysis Batch: 443043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170742-1	MW-3	Total/NA	Water	8260C	
400-170742-2	MW-4	Total/NA	Water	8260C	
400-170742-3	MW-6	Total/NA	Water	8260C	
400-170742-4	DUP-1	Total/NA	Water	8260C	
400-170742-5	TRIP BLANK 05/23/19)	Total/NA	Water	8260C	
MB 400-443043/28	Method Blank	Total/NA	Water	8260C	
LCS 400-443043/1002	Lab Control Sample	Total/NA	Water	8260C	
400-170742-1 MS	MW-3	Total/NA	Water	8260C	
400-170742-1 MSD	MW-3	Total/NA	Water	8260C	

QC Sample Results

Client: Stantec Consulting Services Inc

Job ID: 400-170742-1

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-443043/28

Matrix: Water

Analysis Batch: 443043

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<1.0		1.0	ug/L			06/03/19 14:54	1
Toluene	<1.0		1.0	ug/L			06/03/19 14:54	1
Ethylbenzene	<1.0		1.0	ug/L			06/03/19 14:54	1
Xylenes, Total	<10		10	ug/L			06/03/19 14:54	1

MB MB

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	99		78 - 118			1
Dibromofluoromethane	90		81 - 121			1
1,2-Dichloroethane-d4 (Surr)	95		67 - 134			1

Lab Sample ID: LCS 400-443043/1002

Matrix: Water

Analysis Batch: 443043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier							
Benzene			50.0	50.8		ug/L		102	70 - 130
Toluene			50.0	55.3		ug/L		111	70 - 130
Ethylbenzene			50.0	55.6		ug/L		111	70 - 130
Xylenes, Total			100	111		ug/L		111	70 - 130

LCS LCS

Surrogate	Sample	Sample	LCS Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier				
4-Bromofluorobenzene	101		78 - 118			1
Dibromofluoromethane	93		81 - 121			1
1,2-Dichloroethane-d4 (Surr)	96		67 - 134			1

Lab Sample ID: 400-170742-1 MS

Matrix: Water

Analysis Batch: 443043

Client Sample ID: MW-3
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier							
Benzene	<1.0		50.0	49.7		ug/L		99	56 - 142
Toluene	<1.0		50.0	53.2		ug/L		106	65 - 130
Ethylbenzene	<1.0		50.0	52.6		ug/L		105	58 - 131
Xylenes, Total	<10		100	106		ug/L		106	59 - 130

MS MS

Surrogate	Sample	Sample	MS Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier				
4-Bromofluorobenzene	99		78 - 118			1
Dibromofluoromethane	92		81 - 121			1
1,2-Dichloroethane-d4 (Surr)	95		67 - 134			1

Lab Sample ID: 400-170742-1 MSD

Matrix: Water

Analysis Batch: 443043

Client Sample ID: MW-3
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier									
Benzene	<1.0		50.0	49.0		ug/L		98	56 - 142	2	30
Toluene	<1.0		50.0	52.3		ug/L		105	65 - 130	2	30
Ethylbenzene	<1.0		50.0	51.7		ug/L		103	58 - 131	2	30

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Stantec Consulting Services Inc

Job ID: 400-170742-1

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-170742-1 MSD

Client Sample ID: MW-3

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 443043

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit	
Xylenes, Total	<10		100	104		ug/L		104	59 - 130	2	30
Surrogate	MSD %Recovery	MSD Qualifier		MSD	MSD	Limits		Limits			
4-Bromofluorobenzene	99					78 - 118					
Dibromofluoromethane	91					81 - 121					
1,2-Dichloroethane-d4 (Surr)	95					67 - 134					

Lab Chronicle

Client: Stantec Consulting Services Inc
 Project/Site: ElPaso CGP Company, LLC -GCU#124E

Job ID: 400-170742-1

Client Sample ID: MW-3

Date Collected: 05/23/19 16:25

Date Received: 05/25/19 08:55

Lab Sample ID: 400-170742-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	443043	06/03/19 15:18	BSW	TAL PEN

Instrument ID: Tesla

Client Sample ID: MW-4

Date Collected: 05/23/19 16:30

Date Received: 05/25/19 08:55

Lab Sample ID: 400-170742-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	443043	06/03/19 17:18	BSW	TAL PEN

Instrument ID: Tesla

Client Sample ID: MW-6

Date Collected: 05/23/19 16:40

Date Received: 05/25/19 08:55

Lab Sample ID: 400-170742-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	443043	06/03/19 17:42	BSW	TAL PEN

Instrument ID: Tesla

Client Sample ID: DUP-1

Date Collected: 05/23/19 16:15

Date Received: 05/25/19 08:55

Lab Sample ID: 400-170742-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	443043	06/03/19 18:06	BSW	TAL PEN

Instrument ID: Tesla

Client Sample ID: TRIP BLANK 05/23/19)

Date Collected: 05/23/19 16:10

Date Received: 05/25/19 08:55

Lab Sample ID: 400-170742-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	443043	06/03/19 16:54	BSW	TAL PEN

Instrument ID: Tesla

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Eurofins TestAmerica, Pensacola

Accreditation/Certification Summary

Client: Stantec Consulting Services Inc

Job ID: 400-170742-1

Project/Site: ElPaso CGP Company, LLC -GCU#124E

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

Eurofins TestAmerica, Pensacola

Method Summary

Client: Stantec Consulting Services Inc
Project/Site: ElPaso CGP Company, LLC -GCU#124E

Job ID: 400-170742-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL PEN
5030C	Purge and Trap	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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Chain of Custody Record

WestAmerica

Environment Testing
TestAmerica

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 400-170742-1

Login Number: 170742

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Conrady, Hank W

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Environment Testing TestAmerica

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179534-1
Client Project/Site: Gallegos Canyon Unit #124E

For:
Stantec Consulting Services Inc
1560 Broadway
Suite 1800
Denver, Colorado 80202

Attn: Ms. Sarah Gardner

Authorized for release by:
11/25/2019 4:05:10 PM
John Cady, Manager of Project Management
(713)690-4444
john.cady@testamericainc.com

Designee for
Marty Edwards, Senior Project Manager
(850)471-6227
marty.edwards@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.	1
%	Listed under the "D" column to designate that the result is reported on a dry weight basis	2
%R	Percent Recovery	3
CFL	Contains Free Liquid	4
CNF	Contains No Free Liquid	5
DER	Duplicate Error Ratio (normalized absolute difference)	6
Dil Fac	Dilution Factor	7
DL	Detection Limit (DoD/DOE)	8
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	9
DLC	Decision Level Concentration (Radiochemistry)	10
EDL	Estimated Detection Limit (Dioxin)	11
LOD	Limit of Detection (DoD/DOE)	12
LOQ	Limit of Quantitation (DoD/DOE)	13
MDA	Minimum Detectable Activity (Radiochemistry)	14
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

Case Narrative

Client: Stantec Consulting Services Inc
Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Job ID: 400-179534-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-179534-1

Comments

No additional comments.

Receipt

The samples were received on 11/13/2019 10:57 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Client Sample ID: MW-3

Lab Sample ID: 400-179534-1

No Detections.

Client Sample ID: MW-4

Lab Sample ID: 400-179534-2

No Detections.

Client Sample ID: MW-6

Lab Sample ID: 400-179534-3

No Detections.

Client Sample ID: MW-7

Lab Sample ID: 400-179534-4

No Detections.

Client Sample ID: DUP-1

Lab Sample ID: 400-179534-5

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 400-179534-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179534-1	MW-3	Water	11/11/19 15:07	11/13/19 10:57	
400-179534-2	MW-4	Water	11/11/19 15:15	11/13/19 10:57	
400-179534-3	MW-6	Water	11/11/19 15:20	11/13/19 10:57	
400-179534-4	MW-7	Water	11/11/19 14:53	11/13/19 10:57	
400-179534-5	DUP-1	Water	11/11/19 04:40	11/13/19 10:57	
400-179534-6	TRIP BLANK	Water	11/11/19 03:00	11/13/19 10:57	

Client Sample Results

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Client Sample ID: MW-3

Date Collected: 11/11/19 15:07

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		11/22/19 18:15		1
Toluene	<1.0		1.0	ug/L		11/22/19 18:15		1
Ethylbenzene	<1.0		1.0	ug/L		11/22/19 18:15		1
Xylenes, Total	<10		10	ug/L		11/22/19 18:15		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		78 - 118		11/22/19 18:15	1
Dibromofluoromethane	105		81 - 121		11/22/19 18:15	1
Toluene-d8 (Surr)	103		80 - 120		11/22/19 18:15	1

Client Sample Results

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Client Sample ID: MW-4

Date Collected: 11/11/19 15:15

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/22/19 18:43	1
Toluene	<1.0		1.0	ug/L			11/22/19 18:43	1
Ethylbenzene	<1.0		1.0	ug/L			11/22/19 18:43	1
Xylenes, Total	<10		10	ug/L			11/22/19 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		78 - 118		11/22/19 18:43	1
Dibromofluoromethane	104		81 - 121		11/22/19 18:43	1
Toluene-d8 (Surr)	103		80 - 120		11/22/19 18:43	1

Client Sample Results

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Client Sample ID: MW-6

Date Collected: 11/11/19 15:20

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/22/19 19:11	1
Toluene	<1.0		1.0	ug/L			11/22/19 19:11	1
Ethylbenzene	<1.0		1.0	ug/L			11/22/19 19:11	1
Xylenes, Total	<10		10	ug/L			11/22/19 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		78 - 118		11/22/19 19:11	1
Dibromofluoromethane	105		81 - 121		11/22/19 19:11	1
Toluene-d8 (Surr)	103		80 - 120		11/22/19 19:11	1

Client Sample Results

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Client Sample ID: MW-7

Date Collected: 11/11/19 14:53

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/22/19 19:39	1
Toluene	<1.0		1.0	ug/L			11/22/19 19:39	1
Ethylbenzene	<1.0		1.0	ug/L			11/22/19 19:39	1
Xylenes, Total	<10		10	ug/L			11/22/19 19:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		78 - 118		11/22/19 19:39	1
Dibromofluoromethane	106		81 - 121		11/22/19 19:39	1
Toluene-d8 (Surr)	104		80 - 120		11/22/19 19:39	1

Client Sample Results

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Client Sample ID: DUP-1

Date Collected: 11/11/19 04:40

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		11/24/19 17:11		1
Toluene	<1.0		1.0	ug/L		11/24/19 17:11		1
Ethylbenzene	<1.0		1.0	ug/L		11/24/19 17:11		1
Xylenes, Total	<10		10	ug/L		11/24/19 17:11		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118		11/24/19 17:11	1
Dibromofluoromethane	106		81 - 121		11/24/19 17:11	1
Toluene-d8 (Surr)	94		80 - 120		11/24/19 17:11	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Client Sample ID: TRIP BLANK

Date Collected: 11/11/19 03:00

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/22/19 16:29	1
Toluene	<1.0		1.0	ug/L			11/22/19 16:29	1
Ethylbenzene	<1.0		1.0	ug/L			11/22/19 16:29	1
Xylenes, Total	<10		10	ug/L			11/22/19 16:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		78 - 118		11/22/19 16:29	1
Dibromofluoromethane	99		81 - 121		11/22/19 16:29	1
Toluene-d8 (Surr)	103		80 - 120		11/22/19 16:29	1

QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

GC/MS VOA

Analysis Batch: 467073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179534-1	MW-3	Total/NA	Water	8260C	1
400-179534-2	MW-4	Total/NA	Water	8260C	2
400-179534-3	MW-6	Total/NA	Water	8260C	3
400-179534-4	MW-7	Total/NA	Water	8260C	4
400-179534-6	TRIP BLANK	Total/NA	Water	8260C	5
MB 400-467073/4	Method Blank	Total/NA	Water	8260C	6
LCS 400-467073/1002	Lab Control Sample	Total/NA	Water	8260C	7
400-179543-A-1 MS	Matrix Spike	Total/NA	Water	8260C	8
400-179543-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	9

Analysis Batch: 467300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179534-5	DUP-1	Total/NA	Water	8260C	10
MB 400-467300/4	Method Blank	Total/NA	Water	8260C	11
LCS 400-467300/1002	Lab Control Sample	Total/NA	Water	8260C	12
400-179523-A-4 MS	Matrix Spike	Total/NA	Water	8260C	13
400-179523-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	14

QC Sample Results

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-467073/4

Matrix: Water

Analysis Batch: 467073

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<1.0		1.0	ug/L			11/22/19 12:40	1
Toluene	<1.0		1.0	ug/L			11/22/19 12:40	1
Ethylbenzene	<1.0		1.0	ug/L			11/22/19 12:40	1
Xylenes, Total	<10		10	ug/L			11/22/19 12:40	1

MB MB

Surrogate	%Recovery		Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier					
4-Bromofluorobenzene	90			78 - 118			1
Dibromofluoromethane	101			81 - 121			1
Toluene-d8 (Surr)	103			80 - 120			1

Lab Sample ID: LCS 400-467073/1002

Matrix: Water

Analysis Batch: 467073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
	Added	Result						
Benzene	50.0	43.9	ug/L	88	70 - 130			
Toluene	50.0	43.7	ug/L	87	70 - 130			
Ethylbenzene	50.0	43.1	ug/L	86	70 - 130			
Xylenes, Total	100	84.6	ug/L	85	70 - 130			

LCS LCS

Surrogate	%Recovery		Qualifier	Limits
	Result	Qualifier		
4-Bromofluorobenzene	92			78 - 118
Dibromofluoromethane	101			81 - 121
Toluene-d8 (Surr)	100			80 - 120

Lab Sample ID: 400-179543-A-1 MS

Matrix: Water

Analysis Batch: 467073

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample		Spike Added	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Benzene	<1.0		50.0	40.2		ug/L	80	56 - 142	
Toluene	<1.0		50.0	38.7		ug/L	77	65 - 130	
Ethylbenzene	<1.0		50.0	36.7		ug/L	73	58 - 131	
Xylenes, Total	<10		100	71.2		ug/L	71	59 - 130	

MS MS

Surrogate	%Recovery		Qualifier	Limits
	Result	Qualifier		
4-Bromofluorobenzene	92			78 - 118
Dibromofluoromethane	101			81 - 121
Toluene-d8 (Surr)	100			80 - 120

Lab Sample ID: 400-179543-A-1 MSD

Matrix: Water

Analysis Batch: 467073

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample		Spike Added	MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<1.0		50.0	41.8		ug/L	84	56 - 142	4	30	
Toluene	<1.0		50.0	40.8		ug/L	82	65 - 130	5	30	
Ethylbenzene	<1.0		50.0	38.0		ug/L	76	58 - 131	3	30	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-179543-A-1 MSD

Matrix: Water

Analysis Batch: 467073

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.	RPD
	Result	Qualifier	Added	Result	Qualifier				
Xylenes, Total	<10		100	73.0		ug/L		73	59 - 130
Surrogate									
4-Bromofluorobenzene									
92 %Recovery									
78 - 118 Qualifier									
Dibromofluoromethane									
98 %Recovery									
81 - 121 Qualifier									
Toluene-d8 (Surr)									
100 %Recovery									
80 - 120 Qualifier									

Lab Sample ID: MB 400-467300/4

Matrix: Water

Analysis Batch: 467300

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							
Benzene	<1.0		1.0	ug/L			11/24/19 10:58	1	
Toluene	<1.0		1.0	ug/L			11/24/19 10:58	1	
Ethylbenzene	<1.0		1.0	ug/L			11/24/19 10:58	1	
Xylenes, Total	<10		10	ug/L			11/24/19 10:58	1	
Surrogate									
4-Bromofluorobenzene									
101 %Recovery									
78 - 118 Qualifier									
Dibromofluoromethane									
101 %Recovery									
81 - 121 Qualifier									
Toluene-d8 (Surr)									
95 %Recovery									
80 - 120 Qualifier									

Lab Sample ID: LCS 400-467300/1002

Matrix: Water

Analysis Batch: 467300

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits		
	Added	Result	Qualifier						
Benzene	50.0	52.4		ug/L		105	70 - 130		
Toluene	50.0	49.7		ug/L		99	70 - 130		
Ethylbenzene	50.0	51.7		ug/L		103	70 - 130		
Xylenes, Total	100	105		ug/L		105	70 - 130		
Surrogate									
4-Bromofluorobenzene									
96 %Recovery									
78 - 118 Qualifier									
Dibromofluoromethane									
103 %Recovery									
81 - 121 Qualifier									
Toluene-d8 (Surr)									
94 %Recovery									
80 - 120 Qualifier									

Lab Sample ID: 400-179523-A-4 MS

Matrix: Water

Analysis Batch: 467300

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Benzene	<1.0		50.0	51.8		ug/L		104	56 - 142
Toluene	<1.0		50.0	48.1		ug/L		96	65 - 130
Ethylbenzene	<1.0		50.0	48.6		ug/L		97	58 - 131
Xylenes, Total	<10		100	97.0		ug/L		97	59 - 130

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-179523-A-4 MS

Matrix: Water

Analysis Batch: 467300

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS	MS	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	96				78 - 118
Dibromofluoromethane	105				81 - 121
Toluene-d8 (Surr)	93				80 - 120

Lab Sample ID: 400-179523-A-4 MSD

Matrix: Water

Analysis Batch: 467300

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<1.0		50.0	51.2		ug/L		102	56 - 142	1	30
Toluene	<1.0		50.0	46.6		ug/L		93	65 - 130	3	30
Ethylbenzene	<1.0		50.0	46.3		ug/L		93	58 - 131	5	30
Xylenes, Total	<10		100	92.5		ug/L		93	59 - 130	5	30

Surrogate	MSD	MSD	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	96				78 - 118
Dibromofluoromethane	103				81 - 121
Toluene-d8 (Surr)	94				80 - 120

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Client Sample ID: MW-3

Date Collected: 11/11/19 15:07

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	467073	11/22/19 18:15	RS	TAL PEN

Instrument ID: Tesla

Client Sample ID: MW-4

Date Collected: 11/11/19 15:15

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	467073	11/22/19 18:43	RS	TAL PEN

Instrument ID: Tesla

Client Sample ID: MW-6

Date Collected: 11/11/19 15:20

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	467073	11/22/19 19:11	RS	TAL PEN

Instrument ID: Tesla

Client Sample ID: MW-7

Date Collected: 11/11/19 14:53

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	467073	11/22/19 19:39	RS	TAL PEN

Instrument ID: Tesla

Client Sample ID: DUP-1

Date Collected: 11/11/19 04:40

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	467300	11/24/19 17:11	RS	TAL PEN

Instrument ID: CH_WASP

Client Sample ID: TRIP BLANK

Date Collected: 11/11/19 03:00

Date Received: 11/13/19 10:57

Lab Sample ID: 400-179534-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	467073	11/22/19 16:29	RS	TAL PEN

Instrument ID: Tesla

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Eurofins TestAmerica, Pensacola

Accreditation/Certification Summary

Client: Stantec Consulting Services Inc
 Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Louisiana (DW)	State	<cert No. >	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Gallegos Canyon Unit #124E

Job ID: 400-179534-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL PEN
5030C	Purge and Trap	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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Chain of Custody Record

Phone: 850-474-1001 Fax: 850-478-2671

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 400-179534-1

Login Number: 179534

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Brown, Nathan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	