2021 ANNUAL GROUNDWATER REPORT

NV

Johnston Fed #6A
Incident Number: nAUTOfAB000309
Meter Code: 89232
T31N, R9W, Sec35, Unit F

SITE DETAILS

Site Location: Latitude: 36.856422 N, Longitude: -107.753819 W
Land Type: Federal
Operator: Hilcorp Energy

SITE BACKGROUND

Environmental Remediation activities at Johnston Fed #6A (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 Hilcorp Energy and is active.

The Site is located on Federal land. An initial site assessment was completed in August 1994, and an excavation of 80 cubic yards (cy), to a depth of approximately 12 feet below ground surface (bgs), was completed in September 1994. Monitoring wells were installed in 1994 (MW-1 through MW-4), 1997 (temporary monitoring wells PZ-01 through PZ-07), 2000 (MW-5), 2006 (MW-6), and 2015 (MW-7 through MW-9). In 2019 monitoring wells MW-10 and MW-11 were installed to confirm groundwater delineation. The location of the Site is depicted on Figure 1. A Site Plan map depicting the locations of monitoring well and current and historical features is provided as Figure 2. Historically, light non-aqueous phase liquid (LNAPL) has periodically been encountered at MW-1, MW-2, and MW-3 and recovery has been periodically conducted since 1997. Mobile dual-phase extraction (MDPE) events to enhance hydrocarbon recovery were initiated in November 2016 and completed in September 2017, and in 2021. Quarterly LNAPL recovery began in the second quarter of 2020 and has continued through 2021. Currently, groundwater sampling is conducted on a semi-annual basis.

GROUNDWATER SAMPLING ACTIVITIES

Pursuant to the Remediation Plan, Stantec provided field work notifications via email to the NMOCD on May 12, 2021 and November 3, 2021, prior to initiating groundwater sampling activities at the Site. Copies of the 2021 NMOCD notifications are provided in Appendix A. On May 18, 2021 and November 15, 2021, water levels were gauged at MW-1 through MW-11. Groundwater samples were collected from MW-1, MW-3, MW-4 MW-5, MW-7, MW-8, and MW-9, on May 18, 2021. On November 15, 2021 groundwater samples were collected from MW-1 through MW-11. 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. (Eurofins), in Pensacola, Florida, where they were analyzed for BTEX constituents. One laboratory supplied trip blank and one blind field duplicate sample were also collected during each groundwater sampling event. BTEX constituents were analyzed using EPA Method 8260.

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

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LNAPL RECOVERY

As documented in EPCGP's letter dated January 5, 2021, EPCGP initiated quarterly LNAPL recovery activities in the second calendar quarter of 2020 and continued with quarterly site visits in 2021 to measure and recover LNAPL, if present. Documentation of NMOCD notification of site activities is provided in Appendix A. The LNAPL recovery data is summarized on Table 1. Recovered LNAPL was containerized and transported to Basin for disposal. Waste disposal documentation is included in Appendix B.

NMOCD was notified on August 19, 2021, of a plan to conduct two MDPE events at the Site (Appendix A) to enhance hydrocarbon recovery from monitoring well MW-1. The MDPE events were completed by AcuVac Remediation, LLC, of Houston, Texas (AcuVac). MDPE is a process combining soil vapor extraction (SVE) with groundwater depression to enhance the removal of liquid and vapor phase hydrocarbons. A submersible pump is used to simultaneously remove the groundwater, inducing a hydraulic gradient toward the extraction well, and creating groundwater depression to expose the hydrocarbon smear zone to SVE. Recovered liquids were transferred to a portable storage tank for off-site disposal. Recovered vapors were used as fuel and burned in the MDPE internal combustion engine (ICE), resulting in little to no emissions. Power generated by the ICE is used to create the induced vacuum for SVE.

On August 26 and 31, 2021, two, 8-hour MDPE events were completed using MW-1 as extraction well. Based on field data collected by AcuVac, approximately 5.3 and 5.0 equivalent gallons of hydrocarbons were recovered from MW-1 during the August 26 and 31, 2021 MDPE events, respectively. AcuVac's report summarizing the MDPE events at the Site is presented as Appendix C. Recovered fluids from the MDPE events were transported to Basin Disposal Inc. for disposal. Waste documentation is included in Appendix B.

SUMMARY TABLES

Historic groundwater analytical results and well gauging data are summarized in Tables 2 and 3, respectively. LNAPL recovery data is summarized on Table 1.

SITE MAPS

Groundwater analytical maps (Figures 3 and 5) and groundwater elevation contour maps (Figures 4 and 6) summarize results of the 2021 groundwater sampling and gauging events.

ANALYTICAL LAB REPORTS

The groundwater analytical lab reports are included as Appendix D.

GROUNDWATER RESULTS

- Groundwater elevations indicate the groundwater flow direction at the Site was generally to the north-northeast during 2021 (see Figures 4 and 6).
- Approximately 0.01 foot of LNAPL was present in MW-1 on August 31, 2021 following an MDPE event. LNAPL was not observed in any site wells during the remainder of 2021.

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- Concentrations of benzene were either not detected or below the New Mexico Water Quality Control Commission (NMWQCC) standard (10 micrograms per liter [µg/L]) for groundwater in the site monitoring wells sampled in 2021.

- The concentration of toluene in the groundwater sample from MW-1 collected in November 2021 exceeded the NMWQCC standard (750 µg/L). Concentrations of toluene were either not detected or were below the NMWQCC standard (750 µg/L) for toluene in the remaining site monitoring wells sampled in 2021.

- The concentration of ethylbenzene in the groundwater sample from MW-1 collected in November 2021 exceeded the NMWQCC standard (750 µg/L). Concentrations of ethylbenzene were either below the NMWQCC standard (750 µg/L) or were not detected in the remaining monitoring wells sampled in 2021.

- The concentration of total xylenes in the groundwater samples from MW-1 collected in May and November 2021 exceeded the NMWQCC standard (620 µg/L). Concentrations of total xylenes were either not detected or were below the NMWQCC standard (620 µg/L) in groundwater from the remaining monitoring wells sampled in 2021.

- A field duplicate was collected from MW-4 for the May 2021 event and from monitoring well MW-1 for the November 2021 monitoring event. There were no significant differences between the primary sample and duplicate sample pairs during the 2021 groundwater sampling events.

- Detectable concentrations of BTEX constituents were not reported in the trip blanks collected and analyzed as part of the 2021 groundwater monitoring events.

PLANNED FUTURE ACTIVITIES

Removal and replacement of MW-1 is planned for Spring 2022. A work plan to conduct the monitoring well replacement activities will be submitted under separate cover.

Groundwater monitoring events will continue to be conducted on a semi-annual basis. As site closure is not being recommended at this time, groundwater samples will be collected from key monitoring wells not containing LNAPL on a semi-annual basis and analyzed for BTEX constituents using EPA Method 8260. A field duplicate and trip blank will also be collected during each groundwater sampling event. Sampling of all site monitoring wells is conducted on a biennial basis, with the next site-wide sampling event planned for no later than the fourth calendar quarter of 2023.

Quarterly site visits will continue at the Site in 2022 to facilitate removal of measurable LNAPL where it is present.

The activities conducted in 2022, and their results, will be summarized in the 2022 Annual Report, to be submitted by April 1, 2023.

TABLES

TABLE 1
LIGHT NON-AQUEOUS PHASE LIQUID RECOVERY SUMMARY
Johnston Federal #6A

Well ID - MW-1	Depth to LNAPL (Feet)	Depth to Water (Feet)	Measured Thickness (Feet)	LNAPL Recovered (gal)	Water Recovered (gal)	Recovery Type
Date						
4/13/2016	38.40	38.49	0.09	0.01	<0.01	Manual
5/25/2016	38.41	38.51	0.10	0.02	<0.01	Manual
6/20/2016	NM	NM	0.02	0.01	<0.01	Manual
11/1/2018	38.60	38.61	0.01	<0.01	0.01	Manual
11/15/2016	38.59	38.60	0.01	<0.01	0.01	Manual
11/29/2016	38.61	38.65	0.04	4.38	168	Mobile DPE*
12/13/2016	38.60	38.61	0.01	<0.01	<0.01	Manual
5/24/2019	38.47	38.51	0.04	<0.01	<0.01	Manual
7/15/2017	38.54	38.58	0.04	<0.01	0.01	Manual
9/23/2017	ND	38.62	ND	20.2	590	Mobile DPE*
11/14/2019	39.01	39.02	0.01	<0.01	0.11	Manual
5/14/2020	39.01	39.02	0.01	<0.01	0.01	Manual
8/19/2020	39.08	39.08	<0.01	<0.01	0.25	Manual
11/13/2020	ND	39.10	0.00	0.00	0.00	manual
8/26/2021	ND	39.23	0.00	5.3	150	Mobile DPE*
8/31/2021	ND	39.28	0.00	5.0	159	Mobile DPE*
			Total:	34.9	908.4	

Notes:
NM = Not Measured. Measured thickness was obtained by measuring the thickness within a bailer.
ND = Not Detected.
* = Includes calculated recovered hydrocarbon vapors.
-- = No date recorded (recovery amounts combined with MW-4 MDPE event).
LNAPL = Light non-aqueous phase liquid
LNAPL recovery data for 2015 and previous years documented in previously-submitted reports.

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	08/10/95	605	1380	74.6	718
MW-1	12/13/95	1330	1610	235	1540
MW-1	04/11/96	775	1070	124	810
MW-1	07/23/96	676	1980	233	2090
MW-1	10/14/96	1790	8350	580	6200
MW-1	01/22/97	6420	19800	934	10700
MW-1	04/11/97	7310	23500	1010	10800
MW-1	06/18/01	NS	NS	NS	NS
MW-1	09/04/01	NS	NS	NS	NS
MW-1	03/04/02	NS	NS	NS	NS
MW-1	06/04/02	NS	NS	NS	NS
MW-1	09/10/02	NS	NS	NS	NS
MW-1	12/12/02	NS	NS	NS	NS
MW-1	03/14/03	NS	NS	NS	NS
MW-1	06/18/03	NS	NS	NS	NS
MW-1	09/16/03	NS	NS	NS	NS
MW-1	12/17/03	NS	NS	NS	NS
MW-1	03/16/04	NS	NS	NS	NS
MW-1	06/22/04	NS	NS	NS	NS
MW-1	09/22/04	NS	NS	NS	NS
MW-1	12/21/04	NS	NS	NS	NS
MW-1	03/23/05	NS	NS	NS	NS
MW-1	06/17/05	NS	NS	NS	NS
MW-1	09/20/05	NS	NS	NS	NS
MW-1	12/14/05	NS	NS	NS	NS
MW-1	03/25/06	NS	NS	NS	NS
MW-1	03/27/06	NS	NS	NS	NS
MW-1	06/06/06	NS	NS	NS	NS
MW-1	09/25/06	NS	NS	NS	NS
MW-1	12/07/06	NS	NS	NS	NS
MW-1	03/28/07	NS	NS	NS	NS
MW-1	06/18/07	NS	NS	NS	NS
MW-1	09/17/07	NS	NS	NS	NS
MW-1	12/17/07	NS	NS	NS	NS
MW-1	03/10/08	NS	NS	NS	NS
MW-1	06/17/08	NS	NS	NS	NS
MW-1	09/10/08	NS	NS	NS	NS
MW-1	12/02/08	NS	NS	NS	NS
MW-1	03/05/09	NS	NS	NS	NS
MW-1	06/02/09	NS	NS	NS	NS
MW-1	08/28/09	NS	NS	NS	NS
MW-1	11/04/09	NS	NS	NS	NS

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Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	02/17/10	NS	NS	NS	NS
MW-1	05/24/10	NS	NS	NS	NS
MW-1	09/24/10	NS	NS	NS	NS
MW-1	11/02/10	NS	NS	NS	NS
MW-1	02/07/11	611	8260	1260	11600
MW-1	05/02/11	NS	NS	NS	NS
MW-1	09/23/11	NS	NS	NS	NS
MW-1	11/01/11	NS	NS	NS	NS
MW-1	02/21/12	577	5510	916	5420
MW-1	05/14/12	NS	NS	NS	NS
MW-1	06/09/13	510	17000	1400	15000
MW-1	09/09/13	NS	NS	NS	NS
MW-1	12/12/13	NS	NS	NS	NS
MW-1	04/02/14	NS	NS	NS	NS
MW-1	10/23/14	NS	NS	NS	NS
MW-1	05/30/15	NS	NS	NS	NS
MW-1	11/19/15	NS	NS	NS	NS
MW-1	04/16/16	NS	NS	NS	NS
MW-1	10/13/16	NS	NS	NS	NS
MW-1	11/29/16	NS	NS	NS	NS
MW-1	07/15/17	NS	NS	NS	NS
MW-1	06/09/17	NS	NS	NS	NS
MW-1	09/23/17	NS	NS	NS	NS
MW-1	11/12/17	27	2800	560	3900
MW-1	05/16/18	27	2600	840	5600
DP-01(MW-1)*	05/16/18	30	3700	980	8000
MW-1	10/26/18	4.6	32	180	130
DUP-01(MW-1)*	10/26/18	4.5	37	170	140
MW-1	05/22/19	5.4	330	250	910
DUP-1(MW-1)*	05/22/19	<5.0	210	260	700
MW-1	11/12/19	NS	NS	NS	NS
MW-1	05/17/20	NS	NS	NS	NS
MW-1	11/13/20	1.5	200	30	140
DUP-1(MW-1)*	11/13/20	1.3	180	8.6	36
MW-1	05/18/21	6.3 J	430	230	1500
MW-1	11/15/21	<50	1600	700	5400
DUP-1(MW-1)*	11/15/21	<50	1700	700	6000
MW-2	12/13/95	15.1	50.8	<2.5	53.8
MW-2	04/11/96	<1	<1	<1	3.13
MW-2	07/23/96	<1	1.15	<1	4.06
MW-2	10/14/96	<1	1.04	<1	4.85

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Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-2	01/22/97	<1	<1	<1	<3
MW-2	04/11/97	<1	<1	<1	<3
MW-2	10/09/00	<0.5	<0.5	<0.5	<0.5
MW-2	06/18/01	<0.5	<0.5	<0.5	<0.5
MW-2	09/04/01	NS	NS	NS	NS
MW-2	06/03/02	<0.5	<0.5	<0.5	<1
MW-2	09/10/02	NS	NS	NS	NS
MW-2	12/12/02	NS	NS	NS	NS
MW-2	03/14/03	NS	NS	NS	NS
MW-2	06/18/03	NS	NS	NS	NS
MW-2	09/16/03	NS	NS	NS	NS
MW-2	12/17/03	NS	NS	NS	NS
MW-2	03/16/04	NS	NS	NS	NS
MW-2	06/22/04	NS	NS	NS	NS
MW-2	09/22/04	NS	NS	NS	NS
MW-2	12/21/04	NS	NS	NS	NS
MW-2	03/23/05	NS	NS	NS	NS
MW-2	06/17/05	NS	NS	NS	NS
MW-2	09/20/05	NS	NS	NS	NS
MW-2	12/14/05	NS	NS	NS	NS
MW-2	03/27/06	NS	NS	NS	NS
MW-2	06/06/06	NS	NS	NS	NS
MW-2	09/25/06	NS	NS	NS	NS
MW-2	12/07/06	NS	NS	NS	NS
MW-2	03/28/07	NS	NS	NS	NS
MW-2	06/18/07	NS	NS	NS	NS
MW-2	09/17/07	NS	NS	NS	NS
MW-2	12/17/07	NS	NS	NS	NS
MW-2	03/10/08	NS	NS	NS	NS
MW-2	06/17/08	NS	NS	NS	NS
MW-2	09/10/08	NS	NS	NS	NS
MW-2	12/02/08	NS	NS	NS	NS
MW-2	03/05/09	NS	NS	NS	NS
MW-2	06/02/09	NS	NS	NS	NS
MW-2	08/28/09	NS	NS	NS	NS
MW-2	11/04/09	NS	NS	NS	NS
MW-2	02/17/10	NS	NS	NS	NS
MW-2	05/24/10	NS	NS	NS	NS
MW-2	09/24/10	NS	NS	NS	NS
MW-2	11/02/10	NS	NS	NS	NS
MW-2	02/07/11	NS	NS	NS	NS
MW-2	05/02/11	NS	NS	NS	NS

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NMWQCC Standards:		10	750	750	620
MW-2	09/23/11	NS	NS	NS	NS
MW-2	11/01/11	NS	NS	NS	NS
MW-2	02/21/12	NS	NS	NS	NS
MW-2	05/14/12	NS	NS	NS	NS
MW-2	06/09/13	<0.14	<0.30	<0.20	<0.23
MW-2	09/09/13	<0.14	<0.30	<0.20	<0.23
MW-2	12/12/13	<0.20	<0.38	<0.20	<0.65
MW-2	04/02/14	<0.20	<0.38	<0.20	<0.65
MW-2	10/23/14	<0.38	<0.70	<0.50	<1.6
MW-2	05/30/15	<1.0	<5.0	<1.0	<5.0
MW-2	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-2	04/16/16	NS	NS	NS	NS
MW-2	10/13/16	NS	NS	NS	NS
MW-2	06/09/17	NS	NS	NS	NS
MW-2	11/12/17	<1.0	<1.0	<1.0	<10
MW-2	05/16/18	NS	NS	NS	NS
MW-2	10/26/18	NS	NS	NS	NS
MW-2	05/22/19	NS	NS	NS	NS
MW-2	11/12/19	NS	NS	NS	NS
MW-2	05/17/20	<1.0	<1.0	<1.0	<10
DUP-01(MW-2)*	05/17/20	<1.0	<1.0	<1.0	<10
MW-2	11/13/20	NS	NS	NS	NS
MW-2	05/18/21	NS	NS	NS	NS
MW-2	11/15/21	<1.0	<1.0	<1.0	<10
MW-3	12/13/95	488	1020	104	1120
MW-3	04/11/96	772	231	113	379
MW-3	07/25/96	687	112	115	209
MW-3	10/14/96	900	240	140	340
MW-3	01/22/97	907	234	215	340
MW-3	04/11/97	944	209	223	322
MW-3	06/18/01	510	23	160	98
MW-3	09/04/01	NS	NS	NS	NS
MW-3	06/03/02	380	<5	110	29
MW-3	12/12/02	NS	NS	NS	NS
MW-3	03/14/03	NS	NS	NS	NS
MW-3	06/18/03	NS	NS	NS	NS
MW-3	09/16/03	NS	NS	NS	NS
MW-3	12/17/03	NS	NS	NS	NS
MW-3	03/16/04	NS	NS	NS	NS
MW-3	06/22/04	NS	NS	NS	NS
MW-3	09/22/04	NS	NS	NS	NS

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NMWQCC Standards:		10	750	750	620
MW-3	12/21/04	NS	NS	NS	NS
MW-3	03/23/05	NS	NS	NS	NS
MW-3	06/17/05	NS	NS	NS	NS
MW-3	09/20/05	NS	NS	NS	NS
MW-3	12/14/05	NS	NS	NS	NS
MW-3	03/25/06	NS	NS	NS	NS
MW-3	03/27/06	NS	NS	NS	NS
MW-3	06/06/06	NS	NS	NS	NS
MW-3	09/25/06	NS	NS	NS	NS
MW-3	12/07/06	NS	NS	NS	NS
MW-3	03/28/07	NS	NS	NS	NS
MW-3	06/18/07	NS	NS	NS	NS
MW-3	09/17/07	NS	NS	NS	NS
MW-3	12/17/07	NS	NS	NS	NS
MW-3	03/10/08	NS	NS	NS	NS
MW-3	06/17/08	NS	NS	NS	NS
MW-3	09/10/08	NS	NS	NS	NS
MW-3	12/02/08	NS	NS	NS	NS
MW-3	03/05/09	1.2	17.9	9.4	59
MW-3	06/02/09	NS	NS	NS	NS
MW-3	08/28/09	NS	NS	NS	NS
MW-3	11/04/09	NS	NS	NS	NS
MW-3	02/17/10	3.2	4.5	3.4	25.9
MW-3	05/24/10	NS	NS	NS	NS
MW-3	09/24/10	NS	NS	NS	NS
MW-3	11/02/10	NS	NS	NS	NS
MW-3	02/07/11	8.6	1.3	6	13.1
MW-3	05/02/11	NS	NS	NS	NS
MW-3	09/23/11	NS	NS	NS	NS
MW-3	11/01/11	NS	NS	NS	NS
MW-3	02/21/12	4.7	7.6	23.1	19.1
MW-3	05/14/12	NS	NS	NS	NS
MW-3	06/09/13	<0.14	0.71 J	49	12
MW-3	09/09/13	0.78 J	0.48 J	30	2.2 J
MW-3	12/12/13	<0.20	51	23	5.4
MW-3	04/02/14	3.5	57	19	8.7
MW-3	10/23/14	<0.38	<0.70	6.2	<1.6
MW-3	05/30/15	<1.0	<5.0	4.6	17
MW-3	11/19/15	<1.0	2.5	2.1	<3.0
MW-3	04/16/16	<1.0	52	1.9	<5.0
MW-3	10/13/16	<1.0	61	1.9	<5.0
MW-3	06/09/17	<1.0	<5.0	1.6	25

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Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-3	11/12/17	<1.0	<1.0	<1.0	<10
MW-3	05/16/18	<1.0	<1.0	1.2	<10
MW-3	10/26/18	<1.0	<1.0	<1.0	<10
MW-3	05/22/19	<1.0	<1.0	<1.0	<10
MW-3	11/12/19	<1.0	<1.0	<1.0	<2.0
DUP-1(MW-3)*	11/12/19	<1.0	<1.0	<1.0	<2.0
MW-3	05/17/20	<1.0	<1.0	<1.0	<10
MW-3	11/13/20	<1.0	<1.0	<1.0	<10
MW-3	05/18/21	<1.0	<1.0	<1.0	<10
MW-3	11/15/21	<1.0	<1.0	<1.0	<10
MW-4	12/13/95	545	121	114	177
MW-4	04/11/96	591	160	133	193
MW-4	07/25/96	793	96.4	172	174
MW-4	10/14/96	800	100	130	235
MW-4	01/22/97	899	26.7	157	186
MW-4	04/11/97	703	20.1	149	138
MW-4	10/09/00	81	36	45	20
MW-4	06/18/01	490	70	91	96
MW-4	09/04/01	NS	NS	NS	NS
MW-4	06/03/02	16	<5	17	2.2
MW-4	09/10/02	NS	NS	NS	NS
MW-4	12/12/02	NS	NS	NS	NS
MW-4	03/14/03	NS	NS	NS	NS
MW-4	06/18/03	<1	<1	1.7	<3
MW-4	09/16/03	NS	NS	NS	NS
MW-4	12/17/03	NS	NS	NS	NS
MW-4	03/16/04	NS	NS	NS	NS
MW-4	06/22/04	0.56 J	1.1	2.8	<1
MW-4	09/22/04	NS	NS	NS	NS
MW-4	12/21/04	NS	NS	NS	NS
MW-4	03/23/05	<1	<1	<1	0.99
MW-4	06/17/05	NS	NS	NS	NS
MW-4	09/20/05	NS	NS	NS	NS
MW-4	12/14/05	NS	NS	NS	NS
MW-4	03/27/06	0.39 J	<1	<1	0.83 J
MW-4	06/06/06	NS	NS	NS	NS
MW-4	09/25/06	NS	NS	NS	NS
MW-4	12/07/06	NS	NS	NS	NS
MW-4	03/28/07	0.39 J	0.6 J	<1	1.7 J
MW-4	06/18/07	NS	NS	NS	NS
MW-4	09/17/07	NS	NS	NS	NS

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-4	12/17/07	NS	NS	NS	NS
MW-4	03/10/08	0.25 J	<1	<1	<2
MW-4	06/17/08	NS	NS	NS	NS
MW-4	09/10/08	NS	NS	NS	NS
MW-4	12/02/08	NS	NS	NS	NS
MW-4	03/05/09	NS	NS	NS	NS
MW-4	06/02/09	NS	NS	NS	NS
MW-4	08/28/09	NS	NS	NS	NS
MW-4	11/04/09	NS	NS	NS	NS
MW-4	02/17/10	NS	NS	NS	NS
MW-4	05/24/10	NS	NS	NS	NS
MW-4	09/24/10	NS	NS	NS	NS
MW-4	11/02/10	NS	NS	NS	NS
MW-4	02/07/11	NS	NS	NS	NS
MW-4	05/02/11	NS	NS	NS	NS
MW-4	09/23/11	NS	NS	NS	NS
MW-4	11/01/11	NS	NS	NS	NS
MW-4	02/21/12	NS	NS	NS	NS
MW-4	05/14/12	NS	NS	NS	NS
MW-4	06/09/13	<0.14	<0.30	<0.20	<0.23
MW-4	09/09/13	<0.14	<0.30	<0.20	<0.23
MW-4	12/12/13	<0.20	0.51 J	<0.20	<0.65
MW-4	04/02/14	<0.20	1.2 J	<0.20	<0.65
MW-4	10/23/14	<0.38	<0.70	<0.50	<1.6
MW-4	05/30/15	<1.0	<5.0	<1.0	<5.0
MW-4	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-4	04/16/16	NS	NS	NS	NS
MW-4	10/13/16	NS	NS	NS	NS
MW-4	06/09/17	NS	NS	NS	NS
MW-4	11/12/17	<1.0	<1.0	<1.0	<10
MW-4	05/16/18	NS	NS	NS	NS
MW-4	10/26/18	NS	NS	NS	NS
MW-4	05/22/19	NS	NS	NS	NS
MW-4	11/12/19	NS	NS	NS	NS
MW-4	05/17/20	<1.0	<1.0	<1.0	<10
MW-4	11/13/20	<1.0	<1.0	<1.0	<10
MW-4	05/18/21	<1.0	<1.0	<1.0	<10
DUP-1(MW-4)*	05/18/21	<1.0	<1.0	<1.0	<10
MW-4	11/15/21	<1.0	<1.0	<1.0	<10
MW-5	08/30/00	130	180	56	650
MW-5	06/18/01	170	300	68	630

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-5	09/04/01	NS	NS	NS	NS
MW-5	06/04/02	43	87	31	360
MW-5	09/10/02	NS	NS	NS	NS
MW-5	12/12/02	NS	NS	NS	NS
MW-5	03/14/03	NS	NS	NS	NS
MW-5	06/18/03	NS	NS	NS	NS
MW-5	09/16/03	NS	NS	NS	NS
MW-5	12/17/03	NS	NS	NS	NS
MW-5	03/16/04	NS	NS	NS	NS
MW-5	06/22/04	NS	NS	NS	NS
MW-5	09/22/04	NS	NS	NS	NS
MW-5	12/21/04	NS	NS	NS	NS
MW-5	03/23/05	NS	NS	NS	NS
MW-5	06/17/05	NS	NS	NS	NS
MW-5	09/20/05	NS	NS	NS	NS
MW-5	12/14/05	NS	NS	NS	NS
MW-5	03/27/06	NS	NS	NS	NS
MW-5	06/06/06	NS	NS	NS	NS
MW-5	09/25/06	NS	NS	NS	NS
MW-5	12/07/06	NS	NS	NS	NS
MW-5	03/28/07	NS	NS	NS	NS
MW-5	06/18/07	NS	NS	NS	NS
MW-5	09/17/07	NS	NS	NS	NS
MW-5	12/17/07	NS	NS	NS	NS
MW-5	03/10/08	NS	NS	NS	NS
MW-5	06/17/08	NS	NS	NS	NS
MW-5	09/10/08	NS	NS	NS	NS
MW-5	12/02/08	NS	NS	NS	NS
MW-5	03/05/09	1.9	9.8	44	120
MW-5	06/02/09	NS	NS	NS	NS
MW-5	08/28/09	NS	NS	NS	NS
MW-5	11/04/09	NS	NS	NS	NS
MW-5	02/17/10	1.7	2.6	2.7	19.2
MW-5	05/24/10	NS	NS	NS	NS
MW-5	09/24/10	NS	NS	NS	NS
MW-5	11/02/10	NS	NS	NS	NS
MW-5	02/07/11	11.9	920	177	1870
MW-5	05/02/11	NS	NS	NS	NS
MW-5	09/23/11	NS	NS	NS	NS
MW-5	11/01/11	NS	NS	NS	NS
MW-5	02/21/12	2.7	1.7	5.2	85.5
MW-5	05/14/12	NS	NS	NS	NS

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-5	06/09/13	<0.14	<0.30	0.31 J	0.79 J
MW-5	09/09/13	<0.14	<0.30	<0.20	<0.23
MW-5	12/12/13	<0.20	<0.38	<0.20	<0.65
MW-5	04/02/14	<0.20	<0.38	<0.20	<0.65
MW-5	10/23/14	<0.38	0.96 J	<0.50	1.9 J
MW-5	05/30/15	<1.0	<5.0	<1.0	2.1 J
MW-5	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-5	04/16/16	<1.0	<5.0	<1.0	<5.0
MW-5	10/13/16	<1.0	<5.0	<1.0	<5.0
MW-5	06/09/17	<1.0	<5.0	<1.0	<5.0
MW-5	11/12/17	<1.0	<1.0	<1.0	<10
MW-5	05/16/18	<1.0	<1.0	<1.0	<10
MW-5	10/26/18	<1.0	<1.0	<1.0	<10
MW-5	05/22/19	<1.0	<1.0	<1.0	<10
MW-5	11/12/19	<1.0	<1.0	<1.0	<2.0
MW-5	05/17/20	<1.0	<1.0	<1.0	<10
MW-5	11/13/20	<1.0	<1.0	<1.0	<10
MW-5	05/18/21	<1.0	<1.0	<1.0	<10
MW-5	11/15/21	<1.0	<1.0	<1.0	<10
MW-6	12/07/06	NS	NS	NS	NS
MW-6	03/28/07	<1	<1	<1	<2
MW-6	06/18/07	NS	NS	NS	NS
MW-6	09/17/07	NS	NS	NS	NS
MW-6	12/17/07	NS	NS	NS	NS
MW-6	03/10/08	9.4	<1	0.5 J	139
MW-6	03/05/09	<1	<1	<1	<2
MW-6	06/02/09	NS	NS	NS	NS
MW-6	08/28/09	NS	NS	NS	NS
MW-6	11/04/09	NS	NS	NS	NS
MW-6	05/24/10	NS	NS	NS	NS
MW-6	09/24/10	NS	NS	NS	NS
MW-6	11/02/10	NS	NS	NS	NS
MW-6	02/07/11	<1	<1	<1	<2
MW-6	05/02/11	NS	NS	NS	NS
MW-6	09/23/11	NS	NS	NS	NS
MW-6	11/01/11	NS	NS	NS	NS
MW-6	02/21/12	<1	<1	<1	<2
MW-6	05/14/12	NS	NS	NS	NS
MW-6	06/09/13	<0.14	<0.30	<0.20	<0.23
MW-6	09/09/13	<0.14	<0.30	<0.20	<0.23
MW-6	12/12/13	<0.20	<0.38	<0.20	<0.65

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-6	10/23/14	<0.38	<0.70	<0.50	<1.6
MW-6	04/02/14	<0.20	<0.38	<0.20	<0.65
MW-6	05/30/15	<1.0	<5.0	<1.0	<5.0
MW-6	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-6	04/16/16	NS	NS	NS	NS
MW-6	10/13/16	NS	NS	NS	NS
MW-6	06/09/17	NS	NS	NS	NS
MW-6	11/12/17	<1.0	<1.0	<1.0	<10
MW-6	05/16/18	NS	NS	NS	NS
MW-6	10/26/18	NS	NS	NS	NS
MW-6	05/22/19	NS	NS	NS	NS
MW-6	11/12/19	NS	NS	NS	NS
MW-6	05/17/20	<1.0	<1.0	<1.0	<10
MW-6	11/13/20	NS	NS	NS	NS
MW-6	05/18/21	NS	NS	NS	NS
MW-6	11/15/21	<1.0	<1.0	<1.0	<10
MW-7	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-7	04/16/16	<1.0	<5.0	<1.0	<5.0
MW-7	10/13/16	<1.0	<5.0	<1.0	<5.0
MW-7	06/09/17	<1.0	<5.0	<1.0	<5.0
MW-7	11/12/17	<1.0	<1.0	<1.0	<10
MW-7	05/16/18	<1.0	<1.0	<1.0	<10
MW-7	10/26/18	<1.0	<1.0	<1.0	<10
MW-7	05/22/19	<1.0	<1.0	<1.0	<10
MW-7	11/12/19	<1.0	<1.0	<1.0	<2.0
MW-7	05/17/20	<1.0	<1.0	<1.0	<10
MW-7	11/13/20	<1.0	<1.0	<1.0	<10
MW-7	05/18/21	<1.0	<1.0	<1.0	<10
MW-7	11/15/21	<1.0	<1.0	<1.0	<10
MW-8	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-8	04/16/16	<1.0	<5.0	<1.0	<5.0
MW-8	10/13/16	<1.0	<5.0	<1.0	<5.0
MW-8	06/09/17	<1.0	<5.0	<1.0	<5.0
MW-8	11/12/17	<1.0	<1.0	<1.0	<10
MW-8	05/16/18	<1.0	<1.0	<1.0	<10
MW-8	10/26/18	<1.0	<1.0	<1.0	<10
MW-8	05/22/19	<1.0	<1.0	<1.0	<10
MW-8	11/12/19	<1.0	<1.0	<1.0	<2.0
MW-8	05/17/20	<1.0	<1.0	<1.0	<10
MW-8	11/13/20	<1.0	<1.0	<1.0	<10

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-8	05/18/21	<1.0	<1.0	<1.0	<10
MW-8	11/15/21	<1.0	<1.0	<1.0	<10
MW-9	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-9	04/16/16	<1.0	<5.0	<1.0	<5.0
MW-9	10/13/16	<1.0	<5.0	<1.0	<5.0
MW-9	06/09/17	<1.0	<5.0	<1.0	<5.0
MW-9	11/12/17	<1.0	<1.0	<1.0	<10
MW-9	05/16/18	<1.0	<1.0	<1.0	<10
MW-9	10/26/18	<1.0	<1.0	<1.0	<10
MW-9	05/22/19	<1.0	<1.0	<1.0	<10
MW-9	11/12/19	<1.0	<1.0	<1.0	<2.0
MW-9	05/17/20	<1.0	<1.0	<1.0	<10
MW-9	11/13/20	<1.0	<1.0	<1.0	<10
MW-9	05/18/21	<1.0	<1.0	<1.0	<10
MW-9	11/15/21	<1.0	<1.0	<1.0	<10
MW-10	11/12/19	<1.0	<1.0	<1.0	<2.0
MW-10	05/17/20	<1.0	<1.0	<1.0	<10
MW-10	11/13/20	NS	NS	NS	NS
MW-10	05/18/21	NS	NS	NS	NS
MW-10	11/15/21	<1.0	<1.0	<1.0	<10
MW-11	11/12/19	<1.0	<1.0	<1.0	<2.0
MW-11	05/17/20	<1.0	<1.0	<1.0	<10
MW-11	11/13/20	NS	NS	NS	NS
MW-11	05/18/21	NS	NS	NS	NS
MW-11	11/15/21	<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.
"µg/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 in 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 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	08/10/95	6001.88	NR	37.24		5964.64
MW-1	12/13/95	6001.88	NR	37.35		5964.53
MW-1	04/11/96	6001.88	NR	37.48		5964.40
MW-1	07/23/96	6001.88	NR	37.55		5964.33
MW-1	10/14/96	6001.88	37.07	37.22	0.15	5964.78
MW-1	01/22/97	6001.88	37.43	38.26	0.83	5964.25
MW-1	04/11/97	6001.88	37.20	38.31	1.11	5964.41
MW-1	06/18/01	6001.88	37.34	38.21	0.87	5964.33
MW-1	09/04/01	6001.88	37.54	38.27	0.73	5964.16
MW-1	03/04/02	6001.88	37.74	38.35	0.61	5963.99
MW-1	06/04/02	6001.88	37.81	38.14	0.33	5963.99
MW-1	09/10/02	6001.88	38.00	38.24	0.23	5963.83
MW-1	12/12/02	6001.88	38.01	38.11	0.10	5963.85
MW-1	03/14/03	6001.88	37.95	38.08	0.13	5963.90
MW-1	06/18/03	6001.88	37.88	38.47	0.59	5963.86
MW-1	09/16/03	6001.88	38.17	38.25	0.08	5963.69
MW-1	12/17/03	6001.88	38.13	38.23	0.10	5963.73
MW-1	03/16/04	6001.88	37.90	38.57	0.67	5963.82
MW-1	06/22/04	6001.88	37.90	38.65	0.75	5963.80
MW-1	09/22/04	6001.88	38.21	38.60	0.39	5963.58
MW-1	12/21/04	6001.88	38.20	38.38	0.18	5963.64
MW-1	03/23/05	6001.88	37.95	38.50	0.55	5963.80
MW-1	06/17/05	6001.88	38.13	38.62	0.49	5963.63
MW-1	09/20/05	6001.88	38.40	38.83	0.43	5963.38
MW-1	12/14/05	6001.88	38.31	38.72	0.41	5963.47
MW-1	03/25/06	6001.88	38.15	38.66	0.51	5963.61
MW-1	03/27/06	6001.88	38.05	38.62	0.57	5963.69
MW-1	06/06/06	6001.88	38.29	38.84	0.55	5963.46
MW-1	09/25/06	6001.88	38.51	39.01	0.50	5963.25
MW-1	12/07/06	6001.88	ND	38.33		5963.55
MW-1	03/28/07	6001.88	38.02	38.09	0.07	5963.85
MW-1	06/18/07	6001.88	38.09	38.86	0.77	5963.60
MW-1	09/17/07	6001.88	38.40	39.32	0.92	5963.25
MW-1	12/17/07	6001.88	38.42	39.13	0.71	5963.29
MW-1	03/10/08	6001.88	37.90	38.24	0.34	5963.90
MW-1	06/17/08	6001.88	37.38	37.71	0.33	5964.42
MW-1	09/10/08	6001.88	37.41	37.72	0.31	5964.40
MW-1	12/02/08	6001.88	37.51	37.89	0.38	5964.28
MW-1	03/05/09	6001.88	37.20	37.63	0.43	5964.58

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	06/02/09	6001.88	37.49	37.83	0.34	5964.31
MW-1	08/28/09	6001.88	37.65	37.99	0.34	5964.15
MW-1	11/04/09	6001.88	ND	37.77		5964.11
MW-1	02/17/10	6001.88	37.60	38.11	0.51	5964.16
MW-1	05/24/10	6001.88	37.81	38.27	0.46	5963.96
MW-1	09/24/10	6001.88	38.05	38.46	0.41	5963.73
MW-1	11/02/10	6001.88	38.16	38.55	0.39	5963.63
MW-1	02/07/11	6001.88	37.93	38.37	0.44	5963.84
MW-1	05/02/11	6001.88	ND	38.57		5963.31
MW-1	09/23/11	6001.88	38.32	38.75	0.43	5963.46
MW-1	11/01/11	6001.88	ND	38.80		5963.08
MW-1	02/21/12	6001.88	38.21	38.65	0.44	5963.56
MW-1	05/14/12	6001.88	38.36	38.84	0.48	5963.40
MW-1	06/09/13	6001.88	38.41	39.22	0.81	5963.27
MW-1	09/09/13	6001.88	38.60	39.21	0.61	5963.13
MW-1	12/12/13	6001.88	38.65	39.01	0.36	5963.14
MW-1	04/02/14	6001.88	38.61	38.94	0.33	5963.19
MW-1	10/23/14	6001.88	38.82	39.03	0.21	5963.01
MW-1	05/30/15	6001.88	38.86	39.04	0.18	5962.98
MW-1	11/19/15	6001.88	38.58	38.70	0.12	5963.27
MW-1	04/16/16	6001.88	38.40	38.49	0.09	5963.46
MW-1	10/13/16	6001.88	38.60	38.61	0.01	5963.28
MW-1	11/29/16	6001.88	38.61	38.65	0.04	5963.26
MW-1	06/09/17	6001.88	38.47	38.51	0.04	5963.40
MW-1	07/15/17	6001.88	38.54	38.58	0.04	5963.33
MW-1	09/23/17	6001.88	ND	38.62		5963.26
MW-1	11/12/17	6001.88	ND	38.69		5963.19
MW-1	05/16/18	6001.88	ND	38.68		5963.20
MW-1	10/26/18	6001.88	ND	38.87		5963.01
MW-1	05/22/19	6001.88	ND	38.90		5962.98
MW-1	11/12/19	6001.88	39.01	39.02	0.01	5962.87
MW-1	05/17/20	6001.88	39.01	39.02	0.01	5962.87
MW-1	08/19/20	6001.88	39.08	39.08	0.01	5962.81
MW-1	11/13/20	6001.88	ND	39.10		5962.78
MW-1	03/18/21	6001.88	ND	39.21		5962.67
MW-1	05/18/21	6001.88	ND	39.16		5962.72
MW-1	08/26/21	6001.88	ND	39.23		5962.65
MW-1	08/31/21	6001.88	ND	39.28		5962.60
MW-1	11/15/21	6001.88	ND	39.24		5962.64

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-2	12/13/95	6001.82	NR	37.39		5964.43
MW-2	04/11/96	6001.82	NR	37.47		5964.35
MW-2	07/23/96	6001.82	NR	37.60		5964.22
MW-2	10/14/96	6001.82	NR	37.70		5964.12
MW-2	01/22/97	6001.82	NR	37.66		5964.16
MW-2	04/11/97	6001.82	NR	37.58		5964.24
MW-2	10/09/00	6001.82	NR	37.56		5964.26
MW-2	06/18/01	6001.82	NR	37.58		5964.24
MW-2	09/04/01	6001.82	NR	37.75		5964.07
MW-2	06/03/02	6001.82	NR	37.88		5963.94
MW-2	09/10/02	6001.82	NR	38.02		5963.80
MW-2	12/12/02	6001.82	NR	38.01		5963.81
MW-2	03/14/03	6001.82	ND	37.97		5963.85
MW-2	06/18/03	6001.82	ND	38.01		5963.81
MW-2	09/16/03	6001.82	ND	38.18		5963.64
MW-2	12/17/03	6001.82	ND	38.13		5963.69
MW-2	03/16/04	6001.82	ND	38.04		5963.78
MW-2	06/22/04	6001.82	ND	38.05		5963.77
MW-2	09/22/04	6001.82	ND	38.26		5963.56
MW-2	12/21/04	6001.82	ND	38.20		5963.62
MW-2	03/23/05	6001.82	ND	38.07		5963.75
MW-2	06/17/05	6001.82	ND	38.07		5963.75
MW-2	09/20/05	6001.82	ND	38.33		5963.49
MW-2	12/14/05	6001.82	ND	38.24		5963.58
MW-2	03/27/06	6001.82	ND	38.16		5963.66
MW-2	06/06/06	6001.82	ND	38.22		5963.60
MW-2	09/25/06	6001.82	ND	38.42		5963.40
MW-2	12/07/06	6001.82	ND	38.35		5963.47
MW-2	03/28/07	6001.82	ND	38.13		5963.69
MW-2	06/18/07	6001.82	ND	38.14		5963.68
MW-2	09/17/07	6001.82	ND	38.35		5963.47
MW-2	12/17/07	6001.82	ND	38.33		5963.49
MW-2	03/10/08	6001.82	ND	37.80		5964.02
MW-2	06/17/08	6001.82	ND	37.41		5964.41
MW-2	09/10/08	6001.82	ND	37.40		5964.42
MW-2	12/02/08	6001.82	ND	37.39		5964.43
MW-2	03/05/09	6001.82	ND	37.38		5964.44
MW-2	06/02/09	6001.82	ND	37.40		5964.42

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-2	08/28/09	6001.82	ND	37.60		5964.22
MW-2	11/04/09	6001.82	ND	37.73		5964.09
MW-2	02/17/10	6001.82	ND	37.76		5964.06
MW-2	05/24/10	6001.82	ND	37.77		5964.05
MW-2	09/24/10	6001.82	ND	37.97		5963.85
MW-2	11/02/10	6001.82	ND	38.01		5963.81
MW-2	02/07/11	6001.82	ND	38.05		5963.77
MW-2	05/02/11	6001.82	ND	38.09		5963.73
MW-2	09/23/11	6001.82	38.23	38.25	0.02	5963.59
MW-2	11/01/11	6001.82	ND	38.26		5963.56
MW-2	02/21/12	6001.82	ND	38.31		5963.51
MW-2	05/14/12	6001.82	ND	38.36		5963.46
MW-2	06/09/13	6001.82	ND	38.56		5963.26
MW-2	09/09/13	6001.82	ND	38.68		5963.14
MW-2	12/12/13	6001.82	ND	38.67		5963.15
MW-2	04/02/14	6001.82	ND	38.63		5963.19
MW-2	10/23/14	6001.82	ND	38.79		5963.03
MW-2	05/30/15	6001.82	ND	38.82		5963.00
MW-2	11/19/15	6001.82	ND	38.56		5963.26
MW-2	04/16/16	6001.82	ND	38.39		5963.43
MW-2	10/13/16	6001.82	ND	38.58		5963.24
MW-2	06/09/17	6001.82	ND	38.44		5963.38
MW-2	11/12/17	6001.82	ND	38.65		5963.17
MW-2	05/16/18	6001.82	ND	38.83		5962.99
MW-2	10/26/18	6001.82	ND	38.81		5963.01
MW-2	05/22/19	6001.82	ND	38.82		5963.00
MW-2	11/12/19	6001.82	ND	38.95		5962.87
MW-2	05/17/20	6001.82	ND	38.94		5962.88
MW-2	11/13/20	6001.82	ND	39.02		5962.80
MW-2	05/18/21	6001.82	ND	39.05		5962.77
MW-2	08/26/21	6001.82	ND	39.12		5962.70
MW-2	11/15/21	6001.82	ND	39.11		5962.71
MW-3	12/13/95	6001.21	NR	37.11		5964.10
MW-3	04/11/96	6001.21	NR	37.17		5964.04
MW-3	07/25/96	6001.21	NR	37.30		5963.91
MW-3	10/14/96	6001.21	NR	37.40		5963.81
MW-3	01/22/97	6001.21	NR	37.35		5963.86
MW-3	04/11/97	6001.21	NR	37.29		5963.92

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-3	06/18/01	6001.21	NR	37.26		5963.95
MW-3	09/04/01	6001.21	NR	37.42		5963.79
MW-3	06/03/02	6001.21	NR	37.55		5963.66
MW-3	12/12/02	6001.21	NR	37.70		5963.51
MW-3	03/14/03	6001.21	ND	37.66		5963.55
MW-3	06/18/03	6001.21	37.63	37.87	0.24	5963.52
MW-3	09/16/03	6001.21	37.87	37.89	0.02	5963.34
MW-3	12/17/03	6001.21	ND	37.80		5963.41
MW-3	03/16/04	6001.21	37.72	37.85	0.13	5963.46
MW-3	06/22/04	6001.21	37.72	37.88	0.16	5963.45
MW-3	09/22/04	6001.21	37.96	38.07	0.11	5963.23
MW-3	12/21/04	6001.21	37.93	37.96	0.03	5963.28
MW-3	03/23/05	6001.21	37.80	37.88	0.08	5963.39
MW-3	06/17/05	6001.21	ND	37.92		5963.29
MW-3	09/20/05	6001.21	ND	38.16		5963.05
MW-3	12/14/05	6001.21	ND	38.09		5963.12
MW-3	03/25/06	6001.21	ND	38.09		5963.12
MW-3	03/27/06	6001.21	ND	37.88		5963.33
MW-3	06/06/06	6001.21	ND	37.98		5963.23
MW-3	09/25/06	6001.21	ND	38.16		5963.05
MW-3	12/07/06	6001.21	ND	38.06		5963.15
MW-3	03/28/07	6001.21	ND	37.87		5963.34
MW-3	06/18/07	6001.21	ND	37.86		5963.35
MW-3	09/17/07	6001.21	ND	38.10		5963.11
MW-3	12/17/07	6001.21	ND	38.09		5963.12
MW-3	03/10/08	6001.21	ND	37.80		5963.41
MW-3	06/17/08	6001.21	ND	37.10		5964.11
MW-3	09/10/08	6001.21	ND	37.13		5964.08
MW-3	12/02/08	6001.21	ND	37.14		5964.07
MW-3	03/05/09	6001.21	ND	37.14		5964.07
MW-3	06/02/09	6001.21	ND	37.12		5964.09
MW-3	08/28/09	6001.21	ND	37.40		5963.81
MW-3	11/04/09	6001.21	ND	37.52		5963.69
MW-3	02/17/10	6001.21	ND	37.53		5963.68
MW-3	05/24/10	6001.21	ND	37.53		5963.68
MW-3	09/24/10	6001.21	ND	37.72		5963.49
MW-3	11/02/10	6001.21	ND	37.79		5963.42
MW-3	02/07/11	6001.21	ND	37.83		5963.38
MW-3	05/02/11	6001.21	ND	38.86		5962.35

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-3	09/23/11	6001.21	ND	38.02		5963.19
MW-3	11/01/11	6001.21	ND	38.06		5963.15
MW-3	02/21/12	6001.21	ND	38.11		5963.10
MW-3	05/14/12	6001.21	ND	38.15		5963.06
MW-3	06/09/13	6001.21	ND	38.32		5962.89
MW-3	09/09/13	6001.21	ND	38.48		5962.73
MW-3	12/12/13	6001.21	ND	38.45		5962.76
MW-3	04/02/14	6001.21	ND	38.42		5962.79
MW-3	10/23/14	6001.21	ND	38.57		5962.64
MW-3	05/30/15	6001.21	ND	38.60		5962.61
MW-3	11/19/15	6001.21	ND	38.31		5962.90
MW-3	04/16/16	6001.21	ND	38.15		5963.06
MW-3	10/13/16	6001.21	ND	38.36		5962.85
MW-3	06/09/17	6001.21	ND	38.23		5962.98
MW-3	11/12/17	6001.21	ND	38.44		5962.77
MW-3	05/16/18	6001.21	ND	38.45		5962.76
MW-3	10/26/18	6001.21	ND	38.63		5962.58
MW-3	05/22/19	6001.21	ND	38.66		5962.55
MW-3	11/12/19	6001.21	ND	38.76		5962.45
MW-3	05/17/20	6001.21	ND	38.78		5962.43
MW-3	11/13/20	6001.21	ND	38.88		5962.33
MW-3	05/18/21	6001.21	ND	38.93		5962.28
MW-3	08/26/21	6001.21	ND	39.01		5962.20
MW-3	11/15/21	6001.21	ND	39.01		5962.20
MW-4	12/13/95	6001.26	NR	37.34		5963.92
MW-4	04/11/96	6001.26	NR	37.42		5963.84
MW-4	07/25/96	6001.26	NR	37.54		5963.72
MW-4	10/14/96	6001.26	NR	37.64		5963.62
MW-4	01/22/97	6001.26	NR	37.60		5963.66
MW-4	04/11/97	6001.26	NR	37.47		5963.79
MW-4	10/09/00	6001.26	NR	37.56		5963.70
MW-4	06/18/01	6001.26	NR	37.53		5963.73
MW-4	09/04/01	6001.26	NR	37.66		5963.60
MW-4	06/03/02	6001.26	NR	37.80		5963.46
MW-4	09/10/02	6001.26	NR	37.95		5963.32
MW-4	12/12/02	6001.26	NR	38.95		5962.31
MW-4	03/14/03	6001.26	ND	37.91		5963.36
MW-4	06/18/03	6001.26	ND	37.95		5963.31

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-4	09/16/03	6001.26	ND	38.17		5963.09
MW-4	12/17/03	6001.26	ND	38.06		5963.20
MW-4	03/16/04	6001.26	ND	38.00		5963.26
MW-4	06/22/04	6001.26	ND	38.04		5963.22
MW-4	09/22/04	6001.26	ND	38.27		5962.99
MW-4	12/21/04	6001.26	ND	38.23		5963.03
MW-4	03/23/05	6001.26	ND	38.11		5963.15
MW-4	06/17/05	6001.26	ND	38.08		5963.18
MW-4	09/20/05	6001.26	ND	38.35		5962.91
MW-4	12/14/05	6001.26	ND	38.24		5963.02
MW-4	03/27/06	6001.26	ND	38.16		5963.10
MW-4	06/06/06	6001.26	ND	38.24		5963.02
MW-4	09/25/06	6001.26	ND	38.45		5962.81
MW-4	12/07/06	6001.26	ND	38.34		5962.92
MW-4	03/28/07	6001.26	ND	38.16		5963.10
MW-4	06/18/07	6001.26	ND	38.14		5963.12
MW-4	09/17/07	6001.26	ND	38.37		5962.89
MW-4	12/17/07	6001.26	ND	38.36		5962.90
MW-4	03/10/08	6001.26	ND	38.05		5963.21
MW-4	06/17/08	6001.26	ND	37.35		5963.91
MW-4	09/10/08	6001.26	ND	37.43		5963.83
MW-4	12/02/08	6001.26	ND	37.40		5963.86
MW-4	03/05/09	6001.26	ND	37.40		5963.86
MW-4	06/02/09	6001.26	ND	37.43		5963.83
MW-4	08/28/09	6001.26	ND	37.64		5963.62
MW-4	11/04/09	6001.26	ND	37.76		5963.50
MW-4	02/17/10	6001.26	ND	37.80		5963.46
MW-4	05/24/10	6001.26	ND	37.80		5963.46
MW-4	09/24/10	6001.26	ND	38.03		5963.23
MW-4	11/02/10	6001.26	ND	38.05		5963.21
MW-4	02/07/11	6001.26	ND	38.08		5963.18
MW-4	05/02/11	6001.26	ND	38.15		5963.11
MW-4	09/23/11	6001.26	ND	38.30		5962.96
MW-4	11/01/11	6001.26	ND	38.32		5962.94
MW-4	02/21/12	6001.26	ND	38.37		5962.89
MW-4	05/14/12	6001.26	ND	38.40		5962.86
MW-4	06/09/13	6001.26	ND	38.62		5962.64
MW-4	09/09/13	6001.26	ND	38.79		5962.47
MW-4	12/12/13	6001.26	ND	38.77		5962.49

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-4	04/02/14	6001.26	ND	38.74		5962.52
MW-4	10/23/14	6001.26	ND	38.94		5962.32
MW-4	05/30/15	6001.26	ND	38.61		5962.65
MW-4	11/19/15	6001.26	ND	38.62		5962.64
MW-4	04/16/16	6001.26	ND	38.46		5962.80
MW-4	10/13/16	6001.26	ND	38.67		5962.59
MW-4	06/09/17	6001.26	ND	38.52		5962.74
MW-4	11/12/17	6001.26	ND	38.75		5962.51
MW-4	05/16/18	6001.26	ND	38.77		5962.49
MW-4	10/26/18	6001.26	ND	39.01		5962.25
MW-4	05/22/19	6001.26	ND	39.06		5962.20
MW-4	11/12/19	6001.26	ND	39.20		5962.06
MW-4	05/17/20	6001.26	ND	39.25		5962.01
MW-4	11/13/20	6001.26	ND	39.43		5961.83
MW-4	05/18/21	6001.26	ND	39.52		5961.74
MW-4	08/26/21	6001.26	ND	39.63		5961.63
MW-4	11/15/21	6001.26	ND	39.65		5961.61
MW-5	08/30/00	6001.96	NR	38.11		5963.85
MW-5	06/18/01	6001.96	NR	38.13		5963.83
MW-5	09/04/01	6001.96	NR	38.33		5963.63
MW-5	06/04/02	6001.96	NR	38.51		5963.45
MW-5	09/10/02	6001.96	NR	39.13		5962.84
MW-5	12/12/02	6001.96	NR	38.83		5963.13
MW-5	03/14/03	6001.96	ND	38.70		5963.26
MW-5	06/18/03	6001.96	ND	38.85		5963.11
MW-5	09/16/03	6001.96	ND	38.88		5963.08
MW-5	12/17/03	6001.96	ND	38.75		5963.21
MW-5	03/16/04	6001.96	ND	38.72		5963.24
MW-5	06/22/04	6001.96	ND	38.74		5963.22
MW-5	09/22/04	6001.96	ND	38.74		5963.22
MW-5	12/21/04	6001.96	ND	38.93		5963.03
MW-5	03/23/05	6001.96	ND	38.72		5963.24
MW-5	06/17/05	6001.96	ND	38.72		5963.24
MW-5	09/20/05	6001.96	ND	39.06		5962.90
MW-5	12/14/05	6001.96	ND	38.94		5963.02
MW-5	03/27/06	6001.96	ND	38.86		5963.10
MW-5	06/06/06	6001.96	ND	38.97		5962.99
MW-5	09/25/06	6001.96	ND	37.20		5964.76

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-5	12/07/06	6001.96	ND	39.07		5962.89
MW-5	03/28/07	6001.96	ND	38.83		5963.13
MW-5	06/18/07	6001.96	ND	38.84		5963.12
MW-5	09/17/07	6001.96	ND	39.09		5962.87
MW-5	12/17/07	6001.96	ND	39.04		5962.92
MW-5	03/10/08	6001.96	ND	38.48		5963.48
MW-5	06/17/08	6001.96	ND	37.83		5964.13
MW-5	09/10/08	6001.96	ND	37.91		5964.05
MW-5	12/02/08	6001.96	ND	37.95		5964.01
MW-5	03/05/09	6001.96	ND	37.93		5964.03
MW-5	06/02/09	6001.96	ND	37.95		5964.01
MW-5	08/28/09	6001.96	ND	38.19		5963.77
MW-5	11/04/09	6001.96	ND	38.32		5963.64
MW-5	02/17/10	6001.96	ND	38.38		5963.58
MW-5	05/24/10	6001.96	ND	38.35		5963.61
MW-5	09/24/10	6001.96	ND	38.61		5963.35
MW-5	11/02/10	6001.96	ND	38.66		5963.30
MW-5	02/07/11	6001.96	ND	38.74		5963.22
MW-5	05/02/11	6001.96	ND	38.81		5963.15
MW-5	09/23/11	6001.96	ND	38.99		5962.97
MW-5	11/01/11	6001.96	ND	39.09		5962.87
MW-5	02/21/12	6001.96	ND	39.09		5962.87
MW-5	05/14/12	6001.96	ND	39.16		5962.80
MW-5	06/09/13	6001.96	ND	39.38		5962.58
MW-5	09/09/13	6001.96	ND	39.56		5962.40
MW-5	12/12/13	6001.96	ND	39.55		5962.41
MW-5	04/02/14	6001.96	ND	39.52		5962.44
MW-5	10/23/14	6001.96	ND	39.71		5962.25
MW-5	05/30/15	6001.96	ND	39.73		5962.23
MW-5	11/19/15	6001.96	ND	39.33		5962.63
MW-5	04/16/16	6001.96	ND	39.19		5962.77
MW-5	10/13/16	6001.96	ND	39.34		5962.62
MW-5	06/09/17	6001.96	ND	39.27		5962.69
MW-5	11/12/17	6001.96	ND	39.52		5962.44
MW-5	05/16/18	6001.96	ND	39.50		5962.46
MW-5	10/26/18	6001.96	ND	39.79		5962.17
MW-5	05/22/19	6001.96	ND	39.83		5962.13
MW-5	11/12/19	6001.96	ND	39.97		5961.99
MW-5	05/17/20	6001.96	ND	40.02		5961.94

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-5	11/13/20	6001.96	ND	40.18		5961.78
MW-5	05/18/21	6001.96	ND	40.25		5961.71
MW-5	08/26/21	6001.96	ND	40.30		5961.66
MW-5	11/15/21	6001.96	ND	40.33		5961.63
MW-6	12/07/06	6001.33	ND	39.62		5961.71
MW-6	03/28/07	6001.33	ND	39.43		5961.90
MW-6	06/18/07	6001.33	ND	39.43		5961.90
MW-6	09/17/07	6001.33	ND	39.43		5961.90
MW-6	12/17/07	6001.33	ND	38.65		5962.68
MW-6	03/10/08	6001.33	ND	39.21		5962.12
MW-6	03/05/09	6001.33	ND	37.61		5963.72
MW-6	06/02/09	6001.33	ND	37.46		5963.87
MW-6	08/28/09	6001.33	ND	37.89		5963.44
MW-6	11/04/09	6001.33	ND	38.03		5963.30
MW-6	05/24/10	6001.33	ND	38.07		5963.26
MW-6	09/24/10	6001.33	ND	38.30		5963.03
MW-6	11/02/10	6001.33	ND	38.36		5962.97
MW-6	02/07/11	6001.33	ND	38.39		5962.94
MW-6	05/02/11	6001.33	ND	36.42		5964.91
MW-6	09/23/11	6001.33	ND	38.65		5962.68
MW-6	11/01/11	6001.33	ND	38.70		5962.63
MW-6	02/21/12	6001.33	ND	38.75		5962.58
MW-6	05/14/12	6001.33	ND	38.79		5962.54
MW-6	06/09/13	6001.33	ND	39.08		5962.25
MW-6	09/09/13	6001.33	ND	39.28		5962.05
MW-6	12/12/13	6001.33	ND	39.26		5962.07
MW-6	10/23/14	6001.33	ND	39.43		5961.90
MW-6	04/02/14	6001.33	ND	39.24		5962.09
MW-6	05/30/15	6001.33	ND	39.45		5961.88
MW-6	11/19/15	6001.33	ND	39.02		5962.31
MW-6	04/16/16	6001.33	ND	38.92		5962.41
MW-6	10/13/16	6001.33	ND	39.00		5962.33
MW-6	06/09/17	6001.33	ND	39.16		5962.17
MW-6	11/12/17	6001.33	ND	39.23		5962.10
MW-6	05/16/18	6001.33	ND	39.26		5962.07
MW-6	10/26/18	6001.33	ND	39.53		5961.80
MW-6	05/22/19	6001.33	ND	39.58		5961.75
MW-6	11/12/19	6001.33	ND	39.73		5961.60

TABLE 3 - GROUNDWATER ELEVATION RESULTS

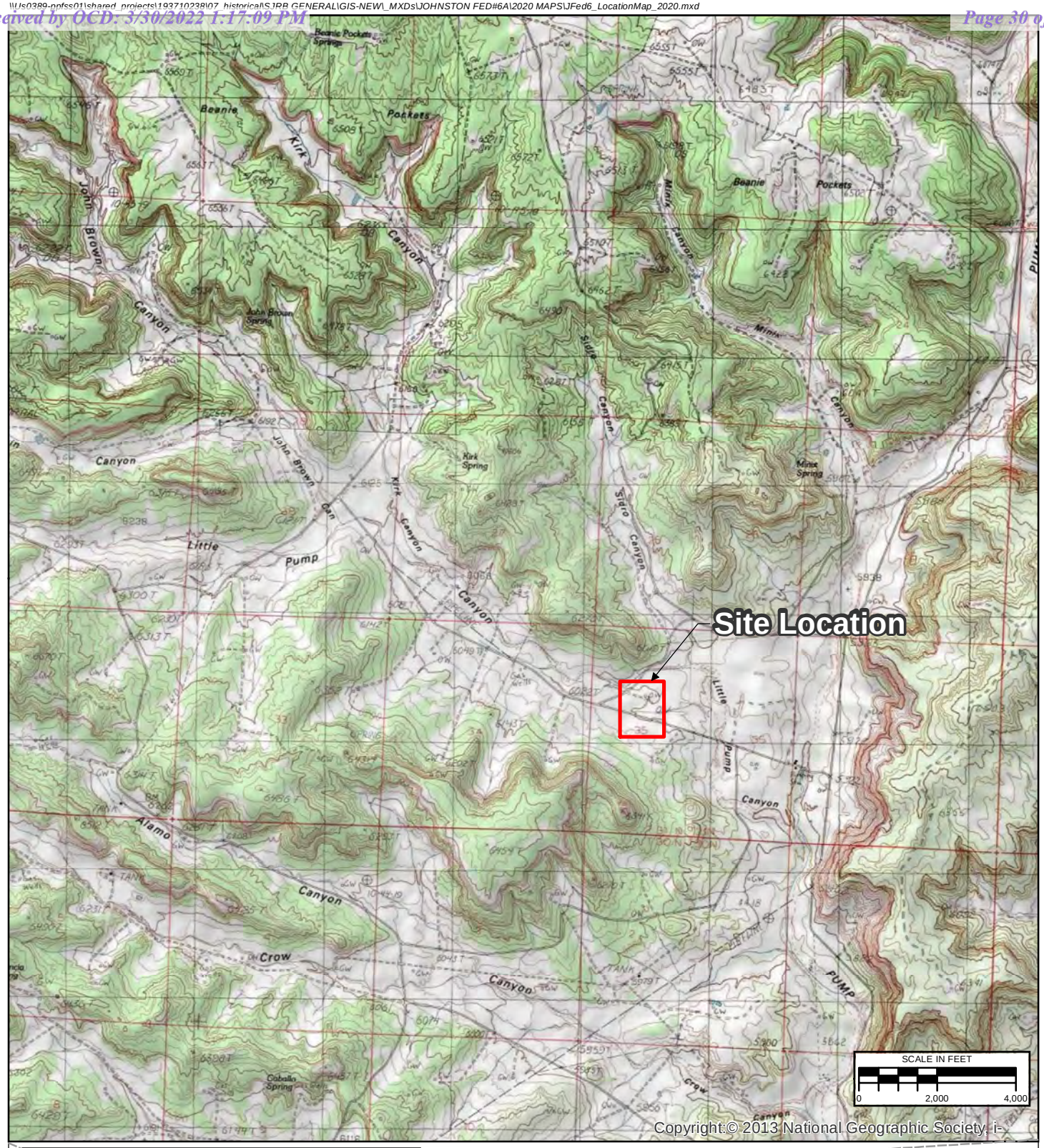
Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-6	05/17/20	6001.33	ND	39.78		5961.55
MW-6	11/13/20	6001.33	ND	39.96		5961.37
MW-6	05/18/21	6001.33	ND	40.04		5961.29
MW-6	08/26/21	6001.33	ND	40.10		5961.23
MW-6	11/15/21	6001.33	ND	40.14		5961.19
MW-7	11/19/15	6001.26	ND	37.80		5963.46
MW-7	04/16/16	6001.26	ND	37.63		5963.63
MW-7	10/13/16	6001.26	ND	37.83		5963.43
MW-7	06/09/17	6001.26	ND	37.69		5963.57
MW-7	11/12/17	6001.26	ND	37.90		5963.36
MW-7	05/16/18	6001.26	ND	37.88		5963.38
MW-7	10/26/18	6001.26	ND	38.07		5963.19
MW-7	05/22/19	6001.26	ND	38.08		5963.18
MW-7	11/12/19	6001.26	ND	38.17		5963.09
MW-7	05/17/20	6001.26	ND	38.22		5963.04
MW-7	11/13/20	6001.26	ND	38.29		5962.97
MW-7	05/18/21	6001.26	ND	38.34		5962.92
MW-7	08/26/21	6001.26	ND	38.40		5962.86
MW-7	11/15/21	6001.26	ND	38.42		5962.84
MW-8	11/19/15	6001.06	ND	37.71		5963.35
MW-8	04/16/16	6001.06	ND	37.55		5963.51
MW-8	10/13/16	6001.06	ND	37.81		5963.25
MW-8	06/09/17	6001.06	ND	37.63		5963.43
MW-8	11/12/17	6001.06	ND	37.89		5963.17
MW-8	05/16/18	6001.06	ND	37.88		5963.18
MW-8	10/26/18	6001.06	ND	38.11		5962.95
MW-8	05/22/19	6001.06	ND	38.13		5962.93
MW-8	11/12/19	6001.06	ND	38.25		5962.81
MW-8	05/17/20	6001.06	ND	38.29		5962.77
MW-8	11/13/20	6001.06	ND	38.41		5962.65
MW-8	05/18/21	6001.06	ND	38.49		5962.57
MW-8	08/26/21	6001.06	ND	38.56		5962.50
MW-8	11/15/21	6001.06	ND	38.56		5962.50
MW-9	11/19/15	6001.39	ND	38.35		5963.04
MW-9	04/16/16	6001.39	ND	38.20		5963.19
MW-9	10/13/16	6001.39	ND	38.46		5962.93

TABLE 3 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-9	06/09/17	6001.39	ND	38.29		5963.10
MW-9	11/12/17	6001.39	ND	38.54		5962.85
MW-9	05/16/18	6001.39	ND	38.50		5962.89
MW-9	10/26/18	6001.39	ND	38.77		5962.62
MW-9	05/22/19	6001.39	ND	38.81		5962.58
MW-9	11/12/19	6001.39	ND	38.96		5962.43
MW-9	05/17/20	6001.39	ND	38.97		5962.42
MW-9	11/13/20	6001.39	ND	39.11		5962.28
MW-9	05/18/21	6001.39	ND	39.16		5962.23
MW-9	08/26/21	6001.39	ND	39.23		5962.16
MW-9	11/15/21	6001.39	ND	39.24		5962.15
MW-10	11/12/19	6001.39	ND	39.01		5962.38
MW-10	05/17/20	6001.39	ND	39.04		5962.35
MW-10	11/13/20	6001.39	ND	39.20		5962.19
MW-10	05/18/21	6001.39	ND	39.29		5962.10
MW-10	08/26/21	6001.39	ND	39.39		5962.00
MW-10	11/15/21	6001.39	ND	39.42		5961.97
MW-11	11/12/19	5999.84	ND	36.42		5963.42
MW-11	05/17/20	5999.84	ND	36.41		5963.43
MW-11	11/13/20	5999.84	ND	36.45		5963.39
MW-11	05/18/21	5999.84	ND	36.49		5963.35
MW-11	08/26/21	5999.84	ND	36.60		5963.24
MW-11	11/15/21	5999.84	ND	36.57		5963.27

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



N

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2/17/2021	SAH	SAH	SRV

TITLE

SITE LOCATION

Stantec

PROJECT

JOHNSTON FEDERAL 6A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

FIGURE

1

\\Us0389-ppfss01\shared_projects\193710238\07_historical\SJRB GENERAL\GIS-NEW_MXDs\JOHNSTON FED#6A\2020 MAPS\JFed6_SITEMAP_2020.mxd

UNDERGROUND ELECTRIC BOX

ELECTRIC VAULT

6003

6002

6001

6000

OVHD

SMA BENCHMARK
ELEV. 5999.94'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO WEST

PUMPJACK

TANK

SPILL TANK

FORMER 300 BBL TANKS

JOHNSTON FED #6A WELLHEAD

MW-6

SEPARATOR

5999

COMPRESSOR

CONCRETE PAD FOR TANK

MW-9

MW-5

FORMER SUMP

MW-10

MW-4

METER HOUSE

MW-3

SB-1

MW-8

MW-1

MW-2

MW-11

FORMER EPC PIT
EXCAVATED TO 12 FEET

MW-7

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 10/5/2016.

LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- RIGHT OF WAY BOUNDARY
- ACCESS ROAD
- FENCE
- OVERHEAD POWER LINE
- MONITORING WELL
- SOIL BORING
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

NOTES:
UTILITY LOCATIONS ARE APPROXIMATE.

N

SCALE IN FEET
0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2/23/2021	SLG	SLG	SRV

TITLE:

SITE PLAN

PROJECT:
JOHNSTON FED #6A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

Stantec

Figure No.:
2

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LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- FENCE
- OVERHEAD POWER LINE
- MONITORING WELL
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

NOTES:

DUP = FIELD DUPLICATE SAMPLE

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE/RED** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
< = BELOW REPORTING LIMIT

ANALYTE	NMWQCC STANDARDS
B = Benzene	10 µg/L
T = Toluene	750 µg/L
E = Ethylbenzene	750 µg/L
X = Total Xylenes	620 µg/L

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	2022-01-24	SAH	SAH	SRV

TITLE:

GROUNDWATER ANALYTICAL RESULTS
MAY 18, 2021

PROJECT: *JOHNSTON FEDERAL #6A*
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

Stantec

Figure No.: 3

\\Us0389-ppfss01\shared_projects\193710238\07_historical\SJRB GENERAL\GIS-NEW_MXDs\JOHNSTON FED#6A\2021 MAPS\JFed6_GECM_1SA_2021.mxd

UNDERGROUND ELECTRIC BOX

ELECTRIC VAULT

6003

6002

6001

6000

OVHD

SMA BENCHMARK
ELEV. 5999.94'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO WEST

PUMPJACK

TANK

JOHNSTON FED. #6A
WELLHEAD

FORMER 300
BBL TANKS

5962.0

MW-6
MW-6
5961.29

SPILL TANK

SEPARATOR

5999

COMPRESSOR

CONCRETE PAD FOR TANK

MW-5
5961.71
MW-5

MW-9
MW-9
5962.23

FORMER
SUMP

MW-4
5961.74
MW-4

MW-10
5962.10
MW-10

METER
HOUSE

5962.5

MW-3
5962.28
MW-3

MW-8
5962.57
MW-8

MW-1
MW-1
5962.72

MW-2
5962.77
MW-2

FORMER EPC PIT
EXCAVATED TO 12 FEET

MW-7
5962.92
MW-7

MW-11
5963.35
MW-11

5963.0

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 10/5/2016.

LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- FENCE
- OVERHEAD POWER LINE
- MONITORING WELL
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

NOTES:

5962.72 — GROUNDWATER ELEVATION (CORRECTED FOR PRODUCT THICKNESS WHEN PRESENT) FEET ABOVE MEAN SEA LEVEL

5962.5 — CORRECTED WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL).

DIRECTION OF APPARENT GROUNDWATER FLOW

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	7/19/2021	SAH	SAH	SRV

TITLE:

GROUNDWATER ELEVATION MAP
MAY 18, 2021

PROJECT: *JOHNSTON FEDERAL #6A*
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

Stantec

Figure No.: 4

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LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- FENCE
- OVHD — OVERHEAD POWER LINE
- MONITORING WELL
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

NOTES:

DUP = FIELD DUPLICATE SAMPLE

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE/RED** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
< = BELOW REPORTING LIMIT

ANALYTE	NMWQCC STANDARDS
B = Benzene	10 µg/L
T = Toluene	750 µg/L
E = Ethylbenzene	750 µg/L
X = Total Xylenes	620 µg/L

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	2022-01-24	SAH	SAH	SRV

TITLE:

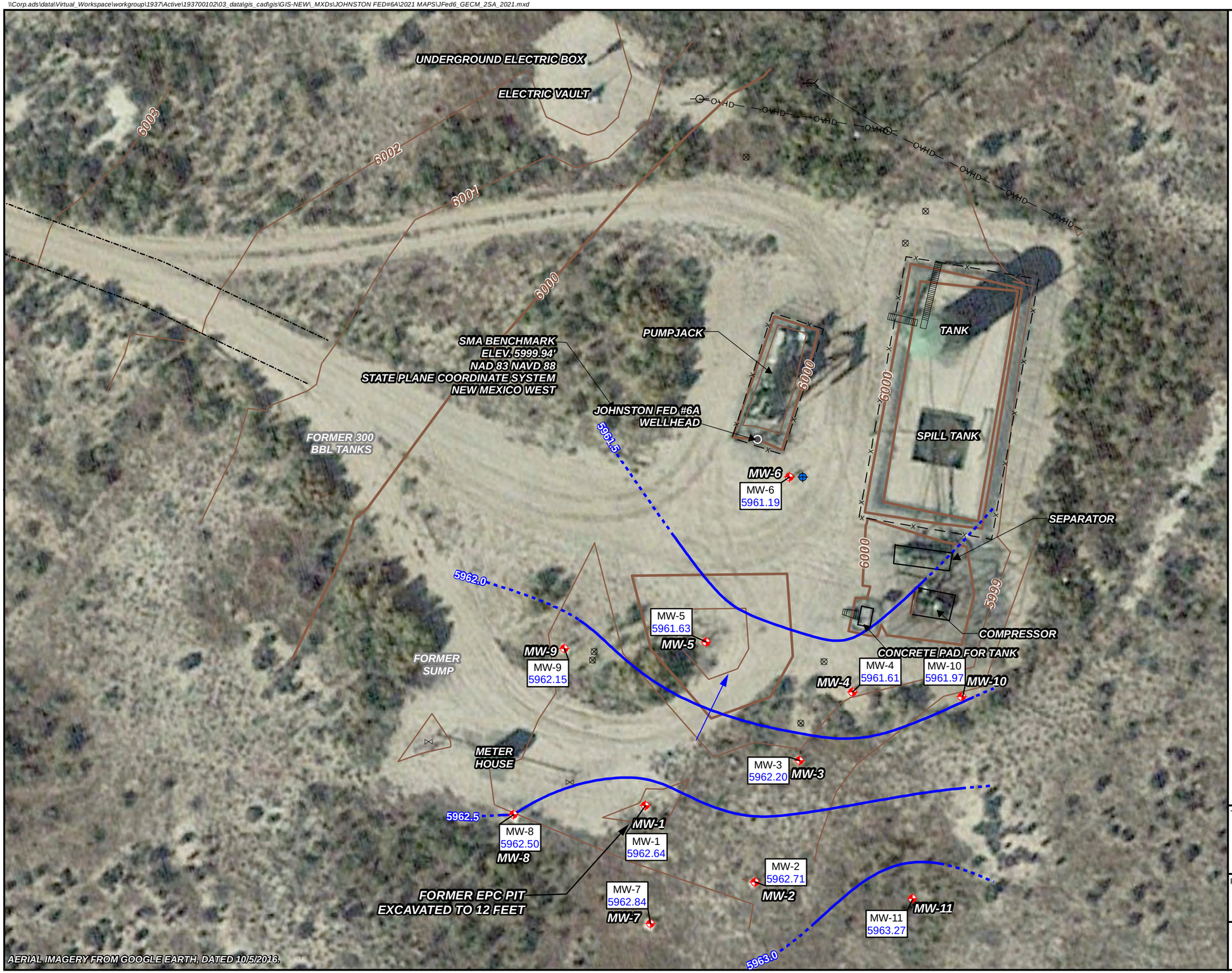
GROUNDWATER ANALYTICAL RESULTS
NOVEMBER 15, 2021

PROJECT: *JOHNSTON FEDERAL #6A*
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

Stantec

Figure No.: 5

\\Corp.ads\data\Virtual_Workspace\workgroup\1937\Active\19370010\03_data\gis_cad\gis\GIS-NEW_MXDs\JOHNSTON FED#6A\2021 MAPS\JFed6_GECM_2SA_2021.mxd



LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- FENCE
- OVHD — OVERHEAD POWER LINE
- MONITORING WELL
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

NOTES:

5962.72 — GROUNDWATER ELEVATION (CORRECTED FOR PRODUCT THICKNESS WHEN PRESENT) FEET ABOVE MEAN SEA LEVEL

5962.5 — CORRECTED WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL).

DIRECTION OF APPARENT GROUNDWATER FLOW

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	2022-01-27	SAH	SAH	SRV

TITLE:

GROUNDWATER ELEVATION MAP
NOVEMBER 15, 2021

PROJECT: JOHNSTON FEDERAL #6A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

Stantec

Figure No.: 6

APPENDICES

APPENDIX A – NMOCD NOTIFICATION OF SITE ACTIVITIES

APPENDIX B – WASTEWATER DISPOSAL DOCUMENTATION

APPENDIX C – ACCUVAC REPORT ON MDPE EVENTS

APPENDIX D – GROUNDWATER SAMPLING ANALYTICAL REPORTS

APPENDIX A

From: Varsa, Steve
To: Smith, Cory, EMNRD
Cc: Griswold, Jim, EMNRD; Wiley, Joe
Subject: El Paso CGP Company - Notice of upcoming product recovery activities
Date: Thursday, March 11, 2021 10:49:41 AM

Hi Cory -

This correspondence is to provide notice to the NMOCD of upcoming product recovery activities at the following El Paso CGP Company (EPCGP) project sites:

Site Name	Incident Number	Case Number	Date
Canada Mesa #2	Unknown	3RP-155-0	03/18/2021
Fields A#7A	Unknown	3RP-170-0	03/17/2021
Fogelson 4-1	Unknown	3RP-068-0	03/17/2021
Gallegos Canyon Unit #124E	NAUTOFAB000205	3RP-407-0	03/17/2021
James F. Bell #1E	Unknown	3RP-196-0	03/17/2021
Johnston Fed #4	Unknown	3RP-201-0	03/18/2021
Johnston Fed #6A	Unknown	3RP-202-0	03/18/2021
K27 LDO72	Unknown	3RP-204-0	03/18/2021
Knight #1	Unknown	3RP-207-0	03/17/2021
Lateral L 40 Line Drip	Unknown	3RP-212-0	03/18/2021
State Gas Com N #1	Unknown	3RP-239-0	03/17/2021

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

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, May 12, 2021 2:45:52 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	Incident Number	Sample Date
Canada Mesa #2	nAUTOfAB000065	05/19/2021
Fields A#7A	nAUTOfAB000176	05/22/2021
Fogelson 4-1	nAUTOfAB000192	05/22/2021
Gallegos Canyon Unit #124E	nAUTOfAB000205	05/21/2021
GCU Com A #142E	nAUTOfAB000219	05/21/2021
James F. Bell #1E	nAUTOfAB000291	05/23/2021
Johnston Fed #4	nAUTOfAB000305	05/18/2021
Johnston Fed #6A	nAUTOfAB000309	05/18/2021
K27 LDO72	nAUTOfAB000316	05/19/2021
Knight #1	nAUTOfAB000324	05/21/2021
Lateral L 40 Line Drip	nAUTOfAB000335	05/23/2021
Miles Fed #1A	nAUTOfAB000391	05/19/2021
Sandoval GC A #1A	nAUTOfAB000635	05/18/2021
Standard Oil Com #1	nAUTOfAB000666	05/19/2021
State Gas Com N #1	nAUTOfAB000668	05/22/2021

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

From:	Varsa, Steve
To:	"Smith, Cory, EMNRD"
Cc:	Griswold, Jim, EMNRD; "Wiley, Joe"
Bcc:	Varsa, Steve
Subject:	Johnston Federal #6A site (nAUTOfAB000309) - notice of upcoming activities
Date:	Monday, August 23, 2021 6:14:00 PM

Hi Cory – on behalf of El Paso CGP Company, Stantec is planning to complete hydrocarbon recovery activities using mobile dual-phase extraction methods at the subject site on August 26 and 31, 2021. A work plan will additional details regarding these activities has been submitted in the e-permitting portal.

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
Note – we have moved!
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

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 03, 2021 10:14:55 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	Incident Number	Sample Date
Canada Mesa #2	nAUTOfAB000065	11/11/2021
Fields A#7A	nAUTOfAB000176	11/14/2021
Fogelson 4-1	nAUTOfAB000192	11/14/2021
Gallegos Canyon Unit #124E	nAUTOfAB000205	11/12/2021
GCU Com A #142E	nAUTOfAB000219	11/12/2021
James F. Bell #1E	nAUTOfAB000291	11/13/2021
Johnston Fed #4	nAUTOfAB000305	11/15/2021
Johnston Fed #6A	nAUTOfAB000309	11/15/2021
K27 LDO72	nAUTOfAB000316	11/11/2021
Knight #1	nAUTOfAB000324	11/12/2021
Lateral L 40 Line Drip	nAUTOfAB000335	11/13/2021
Miles Fed #1A	nAUTOfAB000391	11/11/2021
Sandoval GC A #1A	nAUTOfAB000635	11/15/2021
Standard Oil Com #1	nAUTOfAB000666	11/11/2021
State Gas Com N #1	nAUTOfAB000668	11/14/2021

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

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

NO. 806752
NMOCD PERMIT: NM -001-0005
Oil Field Waste Document, Form C138
INVOICE:

DATE 03-18-21

DEL. TKT#.

GENERATOR: Santec

BILL TO: ~~Hilcorp~~ Santec

HAULING CO. Energy Minerals & Natural Res.

DRIVER: Tyrone
(Print Full Name)

ORDERED BY: Steve Vesa

CODES:

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		Canada Mesa #2	3	TD			12	
2		K-27 CD072					'21 MAR 18 6:22PM	
3		Johnston Fed #4						
4		Johnston Fed #6A						
5		Lat L40						

I [illegible] representative or authorized agent for [illegible] do hereby

DATE 05-21-21 DEL. TKT#.

GENERATOR: EL PASO BILL TO: EL PASO

HAULING CO. Stanlac DRIVER: Sean Clary
(Print Full Name)

ORDERED BY: Joe Wiley CODES:

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		Standard Oil Com #1 Knight #1 / GCU #124E		120				
2		GCU Com A #142E					'21 MAY 21 3:23 PM	
3		Johnston Fed #4 / #6A						
4		Sundoval GC A #1A /						
5		CANADA MESA #2 K-27-20N-12W, Miley Fed #1A						

I, Joe Wiley, representative or authorized agent for _____ do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non -exempt waste.

☐ Approved ☐ Denied ATTENDANT SIGNATURE _____

SAN JUAN PRINTING 2020 1973-1

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BASIN DISPOSAL

200 Montana, Bloomfield, NM 87413
505-632-8936 or 505-334-3013
OPEN 24 Hours per Day

NO. 813865
NMOCD PERMIT: NM -001-0005
Oil Field Waste Document, Form C138
INVOICE:

DATE 8-26-21
DEL. TKT#.
GENERATOR: Stantec
BILL TO: Stantec
HAULING CO. Sierra Oil Fill
DRIVER: Jeremy Valdez (Print Full Name)
ORDERED BY: Steve Vasa
CODES:

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	4/5	Johnson Fed #6A	5	70			350	
2								
3								
4								
5								

I, Jeremy Valdez, representative or authorized agent for _____ do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non -exempt waste.

☑ Approved ☐ Denied ATTENDANT SIGNATURE

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BASIN DISPOSAL

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505-632-8936 or 505-334-3013

OPEN 24 Hours per Day

NO. 814060

NMOCD PERMIT: NM -001-0005

Oil Field Waste Document, Form C138

INVOICE:

DATE 8.31.21

GENERATOR: Stan Tech

HAULING CO. Stan Tech

ORDERED BY: Steve Varsa

DEL. TKT#.

BILL TO: Stan Tech

DRIVER: Jeremy (Print Full Name)

CODES:

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		Johnston Fed. #6A	1	.70			.70	
2								
3								
4								
5								

I, [signature], representative or authorized agent for _____ do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non -exempt waste.

☑ Approved ☐ Denied ATTENDANT SIGNATURE [signature]

SAN JUAN PRINTING 2020 1973-1

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

NO. 817612

NMOCD PERMIT: NM -001-0005

Oil Field Waste Document, Form C138

INVOICE:

DATE 11-15-21

GENERATOR: El paso CGP

HAULING CO. Stanteck

ORDERED BY: Joe wiley

DEL. TKT#.

BILL TO: El paso CGP

DRIVER: Sean C.
(Print Full Name)

CODES:

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		State gas com N #1	1	70			70 NOV 15 3:47 PM	
2		Ficks A #7A, Fogelson #4						
3		Johnston Fed #4, Johnston Fed #4A						
4		Sandoval GC A #1A						
5								

I, Sean T Clay, representative or authorized agent for _____ do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non -exempt waste.

☑ Approved ☐ Denied ATTENDANT SIGNATURE _____

SAN JUAN PRINTING 2020 1973-1

APPENDIX C

AcuVac Remediation

September 13, 2021

Mr. Stephen Varsa
Senior Hydrogeologist
Stantec Consulting Services, Inc.
11153 Aurora Avenue
Des Moines, IA 50322

Dear Steve:

Re: Johnston Federal No. 6A, San Juan County, NM (Well MW-1, Event #4)

At your request, AcuVac Remediation, LLC (AcuVac) performed Mobile Dual Phase Extraction (MDPE) events at the above referenced site (Site) as outlined in the table below. Following is the Report and a copy of the Operating Data collected during Event #4. Additionally, the attached Table #1 contains the Summary Well Data, and Table #2 contains the Summary Recovery Data.

Event Number	Well Number	Event Duration (hrs.)	Date
#4A	MW-1	8.0	08/26/2021
#4B	MW-1	8.0	08/31/2021

The purpose of the MDPE events was to enhance recovery of trace amounts of Phase Separated Hydrocarbons (PSH) that remain at the Site through the removal of petroleum hydrocarbons in both liquid and vapor phases. PSH is referred to as petroleum hydrocarbons and Light Non-Aqueous Phase Liquids (LNAPL). The source of the PSH is a historical release of natural gas condensate.

OBJECTIVES

The objectives of the MDPE events were to:

- Maximize liquid and vapor phase petroleum hydrocarbon removal from groundwater and soils in the subsurface formations within the influence of the extraction well.
- Expose the capillary fringe area and below to the extraction well induced vacuums.
- Increase the vapor phase and liquid LNAPL specific yields with high induced vacuums.
- Create an induced hydraulic gradient to gain hydraulic control of the area surrounding the extraction well during the event periods.
- Select and monitor the groundwater depression and pump rates to accomplish the above objectives.

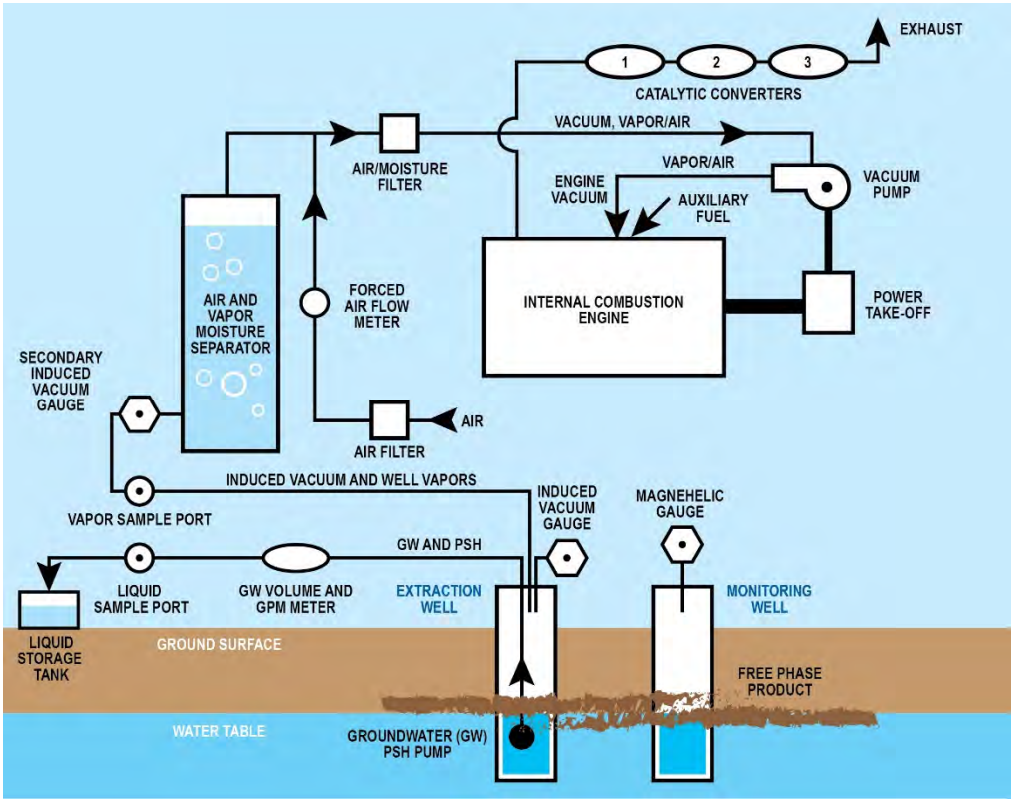
METHODS AND EQUIPMENT

AcuVac owns and maintains an inventory of equipment to perform MDPE testing. No third-party equipment was utilized. The testing at the Site was conducted using the AcuVac I-6 System (System) with a Roots RAI-33 blower, used as a vacuum pump, and a Roots RAI-22 positive displacement blower. The following table lists equipment and instrumentation employed during the testing and the data element captured by each.

Equipment and Instrumentation Employed by AcuVac

Measurement Equipment	Data Element
Extraction Well Induced Vacuum and Flow	
Dwyer Magnehelic Gauges	Extraction Well Vacuum
Dwyer Averaging Pitot Tubes / Magnehelic Gauges	Extractions Well Vapor Flow
Observation Wells	
Dwyer Digital Manometer	Vacuum / Pressure Influence
Extraction Well Vapor Monitoring	
V-1 Vacuum Box	Extraction Well Non-Diluted Vapor Sample Collection
HORIBA® Analyzer	Extraction Well Vapor TPH Concentration
RKI 1200 O_2, H_2S Monitor	Extraction Well Vapor Oxygen Content
NAPL Thickness	
Solinst Interface Probe Model 122	Depth to NAPL and Depth to Groundwater
Liquid Recovery	
Totalizer Flow Meter	Liquid Flow and Total Volume
Grundfos Red-Flo 2 Total Fluids Pump	In-Well Pumping
Grundfos Variable Frequency Drive	Pump Speed and Other Diagnostics
Groundwater Depression / Upwelling	
In-Situ Level Troll 700 Data Logger	Liquid Column in Extraction and Observation Wells
In-Situ Vented Cable with Chamber	Equalize Well Vacuum/Pressure
In-Situ Rugged Reader Data Logger Interface	Capture Readings from Data Logger Trolls
Atmospheric Conditions	
Testo Model 511	Relative and Absolute Barometric Pressure

THE ACUVAC MOBILE DUAL PHASE EXTRACTION SYSTEM



The vacuum extraction portion of the System consists of a vacuum pump driven by an internal combustion engine (IC engine). The vacuum pump connects to the extraction well, and the vacuum created on the extraction well causes light hydrocarbons in the soil and on the groundwater to volatilize and flow through a moisture knockout tank to the vacuum pump and the IC engine where they burn as part of the normal combustion process. Auxiliary propane powers the engine if the well vapors do not provide the required energy.

The IC engine provides the power necessary to achieve and maintain high induced vacuums and/or high well vapor flows needed to maximize the vacuum radius of influence.

Emissions from the engine pass through two of three catalytic converters to maximize destruction of effluent hydrocarbon vapors. The engine's fuel-to-air ratio is adjusted to maintain efficient combustion. Because the engine powers all equipment, the System stops when the engine stops preventing an uncontrolled release of hydrocarbons. Since the System operates entirely under vacuum, any leaks in the seals or connections leak into the System and not the atmosphere. Vacuum loss, low oil pressure, over-speed, or overheating automatically shut down the engine.

Groundwater extraction was provided by an in-well, Redi-Flo 2 total fluids pump that discharged through a total flow meter. The discharge line from the volume meter was then connected to the stand-by tank. A data logger (pressure transducer) was used to monitor the groundwater level relative to the in-well pump inlet. This enabled the AcuVac team to upwell the groundwater and then pump the well to achieve a targeted drawdown to maximize any LNAPL and vapor-phase hydrocarbons recovery from the smear zone. The electrical power for the groundwater pump was supplied from a 120v Honda generator. The groundwater flow rate was adjusted to maintain a target

level. An interface meter was used to collect depth to groundwater and depth to LNAPL measurements. Groundwater samples were taken periodically in a graduated cylinder to determine the average LNAPL percentage being recovered.

The design of the AcuVac System enables independent control of both the induced well vacuum and the groundwater pumping functions such that the AcuVac team controls the induced hydraulic gradient to increase exposure of the formation to soil vapor extraction (SVE). The ability to separate the vapor and liquid flows within the extraction well improve the LNAPL recovery rates and enabled the AcuVac team to record data specific to each media.

SUMMARY OF MDPE EVENT #4- WELL MW-1

The Petroleum Hydrocarbon Recovery Summary table below lists the groundwater and LNAPL recovery data for Event #4 and compares the results to the previous Events #3 and #2.

Petroleum Hydrocarbon Recovery Summary
Well MW-1

			Total		
Event Number	**Event #4B**	**Event #4A**	**Event #4**	**Event #3**	**Event #2**
Event Date	**08/31/2021**	**08/26/21**	**08/31/2021**	**09/25/2017**	**07/17/2017**
Event Hours	**8.0**	**8.0**	**16.0**	**24.0**	**28.25**
Recovery					
GW Recovery	159	150	309	590	336
NAPL Recovery					
Liquid	0	0	0	0	0
Vapor	4.99	5.28	10.27	20.20	42.3
Total	4.99	5.28	10.27	20.20	42.3
Gallons/Hour	**0.62**	**0.66**	**0.64**	**0.84**	**1.50**

- Total vapor hydrocarbons burned as IC engine fuel in the Petroleum Hydrocarbon Recovery Summary table above are based on the HORIBA® data recorded in the Influent Vapor Data table below, the HORIBA® analytical data from the influent vapor samples are compared with previous events.

Influent Vapor Data
Well MW-1

Event Number		**Event #4B**	**Event #4A**	**Event #3C**	**Event #2C**
Event Date		**08/31/2021**	**08/26/21**	**09/25/2017**	**07/17/2017**
Event Hours		**8.0**	**8.0**	**10.0**	**10.0**
Data Element					
TPH- Maximum	ppmv	8,410	9,730	12,300	22,370
TPH- Average	ppmv	7,556	8,243	9,662	20,210
TPH- Minimum	ppmv	6,310	6,530	6,120	17,940
TPH- Initial	ppmv	6,310	7,340	8,760	17,940
TPH- Final	ppmv	6,670	6,530	11,710	22,370
CO_2	%	4.58	4.74	5.12	4.86
O_2	%	14.9	14.6	15.0	11.1
H_2S	ppm	0	4	0	0

- The extraction well induced vacuum and well vapor flow for Events #4A and #4B are compared with Event #3C and #2C in the following table.

Well Vacuum and Well Vapor Flow
Well MW-1

Event Number		Event #4B	Event #4A	Event #3C	Event #2C
Event Date		08/31/2021	08/26/21	09/25/2017	07/17/2017
Event Hours		8.0	8.0	10.0	10.0
Data Element					
Well Vacuum- Max	InH_2O	42.00	45.00	64.00	35.00
Well Vacuum- Avg	InH_2O	40.35	41.06	59.87	35.00
Well Vacuum- Min	InH_2O	30.00	30.06	30.00	35.00
Well Vapor Flow- Max	scfm	39.47	39.54	46.02	24.90
Well Vapor Flow- Avg	scfm	37.18	37.06	41.07	24.90
Well Vapor Flow- Min	scfm	33.39	26.54	21.66	24.90

- For Events #4A and #4B, pneumatic pumps were used to provide a more constant groundwater depression and allow a more steady well vapor flow. For Event #4A, a top fill pump was used, and the inlet was positioned approximately 36 inches above the well bottom. For Event #4B, a bottom fill pump was employed, and the inlet was positioned approximately 6.0 inches above the well bottom. The groundwater pump rates for Events #4A and #4B are compared with Events #3C and #2C in the following table.

Groundwater Pump Data
Well MW-1

Event Number		Event #4B	Event #4A	Event #3C	Event #2C
Event Date		08/31/2021	08/26/21	09/25/2017	07/17/2017
Event Hours		8.0	8.0	10.0	10.0
Data Element					
Maximum GW Pump Rate	gpm	0.50	0.60	0.81	0.14
Average GW Pump Rate	gpm	0.33	0.31	0.43	0.14

- The average groundwater depression and available well screen for Events #4A and #4B are compared with Events #3C and #2C in the following table.

Groundwater Depression and Available Well Screen
Well MW-1

Event Number		Event #4B	Event #4A	Event #3C	Event #2C
Event Date		08/31/2021	08/26/21	09/25/2017	07/17/2017
Event Hours		8.0	8.0	10.0	10.0
Data Element					
Average GW Depression	ft	5.60	6.10	7.50	6.00
Average Available Well Screen	ft	12.98	13.33	14.74	12.91

- The LNAPL thickness recorded at the start and conclusion of each event is contained in the following table.

LNAPL Thickness Data Well MW-1					
Event Number		**Event #4B**	**Event #4A**	**Event #3C**	**Event #2C**
Event Date		**08/31/2021**	**08/26/21**	**09/25/2017**	**07/17/2017**
Event Hours		**8.0**	**8.0**	**10.0**	**10.0**
Event Start					
Depth to LNAPL	Ft BTOC	-	-	39.24	-
Depth to Groundwater	Ft BTOC	39.28	39.23	39.25	38.91
LNAPL Thickness	ft	-	-	0.01	-
Hydro Equivalent	Ft BTOC	38.28	39.23	39.24	38.91
Event Conclusion					
Depth to LNAPL	Ft BTOC	46.66	-	47.45	-
Depth to Groundwater	Ft BTOC	46.67	46.67	47.49	38.61
LNAPL Thickness	ft	0.01	-	0.04	-
Hydro Equivalent	Ft BTOC	46.66	47.67	47.46	38.61

- Outer wells MW-8 (41.6 ft), MW-2 (41.7 ft) and MW-3 (51.1 ft) were monitored for vacuum influence from the extraction well MW-1. The LNAPL thickness recorded at the start and conclusion of each event is contained in the following table.

Outer Well Vacuum Influence Well MW-1			
Event Number		**Event #4B**	**Event #4A**
Event Date		**08/31/2021**	**08/26/21**
Event Hours		**8.0**	**8.0**
Extraction Well			
Average Extraction Well Vacuum	InH_2O	40.35	41.06
Average Vacuum Influence- Outer Wells			
MW-8 (41.6 ft)	InH_2O	0.26	0.26
MW-2 (41.7 ft)	InH_2O	0.27	0.25
MW-3 (51.1 ft)	InH_2O	(0.11)	0.19

- All wells were gauged prior to and after the conclusion of Event #4A and Event #4B to determine the hydraulic influence of the extraction well groundwater pumping on the outer wells. The gauging data contained in the following Gauging Data tables.

Gauging Data Event #4A Outer Observation Wells				
Well Number		**MW-8**	**MW-2**	**MW-3**
Event Date		**08/26/21**	**08/26/21**	**08/26/21**
Distance from Extraction Well	ft	**41.6**	**41.7**	**51.1**
Event Start				
Depth to LNAPL	Ft BTOC	-	-	-
Depth to Groundwater	Ft BTOC	38.56	39.12	39.01
LNAPL Thickness	ft	-	-	-
Hydro Equivalent	Ft BTOC	38.56	39.12	39.01
Event Conclusion				
Depth to LNAPL	Ft BTOC	-	-	-
Depth to Groundwater	Ft BTOC	38.57	39.13	38.99
LNAPL Thickness	ft	-	-	-
Hydro Equivalent	Ft BTOC	38.57	39.13	38.99

Gauging Data Event #4B Outer Observation Wells				
Well Number		**MW-8**	**MW-2**	**MW-3**
Event Date		**08/31/21**	**08/31/21**	**08/31/21**
Distance from Extraction Well	ft	**41.6**	**41.7**	**51.1**
Event Start				
Depth to LNAPL	Ft BTOC	-	-	-
Depth to Groundwater	Ft BTOC	38.58	39.15	39.05
LNAPL Thickness	ft	-	-	-
Hydro Equivalent	Ft BTOC	38.58	39.15	38.05
Event Conclusion				
Depth to LNAPL	Ft BTOC	-	-	-
Depth to Groundwater	Ft BTOC	38.58	39.30	38.98
LNAPL Thickness	ft	-	-	-
Hydro Equivalent	Ft BTOC	38.58	39.30	38.98

ADDITIONAL INFORMATION

- Well MW-1 produced a steady amount of liquid volume during both Event #4A and #4B. However, no quantifiable liquid LNAPL was recovered from well MW-1.
- The equivalent recovered hydrocarbons for Event #4A- 5.28 and #4B- 4.99 gals, was burned as IC engine fuel.
- The TPH vapor concentrations increased during Event #4B and then decreased at the end of the event. The initial TPH reading was 6,310 ppmv (lowest), the average reading was 7,556 ppmv, the maximum reading, 8,410 ppmv, was at event hour 1.5, and the final reading, 6,670 ppmv, was recorded at event hour 7.5.

METHOD OF CALIBRATION AND CALCULATIONS

The HORIBA® Analytical instrument is calibrated with Hexane, CO and CO_2.

The formula used to calculate the emission rate is:

$$ER = HC\ (ppmv) \times MW\ (Hexane) \times Flow\ Rate\ (scfm) \times 1.58E^{-7} \frac{(min)(lb\ mole)}{(hr)(ppmv)(ft^3)} = lbs/hr$$

INFORMATION INCLUDED WITH REPORT

- Table #1 Summary Well Data
- Table #2 Summary Recovery Data
- Recorded Data
- Photographs of the MDPE System, Well MW-1.

After you have reviewed the report and if you have any questions, please contact me. We appreciate you selecting AcuVac to provide this service.

Sincerely,
ACUVAC REMEDIATION, LLC

Paul D. Faucher
President

Summary Well Data
Table #1

Event		4A	4B
WELL NO.		**MW-1**	**MW-1**
Total Event Hours		8.0	8.0
Cumulative Event Hours		67.0	75.0
TD	ft BGS	47.0	47.0
Well Screen	ft BGS	32.0 – 47.0	32.0 – 47.0
Well Size	in	4.0	4.0
Well Data			
DTGW - Static - Start Event	ft BTOC	-	-
DTLNAPL - Static - Start Event	ft BTOC	39.23	39.38
LNAPL	ft	-	-
Hydro-Equivalent- Beginning	ft BTOC	39.23	39.38
DTGW - End Event	ft BTOC	-	46.66
DTLNAPL - End Event	ft BTOC	46.67	46.67
LNAPL	ft	-	0.01
Hydro-Equivalent- Ending	ft BTOC	46.67	46.66
Extraction Data			
Maximum Extraction Well Vacuum	"H_2O	45.00	42.00
Average Extraction Well Vacuum	"H_2O	41.06	40.35
Minimum Extraction Well Vacuum	"H_2O	30.00	30.00
Maximum Extraction Well Vapor Flow	"H_2O	39.54	39.47
Average Extraction Well Vapor Flow	scfm	37.06	38.17
Minimum Extraction Well Vapor Flow	scfm	26.54	33.39
Maximum GW / LNAPL Pump Rate	gpm	0.60	0.50
Average GW / LNAPL Pump Rate	gpm	0.31	0.33
Influent Data			
Maximum TPH	ppmv	9,730	8,410
Average TPH	ppmv	8,243	7,556
Minimum TPH	ppmv	6,530	6,310
Initial TPH	ppmv	7,340	6,310
Final TPH	ppmv	6,530	6,670
Average CO_2	%	4.74	4.58
Average O_2	%	14.6	14.9
Average H_2S	ppm	4.0	0

Summary Recovery Data
Table #2

Event		4A	4B
WELL NO.		MW-1	MW-1
Recovery Data- Current Event			
Total Liquid Volume Recovered	gals	150	159
Total Liquid LNAPL Recovered	gals	-	-
Total Liquid LNAPL Recovered / Total Liquid	%	-	-
Total Liquid LNAPL Recovered / Total LNAPL	%	-	-
Total Vapor LNAPL Recovered	gals	5.28	4.99
Total Vapor LNAPL Recovered / Total LNAPL	%	100.00	100.00
Total Vapor and Liquid LNAPL Recovered	gals	5.28	4.99
Average LNAPL Recovery	gals/hr	0.66	0.62
Total LNAPL Recovered	lbs	37	35
Total Volume of Well Vapors	cu. ft	17,789	18,322
Recovery Data- Cumulative			
Total Liquid Volume Recovered	gals	1,244	1,403
Total Liquid LNAPL Recovered	gals	-	-
Total Vapor LNAPL Recovered	gals	71.76	76.74
Total Vapor and Liquid LNAPL Recovered	gals	71.76	76.74
Average LNAPL Recovery	gals/hr	1.07	1.02
Total LNAPL Recovered	lbs	502	537
Total Volume of Well Vapors	cu. ft	120,648	138,570

AcuVac Remediation

OPERATING DATA – EVENT # 4A **PAGE # 1** **ACUVAC MDP SYSTEM**

Location: Johnston Federal #6A, San Juan County, NM **Project Managers: Faucher / Crump / George**

Well # MW-1	Date		8/26/24					
	Time		0745	0815	0845	0915	0945	1015
	Hr Meter		2341.5					
ENGINE / BLOWER	Engine Speed	RPM	1900	1900	1900	1700	1700	1700
	Oil Pressure	psi	50	50	50	50	50	50
	Water Temp	°F	160	160	160	165	165	160
	Alternator	Volts	13	13	13	13	13	13
	Intake Vacuum	"Hg	10	10	10	10	10	10
	Gas Flow Fuel/Propane	cfh	125	125	95	90	90	85
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	30	30	30	44	45	45
	Extraction Well Flow	scfm	26.59	26.54	28.20	37.47	38.24	39.00
	Influent Vapor Temp.	°F	60	62	64	66	66	68
	Air Temp	°F	64	66	68	70	73	77
	Barometric Pressure	"Hg	30.35	30.35	30.35	30.35	30.34	30.34
	Absolute Pressure	"Hg	24.31	24.31	24.31	24.31	24.31	24.31
VAPOR / INFLUENT	TPH	ppmv	–	7340	8580	9730	6970	7860
	CO_2	%	–	6.16	5.92	5.88	4.30	4.70
	O_2	%	–	11.4	12.9	13.0	15.3	14.4
	H_2S	ppm	–	12.5	18.5	20.0	7.0	7.0

NOTES

ARRIVED ON SITE AT 0710 HRS. POSITIONED ACUVAC SYSTEM NEAR WELL MW-1. POSITIONED IN WELL PNEUMATIC PUMP INLET 31' ABOVE WELL BOTTOM. MEASURED DISTANCES TO OBSERVATION WELLS. PLUGGED ALL OUTER WELLS OBSTAINED STATIC READINGS. EVENT STARTED AT 0745 HRS INITIAL WELL VAC 30 IN H_2O, WVF 26.59 SCFM. PUMP STARTED AT 0750 HRS. 0915 WELL VAC ↑ 44 IN H_2O, WVF ↑ 37.47. 0945 WELL VAC ↑ 45 IN H_2O WVF 39.53 SCFM. TPH CONCENTRATIONS VARIABLE DURING PERIOD.

RECOVERY	Totalizer	gals	45838	45848	45860	45870	45880	45891
	Pump Rate	gals/min	.33	.40	.33	.33	.37	.37
	Total Volume	gals	–	10	22	32	42	53
	NAPL	% Vol	–	–	–	–	–	–
	NAPL	Gals	–	–	–	–	–	–
	Data Logger Head 8.45	ft	8.45	1.40	1.47	1.63	2.35	2.37
	GW (Depression)	ft	–	(7.05)	(6.98)	(6.82)	(6.10)	(6.08)
	Extraction Well	DTNAPL	–					
	Extraction Well	DTGW	39.23					

AcuVac Remediation

OPERATING DATA – EVENT # 4A PAGE # 2 ACUVAC MDP SYSTEM

Location: Johnston Federal #6A, San Juan County, NM Project Managers: Faucher / Crump / George

Well # MW-1		Date	8/26/21					
		Time	1045	1115	1145	1215	1245	1315
		Hr Meter						
ENGINE / BLOWER	Engine Speed	RPM	1800	1800	1800	1800	1800	1800
	Oil Pressure	psi	50	50	50	50	50	50
	Water Temp	°F	160	160	160	160	160	160
	Alternator	Volts	13	13	13	13	13	13
	Intake Vacuum	"Hg	8	8	8	8	8	8
	Gas Flow Fuel/Propane	cfh	85	80	80	80	80	80
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	45	45	45	45	42	42
	Extraction Well Flow	scfm	39.00	39.41	39.34	39.34	39.54	39.54
	Influent Vapor Temp.	°F	68	68	70	70	70	70
	Air Temp	°F	79	82	84	88	88	90
	Barometric Pressure	"Hg	30.49	30.34	30.33	30.30	30.29	30.27
	Absolute Pressure	"Hg	24.31	24.30	2430	24.27	24.27	24.25
VAPOR / INFLUENT	TPH	ppmv	9170	9110	8720	8950	8640	8500
	CO_2	%	5.0	4.9	4.50	4.74	4.62	4.34
	O_2	%	14.4	14.5	14.8	14.9	15.2	15.3
	H_2S	ppm	0	0	0	0	0	0
NOTES	WELL VAC STEADY UNTIL 1245 HRS ↓ 42 IN H_2O, WVF ↑ 39.54 SCFM TPH VAPOR CONCENTRATIONS ON A SLIGHTLY DECREASING TREND DURING THE PERIOD. LIQUID RECOVERY ↓ AT 1215 HRS. DL READING MOSTLY STEADY INDICATING THAT ALL LIQUID DRAWN INTO WELL IS BEING VACATED.							
RECOVERY	Totalizer	gals	45902	45911	45921	45925	45930	45948
	Pump Rate	gals/min	.30	.33	.13	.17	.60	.30
	Total Volume	gals	64	73	83	87	92	110
	NAPL	% Vol	–	–	–	–	–	–
	NAPL	Gals	–	–	–	–	–	–
	Data Logger Head	ft	2.34	2.31	2.31	2.31	2.11	2.12
	GW Depression	ft	<6.11>	<6.14>	<6.14>	<6.14>	<6.34>	<6.33>
	Extraction Well	DTNAPL						
	Extraction Well	DTGW						

AcuVac Remediation

OPERATING DATA – EVENT # 4A PAGE # 3 ACUVAC MDP SYSTEM

Location: Johnston Federal #6A, San Juan County, NM Project Managers: Faucher / Crump / George

Well # MW-1	Date		8/26/21					
	Time		1345	1415	1445	1515	1545	
	Hr Meter							
ENGINE / BLOWER	Engine Speed	RPM	1800	1800	1800	1800	1800	
	Oil Pressure	psi	50	50	50	50	50	
	Water Temp	°F	170	170	170	170	170	
	Alternator	Volts	13	13	13	13	13	
	Intake Vacuum	"Hg	8	8	8	8	8	
	Gas Flow Fuel/Propane	cfh	70	70	70	70	70	
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	42	42	42	42	42	
	Extraction Well Flow	scfm	39.54	39.54	39.54	39.54	39.54	
	Influent Vapor Temp.	°F	70	70	70	70	70	
	Air Temp	°F	90	90	90	86	84	
	Barometric Pressure	"Hg	30.25	30.23	30.22	30.22	30.22	
	Absolute Pressure	"Hg	24.24	24.22	24.21	24.21	24.21	
VAPOR / INFLUENT	TPH	ppmv	8510	7790	7250	6530	–	
	CO_2	%	4.16	4.22	3.86	3.76	–	
	O_2	%	15.3	15.8	15.9	16.4	–	
	H_2S	ppm	0	0	0	0	–	
NOTES								
RECOVERY	Totalizer	gals	45957	45966	45973	45982	45838 45988	
	Pump Rate	gals/min	.30	.23	.30	.20	–	
	Total Volume	gals	119	128	135	144	150	
	NAPL	% Vol	–	–	–	–	–	
	NAPL	Gals	–	–	–	–	–	
	Data Logger Head	ft	2.16	2.10	2.06	2.15	.39	
	GW Depression	ft	(6.29)	(6.35)	(6.39)	(6.30)	(8.06)	
	Extraction Well	DTNAPL						
	Extraction Well	DTGW						

AcuVac Remediation

OPERATING DATA – EVENT # 43 PAGE # 1 ACUVAC MDP SYSTEM

Location: Johnston Federal #6A, San Juan County, NM Project Managers: Faucher / Crump / George

Well # MW-1	Date		8/31/21					
	Time		0730	0800	0830	0900	0930	1000
	Hr Meter		2359.5					
ENGINE / BLOWER	Engine Speed	RPM	1800	1800	1800	1800	1800	1800
	Oil Pressure	psi	50	50	50	50	50	50
	Water Temp	°F	130	135	135	140	145	150
	Alternator	Volts	13	13	13	13	13	13
	Intake Vacuum	"Hg	12	12	12	12	12	12
	Gas Flow Fuel/Propane	cfh	120	130	130	130	130	130
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	30	36	36	40	40	42
	Extraction Well Flow	scfm	33.39	33.77	36.31	37.66	38.08	38.79
	Influent Vapor Temp.	°F	62	66	66	68	68	68
	Air Temp	°F	61	61	66	68	72	75
	Barometric Pressure	"Hg	30.11	30.10	30.10	30.10	30.10	30.10
	Absolute Pressure	"Hg	24.16	24.15	24.15	24.15	24.16	24.16
VAPOR / INFLUENT	TPH	ppmv	–	6310	–	8410	–	8100
	CO_2	%	–	5.10	–	5.38	–	5.02
	O_2	%	–	14.0	–	13.5	–	14.3
	H_2S	ppm	–	0	–	0	–	0

NOTES

ARRIVED ON SITE AT 0710. MOBILIZED ACUVAC SYSTEM AND EQUIPMENT GAUGED ALL WELLS. PERFORMED ALL SAFETY CHECKS - ALL OK. EVENT STARTED AT 0730. UTILIZING BOTTOM FILL PNEUMATIC PUMP. 0800 WELL VAC 40 INH2O W/FT 33.77 SCFM. 0930 WELL VAC 40 INH2O, 38.68 SCFM. LIQUID RECOVERY MOSTLY STABLE. NO MEASURABLE LNAPL RECOVERED.

RECOVERY	Totalizer	gals	46057	46072	46085	46095	46106	46117
	Pump Rate	gals/min	.50	.43	.33	.37	.37	.30
	Total Volume	gals	–	15	28	38	49	60
	NAPL	% Vol	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN
	NAPL	Gals	–	–	–	–	–	–
	Data Logger Head 7.71	ft	5.47	1.45	1.70	2.00	2.09	2.08
	GW Depression	ft	(2.24)	(6.26)	(6.01)	(5.71)	(5.62)	(5.63)
	Extraction Well	DTNAPL						
	Extraction Well	DTGW						

AcuVac Remediation

OPERATING DATA – EVENT # 43 PAGE # 2 ACUVAC MDP SYSTEM

Location: Johnston Federal #6A, San Juan County, NM Project Managers: Faucher / Crump / George

Well # MW-1	Date		8/31/21					
	Time		1030	1100	1130	1200	1230	1300
	Hr Meter							
ENGINE / BLOWER	Engine Speed	RPM	1800	1800	1800	1800	1800	1800
	Oil Pressure	psi	50	50	50	50	50	50
	Water Temp	°F	155	160	160	160	160	160
	Alternator	Volts	13	13	13	13	13	13
	Intake Vacuum	"Hg	12	12	12	12	12	
	Gas Flow Fuel/Propane	cfh	115	100	90	90	90	90
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	42	42	42	42	42	42
	Extraction Well Flow	scfm	38.79	38.79	38.71	39.13	39.05	39.05
	Influent Vapor Temp.	°F	68	68	70	70	72	72
	Air Temp	°F	79	81	81	84	84	88
	Barometric Pressure	"Hg	30.10	30.09	30.08	30.07	30.05	30.03
	Absolute Pressure	"Hg	24.15	24.15	24.14	24.13	24.11	24.10
VAPOR / INFLUENT	TPH	ppmv	-	8110	-	8010	-	7550
	CO_2	%	-	4.72	-	4.50	-	4.34
	O_2	%	-	14.8	-	15.3	-	15.6
	H_2S	ppm	-	0	-	0	-	-

NOTES

WELL VAC STEADY, WVF ON A SLIGHTLY INCREASING TREND.
TPH VAPOR CONCENTRATIONS ON A SLIGHTLY DECREASING TREND
GWD VERY STEADY DURING PERIOD

RECOVERY	Totalizer	gals	46126	46137	46145	46154	46163	46172
	Pump Rate	gals/min	.37	.27	.30	.30	.30	.30
	Total Volume	gals	69	80	88	97	106	115
	NAPL	% Vol	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN
	NAPL	Gals	-	-	-	-	-	-
	Data Logger Head	ft	2.10	2.07	2.02	2.07	2.17	2.07
	GW (Depression)	ft	(5.61)	(5.64)	(5.69)	(5.64)	(554)	(5.64)
	Extraction Well	DTNAPL						
	Extraction Well	DTGW						

AcuVac Remediation

OPERATING DATA – EVENT # 4B PAGE # 3 ACUVAC MDP SYSTEM

Location: Johnston Federal #6A, San Juan County, NM Project Managers: Faucher / Crump / George

Well # MW-1	Date	8/31/21						
	Time	1330	1400	1430	1500	1530		
	Hr Meter							
ENGINE / BLOWER	Engine Speed	RPM	1800	1800	1800	1800	1800	
	Oil Pressure	psi	50	50	50	50	50	
	Water Temp	°F	165	165	165	165	165	
	Alternator	Volts	13	13	13	13	13	
	Intake Vacuum	"Hg	12	12	12	12	12	
	Gas Flow Fuel/Propane	cfh	85	80	80	80	80	
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	42	42	42	42	42	
	Extraction Well Flow	scfm	39.47	39.47	39.47	39.47	39.47	
	Influent Vapor Temp.	°F	72	72	72	72	72	
	Air Temp	°F	88	88	90	90	90	
	Barometric Pressure	"Hg	30.02	30.00	29.99	29.98	29.97	
	Absolute Pressure	"Hg	24.08	24.07	24.06	24.06	24.05	
VAPOR / INFLUENT	TPH	ppmv	-	7290	-	6670	-	
	CO_2	%	-	3.89	-	3.72	-	
	O_2	%	-	15.7	-	16.1	-	
	H_2S	ppm	-	0	-	0	-	
NOTES								
RECOVERY	Totalizer	gals	46181	46189	46198	46206	46216 / 46057	
	Pump Rate	gals/min	.27	.30	.27	.33	-	
	Total Volume	gals	124	132	141	149	159	
	NAPL	% Vol	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	
	NAPL	Gals	-	-	-	-	-	
	Data Logger Head	ft	2.16	2.06	2.11	2.10	.20	
	GW Depression	ft	(5.55)	(5.65)	(5.60)	(5.61)	(7.51)	
	Extraction Well	DTNAPL						
	Extraction Well	DTGW						

APPENDIX D

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-203727-1
Client Project/Site: Johnston Fed #6A

For:
Stantec Consulting Services Inc
11153 Aurora Avenue
Des Moines, Iowa 50322-7904

Attn: Steve Varsa

Marty Edwards

Authorized for release by:
5/31/2021 5:13:54 PM

Marty Edwards, Client Service Manager
(850)471-6227
Marty.Edwards@Eurofinset.com

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Laboratory Job ID: 400-203727-1

Table of Contents

Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Job ID: 400-203727-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-203727-1

Comments
No additional comments.

Receipt
The samples were received on 5/21/2021 9:07 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-1 (400-203727-3). Elevated reporting limits (RLs) are provided.

Method 8260C: Surrogate recovery for the following sample was outside the upper control limit: MW-7 (400-203727-7). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or 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: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: TB-01 Lab Sample ID: 400-203727-1

No Detections.

Client Sample ID: DUP-01 Lab Sample ID: 400-203727-2

No Detections.

Client Sample ID: MW-1 Lab Sample ID: 400-203727-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.3	J	10	3.8	ug/L	10		8260C	Total/NA
Toluene	430		10	4.1	ug/L	10		8260C	Total/NA
Ethylbenzene	230		10	5.0	ug/L	10		8260C	Total/NA
Xylenes, Total	1500		100	16	ug/L	10		8260C	Total/NA

Client Sample ID: MW-3 Lab Sample ID: 400-203727-4

No Detections.

Client Sample ID: MW-4 Lab Sample ID: 400-203727-5

No Detections.

Client Sample ID: MW-5 Lab Sample ID: 400-203727-6

No Detections.

Client Sample ID: MW-7 Lab Sample ID: 400-203727-7

No Detections.

Client Sample ID: MW-8 Lab Sample ID: 400-203727-8

No Detections.

Client Sample ID: MW-9 Lab Sample ID: 400-203727-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-203727-1	TB-01	Water	05/18/21 07:00	05/21/21 09:07	
400-203727-2	DUP-01	Water	05/18/21 15:25	05/21/21 09:07	
400-203727-3	MW-1	Water	05/18/21 14:33	05/21/21 09:07	
400-203727-4	MW-3	Water	05/18/21 14:39	05/21/21 09:07	
400-203727-5	MW-4	Water	05/18/21 14:25	05/21/21 09:07	
400-203727-6	MW-5	Water	05/18/21 14:48	05/21/21 09:07	
400-203727-7	MW-7	Water	05/18/21 14:55	05/21/21 09:07	
400-203727-8	MW-8	Water	05/18/21 15:02	05/21/21 09:07	
400-203727-9	MW-9	Water	05/18/21 15:08	05/21/21 09:07	

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: TB-01

Date Collected: 05/18/21 07:00
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/28/21 16:26	1
Toluene	<1.0		1.0		ug/L			05/28/21 16:26	1
Ethylbenzene	<1.0		1.0		ug/L			05/28/21 16:26	1
Xylenes, Total	<10		10		ug/L			05/28/21 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*78 - 118*		*05/28/21 16:26*	*1*
Dibromofluoromethane	*109*		*81 - 121*		*05/28/21 16:26*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*05/28/21 16:26*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: DUP-01

Date Collected: 05/18/21 15:25
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/28/21 16:51	1
Toluene	<1.0		1.0		ug/L			05/28/21 16:51	1
Ethylbenzene	<1.0		1.0		ug/L			05/28/21 16:51	1
Xylenes, Total	<10		10		ug/L			05/28/21 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*78 - 118*		*05/28/21 16:51*	*1*
Dibromofluoromethane	*108*		*81 - 121*		*05/28/21 16:51*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*05/28/21 16:51*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: MW-1

Date Collected: 05/18/21 14:33
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6.3	J	10	3.8	ug/L			05/28/21 20:59	10
Toluene	430		10	4.1	ug/L			05/28/21 20:59	10
Ethylbenzene	230		10	5.0	ug/L			05/28/21 20:59	10
Xylenes, Total	1500		100	16	ug/L			05/28/21 20:59	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*78 - 118*		*05/28/21 20:59*	*10*
Dibromofluoromethane	*109*		*81 - 121*		*05/28/21 20:59*	*10*
Toluene-d8 (Surr)	*88*		*80 - 120*		*05/28/21 20:59*	*10*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: MW-3

Date Collected: 05/18/21 14:39
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/28/21 14:47	1
Toluene	<1.0		1.0		ug/L			05/28/21 14:47	1
Ethylbenzene	<1.0		1.0		ug/L			05/28/21 14:47	1
Xylenes, Total	<10		10		ug/L			05/28/21 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*78 - 118*		*05/28/21 14:47*	*1*
Dibromofluoromethane	*109*		*81 - 121*		*05/28/21 14:47*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*05/28/21 14:47*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: MW-4

Date Collected: 05/18/21 14:25
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/28/21 17:16	1
Toluene	<1.0		1.0		ug/L			05/28/21 17:16	1
Ethylbenzene	<1.0		1.0		ug/L			05/28/21 17:16	1
Xylenes, Total	<10		10		ug/L			05/28/21 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*78 - 118*		*05/28/21 17:16*	*1*
Dibromofluoromethane	*112*		*81 - 121*		*05/28/21 17:16*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*05/28/21 17:16*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: MW-5

Date Collected: 05/18/21 14:48
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/28/21 17:40	1
Toluene	<1.0		1.0		ug/L			05/28/21 17:40	1
Ethylbenzene	<1.0		1.0		ug/L			05/28/21 17:40	1
Xylenes, Total	<10		10		ug/L			05/28/21 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*78 - 118*		*05/28/21 17:40*	*1*
Dibromofluoromethane	*113*		*81 - 121*		*05/28/21 17:40*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*05/28/21 17:40*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: MW-7

Date Collected: 05/18/21 14:55
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/28/21 18:05	1
Toluene	<1.0		1.0		ug/L			05/28/21 18:05	1
Ethylbenzene	<1.0		1.0		ug/L			05/28/21 18:05	1
Xylenes, Total	<10		10		ug/L			05/28/21 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*126*	*S1+*	*78 - 118*		*05/28/21 18:05*	*1*
Dibromofluoromethane	*110*		*81 - 121*		*05/28/21 18:05*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*05/28/21 18:05*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: MW-8

Date Collected: 05/18/21 15:02
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/28/21 18:30	1
Toluene	<1.0		1.0		ug/L			05/28/21 18:30	1
Ethylbenzene	<1.0		1.0		ug/L			05/28/21 18:30	1
Xylenes, Total	<10		10		ug/L			05/28/21 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*78 - 118*		*05/28/21 18:30*	*1*
Dibromofluoromethane	*111*		*81 - 121*		*05/28/21 18:30*	*1*
Toluene-d8 (Surr)	*81*		*80 - 120*		*05/28/21 18:30*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: MW-9

Date Collected: 05/18/21 15:08
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/28/21 18:55	1
Toluene	<1.0		1.0		ug/L			05/28/21 18:55	1
Ethylbenzene	<1.0		1.0		ug/L			05/28/21 18:55	1
Xylenes, Total	<10		10		ug/L			05/28/21 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*78 - 118*		*05/28/21 18:55*	*1*
Dibromofluoromethane	*109*		*81 - 121*		*05/28/21 18:55*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*05/28/21 18:55*	*1*

QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

GC/MS VOA

Analysis Batch: 533684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-203727-1	TB-01	Total/NA	Water	8260C	
400-203727-2	DUP-01	Total/NA	Water	8260C	
400-203727-3	MW-1	Total/NA	Water	8260C	
400-203727-4	MW-3	Total/NA	Water	8260C	
400-203727-5	MW-4	Total/NA	Water	8260C	
400-203727-6	MW-5	Total/NA	Water	8260C	
400-203727-7	MW-7	Total/NA	Water	8260C	
400-203727-8	MW-8	Total/NA	Water	8260C	
400-203727-9	MW-9	Total/NA	Water	8260C	
MB 400-533684/4	Method Blank	Total/NA	Water	8260C	
LCS 400-533684/1002	Lab Control Sample	Total/NA	Water	8260C	
400-203727-4 MS	MW-3	Total/NA	Water	8260C	
400-203727-4 MSD	MW-3	Total/NA	Water	8260C	

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

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

Lab Sample ID: MB 400-533684/4
Matrix: Water
Analysis Batch: 533684

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.38		1.0	0.38	ug/L			05/28/21 14:22	1
Toluene	<0.41		1.0	0.41	ug/L			05/28/21 14:22	1
Ethylbenzene	<0.50		1.0	0.50	ug/L			05/28/21 14:22	1
Xylenes, Total	<1.6		10	1.6	ug/L			05/28/21 14:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*78 - 118*		*05/28/21 14:22*	*1*
Dibromofluoromethane	*109*		*81 - 121*		*05/28/21 14:22*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*05/28/21 14:22*	*1*

Lab Sample ID: LCS 400-533684/1002
Matrix: Water
Analysis Batch: 533684

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	50.6		ug/L		101	70 - 130
Toluene	50.0	47.4		ug/L		95	70 - 130
Ethylbenzene	50.0	47.2		ug/L		94	70 - 130
Xylenes, Total	100	93.3		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*78 - 118*
Dibromofluoromethane	*108*		*81 - 121*
Toluene-d8 (Surr)	*94*		*80 - 120*

Lab Sample ID: 400-203727-4 MS
Matrix: Water
Analysis Batch: 533684

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<1.0		50.0	50.7		ug/L		101	56 - 142
Toluene	<1.0		50.0	46.1		ug/L		92	65 - 130
Ethylbenzene	<1.0		50.0	45.2		ug/L		89	58 - 131
Xylenes, Total	<10		100	89.1		ug/L		89	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*78 - 118*
Dibromofluoromethane	*110*		*81 - 121*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Sample ID: 400-203727-4 MSD
Matrix: Water
Analysis Batch: 533684

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<1.0		50.0	49.9		ug/L		100	56 - 142	2	30
Toluene	<1.0		50.0	45.5		ug/L		91	65 - 130	1	30
Ethylbenzene	<1.0		50.0	42.5		ug/L		84	58 - 131	6	30

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

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

Lab Sample ID: 400-203727-4 MSD
Matrix: Water
Analysis Batch: 533684

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	<10		100	83.9		ug/L		84	59 - 130	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*87*		*78 - 118*
Dibromofluoromethane	*112*		*81 - 121*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: TB-01
Date Collected: 05/18/21 07:00
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-1
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	533684	05/28/21 16:26	BEP	TAL PEN
	Instrument ID: Brutus									

Client Sample ID: DUP-01
Date Collected: 05/18/21 15:25
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-2
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	533684	05/28/21 16:51	BEP	TAL PEN
	Instrument ID: Brutus									

Client Sample ID: MW-1
Date Collected: 05/18/21 14:33
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-3
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		10	5 mL	5 mL	533684	05/28/21 20:59	BEP	TAL PEN
	Instrument ID: Brutus									

Client Sample ID: MW-3
Date Collected: 05/18/21 14:39
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-4
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	533684	05/28/21 14:47	BEP	TAL PEN
	Instrument ID: Brutus									

Client Sample ID: MW-4
Date Collected: 05/18/21 14:25
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-5
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	533684	05/28/21 17:16	BEP	TAL PEN
	Instrument ID: Brutus									

Client Sample ID: MW-5
Date Collected: 05/18/21 14:48
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-6
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	533684	05/28/21 17:40	BEP	TAL PEN
	Instrument ID: Brutus									

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

Client Sample ID: MW-7
Date Collected: 05/18/21 14:55
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-7
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	533684	05/28/21 18:05	BEP	TAL PEN
	Instrument ID: Brutus									

Client Sample ID: MW-8
Date Collected: 05/18/21 15:02
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-8
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	533684	05/28/21 18:30	BEP	TAL PEN
	Instrument ID: Brutus									

Client Sample ID: MW-9
Date Collected: 05/18/21 15:08
Date Received: 05/21/21 09:07

Lab Sample ID: 400-203727-9
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	533684	05/28/21 18:55	BEP	TAL PEN
	Instrument ID: Brutus									

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

Accreditation/Certification Summary

Client: Stantec Consulting Services Inc
Job ID: 400-203727-1
Project/Site: Johnston Fed #6A

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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-12-22
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	200041	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-21
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-21
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
New Jersey	NELAP	FL006	06-30-21
North Carolina (WW/SW)	State	314	12-31-21
Oklahoma	State	9810	08-31-21
Pennsylvania	NELAP	68-00467	01-31-22
Rhode Island	State	LAO00307	12-30-21
South Carolina	State	96026	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-22
West Virginia DEP	State	136	06-30-21

Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Johnston Fed #6A

Job ID: 400-203727-1

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

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

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400-203727 COC

Client Information	Sampler: SRC, MW	Lab PM: Edwards, Marty P	Carrier Tracking No(s):	COC No: 400-102804-36539.1
Client Contact: Steve Varsa	Phone: 913-980-0281	E-Mail: Marty.Edwards@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Stantec Consulting Services Inc	PWSID:			Job #: 193700102
Address: 11153 Aurora Avenue	Due Date Requested:	Analysis Requested		
City: Des Moines	TAT Requested (days): STD			Preservation Codes:
State, Zip: IA, 50322-7904	Compliance Project: Δ Yes Δ No			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Phone: 303-291-2239(Tel)	PO #: See Project Notes			Other:
Email: steve.varsa@stantec.com	WO #:			
Project Name: Johnston Fed #6A.00	Project #: 40005479			
Site: Johnston Fed #6A	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260C - (MOD) BTEX 8260	Total Number of containers	Special Instructions/Note:
W-SRC-STN-05-06-21-SRC-08			Preservation Code:			A		
TB-01	5/18/2021	0700	G	Water		X	2	Trip Blank
Dup-01	5/18/2021	1525	G	Water		X	3	Duplicate
MW-1	5/18/2021	1433	G	Water		X	3	
MW-3	5/18/2021	1439	G	Water		X	3	
MW-4	5/18/2021	1425	G	Water		X	3	
MW-5	5/18/2021	1448	G	Water		X	3	
MW-7	5/18/2021	1455	G	Water		X	3	
MW-8	5/18/2021	1502	G	Water		X	3	
MW-9	5/18/2021	1508	G	Water		X	3	
SRC						SRC		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Fedex

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Sean N Clay / STN	5/19/2021 / 0800	STN	FedEx	5/19/2021 / 0800	FedEx
2		Date/Time:	Company	Received by:	5/21/21 907	Company
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 4.6°C IR8

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc Job Number: 400-203727-1

Login Number: 203727 **List Source: Eurofins TestAmerica, Pensacola**
List Number: 1
Creator: Perez, Trina M

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	4.6°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.	N/A	
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 400-211300-1
Client Project/Site: Johnston Federal #6A

For:
Stantec Consulting Services Inc
11311 Aurora Avenue
Des Moines, Iowa 50322-7904

Attn: Steve Varsa

Cheyenne Whitmire

Authorized for release by:
11/30/2021 12:59:01 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@Eurofinset.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 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.

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Laboratory Job ID: 400-211300-1

Table of Contents

Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Job ID: 400-211300-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-211300-1

Comments
No additional comments.

Receipt
The samples were received on 11/16/2021 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.0º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: DUP-01 (400-211300-2) and MW-1 (400-211300-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or 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: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: TB-01 Lab Sample ID: 400-211300-1

No Detections.

Client Sample ID: DUP-01 Lab Sample ID: 400-211300-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Toluene	1700		50		ug/L	50		8260C	Total/NA
Ethylbenzene	700		50		ug/L	50		8260C	Total/NA
Xylenes, Total	6000		500		ug/L	50		8260C	Total/NA

Client Sample ID: MW-1 Lab Sample ID: 400-211300-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Toluene	1600		50		ug/L	50		8260C	Total/NA
Ethylbenzene	700		50		ug/L	50		8260C	Total/NA
Xylenes, Total	5400		500		ug/L	50		8260C	Total/NA

Client Sample ID: MW-2 Lab Sample ID: 400-211300-4

No Detections.

Client Sample ID: MW-3 Lab Sample ID: 400-211300-5

No Detections.

Client Sample ID: MW-4 Lab Sample ID: 400-211300-6

No Detections.

Client Sample ID: MW-5 Lab Sample ID: 400-211300-7

No Detections.

Client Sample ID: MW-6 Lab Sample ID: 400-211300-8

No Detections.

Client Sample ID: MW-7 Lab Sample ID: 400-211300-9

No Detections.

Client Sample ID: MW-8 Lab Sample ID: 400-211300-10

No Detections.

Client Sample ID: MW-9 Lab Sample ID: 400-211300-11

No Detections.

Client Sample ID: MW-10 Lab Sample ID: 400-211300-12

No Detections.

Client Sample ID: MW-11 Lab Sample ID: 400-211300-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-211300-1	TB-01	Water	11/15/21 11:00	11/16/21 09:10
400-211300-2	DUP-01	Water	11/15/21 12:48	11/16/21 09:10
400-211300-3	MW-1	Water	11/15/21 11:48	11/16/21 09:10
400-211300-4	MW-2	Water	11/15/21 11:53	11/16/21 09:10
400-211300-5	MW-3	Water	11/15/21 12:02	11/16/21 09:10
400-211300-6	MW-4	Water	11/15/21 12:04	11/16/21 09:10
400-211300-7	MW-5	Water	11/15/21 12:07	11/16/21 09:10
400-211300-8	MW-6	Water	11/15/21 12:10	11/16/21 09:10
400-211300-9	MW-7	Water	11/15/21 12:15	11/16/21 09:10
400-211300-10	MW-8	Water	11/15/21 12:20	11/16/21 09:10
400-211300-11	MW-9	Water	11/15/21 12:23	11/16/21 09:10
400-211300-12	MW-10	Water	11/15/21 12:27	11/16/21 09:10
400-211300-13	MW-11	Water	11/15/21 12:30	11/16/21 09:10

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: TB-01

Date Collected: 11/15/21 11:00
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-1

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			11/26/21 15:58	1
Toluene	<1.0		1.0		ug/L			11/26/21 15:58	1
Ethylbenzene	<1.0		1.0		ug/L			11/26/21 15:58	1
Xylenes, Total	<10		10		ug/L			11/26/21 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*72 - 119*		*11/26/21 15:58*	*1*
Dibromofluoromethane	*114*		*75 - 126*		*11/26/21 15:58*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/26/21 15:58*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: DUP-01
Date Collected: 11/15/21 12:48
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-2
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<50		50		ug/L			11/28/21 15:13	50
Toluene	**1700**		50		ug/L			11/28/21 15:13	50
Ethylbenzene	**700**		50		ug/L			11/28/21 15:13	50
Xylenes, Total	**6000**		500		ug/L			11/28/21 15:13	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*11/28/21 15:13*	*50*
Dibromofluoromethane	*103*		*75 - 126*		*11/28/21 15:13*	*50*
Toluene-d8 (Surr)	*78*		*64 - 132*		*11/28/21 15:13*	*50*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-1

Date Collected: 11/15/21 11:48
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-3

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<50		50		ug/L			11/28/21 15:39	50
Toluene	**1600**		50		ug/L			11/28/21 15:39	50
Ethylbenzene	**700**		50		ug/L			11/28/21 15:39	50
Xylenes, Total	**5400**		500		ug/L			11/28/21 15:39	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/28/21 15:39*	*50*
Dibromofluoromethane	*103*		*75 - 126*		*11/28/21 15:39*	*50*
Toluene-d8 (Surr)	*79*		*64 - 132*		*11/28/21 15:39*	*50*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-2

Date Collected: 11/15/21 11:53
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-4

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			11/26/21 21:11	1
Toluene	<1.0		1.0		ug/L			11/26/21 21:11	1
Ethylbenzene	<1.0		1.0		ug/L			11/26/21 21:11	1
Xylenes, Total	<10		10		ug/L			11/26/21 21:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*72 - 119*		*11/26/21 21:11*	*1*
Dibromofluoromethane	*116*		*75 - 126*		*11/26/21 21:11*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*11/26/21 21:11*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-3

Date Collected: 11/15/21 12:02
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-5

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			11/26/21 21:38	1
Toluene	<1.0		1.0		ug/L			11/26/21 21:38	1
Ethylbenzene	<1.0		1.0		ug/L			11/26/21 21:38	1
Xylenes, Total	<10		10		ug/L			11/26/21 21:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/26/21 21:38*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*11/26/21 21:38*	*1*
Toluene-d8 (Surr)	*109*		*64 - 132*		*11/26/21 21:38*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-4

Date Collected: 11/15/21 12:04
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-6

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			11/28/21 14:47	1
Toluene	<1.0		1.0		ug/L			11/28/21 14:47	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 14:47	1
Xylenes, Total	<10		10		ug/L			11/28/21 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/28/21 14:47*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*11/28/21 14:47*	*1*
Toluene-d8 (Surr)	*83*		*64 - 132*		*11/28/21 14:47*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-5

Date Collected: 11/15/21 12:07
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-7

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			11/28/21 20:01	1
Toluene	<1.0		1.0		ug/L			11/28/21 20:01	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 20:01	1
Xylenes, Total	<10		10		ug/L			11/28/21 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/28/21 20:01*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*11/28/21 20:01*	*1*
Toluene-d8 (Surr)	*79*		*64 - 132*		*11/28/21 20:01*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-6

Date Collected: 11/15/21 12:10
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-8

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			11/28/21 20:27	1
Toluene	<1.0		1.0		ug/L			11/28/21 20:27	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 20:27	1
Xylenes, Total	<10		10		ug/L			11/28/21 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/28/21 20:27*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*11/28/21 20:27*	*1*
Toluene-d8 (Surr)	*84*		*64 - 132*		*11/28/21 20:27*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-7

Date Collected: 11/15/21 12:15
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-9

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			11/28/21 20:53	1
Toluene	<1.0		1.0		ug/L			11/28/21 20:53	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 20:53	1
Xylenes, Total	<10		10		ug/L			11/28/21 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*11/28/21 20:53*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*11/28/21 20:53*	*1*
Toluene-d8 (Surr)	*80*		*64 - 132*		*11/28/21 20:53*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-8

Date Collected: 11/15/21 12:20
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-10

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			11/28/21 21:19	1
Toluene	<1.0		1.0		ug/L			11/28/21 21:19	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 21:19	1
Xylenes, Total	<10		10		ug/L			11/28/21 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/28/21 21:19*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*11/28/21 21:19*	*1*
Toluene-d8 (Surr)	*85*		*64 - 132*		*11/28/21 21:19*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-9

Date Collected: 11/15/21 12:23
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-11

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			11/28/21 21:45	1
Toluene	<1.0		1.0		ug/L			11/28/21 21:45	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 21:45	1
Xylenes, Total	<10		10		ug/L			11/28/21 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/28/21 21:45*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*11/28/21 21:45*	*1*
Toluene-d8 (Surr)	*85*		*64 - 132*		*11/28/21 21:45*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-10

Date Collected: 11/15/21 12:27
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-12

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			11/28/21 22:12	1
Toluene	<1.0		1.0		ug/L			11/28/21 22:12	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 22:12	1
Xylenes, Total	<10		10		ug/L			11/28/21 22:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*11/28/21 22:12*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*11/28/21 22:12*	*1*
Toluene-d8 (Surr)	*84*		*64 - 132*		*11/28/21 22:12*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-11

Date Collected: 11/15/21 12:30
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-13

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			11/28/21 22:38	1
Toluene	<1.0		1.0		ug/L			11/28/21 22:38	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 22:38	1
Xylenes, Total	<10		10		ug/L			11/28/21 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/28/21 22:38*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*11/28/21 22:38*	*1*
Toluene-d8 (Surr)	*79*		*64 - 132*		*11/28/21 22:38*	*1*

QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

GC/MS VOA

Analysis Batch: 557357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-211300-1	TB-01	Total/NA	Water	8260C	
400-211300-4	MW-2	Total/NA	Water	8260C	
400-211300-5	MW-3	Total/NA	Water	8260C	
MB 400-557357/4	Method Blank	Total/NA	Water	8260C	
LCS 400-557357/1002	Lab Control Sample	Total/NA	Water	8260C	
400-211302-A-2 MS	Matrix Spike	Total/NA	Water	8260C	
400-211302-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Analysis Batch: 557545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-211300-2	DUP-01	Total/NA	Water	8260C	
400-211300-3	MW-1	Total/NA	Water	8260C	
400-211300-6	MW-4	Total/NA	Water	8260C	
400-211300-7	MW-5	Total/NA	Water	8260C	
400-211300-8	MW-6	Total/NA	Water	8260C	
400-211300-9	MW-7	Total/NA	Water	8260C	
400-211300-10	MW-8	Total/NA	Water	8260C	
400-211300-11	MW-9	Total/NA	Water	8260C	
400-211300-12	MW-10	Total/NA	Water	8260C	
400-211300-13	MW-11	Total/NA	Water	8260C	
MB 400-557545/4	Method Blank	Total/NA	Water	8260C	
LCS 400-557545/1002	Lab Control Sample	Total/NA	Water	8260C	
400-211300-6 MS	MW-4	Total/NA	Water	8260C	
400-211300-6 MSD	MW-4	Total/NA	Water	8260C	

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

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

Lab Sample ID: MB 400-557357/4
Matrix: Water
Analysis Batch: 557357

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/26/21 13:22	1
Toluene	<1.0		1.0		ug/L			11/26/21 13:22	1
Ethylbenzene	<1.0		1.0		ug/L			11/26/21 13:22	1
Xylenes, Total	<10		10		ug/L			11/26/21 13:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*72 - 119*		*11/26/21 13:22*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*11/26/21 13:22*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*11/26/21 13:22*	*1*

Lab Sample ID: LCS 400-557357/1002
Matrix: Water
Analysis Batch: 557357

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	44.2		ug/L		88	70 - 130		
Toluene			50.0	51.0		ug/L		102	70 - 130		
Ethylbenzene			50.0	54.2		ug/L		108	70 - 130		
Xylenes, Total			100	110		ug/L		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*106*		*64 - 132*

Lab Sample ID: 400-211302-A-2 MS
Matrix: Water
Analysis Batch: 557357

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	1.3		50.0	58.0		ug/L		113	56 - 142		
Toluene	<1.0		50.0	63.2		ug/L		126	65 - 130		
Ethylbenzene	<1.0	F1	50.0	65.8	F1	ug/L		132	58 - 131		
Xylenes, Total	<10	F1	100	134	F1	ug/L		134	59 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*72 - 119*
Dibromofluoromethane	*107*		*75 - 126*
Toluene-d8 (Surr)	*103*		*64 - 132*

Lab Sample ID: 400-211302-A-2 MSD
Matrix: Water
Analysis Batch: 557357

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	1.3		50.0	53.8		ug/L		105	56 - 142	8	30
Toluene	<1.0		50.0	59.3		ug/L		119	65 - 130	6	30
Ethylbenzene	<1.0	F1	50.0	59.7		ug/L		119	58 - 131	10	30

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

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

Lab Sample ID: 400-211302-A-2 MSD
Matrix: Water
Analysis Batch: 557357

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	<10	F1	100	123		ug/L		123	59 - 130	8	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*72 - 119*
Dibromofluoromethane	*108*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Lab Sample ID: MB 400-557545/4
Matrix: Water
Analysis Batch: 557545

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/28/21 14:20	1
Toluene	<1.0		1.0		ug/L			11/28/21 14:20	1
Ethylbenzene	<1.0		1.0		ug/L			11/28/21 14:20	1
Xylenes, Total	<10		10		ug/L			11/28/21 14:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/28/21 14:20*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*11/28/21 14:20*	*1*
Toluene-d8 (Surr)	*85*		*64 - 132*		*11/28/21 14:20*	*1*

Lab Sample ID: LCS 400-557545/1002
Matrix: Water
Analysis Batch: 557545

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	52.1		ug/L		104	70 - 130		
Toluene			50.0	44.8		ug/L		90	70 - 130		
Ethylbenzene			50.0	49.1		ug/L		98	70 - 130		
Xylenes, Total			100	100		ug/L		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*107*		*75 - 126*
Toluene-d8 (Surr)	*82*		*64 - 132*

Lab Sample ID: 400-211300-6 MS
Matrix: Water
Analysis Batch: 557545

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<1.0		50.0	51.1		ug/L		101	56 - 142		
Toluene	<1.0		50.0	40.3		ug/L		81	65 - 130		
Ethylbenzene	<1.0		50.0	41.2		ug/L		82	58 - 131		
Xylenes, Total	<10		100	85.4		ug/L		85	59 - 130		

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

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

Lab Sample ID: 400-211300-6 MS
Matrix: Water
Analysis Batch: 557545

Client Sample ID: MW-4
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	*97*		*72 - 119*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*82*		*64 - 132*

Lab Sample ID: 400-211300-6 MSD
Matrix: Water
Analysis Batch: 557545

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<1.0		50.0	61.8		ug/L		123	56 - 142	19	30
Toluene	<1.0		50.0	48.3		ug/L		97	65 - 130	18	30
Ethylbenzene	<1.0		50.0	51.6		ug/L		103	58 - 131	23	30
Xylenes, Total	<10		100	106		ug/L		106	59 - 130	21	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	*94*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*80*		*64 - 132*

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: TB-01
Date Collected: 11/15/21 11:00
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-1
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	557357	11/26/21 15:58	BEP	TAL PEN
	Instrument ID: CH_TAN									

Client Sample ID: DUP-01
Date Collected: 11/15/21 12:48
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-2
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		50	5 mL	5 mL	557545	11/28/21 15:13	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Client Sample ID: MW-1
Date Collected: 11/15/21 11:48
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-3
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		50	5 mL	5 mL	557545	11/28/21 15:39	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Client Sample ID: MW-2
Date Collected: 11/15/21 11:53
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-4
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	557357	11/26/21 21:11	BEP	TAL PEN
	Instrument ID: CH_TAN									

Client Sample ID: MW-3
Date Collected: 11/15/21 12:02
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-5
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	557357	11/26/21 21:38	BEP	TAL PEN
	Instrument ID: CH_TAN									

Client Sample ID: MW-4
Date Collected: 11/15/21 12:04
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-6
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	557545	11/28/21 14:47	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-5
Date Collected: 11/15/21 12:07
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-7
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	557545	11/28/21 20:01	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Client Sample ID: MW-6
Date Collected: 11/15/21 12:10
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-8
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	557545	11/28/21 20:27	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Client Sample ID: MW-7
Date Collected: 11/15/21 12:15
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-9
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	557545	11/28/21 20:53	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Client Sample ID: MW-8
Date Collected: 11/15/21 12:20
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-10
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	557545	11/28/21 21:19	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Client Sample ID: MW-9
Date Collected: 11/15/21 12:23
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-11
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	557545	11/28/21 21:45	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Client Sample ID: MW-10
Date Collected: 11/15/21 12:27
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-12
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	557545	11/28/21 22:12	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

Client Sample ID: MW-11
Date Collected: 11/15/21 12:30
Date Received: 11/16/21 09:10

Lab Sample ID: 400-211300-13
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	557545	11/28/21 22:38	BPO	TAL PEN
	Instrument ID: CH_CONAN									

Laboratory References:

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

Accreditation/Certification Summary

Client: Stantec Consulting Services Inc
Job ID: 400-211300-1
Project/Site: Johnston Federal #6A

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	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-12-22
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	11-30-21
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-21
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-21
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
New Jersey	NELAP	FL006	06-30-22
North Carolina (WW/SW)	State	314	12-31-21
Oklahoma	State	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-22
Rhode Island	State	LAO00307	12-30-21
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
Washington	State	C915	05-15-22
West Virginia DEP	State	136	12-31-21

Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Johnston Federal #6A

Job ID: 400-211300-1

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

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: SRC	Lab PM: Edwards, Marty P	Carrier Tracking No(s):	COC No: 400-105801-37676.1
Client Contact: Steve Varsa	Phone: 913 980 0281	E-Mail: Marty.Edwards@Eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: Stantec Consulting Services Inc	PWSID:			Job #:
Address: 11311 Aurora Avenue	Due Date Requested:			
City: Des Moines	TAT Requested (days):			
State, Zip: IA, 50322-7904	Compliance Project: Δ Yes Δ No			
Phone: 303-291-2239(Tel)	PO #: WD801938			
Email: steve.varsa@stantec.com	WO #:			
Project Name: Johnston Fed #6A.00	Project #: 40005479			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-211300 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) BTEX 8260	Total Number of containers	Special Instructions/Note:
SAH-08									
Preservation Code:									
TB-01	11/15/21	1100	G	Water			2	2	Trip Blank
DUP-01	11/15/21	1248	G	Water			3	3	Blind Dup
MW-1	11/15/21	1148	G	Water			3	3	
MW-2	11/15/21	1155	G	Water			3	3	
MW-3	11/15/21	1202	G	Water			3	3	
MW-4	11/15/21	1204	G	Water			3	3	
MW-5	11/15/21	1207	G	Water			3	3	
MW-6	11/15/21	1210	G	Water			3	3	
MW-7	11/15/21	1215	G	Water			3	3	
MW-8	11/15/21	1220	G	Water			3	3	
MW-9	11/15/21	1223	G	Water			3	3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Sean R Ulary	11/15/21 1600	STN			
				11.16.21 09:10	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.0°C IR9

Ver: 06/08/2021

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: SRC	Lab PM: Edwards, Marty P	Carrier Tracking No(s):	COC No: 400-105801-37676.2
Client Contact: Steve Varsa	Phone: 913 980 0281	E-Mail: Marty.Edwards@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: Stantec Consulting Services Inc	PWSID:			Job #:
Address: 11311 Aurora Avenue	Due Date Requested:			
City: Des Moines	TAT Requested (days):			
State, Zip: IA, 50322-7904	Compliance Project: Δ Yes Δ No			
Phone: 303-291-2239(Tel)	PO #: WD801938			
Email: steve.varsa@stantec.com	WO #:			
Project Name: Johnston Fed #6A.00	Project #: 40005479			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260C - (MOD) BTEX 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:			A		
SAH-08								
MW-10	11/15/21	1227	G	Water		3		1
MW-11	11/15/21	1230	G	Water		3		1

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Sam R Clark	11/15/21 1600	STN			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11.16.21 09:10	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc Job Number: 400-211300-1

Login Number: 211300 **List Source: Eurofins TestAmerica, Pensacola**
List Number: 1
Creator: Roberts, Alexis J

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.	N/A	
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	0.0°C IR9
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.	N/A	
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	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 94398

CONDITIONS

Operator:	OGRID:
El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	7046
	Action Number: 94398
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Accepted for the record. Please see App ID 201689 for most updated status.	5/17/2023