2015 ANNUAL GROUNDWATER REPORT

Miles Federal #1A
NMOCD CASE#: 3RP-223-0
Meter Code: 94810
T26N, R7W, Sec5, Unit F

SITE DETAILS

Site Location: Latitude: 36.515700 N, Longitude -107.601460 W
Land Type: Federal
Operator: Cross Timbers Energy, LLC

SITE BACKGROUND

- **Site Assessment:** 1/94
- **Excavation:** 6/94

Environmental Remediation activities at the Miles Federal #1A (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 (OCD) in correspondence dated November 30, 1995; and the OCD approval conditions were adopted into El Paso CGP Company (EPCGP's) program methods. Currently, the Site is operated by XTO Energy Inc. and is active.

The Site is located on Federal land. Several site investigations were conducted from 1994 to 1999. Monitoring wells were installed in 1994 (MW-1) and 1999 (MW-2 and MW-3). A temporary piezometer was installed in 1997 (PZ-1). Free product recovery has been periodically conducted at the Site. Currently, groundwater sampling is conducted on a semi-annual basis. Free product was not observed in 2015.

SUMMARY OF 2015 ACTIVITIES

On May 31 and November 21, 2015, water levels were gauged at MW-1, MW-2, and MW-3. Groundwater samples were collected from each well that did not contain free product using HydraSleeve™ (HydraSleeve) no-purge passive groundwater sampling devices. The HydraSleeves were set during the previous sampling event approximately 0.5 foot above termination depth of the monitoring wells 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 TestAmerica Laboratories, Inc. in Pensacola, Florida where they were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX). Additional field parameters are collected from the excess sample water recovered by the HydraSleeve. Excess sample water is poured into a YSI multi-parameter instrument sample cup and analyzed. Field parameters include dissolved oxygen, temperature, conductivity, pH, and oxidation reduction potential. Field parameters are not collected if free product is present. The unused sample water is combined in a waste container and taken to Basin Disposal, Inc. for disposal.

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SUMMARY TABLES

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

SITE MAPS

Groundwater analytical maps (Figures 1 and 3) and groundwater elevation contour maps (Figures 2 and 4) summarize results of the 2015 groundwater sampling and gauging events.

ANALYTICAL LAB REPORTS

The groundwater analytical lab report are included as Appendix A.

GROUNDWATER RESULTS

- The groundwater flow direction is generally to the northwest at the Site (see Figures 2 and 4).

- The groundwater samples collected in 2015 from MW-1 exceeded the New Mexico Water Quality Control Commission (NMWQCC) standard (10 micrograms per liter [µg/L]) for benzene in groundwater. Concentrations of benzene in monitoring wells MW-2 and MW-3 were not detected.

- All site monitoring wells sampled in 2015 were either below the NMWQCC standard for toluene in groundwater or not detected.

- All site monitoring wells sampled in 2015 were either below the NMWQCC standard for ethylbenzene in groundwater or not detected.

- The groundwater samples collected in 2015 from MW-1 exceeded the New NMWQCC standard (600 µg/L) for total xylenes in groundwater. Concentrations of total xylenes in monitoring wells MW-2 and MW-3 were not detected

PLANNED FUTURE ACTIVITIES

Groundwater monitoring events will be conducted on a semi-annual basis. For any additional site activates a Work Plan will be submitted to the NMOCD. The 2016 Annual Report will be submitted in early 2017.

TABLES

TABLE 1 – GROUNDWATER ANALYTICAL RESULTS

TABLE 2 – GROUNDWATER ELEVATION RESULTS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Miles Fed 1A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	11/05/96	1050	1630	391	2620
MW-1	02/07/97	671	809	439	2550
MW-1	05/06/97	300	350	320	1880
MW-1	04/11/01	NS	NS	NS	NS
MW-1	07/03/01	NS	NS	NS	NS
MW-1	09/04/01	NS	NS	NS	NS
MW-1	10/01/01	NS	NS	NS	NS
MW-1	01/02/02	NS	NS	NS	NS
MW-1	04/01/02	NS	NS	NS	NS
MW-1	07/15/02	NS	NS	NS	NS
MW-1	10/08/02	NS	NS	NS	NS
MW-1	01/27/03	NS	NS	NS	NS
MW-1	04/26/03	NS	NS	NS	NS
MW-1	07/17/03	NS	NS	NS	NS
MW-1	01/19/04	NS	NS	NS	NS
MW-1	07/27/04	NS	NS	NS	NS
MW-1	10/20/04	NS	NS	NS	NS
MW-1	01/25/05	NS	NS	NS	NS
MW-1	04/14/05	NS	NS	NS	NS
MW-1	07/19/05	NS	NS	NS	NS
MW-1	10/21/05	NS	NS	NS	NS
MW-1	01/23/06	NS	NS	NS	NS
MW-1	04/28/06	NS	NS	NS	NS
MW-1	07/26/06	NS	NS	NS	NS
MW-1	10/24/06	NS	NS	NS	NS
MW-1	01/17/07	NS	NS	NS	NS
MW-1	04/24/07	NS	NS	NS	NS
MW-1	07/31/07	NS	NS	NS	NS
MW-1	10/25/07	NS	NS	NS	NS
MW-1	01/25/08	NS	NS	NS	NS
MW-1	04/17/08	122	203	369	2550
MW-1	07/23/08	NS	NS	NS	NS
MW-1	10/08/08	NS	NS	NS	NS
MW-1	01/16/09	NS	NS	NS	NS
MW-1	04/06/09	104	199	596	1840
MW-1	08/25/09	NS	NS	NS	NS
MW-1	11/02/09	NS	NS	NS	NS
MW-1	02/16/10	NS	NS	NS	NS
MW-1	06/02/10	186	266	370	2320
MW-1	09/27/10	NS	NS	NS	NS
MW-1	11/01/10	NS	NS	NS	NS
MW-1	02/01/11	NS	NS	NS	NS
MW-1	05/09/11	14.6	19.3	86.9	236
MW-1	09/23/11	NS	NS	NS	NS
MW-1	11/02/11	NS	NS	NS	NS
MW-1	02/22/12	NS	NS	NS	NS
MW-1	05/15/12	60.9	79.9	136	602
MW-1	06/05/13	44	78	120	830
MW-1	09/10/13	300	510	250	2200
MW-1	12/11/13	21	37	21	230
MW-1	04/04/14	81	130	120	800
MW-1	10/24/14	73	32	95	1300
MW-1	05/31/15	68	79	95	940
MW-1	11/21/15	160	67	98	1200

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Miles Fed 1A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-2	10/15/99	<0.5	2.1	5.5	2.8
MW-2	07/03/01	NS	NS	NS	NS
MW-2	09/04/01	NS	NS	NS	NS
MW-2	10/01/01	NS	NS	NS	NS
MW-2	07/15/02	<0.5	0.6	0.9	1.4
MW-2	10/08/02	NS	NS	NS	NS
MW-2	01/27/03	NS	NS	NS	NS
MW-2	04/26/03	NS	NS	NS	NS
MW-2	07/17/03	NS	NS	NS	NS
MW-2	01/19/04	NS	NS	NS	NS
MW-2	07/27/04	NS	NS	NS	NS
MW-2	10/20/04	NS	NS	NS	NS
MW-2	01/25/05	NS	NS	NS	NS
MW-2	04/14/05	NS	NS	NS	NS
MW-2	07/19/05	NS	NS	NS	NS
MW-2	10/21/05	NS	NS	NS	NS
MW-2	01/23/06	NS	NS	NS	NS
MW-2	04/28/06	NS	NS	NS	NS
MW-2	07/26/06	NS	NS	NS	NS
MW-2	10/24/06	NS	NS	NS	NS
MW-2	01/17/07	NS	NS	NS	NS
MW-2	04/24/07	NS	NS	NS	NS
MW-2	07/31/07	NS	NS	NS	NS
MW-2	10/25/07	NS	NS	NS	NS
MW-2	01/25/08	NS	NS	NS	NS
MW-2	04/17/08	<2	<2	<2	<6
MW-2	07/23/08	NS	NS	NS	NS
MW-2	10/08/08	NS	NS	NS	NS
MW-2	01/16/09	NS	NS	NS	NS
MW-2	04/06/09	<1	<1	<1	<2
MW-2	08/25/09	NS	NS	NS	NS
MW-2	11/02/09	NS	NS	NS	NS
MW-2	02/16/10	NS	NS	NS	NS
MW-2	06/02/10	<2	<2	<2	<6
MW-2	09/27/10	NS	NS	NS	NS
MW-2	11/01/10	NS	NS	NS	NS
MW-2	02/01/11	NS	NS	NS	NS
MW-2	05/09/11	<1	<1	<1	<3
MW-2	09/23/11	NS	NS	NS	NS
MW-2	11/02/11	NS	NS	NS	NS
MW-2	02/22/12	NS	NS	NS	NS
MW-2	05/15/12	<1	<1	<1	<3
MW-2	06/05/13	<0.14	<0.30	<0.20	<0.23
MW-2	09/10/13	<0.14	<0.30	<0.20	<0.23
MW-2	12/11/13	<2.0	<3.8	<2.0	<6.5
MW-2	04/04/14	<0.20	<0.38	<0.20	<0.65
MW-2	10/24/14	<0.38	<0.70	<0.50	<1.6
MW-2	05/31/15	<1.0	<5.0	<1.0	<5.0
MW-2	11/21/15	<1.0	<1.0	<1.0	<3.0

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Miles Fed 1A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-3	10/15/99	<0.5	0.9	<0.5	3.1
MW-3	07/03/01	<0.5	<0.5	<0.5	<0.5
MW-3	09/04/01	NS	NS	NS	NS
MW-3	10/01/01	NS	NS	NS	NS
MW-3	07/15/02	NS	NS	NS	NS
MW-3	10/08/02	NS	NS	NS	NS
MW-3	01/27/03	NS	NS	NS	NS
MW-3	04/26/03	NS	NS	NS	NS
MW-3	07/17/03	NS	NS	NS	NS
MW-3	01/19/04	NS	NS	NS	NS
MW-3	07/27/04	NS	NS	NS	NS
MW-3	10/20/04	NS	NS	NS	NS
MW-3	01/25/05	NS	NS	NS	NS
MW-3	04/14/05	NS	NS	NS	NS
MW-3	07/19/05	NS	NS	NS	NS
MW-3	10/21/05	NS	NS	NS	NS
MW-3	01/23/06	NS	NS	NS	NS
MW-3	04/28/06	NS	NS	NS	NS
MW-3	07/26/06	NS	NS	NS	NS
MW-3	10/24/06	NS	NS	NS	NS
MW-3	01/17/07	NS	NS	NS	NS
MW-3	04/24/07	NS	NS	NS	NS
MW-3	07/31/07	NS	NS	NS	NS
MW-3	10/25/07	NS	NS	NS	NS
MW-3	01/25/08	NS	NS	NS	NS
MW-3	04/17/08	<2	<2	<2	<6
MW-3	07/23/08	NS	NS	NS	NS
MW-3	10/08/08	NS	NS	NS	NS
MW-3	01/16/09	NS	NS	NS	NS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Miles Fed 1A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-3	04/06/09	<1	<1	<1	<2
MW-3	08/25/09	NS	NS	NS	NS
MW-3	11/02/09	NS	NS	NS	NS
MW-3	02/16/10	NS	NS	NS	NS
MW-3	06/02/10	<2	<2	<2	<6
MW-3	09/27/10	NS	NS	NS	NS
MW-3	11/01/10	NS	NS	NS	NS
MW-3	02/01/11	NS	NS	NS	NS
MW-3	05/09/11	NS	NS	NS	NS
MW-3	09/23/11	NS	NS	NS	NS
MW-3	11/02/11	NS	NS	NS	NS
MW-3	02/22/12	NS	NS	NS	NS
MW-3	05/15/12	NS	NS	NS	NS
MW-3	06/05/13	<0.14	<0.30	<0.20	<0.23
MW-3	09/10/13	<0.14	<0.30	<0.20	<0.23
MW-3	12/11/13	<0.20	<0.38	<0.20	<0.65
MW-3	04/04/14	<0.20	<0.38	<0.20	<0.65
MW-3	10/24/14	<0.38	<0.70	<0.50	<1.6
MW-3	05/31/15	<1.0	<5.0	<1.0	<5.0
MW-3	11/21/15	<1.0	<1.0	<1.0	<3.0

Notes:
"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).
"NS" = Monitoring well not sampled

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Miles Fed 1A						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	11/05/96	6049.42	30.58	30.10	0.48	6019.20
MW-1	02/07/97	6049.42	30.05	29.91	0.14	6019.47
MW-1	05/06/97	6049.42	30.18	30.04	0.14	6019.34
MW-1	04/11/01	6049.42	31.81	30.61	1.20	6018.51
MW-1	07/03/01	6049.42	32.76	31.18	1.58	6017.84
MW-1	09/04/01	6049.42	31.80	30.68	1.12	6018.46
MW-1	10/01/01	6049.42	31.41	31.16	0.25	6018.19
MW-1	01/02/02	6049.42	32.17	31.20	0.97	6017.97
MW-1	04/01/02	6049.42	31.45	31.09	0.36	6018.24
MW-1	07/15/02	6049.42	32.35	31.43	0.92	6017.76
MW-1	10/08/02	6049.42	31.73	31.33	0.40	6017.99
MW-1	01/27/03	6049.42	31.59	31.21	0.38	6018.11
MW-1	04/26/03	6049.42	31.30	31.16	0.14	6018.22
MW-1	07/17/03	6049.42	32.31	31.73	0.58	6017.54
MW-1	01/19/04	6049.42	31.49	31.32	0.17	6018.05
MW-1	07/27/04	6049.42	32.47	31.89	0.58	6017.38
MW-1	10/20/04	6049.42	32.24	31.95	0.29	6017.39
MW-1	01/25/05	6049.42	31.91	31.75	0.16	6017.63
MW-1	04/14/05	6049.42	31.52	ND		6017.90
MW-1	07/19/05	6049.42	32.43	32.32	0.11	6017.07
MW-1	10/21/05	6049.42	32.02	ND		6017.40
MW-1	01/23/06	6049.42	31.93	31.92	0.01	6017.49
MW-1	04/28/06	6049.42	31.85	ND		6017.57
MW-1	07/26/06	6049.42	31.94	ND		6017.48
MW-1	10/24/06	6049.42	30.71	ND		6018.71
MW-1	01/17/07	6049.42	30.99	ND		6018.43
MW-1	04/24/07	6049.42	30.95	ND		6018.47
MW-1	07/31/07	6049.42	31.32	ND		6018.10
MW-1	10/25/07	6049.42	31.40	ND		6018.02
MW-1	01/25/08	6049.42	31.12	ND		6018.30
MW-1	04/17/08	6049.42	31.04	ND		6018.38
MW-1	07/23/08	6049.42	31.23	ND		6018.19
MW-1	10/08/08	6049.42	31.77	ND		6017.65
MW-1	01/16/09	6049.42	31.74	31.66	0.08	6017.74
MW-1	04/06/09	6049.42	31.82	ND		6017.60
MW-1	08/25/09	6049.42	32.30	ND		6017.12
MW-1	11/02/09	6049.42	32.20	ND		6017.22
MW-1	02/16/10	6049.42	31.74	ND		6017.68
MW-1	06/02/10	6049.42	31.53	31.50	0.03	6017.91
MW-1	09/27/10	6049.42	31.89	ND		6017.53
MW-1	11/01/10	6049.42	31.76	ND		6017.66
MW-1	02/01/11	6049.42	31.63	ND		6017.79
MW-1	05/09/11	6049.42	31.60	ND		6017.82
MW-1	09/23/11	6049.42	32.40	ND		6017.02
MW-1	11/02/11	6049.42	32.27	ND		6017.15
MW-1	02/22/12	6049.42	31.99	ND		6017.43
MW-1	05/15/12	6049.42	32.08	ND		6017.34
MW-1	06/05/13	6049.42	31.80	ND		6017.62
MW-1	09/10/13	6049.42	31.30	ND		6018.12
MW-1	12/11/13	6049.42	31.16	ND		6018.26
MW-1	04/04/14	6049.42	31.22	ND		6018.20
MW-1	10/24/14	6049.42	31.50	ND		6017.92
MW-1	05/31/15	6049.42	31.36	ND		6018.06
MW-1	11/21/15	6049.42	31.01	ND		6018.41

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Miles Fed 1A						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-2	10/15/99	6049.22	27.97	NR		6021.25
MW-2	07/03/01	6049.22	32.51	NR		6016.71
MW-2	09/04/01	6049.22	28.30	NR		6020.92
MW-2	10/01/01	6049.22	28.61	NR		6020.61
MW-2	07/15/02	6049.22	31.46	NR		6017.76
MW-2	10/08/02	6049.22	30.77	NR		6018.45
MW-2	01/27/03	6049.22	30.64	ND		6018.58
MW-2	04/26/03	6049.22	31.51	ND		6017.71
MW-2	07/17/03	6049.22	31.23	ND		6017.99
MW-2	01/19/04	6049.22	31.14	ND		6018.08
MW-2	07/27/04	6049.22	31.37	ND		6017.85
MW-2	10/20/04	6049.22	31.33	ND		6017.89
MW-2	01/25/05	6049.22	31.56	ND		6017.66
MW-2	04/14/05	6049.22	31.33	ND		6017.89
MW-2	07/19/05	6049.22	31.97	ND		6017.25
MW-2	10/21/05	6049.22	31.09	ND		6018.13
MW-2	01/23/06	6049.22	31.19	ND		6018.03
MW-2	04/28/06	6049.22	31.21	ND		6018.01
MW-2	07/26/06	6049.22	31.24	ND		6017.98
MW-2	10/24/06	6049.22	30.55	ND		6018.67
MW-2	01/17/07	6049.22	30.29	ND		6018.93
MW-2	04/24/07	6049.22	30.75	ND		6018.47
MW-2	07/31/07	6049.22	30.56	ND		6018.66
MW-2	10/25/07	6049.22	30.71	ND		6018.51
MW-2	01/25/08	6049.22	30.41	ND		6018.81
MW-2	04/17/08	6049.22	30.36	ND		6018.86
MW-2	07/23/08	6049.22	31.14	ND		6018.08
MW-2	10/08/08	6049.22	31.57	ND		6017.65
MW-2	01/16/09	6049.22	30.98	ND		6018.24
MW-2	04/06/09	6049.22	31.40	ND		6017.82
MW-2	08/25/09	6049.22	31.85	ND		6017.37
MW-2	11/02/09	6049.22	31.93	ND		6017.29
MW-2	02/16/10	6049.22	31.43	ND		6017.79
MW-2	06/02/10	6049.22	31.33	ND		6017.89
MW-2	09/27/10	6049.22	31.63	ND		6017.59
MW-2	11/01/10	6049.22	31.57	ND		6017.65
MW-2	02/01/11	6049.22	31.39	ND		6017.83
MW-2	05/09/11	6049.22	31.40	ND		6017.82
MW-2	09/23/11	6049.22	32.05	ND		6017.17
MW-2	11/02/11	6049.22	32.01	ND		6017.21
MW-2	02/22/12	6049.22	31.76	ND		6017.46
MW-2	05/15/12	6049.22	31.87	ND		6017.35
MW-2	06/05/13	6049.22	31.56	ND		6017.66
MW-2	09/10/13	6049.22	31.13	ND		6018.09
MW-2	12/11/13	6049.22	30.95	ND		6018.27
MW-2	04/04/14	6049.22	31.02	ND		6018.20
MW-2	10/24/14	6049.22	31.32	ND		6017.90
MW-2	05/31/15	6049.22	31.37	ND		6017.85
MW-2	11/21/15	6049.22	30.80	ND		6018.42

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Miles Fed 1A						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-3	10/15/99	6049.32	27.92	NR		6021.40
MW-3	07/03/01	6049.32	28.97	NR		6020.35
MW-3	09/04/01	6049.32	28.40	NR		6020.92
MW-3	10/01/01	6049.32	28.63	NR		6020.69
MW-3	07/15/02	6049.32	31.46	NR		6017.86
MW-3	10/08/02	6049.32	31.22	NR		6018.10
MW-3	01/27/03	6049.32	31.11	ND		6018.21
MW-3	04/26/03	6049.32	30.99	ND		6018.33
MW-3	07/17/03	6049.32	31.62	ND		6017.70
MW-3	01/19/04	6049.32	30.66	ND		6018.66
MW-3	07/27/04	6049.32	31.30	ND		6018.02
MW-3	10/20/04	6049.32	31.32	ND		6018.00
MW-3	01/25/05	6049.32	31.08	ND		6018.24
MW-3	04/14/05	6049.32	30.87	ND		6018.45
MW-3	07/19/05	6049.32	31.56	ND		6017.76
MW-3	10/21/05	6049.32	31.66	ND		6017.66
MW-3	01/23/06	6049.32	31.61	ND		6017.71
MW-3	04/28/06	6049.32	31.62	ND		6017.70
MW-3	07/26/06	6049.32	31.72	ND		6017.60
MW-3	10/24/06	6049.32	30.03	ND		6019.29
MW-3	01/17/07	6049.32	30.81	ND		6018.51
MW-3	04/24/07	6049.32	30.28	ND		6019.04
MW-3	07/31/07	6049.32	31.12	ND		6018.20
MW-3	10/25/07	6049.32	31.19	ND		6018.13
MW-3	01/25/08	6049.32	20.93	ND		6028.39
MW-3	04/17/08	6049.32	30.36	ND		6018.96
MW-3	07/23/08	6049.32	30.58	ND		6018.74
MW-3	10/08/08	6049.32	31.15	ND		6018.17
MW-3	01/16/09	6049.32	31.47	ND		6017.85
MW-3	04/06/09	6049.32	30.93	ND		6018.39
MW-3	08/25/09	6049.32	31.60	ND		6017.72
MW-3	11/02/09	6049.32	31.47	ND		6017.85
MW-3	02/16/10	6049.32	30.89	ND		6018.43
MW-3	06/02/10	6049.32	30.88	ND		6018.44
MW-3	09/27/10	6049.32	31.20	ND		6018.12
MW-3	11/01/10	6049.32	30.96	ND		6018.36
MW-3	02/01/11	6049.32	30.91	ND		6018.41
MW-3	05/09/11	6049.32	30.95	ND		6018.37
MW-3	09/23/11	6049.32	31.55	ND		6017.77
MW-3	11/02/11	6049.32	31.52	ND		6017.80
MW-3	02/22/12	6049.32	31.37	ND		6017.95
MW-3	05/15/12	6049.32	31.45	ND		6017.87
MW-3	06/05/13	6049.32	31.15	ND		6018.17
MW-3	09/10/13	6049.32	30.58	ND		6018.74
MW-3	12/11/13	6049.32	30.43	ND		6018.89
MW-3	04/04/14	6049.32	30.51	ND		6018.81
MW-3	10/24/14	6049.32	30.82	ND		6018.50
MW-3	05/31/15	6049.32	30.66	ND		6018.66
MW-3	11/21/15	6049.32	30.29	ND		6019.03

Notes:
"ft" = feet
"TOC" = Top of casing
"LNAPL" = Light non-aqueous phase liquid
"ND" = LNAPL not detected
"NR" = LNAPL not recorded

FIGURES

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\MILES FEDERAL #1A\2015 MAPS\Miles_Fed_GARM_1SA_2015.mxd

FORMER EPC PIT EXCAVATED TO 12 FEET

SMA BENCHMARK
ELEV. 6046.42'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO CENTRAL

MW-1
B: 68
T: 79
E: 95
X: 940

MW-2
B: <1.0
T: <5.0
E: <1.0
X: <5.0

MW-3
B: <1.0
T: <5.0
E: <1.0
X: <5.0

WELLHEAD

SEPARATOR

(2) ELECTRIC BOX

METER HOUSE

CAÑON LARGO

6045

6050

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 5/2/2013

LEGEND:

- 6050 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- G A S — NATURAL GAS LINE
- FENCE
- BOLLARD
- GAS VALVE
- MONITORING WELL
- RIG ANCHOR
- SMA BENCHMARK
- WELLHEAD

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
<1 = BELOW METHOD DETECTION 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 40 80

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	2/15/2016	CCL	CCL	SRV

TITLE:

GROUNDWATER ANALYTICAL RESULTS
MAY 31, 2015

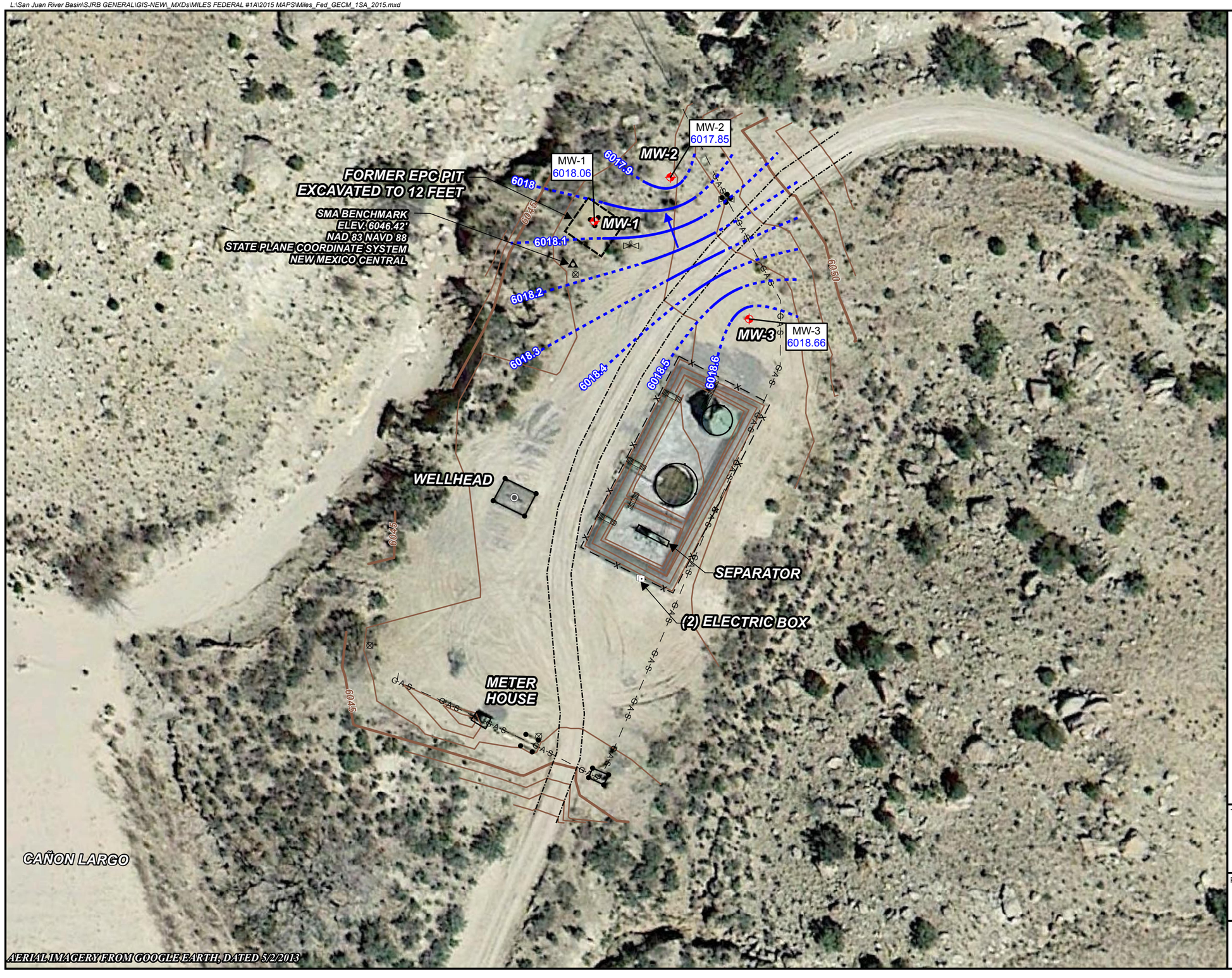
PROJECT:

MILES FED #1A
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

MWH

Figure No.: 1

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\MILES FEDERAL #1A\2015 MAPS\Miles_Fed_GECM_1SA_2015.mxd



LEGEND:

- 6050 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- G A S — NATURAL GAS LINE
- FENCE
- BOLLARD
- GAS VALVE
- MONITORING WELL
- RIG ANCHOR
- SMA BENCHMARK
- WELLHEAD

NOTES:

- 6018.66 — GROUNDWATER ELEVATION FEET ABOVE MEAN SEA LEVEL
- 6018.5 — WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL, 0.1 FOOT CONTOUR INTERVAL)
- DIRECTION OF APPARENT GROUNDWATER FLOW

N

SCALE IN FEET
0 40 80

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	2/15/2016	CCL	CCL	SRV

TITLE:

GROUNDWATER ELEVATION MAP
MAY 31, 2015

PROJECT:

MILES FED #1A
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

MWH

Figure No.: 2

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\MILES FEDERAL #1A\2015 MAPS\Miles_Fed_GARM_2SA_2015.mxd

FORMER EPC PIT
EXCAVATED TO 12 FEET

SMA BENCHMARK
ELEV. 6046.42'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO CENTRAL

MW-1
B: **160**
T: 67
E: 98
X: **1200**

MW-2
B: <1.0
T: <1.0
E: <1.0
X: <3.0

MW-3
B: <1.0
T: <1.0
E: <1.0
X: <3.0

MW-1
MW-2
MW-3

6045
6050

WELLHEAD
SEPARATOR
(2) ELECTRIC BOX
METER HOUSE

CAÑON LARGO

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 5/2/2013

LEGEND:

- 6050 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- GAS — NATURAL GAS LINE
- FENCE
- BOLLARD
- GAS VALVE
- MONITORING WELL
- RIG ANCHOR
- SMA BENCHMARK
- WELLHEAD

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
<1 = BELOW METHOD DETECTION 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 40 80

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2/15/2016	CCL	CCL	SRV

TITLE:

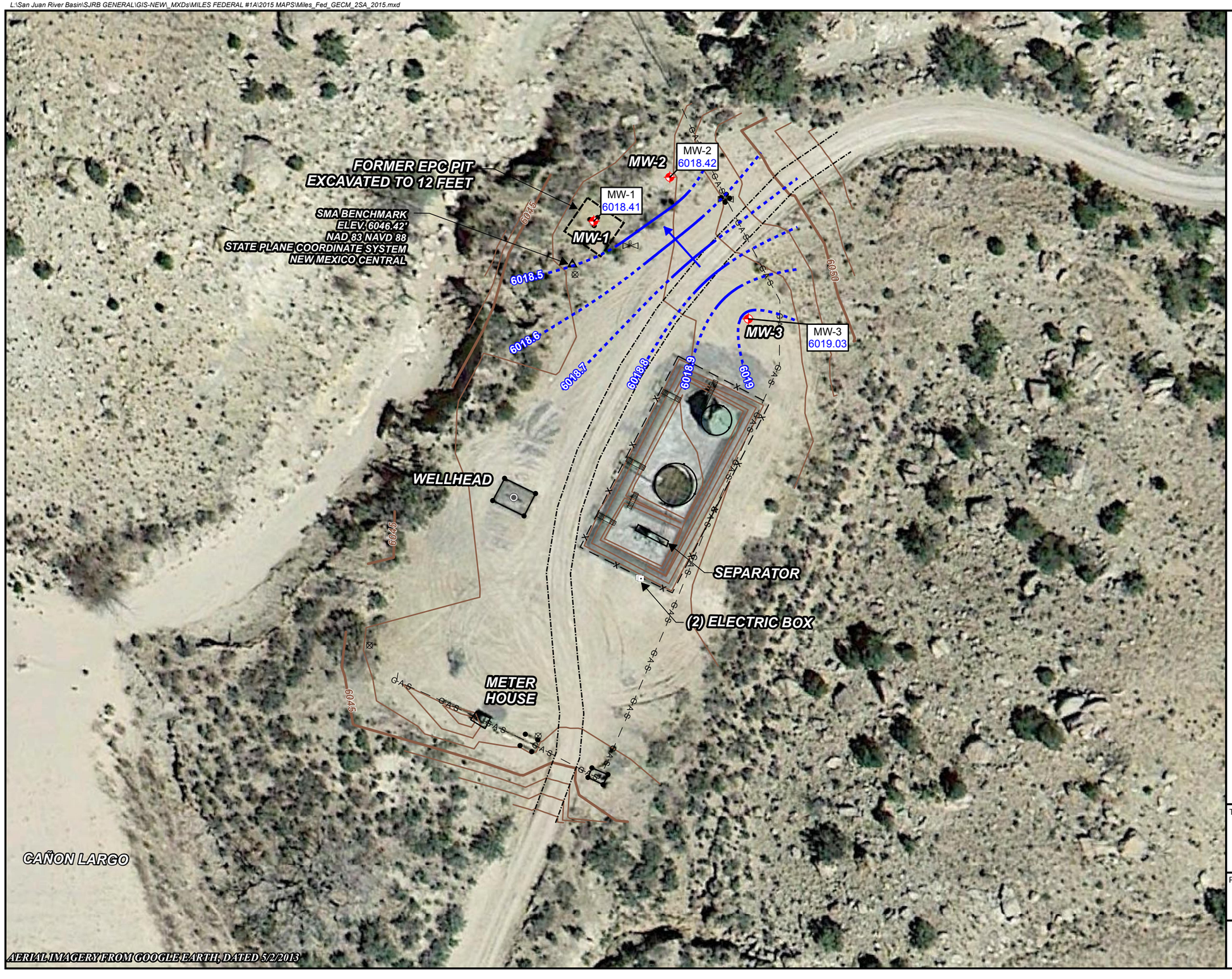
GROUNDWATER ANALYTICAL RESULTS
NOVEMBER 21, 2015

PROJECT:
MILES FED #1A
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

MWH

Figure No.:
3

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\MILES FEDERAL #1A\2015 MAPS\Miles_Fed_GECM_2SA_2015.mxd



LEGEND:

- 6050 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- G A S — NATURAL GAS LINE
- —X— — FENCE
- BOLLARD
- GAS VALVE
- MONITORING WELL
- RIG ANCHOR
- SMA BENCHMARK
- WELLHEAD

NOTES:

- 6019.03 — GROUNDWATER ELEVATION FEET ABOVE MEAN SEA LEVEL
- 6018.8 — WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL, 0.1 FOOT CONTOUR INTERVAL)
- DIRECTION OF APPARENT GROUNDWATER FLOW

N

SCALE IN FEET
0 40 80

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2/15/2016	CCL	CCL	SRV

TITLE:

GROUNDWATER ELEVATION MAP
NOVEMBER 21, 2015

PROJECT:

MILES FED #1A
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

MWH

Figure No.: 4

APPENDIX A

MAY 31, 2015 GROUNDWATER SAMPLING ANALYTICAL REPORT
NOVEMBER 21, 2015 GROUNDWATER SAMPLING ANALYTICAL REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 400-106455-1
Client Project/Site: NM-GW Pits, Miles Fed 1A

For:
MWH Americas Inc
1560 Broadway
Suite 1800
Denver, Colorado 80202

Attn: Ms. Sarah Gardner

Authorized for release by:
6/16/2015 4:43:00 PM

Marty Edwards, Manager of Project Management
(850)474-1001
marty.edwards@testamericainc.com

Table of Contents

Definitions/Glossary

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Job ID: 400-106455-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-106455-1

Comments
No additional comments.

Receipt
The samples were received on 6/2/2015 9:37 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

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

Detection Summary

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Client Sample ID: MILES FED 1A MW-1 — Lab Sample ID: 400-106455-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	68		5.0	2.8	ug/L	5		8021B	Total/NA
Ethylbenzene	95		5.0	3.2	ug/L	5		8021B	Total/NA
Toluene	79		25	4.9	ug/L	5		8021B	Total/NA
Xylenes, Total	940		25	8.5	ug/L	5		8021B	Total/NA

Client Sample ID: MILES FED 1A MW-2 — Lab Sample ID: 400-106455-2

No Detections.

Client Sample ID: MILES FED 1A MW-3 — Lab Sample ID: 400-106455-3

No Detections.

Client Sample ID: MILES FED 1A TRIP BLANK — Lab Sample ID: 400-106455-4

No Detections.

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-106455-1	MILES FED 1A MW-1	Water	05/31/15 14:10	06/02/15 09:37
400-106455-2	MILES FED 1A MW-2	Water	05/31/15 14:15	06/02/15 09:37
400-106455-3	MILES FED 1A MW-3	Water	05/31/15 14:20	06/02/15 09:37
400-106455-4	MILES FED 1A TRIP BLANK	Water	05/31/15 14:05	06/02/15 09:37

Client Sample ID: MILES FED 1A MW-1

Lab Sample ID: 400-106455-1

Date Collected: 05/31/15 14:10

Matrix: Water

Date Received: 06/02/15 09:37

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	68		5.0	2.8	ug/L			06/10/15 20:51	5
Ethylbenzene	95		5.0	3.2	ug/L			06/10/15 20:51	5
Toluene	79		25	4.9	ug/L			06/10/15 20:51	5
Xylenes, Total	940		25	8.5	ug/L			06/10/15 20:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*100*		*78 - 124*		*06/10/15 20:51*	*5*

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Client Sample ID: MILES FED 1A MW-2
Date Collected: 05/31/15 14:15
Date Received: 06/02/15 09:37

Lab Sample ID: 400-106455-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	0.56	ug/L			06/10/15 21:51	1
Ethylbenzene	<1.0		1.0	0.64	ug/L			06/10/15 21:51	1
Toluene	<5.0		5.0	0.98	ug/L			06/10/15 21:51	1
Xylenes, Total	<5.0		5.0	1.7	ug/L			06/10/15 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*98*		*78 - 124*		*06/10/15 21:51*	*1*

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Client Sample ID: MILES FED 1A MW-3
Date Collected: 05/31/15 14:20
Date Received: 06/02/15 09:37

Lab Sample ID: 400-106455-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	0.56	ug/L			06/10/15 22:50	1
Ethylbenzene	<1.0		1.0	0.64	ug/L			06/10/15 22:50	1
Toluene	<5.0		5.0	0.98	ug/L			06/10/15 22:50	1
Xylenes, Total	<5.0		5.0	1.7	ug/L			06/10/15 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*97*		*78 - 124*		*06/10/15 22:50*	*1*

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Client Sample ID: MILES FED 1A TRIP BLANK
Date Collected: 05/31/15 14:05
Date Received: 06/02/15 09:37

Lab Sample ID: 400-106455-4
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	0.56	ug/L			06/11/15 02:46	1
Ethylbenzene	<1.0		1.0	0.64	ug/L			06/11/15 02:46	1
Toluene	<5.0		5.0	0.98	ug/L			06/11/15 02:46	1
Xylenes, Total	<5.0		5.0	1.7	ug/L			06/11/15 02:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*100*		*78 - 124*		*06/11/15 02:46*	*1*

QC Association Summary

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

GC VOA

Analysis Batch: 260589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-106455-1	MILES FED 1A MW-1	Total/NA	Water	8021B	
400-106455-2	MILES FED 1A MW-2	Total/NA	Water	8021B	
400-106455-3	MILES FED 1A MW-3	Total/NA	Water	8021B	
400-106455-3 MS	MILES FED 1A MW-3	Total/NA	Water	8021B	
400-106455-3 MSD	MILES FED 1A MW-3	Total/NA	Water	8021B	
400-106455-4	MILES FED 1A TRIP BLANK	Total/NA	Water	8021B	
LCS 400-260589/1003	Lab Control Sample	Total/NA	Water	8021B	
MB 400-260589/26	Method Blank	Total/NA	Water	8021B	

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 400-260589/26
Matrix: Water
Analysis Batch: 260589

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	0.56	ug/L			06/10/15 15:55	1
Ethylbenzene	<1.0		1.0	0.64	ug/L			06/10/15 15:55	1
Toluene	<5.0		5.0	0.98	ug/L			06/10/15 15:55	1
Xylenes, Total	<5.0		5.0	1.7	ug/L			06/10/15 15:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*97*		*78 - 124*		*06/10/15 15:55*	*1*

Lab Sample ID: LCS 400-260589/1003
Matrix: Water
Analysis Batch: 260589

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	51.4		ug/L		103	85 - 115		
Ethylbenzene			50.0	53.5		ug/L		107	85 - 115		
Toluene			50.0	52.1		ug/L		104	85 - 115		
Xylenes, Total			150	160		ug/L		107	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*96*		*78 - 124*

Lab Sample ID: 400-106455-3 MS
Matrix: Water
Analysis Batch: 260589

Client Sample ID: MILES FED 1A 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	46.8		ug/L		94	44 - 150		
Ethylbenzene	<1.0		50.0	48.0		ug/L		96	70 - 142		
Toluene	<5.0		50.0	47.2		ug/L		94	69 - 136		
Xylenes, Total	<5.0		150	144		ug/L		96	68 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*95*		*78 - 124*

Lab Sample ID: 400-106455-3 MSD
Matrix: Water
Analysis Batch: 260589

Client Sample ID: MILES FED 1A 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	42.8		ug/L		86	44 - 150	9	16
Ethylbenzene	<1.0		50.0	43.8		ug/L		88	70 - 142	9	16
Toluene	<5.0		50.0	43.3		ug/L		87	69 - 136	9	16
Xylenes, Total	<5.0		150	134		ug/L		89	68 - 142	7	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*96*		*78 - 124*

Lab Chronicle

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Client Sample ID: MILES FED 1A MW-1

Lab Sample ID: 400-106455-1
Matrix: Water
Date Collected: 05/31/15 14:10
Date Received: 06/02/15 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		5	5 mL	5 mL	260589	06/10/15 20:51	MKA	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MILES FED 1A MW-2

Lab Sample ID: 400-106455-2
Matrix: Water
Date Collected: 05/31/15 14:15
Date Received: 06/02/15 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	260589	06/10/15 21:51	MKA	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MILES FED 1A MW-3

Lab Sample ID: 400-106455-3
Matrix: Water
Date Collected: 05/31/15 14:20
Date Received: 06/02/15 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	260589	06/10/15 22:50	MKA	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MILES FED 1A TRIP BLANK

Lab Sample ID: 400-106455-4
Matrix: Water
Date Collected: 05/31/15 14:05
Date Received: 06/02/15 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	260589	06/11/15 02:46	MKA	TAL PEN
	Instrument ID: ETHYL									

Laboratory References:

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

Certification Summary

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-15
Arizona	State Program	9	AZ0710	01-11-16
Arkansas DEQ	State Program	6	88-0689	09-01-15
Florida	NELAP	4	E81010	06-30-15
Georgia	State Program	4	N/A	06-30-15
Illinois	NELAP	5	200041	10-09-15
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	06-30-15 *
Kentucky (UST)	State Program	4	53	06-30-15
Kentucky (WW)	State Program	4	98030	12-31-15
Louisiana	NELAP	6	30976	06-30-15
Maryland	State Program	3	233	09-30-15
Massachusetts	State Program	1	M-FL094	06-30-15
Michigan	State Program	5	9912	06-30-15
New Jersey	NELAP	2	FL006	06-30-15
North Carolina (WW/SW)	State Program	4	314	12-31-15
Oklahoma	State Program	6	9810	08-31-15
Pennsylvania	NELAP	3	68-00467	01-31-16
Rhode Island	State Program	1	LAO00307	12-30-15
South Carolina	State Program	4	96026	06-30-15
Tennessee	State Program	4	TN02907	06-30-15
Texas	NELAP	6	T104704286-12-5	09-30-15
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
West Virginia DEP	State Program	3	136	06-30-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Miles Fed 1A

TestAmerica Job ID: 400-106455-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	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 = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

400-106455

SERIAL NUMBER: 80219

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.testamericainc.com

QUOTE NO.:

BOTTLE ORDER NO.:

ORDER - LOG-IN NO.: C

CLIENT: MWH

ADDRESS: 1560 Broadway Suite 1800 Denver CO 80202

PROJECT NAME: Nm-pit GW Miles Fed 1A

PROJECT NO.: 40005479

CLIENT PROJECT MANAGER: Steve Varsa

PROJECT LOC. (STATE): NM

SAMPLED BY: Swan Gardner / Chris Lee

CONTRACT / P.O. NO.:

CLIENT PHONE: 303 291 2239

CLIENT E-MAIL OR FAX: sarah.gardner@mwhglobal.com

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL / ~~NORMAL~~ 10 BUSINESS DAYS

□ 1 DAY □ 2 DAYS □ 3 DAYS □ 5 DAYS □ 20 DAYS (Package) □ OTHER:

SAMPLE DISPOSAL: □ RETURN TO CLIENT ~~□ DISPOSAL BY LAB~~

□ SEE CONTRACT □ OTHER:

REQUESTED ANALYSIS

PAGE 1 OF 1

POSSIBLE HAZARD IDENTIFICATION

~~X~~ NON-HAZARD
Δ FLAMMABLE
Δ RADIOACTIVE
Δ POISON B
Δ UNKNOWN
Δ OTHER:

NO. OF COOLERS PER SHIPMENT:

400-106455 COC

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION		PRESERVATIVE: No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other:	MATRIX: Drinking Water	Aqueous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil, Solvent, etc.)	BTEX-8021B	NUMBER OF CONTAINERS SUBMITTED	SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT
5/31/15	1410	Miles Fed 1A	MW-1		X									X					2	
5/31/15	1415	Miles Fed 1A	MW-2		X									X					2	
5/31/15	1420	Miles Fed 1A	MW-3		X									X					2	
5/31/15	1405	Miles Fed 1A	TRIP BLANK		X									X					2	

LAB USE ONLY - SAMPLE NUMBER

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS			Sam Gardner	6/1/15	1345			
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
EMPTY CONTAINERS								

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT?	CUSTODY SEAL NO.	REMARKS:
	6/2/15	0937	Δ YES Δ NO		2.0 °C IR 6

TAL-8251 (1207)

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 400-106455-1

Login Number: 106455
List Number: 1
Creator: Crawford, Lauren E

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C IR-6
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.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 400-114317-1
Client Project/Site: Miles Fed 1A

For:
MWH Americas Inc
1560 Broadway
Suite 1800
Denver, Colorado 80202

Attn: Ms. Sarah Gardner

Authorized for release by:
12/14/2015 7:45:51 PM

Marty Edwards, Manager of Project Management
(850)474-1001
marty.edwards@testamericainc.com

Table of Contents

Definitions/Glossary

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside 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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Job ID: 400-114317-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-114317-1

Comments
No additional comments.

Receipt
The samples were received on 11/24/2015 8:47 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.4º C, 0.8º C, 0.9º C, 0.9º C and 1.1º C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Sample collection date is not reported on the Chaing of Custody. Sample collection time is reported off of the sample container.

GC VOA
Method 8021B: Continuing calibration verification (CCV) recovered high for Benzene; as this CCV only was used to cap a laboratory control sample duplicate (LCSD), which passed quality control requirements, and the previous CCV passed within criteria, this CCV has been qualified and reported for work order 490-114317-1.

Method 8021B: Surrogate recovery for the following samples in analytical batch 490-303336 was outside the upper control limit: MW-2 (400-114317-2) and MW-3 (400-114317-3). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: This continuing calibration verification associated with Batch 490-303336 recovered high for surrogate. The target analytes were within range, however, so this CCV has been qualified and reported:

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

Detection Summary

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Client Sample ID: MW-1 — Lab Sample ID: 400-114317-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	98		2.0		ug/L	2		8021B	Total/NA
Toluene	67		2.0		ug/L	2		8021B	Total/NA
Xylenes, Total	1200		6.0		ug/L	2		8021B	Total/NA
Benzene	160		2.0		ug/L	2		8021B	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 400-114317-2

No Detections.

Client Sample ID: MW-3 — Lab Sample ID: 400-114317-3

No Detections.

Client Sample ID: TRIP BLANK — Lab Sample ID: 400-114317-4

No Detections.

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-114317-1	MW-1	Water	11/21/15 14:55	11/24/15 08:47
400-114317-2	MW-2	Water	11/21/15 14:50	11/24/15 08:47
400-114317-3	MW-3	Water	11/21/15 14:40	11/24/15 08:47
400-114317-4	TRIP BLANK	Water	11/21/15 14:35	11/24/15 08:47

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Client Sample ID: MW-1
Date Collected: 11/21/15 14:55
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114317-1
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	98		2.0		ug/L			12/03/15 18:27	2
Toluene	67		2.0		ug/L			12/03/15 18:27	2
Xylenes, Total	1200		6.0		ug/L			12/03/15 18:27	2
Benzene	160		2.0		ug/L			12/03/15 18:27	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*50 - 150*		*12/03/15 18:27*	*2*

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Client Sample ID: MW-2
Date Collected: 11/21/15 14:50
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114317-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<1.0		1.0		ug/L			12/03/15 06:01	1
Toluene	<1.0		1.0		ug/L			12/03/15 06:01	1
Xylenes, Total	<3.0		3.0		ug/L			12/03/15 06:01	1
Benzene	<1.0		1.0		ug/L			12/03/15 06:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*345*	*X*	*50 - 150*		*12/03/15 06:01*	*1*

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Client Sample ID: MW-3
Date Collected: 11/21/15 14:40
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114317-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<1.0		1.0		ug/L			12/03/15 06:42	1
Toluene	<1.0		1.0		ug/L			12/03/15 06:42	1
Xylenes, Total	<3.0		3.0		ug/L			12/03/15 06:42	1
Benzene	<1.0		1.0		ug/L			12/03/15 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*341*	*X*	*50 - 150*		*12/03/15 06:42*	*1*

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Client Sample ID: TRIP BLANK
Date Collected: 11/21/15 14:35
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114317-4
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<1.0		1.0		ug/L			12/02/15 20:30	1
Toluene	<1.0		1.0		ug/L			12/02/15 20:30	1
Xylenes, Total	<3.0		3.0		ug/L			12/02/15 20:30	1
Benzene	<1.0		1.0		ug/L			12/02/15 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*106*		*50 - 150*		*12/02/15 20:30*	*1*

QC Association Summary

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

GC VOA

Analysis Batch: 303336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-114317-2	MW-2	Total/NA	Water	8021B	
400-114317-3	MW-3	Total/NA	Water	8021B	
400-114317-4	TRIP BLANK	Total/NA	Water	8021B	
LCS 490-303336/4	Lab Control Sample	Total/NA	Water	8021B	
LCSD 490-303336/16	Lab Control Sample Dup	Total/NA	Water	8021B	
MB 490-303336/5	Method Blank	Total/NA	Water	8021B	

Analysis Batch: 303769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-114317-1	MW-1	Total/NA	Water	8021B	
490-92983-B-1 MS	Matrix Spike	Total/NA	Water	8021B	
490-92983-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	
LCS 490-303769/2	Lab Control Sample	Total/NA	Water	8021B	
LCSD 490-303769/17	Lab Control Sample Dup	Total/NA	Water	8021B	
MB 490-303769/3	Method Blank	Total/NA	Water	8021B	

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 490-303336/5
Matrix: Water
Analysis Batch: 303336

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<1.0		1.0		ug/L			12/02/15 14:13	1
Toluene	<1.0		1.0		ug/L			12/02/15 14:13	1
Xylenes, Total	<3.0		3.0		ug/L			12/02/15 14:13	1
Benzene	<1.0		1.0		ug/L			12/02/15 14:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*50 - 150*		*12/02/15 14:13*	*1*

Lab Sample ID: LCS 490-303336/4
Matrix: Water
Analysis Batch: 303336

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			100	104		ug/L		104	70 - 130		
Toluene			100	104		ug/L		104	66 - 127		
Xylenes, Total			300	309		ug/L		103	69 - 123		
Benzene			100	107		ug/L		107	69 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*69*		*50 - 150*

Lab Sample ID: LCSD 490-303336/16
Matrix: Water
Analysis Batch: 303336

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			100	107		ug/L		107	70 - 130	3	35
Toluene			100	107		ug/L		107	66 - 127	3	34
Xylenes, Total			300	319		ug/L		106	69 - 123	3	37
Benzene			100	111		ug/L		111	69 - 129	3	33

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*115*		*50 - 150*

Lab Sample ID: MB 490-303769/3
Matrix: Water
Analysis Batch: 303769

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<1.0		1.0		ug/L			12/03/15 17:46	1
Toluene	<1.0		1.0		ug/L			12/03/15 17:46	1
Xylenes, Total	<3.0		3.0		ug/L			12/03/15 17:46	1
Benzene	<1.0		1.0		ug/L			12/03/15 17:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*50 - 150*		*12/03/15 17:46*	*1*

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 490-303769/2
Matrix: Water
Analysis Batch: 303769

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	100	110		ug/L		110	70 - 130
Toluene	100	110		ug/L		110	66 - 127
Xylenes, Total	300	329		ug/L		110	69 - 123
Benzene	100	114		ug/L		114	69 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*92*		*50 - 150*

Lab Sample ID: LCSD 490-303769/17
Matrix: Water
Analysis Batch: 303769

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	100	107		ug/L		107	70 - 130	2	35
Toluene	100	109		ug/L		109	66 - 127	1	34
Xylenes, Total	300	323		ug/L		108	69 - 123	2	37
Benzene	100	113		ug/L		113	69 - 129	1	33

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*99*		*50 - 150*

Lab Sample ID: 490-92983-B-1 MS
Matrix: Water
Analysis Batch: 303769

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
Ethylbenzene	<1.0		52.9	60.8		ug/L		114	30 - 170
Toluene	<1.0		52.9	62.4		ug/L		117	30 - 167
Xylenes, Total	<3.0		159	183		ug/L		114	28 - 164
Benzene	<1.0		52.9	65.1		ug/L		122	29 - 176

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*93*		*50 - 150*

Lab Sample ID: 490-92983-C-1 MSD
Matrix: Water
Analysis Batch: 303769

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
Ethylbenzene	<1.0		52.9	58.1		ug/L		109	30 - 170	5	35
Toluene	<1.0		52.9	60.5		ug/L		114	30 - 167	3	34
Xylenes, Total	<3.0		159	176		ug/L		110	28 - 164	4	37
Benzene	<1.0		52.9	63.2		ug/L		119	29 - 176	3	33

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*50 - 150*

Lab Chronicle

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Client Sample ID: MW-1
Date Collected: 11/21/15 14:55
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114317-1
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	8021B		2	5 mL	5 mL	303769	12/03/15 18:27	AMC	TAL NSH
	Instrument ID: HP15									

Client Sample ID: MW-2
Date Collected: 11/21/15 14:50
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114317-2
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	8021B		1	5 mL	5 mL	303336	12/03/15 06:01	AMC	TAL NSH
	Instrument ID: HP15									

Client Sample ID: MW-3
Date Collected: 11/21/15 14:40
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114317-3
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	8021B		1	5 mL	5 mL	303336	12/03/15 06:42	AMC	TAL NSH
	Instrument ID: HP15									

Client Sample ID: TRIP BLANK
Date Collected: 11/21/15 14:35
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114317-4
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	8021B		1	5 mL	5 mL	303336	12/02/15 20:30	AMC	TAL NSH
	Instrument ID: HP15									

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	12-31-15 *
Arizona	State Program	9	AZ0710	01-11-16
Arkansas DEQ	State Program	6	88-0689	09-01-16
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	01-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-15
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-16
North Carolina (WW/SW)	State Program	4	314	12-31-15
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-16
Rhode Island	State Program	1	LAO00307	12-30-15
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-15
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	07-24-16
Arizona	State Program	9	AZ0473	05-05-16
Arkansas DEQ	State Program	6	88-0737	04-25-16
California	State Program	9	2938	10-31-16
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200010	12-09-16
Iowa	State Program	7	131	04-01-16
Kansas	NELAP	7	E-10229	01-31-16
Kentucky (UST)	State Program	4	19	06-30-16
Kentucky (WW)	State Program	4	90038	12-31-15
Louisiana	NELAP	6	30613	06-30-16
Maine	State Program	1	TN00032	11-03-17
Maryland	State Program	3	316	03-31-16
Massachusetts	State Program	1	M-TN032	06-30-16
Minnesota	NELAP	5	047-999-345	12-31-16
Mississippi	State Program	4	N/A	06-30-16

* Certification renewal pending - certification considered valid.

Certification Summary

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Laboratory: TestAmerica Nashville (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-16
New Hampshire	NELAP	1	2963	10-09-16
New Jersey	NELAP	2	TN965	06-30-16
New York	NELAP	2	11342	03-31-16
North Carolina (WW/SW)	State Program	4	387	12-31-15
North Dakota	State Program	8	R-146	06-30-16
Ohio VAP	State Program	5	CL0033	07-10-17
Oklahoma	State Program	6	9412	08-31-16
Oregon	NELAP	10	TN200001	04-27-16
Pennsylvania	NELAP	3	68-00585	06-30-16
Rhode Island	State Program	1	LAO00268	12-30-15
South Carolina	State Program	4	84009 (001)	02-28-16
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-17
Texas	NELAP	6	T104704077	08-31-16
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-16
Virginia	NELAP	3	460152	06-14-16
Washington	State Program	10	C789	07-19-16
West Virginia DEP	State Program	3	219	02-28-16
Wisconsin	State Program	5	998020430	08-31-16
Wyoming (UST)	A2LA	8	453.07	12-31-15

Method Summary

Client: MWH Americas Inc
Project/Site: Miles Fed 1A

TestAmerica Job ID: 400-114317-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	TAL NSH

Protocol References:

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

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Sarah Gardner/Chrisiee	Lab PM: Edwards, Marty P	Carrier Tracking No(s):	COC No: 400-50160-21711.1
Client Contact: Ms. Sarah Gardner	Phone: 303 291-2239	E-Mail: marty.edwards@testamericainc.com		Page: Page 1 of 1
Company: MWH Americas Inc		Analysis Requ		Job #:
Address: 1560 Broadway Suite 1800	Due Date 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 - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
City: Denver	TAT Requested (days): Standard		400-114317 COC	
State, Zip: CO, 80202	PO #: Purchase Order Requested			Other:
Phone: 303-291-2239(Tel)	WO #:			
Email: sarah.gardner@mwhglobal.com	Project #: 40005479			
Project Name: Miles Fed 1A	SSOW#:			
Site: Miles Fed 1A				

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)	8021B - BTEX (021	Total Number of containers	Special Instructions/Note:
Preservation Code:								
				Water		X X X		SLG
MW-1		1455	G	Water	N	N 2	2	
MW-2		1450	G	Water	N	N 2	2	
MW-3		1440	G	Water	N	N 2	2	
TRIP BLANK		1435	G	W	N	N 2	2	

Possible Hazard Identification
[X] 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 [X] 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
Sarah Gardner	11/23/2015 800	MWH			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				11/24/15 0847	

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

Cooler Temperature(s) °C and Other Remarks: IR Gun 1.1/0.9/0.8/0.4/0.9

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12/14/2015

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 400-114317-1

Login Number: 114317
List Number: 1
Creator: Menoher, Rachel C

List Source: TestAmerica Pensacola

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	1.1/0.9/0.8/0.4/0.9°C IR6
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.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 400-114317-1

Login Number: 114317
List Number: 2
Creator: Ford, Easton

List Source: TestAmerica Nashville
List Creation: 11/25/15 04:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
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.	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	