2015 ANNUAL GROUNDWATER REPORT

Fields A#7A
NMOCD Case#: 3RP-170-0
Meter Code: 89961
T32N , R11W , S 34, Unit E

SITE DETAILS

Site Location: Latitude: 36.944245 N, Longitude: -107.982116 W
Land Type: Federal
Operator: BP

SITE BACKGROUND

- **Site Assessment:** 8/94
- **Excavation:** 9/94 (70 cy)

Environmental Remediation activities at the Fields A#7 (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 BP America Production Company and is active.

The Site is located on Federal land. Various site investigations have occurred since 1994. There are four monitoring wells, installed in 1995 at the Site: MW-1, MW-2, MW-3 and MW-4. Temporary piezometers PZ-1 through PZ-5 were installed and removed in 1997. Free product has been observed and periodically recovered. Currently, groundwater sampling is conducted on a semi-annual basis and free product was not observed in 2015.

SUMMARY OF 2015 ACTIVITIES

On May 31 and November 22, 2015, water levels were gauged at MW-1, MW-2, MW-3, and MW-4. 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 maps (Figures 2 and 4) summarize results of the 2015 groundwater sampling and gauging events.

ANALYTICAL LAB REPORTS

The groundwater analytical lab reports are included as Appendix A.

GROUNDWATER RESULTS

- The groundwater flow direction cannot be determined. MW-1 is the only monitoring well where measurable groundwater was present (see Figures 2 and 4).
- 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 toluene, ethylbenzene, and total xylenes in groundwater collected from MW-1 were below NMQCC standards.
- BTEX constituents were not sampled for at MW-2, MW-3, and MW-4 due to insufficient groundwater during the 2015 semi-annual sampling events.
- The presence of several monitoring wells and one passive vent well, which does not belong to EPCGP, implies that the current operator has had a release at the Site.

PLANNED FUTURE ACTIVITIES

Additional monitoring wells are planned for future installation at the Site. The wells will be installed to further assess the extent of the dissolved-phase hydrocarbons and to confirm and/or further define the groundwater gradient at the Site. Monitoring wells will be installed around the known extent of dissolved-phase hydrocarbons in order to better delineate impacts from the former pit. Groundwater monitoring events will be conducted on a semi-annual basis.

The current operator will be contacted to determine the nature of environmental issues, which have apparently occurred, based on the presence of monitoring wells and a passive vent well observed by EPCGP personnel.

TABLE

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Fields A#7A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	08/09/95	1950	1946	115	1361
MW-1	01/03/96	3150	5280	361	3460
MW-1	04/18/96	1300	2140	119	1240
MW-1	05/08/96	NS	NS	NS	NS
MW-1	07/29/96	503	804	28	363
MW-1	10/21/96	843	1300	26	422
MW-1	01/30/97	1300	2200	76.8	966
MW-1	04/21/97	951	1920	73	894
MW-1	01/30/01	NS	NS	NS	NS
MW-1	02/08/01	NS	NS	NS	NS
MW-1	02/16/01	NS	NS	NS	NS
MW-1	02/17/01	NS	NS	NS	NS
MW-1	02/26/01	NS	NS	NS	NS
MW-1	03/05/01	NS	NS	NS	NS
MW-1	04/11/01	NS	NS	NS	NS
MW-1	06/05/01	NS	NS	NS	NS
MW-1	06/15/01	NS	NS	NS	NS
MW-1	07/06/01	NS	NS	NS	NS
MW-1	07/13/01	NS	NS	NS	NS
MW-1	07/20/01	NS	NS	NS	NS
MW-1	08/01/01	NS	NS	NS	NS
MW-1	08/08/01	NS	NS	NS	NS
MW-1	08/18/01	NS	NS	NS	NS
MW-1	08/20/01	NS	NS	NS	NS
MW-1	09/05/01	NS	NS	NS	NS
MW-1	09/21/01	NS	NS	NS	NS
MW-1	09/26/01	NS	NS	NS	NS
MW-1	10/03/01	NS	NS	NS	NS
MW-1	10/10/01	NS	NS	NS	NS
MW-1	12/04/01	NS	NS	NS	NS
MW-1	12/13/01	NS	NS	NS	NS
MW-1	12/21/01	NS	NS	NS	NS
MW-1	12/28/01	NS	NS	NS	NS
MW-1	01/07/02	NS	NS	NS	NS
MW-1	01/23/02	NS	NS	NS	NS
MW-1	01/31/02	NS	NS	NS	NS
MW-1	02/07/02	NS	NS	NS	NS
MW-1	02/14/02	NS	NS	NS	NS
MW-1	02/20/02	NS	NS	NS	NS
MW-1	03/21/02	NS	NS	NS	NS
MW-1	03/28/02	NS	NS	NS	NS
MW-1	04/04/02	NS	NS	NS	NS
MW-1	04/12/02	NS	NS	NS	NS
MW-1	04/19/02	NS	NS	NS	NS
MW-1	04/25/02	NS	NS	NS	NS
MW-1	05/03/02	NS	NS	NS	NS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Fields A#7A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	05/10/02	NS	NS	NS	NS
MW-1	05/17/02	NS	NS	NS	NS
MW-1	05/24/02	NS	NS	NS	NS
MW-1	05/31/02	NS	NS	NS	NS
MW-1	06/06/02	NS	NS	NS	NS
MW-1	06/14/02	NS	NS	NS	NS
MW-1	06/21/02	NS	NS	NS	NS
MW-1	06/27/02	NS	NS	NS	NS
MW-1	07/02/02	NS	NS	NS	NS
MW-1	07/11/02	NS	NS	NS	NS
MW-1	07/18/02	NS	NS	NS	NS
MW-1	08/21/02	NS	NS	NS	NS
MW-1	10/01/02	NS	NS	NS	NS
MW-1	01/15/03	NS	NS	NS	NS
MW-1	04/27/03	NS	NS	NS	NS
MW-1	07/16/03	NS	NS	NS	NS
MW-1	10/27/03	NS	NS	NS	NS
MW-1	01/26/04	121	54	15.8	216
MW-1	04/21/04	116	58.1	29.3	83.3
MW-1	07/27/04	NS	NS	NS	NS
MW-1	10/18/04	NS	NS	NS	NS
MW-1	01/25/05	NS	NS	NS	NS
MW-1	04/18/05	108	29	14.2	274
MW-1	10/22/05	180	69.2	6.3	154
MW-1	04/25/06	83.7	23.8	2.1 J	82.5
MW-1	10/24/06	254	108	4	169
MW-1	04/24/07	106	37.2	3.3	112
MW-1	10/29/07	NS	NS	NS	NS
MW-1	04/21/08	246	38.3	1.6 J	81.3
MW-1	10/09/08	NS	NS	NS	NS
MW-1	04/07/09	25.5	11	0.6 J	21.5
MW-1	11/04/09	NS	NS	NS	NS
MW-1	05/24/10	100	43.8	1.1 J	56.9
MW-1	11/02/10	NS	NS	NS	NS
MW-1	05/04/11	158	2.6	2.4	12.1
MW-1	11/01/11	NS	NS	NS	NS
MW-1	05/07/12	27.1	8.7	1.1	14.2
MW-1	06/07/13	910	110	14.0	170
MW-1	09/12/13	130	13	3.1	29
MW-1	12/13/13	380	30	4.7	98
MW-1	04/05/14	66	11	<0.20	10
MW-1	10/21/14	93	3.8	2.1	23
MW-1	05/31/15	230	12	2.5	43
MW-1	11/22/15	440	8.6	2.7	34

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Fields A#7A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-2	01/03/96	28.8	<2.5	297.0	1169
MW-2	04/18/96	<1	<1	2.6	<3
MW-2	05/08/96	NS	NS	NS	NS
MW-2	07/29/96	<2	<2	<2	<6
MW-2	10/21/96	<1	<1	<1	<3
MW-2	01/30/97	<2	<2	<2	<6
MW-2	04/21/97	<1	<1	<1	<3
MW-2	04/13/01	<0.5	<0.5	<0.5	<0.5
MW-2	06/05/01	NS	NS	NS	NS
MW-2	07/20/01	NS	NS	NS	NS
MW-2	08/20/01	NS	NS	NS	NS
MW-2	05/17/02	NS	NS	NS	NS
MW-2	10/27/03	NS	NS	NS	NS
MW-2	04/21/04	NS	NS	NS	NS
MW-2	04/18/05	<1	<1	<1	<2
MW-2	04/21/08	<2	<2	<2	<6
MW-2	11/02/10	NS	NS	NS	NS
MW-2	05/04/11	0.38 J	<1	<1	<3
MW-2	11/01/11	NS	NS	NS	NS
MW-2	05/07/12	NS	NS	NS	NS
MW-2	06/07/13	NS	NS	NS	NS
MW-2	09/12/13	NS	NS	NS	NS
MW-2	12/13/13	NS	NS	NS	NS
MW-2	04/05/14	NS	NS	NS	NS
MW-2	10/21/14	NS	NS	NS	NS
MW-2	05/31/15	NS	NS	NS	NS
MW-2	11/22/15	NS	NS	NS	NS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Fields A#7A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-3	01/03/96	176	16.4	225.0	1550
MW-3	04/18/96	129	<2	212.0	463
MW-3	05/08/96	NS	NS	NS	NS
MW-3	07/29/96	212	<2	167.0	393
MW-3	10/21/96	165	<1	157.0	467
MW-3	01/30/97	144	<1	198.0	851
MW-3	04/21/97	2070	4340	332.0	4730
MW-3	04/13/01	120	5.2	<5	80
MW-3	06/05/01	NS	NS	NS	NS
MW-3	07/20/01	NS	NS	NS	NS
MW-3	08/20/01	NS	NS	NS	NS
MW-3	04/02/02	NS	NS	NS	NS
MW-3	05/17/02	NS	NS	NS	NS
MW-3	01/25/05	NS	NS	NS	NS
MW-3	04/18/05	<1	<1	<1	<2
MW-3	10/22/05	NS	NS	NS	NS
MW-3	04/25/06	46.4	<5	<5	<10
MW-3	10/24/06	NS	NS	NS	NS
MW-3	04/24/07	179	<5	12.3	37.9
MW-3	10/29/07	NS	NS	NS	NS
MW-3	04/21/08	140	2.5	2.7	16.9
MW-3	10/09/08	NS	NS	NS	NS
MW-3	04/07/09	182	<50	<50	<100
MW-3	11/04/09	NS	NS	NS	NS
MW-3	05/24/10	NS	NS	NS	NS
MW-3	11/02/10	NS	NS	NS	NS
MW-3	05/04/11	5.7	<1	0.42 J	<3
MW-3	11/01/11	NS	NS	NS	NS
MW-3	05/07/12	14.6	<1	0.3 J	2.5 J
MW-3	06/07/13	NS	NS	NS	NS
MW-3	09/12/13	NS	NS	NS	NS
MW-3	12/13/13	NS	NS	NS	NS
MW-3	04/05/14	NS	NS	NS	NS
MW-3	10/21/14	NS	NS	NS	NS
MW-3	05/31/15	NS	NS	NS	NS
MW-3	11/22/15	NS	NS	NS	NS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Fields A#7A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-4	01/03/96	2470	1880	206.0	2350
MW-4	04/18/96	4760	2460	235.0	1880
MW-4	01/00/00	NS	NS	NS	NS
MW-4	07/29/96	1830	2380	106.0	967
MW-4	10/21/96	3320	4520	149.0	1680
MW-4	01/30/97	4320	7420	280.0	3250
MW-4	04/21/97	2410	5170	219.0	2530
MW-4	06/05/01	NS	NS	NS	NS
MW-4	06/15/01	NS	NS	NS	NS
MW-4	07/06/01	NS	NS	NS	NS
MW-4	07/13/01	NS	NS	NS	NS
MW-4	07/20/01	NS	NS	NS	NS
MW-4	08/01/01	NS	NS	NS	NS
MW-4	08/08/01	NS	NS	NS	NS
MW-4	08/16/01	NS	NS	NS	NS
MW-4	08/20/01	NS	NS	NS	NS
MW-4	09/05/01	NS	NS	NS	NS
MW-4	09/21/01	NS	NS	NS	NS
MW-4	09/26/01	NS	NS	NS	NS
MW-4	10/03/01	NS	NS	NS	NS
MW-4	10/10/01	NS	NS	NS	NS
MW-4	12/04/01	NS	NS	NS	NS
MW-4	12/13/01	NS	NS	NS	NS
MW-4	12/21/01	NS	NS	NS	NS
MW-4	12/28/01	NS	NS	NS	NS
MW-4	01/07/02	NS	NS	NS	NS
MW-4	01/23/02	NS	NS	NS	NS
MW-4	01/31/02	NS	NS	NS	NS
MW-4	02/07/02	NS	NS	NS	NS
MW-4	02/14/02	NS	NS	NS	NS
MW-4	02/20/02	NS	NS	NS	NS
MW-4	03/21/02	NS	NS	NS	NS
MW-4	04/04/02	NS	NS	NS	NS
MW-4	05/17/02	NS	NS	NS	NS
MW-4	05/24/02	NS	NS	NS	NS
MW-4	05/31/02	NS	NS	NS	NS
MW-4	06/06/02	NS	NS	NS	NS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Fields A#7A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-4	06/14/02	NS	NS	NS	NS
MW-4	07/18/02	NS	NS	NS	NS
MW-4	10/01/02	NS	NS	NS	NS
MW-4	01/15/03	NS	NS	NS	NS
MW-4	01/26/04	NS	NS	NS	NS
MW-4	04/21/04	NS	NS	NS	NS
MW-4	07/27/04	NS	NS	NS	NS
MW-4	10/18/04	NS	NS	NS	NS
MW-4	01/25/05	NS	NS	NS	NS
MW-4	04/18/05	NS	NS	NS	NS
MW-4	04/21/08	1580	679	6.8 J	3900
MW-4	10/09/08	NS	NS	NS	NS
MW-4	04/07/09	695	206	<50	745
MW-4	11/04/09	NS	NS	NS	NS
MW-4	05/24/10	NS	NS	NS	NS
MW-4	11/02/10	NS	NS	NS	NS
MW-4	05/04/11	NS	NS	NS	NS
MW-4	11/01/11	533	207	<10	419
MW-4	05/07/12	NS	NS	NS	NS
MW-4	06/07/13	NS	NS	NS	NS
MW-4	09/12/13	NS	NS	NS	NS
MW-4	12/13/13	NS	NS	NS	NS
MW-4	04/05/14	NS	NS	NS	NS
MW-4	10/21/14	NS	NS	NS	NS
MW-4	05/31/15	NS	NS	NS	NS
MW-4	11/22/15	NS	NS	NS	NS

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
"DRY" = water not detected

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Fields A#7A						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	08/09/95	6085.98	22.50	NR		6063.48
MW-1	01/03/96	6085.98	23.28	NR		6062.70
MW-1	04/18/96	6085.98	24.20	NR		6061.78
MW-1	05/08/96	6085.98	24.20	NR		6061.78
MW-1	07/29/96	6085.98	25.07	25.02	0.05	6060.95
MW-1	10/21/96	6085.98	25.45	25.38	0.07	6060.59
MW-1	01/30/97	6085.98	26.83	26.57	0.26	6059.35
MW-1	04/21/97	6085.98	26.47	26.44	0.03	6059.54
MW-1	01/30/01	6085.98	30.08	28.74	1.34	6056.91
MW-1	02/08/01	6085.98	29.85	28.65	1.20	6057.03
MW-1	02/16/01	6085.98	30.20	29.08	1.12	6056.62
MW-1	02/17/01	6085.98	29.66	29.08	0.58	6056.76
MW-1	02/26/01	6085.98	29.54	29.39	0.15	6056.56
MW-1	03/05/01	6085.98	29.28	29.25	0.03	6056.73
MW-1	04/11/01	6085.98	29.33	NR		6056.65
MW-1	06/05/01	6085.98	29.46	29.34	0.12	6056.61
MW-1	06/15/01	6085.98	29.65	29.57	0.08	6056.39
MW-1	07/06/01	6085.98	30.00	NR		6055.98
MW-1	07/13/01	6085.98	29.96	NR		6056.02
MW-1	07/20/01	6085.98	29.69	NR		6056.29
MW-1	08/01/01	6085.98	30.19	NR		6055.79
MW-1	08/08/01	6085.98	30.12	NR		6055.86
MW-1	08/18/01	6085.98	30.44	NR		6055.54
MW-1	08/20/01	6085.98	30.32	NR		6055.66
MW-1	09/05/01	6085.98	30.38	NR		6055.60
MW-1	09/21/01	6085.98	30.63	NR		6055.35
MW-1	09/26/01	6085.98	30.78	NR		6055.20
MW-1	10/03/01	6085.98	30.69	NR		6055.29
MW-1	10/10/01	6085.98	30.33	30.32	0.01	6055.66
MW-1	12/04/01	6085.98	30.51	NR		6055.47
MW-1	12/13/01	6085.98	29.43	29.42	0.01	6056.56
MW-1	12/21/01	6085.98	30.40	30.39	0.01	6055.59
MW-1	12/28/01	6085.98	30.64	NR		6055.34
MW-1	01/07/02	6085.98	30.59	30.58	0.01	6055.40
MW-1	01/23/02	6085.98	30.41	30.40	0.01	6055.58
MW-1	01/31/02	6085.98	30.95	30.94	0.01	6055.04
MW-1	02/07/02	6085.98	31.12	31.11	0.01	6054.87
MW-1	02/14/02	6085.98	31.18	31.17	0.01	6054.81
MW-1	02/20/02	6085.98	31.15	31.14	0.01	6054.84
MW-1	03/21/02	6085.98	30.80	30.78	0.02	6055.20
MW-1	03/28/02	6085.98	30.92	NR		6055.06
MW-1	04/04/02	6085.98	30.64	NR		6055.34
MW-1	04/12/02	6085.98	31.45	NR		6054.53

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Fields A#7A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-1	04/19/02	6085.98	31.56	NR		6054.42
MW-1	04/25/02	6085.98	31.54	NR		6054.44
MW-1	05/03/02	6085.98	31.51	NR		6054.47
MW-1	05/10/02	6085.98	31.59	NR		6054.39
MW-1	05/17/02	6085.98	31.16	NR		6054.82
MW-1	05/24/02	6085.98	31.38	NR		6054.60
MW-1	05/31/02	6085.98	31.23	NR		6054.75
MW-1	06/06/02	6085.98	31.32	NR		6054.66
MW-1	06/14/02	6085.98	31.34	NR		6054.64
MW-1	06/21/02	6085.98	31.67	NR		6054.31
MW-1	06/27/02	6085.98	31.81	NR		6054.17
MW-1	07/02/02	6085.98	31.82	NR		6054.16
MW-1	07/11/02	6085.98	31.84	NR		6054.14
MW-1	07/18/02	6085.98	31.45	NR		6054.53
MW-1	08/21/02	6085.98	32.12	NR		6053.86
MW-1	10/01/02	6085.98	31.77	NR		6054.21
MW-1	01/15/03	6085.98	31.90	ND		6054.08
MW-1	04/27/03	6085.98	31.07	31.06	0.01	6054.92
MW-1	07/16/03	6085.98	31.30	ND		6054.69
MW-1	10/27/03	6085.98	30.97	ND		6055.01
MW-1	01/26/04	6085.98	30.67	ND		6055.31
MW-1	04/21/04	6085.98	30.83	ND		6055.15
MW-1	07/27/04	6085.98	30.97	ND		6055.01
MW-1	10/18/04	6085.98	31.15	ND		6054.83
MW-1	01/25/05	6085.98	30.19	ND		6055.79
MW-1	04/18/05	6085.98	30.19	ND		6055.79
MW-1	10/22/05	6085.98	30.74	ND		6055.24
MW-1	04/25/06	6085.98	31.41	ND		6054.57
MW-1	10/24/06	6085.98	31.39	ND		6054.59
MW-1	04/24/07	6085.98	31.66	ND		6054.32
MW-1	10/29/07	6085.98	31.73	ND		6054.25
MW-1	04/21/08	6085.98	30.31	ND		6055.67
MW-1	10/09/08	6085.98	30.69	ND		6055.29
MW-1	04/07/09	6085.98	31.24	ND		6054.74
MW-1	11/04/09	6085.98	31.77	ND		6054.21
MW-1	05/24/10	6085.98	31.33	ND		6054.65
MW-1	11/02/10	6085.98	29.93	ND		6056.05
MW-1	05/04/11	6085.98	29.91	ND		6056.07
MW-1	11/01/11	6085.98	29.80	ND		6056.18
MW-1	05/07/12	6085.98	30.29	ND		6055.69
MW-1	06/07/13	6085.98	31.41	ND		6054.57
MW-1	09/12/13	6085.98	31.55	ND		6054.43
MW-1	12/13/13	6085.98	31.09	ND		6054.89
MW-1	04/05/14	6085.98	31.24	ND		6054.74
MW-1	10/21/14	6085.98	31.65	ND		6054.33
MW-1	05/31/15	6085.98	31.82	ND		6054.16
MW-1	11/22/15	6085.98	31.27	ND		6054.71

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Fields A#7A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-2	01/03/96	6084.24	24.27	NR		6059.97
MW-2	04/18/96	6084.24	25.53	NR		6058.71
MW-2	05/08/96	6084.24	25.53	NR		6058.71
MW-2	07/29/96	6084.24	26.48	NR		6057.76
MW-2	10/21/96	6084.24	26.96	NR		6057.28
MW-2	01/30/97	6084.24	27.73	NR		6056.51
MW-2	04/21/97	6084.24	27.77	NR		6056.47
MW-2	04/13/01	6084.24	30.33	NR		6053.91
MW-2	06/05/01	6084.24	30.71	NR		6053.53
MW-2	07/20/01	6084.24	30.95	NR		6053.29
MW-2	08/20/01	6084.24	31.03	NR		6053.21
MW-2	05/17/02	6084.24	31.38	NR		6052.86
MW-2	10/27/03	6084.24	31.79	NR		6052.46
MW-2	04/21/04	6084.24	31.10	ND		6053.14
MW-2	04/18/05	6084.24	30.98	ND		6053.26
MW-2	04/21/08	6084.24	30.66	ND		6053.58
MW-2	11/02/10	6084.24	29.65	ND		6054.59
MW-2	05/04/11	6084.24	31.10	ND		6053.14
MW-2	11/01/11	6084.24	31.42	ND		6052.82
MW-2	05/07/12	6084.24	31.29	ND		6052.95
MW-2	06/07/13	6084.24	DRY	ND		DRY
MW-2	09/12/13	6084.24	DRY	ND		DRY
MW-2	12/13/13	6084.24	DRY	ND		DRY
MW-2	04/05/14	6084.24	DRY	ND		DRY
MW-2	10/21/14	6084.24	DRY	ND		DRY
MW-2	05/31/15	6084.24	DRY	ND		DRY
MW-2	11/22/15	6084.24	DRY	ND		DRY

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Fields A#7A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-3	01/03/96	6084.06	24.88	NR		6059.18
MW-3	04/18/96	6084.06	25.75	NR		6058.31
MW-3	05/08/96	6084.06	25.75	NR		6058.31
MW-3	07/29/96	6084.06	26.64	NR		6057.42
MW-3	10/21/96	6084.06	27.16	NR		6056.90
MW-3	01/30/97	6084.06	27.92	NR		6056.14
MW-3	04/21/97	6084.06	28.00	NR		6056.06
MW-3	04/13/01	6084.06	30.48	NR		6053.58
MW-3	06/05/01	6084.06	30.79	NR		6053.27
MW-3	07/20/01	6084.06	31.03	NR		6053.03
MW-3	08/20/01	6084.06	31.14	NR		6052.92
MW-3	04/02/02	6084.06	31.62	NR		6052.44
MW-3	05/17/02	6084.06	32.05	NR		6052.01
MW-3	01/25/05	6084.06	31.93	ND		6052.14
MW-3	04/18/05	6084.06	30.77	ND		6053.29
MW-3	10/22/05	6084.06	31.57	ND		6052.49
MW-3	04/25/06	6084.06	31.61	ND		6052.45
MW-3	10/24/06	6084.06	31.90	ND		6052.16
MW-3	04/24/07	6084.06	31.90	ND		6052.16
MW-3	10/29/07	6084.06	31.93	ND		6052.13
MW-3	04/21/08	6084.06	30.40	ND		6053.66
MW-3	10/09/08	6084.06	31.56	ND		6052.50
MW-3	04/07/09	6084.06	31.40	ND		6052.66
MW-3	11/04/09	6084.06	31.97	ND		6052.09
MW-3	05/24/10	6084.06	31.87	ND		6052.19
MW-3	11/02/10	6084.06	29.83	ND		6054.23
MW-3	05/04/11	6084.06	30.71	ND		6053.35
MW-3	11/01/11	6084.06	31.08	ND		6052.98
MW-3	05/07/12	6084.06	31.57	ND		6052.49
MW-3	06/07/13	6084.06	DRY	ND		DRY
MW-3	09/12/13	6084.06	DRY	ND		DRY
MW-3	12/13/13	6084.06	DRY	ND		DRY
MW-3	04/05/14	6084.06	DRY	ND		DRY
MW-3	10/21/14	6084.06	DRY	ND		DRY
MW-3	05/31/15	6084.06	DRY	ND		DRY
MW-3	11/22/15	6084.06	DRY	ND		DRY

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Fields A#7A						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-4	01/03/96	6084.61	25.69	NR		6058.92
MW-4	04/18/96	6084.61	26.42	NR		6058.19
MW-4	01/00/00	6084.61	26.42	25.83	0.59	6058.64
MW-4	07/29/96	6084.61	28.65	26.82	1.83	6057.34
MW-4	10/21/96	6084.61	28.84	27.45	1.39	6056.82
MW-4	01/30/97	6084.61	28.85	28.43	0.42	6056.08
MW-4	04/21/97	6084.61	28.68	28.58	0.10	6056.01
MW-4	06/05/01	6084.61	31.25	31.01	0.24	6053.54
MW-4	06/15/01	6084.61	31.56	31.12	0.44	6053.38
MW-4	07/06/01	6084.61	DRY	31.20	-	DRY
MW-4	07/13/01	6084.61	DRY	31.44	-	DRY
MW-4	07/20/01	6084.61	DRY	31.51	-	DRY
MW-4	08/01/01	6084.61	DRY	31.54	-	DRY
MW-4	08/08/01	6084.61	DRY	NR		DRY
MW-4	08/16/01	6084.61	DRY	NR		DRY
MW-4	08/20/01	6084.61	DRY	NR		DRY
MW-4	09/05/01	6084.61	DRY	NR		DRY
MW-4	09/21/01	6084.61	DRY	NR		DRY
MW-4	09/26/01	6084.61	DRY	NR		DRY
MW-4	10/03/01	6084.61	DRY	NR		DRY
MW-4	10/10/01	6084.61	DRY	NR		DRY
MW-4	12/04/01	6084.61	DRY	NR		DRY
MW-4	12/13/01	6084.61	DRY	31.65	-	DRY
MW-4	12/21/01	6084.61	DRY	31.61	-	DRY
MW-4	12/28/01	6084.61	31.61	NR		6053.00
MW-4	01/07/02	6084.61	DRY	31.61	-	DRY
MW-4	01/23/02	6084.61	DRY	31.62	-	DRY
MW-4	01/31/02	6084.61	DRY	31.61	-	DRY
MW-4	02/07/02	6084.61	DRY	31.60	-	DRY
MW-4	02/14/02	6084.61	DRY	31.62	-	DRY
MW-4	02/20/02	6084.61	DRY	31.62	-	DRY
MW-4	03/21/02	6084.61	DRY	NR		DRY
MW-4	04/04/02	6084.61	DRY	NR		DRY
MW-4	05/17/02	6084.61	DRY	NR		DRY

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Fields A#7A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-4	05/24/02	6084.61	DRY	NR		DRY
MW-4	05/31/02	6084.61	DRY	NR		DRY
MW-4	06/06/02	6084.61	DRY	NR		DRY
MW-4	06/14/02	6084.61	DRY	NR		DRY
MW-4	07/18/02	6084.61	DRY	NR		DRY
MW-4	10/01/02	6084.61	DRY	NR		DRY
MW-4	01/15/03	6084.61	DRY	ND		DRY
MW-4	01/26/04	6084.61	DRY	ND		DRY
MW-4	04/21/04	6084.61	DRY	ND		DRY
MW-4	07/27/04	6084.61	DRY	ND		DRY
MW-4	10/18/04	6084.61	DRY	ND		DRY
MW-4	01/25/05	6084.61	DRY	ND		DRY
MW-4	04/18/05	6084.61	DRY	ND		DRY
MW-4	04/21/08	6084.61	31.22	ND		6053.39
MW-4	10/09/08	6084.61	31.40	ND		6053.21
MW-4	04/07/09	6084.61	31.40	ND		6053.21
MW-4	11/04/09	6084.61	31.58	ND		6053.03
MW-4	05/24/10	6084.61	31.47	ND		6053.14
MW-4	11/02/10	6084.61	30.60	ND		6054.01
MW-4	05/04/11	6084.61	31.05	ND		6053.56
MW-4	11/01/11	6084.61	31.05	ND		6053.56
MW-4	05/07/12	6084.61	31.47	ND		6053.14
MW-4	06/07/13	6084.61	31.42	ND		6053.19
MW-4	09/12/13	6084.61	DRY	ND		DRY
MW-4	12/13/13	6084.61	DRY	ND		DRY
MW-4	04/05/14	6084.61	DRY	ND		DRY
MW-4	10/21/14	6084.61	DRY	ND		DRY
MW-4	05/31/15	6084.61	DRY	ND		DRY
MW-4	11/22/15	6084.61	DRY	ND		DRY

Notes:
"ft" = feet
"TOC" = Top of Casing
"LNAPL" = Light non-aqueous phase liquid
"ND" = LNAPL not detected
"NR" = LNAPL not recorded
"DRY" = No water detected

FIGURES

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\FIELDS A#7\2015 MAPS\Fields_A#7_GARM_1SA_2015.mxd

LEGEND:

- 6082 — APPROX. GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- SMA BENCHMARK
- MONITORING WELL
- OTHER MONITORING WELL
- PASSIVE VENT WELL
- WELLHEAD

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
µg/L = MICROGRAMS PER LITER

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	2/8/2016	CCL	CCL	SRV

TITLE:

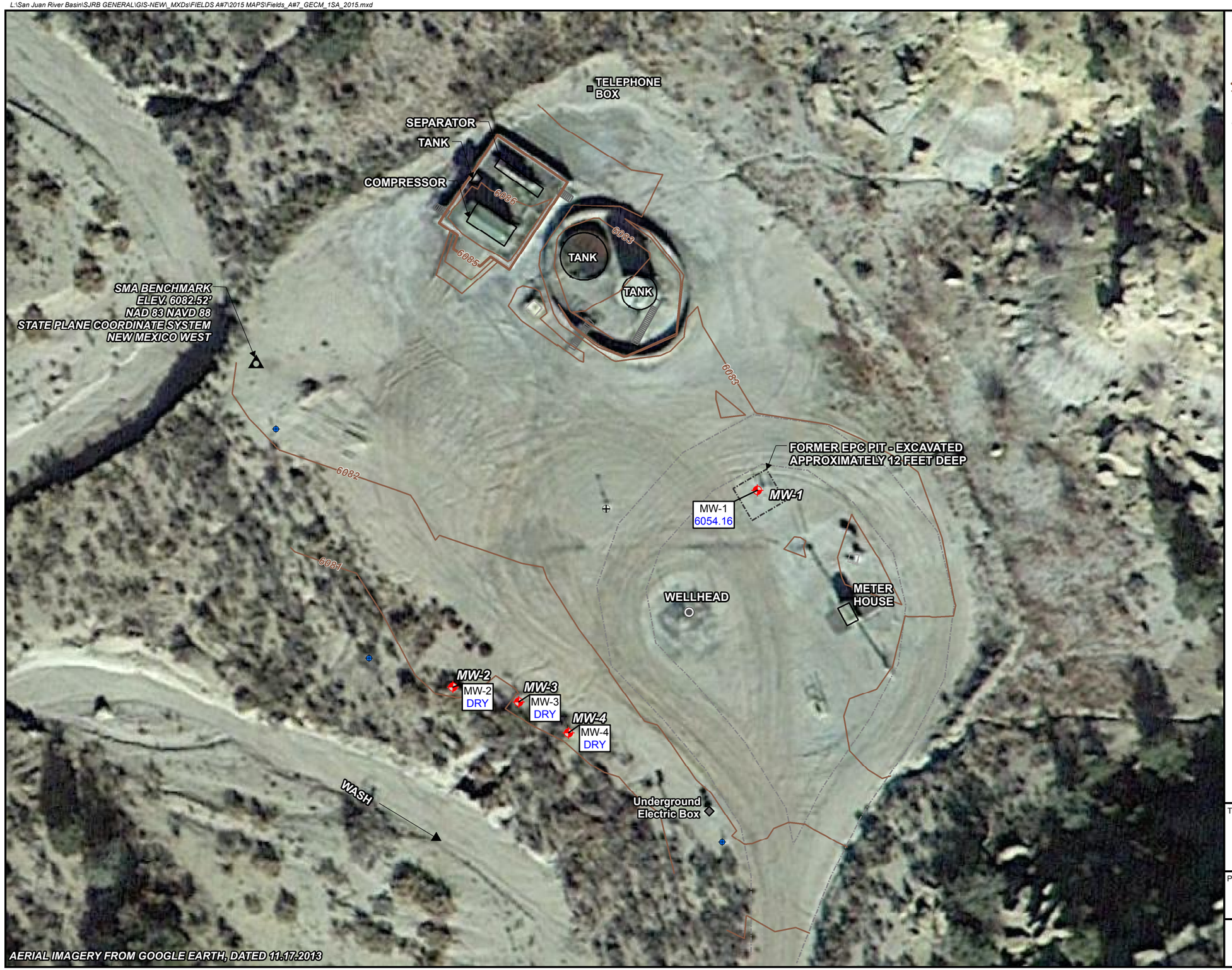
GROUNDWATER ANALYTICAL RESULTS
SAMPLED MAY 31, 2015

PROJECT:
FIELDS A#7A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

MWH

Figure No.:
1

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\FIELDS A#7\2015 MAPS\Fields_A#7_GECM_1SA_2015.mxd



LEGEND:

- 6082 — APPROX. GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- SMA BENCHMARK
- MONITORING WELL
- OTHER MONITORING WELL
- PASSIVE VENT WELL
- WELLHEAD

NOTES:

6054.16 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	2/8/2016	CCL	CCL	SRV

TITLE:

GROUNDWATER ELEVATION MAP
GAUGED MAY 31, 2015

PROJECT:

FIELDS A#7A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

MWH

Figure No.: **2**

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\FIELDS A#7\2015 MAPS\Fields_A#7_GARM_2SA_2015.mxd

LEGEND:

- 6082 — APPROX. GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- SMA BENCHMARK
- MONITORING WELL
- OTHER MONITORING WELL
- PASSIVE VENT WELL
- WELLHEAD

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
µg/L = MICROGRAMS PER LITER

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	2/8/2016	CCL	CCL	DAW

TITLE:

GROUNDWATER ANALYTICAL RESULTS
NOVEMBER 22, 2015

PROJECT:
FIELDS A#7A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

MWH

Figure No.: 3

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\FIELDS A#7\2015 MAPS\Fields_A#7_GECM_2SA_2015.mxd

LEGEND:

- 6082 — APPROX. GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- SMA BENCHMARK
- MONITORING WELL
- OTHER MONITORING WELL
- PASSIVE VENT WELL
- WELLHEAD

NOTES:

6054.71 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2/8/2016	CCL	CCL	SRV

TITLE:

GROUNDWATER ELEVATION MAP
NOVEMBER 22, 2015

PROJECT:

FIELDS A#7A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

MWH

Figure No.: 4

APPENDIX A

MAY 31, 2015 GROUNDWATER SAMPLING ANALYTICAL REPORT
NOVEMBER 22, 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: 400-106454-1
Client Project/Site: NM-GW Pits, Fields A#7A

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

Attn: Ms. Sarah Gardner

Authorized for release by:
6/16/2015 4:41:10 PM

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

Table of Contents

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Fields A#7A

TestAmerica Job ID: 400-106454-1

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, Fields A#7A

TestAmerica Job ID: 400-106454-1

Job ID: 400-106454-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-106454-1

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, Fields A#7A

TestAmerica Job ID: 400-106454-1

Client Sample ID: FIELDS A #7A MW-1 — Lab Sample ID: 400-106454-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	230		1.0	0.56	ug/L	1		8021B	Total/NA
Ethylbenzene	2.5		1.0	0.64	ug/L	1		8021B	Total/NA
Toluene	12		5.0	0.98	ug/L	1		8021B	Total/NA
Xylenes, Total	43		5.0	1.7	ug/L	1		8021B	Total/NA

Client Sample ID: FIELDS A #7A TRIP BLANK — Lab Sample ID: 400-106454-2

No Detections.

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Fields A#7A

TestAmerica Job ID: 400-106454-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-106454-1	FIELDS A #7A MW-1	Water	05/31/15 16:00	06/02/15 09:37
400-106454-2	FIELDS A #7A TRIP BLANK	Water	05/31/15 15:55	06/02/15 09:37

Client Sample ID: FIELDS A #7A MW-1

Lab Sample ID: 400-106454-1

Date Collected: 05/31/15 16:00

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	230		1.0	0.56	ug/L			06/10/15 18:53	1
Ethylbenzene	2.5		1.0	0.64	ug/L			06/10/15 18:53	1
Toluene	12		5.0	0.98	ug/L			06/10/15 18:53	1
Xylenes, Total	43		5.0	1.7	ug/L			06/10/15 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*103*		*78 - 124*		*06/10/15 18:53*	*1*

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Fields A#7A

TestAmerica Job ID: 400-106454-1

Client Sample ID: FIELDS A #7A TRIP BLANK
Date Collected: 05/31/15 15:55
Date Received: 06/02/15 09:37

Lab Sample ID: 400-106454-2
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 19:52	1
Ethylbenzene	<1.0		1.0	0.64	ug/L			06/10/15 19:52	1
Toluene	<5.0		5.0	0.98	ug/L			06/10/15 19:52	1
Xylenes, Total	<5.0		5.0	1.7	ug/L			06/10/15 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*98*		*78 - 124*		*06/10/15 19:52*	*1*

QC Association Summary

Client: MWH Americas Inc
Project/Site: NM-GW Pits, Fields A#7A

TestAmerica Job ID: 400-106454-1

GC VOA

Analysis Batch: 260589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-106454-1	FIELDS A #7A MW-1	Total/NA	Water	8021B	
400-106454-2	FIELDS A #7A TRIP BLANK	Total/NA	Water	8021B	
400-106455-A-3 MS	Matrix Spike	Total/NA	Water	8021B	
400-106455-A-3 MSD	Matrix Spike Duplicate	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-A-3 MS
Matrix: Water
Analysis Batch: 260589

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	<1.0		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-A-3 MSD
Matrix: Water
Analysis Batch: 260589

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	<1.0		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, Fields A#7A

TestAmerica Job ID: 400-106454-1

Client Sample ID: FIELDS A #7A MW-1

Lab Sample ID: 400-106454-1

Date Collected: 05/31/15 16:00

Matrix: Water

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 18:53	MKA	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: FIELDS A #7A TRIP BLANK

Lab Sample ID: 400-106454-2

Date Collected: 05/31/15 15:55

Matrix: Water

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 19:52	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, Fields A#7A

TestAmerica Job ID: 400-106454-1

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, Fields A#7A

TestAmerica Job ID: 400-106454-1

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

400-106454

SERIAL NUMBER: 80202

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

PAGE: 1 OF: 1

PROJECT NAME: NM-GW Pit Sites Fields A #7A

PROJECT NO.: 40005479

CLIENT PROJECT MANAGER: Steve Varsa

PROJECT LOC. (STATE): NM

SAMPLED BY: Sarah 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

BTEX 8021B

400-106454 COC

POSSIBLE HAZARD IDENTIFICATION

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

NO. OF COOLERS PER SHIPMENT:

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.)	NUMBER OF CONTAINERS SUBMITTED	SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT
5/31/15	1600	Fields A #7A	MW-1		X									X				2	
5/31/15	1555	Fields A #7A	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			Sarah 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 IR6

TAL-8251 (1207)

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 400-106454-1

Login Number: 106454
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: 400-114308-1
Client Project/Site: Fields A#7A

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

Attn: Ms. Sarah Gardner

Authorized for release by:
12/14/2015 7:29:57 PM

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

Table of Contents

Client: MWH Americas Inc
Project/Site: Fields A#7A

TestAmerica Job ID: 400-114308-1

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: Fields A#7A

TestAmerica Job ID: 400-114308-1

Job ID: 400-114308-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-114308-1

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.

GC VOA
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: Fields A#7A

TestAmerica Job ID: 400-114308-1

Client Sample ID: MW-1 — Lab Sample ID: 400-114308-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	2.7		1.0		ug/L	1		8021B	Total/NA
Toluene	8.6		1.0		ug/L	1		8021B	Total/NA
Xylenes, Total	34		3.0		ug/L	1		8021B	Total/NA
Benzene	440		1.0		ug/L	1		8021B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 400-114308-2

No Detections.

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: MWH Americas Inc
Project/Site: Fields A#7A

TestAmerica Job ID: 400-114308-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-114308-1	MW-1	Water	11/22/15 09:10	11/24/15 08:47
400-114308-2	TRIP BLANK	Water	11/22/15 09:15	11/24/15 08:47

Client: MWH Americas Inc
Project/Site: Fields A#7A

TestAmerica Job ID: 400-114308-1

Client Sample ID: MW-1
Date Collected: 11/22/15 09:10
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114308-1
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	2.7		1.0		ug/L			12/03/15 21:30	1
Toluene	8.6		1.0		ug/L			12/03/15 21:30	1
Xylenes, Total	34		3.0		ug/L			12/03/15 21:30	1
Benzene	440		1.0		ug/L			12/03/15 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*50 - 150*		*12/03/15 21:30*	*1*

Client: MWH Americas Inc
Project/Site: Fields A#7A

TestAmerica Job ID: 400-114308-1

Client Sample ID: TRIP BLANK
Date Collected: 11/22/15 09:15
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114308-2
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			12/02/15 19:08	1
Toluene	<1.0		1.0		ug/L			12/02/15 19:08	1
Xylenes, Total	<3.0		3.0		ug/L			12/02/15 19:08	1
Benzene	<1.0		1.0		ug/L			12/02/15 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*89*		*50 - 150*		*12/02/15 19:08*	*1*

QC Association Summary

Client: MWH Americas Inc
Project/Site: Fields A#7A

TestAmerica Job ID: 400-114308-1

GC VOA

Analysis Batch: 303336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-114308-2	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: 303770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-114308-1	MW-1	Total/NA	Water	8021B	
LCS 490-303770/2	Lab Control Sample	Total/NA	Water	8021B	
LCSD 490-303770/14	Lab Control Sample Dup	Total/NA	Water	8021B	
MB 490-303770/3	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 490-303770/3
Matrix: Water
Analysis Batch: 303770

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 18:06	1
Toluene	<1.0		1.0		ug/L			12/03/15 18:06	1
Xylenes, Total	<3.0		3.0		ug/L			12/03/15 18:06	1
Benzene	<1.0		1.0		ug/L			12/03/15 18:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*50 - 150*		*12/03/15 18:06*	*1*

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

Lab Sample ID: LCS 490-303770/2
Matrix: Water
Analysis Batch: 303770

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	100	108		ug/L		108	70 - 130
Toluene	100	110		ug/L		110	66 - 127
Xylenes, Total	300	323		ug/L		108	69 - 123
Benzene	100	113		ug/L		113	69 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*105*		*50 - 150*

Lab Sample ID: LCSD 490-303770/14
Matrix: Water
Analysis Batch: 303770

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	102		ug/L		102	70 - 130	5	35
Toluene	100	103		ug/L		103	66 - 127	6	34
Xylenes, Total	300	308		ug/L		103	69 - 123	5	37
Benzene	100	107		ug/L		107	69 - 129	6	33

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*100*		*50 - 150*

Lab Chronicle

Client: MWH Americas Inc
Project/Site: Fields A#7A

TestAmerica Job ID: 400-114308-1

Client Sample ID: MW-1
Date Collected: 11/22/15 09:10
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114308-1
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		1	5 mL	5 mL	303770	12/03/15 21:30	AMC	TAL NSH
	Instrument ID: HP15									

Client Sample ID: TRIP BLANK
Date Collected: 11/22/15 09:15
Date Received: 11/24/15 08:47

Lab Sample ID: 400-114308-2
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	12/02/15 19:08	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: Fields A#7A

TestAmerica Job ID: 400-114308-1

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: Fields A#7A

TestAmerica Job ID: 400-114308-1

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: Fields A#7A

TestAmerica Job ID: 400-114308-1

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 & Chris Lee	Lab PM: Edwards, Marty P	Carrier Tracking No(s):	COC No: 400-50144-21696.1
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 Re[quested]	400-114308 COC	Job #:
Address: 1560 Broadway Suite 1800	Due Date Requested:			
City: Denver	TAT Requested (days): Standard			
State, Zip: CO, 80202				
Phone: 303-291-2239(Tel)	PO #: Purchase Order Requested			
Email: sarah.gardner@mwhglobal.com	WO #:			
Project Name: Fields A#7A	Project #: 40005479			
Site: Fields A#7A	SSOW#:			

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)

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)	Perform MS/MSD (Yes or No)	8021B - BTEX 8021	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	A		
				Water			X X X		SLG
MW-1	11/22/2015	910	G	Water	N	N	2	2	
TRIP BLANK	11/22/2015	915	G	Water	N	N	2	2	
				Water					
				Water					

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

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: IR0 1.1/0.4/0.8/0.4/0.5

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 400-114308-1

Login Number: 114308
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: 400-114308-1

Login Number: 114308
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	