REVIEWED
By Mike Buchanan at 9:55 am, May 14, 2024

Review of the 2021 Annual Groundwater Monitoring Report for Hampton #4M: Content Satisfactory
1. Please upload all permits obtained from OSE for the P&A of monitoring wells which have been approved for MW-1, MW-9, MW-11, MW-15, and TMW-1.
2 Continue groundwater monitoring on an annual basis for remaining wells.
3. Please submit the 2022 and 2023 annual groundwater monitoring reports.
4. Submit the 2024 annual monitoring report by 2025.

February 21, 2022

New Mexico Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division
1000 Rio Brazos
Aztec, New Mexico 87410

Subject: **2021 Annual Groundwater Monitoring Report**
Hampton #4M
San Juan County, New Mexico
NMOCD Incident Number: NAUTOFAB000251
NMOCD Administrative Order: 3R-069

To Whom it May Concern:

WSP USA Inc. (WSP) presents this 2021 Annual Groundwater Monitoring Report on behalf of Hilcorp Energy Company (Hilcorp) to the New Mexico Oil Conservation Division (NMOCD) to document groundwater monitoring activities conducted at the Hampton #4M natural gas production well (Site) during 2021. The Site is located approximately 6.25 miles south of Hampton Arroyo on Bureau of Land Management (BLM) land within Unit N, Section 13, Township 30 North and Range 11 West, San Juan County, New Mexico (Figure 1).

SITE BACKGROUND

The Site well was spudded by the Southland Royal Company in 1983. Since then, the well has changed ownership from Southland to Burlington Resources (Burlington) in 1996, ConocoPhillips in 2006, and Hilcorp in 2017. In addition, the Public Service Company of New Mexico (PNM) operated a dehydration unit and unlined earthen pit at the Site between 1990 and 1996 (located on the north end of the well pad). Petroleum hydrocarbon impacted soil and groundwater were encountered during pit-closure activities performed in 1996. In response, PNM conducted a subsurface investigation and installed several wells in the northern portion of the well pad to assess soil and groundwater conditions. Further investigations performed in 1997 and 1998 revealed a separate source of petroleum contamination at the southern end of the well pad (upgradient of the PNM pit) located near equipment owned by Burlington. The 1997 investigation also discovered a surface seep to the northwest of the well pad (downgradient of the well pad) that contained phase separated hydrocarbons (PSH).

Based on the investigations conducted at the Site, NMOCD issued Administrative Order Number R-11134-A to Burlington and PNM. Burlington was assigned responsibility of soil and groundwater impacts south/upgradient of the PNM dehydrator pit and PNM responsibility of impacts north/downgradient of the dehydrator pit. Several attempts to remediate the Site have been performed between 1997 and 2017 and include excavation, application of potassium permanganate within the excavations, manual PSH recovery (bailing/adsorbent socks), mobile dual-phase extraction, and PSH recovery using a skimmer pump. Recently, ConocoPhillips installed a solar-powered skimmer in 2016 to recover PSH from well MW-16; however, the system was removed in 2019 due to poor PSH recovery. Since the system removal, adsorbent socks have been placed into this well and replaced quarterly to address the residual PSH. Additional details regarding the history of the Site can be found in the *2019 Remediation and Annual Groundwater Monitoring Report* prepared by GHD Services Inc. (dated March 25, 2020).

Since 1997, several former wells at the Site have been damaged and/or removed during excavation. Currently, eight wells remain at the Site and include MW-1, MW-5, MW-9, MW-11, MW-12, MW-15, MW-16, and TMW-1. Based on results and conclusions presented in WSP's *2020 Annual Groundwater Monitoring Report* (dated March 22, 2021), the NMOCD approved the plugging and abandonment of wells MW-1, MW-9, MW-11, MW-15, and TMW-1, which is scheduled to be performed in 2022. Well locations and Site features are shown on Figure 2.

WSP USA
848 EAST 2ND AVENUE
DURANGO CO 81301

Tel.: 970-385-1096
wsp.com

SITE GROUNDWATER CLEANUP STANDARDS

NMOCD requires groundwater-quality standards presented by the New Mexico Water Quality Control Commission (NMWQCC) in 20.6.2.3103 of the New Mexico Administrative Code (NMAC) be met. Based on historical sampling and results, the following standards are presented for the remaining constituents of concern at the Site in milligrams per liter (mg/L).

ANALYTE	LIMIT
Benzene	0.005 mg/L
Toluene	1.0 mg/L
Ethylbenzene	0.70 mg/L
Total Xylenes	0.62 mg/L

In addition, NMWQCC standards state that light non-aqueous phase liquids (LNAPLs) or phase separated hydrocarbons (PSH, as referenced in this report) shall not be present floating on the groundwater.

GROUNDWATER SAMPLING ACTIVITIES AND RESULTS

Groundwater monitoring at the Site included annual gauging and sampling from wells MW-5 and MW-12, as well as PSH recovery from well MW-16. Groundwater-level measurements and samples were collected on September 30, 2021. A sample was not collected for laboratory analysis from MW-16 due to the presence of PSH. The following sections summarize the sampling procedures and results gathered during these events.

GROUNDWATER-LEVEL MEASUREMENTS

Static groundwater-level monitoring included recording depth-to-groundwater and depth-to-PSH measurements of each monitoring well using a Keck oil/water interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with distilled water prior to each measurement to prevent cross-contamination. Groundwater elevations measured in monitoring wells during the 2021 sampling event are presented in Table 1. Based on historical depth-to-groundwater measurements, the inferred groundwater flow direction is to the north-northwest.

GROUNDWATER SAMPLING

Groundwater was purged and sampled using a disposable bailer. Purging was accomplished by removing stagnant groundwater from the monitoring well prior to collecting a sample. Due to a malfunctioning multiparameter probe, field measurements of groundwater quality parameters were not collected during the September 2021 sampling event. Historical measurements, including temperature, pH, turbidity, electrical conductivity, dissolved oxygen, and oxidation-reduction potential, are presented in Table 2. In general, groundwater is low in dissolved oxygen but has positive oxidation-reduction potential values, indicating overall aerobic groundwater conditions at the Site.

Following well purging, groundwater samples were placed directly into laboratory-provided jars and labeled with the date and time of collection, well designation, project name, sample collector's name, and parameters to be analyzed. They were immediately sealed, packed on ice, and submitted to Hall Environmental Analysis Laboratory (Hall) for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B. Proper chain-of-custody (COC) procedures were followed documenting the date and time sampled, sample number, type of sample, sample collector's name, preservative used, analyses required, and sample collector's signature. Analytical laboratory reports from the sampling events are included as Enclosure A.

GROUNDWATER ANALYTICAL RESULTS

During the September 2021 annual groundwater-sampling event, toluene was detected in well MW-5 at a concentration of 0.005 mg/L, below the NMWQCC standard of 1.0 mg/L. No other concentrations of BTEX compounds were detected above laboratory reporting limits or NMWQCC standards in wells MW-5 or MW-12 during the September 2021 sampling event. A summary of analytical results are presented in Table 3 and on Figure 3.

PHASE SEPARATED HYDROCARBON RECOVERY

A solar-powered skimmer was previously used to recover PSH from well MW-16 at the Site. The system was subsequently removed in 2019 due to poor PSH recovery. Since the system removal, adsorbent socks have been placed into this well to address the residual PSH. During sampling events, residual PSH still present in the well is also removed using a disposable bailer. In 2021, approximately 16 ounces of PSH was removed from MW-16. Table 4 presents the volume of PSH recovered during each monitoring event between 2019 and 2021.

CONCLUSIONS

Overall, the presence of PSH and BTEX concentrations have decreased over time at the Site. Benzene concentrations in wells MW-5 and MW-12 have been greatly reduced and have fluctuated above and below the NMWQCC standard for the last several years. PSH remains in well MW-16; however, the volume of recoverable PSH has also decreased over time. Data collected at the Site suggests that the petroleum-hydrocarbon plume is stable and reducing.

Based on these conclusions, Hilcorp will increase the sampling frequency of wells MW-5 and MW-12 to quarterly in order to assess BTEX concentrations throughout the year and potentially move towards closure of these wells. PSH will also be monitored and recovered from well MW-16 during the quarterly sampling events. Hilcorp plans to plug and abandon wells MW-1, MW-9, MW-11, and MW-15, and TMW-1 in 2022, as approved by the NMOCD.

WSP appreciates the opportunity to provide these environmental services to Hilcorp. Please contact either of the undersigned with any questions at (970) 385-1096.

Kind regards,

Stuart Hyde, L.G.
Environmental Geologist

Daniel R. Moir, P.G.
Sr. Lead Consultant, Geologist

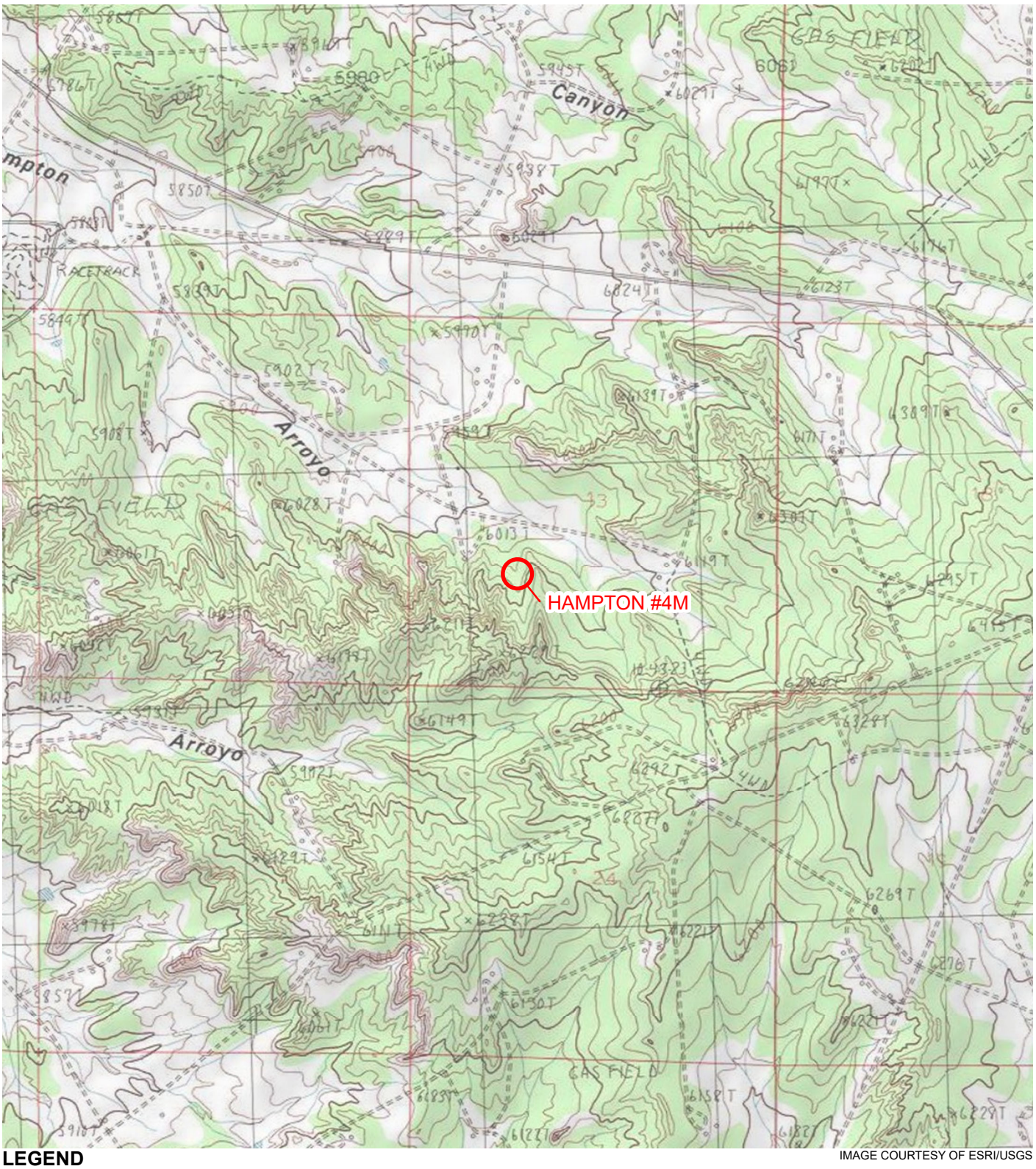
Enclosed:

Figure 1: Site Location Map
Figure 2: Site Map
Figure 3: Groundwater Analytical Results

Table 1: Well Construction Information and Groundwater Elevations
Table 2: Field Parameter Results
Table 3: Petroleum Hydrocarbon Groundwater Analytical Results
Table 4: Phase Separated Hydrocarbon Recovered Volume

Enclosure A: Analytical Laboratory Reports

FIGURES



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

N

NEW MEXICO

FIGURE 1
SITE LOCATION MAP
HAMPTON #4M
SEC 13-T30N-R11W
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

wsp

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IMAGE COURTESY OF ESRI

LEGEND

- MONITORING WELL
- PLUGGED AND ABANDONED MONITORING WELL
- FORMER SEEP
- EL PASO GAS PIPELINE

0 200 400
Feet

N

FIGURE 2
SITE MAP
HAMPTON #4M
SEC 13-T30N-R11W
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

P:\Hilcorp\GIS\MXD\017819027_HAMPTON #4M\017819027_FIG02_SITE_2020.mxd

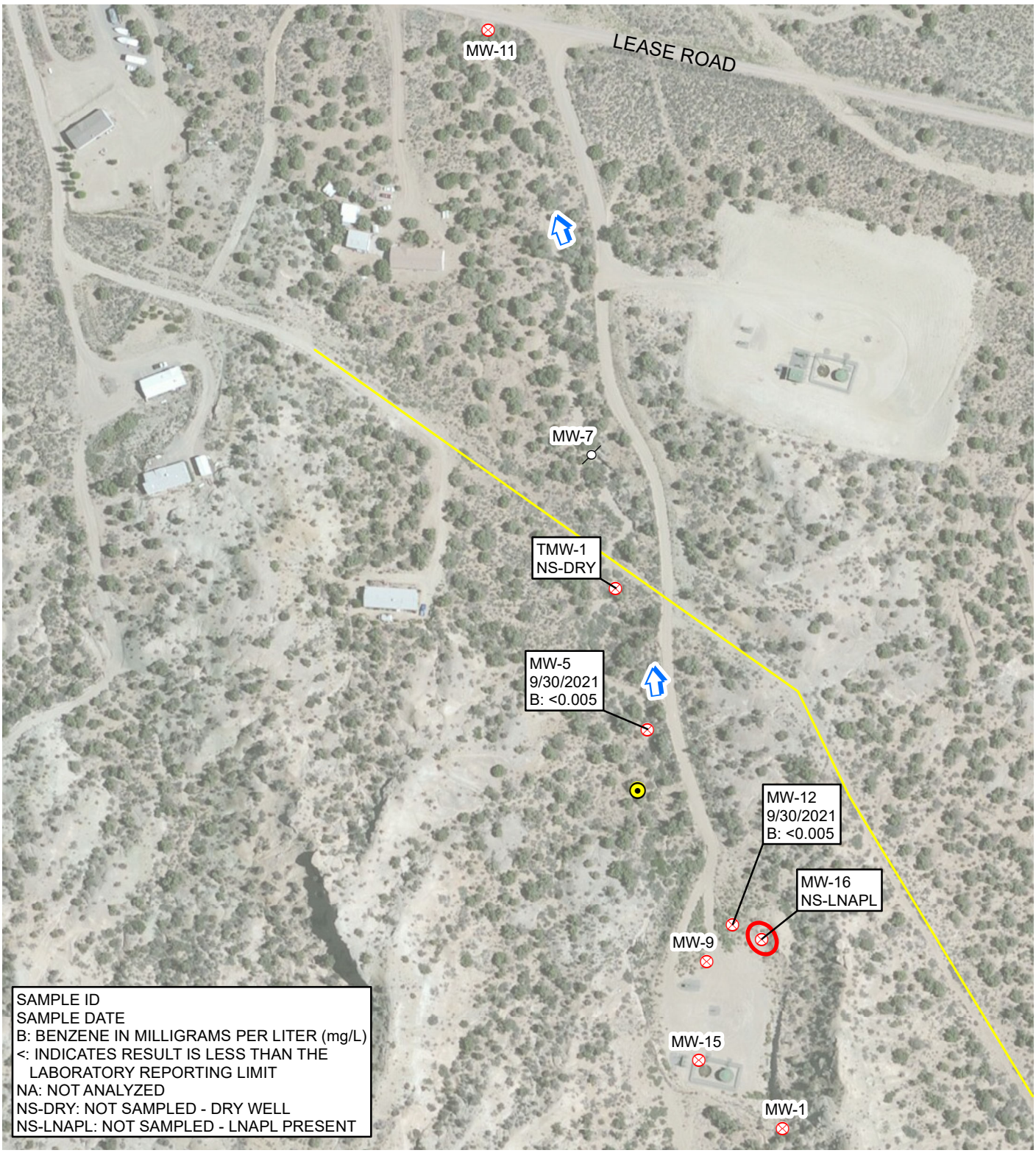

IMAGE COURTESY OF ESRI

LEGEND

- MONITORING WELL
- PLUGGED AND ABANDONED MONITORING WELL
- FORMER SEEP
- GROUNDWATER FLOW DIRECTION
- EL PASO GAS PIPELINE
- PSH AREA OF IMPACT

0 200 400
Feet

N

FIGURE 3
GROUNDWATER ANALYTICAL RESULTS
HAMPTON #4M
SEC 13-T30N-R11W
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

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P:\Hilcorp\GIS\TE017821014_HAMPTON #4M\MXD\TE017821014_FIG04_GWA_Q3_2021.mxd

TABLES

TABLE 1
WELL CONSTRUCTION INFORMATION AND GROUNDWATER ELEVATIONS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Top of Casing Elevation (ft AMSL)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-1	6,149.42	11/8/2007	--	42.81	--	6,106.61
		1/17/2008	--	42.96	--	6,106.46
		3/19/2008	--	42.93	--	6,106.49
		7/22/2008	--	42.74	--	6,106.68
		10/23/2008	--	32.80	--	6,116.62
		1/21/2009	--	42.90	--	6,106.52
		9/24/2009	--	43.09	--	6,106.33
		9/28/2010	--	43.19	--	6,106.23
		10/11/2011	--	43.55	--	6,105.87
		9/25/2012	--	43.88	--	6,105.54
		9/18/2013	--	44.32	--	6,105.10
		3/24/2014	--	44.10	--	6,105.32
		9/24/2014	--	44.69	--	6,104.73
		9/23/2015	--	44.95	--	6,104.47
		9/15/2016	--	45.11	--	6,104.31
		10/26/2017	--	45.16	--	6,104.26
		9/6/2018	--	45.52	--	6,103.90
		8/8/2019	--	45.28	--	6,104.14
		8/4/2020	--	45.56	--	6,103.86
MW-5	6,090.83	11/8/2007	--	16.52	--	6,074.31
		1/17/2008	--	15.65	--	6,075.18
		3/19/2008	--	13.64	--	6,077.19
		7/22/2008	--	15.72	--	6,075.11
		10/23/2008	--	16.53	--	6,074.30
		1/21/2009	--	16.04	--	6,074.79
		9/24/2009	--	16.89	--	6,073.94
		9/28/2010	--	16.55	--	6,074.28
		10/11/2011	--	17.39	--	6,073.44
		9/25/2012	--	17.46	--	6,073.37
		9/18/2013	--	16.78	--	6,074.05
		9/24/2014	--	17.50	--	6,073.33
		9/23/2015	--	17.17	--	6,073.66
		9/15/2016	--	17.24	--	6,073.59
		10/26/2017	--	17.69	--	6,073.14
		9/6/2018	--	18.12	--	6,072.71
		8/7/2019	--	16.87	--	6,073.96
		8/6/2020	--	17.62	--	6,073.21
		9/30/2021	--	18.51	--	6,072.32

TABLE 1
WELL CONSTRUCTION INFORMATION AND GROUNDWATER ELEVATIONS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Top of Casing Elevation (ft AMSL)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-7	6,066.91	11/8/2007	--	20.22	--	6,046.69
		1/17/2008	--	20.50	--	6,046.41
		3/19/2008	--	20.02	--	6,046.89
		7/22/2008	--	19.29	--	6,047.62
		10/23/2008	--	19.95	--	6,046.96
		1/21/2009	--	20.44	--	6,046.47
		9/24/2009	--	20.55	--	6,046.36
		9/28/2010	--	21.24	--	6,045.67
		10/11/2011	--	DRY	--	--
		9/25/2012	--	DRY	--	--
		9/18/2013	--	DRY	--	--
		5/9/2014	**Well Plugged and Abandoned**			
MW-9	6,122.52	11/8/2007	--	22.91	--	6,099.61
		1/17/2008	--	22.76	--	6,099.76
		3/19/2008	--	22.38	--	6,100.14
		7/22/2008	--	23.10	--	6,099.42
		10/23/2008	--	23.02	--	6,099.50
		1/21/2009	--	22.85	--	6,099.67
		9/24/2009	--	23.64	--	6,098.88
		9/28/2010	--	23.70	--	6,098.82
		10/11/2011	--	24.03	--	6,098.49
		9/25/2012	--	24.61	--	6,097.91
		9/18/2013	--	24.61	--	6,097.91
		9/24/2014	--	25.18	--	6,097.34
		9/23/2015	--	25.32	--	6,097.20
		9/15/2016	--	25.82	--	6,096.70
		10/26/2017	--	25.35	--	6,097.17
		9/6/2018	--	26.00	--	6,096.52
		8/8/2019	--	25.56	--	6,096.96
		8/4/2020	--	25.96	--	6,096.56
MW-11	6,015.75	11/8/2007	--	56.00	--	5,959.75
		1/17/2008	--	55.86	--	5,959.89
		3/19/2008	--	55.88	--	5,959.87
		7/22/2008	--	55.71	--	5,960.04
		10/23/2008	--	55.91	--	5,959.84
		1/21/2009	--	55.75	--	5,960.00
		9/24/2009	--	56.02	--	5,959.73
		9/28/2010	--	56.06	--	5,959.69
		10/11/2011	--	56.21	--	5,959.54
		9/25/2012	--	56.41	--	5,959.34
		9/18/2013	--	56.73	--	5,959.02
		9/24/2014	--	56.91	--	5,958.84
		9/23/2015	--	57.20	--	5,958.55
		9/15/2016	--	58.37	--	5,957.38
		10/26/2017	--	57.42	--	5,958.33
		9/6/2018	--	57.84	--	5,957.91
		8/7/2019	--	57.86	--	5,957.89
		8/6/2020	--	58.04	--	5,957.71

TABLE 1
WELL CONSTRUCTION INFORMATION AND GROUNDWATER ELEVATIONS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Top of Casing Elevation (ft AMSL)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-12	6,109.02	11/8/2007	--	20.46	--	6,088.56
		1/17/2008	--	20.24	--	6,088.78
		3/19/2008	--	19.85	--	6,089.17
		7/22/2008	--	20.54	--	6,088.48
		10/23/2008	--	20.61	--	6,088.41
		1/21/2009	--	20.37	--	6,088.65
		9/24/2009	--	21.23	--	6,087.79
		9/28/2010	--	21.27	--	6,087.75
		10/11/2011	--	21.58	--	6,087.44
		9/25/2012	--	22.14	--	6,086.88
		9/18/2013	--	22.17	--	6,086.85
		3/24/2014	--	21.64	--	6,087.38
		9/24/2014	--	22.70	--	6,086.32
		9/23/2015	--	22.84	--	6,086.18
		9/15/2016	--	22.21	--	6,086.81
		10/26/2017	--	22.82	--	6,086.20
		9/6/2018	--	23.53	--	6,085.49
		8/8/2019	--	23.08	--	6,085.94
		8/4/2020	--	23.47	--	6,085.55
		9/30/2021	--	23.75	--	6,085.27
MW-15	No survey - DTW only	11/8/2007	--	18.03	--	NA
		1/17/2008	--	18.20	--	NA
		3/19/2008	--	17.60	--	NA
		7/22/2008	--	17.79	--	NA
		10/23/2008	--	18.01	--	NA
		1/21/2009	--	18.20	--	NA
		9/24/2009	--	18.33	--	NA
		9/28/2010	--	18.25	--	NA
		10/11/2011	--	18.65	--	NA
		9/25/2012	--	18.97	--	NA
		9/18/2013	--	19.23	--	NA
		9/24/2014	--	19.43	--	NA
		9/23/2015	--	19.58	--	NA
		9/15/2016	--	19.69	--	NA
		10/26/2017	--	19.60	--	NA
		9/6/2018	--	20.05	--	NA
		8/8/2019	--	19.68	--	NA
		8/4/2020	--	20.05	--	NA
MW-16	No survey - DTW only	11/8/2007	--	25.03	--	NA
		1/17/2008	--	24.88	--	NA
		3/19/2008	--	24.37	--	NA
		7/22/2008	--	25.00	--	NA
		10/23/2008	--	25.57	--	NA
		1/21/2009	--	24.97	--	NA
		9/24/2009	--	25.75	--	NA
		9/28/2010	--	25.41	--	NA
		10/11/2011	--	28.26	--	NA
		9/25/2012	26.57	27.38	0.81	NA
		9/18/2013	27.34	28.15	0.81	NA

TABLE 1
WELL CONSTRUCTION INFORMATION AND GROUNDWATER ELEVATIONS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Top of Casing Elevation (ft AMSL)	Sample Date	Depth to PSH (ft BTOC)	Depth to Groundwater (ft BTOC)	PSH Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-16	No survey - DTW only	3/24/2014	25.96	28.20	2.24	NA
		9/24/2014	28.00	28.84	0.84	NA
		9/23/2015	26.83	29.27	2.44	NA
		9/15/2016*	33.25	33.34	0.09	NA
		10/27/2016*	33.25	33.42	0.17	NA
		6/14/2017	--	30.58	--	NA
		10/26/2017	31.39	--	--	NA
		9/6/2018	33.49	33.51	0.02	NA
		8/8/2019	--	31.86 (2)	--	NA
		8/5/2020	31.70	33.36	1.66	NA
TMW-1	No survey - DTW only	11/8/2007	--	19.06	--	NA
		1/17/2008	--	19.37	--	NA
		3/19/2008	--	18.55	--	NA
		7/22/2008	--	18.10	--	NA
		10/23/2008	--	19.19	--	NA
		1/21/2009	--	19.25	--	NA
		9/24/2009	--	19.61	--	NA
		9/28/2010	--	19.11	--	NA
		10/11/2011	--	19.39	--	NA
		9/25/2012	--	DRY	--	NA
		9/18/2013	--	DRY	--	NA
		9/24/2014	--	DRY	--	NA
		9/23/2015	--	DRY	--	NA
		10/26/2017	--	DRY	--	NA
		9/6/2018	--	DRY	--	NA
		8/8/2019	--	DRY	--	NA
		8/6/2020	--	DRY	--	NA

Notes:

(1) - when PSH is present, groundwater elevation is adjusted using a PSH density correction factor of 0.8
(2) - Uncertainty whether fluid level equilibrated after removal of adsorbant sock prior to measurement
* - extension added to top of PVC casing resulting in greater depths to groundwater
AMSL - above mean sea level
bgs - below ground surface
BTOC - below top of casing
DTW - depth to groundwater
ft - feet
NM - not measured
PSH - phase separated hydrocarbons

TABLE 2
FIELD PARAMETER RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample Date	Temperature (°C)	pH	TDS (g/L)	Conductivity (uS/cm)	DO (mg/L)	ORP (mV)	Volume (gallons)
MW-1	9/23/2015	12.65	5.20	2.10	3,226	2.75	-26.0	1.25
	10/26/2017	13.26	4.37	--	2,522	2.29	204.8	1.25
	9/6/2018	17.53	4.82	--	2,775	6.22	260.7	0.75
	8/8/2019	20.20	4.66	1.53	3,020	--	73.5	1.00
	8/4/2020	19.70	4.77	1.41	2,870	2.64	91.5	--
MW-5	9/23/2015	15.63	5.85	2.85	4,377	3.10	-114.9	0.50
	9/15/2016	--	--	--	--	--	--	--
	9/6/2018	**Sample volume insufficient to analyze field parameters**						
	8/7/2019	21.30	4.42	2.41	4,900	--	142.6	1.50
	8/6/2020	18.70	5.20	2.01	4,020	2.09	61.2	--
	9/30/2021	**No Parameters taken due to equipment malfunction**						
MW-9	9/23/2015	14.50	5.19	2.48	3,819	2.15	-35.2	3.50
	9/15/2016	13.67	4.97	2.51	3,856	1.64	111.6	3.75
	10/26/2017	14.93	5.73	--	3,020	2.85	120.5	3.50
	9/6/2018	16.56	6.16	--	3,191	1.96	94.4	3.00
	8/8/2019	25.00	5.12	1.73	3,450	--	53.5	3.00
	8/4/2020	20.20	4.90	1.65	3,240	1.12	65.1	--
MW-11	9/23/2015	13.82	6.37	1.88	2,895	1.71	-88.6	5.75
	9/15/2016	13.20	6.43	1.91	2,938	1.47	-73.2	5.00
	10/26/2017	14.07	6.44	--	2,271	2.55	19.7	5.50
	9/6/2018	18.46	6.70	--	2,372	0.93	9.3	5.50
	8/7/2019	18.10	7.10	1.33	8,660	--	19.6	5.25
	8/6/2020	18.80	5.54	1.25	2,490	1.83	27.9	--
MW-12	9/23/2015	14.31	6.00	2.36	3,630	1.65	-44.0	3.75
	9/15/2016	13.65	5.74	2.41	3,710	0.73	-148.7	4.00
	10/26/2017	14.78	6.47	--	2,932	1.56	50.0	3.75
	9/6/2018	16.56	6.45	--	3,148	5.85	16.5	1.25
	8/8/2019	22.40	6.11	1.69	3,370	--	13.0	3.50
	8/4/2020	22.10	5.42	1.59	3,190	1.13	17.2	--
	9/30/2021	**No Parameters taken due to equipment malfunction**						
MW-15	9/23/2015	15.05	3.84	2.28	3,502	3.59	5.9	2.50
	9/15/2016	14.10	3.88	2.33	3,591	3.17	307.9	2.50
	10/26/2017	15.76	4.15	--	2,954	3.62	339.0	2.50
	9/6/2018	17.80	4.49	--	3,006	3.10	305.7	2.50
	8/8/2019	22.40	3.95	1.62	3,240	--	145.5	2.50
	8/4/2020	21.80	3.51	1.52	3,030	2.51	147.5	--

Notes:

°C - degrees Celcius
DO - dissolved oxygen
g/L - grams per liter
uS/cm - microsiemens per centimeter
mg/L - milligrams per liter
mV - millivolts
ORP - oxidation-reduction potential
TDS - total dissolved solids
-- - data not collected

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
MW-1	MW-1	10/30/1997	(orig)	0.0024	0.0023	< 0.0002	0.0011
	MW-1	1/12/1998	(orig)	0.0043	0.0033	0.0002	0.001
	MW-1	4/14/1998	(orig)	0.001	0.0013	< 0.0005	< 0.0005
	MW-1	7/1/1998	(orig)	0.0013	0.001	< 0.0005	0.0037
	MW-1	10/5/1998	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-1	1/27/1999	(orig)	0.0008	0.0009	< 0.0005	< 0.0015
	MW-1	7/12/1999	(orig)	0.0011	0.0005	< 0.0005	< 0.0005
	MW-1	9/24/2003	(orig)	0.0009 J	0.001	ND	0.0004 J
	MW-1	12/15/2003	(orig)	0.0011	0.0009 J	ND	ND
	MW-1	3/15/2004	(orig)	ND	ND	ND	ND
	MW-1	6/21/2004	(orig)	ND	ND	ND	ND
	MW-1	9/29/2004	(orig)	ND	ND	ND	ND
	MW-1	12/31/2004	(orig)	ND	0.0009 J	ND	0.0033 J
	MW-1	3/22/2005	(orig)	ND	0.0003 J	ND	ND
	MW-1	10/24/2005	(orig)	ND	ND	ND	ND
	MW-1	12/12/2005	(orig)	ND	0.0007 J	ND	0.0006 J
	MW-1	3/20/2006	(orig)	0.0011	0.0009 J	ND	0.0006 J
	MW-1	6/21/2006	(orig)	0.0003 J	0.0014	0.0004 J	0.0018 J
	MW-1	10/18/2006	(orig)	ND	0.0002	0.0002	0.0013
	MW-1	12/12/2006	(orig)	ND	0.0002	0.0002	0.0014
	MW-1	3/26/2007	(orig)	< 0.0003	0.0003 J	0.0002 J	0.0004 J
	MW-1	6/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-1	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-1	1/15/2008	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-1	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-1	7/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-1	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-1	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-1	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	MW-1	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	GW-074927-100411-CM-002	10/4/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092612-CM-MW-1	9/26/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-091813-CM-MW-1	9/18/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-032414-CM-MW-1	3/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092414-CM-MW-1	9/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092315-CB-MW-1	9/23/2015	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-11145958-102617-CM-MW-1	10/26/2017	(orig)	--	--	--	--
	GW-11145958-090618-CN-MW-1	9/6/2017	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-1	10/12/2018	(orig)	--	--	--	--
	MW-1	8/8/2019	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-1	8/4/2020	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
MW-5	MW-5	10/29/1997	(orig)	**5.934**	**10.024**	0.709	**8.188**
	MW-5	1/12/1998	(orig)	**7.521**	**11.213**	**0.779**	**8.436**
	MW-5	4/14/1998	(orig)	**7.0**	**11**	**0.72**	**7.8**
	MW-5	7/1/1998	(orig)	**6.5**	**10**	**0.78**	**7.5**
	MW-5	10/5/1998	(orig)	**6.8**	**8.4**	**0.74**	**6.9**
	MW-5	11/9/1998	(orig)	**6.2**	**8.2**	0.67	**6.5**
	MW-5	1/27/1999	(orig)	**6.4**	**8.9**	0.66	**6.7**
	MW-5	5/5/1999	(orig)	**6.8**	**9.8**	0.9	**7.8**
	MW-5	5/26/1999	(orig)	**6.6**	**10**	0.65	**8.1**
	MW-5	7/12/1999	(orig)	**6.3**	**10**	0.75	**8.8**
	MW-5	8/17/1999	(orig)	**5.4**	**9.8**	0.67	**7.5**
	MW-5	8/17/1999	(Duplicate)	**5.9**	**8.9**	0.5	**6.2**
	MW-5	10/21/1999	(orig)	**5.2**	**9.6**	0.65	**6.9**
	MW-5	1/27/2000	(orig)	**4.7**	**10**	0.68	**7.4**
	MW-5	6/13/2000	(orig)	**8.4**	**19**	**1.7**	**22**
	MW-5	3/29/2001	(orig)	**3.89**	**9.6**	0.64	**7.73**
	MW-5	6/26/2001	(orig)	**3.8**	**11**	0.7	**9**
	MW-5	9/18/2001	(orig)	**4.1**	**11**	**0.76**	**10**

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
MW-5	MW-5	12/18/2001	(orig)	**3.2**	**9.7**	0.6	**7.8**
	MW-5	3/22/2002	(orig)	**3.5**	**10**	0.83	**8.5**
	MW-5	6/28/2002	(orig)	**3.7**	**12**	**0.76**	**10**
	MW-5	9/23/2002	(orig)	**3.0**	**9.8**	0.64	**8.3**
	MW-5	12/31/2002	(orig)	**2.9**	**8.9**	0.58	**7.3**
	MW-5	3/27/2003	(orig)	**1.22**	**4.87**	0.487	**6.01**
	MW-5	6/27/2003	(orig)	**2.04**	**8.55**	0.64	**8.05**
	MW-5	9/24/2003	(orig)	**2.11**	**9.09**	0.7	**9.2**
	MW-5	12/15/2003	(orig)	**2.15**	**9.24**	**0.72**	**8.81**
	MW-5	6/21/2004	(orig)	**1.61**	**8.74**	0.64	**8.22**
	MW-5	9/29/2004	(orig)	**1.71**	**7.25**	0.67	**8.09**
	MW-5	12/31/2004	(orig)	**1.82**	**9.15**	**0.73**	**9.03**
	MW-5	3/15/2005	(orig)	**1.37**	**8.1**	0.66	**8.71**
	MW-5	3/22/2005	(orig)	**0.42**	**1.42**	0.11	**1.16**
	MW-5	10/24/2005	(orig)	**1.07**	**6.66**	0.61	**7.62**
	MW-5	12/12/2005	(orig)	**0.90**	**5.93**	0.52	**6.28**
	MW-5	3/20/2006	(orig)	**0.82**	**6.27**	0.51	**6.04**
	MW-5	6/21/2006	(orig)	**0.93**	**6.11**	0.58	**6.69**
	MW-5	10/18/2006	(orig)	**0.69**	**5.14**	0.5	**5.87**
	MW-5	12/18/2006	(orig)	**0.64**	**5.09**	0.5	**5.61**
	MW-5	3/26/2007	(orig)	**0.66**	**6.47**	0.53	**5.45**
	MW-5	6/26/2007	(orig)	**0.74**	**8.07**	0.64	**7.32**
	MW-5	11/8/2007	(orig)	**0.41**	**4.8**	0.39	**5**
	MW-5	1/17/2008	(orig)	**0.44**	**6.4**	0.51	**6.1**
	MW-5	3/19/2008	(orig)	**0.37**	**2.9**	0.24	**2.57**
	MW-5	7/22/2008	(orig)	**0.34**	**6.1**	0.55	**6.4**
	MW-5	10/23/2008	(orig)	**0.27**	**6.2**	0.44	**6.3**
	MW-5	1/21/2009	(orig)	**0.25**	**3.8**	0.51	**5.2**
	MW-5	9/24/2009	(orig)	**0.19**	**4.3**	0.47	**5.1**
	MW-5	9/28/2010	(orig)	**0.13**	**2.4**	0.6	**5.2**
	GW-074927-100411-CM-006	10/12/2011	(orig)	**0.0652**	**1.22**	0.443	**3.21**
	GW-074927-100411-CM-007	10/12/2011	(Duplicate)	**0.0796**	**1.22**	0.488	**3.46**
	GW-074927-092612-CM-MW-5	9/26/2012	(orig)	**0.0898**	0.626	0.551	**3.59**
	GW-074927-091813-CM-MW-5	9/18/2013	(orig)	**0.0359**	0.154	0.227	**1.32**
	GW-074927-092414-CM-MW-5	9/24/2014	(orig)	0.0041	0.0052	0.0338	0.106
	GW-074927-092315-CB-MW-5	9/23/2015	(orig)	**0.015**	0.0072	0.154	0.138
	GW-074927-091516-CM-MW-5	9/15/2016	(orig)	**0.011**	0.0153	0.166	0.0414
	GW-11145958-102617-CM-MW-5	10/26/2017	(orig)	**0.0074**	0.0118	0.0563	0.0236
	GW-11145958-090618-CN-MW-5	9/6/2018	(orig)	**0.0059**	0.0019	0.0346	0.0193
	MW-5	10/12/2018	(orig)	--	--	--	--
	MW-5	8/7/2019	(orig)	0.0025	0.0058	0.006	0.009
	MW-5	8/6/2020	(orig)	**0.00537**	0.0211	0.0104	0.0635
	MW-5	9/30/2021	(orig)	< 0.005	0.005	< 0.005	< 0.0075
MW-7	MW-7	1/12/1998	(orig)	**0.78**	0.246	0.258	**3.942**
	MW-7	4/14/1998	(orig)	**0.82**	0.34	0.19	**2.45**
	MW-7	7/1/1998	(orig)	**0.95**	0.44	0.2	**3.02**
	MW-7	10/5/1998	(orig)	**1.6**	0.93	0.18	**1.53**
	MW-7	11/9/1998	(orig)	**1.8**	1	0.16	**1.24**
	MW-7	1/27/1999	(orig)	**2.1**	1	0.16	**1.05**
	MW-7	5/5/1999	(orig)	**0.21**	0.0029	0.03	0.147
	MW-7	5/26/1999	(orig)	**0.19**	0.0074	0.032	0.15
	MW-7	7/12/1999	(orig)	**0.13**	0.0072	0.022	0.1013
	MW-7	10/21/1999	(orig)	**0.26**	0.011	0.015	0.089
	MW-7	1/27/2000	(orig)	**0.67**	0.58	0.054	**0.68**
	MW-7	6/17/2000	(orig)	**0.42**	**1.1**	0.075	**1.4**
	MW-7	3/29/2001	(orig)	**0.83**	0.15	0.32	**1.79**

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
MW-7	MW-7	6/26/2001	(orig)	**0.54**	0.33	0.25	**1.41**
	MW-7	9/18/2001	(orig)	**0.87**	0.56	0.32	**2.02**
	MW-7	12/18/2001	(orig)	**0.40**	0.03	0.16	**0.885**
	MW-7	3/22/2002	(orig)	**0.18**	ND	0.078	0.26
	MW-7	6/28/2002	(orig)	**0.089**	0.001	0.041	0.079
	MW-7	9/23/2002	(orig)	**0.08**	0.003	0.031	0.01889
	MW-7	12/31/2002	(orig)	**0.16**	0.0022	0.074	0.0315
	MW-7	3/27/2003	(orig)	**0.195**	0.0004	0.0442	0.109
	MW-7	6/27/2003	(orig)	**0.30**	0.0014 J	0.117	0.4616
	MW-7	9/24/2003	(orig)	**0.09**	0.012	0.002	**0.694**
	MW-7	3/15/2004	(orig)	**0.056**	0.001 J	0.006	0.003
	MW-7	6/21/2004	(orig)	**0.18**	ND	0.055	0.058 J
	MW-7	9/29/2004	(orig)	**0.163**	0.0009 J	0.0545	0.0698
	MW-7	12/15/2004	(orig)	**0.15**	0.004 J	0.115	0.549
	MW-7	12/31/2004	(orig)	**0.094**	0.003 J	0.01	0.024 J
	MW-7	3/22/2005	(orig)	**0.0208**	ND	0.0024	0.0048
	MW-7	10/24/2005	(orig)	**0.0652**	0.0007 J	0.002	0.0027 J
	MW-7	12/12/2005	(orig)	**0.0662**	0.001 J	0.0087	0.0085 J
	MW-7	3/20/2006	(orig)	**0.072**	ND	0.0126	0.0169
	MW-7	6/21/2006	(orig)	**0.0899**	0.0106	0.0048	0.0145
	MW-7	10/18/2006	(orig)	**0.0319**	0.0004 J	0.0018	0.0041
	MW-7	12/12/2006	(orig)	**0.0294**	0.0015	0.0031	0.0057
	MW-7	3/26/2007	(orig)	**0.0115**	0.001	0.0006 J	0.0008 J
	MW-7	6/26/2007	(orig)	**0.056**	0.0004 J	0.0177	0.0013
	MW-7	11/8/2007	(orig)	**0.044**	< 0.0007	0.002	< 0.0008
	MW-7	1/17/2008	(orig)	**0.017**	< 0.0007	0.003	< 0.0008
	MW-7	3/19/2008	(orig)	**0.005**	< 0.005	< 0.005	< 0.005
	MW-7	7/22/2008	(orig)	**0.032**	< 0.005	0.012	0.007
	MW-7	10/23/2008	(orig)	**0.017**	< 0.005	< 0.005	< 0.005
	MW-7	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-7	9/24/2009	(orig)	0.0037	< 0.001	< 0.001	< 0.001
	MW-7	9/28/2010	(orig)	0.0013	< 0.001	0.0023	< 0.001
	MW-7	10/11/2011	**No sample collected; well dry.**				
	MW-7	9/26/2012	**No sample collected; well dry.**				
	MW-7	9/18/2013	**No sample collected; well dry.**				
	MW-7	5/9/2014	**Well plugged and abandoned.**				
MW-9	MW-9	7/1/1998	(orig)	**0.012**	< 0.001	< 0.001	< 0.003
	MW-9	10/5/1998	(orig)	0.0008	< 0.0005	< 0.0005	0.0022
	MW-9	11/9/1998	(orig)	**0.073**	< 0.0005	0.0022	0.0016
	MW-9	1/27/1999	(orig)	**0.12**	< 0.0005	0.0025	0.0018
	MW-9	5/5/1999	(orig)	**0.12**	< 0.0005	0.0016	0.0008
	MW-9	5/26/1999	(orig)	**0.14**	< 0.0005	0.0015	< 0.0005
	MW-9	5/26/1999	(Duplicate)	**0.29**	< 0.0005	0.0006	< 0.0015
	MW-9	7/12/1999	(orig)	**0.32**	< 0.0005	0.0006	< 0.0015
	MW-9	8/17/1999	(orig)	**0.13**	ND	ND	ND
	MW-9	10/21/1999	(orig)	< 0.0005	0.0019	< 0.0005	0.0025
	MW-9	1/27/2000	(orig)	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	MW-9	6/13/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-9	3/29/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-9	6/26/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-9	9/18/2001	(orig)	ND	ND	ND	ND
	MW-9	12/18/2001	(orig)	ND	ND	ND	ND
	MW-9	3/22/2002	(orig)	ND	ND	ND	ND
	MW-9	6/28/2002	(orig)	ND	ND	ND	ND
	MW-9	9/23/2002	(orig)	0.0004 J	ND	ND	ND
	MW-9	3/27/2003	(orig)	ND	ND	ND	ND
	MW-9	6/27/2003	(orig)	0.0005 J	ND	ND	ND

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
MW-9	MW-9	9/24/2003	(orig)	ND	ND	ND	ND
	MW-9	12/15/2003	(orig)	ND	ND	ND	ND
	MW-9	3/15/2004	(orig)	ND	ND	ND	ND
	MW-9	6/21/2004	(orig)	ND	0.0004 J	ND	0.0007 J
	MW-9	9/29/2004	(orig)	ND	ND	ND	ND
	MW-9	3/22/2005	(orig)	ND	ND	ND	ND
	MW-9	6/23/2005	(orig)	ND	0.0003 J	ND	ND
	MW-9	3/20/2006	(orig)	ND	ND	ND	ND
	MW-9	6/21/2006	(orig)	ND	ND	ND	ND
	MW-9	10/18/2006	(orig)	ND	ND	ND	0.0003 J
	MW-9	12/12/2006	(orig)	0.0003 J	0.0007 J	0.0003 J	0.0012 J
	MW-9	3/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-9	6/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-9	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-9	1/17/2008	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-9	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-9	7/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-9	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-9	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-9	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	MW-9	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	GW-074927-100411-CM-004	10/4/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092612-CM-MW-9	9/26/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-091813-CM-MW-9	9/18/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092414-CM-MW-9	9/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092315-CB-MW-9	9/23/2015	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-091516-CM-MW-9	9/15/2016	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-11145958-102617-CM-MW-9	10/26/2017	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-11145958-090618-CN-MW-9	9/6/2018	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-9	10/12/2018	(orig)	--	--	--	--
	MW-9	8/8/2019	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-9	8/4/2020	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
MW-11	MW-11	1/27/1999	(orig)	< 0.0005	0.0025	0.0007	0.0131
	MW-11	5/5/1999	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0015
	MW-11	5/26/1999	(orig)	0.0008	0.0017	< 0.0005	0.0011
	MW-11	10/21/1999	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0015
	MW-11	1/27/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-11	6/13/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	0.0009
	MW-11	3/29/2001	(orig)	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	MW-11	6/26/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-11	9/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-11	12/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-11	12/19/2001	(orig)	ND	ND	ND	ND
	MW-11	12/20/2001	(orig)	ND	ND	ND	ND
	MW-11	12/21/2001	(orig)	ND	ND	ND	ND
	MW-11	12/22/2001	(orig)	ND	ND	ND	ND
	MW-11	5/24/2003	(orig)	ND	ND	ND	ND
	MW-11	6/27/2003	(orig)	0.0004 J	0.0003 J	ND	0.0004 J
	MW-11	9/24/2003	(orig)	ND	ND	ND	ND
	MW-11	12/15/2003	(orig)	0.0005 J	ND	ND	ND
	MW-11	3/15/2004	(orig)	ND	ND	ND	ND
	MW-11	6/21/2004	(orig)	ND	ND	ND	0.0005 J
	MW-11	9/29/2004	(orig)	ND	ND	ND	ND
	MW-11	12/31/2004	(orig)	ND	ND	ND	ND
	MW-11	3/22/2005	(orig)	ND	ND	ND	ND

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
MW-11	MW-11	10/24/2005	(orig)	ND	ND	ND	ND
	MW-11	12/12/2005	(orig)	ND	0.0003 J	ND	ND
	MW-11	3/20/2006	(orig)	ND	ND	ND	ND
	MW-11	6/21/2006	(orig)	ND	0.0003 J	ND	0.0008 J
	MW-11	10/18/2006	(orig)	ND	0.0003 J	0.0004 J	0.0012 J
	MW-11	12/12/2006	(orig)	ND	ND	ND	0.0003 J
	MW-11	3/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-11	6/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-11	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-11	1/17/2008	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-11	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-11	7/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-11	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-11	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-11	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	MW-11	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	GW-074927-100411-CM-005	10/11/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092612-CM-MW-11	9/26/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-091813-CM-MW-11	9/18/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092414-CM-MW-11	9/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092315-CB-MW-11	9/23/2015	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-091516-CM-MW-11	9/15/2016	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-11145958-102617-CM-MW-11	10/26/2017	(orig)	--	--	--	--
	GW-11145958-090618-CN-MW-11	9/6/2018	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-11	10/12/2018	(orig)	--	--	--	--
	MW-11	8/7/2019	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-11	8/6/2020	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
MW-12	MW-12	5/5/1999	(orig)	**0.79**	0.84	0.26	**2.88**
	MW-12	5/5/1999	(Duplicate)	**1.2**	**13**	0.51	**0.68**
	MW-12	5/26/1999	(orig)	**1.9**	0.82	0.2	**1.72**
	MW-12	5/26/1999	(Duplicate)	**1.8**	0.64	0.16	**1.6**
	MW-12	7/12/1999	(orig)	**4.5**	0.76	0.4	**3.1**
	MW-12	7/12/1999	(Duplicate)	**4.6**	0.73	0.39	**3.08**
	MW-12	8/17/1999	(orig)	**4.8**	**5**	0.32	**3.39**
	MW-12	8/17/1999	(Duplicate)	**5.9**	**6.1**	0.39	**4.1**
	MW-12	10/21/1999	(orig)	**5.6**	0.65	0.54	**2.89**
	MW-12	1/27/2000	(orig)	**4.1**	0.55	0.43	**2.379**
	MW-12	6/13/2000	(orig)	**5**	**1.3**	0.49	**2.7**
	MW-12	3/29/2001	(orig)	**5.17**	**1.79**	0.366	**2.62**
	MW-12	6/26/2001	(orig)	**4.8**	**1.9**	0.39	**2.56**
	MW-12	9/18/2001	(orig)	**5.1**	**2.4**	0.43	**2.82**
	MW-12	12/18/2001	(orig)	**4**	**1.5**	0.32	**1.88**
	MW-12	3/22/2002	(orig)	**3.3**	0.93	0.29	**1.27**
	MW-12	6/28/2002	(orig)	**4.2**	**1.8**	0.41	**1.94**
	MW-12	9/23/2002	(orig)	**3.8**	**1.5**	0.31	**1.51**
	MW-12	12/31/2002	(orig)	**3.6**	0.84	0.28	**1.01**
	MW-12	5/24/2003	(orig)	**3.99**	**2.23**	0.299	**1.47**
	MW-12	6/27/2003	(orig)	**5.29**	**2.75**	0.36	**1.6**
	MW-12	9/24/2003	(orig)	**4.6**	**1.69**	0.29	**1.15**
	MW-12	12/15/2003	(orig)	**4.2**	**1.36**	0.24	**1.15**
	MW-12	3/15/2004	(orig)	**2.09**	**1.12**	0.3	**1.25**
	MW-12	6/21/2004	(orig)	**3.87**	**1.82**	0.28	**1.5**
	MW-12	6/29/2004	(orig)	**5.14**	**2.22**	0.24	**1.28**
	MW-12	12/31/2004	(orig)	**4.16**	**1.22**	0.25	**1.15**
	MW-12	3/22/2005	(orig)	**2.38**	**1.1**	0.13	**0.71**
	MW-12	10/24/2005	(orig)	**1.35**	0.15	0.08	0.33
	MW-12	12/16/2005	(orig)	**2.38**	0.422	0.111	0.341
	MW-12	3/20/2006	(orig)	**2.1**	0.21	0.071	0.225
	MW-12	6/21/2006	(orig)	**2.27**	0.385	0.085	0.355

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
MW-12	MW-12	10/18/2006	(orig)	**1.74**	0.477	0.112	0.399
	MW-12	12/12/2006	(orig)	**2.4**	**1.11**	0.142	**0.668**
	MW-12	3/26/2007	(orig)	**4.13**	**1.68**	0.34	**1.18**
	MW-12	6/26/2007	(orig)	**1.52**	0.432	0.118	0.34
	MW-12	11/8/2007	(orig)	**0.78**	0.31	0.043	0.17
	MW-12	1/17/2008	(orig)	**2**	**1.4**	0.18	**0.79**
	MW-12	3/19/2008	(orig)	**1.6**	0.56	0.16	0.53
	MW-12	7/22/2008	(orig)	**0.73**	0.022	0.014	0.021
	MW-12	10/23/2008	(orig)	**0.5**	0.03	0.022	0.04
	MW-12	1/21/2009	(orig)	**1.1**	0.43	0.11	0.41
	MW-12	9/24/2009	(orig)	**0.61**	0.0083	0.01	0.0195
	MW-12	9/28/2010	(orig)	**0.55**	< 0.001	0.015	0.016
	GW-074927-100411-CM-003	10/4/2011	(orig)	**0.494**	< 0.01	0.0235	< 0.03
	GW-074927-092612-CM-MW-12	9/26/2012	(orig)	**0.617**	<0.001	0.015	0.0207
	GW-074927-091813-CM-MW-12	9/18/2013	(orig)	**0.202**	<0.005	<0.005	<0.015
	GW-074927-091813-CM-DUP	9/18/2013	(Duplicate)	**0.21**	<0.005	<0.005	<0.015
	GW-074927-032414-CM-MW-12	3/24/2014	(orig)	**0.0559**	0.0067	<0.005	<0.015
	GW-074927-032414-CM-DUP	3/24/2014	(Duplicate)	**0.0508**	0.0056	<0.005	<0.015
	GW-074927-092414-CM-MW-12	9/24/2014	(orig)	**0.83**	0.0013	0.011	0.0171
	GW-074927-092414-CM-DUP	9/24/2014	(Duplicate)	**0.882**	0.0015	0.0121	0.0179
	GW-074927-092315-CB-MW-12	9/23/2015	(orig)	**0.246**	< 0.001	< 0.001	< 0.003
	GW-074927-092315-CB-MW-12	9/23/2015	(Duplicate)	**0.258**	< 0.001	< 0.001	< 0.003
	GW-074927-091516-CM-MW-12	9/15/2016	(orig)	**0.0568**	< 0.0005	< 0.0005	< 0.015
	GW-11145958-102617-CM-MW-12	10/26/2017	(orig)	**0.0379**	<0.002	<0.002	<0.006
	GW-11145958-102617-CM-DUP	10/26/2017	(Duplicate)	**0.0447**	<0.001	<0.001	<0.003
	GW-11145958-090618-CN-MW-12	9/6/2018	(orig)	0.0022	<0.001	<0.001	<0.003
	MW-12	10/12/2018	(orig)	--	--	--	--
	MW-12	8/8/2019	(orig)	**0.0708**	<0.0200	<0.0200	<0.0600
	MW-12	8/4/2020	(orig)	0.00434	<0.0010	<0.0010	<0.003
	MW-12	9/30/2021	(orig)	< 0.005	< 0.005	< 0.005	< 0.0075
MW-15	MW-15	10/21/1999	(orig)	< 0.0005	0.0012	< 0.0005	0.0015
	MW-15	1/27/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	6/13/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	3/29/2001	(orig)	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	MW-15	6/26/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	9/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	12/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	3/22/2002	(orig)	ND	ND	ND	ND
	MW-15	6/28/2002	(orig)	ND	ND	ND	ND
	MW-15	9/23/2002	(orig)	ND	ND	ND	ND
	MW-15	12/31/2002	(orig)	ND	ND	ND	ND
	MW-15	3/27/2003	(orig)	ND	0.0003 J	ND	0.0009 J
	MW-15	6/27/2003	(orig)	0.0004 J	ND	ND	ND
	MW-15	9/24/2003	(orig)	ND	ND	ND	ND
	MW-15	3/15/2004	(orig)	ND	0.0003 J	ND	ND
	MW-15	6/21/2004	(orig)	ND	ND	ND	ND
	MW-15	9/29/2004	(orig)	ND	ND	ND	ND
	MW-15	12/15/2004	(orig)	0.0007 J	ND	ND	ND
	MW-15	12/31/2004	(orig)	ND	0.0009 J	0.0003 J	0.0014 J
	MW-15	3/22/2005	(orig)	ND	ND	ND	ND
	MW-15	10/24/2005	(orig)	ND	ND	ND	ND
	MW-15	12/12/2005	(orig)	ND	0.0003 J	ND	0.0004 J
	MW-15	3/20/2006	(orig)	ND	ND	ND	ND
	MW-15	6/21/2006	(orig)	0.0007 J	ND	0.0003 J	ND
	MW-15	10/18/2006	(orig)	ND	0.0003 J	ND	0.0002 J
	MW-15	12/12/2006	(orig)	ND	ND	ND	ND
	MW-15	3/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-15	6/26/2007	(orig)	< 0.0003	0.0005 J	< 0.0002	< 0.0006
	MW-15	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-15	1/17/2008	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-15	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-15	7/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
MW-15	MW-15	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-15	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-15	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	MW-15	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	GW-074927-100411-CM-001	10/4/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092612-CM-MW-15	9/26/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-091813-CM-MW-15	9/18/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092414-CM-MW-15	9/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-074927-092315-CB-MW-15	9/23/2015	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW074927-091516-CM-MW-15	9/15/0216	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	GW-11145958-102617-CM-MW-15	10/26/2017	(orig)	--	--	--	--
	GW-11145958-090618-CN-MW-15	9/6/2018	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-15	10/12/2018	(orig)	--	--	--	--
	MW-15	8/8/2019	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-15	8/4/2020	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
MW-16	MW-16	10/21/1999	(orig)	**0.22**	0.3	0.0054	0.142
	MW-16	10/21/1999	(Duplicate)	**0.214**	0.268	0.004	0.151
	MW-16	1/27/2000	(orig)	**1.6**	0.17	0.056	0.225
	MW-16	6/13/2000	(orig)	**8.7**	0.43	0.68	**2.2**
	MW-16	6/26/2001	(orig)	**9.3**	**1.1**	**0.81**	**3.41**
	MW-16	9/18/2001	(orig)	**11**	**6.4**	0.59	**6.4**
	MW-16	12/18/2001	(orig)	**9.9**	**6.9**	0.57	**7.4**
	MW-16	6/28/2002	(orig)	**11**	**7**	**0.77**	**5.7**
	MW-16	9/23/2002	(orig)	**8.9**	**9.9**	0.61	**8.5**
	MW-16	12/31/2002	(orig)	**8.8**	**7.9**	**0.77**	**7.4**
	MW-16	3/22/2003	(orig)	**10**	**6.6**	**1.1**	**7.4**
	MW-16	3/27/2003	(orig)	**10.4**	**11.2**	**0.84**	**8.67**
	MW-16	9/24/2003	(orig)	**10.3**	**15.4**	**0.87**	**10.59**
	MW-16	3/15/2004	(orig)	**9.2**	**16**	**1.31**	**12**
	MW-16	6/21/2004	(orig)	**8.04**	**18.1**	**2.45**	**18.58**
	MW-16	9/29/2004	(orig)	**8.33**	**14**	**0.76**	**8.23**
	MW-16	12/15/2004	(orig)	**9.64**	**12.6**	**0.72**	**1.55**
	MW-16	12/31/2004	(orig)	**8.34**	**17.1**	**1.55**	**18.83**
	MW-16	3/28/2005	(orig)	**4.14**	**5.81**	**0.76**	**10.48**
	MW-16	10/24/2005	(orig)	**6.28**	**9.8**	0.67	**6.91**
	MW-16	12/12/2005	(orig)	**6.94**	**11.5**	**0.75**	**8.06**
	MW-16	3/20/2006	(orig)	**6.82**	**11.5**	**0.83**	**8.55**
	MW-16	6/21/2006	(orig)	**6.64**	**11.2**	0.69	**7.57**
	MW-16	10/18/2006	(orig)	**5.7**	**10.2**	0.62	**6.52**
	MW-16	12/12/2006	(orig)	**4.6**	**10**	0.55	**6.83**
	MW-16	3/26/2007	(orig)	**2.97**	**2.82**	0.26	**5.22**
	MW-16	6/26/2007	(orig)	**5.23**	**9.11**	**0.77**	**7.76**
	MW-16	11/8/2007	(orig)	**5.5**	**12**	0.57	**6.2**
	MW-16	1/17/2008	(orig)	**4.6**	**9.1**	0.55	**5.6**
	MW-16	3/19/2008	(orig)	**5.5**	**9.6**	0.51	**6.9**
	MW-16	7/22/2008	(orig)	**3.6**	**6.1**	0.43	**4.5**
	MW-16	10/23/2008	(orig)	**4.7**	**9.1**	0.48	**6.6**

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
MW-16	MW-16	1/21/2009	(orig)	**4.2**	**7.5**	0.48 J	**6.9**
	MW-16	9/24/2009	(orig)	**3.2**	**4.6**	0.34	**3.5**
	MW-16	9/29/2010	(orig)	**3**	**4.6**	**3.4**	**23.6**
	MW-16	12/15/2010	(orig)	**5.2**	**13**	**1.1**	**14.5**
	MW-16	10/11/2011	**No sample collected due to presence of LNAPL.**				
	MW-16	9/26/2012	**No sample collected due to presence of LNAPL.**				
	MW-16	9/18/2013	**No sample collected due to presence of LNAPL.**				
	MW-16	9/24/2014	**No sample collected due to presence of LNAPL.**				
	MW-16	9/23/2015	**No sample collected due to presence of LNAPL.**				
	MW-16	9/15/0216	**No sample collected due to presence of LNAPL.**				
	MW-16	10/26/2017	**No sample collected due to presence of LNAPL.**				
	MW-16	9/6/2018	**No sample collected due to presence of LNAPL.**				
	MW-16	8/8/2019	**No sample collected due to presence of LNAPL.**				
	MW-16	8/4/2020	**No sample collected due to presence of LNAPL.**				
	MW-16	9/30/2021	**No sample collected due to presence of LNAPL.**				
Seep	Seep	7/1/1998	(orig)	0.0016	0.0007	0.0006	0.00036
	Seep	4/14/1999	(orig)	**0.04**	0.0022	0.0021	0.019
	Seep	10/21/1999	(orig)	**0.065**	0.23	0.011	0.434
	Seep	3/29/2001	(orig)	**0.0116**	< 0.0002	0.0007 J	0.0254
	Seep	6/26/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	Seep	9/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	Seep	12/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	Seep	3/22/2002	(orig)	**0.0059**	ND	0.0008	0.0034
	Seep	6/28/2002	(orig)	ND	ND	ND	ND
	Seep	9/23/2002	(orig)	ND	ND	ND	ND
	Seep	12/31/2002	(orig)	0.0007	ND	ND	ND
	Seep	3/27/2003	(orig)	**0.0063**	0.0002 J	0.0018	0.0101
	Seep	9/24/2003	(orig)	ND	0.0003 J	ND	ND
	Seep	12/15/2003	(orig)	0.0004 J	0.0003 J	ND	ND
	Seep	3/15/2004	(orig)	ND	ND	ND	ND
	Seep	6/21/2004	(orig)	ND	ND	ND	ND
	Seep	9/29/2004	(orig)	ND	ND	ND	ND
	Seep	12/31/2004	(orig)	ND	0.0002 J	ND	0.0004 J
	Seep	3/28/2005	(orig)	ND	ND	ND	ND
	Seep	10/24/2005	(orig)	ND	J	ND	ND
	Seep	12/12/2005	(orig)	ND	0.0005 J	0.0003 J	0.0009 J
	Seep	3/20/2006	(orig)	ND	ND	ND	ND
	Seep	6/21/2006	(orig)	0.004	0.0129	0.0008 J	0.015
	Seep	10/18/2006	(orig)	ND	0.0005 J	0.0003 J	0.0014 J
	Seep	12/12/2006	(orig)	ND	ND	ND	ND
	Seep	3/26/2007	(orig)	< 0.0003	0.0003 J	< 0.0002	< 0.0006
	Seep	6/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	Seep	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	Seep	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	Seep	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	Seep	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	Seep	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	Seep	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	Seep	10/11/2011	**No sample collected; seep dry.**				
	Seep	9/26/2012	**No sample collected; seep dry.**				
	Seep	9/18/2013	**No sample collected; seep dry.**				
	Seep	9/24/2014	**No sample collected; seep dry.**				
	Seep	9/23/2015	**No sample collected; seep dry.**				

TABLE 3
PETROLEUM HYDROCARBON GROUNDWATER ANALYTICAL RESULTS

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Sample Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
NMWQCC Standards				**0.005**	**1.0**	**0.70**	**0.62**
TMW-1	TMW-1	1/27/2000	(orig)	**0.93**	**1.4**	0.35	**6.7**
	TMW-1	6/13/2000	(orig)	**2.4**	**3.4**	0.55	**9.1**
	TMW-1	6/26/2001	(orig)	**1.1**	**3.5**	0.33	**5.5**
	TMW-1	5/23/2003	(orig)	**0.83**	0.123	0.107	**1.0047**
	TMW-1	6/27/2003	(orig)	**0.474**	0.0366	0.0596	0.4907
	TMW-1	9/24/2003	(orig)	**0.292**	0.139	0.017	0.221
	TMW-1	12/15/2003	(orig)	**0.0559**	0.0013	0.0039	0.0425
	TMW-1	6/21/2004	(orig)	**0.0406**	ND	0.0141	0.0147
	TMW-1	9/29/2004	(orig)	**0.41**	0.0087	0.0596	0.4585
	TMW-1	12/31/2004	(orig)	0.003 J	0.005 J	0.001 J	0.011 J
	TMW-1	3/22/2005	(orig)	**0.0678**	0.0133	0.0081	0.1017
	TMW-1	10/24/2005	(orig)	**0.483**	0.705	0.045	0.328
	TMW-1	12/12/2005	(orig)	**0.122**	0.317	0.019	0.16
	TMW-1	3/20/2006	(orig)	**0.071**	0.082	0.016	0.151
	TMW-1	6/21/2006	(orig)	**0.159**	0.0657	0.0569	0.36
	TMW-1	10/18/2006	(orig)	**0.0064**	0.0016	0.0021	0.0138
	TMW-1	6/26/2007	(orig)	**0.269**	0.0026	0.0049	0.0157
	TMW-1	11/8/2007	(orig)	**0.3**	0.012	0.006	0.038
	TMW-1	1/17/2008	(orig)	0.0008	< 0.0007	< 0.0008	0.001
	TMW-1	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	TMW-1	7/22/2008	(orig)	**0.13**	0.029	0.011	0.022
	TMW-1	1/21/2009	(orig)	**0.013**	< 0.005	< 0.005	< 0.005
	TMW-1	9/28/2010	(orig)	**0.013**	< 0.001	< 0.001	0.0032
	TMW-1	10/11/2011	**No sample collected; insufficient water present in well.**				
	TMW-1	9/26/2012	**No sample collected; well dry.**				
	TMW-1	9/18/2013	**No sample collected; well dry.**				
	TMW-1	9/24/2014	**No sample collected; well dry.**				
	TMW-1	9/23/2015	**No sample collected; well dry.**				
	TMW-1	9/15/0216	**No sample collected; well dry.**				
	TMW-1	10/26/2017	**No sample collected; well dry.**				
	TMW-1	9/6/2018	**No sample collected; well dry.**				
	TMW-1	8/8/2019	**No sample collected; well dry.**				
	TMW-1	8/4/2020	**No sample collected; well dry.**				

Notes:

J - laboratory flag for estimated concentration

mg/L - milligrams per liter

ND - not detected, practical quantitation limit unknown

NE - not established

NMWQCC - New Mexico Water Quality Control Commission

NT - not tested

<0.037 - indicates result less than the stated laboratory reporting limit (PQL)

BOLD - indicates concentration exceeds the NNEPA standard

-- - not analyzed

TABLE 4
PHASE SEPARATED HYDROCARBON RECOVERED VOLUME

HAMPTON #4M
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample Date	PSH Removed (ounces)
MW-16	1/22/2019	6
MW-16	2/15/2019	10
MW-16	4/5/2019	28
MW-16	8/8/2019	32
MW-16	11/7/2019	24
MW-16	3/27/2020	16
MW-16	5/29/2020	26
MW-16	8/5/2020	176
MW-16	10/9/2020	12
MW-16	9/30/2021	16

Notes:
PSH removed using an adsorbent sock and/or disposable bailer

ENCLOSURE A – ANALYTICAL LABORATORY REPORT

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

February 21, 2022

Kate Kaufman
HILCORP ENERGY
PO Box 4700
Farmington, NM 87499
TEL: (505) 564-0733
FAX

RE: Hamton 4M OrderNo.: 2110101

Dear Kate Kaufman:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/2/2021 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 25, 2021.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2110101**
Date Reported: **2/21/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW 12
Project: Hamton 4M **Collection Date:** 9/30/2021 2:35:00 PM
Lab ID: 2110101-005 **Matrix:** GROUNDWA **Received Date:** 10/2/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	5.0	D	µg/L	5	10/8/2021 7:45:22 PM
Toluene	ND	5.0	D	µg/L	5	10/8/2021 7:45:22 PM
Ethylbenzene	ND	5.0	D	µg/L	5	10/8/2021 7:45:22 PM
Xylenes, Total	ND	7.5	D	µg/L	5	10/8/2021 7:45:22 PM
Surr: 1,2-Dichloroethane-d4	93.7	70-130	D	%Rec	5	10/8/2021 7:45:22 PM
Surr: Dibromofluoromethane	97.0	70-130	D	%Rec	5	10/8/2021 7:45:22 PM
Surr: Toluene-d8	100	70-130	D	%Rec	5	10/8/2021 7:45:22 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2110101**
Date Reported: **2/21/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW5
Project: Hamton 4M **Collection Date:** 9/30/2021 3:25:00 PM
Lab ID: 2110101-006 **Matrix:** GROUNDWA **Received Date:** 10/2/2021 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	5.0	DP	µg/L	5	10/8/2021 8:12:16 PM
Toluene	5.0	5.0	DP	µg/L	5	10/8/2021 8:12:16 PM
Ethylbenzene	ND	5.0	DP	µg/L	5	10/8/2021 8:12:16 PM
Xylenes, Total	ND	7.5	DP	µg/L	5	10/8/2021 8:12:16 PM
Surr: 1,2-Dichloroethane-d4	103	70-130	DP	%Rec	5	10/8/2021 8:12:16 PM
Surr: Dibromofluoromethane	103	70-130	DP	%Rec	5	10/8/2021 8:12:16 PM
Surr: Toluene-d8	101	70-130	DP	%Rec	5	10/8/2021 8:12:16 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2110101**

21-Feb-22

Client: HILCORP ENERGY

Project: Hamton 4M

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **LCSW** Batch ID: **SL81938** RunNo: **81938**

Prep Date: Analysis Date: **10/8/2021** SeqNo: **2900387** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.0	70	130			
Toluene	19	1.0	20.00	0	94.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.5	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.0	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID: **2110101-001a ms** SampType: **MS** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **MW11** Batch ID: **SL81938** RunNo: **81938**

Prep Date: Analysis Date: **10/8/2021** SeqNo: **2900389** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.5	70	130			
Toluene	19	1.0	20.00	0	95.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.6	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	9.8		10.00		97.8	70	130			

Sample ID: **2110101-001a msd** SampType: **MSD** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **MW11** Batch ID: **SL81938** RunNo: **81938**

Prep Date: Analysis Date: **10/8/2021** SeqNo: **2900390** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	70	130	3.59	20	
Toluene	18	1.0	20.00	0	88.5	70	130	7.61	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		106	70	130	0	0	
Surr: Toluene-d8	10		10.00		101	70	130	0	0	

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **PBW** Batch ID: **SL81938** RunNo: **81938**

Prep Date: Analysis Date: **10/8/2021** SeqNo: **2900396** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2110101**
21-Feb-22

Client: HILCORP ENERGY
Project: Hamton 4M

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW** Batch ID: **SL81938** RunNo: **81938**
Prep Date: Analysis Date: **10/8/2021** SeqNo: **2900396** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.6	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2110101 RcptNo: 1

Received By: Sean Livingston 10/2/2021

Completed By: Isaiah Ortiz 10/4/2021 10:05:39 AM

Reviewed By: TME 10/4/21

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☑ No ☐ NA ☐
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 5 (<2 or >12 unless noted)
Adjusted? NO
Checked by: KPG 10/04/21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Not Present			
2	2.2	Good	Not Present			
3	2.9	Good	Not Present			
4	0.4	Good	Not Present			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2110101 RcptNo: 1

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
5	1.7	Good	Not Present			

Chain-of-Custody Record

Client: Hilcorp

attn: Kate Kaufman

Mailing Address:

Phone #:

email or Fax#: KKaufman@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: Hamton #4M

Project #: TE017821014

Project Manager: Stuart Hyde

stuart.hyde@wsp.com

Sampler: Reece Hanson

On Ice: ☑ Yes ☐ No

# of Coolers: 5

Cooler Temp(including CF): See remarks (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2110101	BTEX / ~~MTBE~~ / ~~TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	dissolved Mn	Sul Fate	TDS
9-30-21	1125	GW	MW11	Various	Various	001	✓												
	~~0950~~ 1255		MW1			002													
	1330		MW15			003													
	1405		MW9			004													
	1435		MW12			005													
↓	1525	↓	MW5	↓	↓	006	↓										↓	↓	↓

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10-1-21	1052				10/1/21	1052
10/1/21	1754			Courier	10/2/21	9:15

Remarks: MW5 - only enough GW for 2 VOA's, BTEX only

3.3±0=3.3°C 2.9±0=2.9°C 1.7±0=1.7°C

2.2±0=2.2°C 0.4±0=0.4°C

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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

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

CONDITIONS

Action 87551

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 87551
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2021 Annual Groundwater Monitoring Report for Hampton #4M: Content Satisfactory 1. Please upload all permits obtained from OSE for the P&A of monitoring wells which have been approved for MW-1, MW-9, MW-11, MW-15, and TMW-1. 2 Continue groundwater monitoring on an annual basis for remaining wells. 3. Please submit the 2022 and 2023 annual groundwater monitoring reports. 4. Submit the 2024 annual monitoring report by 2025.	5/14/2024