

FREMONT ENVIRONMENTAL INC.

August 1, 2018

Mr. Jacob Evans
Noble Energy Inc.
2115 117th Avenue
Greeley, CO 80634

Subject: **Ground Water Data Submittal**
 Libsack R G27-15
 SWSE Sec 27, T4N, R65W
 API # 05-123-13256
 Weld County, Colorado
 Fremont Project No. C013-009
 Facility ID# 323601, Remediation #7871

Dear Mr. Evans:

Enclosed please find a copy of the above referenced Ground Water Data Submittal for the Libsack R G27-15 site in Weld County, Colorado. The enclosed report describes monitoring and sampling efforts to assess ground water quality at the site. The temporary air-sparge (AS) system was discontinued on July 5, 2018.

Please contact me at (303) 956-8714 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,
FREMONT ENVIRONMENTAL INC.



Paul V. Henehan, P.E.
Senior Consultant

Enclosure

TABLE 1
SUMMARY OF GROUND WATER ELEVATION DATA AND CHEMISTRY DATA
NOBLE ENERGY INC.
LIBSACK R G27-15, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C013-009

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-1	06/14/13	<1.0	<1.0	<1.0	<1.0	99.89	2.93	96.96	NP
	06/24/13	NS	NS	NS	NS		2.66	97.23	NP
	07/09/13	NS	NS	NS	NS		2.53	97.36	NP
	07/19/13	NS	NS	NS	NS		Inundated	Inundated	Inundated
	10/18/13	<1	<1	<1	<1		1.66	98.23	NP
	01/13/14	<1	<1	<1	<1		2.25	97.64	NP
	04/02/14	<1	<1	<1	<1		2.74	97.15	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.52	97.37	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.86	98.03	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.87	98.02	NP
04/20/15	<1.0	<1.0	<1.0	<1.0	2.11	97.78	NP		
MW-2	06/14/13	<1.0	<1.0	<1.0	<1.0	100.00	3.01	96.99	NP
	06/24/13	NS	NS	NS	NS		2.75	97.25	NP
	07/09/13	NS	NS	NS	NS		2.62	97.38	NP
	07/19/13	NS	NS	NS	NS		1.95	98.05	NP
	10/18/13	<1	<1	<1	<1		1.75	98.25	NP
	01/13/14	<1	<1	<1	<1		2.36	97.64	NP
	04/02/14	<1	<1	<1	<1		2.82	97.18	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.61	97.39	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.97	98.03	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.97	98.03	NP
04/20/15	<1.0	<1.0	<1.0	<1.0	2.20	97.80	NP		
MW-3	06/14/13	<1.0	<1.0	<1.0	<1.0	99.92	3.05	96.87	NP
	06/24/13	NS	NS	NS	NS		2.78	97.14	NP
	07/09/13	NS	NS	NS	NS		2.65	97.27	NP
	07/19/13	NS	NS	NS	NS		2.02	97.90	NP
	10/18/13	1.3	<1	<1	<1		1.88	98.04	NP
	01/13/14	<1	<1	<1	<1		2.40	97.52	NP
	04/02/14	<1	<1	<1	<1		2.84	97.08	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.66	97.26	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		2.02	97.90	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		2.04	97.88	NP
04/20/15	<1.0	<1.0	<1.0	<1.0	2.27	97.65	NP		
MW-4	06/14/13	4,523	<1.0	<1.0	168	99.47	2.69	96.78	NP
	06/24/13	NS	NS	NS	NS		2.42	97.05	NP
	07/09/13	868	<1.0	<1.0	<1.0		2.28	97.19	NP
	07/19/13	NS	NS	NS	NS		1.61	97.86	NP
	10/18/13	<1	<1	<1	<1		1.46	98.01	NP
	01/13/14	<1	<1	<1	<1		2.07	97.40	NP
	04/02/14	33.1	<1	<1	<1		2.55	96.92	NP
	07/15/14	6.4	<1.0	<1.0	<1.0		2.31	97.16	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.68	97.79	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.71	97.76	NP
04/20/15	1.6	<1.0	<1.0	<1.0	1.94	97.53	NP		
MW-5	06/14/13	494	<1.0	1.8	15.7	99.29	2.68	96.61	NP
	06/24/13	NS	NS	NS	NS		2.39	96.90	NP
	07/09/13	535	<1.0	<1.0	<1.0		2.26	97.03	NP
	07/19/13	NS	NS	NS	NS		Inundated	Inundated	Inundated
	10/18/13	<1	<1	<1	<1		1.31	97.98	NP
	01/13/14	<1	<1	<1	<1		2.01	97.28	NP
	04/02/14	<1	<1	<1	<1		2.49	96.80	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.26	97.03	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.65	97.64	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.66	97.63	NP
04/20/15	<1.0	<1.0	<1.0	<1.0	1.89	97.40	NP		
MW-6	06/14/13	<1.0	<1.0	<1.0	<1.0	99.66	3.01	96.65	NP
	06/24/13	NS	NS	NS	NS		2.74	96.92	NP
	07/09/13	NS	NS	NS	NS		2.61	97.05	NP
	07/19/13	NS	NS	NS	NS		2.01	97.65	NP
	10/18/13	<1	<1	<1	<1		1.79	97.87	NP
	01/13/14	2.9	<1	<1	<1		1.33	98.33	NP

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-6	04/02/14	258	<1	<1	<1	99.66	2.82	96.84	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.61	97.05	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.98	97.68	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.99	97.67	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		2.23	97.43	NP
	07/20/15	<1.0	<1.0	<1.0	<1.0		2.38	97.28	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		1.86	97.80	NP
	01/29/16	<1.0	<1.0	<1.0	<1.0		3.07	96.59	NP
	04/28/16	<1.0	<1.0	<1.0	<1.0		1.81	97.85	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		2.74	96.92	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		1.93	97.73	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		3.01	96.65	NP
	04/05/17	<1.0	<1.0	<1.0	<1.0		3.39	96.27	NP
	07/25/17	<1.0	<1.0	<1.0	2.0		3.25	96.41	NP
	10/12/17	<1.0	<1.0	<1.0	<1.0		1.78	97.88	NP
	01/25/18	<1.0	2.0	1.3	6.8		2.36	97.30	NP
04/06/18	<1.0	<1.0	<1.0	<2.0		2.69	96.97	NP	
07/09/18	<1.0	<1.0	<1.0	<2.0		2.87	96.79	NP	
MW-7	06/14/13	1,063	27.8	<1.0	104	99.38	2.72	96.66	NP
	06/24/13	NS	NS	NS	NS		2.43	96.95	NP
	07/09/13	2,226	100	58.9	164		2.3	97.08	NP
	07/19/13	NS	NS	NS	NS		1.76	97.62	NP
	10/18/13	108	<1	3.9	1.9		1.44	97.94	NP
	01/13/14	<1	<1	<1	<1		2.02	97.36	NP
	04/02/14	<1	<1	<1	<1		2.47	96.91	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.28	97.10	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.63	97.75	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.64	97.74	NP
	04/20/15	NF	NF	NF	NF		NF	NF	NF
	07/20/15	<1.0	<1.0	<1.0	<1.0		1.19	98.19	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		0.67	98.71	NP
	01/29/16	Damaged	Damaged	Damaged	Damaged		Damaged	Damaged	Damaged
	03/17/16	<1.0	<1.0	<1.0	<1.0		NM	NM	NP
	04/28/16	<1.0	<1.0	<1.0	<1.0		too shallow	too shallow	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		1.80	97.58	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		0.98	98.40	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		2.07	97.31	NP
04/05/17	<1.0	<1.0	<1.0	<1.0		2.46	96.92	NP	
07/25/17	<1.0	<1.0	<1.0	<1.0		2.34	97.04	NP	
10/12/17	<1.0	<1.0	<1.0	<1.0		0.87	99.66	NP	
01/25/18	<1.0	<1.0	<1.0	<2.0		1.90	97.48	NP	
04/06/18	<1.0	<1.0	<1.0	<2.0		2.23	97.15	NP	
07/09/18	<1.0	<1.0	<1.0	<2.0		2.41	96.97	NP	
MW-8	06/14/13	<1.0	<1.0	<1.0	<1.0	99.46	2.69	96.77	NP
	06/24/13	NS	NS	NS	NS		2.39	97.07	NP
	07/09/13	NS	NS	NS	NS		2.27	97.19	NP
	07/19/13	NS	NS	NS	NS		Inundated	Inundated	Inundated
	10/18/13	<1	<1	<1	<1		1.79	97.67	NP
	01/13/14	<1	<1	<1	<1		2.08	97.38	NP
	04/02/14	<1	<1	<1	<1		2.46	97.00	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.25	97.21	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.69	97.77	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.71	97.75	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.93	97.53	NP
MW-9	06/14/13	<1.0	<1.0	<1.0	<1.0	99.51	3.05	96.46	NP
	06/24/13	NS	NS	NS	NS	99.03	2.25	96.78	NP
	07/09/13	NS	NS	NS	NS		2.14	96.89	NP
	07/19/13	NS	NS	NS	NS		1.18	97.85	NP
	10/18/13	<1	<1	<1	<1		1.28	97.75	NP
	01/13/14	<1	<1	<1	<1		1.82	97.69	NP
	04/02/14	<1	<1	<1	<1		2.31	96.72	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.11	97.40	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.44	98.07	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.46	97.57	NP
04/20/15	<1.0	<1.0	<1.0	<1.0		1.69	97.34	NP	
MW-10	06/14/13	<1.0	<1.0	<1.0	<1.0	100.01	3.61	96.40	NP
	06/24/13	NS	NS	NS	NS	99.44	2.7	96.74	NP
	07/09/13	NS	NS	NS	NS		2.59	96.85	NP

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-10	07/19/13	NS	NS	NS	NS	99.44	1.89	97.55	NP
	10/18/13	<1	<1	<1	<1		1.73	97.71	NP
	01/13/14	<1	<1	<1	<1		2.29	97.72	NP
	04/02/14	<1	<1	<1	<1		2.76	96.68	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.54	97.47	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.91	98.10	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.92	97.52	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		2.16	97.28	NP
MW-11	06/14/13	<1.0	<1.0	<1.0	<1.0	100.50	4.1	96.40	NP
	06/24/13	NS	NS	NS	NS	99.98	3.23	96.75	NP
	07/09/13	NS	NS	NS	NS		3.12	96.86	NP
	07/19/13	NS	NS	NS	NS		2.48	97.50	NP
	10/18/13	<1	<1	<1	<1		2.24	97.74	NP
	01/13/14	<1	<1	<1	<1		2.82	97.68	NP
	04/02/14	<1	<1	<1	<1		3.31	96.67	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		3.42	97.08	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		2.43	98.07	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		2.44	97.54	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		2.67	97.31	NP
MW-12	07/09/13	<1.0	<1.0	<1.0	<1.0		99.68	2.62	97.06
	07/19/13	NS	NS	NS	NS	2.14		97.54	NP
	10/18/13	<1	<1	<1	<1	1.74		97.94	NP
	01/13/14	<1	<1	<1	<1	2.32		97.36	NP
	04/02/14	<1	<1	<1	<1	2.81		96.87	NP
	07/15/14	WD	WD	WD	WD	WD		WD	WD
	01/20/15	<1.0	<1.0	<1.0	<1.0	WD		WD	NP
	04/20/15	NF	NF	NF	NF	NF		NF	NF
MW-13	07/09/13	71.1		160	2,606	99.76	2.78	96.98	NP
	07/19/13	NS	NS	NS	NS		2.28	97.48	NP
	10/18/13	131	<1	9.4	200		1.93	97.83	NP
	01/13/14	112	<1	91.7	4.3		2.51	97.25	NP
	04/02/14	75.5	1.7	47.9	125		3.07	96.69	NP
	07/15/14	71.2	<1.0	31.4	168		2.84	96.92	NP
	10/07/14	96.9	<1.0	56.6	2.1		1.19	98.57	NP
	01/20/15	100	<1.0	129	13.5		1.20	98.56	NP
	04/20/15	130	<1.0	92	<1.0		1.44	98.32	NP
	07/20/15	70	<1.0	7.2	<1.0		2.58	97.18	NP
	10/28/15	30	<1.0	2.4	<1.0		2.06	97.70	NP
	01/29/16	63	<1.0	22	<1.0		3.28	96.48	NP
	04/28/16	34	<1.0	7.2	<1.0		2.02	97.74	NP
	07/26/16	13	<1.0	<1.0	<1.0		2.95	96.81	NP
	10/18/16	18	<1.0	1.5	<1.0		2.14	97.62	NP
	01/06/17	46	<1.0	9.1	<1.0		3.22	96.54	NP
	04/05/17	25	<1.0	1.0	<1.0		3.62	96.14	NP
	07/25/17	<1.0	<1.0	<1.0	<1.0		3.51	96.25	NP
10/12/17	<1.0	<1.0	<1.0	<1.0	2.04	99.66	NP		
01/25/18	<1.0	<1.0	1.1	<2.0	2.51	97.25	NP		
04/06/18	<1.0	<1.0	<1.0	<2.0	2.79	96.97	NP		
07/09/18	<1.0	<1.0	<1.0	<2.0	2.97	96.79	NP		
MW-14	07/09/13	9.2		1.6	16.8	99.42	2.5	96.92	NP
	07/19/13	NS	NS	NS	NS		1.96	97.46	NP
	10/18/13	10.6	<1	<1	<1		1.63	97.79	NP
	01/13/14	1.2	<1	<1	<1		2.28	97.14	NP
	04/02/14	2	<1	<1	4		2.78	96.64	NP
	07/15/14	1.6	<1.0	<1.0	1.5		2.58	96.84	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.92	97.50	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.94	97.48	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		2.17	97.25	NP
	07/20/15	<1.0	<1.0	<1.0	<1.0		2.41	97.01	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		1.89	97.53	NP
	01/29/16	<1.0	<1.0	<1.0	<1.0		3.11	96.31	NP
	04/28/16	<1.0	<1.0	<1.0	<1.0		1.85	97.57	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		2.78	96.64	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		1.97	97.45	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		3.05	96.37	NP
	04/05/17	<1.0	<1.0	<1.0	<1.0		3.43	95.99	NP
07/25/17	<1.0	<1.0	<1.0	<1.0	3.24	96.18	NP		
10/12/17	<1.0	<1.0	<1.0	<1.0	1.77	99.66	NP		

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-14	01/25/18	<1.0	<1.0	<1.0	<2.0	99.42	2.38	97.04	NP
	04/06/18	<1.0	<1.0	<1.0	<2.0		2.72	96.70	NP
	07/09/18	<1.0	<1.0	<1.0	<2.0		2.92	96.50	NP
MW-15	07/09/13	<1.0	<1.0	<1.0	<1.0	99.59	2.68	96.91	NP
	07/19/13	NS	NS	NS	NS		2.12	97.47	NP
	10/18/13	<1	<1	<1	<1		1.82	97.77	NP
	01/13/14	<1	<1	<1	<1		2.39	97.20	NP
	04/02/14	<1	<1	<1	<1		2.88	96.71	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.65	96.94	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		2.01	97.58	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		2.03	97.56	NP
04/20/15	<1.0	<1.0	<1.0	<1.0		2.26	97.33	NP	
MW-16	07/09/13	177		394	5,089	99.18	2.3	96.88	NP
	07/19/13	NS	NS	NS	NS		1.74	97.44	NP
	10/18/13	166	<1	104	405		1.41	97.77	NP
	01/13/14	249	<1	268	1733		2.02	97.16	NP
	04/02/14	149	3.1	127	852		2.49	96.69	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.29	96.89	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.61	97.57	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.62	97.56	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.85	97.33	NP
	07/20/15	<1.0	<1.0	<1.0	<1.0		2.06	97.12	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		1.53	97.65	NP
	01/29/16	<1.0	<1.0	<1.0	<1.0		2.75	96.43	NP
	04/28/16	<1.0	<1.0	<1.0	<1.0		1.50	97.68	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		2.43	96.75	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		1.63	97.55	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		2.72	96.46	NP
	04/05/17	<1.0	<1.0	<1.0	<1.0		3.10	96.08	NP
07/25/17	<1.0	<1.0	<1.0	<1.0		2.99	96.19	NP	
10/12/17	<1.0	<1.0	<1.0	<1.0		1.52	99.66	NP	
01/25/18	<1.0	<1.0	<1.0	<2.0		1.96	97.22	NP	
04/06/18	<1.0	<1.0	1.6	9.6		2.32	96.86	NP	
07/09/18	<1.0	<1.0	<1.0	<2.0		2.48	96.70	NP	
MW-17	07/09/13	851		390	9,256	99.45	2.5	96.95	NP
	07/19/13	NS	NS	NS	NS		2.02	97.43	NP
	10/18/13	961	<1	82.2	8473		1.43	98.02	NP
	01/13/14	455	<1	101	4781		2.19	97.26	NP
	04/02/14	435	4.4	69.1	5184		2.69	96.76	NP
	07/15/14	1081	<1.0	106	5741		2.46	96.99	NP
	10/07/14	461	<1.0	247	2008		1.85	97.60	NP
	01/20/15	212	2.3	181	1844		1.86	97.59	NP
	04/20/15	26	<1.0	4.4	140		2.19	97.26	NP
	07/20/15	280	<1.0	21	130		2.27	97.18	NP
	10/28/15	77	<1.0	29	54		1.75	97.70	NP
	01/29/16	<1.0	<1.0	<1.0	<1.0		2.97	96.48	NP
	04/28/16	<1.0	<1.0	<1.0	<1.0		1.70	97.75	NP
	07/26/16	16	<1.0	1.8	18		2.64	96.81	NP
	10/18/16	71	<1.0	2.9	17		1.83	97.62	NP
	01/06/17	91	<1.0	7.2	5.5		2.91	96.54	NP
	04/05/17	50	<1.0	4.1	<1.0		3.28	96.17	NP
07/25/17	3.1	<1.0	<1.0	<1.0		3.16	96.29	NP	
10/12/17	14	<1.0	1.3	25		1.69	99.66	NP	
01/25/18	190	1.1	3.8	10		2.15	97.30	NP	
04/06/18	<1.0	<1.0	<1.0	<2.0		2.46	96.99	NP	
07/09/18	NS	NS	NS	NS		DRY	DRY	DRY	
MW-18	07/09/13	<1.0	<1.0	<1.0	<1.0	98.28	1.54	96.74	NP
	07/19/13	NS	NS	NS	NS		1.02	97.26	NP
	10/18/13	<1	<1	<1	<1		0.66	97.62	NP
	01/13/14	<1	<1	<1	<1		1.15	97.13	NP
	04/02/14	<1	<1	<1	<1		1.68	96.60	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		1.49	96.79	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		0.81	97.47	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		0.83	97.45	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.06	97.22	NP
	07/20/15	<1.0	<1.0	<1.0	<1.0		1.29	96.99	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		0.76	97.52	NP
01/29/16	<1.0	<1.0	<1.0	<1.0		1.98	96.30	NP	

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-18	04/28/16	<1.0	<1.0	<1.0	<1.0	98.28	too shallow	too shallow	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		1.81	96.47	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		1.00	97.28	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		2.09	96.19	NP
	04/05/17	<1.0	<1.0	<1.0	<1.0		2.47	95.81	NP
	07/25/17	<1.0	<1.0	<1.0	<1.0		2.36	95.92	NP
	10/12/17	<1.0	<1.0	<1.0	<1.0		0.89	99.66	NP
	01/25/18	<1.0	<1.0	<1.0	<2.0		1.12	97.16	NP
	04/06/18	<1.0	<1.0	<1.0	<2.0		1.45	96.83	NP
07/09/18	<1.0	<1.0	<1.0	<2.0		1.70	96.58	NP	
MW-19	07/09/13	<1.0	<1.0	<1.0	<1.0	98.47	1.71	96.76	NP
	07/19/13	NS	NS	NS	NS		1.1	97.37	NP
	10/18/13	<1	<1	<1	<1		1.78	96.69	NP
	01/13/14	<1	<1	<1	<1		1.33	97.14	NP
	04/02/14	<1	<1	<1	<1		1.84	96.63	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		1.65	96.82	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		0.99	97.48	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.01	97.46	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.24	97.23	NP
MW-20	07/19/13	<1.0	<1.0	<1.0	<1.0	99.40	1.33	98.07	NP
	10/18/13	<1	<1	<1	<1		1.51	97.89	NP
	01/13/14	<1	<1	<1	<1		2.11	97.29	NP
	04/02/14	<1	<1	<1	<1		2.57	96.83	NP
	07/15/14	8.4	<1.0	<1.0	<1.0		2.32	97.08	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.70	97.70	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.71	97.69	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.95	97.45	NP
MW-21	07/19/13	<1.0	<1.0	<1.0	<1.0	99.31	1.67	97.64	NP
	10/18/13	<1	<1	<1	<1		1.51	97.80	NP
	01/13/14	<1	<1	<1	<1		2.10	97.21	NP
	04/02/14	<1	<1	<1	<1		2.56	96.75	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.33	96.98	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.71	97.60	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.73	97.58	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.96	97.35	NP
MW-22	07/19/13	<1.0	<1.0	<1.0	<1.0	99.12	2.01	97.11	NP
	10/18/13	<1	<1	<1	<1		1.73	97.39	NP
	01/13/14	<1	<1	<1	<1		2.01	97.11	NP
	04/02/14	<1	<1	<1	<1		2.49	96.63	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.30	96.82	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.85	97.27	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.86	97.26	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		2.09	97.03	NP
	07/20/15	<1.0	<1.0	<1.0	<1.0		1.10	98.02	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		0.59	98.53	NP
	01/29/16	<1.0	<1.0	<1.0	<1.0		1.79	97.33	NP
	04/28/16	<1.0	<1.0	<1.0	<1.0		too shallow	too shallow	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		1.80	97.32	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		0.99	98.13	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		2.07	97.05	NP
	04/05/17	<1.0	<1.0	<1.0	<1.0		2.45	96.67	NP
	07/25/17	<1.0	<1.0	<1.0	<1.0		2.34	96.78	NP
	10/12/17	<1.0	<1.0	<1.0	<1.0		0.88	99.66	NP
	01/25/18	<1.0	<1.0	<1.0	<2.0		2.05	97.07	NP
04/06/18	<1.0	<1.0	<1.0	<2.0		2.25	96.87	NP	
07/09/18	<1.0	<1.0	<1.0	2.8		2.47	96.65	NP	
MW-23	07/19/13	<1.0	<1.0	<1.0	<1.0	98.77	1.41	97.36	NP
	10/18/13	<1	<1	<1	<1		0.98	97.79	NP
	01/13/14	<1	<1	<1	<1		1.52	97.25	NP
	04/02/14	<1	<1	<1	<1		2.01	96.76	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		1.82	96.95	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		1.16	97.61	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.18	97.59	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.42	97.35	NP
	07/20/15	<1.0	<1.0	<1.0	<1.0		1.62	97.15	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		1.10	97.67	NP
	01/29/16	<1.0	<1.0	<1.0	<1.0		2.32	96.45	NP

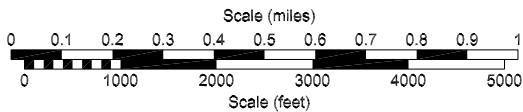
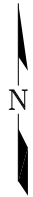
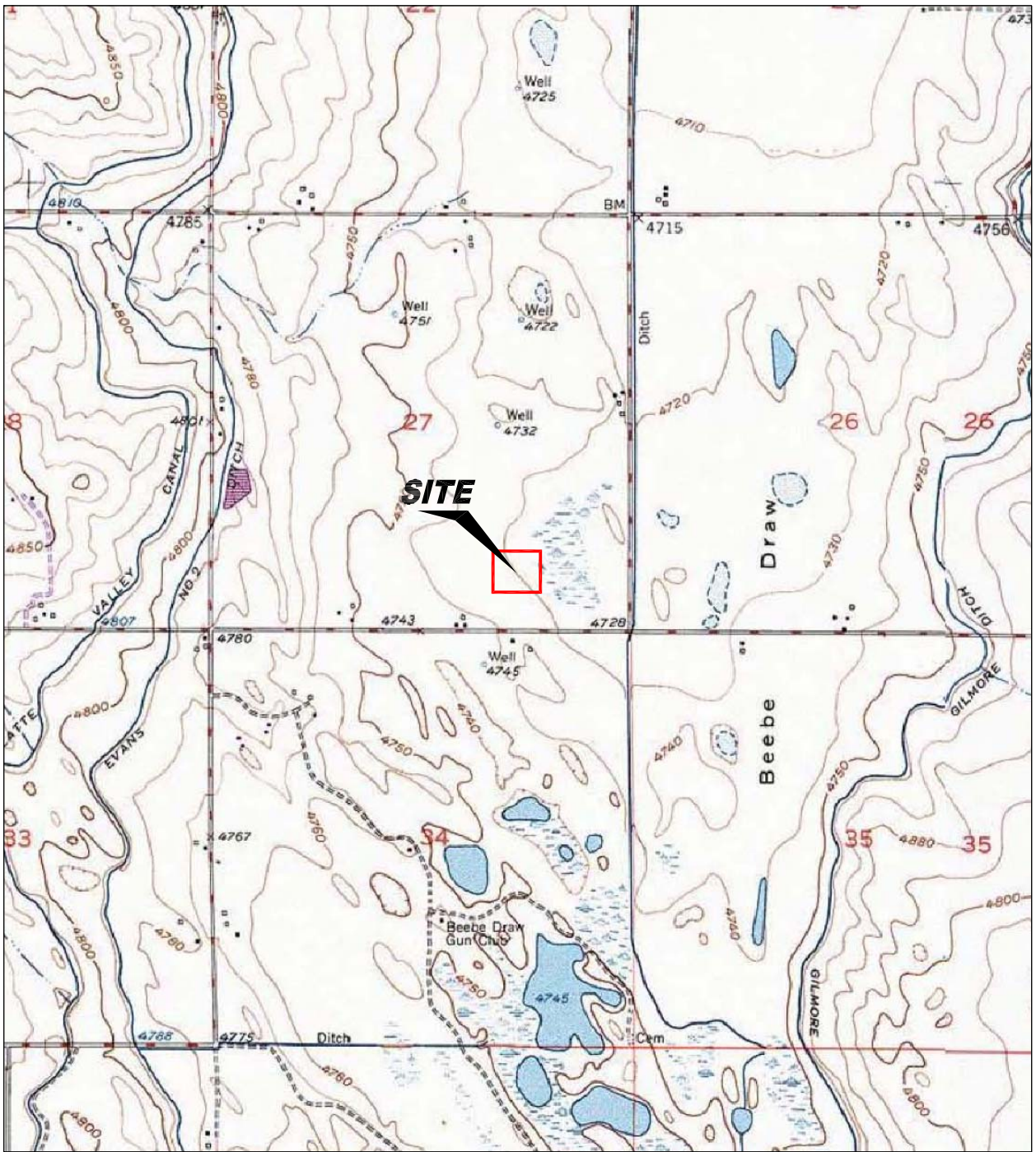
SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-23	04/28/16	<1.0	<1.0	<1.0	<1.0	98.77	1.06	97.71	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		1.99	96.78	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		1.19	97.58	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		2.27	96.50	NP
	04/05/17	<1.0	<1.0	<1.0	<1.0		2.63	96.14	NP
	07/25/17	<1.0	<1.0	<1.0	<1.0		2.53	96.24	NP
	10/12/17	<1.0	<1.0	<1.0	<1.0		1.07	99.66	NP
	01/25/18	<1.0	<1.0	<1.0	<2.0		1.45	97.32	NP
	04/06/18	<1.0	<1.0	<1.0	<2.0		1.75	97.02	NP
07/09/18	<1.0	<1.0	<1.0	<2.0		1.97	96.80	NP	
MW-24	07/19/13	2.4	<1.0	36.6	1,364	99.08	1.57	97.51	NP
	10/18/13	<1	<1	<1	<1		1.2	97.88	NP
	01/13/14	3.3	<1	23.7	64.4		1.74	97.34	NP
	04/02/14	1.9	<1	10.3	35.7		2.23	96.85	NP
	07/15/14	<1.0	<1.0	4.0	1.4		2.01	97.07	NP
	10/07/14	<1.0	<1.0	<1.0	1.5		1.40	97.68	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.39	97.69	NP
	04/20/15	<1.0	<1.0	<1.0	4.6		1.62	97.46	NP
	07/20/15	<1.0	<1.0	<1.0	<1.0		1.82	97.26	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		1.30	97.78	NP
	01/29/16	<1.0	<1.0	<1.0	<1.0		2.51	96.57	NP
	04/28/16	<1.0	<1.0	<1.0	<1.0		1.25	97.83	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		2.18	96.90	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		1.36	97.72	NP
	01/06/17	2.3	<1.0	<1.0	6.4		2.49	96.59	NP
	04/05/17	2.3	<1.0	3.6	30		2.84	96.24	NP
	07/25/17	<1.0	<1.0	<1.0	<1.0		2.75	96.33	NP
	10/12/17	<1.0	<1.0	<1.0	<1.0		1.27	99.66	NP
01/25/18	<1.0	<1.0	<1.0	<2.0		1.65	97.43	NP	
04/06/18	<1.0	<1.0	<1.0	1200		2.00	97.08	NP	
07/09/18	NS	NS	NS	NS		DRY	DRY	DRY	
MW-25	07/19/13	803	<1.0	473	10,322	99.36	1.96	97.40	NP
	10/18/13	435	<1	119	1572		1.49	97.87	NP
	01/13/14	47.8	<1	6.3	159		2.03	97.33	NP
	04/02/14	44.1	<1	24.3	200		2.58	96.78	NP
	07/15/14	115	<1.0	39.2	120		2.35	97.01	NP
	10/07/14	57.1	<1.0	9.3	12.1		1.69	97.67	NP
	01/20/15	36.2	<1.0	5.1	44.6		1.71	97.65	NP
	04/20/15	16	<1.0	1.2	5.0		1.94	97.42	NP
	07/20/15	5.8	<1.0	<1.0	<1.0		2.15	97.21	NP
	10/28/15	13	<1.0	<1.0	<1.0		1.63	97.73	NP
	01/29/16	Damaged	Damaged	Damaged	Damaged		Damaged	Damaged	Damaged
	03/17/16	83	<1.0	2.1	24		NM	NM	NP
	04/28/16	7.3	<1.0	<1.0	4.0		too shallow	too shallow	NP
	07/26/16	2.7	<1.0	<1.0	<1.0		1.80	97.56	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		0.98	98.38	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		2.07	97.29	NP
	04/05/17	51	<1.0	2.1	18		2.46	96.90	NP
	07/25/17	1.4	<1.0	<1.0	<1.0		2.34	97.02	NP
10/12/17	<1.0	<1.0	<1.0	<1.0		0.86	99.66	NP	
01/25/18	<1.0	<1.0	<1.0	2.3		1.96	97.40	NP	
04/06/18	5.6	<1.0	<1.0	3900		2.33	97.03	NP	
07/09/18	13	<1.0	<1.0	<2.0		2.49	96.87	NP	
MW-26	07/19/13	198	<1.0	344	2,547	99.30	1.88	97.42	NP
	10/18/13	109	<1	83.9	894		1.49	97.81	NP
	01/13/14	<1	<1	<1	<1		2.01	97.29	NP
	04/02/14	<1	<1	<1	<1		2.54	96.76	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		2.29	97.01	NP
	10/07/14	2.7	<1.0	<1.0	1.2		1.64	97.66	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		1.65	97.65	NP
	04/20/15	13	<1.0	2.0	8.0		1.88	97.42	NP
	07/20/15	3.1	<1.0	<1.0	<1.0		2.11	97.19	NP
	10/28/15	20	<1.0	13	49		1.60	97.70	NP
	01/29/16	Damaged	Damaged	Damaged	Damaged		Damaged	Damaged	Damaged
	03/17/16	23	<1.0	2.2	59		NM	NM	NP
	04/28/16	60	<1.0	20	110		too shallow	too shallow	NP
07/26/16	40	<1.0	6.3	17		1.79	97.51	NP	
10/18/16	2.8	<1.0	10	190		0.98	98.32	NP	

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-26	01/06/17	29	<1.0	5.2	57	99.30	2.06	97.24	NP
	04/05/17	38	<1.0	6.5	75		2.44	96.86	NP
	07/25/17	<1.0	<1.0	<1.0	<1.0		2.21	97.09	NP
	10/12/17	<1.0	<1.0	<1.0	<1.0		0.75	99.66	NP
	01/25/18	<1.0	<1.0	<1.0	72		2.00	97.30	NP
	04/06/18	130	<1.0	1.2	6900		2.32	96.98	NP
	07/09/18	3.2	<1.0	5.7	50		2.58	96.72	NP
MW-27	07/19/13	<1.0	<1.0	<1.0	<1.0	98.40	0.91	97.49	NP
	10/18/13	<1	<1	<1	<1		0.7	97.70	NP
	01/13/14	<1	<1	<1	<1		1.23	97.17	NP
	04/02/14	<1	<1	<1	<1		1.73	96.67	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		3.41	94.99	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		0.87	97.53	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		0.89	97.51	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.12	97.28	NP
MW-28	07/19/13	<1.0	<1.0	<1.0	<1.0	98.64	1.14	97.50	NP
	10/18/13	<1	<1	<1	<1		0.79	97.85	NP
	01/13/14	<1	<1	<1	<1		1.28	97.36	NP
	04/02/14	<1	<1	<1	<1		1.79	96.85	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		1.59	97.05	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		0.95	97.69	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		0.96	97.68	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		1.19	97.45	NP
	07/20/15	<1.0	<1.0	<1.0	<1.0		1.38	97.26	NP
	10/28/15	<1.0	<1.0	<1.0	<1.0		0.87	97.77	NP
	01/29/16	<1.0	<1.0	<1.0	<1.0		2.07	96.57	NP
	04/28/16	<1.0	<1.0	<1.0	<1.0		too shallow	too shallow	NP
	07/26/16	<1.0	<1.0	<1.0	<1.0		1.82	96.82	NP
	10/18/16	<1.0	<1.0	<1.0	<1.0		1.81	96.83	NP
	01/06/17	<1.0	<1.0	<1.0	<1.0		2.88	95.76	NP
	04/05/17	<1.0	<1.0	<1.0	<1.0		2.49	96.15	NP
	07/25/17	<1.0	<1.0	<1.0	<1.0		2.27	96.37	NP
	10/12/17	<1.0	<1.0	<1.0	<1.0		0.81	99.66	NP
	01/25/18	<1.0	<1.0	<1.0	<2.0		1.23	97.41	NP
	04/06/18	3.6	<1.0	1.4	840		1.53	97.11	NP
07/09/18	NS	NS	NS	NS		DRY	DRY	DRY	
MW-29	07/19/13	<1.0	<1.0	<1.0	<1.0	101.04	3.45	97.59	NP
	10/18/13	<1	<1	<1	<1		3.03	98.01	NP
	01/13/14	<1	<1	<1	<1		3.58	97.46	NP
	04/02/14	<1	<1	<1	<1		4.13	96.91	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		3.96	97.08	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		3.32	97.72	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		NF	NF	NP
	04/20/15	NF	NF	NF	NF		NF	NF	NF
MW-30	07/19/13	<1.0	<1.0	<1.0	<1.0	100.22	2.73	97.49	NP
	10/18/13	<1	<1	<1	<1		2.3	97.92	NP
	01/13/14	<1	<1	<1	<1		2.82	97.40	NP
	04/02/14	<1	<1	<1	<1		3.35	96.87	NP
	07/15/14	<1.0	<1.0	<1.0	<1.0		3.22	97.00	NP
	10/07/14	<1.0	<1.0	<1.0	<1.0		2.59	97.63	NP
	01/20/15	<1.0	<1.0	<1.0	<1.0		2.61	97.61	NP
	04/20/15	<1.0	<1.0	<1.0	<1.0		2.94	97.28	NP
Table 910-1 Limits		5	560	700	1,400				

Bold face values exceed the COGCC limits.

NP - No Free Product

NS- Not Sampled



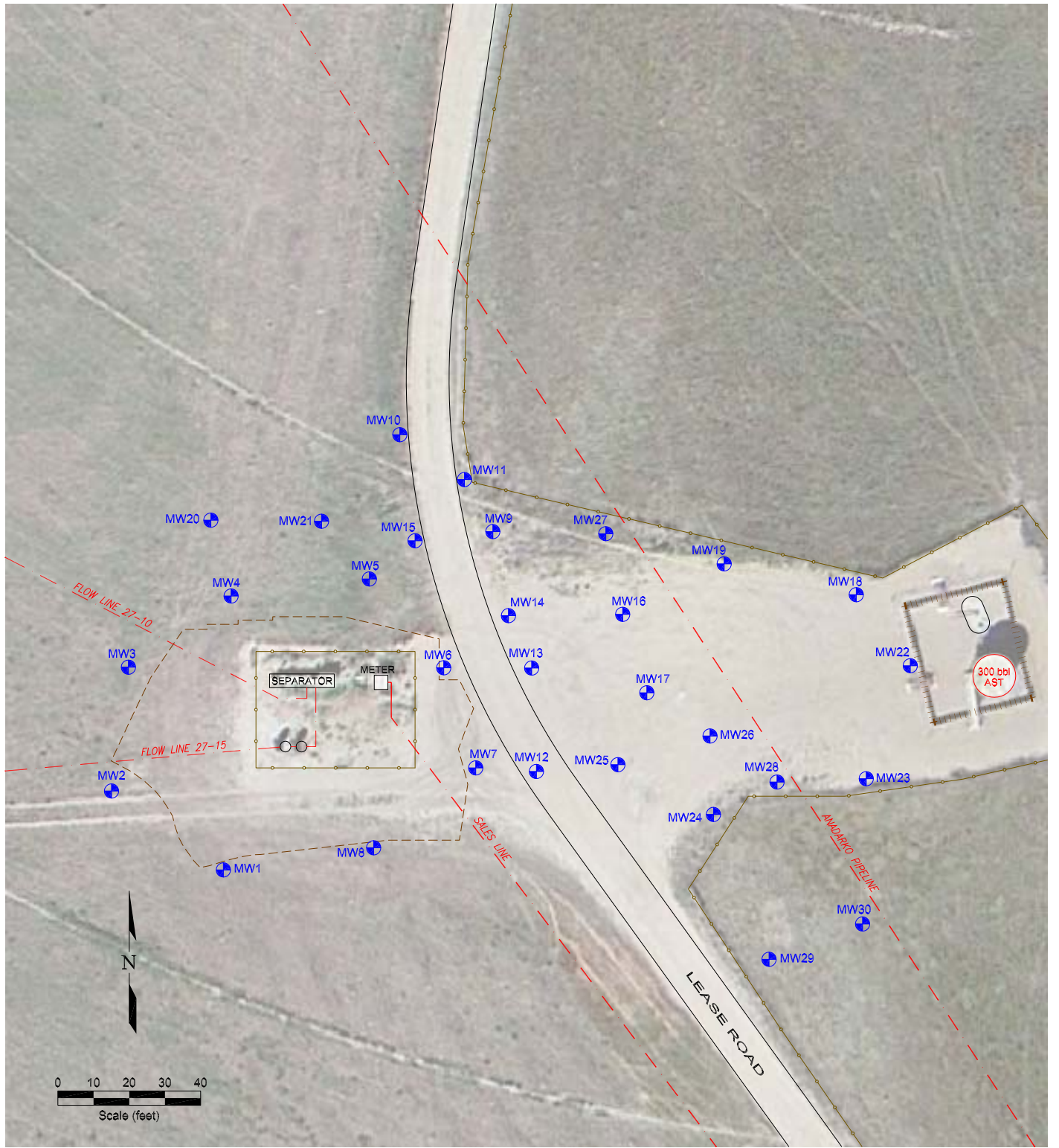
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

Noble Lipsack R G27-15
SW SE Section 27, T4N, R65W
Weld County, Colorado

Project No. C013-009	Prepared by	Drawn by JMA
Date 5/21/13	Reviewed by	Filename 13009T





LEGEND






-  MONITORING WELL
-  FENCE LINE
-  PIPELINE
-  CONTAINMENT BERM
-  ABOVE GROUND STORAGE TANK

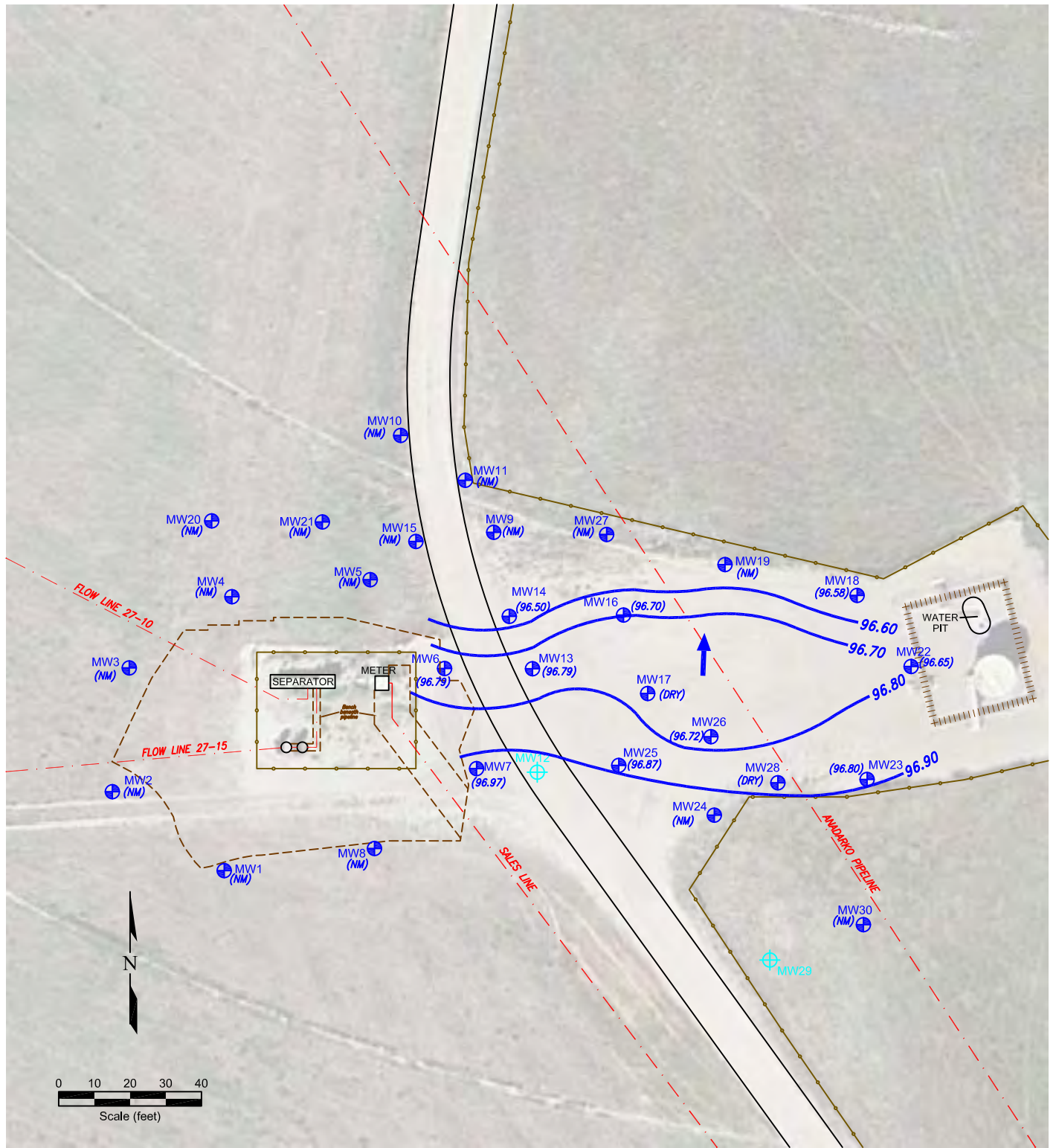
Figure 2

SITE MAP

Noble Libsack R G27-15
 SW SE Section 27, T4N, R65W
 Weld County, Colorado

Project No. C013-009	Prepared by	Drawn by JMA
Date 7/24/13	Reviewed by	Filename 13009R





LEGEND

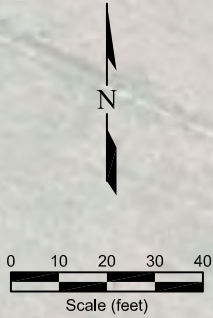
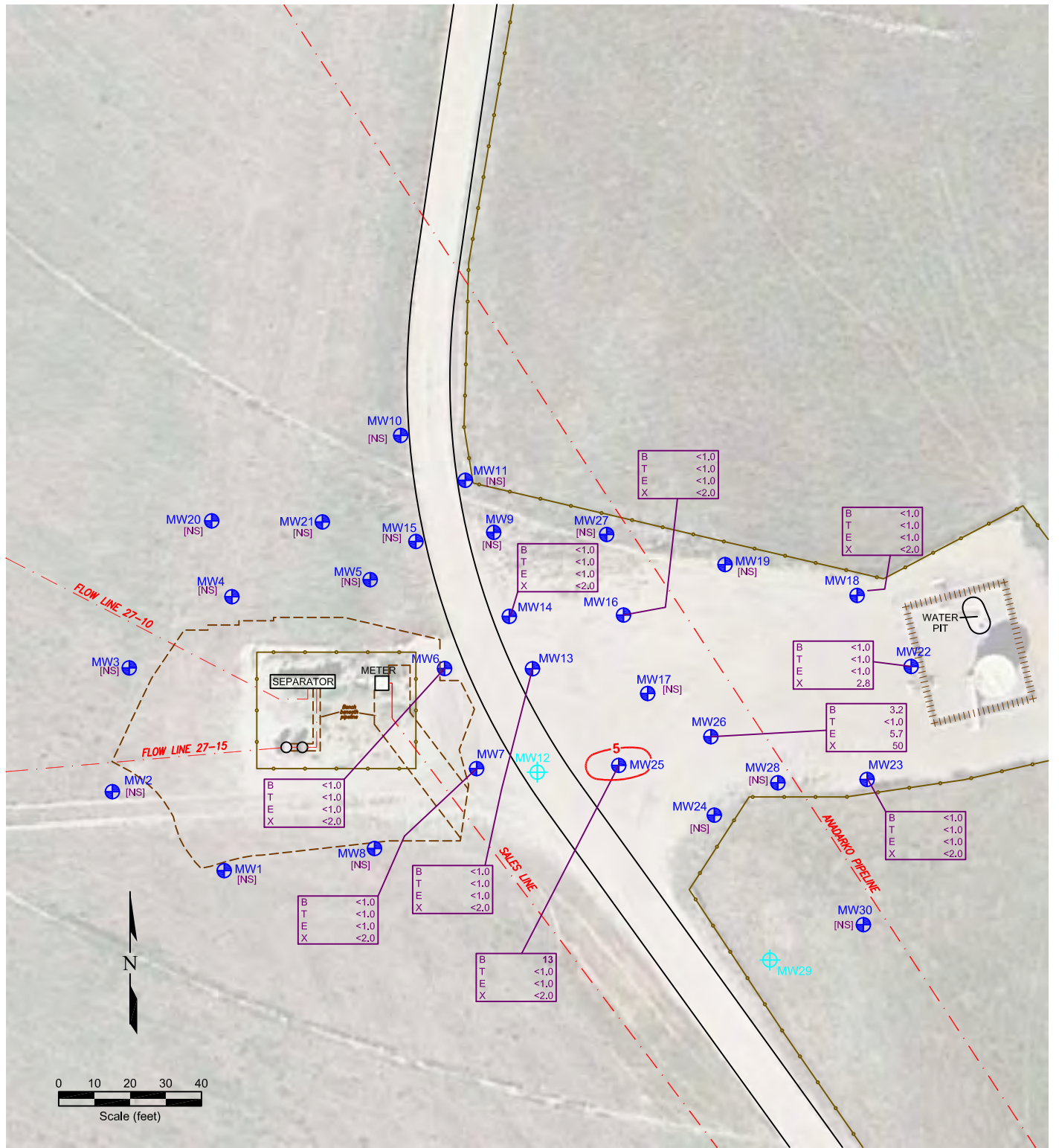
- MONITORING WELL
- DESTROYED MONITORING WELL
- FENCE LINE
- PIPELINE
- CONTAINMENT BERM
-
- GROUND WATER ELEVATION (ft above arbitrary datum)
- TOO SHALLOW
- NOT MEASURED
- WATER TABLE CONTOUR
- GROUND WATER FLOW DIRECTION
- NOT USED FOR CONTOURING

Figure 3
INFERRED GROUND WATER CONTOUR
 July 9, 2018

Noble Libsack R G27-15
 SW SE Section 27, T4N, R65W
 Weld County, Colorado

Project No. C013-009	Prepared by TDA	Drawn by JMA
Date 8/2/18	Reviewed by KR	Filename 13009R





LEGEND

	MONITORING WELL								
	DESTROYED MONITORING WELL								
	FENCE LINE								
	PIPELINE								
	CONTAINMENT BERM								
<table border="1" style="display: inline-table; margin-right: 10px;"> <tr><td>B</td><td><1.0</td></tr> <tr><td>T</td><td><1.0</td></tr> <tr><td>E</td><td><1.0</td></tr> <tr><td>X</td><td><1.0</td></tr> </table>	B	<1.0	T	<1.0	E	<1.0	X	<1.0	BENZENE (ug/L) TOLUENE (ug/L) ETHYLBENZENE (ug/L) TOTAL XYLENES (ug/L)
B	<1.0								
T	<1.0								
E	<1.0								
X	<1.0								
NS	NOT SAMPLED								
	BENZENE ISOCONCENTRATION (ug/L)								

Figure 4
GROUND WATER CHEMISTRY MAP
 July 9, 2018

Noble Libsack R G27-15
 SW SE Section 27, T4N, R65W
 Weld County, Colorado

Project No. C013-009	Prepared by TDA	Drawn by JMA	
Date 8/2/18	Reviewed by KR	Filename 13009R	

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 13, 2018

Paul Henehan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Libsack R G27-15

Enclosed are the results of analyses for samples received by Summit Scientific on 07/09/18 13:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Ben Shrewsbury
Laboratory Manager



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
Project Manager: Paul Henehan

Reported:
07/13/18 07:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	1807100-01	Water	07/09/18 10:30	07/09/18 13:15
MW-7	1807100-02	Water	07/09/18 10:35	07/09/18 13:15
MW-13	1807100-03	Water	07/09/18 10:45	07/09/18 13:15
MW-14	1807100-04	Water	07/09/18 10:55	07/09/18 13:15
MW-16	1807100-05	Water	07/09/18 11:05	07/09/18 13:15
MW-18	1807100-06	Water	07/09/18 11:15	07/09/18 13:15
MW-22	1807100-07	Water	07/09/18 11:25	07/09/18 13:15
MW-23	1807100-08	Water	07/09/18 11:35	07/09/18 13:15
MW-25	1807100-09	Water	07/09/18 11:45	07/09/18 13:15
MW-26	1807100-10	Water	07/09/18 11:55	07/09/18 13:15

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

S₂

741 Corporate Circle, Suite J ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Client: Fremont Environmental

Project Manager: Paul Henehan

Address: P.O. Box 1289

E-Mail: paulh@fremontenv.com

City/State/Zip: PO Box 1829 Wellington, CO 80549

Phone: 303-956-8714

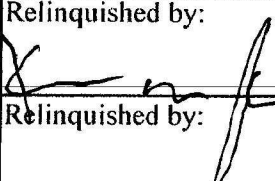
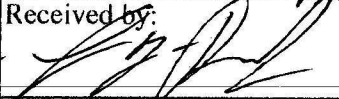
Fax:

Project Name: NOBLE LIBBY R G&T-15

Sampler Name: ROGOWSKI

Project Number: CO13-009

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEX	GRO/DRO	Napthalene	SAR	EC	Ph		
1	MW-6	7.9.13	1030	2			X		X					✓						
2	MW-7		1035											✓						
3	MW-13		1045											✓						
4	MW-14		1055											✓						
5	MW-16		1105											✓						
6	MW-18		1115											✓						
7	MW-22		1125											✓						
8	MW-23		1135											✓						
9	MW-25		1145											✓						
10	MW-26	7.9.13	1155	2			X		X					✓						

Relinquished by: 	Date/Time: 7.9.13 / 1315	Received by: 	Date/Time: 7.9.13 / 1315	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> <u>Standard</u> 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: 8.1 Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	Notes: on ve
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order: 1807100

Client: Freemont Environmental Client Project ID: Noble Libsack R G27-15

Shipped Via: Hand Airbill #: _____
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	<u>8.1</u>
-----------	------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	✓			
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		✓		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			✓	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			✓	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

LP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

7.9.18 1500
Date/Time



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-6
1807100-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.7 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-7
1807100-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1807095	07/10/18	07/11/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.1 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-13
1807100-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		87.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		139 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-14
1807100-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-16
1807100-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.8 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-18
1807100-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-22
1807100-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	2.8	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.3 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.8 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.5 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-23
1807100-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-25
1807100-09 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	13	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92.1 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.1 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

MW-26
1807100-10 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/18 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	3.2	1.0	ug/l	1	1807095	07/10/18	07/12/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	5.7	1.0	"	"	"	"	"	"	
Xylenes (total)	50	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/18 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		86.4 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.0 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		111 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
Project Manager: Paul Henehan

Reported:
07/13/18 07:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1807095 - EPA 5030 Water MS

Blank (1807095-BLK1)

Prepared: 07/10/18 Analyzed: 07/11/18

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.6		"	13.2		95.3	23-173			
Surrogate: Toluene-d8	12.5		"	13.3		93.7	20-170			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	21-167			

LCS (1807095-BS1)

Prepared: 07/10/18 Analyzed: 07/11/18

Benzene	31.4	1.0	ug/l	33.3		94.1	70-130			
Toluene	33.3	1.0	"	33.3		100	70-130			
Ethylbenzene	34.5	1.0	"	33.3		103	70-130			
m,p-Xylene	65.1	2.0	"	66.7		97.7	70-130			
o-Xylene	32.3	1.0	"	33.3		96.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.2		98.6	23-173			
Surrogate: Toluene-d8	13.1		"	13.3		98.5	20-170			
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		99.6	21-167			

Matrix Spike (1807095-MS1)

Source: 1807100-02

Prepared: 07/10/18 Analyzed: 07/11/18

Benzene	32.1	1.0	ug/l	33.3	ND	96.2	70-130			
Toluene	34.1	1.0	"	33.3	ND	102	70-130			
Ethylbenzene	37.8	1.0	"	33.3	ND	114	70-130			
m,p-Xylene	71.9	2.0	"	66.7	ND	108	70-130			
o-Xylene	35.0	1.0	"	33.3	ND	105	70-130			
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.2		97.9	23-173			
Surrogate: Toluene-d8	12.9		"	13.3		96.9	20-170			
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		99.5	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
 Project Manager: Paul Henehan

Reported:
 07/13/18 07:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting		Spike Level	Source Result	%REC		RPD		Notes
	Result	Limit			Units	%REC	Limits	RPD	

Batch 1807095 - EPA 5030 Water MS

Matrix Spike Dup (1807095-MSD1)	Source: 1807100-02			Prepared: 07/10/18		Analyzed: 07/11/18			
Benzene	29.1	1.0	ug/l	33.3	ND	87.2	70-130	9.85	30
Toluene	30.7	1.0	"	33.3	ND	92.2	70-130	10.4	30
Ethylbenzene	33.9	1.0	"	33.3	ND	102	70-130	11.0	30
m,p-Xylene	64.6	2.0	"	66.7	ND	96.9	70-130	10.7	30
o-Xylene	30.7	1.0	"	33.3	ND	92.2	70-130	13.1	30
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.3</i>		<i>"</i>	<i>13.2</i>		<i>101</i>	<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>12.9</i>		<i>"</i>	<i>13.3</i>		<i>96.5</i>	<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.5</i>	<i>21-167</i>		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Libsack R G27-15

Project Number: C013-009
Project Manager: Paul Henehan

Reported:
07/13/18 07:04

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference