

FREMONT ENVIRONMENTAL INC.

May 25, 2015

Mr. Jacob Evans
Noble Energy Inc.
1625 Broadway
Denver, CO 80202

Remediation # 7871

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

Dear Mr. Jacobs:

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.

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

cc/enc:

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

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-5	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
	04/02/14	258	<1	<1	<1		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
	MW-7	06/14/13	1,063	27.8	<1.0	104	99.38	2.72	96.66
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
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
	07/19/13	NS	NS	NS	NS		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

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	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	NP
	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
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
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

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-16	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
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
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
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	-1.70	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

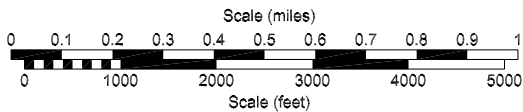
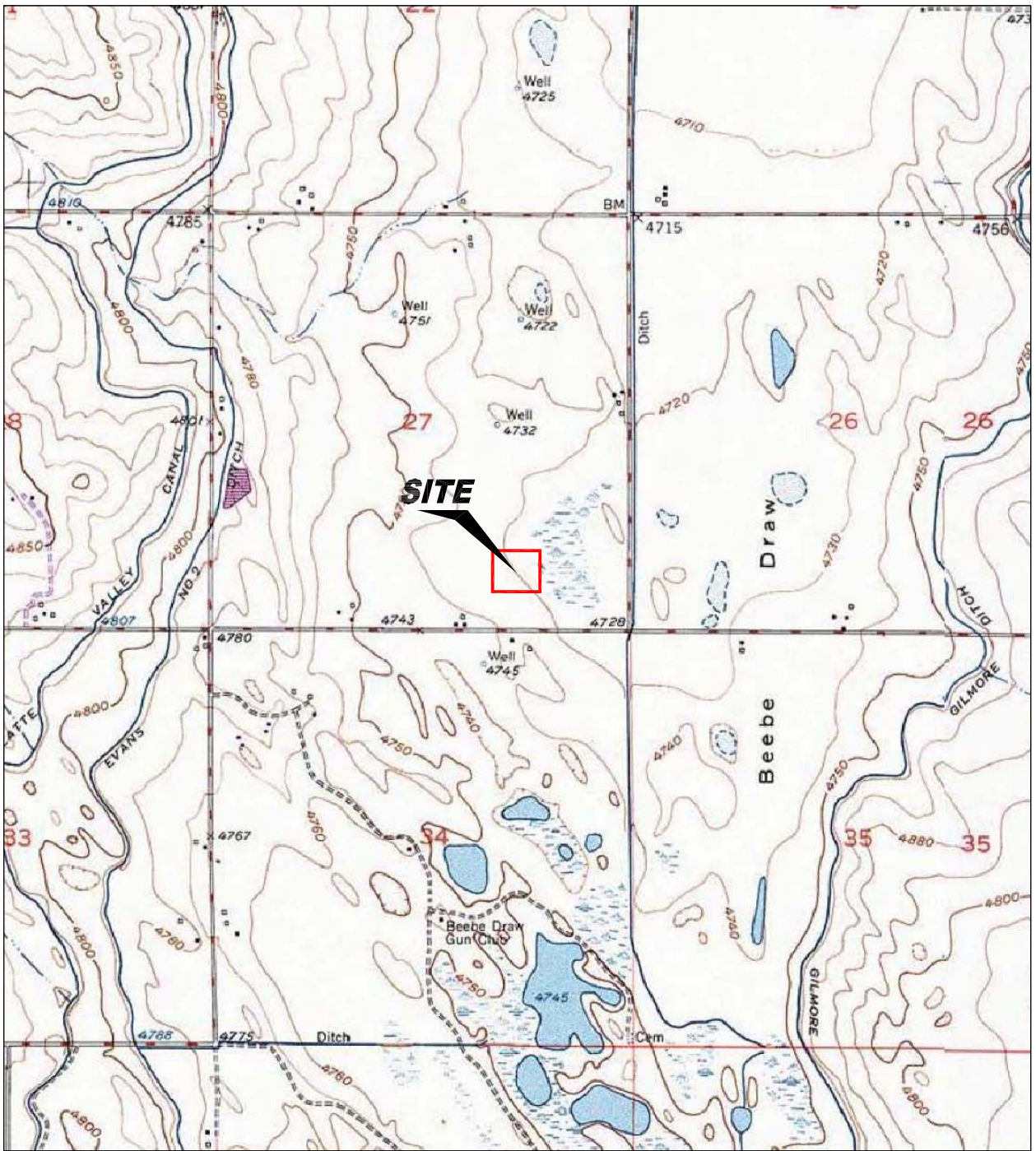
SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-22	04/20/15	<1.0	<1.0	<1.0	<1.0		2.09	97.03	NP
MW-23	07/19/13	<1.0	<1.0	<1.0	<1.0	98.77	1.41	97.36	NP
	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
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
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
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
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
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

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-29	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



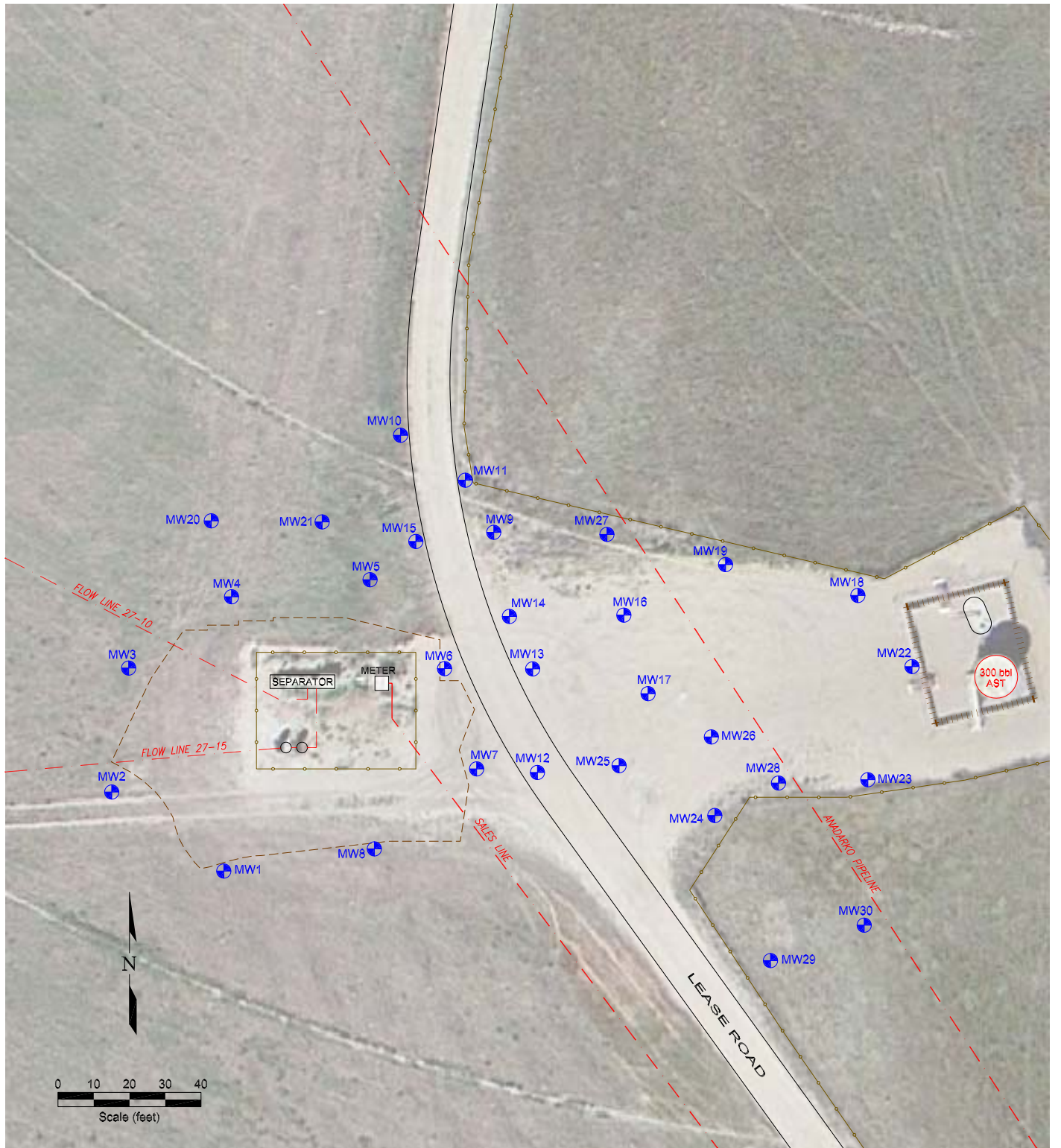
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

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

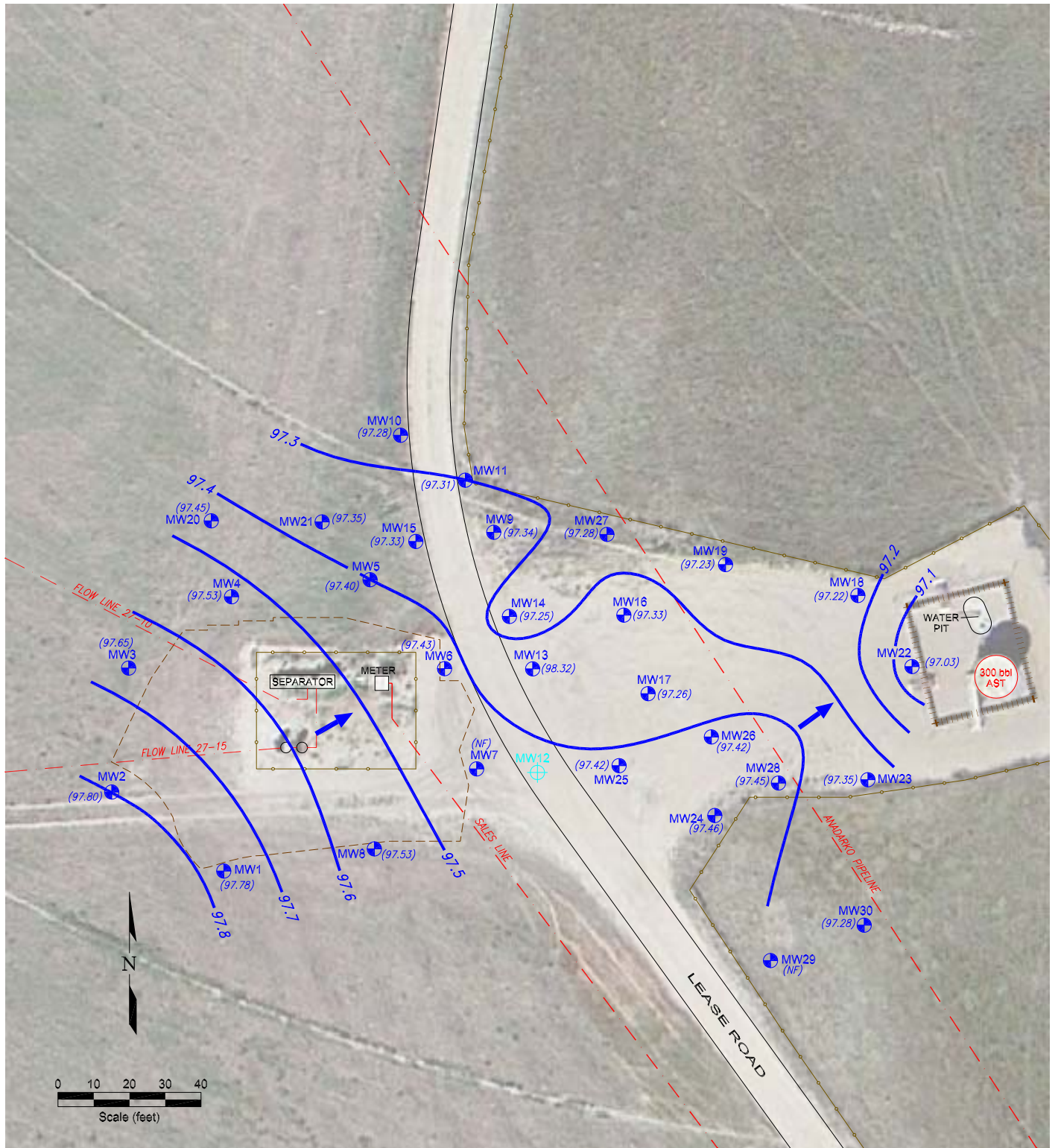
Figure 2

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








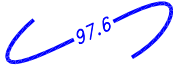

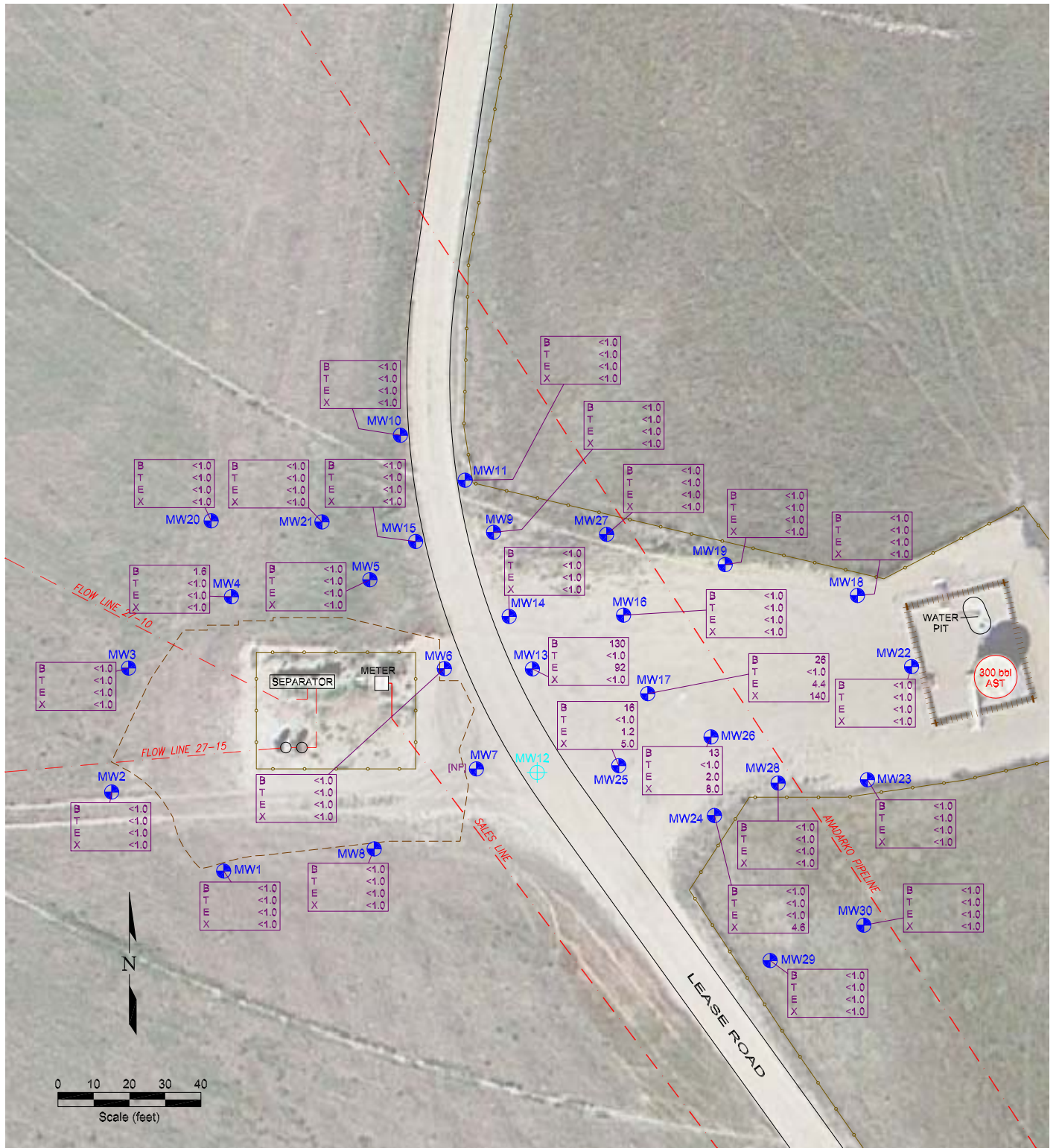
-  MONITORING WELL
-  DESTROYED MONITORING WELL
-  FENCE LINE
-  PIPELINE
-  CONTAINMENT BERM
-  ABOVE GROUND STORAGE TANK
-  GROUND WATER ELEVATION (ft above arbitrary datum)
-  WATER TABLE CONTOUR
-  GROUND WATER FLOW DIRECTION

Figure 3
INFERRED GROUNDWATER CONTOUR
 APRIL 20, 2015

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

Project No. C013-009	Prepared by	Drawn by JMA
Date 5/1/15	Reviewed by	Filename 13009R





LEGEND

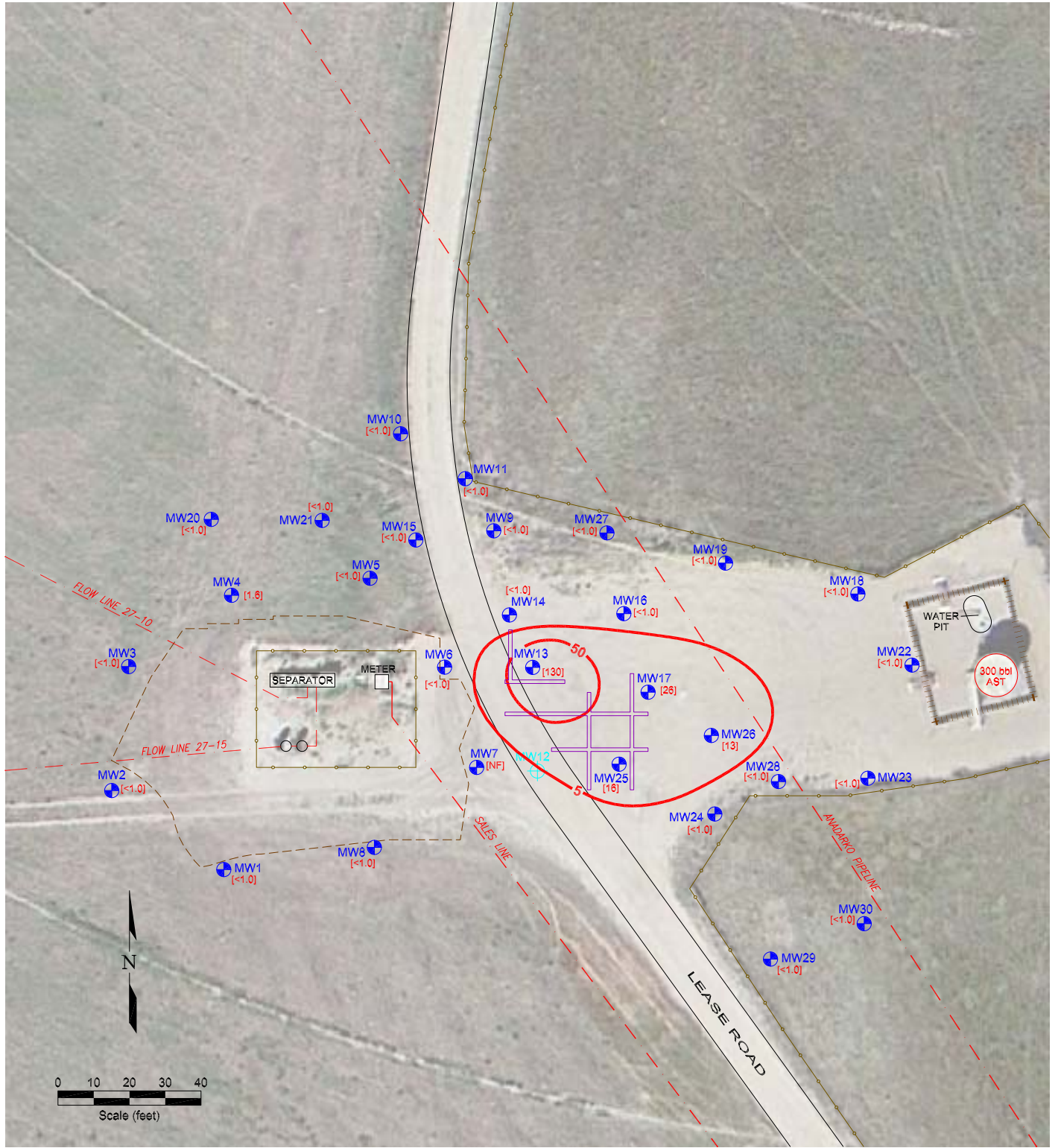
- MONITORING WELL
 - DESTROYED MONITORING WELL
 - FENCE LINE
 - PIPELINE
 - CONTAINMENT BERM
 - ABOVE GROUND STORAGE TANK
- | | | |
|---|------|----------------------|
| B | <1.0 | BENZENE (ug/L) |
| T | <1.0 | TOLUENE (ug/L) |
| E | <1.0 | ETHYLBENZENE (ug/L) |
| X | <1.0 | TOTAL XYLENES (ug/L) |
- NF NOT FOUND

Figure 4
GROUND WATER CHEMISTRY MAP
 APRIL 20, 2015

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

Project No. C013-009	Prepared by	Drawn by JMA
Date 11/17/14	Reviewed by	Filename 13009R





LEGEND










-  MONITORING WELL
-  DESTROYED MONITORING WELL
-  FENCE LINE
-  PIPELINE
-  CONTAINMENT BERM
-  ABOVE GROUND STORAGE TANK
-  COGAC-infused trench
-  BENEZENE CONCENTRATION (ug/L)
-  BENEZENE ISOCONCENTRATION (ug/L)

Figure 5
BENEZENE ISOCONCENTRATION MAP
 APRIL 20, 2015

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

Project No. C013-009	Prepared by	Drawn by JMA
Date 5/1/15	Reviewed by	Filename 13009R



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 30, 2015

Paul Henehan
Fremont Environmental
1630 South College Avenue
Ft. Collins, CO 80525

RE: Noble - Greenhead 18-11 & 12

Enclosed are the results of analyses for samples received by Summit Scientific on 04/23/15 14:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



Fremont Environmental
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	1504214-01	Water	04/23/15 11:00	04/23/15 14:05
MW2	1504214-02	Water	04/23/15 11:10	04/23/15 14:05
MW3	1504214-03	Water	04/23/15 11:20	04/23/15 14:05
MW4	1504214-04	Water	04/23/15 11:30	04/23/15 14:05
MW5	1504214-05	Water	04/23/15 11:40	04/23/15 14:05

Summit Scientific

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Fremont Environmental
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

Summit Scientific

S₂

1504214

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

Page 1 of 1

Client: Fremont Noble Project Manager: Paul Henehan
Address: PO Box 1289 E-Mail: Paul.H@fremontenv.com
City/State/Zip: Wellington, CO
Phone: 303.956.8714 Fax: Project Name: Noble Greenhead 18-11 & 12
Sampler Name: Mark T Project Number: C014-078

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)		
1	MW	4/23/15	1100	3			X		X					
2			1110											
3			1120											
4			1130											
5			1140											
6														
7														
8														
9														
10														
Relinquished by: <u>[Signature]</u>		Date/Time: <u>4/23/15</u>	Received by: <u>[Signature]</u>		Date/Time: <u>4/23/15</u>	Turn Around Time (Check)		Same Day <input checked="" type="checkbox"/>		72 hours		Standard <input checked="" type="checkbox"/>		Notes:
Relinquished by: <u>aw</u>		Date/Time: <u>1725</u>	Received by:		Date/Time:	24 hours		48 hours		Sample Integrity:		<u>24.6</u>		
Relinquished by:		Date/Time:	Received by:		Date/Time:	Temperature Upon Receipt:		Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No						

www.s2scientific.com



Fremont Environmental
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

Sample Receipt Checklist

S2 Work Order: 1504214

Client: Frel/Nob Client Project ID: Noble - Greenhead 18-11 & 12

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

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

Cooler ID					
Temp (°C)	<u>24.6</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?			<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, etc.				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Aisha Adham
Custodian Printed Name

AS
Signature or Initials of Custodian

4/24/15 1105
Date/Time



Fremont Environmental
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

MW1
1504214-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/23/15 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1504281	04/29/15	04/29/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/23/15 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>110 %</i>	<i>37-154</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>97.5 %</i>	<i>45-149</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>100 %</i>	<i>45-146</i>		"	"	"	"	

Summit Scientific

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Fremont Environmental
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

MW2
1504214-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/23/15 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1504281	04/29/15	04/29/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/23/15 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>111 %</i>	<i>37-154</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: Toluene-d8</i>		<i>96.1 %</i>	<i>45-149</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>101 %</i>	<i>45-146</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

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Fremont Environmental
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

MW3
1504214-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/23/15 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1504281	04/29/15	04/29/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/23/15 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95.0 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.6 %	45-146		"	"	"	"	

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
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

MW4
1504214-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/23/15 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1504281	04/29/15	04/29/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/23/15 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>114 %</i>	<i>37-154</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>95.8 %</i>	<i>45-149</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>98.6 %</i>	<i>45-146</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
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

MW5
1504214-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/23/15 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1504281	04/29/15	04/29/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/23/15 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.9 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.5 %	45-146		"	"	"	"	

Summit Scientific

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Fremont Environmental
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

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 1504281 - EPA 5030 Water MS

Blank (1504281-BLK1)

Prepared & Analyzed: 04/29/15

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.2		107	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		95.7	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	45-146			

LCS (1504281-BS1)

Prepared & Analyzed: 04/29/15

Benzene	28.1	1.0	ug/l	33.3		84.2	51-132			
Toluene	29.2	1.0	"	33.3		87.8	51-138			
Ethylbenzene	32.5	1.0	"	33.1		98.3	58-146			
m,p-Xylene	66.3	2.0	"	66.5		99.6	57-144			
o-Xylene	33.9	1.0	"	32.8		103	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.2		112	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		96.3	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.9	45-146			

Matrix Spike (1504281-MS1)

Source: 1504214-01

Prepared & Analyzed: 04/29/15

Benzene	28.2	1.0	ug/l	33.3	ND	84.7	34-141			
Toluene	29.6	1.0	"	33.3	ND	88.8	27-151			
Ethylbenzene	32.4	1.0	"	33.1	ND	97.9	29-160			
m,p-Xylene	65.6	2.0	"	66.5	ND	98.5	20-166			
o-Xylene	33.7	1.0	"	32.8	ND	103	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.2		112	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		96.1	45-149			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.2	45-146			

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Fremont Environmental
1630 South College Avenue
Ft. Collins CO, 80525

Project: Noble - Greenhead 18-11 & 12

Project Number: C014-078
Project Manager: Paul Henehan

Reported:
04/30/15 16:59

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 1504281 - EPA 5030 Water MS

Matrix Spike Dup (1504281-MSD1)	Source: 1504214-01			Prepared & Analyzed: 04/29/15						
Benzene	28.7	1.0	ug/l	33.3	ND	86.2	34-141	1.79	32	
Toluene	30.0	1.0	"	33.3	ND	89.9	27-151	1.28	25	
Ethylbenzene	32.7	1.0	"	33.1	ND	99.0	29-160	1.11	50	
m,p-Xylene	66.8	2.0	"	66.5	ND	100	20-166	1.92	36	
o-Xylene	34.5	1.0	"	32.8	ND	105	33-159	2.26	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>15.8</i>		<i>"</i>	<i>13.2</i>		<i>120</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>95.6</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.4</i>		<i>"</i>	<i>13.3</i>		<i>100</i>	<i>45-146</i>			

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Project Number: C014-078
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Reported:
04/30/15 16:59

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

Summit Scientific

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