

FREMONT ENVIRONMENTAL INC.

October 3, 2016

Mr. Phil Wright
Homestead Oil Inc.
16880 Wild Plum Circle
Morrison, CO 80465

RECEIVED 12/08/2016
REM 8307
Document #: 2225572

Subject: **Ground Water Data Submittal**
Stephens #1
API # 05-123-11552
SENW Sec 15, T4N, R66W
Weld County, Colorado
Fremont Project No. C014-027
Facility #243760, Remediation # 8307

Dear Mr. Wright:

Enclosed please find a copy of the above referenced Ground Water Data Submittal for the Stephens #1 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.

Quarterly sampling of monitoring wells MW-1 and MW-5 has indicated that the ground water impacts are less than the COGCC Table 910-1 limits in those wells; therefore, future sampling events will include the other monitoring wells which have been clean in the past. After four consecutive COGCC-compliant quarters, a No Further Action determination will be requested from the COGCC.

Fremont appreciates the opportunity to provide this service.

Sincerely,
FREMONT ENVIRONMENTAL INC.



Paul V. Henahan, P.E.
Senior Consultant

Enclosure

1759 REDWING LANE, BROOMFIELD, CO 80020
(303) 956-8714 (DIRECT)

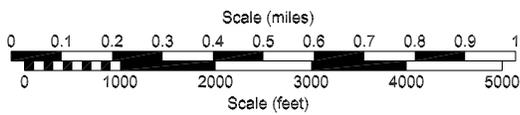
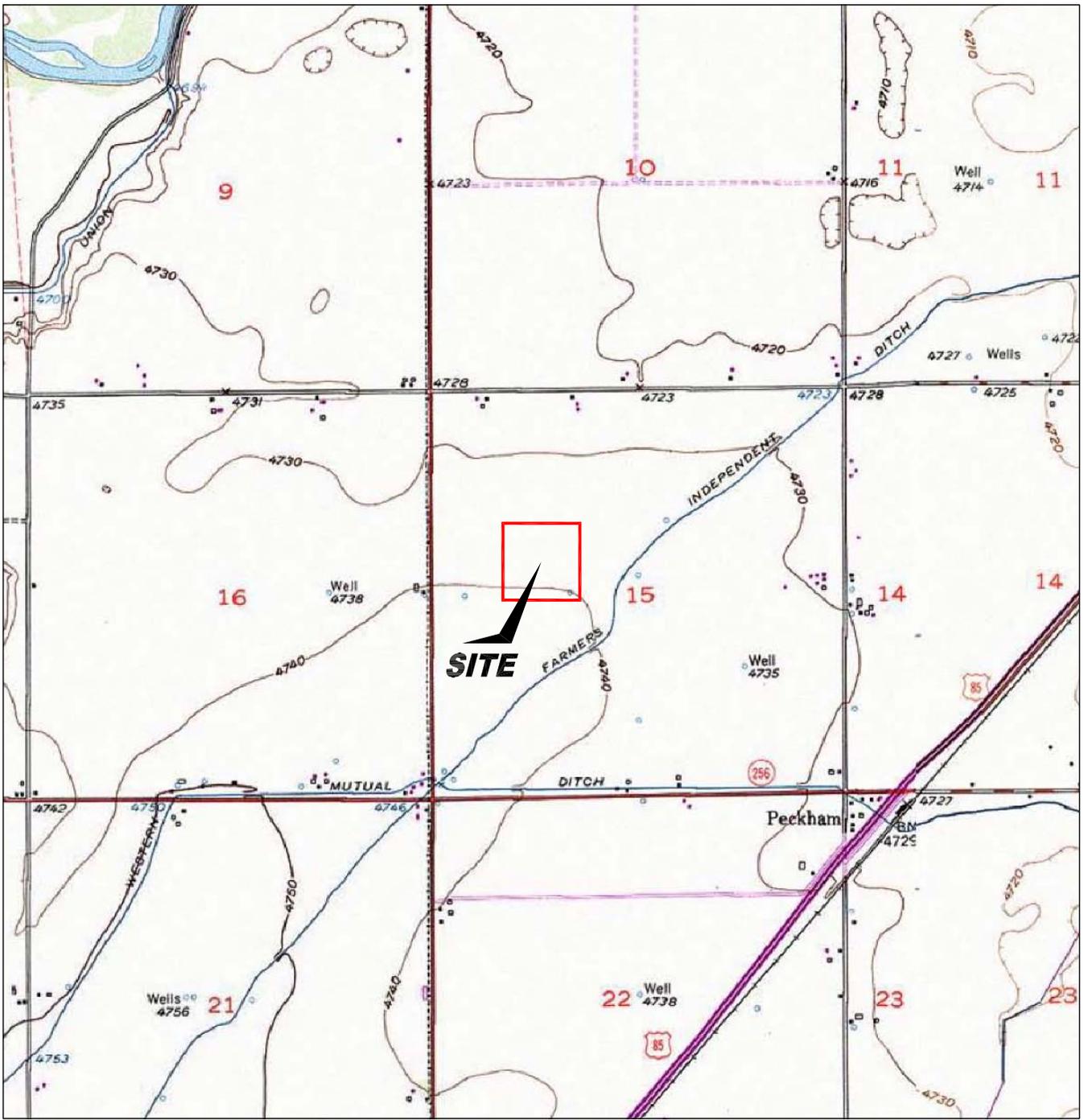
TABLE 1
SUMMARY OF GROUND WATER ELEVATION DATA AND CHEMISTRY DATA
HOMESTEAD OIL INC.
STEPHENS #1, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C014-027

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	08/20/14	2616	3751	4182	96434	99.22	17.94	81.28	NP
	01/29/15	1728	114	455	8314		20.03	79.19	NP
	04/07/15	30	2.2	<1.0	8800		21.01	78.21	NP
	07/07/15	<1.0	<1.0	<1.0	<1.0		18.22	81.00	NP
	10/08/15	75	90	260	4700		NM	NM	NP
	12/07/15	<1.0	<1.0	<1.0	<1.0		NM	NM	NP
	01/20/16	42	6.9	120	1500		20.07	79.15	NP
	04/11/16	40	9.2	81	1200		NM	NM	NP
	08/01/16	<1.0	<1.0	<1.0	1.1		18.28	80.94	NP
MW-2	08/20/14	<1.0	<1.0	<1.0	<1.0	99.43	18.11	81.32	NP
	01/29/15	<1.0	<1.0	<1.0	<1.0		20.27	79.16	NP
	04/07/15	<1.0	<1.0	<1.0	11		21.52	77.91	NP
	07/07/15	<1.0	<1.0	<1.0	<1.0		18.89	80.54	NP
	10/08/15	<1.0	<1.0	<1.0	<1.0		17.09	82.34	NP
	01/20/16	<1.0	<1.0	<1.0	<1.0		20.32	79.11	NP
	08/20/14	8.1	<1.0	<1.0	<1.0		99.81	18.39	81.42
01/29/15	<1.0	<1.0	<1.0	<1.0	20.56	79.25		NP	
04/07/15	<1.0	<1.0	<1.0	<1.0	21.82	77.99		NP	
07/07/15	<1.0	<1.0	<1.0	<1.0	19.16	80.65		NP	
10/08/15	<1.0	<1.0	<1.0	<1.0	17.34	82.47		NP	
01/20/16	<1.0	<1.0	<1.0	<1.0	20.60	79.21		NP	
MW-4	08/20/14	<1.0	<1.0	<1.0	<1.0	99.89	18.63	81.26	NP
	01/29/15	<1.0	<1.0	<1.0	<1.0		20.72	79.17	NP
	04/07/15	<1.0	<1.0	<1.0	<1.0		21.95	77.94	NP
	07/07/15	<1.0	<1.0	<1.0	<1.0		18.99	80.90	NP
	10/08/15	<1.0	<1.0	<1.0	<1.0		17.53	82.36	NP
	01/20/16	<1.0	<1.0	<1.0	<1.0		20.75	79.14	NP
MW-5	08/20/14	1755	3134	454	10854	99.68	18.55	81.13	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	01/29/15	727	2206	298	2476		20.64	79.04	NP
	04/07/15	31	<1.0	6.3	560		21.92	77.76	NP
	07/07/15	<1.0	<1.0	<1.0	4.4		19.29	80.39	NP
	08/18/15	3.2	<1.0	57	170		NM	NM	NP
	10/08/15	4.8	<1.0	69	24		17.46	82.22	NP
	01/20/16	4.9	5.4	160	14		20.67	79.01	NP
	04/11/16	<1.0	<1.0	<1.0	<1.0		NM	NM	NP
	08/01/16	<1.0	<1.0	<1.0	<1.0		18.93	80.75	NP
MW-6	08/20/14	<1.0	<1.0	<1.0	<1.0	99.51	18.3	81.21	NP
	01/29/15	<1.0	<1.0	<1.0	<1.0		20.43	79.08	NP
	04/07/15	<1.0	<1.0	<1.0	<1.0		21.69	77.82	NP
	07/07/15	<1.0	<1.0	<1.0	<1.0		19.07	80.44	NP
	10/08/15	<1.0	<1.0	<1.0	<1.0		17.26	82.25	NP
	01/20/16	<1.0	<1.0	<1.0	<1.0		20.48	79.03	NP
MW-7	08/20/14	<1.0	<1.0	<1.0	<1.0	100.00	19.00	81.00	NP
	01/29/15	1.1	<1.0	<1.0	3.1		21.07	78.93	NP
	04/07/15	<1.0	<1.0	<1.0	<1.0		21.37	78.63	NP
	07/07/15	<1.0	<1.0	<1.0	<1.0		19.73	80.27	NP
	10/08/15	<1.0	<1.0	<1.0	<1.0		17.91	82.09	NP
	01/20/16	<1.0	<1.0	<1.0	<1.0		21.12	78.88	NP
MW-8	08/20/14	<1.0	<1.0	<1.0	<1.0	99.29	18.33	80.96	NP
	01/29/15	1.0	<1.0	<1.0	<1.0		20.37	78.92	NP
	04/07/15	<1.0	<1.0	<1.0	<1.0		21.63	77.66	NP
	07/07/15	<1.0	<1.0	<1.0	<1.0		19.05	80.24	NP
	10/08/15	<1.0	<1.0	<1.0	<1.0		17.22	82.07	NP
	01/20/16	<1.0	<1.0	<1.0	<1.0		20.42	78.87	NP
Table 910-1 Limits		5	560	700	1,400				

Bold face values exceed the COGCC limits

NP - No Free Product



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

Homestead Oil - Stephens 1
SW NW Section 15, T4N, R66W
Weld County, Colorado

Project No. C014-027	Prepared by	Drawn by JMA
Date 8/22/14	Reviewed by	Filename 14027T





LEGEND

- CONTAINMENT
- FORMER FORMER FACILITY

Figure 2
SITE MAP

Homestead Oil - Stephens 1
SW NW Section 15, T4N, R66W
Weld County, Colorado

Project No. C014-027	Prepared by	Drawn by JMA
Date 8/22/14	Reviewed by	Filename 14027Q





LEGEND

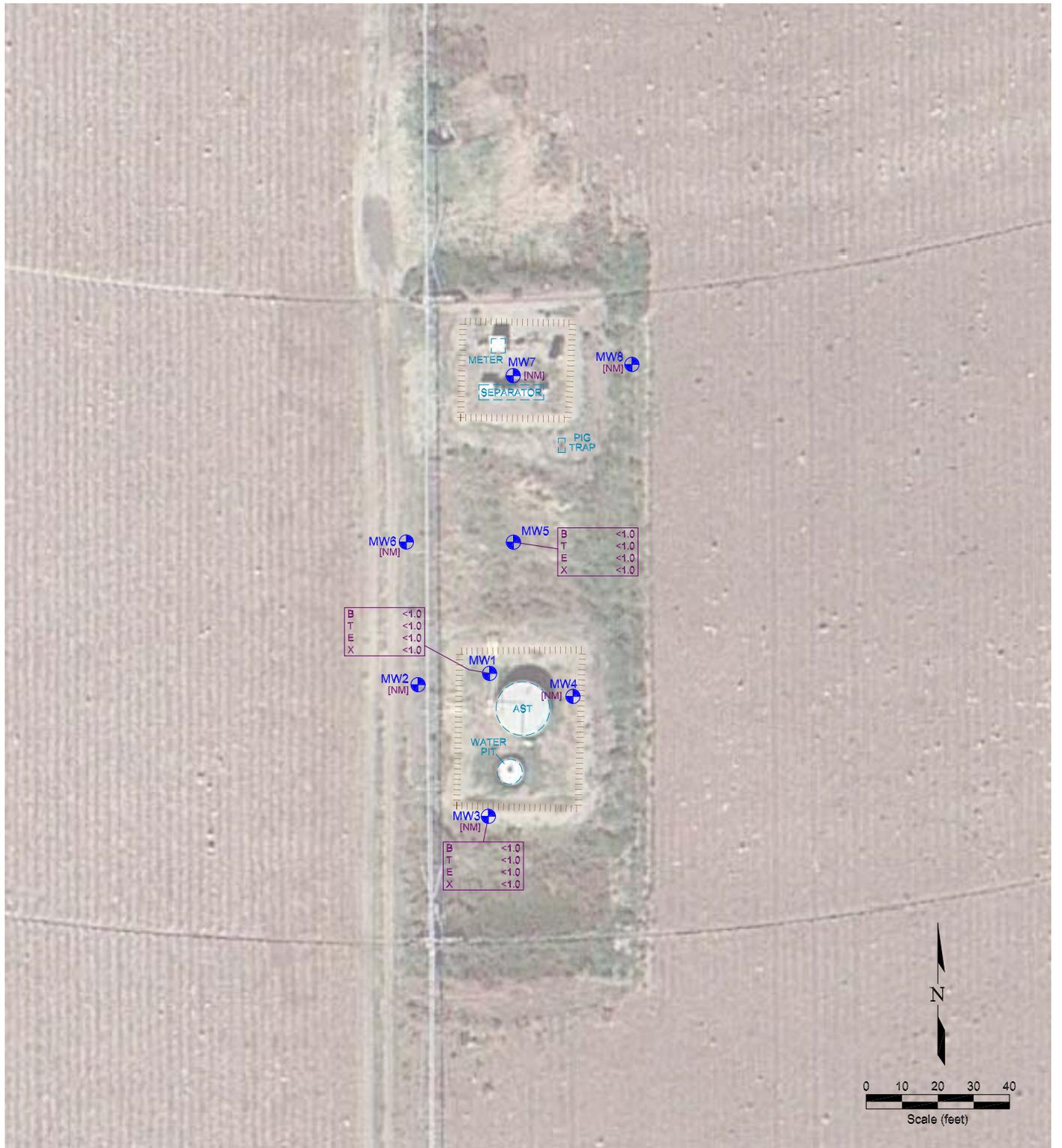
-  MONITORING WELL
-  CONTAINMENT
-  FORMER FACILITY
-  GROUND WATER ELEVATION (ft above arbitrary datum)
-  HISTORICAL GROUND WATER FLOW DIRECTION
-  NOT MEASURED

Figure 3
INFERRED GROUNDWATER CONTOUR
AUGUST 1, 2016

Homestead Oil - Stephens 1
 SW NW Section 15, T4N, R66W
 Weld County, Colorado

Project No. C014-027	Prepared by	Drawn by JMA
Date 8/18/16	Reviewed by	Filename 14027Q





LEGEND

	MONITORING WELL								
	CONTAINMENT								
	FORMER FACILITY								
<table border="1" style="display: inline-table; vertical-align: middle;"><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								
NM	NOT MEASURED								

Figure 4
GROUND WATER CHEMISTRY MAP
 AUGUST 1, 2016

Homestead Oil - Stephens 1
 SW NW Section 15, T4N, R66W
 Weld County, Colorado

Project No. C014-027	Prepared by	Drawn by JMA
Date 8/18/16	Reviewed by	Filename 14027Q



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

August 11, 2016

Paul Henehan
Fremont Environmental
1759 Redwing Lane
Broomfield, CO 80020
RE: Homestead Oil Stephens 1

Enclosed are the results of analyses for samples received by Summit Scientific on 08/05/16 11:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Homestead Oil Stephens 1

Project Number: C014-027
Project Manager: Paul Henehan

Reported:
08/11/16 09:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	1608051-01	Water	08/01/16 00:00	08/05/16 11:00
MW5	1608051-02	Water	08/01/16 00:00	08/05/16 11:00

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
1759 Redwing Lane
Broomfield CO, 80020

Project: Homestead Oil Stephens 1

Project Number: C014-027
Project Manager: Paul Henehan

Reported:
08/11/16 09:25

Sample Receipt Checklist

S2 Work Order: (60805)

Client: Fremont

Client Project ID: Home Stand - Stephen Oil

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

Airbill #: _____

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

Cooler ID					
Temp (°C)	<u>21.5</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"/>		<u>No time.</u>
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, HNO3, ect				
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.

Mindy Mach
Custodian Printed Name

[Signature]
Signature or Initials of Custodian

8/9/16 16:55
Date/Time

[Signature]



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Homestead Oil Stephens 1

Project Number: C014-027
Project Manager: Paul Henehan

Reported:
08/11/16 09:25

MW1
1608051-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/01/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1608082	08/09/16	08/09/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	1.1	1.0	"	"	"	"	"	"	

Date Sampled: **08/01/16 00:00**

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>		99.4 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		100 %	45-146		"	"	"	"	

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Homestead Oil Stephens 1

Project Number: C014-027
Project Manager: Paul Henehan

Reported:
08/11/16 09:25

MW5
1608051-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/01/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1608082	08/09/16	08/09/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **08/01/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.9 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.9 %	45-146		"	"	"	"	

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Homestead Oil Stephens 1

Project Number: C014-027
Project Manager: Paul Henehan

Reported:
08/11/16 09:25

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 1608082 - EPA 5030 Water MS

Blank (1608082-BLK1)

Prepared & Analyzed: 08/08/16

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3		102	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		98.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146			

LCS (1608082-BS1)

Prepared & Analyzed: 08/08/16

Benzene	31.2	1.0	ug/l	33.3		93.7	51-132			
Toluene	32.8	1.0	"	33.3		98.3	51-138			
Ethylbenzene	28.3	1.0	"	33.1		85.7	58-146			
m,p-Xylene	57.6	2.0	"	66.5		86.5	57-144			
o-Xylene	28.6	1.0	"	32.7		87.4	53-146			
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		95.9	37-154			
Surrogate: Toluene-d8	15.9		"	13.3		119	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.7	45-146			

Matrix Spike (1608082-MS1)

Source: 1608037-02

Prepared & Analyzed: 08/08/16

Benzene	140	1.0	ug/l	33.3	127	38.2	34-141			
Toluene	37.1	1.0	"	33.3	ND	111	27-151			
Ethylbenzene	34.6	1.0	"	33.1	ND	105	29-160			
m,p-Xylene	71.0	2.0	"	66.5	ND	107	20-166			
o-Xylene	35.3	1.0	"	32.7	ND	108	33-159			
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3		104	37-154			
Surrogate: Toluene-d8	14.7		"	13.3		110	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.9	45-146			

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Homestead Oil Stephens 1

Project Number: C014-027
Project Manager: Paul Henehan

Reported:
08/11/16 09:25

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 1608082 - EPA 5030 Water MS

Matrix Spike Dup (1608082-MSD1)	Source: 1608037-02			Prepared & Analyzed: 08/08/16						
Benzene	144	1.0	ug/l	33.3	127	52.3	34-141	3.32	32	
Toluene	42.6	1.0	"	33.3	ND	128	27-151	14.0	25	
Ethylbenzene	42.1	1.0	"	33.1	ND	127	29-160	19.7	50	
m,p-Xylene	85.8	2.0	"	66.5	ND	129	20-166	18.9	36	
o-Xylene	42.7	1.0	"	32.7	ND	131	33-159	18.9	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.5</i>		<i>"</i>	<i>13.3</i>		<i>109</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.8</i>		<i>"</i>	<i>13.3</i>		<i>104</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.7</i>		<i>"</i>	<i>13.3</i>		<i>95.3</i>	<i>45-146</i>			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Homestead Oil Stephens 1

Project Number: C014-027
Project Manager: Paul Henehan

Reported:
08/11/16 09:25

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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