

February 25, 2015

Katie Erny
Montana Department of Environmental Quality
Petroleum Technical Section
P.O. Box 200901
Helena, Montana 59620-0901

RE: **Groundwater Monitoring Report**
Former Stimson Lumber Millsite, Bonner, Montana
Facility ID #32-04262, Release #4161

Dear Ms. Erny,

Please find enclosed a groundwater monitoring report summarizing monitoring well sampling activities completed at the former Stimson Lumber Millsite facility in Bonner, Montana. Please call me at (406) 549-8270 to discuss the results presented in this report.

Sincerely,



Tyler Etzel
Senior Geologist

cc: Steven Petrin, Stimson Lumber Company
Keith Large, DEQ
Jim Carlson, Missoula County Sanitarian



Groundwater Monitoring Report

Former Stimson Lumber Bonner Millsite
Bonner, Montana 59702
Facility ID #33-00047, Release #235

Prepared for:

*Steven Petrin
Stimson Lumber Company
520 SW Yamhill, Suite 700
Portland, OR 97204-1330*

Prepared by:

*NewFields
1120 Cedar Street
Missoula, Montana 59802*

 **NewFields**

February 2015
Project No. 350.0033.002



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1.0 ACTIVITY SUMMARY

This work has been performed to comply with requirements of an April 19, 2010 administrative order on consent (AOC) issued by the Montana Department of Environmental Quality (DEQ) and a request from the DEQ Petroleum Technical Section (PTS) in telephone and email correspondence dated October 1, 2012. The AOC required, in part, groundwater sampling at high and low groundwater elevations, with sampling continuing until two consecutive rounds demonstrate that groundwater meets DEQ-7 standards for PCBs and meets Tier I RBSLs for petroleum hydrocarbons.

Groundwater Monitoring

On December 22 and 23, 2014, static water levels (SWLs) and groundwater samples were collected from the following nine (9) monitoring wells: MW-10, MW-14, MW-15R, MW-18, MW-19, MW-20 and MW-21. Monitoring well MW-11 was measured for light non-aqueous phase liquid (LNAPL) with a bailer to determine if groundwater sample collection was feasible for this well. The bailer displayed a thin (approximately 1/8 inch) layer of free product and was not sampled (**Appendix A**).

Prior to monitoring well sampling, depth to groundwater was measured with a groundwater interface probe. Groundwater samples were collected with a variable rate, low-flow submersible pump. Sample collection was performed when pH readings stabilized to within 0.1 and temperature and conductivity stabilized to within 5% over three casing volumes. Groundwater chemistry was recorded on NewFields groundwater sampling forms. The water samples were collected and preserved with appropriate acid preservative. The samples were submitted under appropriate custody and seals to Energy Laboratory in Billings, Montana for extractable petroleum hydrocarbon screen (EPH-Screen) and polychlorinated biphenyls (PCBs – EPA Method 8082). Results of the water analyses are discussed in **Section 3.0**, below. Copies of groundwater sampling forms and field activity forms are included as **Appendix B**.

2.0 SOIL LABORATORY ANALYTICAL REPORTS

The laboratory analytical report for groundwater monitoring is included as **Appendix C**.

3.0 CONCLUSIONS AND RECOMMENDATIONS

In December 2014, NewFields completed groundwater monitoring of nine (9) monitoring wells at the Former Stimson Lumber Millsite in Bonner, Montana. An additional monitoring well (MW-11) was measured for LNAPL to determine if groundwater sample collection was feasible for this well.

Static water level measurements were collected from monitoring wells on December 22 and 23, 2014. SWL measurements, casing elevations, and groundwater elevations for the ten (10) monitoring wells are given below in **Table 1**.

**Table 1 Groundwater Elevations – December 2014**

Monitoring Well	Casing Elevation (ft amsl)	Depth to Water (ft)	LNAPL Thickness (ft)	GW Elevation (ft amsl)
MW-10	3285.46	41.34	0.0	3244.12
MW-11	3278.55	nm	< 0.01	Nm
MW-13R	3279.55	35.04	0.0	3244.51
MW-14	3281.61	37.47	0.0	3244.14
MW-15R	3287.12	43.06	0.0	3244.06
MW-18	3284.29	40.25	0.0	3244.04
MW-19	3292.22	48.18	0.0	3244.04
MW-20	3292.15	48.23	0.0	3243.92
MW-21	3293.32	49.36	0.0	3243.96
MW-22	3280.11	36.02	0.0	3244.09

Notes: nm indicates no measurement was collected

Groundwater potentiometric contours calculated from depth to water measurements in monitoring wells (MW-10, MW-13R, MW-14, MW-15R, MW-18, MW-19, MW-20, MW-21 and MW-22) generally showed a southerly groundwater flow direction, although some well measurements did not create model contours and these areas show estimated contours (**Figure 2**). LNAPL was present in MW-11 and was measured to be less than 0.01 feet thick using a disposable bailer. Photographs of the bailer containing free product are included as **Appendix A**. Analytical results for groundwater samples collected from all nine monitoring wells are shown in **Table 2**, below and in **Appendix C**.

Table 2 Groundwater Analytical Results in parts per billion (µg/L) – December 2014

Analysis	Regulatory Standard	MW-10	MW-13R	MW-14	MW-15R	MW-18	MW-19	MW-20	MW-21	MW-22
EPH	Tier 1 RBSL ¹									
TEH	1,000 ²	<300	<300	<300	<300	<300	<300	<300	<300	<300
C9-C18 Aliphatics	1,000	---	---	---	---	---	---	---	---	---
C19-C36 Aliphatics	1,000	---	---	---	---	---	---	---	---	---
C11-C22 Aromatics	1,000	---	---	---	---	---	---	---	---	---
PCBs	WQB-7 ³									
Aroclor 1016	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1221	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1232	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1232	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1242	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1248	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1254	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1260	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1262	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1268	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Notes: ¹ Table 3 Tier 1 Groundwater Risk-Based Screening Levels, September 2009

² the indicated value is a DEQ RBCA ceiling concentration

³ Circular WQB-7, Montana Water Quality Standards, January 2004

< indicates the parameter was not detected above the laboratory reporting limit

--- indicates parameter not analyzed



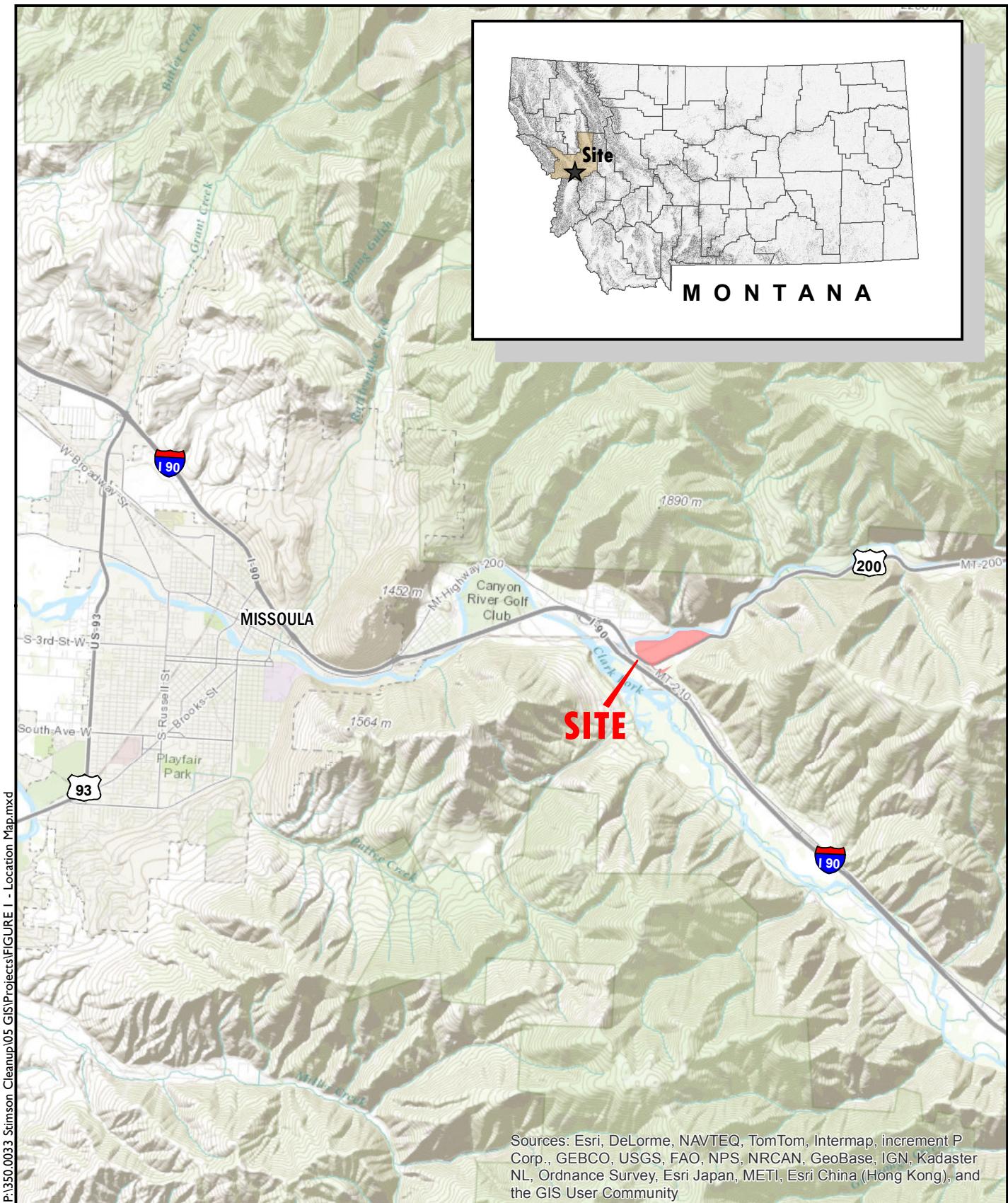
Laboratory results from the December 2014 groundwater sampling event did not detect measurable levels of total extractable hydrocarbons (TEH) or Aroclor PCBs in all nine (9) groundwater monitoring wells sampled. None of the samples collected from any of the nine (9) wells sampled exceeded DEQ Tier 1 RBSL or WQB-7 standards for groundwater.

These results represent the second consecutive round (one at seasonally high groundwater and one at seasonally low groundwater) in which groundwater meets DEQ-7 and Tier 1 RBSL standards. The next groundwater monitoring event is scheduled for June 2015.

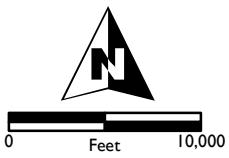
4.0 REFERENCES

PBS&J, 2009. Sampling and Analysis Plan for the Cooling Pond, Fire Pond Lagoon and East Log Track Area - Stimson Lumber Mill, Bonner, Montana. December 2009.

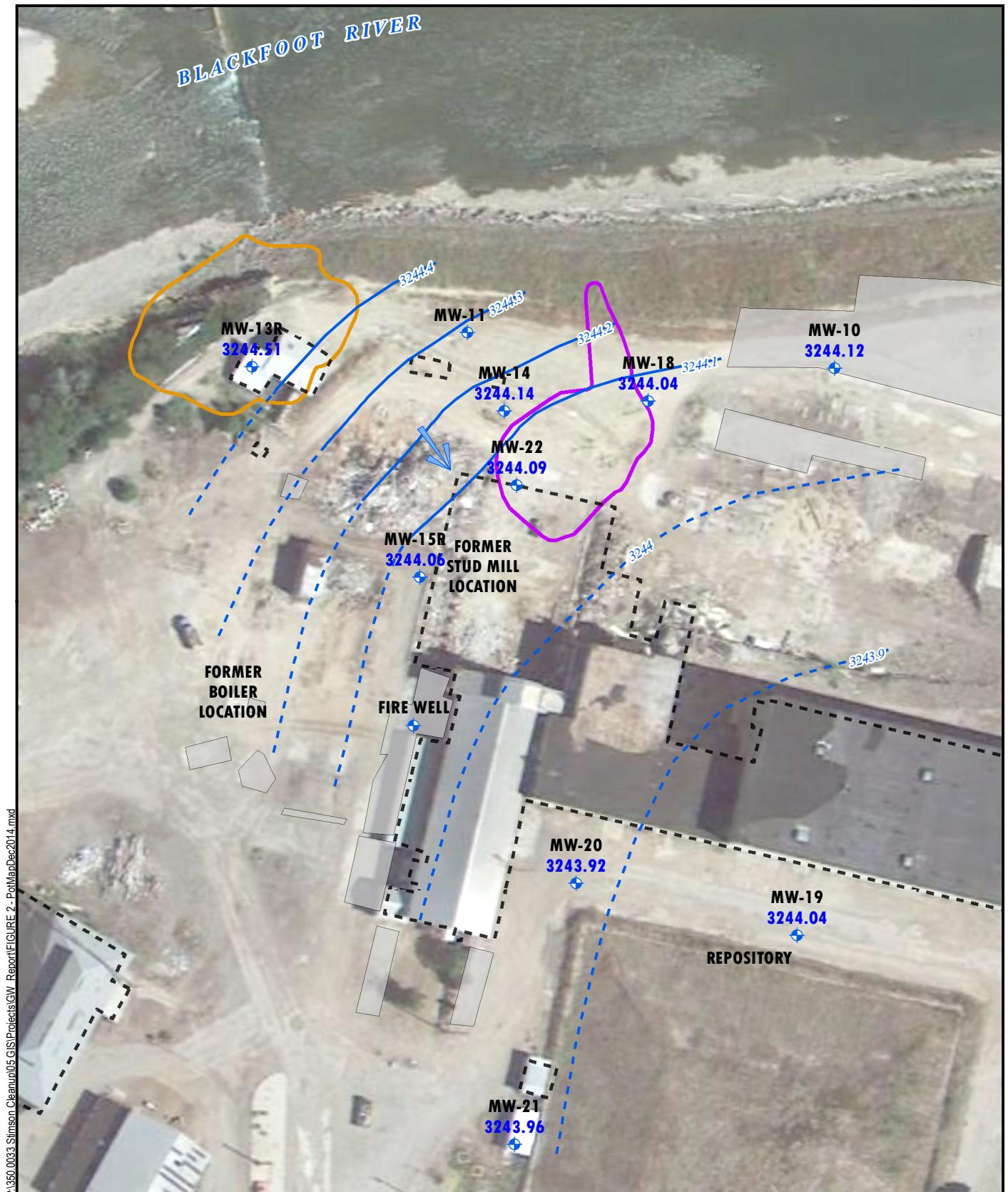
FIGURES



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

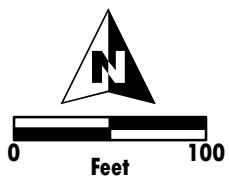


Location Map
Former Stimson Bonner Millsite
Bonner, Montana
FIGURE 1



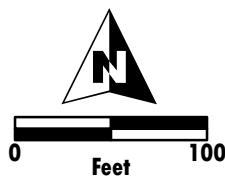
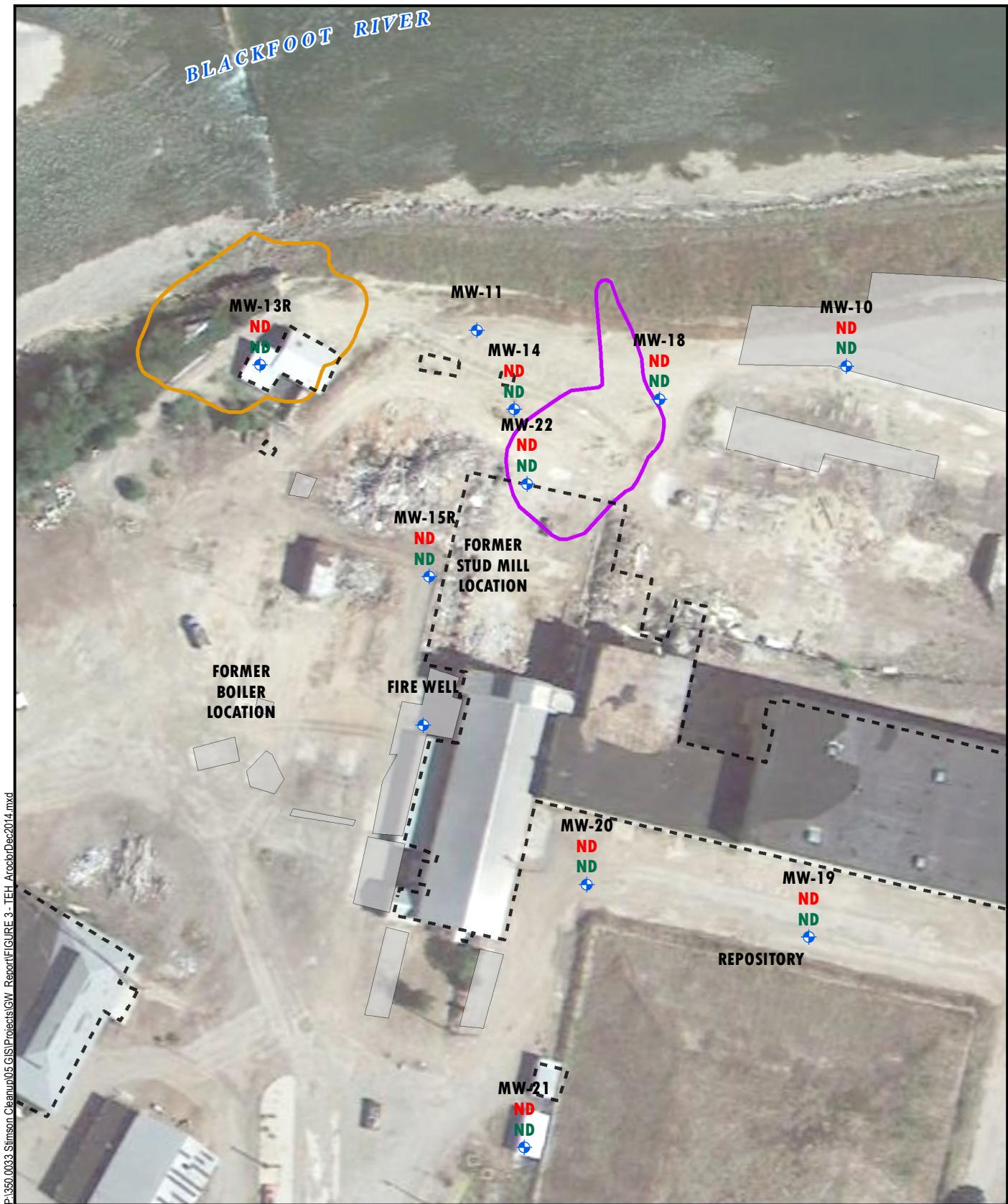
Source: Google Imagery, 2013

- ◆ Monitoring Well Location
- Potentiometric Contour (feet)
- - - Estimated Potentiometric Contour (feet)
- MW-13 Area Excavation
- MW-15 Area Excavation



Groundwater Flow Direction

Groundwater Potentiometric Map
December 2014
Former Stimson Bonner Millsite
Bonner, Montana
FIGURE 2



NOTE:
ND - Not Detected at the Reporting Limit

♦ Monitoring Well Location

□ MW-13 Area Excavation

□ MW-15 Area Excavation

ND - TEH Concentration (ug/L)

ND - Aroclor 1254 Concentration (ug/L)

TEH and Aroclor 1254 Concentrations
December 2014
Former Stimson Bonner Millsite
Bonner, Montana
FIGURE 3



APPENDIX A
Photographs



Photo 1. View of upright bailer with MW-11 contents



Photo 2. Close-up view of LNAPL sheen on water surface and on surface of bailer



Photo 3. Close-up top view of LNAPL sheen on water surface on surface of bailer



Photo 4. View of LNAPL sheen on outside of bailer

APPENDIX B
Groundwater Sampling Forms and
Field Activity Forms



Project: Stimson Millsite
Project # 350.0033.001
Date/Time: 12-22-14 / 1500

Personnel: L. McKay

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW-10	Measuring Point (mp) TOC PVC (+GS)
Well Type: Mont. Well	Total Depth: (bgs / bmp)
SWL before purging: 41.34' (bgs / bmp)	SWL post purge: — (bgs / bmp)
Well Locked: O/N	Cap/lid: O/N Photos taken: O/N Monument Type: Stickup

Purge & Sampling Equipment

Pump Type: Cesspool Sub.	Pump Depth: 45 feet () bgs / bmp
Purging Method: Low-Flow	Sampling Method: Low-Flow 1 ft ³ = 7.48 gal
I Casing Vol: —	3 Casing Vol: — Total Vol. Removed: ~ 10.1 L

Instrument Calibration

	Model/Unit #	Buffer Soln 1	Buffer Soln 2	Field Temp. (°C)	Instrument Rdg.	Comments
pH	See MW-13R field sheet for calibration notes					
Specific Cond.						
Redox						
ORP						
DO	Salinity %:	Pressure (mmHg):				

Well Evacuation & Monitoring Data

Time	DTW (bmp) ft	Purge Rate (L/min)	Purge Vol. (L)	Temp (°C)	pH	SC (µS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
1503	41.34	→ Beg. on purge								
1505	41.34	~300	~0.6	8.6	7.34	312	—	—	clear, faint odor	
1510	41.34	~300	~2.1	7.9	7.32	310	—	—	"	" "
1515	41.34	~300	~4.6	9.0	7.36	309	—	—	"	" "
1520	41.34	~300	~6.1	10.2	7.31	308	—	—	"	" "
1525	41.34	~300	~8.6	10.3	7.28	310	—	—	"	" "
1530	41.34	~300	~10.1	10.3	7.28	319	—	—	"	" "
1540	→ Sample collected									

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW-10	1530	Debs	None	SW 8082	1-L Amber
MW-10	1540	EDT Screen	H ₂ SO ₄	SW 8015 M	2-L Amber

Samples Analyzed by: Lab Name: Energy Laboratories, Billings, MT



Project: Stinson Millsite

Personnel: L. McKay

Project # 350.5533.001

Date/Time: 12-22-14 / 1120

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW-13R		Measuring Point (mp) <input checked="" type="checkbox"/> Toc <input checked="" type="checkbox"/> PVC (+GS)	
Well Type: Monitoring Well	Total Depth: 58 (bgs / bmp)	Casing Type: PVC	
SWL before purging: 35.04' (bgs / bmp)	SWL post purge: — (bgs / bmp)	Well Diameter: 2.in ()	
Well Locked: <input checked="" type="checkbox"/> N	Cap/lid: <input checked="" type="checkbox"/> Y/N	Photos taken: <input checked="" type="checkbox"/> Y/N	Monument Type: stick up

Purge & Sampling Equipment

Pump Type: CrossSquirt Sub.	Pump Depth: 45 Feet () bgs / bmp
Purging Method: Low - Flow	Sampling Method: Low - Flow 1 ft³ = 7.48 gal
I Casing Vol: —	3 Casing Vol: — Total Vol. Removed:

Buffer Soln 1

Instrument Calibration

Model/Unit #	Buffer Soln-1	Buffer Soln-2-3	Field Temp. (°C)	Instrument Rdg.	Comments
pH	7.00	4.01	10.01	11.3	7.00/4.02/10.04
Specific Cond.	1,413 $\mu\text{S}/\text{cm}$	—	—	11.2	1,410 $\mu\text{S}/\text{cm}$
Redox	—	—	—	—	—
ORP	—	—	—	—	—
DO	—	Salinity %:	Pressure (mmHg):	—	—

Well Evacuation & Monitoring Data

Time	DTW (bmp)	Purge Rate mL/min)	Purge Vol. (L)	Temp (°C)	pH	SC ($\mu\text{S}/\text{cm}$)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
1130	—	→ Begin purge								
1135	35.21 ~200	~1.0	7.2	7.34	430	—	—	—	—	Turbid, orange color
1140	35.23 ~250	~2.35	8.2	7.08	420	—	—	—	—	sl. turbid; no odor
1145	35.24 ~250	~3.50	8.4	7.12	420	—	—	—	—	Clear, no odor
1150	35.24 ~250	~9.75	8.3	7.13	423	—	—	—	—	.. .. ..
1155	35.24 ~250	~6.00	8.4	7.14	422	—	—	—	—	.. .. ..
1200	35.24 ~250	~7.25	8.2	7.12	424	—	—	—	—	.. .. ..
1210	—	→ Sample collected								

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW-13R	1210	PCBs	None	sw8082	1.1L Amso
MW-13R	1210	EPH Screen	1L Sy	Sw8015M	2.1L Amso

Samples Analyzed by: Lab Name: Energy Laboratories, Billings, MT



Project: Stinson Millsite
Project # 350.0033.001
Date/Time: 12-22-14 / 1225

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW-14		Measuring Point (mp) TOC PVC (+GS)	
Well Type: Monitoring well		Total Depth: (bgs / bmp)	Casing Type: PVC
SWL before purging: 37.47' (bgs / bmp)		SWL post purge: — (bgs / bmp)	Well Diameter: 2-in ()
Well Locked: <input checked="" type="checkbox"/> N	Cap/lid: <input checked="" type="checkbox"/> Y/N	Photos taken: <input checked="" type="checkbox"/> Y/N	Monument Type: Stickup

Purge & Sampling Equipment

Pump Type: Cetech S-5	Pump Depth: 45 Feet () bgs / bmp
Purging Method: Low-Flow	Sampling Method: Low-Flow 1 ft ³ = 7.48 gal
I Casing Vol: —	3 Casing Vol: — Total Vol. Removed:

Instrument Calibration

	Model/Unit #	Buffer Soln 1	Buffer Soln 2	Field Temp. (°C)	Instrument Rdg.	Comments
pH	See MW-13R for calibration notes					
Specific Cond.						
Redox						
ORP						
DO		Salinity %:	Pressure (mmHg):			

Well Evacuation & Monitoring Data

Time	DTW (bmp)	Purge Rate (L/min)	Purge Vol. (L)	Temp (°C)	pH	SC (µS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
1229	37.46	~300	→	Begin purge						
1230	37.48	~300	~0.3	8.1	7.26	293	—	—	Clear, faint odor?	
1235	37.49	~300	~1.8	9.4	7.31	292	—	—	.. .. ..
1240	37.48	~300	~3.3	9.6	7.32	295	—	—	.. .. ..
1245	37.48	~300	~4.8	9.5	7.26	298	—	—	.. .. ..
1250	37.48	~300	~6.3	9.6	7.33	294	—	—	.. .. ..
1255	37.48	~300	~7.8	9.6	7.26	297	—	—	.. .. ..
1300	37.48	~300	~9.3	9.5	7.31	297	—	—	.. .. ..
1310	→	Sample collected.								

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW-14	+2101310	PCB	None	SW3002	1-L Amb
MW-14	+2401310	EPAT Screen	H ₂ SIN	SW3015M	2-L Amb

Samples Analyzed by: Lab Name: Energy Laboratories, Billings, MT



Project: Stinson Millsite

Personnel: L. McKinney

Project # 350.0033.001

Date/Time: 12-22-14 / 1545

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW-15R		Measuring Point (mp) TDC PRC (+GS)		
Well Type: Mnt. Well	Total Depth:	(bgs / bmp)	Casing Type: PVC	
SWL before purging: 43.06' (bgs / bmp)	SWL post purge:	(bgs / bmp)	Well Diameter: 2-in	()
Well Locked: Y/N	Cap/lid: Y/N	Photos taken: Y/N	Monument Type: stickup	

Purge & Sampling Equipment

Pump Type: GeoSquirt Sub.	Pump Depth: ~45 feet ()	bgs / bmp
Purging Method: Low-Flow	Sampling Method: Low-Flow	1 ft ³ = 7.48 gal
I Casing Vol: -	3 Casing Vol: -	Total Vol. Removed:

Instrument Calibration

	Model/Unit #	Buffer Soln 1	Buffer Soln 2	Field Temp. (°C)	Instrument Rdg.	Comments
pH	See MW-13R field sheet for calibration notes					
Specific Cond.						
Redox						
ORP						
DO		Salinity %:	Pressure (mmHg):			

Well Evacuation & Monitoring Data

Time	DTW (bmp) ft	Purge Rate in(L/min)	Purge Vol. (L)	Temp (°C)	pH	SC (µS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
1543	47.06'				Begin purge					
1550	43.06	~300	~0.6	7.7	6.57	1,687	-	-	SL. turbid (orange)	
1555	43.06	~300	~2.1	8.8	6.55	1,518	-	-	" "	" "
1600	43.06	~300	~3.6	8.9	6.58	1,343	-	-	" "	" "
1605	43.06	~300	~5.1	9.0	6.58	1,268	-	-	" "	" "
1610	43.06	~300	~6.6	8.9	6.59	1,215	-	-	" "	" "
1615	43.06	~300	~8.1	8.8	6.56	1,202	-	-	" "	" "
1620	43.06	~300	~9.6	8.7	6.58	1,146	-	-	" "	" "
1625	43.06	~300	~11.1	8.7	6.60	1,092	-	-	" "	" "
1630	43.06	~300	~12.6	8.8	6.58	1,062	-	-	" "	(cleaning...)
1635	43.06	~300	~13.1	8.8	6.58	1,020	-	-	" "	" "
1645					Sample collected					

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW-15R	1645	PCBs	None	SW 8082	1-1 L Amber
MW-15R	1645	EPH Screen	H ₂ SO ₄	SW 8015 M	2-1 L Amber

Samples Analyzed by: Lab Name: Energy Laboratories, Billings, MT



Project: 350.0073.001

Project # SHM-Sun Millsite

Date/Time: 12-22-14 / 1420

Personnel: L. McKay

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW-18		Measuring Point (mp) TOC PVC (+GS)	
Well Type: Monitoring Well	Total Depth: (bgs / bmp)	Casing Type: PVC	
SWL before purging: 40.25 (bgs / bmp)	SWL post purge: (bgs / bmp)	Well Diameter: 2-in ()	
Well Locked: <input checked="" type="checkbox"/> / <input type="checkbox"/>	Cap/lid: <input checked="" type="checkbox"/> / N	Photos taken: <input checked="" type="checkbox"/> / N	Monument Type: No stickup mount

Purge & Sampling Equipment

Pump Type: AirSquirt Sub.	Pump Depth: 45 Feet () bgs / bmp
Purging Method: Low-Flow	Sampling Method: Low-Flow 1 ft ³ = 7.48 gal
I Casing Vol: -	3 Casing Vol: - Total Vol. Removed:

Instrument Calibration

	Model/Unit #	Buffer Soln 1	Buffer Soln 2	Field Temp. (°C)	Instrument Rdg.	Comments
pH	See MW-13R Field sheet for calibration notes					
Specific Cond.						
Redox						
ORP						
DO		Salinity %:	Pressure (mmHg):			

Well Evacuation & Monitoring Data

Time	DTW (bmp) ft	Purge Rate Vol. (L) m(L/min)	Purge Vol. (L)	Temp (°C)	pH	SC (µS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
1425	40.25 ~300				→ Begin purge					
1430	40.25 ~300	~1.5	8.8	6.91	338	-	-	Clear		
1435	40.25 ~300	~3.0	9.0	6.97	330	-	-	Clear		
1440	40.26 ~300	~4.5	9.1	7.01	328	-	-	Clear		
1445	40.25 ~300	~6.0	9.0	6.96	329	-	-	"		
1450	40.25 ~300	~7.5	9.0	6.96	328	-	-	"		
1455	1500				→ Sample collected					

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW-18	1500	PCBs	None	SW8032	1-L Ambr
MW-18	1500	EPH Screen	H ₂ SO ₄	SW80154	2-L Ambr

Samples Analyzed by: Lab Name: Energy Laboratory, Billings, MT



Project: Stimson Millsite

Personnel: L. McKay

Project # 350.0033.001

Date/Time: 12-23-14 / 11:50

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW-19		Measuring Point (mp) <u>TOL PVC (+GS)</u>	
Well Type: Monitoring Well	Total Depth: (bgs / bmp)	Casing Type: PVC	
SWL before purging: 48.18' (bgs / bmp)	SWL post purge: (bgs / bmp)	Well Diameter: 2-in ()	
Well Locked: <input checked="" type="checkbox"/> N	Cap/lid: <input checked="" type="checkbox"/> N	Photos taken: <input checked="" type="checkbox"/> N	Monument Type: Stickup
Purge & Sampling Equipment			
Pump Type: Geosynt Sub	Pump Depth: 78 Feet ()	<u>bgs / bmp</u>	
Purging Method: Low - Flow	Sampling Method: Low - Flow	1 ft ³ = 7.48 gal	
I Casing Vol: -	3 Casing Vol: -	Total Vol. Removed:	

Instrument Calibration

	Model/Unit #	Buffer Soln 1	Buffer Soln 2	Field Temp. (°C)	Instrument Rdg.	Comments
pH	See MW-21 field sheet for calibration notes					
Specific Cond.						
Redox						
ORP						
DO		Salinity %:	Pressure (mmHg):			

Well Evacuation & Monitoring Data

Time	DTW (bmp) fe	Purge Rate (L/min)	Purge Vol. (L)	Temp (°C)	pH	SC (µS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
11:50	48.18				Begin purge					
11:55	48.18	~350	~1.75	8.0	7.54	347	-	-		St. turbid (gray)
12:00	48.19	~350	~3.5	9.0	7.49	344	-	-	..	.. ..
12:05	48.19	~350	~5.25	9.3	7.52	345	-	-	..	.. ..
12:10	48.18	~350	~7.0	9.2	7.52	344	-	-	..	(clearing)
12:15	48.18	~350	~8.75	9.2	7.52	346	-	-	Clear	
12:20	48.18	~350	~10.5	9.2	7.52	344	-	-	Clear	
12:30										Sample collected

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW-19	1230	DCBs	None	SW 8082	1-1L Amber
MW-19	1230	EPII Screen	H ₂ SO ₄	SW 8015 m	2-1L Amber

Samples Analyzed by: Lab Name: Energy Laboratories, Billings, MT



Project: Stinson Millsite

Personnel: L. McKay

Project # 350.0033.001

Date/Time: 12-23-14 / 1100

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW - 20		Measuring Point (mp) TOC PUC (+GS)	
Well Type: Munt. Well		Total Depth: (bgs / bmp)	Casing Type: PUC
SWL before purging: 48.23' (bgs / bmp)		SWL post purge: (bgs / bmp)	Well Diameter: 2-in ()
Well Locked: Y/N	Cap/lid: Y/N	Photos taken: Y/N	Monument Type: Stickup

Purge & Sampling Equipment

Pump Type: Cessnait Sub.	Pump Depth: 48 ft () bgs / bmp
Purging Method: Low - Flow	Sampling Method: Low - Flow 1 ft ³ = 7.48 gal
I Casing Vol: -	3 Casing Vol: - Total Vol. Removed: ~11 L

Instrument Calibration

	Model/Unit #	Buffer Soln 1	Buffer Soln 2	Field Temp. (°C)	Instrument Rdg.	Comments
pH	See MW-21 field sheet for calibration notes					
Specific Cond.						
Redox						
ORP						
DO		Salinity %:	Pressure (mmHg):			

Well Evacuation & Monitoring Data

Time	DTW (bmp) ↓	Purge Rate (L/min)	Purge Vol. (L)	Temp (°C)	pH	SC (µS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
16:05	48.23	→	Begin purge							
11:10	48.22	~100	~2.0	8.7	7.35	426	-	-	sl. turbid, gray	
11:15	48.21	~350	~3.75	9.3	7.32	425	-	-	clear	
11:20	48.20	~350	~5.5	9.2	7.29	428	-	-	clear	
11:25	48.19	~350	~7.25	9.2	7.29	428	-	-	"	
11:30	48.18	~350	~9.0	9.2	7.29	430	-	-	"	
11:35	48.18	~350	~10.75	9.3	7.26	430	-	-	"	
11:40	→	Sample collected								

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW - 20	1140	PCBs	None	SW8082	1-1L Amber
MN - 20	1140	EPH Screen	H ₂ SO ₄	SW8015M	2-1L Amber

Samples Analyzed by: Lab Name: Energy Laboratories, Billings, MT



Project: Stinson Millsite

Personnel: L. McKay

Project # 350.0033.vol

Date/Time: 12-23-14 / 0945

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW-21		Measuring Point (mp) TOC PVC (+GS)		
Well Type: Mont. Well		Total Depth:	(bgs / bmp)	Casing Type: PVC
SWL before purging: 49.36' (bgs / bmp)		SWL post purge:	(bgs / bmp)	Well Diameter: 2-in ()
Well Locked: Y/N	Cap/lid: Y/N	Photos taken: Y/N	Monument Type: Stickup	

Purge & Sampling Equipment

Pump Type: Crossvane Sub	Pump Depth: ~48 Feet ()	bgs / bmp
Purging Method: Low-Flow	Sampling Method: Low-flow	1ft ³ = 7.48 gal
I Casing Vol: —	3 Casing Vol: —	Total Vol. Removed: ~12.0 L

Buffer Soln 1

Instrument Calibration

	Model/Unit #	Buffer Soln +2	Buffer Soln 2-3	Field Temp. (°C)	Instrument Rdg.	Comments
pH	7.00	4.01	10.01	10.5	7.01 / 4.00 / 10.03	
Specific Cond.	1,413 μS/cm	—	—	11.8	1,421 μS/cm	
Redox	—	—	—	—	—	
ORP	—	—	—	—	—	
DO	—	Salinity %:	Pressure (mmHg):	—	—	

Well Evacuation & Monitoring Data

Time	DTW (bmp) ft	Purge Rate mL/min)	Purge Vol. (L)	Temp (°C)	pH	SC (μS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
1005	49.42	→			Begin purge					
1030	49.44	~300	~7.5	9.0	7.37	645	—	—	Slightly turbid (gray)	
1035	49.44	~300	~9.0	8.9	7.35	639	—	—	..	..
1040	49.44	~300	~10.5	8.9	7.36	635	—	—	Clear	
1045	49.44	~300	~12.0	9.0	7.31	635	—	—	~	
1050	→				Sample collected					

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW-21	1050	PCBs	None	SW8032	1-L Amb
MW-21	1050	EPH Screen	H2SiO4	SW8035	2-L Amb

Samples Analyzed by: Lab Name: Energy Laboratories, Billings, MT

Note: Site gen. manager on site to inquire about sampling



Project: Shoshone Millsite
Project # 350.0033.001
Date/Time: 12-22-14 / 1325

Groundwater Sampling and/or Development Field Form

Well ID/Sample Location: MW-22		Measuring Point (mp) <input checked="" type="checkbox"/> TOC <input checked="" type="checkbox"/> PVC (+GS)	
Well Type: Monitoring Well	Total Depth: 50'	(bgs / bmp)	Casing Type: PVC
SWL before purging: 36.02' (bgs / bmp)	SWL post purge:	(bgs / bmp)	Well Diameter: 2-in ()
Well Locked: <input checked="" type="checkbox"/> N	Cap/lid: <input checked="" type="checkbox"/> Y/N	Photos taken: <input checked="" type="checkbox"/> Y/N	Monument Type: Stickup

Purge & Sampling Equipment

Pump Type: Cess aquist Sub.	Pump Depth: 45'	()	bgs / bmp
Purging Method: Low-Flow	Sampling Method: Low-Flow	1 ft ³ = 7.48 gal	
I Casing Vol: -	3 Casing Vol: -	Total Vol. Removed:	

Instrument Calibration

Model/Unit #	Buffer Soln 1	Buffer Soln 2	Field Temp. (°C)	Instrument Rdg.	Comments
pH	See MW-13R field sheet for calibration notes				
Specific Cond.					
Redox					
ORP					
DO	Salinity %:	Pressure (mmHg):			

Well Evacuation & Monitoring Data

Time	DTW (bmp)	Purge Rate (L/min)	Purge Vol. (L)	Temp (°C)	pH	SC (µS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)	Comments
1328	36.02	→			Begin purge					
1330	36.02	~300	~0.6	6.9	7.00	380	—	—	—	clear; faint odor?
1335	36.02	~300	~2.1	7.9	6.94	392	—	—	..	.. .. ..
1340	36.02	~300	~3.6	8.0	7.00	393	—	—	..	.. ..
1345	36.02	~300	~5.1	8.1	6.92	390	—	—	..	.. ..
1350	36.02	~300	~6.6	8.2	6.94	391	—	—	..	.. ..
1355	36.02	~300	~8.1	8.1	6.93	394	—	—	..	.. ..
1400	36.02	~300	~9.6	8.2	6.93	393	—	—	..	.. ..
1405	→				Sample collected					

Sampling Data

Bottle Label	Sample Time	Sampling Parameter(s)	Preservative	Method	Other
MW-22	1405	PCBs	None	SW8082	1-1L Amb.
MW-22	1405	EPT Screen	H ₂ SO ₄	SW8015M	2-1L Amb.

Samples Analyzed by: Lab Name: Energy Laboratories, Billings, MT

Chain of Custody and Analytical Request Record

 Page 1 of 1

Company Name: <u>NewFields</u>			Project Name, PWS, Permit, Etc. <u>Stimson</u>			Sample Origin State: <u>MT</u>	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address (Required): <u>1120 Cedar St.</u> <u>Missoula, MT 59802</u>			Contact Name: <u>Tyler Etzel</u> Phone/Fax: <u>406.549.0270</u>			Cell:	Sampler: (Please Print) <u>Levi</u>	
<input type="checkbox"/> No Hard Copy Email: <u>felzel@newfields.com</u>			Invoice Contact & Phone: <u>Donna McCammon</u>			Purchase Order: <u>-</u>	Quote/Bottle Order: <u>-</u>	
Invoice Address (Required): <u>As above</u>							Shipped by:	
<input type="checkbox"/> No Hard Copy Email: <u>dmcammon@newfields.com</u>							Cooler ID(s):	
Special Report/Formats:							Receipt Temp <u> °C</u>	
<input type="checkbox"/> DW		<input checked="" type="checkbox"/> EDD/EDT (Electronic Data)					On Ice: <u>Y N</u>	
<input type="checkbox"/> POTW/MWTP		Format: _____					Custody Seal	
<input type="checkbox"/> State: _____		<input type="checkbox"/> LEVEL IV					On Bottle <u>Y N</u>	
<input type="checkbox"/> Other: _____		<input type="checkbox"/> NELAC					On Cooler <u>Y N</u>	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX	ANALYSIS REQUESTED			Intact <u>Y N</u>
1 MW-10		12-22-14	1540	WT	X X	SEE ATTACHED	Comments: <u>3 coolers total</u>	Signature Match <u>Y N</u>
2 MW-13R		12-22-14	1210	WT	X X			
3 MW-14		12-22-14	1310	WT	X X			
4 MW-15R		12-22-14	1645	WT	X X			
5 MW-18		12-22-14	1500	WT	X X			
6 MW-19		12-23-14	1230	WT	X X			
7 MW-20		12-23-14	1140	WT	X X			
8 MW-21		12-23-14	1050	WT	X X			
9 MW-22		12-22-14	1405	WT	X X			
10								
Custody Record MUST be Signed		Relinquished by (print): <u>Levi McKay</u>		Date/Time: <u>12-29-14 / 1200</u>	Signature: <u>PL</u>	Received by (print): <u>Fel Etzel</u>	Date/Time: <u>12-29-14 / 1200</u>	Signature: <u>-</u>
		Relinquished by (print):		Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
		Sample Disposal: <u>Return to Client:</u> _____		Lab Disposal: _____		Received by Laboratory:	Date/Time:	Signature:

LABORATORY USE ONLY

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

APPENDIX C

Analytical Laboratory Report

ANALYTICAL SUMMARY REPORT

January 28, 2015

NewFields
1120 Cedar St
Missoula, MT 59802-3911

Work Order: B14122169

Project Name: Stimson

Energy Laboratories Inc Billings MT received the following 9 samples for NewFields on 12/30/2014 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B14122169-001	MW-10	12/22/14 15:40	12/30/14	Aqueous	EPH-Liquid-Liquid Extraction Hydrocarbons, Extractable Petroleum Screen Polychlorinated Biphenyls (PCB's) Separatory Funnel Liquid Liquid Ext.
B14122169-002	MW-13R	12/22/14 12:10	12/30/14	Aqueous	Same As Above
B14122169-003	MW-14	12/22/14 13:10	12/30/14	Aqueous	Same As Above
B14122169-004	MW-15R	12/22/14 16:45	12/30/14	Aqueous	Same As Above
B14122169-005	MW-18	12/22/14 15:00	12/30/14	Aqueous	Same As Above
B14122169-006	MW-19	12/23/14 12:30	12/30/14	Aqueous	Same As Above
B14122169-007	MW-20	12/23/14 11:40	12/30/14	Aqueous	Same As Above
B14122169-008	MW-21	12/23/14 10:50	12/30/14	Aqueous	Same As Above
B14122169-009	MW-22	12/22/14 14:05	12/30/14	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: NewFields
Project: Stimson
Work Order: B14122169

Revised Date: 01/28/15

Report Date: 01/08/15

CASE NARRATIVE

Revised Report:

The report was revised per client request to correct reporting limits.

This revised report replaces any previous report in its entirety.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-001
Client Sample ID: MW-10

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/22/14 15:40
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/03/15 22:27 / tmc
Surr: o-Terphenyl	92.0	%REC		40-140		SW8015M	01/03/15 22:27 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	12/31/14 21:33 / jem
Surr: Decachlorobiphenyl	95.0	%REC		44-119		SW8082	12/31/14 21:33 / jem
Surr: Tetrachloro-m-xylene	73.0	%REC		40-120		SW8082	12/31/14 21:33 / jem

- The extraction prep hold time was exceeded by 0.757 days.

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-002
Client Sample ID: MW-13R

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/22/14 12:10
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/03/15 23:10 / tmc
Surr: o-Terphenyl	85.0	%REC		40-140		SW8015M	01/03/15 23:10 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	12/31/14 21:59 / jem
Surr: Decachlorobiphenyl	103	%REC		44-119		SW8082	12/31/14 21:59 / jem
Surr: Tetrachloro-m-xylene	67.0	%REC		40-120		SW8082	12/31/14 21:59 / jem

- The extraction prep hold time was exceeded by 0.903 days.

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-003
Client Sample ID: MW-14

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/22/14 13:10
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/04/15 00:37 / tmc
Surr: o-Terphenyl	90.0	%REC		40-140		SW8015M	01/04/15 00:37 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	12/31/14 22:25 / jem
Surr: Decachlorobiphenyl	92.0	%REC		44-119		SW8082	12/31/14 22:25 / jem
Surr: Tetrachloro-m-xylene	77.0	%REC		40-120		SW8082	12/31/14 22:25 / jem

- The extraction prep hold time was exceeded by 0.861 days.

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-004
Client Sample ID: MW-15R

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/22/14 16:45
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/04/15 01:20 / tmc
Surr: o-Terphenyl	73.0	%REC		40-140		SW8015M	01/04/15 01:20 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	12/31/14 22:51 / jem
Surr: Decachlorobiphenyl	104	%REC		44-119		SW8082	12/31/14 22:51 / jem
Surr: Tetrachloro-m-xylene	76.0	%REC		40-120		SW8082	12/31/14 22:51 / jem

- The extraction prep hold time was exceeded by 0.712 days.

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-005
Client Sample ID: MW-18

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/22/14 15:00
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/04/15 02:04 / tmc
Surr: o-Terphenyl	93.0	%REC		40-140		SW8015M	01/04/15 02:04 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	12/31/14 23:17 / jem
Surr: Decachlorobiphenyl	103	%REC		44-119		SW8082	12/31/14 23:17 / jem
Surr: Tetrachloro-m-xylene	78.0	%REC		40-120		SW8082	12/31/14 23:17 / jem

- The extraction prep hold time was exceeded by 0.785 days.

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-006
Client Sample ID: MW-19

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/23/14 12:30
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/04/15 04:14 / tmc
Surr: o-Terphenyl	102	%REC		40-140		SW8015M	01/04/15 04:14 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	12/31/14 23:44 / jem
Surr: Decachlorobiphenyl	96.0	%REC		44-119		SW8082	12/31/14 23:44 / jem
Surr: Tetrachloro-m-xylene	77.0	%REC		40-120		SW8082	12/31/14 23:44 / jem

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-007
Client Sample ID: MW-20

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/23/14 11:40
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/04/15 04:58 / tmc
Surr: o-Terphenyl	103	%REC		40-140		SW8015M	01/04/15 04:58 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	01/01/15 00:10 / jem
Surr: Decachlorobiphenyl	104	%REC		44-119		SW8082	01/01/15 00:10 / jem
Surr: Tetrachloro-m-xylene	77.0	%REC		40-120		SW8082	01/01/15 00:10 / jem

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-008
Client Sample ID: MW-21

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/23/14 10:50
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/04/15 05:41 / tmc
Surr: o-Terphenyl	98.0	%REC		40-140		SW8015M	01/04/15 05:41 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	01/01/15 01:03 / jem
Surr: Decachlorobiphenyl	104	%REC		44-119		SW8082	01/01/15 01:03 / jem
Surr: Tetrachloro-m-xylene	75.0	%REC		40-120		SW8082	01/01/15 01:03 / jem

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: NewFields
Project: Stimson
Lab ID: B14122169-009
Client Sample ID: MW-22

Revised Date: 01/28/15
Report Date: 01/08/15
Collection Date: 12/22/14 14:05
DateReceived: 12/30/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN

Total Extractable Hydrocarbons	ND	ug/L		300	1000	SW8015M	01/04/15 06:25 / tmc
Surr: o-Terphenyl	103	%REC		40-140		SW8015M	01/04/15 06:25 / tmc

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

POLYCHLORINATED BIPHENYLS (PCBS)

Aroclor 1016	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Aroclor 1221	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Aroclor 1232	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Aroclor 1242	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Aroclor 1248	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Aroclor 1254	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Aroclor 1260	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Aroclor 1262	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Aroclor 1268	ND	ug/L		0.50		SW8082	01/01/15 00:36 / jem
Surr: Decachlorobiphenyl	99.0	%REC		44-119		SW8082	01/01/15 00:36 / jem
Surr: Tetrachloro-m-xylene	77.0	%REC		40-120		SW8082	01/01/15 00:36 / jem

- The extraction prep hold time was exceeded by 0.823 days.

- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.

Report Definitions: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: NewFields

Report Date: 01/08/15

Project: Stimson

Work Order: B14122169

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M									Batch: 85897
Lab ID: LCS-85897	Laboratory Control Sample				Run: GCFID-HP3-B_150102B				01/03/15 17:22
Total Extractable Hydrocarbons	6560	ug/L	300	106	60	140			
Surr: o-Terphenyl				96	40	140			
Lab ID: MB-85897	Method Blank				Run: GCFID-HP3-B_150102B				01/03/15 18:06
Total Extractable Hydrocarbons	ND	ug/L	300						
Surr: o-Terphenyl				94	40	140			
Lab ID: B14121909-001AMS	Sample Matrix Spike				Run: GCFID-HP3-B_150102B				01/03/15 19:33
Total Extractable Hydrocarbons	13300	ug/L	600	107	60	140			
Surr: o-Terphenyl				74	40	140			
Lab ID: B14121909-001AMSD	Sample Matrix Spike Duplicate				Run: GCFID-HP3-B_150102B				01/03/15 20:16
Total Extractable Hydrocarbons	13600	ug/L	600	110	60	140	2.5		
Surr: o-Terphenyl				74	40	140			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: NewFields

Report Date: 01/08/15

Project: Stimson

Work Order: B14122169

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M								Analytical Run: R236224	
Lab ID: CCV_0102HP333r-W								01/03/15 15:55	
n-Nonane	208	ug/L	104	75	125				
n-Decane	208	ug/L	104	75	125				
n-Dodecane	214	ug/L	107	75	125				
n-Tetradecane	210	ug/L	105	75	125				
n-Hexadecane	214	ug/L	107	75	125				
n-Octadecane	215	ug/L	107	75	125				
n-Nonadecane	215	ug/L	108	75	125				
n-Eicosane	215	ug/L	108	75	125				
n-Docosane	215	ug/L	108	75	125				
n-Tetracosane	216	ug/L	108	75	125				
n-Hexacosane	216	ug/L	108	75	125				
n-Octacosane	216	ug/L	108	75	125				
n-Triacontane	217	ug/L	109	75	125				
n-Hexatricontane	216	ug/L	108	75	125				
Surr: o-Terphenyl			109	75	125				
Lab ID: CCV_0102HP348r-W								01/04/15 02:47	
n-Nonane	211	ug/L	106	75	125				
n-Decane	204	ug/L	102	75	125				
n-Dodecane	213	ug/L	106	75	125				
n-Tetradecane	208	ug/L	104	75	125				
n-Hexadecane	213	ug/L	106	75	125				
n-Octadecane	213	ug/L	106	75	125				
n-Nonadecane	213	ug/L	107	75	125				
n-Eicosane	213	ug/L	107	75	125				
n-Docosane	214	ug/L	107	75	125				
n-Tetracosane	214	ug/L	107	75	125				
n-Hexacosane	214	ug/L	107	75	125				
n-Octacosane	214	ug/L	107	75	125				
n-Triacontane	215	ug/L	108	75	125				
n-Hexatricontane	214	ug/L	107	75	125				
Surr: o-Terphenyl			109	75	125				

Qualifiers:

RL - Analyte reporting limit.

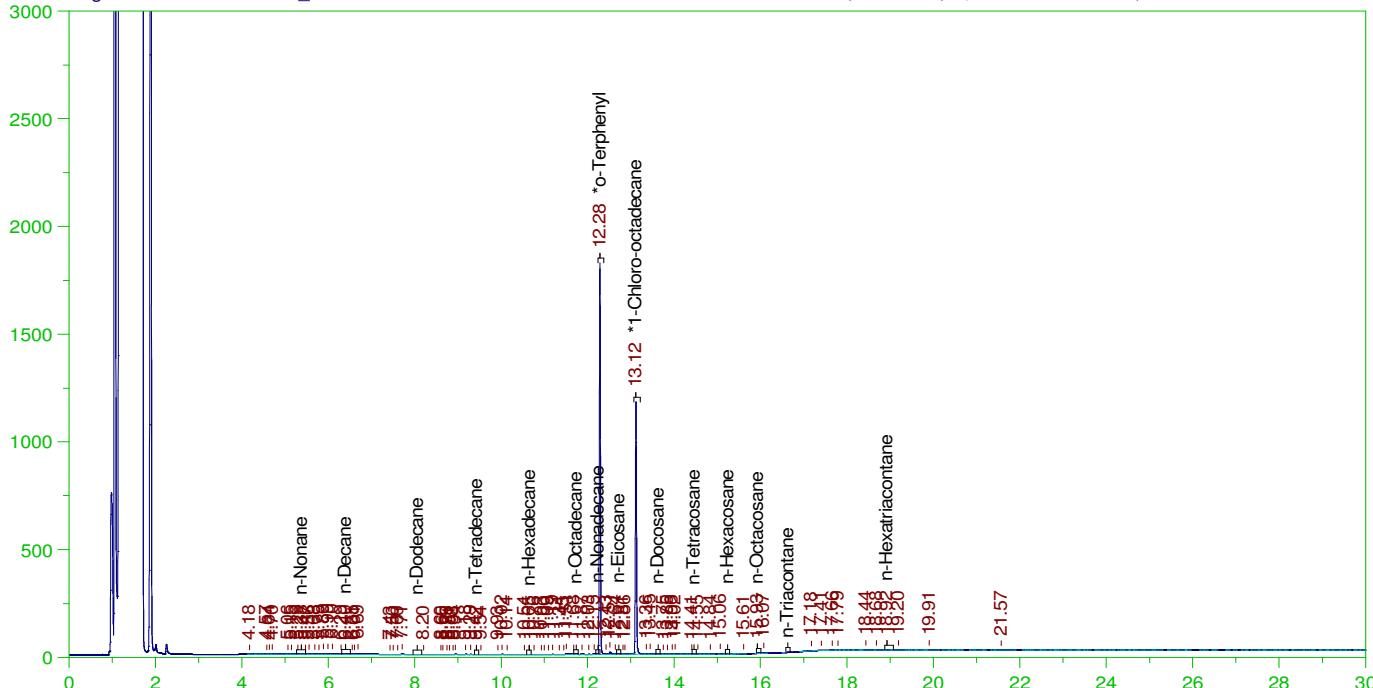
ND - Not detected at the reporting limit.

MW-10

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0042.RAW

Batch ID: 85897

B14122169-001B ;0102HP3 , \$HC-EPH-SCRN-W, V42

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-001B ;0102HP3 , \$HC-EPH-SCRN-W, V42

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0042.RAW

Date & Time Acquired: 1/3/2015 10:27:12 PM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.283	190.476	174.946	91.85	-
*1-Chloro-octadecane	13.12	190.476	160.982	84.52	-

DRO Area:309742.5

DRO Amount: 19.03969

TEH Area:484754

TEH Amount: 29.79754

C9-C18 Area:273878

C9-C18 Amount: 16.83924

C19-C36 Area:164511

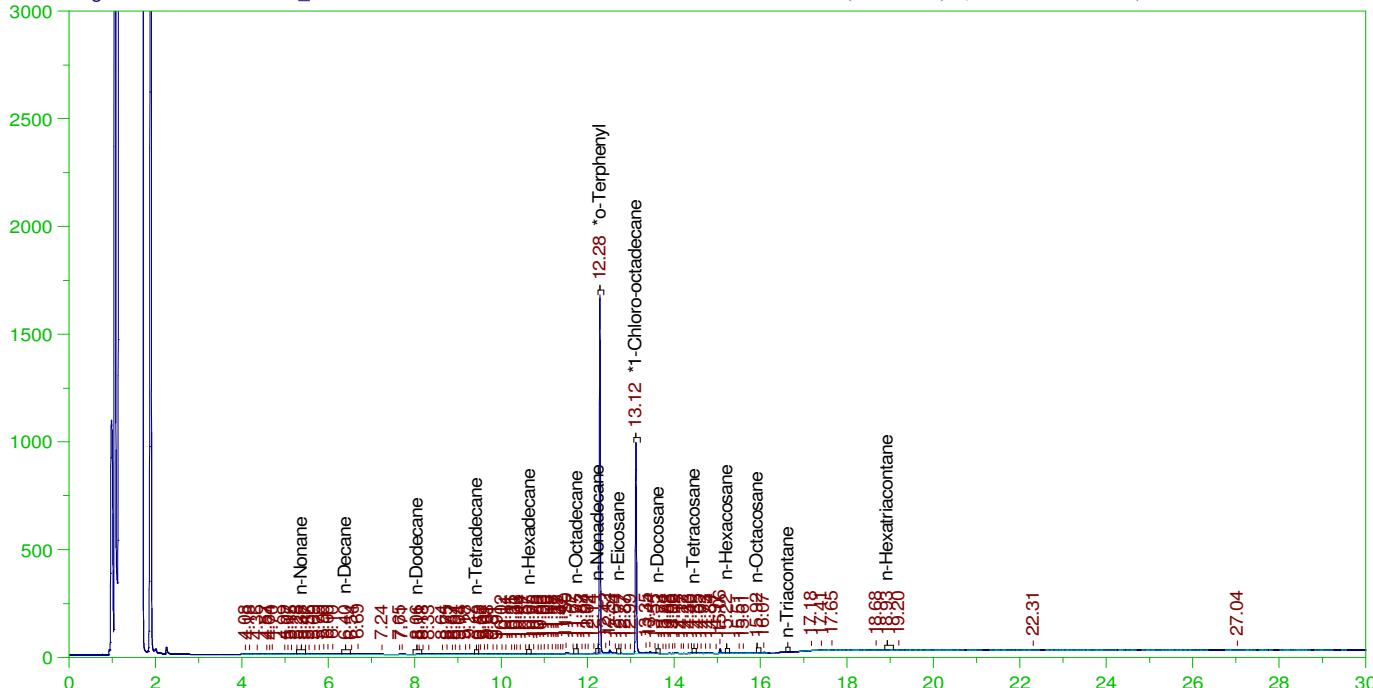
C19-C36 Amount: 10.10992

MW-13R

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0043.RAW

Batch ID: 85897

B14122169-002B ;0102HP3 , \$HC-EPH-SCRN-W, V43

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-002B ;0102HP3 , \$HC-EPH-SCRN-W, V43

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0043.RAW

Date & Time Acquired: 1/3/2015 11:10:38 PM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.282	190.476	160.998	84.52	-
*1-Chloro-octadecane	13.119	190.476	134.698	70.72	-

DRO Area:653343.3

DRO Amount: 40.16061

TEH Area:803575.3

TEH Amount: 49.39529

C9-C18 Area:396754.9

C9-C18 Amount: 24.39426

C19-C36 Area:361046.8

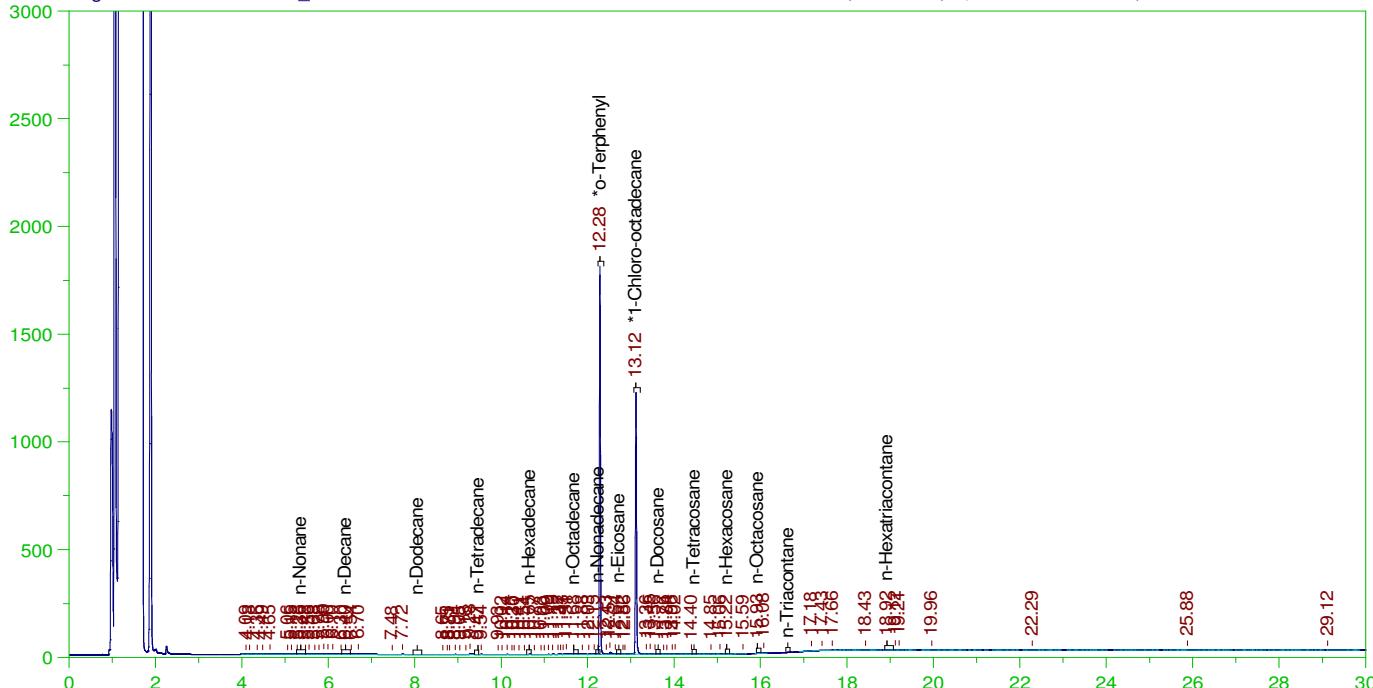
C19-C36 Amount: 22.18789

MW-14

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0045.RAW

Batch ID: 85897

B14122169-003B ;0102HP3 , \$HC-EPH-SCRN-W, V45

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-003B ;0102HP3 , \$HC-EPH-SCRN-W, V45

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0045.RAW

Date & Time Acquired: 1/4/2015 12:37:32 AM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.283	190.476	171.078	89.82	-
*1-Chloro-octadecane	13.12	190.476	166.32	87.32	-

DRO Area:321987.5

DRO Amount: 19.79238

TEH Area:511540.5

TEH Amount: 31.44409

C9-C18 Area:288657.1

C9-C18 Amount: 17.74792

C19-C36 Area:161476.5

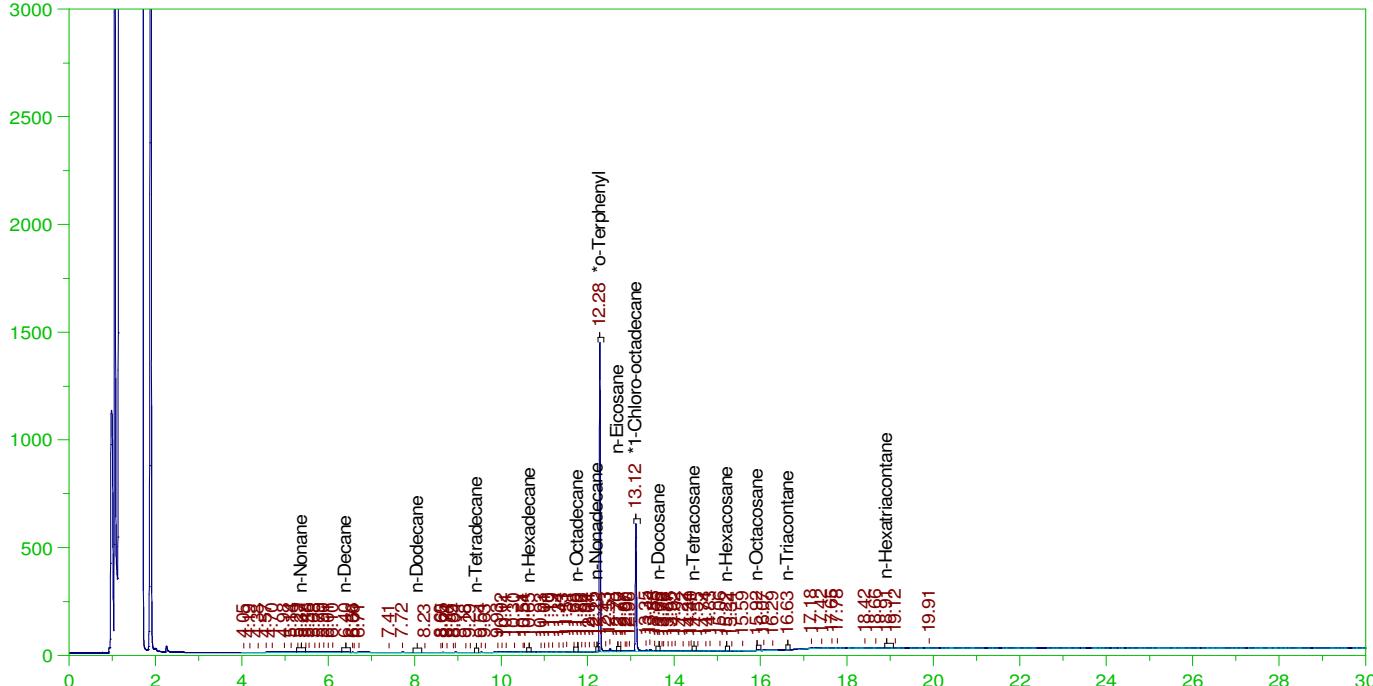
C19-C36 Amount: 9.923433

MW-15R

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0046.RAW

Batch ID: 85897

B14122169-004B ;0102HP3 , \$HC-EPH-SCRN-W, V46

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-004B ;0102HP3 , \$HC-EPH-SCRN-W, V46

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0046.RAW

Date & Time Acquired: 1/4/2015 1:20:55 AM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.282	190.476	139.249	73.11	-
*1-Chloro-octadecane	13.119	190.476	84.638	44.44	-

DRO Area:523518.3 DRO Amount: 32.18035

TEH Area:651712.8 TEH Amount: 40.06039

C9-C18 Area:204610.7 C9-C18 Amount: 12.58038

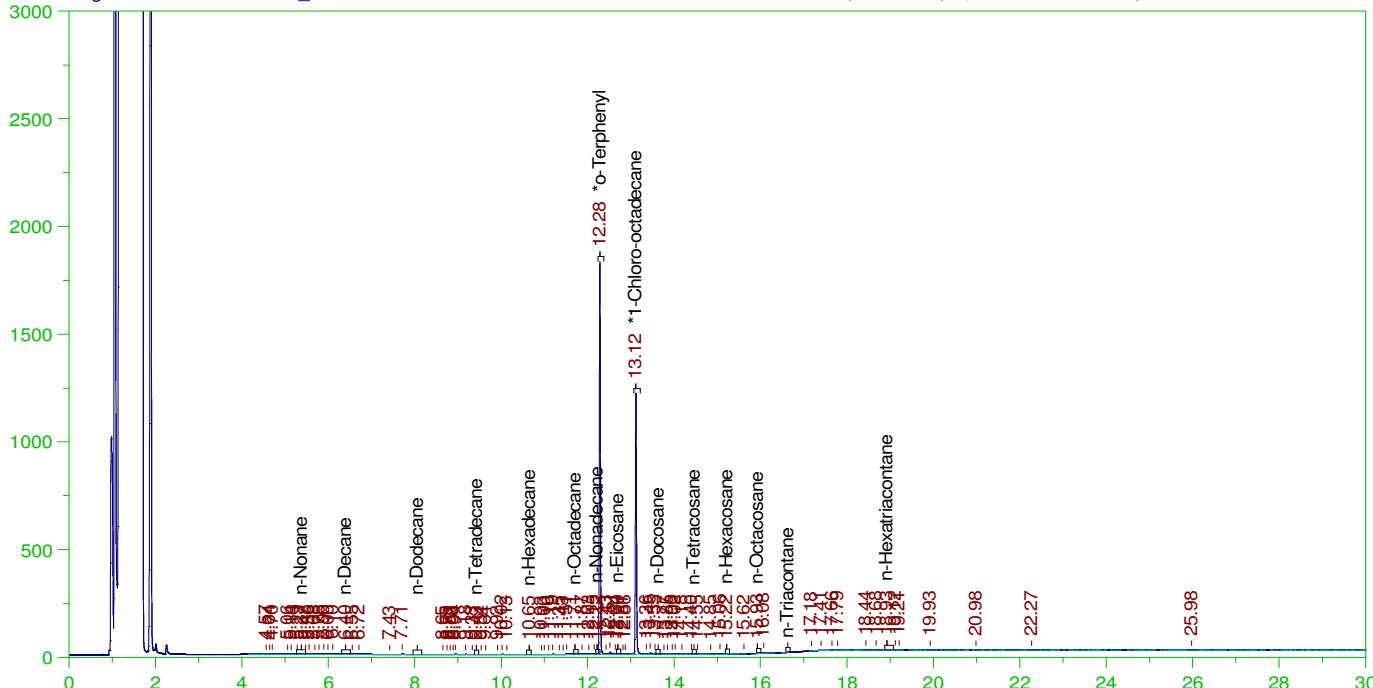
C19-C36 Area:405988.3 C19-C36 Amount: 24.94975

MW-18

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0047.RAW

Batch ID: 85897

B14122169-005B ;0102HP3 , \$HC-EPH-SCRN-W, V47

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-005B ;0102HP3 , \$HC-EPH-SCRN-W, V47

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0047.RAW

Date & Time Acquired: 1/4/2015 2:04:18 AM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.282	190.476	176.694	92.76	-
*1-Chloro-octadecane	13.119	190.476	165.492	86.88	-

DRO Area:299294.8 DRO Amount: 18.39747

TEH Area:479457.3 TEH Amount: 29.47195

C9-C18 Area:243081.4 C9-C18 Amount: 14.94572

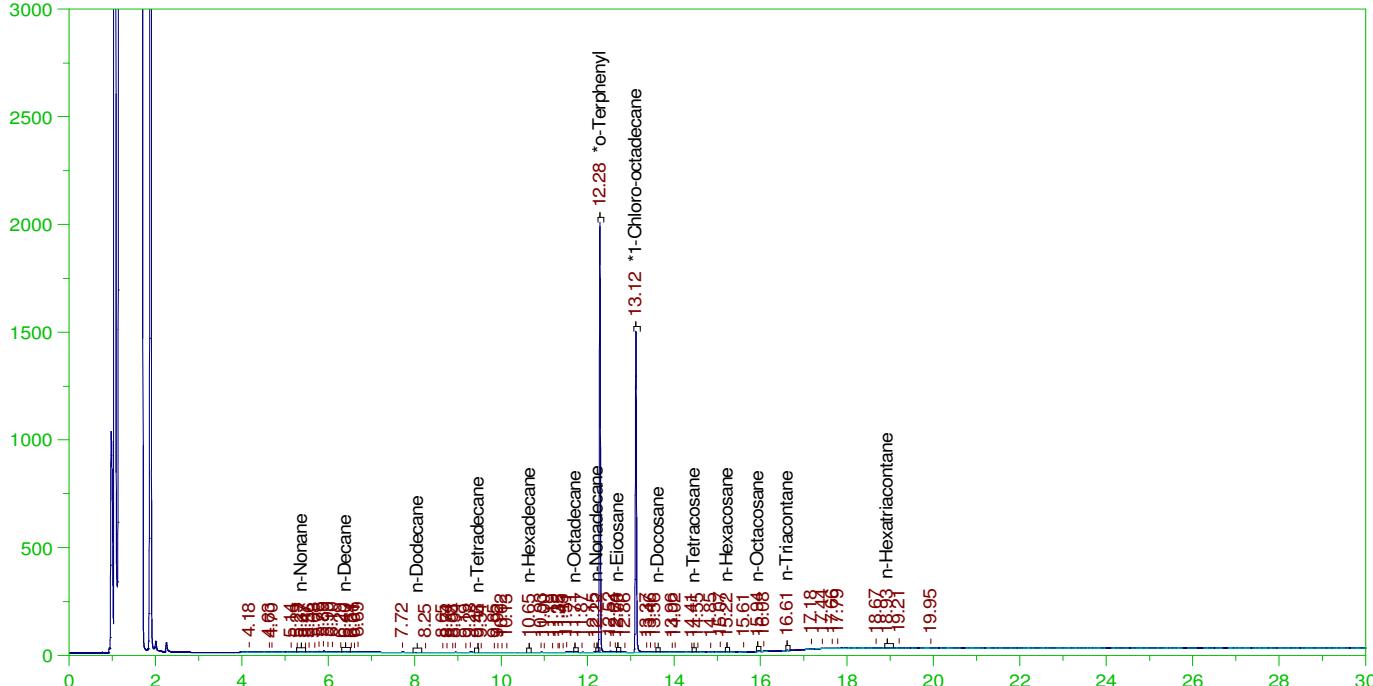
C19-C36 Area:178412.8 C19-C36 Amount: 10.96424

MW-19

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0050.RAW

Batch ID: 85897

B14122169-006B ;0102HP3 , \$HC-EPH-SCRN-W, V50

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-006B ;0102HP3 , \$HC-EPH-SCRN-W, V50

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0050.RAW

Date & Time Acquired: 1/4/2015 4:14:38 AM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.282	190.476	193.617	101.65	-
*1-Chloro-octadecane	13.119	190.476	203.18	106.67	-

DRO Area:314328 DRO Amount: 19.32155

TEH Area:480663.5 TEH Amount: 29.5461

C9-C18 Area:299916.2 C9-C18 Amount: 18.44018

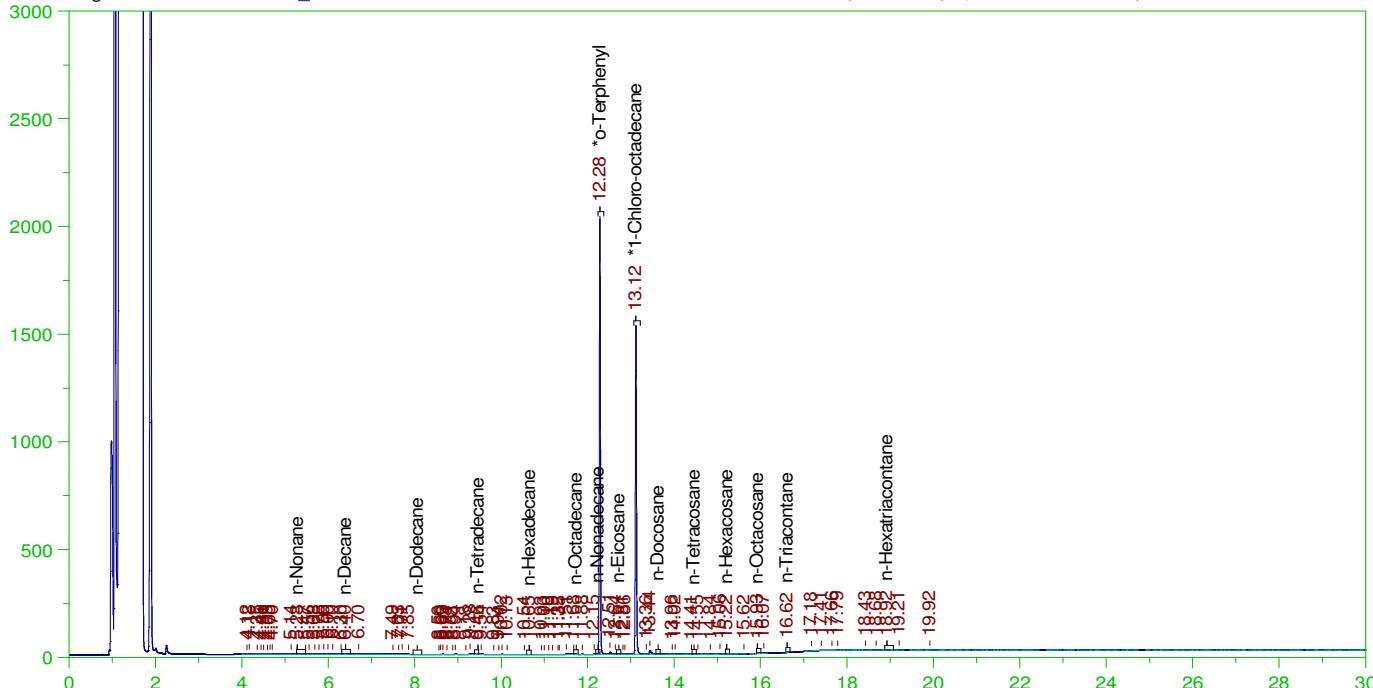
C19-C36 Area:143971 C19-C36 Amount: 8.847644

MW-20

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0051.RAW

Batch ID: 85897

B14122169-007B ;0102HP3 , \$HC-EPH-SCRN-W, V51

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-007B ;0102HP3 , \$HC-EPH-SCRN-W, V51

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0051.RAW

Date & Time Acquired: 1/4/2015 4:58:08 AM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.282	190.476	197.113	103.48	-
*1-Chloro-octadecane	13.119	190.476	208.607	109.52	-

DRO Area:373817

DRO Amount: 22.97831

TEH Area:570514

TEH Amount: 35.06915

C9-C18 Area:292227.9

C9-C18 Amount: 17.96747

C19-C36 Area:207527

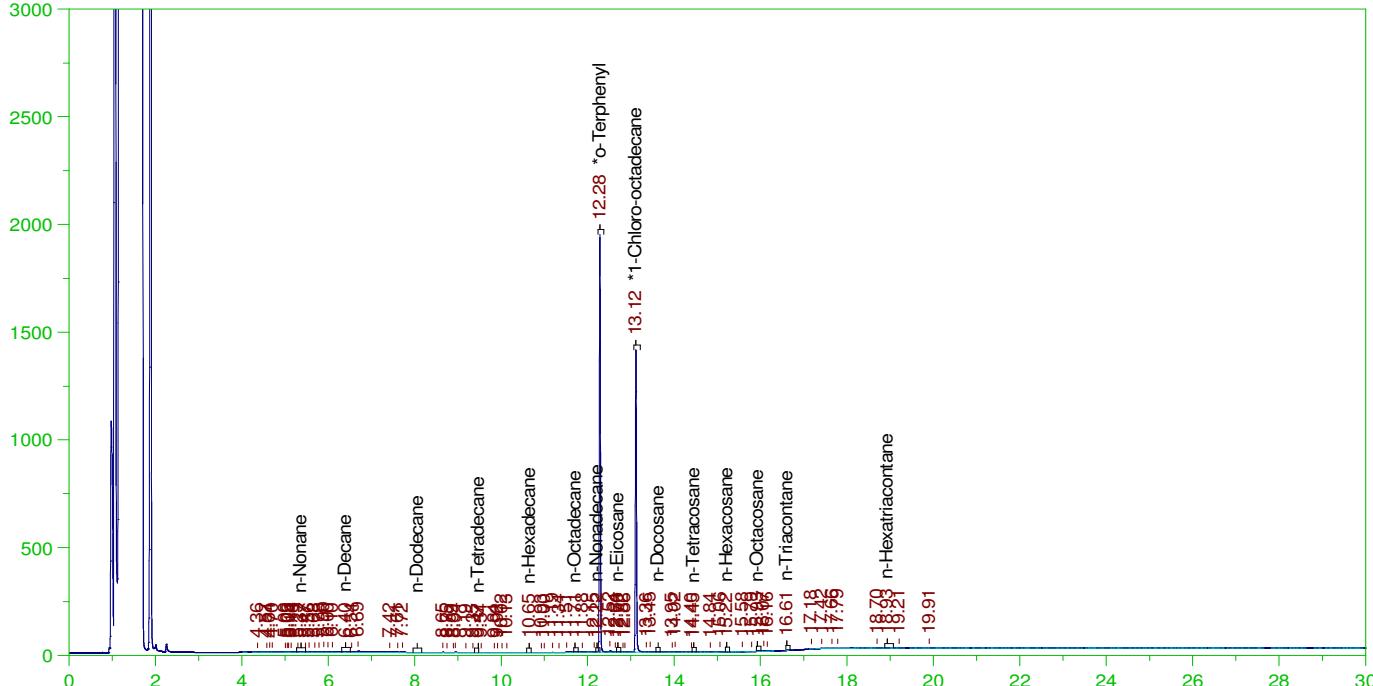
C19-C36 Amount: 12.75344

MW-21

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0052.RAW

Batch ID: 85897

B14122169-008B ;0102HP3 , \$HC-EPH-SCRN-W, V52

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-008B ;0102HP3 , \$HC-EPH-SCRN-W, V52

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0052.RAW

Date & Time Acquired: 1/4/2015 5:41:37 AM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.282	190.476	187.199	98.28	-
*1-Chloro-octadecane	13.119	190.476	192.461	101.04	-

DRO Area:314462.5

DRO Amount: 19.32982

TEH Area:487412

TEH Amount: 29.96092

C9-C18 Area:292709.6

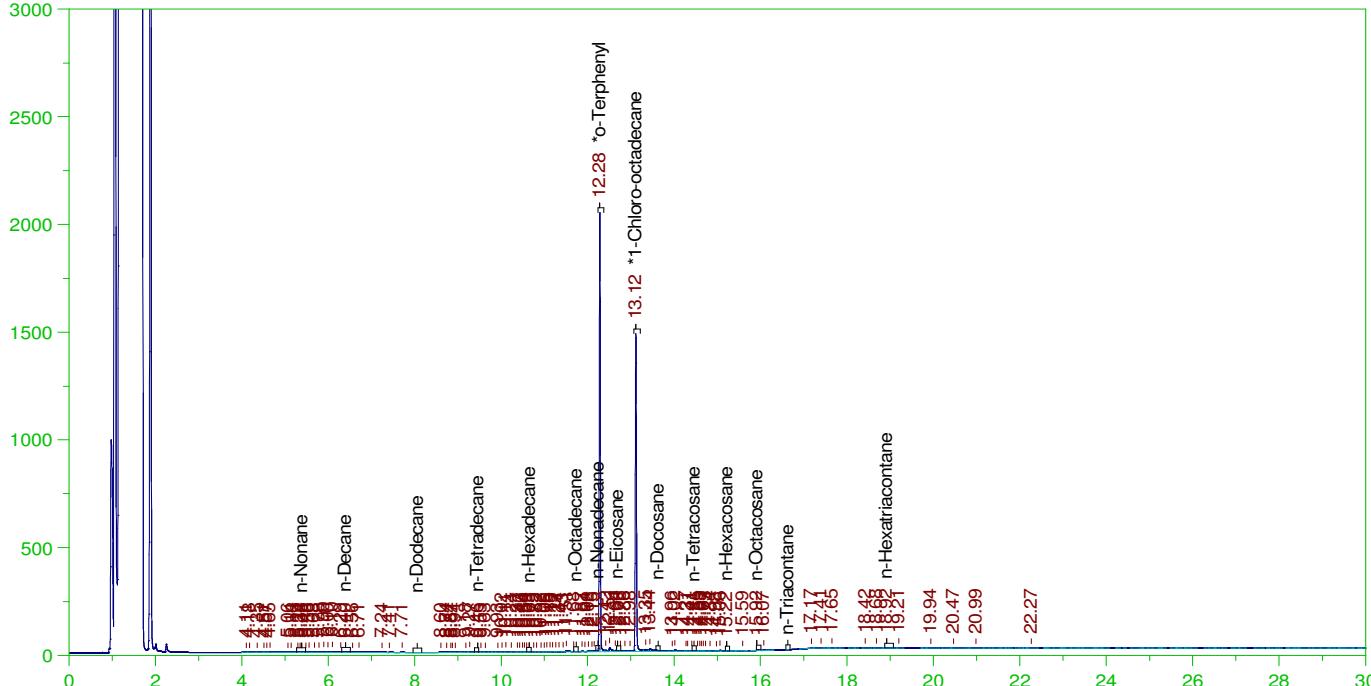
C9-C18 Amount: 17.99709

C19-C36 Area:148417

C19-C36 Amount: 9.120871

MW-22

— G:\org\HP3\DAT\HP3010215_b\0102HP3.0053.RAW

**EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM**

Sample Name: B14122169-009B ;0102HP3 , \$HC-EPH-SCRN-W, V53

Raw File: G:\org\HP3\DAT\HP3010215_b\0102HP3.0053.RAW

Date & Time Acquired: 1/4/2015 6:25:00 AM

Method File: g:\org\HP3\Methods\SR_SCN-LI-L%.met

Calibration File: G:\Org\HP3\Cals\SC140226LI.CAL

Sample Weight: 1.05 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 30979.57

Mean RF for C19 to C36 Hydrocarbons: 30994.75

Mean RF for Total Extractable Hydrocarbons: 30987.16

Rt range for Diesel Range Organics: 6.313 to 16.684

Rt range for C9 to C18 Hydrocarbons: 5.273 to 12.239

Rt range for C19 to C36 Hydrocarbons: 12.274 to 19.076

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.281	190.476	196.364	103.09	-
*1-Chloro-octadecane	13.118	190.476	205.091	107.67	-

DRO Area:806888 DRO Amount: 49.59892

TEH Area:1025795 TEH Amount: 63.05497

C9-C18 Area:407861.7 C9-C18 Amount: 25.07715

C19-C36 Area:545454 C19-C36 Amount: 33.52052

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: NewFields

Report Date: 01/08/15

Project: Stimson

Work Order: B14122169

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8082									Batch: 85856
Lab ID: MB-85856	Method Blank				Run: HECD.I_141231B				12/31/14 15:50
Aroclor 1016	ND	ug/L	0.50						
Aroclor 1221	ND	ug/L	0.50						
Aroclor 1232	ND	ug/L	0.50						
Aroclor 1242	ND	ug/L	0.50						
Aroclor 1248	ND	ug/L	0.50						
Aroclor 1254	ND	ug/L	0.50						
Aroclor 1260	ND	ug/L	0.50						
Aroclor 1262	ND	ug/L	0.50						
Aroclor 1268	ND	ug/L	0.50						
Surr: Decachlorobiphenyl			0.050		102	44	119		
Surr: Tetrachloro-m-xylene			0.050		73	40	120		
- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.									
Lab ID: AR1254-85856	Laboratory Control Sample			Run: HECD.I_141231B					12/31/14 16:17
Aroclor 1254	10.0	ug/L	0.50	100	73	111			
Surr: Decachlorobiphenyl			0.050	105	44	119			
Surr: Tetrachloro-m-xylene			0.050	73	40	120			
- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.									
Lab ID: B14122169-008AMB	Sample Matrix Spike			Run: HECD.I_141231B					01/01/15 01:29
Aroclor 1254	10.7	ug/L	0.50	107	73	111			
Surr: Decachlorobiphenyl			0.050	105	44	119			
Surr: Tetrachloro-m-xylene			0.050	74	40	120			
- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.									
Lab ID: B14122169-008ADB	Sample Matrix Spike Duplicate			Run: HECD.I_141231B					01/01/15 01:55
Aroclor 1254	9.98	ug/L	0.50	100	73	111	7.0	40	
Surr: Decachlorobiphenyl			0.050	103	44	119			
Surr: Tetrachloro-m-xylene			0.050	67	40	120			
- Sample extract received a Sulfuric Acid Clean-up (EPA Method 3665) and a Sulfur Clean-up (EPA Method 3660) prior to analysis.									

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Workorder Receipt Checklist

NewFields

B14122169

Login completed by: Randa Nees

Date Received: 12/30/2014

Reviewed by: BL2000\jmueller

Received by: dlf

Reviewed Date: 12/30/2014

Carrier name: FedEx NDA

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Container temperature for Cooler 1 was 0.6°C, Cooler 2 was 2.2°C and Cooler 3 was 2.6°C.

Samples for PCBs taken on 12/22/14 are past the EPA holding time of 7 days, continue with analysis per phone call with Tyler Etzel.



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name: NewFields		Project Name, PWS, Permit, Etc. Stimson		Sample Origin State: MT	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>																																																													
Report Mail Address (Required): 1120 Cedar St. Missoula, MT 59802		Contact Name: Tyler Etzel Phone/Fax: 406.549.8270		Cell:	Sampler: (Please Print) Levi																																																													
<input checked="" type="checkbox"/> No Hard Copy Email: fetzl@newfields.com		Invoice Contact & Phone: Donna McCammon		Purchase Order: -	Quote/Bottle Order: -																																																													
Invoice Address (Required): As above		ANALYSIS REQUESTED <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="width: 10%;">Number of Containers</td> <td>A</td> <td>W</td> <td>S</td> <td>V</td> <td>B</td> <td>O</td> <td>DW</td> </tr> <tr> <td><input type="checkbox"/></td> </tr> <tr> <td rowspan="2" style="width: 10%;">Sample Type:</td> <td>Air</td> <td>Water</td> <td>Solids</td> <td>Soil</td> <td>Biological</td> <td>Assay</td> <td>Other</td> </tr> <tr> <td><input type="checkbox"/></td> </tr> <tr> <td rowspan="2" style="width: 10%;">Vegetation</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> </tr> <tr> <td rowspan="2" style="width: 10%;">DW - Drinking Water</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> </tr> </table>		Number of Containers	A	W	S	V	B	O	DW	<input type="checkbox"/>	Sample Type:	Air	Water	Solids	Soil	Biological	Assay	Other	<input type="checkbox"/>	Vegetation	<input type="checkbox"/>	DW - Drinking Water	<input type="checkbox"/>	SEE ATTACHED R U S H	Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page Comments: 3 coolers total	Shipped by: FedEx NDA Cooler ID(s): 2.6, 2.2, °C On Ice: <input checked="" type="checkbox"/> N Custody Seal On Bottle <input checked="" type="checkbox"/> Y N On Cooler <input checked="" type="checkbox"/> Y N Intact <input checked="" type="checkbox"/> Y N Signature Match <input checked="" type="checkbox"/> Y N																																						
Number of Containers	A	W	S		V	B	O	DW																																																										
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																											
Sample Type:	Air	Water	Solids	Soil	Biological	Assay	Other																																																											
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																											
Vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																											
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DW - Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																											
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SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX	1 MW-10 12-22-14 1540 WT X X 2 MW-13R 12-22-14 1210 WT X X 3 MW-14 12-22-14 1310 WT X X 4 MW-15R 12-22-14 1645 WT X X 5 MW-18 12-22-14 1500 WT X X 6 MW-19 12-23-14 1230 WT X X 7 MW-20 12-23-14 1140 WT X X 8 MW-21 12-23-14 1050 WT X X 9 MW-22 12-22-14 1405 WT X X 10																																																													
Custody Record MUST be Signed		Relinquished by (print): Levi McCay Date/Time: 12-29-14 / 1200 Signature:		Received by (print): Felix Date/Time: 12-29-14 / 1200 Signature: -																																																														
Custody Record MUST be Signed		Relinquished by (print): Date/Time: Signature: 		Received by (print): Date/Time: Signature: 																																																														
Custody Record MUST be Signed		Sample Disposal: Return to Client: Lab Disposal: 		Received by Laboratory: 12/30/14 1015 AM Date/Time: Signature: Levi McCay																																																														

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.