FRONTIER REFINING INC.
a Subsidiary of Frontier Refining & Marketing Inc.

P.O. BOX 1588
CHEYENNE, WYOMING 82003-1588
(307) 634-3551
FAX (Main Office) (307) 771-8794
FAX (Purchasing) (307) 771-8795

April 30, 2010

Mr. Ken Johnson
Coordinator, Industrial Pre-Treatment
Cheyenne Board of Public Utilities
Dry Creek Wastewater Treatment Facility
P.O. Box 1469
Cheyenne, Wyoming 82007-1469

SUBJECT: March 2010 Self Monitoring Report

Dear Mr. Johnson:

Attached, pursuant to Part 3.A of BOPU IWP #FRONTIER REFINING–2, is a Self Monitoring Report for the month of March, 2010.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possibility of fine and imprisonment for knowing violations.

If you have any questions concerning this report, please contact Chad Tuttle, Environmental Engineer-Water Quality at 771-8885 or me at 771-8706.

Respectfully,

Stu Fischbeck, P.E.
Environmental Manager

attachment
enclosures

Gerald Faudel – Frontier Denver (w/o enclosures)
Wayne Kachel – Frontier Denver (w/o enclosures)
Joe Guida – Guida, Slavich, & Flores (w/o enclosures)
Russ Grillo – Frontier Cheyenne WWTP Superintendent (w/o enclosures)
WWTP Operations File (w/o enclosures)
File 3.6.2.2

Daily BOPU Discharge Monitoring Data
Frontier Refining Inc.
Cheyenne, WY

Date	pH	Se Result (ppm)	Avg (gpm)	Total Flow (MGD)	Se to BOPU (lb/dy)
3/1/2010	7.0		0.00	0.000	0.000
3/2/2010	6.9		0.00	0.000	0.000
3/3/2010	6.8		0.00	0.000	0.000
3/4/2010	6.7		11.15	0.016	0.000
3/5/2010	6.9		0.00	0.000	0.000
3/6/2010	7.0		0.00	0.000	0.000
3/7/2010	7.0		0.00	0.000	0.000
3/8/2010	6.9		0.00	0.000	0.000
3/9/2010	6.6		0.00	0.000	0.000
3/10/2010	6.9		0.00	0.000	0.000
3/11/2010	7.0		0.00	0.000	0.000
3/12/2010	6.9		0.00	0.000	0.000
3/13/2010	6.8		0.00	0.000	0.000
3/14/2010	6.7		0.00	0.000	0.000
3/15/2010	6.3		0.00	0.000	0.000
3/16/2010	6.9		0.00	0.000	0.000
3/17/2010	7.1		0.00	0.000	0.000
3/18/2010	7.1		0.00	0.000	0.000
3/19/2010	7.2		0.00	0.000	0.000
3/20/2010	7.3		0.00	0.000	0.000
3/21/2010	7.1		0.00	0.000	0.000
3/22/2010	6.9		0.00	0.000	0.000
3/23/2010	6.9		0.00	0.000	0.000
3/24/2010	7.0		0.00	0.000	0.000
3/25/2010	6.9	0.090	50.16	0.072	0.054
3/26/2010	6.9		74.29	0.107	0.000
3/27/2010	7.1		76.41	0.110	0.000
3/28/2010	7.1		78.66	0.113	0.000
3/29/2010	7.1		91.43	0.132	0.000
3/30/2010	7.1		75.65	0.109	0.000
3/31/2010	6.7	0.132	11.81	0.017	0.019

Average	6.9	0.090	12	0.022	0.002
Maximum	7.3	0.090	91	0.132	0.054
Minimum	6.3	0.090	0	0.000	0.000

pH by instantaneous reading.
pH limits are >=5.0 and <=11.0

Se concentration by EPA 200.2.
Lb/dy of Se is calculated by Total Flow (MGD) * Se Concentration * 8.34
Se daily limit is 0.522 lb/dy.
Annual average flow limit is 300 gpm.
Maximum flow limit is 550 gpm.
Maximum temperature limit = 65 degrees C.
Samples analyzed by Energy Labs unless otherwise noted.
If multiple samples per day analyzed, then average result used in this table.

SELF MONITORING REPORT - Frontier Refining Inc., Cheyenne, WY

Monitoring Period: March-10

Sampling:

Date	Sample I.D.	Sample Type	Sampler	Laboratory	Notes:
2/4/2010	BOPU-12-10	Water	C. Tuttle	Technology Laboratory	
3/25/2010	BOPU-12-10	Water	C. Tuttle	Energy Labs	
3/31/2010	C10040232	Water	C. Tuttle	Energy Labs	

RESULTS SUMMARY [Units are based on effluent limit.]

	BOPU-12-10	BOPU-12-10	C10040232					EPA Methods**	Normal Reporting Limits*****		Effluent Limit	
TSS	25.0							EPA - 160.2	5	mg/l	700	mg/l
BOD	44.2							SM18 5210B	2.0	mg/l	350	mg/l
Ammonia	1.0							EPA - 350.3	0.05	mg/l	60	mg/l
Arsenic		0.012						EPA - 200.8	0.005	mg/l	0.4231	mg/l
Cadmium		<0.01						EPA - 200.8	0.001	mg/l	0.013	mg/l
Chromium		<0.05						EPA - 200.8	0.004	mg/l	5.129	mg/l
Copper		<0.01						EPA - 200.8	0.003	mg/l	0.185	mg/l
Lead		<0.05						EPA - 200.8	0.003	mg/l	0.180	mg/l
Mercury								EPA - 245.1	0.0002	mg/l	0.012	mg/l
Mercury		0.000068						EPA - 245.7	0.0000005	mg/l	0.012	mg/l
Mercury								A3112 B	0.00001	mg/l	0.012	mg/l
Molybdenum		<0.1						EPA - 200.8	0.008	mg/l	0.638	mg/l
Nickel		<0.05						EPA - 200.8	0.005	mg/l	0.332	mg/l
Selenium******		0.090	0.132***					EPA - 200.8	0.001	mg/l		
Silver		<0.01						EPA - 200.8	0.002	mg/l	0.124	mg/l
Zinc		0.01						EPA - 200.8	0.002	mg/l	1.339	mg/l
TPH	<5.0							EPA - 1664A	5.0	mg/l	50	mg/l
Oil & Grease	<5.0							EPA - 1664A	5.0	mg/l	100	mg/l
Benzene	<0.5							EPA - 624	0.5	µg/l	50	µg/l
Total BETX	<0.5							EPA - 624	0.5	µg/l	750	µg/l
Volatile Organics	<0.5							EPA - 624*	0.5	µg/l		
pH	See attached pH summary.	See attached pH summary.	See attached pH summary.					In-House	In-House	Units	5.0-11.0	Units
Sulfides	<0.10							EPA - 376.2	0.1	mg/l		

Note: *MDL for 2-Chloroethyl Vinyl Ether is 2 ug/l.
Note: **Methods may vary occasionally basis sample conditon and/or volume.
Note: ***Represents a grab sample and separate lab report is pending.
Note: *****Some reporting limits vary by laboratory.
Note: ******Also see attached selenium and pH summary table.

TECHNOLOGY LABORATORY, INC.

1012 Centre Avenue
Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

Frontier Refining, Inc.
P.O. BOX 1588
Cheyenne, WY 82003

Sampled: 03/25/10
Received: 03/26/10
Analyzed: 03/31/10

Sample ID: BOPU-12-10
Laboratory ID: A1305-01

Project No.: BOPU
Method: EPA-624
Matrix: Water

CAS Number	Parameter	Result µg/L	MDL µg/L	CAS Number	Parameter	Result µg/L	MDL µg/L
71-43-2	Benzene	< 0.5	0.5	108-88-3	Toluene	< 0.5	0.5
100-41-4	Ethylbenzene	< 0.5	0.5	1330-20-7	Total Xylenes	< 0.5	0.5
75-01-4	Vinyl Chloride	< 0.5	0.5	74-87-3	Chloromethane	< 0.5	0.5
74-83-9	Bromomethane	< 0.5	0.5	75-00-3	Chloroethane	< 0.5	0.5
75-69-4	Trichlorofluoromethane	< 0.5	0.5	75-35-4	1,1-Dichloroethene	< 0.5	0.5
156-60-5	Trans-1,2-Dichloroethene	< 0.5	0.5	75-09-2	Methylene Chloride	< 0.5	0.5
75-34-3	1,1-Dichloroethane	< 0.5	0.5	67-66-3	Chloroform	< 0.5	0.5
71-55-6	1,1,1-Trichloroethane	< 0.5	0.5	56-23-5	Carbon Tetrachloride	< 0.5	0.5
107-06-2	1,2-Dichloroethane	< 0.5	0.5	79-01-6	Trichloroethene	< 0.5	0.5
78-87-5	1,2-Dichloropropane	< 0.5	0.5	75-27-4	Bromodichloromethane	< 0.5	0.5
79-00-5	1,1,2-Trichloroethane	< 0.5	0.5	110-75-8	2-Chloroethyl Vinyl Ether	< 2.0	2
10061-01-5	Cis-1,3-Dichloropropene	< 0.5	0.5	10061-02-6	Trans-1,3-Dichloropropene	< 0.5	0.5
127-18-4	Tetrachloroethene	< 0.5	0.5	124-48-1	Dibromochloromethane	< 0.5	0.5
108-90-7	Chlorobenzene	< 0.5	0.5	75-25-2	Bromoform	< 0.5	0.5
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5	0.5	541-73-1	1,3-Dichlorobenzene	< 0.5	0.5
106-46-7	1,4-Dichlorobenzene	< 0.5	0.5	95-50-1	1,2-Dichlorobenzene	< 0.5	0.5

QA/QC SURROGATE RECOVERIES

Compound	% Recovery	% Rec. Limits
Dibromofluoromethane	102	70-125
1,2-Dichloroethane-d4	95	71-128
Toluene-d8	102	68-126
Bromofluorobenzene	85	72-124

Todd Rhea
TECHNOLOGY LABORATORY, INC.

TECHNOLOGY LABORATORY, INC.

CENTRE PROFESSIONAL PARK

1012 Centre Avenue
Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

Frontier Refining, Inc.
P.O. BOX 1588
Cheyenne, WY 82003

Sampled: 03/25/10
Received: 03/26/10

Sample ID: BOPU-12-10
Laboratory ID A1305-01

Project No.: BOPU
Matrix: Water

CAS Number	Parameter	Result	Units	MDL	Method	Date Analyzed
N/A	TSS	25.0	mg/L	5	EPA-160.2	03/31/10
N/A	Oil & Grease	< 5.0	mg/L	5	EPA-1664A	04/01/10
7664-41-7	Ammonia-N	1.0	mg/L	0.05	EPA-350.3	03/30/10
	Sulfide	< 0.10	mg/L	0.1	EPA-376.2	03/31/10
N/A	BOD	44.2	mg/L	3	EPA-405.1	04/01/10

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CERTIFICATE OF ANALYSIS

Frontier Refining, Inc.
P.O. BOX 1588
Cheyenne, WY 82003

Sampled: 03/25/10
Received: 03/26/10

Sample ID: BOPU-12-10
Laboratory ID: A1305-01

Project No.: BOPU
Matrix: Water

CAS Number	Parameter	Result	Units	MDL	Method	Date Analyzed
	TPH	< 5.0	mg/L	5	EPA-1664A	04/01/10

Todd Rhea

TECHNOLOGY LABORATORY, INC.

The results contained in this report relate only to those items tested.

TECHNOLOGY LABORATORY, INC.

1012 Centre Avenue
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CERTIFICATE OF ANALYSIS

Frontier Refining, Inc.
P.O. BOX 1588
Cheyenne, WY 82003

Sampled: 03/25/10
Received: 03/26/10
Analyzed: 03/31/10

Sample ID: Trip Blank
Laboratory ID: A1305-02

Project No.: BOPU
Method: EPA-624
Matrix: Water

CAS Number	Parameter	Result µg/L	MDL µg/L	CAS Number	Parameter	Result µg/L	MDL µg/L
71-43-2	Benzene	< 0.5	0.5	108-88-3	Toluene	< 0.5	0.5
100-41-4	Ethylbenzene	< 0.5	0.5	1330-20-7	Total Xylenes	< 0.5	0.5
75-01-4	Vinyl Chloride	< 0.5	0.5	74-87-3	Chloromethane	< 0.5	0.5
74-83-9	Bromomethane	< 0.5	0.5	75-00-3	Chloroethane	< 0.5	0.5
75-69-4	Trichlorofluoromethane	< 0.5	0.5	75-35-4	1,1-Dichloroethene	< 0.5	0.5
156-60-5	Trans-1,2-Dichloroethene	< 0.5	0.5	75-09-2	Methylene Chloride	< 0.5	0.5
75-34-3	1,1-Dichloroethane	< 0.5	0.5	67-66-3	Chloroform	< 0.5	0.5
71-55-6	1,1,1-Trichloroethane	< 0.5	0.5	56-23-5	Carbon Tetrachloride	< 0.5	0.5
107-06-2	1,2-Dichloroethane	< 0.5	0.5	79-01-6	Trichloroethene	< 0.5	0.5
78-87-5	1,2-Dichloropropane	< 0.5	0.5	75-27-4	Bromodichloromethane	< 0.5	0.5
79-00-5	1,1,2-Trichloroethane	< 0.5	0.5	110-75-8	2-Chloroethyl Vinyl Ether	< 2.0	2
10061-01-5	Cis-1,3-Dichloropropene	< 0.5	0.5	10061-02-6	Trans-1,3-Dichloropropene	< 0.5	0.5
127-18-4	Tetrachloroethene	< 0.5	0.5	124-48-1	Dibromochloromethane	< 0.5	0.5
108-90-7	Chlorobenzene	< 0.5	0.5	75-25-2	Bromoform	< 0.5	0.5
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5	0.5	541-73-1	1,3-Dichlorobenzene	< 0.5	0.5
106-46-7	1,4-Dichlorobenzene	< 0.5	0.5	95-50-1	1,2-Dichlorobenzene	< 0.5	0.5

QA/QC SURROGATE RECOVERIES

Compound	% Recovery	% Rec. Limits
Dibromofluoromethane	99	70-125
1,2-Dichloroethane-d4	89	71-128
Toluene-d8	103	68-126
Bromofluorobenzene	86	72-124

Todd Rhea

TECHNOLOGY LABORATORY, INC.

QA/QC Data

Technology Laboratory Inc.

Project ID: BOPU-12-10
Date Sampled: 03/25/2010
Lab ID: A1305

Date Analyzed	Parameter	Batch ID	Blank amount	CCV % Recovery	CCV Limits	MS % Recovery	MS Limits
03/31/10	Benzene	VOC3-31	ND	101	64-136	97	37-151
03/31/10	Toluene	VOC3-31	ND	104	75-126	94	47-150
03/31/10	Ethylbenzene	VOC3-31	ND	104	59-141	97	37-162
03/31/10	Vinyl chloride	VOC3-31	ND	73	4-196	86	0.5-251
03/31/10	Chloromethane	VOC3-31	ND	76	3-249	80	0.5-273
03/31/10	Bromomethane	VOC3-31	ND	66	14-186	85	0.5-242
03/31/10	Chloroethane	VOC3-31	ND	76	38-162	109	14-230
03/31/10	Trichlorofluoromethane	VOC3-31	ND	79	48-152	120	71-157
03/31/10	1,1-Dichloroethene	VOC3-31	ND	95	51-150	102	80-120
03/31/10	trans-1,2-Dichloroethene	VOC3-31	ND	96	70-131	97	54-156
03/31/10	Methylene chloride	VOC3-31	ND	88	61-140	99	0.5-221
03/31/10	1,1-Dichloroethane	VOC3-31	ND	94	73-128	102	49-155
03/31/10	Chloroform	VOC3-31	ND	101	68-133	101	51-138
03/31/10	1,1,1-Trichloroethane	VOC3-31	ND	98	75-125	101	52-162
03/31/10	Carbon tetrachloride	VOC3-31	ND	97	73-127	99	70-140
03/31/10	1,2-Dichloroethane	VOC3-31	ND	94	68-132	127	59-155
03/31/10	Trichloroethene	VOC3-31	ND	104	67-134	86	71-157
03/31/10	1,2-Dichloropropane	VOC3-31	ND	95	34-166	98	0.5-210
03/31/10	Bromodichloromethane	VOC3-31	ND	91	66-135	108	35-155
03/31/10	1,1,2-Trichloroethane	VOC3-31	ND	108	71-129	95	52-150
03/31/10	cis-1,3-Dichloropropene	VOC3-31	ND	91	24-176	165	0.5-227
03/31/10	trans-1,3-Dichloropropene	VOC3-31	ND	88	50-150	141	17-183
03/31/10	Tetrachloroethene	VOC3-31	ND	103	74-127	111	64-148
03/31/10	Dibromochloromethane	VOC3-31	ND	102	68-133	87	53-149
03/31/10	Chlorobenzene	VOC3-31	ND	102	66-134	88	37-160
03/31/10	Bromoform	VOC3-31	ND	106	71-129	110	45-169
03/31/10	1,1,2,2-Tetrachloroethane	VOC3-31	ND	99	61-140	101	46-157
03/31/10	1,3-Dichlorobenzene	VOC3-31	ND	99	73-127	82	59-156
03/31/10	1,4-Dichlorobenzene	VOC3-31	ND	100	63-137	88	18-190
03/31/10	1,2-Dichlorobenzene	VOC3-31	ND	104	63-137	94	18-190
03/31/10	2-Chloroethylvinyl ether	VOC3-31	ND	100	3-224	96	0.5-305

Todd Rhea

TECHNOLOGY LABORATORY, INC.

Technology Laboratory Inc.

Date Analyzed	Parameter	Batch ID	Blank amount	CCV % Recovery	CCV Limits	MS % Recovery	MS/MSD Limits
N/A	TPH	N/A	N/A	N/A	70-130	N/A	N/A
04/01/10	Oil & Grease	04/01/10	ND	103	75-125	N/A	N/A
03/30/10	Ammonia	03/30/10	ND	110	75-125	N/A	N/A
04/01/10	BOD	04/01/10	ND	89	64-126mg/L	N/A	N/A
N/A	Total Suspended Solids	N/A	ND	N/A	N/A	N/A	N/A
03/31/10	Sulfide	03/31/10	ND	108	80-120	N/A	N/A
N/A	Silver	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Arsenic	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Cadmium	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Chromium	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Copper	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Mercury	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Molybdenum	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Nickel	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Lead	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Zinc	N/A	N/A	N/A	N/A	N/A	N/A

***ND= Non-detected**
***N/A= Non- Applicable**

Todd Rhea

TECHNOLOGY LABORATORY, INC.

TECHNOLOGY LABORATORY, INC.
1012 CENTRE AVENUE
FORT COLLINS, CO 80526
(970) 490-1414
www.techlabusa.com sales@techlabusa.com

W.O. NUMBER A1305

CHAIN-OF-CUSTODY REPORT

COMPANY NAME: Frontier (FRI)
PROJECT MANAGER:
PROJECT NUMBER:
PROJECT LOCATION OR NAME: BOPU
SAMPLERS SIGNATURE: Chad Tuttle

LAB #	SAMPLE ID	DATE/TIME SAMPLED	SAMPLE MATRIX: SOIL (S) AIR (A) AQUEOUS (W) OTHER (O)	NUMBER OF CONTAINERS	BTEX / MTBE / TVPH	TEPH (DRO)	TRPH 418.1	Oil & Grease 413.1 / 1664A	VOC 624 / 8260 TOTAL / TCLP	SVOC 625 / 8270 / PAH	pH TSS	RCRA 8 METALS (TOTAL / TCLP / DISSOLVED)	React. / Ignita. / Corr. / Paint Filter	TO-1 / TO-14 / TO-15 / TVPH	NITRATE / NITRITE / AMMONIA	BOD COD	FIXED GASES (N_2, O_2, CO_2, CH_4)	PCBs		Sulfide					HOLD AFTER ANALYSIS	HOLD, DON'T ANALYZE
1	BOPU-12-10	3-25/~3P	W	2					X															Grabs		
				1				X																		
				1																X						
				1												X								Comps.		
				1											X											
				1							X															
2	TRIP BLANKS			2					X																	

PAGE 1 OF 1

TURNAROUND TIME
- [x] NORMAL (5-10 working days)
- [ ] 24 hr (100% Surcharge)
- [ ] 3 day (50% Surcharge)

COMMENTS:

LOGGED IN BY:

Sample Preservative: [ ] 4°C [ ] Acid [ ] None [ ] Other

RELINQUISHED BY: Chad Tuttle	DATE: 3-25	RECEIVED BY:	
COMPANY: FRI	TIME: 2:4P	COMPANY:	
RELINQUISHED BY:	DATE: 3/26/10	RECEIVED BY: Rebecca Clark	
COMPANY:	TIME: 10:30AM	COMPANY: TLI	

D.C. #133

Technology Laboratory, Inc.
1012 Centre Avenue
Fort Collins, CO 80526

ANALYTICAL CERTIFICATION

"I certify that these analyses and resulting report (s) were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly analyze all samples and accurately report the results. I certify that all analysis were performed in accordance with methods approved for WASTEWATER under the latest revision to 40 CFR Part 136. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete."

Laboratory: TECHNOLOGY LABORATORY, INC.

Address: 1012 Centre Ave., Suite 101
Fort Collins, CO 80526

Job Number/ Sample ID Number: BOPU/A1305
Date: 04/02/10
Laboratory Manager: Todd Rhea

Todd Rhea
TECHNOLOGY LABORATORY, INC.

Phone: 970-490-1414 • Fax: 970-472-5488

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

ANALYTICAL SUMMARY REPORT

April 01, 2010

Frontier Oil and Refining Company
PO Box 1588
Cheyenne, WY 82003-1588

Workorder No.: C10030852

Project Name: BOPU

Energy Laboratories, Inc. received the following 3 samples for Frontier Oil and Refining Company on 3/26/2010 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C10030852-001	BOPU-12-10	03/25/10 23:00	03/26/10	Aqueous	Metals by ICP/ICPMS, Total Mercury, Total Metals Preparation by EPA 200.2 Prep for low level 245.7
C10030852-002	Trip Blank	03/25/10 23:00	03/26/10	Aqueous	Mercury, Total Prep for low level 245.7
C10030852-003	Field Blank	03/25/10 23:00	03/26/10	Aqueous	Same As Above

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: Stephanie D. Waldrop

Stephanie D. Waldrop
Reporting Supervisor

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
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LABORATORY ANALYTICAL REPORT

Client: Frontier Oil and Refining Company
Project: BOPU
Lab ID: C10030852-001
Client Sample ID: BOPU-12-10

Report Date: 04/01/10
Collection Date: 03/25/10 23:00
DateReceived: 03/26/10
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Arsenic	0.012	mg/L	B	0.001		E200.8	03/31/10 00:45 / ts
Cadmium	ND	mg/L		0.01		E200.8	03/31/10 00:45 / ts
Chromium	ND	mg/L		0.05		E200.8	03/31/10 00:45 / ts
Copper	ND	mg/L		0.01		E200.8	03/31/10 00:45 / ts
Lead	ND	mg/L		0.05		E200.8	03/31/10 00:45 / ts
Mercury	68.0	ng/L		5.0		E245.7	03/29/10 11:52 / jp
Molybdenum	ND	mg/L		0.1		E200.8	03/31/10 00:45 / ts
Nickel	ND	mg/L		0.05		E200.8	03/31/10 00:45 / ts
Selenium	0.090	mg/L		0.001		E200.8	03/31/10 00:45 / ts
Silver	ND	mg/L		0.01		E200.8	03/31/10 00:45 / ts
Zinc	0.01	mg/L		0.01		E200.8	03/31/10 00:45 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
B - The analyte was detected in the method blank.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Frontier Oil and Refining Company
Project: BOPU
Lab ID: C10030852-002
Client Sample ID: Trip Blank

Report Date: 04/01/10
Collection Date: 03/25/10 23:00
DateReceived: 03/26/10
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Mercury	ND	ng/L		5.0		E245.7	03/29/10 12:15 / jp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Frontier Oil and Refining Company
Project: BOPU
Lab ID: C10030852-003
Client Sample ID: Field Blank

Report Date: 04/01/10
Collection Date: 03/25/10 23:00
DateReceived: 03/26/10
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Mercury	27.1	ng/L		5.0		E245.7	03/29/10 12:18 / jp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Frontier Oil and Refining Company
Project: BOPU

Report Date: 04/01/10
Work Order: C10030852

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 25669
Sample ID: MB-25669	10	Method Blank				Run: ICPMS2-C_100330A				03/30/10 23:37
Arsenic		0.002	mg/L	0.0003						
Cadmium		ND	mg/L	4E-05						
Chromium		0.003	mg/L	0.0002						
Copper		0.003	mg/L	0.0005						
Lead		9E-05	mg/L	5E-05						
Molybdenum		0.0004	mg/L	0.0001						
Nickel		0.0007	mg/L	8E-05						
Selenium		ND	mg/L	0.0007						
Silver		ND	mg/L	0.0002						
Zinc		0.003	mg/L	0.001						
Sample ID: LCS3-25669	10	Laboratory Control Sample				Run: ICPMS2-C_100330A				03/30/10 23:44
Arsenic		0.511	mg/L	0.0010	102	85	115			
Cadmium		0.256	mg/L	0.010	103	85	115			
Chromium		0.495	mg/L	0.050	99	85	115			
Copper		0.490	mg/L	0.010	98	85	115			
Lead		0.523	mg/L	0.050	105	85	115			
Molybdenum		0.535	mg/L	0.10	107	85	115			
Nickel		0.466	mg/L	0.050	93	85	115			
Selenium		0.493	mg/L	0.0010	99	85	115			
Silver		0.0532	mg/L	0.010	106	85	115			
Zinc		0.481	mg/L	0.010	96	85	115			
Sample ID: C10030854-002AMS3	10	Sample Matrix Spike				Run: ICPMS2-C_100330A				03/31/10 01:05
Arsenic		0.518	mg/L	0.0010	100	70	130			
Cadmium		0.242	mg/L	0.010	97	70	130			
Chromium		0.484	mg/L	0.050	96	70	130			
Copper		0.470	mg/L	0.010	92	70	130			
Lead		0.533	mg/L	0.050	106	70	130			
Molybdenum		0.597	mg/L	0.10	111	70	130			
Nickel		0.463	mg/L	0.050	90	70	130			
Selenium		0.540	mg/L	0.0010	88	70	130			
Silver		0.0507	mg/L	0.010	101	70	130			
Zinc		0.481	mg/L	0.010	86	70	130			
Sample ID: C10030854-002AMSD	10	Sample Matrix Spike Duplicate				Run: ICPMS2-C_100330A				03/31/10 01:12
Arsenic		0.493	mg/L	0.0010	95	70	130	4.9	20	
Cadmium		0.230	mg/L	0.010	92	70	130	4.9	20	
Chromium		0.461	mg/L	0.050	91	70	130	5	20	
Copper		0.454	mg/L	0.010	88	70	130	3.6	20	
Lead		0.509	mg/L	0.050	101	70	130	4.6	20	
Molybdenum		0.569	mg/L	0.10	106	70	130	4.7	20	
Nickel		0.439	mg/L	0.050	86	70	130	5.2	20	
Selenium		0.515	mg/L	0.0010	83	70	130	4.7	20	
Silver		0.0488	mg/L	0.010	98	70	130	3.8	20	
Zinc		0.459	mg/L	0.010	82	70	130	4.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Frontier Oil and Refining Company
Project: BOPU

Report Date: 04/01/10
Work Order: C10030852

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.7										Batch: 25657
Sample ID: QCS-25657		Quality Control Sample				Run: CVAA-C201_100329A				03/29/10 11:15
Mercury		23.9	ng/L	5.0	96	90	110			
Sample ID: OPR-25657		On going Precision and Recovery				Run: CVAA-C201_100329A				03/29/10 11:21
Mercury		10.3	ng/L	5.0	103	76	113			
Sample ID: MB-25657		Method Blank				Run: CVAA-C201_100329A				03/29/10 11:25
Mercury		ND	ng/L	0.9						
Sample ID: LCS-25657		Laboratory Control Sample				Run: CVAA-C201_100329A				03/29/10 11:27
Mercury		23.4	ng/L	5.0	94	85	115			
Sample ID: C10030852-001BMS		Sample Matrix Spike				Run: CVAA-C201_100329A				03/29/10 11:55
Mercury		76.1	ng/L	5.0		63	111			A
Sample ID: C10030852-001BMSD		Sample Matrix Spike Duplicate				Run: CVAA-C201_100329A				03/29/10 11:57
Mercury		75.2	ng/L	5.0		63	111	1.2	18	A
Sample ID: OPR-25657		On going Precision and Recovery				Run: CVAA-C201_100329A				03/29/10 12:40
Mercury		10.2	ng/L	5.0	102	76	113			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

Energy Laboratories Inc
Workorder Receipt Checklist

C10030852

Frontier Oil and Refining Company

Login completed by: Corinne Wagner

Date Received: 3/26/2010

Reviewed by:

Received by: dd

Reviewed Date:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Frontier	BOPU	State: WY	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Chad / **Phone/Fax:**	**Email:**	**Sampler: (Please Print)** Chad Tuttle
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments: BOPU Compliance Samples

Shipped by: FedEx

Cooler ID(s): 2643

Receipt Temp 2 °C

On Ice: Yes No

Custody Seal Y N

Bottles/Coolers B C

Intact Y N

Signature Match Y N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	Metals: As Cd Cr Cu Pb Mo Ni Se Ag Zn	Hg 245.7							SEE ATTACHED	Normal Turnaround (TAT)
1 BOPU-12-10	3-25-10	2:30	W	X									
2 ↓	↓	↓	↓				X						
3													
4													
5 Trip Blank	N/A	N/A	W				X						
6 Field Blank	3-25-10	2:30	W				X						
7													
8													
9													
10													

LABORATORY USE ONLY: C10030852

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Chad Tuttle	3-25, 2:40	Chad Tuttle			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time: 3/26/10 9:20	Signature: Diane Nlowing

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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 notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.