

December 08, 2017

Report to:

Brandon Lyster
Lyster Oil Company, Inc.
4618 Lyster Road
Craig, CO 81625

Bill to:

Brandon Lyster
Lyster Oil Company, Inc.
4618 Lyster Road
Craig, CO 81625

Project ID:

ACZ Project ID: L41095

Brandon Lyster:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 09, 2017. This project has been assigned to ACZ's project number, L41095. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L41095. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 07, 2018. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Sue Webber has reviewed and
approved this report.



Lyster Oil Company, Inc.

December 08, 2017

Project ID:

ACZ Project ID: L41095

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 soil sample from Lyster Oil Company, Inc. on November 9, 2017. The sample was received in good condition. Upon receipt, the sample custodian removed the sample from the cooler, inspected the contents, and logged the sample into ACZ's computerized Laboratory Information Management System (LIMS). The sample was assigned ACZ LIMS project number L41095. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

This sample was analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following required further explanation not provided by the Extended Qualifier Report:

1. Terphenyl-D14 (N1) - The surrogate recovered high. The Internal Standard associated with this surrogate recovered within expected results, therefore leading us to believe that this is a single component issue in the surrogate standard used during prep. Sample shows all undetect results. No further action was taken.

Lyster Oil Company, Inc.

Project ID:

Sample ID: PIT FLOOR

ACZ Sample ID: **L41095-01**

Date Sampled: 11/09/17 11:00

Date Received: 11/09/17

Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, total (3050)	M6020 ICP-MS	505	7.5			mg/Kg	0.1	0.5	12/01/17 16:37	bsu
Barium, total (3050)	M6010B ICP	101	136			mg/Kg	0.3	2	12/01/17 2:21	aeh
Boron, total (3050)	M6010B ICP	101	12			mg/Kg	1	5	12/01/17 2:21	aeh
Cadmium, total (3050)	M6010B ICP	101		U		mg/Kg	0.5	2	12/01/17 2:21	aeh
Calcium, soluble (Sat. Paste)	M6010B ICP	5	23.2			meq/L	0.025	0.125	12/06/17 12:34	aeh
Chromium, total (3050)	M6010B ICP	101	15			mg/Kg	1	5	12/01/17 2:21	aeh
Chromium, Trivalent	Calculation (Total - Hexavalent)		15			mg/Kg	1	5	12/07/17 0:00	calc
Copper, total (3050)	M6010B ICP	101	10			mg/Kg	1	5	12/01/17 2:21	aeh
Lead, total (3050)	M6010B ICP	101	15	B		mg/Kg	3	20	12/01/17 2:21	aeh
Magnesium, soluble (Sat. Paste)	M6010B ICP	5	12.6			meq/L	0.082	0.411	12/06/17 12:34	aeh
Mercury by Direct Combustion AA	M7473 CVAAS	1	18.2		*	ng/g	2.17	10.85	11/21/17 12:49	sck
Nickel, total (3050)	M6010B ICP	101	14.2		*	mg/Kg	0.8	4	12/01/17 2:21	aeh
Selenium, total (3050)	M6010B ICP	101		U		mg/Kg	5	30	12/01/17 2:21	aeh
Silver, total (3050)	M6010B ICP	101		U	*	mg/Kg	1	3	12/01/17 2:21	aeh
Sodium Adsorption Ratio	Calculation		0.57						12/07/17 0:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	5	2.42			meq/L	0.0435	0.218	12/06/17 12:34	aeh
Zinc, total (3050)	M6010B ICP	101	62			mg/Kg	1	5	12/01/17 2:21	aeh

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM2510B									
Conductivity		1	2.70		*	mmhos/cm	0.001	0.01	12/06/17 0:00	rbt
Max Particle Size		1	2000		*	um			12/06/17 0:00	rbt
Temperature		1	20.9		*	C	0.1	0.1	12/06/17 0:00	rbt
pH, Saturated Paste	EPA 600/2-78-054 section 3.2.2									
Max Particle Size		1	2000		*	um			12/06/17 0:00	rbt
pH		1	7.8		*	units	0.1	0.1	12/06/17 0:00	rbt
Solids, Percent	D2216-80	1	85.8		*	%	0.1	0.5	11/16/17 20:38	dbt

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								11/16/17 12:43	dbt
Crush and Pulverize	EPA-600/2-78-054 3.1.3								11/29/17 10:00	dbt
Digestion - Alkaline	M3060A								11/28/17 7:37	cra/jlw
Digestion - Hot Plate	M3050B ICP-MS								11/29/17 12:24	dbt
Digestion - Hot Plate	M3050B ICP								11/29/17 12:24	dbt
Saturated Paste Extraction	USDA No. 60 (2)								12/05/17 15:16	rbt

Lyster Oil Company, Inc.

Project ID:

Sample ID: PIT FLOOR

ACZ Sample ID: **L41095-01**

Date Sampled: 11/09/17 11:00

Date Received: 11/09/17

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chromium, Hexavalent (3060)	M7196A	240		U	*	mg/Kg	1	5	11/30/17 11:02	emk


Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<http://www.acz.com/public/extquallist.pdf>

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

Arsenic, total (3050)

M6020 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437032													
WG437032ICV	ICV	12/01/17 16:12	MS171115-2	.05		.04974	mg/L	99	90	110			
WG437032ICB	ICB	12/01/17 16:15				U	mg/L		-0.0006	0.0006			
WG436958PBS	PBS	12/01/17 16:29				U	mg/Kg		-0.3	0.3			
WG436958LCSS1	LCSS	12/01/17 16:32	PCN54239	115		106	mg/Kg		80.9	120			
WG436958LCSSD1	LCSSD	12/01/17 16:35	PCN54239	115		102.6	mg/Kg		80.9	120	3	20	
L41256-01MS	MS	12/01/17 16:56	MS171030-3	25.3005	4.1	27.63	mg/Kg	93	75	125			
L41256-01MSD	MSD	12/01/17 16:59	MS171030-3	25.3005	4.1	26.68	mg/Kg	89	75	125	3	20	

Barium, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	2		1.952	mg/L	98	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.009	0.009			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-0.9	0.9			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	253		209.1	mg/Kg		177	257			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	253		206.7	mg/Kg		177	257	1	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	50.6515	6.2	57.69	mg/Kg	102	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	50.15	6.2	59.23	mg/Kg	106	75	125	3	20	

Boron, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	2		2.066	mg/L	103	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.03	0.03			
WG436958PBS	PBS	12/01/17 2:02				1.3	mg/Kg		-3	3			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	116		85.9	mg/Kg		60.5	110			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	116		83.4	mg/Kg		60.5	110	3	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	50.5505	U	51.9	mg/Kg	103	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	50.05	U	51.5	mg/Kg	103	75	125	1	20	

Cadmium, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	2		1.965	mg/L	98	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.015	0.015			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-1.5	1.5			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	99.8		82.46	mg/Kg		68	99.5			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	99.8		79.27	mg/Kg		68	99.5	4	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	50.4495	U	49.98	mg/Kg	99	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	49.95	U	49.73	mg/Kg	100	75	125	1	20	

Calcium, soluble (Sat. Paste)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437509													
WG437509ICV	ICV	12/06/17 11:43	II171129-1	100		100	mg/L	100	90	110			
WG437509ICB	ICB	12/06/17 11:46				U	mg/L		-0.3	0.3			
L40848-05DUP	DUP	12/06/17 12:15			22.9	24.9	meq/L				8	20	

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

Chromium, Hexavalent (3060)

M7196A

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437069													
WG437069ICV	ICV	11/30/17 10:30	WC170907-3	.05002025		.0489	mg/L	98	90	110			
WG437069ICB	ICB	11/30/17 10:31				U	mg/L		-0.005	0.005			
L41046-01DUP	DUP	11/30/17 10:52			U	U	mg/Kg				0	20	RA
L41046-02MS1	MS	11/30/17 10:56	SI171121-	45.018225	U	42.8	mg/Kg	95	75	125			
WG436750LCSS	LCSS	11/30/17 11:04	PCN53453	148		135	mg/Kg		83.8	211			
WG436750PBS	PBS	11/30/17 11:06				U	mg/Kg		-1	1			

Chromium, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	2		1.958	mg/L	98	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.03	0.03			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-3	3			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	131		108.1	mg/Kg		82.9	130			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	131		100.9	mg/Kg		82.9	130	7	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	50.298	U	51.1	mg/Kg	102	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	49.8	U	51.3	mg/Kg	103	75	125	0	20	

Conductivity @25C

SM2510B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437489													
L41272-02DUP	DUP	12/07/17 8:25			3.7	3.96	mmhos/cm				7	20	

Copper, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	2		1.972	mg/L	99	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.03	0.03			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-3	3			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	194		163	mg/Kg		134	197			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	194		156.1	mg/Kg		134	197	4	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	50.5	U	51	mg/Kg	101	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	50	U	51.2	mg/Kg	102	75	125	0	20	

Lead, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	4		3.94	mg/L	99	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.09	0.09			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-9	9			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	100		86.7	mg/Kg		71.8	105			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	100		85.3	mg/Kg		71.8	105	2	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	101.1717	3	109.3	mg/Kg	105	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	100.17	3	111	mg/Kg	108	75	125	2	20	

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

Magnesium, soluble (Sat. Paste)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437509													
WG437509ICV	ICV	12/06/17 11:43	II171129-1	100		100	mg/L	100	90	110			
WG437509ICB	ICB	12/06/17 11:46				U	mg/L		-0.6	0.6			
L40848-05DUP	DUP	12/06/17 12:15			8.51	9.43	meq/L				10	20	

Mercury by Direct Combustion AA

M7473 CVAAS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG433061													
WG433061ICV1	ICV	10/09/17 8:45	HG171009-1	100		99.8	ng/g	100	90	110			
WG433061ICV2	ICV	10/09/17 9:03	HG171009-2	100		102	ng/g	102	90	110			
WG433061ICV3	ICV	10/09/17 9:11	HG171009-3	1000		1010	ng/g	101	90	110			
WG433061ICV4	ICV	10/09/17 9:20	HG171009-3	1000		898	ng/g	90	90	110			
WG436588													
WG436588ICV1	ICV	11/21/17 10:27	HG171110-3	100		94.1	ng/g	94	90	110			
WG436588ICV2	ICV	11/21/17 10:39	HG171110-4	100		96	ng/g	96	90	110			
WG436588ICV3	ICV	11/21/17 10:55	HG171110-5	1000		1030	ng/g	103	90	110			
WG436588ICV4	ICV	11/21/17 11:02	HG171110-5	1000		1020	ng/g	102	90	110			
WG436588PBS	PBS	11/21/17 11:30				U	ng/g		-6	6			
WG436588LCSS	LCSS	11/21/17 11:37	PCN54686	80		73.4	ng/g		80	120			
WG436588LCSSD	LCSSD	11/21/17 11:43	PCN54686	80		73.5	ng/g		80	120	0	20	
L40906-01MS	MS	11/21/17 12:03	PCN54686				ng/g	77	80	120			
L40906-01DUP	DUP	11/21/17 12:10			12.6	5	ng/g				86	20	RA

Nickel, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	2.004		1.96	mg/L	98	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.024	0.024			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-2.4	2.4			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	61.2		51.45	mg/Kg		40.3	59.2			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	61.2		48.84	mg/Kg		40.3	59.2	5	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	50.4495	U	51.74	mg/Kg	103	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	49.95	U	51.63	mg/Kg	103	75	125	0	20	

pH, Saturated Paste

EPA 600/2-78-054 section 3.2.2

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437489													
WG437489ICV	ICV	12/06/17 17:53	PCN53593	4		4	units	100	3.9	4.1			
L41272-02DUP	DUP	12/07/17 8:25			7.5	7.53	units				0	20	

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

Selenium, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	4		3.954	mg/L	99	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.15	0.15			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-15	15			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	106		88.3	mg/Kg		66.7	109			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	106		86.5	mg/Kg		66.7	109	2	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	101.0707	U	100.9	mg/Kg	100	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	100.07	U	102.7	mg/Kg	103	75	125	2	20	

Silver, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	1.002		1.06	mg/L	106	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.03	0.03			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-3	3			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	48.1		40.5	mg/Kg		30.5	52.2			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	48.1		39.3	mg/Kg		30.5	52.2	3	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	50.5	U	43.6	mg/Kg	86	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	50	U	53.8	mg/Kg	108	75	125	21	20	RD

Sodium, soluble (Sat. Paste)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437509													
WG437509ICV	ICV	12/06/17 11:43	II171129-1	100		99.1	mg/L	99	90	110			
WG437509ICB	ICB	12/06/17 11:46				U	mg/L		-0.6	0.6			
L40848-05DUP	DUP	12/06/17 12:15			U	U	meq/L				0	20	

Solids, Percent

D2216-80

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG436229													
WG436229PBS	PBS	11/16/17 12:55				U	%		-0.1	0.1			
L41095-01DUP	DUP	11/17/17 4:21			85.8	85.77	%				0	20	

Zinc, total (3050)

M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG437113													
WG437113ICV	ICV	12/01/17 1:34	II171115-3	2		2.017	mg/L	101	90	110			
WG437113ICB	ICB	12/01/17 1:38				U	mg/L		-0.03	0.03			
WG436958PBS	PBS	12/01/17 2:02				U	mg/Kg		-3	3			
WG436958LCSS1	LCSS	12/01/17 2:06	PCN54239	145		148.4	mg/Kg		119	171			
WG436958LCSSD1	LCSSD	12/01/17 2:10	PCN54239	145		142.5	mg/Kg		119	171	4	20	
L41255-02MS	MS	12/01/17 2:33	II171122-1	49.9142	2	55.2	mg/Kg	107	75	125			
L41255-02MSD	MSD	12/01/17 2:37	II171122-1	49.42	2	55.6	mg/Kg	108	75	125	1	20	

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L41095-01	WG437069	Chromium, Hexavalent (3060)	M7196A	DA	Sample required dilution due to reactivity.
			M7196A	Q6	Sample was received above recommended temperature.
	WG436588	Mercury by Direct Combustion AA	M7473 CVAAS	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M7473 CVAAS	Q6	Sample was received above recommended temperature.
			M7473 CVAAS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG437113	Nickel, total (3050)	M6010B ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Silver, total (3050)	M6010B ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.

Lyster Oil Company, Inc.

Project ID:

Sample ID: PIT FLOOR

ACZ Sample ID: **L41095-01**

Date Sampled: 11/09/17 11:00

Date Received: 11/09/17

Sample Matrix: Soil

BTEX/Gasoline Range Organics (C6-C10)

Analysis Method: **M8021B/8015D GC/PID/FID**

Extract Method: **5035A**

Workgroup: WG436054

Analyst: jel

Extract Date: 11/13/17 12:54

Analysis Date: 11/13/17 12:54

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Benzene	71-43-2		U	5	*	ug/Kg	5	5
Ethylbenzene	100-41-4		U	5	*	ug/Kg	5	5
m p Xylene	1330-20-7		U	5	*	ug/Kg	10	10
o Xylene	95-47-6		U	5	*	ug/Kg	5	5
Toluene	108-88-3		U	5	*	ug/Kg	5	5
TVH C6 to C10	TVH		U	5	*	mg/Kg	0.3	0.3
Surrogate Recoveries	CAS	% Recovery		Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	96		5	*	%	70	130
Bromofluorobenzene (TVH)	460-00-4	102.5		5	*	%	70	130

Lyster Oil Company, Inc.

Project ID:

Sample ID: PIT FLOOR

ACZ Sample ID: **L41095-01**

Date Sampled: 11/09/17 11:00

Date Received: 11/09/17

Sample Matrix: Soil

Diesel Range Organics (C10-C28)

Analysis Method: **M8015D GC/FID**

Extract Method: **M3540**

Workgroup: WG436275

Analyst: gss

Extract Date: 11/14/17 18:27

Analysis Date: 11/16/17 18:35

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
TPH C10 to C28		288		66.7	*	mg/Kg	7	30
Surrogate Recoveries	CAS	% Recovery		Dilution	XQ	Units	LCL	UCL
OTP	84-15-1	90.4		66.7	*	%	60	115

Lyster Oil Company, Inc.

Project ID:

Sample ID: PIT FLOOR

ACZ Sample ID: **L41095-01**

Date Sampled: 11/09/17 11:00

Date Received: 11/09/17

Sample Matrix: Soil

Polynuclear Aromatic Hydrocarbons GC/M

Analysis Method: **M8270C GC/MS**

Extract Method: **M3540**

Workgroup: WG436822

Analyst: itm

Extract Date: 11/13/17 16:20

Analysis Date: 11/28/17 16:13

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
2-Methylnaphthalene	91-57-6		U	200	*	ug/Kg	400	2000
Acenaphthene	83-32-9		U	200	*	ug/Kg	400	2000
Acenaphthylene	208-96-8		U	200	*	ug/Kg	400	2000
Anthracene	120-12-7		U	200	*	ug/Kg	400	2000
Benzo(a)anthracene	56-55-3		U	200	*	ug/Kg	400	2000
Benzo(a)pyrene	50-32-8		U	200	*	ug/Kg	400	2000
Benzo(b)fluoranthene	205-99-2		U	200	*	ug/Kg	400	2000
Benzo(g,h,i)perylene	191-24-2		U	200	*	ug/Kg	400	2000
Benzo(k)fluoranthene	207-08-9		U	200	*	ug/Kg	400	2000
Chrysene	218-01-9		U	200	*	ug/Kg	400	2000
Dibenzo(a,h)anthracene	53-70-3		U	200	*	ug/Kg	400	2000
Fluoranthene	206-44-0		U	200	*	ug/Kg	400	2000
Fluorene	86-73-7		U	200	*	ug/Kg	400	2000
Indeno(1,2,3-cd)pyrene	193-39-5		U	200	*	ug/Kg	400	2000
Naphthalene	91-20-3		U	200	*	ug/Kg	400	2000
Phenanthrene	85-01-8		U	200	*	ug/Kg	400	2000
Pyrene	129-00-0		U	200	*	ug/Kg	400	2000
Surrogate Recoveries	CAS	% Recovery		Dilution	XQ	Units	LCL	UCL
2-Fluorobiphenyl	321-60-8	91.9		200	*	%	45	105
Nitrobenzene-d5	4165-60-0	85.5		200	*	%	35	100
Terphenyl-d14	1718-51-0	127.5		200	*	%	30	125


Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>LCL</i>	Lower Control Limit
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #4) Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>UCL</i>	Upper Control Limit
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>SURR</i>	Surrogate	<i>LFM</i>	Laboratory Fortified Matrix
<i>INTS</i>	Internal Standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBS</i>	Prep Blank - Soil
<i>LFB</i>	Laboratory Fortified Blank	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
O	Analyte concentration is estimated due to result exceeding calibration range.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
J	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
- (3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Excluding Oil & Grease, solid & biological matrices for organic analyses are reported on a wet weight basis.
- (3) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (4) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<http://www.acz.com/public/extquallist.pdf>

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

BTEX/Gasoline Range Organics (C6-C10)

M8021B/8015D GC/PID/FID

WG436054

AS	Sample ID: L41095-01AS		PCN/SCN: B171025-3-ICV				Analyzed:		11/14/17 12:39	
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
BENZENE	125.5	U	109.6	ug/Kg	87.0	70	130			
ETHYLBENZENE	125	U	109.5	ug/Kg	88.0	70	130			
M P XYLENE	251.8	U	217	ug/Kg	86.0	70	130			
O XYLENE	251.3	U	213.7	ug/Kg	85.0	70	130			
TOLUENE	376.5	U	323.8	ug/Kg	86.0	70	130			
TVH C6 TO C10	2.3	U	1.95	mg/Kg	86.0	70	130			
BROMOFLUOROBENZENE (surr)				%	101.0	70	130			
BROMOFLUOROBENZENE (TVH) (surr)				%	105.7	70	130			

ASD	Sample ID: L41095-01ASD		PCN/SCN: B171025-3-ICV				Analyzed:		11/14/17 13:10	
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
BENZENE	125.5	U	109.3	ug/Kg	87.0	70	130	0	20	
ETHYLBENZENE	125	U	108.6	ug/Kg	87.0	70	130	1	20	
M P XYLENE	251.8	U	215	ug/Kg	85.0	70	130	1	20	
O XYLENE	251.3	U	212	ug/Kg	84.0	70	130	1	20	
TOLUENE	376.5	U	321.9	ug/Kg	85.0	70	130	1	20	
TVH C6 TO C10	2.3	U	1.95	mg/Kg	86.0	70	130	0	20	
BROMOFLUOROBENZENE (surr)				%	99.1	70	130			
BROMOFLUOROBENZENE (TVH) (surr)				%	103.8	70	130			

LCSS	Sample ID: WG436054LCSS		PCN/SCN: B171025-3-ICV				Analyzed:		11/13/17 11:26	
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
BENZENE	25.1		22.3	ug/Kg	89.0	70	130			
ETHYLBENZENE	25		22.4	ug/Kg	90.0	70	130			
M P XYLENE	50.4		44.9	ug/Kg	89.0	70	130			
O XYLENE	50.3		43.7	ug/Kg	87.0	70	130			
TOLUENE	75.3		66	ug/Kg	88.0	70	130			
TVH C6 TO C10	.5		.408	mg/Kg	90.0	70	130			
BROMOFLUOROBENZENE (surr)				%	101.8	70	130			
BROMOFLUOROBENZENE (TVH) (surr)				%	107.9	70	130			

LCSSD	Sample ID: WG436054LCSSD		PCN/SCN: B171025-3-ICV				Analyzed:		11/13/17 11:55	
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
BENZENE	25.1		22.1	ug/Kg	88.0	70	130	1	20	
ETHYLBENZENE	25		22.2	ug/Kg	89.0	70	130	1	20	
M P XYLENE	50.4		44.4	ug/Kg	88.0	70	130	1	20	
O XYLENE	50.3		43.5	ug/Kg	87.0	70	130	0	20	
TOLUENE	75.3		65.5	ug/Kg	87.0	70	130	1	20	
TVH C6 TO C10	.5		.414	mg/Kg	92.0	70	130	1	20	
BROMOFLUOROBENZENE (surr)				%	100.8	70	130			
BROMOFLUOROBENZENE (TVH) (surr)				%	105.9	70	130			

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

PBS		Sample ID: WG436054PBS						Analyzed:		11/13/17 12:25	
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual	
BENZENE			U	ug/Kg		-1	1				
ETHYLBENZENE			U	ug/Kg		-1	1				
M P XYLENE			U	ug/Kg		-2	2				
O XYLENE			U	ug/Kg		-1	1				
TOLUENE			U	ug/Kg		-1	1				
TVH C6 TO C10			U	mg/Kg		-.05	.05				
BROMOFLUOROBENZENE (surr)				%	100.4	70	130				
BROMOFLUOROBENZENE (TVH) (surr)				%	105.6	70	130				

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

Diesel Range Organics (C10-C28)

M8015D GC/FID

WG436275

MS	Sample ID: L41095-01MS		PCN/SCN: OPTPH171002-1				Analyzed: 11/16/17 18:59			
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2524.4	288	405.9	mg/Kg	70.0	70	130			
OTP (surr)				%	100.5	60	115			

MSD		Sample ID: L41095-01MSD		PCN/SCN: OPTPH171002-1				Analyzed: 11/16/17 19:22		
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2524.4	288	332.4	mg/Kg	26.0	70	130	20	20	MA
OTP (surr)				%	98.5	60	115			

LCSS		Sample ID: WG435973LCSS		PCN/SCN: OPTPH171002-1				Analyzed: 11/16/17 17:25		
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2524.4		78.2	mg/Kg	93.0	70	130			
OTP (surr)				%	100.3	60	115			

LCSSD		Sample ID: WG435973LCSSD		PCN/SCN: OPTPH171002-1			Analyzed: 11/16/17 17:49			
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2524.4		76.6	mg/Kg	91.0	70	130	2	20	
OTP (surr)				%	97.3	60	115			

PBS		Sample ID: WG435973PBS						Analyzed: 11/16/17 17:02		
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28			U	mg/Kg		-20	20			
OTP (surr)				%	79.0	60	115			

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

Polynuclear Aromatic Hydrocarbons GC/MS

M8270C GC/MS

WG436822

MS		Sample ID: L40906-03MS		PCN/SCN: OPBNA170904-2				Analyzed: 11/28/17 13:26		
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
ACENAPHTHENE	50007	U	4130	ug/Kg	83.0	45	110			
PYRENE	50003	U	5680	ug/Kg	114.0	45	125			
2,4,6-TRIBROMOPHENOL (surr)				%	99.4	35	125			
2-FLUOROBIPHENYL (surr)				%	83.4	45	105			
2-FLUOROPHENOL (surr)				%	77.3	35	105			
NITROBENZENE-D5 (surr)				%	82.6	35	100			
PHENOL-D6 (surr)				%	83.7	40	100			
TERPHENYL-D14 (surr)				%	131.8	30	125			N1

MSD		Sample ID: L40906-03MSD		PCN/SCN: OPBNA170904-2				Analyzed: 11/28/17 14:00		
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
ACENAPHTHENE	50007	U	4500	ug/Kg	90.0	45	110	9	20	
PYRENE	50003	U	5760	ug/Kg	115.0	45	125	1	20	
2,4,6-TRIBROMOPHENOL (surr)				%	100.0	35	125			
2-FLUOROBIPHENYL (surr)				%	88.9	45	105			
2-FLUOROPHENOL (surr)				%	84.7	35	105			
NITROBENZENE-D5 (surr)				%	89.7	35	100			
PHENOL-D6 (surr)				%	91.1	40	100			
TERPHENYL-D14 (surr)				%	129.1	30	125			N1

LCSS		Sample ID: WG435923LCSS		PCN/SCN: OPBNA170904-2				Analyzed: 11/28/17 11:46		
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
ACENAPHTHENE	50007		1525	ug/Kg	91.0	45	110			
PYRENE	50003		1913	ug/Kg	115.0	45	125			
2,4,6-TRIBROMOPHENOL (surr)				%	98.8	35	125			
2-FLUOROBIPHENYL (surr)				%	93.8	45	105			
2-FLUOROPHENOL (surr)				%	86.9	35	105			
NITROBENZENE-D5 (surr)				%	93.3	35	100			
PHENOL-D6 (surr)				%	93.4	40	100			
TERPHENYL-D14 (surr)				%	131.8	30	125			N1

LCSSD		Sample ID: WG435923LCSSD		PCN/SCN: OPBNA170904-2				Analyzed: 11/28/17 12:19		
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
ACENAPHTHENE	50007		1503	ug/Kg	90.0	45	110	1	20	
PYRENE	50003		1827	ug/Kg	110.0	45	125	5	20	
2,4,6-TRIBROMOPHENOL (surr)				%	91.1	35	125			
2-FLUOROBIPHENYL (surr)				%	89.1	45	105			
2-FLUOROPHENOL (surr)				%	83.9	35	105			
NITROBENZENE-D5 (surr)				%	89.4	35	100			
PHENOL-D6 (surr)				%	90.0	40	100			
TERPHENYL-D14 (surr)				%	122.9	30	125			

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

PBS		Sample ID: WG435923PBS						Analyzed: 11/28/17 11:12		
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
2-METHYLNAPHTHALENE			U	ug/Kg		-300	300			
ACENAPHTHENE			U	ug/Kg		-300	300			
ACENAPHTHYLENE			U	ug/Kg		-300	300			
ANTHRACENE			U	ug/Kg		-300	300			
BENZO(A)ANTHRACENE			U	ug/Kg		-300	300			
BENZO(A)PYRENE			U	ug/Kg		-300	300			
BENZO(B)FLUORANTHENE			U	ug/Kg		-300	300			
BENZO(G,H,I)PERYLENE			U	ug/Kg		-300	300			
BENZO(K)FLUORANTHENE			U	ug/Kg		-300	300			
CHRYSENE			U	ug/Kg		-300	300			
DIBENZO(A,H)ANTHRACENE			U	ug/Kg		-300	300			
FLUORANTHENE			U	ug/Kg		-300	300			
FLUORENE			U	ug/Kg		-300	300			
INDENO(1,2,3-CD)PYRENE			U	ug/Kg		-300	300			
NAPHTHALENE			U	ug/Kg		-300	300			
PHENANTHRENE			U	ug/Kg		-300	300			
PYRENE			U	ug/Kg		-300	300			
2,4,6-TRIBROMOPHENOL (surr)				%	79.7	35	125			
2-FLUOROBIPHENYL (surr)				%	88.8	45	105			
2-FLUOROPHENOL (surr)				%	83.0	35	105			
NITROBENZENE-D5 (surr)				%	90.5	35	100			
PHENOL-D6 (surr)				%	90.2	40	100			
TERPHENYL-D14 (surr)				%	122.0	30	125			

ACZ Project ID: **L41095**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L41095-01	WG436054	*All Compounds*	M8021B/8015D GC/PID/FID	Q6	Sample was received above recommended temperature.
		Benzene	M8021B/8015D GC/PID/FID	D1	Sample required dilution due to matrix.
			M8021B/8015D GC/PID/FID	ZM	Data is estimated because result is below 200 ug/Kg; ACZ does not have a closed-system purge and trap as described in method 5035.
		Ethylbenzene	M8021B/8015D GC/PID/FID	D1	Sample required dilution due to matrix.
			M8021B/8015D GC/PID/FID	ZM	Data is estimated because result is below 200 ug/Kg; ACZ does not have a closed-system purge and trap as described in method 5035.
		m p Xylene	M8021B/8015D GC/PID/FID	D1	Sample required dilution due to matrix.
			M8021B/8015D GC/PID/FID	ZM	Data is estimated because result is below 200 ug/Kg; ACZ does not have a closed-system purge and trap as described in method 5035.
		o Xylene	M8021B/8015D GC/PID/FID	D1	Sample required dilution due to matrix.
			M8021B/8015D GC/PID/FID	ZM	Data is estimated because result is below 200 ug/Kg; ACZ does not have a closed-system purge and trap as described in method 5035.
		Toluene	M8021B/8015D GC/PID/FID	D1	Sample required dilution due to matrix.
			M8021B/8015D GC/PID/FID	ZM	Data is estimated because result is below 200 ug/Kg; ACZ does not have a closed-system purge and trap as described in method 5035.
		TVH C6 to C10	M8021B/8015D GC/PID/FID	D1	Sample required dilution due to matrix.
			M8021B/8015D GC/PID/FID	ZM	Data is estimated because result is below 200 ug/Kg; ACZ does not have a closed-system purge and trap as described in method 5035.
	WG436275	*All Compounds*	M8015D GC/FID	Q6	Sample was received above recommended temperature.
		TPH C10 to C28	M8015D GC/FID	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG436822	*All Compounds*	M8270C GC/MS	DK	Sample mass used for extraction decreased due to high moisture content.
			M8270C GC/MS	Q6	Sample was received above recommended temperature.
		Terphenyl-d14	M8270C GC/MS	N1	See Case Narrative.

Lyster Oil Company, Inc.

ACZ Project ID: **L41095**

Soil Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Conductivity @25C	SM2510B
pH, Saturated Paste	EPA 600/2-78-054 section 3.2.2
Solids, Percent	D2216-80

Lyster Oil Company, Inc.

ACZ Project ID: L41095

Date Received: 11/09/2017 15:58

Received By:

Date Printed: 11/10/2017

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? ¹			X
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?		X	
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA27282	19.8	<=6.0	14	N/A

Was ice present in the shipment container(s)?

No - Wet or gel ice was not present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Lyster Oil Company, Inc.

ACZ Project ID: L41095

Date Received: 11/09/2017 15:58

Received By:

Date Printed: 11/10/2017

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

Laboratories, Inc. (4/1/95

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Brandon Lyster
Company: Lyster Oil Company
E-mail: blysteroil@aol.com

Address: 701 CR 105
Craig CO 81625
Telephone: 970-326-7533

Copy of Report to:

Name: _____

Company: _____

E-mail:	
Telephone:	

Invoice to:

Name: _____

Company: _____

E-mail: _____

Address:	
Telephone:	

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses?

YES	<input checked="" type="checkbox"/>
NO	<input type="checkbox"/>

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring?

Yes		No	
-----	--	----	--

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Branbury Sampler's site Information State: _____ Zip code 86025 Time Zone _____

☐ Check box if observe Daylight Savings Time

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Quote #:	
PO#:	
Reporting state for compliance testing:	
Check box if samples include NRC licensed material?	

[illegible]

SAMPLE IDENTIFICATION	DATE:TIME	Matrix
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[illegible]

Matrix	SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)
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REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:

DATE:TIME

RECEIVED BY:

DATE:TIME

RECEIVED BY:		DATE/TIME	
Menden RPT	11-9 3:49pm	3CR	11/9/17 1545

LA 100505012989751

White - Return with sample. Yellow - Retain for your records.

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