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ANALYTICA
Environmental Laboratories

12/4/2013

Maralex Resources, Inc.
864 20 Road
Unit A
Fruita, CO 81521
Attn: Jim Graves

Work Order #: B1311104
Date: 12/4/2013
Work ID: 9-98-10 #1
Date Received: 11/19/2013
Proj #: None

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
B1311104-01	Pit Walls - Comp		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

Carissa Cumine
Project Manager

"The Science of Analysis, The Art of Service"

Case Narrative

Analytica Group, LLC - Thornton

Work Order: B1311104

Samples were prepared and analyzed according to EPA or equivalent methods outlined in the following references:

Standard Method for Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil-Aggregate Mixtures, ASTM D 2216-80, July 1980.

Test Methods for Evaluating Solid Waste, USEPA SW-846, Third Edition, Revision 4, December 1996.

SAMPLE RECEIPT:
One (1) sample was received on 11/19/2013 9:35:00 AM at a temperature of 1.2°C at Analytica-Thornton. The sample was received in good condition and in order per chain of custody.

REVIEW FOR COMPLIANCE WITH ANALYTICA QA PLAN

A summary of our review is shown below.

All analytical results contained in this report have been reviewed under Analytica's internal quality assurance and quality control program. Any deviations in quality control parameters for specific analyses are noted in the following text. A complete quality assurance report, including laboratory control, matrix spike, and sample duplicate recoveries, is kept on file in our office and is available upon request.

All method specifications were met for the following tests, unless otherwise noted:

Test Method: Aromatic VOCs by GC/PID via method 8021B - BTEX - Soil
OPENING CONTINUING CALIBRATIONS:
A surrogate was recovered out of limits in the opening CCV shown below. All targets have normal recoveries and there is no impact on the data.

RunDate	Data File	Analyte	Recovery	LCL	UCL
11/21/2013 11:36:00 AM	13112102.D	p-Bromofluorobenzene	119.	85	115

Test Method: ASTM D2216 - Pmoist - Soil

Test Method: SW8270C - Semivolatile Organics by GC/MS - PAH Colo - Soil
SURROGATE RECOVERIES:
The LCS has a surrogate outside of control windows. All associated samples have normal surrogate recoveries, and the LCS and LCSD have normal target recoveries.
The method blank shown below has a surrogate outside of control windows. No targets were detected in the method blank. All associated samples had normal surrogate recoveries.

Sample	LabID	Surrogate	Recovery	LCL	UCL	
LCS	T131121012-LCS	D14-Terphenyl	158	30	134	Complete
MB	T131121012-MB	D14-Terphenyl	160	30	134	Complete

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Client Sample Report

Client Sample Name: **Pit Walls - Comp**

Matrix: Soil

Collection Date: 11/14/2013 10:30:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number: B1311104-01A

Prep Date: 11-20-2013 17:11

Analytical Method ID: SW8270C - Semivolatile Organics by GC/MS - PAH Colo

Prep Method ID: 3550

Prep Batch Number: T131121012

Report Basis: Dry Weight Basis

Sample prep wt./vol: 30.07 g

Analysis Date: 11/30/2013 4:59:00AM

Instrument: MS2BNA

File Name: 13112917.D

Dilution Factor: 1

Percent Moisture 12

Analyst Initials: jk

Prep Extract Vol: 1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Acenaphthene	83-32-9	**ND**		ug/Kg	94	14	2
Anthracene	120-12-7	**ND**		ug/Kg	190	31	
Benzo(a)anthracene	56-55-3	**ND**		ug/Kg	190	33	
Benzo(a)pyrene	50-32-8	**ND**		ug/Kg	190	27	
Benzo(b)fluoranthene	205-99-2	**ND**		ug/Kg	190	27	
Benzo(k)fluoranthene	207-08-9	**ND**		ug/Kg	190	32	
Chrysene	218-01-9	**ND**		ug/Kg	190	42	
Dibenzo(a,h)anthracene	53-70-3	**ND**		ug/Kg	190	26	
Fluoranthene	206-44-0	**ND**		ug/Kg	190	35	
Fluorene	86-73-7	**ND**		ug/Kg	190	28	
Indeno(1,2,3-cd)pyrene	193-39-5	**ND**		ug/Kg	94	26	
Naphthalene	91-20-3	**ND**		ug/Kg	94	11	
Pyrene	129-00-0	**ND**		ug/Kg	190	62	

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
2-Fluorobiphenyl	321-60-8	**2,500**		ug/Kg	94	11	3,800	**67.5**	36	121	2
D14-Terphenyl	92-94-4D	**4,200**		ug/Kg	94	11	3,800	**112**	30	134	
D5-Nitrobenzene	98-95-3D	**2,200**		ug/Kg	94	14	3,800	**59.6**	30	122	

The following test was conducted by: Analytica - Thornton

Lab Sample Number: B1311104-01B

Prep Date: 11-21-2013 09:11

Analytical Method ID: Aromatic VOCs by GC/PID via method 8021B - BTEX

Prep Method ID: 5030B

Prep Batch Number: T131122017

Report Basis: Dry Weight Basis

Sample prep wt./vol: 5.00 g

Analysis Date: 11/21/2013 6:01:00PM

Instrument: GC_B

File Name: 13112114.D

Dilution Factor: 1

Percent Moisture 12

Analyst Initials: EH

Prep Extract Vol: 5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Benzene	71-43-2	**ND**		ug/Kg	1.1	0.37	1
Ethylbenzene	100-41-4	**ND**		ug/Kg	1.7	0.52	
Toluene	108-88-3	**ND**		ug/Kg	1.1	0.22	
Xylenes, Total	1330-20-7	**ND**		ug/Kg	3.4	0.93	

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
p-Bromofluorobenzene	460-00-4	**30**		ug/Kg	0.57	0.37	31	**99.3**	70	130	1

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Client Sample Report

Client Sample Name: **Pit Walls - Comp**

Matrix: Soil

Collection Date: 11/14/2013 10:30:00AM

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Method Blank Report

Client Sample Name: **MB**

Matrix: Solid

Collection Date: 11/20/2013 5:15:00PM

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	T131121012-MB	Analysis Date:	11/29/2013 11:24:00PM
Prep Date:	11-20-2013 17:11	Instrument:	MS2BNA
Analytical Method ID:	SW8270C - Semivolatile Organics by GC/MS - PAH Colo	File Name:	13112908.D
Prep Method ID:	3550	Dilution Factor:	1
Prep Batch Number:	T131121012	Percent Moisture	NA
Report Basis:	As Received	Analyst Initials:	jk
Sample prep wt./vol:	30.00 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Acenaphthene	83-32-9	**ND**		ug/Kg	83	13	1
Anthracene	120-12-7	**ND**		ug/Kg	160	27	
Benzo(a)anthracene	56-55-3	**ND**		ug/Kg	160	29	
Benzo(a)pyrene	50-32-8	**ND**		ug/Kg	160	24	
Benzo(b)fluoranthene	205-99-2	**ND**		ug/Kg	160	24	
Benzo(k)fluoranthene	207-08-9	**ND**		ug/Kg	160	29	
Chrysene	218-01-9	**ND**		ug/Kg	160	37	
Dibenzo(a,h)anthracene	53-70-3	**ND**		ug/Kg	160	23	
Fluoranthene	206-44-0	**ND**		ug/Kg	160	31	
Fluorene	86-73-7	**ND**		ug/Kg	160	25	
Indeno(1,2,3-cd)pyrene	193-39-5	**ND**		ug/Kg	83	23	
Naphthalene	91-20-3	**ND**		ug/Kg	83	9.9	
Pyrene	129-00-0	**ND**		ug/Kg	160	55	

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:	
2-Fluorobiphenyl	321-60-8	**2,900**		ug/Kg	83	10.0	3,300	**87.2**	36	121	1	
D14-Terphenyl	92-94-4D	**5,400**		ug/Kg	83	10.0	3,300	**161**	30	134		HIGH
D5-Nitrobenzene	98-95-3D	**2,800**		ug/Kg	83	12	3,300	**84.9**	30	122		

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	T131122017-MB	Analysis Date:	11/21/2013 12:40:00PM
Prep Date:	11-21-2013 09:11	Instrument:	GC_B
Analytical Method ID:	Aromatic VOCs by GC/PID via method 8021B - BTEX	File Name:	13112104.D
Prep Method ID:	5030B	Dilution Factor:	1
Prep Batch Number:	T131122017	Percent Moisture	NA
Report Basis:	As Received	Analyst Initials:	EH
Sample prep wt./vol:	5.00 g	Prep Extract Vol:	5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Benzene	71-43-2	**ND**		ug/Kg	1.0	0.33	1
Ethylbenzene	100-41-4	**ND**		ug/Kg	1.5	0.46	
Toluene	108-88-3	**ND**		ug/Kg	1.0	0.20	
Xylenes, Total	1330-20-7	**ND**		ug/Kg	3.0	0.82	

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
p-Bromofluorobenzene	460-00-4	**30**		ug/Kg	0.50	0.33	27	**110**	70	130	1

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: **Method Blank Report**

Client Sample Name: **MB**

Matrix: Solid Collection Date: 11/21/2013 9:45:00AM

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): B1311104

Project: 9-98-10 #1

Project Number:

Prep Batch: **T131121012**

QUALITY CONTROL REPORT

LCS REPORT

Analysis: SW8270C - Semivolatile Organics by GC/MS - PAH Colo

MB: T131121012-MB

Prep Date: 11/20/2013

MB Anal. Date: 11/29/2013 11:24:00PM

Units: ug/Kg

LCS Anal. Date: 11/30/2013 12:38:00AM

Matrix: Solid

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Naphthalene	ND	1,450	1,670	87.0	45 - 136		
Acenaphthene	ND	1,610	1,670	96.6	43 - 122		
Fluorene	ND	1,810	1,670	108.6	58 - 130		
Anthracene	ND	1,900	1,670	114.0	59 - 131		
Fluoranthene	ND	1,840	1,670	110.4	51 - 140		
Pyrene	ND	2,220	1,670	133.2	40 - 127		high
Benzo(a)anthracene	ND	1,940	1,670	116.4	58 - 118		
Chrysene	ND	2,040	1,670	122.4	55 - 139		
Benzo(b)fluoranthene	ND	2,170	1,670	130.2	41 - 133		
Benzo(k)fluoranthene	ND	2,160	1,670	129.6	49 - 138		
Benzo(a)pyrene	ND	2,110	1,670	126.6	40 - 138		
Indeno(1,2,3-cd)pyrene	ND	1,750	1,670	105.0	48 - 125		
Dibenzo(a,h)anthracene	ND	1,710	1,670	102.6	50 - 129		

MS/MSD REPORT

Analysis: SW8270C - Semivolatile Organics by GC/MS - PAH Colo

Parent: B1311104-01A

Prep Date: 11/20/2013

Samp. Anal. Date: 11/30/2013 4:59:00AM

Units: ug/Kg

MS Anal. Date: 11/30/2013 6:13:00AM

MSD Anal. Date: 11/30/2013 7:28:00AM

Matrix: Soil

Analyte Name	SampResult	MSRes.	MSDRes	SPLev	SPDLev	Recov.	MSD Rec.	RPD	Recov Lim	RPDLim	Flag
Naphthalene	ND	1,670	1,620	1,880	1,890	88.6	85.8	3.0	45 - 136	40	
Acenaphthene	ND	1,780	1,710	1,880	1,890	94.4	90.6	4.0	43 - 122	40	
Fluorene	ND	1,970	1,980	1,880	1,890	104.5	104.9	0.5	58 - 130	40	
Anthracene	ND	2,000	1,890	1,880	1,890	106.1	100.2	5.7	59 - 131	40	
Fluoranthene	ND	2,000	2,000	1,880	1,890	106.1	106.0	0.0	51 - 140	40	
Pyrene	ND	1,980	1,910	1,880	1,890	105.1	101.2	3.6	46 - 135	40	
Benzo(a)anthracene	ND	2,020	1,930	1,880	1,890	107.2	102.3	4.6	58 - 118	40	
Chrysene	ND	2,080	1,980	1,880	1,890	110.4	104.9	4.9	55 - 139	40	

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): B1311104

Project: 9-98-10 #1

Project Number:

Prep Batch: **T131121012**

QUALITY CONTROL REPORT

MS/MSD REPORT

Analysis: SW8270C - Semivolatile Organics by GC/MS - PAH Colo

Parent: B1311104-01A

Prep Date: 11/20/2013

Samp. Anal. Date: 11/30/2013 4:59:00AM

Units: ug/Kg

MS Anal. Date: 11/30/2013 6:13:00AM MSD Anal. Date: 11/30/2013 7:28:00AM Matrix: Soil

Analyte Name	SampResult	MSRes.	MSDRes	SPLev	SPDLev	Recov.	MSD Rec.	RPD	Recov Lim	RPDLim	Flag
Benzo(b)fluoranthene	ND	2,460	2,380	1,880	1,890	130.5	126.1	3.3	41 - 133	40	
Benzo(k)fluoranthene	ND	2,260	2,310	1,880	1,890	119.9	122.4	2.2	49 - 138	40	
Benzo(a)pyrene	ND	2,220	2,130	1,880	1,890	117.8	112.9	4.1	40 - 138	40	
Indeno(1,2,3-cd)pyrene	ND	1,720	1,360	1,880	1,890	91.3	72.1	23.4	48 - 125	40	
Dibenzo(a,h)anthracene	ND	1,650	1,320	1,880	1,890	87.5	69.9	22.2	50 - 129	40	

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little signifcance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): B1311104

Project: 9-98-10 #1

Project Number:

Prep Batch: **T131122017**

QUALITY CONTROL REPORT

LCS REPORT

Analysis: Aromatic VOCs by GC/PID via method 8021B - BTEX

MB: T131122017-MB

Prep Date: 11/21/2013

MB Anal. Date: 11/21/2013 12:40:00PM

Units: ug/Kg

LCS Anal. Date: 11/21/2013 1:12:00PM

Matrix: Solid

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Benzene	ND	10.9	10.0	109.0	70 - 130		
Toluene	ND	10.6	10.0	106.0	70 - 130		
Ethylbenzene	ND	10.7	10.0	107.0	70 - 130		
Xylenes, Total	ND	32.4	30.0	108.0	70 - 130		

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little signifcance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

SURROGATE RECOVERY SUMMARY REPORT

Test Method: **Aromatic VOCs by GC/PID via method 8021B - BTEX**

Lab Sample #: B1311105-05B | Dilution: 1
Analysis Date: 11/21/2013 4:24:00PM | Client Sample: **Batch QC**
Batch Number: T131122017 | Data File: 13112111.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	98	70	130		Complete

Lab Sample #: B1311104-01B | Dilution: 1
Analysis Date: 11/21/2013 6:01:00PM | Client Sample: **Pit Walls - Comp**
Batch Number: T131122017 | Data File: 13112114.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	99	70	130		Complete

Lab Sample #: T131122017-MB | Dilution: 1
Analysis Date: 11/21/2013 12:40:00PM | Client Sample: **MB**
Batch Number: T131122017 | Data File: 13112104.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	110	70	130		Complete

Lab Sample #: T131122017-LCS | Dilution: 1
Analysis Date: 11/21/2013 1:12:00PM | Client Sample: **LCS**
Batch Number: T131122017 | Data File: 13112105.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	110	70	130		Complete

Lab Sample #: B1311105-05B-MS | Dilution: 1
Analysis Date: 11/21/2013 5:29:00PM | Client Sample: **MS**
Batch Number: T131122017 | Data File: 13112113.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	100	70	130		Complete

Lab Sample #: B1311105-05B-MSD | Dilution: 1
Analysis Date: 11/21/2013 7:05:00PM | Client Sample: **MSD**
Batch Number: T131122017 | Data File: 13112116.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	89	70	130		Complete

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Test Method: **SW8270C - Semivolatile Organics by GC/MS - PAH Colo**

Lab Sample #: B1311104-01A | Dilution: 10
Analysis Date: 11/30/2013 4:21:00AM | Client Sample: **Pit Walls - Comp**
Batch Number: T131121012 | Data File: 13112916.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
2-Fluorobiphenyl	75	36	121		Confirm
D14-Terphenyl	148	30	134	HIGH	Confirm
D5-Nitrobenzene	65	30	122		Confirm

Lab Sample #: B1311104-01A | Dilution: 1
Analysis Date: 11/30/2013 4:59:00AM | Client Sample: **Pit Walls - Comp**
Batch Number: T131121012 | Data File: 13112917.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
2-Fluorobiphenyl	68	36	121		Complete
D14-Terphenyl	112	30	134		Complete
D5-Nitrobenzene	60	30	122		Complete

Lab Sample #: T131121012-MB | Dilution: 1
Analysis Date: 11/29/2013 11:24:00PM | Client Sample: **MB**
Batch Number: T131121012 | Data File: 13112908.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
2-Fluorobiphenyl	87	36	121		Complete
D14-Terphenyl	161	30	134	HIGH	Complete
D5-Nitrobenzene	85	30	122		Complete

Lab Sample #: T131121012-LCS | Dilution: 1
Analysis Date: 11/30/2013 12:38:00AM | Client Sample: **LCS**
Batch Number: T131121012 | Data File: 13112910.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
2-Fluorobiphenyl	86	36	121		Complete
D14-Terphenyl	158	30	134	HIGH	Complete
D5-Nitrobenzene	78	30	122		Complete

Lab Sample #: B1311104-01A-MS | Dilution: 1
Analysis Date: 11/30/2013 6:13:00AM | Client Sample: **MS**
Batch Number: T131121012 | Data File: 13112919.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
2-Fluorobiphenyl	82	36	121		Complete
D14-Terphenyl	124	30	134		Complete
D5-Nitrobenzene	77	30	122		Complete

Lab Sample #: B1311104-01A-MSD | Dilution: 1
Analysis Date: 11/30/2013 7:28:00AM | Client Sample: **MSD**
Batch Number: T131121012 | Data File: 13112921.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
2-Fluorobiphenyl	78	36	121		Complete
D14-Terphenyl	119	30	134		Complete
D5-Nitrobenzene	75	30	122		Complete

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: **155,425** **Lab Project Number:** **B1311104**

Prep Date: 11/20/2013

Lab Method Blank Id: T131121010-MB
Prep Batch ID: T131121010
Method: ASTM D2216 - Pmoist

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate	
B1311102-02A	Batch QC		11/22/2013	9:24:07AM
B1311104-01A	Pit Walls - Comp		11/22/2013	9:24:07AM
B1311102-02A-DUP	DUP		11/22/2013	9:24:07AM

Prep Date: 11/20/2013

Lab Method Blank Id: T131121012-MB
Prep Batch ID: T131121012
Method: SW8270C - Semivolatile Organics by GC/MS - PAH Colo

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate	
T131121012-LCS	LCS	13112910.D	11/30/2013	12:38:00AM
B1311104-01A	Pit Walls - Comp	13112917.D	11/30/2013	4:59:00AM
B1311104-01A-MS	MS	13112919.D	11/30/2013	6:13:00AM
B1311104-01A-MSD	MSD	13112921.D	11/30/2013	7:28:00AM

Prep Date: 11/21/2013

Lab Method Blank Id: T131122017-MB
Prep Batch ID: T131122017
Method: Aromatic VOCs by GC/PID via method 8021B - BTEX

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate	
T131122017-LCS	LCS	13112105.D	11/21/2013	1:12:00PM
B1311105-05B	Batch QC	13112111.D	11/21/2013	4:24:00PM
B1311105-05B-MS	MS	13112113.D	11/21/2013	5:29:00PM
B1311104-01B	Pit Walls - Comp	13112114.D	11/21/2013	6:01:00PM
B1311105-05B-MSD	MSD	13112116.D	11/21/2013	7:05:00PM

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

DATA FLAGS AND DEFINITIONS

The PQL is the Method Quantitation Limit as defined by USACE.
Reporting Limit: Limit below which results are shown as "ND". This may be the PQL, MDL, or a value between. See the report conventions below.

Result Field:

ND = Not Detected at or above the Reporting Limit
NA = Analyte not applicable (see Case Narrative for discussion)

Qualifier Fields:

LOW = Recovery is below Lower Control Limit
HIGH = Recovery , RPD, or other parameter is above Upper Control Limit
E = Reported concentration is above the instrument calibration upper range

Organic Analysis Flags:

B = Analyte was detected in the laboratory method blank
J = Analyte was detected above MDL or Reporting Limit but below the Quant Limit (PQL)

Inorganic Analysis Flags:

J = Analyte was detected above the Reporting Limit but below the Quant Limit (PQL)
W = Post digestion spike did not meet criteria
S = Reported value determined by the Method of Standard Additions (MSA)

Several ways of defining the limit of detection and quantitation are prevalent in the laboratory industry and may appear in Analytica reports. These include the following:

MRL = "minimum reporting level", from the EPA Safe Drinking Water program (SDW)
PQL = "practical quantitation limit", from SW-846
EQL = "estimated quantitation limit", from SW-846
LOQ = "limit of quantitation", from a number of authoritative sources

In Analytica's work, all of these terms have the same meaning, equivalent to the EPA definition of the MRL. This reporting level is supported by a satisfactory calibration data point which is at that level or lower, and also is supported by a method detection limit (MDL) determined by the procedure in 40CFR. The MDL is lower than the MRL and represents an estimate of the level where positive detections have a 99% probability of being real, but where quantitation accuracy is unknown.

The MRL as defined by Analytica is the lowest demonstrated point of known quantitation accuracy.
The MRL should not be confused with the MCL, which is the EPA-defined "maximum contaminant level" allowed for certain regulated targets under specific regulations, such as the National Primary Drinking Water Regulations. Normally, the MRL is set at a level which is much lower than the MCL in order to ensure that levels are well below those limits. Not all target analytes have MCL levels established.

Other Flags may be applied. See Case Narrative for Description

Detailed Analytical Report

Analytica Group, LLC - Thornton

Workorder (SDG): B1311104

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

REPORTING CONVENTIONS FOR THIS REPORT

B1311104

TestPkgName	Basis	# Sig Figs	Reporting Limit
8021/5030B (Solid) - BTEX	Dry Weight Basis	2	Report to PQL
8270C/3550 (Solid) - PAH Colo	Dry Weight Basis	2	Report to MDL, J qual below PQL
ASTMD2216/ASTMD2216 (Solid) - Pmoist	As Received	3	Report to MDL, J qual below PQL

Analytica Chain of Custody Form

ANALYTICA GROUP®

12189 Pennsylvania St.
Thornton, CO 80241
(303) 469-8868
(303) 469-5254 fax

4307 Arctic Boulevard
Anchorage, AK 99503
(907) 258-2155
(907) 258-6634 fax

475 Hall St.
Fairbanks, AK 99701
(907) 456-3116
(907) 456 3125 fax

1203 W. Parks HWY
Wasilla, AK 99654
(907) 373-5440

Page 1 of 1

Chain of Custody No: 084211

Client Name & Address: Environmental Services 429 Buckpoint Carbondale

Report to: Heydenberk

Phone No: 970-948 8978

Fax No:

E-mail:

Public Water System (PWS) ID#:

Project Name: Maralex 9-98-10 #1 Coon Hollow #4

Turnaround Time for Results (TAT)

X Standard ___ Expedited (< 10 days, prior authorization required)
___ Routine ___ Non-Routine (please specify due date below; add'tl charges may apply)

Requested Due Date for Results:

Section to be Completed by Analytica

Quote ID:

LGN: B13 11104

Account #:

Check | Credit Card

Invoice to Name & Address: Maralex Resources Attn Jim Graves

P.O. or Contract No:

Special Instructions/Comments:

PAH's Analyte List = Cogcc Table 910-1

Kit Prep/Shipping Charge: $

Requested Analysis/Method

Client Sample Identification / Location	Date Sampled	Time Sampled	Matrix (S-DW-WW-Other)	No. of Containers	PAH	Lot #: Pres:	RSTEX	Lot #: Pres:		Lot #: Pres:		Lot #: Pres:		Lot #: Pres:		Lot #: Pres:	Field Preserved	Field Filtered	MS/MSD ?
Pit Walls- Comp.	11/14/13	10:30	S	2	X		X												

Relinquished by:	Date	Time	Received by:	Date	Time
DCH	11/16/13	12:00	[illegible]	11/19/13	09:35
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Name of Sampler: (printed) DCH Heydenberk

Section to be completed by Analytica

	THO	ANC	FBKS	WAS
Condition of Custody Seal?	Intact			
Initialed by:	DCH			
Temp/Loc:	1.2			
Thermo ID#:				
Shipped Via:	F			

Version 2.0