

ANALYTICAL REPORT

Petroglyph Operating Co., Inc.

Raton Basin (Colorado)

Lot #: D8D010174

Tom Melland

Petroglyph
P.O. Box 979
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LaVeta, CO 81055

TestAmerica Laboratories, Inc



Danielle Fougere
Project Manager

April 14, 2008

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Table Of Contents

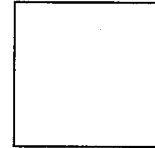
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

*(The **Report Cover** page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)*



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Chain-of-Custody**

Case Narrative

Lot #: D8D010174

The following report contains the analytical results for one water sample submitted to TestAmerica Laboratories, Inc's Denver Laboratory by Petroglyph Operating Company. The samples were received on April 01, 2008 according to documented sample acceptance procedures.

This report may include data with reporting limits (RLs) less than TestAmerica Laboratories, Inc's standard reporting limit. These data and reporting limits are being used specifically to meet the needs of this project. Note that, data are not customarily reported to these levels without qualifiers, because they are inherently less reliable and potentially less defensible than the latest industry standards require.

TestAmerica Laboratories, Inc's Denver Laboratory utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. A summary of QC data for these analyses is included.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. The results relate only to the samples in this report. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

SUPPLEMENTAL QC INFORMATION

Sample Arrival and Receipt

The sample containers were received in acceptable condition. The temperature of the cooler upon receipt was 0.4 °C. Please note, there were no custody seals on the cooler when it was received. Client was notified on April 2, 2008

No other anomalies were observed.

Dissolved Methane – Method RSK SOP-175

The method required MS/MSD could not be performed for batch 8099496, due to insufficient sample volume submitted. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D8D010174

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
MCPHERSON.WW 03/29/08 13:00 001				
Methane	54	5.0	ug/L	RSK SOP-175

METHODS SUMMARY

D8D010174

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Dissolved Gases in Water	RSK SOP-175	RSK RSKSOP-175

References:

RSK Sample Prep and Calculations for Dissolved Gas Analysis
 in Water Samples Using a GC Headspace Equilibration
 Technique, RSKSOP-175, REV. 0, 8/11/94, USEPA Research Lab

METHOD / ANALYST SUMMARY

D8D010174

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
RSK SOP-175	Adam Pavlakovich	003128

References:

RSK Sample Prep and Calculations for Dissolved Gas Analysis
 in Water Samples Using a GC Headspace Equilibration
 Technique, RSKSOP-175, REV. 0, 8/11/94, USEPA Research Lab

SAMPLE SUMMARY

D8D010174

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
KKHV7	001	MCPHERSON.WW		03/29/08	13:00

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Petroglyph

Client Sample ID: MCPHERSON.WW

GC Volatiles

Lot-Sample #....: D8D010174-001 Work Order #....: KKHV71AA Matrix.....: WATER
Date Sampled....: 03/29/08 13:00 Date Received...: 04/01/08
Prep Date.....: 04/08/08 Analysis Date...: 04/08/08
Prep Batch #....: 8099496 Analysis Time...: 12:42
Dilution Factor: 1
Method.....: RSK SOP-175

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Methane	54	5.0	ug/L	0.22

QC DATA ASSOCIATION SUMMARY

D8D010174

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	RSK SOP-175		8099496	

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: D8D010174
MB Lot-Sample #: D8D080000-496

Work Order #...: KKXHW1AA

Matrix.....: WATER

Analysis Date...: 04/08/08

Prep Date.....: 04/08/08

Analysis Time...: 10:48

Dilution Factor: 1

Prep Batch #...: 8099496

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Methane	ND	5.0	ug/L	RSK SOP-175

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: D8D010174 Work Order #....: KKXHW1AC Matrix.....: WATER
LCS Lot-Sample#: D8D080000-496
Prep Date.....: 04/08/08 Analysis Date...: 04/08/08
Prep Batch #....: 8099496 Analysis Time...: 10:38
Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Ethane	98	(75 - 125)	RSK SOP-175
Ethene	94	(75 - 125)	RSK SOP-175
Methane	98	(75 - 125)	RSK SOP-175
Acetylene	90	(75 - 125)	RSK SOP-175

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #....: D8D010174 Work Order #....: KKXHW1AC Matrix.....: WATER
 LCS Lot-Sample#: D8D080000-496
 Prep Date.....: 04/08/08 Analysis Date...: 04/08/08
 Prep Batch #....: 8099496 Analysis Time...: 10:38
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
Ethane	137	134	ug/L	98	RSK SOP-175
Ethene	127	120	ug/L	94	RSK SOP-175
Methane	73.0	71.8	ug/L	98	RSK SOP-175
Acetylene	118	106	ug/L	90	RSK SOP-175

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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