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www.alsglobal.com

LABORATORY REPORT

October 27, 2015

Jake Janicek
Caerus Oil and Gas LLC
120 North Railroad Ave.
Parachute, CO 81635

RE: Unocal 13D-16D

Dear Jake:

Enclosed are the results of the sample submitted to our laboratory on October 17, 2015. For your reference, this analysis has been assigned our service request number P1504390.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental


By Kelly Horiuchi at 10:57 am, Oct 27, 2015

Kelly Horiuchi
Laboratory Director



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Client: Caerus Oil and Gas LLC
Project: Unocal 13D-16D

Service Request No: P1504390

CASE NARRATIVE

The sample was received intact under chain of custody on October 17, 2015 and was stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

Hydrogen Sulfide Analysis

The sample was analyzed for hydrogen sulfide per ASTM D 5504-12 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). Method ASTM D 5504-12 is included on the laboratory's NELAP scope of accreditation, however it is not part of the DoD-ELAP or AIHA-LAP accreditation.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
AIHA	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
DoD ELAP	http://www.pjlabs.com/search-accredited-labs	L14-2-R1
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2014025
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	876241
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-001
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413-15-6
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA01627201 5-5
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Caerus Oil and Gas LLC
Project ID: Unocal 13D-16D

Service Request: P1504390

Date Received: 10/17/2015
Time Received: 10:10

ASTM D 5504-12 - H2S Bag

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected
Unocal 13D-16D	P1504390-001	Air	10/16/2015	16:08

X



ALS Environmental

3325 + 28th Avenue
Holland Michigan 49424
(616) 399-6070

Form 2021-B







P1504390

[illegible]

Time	Zone	ϕ (%)	CGT	MGt	PGT	Mattv	O = oil	S = soil	NS = non-soil	solid	W = water	L = liquid	E = extract	F = filter
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For metals or anions, please detail analytes below.

Comments: High H ₂ S Concentrations! Take Caution!	QC PACKAGE (check below)	
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)
	<input type="checkbox"/>	
Preservative Key: 1-ICI 2-INOC 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

	SIGNATURE	PRINTED NAME	DATE	1
RELINQUISHED BY		Jake Janicek	10-16-15	1530
RECEIVED BY			10-16-15	1530
RELINQUISHED BY			10-16-15	1530
RECEIVED BY				
RELINQUISHED BY		STEPHEN KING	10/17/15	1000
RECEIVED BY				

Client: <u>Caerus Oil and Gas LLC</u>	Work order: <u>P1504390</u>
Project: <u>Unocal 13D-16D</u>	
Sample(s) received on: 10/17/15	Date opened: 10/17/15 by: SHENNINGSEN

Yes No N/A

- [illegible]

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: Caerus Oil and Gas LLC
Client Project ID: Unocal 13D-16D

ALS Project ID: P1504390

Hydrogen Sulfide

Test Code: ASTM D 5504-12
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Nalini Lall
Sample Type: 1 L Zefon Bag(s)
Test Notes:

Date(s) Collected: 10/16/15
Date Received: 10/17/15
Date Analyzed: 10/17/15

Client Sample ID	ALS Sample ID	Injection	Time Analyzed	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
		Volume ml(s)						
Unocal 13D-16D	P1504390-001	0.0050	11:39	6,700,000	1,400	4,800,000	1,000	
Method Blank	P151017-MB	1.0	08:36	ND	7.0	ND	5.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: Caerus Oil and Gas LLC
Client Sample ID: Lab Control Sample
Client Project ID: Unocal 13D-16D

ALS Project ID: P1504390
ALS Sample ID: P151017-LCS

Test Code: ASTM D 5504-12
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Nalini Lall
Sample Type: 1 L Zefon Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 10/17/15
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS	Data Qualifier
					Acceptance Limits	
7783-06-4	Hydrogen Sulfide	1,990	1,840	92	65-138	