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2655 Park Center Dr., Suite A  
Simi Valley, CA 93065  
T: +1 805 526 7161  
F: +1 805 526 7270  
[www.alsglobal.com](http://www.alsglobal.com)

## LABORATORY REPORT

March 29, 2017

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

**RE: Parachute Creek 10**

Dear Jake:

Enclosed are the results of the samples submitted to our laboratory on March 15, 2017. For your reference, these analyses have been assigned our service request number P1701237.

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](http://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 1:46 pm, Mar 29, 2017

Kelly Horiuchi  
Laboratory Director



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Client: Caerus Oil and Gas LLC  
Project: Parachute Creek 10

Service Request No: P1701237

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### CASE NARRATIVE

The samples were received intact under chain of custody on March 15, 2017 and were 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 samples at the time of sample receipt.

#### Hydrogen Sulfide Analysis

The samples were 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 accreditation.

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*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
Arizona DHS	<a href="http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home">http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home</a>	AZ0694
Florida DOH (NELAP)	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E871020
Louisiana DEQ (NELAP)	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	05071
Maine DHHS	<a href="http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm">http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm</a>	2016036
Minnesota DOH (NELAP)	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	1177034
New Jersey DEP (NELAP)	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	CA009
New York DOH (NELAP)	<a href="http://www.wadsworth.org/labcert/elap/elap.html">http://www.wadsworth.org/labcert/elap/elap.html</a>	11221
Oregon PHD (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	4068-004
Pennsylvania DEP	<a href="http://www.depweb.state.pa.us/labs">http://www.depweb.state.pa.us/labs</a>	68-03307 (Registration)
PJLA (DoD ELAP)	<a href="http://www.pjlabs.com/search-accredited-labs">http://www.pjlabs.com/search-accredited-labs</a>	65818 (Testing)
Texas CEQ (NELAP)	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704413-16-7
Utah DOH (NELAP)	<a href="http://health.utah.gov/lab/environmental-lab-certification/">http://health.utah.gov/lab/environmental-lab-certification/</a>	CA01627201 6-6
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	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](http://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: Parachute Creek 10

Service Request: P1701237

Date Received: 3/15/2017  
Time Received: 09:15

ASTM D 5504-12 - H2S Bag

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	
Chevron 8D-5D	P1701237-001	Air	3/14/2017	15:00	X
Chevron 8E-5D	P1701237-002	Air	3/14/2017	15:30	X

17701257

Form 2028

PROJECT NAME Parachute Creek ID	SAMPLER SITE ID EDD FORMAT	DATE 3-14-17	TURNAROUND STD	WORKORDER #
COMPANY NAME Caerus Piceance, LLC	PURCHASE ORDER	TPH/GRO/DRO	BTEX	TABLE 910 PAHs
SEND REPORT TO Jake Janicek	BILL TO COMPANY Caerus Piceance, LLC	EC	PH	SAR
ADDRESS 120 N. Railroad, suite D	INVOICE ATTN TO Jake Janicek	Table 910 Metals	Benzene	Table 910 Metals
CITY / STATE / ZIP Parachute Co., 81635	ADDRESS 120 N. Railroad, suite D	Hydrogen sulfide		
PHONE 970-285-9608	CITY / STATE / ZIP Parachute Co., 81635			
FAX	PHONE 970-285-9608	By Lab or Return to		
E-MAIL jjanicek@caerusoilandgas.com	FAX	1 of		
E-MAIL janicek@caerusoilandgas.com	E-MAIL invoicess@caerusoilandgas.com	1		

RELINQUISHED BY	SIGNATURE	DATE	TIME
RECEIVED BY	<i>[Signature]</i>	3-14-17	1615
RELINQUISHED BY	<i>[Signature]</i>	3-14-17	1605
RECEIVED BY	<i>[Signature]</i>	3-14-17	1600
RELINQUISHED BY	<i>[Signature]</i>	3-14-17	1615
RECEIVED BY	<i>[Signature]</i>	3-14-17	1600

QC PACKAGE (check below)

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

Comments:

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.



# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Caerus Oil and Gas LLC  
**Client Project ID:** Parachute Creek 10

ALS Project ID: P1701237

### Hydrogen Sulfide

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

Date(s) Collected: 3/14/17  
Date Received: 3/15/17  
Date Analyzed: 3/15/17

Client Sample ID	ALS Sample ID	Injection		Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result <b>ppbV</b>	MRL ppbV	Data Qualifier
		Volume ml(s)	Time Analyzed					
Chevron 8D-5D	P1701237-001	1.0	11:35	<b>6,700</b>	7.0	<b>4,800</b>	5.0	
Chevron 8E-5D	P1701237-002	1.0	11:48	<b>34,000</b>	7.0	<b>24,000</b>	5.0	
Method Blank	P170315-MB	1.0	08:14	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:** Parachute Creek 10

ALS Project ID: P1701237  
ALS Sample ID: P170315-LCS

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

Date Collected: NA  
Date Received: NA  
Date Analyzed: 3/15/17  
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	1,000	1,230	123	75-148	