# CONFIDENTIAL

## KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

# WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Form ACO-1 June 2009 Form Must Be Typed Form must be Signed All blanks must be Filled

2/25/13

OPERATOR: License # 8628	API No. 15 - 065-23703-00-00
Name: Credo Petroleum Corporation	Spot Description:
Address 1: 1801 Broadway # 900	NW_NE_NW_SE_Sec22 Twp8 S. R25 East W West
Address 2:	2,520 Feet from North / South Line of Section
City: Denver State: Co Zip: 80202 +	1,765 Feet from  East / West Line of Section
Contact Person: Jack Renfro	Footages Calculated from Nearest Outside Section Corner:
Phone: (303) 297-2200 KCC	□ NE □ NW ☑ SE □ SW
CONTRACTOR: License # 33575 FEB 2 1 2011	County: Graham
Name: WW Drilling, LLC CONFIDENTIA:	Lease Name: Richmeier Well #: 1-22
Wellsite Geologist: Bruce Ard	Field Name: Wildcat
Purchaser: None	Producing Formation: None
Designate Type of Completion:	Elevation: Ground: 2378 Kelly Bushing: 2383
New Well Re-Entry Workover	Total Depth: 3960 Plug Back Total Depth:
□oii □wsw □swb □siow	Amount of Surface Pipe Set and Cemented at: 247 Feet
☐ Gas	Multiple Stage Cementing Collar Used? Yes No
☐ OG ☐ GSW ☐ Temp. Abd.	If yes, show depth set:Feet
CM (Coal Bed Methane)	If Alternate II completion, cement circulated from:
Cathodic Other (Core, Expl., etc.):	feet depth to:w/sx cmt.
If Workover/Re-entry: Old Well Info as follows:	teet deput to.
Operator:	
Well Name:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Original Comp. Date: Original Total Depth:	Chloride content: 2500 ppm Fluid volume: 800 bbls
☐ Deepening ☐ Re-perl. ☐ Conv. to ENHR ☐ Conv. to SWD	Dewatering method used: Air Dry - Backfill
Conv. to GSW	Dewatering method used: Circle 19 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Permit #:	Operator Name:
Dual Completion Permit #:	Lease Name: License #:
SWD Permit #:	Quarter Sec TwpS. R ☐ East ☐ West
ENHR Permit #:	_ · · · · · · · · · · · · · · · · · · ·
GSW Permit #:	County: Permit #:
12/21/2010 1/07/2011 1/08/2011 0/08/2011	
Spud Date or Date Reached TD Completion Date or Recompletion Date	
Kansas 67202, within 120 days of the spud date, recompletion, workover or or	n the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information quested in writing and submitted with the form (see rule 82-3-107 for confiden-

tiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST

### AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements berein are complete and correct to the best of my knowledge.

Signature:

Title: Operations Mgr.

le: 2/21/11

BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

Letter of Confidentiality Received

Date: 2211 - 221 3 RECFIVED

Confidential Release Date:

Wireline Log Received

Geologist Report Received

UIC Distribution

ALT I I II Approved by: Log Confidential Release Date:

Date: Date:

Side Two

KCC FFB 2 1 2011

v Credo	Petroleum Cor	poration		Lease N	lame: R	ichmeier	<u> </u>	_ Well #: <u>1-2</u>	2 F	<u>EB 2 1</u>
erator Name. <u>0.000</u> c. <u>22                                   </u>	s R 25	☐ East [	/ West	County	Graha	<u></u>			<del>- c</del> c	NFIDER
STRUCTIONS: Show the tool open and closes covery, and flow rates in the Logs surveyed. Atta	important tops and d, flowing and shut if gas to surface tes	d base of for in pressure st, along wit	rmations pene es, whether sh h final chart(s)	trated. De	etail all co	res. Report all			iving inter	val tested, rature, fluid
		Yes	∏No		1360	g Formatio	n (Top), Depth a	nd Datum	s	ample
ill Stem Tests Taken (Attach Additional She	ets)	,			_	-		Тор	n	atum
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ectric Log Submitted E	Electronically	Yes	; ☑ No		La	nsing		3698		-1315
(If no, Submit Copy)			, T.a.		Ba	ase Kan	sas Cty	3810		-1534
oual Comper Microresis			A rod							
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Purpose of String	Size Hole Drilled	Size	Casing (In O.D.)	We Lbs.	ght	Setting Depth	Type of Cement	# Sacks Used		and Percent dditives
Surface	12 1/4	8 5/8	·	24		247	Common	180	3% сс,	2% gel
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	<del></del>	<del>_</del>	ADDITIONAL	CEMENT	ING / SQL	JEEZE RECORI			·	·
Purpose:  —— Perforate  —— Protect Casing  —— Plug Back TD	Depth Top Bottom	Туре	of Cement	# Sack	s Used		Type and	d Percent Additive	s	-
Plug Off Zone										
Shots Per Foot	PERFORAT Specify	ION RECOR Footage of E	O - Bridge Plug Each Interval Per	gs Set/Type forated	· 	Acid, F	acture, Shot, Cem Amount and Kind of	ent Squeeze Reco Material Used)	ord	Depth
										CEIVE
									FEI	252
TUBING RECORD:	Size:	Set At:		Packer	At:	Liner Run:	Yes 🗍	No	KCC	2 5 2 WICHI
Date of First, Resumed I	Production, SWD or E	NHR.	Producing Me	thod:	oing [	Gas Lift	Other (Explain)		· · · · · · · · · · · · · · · · · · ·	
Estimated Production Per 24 Hours	Oil	Bbis.	Gas	Mcf	Wa	ater	Bbls.	Gas-Oil Ratio		Gravity
DISPOSITIO	ON OF GAS:	. 🗆	Open Hole	METHOD	Dua Dua	lly Camp. 🔲 (	Commingled	PRODUC	TION INTER	?VAL:

# ALLIED CEMENTING CO., LLC. 040796

KCC . REMIT TO P.O. BOX 31 FEB 2 5 2011 SERVICE POINT: RUSSELL, KANSAS 67665 OAKL OL 785/483-2627 CONFIDENTIAL 12.21-10 RANGE CALLED OUT ON LOCATION JOB START JOB FINISH 2:30pm STATE STATE Richmeriok LOCATION Morland 11/25-11/2 WI. OLD OK NEW (Circle one) tomes \*6 **CONTRACTOR OWNER** Surgaza TYPE OF JOB ( क्राप **HOLE SIZE** T.D. **CEMENT** 35/8 AMOUNT ORDERED 180 CON 3901C **CASING SIZE** DEPTH 2 nocel **TUBING SIZE DEPTH** DRILL PIPE DEPTH TOOL **DEPTH** PRES. MAX <u>MINIMUM</u> MEAS. LINE POZMIX CEMENT LEFT IN CSG. CHLORIDE 6 @ 58 30 PERFS. DISPLACEMENT 14.8 ASC \_\_\_\_\_ **EQUIPMENT** @ CEMENTER F 4274 **PUMP TRUCK** @ 431 Ex PAILON HELPER @ **BULK TRUCK** 378 **ととらく** DRIVER **BULK TRUCK** DRIVER -HANDLING 189 MILEAGE \_\_\_ 10 x skymile TOTAL 4685 REMARKS: christa be 4 3365 **SERVICE** DEPTH OF JOB PUMP TRUCK CHARGE EXTRA FOOTAGE MILEAGE \_\_\_ \$ \$ MANIFOLD \_\_\_\_\_ @ @ CHARGE TO: Credo Parolicum STREET \_\_\_\_ CITY\_\_\_\_\_STATE ZIP **PLUG & FLOAT EQUIPMENT** To Allied Cementing Co., LLC. You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or TOTAL \_ contractor. I have read and understand the "GENERAL SALES TAX (If Any) TERMS AND CONDITIONS" listed on the reverse side. TOTAL CHARGES \_\_\_\_ PRINTED NAME MONK BISSO DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS SIGNATURE Man Bigge

## **GENERAL TERMS AND CONDITIONS**

DEFINITIONS: In these terms and conditions, "ALLIED" shall mean Allied Cementing Co., LLC, and "CUSTOMER" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "Merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

- —TERMS: Unless satisfactory credit has been established, CUSTOMER must tender full cash payment to ALLIED before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, CUSTOMER agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing, in no event shall this Contract provide for interest exceeding the maximum rate of interest that CUSTOMER may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the CUSTOMER or at the option of ALLIED, refunded directly to CUSTOMER. For purposes of this paragraph, ALLIED and CUSTOMER agree that Kansas law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.
- —ATTORNEY FEES: In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the terms of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limited to, a reasonable sum as and for attorney's fees.
- —PRICES AND TAXES: All merchandise listed in ALLIED'S current price schedule are F.O.B. ALLIED'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by ALLIED shall be added to the quoted prices charged to CUSTOMER.
- —TOWING CHARGES: ALLIED will make a reasonable attempt to get to and from each job site using its own equipment. Should ALLIED be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by ALLIED, will be charged to and paid by CUSTOMER.
- —PREPARATION CHARGES: If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay ALLIED for the expenses incurred by ALLIED as a result of the cancellation
- —DEADHAUL, CHARGES: Unless otherwise specified on the front of this Contract, a deadhaul charge as set forth in ALLIED'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.
  - —SERVICE CONDITIONS AND LIABILITIES:
- 1. ALLIED carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond ALLIED'S control, ALLIED shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. CUSTOMER shall be responsible for and indemnify, defend, and hold harmless ALLIED, its officers, agents and employees, from and against any and all claims or suits for:
- (A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:
- (B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with ALLIED'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of ALLIED or its employees.
- 2. With respect to any of ALLIED'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to ALLIED at the landing, CUSTOMER shall either recover the lost item without cost to ALLIED or reimburse ALLIED the current replacement cost of the item unless the loss or damage results from the sole negligence of ALLIED or its employees.
- 3. ALLIED does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

  WARRANTIES:
- 1. ALLIED warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. ALLIED'S obligation under this warranty is expressly limited to repair, replacement, or allowance for credit, at its option, for any merchandise which is determined by ALLIED to be defective. THIS IS THE SOLE WARRANTY OF ALLIED AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and ALLIED shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.
  - 2. More specifically:
- (A) Nothing in this contract shall be construed as a warranty by ALLIED of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.
- (B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by ALLIED or any interpretation of tests, meter readings, chart information, analysis of research, or recommendations made by ALLIED, unless the inaccuracy or incorrectness is caused by the wilful misconduct or gross negligence of ALLIED or its employees in the preparation or furnishing of such facts, information or data.
- (C) Work done by ALLIED shall be under the direct supervision and control of the CUSTOMER or his agent and ALLIED will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

# ALLIED CEMENTING CO., LLC. 040872

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## **JAMES C. MUSGROVE**

Petroleum Geologist P.O. Box 215 212 Main St. Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Credo Petroleum Corporation Richmeier #1-22 2520' FSL & 1765' FEL; Section 22-8s-25w Graham County, Kansas Page No. i

FEB 2 1 2011

**Dry and Abandoned** 

CONFIDENTIAL

Contractor:

WW Drilling Company (Rig #6)

Commenced:

December 21, 2010

Completed:

January 8,2011

Elevation:

2383' K.B.; 2381' D.F.; 2378' G.L.

Casing Program: Surface; 8 5/8" @ 247'

Production; none.

Samples:

Samples saved and examined 3400' to the Rotary Total Depth.

**Drilling Time:** 

One (1) foot drilling time recorded and kept 3300' to the Rotary

Total Depth.

Measurements:

All depths measured from the Kelly Bushing.

**Drill Stem Tests:** 

There was two (2) Drill Stem Tests ran by Trilobite Testing

Company.

Earmatian

Electric Log:

By Log Tech; Dual Induction, Dual Compensated Porosity Log

and Micro Log.

Formation	<u>Log Depth</u>	Sub-Sea Datum
Anhydrite	2106	+227
Base Anhydrite	2139	+244
Topeka	3446	-1063
Heebner	3658	-1275
Toronto	3682	-1299
Lansing	3698	-1315
Base Kansas City	3810	-1534
Rotary Total Depth	3960	-1577
Log Total Depth	3961	-1578
/ A II . 4	—	

(All tops and zones corrected to Electric Log measurements).

RECEIVED

FEB 2 5 2011

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

KCC WICHITA

## **TOPEKA SECTION**

3446-3658

There were several zones of well-developed porosity

encountered in the drilling of the Topeka Section but no shows

of oil and/or gas was noted

## TORONTO SECTION

3682-3692'

Limestone; white/gray, finely crystalline, chalky, abundant

amber/orange chert, no shows.

Credo Petroleum Corporation

Richmeier #1-22

2520' FSL & 1765' FEL; Section 22-8s-25w

Graham County, Kansas

Page No. 2

## LANSING SECTION

3698-3710' Limestone, white, cream, very chalky, few sub oomoldic, poor

porosity, no shows.

Limestone; white, gray, chalky, fossiliferous, poor visible 3728-3738'

porosity, black and brown dead stain, few samples, tarry (dead)

oil, and no odor in fresh samples.

3741-3757 Limestone; gray, finely crystalline, chalky, poor porosity.

3770-3774' Limestone; white, finely crystalline, fossiliferous, slightly chalky,

few with vuggy type porosity, brown stain, show of free oil and

faint odor samples broken.

## **Drill Stem Test #1**

<u>375</u>0-3775'

Times:

20-45-30-60

Blow:

Recovery:

Weak

65' mud with oil scum

Pressures: ISIP 1114 psi

FSIP 1100 psi IFP 16-34 psi FFP 36-56 psi HSH 1838-1786 psi

Limestone; white, cream, chalky, dense. 3780-3800'

3826-3840' Limestone; cream, dolomitic, granular in part, few chalky, poor

scattered pinpoint porosity, trace stain, show of free gassy oil

and fair odor in fresh samples.

Limestone; gray, chalky, fossiliferous in part, poor scattered 3850-3856'

porosity, dead oil stain, trace of free oil (dead) and no odor in

fresh samples.

3867-3876' Limestone; white, slightly fossiliferous, scattered pinpoint

porosity, few fine vuggy type porosity, brown stain, show of free

oil and odor in fresh samples.

## Drill Stem Test #2

3798-3868'

Times:

30-45-30-60

Blow:

Weak, dead in 15 minutes

5' mud Recovery:

RECEIVED

Pressures: ISIP

FEB 2 5 2011 503 psi **FSIP 462** psi

IFP 39-41 psi FFP 41-43 psi psi

HSH 1908-1884

KCC WICHITA

3888-3996'

Limestone; white, cream, finely crystalline, chalky, few oomoldic, very poor visible porosity, dead spotty stain, no show of free oil

and no odor in fresh samples.

Credo Petroleum Corporation Richmeier #1-22 2520' FSL & 1765' FEL; Section 22-8s-25w Graham County, Kansas Page No. 3

3904-3910'

Limestone; gray, chalky, fossiliferous, chalky, plus white chalk,

no shows.

Rotary Total Depth Log Total Depth 3960 (-1577)

3961 (-1578)

Recommendations

The Richmeier #1-22 was plugged and abandoned at the Rotary Total depth 3960 (-1577).

Respectfully submitted;

Bruce B. Ard,

Petroleum Geologist

RECEIVED FEB 2 5 2011 KCC WICHITA



Prepared For:

Credo Petroleum Corp.

1801 Broadway STE #900 Denver, CO 80202

ATTN: Bruce Ard

## 22-8s-25w Graham KS

## Richmeier #1-22

Start Date:

2011.01.06 @ 11:32:12

End Date:

2011.01.06 @ 17:54:12

Job Ticket #: 41283

DST#: 1

KCC FEB 2 1 2011 CONFIDENTIAL

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

RECEIVED FEB 2 5 2011 KCC WICHITA



Credo Petroleum Corp.

Richmeier #1-22

22-8s-25w Graham KS

1801 Broadway STE#900

Job Ticket: 41283

DST#: 1

Denver, CO 80202 ATTN: Bruce Ard

Test Start: 2011.01.06 @ 11:32:12

### GENERAL INFORMATION:

Time Tool Opened: 13:25:12

Time Test Ended: 17:54:12

Formation:

Lansing-"E-F"

Deviated:

interval:

Total Depth:

No Whipstock: ft (KB)

Test Type:

Conventional Bottom Hole

Tester:

Jason McLemore

Unit No:

2383.00 ft (KB)

Reference Elevations:

2378.00 ft (CF)

3775.00 ft (KB) (TVD)

KB to GR/CF:

54

5.00 ft

Hole Diameter:

7.80 inches Hole Condition: Good

3750.00 ft (KB) To 3775.00 ft (KB) (TVD)

Serial #: 8673 Press@RunDepth: Inside

56.09 psig @

3752.00 ft (KB)

End Date:

2011.01.06

Capacity:

8000.00 psig

Start Date: Start Time:

2011.01.06 11:32:14

End Time:

17:54:12

Last Calib .:

2011.01.06

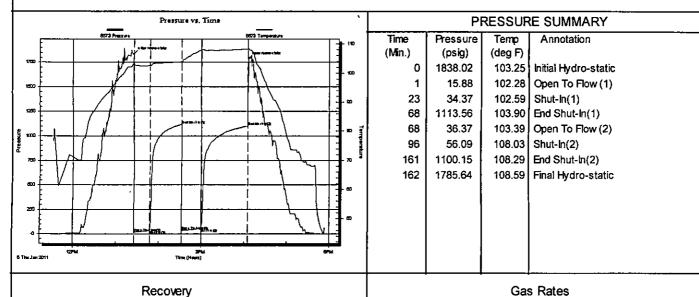
Time On Btm: 2011.01.06 @ 13:24:42 Time Off Btm: 2011.01.06 @ 16:05:57

TEST COMMENT: IFP-Weak Blow Built to 2-1/4"

ISI-Dead

FFP-Weak Surface Blow in Final 5 Min.

FSI-Dead



Length (ft) Description Volume (bbl) Mud W/Oil Scum 0.32

65.00

Choke (inches) Pressure (psig) Gas Rate (Mct/d)

Trilobite Testing, Inc.

Ref. No: 41283

Printed: 2011.01.13 @ 13:02:06 Page 2



**TOOL DIAGRAM** 

Credo Petroleum Corp.

Richmeier #1-22

1801 Broadway STE#900

Job Ticket: 41283

DST#: 1

Denver, CO 80202 ATTN: Bruce Ard

22-8s-25w Graham KS

Test Start: 2011.01.06 @ 11:32:12

Tool Information

Drill Pipe: Heavy Wt. Pipe: Length:

Length: 3604.00 ft Diameter:

3.80 inches Volume: 2.70 inches Volume: 50.55 bb! 0.00 bbl

Tool Weight:

2000.00 lb

Drill Collar:

Length:

0.00 ft Diameter: 124.00 ft Diameter:

2.25 inches Volume:

0.61 bbl

Weight set on Packer: 25000.00 lb Weight to Pull Loose: 45000.00 lb

Drill Pipe Above KB:

6.00 ft

Total Volume: 51.16 bbl

Tool Chased

0.00 ft

Depth to Top Packer:

3750.00 ft

String Weight: Initial 42000.00 lb

Final 42000.00 lb

Depth to Bottom Packer: Interval between Packers:

25.00 ft

53.00 ft

2

Diameter:

6.75 inches

Tool Length: Number of Packers:

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00		-	3723.00		
Shut in Tool	5.00			3728.00		
Hydraulic tool	5.00			3733.00		
Jars	5.00			3738.00		
Safety Joint	2.00			3740.00		
Packer	5.00	•		3745.00	28.00	Bottom Of Top Packer
Packer	5.00	-		3750.00	•	
Stubb	1.00			3751.00		
Perforations	1.00			3752.00		
Recorder	0.00	8673	Inside	3752.00		
Recorder	0.00	6755	Outside	3752.00		
Perforations	20.00			3772.00		
Bullnose	3.00			3775.00	25.00	Bottom Packers & Anchor
Total Tool Lo	nath: 52.00					

Total Tool Length:

Trilobite Testing, Inc

Ref. No: 41283

Printed: 2011.01.13 @ 13:02:07 Page 3



**FLUID SUMMARY** 

Credo Petroleum Corp.

Richmeier #1-22

22-8s-25w Graham KS

1801 Broadway STE#900

Job Ticket: 41283

DST#:1

Denver, CO 80202 ATTN: Bruce Ard

Test Start: 2011.01.06 @ 11:32:12

**Mud and Cushion Information** 

Mud Type: Gel Chem

Cushion Type:

Oil API:

Water Salinity:

deg API

Mud Weight:

9.00 lb/gal 54.00 sec/qt Cushion Length:

ft

Viscosity:

7.19 in<sup>3</sup>

Cushion Volume:

ppm

Water Loss:

ohm.m

Gas Cushion Type: Gas Cushion Pressure: bbl psig

Resistivity: Salinity:

1300.00 ppm

Filter Cake:

inches

## **Recovery Information**

## Recovery Table

Length ft	Description	Volume bbl
65.00	Mud W/Oil Scum	0.320

Total Length:

65.00 ft

Ref. No: 41283

Total Volume:

0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs:

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

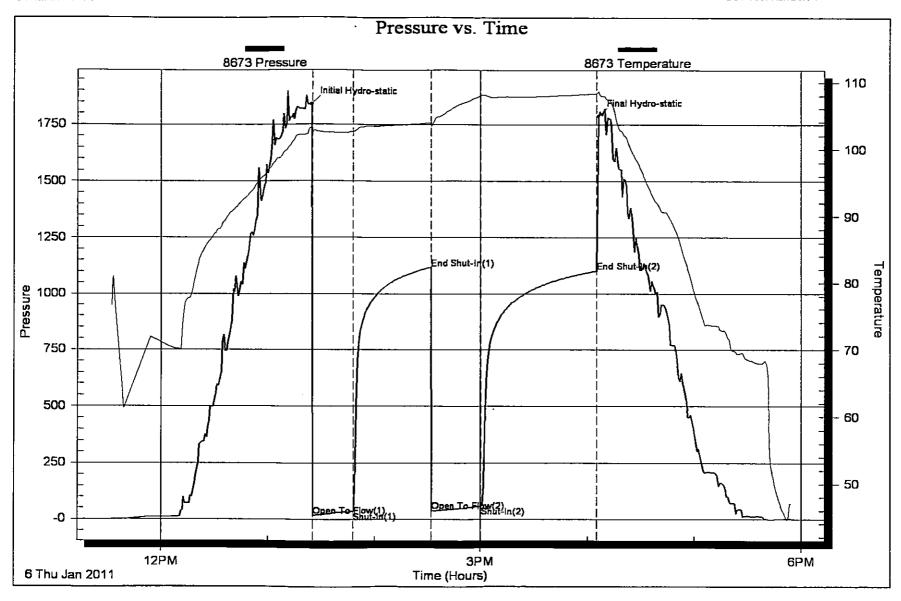


Inside

e Credo Petroleum Corp.

22-8s-25w Graham KS

DST Test Number: 1





Prepared For: Credo Petroleum Corp.

1801 Broadway STE #900 Denver, CO 80202

ATTN: Bruce Ard

## 22-8s-25w Graham KS

## Richmeier #1-22

Start Date: 2011.01.07 @ 05:43:23 End Date: 2011.01.07 @ 12:04:08 Job Ticket #: 41284 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



Credo Petroleum Corp.

Richmeier #1-22

1801 Broadway STE#900

22-8s-25w Graham KS

Denver, CO 80202 ATTN: Bruce Ard Job Ticket: 41284

Test Start: 2011.01.07 @ 05:43:23

## **GENERAL INFORMATION:**

Time Tool Opened: 07:33:38

Time Test Ended: 12:04:08

Formation:

Lansing "H-J"

Deviated:

Interval:

No

Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole

Tester: 54

Jason McLemore

Unit No:

Reference Elevations:

2383.00 ft (KB) 2378.00 ft (CF)

DST#:2

Total Depth: Hole Diameter: 3868.00 ft (KB) (TVD)

7.80 inches Hole Condition: Good

KB to GR/CF:

5.00 ft

Serial #: 8673 Press@RunDepth:

Inside

43.04 psig @

3835.00 ft (KB)

2011.01.07

Capacity:

8000.00 psig

Start Date: Start Time:

2011.01.07 05:43:25 End Date: End Time:

12:04:08

Last Calib.: Time On Btm: 2011.01.07

Time Off Btm:

2011.01.07 @ 07:33:08 2011.01.07 @ 10:27:38

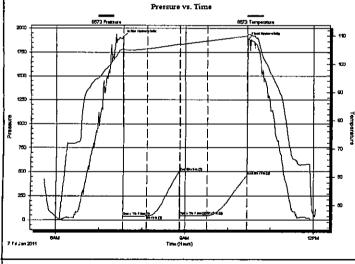
TEST COMMENT: IFP-Weak Blow , Died in 15 Min.

3798.00 ft (KB) To 3868.00 ft (KB) (TVD)

ISI-Dead

FFP-Weak Surface Blow

FSI-Dead



	Time	Pressure	Temp	Annotation
0	(Min.)	(psig)	(deg F)	ļ ,
	0	1907.67	105.70	Initial Hydro-static
,	1 .	39.25	105.00	Open To Flow (1)
	34	40.56	105.51	Shut-In(1)
	79	503.33	107.19	End Shut-In(1)
Ten	80	41.17	107.02	Open To Flow (2)
Temperatur	118	43.04	108.30	Shut-In(2)
ure.	174	462.45	110.02	End Shut-In(2)
	175	1884.11	110.59	Final Hydro-static
i				-

PRESSURE SUMMARY

## Recovery Length (ft) Description Volume (bbl) 5.00 0.02 Drilling Mud

Gas Nates								
	Choke (Inches)	Pressure (psig)	Gas Rate (Mct/d)					

Can Datas



**TOOL DIAGRAM** 

Credo Petroleum Corp.

Richmeier #1-22

1801 Broadway STE#900

Job Ticket: 41284

DST#: 2

**Denver, CO 80202** ATTN: Bruce Ard

Test Start: 2011.01.07 @ 05:43:23

22-8s-25w Graham KS

Tool Information

Drill Pipe: Heavy Wt. Pipe: Length;

Length: 3664,00 ft Diameter:

3.80 inches Volume: 2.70 inches Volume:

51.40 bbl Tool Weight: 0.00 bbl

2000.00 lb Weight set on Packer: 25000.00 lb

Drill Collar:

Length:

0.00 ft Diameter; 124.00 ft Diameter:

2.25 inches Volume: 0.61 bbi Total Volume:

Weight to Pull Loose: 45000.00 lb

0.00 ft

Drill Pipe Above KB: Depth to Top Packer:

18.00 ft 3798.00 ft 52.01 bbl

Tool Chased

Depth to Bottom Packer:

String Weight: Initial 42000.00 lb Final 42000.00 lb

Interval between Packers:

70.00 ft 98.00 ft

Tool Length:

Number of Packers:

Diameter:

6.75 inches

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00	•		3771.00		- ",
Shut in Tool	5.00			3776.00		
Hydraulic tool	5.00			3781.00		
Jars	5.00			3786.00		
Safety Joint	2.00			3788.00		
Packer	5.00			3793.00	28.00	Bottom Of Top Packer
Packer	5.00			3798.00		
Stubb	1.00			3799.00		
Perforations	3.00			£ 3802.00		
Change Over Sub	1.00			3803.00		
Blank Spacing	31.00			3834.00		
Change Over Sub	1.00			3835.00		
Recorder	0.00	8673	Inside	3835.00		
Recorder	0.00	6755	Outside	3835.00		
Perforations	30.00			3865.00		
Bullnose	3.00			3868.00	70.00	Bottom Packers & Anchor
Total Tool Length	98.00					

Total Tool Length:



**FLUID SUMMARY** 

Credo Petroleum Corp.

Richmeier #1-22

1801 Broadway STE#900

22-8s-25w Graham KS Job Ticket: 41284

DST#: 2

Denver, CO 80202 ATTN: Bruce Ard

Test Start: 2011.01.07 @ 05:43:23

**Mud and Cushion Information** 

Mud Type: Gel Chem Mud Weight:

9.00 lb/gal

Cushion Type: **Cushion Length:**  Oil API:

deg AP!

Viscosity:

54.00 sec/qt 7.18 in<sup>3</sup>

Cushion Volume:

fŧ bb! Water Salinity:

ppm

Water Loss: Resistivity:

ohm.m

Gas Cushion Type: Gas Cushion Pressure:

psig

Salinity: Filter Cake: 1300.00 ppm inches

**Recovery Information** 

Recovery Table

Length Description Volume bbl 5.00 **Drilling Mud** 0.025

Total Length:

5.00 ft

Total Volume:

0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs:

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Credo Petroleum Corp.

22-8s-25w Graham KS

DST Test Number: 2

