

Confidentiality Requested:

Yes No

### Kansas Corporation Commission Oil & Gas Conservation Division

1213665

Form ACO-1 August 2013 Form must be Typed Form must be Signed All blanks must be Filled

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

OPERATOR: License #			API No. 15		
Name:			Spot Description:		
Address 1:			Sec	TwpS. R	East West
Address 2:			F6	eet from North /	South Line of Section
City:	State: Z	ip:+	Fe	eet from East /	West Line of Section
Contact Person:			Footages Calculated from I	Nearest Outside Section C	Corner:
Phone: ()			□ NE □ NW	V □SE □SW	
CONTRACTOR: License #			GPS Location: Lat:	, Long: _	
Name:				(e.g. xx.xxxxx)	(e.gxxx.xxxxx)
Wellsite Geologist:			Datum: NAD27	NAD83 WGS84	
Purchaser:			County:		
Designate Type of Completion:			Lease Name:	W	/ell #:
	e-Entry	Workover	Field Name:		
	_		Producing Formation:		
☐ Oil ☐ WSW ☐ D&A	☐ SWD	∐ SIOW □ SIGW	Elevation: Ground:	Kelly Bushing:	:
	GSW	Temp. Abd.	Total Vertical Depth:	Plug Back Total C	Depth:
CM (Coal Bed Methane)	dow	Temp. Abd.	Amount of Surface Pipe Se	et and Cemented at:	Feet
☐ Cathodic ☐ Other (Co	ore, Expl., etc.):		Multiple Stage Cementing	Collar Used? Yes	No
If Workover/Re-entry: Old Well I			If yes, show depth set:		Feet
Operator:			If Alternate II completion, c	cement circulated from:	
Well Name:			feet depth to:	w/	sx cmt.
Original Comp. Date:					
Deepening Re-perf	•	NHR Conv. to SWD	Drilling Fluid Managemer	nt Plan	
☐ Plug Back	Conv. to G		(Data must be collected from the		
Commingled	Pormit #:		Chloride content:	ppm Fluid volume	e: bbls
Dual Completion			Dewatering method used: _		
SWD			Location of fluid disposal if	hauled offsite	
☐ ENHR			· ·		
GSW	Permit #:		Operator Name:		
_ <del>_</del>			Lease Name:	License #:_	
Spud Date or Date R	eached TD	Completion Date or	QuarterSec	TwpS. R	East _ West
Recompletion Date		Recompletion Date	County:	Permit #:	

#### **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 herein are complete and correct to the best of my knowledge.

**Submitted Electronically** 

KCC Office Use ONLY					
Confidentiality Requested					
Date:					
Confidential Release Date:					
Wireline Log Received					
Geologist Report Received					
UIC Distribution					
ALT I II III Approved by: Date:					



Operator Name:			Lease Name: _			Well #:	
Sec Twp	S. R	East West	County:				
open and closed, flow	ring and shut-in pressu	ormations penetrated. Eures, whether shut-in predict final chart(s). Attach	essure reached stati	c level, hydrosta	atic pressures, bott		
		otain Geophysical Data a or newer AND an image		gs must be ema	ailed to kcc-well-lo	gs@kcc.ks.go	v. Digital electronic log
Drill Stem Tests Taker (Attach Additional S		Yes No		_	on (Top), Depth an		Sample
Samples Sent to Geo	logical Survey	Yes No	Nam	e		Тор	Datum
Cores Taken Electric Log Run		Yes No					
List All E. Logs Run:							
		CASING	RECORD Ne	ew Used			
		Report all strings set-	conductor, surface, inte	ermediate, product	ion, etc.		
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
	Donth		. CEMENTING / SQL	JEEZE RECORD			
Purpose:  Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Top Bottom	Type of Cement	# Sacks Used	s Used Type and Percent Additives			
	ulic fracturing treatment o	n this well?		Yes	No (If No, ski	p questions 2 aı	nd 3)
Does the volume of the to	otal base fluid of the hydr	aulic fracturing treatment ex submitted to the chemical	_	= :	No (If No, ski	p questions 2 at p question 3) out Page Three	
Shots Per Foot	PERFORATION Specify For	N RECORD - Bridge Plug ootage of Each Interval Per	s Set/Type forated		cture, Shot, Cement mount and Kind of Ma		d Depth
				,			
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:	Yes No		
Date of First, Resumed	Production, SWD or ENH	IR. Producing Meth		Gas Lift (	Other (Explain)		
Estimated Production Per 24 Hours	Oil B	bls. Gas	Mcf Wate	er B	bbls. G	as-Oil Ratio	Gravity
DISPOSITIO	ON OF GAS:	Open Hole		Comp. Con	mmingled	PRODUCTIO	ON INTERVAL:
(If vented, Sul	bmit ACO-18.)	Other (Specify)	(Submit )	400-5) (Sub	omit ACO-4)		

Form	ACO1 - Well Completion			
Operator	Chieftain Oil Co., Inc.			
Well Name	Rathgeber 4			
Doc ID	1213665			

### All Electric Logs Run

Geologist Log
Borehole Volume Caliper Log
Sonic Cement Bond Log
Composite Log

Form	ACO1 - Well Completion		
Operator	Chieftain Oil Co., Inc.		
Well Name	Rathgeber 4		
Doc ID	1213665		

### Tops

Name	Тор	Datum
Heebner	3816	-2412
Lansing	4355	-2951
Cherokee	4730	-3326
Mississippian	4796	-3392
Kinderhook	4944	-3540
Viola	5194	-3790
Simpson	5296	-3892
Simpson Sand	5322	-3913
Arbuckle	5500	-4096
Total Depth	5553	-4149

Form	ACO1 - Well Completion			
Operator	Chieftain Oil Co., Inc.			
Well Name	Rathgeber 4			
Doc ID	1213665			

### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight		Type Of Cement		Type and Percent Additives
Surface	17.5	13.375	48	326	Class A Common	300	2% Salt
Production	7.875	5.5	15.5	5550			Gas Block 2% Salt

### HYDRAULIC FRACTURING FLUID PRODUCT COMPONENT INFORMATION DISCLOSURE

Fracture Date:	6/20/2014	
County:		
	Chieftain Oil Company	
Well Name and Number:	Rathgeber #4	
Total Base Fluid Volume (gal)*:	462300	

Hydraulic Fracturing Fluid Composition:

				Chemical	Maximum	Maximum
		1		Abstract	Ingredient	Ingredient
	Complier	Purpose	Ingredients	Service	Concentration	Concentration
Trade Name	Supplier	Purpose	ingredients	Number	in Additive	in HF Fluid
				(CAS#)	(% by mass)**	(% by mass)**
Discovering OF 7	Chemplex	Friction Reducer	Petroleum Hydrotreated Light Distillate	64742-47-8	20%	0.0185075%
Plexslick 957 Plexsurf 580 ME	Chemplex	Product Stabalizer	Methyl Alcohol	67-56-1	10%	0.0023400%
Plexsurf 580 ME	Chemplex	Product Stabalizer	2-Butoxyethanol	111-76-2	50%	0.0117000%
	Chemplex	Clay Stabalizer	No hazardous ingredient	N/A	0%	0.0000000%
Claymax Plexcide B7	Chemplex	Biocide	Sodium Hydroxide	1310-73-2	5%	0.0208333%
	Chemplex	Biocide	Alkaline Bromide Salts	N/A	0%	0.0000000%
Plexcide B7	Chemplex	Breaker/Slickwater	Hydrogen Peroxide	7722-84-1	7%	0.0014104%
Plexgel Breaker XPA	Chemplex	Activator	Methanol	67-56-1	50%	0.0746269%
Plexset 730	Chemplex	Activator	Alcohol Ethoxylates	Mixture	60%	0.0895522%
Plexset 730	Uniman	Propant	Crystalline Silica in the form of Quartz	14808-60-7	60%	29.5%
Frac Sand	Chemplex	Gelling Agent	Hydrocarbons	68476-34-6	100%	0.5000000%
Plexgel 907L-EB	Chemplex	Breaker/Gel	No Hazardous Ingredient	N/A	0%	0.0000000%
Plexgel Breaker 10L	Chemplex	DI Eakel/Gel	No mazardous migrediene			
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PO Box 93999 Southlake, TX 76092

Voice:

(817) 546-7282

Fax:

(817) 246-3361

### BIIITos

Chieftain Oil Company Inc.

P O Box 124

Kiowa, KS 67070-0124



Invoice Number: 143555

Invoice Date: May 27, 2014

Page:

1



@ustomer(D	Field Welself	Paymen	granda (
Chieft	62393	Net 30	Days
Top frostilan	<b>്ട്രണ്ടി</b> വര്യാ	Service Date	Due Date
KS1-01	Medicine Lodge	May 27, 2014	6/26/14

Quantity	liem .	· · · · · · · · · · · · · · · · · · ·	Description	Unii: Price	Amount
1.00	WELL NAME	Rathgeber #4			· · · ·
180.00	CEMENT MATERIALS	Class A Common		17.90	3,222.00
120.00	CEMENT MATERIALS	Pozmix		9.35	1,122.00
5.00	CEMENT MATERIALS	Gel		23.40	117.00
10.00	CEMENT MATERIALS	Chloride		64.00	640.00
75.00	CEMENT MATERIALS	Flo Seal		2.97	222.75
335.30	CEMENT SERVICE	Cubic Feet Charge		2.48	831.54
271.65	CEMENT SERVICE	Ton Mileage Charge		2.60	706.29
1.00	CEMENT SERVICE	Surface		1,512.75	1,512.75
20.00	CEMENT SERVICE	Light Vehicle Mileage		4.40	88.00
20.00	CEMENT SERVICE	Pump Truck Mileage		7.70	154.00
1.00	CEMENT SUPERVISOR	Jason Thimesch			
1.00	CEMENT SUPERVISOR	Jake Heard			
1.00	OPERATOR ASSISTANT	Kenneth Jack			
		Subtotal			0.616.22

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF



ONLY IF PAID ON OR BEFORE Jun 26, 2014

Subtotal	8,616.33
Sales Tax	380.65
Total Invoice Amount	8,996.98
Payment/Credit Applied	
TOTAL	899998



## ALLIED OIL & GAS SERVICES, LLC 062393

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999 SOUTHLAKE, TEXAS 76092 SERVICE POINT:
Medicine Lodge KS

DATE 5/27/14	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE Rathseler	1	4 .				COUNTY	STATE
OLD OR NEWYCI		J`	North of rig	jet, 74 Nort	h, East into	Berber	1 K2
			Warth of rig		- 1 0 6	 nd	
CONTRACTOR TYPE OF JOB -S.	tassil #	<del>?</del> <b>\</b>		OWNER (	hieftain C	ર્શા	
HOLE SIZE 17		TD	326	_ CEMENT			
CASING SIZE 13			<u> 320</u> тн 3 <i>1</i> 1		RDERED 300	2 50:40	306mt
TUBING SIZE	- 4	DEF		- 2% Gel	'A" Floren	232,00- 10	<u> </u>
DRILL PIPE		DEF	ТН				
TOOL	<del>, </del>	DEF	TH	_	1	_	
PRES. MAX 200	<u> </u>		IIMUM		Class A 180		3222.00
MEAS. LINE			DE JOINT	_ POZMIX _		<u>sx</u> @ <u>9.25</u>	1122,00
CEMENT LEFT IN	ICSG. 2	910		_ GEL _		× @23.46	117.00
PERFS.	41 / 00	1	1/ 0	_ CHLORIDE		L_@ <u>64.00</u>	<u>640.00</u>
DISPLACEMENT			H <sub>2</sub> O	_ ASC Floseal		@	222.75
	EQU	IPMENT		Flosegi	15	<u>المن @ 2.97</u> @	
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	HELPER	Deke	Heard		BYMIT!	@	-
BULK TRUCK		1.	~ I			@	
	DRIVER	Ken	Jeck	_		@	
BULK TRUCK	DRIVER					@	_
#	DRIVER	<del></del> .		- HANDLING	Ī	@	
				<del>MILEAG</del> E _		-	-
	REM	1ARKS:		1364.17	26%	TOTAL	L <u>5323.15</u>
		·		_			
			· · · · · · · · · · · · · · · · · · ·	_	SER	VICE	
***		*		DEPTH OF	IOD 7.11		
				_ DEPTH OF I	CK CHARGE		1512.75
		·			TAGE LV 20	- @4.46	88.00
				_ MILEAGE		<del>5.</del> @ <del>7.</del> 70	<u>(54.00</u>
		· · · · · · · · · · · · · · · · · · ·		-		@	
				- MANIFOLD Handling	335.3	@ 2.48	83154
	_			Mileage 2	71.65	@ <u>2.60</u>	706.29
CHARGE TO:	Chiefb.	eia Oil		- 1001 -	أسرج		<u> </u>
STREET				_B260 B	7. ā606	TOTAL	32925
			· · · · · · · · · · · · · · · · · · ·	_			
CITY	STA	TE	ZIP	_	PLUG & FLO	AT EQUIPME	NT
				NA		-	
						@	
To: Allied Oil & O	Gas Servic	es. LLC.			•	@	
You are hereby re			enting equipment	***************************************	1	@	
and furnish cemer						@	
		-	e above work was				
done to satisfaction						TOTAI	
			d the "GENERAL				
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				TOTAL CUA	RGES_ EG	Ja 32	
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PO Box 93999 Southlake, TX 76092

Voice:

(817) 546-7282

Fax:

(817) 246-3361

Bill To:

Chieftain Oil Company Inc.

P O Box 124

Kiowa, KS 67070-0124



Invoice Number: 143700

Invoice Date: Jun 5, 2014

Page: 1



Customer ID	Field Ticket#	Payment Terms	
Chieft 62398		Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Medicine Lodge	Jun 5, 2014	7/5/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Rathgeber #4		
50.00	CEMENT MATERIALS	60/40/4 Blend No Charge		
40.00	CEMENT MATERIALS	60/40/4 Blend	18.92	756.80
200.00	CEMENT MATERIALS	ASC Class A	23.50	4,700.00
1,000.00	CEMENT MATERIALS	Kol Seal	0.98	980.00
56.40	CEMENT MATERIALS	FL-160	18.90	1,065.96
28.00	CEMENT MATERIALS	Defoamer	4.85	135.80
13.50	CEMENT MATERIALS	Cla Pro	34.40	464.40
352.50	CEMENT SERVICE	Cubic Feet Charge	2.48	874.20
304.32	CEMENT SERVICE	Ton Mileage Charge	2.75	836.88
1.00	CEMENT SERVICE	Production Casing	3,099.25	3,099.25
20.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	88.00
20.00	CEMENT SERVICE	Pump Truck Mileage	7.70	154.00
1.00	CEMENT SERVICE	Manifold Head Rental	275.00	275.00
1.00	EQUIPMENT SALES	5-1/2 AFU Float Shoe	545.00	545.00
1.00	EQUIPMENT SALES	5-1/2 Latch Down Plug	660.00	660.00
7.00	EQUIPMENT SALES	5-1/2 Centralizer	57.00	399.00
2.00	EQUIPMENT SALES	5-1/2 Basket	395.00	790.00
1.00	CEMENT SUPERVISOR	Jason Thimesch		
1.00	CEMENT SUPERVISOR	Ron Gilley		
1.00	OPERATOR ASSISTANT	Carl Sparks		
			<u></u>	

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 5,222.03

ONLY IF PAID ON OR BEFORE

Jul 5, 2014

TOTAL	16,574.82
Payment/Credit Applied	
Total Invoice Amount	16,574.82
Sales Tax	750.53
Subtotal	15,824.29



# ALLIED OIL & GAS SERVICES, LLC 062398 Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999 SOUTHLAKE, TEXAS 76092	SERVICE POINT:  Medicine Lodo
DATE 6-5-14 SEC. TWP. RANGE 355 11 W)	CALLED OUT ON LOCATION JOB START JOB FINISH  5:50 8:00 1700 Non 130 PM
LEASE Rathoper WELL# 4 LOCATION 2819	Kiowa Int. 14N Els Burber Ks
OLD OR NEW (Circle one)	MIOWA ST. 74 N, ES BURBER   RS
_	
CONTRACTOR FOSSII Drilling	OWNER Chefitan Dil
TYPE OF JOB Production	CELATIVE
HOLE SIZE 7 1/2 T.D. 55/8 CASING SIZE 5 1/2 DEPTH 55 85	CEMENT
TUBING SIZE DEPTH	AMOUNT ORDERED 90 SX 60 40 4 92 ge ) 200 SX 4" ASC +5 # Kol Scul +3 70
DRILL PIPE DEPTH	FI-10+ Defomer, 13Gal KCL
TOOL DEPTH	1. TOUT WEED IN ET JISIES CHEE
PRES. MAX 2000 MINIMUM	60:40:4 50 su Rat+mouse @ 18.92 N/C
MEAS. LINE SHOE JOINT 24	Scavenger 40 sx 60:40:4 @ 18.92 756 80
CEMENT LEFT IN CSG. 24'	GEL@
PERFS.	CHLORIDE@
DISPLACEMENT 1334 BBL 2%KCL 120	ASC Class A 2000x @ 27.50 4700.00
EQUIPMENT	Kolseal 1000 -98 980.00 F1-160 56.4 18.90 1065.96
	71-160 56.4 18.90 1065.96 Defoamer 28# 4.85 135.80
PUMPTRUCK CEMENTER Sason Thinich	Clapro 13 1/2 6als 34.40 464.40
#558-54SHELPER Ron Giller	•
BULK TRUCK	· @
#381-252 DRIVER Our \ Sparks	
BULK TRUCK	@
# DRIVER	HANDLING @
	MILEAGE
REMARKS:	33%= 2673.97 TOTAL 8/02.96
Held tailcate meeting	Son done
Plug Rat & Mouse 505 60:40:420	SERVICE
Ran 40xx Scavenger	/E/
Ran 2005x ASC Coment	DEPTH OF JOB 5585
Stop wash pumpahines	PUMP TRUCK CHARGE 3099.25
Keleaseplug Start Displacemen	1 EXTRA FOOTAGE LV 201: @ 4,40 88.00
Slow Q'10866 left to 3BPM	MILEAGE 2001 @ 7.70 154.00
Bump Alug 700# over Release Float Did Hold	MANIFOLD altered @ 275.00
Release Float Did Hold	Heading 352.5 cuft @ 2.48 874.20
41 0	Draying 15-21/20 @ 2.75 836.90
CHARGE TO: Cheifton Oil	33%= 1758-02
STREET	TOTAL 5327.35
	,
CITYSTATEZIP	5/2 PLUG & FLOAT EQUIPMENT
·	-,-
	1-AFU float shoe @ 545.00 545.00
	1-hatch Dawn Aluc @ 660.00 660.00
To: Allied Oil & Gas Services, LLC.	7-Centra izers @ 57.60 399.00
You are hereby requested to rent cementing equipment	2-Baskets @ 395.00 790.00
and furnish cementer and helper(s) to assist owner or	<u> </u>
contractor to do work as is listed. The above work was	33% = 790.02
done to satisfaction and supervision of owner agent or	TOTAL 2394.00
contractor. I have read and understand the "GENERAL	· · · · · · · · · · · · · · · · · · ·
TERMS AND CONDITIONS" listed on the reverse side.	SALES TAX (If Any)
	TOTAL CHARGES <u>15, 824.31</u>
V 11.1 V.1 1	
PRINTED NAME X /XON Faleigh	DISCOUNT IF PAID IN 30 DAYS Net 10,602.28
i no	- Net 10,602.28
SIGNATURE X	



### DRILL STEM TEST REPORT

Chieftain Oil Company, Inc.

101 S 5th St.

P.O. Box 124

Kiow a, Ks. 67070 ATTN: Arden Ratzlaff 6-35s-11w Barber Co. Ks.

Rathgeber #4

Job Ticket: 54179

DST#: 1

Test Start: 2014.06.02 @ 18:43:20

### GENERAL INFORMATION:

Formation: Misener

Deviated: No Whipstock: 0.00 ft (KB) Test Type: Conventional Bottom Hole (Initial)

Time Tool Opened: 21:59:05 Tester: Matt Smith
Time Test Ended: 03:49:35 Unit No: 53

Interval: 5142.00 ft (KB) To 5166.00 ft (KB) (TVD)

Total Depth: 5166.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1404.00 ft (KB)

1392.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6773 Outside

Press@RunDepth: 95.49 psig @ 5143.00 ft (KB) Capacity: 8000.00 psig

 Start Date:
 2014.06.02
 End Date:
 2014.06.03
 Last Calib.:
 2014.06.03

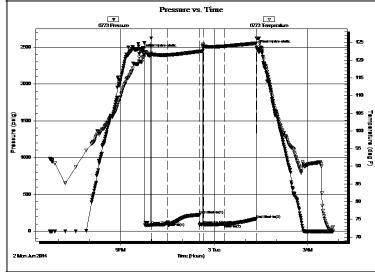
 Start Time:
 18:43:25
 End Time:
 03:49:35
 Time On Btm:
 2014.06.02 @ 21:41:50

 Time Off Btm:
 2014.06.03 @ 01:21:50

TEST COMMENT: IF: Weak blow . Surf., DEad after 9 mins. Flushed.

ISI: No blow.

FF: No blow . Flushed. FSI: No blow .



Ī	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	2443.69	120.51	Initial Hydro-static
	18	83.67	121.38	Open To Flow (1)
	50	120.90	121.47	Shut-In(1)
.	110	223.70	122.47	End Shut-In(1)
	118	91.73	123.90	Open To Flow (2)
	158	95.49	123.95	Shut-In(2)
	219	166.60	124.79	End Shut-In(2)
1	220	2496.94	126.18	Final Hydro-static

Cac Datas

PRESSURE SUMMARY

#### Recovery

Length (ft)	Description	Volume (bbl)
180.00	DRLG Mud w / trace oil 100%m	0.89

Oas Nai	.03	
Choko (inchos)	Proceuro (peig)	Gas Pato (Mof/d)

Trilobite Testing, Inc Ref. No: 54179 Printed: 2014.06.03 @ 06:50:07



### DRILL STEM TEST REPORT

**FLUID SUMMARY** 

DST#: 1

Chieftain Oil Company, Inc.

6-35s-11w Barber Co. Ks.

101 S 5th St. P.O. Box 124

Job Ticket: 54179 Kiow a, Ks. 67070

Test Start: 2014.06.02 @ 18:43:20

Rathgeber #4

**Mud and Cushion Information** 

Mud Type: Gel Chem Cushion Type: Oil API: deg API

Mud Weight: Cushion Length: 9.00 lb/gal ft Water Salinity: 5700 ppm

Viscosity: 44.00 sec/qt Cushion Volume: bbl

Water Loss: 8.99 in<sup>3</sup> Gas Cushion Type:

Resistivity: 0.00 ohm.m Gas Cushion Pressure: psig

Salinity: 5700.00 ppm Filter Cake: 0.20 inches

### **Recovery Information**

### Recovery Table

Length ft	Description	Volume bbl
180.00	DRLG Mud w / trace oil 100%m	0.885

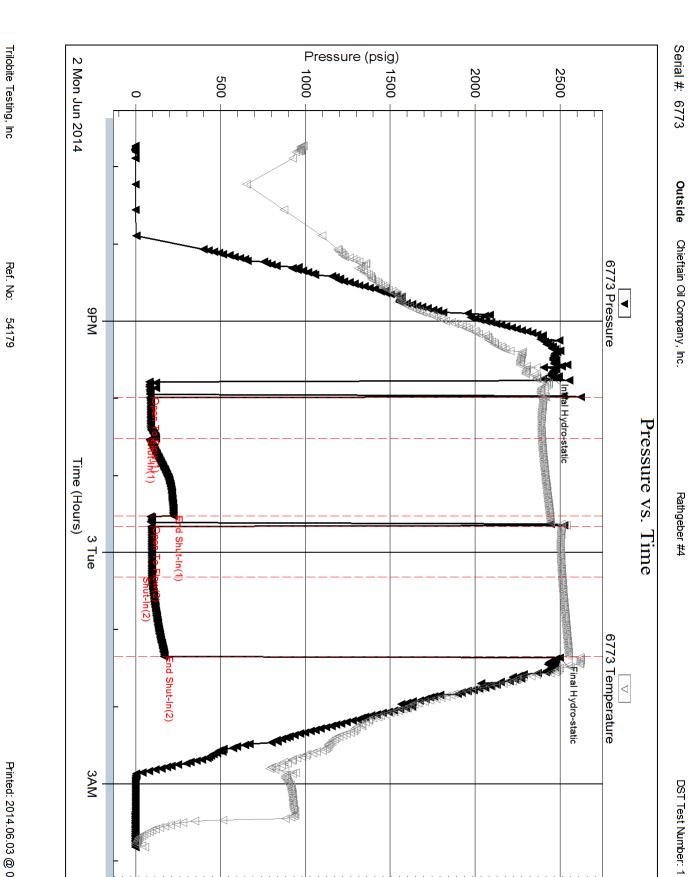
Total Length: 180.00 ft Total Volume: 0.885 bbl

Num Fluid Samples: 0 Num Gas Bombs: Serial #: none 0

Laboratory Name: Laboratory Location:

Recovery Comments:

Trilobite Testing, Inc Ref. No: 54179 Printed: 2014.06.03 @ 06:50:08



Temperature (deg F)