

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1335594
OIL & GAS CONSERVATION DIVISION

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

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: _____

1335594

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Sandlin Oil Corporation
Well Name	PAUL MCRAE 1
Doc ID	1335594

Tops

Name	Top	Datum
ANHYDRITE	1430	+736
TOPEKA	3156	-990
HEEBNER SHALE	3388	-1222
TORONTO	3409	-1243
LKC	3437	-1271
BKC	3658	-1492
ARBUCKLE	3692	-1526
RTD	3750	-1584
LTD	3752	-1586

OPERATOR

Company: SANDLIN OIL CORPORATION
 Address: 621 17TH ST, STE. 2055
 DENVER, CO 80293-2001

Contact Geologist: KATHIE SANDLIN
 Contact Phone Nbr: 303-292-3313
 Well Name: PAUL MCRAE # 1
 Location: NW NE SE NW, SEC.27-T12S-R18W
 API: 15-051-26,862-00-00
 Pool:
 State: KANSAS

Field: BEMIS-SHUTTS
 Country: USA



Scale 1:240 Imperial

Well Name: PAUL MCRAE # 1
 Surface Location: NW NE SE NW, SEC.27-T12S-R18W
 Bottom Location:
 API: 15-051-26,862-00-00
 License Number: 6677
 Spud Date: 2/8/2017 Time: 6:00 PM
 Region: ELLIS COUNTY
 Drilling Completed: 2/14/2017 Time: 2:07 AM
 Surface Coordinates: 1555' FNL & 2300' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 2160.00ft
 K.B. Elevation: 2166.00ft
 Logged Interval: 3000.00ft To: 3752.00ft
 Total Depth: 3750.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.3080127
 Latitude: 38.9826829
 N/S Co-ord: 1555' FNL
 E/W Co-ord: 2300' FWL

LOGGED BY

Company: SOLUTIONS CONSULTING, INC.
 Address: 108 W 35TH
 HAYS, KS 67601

Phone Nbr: (785) 639-1337
 Logged By: GEOLOGIST

Name: HERB DEINES

CONTRACTOR

Contractor: ROYAL DRILLING, INC.
 Rig #: 1
 Rig Type: MUD ROTARY
 Spud Date: 2/8/2017 Time: 6:00 PM
 TD Date: 2/14/2017 Time: 2:07 AM
 Rig Release: 2/14/2017 Time: 11:45 PM

ELEVATIONS

K.B. Elevation: 2166.00ft
 K.B. to Ground: 6.00ft

Ground Elevation: 2160.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON LOW STRUCTURE AND NEGATIVE RESULTS OF TWO DSTS.

OPEN HOLE LOGGING BY ELI: DUAL INDUCTION LOG, COMPENSATED DENSITY/NEUTRON LOG AND MICRO LOG.

DRILL STEM TESTING BY TRILOBITE TESTING, INC: ONE (1) CONVENTIONAL TEST AND ONE (1) STRADDLE TEST.

PAUL MCRAE #1	WERTH ETAL #1	JOY # 1
NW NE SE NW	SW SW SW SE	SW NW SE NE
SEC.27-12S-18W	SEC.22-12-18W	SEC.27-12-18W
2160'GL 2166'KB	KB 2165'	KB 2151'

<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1430 +736	+ 743	+ 743
B-Anhydrite	1465 +701	+ 708	+707
Topeka	3156 -990	-973	-986
Heebner Sh.	3388-1222	-1204	-1215
Toronto	3409-1243	-1226	
LKC	3437-1271	-1249	-1263
BKC	3658-1492	-1479	-1499
Arbuckle	3692-1526	-1508	-1519
RTD	3750-1584	-1602	-1574

SUMMARY OF DAILY ACTIVITY

2-08-17 RU, set 8 5/8" surface casing to 213' w/ 150 sxs 80/20 POS 2%Gel 3%CC, plug down 1:00 AM 2-09-17, slope 1 degree

2-09-16 213', WOC, rig maintenance

2-10-17 1240', drilling

2-11-17 2475', drilling, displace 3000'

2-12-17 3146', CFS 3470', short trip, CCH, TOWB, DST # 1 3414'-3470' "C" zone LKC, slope ½ degree

2-13-17 3470', finish DST #1, TIWB, lost returns @ 3551' and restored returns with LCM, drilling, CFS 3696'

2-14-17 3750', RTD 2:07 AM at 3750', CCH, TOWB, logs, straddle DST # 2



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Sandlin Oil Corporation
621 17th st.
STE 2055
Denver Co 80293-2001
ATTN: Herb Deines ,Kathie

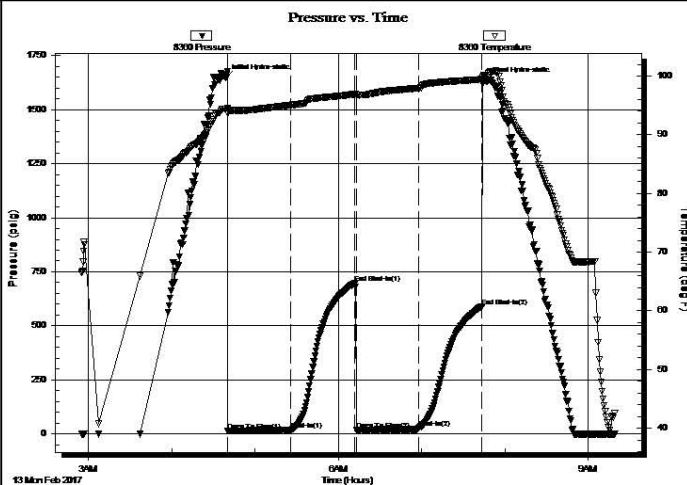
27-12s-18w Ellis
Paul McRae #1
Job Ticket: 64091 **DST#: 1**
Test Start: 2017.02.13 @ 02:55:14

GENERAL INFORMATION:

Formation: **LKC A-C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:40:24
Time Test Ended: 09:19:08
Test Type: Conventional Bottom Hole (Initial)
Tester: Ray Schwager
Unit No: 77
Interval: **3414.00 ft (KB) To 3470.00 ft (KB) (TVD)**
Reference Elevations: 2166.00 ft (KB)
Total Depth: 3470.00 ft (KB) (TVD) 2160.00 ft (CF)
Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 6.00 ft

Serial #: 8360 Inside
Press@RunDepth: 26.85 psig @ 3416.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.02.13 End Date: 2017.02.13 Last Calib.: 2017.02.13
Start Time: 02:55:14 End Time: 09:19:08 Time On Btm: 2017.02.13 @ 04:39:09
Time Off Btm: 2017.02.13 @ 07:46:53

TEST COMMENT: 45-IFP-w k bl thru-out 1/2"to 2"bl
45-ISIP-no bl
45-FFP-w k surface bl thru-out
45-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1645.37	94.42	Initial Hydro-static
2	12.92	93.69	Open To Flow (1)
47	17.75	95.06	Shut-In(1)
93	696.19	96.91	End Shut-In(1)
94	17.22	96.72	Open To Flow (2)
139	26.85	97.95	Shut-In(2)
185	589.05	99.44	End Shut-In(2)
188	1631.21	100.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	VSOCM 1/2%O99 1/2%M	0.35

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 64091

Printed: 2017.02.13 @ 09:37:22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sandlin Oil Corporation

27-12s-18w Ellis

621 17th st.
STE 2055
Denver Co 80293-2001
ATTN: Herb Deines ,Kathie

Paul McRae #1

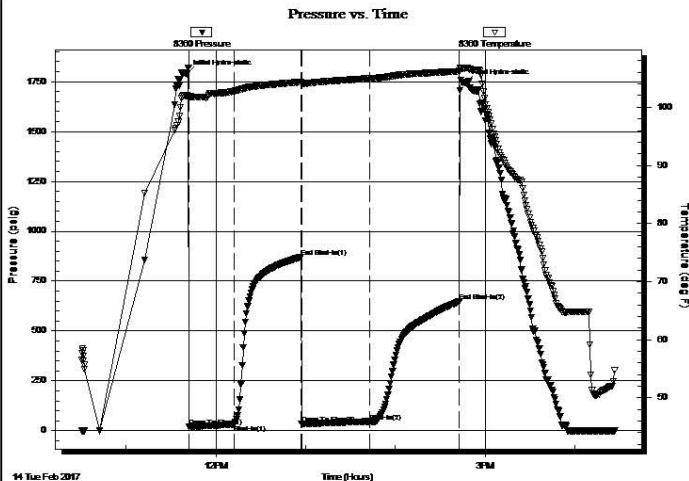
Job Ticket: 64092 **DST#: 2**
Test Start: 2017.02.14 @ 10:30:27

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:42:22
 Time Test Ended: 16:26:51
 Interval: **3656.00 ft (KB) To 3707.00 ft (KB) (TVD)**
 Total Depth: 3752.00 ft (KB) (TVD)
 Hole Diameter: 7.85 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2166.00 ft (KB)
 2160.00 ft (CF)
 KB to GR/CF: 6.00 ft

Serial #: 8360 **Inside**
 Press@RunDepth: 46.04 psig @ 3665.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.02.14 End Date: 2017.02.14 Last Calib.: 2017.02.14
 Start Time: 10:30:27 End Time: 16:26:51 Time On Btm: 2017.02.14 @ 11:40:37
 Time Off Btm: 2017.02.14 @ 14:47:06

TEST COMMENT: 30-IFP-w k to a fr bl 1/2"to 5"bl
 45-ISIP-no bl for approx 35 min then got surface bl
 45-FFP-w k bl thru-out 1/2" to 2 1/4"bl
 60-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.71	101.99	Initial Hydro-static
2	19.39	101.67	Open To Flow (1)
32	31.91	102.77	Shut-In(1)
77	871.62	104.33	End Shut-In(1)
77	34.57	104.00	Open To Flow (2)
123	46.04	104.96	Shut-In(2)
183	647.06	106.20	End Shut-In(2)
187	1741.63	106.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	CO	0.56
40.00	HOCM 25%O75%M	0.56

Gas Rates

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

* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 64092

Printed: 2017.02.14 @ 16:55:20

ROCK TYPES

- Dolprim
- Lmst fw<7
- Lmst fw7>
- Lscongl
- shale, grn
- shale, gry
- Carbon Sh
- shale, red

ACCESSORIES

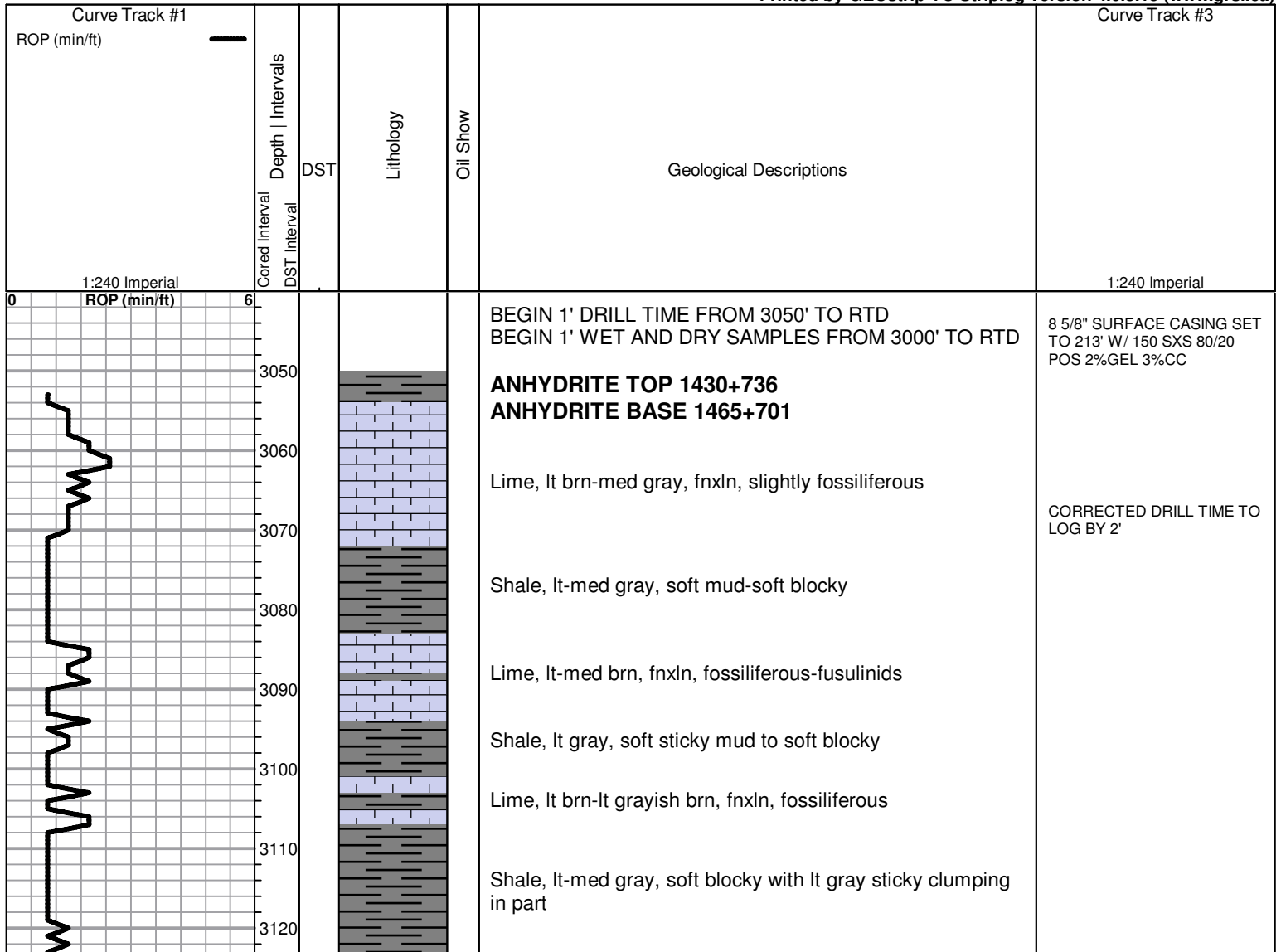
MINERAL

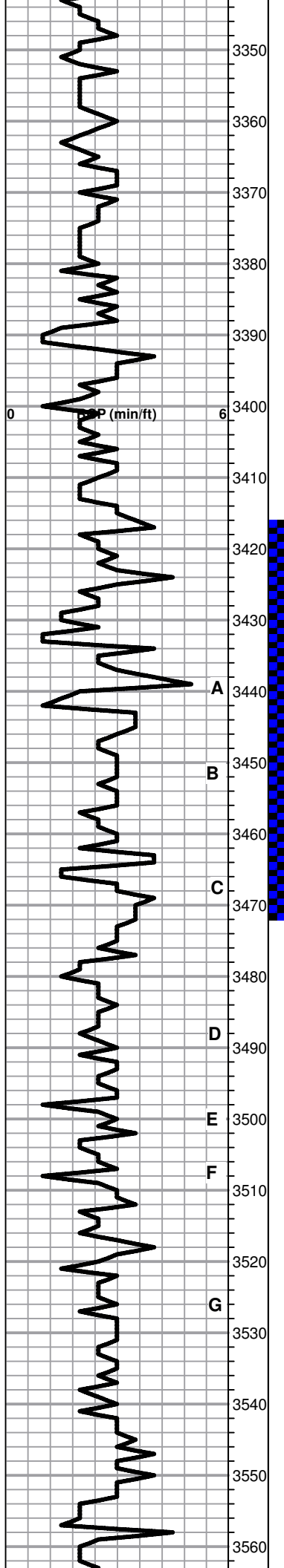
- ▲ Chert, dark
- P Pyrite
- △ Chert White

FOSSIL

- F Fossils < 20%
- 🦠 Oomoldic

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





Lime, crm-lt brn, fnxln with chalky soft lime in part

Lime, crm-lt brn, fnxln with bedded chalk and soft chalky lime in part

Lime, offwhite-crm-lt brn, fnxln with scattered fossils

Lime, crm-lt brn, fnxln with chalky lime in part

HEEBNER SHALE 3388-1222

Shale, black carbonaceous, fissile, blocky
Lime, lt brn, micro xln

Shale, lt green, soft blocky

TORONTO 3409-1243

Lime, white-crm, fnxln-granular, NS, no staining, no wet cut

Lime, crm-lt brn, fn-vfxln

Shale, reddish brn, soft-firm blocky

LKC 3437-1271

Lime, lt brn, microxln

Lime, crm-lt brn, fn-micro xln, slightly fossiliferous

Lime, lt-med brn, fn-micro xln

Lime, tan-lt brn, fnxln with zone of oomoldic and oolitic lime, scattered to saturated stain, very lt odor, NFO, fair wet cut

Lime, lt-med brn, fn-micro xln

Lime, crm-tan, fnxln, slight bedded chalk, NS

Shale, black carbonaceous, blocky
Lime, lt brn, fn-micro xln

Lime, crm-tan, slightly fossiliferous, few chips with spotty staining, NFO or odor, poorly developed

Lime, crm-lt brn, fnxln with bedded chalk with sticky chalk in part

Lime, crm-lt brn, fn-micro xln, moderate bedded chalk

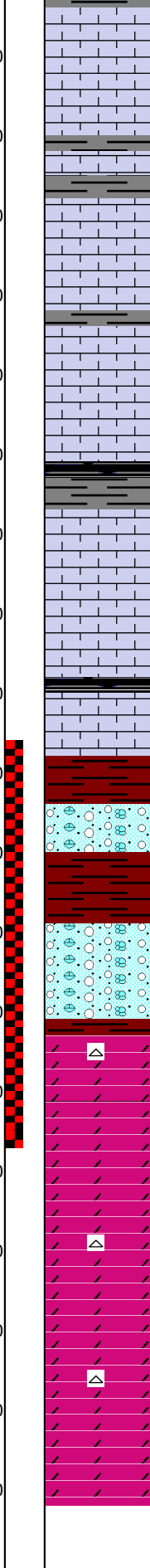
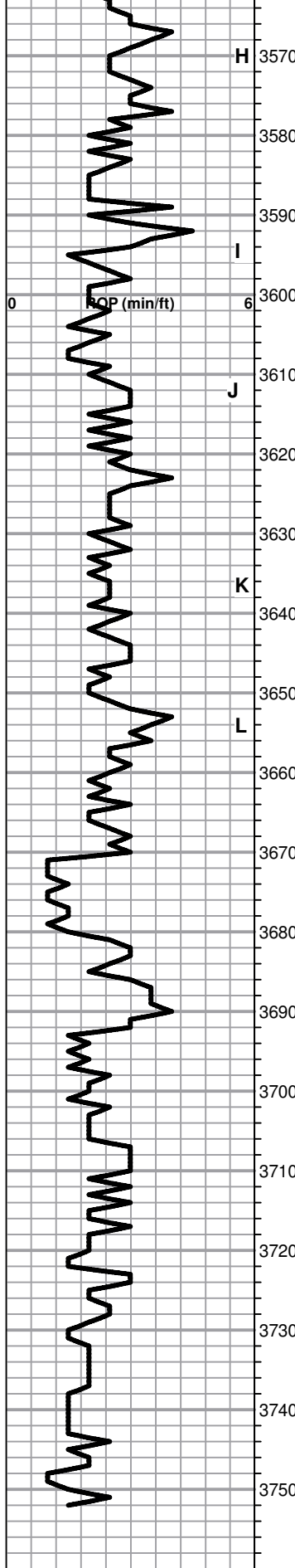
Lime, crm-lt brn, fn-micro xln

Shale, gray-black carbonaceous

DST # 1 3414' TO 3470'
CORRECTED DEPTH 3416' TO
3472' SEE HEADER FOR
TEST SUMMARY

SLOPE 1/2 DEGREE

LOST RETURNS-150 BBLs+
@3551' MIXED MUD AND
LCM TO CONTROL LOST
CIRCULATION AND GOT
RETURNS WITH SOME
CONTINUED LOSS OF FLUID



Lime, crm-lt brn, fn-micro xln, bedded chalk, NS

Lime, crm-lt brn, fn-micro xln

Shale, lt-med gray, firm blocky

Lime, lt brn, fn-micro xln, hard bedded chalk, NS

Lime, crm-lt brn, fn-vfxln

Lime, crm-lt brn, fn-micro xln, NS

Lime, crm-lt brn, fn-micro xln

Shale, med-dark gray-carbonaceous

○ Lime, lt brn, fnxln with few chips with fine pinpoint porosity, spotty staining, NFO or odor, poorly developed

Lime, crm-lt brn, fn-micro xln, slight bedded chalk

Shale, black carbonaceous, blocky
Lime, lt brn, fn-micro xln

BKC 3658-1492

Shale, reddish brn, soft blocky

Lime, lt grayish green, fnxln-granular, NS

Shale, reddish brn, soft blocky

Lime, clastic mix, fnxln, chalky with some sticky clumping, NS

ARBUCKLE 3692-1526

● Dolomite, crm-lt brn, fnxln, vuggy porosity with dark staining, fair odor and VMSFO

● Dolomite, lt brn, fnxln, decreasing odor and staining

Dolomite, crm-lt brn, fnxln-vuggy, lt sulfur odor

△ Dolomite, crm, fnxln-vuggy, lt sulfur odor, few chips of white oolitic chert, fresh, sharp

Dolomite, white-crm, fnxln

Dolomite, white-crm, fnxln with white sucrosic in part,

RTD 3750-1584 LTD 3752-1586

DST # 2 STRADDLE TEST
3656' TO 3707' SEE HEADER
FOR TEST SUMMARY

ZONE OF OIL SATURATION
WAS THIN AND THE
RESERVOIR HAD A
PERMEABILITY ISSUE WHICH
WAS CONFIRMED BY THE
PRESSURE LOSS ON THE
SECOND SHUT IN PRESSURE
OF DST # 2.



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sandlin Oil Corporation
 621 17th st.
 STE 2055
 Denver Co 80293-2001
 ATTN: Herb Deines ,Kathie

27-12s-18w Ellis
Paul McRae #1
 Job Ticket: 64091 **DST#: 1**
 Test Start: 2017.02.13 @ 02:55:14

GENERAL INFORMATION:

Formation: **LKC A-C**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:40:24
 Time Test Ended: 09:19:08
 Interval: **3414.00 ft (KB) To 3470.00 ft (KB) (TVD)**
 Total Depth: 3470.00 ft (KB) (TVD)
 Hole Diameter: 7.85 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2166.00 ft (KB)
 2160.00 ft (CF)
 KB to GR/CF: 6.00 ft

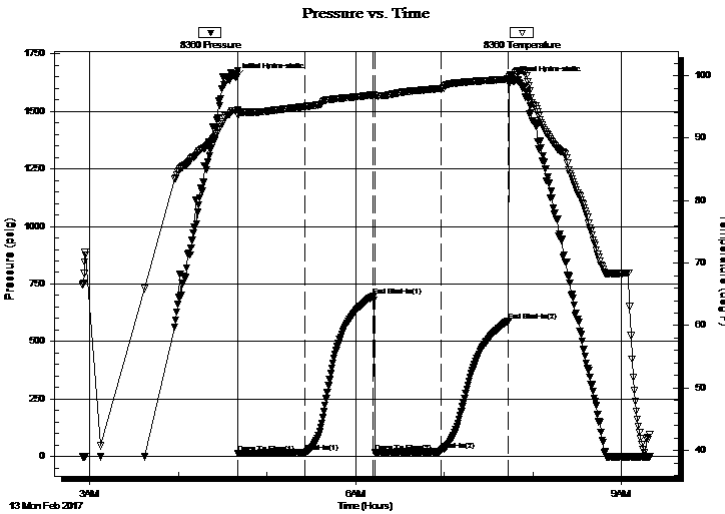
Serial #: 8360

Inside

Press@RunDepth: 26.85 psig @ 3416.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.02.13 End Date: 2017.02.13 Last Calib.: 2017.02.13
 Start Time: 02:55:14 End Time: 09:19:08 Time On Btm: 2017.02.13 @ 04:39:09
 Time Off Btm: 2017.02.13 @ 07:46:53

TEST COMMENT: 45-IFP-w k bl thru-out 1/2"to 2"bl
 45-ISIP-no bl
 45-FFP-w k surface bl thru-out
 45-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1645.37	94.42	Initial Hydro-static
2	12.92	93.69	Open To Flow (1)
47	17.75	95.06	Shut-In(1)
93	696.19	96.91	End Shut-In(1)
94	17.22	96.72	Open To Flow (2)
139	26.85	97.95	Shut-In(2)
185	589.05	99.44	End Shut-In(2)
188	1631.21	100.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	VSOCM 1/2%O99 1/2%M	0.35

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sandlin Oil Corporation

27-12s-18w Ellis

621 17th st.
STE 2055
Denver Co 80293-2001
ATTN: Herb Deines ,Kathie

Paul McRae #1

Job Ticket: 64091

DST#: 1

Test Start: 2017.02.13 @ 02:55:14

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 7.95 in³

Resistivity: ohm.m

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	VSOCM 1/2%O99 1/2%M	0.351

Total Length: 25.00 ft Total Volume: 0.351 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8360

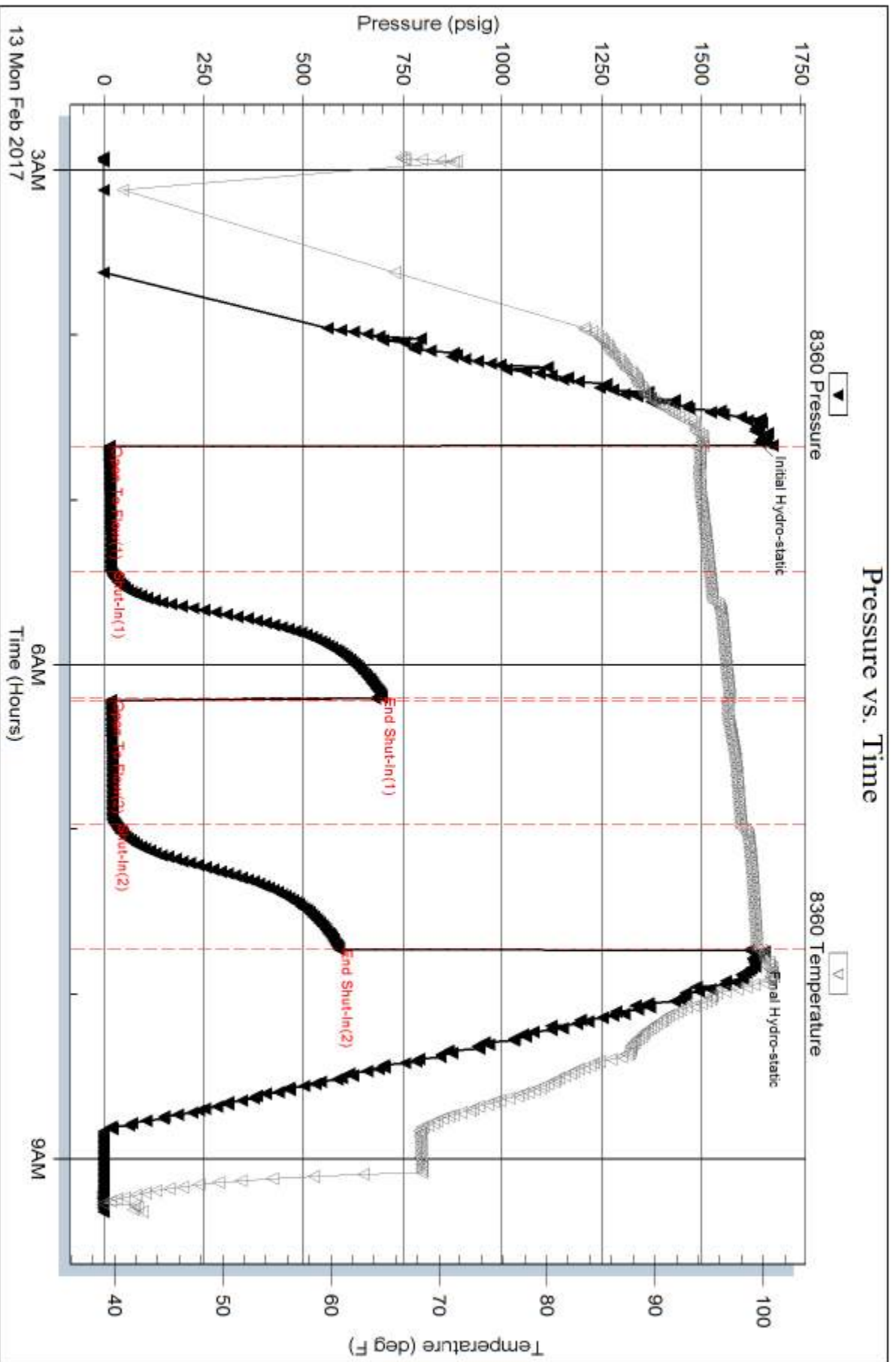
Inside

Sandlin Oil Corporation

Paul McRae #1

DST Test Number: 1

Pressure vs. Time



13 Mon Feb 2017

Tribble Testing, Inc

Ref. No: 64091

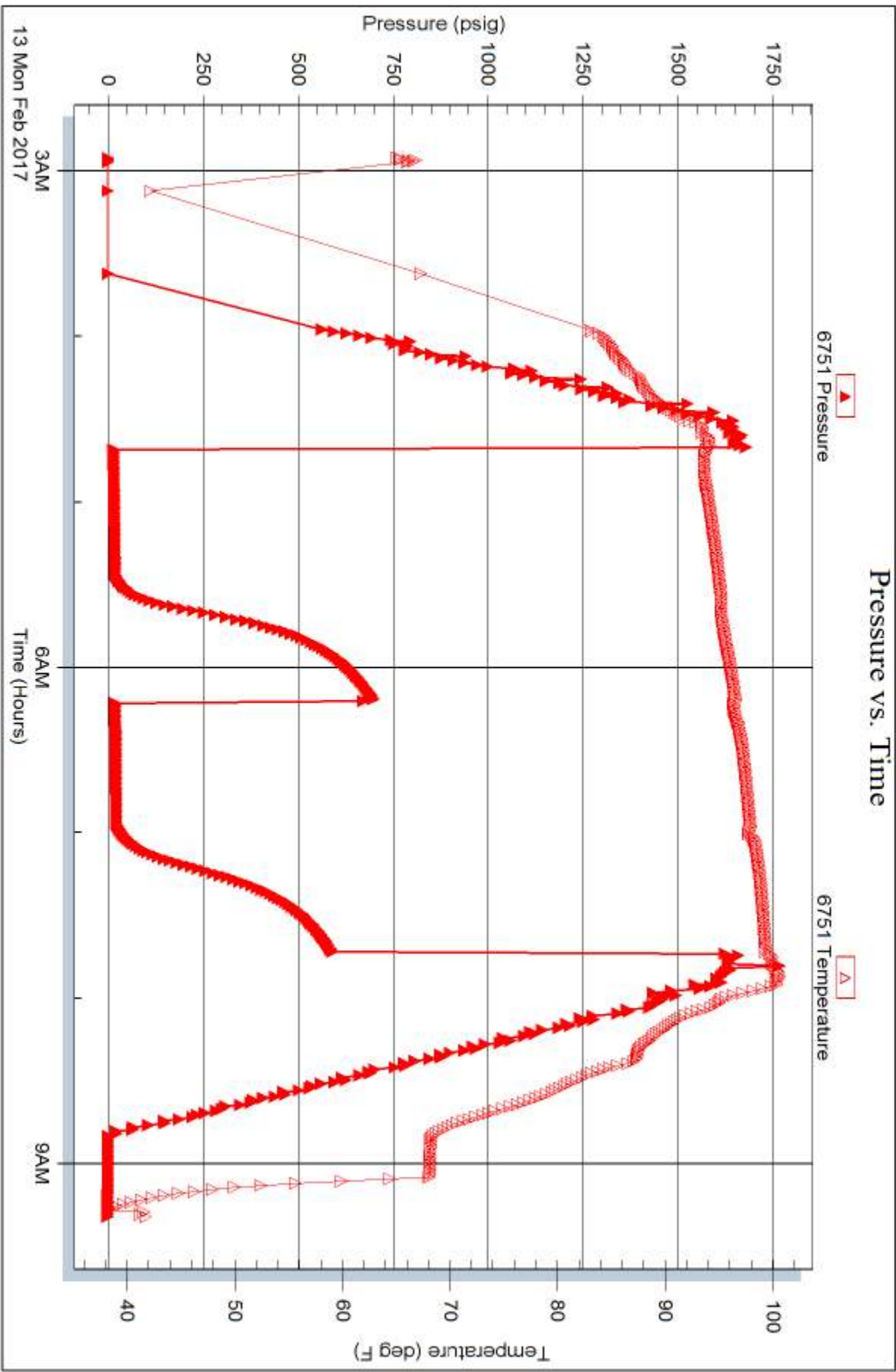
Printed: 2017.02.13 @ 09:37:22

Serial #: 6751

Outside Sandlin Oil Corporation

Paul McRae #1

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 64091

Printed: 2017.02.13 @ 09:37:22



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sandlin Oil Corporation
 621 17th st.
 STE 2055
 Denver Co 80293-2001
 ATTN: Herb Deines ,Kathie

27-12s-18w Ellis

Paul McRae #1

Job Ticket: 64092

DST#: 2

Test Start: 2017.02.14 @ 10:30:27

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:42:22
 Time Test Ended: 16:26:51
 Interval: **3656.00 ft (KB) To 3707.00 ft (KB) (TVD)**
 Total Depth: 3752.00 ft (KB) (TVD)
 Hole Diameter: 7.85 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2166.00 ft (KB)
 2160.00 ft (CF)
 KB to GR/CF: 6.00 ft

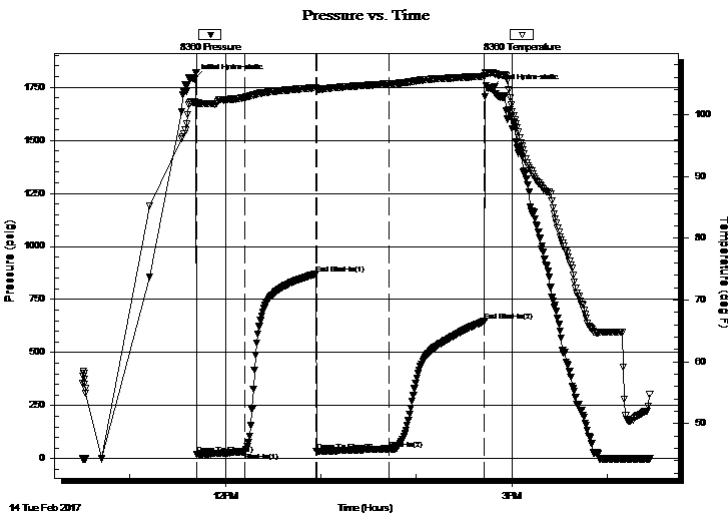
Serial #: 8360

Inside

Press@RunDepth: 46.04 psig @ 3665.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.02.14 End Date: 2017.02.14 Last Calib.: 2017.02.14
 Start Time: 10:30:27 End Time: 16:26:51 Time On Btm: 2017.02.14 @ 11:40:37
 Time Off Btm: 2017.02.14 @ 14:47:06

TEST COMMENT: 30-IFP-w k to a fr bl 1/2"to 5"bl
 45-ISIP-no bl for approx 35 min then got surface bl
 45-FFP-w k bl thru-out 1/2" to 2 1/4"bl
 60-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.71	101.99	Initial Hydro-static
2	19.39	101.67	Open To Flow (1)
32	31.91	102.77	Shut-In(1)
77	871.62	104.33	End Shut-In(1)
77	34.57	104.00	Open To Flow (2)
123	46.04	104.96	Shut-In(2)
183	647.06	106.20	End Shut-In(2)
187	1741.63	106.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	CO	0.56
40.00	HOCM 25% O75%M	0.56

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Sandlin Oil Corporation
621 17th st.
STE 2055
Denver Co 80293-2001
ATTN: Herb Deines ,Kathie

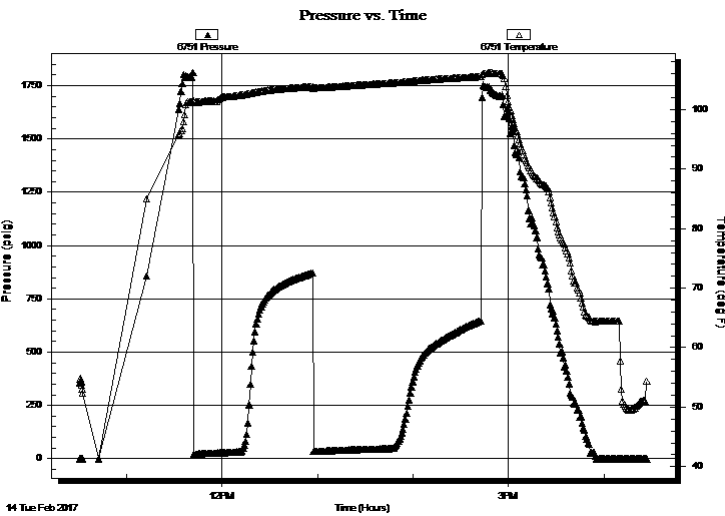
27-12s-18w Ellis
Paul McRae #1
Job Ticket: 64092 **DST#: 2**
Test Start: 2017.02.14 @ 10:30:27

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:42:22
Time Test Ended: 16:26:51
Interval: **3656.00 ft (KB) To 3707.00 ft (KB) (TVD)**
Total Depth: 3752.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair
Reference Elevations: 2166.00 ft (KB)
2160.00 ft (CF)
KB to GR/CF: 6.00 ft
Test Type: Conventional Straddle (Reset)
Tester: Ray Schwager
Unit No: 77

Serial #: 6751 **Outside**
Press@RunDepth: psig @ 3665.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.02.14 End Date: 2017.02.14 Last Calib.: 2017.02.14
Start Time: 10:30:35 End Time: 16:26:44 Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IFP-w k to a fr bl 1/2"to 5"bl
45-ISIP-no bl for approx 35 min then got surface bl
45-FFP-w k bl thru-out 1/2" to 2 1/4"bl
60-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
40.00	CO	0.56
40.00	HOCM 25% O75%M	0.56

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Sandlin Oil Corporation
621 17th st.
STE 2055
Denver Co 80293-2001
ATTN: Herb Deines ,Kathie

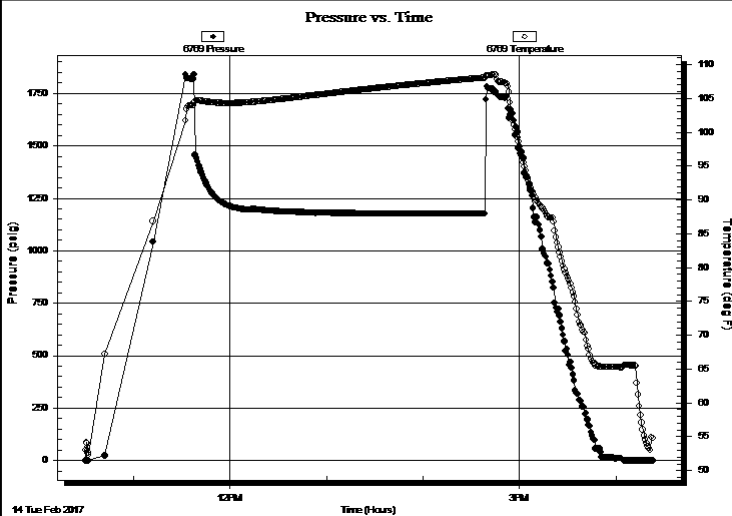
27-12s-18w Ellis
Paul McRae #1
Job Ticket: 64092 **DST#: 2**
Test Start: 2017.02.14 @ 10:30:27

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: (KB)
Time Tool Opened: 11:42:22
Time Test Ended: 16:26:51
Test Type: Conventional Straddle (Reset)
Tester: Ray Schwager
Unit No: 77
Interval: **3656.00 ft (KB) To 3707.00 ft (KB) (TVD)**
Reference Elevations: 2166.00 ft (KB)
Total Depth: 3752.00 ft (KB) (TVD) 2160.00 ft (CF)
Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 6.00 ft

Serial #: 6769 Below (Straddle)
Press@RunDepth: psig @ 3720.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.02.14 End Date: 2017.02.14 Last Calib.: 2017.02.14
Start Time: 10:30:21 End Time: 16:23:00 Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IFP-w k to a fr bl 1/2" to 5"bl
45-ISIP-no bl for approx 35 min then got surface bl
45-FFP-w k bl thru-out 1/2" to 2 1/4"bl
60-FSIP-no bl



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
40.00	CO	0.56
40.00	HOCM 25% O75%M	0.56

* Recovery from multiple tests

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sandlin Oil Corporation

27-12s-18w Ellis

621 17th st.
STE 2055
Denver Co 80293-2001
ATTN: Herb Deines ,Kathie

Paul McRae #1

Job Ticket: 64092

DST#: 2

Test Start: 2017.02.14 @ 10:30:27

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 58.00 sec/qt
Water Loss: 7.93 in³
Resistivity: ohm.m
Salinity: 4500.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 23 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	CO	0.561
40.00	HOCM 25% O75%M	0.561

Total Length: 80.00 ft Total Volume: 1.122 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

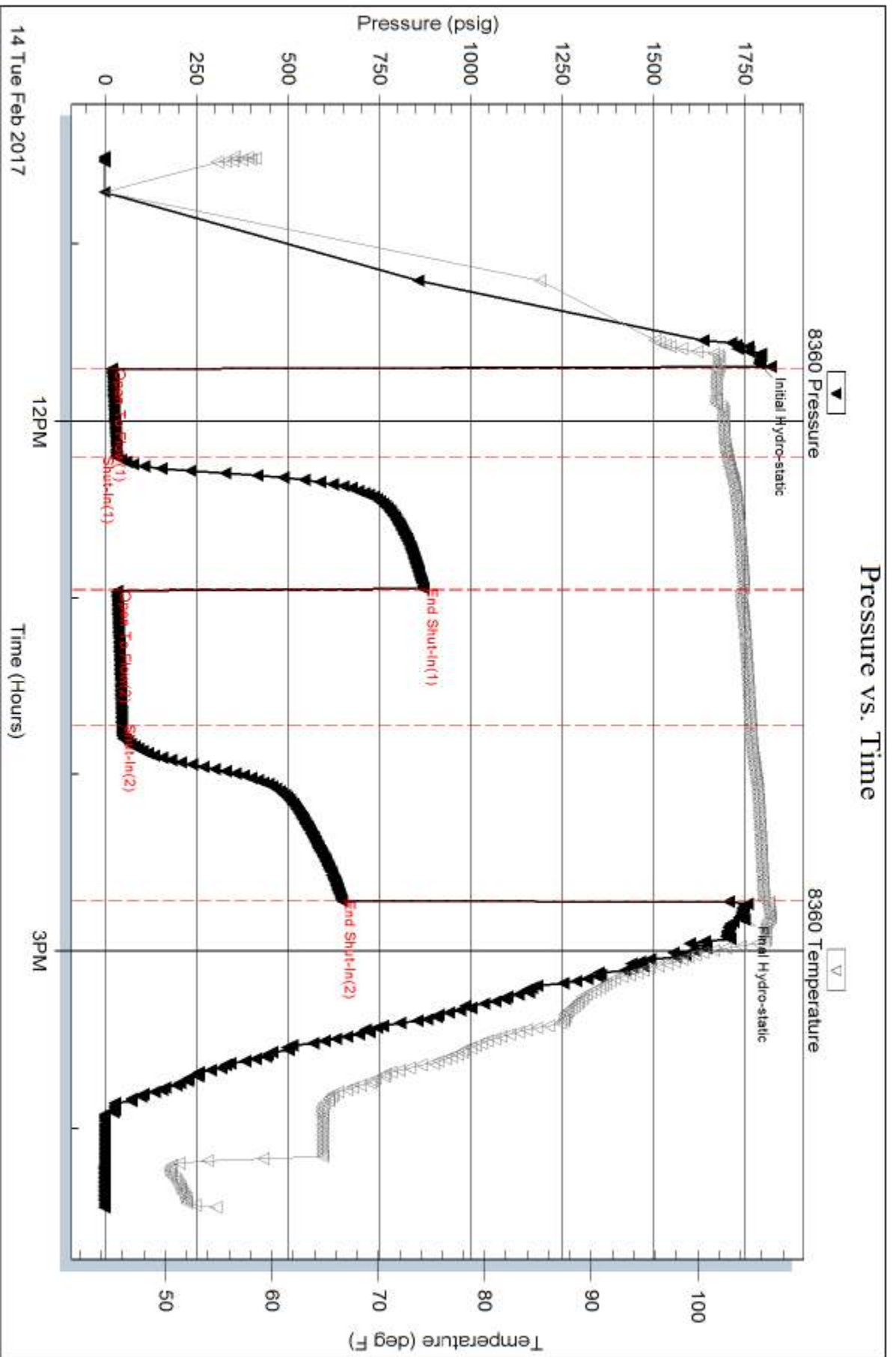
Serial #: 8360

Inside

Sandlin Oil Corporation

Paul McRae #1

DST Test Number: 2

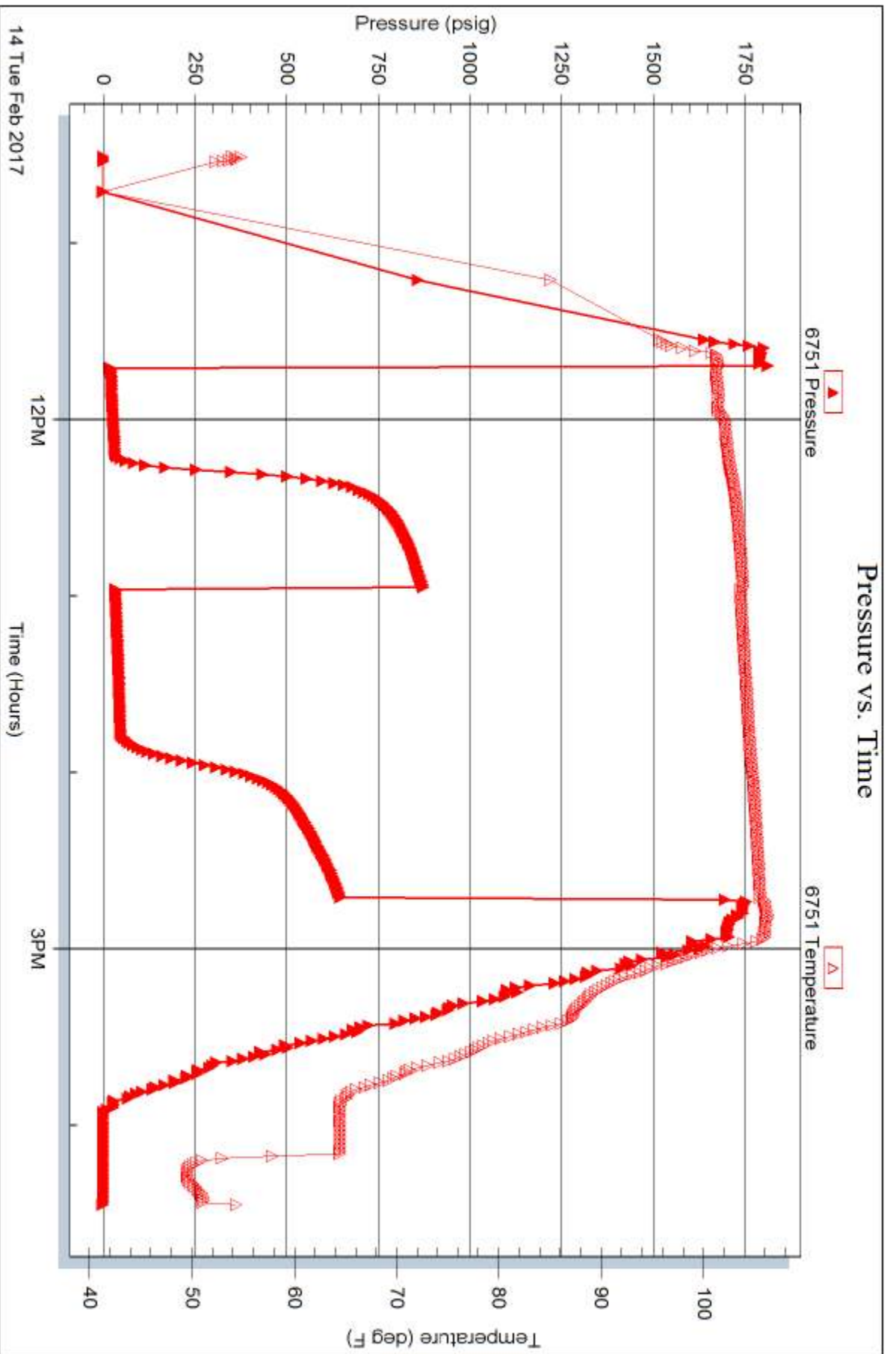


Serial #: 6751

Outside Sandlin Oil Corporation

Paul McRae #1

DST Test Number: 2

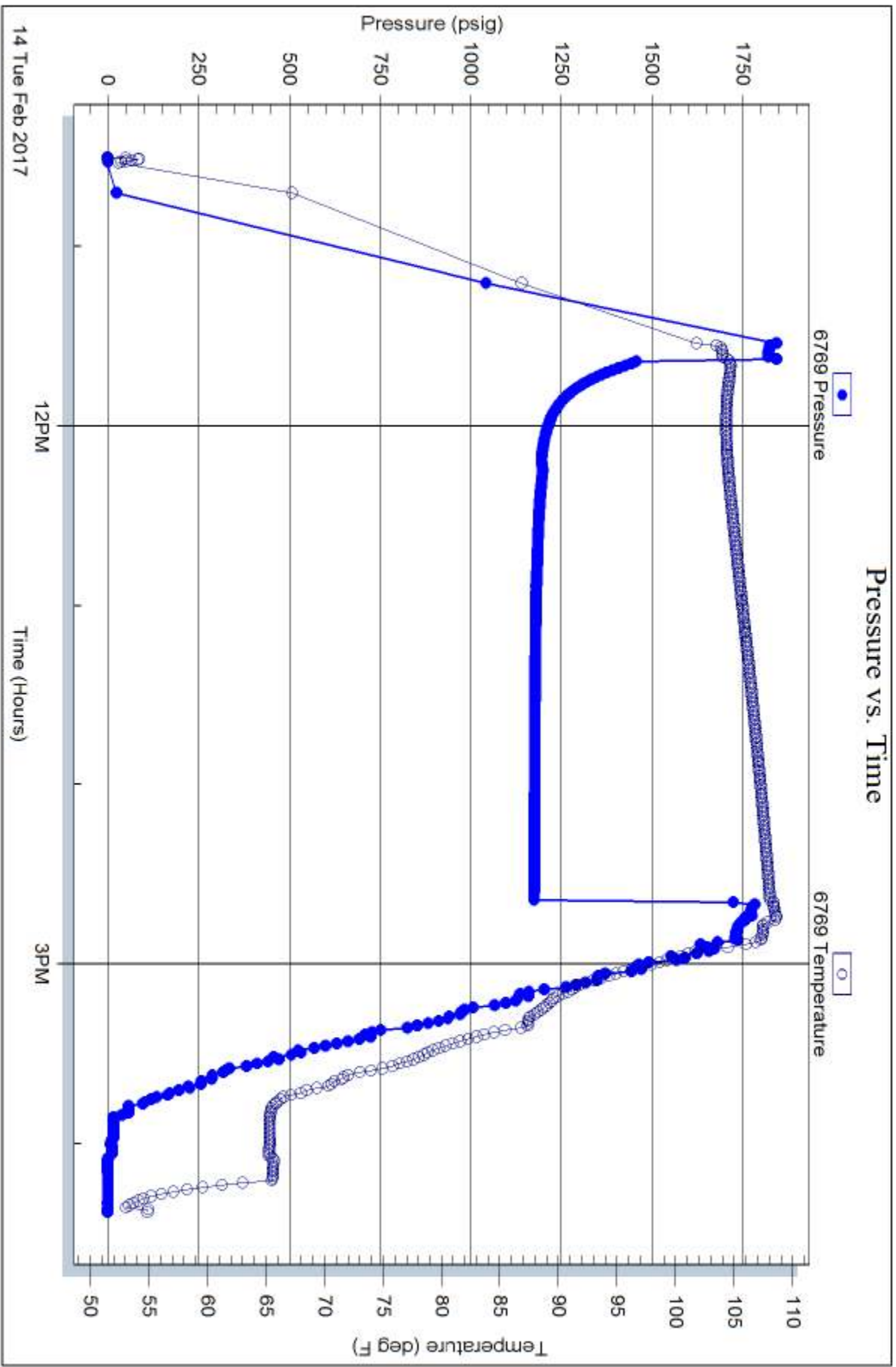


Serial #: 6769

Below (Stratfield) Oil Corporation

Paul McRae #1

DST Test Number: 2



Tribble Testing, Inc

Ref. No: 64092

Printed: 2017.02.14 @ 16:55:20

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7336

Date	2-9-17	Sec.	27	Twp.	12	Range	18	County	Ellis	State	KS	On Location		Finish	1:00 AM
------	--------	------	----	------	----	-------	----	--------	-------	-------	----	-------------	--	--------	---------

Lease Paul McRae Well No. 1 Location Hwy 15 & Locust Lane 1/2 Sinto

Contractor Royal Owner To Quality Oilwell Cementing, Inc.

Type Job Surface You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 17 1/4 T.D. 213 Charge To Sandlin Oil

Csg. 8 5/8 Depth 212 Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 10' Shoe Joint Cement Amount Ordered 150 8 5/8 3 1/2 2 1/2 6FL

Leas Line Displace 13 BRL

EQUIPMENT Common 120

Pumptrk 5 No. Cementer Greg Helper Scott Poz. Mix 30

Trktrk 3 No. Driver Doug Driver Doug Gel. 3

Trktrk 3 No. Driver Doug Driver Doug Calcium 6

JOB SERVICES & REMARKS Hulls

Remarks: Salt

at Hole Flowseal

House Hole Kol-Seal

Centralizers Mud CLR 48

askets CFL-117 or CD110 CAF 38

IV or Port Collar Sand

8 5/8 on bottom. Bsk. insulator. Handling 159

MX 150 sec. Displace Mileage

Cement Circulated **FLOAT EQUIPMENT**

Guide Shoe

Centralizer 8 5/8 Swagel

Baskets

AFU Inserts

Float Shoe

Latch Down

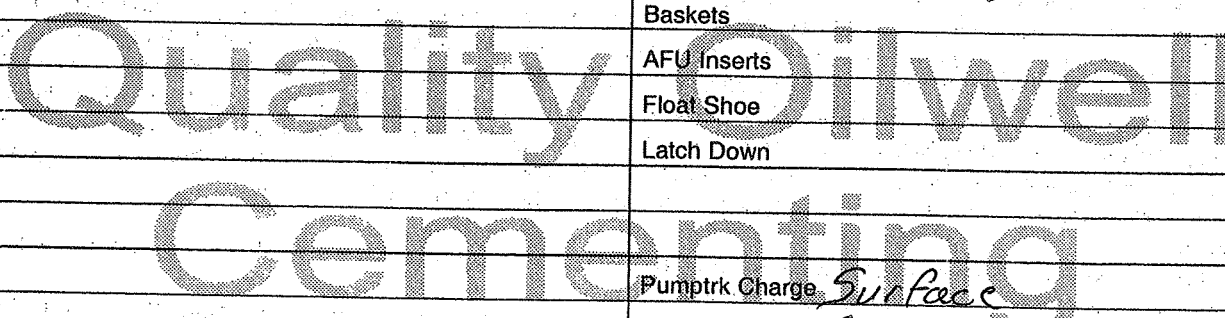
Pumptrk Charge Surface

Mileage 15 (M.M.)

nature Long Run Tax

Discount

Total Charge



GLOBAL OIL FIELD SERVICES, LLC

2880

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT: Russell

DATE <u>2-14-27</u>	SEC. <u>27</u>	TWP. <u>12</u>	RANGE <u>18</u>	CALLED OUT	ON LOCATION <u>6:20 PM</u>	JOB START	JOB FINISH
LEASE <u>12/11/11</u>	WELL #. <u>1</u>	LOCATION <u>6 N 35 E NAYS</u>			COUNTY <u>Ellis</u>	STATE <u>Ks</u>	
OLD OR NEW (CIRCLE ONE) <u>NEW</u>							

CONTRACTOR ROYAL OWNER NOVA

TYPE OF JOB PLUG

HOLE SIZE 12 1/4 T.D. _____

CASING SIZE 12 1/4 DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE 1 1/2 DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS _____

DISPLACEMENT _____

CEMENT AMOUNT ORDERED

3050# 6440 440 601

EQUIPMENT

PUMP TRUCK CEMENTER BILL

HELPER JASON

BULK TRUCK DRIVER JACK

DRIVER _____

COMMON @ _____

POZMIX @ _____

GEL @ _____

CHLORIDE @ _____

ASC @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

HANDLING @ _____

MILEAGE @ _____

TOTAL _____

REMARKS:

1st plug @ 3675 w/ 500#

2nd plug @ 1440 w/ 500#

3rd plug @ 850 w/ 1000#

4th plug @ 960 w/ 500#

5th plug @ 40 w/ 1000#

3021 K&H hole

1521 mouse hole

SERVICE

DEPTH OF JOB _____

PUMP TRUCK CHARGE _____

EXTRA FOOTAGE @ _____

MILEAGE @ _____

MANIFOLD @ _____

_____ @ _____

_____ @ _____

TOTAL _____

CHARGE TO: Sandlin Oil

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

TOTAL _____

Global Oil Field Services, 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 contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Doug Budig

SIGNATURE Doug Budig

SALES TAX (If Any) _____

TOTAL CHARGES _____

DISCOUNT _____ IF PAID IN 30 DAYS