



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1217335
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: _____

1217335

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

4005

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

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

No.

Date	7-8-10	Sec.	Typ.	Range	County	State	On Location	Finish
	Miss B			2	Russell	Mo	20 745 4170	4/22/10

Lease	Royal Ridge	Well No.		Location	
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Contractor	Surface Job	Owner	To Quality Oilwell Cementing, Inc.
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Type Job	12 3/4	432	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	5 7/8 (23 1/2)	T.D. 431.93	

Csg.		Depth	Charge To
------	--	-------	-----------

Tbg. Size		Depth	Street
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Tool	10-154	Depth	City	State
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Cement Left in Csg.		Shoe Joint	26 1/2	The above was done to satisfaction and supervision of owner, agent or contractor.
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Meas Line		Displace		Cement Amount Ordered
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EQUIPMENT			
Pumptrk	No. 8	Cementer	200
		Helper	
Bulktrk	No. 2	Driver	2 1/2
		Driver	2 1/2
Bulktrk	No. 1	Driver	7
		Driver	

JOB SERVICES & REMARKS

Remarks:	Calcium
Rat Hole	Hulls
Mouse Hole	Salt
Centralizers	Flowseal
Baskets	Kol-Seal
D/V or Port Collar	Mud CLR 48
Cement Did Circ'd	CFL-117 or CD110 CAF 38
	Sand 2 1/5
	Handling 1/5
	Mileage

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	1-8 3/8 wood plug
	Surface

Pumptrk Charge	
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Mileage	
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	Tax
	Discount
	Total Charge

X Signature *Roy B...*

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

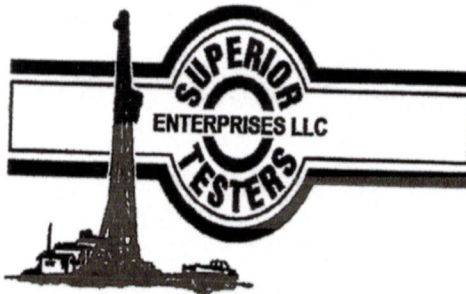
4119

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

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

No.

Date	7-15-10	Sec.	Twp.	Range	County	State	On Location	Finish
Lease	May B	Well No.	Location					
Contractor	Royal Drilling			Owner				
Type Job	Plug			To Quality Oilwell Cementing, Inc. 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	T.D.			Charge To				
Csg.	Depth			Street				
Tbg. Size	Depth			City				
Tool	Depth			State				
Cement Left in Csg.	Shoe Joint			The above was done to satisfaction and supervision of owner agent or contractor.				
Meas Line	Displace			Cement Amount Ordered				
EQUIPMENT								
Pumptrk	No.	Cementer	Helper	Common				
Bulktrk	No.	Driver	Driver	Poz. Mix				
Bulktrk	No.	Driver	Driver	Gel.				
JOB SERVICES & REMARKS								
Remarks:				Calcium				
Rat Hole				Hulls				
Mouse Hole				Salt				
Centralizers				Flowseal				
Baskets				Kol-Seal				
D/V or Port Collar				Mud CLR 48				
2nd Plug @ 3375	250			CFL-117 or CD110 CAF 38				
2nd Plug @ 945	250			Sand				
2nd Plug @ 100	250			Handling				
2nd Plug @ 110	250			Mileage				
Rat Hole	150			FLOAT EQUIPMENT				
Mouse Hole	150			Guide Shoe				
				Centralizer				
				Baskets				
				AFU Inserts				
				Float Shoe				
				Latch Down				
				Pumptrk Charge				
				Mileage				
							Tax	
							Discount	
							Total Charge	
Signature: <i>[Signature]</i>								



DRILL STEM TEST REPORT

Prepared For: **Ward Craig Oil Co**

15 South Main St.
67665+2901

Russell ,Kansas

ATTN: Francis Whisler

5/16S/14W Barton

Nuss B-2

Start Date: 2010.07.12 @ 09:30:00

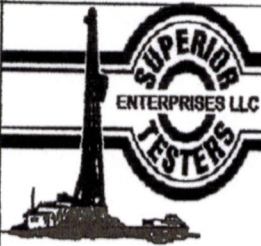
End Date: 2010.07.12 @ 00:00:00

Job Ticket #: 15948 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2010.07.12 @ 13:42:06

Ward Craig Oil Co
Nuss B-2
5/16S/14W Barton
DST # 1
Arbuckle
2010.07.12



DRILL STEM TEST REPORT

Ward Craig Oil Co

Nuss B-2

15 South Main St.
67665+2901

Russell, Kansas

5/16S/14W Barton

Job Ticket: 15948

DST#: 1

ATTN: Francis Whisler

Test Start: 2010.07.12 @ 09:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-Great Bend-80

Interval: 3373.00 ft (KB) To 3410.00 ft (KB) (TVD)

Total Depth: 3410.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1941.00 ft (KB)

1934.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 4143 Inside

Press@RunDepth: 819.65 psia @ 3405.00 ft (KB)

Start Date: 2010.07.12

End Date:

2010.07.12

Capacity: 5000.00 psia

Last Calib.: 2010.07.12

Start Time: 09:30:00

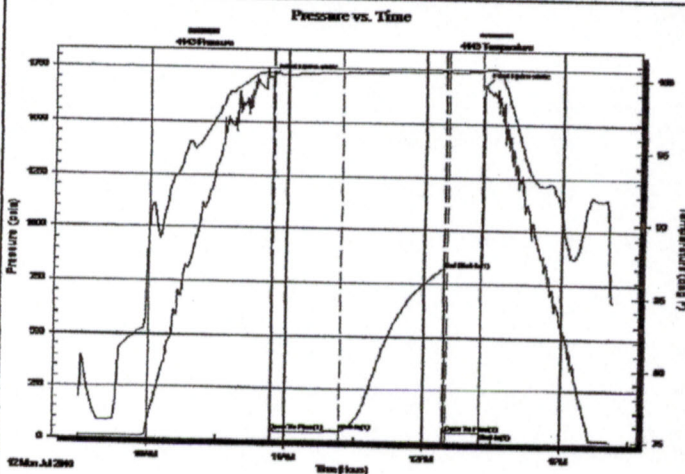
End Time:

13:22:15

Time On Btm: 2010.07.12 @ 10:52:45

Time Off Btm: 2010.07.12 @ 12:25:46

TEST COMMENT: 1ST Opening 30 Minutes Real weak surface blow for 16 minutes and died
 1ST Shut-IN 45 Minutes no blow back
 2ND Opening 15 Minutes no blow came out of the hole after 15 minutes
 2nd Shut-In none taken



PRESSURE SUMMARY

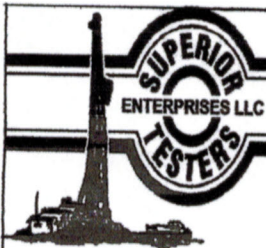
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1707.85	100.33	Initial Hydro-static
2	44.14	100.15	Open To Flow (1)
32	46.82	100.36	Shut-In(1)
77	819.65	100.50	End Shut-In(1)
78	47.65	100.51	Open To Flow (2)
93	47.85	100.53	Shut-In(2)
94	1676.85	100.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Very slightly oil cut mud	0.21
0.00	10% Oil 90%Mud	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Ward Craig Oil Co

Nuss B-2

15 South Main St.
67665+2901

Russell, Kansas

5/16S/14W Barton

Job Ticket: 15948

DST#: 1

ATTN: Francis Whisler

Test Start: 2010.07.12 @ 09:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-Great Bend-80

Interval: **3373.00 ft (KB) To 3410.00 ft (KB) (TVD)**

Total Depth: 3410.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1941.00 ft (KB)

1934.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8400

Outside

Press@RunDepth: 816.71 psia @ 3406.00 ft (KB)

Start Date: 2010.07.12

End Date:

2010.07.12

Start Time: 09:30:00

End Time:

12:37:30

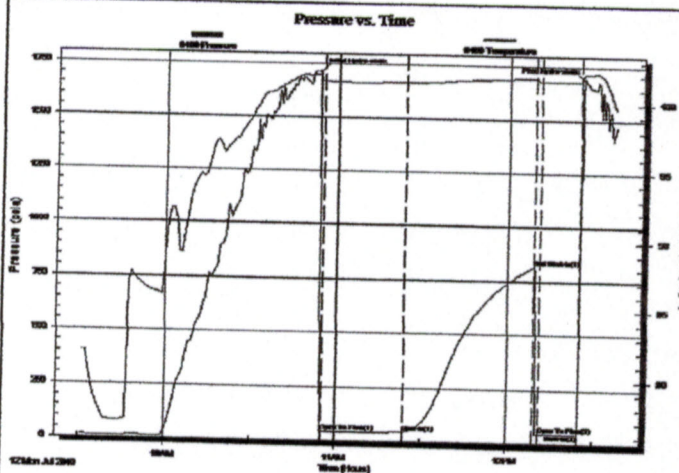
Capacity: 5000.00 psia

Last Calib.: 2010.07.12

Time On Btm: 2010.07.12 @ 10:53:30

Time Off Btm: 2010.07.12 @ 12:26:00

TEST COMMENT: 1ST Opening 30 Minutes Real weak surface blow for 16 minutes and died
 1ST Shut-IN 45 Minutes no blow back
 2ND Opening 15 Minutes no blow came out of the hole after 15 minutes
 2nd Shut-in none taken



PRESSURE SUMMARY

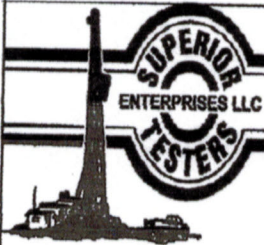
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1713.15	101.93	Initial Hydro-static
2	47.36	101.50	Open To Flow (1)
30	47.78	101.40	Shut-In(1)
76	816.71	101.82	End Shut-in(1)
78	49.30	101.61	Open To Flow (2)
92	49.16	101.60	Shut-in(2)
93	1685.64	102.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Very slightly oil cut mud	0.21
0.00	10% Oil 90%Mud	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Ward Craig Oil Co

Nuss B-2

15 South Main St. Russell, Kansas
67665+2901

5/16S/14W Barton

Job Ticket: 15948 **DST#: 1**

ATTN: Francis Whisler

Test Start: 2010.07.12 @ 09:30:00

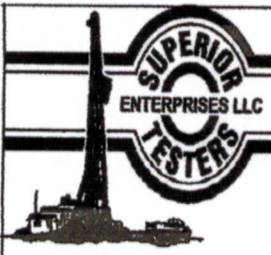
Tool Information

Drill Pipe:	Length: 3373.00 ft	Diameter: 3.80 inches	Volume: 47.31 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 47.31 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3373.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3353.00	
Shut-In Tool	5.00			3358.00	
Hydroic Tool	5.00			3363.00	
Packer	5.00			3368.00	21.00 Bottom Of Top Packer
Packer	5.00			3373.00	
Perforations	31.00			3404.00	
Recorder	1.00	4143	Inside	3405.00	
Recorder	1.00	8400	Outside	3406.00	
Bullnose	3.00			3409.00	36.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Ward Craig Oil Co
 15 South Main St. Russell, Kansas
 67665+2901
 ATTN: Francis Whisler

Nuss B-2
5/16S/14W Barton
 Job Ticket: 15948 DST#: 1
 Test Start: 2010.07.12 @ 09:30:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.60 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 5000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Very slightly oil cut mud	0.210
0.00	10% Oil 90%Mud	0.000

Total Length: 15.00 ft Total Volume: 0.210 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 4143

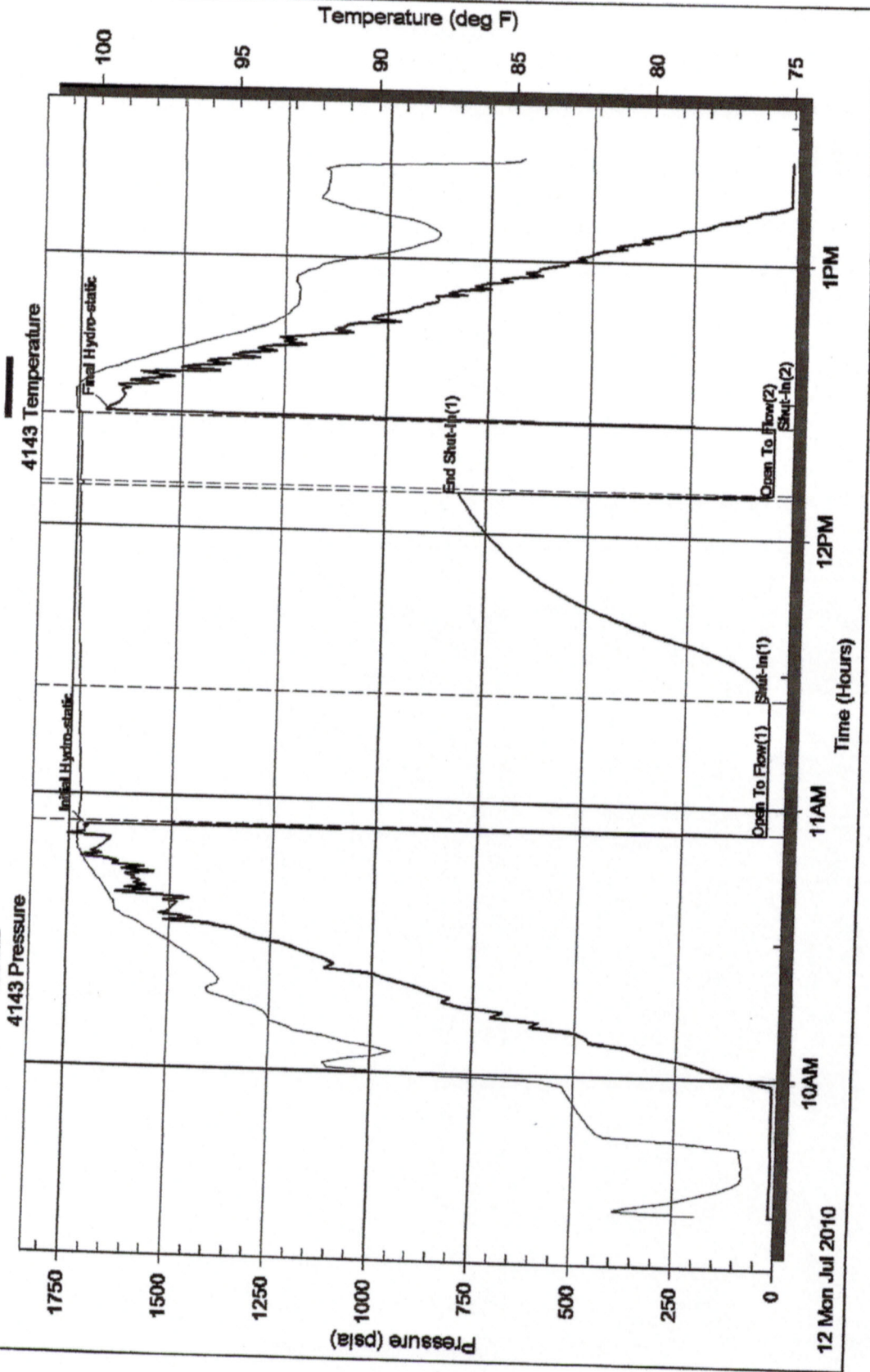
Inside

Ward Craig Oil Co

5/16S/14W Barton

DST Test Number: 1

Pressure vs. Time



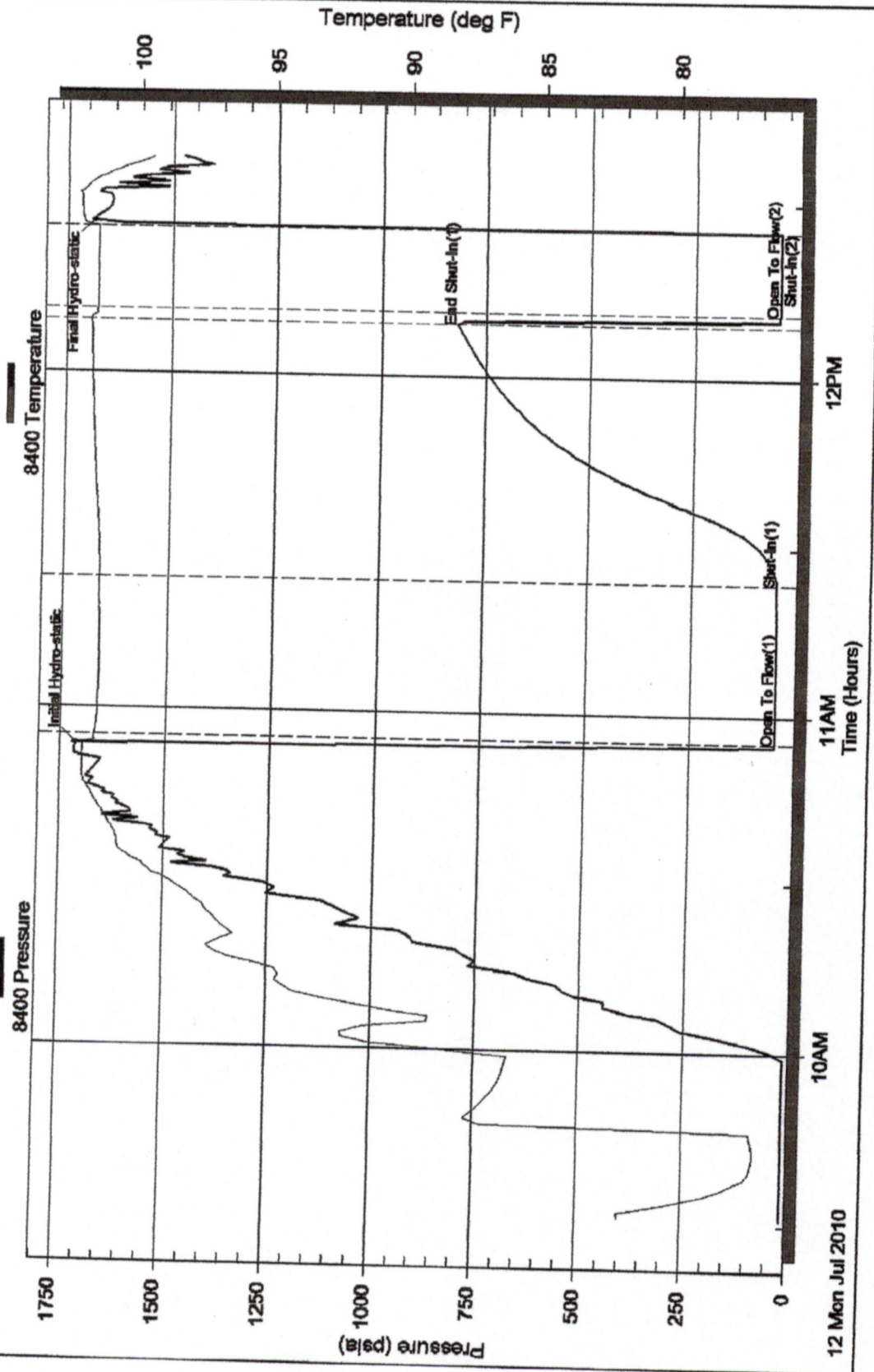
Serial #: 8400

Outside Ward Craig Oil Co

5/16S/14W Barton

DST Test Number: 1

Pressure vs. Time



Ref. No: 15948

Superior Testers Enterprises LLC

Printed: 2010.07.12 @ 13:42:08