Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1189498

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 # 30717
Name: Downing-Nelson Oil Co Inc
Address 1: PO BOX 1019
Address 2:
City: HAYS State: KS Zip: 67601 + ____
Contact Person: Ron Nelson
Phone: (785) 621-2610
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Marc Downing
Purchaser: Coffeyville Resources

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 #:

01/25/2014	01/30/2014	01/31/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-065-23998-00-00
Spot Description:
NE - NW - SE - SW Sec. 30 Twp. 9 S. R. 23 ☐ East ☑ West
1115 Feet from ☐ North / ☑ South Line of Section
1915 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Graham
Lease Name: Wendelin Herman Well #: 2-30
Field Name: WIldcat
Producing Formation: LKC
Elevation: Ground: 2485 Kelly Bushing: 2493
Total Vertical Depth: 4115 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 222 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2075 Feet
If Alternate II completion, cement circulated from: 2075
feet depth to: 0 w/ 190 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 21000 ppm Fluid volume: 400 bbls
Dewatering method used: Evaporated
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:** Deanna Garrison **Date:** 04/23/2014

[redacted] 1189498

Operator Name: Downing-Nelson Oil Co Inc Lease Name: Wendelin Herman Well #: 2-30

Sec. 30 Twp. 9 S. R. 23 ☐ East ☑ West County: Graham

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Top Anhydrite	2113'	+380
Base Anhydrite	2150'	+343
Topeka	3600'	-1107
Heebner	3814'	-1321
Toronto	3838'	-1345
LKC	3854'	-1361
BKC	4072'	-1579

CASING RECORD ☑ New ☐ 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
Surface Pipe	12.25	8.625	23	222	Commone	150	2% Gel & 3% CC
Production Casing	7.875	5.5	14	4111	EA/2	150	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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 *(Amount and Kind of Material Used)*	Depth
4	3981' - 3984'	250 gallons Mud Acid	3981' - 3984'
4	3880' - 3882'	250 gallons 20% Mud Acid	3880' - 3882'
		750 gallons 15% NE Acid	3880' - 3882'

TUBING RECORD: Size: 2.375 Set At: 4049 Packer At: Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 02/28/2014

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	40		10		

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Wendelin Herman 2-30
Doc ID	1189498

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated Neutron Density

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 **Home Office P.O. Box 32 Russell, KS 67665** **No.** 7719

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-25-14	30	9	23	Graham	KS	4:00pm	4:30pm

Location Wakeney Redline 3 1/2w 1n to

Lease Wendelin Herman Well No. 2-30

Owner

Contractor D.Scovel #1

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.

Type Job Surface

Charge To Downing/Nelson

Hole Size 12¼ T.D. 222

Csg. 8 5/8 Depth 222

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. 15' Shoe Joint

Cement Amount Ordered 150 com 3/cc 2/gel

Meas Line Displace 13 BL

EQUIPMENT

Pumptrk 18	No.	Cementer	Craig
		Helper	
Bulktrk	No.	Driver	Carl
		Driver	
Bulktrk 1	No.	Driver	Doug
		Driver	

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

8 5/8 on bottom Est. Circulation Mix 150sx & Displace. Cement Circulated

Common	150
Poz. Mix	3
Gel.	5
Calcium	
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	158
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	40
Tax	
Discount	
Total Charge	

X Signature

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

30-9s-23w Graham,KS

Wendelin-Herman #2-30

Start Date: 2014.01.29 @ 03:36:24
End Date: 2014.01.29 @ 11:21:24
Job Ticket #: 54791 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.02.03 @ 15:05:50

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

Wendelin-Herman #2-30

30-9s-23w Graham,KS

Job Ticket: 54791 **DST#: 1**

Test Start: 2014.01.29 @ 03:36:24

GENERAL INFORMATION:

Formation: **LKC C & D**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:02:24
Time Test Ended: 11:21:24

Test Type: Conventional Bottom Hole (Initial)
Tester: Jeff Brown
Unit No: 67

Interval: 3870.00 ft (KB) To 3910.00 ft (KB) (TVD)
Total Depth: 3910.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

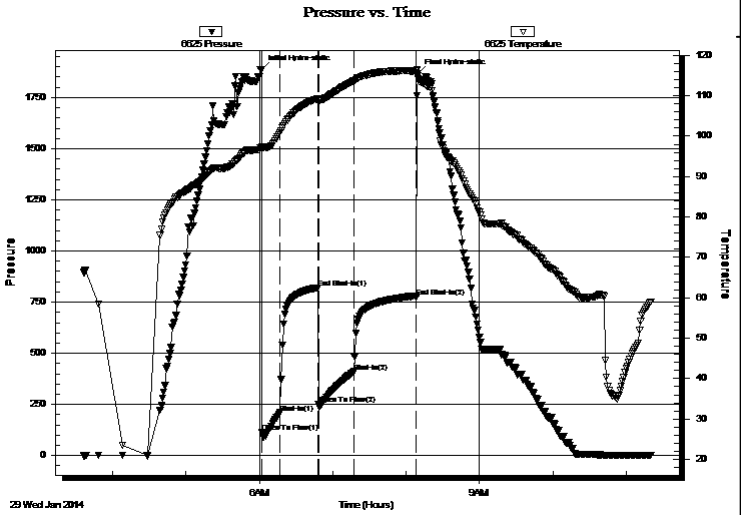
Reference Elevations: 2492.00 ft (KB)
2484.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 **Outside**

Press@RunDepth: 410.27 psig @ 3874.00 ft (KB)
Start Date: 2014.01.29 End Date: 2014.01.29
Start Time: 03:36:25 End Time: 11:20:24

Capacity: 8000.00 psig
Last Calib.: 2014.01.29
Time On Btm: 2014.01.29 @ 06:01:54
Time Off Btm: 2014.01.29 @ 08:09:24

TEST COMMENT: IFP=Strong blow BOB in 45 sec
ISI=Good blow back BOB in 6 min
FFP=Strong blow BOB in 45 sec
FSI=Good blow back BOB in 16 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1887.41	97.36	Initial Hydro-static
1	111.88	97.10	Open To Flow (1)
15	208.79	100.82	Shut-In(1)
46	819.31	109.33	End Shut-In(1)
47	250.42	109.02	Open To Flow (2)
76	410.27	113.73	Shut-In(2)
127	775.06	116.12	End Shut-In(2)
128	1866.36	115.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
189.00	GMCO 25%G 20%M 55% O	2.39
897.00	Gassy Oil 40%G 60%O	12.58
0.00	1779-GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

Wendelin-Herman #2-30

30-9s-23w Graham,KS

Job Ticket: 54791 **DST#: 1**

Test Start: 2014.01.29 @ 03:36:24

GENERAL INFORMATION:

Formation: **LKC C & D**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:02:24
Time Test Ended: 11:21:24

Test Type: Conventional Bottom Hole (Initial)
Tester: Jeff Brown
Unit No: 67

Interval: 3870.00 ft (KB) To 3910.00 ft (KB) (TVD)
Total Depth: 3910.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

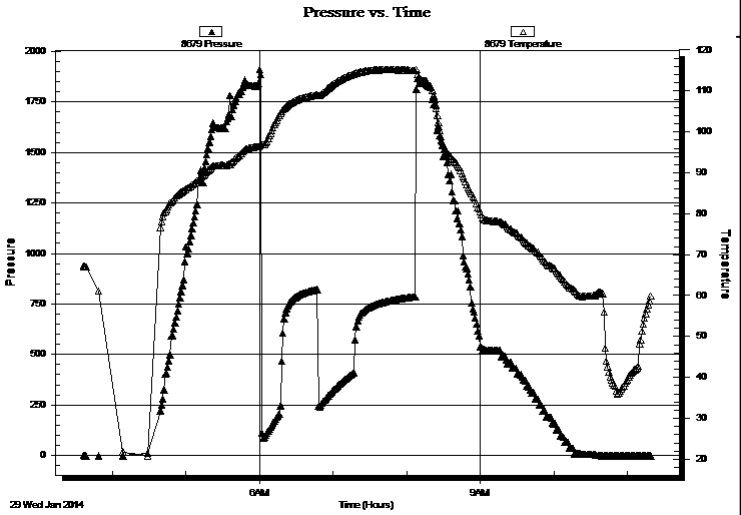
Reference Elevations: 2492.00 ft (KB)
2484.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8679 **Inside**

Press@RunDepth: psig @ 3874.00 ft (KB)
Start Date: 2014.01.29 End Date: 2014.01.29
Start Time: 03:36:29 End Time: 11:18:58

Capacity: 8000.00 psig
Last Calib.: 2014.01.29
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP=Strong blow BOB in 45 sec
ISI=Good blow back BOB in 6 min
FFP=Strong blow BOB in 45 sec
FSI=Good blow back BOB in 16 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
189.00	GMCO 25%G 20%M 55% O	2.39
897.00	Gassy Oil 40%G 60%O	12.58
0.00	1779-GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

Wendelin-Herman #2-30

30-9s-23w Graham,KS

Job Ticket: 54791 **DST#: 1**

Test Start: 2014.01.29 @ 03:36:24

Tool Information

Drill Pipe:	Length:	3854.00 ft	Diameter:	3.80	inches	Volume:	54.06	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	29.00 ft	Diameter:	2.25	inches	Volume:	0.14	bbl	
						Total Volume:	54.20	bbl	

Drill Pipe Above KB:	33.00 ft
Depth to Top Packer:	3870.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	40.00 ft
Tool Length:	60.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		20000.00 lb
Weight to Pull Loose:		69000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	56000.00 lb
	Final	60000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3851.00		
Shut In Tool	5.00			3856.00		
Hydraulic tool	5.00			3861.00		
Packer	4.00			3865.00	20.00	Bottom Of Top Packer
Packer	5.00			3870.00		
Stubb	1.00			3871.00		
Perforations	2.00			3873.00		
Change Over Sub	1.00			3874.00		
Recorder	0.00	6625	Outside	3874.00		
Recorder	0.00	8679	Inside	3874.00		
Drill Pipe	31.00			3905.00		
Change Over Sub	1.00			3906.00		
Bullnose	4.00			3910.00	40.00	Bottom Packers & Anchor
Total Tool Length:	**60.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

Wendelin-Herman #2-30

30-9s-23w Graham,KS

Job Ticket: 54791 **DST#: 1**

Test Start: 2014.01.29 @ 03:36:24

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	34 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1750.00 ppm				
Filter Cake:	inches				

Recovery Information

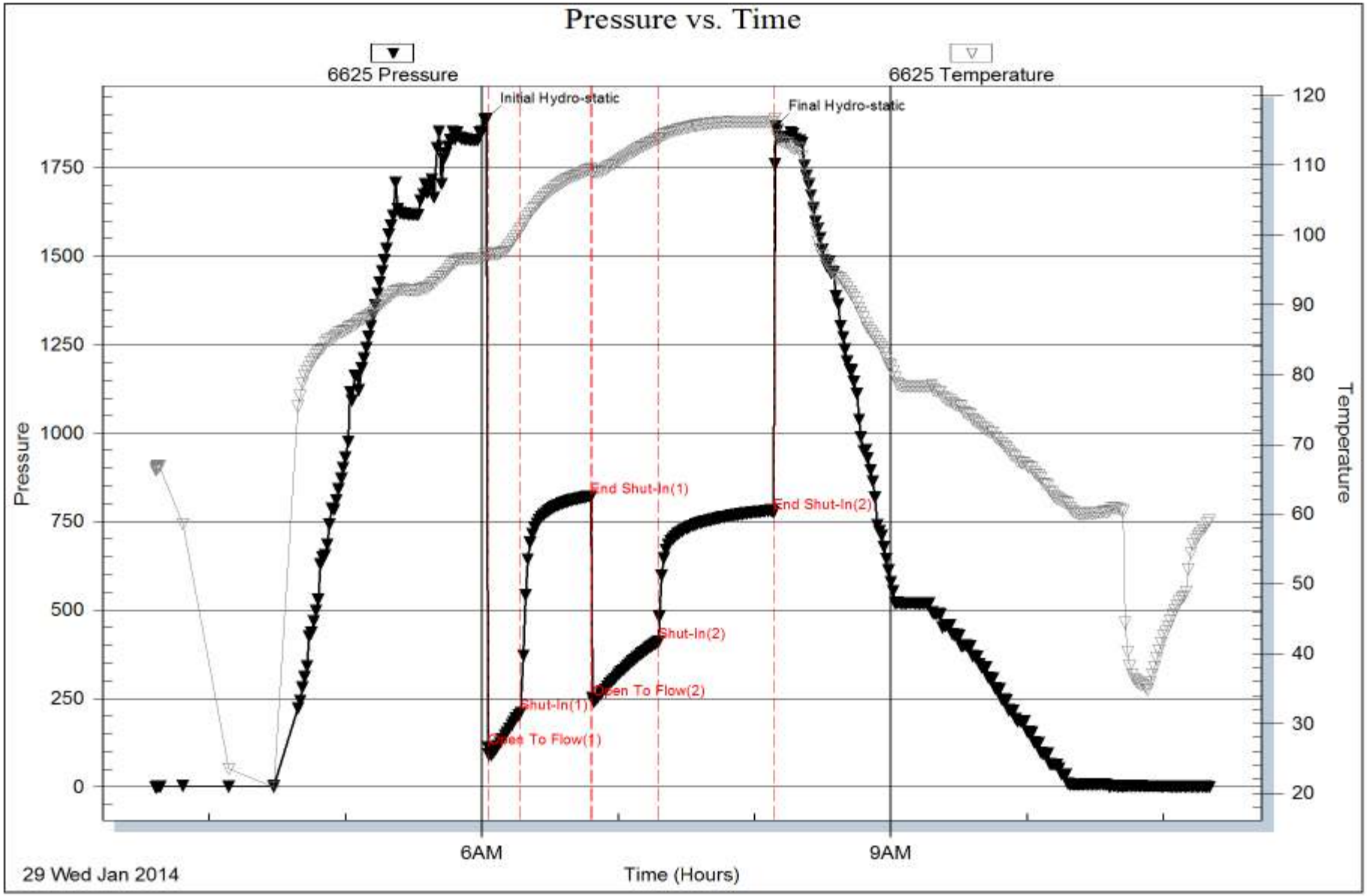
Recovery Table

Length ft	Description	Volume bbl
189.00	GMCO 25%G 20%M 55% O	2.387
897.00	Gassy Oil 40%G 60%O	12.583
0.00	1779-GIP	0.000

Total Length: 1086.00 ft Total Volume: 14.970 bbl

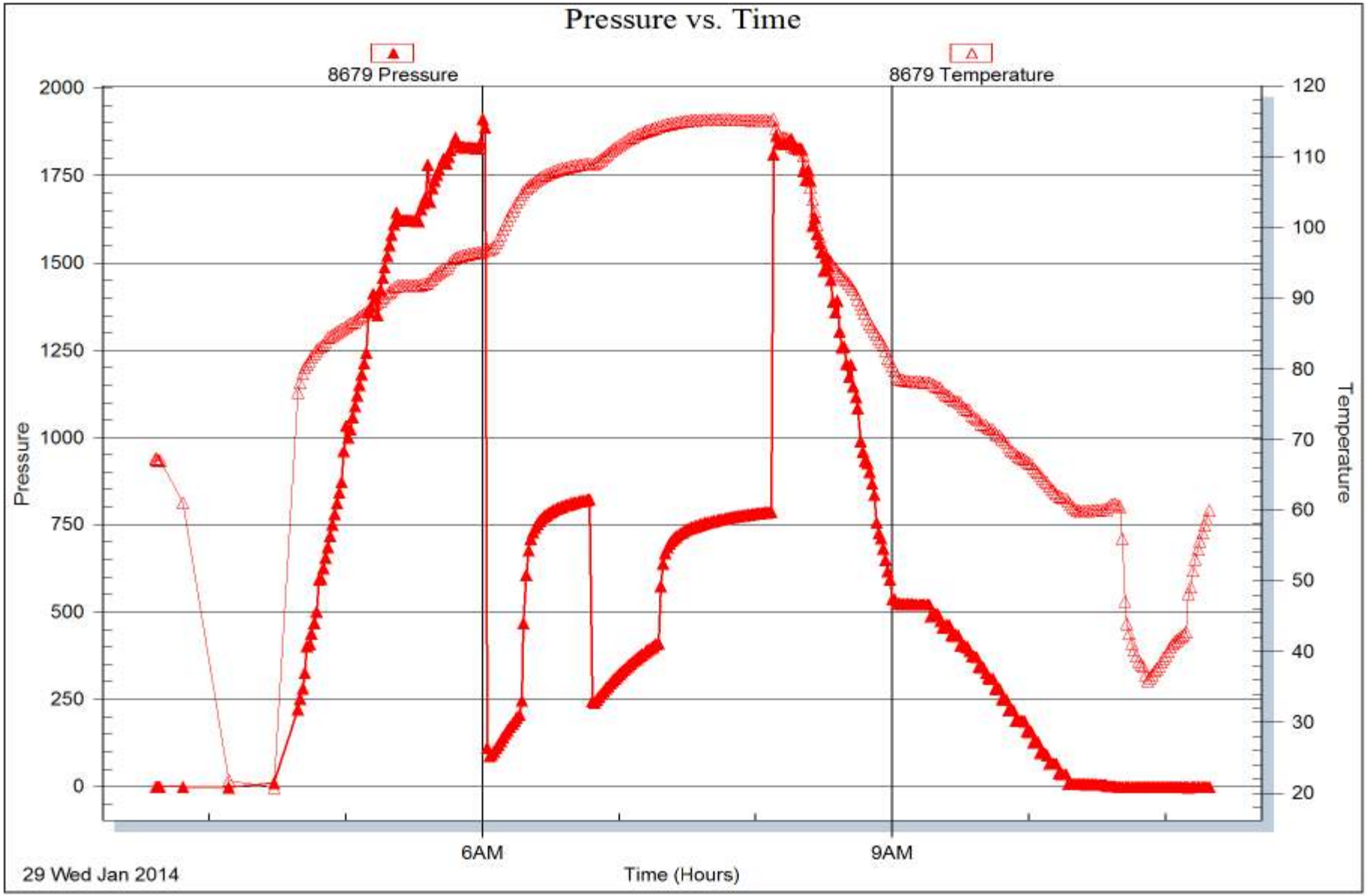
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6625 **Outside** Dow ning-Nelson Oil Co Inc 30-9s-23w Graham,KS DST Test Number: 1



Trilobite Testing, Inc Ref. No: 54791 Printed: 2014.02.03 @ 15:05:53

Serial #: 8679 **Inside** Dow ning-Nelson Oil Co Inc 30-9s-23w Graham,KS DST Test Number: 1



Trilobite Testing, Inc Ref. No: 54791 Printed: 2014.02.03 @ 15:05:53

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

30-9s-23w Graham,KS

Wendelin-Herman #2-30

Start Date: 2014.01.29 @ 20:21:28
End Date: 2014.01.30 @ 03:10:58
Job Ticket #: 54792 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.02.03 @ 15:05:15

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

Wendelin-Herman #2-30

30-9s-23w Graham,KS

Job Ticket: 54792 **DST#: 2**

Test Start: 2014.01.29 @ 20:21:28

GENERAL INFORMATION:

Formation: **LKC E & F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:18:28
Time Test Ended: 03:10:58

Test Type: Conventional Bottom Hole (Reset)
Tester: Jeff Brown
Unit No: 67

Interval: 3911.00 ft (KB) To 3936.00 ft (KB) (TVD)
Total Depth: 3936.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

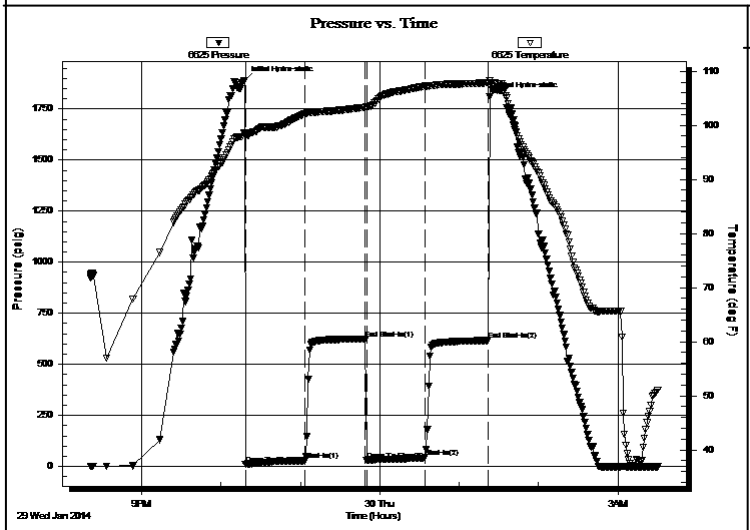
Reference Elevations: 2492.00 ft (KB)
2484.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 **Outside**

Press@RunDepth: 43.50 psig @ 3914.00 ft (KB)
Start Date: 2014.01.29 End Date: 2014.01.30
Start Time: 20:21:29 End Time: 03:29:58

Capacity: 8000.00 psig
Last Calib.: 2014.01.30
Time On Btm: 2014.01.29 @ 22:17:58
Time Off Btm: 2014.01.30 @ 01:22:58

TEST COMMENT: IFP=Fair blow built to 5"
ISI=Dead no blow back
FFP=Fair blow built to 4"
FSI=Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1889.67	98.60	Initial Hydro-static
1	11.25	98.34	Open To Flow (1)
46	29.36	102.14	Shut-In(1)
91	625.17	103.32	End Shut-In(1)
92	31.74	103.37	Open To Flow (2)
136	43.50	107.30	Shut-In(2)
184	617.25	107.85	End Shut-In(2)
185	1811.90	108.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
68.00	WM with a scum of oil 35%W 65%M	0.69

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

Wendelin-Herman #2-30

30-9s-23w Graham,KS

Job Ticket: 54792 **DST#: 2**

Test Start: 2014.01.29 @ 20:21:28

GENERAL INFORMATION:

Formation: **LKC E & F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:18:28
Time Test Ended: 03:10:58

Test Type: Conventional Bottom Hole (Reset)
Tester: Jeff Brown
Unit No: 67

Interval: 3911.00 ft (KB) To 3936.00 ft (KB) (TVD)
Total Depth: 3936.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

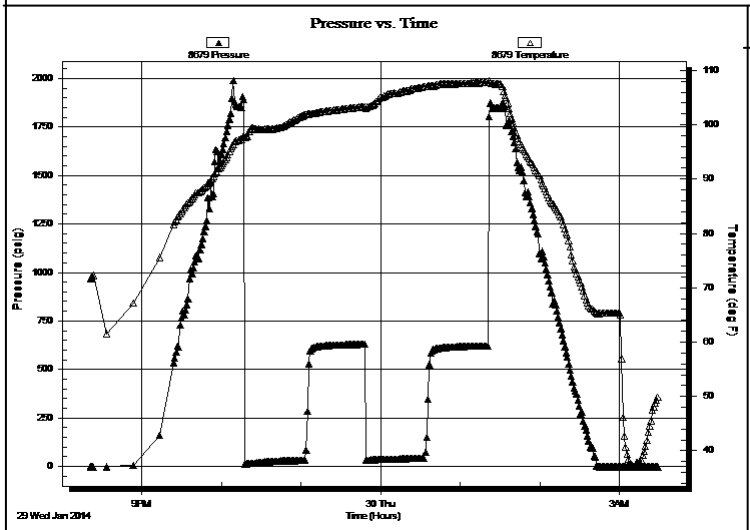
Reference Elevations: 2492.00 ft (KB)
2484.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8679 **Inside**

Press@RunDepth: psig @ 3914.00 ft (KB)
Start Date: 2014.01.29 End Date: 2014.01.30
Start Time: 20:21:23 End Time: 03:28:52

Capacity: 8000.00 psig
Last Calib.: 2014.01.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP=Fair blow built to 5"
ISI=Dead no blow back
FFP=Fair blow built to 4"
FSI=Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
68.00	WM with a scum of oil 35%W 65%M	0.69

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

Wendelin-Herman #2-30

30-9s-23w Graham,KS

Job Ticket: 54792 **DST#: 2**

Test Start: 2014.01.29 @ 20:21:28

Tool Information

Drill Pipe:	Length:	3886.00 ft	Diameter:	3.80 inches	Volume:	54.51 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	29.00 ft	Diameter:	2.25 inches	Volume:	0.14 bbl	Weight to Pull Loose:		66000.00 lb
					Total Volume:	54.65 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		24.00 ft					String Weight:	Initial	58000.00 lb
Depth to Top Packer:		3911.00 ft						Final	58000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		25.00 ft							
Tool Length:		45.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3892.00		
Shut In Tool	5.00			3897.00		
Hydraulic tool	5.00			3902.00		
Packer	4.00			3906.00	20.00	Bottom Of Top Packer
Packer	5.00			3911.00		
Stubb	1.00			3912.00		
Perforations	2.00			3914.00		
Recorder	0.00	6625	Outside	3914.00		
Recorder	0.00	8679	Inside	3914.00		
Perforations	18.00			3932.00		
Bullnose	4.00			3936.00	25.00	Bottom Packers & Anchor
Total Tool Length:	**45.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

Wendelin-Herman #2-30

30-9s-23w Graham,KS

Job Ticket: 54792 **DST#: 2**

Test Start: 2014.01.29 @ 20:21:28

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:	7.58 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1750.00 ppm				
Filter Cake:	inches				

Recovery Information

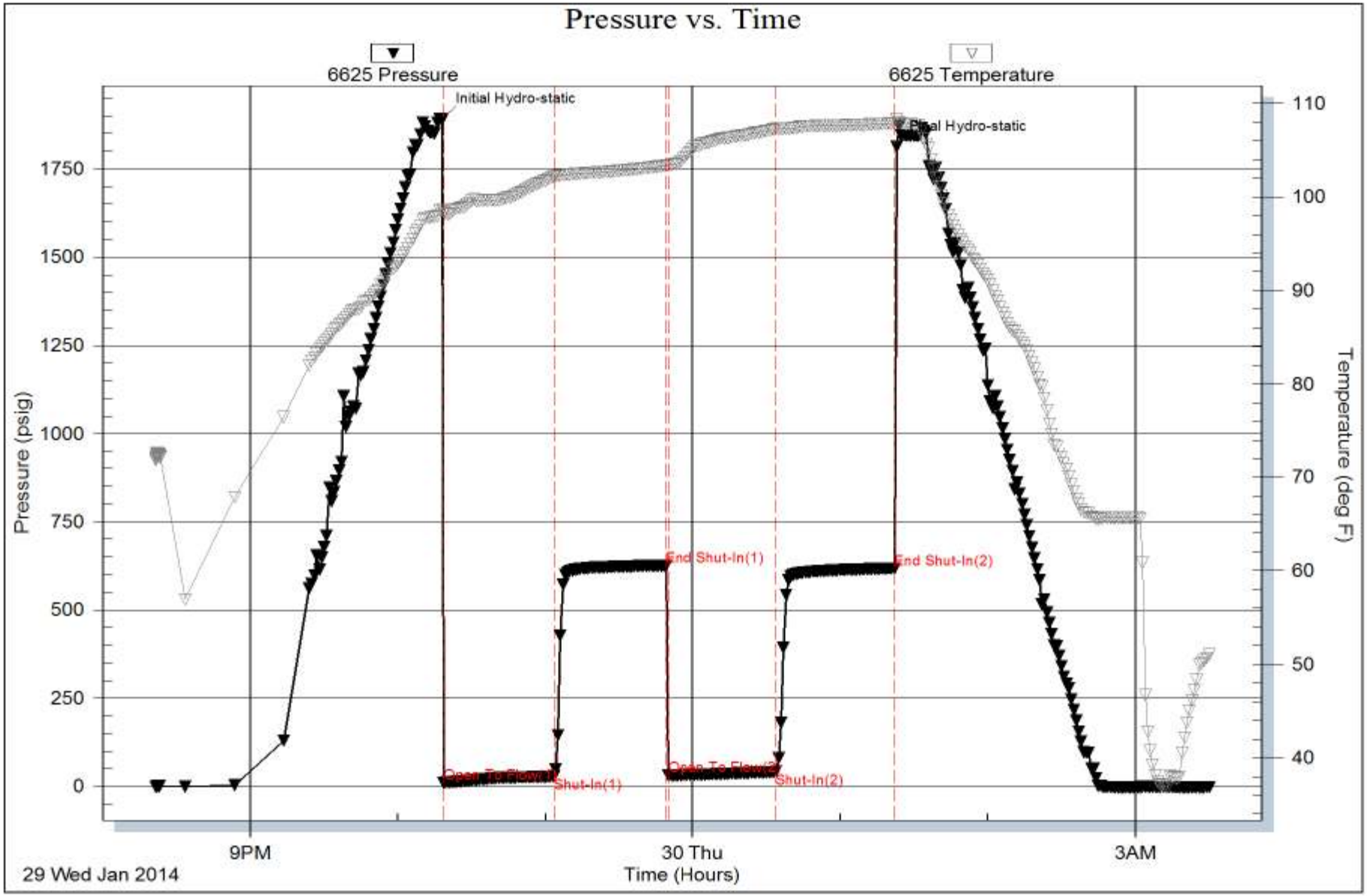
Recovery Table

Length ft	Description	Volume bbl
68.00	WM w ith a scum of oil 35%W 65%M	0.690

Total Length: 68.00 ft Total Volume: 0.690 bbl

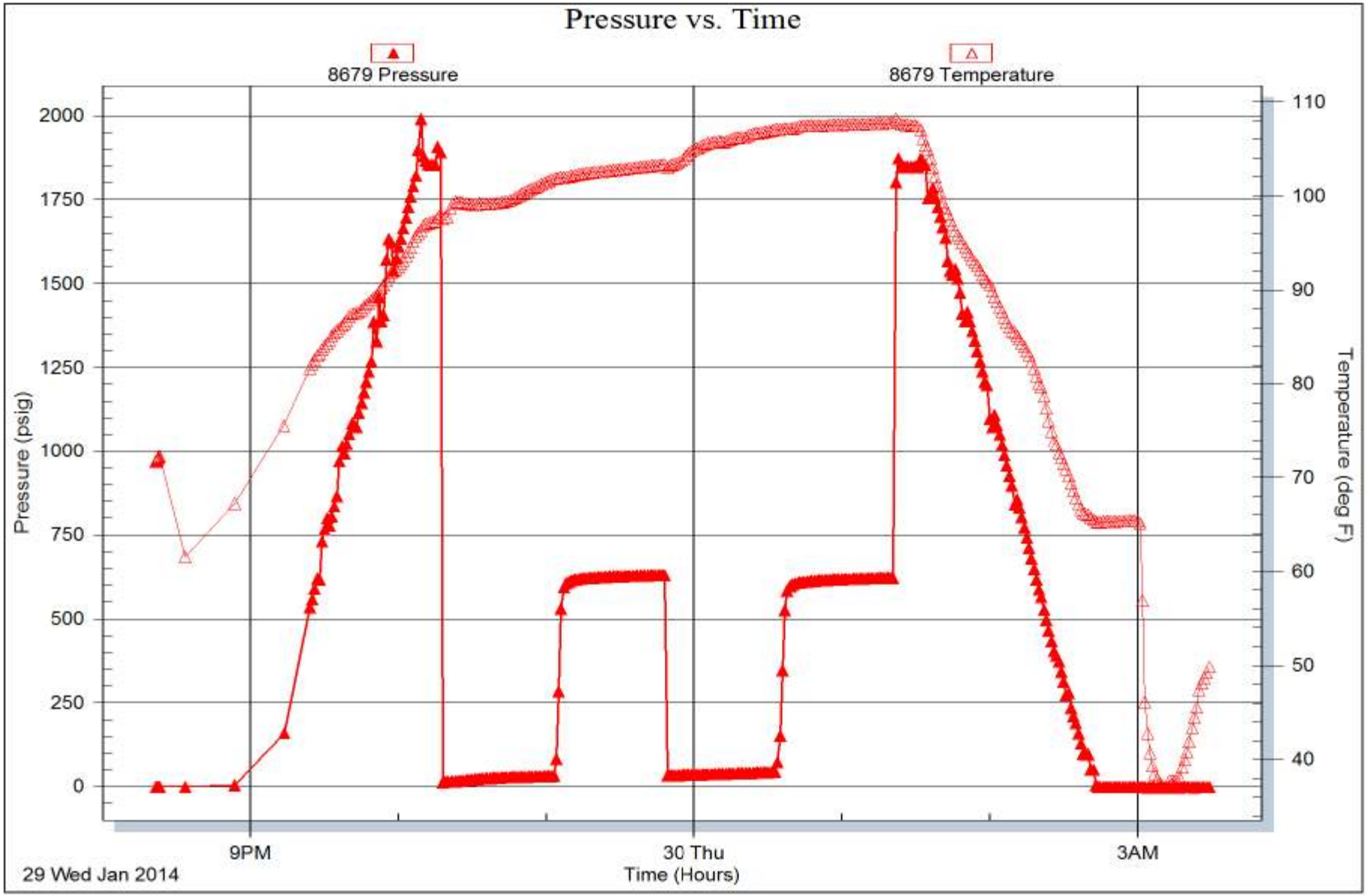
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6625 **Outside** Dow ning-Nelson Oil Co Inc 30-9s-23w Graham,KS DST Test Number: 2



Trilobite Testing, Inc Ref. No: 54792 Printed: 2014.02.03 @ 15:05:18

Serial #: 8679 **Inside** Dow ning-Nelson Oil Co Inc 30-9s-23w Graham,KS DST Test Number: 2



Trilobite Testing, Inc Ref. No: 54792 Printed: 2014.02.03 @ 15:05:18

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 54791

Well Name & No. Wendelin Herman #2-30 Test No. 1 Date 1-29-14

Company Downing-Nelson Oil Co INC Elevation 2492 KB 2484 GL

Address PO Box 1019 Hays KS 67601

Co. Rep / Geo. Marc Downing Rig Discovery #1

Location: Sec. 30 Twp. 9S Rge. 23W Co. Graham State KS

Interval Tested 3870-3910 Zone Tested Lansing - C & D

Anchor Length 40 Drill Pipe Run 3854 Mud Wt. 8.7

Top Packer Depth 3865 Drill Collars Run 29 Vis 58

Bottom Packer Depth 3870 Wt. Pipe Run 0 WL 7.6

Total Depth 3910 Chlorides 1750 ppm System LCM 2½

Blow Description IF-Strong Blow BOB IN 45sec
ISI-Good Blow Back BOB IN 1 min
FF-Strong Blow BOB IN 45sec
FSI-Good Blow Back BOB IN 1 min

Rec 189	Feet of GMCO	25 %gas	55 %oil	%water	20 %mud
Rec 897	Feet of GASSY oil	40 %gas	60 %oil	%water	%mud
Rec	Feet of 1779-GIP	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1086 BHT Gravity 34 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1887	X Test 1150	T-On Location 3:00
(B) First Initial Flow 112	☐ Jars	T-Started 3:36
(C) First Final Flow 209	☐ Safety Joint	T-Open 6:04
(D) Initial Shut-In 819	☐ Circ Sub	T-Pulled 8:04
(E) Second Initial Flow 250	☐ Hourly Standby	T-Out 11:21
(F) Second Final Flow 410	X Mileage 110 RT 170.50	Comments
(G) Final Shut-In 775	☐ Sampler	
(H) Final Hydrostatic 1866	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 15	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 30	☐ Extra Recorder	Sub Total 0
Final Flow 30	☐ Day Standby	Total 1320.50
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total 1320.50	

Approved By Our Representative Jeff Brown

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 54792

Well Name & No. Wendelin Herman #2-30 Test No. 2 Date 1-29-14

Company Downing + Nelson Oil Co INC Elevation 2492 KB 2484 GL

Address PO Box 1019 Hays KS 67601

Co. Rep / Geo. Marc Downing Rig Discovery #1

Location: Sec. 30 Twp. 9S Rge. 23W Co. Graham State KS

Interval Tested 3911 - 3936 Zone Tested LKC - E & F

Anchor Length 25' Drill Pipe Run 3886 Mud Wt. 8.8

Top Packer Depth 3906 Drill Collars Run 29 Vis 57

Bottom Packer Depth 3911 Wt. Pipe Run 0 WL 5.2

Total Depth 3936 Chlorides 2500 ppm System LCM 2

Blow Description IFP - Fair Blow Built To 5 IN
ISI - Dead No Blow Back
FFP - Fair Blow Built To 4 IN
FSI - Dead No Blow Back

Rec 60	Feet of WM With A Scum of Oil	%gas	%oil	35 %water	65 %mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 60 BHT 108 Gravity ____ API RW .160 @ 52.1 °F Chlorides 15,000 ppm

(A) Initial Hydrostatic 1890	☒ Test 1150	T-On Location 18:48
(B) First Initial Flow 11	☐ Jars	T-Started 20:21
(C) First Final Flow 29	☐ Safety Joint	T-Open 21:59
(D) Initial Shut-In 625	☐ Circ Sub	T-Pulled 00:59
(E) Second Initial Flow 32	☐ Hourly Standby	T-Out 3:10
(F) Second Final Flow 44	☒ Mileage 341	Comments Loaded Tool's @ 00:15 on 1-31-14
(G) Final Shut-In 617	☐ Sampler	
(H) Final Hydrostatic 1812	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 45	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 45	☐ Day Standby	Total 1491
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total 1491	

Approved By ____ Our Representative Jeff Brown

Marc A. Downing Consulting Petroleum Geologist	Geologic Report Drilling Time and Sample Log

Operator	Downing-Nelson Oil Co., Inc.	Elevation	
Lease	Wendelin Herman	No. 2-30	KB 2493 DF 2491 GL 2485
API #	15-065-23998-0000	Casing Record	Surface 8 5/8" @ 222' Production 5 1/2" @ 4115'
Field	Wildcat	Electrical Surveys	CNL/CDL, DIL, MEL
Location	1115' FSL & 1915' FWL		
Sec. 30	Twp. 9s	Rge. 23w	
County	Graham	State	Kansas

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	2110	2113	+380	-3
Base Anhydrite	2150	2150	+343	-1
Topeka	3600	3600	-1107	-8
Heebner	3814	3814	-1321	-6
Toronto	3838	3838	-1345	-7
LKC	3854	3854	-1361	-7
BKC	4072	4072	-1579	-6
Total Depth	4115	4117	-1624	

Reference Well For Structural Comparison DNOCI
Wendelin Herman #1-30 335' FSL & 2425' FWL Sec. 30-14s-19w

Drilling Contractor	Discovery Drilling, Rig #1		
Commenced	1-25-14	Completed	1-30-14
Samples Saved From	3800	To	RTD
Drilling Time Kept From	3500	To	RTD
Samples Examined From	3800	To	RTD
Geological Supervision From	3500	To	RTD

Summary and Recommendations

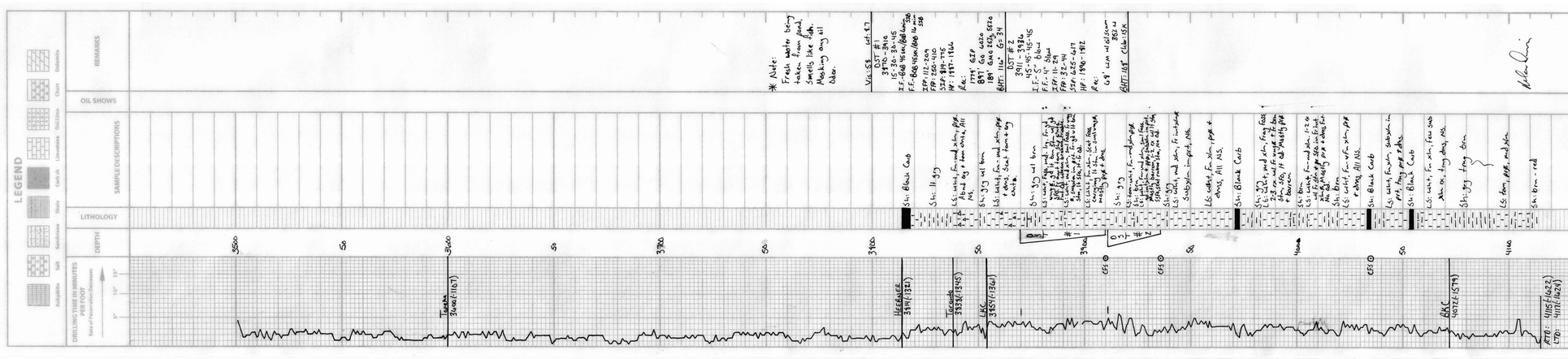
Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.

Perforate:

LKC "H" 3981-3984
LKC "C" 3880-3882

Respectfully Submitted,

Marc A. Downing



JOB LOG — **SWIFT Services, Inc.** — DATE 1-31-14 — PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
Downing & Nelson	# 2-30	Wendelin Herman	2-stage	25094

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	0600							on loc w/ FE.
								RTD 4115 LTD 4116'
								5½" x 14# x 4111' x 33'
								Cent 1, 3, 5, 8, 10, 12, 14, 17
								Bask 50
								DV 50 @ 2075'
	0800							Start FE
	1000							Break Circ
	1120	2.5	7/4					Plug RH & MH 39/15sks SMD
	1025	5	0				300	start Preflushes 500 gal Mudflush 20 Bbl KCL flush
	1035	5	32/0				300	Start 150sks EA-2 Cement
	1050		36				300	End Cement
								Wash Pit L
								Drop DV LD Plug
	1055	6	0				300	start Displacement w/ mud
		5	50				300	
		5	31				400	KCL
	1115		20				700/1400	Land Plug
								Release Pressure
								Float Held
								Drop Opening Plug
	1126						1100	Open DV
	1127	5	0				200	Start SMD Cement 190sks
	1150		105				200	End Cement
								Wash Pit L
								Drop Closing Plug
	1155	6	0				200	Start Displacement
		5	28				300	circ cement
	1205		50.5				450/1500	Land Plug / Close DV
								Release Pressure
								DV Closed
		Thank you						circ 5sacks to pit
		Nick, Ronnie & Jake						