KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1060008

Form ACO-1
June 2009
**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:

- [x] New Well [ ] Re-Entry [ ] Workover
- [x] 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
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

| 04/29/2011 | 05/05/2011 | 05/06/2011 |
|---|---|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |

API No. 15 - 15-051-26134-00-00
Spot Description:
SW - SE - NE - NE Sec. 13 Twp. 14 S. R. 19 [ ] East [x] West
1040 Feet from [x] North / [ ] South Line of Section
350 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[x] NE [ ] NW [ ] SE [ ] SW
County: Ellis
Lease Name: Sunley Well #: 1-13
Field Name: Exoeriment Southwest
Producing Formation: Arbuckle
Elevation: Ground: 2154 Kelly Bushing: 2157
Total Depth: 3850 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 223 Feet
Multiple Stage Cementing Collar Used? [x] Yes [ ] No
If yes, show depth set: 1370 Feet
If Alternate II completion, cement circulated from: 1370
feet depth to: 0 w/ 135 sx cmt.

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

Chloride content: 16000 ppm Fluid volume: 320 bbls
Dewatering method used: Haul Off Pit

Location of fluid disposal if hauled offsite:

Operator Name: Downing Nelson Oil Company Inc
Lease Name: Connie License #: 30717
Quarter E2 Sec. 29 Twp. 13 S. R. 21 [ ] East [x] West
County: Trego Permit #: D30417

**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**

- [ ] **Letter of Confidentiality Received**
  Date:
- [ ] **Confidential Release Date:**
- [x] **Wireline Log Received**
- [ ] **Geologist Report Received**
- [ ] **UIC Distribution**

**ALT** [ ] I [x] II [ ] III **Approved by:** Deanna Garrisor **Date:** 07/25/2011

*Side Two*

1060008

Operator Name: Downing-Nelson Oil Co Inc Lease Name: Sunley Well #: 1-13

Sec. 13 Twp. 14 S. R. 19 ☐ East ☑ West County: Ellis

**INSTRUCTIONS:** Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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
Electric Log Submitted Electronically ☑ Yes ☐ No
*(If no, Submit Copy)*

List All E. Logs Run:
Attached

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

| Name | Top | Datum |
|---|---|---|
| Attached | Attached | Attached |

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 | 223 | Common | 150 | 2% Gel & 3%CC |
| Production String | 7.875 | 5.5 | 14 | 3849 | EA/2 | 150 | |
| | | | | | | | |

ADDITIONAL CEMENTING / SQUEEZE RECORD

| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
|---|---|---|---|---|
| ☐ Perforate<br>☐ Protect Casing<br>☐ Plug Back TD<br>☐ Plug Off Zone | - | | | |
| | - | | | |

| 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 | 3785' to 3788' | | |
| | | | |
| | | | |
| | | | |
| | | | |

TUBING RECORD: Size: 2.3750 Set At: 3787.63 Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 06/03/2011

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

| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|---|---|---|---|---|---|
| | 50 | 0 | 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 | Sunley 1-13 |
| Doc ID | 1060008 |

All Electric Logs Run

| |
|---|
| Sonic |
| Micro |
| Dual Induction |
| Compensated Density/Neutron |

| | |
|---|---|
| Form | ACO1 - Well Completion |
| Operator | Downing-Nelson Oil Co Inc |
| Well Name | Sunley 1-13 |
| Doc ID | 1060008 |

Tops

| Name | Top | Datum |
|---|---|---|
| Anhydrite | 1405 | +752 |
| Base | 1450 | +707 |
| Topeka | 3160 | -1003 |
| Heebner | 3406 | -1249 |
| Toronto | 3426 | -1269 |
| LKC | 3454 | -1297 |
| BEK | 3680 | -1523 |
| Arbuckle | 3738 | -1581 |

# ALLIED CEMENTING CO., LLC. 039604

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Russell

| DATE | SEC. | TWP. | RANGE | CALLED OUT | ON LOCATION | JOB START | JOB FINISH |
|---|---|---|---|---|---|---|---|
| 4/29/11 | 13 | 14 | 19 | | | 5:00 p | 5:30 p |

| LEASE | WELL # | LOCATION | COUNTY | STATE |
|---|---|---|---|---|
| Sunley | 1-13 | Hays + Hwy 40 1E 4S 1E 1/2 S with | Ellis | KS |

OLD OR NEW (Circle one)

CONTRACTOR Discovery Drilling Rig #3
TYPE OF JOB Surface Job
HOLE SIZE 12 1/4 T.D. 223
CASING SIZE 8 5/8 DEPTH 223.01
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 15'
CEMENT LEFT IN CSG. 15'
PERFS.
DISPLACEMENT 13 66/

OWNER

**CEMENT**

AMOUNT ORDERED 150 Co - 3%CC 2%Gl

**EQUIPMENT**

PUMP TRUCK CEMENTER Shane, Heath
# 417 HELPER Tony
BULK TRUCK
# 378 DRIVER Nick
BULK TRUCK
# DRIVER

| | | | |
|---|---|---|---|
| COMMON | 150 | @ 16.25 | 2437.50 |
| POZMIX | | @ | |
| GEL | 3 | @ 21.25 | 63.75 |
| CHLORIDE | 5 | @ 58.20 | 291.00 |
| ASC | | @ | |
| HANDLING | 158 | @ 2.25 | 355.50 |
| MILEAGE | 111 sk/mile | | 521.40 |
| | | TOTAL | 3669.15 |

**REMARKS:**

Ran 5 jts. + Landing Jt.
Test Circulation.
Mixed 150 sks.
Cement Circulated

**SERVICE**

| | | | |
|---|---|---|---|
| DEPTH OF JOB | | | |
| PUMP TRUCK CHARGE | | | 1125.00 |
| EXTRA FOOTAGE | | @ | |
| MILEAGE | 60 | @ 7.00 | 420.00 |
| MANIFOLD | | @ | |
| Lua | 60 | @ 4.00 | 240.00 |
| | | @ | |
| | | TOTAL | 1785.00 |

CHARGE TO: Downing Nelson
STREET
CITY STATE ZIP

**PLUG & FLOAT EQUIPMENT**

Thanks.

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or

**JOB LOG** — **SWIFT Services, Inc.** — DATE 5-6-11 — PAGE NO. 1

| CUSTOMER | WELL NO. | LEASE | JOB TYPE | TICKET NO. |
|---|---|---|---|---|
| Dorsey & Nelson | 1-13 | Sunley | Cement Longstring | 19489 |

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) (GAL) | PUMPS T | PUMPS C | PRESSURE (PSI) TUBING | PRESSURE (PSI) CASING | DESCRIPTION OF OPERATION AND MATERIALS |
|---|---|---|---|---|---|---|---|---|
| 5/5 | 22:30 | | | | | 14# | 5½ | On location w/ FE. Ready @ Midnight |
| | 22 45 | | | | | | | Start 5½" 14#/ft. casing to 3850' |
| | | | | | | | | Insert Float Shoe w/ Auto-Fill |
| | | | | | | | | L.D D.V. Baffle - SJ - 20' @ 3829' |
| | | | | | | | | Cent collars 1-3-5-7-9-11-61 |
| | | | | | | | | Cement Baskets #62 #17 #25 - out |
| | | | | | | | | D.V. Tool #62 @ 1370' (92 Jts) |
| | | | | | | | | Drop Fillup Ball 6 Jts out |
| | 0100 | | | | | | | Fin run casing - Tag Bottom |
| | 0110 | | | | | | | Rig cir / Rotate Casing |
| | | | | | | | | Fin cir - 1st stage |
| | | 6 | | | | | 300 | Pump 500 gal Mud Flush |
| | | 6 | | | | | 300 | Pump 20 BBL KCL Flush |
| | | 4½ | | | | | 250 | Mix / Pump 150 SKS EA-2 cmt |
| | | | 36 | | | | Vac | Fin cmt - Wash out Pump & Lines |
| | 0205 | | | | | | | Drop L.D. DV - Plug - Start Displ (93½) |
| | | 9 | | | | | 300 | First 60 BBL - H2O - Start 20 BBL Mud |
| | | 9/7 | 70 | | | | 300/400 | Complete press - Slow rate to 7 BPM |
| | | 7 | 80 | | | | 500 | Biggest 2nd/stage KCL Flush to Land Plug |
| | | 5½ | 90 | | | | 600 | Slow Rate |
| | 0220 | | 93½ | | | | 800/1500 | Plug Down - Hold - Release & Hold |
| | | | | | | | | Drop D.V. opening device - Plug RH/MH |
| | | 5 | 5 | | | | 1050/850 | Open D.V. - Fin KCL Flush 30 SKS/15 Bbl |
| | | 5 | | | | | 250 | Start 135 SKS Swd @ 11.2 |
| | 0305 | | 75 | | | | Vac | Fin cmt |
| | | | | | | | | Drop D.V. Closing Plug |
| | | 5 | | | | | 300/900 | Start Displ H2O (93 BBl) |
| | 0315 | | 33 | | | | 600/1400 | Plug Down - D.V. Closed - Hold & Release |
| | | | | | | | | (30 SKS cmt circulate to Pit.) |
| | | | | | | | | Wash up & Rackup |
| | 0330 | | | | | | | Job Complete |
| | | | | | | | | Thanks |
| | | | | | | | | Ken, Doug & Tom |

# DRILL STEM TEST REPORT

Dow ning-Nelson

P.O. Box 1019 113 W. 13th
Hays, KS. 67601

ATTN: Al Dow ning

**Sunley #1-13**

**13/14/19/Ellis-KS**

Job Ticket: 041106 **DST#: 1**

Test Start: 2011.05.02 @ 18:55:00

## GENERAL INFORMATION:

Formation: **Plattsmouth**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:56:30
Time Test Ended: 00:52:00

Test Type: Conventional Bottom Hole
Tester: Kevin Mack
Unit No: 35

**Interval: 3366.00 ft (KB) To 3400.00 ft (KB) (TVD)**
Total Depth: 3400.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

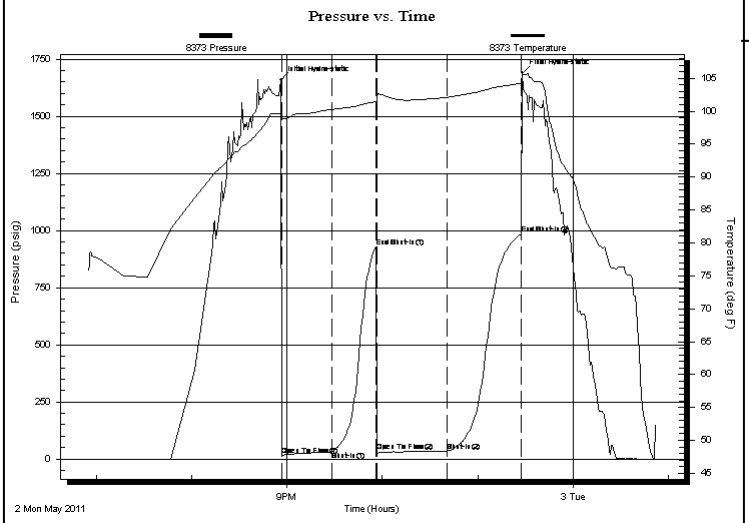
Reference Elevations: 2160.00 ft (KB)
2154.00 ft (CF)
KB to GR/CF: 6.00 ft

**Serial #: 8373** **Inside**

Press@RunDepth: 35.46 psig @ 3367.00 ft (KB)
Start Date: 2011.05.02 End Date: 2011.05.03
Start Time: 18:55:05 End Time: 00:51:59

Capacity: 8000.00 psig
Last Calib.: 2011.05.03
Time On Btm: 2011.05.02 @ 20:56:15
Time Off Btm: 2011.05.02 @ 23:28:00

TEST COMMENT: IF: Surface blow built to 1 1/4"
IS: No Return
FF: 1/4" Blow built to 3 1/2"
FS: No Return




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1658.69 | 99.55 | Initial Hydro-static |
| 1 | 17.32 | 98.88 | Open To Flow (1) |
| 32 | 32.71 | 100.27 | Shut-In(1) |
| 60 | 929.10 | 101.43 | End Shut-In(1) |
| 60 | 33.17 | 101.29 | Open To Flow (2) |
| 105 | 35.46 | 102.14 | Shut-In(2) |
| 151 | 984.37 | 104.23 | End Shut-In(2) |
| 152 | 1687.96 | 105.76 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 0.00 | 10' GIP | 0.00 |
| 50.00 | OSM (oil spots) 100M | 0.43 |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson

P.O. Box 1019 113 W. 13th
Hays, KS. 67601

ATTN: Al Downing

**Sunley #1-13**

**13/14/19/Ellis-KS**

Job Ticket: 041106 **DST#: 1**

Test Start: 2011.05.02 @ 18:55:00

## 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: | 77.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 7.99 in³ | Gas Cushion Type: | | | |
| Resistivity: | 0.00 ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 2000.00 ppm | | | | |
| Filter Cake: | 1.00 inches | | | | |

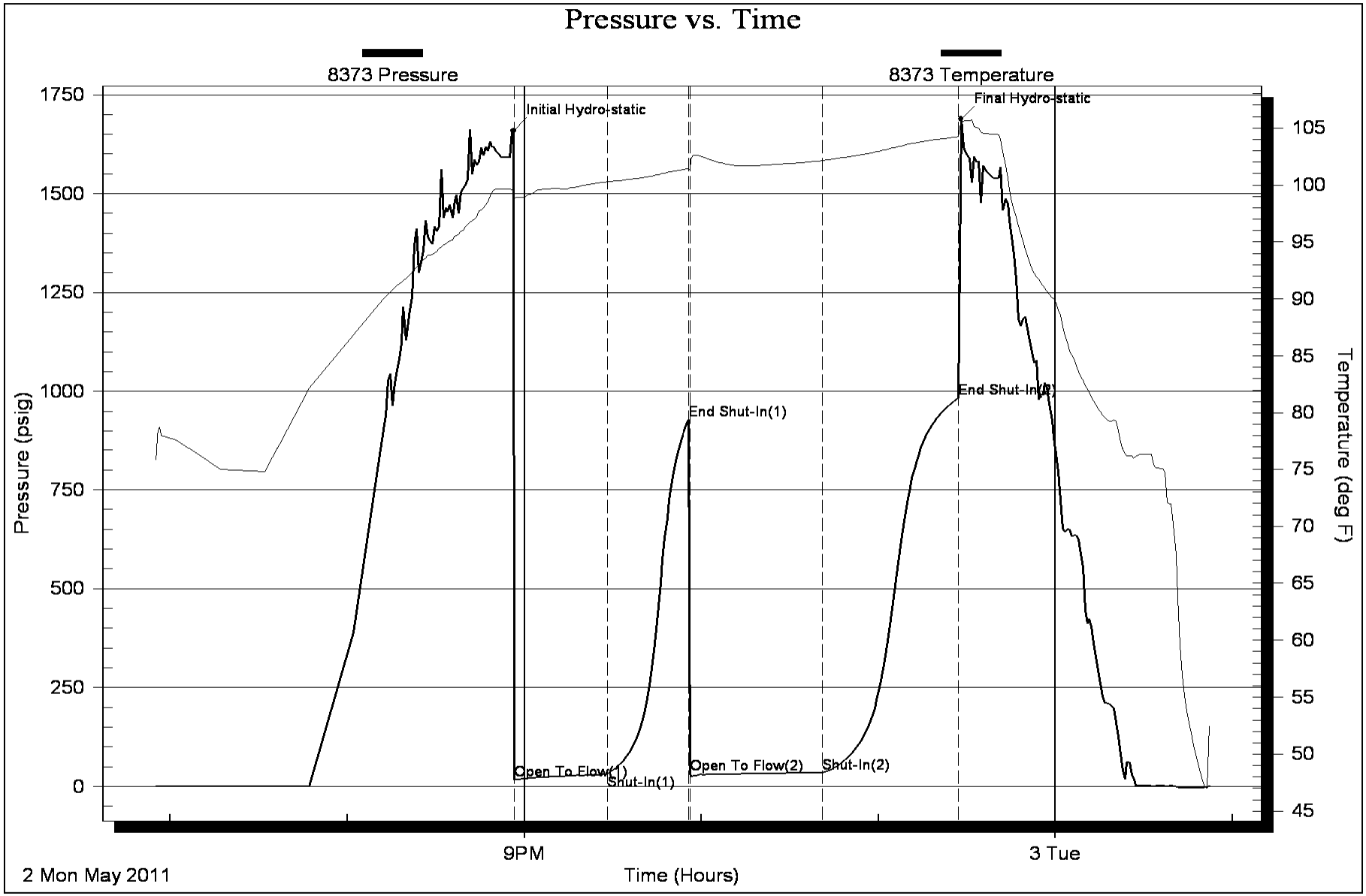
## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 0.00 | 10' GIP | 0.000 |
| 50.00 | OSM (oil spots) 100M | 0.428 |

Total Length: 50.00 ft Total Volume: 0.428 bbl

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


Pressure vs. Time
8373 Pressure
8373 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
105
100
95
90
85
80
75
70
65
60
55
50
45
9PM
3 Tue
2 Mon May 2011
Time (Hours)

# DRILL STEM TEST REPORT

Dow ning-Nelson

P.O. Box 1019 113 W. 13th
Hays, KS. 67601

ATTN: Al Dow ning

**Sunley #1-13**

**13/14/19/Ellis-KS**

Job Ticket: 041107 **DST#: 2**

Test Start: 2011.05.03 @ 11:08:00

## GENERAL INFORMATION:

Formation: **Lansing "C,D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:20:00
Time Test Ended: 17:03:45

Test Type: Conventional Bottom Hole
Tester: Kevin Mack
Unit No: 35

**Interval: 3456.00 ft (KB) To 3510.00 ft (KB) (TVD)**
Total Depth: 3510.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

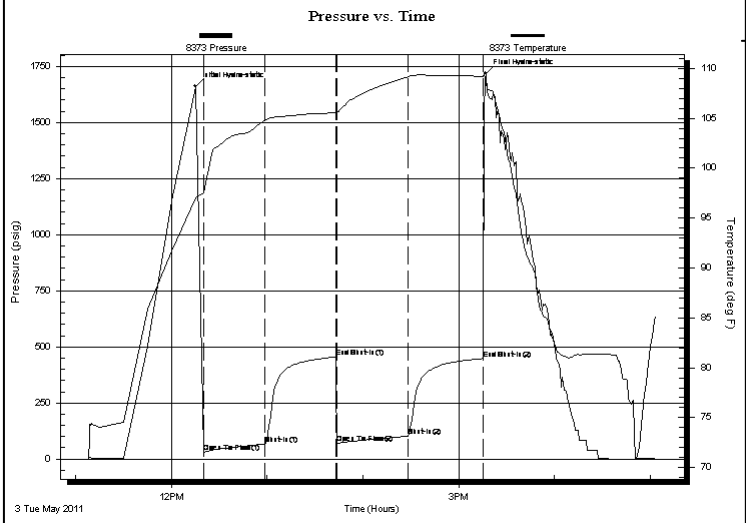
Reference Elevations: 2160.00 ft (KB)
2154.00 ft (CF)
KB to GR/CF: 6.00 ft

**Serial #: 8373** **Inside**

Press@RunDepth: 101.13 psig @ 3457.00 ft (KB)
Start Date: 2011.05.03 End Date: 2011.05.03
Start Time: 11:08:05 End Time: 17:03:44

Capacity: 8000.00 psig
Last Calib.: 2011.05.03
Time On Btm: 2011.05.03 @ 12:15:00
Time Off Btm: 2011.05.03 @ 15:17:00

TEST COMMENT: IF: BoB in 33 min.
IS: Surface return started at 10 min built to 1/2"
FF: BoB in 20 min
FS:Surface return started at 5 min built to 2"




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1662.27 | 97.02 | Initial Hydro-static |
| 5 | 29.07 | 97.54 | Open To Flow (1) |
| 44 | 67.21 | 104.82 | Shut-In(1) |
| 88 | 456.06 | 105.58 | End Shut-In(1) |
| 89 | 71.56 | 105.37 | Open To Flow (2) |
| 134 | 101.13 | 109.15 | Shut-In(2) |
| 181 | 447.85 | 109.22 | End Shut-In(2) |
| 182 | 1719.26 | 108.39 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 0.00 | GIP | 0.00 |
| 62.00 | WM 70M 30W | 0.60 |
| 62.00 | OCMW 30M 65W 5o | 0.87 |
| 52.00 | OCWM 40M 25W 35o | 0.73 |
| 20.00 | Oil 100o | 0.28 |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson

P.O. Box 1019 113 W. 13th
Hays, KS. 67601

ATTN: Al Downing

**Sunley #1-13**

**13/14/19/Ellis-KS**

Job Ticket: 041107 **DST#: 2**

Test Start: 2011.05.03 @ 11:08:00

## 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: | 40000 ppm |
| Viscosity: | 80.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 8.79 in³ | Gas Cushion Type: | | | |
| Resistivity: | 0.00 ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 5000.00 ppm | | | | |
| Filter Cake: | 1.00 inches | | | | |

## Recovery Information

Recovery Table

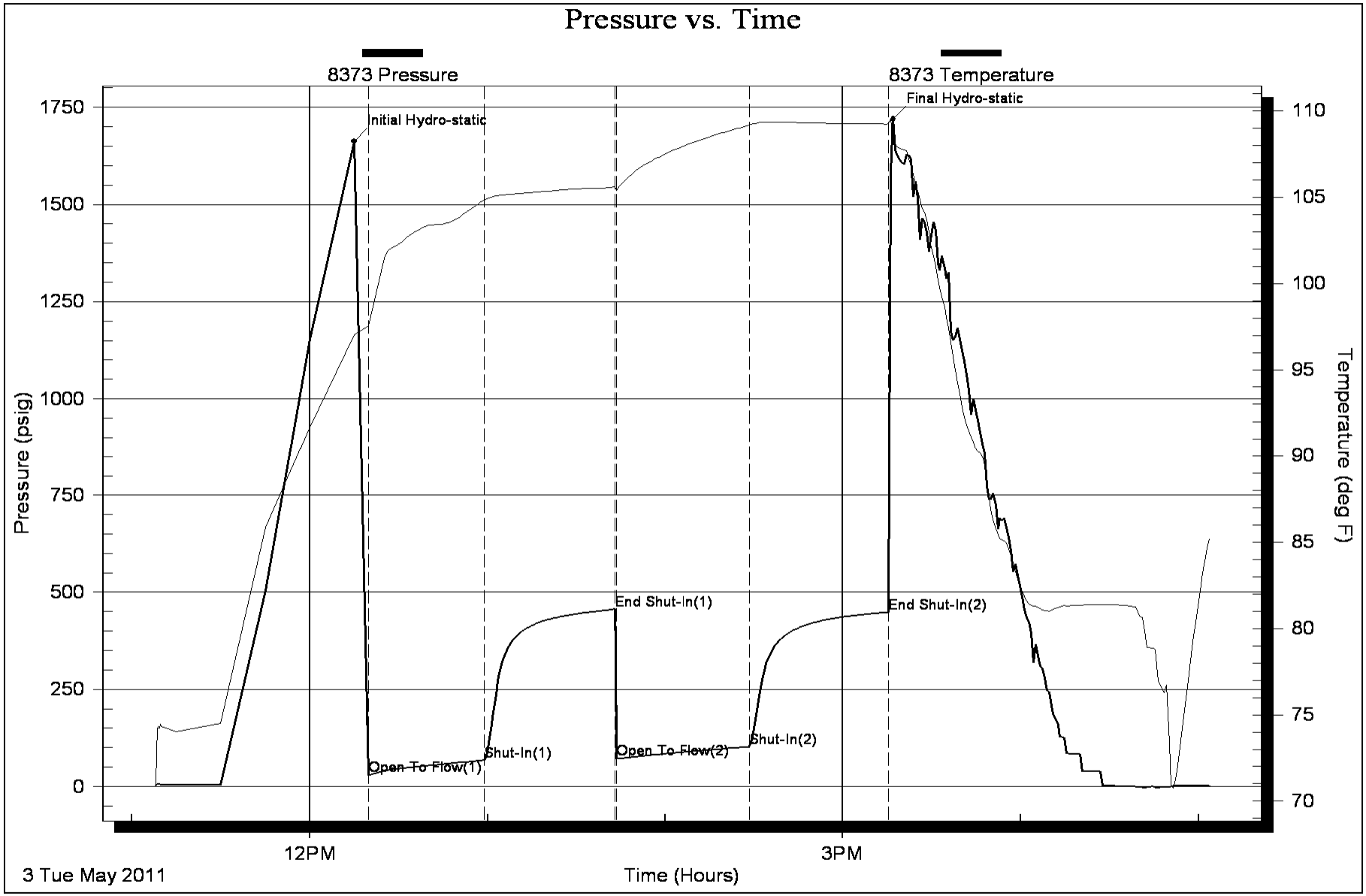
| Length ft | Description | Volume bbl |
|---|---|---|
| 0.00 | GIP | 0.000 |
| 62.00 | WM 70M 30W | 0.596 |
| 62.00 | OCMW 30M 65W 5o | 0.870 |
| 52.00 | OCWM 40M 25W 35o | 0.729 |
| 20.00 | Oil 100o | 0.281 |

Total Length: 196.00 ft Total Volume: 2.476 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Oil API 37@90 degrees = 34
RW .15 @ 79 degrees = 40000 ppm


Pressure vs. Time
8373 Pressure
8373 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
110
105
100
95
90
85
80
75
70
12PM
3PM
3 Tue May 2011
Time (Hours)

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc.

P.O. Box 1019 113 W. 13th
Hays, KS. 67601

ATTN: Al Downing

**Sunley #1-13**

**13/14/19 Ellis KS**

Job Ticket: 42560 **DST#: 3**

Test Start: 2011.05.03 @ 23:12:24

## GENERAL INFORMATION:

Formation: **LKC "E-F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:48:24
Time Test Ended: 05:17:24

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

**Interval: 3506.00 ft (KB) To 3533.00 ft (KB) (TVD)**
Total Depth: 3533.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

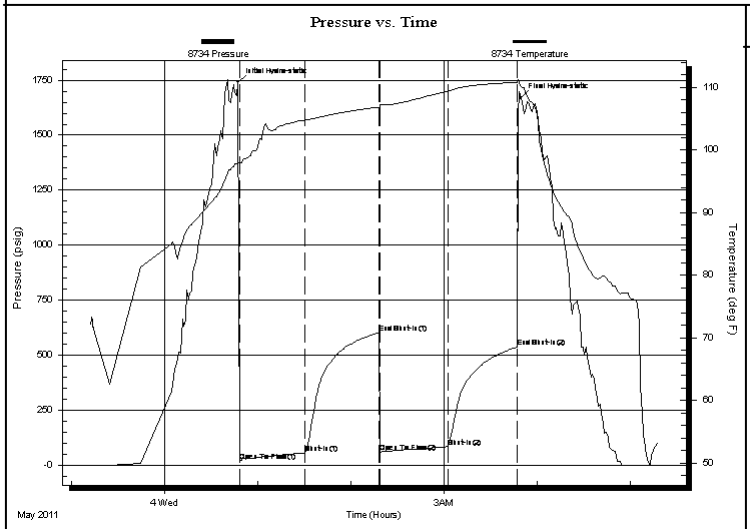
Reference Elevations: 2160.00 ft (KB)
2154.00 ft (CF)
KB to GR/CF: 6.00 ft

**Serial #: 8734** **Outside**

Press@RunDepth: 84.18 psig @ 3510.00 ft (KB)
Start Date: 2011.05.03 End Date: 2011.05.04
Start Time: 23:12:25 End Time: 05:17:24

Capacity: 8000.00 psig
Last Calib.: 2011.05.04
Time On Btm: 2011.05.04 @ 00:47:24
Time Off Btm: 2011.05.04 @ 03:49:24

TEST COMMENT: IFP - BOB 20 min
ISI - no blow back
FFP - BOB 32 min
FSI - no blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1739.55 | 98.01 | Initial Hydro-static |
| 1 | 19.36 | 97.73 | Open To Flow (1) |
| 43 | 56.21 | 104.78 | Shut-In(1) |
| 91 | 601.61 | 106.82 | End Shut-In(1) |
| 92 | 60.62 | 107.26 | Open To Flow (2) |
| 135 | 84.18 | 109.40 | Shut-In(2) |
| 180 | 537.71 | 110.79 | End Shut-In(2) |
| 182 | 1670.06 | 110.14 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 120.00 | MW 90%W, 10%M | 1.41 |
| 15.00 | SO & WCM 5%O, 5%W, 90%M | 0.21 |
| 10.00 | FREE OIL 95%O, 5%M | 0.14 |
| 0.00 | 130' GIP | 0.00 |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc.

P.O. Box 1019 113 W. 13th
Hays, KS. 67601

ATTN: Al Downing

**Sunley #1-13**

**13/14/19 Ellis KS**

Job Ticket: 42560 **DST#: 3**

Test Start: 2011.05.03 @ 23:12:24

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | 37 deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | 96000 ppm |
| Viscosity: | 80.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 8.78 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 5000.00 ppm | | | | |
| Filter Cake: | inches | | | | |

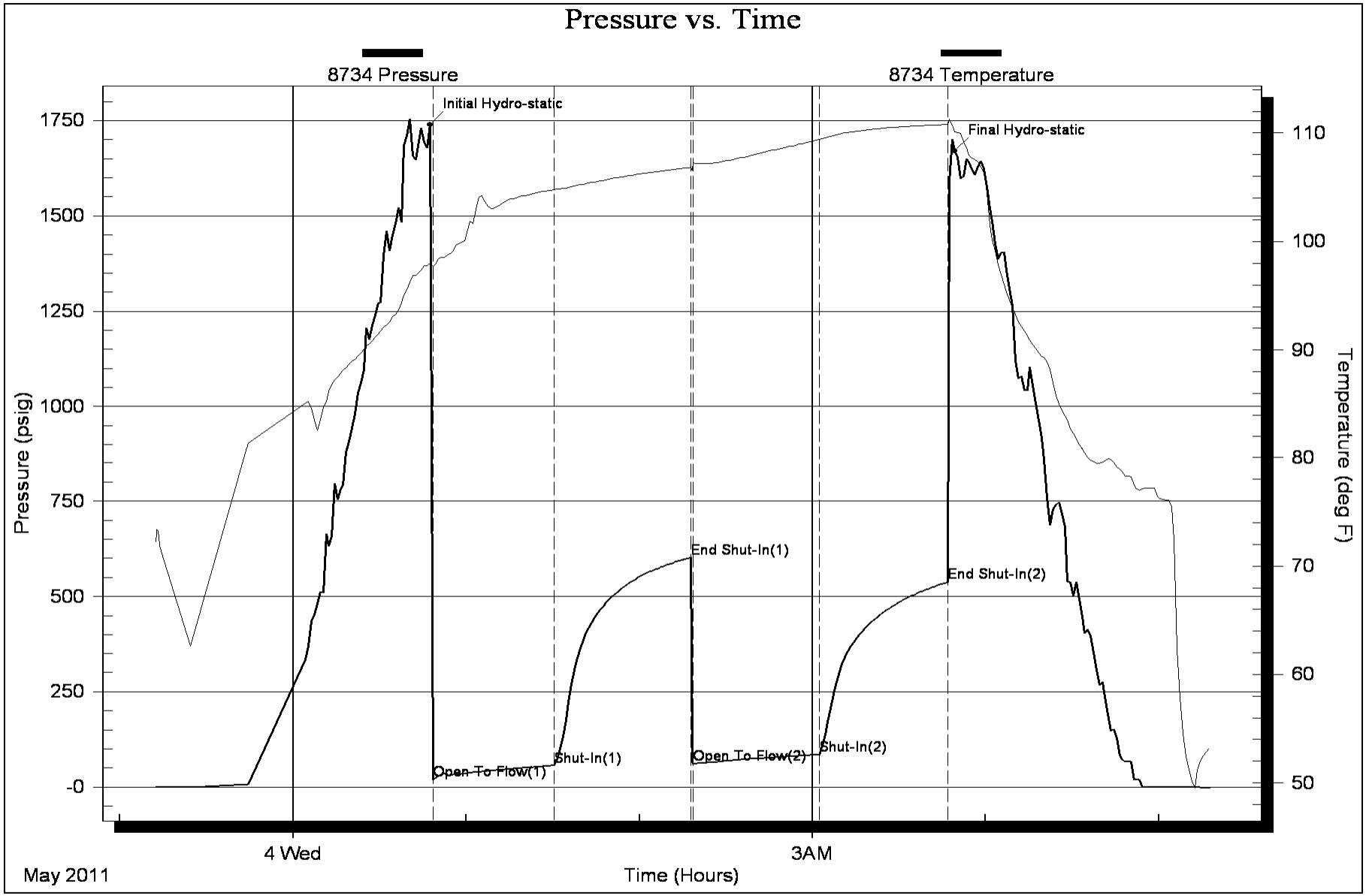
## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 120.00 | MW 90%W, 10%M | 1.410 |
| 15.00 | SO & WCM 5%O, 5%W, 90%M | 0.210 |
| 10.00 | FREE OIL 95%O, 5%M | 0.140 |
| 0.00 | 130' GIP | 0.000 |

Total Length: 145.00 ft Total Volume: 1.760 bbl

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


Pressure vs. Time
8734 Pressure
8734 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
1750
1500
1250
1000
750
500
250
-0
Pressure (psig)
110
100
90
80
70
60
50
Temperature (deg F)
4 Wed
3AM
May 2011
Time (Hours)

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc.

P.O. Box 1019 113 W. 13th
Hays, KS. 67601

ATTN: Al Downing

**Sunley #1-13**

**13/14/19 Ellis KS**

Job Ticket: 42561 **DST#: 4**

Test Start: 2011.05.04 @ 15:00:59

## GENERAL INFORMATION:

Formation: **LKC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:34:59
Time Test Ended: 21:06:29

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

**Interval: 3560.00 ft (KB) To 3630.00 ft (KB) (TVD)**
Total Depth: 3630.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

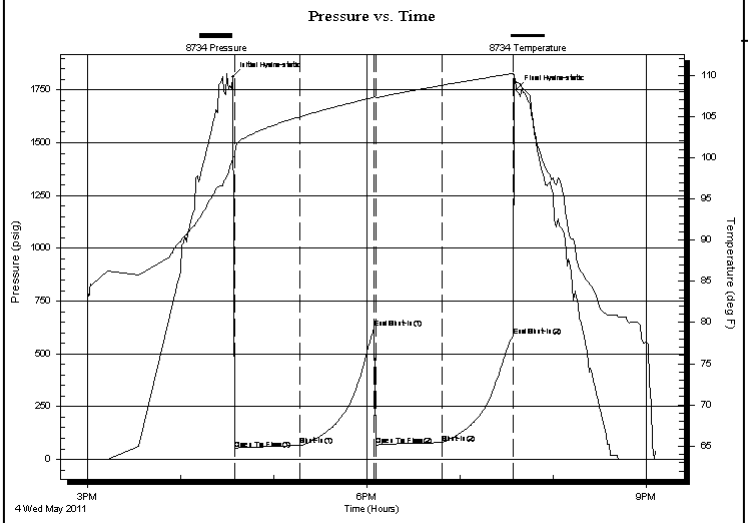
Reference Elevations: 2160.00 ft (KB)
2154.00 ft (CF)
KB to GR/CF: 6.00 ft

**Serial #: 8734** **Outside**

Press@RunDepth: 78.51 psig @ 3563.00 ft (KB)
Start Date: 2011.05.04 End Date: 2011.05.04
Start Time: 15:01:00 End Time: 21:06:29

Capacity: 8000.00 psig
Last Calib.: 2011.05.04
Time On Btm: 2011.05.04 @ 16:33:59
Time Off Btm: 2011.05.04 @ 19:36:29

TEST COMMENT: IFP - BOB 21 min
ISI - no blow back
FFP - BOB 1 min
FSI - no blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1812.26 | 99.96 | Initial Hydro-static |
| 1 | 47.02 | 100.21 | Open To Flow (1) |
| 43 | 65.95 | 104.97 | Shut-In(1) |
| 91 | 621.32 | 107.35 | End Shut-In(1) |
| 92 | 65.25 | 107.24 | Open To Flow (2) |
| 135 | 78.51 | 108.78 | Shut-In(2) |
| 180 | 584.99 | 110.22 | End Shut-In(2) |
| 183 | 1749.89 | 109.08 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 30.00 | GMCO 60%G, 30%O, 10%M | 0.15 |
| 30.00 | GOCM 35%G, 15%O, 50%M | 0.42 |
| 45.00 | GOCM 15%G, 15%O, 705M | 0.63 |
| 0.00 | 540' GIP | 0.00 |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc.

P.O. Box 1019 113 W. 13th
Hays, KS. 67601

ATTN: Al Downing

**Sunley #1-13**

**13/14/19 Ellis KS**

Job Ticket: 42561 **DST#: 4**

Test Start: 2011.05.04 @ 15:00:59

## 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: | 67.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 8.78 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 6000.00 ppm | | | | |
| Filter Cake: | inches | | | | |

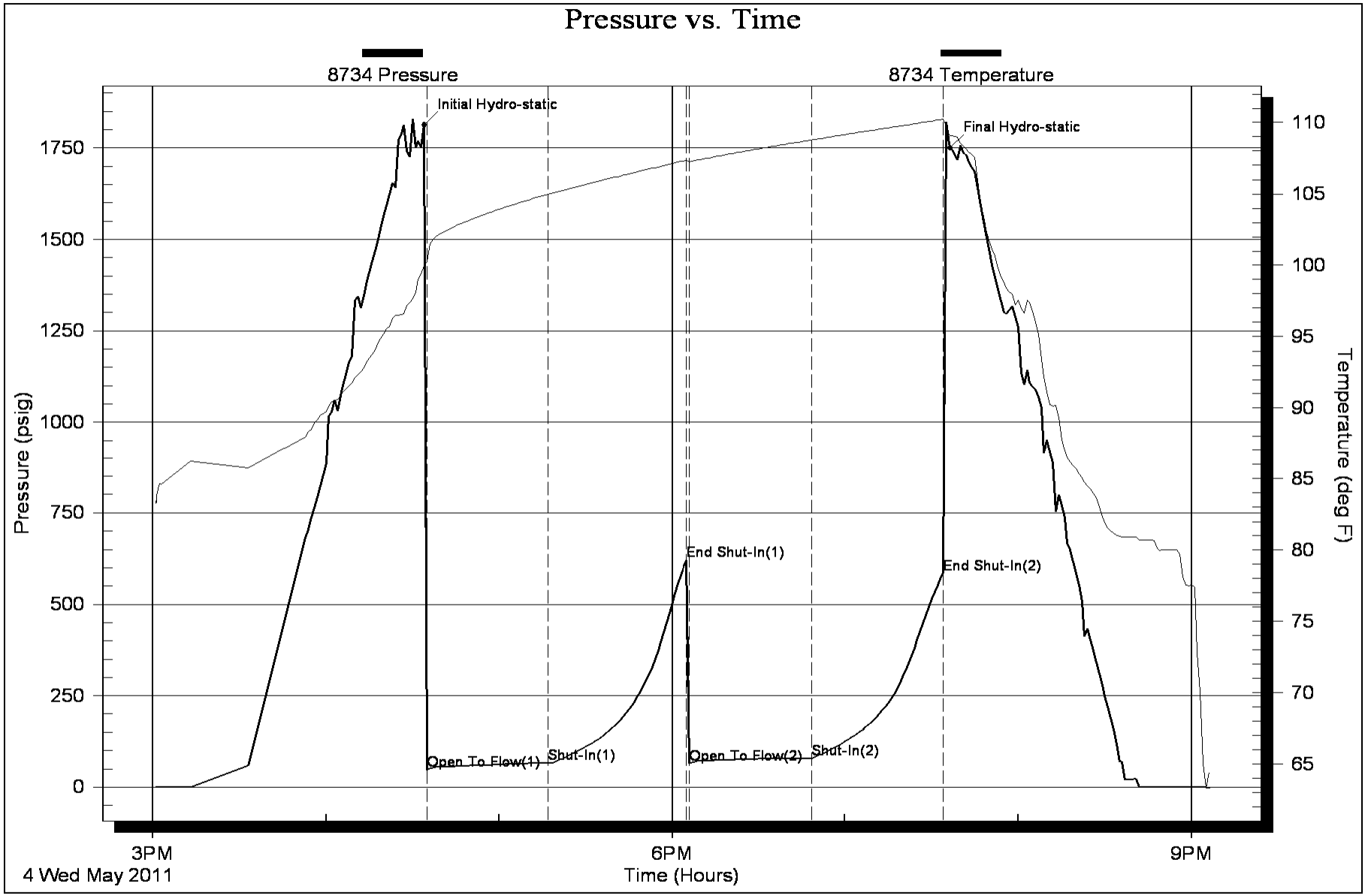
## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 30.00 | GMCO 60%G, 30%O, 10%M | 0.148 |
| 30.00 | GOCM 35%G, 15%O, 50%M | 0.421 |
| 45.00 | GOCM 15%G, 15%O, 705M | 0.631 |
| 0.00 | 540' GIP | 0.000 |

Total Length: 105.00 ft Total Volume: 1.200 bbl

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


Pressure vs. Time
8734 Pressure
8734 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
110
105
100
95
90
85
80
75
70
65
3PM
4 Wed May 2011
6PM
Time (Hours)
9PM