KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1060016

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: Ron Nelson
Purchaser: Coffeyville Resouces

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 #:

04/28/2011	05/04/2011	05/05/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-195-22708-00-00
Spot Description:
SE - SE - NE - SE Sec. 25 Twp. 13 S. R. 21 [ ] East [x] West
1375 Feet from [ ] North / [x] South Line of Section
75 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW
County: Trego
Lease Name: RBL Unit Well #: 1-25
Field Name: Schneller
Producing Formation: LKC & Marmaton
Elevation: Ground: 2304 Kelly Bushing: 2311
Total Depth: 4053 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 222 Feet
Multiple Stage Cementing Collar Used? [x] Yes [ ] No
If yes, show depth set: 1640 Feet
If Alternate II completion, cement circulated from: 1640
feet depth to: 0 w/ 155 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: 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

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

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

Side Two

1060016

Operator Name: Downing-Nelson Oil Co Inc Lease Name: RBL Unit Well #: 1-25

Sec. 25 Twp. 13 S. R. 21 ☐ East ☑ West County: Trego

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	222	Common	150	2% Gel & 3%CC
Production String	7.875	5.50	14	4051.47	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	-			
	-			

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	3775' to 3777', 3778' to 3784' & 3785' to 3787'	500 gal. 15% Mud Acid	3775' to 3787
4	3665' to 3673'	250 gal. 15% Mud Acid	3665' to 3673

TUBING RECORD: Size: 2.3750 Set At: 3957.86 Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 05/31/2011

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	18	0	100		34

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	RBL Unit 1-25
Doc ID	1060016

All Electric Logs Run

Sonic
Micro
Dual Induction
Compensated Density/Neutron

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	RBL Unit 1-25
Doc ID	1060016

Tops

Name	Top	Datum
Top Anhydrite	1646	+665
Base	1688	+623
Topeka	3324	-1013
Heebner	3556	-1245
LKC	3593	-1282
BKC	3845	-1534
Marmaton	3907	-1598
Cherokee Shale	3943	-1632
Arbuckle	3956	-1645

ALLIED CEMENTING CO., LLC. 039601

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Russell

DATE 9/28/16	SEC. 25	TWP. 13	RANGE 21	CALLED OUT	ON LOCATION	JOB START 6:00p	JOB FINISH 6:30p
LEASE RBL Unit	WELL # 1-25		LOCATION Ellis 1S 2W 1/2S			COUNTY ~~Ellis~~	STATE Ks.
OLD OR NEW (Circle one)			Wint			Tres.	

CONTRACTOR Discovery Rig #3
TYPE OF JOB Surface Job
HOLE SIZE 12 1/4 T.D. 223
CASING SIZE 8 5/8 DEPTH 222.45
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15
PERFS.
DISPLACEMENT 13.21 bbl

OWNER

CEMENT
AMOUNT ORDERED 150 Co-3+2

EQUIPMENT

PUMP TRUCK CEMENTER Shane Headrick
409 HELPER Tony
BULK TRUCK
372 DRIVER Ron
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	.11/sk/mile		521.40
		TOTAL	3669.15

REMARKS:

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

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			1125.00
EXTRA FOOTAGE		@	
MILEAGE	60	@ 7.00	420.00
MANIFOLD		@	
Cus	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 MAY 11 | PAGE NO. 1

CUSTOMER: DOWNING & NELSON | WELL NO. | LEASE: RBL UNIT 1-25 | JOB TYPE: 5½ LONGSTRING | TICKET NO. 20784

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1420							ON LOCATION
	1505							START PIPE 5½ - 14#
								RTD @ 4053 LTD @ 4054
								SHOE JT 42.43'
								DV TOOL ON JT. # 57 @ 1640
								CENTRALIZERS # 1, 3, 5, 7, 9, 11, 56
								BASKET # 57
	1641							DROP BALL CIRCULATE.
	1703	6	12		↓		300	PUMP 500 gal MUD FLUSH
	1705	6	20		↓		300	PUMP 20 BBL KCL FLUSH
	1708	4	36		↓		300	MIX 150 SX EA2
	1721							WASH OUT PUMPING LINES
	1723	6			↓			RELEASE PLUG START DISPLACEMENT
	1740		99		↓		1500	PLUG DOWN PRESSURE UP LATCH PLUG IN
	1742							RELEASE PRESSURE DRY
	1743.							DROP BOMB
	1752				↓		1200	OPEN DV TOOL
	1752	6	20		↓		300	PUMP 20 BBL KCL FLUSH
	1755		7, 3½					PLUG RH/MH (30 SX - 15 SX)
	1800	4	86		↓		200	MIX 155 SX SMD
	1826							WASH OUT PUMPING LINES.
	1828	6			↓			RELEASE PLUG START DISPLACEMENT
	1836	Ø	40		↓		1500	PLUG DOWN PRESSURE UP CLOSE DV TOOL
	1839							RELEASE PRESSURE - DRY.
								CIRCULATE 20 SX CEMENT TO SURFACE
	1842							WASH TRUCK
	1915							JOB COMPLETE
								THANKS # 110
								JASON JEFF ROB

Marc Downing

Consulting Petroleum Geologist
1411 Washington Circle
Hays, Ks 67601
Phone: 620-428-1356 (cell) 785-621-2286

GEOLOGIC REPORT LOG

COMPANY Downing-Nelson Oil Co. Inc.

WELL RBL Unit # 1-25

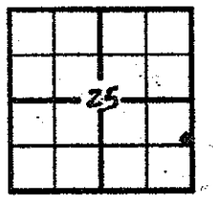
FIELD WILDCAT

LOCATION 1375'FSL & 75'FEL

SEC. 25 TWP. 13s RGE. 21w

COUNTY TREGO

STATE KANSAS



PRODUCTION LKC-Marm

ELEVATION KB 2311'
DF
GL 2303'

Drilling Measured From: KB

Samples Saved From 3550' To: TD

Drilling Time From 3200' To: TD

Samples Examined From: 3550' To: TD

Geological Supervision From 3550' To Total Depth

Wellsite Geologist Ron Nelson

Electrical Surveys Superior Well Svc
Dual Induction
Density-Neutron
Micro-Sonic

OPERATOR DNOCI

CONTRACTOR DISCOVERY DRILLING Rig #3

COMM: 4-28-11 COMP: 5-5-11

CASING RECORD

SURF: 8⅝" @ 223' PROD: 5½" @ 4053'

TOTAL DEPTH DRILLERS: 4053'

TOTAL DEPTH LOG 4054'

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
TOP ANHYDRITE	1645	1646	+665	-6
BASE ANHYDRITE	1698	1698	+623	EL
TOPEKA	3325	3324	-1013	+17
HEEBNER	3565	3556	-1245	+22
LKC	3591	3593	-1282	+24
BKC	3845	3845	-1534	+20
MARMATON	3906	3908	-1598	+16
CHEROKEE SHALE	3943	3943	-1632	+22
ARBUCKLE	3957	3956	-1645	+23

REFERENCE WELL FOR STRUCTURE Ames Energy Ex. #1 Boos @
SE-NW-SE 25-13S-21W

DAILY PENETRATION		BIT RECORD						
DATE	DEPTH	NO	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS

FORMATION	INTERVAL	DESCRIPTION OF SHOW	LOG ANALYSIS G / S W

DRILL STEM TESTS

No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	IHH-FHH	RECOVERY

REMARKS AND RECOMMENDATIONS BASED ON DST's & LOGS, RAN 5½" PRODUCTION CASING 1' OFF BOTTOM FOR UKC ZONES - C-E-J, WOPKINSON

Lon Nelson

7515

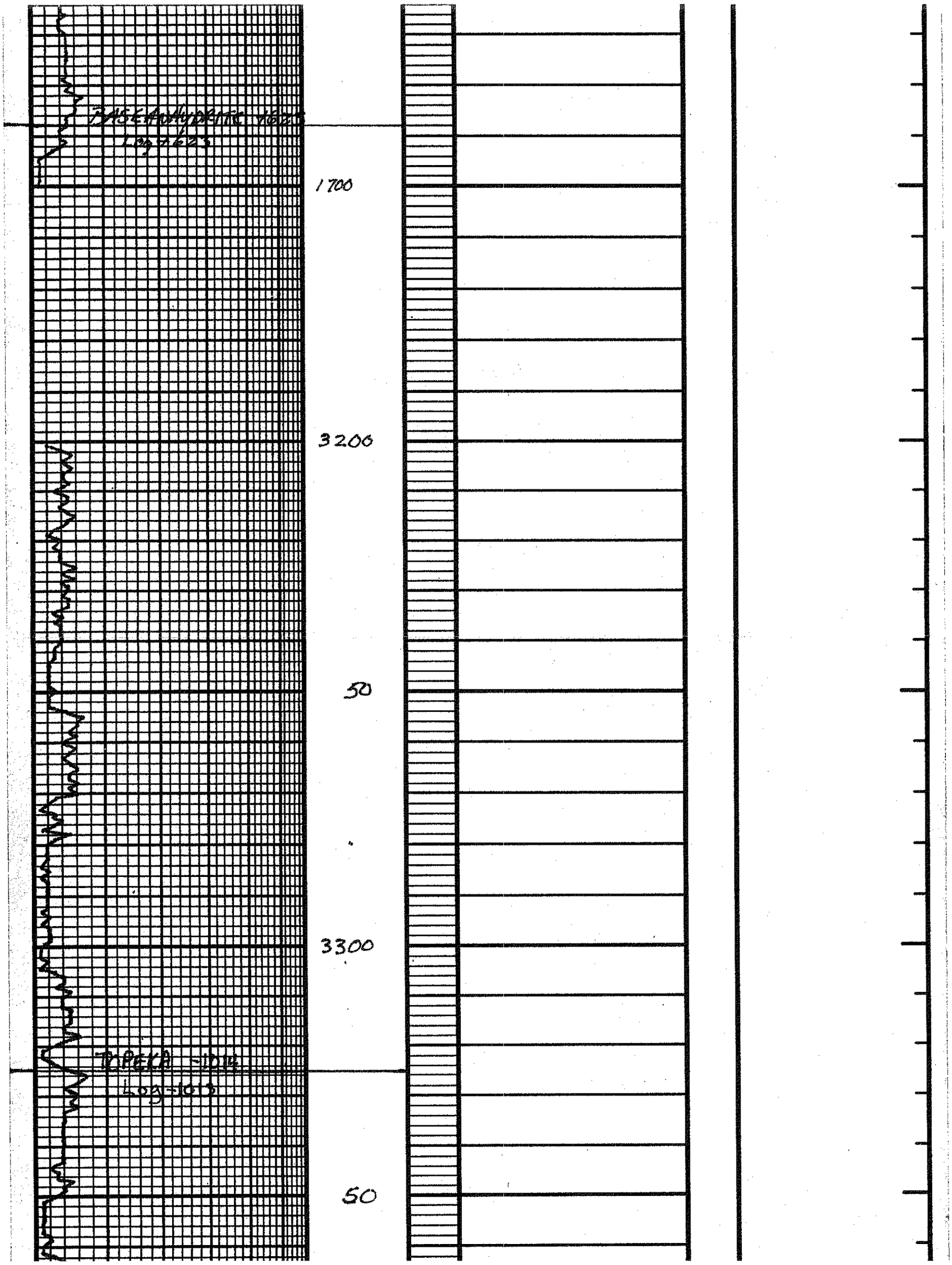
LEGEND

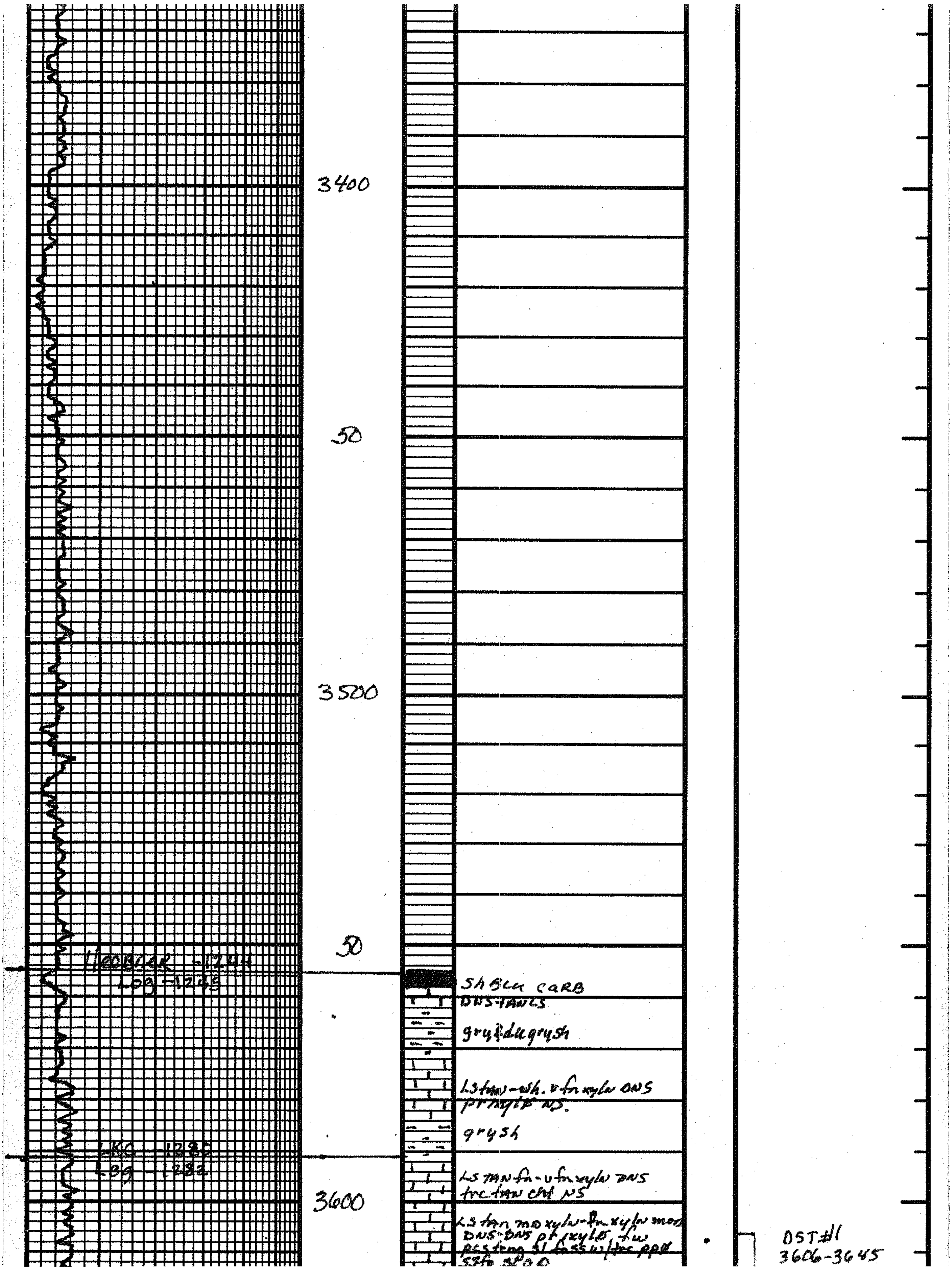
Anhydrite | Salt | Sandstone | Shale | Carb sh | Limestone | Ool.Lime | Chert | Dolomite

LOG 7710

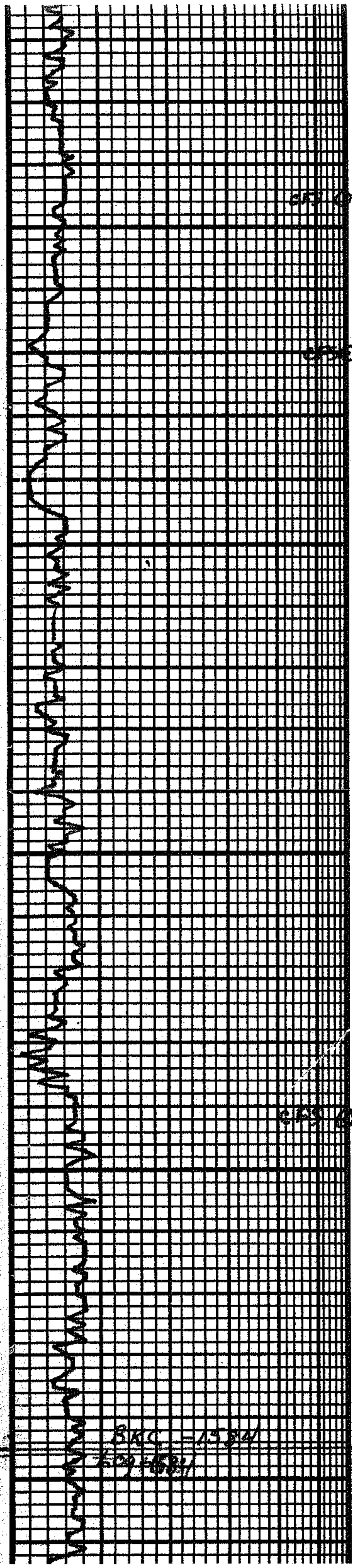
DRILLING TIME IN MINUTES PER FOOT
Rate of Penetration Decreases
5" 10" 15" 20" 25"

DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
1600				
50				

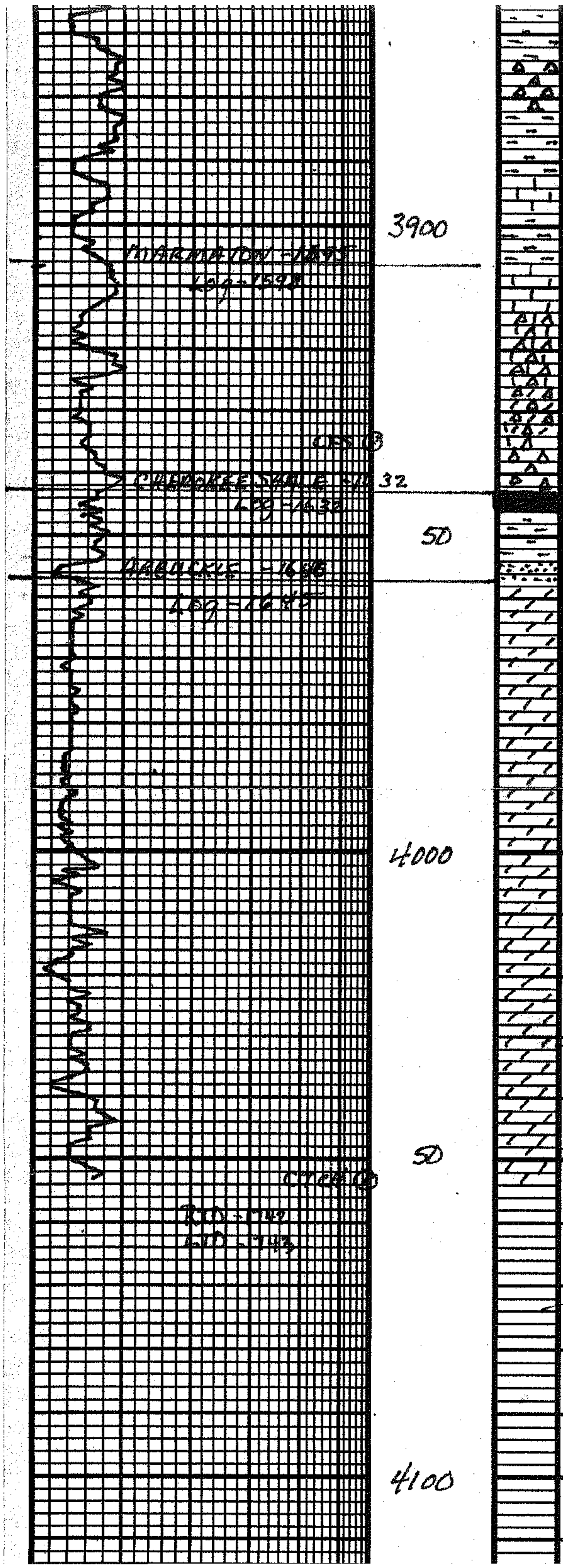

Base Hydrate 1600
Log 1623
1700
3200
50
3300
Top Gas 1614
Log 1615
50



3400
50
3500
50
3600
Heebner -1244
Log -1245
KC -1285
Log -1282
Sh Blk carb
DNS tan LS
gry & dk gry sh
LS tan-wh. v fn xyln DNS
pr xyln NS.
gry sh
LS tan fn-v fn xyln DNS
trc tan cht NS
LS tan md xyln-fn xyln mod
DNS-DNS pr xyln, fw
DST #1
3606-3645



Depth	Description	DST
	Sh dk gry	45"-45"-45"-45" 1st op 3" Blow 2nd op 3¼" Blow NO S.I. Blow IFP 14-42 FFP 46-58 SIP 500-494 HP 1748-1784 Rec 6' Oily Mud 80% oil 30' OWM 60' OWM
	Ls tan, fn suc xyln, 1-2 chky in pt, fr ppØ. Sft, lmy, w/fr gd od, sm gd sat brn stn Sm tight barren	
	Ls wh, tan, vfn - mic xyln dns pr xyl	
50	Blk & dk gry sh	
	Ls tn fn suc xyln w/ gd pp & xyl Ø, vg stn v vg od, sat brn stn vg sat	DST #2 3649'-3670' 30"-45"-30"-45" 1st op BOB 3" 1st SI BOB 16" 2nd op BOB 8" 2nd SI BOB 24" IFP 36-159 FFP 165-241 SIP 380-379 HP 1783-1684 Rec 930' GIP 150' G.O. 60' GWOCM 120' OMCW 180' WM BHT 119° Grav. 41°
	Ls tan s/chky, foss w/ fr gd intfossØ, sh fr spt - s/sat stn fr od	
	chky tan sft Ls NS friable	
3700	Ls wh - tan fn - vfn xyln	
	vdns pr xyl Ø NS.	
	w/ chk tan & mic xyln Ls	
	all NS	
	Shs blk carb v dk gry	
	Ls tan-gry, fn sdd foss in fn gr mat 1-2 pcs w/dns w/ [illegible]	
50	Sh blk carb v dk gry	
	chky tan m xyln Ls 1-2 pcs dd streaky stn blk, Sl od	
	dns tan mic xyln Ls v pr Ø NS	
	Sh v dk gry-gry	DST #3 3765-3792 45"-45"-45"-45" 1st op BOB 17" 2nd op BOB 14" NO S.I. Blow IFP 16-40 FFP 42-62 SIP 509-506 HP 1898-1806 Rec 434' GIP 120' OGCM BHT 114°
	ool-foss wh Ls g d int Øs [illegible] sat stn	
	[illegible] ool wh - chrcs w/ vgd od gd stn, friable, sat brn stn	
	[illegible]	
	Sh blk carb v dk gry	
3800	Ls tan - crmy 1-2 pcs ool w/ sat, sl od, most mc - fn xyln dns barren pr xyl Ø NS w/ 1-2 pcs chrt	
	Sh blk carb	
	Ls tan chky m pt sm fn xyln dns gry Ls all pr Ø all NS. w/ fw pcs tan chrt	
50	Shs blk dk gry brn gry	
	w/ chky tan Ls strgs NS	



Sh RD BRN

orange cht & DNS TAN MIC xyln LS, tw sctd loss

DNS TAN - wh LS sm RD/BRN mealy LS all NS

VDNS TAN micxyln LS no app BNS w/cht op wh tan shp frsh LS tan-Hem fn xyln mod dns fr ixyl Ø, poss frac Ø fs to fr od

cht tan wh Brn gry shp frsh fr gsfo, gd - fr frac Ø, brn edge stn, gassy when broken, trng DNS barren cht

Sh BLK CARB
Sh gry, BRN, grn

SS clstrs, fn grn, wl srtd fr cmtd, few loose grns, clr qtz w/sfo sn friable sgt fte

pr ixyl Ø fw pcs fr BRN STN, NO sat, SSFO, SI-fr od

fr-gd ixyl Ø. friable, sm gd vug Ø v rare sptd brn stn VSSFO v slod

trng DNS - mod DNS mo rhom xyln w/ fr ixyl Ø sm sctd vugs barren

mo rhom xyln gry dolo, fr ixyl Ø NS.

DOLO lt gry DNS pr ixyl Ø mg - fn rhom xyln not friable NS.

DNS TAN DOLO

Porous wh mo rhom xyln DOLO friable. gd vug & ixyl Ø NS

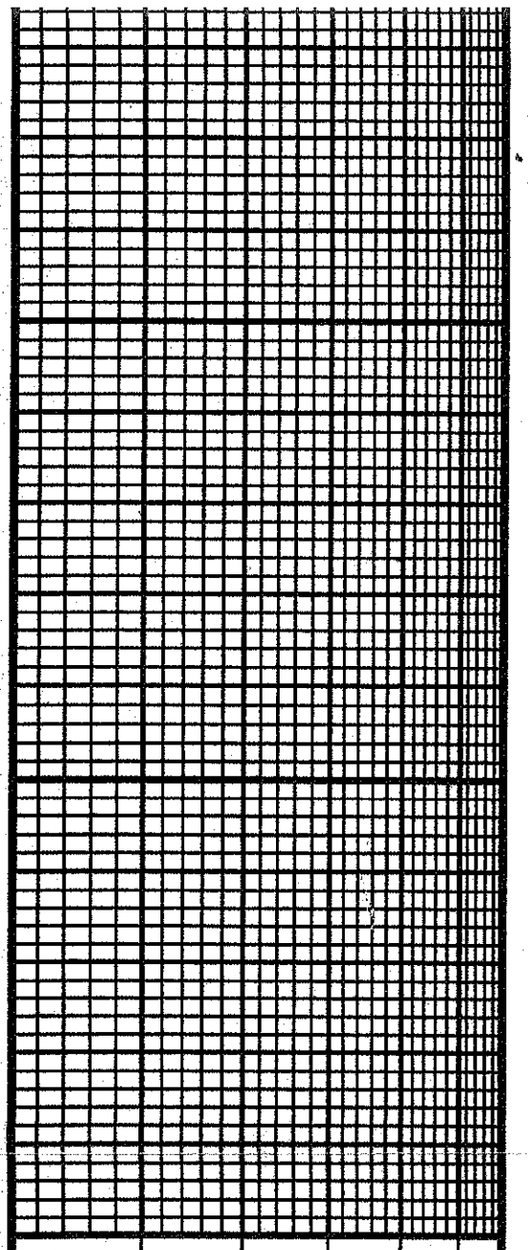
trng DNS w/ pr Ø

gd porous wh - gry DOLO strg NS
DNS DOLO

Brn-Harry mod DNS DOLO ALL NS.

Ron Nelson

DST #4
3910'-3935'
30"-45"-30"-45"
1st op BOB 5"
1st SI 1/4"
2nd op 10" BLOW
NO SI BLOW
IFP 30-69
FFP 72-88
SIP 497-257
HP 1944-1880
Rec 275' GIP
185' GO
30' OGCM
BHT 117° Grav 37°,
packer pulled loose & BHP invalid on 1st SI



5" 10" 15" 20" 25"

DRILLING TIME Minutes/Foot

Rate of Penetration Decreases

DEPTH

LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

CONTRACTOR Discovery Drilling Rig #3

LEASE RBL Unit # 1-25 IP LKC

ELEVATION 2311' KB RTD 4063'

LOCATION 1375' FSL & 75' FEL

SEC 25 TWP 13s RNG 21w

COUNTY TREGO STATE KANSAS

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

P.O. Box 1019
Hays,Ks 67601

ATTN: Ron Nelson

RBL Unit #1-25

25/13S/21W-Trego

Job Ticket: 42798 **DST#: 1**

Test Start: 2011.05.02 @ 07:48:15

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:36:05
Time Test Ended: 14:24:15

Test Type: Conventional Bottom Hole
Tester: Dustin Rash
Unit No: 38

Interval: 3606.00 ft (KB) To 3645.00 ft (KB) (TVD)
Total Depth: 3645.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

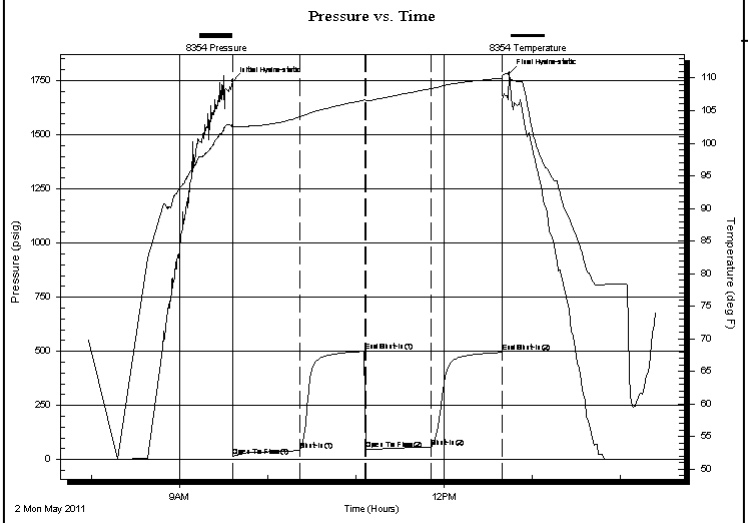
Reference Elevations: 2311.00 ft (KB)
2304.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 57.71 psig @ 3608.00 ft (KB)
Start Date: 2011.05.02 End Date: 2011.05.02
Start Time: 07:58:15 End Time: 14:24:15

Capacity: 8000.00 psig
Last Calib.: 2011.05.02
Time On Btm: 2011.05.02 @ 09:35:55
Time Off Btm: 2011.05.02 @ 12:44:15

TEST COMMENT: IF-Weak building blow . Built to 3&1/4 inches.
ISI-No Return.
FF-Weak building blow . Built to 3&1/4 inches.
FSI-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1748.19	102.85	Initial Hydro-static
1	14.29	102.26	Open To Flow (1)
46	42.04	104.02	Shut-In(1)
90	499.65	106.62	End Shut-In(1)
91	46.22	106.48	Open To Flow (2)
136	57.71	108.36	Shut-In(2)
184	493.90	109.99	End Shut-In(2)
189	1783.76	110.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	50%Mud/45%Water/5%Oil	0.56
30.00	75%Mud/20%Water/5%Oil	0.42
6.00	80%Oil/15%Mud/5%Water	0.08

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co.

P.O. Box 1019
Hays,Ks 67601

ATTN: Ron Nelson

RBL Unit #1-25

25/13S/21W-Trego

Job Ticket: 42798 **DST#: 1**

Test Start: 2011.05.02 @ 07:48:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	42 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	52500 ppm
Viscosity:	82.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.12 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	inches				

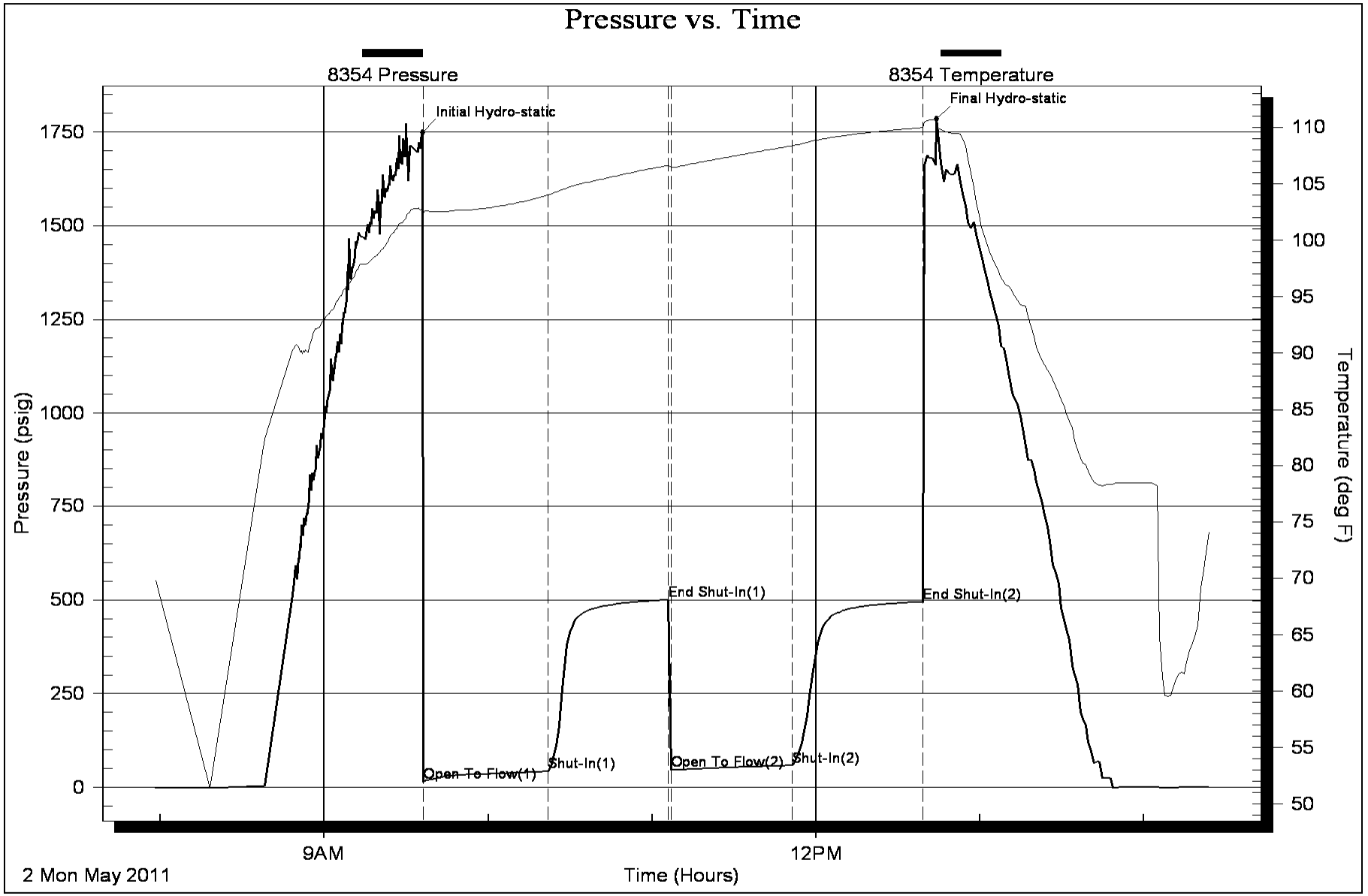
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	50%Mud/45%Water/5%Oil	0.559
30.00	75%Mud/20%Water/5%Oil	0.421
6.00	80%Oil/15%Mud/5%Water	0.084

Total Length: 96.00 ft Total Volume: 1.064 bbl

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


Pressure vs. Time
8354 Pressure
8354 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
60
55
50
9AM
12PM
2 Mon May 2011
Time (Hours)

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

P.O. Box 1019
Hays,Ks 67601

ATTN: Ron Nelson

RBL Unit #1-25

25/13S/21W-Trego

Job Ticket: 42799 **DST#: 2**

Test Start: 2011.05.02 @ 20:05:08

GENERAL INFORMATION:

Formation: **LKC E**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:46:28
Time Test Ended: 02:50:08

Test Type: Conventional Bottom Hole
Tester: Dustin Rash
Unit No: 38

Interval: 3649.00 ft (KB) To 3670.00 ft (KB) (TVD)
Total Depth: 3670.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

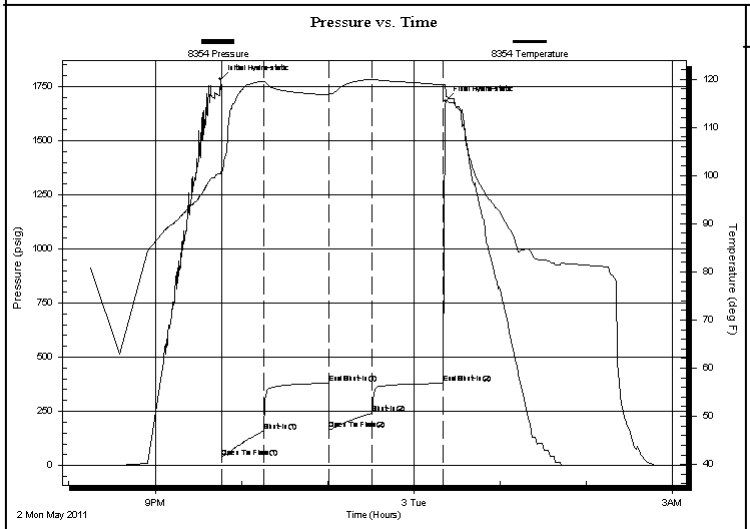
Reference Elevations: 2311.00 ft (KB)
2304.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 241.06 psig @ 3651.00 ft (KB)
Start Date: 2011.05.02 End Date: 2011.05.03
Start Time: 20:15:08 End Time: 02:50:08

Capacity: 8000.00 psig
Last Calib.: 2011.05.03
Time On Btm: 2011.05.02 @ 21:45:18
Time Off Btm: 2011.05.03 @ 00:22:08

TEST COMMENT: IF-Strong building blow . BOB in 2 minutes 40 seconds.
ISI-Return @ 15 seconds. BOB in 16 minutes.
FF-Fair building blow . BOB in 8 minutes.
FSI-Return @ 15 seconds. BOB in 24 minutes.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1782.97	100.38	Initial Hydro-static
2	36.46	100.00	Open To Flow (1)
31	158.75	119.58	Shut-In(1)
76	379.87	116.86	End Shut-In(1)
76	164.87	116.77	Open To Flow (2)
106	241.06	119.96	Shut-In(2)
156	379.08	118.85	End Shut-In(2)
157	1683.58	116.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	90%/Water/10%Mud	2.24
120.00	65%Water/30%Mud/5%Oil	1.68
60.00	50%Mud/20%Water/20%Gas/10%Oil	0.84
150.00	60%Oil/40%Gas	2.10
0.00	930' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

P.O. Box 1019
Hays,Ks 67601

ATTN: Ron Nelson

RBL Unit #1-25

25/13S/21W-Trego

Job Ticket: 42799 **DST#: 2**

Test Start: 2011.05.02 @ 20:05:08

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	41 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.78 in³	Gas Cushion Type:			
Resistivity:	0.11 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	inches				

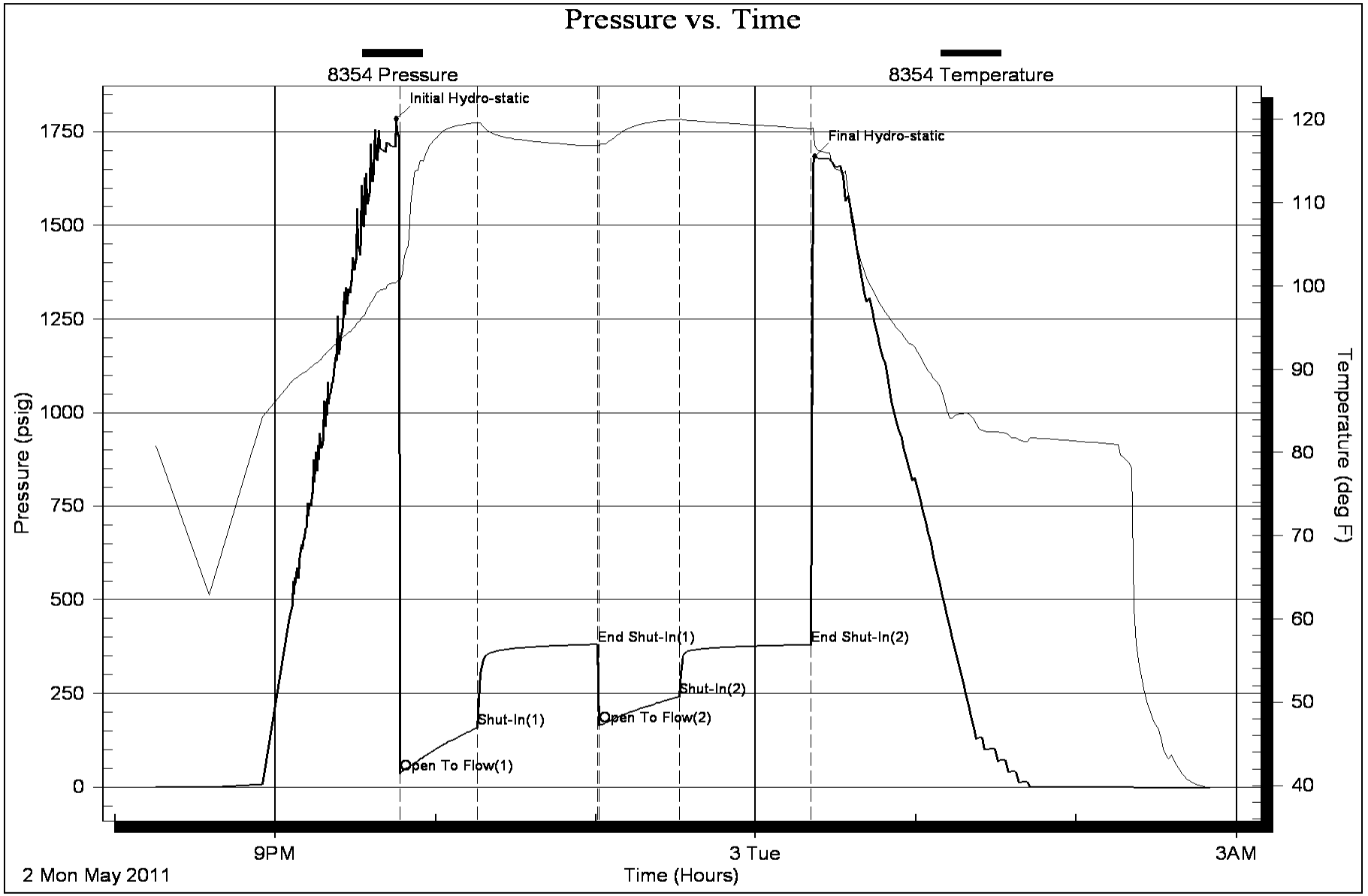
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	90%/Water/10%Mud	2.243
120.00	65%Water/30%Mud/5%Oil	1.683
60.00	50%Mud/20%Water/20%Gas/10%Oil	0.842
150.00	60%Oil/40%Gas	2.104
0.00	930' G.I.P.	0.000

Total Length: 510.00 ft Total Volume: 6.872 bbl

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


Pressure vs. Time
8354 Pressure
8354 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
120
110
100
90
80
70
60
50
40
9PM
3 Tue
3AM
2 Mon May 2011
Time (Hours)

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

P.O. Box 1019
Hays,Ks 67601

ATTN: Ron Nelson

RBL Unit #1-25

25/13S/21W-Trego

Job Ticket: 42800 **DST#: 3**

Test Start: 2011.05.03 @ 13:42:06

GENERAL INFORMATION:

Formation: **LKC J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:24:36
Time Test Ended: 20:12:06

Test Type: Conventional Bottom Hole
Tester: Dustin Rash
Unit No: 38

Interval: 3765.00 ft (KB) To 3792.00 ft (KB) (TVD)
Total Depth: 3792.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

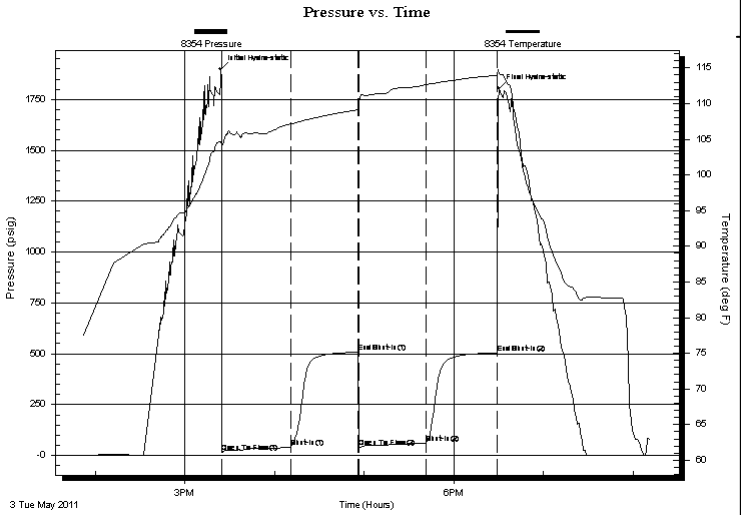
Reference Elevations: 2311.00 ft (KB)
2304.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 61.80 psig @ 3767.00 ft (KB)
Start Date: 2011.05.03 End Date: 2011.05.03
Start Time: 13:52:06 End Time: 20:12:06

Capacity: 8000.00 psig
Last Calib.: 2011.05.03
Time On Btm: 2011.05.03 @ 15:23:46
Time Off Btm: 2011.05.03 @ 18:30:06

TEST COMMENT: IF-Weak building blow . BOB in 17 minutes.
ISI-No Return.
FF-Weak building blow . BOB in 13 minutes 40 seconds.
FSI-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1897.77	104.60	Initial Hydro-static
1	16.40	103.78	Open To Flow (1)
47	40.35	107.14	Shut-In(1)
92	508.88	109.12	End Shut-In(1)
93	42.22	110.29	Open To Flow (2)
138	61.80	112.66	Shut-In(2)
186	505.60	113.95	End Shut-In(2)
187	1805.73	114.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	50%Gas/35%Oil/10%Mud/5%Water	1.40
0.00	434' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

P.O. Box 1019
Hays,Ks 67601

ATTN: Ron Nelson

RBL Unit #1-25

25/13S/21W-Trego

Job Ticket: 42800 **DST#: 3**

Test Start: 2011.05.03 @ 13:42:06

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:	50.00 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				

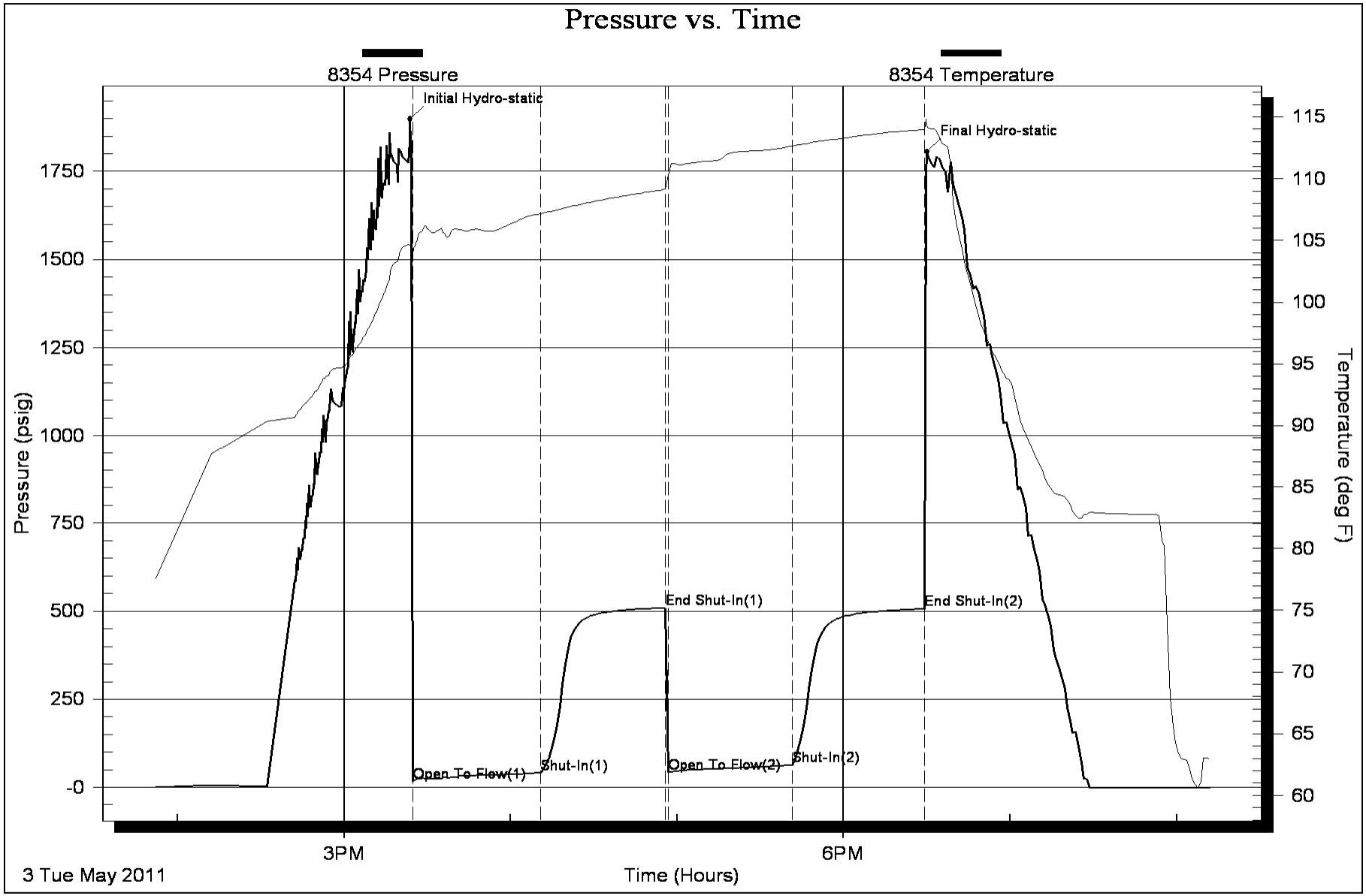
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	50%Gas/35%Oil/10%Mud/5%Water	1.401
0.00	434' G.I.P.	0.000

Total Length: 120.00 ft Total Volume: 1.401 bbl

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


Pressure vs. Time
8354 Pressure
8354 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
115
110
105
100
95
90
85
80
75
70
65
60
3PM
6PM
3 Tue May 2011
Time (Hours)

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

P.O. Box 1019
Hays,Ks 67601

ATTN: Ron Nelson

RBL Unit #1-25

25/13S/21W-Trego

Job Ticket: 42876 **DST#: 4**

Test Start: 2011.05.04 @ 10:54:15

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:33:55
Time Test Ended: 17:00:45

Test Type: Conventional Bottom Hole
Tester: Dustin Rash
Unit No: 38

Interval: 3910.00 ft (KB) To 3935.00 ft (KB) (TVD)
Total Depth: 3935.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

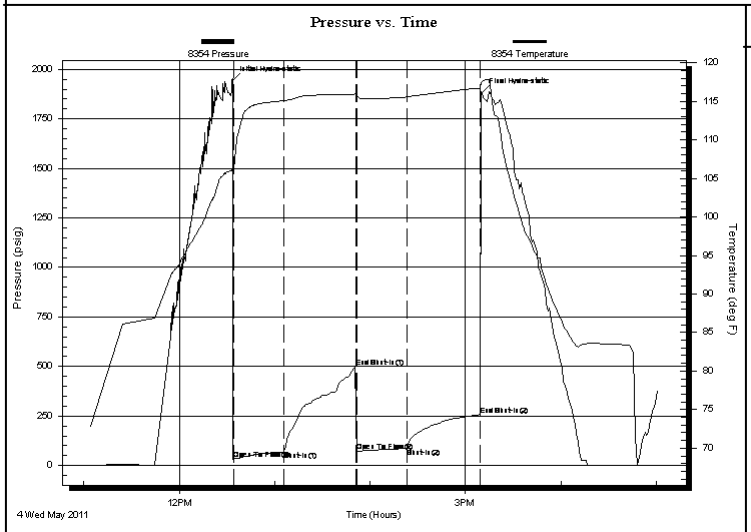
Reference Elevations: 2311.00 ft (KB)
2304.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 87.69 psig @ 3912.00 ft (KB)
Start Date: 2011.05.04 End Date: 2011.05.04
Start Time: 11:04:15 End Time: 17:00:45

Capacity: 8000.00 psig
Last Calib.: 2011.05.04
Time On Btm: 2011.05.04 @ 12:33:45
Time Off Btm: 2011.05.04 @ 15:10:15

TEST COMMENT: IF-Strong building blow . BOB in 4 minutes 40 seconds.
ISI- Surging surface return @ 45 seconds. Built to 1/4 inch.
FF-Weak building blow . Built to 10 inches.
FSI-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1943.61	106.23	Initial Hydro-static
1	29.81	105.16	Open To Flow (1)
32	69.48	115.05	Shut-In(1)
77	497.37	115.93	End Shut-In(1)
78	72.05	115.60	Open To Flow (2)
110	87.69	115.57	Shut-In(2)
156	256.56	116.70	End Shut-In(2)
157	1880.38	117.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	40%Oil/40%Mud/20%Gas	0.15
185.00	50%Oil/50%Gas	2.59
0.00	275' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co.

P.O. Box 1019
Hays,Ks 67601

ATTN: Ron Nelson

RBL Unit #1-25

25/13S/21W-Trego

Job Ticket: 42876 **DST#: 4**

Test Start: 2011.05.04 @ 10:54:15

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:	ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.58 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	inches				

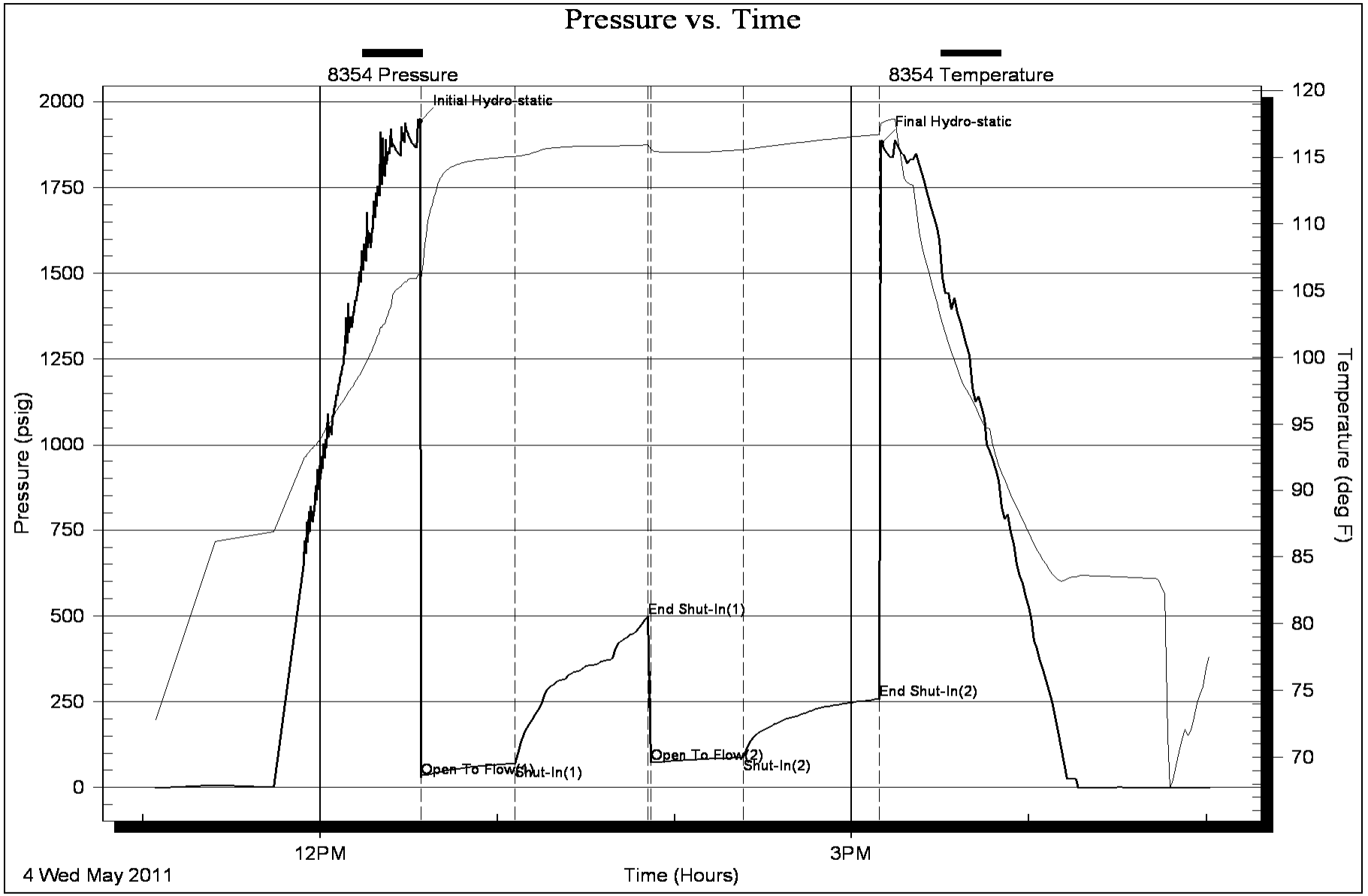
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	40%Oil/40%Mud/20%Gas	0.148
185.00	50%Oil/50%Gas	2.586
0.00	275' G.I.P.	0.000

Total Length: 215.00 ft Total Volume: 2.734 bbl

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


Pressure vs. Time
8354 Pressure
8354 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)
2000
1750
1500
1250
1000
750
500
250
0
120
115
110
105
100
95
90
85
80
75
70
12PM
3PM
4 Wed May 2011
Time (Hours)