



KANSAS CORPORATION COMMISSION 1060050
OIL & GAS CONSERVATION DIVISION

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 Resources

Designate Type of Completion:
 New Well Re-Entry Workover
 Oil WSW SWD SLOW
 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 #: _____
05/31/2011 06/06/2011 06/24/2011
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 15-051-26131-00-00
Spot Description: _____
NW SE NW NE Sec. 7 Twp. 14 S. R. 18 East West
855 Feet from North / South Line of Section
1845 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Ellis
Lease Name: FHSU Well #: 1-7
Field Name: Wildcat
Producing Formation: LKC
Elevation: Ground: 2069 Kelly Bushing: 2061
Total Depth: 3793 Plug Back Total Depth: _____
Amount of Surface Pipe Set and Cemented at: 223 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: 1316 Feet
If Alternate II completion, cement circulated from: 1316
feet depth to: 0 w/ 100 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: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
ALT I II III Approved by: Deanna Garrisor Date: 08/11/2011



1060050

Operator Name: Downing-Nelson Oil Co Inc Lease Name: FHSU Well #: 1-7
 Sec. 7 Twp. 14 S. R. 18 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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Attached	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border: none;"> <tr> <td style="width:33%; text-align: center;">Name</td> <td style="width:33%; text-align: center;">Top</td> <td style="width:33%; text-align: center;">Datum</td> </tr> <tr> <td style="border: none;">Attached</td> <td style="border: none;">Attached</td> <td style="border: none;">Attached</td> </tr> </table>	Name	Top	Datum	Attached	Attached	Attached
Name	Top	Datum					
Attached	Attached	Attached					

CASING RECORD <input checked="" 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
Surface Pipe	12.25	8.6250	23	222.76	Common	150	2% Gel & 3% CC
Production String	7.8750	5.5	14	3790.93	EA/2	145	

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 <i>(Amount and Kind of Material Used)</i>	Depth
4	3557' - 3562'	250 gal. 15% Mud Acid	3520' - 3523
4	3520' - 3523'	250 gal. 15% Mud Acid	3509' - 3511' & 3499' - 3
4	3509' - 3511' & 3499' - 3501'	1000 gal. 15% NE Acid	3509' - 3511' & 3499' - 3
4	3396' - 3399'	250 gal. 15% Mud Acid	3396' - 3399

TUBING RECORD: Size: <u>2.3750</u> Set At: <u>3586.63</u> Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>07/01/2011</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____
Estimated Production Per 24 Hours	Oil Bbls. <u>11</u>	Gas Mcf <u>0</u> Water Bbls. <u>25</u> 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) (Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	FHSU 1-7
Doc ID	1060050

All Electric Logs Run

Sonic
Micro
Density/Neutron
Dual Induction

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	FHSU 1-7
Doc ID	1060050

Tops

Name	Top	Datum
Top Anhydrite	1322	+747
Base	1366	+703
Topeka	3074	-1005
Heebner	3322	-1253
Toronto	3342	-1273
LKC	3370	-1301
BKC	3598	-1529
Conglomerate	3656	-1587
Arbuckle	3724	-1655

ALLIED CEMENTING CO., LLC. 035825

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

SERVICE POINT:

Russell

DATE <u>5/31/21</u>	SEC. <u>7</u>	TWP. <u>14</u>	RANGE <u>18</u>	CALLED OUT	ON LOCATION	JOB START <u>6:30p</u>	JOB FINISH <u>7:00p</u>
LEASE <u>FHSU</u>	WELL# <u>1-7</u>	LOCATION <u>Hays + Golf Course Rd</u>	COUNTY <u>Ellis</u>		STATE <u>Ks</u>		
OLD OR NEW (Circle one)			<u>15 1/2 w 5 into</u>				

CONTRACTOR Discovery Drilling Rig #4

TYPE OF JOB Surface Sub

HOLE SIZE 12 1/4 T.D. 222

CASING SIZE 8 5/8 DEPTH 222.76

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 13.23661

OWNER

CEMENT

AMOUNT ORDERED 150 Corn
39.00 22.61

COMMON	<u>150</u>	@	<u>16.25</u>	<u>2437.50</u>
POZMIX		@		
GEL	<u>3</u>	@	<u>21.25</u>	<u>63.75</u>
CHLORIDE	<u>5</u>	@	<u>58.20</u>	<u>291.00</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>158</u>	@	<u>2.25</u>	<u>355.50</u>
MILEAGE	<u>111/56/mile</u>			<u>477.12</u>
TOTAL				<u>3564.87</u>

EQUIPMENT

PUMP TRUCK CEMENTER Shane

909 HELPER Todd

BULK TRUCK

328 DRIVER Mark

BULK TRUCK

DRIVER

REMARKS:

Ran 5 hrs + Loading 5 hr.

Est Circulation

19.000 150 sks

Cement + Circulated

CHARGE TO: Downing Nelson

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE 1125.00

EXTRA FOOTAGE @

MILEAGE 48 @ 7.00 336.00

MANIFOLD @

LUM 4P @ 4.00 192.00

TOTAL 1653.00

PLUG & FLOAT EQUIPMENT

@

@

@

@

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment

JOB LOG

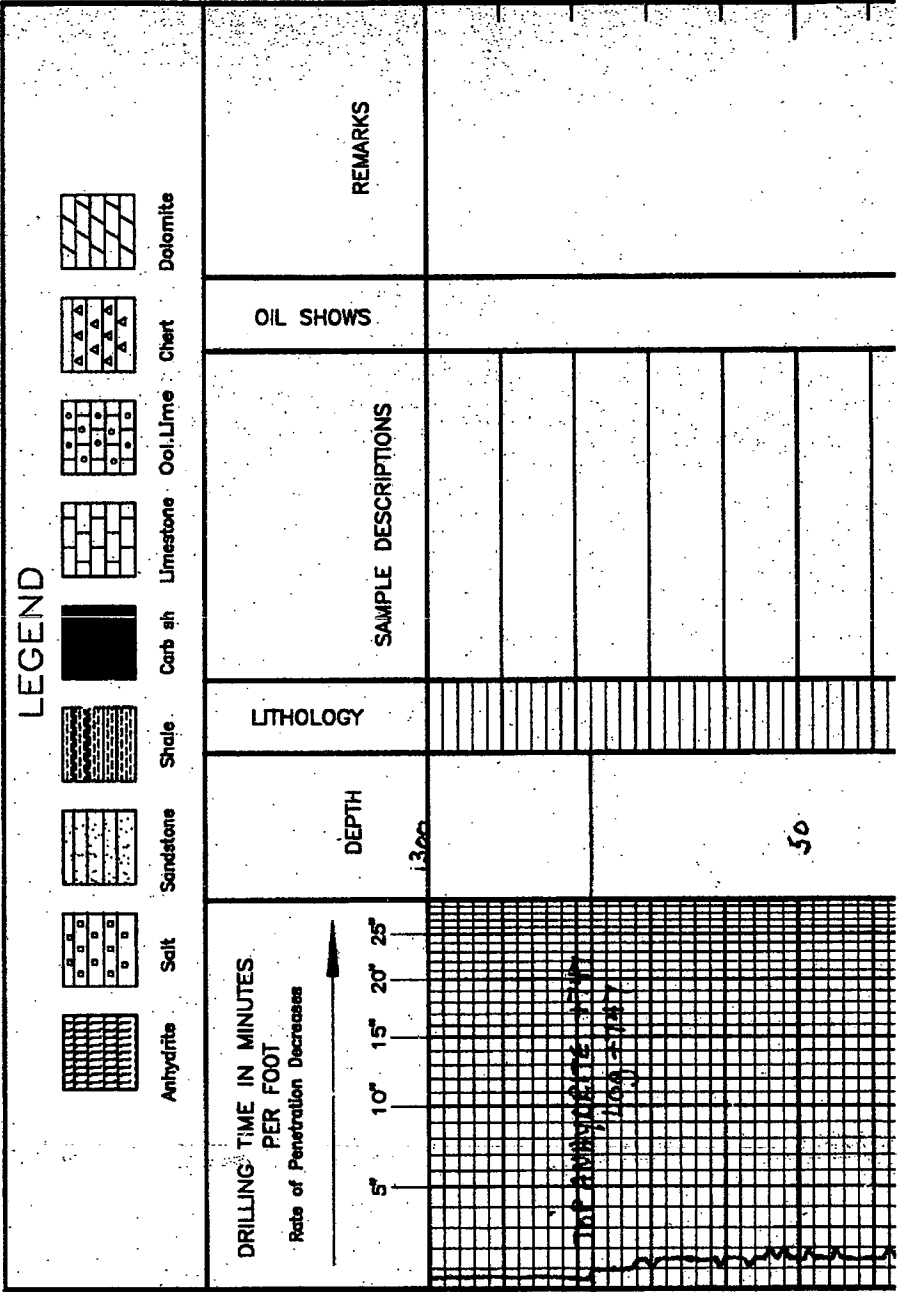
SWIFT Services, Inc.

DATE 062411 PAGE NO. 1

CUSTOMER DOWNING NELSON WELL NO. 1-7 LEASE FHSU JOB TYPE CMT: PORT COLUMN TICKET NO. 20204

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0830							DN LOCATION CMT: 150SMD 1/4" HD 2 3/4 x 5/8 RBF 2750 PORT COLUMN 1280
	1030		60		-			LOAD GSK.
	1035				-	1000		PSI TEST OPEN P.C.
	1040				-			ZNS LATE
	1045	4.0	0		-	300		START CMT @ 11.2
			20		-			CIRC MUD
			450		-			CIRC CMT MIX @ 14" 80 @ 11.2
			500		-			EN 20 @ 14
	1100		40		-			DUP TOTAL 100 SIS CLOSE PL
	1105				-	1100		PSZ TEST Run in 80 SIS
	1120	3.0	0		-	150		REV. OUT
			5.0		-			1ST FLG
			12.0		-			2ND FLG
	1128		20		-			CLEAN
	1145							JOB COMPLETE THANK YOU! DAVE, Jessab, Bob

DRILL STEM TESTS							
No.	Interval	FP/Time	ISP/Time	FFP/Time	FSP/Time	MH-FRH	RECOVERY
REMARKS AND RECOMMENDATIONS: <i>RAN 5/2" PRODUCTION PIPE 3' OFF BOTTOM FOR FURTHER TESTING OF LKC 'C', 'H', 'I', 'J' ZONES</i>							
<i>Ron Nelson</i>							



Log # 123

1400

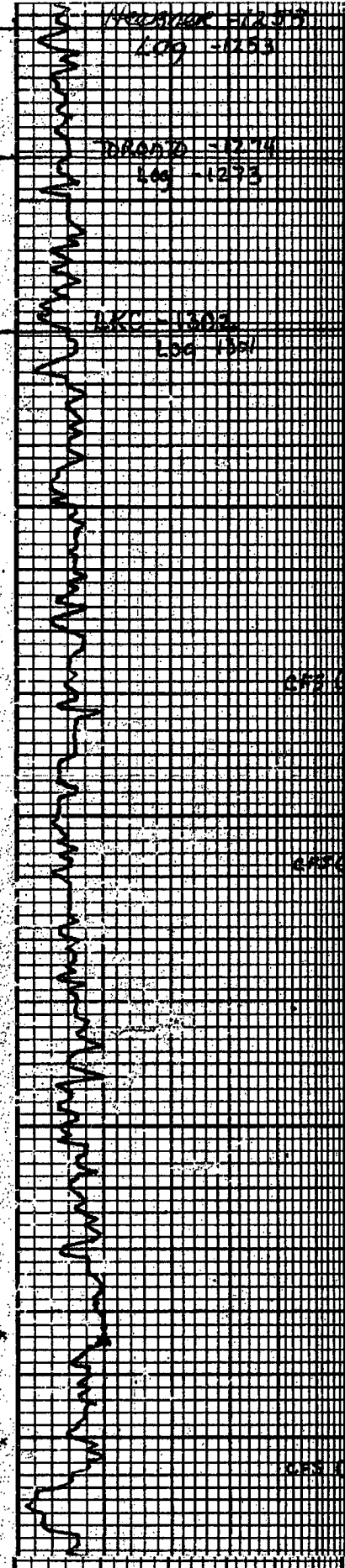
2900

50

3000

50

v ok gray sh
 L s. thin w/ clay in pt. dirty
 NS.
 L sh. thin - gray clayey sh
 gray sh
 gray LS w/ clay in pt
 gray sh
 dustier LS
 all sh. clayey. gray
 v clayey
 gray - ok gray sh
 CRAYTON - 24125
 V. CRISTINA MILWAUKEE BARREN



50
3400
50
3500
50

sh blk carb
v dns gry-tan mic xyl w ls
no oil rec
sh gry, lt gry sdt

ls wh-tan, mst fr-u fringh
pr xyl, 1-2 wft-scd vug
spid, mst v pr xyl & w/ fupcs an
e. tan ch

sh gry, blk, blk
ls tan-gry v fr xyl w dns
pr xyl & ns
sh rd

ls tan-blk, sm chkg sm
fr xyl w dns au pr. n.s.

sh blk, rd, gry

ls blk mst fr xyl, pr xyl, fr
dns sdt pr xyl vug vss film
oil, oil, no droplets, spid blk
w/ tan & blk oil

shs gry blk

ls wh-tan, fupcs sdt xyl & pr
oil, oil, no droplets, spid blk
w/ tan & blk oil

sh blk carb
sh v dn gry

ls blk-tan mst fr xyl, sm chkg
fr int loss & pr xyl, sm chkg
blk sdt sm, sm, fr sdt, gas mst blk
pr xyl, blk, blk

ls blk-tan, sm loss w/ tan
int loss, sdt blk blk sdt vss
rd

ls wh-tan mst fr xyl
dns pr xyl & ns
small sdt fr blk oil

dns wh-tan v fupcs
no oil rec
w/ fr ch blk oil

sh blk v dn gry

sh gry blk

ls tan-gry, fr xyl, pr
fr int loss & pr xyl, sm
oil, ss film, oil, sm fr lab, sm
right, sdt fr blk blk
frng mic xyl v dns wh ch blk

sh blk gry

ls blk sdt blk, vss to, light
mst barren, v sdt

ls wh-tan sm v ss, vug
light pr xyl, sm w/ fr pr & v sdt
vug, ss to, sdt fr blk, sm
blk blk sdt, much barren

ls tan-clr, sm v oc-ool w/ oil
a, vss, blk, blk, blk, blk, blk
sdt, blk

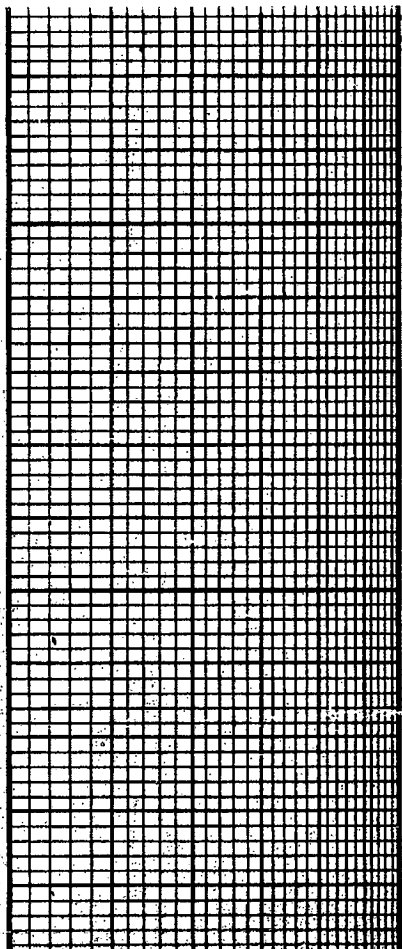
fr blk-ool w/ blk w/ oil
fr blk w/ sdt blk blk, vss to
no oil, much barren

DST #5
STRADDLE
3340'-3406'
45"-45"-45"-45"
12" op 7" BLOW
1/2" shut in 3600
2" op 808 29"
1 1/8" shut in blow
IFP 33-127
FFP 133-197
SIP 614-598
HP 1693-1632
Rec: 20' mco
120' OCM
(10% oil, 40% gas)
120' v30wcm
(27% oil, 15% gas, 83% water)
120' sm wtr
BHT 109°
Chlorides 95K

DST #1
3403'-3458' 45"-45"-45"
12" op 5 1/2" BLOW
20" op 6" BLOW
NO shut in blow
IFP 20-94
FFP 97-156
SIP 884-866
HP 1657-1621
Rec 120' water
160' mco
BHT 110°
Chlorides 94K

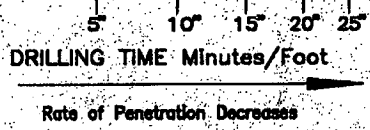
DST #2
3487'-3555'
45"-45"-45"-45"
12" op 808 35"
3" sz BLOW
2 1/2" op 808 31"
2 1/2" sz BLOW
IFP 22-85
FFP 92-130
SIP 848-792
HP 1762-1571
Rec 360' gas
20' oil
100' v50wcm
(10% oil, 10% gas, 5% water, 75% water)
60' v50 mco
(2% oil, 56% gas, 42% water)
60' sm w
Grav 33°
Chlorides 100K

DST #3



50

3900



DRILLING TIME Minutes/Foot

Rate of Penetration Decreases

DEPTH

LITHOLOGY

SAMPLE DESCRIPTIONS

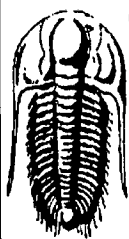
OIL SHOWS

REMARKS

Ron Nelson

OPERATOR Downing Nelson Oil Co Inc
 LEASE FHSL #1-7 IP LRC
 ELEVATION 2069 RB RTD 3793'

LOCATION R55 FNL E18N6 ELL
 SEC 7 TWP 14S RNG 18W
 COUNTY ELLIS STATE KANSAS



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019
113 west 13th
Hays Ks 67601
ATTN: Ron Nelson

7-14-18w, Ellis, Ks

Job Ticket: 34332

DST#: 1

Test Start: 2011.06.04 @ 09:10:33

GENERAL INFORMATION:

Formation: **KC"D,E,F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:12:03

Time Test Ended: 15:48:03

Test Type: Conventional Bottom Hole

Tester: Brett Dickinson

Unit No: 47

Interval: **3403.00 ft (KB) To 3458.00 ft (KB) (TVD)**

Total Depth: 3458.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2071.00 ft (KB)

2063.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8319

Outside

Press@RunDepth: 156.45 psig @ 3404.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.06.04

End Date: 2011.06.04

Last Calib.: 2011.06.04

Start Time: 09:10:38

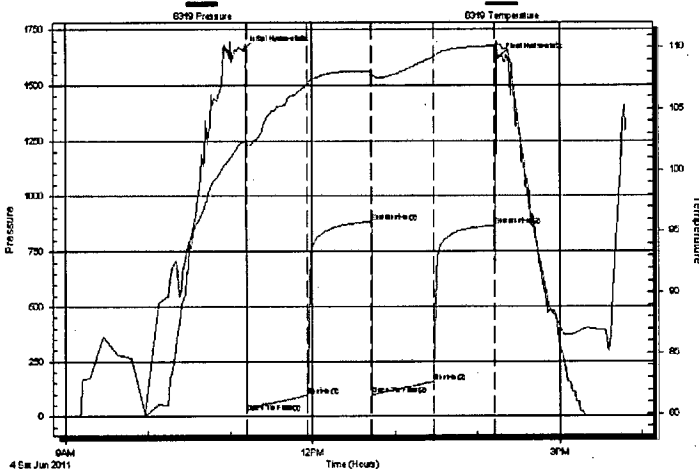
End Time: 15:48:02

Time On Btm: 2011.06.04 @ 11:10:03

Time Off Btm: 2011.06.04 @ 14:15:33

TEST COMMENT: IF-5.25in blow
ISL-No blow
FF-6in blow
FSI-No blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1657.80	102.29	Initial Hydro-static
2	20.47	102.01	Open To Flow (1)
46	94.65	106.92	Shut-In(1)
93	884.25	107.99	End Shut-In(1)
94	97.07	107.74	Open To Flow (2)
138	156.45	109.20	Shut-In(2)
183	866.98	110.07	End Shut-In(2)
186	1621.48	110.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	water	1.41
160.00	MCW 70%W 30%M	2.24

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019
113 west 13th
Hays Ks 67601
ATTN: Ron Nelson

7-14-18w, Ellis, Ks

Job Ticket: 34332

DST#: 1

Test Start: 2011.06.04 @ 09:10:33

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:

90000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	water	1.410
160.00	MCW 70%W 30%M	2.244

Total Length: 280.00 ft Total Volume: 3.654 bbl

Num Fluid Samples: 0

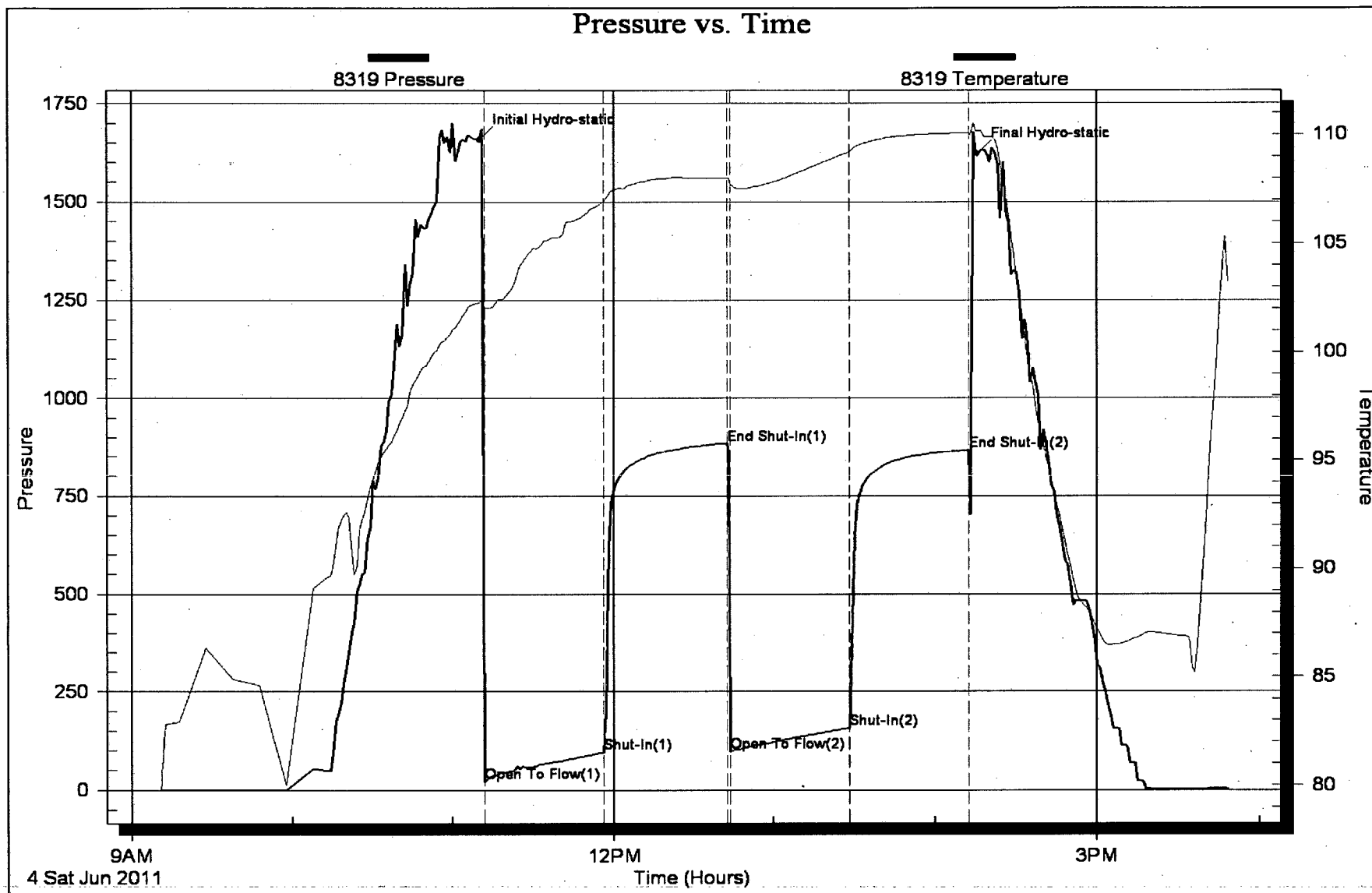
Num Gas Bombs: 0

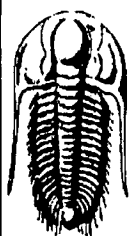
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .07





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019
113 west 13th
Hays Ks 67601
ATTN: Ron Nelson

7-14-18w, Ellis, Ks

Job Ticket: 34333

DST#: 2

Test Start: 2011.06.05 @ 02:50:30

GENERAL INFORMATION:

Formation: **KC "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:35:30

Time Test Ended: 09:09:30

Test Type: Conventional Bottom Hole

Tester: Brett Dickinson

Unit No: 47

Interval: **3487.00 ft (KB) To 3555.00 ft (KB) (TVD)**

Total Depth: 3555.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2071.00 ft (KB)

2063.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8319

Outside

Press@RunDepth: 130.96 psig @ 3488.00 ft (KB)

Start Date: 2011.06.05

End Date: 2011.06.05

Start Time: 02:50:35

End Time: 09:09:29

Capacity: 8000.00 psig

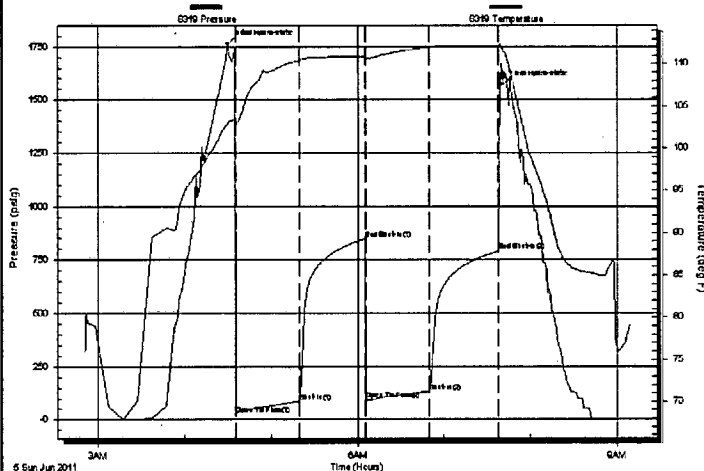
Last Calib.: 2011.06.05

Time On Btm: 2011.06.05 @ 04:30:00

Time Off Btm: 2011.06.05 @ 07:41:00

TEST COMMENT: IF-BOB in 35min
IS-3in blow
FF-BOB in 31min
FSI- 2.5in blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1762.89	102.85	Initial Hydro-static
6	22.43	102.88	Open To Flow (1)
50	85.47	110.41	Shut-In(1)
95	848.32	110.87	End Shut-In(1)
96	92.93	110.66	Open To Flow (2)
140	130.96	111.95	Shut-In(2)
188	792.03	112.20	End Shut-In(2)
191	1571.40	111.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSMCW 95%W 5%M	0.57
60.00	VSOMCW 2%O 58%W 40%M	0.84
100.00	VSWGOCM 10%G 10%O 5%W 75%M	1.40
20.00	SGO	0.28
0.00	360ft GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019
113 west 13th
Hays Ks 67601

7-14-18w, Ellis, Ks

Job Ticket: 34333

DST#: 2

ATTN: Ron Nelson

Test Start: 2011.06.05 @ 02:50:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

100000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	VSMCW 95%W 5%M	0.568
60.00	VSOMCW 2%O 58%W 40%M	0.842
100.00	VSWGOCM 10%G 10%O 5%W 75%M	1.403
20.00	SGO	0.281
0.00	360ft GIP	0.000

Total Length:

240.00 ft

Total Volume:

3.094 bbl

Num Fluid Samples: 0

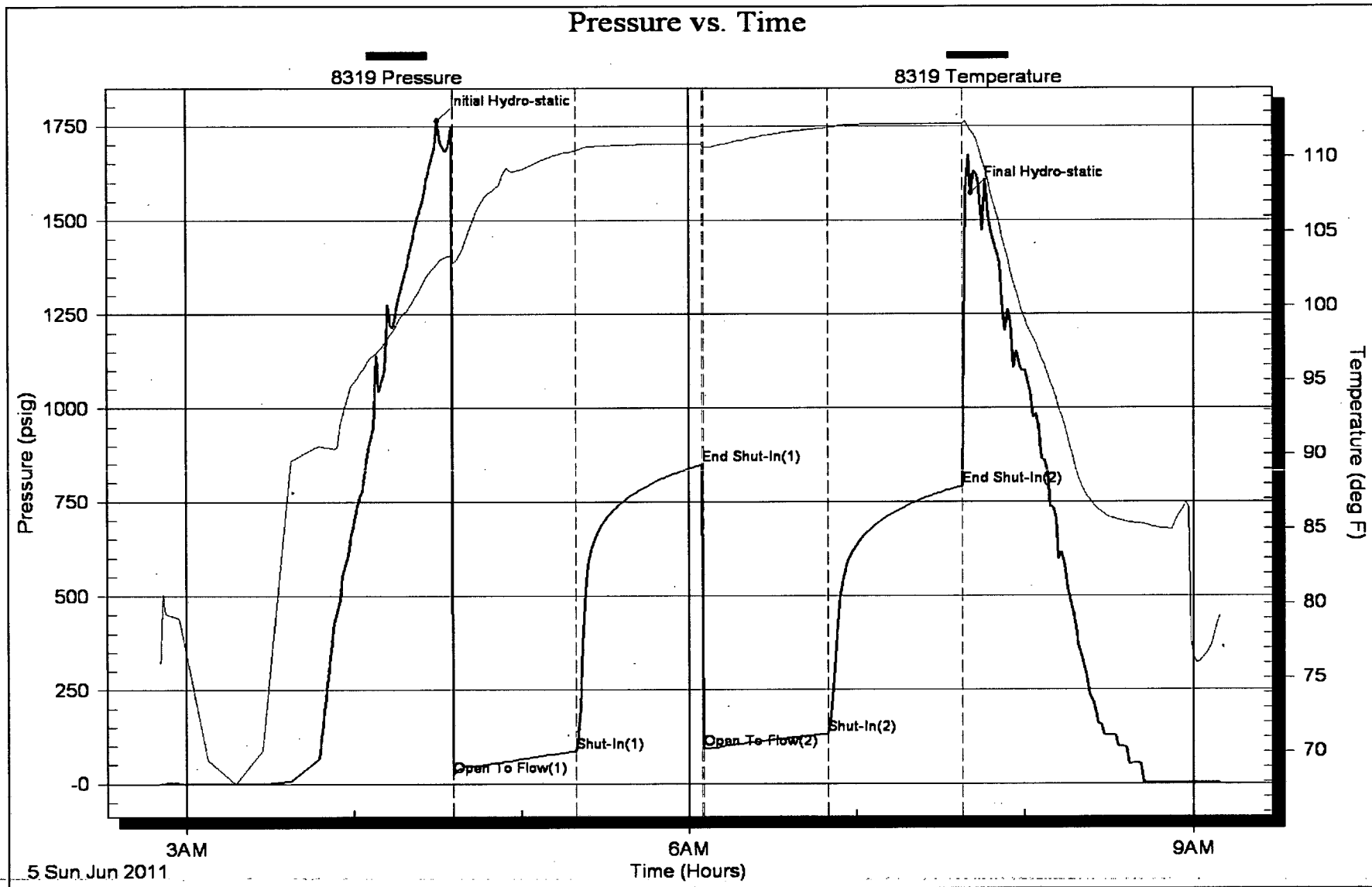
Num Gas Bombs: 0

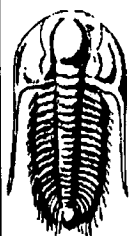
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019

7-14-18w, Ellis, Ks

113 west 13th

Job Ticket: 34334

DST#: 3

Hays Ks 67601

ATTN: Ron Nelson

Test Start: 2011.06.05 @ 14:15:45

GENERAL INFORMATION:

Formation: **KC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:44:15

Time Test Ended: 20:10:15

Test Type: Conventional Bottom Hole

Tester: Brett Dickinson

Unit No: 47

Interval: **3553.00 ft (KB) To 3580.00 ft (KB) (TVD)**

Reference Elevations: 2071.00 ft (KB)

Total Depth: 3580.00 ft (KB) (TVD)

2063.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8319 Outside

Press@RunDepth: 25.19 psig @ 3554.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.06.05

End Date:

2011.06.05

Last Calib.: 2011.06.05

Start Time: 14:15:50

End Time:

20:10:14

Time On Btm: 2011.06.05 @ 16:43:15

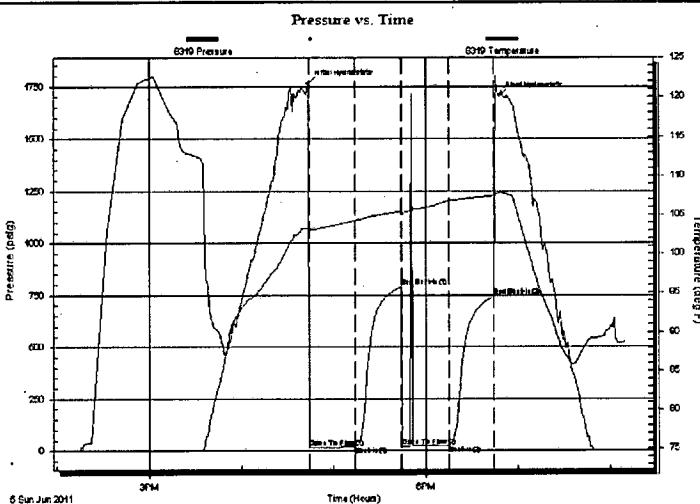
Time Off Btm: 2011.06.05 @ 18:48:15

TEST COMMENT: IF-w eak surface blow died in 19min

ISI-No blow

FF-No blow

FSI-No blow



PRESSURE SUMMARY

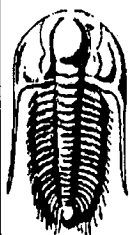
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1762.95	103.31	Initial Hydro-static
1	14.98	102.99	Open To Flow (1)
31	20.19	104.26	Shut-In(1)
61	789.30	105.43	End Shut-In(1)
61	20.21	105.03	Open To Flow (2)
92	25.19	106.79	Shut-In(2)
121	743.22	107.43	End Shut-In(2)
125	1703.20	107.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	oilspotted mud	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019
113 west 13th
Hays Ks 67601

7-14-18w, Ellis, Ks

Job Ticket: 34334

DST#: 3

ATTN: Ron Nelson

Test Start: 2011.06.05 @ 14:15:45

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: 60.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	oilspotted mud	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

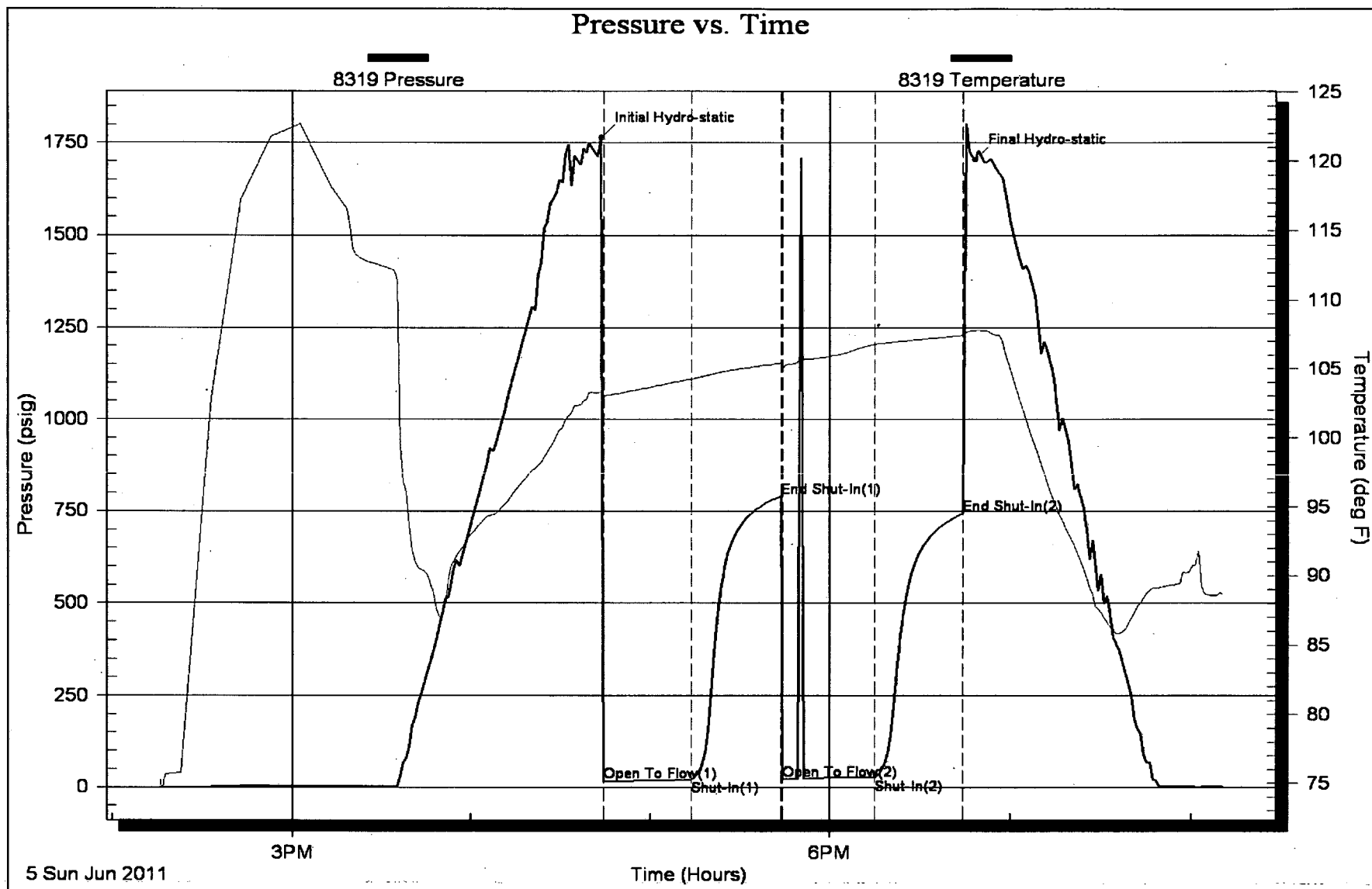
Num Gas Bombs: 0

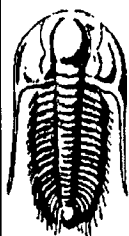
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019
113 west 13th
Hays Ks 67601

7-14-18w, Ellis, Ks

Job Ticket: 34335

DST#: 4

ATTN: Ron Nelson

Test Start: 2011.06.06 @ 16:35:50

GENERAL INFORMATION:

Formation:

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:24:20

Time Test Ended: 21:29:20

Test Type: Conventional Straddle

Tester: Brett Dickinson

Unit No: 47

Interval: 3650.00 ft (KB) To 3690.00 ft (KB) (TVD)

Reference Elevations: 2071.00 ft (KB)

Total Depth: 3793.00 ft (KB) (TVD)

2063.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753 Outside

Press@RunDepth: 21.02 psig @ 3651.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.06.06

End Date: 2011.06.06

Last Calib.: 2011.06.06

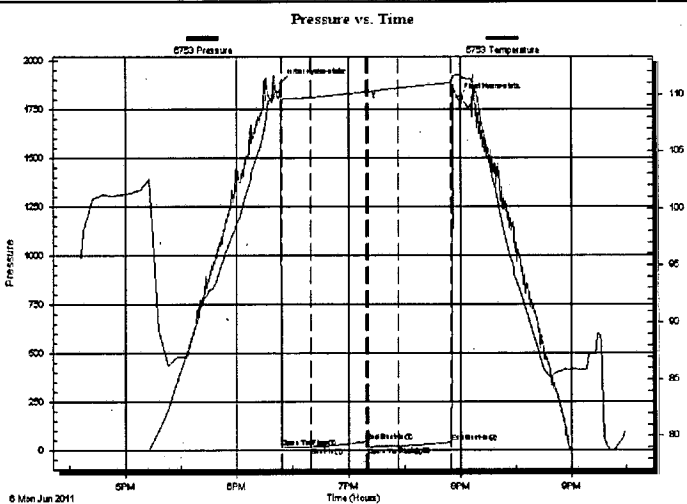
Start Time: 16:35:55

End Time: 21:29:19

Time On Btm: 2011.06.06 @ 18:23:50

Time Off Btm: 2011.06.06 @ 19:58:20

TEST COMMENT: IF-weak surface blow died in 11min
IS- No blow
FF- No blow
FSI- No blow



PRESSURE SUMMARY

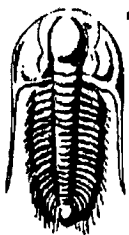
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1884.75	110.19	Initial Hydro-static
1	16.48	108.81	Open To Flow (1)
16	18.60	109.71	Shut-In(1)
46	45.90	110.23	End Shut-In(1)
47	19.09	110.24	Open To Flow (2)
63	21.02	110.53	Shut-In(2)
91	41.02	110.99	End Shut-In(2)
95	1810.84	111.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Oilspotted mud	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019

7-14-18w, Ellis, Ks

113 west 13th

Job Ticket: 34335

DST#: 4

Hays Ks 67601

Test Start: 2011.06.06 @ 16:35:50

ATTN: Ron Nelson

GENERAL INFORMATION:

Formation:

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:24:20

Time Test Ended: 21:29:20

Test Type: Conventional Straddle

Tester: Brett Dickinson

Unit No: 47

Interval: 3650.00 ft (KB) To 3690.00 ft (KB) (TVD)

Reference Elevations: 2071.00 ft (KB)

Total Depth: 3793.00 ft (KB) (TVD)

2063.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8369 Below (Straddle)

Press@RunDepth: psig @ 3695.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.06.06

End Date: 2011.06.06

Last Calib.: 2011.06.06

Start Time: 16:35:54

End Time: 21:38:18

Time On Btm:

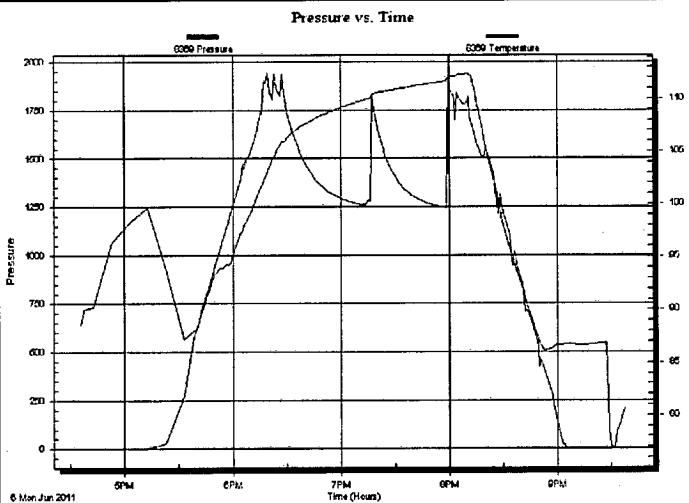
Time Off Btm:

TEST COMMENT: IF-weak surface blow died in 11min

IS-No blow

FF-No blow

FSI-No blow



PRESSURE SUMMARY

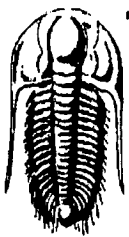
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Oilspotted mud	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019

7-14-18w, Ellis, Ks

113 west 13th

Job Ticket: 34335

DST#: 4

Hays Ks 67601

ATTN: Ron Nelson

Test Start: 2011.06.06 @ 16:35:50

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: 53.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Oilspotted mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

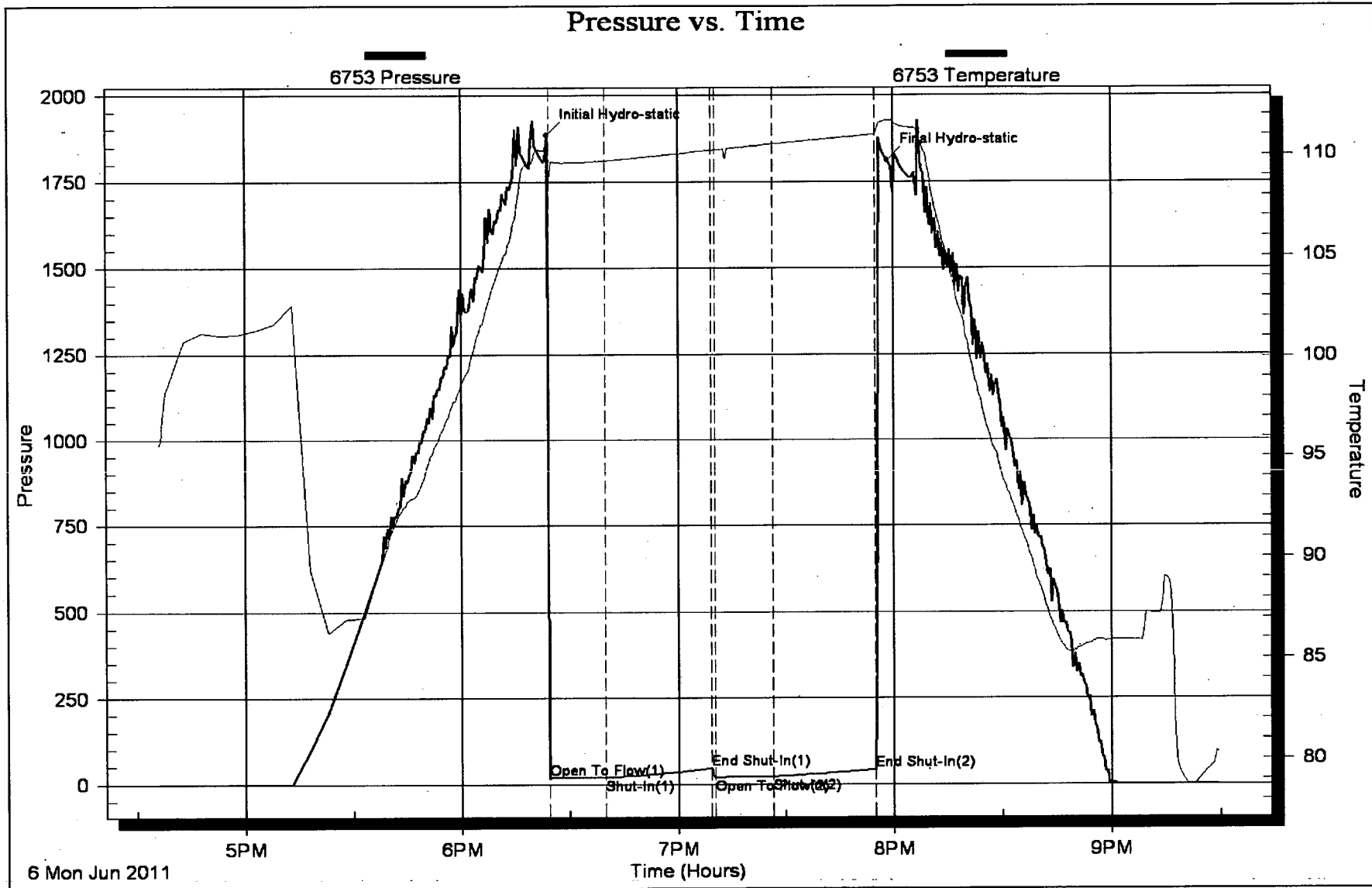
Num Gas Bombs: 0

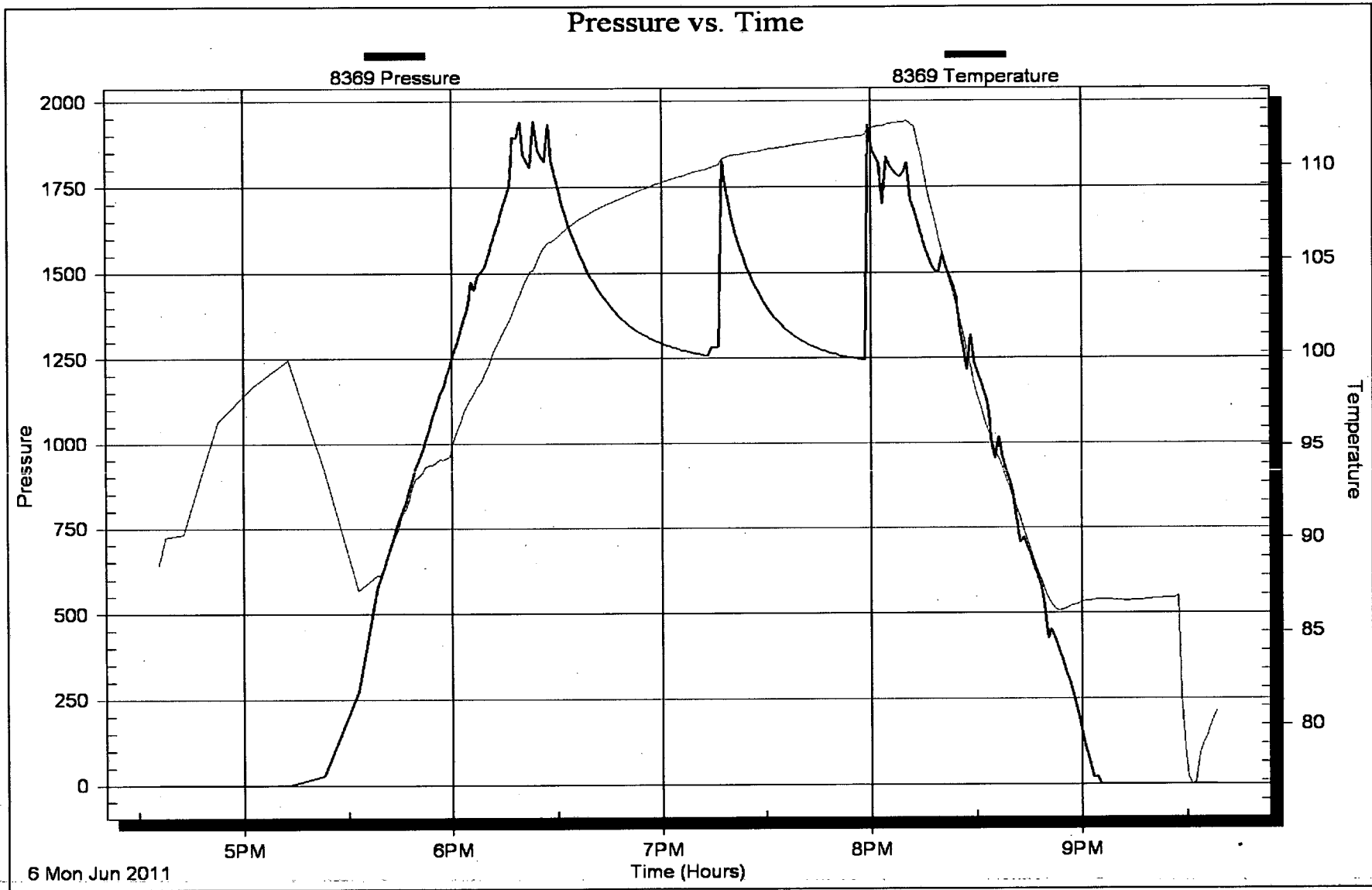
Serial #:

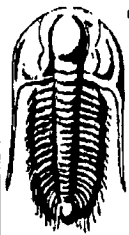
Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019
113 west 13th
Hays Ks 67601
ATTN: Ron Nelson

7-14-18w, Ellis, Ks
Job Ticket: 34336 **DST#: 5**
Test Start: 2011.06.06 @ 22:05:07

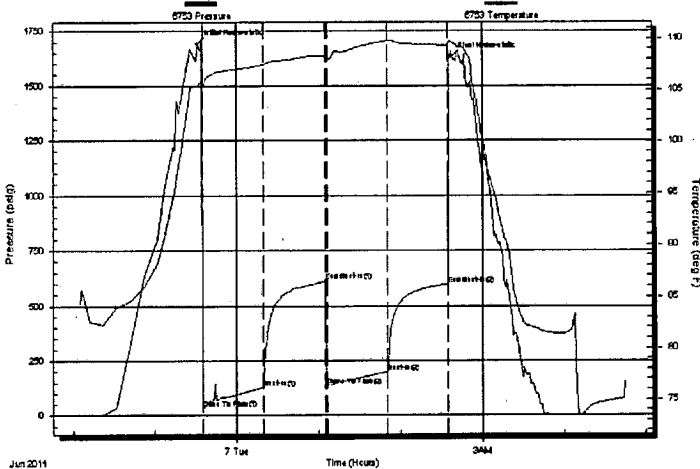
GENERAL INFORMATION:

Formation: **KC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:35:37
Time Test Ended: 04:45:07
Test Type: Conventional Straddle
Tester: Brett Dickinson
Unit No: 47
Interval: **3346.00 ft (KB) To 3406.00 ft (KB) (TVD)**
Reference Elevations: 2071.00 ft (KB)
Total Depth: 3793.00 ft (KB) (TVD) 2063.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 6753 Outside
Press@RunDepth: 197.11 psig @ 3382.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.06.06 End Date: 2011.06.07 Last Calib.: 2011.06.07
Start Time: 22:05:12 End Time: 04:45:06 Time On Btm: 2011.06.06 @ 23:31:37
Time Off Btm: 2011.06.07 @ 02:37:37

TEST COMMENT: IF-7in blow
IS-1/2in blow
FF-BOB in 29min
FSI-1 1/4in blow

Pressure vs. Time



PRESSURE SUMMARY

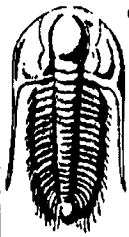
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1693.12	105.39	Initial Hydro-static
4	32.85	105.32	Open To Flow (1)
48	126.73	107.43	Shut-In(1)
94	614.35	108.26	End Shut-In(1)
95	133.38	108.09	Open To Flow (2)
139	197.11	109.74	Shut-In(2)
183	597.50	109.32	End Shut-In(2)
186	1631.96	109.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	VSMCW 95%W 5%M	1.41
120.00	VSOWCM 2%O 15%W 83%M	1.68
120.00	SOCM 10%O 90%M	1.68
20.00	MCO 5%G 80%O 15%M	0.28
0.00	240ft GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019

113 west 13th

Hays Ks 67601

ATTN: Ron Nelson

7-14-18w, Ellis, Ks

Job Ticket: 34336

DST#: 5

Test Start: 2011.06.06 @ 22:05:07

GENERAL INFORMATION:

Formation: **KC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:35:37

Time Test Ended: 04:45:07

Test Type: Conventional Straddle

Tester: Brett Dickinson

Unit No: 47

Interval: 3346.00 ft (KB) To 3406.00 ft (KB) (TVD)

Reference Elevations: 2071.00 ft (KB)

Total Depth: 3793.00 ft (KB) (TVD)

2063.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8319 Below (Straddle)

Press@RunDepth: psig @ 3411.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.06.06

End Date:

2011.06.07

Last Calib.:

2011.06.07

Start Time: 22:05:11

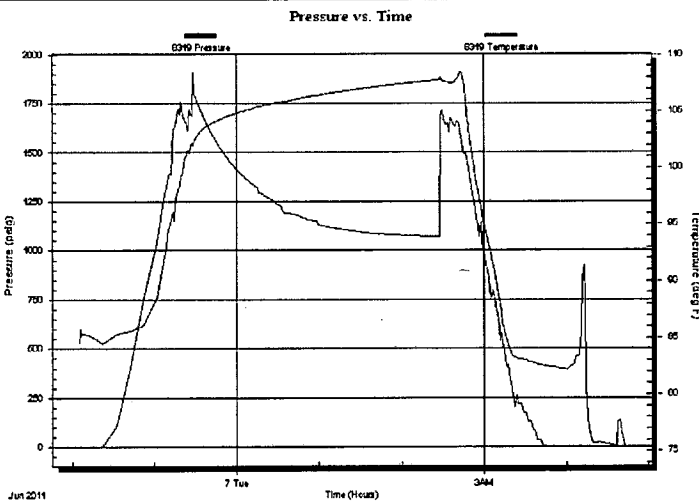
End Time:

04:42:35

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-7in blow
IS-1/2in blow
FF-BOB in 29min
FSI-1 1/4in blow



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
120.00	VSMCW 95%W 5%M	1.41
120.00	VSOWCM 2%O 15%W 83%M	1.68
120.00	SOCM 10%O 90%M	1.68
20.00	MCO 5%G 80%O 15%M	0.28
0.00	240ft GIP	0.00

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc.

FHSU 1-7

PO Box 1019
113 west 13th
Hays Ks 67601

7-14-18w, Ellis, Ks

Job Ticket: 34336

DST#: 5

ATTN: Ron Nelson

Test Start: 2011.06.06 @ 22:05:07

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: 85000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	VSMCW 95%W 5%M	1.410
120.00	VSOWCM 2%O 15%W 83%M	1.683
120.00	SOCM 10%O 90%M	1.683
20.00	MCO 5%G 80%O 15%M	0.281
0.00	240ft GIP	0.000

Total Length: 380.00 ft

Total Volume: 5.057 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

