



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1099393

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ 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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	LW 1-18
Doc ID	1099393

Tops

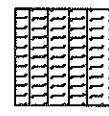
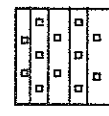
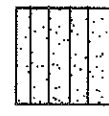

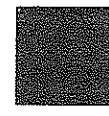
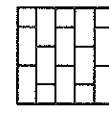
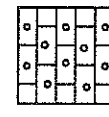
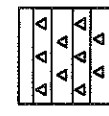
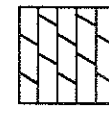
Name	Top	Datum
Top Anhydrite	1656'	+562
Base Anhydrite	1695'	+523
Topeka	3304'	-1086
Heebner	3530'	-1312
Toronto	3548'	-1330
LKC	3564'	-1346
BKC	3806'	-1588
Marmaton	3896'	-1678
Cherokee Shale	3942'	-1724
Conglomerate Chert	3972'	-1754
Arbuckle	4034'	-1816

DRILL STEM TESTS

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

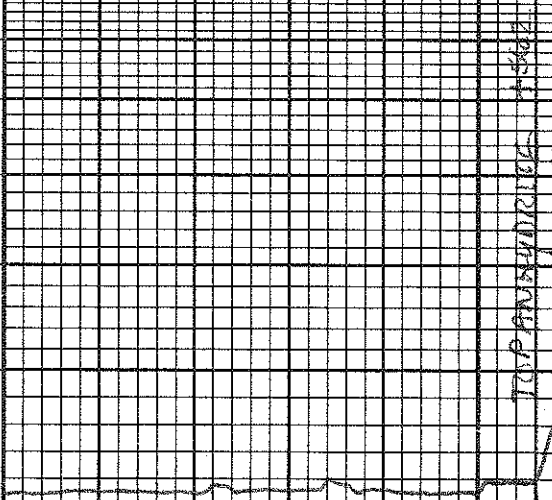
REMARKS AND RECOMMENDATIONS SEISMIC EFFECT NO DEVELOPMENT. PLUGGED
Ron Keller

LEGEND

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

DRILLING TIME IN MINUTES
PER FOOT

Rate of Penetration Decreases



5" 10" 15" 20" 25"

16'8"

50

TOP ANHYDRITE TEST

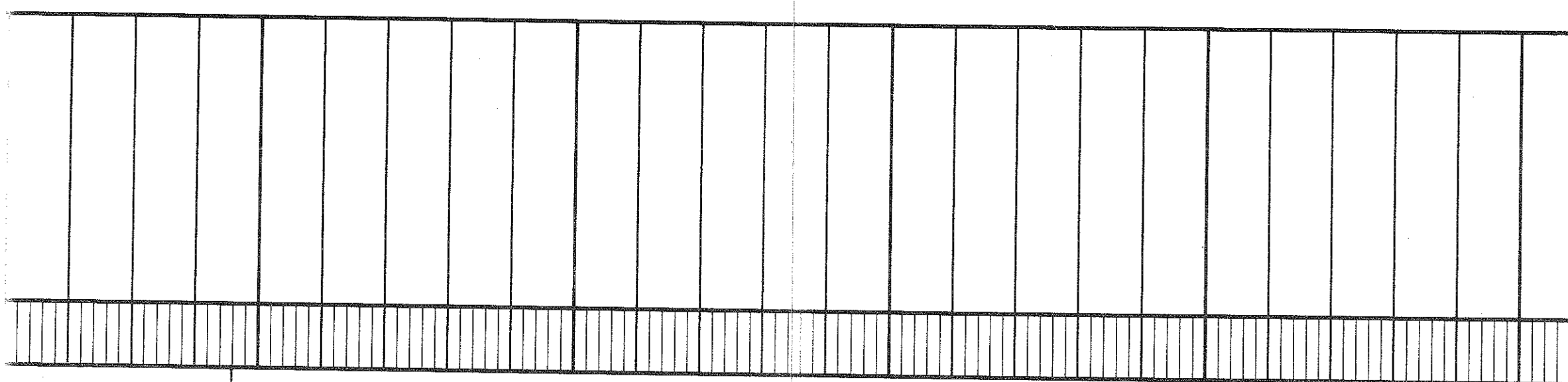
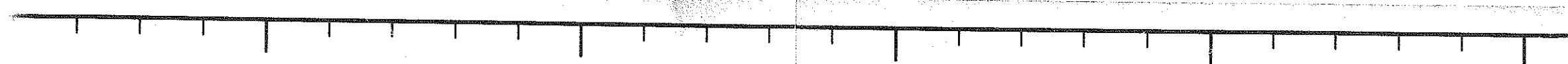
REMARKS

OIL SHOWS

SAMPLE DESCRIPTIONS

LITHOLOGY

DEPTH



1700

3200

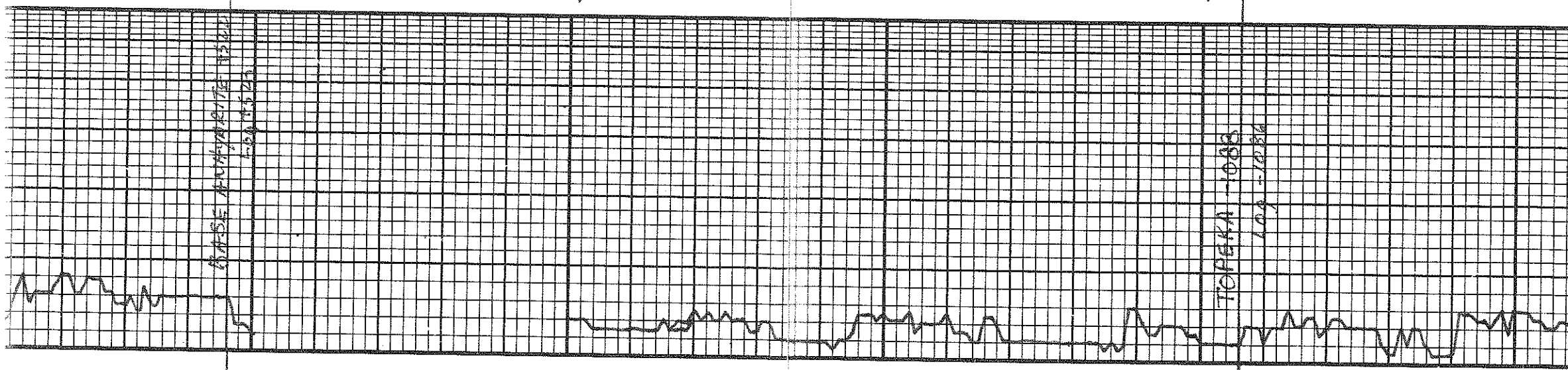
50

3300

50

BASE POINTS 1922
1945

TOPEKA 1088
109 - 1086



3400

50

3500

50

3600

cherty tan ls surfaces
small xylm pieces

57
57

shaly clay
dms mms

Shaly Ben

Ls thin with frequent primary
fractures.

shaly clay

ls thin shaly primary 1-2m
xylm thin to tight mid NS
no rd

fragile xylm thin to dms
xylm 1-2m of tan clay

shaly clay

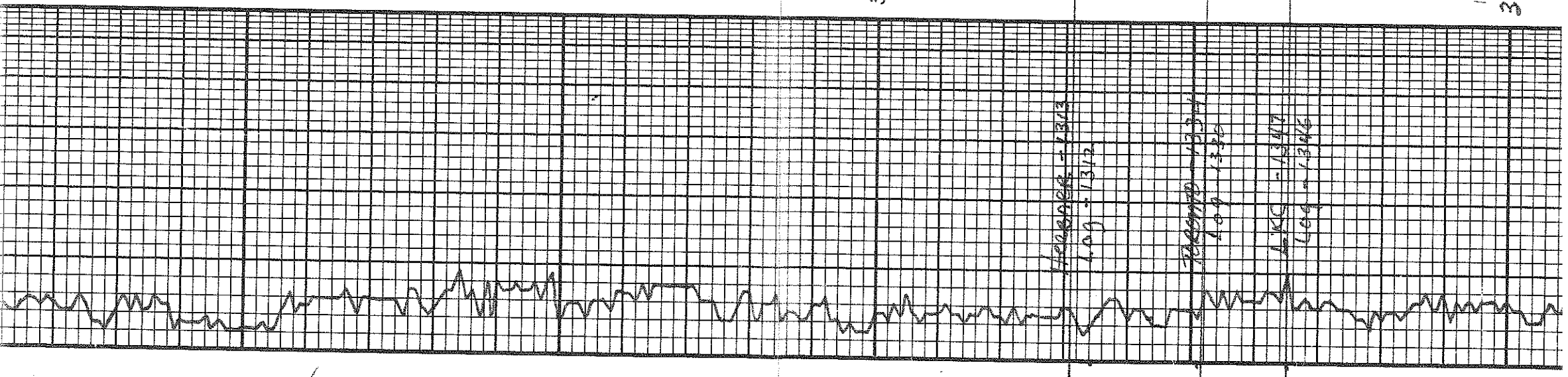
gray clay

ls thin to paper of mass spotted gray

1000000 - 1313
1000000 - 1313

1000000 - 1313
1000000 - 1313

1000000 - 1313
1000000 - 1313



	<p style="text-align: center;">50</p> <p style="text-align: center;">4200</p>	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS

OPERATOR DNOCCI
 LEASE LW #1-18 IP 03A
 ELEVATION 2218'KB RTD 4080'
 LOCATION 1238'ENL 31019'FOUL
 SEC 18 TWP 13S RNG 21W
 COUNTY TRASS STATE KANSAS

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 6049

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10-17-12	18	13	21	Trego	KS		8:45 am
Wagonwheel				Location Rgeat Hwy 40 Jw 2/85 Winto			
Lease			Well No. 18	Owner			
Contractor D. Soren #3			To Quality Oilwell Cementing, Inc.				
Type Job Surface			You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.				
Hole Size 12 1/4	T.D. 219		Charge To Downing/Wilson				
Csg. 8 5/8	Depth 219		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 Lbm 3/4 11/2/66				
Meas Line		Displace 1334			Common 150		
EQUIPMENT				Poz. Mix			
Pumptrk 15	No.	Cementer	Gel. 3				
		Helper	Calcium 5				
Bulktrk	No.	Driver	Hulls				
Bulktrk 14	No.	Driver	Salt				
JOB SERVICES & REMARKS				Flowseal			
Remarks:				Kol-Seal			
Rat Hole				Mud CLR 48			
Mouse Hole				CFL-117 or CD110 CAF 38			
Centralizers				Sand			
Baskets				Handling 158			
D/V or Port Collar				Mileage			
8 5/8 on bottom Bst Circulation Mix				FLOAT EQUIPMENT			
150 Lbm Displace				Guide Shoe			
Cement Circulated				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge Surface			
				Mileage 26			
				Tax			
				Discount			
				Total Charge			
Signature [Signature]							

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 6151

Date	10-23-12	Sec.	18	Twp.	13	Range	21	County	TREGO	State	KANSAS	On Location		Finish	2:00AM
Lease								Location		OLD 408 RTGA - 2LW TO 360 RD 2 1/2 S - W/INTO					
Lease				Well No.				Owner							
LW				#1-18				DOWNTON & NELSON							
Contractor				Type Job				To Quality Oilwell Cementing, Inc.							
Discovery #3				P.T.A				You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Hole Size				T.D.				Charge To							
7 7/8"				4080'				DOWNTON & NELSON							
Csg.				Depth				Street							
4 1/2"								PO Box 1019							
Tbg. Size				Depth				City				State			
								HAYS				KS, 67601			
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left in Csg.				Shoe Joint				Cement Amount Ordered							
								245 60# 40 Poz - 4% Gel - 1/4 FLO							
Meas Line				Displace				Common							
								147							
EQUIPMENT												Poz. Mix			
Pumptrk #15				Cementer				98				Gel.			
				Helper				NICK				9			
Bulktrk #12				Driver				Calcium							
				Driver											
Bulktrk #14				Driver											
				Driver											
				Cisco											
JOB SERVICES & REMARKS												Hulls			
Remarks:												Salt			
Rat Hole 30 SKS												Flowseal 60#			
Mouse Hole 15 SKS												Kol-Seal			
Centralizers												Mud CLR 48			
Baskets												CFL-117 or CD110 CAF 38			
D/V or Port Collar												Sand			
1st @ 4,014'				25 SKS				Handling				254			
2nd @ 1,690'				25 SKS				Mileage							
3rd @ 810'				100 SKS				FLOAT EQUIPMENT							
4th @ 268'				40 SKS				Guide Shoe							
5th @ 40'				10 SKS				Centralizer							
RAT HOLE				30 SKS				Baskets							
MOUSE HOLE				15 SKS				AFU Inserts							
				245 SKS				Float Shoe							
												Latch Down			
												1- 8 5/8" WOODEN PLUG			
THANK YOU!												Pumptrk Charge			
												plug			
												Mileage			
												32			
												Tax			
												Discount			
												Total Ch			
Signature												J. W. Enck			



DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

LW #1-18

18-13s-21w Trego,KS

Start Date: 2012.10.22 @ 12:00:00

End Date: 2012.10.22 @ 20:05:00

Job Ticket #: 50781 DST #: 1

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

Printed: 2012.10.24 @ 13:39:58



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

18-13s-21w Trego,KS

PO Box 1019
Hays KS 67601

LW #1-18

Job Ticket: 50781

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.10.22 @ 12:00:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:36:00

Time Test Ended: 20:05:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: 3907.00 ft (KB) To 3945.00 ft (KB) (TVD)

Reference Elevations: 2239.00 ft (KB)

Total Depth: 3945.00 ft (KB) (TVD)

2231.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press @ RunDepth: 150.39 psig @ 3911.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.22

End Date: 2012.10.22

Last Calib.: 2012.10.22

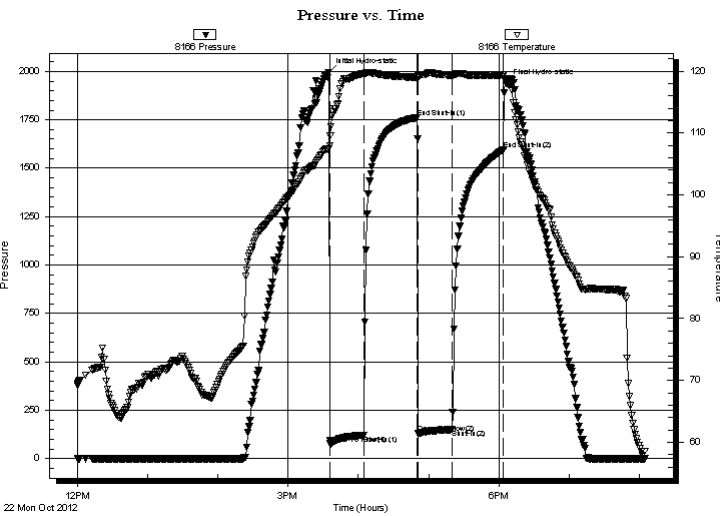
Start Time: 12:00:05

End Time: 20:04:59

Time On Btm: 2012.10.22 @ 15:34:30

Time Off Btm: 2012.10.22 @ 18:06:00

TEST COMMENT: IF-BOB in 3 min
ISI-No Blow
FF-4 1/2" blow
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.26	107.43	Initial Hydro-static
2	76.02	109.61	Open To Flow (1)
30	121.95	119.56	Shut-In(1)
76	1761.34	118.97	End Shut-In(1)
77	129.01	119.05	Open To Flow (2)
106	150.39	119.33	Shut-In(2)
150	1595.08	119.36	End Shut-In(2)
152	1939.56	118.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
250.00	VSOCM 2%O 98%M	3.23
30.00	Oil spotted mud	0.42

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

18-13s-21w Trego,KS

PO Box 1019
Hays KS 67601

LW #1-18

Job Ticket: 50781

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.10.22 @ 12:00:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:36:00

Time Test Ended: 20:05:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: 3907.00 ft (KB) To 3945.00 ft (KB) (TVD)

Reference Elevations: 2239.00 ft (KB)

Total Depth: 3945.00 ft (KB) (TVD)

2231.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8319 Inside

Press @ Run Depth: psig @ 3911.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.22 End Date: 2012.10.22

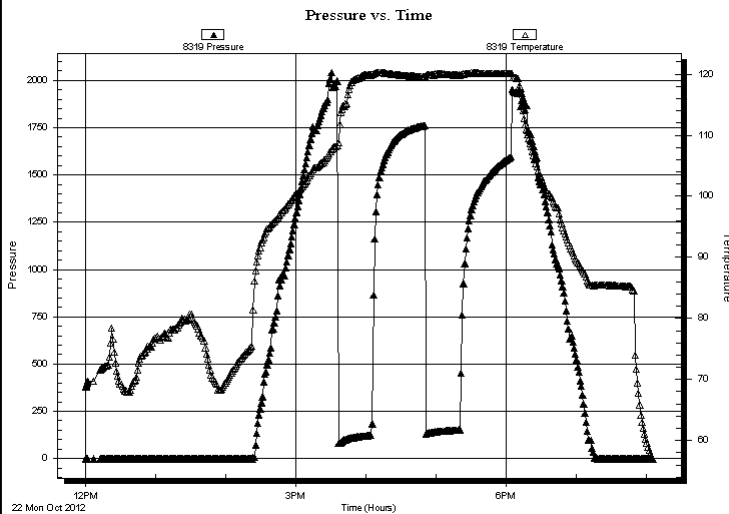
Last Calib.: 2012.10.22

Start Time: 12:00:05 End Time: 20:05:59

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-BOB in 3 min
ISI-No Blow
FF-4 1/2" blow
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
250.00	VSOCM 2%O 98%M	3.23
30.00	Oil spotted mud	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co.

18-13s-21w Trego,KS

PO Box 1019
Hays KS 67601

LW #1-18

Job Ticket: 50781

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.10.22 @ 12:00:00

Tool Information

Drill Pipe:	Length: 3868.00 ft	Diameter: 3.80 inches	Volume: 54.26 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3907.00 ft			Final	57000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	58.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3888.00	
Shut In Tool	5.00			3893.00	
Hydraulic tool	5.00			3898.00	
Packer	4.00			3902.00	20.00 Bottom Of Top Packer
Packer	5.00			3907.00	
Stubb	1.00			3908.00	
Perforations	3.00			3911.00	
Recorder	0.00	8319	Inside	3911.00	
Recorder	0.00	8166	Outside	3911.00	
Perforations	31.00			3942.00	
Bullnose	3.00			3945.00	38.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

18-13s-21w Trego,KS

PO Box 1019
Hays KS 67601

LW #1-18

Job Ticket: 50781

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.10.22 @ 12:00:00

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: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
250.00	VSOCM 2%O 98%M	3.234
30.00	Oil spotted mud	0.421

Total Length: 280.00 ft Total Volume: 3.655 bbl

Num Fluid Samples: 0

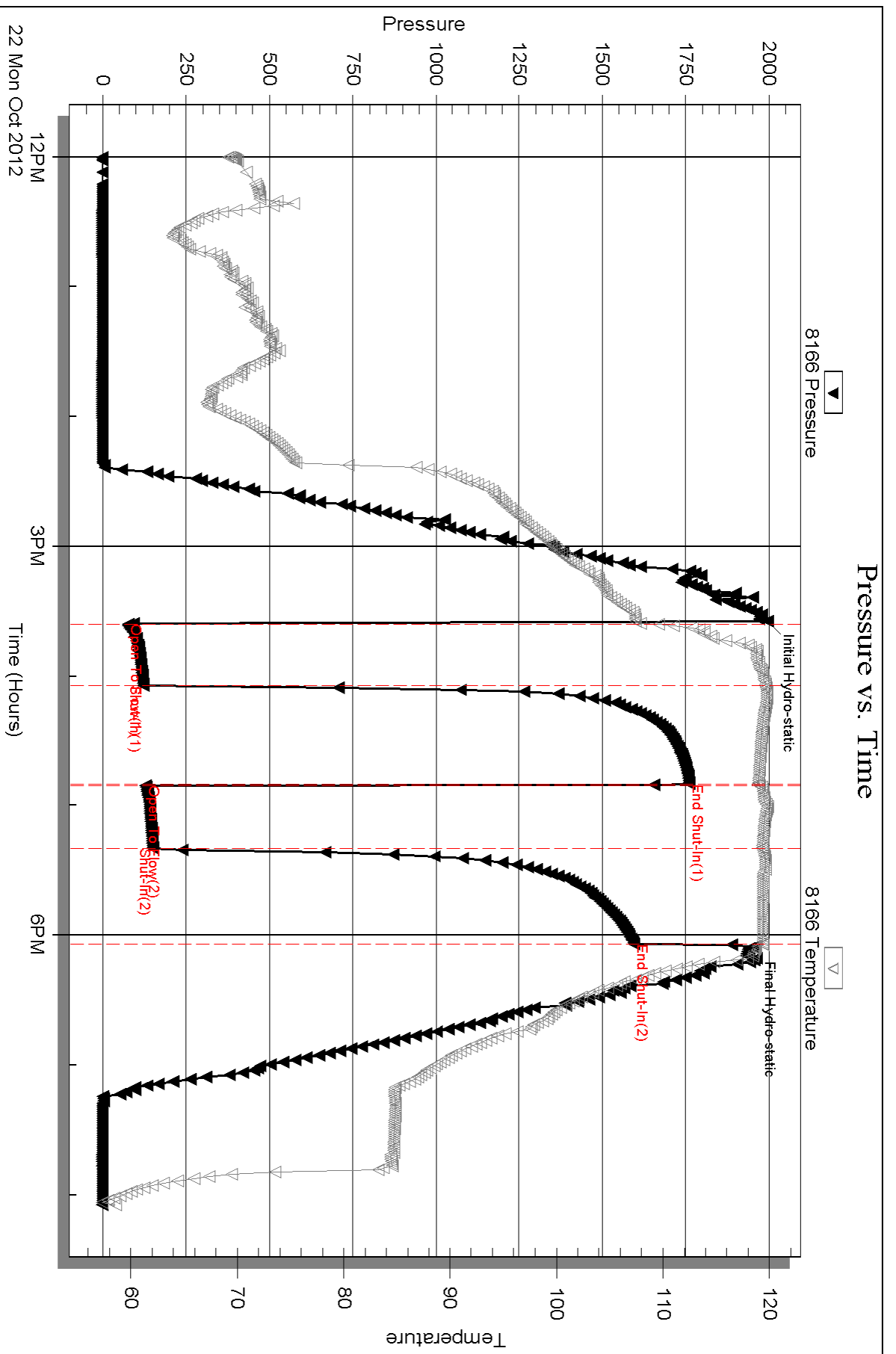
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



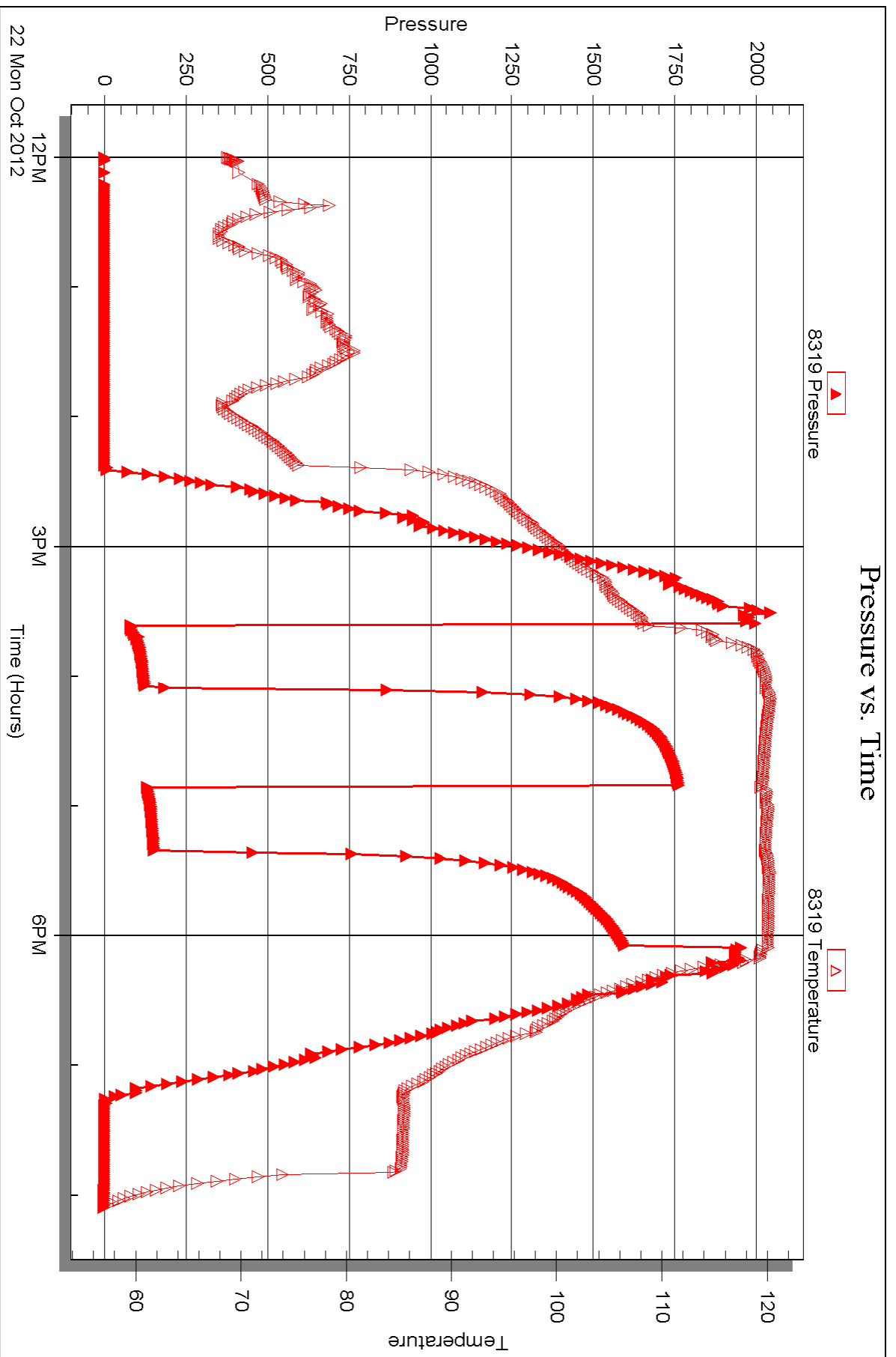
Serial #: 8319

Inside

Dow nung-Nelson Oil Co.

LW #1-18

DST Test Number: 1





DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

LW #1-18

18-13s-21w Trego,KS

Start Date: 2012.10.23 @ 13:30:00

End Date: 2012.10.23 @ 19:02:00

Job Ticket #: 50782 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.10.24 @ 13:38:17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

18-13s-21w Trego,KS

PO Box 1019
Hays KS 67601

LW #1-18

Job Ticket: 50782

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.10.23 @ 13:30:00

GENERAL INFORMATION:

Formation: **KC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:14:00

Time Test Ended: 19:02:00

Test Type: Conventional Straddle (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3686.00 ft (KB) To 3753.00 ft (KB) (TVD)

Reference Elevations: 2239.00 ft (KB)

Total Depth: 4080.00 ft (KB) (TVD)

2231.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8319

Inside

Press @ Run Depth: 24.87 psig @ 3749.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.23

End Date: 2012.10.23

Last Calib.: 2012.10.23

Start Time: 13:30:05

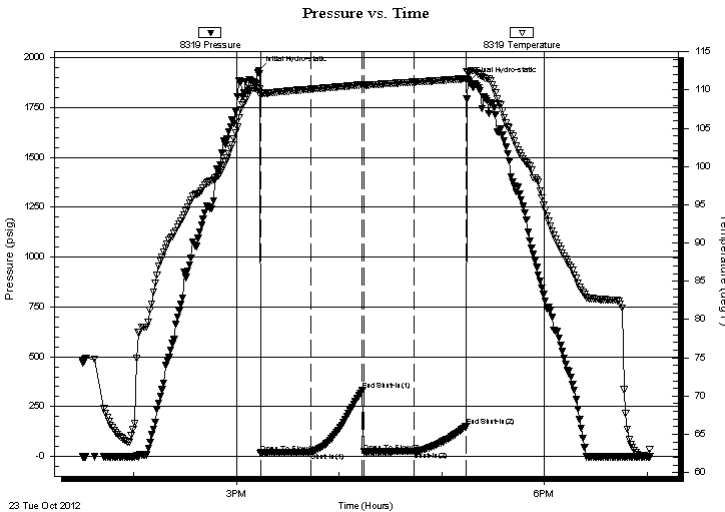
End Time: 19:01:59

Time On Btm: 2012.10.23 @ 15:13:00

Time Off Btm: 2012.10.23 @ 17:16:00

TEST COMMENT: IF-3/4" blow
IS- No blow
FF- No blow
FS- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1936.54	110.20	Initial Hydro-static
1	16.63	109.26	Open To Flow (1)
31	21.67	110.09	Shut-In(1)
61	332.05	110.68	End Shut-In(1)
62	22.91	110.62	Open To Flow (2)
91	24.87	111.03	Shut-In(2)
121	149.93	111.47	End Shut-In(2)
123	1878.40	112.36	Final Hydro-static

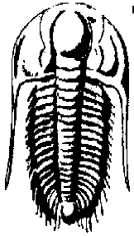
Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

18-13s-21w Trego, KS

PO Box 1019
Hays KS 67601

LW #1-18

Job Ticket: 50782

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.10.23 @ 13:30:00

GENERAL INFORMATION:

Formation: **KC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:14:00

Time Test Ended: 19:02:00

Interval: 3686.00 ft (KB) To 3753.00 ft (KB) (TVD)

Total Depth: 4080.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Straddle (Reset)

Tester: Brett Dickinson

Unit No: 59

Reference Elevations: 2239.00 ft (KB)

2231.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6753 Below (Straddle)

Press @ Run Depth: psig @ 3758.00 ft (KB)

Start Date: 2012.10.23

End Date: 2012.10.23

Start Time: 13:30:05

End Time: 19:04:29

Capacity: 8000.00 psig

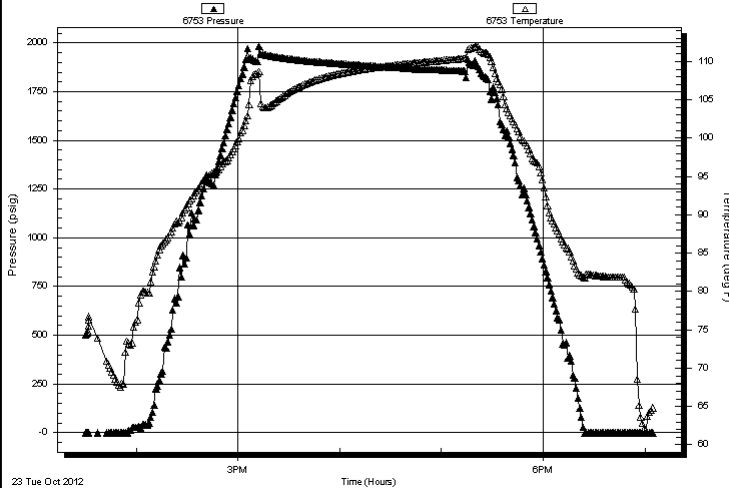
Last Calib.: 2012.10.23

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-3/4" blow
IS-No blow
FF-No blow
FS-No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.05

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co.

18-13s-21w Trego,KS

PO Box 1019
Hays KS 67601

LW #1-18

Job Ticket: 50782

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.10.23 @ 13:30:00

Tool Information

Drill Pipe:	Length: 3645.00 ft	Diameter: 3.80 inches	Volume: 51.13 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
				String Weight: Initial	60000.00 lb
Drill Pipe Above KB:	9.00 ft			Final	60000.00 lb
Depth to Top Packer:	3686.00 ft				
Depth to Bottom Packer:	3753.00 ft				
Interval between Packers:	67.00 ft				
Tool Length:	417.00 ft				
Number of Packers:	3	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3667.00	
Shut In Tool	5.00			3672.00	
Hydraulic tool	5.00			3677.00	
Packer	4.00			3681.00	20.00 Bottom Of Top Packer
Packer	5.00			3686.00	
Stubb	1.00			3687.00	
Perforations	3.00			3690.00	
change Over Sub	1.00			3691.00	
Blank Spacing	31.00			3722.00	
change Over Sub	1.00			3723.00	
Perforations	26.00			3749.00	
Recorder	0.00	8319	Inside	3749.00	
Recorder	0.00	8166	Outside	3749.00	
Blank Off Sub	4.00			3753.00	67.00 Tool Interval
Packer	4.00			3757.00	
Stubb	1.00			3758.00	
Recorder	0.00	6753	Below	3758.00	
perforations	3.00			3761.00	
Change Over Sub	1.00			3762.00	
Blank Spacing	317.00			4079.00	
Change Over Sub	1.00			4080.00	
Bullnose	3.00			4083.00	330.00 Bottom Packers & Anchor
Total Tool Length:	417.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

18-13s-21w Trego,KS

PO Box 1019
Hays KS 67601

LW #1-18

Job Ticket: 50782

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.10.23 @ 13:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

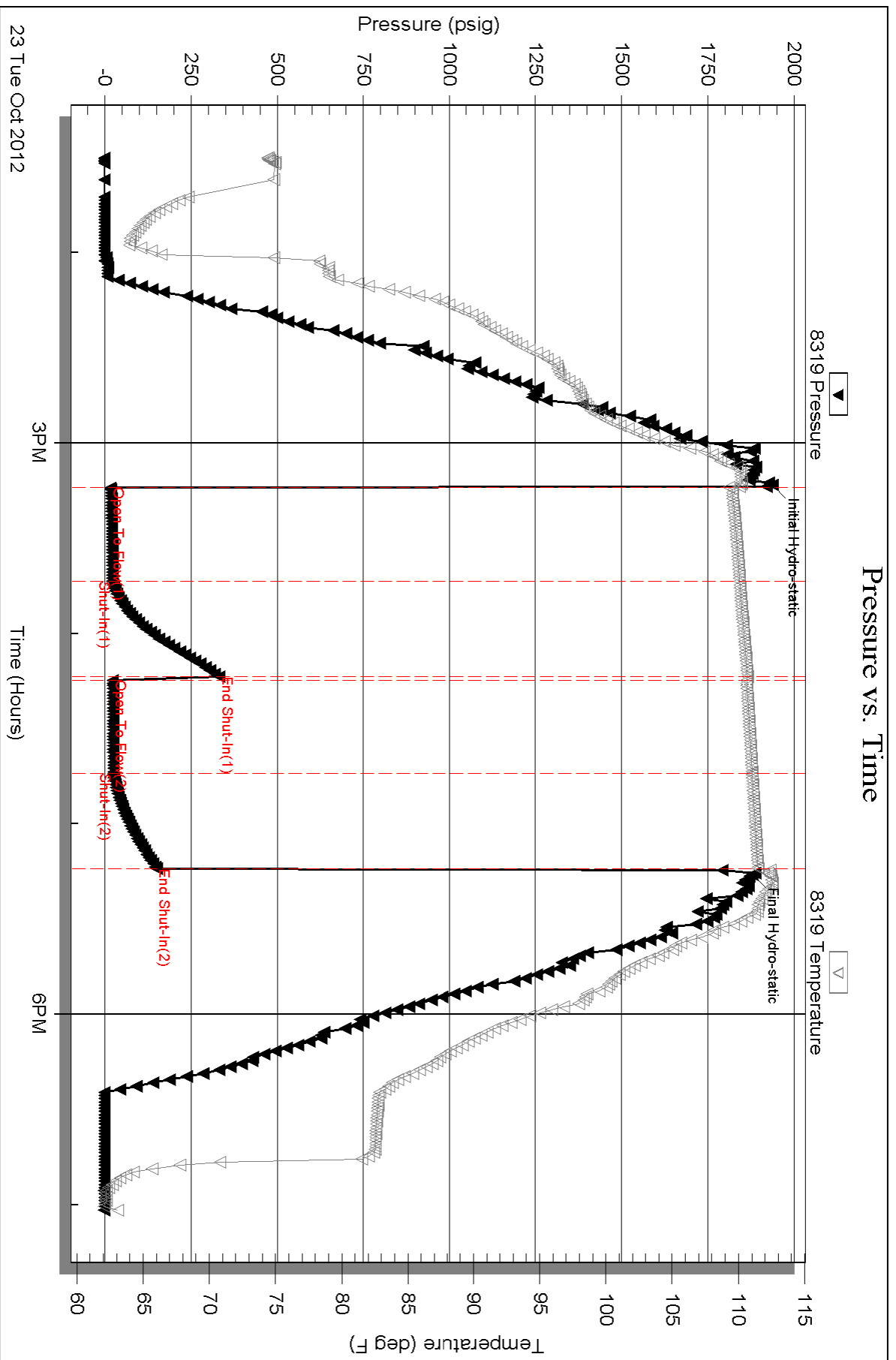
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

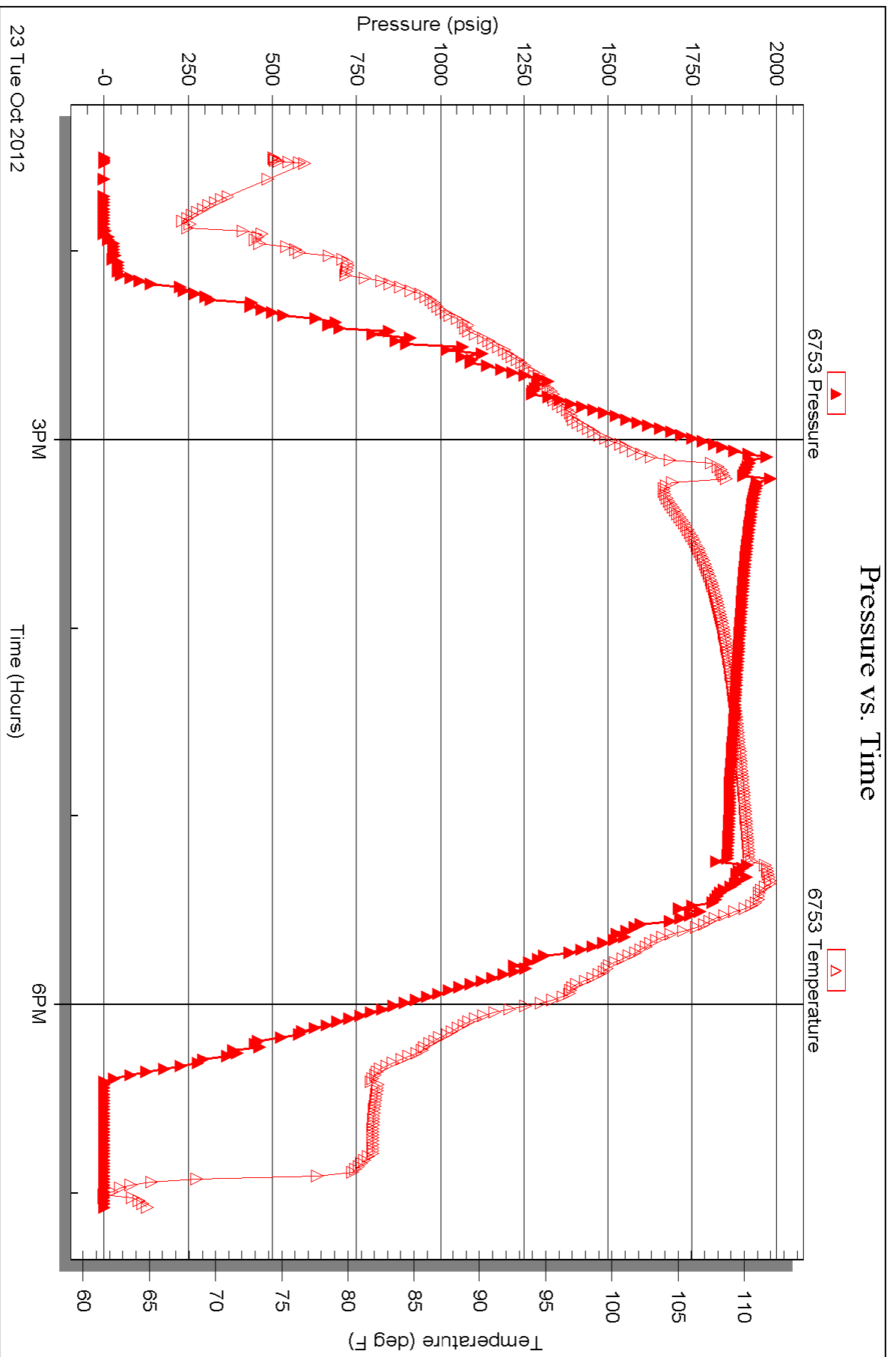


Serial #: 6753

Below (Stratton) Inc-Nelson Oil Co.

LW #1-18

DST Test Number: 2

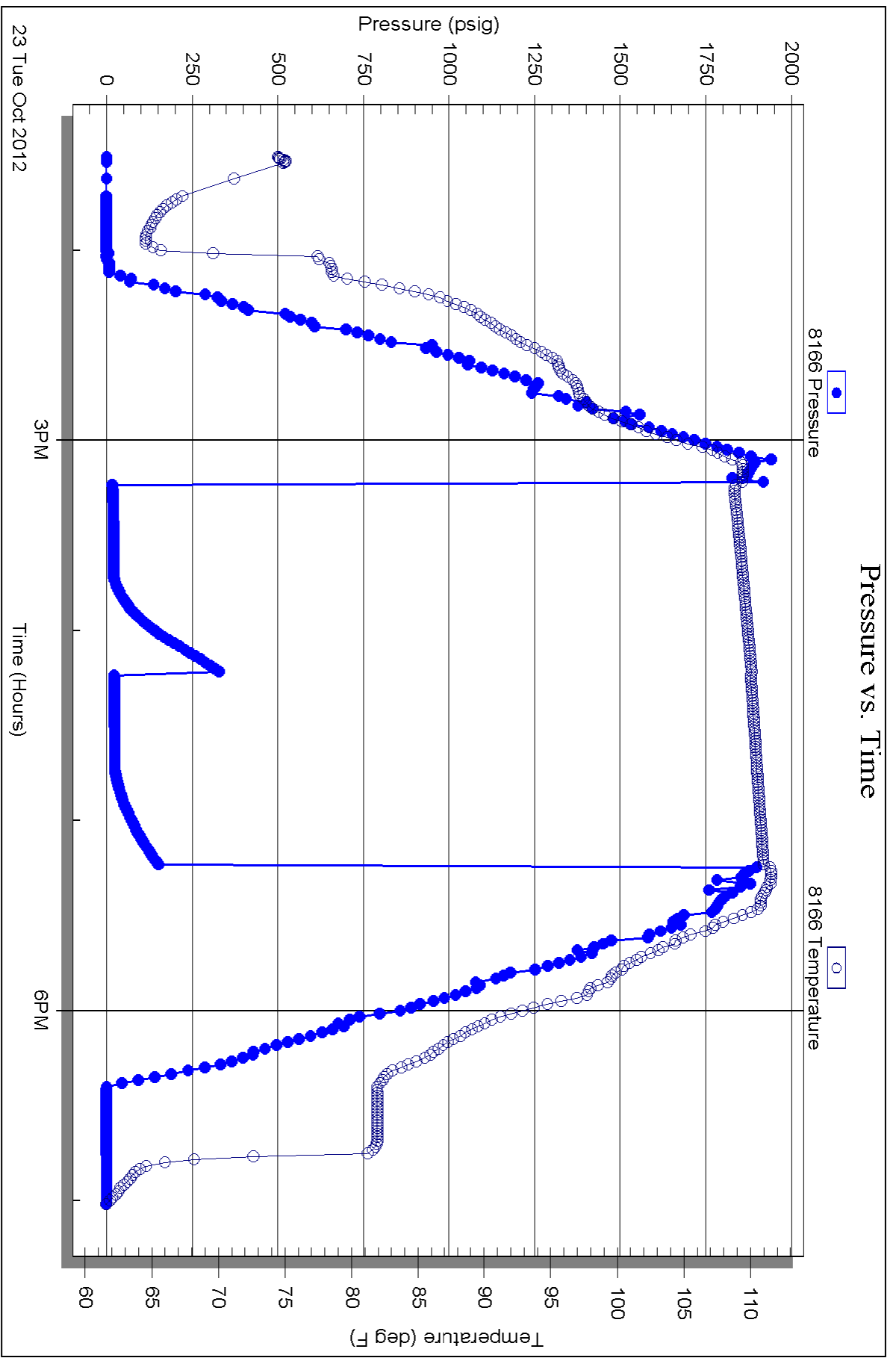


Serial #: 8166

Outside Dow nging-Nelson Oil Co.

LW #1-18

DST Test Number: 2

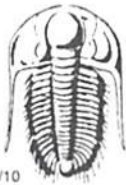


23 Tue Oct 2012

3PM

Time (Hours)

6PM



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50781

4/10

Well Name & No. LW #1-18 Test No. 1 Date 10-22-12
 Company Downing-Nelson Oil Co Inc. Elevation 2239 KB 2231 GL
 Address PO Box 1019 Hays KS 67601
 Co. Rep / Geo. _____ Rig Discovery #3
 Location: Sec. 18 Twp. 13 Rge. 21 Co. Trego State KS

Interval Tested 3907 - 3945' Zone Tested Marmaton
 Anchor Length 38 Drill Pipe Run _____ Mud Wt. 9.4
 Top Packer Depth 3902 Drill Collars Run 30 Vis 68
 Bottom Packer Depth 3907 Wt. Pipe Run - WL 8.0
 Total Depth 3945 Chlorides 2,000 ppm System LCM _____
 Blow Description IF - BOB in 3min
ISF - No blow
FF - 4 1/2 in blow
FSI - NO blow

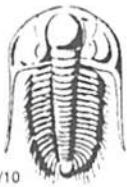
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>oil spotted mud</u>				
<u>250</u>	<u>vsoem</u>		<u>2</u>		<u>98</u> %mud
____	____	%gas	%oil	%water	%mud
____	____	%gas	%oil	%water	%mud
____	____	%gas	%oil	%water	%mud

Rec Total 280 BHT 119 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1,995</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>11:00</u>
(B) First Initial Flow <u>76</u>	<input type="checkbox"/> Jars _____	T-Started <u>12:00</u>
(C) First Final Flow <u>122</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>15:35</u>
(D) Initial Shut-In <u>1,761</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>18:05</u>
(E) Second Initial Flow <u>129</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>20:05</u>
(F) Second Final Flow <u>150</u>	<input checked="" type="checkbox"/> Mileage <u>57.5</u> 88.35	Comments _____
(G) Final Shut-In <u>1,595</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1,940</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Total <u>1238.35</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1238.35</u>	

Approved By _____ Our Representative Ben Duhon

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

Test Ticket

NO. 50782

4/10

Well Name & No. LW #1-18 Test No. 2 Date 10-23-12
 Company Downing-Nelson Oil Co Inc. Elevation 2239 KB 2231 GL
 Address PO Box 1019 Hays KS 67601
 Co. Rep / Geo. _____ Rig Discovery #3
 Location: Sec. 18 Twp. 13 Rge. 21 Co. Trego State KS

Interval Tested 3686-3753 Zone Tested Ac
 Anchor Length 67 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3681, 3686 Drill Collars Run 30 Vis _____
 Bottom Packer Depth 3753 Wt. Pipe Run _____ WL _____
 Total Depth 4080 Chlorides _____ ppm System LCM _____

Blow Description IF - 3/4 in blow
ISI - No blow
FF - No blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Ma d</u>				
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 10 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 4937 Test 1150 T-On Location 12:00
 (B) First Initial Flow 17 Jars _____ T-Started 13:30
 (C) First Final Flow 22 Safety Joint _____ T-Open 15:25
 (D) Initial Shut-In 332 Circ Sub _____ T-Pulled 17:25
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out 19:10
 (F) Second Final Flow 25 Mileage 57.1 88.35 Comments _____
 (G) Final Shut-In 150 Sampler _____
 (H) Final Hydrostatic 1878 Straddle 600 Ruined Shale Packer _____

Initial Open 30 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 30 Extra Packer _____ Extra Copies _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 30 Day Standby _____ Total 1838.35
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1838.35

Approved By _____ Our Representative Burdin

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