



KANSAS CORPORATION COMMISSION 1102888  
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 # \_\_\_\_\_

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: \_\_\_\_\_



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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<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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 (Specify) _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Colberg 1-15
Doc ID	1102888

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated Density / Neutron

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Colberg 1-15
Doc ID	1102888

Tops

Name	Top	Datum
Top Anhydrite	1540'	+647
Base Anhydrite	1583'	+604
Topeka	3256'	-1069
Heebner	3495'	-1308
Toronto	3514'	-1327
LKC	3534'	-1347
BKC	3780'	-1593
Marmaton	3860'	-1673
Cherokee Shale	3905'	-1718
Conglomerate Chert/Sand	3921	-1734
Arbuckle	4005'	-1818

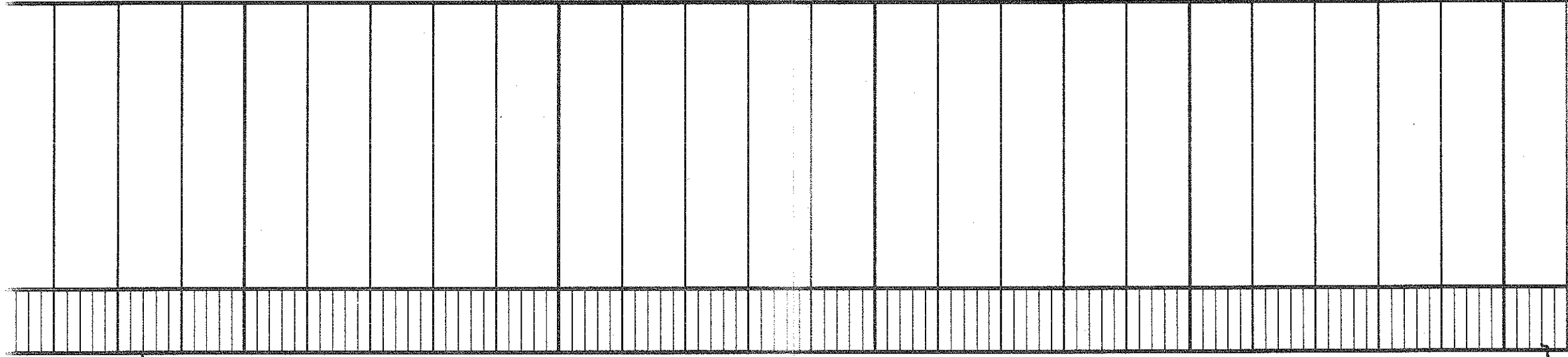
Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Colberg 1-15
Doc ID	1102888

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3922' to 3928'	250 gallons 15% Mud Acid	3928' to 3936'
4	3936' to 3940'	100 gal. 15% Mud Acid / 3% Mutual Solvent	3922' to 3930'
2	3928' to 3936'	125 gal. 15% INS Acid / 3% Mutual Solvent	3975'
4	3914' to 3917'		
4	3922' to 3930'		
4	3944' to 3948'		







1000

3100

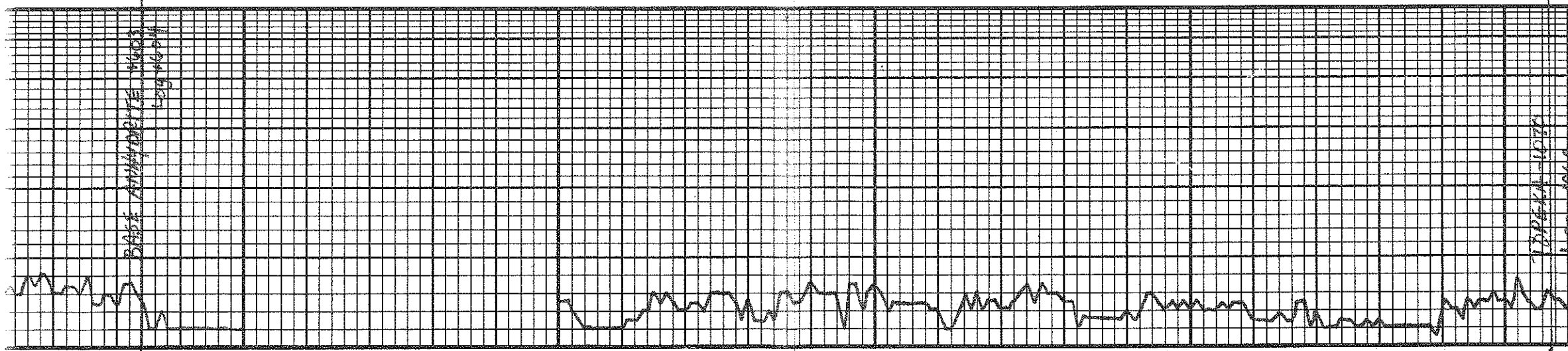
50

3200

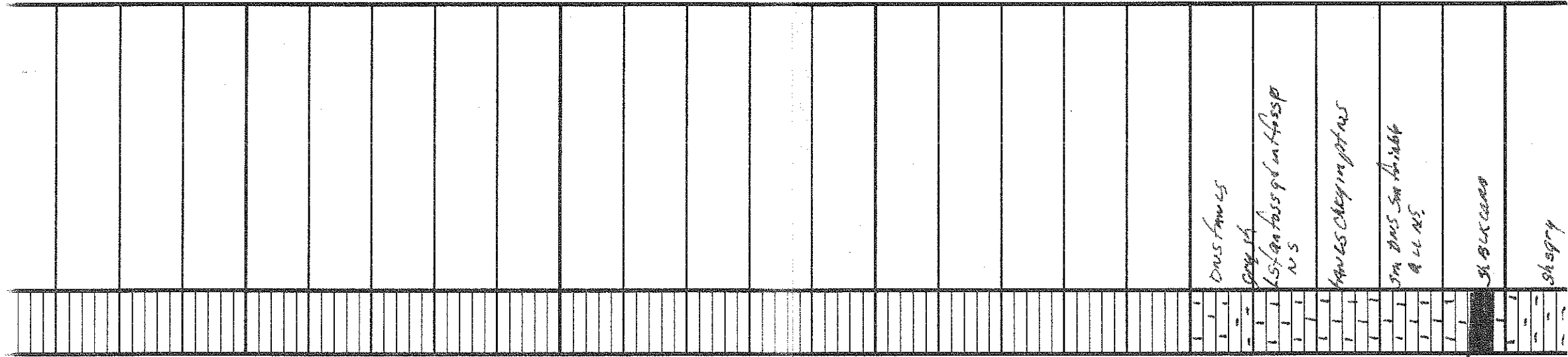
50

BASE ANTIMONYITE 1000  
1000

TOPREX 1000  
1000







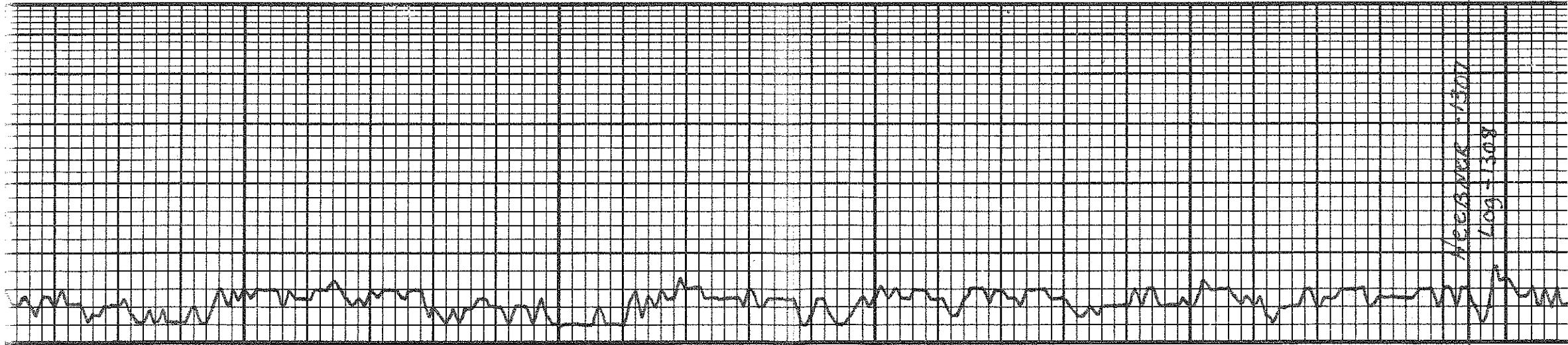
3300

50

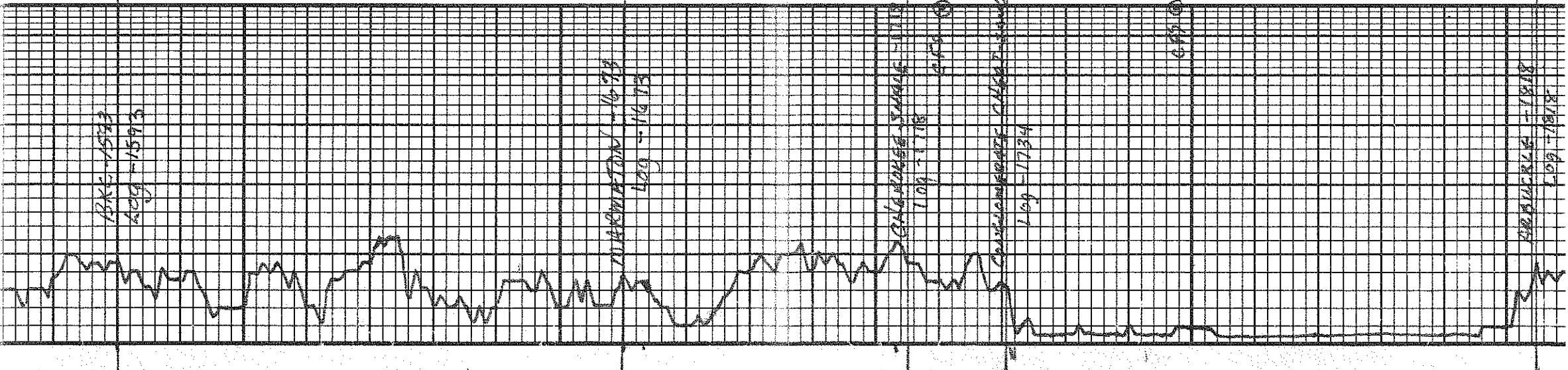
3400

50

3500







13K-1533  
LOG-1593

INTERVAL - 1698  
LOG - 1673

CHANGING SCALE  
109-1118  
109-1734

SERIES - 1818  
LOG - 1818

shgry dk gry	DNSTAN LS micry w w/ fine pcs ch	5h dk gry	VDMS tan-whls pr. nyls	BAN SH	micry/w wh - tan LS NS	BAN F. BO SH	chrt ch. seg w/ chrt LS	g dk sh nry BCK rd BMM	VDMS tan w/ sm Ban/ao chrt w/ chrt	3850m BO gry grn hony	LS brn - tan 1m tot soft brn grt fassy sbb w/ chrt oil on smpl cup, fmsuc xylo w/ gry (p. slod) w/ chrt wh, tan edge sm, sm qd trace plane w/ LS/chrt borders to 10.86 split	VDMS tan LS w/ chrt tan w/ sbb op fropes brn sh w/ sbb no bd LS chrt-aa	SH BUK CAB	SHS dk gry, brn w/ 1-2 ss shgs	chrt sm wh. chrt weath, w/ sbb Ban sh, sm sbb, w/ gry w/ fms weath chrt. ang w/ sbb, slod. trace	m varicolor chrt. w/ brn gry. chrt op. yew w/ sbb trace NS	multi color chert, m vgd trace of sm re cont. chrt. sm weath. sm shp trsh sbb sm 2 ss	varicolor chrt-aa sm weath sm fresh. all trace ed. trace of some sfo 2 edge stains fwd chrt sbb 2 chrt mixed	chrt 2 sbb aa, nry all chrt sm weath. fsh. be cont. w/ sbb. slod, edge sm sbb	most all Barron chrt multi- color chrt-aa	gry grn sh	Dolo tan. Ban. In-mo. Sbc.
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3800

50

3900

-1734

50

4000

DST # 1  
3863-3910  
45' 45" 45" 45"  
12' op BOB 184  
SI 1 1/4"  
2nd op BOB 24"  
SI 1 1/4"  
IFP 35-86  
FFP 93-130  
SIP 1008-947  
HP 1906-1877  
REC: 220' gas  
220' clean air  
MD: 0.6 m  
(2590016 3758 mud)  
BHT 1120  
Gravity 360

DST # 2  
3893-3940  
30" 45" 30" 45"  
1 1/4' op BOB 10"  
1" S.I. Blow  
2nd op BOB 9"  
1" S.I. Blow  
IFP 42-140  
FFP 147-223  
SIP 1203-1203  
HP 1944-1853  
REC: 180' g.i.p.  
180' clean oil  
332' HM & GCO  
2590 gas  
35% m  
40% oil

DST # 1

DST # 2



# 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. 6143

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-2-12	15	14	21	Trego	KS		9:15 P.M.
Lease <b>COLBERG</b>				Well No. <b>1-15</b>		Owner <b>W E Las Winto</b>	
Contractor <b>D. Swain #3</b>				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job <b>Surface</b>				Charge To <b>Downing Nelson</b>			
Hole Size <b>12 1/4</b>		T.D. <b>217</b>		Street			
Csg. <b>8 5/8</b>		Depth <b>217</b>		City			
Tbg. Size		Depth		State			
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg. <b>15</b>		Shoe Joint <b>13</b>		Cement Amount Ordered <b>150 com 3 3/4" 2 1/2" Gel</b>			
Meas Line		Displace <b>1000 R</b>		Common <b>150</b>			
<b>EQUIPMENT</b>				Poz. Mix			
Pumptrk <b>5</b>	No.	Cementer <b>mig</b>		Gel. <b>3</b>			
Bulktrk	No.	Helper <b>Brett</b>		Calcium <b>5</b>			
Bulktrk <b>13</b>	No.	Driver <b>Levy</b>		<b>JOB SERVICES &amp; REMARKS</b>			
Remarks:				Hulls			
Rat Hole				Salt			
Mouse Hole				Flowseal			
Centralizers				Kol-Seal			
Baskets				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
<b>8 5/8 on bottom. Est. Circulation.</b>				Sand			
<b>M. X 150 com Displace</b>				Handling <b>158</b>			
<b>Cement Circulated!</b>				Mileage			
				<b>FLOAT EQUIPMENT</b>			
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge <b>Surface</b>			
				Mileage <b>23</b>			
				Tax			
				Discount			
				Total Charge			
Signature <b>Don Jull</b>							

**JOB LOG**

**SWIFT Services, Inc.**

DATE 11-9-12 PAGE NO. 1

CUSTOMER Downing + Nelson WELL NO. #1-15 LEASE Colberg JOB TYPE 2-stage TICKET NO. 21963

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0730							on loc / w IFE
								RTD 4047' LT D 4049'
								5 1/2" x 14 # x 4046' x 21
								Cent 1, 3, 5, 7, 9, 11, 59
								Back CO
								DV 50 @ 1539'
	0955							Start FE
	1155							Break Circ
	1220	5	0			200		Start Pr @ flush 500 gal Mud flush
		5	32/0			200		20 bbl KCH flush
	1242		36					Start 150 sks EA-2 Cement
								End Cement
								Wash P & L / Drop D. Plug
	1250	6	0			200		Start Displacement wtr
	1300	5	65/			250		Catch Cement / start mud
	1308		98			650 / 1200		Land Plug
								Release Pressure / Float Held
	1310							Drop Opening Plug
	1312	2.5	7/4					Plug RH <del>4</del> 30/ sks SMD
	1318					1100		Open DV
	1320	5	0			150		Start Cement 150 sks SMD
	1335		75					End Cement
								Drop Closing Plug
	1340	5	0			150		Start Displacement
		4	10			200		Circ Cement
	1350		37.5			450 / 1500		Land Plug
								Close DV
								Release Pressure / DV Closed
								Circ 40 sks to pit
								Thank you
								Nick, David E. & Isaac



## DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Company**

PO Box 1019  
Hays, KS 67601

ATTN: Ron Nelson

### **Colberg #1-34**

#### **34-12s-21w Trego,KS**

Start Date: 2012.11.07 @ 13:56:44

End Date: 2012.11.07 @ 21:21:58

Job Ticket #: 48726                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.23 @ 09:14:11



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Company

**34-12s-21w Trego,KS**

PO Box 1019  
Hays, KS 67601

**Colberg #1-34**

Job Ticket: 48726

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.11.07 @ 13:56:44

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 16:08:28

Time Test Ended: 21:21:58

Test Type: Conventional Bottom Hole (Initial)

Tester: Jason McLemore

Unit No: 54

**Interval: 3863.00 ft (KB) To 3910.00 ft (KB) (TVD)**

Reference Elevations: 2183.00 ft (KB)

Total Depth: 3910.00 ft (KB) (TVD)

2173.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8366**

**Inside**

Press @ Run Depth: 130.54 psig @ 3899.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.07

End Date:

2012.11.07

Last Calib.:

2012.11.07

Start Time:

13:56:46

End Time:

21:21:58

Time On Btm:

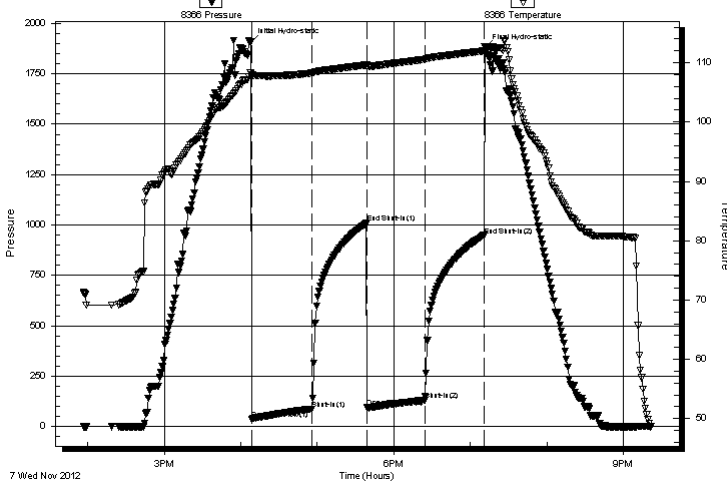
2012.11.07 @ 16:07:58

Time Off Btm:

2012.11.07 @ 19:11:28

**TEST COMMENT:** IFP-Good Blow , BOB in 18 Min.  
ISI-Blow back Built to 1"  
FFP-Good Blow , BOB in 24 Min.  
FSI-Blow back Built to 1-1/4"

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1906.01	108.32	Initial Hydro-static
1	35.35	107.46	Open To Flow (1)
48	86.90	108.23	Shut-In(1)
91	1008.25	109.64	End Shut-In(1)
92	93.58	109.33	Open To Flow (2)
137	130.54	110.55	Shut-In(2)
183	947.67	111.97	End Shut-In(2)
184	1877.52	112.65	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
40.00	OCM-25%O-75%M	0.29
220.00	Free Oil	3.09

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Company

**34-12s-21w Trego,KS**

PO Box 1019  
Hays, KS 67601

**Colberg #1-34**

Job Ticket: 48726

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.11.07 @ 13:56:44

## Tool Information

Drill Pipe:	Length: 3828.00 ft	Diameter: 3.80 inches	Volume: 53.70 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 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: 53.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3863.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	75.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3836.00	
Shut In Tool	5.00			3841.00	
Hydraulic tool	5.00			3846.00	
Jars	5.00			3851.00	
Safety Joint	2.00			3853.00	
Packer	5.00			3858.00	28.00 Bottom Of Top Packer
Packer	5.00			3863.00	
Stubb	1.00			3864.00	
Perforations	2.00			3866.00	
Change Over Sub	1.00			3867.00	
Blank Spacing	31.00			3898.00	
Change Over Sub	1.00			3899.00	
Recorder	0.00	8366	Inside	3899.00	
Recorder	0.00	8289	Outside	3899.00	
Perforations	8.00			3907.00	
Bullnose	3.00			3910.00	47.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>75.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Company

**34-12s-21w Trego, KS**

PO Box 1019  
Hays, KS 67601

**Colberg #1-34**

Job Ticket: 48726

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.11.07 @ 13:56:44

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
40.00	OCM-25%O-75%M	0.288
220.00	Free Oil	3.086

Total Length: 260.00 ft      Total Volume: 3.374 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8366

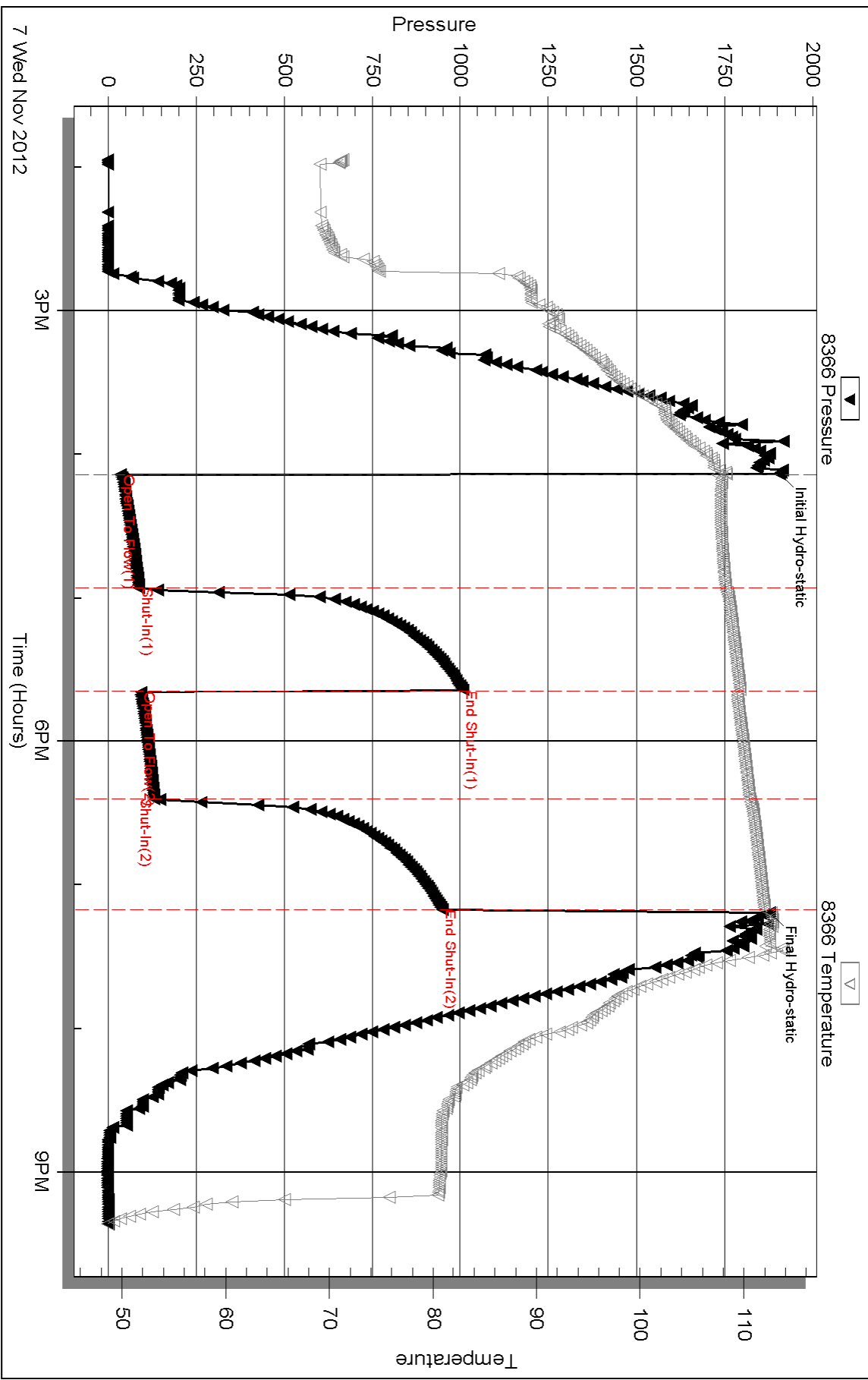
Inside

Downing-Nelson Oil Company

Colberg #1-34

DST Test Number: 1

### Pressure vs. Time

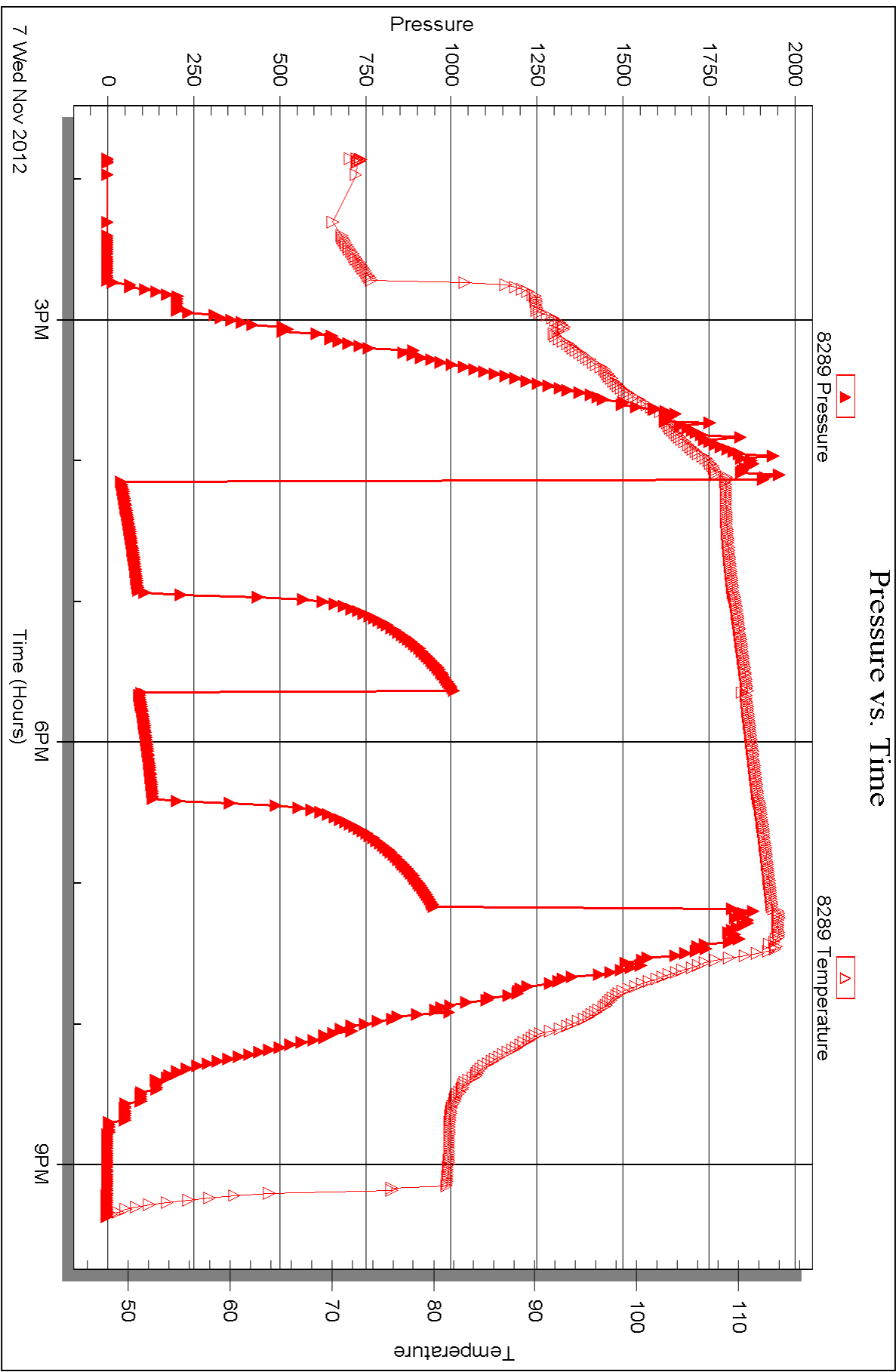


Serial #: 8289

Outside Dow nging-Nelson Oil Company

Colberg #1-34

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Company**

PO Box 1019  
Hays, KS 67601

ATTN: Ron Nelson

### **Colberg #1-34**

### **34-12s-21w Trego,KS**

Start Date: 2012.11.08 @ 04:58:48

End Date: 2012.11.08 @ 12:25:33

Job Ticket #: 48727                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.23 @ 09:13:02

Downing-Nelson Oil Company  
34-12s-21w Trego,KS  
Colberg #1-34  
DST # 2  
Sand  
2012.11.08



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Company

**34-12s-21w Trego,KS**

PO Box 1019  
Hays, KS 67601

**Colberg #1-34**

Job Ticket: 48727

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.11.08 @ 04:58:48

## GENERAL INFORMATION:

Formation: **Sand**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 07:13:33

Time Test Ended: 12:25:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

**Interval: 3893.00 ft (KB) To 3948.00 ft (KB) (TVD)**

Reference Elevations: 2183.00 ft (KB)

Total Depth: 3948.00 ft (KB) (TVD)

2173.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8366**

**Inside**

Press @ Run Depth: 223.15 psig @ 3930.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.08

End Date:

2012.11.08

Last Calib.:

2012.11.08

Start Time:

04:58:50

End Time:

12:25:33

Time On Btm:

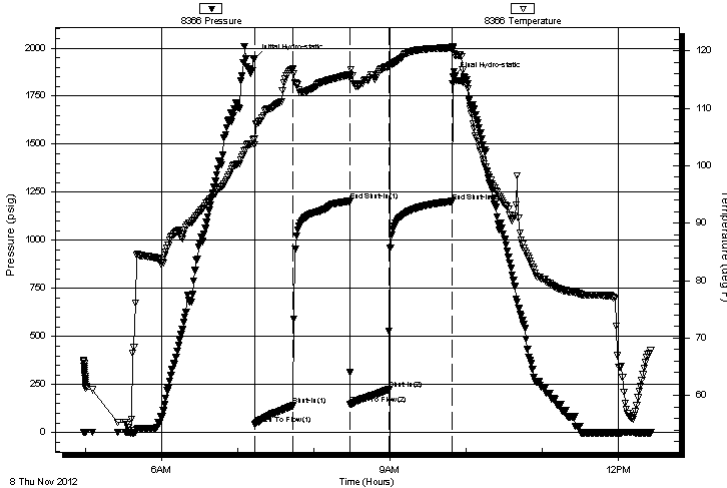
2012.11.08 @ 07:13:18

Time Off Btm:

2012.11.08 @ 09:49:48

**TEST COMMENT:** IFP-Good Blow , BOB in 10 Min.  
ISI-Blow back Built to 1"  
FFP-Good Blow , BOB in 9 Min.  
FSI-Blow back Built to 1"

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1944.45	104.76	Initial Hydro-static
1	42.84	103.67	Open To Flow (1)
31	140.01	116.81	Shut-In(1)
75	1202.94	115.85	End Shut-In(1)
76	147.16	115.62	Open To Flow (2)
106	223.15	117.27	Shut-In(2)
156	1202.43	120.56	End Shut-In(2)
157	1853.27	120.51	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
332.00	Gassy HOCM-25%G-40%O-35%M	4.38
180.00	Free Oil	2.52
0.00	180' Gas In Pipe	0.00

## 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 Company

**34-12s-21w Trego,KS**

PO Box 1019  
Hays, KS 67601

**Colberg #1-34**

Job Ticket: 48727

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.11.08 @ 04:58:48

## Tool Information

Drill Pipe:	Length: 3858.00 ft	Diameter: 3.80 inches	Volume: 54.12 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 54.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3893.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3866.00	
Shut In Tool	5.00			3871.00	
Hydraulic tool	5.00			3876.00	
Jars	5.00			3881.00	
Safety Joint	2.00			3883.00	
Packer	5.00			3888.00	28.00 Bottom Of Top Packer
Packer	5.00			3893.00	
Stubb	1.00			3894.00	
Perforations	3.00			3897.00	
Change Over Sub	1.00			3898.00	
Blank Spacing	31.00			3929.00	
Change Over Sub	1.00			3930.00	
Recorder	0.00	8366	Inside	3930.00	
Recorder	0.00	8289	Outside	3930.00	
Perforations	15.00			3945.00	
Bullnose	3.00			3948.00	55.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>83.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Company

**34-12s-21w Trego,KS**

PO Box 1019  
Hays, KS 67601

**Colberg #1-34**

Job Ticket: 48727

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.11.08 @ 04:58:48

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
332.00	Gassy HOCM-25%G-40%O-35%M	4.384
180.00	Free Oil	2.525
0.00	180' Gas In Pipe	0.000

Total Length: 512.00 ft

Total Volume: 6.909 bbl

Num Fluid Samples: 0

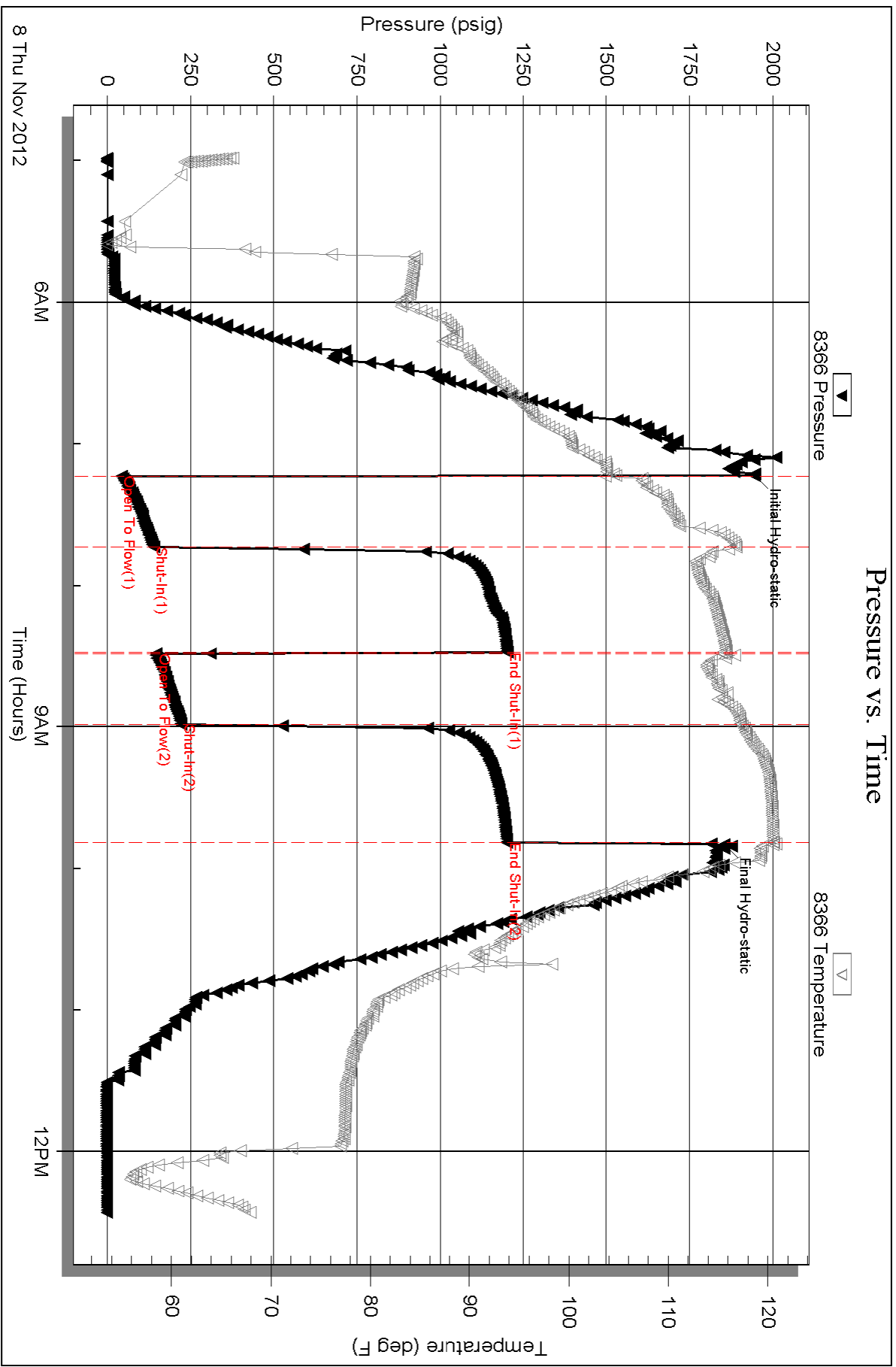
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

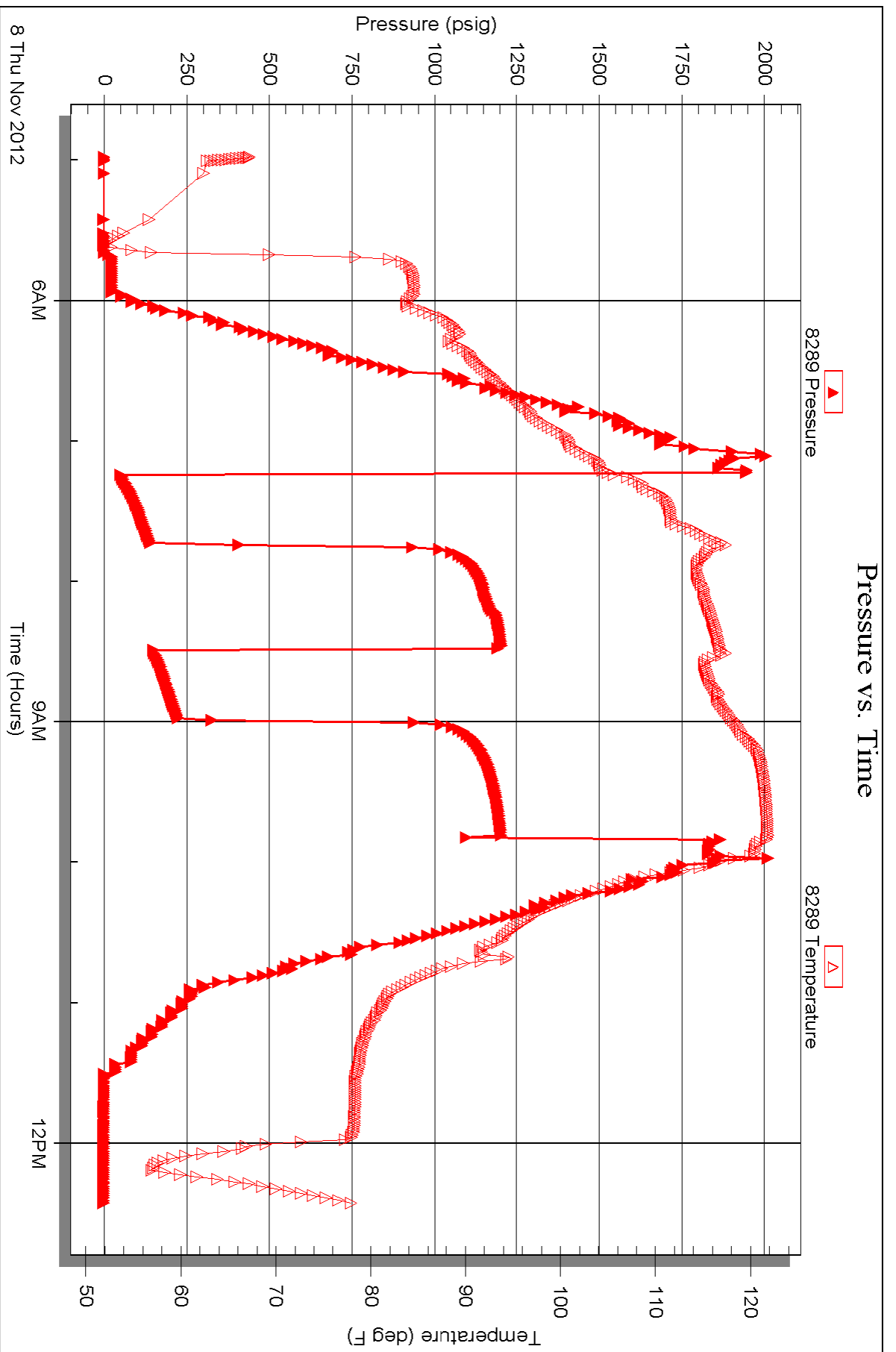


Serial #: 8289

Outside Dow n/g-nelson Oil Company

Colberg #1-34

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48726

4/10

Well Name & No. Colberg #1-38 Test No. 1 Date 11-7-12  
 Company Downing and Nelson Oil Company Elevation 2183 KB 2173 GL  
 Address PO Box 1019, Hays, KS. 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery #3  
 Location: Sec. 34 Twp. 12s Rge. 21w Co. Trego State KS

Interval Tested 3863-3910 Zone Tested Marmaton  
 Anchor Length 47 Drill Pipe Run 3828 Mud Wt. 9.0  
 Top Packer Depth 3858 Drill Collars Run 30 Vis 51  
 Bottom Packer Depth 3863 Wt. Pipe Run 0 WL 7.6  
 Total Depth 3910 Chlorides 2500 ppm System LCM 1 1/2 #  
 Blow Description IFP - Good Blow, BOB in 18 min.  
ISI - Blowback Built to 1"  
FFP - Good Blow, BOB in 24 min.  
FSI - Blowback Built to 1 1/4"

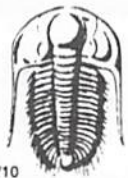
Rec	Feet of	%gas	%oil	%water	%mud
<u>220</u>	<u>Free Oil</u>				
<u>40</u>	<u>OCM</u>		<u>25</u>		<u>75</u>
	<u>220<sup>th</sup> Gas In Pipe</u>				

Rec Total 260 BHT 112 Gravity 36 API RW @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1906  Test 1150 T-On Location 12:54  
 (B) First Initial Flow 35  Jars \_\_\_\_\_ T-Started 13:54  
 (C) First Final Flow 87  Safety Joint \_\_\_\_\_ T-Open 16:13  
 (D) Initial Shut-In 1008  Circ Sub \_\_\_\_\_ T-Pulled 19:13  
 (E) Second Initial Flow 94  Hourly Standby \_\_\_\_\_ T-Out 21:25  
 (F) Second Final Flow 131  Mileage 62rt 96.10 Comments \_\_\_\_\_  
 (G) Final Shut-In 948  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1878  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1246.10  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1246.10

Approved By \_\_\_\_\_ Our Representative Jason McLenner *Thank you*

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48727

4/10

Well Name & No. Colberg # 1-~~33~~ 34 Test No. 2 Date 11-8-12  
 Company Downing and Nelson Oil Company Elevation 2183 KB 2173 GL  
 Address PO Box 1019, Hays, KS. 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery #3  
 Location: Sec. 34 Twp. 12s Rge. 21w Co. Trego State Ks

Interval Tested 3893 - 3948 Zone Tested Sand  
 Anchor Length 55' Drill Pipe Run 3858 Mud Wt. 9.0  
 Top Packer Depth 3888 Drill Collars Run 30 Vis 51  
 Bottom Packer Depth 3893 Wt. Pipe Run \_\_\_\_\_ WL 7.6  
 Total Depth 3948 Chlorides 2500 ppm System LCM 1 1/2 #  
 Blow Description IFP - Good Blow, BOB in 10 min.  
ISI - ~~Blow~~ Blowback Built to 1"  
FFP - Good Blow, BOB in 9 min  
FSI - Blowback Built to 1"

Rec	Feet of	%gas	%oil	%water	%mud
180	Free Oil				
332	Gassy HOCM	25	40 <del>30</del>		35
	180' GIP				

Rec Total 512 BHT \_\_\_\_\_ Gravity 38 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1944  Test 1150 T-On Location 4:34  
 (B) First Initial Flow 43  Jars T-Started 4:56  
 (C) First Final Flow 140  Safety Joint T-Open 7:12  
 (D) Initial Shut-In 1203  Circ Sub T-Pulled 9:42  
 (E) Second Initial Flow 147  Hourly Standby T-Out 12:23  
 (F) Second Final Flow 223  Mileage 96.10 Comments \_\_\_\_\_  
 (G) Final Shut-In 1202  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1853  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 45  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1246.10  
 Sub Total 1246.10  
 Total 1246.10  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Jeanne Mc Lamore Thank you

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