



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources**

1616 S Voss rd ste 600
Houston, TX 77057

ATTN: Wes Hansen

Rose #3-3

3-17s-34w Scott, KS

Start Date: 2013.12.28 @ 01:00:15

End Date: 2013.12.28 @ 07:44:45

Job Ticket #: 55588 DST #: 1

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

Printed: 2013.12.31 @ 08:54:40



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Landmark Resources
1616 S Voss rd ste 600
Houston, TX 77057
ATTN: Wes Hansen

3-17s-34w Scott, KS
Rose #3-3
Job Ticket: 55588 **DST#: 1**
Test Start: 2013.12.28 @ 01:00:15

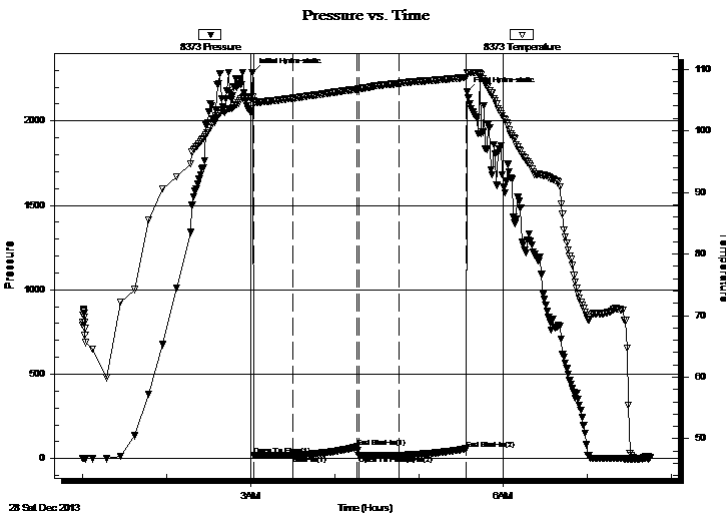
GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:02:15
Time Test Ended: 07:44:45
Interval: **4451.00 ft (KB) To 4506.00 ft (KB) (TVD)**
Total Depth: 4506.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 60
Reference Elevations: 3139.00 ft (KB)
3129.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**
Press@RunDepth: 20.69 psig @ 4452.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.12.28 End Date: 2013.12.28 Last Calib.: 2013.12.28
Start Time: 01:00:20 End Time: 07:44:44 Time On Btm: 2013.12.28 @ 03:01:15
Time Off Btm: 2013.12.28 @ 05:34:15

TEST COMMENT: IF: Surface blow died in 5 min.
IS: No return.
FF: No blow.
FS: No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2287.50	105.46	Initial Hydro-static
1	19.34	104.78	Open To Flow (1)
29	20.04	105.29	Shut-In(1)
75	69.98	106.73	End Shut-In(1)
76	20.20	106.77	Open To Flow (2)
105	20.69	107.67	Shut-In(2)
152	57.59	108.64	End Shut-In(2)
153	2170.90	109.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources

3-17s-34w Scott, KS

1616 S Voss rd ste 600
Houston, TX 77057

Rose #3-3

Job Ticket: 55588

DST#: 1

ATTN: Wes Hansen

Test Start: 2013.12.28 @ 01:00:15

Tool Information

Drill Pipe:	Length: 4178.00 ft	Diameter: 3.80 inches	Volume: 58.61 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 275.00 ft	Diameter: 2.25 inches	Volume: 1.35 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 59.96 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	80000.00 lb
Depth to Top Packer:	4451.00 ft			Final	80000.00 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
Stubb	1.00			4424.00	
Shut In Tool	5.00			4429.00	
Hydraulic tool	5.00			4434.00	
Jars	5.00			4439.00	
Safety Joint	3.00			4442.00	
Packer	5.00			4447.00	28.00 Bottom Of Top Packer
Packer	4.00			4451.00	
Stubb	1.00			4452.00	
Recorder	0.00	8373	Inside	4452.00	
Recorder	0.00	8356	Outside	4452.00	
Perforations	16.00			4468.00	
Change Over Sub	1.00			4469.00	
Drill Pipe	31.00			4500.00	
Change Over Sub	1.00			4501.00	
Bullnose	5.00			4506.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources

3-17s-34w Scott, KS

1616 S Voss rd ste 600
Houston, TX 77057

Rose #3-3

Job Ticket: 55588

DST#: 1

ATTN: Wes Hansen

Test Start: 2013.12.28 @ 01:00:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 15.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 20000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

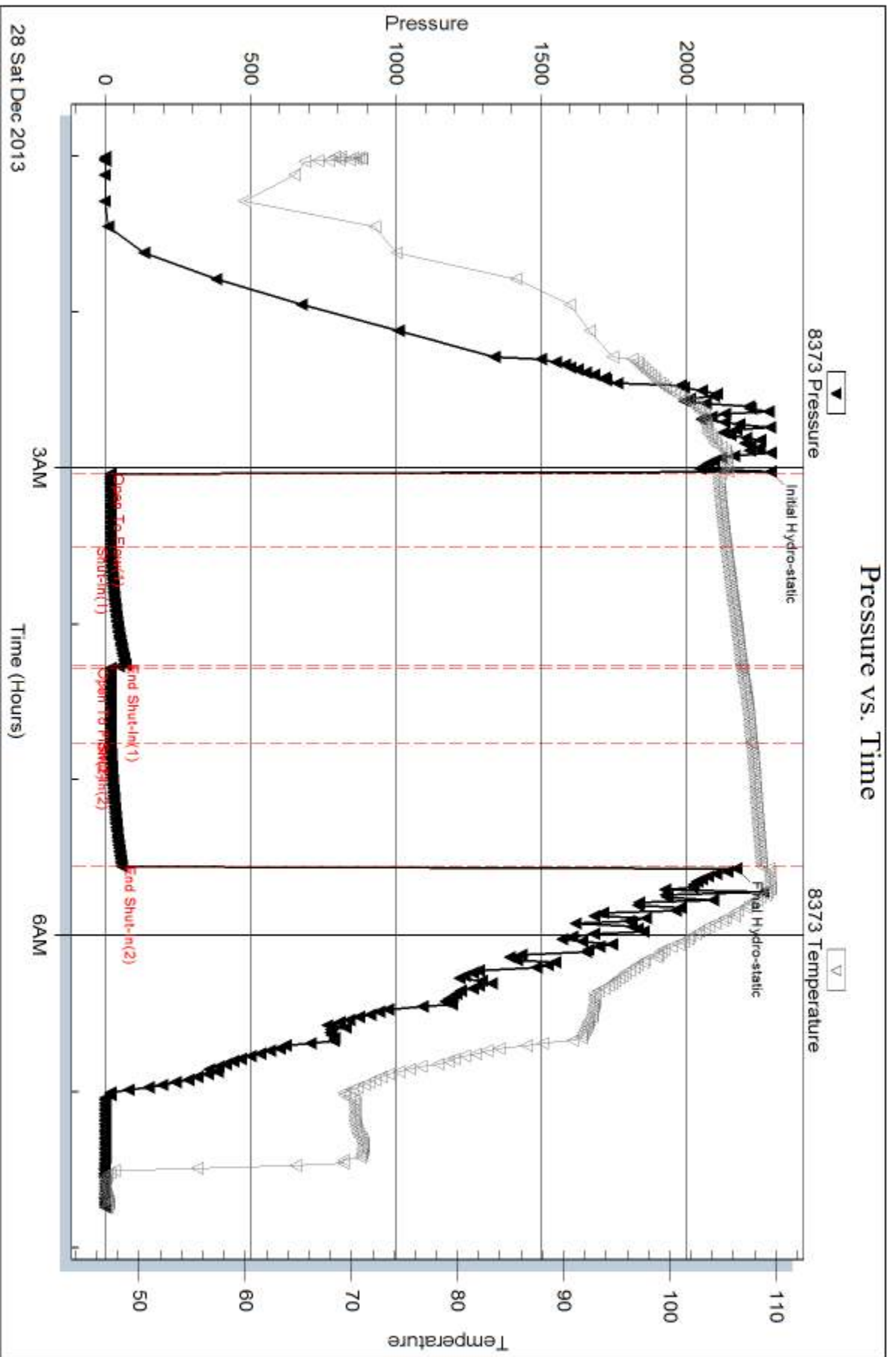
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

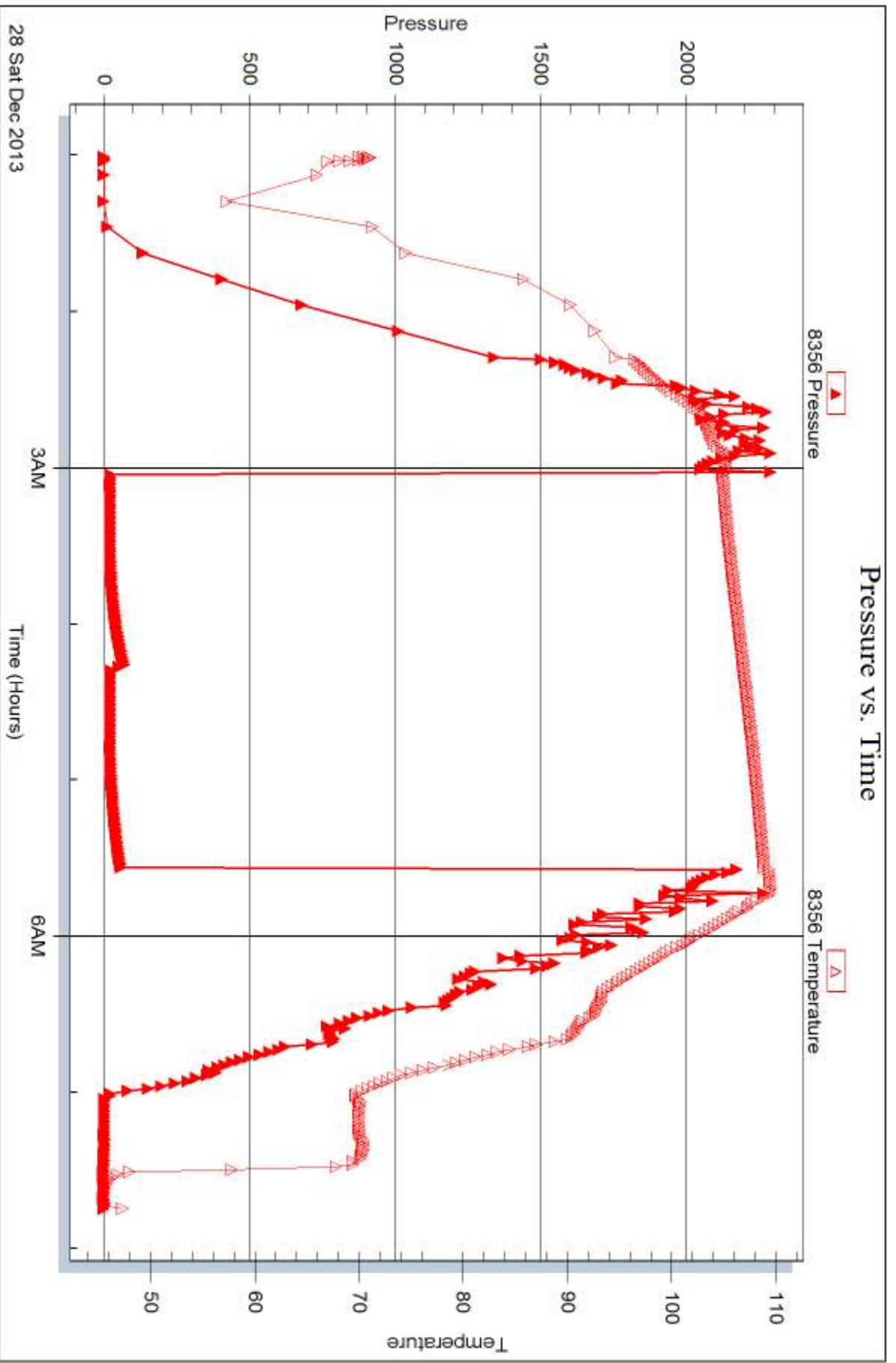


Serial #: 8356

Outside Landmark Resources

Rose #3-3

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 55588

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DRILL STEM TEST REPORT

Prepared For: **Landmark Resources**

1616 S Voss rd ste 600
Houston, TX 77057

ATTN: Wes Hansen

Rose #3-3

3-17s-34w Scott, KS

Start Date: 2013.12.28 @ 17:07:26

End Date: 2013.12.29 @ 01:15:56

Job Ticket #: 55598 DST #: 2

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

Printed: 2013.12.31 @ 08:53:55



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Landmark Resources
 1616 S Voss rd ste 600
 Houston, TX 77057
 ATTN: Wes Hansen

3-17s-34w Scott, KS
Rose #3-3
 Job Ticket: 55598 **DST#: 2**
 Test Start: 2013.12.28 @ 17:07:26

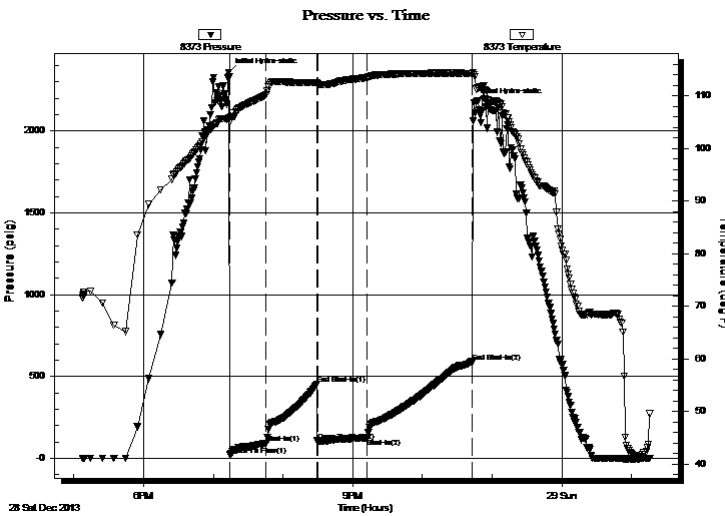
GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 19:14:26 Tester: Brandon Turley
 Time Test Ended: 01:15:56 Unit No: 60
 Interval: **4502.00 ft (KB) To 4549.00 ft (KB) (TVD)** Reference Elevations: 3139.00 ft (KB)
 Total Depth: 4549.00 ft (KB) (TVD) 3129.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 10.00 ft

Serial #: 8373 Inside
 Press@RunDepth: 125.56 psig @ 4503.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.28 End Date: 2013.12.29 Last Calib.: 2013.12.29
 Start Time: 17:07:31 End Time: 01:15:55 Time On Btm: 2013.12.28 @ 19:12:56
 Time Off Btm: 2013.12.28 @ 22:44:26

TEST COMMENT: IF: BOB in 20 min.
 IS: Surface blow built to 2"
 FF: BOB in 40 min.
 FS: Surface blow built to 1"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2357.73	105.67	Initial Hydro-static
2	22.48	105.15	Open To Flow (1)
33	93.99	110.18	Shut-In(1)
76	451.44	112.47	End Shut-In(1)
77	104.79	112.22	Open To Flow (2)
120	125.56	113.48	Shut-In(2)
210	590.87	114.26	End Shut-In(2)
212	2175.45	113.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	gocm 20%g 20%o 60%m	0.30
60.00	mcgo 20%g 50%o 30%m	0.30
169.00	mcgo 30%g 65%o 5%m	0.96
0.00	263 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Landmark Resources
 1616 S Voss rd ste 600
 Houston, TX 77057
 ATTN: Wes Hansen

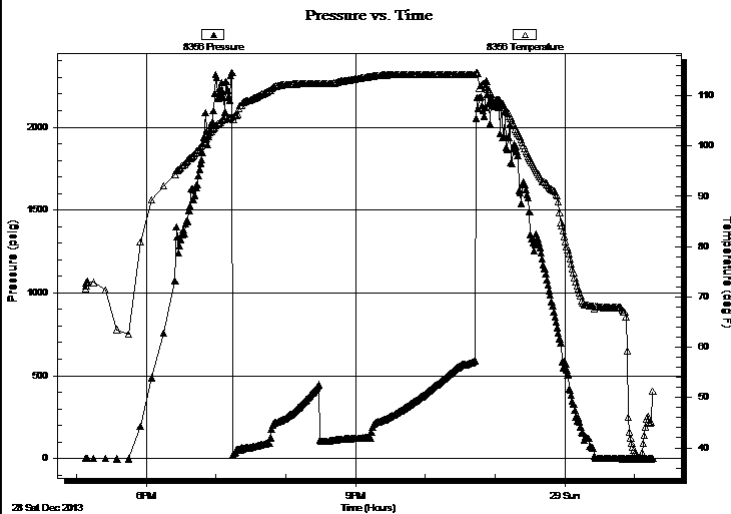
3-17s-34w Scott, KS
Rose #3-3
 Job Ticket: 55598 **DST#: 2**
 Test Start: 2013.12.28 @ 17:07:26

GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 19:14:26 Tester: Brandon Turley
 Time Test Ended: 01:15:56 Unit No: 60
Interval: 4502.00 ft (KB) To 4549.00 ft (KB) (TVD)
 Reference Elevations: 3139.00 ft (KB)
 Total Depth: 4549.00 ft (KB) (TVD) 3129.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 10.00 ft

Serial #: 8356 Outside
 Press@RunDepth: psig @ 4503.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.28 End Date: 2013.12.29 Last Calib.: 2013.12.29
 Start Time: 17:07:38 End Time: 01:16:02 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: BOB in 20 min.
 IS: Surface blow built to 2"
 FF: BOB in 40 min.
 FS: Surface blow built to 1"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	gocm 20%g 20%o 60%m	0.30
60.00	mcgo 20%g 50%o 30%m	0.30
169.00	mcgo 30%g 65%o 5%m	0.96
0.00	263 GIP	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

Landmark Resources

3-17s-34w Scott, KS

1616 S Voss rd ste 600
Houston, TX 77057

Rose #3-3

Job Ticket: 55598

DST#: 2

ATTN: Wes Hansen

Test Start: 2013.12.28 @ 17:07:26

Tool Information

Drill Pipe:	Length: 4209.00 ft	Diameter: 3.80 inches	Volume: 59.04 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 275.00 ft	Diameter: 2.25 inches	Volume: 1.35 bbl	Weight to Pull Loose: 120000.0 lb
			<u>Total Volume: 60.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4502.00 ft			Final 82000.00 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	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4475.00	
Shut In Tool	5.00			4480.00	
Hydraulic tool	5.00			4485.00	
Jars	5.00			4490.00	
Safety Joint	3.00			4493.00	
Packer	5.00			4498.00	28.00 Bottom Of Top Packer
Packer	4.00			4502.00	
Stubb	1.00			4503.00	
Recorder	0.00	8373	Inside	4503.00	
Recorder	0.00	8356	Outside	4503.00	
Perforations	8.00			4511.00	
Change Over Sub	1.00			4512.00	
Drill Pipe	31.00			4543.00	
Change Over Sub	1.00			4544.00	
Bullnose	5.00			4549.00	47.00 Bottom Packers & Anchor

Total Tool Length: 75.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

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3-17s-34w Scott, KS

1616 S Voss rd ste 600
Houston, TX 77057

Rose #3-3

Job Ticket: 55598

DST#: 2

ATTN: Wes Hansen

Test Start: 2013.12.28 @ 17:07:26

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 13.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 17000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	gocm 20%g 20%o 60%m	0.295
60.00	mcgo 20%g 50%o 30%m	0.295
169.00	mcgo 30%g 65%o 5%m	0.959
0.00	263 GIP	0.000

Total Length: 289.00 ft

Total Volume: 1.549 bbl

Num Fluid Samples: 0

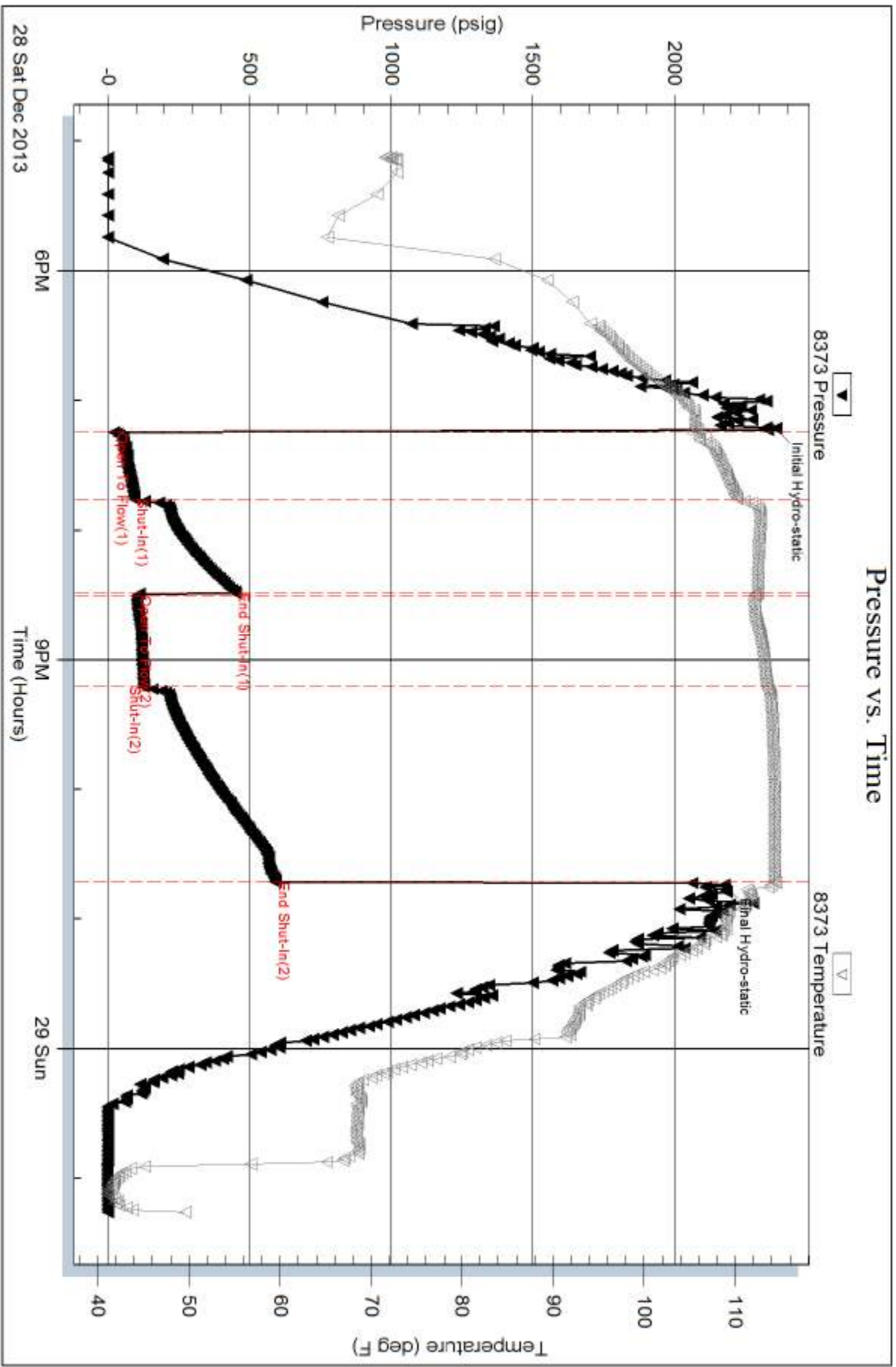
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 29@30=32

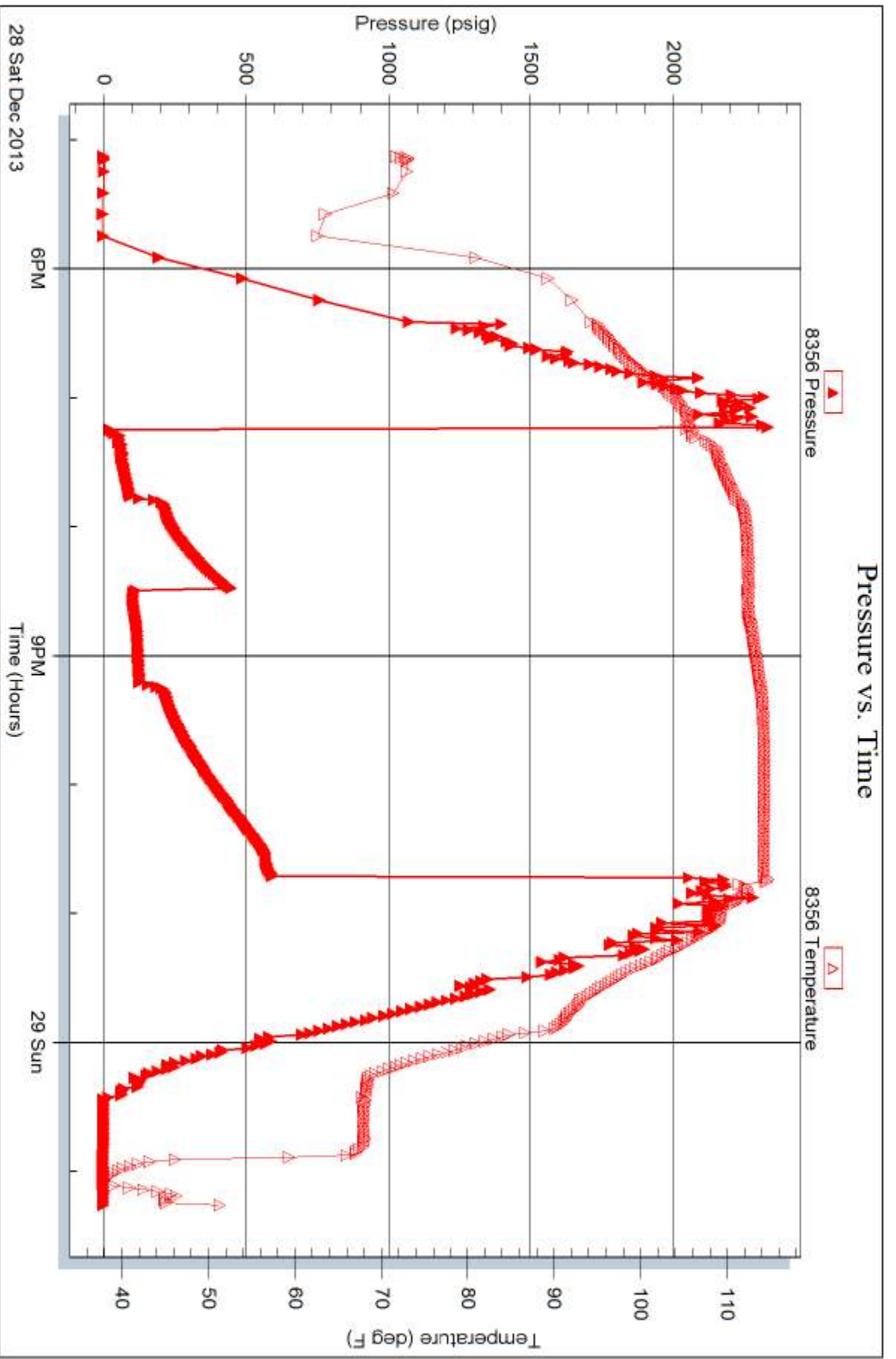


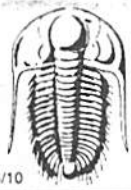
Serial #: 8356

Outside Landmark Resources

Rose #3-3

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55588**

Well Name & No. Rose 3-3 Test No. 1 Date 12-27-10
 Company Landmark Resources Elevation 3139 KB 3129 GL
 Address 16165 VOSS Rd Ste 600 Houston, TX 77057
 Co. Rep / Geo. Wes Hansen Rig Murfin 21
 Location: Sec. 3 Twp. 17S Rge. 34W Co. ~~Martinton~~ Scott State KS

Interval Tested 4451 4506 Zone Tested Martinton
 Anchor Length 55 Drill Pipe Run 4178 Mud Wt. 9.3
 Top Packer Depth 4446 Drill Collars Run 275 Vis 62
 Bottom Packer Depth 4451 Wt. Pipe Run 16.0 WL 16.0
 Total Depth 4506 Chlorides 20,000 ppm System LCM 1

Blow Description IF: surface blow died in 5 min.
IS: No return.
FF: No blow.
FS: NO return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</u>			<u>100</u>	

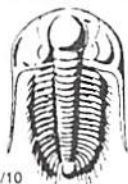
Rec Total 5 BHT 108 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2287</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>23:55</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:00</u>
(C) First Final Flow <u>20</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>3:01</u>
(D) Initial Shut-In <u>69</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>5:31</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>7:45</u>
(F) Second Final Flow <u>20</u>	<input checked="" type="checkbox"/> Mileage <u>48</u> - <u>74.40</u>	Comments
(G) Final Shut-In <u>57</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2170</u>	<input type="checkbox"/> Straddle	

Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 45

Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1649.40
 MP/DST Disc't

Approved By Wesley Hansen Our Representative [Signature]
 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. 55589

Well Name & No. Rose 3-3 Test No. 2 Date 12-28-13
 Company Landmark Resources Elevation 3139 KB 3129 GL
 Address _____
 Co. Rep / Geo. Wes Hansen Rig Murfin 21
 Location: Sec. 3 Twp. 17S Rge. 34W Co. Scott State KS

Interval Tested 4502 4549 Zone Tested Altamont
 Anchor Length _____ Drill Pipe Run 4209 Mud Wt. 9.3
 Top Packer Depth _____ Drill Collars Run 275 Vis 50
 Bottom Packer Depth _____ Wt. Pipe Run _____ WL 14.0
 Total Depth 4502 4549 Chlorides 17000 ppm System LCM 1

Blow Description IF: BoB in 20 min.
IS: surface blow built to 2.
FF: BoB in 40 min.
FS: surface blow built to 1.

Rec	Feet of	%gas	%oil	%water	%mud
<u>169</u>	<u>MC90</u>	<u>30</u>	<u>65</u>	<u>5</u>	
<u>60</u>	<u>MC90</u>	<u>20</u>	<u>50</u>	<u>30</u>	
<u>60</u>	<u>gocm</u>	<u>20</u>	<u>20</u>	<u>60</u>	
	<u>263 GFP</u>				

Rec Total 289 BHT 114 Gravity 32 API RW _____ @ _____ °F Chlorides _____ ppm
 (A) Initial Hydrostatic 2357 Test 1250 T-On Location 16:00
 (B) First Initial Flow 22 Jars 250 T-Started 17:07
 (C) First Final Flow 93 Safety Joint 75 T-Open 19:13
 (D) Initial Shut-In 451 Circ Sub N/C T-Pulled 22:43
 (E) Second Initial Flow 104 Hourly Standby _____ T-Out 1:15
 (F) Second Final Flow 125 Mileage 48 x 2 148.80
 (G) Final Shut-In 590 Sampler _____
 (H) Final Hydrostatic 2175 Straddle _____

Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer 320
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 2043.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1723.80

Approved By Wesley Hansen Our Representative _____

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.