



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1176477  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

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
- Plug Back  Conv. to GSW  Conv. to Producer
- Commingled Permit #: \_\_\_\_\_
- Dual Completion Permit #: \_\_\_\_\_
- SWD Permit #: \_\_\_\_\_
- ENHR Permit #: \_\_\_\_\_
- GSW Permit #: \_\_\_\_\_

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

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical 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

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1176477

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

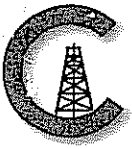
<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Lario Oil & Gas Company
Well Name	Ottley A 4-4
Doc ID	1176477

Tops

Name	Top	Datum
Heebner	3953	-1012
Lansing	3995	-1054
Stark Shale	4223	-1282
Hushpuckney	4260	-1319
Base KC	4292	-1351
Marmaton	4355	-1414
Pawnee	4421	-1480
Ft. Scott	4449	-1508
Johnson	4549	-1608
Morrow	4566	-1625
Mississippian	4596	-1655
Spergen	4680	-1739





**CONSOLIDATED**  
Oil Well Services, LLC

**REMIT TO**  
Consolidated Oil Well Services, LLC  
Dept. 970  
P.O. Box 4346  
Houston, TX 77210-4346

**MAIN OFFICE**  
P.O. Box 884  
Chanute, KS 66720  
620/431-9210 • 1-800/467-8676  
Fax 620/431-0012

INVOICE Invoice # 265388  
-----  
Invoice Date: 01/16/2014 Terms: 10/10/30,n/30 Page 1  
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LARIO OIL & GAS  
P.O. BOX 1093  
GARDEN CITY KS 67846  
(316)265-5611

OTTLEY A 4-4  
38199  
4-13-31  
01-12-2014  
KS

drilling / PEA  
AFE 14-001  
1-21-14 AK

Part Number	Description	Qty	Unit Price	Total
1131	60/40 POZ MIX	205.00	15.8600	3251.30
1118B	PREMIUM GEL / BENTONITE	689.00	.2700	186.03
1107	FLO-SEAL (25#)	51.25	2.9700	152.21
1111	SODIUM CHLORIDE (GRANULA	100.00	.0000	.00
4432	8 5/8" WOODEN PLUG	1.00	100.7500	100.75

Sublet Performed	Description	Total
9996-130	CEMENT MATERIAL DISCOUNT	-553.54
9995-130	CEMENT EQUIPMENT DISCOUNT	-239.70

Description	Hours	Unit Price	Total
399 SINGLE PUMP	1.00	1395.00	1395.00
399 EQUIPMENT MILEAGE (ONE WAY)	10.00	5.25	52.50
566 TON MILEAGE DELIVERY	1.00	150.50	150.50

*Handwritten signatures and stamps*

Amount Due 5579.82 if paid after 02/15/2014

Parts:	3690.29	Freight:	.00	Tax:	247.80	AR	4742.85
Labor:	.00	Misc:	.00	Total:	4742.85		
Sublt:	-793.24	Supplies:	.00	Change:	.00		

Signed \_\_\_\_\_ Date \_\_\_\_\_





**CONSOLIDATED**  
Oil Well Services, LLC

**REMIT TO**  
Consolidated Oil Well Services, LLC  
Dept. 970  
P.O. Box 4346  
Houston, TX 77210-4346

**MAIN OFFICE**  
P.O. Box 884  
Chanute, KS 66720  
620/431-9210 • 1-800/467-8676  
Fax 620/431-0012

INVOICE

Invoice # 265234

Invoice Date: 01/14/2014 Terms: 10/10/30,n/30

Page 1

LARIO OIL & GAS  
P.O. BOX 1093  
GARDEN CITY KS 67846  
(316)265-5611

OTTLEY A 4-4  
44563  
4-13-31  
01-02-2014  
KS

*Surface*  
*drilling /*  
*AFG 14-001*  
*1-16-14 LR*

Part Number	Description	Qty	Unit Price	Total
1104S	CLASS "A" CEMENT (SALE)	180.00	18.5500	3339.00
1102	CALCIUM CHLORIDE (50#)	508.00	.9400	477.52
1118B	PREMIUM GEL / BENTONITE	338.00	.2700	91.26

Sublet Performed	Description	Total
9996-130	CEMENT MATERIAL DISCOUNT	-390.78
9995-130	CEMENT EQUIPMENT DISCOUNT	-163.25

Description	Hours	Unit Price	Total
399 CEMENT PUMP (SURFACE)	1.00	1150.00	1150.00
399 EQUIPMENT MILEAGE (ONE WAY)	10.00	5.25	52.50
460 MIN. BULK DELIVERY	1.00	430.00	430.00

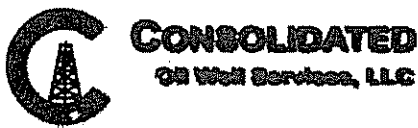
*yc*  
*yl*  
*[Signature]*

Amount Due 5848.99 if paid after 02/13/2014

Parts:	3907.78	Freight:	.00	Tax:	277.84	AR	5264.09
Labor:	.00	Misc:	.00	Total:	5264.09		
Sublt:	-554.03	Supplies:	.00	Change:	.00		

Signed \_\_\_\_\_ Date \_\_\_\_\_

BARTLESVILLE, OK 918/338-0808 EL DORADO, KS 316/322-7022 EUREKA, KS 620/583-7664 PONCA CITY, OK 580/762-2303 OAKLEY, KS 785/672-8822 OTTAWA, KS 785/242-4044 THAYER, KS 620/839-5269 GILLETTE, WY 307/686-4914 CUSHING, OK 918/225-2650



265234

TICKET NUMBER 44563

LOCATION Oakley KS

FOREMAN Dave R.  
miles 5

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT  
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
Jan 2 2014	4793	Oakley A 4-4	4	13	31	Gove
CUSTOMER Laris Oil & Gas			Gove RD to RD 1/2 South			
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY			399	Jeremy R		
STATE			460	Steven B		
ZIP CODE						

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 263 CASING SIZE & WEIGHT \_\_\_\_\_  
 CASING DEPTH 263 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 14.7 SLURRY VOL 1.36 WATER gal/sk 6.5 CEMENT LEFT in CASING 20  
 DISPLACEMENT 15.5 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Surface, making on Southwind. Rig up & circulate mix 180 SKS on class A cement 3% cc 2% gel. Displace 15.5 ABLs and shut in cement and circulate

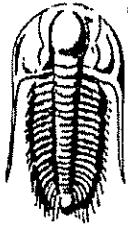
Thanks Dave & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	1150	1150.00
5406	10	MILEAGE	5.25	52.50
5407	8.5	Ton mileage delivery	1.75	430.00
11045	180 SKS	class A cement	18.55	3339.00
1102	508	Calcium Chloride	.94	477.52
1118	338	Bentonite	.27	91.26
		subtotal		5540.28
		loss 15%		554.03
				4986.25
		<input checked="" type="checkbox"/> completed		
		7.9	SALES TAX	277.84
			ESTIMATED TOTAL	5264.09

RAVIN 3737 AUTHORIZATION San to SA TITLE Toolpusher DATE 1-2-14

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Lario Oil & Gas Co.

4-13s-31w Gove Co. KS

301 S. Market St.  
Wichita KS 67202

Ottley A # 4-4

Job Ticket: 50233

DST#: 1

ATTN: Max Armstrong

Test Start: 2014.01.07 @ 16:38:00

## GENERAL INFORMATION:

Formation: LKC " D "

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:03:40

Time Test Ended: 01:02:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 72

Interval: 4066.00 ft (KB) To 4086.00 ft (KB) (TVD)

Total Depth: 4086.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2941.00 ft (KB)

2929.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8674

Inside

Press@RunDepth: 17.46 psig @ 4067.00 ft (KB)

Start Date: 2014.01.07

End Date:

2014.01.08

Start Time: 16:38:00

End Time:

01:02:39

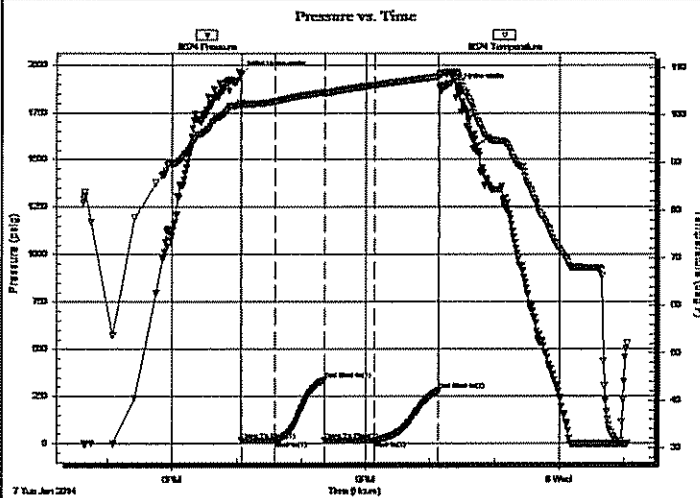
Capacity: 8000.00 psig

Last Calib.: 2014.01.08

Time On Btm: 2014.01.07 @ 19:03:25

Time Off Btm: 2014.01.07 @ 22:08:39

TEST COMMENT: IF- Weak Surface Blow 1/2"  
IS- No Blow  
FF- Weak Surface Blow Died in 10min  
FS- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1952.93	102.65	Initial Hydro-static
1	15.21	101.83	Open To Flow (1)
32	17.05	102.93	Shut-In(1)
78	336.83	104.84	End Shut-In(1)
79	15.64	104.60	Open To Flow (2)
125	17.46	106.38	Shut-In(2)
185	280.16	108.16	End Shut-In(2)
186	1886.17	108.70	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 3%oil 97%m	0.07

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Lario Oil & Gas Co.

4-13s-31w Gove Co. KS

301 S. Market St.  
Wichita KS 67202

Ottley A # 4-4

Job Ticket: 50233

DST#: 1

ATTN: Max Armstrong

Test Start: 2014.01.07 @ 16:38:00

### 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:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.40 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2600.00 ppm				
Filter Cake:	1.00 inches				

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OCM 3%oil 97%m	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

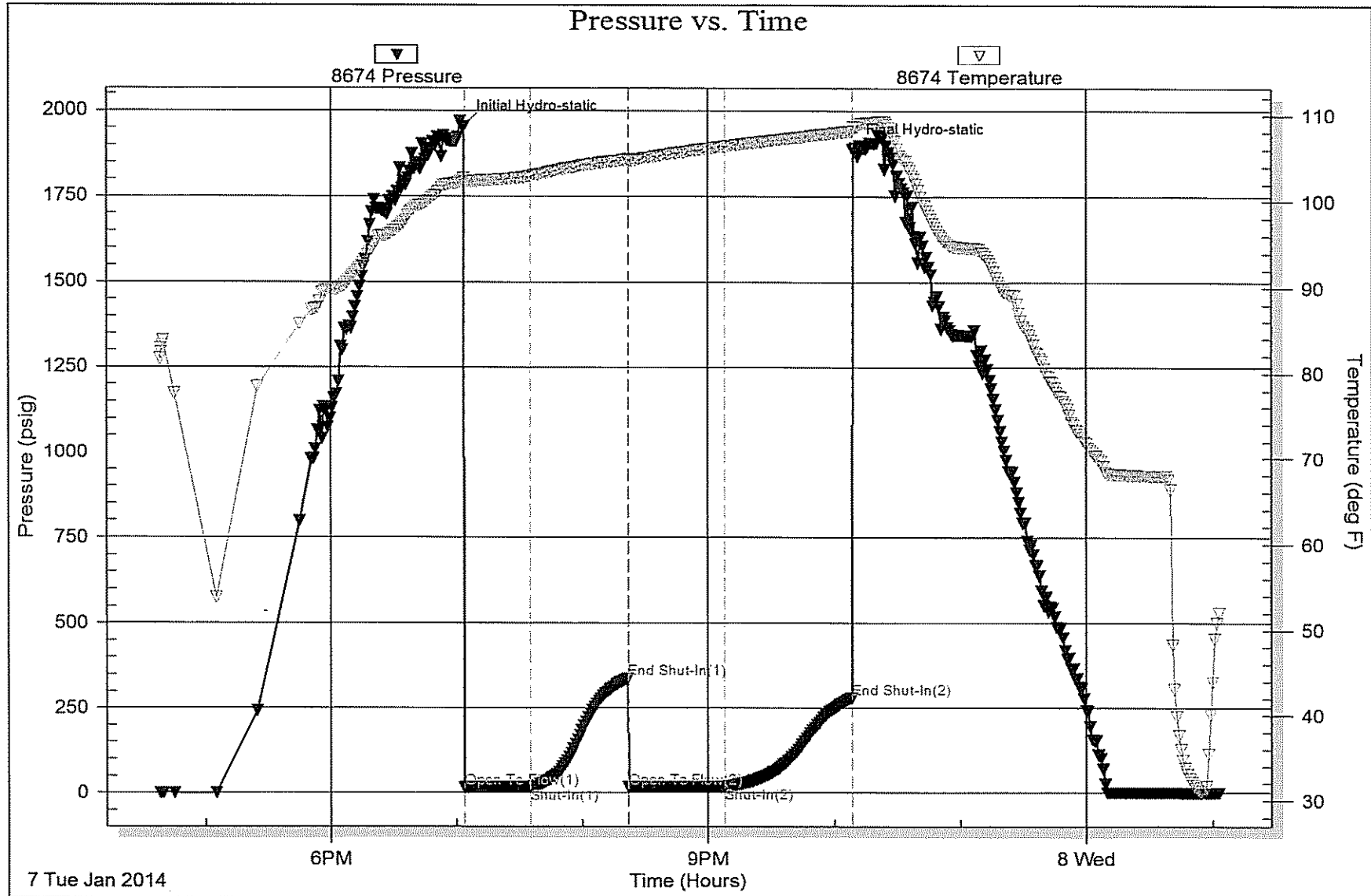
Num Gas Bombs: 0

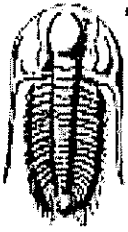
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Lario Oil & Gas Co.

4-13s-31w Gove Co. KS

301 S. Market St.  
Wichita KS 67202

Ottley A # 4-4

Job Ticket: 50234

DST#: 2

ATTN: Mac Armstrong

Test Start: 2014.01.08 @ 17:40:00

## GENERAL INFORMATION:

Formation: LKC " H, I, J "

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:50:10

Time Test Ended: 01:38:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 72

Interval: 4140.00 ft (KB) To 4234.00 ft (KB) (TVD)

Total Depth: 4086.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2941.00 ft (KB)

2929.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8674

Inside

Press@RunDepth: 36.03 psig @ 4141.00 ft (KB)

Start Date: 2014.01.08

End Date:

2014.01.09

Capacity: 8000.00 psig

Last Calib.: 2014.01.09

Start Time: 17:40:00

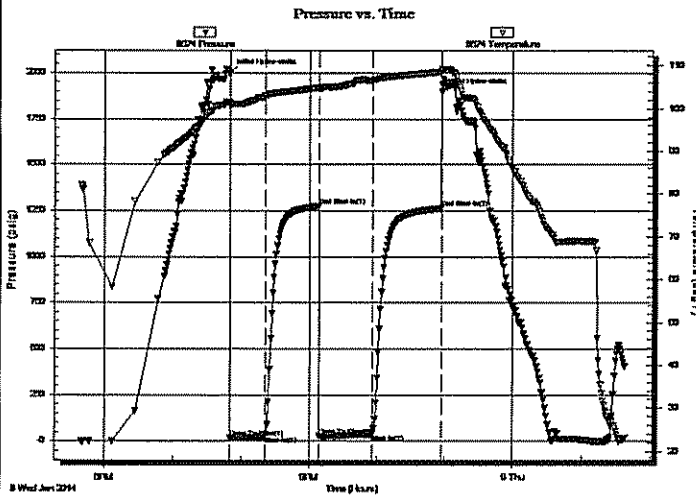
End Time:

01:38:24

Time On Btm: 2014.01.08 @ 19:49:55

Time Off Btm: 2014.01.08 @ 22:57:24

TEST COMMENT: IF- Weak Surface Blow Built to 2"  
ISL- No Blow  
FF- Weak Surface Blow Built to 1"  
FSL- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1998.11	101.45	Initial Hydro-static
1	18.01	100.67	Open To Flow (1)
32	26.80	103.03	Shut-In(1)
79	1275.97	104.93	End Shut-In(1)
79	26.43	104.41	Open To Flow (2)
126	36.03	106.46	Shut-In(2)
187	1263.10	108.54	End Shut-In(2)
188	1896.87	108.86	Final Hydro-static

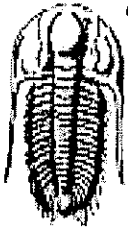
## Recovery

Length (ft)	Description	Volume (bbl)
40.00	WCM 2%w 98%w with a Skim of Oil on 0.56	

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
TESTING, INC

## DRILL STEM TEST REPORT

FLUID SUMMARY

Lario Oil & Gas Co.

4-13s-31w Gove Co. KS

301 S. Market St.  
Wichita KS 67202

Ottley A # 4-4

Job Ticket: 50234

DST#: 2

ATTN: Mac Armstrong

Test Start: 2014.01.08 @ 17:40:00

### 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: 54.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
40.00	WCM 2%w 98%m with a Skim of Oil on To	0.561

Total Length: 40.00 ft      Total Volume: 0.561 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

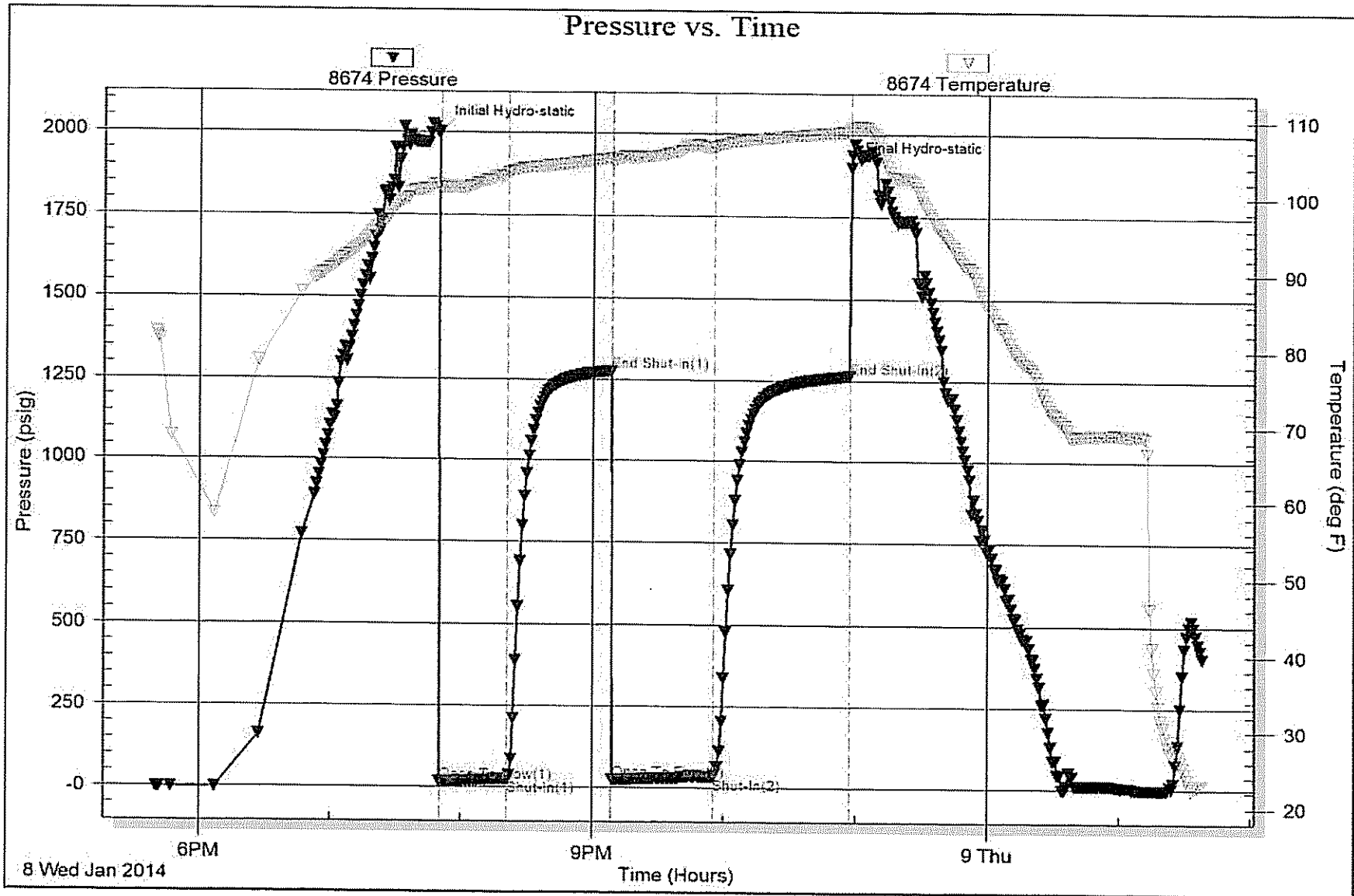
Serial #: 8674

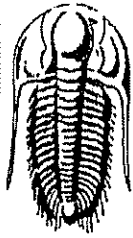
Inside

Lario Oil & Gas Co.

Ottley A # 4-4

DST Test Number: 2





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Lario Oil & Gas Co.

4-13s-31w Gove Co. KS

301 S. Market St.  
Wichita KS 67202

Ottley A # 4-4

Job Ticket: 50235

DST#: 3

ATTN: Max Armstrong

Test Start: 2014.01.09 @ 10:16:00

## GENERAL INFORMATION:

Formation: **LKC " K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:12:40

Time Test Ended: 18:08:24

Interval: **4224.00 ft (KB) To 4256.00 ft (KB) (TVD)**

Total Depth: 4256.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 72

Reference Elevations: 2941.00 ft (KB)

2929.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8674

Inside

Press@RunDepth: 266.96 psig @ 4227.00 ft (KB)

Start Date: 2014.01.09

End Date:

2014.01.09

Start Time: 10:16:00

End Time:

18:08:24

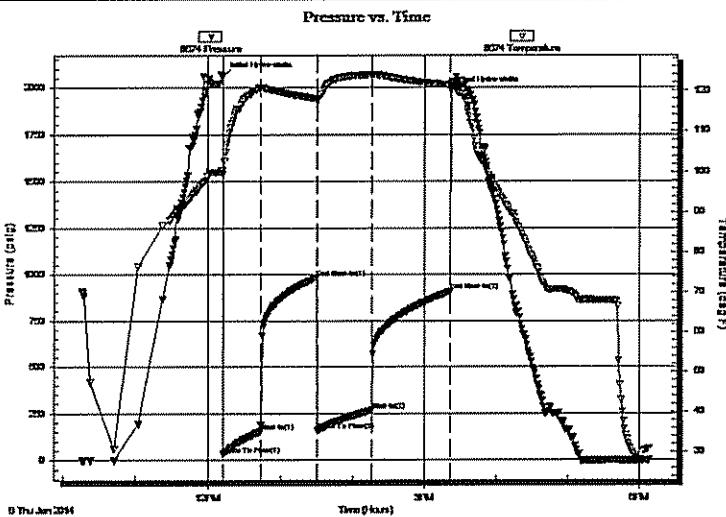
Capacity: 8000.00 psig

Last Calib.: 2014.01.09

Time On Btm: 2014.01.09 @ 12:12:25

Time Off Btm: 2014.01.09 @ 15:22:24

TEST COMMENT: IF- Weak Surface Blow Built to BOB in 9 1/2min  
IS- Weak Surface Blow in 12min  
FF- Weak Surface Blow Built to BOB in 19min  
FS- Weak Surface in 15min



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2061.06	100.48	Initial Hydro-static
1	30.15	99.47	Open To Flow (1)
31	154.50	120.81	Shut-In(1)
78	982.48	118.00	End Shut-In(1)
79	157.63	117.73	Open To Flow (2)
124	266.96	124.06	Shut-In(2)
190	908.46	121.43	End Shut-In(2)
190	1981.38	121.82	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
310.00	MCW 6% <i>m</i> 94% <i>w</i> with a Skim of Oil on 4.35	
124.00	OMCW 1% <i>oil</i> 28% <i>m</i> 71% <i>w</i>	1.74
92.00	OWCM 3% <i>oil</i> 30% <i>w</i> 67% <i>m</i>	1.29
5.00	100% <i>oil</i>	0.07

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Lario Oil & Gas Co.

4-13s-31w Gove Co. KS

301 S. Market St.  
Wichita KS 67202

Ottley A # 4-4

Job Ticket: 50235

DST#: 3

ATTN: Max Armstrong

Test Start: 2014.01.09 @ 10:16:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

Water Loss: 7.20 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 3100.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: 37 deg API

Water Salinity: 68000 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
310.00	MCW 6% <i>m</i> 94% <i>w</i> with a Skim of Oil on To	4.348
124.00	OMCW 1% <i>oil</i> 28% <i>m</i> 71% <i>w</i>	1.739
92.00	OWCM 3% <i>oil</i> 30% <i>w</i> 67% <i>m</i>	1.291
5.00	100% <i>oil</i>	0.070

Total Length: 531.00 ft      Total Volume: 7.448 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

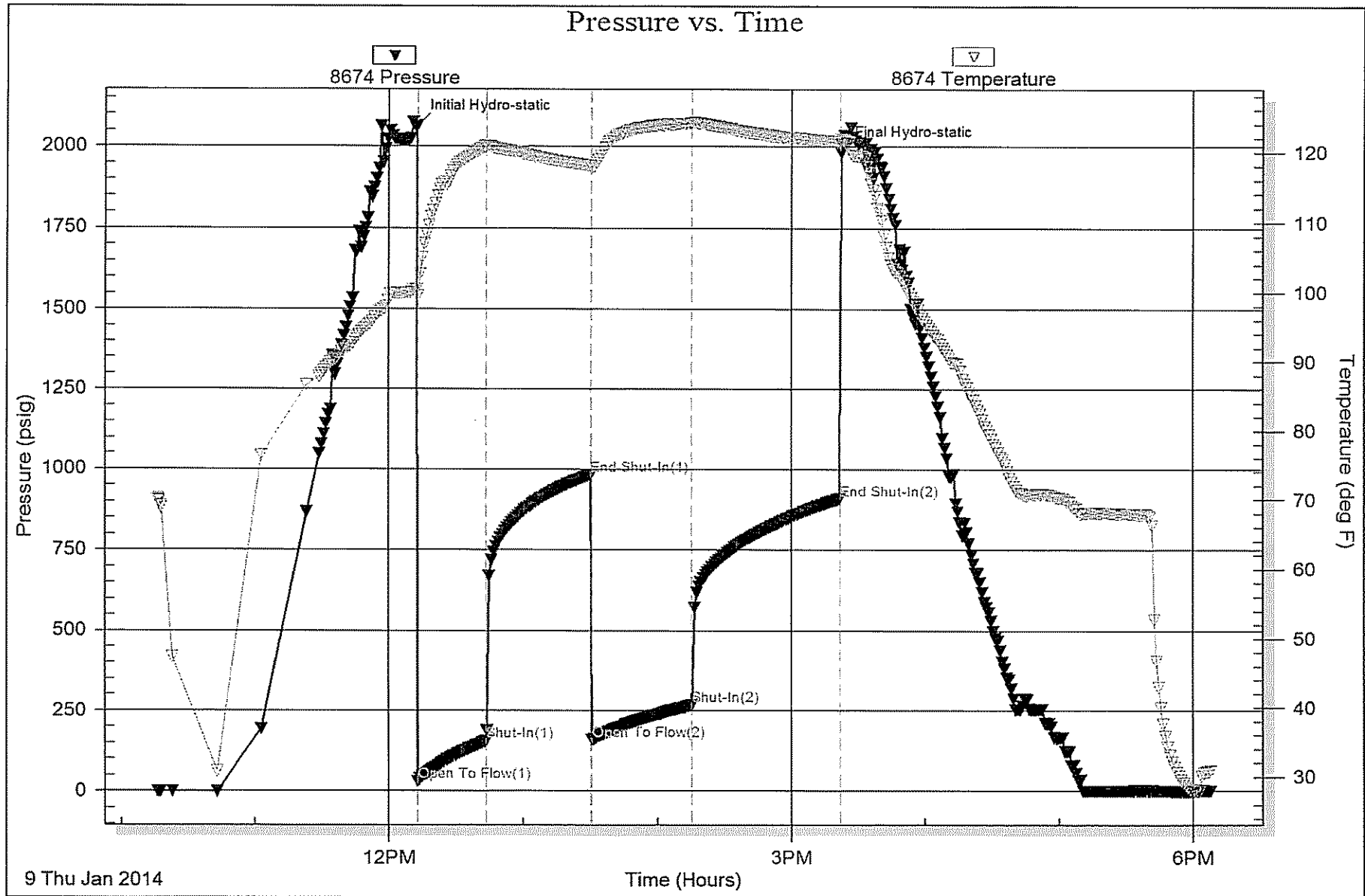
Serial #:

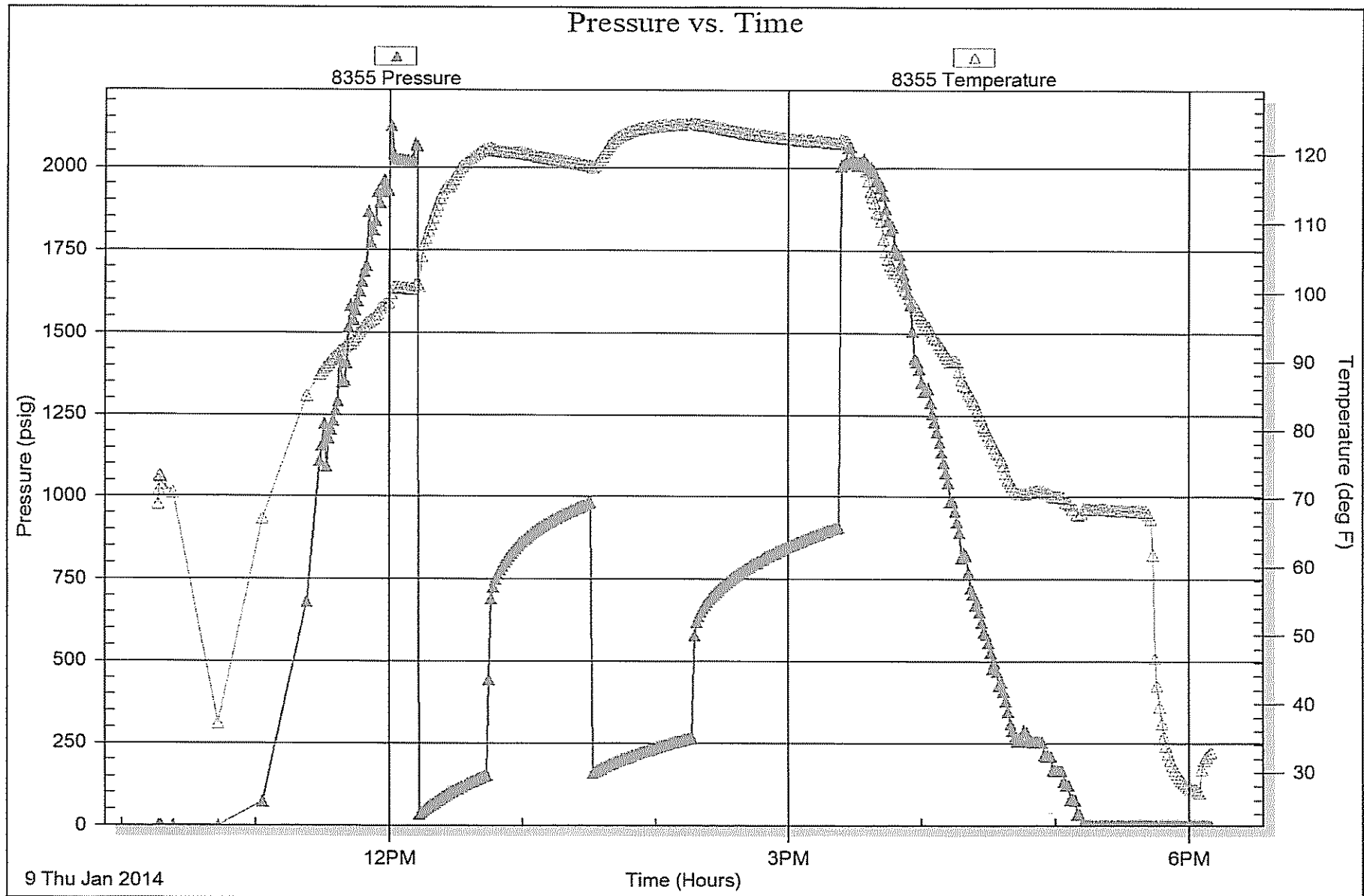
Laboratory Name:

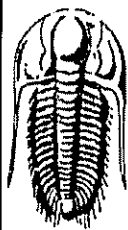
Laboratory Location:

Recovery Comments: RW is .172 @ 45f = 68000

API is 34 @ 30f = 37







**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Lario Oil & Gas Co.

4-13s-31w Gove Co. KS

301 S. Market St.  
Wichita KS 67202

Ottley A # 4-4

Job Ticket: 50236

DST#: 4

ATTN: Max Armstrong

Test Start: 2014.01.10 @ 22:00:00

### GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:38:25

Time Test Ended: 06:11:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 72

Interval: 4527.00 ft (KB) To 4571.00 ft (KB) (TVD)

Total Depth: 4571.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2941.00 ft (KB)

2929.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8674

Inside

Press@RunDepth: 26.67 psig @ 4528.00 ft (KB)

Start Date: 2014.01.10

End Date:

2014.01.11

Start Time: 22:00:00

End Time:

06:11:24

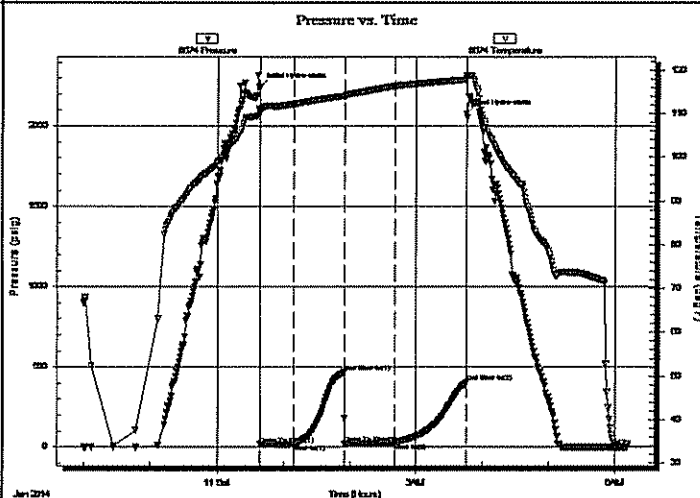
Capacity: 8000.00 psig

Last Calib.: 2014.01.11

Time On Btm: 2014.01.11 @ 00:38:10

Time Off Btm: 2014.01.11 @ 03:45:54

TEST COMMENT: IF- Weak Surface Blow Built to 3/4"  
IS- No Blow  
FF- Weak Surface Blow Built to 1"  
FS- No Blow



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2244.71	111.11	Initial Hydro-static
1	16.43	109.96	Open To Flow (1)
31	18.02	112.22	Shut-In(1)
77	467.57	114.06	End Shut-In(1)
77	18.91	113.91	Open To Flow (2)
123	26.67	116.31	Shut-In(2)
188	402.29	117.89	End Shut-In(2)
188	2079.58	118.70	Final Hydro-static

### Recovery

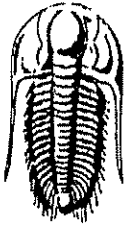
Length (ft)	Description	Volume (bbl)
30.00	WOCM 3%w 21%oil 76%m	0.42

\* Recovery from multiple tests

### Gas Rates

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





**TRILOBITE**  
TESTING, INC

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Lario Oil & Gas Co.

4-13s-31w Gove Co. KS

301 S. Market St.  
Wichita KS 67202

Ottley A # 4-4

Job Ticket: 50236

DST#: 4

ATTN: Max Armstrong

Test Start: 2014.01.10 @ 22:00:00

**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: 51.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.57 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbf
30.00	WOCM 3%w 21%oil 76%m	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbf

Num Fluid Samples: 0

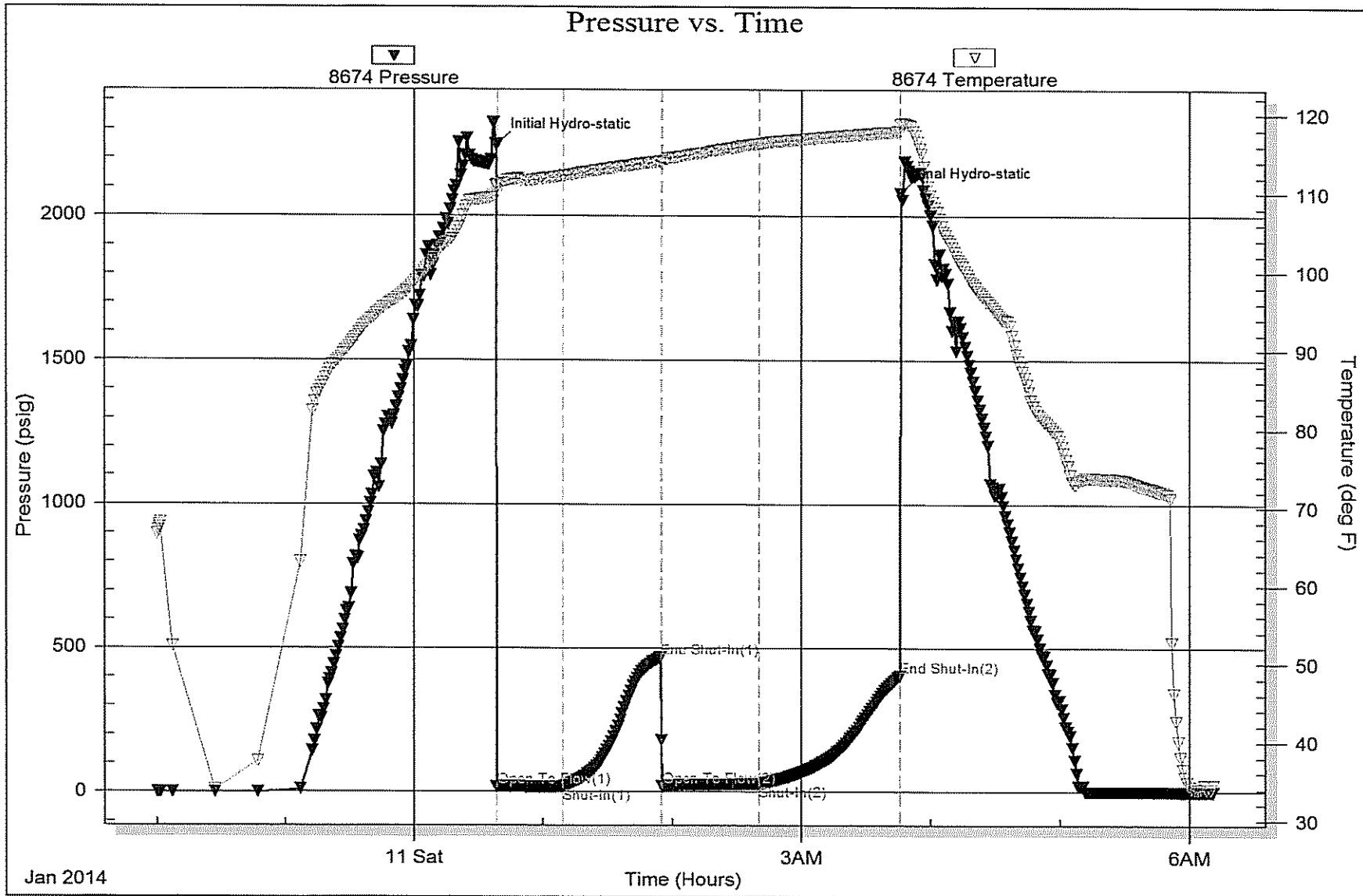
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8355

Outside Lario Oil & Gas Co.

Ottley A #4-4

DST Test Number: 4

