

JAMES C. MUSGROVE

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Mai Oil Operations
Alex #1
SW-SW-NE-NE (1132' FNL & 1200' FEL)
Section 26-20s-22w
Ness County, Kansas

Page 1

Dry and Abandoned

Contractor: Southwind Drilling Co. (rig #3)
Commenced: July 20, 2017
Completed: July 26, 2017
Elevation: 2204' K.B., 2202' D.F., 2196' G.L.
Casing program: Surface; 8 5/8" @ 251'
Production, none
Sample: Samples saved and examined 2200' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2200' to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were two (2) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log: None
Gas Detection Unit: By Bluestem Gas

<u>Formation</u>	<u>Sample Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	1411	+793
Base Anhydrite	1438	+766
Herington	2282	-78
Krider	2303	-99
Winfield	2337	-133
Towanda	2407	-203
Heebner	3668	-1464
Toronto	3686	-1482
Lansing	3718	-1514
Base Kansas City	4038	-1834
Marmaton	4072	-1868
Pawnee	4148	-1944
Ft. Scott	4227	-2023
Cherokee Shale	4252	-2048
Mississippian	4306	-2102
Mississippian Osage	4336	-2132
Rotary Total Depth	4354	-2150

(All tops and zone(s) determination were made from a correlation of Drilling Time Log and Sample Analysis)

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

HERINGTON SECTION

2282-2302' Dolomite, gray, tan, buff, finely crystalline, poor visible porosity (no shows) 30 unit gas increase.

KRIDER SECTION

2302-2320' Dolomite, as above, no shows/no gas increase.

WINFIELD SECTION

2339-2350' Dolomite, gray, dark gray, finely crystalline, scattered vuggy type porosity, trace gray chert. (no gas increase)

2360-2400' Poor sample, visc, not high enough to catch representation samples.

TOWANDA SECTION

2407-2430' Dolomite, gray, sucrosic, scattered porosity, no shows, no gas increase.

TOPEKA/TORONTO/LANSING SECTION

There were several zones of well-developed porosity encountered in the drilling of the Topeka/Toronto/Lansing Sections but no shows of oil and/or gas was noted. (see attached Geologist Report/Sample Log)

MARMATON SECTION

4072-4084' Limestone, white, cream, chalky; trace white chert; no shows.

4104-4124' Limestone, white, yellow, cherty in part; no shows.

4168-4178' Limestone, white, cream, chalky, poor visible porosity, no shows.

PAWNEE SECTION

4148-4170' Limestone, white, cream, finely crystalline, chalky, poor visible porosity, no shows.

4170-4185' Limestone, gray, white, chalky, dense, few cherty.

4185-4220' Limestone, gray, white, granular, chalky; no shows.

FT. SCOTT SECTION

4227-4230' Limestone, white, gray, slightly fossiliferous, chalky, no shows.

4240-4247' Limestone, white, gray, slightly fossiliferous, scattered porosity, brown/light brown stain, show of free oil and no odor in fresh samples.

Drill Stem Test #1 **4211-4284**

Times: 30-30-30-45
Blow: Weak (died in 11 mins)
Recovery: 15' mud
Pressures: ISIP 48 psi
FSIP 23-24 psi
IFP 23-25 psi
FFP 41 psi
HSH 2259-2189 psi

CHEROKEE SECTION

4264-4280' Limestone, white, gray, medium crystalline, chalky, poor visible porosity, no shows.

MISSISSIPPIAN SECTION

4306-4316' Chert, white, yellow, opaque, poor porosity, trace black stain, no free oil, no odor.

4316-4326' Limestone, white, fine to medium, chalky, no show.

4326-4336' Limestone and chert; as above, trace gray, dolomitic shale.

MISSISSIPPI OSAGE

4336-4348' Chert, white, opaque, translucent, boney, poor porosity, no shows, plus gray grayish green shale.

4348-4354' Chert, white boney, scattered vuggy type porosity, brown stain, show of free oil and faint/fair odor in fresh samples.

Drill Stem Test #2 **4268-4354**

Times: 30-30-30-30
Blow: Strong
Recovery: 1492' muddy water
Pressures: ISIP 1361 psi
FSIP 1360 psi
IFP 43-426 psi

Mai Oil Operations
Alex #1
SW-SW-NE-NE (1132' FNL & 1200' FEL)
Section 26-20s-22w
Ness County, Kansas

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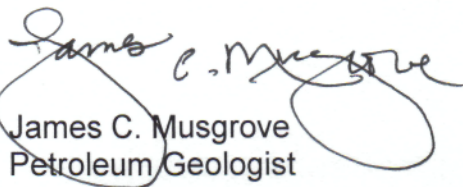
FFP 427-710 psi
HSH 2283-2182 psi

Rotary Total Depth 4354 (-2150)

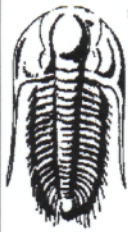
Recommendations:

The Mai Oil Operation Inc., Alex #1 was plugged and abandoned at the Rotary Total Depth 4354 -2150

Respectfully yours,


James C. Musgrove
Petroleum Geologist





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.

8411 Preston Rd Ste 800
Dallas TX 75225

ATTN: Jim Musgrove

26-20S-22W Ness, KS

Alex #1

Job Ticket: 63283

DST#: 1

Test Start: 2017.07.25 @ 22:34:59

GENERAL INFORMATION:

Formation: Ft. Scott

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:56:20

Time Test Ended: 05:45:05

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4211.00 ft (KB) To 4284.00 ft (KB) (TVD)

Total Depth: 4284.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2204.00 ft (KB)

2196.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8524 Outside

Press@RunDepth: 24.82 psig @ 4212.00 ft (KB)

Start Date: 2017.07.25

End Date:

2017.07.26

Start Time: 22:35:00

End Time:

05:45:05

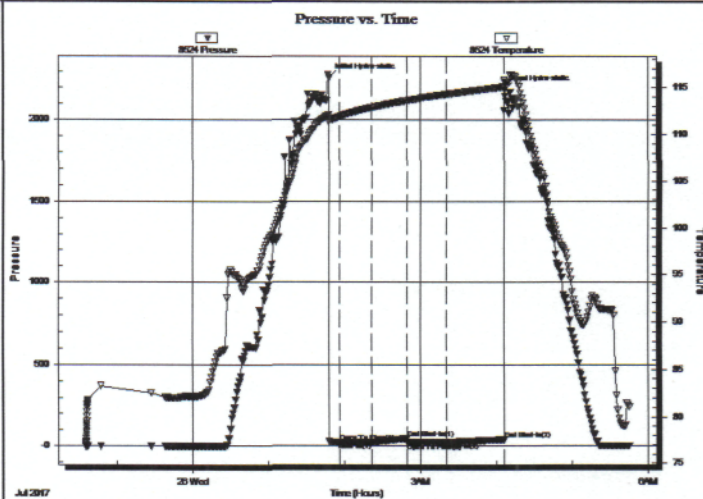
Capacity: 8000.00 psig

Last Calib.: 2017.07.26

Time On Btm: 2017.07.26 @ 01:47:35

Time Off Btm: 2017.07.26 @ 04:06:20

TEST COMMENT: 30- IF- 1/4" blow died in 11 min
30- IS- No blow
30- FF- No blow Flushed tool
45- FS- No blow



PRESSURE SUMMARY

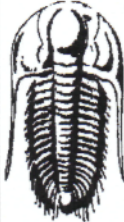
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2259.10	112.07	Initial Hydro-static
9	23.32	111.87	Open To Flow (1)
34	23.52	112.85	Shut-In(1)
62	48.44	113.59	End Shut-In(1)
62	22.48	113.60	Open To Flow (2)
93	24.82	114.28	Shut-In(2)
138	40.67	115.08	End Shut-In(2)
139	2189.31	115.59	Final Hydro-static

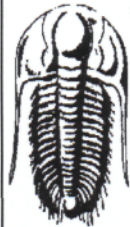
Recovery

Length (ft)	Description	Volume (bbl)
15.00	M	0.21

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT		TOOL DIAGRAM		
	Mai Oil Operations, Inc.		26-20S-22W Ness,KS		
	8411 Preston Rd Ste 800 Dallas TX 75225		Alex #1		
ATTN: Jim Musgrove		Job Ticket: 63283 DST#: 1			
		Test Start: 2017.07.25 @ 22:34:59			
Tool Information					
Drill Pipe:	Length: 4208.00 ft	Diameter: 3.82 inches	Volume: 59.65 bbl	Tool Weight: 2000.00 lb	
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb	
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb	
		Total Volume: - bbl		Tool Chased 0.00 ft	
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 40000.00 lb	
Depth to Top Packer:	4211.00 ft			Final 43000.00 lb	
Depth to Bottom Packer:	ft				
Interval between Packers:	73.00 ft				
Tool Length:	93.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					
Tool Description Length (ft) Serial No. Position Depth (ft) Accum. Lengths					
Change Over Sub	1.00			4192.00	
Shut In Tool	5.00			4197.00	
Hydraulic tool	5.00			4202.00	
Packer	5.00			4207.00	20.00 Bottom Of Top Packer
Packer	4.00			4211.00	
Stubb	1.00			4212.00	
Recorder	0.00	6838	Inside	4212.00	
Recorder	0.00	8524	Outside	4212.00	
Perforations	5.00			4217.00	
Change Over Sub	1.00			4218.00	
Drill Pipe	62.00			4280.00	
Change Over Sub	1.00			4281.00	
Bullnose	3.00			4284.00	73.00 Bottom Packers & Anchor
Total Tool Length: 93.00					



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

26-20S-22W Ness,KS

8411 Preston Rd Ste 800
Dallas TX 75225

Alex #1

Job Ticket: 63283

DST#: 1

ATTN: Jim Musgrove

Test Start: 2017.07.25 @ 22:34:59

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 12.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	M	0.213

Total Length: 15.00 ft

Total Volume: 0.213 bbl

Num Fluid Samples: 0

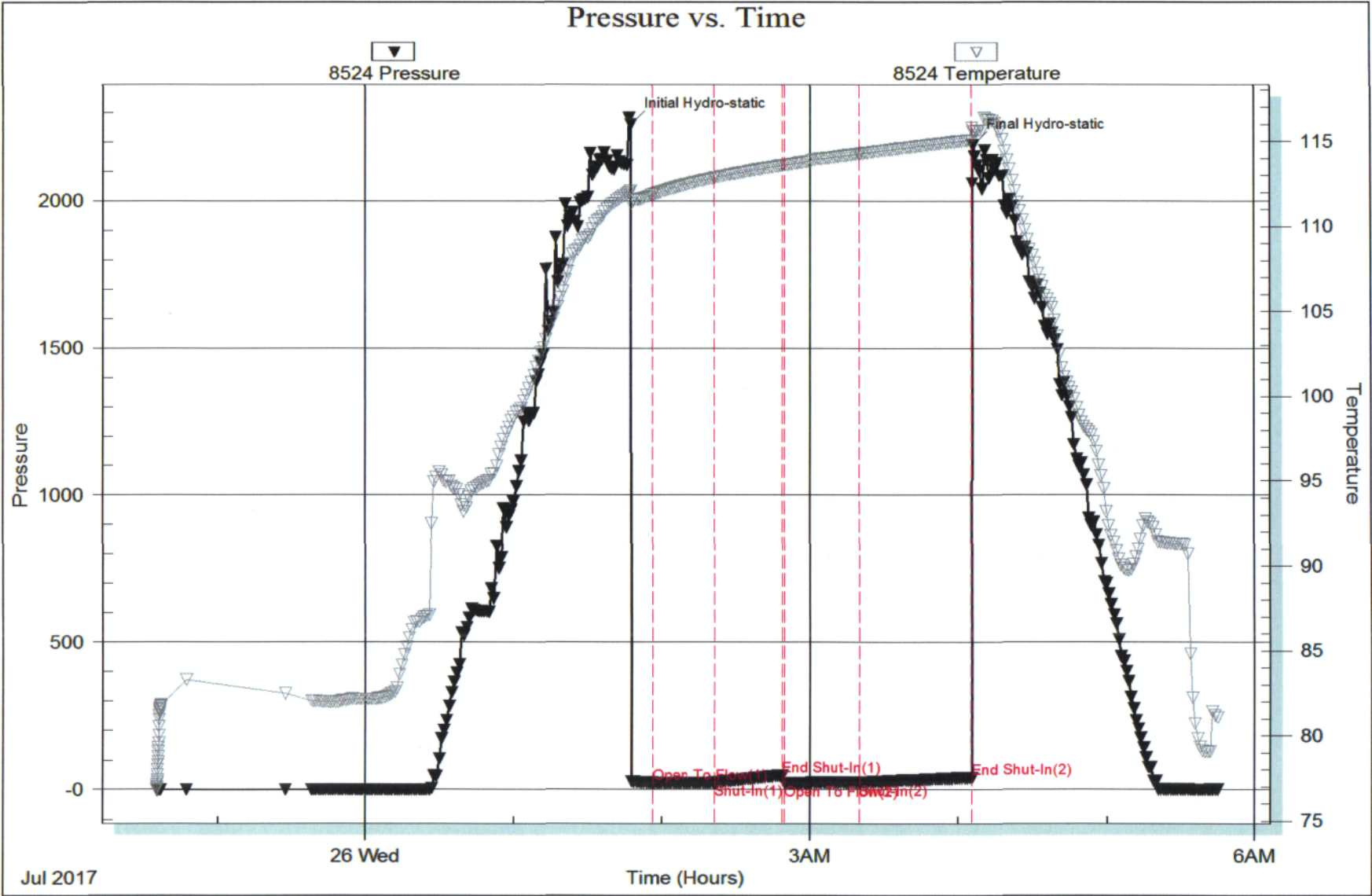
Num Gas Bombs: 0

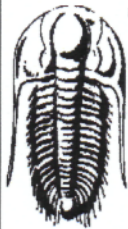
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.
8411 Preston Rd Ste 800
Dallas TX 75225
ATTN: Jim Musgrove

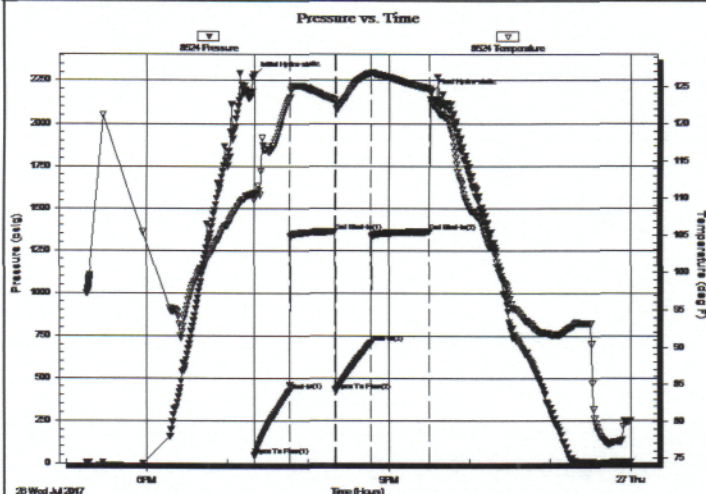
26-20S-22W Ness,KS
Alex #1
Job Ticket: 63284 DST#: 2
Test Start: 2017.07.26 @ 17:15:14

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:20:05
Time Test Ended: 00:00:05
Interval: **4268.00 ft (KB) To 4354.00 ft (KB) (TVD)**
Total Depth: **4354.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73
Reference Elevations: **2204.00 ft (KB)**
2196.00 ft (CF)
KB to GR/CF: **8.00 ft**

Serial #: 8524 **Outside**
Press@RunDepth: 709.80 psig @ 4269.00 ft (KB)
Start Date: 2017.07.26 End Date: 2017.07.27
Start Time: 17:15:15 End Time: 00:00:05
Capacity: 8000.00 psig
Last Calib.: 2017.07.27
Time On Btm: 2017.07.26 @ 19:19:50
Time Off Btm: 2017.07.26 @ 21:31:35

TEST COMMENT: 30- IF- BOB 2 mins
30- IS- No blow
30- FF- BOB 4 mins
30- FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2283.13	110.55	Initial Hydro-static
1	42.53	109.76	Open To Flow (1)
27	425.59	123.42	Shut-In(1)
61	1360.89	123.15	End Shut-In(1)
61	427.21	122.67	Open To Flow (2)
87	709.80	126.77	Shut-In(2)
131	1360.04	124.69	End Shut-In(2)
132	2181.52	123.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1492.00	MW, 15%M 85%W	21.15

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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Trilobite Testing, Inc

Ref. No: 63284

Printed: 2017.07.27 @ 08:23:41



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations, Inc.

26-20S-22W Ness, KS

8411 Preston Rd Ste 800
Dallas TX 75225

Alex #1

Job Ticket: 63284

DST#: 2

ATTN: Jim Musgrove

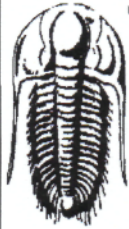
Test Start: 2017.07.26 @ 17:15:14

Tool Information

Drill Pipe:	Length: 4272.00 ft	Diameter: 3.82 inches	Volume: 60.56 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	- bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	4268.00 ft			Final	49000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	86.00 ft				
Tool Length:	106.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4249.00	
Shut In Tool	5.00			4254.00	
Hydraulic tool	5.00			4259.00	
Packer	5.00			4264.00	20.00 Bottom Of Top Packer
Packer	4.00			4268.00	
Stubb	1.00			4269.00	
Recorder	0.00	6838	Inside	4269.00	
Recorder	0.00	8524	Outside	4269.00	
Perforations	17.00			4286.00	
Change Over Sub	1.00			4287.00	
Drill Pipe	63.00			4350.00	
Change Over Sub	1.00			4351.00	
Bullnose	3.00			4354.00	86.00 Bottom Packers & Anchor

Total Tool Length: 106.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

26-20S-22W Ness,KS

8411 Preston Rd Ste 800
Dallas TX 75225

Alex #1

Job Ticket: 63284

DST#: 2

ATTN: Jim Musgrove

Test Start: 2017.07.26 @ 17:15:14

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

27000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1492.00	MW, 15%M 85%W	21.150

Total Length: 1492.00 ft Total Volume: 21.150 bbl

Num Fluid Samples: 0

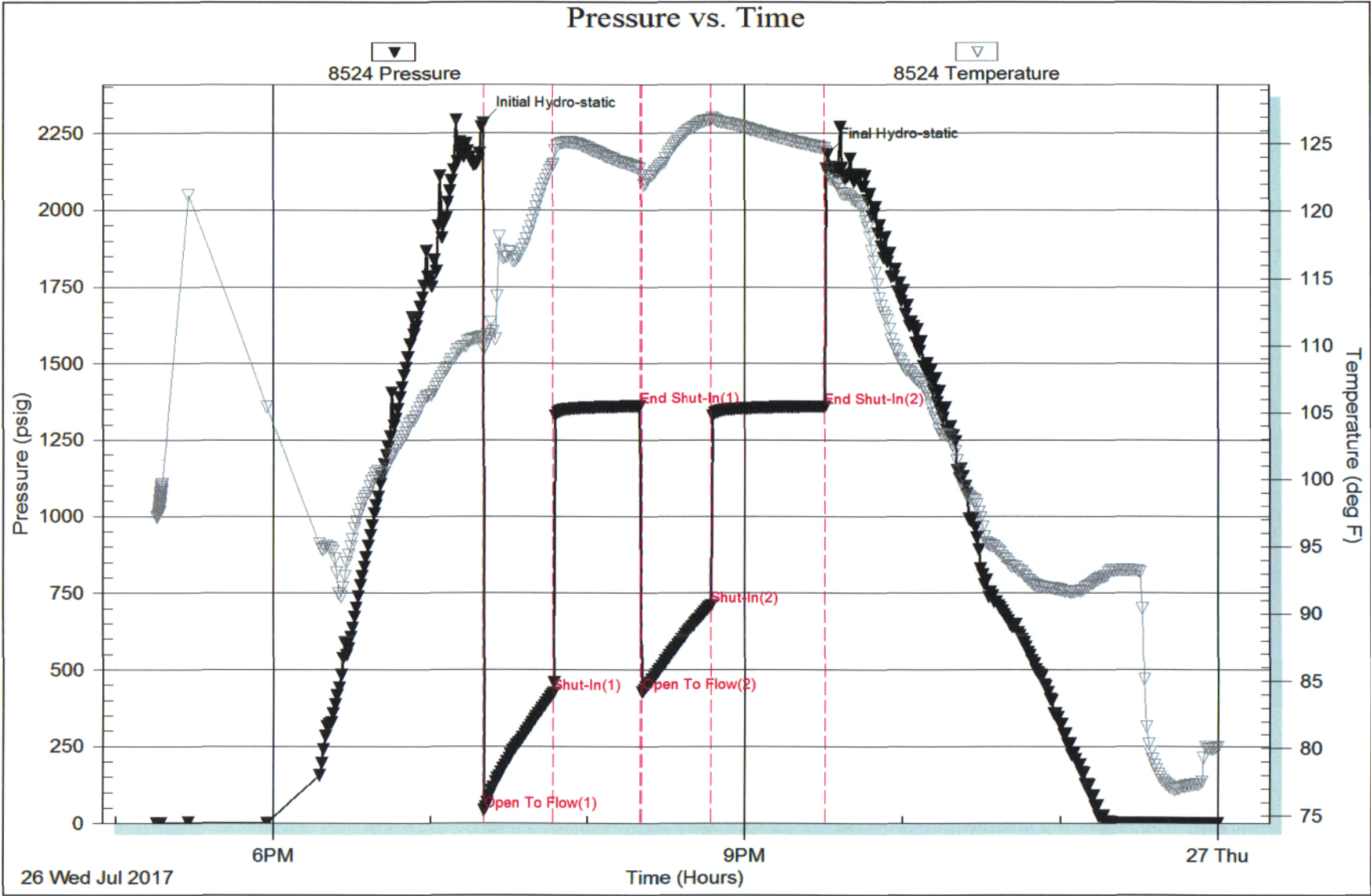
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .21@80deg



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. 353

Date	7.22.17	Sec.	26	Twp.	20	Range	22	County	WISS	State	KS	On Location		Finish	6:00pm				
								Location								Bazine & ADDO 115 1W 1/2 S 42110			

Lease	ALPX		Well No.	1		Owner	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.								
Contractor	Southwind #3					Charge To	Moi O.I								
Type Job	Surface					Street									
Hole Size	12 1/4		T.D.	251		City	State								
Csg.	8 5/8		Depth	251		The above was done to satisfaction and supervision of owner agent or contractor.									
Tbg. Size			Depth			Cement Amount Ordered 170 6/40 4/16 2/16 2									
Tool			Depth												
Cement Left in Csg.	10'		Shoe Joint												
Meas Line			Displace	15 BCL											

EQUIPMENT						Common	
Pumptrk	5	No.	Cementer	Helper		Poz. Mix	
Bulktrk		No.	Driver	Driver		Gel.	
Bulktrk	9	No.	Driver	Driver		Calcium	

JOB SERVICES & REMARKS						Hulls	
Remarks:						Salt	
Rat Hole						Flowseal	
Mouse Hole						Kol-Seal	
Centralizers						Mud CLR 48	
Baskets						CFL-117 or CD110 CAF 38	
D/V or Port Collar						Sand	
8 5/8 on bottom. Bore Circulation.						Handling	
M.V. 170 BCL Displace						Mileage	

Cement Circulated.						FLOAT EQUIPMENT	
						Guide Shoe	8 5/8 Surge
						Centralizer	
						Baskets	
						AFU Inserts	
						Float Shoe	
						Latch Down	

						Pumptrk Charge	
						Mileage	
						Tax	
						Discount	
						Total Charge	
Signature							