



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460
ATTN: David gould

Brull Farms # 1-11

Job Ticket: 57606

DST#: 1

Test Start: 2014.04.14 @ 01:57:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:02:00

Time Test Ended: 14:26:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bob Hamel

Unit No: 67

Interval: 3063.00 ft (KB) To 3110.00 ft (KB) (TVD)

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3110.00 ft (KB) (TVD)

2019.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press@RunDepth: 157.28 psig @ 3073.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.14

End Date:

2014.04.14

Last Calib.:

2014.04.14

Start Time: 01:57:01

End Time:

14:26:00

Time On Btm:

2014.04.14 @ 09:00:30

Time Off Btm:

2014.04.14 @ 12:55:30

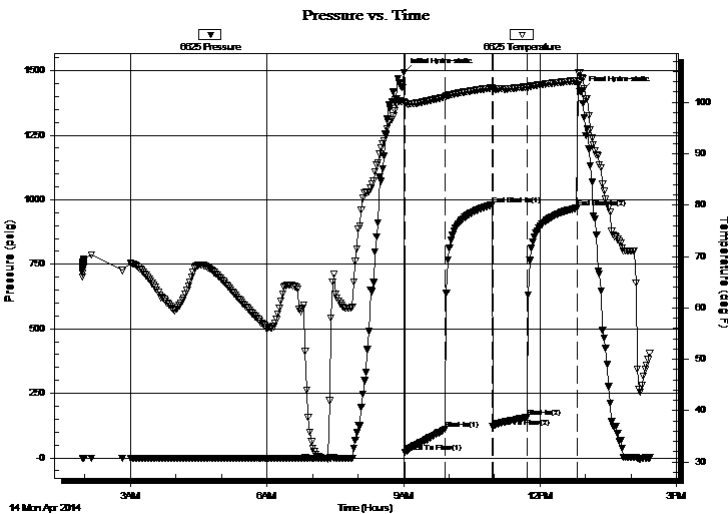
TEST COMMENT: I.F. - 45 - 1/2" INT. BLOW BUILT TO (8" IN 45 MIN.)

I.S.I. - 60 - NO B.B.

F.F. - 45 - W.S.B. STARTED @ 2MIN. BUILT TO (5 1/2" IN 45 MIN.)

F.S.I. - 60 - NO B.B.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1493.54	100.09	Initial Hydro-static
2	21.04	99.88	Open To Flow (1)
54	110.40	101.02	Shut-In(1)
117	979.94	102.78	End Shut-In(1)
117	120.42	102.64	Open To Flow (2)
162	157.28	102.92	Shut-In(2)
228	967.91	104.19	End Shut-In(2)
235	1422.08	104.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
292.00	S,O,S,M,W, 5%MUD 95% WATER	1.80

Gas Rates

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



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HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57606

DST#: 1

ATTN: David gould

Test Start: 2014.04.14 @ 01:57:00

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: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
292.00	S,O,S,M,W, 5%MUD 95% WATER	1.800

Total Length: 292.00 ft Total Volume: 1.800 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: R.W. = .12 OHMS @ 53 DEG.

CHLORIDES = 124,000 P.P.M.

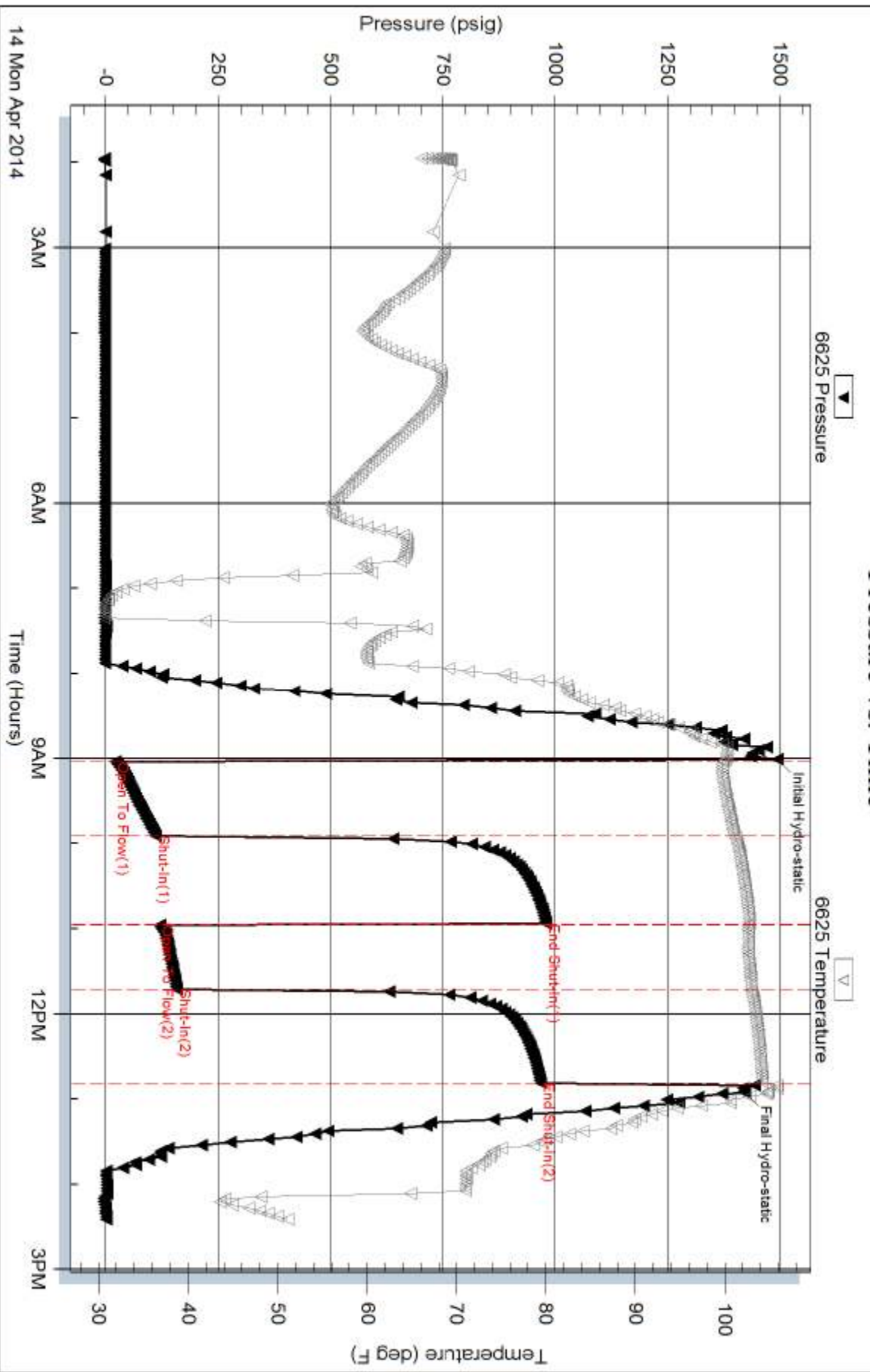
Serial #: 6625

Outside HESS OIL COMPANY

Bull Farms # 1-11

DST Test Number: 1

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 57606

Printed: 2014.04.14 @ 15:08:57



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57517

DST#: 2

ATTN: David gould

Test Start: 2014.04.15 @ 00:28:47

GENERAL INFORMATION:

Formation: **Shaw**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:53:17

Time Test Ended: 13:25:17

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3235.00 ft (KB) To 3245.00 ft (KB) (TVD)

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3245.00 ft (KB) (TVD)

2019.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press@RunDepth: 583.19 psig @ 3236.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.15

End Date:

2014.04.15

Last Calib.:

2014.04.15

Start Time: 00:28:48

End Time:

13:25:17

Time On Btm:

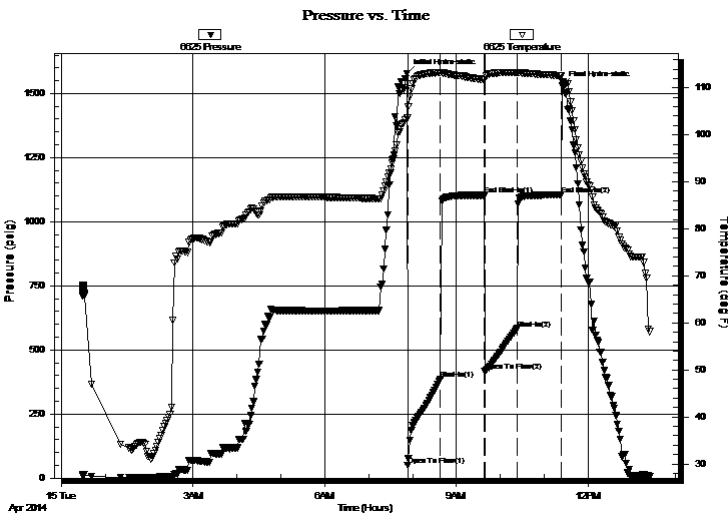
2014.04.15 @ 07:52:47

Time Off Btm:

2014.04.15 @ 11:25:17

TEST COMMENT: 45-IF-BOB in 14 mins
60-ISI-1/2" Return
45-FF-BOB in 5 mins
60-FSI-5 1/4" Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1578.94	103.58	Initial Hydro-static
1	50.33	103.63	Open To Flow (1)
46	386.15	113.26	Shut-In(1)
106	1103.66	111.72	End Shut-In(1)
106	415.89	111.68	Open To Flow (2)
151	583.19	113.18	Shut-In(2)
211	1104.64	112.50	End Shut-In(2)
213	1530.49	111.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
840.00	sl mcw 95% w 5% m,	9.49
300.00	mcw 60% w 40% m	4.21
30.00	W&MCO 80% O 5% w 5% m	0.42

* Recovery from multiple tests

Gas Rates

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



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HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57517

DST#: 2

ATTN: David gould

Test Start: 2014.04.15 @ 00:28:47

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:

170000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
840.00	sl mcw 95% w 5% m,	9.487
300.00	mcw 60% w 40% m	4.208
30.00	W&MC O 80% O 5% w 5% m	0.421

Total Length: 1170.00 ft Total Volume: 14.116 bbl

Num Fluid Samples: 0

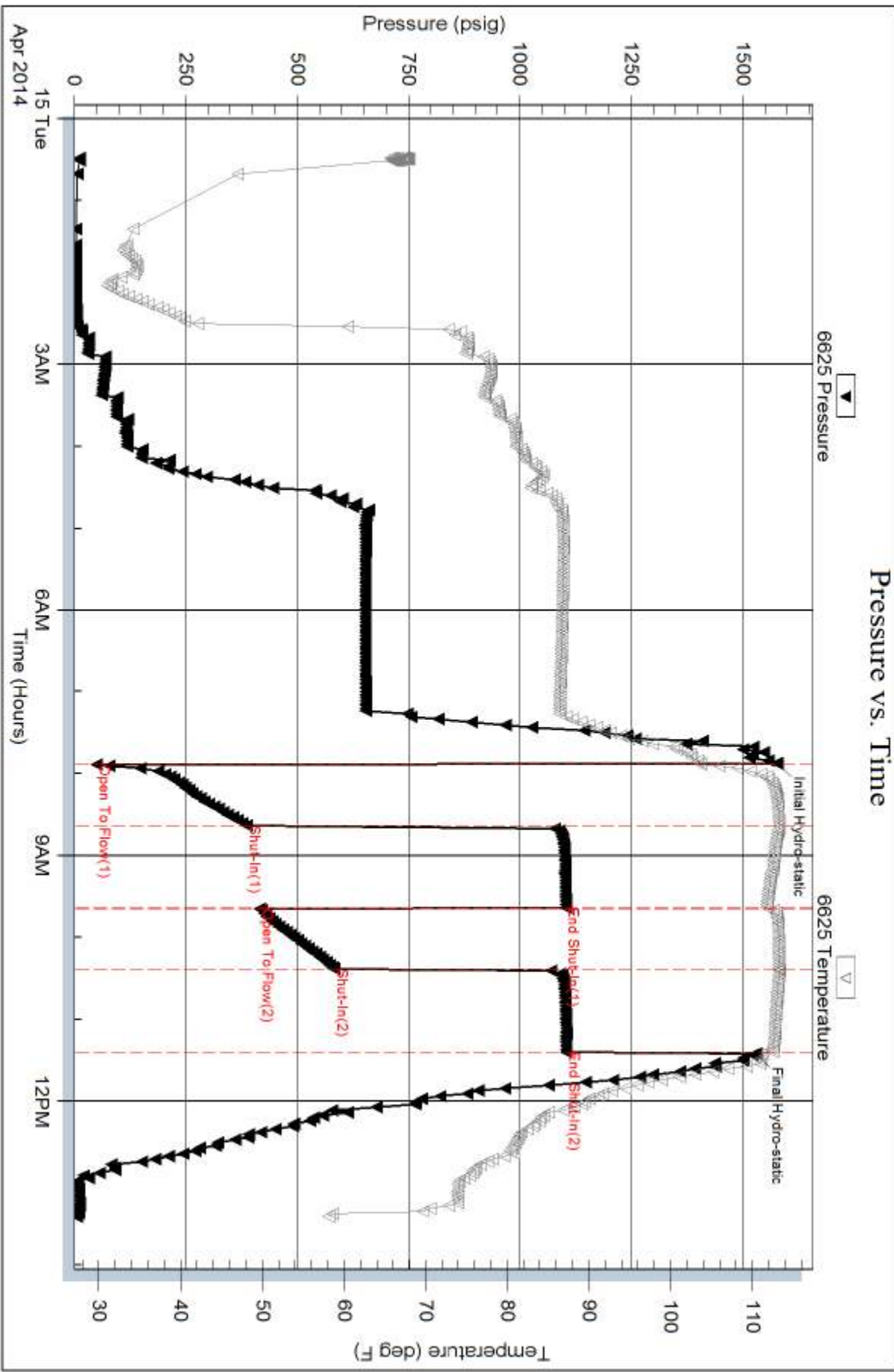
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .06 @ 68= 170,000





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HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460
ATTN: David gould

Brull Farms # 1-11

Job Ticket: 57518

DST#: 3

Test Start: 2014.04.15 @ 21:43:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:22:30

Time Test Ended: 04:57:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3289.00 ft (KB) To 3324.00 ft (KB) (TVD)

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3324.00 ft (KB) (TVD)

2019.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press@RunDepth: 198.68 psig @ 3290.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.15

End Date:

2014.04.16

Last Calib.:

2014.04.16

Start Time: 21:43:01

End Time:

04:57:30

Time On Btm:

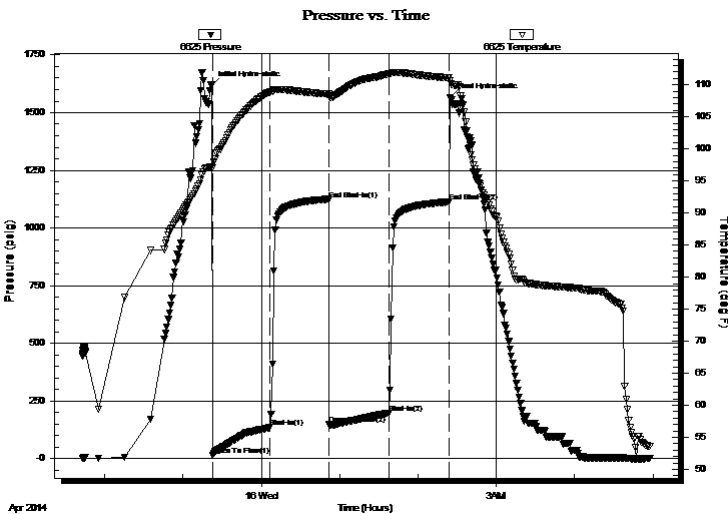
2014.04.15 @ 23:22:00

Time Off Btm:

2014.04.16 @ 02:24:30

TEST COMMENT: 45-IF-BOB in 5 mins
60-ISI-5 3/4" Return
45-FF-BOB in 9 mins
60-FSI-7 1/4" Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1618.76	97.17	Initial Hydro-static
1	15.90	97.06	Open To Flow (1)
45	135.98	108.89	Shut-In(1)
90	1122.14	108.55	End Shut-In(1)
90	148.64	108.25	Open To Flow (2)
136	198.68	111.68	Shut-In(2)
182	1113.64	111.08	End Shut-In(2)
183	1563.23	110.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	MW, 10%m, 90%w , with oil spots	1.18
63.00	GMCW, 10%g, 10%m, 80%w , with oil spots	0.77
93.00	GWCO, 10%g, 10%w , 80%o	1.30

* Recovery from multiple tests

Gas Rates

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



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SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57518

DST#: 3

ATTN: David gould

Test Start: 2014.04.15 @ 21:43:00

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:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
240.00	MW, 10% <i>m</i> , 90% <i>w</i> , with oil spots	1.180
63.00	GMCW, 10% <i>g</i> , 10% <i>m</i> , 80% <i>w</i> , with oil spots	0.774
93.00	GWCO, 10% <i>g</i> , 10% <i>w</i> , 80% <i>o</i>	1.305

Total Length: 396.00 ft Total Volume: 3.259 bbl

Num Fluid Samples: 0

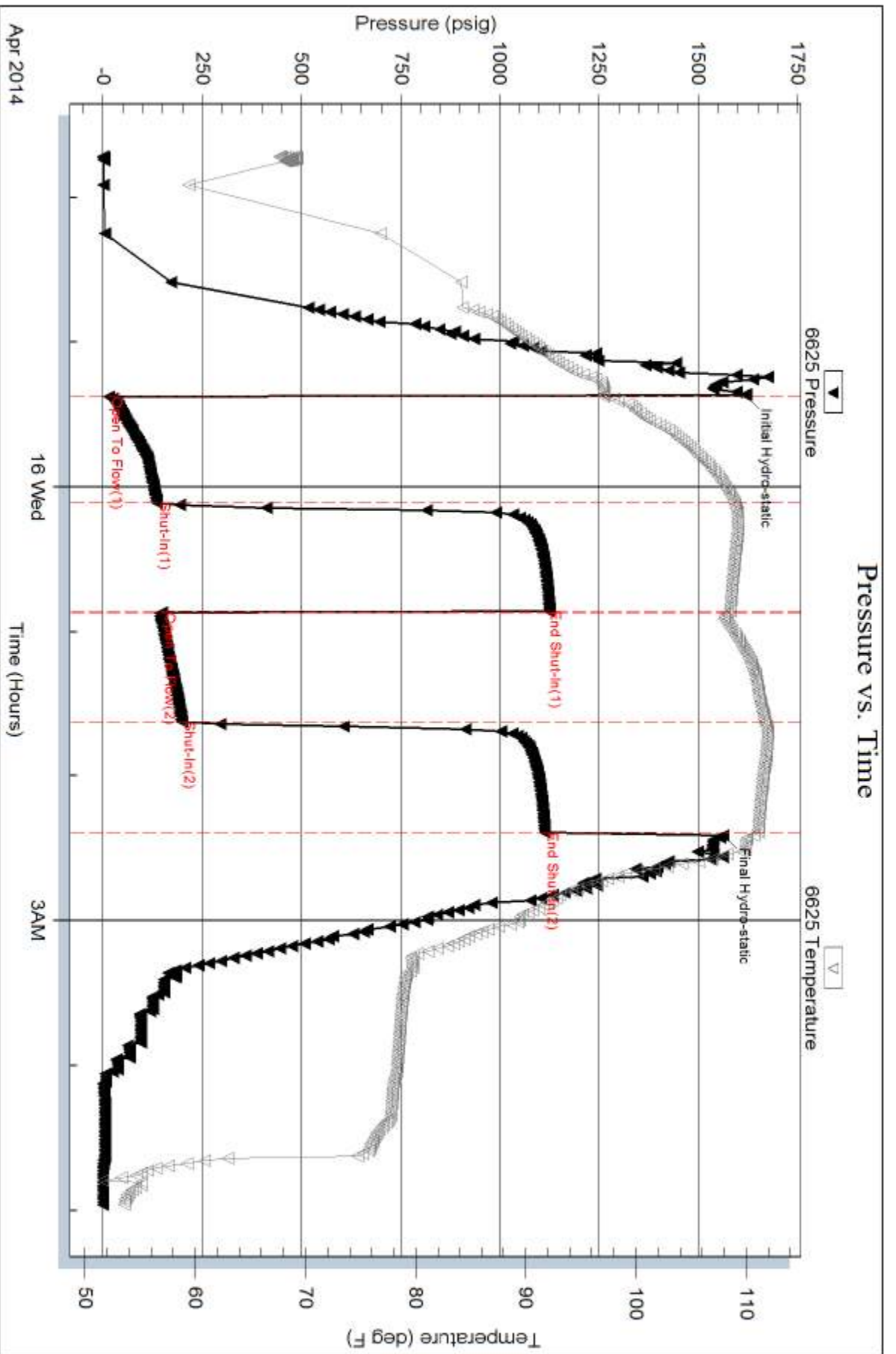
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .08 @ 50 degrees = 175,000 Salinity





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SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57519

DST#: 4

ATTN: David Gould

Test Start: 2014.04.16 @ 11:36:00

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:50:30

Time Test Ended: 18:44:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3345.00 ft (KB) To 3361.00 ft (KB) (TVD)

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3361.00 ft (KB) (TVD)

2019.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 108.99 psig @ 3346.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.16

End Date:

2014.04.16

Last Calib.:

2014.04.16

Start Time: 11:36:01

End Time:

18:44:00

Time On Btm:

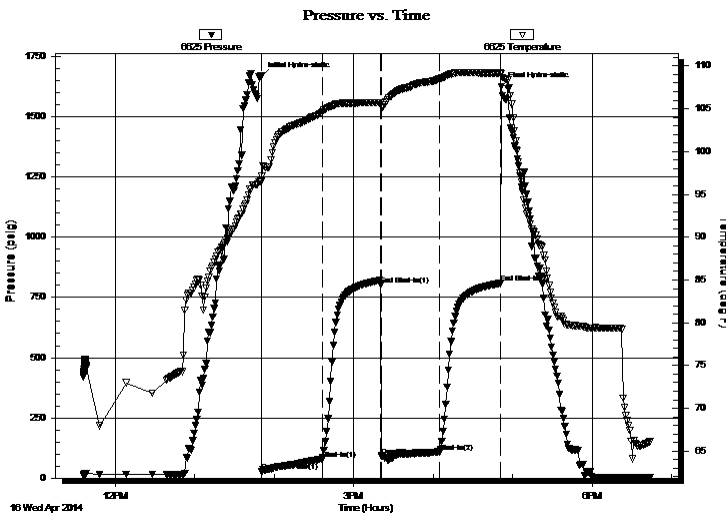
2014.04.16 @ 13:50:00

Time Off Btm:

2014.04.16 @ 16:51:30

TEST COMMENT: 45-IF-BOB in 5 mins
45-ISI-Return built to 1 1/4", died back to 3/4"
45-FF-BOB in 5 mins
45-FSI-Return built to 1 3/4", died back to 1"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1668.39	96.53	Initial Hydro-static
1	26.50	97.10	Open To Flow (1)
46	79.58	104.54	Shut-In(1)
91	803.16	105.73	End Shut-In(1)
91	91.21	105.21	Open To Flow (2)
135	108.99	108.48	Shut-In(2)
181	808.12	109.16	End Shut-In(2)
182	1624.05	109.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	MOCG, 10%g, 40%o, 50%g	1.18
15.00	GMCO, 10%g, 40%g, 50%o	0.10
10.00	O, 100%	0.14

* Recovery from multiple tests

Gas Rates

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



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SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57519

DST#: 4

ATTN: David gould

Test Start: 2014.04.16 @ 11:36:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

422 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
240.00	MOCG, 10%m, 40%o, 50%g	1.180
15.00	GMCO, 10%g, 40%m, 50%o	0.101
10.00	O, 100%	0.140

Total Length: 265.00 ft

Total Volume: 1.421 bbl

Num Fluid Samples: 0

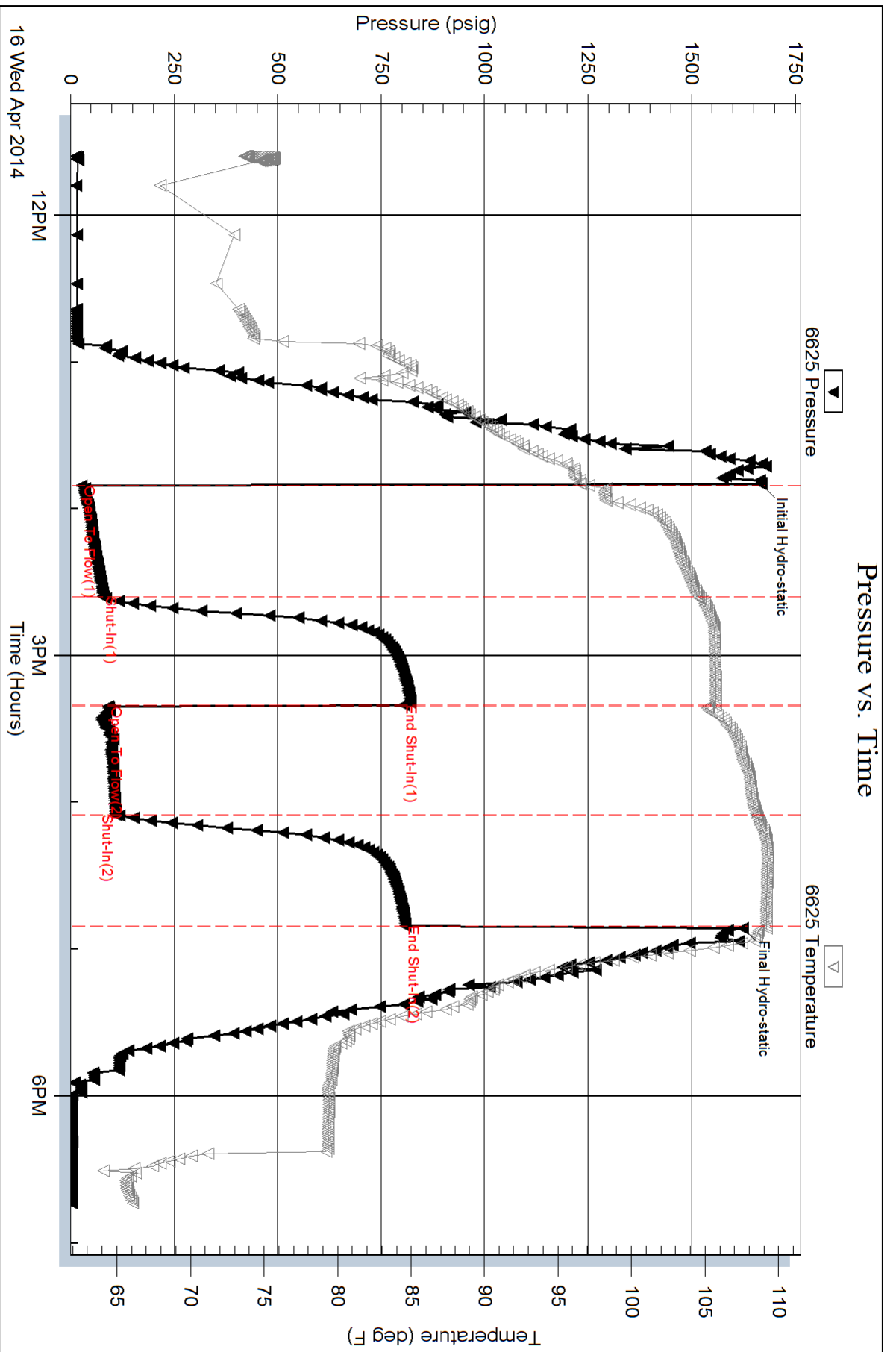
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57520

DST#: 5

ATTN: David gould

Test Start: 2014.04.17 @ 00:34:00

GENERAL INFORMATION:

Formation: **LKC "B&C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:48:30

Time Test Ended: 09:03:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3369.00 ft (KB) To 3405.00 ft (KB) (TVD)

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3405.00 ft (KB) (TVD)

2019.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ RunDepth: 213.86 psig @ 3370.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.17

End Date:

2014.04.17

Last Calib.:

2014.04.17

Start Time: 00:34:01

End Time:

09:03:00

Time On Btm:

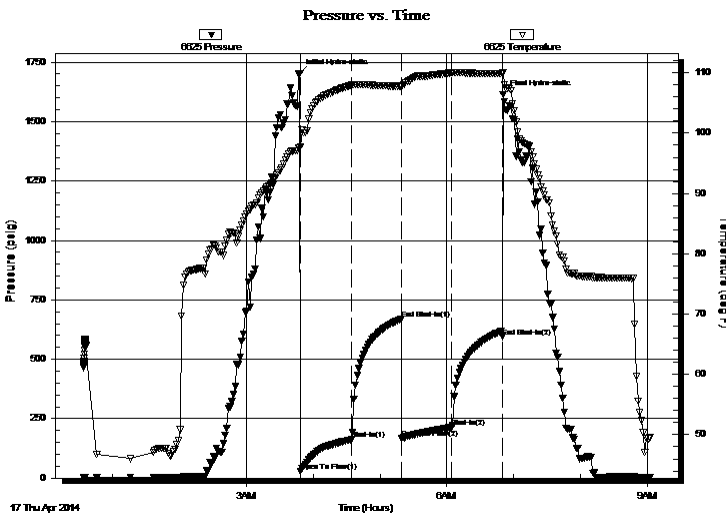
2014.04.17 @ 03:48:00

Time Off Btm:

2014.04.17 @ 06:50:30

TEST COMMENT: 45-IF-BOB in 11 mins
45-ISI-No Return
45-FF-BOB in 21 mins
45-FSI-1/4" Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1702.97	97.59	Initial Hydro-static
1	28.31	97.73	Open To Flow (1)
47	161.92	107.97	Shut-In(1)
91	667.91	107.79	End Shut-In(1)
92	167.54	107.73	Open To Flow (2)
137	213.86	110.03	Shut-In(2)
182	595.09	109.84	End Shut-In(2)
183	1612.72	110.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MW, 10%w, 90%w, with oil spots	0.89
241.00	WM, 10w, 90%w, with oil spots	2.72

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
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SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57520

DST#: 5

ATTN: David gould

Test Start: 2014.04.17 @ 00:34:00

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: bbl		
Water Loss: 6.00 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2700.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	MW, 10%m, 90%w , w ith oil spots	0.885
241.00	WM, 10w , 90%m, w ith oil spots	2.725

Total Length: 421.00 ft Total Volume: 3.610 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

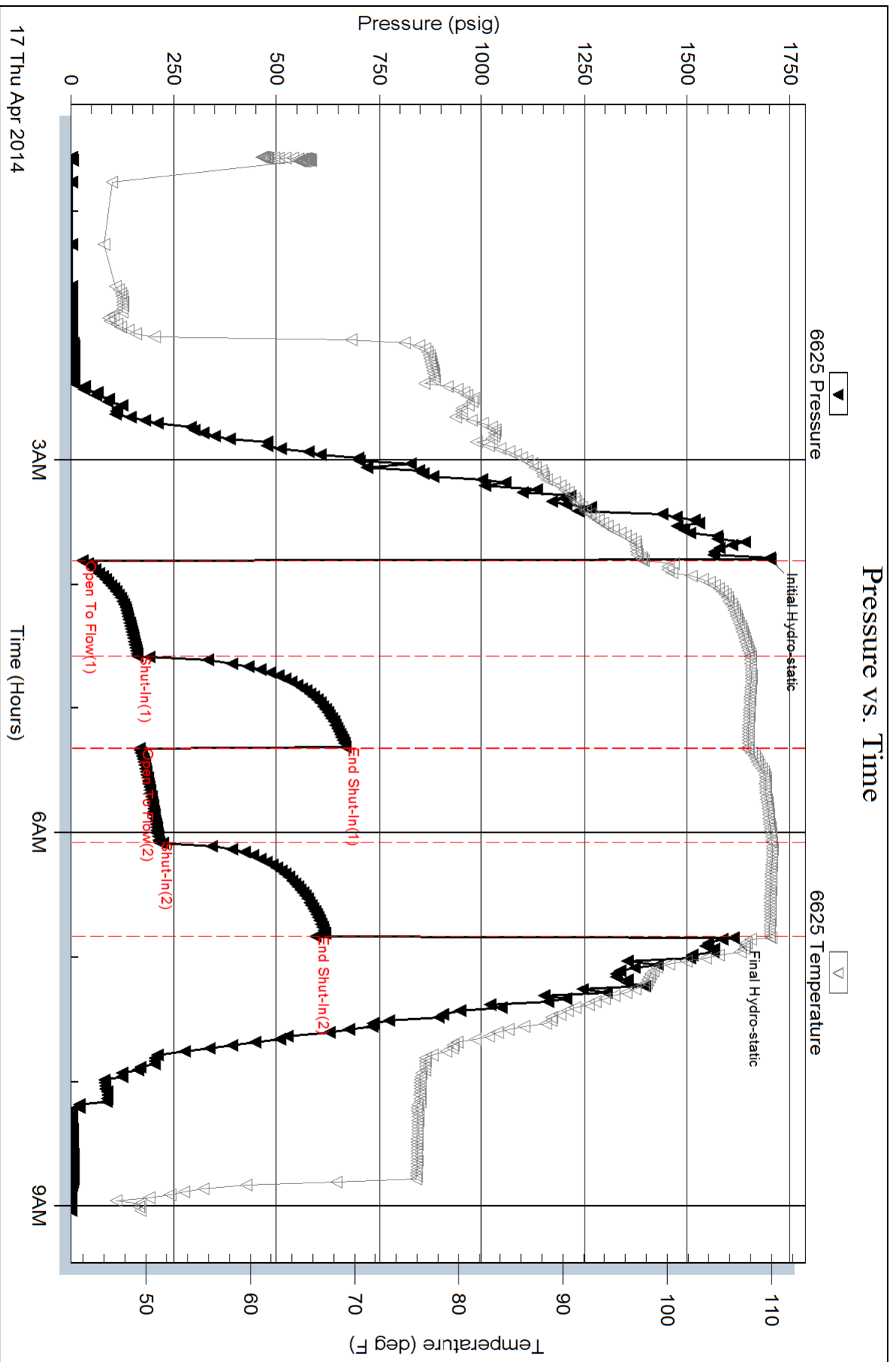
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .09 @ 46 degrees = 175,000 Salinity

Pressure vs. Time





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DRILL STEM TEST REPORT

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SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57521

DST#: 6

ATTN: David gould

Test Start: 2014.04.17 @ 20:30:00

GENERAL INFORMATION:

Formation: **Lower Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:20:30

Time Test Ended: 04:33:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3419.00 ft (KB) To 3535.00 ft (KB) (TVD)

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3535.00 ft (KB) (TVD)

2019.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 137.15 psig @ 3434.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.17 End Date: 2014.04.18

Last Calib.: 2014.04.18

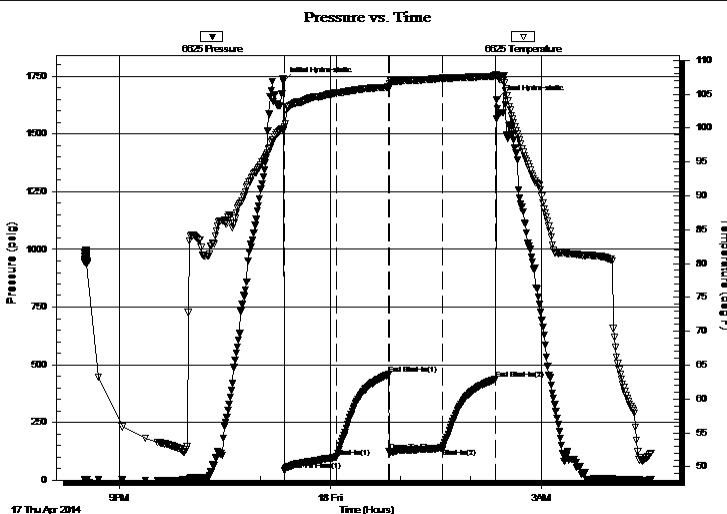
Start Time: 20:30:01 End Time: 04:33:30

Time On Btm: 2014.04.17 @ 23:20:00

Time Off Btm: 2014.04.18 @ 02:22:00

TEST COMMENT: 45-IF-BOB in 10 mins
45-ISI-Return built to 1", died back to weak surface blow.
45-FF-Built to 8"
45-FSI-Return built to 1/2", died in 33 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1727.66	99.65	Initial Hydro-static
1	42.49	100.23	Open To Flow (1)
45	100.67	105.23	Shut-In(1)
90	457.60	106.05	End Shut-In(1)
90	123.36	105.96	Open To Flow (2)
136	137.15	107.36	Shut-In(2)
181	437.38	107.67	End Shut-In(2)
182	1649.44	107.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW, 40% m, 60% w with oil spots	0.30
210.00	M, 100% m, with oil spots	1.20

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57521

DST#: 6

ATTN: David gould

Test Start: 2014.04.17 @ 20:30:00

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: 54.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
60.00	MW, 40% m, 60% w with oil spots	0.295
210.00	M, 100% m, with oil spots	1.197

Total Length: 270.00 ft Total Volume: 1.492 bbf

Num Fluid Samples: 0

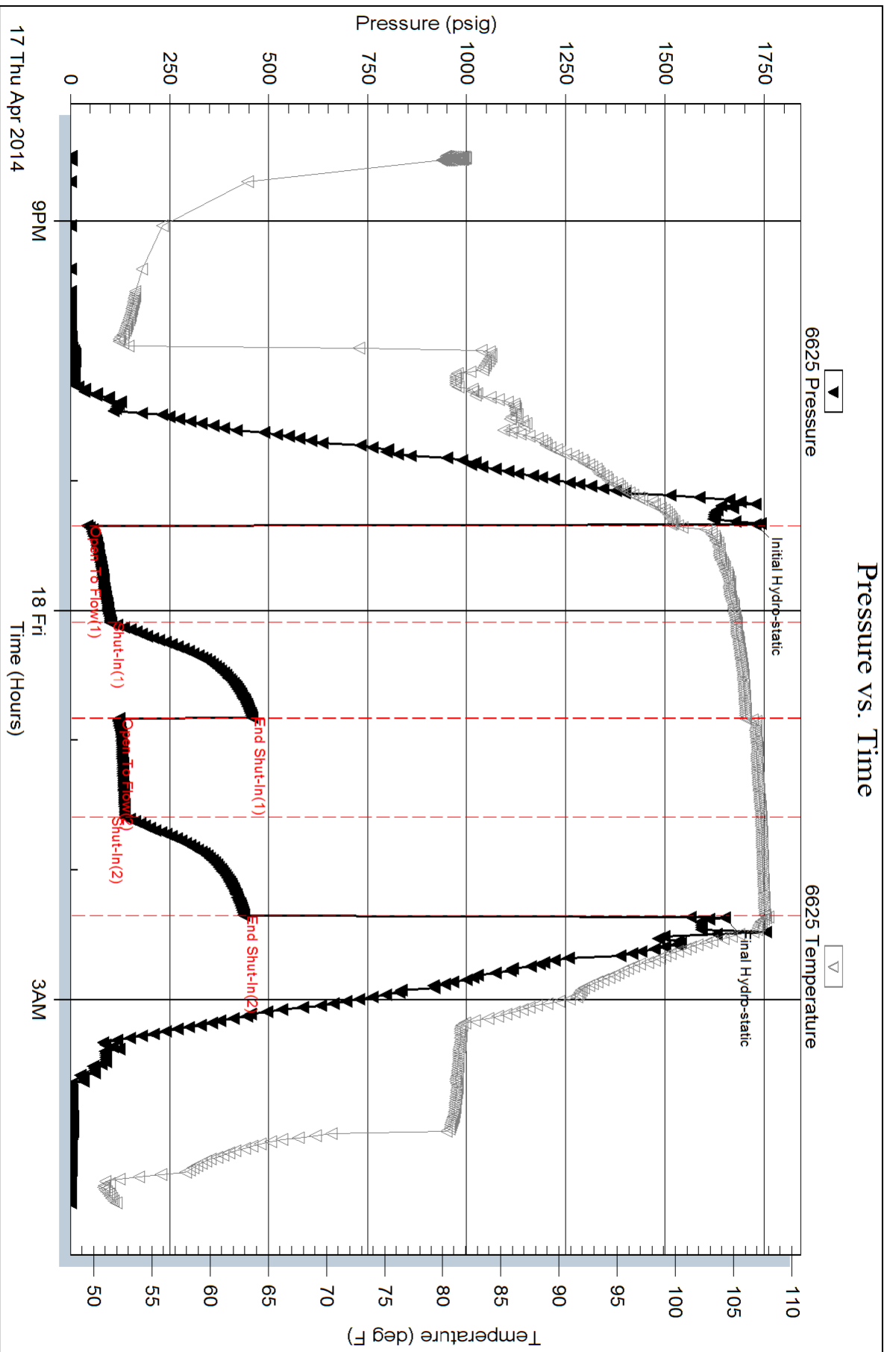
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .18 @ 49 degrees = 44,000 Salinity





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57522

DST#: 7

ATTN: David Gould

Test Start: 2014.04.18 @ 17:10:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:09:00

Time Test Ended: 01:13:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3615.00 ft (KB) To 3666.00 ft (KB) (TVD)

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3666.00 ft (KB) (TVD)

2019.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 34.11 psig @ 3630.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.18

End Date:

2014.04.19

Last Calib.:

2014.04.19

Start Time: 17:10:01

End Time:

01:13:00

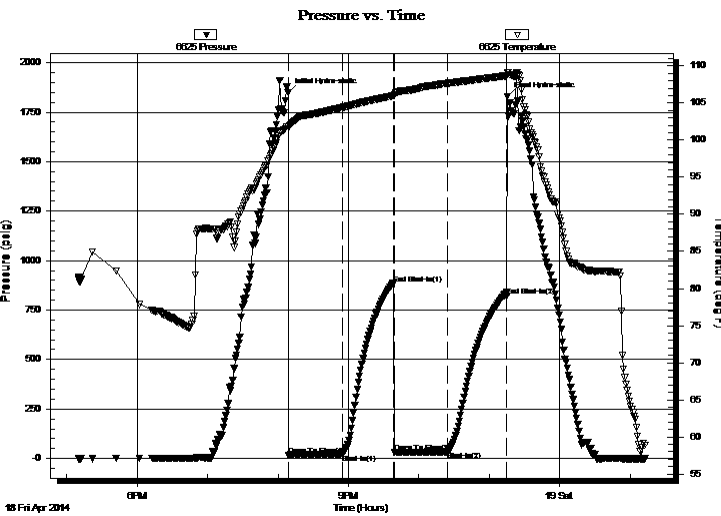
Time On Btm:

2014.04.18 @ 20:08:30

Time Off Btm:

2014.04.18 @ 23:15:30

TEST COMMENT: 45-IF-Built to 1", died back to 3/4"
45-ISI-No Return
45-FF-No Blow
45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1848.35	101.83	Initial Hydro-static
1	16.38	101.80	Open To Flow (1)
46	23.53	104.39	Shut-In(1)
90	883.81	105.98	End Shut-In(1)
91	30.35	106.00	Open To Flow (2)
136	34.11	107.64	Shut-In(2)
187	820.06	108.66	End Shut-In(2)
187	1829.18	109.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	M, 100% m, w ith light oil skim.	0.15

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57522

DST#: 7

ATTN: David gould

Test Start: 2014.04.18 @ 17:10:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4700.00 ppm

Filter Cake: 3.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M, 100% m, with light oil skim.	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

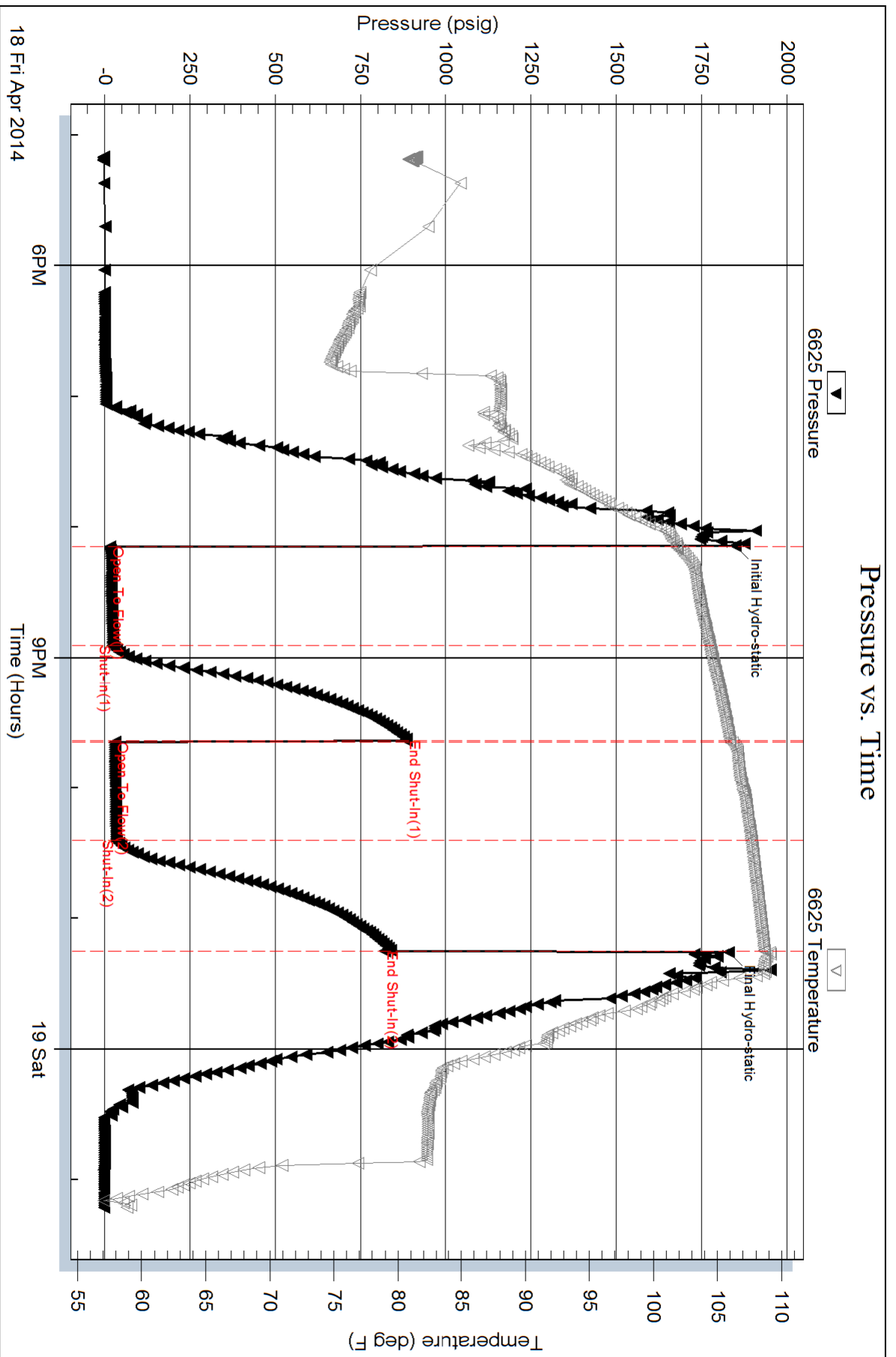
Recovery Comments:

Serial #: 6625

Outside HESS OIL COMPANY

Bull Farms # 1-11

DST Test Number: 7



Trilobite Testing, Inc

Ref. No: 57522

Printed: 2014.04.19 @ 04:30:46



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57607

DST#: 8

ATTN: David gould

Test Start: 2014.04.19 @ 07:43:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:32:00

Time Test Ended: 14:27:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bob Hamel

Unit No: 67

Interval: 3615.00 ft (KB) To 3672.00 ft (KB) (TVD)

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3672.00 ft (KB) (TVD)

2019.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 75.57 psig @ 3621.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.19 End Date: 2014.04.19

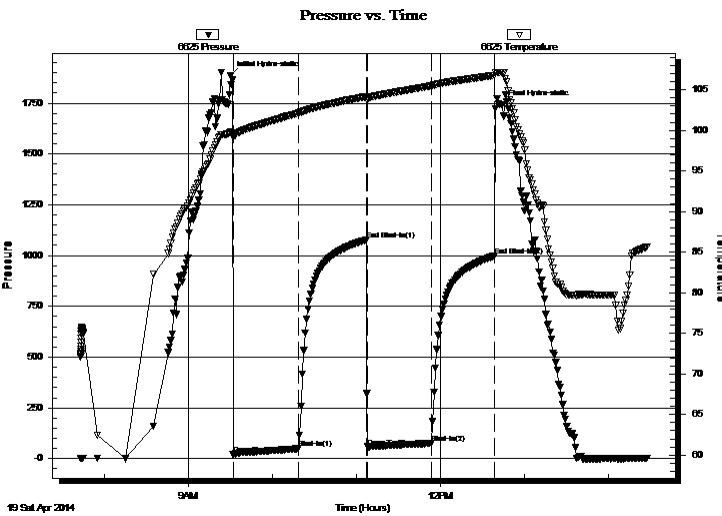
Last Calib.: 1899.12.30

Start Time: 07:43:01 End Time: 14:27:30

Time On Btm: 2014.04.19 @ 09:30:00

Time Off Btm: 2014.04.19 @ 12:43:30

TEST COMMENT: I.F. - 45 - 1/2" INT. BLOW BUILT TO (4 1/2" IN 45 MIN.)
I.S.I. - 45 - NO B.B.
F.F. - 45 - W.S.B STARTED @ 10 MIN. BUILT TO (1" IN 45 MIN.)
F.S.I. - 45 - NO B.B.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1884.33	99.78	Initial Hydro-static
2	19.60	99.17	Open To Flow (1)
49	50.28	102.13	Shut-In(1)
97	1076.55	104.17	End Shut-In(1)
98	58.23	103.98	Open To Flow (2)
144	75.57	105.50	Shut-In(2)
189	997.45	106.77	End Shut-In(2)
194	1742.62	107.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	S,G,H,O,H,W,C,M 5%G 20%O 20%W 55%M	0.31
53.00	S,G,H,O,C,M 5%G 25%O 70%M	0.26
10.00	CLEAN OIL 100 %	0.05

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

HESS OIL COMPANY

P.O. BOX 1009
McPHERSON KS.
67460
ATTN: David Gould

SEC. 25 - 13 s. - 19 w. / ELLIS

Brull Farms # 1-11

Job Ticket: 57607 **DST#: 8**
Test Start: 2014.04.19 @ 07:43:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:32:00

Time Test Ended: 14:27:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bob Hamel

Unit No: 67

Interval: **3615.00 ft (KB) To 3672.00 ft (KB) (TVD)**

Total Depth: 3672.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2024.00 ft (KB)

2019.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8166

Press @ Run Depth: psig @ ft (KB)

Start Date: 2014.04.19 End Date: 2014.04.19

Start Time: 07:43:01 End Time: 14:27:30

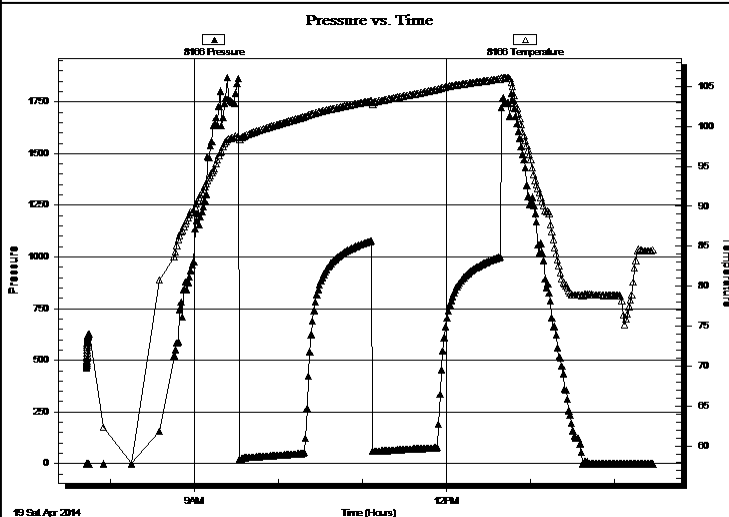
Capacity: 8000.00 psig

Last Calib.: 2014.04.19

Time On Btm:

Time Off Btm:

TEST COMMENT: I.F. - 45 - 1/2" INT. BLOW BUILT TO (4 1/2" IN 45 MIN.)
I.S.I. - 45 - NO B.B.
F.F. - 45 - W.S.B STARTED @ 10 MIN. BUILT TO (1" IN 45 MIN.)
F.S.I. - 45 - NO B.B.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	S,G,H,O,H,W,C,M 5%G 20%O 20%W 55%	0.31
53.00	S,G,H,O,C,M 5%G 25%O 70%M	0.26
10.00	CLEAN OIL 100 %	0.05

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

HESS OIL COMPANY

SEC. 25 - 13 s. - 19 w./ ELLIS

P.O. BOX 1009
McPHERSON KS.
67460

Brull Farms # 1-11

Job Ticket: 57607

DST#: 8

ATTN: David gould

Test Start: 2014.04.19 @ 07:43:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.10 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	S,G,H,O,H,W,C,M 5%G 20%O 20%W 55%M	0.310
53.00	S,G,H,O,C,M 5%G 25%O 70%M	0.261
10.00	CLEAN OIL 100 %	0.049

Total Length: 126.00 ft

Total Volume: 0.620 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

