



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Suemar Exploration & Production, LLC

12-5S-28W Decatur, KS

802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

ATTN: Larry Nicholson

Job Ticket: 65317

DST#: 1

Test Start: 2016.05.10 @ 13:20:00

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:48:00

Time Test Ended: 22:00:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 3944.00 ft (KB) To 3969.00 ft (KB) (TVD)

Reference Elevations: 2736.00 ft (KB)

Total Depth: 3969.00 ft (KB) (TVD)

2731.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: 51.28 psig @ 3945.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.05.10

End Date:

2016.05.10

Last Calib.:

2016.05.10

Start Time: 13:21:00

End Time:

22:00:30

Time On Btm:

2016.05.10 @ 16:47:30

Time Off Btm:

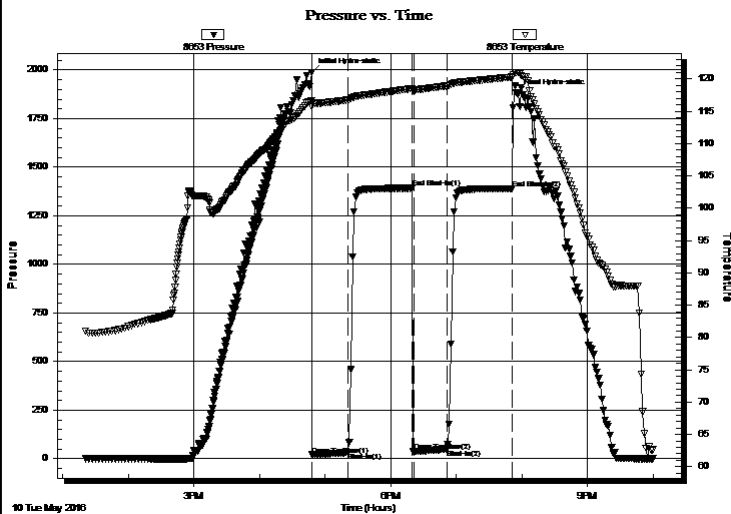
2016.05.10 @ 19:55:30

TEST COMMENT: 30 - IF- Weak Surface Blow built to 1/8"

60 - ISI - No Return

30 - FF- No Blow

60 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1987.78	116.66	Initial Hydro-static
1	20.85	115.72	Open To Flow (1)
33	33.40	116.75	Shut-In(1)
92	1392.49	118.52	End Shut-In(1)
94	37.94	118.30	Open To Flow (2)
124	51.28	118.92	Shut-In(2)
184	1390.71	120.30	End Shut-In(2)
188	1877.46	121.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 20M 80W	0.30

Gas Rates

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



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802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

Job Ticket: 65317

DST#: 1

ATTN: Larry Nicholson

Test Start: 2016.05.10 @ 13:20:00

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:

60000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MW 20M 80W	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

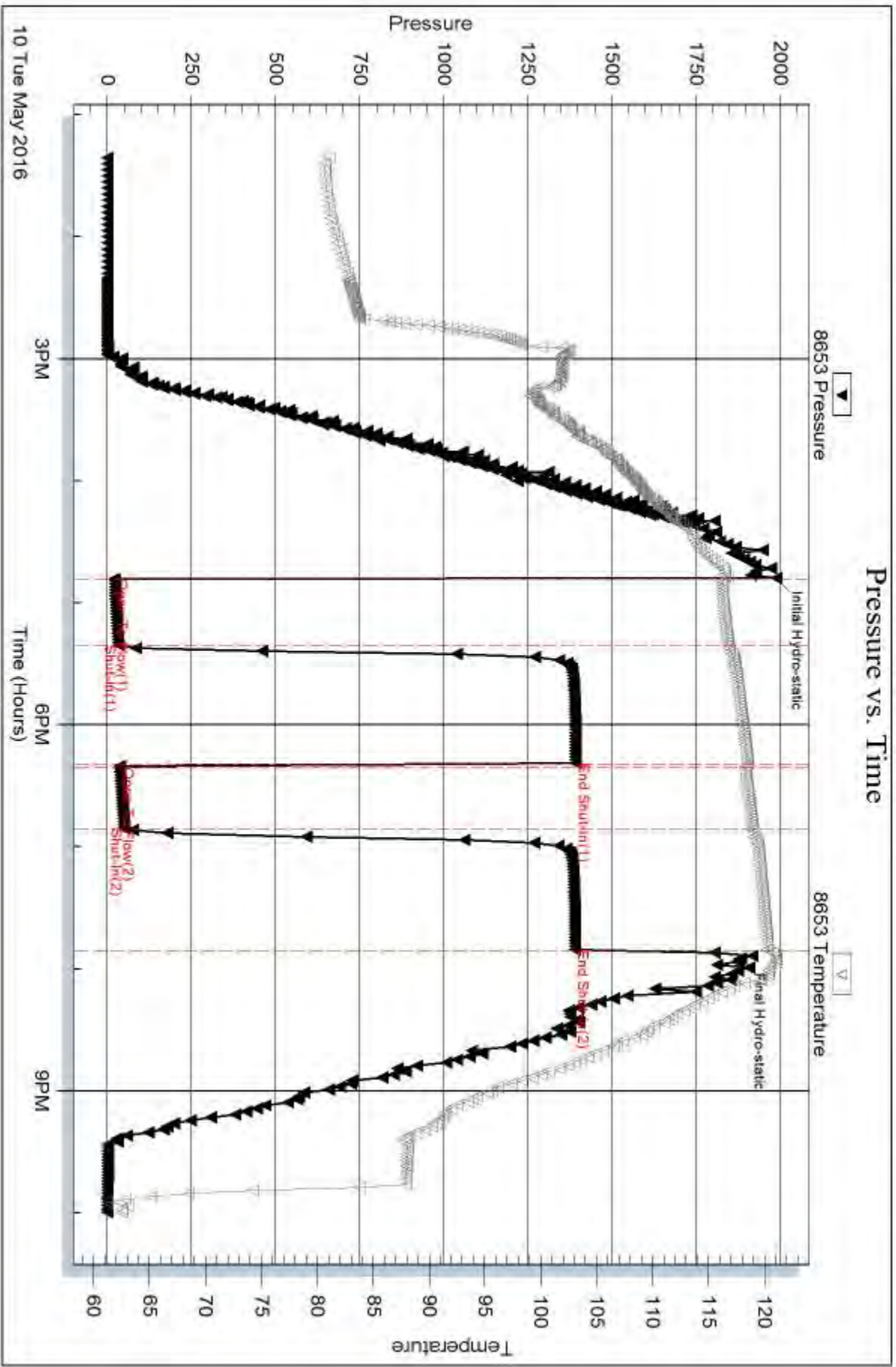
Recovery Comments: RW .13 @ 67 deg = 60,000pm

Serial #: 8653

Outside Suemar Exploration & Production, LLC

Muirhead Farms #1-12

DST Test Number: 1





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DRILL STEM TEST REPORT

Suemar Exploration & Production, LLC

12-5S-28W Decatur, KS

802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

ATTN: Larry Nicholson

Job Ticket: 65318

DST#: 2

Test Start: 2016.05.11 @ 07:28:00

GENERAL INFORMATION:

Formation: **LKC "D,E,F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:21:50

Time Test Ended: 15:29:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 3946.00 ft (KB) To 4015.00 ft (KB) (TVD)

Reference Elevations: 2736.00 ft (KB)

Total Depth: 4015.00 ft (KB) (TVD)

2731.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: 30.01 psig @ 3947.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.05.11

End Date:

2016.05.11

Last Calib.:

2016.05.11

Start Time: 07:29:00

End Time:

15:29:30

Time On Btm:

2016.05.11 @ 10:21:30

Time Off Btm:

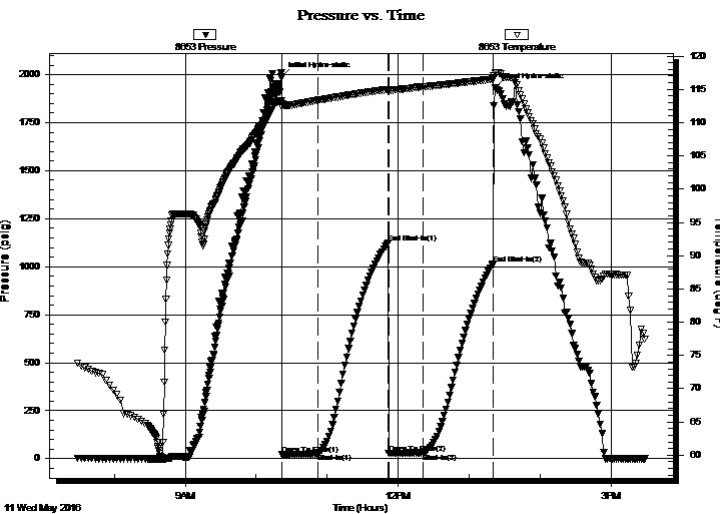
2016.05.11 @ 13:22:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 1"

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1991.60	113.30	Initial Hydro-static
1	21.02	112.41	Open To Flow (1)
31	25.65	113.36	Shut-In(1)
90	1123.03	114.98	End Shut-In(1)
91	28.15	114.83	Open To Flow (2)
120	30.01	115.39	Shut-In(2)
179	1012.76	116.52	End Shut-In(2)
181	1932.28	117.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OSM 100M (oil spots)	0.10

Gas Rates

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



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12-5S-28W Decatur, KS

802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

Job Ticket: 65318

DST#: 2

ATTN: Larry Nicholson

Test Start: 2016.05.11 @ 07:28:00

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: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OSM 100M (oil spots)	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

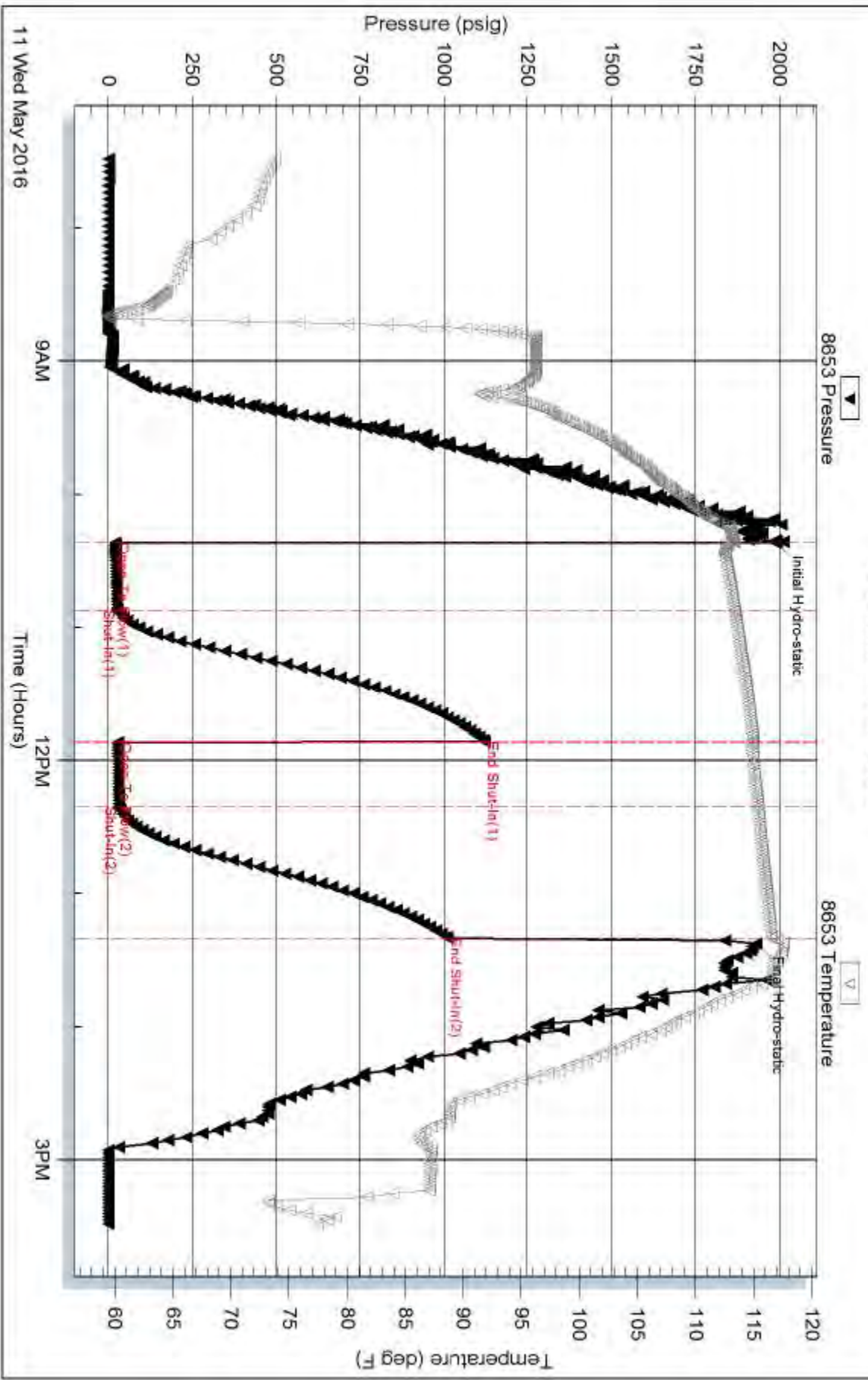
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



11 Wed May 2016



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Suemar Exploration & Production, LLC

12-5S-28W Decatur, KS

802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

ATTN: Larry Nicholson

Job Ticket: 65319

DST#: 3

Test Start: 2016.05.12 @ 07:05:00

GENERAL INFORMATION:

Formation: **LKC "H,I,J,K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:26:00

Time Test Ended: 14:27:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 4034.00 ft (KB) To 4125.00 ft (KB) (TVD)

Reference Elevations: 2736.00 ft (KB)

Total Depth: 4125.00 ft (KB) (TVD)

2731.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8520

Inside

Press@RunDepth: 90.69 psig @ 4035.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.05.12

End Date:

2016.05.12

Last Calib.:

2016.05.12

Start Time: 07:06:00

End Time:

14:27:30

Time On Btm:

2016.05.12 @ 09:25:30

Time Off Btm:

2016.05.12 @ 12:28:30

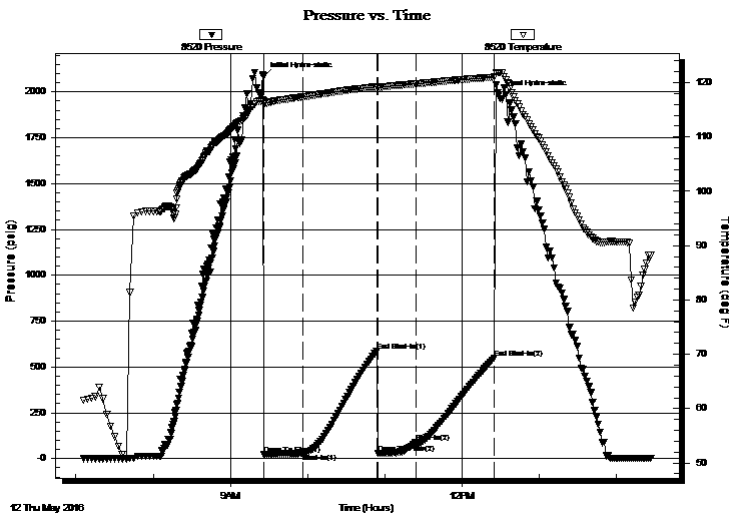
TEST COMMENT: 30 - IF- 1/4" Blow built to 1"

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2081.98	116.62	Initial Hydro-static
1	24.08	116.14	Open To Flow (1)
31	26.15	117.32	Shut-In(1)
88	586.26	119.25	End Shut-In(1)
89	28.94	119.08	Open To Flow (2)
119	90.69	119.80	Shut-In(2)
180	546.44	121.02	End Shut-In(2)
183	1983.79	121.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100M	0.05

Gas Rates

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



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802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

Job Ticket: 65319

DST#: 3

ATTN: Larry Nicholson

Test Start: 2016.05.12 @ 07:05:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

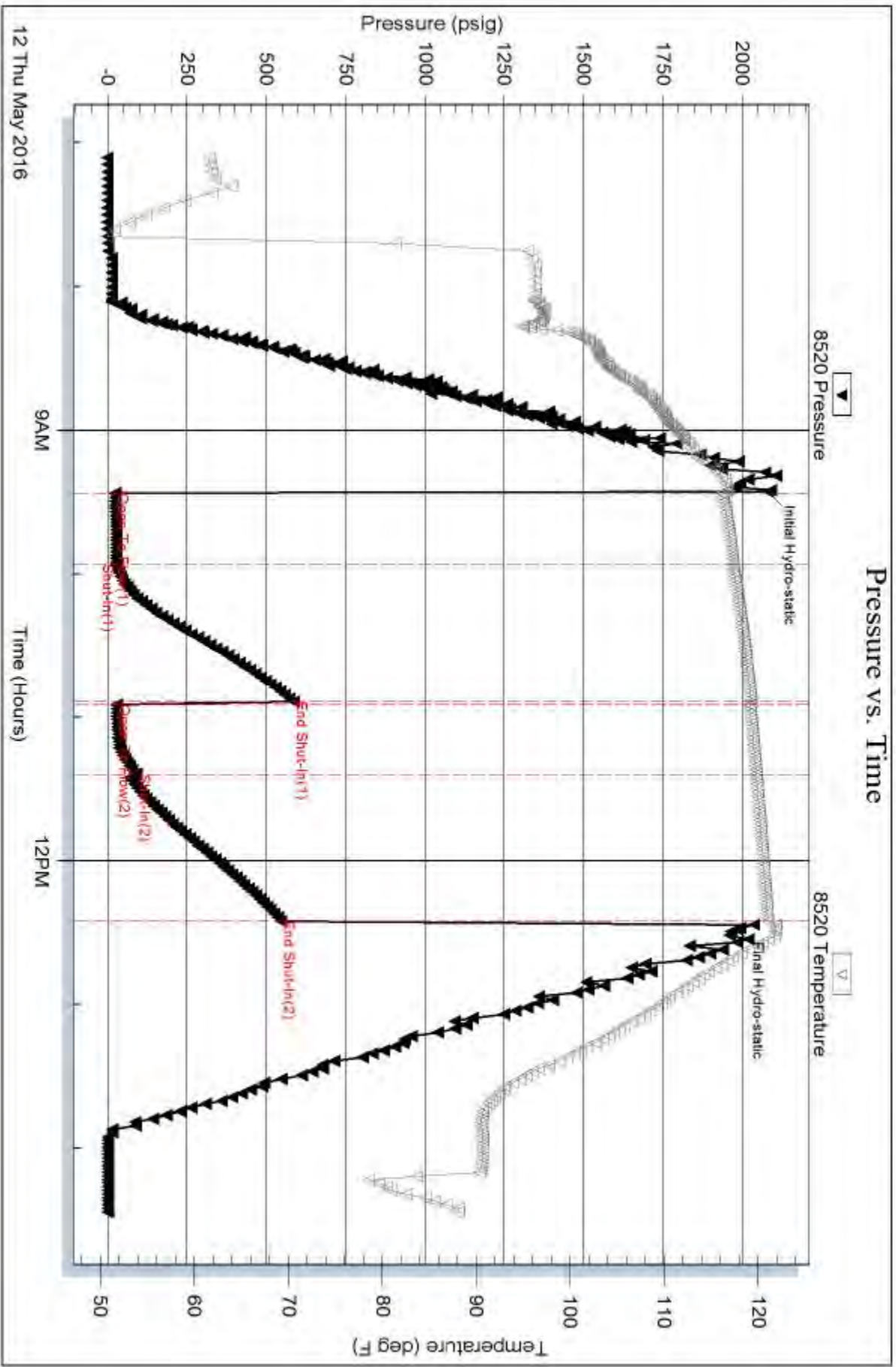
Serial #: 8520

Inside

Suener Exploration & Production, LLC

Muirhead Farms #1-12

DST Test Number: 3





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Suema Exploration & Production, LLC

12-5S-28W Decatur, KS

802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

ATTN: Larry Nicholson

Job Ticket: 65320

DST#: 4

Test Start: 2016.05.13 @ 15:25:00

GENERAL INFORMATION:

Formation: **Lower Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:22:00

Time Test Ended: 00:20:00

Test Type: Conventional Straddle (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 4242.00 ft (KB) To 4260.00 ft (KB) (TVD)

Reference Elevations: 2736.00 ft (KB)

Total Depth: 4485.00 ft (KB) (TVD)

2731.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8520 Inside

Press@RunDepth: 99.93 psig @ 4243.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.05.13

End Date:

2016.05.14

Last Calib.:

2016.05.14

Start Time: 15:26:00

End Time:

00:20:00

Time On Btm:

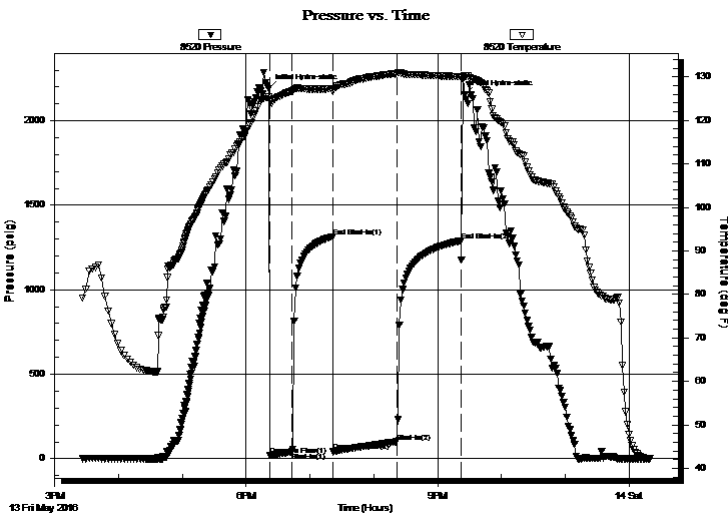
2016.05.13 @ 18:21:00

Time Off Btm:

2016.05.13 @ 21:25:30

TEST COMMENT: 20 - IF- 1/8" Blow built to 2"
40 - IS- No Return
60 - FF- Weak Surface Blow started at 3 min. Built to 3"
60 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2189.25	125.32	Initial Hydro-static
1	19.67	124.65	Open To Flow (1)
22	40.21	126.70	Shut-In(1)
60	1314.10	127.27	End Shut-In(1)
61	43.21	126.62	Open To Flow (2)
121	99.93	130.77	Shut-In(2)
181	1288.55	130.10	End Shut-In(2)
185	2154.73	130.22	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
120.00	MW 10M 90W	0.59
30.00	MW 50M 50W	0.15

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



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12-5S-28W Decatur, KS

802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

ATTN: Larry Nicholson

Job Ticket: 65320 **DST#: 4**

Test Start: 2016.05.13 @ 15:25:00

GENERAL INFORMATION:

Formation: **Lower Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:22:00

Time Test Ended: 00:20:00

Test Type: Conventional Straddle (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 4242.00 ft (KB) To 4260.00 ft (KB) (TVD)

Reference Elevations: 2736.00 ft (KB)

Total Depth: 4485.00 ft (KB) (TVD)

2731.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8017 Below (Straddle)

Press@RunDepth: psig @ 4262.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.05.13 End Date: 2016.05.14

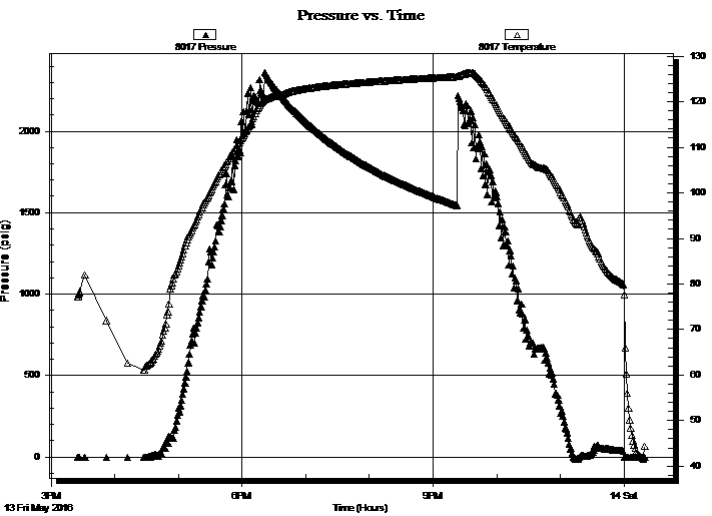
Last Calib.: 2016.05.14

Start Time: 15:25:05 End Time: 00:19:45

Time On Btm:

Time Off Btm:

TEST COMMENT: 20 - IF- 1/8" Blow built to 2"
40 - IS- No Return
60 - FF- Weak Surface Blow started at 3 min. Built to 3"
60 - FS- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 10M 90W	0.59
30.00	MW 50M 50W	0.15

Gas Rates

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



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12-5S-28W Decatur, KS

802 N. Carancahua
Corpus Christi, TX 78401

Muirhead Farms #1-12

Job Ticket: 65320

DST#: 4

ATTN: Larry Nicholson

Test Start: 2016.05.13 @ 15:25:00

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:

34000 ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	MW 10M 90W	0.590
30.00	MW 50M 50W	0.148

Total Length: 150.00 ft Total Volume: 0.738 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .23 @ 63 deg = 34,000ppm

Serial #: 8520

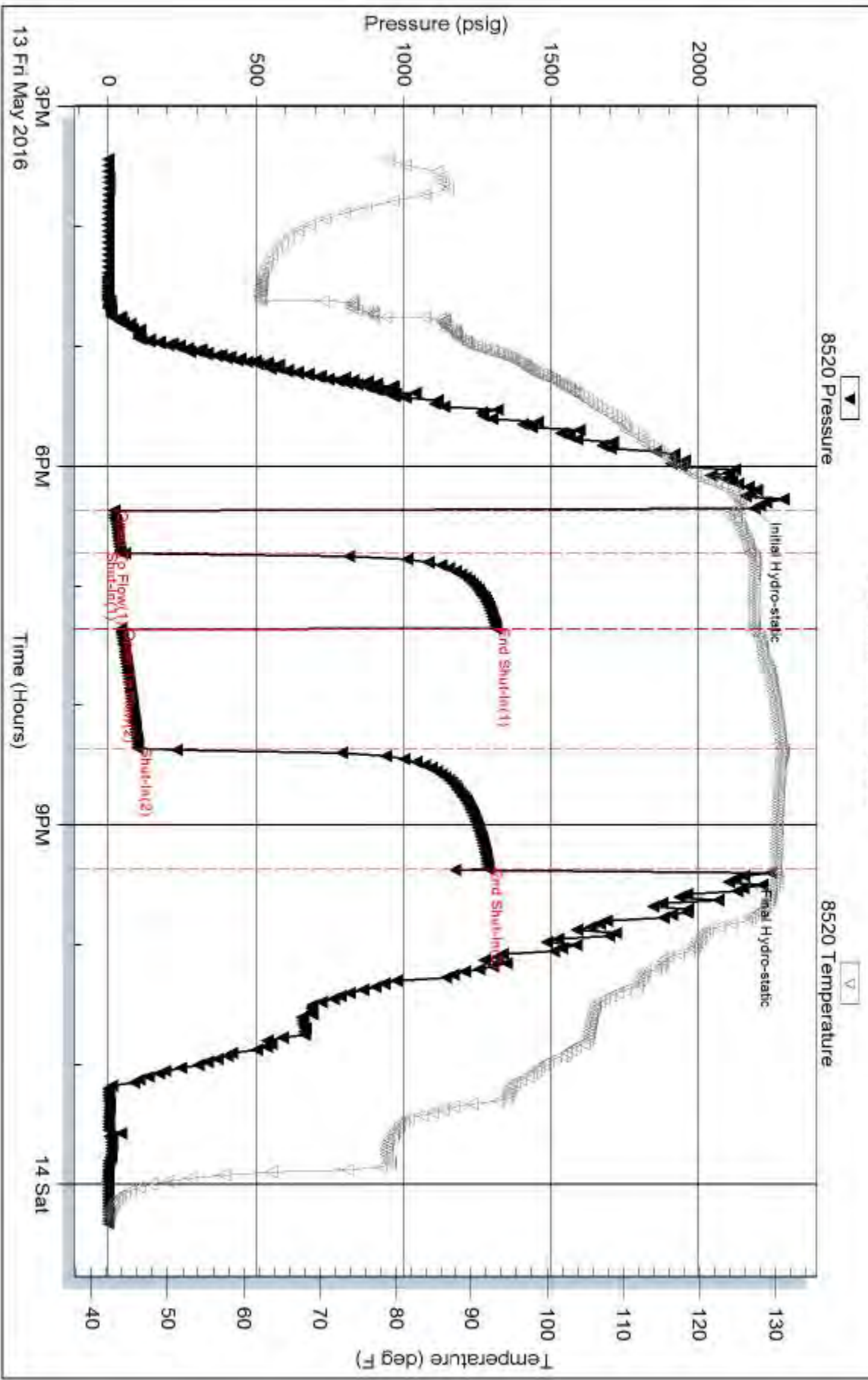
Inside

Suenor Exploration & Production, LLC

Muirhead Farms #1-12

DST Test Number: 4

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 65320

Printed: 2016.05.16 @ 13:20:25

Serial #: 8017

Below (Strata) Exploration & Production, LLC

Muirhead Farms #1-12

DST Test Number: 4

