

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: heier13d1dst1

TIME ON: 1:10
TIME OFF: 8:33

Company Ritchie Exploration Inc. Lease & Well No. Heier13D #1
Contractor WW Rig #8 Charge to Ritchie Exploration Inc.
Elevation 2789 KB Formation Lan C Effective Pay -- Ft. Ticket No. S0493
Date 9-7-14 Sec. 13 Twp. 12 S Range 29 W County Gove State KANSAS
Test Approved By Mike Engelbrecht Diamond Representative Jacob McCallie

Formation Test No. 1 Interval Tested from 3952 ft. to 3975 ft. Total Depth 3975 ft.

Packer Depth 3947 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Packer Depth 3952 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3933 ft. Recorder Number 5515 Cap. 5,000 P.S.I.

Bottom Recorder Depth (Outside) 3955 ft. Recorder Number 5586 Cap. 5,000 P.S.I.

Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.

Mud Type Chem Viscosity 57 Drill Collar Length 122 ft. I.D. 2 1/4 in.

Weight 8.6 Water Loss 6.8 cc. Weight Pipe Length -- ft. I.D. 2 7/8 in.

Chlorides 1,700 P.P.M. Drill Pipe Length 3797 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number 4 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out No Anchor Length 23 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: 1/4" Blow- Built to 5" in 30 min **NOBB**

2nd Open: No Blow- Built to 5 1/2" in 45 min **NOBB**

Recovered 15 ft. of WCM 21% W 79% M

Recovered 175 ft. of SLMCW 83% W 17% M

Recovered 190 ft. of TOTAL FLUID

Recovered ft. of

Recovered ft. of PH: 8 RW: .22 @52 degrees F

Recovered ft. of Chlorides: 53,000 ppm

Remarks:

TOOL SAMPLE: 1% O 59% W 40% M

Time Set Packer(s) 3:17 AM A.M. P.M. Time Started Off Bottom 6:17 AM A.M. P.M. Maximum Temperature 116

Initial Hydrostatic Pressure..... (A) 1907 P.S.I.

Initial Flow Period..... Minutes 30 (B) 10 P.S.I. to (C) 67 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 1246 P.S.I.

Final Flow Period..... Minutes 45 (E) 69 P.S.I. to (F) 99 P.S.I.

Final Closed In Period..... Minutes 60 (G) 1237 P.S.I.

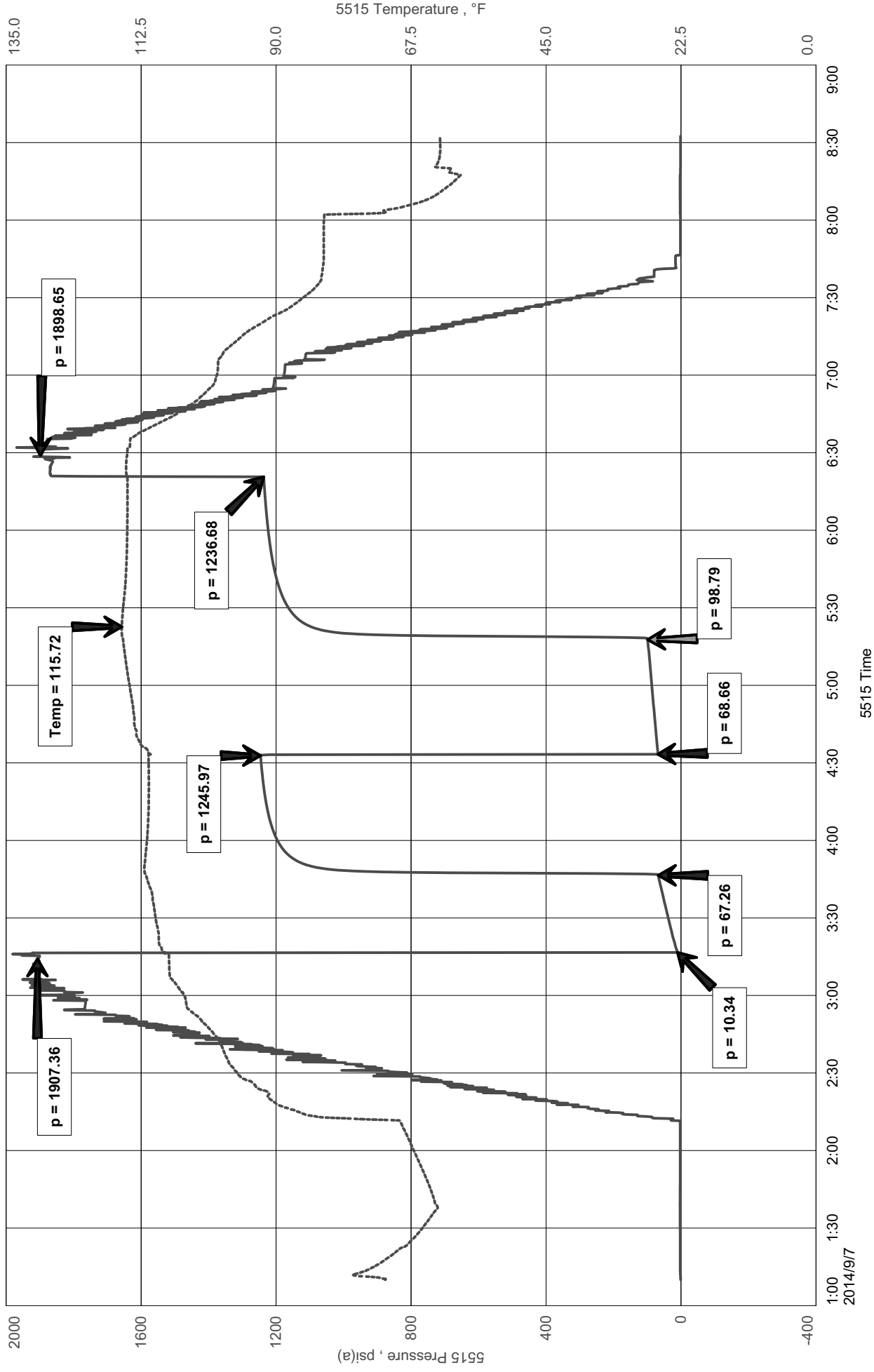
Final Hydrostatic Pressure..... (H) 1899 P.S.I.

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.

Ritchie Exploration Inc.
DST #1 Lan C 3952-3975'
Start Test Date: 2014/09/07
Final Test Date: 2014/09/07

Heier 13D #1
Formation: DST #1 Lan C 3952-3975'
Pool: WC
Job Number: S0493

Heier 13D #1



Diamond Testing LLC

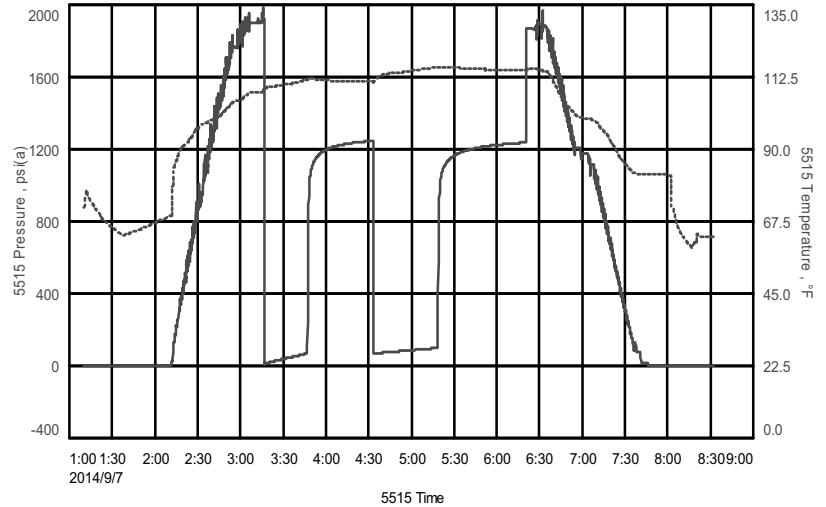
General Information Report

Jacob McCallie
620-617-7116
mccallie.dtlc@gmail.com

General Information

Company Name Ritchie Exploration Inc.
Contact Justin Clegg
Well Name Heier 13D #1
Unique Well ID DST #1 Lan C 3952-3975'
Surface Location SEC 13-12S-29W Gove Counth
Field WC
Well Type Vertical
Test Type Drill Stem Test
Formation DST #1 Lan C 3952-3975'
Well Fluid Type 06 Water
Start Test Date 2014/09/07
Start Test Time 01:10:00
Final Test Date 2014/09/07
Final Test Time 08:33:00
Job Number S0493
Representative Mike Carroll
Report Date 2014/09/07
Qualified By Mike Engelbrecht

Heier 13D #1



Test Results

RECOVERY:

15'	WCM	21% W 79% M
175'	SLMCW	83% W 17% M
190'	TOTAL FLUID	

PH: 8

RW: .22 @52

Chlorides: 53,000 ppm

TOOL SAMPLE:

1% O 59% W 40% M



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: heier13d1dst2

TIME ON: 8-7 17:33

TIME OFF: 8-8 00:51

Company Ritchie Exploration Inc. Lease & Well No. Heier13D #1
Contractor WW Rig #8 Charge to Ritchie Exploration Inc.
Elevation 2789 KB Formation Lan E-F Effective Pay -- Ft. Ticket No. S0494
Date 9-7-14 Sec. 13 Twp. 12 S Range 29 W County Gove State KANSAS
Test Approved By Mike Engelbrecht Diamond Representative Jacob McCallie

Formation Test No. 2 Interval Tested from 4006 ft. to 4036 ft. Total Depth 4036 ft.

Packer Depth 4001 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Packer Depth 4006 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3994 ft. Recorder Number 5515 Cap. 5,000 P.S.I.

Bottom Recorder Depth (Outside) 4009 ft. Recorder Number 5586 Cap. 5,000 P.S.I.

Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.

Mud Type Chem Viscosity 48 Drill Collar Length 122 ft. I.D. 2 1/4 in.

Weight 9.15 Water Loss 7.00 cc. Weight Pipe Length -- ft. I.D. 2 7/8 in.

Chlorides 1,600 P.P.M. Drill Pipe Length 3858 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number 4 Test Tool Length 26 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out No Anchor Length 30 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: 1/4" Blow- Built to BB in 19 1/2 min NOBB

2nd Open: WSB- Built to BB in 21 min NOBB

Recovered 78 ft. of HMCW 53% W 47% M

Recovered 189 ft. of SLMCW 82% W 18% M

Recovered 248 ft. of VSLMCW 99% W 1% M

Recovered 515 ft. of TOTAL FLUID

Recovered ft. of Price Job

Recovered ft. of PH: 7 RW: .15 @ 63 degrees F Other Charges

Remarks: CHORIDES: 53,000 ppm Insurance

TOOL SAMPLE: 99% W 1% M Total

Time Set Packer(s) 7:27 PM A.M. P.M. Time Started Off Bottom 10:27 PM A.M. P.M. Maximum Temperature 125

Initial Hydrostatic Pressure..... (A) 1924 P.S.I.

Initial Flow Period..... Minutes 30 (B) 14 P.S.I. to (C) 132 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 1244 P.S.I.

Final Flow Period..... Minutes 45 (E) 134 P.S.I. to (F) 250 P.S.I.

Final Closed In Period..... Minutes 60 (G) 1241 P.S.I.

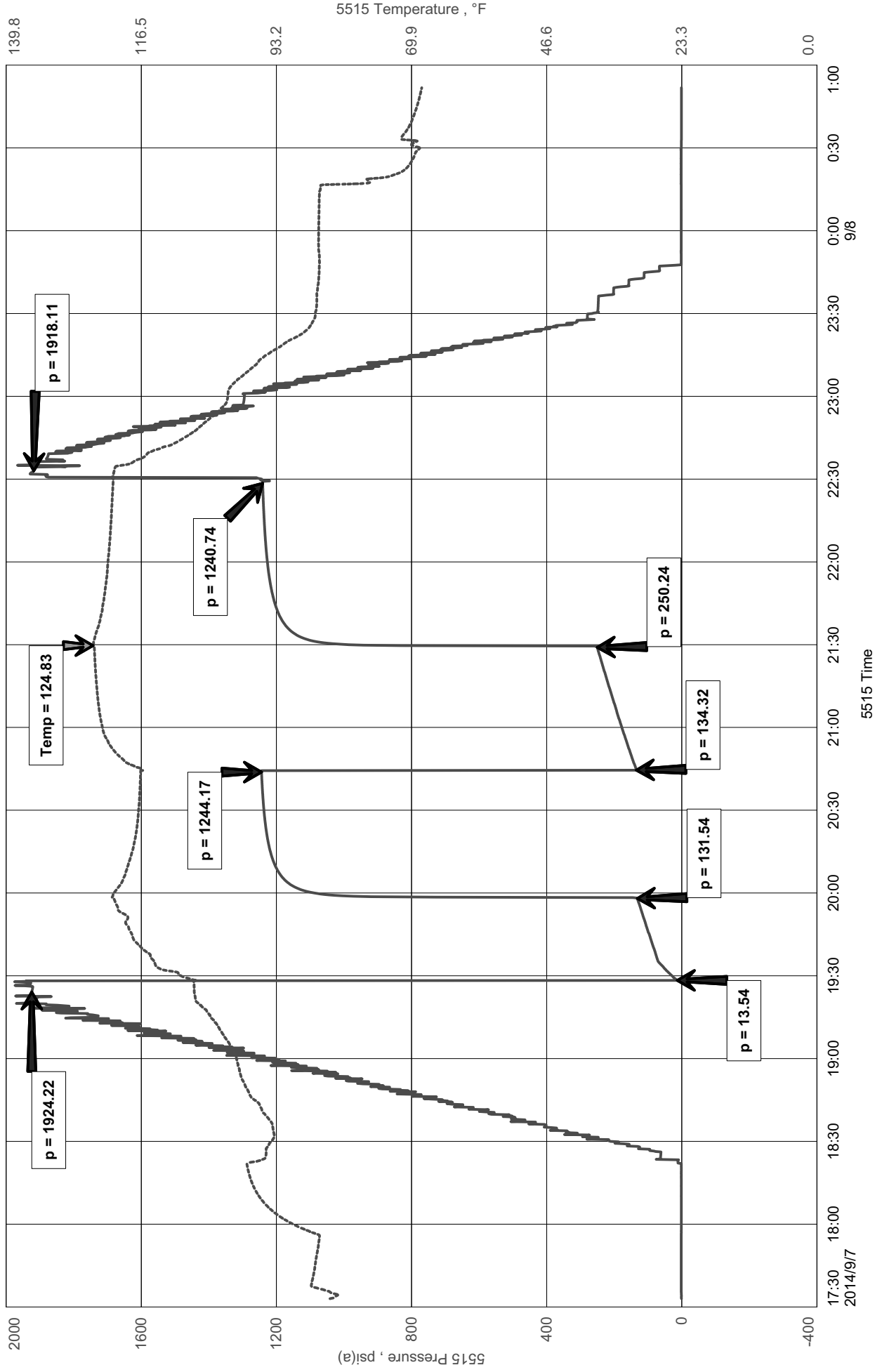
Final Hydrostatic Pressure..... (H) 1918 P.S.I.

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Ritchie Exploration Inc.
DST # 2 Lan E-F 4006-4036'
Start Test Date: 2014/09/07
Final Test Date: 2014/09/08

Heier 13D #1
Formation: DST # 2 Lan E-F 4006-4036'
Pool: WC
Job Number: S0494

Heier 13D #1



Diamond Testing LLC

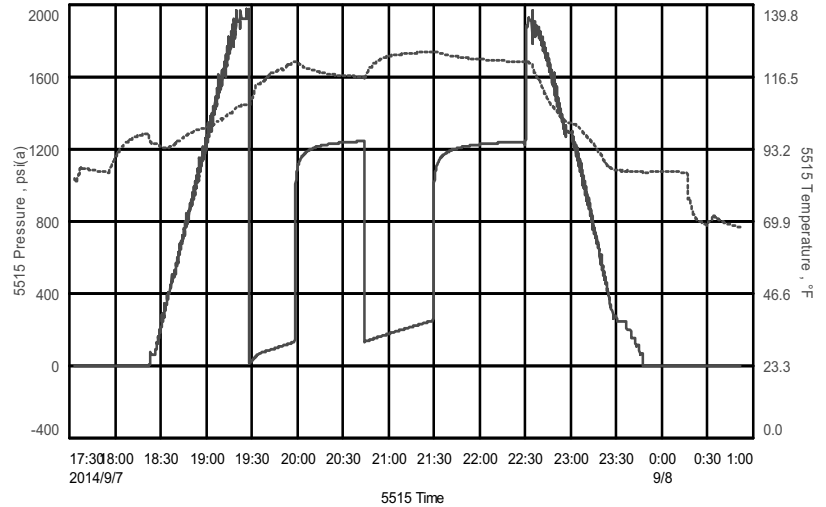
General Information Report

Jacob McCallie
620-617-7116
mccallie.dtlc@gmail.com

General Information

Company Name Ritchie Exploration Inc.
Contact Justin Clegg
Well Name Heier 13D #1
Unique Well ID DST # 2 Lan E-F 4006-4036'
Surface Location SEC 13-12S-29W Gove County
Field WC
Well Type Vertical
Test Type Drill Stem Test
Formation DST # 2 Lan E-F 4006-4036'
Well Fluid Type 06 Water
Start Test Date 2014/09/07
Start Test Time 17:33:00
Final Test Date 2014/09/08
Final Test Time 00:51:00
Job Number S0494
Representative Jacob McCallie
Report Date 2014/09/07
Qualified By Mike Engelbrecht

Heier 13D #1



Test Results

RECOVERY;

78'	HMCW	53% W 47% M
189'	SLMCW	82% W 18% M
248'	VSLMCW	99% W 1% M
515'	TOTAL FLUID	

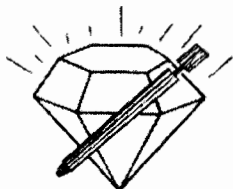
PH: 7

RW: .15 @ 63 degrees F

Chlorides: 53,000 ppm

TOOL SAMPLE:

99% W 1% M



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: heier13d1dst3

TIME ON: 09:10
TIME OFF: 16:21

Company Ritchie Exploration Inc. Lease & Well No. Heier13D #1
Contractor WW Rig #8 Charge to Ritchie Exploration Inc.
Elevation 2789 KB Formation _____ Lans. H Effective Pay _____ Ft. Ticket No. S0495
Date 9-8-14 Sec. 13 Twp. 12 S Range 29 W County Gove State KANSAS
Test Approved By Mike Engelbrecht Diamond Representative Jacob McCallie

Formation Test No. 3 Interval Tested from 4070 ft. to 4098 ft. Total Depth 4098 ft.
Packer Depth 4065 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 4070 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4058 ft. Recorder Number 5515 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4073 ft. Recorder Number 5586 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Mud Type Chem Viscosity 48 Drill Collar Length 122 ft. I.D. 2 1/4 in.
Weight 9.15 Water Loss 7.00 cc. Weight Pipe Length _____ ft. I.D. 2 7/8 in.
Chlorides 1,600 P.P.M. Drill Pipe Length 3922 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number N/A Test Tool Length 26 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out No Anchor Length 28 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB- Built to 3" in 30 min **NOBB**
2nd Open: No Blow- Built to 2" in 45 min **NOBB**

Recovered 10 ft. of CO 100% O GRAVITY: 36 @ 60 degrees F
Recovered 61 ft. of SLOCSLWCM 5% O 5% W 90% M
Recovered 61 ft. of SLOCHWCM 3% O 40% W 57% M
Recovered 132 ft. of TOTAL FLUID

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of <u>PH: 10 RW: .18 @ 90 degrees F</u>	Other Charges
Remarks: <u>CHLORIDES: 30,000 ppm</u>	Insurance
<u>TOOL SAMPLE: 60% O 40% M</u>	Total

Time Set Packer(s) 10:58 AM A.M. P.M. Time Started Off Bottom 1:58 PM A.M. P.M. Maximum Temperature 116

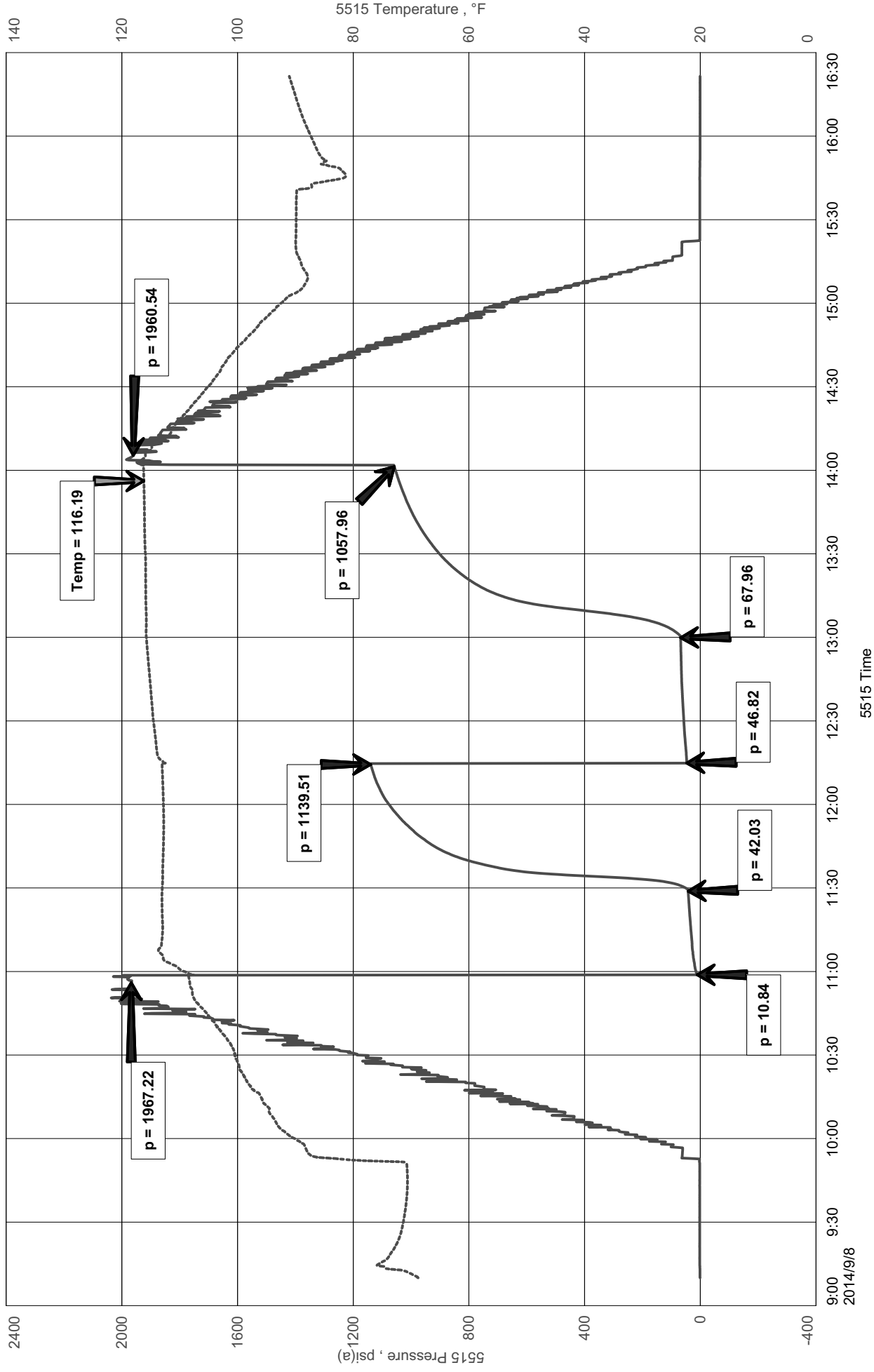
Initial Hydrostatic Pressure..... (A) 1967 P.S.I.
Initial Flow Period..... Minutes 30 (B) 11 P.S.I. to (C) 42 P.S.I.
Initial Closed In Period..... Minutes 45 (D) 1140 P.S.I.
Final Flow Period..... Minutes 45 (E) 47 P.S.I. to (F) 68 P.S.I.
Final Closed In Period..... Minutes 60 (G) 1058 P.S.I.
Final Hydrostatic Pressure..... (H) 1961 P.S.I.

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Ritchie Exploration Inc.
DST #3 Lans H 4070-4098'
Start Test Date: 2014/09/08
Final Test Date: 2014/09/08

Heier #13D #1
Formation: DST #3 Lans H 4070-4098'
Pool: WC
Job Number: S0495

Heier #13D #1



Diamond Testing LLC

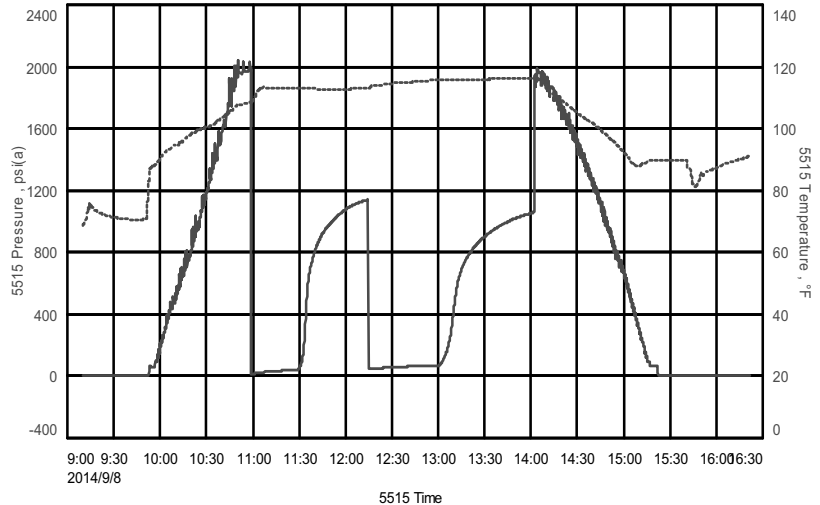
General Information Report

Jacob McCallie
620-617-7116
mccallie.dtlc@gmail.com

General Information

Company Name Ritchie Exploration Inc.
Contact Justin Clegg
Well Name Heier #13D #1
Unique Well ID DST #3 Lans H 4070-4098'
Surface Location SEC 13-12S-29W Gove County
Field Wildcat
Well Type Vertical
Test Type Drill Stem Test
Formation DST #3 Lans H 4070-4098'
Well Fluid Type 06 Water
Start Test Date 2014/09/08
Start Test Time 09:10:00
Final Test Date 2014/09/08
Final Test Time 16:21:00
Job Number S0495
Representative Jacob McCallie
Report Date 2014/09/08
Qualified By Mark Engelbrecht

Heier #13D #1



Test Results

RECOVERY:

10'	CO	100% O	GRAVITY: 36 @ 60 degrees F
61'	SLOCSLWCM	5% O 5% W 90% M	
61'	SLOCHWCM	3% O 40% W 57% M	
132'	TOTAL FLUID		

PH: 10

RW: .18 @ 90 degrees F

Chlorides: 30,000 ppm

TOOL SAMPLE:

60% O 40% W



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: heier13d1dst4

TIME ON: 02:35
TIME OFF: 08:10

Company Ritchie Exploration Inc. Lease & Well No. Heier13D #1
Contractor WW Rig #8 Charge to Ritchie Exploration Inc.
Elevation 2789 KB Formation Lans I-J Effective Pay -- Ft. Ticket No. S0496
Date 9-9-14 Sec. 13 Twp. 12 S Range 29 W County Gove State KANSAS
Test Approved By Mike Engelbrecht Diamond Representative Jacob McCallie

Formation Test No. 4 Interval Tested from 4100 ft. to 4164 ft. Total Depth 4164 ft.

Packer Depth 4095 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Packer Depth 4100 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4088 ft. Recorder Number 5515 Cap. 5,000 P.S.I.

Bottom Recorder Depth (Outside) 4103 ft. Recorder Number 5586 Cap. 5,000 P.S.I.

Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.

Mud Type Chem Viscosity 54 Drill Collar Length 122 ft. I.D. 2 1/4 in.

Weight 9.3 Water Loss 7.6 cc. Weight Pipe Length -- ft. I.D. 2 7/8 in.

Chlorides 1,200 P.P.M. Drill Pipe Length 3952 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number N/A Test Tool Length 26 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out No Anchor Length 64 (32 A) ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB- Died in 19 min NOBB

2nd Open: No Blow- Flushed tool- No Blow NOBB

Recovered 101 ft. of Mud 100% M

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Price Job

Other Charges

Insurance

TOOL SAMPLE: 100% M

Total

Time Set Packer(s) 4:26 AM A.M. P.M. Time Started Off Bottom 6:26 AM A.M. P.M. Maximum Temperature 114

Initial Hydrostatic Pressure..... (A) 1996 P.S.I.

Initial Flow Period..... Minutes 30 (B) 12 P.S.I. to (C) 13 P.S.I.

Initial Closed In Period..... Minutes 30 (D) 38 P.S.I.

Final Flow Period..... Minutes 30 (E) 13 P.S.I. to (F) 66 P.S.I.

Final Closed In Period..... Minutes 30 (G) 130 P.S.I.

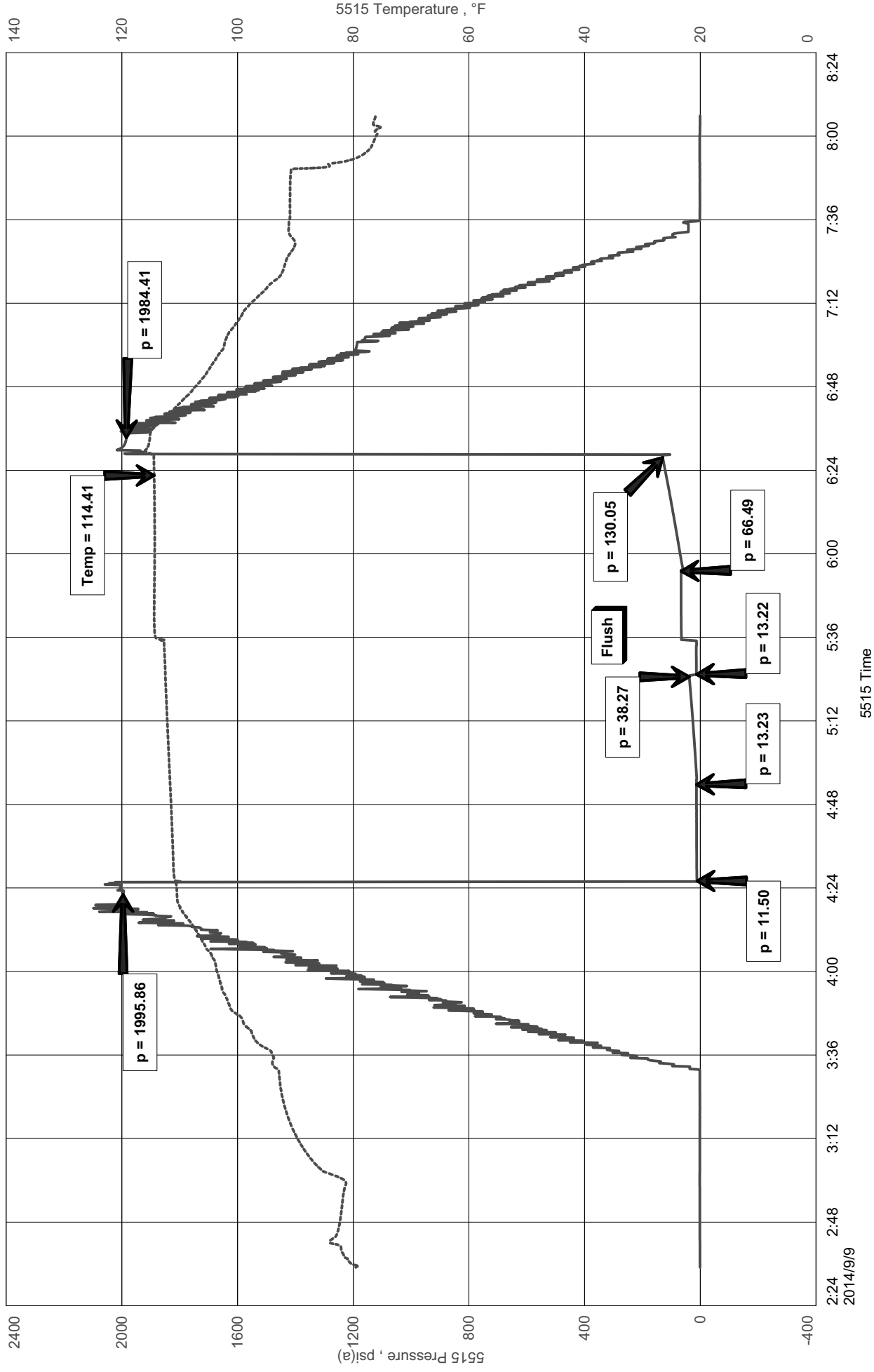
Final Hydrostatic Pressure..... (H) 1984 P.S.I.

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Ritchie Exploration Inc.
DST #4 Lans I-J 4100-4164'
Start Test Date: 2014/09/09
Final Test Date: 2014/09/09

Heier 13D #1
Formation: DST #4 Lans I-J 4100-4164'
Pool: WC
Job Number: S0496

Heier 13D #1



Diamond Testing LLC

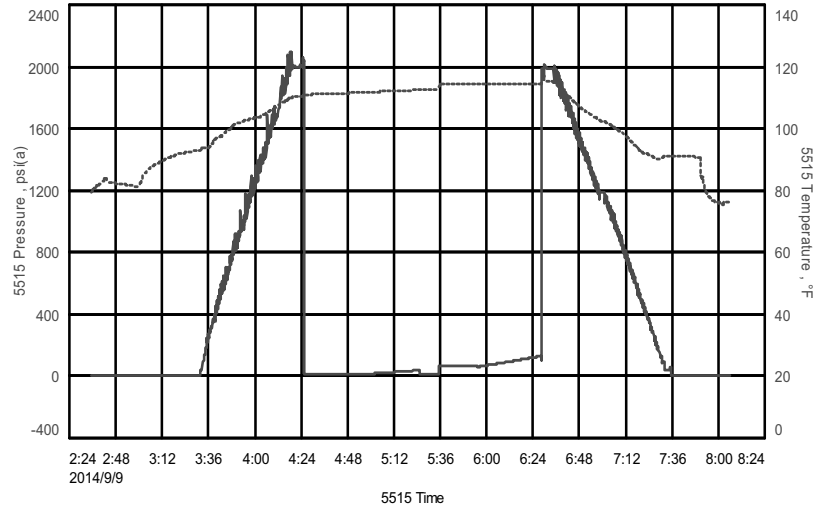
General Information Report

Jacob McCallie
620-617-7116
mccallie.dtlc@gmail.com

General Information

Company Name Ritchie Exploration Inc.
Contact Justin Clegg
Well Name Heier 13D #1
Unique Well ID DST #4 Lans I-J 4100-4164'
Surface Location SEC 12-12S-29W Gove County
Field WC
Well Type Vertical
Test Type Drill Stem Test
Formation DST #4 Lans I-J 4100-4164'
Well Fluid Type 01 Oil
Start Test Date 2014/09/09
Start Test Time 02:35:00
Final Test Date 2014/09/09
Final Test Time 08:10:00
Job Number S0496
Representative Jacob McCallie
Report Date 2014/09/09
Qualified By Mike Englbrecht

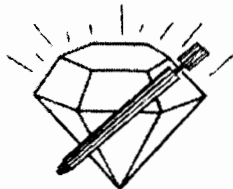
Heier 13D #1



Test Results

RECOVER:
101' MUD 100% M

TOOL SAMPLE:
100% M



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: heier13d1dst5

TIME ON: 9-9 18:55
TIME OFF: 9-10 01:04

Company Ritchie Exploration Inc. Lease & Well No. Heier13D #1
Contractor WW Rig #8 Charge to Ritchie Exploration Inc.
Elevation 2789 KB Formation Lans K-L Effective Pay -- Ft. Ticket No. S0497
Date 9-9-14 Sec. 13 Twp. 12 S Range 29 W County Gove State KANSAS
Test Approved By Mike Engelbrecht Diamond Representative Jacob McCallie

Formation Test No. 5 Interval Tested from 4159 ft. to 4215 ft. Total Depth 4215 ft.
Packer Depth 4154 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.
Packer Depth 4159 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4147 ft. Recorder Number 5515 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4162 ft. Recorder Number 5586 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.
Mud Type Chem Viscosity 52 Drill Collar Length 122 ft. I.D. 2 1/4 in.
Weight 9.3 Water Loss 7.6 cc. Weight Pipe Length -- ft. I.D. 2 7/8 in.
Chlorides 1,400 P.P.M. Drill Pipe Length 4011 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number N/A Test Tool Length 26 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out No Anchor Length 56 (24A) ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: 1 1/2" Blow- Tool slid 5' to bottom- Built to 2" in 30 min **NOBB**
2nd Open: WSB- No Build **NOBB**

Recovered 123 ft. of MUD 100% M
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of
Remarks:

TOOL SAMPLE: <1 %O >99% M

Time Set Packer(s) 8:43 PM A.M. P.M. Time Started Off Bottom 11:13 PM A.M. P.M. Maximum Temperature 116

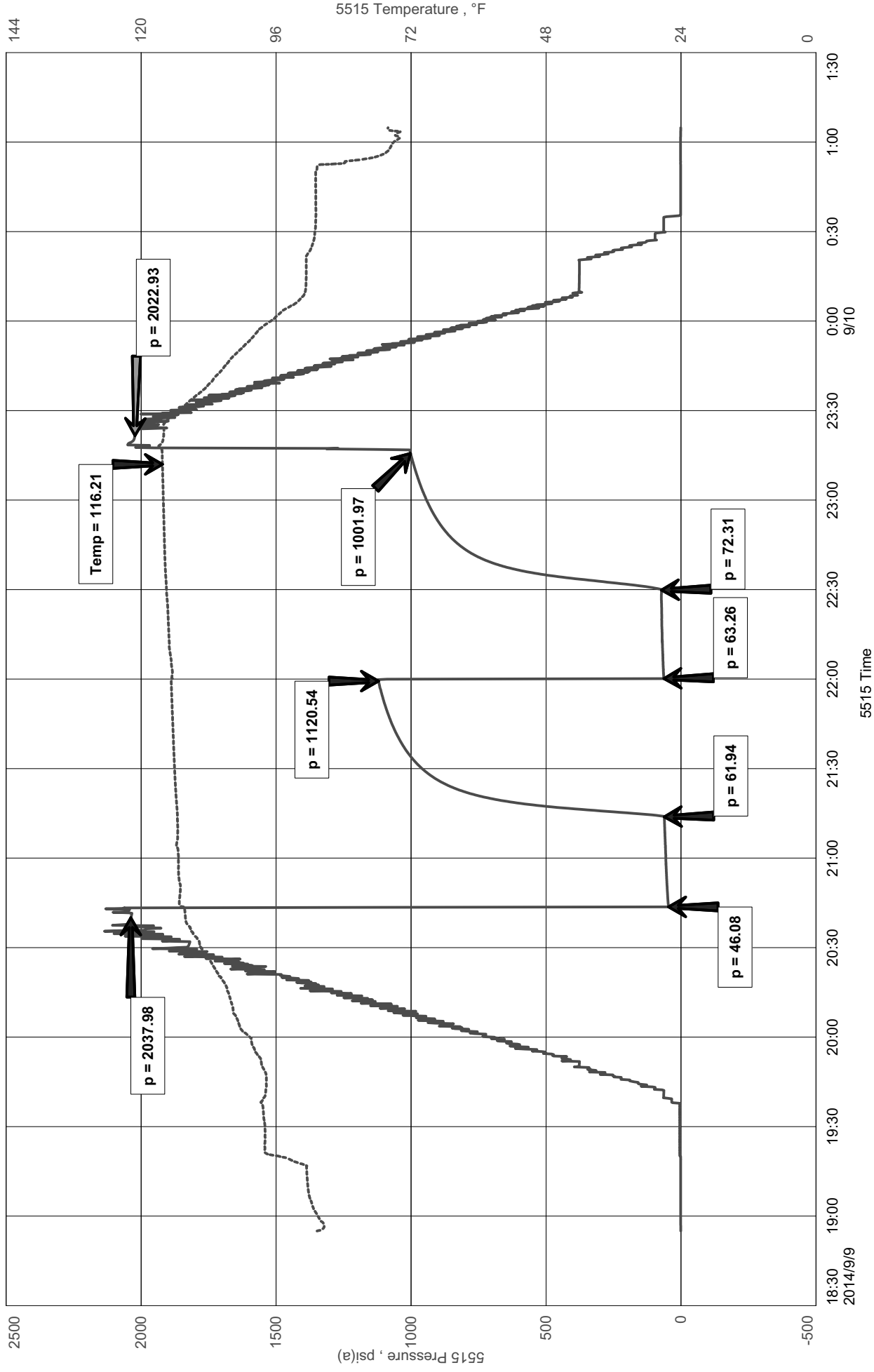
Initial Hydrostatic Pressure..... (A) 2038 P.S.I.
Initial Flow Period..... Minutes 30 (B) 46 P.S.I. to (C) 62 P.S.I.
Initial Closed In Period..... Minutes 45 (D) 1121 P.S.I.
Final Flow Period..... Minutes 30 (E) 63 P.S.I. to (F) 72 P.S.I.
Final Closed In Period..... Minutes 45 (G) 1002 P.S.I.
Final Hydrostatic Pressure..... (H) 2023 P.S.I.

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Ritchie Exploration Inc
Dst #5 Lans k-l 4159-4215'
Start Test Date: 2014/09/09
Final Test Date: 2014/09/10

Heier 13d #1
Formation: Dst #5 Lans k-l 4159-4215'
Pool: WC
Job Number: SO497

Heier 13d #1



Diamond Testing LLC

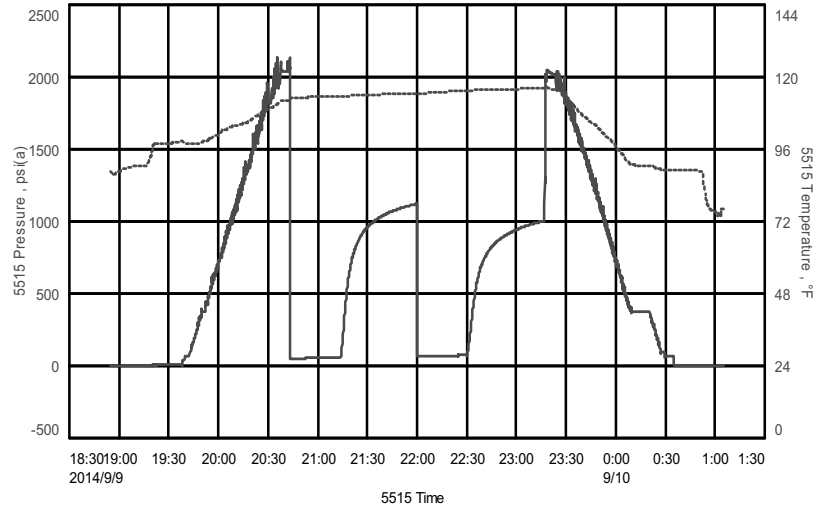
General Information Report

Jacob McCallie
620-617-7116
mccallie.dtlc@gmail.com

General Information

Company Name Ritchie Exploration Inc
Contact Justin Clegg
Well Name Heier 13d #1
Unique Well ID Dst #5 Lans k-l 4159-4215'
Surface Location Sec13-12s-29w Gove county
Field WC
Well Type Vertical
Test Type Drill Stem Test
Formation Dst #5 Lans k-l 4159-4215'
Well Fluid Type 01 Oil
Start Test Date 2014/09/09
Start Test Time 18:55:00
Final Test Date 2014/09/10
Final Test Time 01:04:00
Job Number SO497
Representative Michael Carroll
Report Date 2014/09/09
Qualified By Mike Engelbrecht

Heier 13d #1



Test Results

RECOVERY:
123' MUD 100% M

TOOL SAMPLE:
<1 % O >99%M



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: heier13d1dst6

TIME ON: 3:07
TIME OFF: 10:15

Company Ritchie Exploration Inc. Lease & Well No. Heier13D #1
Contractor WW Rig #8 Charge to Ritchie Exploration Inc.
Elevation 2789 KB Formation Myrick & Ft. Scott Effective Pay -- Ft. Ticket No. S0498
Date 9-11-14 Sec. 13 Twp. 12 S Range 29 W County Gove State KANSAS
Test Approved By Mike Engelbrecht Diamond Representative Jacob McCallie

Formation Test No. 6 Interval Tested from 4358 ft. to 4445 ft. Total Depth 4445 ft.

Packer Depth 4353 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Packer Depth 4358 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4346 ft. Recorder Number 5515 Cap. 5,000 P.S.I.

Bottom Recorder Depth (Outside) 4425 ft. Recorder Number 5586 Cap. 5,000 P.S.I.

Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.

Mud Type Chem Viscosity 48 Drill Collar Length 122 ft. I.D. 2 1/4 in.

Weight 9.4 Water Loss 8.0 cc. Weight Pipe Length -- ft. I.D. 2 7/8 in.

Chlorides 1,600 P.P.M. Drill Pipe Length 4210 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number N/A Test Tool Length 26 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out No Anchor Length 87 (23A) ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: 1/2" Blow- Built to 9 1/2" in 30 min NOBB

2nd Open: No Blow- Built to 11 1/2" in 45 min NOBB

Recovered 217 ft. of GIP

Recovered 35 ft. of SLOCM 10% O 90% M

Recovered 122 ft. of SLOCM 5% O 95% M

Recovered 157 ft. of TOTAL FLUID

Recovered ft. of Price Job

Recovered ft. of Other Charges

Remarks: Insurance

TOOL SAMPLE: 50% O 50% M Total

Time Set Packer(s) 5:00 AM A.M. P.M. Time Started Off Bottom 8:00 AM A.M. P.M. Maximum Temperature 121

Initial Hydrostatic Pressure..... (A) 2141 P.S.I.

Initial Flow Period..... Minutes 30 (B) 17 P.S.I. to (C) 71 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 973 P.S.I.

Final Flow Period..... Minutes 45 (E) 75 P.S.I. to (F) 84 P.S.I.

Final Closed In Period..... Minutes 60 (G) 934 P.S.I.

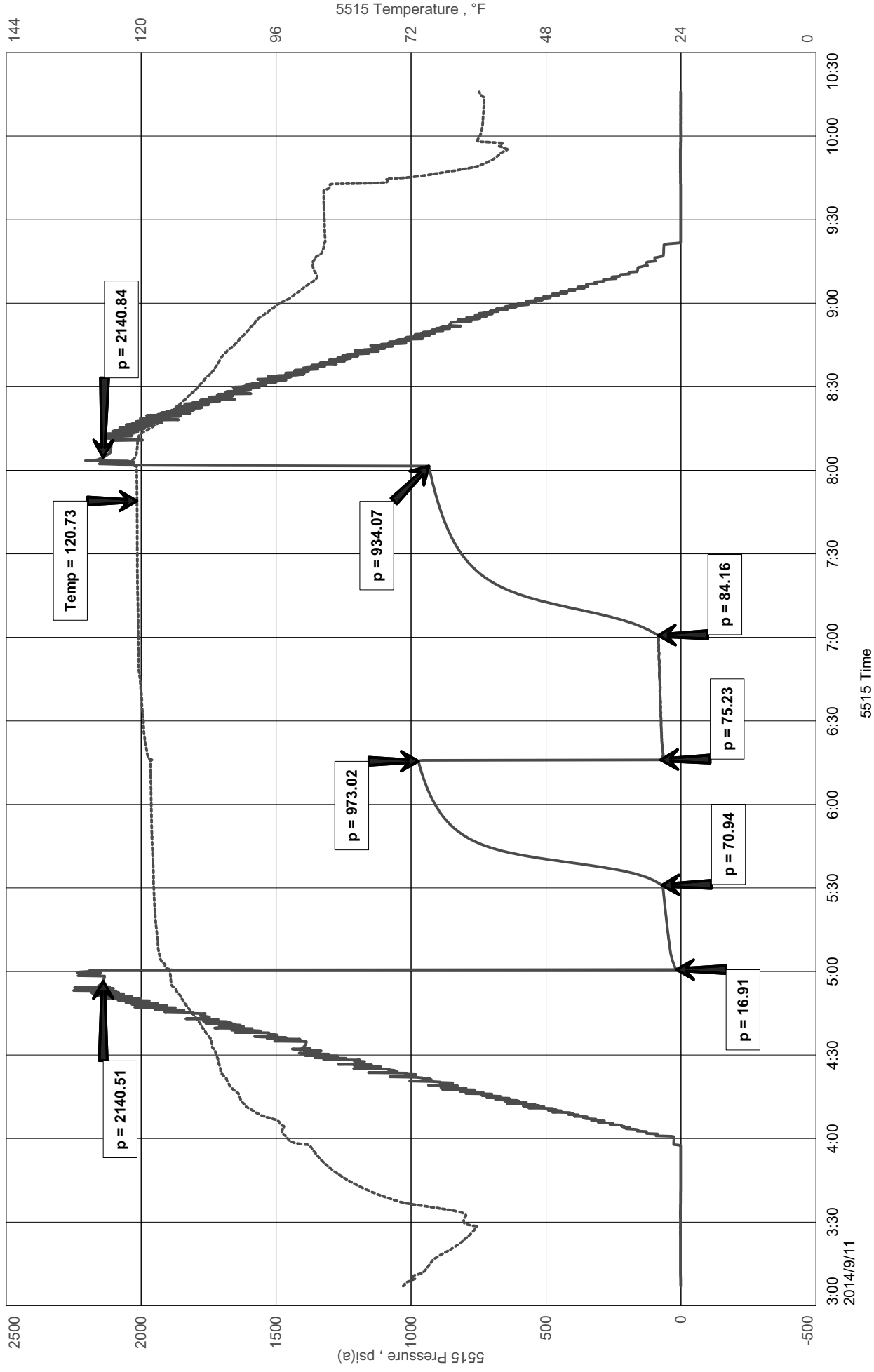
Final Hydrostatic Pressure..... (H) 2141 P.S.I.

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.

Ritchie Exploration INC
Dst #6 Myrick/Fort Scott 4358-4445
Start Test Date: 2014/09/11
Final Test Date: 2014/09/11

Heier13d #1
Formation: Dst #6 Myrick/Fort Scott 4358-4445
Pool: WC
Job Number: So498

Heier13d #1



Diamond Testing LLC

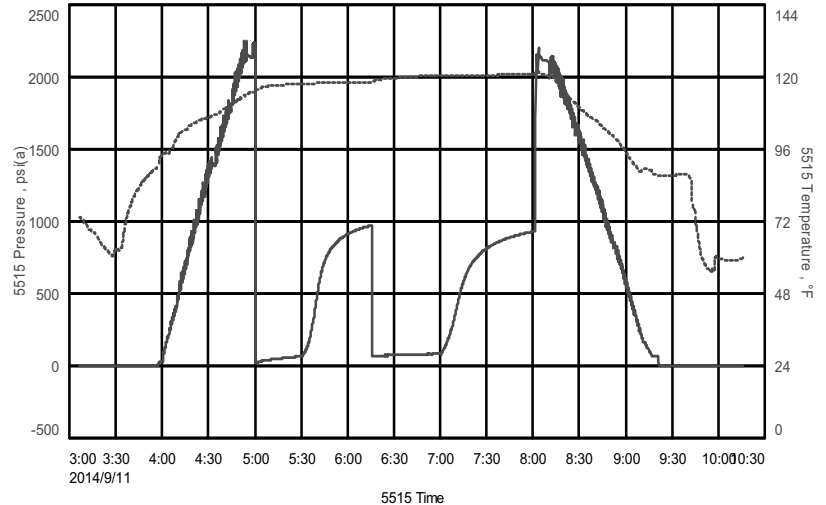
General Information Report

Jacob McCallie
620-617-7116
mccallie.dtlc@gmail.com

General Information

Company Name Ritchie Exploration INC
Contact Justin Clegg
Well Name Heier13d #1
Unique Well ID Dst #6 Myrick/Fort Scott 4358-4445
Surface Location Sec13-12s-29w Gove County
Field WC
Well Type Vertical
Test Type Drill Stem Test
Formation Dst #6 Myrick/Fort Scott 4358-4445
Well Fluid Type 01 Oil
Start Test Date 2014/09/11
Start Test Time 03:07:00
Final Test Date 2014/09/11
Final Test Time 10:15:00
Job Number So498
Representative Michael Carroll
Report Date 2014/09/11
Qualified By Mike Engelbrecht

Heier13d #1



Test Results

RECOVERY:

217'	GIP	
35'	SLOCM	10% O 90% M
122'	SLOCM	5% O 95% M
157'	TOTAL FLUID	

TOOL SAMPLE:

50% O 50% M



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: heier13d1dst7

TIME ON: 20:30 09-11
TIME OFF: 02:45 9-12

Company Ritchie Exploration Inc. Lease & Well No. Heier13D #1
Contractor WW Rig #8 Charge to Ritchie Exploration Inc.
Elevation 2789 KB Formation miss Effective Pay -- Ft. Ticket No. S0499
Date 9-11-14 Sec. 13 Twp. 12 S Range 29 W County Gove State KANSAS
Test Approved By Mike Engelbrecht Diamond Representative Jacob McCallie

Formation Test No. 7 Interval Tested from 4490 ft. to 4520 ft. Total Depth 4520 ft.
Packer Depth 4484 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.
Packer Depth 4490 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 4477 ft. Recorder Number 5515 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4491 ft. Recorder Number 5586 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.
Mud Type Chem Viscosity 65+ Drill Collar Length 122 ft. I.D. 2 1/4 in.
Weight 9.5 Water Loss 6.8 cc. Weight Pipe Length -- ft. I.D. 2 7/8 in.
Chlorides 1000 P.P.M. Drill Pipe Length 4341 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number N/A Test Tool Length 27 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out No Anchor Length 30 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Wsb-Built to 1/2" **NOBB**
2nd Open: No Blow-Flushed Tool-No Blow **NOBB**

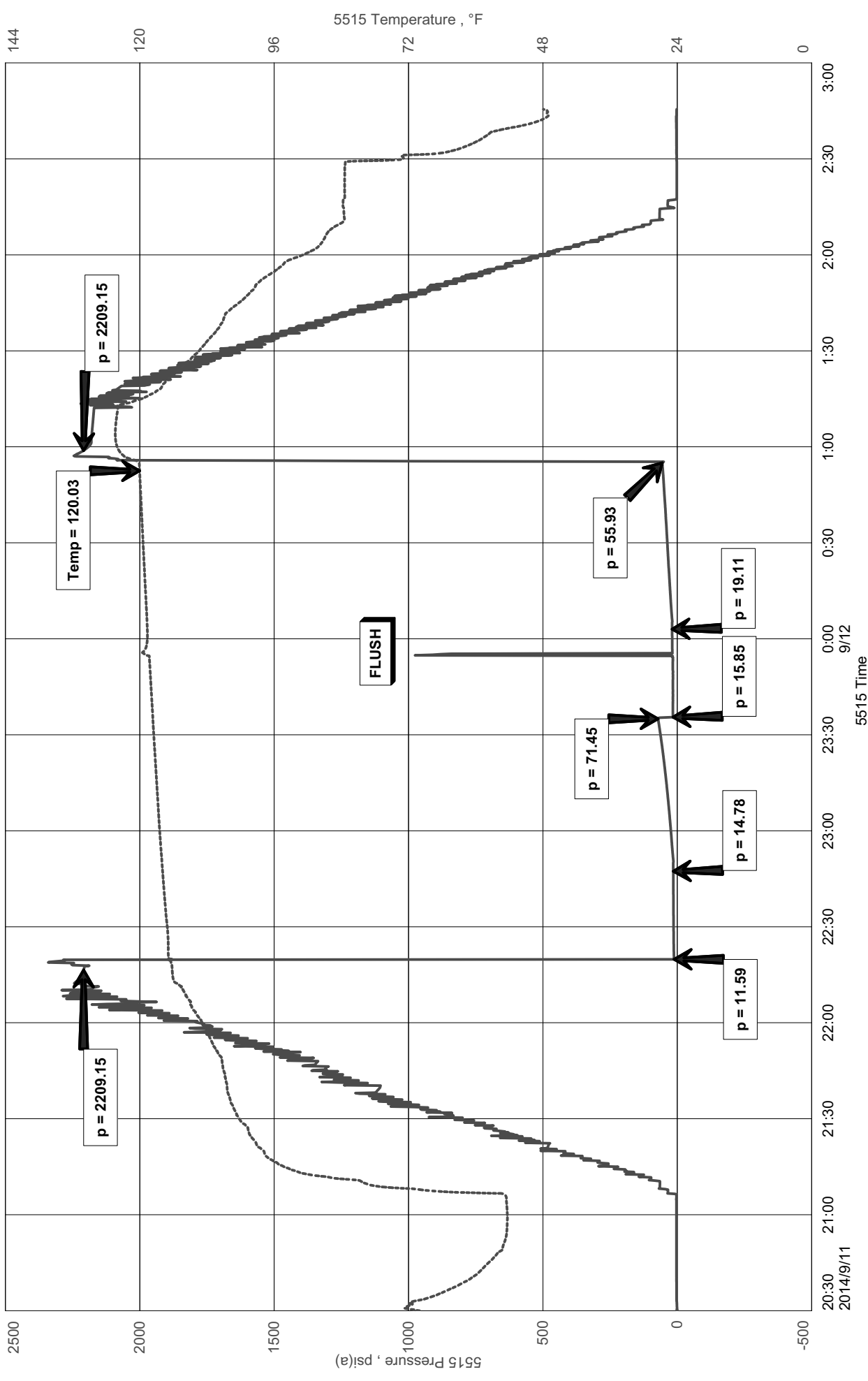
Recovered <u>10</u> ft. of <u>OSM</u> <u>1% O 99% M</u>	
Recovered <u> </u> ft. of <u> </u>	
Recovered <u> </u> ft. of <u> </u>	
Recovered <u> </u> ft. of <u> </u>	
Recovered <u> </u> ft. of <u> </u>	Price Job
Recovered <u> </u> ft. of <u> </u>	Other Charges
Remarks: <u> </u>	Insurance
TOOL SAMPLE: 2% O 98% M	
	Total

Time Set Packer(s) 09-11 10:19 PM ^{A.M.}/_{P.M.} Time Started Off Bottom 09-12 12:49 AM ^{A.M.}/_{P.M.} Maximum Temperature 120

Initial Hydrostatic Pressure..... (A) 2209 P.S.I.
Initial Flow Period..... Minutes 30 (B) 12 P.S.I. to (C) 15 P.S.I.
Initial Closed In Period..... Minutes 45 (D) 71 P.S.I.
Final Flow Period..... Minutes 30 (E) 19 P.S.I. to (F) 56 P.S.I.
Final Closed In Period..... Minutes 45 (G) 56 P.S.I.
Final Hydrostatic Pressure..... (H) 2209 P.S.I.

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Heier 13D #1



Diamond Testing LLC

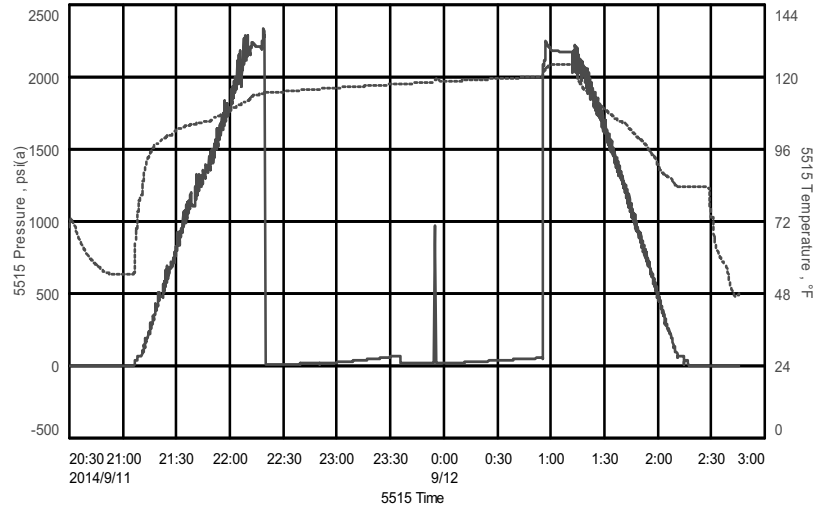
General Information Report

Jacob McCallie
620-617-7116
mccallie.dtlc@gmail.com

General Information

Company Name Ritchie Exploration Inc
Contact Justin Clegg
Well Name Heier 13D #1
Unique Well ID Dst #7 Miss 4490-4520'
Surface Location Sec13-12s-29w Gove County
Field WC
Well Type Vertical
Test Type Drill Stem Test
Formation Dst #7 Miss 4490-4520'
Well Fluid Type 01 Oil
Start Test Date 2014/09/11
Start Test Time 20:30:00
Final Test Date 2014/09/12
Final Test Time 02:45:00
Job Number SO499
Representative Michael Carroll
Report Date 2014/09/12
Qualified By Mike Engelbrecht

Heier 13D #1



Test Results

RECOVERY:
10' OSM 1% O 99% M

TOOL SAMPLE:
2% O 98% M