

Test Complete

Company: Hupfer Operating, Inc

Lease: Burmeister "A" #A-2

SEC: 33 TWN: 19S RNG: 11W

County: BARTON State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATE August 17

2018

DST #1

Formation: Toronto/Douglas Sand

Test Interval: 2914 -3000

Total Depth: 3000'

Time On: 10:05 08/17

Time Off: 16:38 08/17

Time On Bottom: 11:53 08/17 Time Off Bottom: 14:38 08/17

Electronic Volume Estimate: 648'

1st Open Minutes: 30 **Current Reading:**

23.3" at 30 min

Max Reading: 23.3"

Current Reading: 0" at 30 min

Max Reading: 0"

1st Close

Minutes: 30

2nd Open Minutes: 45 **Current Reading:**

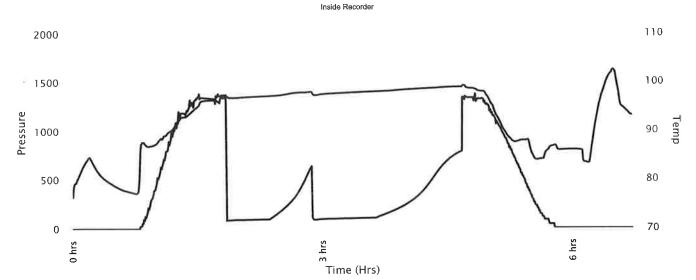
55.6" at 45 min

Max Reading: 55.6"

2nd Close Minutes: 60 Current Reading:

0" at 60 min

Max Reading: 0"



- Temp(F) - Press(Psig)



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Operation: Test Complete

> **DATE** August

17 2018 **DST #1**

Formation: Toronto/Douglas Sand

Test Interval: 2914 -3000'

Total Depth: 3000'

Time On: 10:05 08/17

Time Off: 16:38 08/17

Time On Bottom: 11:53 08/17 Time Off Bottom: 14:38 08/17

Recovered

Foot	<u>BBLS</u>	Description of Fluid	Gas %	<u>Oil %</u>	Water %	<u>Mud %</u>
585	7.0526463	G	100	0	0	0
240	2.1432963	SLOCSLGCM	16	13	0	71

0

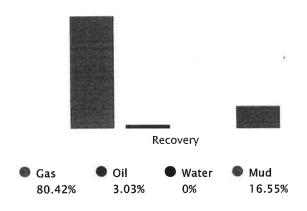
Total Recovered: 825 ft

Total Barrels Recovered: 9.1959426

Reversed	Out
NO	

Initial Hydrostatic Pressure	1290	PSI	
Initial Flow	89 to 101	PSI	BBL
Initial Closed in Pressure	645	PSI	
Final Flow Pressure	98 to 115	PSI	
Final Closed in Pressure	795	PSI	
Final Hydrostatic Pressure	1279	PSI	
Temperature	100	°F	
Pressure Change Initial	0.0	%	
Close / Final Close			

Recovery at a glance





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Total Depth: 3000'

Time On: 10:05 08/17

Time Off: 16:38 08/17

Time On Bottom: 11:53 08/17 Time Off Bottom: 14:38 08/17

Sand

BUCKET MEASUREMENT:

1st Open: Surface blow building. BOB in 18 mins.

1st Close: No blow back.

2nd Open: 2 in. blow building. BOB in 3 1/2 mins.

2nd Close: No blow back.

REMARKS:

Tool slid 10-12 ft. when setting the tool & kept losing fluid.

Tool Sample: 0% Gas 31% Oil 0% Water 69% Mud



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Formation: Toronto/Douglas Sand

Test Interval: 2914 -3000'

Total Depth: 3000'

Time On: 10:05 08/17

Time Off: 16:38 08/17

Time On Bottom: 11:53 08/17 Time Off Bottom: 14:38 08/17

Down Hole Makeup

Heads Up:

22.18 FT

Packer 1:

2908.63 FT

Drill Pipe:

2723.88 FT

Packer 2:

2913.63 FT

ID-3 1/2

Top Recorder:

2900.63 FT

Weight Pipe:

186.77 FT

Bottom Recorder:

2983 FT

ID-2 7/8

0 FT

Well Bore Size:

7 7/8

Collars: ID-2 1/4

Surface Choke:

Bottom Choke:

1" 5/8"

Test Tool:

26.16 FT

ID-3 1/2-FH

86.37

Anchor Makeup

Packer Sub:

Total Anchor:

1 FT

Perforations: (top):

3 FT

4 1/2-FH

Change Over:

1 FT

Drill Pipe: (in anchor):

62.37 FT

ID-3 1/2

Change Over:

1 FT

Perforations: (below):

18 FT



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DATE August

17 2018 **DST #1**

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Test Interval: 2914 -

Total Depth: 3000'

3000'

Time On: 10:05 08/17

Time Off: 16:38 08/17

Time On Bottom: 11:53 08/17 Time Off Bottom: 14:38 08/17

Mud Properties

Mud Type: Chemical

Weight: 8.6

Viscosity: 48

Filtrate: 8.6

Chlorides: 5,000 ppm



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Pool: Infield Job Number: 216

Test Complete

DATE

August

18

2018

DST #2

Formation: Lans "A-

Test Interval: 3045 -

Total Depth: 3136'

3136'

Time On: 02:32 08/18

Time Off: 09:15 08/18

Time On Bottom: 03:51 08/18 Time Off Bottom: 06:36 08/18

Electronic Volume Estimate: 2958' 1st Open Minutes: 30 Current Reading:

Minutes: 30 Current Reading: 1.4" at 30 min

1st Close

Minutes: 45 Current Reading: 216.8" at 45 min

2nd Open

2nd Close Minutes: 60 Current Reading: 52.2" at 60 min

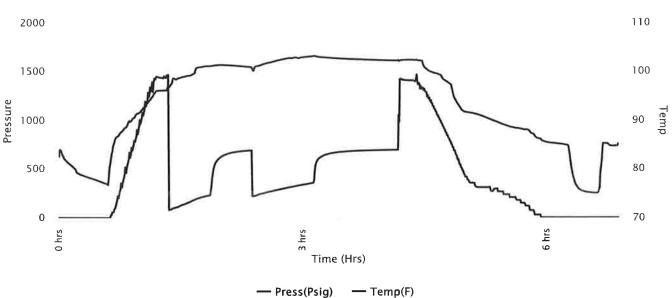
354.1" at 30 min Max Reading: 354.1"

Max Reading: 1-4"

Max Reading: 216.8"

Max Reading: 52.2"

Inside Recorder





Company: Hupfer Operating, Inc

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Test Complete

DATE

August

18

2018

DST #2

Formation: Lans "A-

Test Interval: 3045 -

Total Depth: 3136'

3136'

Time On: 02:32 08/18

Time Off: 09:15 08/18

Time On Bottom: 03:51 08/18 Time Off Bottom: 06:36 08/18

20

0

Recovered

Foot	BBLS	Description of Fluid	Gas %	<u>Oil %</u>	Water %	<u>Mud %</u>
2265	30.9590463	G	100	0	0	0
10	0.0742	M (trace oil)	0	.1	0	99.9
185	1.3727	SLGCSLWCHMCO	3	53	8	36
310	3.1393963	SLOCSLWCHGCM	33	10	17	40
250	2 2855963	SI GCSLOCSLMCW	1	3	81	15

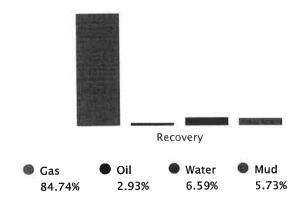
Total Recovered: 3020 ft

Total Barrels Recovered: 37.8309389

al	Reversed	Out
1	NO	

Initial Hydrostatic Pressure	1442	PSI	
Initial Flow	84 to 236	PSI	BBL
Initial Closed in Pressure	696	PSI	
Final Flow Pressure	227 to 362	PSI	
Final Closed in Pressure	700	PSI	
Final Hydrostatic Pressure	1432	PSI	
Temperature	104	°F	
Pressure Change Initial	0.0	%	
Close / Final Close			

Recovery at a glance





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County: BARTON State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

Operation:

Test Complete

DATE

August

18

2018

DST #2

Formation: Lans "A-

Test Interval: 3045 -3136'

Total Depth: 3136'

Time Off: 09:15 08/18

Time On Bottom: 03:51 08/18 Time Off Bottom: 06:36 08/18

Time On: 02:32 08/18

BUCKET MEASUREMENT:

1st Open: 3 1/2 in. blow building. BOB in 1 1/2 mins.

1st Close: 1 in. blow back.

2nd Open: Surface blow building. BOB in 4 mins..

2nd Close: BOB blow back 4 1/2 mins. after bled off (20 mins.)

REMARKS:

Gas to surface 24 1/2 mins. into final shut-in period.

Tool Sample: 0% Gas 2% Oil 95% Water 3% Mud

Ph: 7.0

Measured RW: .10 @ 74 degrees °F

RW at Formation Temp: 0.073 @ 104 °F

Chlorides: 72,000 ppm



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Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATE August 18

2018

DST#2 Formation: Lans "A- Test Interval: 3045 -3136'

Total Depth: 3136'

Time On: 02:32 08/18

Time Off: 09:15 08/18

Time On Bottom: 03:51 08/18 Time Off Bottom: 06:36 08/18

Down Hole Makeup

Heads Up:

16.18 FT

Packer 1:

3039.63 FT

Drill Pipe:

2848.88 FT

Packer 2:

3044.63 FT

ID-3 1/2

Top Recorder:

3031.63 FT

Weight Pipe:

3114 FT

ID-2 7/8

186.77 FT

Bottom Recorder:

Well Bore Size:

7 7/8

Collars: ID-2 1/4

Surface Choke:

5/8"

26.16 FT

0 FT

Bottom Choke:

Test Tool: ID-3 1/2-FH

Total Anchor: 91.37

Anchor Makeup

Packer Sub:

1 FT

Perforations: (top):

3 FT

4 1/2-FH

Change Over:

Drill Pipe: (in anchor):

62.37 FT

ID-3 1/2

Change Over:

1 FT

Perforations: (below):

23 FT



Test Complete

Company: Hupfer Operating,

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Lease: Burmeister "A" #A-2

SEC: 33 TWN: 19S RNG: 11W

County: BARTON State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATE August

18 2018 **DST #2** Formation: Lans "A- Test Interval: 3045 -

Total Depth: 3136'

3136'

Time On: 02:32 08/18

Time Off: 09:15 08/18

Time On Bottom: 03:51 08/18 Time Off Bottom: 06:36 08/18

Mud Properties

Mud Type: Chemical

Weight: 8.6

Viscosity: 48

Filtrate: 8.8

Chlorides: 5,000 ppm



Test Complete

Company: Hupfer Operating,

Lease: Burmeister "A" #A-2

SEC: 33 TWN: 19S RNG: 11W · County: BARTON

State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infleld Job Number: 216

DATE August

19 2018

DST #3

Formation: Arbuckle

Test Interval: 3303 -

Total Depth: 3345'

3345'

Time On: 05:22 08/19

Time Off: 11:57 08/19

Time On Bottom: 07:05 08/19 Time Off Bottom: 09:50 08/19

Electronic Volume Estimate:

51'

1st Open Minutes: 45

Current Reading:

3.2" at 45 min

Max Reading: 3.2"

1st Close Minutes: 30

Current Reading:

0" at 30 min

Max Reading: 0"

2nd Open Minutes: 45

Current Reading:

0" at 45 min

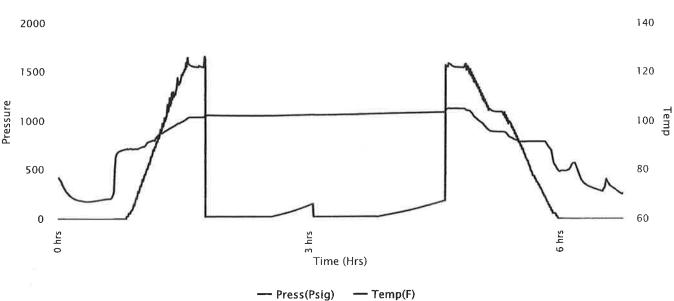
Max Reading: 0"

2nd Close Minutes: 45 Current Reading

0" at 45 min

Max Reading: 0"

Inside Recorder





Test Complete

Company: Hupfer Operating,

Inc

DST #3

Lease: Burmeister "A" #A-2

Formation: Arbuckle

SEC: 33 TWN: 19S RNG: 11W.

County: BARTON State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATE August

19 2018

Test Interval: 3303 -

Total Depth: 3345'

0

3345'

Time On: 05:22 08/19

Time Off: 11:57 08/19

Time On Bottom: 07:05 08/19 Time Off Bottom: 09:50 08/19

Recovered

BBLS Foot 30 0.2226 Description of Fluid M (trace oil)

Gas % 0

Oil % Water % .5

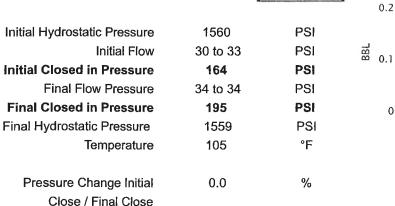
Mud % 99.5

Total Recovered: 30 ft

Total Barrels Recovered: 0.2226

Reversed Out NO

Recovery at a glance



0

liO 🌑 0.5%

Gas 0%

Water 0%

Recovery

Mud 99.5%



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Lease: Burmeister "A" #A-2

SEC: 33 TWN: 19S RNG: 11W County: BARTON

State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATE August

Test Complete

19 2018

DST #3 Formation: Arbuckle

Test Interval: 3303 -

Total Depth: 3345'

3345'

Time On: 05:22 08/19

Time Off: 11:57 08/19

Time On Bottom: 07:05 08/19 Time Off Bottom: 09:50 08/19

BUCKET MEASUREMENT:

1st Open: 2 in. blow building to a 2 3/4 in. blow.

1st Close: No blow back. 2nd Open: Surface blow. 2nd Close: No blow back.

REMARKS:

Tool slid about 5 ft. when setting the tool.

Tool Sample: 0% Gas 2% Oil 0% Water 98% Mud



Test Complete

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SEC: 33 TWN: 19S RNG: 11W-County: BARTON

State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Fleld Name: Chase-Silica

Pool: Infield Job Number: 216

DATE August

19 2018

DST #3 Formation: Arbuckle

Test Interval: 3303 -

Total Depth: 3345'

3345

Time On: 05:22 08/19

Time Off: 11:57 08/19

Time On Bottom: 07:05 08/19 Time Off Bottom: 09:50 08/19

Down Hole Makeup

Heads Up:

8.3300000000002 FT

Packer 1: 3

3298 FT

Drill Pipe:

3099.4 FT

Packer 2:

3303 FT

ID-3 1/2

Top Recorder:

3290 FT

Weight Pipe:

186.77 FT

Bottom Recorder:

3305 FT

ID-2 7/8

Well Bore Size:

7 7/8

Collars: ID-2 1/4

Surface Choke:

1"

26.16 FT

0 FT

Bottom Choke:

5/8"

Test Tool: ID-3 1/2-FH

Total Anchor:

nchor: 42

Anchor Makeup

Packer Sub:

1 FT

Perforations: (top):

0 FT

4 1/2-FH

Change Over:

0 FT

Drill Pipe: (in anchor):

011

ID-3 1/2

0 FT

Change Over:

0 FT

Perforations: (below):

41 FT



Test Complete

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SEC: 33 TWN: 19S RNG: 11W-County: BARTON

State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATE

August 19 2018

DST#3 Formation: Arbuckle Test Interval: 3303 -

Total Depth: 3345'

3345'

Time On: 05:22 08/19

Time Off: 11:57 08/19

Time On Bottom: 07:05 08/19 Time Off Bottom: 09:50 08/19

Mud Properties

Mud Type: Chemical

Weight: 9.0

Viscosity: 44

Filtrate: 10.4

Chlorides: 8,000 ppm



Test Complete

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SEC: 33 TWN: 19S RNG: 11W

County: BARTON State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATEAugust **19**2018

DST #4 Formation: Arbuckle

Test Interval: 3303 -

Total Depth: 3355'

3355'

Time On: 19:25 08/19

Time Off: 00:54 08/20

Time On Bottom: 21:06 08/19 Time Off Bottom: 23:21 08/19

Electronic Volume Estimate:

37'

1st Open Minutes: 30

Current Reading:

2.3" at 30 min

Max Reading: 2.3"

1st Close

Minutes: 30
Current Reading:

0" at 30 min

Max Reading: 0"

2nd Open

Minutes: 30

Current Reading:

0" at 30 min

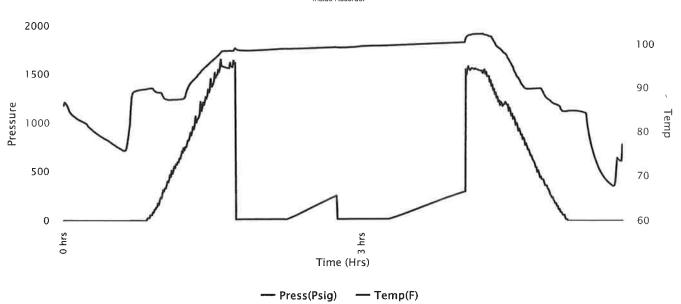
Max Reading: 0"

2nd Close Minutes: 45 Current Reading:

0" at 45 min

Max Reading: 0"

Inside Recorder





Test Complete

Company: Hupfer Operating, Inc

Lease: Burmeister "A" #A-2

SEC: 33 TWN: 19S RNG: 11W

County: BARTON State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATE

August

19

2018

DST #4

Formation: Arbuckle

Test Interval: 3303 -

Total Depth: 3355'

3355'

Time On: 19:25 08/19

Time Off: 00:54 08/20

Time On Bottom: 21:06 08/19 Time Off Bottom: 23:21 08/19

0/20

Recovered

Foot BBLS 20 0.1484

Description of Fluid
M (trace oil)

<u>Gas %</u> 0 <u>Oil %</u> .3 Water % 0 Mud % 99.7

Total Recovered: 20 ft

Total Barrels Recovered: 0.1484

Close / Final Close

Reversed Out NO Recovery at a glance

Initial Hydrostatic Pressure Initial Flow	1574 20 to 23	PSI PSI	0.1 188				
Initial Closed in Pressure	266	PSI					
Final Flow Pressure	24 to 26	PSI					33 7 5 W
Final Closed in Pressure	305	PSI	0				
Final Hydrostatic Pressure	1571	PSI				Recovery	
Temperature	101	°F		Gas	• Oil	Water	Mud
Pressure Change Initial	0.0	%		0%	0.3%	0%	99.7%



Test Complete

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County: BARTON State: Kansas

Drilling Contractor: Discovery Drilling

Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

Pool: Infield Job Number: 216

DATE

August

19

2018

DST #4 Formation: Arbuckle Test Interval: 3303 -

Total Depth: 3355'

3355'

Time On: 19:25 08/19

Time Off: 00:54 08/20

Time On Bottom: 21:06 08/19 Time Off Bottom: 23:21 08/19

BUCKET MEASUREMENT:

1st Open: 1 in. blow building to a 2 in. blow.

1st Close: No blow back. 2nd Open: Surface blow. 2nd Close: No blow back.

REMARKS:

Tool slid 2-3 ft. when setting the tool.

Tool Sample: 0% Gas 3% Oil 0% Water 97% Mud



Test Complete

Company: Hupfer Operating, Inc

Lease: Burmeister "A" #A-2

SEC: 33 TWN: 19S RNG: 11W

County: BARTON State: Kansas

Drilling Contractor: Discovery Drilling

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Pool: Infield Job Number: 216

DATE August

19 2018 **DST #4** Formation: Arbuckle Test Interval: 3303 -

Total Depth: 3355'

3355'

Time On: 19:25 08/19

Time Off: 00:54 08/20

Time On Bottom: 21:06 08/19 Time Off Bottom: 23:21 08/19

Down Hole Makeup

Heads Up:

7.7 FT

Packer 1:

3298.18 FT

Drill Pipe:

3098.95 FT

Packer 2:

3303.18 FT

ID-3 1/2

Top Recorder:

3290.18 FT

Weight Pipe:

186.77 FT

Bottom Recorder:

3342 FT

ID-2 7/8

Collars:

0 FT

Well Bore Size:

7 7/8

5/8"

ID-2 1/4

Surface Choke:

Test Tool:

26.16 FT

Bottom Choke:

ID-3 1/2-FH

Total Anchor: 51.82

Anchor Makeup

Packer Sub:

1 FT

Perforations: (top):

3 FT

4 1/2-FH

Change Over:

1 FT

Drill Pipe: (in anchor):

31.82 FT

ID-3 1/2

Change Over:

1 FT

Perforations: (below):

14 FT



Test Complete

Company: Hupfer Operating, Inc

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SEC: 33 TWN: 19S RNG: 11W

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Company, Inc. - Rig 2 Elevation: 1778 EGL Field Name: Chase-Silica

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DATE August

19

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Formation: Arbuckle **DST #4**

Test Interval: 3303 -

Total Depth: 3355'

3355'

Time On: 19:25 08/19

Time Off: 00:54 08/20

Time On Bottom: 21:06 08/19 Time Off Bottom: 23:21 08/19

Mud Properties

Mud Type: Chemical

Weight: 8.8

Viscosity: 44

Filtrate: 12.8

Chlorides: 9,000 ppm