

Geologic Report

Drilling Time and Sample Log

Operator Mid-Continent Resources, Inc.

Lease Humburg

Elevation
KB 2281'
DF
GL 2273'

API # 15-135-25933-0000

Field Schaben

Casing Record
Surface
8 5/8" @ 221'
Production
5 1/2" @ 4405'

Location 1700' FSL & 335' FEL

Electrical Surveys

Sec. 25 Twp. 19s Rge. 21w

None

County Ness State Kansas

Formation	Log Tops	Sample Tops	Struct Comp
Anhydrite		1487' +794	-3
Base		1520' +761	
Heebner		3741' -1460	-5
Lansing		3787' -1506	-5
BKC		4096' -1815	
Pawnee		4204' -1923	-4
Fort Scott		4284' -2003	-6
Cherokee		4305' -2024	-5
Mississippian		4375' -2094	-5
Total Depth		4406' -2125	

Reference Well For Structural Comparison Mid-Continent Resources, Inc. Humburg #3X

2086' FSL & 554' FEL Sec. 25 T19s R21w Ness Co. Kansas

Drilling Contractor	Discovery Drilling Co. Inc.	Rig #	2-
Commenced	1-25-2017	Completed	
Samples Saved From	3900'	To	RTT
Drilling Time Kept From	3700'	To	RTT
Samples Examined From	3900'	To	RTT
Geological Supervision From	3900'	To	RTT

Displacement 3500' **Mud Type** Chemical

Summary and Recommendations

The location for the Humburg #3X was found via 3-D seismology. The new well ran structurally as expected via the survey. Oil Test was conducted which recovered commercial amounts of oil from the Mississippian Osage Formation. After all gathered data had been examined the decision was made to run 5 1/2 inch production casing to further evaluate the Humburg #3X well.

Respectfully,

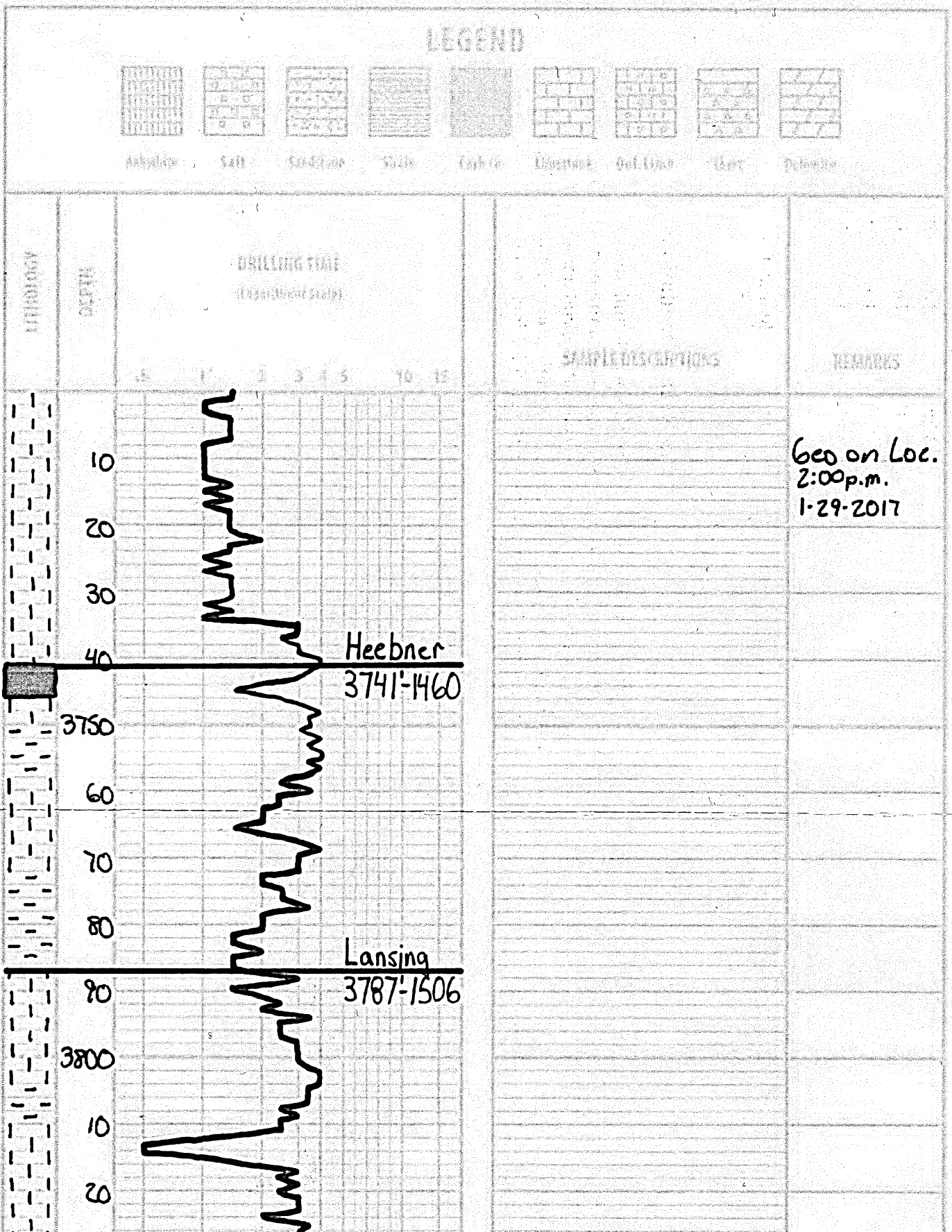
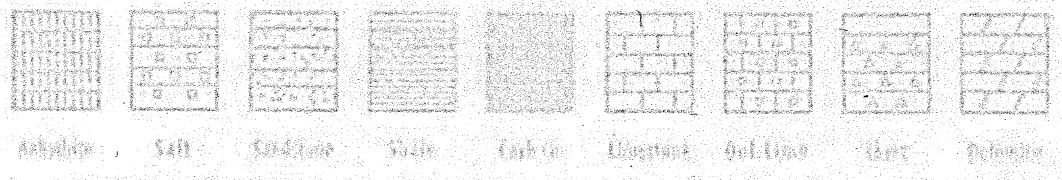
Jason T Alm
Hard Rock Co.

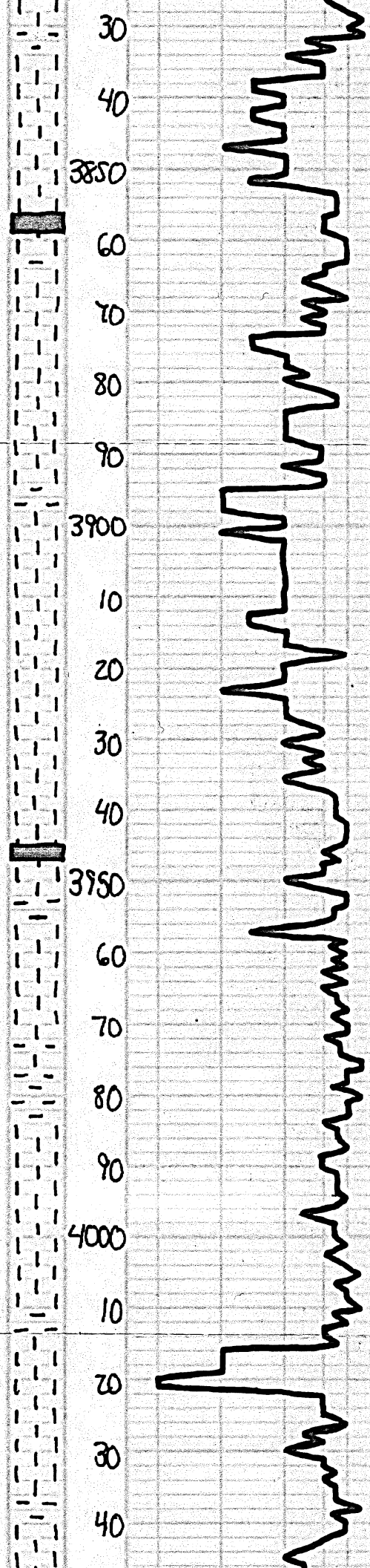
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f oil from the
I been
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Submitted,

onsulting, Inc.

LEGEND





Ls. Tan. Offwh. Fn x/a, Col.
 w/ Poor Fair ooc. ϕ . Barren

Ls-ala

Ls. Tan. Offwh. Fn-Subx/a,
 DNS

Sh. Dk Gry. Blk

Sh. Gry. Brn

Ls. Tan, Fn-Subx/a, Sl. Col.
 w/ Poor ooc ϕ . Barren

Sh. Brn. Grn

Ls. Tan. Lt. Gry. Subx/a, DNS

Ls-ala

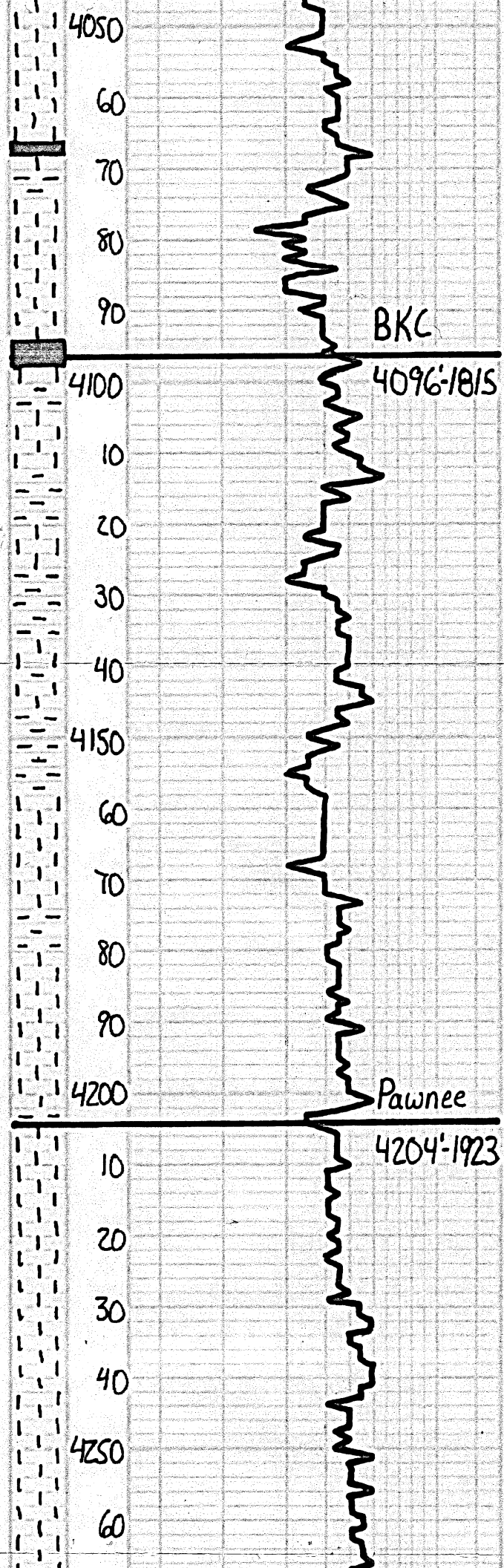
Sh. Brn

Ls. Tan. Lt. Gry. Fn x/a, Col.
 w/ Poor w/ Good ooc ϕ .
 Barren

Ls-ala, DNS

Sh. Gry. Brn

Ls. Tan. Lt. Gry. Fn-Subx/a,



Col. w/ Post- Fair oom ϕ ,
Barren

Ls - ala, Mostly DNS

Sh - Dk Gry - Blk

Ls - Tan-Lt. Gry, Fr xln w/ Poor
interln ϕ , Barren

Ls - ala, Mostly DNS

Sh - Blk, Carb.

Ls - Tan-Lt. Gry, Subxln, DNS

Ls - ala

Sh - Brn - Grn - Gry

Sh - Brn - Grn

Ls, Tan-Lt. Gry, Subxln, DNS
Sh, Col. w/ Post det oom ϕ ,
Barren

Sh - Brn

Ls - Tan-Lt. Gry, Subxln, DNS

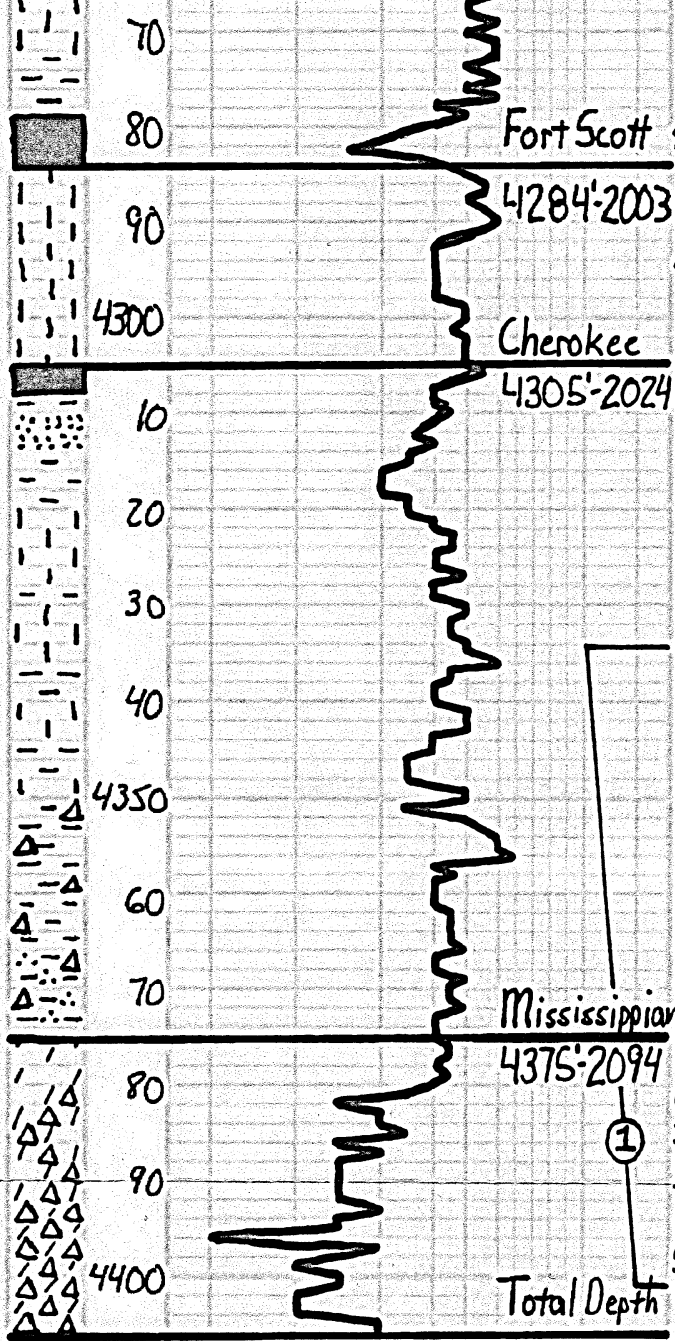
Sh - Gry - Grn

Ls - Lt. Gry, Subxln, DNS

Ls - ala

Ls, Gry - Dk Gry, Subxln,
DNS

Ls, ala, Increasing, Gry



LS - Dk Gry

Fort Scott 20 Sh - Bk, Carb.

41284'-2003

46 ● LS - Offwh - Tan. Fr: Med x/n w/ Lt. - S. - oil st w/ 17% clay
 ● Lt. - Fair oil st w/ 17% clay
 ● Sp. - set. - S. - SFD w/ 17% clay
 Broken, Fair color, Good vel. H.

Cherokee

41305'-2024 8

Sh - Bk, Carb.
 SS - Gtz, fl. - Fractured, Fair Gr.
 Fair Sp. Sub - Ang, Fair - Well
 Gen, w/ poor int. - S. -
 Bottom, few loose Gtz Gr.

LS - Tan - Lt. Gry. Subala, sl.
 Oil: DWS

LS - a/a

Sh - Dk Gry - Brn

Sh - Brn - Gry - Grey, Multicolored
 Fresh Δ, some vel. Gummy Sh

Mississippian

41375'-2094

10 Sp - A - a/a, Fr - V. Fr Gr Ss, Poor
 Sp. Sub - Ang, Well Cen w/ Poor
 int. - S. - set - Fair, Tarry oil st,
 N. S. - Lt. - Oil - D. Dull spot floor
 Poor cut, some barren clusters

● Dolo - Whit - Tan, Fr Suez x/n w/
 Fr. - Fr. - S. - a/a in Part.
 ● Lt - Whit, S. - Tip w/ Poor - S. -
 Ussy Fr - Lt - Fair oil st - set, Fair
 S. - w. of Free oil, Good Color,
 Fair vel Spot floor.

● Δ - Whit - Lt. Gry, Mostly Fresh, S.
 Tip w/ Sect Ussy Fr, Dolo - Tan, Suez
 w/ Fair int. - S. - Lt - Fair oil st -
 set. in P, Fair SFD, Good Color,
 Fair vel Spot floor.

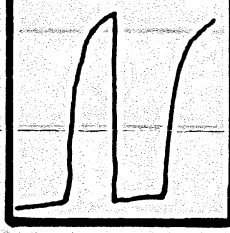
Total Depth

4406'-2125

DST#1

Mississippian
 4334'-4401'
 46°45'45"45"

IH	2075#
IF	30-64# Built to 5 1/2
ISI	1086# Dead
FF	67-91# Built to 5 1/2
FSI	1053# Dead
FH	2050#
BHT	114°F
Recovery:	
	145' GIP
	40' Clean Oil
	124' GMP
	45% Oil



Respectfully,
 Jason T. Al
 2-1-2017