

# ROGER L. MARTIN

INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

## GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY VESS OIL CORPORATION  
LEASE J.W. SMITH 'A' #48  
FIELD AUGUSTA  
LOCATION 2050' FNL & 815' FWL  
SECTION 20 TOWNSHIP 28S RANGE 04E  
COUNTY BUTLER STATE KANSAS

ELEVATIONS  
KB 1272' GL 1266'  
Measurements Are All  
From KB  
API 15-015-23979

CONTRACTOR C&G DRILLING, Rig #1  
SPUD 05/22/2013 COMP 06/01/2013  
RTD 2475' (-1203) LTD n/a  
ELECTRICAL SURVEYS  
No Open Hole E-logs

CASING  
SURFACE 8&5/8" set @ 262' KB  
w/150 sx Class A, 3% CC  
PRODUCTION 61 jts 5&1/2" J-55 set @  
2474' KB w/125 sx Thickset.

FORMATION TOPS	LOG	SAMPLES	CHRONOLOGY
OREAD	1425' (-153)	1427' (-155)	05/22/2013- MIRU. Spud rathole @ 10 AM. Spud 12 1/4" hole @ 11:30 AM. TD 12 1/4" hole @ 7:30 PM. Run 254' 8 5/8" 23#/ft LS casing, set @ 262' KB. CONSOLIDATED: 150 sx Class A, 3% CC. Done @ 9 PM. Circ cement.
HEEBNER	1465' (-193)	1465' (-193)	
DOUGLAS SH	1499' (-227)	1500' (-228)	
DOUGLAS SD	1515' (-243)	1517' (-245)	05/28/2013- Drill under surface @ 9:30 AM.
LANSING	1787' (-515)	1778' (-506)	05/29/2013- Drlg @ 1650'. Lost Circulation @ 1460', mudded up and continued drilling. 1789'- MW 9.2, Vis 40, WL 10.4, LCM 3.5#.
KANSAS CITY	2037' (-765)	2038' (-766)	
STARK	2156' (-884)	2156' (-884)	05/30/2013- DTD 2060'. Pulling DST#1. 2173'- MW 9.3, Vis 48, WL 9.2, LCM 3
BASE KANSAS CITY	2246' (-974)	2248' (-976)	
CHECKERBOARD	2277' (-1005)	2276' (-1004)	05/31/2013- Drlg @ 2440'. MW 9.3, VIS 56, LCM 3#, Short trip @ 2452' up to 1400'. Encountered several tight spots. DST Arbuckle 2399'-2475'.
HEPLER SD	2291' (-1019)	2291' (-1019)	
ALTAMONT	2321' (-1049)	2322' (-1050)	06/01/2013- RTD 2475'. No open hole E-logs.
PAWNEE	2362' (-1090)	2363' (-1091)	
CHEROKEE	2399' (-1127)**	2389' (-1117)	Casing Job: 10:20 AM 06/01- Ran 61 jts 5 1/2" OD 15.5#/ft J-55 New Casing (Tally 2479'), plus float shoe= 1.00', Total= 2480', set @ 2474' KB. Stop and circulate mud @ 30 jts on way in hole. Wash 2' to bottom @ 2475', set @ 2474' KB. Circulate 20 min, hook up rotating head. Circ & rotate 20 min.
ARBUCKLE	2473' (-1201)	2471' (-1199)	CONSOLIDATED: Mix & pump 500 gal mud flush. Pump 125 sx Thickset, Displace @ 6 BPM. Caught pressure @ 28 bbl, quit rotating @ 54 bbl. Lift pressure to 650#. Land plug @ 950# 1:25 PM 06/01/2013.
RTD	2480' (-1208)	2475' (-1203)	Release, it held.

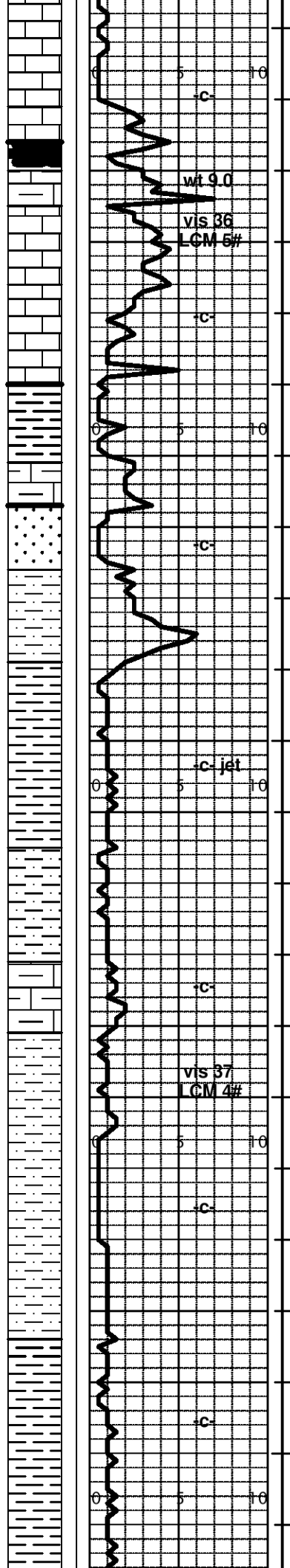
### REMARKS:

\* Cased hole E-log tops by P. Ramondetta, Geologist (VOC)

\*\* Cherokee SH pick correlated on reference by PJR adjusted lower after review of cased hole E-logs

Respectfully submitted,  
 Roger L. Martin, Geologist (Wellsite)

LITH	POROSITY	DRILLING TIME MIN/FT	DST	SAMPLE DESCRIPTION	REMARKS
			<p>-1300</p> <p>-1350</p> <p>-1400</p>	<p>LS: tn-wh, Pred dn- mx- fnx w/Pr- NVP, NS. (1336' spl)</p> <p>Incrs SH: blk carb &amp; Vcarb &amp; gy &amp; gn. (1367' spl)</p> <p>LS: wh-tn-gy, mx- fnxln, VRr Mdx- crsX's- 2nd ReX, sm chlky, Pr- NVP, NS. (1367' spl)</p> <p>LS: tn-gy-wh, dn- mx- fnx, sm argil, sm chlky, Pr- NVP, NS. (1398' spl)</p> <p>LS: tn-gy-wh, dn- mx- fnx, sm chlky, VPr- NVP, NS. (1429' spl)</p> <p>SH: Abndt dk gy- blk, sm carb, sm pyrtc.</p> <p>Pred SH: dk gy-blk, sm carb, micac. (1460' spl)</p> <p>{OREAD} LS: wh-tn, sm chlky &amp; sm mx- fnxln, VPr- Pr visbl Por w/NS. VSI Cherty. (1460' spl)</p> <p>LS: cm-tn, mx- Mdx- sm 2nd ReX, Trc crs- VcrsX's, Pr- Fr</p>	<p><b>DRILLING W/PDC BIT                  KELLY DOWN SAMPLES</b></p> <p><b>1427' (-155)                  OREAD</b></p>



-1450

-1500

-1550

-1600

-1650

Por: pp Por, IX Por, sm aprnt Fr Por. NS.sm chlky, NS. (1491' spl)

LS: gy-bn, dn Mdst, mx- dn, NS.

{HEEBNER} SH: blk carb & subcarb.

LS: gy-bn, argil Mdst.

SH: gy-blk & gn.

LS: cm-bf, mx- Mdx- ReX, sm grnlr Pkst, sm fos, sm chlky, Pr- Fr Por: IGr Por, lfos Por, NS. (1523' spl)

{DOUGLAS} SH: sm blk carb & dk gy-blk, sm gn, Rr pyrct.

{DOUGLAS} SS- SD CLUST: lt gy-bf, Pred Vfn Gr'd, silty, sm Vfn- fn Gr'd, well sort'd, well cmt'd- subfribl w/Pr- Fr Por; Fr- Gd S.Gas Cond & Gas bubls & SI SFO, VSI Odor, subsat- sat brt FLR & Vlt STN, SI Cut. (1554' spl)

SILTS: gy & gn-gy.

SH: Pred dk gy-blk, sm pyrct. (1585' spl)

-c- jet

SH: AA.

~10% SS- SD CLUST: lt gy & gn-gy, Vfn-fn Gr'd, rnd'd- anglr, well cmt'd- fribl, Pr- Fr IGr Por, Trc FLR- SFO- STN-CUT. >99% barren; sm Vmicac & sm calc w/VPr- Pr Por. (1616' spl)

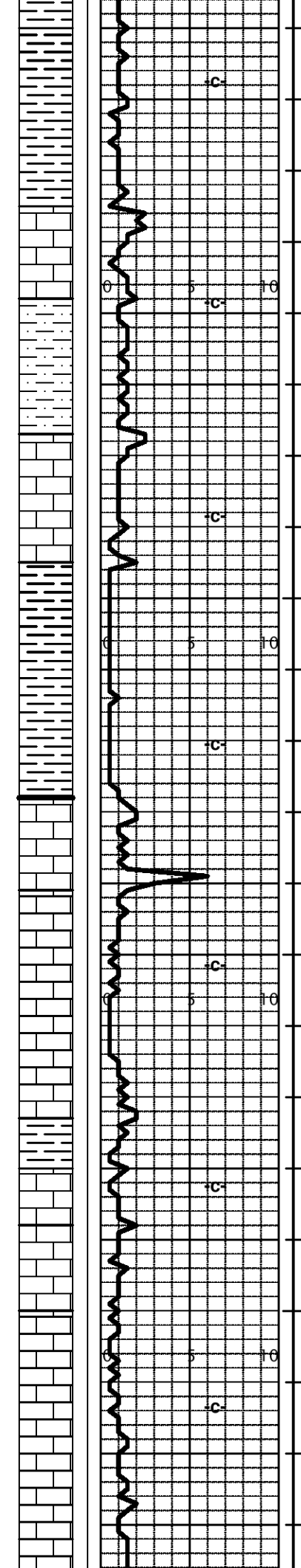
LS: dk gy & lt gy & tn & gy-bn, sm fos Pkst, Vargil. (1616' spl)

vis 37  
LCM 4#

~20% SD CLUST: lt gy, Vfn- fn Gr'd, Pred well cmt'd & silty, sm subfribl, micac, Pr- VPr Por, NS. Pred gy SH. (1646' spl)

Pred SH: dk gy. (1678' spl)

<p><b>LOST CIRCULATION</b>  <b>Circ TOH 5 jts</b>  <b>1465' (-193)</b>  <b>HEEBNER</b></p>	
<p><b>1500' (-228)</b>  <b>DOUGLAS SH</b></p>	
<p><b>1517' (-245)</b>  <b>DOUGLAS SD</b>  <b>{Fr-Gd Show Gas Cond, SI SFO}</b></p>	



Pred SH: gy-blk, sm lt gy Silts. (1709' spl)

-1700

LS: cm-gy-tn, mx- fnxln, VRr prt Mdx- 2nd ReX, sm fos Pkst, Pr IX & IGr Por & mFrc's w/FLR, VSI SFO & Cut, Vlt STN. (1739' spl)

{VSI SFO}

SILTS: lt-md gy, sm Vmicac. (1739' spl)

LS: cm-tn-gy, mx- fnxln, VRr Md- crsX's- 2nd ReX, Pred VPr- Pr Por: pp- vug Por, IX Por. ~20% w/subsat- sat FLR, VSI- SI SFO & GB, VSI Odor, spt'd- sat lt Tn STN & SI milky Cut. sm wh-chlky Pred VPr- NVP. (1771' spl)

{VSI- SI SFO}

-1750

Incrs SH: dk gy- blk, sm carb. (1802' spl)

{LANSING} LS: tn-gy-wh, Pred dn- mx, sm chlky w/VPr- NVP, Trc mFrc & IX Por w/FLR- SFO-Cut. 99% barren. (1802' spl)

1778' (-506)  
LANSING  
{Trc SFO}

-1800

LS: gy-tn-wh, Pred dn- mx- fnx, VRr fnxln- Mdx w/Pr- Fr IX Por & 2nd ReX. <5% w/spt'd- subsat FLR, VSI SFO & Gas Conds, Trc STN & Cut, >95% barren, sm wh-chlky. (1833' spl)

{VSI SFO & Gas Cond}

**MUD CHECKS**  
by FUD MUD:  
WT 9.2+, VIS 40  
PV 24, YP 18  
WL 10.4, pH 9.0  
CI 900, LCM 3.5#

sm SH: AA. (1864' spl)

LS: gy dn Mdst, sm argil, VPr- NVP.

LS: gy-tn-wh, sm grnlr Pkst w/Pr- Fr Por: IGr Por, IX Por, <5% w/FLR, Trc SFO & Cut. (1864' spl)

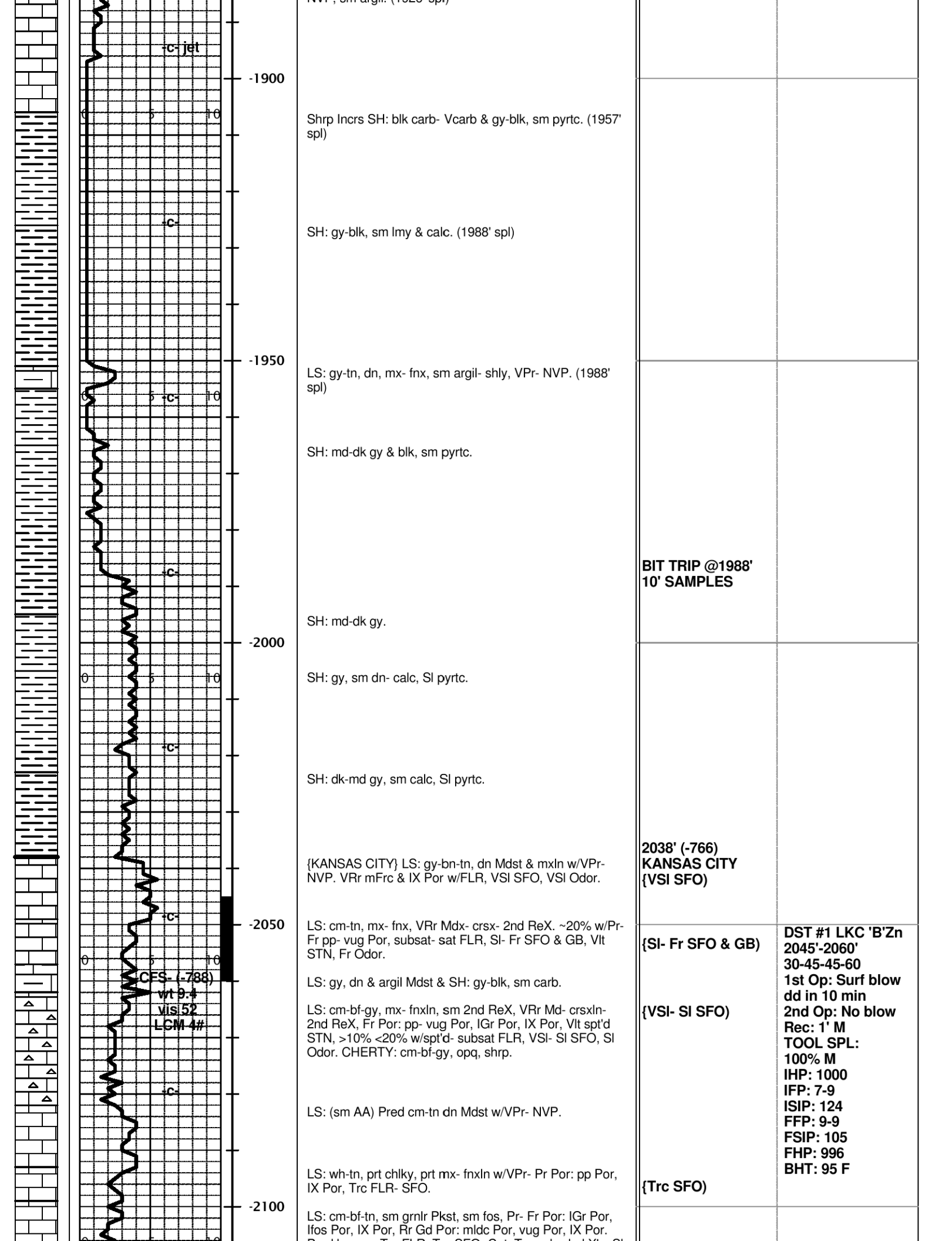
{Trc SFO}

-1850

LS: sm AA & Pkst w/Pr- Fr Por. <5% w/spt'd- subsat FLR & Trc SFO & Cut. sm wh chlky & sm dk gy dn Mdst. (1895' spl)

{Trc SFO}

LS: tn-gy-bn & wh, sm mot, Prd dn Mdst & mx- fnx w/VPr- NVP, sm argil. (1926' spl)



-c- jet

-1900

Shrp Incrs SH: blk carb- Vcarb & gy-blk, sm pyrct. (1957 spl)

-c-

SH: gy-blk, sm lmy & calc. (1988' spl)

-1950

LS: gy-tn, dn, mx- fnx, sm argil- shly, VPr- NVP. (1988' spl)

SH: md-dk gy & blk, sm pyrct.

-c-

SH: md-dk gy.

-2000

SH: gy, sm dn- calc, SI pyrct.

-c-

SH: dk-md gy, sm calc, SI pyrct.

{KANSAS CITY} LS: gy-bn-tn, dn Mdst & mxln w/VPr- NVP. VRr mFrc & IX Por w/FLR, VSI SFO, VSI Odor.

-2050

LS: cm-tn, mx- fnx, VRr Mdx- crsx- 2nd ReX. ~20% w/Pr- Fr pp- vug Por, subsat- sat FLR, SI- Fr SFO & GB, Vlt STN, Fr Odor.

CES- (-788)  
 wt 9.4  
 vis 52  
 LCM 4#

LS: gy, dn & argil Mdst & SH: gy-blk, sm carb.

LS: cm-bf-gy, mx- fnxln, sm 2nd ReX, VRr Md- crsxln- 2nd ReX, Fr Por: pp- vug Por, IGr Por, IX Por, Vlt spt'd STN, >10% <20% w/spt'd- subsat FLR, VSI- SI SFO, SI Odor. CHERTY: cm-bf-gy, opq, shrp.

LS: (sm AA) Pred cm-tn dn Mdst w/VPr- NVP.

LS: wh-tn, prt chlky, prt mx- fnxln w/VPr- Pr Por: pp Por, IX Por, Trc FLR- SFO.

-2100

LS: cm-bf-tn, sm grnlr Pkst, sm fos, Pr- Fr Por: IGr Por, Ifos Por, IX Por, Rr Gd Por: mldc Por, vug Por, IX Por.

**BIT TRIP @1988'  
10' SAMPLES**

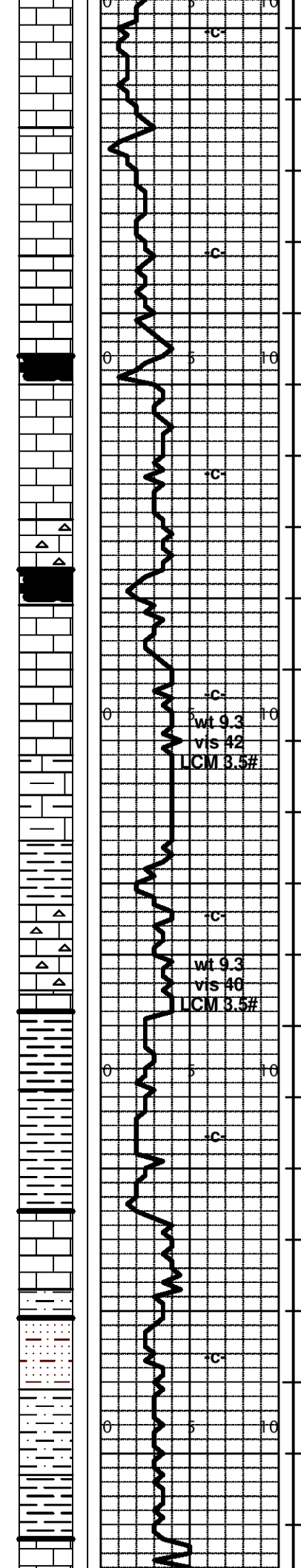
**2038' (-766)  
KANSAS CITY  
{VSI SFO}**

**{SI- Fr SFO & GB}**

**{VSI- SI SFO}**

**{Trc SFO}**

**DST #1 LKC 'B'Zn  
2045'-2060'  
30-45-45-60  
1st Op: Surf blow  
dd in 10 min  
2nd Op: No blow  
Rec: 1' M  
TOOL SPL:  
100% M  
IHP: 1000  
IFP: 7-9  
ISIP: 124  
FFP: 9-9  
FSIP: 105  
FHP: 996  
BHT: 95 F**



Pred barren. Trc FLR, Trc SFO- Cut, Trc euhedral X's. SI Cherty.

LS: tn-wh, ool & prt oomldc Pkst, sm fnxln & Md- VcrsX's- 2nd ReX, Fr- Gd Por: IGr Por, lool Por, mldc Por. <5% w/spt'd STN & FLR, SI SFO & Cut. Abndt barren Por, sm chlky.

{SI SFO}

LS: tn-gy, mx- fnxln, VRr Mdx, sm argil & dn.

-2150

{STARK} SH: gy-blk, sm carb. & LS: gy, dn & argil- shly.

2156' (-884)  
**STARK**

LS: tn-gy-wh, mx- Rr fnx, sm pp Por & IGr Por- Pkst, sm prt chlky, Pr- Fr Por w/ >10% <20% w/spt'd- sat FLR, mFrc & Edg & IX Por, VSI- SI SFO- Cut- Odor, spt'd STN.

{VSI- SI SFO}

WT 9.3, VIS 48  
PV 28, YP 22  
WL 9.2, pH 9.0  
CI 1100, LCM 3#

LS: AA & gy-tn dn Mdst & Wkst w/VPr- NVP. SI Cherty.

{HUSHPUCKNEY} SH: blk carb- Vcarb (Abndt in 2200' spl).

LS: cm-gy-tn- VRr STN, mx- Rr fnxln, sm fos Pkst, Pr- Fr Por: pp Por, lfos Por, IGr Por, IX Por, mFrc's w/FLR, VRr prt Mdx. <5% w/brt sat- spt'd FLR & VSI- SI SFO- Cut, SI Odor.

{VSI- SI SFO}

-2200

wt 9.3  
vis 42  
LCM 3.5#

LS: md-dk gy, dn Mdst, sm argil, VPr- NVP, NS.

LS: AA, Incrs dk gy argil Mdst, sm Vshly & calc- lmy SH.

SH: dk gy-blk, sm carb, sm SI pyrct.

LS: tn-wh & gy, Pred dn hd- mx w/Rr fnX's, SI CHERTY: cm-gy-tn, shrp, VPr- NVP.

LS: bn dn Mdst.

{BASE KANSAS CITY} SH: gy-blk, sm calc & lmy, sm pyrct, sm carb.

2248' (-976)  
**BASE KANSAS CITY**

-2250

wt 9.3  
vis 40  
LCM 3.5#

SH: AA, Incrs carb & pyrct- Vpyrct SH, sm lmy & calc.

{CHECKERBOARD} LS: tn-wh & gy, Pred dn- mx, VRr prt fnx, Rr Pkst- Wkst, Pr- NVP.

2276' (-1004)  
**CHECKERBOARD**

{HEPLER} SILTY SS- SD CLUST: (>10% <20%) lt gy & gn, Vfn Gr'd, silty- Vsilty, well cmt'd- calc & subfribl w/VPr- Pr Por. NS. NF. NC.

2291' (-1019)  
**HEPLER SD**

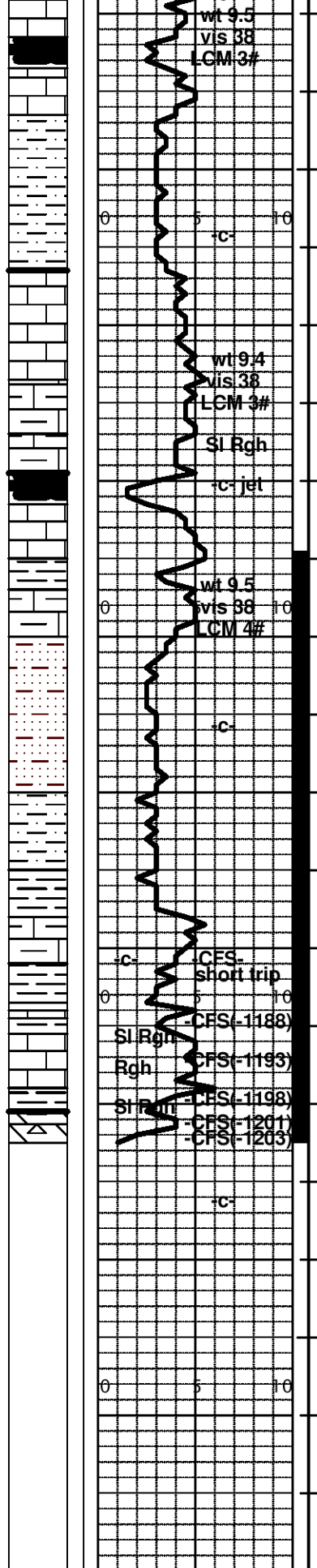
-2300

sm sndy silts. Pred SH: dk gy & gn-gy, sm SI sndy, sm micac.

SH: gn-gy, sm pyrct, SI micac.

2322' (-1050)  
**ALTAMONT**  
(Trc SFO)

{ALTAMONT} LS: tn-wh, Pred dn, sm mx- Vfnx, VRr prt oomldc w/Fr- Gd mldc Por. Trc SFO- dk bn w/dull Fl R-



SH: blk carb- Vcarb.

LS: gy-tn, dn Mdst & Wkst, Rr Pkst, sm ool & fos, Pred Pr- NVP, NS.

SH: gn-gy & gy-blk, sm blk carb. SILTS: sm calc & lmy. (LS: AA)

{PAWNEE} LS: gy-tn, PRed dn Mdst, sm argil & mx- fnx, VRR Pkst w/pp Por, IX Por, Trc FLR- SFO-STN- Cut.

LS: gy dn Mdst, sm argil w/VPr- NVP. (Trc FLR- SFO in LS, AA)

LS: AA, Pred dn & argil.

{CHEROKEE} SH: blk carb- Vcarb, pyrct.

LS: gy-tn, mxln & dn Mdst, Trc mFrc w/FLR- Trc SFO, >99% barren.

SH: gn-gy & blk carb.

LS: tn-gy-wh, dn Mdst, sm argil, VPr- NVP, sm shly & silty.

SILTY SS: gn-gy & bf-Tn STN, Vfn Gr'd, silty w/VPr- Pr visbl Por. >10% w/ dull subsat- sat FLR & SI SFO, SI- Fr SGB & Conds, Fr Odor, It Tn subsat- sat STN. >20% <30% w/ STN- SFO- Gas Conds, SI- Fr Cut.

SILTS & SH: lt-dk gy, micac, sm sndy.

SH: gy & sm blk pyrct.

SH: dk gy- blk, sm calc & lmy. & LS: gy, Vargil Mdst.

SH: gy-blk, sm pyrct, sm blk carb, sm calc & lmy dn Mdst.

Abndt LS: tn-gy-wh, dn to chlky, sm pyrct Mdst & cryptox-fnx & sm chlky & dk gy argil. (Incrs SH: in 2470' Circ spl)

{ARBUCKLE} DOLO: (2473' 20 min) ~50% ARB DOLO: tn-gy-bn, prt cm, sm mot, mx- fnxln, Pred dn- VPr Por: mIX Por, pp Por, mFrc w/FLR, VSI SFO- STN- Cut. (2473' 40 min) DOLO: AA, SI Incrs prt fnxln w/Pr IX Por & mFrc w/FLR- SI SFO- Cut- STN- SI Odor. (2473' 60 min) DOLO: AA, Trc Chert w/ pp- vug Por, spt'd FLR- STN- SFO- Cut. (2475' 20 min) DOLO: AA, <5% sucro, Vfn-fnxln, Trc Mdx's, Fr- Gd IX Por, Trc sat STN, Fr SFO. Incrs Chert: fos- grnlr- frag & dolomc w/Pr- Fr Por, spt'd FLR- STN- Cut- Fr SFO. (2475' 40 min) DOLO: AA, ~5% sucro, fnxln, Trc prt Mdxln, Fr- Gd IX Por w/sat FLR- STN- Fr- Gd SFO & Cut, Frly strng Odor. CHERT: wh-tn- blu-gy, sm wthr'd, ool & fos w/vug Por, IGr Por, spt'd- subsat FLR- STN- SFO & Cut. (2475' 60 min) AA, Trc fn- Mdxln, sat STN & FLR, Fr- Gd SFO- Cut- Odor.

{Trc SFO}	
2363' (-1091) <b>PAWNEE</b> {Trc SFO}	
2389' (-1117) <b>CHEROKEE</b> {Trc SFO}	
{SI- Fr SFO & Gas Bubl/Cond}	
	WT 9.3+, VIS 56 PV 32, YP 24 WL 8.4, pH 9.0 CI 900, LCM 3#
2471' (-1199) <b>ARBUCKLE</b> {Fr- Gd SFO} 2475' (-1203) RTD	DST #2 ARB 2399'-2475' 30-45-45-60 1st Op: Wk blow bldg to 1.75" No BB 2nd Op: No blow, Incrs to .5" No BB Rec: 25' CO (grav 32.5) 20' OCM (15%O,85%M) TOOL SPL: 20%O,80%M IHP: 1185 ISIP: 11-19 ISIP: 914
VESS OIL CORP JW SMITH #48 2050'FNL & 815'FWL Sec 20-28S-04E BUTLER CO., KS API#15-015-23979	FFP: 22-32 FSIP: 913 FHP: 1184 BHT: 106 F



# Diamond Testing General Report

**JAKE  
FAHRENBRUCH - TESTER  
Cell: (620) 282-8977**

P.O. Box 157  
Hoisington KS 67544  
Office: (800) 542-7313

## General Information

**Company Name** Vess Oil Corporation  
**Well Operator** Vess Oil Corporation  
**Contact** Casey Coats  
**Site Contact** Roger Martin  
**Field** Augusta  
**Well Type** Vertical  
**Prepared By** Jake Fahrenbruch

**Well Name** JW Smith #48  
**Unique Well ID** DST #1 Kansas City 2045'-2060'  
**Surface Location** Sec 20-28s-4e-Butler Co.-KS  
**Test Unit** #5  
**Pool** Augusta  
**Job Number** F133  
**Qualified By** Roger Martin

## Test Information

**Test Type** Conventional Bottom-Hole  
**Formation** Kansas City 2045'-2060'  
**Start Test Date** 2013/05/30  
**Final Test Date** 2013/05/30

**Test Purpose** Initial Test  
**Gauge Name** 0062  
**Start Test Time** 01:08:00  
**Final Test Time** 08:09:00

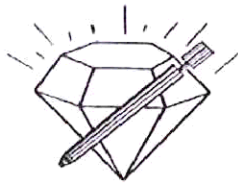
## Test Results

**30 min initial flow:** Surface blow, dead in 10 minutes.  
**45 min initial shut-in:** No blow.  
**45 min final flow:** No blow.  
**60 min final shut-in:** No blow.

**Recovered:** 1' Drilling Mud 100% mud  
Tool Sample: 100% Drilling Mud  
Bottom-Hole Temp: 95 Deg F

**Pressures:** IHP: 1000  
IFP: 7-9  
ISIP: 124  
FFP: 9-9  
FSIP: 105  
FHP: 996





**DIAMOND TESTING**  
P.O. Box 157  
HOISINGTON, KANSAS 67544  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: jwsmith48dst1

TIME ON: 01:08  
TIME OFF: 08:09

Company Vess Oil Corporation Lease & Well No. JW Smith #48  
Contractor C&G Drlg. Co., Rig #1 Charge to Vess Oil Corporation  
Elevation 1272' KB Formation Kansas City Effective Pay \_\_\_\_\_ Ft. Ticket No. F133  
Date 5.30.2013 Sec. 20 Twp. \_\_\_\_\_ Range 28 S County 4E W State KANSAS  
Test Approved By Roger Martin Diamond Representative Jake Fahrenbruch

Formation Test No. 1 Interval Tested from 2045 ft. to 2060 ft. Total Depth 2060 ft.  
Packer Depth 2040 ft. Size 6 3/4 in. Packer depth 4143 ft. Size 6 3/4 in.  
Packer Depth 2045 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 2024 ft. Recorder Number 0062 Cap. 5,000 P.S.I.  
Bottom Recorder Depth (Outside) 2057 ft. Recorder Number 11033 Cap. 5,150 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Mud Type Chemical Viscosity 52 Drill Collar Length 180 ft. I.D. 2 1/4 in.  
Weight 9.4 Water Loss 10.4 cc. Weight Pipe Length \_\_\_\_\_ ft. I.D. 2 7/8 in.  
Chlorides 900 P.P.M. Drill Pipe Length 1832 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number #5 (J&J) Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 15 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 FH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Surface blow, dead in 10 minutes.  
2nd Open: No blow.

Recovered 1 ft. of Drilling Mud 100% mud  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks: <u>Tool Sample: 100% Drilling Mud</u>	Price Job
	Other Charges
	Insurance
	Total

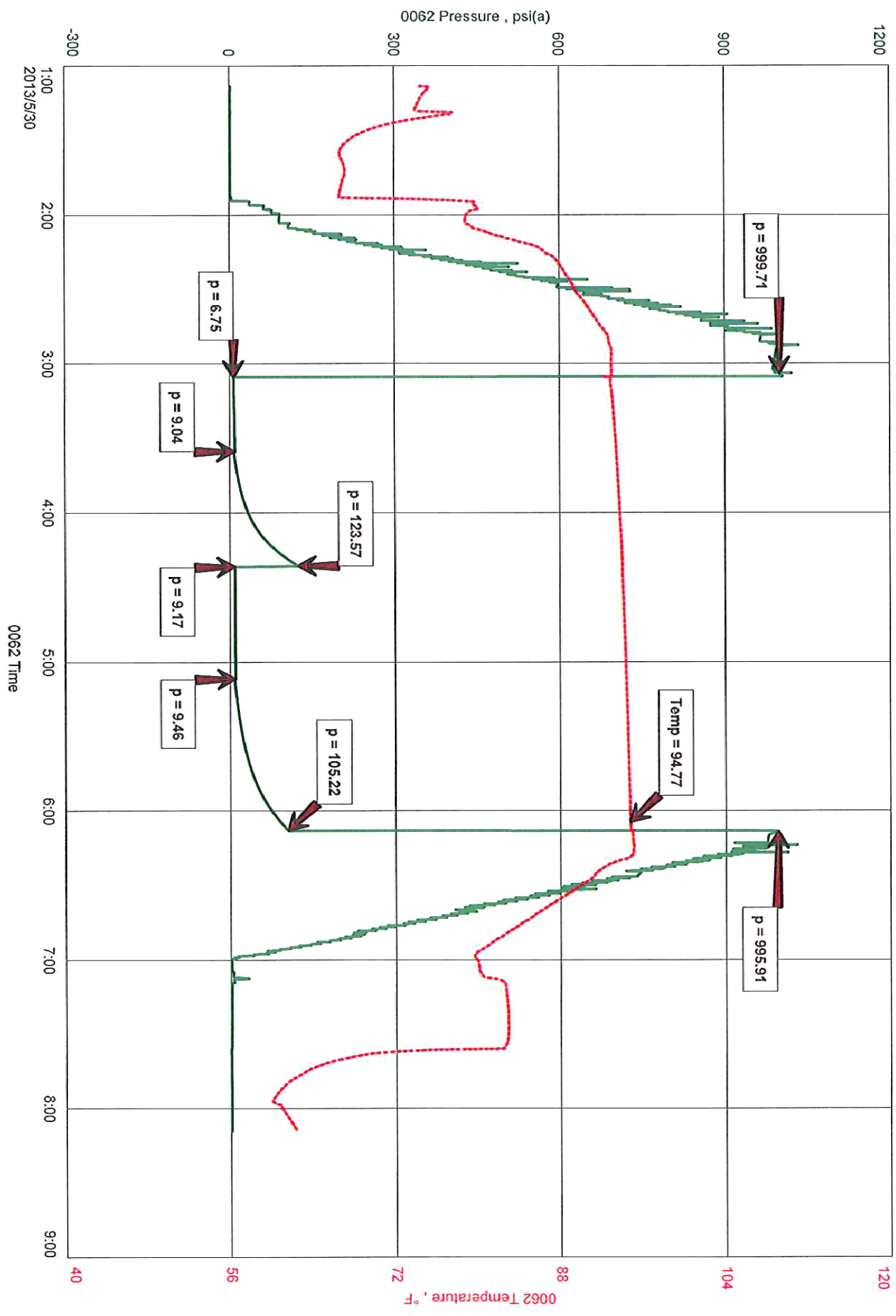
Time Set Packer(s) 03:05 A.M. P.M. Time Started Off Bottom 06:05 A.M. P.M. Maximum Temperature 95 Deg F  
Initial Hydrostatic Pressure..... (A) 1000 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 7 P.S.I. to (C) 9 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 124 P.S.I.  
Final Flow Period..... Minutes 45 (E) 9 P.S.I. to (F) 9 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 105 P.S.I.  
Final Hydrostatic Pressure..... (H) 996 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.

Vess Oil Corporation  
DST #1 Kansas City 2045-2060'  
Start Test Date: 2013/05/30  
Final Test Date: 2013/05/30

# JW Smith #48

JW Smith #48  
Formation: Kansas City 2045-2060'  
Pool: Augusta  
Job Number: F133





# Diamond Testing General Report

**JAKE  
FAHRENBRUCH - TESTER  
Cell: (620) 282-8977**

P.O. Box 157  
Hoisington KS 67544  
Office: (800) 542-7313

## General Information

<b>Company Name</b>	Vess Oil Corporation	<b>Well Name</b>	JW Smith #48
<b>Well Operator</b>	Vess Oil Corporation	<b>Unique Well ID</b>	DST #2 Arbuckle 2399'-2475'
<b>Contact</b>	Casey Coats	<b>Surface Location</b>	Sec 20-28s-4e-Butler Co.-KS
<b>Site Contact</b>	Roger Martin	<b>Test Unit</b>	#5
<b>Field</b>	Augusta	<b>Pool</b>	Augusta
<b>Well Type</b>	Vertical	<b>Job Number</b>	F134
<b>Prepared By</b>	Jake Fahrenbruch	<b>Qualified By</b>	Roger Martin

## Test Information

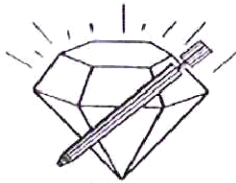
<b>Test Type</b>	Conventional Bottom-Hole	<b>Test Purpose</b>	Initial Test
<b>Formation</b>	Arbuckle 2399'-2475'	<b>Gauge Name</b>	0062
<b>Start Test Date</b>	2013/05/31	<b>Start Test Time</b>	20:30:00
<b>Final Test Date</b>	2013/06/01	<b>Final Test Time</b>	04:15:00

## Test Results

30 min initial flow:	Surface blow, increased to 1.75".
45 min initial shut-in:	No blowback.
45 min final flow:	No blow, increased to .5".
60 min final shut-in:	No blowback.

<b>Recovered:</b>	25'	Free Oil	100% oil
	20'	OCM	15% oil, 85% mud
	-----	Total Recovered Fluid: 45'	
	-----	Tool Sample: OCM, 20% oil, 80% mud	
	-----	Gravity: 32.5 (corrected)	
	-----	Bottom-Hole Temperature: 106 Deg F	

<b>Pressures:</b>	<b>IHP:</b>	1185
	<b>IFP:</b>	11-19
	<b>ISIP:</b>	914
	<b>FFP:</b>	22-32
	<b>FSIP:</b>	913
	<b>FHP:</b>	1184



**DIAMOND TESTING**  
 P.O. Box 157  
 HOISINGTON, KANSAS 67544  
 (800) 542-7313  
**DRILL-STEM TEST TICKET**  
 FILE: jwsmith48dst2

TIME ON: 30:30 5.31  
 TIME OFF: 04:15 6.1

Company Vess Oil Corporation Lease & Well No. JW Smith #48  
 Contractor C&G Drlg. Co., Rig #1 Charge to Vess Oil Corporation  
 Elevation 1272' KB Formation \_\_\_\_\_ Arbuckle Effective Pay \_\_\_\_\_ Ft. Ticket No. F134  
 Date 6.1.2013 Sec. 20 Twp. \_\_\_\_\_ 28 S Range \_\_\_\_\_ 4E W County \_\_\_\_\_ Butler State KANSAS  
 Test Approved By Roger Martin Diamond Representative \_\_\_\_\_ Jake Fahrenbruch

Formation Test No. 2 Interval Tested from 2399 ft. to 2475 ft. Total Depth 2475 ft.  
 Packer Depth 2394 ft. Size 6 3/4 in. Packer depth 4143 ft. Size 6 3/4 in.  
 Packer Depth 2399 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 2378 ft. Recorder Number 0062 Cap. 5,000 P.S.I.  
 Bottom Recorder Depth (Outside) 2472 ft. Recorder Number 11033 Cap. 5,150 P.S.I.  
 Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
 Mud Type Chemical Viscosity 50 Drill Collar Length 150 ft. I.D. 2 1/4 in.  
 Weight 9.4 Water Loss 8.4 cc. Weight Pipe Length \_\_\_\_\_ ft. I.D. 2 7/8 in.  
 Chlorides 900 P.P.M. Drill Pipe Length 2216 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number #5 (J&J) Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out NO Anchor Length 76 ft. Size 4 1/2-FH in.  
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 FH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Surface blow, increased to 1.75". No blowback.  
2nd Open: No blow, increased to .5". No blowback.

Recovered <u>25</u> ft. of <u>Free Oil</u>	<u>100%</u> oil
Recovered <u>20</u> ft. of <u>OCM</u>	<u>15%</u> oil, <u>85%</u> mud
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Remarks: <u>Total Recovered Fluid: 45'</u>	Price Job
Tool Sample: <u>OCM</u> <u>20%</u> oil, <u>80%</u> mud	Other Charges
Gravity: <u>32.5</u> (corrected)	Insurance
	Total

Time Set Packer(s) 22:35 A.M. P.M. Time Started Off Bottom 01:35 A.M. P.M. Maximum Temperature 106 Deg F

Initial Hydrostatic Pressure..... (A) 1185 P.S.I.  
 Initial Flow Period..... Minutes 30 (B) 11 P.S.I. to (C) 19 P.S.I.  
 Initial Closed In Period..... Minutes 45 (D) 914 P.S.I.  
 Final Flow Period..... Minutes 45 (E) 22 P.S.I. to (F) 32 P.S.I.  
 Final Closed In Period..... Minutes 60 (G) 913 P.S.I.  
 Final Hydrostatic Pressure..... (H) 1184 P.S.I.

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Vess Oil Corporation  
 DST #2 Arbuckle 2399'-2475'  
 Start Test Date: 2013/05/31  
 Final Test Date: 2013/06/01

# JW Smith #48

JW Smith #48  
 Formation: Arbuckle 2399'-2475'  
 Pool: Augusta  
 Job Number: F134

