ROGER L. MARTIN
INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY VESS OIL CORPORATION
LEASE COLAHAN 'B' #33
FIELD BEMIS-SHUTTS
LOCATION 460' FSL & 1560' FWL
SECTION 25 TOWNSHIP 11S RANGE 17W
COUNTY ELLIS STATE KANSAS

ELEVATIONS
KB 2001' GL 1996'
Measurements Are All From KB
API 15-051-26354-00-00

CONTRACTOR L.D. DRILLING, Rig #1
SPUD 09/21/2012 COMP 10/01/2012
RTD 3578' (-1577) LTD 3575' (-1574)
ELECTRICAL SURVEYS
PIONEER ENERGY SERVICES: DIL, CNL,CDL, MEL

CASING
SURFACE 13&3/8" set @ 90' w/120 sx
8&5/8" set @ 1182' w/550 sx
PRODUCTION 5&1/2" New J-55 set @ 3576' w/125 sx ASC

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	1181' ((+820)	1177' (+824)
BASE ANHYDRITE	1212' (+789)	1220' (+781)
TOPEKA	2923' (-922)	2925' (-924)
HEEBNER SH	3168' (-1167)	3171' (-1170)
TORONTO	3191' (-1190)	3196' (-1195)
LANSING	3215' (-1214)	3219' (-1218)
MUNCIE CREEK SH	3336' (-1335)	3338' (-1337)
STARK SH	3403' (-1402)	3405' (-1404)
BASE KANSAS CITY	3447' (-1446)	3450' (-1449)
EROS ARBUCKLE	3473' (-1472)	3475' (-1474)
ARBUCKLE	3477' (-1476)	3480' (-1479)
LTD/RTD	3575' (-1574)	3578' (-1577)

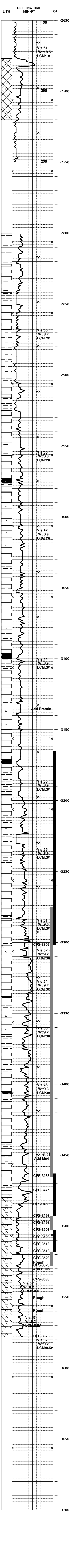
CHRONOLOGY

09/21/2012- MIRU. SPUD 6 PM.
DD & Set Conductor. Plug Down 11:30 PM.
09/22/2012- DTD 93'. WOC.
09/23/2012- DTD 1182'. Ran 8 5/8" new 24#. Set @ 1182' w/400 sx Lite and 150 sx Common w/3% CC, 2% Gel, Circ by Allied. PD- 5 AM. D/O plug @ 5 PM.
09/24/2012- Drlg @ 1825'.
09/25/2012- Drlg @ 2540'.
09/26/2012- Drlg @ 3335'.
09/27/2012- Drlg @ 3340'. Ran DST #1.
09/28/2012- Drlg @ 3485. Ran DST #2.
09/29/2012- DTD 3503'. Ran DST #3.
Ran DST #4.
09/30/2012- DTD 3523'. Ran DST #5.
10/01/2012- RU Pioneer and ran DI, ND and Micro logs. LTD 3575'. TIH to Condition, Circ 1 hr. LDDP. Ran shoe, 1 jt 5&1/2", latchdown baffle and 5&1/2" 15.5# new J-55 API Maverick casing. Tagged bottom @ 3577'. Picked up 1', Circ & rotated 1 hr. Cemented @ 3576' w/500 gal mud flush, 125 sx ASC, 10% NaCl, 2% gel, 1/4#/sk Flocele, 5%/sk Gilsonite. Displaced w/84 BW. Rotated to within 70 bbl of displacement and began torquing up. Plug landed w/1800 and held. Had good circulation and lift pressures throughout and cellar stayed full. Plugged rathole w/30 sx. Ran 2 baskets, 5 scratchers across Arbuckle and 8 centralizers (1,2,4,6,8,10,12,16).
PC- 1195'.

REMARKS: **E-log tops by P.Ramondetta, Geologist, VOC

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

LITH | DRILLING TIME MIN/FT | DST | SAMPLE DESCRIPTION | REMARKS



SAMPLE DESCRIPTION

LS: tn-gy, dn-mx w/VPr- NVP & NS. sm argil- shly.
SH: gy-gn, sm calc & lmy
& LS: gy-tn, sm argil, sm Wkst- Pkst, mot & SH:AA.

LS: gy-tn-cm, pred dn- mx w/Rr fnx's, Sl fos, VPr- NVP, NS.

LS: AA & gy, Vargil & shly, VPr- NVP.

SH: gy, sm calc & lmy & gy- blk.

LS: tn-gy-cm, prd dn- mx- vfnxln, sm mot Wkst- Pkst, VvPr- NVP, NS. & gy dn- argil Mdst.

SILTS: gy-gn, sm sndy: Vfn Gr'd, calc, sm micac & SH: gy- blk.

SILTS: gn-gy, sm sndy, micac & calc, sm lmy, Incrs SH: gy-blk.

SH: AA, decrs SILTS.

LS: cm-bf-gy, dn mx, sm Wkst- Pkst, sm argil, VPr- NVP, NS.

SH & sm SILTS: pred gy.

{TOPEKA} LS: cm-gy & tn, pred dn- mx Mdst, sm Wkst, Rr Pkst w/Pr- NVP, sm argil.

LS: AA, Incrs gy argil dn Mdst, VPr- NVP & SH: gy- blk, Rr gn & rd.

LS: sm wh-chlky & cm-tn, mx- vfnxln, Rr prt fnxln- 2nd ReX & sm fnly grnlr Pkst, VPr- Pr visbl Por: mIX Por, mI.Gr Por. NS.

Rr SH: blk carb- Vcarb.

LS: gy-tn, dn Mdst & SH: (Rr) gn-gy.

LS: gy-tn-wh, pred dn Mdst, sm chlky, VPr- NVP, sm Sl fos Wkst, NS.

LS: gy-tn-wh, pred dn Mdst- Wkst, sm chlky, VPr- NVP, NS. sm argil; Sl CHERTY: blu-gy, shrp, opq.

LS: cm-tn-gy, mx- Rr fnxln, sm fos & ool Pkst, prt wh-chlky, VPr- Pr Por, NS. Trc Fr visbl I.fos & I.Gr Por, NS. CHERTY: pred dk blu-gy, opq, shrp.

LS: cm-tn-gy, mx- Rr fnx, sm mot Pkst, VPr- Pr Por, Pred dn Mdst- Wkst, sm chlky, sm argil.

SH: gy-blk, sm carb.

LS: gy dn Mdst- Wkst.

SH- SILTS: gn-gy.

LS: cm-tn-gy, sm Pkst & mx- fnx w/VPr- Pr visbl Por, NS. Pred dn- mx & sm wh-chlky, VPr- NVP, NS. Sl Cherty: AA.

LS: gy-tn-wh, pred dn to chlky; sm Wkst- Pkst- fos, mot, VPr- Pr Por, NS. VCHERTY: dk- lt blu-gy, shrp, sm fos, VPr- NVP, NS.

SH: gn-gy, sm calc & lmy.

LS: cm-tn-gy, pred dn, sm fos Pkst & Wkst, sm argil, VPr- NVP, NS.

SH: blk carb- Vcarb.
LS: gy-tn dn Mdst.

SH: gn-gy, sm calc & lmy.

LS: cm-tn-gy, sm Wkst- Pkst, fos & mx- Rr fnxln, VPr- Pr Por: pp- vug Por, IX Por, Trc spt'd- subsat STN & VPr Cut, NFO. >99% barren. Abndt wh-chlky, Pred VPr- NVP & barren. sm argil.

LS: cm-tn, gy, pred dn- Mdst- Wkst; sm argil, Rr Pkst- ool & fos w/VPr- Pr Por, NS; & sm wh-chlky LS w/Pr- VPr Por, NS. Sl CHERTY: wh-gy-tn, sm fos- shrp.

LS: gy-tn, cm, pred dn Mdst w/VPr- NVP, NS.

LS: cm-tn-gy, sm mot Pkst & mx- fnx, prt wh-chlky, Pr- NVP, NS.

{HEEBNER} SH: blk carb- Vcarb.

LS: gy-tn, dn- mx, sm argil.

SH: gn-gy & mrn-rd.

{TORONTO} LS: wh-tn, prt chlky & mx- fnx, <5% w/VPr- Pr Por: pp Por, mIX Por, spt'd- subsat lt Tn STN w/Trc SFO & Cut.

SH: gn-gy & mrn-rd, sm calc & lmy SH.

{LANSING 'A' Zn} LS: tn-gy-wh, pred dn- mx- fnx, sm chlky, sm argil- shly Mdst. Sl CHERTY: lt- dk gy, sm chlky.

SH: gn-gy & blk & mrn.

{LANSING 'B' Zn} LS: cm-tn-gy, mx- Rr fnxln, sm fos Pkst, Trc VPr- Pr Por: pp Por, mIX Por w/Trc SFO & STN.

SH: gy-blk, gn-gy & mrn-rd.

{LANSING 'C' Zn} LS: cm-tn & gy-wh, mx- Rr fnxln, sm fos Pkst, ~5% w/Pr- Fr Por: pp Por, I.fos Por, IX Por, ~5% w/spt'd- subsat STN & Sl SFO&GB, VSl Odor, sm chlky, Pred barren w/VPr- NVP.

{LANSING 'D' Zn} LS: tn-wh, mx- fnxln, sm 2nd ReX, >5% <10% w/Pr- Fr Por: pp- vug Por & sm Pr IX Por w/spt'd- subsat Tn STN & Sl- Fr SFO&GB, Sl Odor, sm wh-chlky, pred dn- NVP & barren.

{LANSING 'E' & 'F' Zn} LS: cm-tn, mx- Rr fnxln, sm ool & fos Pkst, Trc Grst, Pr- Fr Por: I.fos, I.ool & I.Gr Por, IX Por, ~10% w/spt'd- subsat lt Tn STN, Sl- Fr SFO&GB, Sl Odor, Trc sqr Oil, sm dull FLR. Sl Cherty.

{LANSING 'G' Zn} LS: cm-tn, mx- prt fnxln, Trc MdX's- 2nd ReX, sm ool & prt oomldc w/Pr- Fr oomldc Por, Trc Gd Por. ~5% w/spt'd Tn STN & Sl SFO, sm sqr Oil, Trc dd STN, sm barren Por, Sl Cherty, Pred dn,sm chlky.

LS: wh-tn-gy, prt chlky, pred dn- mx- fnx- 2ReX w/VPr- NVP & barren. (Trc LS, AA w/ Por & STN- SFO)

LS: tn-wh, pred dn- mx- fnx AA, prt wh-chlky, Pred VPr- NVP w/NS. (>99% w/NS)

{MUNCIE CREEK} SH: blk carb. & LS: gy- argil & dn & shly.
SH: gn-gy & mrn-rd.

{LANSING 'H' Zn} LS: tn-gy-wh, pred dn- mx- fnxln, sm chlky, Sl CHERTY: cm-bf-gy, shrp. <5% w/vPr- Pr Por: pp Por, I.Gr Por, IX Por w/spt'd STN, sm blk dd STN, Trc Fr vug Por w/subsat Tn-bn STN & VSl SFO, Trc grnlr Cherty w/Por- STN & Trc SFO, VSl Odor.

SH: gn-gy & mrn-rd.

{LANSING 'I' Zn} LS: cm-tn & gy, mx- fnxln, sm mot- fos Pkst. CHERTY: cm-bf-gy, pred shrp, sm fos, Rr Pr- Fr Por: pp- vug Por w/spt'd STN, Sl SFO & spt'd dd blk ST, Trc Gd Por w/STN.
SH: gn-gy, sm calc & lmy, & mrn-rd.

{LANSING 'J' Zn} LS: tn-gy-wh, pred dn- mx- fnx, VRr 2nd ReX, Trc MdX's- VcrsX's, Trc pp- vug Por w/STN-SFO, Trc dd STN, sm wh chlky. ~5% w/Tn-bn STN & Sl SFO, ~5% w/dd STN.
LS: tn-gy-wh, pred dn-mx- fnx w/Pr- NVP. >99% w/NS.
{STARK} SH: blk carb-Vcarb.
LS: gy, dn- argil.
SH: gy, sm calc & lmy.

{LANSING 'K' Zn} LS: cm-tn, mx- fnxln w/2nd ReX, sm fragmntl fos Pkst, Trc Grst, ~10% w/Pr- Fr Por: pp- vug Por, I.fos Por, I.Gr Por, IX Por w/spt'd- subsat Tn STN, Sl- Fr SFO&GB, Sl Odor, Sl- Gd Cut; VRr GdPor w/subsat- sat STN. Pred dn- chlky.

{HUSHPUCKNEY} SH: VRr blk carb, Abndt gn-gy, sm calc & lmy. {LANSING 'L'} LS: tn-gy-wh, mx- fnxln, ~5% w/Fr- Gd Por: I.Gr, IX, I.fos Por w/spt'd- sat STN, Sl- Fr SFO& GB, Sl- Gd Cut, Sl Odor. ~5% w/Pr Por, spt'd STN- SFO. {BASE KANSAS CITY} SH- SILTS: gn-gy & mrn-rd, sm calc & lmy.

LS: cm-tn & mrn tint, mx- vfnxln, fn ool & fos Pkst, <5% w/Pr- Fr Por: I.ool & fos w/spt'd- subsat STN- SFO (Abndt LS: AA, pred dn to chlky) (After DST #2), VRr Pkst w/Fr Por, SFO- STN, AA.

SH: gy-blk & gn-gy & rd.

{EROS ARB} LS: tn-gy-wh, mot, mx- fnxln, Trc MdX's, sm Pkst, prt chlky, VRr Pr Por, spt'd STN- SFO. CHERTY: wh-gy, shrp & wthr'd, Rr Por w/SFO- STN.
{ARBUCKLE} DOLO: bf-tn- STN, mx- fnxln, %50% sucro w/Fr- Gd IX Por, Rr mldc- vug Por, spt'd- sat STN, Fr- Gd SFO, sm FLR. CHERTY.
(3493' Circ Spl) DOLO: AA, >5% <10% prt mdxln & grnlr w/Fr- VGd IX Por, I.Gr Por, subsat- sat STN, Fr- Gd SFO, Strng Odor. VCHERTY. (3498' Circ Spl) DOLO: AA, ~50% fnxln sucro, Fr- Gd IX & vug Por w/sat STN, Fr-Gd SFO, Strng Odor, VCHERTY. (3503' Circ Spl) DOLO: bf- tn, mx- fnxln, >70% dn- Pr Por, spt'd STN & barren. >30% w/Fr Por, subsat- sat STN, Sl- Fr SFO, Fr Odor. VRr Gd Por. (3508' Circ Spl) DOLO: ~40% Fr- Gd Por, Vfn- fnxln, IX Por vug & mldc Por w/STN, Fr- Gd SFO&GB. VCHERTY.
(3518' Circ Spl) DOLO: 20% vfn-fnxln w/Fr-Gd Por AA, spt'd- sat Tn STN, Fr SFO, ~5% prt MdX w/Gd Por. CHERTY.
(3523' Circ Spl) DOLO: AA, pred dn- Pr Por w/spty STN, CHERTY.
(3528' Circ Spl) DOLO: Tn-STN & bf, ~10% mdxln w/Fr- VGd Por: IX & vug Por, sat STN, Gd SFO, Strng Odor.

DOLO: AA, ~10% mdxln sucro-rhmbc w/Fr- VGd Por, w/sat Tn-bn STN & Fr-VGd SFO. ~50% fnxln- sucro w/Fr- Gd IX Por & spt'd- sat STN, Sl- Fr SFO, sm dd STN. Abndt dn DOLO to Por Por w/sm spt'd STN & Sl SFO; sm barren Por & sm V dn & barren.

DOLO: tn-gy-cm, ~20% fn-mdxln w/Fr- Gd IX Por & vug Por w/spt'd- sat Tn-bn STN & Sl- Fr SFO, Pred dn to Pr Por w/sl spt'd STN & barren. CHERTY: wh-cm-blu-gy, shrp & wthr'd.

DOLO: tn-gy-bf-cm, mx- mdxln, sm dn to Pr Por, VRr prt crsxln, VRr VGd IX Por- rhmbc & vug Por, sm spt'd STN & Rr barren Gd- VGd Por; ~10% w/spt'd STN & Sl SFO (Trc sat STN, AA), sm dd STN, Abndt dn to Pr Por. CHERTY: cm-bf & blu-gy, sm mot, fos, shrp.

REMARKS

1177' (+824)
ANHYDRITE

1220' (+781)
BASE ANHYDRITE

2925' (-924)
TOPEKA

3171' (-1170)
HEEBNER SH

MUD CHECKS by MUD-CO:
WT 8.9, VIS 55
PV 14, YP 26
pH 11.0, WL 7.4
Cl 2900, LCM 3#

3196' (-1195)
TORONTO
~~{Trc SFO)~~

DST #1
TOR- LANS 'F'
3165-3302'
30-45-45-60
1st Op: Few bbl on Op, then No blo; No BB
2nd Op: No Blo, No BB.
Rec: 15'M (100%M)
TOOL SPL: 100% M w/few Oil Spts.
IHP: 1509
IFP: 20-23
ISIP: 175
FFP: 24-25
FSIP: 101
FHP: 1496
BHT: 100 F

3219' (-1218)
LANSING

{Trc SFO)

{Sl SFO&GB)

{Sl- Fr SFO&GB)

{Sl- Fr SFO&GB)

{Sl SFO)

WT 9.2, VIS 54
PV 12, YP 26
pH 10.5, WL 7.6
Cl 3000, LCM 3#

3338' (-1337)
MUNCIE CREEK SH

{VSl SFO)

DST #2
LKC 'G'- 'L'
3275'-3465'
30-45-45-60
1st Op: GSB, Incrs to 3.5", No BB.
2nd Op: WSB, Incrs to 1.5", No BB.
Rec: 175' M (100% M)
TOOL SPL: 100% M w/ few Oil spks
IHP: 1595
IFP: 26-66
ISIP: 792
FFP: 71-103
FSIP: 708
FHP: 1546
BHT: 100 F

{Sl SFO)

{Trc SFO)

3405' (-1404)
STARK SH

{Sl- Fr SFO)

{Sl- Fr SFO)
3450' (-1449)
BASE KANSAS CITY

{Sl SFO)

DST #3
ARBUCKLE
3463'-3493'
30-45-45-60
1st Op: WSB, Incrs to 4.25", No BB
2nd Op: WSB, Incrs to 3.5", No BB
REC: 166' GIP, 78' GO (5%G,95%O)
73'GHOCWM (10%G,49%O, 6%W,35%M)
Tool took 15-20'M on intial open
TOOL SPL: 8%G,31%O, 4%W,57%M
IHP: 1650
IFP: 37-49
ISIP: 480
FFP: 55-75
FSIP: 463
FHP: 1600
BHT: 102 F

3475' (-1474)
EROS ARBUCKLE
3480' (-1479)
ARBUCKLE (SOLID)
{Fr-Gd SFO)

DST #4
ARBUCKLE
3493-3503'
30-45-45-60
1st Op: GSB, Decr to WInterSB, No BB
2nd Op: Wk .25" blo, Decr to WInterSB, No BB
REC: 86' GIP. <1' CO w/trc W
40' GOCWM (2%G,22%O, 6%W,70%M)
Cl 600 ppm
TOOL SPL: 6%G,31%O, 18%W,45%M
IHP: 1698
IFP: 21-23
ISIP: 480
FFP: 26-28
FSIP: 445
FHP: 1632
BHT: 102 F

DST #5
3503-3518'
30-45-45-60
1st Op: WSB, Incrs to 1" & Decr to WInterSB, No BB
2nd Op: WSB throughout, No BB
REC: 30' GIP, 5' GOSWM (4%G,95%O, 1%W)
50' GOSWM (2%G,2%O, 36%W,60%M)
Cl 1100 ppm
TOOL SPL: 3%G,19%O 32%W,46%M
IHP: 1648
IFP: 16-24
ISIP: 440
FFP: 27-34
FSIP: 427
FHP: 1627
BHT: 102 F

3578' (-1577)
RTD

DST #6
3518-3528
30-45-45-60
1st Op: WSB, Incrs to 1.25", No BB
2nd Op: WSB throughout, No BB
REC: 1'O w/trc W 64' MW (70%W,30%M- Odor like Arb W)
Cl 1500 ppm
TOOL SPL: 2%G,6%O, 42%W,50%M
IHP: 1663
IFP: 16-27
ISIP: 882
FFP: 30-42
FSIP: 865
FHP: 1658
BHT: 105 F

WT 9.2, VIS 59
PV 16, YP 28
pH 10, WL 7.8
Cl 3500, LCM 9#

VESS OIL CORP
COLAHAN 'B' #33
460' FSL 1560' FWL
Sec 25-11S-17W
ELLIS CO., KS
15-051-26354-00-00