ROGER L. MARTIN

INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY VESS OIL CORPORATION

LEASE WIDMAN #7 (corrected)

FIELD PARADISE CREEK

LOCATION 1320' FSL & 2310' FWL (C-E/2-E/2-SW/4)

SECTION 21 TOWNSHIP 09S RANGE 18W

COUNTY ROOKS STATE KANSAS

ELEVATIONS

KB 2172' GL 2164'

Measurements Are All From KB: 2172'

API 15-163-24371-00-00

CONTRACTOR DISCOVERY DRILLING, RIG#1

SPUD 10/18/2018 COMP 10/27/2018

RTD 3587' (--1415) LTD 3588' (-1416)

ELECTRICAL SURVEYS

ELI: DIL; SONIC & MEL

3 DST's by TRILOBITE TESTING

CASING

SURFACE 5jts 8&5/8"x23#LS set@221' w/180sx common +2%gel; 3%CaCl

PRODUCTION 85jts New 5&1/2"x15.5 set@3580'w/150sxAA2+180sxA-con(see Rema ks)

FORMATION TOPS	LOG	SAMPLES
STONE CORRAL ANHYDRITE	1502' (+670)	1504' (+668)
BASE/S.C. ANHYDRITE	1540' (+632)	1542' (+630)
TOPEKA	3073' (-901)	3074' (-902)
OREAD	3235' (-1063)	3233' (-1061)
PLATTSMOUTH PORO*	3259' (-1087)	3256' (-1084)
HEEBNER SH	3290' (-1118)	3290' (-1118)
TORONTO*	3311' (-1139)	3312' (-1140)
LANSING	3332' (-1160)	3332' (-1160)
STARK SH	3516' (-1344)	3519' (-1347)
BASE/KANSAS CITY	3555' (-1383)	3556' (-1384)
ARBUCKLE	3577' (-1405)	3577' (-1405)
TOTAL DEPTH (LTD / RTD)	3588' (-1416)	3587' (-1415)

CHRONOLOGY

10/18/2018; Contacted KCC: Ed Schumacker; Spud 12&1/4" hole @ 8:45am. Set 5 jts 8&5/8" LS 23# surf. csg @ 221' & Basic cmt'd w/180sx common w/3%CaCl; cmt did circ. Plug Down@2:00pm; Drill out plug@10:pm.

10/19/'18; DTD:835' @ 7:00am {Drlg 7&7/8" hole}

10/20/'18; DTD: 2150' @ 7:00am.

10/21/'18; DTD: 2680' @ 7:00am;
MdWt:8.8; Vis:60+; LCM:10 #/bbl

10/22/'18; DTD: 3185' @ 7:00am; Md.Wt:8.9; Vis:61 LCM:10#; Smoky Hills Tank pulled~400bbls from the reserve pit & took to SWD.

10/23/'18; DTD: 3435' Prep for DST#1; Oread-LKC:Gzn (3200'--3435') Md.Wt:9.1; Vis:60; LCM:10->12#/bbl
Short trip; CTCH & spot 90 bbl mud w/LCMcut for DST#1

10/24/'18; DTD;CFS@3560'@~7:00am; PM:DTD:3580'
Short Trip; CTCH; spot 100 bbls LCM cut mud pill in prep for DST#2: ARB (3540'--3580')

10/25/'18; DST#2: ARB @ 3580' @ 7:00am

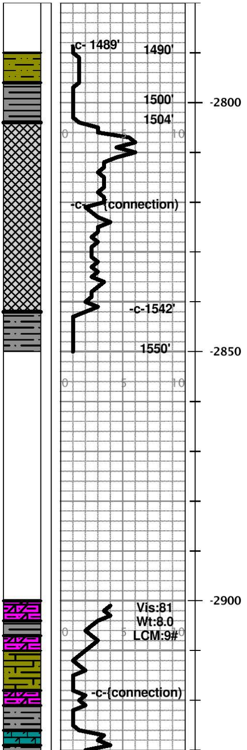
10/26/'18; DTD: 3587' @ 7:00am; Prep to run DST#3: ARB (3538'--3587'). Prep to run OH-E-logs; RU ELI-ran DIL; MIL & Sonic.

10/27/'18; RTD:3587'/LTD:3588'; Ran 85jts 5.5"x15.5#csg (See REMARKS for more details) 1st stage PD @ 3:15am 2nd stage Plug Down @ 7:45am. Released rig @ 8:15am.

REMARKS: E-LOG TOPS BY PAUL RAMONDETTA, GEOLOGIST, VESS OIL CORP. & BY *RLM.

ON 10/27/2018, RAN 85 JTS OF NEW 5&1/2", 15.5# MW-55 CASING {TALLY=3582.51')
+ PACKER SHOE {~2.50') + DV TOOL {~2') =~3587' TOTAL. CIRC & TAGGED BOTTOM;
PICKED UP TO SET PACKER SHOE @ 3580'; DROPPED BALL, SET PACKER SHOE;
PUMPED MUD FLUSH AND H2O SPACER. BASIC CEMENTED W/ 150 SX AA2 (14.4
PPG). LANDED PLUG W/ 1500 PSI @~3:15AM. FLOAT EQUIPMENT HELD. DROPPED
DV OPENING TOOL; OPENED DV, PUMPED H2O SPACER; PLUGGED RATHOLE W/
30SX. CEMENTED 2ND STAGE W/ 180SX A-CON BLEND {11.6 PPG). LANDED 2ND
STAGE PLUG @ 7:45AM. CEMENT DID CIRCULATE TO SURFACE.
PACKER SHOE @~3580'. INSERT@~3535'. DV TOOL @~1527'
2 BASKETS @~3535' & @~1545'
8 CENTRALIZERS: @~3492', @~3449', @~3321', @~3193', @~3150', @~3108'
@~1440', & @~1228'
JOB SUPERVISION BY DYLAN KLAUS, PE, OPERATIONS ENGR. @ VESS OIL CORP.
& ROGER MARTIN, GEOLOGIST (& CSG/CMT JOB SUPERVISOR) @ WELL-SITE.
VESS OIL CORP. GEOLOGISTS: PAUL J RAMODETTA, & KR BLACK
REPECTFULLY SUBMITTED,
ROGER L MARTIN, GEOLOGIST (print length=70")

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



1504' (+668)
STONE CORRAL
ANHYDRITE

{DV Tool @~1527')

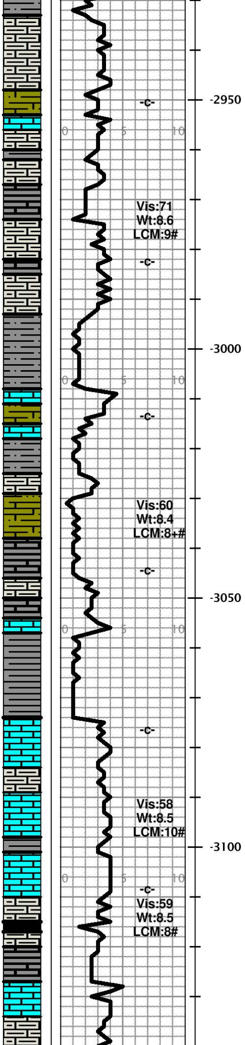
1542' (+630)
B/S.C. ANHY.

Mud-Co Report 10/20/18@7:45am Drlg @ 2161' Wt:9.4 Vis:28 pH:7.0 WL:NC Cl: 42,000 ppm Ca: Hvy Solids: 5.4% LCM: Nil Displace Mud system@~2600'	Mud-Co Report 10/21/18; 3:05pm Drlg @ 2706 Wt:8.8 Vis:60+ PV:17 YP:31 pH:11.5 WL:6.0 CT:1/32" Ca:Nil Alkal.Filtr:1.1/1.5 Cl: 2,100 ppm Solids: 3.5% LCM: 10#/bbl ECD: 9.61#/gal.

{2920'spl} sm DolomcLS{DLS) - DOLO: bf-tn-cm, micro-xln{ux) - Vfnxln, sucro, sm prt fnxln (fnx) & prt mdxln{mdx) - 2nd Re-crystalization {2nd ReX) pr-Fr visbl Porosity{Poro); Inter-Xln-Poro{IXP) w/ NS; sm gy-tn, dn-ux & Mdst, sm argil; NS; & SH: pred gy-bk.

20'samples{spls)
wet cup & bags
& dried by RLM

{2940'spl} SH: As Above {AA) sm bk-carb, sm pyrtc; Rare {Rr) Sdy SILTS; Rr DLS-DOLO:AA; & LS:cm-gy-tn, sm Wkst-Pkst-sl fos, & sm ux-fnxln, sm dolomc:AA, pred pr visbl Poro to No Visible Poro {pr-NVP) w/ No Show {NS).



{2960'spl} LS:AA; & Lt-dk-gy, dn argil Mdst & ux-dn, Vpr-NVP; NS; & sm SH:AA.

{2980'spl} LS: Lt-dk-gy, sm mot- Wkst-Pkst, sm argil, & ux-fnxln, w/ Vpr-NVP w/ NS; & sm SH:gy-bk, sm carb, & V.rare {Vrr) gn-gy pyrtc SH.

{3000'spl} LS: Lt-dk-gy, tn-cm, ux-Vfnxln,& sm Wkst-Pkst, sm argil-shly; pred Vpr-NVP; NS.

{3010'spl} LS:AA; pred dn-ux, & argil- Mdst-Wkst, w/ Vpr-NVP, Vrr Vpr Poro w/ NS; & SH:AA.

{3020'spl} SH: Vgated, gy-bk, sm carb, & SILTS: Lt-dk-gy, micac.

{3040'spl} Abndt LS:Lt-dk-gy & cm, sm mot-Wkst-Pkst, & ux-fnxln, sm argil- pred pr-NVP; Trc Fr-Gd Poro; NS; SH-SILTS:AA.

{3060'spl} LS:gy-tn-wh, sm mot-Wkst-Pkst- sl fos, sm prt chlky, & ux-Vfnxln, sm argil, Vpr-NVP; NS.

{3070'spl} SH:Vgt'd, gy-bk subcarb & sm calc & Lmy, & gn-gy; & mrn-rd- soft & argil LS.

{3080'spl} Abndt LS:AA; cm-tn, gy-wh, sl fos- Wkst-Pkst, prt chlky, & ux-fnx, w/ pr-NVP; NS.

{3090'spl}~40% SH:gy-bk, subcarb-carb, & Vgt'd SH:AA.

10'samples{spls)
wet cup & bags
& dried by RLM

3074' (-902)
TOPEKA

{3090'spl.cont'd} TOPEKA} LS:gy-tn-wh, dn to chlky, Mdst-Wkst, Vrr Pkst; & ux LS; w/ Vpr-NVP; NS; sm argil-shly LS & gy-bk SH.

{3100'spl} V.Abndt LS:gy-tn-wh, pred dn to chlky- Mdst-Wkst, & ux w/ Vpr-NVP;NS; sm argil-shly w/ gy-bk SH.

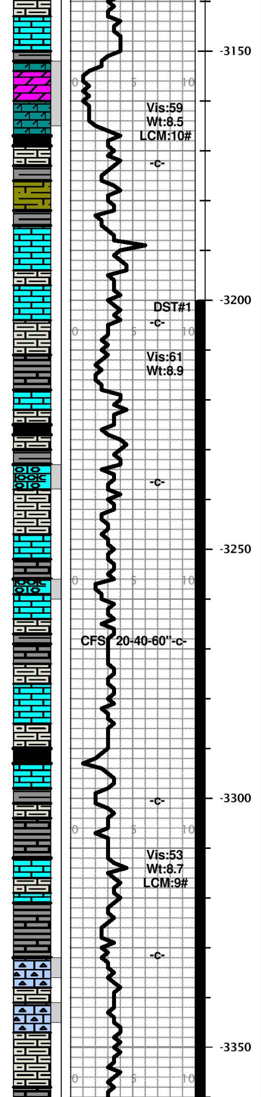
{3110'spl} LS:AA; pred dn Mdst & ux, Vpr-NVP; NS; Vrr SH:gy-bk semi-carb.

{3120'&3130'spls} Abndt LS: wh-gy-tn, chlky & subchlky-ux, & dn, pred Vpr-NVP; sm pr visbl Poro: pin point {pp) -u-IXP & u-IGr.Poro; Trc dull FLR w/ Trc Oil Stain {OSTN) & Weak Cut, NFO {No Free Oil); Trc DLS-DOLO: tn, ux-Vfnxln- sucro w/ sm Fr IXP w/ OSTN & Cut, NFO.
{3130'spl.cont'd} LS:AA; gy-wh-tn, pred dn, sm chlky; Trc Poro w/ OSTN & Cut; NFO; sm CHERT:gy-bk, sharp; w/ dn & argil LS; incrs SH: gy, Lmy, calc; Vrr bk-carb-SH.

{Trace Oil Stain
(Trc O.STN) w/
No Free Oil{NFO)

{3140'spl} SH:AA, sl incrs calc & Lmy; & LS:AA; & tn-gy-wh, pred dn sm Lithogr & ux; pred pr-NVP w/NS.

{3150'spl} Abndt LS:cm-tn, gy-wh, sm Wkst-Pkst- sl fos; Rr argil-shly; pred Vpr-NVP w/NS.



{3160'spl} LS:AA; sm Wkst-Pkst, & ux-fnxln w/pr Poro - Vrr Fr visbl Poro w/NS; NC.

{3170'spl} LS:cm-bf-gy, ux-Vfnxln, sm u-sucro & semichlky to wh-chlky w/ sm Fr Poro: u-IXP & u-IGr.Poro w/ NFO; Trc V.Wk Cut;
{3170'cont'd&3180'spl} DOLO-DLS:cm-bf-tn, ux-fnxln- sm 2nd ReX; Trc Anhy inclus; sm Fr-Gd Poro: micro{u)-IXP, pp-vug Poro w/ NFO; Trc Very Weak {V.Wk) Cut.

{3190'spl} Rr SH: bk-carb-V.carb;
& LS:AA; tn-gy-wh, pred dn-ux, sm argil pyrtc.

3200'spl} SH:gy-bk, & gn-gy, sm calc & Lmy, & sm pyrtc; (sm DLS-DOLO:AA;NFO)

{3200'spl.cont'd} V.Abndt LS:gy-tn-wh, pred dn-ux to chlky & cryptoxln-dn; (Rr DLS-DOLO:AA;NFO).
{3210'spl} LS: tn-gy-wh, pred dn-cryptox-ux, sm chlky, Vrr Wkst-Pkst, pred Vpr-NVP w/NS; Trc Pkst w/ visbl Poro-u-IXP, Trc SFO-STN-Cut, >99%Barren.

{3220'spl} LS: tn-gy-wh, pred dn-ux, Trc VfnX-fnX-2nd ReX; prt chlky, sm fos & ool - Pkst w/ Vpr-pr visbl Poro w/NS.

{3230'spl} LS:AA, gy-bn-tn, argil-shly, & dn;
& SH:gy-bk, sm calc & Lmy.

{3240'spl} LS:tn-gy-wh, pred dn-ux-Vfnxln, sm ool & fos-Wkst-Pkst, sm argil; Vrr chlky, Vsl Cherty; pred Vpr-NVP w/NS;
& SH: sm bk-carb & subcarb; & gy-bk, sm calc & Lmy.

{3250'&3260'spls} OREAD} LS:cm-tn-gy, sm mot- ool & fos- Pkst w/ Vrr (<5%) w/pr-Fr Poro: I.oolc & I.fos & I.Gr.Poro; <5% w/ spt'd O.STN & dull FLR & VSl-SlSFO & VSl SGB {Show Gas Bubbles) w/ VSl-Sl milky Cut, Trc Gd visbl Poro w/ sat.O.STN & dull FLR & SlSFO & Cut, VSl Odor.

{3260'spl.cont'd&3269'drlg.spl}Pred dn- cryptox-ux & chlky w/ Vpr-NVP & Barren; sm argil LS & SH:AA.

{3269'drlg&circ.spls&3280'drlg.spl}PLATTS.Poro} LS:gy-tn-wh, sm Pkst-fos, Trc ool; ~5%<10% w/ pr-Fr visbl Poro: pp, vug, & IGr.Poro w/ spt'd to sat.O.STN & dull FLR, & VSl-SlSFO & Cut; Trc Gd visbl Poro w/ sat.O.STN & Sl-FrSFO&Cut, VSl Odor; pred dn to subchlky & Rr chlky; pred pr-NVP & Barren.

{3290'&3300'spls} sm SH:AA; & sm LS:AA; Abndt LS:gy-tn-wh, pred dn & argil, & sm chlky w/ Vpr-NVP & Barren; Vrr (~5%) fos-Pkst w/ pr-Fr-pp-vug Poro w/ VSlSFO-STN-FLR-Cut, Trc Odor.

{3310'&3320'spls} HEEBNER} SH: bk-carb-Vcarb;
(sm LS:AA, Rr Poro w/SFO-STN-Cut:AA)
& LS: dn-ux & argil-Mdst; & SH:gy-bk.

{3320'spl.cont'd} SH:AA; & gy, calc & Lmy SH; & LS:gy-tn-cm, pred dn & argil w/ Vpr-NVP.

{3330'&3340'spls} TORONTO} LS:cm-tn, gy-wh, pred dn to chlky, sm ux-fnxln, & Wkst-Pkst; <5% w/ pr-Fr-pp-vug & IGr.Poro w/ spt'd to sat.O.STN & dull FLR & VSlSFO & Cut, Trc Odor.

{3340'spl.cont'd} SH:AA; & mrn-rd, gn-gy.

{3350'&3360'spls} LANSING} A-Bzns} LS:cm-gy-tn, sm Wkst-Pkst, & ux-fnxln, Sl Cherty; <5% w/ pr-Fr-pp-vug, IGr & IXP w/ spt'd-subsat.O.STN&FLR & VSl-SlSFO&Cut, VSl Odor; sm wh-chlky LS & Abndt dn Mdst-Wkst & argil & dn Mdst w/ Vpr-NVP & pred Barren, Sl Cherty.

{3370'&3380'spls} SH:gy, sm calc & Lmy; & LS:gy, dn-ux, & argil- Mdst-Wkst w/ pred Vpr-NVP w/NS; (Trc LS:AA w/ Poro w/ SFO-STN-FLR-Cut).

3233' (-1061)
OREAD{VSl-SlSFO)
(Very Slight->Slight Show Free Oil)

3256' (-1084)
PLATTS{VSl-SlSFO)
POROSITY{Poro)

{VSl-SlSFO)

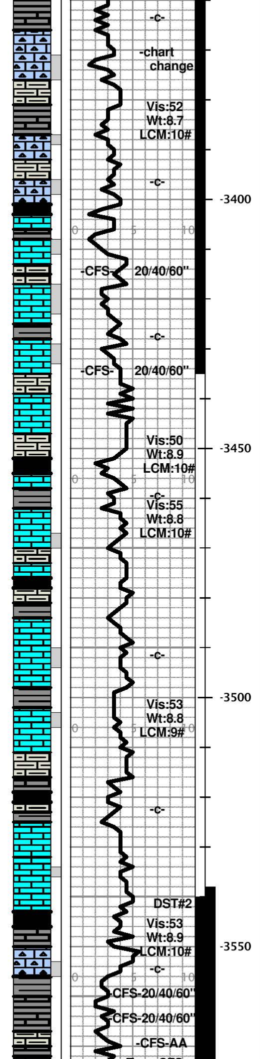
3290' (-1118)
HEEBNER SH

3312' (-1140)
TORONTO
{~5%VSl-SlSFO)

3332' (-1160)
LANSING 'A'zn
{<5%VSl-SlSFO)

Mud-Co Report
10/22/18; 7:05am
Drlg @ 3190
Wt:8.9 Vis:61
PV:15 YP:24
pH:11.0 WL:6.0
CT:1/32" Ca:Trc
Alkal.Filtr:1.2/1.5
Cl: 2,100 ppm
Solids: 4.3%
LCM: 10#/bbl
ECD: 9.55#/gal.

DST#1; Oread--
LKC: 'G' zone
3200'---3435'
30-45-45-60min.
IF: Slowly built to 11.5" blow
ISI: No Blow Back
FF: Slowly built to 5.5" blow.
FSI: V.Wk surf.blow died in 6 min.
Rec: 62' SIWM w/ Oil spots (<1%Oil) (~5%W;~95%M)
188' Mud
250' Total Fluid
Tool Sample:
<1%Oil,
~5%Water
~95%Mud
Rw of DST Wtr: 0.27 @ 61 deg.F
Trilobite Testing
RM}Correct'd Rw: 0.175 @ 98 deg.F
Cl: 29,000 ppm
IHP:1603
IFP: 55--113
ISI: 410
FF: 116--154
FSIP: 395
IHP: 1550
Temp:98deg.F.



{3390'&3400'spls} Czn} LS: tn-gy-wh, V.rare{Vrr} Wkst-Pkst- sl fos, sl Cherty; <5% w/ pr-Fr-Poro: pp-vug & IGr.Poro w/ spt'd to subsat O.STN & dull FLR & VSl-Sl SFO&Cut, Trc Gd visbl Poro w/SFO-STN-FLR-Cut, Trc Odor on brk; Abndt dn to chlky LS w/ Vpr-NVP & Barren.

{3400'spl.cont'd} Abndt argil LS & SH:sm calc & Lmy.

{3410'spl} LS: gy-tn-wh, ux- Rr prt fnxln {fnx), & Rr Wkst-Pkst; Sl Cherty; >5%<10% w/ pp-vug & IGr & IXP w/ spt'd- sat O.STN & dull FLR & Sl SFO & Cut, & VSl Odor.

{3415'drlg.spl} sharp incrs SH: bk-carb

{3415'drlg.spl.cont'd&circ.spls} E-Fzns} LS: tn-gy, ux-fnxln; ~5% w/ Fr-vug & IXP w/ spt'd-sat O.STN-FLR & VSl-Sl SFO & Sl Cut, VSl Odor; Pred dn & argil LS; & Abndt SH:Vgt'd, sm calc (~30%SH).
{3425'drlg.spl} incrs Vgt'd SH:AA & SILTS & argil-dn LS.
{3435'drlg&circ.spls} Gzn} LS:cm-tn-gy, sm mot-Wkst-Pkst-fos; & ux-Vfnxln; Rr pr-Fr Poro: pp-vug, IGr & IXP w/ spt'd O.STN - sm dead Stain {dd.Stn) >5%<10% VSl SFO & VSl-Sl Cut, Trc Gd visbl Poro w/ sat.O.STN-SFO-Cut, VSl Odor.

{3450'&3460'spls} after DST#1} LS:tn-wh, gy, ux- Rr prt fnxln {fnx)- sm 2nd ReX; prt chlky; >5%<10% w/ pr-Fr-pp-vug & IXP w/ spt'd- subsat O.STN & sm dull FLR & VSl-Sl SFO & Sl-Fr Cut; Trc Odor; sl Cherty.

{3470'spl} sm SH:bk-carb; & Trc bk- vit sharp Chert; & LS:gy-tn-wh, sm mot-Wkst-Pkst; Vpr-pr visbl Poro; pp & IGr.Poro; Trc SFO-STN-Cut, sm argil LS.

{3480'spl} sm SH:gy, calc-Lmy.
{3480'spl.cont'd&3490'spl} Hzn} LS:gy-tn-wh, sm argil, & pred dn to chlky, sm ux-fnx- sm 2nd ReX; Sl Cherty; <5% w/ pp & IXP & Edges w/ spt'd O.STN & VSlSFO & VSl Cut; sm argil-shly-LS;

Rr bk carb SH.

{3500'spl} LS:tn-gy-wh, pred dn to ux; & Mdst-Wkst, Trc Vpr Poro; Trc SFO-STN-Cut.
{3510'spl} Izn} LS:tn-gy-wh, dn-ux-fnx- sm 2nd ReX; ~5% w/ pr-Fr pp-vug & u-IXP w/ spt'd-subsat O.STN & VSl-SlSFO & Cut; Trc sat.O.STN & SlSFO & Fr Cut, VSl Odor; pred dn & prt chlky; pred barren w/ Vpr-NVP. Rare {Rr) SH: bk-carb, & mrn-rd SH.

{3520'&30'&40'spls} Jzn} LS:gy-tn-wh, ux-fnx-2nd ReX, & sm Pkst; >10%~20% w/ pr-Fr Poro: pp-vug & IGr & u-IXP w/ spt'd-sat-tn-bn-O.STN & dull FLR, & VSl-SlSFO & Cut, Fr Odor; Pred dn & sm chlky & barren {incrs dn-chlky & decrs to~5% w/ Poro w/ SFO-STN-Cut in 3540'spl).

{3530'&40'spls.cont'd} STARK SH} Rr bk-carb SH & sm Vgt'd SH:AA.

{3540'cont'd&3550'&3560'drlg.spls} Kzn} LS:wh-tn-gy, sm mot, prt chlky - Wkst-Pkst, & ux-Vfnxln - sm 2nd ReX; ~5% w/ pr-Fr Poro: pp, IGr & IXP w/ spt'd-sat O.STN & dull FLR & VSl-SlSFO & Sl-Gd Cut, VSl Odor; pred dn to chlky w/ Vpr-NVP & Barren.

{3560'drlg&circ.spls} SH:sm bk-carb; sm Vgt'd, gn-gy & rd.
{3560'drlg&circ.spls.cont'd&3565'drlg&circ.spls} Lzn} LS:gy-tn-wh, sm mot-Pkst, & ux-fnX- 2nd ReX; Sl Cherty; Vrr (~<5%) w/ pr-Fr Poro: pp, IGr & IXP & 2nd ReX w/ spt'd-sat-tn-bn-O.STN & VSlSFO & Cut, Trc bk-dd.O.Stn; VSl Odor; & SH:AA; Vgt'd.

{3570'&75'drlg&circ.spl} LS:tn-gy-wh, pred dn-ux-fnX- 2nd ReX; & Pkst; ~5% pr-Fr IXP & pp Poro w/ spt-sat-O.STN & dull FLR & VSlSFO & Cut, Trc Odor; & Vgt'd SH.

{'C'zn {VSl-SlSFO)

{'D'zn (<10%SlSFO)

{'E'-'F'zones
{~5%VSl-SlSFO)

{Gzn{<10%VSlSFO)

{~5%VSl-SlSFO)

{'H'zn
{~5%VSl-SlSFO)

{'I'zn
{~5%VSl-SlSFO)

{'J'zn
{~20%VSl-SlSFO)

3519' (-1347)
STARK SH

{'K'zn
{~5%VSl-SlSFO)

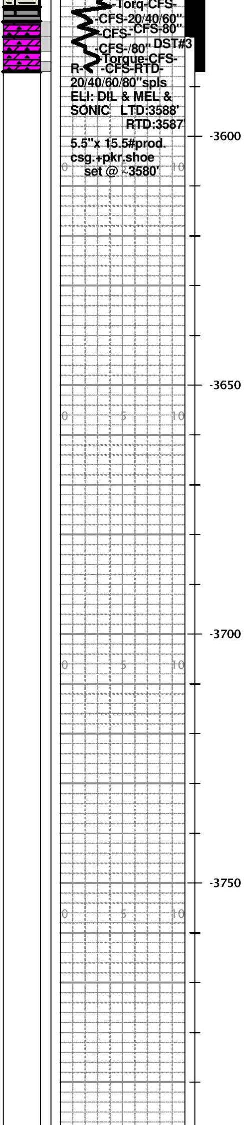
{insert@~3535')

{Lzn{<5%VSlSFO)
3556'(-1384)B/KC

Mud-Co Report
10/23/18; 6:30am
TOH for DST#1
@ 3435'
Wt:9.1 Vis:60
PV:18 YP:26
pH:11.0 WL:6.2
CT:1/32" Ca:Trc
Alkal.Filtr:1.2/1.4
Cl: 2,500 ppm
Solids: 5.6%
LCM: 10#/bbl
ECD: 9.77#/gal.

Mud-Co Report
10/24/18; 8:40am
CFS @ 3560'
Wt:9.0 Vis:59
PV:18 YP:25
pH:10.5 WL:6.2
CT:1/32" Ca:Trc
Alkal.Filtr:1.2/1.3
Cl: 4,000 ppm
Solids: 4.8%
LCM: 11#/bbl
ECD: 9.65#/gal.

DST#2; ARB.
3540'--3580'
30-45-45-60min.
IF: Slowly built
to 1/2" blow
ISI: No Blow Back
FF: No Blow
FSI: NBB
Rec:~5' Mud w/~
1cup of Oil on top
(<1%Oil)
(gravity~21)
Tool sample:
~30% Oil
~70% Mud
IHP: 1748
IFP: 19--21
ISIP: 122
FF: 21--21
FSIP: 89
FHP: 1737



{3577'+20min.circ.spl} ORD.ARB} Trc ARB.DOLO:cm-gy-tn, fnxln-mdX, w/ Fr IXP w/ subsat O.STN & dull FLR & SlSFO & Sl-Fr Cut; VSl Odor on brk.
(3577'+40min.spl} ARB} ~20%~25%ARB.DOLO: sm pnk-silic-wthr'd-Dolo: ux-mdxln, pred dn to pr visbl Poro w/SFO-STN-FLR-Cut; & Dolo:bf-tn,cm-gy, ux-mdxln, pred ux-fnxln w/ pr-NVP; Rr fnxln-mdxln w/ pr-Fr & Vrr Gd visbl Poro: IXP & vug Poro: w/ spt'd-sat O.STN & spt'd FLR, pred FrSFO w/ dull FLR to NF; Trc GdSFO; Fr-Gd Cut; Vrr SndyDolo&dolomc Sd Clust w/SFO-STN-Cut, FrlyStrngOdor.
(3577'+1hr)AA, Sl incrs Dolo: fnxln- Rr prt mdxln, w/ Fr visbl Poro & subsat-sat-O.STN & FrSFO & Fr-Gd Cut, FrOdor; Cherty.
(3579'+20min.spl} DOLO:AA; Rr (~10%) w/ Fr-Gd IXP & vug Poro w/ subsat-sat O.STN w/ FrSFO & Sl to VGd milky & strmg Cut.
(3579'+40min.spl} DOLO: bf-tn, cm-gy, w/ sm rich-tn-bn-O.STN, sm fnxln-mdxln- sucro- rhombc, ~10% w/Fr-Gd IXP&vug Poro w/subsat-sat-O.STN&Fr-GdSFO-SlGsy-lively w/dull FLR-NF;Trc prt CrsXln- rhombc w/ Gd IXP & vug Poro & GdSFO & Cut, Frly Strong Odor; Frly Abndt dn-ux-fnx dolo w/ Vpr-NVP & Barren.
(3579'+1hr.spl}AA; incrs prt mdxln Dolo w/ Fr-VGd IXP & vug Poro w/sat.O.STN & Fr-GdSFO & Cut; Frly Strong Odor.
(3579'+80min.spl}AA;~10% w/ Fr-VGd Poro w/SFO-STN-Cut&Odor:AA.

(3580'+20min.spl} Abndt DOLO&DLS:cm-bf-tn&gy, pred ux-dn to pr visbl Poro;>10%<20% DOLO: ux-mdxln w/ Fr-Gd IXP & vug.Poro, w/subsat-sat-tn-bn-bk-O.STN&dull-FLR&Fr-GdSFO-SlGsy -lively; Fr-VGd strmg-milkyCut, Frly Strong Odor.
(3580'+40min.spl} DOLO:bf-tn-gy, w/ sm rich-tn-bn&bk-O.STN, ux-mdxln, sm sucro & sm rhombc;~30% w/Fr-Gd vug & IXP w/ subsat-sat-O.STN w/ dull to brt mot-yell-FLR {wet & dry) w/Sl-GdSFO - lively-SlGsy; sm Fr-VGd Cut, Frly strong Odor; sm ux-dn Dolo-DLS w/ Vpr-NVP & pred barren.
(3580'+1hr.circ.spl} DOLO:AA; bf-gy-tn, ux-mdxln, Vsl pyrtc; Abndt dn to pr visbl Poro, sm w/Sl spt'd O.STN & FLR & Sl-Fr SFO & Cut; ~20%->25% prt fnxln-mdxln, Vrr prt CrsXln- rhombc w/ Fr-VGd visbl Poro w/subsat- sat-tn-bn-bk- O.STN & dull FLR; w/ FrSFO- lively- sm Gsy; Vrr Gd SFO; Fr-VGd Cut; Frly StrngOdr.
(3580'+80min.spl} DOLO: AA;~20%Fr-Gd Poro; Fr-Gd SFO-STN-Cut-Odor (sl incrs in SH cavings){B/DST#2)

(DST#3} (3583'+20min.spl} pred SH cavings & LS:AA; Rare{Rr) DOLO:AA.
(3583'+40min.spl} (~30%ARB.DOLO&Chert} Cherty DOLO: tn-cm, ux-fnxln, pred dn to pr visbl Poro; Vrr prt mdxln, Vrr Fr visbl vug Poro & pr-Fr IXP, sm aprnt Frac Edges w/ 2nd ReX w/ O.STN & Sl-Fr SFO- Lively- Sl Gsy; & CHERT:cm-blu-gy&tn, opq & semi-opq, pred sharp, vitr; Trc Vug Poro & aprnt Frac-Edges w/ FLR-SFO-STN-Cut; Frly Strong Odor.
(3583'+1hr.spl} V.Cherty DOLO:cm-tn-gy, pred ux-fnxln, prt dn, sm prt mdxln, sm Vfn-mdX- 2nd ReX w/SFO-STN-FLR-Cut; pred Dolo w/ pr-Fr visbl Poro: IXP, pp-vug w/spt'd-subsat O.STN, spt'd dull FLR; Sl-Fr SFO- Lively-Sl Gsy; Trc Gd Poro & sat.O.STN & Frly GdSFO & Cut; ~20% CHERT:wh,amber-tn,gy, opq-transl, sm sharp, sm Qtzc, sm w/ 2nd Dolo X's w/ SFO-STN-FLR-Cut; Frly Strong Odor; ~30% Dolo & Chert w/ Poro w/ SFO-STN-FLR-Cut; Abndt barren Dolo & Chert w/ Vpr-NVP.
(3583'+1&1/2hr.circ.spl} Arb.Dolo&Chert:AA; incrs in SH cavings.

(3585'+20min.spl}~40%ARB.DOLO:cm-tn-gy, ux-mdxln; Abndt ux- prt dn; ~30% w/ pr-Fr visbl Poro: IXP & vug Poro w/ spt'd-subsat O.STN & dull FLR & Sl-Fr SFO-Lively- Sl Gsy, Sl-Gd Cut; sm 2nd ReX- Trc CrsX's; Trc sat-O.STN & FrlyGdSFO & Cut, Fr Odor.
(3585'+40min.spl}~60%ARB.DOLO & CHERT; pred DOLO:cm-tn-gy, ux-mdxln; Abndt dn to pr visbl Poro; >10%<20% Vfnxln-mdxln, sucro to rhombc Dolo w/ Fr-Gd IXP & pp-vug Poro w/ subsat-sat tn-bn & Rr dk-bn-bk O.STN w/ dull FLR, & Fr-Gd SFO- Lively- Sl Gsy, & Fr-Gd Cut, >10%<20% CHERT:AA, sm w/ wthr'd &/or aprnt Frac-Edges & 2nd ReX w/SFO-STN-FLR-Cut, Frly Strong Odor.
(3585'+1hr.circ.spl} ARB.DOLO:AA, & CHERT:AA, sl incrs in Chert (~20%Chert) pred vitr-sharp, Vrr Qtzc Chert w/ 2nd ReX w/ SFO-STN-FLR-Cut; Vrr Gd vug & IXP, & mdX-CrsX-2nd ReX w/ sat.O.STN & Fr-Gd SFO & Cut, Frly Strong Odor.
3585'+80min.circ.spl}~<50% ARB.DOLO&CHERT:AA (incrs in cavings/recycle cuttings)

3577' (-1405)
ARBUCKLE{FrSFO)

{Fr-GdSFO)

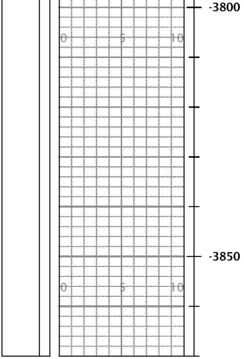
{RTD: 3587'(-1415)
LTD: 3588'(-1416)
(5.5"x15.5#prod. csg.+pkr.shoe set@~3580')

Mud-Co Report
10/25/18; 8:45am
TOH w/DST#2
@ 3580'
Wt:9.0 Vis:53
PV:15 YP:24
pH:10.5 WL:6.4
CT:1/32" Ca:Trc
Alkal.Filtr:1.2/1.3
Cl: 4,000 ppm
Solids: 4.8%
LCM: 10#/bbl
ECD: 9.63#/gal.

Mud-Co Report
10/26/18; 8:35am
TIH to CTCH &
LDDP @ 3587'
Wt:9.1 Vis:53
PV:16 YP:21
pH:10.0 WL:6.8
CT:1/32" Ca:20
Alkal.Filtr:1.1/1.4
Cl: 4,000 ppm
Solids: 5.5%
LCM: 9#/bbl
ECD: 9.69#/gal.

Temp:95deg.F

DST#3;ARB.
3538'--3587'
30-45-45-60min.
IF: BOB /17min.
(built to 24.77")
ISI: Slowly built to 1" blow back
FF: BOB/16min.
(built to 36.18")
FSI: Slowly built to 2" blow back
Rec: 50' GIP
205' GMCO
(5%Gas, 80%Oil, 15%Mud)
370' GW&MCO
(15%G; 45%Oil, 10%Water, 30%M)
575' Total Fluid
(~6 bbls TF)
Tool sample:
20%Gas, 35%Oil, 15%Water, 30%M.
Rw/DST Water by Trilobite Tester:
0.34ohms@48d.F.
Cl: 28,000ppm by Trilobite Tester
RM}Correct'd Rw:
0.173o@101deg.F.
IHP: 1760
IFP: 38--157
ISIP: 880 psi
FFP: 153--270
FSIP: 880 psi
FHP: 1696
Temp:101deg.F



(3587'+20min.circ.spl}~<50%ARB.DOLO & ~10%CHERT:AA;
Dolo:AA, incrs prt mdxln & Vrr CrsX-VCrsX- 2nd ReX w/ subsat-sat O.STN, & dull FLR (incrs dk-bn-bk O.STN) & Fr-Gd IXP & vug Poro & sm aprnt Frac w/ subsat-sat O.STN & dull FLR, & Fr-Gd SFO & Cut, Frly Strong Odor.
(3587'+40min.circ.spl} Sharp incrs in ARB.DOLO: (~>70%Dolo) Abndt DOLO:cm-gy-bf, ux-mdxln, >50% dn to Vpr visbl Poro & barren, ~50% spt'd-sat O.STN; ~30% Fr-Gd IXP & vug Poro w/ subsat-sat tn-bn,& dk-bn-bk-O.STN w/ Fr-Gd SFO & Cut; ~30% mdxln-Rhombc w/ Vrr CrsX-VCrsX's- 2nd ReX w/ SFO-STN-FLR-Cut; Cherty: (>10%<20%Chert) wh-cm-bf-tn-gy, pred sharp vitr, sm prt Wthr'd & sm aprnt Frac-Edges w/ spt'd O.STN-FLR-SFO-Cut; Frly Strong Odor.
(3587'+1hr.circ.spl} DOLO:AA, gy-bf-tn-cm, w/ sm tn-bn-O.STN, & Rr dk-bn-bk-O.STN; Sl incrs mdxln-Rhombc DOLO, Vrr prt CrsXln,~>30%<40% w/ Fr-VGd IXP & vug.Poro w/ spt'd-sat- O.STN w/ dull FLR, & Fr-Gd SFO-Lively- VSl Gsy, Fr-Gd Cut; decrs in Chert to <~10% Chert:AA; Frly Strong Odor.
(3587'+90min.circ.spl}~60%ARB:AA; pred DOLO:AA, ~>10%<20%Dolo:AA w/ Fr-Gd Poro w/ SFO-STN-FLR-Cut, Trc Crs-VCrs Dolo ReX; ~<10%CHERT:AA, Vrr Chert w/ visbl & aprnt Poro w/SFO-STN-FLR-Cut:AA; Frly Strong Odor.{RTD& B/DST#3).

VESS OIL CORPORATION
WIDMAN #7
PARADISE CREEK FIELD
1320'FSL & 2310'FWL
SEC: 21-09S-18W
ROOKS CNTY., KS
API#15-163-24371-00-00
KB: 2172' GL: 2164'

TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Vess Oil Corporation
1700 w aterfront pkw y bldg 500 w ichita ks 67206+6619`
ATTN: Roger Martin

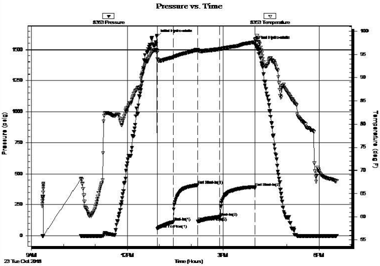
21-9s-18w Rooks, KS
Widman #7
Job Ticket: 63558 **DST#: 1**
Test Start: 2018.10.23 @ 09:20:12

GENERAL INFORMATION:

Formation:	**Oread- LKC "G"**		
Deviated:	No Whipstock: ft (KB)	Test Type:	Conventional Bottom Hole (Initial)
Time Tool Opened:	12:56:52	Tester:	Brannan Lonsdale/Ben
Time Test Ended:	18:33:22	Unit No:	71
Interval:	**3200.00 ft (KB) To 3435.00 ft (KB) (TVD)**	Reference Elevations:	2172.00 ft (KB)
Total Depth:	3435.00 ft (KB) (TVD)		2164.00 ft (CF)
Hole Diameter:	7.88 inches Hole Condition: Poor	KB to GR/CF:	8.00 ft

Serial #: 8353	**Inside**				
Press@RunDepth:	153.74 psig @	3237.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2018.10.23	End Date:	2018.10.23	Last Calib.:	2018.10.23
Start Time:	09:20:13	End Time:	18:33:22	Time On Btm:	2018.10.23 @ 12:56:02
				Time Off Btm:	2018.10.23 @ 16:00:12

TEST COMMENT: 30- IF- Slow ly built to 11.5"
45- ISI- No blow
45- FF- Slow ly built to 5.5"
60- FSI- Very w eak surface blow died 6mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1602.99	95.34	Initial Hydro-static
1	55.30	93.97	Open To Flow (1)
30	112.50	94.35	Shut-In(1)
76	410.01	95.98	End Shut-In(1)
77	115.72	95.84	Open To Flow (2)
119	153.74	96.12	Shut-In(2)
184	395.02	97.64	End Shut-In(2)
185	1549.56	98.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	SWM w / oil spots, 5%W 95%M	0.46
188.00	M	1.38
0.00	Tool Sample, <1%O 5%W 95%M	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Vess Oil Corporation

1700 w aterfront pkw y bldg 500 w ichita ks
67206+6619`

ATTN: Roger Martin

21-9s-18w Rooks, KS

Widman #7

Job Ticket: 63558 **DST#: 1**

Test Start: 2018.10.23 @ 09:20:12

GENERAL INFORMATION:

Formation: **Oread- LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:56:52
Time Test Ended: 18:33:22

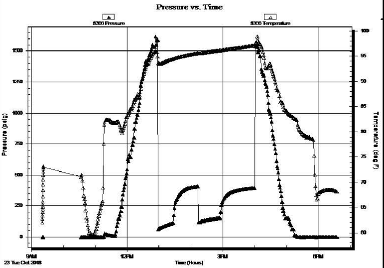
Interval: 3200.00 ft (KB) To 3435.00 ft (KB) (TVD)
Total Depth: 3435.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

Test Type: Conventional Bottom Hole (Initial)
Tester: Brannan Lonsdale/Ben
Unit No: 71

Reference Elevations: 2172.00 ft (KB)
2164.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8366 **Outside**
Press@RunDepth: psig @ 3237.00 ft (KB)
Start Date: 2018.10.23 End Date: 2018.10.23
Start Time: 09:20:47 End Time: 18:34:35
Capacity: 8000.00 psig
Last Calib.: 2018.10.23
Time On Btm:
Time Off Btm:

TEST COMMENT: 30- IF- Slow ly built to 11.5"
45- ISI- No blow
45- FF- Slow ly built to 5.5"
60- FSI- Very w eak surface blow died 6mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
62.00	SWM w / oil spots, 5%W 95%M	0.46
188.00	M	1.38
0.00	Tool Sample, <1%O 5%W 95%M	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Trilobite Testing, Inc Ref. No: 63558 Printed: 2018.10.23 @ 19:00:19

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Vess Oil Corporation

1700 w aterfront pkw y bldg 500 w ichita ks
67206+6619`

ATTN: Roger Martin

21-9s-18w Rooks, KS

Widman #7

Job Ticket: 63558 **DST#: 1**

Test Start: 2018.10.23 @ 09:20:12

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 60.00 sec/qt
Water Loss: 6.20 in³
Resistivity: ohm.m
Salinity: 2500.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 29000 ppm

Recovery Information

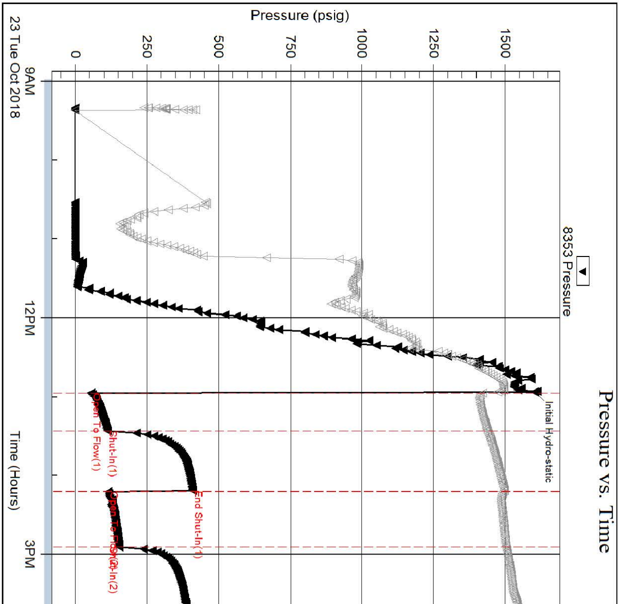
Recovery Table

Length ft	Description	Volume bbl
62.00	SWM w / oil spots, 5%W 95%M	0.455
188.00	M	1.381
0.00	Tool Sample, <1%O 5%W 95%M	0.000

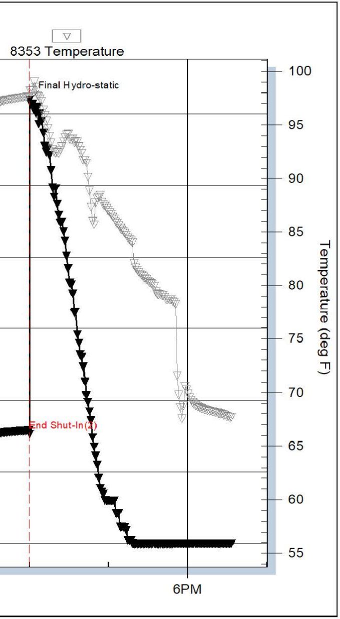
Total Length: 250.00 ft Total Volume: 1.836 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: RW: .29@61deg

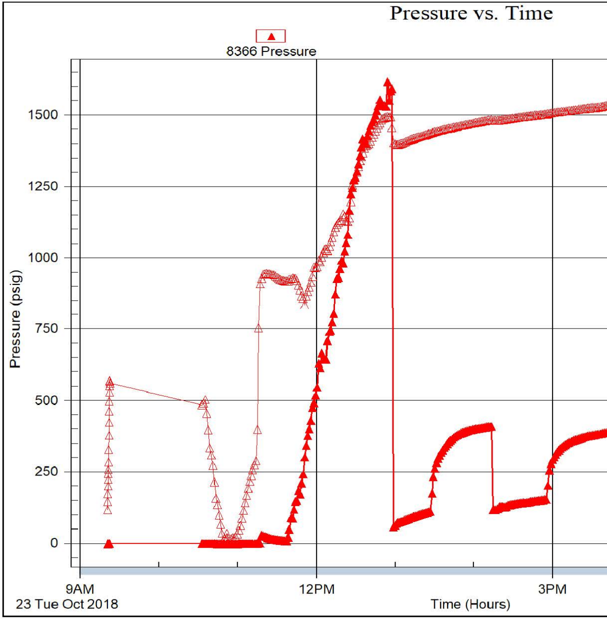
Serial #: 8353 **Inside** Vess Oil Corporation Widman #7



DST Test Number: 1



Serial #: 8366 **Outside** Vess Oil Corporation Widman #7



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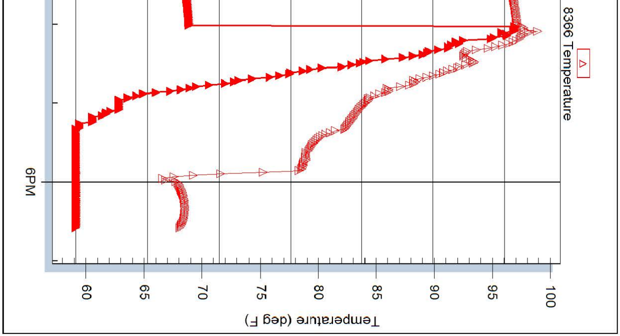
Trilobite Testing, Inc

Ref. No: 63558



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DST Test Number: 1

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Vess Oil Corporation

1700 waterfront pkwy
bldg 500
wichita ks 67206+6619`
ATTN: Roger Martin

21-9s-18w Rooks, KS

Widman #7

Job Ticket: 64787 **DST#: 2**

Test Start: 2018.10.25 @ 01:22:59

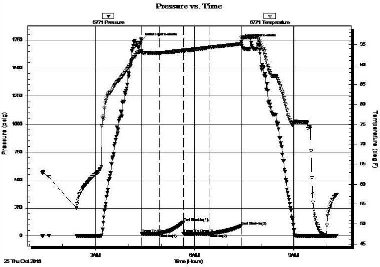
GENERAL INFORMATION:

Formation:	**Arbuckle**		
Deviated:	No Whipstock: ft (KB)	Test Type:	Conventional Bottom Hole (Reset)
Time Tool Opened:	04:23:50	Tester:	Brannan Lonsdale/Ben
Time Test Ended:	10:16:19	Unit No:	73/66
Interval:	**3540.00 ft (KB) To 3580.00 ft (KB) (TVD)**	Reference Elevations:	2172.00 ft (KB)
Total Depth:	3580.00 ft (KB) (TVD)		2164.00 ft (CF)
Hole Diameter:	7.88 inches Hole Condition: Fair	KB to GR/CF:	8.00 ft

Serial #: 6771 **Inside**

Press@RunDepth:	21.39 psig @	3541.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2018.10.25	End Date:	2018.10.25	Last Calib.:	2018.10.25
Start Time:	01:23:00	End Time:	10:16:19	Time On Btm:	2018.10.25 @ 04:23:20
				Time Off Btm:	2018.10.25 @ 07:25:05

TEST COMMENT: 30- IF- Slowly built to .50"
45- ISI- No blow
45- FF- No blow
60- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1747.89	93.33	Initial Hydro-static
1	18.69	93.04	Open To Flow (1)
32	21.00	93.02	Shut-In(1)
76	122.01	93.54	End Shut-In(1)
77	20.40	93.52	Open To Flow (2)
124	21.39	94.31	Shut-In(2)
181	88.73	95.22	End Shut-In(2)
182	1737.29	96.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M w / oil show on top <1%	0.04
0.00	1 cup free oil	0.00
0.00	Tool Sample: 30%o 70%M	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Vess Oil Corporation

1700 w aterfront pkw y
bldg 500
w ichita ks 67206+6619`
ATTN: Roger Martin

21-9s-18w Rooks, KS

Widman #7

Job Ticket: 64787 **DST#: 2**

Test Start: 2018.10.25 @ 01:22:59

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:23:50
Time Test Ended: 10:16:19

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale/Ben
Unit No: 73/66

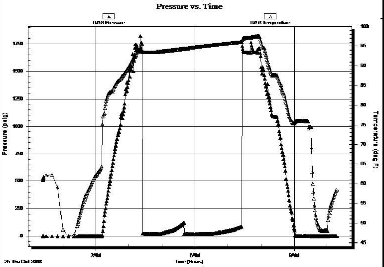
Interval: 3540.00 ft (KB) To 3580.00 ft (KB) (TVD)
Total Depth: 3580.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2172.00 ft (KB)
2164.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6753 **Outside**

Press@RunDepth:	psig @	3541.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2018.10.25	End Date:	2018.10.25	Last Calib.:	2018.10.25
Start Time:	01:23:26	End Time:	10:16:51	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: 30- IF- Slow ly built to .50"
45- ISI- No blow
45- FF- No blow
60- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M w / oil show on top <1%	0.04
0.00	1 cup free oil	0.00
0.00	Tool Sample: 30%o 70%M	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Vess Oil Corporation

1700 w aterfront pkw y
bldg 500
w ichita ks 67206+6619`
ATTN: Roger Martin

21-9s-18w Rooks, KS

Widman #7

Job Ticket: 64787 **DST#: 2**

Test Start: 2018.10.25 @ 01:22:59

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 59.00 sec/qt
Water Loss: 6.20 in³
Resistivity: ohm.m
Salinity: 4000.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 21 deg API
Water Salinity: ppm

Recovery Information

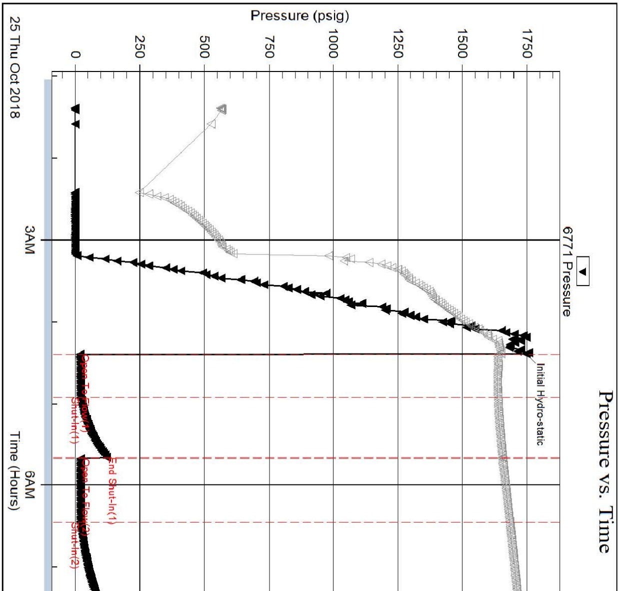
Recovery Table

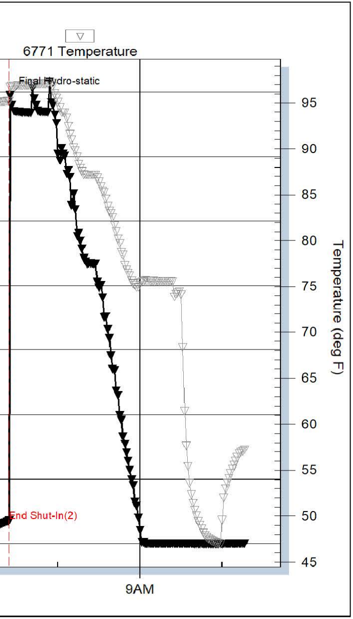
Length ft	Description	Volume bbl
5.00	M w / oil show on top <1%	0.037
0.00	1 cup free oil	0.000
0.00	Tool Sample: 30%o 70%M	0.000

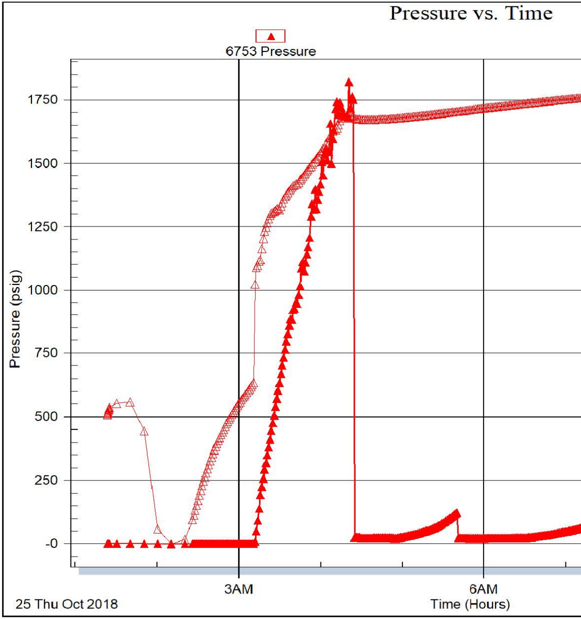
Total Length: 5.00 ft Total Volume: 0.037 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6771 **Inside** Vess Oil Corporation Widman #7







DST Test Number: 2

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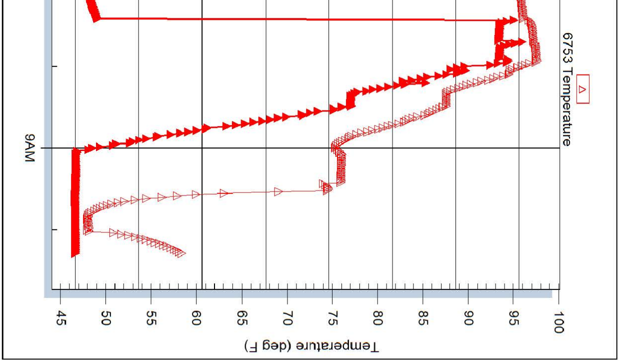


DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Vess Oil Corporation

1700 waterfront pkwy
bldg 500
wichita ks 67206+6619`
ATTN: Roger Martin

21-9s-18w Rooks, KS

Widman #7

Job Ticket: 64788 **DST#: 3**

Test Start: 2018.10.25 @ 23:29:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:25:30
Time Test Ended: 10:03:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale/Ben
Unit No: 73/66

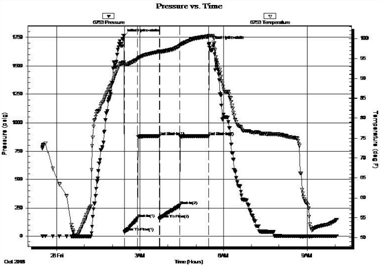
Interval: 3538.00 ft (KB) To 3587.00 ft (KB) (TVD)
Total Depth: 3587.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2172.00 ft (KB)
2164.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6753 **Outside**

Press@RunDepth:	270.23 psig @	3539.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2018.10.25	End Date:	2018.10.26	Last Calib.:	2018.10.26
Start Time:	23:29:05	End Time:	10:03:00	Time On Btm:	2018.10.26 @ 02:25:00
				Time Off Btm:	2018.10.26 @ 05:29:00

TEST COMMENT: 30-I.F.- BOB 17 mins . built 24.77"
45-I.S.I.- slowly built to 1"
45-F.F.- BOB 16 mins . built to 36.18"
60-F.S.I.- slowly built to 2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1759.50	93.93	Initial Hydro-static
1	38.27	93.57	Open To Flow (1)
29	157.05	94.81	Shut-In(1)
76	879.64	96.72	End Shut-In(1)
77	152.75	96.60	Open To Flow (2)
121	270.23	98.15	Shut-In(2)
183	879.98	100.52	End Shut-In(2)
184	1696.27	100.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
370.00	GWMCO,15%G 10%W 30%M 45%O	3.13
205.00	GMCO ,5%G 15%M 80%O	2.91
0.00	50' GIP	0.00
0.00	tool sample 20%G 15%W 30%M 35%O	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Trilobite Testing, Inc Ref. No: 64788 Printed: 2018.10.26 @ 11:12:58

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Vess Oil Corporation

1700 w aterfront pkw y
bldg 500
w ichita ks 67206+6619`
ATTN: Roger Martin

21-9s-18w Rooks, KS

Widman #7

Job Ticket: 64788 **DST#: 3**

Test Start: 2018.10.25 @ 23:29:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:25:30
Time Test Ended: 10:03:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale/Ben
Unit No: 73/66

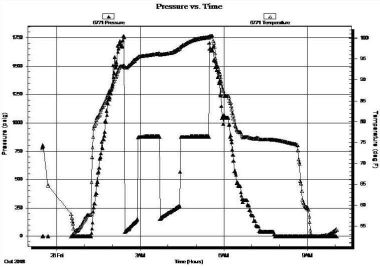
Interval: 3538.00 ft (KB) To 3587.00 ft (KB) (TVD)
Total Depth: 3587.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2172.00 ft (KB)
2164.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6771 **Inside**
Press@RunDepth: psig @ 3539.00 ft (KB)
Start Date: 2018.10.25 End Date: 2018.10.26
Start Time: 23:29:01 End Time: 10:02:50

Capacity: 8000.00 psig
Last Calib.: 2018.10.26
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-I.F.- BOB 17 mins . built 24.77"
45-I.S.I.- slow ly built to 1"
45-F.F.- BOB 16 mins . built to 36.18"
60-F.S.I.- slow ly built to 2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
370.00	GWMCO,15%G 10%W 30%M 45%O	3.13
205.00	GMCO ,5%G 15%M 80%O	2.91
0.00	50' GIP	0.00
0.00	tool sample 20%G 15%W 30%M 35%O	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Vess Oil Corporation

1700 w aterfront pkw y
bldg 500
w ichita ks 67206+6619`
ATTN: Roger Martin

21-9s-18w Rooks, KS

Widman #7

Job Ticket: 64788 **DST#: 3**

Test Start: 2018.10.25 @ 23:29:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 6.40 in³
Resistivity: ohm.m
Salinity: 4000.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 21 deg API
Water Salinity: 28000 ppm

Recovery Information

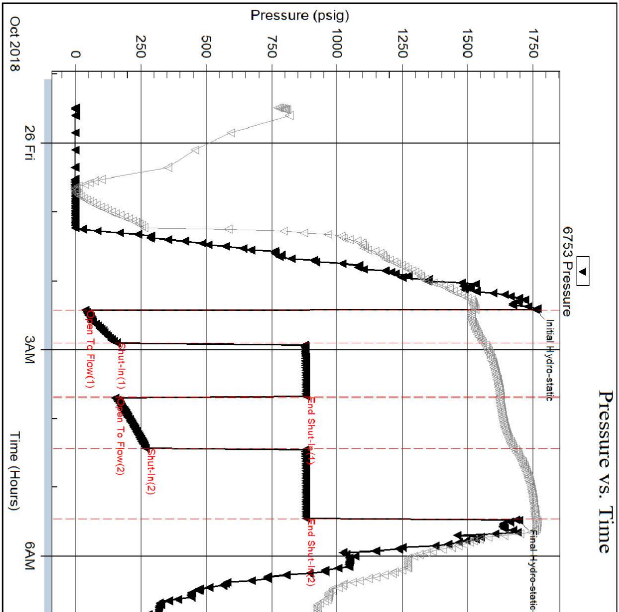
Recovery Table

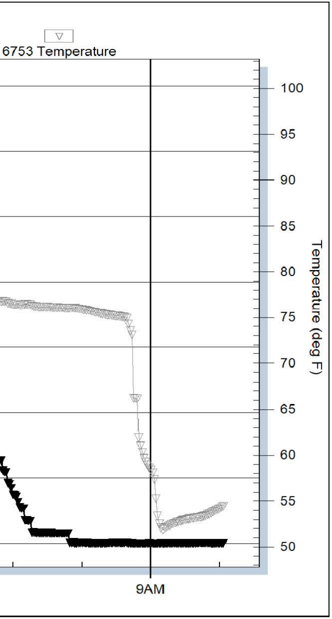
Length ft	Description	Volume bbl
370.00	GWMCO,15%G 10%W 30%M 45%O	3.128
205.00	GMCO ,5%G 15%M 80%O	2.906
0.00	50' GIP	0.000
0.00	tool sample 20%G 15%W 30%M 35%O	0.000

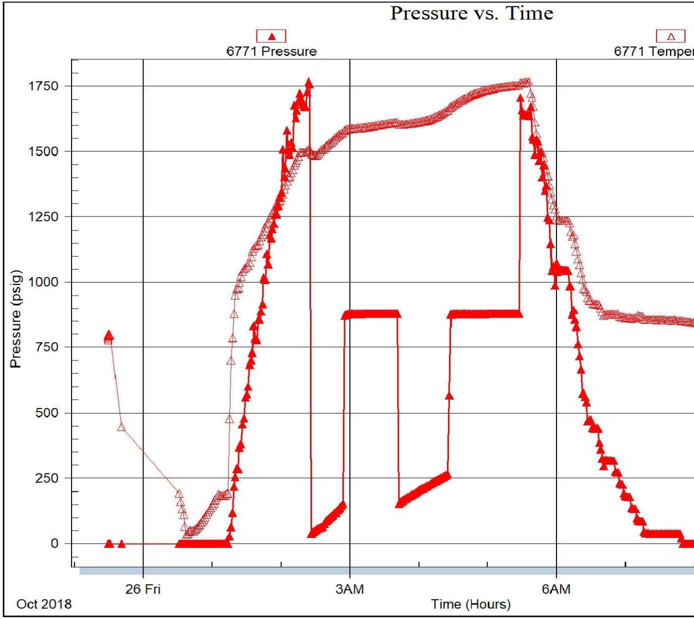
Total Length: 575.00 ft Total Volume: 6.034 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: RW: 0.34@48deg

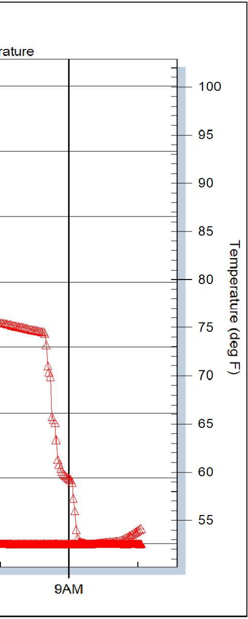
Serial #: 6753 **Outside** Vess Oil Corporation Widman #7







DST Test Number: 3



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