

ROGER L. MARTIN

INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY VESS OIL CORPORATION	ELEVATIONS
LEASE ED OSWALD 'B' #11	KB 1849' GL 1844'
FIELD FAIRPORT	Measurements Are All From KB
LOCATION 1980' ESL & 660' FWL	API # 15-167-24096
SECTION 8 TOWNSHIP 12S RANGE 15W	
COUNTY RUSSELL STATE KANSAS	
CONTRACTOR MURFIN RIG #108	CASING
SPUD 10/08/2019 COMP 10/16/2019	SURFACE 8.58" set @ 346' w/250 ss
RTD 3254' LTD 3253'	60/40 Ppz, 3% CC, 2% gel
ELI: DIL, MEL, CDL/CNL/PE	PRODUCTION 79 jbs 5 1/2" 15.50 MMW-55
ELECTRICAL SURVEYS	set w/150 ss AA2, 130 ss A-con

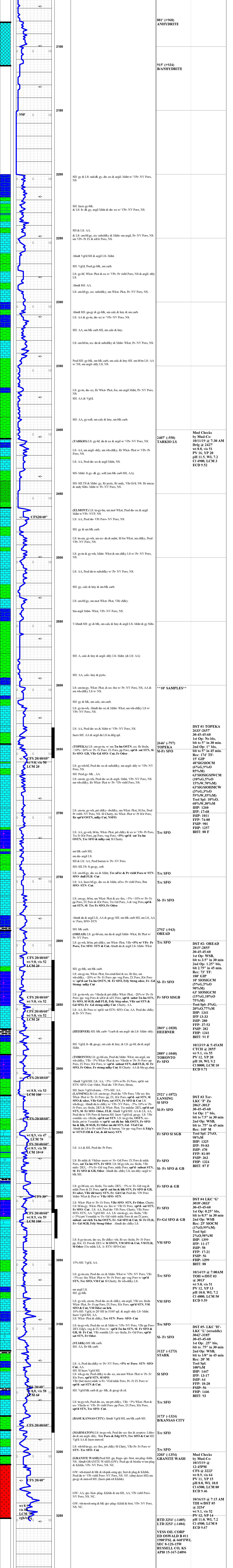
FORMATION TOPS	LOG	SAMPLES	CHRONOLOGY
ANHYDRITE	876' (+975)	881' (+968)	10/08/2019- MIRU MDC Rig #108, SPUD 12 1/4" hole @ 7:30 PM. Run 8 jbs 5.8" csg, set @ 346' w/250 ss 60/40 Ppz, 3% CC, 2% gel. Plug down @ 6:15 AM 10/09/2019.
BASE ANHYDRITE	912' (+937)	915' (+934)	
TARKIO LS	2466' (-557)	2407' (-558)	10/09/2019- WOC @ 346'.
TOPEKA	2648' (-799)	2646' (-797)	10/10/2019- DTD 1650' @ 7:30 AM. Mud up, Wt 9.3, vis 30
OREAD	2790' (-941)	2792' (-943)	10/11/2019- DTD 2424' @ 7:30 AM. Wt 8.8, vis 51, LCM #
HEEBNER	2869' (-1020)	2869' (-1020)	10/12/2019- CTCH @ 2657'. Run DST #1. MW 9.0, vis 57, WL 7.2, CI 4900, LCM 2#.
TORONTO	2887' (-1038)	2889' (-1040)	10/12/2019- DTD 2855' @ 6:05 PM. Run DST #2.
LANSING	2920' (-1071)	2921' (-1072)	
STARK	3120' (-1271)	3122' (-1273)	10/13/2019- DTD 2886' @ 7:30 AM. Wt 9.1, vis 55, LCM #. Lost circ @ -2892'.
BKANSAS CITY	3170' (-1321)	3173' (-1324)	Increased LCM to 100, lost -40 bbl mud. Run DST #3, Spot 80 bbl 40/bbl pill in prep for DST.
GRANITE WASH/GRANITE	3264' (-1355)	3203' (-1354)	
RTD/LTD	3253' (-1404)	3254' (-1405)	10/14/2019- DTD 3013' @ 7:30 AM. Wt 9.0, vis 51, LCM #
			10/15/2019- CFS 3150' @ 7:30 AM. Wt 8.9, vis 64, LCM #, DTD 3254' RTD.
			10/16/2019- Run E-logs & THH for DST #5 straddle LCM #.

REMARKS:

Run 79 jbs new 5 1/2" MW-55 casing. Set casing 1' off bottom @ 3253'. DV @ 890'. Cemented 1st stage w/150 ss AA-2 (10% gypsum + 10% salt, + 6 pps albionite, + 1/4 pps cello-flake, + 0.5 fluid loss, + 0.5 defoamer), dropped plug and displaced w/ 55 bbl water & 21.5 bbl mud. Had 3000' of lift pressure. Dumped plug w/ 15000' @ 12:45 AM 10/17/2019. Head. Insert should be 3211'. Dropped DV opening tool, opened, circ'd w/ rig @ cemented w/130 ss A-Con Blend (3% CC, 1/4 pps cello-flake). Cement did circ to surface (-20 bit circ). Centralizers on top of it #1, 2, 5, 10, 12, 15, 20, & 60. Baskets on [#7 & #79, J1 #79 was moved between 55 & 56 @ -912'.

** E-Log tops by P. Ramondetta, Geologist, VCO

Respectfully submitted,
Roger L. Martin, Geologist, Wellsite





Company: Vess Oil Corporation
Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery & pressures

DATE
 October
24
 2019

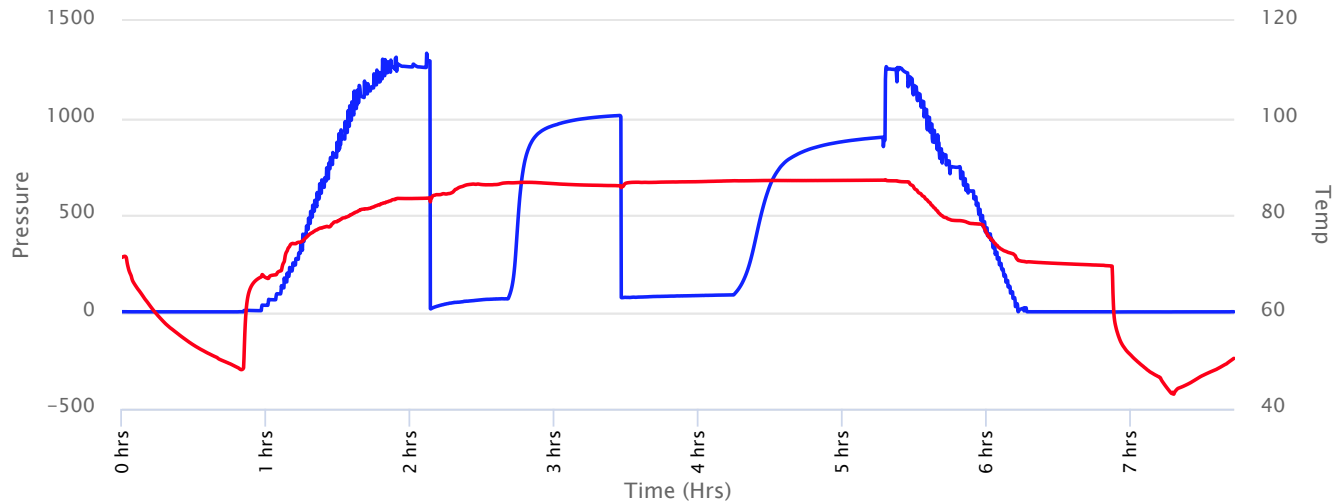
DST #1 Formation: Topeka Test Interval: 2633 - 2657' Total Depth: 2657'

Time On: 22:32 10/24 Time Off: 06:01 10/12
 Time On Bottom: 00:36 10/12 Time Off Bottom: 03:36 10/12

Electronic Volume Estimate:
 149'

<u>1st Open</u>	1st Close	<u>2nd Open</u>	2nd Close
Minutes: 30	Minutes: 45	Minutes: 45	Minutes: 60
Current Reading: 5" at 30 min	Current Reading: .1" at 45 min	Current Reading: 5" at 45 min	Current Reading: 0" at 60 min
Max Reading: 5"	Max Reading: .1"	Max Reading: 5"	Max Reading: .5"

Inside Recorder



— Press(Psig) — Temp(F)



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery & pressures

DATE
 October
24
 2019

DST #1 **Formation: Topeka** **Test Interval: 2633 - 2657'** **Total Depth: 2657'**
 Time On: 22:32 10/24 Time Off: 06:01 10/12
 Time On Bottom: 00:36 10/12 Time Off Bottom: 03:36 10/12

Recovered

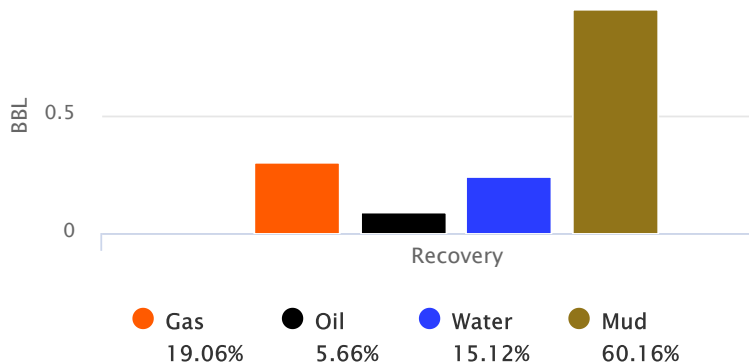
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
15	0.21345	G	100	0	0	0
48	0.68304	SLGCSLOCM	6	9	0	85
63	0.3737335	SLOCSLGCSLWCM	10	5	15	70
63	0.30996	SLGCSLOCHMCW	3	3	59	35

Total Recovered: 189 ft
 Total Barrels Recovered: 1.5801835

Reversed Out
 NO

Initial Hydrostatic Pressure	1260	PSI
Initial Flow	17 to 68	PSI
Initial Closed in Pressure	1011	PSI
Final Flow Pressure	74 to 88	PSI
Final Closed in Pressure	901	PSI
Final Hydrostatic Pressure	1257	PSI
Temperature	88	°F
Pressure Change Initial Close / Final Close	10.9	%

Recovery at a glance



GIP cubic foot volume: 1.69055



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 108
Elevation: 1845 EGL
Field Name: Fairport
Pool: Infield
Job Number: 405
API #: 15-167-24096-00-00

Operation:

Uploading recovery &
pressures

DATE

October

24

2019

DST #1 Formation: Topeka Test Interval: 2633 - Total Depth: 2657'
2657'

Time On: 22:32 10/24

Time Off: 06:01 10/12

Time On Bottom: 00:36 10/12 Time Off Bottom: 03:36 10/12

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: No Blow. Built to 5 inches in 30 Mins

1st Close: Weak Blow Back

2nd Open: 1" Blow. Built to 5 inches in 45 mins

2nd Close: 1/2" Blow Back

REMARKS:

Tool Sample: 0% Gas 10% Oil 60% Water 30% Mud

Ph: 7

Measured RW: 1.2 @ 48 degrees °F

RW at Formation Temp: 0.694 @ 88 °F

Chlorides: 20,000 ppm



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery & pressures

DATE
 October
12
 2019

DST #2 **Formation: Oread** **Test Interval: 2815 - 2855'** **Total Depth: 2855'**
 Time On: 21:15 10/12 Time Off: 04:05 10/13
 Time On Bottom: 23:09 10/12 Time Off Bottom: 02:09 10/13

Electronic Volume Estimate:
 122'

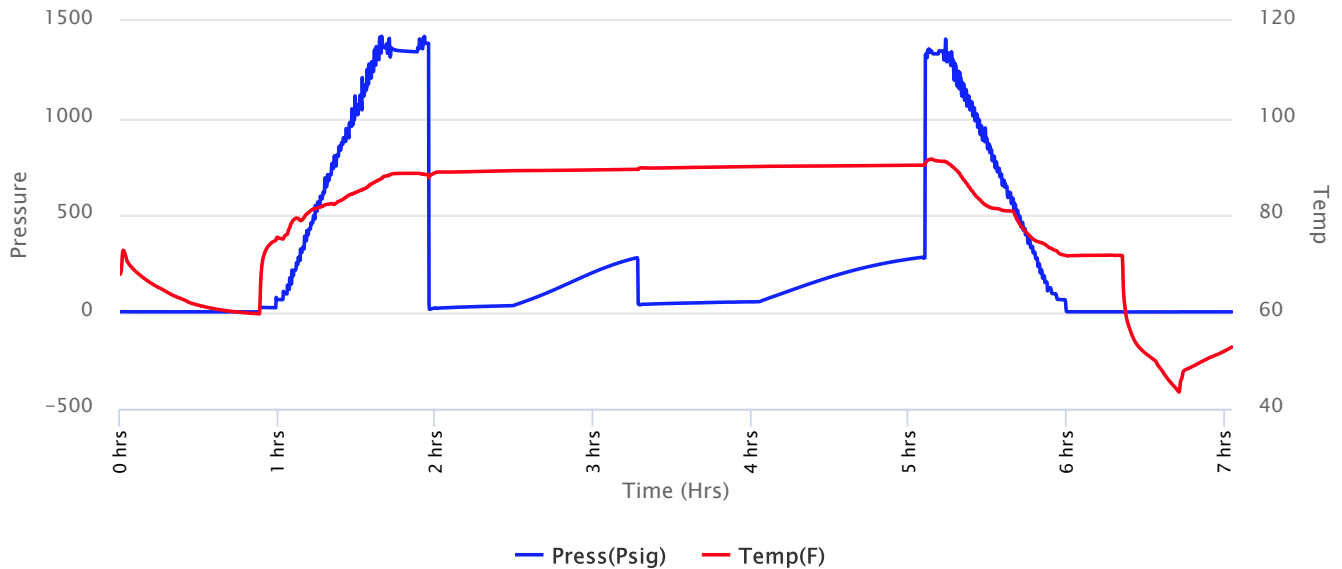
1st Open
 Minutes: 30
 Current Reading:
 2.5" at 30 min
 Max Reading: 3.4"

1st Close
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

2nd Open
 Minutes: 45
 Current Reading:
 1.8" at 45 min
 Max Reading: 2.8"

2nd Close
 Minutes: 60
 Current Reading:
 0" at 60 min
 Max Reading: 0"

Inside Recorder





Company: Vess Oil Corporation
Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery & pressures

DATE
 October
12
 2019

DST #2 **Formation: Oread** **Test Interval: 2815 - 2855'** **Total Depth: 2855'**
 Time On: 21:15 10/12 Time Off: 04:05 10/13
 Time On Bottom: 23:09 10/12 Time Off Bottom: 02:09 10/13

Recovered

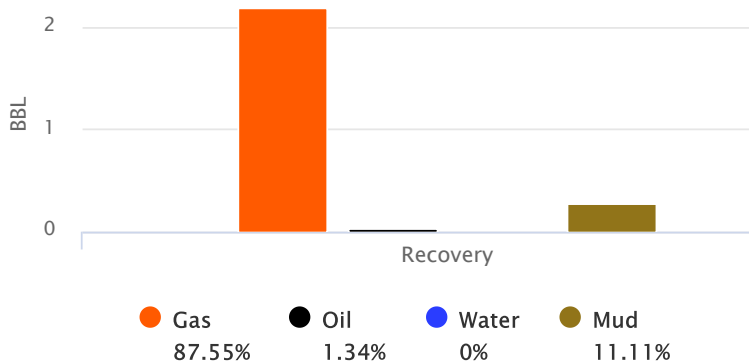
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
180	2.1317435	G	100	0	0	0
10	0.0492	SLOCSLGCM	5	5	0	90
63	0.30996	SLOCSLGCM	15	10	0	75

Total Recovered: 253 ft
 Total Barrels Recovered: 2.4909035

Reversed Out
 NO

Initial Hydrostatic Pressure	1341	PSI
Initial Flow	13 to 33	PSI
Initial Closed in Pressure	280	PSI
Final Flow Pressure	37 to 53	PSI
Final Closed in Pressure	282	PSI
Final Hydrostatic Pressure	1341	PSI
Temperature	91	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance



GIP cubic foot volume: 12.24353



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 108
Elevation: 1845 EGL
Field Name: Fairport
Pool: Infield
Job Number: 405
API #: 15-167-24096-00-00

Operation:

Uploading recovery &
pressures

DATE

October
12
2019

DST #2

Formation: Oread

**Test Interval: 2815 -
2855'**

Total Depth: 2855'

Time On: 21:15 10/12

Time Off: 04:05 10/13

Time On Bottom: 23:09 10/12

Time Off Bottom: 02:09 10/13

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: WSB. Built to 3 1/2 inches in 30 mins

1st Close: NOBB

2nd Open: 1 1/4" Blow. Built to 2 3/4 inches in 45 mins.

2nd Close: NOBB

REMARKS:

Tool Sample: 3% Gas 20% Oil 0% Water 77% Mud



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC -
 Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery &
 pressures

DATE
 October
14
 2019

DST #3 **Formation: Toronto-
Lans F** **Test Interval: 2863 -
3013'** **Total Depth: 3013'**

Time On: 00:43 10/14 Time Off: 07:50 10/14
 Time On Bottom: 02:45 10/14 Time Off Bottom: 05:45 10/14

Electronic Volume
 Estimate:
 138'

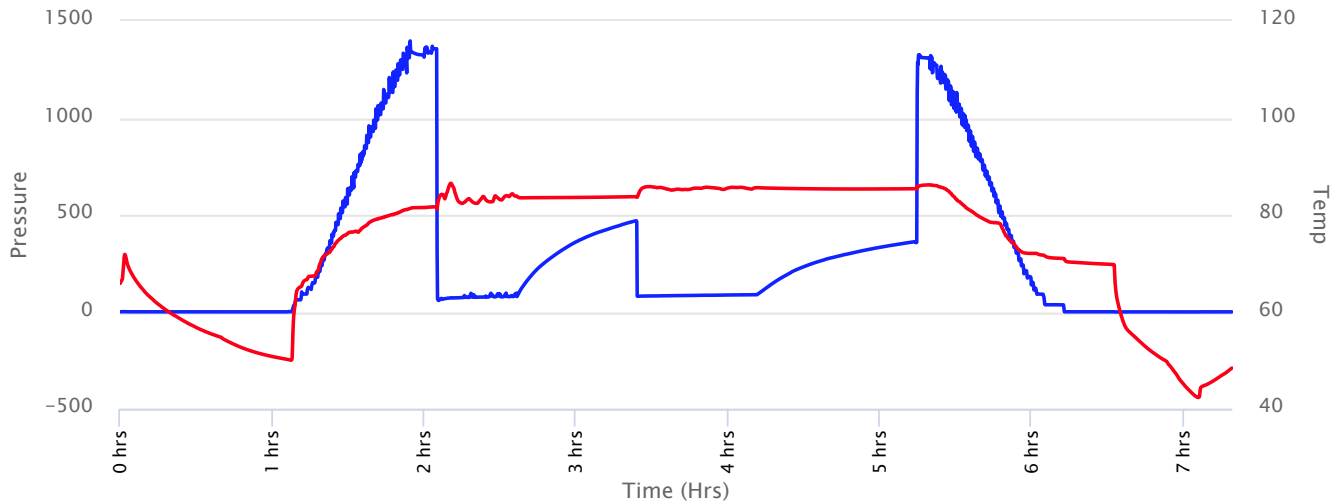
1st Open
 Minutes: 30
 Current Reading:
 6.2" at 30 min
 Max Reading: 7.5"

1st Close
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

2nd Open
 Minutes: 45
 Current Reading:
 .6" at 45 min
 Max Reading: .8"

2nd Close
 Minutes: 60
 Current Reading:
 0" at 60 min
 Max Reading: 0"

Inside Recorder



— Press(Psig) — Temp(F)



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery & pressures

DATE
 October
14
 2019

DST #3 **Formation: Toronto-Lans F** **Test Interval: 2863 - 3013'** **Total Depth: 3013'**

Time On: 00:43 10/14 Time Off: 07:50 10/14
 Time On Bottom: 02:45 10/14 Time Off Bottom: 05:45 10/14

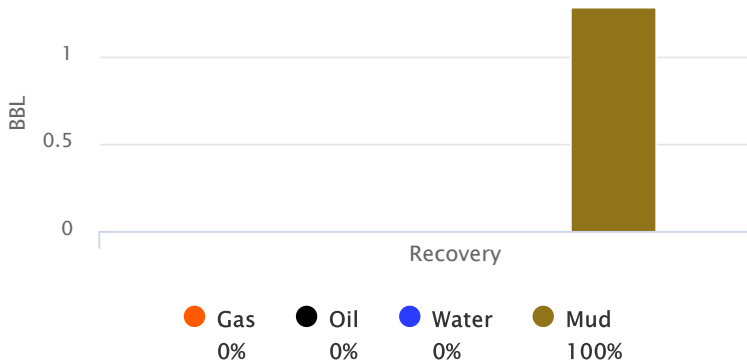
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
168	1.2813535	M	0	0	0	100

Total Recovered: 168 ft
 Total Barrels Recovered: 1.2813535

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1325	PSI
Initial Flow	59 to 83	PSI
Initial Closed in Pressure	470	PSI
Final Flow Pressure	81 to 89	PSI
Final Closed in Pressure	363	PSI
Final Hydrostatic Pressure	1324	PSI
Temperature	87	°F
Pressure Change Initial Close / Final Close	22.9	%

GIP cubic foot volume: 0



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 108
Elevation: 1845 EGL
Field Name: Fairport
Pool: Infield
Job Number: 405
API #: 15-167-24096-00-00

Operation:

Uploading recovery &
pressures

DATE

October
14
2019

DST #3	Formation: Toronto- Lans F	Test Interval: 2863 - 3013'	Total Depth: 3013'
	Time On: 00:43 10/14	Time Off: 07:50 10/14	
	Time On Bottom: 02:45 10/14	Time Off Bottom: 05:45 10/14	

BUCKET MEASUREMENT:

1st Open: 1" Blow. Built to 7 1/2 inches in 30 mins

1st Close: NOBB

2nd Open: WSB. Built to 3/4 inch in 45 mins

2nd Close: NOBB

REMARKS:

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



Company: Vess Oil Corporation
Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC -
 Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery &
 pressures

DATE
 October
14
 2019

DST #4 Formation: Lans G Test Interval: 3010 - 3033' Total Depth: 3033'
 Time On: 13:54 10/14 Time Off: 20:31 10/14
 Time On Bottom: 15:28 10/14 Time Off Bottom: 18:28 10/14

Electronic Volume
 Estimate:
 13'

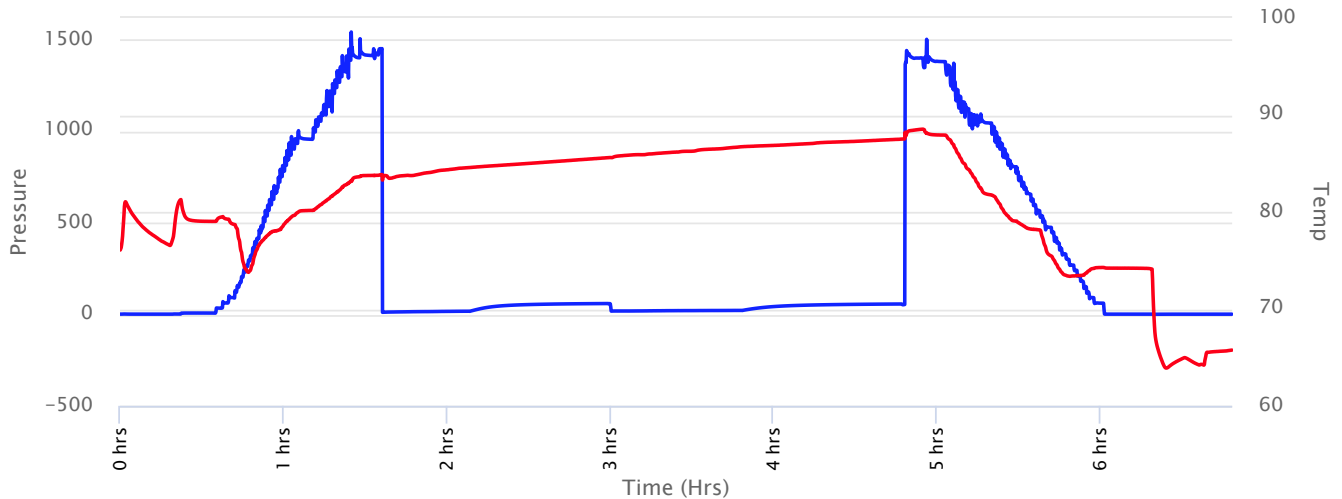
1st Open
 Minutes: 30
 Current Reading:
 .5" at 30 min
 Max Reading: .5"

1st Close
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

2nd Open
 Minutes: 45
 Current Reading:
 .1" at 45 min
 Max Reading: .1"

2nd Close
 Minutes: 60
 Current Reading:
 0" at 60 min
 Max Reading: 0"

Inside Recorder



— Press(Psig) — Temp(F)



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery & pressures

DATE
 October
14
 2019

DST #4 **Formation: Lans G** **Test Interval: 3010 - 3033'** **Total Depth: 3033'**

Time On: 13:54 10/14 Time Off: 20:31 10/14
 Time On Bottom: 15:28 10/14 Time Off Bottom: 18:28 10/14

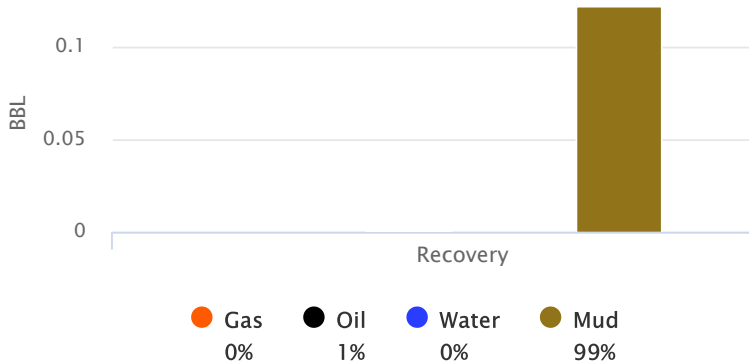
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
25	0.123	SLOCM	0	1	0	99

Total Recovered: 25 ft
 Total Barrels Recovered: 0.123

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1399	PSI
Initial Flow	11 to 17	PSI
Initial Closed in Pressure	58	PSI
Final Flow Pressure	17 to 21	PSI
Final Closed in Pressure	56	PSI
Final Hydrostatic Pressure	1399	PSI
Temperature	88	°F
Pressure Change Initial Close / Final Close	4.2	%

GIP cubic foot volume: 0



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 108
Elevation: 1845 EGL
Field Name: Fairport
Pool: Infield
Job Number: 405
API #: 15-167-24096-00-00

Operation:

Uploading recovery &
pressures

DATE

October
14
2019

DST #4	Formation: Lans G	Test Interval: 3010 - 3033'	Total Depth: 3033'
	Time On: 13:54 10/14	Time Off: 20:31 10/14	
	Time On Bottom: 15:28 10/14	Time Off Bottom: 18:28 10/14	

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 1/4" Blow. Built to 1/2 inch in 30 mins

1st Close: NOBB

2nd Open: Weak Surface Blow. Blow Never Built.

2nd Close: NOBB

REMARKS:

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



Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

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DATE
 October
16
 2019

DST #5 **Formation: LKC H-I-J-K-L** **Test Interval: 3042 - 3185'** **Total Depth: 3253'**
 Time On: 06:38 10/16 Time Off: 13:33 10/16
 Time On Bottom: 08:40 10/16 Time Off Bottom: 11:40 10/16

Electronic Volume Estimate:
 21'

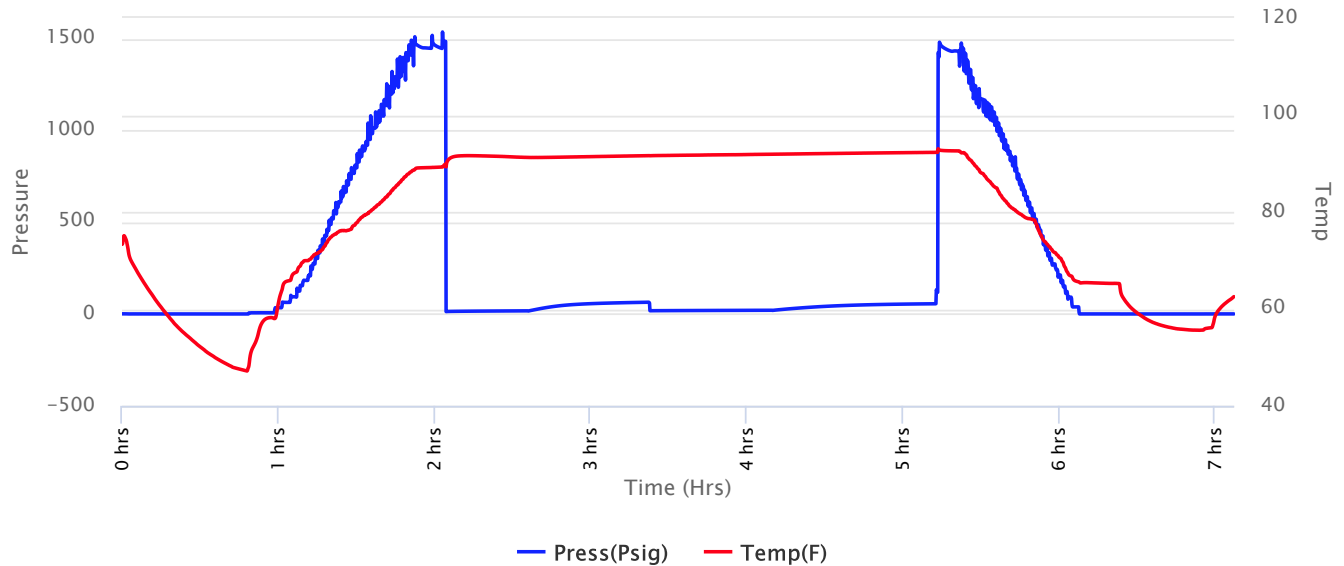
1st Open
 Minutes: 30
 Current Reading: .8" at 30 min
 Max Reading: .8"

1st Close
 Minutes: 45
 Current Reading: 0" at 45 min
 Max Reading: 0"

2nd Open
 Minutes: 45
 Current Reading: .15" at 45 min
 Max Reading: .15"

2nd Close
 Minutes: 60
 Current Reading: 0" at 60 min
 Max Reading: 0"

Inside Recorder





Company: Vess Oil Corporation

Lease: Ed B. Oswald #11

SEC: 8 TWN: 12S RNG: 15W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 108
 Elevation: 1845 EGL
 Field Name: Fairport
 Pool: Infield
 Job Number: 405
 API #: 15-167-24096-00-00

Operation:
 Uploading recovery & pressures

DATE
 October
16
 2019

DST #5 **Formation: LKC H-I-J-K-L** **Test Interval: 3042 - 3185'** **Total Depth: 3253'**

Time On: 06:38 10/16 Time Off: 13:33 10/16
 Time On Bottom: 08:40 10/16 Time Off Bottom: 11:40 10/16

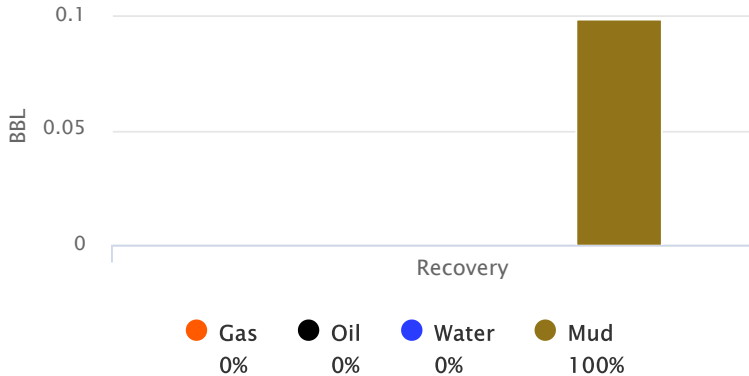
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
20	0.0984	M	0	0	0	100

Total Recovered: 20 ft
 Total Barrels Recovered: 0.0984

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1447	PSI
Initial Flow	13 to 17	PSI
Initial Closed in Pressure	64	PSI
Final Flow Pressure	18 to 20	PSI
Final Closed in Pressure	56	PSI
Final Hydrostatic Pressure	1446	PSI
Temperature	93	°F
Pressure Change Initial Close / Final Close	12.3	%

GIP cubic foot volume: 0

