

DIAMOND TESTING, LLC

TESTER : TIM VENTERS
CELL # 620-388-6333

General Information

Company Name	RITCHIE EXPLORATION, INC.	Job Number	T529
Contact	JUSTIN CLEGG	Representative	TIM VENTERS
Well Name	KOEHN-MOLLENKAMP #1	Well Operator	RITCHIE EXPLORATION, INC.
Unique Well ID	DST #3, LKC "E&F", 4160-4192	Report Date	2016/04/28
Surface Location	SEC 14-15S-36W, LOGAN CO. KS.	Prepared By	TIM VENTERS
Well License Number			
Field	WILDCAT		
Well Type	Vertical		

Test Information

Test Type	CONVENTIONAL
Formation	DST #3, LKC "E&F", 4160-4192
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2016/04/28	Start Test Time	13:53:00
Final Test Date	2016/04/28	Final Test Time	20:22:00

Gauge Name	5504
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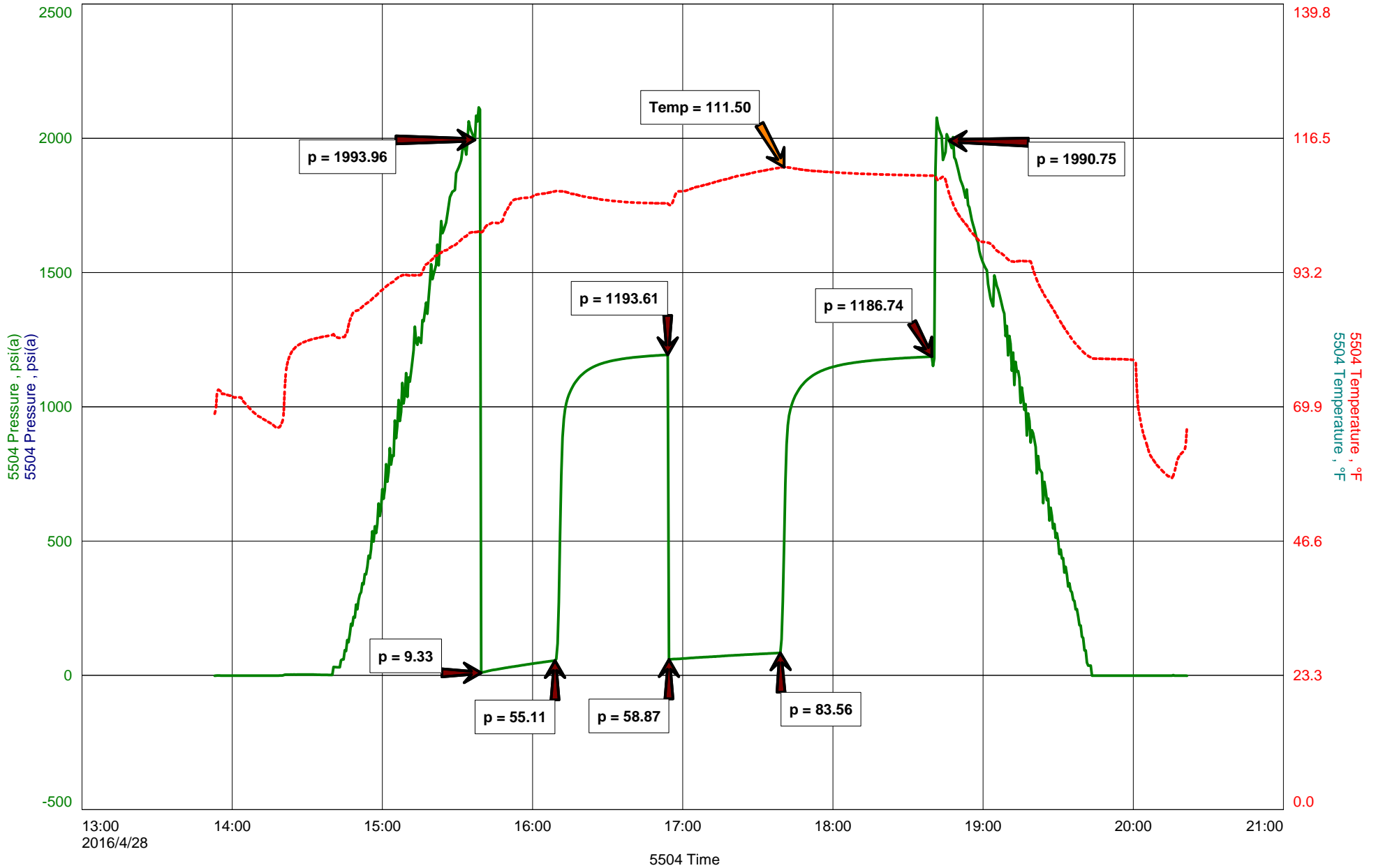
Test Results

RECOVERED: 30' CLEAN OIL, 100% OIL, GRAVITY: 33
20' HO&WCM, 34% OIL, 22% WATER, 44% MUD
60' SOHWCM, 6% OIL, 44% WATER, 50% MUD
60' SO&MCW, 1% OIL, 89% WATER, 10% MUD
170' TOTAL FLUID

TOOL SAMPLE: 6% OIL, 73% WATER, 21% MUD

CHLORIDES: 20,000 ppm
PH: 7.5
RW: .47 @ 62 deg.

KOEHN-MOLLENKAMP #1





DIAMOND TESTING
 P.O. Box 157
 HOISINGTON, KANSAS 67544
 (800) 542-7313

TIME ON: 13:53
 TIME OFF: 20:22

DRILL-STEM TEST TICKET
 FILE: KOEHN-MOLLENKAMP1DST3

Company RITCHIE EXPLORATION, INC. Lease & Well No. KOEHN-MOLLENKAMP #1
 Contractor WW DRILLING, LLC RIG #2 Charge to RITCHIE EXPLORATION, INC.
 Elevation 3319 KB Formation LKC "E&F" Effective Pay _____ Ft. Ticket No. T529
 Date 4-28-16 Sec. 14 Twp. 15 S Range 36 W County LOGAN State KANSAS
 Test Approved By JOHN GOLDSMITH Diamond Representative TIM VENTERS

Formation Test No. 3 Interval Tested from 4160 ft. to 4192 ft. Total Depth 4192 ft.
 Packer Depth 4155 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 4160 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4141 ft. Recorder Number 5504 Cap. 5000 P.S.I.
 Bottom Recorder Depth (Outside) 4189 ft. Recorder Number 11029 Cap. 5,025 P.S.I.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 56 Drill Collar Length 118 ft. I.D. 2 1/4 in.
 Weight 8.9 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
 Chlorides 5,000 P.P.M. Drill Pipe Length 4009 ft. I.D. 3 1/2 in.
 Jars: Make STERLING Serial Number 4 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
 Did Well Flow? NO Reversed Out NO Anchor Length 32 ft. Size 4 1/2-FH in.
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK 1/4 INCH BLOW, BUILDING TO 4 INCHES. (NO BB)
 2nd Open: WEAK SURFACE BLOW, BUILDING TO 1/4 INCH. (NO BB)

Recovered 30 ft. of CLEAN OIL, 100% OIL, GRAVITY: 33
 Recovered 20 ft. of HO&WCM, 34% OIL, 22% WATER, 44% MUD
 Recovered 60 ft. of SWHWCM, 6% OIL, 44% WATER, 50% MUD
 Recovered 60 ft. of SO&MCW, 1% OIL, 89% WATER, 10% MUD

Recovered <u>170</u> ft. of <u>TOTAL FLUID</u>	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
_____	Total

TOOL SAMPLE: 6% OIL, 73% WATER, 21% MUD

Time Set Packer(s) 3:39 PM A.M. P.M. Time Started Off Bottom 6:39 PM A.M. P.M. Maximum Temperature 112 deg.
 Initial Hydrostatic Pressure..... (A) 1994 P.S.I.
 Initial Flow Period..... Minutes 30 (B) 9 P.S.I. to (C) 55 P.S.I.
 Initial Closed In Period..... Minutes 45 (D) 1194 P.S.I.
 Final Flow Period..... Minutes 45 (E) 59 P.S.I. to (F) 84 P.S.I.
 Final Closed In Period..... Minutes 60 (G) 1187 P.S.I.
 Final Hydrostatic Pressure..... (H) 1991 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.