

# DIAMOND TESTING, LLC

TESTER : TIM VENTERS  
CELL # 620-388-6333

## General Information

Company Name	RITCHIE EXPLORATION, INC.	Job Number	T531
Contact	JUSTIN CLEGG	Representative	TIM VENTERS
Well Name	KOEHN-MOLLENKAMP #1	Well Operator	RITCHIE EXPLORATION, INC.
Unique Well ID	DST #5, ALTAMONT "A", 4441-4506	Report Date	2016/04/30
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 #5, ALTAMONT "A", 4441-4506
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2016/04/30	Start Test Time	09:45:00
Final Test Date	2016/04/30	Final Test Time	16:25:00

Gauge Name	5504
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## Test Results

RECOVERED: 160' GAS IN PIPE  
220' G,SWMCO, 6% GAS, 63% OIL, 9% WATER, 22% MUD  
190' G,O&HWCM, 17% GAS, 14% OIL, 33% WATER, 36% MUD  
240' SOMCW, 3% OIL, 75% WATER, 22% MUD  
650' TOTAL FLUID

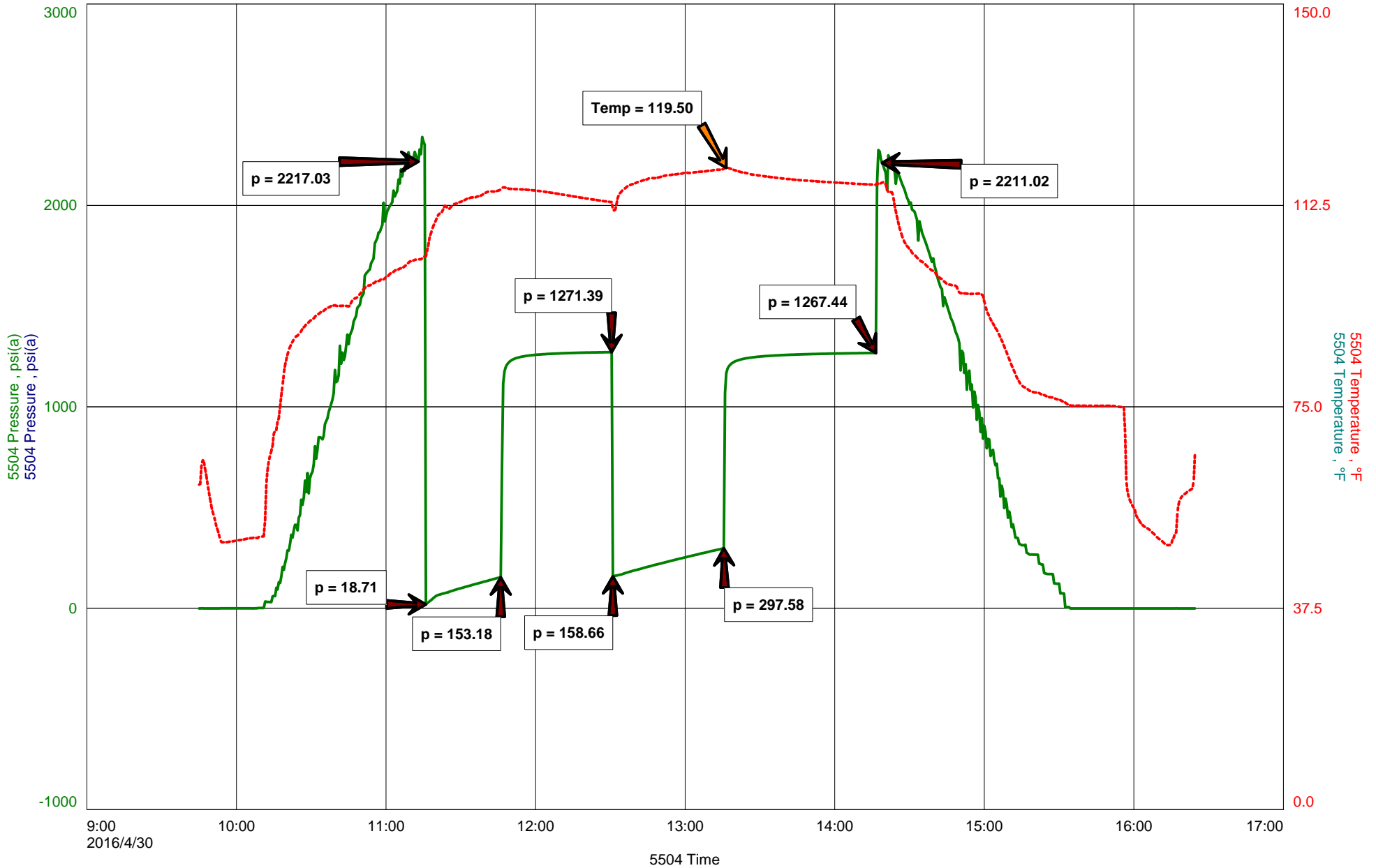
TOOL SAMPLE: 14% OIL, 74% WATER, 12% MUD

CHLORIDES: 24,000 PPM  
PH: 7.0  
RW: .42 @ 68 deg.

RITCHIE EXPLORATION, INC.  
DST #5, ALTAMONT "A", 4441-4506  
Start Test Date: 2016/04/30  
Final Test Date: 2016/04/30

KOEHN-MOLLENKAMP #1  
Formation: DST #5, ALTAMONT "A", 4441-4506  
Pool: WILDCAT  
Job Number: T531

# KOEHN-MOLLENKAMP #1





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

TIME ON: 09:45  
 TIME OFF: 16:25

**DRILL-STEM TEST TICKET**  
 FILE: KOEHN-MOLLENKAMP1DST5

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 ALTAMONT "A" Effective Pay \_\_\_\_\_ Ft. Ticket No. T531  
 Date 4-30-16 Sec. 14 Twp. \_\_\_\_\_ 15 S Range \_\_\_\_\_ 36 W County LOGAN State KANSAS  
 Test Approved By JOHN GOLDSMITH Diamond Representative TIM VENTERS

Formation Test No. 5 Interval Tested from 4441 ft. to 4506 ft. Total Depth 4506 ft.  
 Packer Depth 4436 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Packer Depth 4441 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
 Top Recorder Depth (Inside) 4422 ft. Recorder Number 5504 Cap. 5000 P.S.I.  
 Bottom Recorder Depth (Outside) 4503 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 63 Drill Collar Length 118 ft. I.D. 2 1/4 in.  
 Weight 9.5 Water Loss 8.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
 Chlorides 6,600 P.P.M. Drill Pipe Length 4290 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 33 ft. Size 4 1/2-FH in.  
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. <sup>32' DP IN ANCHOR</sup> Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK 1/4 INCH BLOW, BUILDING, REACHING BOB 14 1/2 MIN. (WS BB)  
 2nd Open: WEAK 1/2 INCH BLOW, BUILDING, REACHING BOB 14 1/2 MIN. (1 1/2" BB)

Recovered 160 ft. of GAS IN PIPE  
 Recovered 220 ft. of G,SWMCO, 6% GAS, 63% OIL, 9% WATER, 22% MUD  
 Recovered 190 ft. of G,O&HWCM, 17% GAS, 14% OIL, 33% WATER, 35% MUD  
 Recovered 240 ft. of SOMCW, 3% OIL, 75% WATER, 22% MUD  
 Recovered 650 ft. of TOTAL FLUID

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
_____	Total

TOOL SAMPLE: 14% OIL, 74% WATER, 12% MUD

Time Set Packer(s) 11:15 AM <sup>A.M.</sup> P.M. Time Started Off Bottom 2:15 PM <sup>A.M.</sup> P.M. Maximum Temperature 120 deg.  
 Initial Hydrostatic Pressure..... (A) 2217 P.S.I.  
 Initial Flow Period..... Minutes 30 (B) 19 P.S.I. to (C) 153 P.S.I.  
 Initial Closed In Period..... Minutes 45 (D) 1271 P.S.I.  
 Final Flow Period..... Minutes 45 (E) 159 P.S.I. to (F) 298 P.S.I.  
 Final Closed In Period..... Minutes 60 (G) 1267 P.S.I.  
 Final Hydrostatic Pressure..... (H) 2211 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.