



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method: Flowing Pumping Gas Lift Other (Explain) _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	H & D Exploration LLC
Well Name	Mermis 1
Doc ID	1136971

Tops

Name	Top	Datum
Anhydrite	1018	989
Base Anhydrite	10465	-8458
Heebner	3358	-1351
Toronto	3374	-1367
Douglas	3388	-1381
Brown Lime	3453	-1446
Lansing	3462	-1455
Base KC	3678	-1671
Conglomerate	3697	-1690
Viola	3718	-1711
Simpson Shale	3760	-1753
Arbuckle	3790	-1783
RTD	3917	-1910



Musgrove

**PETROLEUM
CORPORATION**
Clafin, Kansas

Geologist's Report

Company: H&D Exploration, LLC

Lease: Mermis #1

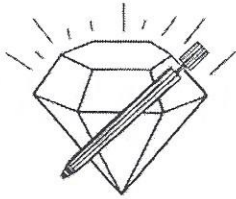
Field: Ash Creek

Location: SE-SE-SW-NE (2462' FNL & 1341' FEL)

Sec: 2 Twsp: 21S Rge: 16W

County: Pawnee State: Kansas

GL: 1995' KB: 2007'



DIAMOND TESTING, LLC
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (620) 653-7550 • (800) 542-7313
 Mrms1DST1

Company H & D Exploration, LLC Lease & Well No. Mermis No. 1
 Elevation 2007 KB Formation Arbuckle Effective Pay Ft. Ticket No. M482
 Date 3-28-13 Sec. 2 Twp. 21S Range 16W County Pawnee State Kansas
 Test Approved By Kurt M. Talbott Diamond Representative Mike Cochran

Formation Test No. 1 Interval Tested from 3,761 ft. to 3,810 ft. Total Depth 3,810 ft.
 Packer Depth 3,756 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Packer Depth 3,761 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 3,743 ft. Recorder Number 0063 Cap. 6,000 psi.
 Bottom Recorder Depth (Outside) 3,807 ft. Recorder Number 6884 Cap. 6,275 psi.
 Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor Southwind Drilling, Inc. - Rig 70 Drill Collar Length ft. I.D. in.
 Mud Type Chemical Viscosity 52 Weight Pipe Length ft. I.D. in.
 Weight 9.5 Water Loss 10.0 cc. Drill Pipe Length 3,729 ft. I.D. 3 1/2 in.
 Chlorides 7,600 P.P.M. Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
 Jars: Make Sterling Serial Number 1 Anchor Length 18' perf. w/ 31' drill pipe Size 4 1/2-FH in.
 Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Strong, surface blow increasing. Off bottom of bucket in 45 secs. Fair, 2 1/2 in. blow back during shut-in.
2nd Open: Strong surface blow increasing. Off bottom of bucket in 1 3/4 mins. Fair, 2 in. blow back during shut-in.

Recovered 1,197 ft. of gassy, muddy water w/ a thick scum of oil = 17.033310 bbls. (Grind out: 2%-gas; 78%-water; 20%-mud)
 Recovered 567 ft. of gassy, heavy oil cut muddy water = 8.068410 bbls. (Grind out: 10%-gas; 31%-oil; 50%-water; 9%-mud)
 Recovered 315 ft. of gassy, oil specked muddy water = 4.482450 bbls. (Grind out: 2%-gas; 2%-oil; 81%-water; 15%-mud) Chlorides: 22,000 Ppm PH: 7.0 RW: .38 @ 65°
 Recovered 2,079 ft. of TOTAL FLUID = 29.584170 bbls.

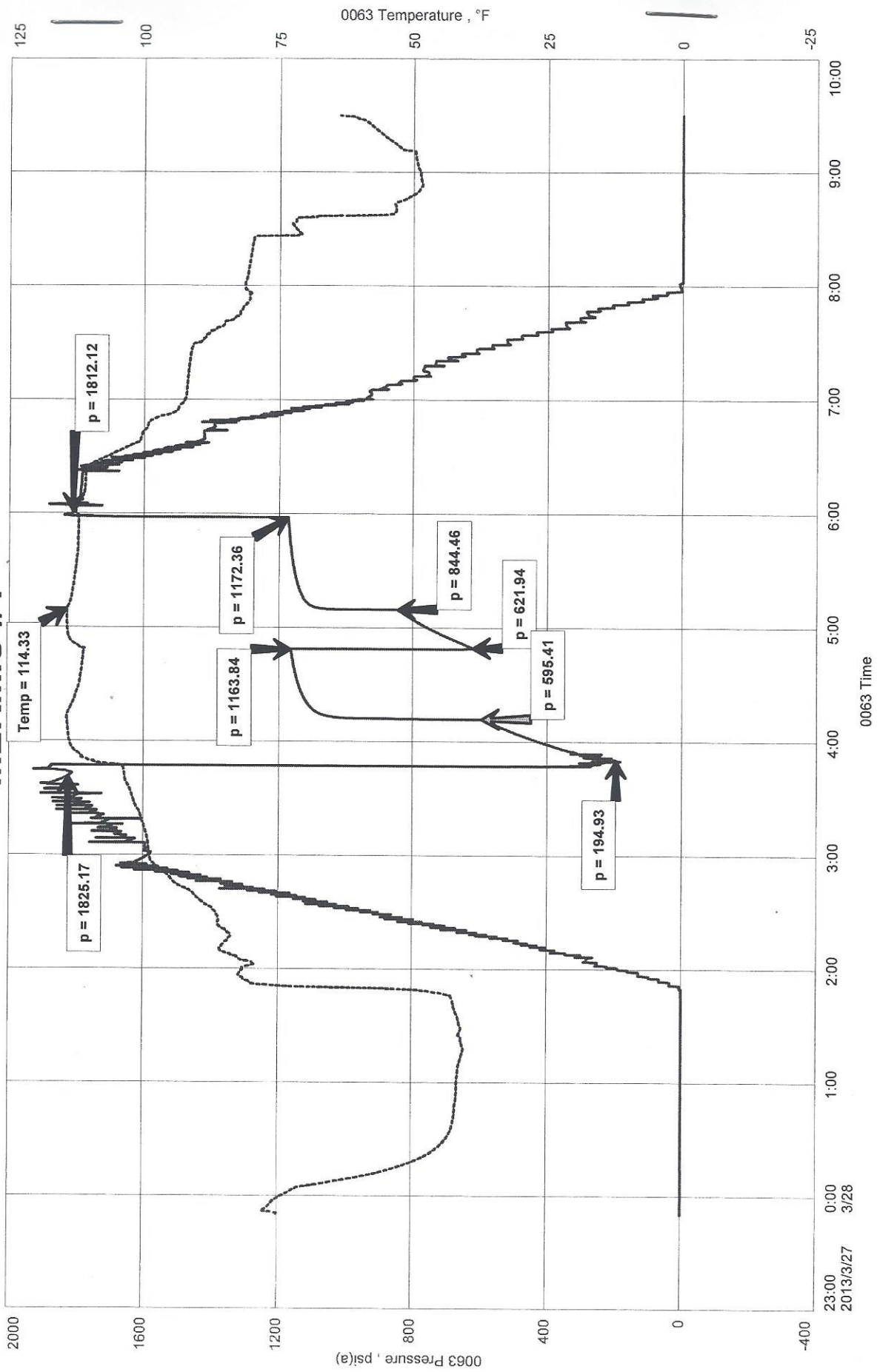
Recovered ft. of
 Recovered ft. of
 Remarks Tool Sample Grind Out: 2%-gas; 90%-water; 8%-mud w/ some spots of oil

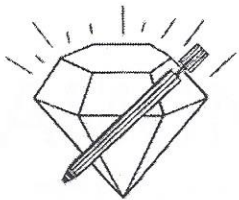
Time Set Packer(s) 3:45 A.M. Time Started off Bottom 5:50 A.M. Maximum Temperature 114°
 Initial Hydrostatic Pressure.....(A) 1825 P.S.I.
 Initial Flow Period.....Minutes 30 (B) 195 P.S.I. to (C) 595 P.S.I.
 Initial Closed In Period.....Minutes 30 (D) 1164 P.S.I.
 Final Flow Period.....Minutes 20 (E) 622 P.S.I. to (F) 844 P.S.I.
 Final Closed In Period.....Minutes 45 (G) 1172 P.S.I.
 Final Hydrostatic Pressure.....(H) 1812 P.S.I.

H&D EXPLORATION
DST#1 3761-3810 ARBUCKLE
Start Test Date: 2013/03/27
Final Test Date: 2013/03/28

MERMIS #1
Formation: DST#1 3761-3810 ARBUCKLE
Pool: WILDCAT
Job Number: M482

MERMIS #1





DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
Mrms1DST2

Company H & D Exploration, LLC Lease & Well No. Mermis No. 1
Elevation 2007 KB Formation Arbuckle Effective Pay _____ Ft. Ticket No. M483
Date 3-28-13 Sec. 2 Twp. 21S Range 16W County Pawnee State Kansas
Test Approved By Kurt M. Talbott Diamond Representative Mike Cochran

Formation Test No. 2 Interval Tested from 3,810 ft. to 3,820 ft. Total Depth 3,820 ft.
Packer Depth 3,805 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 3,810 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____ ft.

Top Recorder Depth (Inside) 3,792 ft. Recorder Number 0063 Cap. 6,000 psi.
Bottom Recorder Depth (Outside) 3,817 ft. Recorder Number 6884 Cap. 6,275 psi.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor Southwind Drilling, Inc. - Rig 70 Drill Collar Length _____ ft I.D. _____ in.
Mud Type Chemical Viscosity 60 Weight Pipe Length _____ ft I.D. _____ in.
Weight 9.0 Water Loss 12.8 cc. Drill Pipe Length 3,778 ft I.D. 3 1/2 in.
Chlorides 11,100 P.P.M. Test Tool Length 32 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number 1 Anchor Length 10 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Strong, surface blow increasing. Off bottom of bucket in 35 secs. Bottom of bucket blow back during shut-in.

2nd Open: Strong, surface blow increasing. Off bottom of bucket in 1 min. Fair, 2 in. blow back during shut-in.

Recovered 315 ft. of gas in pipe
Recovered 2,275 ft. of gassy, muddy water w/ a few specks of oil = 32.373250 bbls. (Grind out: 2%-gas; 95%-water; 3%-mud) Chlorides: 22,000 Ppm PH: 7.0 RW: .36 @ 60°
Recovered 2,275 ft. of TOTAL FLUID = 32.373250 bbls.
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Remarks Tool Sample Grind Out: 100%-gassy water

Time Set Packer(s) 5:15 P.M. Time Started off Bottom 7:20 P.M. Maximum Temperature 115°
Initial Hydrostatic Pressure.....(A) 1811 P.S.I.
Initial Flow Period.....Minutes 20 (B) 334 P.S.I. to (C) 796 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 1169 P.S.I.
Final Flow Period.....Minutes 15 (E) 831 P.S.I. to (F) 1029 P.S.I.
Final Closed In Period.....Minutes 60 (G) 1192 P.S.I.
Final Hydrostatic Pressure (H) 1810 P.S.I.

H&D EXPLORATION
 DST#2 3810-3820 ARBUCKLE
 Start Test Date: 2013/03/28
 Final Test Date: 2013/03/28

MERMIS #1
 Formation: DST#2 3810-3820 ARBUCKLE
 Pool: WILDCAT
 Job Number: M483

MERMIS #1

