



KANSAS CORPORATION COMMISSION 1054394
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33365
Name: Layne Energy Operating, LLC
Address 1: 1900 SHAWNEE MISSION PKWY
Address 2:
City: MISSION WOODS State: KS Zip: 66205 + 2001
Contact Person: Victor H. Dyal
Phone: (913) 748-3955
CONTRACTOR: License # 33606
Name: Thornton Air Rotary, LLC
Wellsite Geologist: N/A
Purchaser:

Designate Type of Completion:
 New Well Re-Entry Workover
 Oil WSW SWD SLOW
 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 #:

| | | |
|-----------------------------------|-----------------|---|
| 12/17/2010 | 12/20/2010 | 12/29/2010 |
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |

API No. 15 - 15-205-27895-00-00

Spot Description:
SW NE SW SE Sec. 34 Twp. 30 S. R. 14 East West
925 Feet from North / South Line of Section
1,900 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW

County: Wilson

Lease Name: METZGER Well #: 15G-34

Field Name:

Producing Formation: Cattleman

Elevation: Ground: 926 Kelly Bushing: 0

Total Depth: 1263 Plug Back Total Depth: 1255

Amount of Surface Pipe Set and Cemented at: 44 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: Feet

If Alternate II completion, cement circulated from: 1255

feet depth to: 0 w/ 135 sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 0 ppm Fluid volume: 0 bbls

Dewatering method used: Evaporated

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: Deanna Garrison Date: 04/27/2011



1054394

Operator Name: Layne Energy Operating, LLC Lease Name: METZGER Well #: 15G-34
 Sec. 34 Twp. 30 S. R. 14 East West County: Wilson

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 checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Compensated Density Neutron Dual Induction | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum See attached |
|---|---|

| CASING RECORD <input checked="" 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 |
| Surface | 11 | 8.75 | 24 | 44 | Type 1 | 8 | |
| Production | 6.75 | 4.5 | 10.5 | 1255 | Thickset | 135 | |
| | | | | | | | |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|---------------------------------------|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| ___ Perforate | | | | |
| ___ Protect Casing | | | | |
| ___ Plug Back TD | - | | | |
| ___ 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 |
|----------------|---|--|-------------|
| 2 | Cattleman | 400 gal 15% HCL, 6,000 lbs 16/30 & 12/20 sand, 273 bbls gelled water | 1157 - 1169 |
| | | | |
| | | | |
| | | | |

| | | | |
|--|------------------------|--|-------------------------|
| TUBING RECORD: Size: <u>2/375</u> Set At: <u>1190</u> Packer At: _____ | | Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Date of First, Resumed Production, SWD or ENHR. <u>12/31/2010</u> | | Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____ | |
| Estimated Production Per 24 Hours | Oil Bbls. <u>19</u> | Gas Mcf <u>9</u> | Water Bbls. <u>9</u> |
| Gas-Oil Ratio | | Gravity | |

| | | |
|--|--|--|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input checked="" 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 checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other (Specify) _____ | PRODUCTION INTERVAL: <u>1157 - 1169</u> |
|--|--|--|

Well Report

METZGER 15G-34

API Number:

AFE Number: G01027401700

Project Area:

SYCAMORE
KS Wilson
30S - 14E - 34
925FSL - 1900FEL

AFE Amount: \$0.00

| Activity Date | Activity Description |
|---------------|---|
| 12/17/2010 | MIRU THORNTON DRILLED 11' HOLE 44.' DEEP, RIH W/2 JOINTS 8-5/8" SURFACE CASING MIXED 8 SX TYPE 1 CEMENT, DUMPED DOWN THE BACKSIDE. SDFN |
| 12/20/2010 | TIH W/ 6 3/4" BIT, HAMMER AND DRILL PIPE, DRILLED OUT FROM UNDER SURFACE TO 1263' TD; CATCHING SAMPLES AT ZONES OF INTEREST. RD DRILL RIG, RU OSAGE WIRELINE PULL LOGS FROM LOGGER DEPTH TO SURFACE. SDFN |
| 12/21/2010 | MI PU, RIH w/ 32 JOINTS 4-1/2" CASING, RIG UP CONSOLIDATED, BREAK CIRCULATION WITH 25 BBLs FRESH WTR WASH DOWN 5' PUMP 10 SKS GEL FLUSH W/HULLS, 5 BBLs WATER SPACER, 20 BBLs CAUSTIC PRE-FLUSH, 10 BBLs DYE WATER MIXED 135 SKS THKSET CMT W/8#KOL-SEAL, 1/8# PHENOSEAL PER SK., 1/2% CFL-110, 1/4% CAF-38 13.4#/GAL YIELD 1.75. WASHED OUT PUMP AND LINES SHUTDOWN, RELEASE PLUG, DISPLACE W/20 BBLs FRESH WTR. FINAL PUMPING PRESSURE 800 PSI, BUMP PLUG TO 1300 PSI. WAIT 2 MINUTES, RELEASE PRESSURE, FLOAT HELD GOOD CEMENT RETURNS TO SURFACE, 42 BBLs SLURRY, 6 BBLs TO PIT. RD MOL. CSG STRING:10' SUB, 8' SUB 32 JOINTS 4-1/2" LANDED CSG @ 1255' PBSD - 1255' TD 1263' |
| 12/27/2010 | MIRU Osage Wireline. Log GR-CCL/VDL Cement Bond log from 1248' to surface. Good bond except 490'-500' and 542'-566' with marginal bond across those intervals. Rig down and MOL with Osage. Well SI. Scheduled to frac 12/29/10. |
| 12/29/2010 | MIRU Osage Wireline and Consolidated Oil Well Services. Osage RIH and perforate Cattleman from 1157' to 1169' with 2 SPF, 180 degree phase, 25 gm charges. (25 HOLES) Consolidated spotted 100 gallons 15% HCL across Cattleman perms. Spearheaded 300 gals additional (400 total) and dropped 40 ball sealers and balled off perms. Flowed back to clear perms. Osage RIH with junkbasket/gauge ring and knocked off ball sealers. Consolidated fracked the Cattleman with 85 bbls PAD of 25 ppt gelled water with 2% KCL and boicide followed with 3,500 lbs 16/30 and 2,500 lbs 12/20 sand @ 0.25 to 1.5 ppg concentrations. Flushed sand with 23 bbls gelled water. Breakdown 1,573 psig, ISIP 559 psig, 5 min 451 psig, 10 min 412 psig, 15 min 387 psig. ATP 700 psig, MTP 777 psig, ATR 18.2 BPM, MTR 18.4 BPM. TOTALS 400 gallons 15% HCL, 6,000 lbs 16/30 & 12/20 sand, 273 bbls gelled water. Shut well in overnight to allow gel to break. Rig down Osage and Consolidated. |

12/30/2010

TIH W/ TBG WASHED TO TD TIH W/ RODS SPACED ROD STRING HUNG ON JACK.
WASHED 40' OF SAND

TBG STRING
36- 2 3/8 TBG
0- SUBS
SN @ 1190
15' OEMA @ 1215

ROD STRING
47- 3/4 RODS
1-2' PONYS
1 1/2 X 6' BHD CUP INST PMP
1 1/8 X 11' POLISH ROD

Air Drilling Specialist
Oil & Gas Wells

THORNTON AIR ROTARY, LLC
Office Phone: 620-879-2073

PO Box 449
Caney, KS 67333

| | |
|----------------|------------|
| Date Started | 12/17/2010 |
| Date Completed | 12/20/2010 |

| Well No. | Operator | Lease | A.P.I # | County | State |
|----------|------------------------|---------|-----------------|--------|--------|
| 15G-34 | Layne Energy Operating | Metzger | 205-27895-00-00 | Wilson | Kansas |

| 1/4 | 1/4 | 1/4 | Sec. | Twp. | Rge. |
|-----|-----|-----|------|------|------|
| | | | 34 | 30 | 14 |

| Driller | Type/Well | Cement Used | Casing Used | Depth | Size of Hole |
|---------|-----------|-------------|-------------|-------|--------------|
| Billy | Oil | 8 | 43' 8 5/8 | 1263 | 6 3/4 |

Formation Record

| | | | | | |
|---------|-----------------------|-----------|-----------------------------|--|--|
| 0-4 | DIRT | 909-952 | SANDY SHALE | | |
| 4-100 | LIME | 953-976 | LIME (OSWEGO) | | |
| 100-172 | SHALE | 976-984 | BLK SHALE (SUMMIT) | | |
| 172-298 | LMY SHALE | 984-996 | LIME | | |
| 298-300 | SANDY SHALE | 996-998 | BLK SHALE (EXCELLO) | | |
| 300-434 | SAND (DAMP) | 998-999 | COAL (MULKEY) | | |
| 434-494 | LIME | 999-1000 | SHALE | | |
| 494-520 | SAND | 1000-1004 | LIME | | |
| 512 | WENT TO WATER | 1004-1049 | SANDY SHALE | | |
| 520-533 | LIME | 1049-1050 | COAL | | |
| 537 | GAS TEST - NO GAS | 1050-1062 | SHALE | | |
| 533-538 | SHALE | 1062-1063 | LIME | | |
| 538-552 | LIME | 1063-1066 | SHALE | | |
| 552-572 | SAND | 1066-1067 | COAL (CROWBERG) | | |
| 572-640 | LIME | 1067-1107 | SANDY | | |
| 640-695 | SHALE | 1088 | GAS TEST - NO GAS | | |
| 695-716 | LIME | 1107-1108 | COAL (MINERAL) | | |
| 716-717 | COAL | 1108-1123 | SHALE | | |
| 717-737 | SANDY SHALE | 1123-1125 | BLK SHALE / COAL | | |
| 737-747 | LIME | 1125-1148 | SHALE | | |
| 747-757 | SHALE | 1148-1156 | SANDY SHALE | | |
| 757-768 | SAND /LITE OIL ODOR | 1156-1177 | SAND / OIL ODOR | | |
| 768-773 | SANDY SHALE | 1177-1181 | SHALE | | |
| 773-797 | SHALE | 1181-1182 | COAL | | |
| 797-798 | COAL | 1182-1195 | SHALE | | |
| 798-868 | SHALE | 1188 | GAS TEST-10# 1/4", MCF-30.8 | | |
| 868-898 | LIME (PAWNEE) | 1195-1210 | SANDY SHALE | | |
| 898-901 | SHALE | 1210-1263 | SHALE | | |
| 901-903 | LIME | 1263 | TD | | |
| 903-909 | BLK SHALE (LEXINGTON) | | | | |



CONSOLIDATED
Oil Well Services, LLC



ENTERED

TICKET NUMBER 30077

LOCATION Eureka

FOREMAN Troy Strickler

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

| DATE | CUSTOMER # | WELL NAME & NUMBER | SECTION | TOWNSHIP | RANGE | COUNTY | | | | | | | | | | | | |
|-----------------|------------|--------------------|---|----------|-------|--------|---------|--------|---------|--------|-----|--------|--|--|-----|-------|--|--|
| 12-21-10 | 4758 | Metzger 15 G-34 | | | | Wilson | | | | | | | | | | | | |
| CUSTOMER | | | <table border="1"> <thead> <tr> <th>TRUCK #</th> <th>DRIVER</th> <th>TRUCK #</th> <th>DRIVER</th> </tr> </thead> <tbody> <tr> <td>445</td> <td>John F</td> <td></td> <td></td> </tr> <tr> <td>441</td> <td>Calia</td> <td></td> <td></td> </tr> </tbody> </table> | | | | TRUCK # | DRIVER | TRUCK # | DRIVER | 445 | John F | | | 441 | Calia | | |
| TRUCK # | DRIVER | TRUCK # | | | | | DRIVER | | | | | | | | | | | |
| 445 | John F | | | | | | | | | | | | | | | | | |
| 441 | Calia | | | | | | | | | | | | | | | | | |
| Layne Energy | | | | | | | | | | | | | | | | | | |
| MAILING ADDRESS | | | | | | | | | | | | | | | | | | |
| P.O. Box 160 | | | | | | | | | | | | | | | | | | |
| CITY | STATE | ZIP CODE | | | | | | | | | | | | | | | | |
| Sycamore | Ks | | | | | | | | | | | | | | | | | |

JJ
JS
CF

JOB TYPE L/S '0' HOLE SIZE 6 3/4" HOLE DEPTH 1263' CASING SIZE & WEIGHT 4 1/2"
 CASING DEPTH 1255' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 13.4" SLURRY VOL 42 WATER gal/sk 8" CEMENT LEFT IN CASING 0'
 DISPLACEMENT 2086 DISPLACEMENT PSI 800 MIX PSI 1300 Sup Ply RATE _____

REMARKS: S. Job Metzger: Rig upto 4 1/2" casing. Break circulation w/ 2500 Fresh water. Wash down 5' to PRTD 1255'. Pump 1000 Gal-Flurl w/ Hulle, 1000 water, shut down Rig up to cement. Break circulation Pump 1000 Gal Gartic Pre-Flurl 900 Dye water. Mixed 1350r Thick Set Cement w/ 8" Kol-foal, 1/2" Phenoresal, 1/2 2 FL-110, + 1/2 CAF-38 @ 13.4"/gal. Wash out Pump + line. Release Plug. Displace w/ 2086l Fresh water. Final pumping pressure 1000PSI. Sup Ply to 1300 PRT. Wait 2mins. Release pressure. Float held. Good cement to surface = 600l Slurry to pit.

Job Complete

| ACCOUNT CODE | QUANTITY or UNITS | DESCRIPTION of SERVICES or PRODUCT | UNIT PRICE | TOTAL |
|--------------|-------------------|------------------------------------|-----------------|---------|
| 5401 | 1 | PUMP CHARGE | 925.00 | 925.00 |
| 5406 | 40 | MILEAGE | 3.65 | 146.00 |
| 1126A | 1350r | Thick Set Cement | 17.00 | 2295.00 |
| 1110A | 1080* | 8" Kol-foal LSK | .42 | 453.60 |
| 1107A | 17# | 1/2" Phenoresal LSK | 1.15 | 19.55 |
| 1135 | 68# | 1/2 2 FL-110 | 7.50 | 510.00 |
| 1146 | 34# | 1/2 CAF-38 | 7.70 | 261.80 |
| 1118B | 500# | Gel-Flurl | .20 | 100.00 |
| 1105 | 50# | Hulle | .39 | 19.50 |
| 1107 | 100# | Gartic Soda | 1.45 | 145.00 |
| 5407A | 7.43 | Tom-milage | 1.20 | 891.64 |
| 4404 | 1 | 4 1/2" Top Rubber Ply | 45.00 | 45.00 |
| | | | Sub Total | 5277.09 |
| | | | SALES TAX 6.3% | 242.53 |
| | | | ESTIMATED TOTAL | 5519.62 |

Ravin 9737

Mike Hieser

Troy Strickler

AUTHORIZATION _____ TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.