

Confidentiality Requested:

Yes No

## Kansas Corporation Commission Oil & Gas Conservation Division

1211809

Form ACO-1 August 2013 Form must be Typed Form must be Signed All blanks must be Filled

## WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

| OPERATOR: License #   | API No. 15   |
|---|--|
| Name:   | Spot Description:  |
| Address 1:  | SecTwpS. R 🗌 East 🗌 West   |
| Address 2:  | Feet from  |
| City: State: Zip:+  | Feet from _ East / _ West Line of Section  |
| Contact Person:   | Footages Calculated from Nearest Outside Section Corner:   |
| Phone: ()   | □NE □NW □SE □SW  |
| CONTRACTOR: License #   | GPS Location: Lat:, Long:  |
| Name:   | (e.g. xx.xxxxx) (e.gxxx.xxxxx)   |
| Wellsite Geologist:   | Datum: NAD27 NAD83 WGS84   |
| Purchaser:  | County:  |
| Designate Type of Completion:   | Lease Name: Well #:  |
| ☐ New Well ☐ Re-Entry ☐ Workover  | Field Name:  |
| 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:                                     | Producing Formation:  Elevation: Ground: Kelly Bushing: Feet  Total Vertical Depth: Plug Back Total Depth: Feet  Multiple Stage Cementing Collar Used? Yes No  If yes, show depth set: Feet    |
| Operator:   | If Alternate II completion, cement circulated from:  |
| Well Name:  | feet depth to:w/sx cmt.  |
| Original Comp. Date: Original Total Depth:  Deepening Re-perf. Conv. to ENHR Conv. to SWD  Plug Back Conv. to GSW Conv. to Producer  Commingled Permit #:  Dual Completion Permit #:  SWD Permit #: | 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: |
| ☐ ENHR         Permit #:           ☐ GSW         Permit #:  | Operator Name:   |
|   | Lease Name: License #:   |
| Spud Date or Date Reached TD Completion Date or Recompletion Date Recompletion Date   | 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          |
|------------------------------|
| Confidentiality Requested    |
| Date:                        |
| Confidential Release Date:   |
| Wireline Log Received        |
| Geologist Report Received    |
| UIC Distribution             |
| ALT I III Approved by: Date: |

Page Two



| Operator Name:                            |  |   | Lease Name:                        |   |                      | Well #:                           |                               |
|---|--|---|------------------------------------|---|----------------------|-----------------------------------|-------------------------------|
| Sec Twp                                   | S. R   | East West   | County:                            |   |                      |                                   |                               |
| open and closed, flow                     | ring and shut-in pressu                                      | ormations penetrated. D<br>res, whether shut-in pre<br>ith final chart(s). Attach | ssure reached stati                | c level, hydrosta                       | tic pressures, bott  |                                   |                               |
|   |  | tain Geophysical Data a<br>r newer AND an image f                                 |                                    | gs must be ema                          | iled to kcc-well-lo  | gs@kcc.ks.gov                     | v. Digital electronic log     |
| Drill Stem Tests Taker (Attach Additional |  | Yes No  |                                    |   | on (Top), Depth an   |                                   | Sample                        |
| Samples Sent to Geo                       | logical Survey   | ☐ Yes ☐ No  | Nam                                | 9                                       |                      | Тор                               | Datum                         |
| Cores Taken<br>Electric Log Run           |  | Yes No  |                                    |   |                      |                                   |                               |
| List All E. Logs Run:                     |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   |                      |                                   |                               |
|   |  | CASING Report all strings set-c   | RECORD Ne conductor, surface, inte |   | ion, etc.            |                                   |                               |
| Purpose of String                         | Size Hole<br>Drilled   | Size Casing<br>Set (In O.D.)  | Weight<br>Lbs. / Ft.               | Setting<br>Depth                        | Type of Cement       | # Sacks<br>Used                   | Type and Percent<br>Additives |
|   |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   |                      |                                   |                               |
|   | 5  | ADDITIONAL  | CEMENTING / SQU                    | EEZE RECORD                             |                      |                                   |                               |
| Purpose: Perforate                        | Depth<br>Top Bottom  | Type of Cement  | # Sacks Used                       | # Sacks Used Type and Percent Additives |                      |                                   |                               |
| Protect Casing Plug Back TD               |  |   |                                    |   |                      |                                   |                               |
| Plug Off Zone                             |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   | ¬                    |                                   |                               |
|   | ulic fracturing treatment or<br>otal base fluid of the hydra | n this well?<br>aulic fracturing treatment ex                                     | ceed 350,000 gallons               | Yes<br>?      Yes                       |                      | p questions 2 an<br>p question 3) | d 3)                          |
|   |  | submitted to the chemical of  | _                                  | Yes                                     |                      | out Page Three                    | of the ACO-1)                 |
| Shots Per Foot                            |  | N RECORD - Bridge Plug  |                                    | Acid, Fra                               | cture, Shot, Cement  | Squeeze Record                    | i                             |
| Onots Fer Foot                            | Specify Fo   | ootage of Each Interval Perf  | orated                             | (Aı                                     | mount and Kind of Ma | terial Used)                      | Depth                         |
|   |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   |                      |                                   |                               |
|   |  |   |                                    |   |                      |                                   |                               |
| TUBING RECORD:                            | Size:  | Set At:   | Packer At:                         | Liner Run:                              | Yes No               |                                   |                               |
| Date of First, Resumed                    | Production, SWD or ENH                                       | R. Producing Meth   | nod:                               |   |                      |                                   |                               |
|   |  | Flowing   |                                    | Gas Lift C                              | Other (Explain)      |                                   |                               |
| Estimated Production<br>Per 24 Hours      | Oil BI   | bls. Gas  | Mcf Wate                           | er B                                    | bls. G               | as-Oil Ratio                      | Gravity                       |
| DISPOSITION                               | ON OF GAS:   | N.  | METHOD OF COMPLE                   | TION:                                   |                      | PRODUCTIO                         | N INTERVAL:                   |
| Vented Solo                               |  | Open Hole   | Perf. Dually                       | Comp. Cor                               | nmingled             |                                   |                               |
| (If vented, Sui                           | bmit ACO-18.)  | Other (Specify)   | (Submit A                          | (Sub                                    | mit ACO-4)           |                                   |                               |



#### **REMIT TO**

Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

Invoice # 251126

Invoice Date: 07/11/2012 Terms: 0/0/30,n/30 Page 1

D-ROC OIL COMPANY LEIS A & B #N-9

P.O. BOX 223
YATES CENTER KS 66783
(785)313-2567

37374 2-24-17 07-09-2012 KS

\_\_\_\_\_\_

| Part 1 | Number         | Description             | Qty     | Unit Price | Total   |
|--------|----------------|-------------------------|---------|------------|---------|
| 1124   |                | 50/50 POZ CEMENT MIX    | 90.00   | 10.9500    | 985.50  |
| 1118B  |                | PREMIUM GEL / BENTONITE | 554.00  | .2100      | 116.34  |
| 1126   |                | OIL WELL CEMENT         | 35.00   | 18.8000    | 658.00  |
| 4402   |                | 2 1/2" RUBBER PLUG      | 1.00    | 28.0000    | 28.00   |
|        | Description    |                         | Hours   | Unit Price | Total   |
| 495    | CEMENT PUMP    |                         | 1.00    | 1030.00    | 1030.00 |
| 495    | EQUIPMENT MILE | AGE (ONE WAY)           | 50.00   | 4.00       | 200.00  |
| 495    | CASING FOOTAGE |                         | 1215.00 | .00        | .00     |
| T-106  | WATER TRANSPOR | T (CEMENT)              | 2.00    | 112.00     | 224.00  |
| 515    | MIN. BULK DELI | VERY                    | 1.00    | 350.00     | 350.00  |
| 558    | MIN. BULK DELI | VERY                    | 1.00    | 350.00     | 350.00  |

Parts: 1787.84 Freight: .00 Tax: 134.98 AR 4076.82

Labor: .00 Misc: .00 Total: 4076.82 Sublt: .00 Supplies: .00 Change: .00

Signed\_\_\_\_\_\_Date\_\_\_\_

BARTLESVILLE, OK EL DORADO, KS EUREKA, KS PONCA CITY, OK OAKLEY, KS OTTAWA, KS THAYER, KS GILLETTE, WY 918/338-0808 316/322-7022 620/583-7664 580/762-2303 785/672-2227 785/242-4044 620/839-5269 307/686-4914



| TICKET NUI | MBER  | 37374 |  |
|------------|-------|-------|--|
| LOCATION_  | Oxxan | ia KS |  |
| FOREMAN    | Fred  | Mades |  |

DATE

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

AUTHORIZTION

## FIELD TICKET & TREATMENT REPORT CEMENT

|               |   |             |  |               | ••                |                             |                        |  |
|---------------|---|-------------|--|---------------|-------------------|-----------------------------|------------------------|--|
| DATE          | CUSTOMER#   | WE          | LL NAME &  | NUMBER        | SECTION           | TOWNSHIP                    | RANGE                  | COUNTY   |
| 7/9/12        | 2463  | Leis        | ArB  | # N-9         | NW Z              | 24                          | 17                     | AL   |
| CUSTOMER      | >   | 1 (.        |  |               | 1 MI 2 TO 1       | 地域中的特殊                      | tercellar anco         |  |
| MAILING ADDRE | <u>Roc. O:</u><br>ESS                               | 1 com       | part   |               | TRUCK#            | DRIVER                      | TRUCK#                 | DRIVER   |
|               |   | `<br>~~     | •  |               | 506               | Fre Mad                     | 7-                     | ny_  |
| CITY          | · Box 2   | STAPE       | ZIP CODE   |               | 495               | HarBec                      | MB.                    |  |
| Yal 1/4       | . <b>.</b> .  | Ks          | 667E   |               | 855               | Trya Si'N                   | 25                     | 7 0 1 1  |
| JOB TYPE La   | a shala   | HOLE SIZE   | 57   | <u></u>       | KOS/7/06          | KAL D-7                     | KD *5)                 | 5. Cal Ner                                       |
| CASING DEPTH  | <i>T</i> −  | DRILL PIPE_ |  | TUBING        | n_/ <u>///</u>    | CASING SIZE & V             |                        | FUF  |
| SLURRY WEIGH  |   | SLURRY VOL  |  |               | /sk               | CEMENT LEFT In              | OTHER                  | " 41   |
| DISPLACEMENT  |   | DISPLACEME  | NT DEI   | MIX PSI       | ar                | RATE SAP N                  |                        | Plue   |
|               |   |             |  |               | 100 Pren          |                             |                        | <u> </u>   |
|               |   | . —         |  |               |                   |                             | Fluch 1                | <u> </u>   |
| Y Pun         | V 1/ 6/2  | -110        |  | , ,           | 7                 | 5ks 50/                     |                        | .,>  |
| <u> </u>      | - 1 10/0  | Displac     | e 2 %  | W/ 353        |                   | Comex                       | \ _/ \ <b>\</b>        | ang  |
|               | . 96 .2- /  | <del></del> |  | / ^           | 4 001             | Casing Th                   | ) of fre               | SSUVE  |
| 4-0 FO        |   | flesco /    | ressu  | NA NO GA      | * Floox           | Value. S                    | ku Y M                 |  |
| Cask          | <del>b ·                                     </del> |             |  | <del></del>   |                   |                             |                        | <del></del>                                      |
| ····          |   | -           |  |               |                   |                             |                        |  |
|               |   |             |  |               |                   | - J                         | Made                   |  |
|               |   |             |  |               |                   | - Files                     | Made                   |  |
| ACCOUNT       | OLIAMITY  | IIMITE      |  | OFFICE INTO N | 4.050//050 00     |                             |                        |  |
| CODE          | QUANITY   | OF UNITS    |  | DESCRIPTION   | of SERVICES or PR | ODUCT                       | UNIT PRICE             | TOTAL  |
| 3401          |   | 1           | PUMP CH  | IARGE         |                   | #495                        |                        | 103000   |
| 5406          |   | 50 m ·      | MILEAGE  |               |                   |                             |                        | 20000  |
| 5402          |   | 215         | Cas  | 'ux foot oo   | 4                 |                             |                        | N/C  |
| 5407          | minim   | JM.         | 700  | Miles!        |                   | #55%                        |                        | 300  |
| 5407          | mini a  | non         | Ton  | Miles         | <sup>#</sup> 5/   | 160                         |                        | 350€   |
| 550/c         | 2   | hr          | Tra  | uspord        |                   | 505/TOG                     |                        | 2240   |
|               |   |             |  |               |                   |                             |                        |  |
|               |   |             |  |               |                   |                             |                        |  |
| 1124          |   | 905Ks       | 50/  | o for Mix     | Coment            |                             |                        | 985 020  |
| 11188         | . 4   | 54#         | Pha  | Mobber        |                   | -                           | <u> </u>               | 753 -  |
| 1126          |   | 353/25      | DWC  | Comment       | •                 |                             |                        | 116 34   |
| 4402          |   | 1           | 2%   | Rubben        | Plu               |                             |                        | 658  |
| 1100          |   |             | <u> </u>   | . 2000        | 7 7 7             |                             |                        | 283  |
|               |   |             | <del>                                     </del> |               | •                 | -                           |                        |  |
|               |   |             | <b>†</b>   |               |                   |                             |                        | $\vdash$   |
| 1             | <del></del>   |             | 1  |               |                   |                             |                        |  |
| -             |   |             | <b>T</b> · · · · · ·                             |               |                   |                             |                        | <del>                                     </del> |
| 1             |   |             |  |               |                   |                             |                        | <del></del>                                      |
|               |   |             | 1  |               | V-1-1-1-1         | 7.490                       | CALECTAV               | 1211 00  |
| Ravin 3737    | <del>-/)</del>                                      |             | <u> </u>   |               | 2511              |                             | SALES TAX<br>ESTIMATED | _134.98  |
|               | 1/  | 11 -1       |  |               | 25118             | $\mathcal{A}_{\mathcal{O}}$ | TOTAL                  | 4076.82  |

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

TITLE\_

#### **TERMS**

In consideration of the prices to be charged for Consolidated Oil Well Services, LLC (COWS) services, equipment and products and for the performance of services and supplying of materials, Customer agrees to the following terms and conditions.

Terms. Cash in advance unless satisfactory credit is established. On credit sales, invoices are payable within 30 days of the invoice date. On all invoices not paid within 30 days, Customer agrees to pay COWS interest at the rate of 18% per annum or the maximum rate allowed by law, whichever is higher. In the event COWS retains an attorney to pursue collection of any account, Customer agrees to pay all collection costs and attorney's fees incurred by COWS.

Any applicable federal, state or local sales, use, occupation, consumer's or emergency taxes shall be added to the quoted price. A sales tax reimbursement of 2% is applied to chemical and product charges for all services performed on oil and gas wells in the State of Texas. All process license fees required to be paid to others will be added to the scheduled prices.

All COWS' prices are subject to change without notice.

#### SERVICE CONDITIONS

Customer warrants that the well is in proper condition to receive the services, equipment, products and materials to be supplied by COWS. The Customer shall at all time have complete care, custody, and control of the well, the drilling and production equipment at the well, and the premises about the well. A responsible representative of the Customer shall be present to specify depths, pressures, or materials used for any service which is to be performed.

- (a) COWS shall not be responsible for any claim, cause of action or demand (hereinafter referred to as a 'claim') for damage to property, or injury to or death of employees and representatives, of Customer or the well owner (if different from Customer), unless such damage, injury or death is caused by the willful misconduct or gross negligence of COWS, including but not limited to sub-surface damage and surface damage arising from sub-surface damage.
- (b) Unless a claim is the result of the sole willful misconduct or gross negligence of COWS, Customer shall be responsible for and indemnify and hold COWS harmless from any claim for: (1) reservoir loss or damage, or property damage resulting from sub-surface pressure, losing control of the well and/or a well blowout; (2) damages as a result of a subsurface trespass, or an action in the nature thereof, arising from a service operation performed by COWS; (3) injury to or death of persons, other than employees of COWS, or damage to property (including, but not limited to, injury to the well), or any damages whatsoever, irrespective of cause, growing out of or in any way connected with the use of radioactive material in the well hole; and (4) well damage or reservoir damage caused by (i) loss of circulation, cement invasion, cement misplacement, pumping cement or cement plugs on wells with loss of circulation, including the failure to displace plug to proper depth, (ii) subsurface pressure and resulting failure to complete pumping of cement or cement plug, including dehydration of cement slurry or flashing, plugged float shoe, annulus bridging or plugging, or (iii) down hole tools being lost or left in the well, or becoming stuck in the well for any reason and by any cause. COWS may furnish down hole tools and may supply supervision for the running and placement of such tools but will not be liable for any damage, loss or result caused by the use of such tools.

Furthermore, Customer will be responsible for the cost to replace such tools if they are lost or left in the well.

- (c) COWS makes no guarantee of the effectiveness of any COWS' products, supplies or materials, or the results of any COWS' treatment or services.
- (d) Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, COWS is unable to guarantee the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by COWS. COWS' personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that COWS shall not be responsible for any damage arising from the use of such information except where due to COWS' gross negligence or willful misconduct in the preparation or furnishing of it.
- (e) COWS may buy and re-sell to Customer down hole equipment, including but not limited to float equipment, DV tools, port collars, type A & B packers, and Customer agrees that COWS is not an agent or dealer for the companies who manufacture such items, and further agrees that Customer shall be solely responsible for and indemnify COWS against any claim with regard to the effectiveness, malfunction of, or functionality of such items.

#### WARRANTIES - LIMITATION OF LIABILITY

COWS warrants title to the products, supplies and materials, and that the same are free from defects in workmanship and materials. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, NOR ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. COWS's liability and Customer's exclusive remedy in any claim (whether in contract, tort, breach of warranty or otherwise,) arising out of the sale or use of any COWS' products, supplies, materials or services is expressly limited to the replacement of such products, supplies, materials or services or their return to COWS or, at COWS' option, an allowance to Customer of credit for the cost of such items.

Customer waives and releases all claims against COWS for any special, incidental, indirect, consequential or punitive damages.





# COWS "Behavioral Safety Process" <u>BEST " Be Safe Today"</u>

| Date: 7/9/12 Location/Job   |            | Observer: . Supervisor:                     | Fred Mal | <u>                                     </u> |       |
|---|------------|---|----------|--|-------|
| What is your Bull for today?  | None       | -   |          |  |       |
| Explanation of Hazard:  |            |   |          |  |       |
| What actions were taken to correc                                     | ct hazard? |   |          |  |       |
| Immediately corrected? YES / NC                                       | Circle one |   |          |  |       |
| Anticipated date of correction: Date Corrected:                       |            |   |          |  |       |
| Unsafe subcontractor behaviors:<br>Chemical Handling: (describe unsal |            |   |          |  |       |
| Reviewed Previous RBI:  |            |   |          |  |       |
|   |            | aily Safety Huddle"<br>Attendence Initials: |          |  |       |
| Am  | NB KD CH   | RS  |          |  | 01/11 |

## RISKY BEHAVIOR INVENTORY CHECKLIST

| PPE:                   | At Risk Safe            | EQUIPMENT:                 | At Risk     | Safe        | ENVIRONMENT:                   | At Risk | Safe   |
|------------------------|-------------------------|----------------------------|-------------|-------------|--------------------------------|---------|--------|
| Head Protection        |                         | Forklift                   |             |             | Personal Response to Hazard    |         |        |
| Safety Eye Wear        |                         | Crane & Rigging            |             |             | Housekeeping*                  | L       |        |
| Respiratory            |                         | Excavator/Backhoe          |             |             | Lighting                       |         |        |
| Hearing                |                         | Motor Vehicles             |             |             | Inclement Weather/Temp.        |         |        |
| Hand Protection        |                         | Sand Truck                 |             |             | Wet/dry work surface           |         | $\neg$ |
| FRC Clothing           |                         | Acid Truck                 |             |             | Snakes, Poison Ivy Oak, Sumac  |         |        |
| Foot Protection        |                         | Secure Load                |             |             |                                |         |        |
| Fall Protection        |                         |                            | <del></del> | <del></del> | BODY MECHANICS/ERGONOMIC       | :S:     |        |
| Seat Belts             |                         | PROCEDURES:                |             |             | Lifting/Lowering/Lower Back    |         |        |
|                        |                         | Climbing/Ladders           |             |             | Twist/Turn                     |         |        |
| PEOPLE:                |                         | Confined Spaces/Permits    |             |             | Push/Pull                      |         |        |
| Pinch Points           |                         | Truck/Daily Inspection     |             |             | Overextending                  |         | $\neg$ |
| Line of Fire*          |                         | Congested Areas            |             |             | Wrist/Hand                     |         |        |
| Communication/Training |                         | Lockout/Tagout             |             |             | Arms/Elbows                    |         |        |
| Unstable Footing*      |                         | Work Platforms/Inspection  |             |             | Stretching Exercises (Daily)   |         |        |
| Electric Shock         |                         | Material Handling/Storage  |             |             |                                |         |        |
| Pace/Rate of Travel    |                         | Task Safety Analysis       |             |             |                                |         |        |
| Hygiene                |                         |                            |             |             |                                |         |        |
| Horseplay              | li                      | TOOLS:                     |             |             |                                |         |        |
|                        |                         | Hand Tools (Condition of)  |             |             |                                |         |        |
|                        |                         | Power Tools (Condition of) |             |             |                                |         |        |
|                        |                         | Safety Guards              |             |             |                                |         |        |
| Total                  | # of people "At Risk" = | <u> </u>                   | ↓ <u>1</u>  | 00 -        | _ = <u>///// /</u> % Safe<br>↑ |         |        |



# LEIS OIL SERVICES

111 East Mary • Yates Center, Kansas 66783 • (620) 625-3676

| Operator License #: 5983 API #: 15-001-30395-0000      |                                   |  |  |  |
|--|-----------------------------------|--|--|--|
| Operator: Victor J. Leis                               | Lease: Leis A & B                 |  |  |  |
| Address: PO Box 223 Yates Center, KS 66783 Well #: N-9 |                                   |  |  |  |
| Phone: 913.285.0127                                    | Spud Date: 7/5/12                 |  |  |  |
| Contractor License: 32079                              | Location: SW-SW-NE-NE of 2-24-17E |  |  |  |
| T.D.: 1219 T.D. of Pipe: 1208                          | 1243 Feet From North              |  |  |  |
| Surface Pipe Size: 7" Depth: 22'                       | 1082 Feet From East               |  |  |  |
| Kind of Well: Oil                                      | County: Allen                     |  |  |  |

# LOG

|           |                  |      |     |           | 8.                 |      | -    |
|-----------|------------------|------|-----|-----------|--------------------|------|------|
| Thickness | Strata           | From | То  | Thickness | Strata             | From | То   |
| 12        | Soil/Clay/Gravel | 0    | 12  | 34        | Shale              | 803  | 837  |
| 8         | Lime             | 12   | 20  | 1         | Lime               | 837  | 838  |
| 96        | Shale            | 20   | 116 | 12        | Shale              | 838  | 850  |
| 18        | Lime             | 116  | 134 | 1         | Lime               | 850  | 851  |
| 10        | Shale            | 134  | 144 | 2         | Shale              | 851  | 853  |
| 6         | Lime             | 144  | 150 | 1         | Lime               | 853  | 854  |
| 37        | Shale            | 150  | 187 | 289       | Shale              | 854  | 1143 |
| 52        | Lime             | 187  | 239 | 2         | Coal               | 1143 | 1145 |
| 44        | Shale            | 239  | 283 | 10        | Shale              | 1145 | 1155 |
| 3         | Lime             | 283  | 286 | 11        | Soft Lime/Oil Show | 1155 | 1166 |
| 26        | Shale            | 286  | 312 | 3         | Lime/light odor    | 1166 | 1170 |
| 69        | Lime             | 312  | 381 | 49        | Lime               | 1170 | 1219 |
| 3         | Shale            | 381  | 384 |           |                    |      |      |
| 3         | Black Shale      | 384  | 387 |           |                    |      |      |
| 45        | Lime             | 387  | 432 |           |                    |      |      |
| 177       | Shale            | 432  | 609 |           |                    |      |      |
| 2         | Lime             | 609  | 611 | -         |                    |      |      |
| 17        | Shale            | 611  | 628 |           |                    |      |      |
| 11        | Lime             | 628  | 639 |           | ,                  |      |      |
| 67        | Shale            | 639  | 706 |           |                    |      |      |
| 22        | Broken Lime      | 706  | 728 |           |                    |      |      |
| 9         | Shale            | 728  | 737 |           |                    |      |      |
| 4         | Lime             | 737  | 741 |           |                    |      |      |
| 19        | Shale            | 741  | 760 |           | T.D.               |      | 1219 |
| 14        | Lime             | 760  | 774 |           | T.D. of Pipe       |      | 1208 |
| 10        | Shale            | 774  | 784 |           |                    |      |      |
| 5         | Lime             | 784  | 789 |           |                    |      |      |
| 12        | Shale            | 789  | 801 |           |                    |      |      |
| 2         | Lime             | 801  | 803 |           |                    |      |      |