



Railroad Commission of Texas

1701 N. Congress  
P.O. Box 12967  
Austin, Texas 78701-2967

Perfs should be 10011-19092 per operator. Need WRO  
W-2 filed. Spud date should be 7/8/2017

Form W-2

Status: Approved  
Date: 01/10/2019  
Tracking No.: 201419

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

| OPERATOR INFORMATION                                  |                      |
|---|----------------------|
| Operator Name: PIEDRA OPERATING, LLC                  | Operator No.: 664930 |
| Operator Address: PO BOX 10485 MIDLAND, TX 79702-0000 |                      |

| WELL INFORMATION   |                                    |
|--|------------------------------------|
| API No.: 42-003-47585  | County: ANDREWS                    |
| Well No.: 9H   | RRC District No.: 08               |
| Lease Name: UNIVERSITY 8-4 H   | Field Name: SPRABERRY (TREND AREA) |
| RRC Lease No.: 50921   | Field No.: 85280300                |
| Location: Section: 4, Block: 8, Survey: UL, Abstract: U222   |                                    |
| Latitude: 32   | Longitude: -102                    |
| This well is located 14.1 miles in a NW direction from ANDREWS, which is the nearest town in the county. |                                    |

| FILING INFORMATION                    |                                  |            |
|---------------------------------------|----------------------------------|------------|
| Purpose of filing: Initial Potential  |                                  |            |
| Type of completion: New Well          |                                  |            |
| Well Type: Producing                  | Completion or Recompletion Date: | 07/01/2018 |
| Type of Permit                        | Date                             | Permit No. |
| Permit to Drill, Plug Back, or Deepen | 12/22/2017                       | 827643     |
| Rule 37 Exception                     |                                  |            |
| Fluid Injection Permit                |                                  |            |
| O&G Waste Disposal Permit             |                                  |            |
| Other:                                |                                  |            |

| COMPLETION INFORMATION   |   |            |                    |
|--|---|------------|--------------------|
| Spud date: 01/22/2018  | Date of first production after rig released:                          | 07/01/2018 |                    |
| Date plug back, deepening, recompletion, or drilling operation commenced: 07/11/2017     | Date plug back, deepening, recompletion, or drilling operation ended: | 02/08/2018 |                    |
| Number of producing wells on this lease in this field (reservoir) including this well: 1 | Distance to nearest well in lease & reservoir (ft.):                  | 0.0        |                    |
| Total number of acres in lease: 1294.94  | Elevation (ft.):  | 3008       | GL                 |
| Total depth TVD (ft.): 9629  | Total depth MD (ft.):   | 19183      |                    |
| Plug back depth TVD (ft.):   | Plug back depth MD (ft.):   | 19180      |                    |
| Was directional survey made other than inclination (Form W-12)? Yes                      | Rotation time within surface casing (hours):                          | 144.0      |                    |
| Recompletion or reclass? No  | Is Cementing Affidavit (Form W-15) attached?                          | Yes        |                    |
| Type(s) of electric or other log(s) run: Neutron/Density logs (combo of tools)           | Multiple completion?  | No         |                    |
| Electric Log Other Description:  |   |            |                    |
| Location of well, relative to nearest lease boundaries                                   | Off Lease :   | No         |                    |
| of lease on which this well is located:  | 1831.0 Feet from the  | West       | Line and           |
|  | 448.0 Feet from the   | South      | Line of the        |
|  | UNIVERSITY 8-4 H Lease.   |            |                    |
| FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.                                  |   |            |                    |
| Field & Reservoir  | Gas ID or Oil Lease No.   | Well No.   | Prior Service Type |
| PACKET:  | N/A   |            |                    |

|  |   |
|--|---|
| W2:  | N/A                                       |
| FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY: |   |
| GAU Groundwater Protection Determination                       | Depth (ft.): 1750.0      Date: 05/30/2017 |
| SWR 13 Exception   | Depth (ft.):                              |

| INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION |                                      |
|--|--------------------------------------|
| Date of test: 09/28/2018                                       | Production method: Flowing           |
| Number of hours tested: 24                                     | Choke size: 48/64                    |
| Was swab used during this test? No                             | Oil produced prior to test: 41681.00 |
| PRODUCTION DURING TEST PERIOD:                                 |                                      |
| Oil (BBLs): 902.00   | Gas (MCF): 427                       |
| Gas - Oil Ratio: 473   | Flowing Tubing Pressure: 780.00      |
| Water (BBLs): 929  |                                      |
| CALCULATED 24-HOUR RATE  |                                      |
| Oil (BBLs): 902.0  | Gas (MCF): 427                       |
| Oil Gravity - API - 60.: 38.0                                  | Casing Pressure: 500.00              |
| Water (BBLs): 929  |                                      |

| CASING RECORD |                         |                   |                 |                     |                           |                                |              |                       |                         |                     |                       |
|---------------|-------------------------|-------------------|-----------------|---------------------|---------------------------|--------------------------------|--------------|-----------------------|-------------------------|---------------------|-----------------------|
| Row           | Type of Casing          | Casing Size (in.) | Hole Size (in.) | Setting Depth (ft.) | Multi - Stage Depth (ft.) | Multi - Stage Shoe Depth (ft.) | Cement Class | Cement Amount (sacks) | Slurry Volume (cu. ft.) | Top of Cement (ft.) | TOC Determined By     |
| 1             | Surface                 | 13 3/8            | 17 1/2          | 1811                |                           |                                | C            | 1465                  | 2909.0                  | 0                   | Circulated to Surface |
| 2             | Intermediate            | 9 5/8             | 12 1/4          | 5487                |                           |                                | C            | 1260                  | 2895.0                  | 200                 | Calculation           |
| 3             | Conventional Production | 5 1/2             | 8 1/2           | 19183               |                           |                                | NEOCEM       | 2525                  | 5074.0                  | 0                   | Circulated to Surface |

| LINER RECORD |                  |                 |                 |                    |              |                       |                         |                     |                   |
|--------------|------------------|-----------------|-----------------|--------------------|--------------|-----------------------|-------------------------|---------------------|-------------------|
| Row          | Liner Size (in.) | Hole Size (in.) | Liner Top (ft.) | Liner Bottom (ft.) | Cement Class | Cement Amount (sacks) | Slurry Volume (cu. ft.) | Top of Cement (ft.) | TOC Determined By |
| N/A          |                  |                 |                 |                    |              |                       |                         |                     |                   |

| TUBING RECORD |            |             |                         |
|---------------|------------|-------------|-------------------------|
| Row           | Size (in.) | Depth (ft.) | Packer Depth (ft.)/Type |
| 1             | 2 7/8      | 9000        | /                       |

| PRODUCING/INJECTION/DISPOSAL INTERVAL |            |            |          |
|---------------------------------------|------------|------------|----------|
| Row                                   | Open hole? | From (ft.) | To (ft.) |
| 1                                     | No         | L1 10011   | 18917.0  |

| ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.                                 |                   |   |                      |
|---|-------------------|---|----------------------|
| Was hydraulic fracturing treatment performed?   | Yes               |   |                      |
| Is well equipped with a downhole actuation sleeve?  | No                | If yes, actuation pressure (PSIG):                          |                      |
| Production casing test pressure (PSIG) prior to hydraulic fracturing treatment:                       | 9000              | Actual maximum pressure (PSIG) during hydraulic fracturing: | 8800                 |
| Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? | Yes               |   |                      |
| Row   | Type of Operation | Amount and Kind of Material Used                            | Depth Interval (ft.) |

|   |          |  |       |       |
|---|----------|--|-------|-------|
| 1 | Fracture | 16,806,384 # SAND W/ 431,088 BBLS FRAC                                   | 10011 | 18917 |
| 2 | Other    | TA PLUG SET W/ 80 SACKS CLASS C CEMENT; DRILLED OUT TO COMPLETE THE WELL | 5262  | 5500  |

| FORMATION RECORD   |             |                 |                |                        |                         |
|--|-------------|-----------------|----------------|------------------------|-------------------------|
| Formations   | Encountered | Depth TVD (ft.) | Depth MD (ft.) | Is formation isolated? | Remarks                 |
| YATES  | Yes         | 2800.0          | 2800.0         | Yes                    |                         |
| SEVEN RIVERS   | No          |                 |                | No                     | PINCHED OUT             |
| QUEEN  | No          |                 |                | No                     | PINCHED OUT             |
| GRAYBURG   | Yes         | 4500.0          | 4500.0         | Yes                    |                         |
| SAN ANDRES - CO2 FLOOD, HIGH FLOWS, H2S, CORROSIVE   | Yes         | 3800.0          | 3800.0         | Yes                    |                         |
| HOLT   | No          |                 |                | No                     | PINCHED OUT             |
| GLORIETA   | No          |                 |                | No                     | PINCHED OUT             |
| TUBB   | No          |                 |                | No                     | PINCHED OUT             |
| CLEARFORK  | No          |                 |                | No                     | PINCHED OUT             |
| PERMIAN DETRITAL   | No          |                 |                | No                     | PINCHED OUT             |
| LEON   | No          |                 |                | No                     | PINCHED OUT             |
| WICHITA ALBANY   | No          |                 |                | No                     | PINCHED OUT             |
| SPRABERRY  | Yes         | 8500.0          | 8500.0         | Yes                    |                         |
| DEAN   | No          |                 |                | No                     | PINCHED OUT             |
| WOLFCAMP   | Yes         | 9800.0          | 9800.0         | Yes                    |                         |
| CANYON   | No          |                 |                | No                     | DID NOT DRILL THIS DEEP |
| PENNSYLVANIAN  | No          |                 |                | No                     | DID NOT DRILL THIS DEEP |
| MCKEE  | No          |                 |                | No                     | DID NOT DRILL THIS DEEP |
| STRAWN   | No          |                 |                | No                     | DID NOT DRILL THIS DEEP |
| FUSSELMAN  | No          |                 |                | No                     | DID NOT DRILL THIS DEEP |
| DEVONIAN   | No          |                 |                | No                     | DID NOT DRILL THIS DEEP |
| SILURIAN   | No          |                 |                | No                     | DID NOT DRILL THIS DEEP |
| ELLENBURGER  | No          |                 |                | No                     | DID NOT DRILL THIS DEEP |
| Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? |             |                 |                |                        | No                      |
| Is the completion being downhole commingled (SWR 10)?  |             |                 |                |                        | No                      |

| REMARKS   |
|---|
| WELL ORIGINALLY DRILLED AS A VERTICAL EXPLORATORY WELL; RE-PERMITTED AS A HORIZONTAL WELL AND COMPLETED AS SUCH. ALL W-15S ATTACHED. KOP @ 9079'. |

| RRC REMARKS  |  |
|--|--|
| <b>PUBLIC COMMENTS:</b><br>[RRC Staff 2018-11-28 13:45:27.507] EDL=8900 feet, max acres=600, SPRABERRY (TREND AREA) oil well;<br><br>take points: 10011-18917 feet   |  |
| <b>CASING RECORD :</b>   |  |
| <b>TUBING RECORD:</b>  |  |
| <b>PRODUCING/INJECTION/DISPOSAL INTERVAL :</b>   |  |
| <b>ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :</b><br>WELL WAS DRILLED AS A VERTICAL EXPLORATORY WELL; TA PLUG SET @ 5500'. WELL THEN RE-PERMITTED AS A HORIZONTAL WELL;<br>PLUG DRILLED OUT AND WELL DRILLED & COMPLETED HORIZONTALLY |  |
| <b>POTENTIAL TEST DATA:</b>  |  |

| OPERATOR'S CERTIFICATION             |                                   |
|--------------------------------------|-----------------------------------|
| <b>Printed Name:</b> Ann Ritchie     | <b>Title:</b>                     |
| <b>Telephone No.:</b> (432) 684-6381 | <b>Date Certified:</b> 12/11/2018 |



# RAILROAD COMMISSION OF TEXAS

1701 N. Congress  
P.O. Box 12967  
Austin, Texas 78701-2967

Form W-15

Rev. 08/2014

## CEMENTING REPORT

Cementer: Fill in shaded areas.  
Operator: Fill in other items.

### OPERATOR INFORMATION

|                |                       |                   |        |
|----------------|-----------------------|-------------------|--------|
| Operator Name: | PIEDRA OPERATING, LLC | Operator P-5 No.: | 664930 |
| Cementer Name: | O - Tex Pumping, LLC  | Cementer P-5 No.: | 617021 |

### WELL INFORMATION

|               |                                 |                     |             |
|---------------|---------------------------------|---------------------|-------------|
| District No.: | 08                              | County:             | ANDREWS     |
| Well No.:     | 9                               | API No.:            | 42-03-47585 |
| Lease Name:   | UNIVERSITY LANDS UNIVERSITY 8-4 | Dilling Permit No.: | 827643      |
| Field Name:   | Spraberry (Trend Area)          | Lease No.:          |             |
|               |                                 | Field No.:          | 85280300    |

### I. CASING CEMENTING DATA

|   |   |   |                                       |                                      |                                     |
|---|---|---|---------------------------------------|--------------------------------------|-------------------------------------|
| Type of Casing:   | <input type="checkbox"/> Conductor  | <input checked="" type="checkbox"/> Surface | <input type="checkbox"/> Intermediate | <input type="checkbox"/> Liner       | <input type="checkbox"/> Production |
| Drilled hole size (in.):  | 17 1/2"   | Depth of drilled hole (ft.):                | 1811'                                 | Est. % wash-out or hole enlargement: | 20                                  |
| Size of casing in O.D. (in.):   | 13 3/8"   | Casing weight (lbs/ft) and grade:           | 54.5#                                 | No. of centralizers used:            | 6                                   |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in Remarks. |   | Setting depth shoe (ft.):             | Top of liner (ft.):                  |                                     |
|   |   |   | 1811'                                 | Setting depth liner (ft.):           |                                     |
| Hrs. waiting on cement before drill-out:                                      | 6+  | Calculated top of cement (ft.):             | 36                                    | Cementing date:                      | 7/11/2017                           |

#### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          | 790          | C     | REMARKS 1 | 2007             | 2889         |
| 2          | 375          | C     | REMARKS 2 | 506              | 729          |
| 3          |              |       |           |                  |              |
| Total      | 1165         |       |           | 2513             | 3618         |

### II. CASING CEMENTING DATA

|   |                                   |  |                                     |   |  |  |
|---|-----------------------------------|--|-------------------------------------|---|--|--|
| Type of casing:   | <input type="checkbox"/> Surface  | <input type="checkbox"/> Intermediate          | <input type="checkbox"/> Production | <input type="checkbox"/> Tapered production | <input type="checkbox"/> Multi-stage cement shoe | <input type="checkbox"/> Multiple parallel strings |
| Drilled hole size (in.):  | Depth of drilled hole (ft.):      |  |                                     | Est. % wash-out or hole enlargement:        |  |  |
| Size of casing in O.D. (in.):   | Casing weight (lbs/ft) and grade: |  |                                     | No. of centralizers used:                   |  |  |
| Tapered string drilled hole size (in.)  |                                   |  |                                     | Tapered string depth of drilled hole (ft.)  |  |  |
| Upper:  |                                   | Lower:   |                                     | Upper:                                      |  |  |
| Lower:  |                                   |  |                                     | Lower:                                      |  |  |
| Tapered string size of casing in O.D. (in.)                                   |                                   | Tapered string casing weight(lbs/ft) and grade |                                     | Tapered string no. of centralizers used     |  |  |
| Upper:  |                                   | Lower:   |                                     | Upper:                                      |  |  |
| Lower:  |                                   |  |                                     | Lower:                                      |  |  |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? |                                   |  |                                     | YES   | NO   |  |
|   |                                   |  |                                     |   |  |  |
| Hrs. waiting on cement before drill-out:                                      |                                   | Calculated top of cement (ft.):                |                                     | Cementing date:                             |  |  |

#### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      |              |       |           |                  |              |

### III. CASING CEMENTING DATA

|   |                                  |                                       |  |   |   |  |
|---|----------------------------------|---------------------------------------|--|---|---|--|
| Type of casing:   | <input type="checkbox"/> Surface | <input type="checkbox"/> Intermediate | <input type="checkbox"/> Production            | <input type="checkbox"/> Tapered production | <input type="checkbox"/> Multi-stage cement/DV tool | <input type="checkbox"/> Multiple parallel strings |
| Drilled hole size (in.):  |                                  |                                       | Depth of drilled hole (ft.):                   |   | Est. % wash-out or hole enlargement:                |  |
| Size of casing in O.D. (in.):   |                                  |                                       | Casing weight (lbs/ft) and grade:              |   | No. of centralizers used:                           |  |
| Tapered string drilled hole size (in.)  |                                  |                                       |  | Tapered string depth of drilled hole (ft.)  |   |  |
| Upper:  |                                  | Lower:                                |  | Upper:                                      |   | Lower:   |
| Tapered string size of casing in O.D. (in.)                                   |                                  |                                       | Tapered string casing weight(lbs/ft) and grade |   | Tapered string no. of centralizers used             |  |
| Upper:  |                                  | Lower:                                |  | Upper:                                      |   | Lower:   |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? |                                  |                                       |  | YES   | <input type="checkbox"/> NO                         | <input type="checkbox"/>                           |
|   |                                  |                                       |  | Setting depth shoe (ft.):                   |   |  |
| Hrs. waiting on cement before drill-out:                                      |                                  |                                       | Calculated top of cement (ft.):                |   | Cementing date:                                     |  |

#### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      |              |       |           |                  |              |



42-003 - 47585

| CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON    |         |         |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|---------|
|  | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
| Cementing Date   |         |         |         |         |         |         |         |
| Size of hole or pipe (in.)                             |         |         |         |         |         |         |         |
| Depth to bottom of tubing or drill pipe (ft.)          |         |         |         |         |         |         |         |
| Cement retainer setting depth (ft.)                    |         |         |         |         |         |         |         |
| CIBP setting depth (ft.)                               |         |         |         |         |         |         |         |
| Amount of cement on top of CIBP (ft.)                  |         |         |         |         |         |         |         |
| Sacks of cement used                                   |         |         |         |         |         |         |         |
| Slurry volume pumped (cu. ft.)                         |         |         |         |         |         |         |         |
| Calculated top of plug (ft.)                           |         |         |         |         |         |         |         |
| Measured top of plug, if tagged (ft.)                  |         |         |         |         |         |         |         |
| Slurry weight (lbs/gal)                                |         |         |         |         |         |         |         |
| Class/type of cement                                   |         |         |         |         |         |         |         |
| Perforate and squeeze (YES/NO)                         |         |         |         |         |         |         |         |
| REMARKS  |         |         |         |         |         |         |         |
| 1) 2% SMS + 2/10% C-40P + 1/4#/sx CELLOFLAKE + 5% SALT |         |         |         |         |         |         |         |
| 2) 2% CACL2 + 2/10% C-40P                              |         |         |         |         |         |         |         |

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

EDWARD SALDANA SERVICE SUPERVISOR

Name and title of cementer's representative

O-Tex Pumping, LLC

Cementing Company



Signature

2601 E I-20

Address

Midland, TX, 79706

City, State, Zip Code

432-686-8559

Tel: Area Code Number


7/11/2017

Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.



Typed or printed name of operator's representative



Title



Signature

PO Box 10485

Address

Midland, TX 79702

City, State, Zip Code

432-686-8559

Tel: Area Code Number

7/11/17

Date: mo. day yr.

### Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System

(<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78712967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\\_dir=&p\\_rloc=&p\\_tloc=&p\\_ploc=&pg=1&p\\_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



# RAILROAD COMMISSION OF TEXAS

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P.O. Box 12967

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## CEMENTING REPORT

Form W-15

Rev. 08/2014

Cementer: Fill in shaded areas.  
Operator: Fill in other items.

| OPERATOR INFORMATION  |                                    |   |                                       |   |   |
|---|------------------------------------|---|---------------------------------------|---|---|
| Operator Name: Piedra Resources   |                                    | Operator P-5 No.: 664930                        |                                       |   |   |
| Cementer Name: TRANS TEX CEMENTING SERVICES, LLC  |                                    | Cementer P-5 No.: 864412                        |                                       |   |   |
| WELL INFORMATION  |                                    |   |                                       |   |   |
| District No.:   |                                    | County: Andrews                                 |                                       |   |   |
| Well No.: #9  |                                    | API No.: 42-003-42505                           |                                       | Drilling Permit No.: 827643                 |   |
| Lease Name: University 8-4  |                                    | Lease No.:                                      |                                       |   |   |
| Field Name:   |                                    | Field No.:                                      |                                       |   |   |
| I. CASING CEMENTING DATA  |                                    |   |                                       |   |   |
| Type of Casing:   | <input type="checkbox"/> Conductor | <input checked="" type="checkbox"/> Surface     | <input type="checkbox"/> Intermediate | <input type="checkbox"/> Liner              | <input type="checkbox"/> Production   |
| Drilled hole size (in.):  | 17 1/2                             | Depth of drilled hole (ft.):                    | 0 1811'                               | Est. % wash-out or hole enlargement: 20     |   |
| Size of casing in O.D. (in.):   | 13 3/8                             | Casing weight (lbs/ft) and grade:               | 54.5#                                 | No. of centralizers used: 6                 |   |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in Remarks. |                                    |   | Setting depth shoe (ft.): 1811'       | Top of liner (ft.):                         |   |
| Hrs. waiting on cement before drill-out: 6+   |                                    | Calculated top of cement (ft.): 0'              | Cementing date: 7/13/2017             |   |   |
| SLURRY  |                                    |   |                                       |   |   |
| Slurry No.  | No. of Sacks                       | Class   | Additives                             | Volume (cu. ft.)                            | Height (ft.)  |
| 1   | 300                                | Class "C"                                       | "C" Neat                              | 396   | 570   |
| 2   |                                    |   |                                       |   |   |
| 3   |                                    |   |                                       |   |   |
| Total   |                                    |   |                                       |   |   |
| II. CASING CEMENTING DATA   |                                    |   |                                       |   |   |
| Type of casing:   | <input type="checkbox"/> Surface   | <input type="checkbox"/> Intermediate           | <input type="checkbox"/> Production   | <input type="checkbox"/> Tapered production | <input type="checkbox"/> Multi-stage cement slurry <input type="checkbox"/> Multiple parallel strings |
| Drilled hole size (in.):  | Depth of drilled hole (ft.):       |   | Est. % wash-out or hole enlargement:  |   |   |
| Size of casing in O.D. (in.):   | Casing weight (lbs/ft) and grade:  |   | No. of centralizers used:             |   |   |
| Tapered string drilled hole size (in.)  |                                    | Tapered string depth of drilled hole (ft.)      |                                       |   |   |
| Upper:  | Lower:                             | Upper:  | Lower:                                |   |   |
| Tapered string size of casing in O.D. (in.)   |                                    | Tapered string casing weight (lbs/ft) and grade |                                       | Tapered string no. of centralizers used     |   |
| Upper:  | Lower:                             | Upper:  | Lower:                                | Upper:                                      | Lower:  |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>                                 |                                    |   | Setting depth shoe (ft.):             |   |   |
| Hrs. waiting on cement before drill-out:  |                                    | Calculated top of cement (ft.):                 | Cementing date:                       |   |   |
| SLURRY  |                                    |   |                                       |   |   |
| Slurry No.  | No. of Sacks                       | Class   | Additives                             | Volume (cu. ft.)                            | Height (ft.)  |
| 1   |                                    |   |                                       |   |   |
| 2   |                                    |   |                                       |   |   |
| 3   |                                    |   |                                       |   |   |
| Total   |                                    |   |                                       |   |   |
| III. CASING CEMENTING DATA  |                                    |   |                                       |   |   |
| Type of casing:   | <input type="checkbox"/> Surface   | <input type="checkbox"/> Intermediate           | <input type="checkbox"/> Production   | <input type="checkbox"/> Tapered production | <input type="checkbox"/> Multi-stage cement/DV <input type="checkbox"/> Multiple parallel strings     |
| Drilled hole size (in.):  | Depth of drilled hole (ft.):       |   | Est. % wash-out or hole enlargement:  |   |   |
| Size of casing in O.D. (in.):   | Casing weight (lbs/ft) and grade:  |   | No. of centralizers used:             |   |   |
| Tapered string drilled hole size (in.)  |                                    | Tapered string depth of drilled hole (ft.)      |                                       |   |   |
| Upper:  | Lower:                             | Upper:  | Lower:                                |   |   |
| Tapered string size of casing in O.D. (in.)   |                                    | Tapered string casing weight (lbs/ft) and grade |                                       | Tapered string no. of centralizers used     |   |
| Upper:  | Lower:                             | Upper:  | Lower:                                | Upper:                                      | Lower:  |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>                                 |                                    |   | Setting depth shoe (ft.):             |   |   |
| Hrs. waiting on cement before drill-out:  |                                    | Calculated top of cement (ft.):                 | Cementing date:                       |   |   |
| SLURRY  |                                    |   |                                       |   |   |
| Slurry No.  | No. of Sacks                       | Class   | Additives                             | Volume (cu. ft.)                            | Height (ft.)  |
| 1   |                                    |   |                                       |   |   |
| 2   |                                    |   |                                       |   |   |
| 3   |                                    |   |                                       |   |   |
| Total   |                                    |   |                                       |   |   |

42 003 - 49585

| CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON |         |         |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|---------|---------|
|   | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
| Cementing Date                                      |         |         |         |         |         |         |         |
| Size of hole or pipe (in.)                          |         |         |         |         |         |         |         |
| Depth to bottom of tubing or drill pipe (ft.)       |         |         |         |         |         |         |         |
| Cement retainer setting depth (ft.)                 |         |         |         |         |         |         |         |
| CIBP setting depth (ft.)                            |         |         |         |         |         |         |         |
| Amount of cement on top of CIBP (ft.)               |         |         |         |         |         |         |         |
| Sacks of cement used                                |         |         |         |         |         |         |         |
| Slurry volume pumped (cu. ft.)                      |         |         |         |         |         |         |         |
| Calculated top of plug (ft.)                        |         |         |         |         |         |         |         |
| Measured top of plug, if tagged (ft.)               |         |         |         |         |         |         |         |
| Slurry weight (lbs/gal)                             |         |         |         |         |         |         |         |
| Class/type of cement                                |         |         |         |         |         |         |         |
| Perforate and squeeze (YES/NO)                      |         |         |         |         |         |         |         |
| REMARKS   |         |         |         |         |         |         |         |
| "C" Neat  |         |         |         |         |         |         |         |
| Ran 1" tubing between 13 3/8 casing and 17 1/2 hole |         |         |         |         |         |         |         |
| Circulated 5bbls/21sks cement to surface.           |         |         |         |         |         |         |         |
| 0 RRC Job #90428 - top off                          |         |         |         |         |         |         |         |

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Eloi Ortiz  
Name and title of cementer's representative

TRANS TEX CEMENTING  
Cementing Company

Signature

5019 BASIN ST  
Address MIDLAND, TX 79703  
City, State, Zip Code

432-694-4900  
Tel: Area Code Number

7/13/2017  
Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Katherine A Brown  
Typed or printed name of operator's representative

Eng Tech  
Title

Signature

PO Box 10485  
Address MIDLAND TX 79702  
City, State, Zip Code

432-685-9005  
Tel: Area Code Number

7/10/17  
Date: mo. day yr.

### Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78712967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\\_dir=&p\\_rloc=&p\\_tloc=&p\\_ploc=&pg=1&p\\_tac=&ti=16&pt=1&ch=3&ri=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&ri=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.





# RAILROAD COMMISSION OF TEXAS

1701 N. Congress  
P.O. Box 12967  
Austin, Texas 78701-2967

## CEMENTING REPORT

Form W-15

Rev. 08/2014

Cementer: Fill in shaded areas.  
Operator: Fill in other items.

### OPERATOR INFORMATION

|                |                        |                   |        |
|----------------|------------------------|-------------------|--------|
| Operator Name: | PIEDRA OPERATING , LLC | Operator P-5 No.: | 664930 |
| Cementer Name: | O - Tex Pumping , LLC  | Cementer P-5 No.: | 617021 |

### WELL INFORMATION

|               |                                |                      |              |
|---------------|--------------------------------|----------------------|--------------|
| District No.: | 08                             | County:              | ANDREWS      |
| Well No.:     | #9 H                           | API No.:             | 42-003-41585 |
| Lease Name:   | UNIVERSITY LANDS UNIVER. 8-4 H | Drilling Permit No.: | 827643       |
| Field Name:   | Spraberry (Trend Area)         | Lease No.:           |              |
|               |                                | Field No.:           | 85280300     |

### I. CASING CEMENTING DATA

|   |                                    |                                   |  |                                      |                                     |
|---|------------------------------------|-----------------------------------|--|--------------------------------------|-------------------------------------|
| Type of Casing:   | <input type="checkbox"/> Conductor | <input type="checkbox"/> Surface  | <input checked="" type="checkbox"/> Intermediate | <input type="checkbox"/> Liner       | <input type="checkbox"/> Production |
| Drilled hole size (in.):  | 12 1/4"                            | Depth of drilled hole (ft.):      | 5487'  | Est. % wash-out or hole enlargement: | 20                                  |
| Size of casing in O.D. (in.):   | 9 5/8"                             | Casing weight (lbs/ft) and grade: | 40#  | No. of centralizers used:            | 12                                  |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in Remarks. |                                    |                                   | Setting depth shoe (ft.):                        | Top of liner (ft.):                  |                                     |
|   |                                    |                                   | 5487'  | Setting depth liner (ft.):           |                                     |
| Hrs. waiting on cement before drill-out:  | 12+                                | Calculated top of cement (ft.):   | 200'   | Cementing date:                      | 7/18/2017                           |

#### SLURRY

| Slurry No. | No. of Sacks | Class   | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|---------|-----------|------------------|--------------|
| 1          | 1060         | CLASS C | REMARKS 1 | 2629             | 8387         |
| 2          | 200          | CLASS C | REMARKS 2 | 266              | 842          |
| 3          |              |         |           |                  |              |
| Total      | 1260         |         |           | 2895             | 9229         |

### II. CASING CEMENTING DATA

|  |                                   |  |
|--|-----------------------------------|--|
| Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings |                                   |  |
| Drilled hole size (in.):   | Depth of drilled hole (ft.):      | Est. % wash-out or hole enlargement:       |
| Size of casing in O.D. (in.):  | Casing weight (lbs/ft) and grade: | No. of centralizers used:                  |
| Tapered string drilled hole size (in.)   |                                   | Tapered string depth of drilled hole (ft.) |
| Upper:   | Lower:                            | Upper:                                     |
| Tapered string size of casing in O.D. (in.)  |                                   | Tapered string no. of centralizers used    |
| Upper:   | Lower:                            | Upper:                                     |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? YES <input type="checkbox"/> NO <input type="checkbox"/>   |                                   | Setting depth shoe (ft.):                  |
| Hrs. waiting on cement before drill-out:   | Calculated top of cement (ft.):   | Cementing date:                            |

#### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      |              |       |           |                  |              |

### III. CASING CEMENTING DATA

|   |  |        |  |                                       |  |  |   |  |
|---|--|--------|--|---------------------------------------|--|--|---|--|
| Type of casing:   |  |        | <input type="checkbox"/> Surface               | <input type="checkbox"/> Intermediate | <input type="checkbox"/> Production        | <input type="checkbox"/> Tapered production              | <input type="checkbox"/> Multi-stage cement/DV tool | <input type="checkbox"/> Multiple parallel strings |
| Drilled hole size (in.):  |  |        | Depth of drilled hole (ft.):                   |                                       |  | Est. % wash-out or hole enlargement:                     |   |  |
| Size of casing in O.D. (in.):   |  |        | Casing weight (lbs/ft) and grade:              |                                       |  | No. of centralizers used:                                |   |  |
| Tapered string drilled hole size (in.)  |  |        |  |                                       | Tapered string depth of drilled hole (ft.) |  |   |  |
| Upper:  |  | Lower: |  |                                       | Upper:                                     |  | Lower:  |  |
| Tapered string size of casing in O.D. (in.)                                   |  |        | Tapered string casing weight(lbs/ft) and grade |                                       |  | Tapered string no. of centralizers used                  |   |  |
| Upper:  |  | Lower: |  |                                       | Upper:                                     |  | Lower:  |  |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? |  |        |  |                                       |  | YES <input type="checkbox"/> NO <input type="checkbox"/> |   | Setting depth shoe (ft.):                          |
| Hrs. waiting on cement before drill-out:                                      |  |        | Calculated top of cement (ft.):                |                                       |  | Cementing date:  |   |  |

#### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      |              |       |           |                  |              |

42-003 - 49585

| CEMENTING TO SQUEEZE PLUG BACK OR PLUG AND ABANDON                                   |         |         |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|---------|
|  | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
| Cementing Date   |         |         |         |         |         |         |         |
| Size of hole or pipe (in)  |         |         |         |         |         |         |         |
| Depth to bottom of tubing or drill pipe (ft.)  |         |         |         |         |         |         |         |
| Cement retainer setting depth (ft.)  |         |         |         |         |         |         |         |
| CSP setting depth (ft.)  |         |         |         |         |         |         |         |
| Amount of cement on top of CSP (ft.)   |         |         |         |         |         |         |         |
| Sacks of cement used   |         |         |         |         |         |         |         |
| Slurry volume pumped (cu. ft.)   |         |         |         |         |         |         |         |
| Calculated top of plug (ft.)   |         |         |         |         |         |         |         |
| Measured top of plug, if tagged (ft.)  |         |         |         |         |         |         |         |
| Slurry weight (lbs/gal)  |         |         |         |         |         |         |         |
| Class/type of cement   |         |         |         |         |         |         |         |
| Perforate and squeeze (YES/NO)   |         |         |         |         |         |         |         |
| REMARKS  |         |         |         |         |         |         |         |
| 1-10 GEL + 3/10% O-TX20 + 2/10% C-40P + 5% SALT + 1/4H/SX CELLOFLAKE + 3H/SX KOLSEAL |         |         |         |         |         |         |         |
| 2-3/10% O-TX20 + 2/10% C-40P   |         |         |         |         |         |         |         |

**CEMENTER'S CERTIFICATE:** I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

**AARON PEREZ- SERVICE SUPERVISOR**

Name and title of cementer's representative

**O Tex Pumping, LLC**

Cementing Company

Signature

2601 E I-20

Address

Midland, TX, 79706

City, State, Zip Code

432-686-8559

Tel: Area Code

Number

7/18/2017

Date: mo. day yr.

**OPERATOR'S CERTIFICATE:** I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Katharine A. Brown  
Typed or printed name of operator's representative

Eng. Tech  
Title

Katharine A. Brown  
Signature

P.O. Box 10485  
Address

Midland, TX 79702  
City, State, Zip Code

432-685-9005  
Tel: Area Code

Number

7/22/17  
Date: mo. day yr.

### Instructions for Form W-15, Cementing Report

**NOTICE:** The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a well bore.

**A. What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

**B. How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System

(<https://webreportrec.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12267, Austin, Texas 78712267).

**C. Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 24 ([http://info.sos.state.tx.us/pls/pub/readtext.cfm?Page7id=8&app=9&p\\_dir=&p\\_loc=&p\\_doc=&p\\_place=&p1=&p\\_toc=&u=16&pt=1&ch=3&r=14](http://info.sos.state.tx.us/pls/pub/readtext.cfm?Page7id=8&app=9&p_dir=&p_loc=&p_doc=&p_place=&p1=&p_toc=&u=16&pt=1&ch=3&r=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

**D. Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

**E. Multi-stage cement:** An operator must report the multi-stage cement shoe in II, Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III, Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

**F. Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.





# RAILROAD COMMISSION OF TEXAS

1701 N. Congress  
P.O. Box 12967  
Austin, Texas 78701-2967

Form W-15

Rev. 08/2014

## CEMENTING REPORT

Cementer: Fill in shaded areas.  
Operator: Fill in other items.

### OPERATOR INFORMATION

|                |                       |                   |        |
|----------------|-----------------------|-------------------|--------|
| Operator Name: | Piedra Operating, LLC | Operator P-5 No.: | 664930 |
| Cementer Name: | O - Tex Pumping, LLC  | Cementer P-5 No.: | 617021 |

### WELL INFORMATION

|               |                                   |                      |              |
|---------------|-----------------------------------|----------------------|--------------|
| District No.: | 08                                | County:              | Andrews      |
| Well No.:     | 9 H                               | API No.:             | 42-003 42585 |
| Lease Name:   | University Lands University 8-4 H | Drilling Permit No.: | 827643       |
| Field Name:   | Spraberry (Trend Area)            | Lease No.:           |              |
|               |                                   | Field No.:           | 85280300     |

### I. CASING CEMENTING DATA

|  |                                    |                                  |                                       |                                |                                     |
|--|------------------------------------|----------------------------------|---------------------------------------|--------------------------------|-------------------------------------|
| Type of Casing:  | <input type="checkbox"/> Conductor | <input type="checkbox"/> Surface | <input type="checkbox"/> Intermediate | <input type="checkbox"/> Liner | <input type="checkbox"/> Production |
| Drilled hole size (in.):   | Depth of drilled hole (ft.):       |                                  | Est. % wash-out or hole enlargement:  |                                |                                     |
| Size of casing in O.D. (in.):  | Casing weight (lbs/ft) and grade:  |                                  | No. of centralizers used:             |                                |                                     |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in Remarks. |                                    |                                  | Setting depth shoe (ft.):             |                                | Top of liner (ft.):                 |
| Hrs. waiting on cement before drill-out:   |                                    |                                  | Calculated top of cement (ft.):       |                                | Cementing date:                     |

#### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      |              |       |           |                  |              |

### II. CASING CEMENTING DATA

|   |                                   |   |                                      |   |  |  |
|---|-----------------------------------|---|--------------------------------------|---|--|--|
| Type of casing:   | <input type="checkbox"/> Surface  | <input type="checkbox"/> Intermediate           | <input type="checkbox"/> Production  | <input type="checkbox"/> Tapered production | <input type="checkbox"/> Multi-stage cement shoe | <input type="checkbox"/> Multiple parallel strings |
| Drilled hole size (in.):  | Depth of drilled hole (ft.):      |   | Est. % wash-out or hole enlargement: |   |  |  |
| Size of casing in O.D. (in.):   | Casing weight (lbs/ft) and grade: |   | No. of centralizers used:            |   |  |  |
| Tapered string drilled hole size (in.)  |                                   | Tapered string depth of drilled hole (ft.)      |                                      |   |  |  |
| Upper:  | Lower:                            | Upper:  |                                      | Lower:                                      |  |  |
| Tapered string size of casing in O.D. (in.)   |                                   | Tapered string casing weight (lbs/ft) and grade |                                      | Tapered string no. of centralizers used     |  |  |
| Upper:  | Lower:                            | Upper:  | Lower:                               | Upper:                                      | Lower:   |  |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> |                                   |   |                                      | Setting depth shoe (ft.):                   |  |  |
| Hrs. waiting on cement before drill-out:  |                                   | Calculated top of cement (ft.):                 |                                      | Cementing date:                             |  |  |

#### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      |              |       |           |                  |              |

### III. CASING CEMENTING DATA

|   |                                   |   |                                      |   |   |  |
|---|-----------------------------------|---|--------------------------------------|---|---|--|
| Type of casing:   | <input type="checkbox"/> Surface  | <input type="checkbox"/> Intermediate           | <input type="checkbox"/> Production  | <input type="checkbox"/> Tapered production | <input type="checkbox"/> Multi-stage cement/DV tool | <input type="checkbox"/> Multiple parallel strings |
| Drilled hole size (in.):  | Depth of drilled hole (ft.):      |   | Est. % wash-out or hole enlargement: |   |   |  |
| Size of casing in O.D. (in.):   | Casing weight (lbs/ft) and grade: |   | No. of centralizers used:            |   |   |  |
| Tapered string drilled hole size (in.)  |                                   | Tapered string depth of drilled hole (ft.)      |                                      |   |   |  |
| Upper:  | Lower:                            | Upper:  |                                      | Lower:                                      |   |  |
| Tapered string size of casing in O.D. (in.)   |                                   | Tapered string casing weight (lbs/ft) and grade |                                      | Tapered string no. of centralizers used     |   |  |
| Upper:  | Lower:                            | Upper:  | Lower:                               | Upper:                                      | Lower:  |  |
| Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> |                                   |   |                                      | Setting depth shoe (ft.):                   |   |  |
| Hrs. waiting on cement before drill-out:  |                                   | Calculated top of cement (ft.):                 |                                      | Cementing date:                             |   |  |

#### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      |              |       |           |                  |              |

42.003 - 47585

| CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON   |          |         |         |         |         |         |         |
|---|----------|---------|---------|---------|---------|---------|---------|
|   | PLUG #1  | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
| Cementing Date  | 8/8/2017 |         |         |         |         |         |         |
| Size of hole or pipe (in.)  |          |         |         |         |         |         |         |
| Depth to bottom of tubing or drill pipe (ft.)   |          |         |         |         |         |         |         |
| Cement retainer setting depth (ft.)   |          |         |         |         |         |         |         |
| CIBP setting depth (ft.)  | 5500     |         |         |         |         |         |         |
| Amount of cement on top of CIBP (ft.)   |          |         |         |         |         |         |         |
| Sacks of cement used  | 80       |         |         |         |         |         |         |
| Slurry volume pumped (cu. ft.)  | 106.4    |         |         |         |         |         |         |
| Calculated top of plug (ft.)  | 5262     |         |         |         |         |         |         |
| Measured top of plug, if tagged (ft.)   |          |         |         |         |         |         |         |
| Slurry weight (lbs/gal)   | 14.8     |         |         |         |         |         |         |
| Class/type of cement  | Class C  |         |         |         |         |         |         |
| Perforate and squeeze (YES/NO)  | N        |         |         |         |         |         |         |
| REMARKS   |          |         |         |         |         |         |         |
| Slurry Adds: 0.2% C-40P   |          |         |         |         |         |         |         |
| TA Plug set; Well #9 was an exploratory well; re-permitted & completed as a horizontal well (#9H) |          |         |         |         |         |         |         |

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Abraham Mata- Service Supervisor

Name and title of cementer's representative

O-Tex Pumping, LLC

Cementing Company


  
Signature

2601 E I-20

Midland, TX, 79706

432-686-8559

8/8/2017

Address

City, State, Zip Code

Tel: Area Code Number

Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Katharine A Brown  
Typed or printed name of operator's representative

Eng Tech  
Title

Katharine A Brown  
Signature

PO Box 10485  
Address

Midland TX 79702  
City, State, Zip Code

432-685-9005  
Tel: Area Code Number

8/14/17  
Date: mo. day yr.

### Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System

(<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78712-967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cements approved by the Commission's Director of Field Operations in accordance with SWR 14

([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\\_dir=&p\\_rloc=&p\\_tloc=&p\\_ploc=&pg=1&p\\_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.





# RAILROAD COMMISSION OF TEXAS

1701 N. Congress  
P.O. Box 12967  
Austin, Texas 78701-2967

Form W-15

Rev. 08/2014

## CEMENTING REPORT

Cementer: Fill in shaded areas.  
Operator: Fill in other items.

### OPERATOR INFORMATION

Operator Name: PIEDRA OPERATING LLC-EBUS

Operator P-5 No.: 664930

Cementer Name: HALLIBURTON ENERGY SERVICES

Cementer P-5 No.: 347151

### WELL INFORMATION

District No.: 08

County: ANDREWS

Well No.: 9H

API No.: 42-003-47585

Drilling Permit No.: 827643

Lease Name: UNIVERSITY 8-4 H

Lease No.:

Field Name: Spraberry (Trend Area)

Field No.: 85280300

### I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☐ Intermediate ☐ Liner ☒ Production

Drilled hole size (in.): 8 1/2"

Depth of drilled hole (ft.): 19183'

Est. % wash-out or hole enlargement: 20

Size of casing in O.D. (in.): 5 1/2"

Casing weight (lbs/ft) and grade: 20#

No. of centralizers used: 96

Was cement circulated to ground surface (or bottom of cellar) outside casing? ☒ YES ☐ NO If no for surface casing, explain in Remarks.

Setting depth shoe (ft.):

Top of liner (ft.):

19183'

Setting depth liner (ft.):

Hrs. waiting on cement before drill-out: 24+

Calculated top of cement (ft.): 0'

Cementing date: 2/8/2018

### SLURRY

| Slurry No. | No. of Sacks | Class        | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|--------------|-----------|------------------|--------------|
| 1          | 640          | NEOCEM LIGHT |           | 2239             | 6855         |
| 2          | 1785         | NEOCEM PT    |           | 2619             | 11422        |
| 3          | 100          | NEOCEM AS    |           | 216              | 907          |
| Total      | 2525         |              |           | 5074             | 19184        |

### II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings

Drilled hole size (in.):

Depth of drilled hole (ft.):

Est. % wash-out or hole enlargement:

Size of casing in O.D. (in.):

Casing weight (lbs/ft) and grade:

No. of centralizers used:

Tapered string drilled hole size (in.)

Tapered string depth of drilled hole (ft.)

Upper: Lower:

Upper: Lower:

Tapered string size of casing in O.D. (in.)

Tapered string casing weight (lbs/ft) and grade

Tapered string no. of centralizers used

Upper: Lower:

Upper: Lower:

Upper: Lower:

Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO

Setting depth shoe (ft.):

Hrs. waiting on cement before drill-out:

Calculated top of cement (ft.):

Cementing date:

### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      | 0            |       |           | 0                | 0            |

### III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings

Drilled hole size (in.):

Depth of drilled hole (ft.):

Est. % wash-out or hole enlargement:

Size of casing in O.D. (in.):

Casing weight (lbs/ft) and grade:

No. of centralizers used:

Tapered string drilled hole size (in.)

Tapered string depth of drilled hole (ft.)

Upper: Lower:

Upper: Lower:

Tapered string size of casing in O.D. (in.)

Tapered string casing weight (lbs/ft) and grade

Tapered string no. of centralizers used

Upper: Lower:

Upper: Lower:

Upper: Lower:

Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO

Setting depth tool (ft.):

Hrs. waiting on cement before drill-out:

Calculated top of cement (ft.):

Cementing date:

### SLURRY

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|------------|--------------|-------|-----------|------------------|--------------|
| 1          |              |       |           |                  |              |
| 2          |              |       |           |                  |              |
| 3          |              |       |           |                  |              |
| Total      | 0            |       |           | 0                | 0            |

## CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON

|   | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---------|---------|---------|---------|---------|---------|---------|
| Cementing Date                                |         |         |         |         |         |         |         |
| Size of hole or pipe (in.)                    |         |         |         |         |         |         |         |
| Depth to bottom of tubing or drill pipe (ft.) |         |         |         |         |         |         |         |
| Cement retainer setting depth (ft.)           |         |         |         |         |         |         |         |
| CIBP setting depth (ft.)                      |         |         |         |         |         |         |         |
| Amount of cement on top of CIBP (ft.)         |         |         |         |         |         |         |         |
| Sacks of cement used                          |         |         |         |         |         |         |         |
| Slurry volume pumped (cu. ft.)                |         |         |         |         |         |         |         |
| Calculated top of plug (ft.)                  |         |         |         |         |         |         |         |
| Measured top of plug, if tagged (ft.)         |         |         |         |         |         |         |         |
| Slurry weight (lbs/gal)                       |         |         |         |         |         |         |         |
| Class/type of cement                          |         |         |         |         |         |         |         |
| Perforate and squeeze (YES/NO)                |         |         |         |         |         |         |         |

## REMARKS

SO # 904604096 120 BBL = 192 SKS LEAD CEMENT TO SURFACE

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

JAMES HEIDT / SERVICE SUPERVISOR

Halliburton

Name and title of cementer's representative

Cementing Company

1301 W. Webb St.

Brownfield, Tx, 79316

Signature

575-392-0700

2/8/2018

Address

City, State, Zip Code

Tel: Area Code

Number

Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Katharine A Brown

Eng Tech

Typed or printed name of operator's representative

Title

Signature

PO Box 10485

Midland, TX 79702

432-685-9005

10/05/2018

Address

City, State, Zip Code

Tel: Area Code

Number

Date: mo. day yr.

## Instructions for Form W-15, Cementing Report

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- How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.  
To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\\_dir=&p\\_loc=&p\\_tloc=&p\\_ploc=&pg=1&p\\_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_loc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.
- Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.
- Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

Tracking No.: 201419

This facsimile L-1 was generated electronically from data submitted to the RRC.

## Instructions

**When to File Form L-1:**

- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

**When is Form L-1 NOT required:**

- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

**Where to File Form L-1:**

- with the appropriate Commission district office

**Filling out Form L-1:**

- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

**Type of log required:**

- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

## SECTION I. IDENTIFICATION

|   |                               |                                |
|---|-------------------------------|--------------------------------|
| Operator<br>Name: PIEDRA OPERATING, LLC | District<br>No. 08            | Completion<br>Date: 07/01/2018 |
| Field<br>Name SPRABERRY (TREND AREA)    | Drilling Permit<br>No. 827643 |                                |
| Lease<br>Name UNIVERSITY 8-4 H          | Lease/ID<br>No. 50921         | Well<br>No. 9H                 |
| County<br>ANDREWS                       | API<br>No. 42- 003-47585      |                                |

## SECTION II. LOG STATUS (Complete either A or B)

☐ A. BASIC ELECTRIC LOG NOT RUN☒ B. BASIC ELECTRIC LOG RUN. (Select one)

- ☒ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.
- ☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).
- ☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).
- ☐ 4. Log attached to (select one):

☐ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: \_\_\_\_\_

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). \_\_\_\_\_

Well No(s). \_\_\_\_\_

Ann Ritchie

Signature

Name (print)

Title

(432) 684-6381

Phone

10/15/2018

Date

-FOR RAILROAD COMMISSION USE ONLY-



# HALLIBURTON

## DUAL SPACED NEUTRON SPECTRAL DENSITY SPECTRAL GAMMA RAY

|   |                   |  |            |   |  |
|---|-------------------|--|------------|---|--|
| <b>PIEDRA OPERATING, LLC</b><br><br><b>UNIVERSITY 8-4 #9</b><br><br><b>SPRABERRY (TREND AREA)</b><br><br><b>ANDREWS</b><br><br><b>TEXAS</b> |                   | <b>COMPANY</b> <b>PIEDRA OPERATING, LLC</b>  |            |   |  |
|   |                   | <b>WELL</b> <b>UNIVERSITY 8-4 #9</b>   |            |   |  |
|   |                   | <b>FIELD/BLOCK</b> <b>SPRABERRY (TREND AREA)</b>   |            |   |  |
|   |                   | <b>COUNTY</b> <b>ANDREWS</b> <b>STATE TEXAS</b>  |            |   |  |
| <b>COMPANY</b><br><br><b>WELL</b><br><br><b>FIELD/BLOCK</b><br><br><b>COUNTY</b><br><br><b>STATE</b>  |                   | <b>API No.</b> 42-003-47585<br><br><b>Location</b> 1831' FWL & 448' FSL<br>SECTION: 4, BLOCK: 8<br>UL SURVEY<br>ABSTRACT: U222 |            | <b>Other Services:</b><br>GEM<br>HFDT<br>XRMI<br>MRIL<br>ACRT<br>WAVE |  |
| <b>Permanent Datum</b> GL                      Elev. 3008.0 ft  |                   | <b>Elev.: K.B.</b> 3022.0 ft   |            |   |  |
| <b>Log measured from</b> KB                      14.0 ft above perm. Datum  |                   | <b>D.F.</b> 3021.0 ft  |            |   |  |
| <b>Drilling measured from</b> KB  |                   | <b>G.L.</b> 3008.0 ft  |            |   |  |
| <b>Date</b>   |                   | 05-Aug-17  |            |   |  |
| <b>Run No.</b>  |                   | ONE  |            |   |  |
| <b>Depth - Driller</b>  |                   | 11200.0 ft   |            |   |  |
| <b>Depth - Logger</b>   |                   | 11194.0 ft   |            |   |  |
| <b>Bottom - Logged Interval</b>   |                   | 11129.0 ft   |            |   |  |
| <b>Top - Logged Interval</b>  |                   | 200.0 ft   |            |   |  |
| <b>Casing - Driller</b>   |                   | 9.625 in @ 5500.0 ft   |            | @   |  |
| <b>Casing - Logger</b>  |                   | 5481.0 ft  |            | @   |  |
| <b>Bit Size</b>   |                   | 8.500 in   |            | @   |  |
| <b>Type Fluid in Hole</b>   |                   | Fresh Water  |            |   |  |
| <b>Density</b>  | <b>Viscosity</b>  | 8.8 ppg  | 45.00 s/qt |   |  |
| <b>PH</b>   | <b>Fluid Loss</b> | 9.90 pH  | 19.2 cpm   |   |  |
| <b>Source of Sample</b>   |                   | FLOWLINE   |            |   |  |
| <b>Rm @ Meas. Temperature</b>   |                   | 0.29 ohmm @ 91.00 degF   |            | @   |  |
| <b>Rmf @ Meas. Temperature</b>  |                   | 0.23 ohmm @ 91.00 degF   |            | @   |  |
| <b>Rmc @ Meas. Temperature</b>  |                   | 0.35 ohmm @ 91.00 degF   |            | @   |  |
| <b>Source Rmf</b>   | <b>Rmc</b>        | MEAS   | MEAS       |   |  |
| <b>Rm @ BHT</b>   |                   | 0.17 ohmm @ 160.0 degF   |            | @   |  |
| <b>Time Since Circulation</b>   |                   | 16:22 hr   |            |   |  |
| <b>Time on Bottom</b>   |                   | 05-Aug-17 05:24  |            |   |  |
| <b>Max. Rec. Temperature</b>  |                   | 160.00 degF @ 11194.0 ft   |            | @   |  |
| <b>Equipment</b>  | <b>Location</b>   | 11207519   | ODESSA     |   |  |
| <b>Recorded By</b>  |                   | BRIAN SHAVER   |            |   |  |
| <b>Witnessed By</b>   |                   | BRIAN POWERS   |            |   |  |



# GEOSITE, INC.

GEOLOGICAL WELL SITE SERVICE

OFFICE: 325-655-4356

WEB SITE: [www.geosite.us](http://www.geosite.us) E-MAIL: [E-mail:geosite@geosite.us](mailto:E-mail:geosite@geosite.us)

## HYDROCARBON LOG Vertical Log

|  |   |   |
|--|---|---|
| COMPANY  | <b>PIEDRA OPERATING, LLC</b>            |   |
| WELL   | <b>UNIVERSITY 8-4 H #9H</b>             |   |
| FIELD  | <b>SPRABERRY (TREND AREA)</b>           |   |
| COUNTY   | <b>ANDREWS</b>                          | STATE <b>TX</b>                                     |
| API #  | <b>42-003-47585</b>                     |   |
| LEGAL LOCATION   |   | ELEVATION   |
| <b>1831' FWL, 448' FSL, SEC 4, BLK 8,<br/>ABST U222, UL SURVEY</b> |   | KB: <b>3033</b><br>DF: <b>25</b><br>GL: <b>3008</b> |
| LAT: <b>32.405881</b>  |   | LONG: <b>-102.348265</b>                            |
| Log Measured From<br>KB Elevation.                                 |   |   |
| LOGGING INTERVAL   |   |   |
| START DATE :   | <b>01-25-2018</b>                       | END DATE : <b>02-05-2018</b>                        |
| START DEPTH:   | <b>8950</b>                             | PERMIT DEPTH : <b>19300</b>                         |
| HOLE START DEPTH:  | <b>8950</b>                             | HOLE END DEPTH : <b>19183</b>                       |
| LOGGING UNIT   | LOGGERS                                 |   |
| <b># 39</b>  | <b>PHILLIP RICHARD<br/>NATHAN ROGER</b> |   |
| RIG INFORMATION  |   | MUD INFORMATION                                     |
| CONTRACTOR : <b>FELDERHOFF DRILLING</b>                            |   | CONTRACTOR : <b>BUCKEYE, INC</b>                    |
| RIG # : <b>27</b>  |   | ENGINEER : <b>ZACH JOHNSTON</b>                     |
| RIG PHONE :  |   | PHONE : <b>903-474-4077</b>                         |
| TOOL PUSHER INFORMATION  |   | COMPANY INFORMATION                                 |
| TOOL PUSHER : <b>JACOB WILTON</b>                                  |   | REP : <b>MATT HOUSTON</b>                           |
| PUSHER PHONE:  |   | PHONE : <b>405-312-1730</b>                         |
| PUSHER EMAIL :   |   | EMAIL :   |

| 1. Field name exactly as shown on proration schedule<br><b>SPRABERRY (TREND AREA)</b>   |           | 2. Lease name as shown on proration schedule<br><b>UNIVERSITY 8-4 H</b>   |  |   |                  |
|---|-----------|---|--|---|------------------|
| 3. Current operator name exactly as shown on P-5 Organization Report<br><b>PIEDRA OPERATING, LLC</b>  |           | 4. Operator P-5 no.<br><b>664930</b>  | 5. Oil Lse/Gas ID no.<br><b>50921</b>  | 6. County<br><b>ANDREWS</b>             |                  |
| 8. Operator address including city, state, and zip code<br><b>PO BOX 10485<br/>MIDLAND, TX 79702</b>  |           | 9. Well no(s) ( <i>see instruction E</i> )<br><b>9H</b>   |  |   |                  |
|   |           | 10. Classification<br><input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other ( <i>see instruction A</i> )                        |  | 11. Effective Date<br><b>07/01/2018</b> |                  |
| 12. Purpose of Filing. (Complete section a or b below.) ( <i>See instructions B and G</i> )   |           |   |  |   |                  |
| <b>a. Change of:</b> <input type="checkbox"/> operator <input type="checkbox"/> oil or condensate gatherer <input type="checkbox"/> gas gatherer <input type="checkbox"/> gas purchaser <input type="checkbox"/> gas purchaser system code<br><input type="checkbox"/> field name from _____<br><input type="checkbox"/> lease name from _____  |           |   |  |   |                  |
| <b>-- OR --</b>   |           |   |  |   |                  |
| <b>b. New RRC Number for:</b> <input checked="" type="checkbox"/> oil lease <input type="checkbox"/> gas well <b>Due to:</b> <input checked="" type="checkbox"/> new completion or recompletion <input type="checkbox"/> reclass oil to gas <input type="checkbox"/> reclass gas to oil<br><input type="checkbox"/> other well (specify) _____ <input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)   |           |   |  |   |                  |
| 13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). ( <i>See instruction G</i> ).  |           |   |  |   |                  |
| Gatherer  | Purchaser | Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left<br>(Attach an additional sheet in same format if more space is needed) | Purchaser's RRC Assigned System Code   | Percent of Take                         | Full-well stream |
| X   | X         | DCP OPERATING COMPANY, LP(195959)   | 0001   | 100.0                                   |                  |
|   |           |   |  |   |                  |
|   |           |   |  |   |                  |
|   |           |   |  |   |                  |
|   |           |   |  |   |                  |
|   |           |   |  |   |                  |
|   |           |   |  |   |                  |
| 14. Authorized OIL or CONDENSATE Gatherer(s). ( <i>See instruction G</i> ).   |           |   |  |   |                  |
| Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First<br>(Attach an additional sheet in same format if more space is needed)   |           |   |  |   | Percent of Take  |
| EASTEX CRUDE COMPANY(239232)  |           |   |  |   | 100.0            |
|   |           |   |  |   |                  |
|   |           |   |  |   |                  |
| <b>RRC USE ONLY:</b> Reviewer's initials: <u>RRC Staff</u> Approval date: <u>01/10/2019</u>   |           |   |  |   |                  |
| <b>15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING.</b> Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.  |           |   |  |   |                  |
| Name of Previous Operator _____   |           |   | Signature _____  |   |                  |
| Name (print) _____  |           |   | <input type="checkbox"/> <b>Authorized Employee of previous operator</b> <input type="checkbox"/> <b>Authorized agent of previous operator</b> ( <i>see instruction G</i> )          |   |                  |
| Title _____   |           |   | Date _____ Phone with area code _____  |   |                  |
| <b>16. CURRENT OPERATOR CERTIFICATION.</b> By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission. |           |   |  |   |                  |
| Name (print) _____  |           |   | Signature _____  |   |                  |
| Title _____   |           |   | <input checked="" type="checkbox"/> <b>Authorized Employee of current operator</b> <input type="checkbox"/> <b>Authorized agent of current operator</b> ( <i>see instruction G</i> ) |   |                  |
| E-mail Address (optional)<br><u>ann.wtor@gmail.com</u>  |           |   | Date <u>10/15/2018</u> Phone with area code <u>(432) 684-6381</u>  |   |                  |

## RAILROAD COMMISSION OF TEXAS

**1701 N. Congress  
P.O. Box 12967  
Austin, Texas 78701-2967**

**Form P-16**

Page 1

Rev. 01/2016

## Acreage Designation

## SECTION I. OPERATOR INFORMATION

|                          |                          |
|--------------------------|--------------------------|
| <b>Operator Name:</b>    | <b>Operator P-5 No.:</b> |
| <b>Operator Address:</b> |                          |

## SECTION II. WELL INFORMATION

|                    |                      |   |
|--------------------|----------------------|---|
| District No.:      | County:              | <b>Purpose of Filing:</b><br><input type="checkbox"/> Drilling Permit Application (Form W-1)<br><input type="checkbox"/> Completion Report (Form G-1/W-2) |
| Well No.:          | API No.:             |   |
| Total Lease Acres: | Drilling Permit No.: |   |
| Lease Name:        | Lease No.:           |   |
| Field Name:        | Field No.:           |   |

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

**SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER**

[illegible]

|                    |  |  |  |                             |
|--------------------|--|--|--|-----------------------------|
| Total Well Count > |  | < A. Total Assigned Horiz. Acreage     |  | < C. Total Assigned Acreage |
|                    |  | < Total Remaining Horiz. Acreage       |  | < Total Remaining Acreage   |
|                    |  | < B. Total Assigned Vert./Dir. Acreage |  |                             |
|                    |  | < Total Remaining Vert./Dir. Acreage   |  |                             |

## SECTION IV. REMARKS / PURPOSE OF FILING (see instructions)

|  |
|--|
|  |
|--|

**Attach Additional Pages As Needed.**      ☐ No additional pages      ☐ Additional Pages: \_\_\_\_\_ (No. of additional pages)

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

|           |                                |  |
|-----------|--------------------------------|--|
| Signature | Name and title (type or print) | Email (include email address <i>only</i> if you affirmatively consent to its public release) |
|-----------|--------------------------------|--|

|         |       |        |          |                |        |                   |
|---------|-------|--------|----------|----------------|--------|-------------------|
| Address | City, | State, | Zip Code | Tel: Area Code | Number | Date: mo. day yr. |
|---------|-------|--------|----------|----------------|--------|-------------------|

## SECTION VII. REMARKS





# GROUNDWATER PROTECTION DETERMINATION

Form GW-2

## Groundwater Advisory Unit

**Date Issued:** 30 May 2017

**GAU Number:** 172863

**Attention:** PIEDRA OPERATING, LLC  
PO BOX 10485  
MIDLAND, TX 79702

**Operator No.:** 664930

**API Number:**  
**County:** ANDREWS  
**Lease Name:** University 8-4  
**Lease Number:** 39620  
**Well Number:** 9  
**Total Vertical Depth:** 12500  
**Latitude:** 32.393899  
**Longitude:** -102.344360  
**Datum:** NAD27

**Purpose:** New Drill

**Location:** Survey-UL; Block-8; Section-4

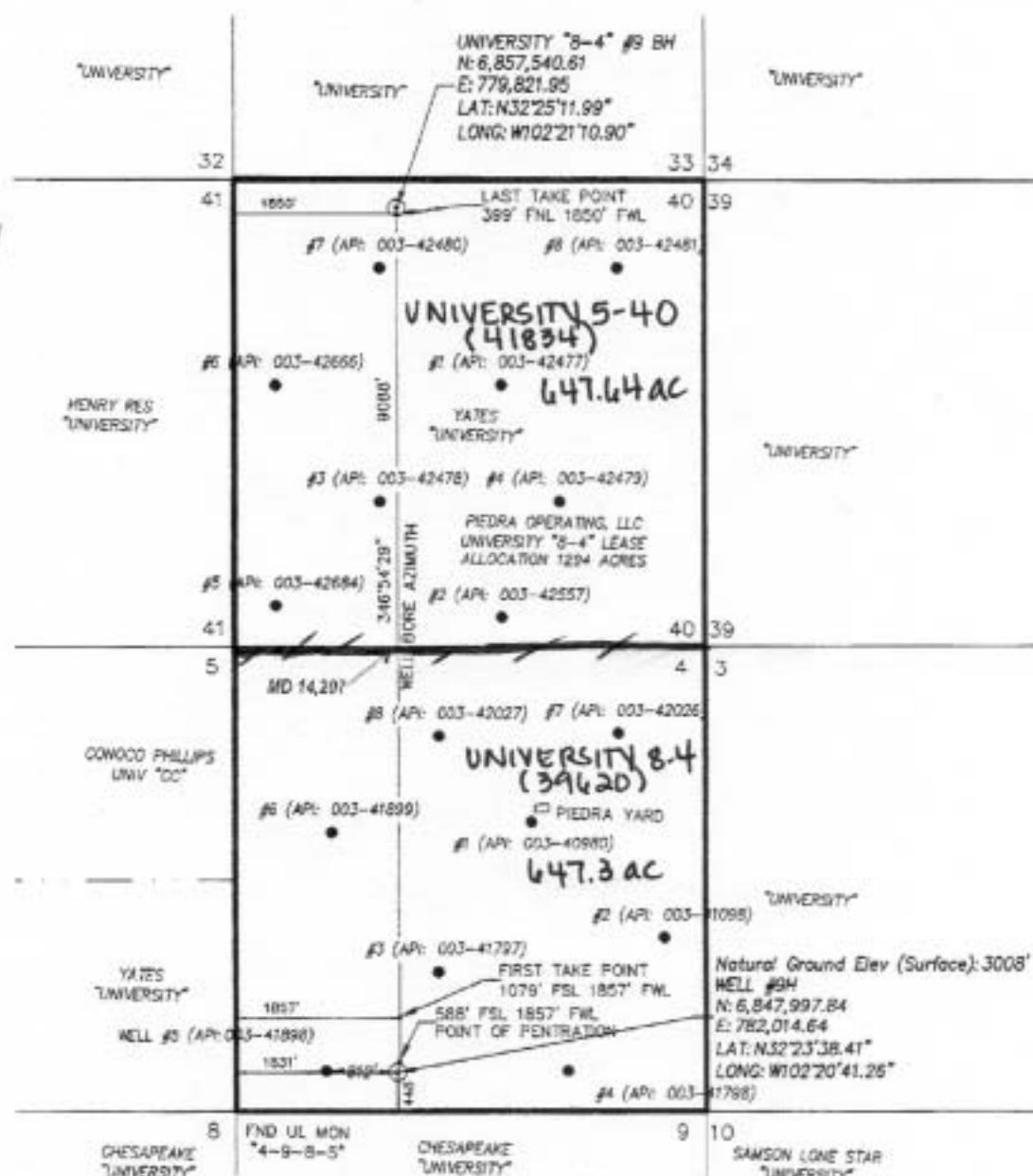
To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to a depth of 250 feet, and the zone from 1300 to 1750 feet must be protected.

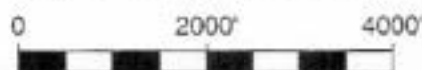
Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 05/25/2017. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or [gau@rrc.texas.gov](mailto:gau@rrc.texas.gov).

Groundwater Advisory Unit, Oil and Gas Division



# GRAPHIC SCALE



( IN FEET )  
1 inch = 2000 ft.

## NOTES:

- COURSES, DISTANCES, COORDINATES AND ACREAGE SHOWN HEREON ARE LAMBERT GRID AND CONFORM TO THE "TEXAS COORDINATE SYSTEM", TEXAS NORTH CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983. ALL DISTANCES AND COORDINATES ARE SHOWN IN GRID FEET.
- DISTANCE TO THE NEAREST WELL IN THIS FIELD AS SHOWN.

DATED THIS 5 TH DAY OF AUGUST, 2018

RJ DAUM  
TEXAS RPLS 4826



SCHUMANN ENGINEERING CO., INC.

REGISTERED PROFESSIONAL LAND SURVEYORS

Civil Engineering ~ Land Surveying

TEXAS FIRM No. F1880

408 N. PECOS STREET - P. O. BOX 504  
MIDLAND, TEXAS 79702-0504

REGISTERED PROFESSIONAL CIVIL ENGINEERS

TEXAS FIRM No. 10149500

Office (432) 684-5548  
Fax (432) 684-6973

THIS WELL IS TO BE LOCATED 14.1 MILES IN A NORTHWEST DIRECTION FROM ANDREWS, TEXAS WHICH IS THE NEAREST TOWN IN THE COUNTY OF THE WELL SITE.

## AS DRILLED LOCATION PLAT

PIEDRA OPERATING, LLC  
WELL NO. 9H  
UNIVERSITY "8-4" LEASE  
SURFACE LOCATION  
448 FEET FROM THE SOUTH LINE AND  
1831 FEET FROM THE WEST LINE  
SECTION 4, BLOCK 8,  
BOTTOM HOLE LOCATION  
321 FEET FROM THE NORTH AND  
1850 FEET FROM THE WEST LINES  
SECTION 40, BLOCK 5,  
ALL IN UNIVERSITY LANDS SURVEY.

ANDREWS COUNTY, TEXAS

QUAD: FIVE WELLS RANCH  
SCALE: 1" = 2000'

PROJECT: 76283PO  
JOB NO: 76,283