



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1165690  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

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

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

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

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

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

|                                   |                 |   |
|-----------------------------------|-----------------|---|
| Spud Date or<br>Recompletion Date | Date Reached TD | Completion Date or<br>Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx)      (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1165690

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

|  |   |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>List All E. Logs Run: _____ | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used  |                   |                           |                   |               |                |              |                            |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. |                   |                           |                   |               |                |              |                            |
| Purpose of String   | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |

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

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*  
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*  
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

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

| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
|                                   |           |         |             |               |         |

|  |   |   |
|--|---|---|
| <b>DISPOSITION OF GAS:</b><br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | <b>METHOD OF COMPLETION:</b><br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5)</i><br><input type="checkbox"/> Other <i>(Specify)</i> _____ | <b>PRODUCTION INTERVAL:</b><br>_____<br>_____ |
|--|---|---|

|           |  |
|-----------|--|
| Form      | ACO1 - Well Completion                   |
| Operator  | SandRidge Exploration and Production LLC |
| Well Name | Astoria SWD 3306 1-34                    |
| Doc ID    | 1165690                                  |

All Electric Logs Run

|             |
|-------------|
|             |
| Prizm       |
| Porosity    |
| Resistivity |
| Mud Log     |

|           |  |
|-----------|--|
| Form      | ACO1 - Well Completion                   |
| Operator  | SandRidge Exploration and Production LLC |
| Well Name | Astoria SWD 3306 1-34                    |
| Doc ID    | 1165690                                  |

Tops

| Name                     | Top  | Datum |
|--------------------------|------|-------|
| Base Heebner             | 3210 |       |
| Lansing                  | 3567 |       |
| Cottage Grove            | 3836 |       |
| Swope                    | 4030 |       |
| Hertha                   | 4048 |       |
| Marmaton                 | 4144 |       |
| Oswego Limestone         | 4161 |       |
| Pawnee                   | 4219 |       |
| Fort Scott               | 4267 |       |
| Cherokee Group           | 4280 |       |
| Verdigris                | 4299 |       |
| Mississippi Unconformity | 4483 |       |
| Kinderhook Shale         | 4863 |       |
| Woodford                 | 4936 |       |
| Simpson Group            | 4967 |       |
| Simpson Shale            | 5032 |       |
| Oil Creek                | 5111 |       |
| Arbuckle Group           | 5120 |       |

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

October 29, 2013

Tiffany Golay  
SandRidge Exploration and Production LLC  
123 ROBERT S. KERR AVE  
OKLAHOMA CITY, OK 73102-6406

Re: ACO1  
API 15-077-21972-00-00  
Astoria SWD 3306 1-34  
NW/4 Sec.34-33S-06W  
Harper County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Tiffany Golay



**INVOICE**

|            |           |
|------------|-----------|
| DATE       | INVOICE # |
| 10/15/2013 | 4276      |

|  |
|--|
| <b>BILL TO</b>   |
| SANDRIDGE ENERGY, INC.<br>ATTN: PURCHASING MANAGER<br>123 ROBERT S. KERR AVENUE<br>OKLAHOMA CITY, OK 73102 |

|   |
|---|
| <b>REMIT TO</b>   |
| EDGE SERVICES, INC.<br>PO BOX 609<br>WOODWARD, OK 73802 |

| COUNTY     | STARTING D... | WORK ORDER | RIG NUMBER | LEASE NAME            | Terms         |
|------------|---------------|------------|------------|-----------------------|---------------|
| HARPER, KS | 10/14/2013    | 3319       | HORIZON 5  | ASTORIA 3306 1-34 SWD | Due on rec... |

**Description**

DRILLED 60' OF 30" CONDUCTOR HOLE  
 DRILLED 6' OF 76" HOLE  
 FURNISHED AND SET 6' X 6' TINHORN CELLAR  
 FURNISHED 60' OF 20" CONDUCTOR PIPE  
 FURNISHED 1 LOAD(S) MUD  
 FURNISHED WELDER AND MATERIALS  
 FURNISHED 6 YARDS OF GRADE A CEMENT  
 FURNISHED GROUT PUMP  
 DRILL MOUSE HOLE

TOTAL BID \$ 15,000.00

|                          |         |
|--------------------------|---------|
| <b>Sales Tax (6.15%)</b> | \$93.97 |
|--------------------------|---------|

|              |             |
|--------------|-------------|
| <b>TOTAL</b> | \$15,093.97 |
|--------------|-------------|

**Pump Schedule**

**8 5/8 " Surface**

| Fluid #        | Fluid Type - Name                    | Surface Density (lb/gal) | Estimated Avg. Rate (bbl/min) | Downhole Volume (bbl) | Water Required (bbl.) |
|----------------|--------------------------------------|--------------------------|-------------------------------|-----------------------|-----------------------|
| Spacer 1       | Fresh Water                          | 8.34                     | 5                             | 10.0                  | 10.0                  |
| Lead 1         | ALLIED LIGHT WEIGHT CEMENT: TYPE 1 - | 12.70                    | 5                             | 73.4                  | 52.6                  |
| Tail 1         | CLASS A COMMON                       | 15.60                    | 5                             | 33.0                  | 19.3                  |
| Displacement 1 | Displacement                         | 8.33                     | 5                             | 41.9                  | 41.9                  |

**TOTALS**                      **158.3**                      **123.8**  
 Estimated pump time @ 4 bpm      **0.66**      hrs  
 Estimated pump time @ 8 bpm      **0.33**      hrs

**Fluids Design**

**8 5/8 " Surface**

|                      |                |             |
|----------------------|----------------|-------------|
| Spacer 1 Fresh Water | Fluid Density: | 8.34 lb/gal |
|                      | Fluid Volume:  | 10.0 bbls   |

|   |                 |                          |
|---|-----------------|--------------------------|
| Lead 1 ALLIED LIGHT WEIGHT CEMENT: TYPE 1 - CLASS A<br>65:35 Class A:Poz blend, 6% Gel<br>2% BWOC Calcium Chloride<br>0.25 lb/sk Flo-Seal (Polyflake LCM) | Slurry Density: | 12.70 lb/gal             |
|   | Slurry Yield:   | 1.87 ft <sup>3</sup> /sk |
|   | Mixing Water    | 10.05 gal/sk             |
|   | Total sacks     | 220 sks                  |
|   | Total barrels   | 73.4 bbls                |

|   |                 |                          |
|---|-----------------|--------------------------|
| Tail 1 CLASS A COMMON<br>100% Class A - Neat<br>2% BWOC Calcium Chloride<br>0.25 lb/sk Flo-Seal (Polyflake LCM) | Slurry Density: | 15.60 lb/gal             |
|   | Slurry Yield:   | 1.20 ft <sup>3</sup> /sk |
|   | Mixing Water    | 5.22 gal/sk              |
|   | Total sacks     | 155 sks                  |
|   | Total barrels   | 33.0 bbls                |

|                             |                |             |
|-----------------------------|----------------|-------------|
| Displacement 1 Displacement | Fluid Density: | 8.33 lb/gal |
|                             | Fluid Volume:  | 41.9 bbls   |

**Pump Schedule**

**5 1/2 " Production**

| Fluid #        | Fluid Type - Name                    | Surface Density (lb/gal) | Estimated Avg. Rate (bbl/min) | Downhole Volume (bbl) | Water Required (bbl.) |
|----------------|--------------------------------------|--------------------------|-------------------------------|-----------------------|-----------------------|
| Spacer 1       | Super Flush                          | 8.50                     | 5                             | 30.0                  | 30.0                  |
| Lead 1         | ALLIED LIGHT WEIGHT CEMENT: TYPE 1 - | 12.80                    | 5                             | 188.5                 | 131.3                 |
| Tail 1         | CLASS A COMMON                       | 14.50                    | 5                             | 36.0                  | 22.0                  |
| Displacement 1 | Displacement                         | 8.33                     | 5                             | 122.5                 | 122.5                 |

|                             |              |              |
|-----------------------------|--------------|--------------|
| <b>TOTALS</b>               | <b>377.0</b> | <b>305.8</b> |
| Estimated pump time @ 4 bpm | <b>1.57</b>  | hrs          |
| Estimated pump time @ 8 bpm | <b>0.79</b>  | hrs          |

**Fluids Design**

**5 1/2 " Production**

|                      |                |             |
|----------------------|----------------|-------------|
| Spacer 1 Super Flush | Fluid Density: | 8.50 lb/gal |
|                      | Fluid Volume:  | 30.0 bbls   |

|   |                 |                          |
|---|-----------------|--------------------------|
| Lead 1 ALLIED LIGHT WEIGHT CEMENT: TYPE 1 - CLASS A<br>65:35 Class A:Poz blend, 6% Gel<br>0.4% BWOC Fluid Loss -FL-160<br>3 lb/sk Gilsonite | Slurry Density: | 12.80 lb/gal             |
|   | Slurry Yield:   | 1.83 ft <sup>3</sup> /sk |
|   | Mixing Water    | 9.51 gal/sk              |
|   | Total sacks     | 580 sks                  |
|   | Total barrels   | 188.5 bbls               |

|   |                 |                          |
|---|-----------------|--------------------------|
| Tail 1 CLASS A COMMON<br>100% Class A - Neat<br>2% BWOC Premium Gel<br>0.6% BWOC Fluid Loss -FL-160<br>0.1% BWOC Suspension Agent - SA45<br>5 lb/sk Gilsonite | Slurry Density: | 14.50 lb/gal             |
|   | Slurry Yield:   | 1.44 ft <sup>3</sup> /sk |
|   | Mixing Water    | 6.60 gal/sk              |
|   | Total sacks     | 140 sks                  |
|   | Total barrels   | 36.0 bbls                |

|                             |                |             |
|-----------------------------|----------------|-------------|
| Displacement 1 Displacement | Fluid Density: | 8.33 lb/gal |
|                             | Fluid Volume:  | 122.5 bbls  |