



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 06/09/2017
Tracking No.: 166831

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

OPERATOR INFORMATION

Operator Name: JAGGED PEAK ENERGY LLC Operator No.: 429574
Operator Address: 1125 17TH STREET SUITE 2400 DENVER, CO 80202-0000

WELL INFORMATION

API No.: 42-475-37117 County: WARD
Well No.: 1H RRC District No.: 08
Lease Name: RK-UTL 3031B-17 Field Name: PHANTOM (WOLFCAMP)
RRC Lease No.: 48527 Field No.: 71052900
Location: Section: 11, Block: 17, Survey: UL, Abstract: U50
Latitude: 31.64749 Longitude: -103.20639
This well is located 7.9 miles in a SOUTH WEST
direction from WINK,
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: 12/28/2016
Type of Permit Date Permit No.
Permit to Drill, Plug Back, or Deepen 08/02/2016 817374
Rule 37 Exception
Fluid Injection Permit
O&G Waste Disposal Permit
Other:

COMPLETION INFORMATION

Spud date: 08/10/2016 Date of first production after rig released: 12/28/2016
Date plug back, deepening, recompletion, or drilling operation commenced: 08/10/2016 Date plug back, deepening, recompletion, or drilling operation ended: 10/02/2016
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: 640.70 Elevation (ft.): 2724 GL
Total depth TVD (ft.): 11531 Total depth MD (ft.): 22241
Plug back depth TVD (ft.): 11531 Plug back depth MD (ft.): 22199
Was directional survey made other than inclination (Form W-12)? No Rotation time within surface casing (hours): 260.5
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No Multiple completion? No
Type(s) of electric or other log(s) run: Other
Electric Log Other Description: GAMMA RAY AND CBL
Location of well, relative to nearest lease boundaries Off Lease : No
of lease on which this well is located: 328.0 Feet from the South Line and
517.0 Feet from the West Line of the
RK-UTL 3031B-17 Lease.

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir Gas ID or Oil Lease No. Well No. Prior Service Type

W2: N/A

PACKET: N/A

**FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:**

**GAU Groundwater Protection Determination**      **Depth (ft.):** 875.0      **Date:** 07/28/2016  
**SWR 13 Exception**      **Depth (ft.):**

**INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION**

**Date of test:** 02/08/2017      **Production method:** Flowing  
**Number of hours tested:** 24      **Choke size:** 27  
**Was swab used during this test?** No      **Oil produced prior to test:** 36738.00

**PRODUCTION DURING TEST PERIOD:**

**Oil (BBLs):** 1241.00      **Gas (MCF):** 1189  
**Gas - Oil Ratio:** 958      **Flowing Tubing Pressure:** 0.00  
**Water (BBLs):** 2487

**CALCULATED 24-HOUR RATE**

**Oil (BBLs):** 1241.0      **Gas (MCF):** 1189  
**Oil Gravity - API - 60.:** 40.0      **Casing Pressure:** 1587.00  
**Water (BBLs):** 2487

**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	929			C	625	1166.0	0	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	12313			C/H	2860	10369.0	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
1	4 1/2	6	10575	22242	HSLD 87	787	1193.0	1105 0	Calculation

**TUBING RECORD**

Row	Size (in.)	Depth	Size (ft.)	Packer Depth (ft.)/Type
N/A				/

**PRODUCING/INJECTION/DISPOSAL INTERVAL**

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 12155	22199.0

**ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.**

**Was hydraulic fracturing treatment performed?** Yes  
**Is well equipped with a downhole actuation sleeve?** Yes      **If yes, actuation pressure (PSIG):** 9600.0  
**Production casing test pressure (PSIG) prior to hydraulic fracturing treatment:** 12000      **Actual maximum pressure (PSIG) during hydraulic fracturing:** 12000  
**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		20,099,226 LBS PROPPANT AND 33,825,476 GALLON CLEAN	12155      22199

**FORMATION RECORD**

<u>Formations</u>	<u>Encountered</u>	<u>Depth TVD (ft.)</u>	<u>Depth MD (ft.)</u>	<u>Is formation isolated?</u>	<u>Remarks</u>
RUSTLER	No			No	UNKNOWN-NOT LOGGED
YATES	No			No	UNKNOWN-NOT LOGGED
SEVEN RIVERS	No			No	UNKNOWN-NOT LOGGED
QUEEN	No			No	UNKNOWN-NOT LOGGED
GLORIETA	No			No	UNKNOWN-NOT LOGGED
SAN ANDRES - HIGH FLOWS, H2S, CORROSIVE	No			No	UNKNOWN-NOT LOGGED
HOLT	No			No	UNKNOWN-NOT LOGGED
CLEARFORK	No			No	UNKNOWN-NOT LOGGED
DELAWARE	Yes	4999.0	5006.0	Yes	CASED
TUBB	No			No	UNKNOWN-NOT LOGGED
WICHITA ALBANY	No			No	UNKNOWN-NOT LOGGED
CHERRY CANYON	Yes	5836.0	5844.0	Yes	CASED
BRUSHY CANYON	Yes	7154.0	7162.0	Yes	CASED
AVALON CUTOFF	Yes	8358.0	8358.0	Yes	CASED
WADDELL	No			No	UNKNOWN-NOT LOGGED
BONE SPRINGS	Yes	8491.0	8499.0	Yes	CASED
1ST BONE SPRINGS SAND	Yes	9357.0	9367.0	Yes	CASED
2ND BONE SPRING LIME	Yes	9860.0	9871.0	Yes	CASED
2ND BONE SPRINGS SAND	Yes	10363.0	10377.0	Yes	CASED
3RD BONE SPRINGS LIME	Yes	10416.0	10430.0	Yes	CASED
3RD BONE SPRINGS SAND	Yes	11035.0	11058.0	Yes	CASED
WOLFCAMP	Yes	11345.0	11416.0	Yes	CASED
MONTOYA	No			No	UNKNOWN-NOT LOGGED
PENNSYLVANIAN	No			No	UNKNOWN-NOT LOGGED
ATOKA	No			No	UNKNOWN-NOT LOGGED
FUSSELMAN	No			No	UNKNOWN-NOT LOGGED
DEVONIAN	No			No	UNKNOWN-NOT LOGGED
ELLENBURGER	No			No	UNKNOWN-NOT LOGGED

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? Yes

Is the completion being downhole commingled (SWR 10)? No

**REMARKS**

HESITATION OPENING SLEEVE USED

## RRC REMARKS

### PUBLIC COMMENTS:

[RRC Staff 2017-04-03 09:44:50.745] EDL=10044 feet, max acres=704, PHANTOM (WOLFCAMP) oil or gas well

### CASING RECORD :

### TUBING RECORD:

NO TUBING SET YET, KOP 10,775'

### PRODUCING/INJECTION/DISPOSAL INTERVAL :

### ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

### POTENTIAL TEST DATA:

## OPERATOR'S CERTIFICATION

**Printed Name:** Lauren Walsh  
**Telephone No.:** (720) 215-3634

**Title:** Regulatory Specialist  
**Date Certified:** 06/07/2017



# RAILROAD COMMISSION OF TEXAS

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

## Form W-15

Rev. 08/2014

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

### CEMENTING REPORT

#### OPERATOR INFORMATION

Operator Name: Jagged Peak Energy LLC	Operator P-5 No.: 429574
Cementor Name: COMPASS CEMENTING SERVICES	Cementor P-5 No.: 1697891

#### WELL INFORMATION

District No.: 08	County: Ward	
Well No.: 1H	API No.: 42-475-37117	Drilling Permit No.: 817374
Lease Name: RK-UTL 3031B-17	Lease No.:	
Field Name: Phantom (Wolfcamp)	Field No.: 71052900	

#### I. CASING CEMENTING DATA

Type of casing:  Conductor  Surface  Intermediate  Liner  Production

Drilled hole size (in.): 17 1/2	Depth of drilled hole (ft.): 945	Est. % wash-out or hole enlargement: 9%
Size of casing in O.D. (in.): 13 3/8	Casing weight (lbs/ft) and grade: 48# J-55	No. of centralizers used: 3
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.): 929	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: > 1 week	Calculated top of cement (ft.): 0	Cementing date: 8/12/2016

#### SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	350	C/POZ	SEE REMARKS	798	1149
2	275	C	SEE REMARKS	368	528
3					
Total	625			1166	

#### 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.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight (lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> 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					

#### 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.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight (lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> 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					

**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**

LEAD: BENTONITE 5%, C45 1.25, C41P .50, SALT 5.26 #/SK, KOL SEAL 4 #/SK  
 TAIL: CALCIUM CHLORIDE 2%, C45 .10                      60 BBLs CMT TO SURFACE (150 SKS)

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.

**ROB ELLIOTT**      **CEMENTING SUPERVISOR**      **COMPASS CEMENTING SERVICES** 

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Name and title of cementer's representative      Cementing Company      Signature  
 10013 WEST COUNTY RD 157      MIDLAND, TX 79706 432-561-5970      8/12/2016  
 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.

**Lauren Walsh**      **Regulatory Specialist**      

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Typed or printed name of operator's representative      Title      Signature  
 1125 17th St. Suite 2400      Denver, CO 80202      720-215-3634      03/23/2017  
 Address      City, State, Zip Code      Tel: Area Code      Number      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 78711-2967).
- 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.



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Form W-15

Rev. 08/2014

## CEMENTING REPORT

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

### OPERATOR INFORMATION

Operator Name: JAGGED PEAK	Operator P-5 No.: 429574
Cementer Name: Compass Cementing Services, LLC	Cementer P-5 No.: 169789

### WELL INFORMATION

District No.: 08	County: Ward	
Well No.: UTL 3031B-17-1H	API No.: 42-475-37117	Drilling Permit No.: 817374
Lease Name: UTL 3031B-17-1H	Lease No.:	
Field Name: Phantom (Wolfcamp)	Field No.: 71052900	

### 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.): 12.25	Depth of drilled hole (ft.): 12331	Est. % wash-out or hole enlargement: 45%
Size of casing in O.D. (in.): 7	Casing weight (lbs/ft) and grade: 32	No. of centralizers used: 0
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.): 12313	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 71hrs	Calculated top of cement (ft.): 0	Cementing date: 9/9/2016

#### SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	2700	CLASS C	SEE REMARKS	10179	11992
2	160	CLASS H	SEE REMARKS	190.4	339
3					
<b>Total</b>	<b>2860</b>			<b>10369.4</b>	<b>12331</b>

### 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: 32	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 casing weight (lbs/ft) and grade	Tapered string no. of centralizers used
Upper:	Lower:	Upper:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> 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					
<b>Total</b>					

### 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: 32	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 casing weight (lbs/ft) and grade	Tapered string no. of centralizers used
Upper:	Lower:	Upper:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> 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					
<b>Total</b>					

**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)							

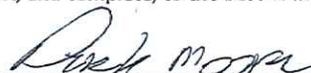
**REMARKS**

LEAD:CLASS C 60%, POZ 40%, BENONITE 10%, STE 6%, CITRIC ACID 0.30%, C-19 0.05%, CSA-1000 0.10%, SFA 8 #/SK, KOL SEAL 8 #/SK, GYP SEAL 5 #/SK C-47B 0.15%, C-41P 0.50%, TAIL: CLASS H 100%, C-20 0.30%, C-51 0.10%, C-41P 0.25%.

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.

**DEREK MOORE CEMENTER**

Compass Cementing Services, LLC



Name and title of cementer's representative

Cementing Company

Signature

10013 West County Rd. 157

Midland TX 79706

432-561-5970

9/9/2016

Address

City, State, Zip Code

Tel: Area Code

Number

Date: mo. day yr.

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**Lauren Walsh**

Regulatory Specialist



Typed or printed name of operator's representative

Title

Signature

1125 17th St. Suite 2400

Denver, CO 80202

720-215-3634

03/23/2017

Address

City, State, Zip Code

Tel: Area Code

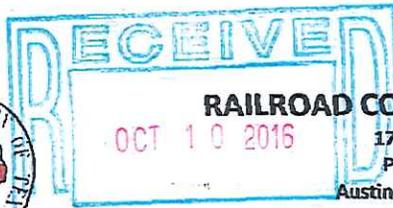
Number

Date: mo. day yr.

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

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- 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 78711-2967).
- 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

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

Form W-15

Rev. 08/2014

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

CEMENTING REPORT

OPERATOR INFORMATION

Operator Name: JAGGED PEAK
Operator P-5 No.: 429574
Cementer Name: COMPASS WELL SERVICES
Cementer P-5 No.: 169789

WELL INFORMATION

District No.: 08
County: WARD
Well No.: 1H
API No.: 42-475-37117
Drilling Permit No.: 817374
Lease Name: RK-UTL-3031B-17
Lease No.:
Field Name: Phantom (Wolfcamp)
Field No.: 71052900

I. CASING CEMENTING DATA

Type of casing: Conductor Surface Intermediate Liner Production
Drilled hole size (in.): 6
Depth of drilled hole (ft.): 22242
Est. % wash-out or hole enlargement: 18%
Size of casing in O.D. (in.): 4.5
Casing weight (lbs/ft) and grade: 13.5 HCP-110
No. of centralizers used: 0
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES NO
Setting depth shoe (ft.): 22242
Top of liner (ft.): 10575
Setting depth liner (ft.): 10575
Hrs. waiting on cement before drill-out:
Calculated top of cement (ft.): 11050
Cementing date: 10/01/2016

SLURRY

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu. ft.), Height (ft.)

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.)
Upper: Lower:
Tapered string depth of drilled hole (ft.)
Upper: Lower:
Tapered string size of casing in O.D. (in.)
Upper: Lower:
Tapered string casing weight(lbs/ft) and grade
Upper: Lower:
Tapered string no. of centralizers used
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

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu. ft.), Height (ft.)

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.)
Upper: Lower:
Tapered string depth of drilled hole (ft.)
Upper: Lower:
Tapered string size of casing in O.D. (in.)
Upper: Lower:
Tapered string casing weight(lbs/ft) and grade
Upper: Lower:
Tapered string no. of centralizers used
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

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu. ft.), Height (ft.)

**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**

Primary Cement: HSLD 87, C-20, C-47B, C-41P, CSA-1000, STE

**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.

**CLAYTON HODSON CMT Supervisor**

**Compass Well Services**



Name and title of cementer's representative	Cementing Company		Signature
10013 W Co Rd 157	Midland, TX 79706	432-561-5970	10/01/2016
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.

**Lauren Walsh**

**Regulatory Specialist**



Typed or printed name of operator's representative	Title	Signature
1125 17th St. Suite 2400	Denver, CO 80202	720-215-3634
Address	City, State, Zip Code	Tel: Area Code Number
		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 78711-2967).
- 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\\_loc=&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_loc=&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.

Tracking No.: 166831

*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 Name: JAGGED PEAK ENERGY LLC	District No. 08	Completion Date: 12/28/2016
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 817374	
Lease Name RK-UTL 3031B-17	Lease/ID No. 48527	Well No. 1H
County WARD	API No. 42- 475-37117	

**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). \_\_\_\_\_

Lauren Walsh  
 \_\_\_\_\_  
 Signature  
 JAGGED PEAK ENERGY LLC  
 \_\_\_\_\_  
 Name (print)

Regulatory Specialist  
 \_\_\_\_\_  
 Title  
 (720) 215-3634  
 \_\_\_\_\_  
 Phone  
 03/30/2017  
 \_\_\_\_\_  
 Date

-FOR RAILROAD COMMISSION USE ONLY-



Radial Cement Bond  
Gamma Ray CCL  
Log

Company Jagged Peak Energy, LLC. Well RK-UTL 3031B-17 #1H Field Phantom ( Wolfcamp ) County Ward State Texas	Company Jagged Peak Energy, LLC.	
	Well RK-UTL 3031B-17 #1H	
	Field Phantom ( Wolfcamp )	
	County Ward	State Texas
Location:		API # : 42-475-37117
330' FSL & 520' FWL		Other Services Temp
Section 11, Block 17, A-U50		
UL Survey		Elevation
SEC	TWP RGE	
Permanent Datum	Ground Level	Elevation 2725'
Log Measured From	KB 27' APD	K.B. 2752'
Drilling Measured From	KB	D.F. 2751'
		G.L. 2725'

Date	10/5/2016
Run Number	One
Depth Driller	22234'
Depth Logger	11580'
Bottom Logged Interval	11577'
Top Log Interval	Surface
Open Hole Size	8 3/4" & 6"
Type Fluid	Water
Density / Viscosity	-
Max. Recorded Temp.	-
Estimated Cement Top	3560'
Time Well Ready	On Arrival
Time Logger on Bottom	See Log
Equipment Number	WL - 825
Location	Midland, Texas
Recorded By	Braden Vaughan
Witnessed By	Reed Ashy

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
One	17 1/2"	Surface	929'				
Two	8 3/4"	929'	12327'				
Three	6"	12327'	22234'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	13 3/8"	54.5# J-55	Surface	929'
Prot. String				
Production String	7"	32# P-110	Surface	12327'
Liner	4 1/2"	13.5# P-110	10584'	22234'
			Liner Top	10568'+

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

\*\*\*\*\*Thank You For Choosing Capitan Corporation\*\*\*\*\*

Primary Log On Well



Main Pass 5" = 100'

**CERTIFICATE OF COMPLIANCE  
 AND TRANSPORTATION AUTHORITY**

This facsimile P-4 was generated electronically from data submitted to the RRC.  
 A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 166831

1. Field name exactly as shown on proration schedule <b>PHANTOM (WOLFCAMP)</b>		2. Lease name as shown on proration schedule <b>RK-UTL 3031B-17</b>					
3. Current operator name exactly as shown on P-5 Organization Report <b>JAGGED PEAK ENERGY LLC</b>		4. Operator P-5 no. <b>429574</b>	5. Oil Lse/Gas ID no. <b>48527</b>	6. County <b>WARD</b>	7. RRC district <b>08</b>		
8. Operator address including city, state, and zip code <b>1125 17TH STREET SUITE 2400 DENVER, CO 80202</b>		9. Well no(s) (see instruction E) <b>1H</b>			11. Effective Date <b>12/28/2016</b>		
		10. Classification <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other (see instruction A)					
12. Purpose of Filing. (Complete section a or b below.) (See instructions B and G)							
a. Change of: <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 <input type="checkbox"/> field name from _____ <input type="checkbox"/> lease name from _____							
- - - OR - - -							
b. New RRC Number for: <input checked="" type="checkbox"/> oil lease <input type="checkbox"/> gas well <input type="checkbox"/> other well (specify) _____ Due to: <input checked="" type="checkbox"/> new completion or recompletion <input type="checkbox"/> reclass oil to gas <input type="checkbox"/> reclass gas to oil <input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)							
13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). (See instruction G).							
Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left (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	TARGA MIDLAND LLC(836046)			0001	100.0	
14. Authorized OIL or CONDENSATE Gatherer(s). (See instruction G).							
Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First (Attach an additional sheet in same format if more space is needed)						Percent of Take	
TRAFIGURA TRADING LLC(864315)						50.0	
ORYX SO. DELAWARE OGT LLC(627117)						50.0	
<b>RRC USE ONLY:</b> Reviewer's initials: <u>RRC Staff</u> Approval date: <u>06/09/2017</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"/> Authorized Employee of previous operator		<input type="checkbox"/> Authorized agent of previous operator (see instruction G)	
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) <u>JAGGED PEAK ENERGY LLC</u>				Signature <u>Lauren Walsh</u>			
Title <u>Regulatory Specialist</u>				<input checked="" type="checkbox"/> Authorized Employee of current operator		<input type="checkbox"/> Authorized agent of current operator (see instruction G)	
E-mail Address (optional) <u>lwalsh@jaggedpeakenergy.com</u>				Date <u>05/19/2017</u>		Phone with area code <u>(720) 215-3634</u>	

# CERTIFICATE OF POOLING AUTHORITY

# P-12

Revised 05/2001

1. Field Name(s) <b>Phantom (Wolfcamp)</b>	2. Lease/ID Number (if assigned)	3. RRC District Number <b>8</b>
4. Operator Name <b>Jagged Peak Energy LLC</b>	5. Operator P-5 Number <b>429574</b>	6. Well Number <b>1H</b>
7. Pooled Unit Name <b>RK-UTL 3031B-17</b>	8. API Number <b>42-475-37117</b>	9. Purpose of Filing <input type="checkbox"/> Drilling Permit (W-1)
10. County <b>Ward</b>	11. Total acres in pooled unit <b>640.7</b>	<input checked="" type="checkbox"/> Completion Report

### DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT <i>(See inst. #7 below)</i>	INDICATE UNDIVIDED INTERESTS	
			UNLEASD	NON-POOLED
A	Tract A	320.35	<input type="checkbox"/>	<input type="checkbox"/>
B	Tract B	320.35	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

**CERTIFICATION:**

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Signature	David Eckelberger Print Name	(720) 215-3651 Phone
Landman	deckelberger@jaggedpeakenergy.c E-mail (if available)	07/27/2016 Date

**INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40**

1. When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
2. The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
3. If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
4. If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
6. Identify the drill site tract with an \* to the left of the tract identifier.
7. The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.





## GROUNDWATER PROTECTION DETERMINATION

Form GW-2



## Groundwater Advisory Unit

**Date Issued:** 28 July 2016      **GAU Number:** 158019

<b>Attention:</b>	JAGGED PEAK ENERGY LLC 1125 17TH STREET SUITE DENVER, CO 80202	<b>API Number:</b>	
<b>Operator No.:</b>	429574	<b>County:</b>	WARD
		<b>Lease Name:</b>	RK-UTL 3031B-17
		<b>Lease Number:</b>	
		<b>Well Number:</b>	1H
		<b>Total Vertical Depth:</b>	15000
		<b>Latitude:</b>	31.647825
		<b>Longitude:</b>	-103.205941
		<b>Datum:</b>	NAD27

**Purpose:** New Drill  
**Location:** Survey-UL; Abstract-U50; Block-17; Section-11

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 the base of the Allurosa, which is estimated to occur at a depth of 875 feet, must be protected.

Please send Gamma Ray/Porosity log of this well when it is available.

This recommendation is applicable for all wells drilled in this Section 11 on this Lease and in this County.

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 07/28/2016. 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.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2      P.O. Box 12967 Austin, Texas 78771-2967      512-463-2741      Internet address: www.rrc.texas.gov  
Rev. 02/2014

# Block 17, University Lands Survey

Driving Directions To Location:  
 From the intersection of Highway 115 and Farm To Market Road 1232 in Wink, Texas;  
 Drive South on Hwy 115 5.1 miles to Little Joe Rd.;  
 Turn right (West) on to Little Joe Rd., drive 3.7 miles to dirt road at Lat: 31°39'42.12", Long: 103°12'25.29";  
 Turn left (South) on to dirt road, drive 1.0 miles to Lat: 31°38'52.62", Long: 103°12'43.50";  
 Location is left (East) 1,780 feet.

LATERALS	
FTP - West Section Line (Tract B)	5073.82'
Section Line - LTP (Tract A)	4969.41'
FTP - LTP (Total)	10043.23'

GRID N: (Y)10573767.111  
 GRID E: (X)1391367.851

GRID N: (Y)10576725.852  
 GRID E: (X)1401505.654

JAGGED PEAK ENERGY

JAGGED PEAK ENERGY

Bottom Hole Location (BHL)  
 GRID N: (Y)10571639.910  
 GRID E: (X)1392268.970  
 NAD'83 Lat/Long  
 Lat: 31°38'20.167" N  
 Long: 103°14'22.162" W  
 Lat: 31.638935° N  
 Long: 103.239489° W

TRACT A  
 320.35 Acres (Called In Section)  
 640.7 Acres (Called In Lease)

TRACT B  
 320.35 Acres (Called In Section)  
 640.7 Acres (Called In Lease)

MD12,155  
 First Take Point (FTP)  
 GRID N: (Y)10574478.675  
 GRID E: (X)1401944.932  
 NAD'83 Lat/Long  
 Lat: 31°38'50.740" N  
 Long: 103°12'31.118" W  
 Lat: 31.647428° N  
 Long: 103.208644° W

Surface Hole Location/  
 Penetration Point (SHL/PP)  
 GRID N: (Y)10574650.053  
 GRID E: (X)1402650.611  
 NAD'83 Lat/Long  
 Lat: 31°38'52.616" N  
 Long: 103°12'23.008" W  
 Lat: 31.647949° N  
 Long: 103.206391° W

MD11,945

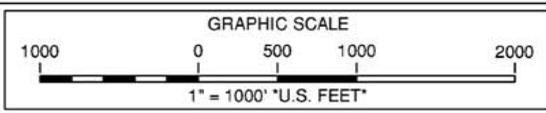
RK-UTL 3031B-17-1H (SHL/PP)  
 EL.  
 2724

GRID N: (Y)10571228.883  
 GRID E: (X)1392107.552

GRID N: (Y)10572709.294  
 GRID E: (X)1397176.765

GRID N: (Y)10574189.703  
 GRID E: (X)1402245.981

MD 22,199  
 Last Take Point (LTP)  
 GRID N: (Y)10571651.584  
 GRID E: (X)1392309.314  
 NAD'83 Lat/Long  
 Lat: 31°38'20.293" N  
 Long: 103°14'21.699" W  
 Lat: 31.638970° N  
 Long: 103.239361° W



Note: Well is located 7.9 miles Southwest of the city of Wink, Texas.  
 Note: Survey Reconstruction filed in the Office of Pennell & Marlowe Land Surveyors, Inc.  
 Note: Well bore location determined from survey report provided by client.  
 Note: Coordinates shown herein are on The Texas Coordinate System of 1983, Central Zone.  
 Note: Bearings and distances are based on The Texas Coordinate System of 1983, Central Zone.  
 Note: This plat is NOT a boundary survey and should NOT be used to convey interest in any real property.

October 20, 2016

161020JR4-KRM

Revised: 05/31/2017-KRM  
 USGS Quadrangle Sheet: Wink South, Tex.

Railroad Commission Permit Plat  
**JAGGED PEAK ENERGY**  
 RK-UTL 3031B-17 #1H (As-Drilled)  
 328' FROM SOUTH LINE  
 517' FROM WEST LINE  
 RK-UTL 3031B-17 Lease  
 640.7 Acres (Called) being the S/2 of  
 Sections 30 & 31, Block 17  
 University Lands Survey  
 Winkler County, Texas  
 Ward County, Texas

Scale: 1" = 1000'