



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 07/15/2015
Tracking No.: 135130

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

OPERATOR INFORMATION

Operator Name: ENERGEN RESOURCES CORPORATION Operator No.: 252002
Operator Address: 3510 N A ST BLDGS A AND B MIDLAND, TX 79705-0000

WELL INFORMATION

API No.: 42-495-33601 County: WINKLER
Well No.: 2H RRC District No.: 08
Lease Name: UNIVERSITY 35-20 Field Name: PHANTOM (WOLFCAMP)
RRC Lease No.: 46430 Field No.: 71052900
Location: Section: 35, Block: 20, Survey: UL, Abstract: U30

Latitude: 31.68823 Longitude: -103.27849
This well is located 14.4 miles in a NW
direction from PYOTE,
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: 12/13/2014

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	08/21/2014	792629
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 10/22/2014	Date of first production after rig released: 12/13/2014
Date plug back, deepening, recompletion, or drilling operation commenced: 10/22/2014	Date plug back, deepening, recompletion, or drilling operation ended: 12/13/2014
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: 640.00	Elevation (ft.): 2774 GR
Total depth TVD (ft.): 11654	Total depth MD (ft.): 16584
Plug back depth TVD (ft.):	Plug back depth MD (ft.):
Was directional survey made other than inclination (Form W-12)? Yes	Rotation time within surface casing (hours): 24.0
Recompletion or reclass? No	Is Cementing Affidavit (Form W-15) attached? Yes
Type(s) of electric or other log(s) run: Gamma Ray (MWD)	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: 10.0 Feet from the NW Line and 527.0 Feet from the NE Line of the UNIVERSITY 35-20 Lease.	

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

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type
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PACKET: N/A

W2:	N/A
FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:	
GAU Groundwater Protection Determination	Depth (ft.): 250.0 Date: 09/16/2014
SWR 13 Exception	Depth (ft.): 4950.0

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION	
Date of test: 03/06/2015	Production method: Flowing
Number of hours tested: 24	Choke size: 40
Was swab used during this test? No	Oil produced prior to test: 7417.00
PRODUCTION DURING TEST PERIOD:	
Oil (BBLs): 1045.00	Gas (MCF): 918
Gas - Oil Ratio: 878	Flowing Tubing Pressure: 0.00
Water (BBLs): 4934	
CALCULATED 24-HOUR RATE	
Oil (BBLs): 1045.0	Gas (MCF): 918
Oil Gravity - API - 60.: 39.3	Casing Pressure: 975.00
Water (BBLs): 4934	

CASING RECORD											
Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	9 5/8	12 1/4	4960			C	830	1532.9	2471	Circulated to Surface
2	Surface	9 5/8	12 1/4	4960	2471		C	1483	2832.4	0	Circulated to Surface
3	Intermediate	7	8 3/4	11741			C	1510	2816.0	15	Calculation

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	10679	16578	H	510	796.5	7410	Cement Evaluation Log

TUBING RECORD			
Row	Size (in.)	Depth	Size (ft.)
1	2 7/8	10603	
			Packer Depth (ft.)/Type
			/

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11956	16521.0

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):	8000.0
Production casing test pressure (PSIG) prior to hydraulic fracturing treatment:	9500	Actual maximum pressure (PSIG) during hydraulic fracturing:	9392
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	SEE FRAC FOCUS	11956	16521
2	Other	KOP @11,144	11144	11144

FORMATION RECORD					
Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
RUSTLER - POSSIBLE FLOW; POSSIBLE USABLE QUALITY W	Yes	725.0	725.0	Yes	BY CMT CIRC TO SURF
COLBY-QUEEN	Yes	2900.0	3200.0	Yes	BY CMT CIRC TO SURF
YATES	Yes	2280.0	3200.0	Yes	BY CMT CIRC TO SURF
QUEEN-SEVEN RIVERS	Yes	2700.0	3400.0	Yes	BY CMT CIRC TO SURF
SAN ANDRES - HIGH FLOWS, H2S, CORROSIVE	Yes	3600.0	4400.0	Yes	BY CMT CIRC TO SURF
HOLT	Yes	4500.0	4800.0	Yes	BY CMT CIRC TO SURF
DELAWARE	Yes	4300.0	5000.0	Yes	BY CMT CIRC TO SURF
GLORIETA	Yes	4900.0	5600.0	Yes	BY CMT CIRC TO SURF
CLEARFORK	Yes	4750.0	6200.0	Yes	BY CMT CIRC TO SURF
WICHITA ALBANY	Yes	6600.0	6850.0	Yes	BY CMT CIRC TO SURF
BRUSHY CANYON	Yes	7392.0	7392.0	Yes	BY CMT CIRC TO SURF
CHERRY CANYON	Yes	5957.0	5957.0	Yes	BY CMT CIRC TO SURF
CANYON	Yes	7392.0	7392.0	Yes	FORMATION TOP PICKED
BONE SPRINGS	Yes	8688.0	8688.0	Yes	FORMATION TOP PICKED
MONTOYA	Yes	10300.0	10300.0	Yes	BY CMT CIRC TO SURF
WADDELL	Yes	11000.0	11000.0	Yes	BY CMT CIRC TO SURF
WOLFCAMP	No			No	KOP @11144
ATOKA	No			No	KOP @11144
STRAWN	No			No	KOP @11144
PENNSYLVANIAN	No			No	KOP @11144
MISSISSIPPIAN	No			No	KOP @11144
DEVONIAN	No			No	KOP @11144
SILURIAN	No			No	KOP @11144
FUSSELMAN	No			No	KOP @11144
ELLENBURGER	No			No	KOP @11144
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

RRC REMARKS
PUBLIC COMMENTS: [RRC Staff 2015-06-04 13:41:55.118] EDL=4550 feet, max acres=704, PHANTOM (WOLFCAMP) oil or gas well
CASING RECORD :
TUBING RECORD:
PRODUCING/INJECTION/DISPOSAL INTERVAL :
ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :
POTENTIAL TEST DATA:

OPERATOR'S CERTIFICATION	
Printed Name: Delia Skinner	Title: Manager PROD REG ADMIN.
Telephone No.: (432) 684-3692	Date Certified: 07/06/2015



RAILROAD COMMISSION OF TEXAS

1701 N. CONGRESS

P.O. Box 12967

Austin, Texas 78701-2967

CEMENTING REPORT

W15

OPERATOR INFORMATION

Operator Name: **ENERGEN Resources Corporation** Operator P-5 No.: **252002**
Cementer Name: **Warrior Energy Services** Cementer P-5 No.: **898953**

WELL INFORMATION

District No.: **08** County: **WARD**
Well No.: **2H** API No.: **495-33601** Drilling Permit No.: **792629**
Lease Name: **UNIVERSITY 35-20** Lease No.:
Field Name: **Phantom Wolfcamp** Field No.: **71055500**

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☐ Intermediate ☐ Liner ☐ 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? ☐ Yes ☐ No If no or surface casing, explain in Setting depth shoe (ft.): Top of Liner (ft.):
Remarks: No. of centralizers used:
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: ☒ Surface ☐ Intermediate ☐ Production ☐ Tapered Production ☒ Multi-stage cement shoe ☐ Multiple parallel strings
Drilled hole size (in.): **12 1/4** Depth of drilled hole (ft.): Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): **9 5/8** Casing weight (lbs/ft) and grade: **14.88 135** No. of centralizers used: **40**
Tapered string drilled hole size (in.) Tapered string drilled hole size (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.): **4960**
Hrs. waiting on cement before drill-out: **24** Calculated top of cement (ft.): Cementing Date: **10/28/2014**

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	650	C	SEE REMARKS #1	1293.5	4123
2	180	C	SEE REMARKS #2	239.4	763
3					
Total	830			1532.9	4886

III. CASING CEMENTING DATA

Type of casing: ☒ Surface ☐ Intermediate ☐ Production ☐ Tapered Production ☒ Multi-stage cement/DV tool ☐ Multiple parallel strings
Drilled hole size (in.): **12 1/4** Depth of drilled hole (ft.): Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): **9 5/8** Casing weight (lbs/ft) and grade: **14.8 135** No. of centralizers used: **40**
Tapered string drilled hole size (in.) Tapered string drilled hole size (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.): **2471**
Hrs. waiting on cement before drill-out: Calculated top of cement (ft.): Cementing Date: **10/28/2014**

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1303	C	SEE REMARKS #3	2593	8264
2	180	C	SEE REMARKS #4	239.4	763
3					
Total	1483			2832.4	9027

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 CLASS C 35/65+6%BENTONITE+0.2%R-20+0.1%CD-35+0.25#CELLO-FLAKE+5%SALT(BWOW)

#2 CLASS C+ 25#CELLO-FLAKE

#3 CLASS C+6%BENTONITE+5%SALT(BWOW)

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.

HECTOR FLORES

Warrior Energy Services

Name and title of cementer's representative

Cementing Company

Signature

PO Box 61193

Midland

TX 79711

(432) 617-0114

10/28/2014

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.

Delia Skinner

Regulatory Analyst

D. Skinner

Type or printed name of operator's representative

Title

Signature

3510 N.A. St. Bldg. AHD

Midland, TX 79701

432-684-3692

5-14-15

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.

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.

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

(<http://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 78711-957).

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 an A11d 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?si=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?si=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)).

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.

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

Form W-15
Cementing Report
Rev.4/1/83
HAL1199

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report) Energizer Resources Corporation	2. RRC Operator No. 252002	3. RRC District No. 8	4. County of Well Site Winkler
5. Field Name (Wildcat or Exactly as Shown on RRC Records) Phantom (Wolfcamp)		6. API No. 42-495-33601	7. Drilling Permit No. 792629
8. Lease Name University 35-20	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 2H

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date			11/17/2014				
13. *Drilled hole size			8 3/4				
*Est. % wash or hole enlargement							
14. Size of casing (in. O.D.)			7				
15. Top of liner (ft)							
16. Setting depth (ft)			11741				
17. Number of centralizers used			75				
18. Hrs. waiting on cement before drill-out							
1st Slurry	19. API cement used: No. of sacks ▶		1210				
	Class ▶		H				
	Additives ▶		REMARKS				
2nd Slurry	No. of sacks ▶		300				
	Class ▶		H				
	Additives ▶		REMARKS				
3rd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
1st	20. Slurry pumped: Volume (cu.ft.) ▶		2,444.20				
	Height (ft.) ▶		16,260				
2nd	Volume (cu.ft.) ▶		372				
	Height (ft.) ▶		2,453				
3rd	Volume (cu.ft.) ▶						
	Height (ft.) ▶						
300	Volume (cu.ft.) ▶		2816				
	Height (ft.) ▶		18713				
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?			NO				
22. Remarks LEAD CEMENT LEAD-.20% HALAD®-23, (2 LBM KOL-SEAL),(30% HR-800) TAIL-(.30% HALAD®-23,(3 LBM SUPER CBL)(2 LBM KOL-SEAL) (.50% HR-601)				Sales Order 901790329 CUSTOMER: ENERGEN RESOURCE			
				Lease UNIVERSITY 35-20 WELL # 2H WINK,TX			

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing date								
24. Size of hole or pipe plugged (in.)								
25. Depth to bottom of tubing or drill pipe (ft.)								
26. Sacks of cement used (each plug)								
27. Slurry volume pumped (cu ft.)								
28. Calculated top of plug (ft.)								
29. Measured top of plug, if tagged (ft.)								
30. Slurry wt. (lbs/gal)								
31. Type cement								

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.

KENNETH SMITH

Halliburton Energy Services

Kenneth Smith
Signature

Name and Title of Cementer's Representative

Cementing Company

6155 W. MURPHY

ODESSA

TX

79762

432-571-8600

8/25/2014

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.

Delia Skinner

Regulatory Analyst
Title

D. Skinner
Signature

Typed or Printed Name of Operator's Representative

350 N. A' St. Bldg. A+B Midland, TX 79705 432-684-3892

Address

City

State

Zip Code

Tel. Area Code Number

Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion, and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

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. Form W-15 should be filed with the following:

- * An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
- * Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- * Form W-3, Plugging Record, unless the 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. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. 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.

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

Form W-15
Cementing Report
Rev.4/1/83
HAL1199

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report) Energizer Resources Corporation	2. RRC Operator No. 252002	3. RRC District No. 8	4. County of Well Site Winkler
5. Field Name (Wildcat or Exactly as Shown on RRC Records) Phantom (Wolfcamp)		6. API No. 42-495-33601	7. Drilling Permit No. 792629
8. Lease Name University 35-20	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 2H

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date				12/11/2014			
13. *Drilled hole size				6			
*Est. % wash or hole enlargement							
14. Size of casing (in. O.D.)				4 1/2			
15. Top of liner (ft)				10679			
16. Setting depth (ft)				16579			
17. Number of centralizers used				46			
18. Hrs. waiting on cement before drill-out							
1st Slurry	19. API cement used: No. of sacks ▶			85			
	Class ▶			H			
	Additives ▶			REMARKS			
2nd Slurry	No. of sacks ▶			425			
	Class ▶			H			
	Additives ▶			REMARKS			
3rd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
1st	20. Slurry pumped: Volume (cu.ft.) ▶			105.83			
	Height (ft.) ▶			523.61			
2nd	Volume (cu.ft.) ▶			690.63			
	Height (ft.) ▶			6772.65			
3rd	Volume (cu.ft.) ▶						
	Height (ft.) ▶						
Total	Volume (cu.ft.) ▶			796.46			
	Height (ft.) ▶			7838.14			
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?				NO			
22. Remarks LEAD: .4% HALAD 344, .35% HR-800 TAIL: .4% HALAD-344, .3% SUPER CBL, 3LBM KOL SEAL, .5% HR-800						Sales Order 901866310 Customer Name ENERGEN Lease UNIVERSITY 35-20 Well Number 2H COUNTY WINKLER	

OVER ►

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing data								
24. Size of hole or pipe plugged (in.)								
25. Depth to bottom of tubing or drill pipe (ft.)								
26. Sacks of cement used (each plug)								
27. Slurry volume pumped (cu ft.)								
28. Calculated top of plug (ft.)								
29. Measured top of plug, if tagged (ft.)								
30. Slurry wt. (lbs/gal)								
31. Type cement								

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.

KEVIN MIX (SERVICE SUPERVISOR) Halliburton Energy Services [Signature]
 Name and Title of Cementer's Representative Cementing Company Signature

6155 W MURPHY ST ODESSA TX 79705 432-571-8739 12/11/2014
 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.

Delia Skinner Regulatory Analyst [Signature]
 Typed or Printed Name of Operator's Representative Title Signature
3510 N. A' St. Bldg. A/B Midland, TX 79705 432-843-302 5-13-15
 Address City State Zip Code Tel: Area Code Number Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion, and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

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. Form W-15 should be filed with the following:

- * An initial oil or gas completion report, **Form W-2 or G-1**, as required by Statewide or special field rules;
- * **Form W-4**, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- * **Form W-3**, Plugging Record, unless the 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. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. **An operator must obtain approval of any exception before beginning casing and cementing operations.**

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. 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.



RAILROAD COMMISSION OF TEXAS
STATEWIDE RULE 13 EXCEPTION APPLICATION/ALTERNATIVE REQUEST
Surface Casing: 13(b)(1)(H), Tubing: 13(b)(4)(B), Drilling Fluid: 13(a)(6)(C), or Non-standard Cement 13(b)(1)(D)

1. Operator: Energen Resources Corporation		2. P-5 No.: 252002		3. Lease Name: University 35-20		4. Well No.: 2H	
5. Street Address: 3300 N A St, Bldg 4 Ste 100, Midland, TX 79705				6. RRC District: 08		7. Drill Permit No.: 792629	
8. Field Name: Phantom (Wolfcamp)		9. County: Winkler		10. Proposed Depth: 12000 <input checked="" type="checkbox"/> TVD <input type="checkbox"/> MD			
11. Survey: UL		12. Abstract No: U30		13. Block/Township: 20		14. Section: 35	
15. GPS Datum: NAD 83		Coordinates: N = 10589884.7, W E = 1380610.3					
16. GAU No.: 6256 (attach letter) Recommendation Type (below) <input type="checkbox"/> Well <input type="checkbox"/> Lease <input type="checkbox"/> Survey <input type="checkbox"/> Pad <input type="checkbox"/> Radius: _____				17. Usable-Quality Water (determined by GAU): 250 ft. Separation points: _____ ft.			

18. Exception Request: <input type="checkbox"/> Short Surface Csg <input checked="" type="checkbox"/> Excess Surface Csg <input type="checkbox"/> Single-string <input type="checkbox"/> Tubing <input type="checkbox"/> Area-wide ²	
19. Alternate Program Request: <input checked="" type="checkbox"/> Drilling Fluid Program <input type="checkbox"/> Non-API Cement <input type="checkbox"/> Other: _____	
20. Reason for this request: <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Technical <input type="checkbox"/> Other Please explain: _____ If this application includes a request for exception to tubing requirements outlined in 13(b)(4)(A), indicate requested duration: _____	
21. Is this a proposed injection or disposal well ³ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
22. Is this a Minimum Separation well ⁴ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
23. Are there any water wells within 1/4 mile of this proposed well location ⁵ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, provide information requested below Type of water well: _____ Depth: _____ Distance: _____ Direction: _____	
24. Are there any INJECTION or DISPOSAL wells within 1/4 mile of the proposed well location ⁶ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, list names and depths of all formations permitted for INJECTION OR DISPOSAL within 1/4 miles of the well location ⁷ : _____	
25. Have there been any blowouts within a mile of this wellsite ⁸ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, name operator(s), lease(s), and date(s) blowout(s) occurred: _____	

IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST CONTACT THE DISTRICT OFFICE IMMEDIATELY AND FOLLOW THE PROCEDURES SET OUT IN RULE 13(B)(2)(g)(III) OR AS REQUIRED BY THE DISTRICT OFFICE.

		Surface Casing		Intermediate Casing		Production Casing	
26. Proposed Casing and Cementing Program		12 1/4"					
Hole Size (in.)							
O.D. (in.), Grade, Weight (lb/ft.)		9 5/8	N80	40#			
Setting Depth (ft.)		4950'					
Multi-Stage Tool Depth (ft.)		2450'					
LEAD/FILLER CEMENT	Type and Free Water Content	C/0.0 Lead	C/0.0 tail				
	# of Sacks and Yield (cu. ft/sk)	530/1.75 lead	175/1.34 tail				
	Cement Additives	4% Bentonite, 1% CaCl ₂ , .25#/sx flt					
	24/72-Hr. Comp. Strength (psi)	781/1182 lead	932/21619 tail				
	Cement Height (TOC) (ft.)	0' - lead 1960' tail					
	% Excess	50 lead 50 tail					
TAIL/CRITICAL CEMENT	Type and Free Water Content	C/0.0 stg 1	C/0.0 stg 2				
	# of Sacks and Yield (cu. ft/sk)	545/1.75 lead	180/1.33 tail				
	Cement Additives	4% Bentonite, 1% CaCl ₂ , .25#/sx flt					
	24/72-Hr. Comp. Strength (psi)	898/1371 lead	458/2736 tail				
	Cement Height (TOC) (ft.)	2450' lead 4450' tail					
	Centralizers No. & Placement ⁹	46 every other jt to surface					
% Excess	50 lead 50 tail						

PROVISIONS APPLICABLE TO RULE 13 EXCEPTIONS:

1. **REQUESTS FOR EXCEPTIONS TO STATEWIDE RULE 13 SUBMITTED AFTER THE WELL HAS BEEN DRILLED OR COMPLETED MAY RESULT IN ENFORCEMENT ACTION AGAINST THE OPERATOR.**
2. For area-wide exception requests, please provide additional information which clearly defines the area to be exempted. Area-wide approvals are NOT allowed for short surface casing applications (only approved on a well-by-well basis). Note: District Offices are not required to grant area-wide exceptions.
3. **Caution:** If this well is being drilled for injection or disposal purposes, a(n) injection/disposal well permit may be denied unless surface casing is set and cemented through all zones of usable-quality groundwater.
4. A **Minimum Separation Well**, further defined in section 13(a)(2)(L), is a well in which hydraulic fracturing treatments will be conducted AND for which: the vertical distance between BUQW and the top of the formation to be fracture stimulated is less than 1000 ft. or for which the District Director has determined there to be inadequate separation between the BUQW and the top of the formation to be fracture stimulated.
5. Review applications 1-3 (Groundwater Database, Submitted Driller's Report, and Brackish Groundwater Database) at the following link to determine location(s) of water wells within ¼ mile of the proposed well: <http://wiid.twdb.texas.gov/>.
6. Refer to the Railroad Commission of Texas Public GIS map viewer to locate injection and disposal wells within ¼ mile of the well(s) mentioned on this application: <http://www.rrc.state.tx.us/data/online/gis/index.php>.
7. Review W-14 or H-1a applications at (<http://www.rrc.state.tx.us/data/online/OGImagedRecordsQuery.php>) to determine permitted injection/disposal zones for wells within ¼ mile of the proposed well. Additionally, refer to Rule 13 Formation Tables provided on the RRC website for information regarding saltwater, H2S, and other notable formation depths by county. (<http://www.rrc.state.tx.us/environmental/rule13/index.php>). Statewide Rule 13 may require additional cementing across these formations.
8. Blowout and well-control problem records can be found at the following URL: <http://www.rrc.state.tx.us/data/drilling/blowouts/index.php>.
9. Centralizers must be used through all usable-quality waters. Refer to Rule 13(b)(1)(G).
10. Notify District Office *at least 8 hours prior* to setting and cementing casing.
11. The alternative surface casing program authorized by this letter is subject to the condition that drilling fluid used while drilling to the base of usable quality groundwater have a salinity of 3000 ppm TDS or less and be conditioned to form a filter cake sufficient to prevent infiltration into the protected water while drilling with fluid having a salinity greater than 3000 ppm TDS below the base of usable quality groundwater to the approved surface casing depth. *The use of oil-based and emulsion drilling fluids are prohibited until casing is set and cemented across the base of usable quality groundwater.*
12. **Note:** The following attachments may be requested by the District Office:
 - a. Proposed wellbore diagram or cementing proposal
 - b. Lab reports containing compressive strength and free water data for Lead and/or Tail Slurry
 - c. Any other information that may be required by the District Office.
13. **Please note that a copy of the approved application form must be kept on location during all phases of drilling and/or plugging operations. Once approved, changes CANNOT be made to the Proposed Casing and Cementing Program on the original application without additional approval from the District Office.**

OPERATOR CONTACT INFORMATION			
Signature: X <u><i>Delia Skinner</i></u>	Name: <u>Delia Skinner</u>	Title: <u>Regulatory Analyst</u>	
Date: <u>10/3/14</u>	Phone: <u>432-684-3692</u>	Fax: <u>432-688-3140</u>	
Email Address (optional): <u><i>delia.skinner@energen.com</i></u>			

RRC
Use
Only ▶

RRC District Office Action:	Ref. No:	
TUBING EXCEPTION: <input type="checkbox"/> Approved <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Denied	By:	Date:
SURFACE CASING EXCEPTION: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Denied	By: <u><i>Atty. Major</i></u>	Date: <u>10-10-14</u>
DRILLING FLUID PROGRAM: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Denied	By: <u><i>Atty. Major</i></u>	Date: <u>10-10-14</u>
ALTERNATE CEMENT PROGRAM: <input type="checkbox"/> Approved <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Denied	By:	Date:
Remarks/Modifications: 		



APPLICATION FOR APPROVAL OF SURFACE CASING > 3500 FEET
Statewide Rule 13(b)(1)(A)
RAILROAD COMMISSION OF TEXAS

Operator's Name and Address:

Energen Resources Corporation
3300 N. "A" St., Bldg. 4, Ste. 100
Midland, TX 79705

P5 Number: 252002

Area for review: Phantom Field

Lease Name: University 35-20 #2H

Field Name: Phantom County: Winkler

Survey: University Lands Abstract:

Drilling Permits: 792629

Note: Attach a map if the request is for more than one pad.

How will the operator maintain well control during drilling operations:

Diverter will be installed on conductor

How will the operator ensure cement is circulated to surface and that there is adequate bonding of cement:

Two stage operation with stage tool @ 2450'

How will the operator prevent the migration of formation fluids thru the annular space:

Circulate cement to surface

Signature: Delia Skinner Name: Delia Skinner Date: 10-3-14 Phone: 432-684-3692

RRC Use Only ►

RRC District Office Action:

☒ Approved

☐ Approved as Modified

☐ Denied

By: Atty. Nguyen

Date: 10-10-14

Remarks/Modifications:



September 28, 2014

University Lands
P.O. Box 553
Midland, TX 79702-0553

Re: Exception to Statewide Rule 37
University 35-20 #2H
Phantom (Wolfcamp)
Winkler County, Texas

Dear Offset Operator:

Energen Resources Corporation (ERC), as operator of the referenced well, is making application to the Railroad Commission of Texas for an exception to Statewide Rule 37 due to lease line spacing. A well location plat is enclosed for your reference.

If you have no objection to the granting of this exception, please so indicate by signing the waiver statement below and return via fax or email to jenifer.sorley@energen.com fax 432-688-3140

If you have any questions or require any additional information, please contact the undersigned at 432-818-1732.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jenifer Sorley", written over a horizontal line.

Jenifer Sorley
Asst Supervisor Regulatory Compliance

Enclosures

University Lands, as offset operator, waives objection to the granting of an exception to Statewide Rule 37 for the Energen Resources Corporation, University 35-20 Well #2H.

A handwritten signature in blue ink, appearing to read "James Holzclaw", written over a horizontal line.

Signature

A handwritten signature in blue ink, appearing to read "Land Manager", written over a horizontal line.

Title

A handwritten printed name in blue ink, appearing to read "James Holzclaw", written over a horizontal line.

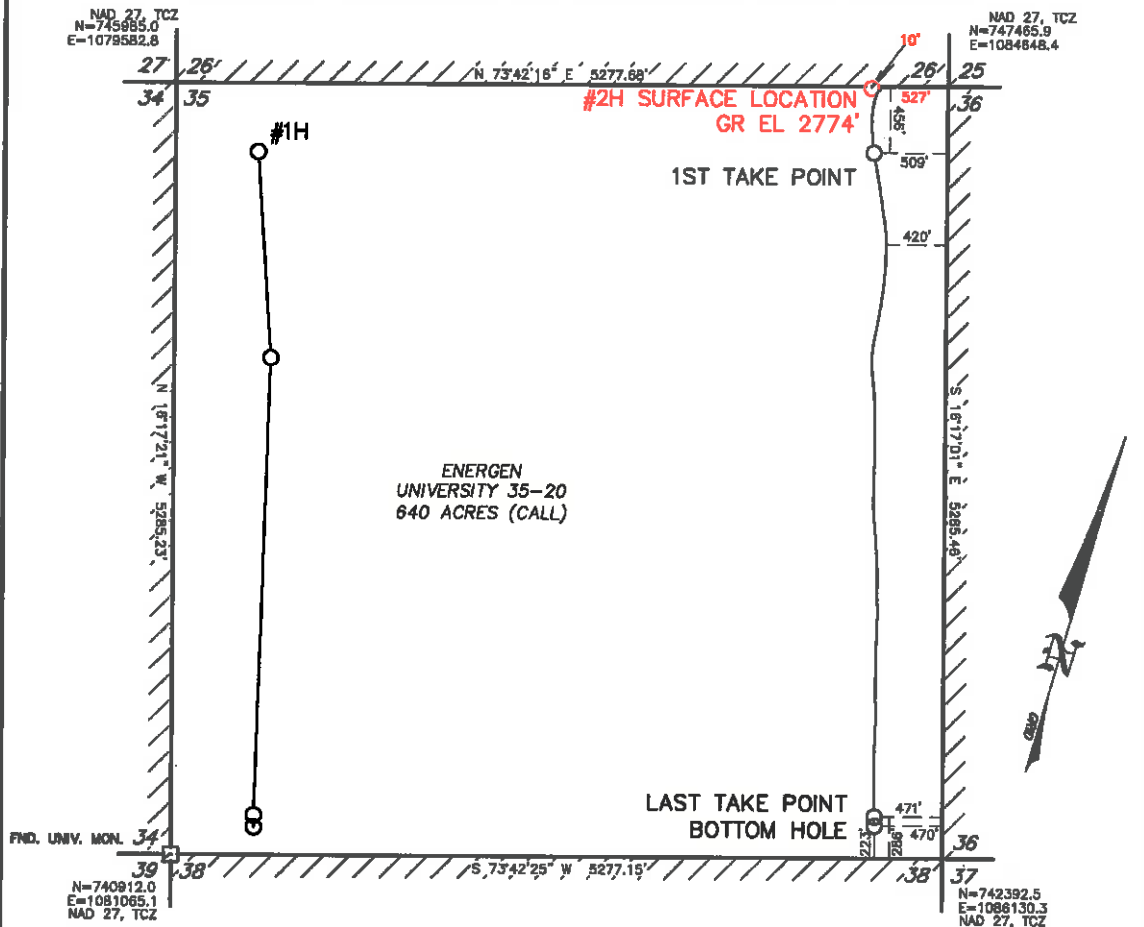
Printed Name

A handwritten date in blue ink, appearing to read "9/29/14", written over a horizontal line.

Date

A-U30

SECTION 35, BLOCK 20, UNIVERSITY LAND SURVEY



NAD 83, TEXAS CENTRAL ZONE		NAD 27, TEXAS CENTRAL ZONE	
S/L: N=10589884.7', E=1380810.3'	LAT=31.8882309 N, LONG=103.2784912 W	S/L: N=747308.4', E=1084145.4'	LAT=31.6881011 N, LONG=103.2780438 W
1ST/P: N=10589481.8', E=1380752.9'	LAT=31.8870790 N, LONG=103.2778965 W	1ST/P: N=746885.6', E=1084288.1'	LAT=31.6869494 N, LONG=103.2775494 W
L/P: N=10585111.3', E=1382063.3'	LAT=31.6752190 N, LONG=103.2734159 W	L/P: N=742535.1', E=1085598.4'	LAT=31.6750889 N, LONG=103.2729888 W
B/H: N=10585051.0', E=1382081.8'	LAT=31.6750546 N, LONG=103.2733513 W	B/H: N=742474.8', E=1085816.9'	LAT=31.6749246 N, LONG=103.2729042 W

APPROXIMATELY 14.4 MILES NW OF PYOTE, TEXAS

NOTES:

- COORDINATES AND BEARINGS ARE BASED ON A LAMBERT CONICAL PROJECTION OF THE STATE PLANE COORDINATE SYSTEM NAD 83, CORRS 98, TEXAS CENTRAL ZONE WITH A CONVERGENCE ANGLE OF -1.52624877 AND A DISTANCE ARE OF GRID VALUE WITH A CENTRAL, COMBINED SCALE FACTOR OF 0.99982524. THE POSITRAVAL TOLERANCE OF THIS SURVEY EXCEEDS THE REQUIREMENTS FOR A RURAL SURVEY.
- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND REVIEW OF THE ABSTRACT OF TITLE. THERE MAY BE EASEMENTS AND/OR COVENANTS AFFECTING THIS PROPERTY NOT SHOWN HEREON. LOCATION OF IMPROVEMENTS AND/OR EASEMENTS WERE BEYOND COMMISSIONED SCOPE OF THIS PROJECT AND HAVE BEEN SPECIFICALLY OMITTED. VESTING DOCUMENTS NOT FURNISHED FOR THIS SURVEY.
- SEE DOCUMENTS AND ELECTRONIC DATA FILED IN THE OFFICE OF WPG INC FOR COMPLETE RECONSTRUCTION OF THESE SECTIONS OR BLOCKS.
- DOWNHOLE INFORMATION PROVIDED BY ENERGEN PERSONNEL.
- SURFACE LOCATION IN THE AS-DRILLED POSITION.
- THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM ACTUAL FIELD NOTES OF ON-THE-GROUND SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR THE PRIVATE USE OF THE PARTY NAMED IN THE "REFERENCE PORTION" OF THE TITLE BLOCK AND DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE "PROFESSIONAL LAND SURVEYING PRACTICES ACT."

W.D. Watson, Jr. TEXAS R.P.L.S. No. 1989
FILE: 7: WINKLER\BLOCK 20.dwg

3/11/15
DATE



- ☼ GAS WELL
- ▲ WATER INJECTION WELL
- OIL WELL
- LOCATED WELL
- DRY HOLE
- WATER WELL
- SHUT IN WELL

1000 0 1000 2000 FEET

Watson
Professional
Group Inc



P.O. DRAWER 1188
MIDLAND, TEXAS 79702
(432) 520-9200
FAX (432) 520-9222
wdwatson@wpg-us.com

AS-DRILLED PLAT
ENERGEN RESOURCES CORPORATION
UNIVERSITY 35-20 #2H

SURFACE LOCATION: 10' FNNL & 827' FNNL
1ST TAKE POINT: 486' FNNL & 508' FNNL
LAST TAKE POINT: 286' FNNL & 471' FNNL
BOTTOM HOLE: 223' FNNL & 470' FNNL

SECTION 35, BLOCK 20, UNIVERSITY LAND SURVEY, WINKLER COUNTY, TEXAS

DATE: MARCH 10, 2015

DATE SURVEYED: 8/1/14

JOB NO.: 14-1248-00, FIELD BOOK 763/07

DRAFT NGH REV. 0

Tracking No.: 135130

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: ENERGEN RESOURCES CORPORATION	District No. 08	Completion Date: 12/13/2014
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 792629	
Lease Name UNIVERSITY 35-20	Lease/ID No. 46430	Well No. 2H
County WINKLER	API No. 42- 495-33601	

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). _____

Delia Skinner

Signature

ENERGEN RESOURCES CORPORATION

Name (print)

Manager PROD REG ADMIN.

Title

(432) 684-3692

Phone

05/26/2015

Date

-FOR RAILROAD COMMISSION USE ONLY-

Confidential

Schlumberger

Company: Energen Resources Corporation

Well: University 35-20 #2H

Field: Phantom (Wolfcamp)

County: Winkler State: Texas

County: Winkler Field: Phantom (Wolfcamp) Location: 10' FNWL & 527' FNEL Well: University 35-20 #2H Company: Energen Resources Corporation	Triple Combo Log			
	Platform Express			
	Resistivity			
	Location: 10' FNWL & 527' FNEL 14.4 miles Section: 35 Block: 20 Abstract: U30 UL Survey		Elev.: K.B. 2802.00 ft G.L. 2774.00 ft D.F. 2801.00 ft	
	Permanent Datum: Ground Level Log Measured From: Kelly Bushing Drilling Measured From: Kelly Bushing		Elev.: 2774.00 f 28.00 ft above Perm.Datum	
API Serial No. 42-495-33601		Section: 35	Block: 20	Abstract: U30
Logging Date		15-Nov-2014		
Run Number		1A		
Depth Driller		11800.00 ft		
Schlumberger Depth		11454.00 ft		
Bottom Log Interval		11454.00 ft		
Top Log Interval		4959.00 ft		
Casing Driller Size @ Depth		9.625 in @ 4960.00 ft		
Casing Schlumberger		4960 ft		
Bit Size		8.75 in		
Type Fluid In Hole		Salt Brine		
MUD	Density	Viscosity	9.6 lbm/gal	29 s
	Fluid Loss	PH	8.4 cm3	9.5
	Source of Sample			
RM @ Meas Temp		0.05 ohm.m @ 72 degF		
RMF @ Meas Temp		0.05 ohm.m @ 72 degF		
RMC @ Meas Temp				
Source RMF		RMC		
RM @ BHT		RMF @ BHT	0.02 @ 152	0.02 @ 152
Max Recorded Temperatures		152 degF		
Circulation Stopped Time		15-Nov-2014 01:00:00		
Logger on Bottom Time		15-Nov-2014 15:35:29		
Jnit Number		Location:	2224	Midland
Recorded By		AJ Massis & Danielle Krebs		
Witnessed By		Jonathan Pershouse		

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

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.: 135130

1. Field name exactly as shown on proration schedule PHANTOM (WOLFCAMP)		2. Lease name as shown on proration schedule UNIVERSITY 35-20					
3. Current operator name exactly as shown on P-5 Organization Report ENERGEN RESOURCES CORPORATION		4. Operator P-5 no. 252002	5. Oil Lse/Gas ID no 46430	6. County WINKLER	7. RRC district 08		
8. Operator address including city, state, and zip code 3510 N A ST BLDGS A AND B MIDLAND, TX 79705		9. Well no(s) (see instruction E) 2H					
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 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"/> other well (specify) _____ <input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)		10. Classification <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other (see instruction A)		11. Effective Date 12/13/2014			
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	REGENCY FIELD SERVICES LLC(698769)			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	
PLAINS MARKETING, L.P.(667883)						100.0	
RRC USE ONLY: Reviewer's initials: <u>RRC Staff</u> Approval date: <u>07/15/2015</u>							
15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. 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 _____ Name (print) _____ Title _____				Signature <input type="checkbox"/> Authorized Employee of previous operator <input type="checkbox"/> Authorized agent of previous operator (see instruction G) _____ Date _____ Phone with area code _____			
16. CURRENT OPERATOR CERTIFICATION. 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.							
ENERGEN RESOURCES CORPORATION Name (print) <u>Manager PROD REG ADMIN.</u> Title <u>midlandrrc@energen.com</u> E-mail Address (optional)				Delia Skinner Signature <input checked="" type="checkbox"/> Authorized Employee of current operator <input type="checkbox"/> Authorized agent of current operator (see instruction G) <u>05/26/2015</u> Date _____ Phone with area code <u>(432) 684-3692</u>			

STATEMENT OF PRODUCTIVITY OF ACREAGE
ASSIGNED TO PRORATION UNITS

Form P-15

Tracking No.: 135130

This facsimile P-15 was generated electronically
from data submitted to the RRC.

The undersigned states that he is authorized to make this statement; that he has knowledge of the facts concerning the ENERGEN RESOURCES CORPORATION ,

OPERATOR

UNIVERSITY 35-20

LEASE

No. 2H

WELL

; that such well is

completed in the PHANTOM (WOLFCAMP) Field, WINKLER County,

Texas and that the acreage claimed, and assigned to such well for proration purposes as

authorized by special rule and as shown on the attached certified plat embraces _____

640.0 acres which can reasonably be considered to be productive of hydrocarbons.

- CERTIFICATE -

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge,

Date 05/26/2015 Signature Delia Skinner

Telephone (432) 684-3692 Title Manager PROD REG ADMIN.
AREA CODE

Groundwater
Advisory Unit

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Date **September 16, 2014**

GAU File No.: **6256**

***** EXPEDITED APPLICATION *****

API Number **49533601**

Attention: **DELIA SKINNER**

RRC Lease No. **000000**

SC_252002_49533601_000000_6256.pdf

**ENERGEN RESOURCES CORP
3300 N A ST
BLDG 4 STE 100
MIDLAND TX 79705-5431**

--Measured--

10 ft FNWL

527 ft FNEL

MRL: SECTION

P-5# 252002

Digital Map Location:

X-coord/Long **103.27804**

Y-coord/Lat **31.68810**

Datum **27** Zone

County **WINKLER**

Lease & Well No. **UNIVERSITY 35-20 #2H&ALL**

Purpose **ND**

Location **SUR-UL, BLK-20, SEC-35, -- [TD=12000], [RRC 8],**

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

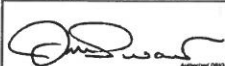
The interval from the land surface to a depth of 250 feet must be protected.

This recommendation is applicable to all wells drilled in this section 35.

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

If you have any questions, please contact us at 512-463-2741, gau@rrc.state.tx.us, or by mail.

Sincerely,



Digitally signed by Jack Oswalt
DN: c=US, st=TEXAS, l=Austin, o=Railroad
Commission of Texas, cn=Jack Oswalt,
email=jack.oswalt@rrc.state.tx.us
Date: 2014.09.16 13:43:05 -05'00'

Jack M. Oswalt, P.G.

GEOLOGIST SEAL

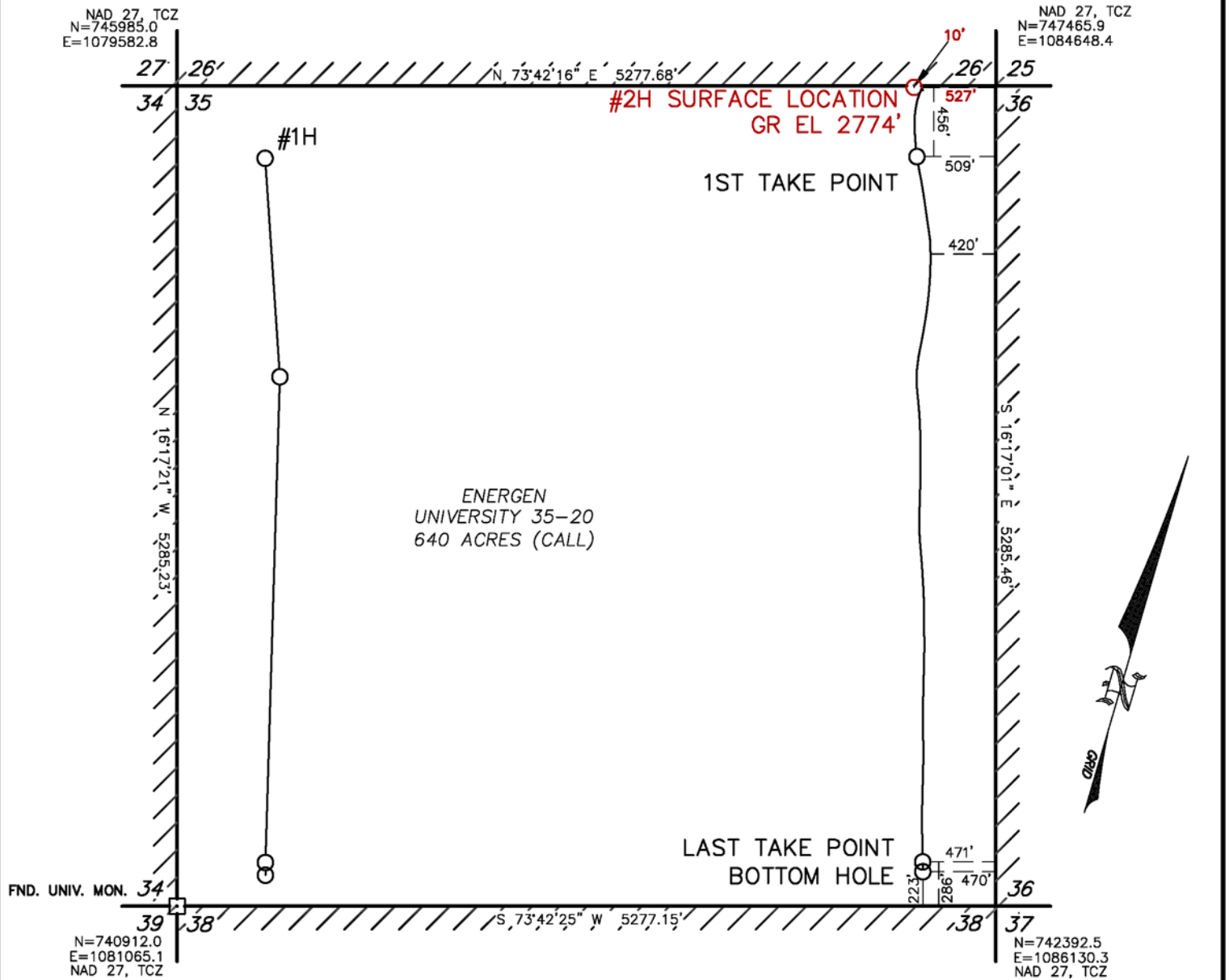


Geologist, Groundwater Advisory Unit
Oil & Gas Division

The seal appearing on this document was authorized by Jack M. Oswalt on 9/16/2014
Note: Alteration of this electronic document will invalidate the digital signature.

A-U30

SECTION 35, BLOCK 20, UNIVERSITY LAND SURVEY



NAD 83, TEXAS CENTRAL ZONE

S/L: N=10589884.7', E=1380610.3' LAT=31.6882309 N, LONG=103.2784912 W
1ST/P: N=10589461.8', E=1380752.9' LAT=31.6870790 N, LONG=103.2779966 W
L/P: N=10585111.3', E=1382063.3' LAT=31.6752190 N, LONG=103.2734159 W
B/H: N=10585051.0', E=1382081.8' LAT=31.6750546 N, LONG=103.2733513 W

NAD 27, TEXAS CENTRAL ZONE

S/L: N=747308.4', E=1084145.4' LAT=31.6881011 N, LONG=103.2780438 W
1ST/P: N=746885.6', E=1084288.1' LAT=31.6869494 N, LONG=103.2775494 W
L/P: N=742535.1', E=1085598.4' LAT=31.6750889 N, LONG=103.2729688 W
B/H: N=742474.8', E=1085616.9' LAT=31.6749246 N, LONG=103.2729042 W

APPROXIMATELY 14.4 MILES NW OF PYOTE, TEXAS

NOTES:

- COORDINATES AND BEARINGS ARE BASED ON A LAMBERT CONICAL PROJECTION OF THE STATE PLANE COORDINATE SYSTEM NAD 83, CORRS 96, TEXAS CENTRAL ZONE WITH A CONVERGENCE ANGLE OF -1.52624877 AND A DISTANCES ARE OF GRID VALUE WITH A CENTRAL COMBINED SCALE FACTOR OF 0.99982524. THE POSITIONAL TOLERANCE OF THIS SURVEY EXCEEDS THE REQUIREMENTS FOR A RURAL SURVEY.
- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND REVIEW OF THE ABSTRACT OF TITLE. THERE MAY BE EASEMENTS AND/OR COVENANTS AFFECTING THIS PROPERTY NOT SHOWN HEREON. LOCATION OF IMPROVEMENTS AND/OR EASEMENTS WERE BEYOND COMMISSIONED SCOPE OF THIS PROJECT AND HAVE BEEN SPECIFICALLY OMITTED. VESTING DOCUMENTS NOT FURNISHED FOR THIS SURVEY.
- SEE DOCUMENTS AND ELECTRONIC DATA FILED IN THE OFFICE OF WPG INC FOR COMPLETE RECONSTRUCTION OF THESE SECTIONS OR BLOCKS.
- DOWNHOLE INFORMATION PROVIDED BY ENERGEN PERSONNEL.
- SURFACE LOCATION IN THE AS-STAKED POSITION.

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM ACTUAL FIELD NOTES OF ON-THE-GROUND SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR THE PRIVATE USE OF THE PARTY NAMED IN THE "REFERENCE PORTION" OF THE TITLE BLOCK AND DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE "PROFESSIONAL LAND SURVEYING PRACTICES ACT."

3/11/15

W.D. Watson, Jr. TEXAS R.P.L.S. No. 1989
FILE: T:WINKLER\BLOCK 20.dwg



- GAS WELL
- WATER INJECTION WELL
- OIL WELL
- LOCATED WELL
- DRY HOLE
- WATER WELL
- SHUT IN WELL

1000 0 1000 2000 FEET

**Watson
Professional
Group Inc**



P.O. DRAWER 11186
MIDLAND, TEXAS 79702
(432) 520-9200
FAX (432) 520-9212
wdwatson@wpg-us.com

CONSULTING ENGINEERS, LAND SURVEYORS & PLANNERS

AS-DRILLED PLAT

ENERGEN RESOURCES CORPORATION
UNIVERSITY 35-20 #2H

SURFACE LOCATION: 10' FNL & 527' FNL

1ST TAKE POINT: 456' FNL & 509' FNL

LAST TAKE POINT: 286' FSEL & 471' FNL

BOTTOM HOLE: 223' FSEL & 470' FNL

SECTION 35, BLOCK 20, UNIVERSITY LAND SURVEY, WINKLER COUNTY, TEXAS

DATE: MARCH 10, 2015

DATE SURVEYED: 8/1/14

JOB NO.: 14-1246-00 FIELD BOOK 763/07

DRAFT NGH REV. 0