RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 01/30/2018
Tracking No.: 185176

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

OPERATOR INFORMATION

Operator Name: HUNT OIL COMPANY **Operator No.:** 416330
Operator Address: 1900 NORTH AKARD STREET DALLAS, TX 75201-2300

WELL INFORMATION

API No.: 42-461-40592 **County:** UPTON
Well No.: 102HB **RRC District No.:** 7C
Lease Name: UNIVERSITY 3-35 **Field Name:** SPRABERRY (TREND AREA)
RRC Lease No.: 19064 **Field No.:** 85279200
Location: Section: 11, Block: 4, Survey: UL, Abstract: U47

Latitude: **Longitude:**
This well is located 5.72 **miles in a** E **direction from** RANKIN, **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:** 11/14/2017

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	05/15/2017	826301
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 06/03/2017 **Date of first production after rig released:** 11/14/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 06/03/2017 **Date plug back, deepening, recompletion, or drilling operation ended:** 06/28/2017
Number of producing wells on this lease in this field (reservoir) including this well: 3 **Distance to nearest well in lease & reservoir (ft.):** 676.0
Total number of acres in lease: 1315.21 **Elevation (ft.):** 2706 GR
Total depth TVD (ft.): 8458 **Total depth MD (ft.):** 19215
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):** 63.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No **Multiple completion?** No
Type(s) of electric or other log(s) run: Neutron/Density logs (combo of tools)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 1164.0 **Feet from the** West **Line and** 432.0 **Feet from the** North **Line of the** UNIVERSITY 3-35 **Lease.** **Off Lease :** No

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.):** 570.0 **Date:** 05/04/2017

SWR 13 Exception **Depth (ft.):** 1500.0

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: 12/24/2017 **Production method:** Pumping

Number of hours tested: 24 **Choke size:** 40

Was swab used during this test? No **Oil produced prior to test:** 6288.00

PRODUCTION DURING TEST PERIOD:

Oil (BBLS): 981.00 **Gas (MCF):** 682

Gas - Oil Ratio: 695 **Flowing Tubing Pressure:** 450.00

Water (BBLS): 2216

CALCULATED 24-HOUR RATE

Oil (BBLS): 981.0 **Gas (MCF):** 682

Oil Gravity - API - 60.: 42.0 **Casing Pressure:** 320.00

Water (BBLS): 2216

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool 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	684			D903	3097	4514.0	0	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	7699	5029		50:50 POZ:C;H	781	2241.0	100	Calculation
3	Intermediate	9 5/8	12 1/4	7699			50:50 POZ:C;H	820	1758.0	5029	Calculation
4	Conventional Production	5 1/2	8 1/2	19215			D049; 50/50 POZ/H	2481	4141.2	4000	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

N/A

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	8005	/

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 8979	19011.0

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): 8900.0

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 9500

Actual maximum pressure (PSIG) during hydraulic fracturing: 8722

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	STIMULATED USING 5,095 GAL OF 15% HCL ACID, 15,429,273 LBS OF TOTAL PROPPANT IN 406,090 BBLS OF TOTAL FLUID.	8979	19011

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
SANTA ROSA	Yes	685.0	685.0	Yes	
RUSTLER	Yes	1339.0	1339.0	Yes	
YATES	Yes	2164.0	2164.0	Yes	
QUEEN	Yes	2802.0	2805.0	Yes	
GRAYBURG	Yes	3673.0	3677.0	Yes	
SAN ANDRES - SALTWATER FLOW	Yes	4099.0	4103.0	Yes	
CLEARFORK	Yes	5765.0	5770.0	Yes	
SPRABERRY	Yes	6538.0	6543.0	Yes	
DEAN	Yes	7792.0	7797.0	Yes	
WOLFCAMP	Yes	7926.0	7931.0	Yes	
STRAWN	No			No	NOT PENETRATED
DEVONIAN	No			No	NOT PENETRATED
FUSSELMAN	No			No	NOT PENETRATED
ELLENBURGER	No			No	NOT PENETRATED

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

KOP 7,913'. WELL IS APART OF A POOLED LEASE. LEASE #19064.

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2018-01-10 16:25:11.327] EDL=10082 feet, max acres=680, SPRABERRY (TREND AREA) oil well

CASING RECORD :

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

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

TWO FRAC SLEEVES (1) 19,071'-19,075' (2) 19,085'-19,089'.

POTENTIAL TEST DATA:

OPERATOR'S CERTIFICATION

Printed Name: Kayla Butler **Title:** Production Tech

Telephone No.: (432) 684-0601 **Date Certified:** 01/18/2018

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Rev. 08/2014

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

OPERATOR INFORMATION

Operator Name:	Hunt Oil	Operator P-5 No.:	416330
Cementer Name:	Schlumberger	Cementer P-5 No.:	754900

WELL INFORMATION

District No.	7C	County:	Upton		
Well No.	102HB	API No.:	42-461-40592	Drilling Permit No.:	826301
Lease Name	University 3-35	Lease No.			
Field Name:	Spraberry (TREND AREA)	Field No.:			

I CASING CEMENTING DATA

Type of casing: [ ] Conductor [X] Surface [ ] Intermediate [ ] Liner [ ] Production

Drilled hole size (in.):	17 1/2"	Depth of drilled hole (ft.):	720'	Est. % wash-out or hole enlargement:	100
Size of casing in O.D. (in.):	13 3/8"	Casing weight (lbs/ft) and grade:	48# J-55	No. of centralizers used:	6

Was cement circulated to ground surface (or bottom of cellar) outside casing? [X] Yes [ ] No If no for surface casing, explain in Remarks.

Setting depth shoe (ft.): 684'
Top of liner (ft.):
Setting depth liner (ft.):

Hrs. waiting on cement before drill-out: 24
Calculated top of cement (ft.): Surface
Cementing date: 7-Jun-17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	943	D903	Remarks	1631.4	1200
2	367	D903	Remarks	488.1	300
3					
Total	1310			2119.5	1500

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 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					

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

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							
	TOPOUT	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date	7-Jun-17						
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	1787						
Slurry volume pumped (cu. ft.)	2294.58						
Calculated top of plug (ft.)	SURFACE						
Measured top of plug, if tagged (ft.)	SURFACE						
Slurry weight (lbs/gal)	16.8						
Class/type of cement	CLASS C						
Perforate and squeeze (YES/NO)							

REMARKS

#1: 1%s001+.5%d079+.13lb/skd130+.02gpsd047+61lb/skd903+26lb/skd035

#2: .13lb/skd130+94lb/skd903

#3:

#4: 75 BBLS TO SURFACE AFTER TOPOUT

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.

STEPHEN LANCASTER, FIELD SPECIALISTS 3	Schlumberger	Stephen Lancaster
Name and title of cementer's representative	Cementing Company	Signature

7104 W County Rd 116	Midland	TX	79706	(432) 681-1100	June 7, 2017
Addreess	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.

Chris Abshire	HOC Company Man	Chris Abshire
Typed or printed name of operator's representative	Title	Signature

1900 N. Akard St.	Dallas	Tx	75201	214-978-2300	6-7-2017
Addreess	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). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

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

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

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

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

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Rev. 08/2014

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

OPERATOR INFORMATION

Operator Name:	Hunt Oil	Operator P-5 No.:	416330
Cementer Name:	Schlumberger	Cementer P-5 No.	754900

WELL INFORMATION

District No.:	7C	County:	Upton		
Well No.:	102HB	API No.:	42-461-40592	Drilling Permit No.:	826301
Lease Name:	University 3-35	Lease No.:			
Field Name:	Spraberry (TREND AREA)	Field No.			

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 for surface casing, explain in Remarks	Setting depth shoe (ft.):	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

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

II. CASING CEMENTING DATA

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

Drilled hole size (in.):	12 1/4"	Depth of drilled hole (ft.):	7793'	Est. % wash-out or hole enlargement:	100%
Size of casing in O.D. (in.):	9 5/8"	Casing weight (lbs/ft) and grade:	40	No. of centralizers used:	18
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.):	7699'
Hrs. waiting on cement before drill-out:	18	Calculated top of cement (ft.):	5,029	Cementing date:	13-Jun-17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	612	50:50 Poz: C	REMARKS	1536.1	2453
2	208	H	REMARKS	222.6	300
3					
Total	820			1758.7	2753

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.):	7792'	Est. % wash-out or hole enlargement:	150
Size of casing in O.D. (in.):	9 5/8"	Casing weight (lbs/ft) and grade:	40	No. of centralizers used:	14
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.):	5029.4'
Hrs. waiting on cement before drill-out:	10	Calculated top of cement (ft.):	100'	Cementing date:	13-Jun-17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	700	50:50 Poz: C	REMARKS	2114.0	2700
2	81	C	REMARKS	127.2	300
3					
Total	781			2241.2	3000

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

Stage 1 Lead Additives: 47 PPS D903 + 37 PPS D035 + 0.4% D238 + 10% D020 + 0.1% D208 + 0.5% D013

Stage 1 Tail Additives: 94 PPS + 0.15% D800 + 0.2% D255 + 0.1% D065

Stage 2 Lead Additives: 47 PPS D903 + 38 PPS D049 + 0.2% D238 + 5% D154 + 2% D179 + 1% S001

Stage 2 Tail Additives: 94 PPS D903 + 5% D044 + 0.2% D065 + 0.3% D238 + 0.3 % D800

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Dave Darring, FS	Schlumberger	
Name and title of cementer's representative	Cementing Company	Signature

7104 W County Rd 116	Midland	TX	79706	(432) 681-1100		June 13, 2017
Address	City,	State,	Zip Code	Tel: Area Code	Number	Date: mo. day yr.

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Chris Ashire	HOC Company Man	
Typed or printed name of operator's representative	Title	Signature

1900 N. Akard St.,	Dallas	Tx	75201-2300	214-978-8000		4-13-2017
Address	City,	State,	Zip Code	Tel: Area Code	Number	Date: mo. day yr.

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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). 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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1701 N. Congress
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CEMENTING REPORT

Form W-15
Rev 08/2014

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

OPERATOR INFORMATION			
Operator Name:	HUNT	Operator P-5 No.	416330
Cementer Name:	Schlumberger	Cementer P-5 No.:	754900

WELL INFORMATION					
District No.:	7C	County:	UPTON		
Well No.:	102HB	API No.:	42-461-40592	Drilling Permit No.:	826301
Lease Name:	UNIVERSITY 3 35	Lease No.:			
Field Name:	SPRABERRY	Field No.:			

I. CASING CEMENTING DATA

Type of casing: [ ] Conductor [ ] Surface [ ] Intermediate [ ] Liner [X] Production

Drilled hole size (in.):	8 1/2	Depth of drilled hole (ft.):	19215	Est. % wash-out or hole enlargement:	20% Remarks
Size of casing in O.D. (in.)	5 1/2	Casing weight (lbs/ft) and grade:	20 / P110	No. of centralizers used:	300

Was cement circulated to ground surface (or bottom of cellar) outside casing? [ ] Yes [X] No If no for surface casing, explain in Remarks.

Setting depth shoe (ft.): 19215
Top of liner (ft.):
Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: N/A
Calculated top of cement (ft.): 4000
Cementing date: 28-Jun-17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	371	D048	Remarks	849.89	3253
2	2110	50/50 POZ/H	Remarks	3291.60	11963
3					
Total	2481			4141.19	15216

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 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					

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

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

#1: D154 10% + D208 .05% + D013 .65% + D042 3 LBS/SK + D130 .13 LBS/SK + D238 .45% + D047 .02 GAL/SK + D174 2%

#2: D020 3% + D065 .1% + D238 .3% + D208 .1% + D079 .25% + D013 .25% + D047 .02 GAL/SK + D042 3 LBS/SK + D130 .13 LBS/SK + D177 .02 GAL/SK

#3:

#4:

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 COLON, FS	Schlumberger	
Name and title of cementer's representative	Cementing Company	Signature

7104 W County Rd 116	Midland	TX	79706	(432) 681-1100		June 28, 2017
Addreess	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.

DAVID LANKFORD	Drilling Foreman	
Typed or printed name of operator's representative	Title	Signature

1900 N. AKARD ST. DALLAS, TX 75201				214-978-8000		06-27-17
Addreess	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). 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 II. 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.

CHRISTI CRADDICK, CHAIRMAN
RYAN SITTON, COMMISSIONER
WAYNE CHRISTIAN, COMMISSIONER

LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
BRIAN T. FLOYD
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

OPERATOR Name: HUNT OIL COMPANY
Address1: 1900 NORTH AKARD STREET
Address2:
City: DALLAS
State: TX

RE: Lease: UNIVERSITY 3-35
Well No: 102HB
Sec: 11 **Block:** 4
County: UPTON
Survey Name: CCSD&RGNG RR CO

SWR13EX Application Number: 15207
Drilling Permit No: 826301

SWR 13 CASING EXCEPTION APPLICATION/ALTERNATIVE REQUEST APPROVED

The Proposed Casing and Cementing Program submitted for the **LEASE NAME:** UNIVERSITY 3-35 ;
WELL NUMBER: 102HB has been approved by the Railroad Commission of Texas District Office.

a. A copy of this approved letter must be kept on location during all phases of drilling and/or plugging operations. Once approved, changes CANNOT be made to the Proposed Casing Program on the original application without additional approval from the Railroad Commission of Texas District Office.

b. Any substantive modifications to the cement program require prior approval from the Railroad Commission of Texas District Office, and may require re-submission of the SWR 13 (Statewide Rule 13) Alternate Surface Casing Application. Contact the Railroad Commission of Texas District Office for more information.

c. The tail slurry must be sufficient to fill the Zone of Critical Cement as described in Statewide Rule 13(b)(1)(H)(i). In addition, all cement slurries must be mixed on location as described in Application for Alternate Surface Casing Program.

d. The casing and cement program shall adhere to the following specifications:

Set 1500 feet of surface casing and circulate cement from the shoe to the ground surface.

IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST CONTACT THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE IMMEDIATELY AND FOLLOW THE PROCEDURES SET OUT IN RULE 13(b)(1)(H)(iii) OR AS REQUIRED BY THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE.

You must comply with all other provisions of SWR 13 (Statewide Rule 13) and a representative of the cementing company who performs the cementing job for the protection of usable quality water strata must sign the Form W-15 attesting to the information regarding cementing operations performed; including circulation of cement. (Note: If surface casing is set below the approved depth, this can result in denial of future Statewide Rule 13(b)(1)(H)(i) requests.) A condition of the approved drilling permit requires notification to the Railroad Commission of Texas District Office eight (8) hours prior to the time casing is to be set/cemented in the well. If your exception request was submitted after the subject well has been drilled and completed, the operator may be referred for enforcement action.

This authorization shall expire within five (5) years from the date the Groundwater Protection Determination was issued, or at the expiration of the drilling permit (if the well is not spudded prior to expiration) for the referenced well, whichever occurs first. Furthermore, this authorization supersedes any prior authorizations issued for the referenced well.

This exception is based on information provided when the application was submitted on 05/23/2017 .
If any information has changed, you must contact the appropriate Railroad Commission of Texas District Office, and submit a new application if applicable. If you have questions, please contact the appropriate Oil and Gas District office.

RRC APPROVAL BY: Bill Spraggins DATE: 05/23/2017

BRIAN T. FLOYD

DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

ELECTRIC LOG STATUS REPORT

FORM L-1

Tracking No.: 185176

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: HUNT OIL COMPANY	District No. 7C	Completion Date: 11/14/2017
Field Name SPRABERRY (TREND AREA)	Drilling Permit No. 826301	
Lease Name UNIVERSITY 3-35	Lease/ID No. 19064	Well No. 102HB
County UPTON	API No. **42-** 461-40592	

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). _____

Kayla Butler
Signature

Production Tech
Title

HUNT OIL COMPANY
Name (print)

(432) 684-0601
Phone

01/02/2018
Date

-FOR RAILROAD COMMISSION USE ONLY-

KLX Energy Services

Radial Cement Bond Variable Density Log W/ Gamma Ray/CCL

Company Hunt Oil & Gas
Well University 3-35 #102HB
Field Sprayberry (Trend Area)
County Upton State Texas

Company Hunt Oil & Gas
Well University 3-35 #102HB
Field Sprayberry (Trend Area)
County Upton
State Texas

Location: API # : 42-461-40592

A-U47, Sec. 11, Blk. 4
CCSD & RGNG RR CO
SEC TWP RGE

Other Services
JB/GR

Permanent Datum	Ground Level	Elevation	2706.6'
Log Measured From	Kelly Bushing 25' APD		
Drilling Measured From	Kelly Bushing		

Elevation
K.B. 2731.6'
D.F. 2730.6'
G.L. 2706.6'

Date	30 AUG 2017		
Run Number	One		
Depth Driller	-		
Depth Logger	8564'		
Bottom Logged Interval	8562'		
Top Log Interval	Surface		
Open Hole Size	-		
Type Fluid	-		
Density / Viscosity	-		
Max. Recorded Temp.	-		
Estimated Cement Top	320'		
Time Well Ready	ROA		
Time Logger on Bottom	1100		
Equipment Number	1004		
Location	Midland, TX		
Recorded By	L.Mata		
Witnessed By	Cody Mooney		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
One							
Two							

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	5 1/2"	20#	Surface	-

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin, Texas 78711-2967
www.rrc.texas.gov

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s)	2. Lease/ID Number *(if assigned)*	3. RRC District Number
Spraberry (Trend Area)	19064	7C
4. Operator Name	**5. Operator P-5 Number**	**6. Well Number**
Hunt Oil Company	416330	102HB
7. Pooled Unit Name	**8. API Number**	**9. Purpose of Filing**
University 3-35	461-40592	☐ Drilling Permit (W-1)
10. County	**11. Total acres in pooled unit**	☑ Completion Report
Upton	1315.2	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

Tract/Plat Identifier	Tract Name	Acres in Tract *(See inst. #7 below)*	Indicate Undivided Interests Unleased	Non-Pooled
1	UNIVERSITY LANDS	654.79	☐	☐
2	UNIVERSITY LANDS	660.42	☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

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	Print Name		
	Emily DiCarlo		
Title	**E-mail** *(if available)*	**Date**	**Phone**
Land & Regulatory Tech.	edicarlo@huntoil.com	11/15/2017	(214) 978-8197

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.

Clear Form

RAILROAD COMMISSION OF TEXAS

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

Form P-16
Page 1
Rev. 01/2016

Acreage Designation

SECTION I. OPERATOR INFORMATION

Operator Name: HUNT OIL COMPANY	**Operator P-5 No.:** 416330
Operator Address: 1900 N. AKARD ST. DALLAS, TX 75201	

SECTION II. WELL INFORMATION

District No.: 7C	**County:** UPTON	**Purpose of Filing:**
Well No.: 102HB	**API No.:** 42-461-40592	☐ Drilling Permit Application (Form W-1)
Total Lease Acres: 1315.21	**Drilling Permit No.:** 826301	■ Completion Report (Form G-1/W-2)
Lease Name: UNIVERSITY 3-35	**Lease No.:** 19064	
Field Name: SPRABERRY (TREND AREA)	**Field No.:** 85279200	

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

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

RRC ID No. or Lease No.	Well No.	H-Horizontal D-Directional V-Vertical	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
19064	1HB	H	UNIVERSITY 3-35	461-40088	160	N	
19064	104HB	H	UNIVERSITY 3-35	461-40581	160	N	
19064	103HB	H	UNIVERSITY 3-35	461-40582	160	N	
19064	102HB	H	UNIVERSITY 3-35	461-40592	160	N	
19064	101HB	H	UNIVERSITY 3-35	461-40609	160	N	

Total Well Count >	5	800	**< A. Total Assigned Horiz. Acreage**	800	**< C. Total Assigned Acreage**
		515.21	**< Total Remaining Horiz. Acreage**	515.21	**< Total Remaining Acreage**
		0	**< B. Total Assigned Vert./Dir. Acreage**		
		0	**< Total Remaining Vert./Dir. Acreage**		

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

Hunt Oil Company recently acquired an additional tract of land that has been added to this lease. The updated lease acreage is reflected on this form. Please note, the acreage allocated to #1HB has been decreased to 160. Well numbers for 461-40581 and 461-40582 will be updated to well #s #104HB (461-40581) AND #103HB (461-40582) upon W-2 completions filings that will be submitted concurrently with this subject well.

Attach Additional Pages As Needed. ■ **No additional pages** ☐ **Additional Pages:** ____ **(No. of additional pages)**

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

Signature	Name and title (type or print)	Email (include email address *only* if you affirmatively consent to its public release)
	Emily DiCarlo	Land & Regulatory Technician

Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. day yr.
1900 N. Akard St.	Dallas, TX 75201	214-978-8197	12/12/2017

RAILROAD COMMISSION OF TEXAS

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

Form P-16
Page 2
Rev. 01/2016

Acreage Designation

Filer is the owner or lessee of all or an undivided portion of the minerals under each tract listed below and has the legal right to drill on each tract traversed by the well that will have perforations or other take points open in the interval of the applied-for field(s). All tracts listed will actually be traversed by the wellbore or the filer has pooling authority or other contractual authority, such as a production sharing agreement, authorizing inclusion of the non-drillsite tract in the acreage assigned to the well.

SECTION V. LISTING OF ALL TRACTS CONTRIBUTING ACREAGE TO AN RRC DESIGNATED DRILLSITE DEVELOPMENTAL UNIT THAT IS NOT A SINGLE LEASE, POOLED UNIT, OR GROUP OF TRACTS UNITIZED BY CONTRACT FOR PURPOSES OF SECONDARY RECOVERY

RRC ID No. or Lease No.	Lease Name	Beginning Lease Acreage	Allocated Lease Acreage	Ending Lease Acreage	Operator Name and Operator No. (if different from filing operator)
		Total Allocated Acreage >			< Total Lease Acreage

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

SECTION VI. LISTING OF ALL WELLS IN THE APPLIED FOR FIELD ON THE SAME ACREAGE AS THE LEASE OR POOLED UNIT DESIGNATED FOR THE TRACTS LISTED IN SECTION V BY FILER

RRC ID No. or Lease No.	Well No.	Acres Assigned	SWR 38 Except. (Y/N)	H-Horizontal D-Directional V-Vertical	RRC ID No. or Lease No.	Well No.	Acres Assigned	SWR 38 Except. (Y/N)	H-Horizontal D-Directional V-Vertical
A. Total Wells & Acreage >					A. Total Wells & Acreage >				
B. Total Assigned Horiz. Acreage >					B. Total Assigned Horiz. Acreage >				
C. Total Assigned Vert./Dir. Acreage >					C. Total Assigned Vert./Dir. Acreage >				

SECTION VII. REMARKS

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	04 May 2017	**GAU Number:**	171437

Attention:	HUNT OIL COMPANY 1900 NORTH AKARD STREET DALLAS, TX 75201	**API Number:**	46140581
		County:	UPTON
		Lease Name:	UNIVERSITY 3-35
		Lease Number:	
Operator No.:	416330	**Well Number:**	4HB
		Total Vertical Depth:	8422
		Latitude:	31.200855
		Longitude:	-101.855609
		Datum:	NAD27

Purpose: New Drill

Location: Survey-UL; Block-4; Section-11

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

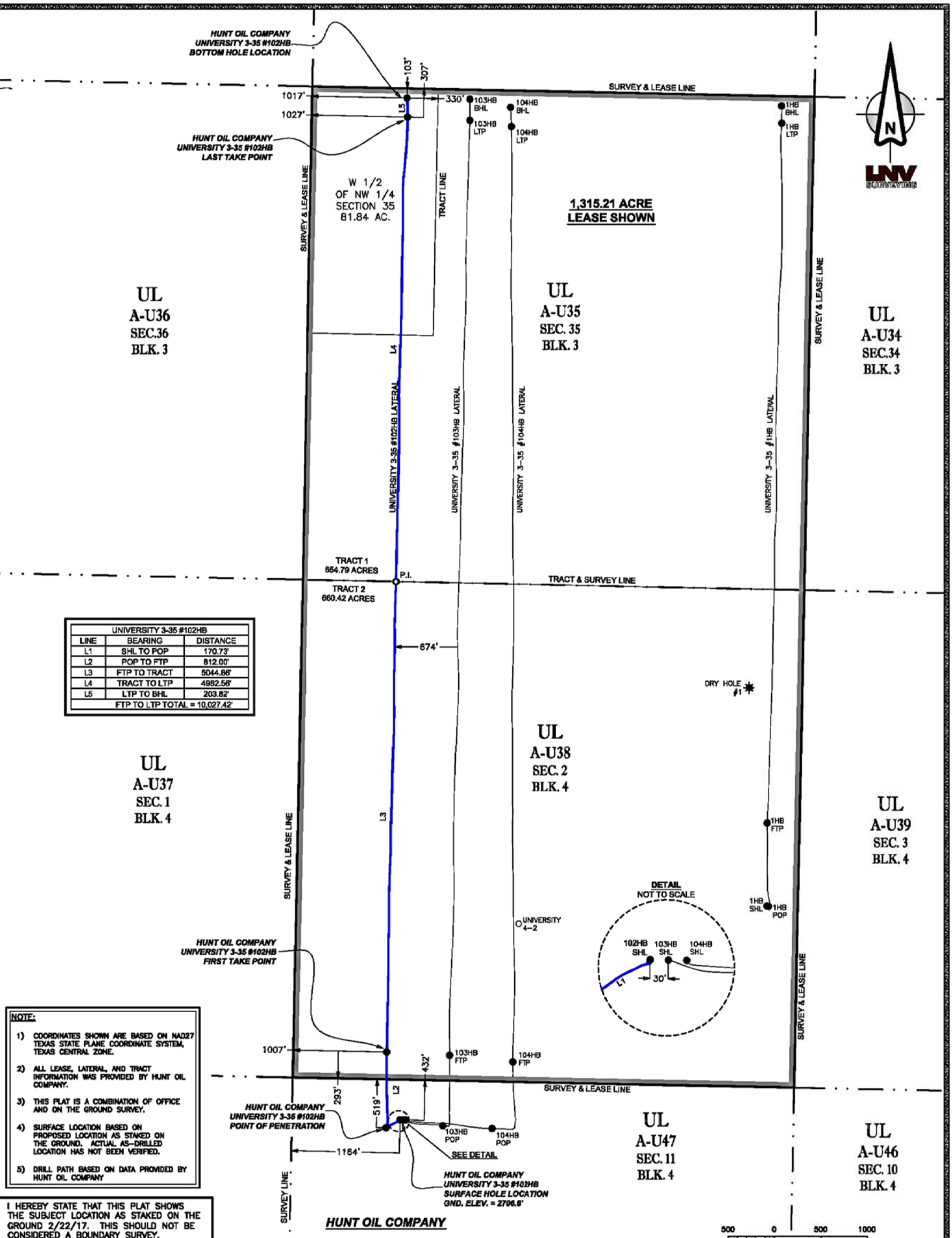
The interval from the land surface to 20 feet below the base of the Cretaceous-age beds must be protected. The base of the Cretaceous is estimated to occur at a depth of 550 feet.

This recommendation is applicable for all wells drilled in this N/2 of sec. 11.

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

This determination is based on information provided when the application was submitted on 05/04/2017. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division



UNIVERSITY 3-35 #102HB		
LINE	BEARING	DISTANCE
L1	SHL TO POP	170.73'
L2	POP TO FTP	812.00'
L3	FTP TO TRACT	5044.86'
L4	TRACT TO LTP	4982.56'
L5	LTP TO BHL	203.82'
FTP TO LTP TOTAL = 10,027.42'		

NOTE:

1) COORDINATES SHOWN ARE BASED ON NAD27 TEXAS STATE PLANE COORDINATE SYSTEM, TEXAS CENTRAL ZONE.
2) ALL LEASE, LATERAL, AND TRACT INFORMATION WAS PROVIDED BY HUNT OIL COMPANY.
3) THIS PLAT IS A COMBINATION OF OFFICE AND ON THE GROUND SURVEY.
4) SURFACE LOCATION BASED ON PROPOSED LOCATION AS STAKED ON THE GROUND. ACTUAL AS-DRILLED LOCATION HAS NOT BEEN VERIFIED.
5) DRILL PATH BASED ON DATA PROVIDED BY HUNT OIL COMPANY

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION AS STAKED ON THE GROUND 2/22/17. THIS SHOULD NOT BE CONSIDERED A BOUNDARY SURVEY.

STATE OF TEXAS
REGISTERED
SERGIO Z. CANALES
6040
PROFESSIONAL
LAND SURVEYOR

SERGIO Z. CANALES
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6040

	LEASE CALLS	SURVEY CALLS	MEASURED DEPTH	NAD27 TEXAS STATE PLANE COORDINATES	NAD27 GEOGRAPHIC COORDINATES(DMS)	NAD27 GEOGRAPHIC COORDINATES(DD)	NAD83 GEOGRAPHIC COORDINATES(DD)
102HB SHL	OFF LEASE 432' FNL	1,164' FWL 432' FNL	- - -	Y = 581,220 X = 1,524,021	LAT. = 31°12'03.08" N LONG. = 101°51'20.88" W	LAT. = 31.2008589° N LONG. = 101.8558008° W	LAT. = 31.2008589° N LONG. = 101.8558008° W
102HB POP	OFF LEASE 519' FNL	- - - - - -	5,770.0'	Y = 581,135 X = 1,523,873	LAT. = 31°12'02.23" N LONG. = 101°51'22.58" W	LAT. = 31.2006191° N LONG. = 101.8562716° W	- - - - - -
102HB FTP	1,007' FWL 293' FSL	- - - - - -	8,979.0'	Y = 581,947 X = 1,523,879	LAT. = 31°12'10.27" N LONG. = 101°51'22.64" W	LAT. = 31.2028516° N LONG. = 101.8562877° W	- - - - - -
102HB LTP	1,027' FWL 307' FNL	- - - - - -	19,011.0'	Y = 571,972 X = 1,524,102	LAT. = 31°13'49.51"N LONG. = 101°51'21.84" W	LAT. = 31.2304206° N LONG. = 101.8560121° W	- - - - - -
102HB BHL	1,017' FWL 103' FNL	1,017' FWL 103' FNL	19,215.0'	Y = 572,176 X = 1,524,097	LAT. = 31°13'51.53" N LONG. = 101°51'21.73" W	LAT. = 31.2309808°N LONG. = 101.8560373° W	- - - - - -

LNV
engineers | architects | surveyors
801 NAVIGATION, SUITE 300
CORPUS CHRISTI, TX 78408
TBPE FIRM NO. F-366
TBPLS FIRM NO. 10126600
PH. (361) 883-1984
FAX (361) 883-1986
WWW.LNVINC.COM

A POST AS-DRILLED LOCATION PLAT FOR:
HUNT OIL COMPANY

UNIVERSITY 3-35 #102HB

SITUATED IN THE UNIVERSITY LAND SURVEYS, A-U35, SECTION 35 BLOCK 3, A-U38, SECTION 2, BLOCK 4, AND A-U47, SECTION 11, BLOCK 4, APPROXIMATELY 5.72 MILES EAST OF RANKIN IN UPTON COUNTY, TEXAS.

Survey Date: 12/11/17
Surveyed By: RM/MG
Drawn by: MC
Checked by: HR/SS
Job #: 140241.153

PLOT DATE: 12-11-17 11:18 AM

U:\Hunt Oil\140241 MSA\153 University 2 35 20 102HB Upton County\Drawings\.153-University 3-35 102HB Post ASD.dwg