



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 10/26/2018
Tracking No.: 196809

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

OPERATOR INFORMATION

Operator Name: LIME ROCK RESOURCES IV-A, L.P. Operator No.: 500794
Operator Address: 1111 BAGBY STREET SUITE 4600 HOUSTON, TX 77002-0000

WELL INFORMATION

API No.: 42-003-47550 County: ANDREWS
Well No.: 3H RRC District No.: 08
Lease Name: UL 10 NELSON Field Name: FUHRMAN-MASCHO
RRC Lease No.: 47273 Field No.: 33176001
Location: Section: 21, Block: 10, Survey: UNIVERSITY LANDS, Abstract: U305

Latitude: 32.145914 Longitude: -102.691211
This well is located 14.6 miles in a SW
direction from ANDREWS,
which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Producing Completion or Recompletion Date: 05/29/2018

Type of Permit Date Permit No.
Permit to Drill, Plug Back, or Deepen 05/04/2017 826014
Rule 37 Exception
Fluid Injection Permit
O&G Waste Disposal Permit
Other:

COMPLETION INFORMATION

Spud date: 08/03/2017 Date of first production after rig released: 05/29/2018
Date plug back, deepening, recompletion, or drilling operation commenced: 08/03/2017 Date plug back, deepening, recompletion, or drilling operation ended: 08/12/2017
Number of producing wells on this lease in this field (reservoir) including this well: 2 Distance to nearest well in lease & reservoir (ft.): 935.0
Total number of acres in lease: 333.39 Elevation (ft.): 3213 GR
Total depth TVD (ft.): 4456 Total depth MD (ft.): 8903
Plug back depth TVD (ft.): Plug back depth MD (ft.):
Was directional survey made other than inclination (Form W-12)? No Rotation time within surface casing (hours): 3.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No Multiple completion? No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries Off Lease : No
of lease on which this well is located: 330.0 Feet from the South Line and
2200.0 Feet from the West Line of the
UL 10 NELSON Lease.

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

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

PACKET: N/A

W2:	N/A			
FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:				
GAU Groundwater Protection Determination		Depth (ft.):	1400.0	Date: 06/09/2017
SWR 13 Exception		Depth (ft.):		

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION		
Date of test: 05/31/2018		Production method: Pumping
Number of hours tested: 24		Choke size:
Was swab used during this test? No		Oil produced prior to test:
PRODUCTION DURING TEST PERIOD:		
Oil (BBLS): 705.00		Gas (MCF): 599
Gas - Oil Ratio: 849		Flowing Tubing Pressure: 200.00
Water (BBLS): 1777		
CALCULATED 24-HOUR RATE		
Oil (BBLS): 705.0		Gas (MCF): 599
Oil Gravity - API - 60.: 33.8		Casing Pressure: 21.00
Water (BBLS): 1777		

CASING RECORD											
Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	8 5/8	12 1/4	1580			C	780	1346.0	0	Circulated to Surface
2	Conventional Production	5 1/2	7 7/8	8903			C	1570	2622.0	0	Circulated to Surface

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

TUBING RECORD			
Row	Size (in.)	Depth (ft.)	Packer Depth (ft.)/Type
1	2 7/8	4465	/

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 5004	8769.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.			
Was hydraulic fracturing treatment performed? Yes			
Is well equipped with a downhole actuation sleeve? No			
If yes, actuation pressure (PSIG): 2202.0			
Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 800			
Actual maximum pressure (PSIG) during hydraulic fracturing: 8486			
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	Acid	60 BBLs 15% HCL	5004 8769

FORMATION RECORD					
Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
YATES	Yes	2945.0	2945.0	Yes	
SEVEN RIVERS	Yes	3212.0	3212.0	Yes	
QUEEN	Yes	3884.0	3884.0	Yes	
GRAYBURG	Yes	4215.0	4215.0	Yes	
SAN ANDRES - CO2 FLOOD, HIGH FLOWS, H2S, CORROSIVE	Yes	4456.0	4456.0	Yes	
HOLT	No			No	NOT ENCOUNTERED (BELOW TVD)
GLORIETA	No			No	NOT ENCOUNTERED (BELOW TVD)
TUBB	No			No	NOT ENCOUNTERED (BELOW TVD)
CLEARFORK	No			No	NOT ENCOUNTERED (BELOW TVD)
PERMIAN DETRITAL	No			No	NOT ENCOUNTERED (BELOW TVD)
LEON	No			No	NOT ENCOUNTERED (BELOW TVD)
WICHITA ALBANY	No			No	NOT ENCOUNTERED (BELOW TVD)
SPRABERRY	No			No	NOT ENCOUNTERED (BELOW TVD)
DEAN	No			No	NOT ENCOUNTERED (BELOW TVD)
WOLFCAMP	No			No	NOT ENCOUNTERED (BELOW TVD)
CANYON	No			No	NOT ENCOUNTERED (BELOW TVD)
PENNSYLVANIAN	No			No	NOT ENCOUNTERED (BELOW TVD)
MCKEE	No			No	NOT ENCOUNTERED (BELOW TVD)
STRAWN	No			No	NOT ENCOUNTERED (BELOW TVD)
FUSSELMAN	No			No	NOT ENCOUNTERED (BELOW TVD)
DEVONIAN	No			No	NOT ENCOUNTERED (BELOW TVD)
SILURIAN	No			No	NOT ENCOUNTERED (BELOW TVD)
ELLENBURGER	No			No	NOT ENCOUNTERED (BELOW TVD)
Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)?					Yes
Is the completion being downhole commingled (SWR 10)?					No
REMARKS					
KOP @ 3740'					

RRC REMARKS	
PUBLIC COMMENTS: [RRC Staff 2018-10-17 16:34:04.227] location of well is plotted to be OK with take points at 5004-8769 feet; and formation entries of YATES 2945.0 MD; SEVEN RIVERS 3212.0 MD; QUEEN 3884.0 MD; GRAYBURG 4215.0 MD; SAN ANDRES - CO2 FLOOD, HIGH FLOWS, H2S, CORROSIVE 4456.0 MD	
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: Carla Martin	Title:
Telephone No.: (713) 292-9510	Date Certified: 07/31/2018



RAILROAD COMMISSION OF TEXAS

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

Form W-15

Rev. 08/2014

CEMENTING REPORT

Cementer: Fill in shaded areas.

Operator: Fill in other items.

OPERATOR INFORMATION

Operator Name:	Lime Rock Resources IV-A, LP	Operator P-5 No.:	500794
Cementer Name:	Universal Pressure Pumping Inc.	Cementer P-5 No.:	878392

WELL INFORMATION

District No.:	08	County:	Andrews		
Well No.:	3H	API No.:	42-003-47550	Drilling Permit No.:	826014
Lease Name:	UL 10 Nelson	Lease No.:	47273		
Field Name:	Fuhrman-Mascho	Field No.:	33176 001		

I. CASING CEMENT DATA

Type of casing:	<input type="checkbox"/> Conductor	<input checked="" type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input type="checkbox"/> Production
Drilled hole size (in.):	12-1/4	Depth of drilled hole (ft.):	1580	Est. % wash-out or hole enlargement:	15
Size of casing in O.D. (in.):	8-5/8	Casing weight (lbs/ft) and grade:	36.0/J55	No. of centralizers used:	10
Was cement circulated to ground surface (or bottom of cellar) outside casing?			Setting depth shoe (ft.):	Top of liner (ft.):	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in remarks			1580	Setting depth liner (ft)	
Hrs. waiting on cement before drill-out:	18.5	Calculated top of cement (ft.):	0 (surface)	Cementing date:	August 6, 2017
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	570	C	See Remarks	1065	2582
2	210	C	2% CaCl2	281.4	680
3					
Total	780			1346.4	3262

II. CASING CEMENT DATA

Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Production	<input type="checkbox"/> Tapered production	<input type="checkbox"/> Multi-stage cement shoe	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:		
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:		
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade		Tapered string no. of centralizers used		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?				<input type="checkbox"/> Yes <input type="checkbox"/> No	Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:		
SLURRY						
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)	
1						
2						
3						
Total	0			0	0	

III. CASING CEMENT DATA

Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Production	<input type="checkbox"/> Tapered production	<input type="checkbox"/> Multi-stage cement/DV Tool	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:		
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:		
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade		Tapered string no. of centralizers used		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?				<input type="checkbox"/> Yes <input type="checkbox"/> No	Setting depth tool (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:		
SLURRY						
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)	
1						
2						
3						
Total	0			0	0	

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON

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

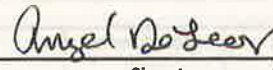
REMARKS

Premium Plus 65/35 Poz w/ 6% Gel 3% Salt, 2# Kolseal

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.

Angel De Leon, Service Supervisor

Universal Pressure Pumping



Name and title of cementer's representative

Cementing Company

Signature

4517 W. Industrial Ave.

Midland, Texas, 79703

(432) 699 3271

8/5/2017

Address

City, State, Zip Code

Tel: Area Code Number

Date: Month/Day/Year

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.

Carla Martin

Regulatory Tech



Typed or printed name of operator's representative

Title

Signature

1111 Bagby St., Ste. 4600

Houston, TX 77002

713/292-9510

7/30/18

Address

City, State, Zip Code

Tel: Area Code Number

Date: Month/Day/Year

Instructions for Form W-15, Cementing Report

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

- A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- B. **How to file:** An Oil and Gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission. To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). 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. 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 Cement Data box.



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Form W-15

Rev. 08/2014

CEMENTING REPORT

Cementor: Fill in shaded areas.

Operator: Fill in other items.

OPERATOR INFORMATION					
Operator Name: Lime Rock Resources IV-A, LP		Operator P-5 No.: 500794			
Cementor Name: Universal Pressure Pumping Inc.		Cementor P-5 No.: 878392			
WELL INFORMATION					
District No.: 08		County: Andrews			
Well No.: 3H		API No.: 42-003-47550		Drilling Permit No.: 826014	
Lease Name: UL 10 Nelson		Lease No.: 47273			
Field Name: Fuhrman-Mascho		Field No.: 33176-001			
I. CASING CEMENT DATA					
Type of casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input checked="" type="checkbox"/> Production					
Drilled hole size (in.): 7-7/8		Depth of drilled hole (ft.): 8903		Est. % wash-out or hole enlargement: 10	
Size of casing in O.D. (in.): 5-1/2		Casing weight (lbs/ft) and grade: 20.0/L80		No. of centralizers used: 132	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in remarks				Setting depth shoe (ft.): 8903	
				Top of liner (ft.):	
				Setting depth liner (ft)	
Hrs. waiting on cement before drill-out: 78.0		Calculated top of cement (ft.): 0 (surface)		Cementing date: August 12, 2017	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	520	C	*see remarks	1320	7605
2	1050	C	*see remarks	1302	7506
3					
Total	1570			2622	15111
II. CASING CEMENT DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)			
Upper: Lower:		Upper: Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade		Tapered string no. of centralizers used	
Upper: Lower:		Upper: Lower:		Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> Yes <input type="checkbox"/> No				Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total	0			0	0
III. CASING CEMENT DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV Tool <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)			
Upper: Lower:		Upper: Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade		Tapered string no. of centralizers used	
Upper: Lower:		Upper: Lower:		Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> Yes <input type="checkbox"/> No				Setting depth tool (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total	0			0	0

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON

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

REMARKS

slurry 1: Premium Plus 50/50 Poz w/ 10% Gel + 5% Salt + 3# Kolseal + 0.3% CAS-1 + 1/4# Celloflake + 0.6% CR-1 + 2# XPC-1

slurry 2: Premium Plus 50/50 Poz w/ 2% Gel + 3% Salt + 3# Kolseal + 0.3% CFL-3 + 0.1% CAS-1 + 0.2% CFL-19 + 0.4% CD-1 + 0.3% CR-1

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Jose A. Martinez Jr

Universal Pressure Pumping

Name and title of cementer's representative

Cementing Company

Signature

4517 W. Industrial Ave.

Midland, Texas, 79703

(432) 699 3271

8/12/2017

Address

City, State, Zip Code

Tel: Area Code Number

Date: Month/Day/Year

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Carla Martin

Regulatory Tech

Typed or printed name of operator's representative

Title

Signature

1111 Bagby St., Ste. 4600

Houston, TX 77002

713/292-9510

7/30/18

Address

City, State, Zip Code

Tel: Area Code Number

Date: Month/Day/Year

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.

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- B. **How to file:** An Oil and Gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission. To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). 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. 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 Cement Data box.

Tracking No.: 196809

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: LIME ROCK RESOURCES IV-A, L.P.	District No. 08	Completion Date: 05/29/2018
Field Name FUHRMAN-MASCHO	Drilling Permit No. 826014	
Lease Name UL 10 NELSON	Lease/ID No. 47273	Well No. 3H
County ANDREWS	API No. 42- 003-47550	

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). _____

Carla Martin

Signature

LIME ROCK RESOURCES IV-A, L.P.

Name (print)

Title

(713) 292-9510 EXT 5720

Phone

07/30/2018

Date

-FOR RAILROAD COMMISSION USE ONLY-



Terra Directional Services
Terra Directional Services LLC
3705 South County Rd. 1210
Midland, TX 79706

UL 10 Nelson #3H
Scale 5"=100' - MD
8/11/2017 12:59 AM

Oper. Company: Lime Rock Resources

Well: UL 10 Nelson #3H

Field: San Andreas

Rig: Sendero #9

Well ID: 42-003-47550

Job Number: TX-741

State: Texas

County: Andrews

Country: USA

Location: Andrews

Start Date: 08/03/2017 15:30:00

End Date: 08/10/2017 23:45:00

Latitude: 32° 8' 45.292"
Longitude: 102° 41' 28.363"

Elev GL: 3213.2'

Elev DF:

Elev KB: 3236.2'

Operator 1: M. Baber

Operator 2: C. Preston

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	E002				
Bit Size	7.0875				
Survey Offset	54.00				
Gamma Offset	43.30				
Resistivity Offset	0.00				
Start Depth	1580.00				
StartDate	8/11/2017				
StartTime	00:33				
EndDepth	3783.00				
EndDate	8/11/2017				
EndTime	00:38				
Mud Type	WB				
Hole Data			Casing Data		
Size	From	To	Size	From	To
7.0875	0.00	8903.00	8.625	0.00	1580.00

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

**RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION
CERTIFICATE OF COMPLIANCE STATEWIDE RULE 36**

FORM H-9
12/12/77

FILE WITH
DISTRICT OFFICE
IN TRIPLICATE

1. Operator Lime Rock Resources IV-A, LP			2. Operator Number (See Instruction 13) 500794		3. RRC Dist. 08
4. Street or P. O. Box No. 1111 Bagby St., Ste. 4600		5. City Houston		6. State TX	7. Zip Code 77002
8. Name of Lease, Facility or Operation UL 10 Nelson 3H		9. Field or Area Name Fuhrman-Mascho		10. County Andrews	
11. General Operation Type - Circle One: A - Oil Field Production B - Gas Field Production C - Pipeline or Gathering Sys. D - Gasoline Plant E - Drilling or Workover F - Sweetening Unit G - Combination (explain) H - Other (explain)			Other Explanation New Drill		
12. RRC ID# of Operation(s) to be Covered by This Certificate		Type ID Code (See Instruction 12)	Indicate if Filing for Storage Facility Only YES NO		13. Hydrogen Sulfide Concentration 13000 PPM
47273 (826014)		1	<input checked="" type="checkbox"/>		14. Maximum Escape Volume 550 MCF/Day
					15. 100 PPM Radius of Exposure (ROE) 345 Ft.
					16. 500 PPM Radius of Exposure (ROE) 158 Ft.
			17. Operation is Existing <input type="checkbox"/> New <input checked="" type="checkbox"/>		18. Modification Resulting in Certificate Change Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
			19. Workover or Drilling Well with 100 PPM ROE Greater than 3000' feet on Rule 36 Certified Well/Lease Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
			20. Previous Certificate Number if Available (For Amended Certificates)		
			21. The 100 PPM ROE includes any part of a public area except a public road Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
			22. The 500 PPM ROE includes any part of a public road Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
			23. Injection of fluid containing Hydrogen Sulfide (See Instruction 14) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
			24. Date (or Depth) of Compliance with all applicable provisions of Rule 36 Mo ____ / Day ____ / 19 ____ 1800 Ft. from Surface		
25. Contingency Plan Location of Plan (See Instruction 15) Shafter Lake Field Office			Has been prepared Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
26. Location of data used to prepare this certificate (See Instruction 15) 1111 Bagby St., Ste. 4600; Houston, TX 77002					
CERTIFICATE					
I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision, and that I am qualified to make this certification by virtue of my training and experience, and by my analysis of the operation being certified, or by the analysis of qualified person working under my supervision, and that the data and facts stated therein are true, correct, and complete, to the best of my knowledge.					
<i>Carla Martin</i>		Carla Martin/Regulatory Tech		(713) 292-9510	07/30/18
Representative of Company		Title		Phone No.	Date

RAILROAD COMMISSION USE ONLY

This operation and the equipment used therein is approved on the basis of the above certification and is subject to further Commission audit for compliance with the required provisions of Statewide Rule 36. This approval may be cancelled if investigation determines that the operation does not comply with the provisions of Statewide Rule 36.

APPROVED BY: _____ DATE: _____

REMARKS: _____ CERTIFICATION NUMBER: _____

Clear Form



H2S RADIUS OF EXPOSURE

Limerock Resources IV

UL 10 Nelson 3H

H2S Concentration - PPM – (Vapor) – 13000 PPM

MCF/Day (Vapor) - 550

500 PPM Radius of Exposure – 158 ft.

100 PPM Radius of Exposure – 345 ft.

Created By Safety Consultant Nicholas Hughes on June 5, 2018

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.: 196809

1. Field name exactly as shown on proration schedule FUHRMAN-MASCHO		2. Lease name as shown on proration schedule UL 10 NELSON		
3. Current operator name exactly as shown on P-5 Organization Report LIME ROCK RESOURCES IV-A, L.P.		4. Operator P-5 no. 500794	5. Oil Lse/Gas ID no. 47273	6. County ANDREWS
8. Operator address including city, state, and zip code 1111 BAGBY STREET SUITE 4600 HOUSTON, TX 77002		9. Well no(s) (see instruction E) 3H		
		10. Classification <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other (see instruction A)		11. Effective Date 05/29/2018
12. Purpose of Filing. (Complete section a or b below.) (See instructions B and G)				
a. Change of: <input type="checkbox"/> operator <input type="checkbox"/> oil or condensate gatherer <input type="checkbox"/> gas gatherer <input type="checkbox"/> gas purchaser <input type="checkbox"/> gas purchaser system code <input type="checkbox"/> field name from _____ <input type="checkbox"/> lease name from _____				
-- OR --				
b. New RRC Number for: <input checked="" type="checkbox"/> oil lease <input type="checkbox"/> gas well <input type="checkbox"/> other well (specify) _____ Due to: <input checked="" type="checkbox"/> new completion or recompletion <input type="checkbox"/> reclass oil to gas <input type="checkbox"/> reclass gas to oil <input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)				
13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). (See instruction G).				
Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left (Attach an additional sheet in same format if more space is needed)	Purchaser's RRC Assigned System Code	Percent of Take
X	X	DCP OPERATING COMPANY, LP(195959)	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
PHILLIPS 66 PIPELINE LLC(663865)				100.0
RRC USE ONLY: Reviewer's initials: <u>RRC Staff</u> Approval date: <u>10/26/2018</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		Signature		
Name (print)		<input type="checkbox"/> Authorized Employee of previous operator <input type="checkbox"/> Authorized agent of previous operator (see instruction G)		
Title		Date		
		Phone with area code		
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.				
LIME ROCK RESOURCES IV-A, L.P.		Carla Martin		
Name (print)		Signature		
		<input checked="" type="checkbox"/> Authorized Employee of current operator <input type="checkbox"/> Authorized agent of current operator (see instruction G)		
Title		Date		
cmartin@limerockresources.com		07/30/2018		
E-mail Address (optional)		Phone with area code		
		(713) 292-9510 EXT 5720		

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

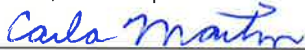
1. Field Name(s) Fuhrman-Mascho	2. Lease/ID Number (if assigned) 47273	3. RRC District Number 08
4. Operator Name Lime Rock Resources IV-A, LP	5. Operator P-5 Number 500794	6. Well Number 3H
7. Pooled Unit Name UL 10 Nelson	8. API Number 42-003-47550	9. Purpose of Filing <input type="checkbox"/> Drilling Permit (W-1) <input checked="" type="checkbox"/> Completion Report
10. County Andrews	11. Total acres in pooled unit 333.39	

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
Tract A	UL Lease 116374	250.13	<input type="checkbox"/>	<input type="checkbox"/>
Tract B	UL Lease 117700	83.26	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

CERTIFICATION:

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



Carla Martin

Signature

Print Name

Regulatory Tech

07/30/2018

(713) 292-9510

Title

E-mail (if available)

Date

Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

- 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.
- 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.
- If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
- 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.
- If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
- Identify the drill site tract with an * to the left of the tract identifier.
- 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: Lime Rock Resources IV-A, LP	Operator P-5 No.: 500794
Operator Address: 1111 Bagby St., Ste. 4600; Houston, TX 77002	

SECTION II. WELL INFORMATION

District No.: 08	County: Andrews	Purpose of Filing: <input type="checkbox"/> Drilling Permit Application (Form W-1) <input checked="" type="checkbox"/> Completion Report (Form G-1/W-2)
Well No.: 3H	API No.: 42-003-47550	
Total Lease Acres: 333.39	Drilling Permit No.: 826014	
Lease Name: UL 10 Nelson	Lease No.: 47273	
Field Name: Fuhrman-Mascho	Field No.: 33176 001	

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

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

[illegible]

Total Well Count >	2	333.39	< A. Total Assigned Horiz. Acreage	333.39	< C. Total Assigned Acreage
			< Total Remaining Horiz. Acreage		< Total Remaining Acreage
			< B. Total Assigned Vert./Dir. Acreage		
			< Total Remaining Vert./Dir. Acreage		

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

--

Attach Additional Pages As Needed.

☐ No additional pages☐ **Additional Pages:** (No. of additional pages)

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

Carla Martin
Signature

Carla Martin/Regulatory Tech
Name and title (type or print)

Email (include email address *only* if you affirmatively consent to its public release)

1111 Bagby St., Ste. 4600
Address

Houston	TX	77002
City,	State,	Zip Code

713
Tel: Area Code

292-9510
Number

07/30/2018

Date: mo. day yr.

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued: 09 June 2017**GAU Number:** 171788**Attention:** FORGE ENERGY, LLC
10999 IH 10 WEST SUITE 900
SAN ANTONIO, TX 78230**API Number:** 00347550
County: ANDREWS
Lease Name: UL 10 NELSON**Operator No.:** 276868**Lease Number:**
Well Number: 3H
Total Vertical Depth: 4800
Latitude: 32.145914
Longitude: -102.691211
Datum: NAD27**Purpose:** New Drill**Location:** Survey-UL; Abstract-U305; Block-10; Section-21

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

The interval from the land surface to a depth of 250 feet, and the zone from 800 to 1400 feet must be protected.

This recommendation is applicable for all wells drilled in this Section 21.

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 05/08/2017. 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

Form GW-2
Rev. 02/2014

P.O. Box 12967 Austin, Texas 78771-2967

512-463-2741

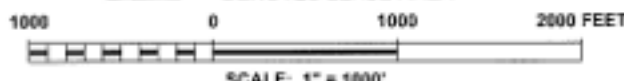
Internet address: www.rrc.texas.gov

[illegible]

SURFACE HOLE LOCATION	NAD 83, TXSP-NC, N[Y] = 6761947.7, E[X] = 671433.3 - LAT. = 32.1482045° N, LON. = 102.6916484° W
	NAD 27, TX-NC, N[Y] = 214048.0, E[X] = 392618.9 - LAT. = 32.1459143° N, LON. = 102.6912119° W
KOP	NAD 83, TXSP-NC, N[Y] = 6761953.7, E[X] = 671436.4 - LAT. = 32.1482042° N, LON. = 102.6916394° W
	NAD 27, TX-NC, N[Y] = 214053.9, E[X] = 392622.0 - LAT. = 32.1459310° N, LON. = 102.6912028° W
FIRST TAKE	NAD 83, TXSP-NC, N[Y] = 6762771.9, E[X] = 671250.6 - LAT. = 32.1482691° N, LON. = 102.6923448° W
	NAD 27, TX-NC, N[Y] = 214873.8, E[X] = 392644.0 - LAT. = 32.1481580° N, LON. = 102.6919079° W
LAST TAKE	NAD 83, TXSP-NC, N[Y] = 6766448.8, E[X] = 670445.1 - LAT. = 32.1582782° N, LON. = 102.6964193° W
	NAD 27, TX-NC, N[Y] = 218556.2, E[X] = 392873.7 - LAT. = 32.1581695° N, LON. = 102.6949820° W
BOTTOM HOLE LOCATION/TERMINUS	NAD 83, TXSP-NC, N[Y] = 6766579.5, E[X] = 670415.8 - LAT. = 32.1586342° N, LON. = 102.6965307° W
	NAD 27, TX-NC, N[Y] = 218989.3, E[X] = 392845.7 - LAT. = 32.1586245° N, LON. = 102.6950934° W

- ALL DOWNHOLE, POINT OF PENETRATION AND BOTTOM HOLE INFORMATION AND THEIR LOCATIONS WERE PROVIDED BY LIME ROCK RESOURCES, AND ARE NOT GUARANTEED BY THIS SURVEYOR.
- SEE DOCUMENTS FILED IN THIS OFFICE WHICH DESCRIBE IN DETAIL THE RECONSTRUCTION OF THESE SECTIONS AND/OR BLOCKS, USING FOUND MONUMENTATION, GLO AND COURTHOUSE DOCUMENTATION.
- NO SURFACE OWNERSHIP WAS PROVIDED OR REQUESTED BY LIME ROCK RESOURCES AND NONE WAS RESEARCHED OR PROVIDED BY WTC, INC.
- BASIS OF BEARING, COORDINATES, AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS NORTH CENTRAL (4202), WITH A CONVERGENCE ANGLE OF $-02^{\circ}16'18.66''$ AND COMBINED SCALE FACTOR OF 0.999845571, BASED ON AN OPUS SOLUTION ON CONTROL POINT CRUD AT N. -6762813.132° E. -679561.581°
- THIS LOCATION IS APPROXIMATELY 538'W 14.6 MILES FROM ANDREWS, TEXAS.

DENOTES PROPOSED WELL LOCATION
DENOTES POP
DENOTES TERMINUS POINT
DENOTES EXISTING WELL
DENOTES FOUND SECTION CORNER
DENOTES CALCULATED CORNER
DENOTES LEASE AREA



I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF ACTUAL ON-THE-GROUND SURVEY 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 TEXAS RAILROAD COMMISSION PERMITTING ONLY, AND DOES NOT CONSTITUTE OR REPRESENT A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE T.S.P.L.S., "PROFESSIONAL LAND SURVEYING PRACTICES ACT." IF THERE ARE ANY ALTERNATING HAND-DRAWN OR HANDWRITTEN ADDITIONS, THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

James E. Tompkins
JAMES E. TOMPKINS RPLS #985

SURVEY DATE: N/A
W.D. NUMBER: WTC5266

July 17, 2018
DATE

DRAFT: M.Y.
SHEET: 1 OF 1



LIME ROCK RESOURCES

UL 10 NELSON 3H
SHL 330' FSL AND 2200' FWL
SECTION 21, BLOCK 10,
UNIVERSITY LANDS SURVEY,
ANDREWS COUNTY, TEXAS.



W T C INC.

605 S.W. 1st Street
 Andrews, TX 79714
 (802) 522-2481

TEXAS ELECTRONIC JUDICIAL SYSTEMS (TEJAS) FORM 7-2140
TEXAS ELECTRONIC JUDICIAL SYSTEMS (TEJAS) FORM 7-2140-01