

Type or print only

RAILROAD COMMISSION OF TEXAS  
Oil and Gas DivisionForm W-2  
Rev. 4/1/83  
DBC1297

API No. 42- 003-40714				7. RRC District No. 08	
<b>Oil Well Potential Test, Completion or Recompletion Report, and Log</b>				8. RRC Lease No. 01270	
1. FIELD NAME (as per RRC Records or Wildcat) Embar (Permian)		2. LEASE NAME University Andrews		9. Well No. 161	
3. OPERATOR'S NAME (Exactly as shown on Form P-5, Organization Report) ConocoPhillips Company		RRC Operator No. 172232		10. County of well site Andrews	
4. ADDRESS P. O. Box 51810 Midland, TX 79710				11. Purpose of filing Initial Potential <input checked="" type="checkbox"/> Retest <input type="checkbox"/> Reclass <input type="checkbox"/> Well record only (explain in Remarks) <input type="checkbox"/>	
5. If Operator has changed within last 60 days, name former operator					
6a. Location (Section, Block, and Survey) Sec 19, Blk 10, UL Survey		6b. Distance and direction to nearest town in this county. 16 mi SW from Andrews			
12. If workover or reclass, give former field (with reservoir) & gas ID or oil lease no. FIELD & RESERVOIR		GAS ID or OIL LEASE #	Oil - O Gas - G	WELL NO.	
13. Type of electric or other log run High Res Leterolog Array/GR and CNL/TDL			14. Completion or recompletion date 08/24/2009		

## SECTION I: POTENTIAL TEST DATA IMPORTANT: Test should be for 24 hours unless otherwise specified in field rules.

15. Date of test 10/07/2009	16. No. of hours tested 24	17. Production method (Flowing, Gas Lift, Jetting, Pumping-- Size & Type of pump) 1 1/2" rod insert pump			18. Choke Size
19. Production during Test Period	Oil - BBLS 150	Gas - MCF 287	Water - BBLS 397	Gas - Oil Ratio 1913	Flowing Tubing Pressure PSI
20. Calculated 24- Hour Rate	Oil - BBLS	Gas - MCF	Water - BBLS	Oil Gravity--API--60°	Casing Pressure PSI
21. Was swab used during this test? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		22. Oil Produced prior to test (New & Reworked wells) 5353			23. Injection Gas--Oil Ratio

REMARKS

INSTRUCTIONS: File an original and one copy of the completed Form W-2 in the appropriate RRC District Office within 30 days after completing a well and within 10 days after a potential test. If an operator does not properly report the results of a potential test within the 10-day period, the effective date of the allowable assigned to the well will not extend back more than 10 days before the W-2 was received in the District Office. (Statewide Rules 16 and 51) To report a completion or recompletion, fill in both sides of this form. To report a retest, fill in only the front side.

## WELL TESTER'S CERTIFICATION

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I conducted or supervised this test by observation of (a) meter readings or (b) the top and bottom gauges of each tank into which production was run during the test. I further certify that the potential test data shown above is true, correct, and complete, to the best of my knowledge.

Signature: Well Tester \_\_\_\_\_ Name of Company: ConocoPhillips Company \_\_\_\_\_ RRC Representative \_\_\_\_\_

## OPERATOR'S CERTIFICATION

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

Typed or printed name of operator's representative: Deborah Magness  
Telephone: Area Code Number: (432) 688-9012 Date: mo. day year: 10/13/2009

Regulatory Specialist  
Title of Person: \_\_\_\_\_  
Signature: \_\_\_\_\_

ENTERED  
JAN 26 2010  
BY: \_\_\_\_\_

SECTION II DATA ON WELL COMPLETION AND LOG (Not Required on Retest)									
24. Type of Completion: New Well <input checked="" type="checkbox"/> Deepening <input type="checkbox"/> Plug Back <input type="checkbox"/> Other <input type="checkbox"/>					25. Permit to Drill, Plug Back or Deepen <b>07/23/2009</b> <b>667776</b> Rule 37 <span style="float: right;">CASE NO.</span> Exception Water Injection <span style="float: right;">PERMIT NO.</span> Permit Salt Water Disposal <span style="float: right;">PERMIT NO.</span> Permit Other <span style="float: right;">PERMIT NO.</span>				
26. Notice of Intention to Drill this well was filed in Name of <b>ConocoPhillips Company</b>									
27. Number of producing wells on this lease in this field (reservoir) including this well <b>61</b>				28. Total number of acres in this lease <b>4223.2</b>					
29. Date Plug Back, Deepening, WorkOver or Drilling Operations: <b>07/30/2009</b>		Commenced <b>08/05/2009</b>		Completed <b>2768</b>		30. Distance to nearest well, Same Lease & Reservoir			
31. Location of well, relative to nearest lease boundaries of lease on which this well is located <b>660 Feet From North Line and 3372 Feet from West Line of the University Andrews Lease</b>									
32. Elevation (DF, RKB, RT, GR, ETC.) <b>3265'</b>				33. Was directional survey made other than inclination (Form W-12)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
34. Top of Pay <b>5572'</b>		35. Total Depth <b>7110'</b>		36. P.B. Depth <b>7051'</b>		37. Surface Casing Determined by: Field <input type="checkbox"/> Rules <input checked="" type="checkbox"/> Recommendation of T.D.W.R. <input checked="" type="checkbox"/> Railroad Commission (Special) <input checked="" type="checkbox"/>		Dt. of Letter <b>09/29/200</b> Dt. of Letter <b>07/28/200</b>	
38. Is well multiple completion? <b>No</b>		39. If multiple completion, list all reservoir names (completions in this well) and Oil Lease or Gas ID No. <b>FIELD &amp; RESERVOIR</b>						40. Intervals Drilled by: Rotary Tools <input checked="" type="checkbox"/> Cable Tools <input type="checkbox"/>	
41. Name of Drilling Contractor <b>Helmerich &amp; Payne, IDC</b>								42. Is Cementing Affidavit Attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
43. CASING RECORD (Report All Strings Set in Well)									
CASING SIZE	WT #/FT.	DEPTH SET	MULTISTAGE TOOL DEPTH	TYPE & AMOUNT CEMENT (sacks)	HOLE SIZE	TOP OF CEMENT	SLURRY VOL. cu. ft.		
8 5/8"	24# J55	1508'		450sx 35/65Ppzc	12 1/4"	Surface	896		
				200sx 15/85Ppzc			334		
5 1/2"	17# J55	7095'		978sx 50/50Ppzc	7 7/8"	Surface	2523		
				450sx 50/50Ppzh			783		
44. LINER RECORD									
Size	Top	Bottom	Sacks Cement	Screen					
				-					
				-					
45. TUBING RECORD									
Size	Depth Set	Packer Set	From	To					
2 7/8"	6914'		5572'	6075'					
			6250'	6858'					
46. Producing Interval (this completion) Indicate depth of perforation or open hole									
Depth Interval			Amount and Kind of Material Used						
5572' - 6075'			147,697# 20/40 sd, 76,213 gals fluid						
6250' - 6858'			152,964# 20/40 sd, 97,251 gals fluid						
-									
-									
47. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.									
48. FORMATION RECORD (LIST DEPTHS OF PRINCIPAL GEOLOGICAL MARKERS AND FORMATION TOPS)									
Formations	Depth	Formations	Depth						
Queen	3590'	Glorieta	5284'						
Grayburg	3935'	Clearfork	5569'						
San Andres	4203'	Lower Clearfork	6247'						

REMARKS

**RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISION**

Form W-12  
(1-1-71)

<b>INCLINATION REPORT</b> (One Copy Must Be Filed With Each Completion Report.)		6. RRC District <b>08</b>
1. FIELD NAME (as per RRC Records or Wildcat) <b>Embar (Permian)</b>	2. LEASE NAME <b>University Andrews</b>	7. RRC Lease Number. (Oil completions only) <b>01270</b>
3. OPERATOR <b>ConocoPhillips Company</b>		8. Well Number <b>#161</b>
4. ADDRESS <b>P.O. Box 51810 Midland, TX 79710</b>		9. RRC Identification Number (Gas completions only)
5. LOCATION (Section, Block, and Survey) <b>Sec 19, Blk 10, UL Survey</b>		10. County <b>Andrews Co.</b>

**RECORD OF INCLINATION**

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	*13. Angle of Inclination (Degrees)	14. Displacement per Hundred Feet (Sine of Angle X100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
500	5.00	0.20	0.35	1.75	1.75
1,000	5.00	0.20	0.35	1.75	3.49
1,825	8.25	0.80	1.40	11.52	15.01
2,095	0.97	1.50	2.62	2.54	17.55
2,365	2.70	1.40	2.44	6.60	24.15
2,601	0.97	0.80	1.57	1.52	25.67
2,877	2.76	1.20	2.09	5.78	31.45
3,143	2.66	1.10	1.92	5.11	36.56
3,420	2.77	1.90	3.32	9.18	45.74
3,687	2.67	1.30	2.27	6.06	51.80
3,959	2.72	1.30	2.27	6.17	57.97
4,229	2.70	0.80	1.40	3.77	61.74
4,502	2.73	0.80	1.40	3.81	65.55
4,773	2.71	0.10	0.17	0.47	66.02
5,039	2.66	0.20	0.35	0.93	66.95
5,315	2.76	0.50	0.87	2.41	69.36

If additional space is needed, use the reverse side of this form.

17. Is any information shown on the reverse side of this form? ☒ yes ☐ no
18. Accumulative total displacement of well bore at total depth of 7,034 feet = 87.01 feet.
- \*19. Inclination measurements were made in - ☐ Tubing ☐ Casing ☐ Open hole ☒ Drill Pipe
20. Distance from surface location of well to the nearest lease line 660 feet.
21. Minimum distance to lease line as prescribed by field rules 330 feet.
22. Was the subject well at any time intentionally deviated from the vertical in any manner whatsoever? No
- (If the answer to the above question is "yes", attach written explanation of the circumstances.)

<p><b>INCLINATION DATA CERTIFICATION</b></p> <p>I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks (*) by the item numbers on this form.</p> <p>_____ Signature of Authorized Representative</p> <p><b>Troy Sorenson, Drilling Superintendent</b> Name of Person and Title (type or print)</p> <p><b>Helmerich &amp; Payne IDC</b> Name of Company</p> <p>Telephone: <u>325</u> <u>387-3585</u> Area Code</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have personal knowledge of all information presented in this report, and that all data presented on both sides of this form are true, correct, and complete to the best of my knowledge. This certification covers all data and information presented herein except inclination data as indicated by asterisks (*) by the item numbers on this form.</p> <p>_____ Signature of Authorized Representative</p> <p><b>Deborah Magness, Regulatory Specialist</b> Name of Person and Title (type or print)</p> <p><b>ConocoPhillips Company</b> Operator</p> <p>Telephone: <u>432</u> <u>688-9012</u> Area Code</p>
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Railroad Commission Use Only:

Approved By: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

\* designates items certified by company that conducted the inclination surveys.

### RECORD OF INCLINATION (Continued from reverse side)

[illegible]

If additional space is needed, attach separate sheet and check here. ☐

## REMARKS:

**- INSTRUCTIONS -**

An inclination survey made by persons or concerns approved by the Commission shall be filed on a form prescribed by the Commission for each well drilled or deepened with rotary tools or when, as a result of any operation, the course of the well is changed. No inclination survey is required on wells that are drilled and completed as dry holes that are plugged and abandoned. (Inclination surveys are required on re-entry of abandoned wells.) Inclination surveys must be made in accordance with the provisions of Statewide Rule 11.

This report shall be filed in the District Office of the Commission for the district in which the well is drilled; by attaching one copy to each appropriate completion for the well. (except Plugging Report)

The Commission may require the submittal of the original charts, graphs, or discs, resulting from the surveys.

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

Form W-15  
Cementing Report  
Rev. 4/1/83  
483-045

RAILROAD COMMISSION OF TEXAS  
Oil and Gas Division

1. Operator's Name (As shown on Form P-5, Organization Report) <b>ConocoPhillips Company</b>	2. RRC Operator No. <b>172232</b>	3. RRC District No. <b>08</b>	4. County of Well Site <b>Andrews</b>
5. Field Name (Wildcat or exactly as shown on RRC records) <b>Embar (Permian)</b>	6. API No. <b>42- 003-40714</b>		7. Drilling Permit No. <b>667776</b>
8. Lease Name <b>University Andrews</b>	9. Rule 37 Case No.	10. Oil Lease/Gas ID No. <b>01270</b>	11. Well No. <b>161</b>

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date				8/5/2009			
13. Drilling hole size				7 7/8"			
Est. % wash or hole enlargement							
14. Size of casing (in. O.D.)				5 1/2"			
15. Top of liner (ft.)							
16. Setting depth (ft.)				7095'			
17. Number of centralizers used				30			
18. Hrs. waiting on cement before drill-out				7 24			
1st Slurry	19. API-cement used: No. of sacks			978			
	Class			50/50 Poz/C			
	Additives			REMARKS			
2nd Slurry	No. of sacks			450			
	Class			50/50 Poz/H			
	Additives			REMARKS			
3rd Slurry	No. of sacks			0			
	Class						
	Additives						
1st	20. Slurry pumped: Volume (cu. ft.)			2523			
	Height (ft.)			14564			
2nd	Volume (cu. ft.)			783			
	Height (ft.)			4519			
3rd	Volume (cu. ft.)			0			
	Height (ft.)			0			
Total	Volume (cu. ft.)	0	0	3306		0	0
	Height (ft.)	0	0	19083		0	0
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?				Yes 153 5X			

1st 50/50 Poz/C + 5% D44(brown) + 10% D20 + 0.125pps D130 + 0.35% D13 + 0.2% D46  
2nd 50/50 Poz/H + 5% D44(brown) + 5% D20 + 5pps D42 + 0.2% D65 + 0.3% D167 + 0.2% D46 + 0.125pps D130 + 0.1% D13  
3rd 0  
4th 0

OVER ➔

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

**CEMENTER'S CERTIFICATE:** I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this 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.

**Jason Winegardner**  
Name and title of cementer's representative  
32 E. Industrial Loop  
Midland, Texas 79701  
City, State, Zip Code  
Tel. Area Code Number (432) 683-1887  
Date: mo. day yr. 31-Jul-09  
Signature

**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.

**Deborah Magness**  
Typed or printed name of operator's representative  
Regulatory Specialist  
Title  
P. O. Box 51810, Midland, TX 79710-1810  
City, State, Zip Code  
Tel. Area Code Number 432-688-9012  
Date: mo. day yr. 9-28-09  
Signature

## Instructions to Form W-15, Cementing Report

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

**A. What to file.** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one Form W-15 should be filed with the following:

- An initial oil or gas completion report, Form W-2 or C-1, as required by Statewide or special field rules;
- Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

**B. Where to file.** The appropriate Commission District Office for the county in which the well is located.

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

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

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

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

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

**H. To plug and abandon a well,** operators must use only cements approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

## RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1. Operator's Name (As shown on Form P-5, Organization Report) ConocoPhillips Company		2. RRC Operator No. 172232		3. RRC District No. 08		4. County of Well Site Andrews	
5. Field Name (Wildcat or exactly as shown on RRC records) Bubar (Petrilan)		6. API No. 42-003-40714		7. Drilling Permit No. 667776		8. Lease Name University Andrews	
9. Rule 37 Case No.		10. Oil Lease/Gas ID No. 01270		11. Well No. 161			

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

## CASING CEMENTING DATA:

SURFACE CASING		INTER-MEDIATE CASING		PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS				
12. Cementing Date	7/31/2009	12.1/4"	8 5/8"	15. Top of liner (ft.)	16. Setting depth (ft.)	17. Number of centralizers used	18. Hrs. waiting on cement before drill-out			
19. API cement used: No. of sacks	450	Class	35/65 Poz/C	Additives	Remarks	No. of sacks	200			
	15/85 Poz/C		Class		Additives		Remarks			
	Remarks		Class		No. of sacks		Additives			
1st Slurry	Class	35/65 Poz/C	Additives	Remarks	No. of sacks	Class	Additives			
	Class	15/85 Poz/C		Class				Additives		
	Class	Remarks		Class				Additives		
2nd Slurry	Class	15/85 Poz/C	Additives	Remarks	No. of sacks	Class	Additives			
	Class	15/85 Poz/C		Class				Additives		
	Class	Remarks		Class				Additives		
3rd Slurry	Class	15/85 Poz/C	Additives	Remarks	No. of sacks	Class	Additives			
	Class	15/85 Poz/C		Class				Additives		
	Class	Remarks		Class				Additives		
1st	20. Slurry pumped: Volume (cu. ft.)	896	Height (ft.)	2170	Volume (cu. ft.)	Height (ft.)	Volume (cu. ft.)			
	Volume (cu. ft.)	0		Volume (cu. ft.)				0	Volume (cu. ft.)	0
	Volume (cu. ft.)	0		Volume (cu. ft.)				0	Volume (cu. ft.)	0
2nd	Volume (cu. ft.)	334	Height (ft.)	809	Volume (cu. ft.)	Height (ft.)	Volume (cu. ft.)			
	Volume (cu. ft.)	0		Volume (cu. ft.)				0	Volume (cu. ft.)	0
	Volume (cu. ft.)	0		Volume (cu. ft.)				0	Volume (cu. ft.)	0
Total	Volume (cu. ft.)	1229.5	Height (ft.)	2978.97608	Volume (cu. ft.)	Height (ft.)	Volume (cu. ft.)			
	Volume (cu. ft.)	0		Volume (cu. ft.)				0	Volume (cu. ft.)	0
	Volume (cu. ft.)	0		Volume (cu. ft.)				0	Volume (cu. ft.)	0

1st 35/65 Poz/C + 5% D44 (brow) + 6% D20 + 2% S-1 + 0.25 PFSD130 + 0.2% D46  
2nd 15/85 Poz/C + 3% D20 + 2% S-1 + 0.25 PFSD130 + 0.2% D46

21. Was cement circulated to ground surface (or bottom of cellar) outside casing?

Yes  
1125x

OVER

**IMPORTANT:** Operators and cementing companies must comply with the requirements of the Commission's State Rules 8 (Water Protection), 13 (Casting, Cementing, Drilling, and Completion), and 14 (Well Plugging). For offshore operators, see the requirements of Rule 13 (c).

A. What to file. An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. Form W-15 should be filed with the following:

- An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
- Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. Where to file. The appropriate Commission District Office for the county in which the well is located.

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

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

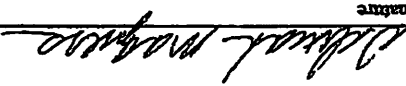
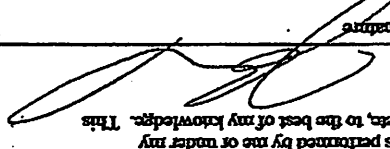
E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection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

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

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

H. To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

## Instructions to Form W-15, Cementing Report

Address		City,		State, Zip Code		Tel. Area Code Number		Date: mo. day yr.	
P. O. Box 51810, Midland, TX 79710-1810		Midland, Texas		79701		(432) 683-1887		31-Jul-09	
Typed or printed name of operator's representative		Title		Signature		Tel. Area Code Number		Date: mo. day yr.	
Deborah Magness		Regulatory Specialist				432-688-9012		9-28-09	
<p><b>OPERATOR'S CERTIFICATE:</b> 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.</p>									
Name and title of cementer's representative		Cementing Company		Signature		Tel. Area Code Number		Date: mo. day yr.	
Jason Winegardner		Schlumberger				(432) 683-1887		31-Jul-09	
<p><b>CEMENTER'S CERTIFICATE:</b> 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.</p>									

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

# APPLICATION FOR ALTERNATE SURFACE CASING PROGRAM

Statewide Rule 13(b)(2)(g)  
RRC District 8/8A

7703

Operator's Name and Address: <b>ConocoPhillips Company</b> 3300 N. "A" St. Bldg. 6 Midland, TX 79705	Lease: <b>UNIVERSITY ANDREWS</b>	Well No.: <b>161</b>
	Field: <b>EMBAR</b>	
	Drilling Permit No.: <b>667776 (Amended)</b>	
	County: <b>ANDREWS</b>	RRC District: <b>08</b>
	Location: <b>Sec. 19 Block 10 Sur. UL Twp.</b>	
Proposed TD: <b>7500'</b>		

Distance and Direction from nearest town: \_\_\_\_\_

Proposed injection or disposal well? ☐ Yes ☒ No NOTE: Special conditions may apply. See PROVISIONS below.

Usable-quality water strata (as determined by TCEQ "Waterboard" letter) occur to a depth of 250 ft, and from 925 ft to 1200 ft, and from \_\_\_\_\_ ft to \_\_\_\_\_ ft.

Note: Please submit copy of TCEQ "Waterboard" letter with this request. Request cannot be processed without this information.

Distance and direction of nearest water well (within 1/4 mile): \_\_\_\_\_

Type of water well (domestic, public, irrigation, stock, etc.): \_\_\_\_\_ Depth: \_\_\_\_\_

## Proposed Casing and Cementing Program

Note: You may attach a wellbore diagram or cementing proposal to this application.

This application is for (check applicable boxes): ☐ Short surface casing ☒ Excess surface casing ☐ No surface casingThe proposed surface casing depth: 1505 ft Multi-Stage tool depth (if applicable): \_\_\_\_\_Intermediate or production casing depth: 7100 ft Multi-Stage tool depth (if applicable): \_\_\_\_\_Centralizer number and placement: 1 20' above shoe, 1 on joint above float collar, 1 per 4 joints to sfc (11 total)Does the cement across the critical zone have 72-hr compressive strength of at least 1,200 psi? ☒ Yes ☐ NoDoes the filler cement have 24-hr compressive strength of at least 250 psi? ☒ Yes ☐ NoDo you plan on circulating cement to the surface on all casing strings protecting usable-quality water? ☒ Yes ☐ No

Reason for this request: It is COP Best Practice to set surface casing 28' into the Rustler formation. Geologist's estimate for top of Rustler is 1479', putting surface casing shoe at +/- 1505' which exceeds the 200' allowance below the lowest quality water depth (1200' + 200' + 10' KB = 1410')

## PROVISIONS APPLICABLE TO RULE 13 EXCEPTIONS:

1. Caution: If this well is being drilled for injection or disposal purposes, an injection or disposal well permit may be denied unless surface casing is set and cemented through all zones of usable-quality groundwater.
2. Centralizers must be used through all usable-quality waters. Refer to Rule 13(b)(2)(F).
3. Notify District Office 8 hours prior to setting casing.

Signature: Alva Franco Print Name: Alva Franco Date: 7/27/09 Phone: 432/688-6906

IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST IMMEDIATELY CONTACT THE DISTRICT 8/8A OFFICE AT 432-684-5581, AND FOLLOW THE PROCEDURES AS SET OUT IN RULE 13(B)(2)(g)(III) OR AS RECOMMENDED BY THE DISTRICT OFFICE.

RRC Use Only:

RRC District Office Action:

☒ Approved ☐ Approved as Modified ☐ DeniedBy: [Signature]Date: 7-28-09

Remarks/Modifications:

PLEASE  
DO NOT STAPLE

# DEPTH OF USABLE-QUALITY GROUND WATER TO BE PROTECTED

## PLEASE READ ALL INSTRUCTIONS

The information requested is essential in order for this agency to provide an appropriate response. Please allow for receipt of this form in our offices at least two weeks before your operation begins. Due to the volume of these requests, at times, it may be difficult for us to handle telephone inquiries. Complete, keep the bottom sheet (goldenrod) for your files, and mail the top 3 sheets of the 4-sheet set of carbon-backed forms with a map to the address below. One sheet bearing our response will be returned to you. Another will be sent to the appropriate district office of the Railroad Commission. Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282. If you have questions on how to fill out this form or about the Surface Casing program, please contact us at 512/239-4515.

Surface Casing - MC 151  
TCEQ  
P.O. Box 13087  
Austin, TX 78711-3087

Date 9/13/06

TCEQ File No.: SC-

12037

Gay Thomas (432) 368-1217  
Name of person preparing this request & phone No. (with area code)

ConocoPhillips Company

Company (operator's name as on RRC form W-1)  
3300 N. "A" St. Bldg. 6

Mailing Address

Midland, TX 79705

City and State ZIP Code

FOR TCEQ USE ONLY

## ALWAYS INCLUDE A MAP SHOWING YOUR WELL SITE AND ALL SURROUNDING SURVEYS

COUNTY Andrews Survey Name UL  
Block No. 10 Township \_\_\_\_\_ Section or Survey No. 19 (or) Lot No. \_\_\_\_\_  
Abstract No. A- \_\_\_\_\_ LEASE Name University Andrews Well No. 161  
Distances, in feet, and directions measured at right angles from each of two intersecting ☒ Section or ☐ Survey lines  
(NOT LEASE LINES) 660' feet from North line and 660' feet from West line.  
Distance (in miles) and direction from a nearby town in this County (name the town)  
16 miles NW of Andrews, TX

THE ABOVE INFORMATION IN THIS BLOCK MUST BE COMPLETE AND CORRECT

API # \_\_\_\_\_ RRC Lease No. 01270 RRC Dist. No. 08  
GPS Coord. (long/lat or X-Y state plane) X: 380,794.7 Y: 215,552.2 NAD \_\_\_\_\_

Elevation 3265' Total Depth 6850' Geologic Fm. at T.D. Embar (Permian)

Purpose of the Request: ☒ New Drill ☐ Re-entry ☐ Plug & Abandon ☐ Other (specify) \_\_\_\_\_

Is this an amended request? ☐ Yes ☐ No Previous File No. for this well: SC- \_\_\_\_\_

☐ Log included of same or nearby well (The applicable type of well log that shows the aquifers.) Please provide a location map or API# for attached log.

ALWAYS attach the electric log of any well that is to be reentered.

Additional remarks: Please provide lease line recommendation (d)

To protect usable-quality ground water at this location, the TEXAS COMMISSION ON ENVIRONMENTAL QUALITY recommends:

CO-ANDREWS, SUR-UL, BLK-10, SEC-19, LSE-UNIVERSITY ANDREWS, #11, 39/250, ZONE, 925, 1200; ...

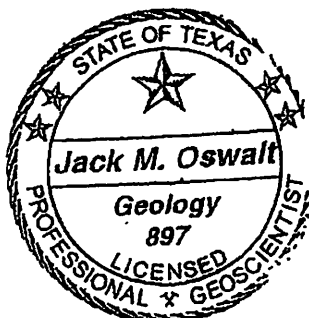
The interval from the land surface to a depth of 250 feet, and the ZONE from 925 to 1200 feet must be protected.

This recommendation is applicable for all wells drilled in this SECTION 19.

FOLD  
DO NOT WRITE HERE  
FOR TCEQ USE ONLY

Very truly yours,

Jack M. Oswalt, P.G.



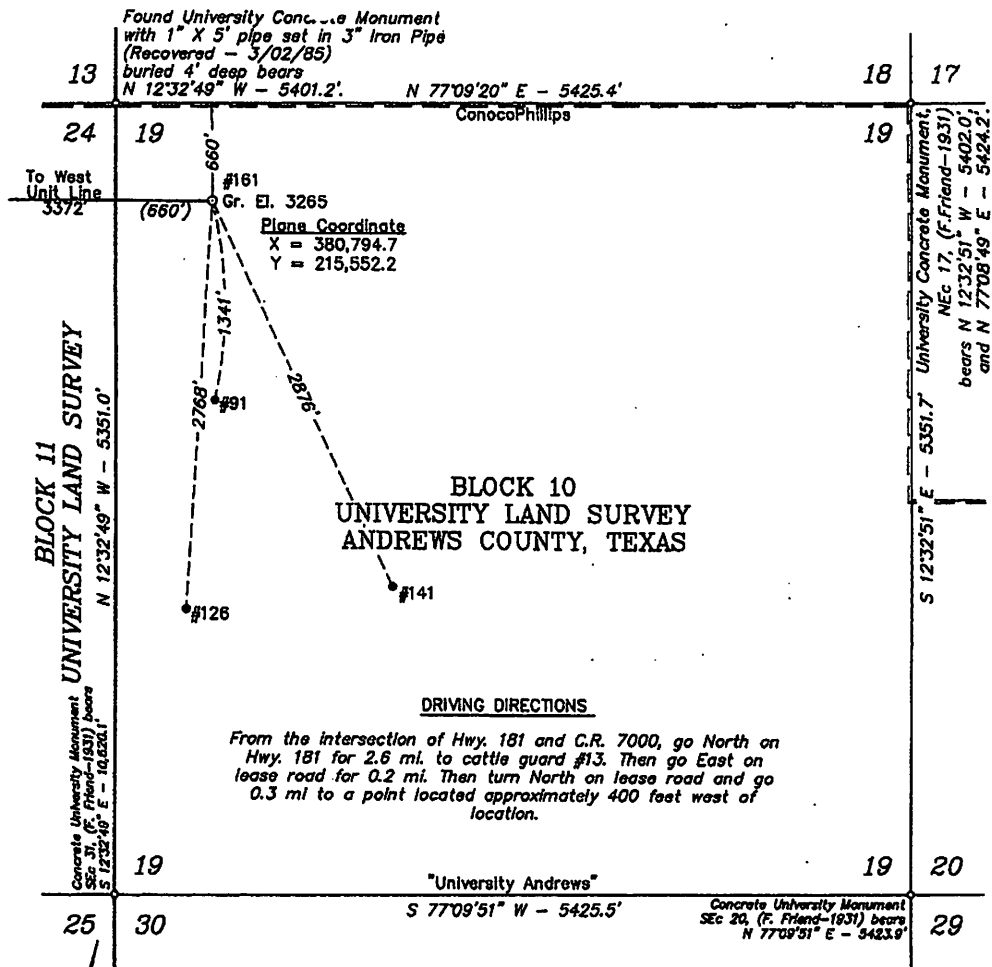
Date

September 29, 2006

typed by TCEQ

Geologist, Surface Casing, TCEQ

NOTE: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Approval of the well-completion methods for protection of this ground water falls under the jurisdiction of the Railroad Commission of Texas. This recommendation is intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operations into a nonproductive zone (RRC Form W-14).



Date Surveyed: June 25, 2008  
Weather: Hot & Clear

### LEGEND

- - Denotes Proposed Well Location
- - Denotes Producing Well Location
- - Denotes Calculated Corner this Survey
- - Denotes Unit Boundary Line

The University Andrews #161 is located approximately 16 miles Southwest of Andrews, Texas.

### NOTE:

- 1) Plane Coordinates and Bearings shown hereon are Lambert Grid and Conform to the "Texas Coordinate System", Texas North Central Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.
- 2) Geodetic Coordinate shown hereon references the North American Datum of 1927, (Clarke Spheroid of 1888). Reference Stations - "ROSWELL" - CORS (DG6517), "SUMMERFIELD 1" - CORS (AJ1814) and "JAYTON" - CORS (AF9637).
- 3) See information filed in the office of this Surveyor which describes the reconstruction of this Section.

Geodetic Coordinate  
Latitude = 32°08'53.76" N  
Longitude = 102°44'00.52" W



I HEREBY CERTIFY THAT THIS MAP WAS MADE FROM NOTES TAKEN IN THE FIELD IN A BONAFIDE SURVEY MADE UNDER MY SUPERVISION.

JEFFREY NEWMAN  
MAISON McDONALD  
R. CRAIG ALDERMAN

TEXAS R.P.L.S. NO. 50111  
TEXAS R.P.L.S. NO. 4388  
TEXAS R.P.L.S. NO. 6285

**WEST COMPANY**  
of Midland, Inc.

110 W. LOUISIANA, STE. 110  
MIDLAND TEXAS, 79701  
(432) 687-0885 - (432) 687-0868 FAX

## CONOCOPHILLIPS

### Location of the UNIVERSITY ANDREWS #161

660' FNL & 660' FWL  
Section 19, Block 10,  
University Land Survey  
Andrews County, Texas

Drawn By: ALC	Date: July 14, 2008
Scale: 1"=1000'	Field Book: 405/ 44-47
Revision Date:	Quadrangle: North Cowden NW
W.O. No: 2008-0745	Dwg. No.: 2008-0745