

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

Form G-1

Rev. 4/1/83 DBC129

Type or print only

483-047

API No. 42-105-40677

7. RRC District No.

7C

8. RRC Gas ID No.

Gas Well Back Pressure Test, Completion or Recompletion Report, and Log

1. FIELD NAME (as per RRC Records or Wildcat)

HOLT RANCH (CANYON 7600)

2. LEASE NAME

UNIVERSITY 42-12

9. Well No.

1

3. OPERATOR'S NAME (Exactly as shown on Form P-5, Organization Report)

APPROACH OPERATING, LLC

RRC Operator No.

028625

10. County of well site

CROCKETT

4. ADDRESS ONE RIDGEMAR CENTRE, 6500 WEST FREEWAY, SUITE 800
FORT WORTH, TEXAS 76116

11. Purpose of filing

Initial Potential

☒

Retest

☐

Reclass

☐Well record only
(Explain in remarks)☐

5. Location (Section, Block, and Survey)

SEC 12, BLK 42, UNIVERSITY LANDS

5b. Distance and direction to nearest town in this county.

16 MI N From OZONA

6. If operator has changed within last 60 days,
name former operator12. If workover or reclass, give former field (with reservoir) & Gas ID or
oil lease no.
FIELD & RESERVOIRGAS ID or
OIL LEASE #Oil-O
Gas-GWELL
#

13. Pipe Line Connection

WTG GAS PROCESSING, LP

14. Completion or recompletion date

04/13/2010

15. Any condensate on hand at time of workover
or recompletion? ☐ Yes ☒ No

16. Type of Electric or other Log Run.

SDL, DSN

Section I

GAS MEASUREMENT DATA

Date of Test 04/21/2010		Gas Measurement Method (Check One) Orifice Meter <input checked="" type="checkbox"/> Flange Taps <input checked="" type="checkbox"/> Positive Choke <input type="checkbox"/> Orifice Vent Meter <input type="checkbox"/> Pitot Tube <input type="checkbox"/> Critical-flow Prover <input type="checkbox"/>						Gas produced during test 1202 MCF		
Run No.	Line Size	Orif. or Choke Size	24 Hr. Coeff. Orif. or Choke	Static P _w or Choke Press	Diff. h _w	Flow Temp. °F	Temp. Factor F _{tf}	Gravity Factor F _g	Compress Factor F _{pv}	Volume MCF/DAY
1	2.067	1.375	13.505	130	9	60	1.000	0.8642	1.0034	401
2										
3										
4										

Section II

FIELD DATA AND PRESSURE CALCULATIONS

Gravity (Dry Gas) 0.7336		Gravity Liquid Hydrocarbon 53.5 Deg. API		Gas-Liquid Hydro Ratio 100,143 CF/Bbl		Gravity of Mixture G _{mix} = 0.768		Avg. Shut-in Temp. 130 °F		Bottom Hole Temp. 186°F @ 7600 (Depth)	
D _{eff} ^{8/3} =		$\sqrt{T_f} - \sqrt{\quad} =$				$\sqrt{G_L} - \sqrt{\quad} =$					
$C = \frac{1118 \times (D_{eff})^{8/3}}{\sqrt{T}} =$						$\frac{\sqrt{G_L}}{C} =$					
Run No.	Time of Run Min.	Choke Size	Wellhead Press. PSIA P _w	Wellhead Flow Temp. °F	P _w ² (Thousands)	R	R ² (Thousands)	P ₁	P _w /P ₁		
Shut-In 24 HRS			1200	74							
1	4320	20/64	340	78							
2											
3											
4											
Run No.	F	K	S = $\frac{1}{z}$	E _{ka}	P _f and P _s	P _f ² and P _s ² (thousands)	P _f ² - P _s ² (thousands)	Angle of Slope			
Shut-In											
1								θ			
2								α			
3								Absolute Open Flow			
4								MCF/DAY			

WELL TESTER'S CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I conducted or supervised this test and that data and facts shown in Sections I and II above are true, correct, and complete, to the best of my knowledge. Bottomhole temperature and the diameter and length of flow string were furnished by the operator of the well.

Boys Craft President/CEO
Signature Well Tester

APPROACH OPERATING, LLC

Name of 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 I prepared or supervised and directed this report, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Shana Guler
Signature: Operator's representative

AGENT

Title

07/19/2010

Date

Tel: (817) 989-9000

A/C Number

SECTION III DATA ON WELL COMPLETION AND LOG (Not Required on Retest)									
17. Type of Completion:					18. Permit to Drill, Plug Back or Deepen				
New Well <input checked="" type="checkbox"/> Deepening <input type="checkbox"/> Plug Back <input type="checkbox"/> Other <input type="checkbox"/>					DATE 06/04/2008 PERMIT NO. 662109				
19. Notice of Intention to Drill this well was filed in Name of					Rule 37				
APPROACH OPERATING, LLC					Exception				
20. Number of producing wells on this lease in this field (reservoir) including this well					Water Injection Permit				
2					PERMIT NO.				
21. Total number of acres in this lease					Salt Water Disposal Permit				
438.63					PERMIT NO.				
22. Date Plug Back, Deepening, WorkOver or Drilling Operations:					Other PERMIT NO.				
Commenced 03/21/2010 Completed 03/31/2010					23. Distance to nearest well, Same Lease & Reservoir				
					0				
24. Location of well, relative to nearest lease boundaries of lease on which this well is located					660 Feet From SOUTH Line and 660 Feet from EAST Line of the UNIVERSITY 42-12 #1 Lease				
25. Elevation (DF, RKB, RT, GR, ETC.)					26. Was directional survey made other than inclination (Form W-12)?				
2605 GR					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
27. Top of Pay	28. Total Depth	29. P.B. Depth	30. Surface Casing Determined by:		Recommendation of T.D.W.R.		Dt. of Letter		
7618	8450	7953	Field <input type="checkbox"/> Rules <input type="checkbox"/>		Railroad Commission (Special) <input checked="" type="checkbox"/>		03/26/2010		
31. Is well multiple completion?		32. If multiple completion, list all reservoir names (completions in this well) and Oil Lease or Gas ID No.				33. Intervals Drilled by:			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		FIELD & RESERVOIR				Rotary Tools <input checked="" type="checkbox"/> Cable Tools <input type="checkbox"/>			
34. Name of Drilling Contractor						35. Cementing Affidavit Attached?			
NABORS DRILLING COMPANY						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
36. 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.		
13 3/8	48#	923		HALCEM - 685	17 1/2	SURFACE	1295.8		
8 5/8	24#			HALCEM - 685	12 1/4	CIRCULATED	1397		
4 1/2	11.6	7999		HLP - 365	7 7/8	3980	1245		
				VERSCHEM - 360					

37. LINER RECORD				
Size	Top	Bottom	Sacks Cement	Screen
				-
				-

38. TUBING RECORD			39. Producing Interval (this completion) Indicate depth of perforation or open hole	
Size	Depth Set	Packer Set	From	To
2 3/8	7571		From 7736	To 7810
			From	To
			From	To

40. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
Depth Interval	Amount and Kind of Material Used
7736 - 7810	500 GAL 10% ACETIC ACID
	2122 BBLs OF FLUID
	271,000 #20/40 OTTAWA SAND
	164 TONS CO2

41. FORMATION RECORD (LIST DEPTHS OF PRINCIPAL GEOLOGICAL MARKERS AND FORMATION TOPS)			
Formations	Depth	Formations	Depth
BASE OF CRETACEOUS	854	TOP OF DEAN SAND MKR	5502
TOP OF CANYON MKR	7618		

REMARKS CIRCULATED 241/SKS CEMENT
CIRCULATED 163/SKS TO SURFACE

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

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

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report) APPROACH OPERATING, LLC	2. RRC Operator No. 028625	3. RRC District No. 7C	4. County of Well Site CROCKETT
5. Field Name (Wildcat or Exactly as Shown on RRC Records) HOLT RANCH (CANYON 7600)		6. API No. 42-105-40677	7. Drilling Permit No. 662109
8. Lease Name UNIVERSITY 42-12	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 1

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date		3/22/2010					
13. *Drilled hole size		17 1/2					
*Est. % wash or hole enlargement		100%					
14. Size of casing (in. O.D.)		13 3/8					
15. Top of liner (ft)							
16. Setting depth (ft)		923					
17. Number of centralizers used		12					
18. Hrs. waiting on cement before drill-out		12					
1st Slurry	19. API cement used: No. of sacks ▶	350					
	Class ▶	Halccem					
	Additives ▶	See Remarks					
2nd slurry	No. of sacks ▶	335					
	Class ▶	Halccem					
	Additives ▶	No Adds					
3rd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
1st	20. Slurry pumped: Volume (cu.ft.) ▶	840					
	Height (ft.) ▶	1209.26					
2nd	Volume (cu.ft.) ▶	455.6					
	Height (ft.) ▶	655.88					
3rd	Volume (cu.ft.) ▶						
	Height (ft.) ▶						
Total	Volume (cu.ft.) ▶	1295.6					
	Height (ft.) ▶	1865.14					
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?		Yes					
22. Remarks Lead Slurry - 3% Econolite - 2% Calcium Chloride - 2.5 lb Pheno Seal - 3 lb Cat Seal						Sales Order 7253568 Customer Name APPROACH RESOURCES EBUS Lease University 42-12 Well Number 1 Crockett County	

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. (lbs/gal)								
31. Type cement								

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Rodney Hardesty Sr Service Supervisor II
Name and Title of Cementer's Representative

Halliburton Energy Services
Cementing Company

[Signature]
Signature

6155 W Murphy St Odessa Tx 79761
Address City State Zip Code

800-844-8451
Tel: Area Code Number

3/22/2010
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.

Laura Gilmore
Typed or Printed Name of Operator's Representative
One Ridgmar Centre
6500 West Freeway, Ste., 800, Ft. Worth, TX 76116
Address City State Zip Code

Agent
Title

[Signature]
Signature

(817) 989-9000
Tel: Area Code Number

07/19/2010
Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

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

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

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

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

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

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

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

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

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

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

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

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

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report) APPROACH OPERATING, LLC	2. RRC Operator No. 028625	3. RRC District No. 7C	4. County of Well Site CROCKETT
5. Field Name (Wildcat or Exactly as Shown on RRC Records) HOLT RANCH (CANYON 7600)		6. API No. 42-105-40677	7. Drilling Permit No. 662109
8. Lease Name UNIVERSITY 42-12	9. Rule 37 Case No.	10. Oil Leaser/Gas ID No.	11. Well No. 1

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date			3/23/2010				
13. *Drilled hole size			12 1/4				
*Est. % wash or hole enlargement			100%				
14. Size of casing (in. O.D.)			8 5/8				
15. Top of liner (ft)							
16. Setting depth (ft)			2107				
17. Number of centralizers used			12				
18. Hrs. waiting on cement before drill-out			25				
1st Slurry	19. API cement used: No. of sacks ►		450				
	Class ►		HALCEM-C				
	Additives ►		SEEREMARKS				
2nd Slurry	No. of sacks ►		235				
	Class ►		HALCEM-C				
	Additives ►		SEEREMARKS				
3rd Slurry	No. of sacks ►						
	Class ►						
	Additives ►						
1st	20. Slurry pumped: Volume (cu.ft.) ►		1080				
	Height (ft.) ►		2617				
2nd	Volume (cu.ft.) ►		317				
	Height (ft.) ►		768				
3rd	Volume (cu.ft.) ►						
	Height (ft.) ►						
Total	Volume (cu.ft.) ►		1397				
	Height (ft.) ►		3385				
21. Was cement circulated to ground surface (or bottom of collar) outside casing?			YES				

22. Remarks
LEAD SLURRY 3% ECONOLITE, 2% CALCIUM CHLORIDE, 2.5 LBM PHENO SEAL MED., 3 LBM CAL-SEAL 60
TAIL SLURRY 1% CALCIUM CHLORIDE, 2 LBM PHENO SEAL
CIRCULATED 70 BBLS 163 SACKS BACK TO SURFACE

Sales Order 7259485
Customer Name
APPROACH RESOURCES EBUS
Lease
University 42-12
Well Number 1
Crockett County

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 well as shown in the report was performed by me or under my supervision, and that the cementing date 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.

ROBERT MENDEZ SERVICE SUPERVISOR
Name and Title of Cementer's Representative

Halliburton Energy Services
Cementing Company

Signature

6155 W MURPHY ST **ODESSA TX 79783**
Address City State Zip Code

800-844-8451
Tel: Area Code Number

3/23/2010
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.

Laura Gilmore
Typed or Printed Name of Operator's Representative
One Ridgebar Centre

Agent
Title

Signature

6500 West Freeway, Ste., 800, Ft. Worth, TX 76116 (817) 989-9000
Address City, State Zip Code Tel: Area Code Number

07/19/2010
Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

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

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

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

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

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

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

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

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

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

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

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

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

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report) APPROACH OPERATING, LLC	2. RRC Operator No. 028625	3. RRC District No. 7C	4. County of Well Site CROCKETT
5. Field Name (Wildcat or Exactly as Shown on RRC Records) HOLT RANCH (CANYON 7600)		6. API No. 42-105-40677	7. Drilling Permit No. 662109
8. Lease Name UNIVERSITY 42-12	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 1

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date				3/31/2010			
13. *Drilled hole size				7 7/8			
*Est. % wash or hole enlargement				20%			
14. Size of casing (in. O.D.)				4 1/2			
15. Top of liner (ft)							
16. Setting depth (ft)				7999			
17. Number of centralizers used				15			
18. Hrs. waiting on cement before drill-out							
1st Slurry	19. API cement used: No. of sacks ▶			365			
	Class ▶			HES LL Prem.			
	Additives ▶			See Remarks			
2nd Slurry	No. of sacks ▶			360			
	Class ▶			Vesacem			
	Additives ▶			See Remarks			
3rd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
1st	20. Slurry pumped: Volume (cu.ft.) ▶			781			
	Height (ft.) ▶			3429			
2nd	Volume (cu.ft.) ▶			464			
	Height (ft.) ▶			2039			
3rd	Volume (cu.ft.) ▶						
	Height (ft.) ▶						
Total	Volume (cu.ft.) ▶			1245			
	Height (ft.) ▶			5468			
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?				No			
22. Remarks Cement Add: Lead Slurry; 5 lbm Salt; .3 % Halad-344; 1 lbm Pheno-Seal; Tail Slurry; .3% Halad-344; .1% HR-800; 1 lbm Pheno-Seal						Sales Order 7266731 Customer Name APPROACH RESOURCES EBUS Lease University 42-12 Well Number 1 Crockett County	

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 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.

Lionel Segura Service Supervisor
Name and Title of Cementer's Representative

Halliburton Energy Services
Cementing Company

[Signature]
Signature

6155 West Murphy St. Odessa Tx 79762
Address City State Zip Code

1-800-844-7045
Tel: Area Code Number

3/31/2010
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.

Laura Gilmore
Typed or Printed Name of Operator's Representative
One Ridgmar Centre

Agent
Title

[Signature]
Signature

6500 West Freeway, Ste.. 800, Ft. Worth, TX 76116 (817) 989-9000
Address City State Zip Code Tel: Area Code Number

07/19/2010
Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

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

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

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

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

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

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

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

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

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

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

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

Form W-12
(1-1-71)
FOD1298

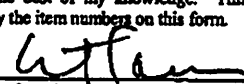
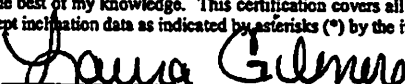
INCLINATION REPORT (One Copy Must Be Filed With Each Completion Report)			6. RRC District 7C
1. FIELD NAME (as per RRC Records or Wildcat) HOLT RANCH (CANYON 7600)		2. LEASE NAME UNIVERSITY 42-12	7. RRC Lease Number. (Oil completions only)
APPROACH OPERATING, LLC			8. Well Number 1
4. ADDRESS ONE RIDGEMAR CENTRE 6500 WEST FREEWAY, SUITE 800 FORT WORTH, TEXAS 76116			9. RRC Identification Number (Gas completions only)
5. LOCATION (Section, Block, and Survey) SECTION 12, BLOCK 42, SURVEY UNIVERSITY LANDS			10. County CROCKETT

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)
429	429	0.46	0.80	3.43	3.43
810	381	0.52	0.91	3.46	6.89
1300	490	0.25	0.44	2.15	9.04
1800	500	0.64	1.12	5.60	14.64
2297	497	0.50	0.87	4.32	18.96
3284	987	0.77	1.34	13.22	32.18
4274	990	0.94	1.64	16.23	48.41
5296	1,022	1.36	2.37	24.22	72.63
6290	994	2.52	4.40	43.73	116.36
7290	1,000	7.68	13.40	134.00	250.36
8290	1,000	14.81	25.85	258.50	508.86

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 8290 feet = 508.86 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..... 660' 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>INCLINATION DATA CERTIFICATION</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 align="center"></p> <p>Signature of Authorized Representative BRENT SANDERS - DISTRICT MANAGER Name of Person and Title (type or print) NABORS DRILLING USA, LP Name of Company Telephone: <u>432.550.7808</u> Area Code</p>	<p>OPERATOR CERTIFICATION</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 align="center"></p> <p>Signature of Authorized Representative Laura Gilmore, Agent Name of Person and Title (type or print) Approach Operating, LLC Operator Telephone: <u>(817) 989-9000</u> Area Code</p>
--	--

Railroad Commission Use Only:

Approved By: _____ Title: _____ Date: _____

* Designates items certified by company that conducted the inclination surveys.

STATEMENT OF PRODUCTIVITY OF ACREAGE
ASSIGNED TO PRORATION UNITS

Form P-15
(5-6-71)
DBC0697

The undersigned states that he is authorized to make this statement; that he has knowledge of the facts concerning the APPROACH OPERATING, LLC ,
OPERATOR
UNIVERSITY 42-12 , No. 1 ; that such well is
LEASE WELL
completed in the HOLT RANCH (CANYON 7600) Field, CROCKETT County,
Texas and that the acreage claimed, and assigned to such well for proration purposes as
authorized by special rule and as shown on the attached certified plat embraces _____
160 acres which can reasonably be considered to be productive of hydrocarbons.

- CERTIFICATE -

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

Date 07/19/2010 Signature Laura Gilman

Telephone _____ Title AGENT
AREA CODE (817) 989-9000

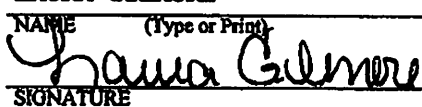
RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

GAS WELL
CLASSIFICATION REPORT

Form G-5

Rev. 01/01/86
DBC1297

READ INSTRUCTIONS ON BACK

1. OPERATOR NAME (Exactly as shown on Form P-5 Organization Report) APPROACH OPERATING, LLC		3. RRC DISTRICT NO. 7C	4. OIL LEASE NO. OR GAS WELL ID NO.														
2. MAILING ADDRESS ONE RIDGMAR CENTRE 6500 WEST FREEWAY, SUITE 800 FORT WORTH, TEXAS 76116		5. WELL NO. 1	6. API NO. 42-105-40677														
8. FIELD NAME (as per RRC Records) HOLT RANCH (CANYON 7600)		9. LEASE NAME UNIVERSITY 42-12															
10. LOCATION (Section, Block, and Survey) SEC 12, BLK 42, SURVEY UNIVERSITY LANDS		11. PIPELINE CONNECTION OR USE OF GAS WTG GAS PROCESSING, LP															
I. PRODUCTION TEST AT RATE ELECTED BY OPERATOR (data on 24-hour basis)		II. A.S.T.M. DISTILLATION OF LIQUID SAMPLE. Distillation test is required for gas wells ONLY if the producing gas-liquid hydrocarbon ratio is less than 100,000 CF/barrel.															
A. Date of Test <u>04/21/2010</u> B. Gas Volume <u>401</u> (Mcf) C. Oil or Condensate Volume <u>4</u> (Bbl) D. Water Volume <u>4</u> (Bbl) E. Gas/Liquid Hydrocarbon Ratio <u>100,143</u> (CF/Bbl) F. Flowing Tubing Pressure <u>N/A</u> (psia) G. Choke Size <u>20/64</u> (in.) H. Casing Pressure <u>340</u> (psia) I. Shut-in Wellhead Pressure-- Tubing <u>1200</u> (psia) J. Separator Operating Pressure <u>130</u> (psia) K. Color of Stock Tank Liquid <u>LT STRAW</u> L. Gravity of Separator Liquid <u>N/A</u> °API M. Gravity of Stock Tank Liquid <u>53.5</u> °API N. Specific Gravity of the Gas (Air = 1) <u>0.7336</u>		Date Liquid Sample Obtained <u>NOT REQUIRED</u> Where Obtained <input type="checkbox"/> Separator <input type="checkbox"/> Stock Tank <table style="width:100%;"> <thead> <tr> <th>% Over Temp. (deg. F)</th> <th>% Over Temp. (deg. F)</th> </tr> </thead> <tbody> <tr> <td>Initial Boiling Temp. _____</td> <td>60 _____</td> </tr> <tr> <td>10 _____</td> <td>70 _____</td> </tr> <tr> <td>20 _____</td> <td>80 _____</td> </tr> <tr> <td>30 _____</td> <td>90 _____</td> </tr> <tr> <td>40 _____</td> <td>95 _____</td> </tr> <tr> <td>50 _____</td> <td>End Point _____</td> </tr> </tbody> </table> Total Recovery _____ percent Residue _____ percent Loss _____ percent		% Over Temp. (deg. F)	% Over Temp. (deg. F)	Initial Boiling Temp. _____	60 _____	10 _____	70 _____	20 _____	80 _____	30 _____	90 _____	40 _____	95 _____	50 _____	End Point _____
% Over Temp. (deg. F)	% Over Temp. (deg. F)																
Initial Boiling Temp. _____	60 _____																
10 _____	70 _____																
20 _____	80 _____																
30 _____	90 _____																
40 _____	95 _____																
50 _____	End Point _____																
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. <u>07/19/2010</u> DATE		RRC USE ONLY LAURA GILMORE NAME (Type or Print)  SIGNATURE AGENT TITLE (817) 989-9000 PHONE NUMBER CONTACT PERSON															

OPERATOR NAME AND ADDRESS, including city, state and zip

APPROACH OPERATING, LLC
ONE RIDGMAR CENTRE
6500 WEST FREEWAY, SUITE 800
FORT WORTH, TEXAS 76116

GAS WELL STATUS REPORT

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
P. O. Box 12967
Austin, Texas 78711-2967

Page 1 of 1

Reason for Filing

☐

Survey

☐

Retest

☒

Initial Test

☐

Correction

Operator P-5 Organization No.

028625

RRC Dist. No.

7C

G-10
DBC 1297
rev. 7/85

Test Period:

Due Date:

Effective Date

FIELD NAME * LEASE NAME	RRC IDENT NO.	DATE TESTED MO/DAY/YR	GAS PRODUCED MCF/DAY**	CONDENSATE PRODUCED	WATER PROD BBL/DAY	***SIWH PRESSURE PSIA
	WELL NO.	MARK X FOR SHUT-IN WELL	GAS SPEC. GRAVITY	CONDENSATE GRAVITY (API)	X BOTTOMHOLE PRESSURE PSIA	***FLOWING PRESSURE PSIA
HOLT RANCH (CANYON 7600) UNIVERSITY 42-12	662109	04/21/2010	401 MCF	----- .4 BBL	----- 4 . BBL	1200
	1		.017336	53.5		340
			MCF	----- * BBL	----- * BBL	
			* ----	--- *-		
			MCF	----- * BBL	----- * BBL	
			* ----	--- *-		
			MCF	----- * BBL	----- * BBL	
			* ----	--- *-		
			MCF	----- * BBL	----- * BBL	
			* ----	--- *-		
			MCF	----- * BBL	----- * BBL	
			* ----	--- *-		
			MCF	----- * BBL	----- * BBL	
			* ----	--- *-		
			MCF	----- * BBL	----- * BBL	
			* ----	--- *-		
			MCF	----- * BBL	----- * BBL	
			* ----	--- *-		

CERTIFICATION: I declare under penalties prescribed in Texas Natural Resources Code, Sec 91.143, 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 herein are true, correct, and complete to the best of my knowledge.

Signature:

Laura Gurney

Title: AGENT

Phone: (817) 989-9000

Date:

07/19/2010

* AN ASTERISK PREPRINTED ON A SURVEY IDENTIFIES WELL SUBJECT TO COMMINGLING TEST REQUIREMENT
X AN "X" PREPRINTED ON A SURVEY IN THE BOTTOMHOLE PRESSURE BOX INDICATES A BOTTOMHOLE PRESSURE MUST BE REPORTED FOR THE WELL

** GAS PRODUCTION RATE, IN MCF, IS TO BE REPORTED FULL-WELL STREAM, INCLUDING CONDENSATE
***PRESSURE FOR THE TEXAS HUGOTON FIELD IS REPORTED IN PSIG

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

**ELECTRIC LOG
STATUS REPORT**

FORM L-1

Rev. 01-2007
DBC0308

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

SEE REVERSE SIDE

SECTION I. IDENTIFICATION

Operator Name:	APPROACH OPERATING, LLC	District No.	7C	Completion Date:	03/31/2010
Field Name	HOLT RANCH (CANYON 7600)	Drilling Permit No.	662109		
Lease Name	UNIVERSITY 42-12	Lease/ID No.		Well No.	1
County	CROCKETT	API No.	42- 105-40677		

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). _____

Laura Gilmore
Signature

LAURA GILMORE

Name (print)

AGENT

Title

(817)989-9000

Phone

07/19/2010

Date

-FOR RAILROAD COMMISSION USE ONLY-

HALLIBURTON

DUAL LATEROLOG MICRO SPHERICALLY FOCUSED LOG

COMPANY APPROACH OPERATING LLC WELL UNIVERSITY 42 - 12 No. 1 FIELD HOLT RANCH (CANYON 7600) COUNTY CROCKETT STATE TEXAS		COMPANY APPROACH OPERATING LLC				
		WELL UNIVERSITY 42 - 12 No. 1				
		FIELD HOLT RANCH (CANYON 7600)				
		COUNTY CROCKETT STATE TEXAS				
		API No. 42-105-40677 Location 660' FSL AND 660' FEL SECTION 12, BLOCK 42, ABSTRACT U362 UNIVERSITY LANDS SURVEY		Other Services DSNT-SDLT		
		Sect. N/A	Twp N/A	Rge N/A		
Permanent Datum		GL			Elev. 2605.0 ft	Elev.: K.B. 262
Log measured from		KB			18.4 ft above perm. Datum	D F 262
Drilling measured from		KB				G.L. 260
Date		30-Mar-10				
Run No.		ONE				
Depth - Driller		8450.00 ft				
Depth - Logger		8445.0 ft				
Bottom - Logged Interval		8439.00 ft				
Top - Logged Interval		2103.00 ft				
Casing - Driller		8.625 in @ 2106.0 ft		@	@	
Casing - Logger		2103.0 ft				
Bit Size		7.875 in		@	@	
Type Fluid in Hole		BRINE				
Density	Viscosity	9.9 ppg	31.00 s/qt			
PH	Fluid Loss	9.00 pH	18.0 cplm			
Source of Sample		MUD PIT				
Rm @ Meas. Temperature		0.07 ohmm @ 71.00 degF		@	@	
Rmf @ Meas. Temperature		0.05 ohmm @ 71.00 degF		@	@	
Rmc @ Meas. Temperature		0.08 ohmm @ 71.00 degF		@	@	
Source Rmf	Rmc	MEAS	MEAS			
Rm @ BHT		0.03 ohmm @ 163.2 degF		@	@	
Time Since Circulation		9.0 hr				
Time on Bottom		30-Mar-10 05:22				
Max. Rec. Temperature		163.2 degF @ 8445.0 ft		@	@	
Equipment	Location	11153040	ODESSA			
Recorded By		X. EMILIANO		W HANNA	D DEVINE	
Witnessed By		MR. CW WALLACE				

HALLIBURTON

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY APPROACH OPERATING LLC WELL UNIVERSITY 42 - 12 No. 1 FIELD HOLT RANCH (CANYON 7600) COUNTY CROCKETT STATE TEXAS		COMPANY APPROACH OPERATING LLC	
		WELL UNIVERSITY 42 - 12 No. 1	
		FIELD HOLT RANCH (CANYON 7600)	
		COUNTY CROCKETT STATE TEXAS	
API No. 42-105-40677 Location 660' FSL AND 660' FEL SECTION 12, BLOCK 42, ABSTRACT U362 UNIVERSITY LANDS SURVEY		Other Services. DLLT-MSFL	
Sect. N/A Twp. N/A Rge. N/A			
Permanent Datum GL Elev. 2605.0 ft Log measured from KB 18.4 ft above perm Datum Drilling measured from KB		Elev. K.B 2625 D F 2622 G L 2605	
Date 30-Mar-10			
Run No. ONE			
Depth - Driller 8450.00 ft			
Depth - Logger 8445.0 ft			
Bottom - Logged Interval 8391.00 ft			
Top - Logged Interval 200.00 ft			
Casing - Driller 8.625 in @ 2106.0 ft		@	
Casing - Logger 2103.0 ft			
Bit Size 7.875 in		@	
Type Fluid in Hole BRINE			
Density	Viscosity 9.9 ppg	31.00 s/qt	
PH	Fluid Loss 9.00 pH	18.0 cplm	
Source of Sample MUD PIT			
Rm @ Meas. Temperature 0.07 ohmm @ 71.00 degF		@	
Rmt @ Meas. Temperature 0.05 ohmm @ 71.00 degF		@	
Rmc @ Meas. Temperature 0.08 ohmm @ 71.00 degF		@	
Source Rmt	Rmc MEAS	MEAS	
Rm @ BHT 0.03 ohmm @ 163.2 degF		@	
Time Since Circulation 9.0 hr			
Time on Bottom 30-Mar-10 05 22			
Max. Rec. Temperature 163.2 degF @ 8445.0 ft		@	
Equipment	Location 11153040	ODESSA	@
Recorded By X. EMILIANO		W HANNA	D. DEVINE
Witnessed By MR CW WALLACE			

