OCD-ARTESIA MAY 18 2009

Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB No 1004-0137 Expires March 31, 2007

		Expires	iviai
5	Lease Sena	l No	

BUREAU OF LAND MANAGEME	3 Lease Serial NO
SUNDRY NOTICES AND REPORTS Do not use this form for proposals to drill abandoned well. Use Form 3160-3 (APD) for	or to re-enter an 6 If Indian, Allottee or Tribe Name
SUBMIT IN TRIPLICATE- Other instruction	s on reverse side. 7 If Unit or CA/Agreement, Name and/or No
1 Type of Well ☐ ☐ Gas Well ☐ ☐ Other	8 Well Name and No.
2 Name of Operator BOPCO, L. P.	James Ranch Unit #107H 9 API Well No
1	ne No (include area code) 10 Field and Pool, or Exploratory Area
4 Location of Well (Footage, Sec., T., R., M., or Survey Description)	Quahada Ridge SE (Delaware)
Surf: SWSW, 860' FSL & 990' FWL, Sec 36, T22S, R30E, Lat N 32.3 BHL: SESE, 660' FSL, 990' FWL, Sec 35, T22S, R30E, Lat N 32.3431	
12. CHECK APPROPRIATE BOX(ES) TO INDICA	TE NATURE OF NOTICE, REPORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION
Subsequent Report Casing Repair New Change Plans	en
Final Abandonment Notice Convert to Injection Plug I	
following completion of the involved operations. If the operation results in a testing has been completed. Final Abandonment Notices shall be filed only determined that the site is ready for final inspection.) BOPCO L.P. respectfully request the changes listed below to be a 5-1/2" casing will be replaced by 7" casing, 26#, N-80, LTC casing.	nd No. on file with BLM/BIA Required subsequent reports shall be filed within 30 days in multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once after all requirements, including reclamation, have been completed, and the operator has approved for the captioned well: In the curve and cemented in two stages with cement circulated to surface to TD 12,441', with Halliburton "Swell" packers for isolation of lateral pay .
14 I hereby certify that the foregoing is true and correct Name (Printed/Typed)	1
Annette Childers	Title Regulatory Clerk
Signature annatte Childers	Date 5-7-09
THIS SPACE FOR FEDER	RAL OR STATE OFFICE USE
Approved by Roya & I Have Conditions of approval, If any, are attached Approval of this notice does not y	Petroleum Engineer MAY 1 6 2009
conditions of approval, framy, are attached. Approval of this notice does not verify that the applicant holds legal or equitable title to those rights in the subjudich would entitle the applicant to conduct operations thereon.	ł
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime fo States any false, fictitious or fraudulent statements or representations as to any	r any person knowingly and willfully to make to any department or agency of the United natter within its jurisdiction

(Instructions on page 2)



SEE ATTACHED FOR **CONDITIONS OF APPROVAL**



Surface casing to be set into the Rustler below all fresh water sands.

7" casing will be set at approximately 7610' (thru curve) and cemented in two stages with DV Tool set at approximately 5000'. Cement will be circulated to surface.

Production casing will be 4-1/2" run with Halliburton "Swell" packers. Top of 4-1/2" liner will be approximately 200' above KOP (±6650').

Drilling procedure, BOP diagram, and anticipated tops attached.

This well is located within the R111 Potash area.

The surface location and bottom hole location are both orthodox.

BOPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a subsidiary of BOPCO, L.P., 201 Mail Street, Ft. Worth, TX, 76102. Bond No. COB000050 (Nationwide).

EIGHT POINT DRILLING PROGRAM BOPCO, L.P.

NAME OF WELL: James Ranch Unit #107H

LEGAL DESCRIPTION - SURFACE: 860' FSL, 990' FWL, Section 36, T22S, R30E, Eddy County, NM.

BHL: 660' FSL, 990' FWL, Section 35, T22S, R30E, Eddy County, New Mexico.

POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3308' (estimated)

GL 3283'

	ESTIMA	ATED		
	TOP FR	OM KB	ESTIMATED	
<u>FORMATION</u>	TVD	MD_	SUB-SEA TOP	<u>BEARING</u>
T/Rustler	201'	201'	+ 3101'	Barren
B/Rustler	499'	499'	+ 2803'	Barren
T/Salt	540'	540'	+ 2762'	Barren
B/Salt	3521'	3521'	- 219'	Barren
T/Lamar Lime	3766'	3766'	- 464'	Barren
T/Ramsey	3805'	3805'	- 503'	Oil/Gas
T/Lower Cherry Canyon	5955'	5955'	- 2653'	Oil/Gas
KOP (Kick Off Point)	6810'	6810'	- 3502'	N/A
T/Brushy Canyon "U" Sand	7107'	7140'	- 3917'	Oil/Gas
EOC Target	7288'	7560'	- 3987'	Oil/Gas
TD (end of lateral)	7238'	12,441'	- 3937'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	INTERVALS (MD)	<u>Hole Size</u>	<u>PURPOSE</u>	CONDITION
20"	0'- 60'	24"	Conductor	Contractor Discretion
13-3/8", 48#, H-40, ST&C	0' - 530'	17-1/2"	Surface	New
9-5/8", 36#, J-55, 8RD, LT&C	0' - 3786'	12-1/4"	Intermediate	New
7", 26#, N-80, LT&C	0' - 7610'	8-3/4"	Production	New
4-1/2", 11.6#, N-80, Ultra Flush JT	7610' - 12,441'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, ST&C	16.10	2.85	3.49
9-5/8", 36#, J-55, LT&C	4.03	1.30	1.13
7", 26#, N-80, LT&C	3.04 (1.51	2.99
4-1/2", 11.6#, N-80, Ultra Flush JT	6.10 `	2.11	1.90

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING

Tension A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).

A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in Collapse

which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

A 1.3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure a that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0

psi/ft gradient. The effects of tension on burst will not be utilized.

PROTECTIVE CASING

Tension A 1.6 design factor utilizing the effects of buoyancy (10 ppg).

A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.

> In the case of development drilling, collapse design should be analyzed using internal evacuation equal to 1/3 the proposed total depth of the well. This criterion will be used when there is absolutely no potential of the protective string being used as a production casing string.

A 1.0 surface design factor and a 1.3 downhole design factor with a surface pressure equivalent to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at that depth. Back pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of

potential fracture resistance up to a 1.0 psi/ft gradient.

PRODUCTION CASING

A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).

Collapse A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

Burst A 1.25 design factor with anticipated maximum tubing pressure (3529 psig) on top of the maximum anticipated packer fluid gradient. Backup on production strings will be formation pore pressure. The effects of tension on burst will not be utilized.

JRU #107H Plan chg to Horz & close loop system 5-7-09 attachment

Burst

Collapse

Burst

Tension

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

The blowout preventer equipment will be as shown in Diagram #2 and will consist of a double ram type preventer (3000 psi WP) and a bag type (Hydril) annular preventer (3000 psi WP). The same BOPE will be installed on the surface casinghead and on all subsequent casing strings. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casinghead will be hydro-tested to 200 psig & 2000 psig with independent tester. The BOPE when rigged up on the intermediate casing spool will be tested to 3000 psig by independent tester. In addition to the high pressure test, a low pressure (200 psig) test will be required.

These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) Fifteen days after a previous test
- d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip.

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	<u>WEIGHT</u>	_FV_	PV_	YP_	FL	<u>Ph</u>
0' - 591'	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0
591' - 3762'	Brine Water	9.8 - 10.2	28-30	NC	NC	NC	9.5 - 10.5
3762' - 7610'	FW/Gel	8.7 - 9.0	28-36	NC	NC	NC	9.5 - 10.0
7610' - 12,441'	FW/Gel	8.7 - 9.0	28-36	NC	NC	NC	9.5 - 10.0

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated.

B) LOGGING

Run #1: PEX (GR-CNL/LDT-AIT) from as deep as possible in deviated hole (±7075') to 3762' with GR-CNL to surface.

Run #2: GR with MWD during drilling of build and horizontal portions of 8-3/4" and 6-1/8" openhole.

Run #3: Drill pipe conveyed GR-NL-Density-Caliper, TD to 250' above the curve.

C) CONVENTIONAL CORING

None anticipated.

D)CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT³/SX
SURFACE: Lead: 0 – 230' (100% excess Circ to surface)	170	230	EconoCem-HLC + 2.7 #/sk Salt	10.25	12.8	1.88
Tail: 230' – 530' (100% excess)	310	300	HalCem-C + 2% CaCl ₂	6 39	14.8	1.35
INTERMEDIATE: Lead: 0' – 3286' (100% excess Circ to surface)	750	3286	EconoCem-C + 0.125 pps Poly-e-flake	16.62	11.5	2.78
Tail: 3286' – 3786' (100% excess)	250	500	HalCem-C + 1% CaCl₂	6.36	14.8	1.34
2 nd INTERMEDIATE Stage 1: Lead: 5000' – 6610 (50% excess)		1610	Halco Tuned Lite	14.4	9.7	2.00
Tail: 6610' – 7610' (50% excess)	200	1000	HalcoCem Premium Plus-acid Soluble	11.34	15	1.20
DV Tool @ 5,000'						
Stage 2: Lead: 0' – 4900' (50% excess)	400	4900	EconoCem-C	14.4	9.7	3.13
Tail: 4900' – 5000' (50% excess)	50	100	Class "C" Neat	6.34	14.8	1.34

E) DIRECTIONAL DRILLING

BOPCO, L.P. plans to drill out the 9-5/8" intermediate casing with an 8-3/4" bit to a TVD of approximately 6810' at which point a directional hole will be kicked off and drilled at an azimuth of 267.75°, building angle at 12.00°/100' to a max angle of 90.59° at a TVD of 7288' (MD 7565'). At this depth 7" casing will be installed and cement circulated to surface in two stages with DV Tool at approximately 5000'. A 6-1/2" openhole will be drilled thru lateral to MD of 12,441'. 4-1/2" casing will be installed in the lateral using Halliburton "Swell" packers to isolate pay intervals in Brushy Canyon Sand.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. A BHP of 3138 psi (max) or MWE of 8.4 ppg is expected. Lost circulation may exist in the Delaware Section from 3815'-7125' TVD. No H_2S is anticipated.

POINT 8: OTHER PERTINENT INFORMATION

A) Auxiliary Equipment

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

39 days drilling operations

14 days completion operations

Gary E. Gerhard

GEG/mac May 7, 2009 Make Up Torque

e unita Ed

ULTRA

premium oiffield services

ULTRA Premium Oilfield Services 3333 Brazos Avenue Odessa, TX 79764

(432) 337-2109

(432) 580-6607

Fax (432) 332-5019

For Help Please Call Our ULTRA Rield Service Manager: (432)557-1916

ULTRA-FI Connection Torque Sheet. (Flush-Joint)

Print Date:

Thorsday, March 26, 2009

Pipe Size (in)	Pipe Weight (#)	Pipe Grade
4 1/2	11.60	N-80

Make Up Torque in (Ft-Lbs)

Minimum	Optimum	Maximum
2,700	3,000	3,300

Please ask for and use the latest recommended running procedures!

If the date on this sheet is over 30 days pld please call and verify, any updates or changes.

Thank You.

OLTRA Odps82 3933 Brazos Avenue Odes88, Texas 79764 Tel; 432-337-2108 ULTRA Houston 8216 Miller Road #3 Houston, Texes 77049 Tel: 281-455-8400

The Strongest Flush-Joint Connection

ULTRA

- · ULTRA-FJ has the highest tensile efficiency of any true flush-joint connection.
- · ULTRA-FJ has compression efficiency equal to or greater than its tensile efficiency.
- ULTRA-FJ pressure ratings exceed API minimum internal yield and collapse pressure.

DATA SHEET

PARAMETERS	Nominal OD Nominal Welght Grade	4 1/2 11.60 N-80	~
MATERIAL	Minimum Yield	80,000	pst
	Minimum Ultimate	100,000	psi
PIPE BODY	PE Weight	11.35	lbs
	Wall Thickness	0.250	In
	Nominal ID	4.000	in
	Drift Diameter	3.875	Id
	Average Pipe Body Area	3.356	In²
	Yield Strength	268,400	ibs
	Tensile Strength	335,600	Ibs
	Minimum Internal Yield Pressure	7,780	psi
	Collapse Pressure	6,360	psi
Connection	Average Pipe Body OD ID (bored) Critical Cross Section Area Yield Strength in Tension Tension Efficiency Fracture Strength Percent Pipe Body Fracture Yield Strength in Compression	4.523 3.993 2.183 174,600 65.0% 209,400 62.4% 179,800	Im in in² ibs ibs
	Compression Efficiency Make-Up Loss Min. Internal Yield Pressure Collapse Pressure	179,800 67.0% 3.727 7,780 6,360	īm psi psi



ULTRA Odessa 3333 Brázos Ayenue Odessa, Texas 79764 Tel. 432-337-2109

ULTRA Houston 8216 Miller Road #3 Housian, Texas 77049 Tek 281-456-8400

3/26/2009

PECOS DISTRICT CONDITIONS OF APPROVAL

May 16, 2009

OPERATOR'S NAME: | BOPCO, L.P.

LEASE NO.: NM 02952A

WELL NAME & NO.: | James Ranch Unit #107H

SURFACE HOLE | 860' FSL & 990' FWL Section 36, T22S, R30E

FOOTAGE:

BOTTOM HOLE FOOTAGE | 660' FSL & 990' FWL

LOCATION: Section 35, T. 22 S., R 30 E., NMPM

COUNTY: Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufacturer of the logging tools recommended speed. (R-111-P area only)

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P potash/WIPP

High cave/karst.

Possible water flows in the Salado Group and Castile formation.

Possible lost circulation and water flows in the Delaware and Bone Spring formations.

- 1. The 13-3/8 inch surface easing shall be set at approximately 591 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If the salt is encountered at a shallower depth, the easing is to be set a minimum of 15 feet above the salt.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing is to be filled every 1000 feet to meet the minimum BLM collapse safety factor.

- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - □ Cement to surface. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash and cave/karst concerns.
- 3. The minimum required fill of cement behind the 7 inch second intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.

 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash and cave/karst concerns.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

- 4. The minimum required fill of cement behind the 4-1/2 inch production casing/liner is:
 - a. First stage to DV tool, cement shall:
 - Not required as operator is using Halliburton "Swell" packer completion assembly.

Seal on Halliburton "Swell" packer assembly liner is to be tested per Onshore Oil and Gas Order 2.HLB.1.b. Please call BLM for witness of seal test.

- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 inch intermediate casing shoe shall be 3000 (3M) psi.
- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - e. Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WIPP Requirements

The proposed well is located more than 330' of the WIPP Land Withdrawal Area boundary. As a result, BOPCO, L.P. is requested, but not required to submit daily logs and deviation survey information to the Department of Energy per requirements of the Joint Powers Agreement. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

Yates Petroleum Corporation can email the required information to Ms. Susan McCauslin at susan.mccauslin@wipp.ws or fax to her attention at 575-234-6003.

RGH 051509