State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Heather Riley, Division Director
Oil Conservation Division

New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 8/24/18
Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf_Owner	UL	Sec	Twp	N/S	Rng	W/E
30-045-20126-00-00	BOLIN HARDIE	001	HILCORP ENERGY COMPANY	G	A	San Juan	F	D	34	29	N	8	W

Application Type:

☐ P&A ☐ Drilling/Casing Change ☐ Location Change

☐ Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)

☒ Other: Casing Repair

Conditions of Approval:

- Compliance review pending.
  - Hilcorp failed to repair the casing and failed to get a successful pressure test after drilling out the cement and prior to moving the rig off.
  - Hilcorp did not provide notifications to the OCD of the final failed squeeze attempt for 21 days.
- Hilcorp was initially advised on 6/4/18 to have the repairs to the casing performed within 90days. The timeframe was advised due to operators producing from the same formation the holes in the casing were located.

Brandon Powell

NMOCD Approved by Signature

8/30/18
Date

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3460 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

VL

RECEIVED

AUG 24 2018

Farmington Field Office
Bureau of Land Management

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

5. Lease Serial No. **SF-078049-A**

6. If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No. **Bolin Hardie 1**

2. Name of Operator **Hilcorp Energy Company**

9. API Well No. **30-045-20126**

3a. Address **382 Road 3100, Aztec, NM 87410**

3b. Phone No. (include area code) **505-599-3400**

10. Field and Pool or Exploratory Area **Basin Dakota**

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
Surface Unit D (NWNW), 880'FNL & 1170' FWL, Sec. 34, T29N, R08W

11. Country or Parish, State **San Juan , New Mexico**

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☒ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Cmt squeeze
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

NMOCD

AUG 28 2018

DISTRICT III

5/24/2018 MIRU Black Hawk 37. Shut-in & secure well.

5/25/2018 BDW. ND Prod WH. NU & PT BOP assembly, Test-Good. RU SLKLN. Pull plunger lift tools. RD SLKLN. RU Tuboscope, TOOH w/ 2-3/8" tbg. RD Tuboscope. Shut-in & secure well.

5/29/2018 BDW. MU 3.75" String mill. Round trip to 7,250. MU 4-1/2" CIBP. TIH & **set CIBP @ 7190'**. TOOH. Shut in & secure well.

ACCEPTED FOR RECORD

5/30/2018 Open well. MU bridge plug/pkr assembly. TIH w/ CIBP/pkr assembly & tbg. **Set CIBP @ 5277'**. PU & set pkr to 5245'. PT CIBP to 1500 psi. Test-Good. Unset pkr. Set pkr @ 2990 & PT to 500 psi. Test-Good. TOOH w/ setting tool, pkr & tbg. RU WRLN & logging tools. Run CBL from 5250' to surface. RD WRLN. MU RBP, TIH, **set RBP @ 4721'**. PT RBP to 750 psi. Test-Good. Start leak location operations. Leak found between 4680'-2990'. Shut in & secure well.

AUG 28 2018

FARMINGTON FIELD OFFICE

By:

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Christine Brock Title **Operations/Regulatory Technician - Sr.**

Signature Christine Brock Date 8/24/18

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

(Instruction on page 2)

5/31/2018 Open well. Set 4-1/2" pkr @ 2998'. Load tbg/csg annulus. Test csg above pkr to 500 psi. Test good. Unset pkr & TIH to 3118, set pkr & Test csg to 500 psi. Test-Good. TIH to RBP @ 4721' & unset. Begin leak location operations. Move & set RBP @ various depths to locate possible csg leak.
1st: packer at 4,440', rbp at 4,563'. Test to 500 psi. Leak off at 400 psi/minute.
2nd: packer at 4,314',rbp at 4,440'. Test to 500 psi. Leak off at 400 psi/minute.
3rd: packer at 4,183', rbp at 4,314'. Test to 500 psi. Leak off at 10 psi/minute.
4th: packer at 4,061', rbp at 4,187'. Test to 500 psi. Leak off at 5 psi/minute.
5th: packer at 3,937', rbp at 4,061'. Test to 500 psi. Leak off at 20 psi/minute.
6th: packer at 3,810', rbp at 3,937'. Test to 500 psi. Leak off at 300 psi/3 seconds.
TOOH w/ pkr & RBP. MU RBP/pkr assembly. TIH w/ RBP/pkr. Move & set pkr at various depths to continuing to loop for possible csg leak.
7th: packer at 3,683', rbp at 3,810'. Test to 500 psi. Leak off at 500 psi/3 seconds.
8th: packer at 3,559',rbp at 3,683'. Test to 500 psi. Leak off at 500 psi/2 seconds.
9th: packer at 3,433', rbp at 3,559'. Test to 500 psi. Leak off at 500 psi/2 seconds.
10th: packer at 3,307', rbp at 3,433'. Test to 500 psi. Leak off at 500 psi/5 seconds.
11th: packer at 3,180', rbp at 3,307'. Test to 500 psi. Leak off at 200 psi/minute.
12th: packer at 3,053', rbp at 3,180'. Test to 500 psi. Leak off at 1 psi/minute.
Test csg above pkr to 550 psi, test-good. Unset pkr. Shut in & secure well.

6/1/2018 Open well. TOOH w/ RBP & pkr/ TOH w/ 10 jts tbg for tailpipe. MU 4-1/2" RBP onto tbg & RIH. Set @ 60'. Tailpipe @ 685'. POOH w/setting tool. ND BOP assembly. RU Antelope. ND 2K tbg head assembly. Install 5K tbg head assembly. NU & Test BOP assembly. RD Antelope. TIH w/ Ret head. Unset RBP & TOOH. Shut in & secure well.

6/4/2018 Open well to FB tank. TIH w/ tbg float from derrick. TOOH. ND BOP assembly. RU Antelope NU 3K master valve assembly. RD Antelope. Shut in secure well. **Reported leaks at approx. 3118'-4689' to BLM (William Tambekou) & NMOCD (Monica Kuehling). OCD will require a plan to Brandon Powell, recv'd verbal approval to move off location.** RD RR @ 14:00.

7/3/2018 Submitted via e-mail procedure for squeeze work. **Rcv'd approval from NMOCD on 7/3/2018 (Brandon Powell) & BLM on 7/5/18 (William Tamekou).**

7/6/2018 MIRU Black Hawk 37. BDW. ND Prod WH assembly, NU & Test BOP assembly. PT BOP Assembly. Test-Good. PT pipe & blind rams. Test-Good. MU CIBP assembly. TIH w/ CIBP & tbg. **Set CIBP @ 4294'**. Circ csg above CIBP. RU cementing crew. Mix & spot 95 sx of class G cement @ 15.8 ppg w/ 1.15 ft3 yield. Spotted in 2 plugs, estimated cement plug @ +/-3099'-4294'. TOOH w/ tbg & setting tool. MU cmt retainer. TIH w/ retainer & set @ 2890'. Mix & pumped 305 sx of class G cement @ 15.8 ppg w/ 1.15FT3 yield thru cement retainer. Sting out of retainer & leave +/- 30' of cement on retainer. Reversed out 22 bbls of water to flowback tank. TOOH w/ tbg & retainer stinger. RD cementers. Shut in & secure well.

7/9/2018 Open well. Load & tested csg to 640 psi. Test-Good. MU 3.75" Junk mill. TIH & tag cmt on retainer @ 2880'. RU pwr swivel assembly, break circ & begin drilling out cmt & retainer. Drilled to 3005'. Pulled up & tested to 620 psi. Leaking off @ 1psi/min. TOOH w/ mill. MU 3 blade paddle bit assembly. TIH to 2950'. Shut in & secure well.

7/10/2018 Open well. RU pwr swivel assembly. DO cmt. Drilled to 3125'. PU & Test 4-1/2" csg to 620 pwr. Leak off at 1 psi/min. Continue drilling to 3246'. PU & test csg to 610 psi. Leaking off at 1 psi/min.

Continue drilling to 3371'. PU & test csg, leaking off at 1 psi/min. continue drilling to 3434'. PU & test csg to 630 psi, leaking off at 50 psi/min. Pull tbg/mill to 3300'. Shut in & secure well.

7/11/2018 Open well. RU Pwr swivel. Break circ & continue to DO cmt. Drilled to 3496'. PU & Test csg to 630 psi. Leaking off at 75 psi/min. Drill to 3623'. PU & Test csg to 620 psi. Leaking off at 75 psi/min. Drill to 3748'. PU & Test csg to 600 psi. Leaking off at 100 psi/min. Drill to 3875'. PU & Test csg to 620 psi. Leaking off at 100 psi/min. Pull tbg/mill to 3740'. Shut in & secure well.

7/12/2018 Open well. RU pwr swivel. Continue DO of cmt. At 3969' start drilling cement stringer. Drilled to 3999'. PU & test cmt to 600 psi. Leaking off at 100 psi/min. Continue drilling stingers to top of CIBP @ 4294'. Circ clean above CIBP. Test csg to 630 psi. Leaking off at 100 psi/min. TOOH tbg/mill. MU mule shoe BHA. TIH to 4292' for cmt job. Shut in & secure well.

7/13/2018 RU Drake Cementing equipment. Break circ on well with H2O. Mix & spot 100 sks Type III cement @ 14.6 ppg w/ 1.34 ft3 yield. Spotted in 2 plug @ +/- 2800' to 4294'. Pull tbg to 2674' & reverse out w/ 50 bbls H2O. Pull tbg to 2547'. Close pipe rams & squeeze 1 bbl of cement in csg leaks. Rig down cement equipment. Shut in & secure well.

7/16/2018 RU & PT cmt squeeze to 700 psi for 10 min – Test-good. TOH w/ tbg. PU & TIH w/ tbg. PU & TIH w/ bladed bit, Tag TOC @ 2800'. Break circ, DO soft cmt from 2800' to 2920.22'. RU & PT cmt squeeze @ 2920.22' to 700 psi for 10 min, test-good. DO medium hard cmt squeeze from 2920.22' – 3045.10'. RU & PT cement squeeze @ 3045.10' to 700 psi, test good. DO hard cement from 3045.10'-3172.01'. RU & PT cement squeeze @ 3172.01' to 750 psi for 10 min, test good. DO hard cement squeeze from 3172.01'- 3298.81'. RU & PT cement squeeze @ 3298.81' to 700 psi, lost 10 psi in 10 min. Shut in & secure well.

7/17/2018 RU & re-test cmt squeeze @ 3298.81' to 700 psi for 20 min, test good. Break cir, DO hard cmt from 3298.81' – 3425.62'. RU & PT cmt squeeze @ 3425.62' to 600 psi. Lost 300 psi in 10 min. Re-pressure up to 600 psi, lost 100 psi in 2 min, 250 psi in 10 min, 300 psi in 15 min, 350 psi in 20 min. Pressure stabilized @ 250 psi. TOH w/ tbg & bladed bit. PU & TIH w/ cmt retainer to 351'. TOH. PU & strap in hole w/ blade mill, bit sub & DC's/ Tag top of cmt retainer @ 351'. PU & RU pwr swivel. Break circ & mill off top of cmt retainer. Push retainer down hole to 410'. Shut in & secure well.

7/18/2018 Mill out & push cmt retainer down to 6168.10'. PU & RU pwr swivel, mill on cmt retainer from 3168.10'-3292.92'. PT cmt squeeze to 600 psi, lost 350 psi in 20 mins. Strap tbg out of hole, LD mill. PU & TIH w/ bladed bit, bit sub & DC's. DO hard cmt from 3292.92'-3450.04'. Circ hole clean. Shut in & secure well.

7/19/2018 Break cir & DO hard cmt squeeze from 3450'-3622, fell through from 3622'-4017' (395' free pipe no cmt). DO hard cmt from 4017'-4294' (Top of CIBP). Circ hole clean on top of CIBP @ 4294'. TOH, LD 75-jts tbg. TIH w/ tbg. PT csg to 700 psi, pressure dropped off to 300 psi in 10 min, lost 400 psi in 10 min. Shut in & secure well.

7/20/2018 TIH w/ mule shoe & tbg to 4279'. RU cmt equipment. PT pump & line to 2000 psi, test good. Load hole w/ 5 BFW, pump 104 sks finecem 12.5 ppg, yield .92 squeeze cmt. Spot bal cmt plug from 4279'-3077'. Reverse circ out 1 bbl cmt. PU tbg to 2444'. Pressure up on cmt squeeze to 850 psi, pressure dropped to 617 psi in 10 min. Pressure stabilized @ 736 psi. Shut in & secure well.

7/23/2018 TIH w/ tbg. TOOH. ND BOP assembly, NU master valve assembly. Shut in & secure well. RDRR @ 1100 hrs

7/26/2018 MIRU Blackhawk 37 ND WH assembly. NU BOP assembly. PT BOP, test good. PT pipe & blind rams, 250 psi (low for 5 minutes, 1200 psi (high) for 10 minutes. Test-Good. MU cmt drilling assembly.

TIH w/ drilling assembly & tbg. Tally & PU tbg from float. Tag cement @ 3260'. RU pwr swivel. Break cir. Begin mill/CO cmt from squeeze job. Drilled to 3395'. Pull up & close pipe, PT csg to 650 psi. Leaking off at 10 psi/min. Continue circ & Drill down to 3426'. Circ clean. PU & Close pipe rams. PT csg to 630 psi. Leaking off at 10 psi/min. LD tbg. Install & close TIW valve. Shut in & secure well.

7/27/2018 RD pwr swivel. Continue drilling out cmt to 4280'. Circ clean. TOOH w/ tbg/bit assembly. Close blind rams. PT csg to 700 psi for 30 min. Leaking off at 10 spi/min. Shut in & secured well.

7/30/2018 Pressure up csg to 650 psi. Lost 50 psi in 5 min. Lost 100 psi in 10 min, lost 125 psi in 15 min, lost 150 psi in 20 min, lost 180 psi in 30 min, Lost 275 psi in 1 hr. Pressure stabilized @ 375 psi. PU & TIH w/ bladed bit, string mill & tbg to 3500'. TOOH, LD string mill. PU & TIH w/ bladed bit, csg scraper & tbg to 3500'. TOOH, LD csg scraper. PU & TIH w/ test pkr to 3401'. Roll hole to circ out air. Set pkr @ 3401'. PT down tbg from 3401-4294'. Lost 75 psi in 15 min. PT csg above pkr from 3401'- surface. Pressure up to 639 psi, lost 7-psi in 5 min, lost 20 psi in 10 min, lost 22 psi in 15 min, Set pkr @ 3432', Pressure up to 560 down tbg. Lost 91 psi in 5 min, lost 142 psi in 10 min, lost 174 psi in 15 min. Pkr set @ 3432'. Test csg from 3432' to surface. Pressure up to 656 psi. Lost 8 psi in 5 min, lost 11 psi in 10 min, lost 15 psi in 15 min. Set pkr @ 3371' & PT from 3371' – surface. Lost 5 psi in 5 min, lost 10 psi in 10 min, lost 14 psi in 15 min. Release pkr & PU to 3100'. Shut in & secure well.

7/31/2018 TOOH w/ tbg. LD pkr. PU & TIH w/ blade mill, bit sub & tbg to 4294'. Break circ & **Mill out CIBP @ 4294'**. Push bottom of CIBP down hole to top of 2nd CIBP @ 5277'. Mill out bottom of 1st BP & 2nd CIBP @ 5277' w/ 2% KCL. Milled off top of CIBP & lost rtns. Work mill free. Finish milling up on 2nd CIBP. Push bottom of CIBP down hole to 7190' (Top of DK CIBP). TOOH, LD tbg. Shut in & secure well.

8/1/2018 BDW to FB tank. ND kill spool & BOP stack. NU Master valve. RDRR @ 15:00 hrs. Shut in and secure well.

8/21/2018 Called BLM (William Tambekou) and NMOCD (Brandon Powell) to discuss cement job on 7/20/18. Path forward plan will be submitted to the agencies. A subsequent sundry will be filed to report additional work to repair csg leak.

Hilcorp Energy Company

Current Schematic - Version 3

Well Name: BOLIN-HARDIE #1

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004520126	034-029N-008W-D	DK		NEW MEXICO	Vertical

Ground Elevation (ft)	Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)
6,402.00	6,415.00	13.00	13.00	13.00

Vertical, Original Hole, 8/23/2018 1:09:24 PM