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MAY 21 2013
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. **Hardie 2**

2. Name of Operator **ConocoPhillips Company**

9. API Well No. **30-045-20112**

3a. Address **PO Box 4289, Farmington, NM 87499**

3b. Phone No. (include area code) **(505) 326-9700**

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), 970' FNL & 850' FWL, Sec. 28, T29N, R8W

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
	☐ 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.)

ConocoPhillips requests permission to P&A the subject well per the attached procedure, current and proposed wellbore schematics. The Pre-Disturbance Site Visit was completed on 5/15/13 with Robert Switzer. The Re-Vegetation Plan is attached.

RCVD JUN 4 '13
OIL CONS. DIV.
DIST. 3

Notify NMOCD 24 hrs prior to beginning operations

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Dollie L. Busse Title **Staff Regulatory Technician**

Signature Dollie L Busse Date 5/21/13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
Original Signed: Stephen Mason
Title
Date MAY 24 2013

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.

(Instruction on page 2)

NMOCD

ConocoPhillips
HARDIE 2
Expense - P&A

Lat 36° 42' 4.108" N Long 107° 41' 13.236" W

PROCEDURE

This project requires a NMOCD C-144 CLEZ Closed-Loop System Permit for the use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.

1. Hold pre-job safety meeting. Comply with all NMOCD, BLM, and COPC safety and environmental regulations. Test rig anchors prior to moving in rig.

2. MIRU work over rig. Check casing, tubing, and bradenhead pressures and record them in Wellview.

3. When an existing primary valve (i.e. casing valve) is to be used, the existing piping should be removed and replaced with the appropriate piping for the intended operation.

4. RU blow lines from casing valves and begin blowing down casing pressure.

6. ND wellhead and NU BOPE. Pressure and function test BOP. PU and remove tubing hanger.

7. TOOH with 2-3/8" tubing (per pertinent data sheet).

Tubing: Yes **Size:** 2-3/8" **Length:** 5,390'

8. MU bit and bit sub assembly for 4-1/2" casing (4" ID) and drill out composite bridge plug at 5,420'. TOOH.

Round trip watermelon mill to composite bridge plug @ 7,249' or as deep as possible.

All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.3 ppg, *sufficient to balance all exposed formation pressures.* All cement will be ASTM Type II mixed at 15.6 ppg with a 1.18 cf/sk yield.

8. Plug 1 (Dakota perforations, formation top, and Graneros formation top, 7149-7249', 12 Sacks Class B Cement)
TIH with tubing and pressure test casing to 560 psi and tubing to 800 psi (using wireline to test tubing). If casing does not test, tag subsequent plugs as appropriate. Mix 11 sxs of Class B cement and spot a balanced plug on top of the CBP to isolate the Dakota perforations, formation top, and the Graneros formation top. PUH.

9. Plug 2 (Gallup formation top, ~~6364-6484~~ 6202-6102', 12 Sacks Class B Cement)
Mix 12 sxs of Class B cement and spot a balanced plug inside the casing to isolate the Gallup formation top. PUH.

10. Plug 3 (Mancos formation top, 5600-5700', 12 Sacks Class B Cement)
Mix 12 sxs of Class B cement and spot a balanced plug inside the casing to isolate the Mancos formation top. PUH.

11. Plug 4 (Mesa Verde formation top, 4550-4650', 12 Sacks Class B Cement)
Mix 12 sxs of Class B cement and spot a balanced plug inside the casing to isolate the Mesa Verde formation top. PUH.

11. Plug 5 (Chacra formation top, 3902-4002', 12 Sacks Class B Cement)
Mix 12 sxs of Class B cement and spot a balanced plug inside the casing to isolate the Chacra formation top. POOH.

12. Plug 6 (Intermediate Shoe, 3093-3193', 30 Sacks Class B Cement)
RU wireline and shoot 3 HSC holes at 3,193'. PU CR for 4-1/2" OD (4" ID) and set at 3,143'. TIH with tubing, sting into CR and establish circulation through the squeeze holes. Mix 30 sxs of Class B cement. Squeeze 19 sxs into the HSC holes and leave 11 sxs inside the casing to isolate the Intermediate shoe. POOH

13. Plug 7 (Pictured Cliffs formation top, 2940-3040', 26 Sacks Class B Cement)
RU wireline and shoot 3 HSC holes at 3,040'. PU CR for 4-1/2" OD (4" ID) and set at 2,990'. TIH with tubing, sting into CR and establish circulation through the squeeze holes. Mix 26 sxs of Class B cement. Squeeze 15 sxs into the HSC holes and leave 11 sxs inside the casing to isolate the Pictured Cliffs formation top. POOH

14. RU free-point and cut production casing at 2,800'. POOH and LD 4-1/2" casing. If casing does not cut low or won't POOH, call Rig Supervisor and Production Engineer for path forward

15. Run watermelon mill for 7" OD (6.456" ID) casing to top of 4-1/2" casing @ 2,800' or as deep as possible.

16. Pressure up the 7" casing to 500# and hold during the CBL. Run CBL from 2,800' to surface to confirm top of cement. Contact Rig Supervisor and Production Engineer with new TOC.

17. Plug 8 (Liner Top and Fruitland Coal formation top, 2800-~~2850~~ 2618', 78 Sacks Class B Cement)
Mix 78 sxs of Class B cement and spot a balanced plug inside the casing to isolate the liner top and Fruitland Coal formation top. PUH.

18. Plug 9 (Ojo Alamo and Kirtland formation tops, 1890-2138', 58 Sacks Class B Cement)
Mix 58 sxs of Class B cement and spot a balanced plug inside the casing to isolate the Ojo Alamo and Kirtland formation tops. POOH.

19. Plug 10 (Nacimiento formation top, ~~639-739~~ 645-545', 55 Sacks Class B Cement)
RU wireline and shoot 3 HSC holes at ~~739~~ 645'. PU CR for 7" OD (6.456" ID) and set at ~~689~~'. TIH with tubing, sting into CR and establish circulation through the squeeze holes. Mix 55 sxs of Class B cement. Squeeze 26 sxs into the HSC holes and leave 29 sxs inside the casing to isolate the Nacimiento. POOH

20. Plug 11 (Surface Plug, 0-265', 113 Sacks Class B Cement)
Perforate 3 HSC holes at 265'. Establish good circulation out the bradenhead with water and circulate annulus clean. Mix 113 sxs of Class B cement and pump down the intermediate casing to circulate good cement out the bradenhead. Shut in well and WOC.

21. Nipple down BOP and cut off casing below the casing flange. Install P&A marker with cement to comply with regulations. Rig down, move off location, cut off anchors, and restore location.

Schematic - Current

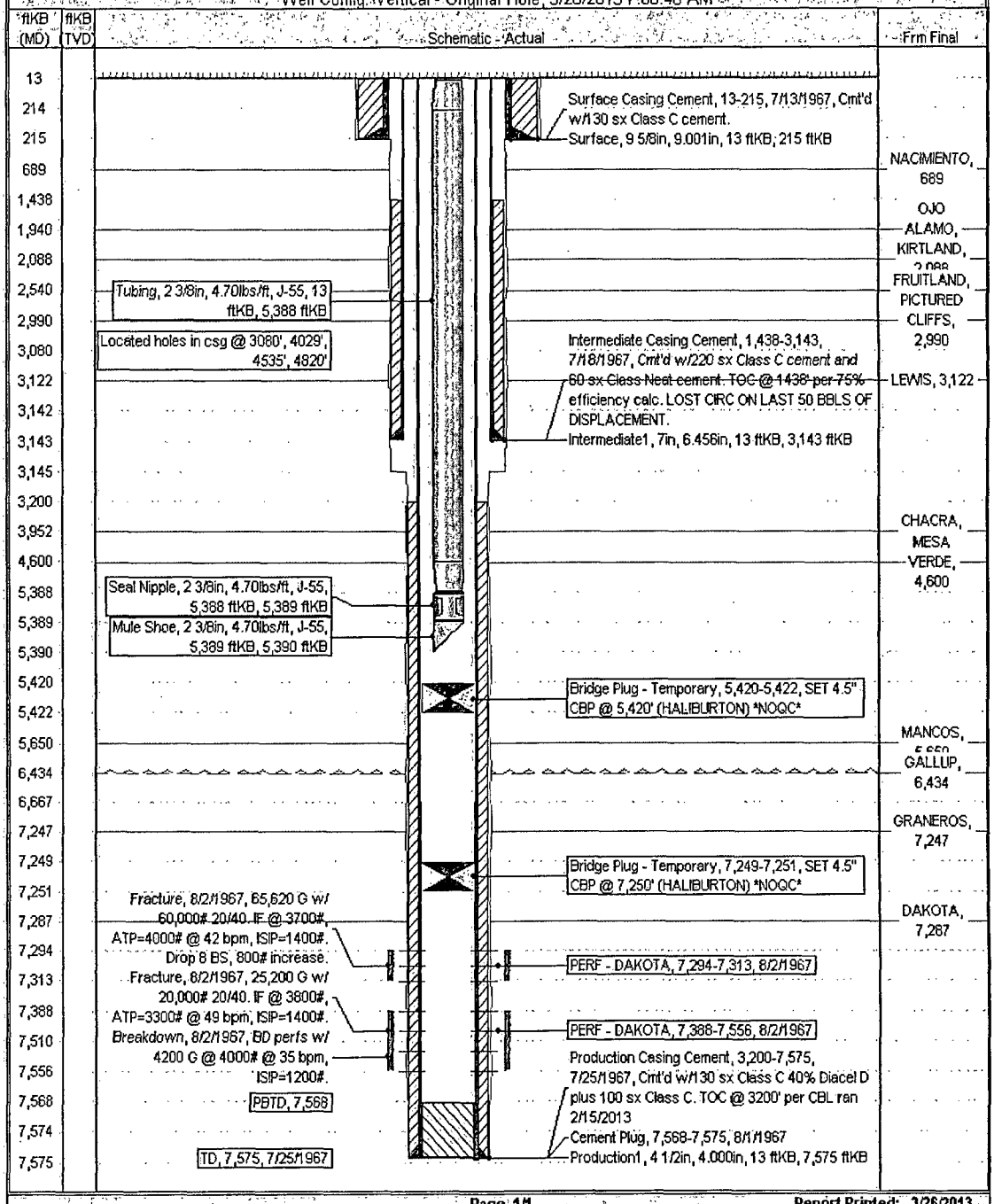
ConocoPhillips

HARDIE #2

District	Field Name	API / UWI	County	State/Province	Edit
SOUTH	DK	3004520112	SAN JUAN	NEW MEXICO	

Original Spud Date	Surface Legal Location	East/West Distance (ft)	East/West Reference	North/South Distance (ft)	North/South Reference
7/13/1967	NMPM,028-029N-008W-D	850.00	W	970.00	N

Well Config: Vertical - Original Hole, 3/26/2013 7:06:40 AM



Report Printed: 3/26/2013

ConocoPhillips

Proposed Schematic

Well Name: HARDIE #2

API / UWI	Surface Legal Location	Field Name	License No.	State / Province	Well Configuration Type
3004520112	NMPM,028-029N-008W-D	DK		NEW MEXICO	Vertical

Ground Elevation (ft)	Original RKB Elevation (ft)	RKB-Ground Distance (ft)	RKB-Casing Flange Distance (ft)	RKB-Tubing Hanger Distance (ft)
6,407.00	6,420.00	13.00	6,420.00	6,420.00

Well Config: Vertical - Original Hole, 1/1/2020 9:30:00 AM

ftKB (MD)	Frm Final	Schematic - Actual
13		Surface Casing Cement, 13-215, 7/13/1967, Cmt'd w/130 sx Class C cement.
215		Surface, 9 5/8in, 9.001in, 13 ftKB, 215 ftKB
639		SQUEEZE PERFS, 265, 1/1/2020
		Plug #11, 13-265, 1/1/2020, Mix 113 sx Class B cement and pump down intermediate casing to circulate good cement out bradenhead.
		Plug #11, 13-265, 1/1/2020
690	NACIMIENTO, 689	Cement Retainer, 689-690
		Plug #10, 639-739, 1/1/2020, Mix 55 sx Class B cement, squeeze 26 sx behind casing and leave 29 sx inside to isolate the Nacimiento formation top.
1,438		SQUEEZE PERFS, 739, 1/1/2020
		Plug #10, 639-739, 1/1/2020
1,940	OJO ALAMO, 1,940	
2,138	KIRTLAND, 2,088	
		Plug #9, 1,890-2,138, 1/1/2020, Mix 58 sx Class B cement and spot a balanced plug inside the casing to isolate the Ojo Alamo and Kirtland formation tops.
2,540	FRUITLAND, 2,540	
		Plug #8, 2,490-2,800, 1/1/2020, Mix 78 sx Class B cement and spot a balanced plug inside the casing to isolate the Liner Top and Fruitland Coal formation top.
2,850		
2,990	PICTURED CLIFFS, 2,990	Cement Retainer, 2,990-2,991
		Plug #8, 2,800-2,850, 1/1/2020
3,040		SQUEEZE PERFS, 3,040, 1/1/2020
		Plug #8, 2,800-2,850, 1/1/2020
		Located holes in csg @ 3080', 4029', 4535', 4820'
3,093		Plug #7, 2,940-3,040, 1/1/2020, Mix 26 sx Class B cement, squeeze 15 sx behind casing and leave 11 sx inside to isolate the Pictured Cliffs formation top.
3,122	LEWIS, 3,122	
3,142		Intermediate1, 7in, 6.456in, 13 ftKB, 3,143 ftKB
		Plug #7, 2,940-3,040, 1/1/2020
3,144		Cement Retainer, 3,143-3,144
		Intermediate Casing Cement, 1,438-3,143, 7/18/1967, Cmt'd w/220 sx Class C cement and 60 sx Class Neat cement. TOC @ 1438' per 75% efficiency calc. LOST CIRC ON LAST 50 BBLS OF DISPLACEMENT.
3,193		SQUEEZE PERFS, 3,193, 1/1/2020
3,902		
		Plug #6, 3,093-3,193, 1/1/2020
3,952	CHACRA, 3,952	
4,002		Plug #6, 3,093-3,193, 1/1/2020, Mix 30 sx Class B cement, squeeze 19 sx behind casing and leave 11 sx inside to isolate the Intermediate shoe.
4,600	MESAVERDE, 4,600	
5,388		Plug #5, 3,902-4,002, 1/1/2020, Mix 12 sx Class B cement and spot a balanced plug inside the casing to isolate the Chacra formation top.
5,390		
5,422		Plug #4, 4,550-4,650, 1/1/2020, Mix 12 sx Class B cement and spot a balanced plug inside the casing to isolate the Mesaverde formation top.
5,650	MANCOS, 5,650	
6,384		Plug #3, 5,600-5,700, 1/1/2020, Mix 12 sx Class B cement and spot a balanced plug inside the casing to isolate the Mancos formation top.
6,434	GALLUP, 6,434	
6,484		Plug #2, 6,384-6,484, 1/1/2020, Mix 12 sx Class B cement and spot a balanced plug inside the casing to isolate the Gallup formation top.
7,136		
7,247	GRANEROS, 7,247	Bridge Plug - Temporary, 7,249-7,251, SET 4.5" CBP @ 7,250' (HALIBURTON) 'NOGC'
7,249		Plug #1, 7,136-7,249, 1/1/2020, Mix 12 sx of Class B cement and spot on top of CBP to isolate the Dakota perforations, formation top, and Graneros formation top.
7,287	DAKOTA, 7,287	PERF - DAKOTA, 7,294-7,313, 8/2/1967
7,313		PERF - DAKOTA, 7,388-7,556, 8/2/1967
7,510		PBTD, 7,568
7,568		Production1, 4 1/2in, 4.000in, 2,800 ftKB, 7,575 ftKB
7,575		TD, 7,575, 7/25/1967
		Production Casing Cement, 3,200-7,575, 7/25/1967, Cmt'd w/130 sx Class C 40% Diacel D plus 100 sx Class C. TOC @ 3200' per CBL ran 2/15/2013
		Cement Plug, 7,568-7,575, 8/1/1967

Report Printed: 3/25/2013

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: 2 Hardie

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."

2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.

3. The following modifications to your plugging program are to be made:

a) Place the Gallup plug from 4553' – 4453'.

b) Place the Liner Top/Fruitland plug from 2800' – 2618'.

c) Place the Nacimiento plug from 645'- 545' inside and outside the 7" casing.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.