

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 10 04-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. LC 031620 (A)
2. Name of Operator CONOCO INC.	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. 10 DESTA DR. STE. 100W, MIDLAND, TX. 79705-4500 (915) 686-5424	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Section, T.R.M. or Survey Description) Section 24, T-20-S, R-37-E, 660' FSL & 660' FWL	8. Well Name and No. SEMU # 158
	9. API Well No. 30-025-35539
	10. Field and Pool, or Exploratory Area North Hardy Tubb Drinkard
	11. County or Parish, State Lea Co., NM

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other	<input type="checkbox"/> Dispose Water

(Note: Report out of multiple completion well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Conoco proposes to recomplete this well to the Tubb/Drinkard using the attached procedure.

14. I hereby certify that the foregoing is true and correct.		
Signed <u><i>Kay Maddox</i></u>	Title - <u>Regulatory Agent (915) 686-5798</u>	Date <u>January 8, 2002</u>
(This space for Federal or State Office use)		
Approved by <u>(ORIG. SGD.) ALEXIS C. SMOBODA</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>JAN 10 2002</u>
Conditions of approval if any:		

BLM(6), NMOCD(1), SHEAR, PONCA, COST ASST, FILE ROOM

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side

K2

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd. Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

PO Box 2088
Santa Fe, NM 87504-2088

Form C-102

Revised February 21, 1994

instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-35539	2 Pool Code 96356	3 Pool Name North Hardy Tubb Drinkard
4 Property Code 13492	5 Property Name SEMU	6 Well Number #158
7 OGRID No. 005073	8 Operator Name Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500	9 Elevation 3525'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	24	20S	37E		660	South	660	West	Lea

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres 40	13 Joint or Infill	14 Consolidation Code	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16			

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Kay Maddox

Signature

Kay Maddox

Printed Name

Regulatory Agent

Title

January 9, 2002

Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

SEMU No. 158
Drinkard & Tubb Completion Procedure
December 2, 2001

Spud Date: October 13, 2001
Last Action To Well: Nipped up tubing head and release drilling rig on November 11, 2001

Location: 660' FSL & 660' FWL of Sec. 24, T20S, R37E
Zone (Pool): North Hardy Tubb/Drinkard Pool
Battery: SEMU Tubb/Drinkard Battery (AKA Strawn Battery)

TD: 7,975'
PBTD: 7,887' (Depth of float collar)
Stage Collar: Did not use a Stage Collar

Ground Elevation: 3525'
KB Elevation: 3536' (11' ABGL)

Cementing Summary:

First stage cemented with 1150 sks 50/50 Poz Class C with 10% bentonite and 5% Sodium Chloride tailing in with 460 sks of Class C cement containing 5% Sodium Chloride. Circulated 123 bbls of cement to surface. Plug bumped.

Completion Summary:

The SEMU No. 158 well will be completed as a commingled Drinkard and Tubb producer. The completion will consist of perforating the Drinkard zone from 6780' to 6863' OA, breaking it down with acid and sand fracing. On the same day the Tubb will be perforated across the interval from 6458' to 6446' OA, the Drinkard isolated with a wireline set RBP and the Tubb will be sand frac'd. The well will then be cleaned out and both zones will be placed on production using beam pumping equipment.

This procedure is being changed from our past procedures in an attempt at reducing overall costs of completing Tubb / Drinkard wells. In the stimulation for both zones will be done the same day using the Viking crosslinked system in lieu of the Spectra Frac system. Also both zones will be using a combination of 16/30 Otawaa Sand tailing in with the AcFrac CR – 4000 resin coated sand.

Additional cost reductions include not running a CBL and not using a radio-active tag in the sand. The Drinkard is expected to initially produce at 40 to 50 BOPD with about 100 BWPD and the Tubb will produce an additional 50 BOPD. Gas production is estimated at 200 to 300 MCFGPD.

			<u>Burst</u>	<u>Collapse</u>	<u>Drift</u>
Casing:	8 5/8", 24 #/ft, J-55	0 to 1,518'			
	5 1/2", 17 #/Ft., L-80, LT&C	0 to 7,975'	7,740	6,280	4.767
Proposed Tubing:	2 7/8", J-55, 6.5#/Ft., EUE		7,260	7,680	2.347

ESTIMATED RESERVOIR INFORMATION:**Wellbore Fluids:**

Tubb ±38° API oil with sour (1200-1400 ppm H₂S),
 Drinkard ±38° API oil with sour (1200-1400 ppm H₂S),

Proposed Perforations:

			<u>NEP</u>	<u>Shots</u>
Tubb	Standard 4"	6458' to 6462'	4'	17
	Hollow Carrier	6474' to 6486'	<u>12</u>	<u>25</u>
	(2 SPF)	Total Tubb	16	42
			<u>NEP</u>	<u>Shots</u>
Drinkard	Standard 4"	6780' to 6788'	8'	17
	Hollow Carrier	6806' to 6810'	4'	9
	(2 SPF)	6817' to 6822'	5'	11
		6842' to 6848'	6	13
		6854' to 6868'	<u>14</u>	<u>29</u>
		Total Drinkard	37'	79'

Tubb Temp/Press: 105°F / 2450 PSI (assuming 0.38 psi/ft gradient)

Drinkard Temp/Press: 105°F / 2600 PSI (assuming 0.38 psi/ft gradient)

Expected Production: Tubb 50 BOPD, 100 MCFGPD
 Drinkard 50 BOPD, 100 MCFGPD, 100 BWPD

Completion Procedure:

1. RU workover rig. Install 5,000 PSIG WP BOP stack and test to 4,500 PSIG according to SOP's. PU 4 3/4" bit and casing scrapers on 2 7/8", J-55 tubing and TIH to tag PBTD at 7887'.
2. RU Pool and circulate hole clean with 8.6 ppg brine water. Spot a 9.5 ppg brine water pill from 7887' back to 6880'. Spot 500 gals of 15% HCL from the bottom Drinkard perforation at 6,868' back to 6,370'. **Note: The spot acid to be double inhibited.** TOOH with tubing.
3. Pressure test casing to 4,500 PSIG. This is 58% of the rated burst pressure of the casing and 85% of the 5,000 PSIG working pressure of the tubing head.
4. RU electric line company. **Note: Be prepared to perforate and run the RBP after the Drinkard frac under an estimated surface pressure of 2,000 PSIG.** Install lubricator with packoff and RIH with 4" hollow carrier perforating guns loaded 2 JSPF with 19 gm charges in 120 degree phasing to perforate (**firing from the top down**) the following Drinkard intervals: **Correlation will be made using a GR/CCL.**

Safety Note: All 2-way radios and phones are to be turned off while perforating for a distance of 500'. Warning signs are to be posted on all incoming roads.

			<u>NEP</u>	<u>Shots</u>
Drinkard	Standard 4" Hollow Carrier (2 SPF)	6780' to 6788'	8'	17
		6806' to 6810'	4'	9
		6817' to 6822'	5'	11
		6842' to 6848'	6	13
		6854' to 6868'	14	29
		Total Drinkard	37'	79'

5. Set a modified temporary test tank.
6. ND BOP's and NU 7 1/16" 5K PSIG frac spool and valve. Test the frac valve to 4,500 PSIG.
7. RU BJ services to the 5,000 PSIG WP frac valve to pump 2000 gals of spearhead acid and sand frac the Drinkard via 5 1/2" L-80 casing. Install treating line with nitrogen actuated relief valve. Test the treating line to 5,000 PSIG and set the relief valve at 4,300 PSIG. Pump the spearhead acid breakdown and the Viking 3500 treatment as per attached BJ Services procedure. **This job will not be tagged with radioactive isotopes.**

Spearhead Acid Procedure

- a.) Establish breakdown rate of 5 bpm with 1000 gals (24 bbls) of slick water. As soon as pump-in rate is established increase rate to 10 BPM and begin pumping the 2,000 gals of 15% NEFE spearhead acid dropping 100, 1.3 SG, 7/8" ball sealers throughout the acid.
- b.) Displace acid to bottom perforation with 160 bbls of 1% KCL slick water. Surge balls off perforations.

Step Down Rate Procedure

- a.) Load the casing with 6,400 gals (160 bbls) of 1% KCL slick water. As soon as the casing is loaded increase the rate to 40 BPM and continue to pump for 1 min. then step down the rate to 30 BPM and continue to pump for 1 min. Repeat at 20 BPM and 10 BPM rates.

Frac Procedure. (No radioactive isotope)

- a.) Pump 1,000 gals (24 bbls) Viking 3500 Pad
- b.) Pump 22,000 gals (524 bbls) Viking 3500 Pad containing 0.5 ppg 100 mesh sand with 50 ppt S-8 (silica flour)
- c.) Pump 1,000 gals (24 bbls) Viking 3500 Pad
- d.) Pump 5,000 gals (119 bbls) Viking 3500 with 2 to 4 ppg 16/30 White Sand
- e.) Pump 5,000 gals (119 bbls) Viking 3500 with 4 to 6 ppg 16/30 White Sand
- f.) Pump 5,000 gals (119 bbls) Viking 3500 with 6 to 8 ppg 16/30 White Sand

- g.) Pump 4,000 gals (95 bbls) Viking 3500 with 8 ppg 16/30 AcFrac CR-4000 with 5 gpt activator
- h.) Pump 170 gals (4 bbls) of Slick Water
- i.) Pump 1000 gals (24 bbls) of 15% NEFE HCL
- j.) Displace with 5,340 gals (127 bbls) Base Gel Flush (2 bbls short of top perf)

TREATING LINE TEST PRESSURE: A minimum 1000 psig over MATP	5000	PSIG
MAXIMUM ALLOWABLE WORKING PRESSURE: Based on weakest component in system – Highest test pressure	4500	PSIG
NITROGEN POP OFF SET PRESSURE: Relief pressure set at the lesser of : 300 psig less than 90% MAWP or, 300 psig over MATP	4300	PSIG
MAXIMUM ALLOWABLE TREATING PRESSURE (MATP): If reached, human action required.	4000	PSIG
MAXIMUM ANTICIPATED TREATING PRESSURE: Based on frac design	3350	PSIG

8. Shut down and record ISIP, 5, 10 and 15 minute pressures. Close the wellhead valve and disconnect BJ from the wellhead.
9. Install lubricator PU 5 ½" loc-set retrievable bridge plug on electric line and RIH to set at 6600'. Load the hole and pressure test the RBP to 4,500 PSIG.
10. PU and RIH with 4" hollow carrier perforating guns loaded 2 JSPF with 19 gm charges in 120 degree phasing to perforate (**firing from the top down**) the following Tubb interval: **Correlation will be made using GR/CCL.**

Safety Note: All 2-way radios and phones are to be turned off while perforating for a distance of 500'. Warning signs are to be posted on all incoming roads.

			<u>NEP</u>	<u>Shots</u>
Tubb	Standard 4"	6458' to 6462'	4'	17
	Hollow Carrier	6474' to 6486'	12	25
	(2 SPF)	Total Tubb	16	42

RD electric line company.

11. Re-connect BJ services to the 5,000 PSIG WP frac valve to pump 2000 gals of spearhead acid and sand frac the Tubbs via 5 1/2" L-80 casing. Test the treating line to 5,000 PSIG and re-test the relief valve to 4,300 PSIG. Pump the acid breakdown and the Viking 3500 treatment as per attached BJ Services procedure. **Do not tag the frac with a radioactive isotope.**

Spearhead Acid Procedure

- c.) Establish breakdown rate of 5 bpm with 1000 gals (24 bbls) of slick water. As soon as pump-in rate is established increase rate to 10 BPM and begin pumping the 2,000 gals of 15% NEFE spearhead acid dropping 60, 1.3 SG, 7/8" ball sealers throughout the acid.
- d.) Displace acid to bottom perforation with 150 bbls of 2% KCL slick water. Surge balls off perforations.

Step Down Rate Procedure

- b.) Load the casing with 6,400 gals (152 bbls) of 2% KCL slick water. As soon as the casing is loaded increase the rate to 40 BPM and continue to pump for 1 min. then step down the rate to 30 BPM and continue to pump for 1 min. Repeat at 20 BPM and 10 BPM rates.

Frac Procedure. (No radioactive isotope)

- k.) Pump 1,000 gals (24 bbls) Viking 3500
- l.) Pump 19,000 gals (453 bbls) Viking 3500 Pad containing 0.5 ppg 100 mesh sand with 50 ppt S-8 (silica flour)
- m.) Pump 1,000 gals (24 bbls) Viking 3500 Pad
- n.) Pump 5,000 gals (119 bbls) Viking 3500 with 2 to 4 ppg 16/30 White Sand
- o.) Pump 5,000 gals (119 bbls) Viking 3500 with 4 to 6 ppg 16/30 White Sand
- p.) Pump 5,000 gals (119 bbls) Viking 3500 with 6 to 8 ppg 16/30 White Sand
- q.) Pump 4,000 gals (95 bbls) Viking 3500 with 8 ppg 16/30 AcFrac CR-4000 with 5 gpt activator
- r.) Pump 6,240 gals (148 bbls) Slick Water Flush (2 bbls short of top perf)

TREATING LINE TEST PRESSURE: A minimum 1000 psig over MATP	5000	PSIG
MAXIMUM ALLOWABLE WORKING PRESSURE: Based on weakest component in system – Highest test pressure	4500	PSIG
NITROGEN POP OFF SET PRESSURE: Relief pressure set at the lesser of : 300 psig less than 90% MAWP or, 300 psig over MATP	4300	PSIG
MAXIMUM ALLOWABLE TREATING PRESSURE (MATP): If reached, human action required.	4000	PSIG
MAXIMUM ANTICIPATED TREATING PRESSURE: Based on frac design	3350	PSIG

- Shut down and record ISIP, 5, 10 and 15 minute pressures. RD BJ.
12. After 4 hours flow back well into the temporary test tank until dead. RD frac valve and spool. If necessary, kill the well with 8.6 ppg brine water prior to rigging down frac valve.
 13. NU 5,000 PSIG WP BOP and test to 4,500 PSIG according to SOP's.
 14. PU 4 3/4" bit and RIH w/ tubing. Tag sand and clean out wellbore to the RBP set at 6700'. POOH with bit and tubing. PU retrieving head and TIH to retrieve the RBP at 6700'.
 15. PU 4 3/4" bit and RIH with tubing. Tag sand and clean out wellbore to PBTD at 7887'. TOOH with tubing.
 16. TIH with 2 7/8", J-55 production tubing with the poor-boy gas anchor design (see attached) and 5 1/2" tubing anchor. Space out the tubing anchor to set at 5900' with the seating nipple at 6400' or approximately 60' above the top Tubb perforation at 6458'.
 17. ND the BOP stack and install the B-1 adapter flange. See attached pumping wellhead "Type 3" drawing (beam pumping configuration with a choke on the casing). Pump corrosion inhibitor down the tubing to coat the rods and pump as they are run in the hole. PU 1 3/4" RHBC pump on 7/6 Class "KD" rod design and RIH to hang on beam pump. **(See attached Tubb Beam Pump Design—the 320 Lufkin Unit will be transferred from the Maljamar warehouse stock to the SEMU No. 158 well. It does not have a motor and additional weights may be required for loads).** RD and move off.
 18. **Notify Champion of production so that the CI concentration can be adjusted for production volumes.**
 19. Pump test the commingled Tubb & Drinkard zones for 30 days with the pump setting above the Tubb.
 20. RU workover rig. Pump 100 bbls of 8.6 ppg brine water down casing to kill the well. Unseat the pump and POOH with 7/6 Class "KD" rod string. Inspect for rod and coupling wear. Replace any pitted rods or worn couplings. Send the pump in for inspection and repair.
 21. Remove the B-1 adaptor flange and install the 5,000 PSIG BOP stack. Test the BOP's to 4,500 as per SOP. Release the tubing anchor and PU 500' of additional 2 7/8" tubing to lower the SN to 6900' or 30' below the bottom Drinkard perforation at 6868'. Set the tubing anchor at 6400'.
 22. ND the BOP stack and install the B-1 adapter flange. See attached pumping wellhead "Type 3" drawing (beam pumping configuration with a choke on the casing). Pump corrosion inhibitor down the tubing to coat the rods and pump as they are run in the hole. PU 1 3/4" RHBC pump on 7/6 Class "KD" rod design and RIH to hang on beam pump. **(See attached Drinkard Beam Pump Design).** RD and move off.
 23. **Notify Champion of production so that the CI concentration can be adjusted for production volumes.**