Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
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

5. Lease Designation and Serial No.: NM-14331
6. If Indian, Alottee or Tribe Name:
7. If Unit or CA, Agreement Designation:

1. Type of Well: ☒ OIL WELL ☐ GAS WELL ☐ OTHER
8. Well Name and Number: BILBREY 30 FEDERAL 5
2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.
3. Address and Telephone No.: 205 E. Bender, HOBBS, NM 88240 397-0444
9. API Well No.: 30-025-33647
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Unit Letter J : 1980 Feet From The SOUTH Line and 1980 Feet From The EAST Line Section 30 Township 21-S Range 32-E
10. Field and Pool, Exploaratory Area: LOST TANK DELAWARE
11. County or Parish, State: LEA , NM

12. Check Appropriate Box(s) To Indicate Nature of Notice, Report, or Other Data

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Atlering Casing	☐ Conversion to Injection
	☒ OTHER: Method of water disposal	☐ Dispose Water

(Note: Report results of multiple completion on 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.)*.

This notice is in reponse to the Incident of Noncompliance for Non-approval of Water Disposal submitted by BLM Inspector Stephen J. Caffey. The above well has been authorized to be completed using a downhole separation device. A dual action pumping system has been installed down hole. Texaco Exploration and Production, Inc. has been permitted by the N.M.O.C.D. (Administrative Order SWD-732) to inject produced salt water into the Lower Bell Canyon section of the Delaware formation from approximately 5160 feet to 5210 feet. Production will occur simultaneously from the Upper Bell Canyon section of the Delaware formation through perforations from approximately 4654 feet to 4680 feet using 2 7/8-inch tubing and the Dual Action Pumping System pump assembly set in a packer located at approximately 5110 feet.

The well currently produces 8 oil, 66 water to surface, and 0 gas. The produced water that is produced to surface and accumulated in a 500 bbl stock tank is then gravity fed down a 1/2-inch line through an opening in the well head. It is the injected into the Lower Bell Canyon at an average calculated formation injection pressure of 2007 psi. The calculated subsurface water injection is approximately 125 bbls.. All produced water is injected into the Lower Bell Canyon. Please see attached copies of water analysis from Unichem and N.M.O.C.D. Administrative Order SWD-732.

ORIG. SGD.) GARY GOURLEY

RECEIVED
1999 APR 14 P 4:55
BUREAU OF LAND MGMT.
HOBBS, NEW MEXICO

14. I hereby certify that the foregoing is true and correct
SIGNATURE Bobby J. Hill TITLE Engineering Assistant DATE 4/13/99
TYPE OR PRINT NAME Bobby J. Hill

(This space for Federal or State office use)
APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

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.

DeSoto/Nichols 12-93 ver 1.0

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

ADMINISTRATIVE ORDER SWD-732

APPLICATION OF TEXACO EXPLORATION AND PRODUCTION, INC. FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Texaco Exploration and Production, Inc. made application to the New Mexico Oil Conservation Division on October 16, 1998, for permission to complete for salt water disposal its Bilbery '30' Federal Well No.5 located 1980 feet from the South line and 1980 feet from the East line (Unit J) of Section 30, Township 21 South, Range 32 East, NMPM, Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

(1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;

(2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;

(3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and

(4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

The applicant herein, is hereby authorized to complete its Bilbery '30' Federal Well No.5 located 1980 feet from the South line and 1980 feet from the East line (Unit J) of Section 30, Township 21 South, Range 32 East, NMPM, Lea County, New Mexico, utilizing a downhole separation device (Dual Action Pumping System) in a such manner as to permit the injection of produced salt water into the Lower Bell Canyon section of the Delaware formation from approximately 5160 feet to 5210 feet. Production will occur simultaneously from the Upper Bell Canyon section of the Delaware formation through perforations from approximately 4654 feet to 4680 feet with 2 7/8-inch tubing and the Dual Action Pumping System pump assembly set in a packer located at approximately 5110 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, and at a frequency of at least every five years thereafter, the applicant shall pressure test the casing above the proposed producing interval to the surface to assure the integrity of said casing.

The Dual Action Pumping System shall be configured and equipped so as to limit bottomhole pressure on the injection interval to no more than 3260 psi (1030 psi @ surface).

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Lower Bell Canyon formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

Downhole measurement not required, but you must call

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of any downhole rate and/or pressure transducer and shall take necessary steps to correct such failure.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 23rd day of November, 1998.

LORI WROTENBERY, Director

LW/BES/kv

cc: Oil Conservation Division – Hobbs
Bureau of Land Management - Carlsbad

UNICHEM

A Division of BJ Services Company

Lab Test No : 21660

Texaco

Sample Date : 10/6/98
Lab Date In : 10/8/98
Lab Date Out : 10/14/98

Water Analysis

Listed below please find water analysis report from : ~~Pittsbury~~ Bilbrey #30-5

Specific Gravity :	1.131
Total Dissolved Solids :	183977
pH :	5.75
Conductivity (µmhos):	
Ionic Strength :	3.557

Cations:		mg/l
Calcium	(Ca++):	10400
Magnesium	(Mg++):	1944
Sodium	(Na+):	57846
Iron	(Fe++):	7.38
Dissolved Iron	(Fe++):	
Barium	(Ba++):	
Strontium	(Sr):	
Manganese	(Mn++):	2.72
Resistivity :		
Anions:		
Bicarbonate	(HCO3-):	37
Carbonate	(CO3--):	
Hydroxide	(OH-):	0
Sulfate	(SO4--):	1750
Chloride	(Cl-):	112000

Gases:		ppm		
Carbon Dioxide	(CO2):	185.09	Oxygen	(O2):
Hydrogen Sulfide	(H2S):	0.00		

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature		CaCO3 SI	CaSO4 SI
86F	30.0C	-0.79	12.74
104F	40.0C	-0.53	12.74
122F	50.0C	-0.22	12.78
140F	60.0C	0.14	12.70
158F	70.0C	0.53	12.67
176F	80.0C	0.96	12.52

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

Laboratory Technician

cc: Jerry White
Jay Brown

P.O. Box 61427 • Midland, TX 79711 • 4312 E County Rd. 1298, Midland, TX 79765
Office: (915) 563-0241 • Fax: (915) 563-0243

TEXACO EXPORATION AND PRODUCTION INC
WORKOVER PROGRESS AND SUMMARY REPORT

Operator: TEPI Lease/Well# Bilbrey 30 # 5
Lease Type: Federal X State Fee Lease# NM-14331 API# 30-025-33647
Well Type: Oil X Gas Service FRS ID #: 333000069030104
Field Lost Tank Delaware County Lea
Workover Purpose Install Triple Action Pump Start Date 1-4-99
TD or Surf Intm Prod
PBTD PB 6700 Csg 14 3/4 @ 800 Csg 8 5/8 @ 4380 Csg 5 1/2 @ 8916
IDC Est. No. Rig Days: Appropriation:
EXP Est. No. Est 4 Cash $ 16,520
EQP Est. No. 68-0199 Act 10 MOH $
TOTAL $ 16,520
Prepared By: Jason Wacker Approved By: Russel Pool

Comments

KDB=11'8"PBTD@6700' Production Casing: 5 1/2 17# WC 50 @8916'.

CURRENT ZONE & PERFS: Lost Tank Delaware

CURRENT STATUS: Pumping Oil **PUMPJACK & MOTOR: RM-640-365-168**

---------- **FINAL REPORT** ----------

Rig Down Date 1-19-99 Field Estimated 100% Cost: $ 38,000

Test @ Completion: Date 2-9-99 Status PMP/INJ BO 11 BW 41 Injecting 96 BW MCFD 0 GOR 0 API Grav 49.9@60 CK 64/64 TP 40 Pmp Dia. 1 ½ X 2 1/4X 2 SPM/LS 7.5/ 110 Perfs-Producing Top 4654 Btm 4680 Zone Name Lost Tank Delaware Perfs- Injecting Top 5160 Btm 5210 Test Prior: Status Pmp BO 28 Water 180 MCFD 2 Ck 64/64 TP 30

PO31 Status Change: From WO to Pumping/Injecting

GAS FLOW SCHEMATIC CHANGE NEEDED: YES _____ NO X

PRODUCTION INCREASE of

30 DAY AFTER PRODUCTION INCREASE of

----------WORK PERFORMED SUMMARY----------

DOWN HOLE WATER SEPERATION (DOWS) First Installation of Triple Action Pump. NMOCD Injection permit # SWD-732. Tested Casing Integrity from 4540' to surface. Perfed lower "disposal" zone ran packer and pump barrels . Trip in hole with pumps. Place on production/injection.

---------- DAILY WORKOVER REPORT ----------

1-4-99 MIRU Key WS 1544 (David) POH 165 ¾ EL Rods, 20 1" EL Rods & Pump Nipple up BOP. SDON Prep to well check tubing. 1 Day Cost $1,100

1-5-99 TOH well checking 152 joints 2 7/8 tbg. (all good) Dump 2 sacks sand through BOP and chase with 30 bbls produced water. Shut down for lunch 1 hr. PU 5 ½" casing scraper & TIH to 5331, no tag. POH & SDON. Prep to perforate. 2-Days Cost $2,500

1-6-98 MIRU Schlumberger WL. Run GR/Collar correlation log. First run Fluid level at 3600', perforate 5185-5210 1 jspf 0.42" holes with 4" Schlumberger HEGS guns. Second run : Fluid level rose to 1800', perforate 5160-5185 1 jspf 0.42" holes with 4" Schlumberger HEGS guns. 51 holes total during both runs. Rig down Schlumberger WL. TIH w/ treating packer on 2 7/8" tubing. Set packer @ 4540. Load and pressure test casing to 800 psi and record on chart. Bleed off pressure. SWI SDON

3-Days Cost $7,250

1-7-98 Release Packer & TIH to 5061'. Set packer. MIRU Dowell. 5 bbls to load tbg. Est rate @ 4.2 bpm 2200 psi. Start 15% HCL Dropping 5 7/8" 1.1 SG ball sealers per 3 bbls (126 gals) TP dropped to 1900 psi as acid hit avg psi 2160. GOOD ball action. Start flush. Balls still hitting. Ballout Surge off finish flush. Max psi 4150. ISIP 425, 5 min 128, 10 min 28, 12 min 0. Total load 103 bbls. Wait 1 hr. Start swabbing. Swab 6 hrs Recovered 115 bbls. Fluid level @ 600 ft from surface. No oil trace, No gas trace. Release pkr & TIH to 5230' (wipe balls). Pull up to 5061' reset pkr. Put on TIW SDON. Prep to do Step Rate

4-Days Cost $ 12,600

1-8-99 Swab 4 hours recovered 136 bbls PH=4.8 (did not change in 14 runs) Unichem caught samples on last run for compatibility analysis. MIRU Dowell pump truck and John West Engineering for step rate test. Ran step rate in ½ bpm increments from ½ to 6 bpm. Max pressure 1550 no frac. Equipment insufficient to go to higher rate SD. SDFWE 5-Days Cost $15,800

1-9-99 No Work

1-10-99 No Work

1-11-99 Release pkr. Mix and pump 20 gallons Unichem RNB70560 in 100 bbls Nickel plated purge valve w/ SN ball and Nickel Carbide Seat on 5 ½" 2% KCL down the tubing at a rate of < 1 bpm. POH treating pkr. PU 15# Guiberson G-6 Packer w/ 1.875 F nipple and on-off tool (@5101) 2 3/8 X 10' stainless steel tubing sub, 2 3/8"X 2 7/8 X-over, bottom valve assembly (@5081.58) 10 jts 2 7/8 tbg., 2 7/8"X4' sub (@4767.96), ported sub (@4757.46), 2 ¼ bore X 20' tbg pump barrel (@4747.31), 2 7/8 X4' tbg sub (@4744.19), finish out with 2 7/8" tbg. Strapping ¼" HP braided hose to tbg. To top 102' (re-

injection siphon hose). Land pkr and set. Remove bop. Flange up WH w/hose connection in WH flange. NU WH SDON. 6-Days Cost $28,900

1-12-99 TIH w/ 1 1.2" X 26' spray metal polished rod (injection plunger) 2 ¼' plunger and 2" plunger 163 ¾" sucker rods and 23 1" sucker rods changing out 75 (+-) rod boxes. Hang well on, load tubing, and start unit. Found to be losing fluid while pumping. Holds fluid when shut down. Shut well down. SDON 7-Days Cost $ 28,000

1-13-99 Check pump seating. Load tbg. (15 bbls) Pressure to 100# lose pressure to 600# in 4.5 minutes, install check to isolate pump truck and check tbg. valve for leak. Pressure to 500# turn well on. Rod action only, losing 50# per stroke. Continue pumping and check bleeder, tbg. on vac. Reload tbg. Check for leak at top of stroke, bottom of stroke and middle of stroke pulled two feet above max carrier bar travel. Unhook polished rod from carrier bar and set rod clamp on stuffing box. Leaks at the same rate in all positions. Dyno card interpreted as good pump action yet losing fluid in the tbg. Valve check of traveling assembly. Leak off to WRF in less than 5 seconds. Casing on vac. (Indicates injection ok). Problem no fluid returns to surface. Pull 8 pts into holdown, release ok, pull 5 more feet 2 ¼" plunger pulled out and tbg. on vac. Set back down and reseat Type "O". Pull up 8 points, type "O" release ok. POH rods and pump. Drop standing valve. Load tubing and pressure to 500#. Held ok. NU BOP. Release on off tool and POH with barrel assembly. SDFWE

8-Days Cost $ 30,400

1-14-99 NO WORK. Jason Wacker, Mike Parker, Jonathon Dimock and Brock Watson in conference. Only apparent leak-off point is the plunger fit.

Decision was made to tighten the fit on the 2 ¼" plunger from .006 to .004 and the 2" plunger from .004 to .003. This should substantially reduce slippage. The pump has not yet been broken down for inspection. Ralph Harding then called with the same conclusions. The team agreed that this is the probable cause. One other improvement was agreed upon. The type "O" holddown will be augmented with a 2.280 ID API seating nipple. This lengthening of the tubing string will be compensated by removing a 2' tbg sub and replacing with a 1' tbg. nipple. The API seating nipple will increase the loading required to unseat the upper pump. It had been posited that the hydraulic lift and or pump friction on the upstroke could cause the type "O" to unseat. The wellhead flange was returned to Cameron for inprovements in the return water opening. It will be delivered to Dresser Friday P.M. for transportation with the barrel assembly.

8-Days Cost $31,400

1-15-99 No Work. Dresser found improperly installed valve in the pump.

8-Days Cost $33,600

1-15-16-99 No Work.

1-18-99 TIH w/ on-off tool 2 3/8"X10' SS sub, lower valve assembly, X-over10 jts 2 7/8 tbg, lower barrel sub (4'), ported sub, 2 ¼" tbg. pump barrel, SN, 2' tbg. sub, and 153 jts. 2 7/8" tbg. 100' 3/8" return hose. Latch on tp packer at 5097', Land and remove BOP. Flange up. Ported sub @ 4767'. Pick up 26 foot polished rod, 2 ¼" plunger and 2" insert pump and trip in hole on 165 ¾" EL rods and 22 1" EL rods. Sub up. HWO. Load tbg. Start pumping @ 3 p.m.

9-Days Cost $ 35,980

1-19-99 Rig down Key WS Unit. MIRU NABLA. Run survey. Pump 15 hrs rec 35 bw. Injected 197 bw. Casing on Vac. 10-Days Cost $ $38,000

1-20-99 Pump 24 hrs Rec 55 bw, Injected 157 bw

1-21-99 Pump 24 hrs Rec 61 bw, Injected 138 bw

1-22-99 Pump 24 hrs Rec 63 bw, Injected 118 bw

1-23-99 Pump 22 hrs Rec 58 bw, Injected 108 bw

1-24-99 Pump 24 hrs Rec 52 bw, Injected 118 bw

1-25-31-99 Pump 24 hrs/day Rec 337 bw, 8 bo 672 bw Injected

2-1-7-99 Pump 95% hrs /day Rec 74 bo, 282 bw, 672 bw injected Hook up water return line and corrosion chemical pump.

2-8-99 Ran NABLA SURVEY. Rec 11 bo 41 bw, injected 96 bw approx **FINAL REPORT**