Form 3160-5 (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR

1301 W. Grand Avenue Artesia, NM 88210

Oil Cons. N.M. DIV-Dist. 2

FORM APPROVED

Budget Bureau No. 1004-0135

BUREAU OF LAND MANAGEMEN I		Expires: March 31, 1993 5. Lease Designation and Serial No540397, NA 2923 6. If Indian, Alottee or Tribe Name 7. If Unit or CA, Agreement Designation		
SUNDRY NOTICE Do not use this form for proposals to Use "APPLICATION for proposals to the content of the cont				
SUBM				
1. Type of Well: OIL GAS WELL	8. Well Name and Number NEFF 13 FEDERAL			
Name of Operator CHEVRON USA IN	2			
3. Address and Telephone No. 15 SMITH ROAD,	9. API Well No.			
4. Location of Well (Footage, Sec., T., R., M., or Survey	30-015-26165 10. Field and Pool, Exploaratory Area			
Unit Letter H : 1980 Feet From T	LIVINGSTON RIDGE DELAWARE			
EAST Line Section 13	11. County or Parish, State EDDY NEW MEXICO			
10		,		
	Box(s) To Indicate Nature of Notice, Re			
TYPE OF SUBMISSION		PE OF ACTION		
✓ Notice of Intent	Abandonment Recompletion Plugging Back	Change of Plans New Construction Non-Routine Fracturing		
Subsequent Report	Casing Repair	Water Shut-Off		
Final Abandonment Notice	Atlering Casing	Conversion to Injection		
	✓ OTHER: ADD PAY & FRAC ST	TIM Dispose Water		
		(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form.)		
 Describe Proposed or Completed Operations (Clear directionally drilled, give subsurface locations and m 	rly state all pertinent details, and give pertinent dates, including e neasured and true vertical depths for all markers and zones pertin	stimated date of starting any proposed work. If well is nent to this work,)*.		
CHEVRON U.S.A. INTENDS TO ADD DELAW	ARE PAY & FRAC STIMULATE THE SUBJECT WELL			
THE INTENDED PROCEDURE AND WELL BO	RE DIAGRAM IS ATTACHED FOR YOUR APPROVAL			
THE INTENDED PROCEDORE AND WELLSO	THE DIAGRAM TO ATTACHED FOR TOOK AFFROVAL	•		

14. I hereby certify that the foregoing is true as	nd correspond				
SIGNATURE / V///	se reake	TITLE_	Regulatory Specialist	DATE	9/16/2003
TYPE OR PRINT NAME	Denise Leake				

APPROVED CONDITIONS OF APPROVAL, IF ANY:

(ORIG. SGD.) ALEXIS C. SWOBODA
TITLE PETROLEUM ENGINEER

SEP 18 2003 DATE

Neff 13 Federal #2

Add Delaware Pay & Fracture Stimulate

1980' FNL & 660' FEL Section 13, T22S, R31E Eddy County, New Mexico

Date: May 15, 2003

WBS No:

Cost Center: BCPH71600

Elevation: 3612' GL 14' KB

PBTD: 7880' (CIBP at 7900' w/ 20' cement) TD: 8450'

Surface: 11-3/4", 42# H-40 at 838' w/ 675 sx, circ.

Intermediate: 8-5/8", 32# & 24# K-55 at 4520' w/ 1283 sx, circ. Production: 5-1/2", 17# & 15.5# J-55 at 8450' w/ DV at 5979' w/ 1635 sx. 1st stage circ 157 sx, 2nd stage no circ.

Open Perforations: Delaware 7126'-28', 7133'-35', 7154'-56', 7160' (2 SPF),

7726'-34' (6SPF)

Perforations Below CIBP: 7948'-68' (4 SPF)

Tubing: 2-7/8" w/ TAC at 7617', SN at 7812', SMA w/ purge valve at 7836'. Ran 10/00.

Rods/Pump: 1-1/2" Insert Pump on 86 rod string. 1. Use 2% KCL for workover fluid. Comments:

2. Junk in hole (bit cones and bottom of CIBP) at 8126'.

PROCEDURE

- 1. MIRUPU. Unseat pump and TOOH w/ rods and pump.
- 2. ND Tree. NU 3M BOP's. Release TAC. Tag PBTD at 7880' w/ 2-7/8" production tubing.
- 3. TOOH w/ 2-7/8" tubing, standing back. Inspect tubulars for scale. If scale is present, have chemical rep. collect samples for analysis and recommendation. If remedial action is required, it will be performed in Step 13 of procedure.
- 4. Clean out fill if necessary to complete perforating job in Step 5.
- RU Baker. Perforate Delaware w/ 4 JSPF, 1200 phasing from 7844'-60' (64 5. holes), 7050'-59' (36 holes), 7032' - 7037' (20 holes) and 7022' - 7026' (16 holes) using 3-1/8" Slick Guns. RD Baker.
- 6. TIH treating packer on 2-7/8" production string. Set packer at approximately 7800'. NOTE: Open perfs above packer. Do not attempt to load backside.

- 7. RU Schlumberger. Acidize perfs 7844'-60' w/ 1600 gals 7-1/2% HCL w/ ball sealers for divert at 6-7 BPM as per attached design dated 5/16/03. Flush to top perf w/ 2% KCL. Surge balls off perfs.
- 8. Swab/flow back load. Monitor for hydrocarbon presence and pH level. Notify contacts w/swab results. Determine if fracture stimulation is necessary based on swab results. NOTE: If fracture stimulation is required, proceed to Step 9. If fracture stimulation is not required, proceed to Step 10.
- 9. Fracture stimulate Delaware perfs 7844' 60' down 2-7/8" tubing w/ 9,540 gals 30# gel (6600 gal x-linked) and 20,200# 16/30 CR400 at 15 BPM as per attached design dated 8/21/03. Anticipated max surface treating pressure is 4000 psi. Flush to top perf w/ 1940 gals 30# linear gel. RD Schlumberger. Shut-in well overnight to allow resin coated sand to cure.
- 10. Kill well w/ 2% KCL if necessary. Release packer & TOOH w/ tubing.
- 11. TIH treating packer and RBP on 2-7/8" tubing. Set RBP at 7100' and packer at 7020'. Load backside w/ 2% KCL and test packer.
- 12. RU Schlumberger. Acidize perfs 7022' 26', 7032' 37' & 7050'-59' w/ 2000 gals 7-1/2% HCL at 6-7 BPM as per attached design dated 5/16/03. Flush to top perf w/ 2% KCL. Surge balls off perfs.
- 13. Swab/flow back load. Monitor for hydrocarbon presence and pH level. Notify contacts w/swab results. Determine if fracture stimulation is necessary based on swab results. If fracture stimulation is determined to be necessary proceed to step 14. If fracture stimulation is not required, proceed to step 15.
- 14. Fracture stimulate Delaware perfs 7022' 26', 7032' 37' & 7050' 59' down 2-7/8" tubing w/ 12,462 gals 30# gel (9700 gal x-linked) and 30,400# 16/30 CR400 at 15 BPM as per attached design dated 8/21/03. Anticipated max surface treating pressure is 4000 psi. Flush to top perf w/1762 gals 30# linear gel. RD Schlumberger. Shut-in well overnight to allow resin coated sand to cure.
- 15. If scale was found in Step 2, re-set RBP and packer to isolate perfs 7726'-34'. Treat perfs to remove scale as per chemical rep. recommendation. Re-set RBP and packer to isolate perfs 7126'-7160'. Treat perfs to remove scale as per chemical rep. recommendation.
- 16. Release packer, retrieve RBP and TOOH.
- 17. MIRU power swivel, reverse unit and foam air unit. TIH w/ 4-3/4" bit and drill collars on 2-7/8" tubing. Clean out sand to PBTD at 7880'. Circulate wellbore clean w/ foam. TOOH & lay down bit and drillstring.

Neff 13 Federal #2

Add Delaware Pay and Fracture Stimulate

May 15, 2003

- 18. TIH w/2-7/8" production tubing. Scanilog tubing while TIH. Replace joints as necessary. Set SN at 7812'.
- 19. ND BOP's. NU tree.
- 20. TIH w/rods and pump as per Felix Trevino recommendation. Hang well on RDMOPU.
- 21. Return well to production and place on test.

List of ChevronTexaco Contacts

OS. Danny Lovell

Office: 505.887.5676 Cell: 505.390.0866

Lease Operator

Mike Parker

Cell: 505.631.9017

Lease Operator

Larry Rice

Cell: 505.631.9018

Engineer.

Chad Stallard

Office: 432.687.7356 Home 432.699.1636

Artificial Lift Rep.

Felix Trevino

Office: 505.394.1245 Cell: 505.390.7180

EQUIPMENT AND FLUID REQUIREMENTS

WIRELINE SERVICES

Baker Atlas.

Hobbs 505.392.7593

Perf charges are HSC-4000-311T w/ 0.38" diameter, 21" penetration.

DELAWARE ACID JOB 1:(7844'-7860')

Schlumberger to Provide

Hobbs 505.393.6186

- 1600 gals. 7-1/2% HCL w/ additives as per attached specifications dated 8/21/03
- 64 biodegradable ball sealers (1.15 SG, 7/8" OD)

ChevronTexaco to Provide

• 46 bbls. 2% KCL for flush

DELAWARE FRACTURE STIMULATION: (7844'-7860')

Schlumberger to Provide

Hobbs 505.393.6186

- Additives for 6,600 gal YF130 fluid system for frac as per attached specs 8/21/03
- Additives for 2,940 gal WF130 fluid system for pre-pad & flush as per attached specs 8/21/03
- 20,200 lbs 16/30 CR4000 (100% Curable Resin Coated Sand)

Neff 13 Federal #2 Add Delaware Pay and Fracture Stimulate May 15, 2003 ChevronTexaco to Provide

• One frac tank loaded w/ 267 bbls. fresh water for frac, flush and bottoms

DELAWARE ACID JOB 2: (7022'-7059')

Schlumberger to Provide

Hobbs 505.393.6186

• 2000 gals. 7-1/2% HCL w/ additives as per attached specifications dated 8/21/03

ChevronTexaco to Provide

• 41 bbls.. 2% KCL for flush

DELAWARE FRACTURE STIMULATION: (7022'-7059')

Schlumberger to Provide

Hobbs 505.393.6186

- Additives for 9,700 gal YF130 fluid system for frac as per attached specs 8/21/03
- Additives for 2,762 gal WF130 fluid system for pre-pad & flush as per attached specs 8/21/03
- 30,400 lbs 16/30 CR4000 (100% Curable Resin Coated Sand)

Well: Neff 13 Federal #2

Field: Livingston Ridge

Reservoir: Brushy Canyon



1980' FNL & 660' FEL Section: 13 (SE/4 NE/4)

Township: 22S

Range: 31E Unit: H County: Eddy State: NM

Elevations:

GL: 3612' KB: 3626' DF: 3625'

Log Formation Tops				
Lamar	4508'			
Bell Canyon	4536'			
Cherry Canyor	5393'			
Brushy Canyor	7076'			

TUBING DETAIL - 10/17/2000 246 jts - 2-7/8" J-55 tbg (7617') 1 2 7/8" x 5 1/2" tbg ancnor (2.70') 6 jts - 2-7/8" J-55 tbg (195.74') 1 2-7/8" SN @ 7812' (1.10') 1 3 1/2" SMA w/purge valve (23.75')

EOT landed @ 7836'

Rod Detail:

1-1/2" Polish Rod (26') Pony Rods (1-8', 1-6', 1-4' &1-2') 133 1" x 25' D-87 Rods 1 7/8" EL Rod 175 3/4" EL Rods 7/8" Pony Rods (4') 2-1/2" x 1-1/2" Insert pump (25') w/3/4 right hand release 1-1/2" gas anchor (10')

SN @ 7812' EOT @ 7836'

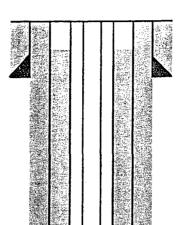
CIBP set @ 7900' 20' cmt on top TAC @ 7618

Junk & Fill @ 8126' Bit cones & bttm half of CIBP

COTD: 8126' PBTD: 7880' TD: 8450'

Updated: 8-26-03 by WAYN

Proposed Wellbore Diagram



Well ID Info:

Chevno:

API No: 30-015-26165

L5/L6:

Spud Date: 9/7/89 Rig Released: 9/29/89 Compl. Date: 10/15/89

Surface Csg: 11 3/4", 42#, H-40 STC Set: @ 838' w/ 675 sx Class H cmt Hole Size: 14 3/4" to 838' Circ: Yes TOC: surface TOC By: Circulation (5 sx cmt)

Initial Completion:

Perf 7126-7128', 7133-7135', 7154-7156' & 7159-7161'.

Acdz 7126-7161' w/1,500 gal 15% NEFE HCL Frac 7126-7161' w/26,000 gal XLG & 37,500 # 20/40 SD & 12,500 # 12/20 RC SD.

Subsequent Workovers/Reconditionings/Repairs:

6/25/93 Perf 7948-7968' (80 holes, 4spf).

Frac 7948-7968' w/56,000 gal 30# XLG & 251,400 # 20/40 SD & 19,000 # 20/40 RC SD.

10/17/2000 Set CIBP @ 7900' w/20' cmt on top.

Perf 7725-7734' (48 holes).

Acdz 7726-7734' w/1,000 gal 15% NEFE HCL

8/20/2003 Proposed Perf 7844-60', 7050-59', 7032-37' & 7022-26' and stimulate.

Intermediate Csg: 8 5/8", 32# & 24#, K-55 STC

Set: @ 4520' w/ 1283 sx Class H cmt

Hole Size: 10 5/8" to 4520' Circ: Yes TOC: surface TOC By: Circulation (10 sx cmt)

Prod. Csg: 5 1/2", 17# & 15.5 #, J-55 LTC

Set: @ 8450' w/ 1635 sx cmt (DV tool @ 5979') Hole Size: 7 7/8" to 8450'

Hole Size: 7 7/8" to 8450' Circ: Yes (1st stage) TOC:

DV tool @ 5979'

By: W.P. Johnson

(Perfs

ີ່ 7022-26'

ે 7032-37"

Perfs

Perfs

Perfs

Perfs

Perfs

Perfs

7844-60'

7948-7968

7726-34

7159-7161

7126-28', 7133-35', 7154-56'

7050-59

FOC By: (157 sx cmt 1st stage) (2nd stage no cir)

Status Cherry

Cherry Canyon - proposed

Status

Cherry Canyon - proposed

Status

Cherry Canyon - proposed

Status

Brushy Canyon - open Brushy Canyon - open

Status

Brushy Canyon - open

Status

Brushy Canyon - proposed

Status

Brushy Canyon - open