UNITED STATES DEPARTMENT OF THE INTERIOR



BUREAU OF LAND MANAGEMENT Sundry Notices and Reports on Wells-070 FALMINGTON, 5NM Lease Number NM-01594 If Indian, All. or 1. Type of Well 6. Tribe Name GAS Unit Agreement Name 2. Name of Operator MERIDIAN OIL San Juan 32-9 Unit Well Name & Number 3. Address & Phone No. of Operator San Juan 32-9 U #13 API Well No. PO Box 4289, Farmington, NM 87499 (505) 326-9700 30-045-10761 10. Field and Pool 4. Location of Well, Footage, Sec., T, R, M 1650'FNL, 1650'FEL, Sec.14, T-31-N, R-10-W, NMPM Blanco Pictured Cliffs/ Blanco Mesaverde 6 11. County and State San Juan Co, NM 12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission Type of Action Abandonment Change of Plans

X Recompletion New Construction

Plugging Back Non-Routine Fracturing

Casing Repair Water Shut off

Altering Casing Conversion to Injection X Notice of Intent Subsequent Report Final Abandonment X Other - Add Mesaverde pay 13. Describe Proposed or Completed Operations It is intended to add pay to the existing Mesaverde formation and add the Pictured Cliffs formation to the subject well according to the attached procedure and wellbore diagram. The well will then be down-hole commingled. A down-hole commingle order will be applied for with the New Mexico Oil Conservation Division. OH CON. DI I hereby certify that the foregoing is true and correct. 14. manns of (JAS5) Title Regulatory Administrator Date 7/2/96___ (This space for Federal or State Office use) APPROVED BY Title

OKO

CONDITION OF APPROVAL, if any:

DISTRICT MANAGER

District 4 PO Box 1988, Hobbs, NM 82241-1988 District II PO Drawer DD. Artenia. NM 88211-0719 District III 1000 Rio Brunes Rd., Aztec, NM 27410 District IV

RECEIVED BLM State of New Mexico
Energy, Minerals & Natural Resources Departm

Form C-102 Revised February 21, 1994

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San Juan 32-9 Unit #13 - MV

Pay Add Menefee and Pictured Cliffs (Commingle Production)
Lat-Long by TDG: 36.900726 - 107.847977
NE/4 Section 14, T31N-R10W
RECOMPLETION PROCEDURE 5/31/96

- Hold safety meeting. MIRU. Comply with all MOI, BLM and NMOCD rules and regulations. Install 4 frac tanks and 1x400 bbl rig tank. Fill each frac tank with 3#'s of biocide using Aztec city water if possible at 2% KCI concentration.
- Obtain and record all wellhead pressures. ND WH, NU BOP. TOOH w/ 2-3/8" tubing set at 5467'. Replace bad tubing as necessary.
- 3. PU 7", 23# casing scraper on 2-3/8" tubing and TIH. Run casing scraper to 4660'. TOOH.
- 4. TIH with 2-3/8" tubing, 5-1/2", 15.5# casing scraper and 4-3/4" bit. CO to PBTD of 5490'. Circulate hole clean with air/mist. TOOH.
- RU wireline. Set a 5-1/2" CIBP @ ± 5350'.
- TIH w/ 5-1/2" packer on 2-3/8" tubing to 5330'. Set packer and pressure test casing and CIBP to 3000 psi. for 15 minutes. Release packer and unload hole w/ air. Spot 350 gallons of 15% HCL @ 5350'. TOOH.
- 7. RU wireline and full lubricator. Perforate the Menefee interval using 3-1/8" HSC guns with 12 gram charges (Owen HSC-3125 306T), 2 SPF and 0.29" diameter holes:

5050, 5069, 5072, 5090, 5102, 5110, 5118, 5136, 5142, 5206, 5210, 5220, 5224, 5243, 5262, 5292, 5312,

17 intervals, 34 holes

Inspect guns to ensure all perforations fired. RD wireline.

- 8. TIH w/ 5-1/2" packer and PU 5030' of 3-1/2" N-80 buttress frac string. Set packer @ 5030'.
- 9. RU flowback line w/ 1/4" positive choke. RU Stimulation Company. Pressure test flowback line to 1000 psi w/ plug in the end.
- 10. Hold safety meeting. Max allowable surface treating pressure is 3000 psi @ 30 BPM. Pressure test surface lines to 4000 psi. (1000 psi over maximum treating pressure but less than the working pressure of the lines). Stimulate the Menefee interval @ +/- 35 BPM w/ 30# XL gel and 7000 SCF/M N2, 40/70 Arizona, 20/40 Arizona and 20/40 resin coated. Sand will not be tagged. Stage flush when sand concentration drops to 4-1/2 #/gal. Quick flush w/ 2% KCL water and N2. Cut flush rate in half (to 15 BPM) when half of flush is away. Note rate and pressure and underflush by a minimum of 10%.
- 11. Flow back well immediately through 1/8" positive choke to reverse gravel pack. If well is not dead after 2 hours, open well wide open over 15 minutes until pressure falls to zero. Accurately record sand volume and gel/water coming back.
- 12.) Release packer and TOOH laying down all but 3100' of frac string.

PICTURED CLIFFS SQUEEZE PROCEDURE

- 13. RU wireline. Set a 7" RBP @ 4200'. Spot 10' sand on RBP.
- 14. Load hole w/ 2% KCL water.
- 15. RU wireline. Run GR/CBL from 4190' to surface. Expedite copy of GR/CBL to office.
- 16. Perforate 2 squeeze holes @ approximately 3300' and 2 squeeze holes @ 2800'. Actual squeeze perforations will be determined from CBL.
- 17. PU 7" cement retainer on 2-3/8" tubing and TIH. Set retainer @ 3250' or 50' above actual lower squeeze perforations. Sting into retainer and establish injection rate.

Mix cement @ 15.4 #/gal (keeping constant density). Squeeze perforations w/ cement. Under displace by one (1) BBL. Sting out of retainer and TOOH. LD stinger.

Be prepared to reverse out if early squeeze is obtained before displacement is complete.

Cement Slurry: 135 sx Class "B" Standard Cement (100% Excess)

0.3% halad 344 (Fluid Loss)

3-1/2 pps Gilsonite (Loss Circulation).

15.4 #/gal 1.27 cf/sk 4.97 gal/sk

- 18. WOC 18 hrs
- 19. TIH w/ 6-1/4" bit and drill collars on 2-3/8" tubing. Drill cement but not retainer to 3250' w/ 2% KCL water. TOOH.
- 20. PU 7" packer on 2 jts of 3-1/2" tbg and set. Pressure test upper squeeze holes to 750 psi. If holes do not test contact office for squeeze procedure. LD packer.
- 21. RU wireline. Run GR/CBL from 3250' to TOC. Expedite copy of GR/CBL to office. Perforate the following Pictured Cliffs interval bottom up using centralized 3-1/8" HSC guns with 12 gram charges 1 SPF (Owen HSC-3125 306T) and .26" diameter perfs:

3134' - 3158' (24 perfs total @ 1 SPF)

Inspect guns to ensure all perforations fired. RD wireline and lubricator.

22. TIH w/ 7" packer and 3000' of 3-1/2" N-80 buttress frac string. Set packer @ 3000'. Hold 500 psi on backside during balloff.

- 23. RU stimulation company. Pressure test surface lines to 4000 psi (1000 psi over maximum treating pressure). Maximum treating pressure during acid job is 3000 psi. Pump 36 bbls (1,500 gallons) of 15% HCl acid at maximum rate pressure will allow (Add 2/1000 gallons corrosion inhibitor, 1/1000 gallons surfactant and 5/1000 gallons iron sequestering agents to the acid). Drop a total of 48 (two balls per perforation) 7/8" diameter 1.3 specific gravity RCN ball sealers spaced evenly throughout the job. Flush with 1% KCL. Record injection rate and all breakdown pressures throughout the job. If well is not on a vacuum, calculate frac gradient and determine number of holes open.
- 24. Unset packer and knock off balls. Reset packer @ 3000'. Hold 500 psi on backside.
- 25. RU MOI flowback line w/ with a 1/4" positive choke. RU simulation company. Pressure test flowback line to 1000 psi and stimulation company's lines to 6000 psi.
- 26. RU stimulation company. Hold safety meeting. Maximum surface treating pressure during frac is 5000 psi. Fracture Stimulate Pictured Cliffs interval according to attached procedure at 30-40 BPM using 20# linear pad and 70 Quality Nitrogen with 100,000 #'s of sand. Flush with 2% KCL water and N2. Do not slow rate during flush. Do not over displace during flush. (Stage flush as soon as sand concentration begins to fall).
- 27. RU immediate flowback line. Flow back well ASAP through 1/4" positive choke until pressure falls to zero. Accurately record sand volume and gel/water flowing back.
- 28. Unset packer and TOOH laying down fracstring.
- 29. TIH w/ 6-1/4" bit and drill collars on 2-3/8" tubing. Clean out to 3250'. Do not drill retainer. Clean hole w/ air/mist.

Obtain stabilized pitot gauge for PC interval. Important: Pitot Gauge will be used for commingling allocation. Confirm with office before proceeding.

Drill cement retainer @ 3250' and clean out to TOL @ 4660'. TOOH.

- 30. TIH w/2-3/8" tbg. and 4-3/4" bit CO to RBP @ 5350'. When hole is clean, obtain pitot gauge for Pictured Cliffs/Cliffhouse/Menefee interval. TOH. TIH w/ret. head and release 5-1/2" RBP @ 5350'. TOOH.
- 31. PU a 4-3/4" bit on 2-3/8" tubing. CO with air/mist to PBTD @ 5490'.
- 32. PU above the Mesaverde perforations and flow the well naturally, making short trips for clean up when necessary.

Obtain stabilized pitot gauge for entire well. Important: Final Pitot Gauge will be used for commingling allocation. Confirm gauge with office before proceeding.

33. When sand and water has diminished to acceptable levels, TOOH.

San Juan 32-9 Unit #13
Menefee/Pictured Cliffs Pay Add Commingle

- 34. TIH with one joint of 2-3/8", 4.7#, J-55 tubing w/ expendable check, an F-nipple, then the remaining 2-3/8" production tubing. Land tubing near bottom MV perforation @ 5467' as removed from well originally.
- 35. ND BOP's. NU WH. Pump off expendable check. Make swab run to ensure tubing is clear. Obtain final pitot gauge. RD and MOL.

Approval:			
	Northwest Basin Team Leader	Drilling Superintendent	

Engineers -

<u>James A. Smith</u> Office - (326-9713) Home - (327-3061) Pager - (324-2420)

Mary Ellen Lutey Office - (599-4052) Home - (325-9387) Pager - (324-2671) Frac Consultants

Mark Byars
Pager - (327-8470)
Mobile - (320-0349)
Home - (327-0096)

Mike Martinez
Pager - (599-7429)
Mob - (860-7518)
Home - (326-4861)

JAS

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Pertinent Data Sheet

SAN JUAN 32-9 UNIT #13

Location: Unit G-SW/4 NE/4, Section 14, T31N, R10W, 1650' FNL, 1650' FEL,

Lat. 36.900726, Long. -107.847977 by TDG

San Juan County, NM

Field: Blanco Mesaverde

Elevation: 6322' GL

TD: 5555'

6332' DF

PBTD: 5490'

Spud Date: 03/07/53

Completed: 03/29/53

DP No: 69848

Prop. No: 0023423

Casing/Liner Record:

Hole Size	Csg. Size	Wt. & Grade	<u>Depth Set</u>	<u>Cement</u>	<u>Top/Cement</u>
121/4"	9 5/8"	25.4# S.W.	170'	135 sx	To surface
83/4"	7"	*23# Foreign&20#J-55	4793'	300 sx	3885' (TS)
61/4"	51⁄2"	_	4660'-5546'	200 sx	4925' (TS)
	*Top 3 joints	J-55 20# .			

(3/1953) Squeezed 200 sx through Bradenhead. BOC @ 700' (calc. @ 70% eff.) 51/2" Burns liner hanger. Squeezed liner hanger with 150 sx.

Tubing Record: 2 3/8" 4.7# J-55 @ 5467' (184 joints).

Formation Tops:

Ojo Alamo:	1530'	Lewis:	3340'
Kirtland:	1582'	Upper Cliffhouse:	4651'
Fruitland: Pictured Cliffs:	2697'	Massive Cliffhouse:	4928'
	3133'	Menefee:	5007'
		Massive Point Lookout:	5331'

Logging Record:

ES, GRI, TS

Stimulation History:

(Original)1485 quarts SNG from 4895' to 5555'. Natural gauge 517 mcf.

Workover History:

(07/56): Cleaned out open hole. Ran 5½" casing. Cemented with 100 sx regular cement and 100 sx Pozmiz. Held 1000# for 30 minutes. TOC @ 4925' by TS. Squeezed liner hanger with 150 sx (125 sx behind liner). Final pressure 2000#. Tested with 1000#, OK. Cleaned out to 5490'.

Stimulation History: (Workover)

Perfed Point Lookout @ 5378'-5398', 5423'-5430', 5444'-5465' with 4 SPF. Frac'd with 57,500 gallons of water and 60,000# of sand. MTP=1800#, ATP=1500#, IR=42 BPM, BDP=none.

Perfed Lower Cliffhouse @ 4982'-5006' with 4 SPF. Frac'd with 65,000 gallons of water and 45,000# of sand. BDP=3000#, MTP=3000#, ATP=2400#, IR=46 BPM.

Perfed Upper Cliffhouse @ 4891'-4899', 4901'-4917', 4946'-4960' with 4 SPF. Frac'd with 55,000 gallons of water, 42,500# of sand. BDP=2200#, MTP=3800#, ATP=2400#, IR=25 BPM. Landed tubing @ 5467' with 184 joints.

SAN JUAN 32-9 UNIT #13

BLANCO MESAVERDE

AS OF 5/31/96

1650' FNL, 1650' FEL SEC 14, T31N, R10W, SAN JUAN COUNTY, NM

