### State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102

District I O Box 1980, Hobbs, NM 88241-1980 District II O Drawer DD, Artesia, NM 88211-0719 District III O00 Rio Brazos Rd., Aztec, NM 87410 District IV O Box 2088, Santa Fe, NM 87504-2088			State of New Mexico  Energy, Minerals & Natural Resources Department  OIL CONSERVATION DIVISION BLM  PO Box 2088  Santa Fe, NM 87504-2088 AUG 29 PM 3: 48  OTO FASCINGUEM MM							
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	5-0631		72439	/82329/	72319 So.H	Blanco PC/Ote	ero Chacra/			
* Property ( 7350	ode			Nava	'Property' ajo India				' Well Number	
'OGRID	No.				1 Operator	Name			'Elevation	
14538				MERIDIAN OIL INC. 6010'						
UL or lot no.	Section 19	Township 27 N	Range 8 W	Lot Idn	Feet from the 1180	North/South line South	Feet from the 1450	East/West line West	County S.J.	
		<u> </u>	11 Bot	tom Hole	e Location I	f Different Fro	om Surface			
UL or lot so.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
				from	DEC N SEP	ed, prepare lated 5-31- Leese. - 7 1994 DN. DIV.	Signature Peggy Printed Nan Regula Title 8-29-0 Date  18SUR	fy that the information please to the best of many and the best of the b	TTIFICATION in contained herein is by incovidage and belief  TIFICATION item shown on this plas total surveys made by me	
14:	50'	° ,08)////			DEGI SEP	EIVED 2 0 1994 DIV. DIV. 3	or under my	d cal de	8-24-9	

#### NAVAJO INDIAN B #3 MV/PC

# Recommended Procedure Open Chacra & Commingle w/PC & MV Lat.-Long. = 36.556091 - 107.725586 C 19 27 8

- Comply to all NMOCD, BLM, & MOI, rules & regulations. MOL and RU completion rig. Blow well down. NU 7-1/16" 900 series BOP with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line.
- 2. TOH W/ 97 Jts 1" tbg & lay down. TOH w/140 Jts 2-3/8" tbg (@ 4345') & Guiberson Type "A" pkr seal assembly @ 4156'.
- 3. Run 5-1/2" "CJ" milling tool on tested 2-3/8" tbg & mill (w/air/mist) & retrieve Guiberson Type "A" pkr @ 4156'. TOH.
- 4. MI Wireline Truck. Run CBL from 3500' to top of cmt and pulsed neutron log from 3500'-2800' & 2200'-1900'. Coorelate to open hole GNR log. Set 5-1/2" ret BP @ 3100' & top w/2 sx sand. Hot-shot logs to Production Engr Dept. Chacra perfs will be picked at this time.
- 5. Perf Chacra @ about 2982'-90' w/ 4 spf. Perfs will be a total of about 8' (32 holes). Perf w/Tolson jets.
- 6. Spot and fill 2 400 bbl. frac tanks with 2% KCL water. Filter all water to 25 microns. One tank is for frac gel and one for breakdown. Usable water required for frac is 293 bbls.
- 7. Run 5-1/2" pkr on 3-1/2" 9.3# P-110 w/shaved collars (4.25" O.D. 2.992" I.D.) rental frac string & set @ 2700'. Breakdown & attempt to balloff w/2000 gal 15% HCL acid & 80 perf balls. Acid to contain 1 gal/1000 gals water of F75N (surfactant) & 10#/1000 of L58 (corrosion inhibitor). Maximum pressure = 5000 psi. Record breakdown pressures. Lower pkr to 3000' to knock off perf balls. Reset pkr @ 2950'.
- 8. Frac Chacra down frac string w/ 40,000 gals. of 70 quality foam using 30# gel as the base fluid & 60,000# 20/40 Arizona sand. Pump at 30 BPM. Monitor bottomhole and surface treating pressures, rate, foam quality, & sand concentration with computer van. Sand to be tagged with 0.4 mCi/1000# Ir-192 tracer. Max. pressure is 6000 psi and estimated treating pressure is 2800 psi. Treat per the following schedule:

### NAVAJO INDIAN B #3 CH, PC, MV - WORKOVER PROCEDURE Page 2

<u>Stage</u>	Foam Vol. (Gals.)	Gel Vol. (Gals.)	Sand Vol. (lbs.)
Pad 1.0 ppg 2.0 ppg 3.0 ppg Flush	10,000 10,000 10,000 10,000 (1,080)	3,000 3,000 3,000 3,000 (324)	10,000 20,000 30,000
Totals	40,000	12,000	60,000#

Shut well in after frac for six hours to allow the gel to break. Treat frac fluid with the following additives per 1000 gallons:

- \* 30# LGC8 (Gel)
- \* 3.0 gal. AQF2 (Non-ionic Surfactant)
- \* 1.0# GVW3 (Enzyme Breaker)
- \* 1.0# B-5 (Breaker)
- Open well through choke manifold and monitor flow. Flow @ 20 bbl/hr, or less if sand is observed.

NOTE: The following clean-up procedure is designed to obtain the State required pitot gauges for this triple commingle.

- 10. When well stops flowing, TOH w/frac string & pkr & lay down. TIH w/notched collar on 2-3/8" tbg & C.O. w/air/mist to BP @ 3100'. Take pitot gauges when possible (CH-PC).
- 11. When wellbore is sufficiently clean, TOH and run after frac gamma-ray log from 3100'-2000'.
- 12. TIH w/5-1/2" pkr on 2-3/8" tbg w/perfed jt just above pkr & bull plug below pkr & land @ 2200'. Take pitot gauges of PC only. Swab in, if necessary. TOH.
- 13. TIH w/retrieving tool on 2-3/8" tbg and again CO to 3100'. <u>Take pitot gauges when possible (CH-PC)</u>. When wellbore is sufficiently clean, retrieve BP & TOH.
- 14. TIH w/4-3/4" bit on 2-3/8" tbg & CO to 4500' w/air/mist. Take pitot gauges when possible (CH-PC-MV). TOH.
- 15. TIH with 2-3/8" production the with standard seating nipple one joint off bottom to 4500' and again blow well clean. When well is clean, land the @ 4300'. Take final pitot gauges, water & oil samples, and gas samples (CH-PC-MV).
- 16. ND BOP and NU wellhead. Replace any bad valves on wellhead. Rig down & release rig.

## NAVAJO INDIAN B #3 CH, PC, MV - WORKOVER PROCEDURE Page 3

Approved:				
	J.	Α.	Howieson	

VENDORS:

Wireline: Blue Jet 325-5584 Frac & Acid: Western 327-6222 RA Tagging: Pro-Technics 326-7133

PMP

#### Pertinent Data Sheet - NAVAJO INDIAN B #3 PC/MV

Location: 1180'FSL 1450' FWL SEC. 19 T27N R08W, SAN JUAN COUNTY, N.M.

Field: So. Blanco Pictured Cliffs

Blanco Mesaverde

Elevation: 6018'

<u>TD:</u> 4546'

PBTD: 4500'

<u>Prop#:</u> 071216900

<u>Lease:</u> I-1419-Ind 8468 <u>DP#:</u> PC=32088B MV=32088A

GWI: 100% - PC, MV, CH

Completed: 4-13-59

NRI: 87.5% - PC, MV, CH

#### Initial Potential:

PC: 915 MCF/D, SICP= 736 PSI MV: 1694 MCF/D, SICP=1102 PSI

#### Casing Record:

<u> Hole Size</u>	Csq. Size	Wt. 8	<u> Grade</u>	Depth Set	Cement	Top/Cmt	
15"	10-3/4"	32.75#	H-40	124'	150 sx	N/A	
9-5/8"	7-5/8"	26.4#	J-55	2344'	200 sx	1404'@ 75% Eff.	
6-3/4"	5-1/2"	15.5#	J <b>-55</b>	2170'-4546'	273 sx	2170'@ 62% Eff.	

<u>Tubing Record:</u> 2-3/8" 4.7# J-55 4345' 140 Jts

Guiberson Type "A" @ 4156'
1" 1.7# C.W. 2017' 97 Jts

#### Formation Tops:

Ojo Alamo 1120'
Kirtland 1265'
Fruitland 1798'
Pictured Cliffs 2013'
Cliffhouse 3690'
Point Lookout 4284'

#### Logging Record: GRN

<u>Stimulation:</u> Perf MV @ 4280'-4380', 4408'-30', 4454'-72', w/2 spf & fraced w/100,000 sand in water.

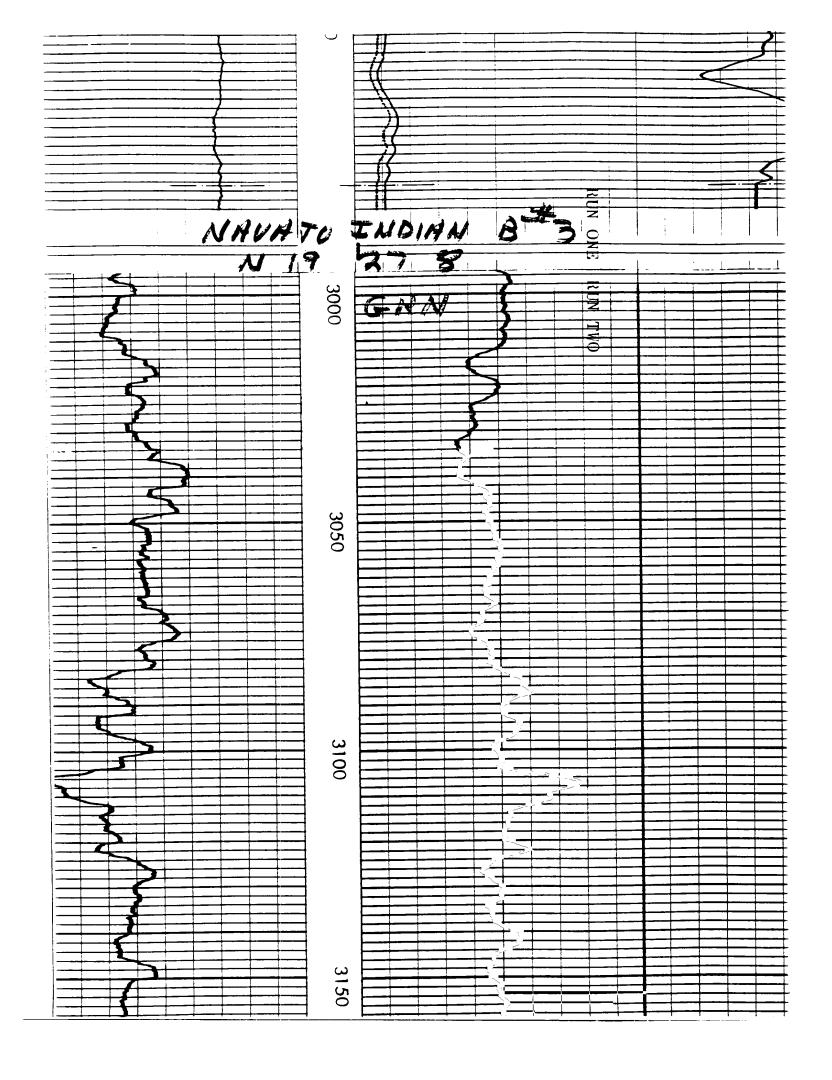
Perf PC @ 2016'-76', 2134'-48', w/2 spf & fraced w/100,000# sand in water.

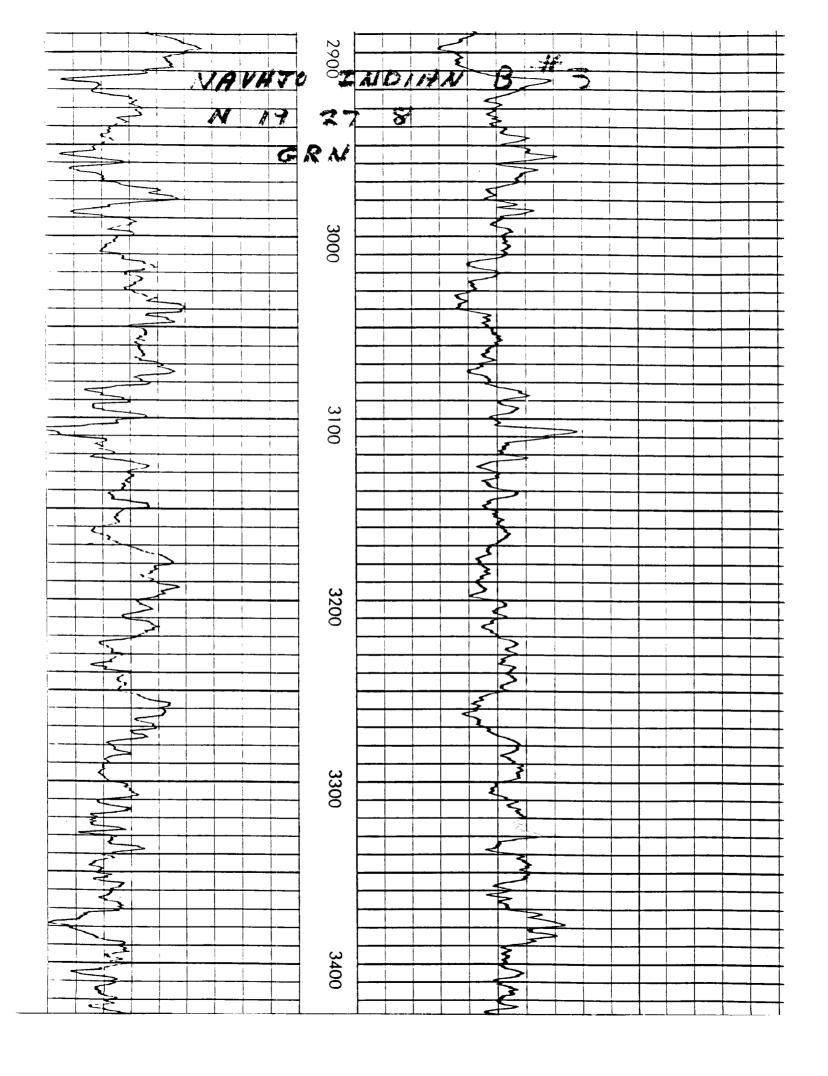
#### Workover History: None

Production History: 1st delivered on 6-1-59. Cumulative: MV= 824 MMCF & 2,257 BO.
PC = 319 MMCF. MV Tbg=510 psi. PC Tbg=220 psi. PC Csg=225 psi. Bradenhead=0 psi.
Line= 200 psi. PC=1168 BTU. MV=1300 BTU.

Pipeline: GCNM

PMP





### NAVAJO INDIAN B #3 MV

UNIT  $_{
m N}$  SECTION 19 T27N R8W SAN JUAN COUNTY, NEW MEXICO

