cc: 5 OCD, Aztec
1 Well File
2 Acct
1 Land

Submit to Appropriate
District Office
State Lease – 6 copies
Fee Lease – 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

CORRECTED COPY

Form C-105
Revised 1-1-89

WELL API NO. 30-045-27342

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

RECEIVED
FEB 05 1991
OIL CON. DIV.
DIST. 3

1a. Type of Well: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER

b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER

7. Lease Name or Unit Agreement Name: Santa Fe 20

2. Name of Operator: MERRION OIL & GAS CORPORATION

8. Well No.: #4

3. Address of Operator: P. O. Box 840, Farmington, NM 87499

9. Pool name or Wildcat: Snake Eyes Dakota

4. Well Location
Unit Letter I : 2310 Feet From The South Line and 990 Feet From The East Line
Section 20 Township 21N Range 8W NMPM San Juan County

10. Date Spudded	11. Date T.D. Reached	12. Date Compl. (Ready to Prod.)	13. Elevations (DF & RKB, RT, GR, etc.)	14. Elev. Casinghead
7-15-89	7-24-89	8-4-90	6576' GL 6588' KB	

15. Total Depth	16. Plug Back T.D.	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By	Rotary Tools	Cable Tools
5699' KB	4647' KB	----		0 - 5699'	

19. Producing Interval(s), of this completion - Top, Bottom, Name: 4585' - 4587' KB

20. Was Directional Survey Made: see attached sheet

21. Type Electric and Other Logs Run: Induction Density Neutron Sonic log; OH Density log

22. Was Well Cored: no

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#/ft	226' KB	12-1/4"	160 sx Cl "G" 2% CaCl	0
4-1/2"	11.6#/ft	5490' KB	8-3/4"	75 sx Cl "G" 1% D-13	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
2-7/8"	4189'	4900' KB	300 Cl G	

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8"	4178'	

26. Perforation record (interval, size, and number)
Lower Dakota 4666-4672' KB
4658-4662' KB
4650-4654' KB 2 SPF
4620-4630' KB
Upper Dakota 4585-4587' KB 4 SPF

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
4620-4672' KB	25 sx Cl "H" 15.8#/gal
	5.1 Bbl Slurry

28. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
8-4-90	flowing	SI

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
8-4-90	4	.75"		0	88	64	

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)
--	225		0	725	384	

29. Disposition of Gas (Sold, used for fuel, vented, etc.): vented

Test Witnessed By: Carl Merilatt

30. List Attachments

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature [signature] Printed Name Steven S. Dunn Title Operations Mgr Date 1-30-91

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs Surface	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House 875'	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee 912'	T. Madison
T. Queen	T. Silurian	T. Point Lookout 2590'	T. Elbert
T. Grayburg	T. Montoya	T. Mancos 2692'	T. McCracken
T. San Andres	T. Simpson	T. Gallup 3285'	T. Ignacio Otzte
T. Glorieta	T. McKee	Base Greenhorn 4360'	T. Granite
T. Paddock	T. Ellenburger	T. Dakota 4582'	T.
T. Blinebry	T. Gr. Wash	T. Morrison 4770'	T.
T. Tubb	T. Delaware Sand	T. Todilto 5589'	T.
T. Drinkard	T. Bone Springs	T. Entrada 5620'	T.
T. Abo	T.	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn	T.	T. Permain	T.
T. Cisco (Bough C)	T.	T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from 4585' to 4587' No. 3, from ..... to .....

No. 2, from ..... to ..... No. 4, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet .....

No. 2, from ..... to ..... feet .....

No. 3, from ..... to ..... feet .....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology

SANTA FE 20 NO. 4

September 24, 1990

Detail: Orifice pressure: 30, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 535 BWPD, tbg: 300 psi, csg: 1160 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 25, 1990

Detail: Orifice pressure: 30, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 535 BWPD, tbg: 300 psi, csg: 1160 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

SANTA FE 20 NO. 4 Off Report

September 26, 1990

Detail: Orifice pressure: 30 psi, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 590 BWPD, tbg: 300 psi, csg: 1160 psi. Well SI.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

November 13, 1990 One Day Report

Shot fluid level. Static FL @ 3,038' KB. Tbg: 4,187' KB. Tbg: 1,240 psi, Csg: 1,250 psi. (TLM)

SANTA FE 20 NO. 4

September 19, 1990

Detail: Orifice Pressure: 30, Orifice plate size: 0.5", Gas: 231 MCFD, Water: 535 BWPD, Tbg: 300 psi, Csg: 1160 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Cost : $ 67,610

September 20, 1990

Fluid Level Test. FL @ 4022'. SN @ 4178'. Production: Oil: 0 Bbls; Gas: 231 MCF; H_2O: 535 Bbls; Tbg Pressure: 300 psi; Csg Pressure: 1160 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 21, 1990

Detail: Orifice pressure: 30, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 535 BWPD, tbg: 300 psi, psi: 1160 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 22, 1990

Detail: Orifice pressure: 30, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 535 BWPD, tbg: 300 psi, csg: 1160 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 23, 1990

Detail: Orifice pressure: 30, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 535 BWPD, tbg: 300 psi, csg: 1160 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

SANTA FE 20 NO. 4

September 13, 1990

Detail: Orifice pressure: 30 psi, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 960 BWPD, tbg: 300 psi, csg: 1150 psi. (GFS)

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 14, 1990

Detail: Orifice pressure: 30 psi, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 960 BWPD, tbg: 300 psi, csg: 1150 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 17, 1990

Detail: Orifice pressure: 30, Orifice plate size: 0.5", Gas: 231 MCFD, H_2O: 960 BWPD, tbg: 300 psi, csg: 740 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 16, 1990

Detail: Orifice pressure: 30, Orifice plate size: 0.5", Gas: 231 MCFD, tbg: 280 psi, csg: 1110 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 17, 1990

Detail: Orifice pressure: 35, Orifice plate size: 0.5", Gas: 260 MCFD, tbg: 280 psi, csg: 1110 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

September 18, 1990

Detail: Orifice pressure: 35, Orifice plate size: 0.5", Gas: 260 MCFD, H_2O: 530 BWPD, tbg: 210 psi, csg: 1080 psi.

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 67,610

SANTA FE 20 NO. 4

August 31, 1990 — Test Day No. 1

Test Data:

Time	Avg Flow Tbg Psi	SI Csg Psi	Orif Size	Orif Pres	Gas Rate Mcf/day	H_2O Rate Bbl/hr
9:30	175	925	.750	20	398	40
10:00	175	925	.750	20	398	39
10:30	275	1000	.750	16	344	25
11:00	275	1000	.750	15	331	22
11:30	275	1025	.750	15	331	20
12:00	375	1050	.750	13	303	18
12:30	375	1100	.750	12	288	16
1:00	375	1150	.750	12	288	14
1:30	375	1200	.750	11	274	13
2:00	475	1250	.500	18	166	9
2:30	475	1275	.500	18	166	7.5
3:00	475	1275	.500	15	147	7
3:30	575	1300	.500	10	116	3

FLUID LEVELS
Seating Nipple @ 4178'

Status	Tbg Press	Csg Press	Production	FL
Shut In	900	1200	0	3861'
Flowing	175	900	400 mcf 40 Bbls H_2O/hr	3956'
Flowing	575	1300	116 mcf 3 Bbls H_2O/hr	4114'

Daily Cost: $450

AFE Number 89011: $112,586
Cumulative Costs: $ 66,468

September 1, 1990 — Test Day No. 2

PT	PC	Orif Size	Orif Press	Qg	Qw
510	1380	.5"	30	231	not measured

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 66,468

SANTA FE 20 NO. 4

August 17, 1990
FL 4185', pump depth 4178'. Oil 0, H_2O 0 Bbl, MCFD 0, SI, tbg 800 psi, csg 800 psi.

On Report

August 29, 1990 Day No. 20

Summary: Testing.

Detail: Unload H_2O and gas. Had problems. Too much water. 650 psi on csg and tbg. May be too much water to produce. (Fizz)

Daily Cost: $450

AFE Number 89011: $112,586
Cumulative Costs: $65,568

August 30, 1990

FL 3956', pump depth 4178'. Oil 0, H_2O 960 Bbl, MCFD 400, tbg 175 psi, csg 900 ps

August 30, 1990 Day No. 21

Summary: Begin testing.

Detail: SICP = 720 psi. SITP = 720 psi. Blow tbg to atmosphere. Well died. Blow csg to atmosphere. Well started to unload. Flowed for 2 hrs out csg. SI csg and open tbg to flow. Unload heavy water to atmosphere for 3 hrs. Begin flowing through separator. FTP = 150 psi. SICP = 540 psi. Separator dump malfunctioning. With water dump closed (ie, all flow out gas vent), have 70 psi on 1/4" orifice (rate = 125 mcf/d). With water dump open, all gas goes out water dump. Made ± 60 Bbls water in 1.5 hour test. Left well flowing to water tank overnight. (GFS)

Daily Cost: $450

AFE Number 89011: $112,586
Cumulative Costs: $ 66,018
********** to T Bond 8-30-90

SANTA FE 20 NO. 4

August 5, 1990 Day No. 17

Summary: Csg 800 psi, tbg 20-40 psi, 522 mcf/d. Heavy mist of H_2O.

Detail: Pumper checked well. Csg 800 psi, tbg flowing through tester @ 20-40 psi through 3/4" plate avg 522 mcf/d. Heavy mist & slugging. (CCM)

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 63,318

August 6, 1990 Day No. 18

Summary: Csg 700 psi, tbg 60-65 psi, through 3/4" plate steady heavy mist, 872 mcf/d. (CCM)

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 63,318

August 7, 1990 Day No. 19

Summary: Csg 725 psi, tbg flowing 1150 Mcf/D, heavy, steady mist. Landed tbg. RD.

Detail: Landed tbg in wellhead w/ donut @ 4187' KB. SN @ 4178' KB w/ 132 jts of 2-3/8" EUE 4.7 #/ft tbg. RD. (CCM)

Daily Cost: $1,800

AFE Number 89011: $112,586
Cumulative Costs: $ 65,118
**********to Tommy Bond 8/6/90

August 8, 1990 Day No. 20

Moved to Federal 15-2H. (CCM)

Daily Cost: $0

AFE Number 89011: $112,586
Cumulative Costs: $ 65,118
**********to T. Bond 8/8/90

SANTA FE 20 NO. 4

August 2, 1990 — Day No. 14

Summary: Squeezed lower & middle Dakota, perfs 4,620' - 4,672' KB.

Detail: RU Halliburton. Spotted 25 sx Cl "H" Neat cement from 4,694' KB, 15.8#/ gal, 1.15 cu ft/ sk, 5.1 Bbls of slurry. Pulled tbg to 4,078' KB, reversed clean, got back 1.0 Bbl of cement. Pumped .5 Bbl H_2O dn csg, 2,500 psi, bled pressure off, pulled 10 st. Pumped to 3,000 psi, moving no fluid, surged back twice. Still could not move cement @ 3,000 psi. TOH w/ tbg. TIH w/ 3-7/8" bit. Cleaned out cement from 4,078' KB to liner top @ 4,189' KB. TOH w/ 2-3/8" tbg & bit. (CCM)

Daily Cost: $5,000

AFE Number 89011: $112,586
Cumulative Costs: $ 58,218

August 3, 1990 — Day No. 15

Summary: Drilled out lower & middle Dakota - squeeze to 4647' KB; test to 1500 psi.

Detail: TIH w/ 2-1/4" bit on 795.65' of 1-1/2" NUE tbg & 2-3/8" tbg. Cleaned out cement from liner top to 4647' KB. Pressure test to 1500 psi, held good. Swabbed FL to 2000' KB. TOH w/ tbg & bit. SDON. (CCM)

Daily Cost: $2,000

AFE Number 89011: $112,586
Cumulative Costs: $ 60,218

August 4, 1990 — Day No. 16

Summary: Perforated & tested upper Dakota 4585' - 4587' KB. 725 mcf/ day, 16 Bbls H_2O/ hr.

Detail: RU Petro Wireline. FL @ 2400' KB. Perf upper Dakota 4585' - 4587' KB per OH Density log, 4 SPF. Csg blew slightly for 10 min & died. TIH w/ 2-3/8" EUE tbg w/ saw-tooth collar. SDON. Bttm 15' above liner top. Tbg & csg came in flowing.

Tested well as follows: Csg SI flowed 2" tbg 4 hrs to clean up, making 16 Bbls water/ hr, csg 225 psi. Installed orifice tester, making 725 MCF/ day. Heavy mist of water & slugging. Test well over weekend. SDOWE. (CCM)

Daily Cost: $3,100

AFE Number 89011: $112,586
Cumulative Costs: $ 63,318

SANTA FE 20 NO. 4

July 29, 1990 — Day No. 11

Summary: Swab test lower Dakota. Total recovery 185 Bbls.

Detail: TIH w/ SN on 2-3/8" EUE tbg to 4150' KB. Swabbed total of 185 Bbls in 32 runs fl. from surface to stabilize @ 1300' KB.

Swabbed 85 Bbls in 2 hrs after FL stable. Got lower Dakota water sample & analyzed for possible fracing. (Some gas cut fluid during swab run, but no blow after run.) SWI. SDOWE. (CCM)

Daily Cost: $1,850

AFE Number 89011: $112,586
Cumulative Costs: $ 46,928

July 31, 1990 — Day No. 12

Summary: Swab 81 Bbls H_2O from 4,650'-4,672' KB. Set RBP @ 4,645', perf middle Dakota 4,620-4,630' KB. Swab casing, load.

Work Detail: OPSI tbg, tst & psi csg. SI, FL 200' KB. RUTS. Swab 81 Bbls formation water, 9 runs, 1 hr. 45 min. Final level 800 ft. POH. Pick up Schulumberger 2-7/8" Bobcat RBP. RIH w/ 24 jts. of 1-1/2" NUE 2.75 lb/ft tbg & 121.5 jts of 2-3/8" EUE 4.7 lb/ft tbg. Set RBP @ 4,634' KB. Pressure test to 1000 psi. POH. RU Petro Wireline, perforate middle Dakota 4,620'-4,630' KB w/ 2 SPF (2" gun) per density log. Broke down w/ water @ 2,600 psi. Pump est. 6-8 Bbls @ 1700 psi, 2 BPM. ISIP - 1500 psi. Down to 450 psi, 5 min. RIH w/ 2-3/8" tbg to 4,074' KB. RUTS. Swab 38 Bbls H_2O in 5 runs. FL @ surface, down to 1500' final run. SD due to high winds. (SSD)

Daily Cost: $4,090

AFE Number 89011: $112,586
Cumulative Costs: $ 51,018

August 1, 1990 — Day No. 13

Summary: Swab test Middle Dakota 4620'-30' KB, rec 130 bbls wtr, no gas.

Work Detail: SIP 20 psi/30 psi. IFL 200'. Swab test. Total rec 130 bbls wtr, no gas. FFL @ 3000'. Final inflow rate 575 BPD. Caught sample for analysis. POH. RIH with RH. Unset RBP @ 4634' KB. POH. RIH open ended to 4690' KB. Preparing to spot cement. SDON. (SSD).

Daily Cost: $2,200

AFE Number 89011: $112,586
Cumulative Costs: $ 53,218

SANTA FE 20 NO. 4

July 26, 1990 Day No. 8

Summary: Drilled out cement to liner top.

Detail: TIH w/ 3-7/8" bit and 2-3/8" tbg. Tag cement 3850'. Drilled out cement to 4196' (346' cement). Circ hole clean. TOOH. Tally and pickup 2-1/4" drag bit on 24 jts of 1-1/2" NU tbg. Ran 2 stands of 2-3/8" tbg. SDON. (Cement soft, samples soft.) (ARM)

Daily Cost: $3,035

AFE Number 89011: $112,586
Cumulative Costs: $36,538

July 27, 1990 Day No. 9

Summary:

Cleaned out cement. Pressure test liner & csg, held good.

Detail:

Ran 795' of 1-1/2" NUE tbg w/ fishtail bit on 2-3/8" EUE tbg. Tagged cement @ 4,196' KB. Drilled 15' cement & fell through & retagged cement & indicating plug @ 4,226' KB. Drilled good cement to 4,887' KB. Circulated clean water into hole & pulled tbg out of liner. Test csg to 3,000 psi, held good. SDON. (CCM)

Daily Cost: $2,240

AFE Number 89011: $112,586
Cumulative Costs: $ 38,778

July 28, 1990 Day No. 10

Summary: Ran Bond log & perforated lower Dakota.

Detail: TOH w/ 2-3/8" EUE tbg & 795' of 1-1/2" NUE tbg w/ 2-1/4" blade bit. RU Schlumberger Logging & ran CBL VDL Gamma ray collar. Log from PB&D 4887' KB through liner top @ 4185' KB and from liner top to TOC @ 2730' KB. Free pipe up to stage tool @ 2233' KB. Perforated lower Dakota in 3 runs, 4666'-4672' KB, 4658'-4662' KB, 4650'-4654' KB, 2 SPF. Broke down perfs 4666'-4672' KB. Broke @ 1700 psi. Pump in @ 1300 psi before 2nd and 3rd runs. Note: Held 2,000 psi on casing during bond log. SWI. SDON. (CCM)

Daily Cost: $6,300

AFE Number 89011: $112,586
Cumulative Costs: $ 45,078

SANTA FE 20 NO. 4

July 22, 1990 — Day No. 5

Summary: Installed generator and cleaned mud in the pits. SDOWE.

Detail: Delivered and hooked-up 3-phase generator to run the shale shaker. Got mud in pits cleaned up and generator had mechanical and electrical problems. SDOWE. (CCM)

Daily Cost: $2,230

AFE Number 89011: $112,586
Cumulative Costs: $16,408

July 24, 1990 — Day No. 6

Summary: Cleaned out open hole from 4,680' - 4,920' K.B.

Detail: Hauled out another 3-phase generator and circulated mud clear. TIH to 4,680'K.B.. Cleaned out to 4,920' K.B. Circ. clean, TOH w/ 2-3/8" EUE tbg and 3-7/8" bit._ (CCM)

Daily Cost: $2,810

AFE Number 89011: $112,586
Cumulative Costs: $ 19,218

July 25, 1990 — Day No. 7

Summary: Ran and cemented 2-7/8" liner w/ liner hanger.

Detail: Ran 2-3/8" tbg w/ saw-tooth collar w/ 5-9.5" wall scratchers. Worked pipe up & dn through open hole. Circ clean @ 4900' KB. TOH w/ 2-3/8" tbg. Ran 2-7/8" liner as follows:

Baker type V-shoe	1.37	4900' KB
Landing Collar	.83	4897.80 KB
2-7/8" EUE x NUE XO	.41	
29 jts 2-7/8" NUE liner	701.01	
Baker liner hanger	6.95	4189.43
Setting tool	.76	
132 jts 2-3/8" EUE tbg	4182.59	6.08' below KB
Total String	4893.92	

Hung liner & cemented w/ Dowell as follows: pump 40 Bbls water & 20 Bbls chemical wash ahead of 300 sx Cl "G" 50-50 POZ, 2% D-20, 10% D-44, 0.6% D-112, 1.22 cf/ sk, 13.9#/ gal, 65.2 Bbls slurry. SD. Drop plug, displace w/ 19.9 Bbls water. Bumped plug to 2000 psi. Released press., float held good. Got off liner top. TOH w/ 2-3/8" tbg & setting tool. SWI. SDON. (CCM)

Daily Cost: $14,285

AFE Number 89011: $112,586
Cumulative Costs: $ 33,503

SANTA FE 20 NO. 4

On Report

July 18, 1990 Day No. 1

MIRU. Ram Service Company. Nipple up BOP. PU 3-7/8" bit and bit sub on 2-3/8" EUE tbg. Tagged cement @ 2,153' K.B. Drilled cement to D.V. Tool @ 2,233' K.B. Pressure test @ 3,000 psi. - held good. SDON. (CCM)

Daily Cost: $4,653

AFE Number: 89011 $112,586
Cumulative Costs: $4,653

July 19, 1990 Day No. 2

Finished drilling cement and Stage Tool @ 2,233' K.B. TIH drilled 10' cement above float collar @ 4,255' K.B. Test to 3,000 psi. - okay. Drilled out float and shoe joint and fell through @ 4,299' K.B. Circulated clean. Pulled clear of open hole. Mixed drilling mud and circulated hole. SWI. SDON. (CCM)

Daily Cost: $2,950

AFE Number 89011 $112,586
Cumulative Costs: $7,603

July 20, 1990 Day No. 3

Summary: Cleaned out open hole to 4,790' K.B.

Detail: Mixed 40 vis mud. Washed dwn from 4.5" csg. Shoe @ 4,300' K.B. to 4,625' K.B. Lost circ. 2 Bbls or got tight, worked free. Pulled into csg, circ heavy cuttings out of the hole. TIH. Circ 40 min @ 4,430 K.B. Ran to 4,625' K.B., circ clean. Ran to 4,790' K.B., worked through small bridge, circ 1 hr. Pulled tbg and bit back into csg, circ 30 min. SWI. SDON. (CCM)

Daily Cost: $4,075

AFE Number 89011: $112,586
Cumulative Costs: $11,678

July 21, 1990 Day No. 4

Summary: Washed dn. from 4,650' - 4,680' K.B.. Installed shale shaker to clean up mud.

Detail: TIH. 4,650' K.B. started cleaning out open hole, carrying a lot of cuttings through the pits. and pumping cuttings back dn. hole. Installed shale shaker w/ 3 phase power, pulled into csg. from 4,680' K.B. Circ. clean. SDON. (CCM)

Daily Cost: $2,500

AFE Number 89011: $112,586
Cumulative Costs: $14,178

Mud Weight: 8.8, viscosity 38, water loss 9.2. Survey 5,095'- 1° (Four Corners Drilling)

Daily Cost: $7,158 Cumulative Cost: $97,903

July 23, 1989 - Day No. 9
TD: 5,670'
Current Operations: Drilling
Mud Weight: 9.0, viscosity 42, water loss 7.6. (Four Corners Drilling).

Daily Cost: $7,018 Cumulative Cost: $104,921

July 24, 1989 - Day No. 10
TD: 5,699'
Current Operations: Picking up drill pipe - going in to spot cement plug.
Mud Weight: 9.0, viscosity 42, water loss 7.6. (Four Corners Drilling).

DETAIL: Condition hole for logging. POH w/ drill string. RU Welex. Ran Induction - Density - Neutron - Sonic logs. Rig down loggers. Lay down drill collars. RIH w/ drill pipe open ended. Preparing to plug back from Entrada.

Daily Cost: $16,059 Cumulative Cost: $120,980

July 26, 1989 - Day No. 12
Waiting on cement. Final Drilling Report.

Cumulative Cost: $141,434

MERRION OIL & GAS CORPORATION

MORNING REPORT

July 25, 1989

CURRENT POSITION NO. EPNG 4893 (July Schedule)(7/1/89)
NWPL 1 (July Schedule)(7/1/89)

DRILLING

SANTA FE 20 NO. 4

July 25, 1989 - Day No. 11

Rigged down Welex. TIH w/ drill collars. Layed down all drill collars. TIH w/ drill pipe open ended to 5,690' and spotted 75 sx class "G" cement w/ 0.1% D-13 retarder up to 5,490' K.B. TOH laying down drill pipe. Nippled down BOP's and changed the wellhead. Nippled up BOP's. Started running csg. First 70 jts csg - 4.5" 11.6#/ft K-55 L.T.& C. Remainder - 4.5" 11.6#/ft K-55 S.T.& C. Csg string as follows:

ITEM	LENGTH	DEPTH ' K.B.
Cement nose guideshoe	.80'	4,296.18 K.B.
Jt. #1 shoe jt.	41.20'	
Orifice fill float collar	1.68'	4,252.50 K.B.
49 jts. 4.5" 11.6#/ft csg	2,017.57'	
Stage tool	1.68'	2,233.25 K.B.
55 jts. 4.5" csg.	2,238.25'	5' above K.B.
Total string length	4,301.18'	

Circulated 1.5 hours and thinned mud back to 40 sec. viscosity. Cement 1st stage as follows: Ran 20 Bbls water and 20 Bbls chemical wash ahead of 352 sx class "G" 2% gel cement. Shut down. Washed up pump and lines. Dropped plug and displace with mud and water. Bumped plug. Bled pressure off and float held good. Dropped opening bomb. Circulated 7 hours between stages. Cemented the 2nd stage as follows: 15 Bbls water ahead of lead cement of 450 sx class "G" 2% D-79 (chemical extender), mixed @ 12.6#/gal. with yield of 2.04 cu. ft/sk. Tail in w/ 50 sx class "G" neat. Shut down - dropped plug. Displaced with 34.7 Bbls of water. Circulated 18 Bbls cement back to surface. Plug down @ 12:00 midnight. Bled pressure off, tool closed. Rigged down cementers. Set csg in slips as cemented. Released Rig No. 6. (CCM)

Daily Cost: $20,454 Cumulative Cost: $141,434

SANTA FE 20 NO. 4

July 15, 1989 - Day No. 1
TD: 312' KB
Current operation: drilling
MIRU Four Corners Rig No. 6. Drilled rat hole and mouse hole, spud 12-1/4" surface hole to 226' K.B. Ran 211' of 9-5/8" 36#/ft buttress thread casing. Top jt w/ 8 rd slip collar welded on for Huber csg head. Rigged up Dowell and water truck. Mixed and pumped 110 sx Class "G" cement w/ 2% CaCl. displaced w/ 15 Bbls. No cement to surface. Ran 1" tbg in annulus and tagged cement @ 40'. Mixed and pumped 50 sx cement and got good cement to surface. SWI. Plug down @ 4:45 p.m. WOC 10 hrs. (CCM)
12-1/4" bit #1. 8-3/4" bit #2. Mud weight 8.5, viscosity 32, water loss 10. Surveys run as follows: 95' - 1/2°; 214' - 1-1/4° (Four Corners Drilling)

Daily cost: $11,647

July 16, 1989 - Day No. 2
TD: 2300'
Current operation: drilling
Mud weight 9.1, viscosity 34, water loss 8. Surveys run as follows: 464' - 3/4°; 866' - 1°; 1179' - 1°; 1794' - 1-3/4°; 2,042' - 1°. (Four Corners Drilling)

Daily Cost: $26,616 Cumulative Cost: $38,263

July 17 - Day No. 3
TD: 3,345'
Current operation: drilling
Mud weight 8.9, viscosity 32, water loss 10. Surveys run as follows: 2,542' - 1°; 3,042 - 2-1/2°; 3,074' - 2-1/2°; 3,230' - 1-1/4°

Daily Cost: $14,756 Cumulative Cost: $53,019

GEOLOGICAL REPORT
July 17, 1989
TD: 3,380'
Current operation: drilling
Progress: 1020' in the last 24 hours @ rate of 37'/hr. Continuing to drill with bit #2. Mud log tops: Point Lookout - 2,440'; Mancos - 2,645'; Gallup - 3,334'. No mudlog shows reported. (MKM)

July 18, 1989 - Day No. 4
TD: 3,875'
Current Operation: drilling
Drilled 530' in last 24 hours
Mud weight 8.9, viscosity 38, water loss 9. (Four Corners Drilling)

Daily Cost: $5,499 Cumulative Cost: $58,518
July 19, 1989