State of New Mexico Form C-103 Submit 5 Copies Energy, Minerals and Natural Resources Department to Appropriate District Office Revised 1-1-89 OIL CONSERVATION DIVISION DISTRICT WELL API NO. P.O. Box 1980, Hobbs, NM 88240 P.O. Box 2088 30-045-20857 Santa Fe, New Mexico 87504-2088 P.O. Drawer DD, Artesia, NM 88210 FEE X STATE DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410 6. State Oil & Gas Lease No. SUNDRY NOTICES AND REPORTS ON WELLS ( DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A 7. Lease Name or Unit Agrees DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Weil: Matthews WELL | WELL X 8. Well No. 2. Name of Oper Merrion Oil & Gas Corporation 3. Address of Operator 9. Pool same or Wildox Wildcat Entrada P. O. Box 840, Farmington, NM 87499 Well Location Line and 790 980 Feet From The South West Unit Letter Feet From The Sandoval 5 4 1 hip 13N Range 6E 10. Elevation (Show whether DF, RKB, RT, GR, etc.) 13N **NMPM** County Section 5588' GR Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data 11. NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF: PERFORM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK **ALTERING CASING CHANGE PLANS** COMMENCE DRILLING OPNS. PLUG AND ABANDONMENT X TEMPORARILY ABANDON **PULL OR ALTER CASING** CASING TEST AND CEMENT JOB Drilling and Completion History X OTHER: 12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103. Attached is a Drilling and Completion History for the subject well, which includes subsequent report of plugging. OIL CON. DIV. I hereby certify that the information above is tru s to/the best of my knowledge and belief. Operations Manager 5-29-91 SIGNATURE Steven S. Dunn TELEPHONE NO. 327-9801 TYPE OR PRINTANAME (This space for State Use) JUN 0 5 1991 DEPUTY OIL & GAS INSPECTOR, DIST. #3 CONDITIONS OF APPROVAL, IF ANY: NOTIFY AZTEC OFFICE WHEN MAKEL IS IN 3 OCD, Aztec 1 Well File PLACE + LOCATION READY FOR INSPECTION

On Report

April 23, 1991 Day No. 1

TD: 20' KB

Current Operation: Preparing to drill surface.

Summary: MIRU Joe I. Salazar Drilling Company. Drilled 20' of 9-3/4" surface hole w/ air. Encountered tight hole. SDON. Preparing to mist or mud up. (CCM)

April 24, 1991 Day No. 2

TD: 40' KB

Current Operation: Waiting on Cement.

Summary: Mixed mud and finished drilling 9-3/4" surface hole to 42'. Blew hole dry w/ air. Ran 7" csg to 40'. Cemented w/ 15 sx cl "B" neat cement to surface. SDON. WOC. (CCM)

April 25, 1991 Day No. 3

TD: 500' KB

Current Operation: Drilling @ 500'

Detail: Waiting on cement 5 hrs; NU wellhead, BOPs. Drilled 12 hrs @ 32'/hr, 40'-440'; Tripped for bit #3 1.5 hrs; Drilled 3.5 hrs @ 23'/hr from 440'-500'. (CCM)

Surveys:	<u>Depth</u>	<u>Angle</u>	<u>Azimuth</u>
	300 °	2.5°	NA
	400 °	3.5°	NA

Geology:

1) Cross Diamond Tail Fault est. 270' KB. Formation - Mancos ≈ 40'

Morrison ≈ 270'

- 2) 160'-180'...Mancos, minor oil show in shale fractures
- 3) 270'-300'...Morrison, 30% of smpl: good nat fluor, fast stream ct, milky blue-white, no assoc gas. 70% ss: lse, f-m gr, poorly srtd, sbrd, sl-fr por; 30%: sh green.

April 26, 1991 Day No. 4

TD: 982' KB

Current Operation: Drilling @ 982'

Detail: Drld fr 500'-640'. Trip for bit #4, mix mud, worked on rig. Drld fr 640'-920'. Circ & trip for bit #5 @ 920'. Drld fr 920'-972'. Worked on rig. Drld fr 972'-982'. (CCM)

Surveys:	<u>Depth</u>	<u>Angle</u>	<u>Azimuth</u>
	500'	4°	NA
	600 <b>'</b>	4.5°	NA
	700'	4.75 deg	
	800'	4.5 deg	
	900'	4.5 deg	

April 27, 1991 Day No. 5

TD: 1,100' KB

Current Operation: Drilling @ 1,100'

Detail: Drld 6 hrs; Run survey and mix mud .5 hr; Circ and condition hole .5 hr; POH .5 hr; Log and run deviation survey 4.5 hrs; TIH 1 hr; Circ and condition hole 1.5 hrs; POH laying dn DP/DC 2.5 hrs; Change out wellhead 1.5 hrs; RU to run 4-1/2" csg 1.5 hrs; TallY and run 27 jts 4-1/2" csg 3.5 hrs; Condition hole for cement .5 hr. (ARM)

Surveys: <u>Depth</u> Angle 1,100' 6°

Off Report

April 28, 1991 Day No. 6

TD: 1,100' KB

Current Operation: Condition hole for cementing

Detail: Circ hole, RU Cementers, Inc. .25 hr. Cement 4-1/2" csg .25 hr as follows: Establish circulation with 15 Bbl fresh water. Mix and pump 175 sx class "B" neat cement, yield 1.18 cu ft/sk, density 15.6 lb/gal. Drop wiper plug. Displace cement w/ 16.7 Bbls fresh water. Bump plug 500 psi over pump pressure. Float held good. Plug dn 6:30 a.m. 4/27/91. Note: Started losing circ w/ 2 Bbls left for displacement. Pressure increasing to 1000 psi. No circ when plug bumped. No cement to surface.

Set slips .25 hr; Casing set 1,094.67' KB; Float collar 1,052.20' KB. Release rig. Call for temp survey. Top at 250' from surface.

Casing: Guide Shoe .69 1,094.67' KB 1 jt 4-1/2" 40.33

Float Collar 1.45 1,052.20' KB

26 jts 4-1/2" 1,047.20

Land csq 5' below KB 5' KB

On Report

May 15, 1991 Day No. 1

MIRU J.C. Well Service Rig No. 1. Set reverse equipment. (Sunco hauled 300 Bbl tank and spot.) Unload 40 jts 2-3/8" EUE tbg. SDON. (ARM)

May 16, 1991 Day No. 2

Summary: Log and perforate the Entrada. Swab test.

Detail: NU BOPs, PU, 3-7/8" MT bit, scraper, 2-3/8" EUE used tbg. RIH. Tag PBTD @ 1,048' KB. Load hole, pressure test - 1000 psig, ok. Circ w/ 45 Bbls clean water. POH. RU Petro. Run GR-CMNT BND-Correlation Log from 1050' KB to surface. TOC @ 262' KB (60% BND).

270-890' 100% 890-926' 98-90% 926-936' 60% 936-966' 90-85% 966-974' 40% 974-1050' 100%

Perf Entrada, 990-1004' KB per Density, 1 JSPF - 3-1/8" gun, 14 holes - 0.40". RD Wireline. RIH w/ STC, AD-1 RCP, SN, 2-3/8" tbg. Set RCP @ 952' KB. RUTS. 4 runs swab dry. No formation inflow. Load hole, pressure to 1000 psi. Unable to pump in, no breakdown. Rlse pressure. Shut-in well. SDON. (SSD)

May 17, 1991 Day No. 3

Summary: Test Entrada perfs, 990'-1,004' KB.

Detail: Swab tbg dn. RU Western. Pump 3.5 Bbls 15% HcL to load tbg. Breakdown Entrada @ 1,400 psi. Stable pump-in rate - 1 BPM @ 900 psi. Displace 3.5 Bbls into perfs, 990'-1004' KB. SD. ISIP - 600 psi, 5 min - 200 psi, 10 min - 100 psi, 15 min - 25 psi, 30 min SI. RUTS. Swb dn. Established stabilized inflow rate - 0.4 Bbl per run (15 min/run). Calculated rate - 1.6 BPHR, 36.8 BPD. Recover total - 11.8 Bbl. Load - 8 Bbl. Formation fluid - 3.8 Bbl. Fluid description - light brown water, clearing at end of each run. Slt acid smell. No Oil. Leave well open to tank overnight. SDON. (SSD)

May 18, 1991 Day No. 4

Summary: Swab test.

Detail: Well flowed .8 Bbl to tank, caught water sample. SWI for buildup. 15 min - 5 psi, 30 min - 10 psi, 45 min - 11 psi, 1 hr - 11 psi. POH w/ pkr. RU Petro. Set CIBP @ 985'. Pressure test csg to 1000 psi, ok. Perf Todilto Limestone w/ 1 JSPF from 964'-978'. RD perforators. TIH w/ pkr to 978'. Spot 3 Bbl inhibited 15% HCl and 3 Bbl H<sub>2</sub>0. Pull pkr to 750' and set. Broke dn formation w/ 2400 psi. Pumped acid away at 1.4 Bbl/min at 1200 psi. ISIP 600 psi. 5 min - 400 psi, 10 min - 350 psi, 15 min - 300 psi. TIH. Set pkr 940'. RUTS. Swab tbg dry in 2 runs, 3.5 Bbls. 3rd run dry. Wait 5 min. 4th run dry. Wait 15 min between runs. Made 4 more runs 15 min. apart, no fluid. SDOWE. (ARM)

# May 21, 1991 Day No. 5

Summary: Complete Todilto test (964'-978'), Perf and test Morrison (610'-639' GI). Inflow 100% water.

Detail: Well dead. FL @ 500' FS. Swab 430' fluid, 100% water. SD 15 min, run dry. SD 30 min, run dry. SD 1 hr, run dry. POH W/ RP. RU Wireline. Perf Morrison interval; 610'-614', 619'-628', 632'-639'; w/ 1 JSPF (20 holes - 04" dia), per density log. RIH w/ RBP on tbg, set 880' KB. POH. RIH w/ Mod "A" tension pkr. Set above RBP and PT to 1000 psi, ok. Pull pkr to 580', set. RUTS. Swab tbg dn in 4 runs. Recovered 3.3 Bbl water (tbg vol 2.2 Bbl). SD 15 min, pull 336' fluid - 1.3 Bbl. 2 more runs - 15 min intervals, stable inflow rate 1.3 Bbl/run, 5.2 BPHR, 125 BPD. Total recovery - 7.2 Bbl, 5 Bbl Formation fluid, 100% water, clear w/ slight salt taste. SWI. SDON. (SSD)

## May 22, 1991 Day No. 6

Summary: Complete lower Morrison test (610'-639'). Perf and test upper Morrison (278'-295'). Inflow 100% water.

Detail: Well dead. FL @ 75' FS. Swab dn, catch sample. Stabilize inflow @ 1.3 BPHR. POH w/ RP. Perf upper Morrison per Density Log: 278'-295' KB. (2 JSPF, 34 holes - 0.4" Dia). RIH, pull RBP and set @ 554' KB. POH. PU, RP, RIH. Set Mod "A" RP @ RBP. PT 1000 psi, ok. Pull and set RP @ 260' KB. RUTS. Swab tbg dry - 0.5 Bbl. Swab @ 15 min intervals - stabilized inflow at 0.4 Bbl/run, 38 BPD. Swab 4 hrs. Recover Total - 6.2 Bbls above tbg. Volume 100% water, slight salt taste. No Oil, Gas. Leave well open. SDON. (SSD)

## May 23, 1991 Day No. 7

Summary: Swab test. Plug well.

Detail: Swab test, first run: FL 75' from surface. Swab tbg dry. Made run 15 min, 100-125' fluid entry. Total 7 Bbls out of formation, no oil and no gas. Caught water sample. POH w/ pkr. TIH w/ retrieving head. Latch onto BP. POH. TIH open ended to 985'. RU Western. Spot an 11 sk cement plug from 985'-840', cement class "B" neat, yield 1.18, density 15.6 lb/gal. Pull tbg to 650'. Spot an 11 sk plug from 650'-518', cement class "B" neat w/ 2% CaCl. Pull out of cement. WOC. RIH. Tag cement @ 505'. Pull tbg to 300'. Spot 23 sx class "B" neat cement from 300' to surface. ND BOP and wellhead. Pump 30 sx class "B" neat cement dn bradenhead. RD. Release rig. Note: Ordered dry hole marker. (ARM)

### Off Report

## May 24, 1991

Dry Hole Marker ordered. (ARM)