Distribution: O+4 (BLM); 1-Accounting; 1- Crystal; 1-File Form 3160-5 **UNITED STATES** FORM APPROVED (June 1990) DEPARTMENT OF THE INTERIOR /Budget Bureau No. 1004-0135 BUREAU OF LAND MANAGEMENT Expires: March 31, 1993 SUNDRY NOTICES AND REPORTS ON WELL 87 JUL 15 AM 11: 23 Lease Designation and Serial No. NOO-14-24-8376 Do not use this form for proposals to drill or to deepen or reentry to a different reservoir Use "APPLICATION FOR PERMIT--" for such proposals MINGTON MA USK YE NI TAH BLACKIE If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE Type of Well Gas X Weil Well Other Well Name and No. Name of Operator Dietrich 28G #1 Merrion Oil & Gas Corporation API Well No. Address and Telephone No. 30-045-23747 610 Reilly Avenue, Farmington, NM 87401-2634 (505) 327-9801 10. Field and Pool, or Exploratory Area Location of Well (Footage, Sec., T., R., M., or Survey Description) 1850 WAW Fruitland/PC 1989' fnl & 1850' fel 11. County or Parish, State Section 28, T26N, R12W San Juan County, New Mexico CHECK APPROPRIATE BOX (s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA 12. TYPE OF SUBMISSION TYPE OF ACTION Notice of Intent Abandonment Change of Plans Recompletion New Construction Subsequent Report Plugging Back Non-Routine Fracturing Casing Repair Water Shut-Off Final Abandonment Notice Altering Casing Conversion to Injection Other Dispose Water (Note: Report results of multiple comp Completion or Recompletion Report and Log form.) Describe Proposed or completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)* Merrion Oil & Gas proposes to plug back the subject PC producer and recomplete the well in the Fruitland Coal. The procedure and wellbore diagram are attached. Under separate cover, Merrion will apply for downhole commingling of the PC and Fruitland Coal. We request that the lease be maintained and the requirement for monthly production be suspended for the time period in which the work is being performed, while the Fruitland Coal is being tested, and prior to the approval for downhole commingling. Connie S. Dinning Title Contract Engineer Date (This space for Federal or State office use) /S/ Duane W. Spencer 1 4 1997 Approved By Title Conditions of approval, if any:

Merrion Oil & Gas Corporation

Fracture Stimulation

July 9, 1997

Well: Location: Dietrich G 28 No. 1

1850' fnl & 1850' fel (sw ne)

Sec. 28, T26N, R12W, NMPM

San Juan County, New Mexico

Field:

WAW Fruitland/PC

Elevation: 6,064' GL

By:

Connie Dinning

Procedure:

Prepare Wellbore for Frac Job

- 1. Hauf in 1 1/4" EUE workstring.
- 2. MIRU Petrowireline with mast truck, run GR/CCL from PBTD to 900'.
- 3. Perforate Fruitland Coal from 1,075' to 1,090', 4 spf, 90° phasing, total 60 holes.
- 4. RD Petrowireline and flow back well to atmosphere overnight.
- 5. MIRU JC Well Service.
- PU 2 7/8" RBP and RIH on 1 1/4" EUE workstring. Set RBP @ 1093'. POH w/ workstring.

Frac P6 FRC

- 1. Install 5000# frac valve on 2 7/8" casing.
- 2. MIRU BJ and pressure test surface lines.
- 3. Fracture well in accordance with attached BJ procedure. Maximum treating pressure is 5000 psi.
- 4. Close frac valve, RD BJ, install ball valve and 1/4" ceramic choke.
- 5. Flow well back to atmosphere immediately. (Flow slowly on choke)

Clean Up (if necessary)

- 1. MIRU JC Well Service
- 2. RIH w/ 1 1/4" EUE tubing & CO frac sand w/ N₂.
- 3. Put well on to production.

Install Compressor

Install rental compressor. Rig up to purchase gas from EPFS and recirculate down casing if needed to lift fluid.

Merrion Oil & Gas Corporation Wellbore Schematic

Dietrich 28G No. 1

Current Wellbore Configuration Location: 1850' fnl & 1850' fel (sw ne) Elevation: 6064' GL Sec 28, T26N, R12W,NMPM San Juan County, New Mexico Date: May 12, 1997 Prepared by: Connie S. Dinning Top of Cmt @ Surface Surface Bit Size - 7-7/8" Ojo Alamo 7", 20# Surface Csg @ 108' KB w/ 70 sx Class B Cement Farmington Kirtland - ? Top of Cmt @ Surface Bit Size 4-3/4" Fruitland - ? Pictured Cliffs -1099' Perfs ... 1100-1110' KB. w/ 2jspf (11/21/1979) no stimulation PBTD @ 1152'KB TD @ 1200'KB 2-7/8" 6.5# J55 Production Csg @ 1181' w/ 175 sx Class B w/ 2% CaCl2

BJ SERVICES COMPANY

OPERATOR: MERRION OIL AND GAS WELL: DIETRICH G 28 #1 FORMATION: FRUITLAND COAL

WELL DATA

Depth to Middle Perforation
Casing
Fracture Gradient
Bottom Hole Frac Pressure
Bottom Hole Temperature
Perforated Interval

1,103 ft 2 7/8", 6.5# 1.00 psi/ft 1,103 psi 90 deg F 1096'-1110'

(Approx. 60 perfs)

BJ SERVICES COMPANY

Treatment Requirements for: 70 Q N2 FOAM

ACID BREAKDOWN:

500 GALLONS 15% HCL

Containing per 1000 Gallons:
2.00 Gallons CI-22, CORROSION INHIBITOR
5.00 Gallons FERROTROL-300L, IRON CONTROL

DROP 90 7/8" 1.3 SP GR BALL SEALERS FOR DIVERSION SPACED EVENLY THROUGHOUT THE ACID.

FRAC FRAC:

31,950 GALLONS 70Q FOAM

Pumped Volumes:

9,585 Gallons 20# LINEAR GEL

Mixed Volumes:

11,000 Gallons 20# LINEAR GEL

Containing per 1000 Gallons:
0.38 Pounds XCIDE-207, BACTERIACIDE
20.00 Pounds GW-27, GELLING AGENT
1.00 Pounds GBW-10, GEL BREAKER
5.00 Gallons FAW-1, FOAMING AGENT

TOTAL FLUID VOLUME INCLUDES FRAC FLUID, FLUSH AND 1500 GALLONS FOR TANK BOTTOMS. MERRION WILL SUPPLY 2% KCL WATER.

PROPPANTS:

10,000 Pounds SUPER LC 20/40 MESH 40,100 Pounds 20/40 MESH BRADY

BJ SERVICES COMPANY NITROGEN FOAM PUMPING SCHEDULE

OPERATOR MERRION OIL AND GAS
WELL DIETRICH G 28 #1
LOCATION SEC. 28; T26N; R12W
COUNTY, STATE SAN JUAN, NM
FORMATION FRUITLAND COAL
PREPARED BY LARRY LEWIS
DATE JULY 9, 1997

WELL AND RESERVOIR PARAMETERS

Depth (mid perforation)	1103 ft
Bottom Hole Frac Pressure	
Bottom Hole Static Temperature	1103 psi 90 deg F
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TREATMENT PARAMETERS

Treating Conductor I.D. Fluid Specific Gravity	2.441 in 1.010
Gel Temperature in Tanks	70 deg F
Temperature of N2 at surface Foam Injection Rate	100 deg F
Total Slurry Treatment Volume	30.0 bpm 34239 gal

Foam Quality and Injection Rate are held constant downhole.

CALCULATED TEMPERATURES

	Low	High		
Foam at Surface	71 deg F	71 deg F		
Foam at Perfs	91 deg F	91 deg F		

Average Formation Pumping Temperature 90 deg F

BJ SERVICES COMPANY

NITROGEN FOAM PUMPING SCHEDULE

PROCEDURE

STAGE	DOWNHOLE FOAM	DOWNHOLE FOAM	DOWNHOLE	PROPPANT				CLEAN	
	VOLUME (GALS)	QUALITY	DOWNHOLE FOAM RATE (BPM)	CONC. LB/GAL	MESH	TYPE	(LBS)	CLEAN GEL VOLUME (BBLS)	N2 VOLUME (MSCF)
1 2 3 4 5 FLUSH		70.0 70.0 70.0 70.0 70.0 70.0	30.0 300.0 300.0 300.0 300.0	0.00 1.00 3.00 4.00	20/40 20/40 20/40 20/40 FLUSH	SAND SAND SAND RC SAND	5000 15000 20100 10000	71.4 35.7 53.6 47.9 17.9	65.77 32.89 49.33 44.07 16.44 1.64
	31950		· 				50100	228.2	210.14

TREATMENT SCHEDULE

STAGE	PROPPANT CONC. CLE. (LB/GAL) GE		CLEAN BLENDR GFI SLURRY		SLUI (WI	SLURRY VOLUME (WITHOUT N2)			DDAD	STAGE
1 1	PERF.	BLNDR	GEL RATE (BPM)	SLURRY RATE (BPM)	(BBLS)	(CUM.)	ON PERFS	N2 RATE SCFM	PROP RATE LB/MIN	STAGE PUMP TIME HH:MM:SS
1 2 3 4 5 FLUSH	0.00 1.00 2.00 4.00 0.00	00.0 3.33 6.67 10.00 13.33 00.0	988779 988779	9.00 10.75 11.32 9.00	71.4 41.8 699.1 1.8	71 113 182 252 281 283	2 73 115 185 254 283	8287 7928 7598 7295 6976 8287	0 1205 2310 3327 4242 0	00:07:56 00:04:08 00:06:29 00:06:02 00:02:21 00:00:11
				_			TOTAL	PUMP 7	IME:	00:27:10

BJ SERVICES COMPANY FOAM PRESSURE/VOLUME ANALYSIS

OPERATOR MERRION OIL AND GAS
WELL DIETRICH G 28 #1
LOCATION SEC. 28; T26N; R12W
COUNTY, STATE SAN JUAN, NM
FORMATION FRUITLAND COAL
PREPARED BY LARRY LEWIS
DATE JULY 9, 1997

INPUT PARAMETERS

•	Treatment via 2 7/8" Number of Perforations	CASING 1b pipe
	Perforation Diameter	60
	Total Treatment Volume	0.360 in 31700 gals
	Flush Volume Bottom Hole Frac Pressure	268 gals
	Foam Injection Rate	1103 psi
	Foam Quality	30.0 bpm 70.0 percent
	Temperature of N2 at Surface	100 deg F
	Design Formation Temperature Specific Gravity of Base Fluid	90 deg F
	well bebtu	1.01 1103 ft
	I.D. of Treating Conductor	2.441 in
	Friction Pressure	1000 psi/1000 ft

PREDICTED PRESSURES

VOLUME REQUIREMENTS

	USING NITRO	GEN AS FLUSH	USING FOAM AS FLUSH		
	NITROGEN	FLUID	NITROGEN FLUID		
	SCF	GALS	SCF GALS		
TREATMENT	210483	9510	210483	9510	
FLUSH	2457	0	1677	80	
TOTALS	212940	9510	212160	9590	