AUG 1 7 2004

Form 3160-3 (July 1992)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	TION FOR PE	RMIT TO DRILL C	R DEEP	PEN	5. Lease Designation at NM-106653	nd Serial No.
a. Type of Work			04 MAY 20	AM 9: 44	6 If Indian, Allottee or	Tribe Name
DRI	LL 🛛	DEEPEN 🗆 0	DEEPEN 010 ALBUQUERQUE, N.M.			
Oil Well Gas Well	Other	Single Well	Multiple	Zone		
	n Oil & Gas Corp	oration			8. Well Name and No. Cookie Dot	ugh No. 1
	lly Ave Farmington 5) 327-9801	NM 87401	10 20 20 20 30	λ.	30-03°	3-29
Location of Well (Footages) At Surface 193	5' fnl & 1490' fel (sv	v ne)	'G 2004	3	10. Field and Pool, or E Gavilan PC/B	xploratory Area
At proposed prod. zone	Same		To one		11. Sec., T., R., M., or BLK. (and Survey or Area Section 24, T24N, R2W	
14. Distance in Miles and Directi	lons from Nearest Town or Post 0 ely 3.5 miles southe	~ (0) (1).	b.E.Z.J.S		12. County or Parish Rio Arriba	13. State
15 Distance from Proposed (Als Location to Nearest	so to nearest drig. unit line, if any) 16 No. of Acres in Lease		17.No. of Acres Assi	Igned to This Well	1100
Property or Lease Line, Ft	705'	320 acres		320	acres NA FC	: NE/4 P
18.Distance from Proposed Locati To Nearest Well Drilling, Comp Or Applied for, on this Lease, I	pleted.	19. Proposed Depth -3470'		20.Rotary or Cable Rota	Tools	
21 Elevations (Show whether DF,	RT, GR. etc) 7386' GR, 7391'	RKB		22. Approximate D	ate Work will Start	
	DDA	OPOSED CASING AND CEMEN				
			TING PROGRA	\M		
SIZE OF HOLE	SIZE & GRADE OF CA	SING WEIGHT PER FOOT	SET	ING DEPTH	QUANTITY O	
12 ¼"		SING WEIGHT PER FOOT 32.3 ppf	~240' I	ING DEPTH KB	~150 cuft (100%	excess)
12 ¼" 8 ¾" 6 ¼" Merrion proposes	SIZE & GRADE OF CA 9 %" J55 7" J55 4 ½" J55 Liner s to drill 12 ½" hole with spuce	32.3 ppf 23 ppf 11.6 ppf d mud to ~240' and set 9 %" 32.3# J55	~240' I ~3220' ~3470' 5 surface casing,	KB KB	~150 cuft (100% ~774 cuft (60% c ~81 cuft (60% e	excess) excess) xcess)
12 ¼" 8 ¾" 6 ¼" Merrion proposes 3 ¾" hole to ~3220' KB with la Will set 7" 23 ppf bllowed by ~616 cuft Premiu Top of Cement sh ement bond log will be run to Will wait on ceme irculate hole clean and test f irith 10 bbls conditioning spain The production lin Will test PC and F onducted with a double ram	SIZE & GRADE OF CA 9 % J55 7" J55 4 ½" J55 Liner s to drill 12 ½" hole with sput ow solids non-dispersed mu J55 intermediate casing from the Lite and tail in with ~159 mould circulate to surface (wo o determine top of cement. ent minimum of 12 hours. With or natural inflows. Will run of cer, 5 bbl fresh water space her will be centralized through Fruitland through perforated BOP with a rotating head for	32.3 ppf 23 ppf 11.6 ppf	settle 240' I 240' I 23220' 23470' 5 surface casing, is none stage. Will fill from total deptilities and submitted with 6 ½" bit to to 6 ppf J55 product of Premium Lite to and intervals.	CEMENT THE COMMENT OF	~150 cuft (100% ~774 cuft (60% e) ~81 cuft (60% e) e with ~150 cuft (100% e) e with ~150 cuft (1	excess) excess) excess) excess). Will di excess).
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/s/ David R. Sitzler

APPROVED BY:_

State of New Mexico Energy. Minerals & Mining Resources Department OL CONSERVATION DIVISION 2040 South Package Santa Fe. NM 87505

South Parlian
Fe. NM 87505

MEPORT

Dodcolfon 320 FG NO ALLOWABLE VILL ASSISTED TO THIS COPPLETION UNITL ALL INTERESTS MAVE BEEN CURSULEIABLED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIMSION \$ 89 56' W • 5283' • BLM/GLO ** colculated NM-108653 AUG 2004 NM-108653 AUG 2004 WGS 84 106 59 30.78 Nw Order Na. OPERATOR CERTIFICATION I hereby carify that the information contained herein is true and complete to the best of my knowledge and belefit. Signature Date May 17, 2004 SURVEYOR CERTIFICATION I hereby carify that the wall location on this plan van plotted from field noting in true and complete contained approved in the season of the plan van plotted from field noting in true and correct to the best of my besief. Signature WGS 84 VGS 84				WEL	L LOCA	TION AND	ACREAC	E DEDICATIO			
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COOKE DOUGH OGRA No. Others No. Other No. Other No. Surface Location Curl Lot Sec. Tsp. Rgs. Lot Ids. Feet from North/South Feet from East/Heet County Bothen Hole Location & Different From Serface U or Lot Sec. Tsp. Rgs. Lot Ids. Feet from North/South Feet from Serface U or Lot Sec. Tsp. Rgs. Lot Ids. Feet from North/South Feet from Serface U or Lot Sec. Tsp. Rgs. Lot Ids. Feet from North/South Feet from Serface U or Lot Sec. Tsp. Rgs. Lot Ids. Feet from North/South Feet from Serface No ALOMARIE HILL ASSUMED TO THE CONTRIBUTION UNIT, ALL INTERESTS HAVE BEEN CURROLLIANED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DANSON S 89 56 W + 5283 ** OPERATOR CERTIFICATION I heroby carlify that the information candidated here in it true and complete to the best of my knowledge and bestef. Signature Dute May 17, 2004 SURVEYOR CERTIFICATION Title Production Engineer Dute May 17, 2004 SURVEYOR CERTIFICATION I heroby carlify that the well coation this jets not plotted from field or this jets or plotted from field or	00-00	<u> </u>	7.700							and	
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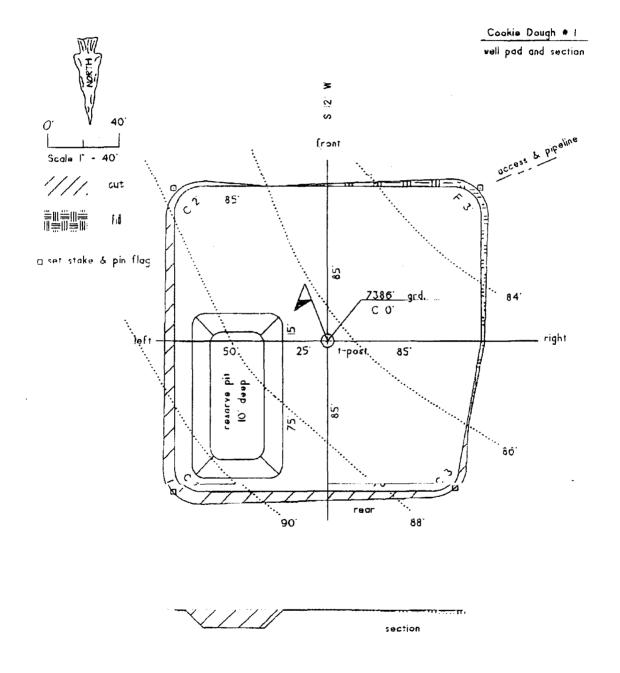
State of New Mexico Energy. Minerals & Mining Resources Department OL CONSERVATION DIVISION 2040 South Packers Santa Fe. NM 87505

MENDED REPORT

	APA Num	har	WEL	L LOCA	TION AND A	CREAGE	DEDICATION		AT
	, , , , , , , , , , , , , , , , , , , ,	77360					Gavilar		tured Cliffs
Property	Code	Property Nose						Well Number	
		ļ		*****	COOKE DOL				
00R0 N				,	Operator No				Elevation 77.96:
01403) 				MERRION OIL				7386
UL or Lor	Sec.	Tup.	Rge	Loi los	Fost from>	Location North/South	Feet Iron>	Frair	t/West County
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	. ,	89'56' W		M-STANDAR	D UNIT HAS BE 528	3. • En vil hkoae	D 84 IHE DIVI	SION	
Z O Q W		• BLM	VGLO culated		IM-106653		1490	5280	Date May 17, 2004 SURVEYOR CERTIFICATION
5275 . **					WGS 84 36 59 50.78	, M		North •	I hereby certify that the well local on this plat was plotted from field notes of actual surveys marks by a crude in my supervision, and that some is true and correct to the bof my belief. Date of Survey Signature and Sedical Correct to the bof my belief.
	S 80	9'59' W •		1	5	DRI •			

6. CONSTRUCTION MATERIALS

A. No construction materials are needed for drilling and access roads into the drilling location. The existing surface materials will be sufficient and will be provided by the Dirt Contractor as needed.



- C. No surface materials for construction of access roads are required.
- D. All major access roads presently exist as shown on topographic map.

MERRION OIL & GAS CORPORATION

DRILLING TECHNICAL PROGRAM

(Attachment to Form 3160-3)

Cookie Dough No. 1

1935' fnl & 1490' fel (sw ne) Section 24, T24N, R2W, NMPM Rio Arriba County, New Mexico

1. ESTIMATED FORMATION TOPS:

Formation .	Depth-MD
Undiff. Tertiary	Surface
Nacimiento	1614'
Ojo Alamo	2937'
Kirtland	3064'
Fruitland	3234'
Pictured Cliffs	3320'
Total Depth	34~0'

2. WELL CONTROL SYSTEM

- A. Proposed blowout preventer system (schematic drawing follows) is a double-ram type preventer, and will be used in 1000 psi service.
- B. Minimum required working pressure rating for BOP stack is 2000 psi. Maximum anticipated bottomhole pressure = 902 psi. Well Control Anticipated Surface Pressure (ASP) = 902 psi (0.22 * 3470') = 139 psi, assuming a partially gas cut column per BLM guidelines.
- C. BOP pressure testing will be conducted at time of installation and prior to drillout of surface casing shoe. Ram type preventer will be tested to 500 psi. The BOPs will be activated on each trip for a bit and recorded in the driller's log. A choke manifold will be installed (Refer to the enclosed schematic drawing). Working pressure for choke manifold is greater than 2000 psi. In addition, a kill line from the mud pump will be installed.
- D. Stabbing valves for drill pipe and drill collars will be available on the rig floor. A Kelly cock valve will be installed.
- E. Anticipated formation pressures average 0.26 psi/ft gradient and formation fracture initiation pressures are anticipated to exceed the maximum mud weight of 9.2 ppg except through the depleted Pictured Cliffs pay interval where air drilling will be used.

3. DRILLING MUD PROGRAM

- A. A 12 1/4" surface hole will be drilled with fresh water system, lime and gel added to provide viscosity as needed.
- B. An 8 3/4" hole will be drilled to ~ 3220' utilizing a low solids non-dispersed mud system. Additives such as starch, cmc, and others will be used to control mud characteristics as necessary. No materials of a hazardous nature will be added 10 the drilling fluid in hazardous quantities.

Lost circulation materials will be stored on location.

Mud weighting materials will be stored on location.

INTERVAL MU	D SYSTEM	WEIGHT #/GAL	VISCOSITY <u>SEC/Q</u> T	WATER LOSS CC
0 – 240'	Native	< 9.0	35-55	NA
240' - 3220'±LSND	8.6-9.2	28-45	NA	
3220' - 3470'±	Air	NA		

Maximum anticipated mud weight is 9.2 lb/gal (0.48 psi/ft).

C. Mud trip monitoring will be done visually.

4. HAZARDS

- A. Abnormal Pressure is not expected to be a problem because air drilling will be utilized through potential lost circulation zones.
- B. Lost circulation is not expected to be a problem in this area. Lost circulation materials will be stored on location and mud weights will be controlled.
- C. No H₂S is expected. However, should H₂S be found during drilling, detection and warning equipment will be installed.
- D. Unintentional hole deviation is not expected to be a problem. Single shot surveys giving hole inclination will be run a minimum of every 500 feet.

5. LOGGING AND TESTING

- A. An induction, neutron-density log may be run in the intermediate casing hole across zones of interest. In addition, an induction-density log will be run from total depth back to intermediate casing.
- B. Drill stem tests will not be run.
- C. No coring is anticipated.
- D. A mud logging unit may be used during drilling.

6. CASING PROGRAM

A. Casing:

	Description	Тор	Bottom	
1	9 5/8" 32.3 ppf J55	Surface	240 ft ±	
2	7" 23 ppf J55	Surface	3220 ft ±	
3	4 ½" 11.6 ppf J55	3120 ft ±	3470 ft ±	

Merrion requests that a variance be granted to allow us to set surface casing at the proposed depth of \pm 240' because this setting depth has been shown to be adequate as demonstrated by the inumberable

Merrion Oil & Gas Corporation

Well Control Equipment Schematic for 1M Service

Attachment to Drilling Technical Program

