NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau

1220 South St. Francis Drive, Santa Fe, NM 87505

ABOVE THIS LINE FOR DIVISION USE ONLY

Application Acronyms:

ADMINISTRATIVE

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

на]	[PC-Pool Commingling] [OI [WFX-Waterflood Expa	[CTB-Lease Commingling] LS - Off-Lease Storage] [Cansion] [PMX-Pressure Ma Disposal] [IPI-Injection Pr	[PLC-Pool/Lease Commin DLM-Off-Lease Measureme intenance Expansion]	gling] nt]	
[A]	APPLICATION - Check Th Location - Spacing Unit NSL NSP SD ck One Only for [B] or [C] Commingling - Storage -	- Simultaneous Dedication	Coleman's Monument 1 30-045-21912		
[C]	DHC CTB PLC	C PC OLS OLM essure Increase - Enhanced	Oil Recovery		
[D]	Other: Specify				
[2] NOTIFICA (A) (B)		Check Those Which Apply, Overriding Royalty Interest eholders or Surface Owner			
	· · · · · · · · · · · · · · · · · · ·	ich Requires Published Lega	al Notice		
(b)	LLS Bureau of Land Managemen	ncurrent Approval by BLM t - Commissioner of Public Lands, State Land	Office '		
Æ)	For all of the above, F	Proof of Notification or Pub	dication is Attached, and/c	or, 😂	
[F]	Waivers are Attached			§ m	* * * * * * * * * * * * * * * * * * *
	CCURATE AND COMPLE ION INDICATED ABOVE		UIRED TO PROCESS TI	HEATYPEOF	1,000
approval is accurat	ATION: I hereby certify the and complete to the best of required information and no	of my knowledge. I also ur	nderstand that no action w	vill be taken on	thi
No	te: Statement must be completed b	y an individual with managerial an	d/or supervisory capacity.	55	
Print or Type Name	Signature	Title	Date		٠

CONSULTANT

BRIAN WOOD (505) 466-8120 FAX 466-9682

6-23-08

e-mail Address

brian@permitswest.com

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Application qualifies for administrative approval	Pressure Maintenance No	YES Disposal Storage	
II.	OPERATOR: <u>COLEMAN OIL & GAS, INC.</u>			
	ADDRESS: P. O. DRAWER 3337, FARMINGT	TON, NM 87499		
	CONTACT PARTY: <u>BRIAN WOOD (PERMIT</u>	S WEST, INC.)	PHONE: (505) 466-8120	
III.	WELL DATA: Complete the data required on the Additional sheets may be attached		ell proposed for injection.	
IV.	Is this an expansion of an existing project? If yes, give the Division order number authorizing			
V.	Attach a map that identifies all wells and leases drawn around each proposed injection well. Thi			le
VI.	Attach a tabulation of data on all wells of public Such data shall include a description of each well schematic of any plugged well illustrating all plugged.	ll's type, construction, date drilled, loca		
VII.	Attach data on the proposed operation, including	g.		
	 Proposed average and maximum daily rate at Whether the system is open or closed; Proposed average and maximum injection pr Sources and an appropriate analysis of inject produced water; and, If injection is for disposal purposes into a zor chemical analysis of the disposal zone format wells, etc.). 	essure; ion fluid and compatibility with the re- ne not productive of oil or gas at or wi	thin one mile of the proposed well, attach	o a
*VIII.	Attach appropriate geologic data on the injection depth. Give the geologic name, and depth to bot total dissolved solids concentrations of 10,000 r known to be immediately underlying the injection	ttom of all underground sources of dring/l or less) overlying the proposed in	nking water (aquifers containing waters w	/ith
IX.	Describe the proposed stimulation program, if an	ıy.		
*X.	Attach appropriate logging and test data on the v	vell. (If well logs have been filed with	the Division, they need not be resubmitt	ed)
*XI.	Attach a chemical analysis of fresh water from twinjection or disposal well showing location of we		ble and producing) within one mile of an	y
XII.	Applicants for disposal wells must make an affi data and find no evidence of open faults or any sources of drinking water.			
XIII.	Applicants must complete the "Proof of Notice"	section on the reverse side of this form	1.	
XIV.	Certification: I hereby certify that the information and belief.	on submitted with this application is tru	ue and correct to the best of my knowledg	ţе
	NAME: BRIAN WOOD	1 /)	TITLE: CONSULTANT	
	SIGNATURE:	box	DATE: <u>JUNE 23, 2008</u>	
*	E-MAIL ADDRESS: <u>brian@permitswest.com</u> If the information required under Sections VI, VI Please show the date and circumstances of the ea	-	ly submitted, it need not be resubmitted.	_

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: COLEMAN OIL & GAS, INC.

WELL NAME & NUMBER: MONUMENT #1

WELL LOCATION:

FOOTAGE LOCATION 1656' FNL & 942' FEL

UNIT LETTER

SECTION

TOWNSHIP 24 N

WELL CONSTRUCTION DATA

Surface Casing

RANGE 10 W

WELLBORE SCHEMATIC

227' in a 12-1/4" hole & cemented to surface. 8-5/8" 20# set at

Hole Size: 12-1/4"

Casing Size: 8-5/8" 20#

Cemented with: UNKNOWN sacks

or

£

Top of Cement: SURFACE

Method Determine: VISUAL

Intermediate Casing

Hole Size:

Casing Size:

0

Cemented with:

Perforate (0.38" - 0.42")

Packer @ 7,010'

from 7,110' to 7,285'

with 2 to 4 spf

Method Determined:

Top of Cement:

Production Casing

5-1/2" 15.5 & 17# set at 7,460" in 7-7/8" hole cemented to surface with 1,007 sx

TD = 7,460

Hole Size: <u>7-7/8"</u>

Casing Size: 5-1/2" 15.5 & 17# J-55 or K-55

or

 \mathfrak{t}^3

Cemented with: 1.007 sacks

Method Determine: VISUAL & CAL

Top of Cement: SURFACE

Total Depth: <u>7.460</u>²

Injection Interval

From <u>7.110</u> feet To <u>7.285</u> feet

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

1 ubing Size: 2-//8" 6.5# J-55	Lining Material: <u>PLASTIC</u>
ype of Packer: ARROW MODEL 1X OR ITS EQUIVALENT	KENT
acker Setting Depth: WITHIN 100' OF THE HIGHEST PERFORATION	F PERFORATION
Other Type of Tubing/Casing Seal (if applicable):	

Additional Data

Is this a new well drilled for injection? XXX Yes XXX No

- DAKOTA TEST & THEN PLUGGED. WILL DRILL OUT PLUGS, DEEPEN TO 7,460', & RUN LONG STRING. If no, for what purpose was the well originally drilled? WELL WAS ORIGINALLY DRILLED TO 6.100' AS A
- 2. Name of the Injection Formation: <u>ENTRADA</u>
- Name of Field or Pool (if applicable): SWD; ENTRADA (POOL CODE: 96436) 3
- List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. (see attachments) Has the well ever been perforated in any other zone(s)? NO
- OVER: FRUITLAND COAL (1,385' 1,403') IN ADJACENT (781' NORTH) JUNIPER 41-17 Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: 5.

UNDER: NONE

I. Purpose is water disposal into the Entrada zone.

II. Operator: Coleman Oil & Gas, Inc.

Operator phone number: (505) 327-0356

Operator address: P. O. Drawer 3337

Farmington, NM 87499

Contact: Brian Wood (Permits West, Inc.)

Phone: (505) 466-8120

III. A. (1) Lease: BLM lease NMNM-104606

Lease Size: 1,120 acres

Lease Area: SW4 Sec. 4, SE4 Sec. 8, E2 Sec. 10, NE4 Sec. 17,

NE4 Sec. 18, & SW4 Sec. 21; all T. 24 N., R. 10 W.

Closest Lease Line: 942'

Well Name & Number: Monument #1* (API # 30-045-21912)

*wildcat Dakota test P & A in 1975

Location**: 1656' FNL and 942' FEL Sec. 17, T. 24 N., R. 10 W.

(see Exhibit A)

** per 2008 survey attached as Exhibit A (OCD records show 1650

FNL & 990 FEL, but no C-102 in OCD records)

A. (2) Surface casing (8-5/8", 20#) was set in 1975 at 227' in a 12-1/4" hole. Surface casing was cemented with an unknown quantity and type of cement. Completion report indicates cement circulated to the surface. Casing will be tested to ≈750 psi for ≈30 minutes.

Production casing (5-1/2", 15.5# (0' - 6,200') & 17# (6,200' - TD), J-55 or K-55, all L T & C) will be set at \approx 7,460' in a 7-7/8" hole. (Well was originally drilled to 6,100'. However, no production casing was run.) A float will be placed one joint above the shoe. Five centralizers will be spaced every other joint above the shoe. Three centralizers will be placed across the stage collar (\approx 4,061'). Three



centralizers will be placed across the Ojo Alamo. Production casing will be cemented to the surface in two stages with $\approx 60\%$ excess.

Stage #1 - Circulate hole with at least 1-1/2 hole volume of mud and 20 barrels of fresh water before cementing. Lead with \approx 455 sacks (823.55 cubic feet) Class G 35/65 poz with 2% gel D-20 + 5 pounds per sack gilsonite + 0.1% D46 + 1% S-1 + 1/4 pound per sack D29. (Yield = 1.81 cubic feet per sack; slurry weight = 12.4 pounds per gallon). Tail with \approx 100 sacks (126 cubic feet) Class G 50/50 poz with 2% gel D-20 + 5 pounds per sack gilsonite + 0.1% D46 + 1% S-1 + 1/4# pound per sack D29. (Yield = 1.26 cubic feet per sack; slurry weight = 13.5 pounds per gallon). Total cement volume is 949.55 cubic feet.

Stage #2 - Open stage tool and circulate \geq 4 hours. Circulate hole with at least 1-1/2 hole volume of mud and 20 barrels fresh water before cementing. Lead with \approx 402 sacks (1049.22 cubic feet) Class G with 3% D79 + 1/4 pound per sack D29. (Yield = 2.61 cubic feet per sack; slurry weight = 11.7 pounds per gallon). Tail with 50 sacks (63 cubic feet) Class G 50/50 poz with 2% gel D-20 + 5 pounds per sack gilsonite + 0.1% D46 + 1% S-1 + 1/4 pound per sack D29. (Yield = 1.26 cubic feet per sack; slurry weight = 13.5 pounds per gallon). Total cement volume is 1112.22 cubic feet.

- A. (3) Tubing will be 2-7/8" 6.5# J-55 plastic lined. It will be set at $\approx 7.010'$ ($\approx 100'$ above the highest perforation at $\approx 7.110'$).
- A. (4) An Arrow Model 1X internally coated packer will be set within $\approx 100^{\circ}$ of the highest perforation ($\approx 7,110^{\circ}$). Thus, packer will be set at $\approx 7,010^{\circ}$.
- **B.** (1) Disposal zone will be the Entrada sandstone (pool code 96436). Fracture gradient is expected to be $\approx 0.62 0.68$ psi per foot.



- **B.** (2) Disposal interval will be $\approx 7,110$ ' to $\approx 7,285$ ' (well logs will determine exact interval after drilling). It will be perforated (0.38" or 0.42") with two to four shots per foot.
- B. (3) Well was drilled in 1975 to 6,100' as a Dakota wildcat test. It was plugged in the same year and these plugs were set:

Surface: 10 sacks 5' - 50': 18 sacks 350' - 550': 62 sacks 1,300' - 1,500': 62 sacks 1,700' - 1,900': 62 sacks 3,900' - 4,100': 62 sacks 4,900' - 5,100': 62 sacks 5,800' - 6,100': 62 sacks

Well will be for Coleman's exclusive use and for the sole purpose of water disposal from present and future Coleman wells. Water analysis from a Coleman Fruitland coal gas well is attached.

- **B. (4)** Well bore has not yet been perforated. (Production casing was not run. The Entrada has not yet been drilled.) Once the well is deepened, it will be perforated from $\approx 7,110$ ' to $\approx 7,285$ ' (logs will be used to determine the exact interval after drilling).
- B. (5) Top of the Entrada is predicted to be at $\approx 7,100$ '. Bottom of the Entrada is estimated to be at $\approx 7,360$ '. Bottom of the closest potentially productive zone (Dakota) is at $\approx 6,135$ '. There will be a ≈ 975 ' interval between the bottom of the Dakota and the highest Entrada injection perforation. There is no underlying actual or potential producing zone. Oil is being produced elsewhere in the San Juan Basin from the Entrada. However, closest Entrada production is in the Leggs Field which is ≈ 16 miles south (11-21n-10w).
- IV. This is not an expansion of an existing injection project. It is an expansion (fourth disposal well) of an existing water disposal project in Coleman's Juniper



and Juniper West project. It will be their first Entrada disposal well in the area. The other three existing disposal wells are in the Mesa Verde. The producing wells are Fruitland coal gas.

V. A map (Exhibit B) showing the 4 existing wells within the half mile radius area of review is attached. (A fifth well is 48' beyond the 1/2 mile radius and is also included.) None of the five penetrated the Entrada.

<u>WELL</u>	<u>API # 30-045</u>	T. 24 N., R. 10 W.	<u>ZONE</u>	<u>STATUS</u>	<u>TD</u>	DISTANCE
Juniper 41-17	-30635	NENE Sec. 17	Fruitland coal	gas	1,550'	781'
Juniper SWD 1	-29732	NWNW Sec. 16	Mesa Verde	disposal	4,125'	1,843'
Monument 2	-21463	NWNW Sec. 16	Dakota	P & A	6,190'	1,940'
Juniper 11	-30481	NWNW Sec. 16	Fruitland coal	gas	1,550'	2,129'
Juniper 17-22	-32727	SENW Sec. 17	Fruitland coal	gas	1,425'	2,688'

A map (Exhibit C) showing all 61 wells (50 oil or gas producers + 7 P & A + 2 water disposal + 2 water supply) within a two mile radius is attached. Exhibit D shows all leases within a half mile radius. Details are:

AREA (all 24n-10w)	<u>LESSOR</u>	LEASE #	LESSEE(S)
SW4 Sec. 8	FIMO	NO-G-9911-1367	Coleman
SE4 Sec. 8	BLM	NMNM-104606	Coleman, EOG, & Rosetta
SW4 Sec. 9	BLM	NMNM-101058	Coleman, EOG, & Rosetta
NW4 & N2SW4 Sec. 16	NMSLO	VO-5292-0000	Coleman
W2 & SE4 Sec. 17	BLM	NMNM-101058	Coleman, EOG, & Rosetta

A map (Exhibit E) showing all lessors within a two mile radius is attached. Most leases are BLM. The remainder are Navajo allotted (FIMO) or State (NMSLO).

VI. None of the wells within a 1/2 mile radius penetrate the proposed injection zone. The deepest well (Tenneco's Monument #2) has a total depth of 6,190'. There will be a ≈ 920 ' interval between the bottom of that well and the highest proposed perforation ($\approx 7,110$ ').



- VII. 1. Average injection rate will be ≈3,000 bwpd.Maximum injection rate will be ≈4,000 bwpd.
 - 2. System will be closed. A 2,573.7' long buried pipeline will be laid from Coleman's existing Juniper SWD #1 well (NWNW 16-24n-10w). No additional facilities will be needed.
 - 3. Average injection pressure will be ≈1,400 psi Initial maximum injection pressure will be ≈1,422 psi (≤0.2 psi x 7,110' depth of top perforation = 1,422 psi)
 Coleman will conduct a step rate test to raise maximum to 1,600 psi if justified by test and approved by government agencies.
 - 4. Water source will be existing and future Coleman wells in the San Juan Basin. Coleman has 57 existing or approved Fruitland coal gas wells in Township 24 North, Ranges 10 and 11 West as of June 23. Water analyses from the Entrada (receiving water) and Fruitland (water to be disposed) are attached (Exhibit F). The Entrada sample is from the Herry Monster 3 well (30-045-33217) which is ≈4 miles northwest in SENW 11-24n-11w. A summary follows.

<u>Parameter</u>	<u>Entrada</u>	<u>Fruitland</u>
specific gravity	1.005	1.009
рH	8.4	7.44
resistivity	0.89	0.427
potassium	200	43
sodium	4165	4880
calcium	176	120
magnesium	15	30
chlorides	2200	7550
sulfates	2000	5.1
bicarbonates	5612	not analyzed
total dissolved solids	14,408	13,900
		,

5. The Entrada has not been found to be productive within two miles of the well. In general, Entrada water near recharge zones (basin fringe) has a specific conductance of <1,500 μ mhos. Entrada



water from deeper parts of the basin has a specific conductance of >10,000 μ mhos. Stone et al in <u>Hydrogeology and water resources of San Juan Basin, New Mexico</u> wrote, "Generally, however, water from the Entrada is not suitable for drinking, especially in deeper parts of the basin." There are 32 wells approved for disposal into the Entrada in San Juan County.

VIII. The Entrada sandstone is a very porous and permeable æolian sandstone. It produces oil elsewhere in the basin (e. g., Eagle Mesa, Leggs, Media, Ojo Encino, Papers Wash, Snake Eyes Fields). It is ≈260' thick in the well bore.

Formation tops in this well are estimated to be at:

Nacimiento: 0'

Ojo Alamo Sandstone: 589'

Kirtland Shale: 678'

Fruitland: 1,143'

Pictured Cliffs Sandstone: 1,384'

Lewis Shale: 1,610'

Cliff House Sandstone: 1,745'

La Ventana: 2,126'

Menefee Shale: 2,836'

Point Lookout Sandstone: 3,805'

Mancos Shale: 4,011'

Gallup Sandstone: 4,846'

Greenhorn Limestone: 5,756'

Graneros Shale: 5,806'

Dakota Sandstone: 5,852'

Morrison Formation: 6,135'

Bluff Sandstone: 6,690'

Todilto Limestone: 7,060'

Entrada Sandstone: 7,100'

Chinle Formation: 7,360'

Total Depth: 7,460'



There are no water wells within a one mile radius. There are two water wells within a two mile radius. Closest well is a windmill over 1-1/4 miles east in NW 15-24n-10w. There is no record of the windmill in the State Engineer's data base. Second well is over 1-3/4 miles south in NW 29-24n-10w. It is 640' deep and its water depth is 595'. Both water wells are above the Entrada. Likely aguifers are the Nacimiento or Ojo Alamo.

No existing underground drinking water source is below the Entrada within a two miles. There will be $\approx 6,460$ ' of vertical separation between the bottom of the deepest (640') water well within two miles and the top of the Entrada.

- IX. The well will be stimulated with 15% HCl.
- X. Porosity (triple litho density with GR and CAL) and Induction (array with GR and SP) logs will be run and copies will be provided to the NMOCD.
- XI. There are no water wells within a one mile radius.
- **XII.** Coleman is not aware of any geologic or engineering data which may indicate the Entrada is in hydrologic connection with any underground sources of water. There will be $\approx 6,460$ ' of vertical separation between the top ($\approx 7,100$ ') of the Entrada and the bottom (640') of the deepest water well within two miles. This interval includes at least five shale zones (Kirtland, Lewis Menefee, Mancos, Graneros).
- XIII. Notice (this application) has been sent (Exhibit G) to the surface owner (Navajo Nation), operators of all wells (only Coleman), and lessees or lease operating right holders (Coleman, EOG, and Rosetta), and lessors (BLM, FIMO, and NM State Land Office) within a half mile. Legal ad (see Exhibit H) was published on June 12, 2008.



DISTRICT I 1625 N. French Dr., Hobbs, N.M. 88240 DISTRICT II

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

1301 W. Grand Avenue, Artesia, N.M. 88210 DISTRICT III.

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, N.M. 87505

State Lease - 4 Copies

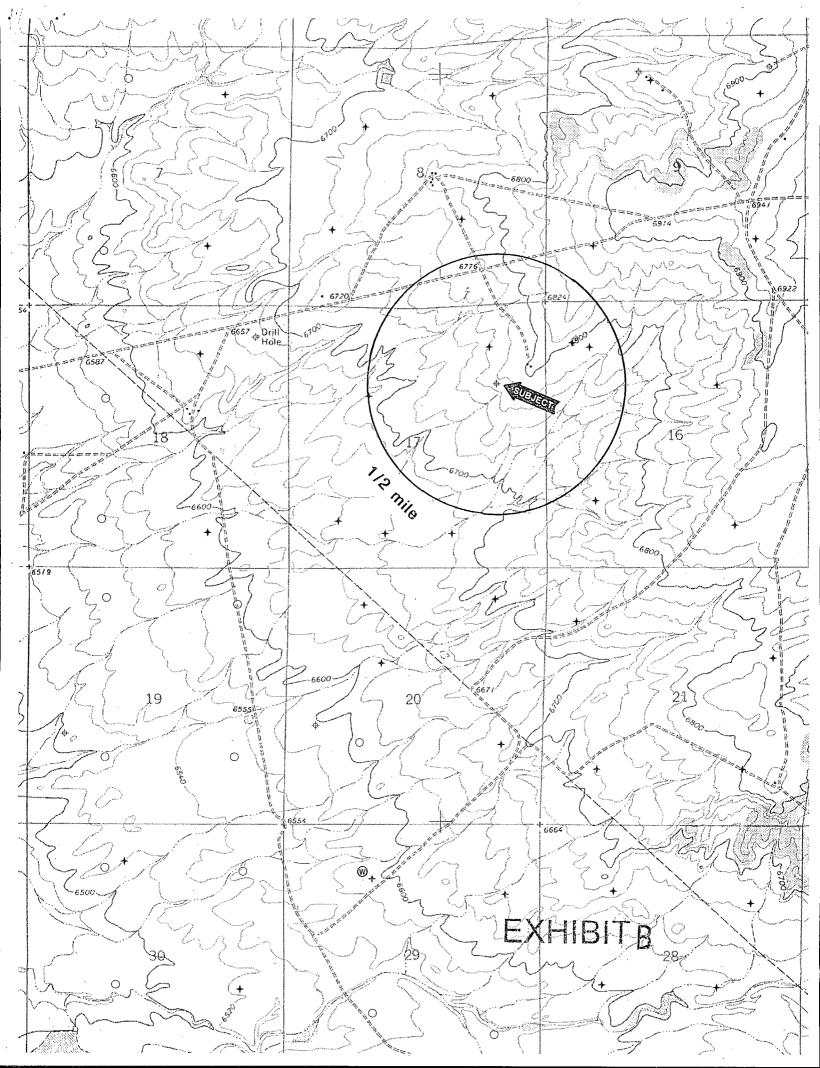
1000 Rio Brazos Rd., Aztec, N.M. 87410

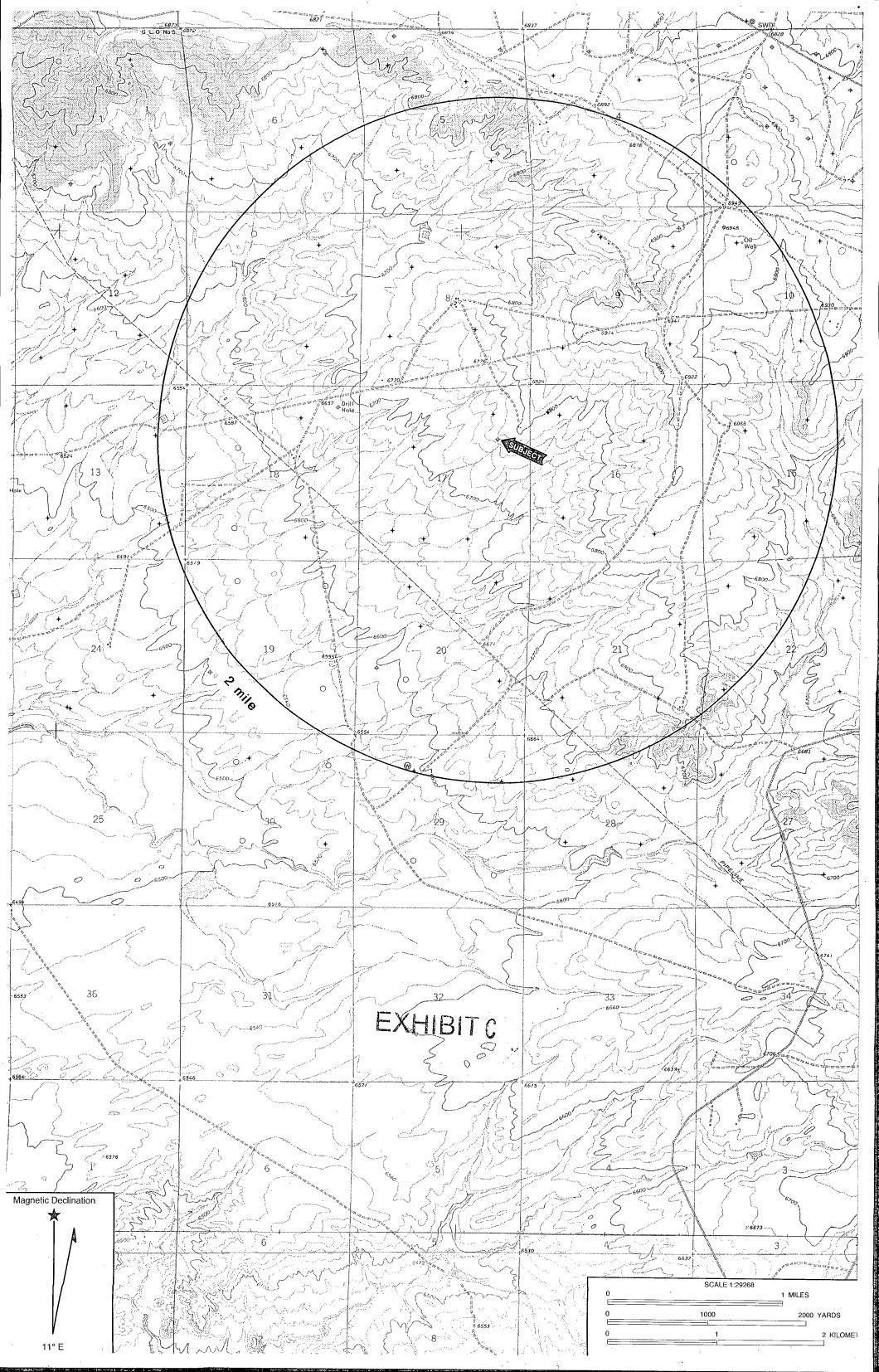
Fee Lease - 3 Copies

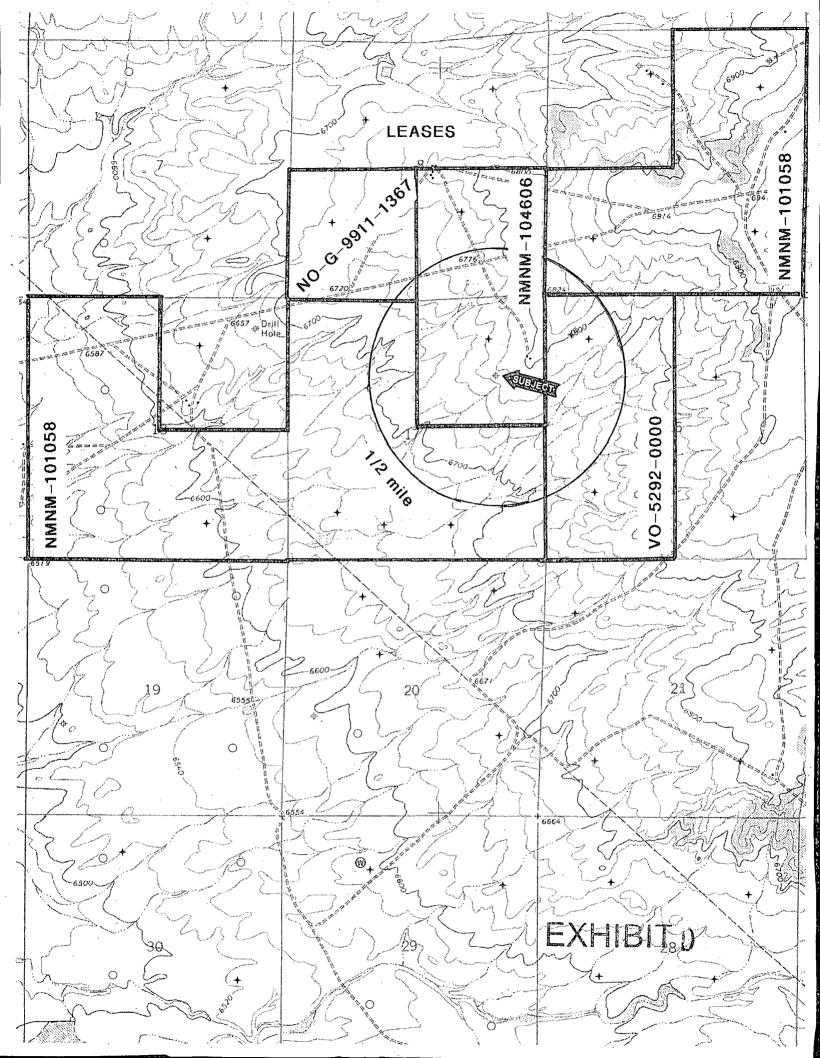
DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, N.M. 87505

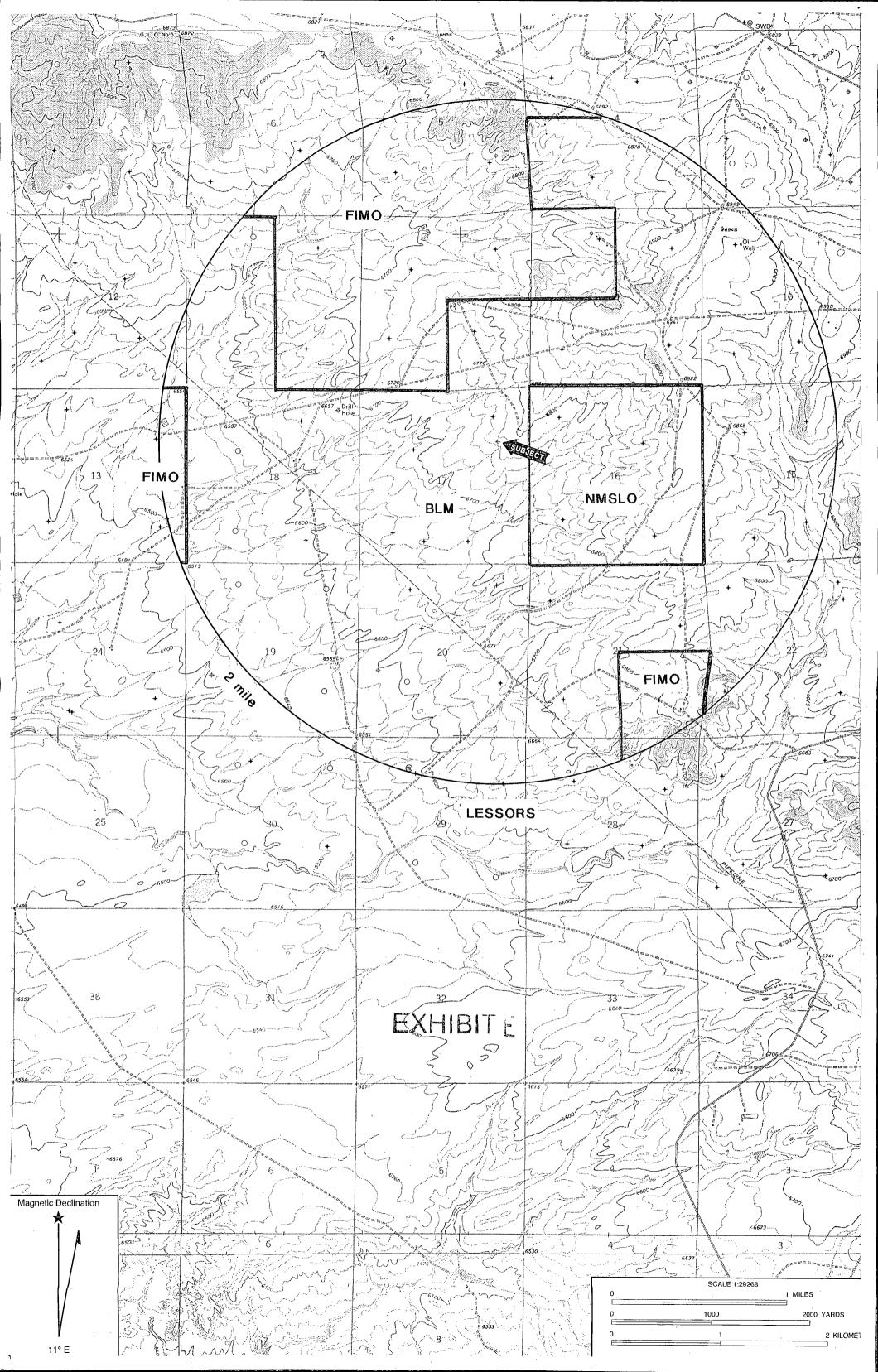
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT









From SWD-944 SENW 11-242-11W

HALLIBURTON

Water Analysis Report

11/10/2005 **Dugan Production** Date: 11/10/2005 Date Rec: **Halliburton Energy Services** Submitted by: FLMM5A44 Report #: Attention: **Darrin Steed** Entrada/SWD Herry Monster #3 SWD Formation:

Well Name:

Specific Gravity 1.005 pН 8.4 Resistivity 0.89 @ 70° F Iron (Fe) Mg/L Potassium (K) 200 Mg/L Sodium (Na) 4165 Wg/L Calcium (Ca) 176 Mg/L Magnesium (Mg) 15 Mg/L Chlorides (CI) 2200 Mg/L Sulfates (SO4) 2000 Mg/L Carbonates (CO3) 40 Mg/L **Bicarbonates (HCO3)** 5612 Mg/L **Total Dissolved Solids** 14408 Ma/L

> Respectfully: Bill Loughridge Title: Senior Scientist Location: Farmington, NM

EXHIBITE NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

TECHNOLOGIES, LTD

OFF: (505) 325-5667 FAX: (505) 327-1496 LAB: (505) 325-1556 FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 14-Jul-00

Client:

Coleman Oil and Gas Company

Work Order:

0006052

Lab ID:

Project:

0006052-01A

Juniper #1

Matrix: AQUEOUS

Client Sample Info: Coleman Oil & Gas Client Sample ID: Juniper #1

Collection Date: 6/21/2000 5:00:00 PM

COC Record: 10748

Parameter	Result	PQL Qu	al Units	DF	Date Analyzed
CALCIUM, DISSOLVED	E2	15.1			Analyst: HR
Calcium	120	25	mg/L	100	7/10/2000
IRON, DISSOLVED	_ E2	36.1			Analyst: HR
iron	0.17	0.1	mg/L ¹	1	7/11/2000
POTASSIUM, DISSOLVED	E2	58.1			Analyst: HR
Potassium	43	5	mg/L	20	6/30/2000
MAGNESIUM, DISSOLVED	E2	242.1			Analyst: HR
Magnesium	30	2.5	mg/L	10	7/10/2000
SODIUM, DISSOLVED	E	273.1	,		· Analyst: HR
Sodium	4880	1000	mg/L	4000	6/30/2000
ALKALINITY, TOTAL	M	2320 B			Analyst: HR
Alkalinity, Bicarbonate (As CaCO3)	500	·5	mg/L CaCO3	. 1	6/29/2000
Alkalinity, Carbonate (As CaCO3)	ND	· · 5	mg/L CaCO3	1	6/29/2000 .
Alkalinity, Hydroxide	ND	5	mg/L CaCO3	1	6/29/2000
Alkalinity, Total (As CaCO3)	500	5	mg/L CaCO3	1 ·	6/29/2000
CHLORIDE	E	325.3			Analyst: HR
Chloride	7550	1	mg/L	1	6/29/2000
HARDNESS, TOTAL	N	12340 B		•	Analyst: HR
Hardness (As CaCO3)	430	1	mg/L	1	6/27/2000
PH	E	150.1			Analyst: HR
pH	7.44	2	pH units	1	6/22/2000
RESISTIVITY (@ 25 DEG. C)	n	M2510 C			Analyst: HR
Resistivity	0.427	0.001	ohm-m	1	6/27/2000
SPECIFIC GRAVITY		V12710 F			Analyst: HR
Specific Gravity	1.009	0.001	Units	1	6/28/2000
SULFATE	1	M4500-SO4 D			Analyst: HR
Sulfate	5.1	. 5	mg/L	1	6/29/2000
TOTAL DISSOLVED SOLIDS		E160.1			Analyst: HR
Total Dissolved Sollds (Residue, Filterable)	13900	40	mg/L	1	6/27/2000
TOTAL DISSOLVED SOLIDS	•	CALC			Analyst: HR
Total Dissolved Solids (Calculated)	12900	40	mg/L	1	7/11/2000

EXHIBITE

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

June 23, 2008

Bertha Spencer Bureau of Indian Affairs P. O. Box 1060 Gallup, NM 87305

Dear Bertha,

Coleman Oil & Gas, Inc. is applying (see attached application) to drill its Monument #1 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well.

Well Name: Monument #1 Total Depth: ≈7,460'

Proposed Disposal Zone: Entrada (from ≈7,110' to ≈7,285')

Location: 1656' FNL & 942' FEL Sec. 17, T. 24 N., R. 10 W.,

San Juan County, NM on BLM lease NMNM-104606

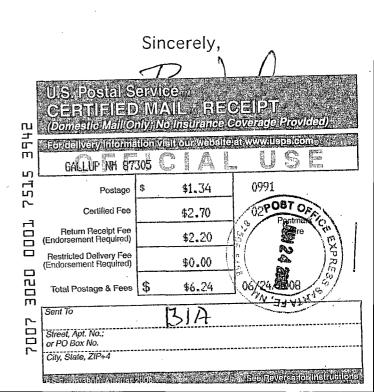
Approximate Location: ≈28 air miles south-southwest of Bloomfield, NM

Applicant Name: Coleman Oil & Gas, Inc. (505) 327-0356

Applicant's Address: P. O. Drawer 3337, Farmington, NM 87499

Note: Interested parties must file objections or requests for hearing with the NM Oil Conservation Division within 15 days. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.





37Verano Loop, Santa Fe, New Mexico 87508

June 23, 2008

BL_M 1235 LaPlata Highway Farmington, NM 87401

Coleman Oil & Gas, Inc. is applying (see attached application) to drill its Monument #1 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well.

Well Name: Monument #1

Total Depth: ≈7,460'

Proposed Disposal Zone: Entrada (from ≈7,110' to ≈7,285')

Location: 1656' FNL & 942' FEL Sec. 17, T. 24 N., R. 10 W.,

San Juan County, NM on BLM lease NMNM-104606

Approximate Location: ≈28 air miles south-southwest of Bloomfield, NM

Applicant Name: Coleman Oil & Gas, Inc. (505) 327-0356

Applicant's Address: P. O. Drawer 3337, Farmington, NM 87499

Note: Interested parties must file objections or requests for hearing with the NM Oil Conservation Division within 15 days. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely

Brian Wood

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June 23, 2008

Ty Stillman EOG Resources, Inc. 600 17th St., Suite 1000-N Denver, CO 80202-5402

Dear Ty,

Coleman Oil & Gas, Inc. is applying (see attached application) to drill its Monument #1 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well.

Well Name: Monument #1 Total Depth: $\approx 7,460'$ Proposed Disposal Zone: Entrada (from $\approx 7,110'$ to $\approx 7,285'$)

Location: 1656' FNL & 942' FEL Sec. 17, T. 24 N., R. 10 W.,

San Juan County, NM on BLM lease NMNM-104606

Approximate Location: ≈28 air miles south-southwest of Bloomfield, NM

Applicant Name: Coleman Oil & Gas, Inc. (505) 327-0356

Applicant's Address: P. O. Drawer 3337, Farmington, NM 87499

Note: Interested parties must file objections or requests for hearing with the NM Oil Conservation Division within 15 days. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely, Posial Savice I PAN KOE E BREE DENVER CO 80202 \$1.34)%]4s-90sZ Certified Fee \$2.70 Return Receipt Fee (Endorsement Required) \$2.20 Restricted Delivery Fee (Endorsement Required) \$0.00 \$6,24 06/24/2000 Total Postage & Fees or PO Box No. City, State, ZIP+4

June 23, 2008

FIMO 1235 LaPlata Highway Farmington, NM 87401

Coleman Oil & Gas, Inc. is applying (see attached application) to drill its Monument #1 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well.

Well Name: Monument #1

Total Depth: ≈7,460'

Proposed Disposal Zone: Entrada (from $\approx 7,110$ ' to $\approx 7,285$ ')

Location: 1656' FNL & 942' FEL Sec. 17, T. 24 N., R. 10 W.,

San Juan County, NM on BLM lease NMNM-104606

Approximate Location: ≈28 air miles south-southwest of Bloomfield, NM

Applicant Name: Coleman Oil & Gas, Inc. (505) 327-0356

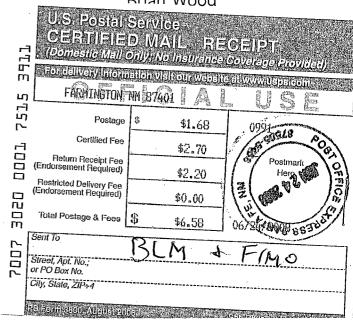
Applicant's Address: P. O. Drawer 3337, Farmington, NM 87499

Note: Interested parties must file objections or requests for hearing with the NM Oil Conservation Division within 15 days. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Rrian Wood



37Verano Loop, Santa Fe, New Mexico 87508

(505) 466-8120

June 23, 2008

Howard Draper Navajo Nation Project Review Office P. O. Box 2249 Window Rock, AZ 86515

Dear Howard,

Coleman Oil & Gas, Inc. is applying (see attached application) to drill its Monument #1 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well.

Well Name: Monument #1 Total Depth: ≈7,460'

Proposed Disposal Zone: Entrada (from ≈7,110' to ≈7,285')

Location: 1656' FNL & 942' FEL Sec. 17, T. 24 N., R. 10 W.,

San Juan County, NM on BLM lease NMNM-104606

Approximate Location: ≈28 air miles south-southwest of Bloomfield, NM

Applicant Name: Coleman Oil & Gas, Inc. (505) 327-0356

Applicant's Address: P. O. Drawer 3337, Farmington, NM 87499

Note: Interested parties must file objections or requests for hearing with the NM Oil Conservation Division within 15 days. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

		Sincer	ely,		
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37Verano Loop, Santa Fe, New Mexico 87508

(505) 466-8120

June 23, 2008

NM State Land Office P. O. Box 1148 Santa Fe, NM 87504

Coleman Oil & Gas, Inc. is applying (see attached application) to drill its Monument #1 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well.

Well Name: Monument #1

Total Depth: ≈7,460'

City State ZIP

Proposed Disposal Zone: Entrada (from ≈7,110' to ≈7,285')

Location: 1656' FNL & 942' FEL Sec. 17, T. 24 N., R. 10 W.,

San Juan County, NM on BLM lease NMNM-104606

Approximate Location: ≈28 air miles south-southwest of Bloomfield, NM

Applicant Name: Coleman Oil & Gas, Inc. (505) 327-0356

Applicant's Address: P. O. Drawer 3337, Farmington, NM 87499

Note: Interested parties must file objections or requests for hearing with the NM Oil Conservation Division within 15 days. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

US Posti Service. SANTA FE NY 87504 LΩ Postage \$1.34 Certified Fee \$2.70 Return Receipt Fee (Endorsement Required) \$2.20 Restricted Delivery Fee (Endorsement Required) \$0.00 \$6.24 06/24/2008N '34 SLO or PO Box No.

June 23, 2008

Charles Campbell Rosetta Resources Operating LP 1200 17th St., Suite 770 Denver, CO 80202

Dear Charlie,

Coleman Oil & Gas, Inc. is applying (see attached application) to drill its Monument #1 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well.

Well Name: Monument #1 Total Depth: ≈7,460'

Proposed Disposal Zone: Entrada (from ≈7,110' to ≈7,285')

Location: 1656' FNL & 942' FEL Sec. 17, T. 24 N., R. 10 W.,

San Juan County, NM on BLM lease NMNM-104606

Approximate Location: ≈28 air miles south-southwest of Bloomfield, NM

Applicant Name: Coleman Oil & Gas, Inc. (505) 327-0356

Applicant's Address: P. O. Drawer 3337, Farmington, NM 87499

Note: Interested parties must file objections or requests for hearing with the NM Oil Conservation Division within 15 days. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

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AFFIDAVIT OF PUBLICATION

Ad No. 60304

STATE OF NEW MEXICO County of San Juan:

BOB WALLER, being duly sworn says: That he is the CLASSIFIED MANAGER of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication and appeared in the Internet at The Daily Times web site on the following day(s):

Thursday

June 12, 2008

And the cost of the publication is \$53.50

ON 61318 BOB WALLER appeared before me, whom I know personally to be the person who signed the above document.

My Commission expires November 05, 2011

COPY OF PUBLICATION

Coleman Oil & Gas, Inc. is applying to reenter, deepen, and convert the Monument 1 to a water disposal well. The Monument 1 is located at 1656' FNL & 942' FEL, Sec. 17, T. 24 N., R. 10 W., San Juan County, NM. The well will dispose of water produced from oil and gas wells into the Entrada sandstone at a depth of 7,110' to 7,285' at a maximum rate of 4,000 barrels of water per day and at a maximum pressure of 1,600 psi. Interest ed parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days. Additional information can be obtained by contacting Brian Wood, Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505)

Legal No. 60304 published in The Daily Times, Farmington, New Mexico on Thursday June 12, 2008

EXHIBITH

	liffe	ction Permit Cl	necklist (7/8/08)		= 1
Case R	(WD) 137WEX	PMX	_ IPI Permit Date	eUIC Qtr July C	in part
# Wells Well Name:	Your mant 40	. 1		<u> </u>	
API Num: (30-) 045-	21912 Spuc	d Date:	New/Old:	(UIC primacy March 7, 1982)	
Footages 1656 FM	1942 FEL	Unit H Sec		RgdOW County Santun	
Operato Colorum	DILE Gos,	The.	Contact £	Sin modern u	at, NC)
OGRID: 4838	RULE 40 Compliance (Wells) O			
Operator Address: Po	, Mower 3337	, Fariful	m 87499		
Current Status of Well:	E 1975 W/POOR	coverage. 9	& CLIFT HOW	Ċ	
Planned Work to Well:	= outr, Dea	pon, run 5	Planned Tu	ubing Size/Depth: 2718	1010
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Above (Name and Top)				1063 mac ve ku	. 50718
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Below (Name and Top)	7360	CHINLE		No Deviated Hole?	
Sensitive Areas: Capitan		Cliff House ZI	1 /		
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Polach Area (R-111-P)	mu/oto Alem	Potach Les		Noticed?	
Fresh Water: Depths:	-640 Wells	(Y/N) Ne Analys	sis Included (Y/N):	Affirmative Statement	
Salt Water: Injection Water	Types: FRC			Analysis?	.
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