Form 3160-5 (August 1999)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED

OMB No. 1004-0135 Expires: November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS** 

5. Lease Serial No. NOG-0103-1466

	o not use this form for proposals to drill or to re-enter an pandoned well. Use Form 3160-3 (APD) for such proposals.		6. If Indian, Allottee, or Tribe Name NAVAJO ALLOTTED			
SUBMIT IN TRIPL	CATE-Other Instruction	e on the me	marsido	7. If Unit or (	CA. Agreemen	t Designation
Oil Well X Gas Well	Other			8. Well Nam	ne and No.	
2. Name of Operator					G #2	
COLEMAN OIL & GAS, 3a, Address	INC.	3b. Phone No. (includ	le area code)	9. API Well	No. 3 <b>0-045-3</b> (	1998
PO DRAWER 3337	Farmington NM 87499-3337	(505) 327	•	10. Field an	d Pool, or Expl	
4. Location of Well (Footage, Sec., T.,	R., M., or Survey Description)					itland Coal
44051 511	AND 4400 EM CECTION	NIAO TOEN D	44187	! '	or Parish, State N COUNTY,	
	AND 1190' FWL, SECTIOI PRIATE BOX(S) TO INDICAT			*		INIVI
TYPE OF SUBMISSION	KIATE BOX(O) TO INDIOAT		TYPE OF ACTION	.,		
		<b>.</b>		Danima)	☐ Water S	hut off
X Notice of Intent	Acidize	Deepen	Production ( Start/	Resume)		
	Altering Casing	Fracture Treat	Reclamation		Well Int	• .
Subsequent Report	Casing Repair	New Construction	Recomplete		Other	SEE BELOW
	Change Plans	Plug and abandon	Temporarily Aband	lon		
Final Abandonment Notice  13. Describe Proposed or Completed	Convert to Injection	Plug back	Water Disposal			
following completion of the involve testing has been completed. Final determined that the site is ready for Coleman Oil & Gas, Inc	APPR JUN- MA FIELD MA	n a multiple completily after all requirements acced water into corder No. 7 for a corder No. 7 for a corder No. 3 for a corder	ion or recompletion in a rents, including reclament	www.interval, a ion, have been WD #1 as Disposal.	per the competed, and per the competed of the	shall be filed once nd the operator has
Name (Printed/ Typed)		Title		_		
WENDY ROGERS Signature	<del></del>	Date PR	RODUCTION ACCT	•		
- / / / /	Jers .	06-02	-03			
//	THE SPACE FO				15-21-	
Approved by		Title			Date	
Conditions of approval, if any are attac certify that the applicant holds legal or which would entitle the applicant to co	equitable title to those rights in the sul					

Title 18 U.S.C. Section 1001 AND Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitiousor fraudulent statements or representations as to any matter within its jurisdiction.

# Onshore Order No. 7 and Title 43 CFR 3162.5-1

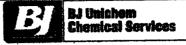
1	above noted lease/well disposes water without approval. Onshore Order No. 7 and Title
The	above noted lease/well disposes water without approval. Chambre described in order to process water disposal FR 3162.5-1, requires the following information be submitted in order to process water disposal
requ	
	RASIN FRUITLAND COAL
1.	Name of formations producing water on the lease. BASIN FRUITLAND COAL
2.	Name of formations producing water on the reason. 7 bbls per day @ 4/2003.  Amount of water produced from all formations in barrels per day. 7 bbls per day @ 4/2003.
	Attach a current water analysis of produced water from all zones showing at least the total colved solids, ph, and the concentrations of chlorides and sulfates.
4.	How water is stored on the lease. TANK
•	How water is moved to the disposal facility. TRUCK
6. <sup>·</sup>	Identify the Disposal Facility by :
•	a. Facility operators name. COLEMAN OIL & GAS, INC.
	b. Name of facility or well name & number. COWSAROUND SWD #1
	c. Type of facility or well (WDW)(WIW) etc. SWD
•	.c. Type of facility of word (112 11) 2 11
	d. Location by 1/4 1/4 section 16 township 26N range 12W
	Attach a copy of the State issued permit for the Disposal Facility.
.S 2	ubmit to this office, the above required information on a Sundry Notice 3160-5. Submit 1 original and copies. (You may also complete this form and attach it to the Sundry Notice.)

BASIN DISPOSAL

BACK UP DISPOSAL®S: ELM RIDGE - CBU CARSON

# Analytical Laboratory Report for:

Coleman Oil



**UNICHEM Representative: Tony Snow** 

# **Production Water Analysis**

Listed below please find water analysis report from: MEG, #2

Lab Test No:

2003117474

Sample Date:

04/17/2003

Specific Gravity:

1.017

TDS:

23942

pH:

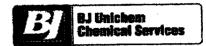
6.51

Cations:	mg/L	as:
Calcium	358	(Ca <sup>↔</sup> )
Magnesium	78.17	(Mg <sup>↔</sup> )
Sodium	7973	(Na )
Iron	34.29	(Fe <sup>++</sup> )
Barium	11.81	(Ba <sup>↔</sup> )
Strontium	19.81	(Sr <sup>**</sup> )
Manganese	0.69	(Mn )
Anions:	mg/L	as:
Bicarbonate	1159	(HCO <sub>3</sub> )
Sulfate	8	(SO <sub>4</sub> =)
Chloride	14300	(CI)
Gases:		
Carbon Dioxide	246	(CO <sub>2</sub> )
Hydrogen Sulfide	0	(H <sub>2</sub> S)

Meg 4.2

Coleman Oil

Lab Test No: 2003117474



# DownHole SAT<sup>™</sup> Scale Prediction @ 100 deg. F

Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)	
Calcite (CaCO3)	1.27	.0652	
Aragonite (CaCO3)	1.07	.0214	
Witherite (BaCO3)	.0145	-12.69	
Strontianite (SrCO3)	.157	-2.02	
Magnesite (MgCO3)	.292	623	
Anhydrite (CaSO4)	.00158	-679.27	
Gypsum (CaSO4*2H2O)	.00189	-677.29	
Barite (BaSO4)	.989	0327	
Celestite (SrSO4)	.00161	-181.38	
Silica (SiO2)	0	-55.26	
Brucite (Mg(OH)2)	< 0.001	-1.38	
Magnesium silicate	0	-114.29	
Siderite (FeCO3)	256.89	.356	
Halite (NaCl)	.00179	-183017	
Thenardite (Na2SO4)	< 0.001	-59567	
Iron sulfide (FeS)	0	0115	

Interpretation of DHSat Results:

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The scale is logarithmic, i.e. a Saturation Index of 3 is 10 times more saturated than a value of 2.

The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) infinity to positive (precipitating) infinity. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Betty Rivera

Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

ADMINISTRATIVE ORDER SWD-764 (2<sup>nd</sup> Corrected)

APPLICATION OF PENDRAGON ENERGY PARTNERS FOR PRODUCED WATER DISPOSAL, SAN JUAN COUNTY, NEW MEXICO.

# ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Pendragon Energy Partners made application to the New Mexico Oil Conservation Division on February 9, 2000, for permission to complete for produced water disposal its Cowsaround SWD Well No. 1 (API No. 30-045-30096) located 2220 feet from the South line and 1680 feet from the West line (Unit K) of Section 16, Township 26 North, Range 12 West, NMPM, San Juan County, New Mexico.

# THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
  - (4) No objections have been received within the waiting period prescribed by said rule.

## IT IS THEREFORE ORDERED THAT:

The applicant herein, is hereby authorized to complete its Cowsaround SWD Well No. 1 (API No. 30-045-30096) located 2220 feet from the South line and 1680 feet from the West line (Unit K) of Section 16, Township 26 North, Range 12 West, NMPM, San Juan County, New Mexico, in such a manner as to permit the injection of produced water for disposal purposes into the Mesaverde formation from approximately 2,000 feet to 3,882 feet through 2 7/8 inch plastic-lined tubing set in a packer located at approximately 1,908 feet.

Administrative Order SWD-764 (2<sup>nd</sup> Corrected) Pendragon Energy Partners April 1, 2002 Page 2

## IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 400 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Mesaverde formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Aztec district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Administrative Order SWD-764 (2<sup>nd</sup> Corrected) Pendragon Energy Partners April 1, 2002 Page 3

Approved at Santa Fe, New Mexico, on this 1st day of April, 2002.

LORI WROTENBERY, Director

## LW/DRC

cc: Oil Conservation Division – Aztec

State Land Office - Oil and Gas Division

### NOG01031466 Meg com #2

## API No. 3004530998

### Conditions of Approval for Disposal of Produced Water Under Onshore Oil and Gas Order No. 7

- 1. All existing earthen pits (emergency, reserve, production) must be closed according to the standards contained in either the Approved Application for Permit to Drill (AAPD) or if applicable the New Mexico Pit Closure standards by July 9, 2003.
- 2. The closed pit areas will be recontoured and reseeded according to the standards contained in either the AAPD. If no reclaimation proceedures are contained in the AAPD, an on-site will be scheduled with the Federal Indian Minerals Office at (505) 599-6375 prior to beginning pit closure.
- All excess or unused equipment, pipe, pipe fittings and trash shall be removed at the time the pits are closed.
- 4. All storage tanks (oil or water) shall be surrounded by a berm/dike sufficient to contain 150% of the capacity of the total volume of the tanks surrounded or 1 day of production whichever is greater. Berm/dike walls will be compacted with appropriate equipment to assure proper construction.
- 5. All above ground facilities shall be painted in accordance with the AAPD. If no painting requirements are contained in the AAPD, an on-site will be scheduled with the Federal Indian Minerals Office at (505) 599-6375.
- 6. Bermed/diked areas will be fenced to existing standards at the time the pits are closed and the berms/dikes and fencing shall be maintained.
- 7. Access to the inside of all fenced areas shall be included in fence design.
- 8. Compressor units on this well location not equipped with a drip pan for containment of fluids shall be lined with an impervious material at least 8 mils thick and a 12 inch berm. The compressor will be painted to match the well facilities. Any variance to this will be approved by the authorized officer (AO). When compressor units are washed, or any other equipment associated with the locations, the fluids (i.e., scrubber cleaners) will be properly disposed of to avoid ground contamination or hazard to livestock or wildlife.
- 9. Use of pesticides and herbicides shall comply with applicable federal/state laws. Pesticides and herbicides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, holder shall obtain from the AO written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary. Emergency use of pesticides shall be approved in writing by the AO prior to use.
- 10. The holder shall be responsible for weed control and selective control of invasive weeds on disturbed and reclaimed areas within the limits of the well pad, associated road and pipeline ROW. The holder is responsible for consultation with the AO and/or local authorities for acceptable weed control methods within limits imposed in the conditions of approval.
- 11. Discovery of Threatened/Endangered/Sensitive Species (TES) Plant/Animal: If, in its operations, the operator/holder discovers any Threatened/Endangered/Sensitive Species Plant/Animal, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to the Federal Indian Minerals Office at (505) 599-6375. BLM will then specify what action is to be taken. Failure to notify the BLM about a discovery may result in civil or criminal penalties in accordance with the Endangered Species Act of 1973 (as amended).