∙ Çorm 3160-5 (August 2007)

. UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD-HOBBS

FORM APPROVED OMB No 1004-0137 Expires July 31, 2010

5. Lease Serial No NMLC030467A

6 If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an

abandoned well.									
SUBM	7 If Unit of CA/Agreement, Name and/or No								
l Type of Well ☑ Oil Well ☑ Gas V	Well Other	/		8. Well Name and No Vaughn A-14 #7 & #8					
2 Name of Operator Cameron Oil and Gas Inc.				9. API Well No 30-025-26215, 30-025-27155					
3a Address	-,	3b Phone No. (include are		10 Field and Pool or Ex	· · · · · · · · · · · · · · · · · · ·				
PO Box 1455 Roswell Nm 88202-1455		1108	Jalmat T-Y-SR						
4 Location of Well (Footage, Sec., T. SESW and SWNW Sec. 14, T-24S, R-36E	R M, or Survey Description		11. Country or Parish, State Lea Co. NM						
12. CHEC	CK THE APPROPRIATE BO	OX(ES) TO INDICATE NAT	URE OF NOTIC	E, REPORT OR OTHER	R DATA				
TYPE OF SUBMISSION		•	TYPE OF ACTI	ON					
Notice of Intent	Acidize Alter Casing	Deepen Fracture Treat		ction (Start/Resume)	Water Shut-Off Well Integrity Other Approval for water disposal				
Subsequent Report	Casing Repair Change Plans	New Construction	Recon	•					
Final Abandonment Notice	Convert to Injection	Plug and Abandon Plug Back		orarıly Abandon Dısposal	uisposai ,				
testing has been completed. Final determined that the site is ready fo 1) Name of formation, T-Y-SR 2) Amount of water produced: 70-80 3) A current water analysis: See Att 4) How water is stored on lease: Ta 5) How water is move to disposal fa 6) A. Tenison Oil Co. B JL Coates Well #4 C SWD # 4 D. Unit C, NENW, 990' FNL & 169 7) See Attached SEE ATTAC CONDITION	r final inspection) D BWPD ached inks on location cility: Flowline 50'FWL, SEc 10, T-24S, F HED FOR IS OF APPROV	R-36E, Lea Co. NM		ACCEPT D Lst	ED FOR RECORD EC 4 2011 JD Whitlock Jr OF EAND MANAGEMENT SBAD FIELD OFFICE				
G David Sweeney	1	Title Vice							
Signature OCO	Develop	Date 11/09			•				
	THIS SPACE)	FOR FEDERAL OR	STATE OFFI	CE USE					
Approved by		Title	······································	Date					
Conditions of approval, if any, are attached that the applicant holds legal or equitable is entitle the applicant to conduct operations to	tle to those rights in the subjec-	not warrant or certify		Isun					

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 to any department or agency of the United States any false,

(Instructions on page 2)

fictitious or fraudulent statements or representations as to any matter within its jurisdiction

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 8129 Order No. R-7551

APPLICATION OF WORLDWIDE ENERGY CORPORATION FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on March 28, 1984, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this $_{\mbox{\scriptsize lst}}$ day of June, 1984, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Worldwide Energy Corporation, is the owner and operator of the J. L. Coats Well No. 4, located 990 feet from the North line and 1650 feet from the West line of Section 10, Township 24 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the Seven Rivers formation, with injection into the perforated interval from approximately 3522 feet to 3580 feet.
- (4) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 3500 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

-2-Case No. 8129 Order No. R-7551

- (5) That the injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 704 psi.
- (6) That the Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Seven Rivers formation.
- (7) That the operator should notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.
- (8) That the operator should 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.
- (9) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(J) That the applicant, Worldwide Energy Corporation, is hereby authorized to utilize its J. L. Coats Well No. 4, located 990 feet from the North line and 1650 feet from the West line of Section 10, Township 24 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico, to dispose of produced salt water into the Seven Rivers formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3500 feet, with injection into the perforated interval from approximately 3522 feet to 3580 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 704 psi.

- (3) That 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 Seven Rivers formation.
- (4) That the operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.
- (5) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (6) That the applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Pegulations.
- (7) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION RIVISION

JOE D. RAMEY, Director

S E A L



DownHole SAT™ Water Analysis Report

SYSTEM IDENTIFICATION

CAMERON OIL & GAS

VAUGHN A14 #8

לאנקש דענפוואטָ כאנאוקפענ,אכ

CC; JOHN NOGELMETER

Sample ID#:

m.

Sample Date: Report Date:

10-24-2011 at 0841 10-28-2011

WATER CHEMISTRY

ANIONS CATTONS 6745 Chloride(as Ci) Calcium(as Ca) 1160 Sulfate(as SQ₄) 1039 Magnesium(as Mg) 267.30 Dissolved CO2(as CO2) 22.05 Barium(as Ba) 0.00 Bicarbonate(as HCO3) 73.20 Sodium(as Na) 3057 Carbonate(as CO₃) 72.00 5.00 Iron(as Fc) 4.10 H2S (as H2S) Aluminum(as Al) 0.00 Manganese(as Mn) 0.00

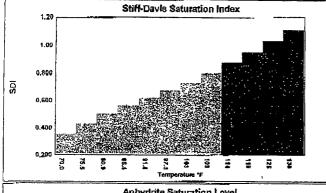
PARAMETERS

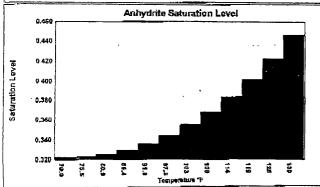
7.20 100.00 Sample pH Temperature(OF)

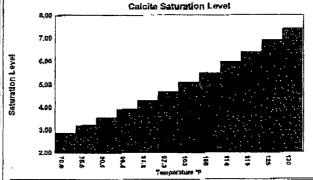
SCALE AND CORROSION POTENTIAL

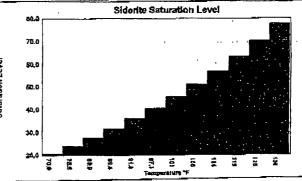
Temp.	Press.	C	alcite	An	hydrite	· Gypsum		Barike Colesti		destite	Siderite		Mackawenite		CO_2	pCO ₂	
(⁰ f)	(atm)	Ć	aCO3	Ç	aSO ₄	CaSO ₄ *2H ₂ O		BaSÓ₄		S	SrSO₄ F		eCO3		FeS (mpy		(atm)
70.00	0.00	2.89	0.130	0.323	416.22	0.546	211.73	0.00	-0.0147	0.00	-27.34	20.78	0.218	37.14	ົ 0,735 ^{ເກ} ີ0	0213	0.0159
75.45	0.00	3.22	0.146	0.323	-412,36	0.533	-219.71	0.00	-0.0169	0.00	-27,53	24.08	0.234	34.80	0.728 0	.0242	0.0159
80.91	0.00	3.56	0.161	0.325	-405.30	0.522	-226.65	0.00	-0.0192	0.00	-27.61	27.72	0.250	32.64	0.720 0	.0272	0:0159
86.36	0.00	3.93	0.177	0.330	-395.29	0.512	-232.60	0.00	-0.0217	0.00	-27.58	31. 7 1	0.265	30.63	0.711 0	.0302	0.0159
91.82	0.00	4.31	0.192	0.336	•382.59	0.504	-237.59	0.00	-0.0244	0.00	-27.47	36.0 6	0.280	28.77	0,702 0	0332	0.0159
97.27	0.00	4.70	0.206	0.344	-367.52	0.496	-241.69	0.00	-0.0273	0.00	-27.30	40.75	0.295	27.05	0.692 0	.0361	0.0159
102.73	0.00	5.10	0.220	0.355	-350.27	0.490	-244,85	0.00	-0.0303	0.00	-27.08	45.78	0.309	25.46	0.681 0	.0391	0.0159
108.18	0.00	5.51	0.234	0.368	-331.18	0.506	-229.52	0.00	0.0335	0.00	~26.85	51.21	0.323	23.98	0.669 0	.0385	0.0159
113,64	0.00	5.95	0.247	0.384	-310.53	0.525	-212.78	0.00	-0.0369	0,00	-25.64	57.10	0.337	22,62	0.657 0	.0367	0,015 9
119.09	0.00	6.41	0.261	0.402	-288.59	0.543	-197.12	00.0	-0.0407	0.00	-26,46	63.47	0.352	21.36	0.644 0	.0347	0.0159
124.55	0.00	6.89	0.275	. 0.423	-265,64	0.562	-182.49	0.00	-0.0449	0.00	-26.29	70,34	0.366	20,20	0.631 0	,0325	0.0159
130.00	0.00	7,39	.0.289	0. 44 7	-241.92	0.581	-168,82	0.00	-0.0493	0.00	-25.14	77.71	0.381	19.11	0.617 0	.0301	0.0159
			l.bs per		Lbs per .		Lbs per		Lbs per		Lbs per		Lbs per		Lbs per		
		x5AT	1000	x\$AT	1000	xSAT	1000	XSAT	1000	XSAT	1000	xSAT	1000	XSAT	1000		• • • • •
			Barrels		Barrels		Barreis		Barrels		Barrels		Barrels	**	Barrels		

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. {Ca}{CO₃}/K_{sp}. pCO₂ (atm) is the partial pressure of CO₂ in the gas phase. Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium









BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 575-234-5972

Disposal of Produced Water From Federal Wells Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

- 1. This agency shall be notified of any change in your method or location of disposal.
- 2. Compliance with all provisions of Onshore Order No. 7.
- 3. This agency shall be notified of any spill or discharge as required by NTL-3A.
- 4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
- 5. All above ground structures on the lease shall be painted Shale Green (5Y 4/2), or as per approved APD stipulations. This is to be done within 90 days, if you have not already done so.
- 6. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
- 7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
- 8. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
- 9. Disposal at any other site will require prior approval.
- 10. Subject to like approval by NMOCD.

6/17/2011