

DATE IN <u>11.17.10</u>	SUSPENSE	ENGINEER <u>TW</u>	LOGGED IN <u>11.17.10</u>	TYPE <u>IPI</u>	APP NO. <u>1032136729</u>
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



*Cheyenne WD
(269152)
Goodwin State #1*

GOODWIN STATE NO. 1 ORDER: SWD:827-B 30-025-34953

ADMINISTRATIVE APPLICATION CHECKLIST 30-025-34593

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

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

IPI-384

SWD-827-B

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

- [D] Other: Specify _____

2010 NOV 15 P 3:39

RECEIVED OCD

*68-SAN Andres
Del-BS
978002
97705
state*

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
[B] ☐ Offset Operators, Leaseholders or Surface Owner
[C] ☐ Application is One Which Requires Published Legal Notice
[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
[F] ☐ Waivers are Attached

*Goodwin A-50 Pool
(28370)
TOP 4350'*

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Bill Hicks _____ President _____ 11/08/10
Print or Type Name Signature Title Date

e-mail Address

Cheyenne Water Disposal Systems, LLC
P.O. Box 132
Hobbs, NM 88241

November 8, 2010

Terry G. Warnell
Engineer
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Injection Pressure Increase Request
Administrative Order No. 827-B
Goodwin State No. 1
API#: 30-025-34593
Unit Letter D Section 6, T-19S, R-37E,
Lea County, NM

Dear Sir:

By Administrative Order SWD-827-B, dated March 8, 2010, the NMOCD authorized water injection into the above referenced wellbore for the disposal of produced water. The order provides for a wellhead pressure of "no more than 870 psi". Cheyenne believes that this maximum pressure is significantly below formation fracture pressure.

On October 26, 2010, a step rate test was run to determine the actual formation fracture pressure. The bottom hole pressure curve vs. rate show a change in slope at 3540 psia which corresponds to a surface pressure of 1364 psia.

Accordingly, Cheyenne respectfully requests that the allowable surface injection pressure be increased to at least 1325 psia. A summary of the step rate test data is attached. Thanks in advance for your prompt consideration.

Sincerely,
Cheyenne Water Disposal System, LLC

Bill Hicks
Bill Hicks

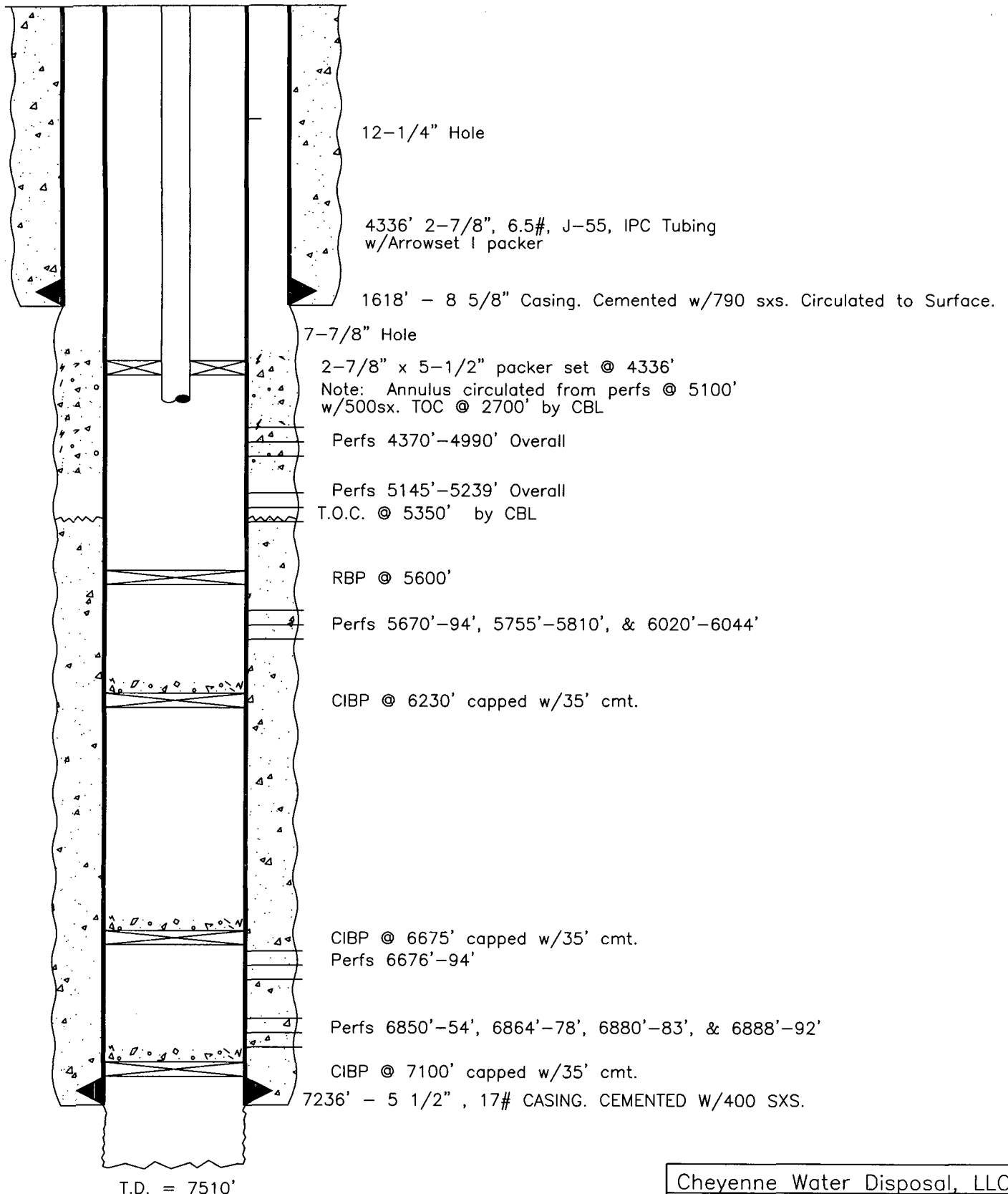
1364
- 50

1314

SWD INJECTOR

11/5/2010

Elev. = 3735' GL



Cheyenne Water Disposal, LLC
Goodwin State No. 1
330' FNL & 330' FWL
Sec. 6, T-19S, R-37E
Lea County, New Mexico

Step Rate Test



Cardinal Surveys Company

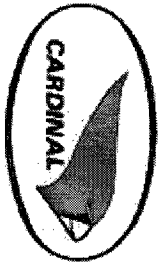
October 26, 2010

Cheyenne Water Disposal
Well: Goodwin State # 1
Field:
Lea County, New Mexico
SC 59382
File # 20036

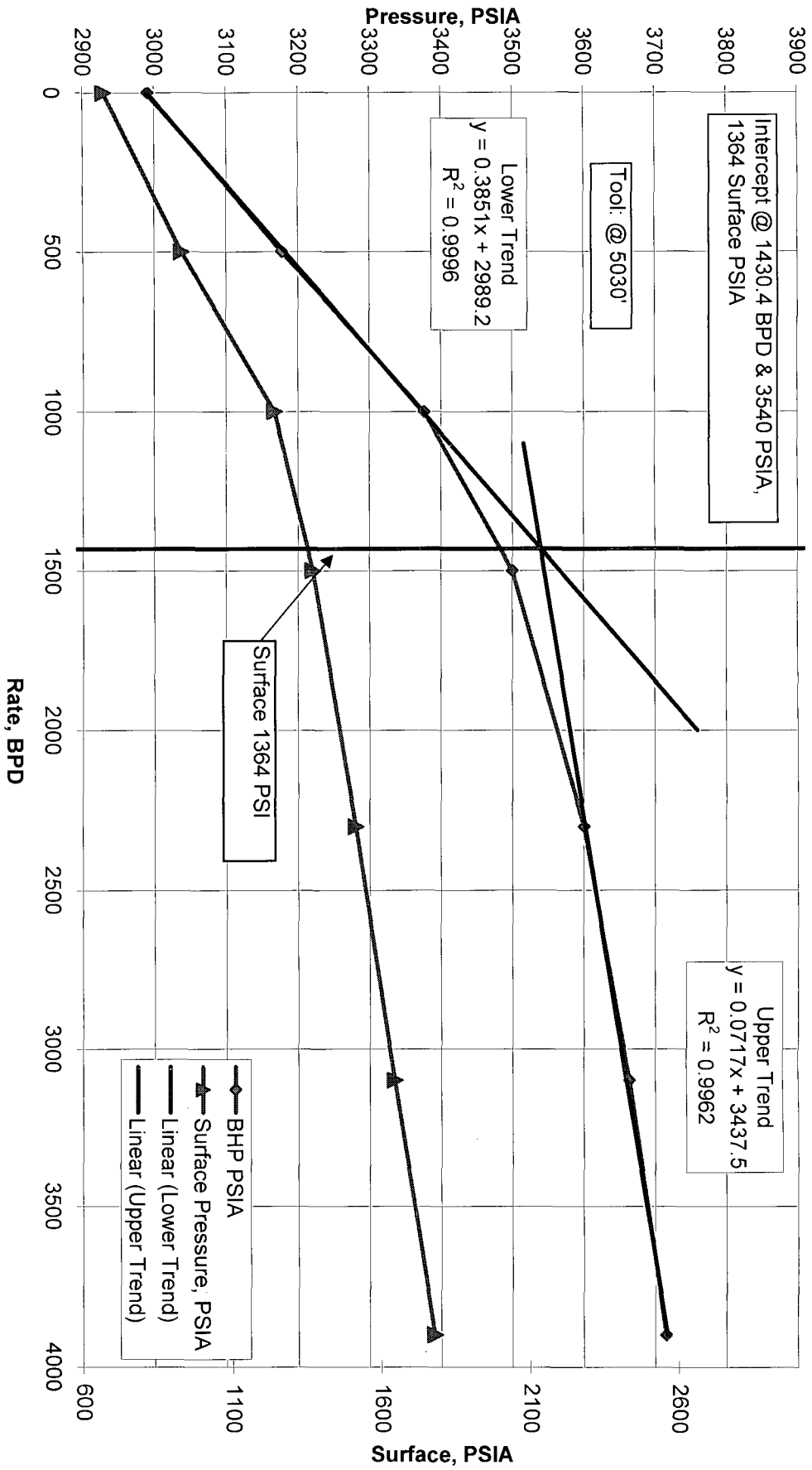
Intercept @ 1430.4
BPD & 3540 PSIA,
1364 Surface PSIA

Downhole PSI Tool Ser. No.
Surface PSI Gauge Ser. No.
Tool @ 5030'

	Start Time	End Time	Rate BPD	Comments
1	8:48 AM	9:00 AM		0 On Bottom
2	9:00 AM	9:30 AM	500	
3	9:30 AM	10:00 AM	1000	
4	10:00 AM	10:30 AM	1500	
5	10:30 AM	11:00 AM	2300	
6	11:00 AM	11:30 AM	3100	
7	11:30 AM	12:00 PM	3900	
8	12:00 PM	12:15 PM		0 Fall Off

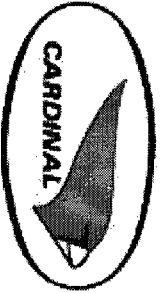


Cheyenne Water Disposal Goodwin State # 1
Step Rate Test 10-26-2010



Step Rate Test

Cheyenne Water Disposal
Goodwin State # 1
Field:
Lea County, New Mexico



	S Time	E Time	D Time		Last Rate BPD	Step B. H. Pressure		Surf		Cum		Delta		Avg. BPD	Lower Trend	Upper Trend
			Min			PSIA		PSIA		BBL		BBL				
1	8:48 AM	9:00 AM	12		0	2991.3		670.8		0		0.00		0	2991.3	
2	9:00 AM	9:30 AM	30		500	3177.4		931.1		9.7		9.70		466	3177.4	
3	9:30 AM	10:00 AM	30		1000	3376.4		1241.2		30		20.30		974	3376.4	
4	10:00 AM	10:30 AM	30		1500	3500.1		1369.9		59.9		29.90		1435		3600.3
5	10:30 AM	11:00 AM	30		2300	3600.3		1512.9		105.9		46.00		773		3663.8
6	11:00 AM	11:30 AM	30		3100	3663.8		1642.9		168.2		62.30		782		3715
7	11:30 AM	12:00 PM	30		3900	3715		1778		248.7		80.50		3864		
8	12:00 PM	12:15 PM	15		0	2591.3		1455.2		248.7		0.00		0		

0.3851 2989.2
0.0717 3437.5

int point: 1430.4403 BPD
3540.0626 Psia

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

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

WELL API NO. 30-025-34593
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. AO-1118
7. Lease Name or Unit Agreement Name GOODWIN STATE
8. Well Number 1
9. OGRID Number 269152
10. Pool name or Wildcat SWD;GB-SAN ANDRES DEL-BS

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> SWD	
2. Name of Operator CHEYENNE WATER DISPOSAL SYSTEMS, LLC	
3. Address of Operator P. O. BOX 132, HOBBS, NM 88241	
4. Well Location Unit Letter D : 330 feet from the NORTH line and 330 feet from the WEST line Section 6 Township 19S Range 37E NMPM LEA County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____	
Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> OTHER: _____	SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: <input checked="" type="checkbox"/> INITIATE INJECTION
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13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work).
SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

OCD Administrative Order SWD-827-B

4/8/10 to 10/1/10 - completed construction of facilities.

Began water disposal October 5, 2010.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Debbie McKelvey TITLE AGENT DATE 11/1/2010
Type or print name Debbie McKelvey E-mail Address: _____ Telephone No. 505-392-3575
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____


2 Operator: CHEYENNE WATER DISPOSAL SYSTEMS LLC		3 OGRID: 269152		4 Month/Year 10/10	
5 Address: P.O. Box 132, Hobbs, NM 88241		6 Page 1 of 1			
7 POOL NO. AND NAME Property No. and Name Well No. & U.L.-S.-T.-R API No.		DISPOSITION OF OIL, GAS, AND WATER			
8 C O D E 1		19 Oil on hand at beginning of month			
9 Volume		20 Volume (Bbls/mcf)			
10 Pressure		21 Transporter Ogrid			
11 C O D E 2		22 C O D E 4			
12 Barrels of Oil/condensate produced		23 Oil on hand at end of month			
13 Barrels of water produced					
14 MCF Gas Produced					
15 Days Prod- uced					
16 C O D E 3					
17 Point of Disposition					
18 Gas BTU or Oil API Gravity					

97785 SWD: GB-SA-DEL-BS
306788 Goodwin State

30-025-34593 001 D 8105 850 W

O 2824112

0



New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jon Goldstein
Cabinet Secretary

Jim Noel
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



Administrative Order SWD-827-B
March 8, 2010

Mr. Bill Hicks
Cheyenne Water Disposal Systems, LLC
PO Box 132
Hobbs, NM 88241

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Rule 26.8B., Cheyenne Water Disposal Systems, LLC seeks an administrative order to utilize its Goodwin State Well No. 1 (API 30-025-34593) located 330 feet from the North line and 330 feet from the West line, Lot 1 (Unit D) of Section 6, Township 19 South, Range 37 East, NMPM, Lea County, New Mexico, for produced water disposal purposes.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 26.8B. Satisfactory information has been provided that affected parties as defined in Rule 26.8B.(2) have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 26.8 will be met and the operator is in compliance with Division Rule 5.9.

IT IS THEREFORE ORDERED THAT:

The applicant, Cheyenne Water Disposal Systems, LLC (OGRID 269152), is hereby authorized to utilize its Goodwin State Well No. 1 (API 30-025-34593) located 330 feet from the North line and 330 feet from the West line, Lot 1 (Unit D) of Section 6, Township 19 South, Range 37 East, NMPM, Lea County, New Mexico, for disposal of oil field produced waste water (UIC Class II fluids only) into the Lower Grayburg, San Andres, Lower Delaware, and Bone Spring formations through perforations from 4350 feet to 6040 feet through plastic-lined tubing set within 100 feet of the disposal interval.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only



the proposed disposal interval and is not permitted to escape to other formations or onto the surface.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The wellhead injection pressure on the well shall be limited to **no more than 870 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to no more than the maximum allowable pressure for this well.

The Director of the Division may administratively authorize an increase in surface tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district office 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 provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 26.13 and 7.24.

Without limitation on the duties of the operator as provided in Division Rules 30 and 29, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon division approval. The division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

In accordance with Division Rule No 26.12.C., the disposal 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, mailed by the operator prior to the termination date, may grant an extension thereof for good cause. One year after disposal into the well has ceased, the authority to dispose will terminate *ipso facto*.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

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 or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.



MARK E. FESMIRE, P.E.
Acting Director

MEF/wvjj

cc: Oil Conservation Division – Hobbs
State Land Office – Oil, Gas, and Minerals Division