DATE IN 1-29-10	SUSPENSE	ENGINEER Wannell	LOGGED IN 1-29-10	TYPE IPI	APP NO. PTGW 1002950103

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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

RECEIVED OCD

Buckeye Disposal 222759

New Mexico Du State #1

ADMINISTRATIVE APPLICATION CHECKLIST

30-015-24531

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

Eddy Fee

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]

281 (1150) 1/300'
308 (1052)
213 (800)
SWD-345 (970)
SWD-~~389~~ 539
374 (960)
156 (800)
IPI-305 (900)
Ref Edge 54-175-27E

[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 _____

[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

[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.

David Catanach	David Catanach	Agent-Buckeye Disposal, L.L.C.
Print or Type Name	Signature	Title
1/29/2010	drcatanach@netscape.com	
Date	E-Mail Address	

(1400, 281) X

January 29, 2010

HAND DELIVERED

Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attention: Mr. Terry Warnell

Re: Request for Surface Injection Pressure Increase
New Mexico "DU" State Well No. 1
API No. 30-015-24531
1673' FNL & 1809' FWL (Unit F)
Section 36, T-22 South, R-27 East, NMPM
Eddy County, New Mexico

Dear Mr. Warnell,

By Order No. SWD-539 dated December 1, 1993, the Division authorized Dakota Resources, Inc. to utilize its New Mexico "DU" State Well No. 1 as a disposal well, injection to occur into the Delaware formation through the perforated interval from 4,988 feet to 5,620 feet. The order further stipulated that injection into the well was not to exceed a surface injection pressure of 998 psi (0.2 psi/ft. gradient).

Buckeye Disposal, L.L.C. is the current operator of the New Mexico "DU" State Well No. 1. On January 26, 2010 Standard Energy/Aqueous Oper. conducted a step rate injection test on the subject well in order to determine the fracture pressure of the Delaware injection interval. The well was initially bled down to assure that the initial test pressure was below the currently authorized injection pressure. The initial test pressure was 800 psi and injection into the well continued until a surface injection pressure of 1720 psi was achieved. The results indicate that the Delaware injection interval was not fractured during the test. Consequently, Buckeye Disposal, L.L.C. respectfully requests that the surface injection pressure be increased to 1720 psi. This corresponds to a conservative gradient of 0.34 psi/ft. Top perf 4988' (1400psi @ .28 psi/ft) ✓

Attached are the tabular step rate test data and corresponding rate/pressure graph.

The New Mexico "DU" State Well No. 1 is currently equipped with 2 7/8-inch lined tubing set in a 2 7/8 inch nickel plated Baker Big Bore Loc Set, SS profile nipple w/1.875 bore, on-off tool at a depth of 4,891 feet. Also attached is the injection well data sheet that was provided to the Division in the original disposal application. This data indicates that the well is cased, cemented and completed so as to preclude the movement of fluid from the injection interval.

I believe that all the information necessary to approve the pressure increase is enclosed. If additional information is needed, please contact me at (505) 690-9453.

Sincerely,

David Catanach
Agent/ Buckey Disposal, L.L.C.
P.O. Box 2724
Lubbock, Texas 79408

Xc: OCD-Artesia via E-Mail Attn: Richard Inge
Mr. James Millet via E-Mail

SWD

STEP RATE TEST DATA

Well: State DU #1 Date: 1/26/2010 Operator Aqueous Operating

STEP #1 Test Rate (5% of maximum rate) _____ (bbl/min)

Chart #1

.20 Bbls. Min	Time (min) : 0	5	10	15	20	25	30
	Pressure (psi): 800	840	850	850	850	850	850

STEP #2 Test Rate (10% of maximum rate) _____ (bbl/min)

.35 Bbls. Min	Time (min) : 0	5	10	15	20	25	30
	Pressure (psi): 850	880	880	900	910	910	920

STEP #3 Test Rate (20% of maximum rate) _____ (bbl/min)

.99 Bbls. Min	Time (min) : 0	5	10	15	20	25	30
	Pressure (psi): 1000	1000	1000	1050	1050	1050	1100

STEP #4 Test Rate (40% of maximum rate) _____ (bbl/min)

Chart #2

1.6 Bbls. Min	Time (min) : 0	5	10	15	20	25	30
	Pressure (psi): 1175	1200	1200	1200	1200	1200	1200

STEP #5 Test Rate (60% of maximum rate) _____ (bbl/min)

Chart #3

2.4 Bbls. Min	Time (min) : 0	5	10	15	20	25	30
	Pressure (psi): 1350	1400	1400	1400	1400	1400	1400

STEP #6 Test Rate (80% of maximum rate) _____ (bbl/min)

Chart #4

3.4 Bbls. Min	Time (min) : 0	5	10	15	20	25	30
	Pressure (psi): 1620	1700	1700	1700	1720	1720	1720

STEP #7 Test Rate (100% of maximum rate) _____ (bbl/min)

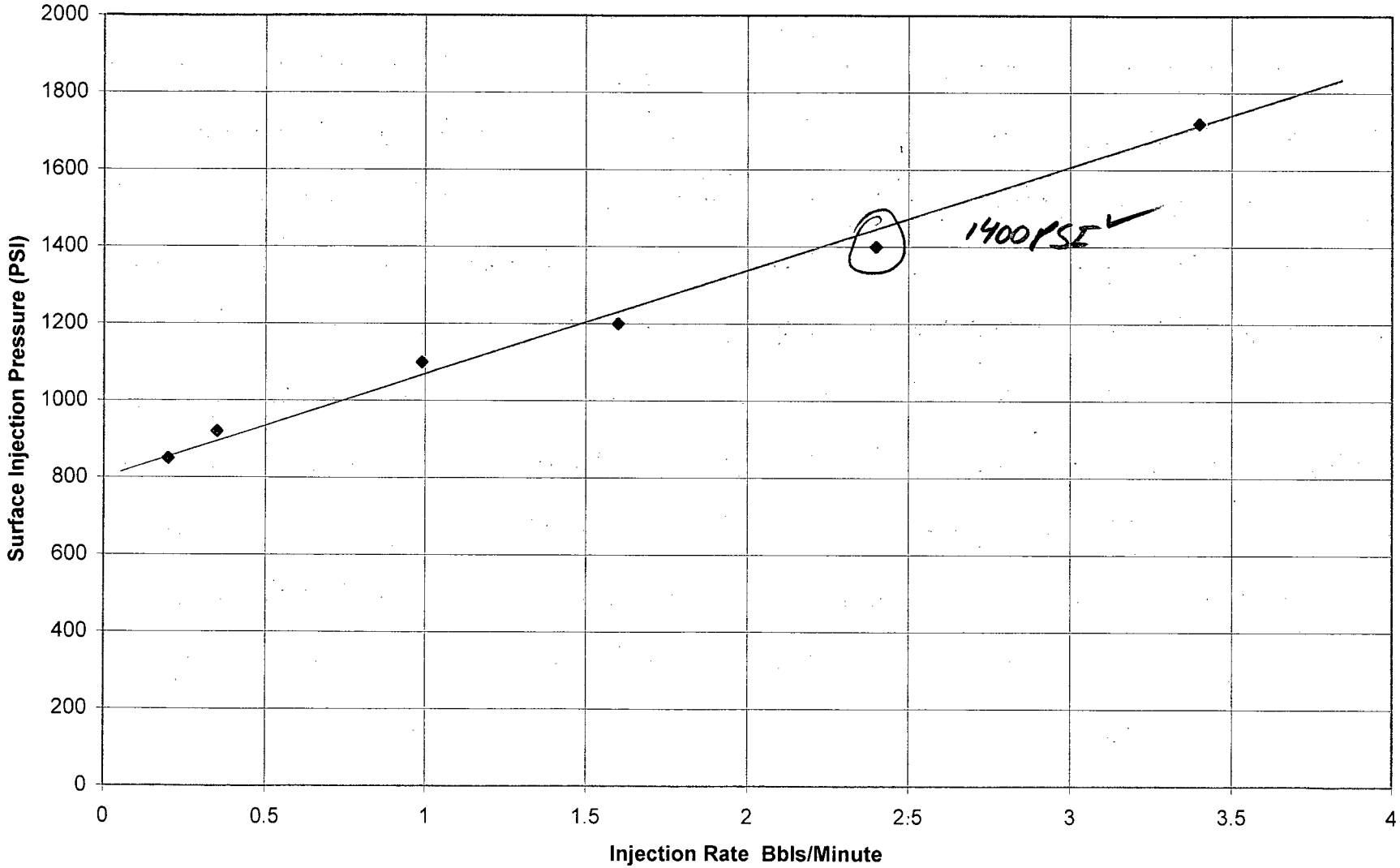
* 4 Bbls Min	Time (min) :						
	Pressure (psi):						

ISIP : _____ (psi)

Test Run / Witnessed By: Art Hillihan

* - Kill Truck was not powerfull enough to run 4 Bbls minute

Step Rate Injection Test **New Mexico DU State No. 1**

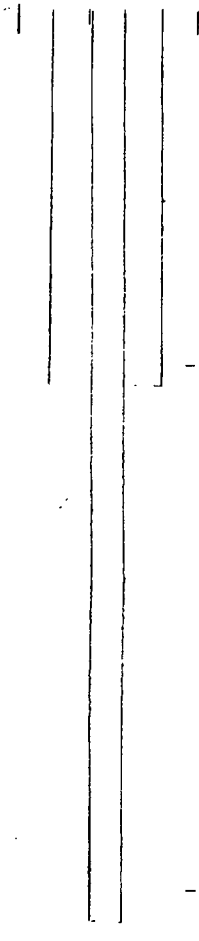


VI.

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
Dakota Resources, Inc. (I)	New Mexico DU State #1			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
1	1673' FNL & 1809' FWL	36	22S	27E

Schematic



Tabular Data

Surface Casing

Size 13 3/8" " Cemented with 800 sx.

TOC surface feet determined by circ. 200 sxs

Hole size 17 1/2"

Intermediate Casing

Size 8 5/8" " Cemented with 1300 sx.

TOC Surface feet determined by circ.

Hole size 11"

Long string

Size 5 1/2" " Cemented with 1250 sx.

TOC 114 feet determined by Temp. Survey

Hole size 7 7/8"

Total depth 5889'

Injection interval

4988 feet to 5620 feet

(perforated or open-hole, indicate which)

Tubing size 2 7/8" lined with Rice Duo-Lined (material) set in a

Lok-Set (brand and model) packer at 4938 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Herradura Bend (Delaware)

2. Name of Field or Pool (if applicable) Herradura Bend

3. Is this a new well drilled for injection? ☐ Yes ☑ No

If no, for what purpose was the well originally drilled? Originally drilled as an oil well

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Overlying-none Underlying-Bone Springs