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	1220 South St. Francis Drive,	Santa Fe, NM 87505			4
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	[C] In	ection - Disposal - Pressure			Sug
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	[B]	Offset Operators, Leaseh	olders or Surface C	owner \	yo pur
	[C]	Application is One Whic	h Requires Publish	ed Legal Notice 1	2V//
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Print or Type Nar	ne	Signature		Title	Date
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dugan production corp.

\ 1	2005
Mr. Will Jones	September 2, 2005
New Mexico Oil Conservation Division - Engineering Bureau	ن -
1220 South Saint Francis Street	б
Santa Fe, New Mexico 87505	PM
CERTIFIED MAIL, RETURN RECEIPT REQUEST	ED—
7004 1350 0002 0327 0464	12

Re: Application to Class 2, water disposal well, Herry Monster SWD #3 San Juan County, NM

Dear Mr. Jones:

Enclosed, is Dugan Production Corp.'s application for disposal of produced water in the Herry Monster SWD #3. In fulfilling the requirements of application, the following materials are provided herein:

- 1. Form C-108, Application for Authorization to Inject.
- 2. Tabular and schematic data on proposed injection well.
- 3. Lease and surface owner maps identifying all wells and leases within 2-miles of proposed injection well with a one-half mile radius circle drawn around the proposed injection well.
- 4. Data sheet of wells within 2-miles of proposed injection well, highlighting those wells inside one-half mile radius around the injection well.
- 5. Operations plan for proposed injection well.
- 6. Water Analysis of produced water to be disposed in proposed injection well (Fruitland Coal).
- 7. Required geologic, stimulation, logging and test data and fresh water data from nearby wells.
- 8. Signed statement of geologic and engineering data.
- 9. Proof of notice in the form of notification letters sent to offsetting operators and a copy of the Affidavit of Publication and copy of publication as appeared in the Farmington Daily Times.

If you have questions or need additional information, please contact me.

Kurt Fagrelius Kurt Fagrelin Very Sincerely,

Attachments

cc: Mr. Charlie Perrin-New Mexico Oil Conservation Division, 1000 Rio Bravo Rd, Aztec, NM 87410 Mr. David Mankiewicz-Bureau of Land Management, 1235 La Plata Hwy, Farmington, NM 47401

Mr. Ty Stillman-EOG Resources, Inc., 600 17th Street, Suite 1100 N, Denver, CO 80202

Mr. James Miles-Federal Indian Minerals Office, 1235 La Plata Hwy, Farmington, NM 87401

Ms. Debbie Padilla-New Mexico State Land Office, PO Box 1148, Santa Fe, NM 87504-1148

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 Pressure Maintenance NA Disposal Storage Application qualifies for administrative approval? XX Yes No
II.	OPERATOR: Dugan Production Corp.
	ADDRESS: 709 East Murray Drive, Farmington, New Mexico 87401
	CONTACT PARTY: Kurt Fagrelius PHONE: (505) 325-1821
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project? Yes XX No If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed iffection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII.	Attach data on the proposed operation, including:
	1. Proposed average and maximum daily rate and volume of fluids to be injected;
	 2. Whether the system is open or closed; 3. Proposed average and maximum injection pressure;
	4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected
	produced water; and, 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a
	chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
*VIII	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME: Kurt Fagrelius TITLE: Geologist
	SIGNATURE: But Fegnelin DATE. August 31, 2005
	E-MAIL ADDRESS: kfagrelius@duganproduction.com
*	If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:
DIST	RIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -



1220 South St. Francis Drive, Santa I		711 02
ADMINISTRATIVE APPLI	CATION CH	IECKLIST
THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION WHICH REQUIRE PROCESSING AT THE	ONS FOR EXCEPTIONS	S TO DIVISION RULES AND REGULATIONS ANTA FE
Application Acronyms: [NSL-Non-Standard Location] [NSP-Non-Standard Prof [DHC-Downhole Commingling] [CTB-Lease Comm [PC-Pool Commingling] [OLS - Off-Lease Stor [WFX-Waterflood Expansion] [PMX-Prof [SWD-Salt Water Disposal] [IPI-Inj [EOR-Qualified Enhanced Oil Recovery Certification	ration Unit] [SD-5 ningling] [PLC-1 rage] [OLM-Off- essure Maintenan jection Pressure I	Simultaneous Dedication] Pool/Lease Commingling] Lease Measurement] ce Expansion] increase]
[1] TYPE OF APPLICATION - Check Those Which Appl [A] Location - Spacing Unit - Simultaneous 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 - ☐ WFX ☐ PMX 🔀 SWD ☐		
[D] Other: Specify		
[2] NOTIFICATION REQUIRED TO: - Check Those Wh [A] Working, Royalty or Overriding Roy		* * *
[B] Offset Operators, Leaseholders or Su	ırface Owner	
[C] Application is One Which Requires 1	Published Legal N	otice
[D] Notification and/or Concurrent Appr U.S. Bureau of Land Management - Commissioner of Pub	oval by BLM or S	LO
[E] For all of the above, Proof of Notification		
[F] Waivers are Attached		
[3] SUBMIT ACCURATE AND COMPLETE INFORMATOR OF APPLICATION INDICATED ABOVE.	TION REQUIRE	D TO PROCESS THE TYPE
4] CERTIFICATION: I hereby certify that the information approval is accurate and complete to the best of my knowledge. I application until the required information and notifications are sub-	also understand th	hat no action will be taken on this
Note: Statement must be completed by an individual with		upervisory capacity.
Kurt Fagrelius Print or Type Name Signature Signature	Geology Title	6-02-2005 Date
- .		@duganproduction.com

e-mail Address

Dugan Production Corp.

Herry Monster SWD #3

General Information

Dugan Production Corp. is hereby, making application for administrative approval to dispose of produced water by underground injection. The proposed disposal site is the Herry Monster SWD #3 well, located 1980' FNL & 1700' FWL, Sec. 11, Twn. 24N, Rng. 11W, San Juan Co., NM. Produced water will be injected into the Entrada Sandstone between 6893' and 7105'. The maximum injection pressure will be 1375 psi and the maximum injection rate will be 6,000 barrels of water daily.

The well will be a new drill for the purpose of salt water disposal. The permit to drill has been approved and a drilling rig is scheduled to begin drilling on September 9, 2005. Upon approval of this application, an injection test will be conducted. If adequate rates are not found, it may be necessary to stimulate the proposed injection zone or perforate additional zones in the well.

Any change to the plans contained herein, will be approved by the New Mexico Oil Conservation Division prior to implementation.

30-045-33217 Dugan Production Corp.

Herry Monster SWD #3

Part III. Well Data

A. Tabular Information

1. Name:

Herry Monster SWD #3

Location:

1980' FNL & 1700' FWL Sec. 11, T24N, R11W

San Juan Co., NM

2. Surface Casing:

8-5/8" 24#, J-55 set @ 320'. Cemented with 200-

cu.ft. Circulate cement to surface.

Hole size -12-1/4".

Production Casing: 5-1/2" 17#, N-80 and 15.5# J-55 set @ 7105'.

Cement in three stages with stage tools at 3820' and 1450' using 1150 cu.ft. in first stage, 840 cu.ft in second stage and 510 cu.ft in third stage. Circulate

cement to surface on third stage.

Hole size -7-7/8".

3. Injection Tubing: 2-7/8", EUE, 4.7#, plastic lined tubing.

4. Packer:

Baker Model AD-1 tension packer, plastic lined,

will be set at 6843' or 50' above the upper most

perforation.

B. Additional Information

- 1. Injection Interval: Entrada Sandstone.
- 2. The injection interval (Entrada 6893' 7105') will be perforated.
- 3. The well (Herry Monster SWD #3) will be drilled for the purpose of injection.
- 4. Only the injection interval is to be perforated.
- 5. Fruitland Coal / Pictured Cliffs Sandstone Approx. 1,290'. Gallup Sandstone – Approx. 4568'.

INJECTION WELL DATA SHEET

OPERATOR: Dugan Production Corp.

VELL NAME & NIIMBER	IMRER. Herry Monster SWD #3				
VELL LOCATION:	1980' FNL and 1700' FWL	71	11	24N	11W
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
<u>WE</u>	WELLBORE SCHEMATIC		WELL CONST! Surface Casing	WELL CONSTRUCTION DATA Surface Casing	Z
		Hole Size: 12-1/4"	=	Casing Size: 8-	8-5/8"
		Cemented with: 145	SX.	or 2	200 n³
	8-5/8" 24# Casing Set @ 320' TOC @ Surface	Top of Cement: Sur	Surface	Method Determined: Will	Will Circulate
	Stage Tool @ 1450'		Intermediate Casing	e Casing	
	Stage Tool @ 3820'	Hole Size:		Casing Size:	
<u> </u>	Internal Plastic Coated	Cemented with:	SX.	or	ft ³
	2-//8", 0.4# EUE (UDING	Top of Cement:		Method Determined:	i:
			Production Casing	Casing	
	Baker Model AD-1 Tension Packer Set @ 6843'	Hole Size: 7-7/8"		Casing Size: 5-	5-1/2*
<u> </u>	5-1/2", 17# and 15.5# Casing	Cemented with: 1175	75 sx.	or 2500	ft ³
	Set @ /IU5' IUC Surface	Top of Cement: Sur	Surface	Method Determined	Method Determined: Will Circulate
	Pertorate 6893' - /105'.	Total Depth: 7105	5-		
			Injection Interval	Interval	
		Perforate 6893	3 feet	to 7105'	
	Total Depth 7105'	€			

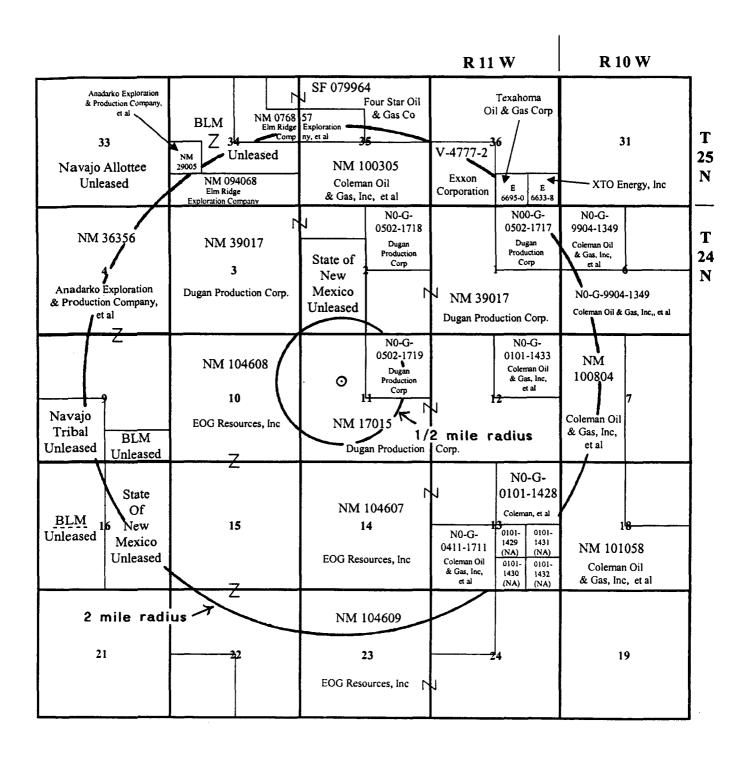
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(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

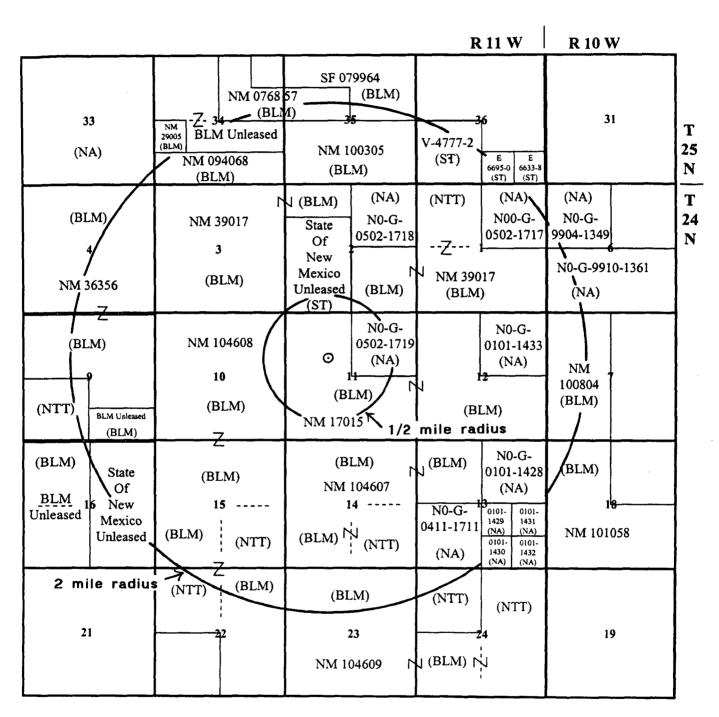
Gallup Sandstone - Approx. 4568'.	
Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Fruitland Coal / Pictured Cliffs - Approx. 1,290'.	S
be drilled for purpose of injection into Entrada, no other zones will be perf'd.	
Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) usedNew well, will	4.
Name of Field or Pool (if applicable): Not applicable	س
Name of the Injection Formation: Entrada Sandstone	2.
If no, for what purpose was the well originally drilled?	
Is this a new well drilled for injection? XX YesNo	-
Additional Data	
Other Type of Tubing/Casing Seal (if applicable):	0
Packer Setting Depth: 6843' (50' above upper most perforation)	77
Type of Packer: Baker model AD-1 set in tension (5-1/2")	H
Tubing Size: 2-7/8" Lining Material: Plastic	Ħ

Part Va. Lease Owner Map



Dugan Production Corp.
Herry Monster SWD #3
Sec. 11, T24N, R11W
1980' FNL and 1700' FWL
San Juan County, New Mexico
Salt Water Disposal Application

Part Vb. Surface Owner Map



Surface Ownership

(BLM) Bureau of Land Management

(ST) State of New Mexico

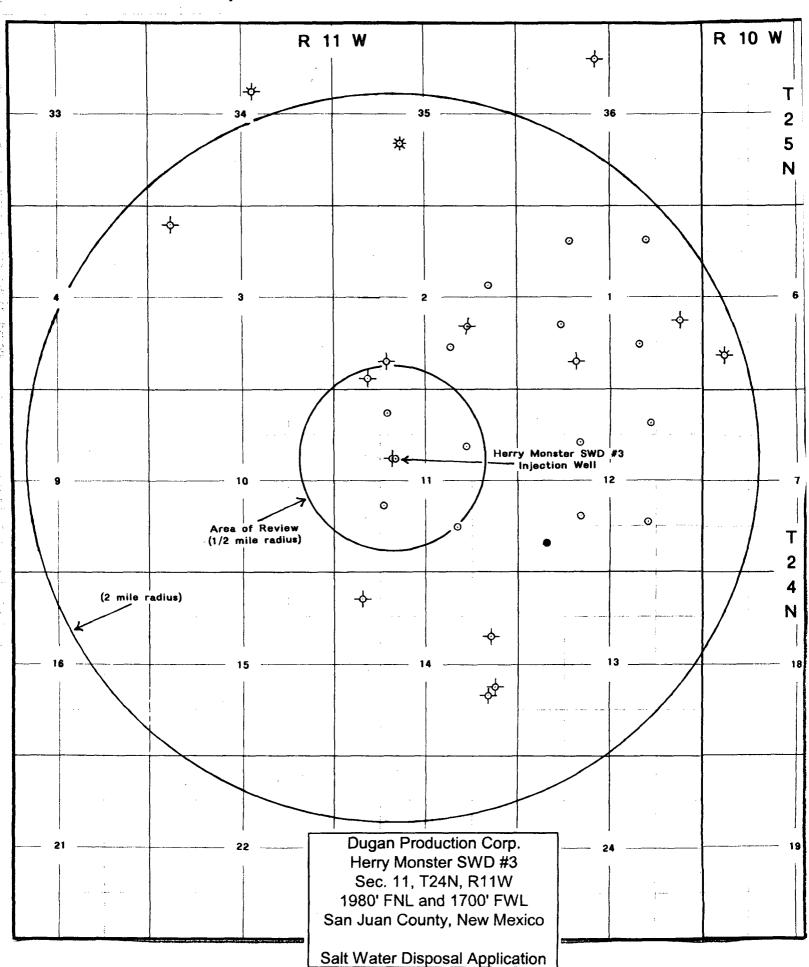
(NTT) Navajo Tribal Trust (NA) Navajo Allottee/BIA

Herry Monster SWD #3
Sec. 11, T24N, R11W
1980' FNL and 1700' FWL
San Juan County, New Mexico

Dugan Production Corp.

Salt Water Disposal Application

Part Vc. Well Map



Dugan Production Corp.

Herry Monster SWD #3

Part VI. Data on offset wells

A tabulation of data on all existing, offset wells (shown on the Well Map Part Vc.) that highlights those wells that fall within the ½-mile area of review is presented on Attachment VIa. No wells within the area of review penetrate the proposed injection zone.

Attachment VIa. Tabulation of data on offset wells.

Dutan Production Corp., Herry Monster SWD #3, S.11, T24N, R8W

/90/E	I :	1980/S	- 1	11W	24N	14	1 WILDCAT GALLUP		GALLEGOS	PHILLIPS PETROLEUM CO
790/N		ם ם		11W	24N	14	1 WILDCAT CHACRA		OSCAR THE GROUCH	DUGAN PRODUCTION CORP
l 1500/S 1425/E	l 1500/S			11W	24N	12		91-S	HERRY MONSTER	DUGAN PRODUCTION CORP
K 1650/S 1800/W	~			11W	24N	12		91	HERRY MONSTER	DUGAN PRODUCTION CORP
/ A 660/N 1690/E	A			11W	24N	12)-S BASIN FRUITLAND COAL	90-S	KERMIT COM	DUGAN PRODUCTION CORP
/ F 1500/N 1800/W	ח			11W	24N	12	0 BASIN FRUITLAND COAL	90	KERMIT COM	DUGAN PRODUCTION CORP
/ M 790/S 790/W	Name of the second of the seco		-	11W	24N	12	1 BISTI LOWER GALLUP		HERRY MONSTER	DUGAN PRODUCTION CORP
/ O 1310/S 1725/E	0		and control	WILL	24N	11)-S BASIN FRUITLAND COAL	90-S	HERRY MONSTER	DUGAN PRODUCTION CORP
V K 1950/S 1400/W	*	~		110	24N	1	io 📑 BASIN FRUITLAND COAL 📡	90	HERRY MONSTER	DUGAN PRODUCTION CORP
N G 1635/N 1435/E	G	N G	2	1	24N	11	LS BASIN FRUITLAND COAL	90 - S	ELMO COM	DUGAN PRODUCTION CORP
W C 710/N 1520/W	C	W. C	٤	11W	24N	Ξ		90	ELMO COM	DUGAN PRODUCTION CORP
W F 1980/N 1650/W	T	W.F	Ξ	1	24N	=	BISTI LOWER GALLUP	3	HERRY MONSTER	DUGAN PRODUCTION CORP.
11W D 530/N 660/W	D		٤		24N	သ	1 WILDCAT GALLUP		GOV'T FANNIN	DAVIS OIL CO
W H 2295/N 805/E	Additional of the second secon		8	118	24N	2)-S BASIN FRUITLAND COAL	S-06	BERT COM	DUGAN PRODUCTION CORP
W O 1250/S 1900/E	0	- Aller	8	11W	24N	2	BASIN F	90	BERT COM	DUGAN PRODUCTION CORP
W N 790/S 1520/W	2		E		24N	2	BASIN F	-	MUPPET	DUGAN PRODUCTION CORP
W M 330/S 990/W	M		€.	1	24N	2	3 WILDCAT GALLUP	မ	MUPPET	DUGAN PRODUCTION CORP
V J 1850/S 1440/E	٦	< _	2	11W	24N	2	1 BASIN DAKOTA		MONUMENT	TENNECO OIL CO
/ O 1280/S 1790/E	0			11W	24N	_)-S BASIN FRUITLAND COAL	90-S	ERNIE COM	DUGAN PRODUCTION CORP
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C 1050/N 1490/W	C			11W	24N)-S BASIN FRUITLAND COAL	S-06	SESAMEE STREET	DUGAN PRODUCTION CORP
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N 800/S 1700/W		Z		11W	24N	The Act of the Control of the Contro	1 BASIN FRUITLAND COAL		SESAME STREET	DUGAN PRODUCTION CORP
1 2010/S 660/E	l 2010/S	-		11W	24N	4	1 WILDCAT GALLUP	_	ELLIOTT B	CM&WDRILLINGCO
UL FTAGE NS FTAGE EW	33741	<u>an</u>	40000	RGE	TWN	SEC	L NO POOL	WELL NO	WELL NAME	OPERATOR .

Attachment VIa. Tabulation of data on offset wells.

Dutan Production Corp., Herry Monster SWD #3, S.11, T24N, R8W

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Dugan Production Corp.

Herry Monster SWD #3

Part VII. Operations Plan

- 1. Average Injection Rate: 5,000 bwpd with a maximum of 6,000 bwpd.
- 2. The system will be closed.
- 3. Average Injection Pressure: 1200 psi and the maximum will be 1375psi.
- 4. The source of injected water will be produced water from Fruitland Coal (T24N, R11). Attachment VII-4a., VII-4b. and VII-4c. are analyses of the Fruitland Coal water in the immediate area The water to be injected is compatible with the water in the disposal zone.
- 5. Injection is for disposal purposes into a zone (Entrada Sandstone) that is not productive of oil or gas within one mile of the proposed injection well. An analysis of the disposal zone water is in not available.

Key Energy Services Water Analysis Result Form 708 S. Tucker, Farmington. NM. 87401

Office: (505) 325-4192 Fax: (505) 564-3524



Attachment VII-4a.

Operator:

Dugan Production

Sample Date:

March 22, 2005

Analysis Date:

April 1, 2005

Well :

Mary Lou 91

District:

Farmington

Formation:

Fruitland Coal

Requested by:

Kurt Fegrulis

County:

San Juan County, NM

Technician:

Ben Barela

County.

Sec. 32, T24N, R10W

Source:

Well

Depth:

1700' FNL & 1200' FEL

PHYSICAL AND CHEMICAL DETERMINATION

AT 68 Degrees F. SPECIFIC GRAVITY: 1.005 MAGNESIUM: 10 ppm pH: 6.8 CALCIUM: 40 ppm RESISTIVITY: 10.00 ohm/meter BICARBONATES: 1214 ppm IRON: 0 ppm CHLORIDES: 7164 ppm H2S: 0 mag SODIUM: 5040 ppm POTASSIUM: 17 ppm 13494 ppm TDS: SULFATES: 0.00 ppm

CaCO3 Scale Tendency = Remote CaSO4 Scale Tendency = Remote

REMARKS:

Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

Key Energy Services Water Analysis Result Form 708 S. Tucker, Farmington. NM. 87401

Office: (505) 325-4192 Fax: (505) 564-3524



Attachment VII-4b.

Operator:

Dugan Production

Sample Date:

March 22, 2005

Analysis Date:

April 1, 2005

Well

SOB 915

District:

Farmington

Formation:

Fruitland Coal

Requested by:

Kurt Fegrulis

County:

San Juan County, NM

Technician:

Ben Barela

Well

Depth:

Sec. 6, T24N, R9W 1850' FNL & 1850' FEL

Source:

PHYSICA			MICAL	DEIERMINA	1101	<u> </u>	
SPECIFIC GRAVI	TY: 1.6	20 AT 6	38 Degrees F.				
pH:	6.5			MAGNESIUM:	14	ppm	
RESISTIVITY:	0.36 oh	m/meter		CALCIUM:	47	ppm	
IRON:	0	ppm		BICARBONATES:	359	ppm	
H2S:	0	ppm		CHLORIDES:	12549	ppm	
POTASSIUM:	140	ppm		SODIUM:	8191	ppm	
SULFATES:	0.00	ppm		TDS:	21301	ppm	
							

CaCO3 Scale Tendency = Remote CaSO4 Scale Tendency = Remote

REMARKS:

Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

Key Energy Services Water Analysis Result Form 708 S. Tucker, Farmington. NM. 87401

Office: (505) 325-4192 Fax: (505) 564-3524



Attachment VII-4c.

Operator.

Dugan Production

Sample Date:

March 22, 2005

Analysis Date:

April 1, 2005

Well

SOB 91

District:

Fermington

Formation:

Fruitland Coal

Requested by:

Kurt Fearulis

County:

San Juan County, NM

Technician:

Ben Barela

Sec. 6, T24N, R9W

Source:

Well

Depth:

790' FSL & 790' FEL

PHYSICAL AND CHEMICAL DETERMINATION

1,015 AT 68 Degrees F. SPECIFIC GRAVITY:

pH: RESISTIVITY:

MAGNESIUM:

19 ppm

0.50 ohm/meter

CALCIUM:

47 ppm

IRON:

0 ppm **BICARBONATES:**

1202 ppm

H2S: POTASSIUM:

0 ppm 580

CHLORIDES: SODIUM: 14187 ppm 9563 ppm

SULFATES:

0.00

ppm ppm

TDS:

25600 ppm

CaCO3 Scale Tendency = Remote CaSO4 Scale Tendency = Remote

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Dugan Production Corp.

Herry Monster SWD #3

Part VIII. Geologic Data

The proposed injection interval is the Entrada Sandstone from approximately 6893 – 7105 feet. The Ojo Alamo is a known source of stock water and is encountered at a depth of approximately 330' in the area. There are no known drinking water sources below the Mesaverde interval. The expected formations tops in the well are as follows:

Sam Jose / Nacimiento	Surface	Gallup	4765'
Ojo Alamo	330'	Greenhorn	5605'
Kirtland Sh.	428'	Graneros	5655'
Fruitland Fmt.	989'	Dakota	5720'
Pictured Cliffs Ss.	1290'	Morrison	5930'
Lewis Sh.	1399'	Bluff	6530°
Cliff House Ss.	2040'	Todilto	6870'
Menefee	2179'	Entrada	6893'
Point Lookout	3720'	Total Depth	7105'
Mancos	3850'	•	

Part IX. Stimulation Program

Following injection rate tests, it may be necessary to stimulate the Entrada Sandstone by acidizing or fracturing.

Part X. Logging and Test Data

All logs and test data for the injection well will be submitted to the New Mexico Oil Conservation Division in Aztec, NM.

Part XI. Fresh Water Samples

A records search of water wells located within one mile of the proposed disposal well was conducted. No water wells were found to exist.

Dugan Production Corp.

Herry Monster SWD #3

Part XII. Statement of Geologic and Engineering Data

I have examined all available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

Kurt Fagrelius, Geologist

September 2, 2005

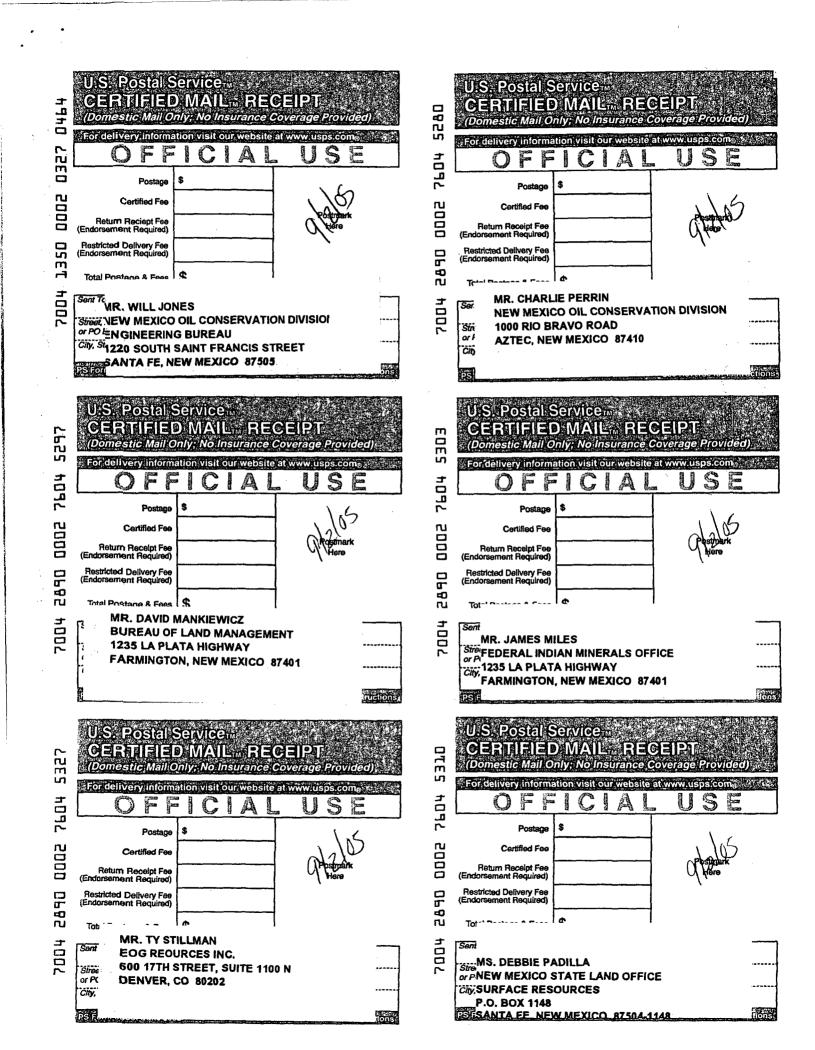
Date

Dugan Production Corp.

Herry Monster SWD #3

Part XIII. Proof of Notice

Attached are proof's of notice that this application has been sent by certified mail, to the surface owner of the land which the injection well is to be located on and all leasehold operators within one-half mile of the well location. Also, proof of publication is enclosed showing the legal advertisement which was published in the Farmington Daily Times.



AFFIDAVIT OF PUBLICATION

Ad No. 52199

STATE OF NEW MEXICO County of San Juan:

CONNIE PRUITT, being duly sworn says: That she is the ADVERTISING 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, September 01, 2005.

And the cost of the publication is \$29.69.

ON 9/2/05 CONNIE PRUITT appeared before me, whom I know personally to be the person who signed the above document.

My Commission Expires November 17/2098.

COPY OF PUBLICATION



Dugan Production Corp., P.O. Box 420, Farmington, NM 87499 is making application for administrative approval to dispose of produced water by underground injection. Contact person is Kurt Fagrelius, phone 505-325-1821. The proposed disposal site is the Herry Monster SWD #3, located 1980 fnl & 1700 fwl, Sec. 11. Twn. 24N, Rng. 11W, San Juan Co., NM. Water will be injected into the Entrada Sandstone between 6893' and 7105' below the surface. Maximum injection rate is 3,000 barrels of water daily. Any interested parties must file objections or requests for hearing with the Oil Conservation Division 1220 South Saint Francis Drive, within 15 days.

Legal No. 52199 published in The Daily Times, Farmington, New Mexico on Thursday, September 1, 2005.

EXHIBIT B OPERATIONS PLAN

Herry Monster SWD #3

APPROXIMATE FORMATION TOPS:

Ojo Alamo	330′	Gallup	4765′
Kirtland	428'	Skelly	4840'
Fruitland	9891	Greenhorn	5605 ′
Pictured Cliffs	1290′	Graneros	5655′
Lewis	1399′	Dakota	5720 ′
Cliff House	2040'	Morrison	5930 <i>′</i>
Menefee	2179 <i>'</i>	Bluff	6530′
Point Lookout	3720 <i>′</i>	Todilto	6870′
Mancos	3850 '	Entrada	6893 ′
		Total Depth	7105'

LOGGING PROGRAM:

Run IES from total depth to surface and CDL over selected intervals.

CASING PROGRAM:

Hole	Casing		Setting	Grade and
Size	Size	Wt./ft.	Depth	Condition
12-1/4"	8-5/ 8"	24#	320'	J-55
7"	5-1/2"	15.5#	6000′	K-55
7"	5-1/2"	17#	7105′	K-55

Plan to drill a 12-1/4" hole and set 320' of 8-5/8" OD, 24#, K-55 surface casing. Then plan to drill a 7" hole to total depth with gel-water mud program. 5-1/2", 15.5# (surface to 6400') and 5-1/2", 17# (6400' to 7500') K-55 production casing will be run and cemented. Open hole IES and CDL logs will be run. Injection zone will be perforated and acidized. After completion, the well will be cleaned out and injection equipment will be installed.

CEMENTING PROGRAM:

Surface: Cement to surface with 200 cf Class B + 2% CaCl₂. Circulate to surface.

Production Stage-Cement with 1050 cf 2%Lodense with %# celloflake/sx followed by 550 cf Class "B" with %# celloflake/sx.

Total cement slurry for production stage is 1600 cf. Circulate cement to surface.