



STATE OF NEW MEXICO  
 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
 HOBBS DISTRICT OFFICE

9/9/99

GOVERNOR

POST OFFICE BOX 1980  
 HOBBS, NEW MEXICO 88241-1980  
 (505) 393-6161

OIL CONSERVATION DIVISION  
 P. O. BOX 2088  
 SANTA FE, NEW MEXICO 87501

RE: Proposed:

- MC \_\_\_\_\_
- DHC \_\_\_\_\_
- NSL \_\_\_\_\_
- NSP \_\_\_\_\_
- SWD \_\_\_\_\_
- WFX   X   \_\_\_\_\_
- PMX \_\_\_\_\_

Lease Name	No.	Ut.	Sec.	Twp.	Rge.	Footage
Anasazi "4"	3	J	4 20S	33E	1,650' FSL 1,980' FEL	
Scharbauer "4"	3	P	4 20S	33E	660' FSL 660' FEL	
Federal "9"	3	C	9 20S	33E	330' FNL 2,310' FWL	
Barber Federal	2	E	9 20S	33E	1,980' FNL 660' FWL	
Federal "9"	6	H	9 20S	33E	1,650' FNL 990' FEL	
State "BF"	4	A	16 20S	33E	330' FNL 330' FEL	

Gentlemen:

I have examined the application for the:

Falcon Creek Res. Inc

Operator

Lease & Well No. Unit

S-T-R

and my recommendations are as follows:

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Yours very truly,

*Chris Williams*

Chris Williams  
 Supervisor, District 1

/ed

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: X Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_ Disposal \_\_\_\_\_ Storage \_\_\_\_\_  
Application Qualifies for administrative approval? \_\_\_\_\_ Yes \_\_\_\_\_ X No \_\_\_\_\_

II. OPERATOR: Falcon Creek Resources, Inc.

ADDRESS: 621 17<sup>th</sup> Street, Suite 1800, Denver, Colorado 80293-0621

CONTACT PARTY: Joe Cox, Senior Engineer, 303-675-0007

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 X 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 injection 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 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 well, 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 water 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.

## 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 of 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, 2040 South Pacheco, 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 of offset operators must file any objections or request for hearing of administrative applications within 15 days from the date the application was mailed to them.

- 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: Joe H. Cox, Jr.

TITLE: Senior Engineer

SIGNATURE: 

DATE: August 19, 1999

- \* If the information required under Section 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: Completion Reports

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Falcon Creek Resources, Inc.  
 West Teas (Yates-Seven Rivers) Field, Lea County, NM  
 Application for Authorization to Inject  
 Injection Well Data, Section III, Form C-108

III. A.

Lease Name	No.	U.I.	Sec.	Twp.	Rge.	Footage	Surface Casing				Production Casing				Injection String and Packer							
							OD	Depth	Cement	Hole (in.)	Cmt. Top	Method	OD	Depth	Cmt. (sx)	Hole (in.)	Cmt. Top	Method	Size	Depth	Packer*	Depth
Anasazi "4"	3	J	4	20S	33E	1,650' FSL 1,980' FEL	8.625"	1,368'	710 sx	12.25"	Surface	Calc.	5.50"	3,550'	780 sx	7.875"	579'	Calc.	2.875"	3,130'	AD-1	3,130'
Scharbauer "4"	3	P	4	20S	33E	660' FSL 660' FEL	8.625"	1,354'	700 sx	12.25"	Surface	Calc.	4.50"	3,373'	815 sx	7.875"	70'	Temp.	2.375"	3,000'	AD-1	3,000'
Federal "9"	3	C	9	20S	33E	330' FNL 2,310' FWL	8.625"	1,300'	540 sx	12.25"	Surface	Report	5.50"	3,320'	580 sx	7.875"	Surface	Report	2.375"	3,050'	AD-1	3,050'
Barber Federal	2	E	9	20S	33E	1,980' FNL 660' FWL	8.625"	1,256'	700 sx	12.25"	Surface	Report	4.50"	3,400'	750 sx	7.875"	Surface	Report	2.375"	3,030'	AD-1	3,030'
Federal "9"	6	H	9	20S	33E	1,650' FNL 990' FEL	8.625"	1,320'	540 sx	12.25"	Surface	Report	5.50"	3,358'	785 sx	7.875"	Surface	Report	2.875"	2,950'	AD-1	2,950'
State "BF"	4	A	16	20S	33E	330' FNL 330' FEL	9.625"	1,115'	440 sx	12.25"	Surface	Report	5.50"	3,465'	635 sx	7.875"	Surface	Report	2.875"	3,050'	AD-1	3,050'

\*Note: Packers are to be Baker model "AD-1" or equivalent

III. B.

Lease Name	No.	U.I.	Sec.	Twp.	Rge.	Footage	Name	Injection Interval	Perf/OH	Original Purpose	Other Intervals	Isolation Method
Anasazi "4"	3	J	4	20S	33E	1,650' FSL 1,980' FEL	Yates	3,230-3,292'	Perf	Prod.	None	N/A
							Yates	3,296-3,426*	Perf	Injection*		
Scharbauer "4"	3	P	4	20S	33E	660' FSL 660' FEL	Yates	3,104-3,388'	Perf	Prod.	None	N/A
							Yates	3,263-3,279'	Perf	Prod.		
							Yates	3,248-3,312*	Perf	Injection*		
Federal "9"	3	C	9	20S	33E	330' FNL 2,310' FWL	Yates	3,161-3,252'	Perf	Prod.	None	N/A
							Yates	3,147-3,154*	Perf	Injection*		
							Yates	3,299-3,409**	Perf	Injection*		
Barber Federal	2	E	9	20S	33E	1,980' FNL 660' FWL	Yates	3,138-3,219'	Perf	Prod.	None	N/A
							Yates	3,299-3,374*	Perf	Injection*		
Federal "9"	6	H	9	20S	33E	1,650' FNL 990' FEL	Yates	3,060-3,176'	Perf	Prod.		
							Yates	3,194-3,260*	Perf	Injection*		
							Seven Rivers		Perf	Prod.	3,285-3,300'	Proposed CIBP at 3,275' topped with approx 5 sx cement to isolate Seven Rivers interval from injection
State "BF"	4	A	16	20S	33E	330' FNL 330' FEL	Yates	3,160-3,294'	Perf	Prod.		
							Yates	3,150-3,156*	Perf	Injection*		
							Yates	3,350-3,394*	Perf	Injection*		
							Seven Rivers		Perf	Prod.	3,374-3,394'	CIBP set at 3,365' to isolate Seven Rivers

\*Note: Additional perforations planned for injection

\*\*Note: Federal "9" #3 is planned to be deepened into additional Yates interval, cased and perforated for injection

III. B. (5) Other Producing Intervals In Area

No zones shallower than the Yates have been productive in the field area. Historically productive deeper zones include Bone Springs and Morrow intervals at approximately 9,300' and 13,300' respectively. The only currently productive deeper interval is the Morrow in the Anasazi "9" Federal #1 in the SW/4 SE/4 of section 9, T20S R33E (13,289-13,428').