

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: X Secondary Recovery          Pressure Maintenance          Disposal X Storage           
Application Qualifies for administrative approval?          Yes          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.

- 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

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DISTRIBUTION: 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 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.



Lease Name				Surface Casing				Production Casing				Injection Siring and Packer								
No.	Ut.	Sec.	Twp.	Rge.	Footage	OD	Depth	Cement	Hole (in.)	Cmt. Top	Method	OD	Depth	Cmt. (in.)	Cmt. Top	Method	Size	Depth	Packer*	Depth
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	579'	Calc.	2.875"	3,130'	AD-1	3,130'
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	70'	Temp.	2.375"	3,000'	AD-1	3,000'
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	Surface	Report	2.375"	3,050'	AD-1	3,050'
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	Surface	Report	2.375"	3,030'	AD-1	3,030'
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	Surface	Report	2.875"	2,950'	AD-1	2,950'
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	Surface	Report	2.875"	3,050'	AD-1	3,050'

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

Lease Name	No.	Utl.	Sec.	Twp.	Rge.	Footage	Injection		Perf/OH	Original Purpose	Other Intervals	Isolation Method
							Name	Interval				
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	3,104-3,88'	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' to isolate Seven Rivers interval
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 interval

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

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# Falcon Creek Resources, Inc.

**Proposed Injector**  
Anasazi "4" State #3  
Bass Enterprises Prod. Co.  
West Teas Field  
"J" Section 4, T20S, R33E  
Lea County, New Mexico  
GL: 3,556'; KB 3,573'

## Initial Completion

Spud well 11-08-94

Perf Yates from 3230'-3292'

IPP: 41 BOPD; 27 BWPD, 15 MCFD

Cement circulated was estimated by calculations.

12-1/4" Hole  
1,368' - 8-5/8" Casing,  
cmt to surface w/710 sx

2-7/8" EUE J-55 Tubing

Proposed Baker AD-1 pkr Set @ approx. 3,130'

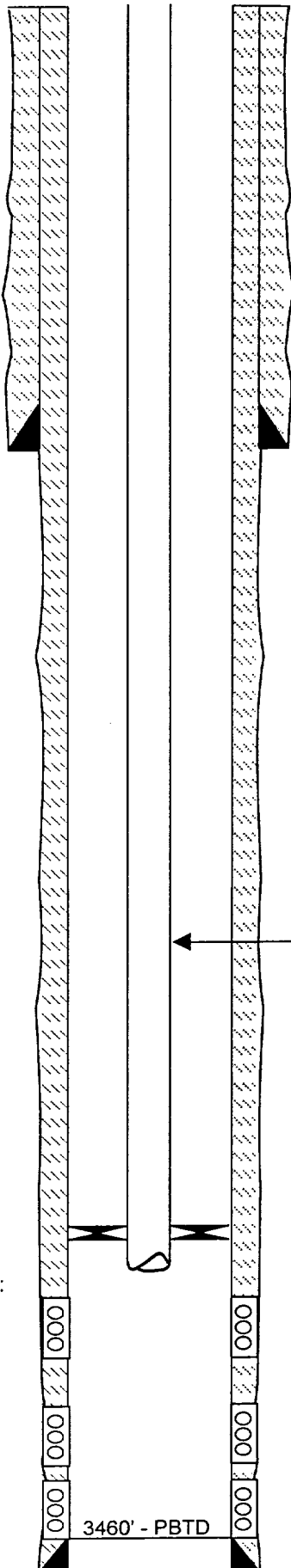
Yates 1 Perfs:  
3,230' - 3,292'

Proposed  
Yates 1 Perfs:  
3,296' - 3,300'  
3,307' - 3,311'  
3,316' - 3,319'

Proposed  
Yates 3 Perfs  
3,388'-3,400'  
3,406'-3,426'

Est 7-7/8" Hole  
3,550' - 5-1/2" Casing, cmt w/780 sx Class  
Cmt to surface, circ approx 301 cu ft

3460' - PBTD



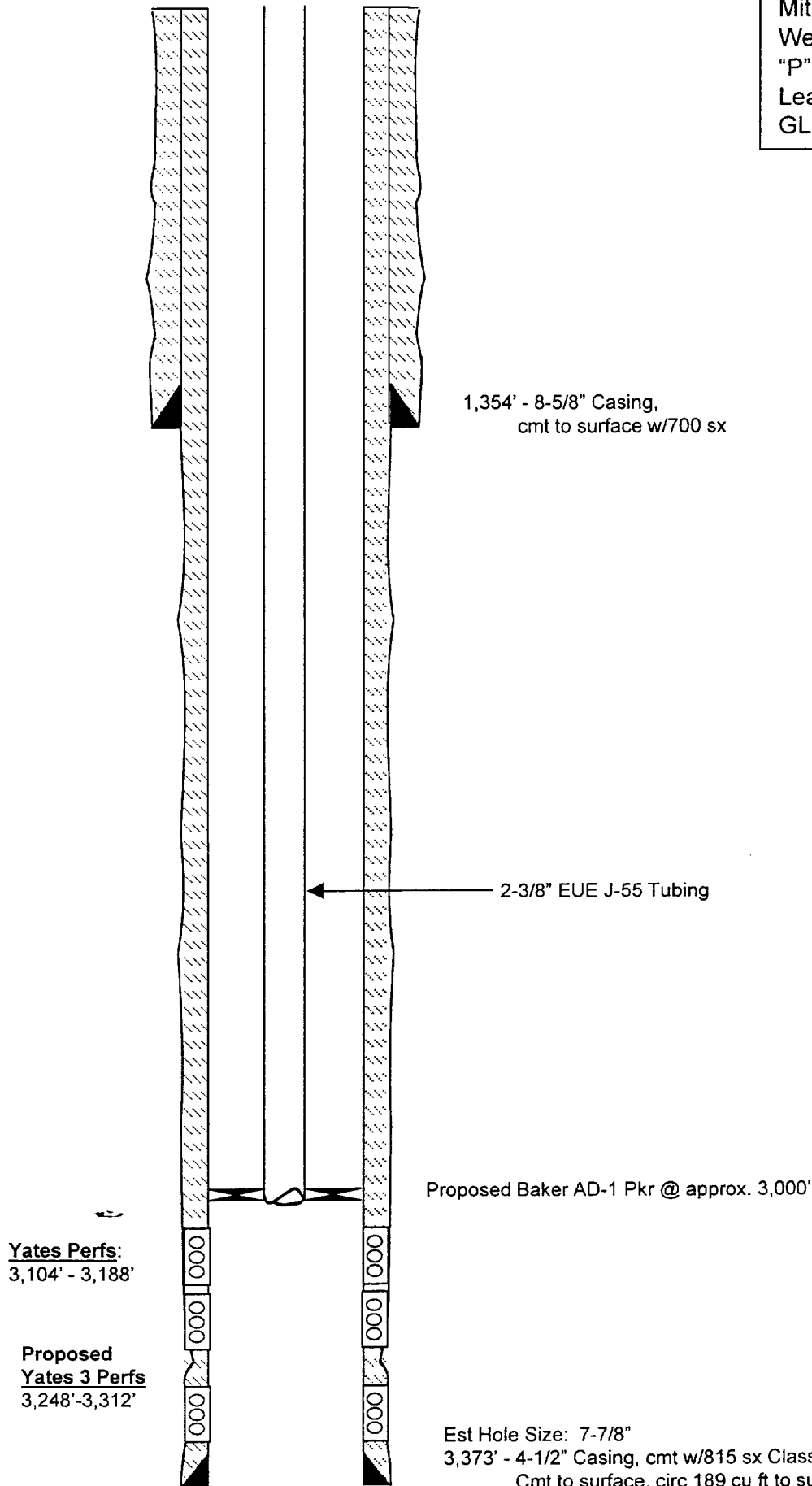
# Falcon Creek Resources, Inc.

**Proposed Injector**  
Scharbauer "4" #3  
Mitchell Energy  
West Teas Field  
"P" Section 4, T20S, R33E  
Lea County, New Mexico  
GL: 3,560'; KB 3,570'

## Initial Completion

Spud well 9-7-95  
Perf Yates from 3263'-3279'  
Acidize w/ 2000 gal 7.5% NeFe  
Swabbed .18 BO, 24 BW  
Set CIBP @ 3230'  
Perf Yates from 3104'-3188'  
Acidize w/ 3000 gal 7.5% NeFe  
Frac w/ 37016 gal 150,580 # sd  
IPP: 98 BOPD; 10 MCFD

All Cement Information is Estimated  
by Calculations



# Falcon Creek Resources, Inc.

## Proposed Injector

Federal 9 #3

Falcon Creek Resources

West Teas Field

"C" Section 9, T20S, R33E

Lea County, New Mexico

GL: 3,557'; KB: 3,559'

## Initial Completion

Spud well 5-28-93

Perf Yates Zone 1

@ 3161'-3252' (22 Holes)

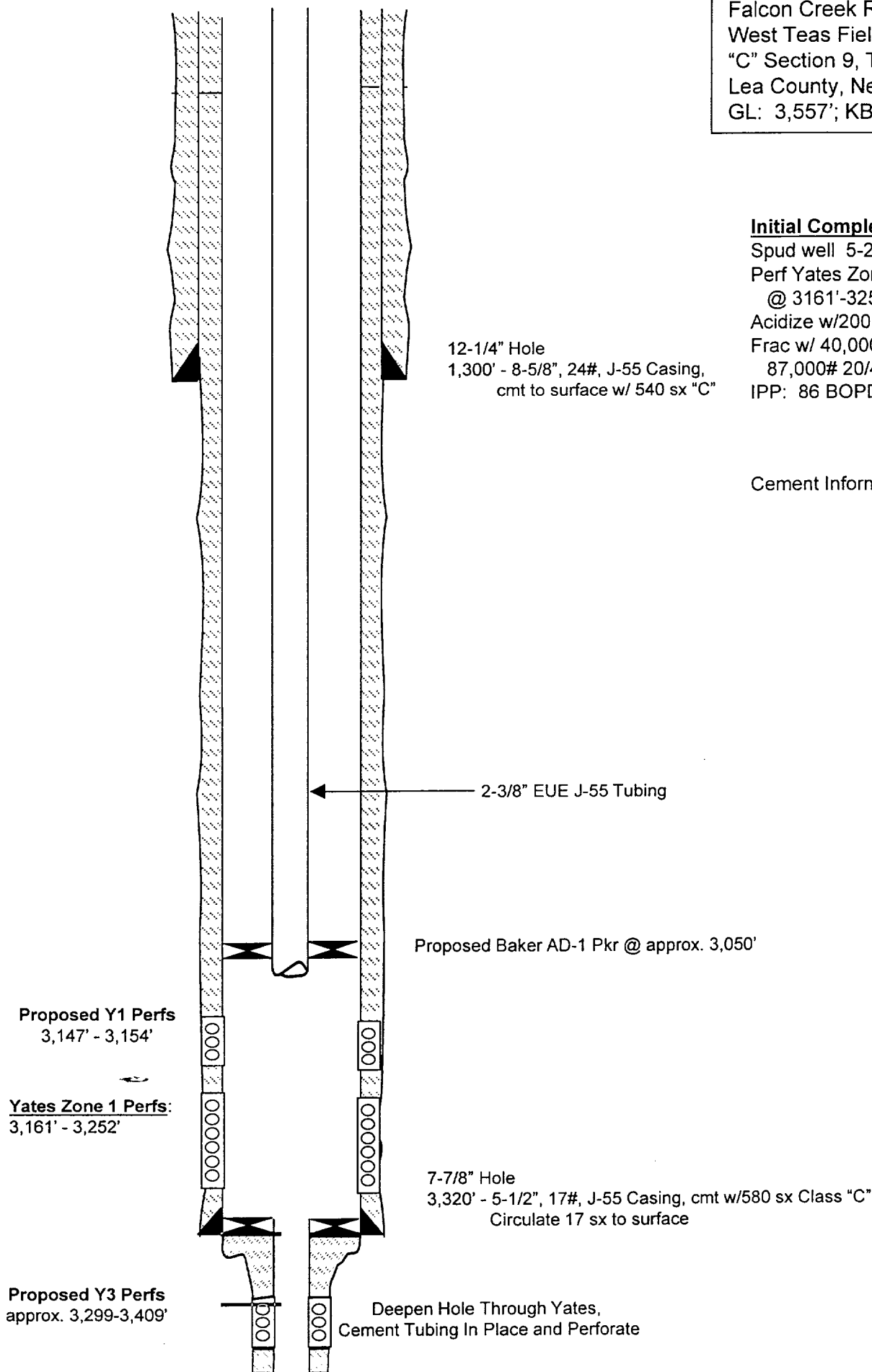
Acidize w/2000 gals 20% HCl

Frac w/ 40,000 gal gel &

87,000# 20/40 sd

IPP: 86 BOPD, 35 MCFD, 22 BWPD

Cement Information is from State Reports



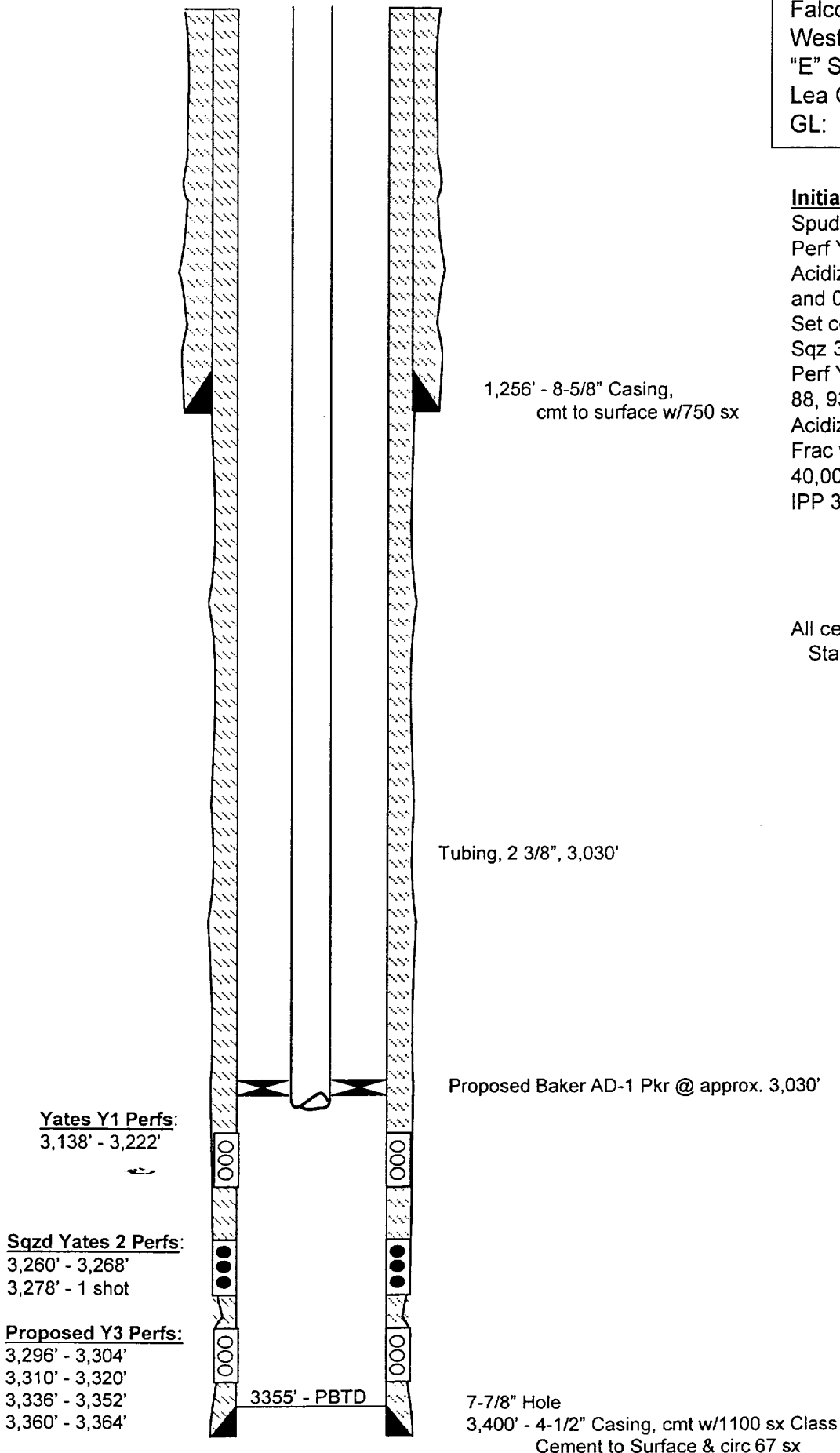
# Falcon Creek Resources, Inc.

**Proposed Injector**  
Barber Federal #2  
Falcon Creek Resources  
West Teas Field  
"E" Section 9, T20S, R33E  
Lea County, New Mexico  
GL: 3,555'; KB: 3,565'

## Initial Completion

Spud well 8-24-87  
Perf Y2 3,260, 64, 66, 68 & 3,278' 2 SPF  
Acidize w/ 750 gals 15% NeFe, swab load  
and 0.3 Bbl/HR 8-10% oil  
Set cement retainer @ 3,250'  
Sqz 3,260-3,278' w/ 50 sx  
Perf Y1 3,138, 41, 44, 52, 55, 59, 63, 66,  
88, 93, 3202, 08, 16, 22' 1 SPF (14 holes)  
Acidize w/ 1,000 gal 15% NeFe  
Frac w/ 33,988 gal 50% CO<sub>2</sub> foam,  
40,000# 20/40, 28,000# 10/20  
IPP 35 BOPD 40 BWPD

All cement information was from  
State Sundry Notices





# Falcon Creek Resources, Inc.

## Proposed Injector

Federal 9 #6

Falcon Creek Resources, Inc.

West Teas Field

1,650' FNL 990' FEL

"H" Section 9, T20S, R33E

Lea County, New Mexico

GL: 3,551'; KB: 3,562'

## Initial Completion

Spud well 5-16-94

Perf Seven Rivers @ 3285'-3288' 4 JSPF

Acidize w/1000 gals 15% NeFe

Perf Seven Rivers from 3288'-3300' 1 JSPF

Acidize w/1000 gals 15% NeFe

Set CIBP @ 3270'

Perf Yates Y1 & Y2 3060'-3176' 2 JSPF

Acidize w/2500 gals 15% NeFe

Frac w/ 42,000 gal xlink gel &

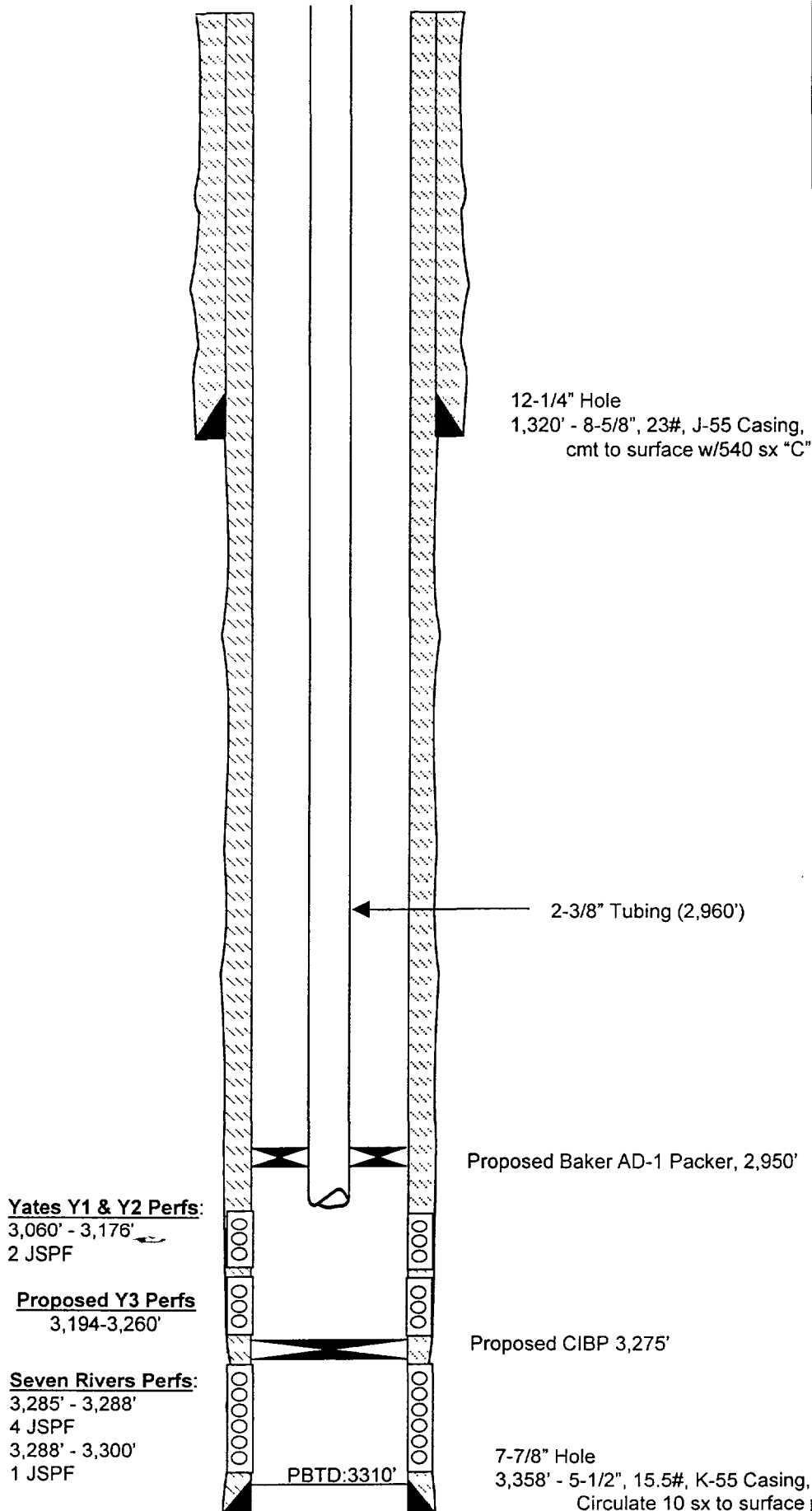
133,000# of 12/20 sd.

IPP: 97 BO, 14 BW, 1 MCF

**10/96**

CIBP recovered and bailed out hole to  
3,310' (add 7 Rivers)

Cement Information is from State Reports



# Falcon Creek Resources, Inc.

## Proposed Injector

State BF #4

Falcon Creek Resources

West Teas Field

"A" Section 16, T20S, R33E

Lea County, New Mexico

GL: 3,552'; KB: 3,557'

## Initial Completion

Spud well 11-17-95

Perf Yates Y3 3374'-3,394'

Acidize w/ 1500 gals 15% NeFe

Set CIBP 3365'

Perf Y1 & Y2 @ 3160'-3294'

Acidize w/ 1500 gals 15% NeFe

Frac w/ 98,000# 12/20 sd & 786 bbls

Borate gel.

Install Rods and Pump

IPP: 6 BO, 6 MCF, 50 BW (11% oil)

**1/98**

Acidize w/1000 gals 15% NeFe acid

**1/26/98**

A step injection rate test was conducted and seems to be permitted for SWD well.

Cement Information is from State Reports

## Proposed Y1 Perfs

3,150-3,156'

## Yates Y1 & Y2 Perfs:

3,160' - 3,294'

23 holes

## Proposed

## Yates Y3 Perfs:

3,350' - 3,352'

3,358' - 3,361'

## Yates Y3 Perfs:

3,374' - 3,394'

w 2 JSPF - 40 holes

12-1/4" Hole

1,115' - 9-5/8", 36.4#, Casing,  
cmt to surface w/ 440 sx "C"

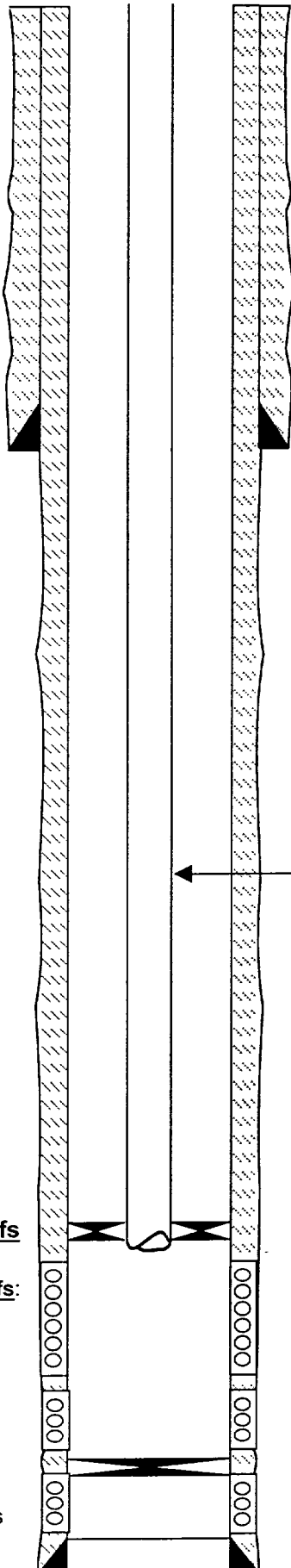
2-7/8" EUE J-55 Tubing

Proposed Baker AD-1 Pkr @ approx. 3,050'

3,365' - CIBP

7-7/8" Hole

3,465' - 5-1/2", 17# Casing, cmt w/635 sx Class "C"  
Circulate 50 sx to surface





**Falcon Creek Resources, Inc.**  
Tabulation of Data on Wells In Review Area  
Application for Authorization to Inject

VI.

Operator	Lease/Well	Status	Location	Spud Date	Drilled TD PBD	Surface Casing			Production Casing			Producing Perforations
						Size	Depth	Cement	Size	Depth	Cement	
McGrath & Smith	Trigg Federal #1	D&A	M, 3-T20S-R33E	1/29/57	3435'							
Bass Enterprises Prod. Co.	Anasazi 4 State #3	Prod.	J, 4-T20S-R33E	11/8/94	3550'	8-5/8"	1368'	710 sx "C"	5-1/2"	3550'	780 sx "C"	3230'-3292' (Yates)
L.S. & R. Petroleum Co.	Bass-State #1	Oil					All casing has been pulled from well					
Mitchell Energy	Scharbauer "4" #1	Prod.	M, 4-T20S-R33E	5/30/63	3410'	12-1/2"	219'	125 sx "C"	8-5/8"	8-5/8" & 10" Pulled at Abandonment	885 sx	3,156'-3,273' (Yates)
		Oil	O, 4-T20S-R33E	Apr-93	13,720'	13-3/8"	2,950'	2,207 sx	8-5/8"	5,382'		
Mitchell Energy	Scharbauer 4 #3	Prod.	P, 4-T20S,R33E	9/7/95	3230'	8-5/8"	1354'	700 sx "C"	4-1/2"	3373'	815 sx "C"	3104'-3188' (Yates)
		Oil										
Falcon Creek Resources, Inc.	Federal "9" #5	Prod.	A, 9-T20S-R33E	4/2/94	3384'	8-5/8"	1320'	680 sx "C"	5-1/2"	3384'	685 sx "C"	3076'-3158' (Yates)
		Oil										
Falcon Creek Resources, Inc.	Federal "9" #2	Prod.	B, 9-T20S-R33E	10/7/92	3311'	8-5/8"	1300'	640 sx "C"	5-1/2"	3311'	475 sx "C"	3062'-3308' (Yates)
		Oil										
Falcon Creek Resources, Inc.	Federal "9" #3	Prod.	C, 9-T20S-R33E	5/28/93	3320'	8-5/8"	1300'	540 sx "C"	5-1/2"	3320'	580 sx "C"	3161'-3252' (Yates)
		Oil										
Falcon Creek Resources, Inc.	Barber Federal #2	Prod.	E, 9-T20S-R33E	8/24/87	3400'	8-5/8"	1256'	600 sx "C"	4-1/2"	3400'	750 sx "C"	3138'-3278' (Yates)
		Oil										
Falcon Creek Resources, Inc.	Barber Federal #1	Prod.	F, 9-T20S-R33E	4/29/87	3404'	8-5/8"	1261'	650 sx "C"	4-1/2"	3400'	950 sx "C"	3092'-3147' (Yates)
		Oil										
Falcon Creek Resources, Inc.	Federal "9" #1	Prod.	G, 9-T20S-R33E	11/10/90	3445'	8-5/8"	1243'	450 sx "C"	5-1/2"	3445'	775 sx "C"	3042'-3257' (Yates)
		Oil										
Mitchell Energy	Anasazi 9 Fed #1	Prod.	G, 9-T20S-R33E	5/12/92	13779'	13-3/8"	2947'	2350 sx "C"	8-5/8"	5272'	1250 sx "C"	13289'-13428' (Morrow)
		Gas										
Falcon Creek Resources, Inc.	Federal "9" #6	Prod.	H, 9-T20S-R33E	5/16/94	3,378'	8-5/8"	1,320'	540 sx "C"	5-1/2"	3,358'	785 sx "C"	3,060'-3,300' (Yates-Seven R.)
		Oil			3,310'							

Operator	Lease/Well	Status	Location	Spud Date	Drilled TD PBD	Surface Casing			Production Casing			Producing Perforations
						Size	Depth	Cement	Size	Depth	Cement	
Falcon Creek Resources, Inc.	Federal "9" #7	Prod. Oil	I, 9-T20S-R33E	8/28/95	3358'	8-5/8"	1310'	800 sx "C"	5-1/2"	3358'	635 sx "C"	3270'-3227' (Seven Rivers)
Falcon Creek Resources, Inc.	Grover Federal #3	Prod. Oil	J, 9-T20S-R33E	2/26/88	3,425'	8-5/8"	1,218'	750 sx	4-1/2"	3,420'	650 sx	3,022-3,100' (Yates)
Falcon Creek Resources, Inc.	Grover Federal #1	Prod. Oil	K, 9-T20S-R33E	2/16/87	3400'	8-5/8"	1265'	750 sx "C"	4-1/2"	3398'	90 sx "C"	3154'-3180' (Yates)
Falcon Creek Resources, Inc.	Grover Federal #2	Prod. Oil	L, 9-T20S-R33E	11/12/87	3400'	8-5/8"	1256'	750 sx "C"	4-1/2"	3400'	1100 sx "C"	3217'-3239' (Yates)
Grover-McKinney Oil Co.	Grover Federal #4	D&A	M, 9-T20S-R33E	3/2/88	3400'	8-5/8"	1252'	700 sx "C"	Well has been plugged			
Atlantic Richfield Co.	Lea 6015 Fed #1	D&A	O, 9-T20S-R33E	4/3/60	3300'	9-5/8"	1357'	450 sx "C"	7"	3022'	450 sx "C"	3054'-3264' (Yates)
									5"	3300'	50 sx "C"	
Falcon Creek Resources, Inc.	Federal 9 #8	Prod. Oil	P, 9-T20S-R33E	7/12/96	3462'	8-5/8"	1313'	800 sx "C"	5-1/2"	3462'	610 sx "C"	3116'-3144' (Yates)
Falcon Creek Resources, Inc.	State BF #4	SI Oil	A, 16-T20S-R33E	11/17/95	3470'	12-1/4"	1115'	440 sx "C"	5-1/2"	3465'	635 sx "C"	3160'-3294'
Sinclair Oil & Gas	Lea 886 State #2	P&A	B, 16-T20S-R33E	2/26/60	3360'	9-5/8"	1308'	914 sx "C"	Well has been plugged			
Falcon Creek Resources, Inc.	Conoco St. #1	Prod. Oil	C, 16-T20S-R33E	7/23/96	3311'	8-5/8"	1313'	800 sx "C"	5-1/2"	3,311'	610 sx "C"	3205'-3215' (Seven Rivers)
Falcon Creek Resources, Inc.	Anasazi "16" State Com. #1	SWD	G, 16-T20S-R33E	5/28/93	13858'	20"	497'	600 sx "C"	8-5/8"	5299'	700 sx "C"	5554'-5684'
Falcon Creek Resources, Inc.	State BF #1	P&A Oil	G, 16-T20S-R33E		3275'	13-3/8"	2964'	1850 sx "C"	5-1/2"	13858'	1200 sx "C"	
Olsen Energy	Snyder State 1 (Olsen)	D&A	H, 16-T20S-R33E	2/22/89	3429'	9-5/8"	1245'		5-1/2"	3275'	50 sx "C"	2989'-3212'
Knox, Gordon & Assoc.	Tenneco Federal #1	D&A	F, 20-T20S-R33E	12/31/63	3,418'	7"	2970'	800 sx "C"	Well has been plugged			
						8-5/8"	1259'	640 sx "C"	7" & 4-1/2" Casing Pulled at Abandonment			

# Falcon Creek Resources, Inc.

Trigg Federal #1  
McGrath & Smith  
West Teas Field  
660' FSL 660' FWL  
"M" Section 3, T20S, R33E  
Lea County, New Mexico  
GL: 3,553'; KB: 3,568'

### Initial Completion

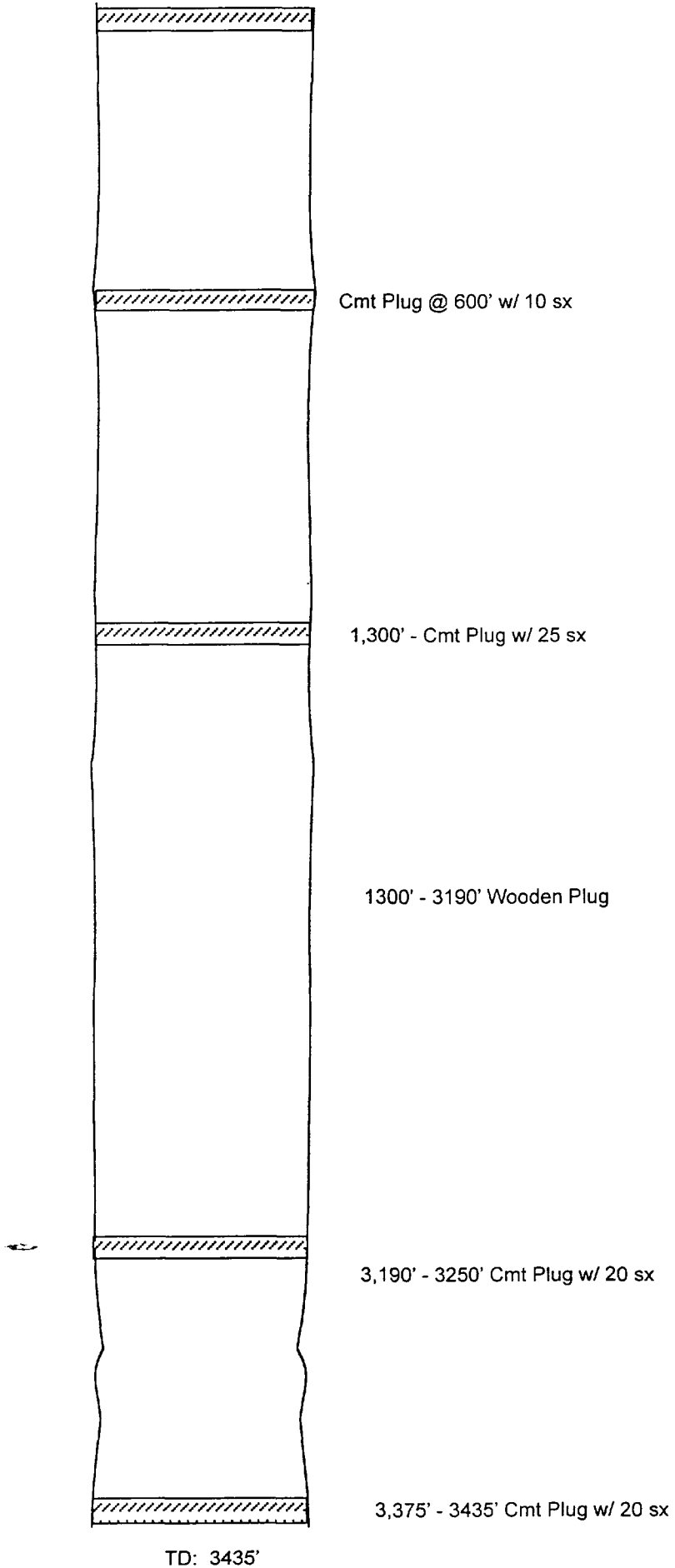
Spud well 1-29-57

Swabbed 640 BW

P&amp;A 2/57

Pulled all casing out of hole

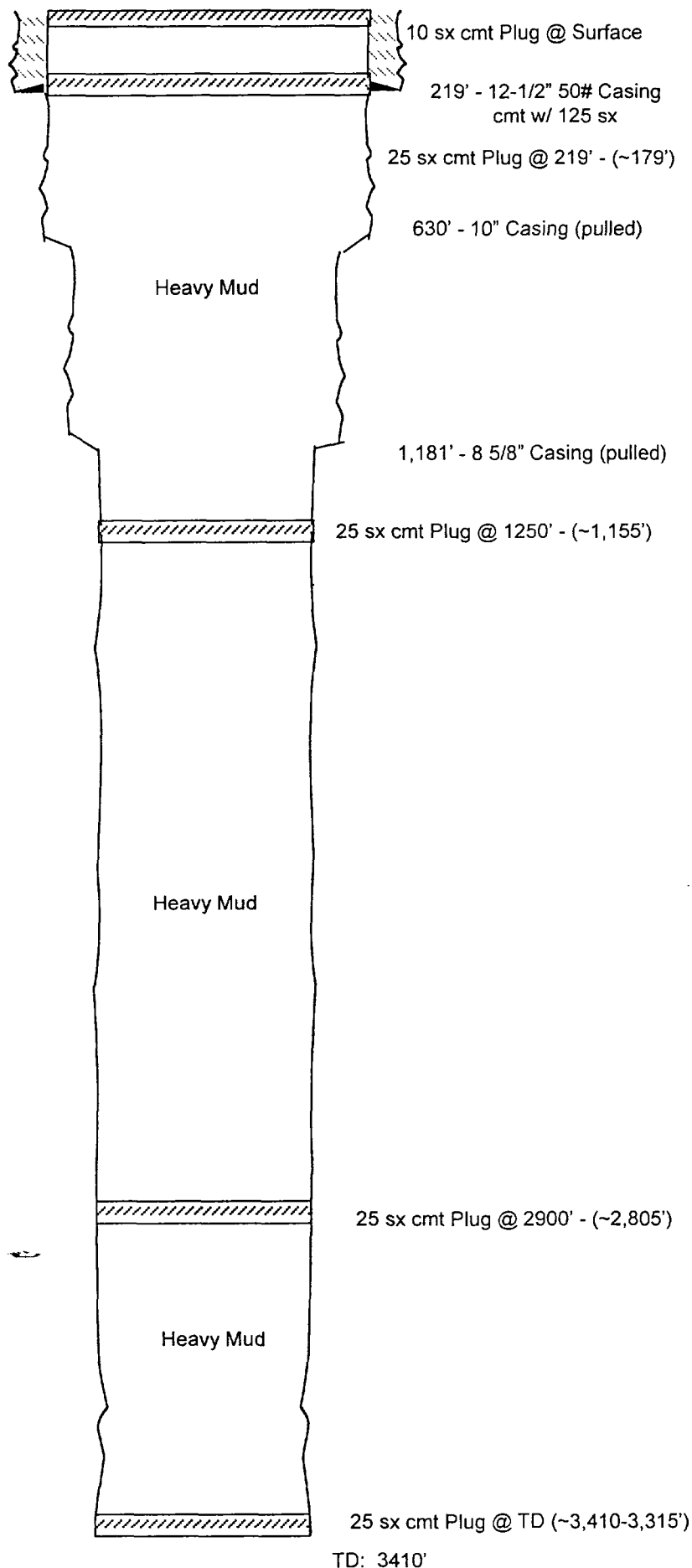
P&A information is from State Reports



TD: 3435'

# Falcon Creek Resources, Inc.

Bass State #1  
L.S. & R. Petroleum Co.  
West Teas Field  
660' FSL 660' FWL  
"M" Section 4, T20S, R33E  
Lea County, New Mexico  
DF: 3,556'



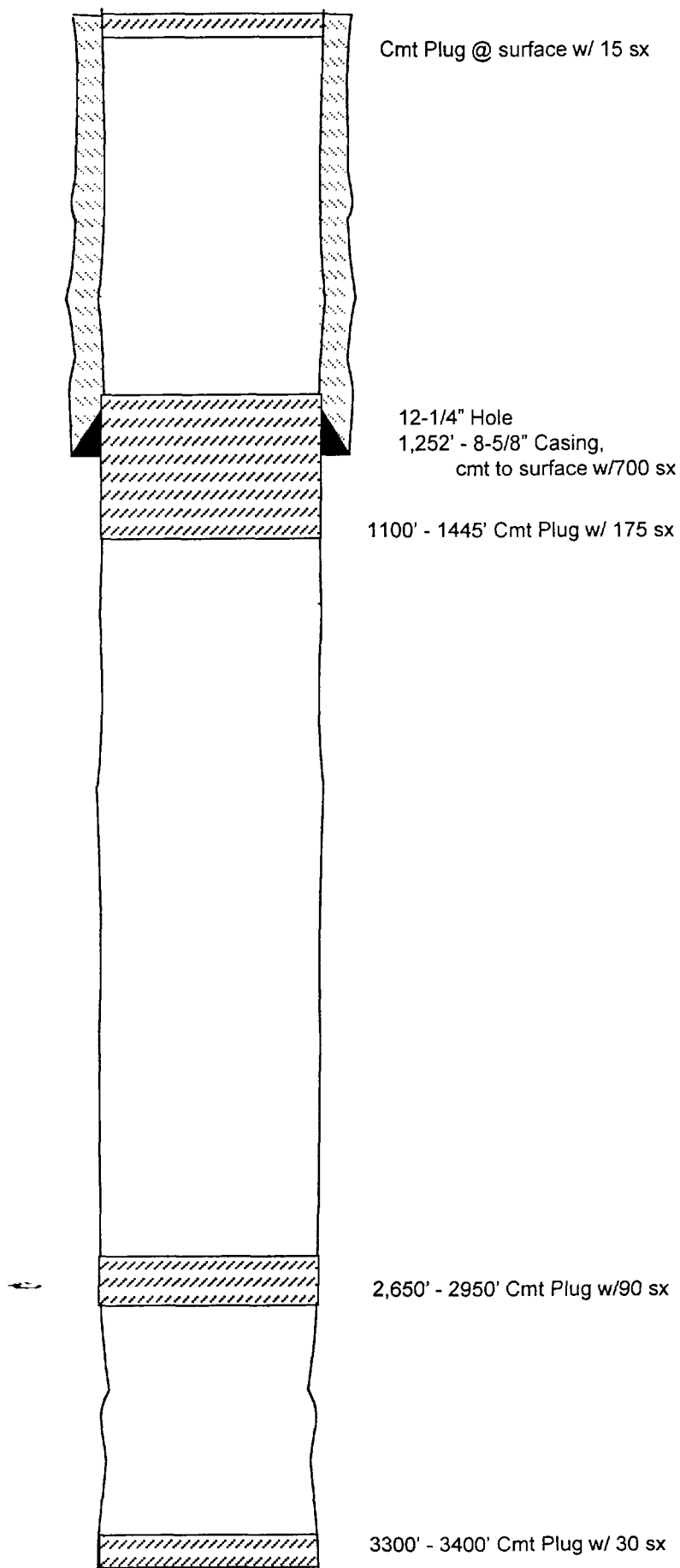
## Initial Completion

Spud well 5-30-63  
Hole Full of Water @ TD  
P&A 7/10/63  
8-5/8" & 10" Casing pulled  
Heavy mud between plugs.

All plugging information was from  
State Reports

# Falcon Creek Resources, Inc.

Federal #4  
Grover - McKinney Oil Co.  
West Teas Field  
990' FSL 990' FWL  
"M" Section 9, T20S, R33E  
Lea County, New Mexico  
GL: 3,531'; KB: 3,541'



## Initial Completion

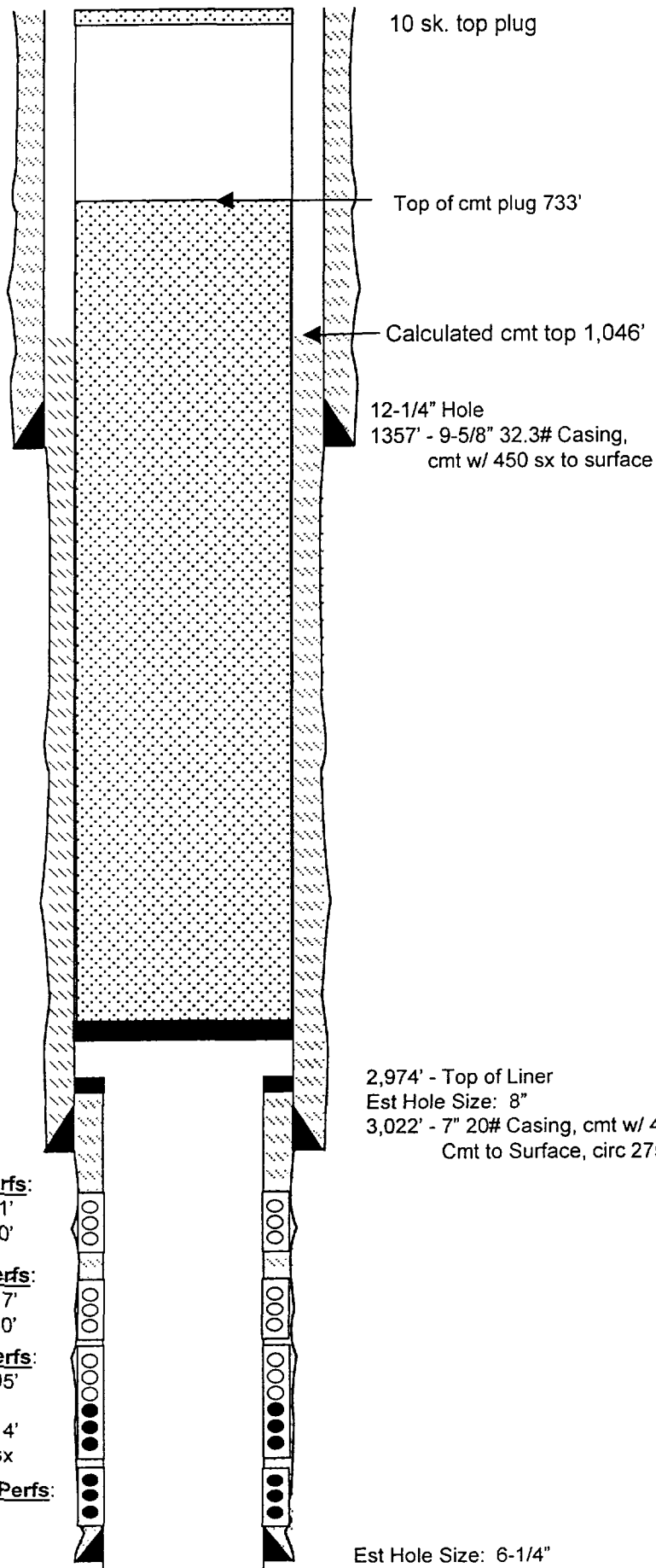
Spud well 3-2-88  
DST 3023'-3195'  
R/60' DF, PFFP 114-114,  
ISIP=343, FP 114-114, FSIP 251,  
HP 1646-1646.  
P&A

Plugging information is from  
State Reports



# Falcon Creek Resources, Inc.

Lea 6015 ARC Federal #1  
Atlantic Richfield Co.  
West Teas Field  
660' FSL 1,980' FEL  
"O" Section 9, T20S, R33E  
Lea County, New Mexico  
DF: 3,550'



## Initial Completion

Spud 4-3-60

Perf Yates Y3 3199'-3214'

Acidize w/ 500 gals, Sqzd w/ 175 sx

Perf Seven Rivers 3252'-3264'

Acidize w/ 250 gals, Sqzd w/ 50 sx

Perf Y3 3199'-3215', Acidize w/ 250 gals

Frac w/ 2000 gals, Sqzd perfs

Perf Y2 3122'-3130', Acidize w/ 250 gal

Sqzd perfs.

D&A

1/69

Perf Yates Y2 3110'-3117'; 3122'-3130';

Perf Yates Y3 3180', 3195', 3199'-3214' -  
70 holes

Acidize w/ 2500 gals

Completed as SWD

12/70

Perf Yates Y1: 3054'-3061'; 3066'-3090';

Acidize w/ 3000 gals

Converted to WIW

2/75

Set cmt retainer @ 2800'

Sqz thru retainer w/45 sx "C"

Spotted 225 sx "C" on top of retainer

Top of cmt @ 733'.

Spotted 10 sx "C" from 40'-surface

Note: Never Produced

## Yates Y1 Perfs:

3,054' - 3,061'

3,066' - 3,090'

## Yates Y2 Perfs:

3,110' - 3,117'

3,122' - 3,130'

## Yates Y3 Perfs:

3,180' - 3,195'

3,199' - 3,214'

sqz w/ 175 sx

## Seven Rivers Perfs:

3,252' - 3,264'

sqz w/ 50 sx

Est Hole Size: 6-1/4"

3,300' - 5" 11.5# Liner, cmt w/50 sx

Cmt to Top of Liner (calculated)

# Falcon Creek Resources, Inc.

Lea 886 State #2  
Sinclair Oil & Gas  
West Teas Field  
660' FNL 1,980 FEL  
"B" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,544'

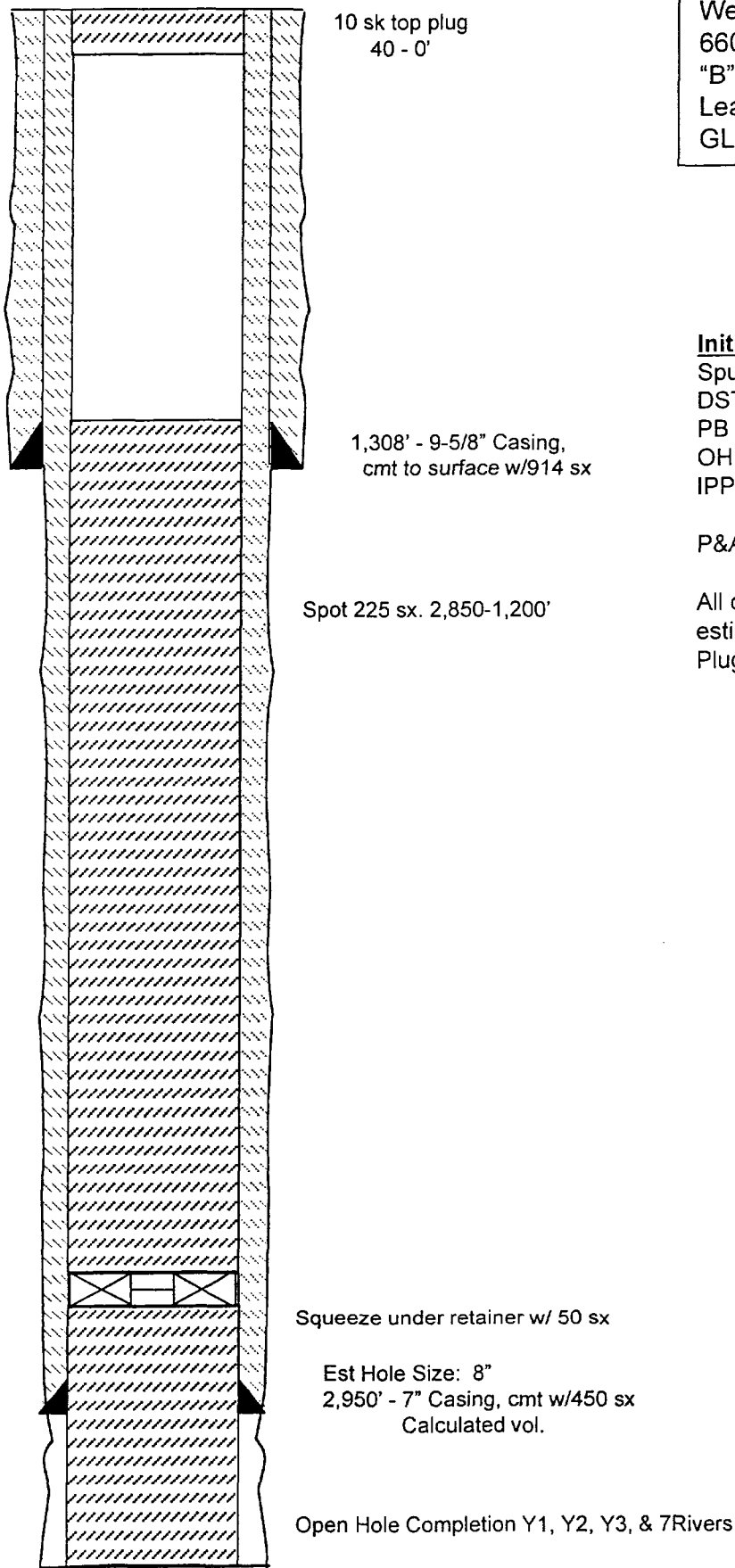
## Initial Completion

Spud well 2-26-60  
DST 3305'-3360' - wet  
PB to 3274'  
OH Yates from 2950'-3274'  
IPP: 139 BOPD

P&A 2/4/75

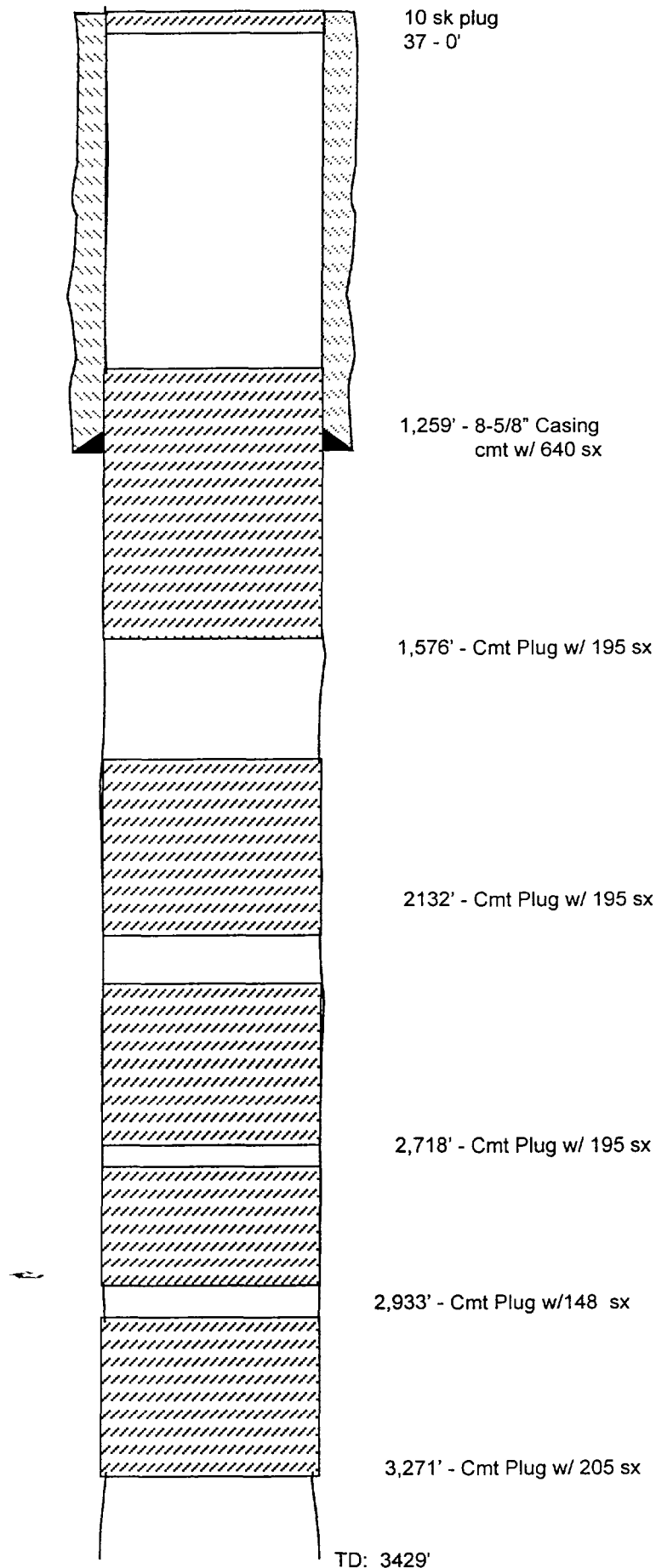
All casing cement information was  
estimated by calculations.  
Plugging data from Sundry.

OH Yates:  
2,950' - 3,274'



# Falcon Creek Resources, Inc.

Snyder State #1  
Olsen Energy  
West Teas Field  
1,980' FNL 660' FEL  
"H" Section 16, T20S, R33E  
Lea County, New Mexico  
GR: 3,550'



## Initial Completion

Spud well 2-22-89  
DST #1, 3060'-3200', Rec 1' mud  
Opn 15 min, IFP 85, FFL 64,  
Fnl Opn 30 min IFP 85, FFP 64, ISIP  
233, FSIP 339, IHP 1650, FHP 1650  
Open w/ weak blow dean in 6 min.  
DST #2 3198-3299', Rec 100' mud,  
Opn 30 min, IFP 42 FFP 127  
Fnl Opn 1 hr, IFP 106, FFP 127  
ISIP 1333, FSIP 1333, HP 1713-1692  
Plugs set at 2933' w/ 148 sx,  
3271' w/ 205', 2718' w/ 195 sx,  
2132 w/ 195 sx, surface w/ 10 sx  
**P&A 3/2/89**

Plugging information is from State Forms

# Falcon Creek Resources, Inc.

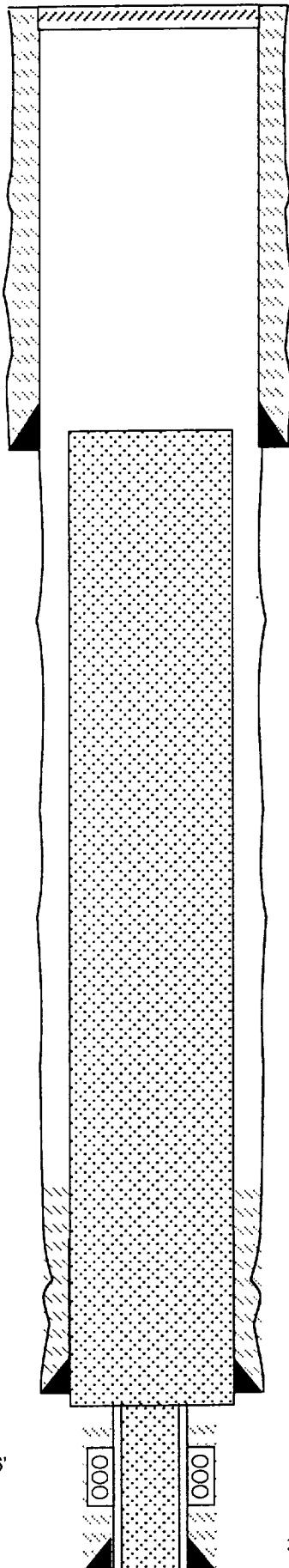
Tenneco Federal #1  
Knox, Gordon & Assoc.  
West Teas Field  
1,980' FNL 1,980' FWL  
"F" Section 15, T20S, R33E  
Lea County, New Mexico  
GL: 3,532'

## Initial Completion

Spud well 12-31-63  
Perf Yates from 3206'-321'  
Acidize w/ 500 gals  
Swabbed 95% water, 5% oil  
P&A

All cementing information is from  
State Reports

Yates Perfs:  
3,206' - 3,216'



Cmt Plug @ surface

Surface Csg @ 1,350'  
Cmt to surface

1,200' - 3,050' Cmt Plug

7" Casing Pulled from Surface to 2685'

4-1/2" Casing Pulled from Surface to 2950'

3,038' - 7" Casing, cmt w/30 sx

3,418' - 3,050' Cmt Plug

3,418' - 4-1/2" Casing, cmt w/30 sx

**Falcon Creek Resources, Inc.  
West Teas (Yates-Seven Rivers) Field  
Application for Authorization to Inject  
NMOCD Form C-108**

**VII. Proposed Injection Operations**

- 1) **Injection Rate (per well):**

Average	500 BWPD
Maximum	750 BWPD
  
- 2) **Injection System:** Closed
  
- 3) **Injection Pressure (wellhead):**

Average	600 psig
Maximum	1,200 psig

Note: Following a step-rate test conducted on State "BF" #4 (NE/4 NE/4 16-T20S-R33E) on 1/26/98, the NMOCD approved a surface injection pressure of 1,282 psig into the Yates sand.
  
- 4) **Injection Fluid:** Water from Yates and Seven Rivers production within proposed West Teas (Yates – Seven Rivers) Unit (analyses attached)

**VIII. Geologic Data**

**A. Injection Zone**

- 1) **Name:** Yates Formation
  
- 2) **Description:**

Injection will be into the Yates Sand sub-units productive within the field. The sand units are developed within the field at depths ranging from 3,000' to 3,450'. These intervals are fine-grained to very fine-grained sandstones divided by siltstones and dense dolomitic layers. The total net thickness of the sands varies from 40 to 100 feet with lateral discontinuities present in the individual layers. Average porosity in the "pay" sands is 15.7%, average permeability is approximately 1 md.

## **B. Fresh Water Sources**

The State Engineer's Office reports fresh water production potential from Quaternary alluvium at about 56' in the SW/4 of section 4 and the NE/4 of section 20, T20S R33E. One permitted water well was reported in SW/4 SE/4 SW/4 section 5 T20S R33E with sands noted in the interval 520-675' (Dewey Lake fm.?) A copy of the Well Record from the State Engineer's Office for that well is attached. No other sources are noted overlying the oil producing interval. The Seven Rivers Formation directly underlies the Yates, it is a hydrocarbon producing interval on the West Teas Field structure and is proposed to be included in the West Teas unitized interval. No injection is proposed for the Seven Rivers Formation.

## **IX. Proposed Stimulation Program**

The Yates intervals proposed for injection in the six wells comprising Stage I of the proposed waterflood have generally been fracture stimulated for production. Additional Yates perforations, to be added at conversion to water injection, will be acidized with 100 gallons/foot 15% HCl and fracture stimulated when the new perforations are adequately isolated from the pre-existing perforated zones. Typical fracture stimulation treatments contain about 80,000 pounds of sand in a cross-linked, water-based gel.

## **X. Logging and Test Data**

No additional drilling is proposed in Stage I waterflood development aside from the deepening of the Federal "9" #3 well to include additional Yates section. Any additional logs or tests will be submitted to the NMOCD at the time they are obtained.

## **XI. Fresh Water Analysis**

A review of the area within one mile of proposed injection wells and a conversation with the local rancher indicates that there are no active fresh water wells in the area.

## **XII. Disposal Well Statement**

This section does not apply to the application since no disposal wells are being proposed.

## **XIII. Proof of Notice**

A copy of this application has been furnished to all surface owners and leasehold operators within the "area of review".

# Permian Treating Chemicals

## WATER ANALYSIS REPORT

### SAMPLE

Oil Co. : Stevens & Tull  
Lease : State "BF"  
Well No.: Disp.  
Salesman:

Sample Loc. :  
Date Analyzed: 09-September-1997  
Date Sampled :

### ANALYSIS

1. pH 7.250
2. Specific Gravity 60/60 F. 1.010
3. CaCO<sub>3</sub> Saturation Index @ 80 F. +0.856  
@ 140 F. +1.756

#### Dissolved Gasses

MG/L EQ. WT. \*MEQ/L

4. Hydrogen Sulfide Present
5. Carbon Dioxide Not Determined
6. Dissolved Oxygen Not Determined

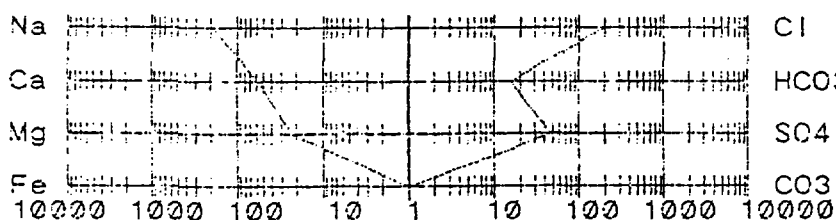
#### Cations

7. Calcium (Ca<sup>++</sup>) 1,090 / 20.1 = 54.23
8. Magnesium (Mg<sup>++</sup>) 265 / 12.2 = 21.72
9. Sodium (Na<sup>+</sup>) (Calculated) 4,181 / 23.0 = 181.78
10. Barium (Ba<sup>++</sup>) Not Determined

#### Anions

11. Hydroxyl (OH<sup>-</sup>) 0 / 17.0 = 0.00
12. Carbonate (CO<sub>3</sub><sup>=</sup>) 0 / 30.0 = 0.00
13. Bicarbonate (HCO<sub>3</sub><sup>-</sup>) 908 / 61.1 = 14.86
14. Sulfate (SO<sub>4</sub><sup>=</sup>) 2,200 / 48.0 = 45.83
15. Chloride (Cl<sup>-</sup>) 6,998 / 35.5 = 197.13
16. Total Dissolved Solids 15,642
17. Total Iron (Fe) 2 / 18.2 = 0.08
18. Total Hardness As CaCO<sub>3</sub> 3,811
19. Resistivity @ 75 F. (Calculated) 0.352 /cm.

#### LOGARITHMIC WATER PATTERN \*meq/L.

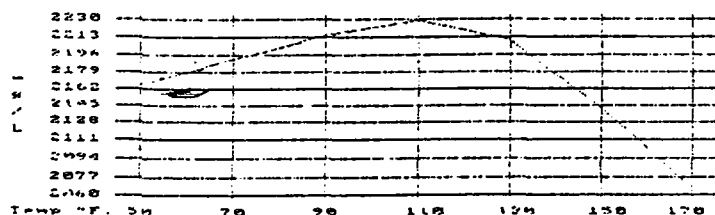


#### PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X \*meq/L = mg/L.

Na	Cl	Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	14.86	1.204
Ca	HCO <sub>3</sub>	CaSO <sub>4</sub>	68.07	39.37	2.680
Mg	SO <sub>4</sub>	CaCl <sub>2</sub>	55.50	0.00	0
Fe	CO <sub>3</sub>	Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	0.00	0
		MgSO <sub>4</sub>	60.19	5.71	344
		MgCl <sub>2</sub>	47.62	16.21	762
		NaHCO <sub>3</sub>	84.00	0.00	0
		NaSO <sub>4</sub>	71.03	0.00	0
		NaCl	58.46	191.10	10.566

\*Milli Equivalents per Liter

#### Calcium Sulfate Solubility Profile



This water is mildly corrosive due to the pH observed on analysis.  
The corrosivity is increased by the content of mineral salts, and the presence  
of H<sub>2</sub>S in solution.

# Permian Treating Chemicals

## WATER ANALYSIS REPORT

### SAMPLE

Oil Co. : Stevens & Tuill  
Lease : Federal 9  
Well No. : # 7  
Salesman:

Sample Loc. :  
Date Analyzed: 09-September-1997  
Date Sampled :

### ANALYSIS

1. pH 6.880
2. Specific Gravity 60/60 F. 1.008
3. CaCO<sub>3</sub> Saturation Index @ 80 F. +0.417  
@ 140 F. +1.277

#### Dissolved Gasses

MG/L EQ. WT. \*MEQ/L

4. Hydrogen Sulfide Present
5. Carbon Dioxide Not Determined
6. Dissolved Oxygen Not Determined

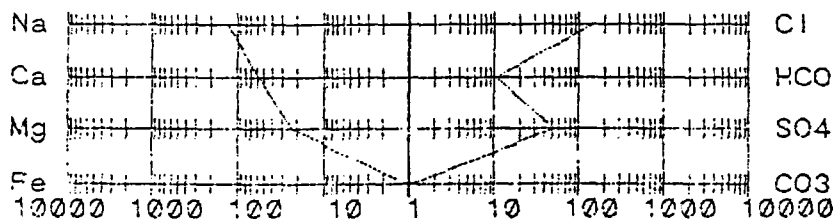
#### Cations

- |   |                |          |        |
|---|----------------|----------|--------|
| 7. Calcium (Ca <sup>++</sup> )            | 1,090          | / 20.1 = | 54.23  |
| 8. Magnesium (Mg <sup>++</sup> )          | 265            | / 12.2 = | 21.72  |
| 9. Sodium (Na <sup>+</sup> ) (Calculated) | 2,894          | / 23.0 = | 125.83 |
| 10. Barium (Ba <sup>++</sup> )            | Not Determined |          |        |

#### Anions

- |  |            |          |        |
|--|------------|----------|--------|
| 11. Hydroxyl (OH <sup>-</sup> )                  | 0          | / 17.0 = | 0.00   |
| 12. Carbonate (CO <sub>3</sub> <sup>=</sup> )    | 0          | / 30.0 = | 0.00   |
| 13. Bicarbonate (HCO <sub>3</sub> <sup>-</sup> ) | 615        | / 61.1 = | 10.07  |
| 14. Sulfate (SO <sub>4</sub> <sup>=</sup> )      | 2,450      | / 49.8 = | 50.22  |
| 15. Chloride (Cl <sup>-</sup> )                  | 4,999      | / 35.5 = | 140.82 |
| 16. Total Dissolved Solids                       | 12,313     |          |        |
| 17. Total Iron (Fe)                              | 3          | / 19.2 = | 0.14   |
| 18. Total Hardness As CaCO <sub>3</sub>          | 3,811      |          |        |
| 19. Resistivity @ 75 F. (Calculated)             | 0.387 /cm. |          |        |

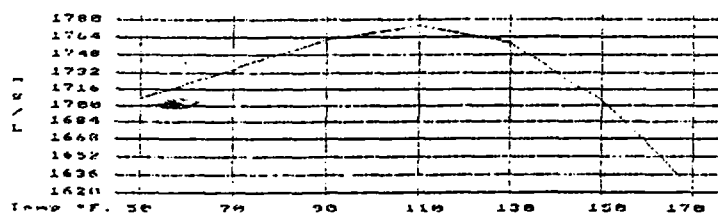
#### LOGARITHMIC WATER PATTERN \*meq/L.



#### PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X \*meq/L = mg/L.

Na	Cl	Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	10.07	816
Ca	HCO <sub>3</sub>	CaSO <sub>4</sub>	68.07	44.16	3,006
Mg	SO <sub>4</sub>	CaCl <sub>2</sub>	55.50	0.02	0
Fe	CO <sub>3</sub>	Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	0.00	0
		MgSO <sub>4</sub>	60.19	6.04	364
		MgCl <sub>2</sub>	47.62	15.68	747
		NaHCO <sub>3</sub>	84.00	0.02	0
		NaSO <sub>4</sub>	71.03	0.00	0
		NaCl	58.46	125.14	7,316

#### Calcium Sulfate Solubility Profile



\*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis.  
The corrosivity is increased by the content of mineral salts, and the presence of H<sub>2</sub>S in solution.



## WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

## Section 1


(A) Owner of well Pan American Pet. Corp.  
 Street and Number Box 68  
 City Hobbs State N. M.  
 Well was drilled under Permit No. CP-317 and is located in the  
SW 1/4 SE 1/4 SW 1/4 of Section 5 Twp. 20 Rge. 33  
 (B) Drilling Contractor Abbott Bros. License No. WD-46  
 Street and Number Box 637  
 City Hobbs State N. M.  
 Drilling was commenced Feb. 5 19 66  
 Drilling was completed Feb. 17 19 66

(Plat of 640 acres)

Elevation at top of casing in feet above sea level \_\_\_\_\_ Total depth of well 680'  
 State whether well is shallow or artesian shallow Depth to water upon completion 325'

## Section 2

## PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1	520	540	20	Brown Water Sand
2	625	645	20	Brown Water Sand
3	660	675	15	Brown Water Sand
4				
5				

## Section 3

## RECORD OF CASING

Dia. in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To
7"	23	10	0	575	575	none	515	575

## Section 4

## RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				

## Section 5

## PLUGGING RECORD

Name of Plugging Contractor \_\_\_\_\_ License No. \_\_\_\_\_  
 Street and Number \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_  
 Tons of Clay used \_\_\_\_\_ Tons of Roughage used \_\_\_\_\_ Type of roughage \_\_\_\_\_  
 Plugging method used \_\_\_\_\_ Date Plugged \_\_\_\_\_ 19 \_\_\_\_\_  
 Plugging approved by: \_\_\_\_\_ Cement Plugs were placed as follows:

Basin Supervisor \_\_\_\_\_

FOR USE OF STATE ENGINEER ONLY

Date Received 966 FEB 24 AM 8:36

File No. CP-317 Use acid Location No. 20.33.35.34.32

No.	Depth of Plug		No. of Sacks Used
	From	To	

.20.33.5.34.32.1

## LOG OF WELL

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Albert B. Byrnes  
Well Driller

0778 0511

# FALCON CREEK RESOURCES, INC.

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

(303) 675-0007 (303) 675-0008 Facsimile

January 27, 1999

Oil Conservation Division  
2040 Pacheco St.  
Santa Fe, New Mexico 87505

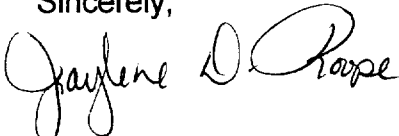
RE: Application for Authorization to Inject  
West Teas Field  
Section 4, 9 & 15, T20S, R33E  
Lea County, New Mexico

Gentlemen:

Please find enclosed several wellbore diagrams. After further investigation, we found a few changes to these diagrams, please replace the current diagram in our application to inject.

Please advise if you have any questions, or need additional information. We appreciate your prompt attention with this matter.

Sincerely,



Jaylene Roope  
Sr. Operations Technician

FEB 1 1999  
OIL CONSERVATION

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c

# Falcon Creek Resources, Inc.

Lea 6015 ARC Federal #1  
West Teas Field  
"O" Section 9, T20S, R33E  
Lea County, New Mexico  
DF: 3,550'

Top of cmt plug 733'

12-1/4" Hole  
1357' - 9-5/8" Casing,  
cmt w/ 450 sx to surface

## Initial Completion

Spud 4-3-60

Perf Yates 3199-3214

Acidize w/ 500 gals, Sqzd w/ 175 sx

Perf 3252'-3264'

Acidize w/ 250 gals, Sqzd w/ 50 sx

Perf 3199'-3215', Acidize w/ 250 gals

Frac w/ 2000 gals, Sqzd perfs

Perf 3122'-3130', Acidize w/ 250 gal

Sqzd perfs.

D&A

1/69

Perf Yates 3110'-3117'; 3122'-3130';

3180', 3195', 3199'-3214' - 70 holes

Acidize w/ 2500 gals

Completed as SWD

12/70

Perf Yates 3054'-3061'; 3066'-3090';

Acidize w/ 3000 gals

Converted to WIW

2/75

Set cmt retainer @ 2800'

Sqz thru retainer w/45 sx "C"

Spotted 225 sx "C" on top of retainer

Top of cmt @ 733'.

Spotted 10 sx "C" from 40'-surface

2,974' - Top of Liner

Est Hole Size: 8"

3,022' - 7" Casing, cmt w/ 450 sx

Cmt to Surface, circ 275 cu ft

## Yates Y1 Perfs:

3,054' - 3,061'

3,066' - 3,090'

## Yates Y2 Perfs:

3,110' - 3,117'

## Yates Y3 Perfs:

3,122' - 3,130'

3,180' - 3,195'

3,199' - 3,214'

## Yates Y3 Perfs:

3,199' - 3,214'

sqz w/ 175 sx

3,252' - 3,264'

sqz w/ 50 sx

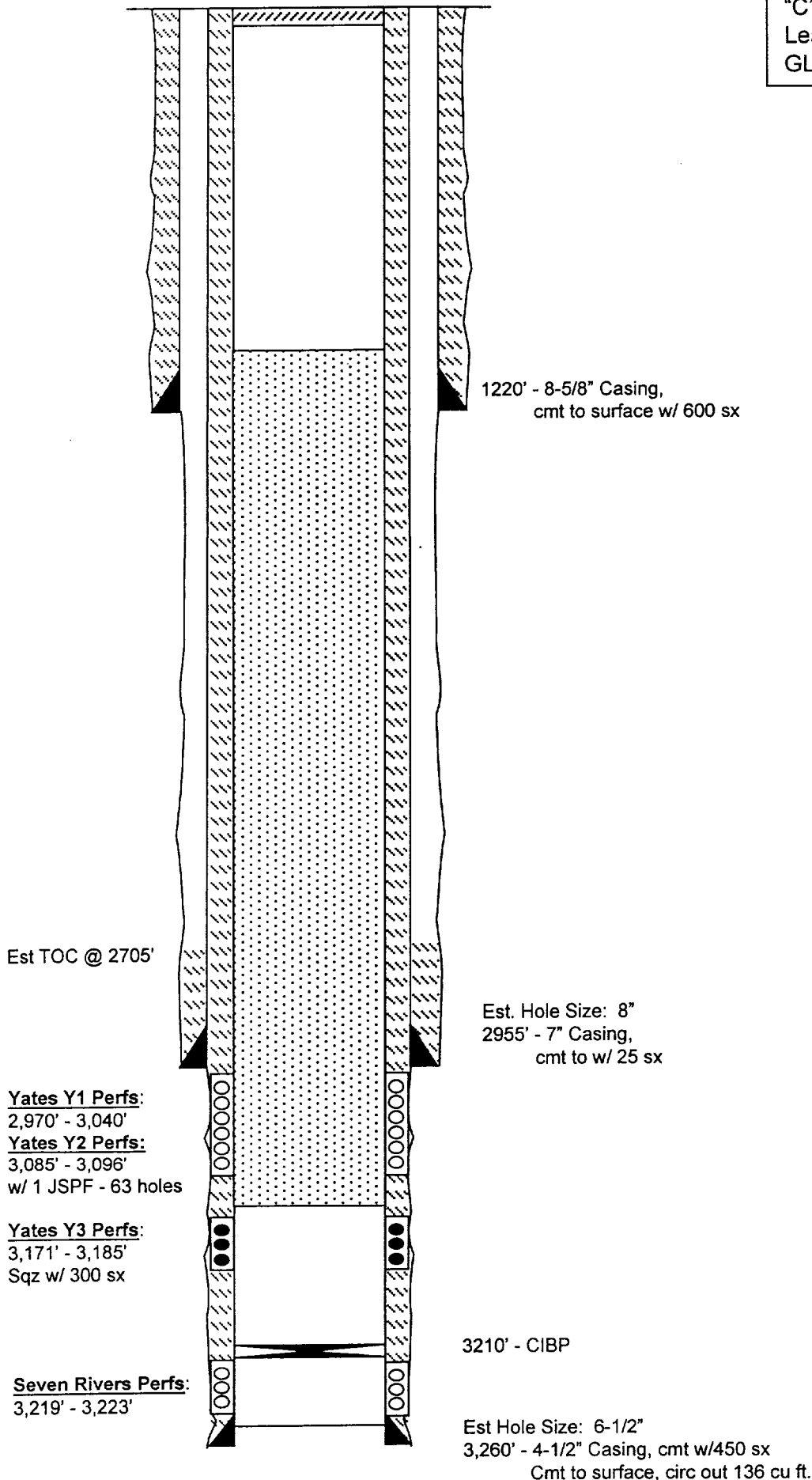
Est Hole Size: 6-1/4"

3,300' - 5-1/2" Liner, cmt w/50 sx

Cmt to Top of Liner

# Falcon Creek Resources, Inc.

Atlantic State #1  
West Teas Field  
"C" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,540'; KB: 3,542'



## Initial Completion

Spud well 12-21-61

Perf Seven Rivers 3,219'-3,223'

IPP: 90 BO, 10 BW (90% oil)

## 12/67

Set CIBP @ 3210

Perf Yates Y3 @ 3171'-3185'

Acidize w/1250 gals acid

Frac w/ 20,000 gal & 20,000# sd

IP: 58 BO

## 8/79

Squeeze Yates @ 3171'-3185'

w/ 300 sx

Perf Yates Y2 3085'-3096'

Acidize w/ 1000 gals

Frac w/ 9000 gal & 14,000# sand

Perf Yates Y1 from 2970'-3040'

Acidize w/ 2000 gals

Frac w/ 20,000 gal & 28,000# sand

No new potential

3.3% oil & 1 @ 8/79

## 10/80

Plugged w/ 175 sx from 3110'-1125'

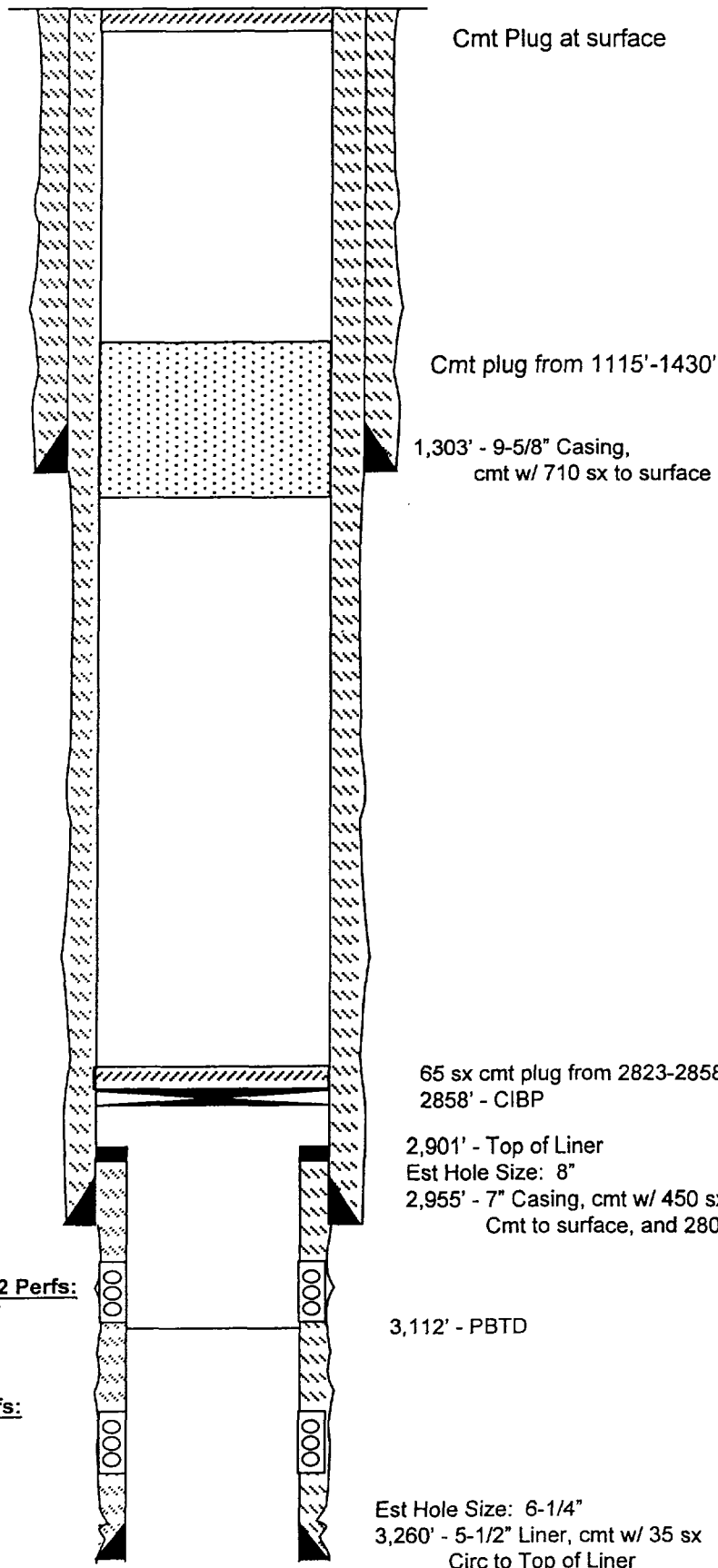
10 sx from 150'to surface

9.5#/gal mud between plugs

All cement information is estimated  
by calculations

# Falcon Creek Resources, Inc.

State Lea "886" #3  
West Teas Field  
"E" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,531'; KB: 3,540'



## Initial Completion

Spud well 4-60

Perf Yates Y3 from 3166'-3195'

Acidize w/ 500 gal mud acid

1/75

Spotted 30 sx "H" 2900-3226'

Spotted 250 sx "C" 3226'-677'

Spot 10 sx cmt plug @ 35' to surface

12/81

Drld out cmt plugs and plug back to  
3,112'

Perf Yates Y1 & Y2 3016' - 3092'

Frac 28,000 gal & 36,000#

IPP: 20 BOPD

12/82

Frac well w/ 6000 gal PSD gel in 2%  
KCl w/ 18000# 20/40 and 10/20 sand  
IPP: 15 BOPD, 2 BWPD

7/83

Ran CIBP to 2858'

Spotted 65 sx "C" on top of CIBP 35'

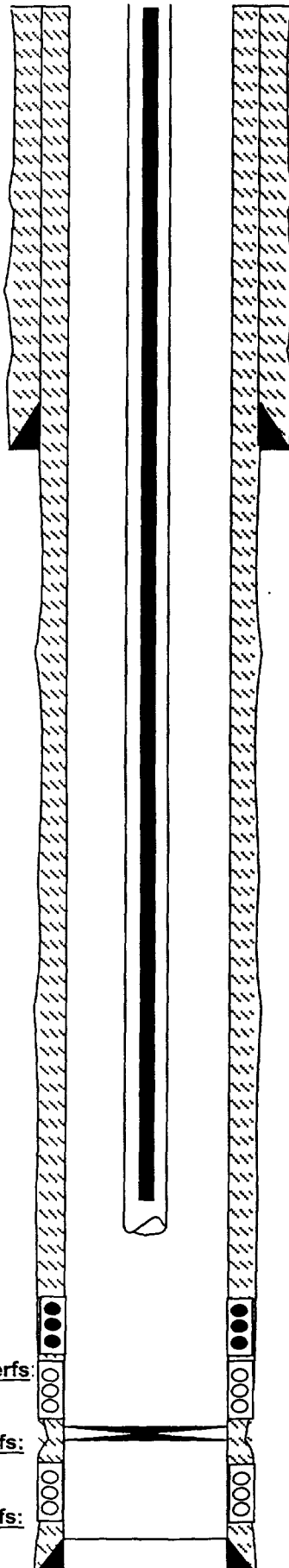
Spotted 58 sx "C" from 1115'-1430'

Spotted 10 sx "C" at surface

All Cementing information is estimated  
by calculations.

# Falcon Creek Resources, Inc.

886 State #1  
West Teas Field  
"F" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,537'; KB: 3,549'



1,196' - 13-3/8" Casing,  
cmt to surface w/1250 sx

## Initial Completion

Spud well 11-13-59  
DST 3049'-3069, Op 30 min rec 490' mud  
DST 3150-3215' Op 45 min, rec 1440' OCM  
& 1385 MCD, no pressure  
Perf Y3 3146'-3162'; 3168'-3176'  
Perf 7Rivers 3195'-3198'; 3220'-3232'  
Acidize 3220-3232' w/ 500 gal acid  
IPP 596 BOPD (All zones)  
Shackelford Re-entry

12/59

Acidize 3146'-3176' w/ 500 gal acid

2/75

Sqz Perfs w/ 35 sx "C"

Spotted 130 sx "C" from 1200'-2817'

Spotted 10 sx from 40'-surface

3/95

Perf Seven Rivers 3268'-3273'

Acidize w/ 500 gal 15% NeFe

Set BP @ 3191'

Perf 7 Rivers 3182'-3188'

IPP: 67 BOPD; 120 BWPD  
(36% oil)

All Cement Information is estimated by  
Calculations

## Yates Y3 Perfs:

3,146' - 3,162'

3,168' - 3,176'

## Seven Rivers Perfs:

3,182' - 3,188'

## Seven River Perfs:

3,195'-3,198'

3,220' - 3,232'

## Seven River Perfs:

3,268' - 3,272'

3191' - Bridge Plug

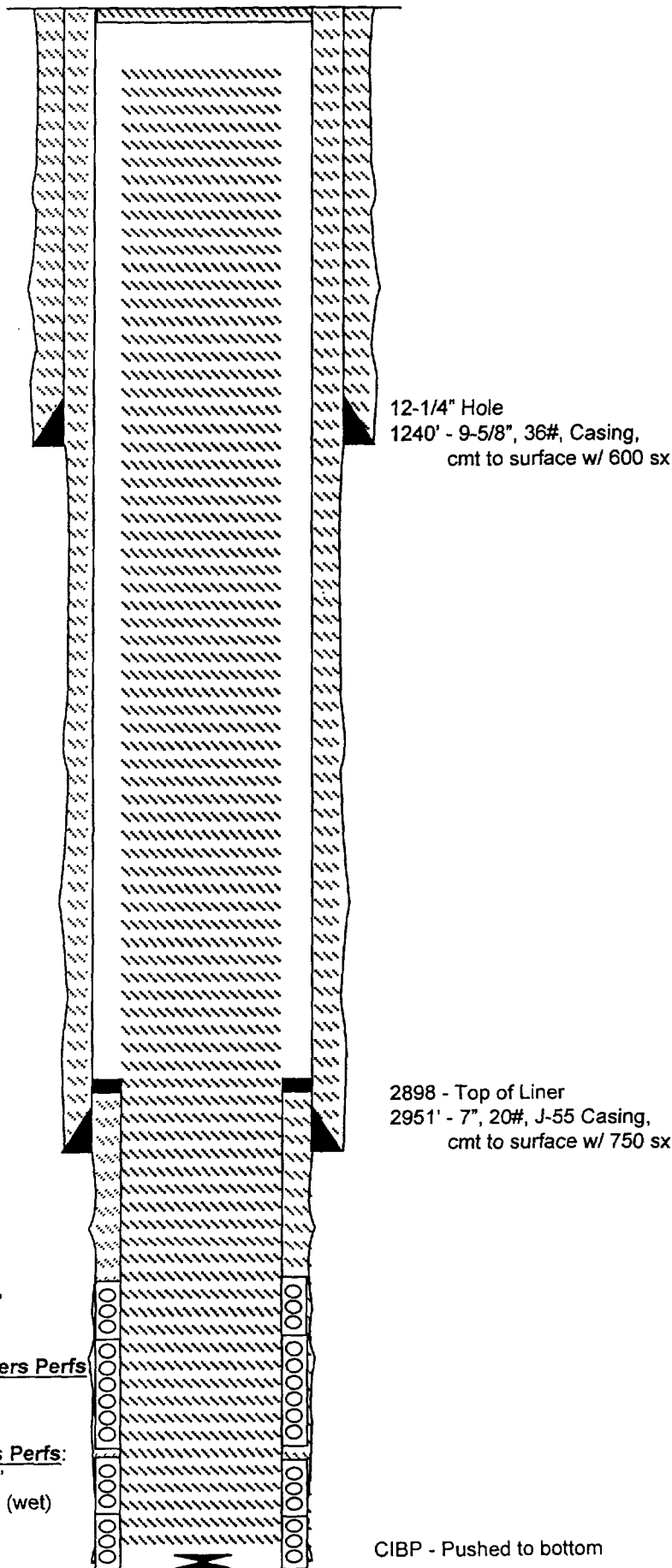
Est Hole Size: 7-7/8"

3,325' - 5-1/2" Casing, cmt w/850 sx Class

Cmt to Surface, Circulate 423 cu ft.

# Falcon Creek Resources, Inc.

State BF #2  
West Teas Field  
"K" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,536'; KB: 3,545'



## Initial Completion

Perf Yates Y2, Yates Y3 & Seven Rivers  
3,094' - 3,220'  
Acidized w/ 100 gal XLST acid  
Frac w/ 15,000 gal lease crude, 15,000#  
sd w/ 250# mothballs after 7500 gal w/  
1/20# adomite / gal  
Frac w/ 10,000 gal lease crude, 10000#  
sd thru 3179-3209'.

## 8/78

Perf Y1 2980' - 3041' - 25 holes  
Acidize w/ 90 bbls 2% KCl  
Frac 7 Rivers w/ 20,000 gal gelled crude  
18,000# sd & 20000 gal 15% HCl

## 5/95

Perf Seven Rivers 3223' - 3233' 2 JSPF  
Acidize w/ 1000 gal 15% HCl  
100% water  
Set CIBP @ 3214'  
Perf 3210' - 3213' 2 JSPF  
Acidize w/ 1000 gal 15% HCl  
Set CIBP @ 2998'  
(Prod. Y1 only, no prod. after)

## 8/96

Convert to SWD

## 10/96

Push CIBP to bottom of hole

## 5/97

Pump 1000 sx cement plug  
Top of Cmt @ 100' set 20 sx plug at surfac  
Well P&A

Cement Information is from State Reports

Y1 Perfs:  
2,980' - 3,041'

Y2, Y3 & 7 Rivers Perfs  
3,094' - 3,220'  
w/ 4 JSPF

Seven Rivers Perfs:  
3,210' - 3,213'  
3,223' - 3,233 (wet)  
w/ 1 JSPF

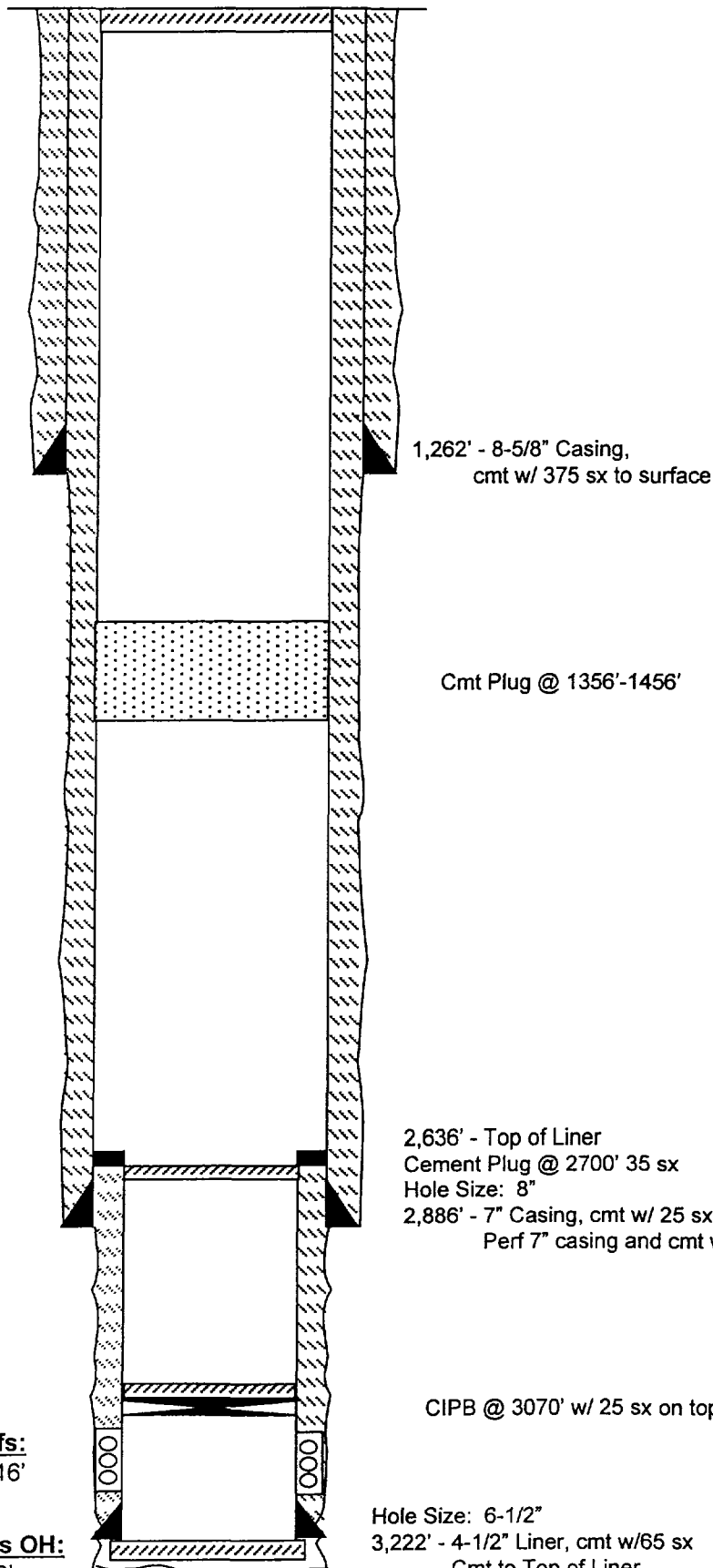
CIBP - Pushed to bottom

3,225' - 5", 15#, J-55 Liner



# Falcon Creek Resources, Inc.

Snyder #1  
West Teas Field  
"J" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,542'; DF: 3,546'



## Initial Completion

Spud 10-9-64

OH Seven Rivers from 3222'-3230'

IP: 42 BO

9/82

Perf 3098-3116'

Acidize w/ 2000 gal MOD 202.

Frac w/ 30,000gal gelled 2 % KCl,

30000 gal CO2 w/ 67,000# 8/12 sd

IPP: 100 BLW w/ 20% oil

9/83

CIPB @ 3050 w/ 25 sx cmt

Spot 36 sx @ 2700'

Spot 35 sx plug @ 1456'-1356'

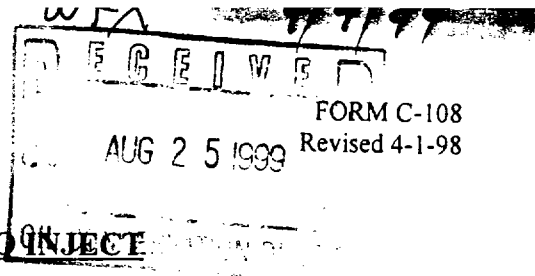
Spot 10 sx @ surface

All Cement Information is  
from state reports

Yates Perfs:  
3,098'-3,116'

Seven Rivers OH:  
3,222' - 3,230'

Squeeze OH w/ 200 sx "C"



**APPLICATION FOR AUTHORIZATION TO INJECT**

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

*Case 12332*

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 *x/32*

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.

- 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

### **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.

**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.**

							Surface Casing					Production Casing					Injection String and Packer					
Lease Name	No.	Ut.	Sec.	Twp.	Rge.	Footage	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.	Ut.	Sec.	Twp.	Rge.	Footage	Name	Injection Interval		Perf/Oil	Original Purpose		Other Intervals	Isolation Method
								Interval	Perf		Prod.	Injection*		
Anasazi "4"	3	J	4	20S	33E	1,650' FSL 1,980' FEL	Yates	3,230-3,292*	Perf	Perf	Prod.	Injection*	N/A	N/A
Scharbauer "4"	3	P	4	20S	33E	660' FSL 660' FEL	Yates	3,296-3,426*	Perf	Perf	Prod.	Injection*	N/A	N/A
Federal "9"	3	C	9	20S	33E	330' FNL 2,310' FWL	Yates	3,161-3,252*	Perf	Perf	Prod.	Injection*	N/A	N/A
Barber Federal	2	E	9	20S	33E	1,980' FNL 660' FWL	Yates	3,147-3,154*	Perf	Perf	Prod.	Injection*	N/A	N/A
Federal "9"	6	H	9	20S	33E	1,650' FNL 990' FEL	Yates	3,299-3,409**	Perf	Perf	Prod.	Injection*	N/A	N/A
State "BF"	4	A	16	20S	33E	330' FNL 330' FEL	Yates	3,160-3,294*	Perf	Perf	Prod.	Injection*	N/A	N/A

\*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').

# Falcon Creek Resources, Inc.

**Proposed Injector**  
Anasazi "4" State #3  
Bass Enterprises Prod. Co.  
West Teas Field  
"J" Section 4, T20S, R33E  
Lea County, New Mexico  
GL: 3,556'; KB 3,573'

## Initial Completion

Spud well 11-08-94

Perf Yates from 3230'-3292'

IPP: 41 BOPD; 27 BWPD, 15 MCFD

Cement circulated was estimated by calculations.

12-1/4" Hole  
1,368' - 8-5/8" Casing,  
cmt to surface w/710 sx

2-7/8" EUE J-55 Tubing

Proposed Baker AD-1 pkr Set @ approx. 3,130'

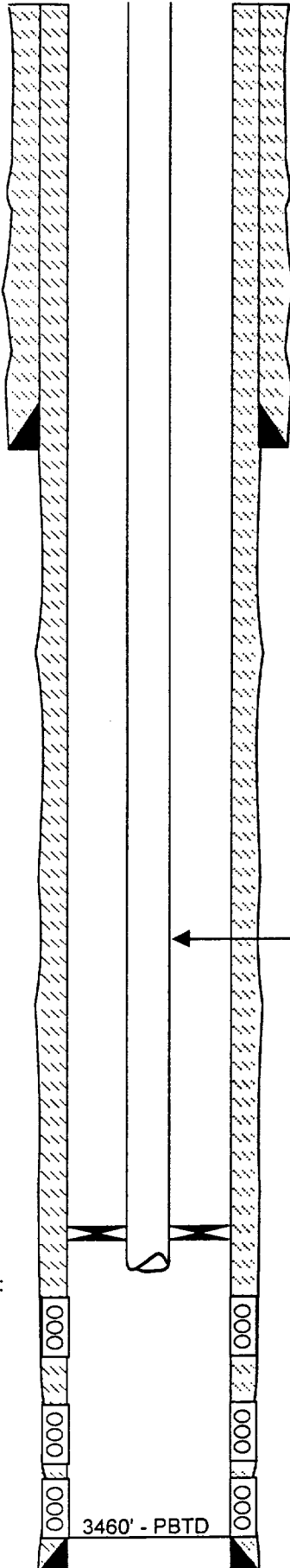
Yates 1 Perfs:  
3,230' - 3,292'

Proposed  
Yates 1 Perfs:  
3,296' - 3,300'  
3,307' - 3,311'  
3,316' - 3,319'

Proposed  
Yates 3 Perfs  
3,388'-3,400'  
3,406'-3,426'

Est 7-7/8" Hole  
3,550' - 5-1/2" Casing, cmt w/780 sx Class  
Cmt to surface, circ approx 301 cu ft

3460' - PBTD



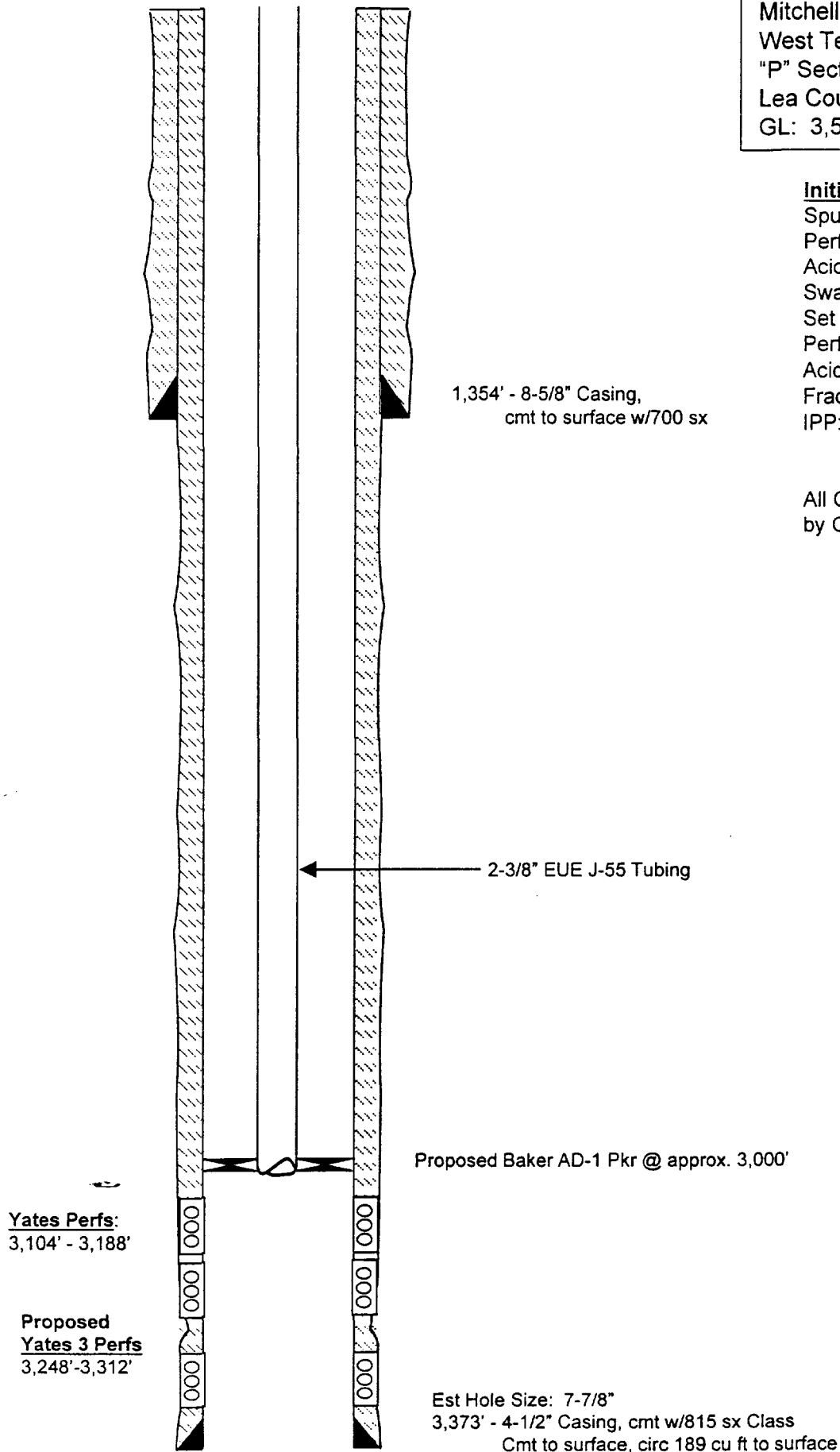
# Falcon Creek Resources, Inc.

**Proposed Injector**  
Scharbauer "4" #3  
Mitchell Energy  
West Teas Field  
"P" Section 4, T20S, R33E  
Lea County, New Mexico  
GL: 3,560'; KB 3,570'

## Initial Completion

Spud well 9-7-95  
Perf Yates from 3263'-3279'  
Acidize w/ 2000 gal 7.5% NeFe  
Swabbed .18 BO, 24 BW  
Set CIBP @ 3230'  
Perf Yates from 3104'-3188'  
Acidize w/ 3000 gal 7.5% NeFe  
Frac w/ 37016 gal 150,580 # sd  
IPP: 98 BOPD; 10 MCFD

All Cement Information is Estimated  
by Calculations



# Falcon Creek Resources, Inc.

**Proposed Injector**  
Federal 9 #3  
Falcon Creek Resources  
West Teas Field  
"C" Section 9, T20S, R33E  
Lea County, New Mexico  
GL: 3,557'; KB: 3,559'

## Initial Completion

Spud well 5-28-93

Perf Yates Zone 1

@ 3161'-3252' (22 Holes)

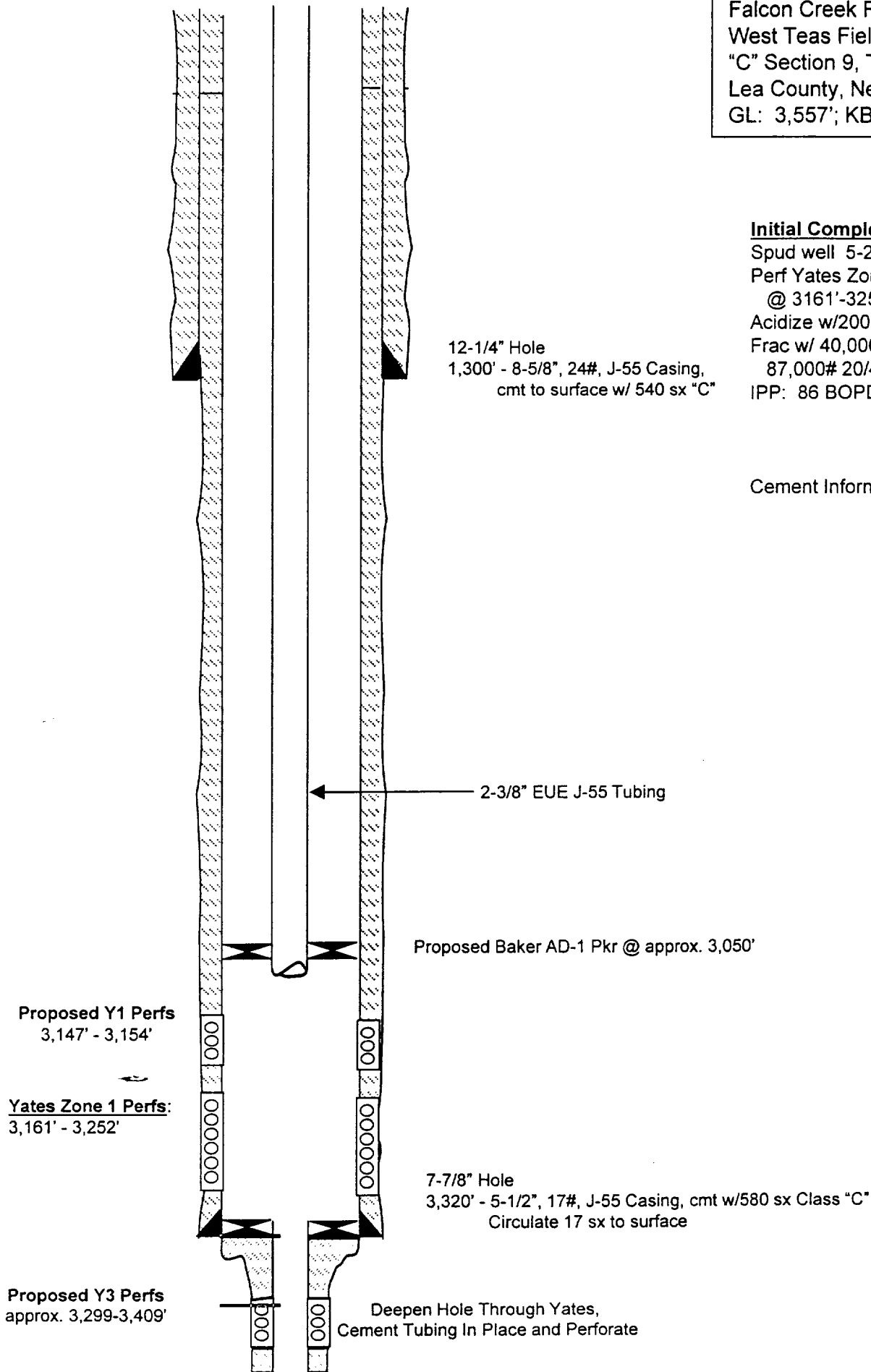
Acidize w/2000 gals 20% HCl

Frac w/ 40,000 gal gel &

87,000# 20/40 sd

IPP: 86 BOPD, 35 MCFD, 22 BWPD

Cement Information is from State Reports





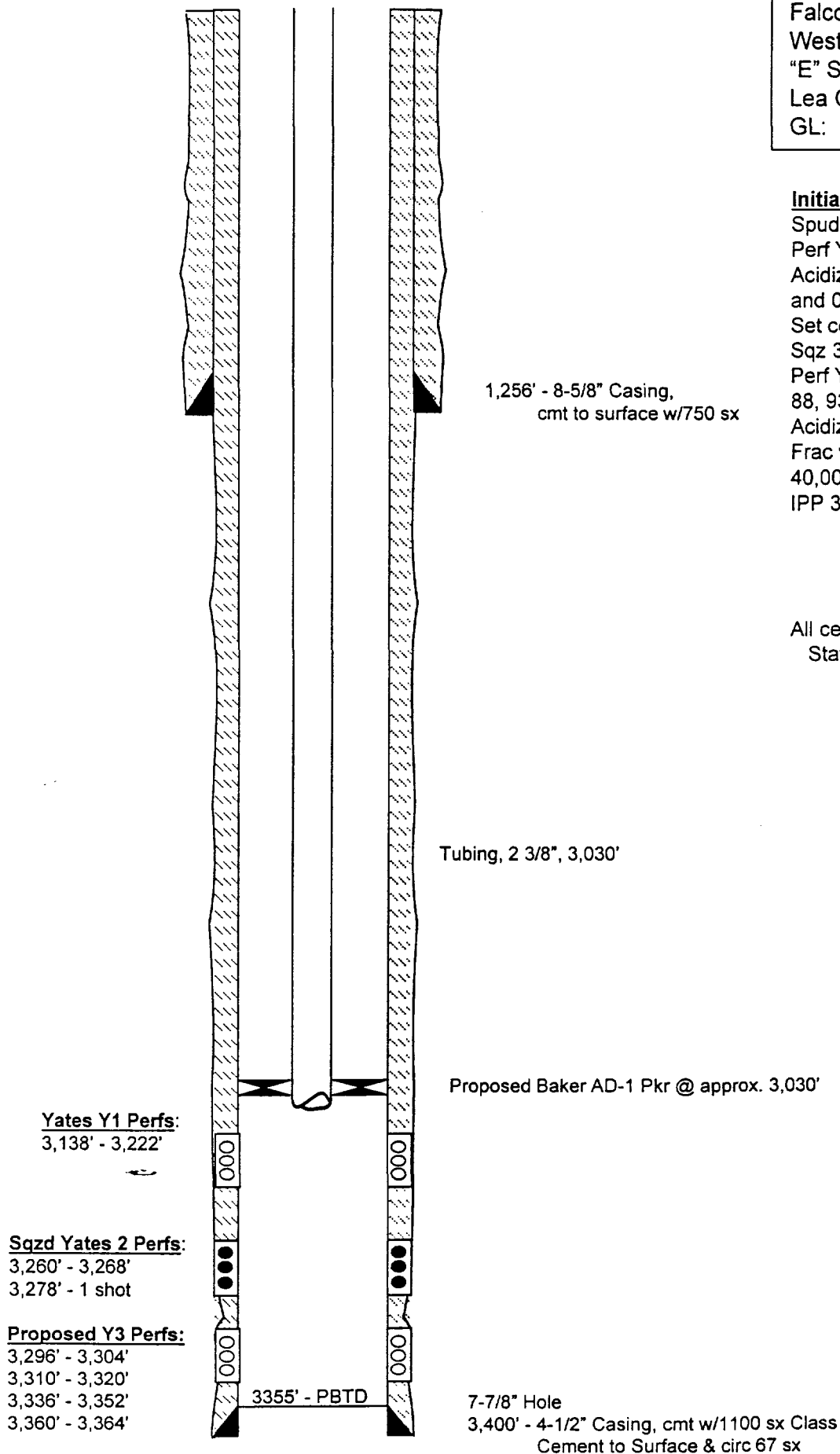
# Falcon Creek Resources, Inc.

**Proposed Injector**  
Barber Federal #2  
Falcon Creek Resources  
West Teas Field  
"E" Section 9, T20S, R33E  
Lea County, New Mexico  
GL: 3,555'; KB: 3,565'

## Initial Completion

Spud well 8-24-87  
Perf Y2 3,260, 64, 66, 68 & 3,278' 2 SPF  
Acidize w/ 750 gals 15% NeFe, swab load  
and 0.3 Bbl/HR 8-10% oil  
Set cement retainer @ 3,250'  
Sqz 3,260-3,278' w/ 50 sx  
Perf Y1 3,138, 41, 44, 52, 55, 59, 63, 66,  
88, 93, 3202, 08, 16, 22' 1 SPF (14 holes)  
Acidize w/ 1,000 gal 15% NeFe  
Frac w/ 33,988 gal 50% CO<sub>2</sub> foam,  
40,000# 20/40, 28,000# 10/20  
IPP 35 BOPD 40 BWPD

All cement information was from  
State Sundry Notices



# Falcon Creek Resources, Inc.

## Proposed Injector

Federal 9 #6

Falcon Creek Resources, Inc.

West Teas Field

1,650' FNL 990' FEL

"H" Section 9, T20S, R33E

Lea County, New Mexico

GL: 3,551'; KB: 3,562'

## Initial Completion

Spud well 5-16-94

Perf Seven Rivers @ 3285'-3288' 4 JSPF

Acidize w/1000 gals 15% NeFe

Perf Seven Rivers from 3288'-3300' 1 JSPF

Acidize w/1000 gals 15% NeFe

Set CIBP @ 3270'

Perf Yates Y1 & Y2 3060'-3176' 2 JSPF

Acidize w/2500 gals 15% NeFe

Frac w/ 42,000 gal xlink gel &

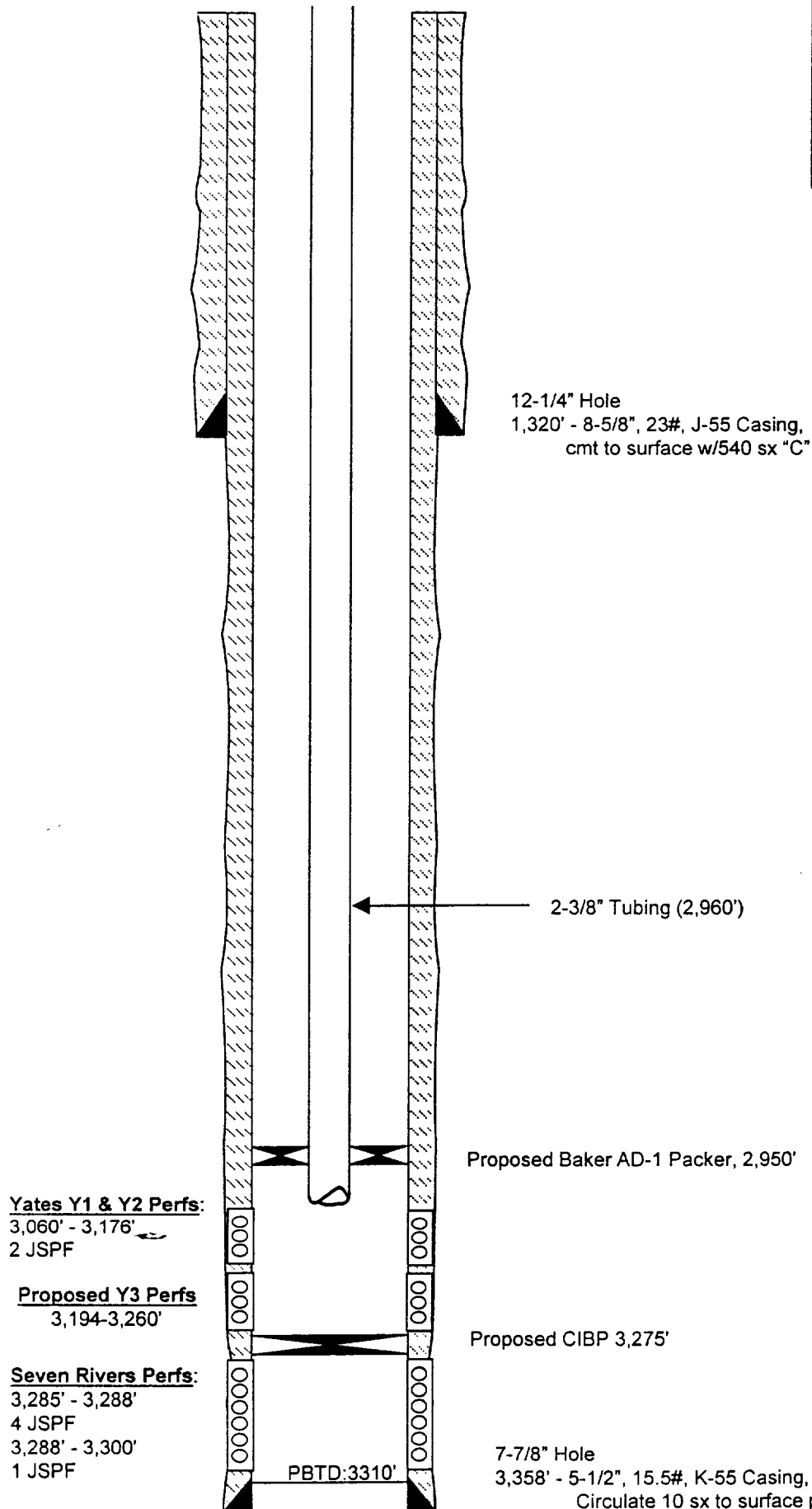
133,000# of 12/20 sd.

IPP: 97 BO, 14 BW, 1 MCF

**10/96**

CIBP recovered and bailed out hole to  
3,310' (add 7 Rivers)

Cement Information is from State Reports



# Falcon Creek Resources, Inc.

## Proposed Injector

State BF #4

Falcon Creek Resources

West Teas Field

"A" Section 16, T20S, R33E

Lea County, New Mexico

GL: 3,552'; KB: 3,557'

## Initial Completion

Spud well 11-17-95

Perf Yates Y3 3374'-3,394'

Acidize w/ 1500 gals 15% NeFe

Set CIBP 3365'

Perf Y1 & Y2 @ 3160'-3294'

Acidize w/ 1500 gals 15% NeFe

Frac w/ 98,000# 12/20 sd & 786 bbls

Borate gel.

Install Rods and Pump

IPP: 6 BO, 6 MCF, 50 BW (11% oil)

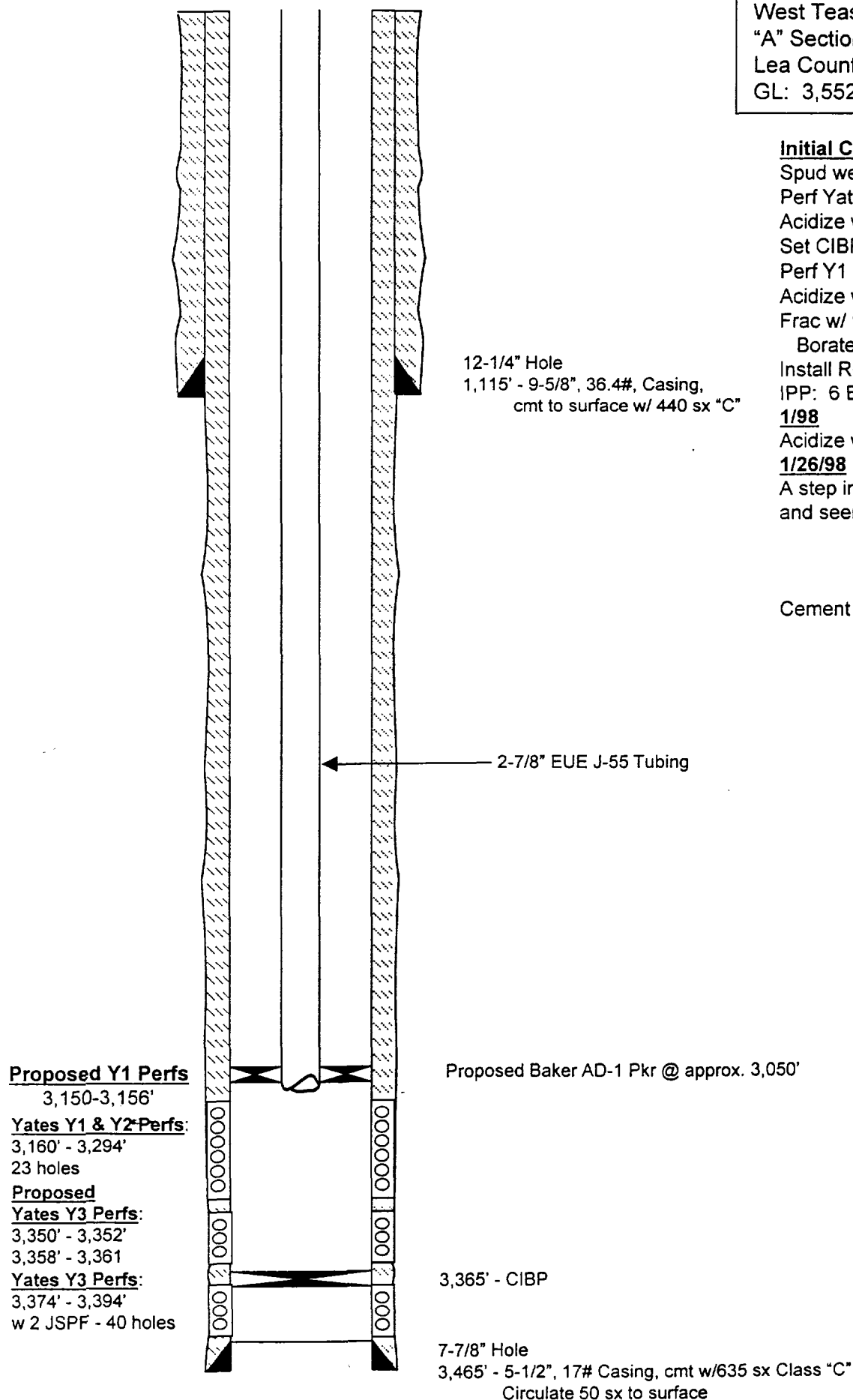
1/98

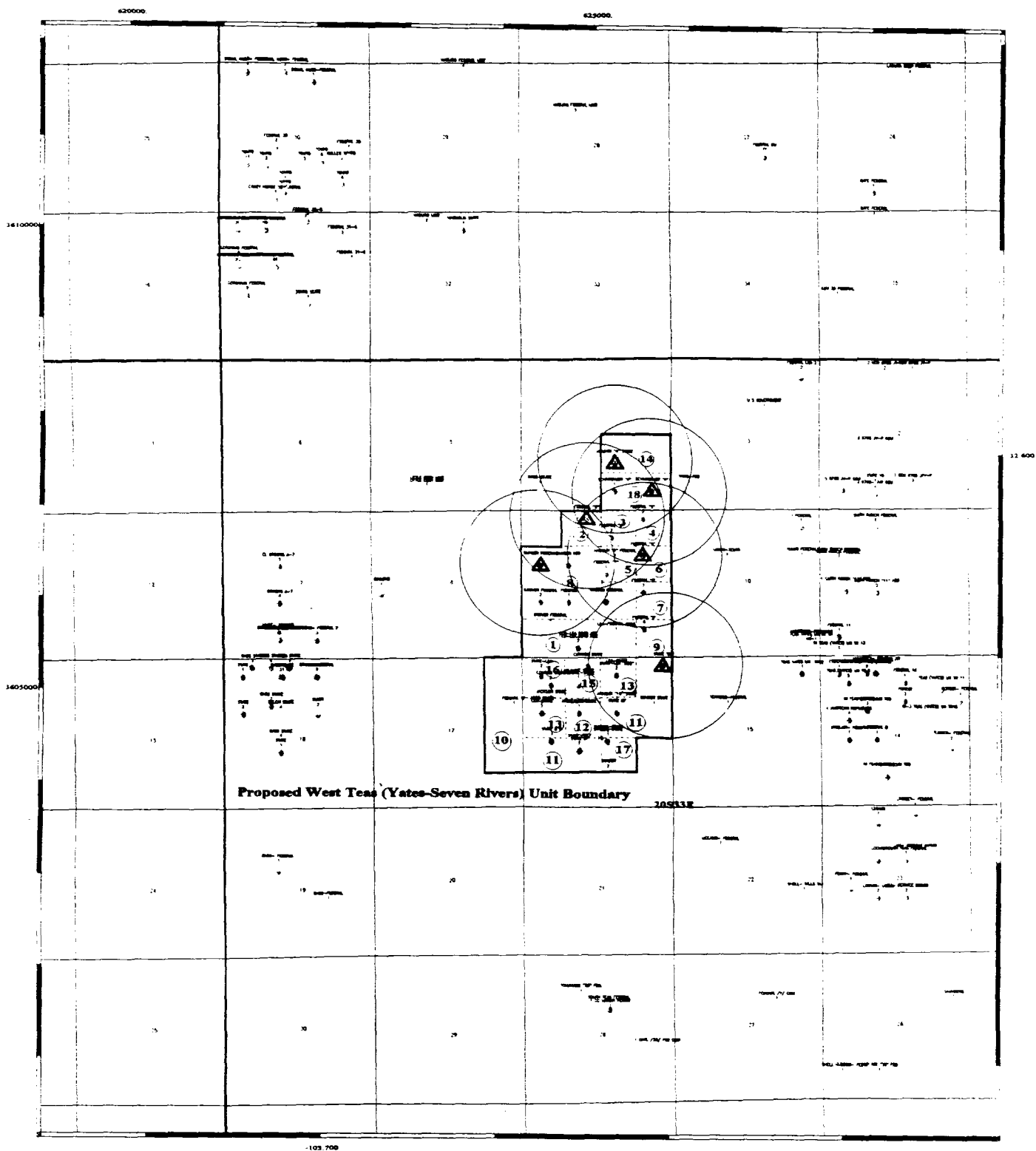
Acidize w/1000 gals 15% NeFe acid

1/26/98

A step injection rate test was conducted and seems to be permitted for SWD well.

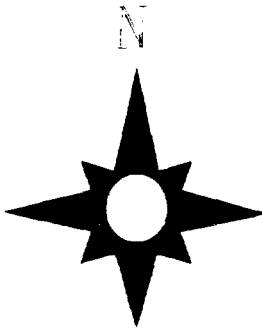
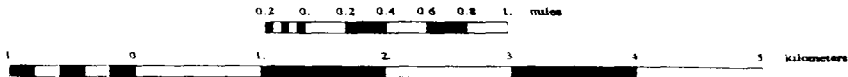
Cement Information is from State Reports





Falcon Creek Resources, Inc.		
West Teas Field, Lea Co. NM Wells Proposed for Injection and Wells Within Two Miles		
Section V	Injection App	Form C-108
Joe C	Scale 1:45000	8/20/99

Scale 1:45000.



**Falcon Creek Resources, Inc.**

Tabulation of Data on Wells In Review Area  
Application for Authorization to Inject

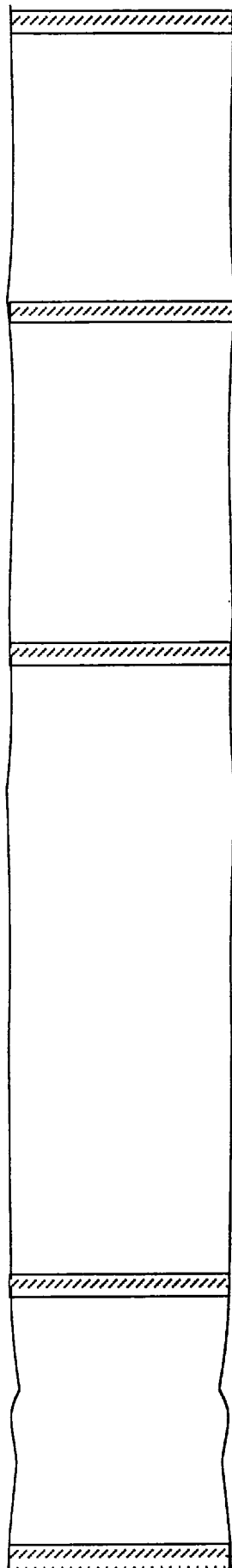
VI.

Operator	Lease/Well	Status	Location	Spud Date	Drilled TD PBD	Surface Casing			Production Casing			Producing Performances
						Size	Depth	Cement	Size	Depth	Cement	
McGrath & Smith	Trigg Federal #1	D&A	M, 3-T20S-R33E	1/29/57	3435'				All casing has been pulled from well			
Bass Enterprises Prod. Co.	Anasazi 4 State #3	Prod. Oil	J, 4-T20S-R33E	11/8/94	3550'	8-5/8"	1368'	710 sx "C"	5-1/2"	3550'	780 sx "C"	3230'-3292' (Yates)
L.S. & R. Petroleum Co.	Bass-State #1	D&A	M, 4-T20S-R33E	5/30/63	3410'	12-1/2"	219'	125 sx "C"	8-5/8" & 10" Pulled at Abandonment			
Mitchell Energy	Scharbauer "4" #1	Prod. Oil	O, 4-T20S-R33E	Apr-93	13,720'	13-3/8"	2,950'	2,207 sx	8-5/8"	5,382'	885 sx	3,156-3,273' (Yates)
Mitchell Energy	Scharbauer 4 #3	Prod. Oil	P, 4-T20S,R33E	9/7/95	3230'	8-5/8"	1354'	700 sx "C"	4-1/2"	3373'	815 sx "C"	3104'-3188' (Yates)
Falcon Creek Resources, Inc.	Federal "9" #5	Prod. Oil	A, 9-T20S-R33E	4/2/94	3384'	8-5/8"	1320'	680 sx "C"	5-1/2"	3384'	685 sx "C"	3076'-3158' (Yates)
Falcon Creek Resources, Inc.	Federal "9" #2	Prod. Oil	B, 9-T20S-R33E	10/7/92	3311'	8-5/8"	1300'	640 sx "C"	5-1/2"	3311'	475 sx "C"	3062'-3308' (Yates)
Falcon Creek Resources, Inc.	Federal "9" #3	Prod. Oil	C, 9-T20S-R33E	5/28/93	3320'	8-5/8"	1300'	540 sx "C"	5-1/2"	3320'	580 sx "C"	3161'-3252' (Yates)
Falcon Creek Resources, Inc.	Barber Federal #2	Prod. Oil	E, 9-T20S-R33E	8/24/87	3400'	8-5/8"	1256'	600 sx "C"	4-1/2"	3400'	750 sx "C"	3138'-3278' (Yates)
Falcon Creek Resources, Inc.	Barber Federal #1	Prod. Oil	F, 9-T20S-R33E	4/29/87	3404'	8-5/8"	1261'	650 sx "C"	4-1/2"	3400'	950 sx "C"	3092'-3147' (Yates)
Falcon Creek Resources, Inc.	Federal "9" #1	Prod. Oil	G, 9-T20S-R33E	11/10/90	3445'	8-5/8"	1243'	450 sx "C"	5-1/2"	3445'	775 sx "C"	3042'-3257' (Yates)
Mitchell Energy	Anasazi 9 Fed #1	Prod. Gas	G, 9-T20S-R33E	5/12/92	13779'	13-3/8"	2947'	2350 sx "C"	8-5/8"	5272'	1250 sx "C"	13289'-13428' (Morrow)
Falcon Creek Resources, Inc.	Federal "9" #6	Prod. Oil	H, 9-T20S-R33E	5/16/94	3,378' 3,310'	8-5/8"	1,320'	540 sx "C"	5-1/2"	3,358'	785 sx "C"	3,060-3,300' (Yates-Seven R.)

Surface Casing										Production Casing			
Operator	Lease/Well	Status	Location	Spud Date	Drilled TD PBD	Size	Depth	Cement	Size	Depth	Cement	Producing Perforations	
Falcon Creek Resources, Inc.	Federal "9" #7	Prod. Oil	I, 9-T20S-R33E	8/28/95	3358'	8-5/8"	1310'	800 sx "C"	5-1/2"	3358'	635 sx "C"	3270'-3227' (Seven Rivers)	
Falcon Creek Resources, Inc.	Grover Federal #3	Prod. Oil	J, 9-T20S-R33E	2/26/88	3,425'	8-5/8"	1,218'	750 sx	4-1/2"	3,420'	650 sx	3,022'-3,100' (Yates)	
Falcon Creek Resources, Inc.	Grover Federal #1	Prod. Oil	K, 9-T20S-R33E	2/16/87	3400'	8-5/8"	1265'	750 sx "C"	4-1/2"	3398'	90 sx "C"	3154'-3180' (Yates)	
Falcon Creek Resources, Inc.	Grover Federal #2	Prod. Oil	L, 9-T20S-R33E	11/12/87	3400'	8-5/8"	1256'	750 sx "C"	4-1/2"	3400'	1100 sx "C"	3217'-3239' (Yates)	
Grover- McKinney Oil Co.	Grover Federal #4	D&A	M, 9-T20S-R33E	3/2/88	3400'	8-5/8"	1252'	700 sx "C"	Well has been plugged				
Atlantic Richfield Co.	Lea 6015 Fed #1	D&A	O, 9-T20S-R33E	4/3/60	3300'	9-5/8"	1357'	450 sx "C"	7"	3022'	450 sx "C"	3054'-3264' (Yates)	
									5"	3300'	50 sx "C"		
Falcon Creek Resources, Inc.	Federal 9 #8	Prod. Oil	P, 9-T20S-R33E	7/12/96	3462'	8-5/8"	1313'	800 sx "C"	5-1/2"	3462'	610 sx "C"	3116'-3144' (Yates)	
Falcon Creek Resources, Inc.	State BF #4	SI Oil	A, 16-T20S-R33E	11/17/95	3470'	12-1/4"	1115'	440 sx "C"	5-1/2"	3465'	635 sx "C"	3160'-3294'	
Sinclair Oil & Gas	Lea 886 State #2	P&A	B, 16-T20S-R33E	2/26/60	3360'	9-5/8"	1308'	914 sx "C"	Well has been plugged				
Falcon Creek Resources, Inc.	Conoco St. #1	Prod. Oil	C, 16-T20S-R33E	7/23/96	3311'	8-5/8"	1313'	800 sx "C"	5-1/2"	3,311'	610 sx "C"	3205'-3215' (Seven Rivers)	
Falcon Creek Resources, Inc.	Anasazi "16" State Com. #1	SWD	G, 16-T20S-R33E	5/28/93	13858'	20"	497'	600 sx "C"	8-5/8"	5299'	700 sx "C"	5554'-5684'	
Falcon Creek Resources, Inc.	State BF #1	P&A Oil	G, 16-T20S-R33E		3275'	13-3/8"	2964'	1850 sx "C"	5-1/2"	13858'	1200 sx "C"	2989'-3212'	
						9-5/8"	1245'		5-1/2"	3275'	50 sx "C"		
Olsen Energy	Snyder State 1 (Olsen)	D&A	H, 16-T20S-R33E	2/22/89	3429'	8-5/8"	1259'	640 sx "C"	Well has been plugged				
Knox, Gordon & Assoc.	Tenneco Federal #1	D&A	F, 20-T20S-R33E	12/31/63	3,418'	9-5/8"?	1,350'	7" & 4-1/2" Casing Pulled at Abandonment					

# Falcon Creek Resources, Inc.

Trigg Federal #1  
McGrath & Smith  
West Teas Field  
660' FSL 660' FWL  
"M" Section 3, T20S, R33E  
Lea County, New Mexico  
GL: 3,553'; KB: 3,568'



Cmt Plug @ 600' w/ 10 sx

## **Initial Completion**

Spud well 1-29-57  
Swabbed 640 BW  
P&A 2/57

Pulled all casing out of hole

P&A information is from State  
Reports

1,300' - Cmt Plug w/ 25 sx

1300' - 3190' Wooden Plug

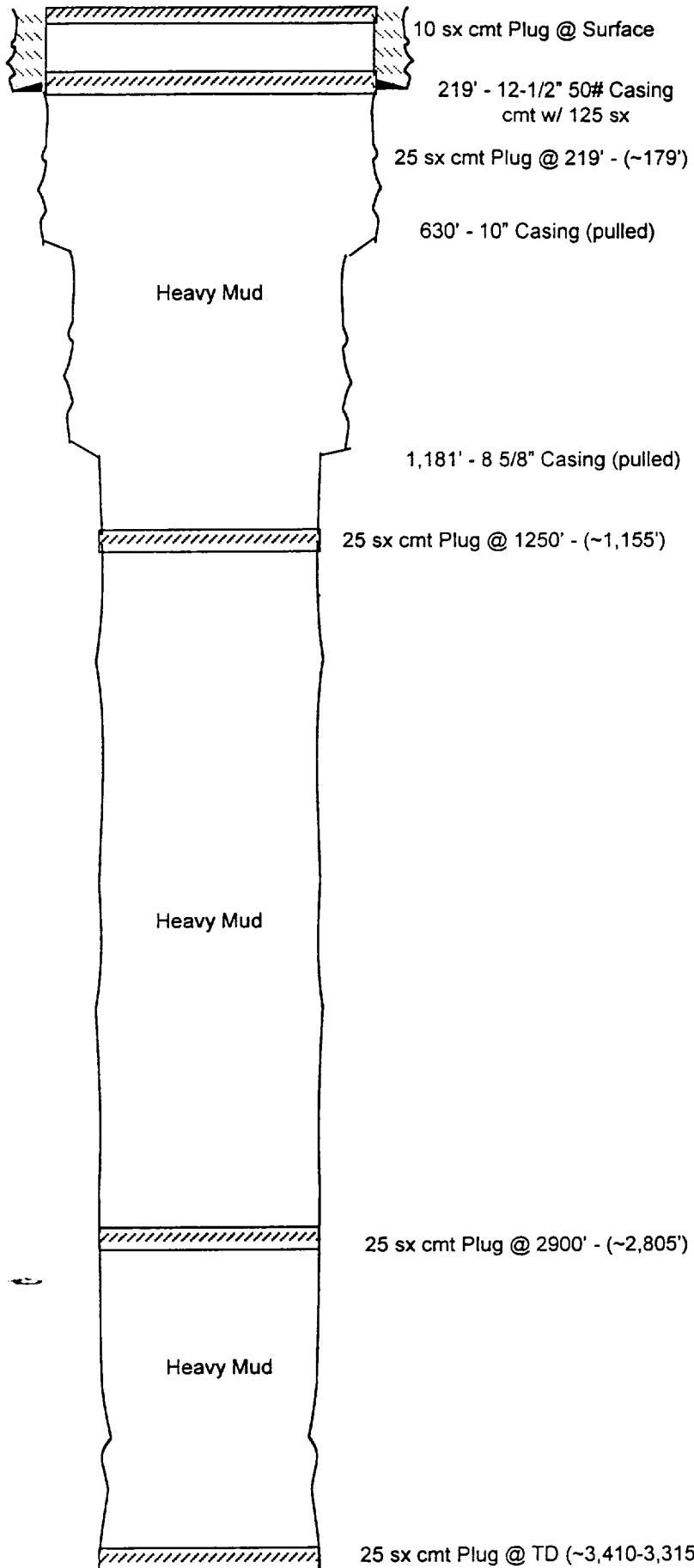
3,190' - 3250' Cmt Plug w/ 20 sx

3,375' - 3435' Cmt Plug w/ 20 sx

TD: 3435'

# Falcon Creek Resources, Inc.

Bass State #1  
L.S. & R. Petroleum Co.  
West Teas Field  
660' FSL 660' FWL  
"M" Section 4, T20S, R33E  
Lea County, New Mexico  
DF: 3,556'



## Initial Completion

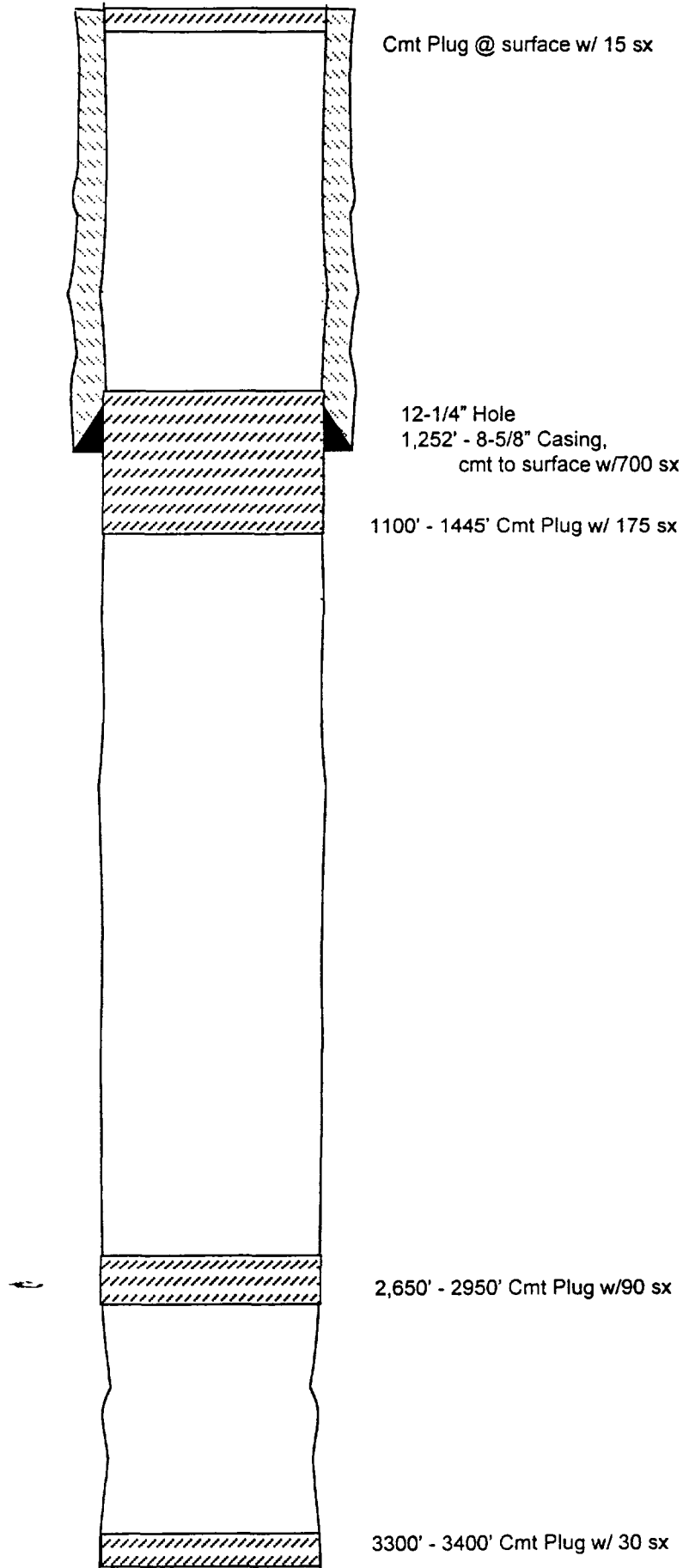
Spud well 5-30-63  
Hole Full of Water @ TD  
P&A 7/10/63  
8-5/8" & 10" Casing pulled  
Heavy mud between plugs.

All plugging information was from  
State Reports



# Falcon Creek Resources, Inc.

Federal #4  
Grover - McKinney Oil Co.  
West Teas Field  
990' FSL 990' FWL  
"M" Section 9, T20S, R33E  
Lea County, New Mexico  
GL: 3,531'; KB: 3,541'



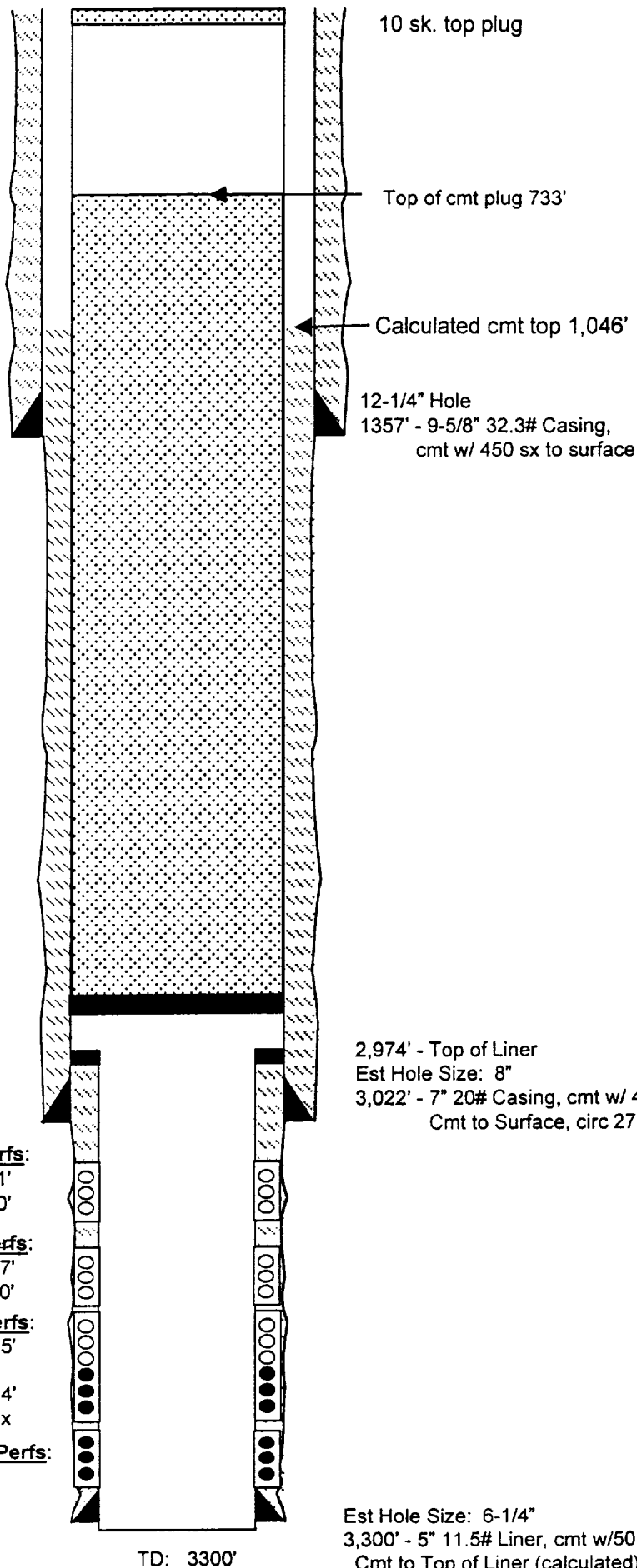
## Initial Completion

Spud well 3-2-88  
DST 3023'-3195'  
R/60' DF, PFFP 114-114,  
ISIP=343, FP 114-114, FSIP 251,  
HP 1646-1646.  
P&A

Plugging information is from  
State Reports

# Falcon Creek Resources, Inc.

Lea 6015 ARC Federal #1  
Atlantic Richfield Co.  
West Teas Field  
660' FSL 1,980' FEL  
"O" Section 9, T20S, R33E  
Lea County, New Mexico  
DF: 3,550'



## Initial Completion

Spud 4-3-60

Perf Yates Y3 3199-3214

Acidize w/ 500 gals, Sqzd w/ 175 sx

Perf Seven Rivers 3252'-3264'

Acidize w/ 250 gals, Sqzd w/ 50 sx

Perf Y3 3199'-3215', Acidize w/ 250 gals

Frac w/ 2000 gals, Sqzd perfs

Perf Y2 3122'-3130', Acidize w/ 250 gal

Sqzd perfs.

D&A

1/69

Perf Yates Y2 3110'-3117'; 3122'-3130';

Perf Yates Y3 3180', 3195', 3199'-3214' -

70 holes

Acidize w/ 2500 gals

Completed as SWD

12/70

Perf Yates Y1: 3054'-3061'; 3066'-3090';

Acidize w/ 3000 gals

Converted to WIW

2/75

Set cmt retainer @ 2800'

Sqz thru retainer w/45 sx "C"

Spotted 225 sx "C" on top of retainer

Top of cmt @ 733'.

Spotted 10 sx "C" from 40'-surface

Note: Never Produced

## Yates Y1 Perfs:

3,054' - 3,061'

3,066' - 3,090'

## Yates Y2 Perfs:

3,110' - 3,117'

3,122' - 3,130'

## Yates Y3 Perfs:

3,180' - 3,195'

3,199' - 3,214'

sqz w/ 175 sx

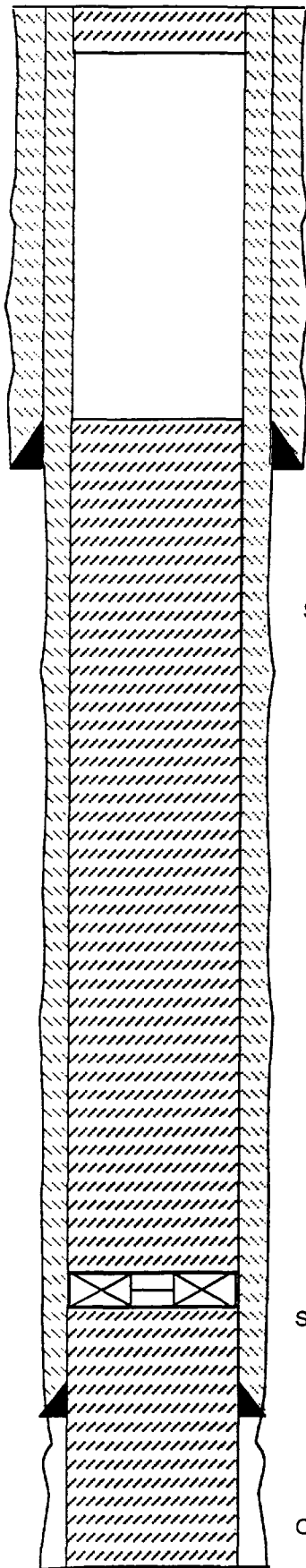
## Seven Rivers Perfs:

3,252' - 3,264'

sqz w/ 50 sx

# Falcon Creek Resources, Inc.

Lea 886 State #2  
Sinclair Oil & Gas  
West Teas Field  
660' FNL 1,980 FEL  
"B" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,544'



10 sk top plug  
40 - 0'

1,308' - 9-5/8" Casing,  
cmt to surface w/914 sx

Spot 225 sx. 2,850-1,200'

Squeeze under retainer w/ 50 sx

Est Hole Size: 8"  
2,950' - 7" Casing, cmt w/450 sx  
Calculated vol.

Open Hole Completion Y1, Y2, Y3, & 7Rivers

## Initial Completion

Spud well 2-26-60  
DST 3305'-3360' - wet  
PB to 3274'  
OH Yates from 2950'-3274'  
IPP: 139 BOPD

P&A 2/4/75

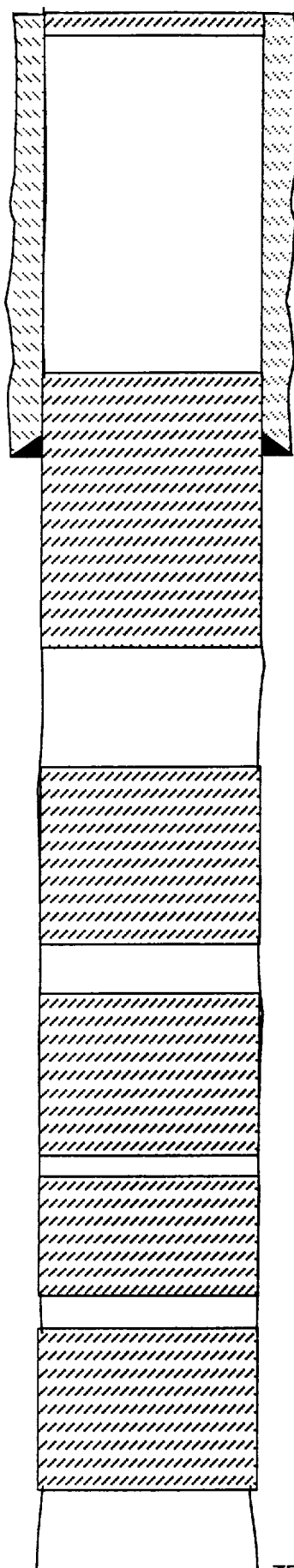
All casing cement information was  
estimated by calculations.  
Plugging data from Sundry.

OH Yates:  
2,950' - 3,274'

TD: 3360'

# Falcon Creek Resources, Inc.

Snyder State #1  
Olsen Energy  
West Teas Field  
1,980' FNL 660' FEL  
"H" Section 16, T20S, R33E  
Lea County, New Mexico  
GR: 3,550'



## Initial Completion

Spud well 2-22-89  
DST #1, 3060'-3200', Rec 1' mud  
Opn 15 min, IFP 85, FFL 64,  
Fnl Opn 30 min IFP 85, FFP 64, ISIP  
233, FSIP 339, IHP 1650, FHP 1650  
Open w/ weak blow dean in 6 min.  
DST #2 3198-3299', Rec 100' mud,  
Opn 30 min, IFP 42 FFP 127  
Fnl Opn 1 hr, IFP 106, FFP 127  
ISIP 1333, FSIP 1333, HP 1713-1692  
Plugs set at 2933' w/ 148 sx,  
3271' w/ 205', 2718' w/ 195 sx,  
2132 w/ 195 sx, surface w/ 10 sx  
**P&A 3/2/89**

Plugging information is from State Forms

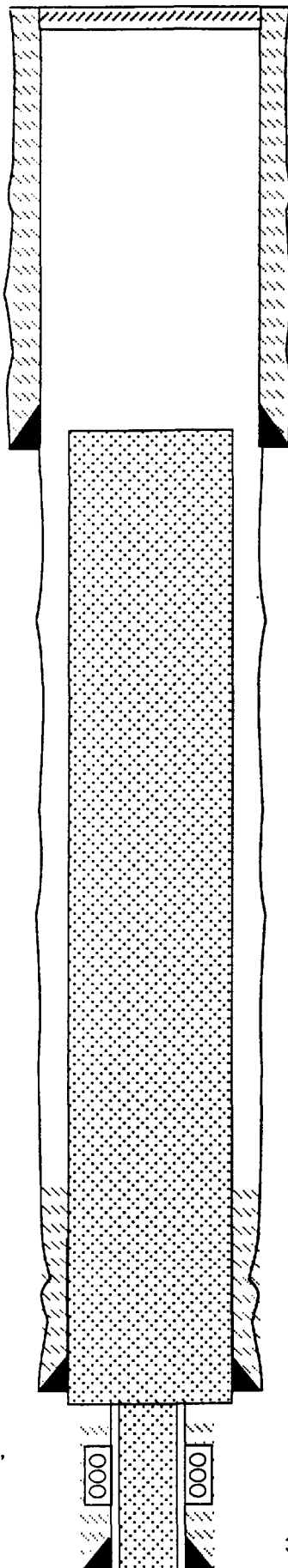
# Falcon Creek Resources, Inc.

Tenneco Federal #1  
Knox, Gordon & Assoc.  
West Teas Field  
1,980' FNL 1,980' FWL  
"F" Section 15, T20S, R33E  
Lea County, New Mexico  
GL: 3,532'

## Initial Completion

Spud well 12-31-63  
Perf Yates from 3206'-321'  
Acidize w/ 500 gals  
Swabbed 95% water, 5% oil  
P&A

All cementing information is from  
State Reports



Cmt Plug @ surface

Surface Csg @ 1,350'  
Cmt to surface

1,200' - 3,050' Cmt Plug

7" Casing Pulled from Surface to 2685'

4-1/2" Casing Pulled from Surface to 2950'

3,038' - 7" Casing, cmt w/30 sx

3,418' - 3,050' Cmt Plug

3,418' - 4-1/2" Casing, cmt w/30 sx

Yates Perfs:  
3,206' - 3,216'

**Falcon Creek Resources, Inc.  
West Teas (Yates-Seven Rivers) Field  
Application for Authorization to Inject  
NMOCD Form C-108**

**VII. Proposed Injection Operations**

- 1) **Injection Rate (per well):**

Average	500 BWPB
Maximum	750 BWPB
  
- 2) **Injection System:** Closed
  
- 3) **Injection Pressure (wellhead):**

Average	600 psig
Maximum	1,200 psig

Note: Following a step-rate test conducted on State "BF" #4 (NE/4 NE/4 16-T20S-R33E) on 1/26/98, the NMOCD approved a surface injection pressure of 1,282 psig into the Yates sand.
  
- 4) **Injection Fluid:** Water from Yates and Seven Rivers production within proposed West Teas (Yates – Seven Rivers) Unit (analyses attached)

**VIII. Geologic Data**

**A. Injection Zone**

- 1) **Name:** Yates Formation
  
- 2) **Description:**

Injection will be into the Yates Sand sub-units productive within the field. The sand units are developed within the field at depths ranging from 3,000' to 3,450'. These intervals are fine-grained to very fine-grained sandstones divided by siltstones and dense dolomitic layers. The total net thickness of the sands varies from 40 to 100 feet with lateral discontinuities present in the individual layers. Average porosity in the "pay" sands is 15.7%, average permeability is approximately 1 md.

## **B. Fresh Water Sources**

The State Engineer's Office reports fresh water production potential from Quaternary alluvium at about 56' in the SW/4 of section 4 and the NE/4 of section 20, T20S R33E. One permitted water well was reported in SW/4 SE/4 SW/4 section 5 T20S R33E with sands noted in the interval 520-675' (Dewey Lake fm.?) A copy of the Well Record from the State Engineer's Office for that well is attached. No other sources are noted overlying the oil producing interval. The Seven Rivers Formation directly underlies the Yates, it is a hydrocarbon producing interval on the West Teas Field structure and is proposed to be included in the West Teas unitized interval. No injection is proposed for the Seven Rivers Formation.

## **IX. Proposed Stimulation Program**

The Yates intervals proposed for injection in the six wells comprising Stage I of the proposed waterflood have generally been fracture stimulated for production. Additional Yates perforations, to be added at conversion to water injection, will be acidized with 100 gallons/foot 15% HCl and fracture stimulated when the new perforations are adequately isolated from the pre-existing perforated zones. Typical fracture stimulation treatments contain about 80,000 pounds of sand in a cross-linked, water-based gel.

## **X. Logging and Test Data**

No additional drilling is proposed in Stage I waterflood development aside from the deepening of the Federal "9" #3 well to include additional Yates section. Any additional logs or tests will be submitted to the NMOCD at the time they are obtained.

## **XI. Fresh Water Analysis**

A review of the area within one mile of proposed injection wells and a conversation with the local rancher indicates that there are no active fresh water wells in the area.

## **XII. Disposal Well Statement**

This section does not apply to the application since no disposal wells are being proposed.

## **XIII. Proof of Notice**

A copy of this application has been furnished to all surface owners and leasehold operators within the "area of review".

# Permian Treating Chemicals

## WATER ANALYSIS REPORT

### SAMPLE

Oil Co. : Stevens & Tull  
Lease : State "BF"  
Well No. : Disp.  
Salesman :

Sample Loc. :  
Date Analyzed: 09-September-1997  
Date Sampled :

### ANALYSIS

1. pH 7.250
2. Specific Gravity 60/60 F. 1.010
3. CaCO<sub>3</sub> Saturation Index @ 80 F. +0.856  
@ 140 F. +1.756

#### Dissolved Gasses

- |                     | MG/L | EQ. WT.        | *MEQ/L |
|---------------------|------|----------------|--------|
| 4. Hydrogen Sulfide |      | Present        |        |
| 5. Carbon Dioxide   |      | Not Determined |        |
| 6. Dissolved Oxygen |      | Not Determined |        |

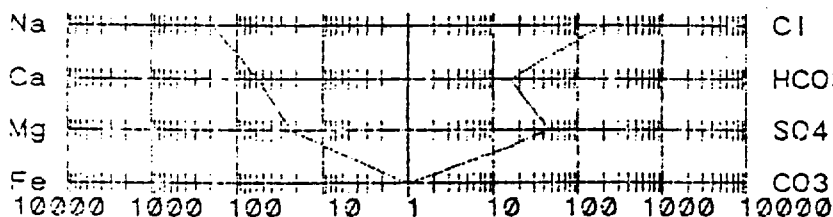
#### Cations

- |   |                |          |        |
|---|----------------|----------|--------|
| 7. Calcium (Ca <sup>++</sup> )            | 1,090          | / 20.1 = | 54.23  |
| 8. Magnesium (Mg <sup>++</sup> )          | 265            | / 12.2 = | 21.72  |
| 9. Sodium (Na <sup>+</sup> ) (Calculated) | 4,181          | / 23.0 = | 181.79 |
| 10. Barium (Ba <sup>++</sup> )            | Not Determined |          |        |

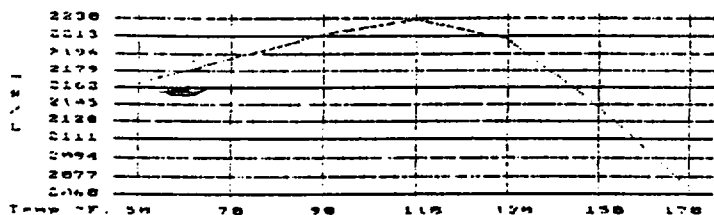
#### Anions

- |  |            |          |        |
|--|------------|----------|--------|
| 11. Hydroxyl (OH <sup>-</sup> )                  | 0          | / 17.0 = | 0.00   |
| 12. Carbonate (CO <sub>3</sub> <sup>=</sup> )    | 0          | / 30.0 = | 0.00   |
| 13. Bicarbonate (HCO <sub>3</sub> <sup>-</sup> ) | 908        | / 61.1 = | 14.86  |
| 14. Sulfate (SO <sub>4</sub> <sup>=</sup> )      | 2,200      | / 49.9 = | 45.08  |
| 15. Chloride (Cl <sup>-</sup> )                  | 6,998      | / 35.5 = | 197.13 |
| 16. Total Dissolved Solids                       | 15,642     |          |        |
| 17. Total Iron (Fe)                              | 2          | / 18.2 = | 0.08   |
| 18. Total Hardness As CaCO <sub>3</sub>          | 3,811      |          |        |
| 19. Resistivity @ 75 F. (Calculated)             | 0.352 /cm. |          |        |

#### LOGARITHMIC WATER PATTERN \*meq/L.



#### Calcium Sulfate Solubility Profile



#### PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X \*meq/L = mg/L.

Cl	Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	14.86	1,204
HCO <sub>3</sub>	CaSO <sub>4</sub>	68.07	39.37	2,680
SO <sub>4</sub>	CaCl <sub>2</sub>	55.50	0.00	0
CO <sub>3</sub>	Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	0.00	0
	MgSO <sub>4</sub>	60.19	5.71	344
	MgCl <sub>2</sub>	47.52	16.21	762
	NaHCO <sub>3</sub>	34.30	0.00	0
	NaSO <sub>4</sub>	71.03	0.00	0
	NaCl	58.46	191.10	10,566

\*Milli Equivalents per Liter

This water is mildly corrosive due to the pH observed on analysis.  
The corrosivity is increased by the content of mineral salts, and the presence  
of H<sub>2</sub>S in solution.



# Permian Treating Chemicals

## WATER ANALYSIS REPORT

### SAMPLE

Oil Co. : Stevens & Tull  
Lease : Federal 9  
Well No. : # 7  
Salesman :

Sample Loc. :  
Date Analyzed: 09-September-1997  
Date Sampled :

### ANALYSIS

1. pH 6.880
2. Specific Gravity 60/60 F. 1.008
3. CaCO<sub>3</sub> Saturation Index @ 80 F. +0.417  
@ 140 F. +1.277

#### Dissolved Gasses

- |                     | MG/L           | EQ. WT. | *MEQ/L |
|---------------------|----------------|---------|--------|
| 4. Hydrogen Sulfide |                | Present |        |
| 5. Carbon Dioxide   | Not Determined |         |        |
| 6. Dissolved Oxygen | Not Determined |         |        |

#### Cations

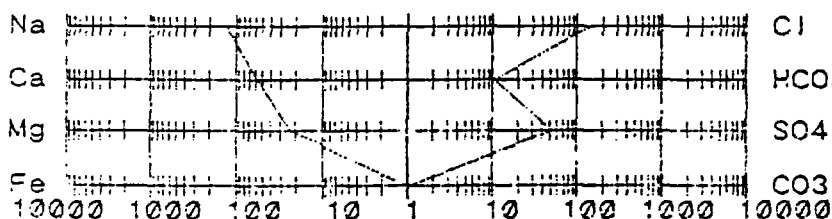
- |   |                |          |        |
|---|----------------|----------|--------|
| 7. Calcium (Ca <sup>++</sup> )            | 1,090          | / 20.1 = | 54.23  |
| 8. Magnesium (Mg <sup>++</sup> )          | 265            | / 12.2 = | 21.72  |
| 9. Sodium (Na <sup>+</sup> ) (Calculated) | 2,894          | / 23.0 = | 125.83 |
| 10. Barium (Ba <sup>++</sup> )            | Not Determined |          |        |

#### Anions

- |  |        |          |        |
|--|--------|----------|--------|
| 11. Hydroxyl (OH <sup>-</sup> )                  | 0      | / 17.0 = | 0.00   |
| 12. Carbonate (CO <sub>3</sub> <sup>=</sup> )    | 0      | / 30.0 = | 0.00   |
| 13. Bicarbonate (HCO <sub>3</sub> <sup>-</sup> ) | 615    | / 61.1 = | 10.07  |
| 14. Sulfate (SO <sub>4</sub> <sup>=</sup> )      | 2,450  | / 48.8 = | 50.22  |
| 15. Chloride (Cl <sup>-</sup> )                  | 4,999  | / 35.5 = | 140.82 |
| 16. Total Dissolved Solids                       | 12,313 |          |        |
| 17. Total Iron (Fe)                              | 3      | / 19.2 = | 0.14   |
| 18. Total Hardness As CaCO <sub>3</sub>          | 3,811  |          |        |
| 19. Resistivity @ 75 F. (Calculated)             | 0.387  | /cm.     |        |

#### LOGARITHMIC WATER PATTERN

\*meq/L.



#### Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION				
COMPOUND	EQ. WT.	X	*meq/L	= mg/L.
Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04		10.07	816
CaSO <sub>4</sub>	68.07		44.16	3,026
CaCl <sub>2</sub>	55.50		0.02	0
Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17		0.00	0
MgSO <sub>4</sub>	50.19		6.04	364
MgCl <sub>2</sub>	47.62		15.62	747
NaHCO <sub>3</sub>	84.00		0.00	0
NaSO <sub>4</sub>	71.03		0.00	0
NaCl	58.46		125.14	7,316

\*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis.  
The corrosivity is increased by the content of mineral salts, and the presence of H<sub>2</sub>S in solution.

## WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

## Section 1


(A) Owner of well Pan American Pet. Corp.Street and Number Box 68City Hobbs, State N. M.Well was drilled under Permit No. CP-317 and is located in the  
SW 1/4 SE 1/4 SW 1/4 of Section 5 Twp. 20 Rge. 33(B) Drilling Contractor Abbott Bros. License No. WD-46Street and Number Box 637City Hobbs State N. M.Drilling was commenced Feb. 5 19 66Drilling was completed Feb. 17 19 66

(Plat of 640 acres)

Elevation at top of casing in feet above sea level \_\_\_\_\_ Total depth of well 680'State whether well is shallow or artesian shallow Depth to water upon completion 325'

## Section 2

## PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1	520	540	20	Brown Water Sand
2	625	645	20	Brown Water Sand
3	660	675	15	Brown Water Sand
4				
5				

## Section 3

## RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To
7"	23	10	0	575	575	none	515	575

## Section 4

## RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				

## Section 5

## PLUGGING RECORD

Name of Plugging Contractor \_\_\_\_\_ License No. \_\_\_\_\_

Street and Number \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

Tons of Clay used \_\_\_\_\_ Tons of Roughage used \_\_\_\_\_ Type of roughage \_\_\_\_\_

Plugging method used \_\_\_\_\_ Date Plugged \_\_\_\_\_ 19 \_\_\_\_\_

Plugging approved by: \_\_\_\_\_

Cement Plugs were placed as follows:

No.	Depth of Plug		No. of Sacks Used
	From	To	

Basin Supervisor \_\_\_\_\_

FOR USE OF STATE ENGINEER ONLY

Date Received \_\_\_\_\_

1966 FEB 24 AM 8:36

File No. CP-317 Use over Location No. 20.33.35.34.32

.20.33.5.34.32.1

## LOG OF WELL

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Elliott Bros. By Merrill Elliott  
Well Driller

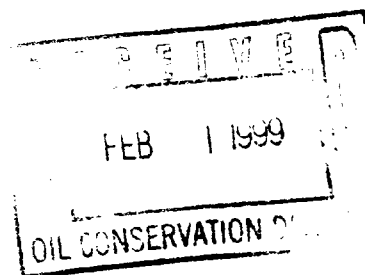
0778 0511

# FALCON CREEK RESOURCES, INC.

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

(303) 675-0007 (303) 675-0008 Facsimile

January 27, 1999



Oil Conservation Division  
2040 Pacheco St.  
Santa Fe, New Mexico 87505

RE: Application for Authorization to Inject  
West Teas Field  
Section 4, 9 & 15, T20S, R33E  
Lea County, New Mexico

Gentlemen:

Please find enclosed several wellbore diagrams. After further investigation, we found a few changes to these diagrams, please replace the current diagram in our application to inject.

Please advise if you have any questions, or need additional information. We appreciate your prompt attention with this matter.

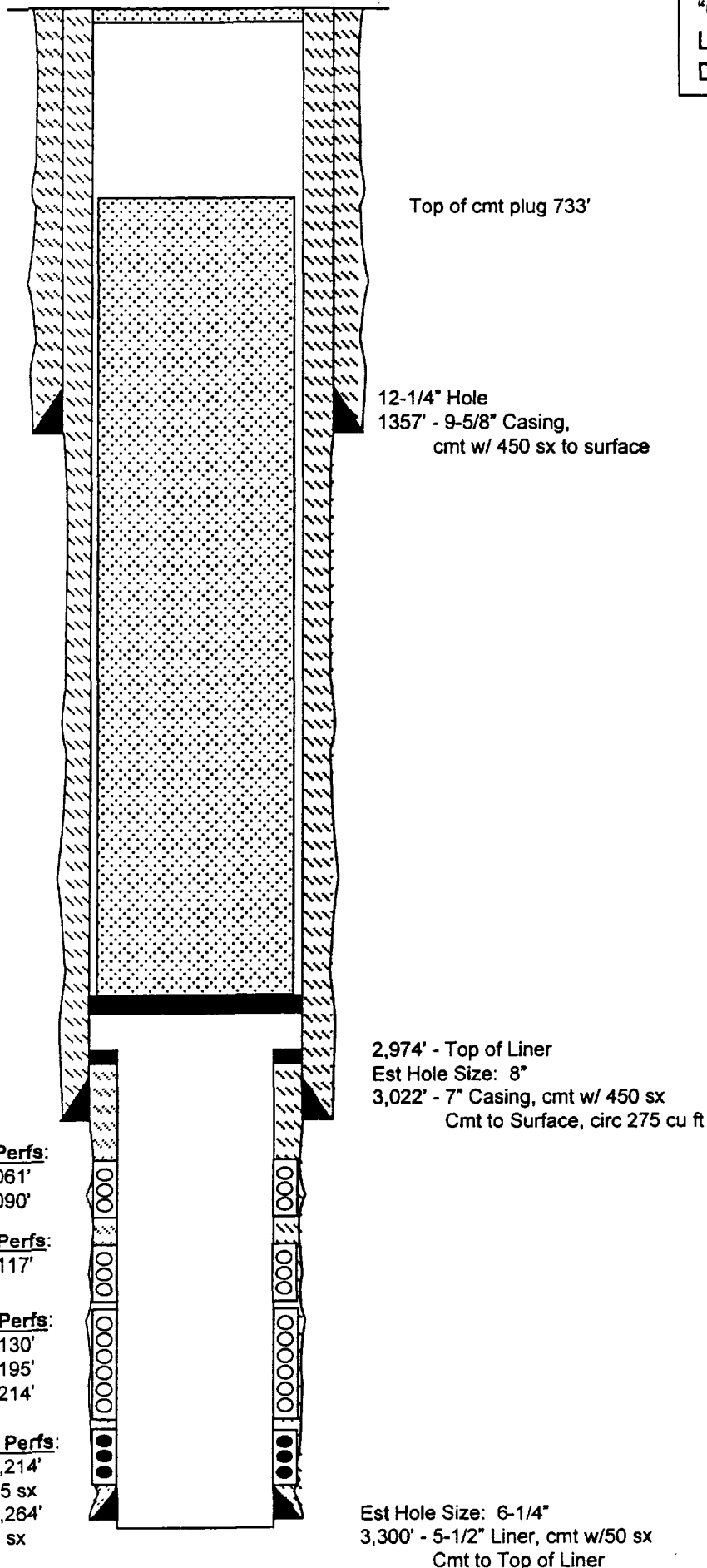
Sincerely,

Jaylene Roope  
Sr. Operations Technician

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# Falcon Creek Resources, Inc.

Lea 6015 ARC Federal #1  
West Teas Field  
"O" Section 9, T20S, R33E  
Lea County, New Mexico  
DF: 3,550'



## Initial Completion

Spud 4-3-60

Perf Yates 3199-3214

Acidize w/ 500 gals, Sqzd w/ 175 sx  
Perf 3252'-3264'

Acidize w/ 250 gals, Sqzd w/ 50 sx  
Perf 3199'-3215', Acidize w/ 250 gals  
Frac w/ 2000 gals, Sqzd perfs  
Perf 3122'-3130', Acidize w/ 250 gal  
Sqzd perfs.

D&A

1/69

Perf Yates 3110'-3117'; 3122'-3130';  
3180', 3195', 3199'-3214' - 70 holes

Acidize w/ 2500 gals

Completed as SWD

12/70

Perf Yates 3054'-3061'; 3066'-3090';  
Acidize w/ 3000 gals

Converted to WIW

2/75

Set cmt retainer @ 2800'

Sqz thru retainer w/45 sx "C"

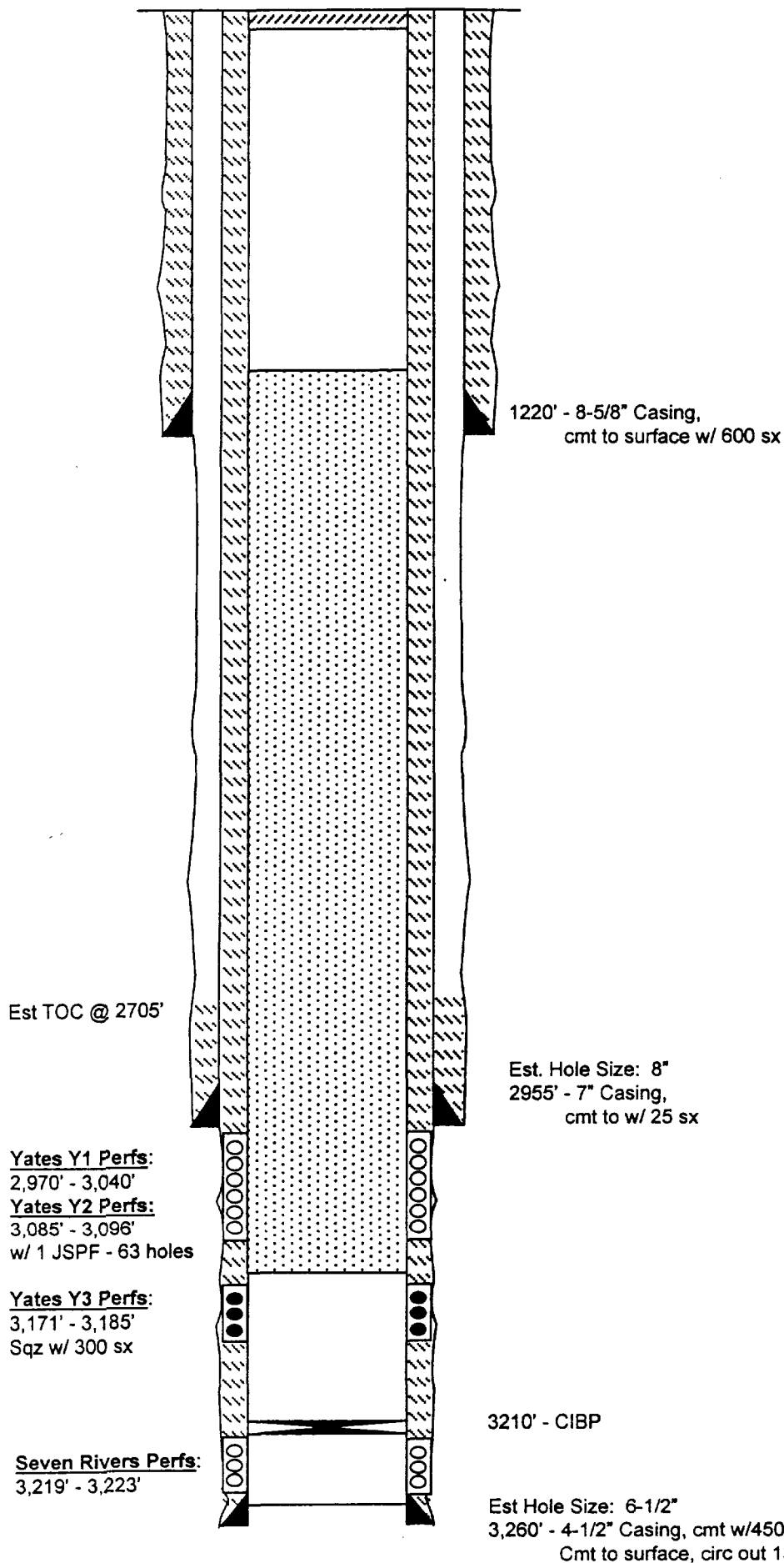
Spotted 225 sx "C" on top of retainer

Top of cmt @ 733'.

Spotted 10 sx "C" from 40'-surface

# Falcon Creek Resources, Inc.

Atlantic State #1  
West Teas Field  
"C" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,540'; KB: 3,542'



## Initial Completion

Spud well 12-21-61

Perf Seven Rivers 3,219'-3,223'

IPP: 90 BO, 10 BW (90% oil)

## 12/67

Set CIBP @ 3210

Perf Yates Y3 @ 3171'-3185'

Acidize w/1250 gals acid

Frac w/ 20,000 gal & 20,000# sd

IP: 58 BO

## 8/79

Squeeze Yates @ 3171'-3185

w/ 300 sx

Perf Yates Y2 3085'-3096'

Acidize w/ 1000 gals

Frac w/ 9000 gal & 14,000# sand

Perf Yates Y1 from 2970'-3040'

Acidize w/ 2000 gals

Frac w/ 20,000 gal & 28,000# sand

No new potential

3.3% oil & 1 @ 8/79

## 10/80

Plugged w/ 175 sx from 3110'-1125'

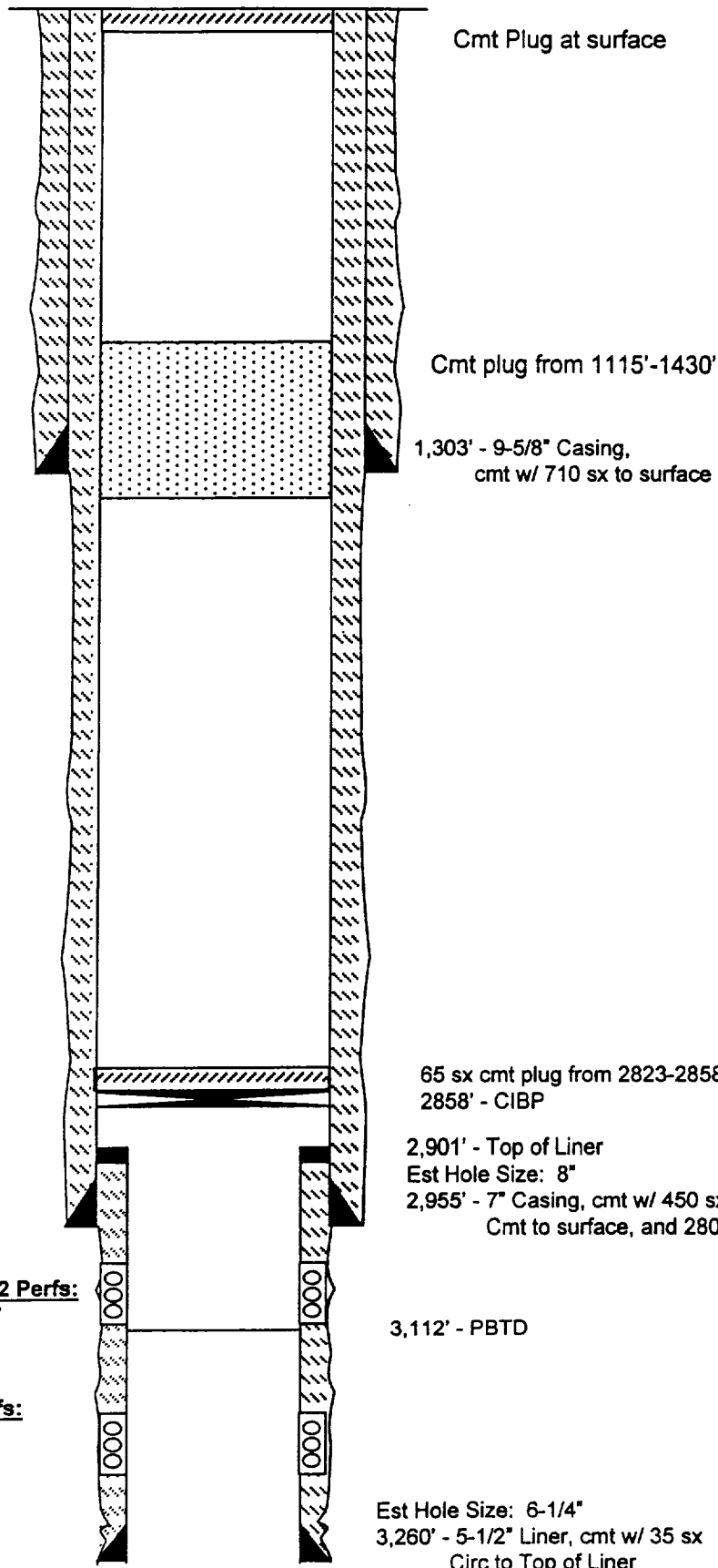
10 sx from 150'to surface

9.5#/gal mud between plugs

All cement information is estimated  
by calculations

# Falcon Creek Resources, Inc.

State Lea "886" #3  
West Teas Field  
"E" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,531'; KB: 3,540'



## Initial Completion

Spud well 4-60

Perf Yates Y3 from 3166'-3195'

Acidize w/ 500 gal mud acid

1/75

Spotted 30 sx "H" 2900-3226'

Spotted 250 sx "C" 3226'-677'

Spot 10 sx cmt plug @ 35' to surface

12/81

Drd out cmt plugs and plug back to  
3,112'

Perf Yates Y1 & Y2 3016' - 3092'

Frac 28,000 gal & 36,000#

IPP: 20 BOPD

12/82

Frac well w/ 6000 gal PSD gel in 2%

KCl w/ 18000# 20/40 and 10/20 sand

IPP: 15 BOPD, 2 BWPD

7/83

Ran CIBP to 2858'

Spotted 65 sx "C" on top of CIBP 35'

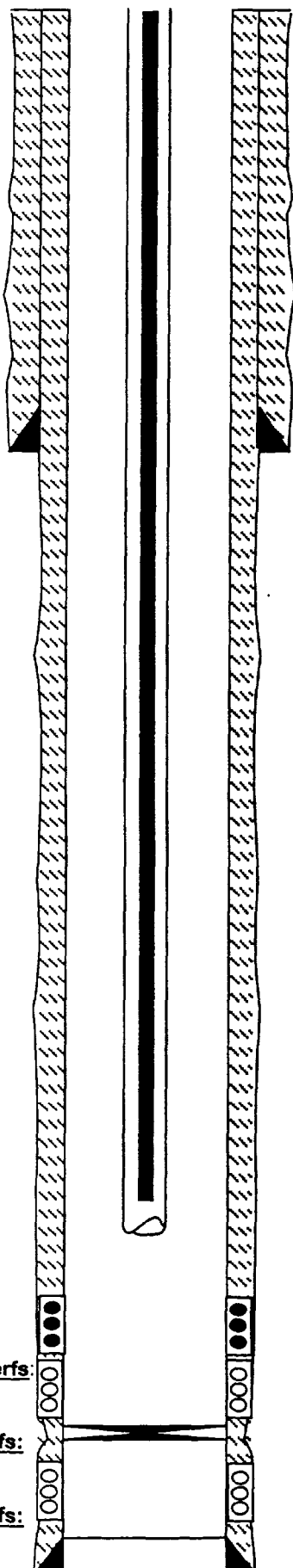
Spotted 58 sx "C" from 1115'-1430'

Spotted 10 sx "C" at surface

All Cementing information is estimated  
by calculations.

# Falcon Creek Resources, Inc.

886 State #1  
West Teas Field  
"F" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,537'; KB: 3,549'



1,196' - 13-3/8" Casing,  
cmt to surface w/1250 sx

## Initial Completion

Spud well 11-13-59  
DST 3049'-3069, Op 30 min rec 490' mud  
DST 3150-3215' Op 45 min, rec 1440' OCM  
& 1385 MCD, no pressure  
Perf Y3 3146'-3162'; 3168'-3176'  
Perf 7Rivers 3195'-3198'; 3220'-3232'  
Acidize 3220-3232' w/ 500 gal acid  
IPP 596 BOPD (All zones)  
Shackelford Re-entry

12/59

Acidize 3146'-3176' w/ 500 gal acid

2/75

Sqz Perfs w/ 35 sx "C"

Spotted 130 sx "C" from 1200'-2817'

Spotted 10 sx from 40'-surface

3/95

Perf Seven Rivers 3268'-3273'

Acidize w/ 500 gal 15% NeFe

Set BP @ 3191'

Perf 7 Rivers 3182'-3188'

IPP: 67 BOPD; 120 BWPD  
(36% oil)

All Cement Information is estimated by  
Calculations

## Yates Y3 Perfs:

3,146' - 3,162'

3,168' - 3,176'

## Seven Rivers Perfs:

3,182' - 3,188'

## Seven River Perfs:

3,195'-3,198'

3,220' - 3,232'

## Seven River Perfs:

3,268' - 3,272'

3191' - Bridge Plug

Est Hole Size: 7-7/8"

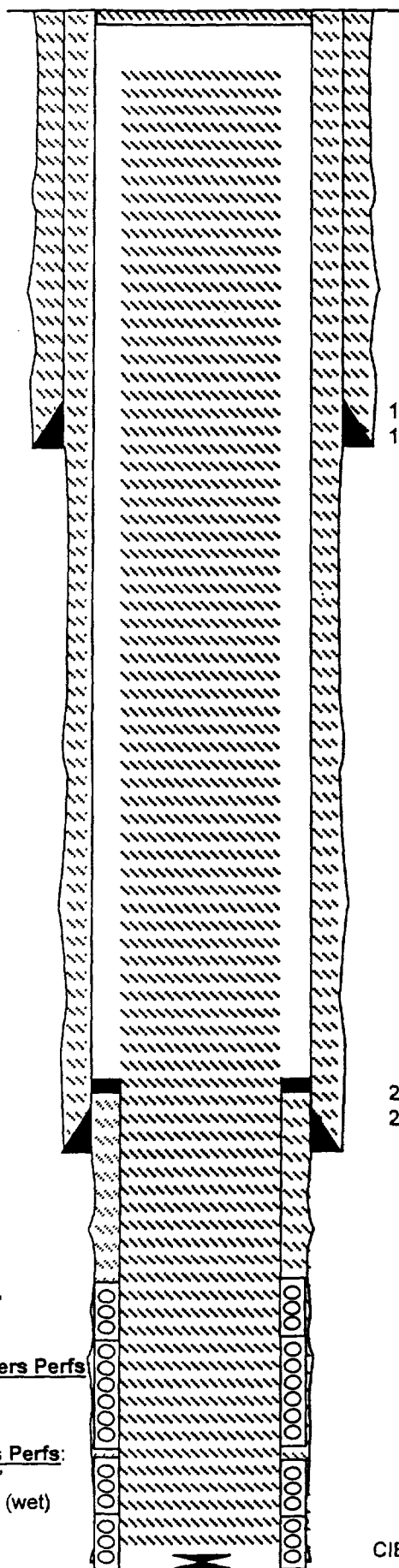
3,325' - 5-1/2" Casing, cmt w/850 sx Class

Cmt to Surface, Circulate 423 cu ft.



# Falcon Creek Resources, Inc.

State BF #2  
West Teas Field  
"K" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,536'; KB: 3,545'



12-1/4" Hole  
1240' - 9-5/8", 36#, Casing,  
cmt to surface w/ 600 sx

2898 - Top of Liner  
2951' - 7", 20#, J-55 Casing,  
cmt to surface w/ 750 sx

Y1 Perfs:  
2,980' - 3,041'

Y2, Y3 & 7 Rivers Perfs  
3,094' - 3,220'  
w/ 4 JSPF

Seven Rivers Perfs:  
3,210' - 3,213'  
3,223' - 3,233 (wet)  
w/ 1 JSPF

CIBP - Pushed to bottom  
3,225' - 5", 15#, J-55 Liner

## Initial Completion

Perf Yates Y2, Yates Y3 & Seven Rivers  
3,094'-3,220'  
Acidized w/ 100 gal XLST acid  
Frac w/ 15,000 gal lease crude, 15,000#  
sd w/ 250# mothballs after 7500 gal w/  
1/20# adomite / gal  
Frac w/ 10,000 gal lease crude, 10000#  
sd thru 3179-3209'.

## 8/78

Perf Y1 2980' - 3041' - 25 holes  
Acidize w/ 90 bbls 2% KCl  
Frac 7 Rivers w/ 20,000 gal gelled crude  
18,000# sd & 20000 gal 15% HCl

## 5/95

Perf Seven Rivers 3223' - 3233' 2 JSPF  
Acidize w/ 1000 gal 15% HCl  
100% water  
Set CIBP @ 3214'  
Perf 3210'-3213' 2 JSPF  
Acidize w/ 1000 gal 15% HCl  
Set CIBP @ 2998'  
(Prod. Y1 only, no prod. after)

## 8/96

Convert to SWD

## 10/96

Push CIBP to bottom of hole

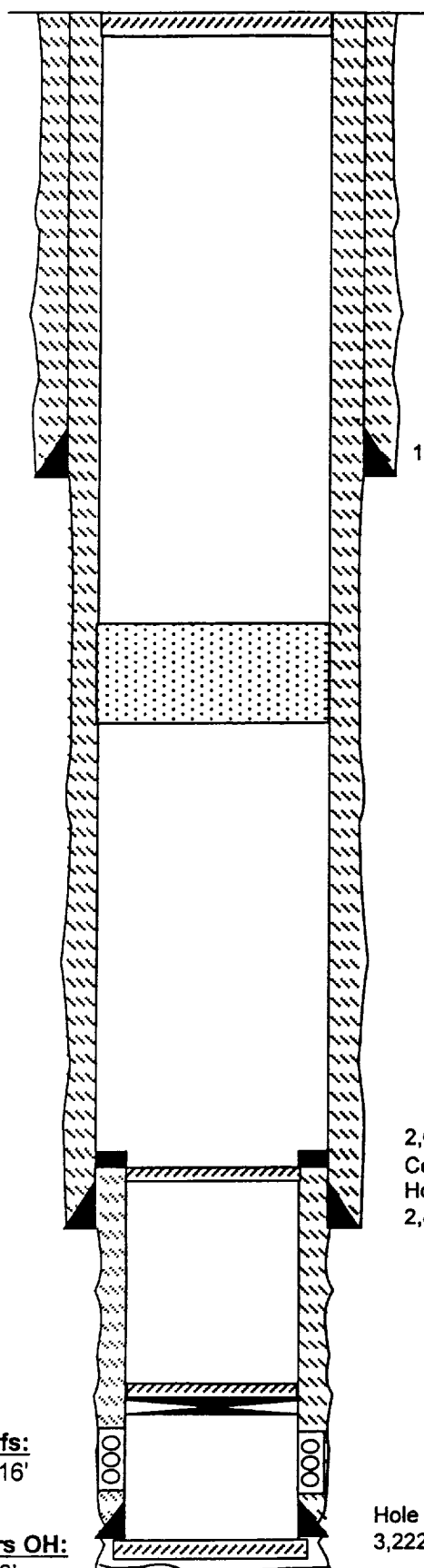
## 5/97

Pump 1000 sx cement plug  
Top of Cmt @ 100' set 20 sx plug at surfac  
Well P&A

Cement Information is from State Reports

# Falcon Creek Resources, Inc.

Snyder #1  
West Teas Field  
"J" Section 16, T20S, R33E  
Lea County, New Mexico  
GL: 3,542'; DF: 3,546'



1,262' - 8-5/8" Casing,  
cmt w/ 375 sx to surface

Cmt Plug @ 1356'-1456'

2,636' - Top of Liner  
Cement Plug @ 2700' 35 sx  
Hole Size: 8"  
2,886' - 7" Casing, cmt w/ 25 sx - Initial  
Perf 7" casing and cmt w/ 250 sx to surface

CIPB @ 3070' w/ 25 sx on top

Hole Size: 6-1/2"  
3,222' - 4-1/2" Liner, cmt w/65 sx  
Cmt to Top of Liner

Squeeze OH w/ 200 sx "C"

Yates Perfs:  
3,098'-3,116'

Seven Rivers OH:  
3,222' - 3,230'

## Initial Completion

Spud 10-9-64  
OH Seven Rivers from 3222'-3230'  
IP: 42 BO  
9/82  
Perf 3098-3116'  
Acidize w/ 2000 gal MOD 202.  
Frac w/ 30,000gal gelled 2 % KCl,  
30000 gal CO2 w/ 67,000# 8/12 sd  
IPP: 100 BLW w/ 20% oil  
9/83  
CIPB @ 3050 w/ 25 sx cmt  
Spot 36 sx @ 2700'  
Spot 35 sx plug @ 1456'-1356'  
Spot 10 sx @ surface

All Cement Information is  
from state reports