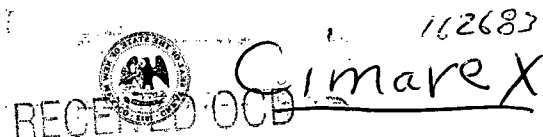


9.26.11	10/12/11	WVT	9.26.11	TYPE SWD	1126954630
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NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505



ABOVE THIS LINE FOR DIVISION USE ONLY

ADMINISTRATIVE APPLICATION CHECKLIST

2011 Spr/etair/25WD#1
30-015-38599

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

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

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

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

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

- [D] Other: Specify _____

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

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

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

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

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

Kay Havenor

Kay C Havenor

Consultant

8/16/2011

Print or Type Name

Signature

Title

Date

KHavenor@georesources.com
e-mail Address

Miss	Row	C-108	C-108 disposal application submittals... CHECKLIST to ensure all items are supplied or considered.									
	1		<u>Operator, Well, and Contact info:</u>									
	2	II	Name of person submitting the application: Kay Havenor Other Contact?									
	3	II	Did you Include a contact Email in the application? Yes and Mailing Address? Yes and Phone? Yes									
	4	II	Operator Name: Cimarex Energy Company of Colorado OGRID Num: 162683									
	5		RULE 5.9 Compliance..... Number of Inactive Wells 0 vs Total Wells Operated 1216 Is financial assurance required on any well? No Violation									
	6		Is there any hearing order finding this operator out of compliance with Division Rule 19.15.5.9 NMAC?									
	7		Are all Rule 5.9 issues OK to allow the Division to issue Disposal Permits?									
	8	III	Well Name: Spiketail SWD #1 SWD-1268-A									
	9	III	API Num: 30-015-38599 Spud Date: 6/11/2011									
	10		Have you included API numbers on all wellbore diagrams and well list(s) in this application? Yes									
	11	III	Proposed well...Footages 2610' FSL & 1980' FWL Unit K Sec 5 Tsp 17S Rge 29E County Eddy									
	12		General Location (i.e. Y miles NW of Z): 2.6 miles west and 3.6 miles north of Loco Hills, New Mexico on US-82									
	13		Current Well Status: Active SWD-									
	14	I	General Summary of Planned Work to Well: Pull packer, make additional perfs, acidize, re-set packer.									
	15		<u>INTERVAL TOP and BOTTOM:</u>									
	16	IIIB.(2)	Proposed disposal		Top Depth: 8,145'		Formation Name: Canyon		(include Member Names for Delaware or Mesaverde)			
	17	IIIB.(2)	Proposed disposal		Bottom Depth: 9,300'		Formation Name: Canyon					
	18	IIIB.(2)	Is the disposal interval OpenHole? or Perfed? X or Both?									
	19	IIIB.(2)	What will be the disposal tubing size OD? 3-1/2" Packer Seat, Feet: approx 8,095'									

Miss	Row	C-108	C-108 disposal application submittals... CHECKLIST to ensure all items are supplied or considered.	
	20	VII	What max surf inj. psi are you proposing? <u>1,629</u>	If differing from 0.2 psi/ft surf. Grad., is supporting data attached such as a Step Rate Test? _____
	21		<u>FRESH WATERS:</u>	
	22	VIII	Depth to bottom of Fresh Waters: <u>Approx 160"</u>	Formation Name(s)? <u>Quaternary alluvium</u>
	23	XI	Any Fresh Water Wells Within 1 Mile? <u>None</u>	If so, did you attach an analysis from these Wells? _____
	24		Are all "Fresh" waters isolated with Casing and Cement? <u>Yes</u>	("Fresh" water is defined as less than 10,000 mg/l of TDS)
	25	XII	Included "Affirmative Statement" concerning any Connection from Disposal Depths to existing Fresh Waters? <u>Yes</u>	Yes, statement Item XII _____
	26		<u>WASTE WATERS:</u>	
	27	XIV	Will this be a Lease Only disposal well? _____	or only used for the Operator's own waste needs? <u>X</u> or Commercial Disposal? _____
	28	VII	Which formations will supply the waste waters to be disposed into this well... List most common...? <u>Abo and Wolfcamp</u>	
	29	VII	Are Waste waters compatible with proposed disposal interval waters? <u>Yes</u>	Did you include waste water analysis? <u>No</u>
	30		<u>AT PROPOSED WELL....INSITU WATERS AND HYDROCARBON POTENTIAL:</u>	
	31		Is a discussion included of the potential for future OIL/GAS recovery from the proposed disposal interval? <u>Yes</u>	
	32		If your proposed well for disposal is a depleted producer (within the proposed interval): do you know what was the cumulative oil/gas/water? _____	and did you include a Rate-Time plot of this depleted interval? _____
	33	VII	Insitu water analysis Included? _____	Is the salinity within the disposal interval more than 10,000 mg/l of TDS? <u>Yes</u> or how will you determine this insitu water salinity? _____
	34	VIII	Does the application include a list of Formation tops down to and including the bottom of the target formation? <u>Yes</u> , with Williams well diagram _____	
	35		What is the top <u>approx 375'</u> and bottom <u>525'</u> of the Salado Salt (....If this well is in the Southeast and the Salt is present)	
	36	X	Are all existing Logs (including any CBL over the disposal interval) are on the OCD Web Site? <u>No</u>	If logs not there, please send <u>Opr</u> sending logs _____
	37	IIIA.	Are the wellbore diagrams for this well included in the Application.....Before Conversion? <u>Yes</u> and After Conversion? <u>Yes</u>	

Miss	Row	C-108	C-108 disposal application submittals... CHECKLIST to ensure all items are supplied or considered.
	38		Are the top and bottom footage of the proposed disposal interval marked on the "after" diagram? Yes
	39		<u>NOTICE:</u>
	40	XIV	Date of the Newspaper Notice in the County: 8/24/2011
	41	V	Within 1/2 mile, did you clearly identify (either on a map or by legal description) all separately owned tracts of lands within the disposal interval? Yes
	42	XIII	Did you identify the owner(s) of each of these separately owned tracts? No, because of vertical division, but all Operators notified Were they all formally noticed? Yes
	43	XIII	If reentering a P&Aed well, are there depth divisions of ownership within that well?If so, have you also noticed all the shallower interests of the intent to use the well for disposal?
	44	XIII	Is the proposed well within the R-111-P defined Potash Area or the BLM Secretaries Potash Area? No If so, did you send notice to the nearest Potash lessee?
	45	XIV	Who owns the surface lands at the disposal well site (BLM, SLO, or who)? SLO Was that party formally noticed? Yes
	46		<u>Area of Review:</u>
	47	V	Did you include a map identifying all wells within 2 miles? Yes
	48	VI	Did you include a list of all AOR wells? Yes Is the list available to be emailed (if requested) in spreadsheet format? Yes - Included in Item VI list
	49	VI	Does this list identify all wells penetrating (at least the top of) the disposal interval within 1/2 mile of the proposed well? Yes
	50	VI	Did you include wellbore diagrams for all P&Aed wells that exist within the 1/2 mile AOR that penetrate the disposal interval? Yes
	51	VI	How many wells exist within the 1/2 mile AOR that penetrate the disposal interval? 2 How many of these are Plugged/Dry and Abandoned? 1 P&A
	52	VI	Are details included on cement coverage of the proposed disposal interval for all wells penetrating the disposal interval within 1/2 mile of the roposed well? Yes
	53	VI	Do all reported cement tops describe how that "top" was determined? If Available If you calculated any tops, what fillup efficiency factor did you use?
	54	VI	Did you identify the presence and depth of all Cement Stage Tools (DV) in the subject well and in the AOR wells? Yes, when info was available
	55	VIII	For the target formation, is there significant formation structural depth changes within the 1/2 mile AOR? No
	56	VIII	Is there any Karst or Massive Limestone in this target formation? No ...or in the formations directly above or below? No

Miss	Row	C-108	C-108 disposal application submittals... CHECKLIST to ensure all items are supplied or considered.	
	57		<u>Administrative or Hearing:</u>	
	58	VI	How many wells within the 1/2 mile AOR currently are producing (or still have open perforations) within the disposal interval? 0 is it "gas" or "oil"?	
	59		NOTE: If the proposed disposal interval is a "Gas" interval or if any AOR wells are producing or have open perforations within this interval then this application may not be properly classified as a "disposal". These types of applications must be processed at an examiner hearing.	
	60		Any other Issues..?	

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: Cimarex Energy Co. of Colorado
ADDRESS: 600 N. Marienfeld St. Suite 600; Midland, TX 79702
CONTACT PARTY: Kay Havenor PHONE: 575-626-4518
- 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 at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Kay Havenor TITLE: Agent
- SIGNATURE: Kay C Havenor DATE: August 16, 2011
- E-MAIL ADDRESS: KHavenor@georesources.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: Cimarex Energy Co. of Colorado (OGRID 162383)WELL NAME & NUMBER: Spiketail SWD #1 30-015-38599WELL LOCATION: 2610' FSL & 1980' FWL K 5 17S 29E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8" 48# H-40

Cemented with: 450 sx. or ft³

Top of Cement: Surface Method Determined: Opr

See attached diagram

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 9-5/8" 40# J/K-55

Cemented with: 1200 sx. or ft³

Top of Cement: Surface Method Determined: Opr

Production Casing

Hole Size: 8-3/4" Casing Size: 7" 26# to 9.40'

Cemented with: 2300 sxs sx. or ft³

Top of Cement: Surface Method Determined: Opr

Total Depth: 9,400'

Injection Interval

8,145' To 9,300'

(Perforated or Open Hole; indicate which) Perforated

INJECTION WELL DATA SHEET

INJECTION WELL DATA SHEET

Tubing Size: 3-1/2" 9.3# J-55 Lining Material: Fiberglass coated

Type of Packer: Lok-Set or equivalent

Packer Setting Depth: Approx 8,095 ft

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes X No _____

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

2. Name of the Injection Formation: Cisco/Canyon

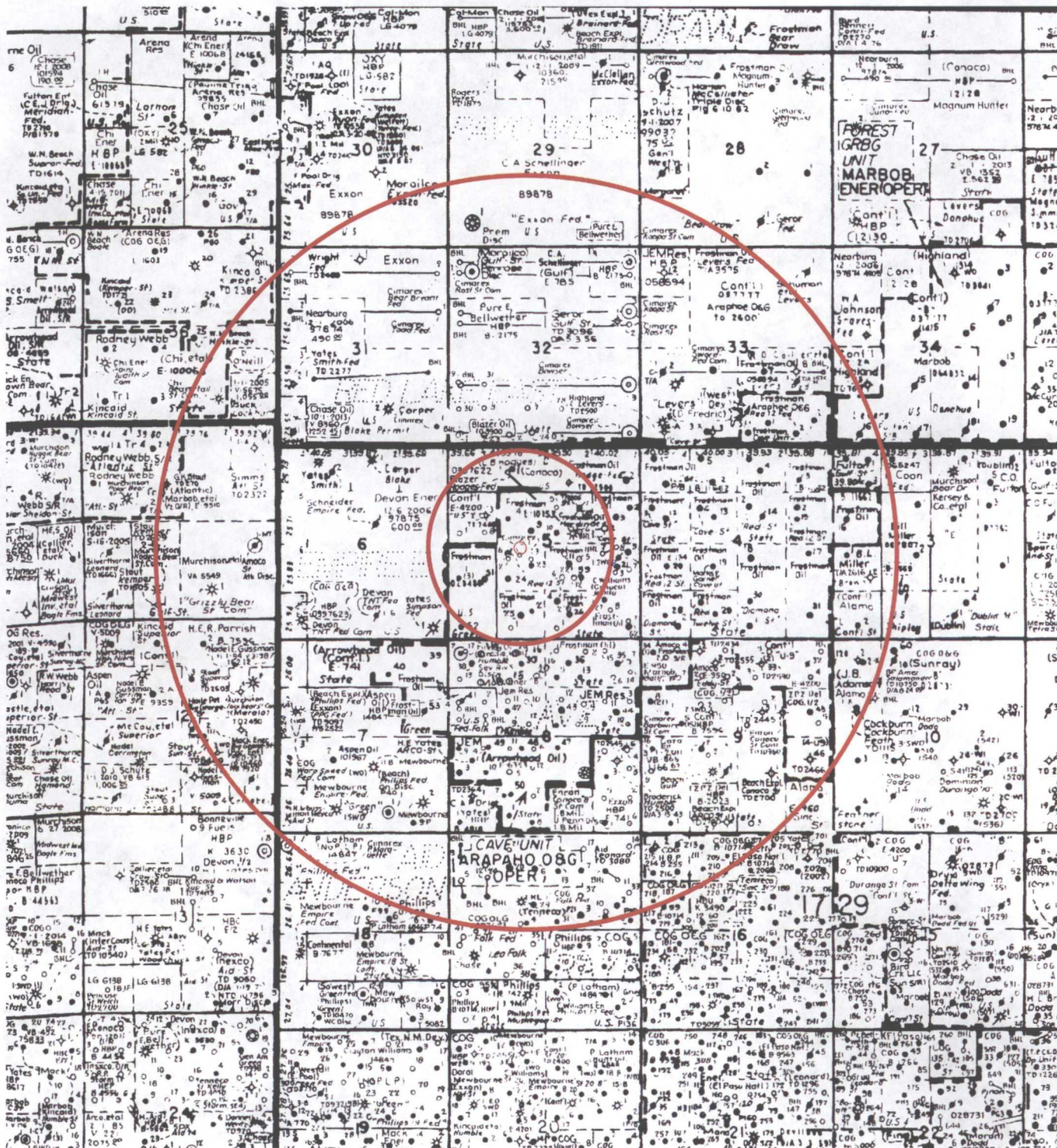
3. Name of Field or Pool (if applicable): _____

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

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Artesia Group 2800' - San Andres 3770', Tubb 6800, Morrow 10400'

Item V:

Area of Review
½ Mile AOR and 2 Mile Radius

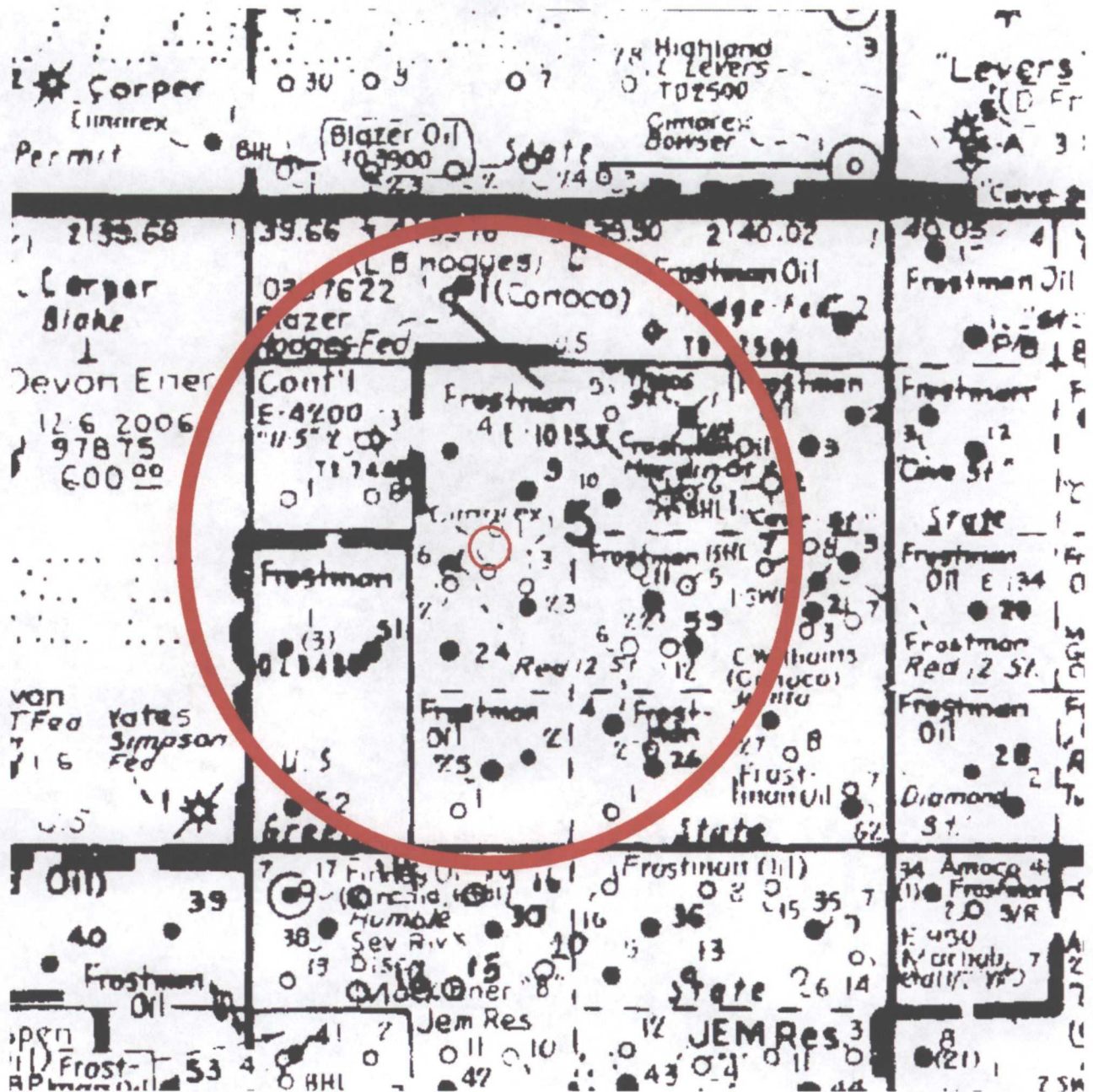


Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

API 30-015-35899

Item V (a):

Area of Review
½ Mile AOR



Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

API 30-015-35899

Item VI: Data on wells in AOR:

Item VI(a): Known wells in the AOR that penetrate the proposed Cisco/Canyon injection interval:

API	WELL NAME	STATUS	SEC	TWSP	RANGE	FT	NS	FT	EW	CD	OPERATOR	LAND	WELL PLUG DATE	SPUD DATE	ELEV	IVD	DEPTH
3001529260	JENNA COM 001	Active	5	175	29E	2110	S	990	E	1	CLAYTON WILLIAMS ENERGY INC.	P	S	8-Dec-98	3604	11820	
3001538599	SPIKETAIL SWD 001	New	5	175	29E	2610	S	1980	W	K	CIMAREX ENERGY CO. OF COLORADO	S	S	6-Jun-11	3638	9400	

1. 30-015-29260 Clayton Williams Energy, Inc. Jenna Com #1. Unit I, 2110' FSL & 990' FEL Sec. 5, T17S-R29, Eddy Co. Elev. 3604' GL. Spud 12/8/1996. 17-1/2" hole set 13-3/8" 48# H-40 @361' w/510 sx, filled to surface w/30 yds Redi-Mix. 12-1/4" hole set 9-5/8" 40# L-80 @ 2,660' w/1,225 sx, TOC NR. 8-3/4" hole set 7" 26# @11,820' w/1,900 sx, TOC NR. CIBP 10,720. Perf Morrow 10,442-10,491' w/6 JSPF. Treated w/8,000 gal 30 Q MDF 4000 w/100 mesh sand & 20/40 carbolite. The following excerpt from the OCD files shows the work by Conoco (original operator) prior to conversion to SWD-768 by Clayton Williams Energy, Inc in the Canyon from 8,876' - 8,965' on 4/24/2000.

11-12-97: Rigged up wireline & RIH w/CIBP, set @ 10,360'. POOH, RIH w/bailer & dumped 35' cement on top of CIBP.
11-14-97: Rigged up wireline, RIH, perforated w/4 jsfp @ 8961-8998'. RIH w/ tubing, arrow set pkr, F nipple on 2 7/8", set pkr @ 8833'.
11-15-97 through 11-18-97: Swabbed.
11-19-97: Acidized w/2000 gals 15% NEFE HCL & ball sealers, re-set pkr, tested to 500E OK. Rigged down BJ - SION.
11-20/21-97: Swabbed.
11-24-97: Tagged cement on top of CIBP @ 10,328', started drilling on cement, tagged CIBP @ 10,360', drilled out CIBP, pushed to 10,496'.
11-25-97: Set pkr @ 10,350', rigged up reverse unit & pumped into perfs w/2% KCL, unset pkr & start to POOH.
11-26-97: RIH w/cement retainer-set retainer @ 10,360', 200 sx CI H cement w/1 1/2% FL-62, 3/40% CD-32 & 2/10% SMS, stung into retainer & squeezed cement into perfs. Dumped 1 1/2 bbls of cement on top of retainer.
12-1-97: Tagged cement @ 10,260', drilled out cmt to top of ret. @ 10,360', started drlg on retainer. SION. Will continue to drill on ret.
12-4-97: Pumped 50 sx CI H cmt w/7% FL-62, 3/10% CD-32 & 2/10% SMS, spotted cmt from 10,572-10,303'. POOH w/tbg. SD.
12-5-97: Set RBP @ 8,950', got off RBP & pulled to 8918'. 12-8-97: Rigged up wireline, RIH w/perf w/4 jsfp @ 8893-8916'.
12-9-97: RIH w/retrieving tool, latched RBP, unset & POOH, SD. 12-10-97: Re-perf w/4 jsfp @ 8961-8998'. RIH w/tools to 8800'. SD.
12-11-97: Acidized w/4700 gals 15% NEFE HCL & ball sealers. 12-12-97 through 12-18-97: Swabbing.
12-19-97: Rigged up wireline. RIH w/7" CIBP, set @ 8880'. POOH, RIH & perf 4 JSPF @ 8790' & 8860'. POOH rig down wireline. RIH w/7" pkr set @ 8870', tested CIBP to 1000#, held, unset pkr & set @ 8823'. pump 150 bbls 1% KCL wtr into perfs. Unset pkr, SION.
12-22-97: RIH w/7" cement retainer, set @ 8820', rig up BJ, mixed & pumped 100 sx CI H cement w/1 1/2% FL-62, 4/10% CD-32, 2/10% SMS, pumped 75 sx below retainer & dumped 25 sx on top retainer, pulled up to 8650' & reverse circulated, rig down BJ. POOH w/tbg. SION.
12-29-97: After WOC. RIH w/bit, drill collars & tbg, tag cement retainer @ 8820' (no cement) load hole w/40 bbls. SION.
12-30-97: POOH, RIH w/cement retainer stinger & try to siting back into retainer. SION.
12-31-97: Rig up reverse unit, load tbg, pressure up to 5003'. POOH w/tbg. RIH w/pkr, set pkr @ 8565', set up to squeeze.
1-2-98: Rig up BJ, load backside, mixed & pumped 300 sx CI H cement w/1 1/2% FL-62, 4/10% CD-32 & 2/10% SMS, hesitate squeeze. SION.
1-5-98: Tag cement @ 8711' (top squeeze perf @ 8790'). POOH w/pkr, start drlg cement, drilled out to 8770'. SION.
1-6-98: Drilled out cement to top of retainer @ 8820', tested casing to 500# for 30 min (held), drilled on retainer. SION.
1-7-98: Drilled up retainer, tested csg to 500# for 30 min. (CIBP @ 8880'). started drlg on CIBP, drilled out to 8910'. SION.
1-8-98: Drlg on cement, fell out @ 9031', circulated hole, rig up BJ, spot acid from 8918-8894', pull up to 5990'. rig down BJ. SION.
1-9-98: RIH & perf w/4 JSPF 8894-8902' & 8908-8918'. set pkr @ 8880'. rig up to swab. SION.
1-12/13/98: Swabbing.
1-14-98: RIH w/CIBP set @ 8740'. POOH, RIH w/bailer & dumped 35' cmt on CIBP. PBTD 8705'.
1-15-98: Rig up wireline, ran correlation log. RIH & perf w/4 JSPF @ 7072-7080' & 7174-7186'. rig down wireline.
1-16-98: RIH w/pkr set @ 6963', rig up swab, seating nipple @ 6956'.
1-19-98: RIH w/swab, RIH to seating nipple, POOH, rigged up reverse unit, loaded tbg w/1% KCL water, pressured up to 1000#, held, unset pkr & POOH, SION.
1-24/30/98: Swabbed.

2610' FSL & 1980' FWL

Sec. 5, T17S-R29E Eddy County, NM

Completion of SWD

Item VI(b): The following are known wells located within the AOR.

API	WELL NAME	STATUS	SEC	T	S	R	E	N	S	W	PT	NS	FT	FW	OC	OPERATOR	LAND	WELL	PLUG DATE	SPUD DATE	DATE	DEPTH	TELEV	UTD
3001502898	HODGES FEDERAL 002	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	A	MARKS AND GARNER PRODUCTION	F	O	Inactive	19-Apr-58	3603	3603	2505
3001502899	CAVE POOL UNIT 008	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	B	ARAPAHO OIL, GAS INC	F	I	30-Sep-94	6-Apr-57	3620	3620	2500
3001525225	HODGES FEDERAL 001	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	C	BLAZER OIL, GAS	F	O	02-Sep-93	314/1985+	3630	3630	3350
3001535959	PICKETWIRE 5 FEDERAL	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	C	CIMAREX ENERGY CO. OF COLORADO	F	G		20-Dec-07	3632	3632	9350
3001538210	CRUISER 5 STATE 008	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	E	CIMAREX ENERGY CO. OF COLORADO	S	O			3648	3648	0
3001538219	CRUISER 5 STATE 001	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	E	CIMAREX ENERGY CO. OF COLORADO	S	O			3657	3657	0
3001538220	CRUISER 5 STATE 002	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	E	CIMAREX ENERGY CO. OF COLORADO	S	O			3647	3647	0
3001502900	CAVE POOL UT 009	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	F	JEM RESOURCES	S	O	7/7/1976	13-Jun-57	3639	3639	2390
3001537803	SPIKETAIL 5 STATE 004	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	F	CIMAREX ENERGY CO. OF COLORADO	S	O		27-May-10	3642	3642	5178
3001538003	SPIKETAIL 5 STATE 003	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	F	CIMAREX ENERGY CO. OF COLORADO	S	O			3636	3636	0
3001500993	CAVE POOL UNIT 010	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	G	MARKS AND GARNER PRODUCTION	S	O		27-Feb-57	3640	3640	2379
3001524732	THEOS STATE 001	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	G	MARKS AND GARNER PRODUCTION	S	O	05-Oct-09	29-Dec-83	3613	3613	2550
3001538000	SPIKETAIL 5 STATE 005	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	G	CIMAREX ENERGY CO. OF COLORADO	S	O			3615	3615	0
3001538004	SPIKETAIL 5 STATE 006	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	H	JEM RESOURCES	S	O			3621	3621	0
3001502907	CAVE POOL UNIT 011	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	H	MARKS AND GARNER PRODUCTION	S	O	22-Dec-76	27-Mar-57	3613	3613	2490
3001524714	CAVE STATE 002	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	H	DIAMONDBACK PET INC	S	O		11-Dec-83	3604	3604	2530
3001525195	HARDIN ST 002	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	I	ARAPAHO OIL, GAS INC	S	O		5-Mar-85	3610	3610	2050
3001502905	CAVE POOL UNIT 021	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	I	MARKS AND GARNER PRODUCTION	S	O	28-Jul-93	14-Mar-57	3616	3616	2465
3001524989	RED TWELVE STATE 003	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	I	MARKS AND GARNER PRODUCTION	S	O		5-Sep-84	3603	3603	3550
3001529260	JENNA COM 001	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	I	CLAYTON WILLIAMS ENERGY INC	P	S		8-Dec-96	3604	3604	11820
3001538021	CLUBTAIL 5 STATE 007	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	I	CIMAREX ENERGY CO. OF COLORADO	S	O			3603	3603	0
3001538042	CLUBTAIL 5 STATE 003	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	I	CIMAREX ENERGY CO. OF COLORADO	S	O			3609	3609	0
3001538043	CLUBTAIL 5 STATE 008	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	I	CIMAREX ENERGY CO. OF COLORADO	S	O			3603	3603	0
3001502906	CAVE POOL UNIT 022	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	J	MARKS AND GARNER PRODUCTION	S	O	16-Jun-74	3-Mar-57	3629	3629	2525
3001524723	CAVE POOL UNIT 059	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	J	MARKS AND GARNER PRODUCTION	S	O		18-Dec-83	3612	3612	0
3001538122	CRUISER 5 STATE 005	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	J	CIMAREX ENERGY CO. OF COLORADO	S	O			3612	3612	0
3001538123	CRUISER 5 STATE 006	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	J	CIMAREX ENERGY CO. OF COLORADO	S	O			3624	3624	0
3001538124	CRUISER 5 STATE 011	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	J	CIMAREX ENERGY CO. OF COLORADO	S	O			3619	3619	0
3001538125	CRUISER 5 STATE 012	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	J	CIMAREX ENERGY CO. OF COLORADO	S	O			3616	3616	0
3001502901	CAVE POOL UT 024	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	K	BIRDWELL ROBERT	S	O	26-May-76	13-Dec-56	2391	2391	2391
3001502902	CAVE POOL UNIT 023	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	K	MARKS AND GARNER PRODUCTION	S	O	01-May-09	12-Mar-58	3687	3687	2380
3001525055	RED TWELVE STATE 006	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	K	MARKS AND GARNER PRODUCTION	S	O		12-Oct-84	3636	3636	3600
3001537871	SPIKETAIL 5 STATE 001	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	K	CIMAREX ENERGY CO. OF COLORADO	S	O			3635	3635	0
3001537999	SPIKETAIL 5 STATE 002	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	K	CIMAREX ENERGY CO. OF COLORADO	S	O		15-Aug-10	3644	3644	5308
3001536852	MEADOWHAWK 5 FEDERAL	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	L	CIMAREX ENERGY CO. OF COLORADO	S	O		6-Jun-11	3638	3638	9400
3001502903	CAVE POOL UNIT 051	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	L	CIMAREX ENERGY CO. OF COLORADO	F	I	26-Aug-10	5-Feb-57	3659	3659	5310
3001502908	CAVE POOL UNIT 099	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	L	CIMAREX ENERGY CO. OF COLORADO	F	I	12-Nov-10	5-Feb-57	3644	3644	2375
3001502909	CAVE POOL UNIT 052	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	M	MARKS AND GARNER PRODUCTION	F	I	15-May-02	5-Oct-56	3646	3646	2380
3001502896	CAVE POOL UT 025	Plugged	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	M	MARKS AND GARNER PRODUCTION	F	O	09-Aug-76	6-Nov-56	3643	3643	2395
3001538217	HUNTER 5 STATE 001	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	N	JEM RESOURCES	S	O			3642	3642	0
3001538218	HUNTER 5 STATE 002	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	N	CIMAREX ENERGY CO. OF COLORADO	S	O			3632	3632	0
3001502904	CAVE POOL UNIT 026	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	O	MARKS AND GARNER PRODUCTION	S	O	5-Feb-57	5-Feb-57	3632	3632	2524
3001524991	RED TWELVE STATE 004	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	O	MARKS AND GARNER PRODUCTION	S	O	14-Sep-84		3620	3620	3550
3001538040	CLUBTAIL 5 STATE 001	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	O	CIMAREX ENERGY CO. OF COLORADO	S	O			3629	3629	0
3001538041	CLUBTAIL 5 STATE 002	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	O	CIMAREX ENERGY CO. OF COLORADO	S	O			3620	3620	0
3001502897	CAVE POOL UNIT 027	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	P	MARKS AND GARNER PRODUCTION	S	O	4/28/2009	19-May-57	3614	3614	2391
3001524761	CAVE POOL UNIT 062	Active	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	P	MARKS AND GARNER PRODUCTION	S	O	28-Mar-84		3607	3607	2700
3001537943	SPIKETAIL 5 STATE 007	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	P	CIMAREX ENERGY CO. OF COLORADO	S	O			3608	3608	0
3001537944	SPIKETAIL 5 STATE 008	New	5	17S	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	29E	P	CIMAREX ENERGY CO. OF COLORADO	S	O			3604	3604	0

Cimarex Energy Company
 Spiketail SWD #1
 2610' FSL & 1980' FWL
 Sec. 5, T17S-R29E Eddy County, NM

API-30-015-35899

Item VII:

1. The maximum injected volume anticipated is 6,000 BWPD. Average anticipated is 4,000 BWPD.
2. Injection will be through a closed system.
3. Maximum injection pressure is expected to be 1,629 psi, or as allowed by depth.
4. Sources will be produced water. These will be compatible with waters in the disposal zone.
5. Water sample analysis from the Three Rivers Operating Company Empire South Deep Unit #5, Unit G, Sec. 20, T17S-R29E, Eddy Co., NM, is the closest representative of Pennsylvanian water quality similar what would be found in the Cimarex Spiketail SWD #1. This sample has TDS of 35,148 mg/l from the Morrow.

NM WAIDS



General Information About: Sample 3646			
EMPIRE SOUTH DEEP UNIT 005			
API	3001521279	Sample Number	
Unit/Section/ Township/Range	G / 31 / 17 S / 29 E	Field	EMPIRE SOUTH
County	Eddy	Formation	MOR
State	NM	Depth	
Lat/Long	32.79259 / -104.11207	Sample Source	WELLHEAD
TDS (mg/L)	35148	Water Type	
Sample Date(MM/DD/YYYY)	7/28/1976	Analysis Date(MM/DD/YYYY)	
Remarks/Description			
Cation Information (mg/L)		Anion Information (mg/L)	
Potassium (K)		Sulfate (SO)	450
Sodium (Na)		Chloride (Cl)	19800
Calcium (Ca)		Carbonate (CO ₃)	
Magnesium (Mg)		Bicarbonate (HCO ₃)	1510
Barium (Ba)		Hydroxide (OH)	
Manganese (Mn)		Hydrogen Sulfide (H ₂ S)	
Strontium (Sr)		Carbon Dioxide (CO ₂)	
Iron (Fe)		Oxygen (O)	

Cimarex Energy Company
 Spiketail SWD #1
 2610' FSL & 1980' FWL
 Sec. 5, T17S-R29E Eddy County, NM

APL30-015-35899

Random water analysis from Cimarex Energy Company production in Sec. 5, T17S-R29E

North Permian Basin Region
 P.O. Box 740
 Sundown, TX 79372-0740
 (806) 229-8121
 Lab Team Leader - Sheila Hernandez
 (432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	CIMAREX ENERGY	Sales RDT:	33521
Region:	PERMIAN BASIN	Account Manager:	STEVE HOLLINGER (575) 910-9393
Area:	CARLSBAD, NM	Sample #:	496874
Lease/Platform:	SPIKETAIL '5' LEASE	Analysis ID #:	101797
Entity (or well #):	4	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 496874 @ 75 °F					
		Anions		mg/l		meq/l	
Sampling Date:	07/06/10	Chloride:	80451.0	2269.23	Sodium:	34608.4	1505.38
Analysis Date:	07/16/10	Bicarbonate:	134.0	2.2	Magnesium:	2270.0	186.74
Analyst:	SANDRA GOMEZ	Carbonate:	0.0	0.	Calcium:	12240.0	610.78
TDS (mg/l or g/m3):	133761.9	Sulfate:	2905.0	60.48	Strontium:	267.0	6.09
Density (g/cm3, tonne/m3):	1.095	Phosphate:			Barium:	0.1	0.
Anion/Cation Ratio:	1	Borate:			Iron:	23.0	0.83
		Silicate:			Potassium:	863.0	22.07
Carbon Dioxide:	140 PPM	Hydrogen Sulfide:		0 PPM	Aluminum:		
Oxygen:		pH at time of sampling:		6.5	Chromium:		
Comments:		pH at time of analysis:			Copper:		
RESISTIVITY 0.059 OHM-M @ 75°F		pH used in Calculation:		6.5	Lead:		
					Manganese:	0.400	0.01
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl									
Temp	Gauge Press.	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
140	0	0.54	10.46	0.33	855.99	0.55	932.92	0.52	121.23	-0.27	0.00
160	0	0.63	12.62	0.31	826.46	0.64	1001.22	0.54	123.38	-0.39	0.00
180	0	0.73	14.46	0.30	808.30	0.74	1067.07	0.56	126.46	-0.48	0.00
200	0	0.82	16.62	0.30	799.38	0.86	1125.22	0.59	129.85	-0.55	0.00

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO₂ pressure is actually the calculated CO₂ fugacity. It is usually nearly the same as the CO₂ partial pressure.

Waters of the chemical compositions shown above would be compatible in their mutual presence.

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

API 30-015-35899

Item VIII:

The Cisco/Canyon Pennsylvanian carbonates in this area are limestone and dolomitized limestones, interbedded with shales and some sandstones.

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 584323

Northing (Y): 3636316

Radius: 1610

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/14/11 1:06 PM

WATER COLUMN/ AVERAGE
DEPTH TO WATER

The surface geology of the greater area, including the 2-mile radius as shown in Item V above, is Quaternary eolian and piedmont deposits of Holocene to middle Pleistocene age. These are underlain by the Permian Rustler Formation and some evaporites.

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

API 30-01 ~~5-35899~~

Item IX:

Acidize perforations in the Cisco/Canyon perforations between 8,145' and 9,300' in 7" casing with approximately 20,000 gal of 15% HCl.

Item X:

Logs are not on file with the OCD at this time, but are en route.

Item XI:

No water wells are reported the 1-mile radius of the proposed SWD. Please note Item VIII discussion above.

Item XII:

There is no geological evidence of open faults nor hydrologic connection between the disposal zone and any possible underground sources of protectable water.

Extensive testing/evaluation in the Cisco/Canyon of this well and the Clayton Williams Energy test, discussed in Item IV(a) above, demonstrates the lack of reasonable hydrocarbon commercial production potential. Additionally, both the Clayton Williams and this well are currently active SWDs in portions of this proposed injection interval.

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

API 30-015-~~35899~~

Proposed Re-completion of SWD Well

PROPOSED RE-COMPLETION

API: 3001538599
Operator: Cimarex Energy Co. of Colorado
Lease: Spiketail SWD
Location: Sec 5, T17S-R29E Eddy Co., NM
Footage: 2610 FSL, 1980 FWL

Originally: Cimarex Spiketail SWD #1

Well No: 1

KB: 3659

GL: 3638

Original Surface Csg

Size: 13-3/8" 48# H-40
Set @: 450
Sxs cmt: 770 sx + 79 sx w/1"
Circ: Topped from surface
TOC: Surface
Hole Size: 17-1/2"

Original Intermediate Csg

Size: 9-5/8" 40# J-55
Set @: 1222
Sxs cmt: 470
Circ: Circulated
TOC: Surface
Hole Size: 12-1/4"

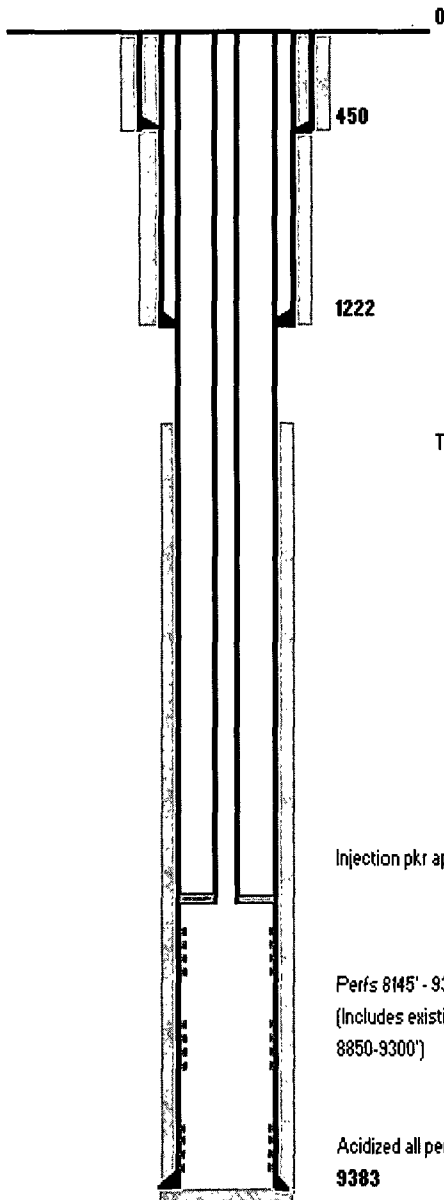
Original Production Csg

Size: 7" 26# N80
Set @: 9383
Sxs cmt: 900
Circ: NO
TOC: 2850' TS
Hole Size: 8-3/4"

Tubular requirements (made-up):
8095' 3-1/2" N80 9.3# upset Fiberglass coated
Lok-Set packer or equivalent approx 8095'

Perf and acidized selectively
Load tubing annulus w/corrosion inhibitor
Complete surface head for disposal

Recompletion only requires adding
Perforations, stimulation,
and raising injection packer seat



Injection pkr approx 8095'

Perfs 8145' - 9300'
(Includes existing perfs
8850-9300')

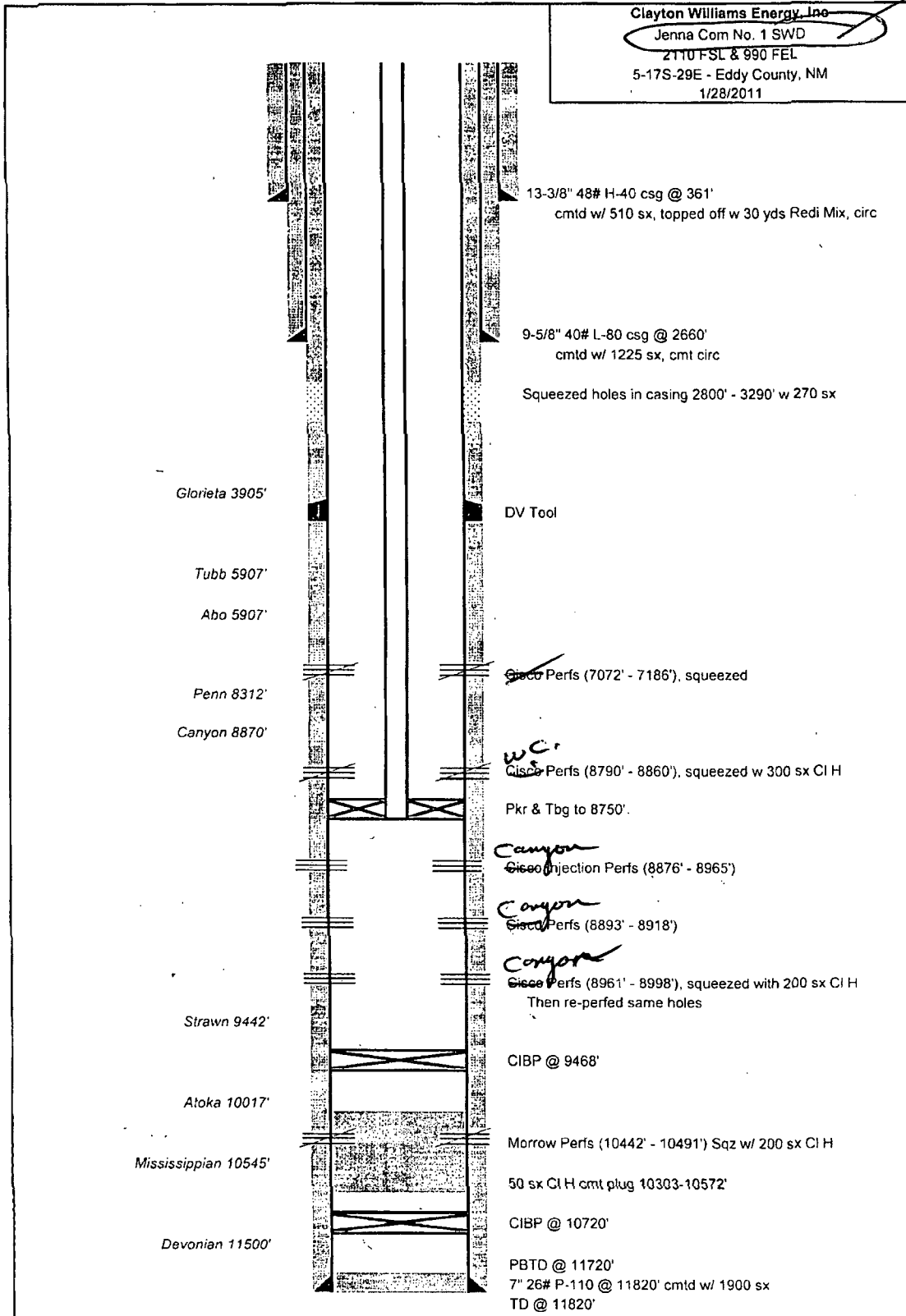
Acidized all perfs w/20,000 gal 15% HCl
9383
TD 9400

*THIS WELL IS
already
Permitted 8/10/11
SWD 1268-A
8720-9300
They are
adding perfs in
C1560 or
Lower WC.*

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

APL 30-015-35899

Completion of Clayton Williams Energy, Inc. SWD Sec. 5, T17S-R29E



AOR
well
Located
~ 1/2 mi
ESE of
Subst well

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

API 30-015-35899

SPOT10 Satellite and Matching Topographic Map



The Cimarex Energy Company Spiketail SWD #1 is located 7.2 miles northwest (295°) of Loco Hills, NM.

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

~~API 30-015-35899~~

Item XIII: Proof of Notice

Minerals Owner:

State of New Mexico
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, New Mexico 87504-1148

Surface Lessee:

Bogle Farms
P.O. Box 358
Dexter, NM 88230

Operators:

ConocoPhillips Company
3401 E. 30th St.
Farmington, NM 87402

Devon Energy Production Company, LP
20 N. Broadway
Oklahoma City, OK 73102

ExxonMobil Production Company
396 West Greens Road
Houston, TX 77067

McCombs Energy, LLC
5559 San Felipe, Suite 1220
Houston, TX 77056

Clayton Williams Energy, Inc.
6 Desta Dr. Suite 3000
Midland, TX 79705

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

~~API 30-015-35899~~

Item XIII: Legal Publication

Affidavit of Publication

NO. 21821

STATE OF NEW MEXICO

County of Eddy:

Danny Scott

being duly sworn, says that he is the

Publisher

of the Artesia Daily Press, a daily newspaper of general
circulation, published in English at Artesia, said county
and state, and that the hereto attached

Legal Notice

was published in a regular and entire issue of the said
Artesia Daily Press, a daily newspaper duly qualified
for that purpose within the meaning of Chapter 167 of
the 1937 Session Laws of the state of New Mexico for
1 Consecutive weeks/days on the same
day as follows:

First Publication August 30, 2011

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Subscribed and sworn to before me this

30th day of August 2011



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2015

Latisha Romine

10th

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

Cimarex Energy Company of Colorado, 600 N. Marlenfeld St., Ste 600, Midland, Texas, 432-571-7800, is seeking approval from the New Mexico Oil Conservation Division to re-complete the Cimarex Energy Company Spiketail SWD No. 1 well API: 30-015-38599, located 2610 feet from the south line and 1980 feet from the west line of Section 5, T17S, R29E, Eddy County, NM, 2.6 miles west and 3.6 miles north of Loco Hills, New Mexico on US-82, to perforate casing and re-complete for produced water disposal. This is not a new SWD well.

The proposed disposal interval is in the Pennsylvanian Cisco/Canyon formations through existing and additional casing perforations from 8,145 feet to 9,300 feet (OA) beneath the surface.

Cimarex plans to dispose of a maximum of 6,000 BWPD with a maximum pressure of 1,629 psi, or as controlled by actual disposal depth.

Parties with questions regarding this proposal can contact Cimarex at the address or phone number above.

Interested parties must file objections or requests for hearing within 15 days of publication to the Oil Conservation Division: 1220 S. St. Francis Dr., Santa Fe, NM 87505. Published in the Artesia Daily Press, Artesia, N.M., Aug. 30, 2011. Legal No. 21821.

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

API 30-015-35899

Item XIII:

Certified Mail Receipts

U.S. Postal ServiceTM
CERTIFIED MAILTM RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com.

OFFICIAL USE

DEXTER, NM 88230

Postage	\$	\$1.48	0602
Certified Fee		\$2.85	03
Return Receipt Fee (Endorsement Required)			
Restricted Delivery Fee (Endorsement Required)			
Total Postage & Fees	\$		

Sent To: Bogle Farms
Street, Apt. No., or PO Box No.: P.O. Box 358
City, State, ZIP+4: Dexter, NM 88230

PS Form 3800, August 2006 See Reverse for Instructions

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SANTA FE, NM 87504

Postage	\$	\$1.48	0602
Certified Fee		\$2.85	03
Return Receipt Fee (Endorsement Required)		\$2.30	
Restricted Delivery Fee (Endorsement Required)		\$0.00	
Total Postage & Fees	\$	\$6.63	

Sent To: Commissioner of Public Lands
Street, Apt. No., or PO Box No.: P.O. Box 1148
City, State, ZIP+4: Santa Fe, NM 87504-1148

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FARMINGTON, NM 87402

Postage	\$	\$1.48	0602
Certified Fee		\$2.85	03
Return Receipt Fee (Endorsement Required)		\$2.30	
Restricted Delivery Fee (Endorsement Required)		\$0.00	
Total Postage & Fees	\$	\$6.63	

Sent To: ConocoPhillips Company
Street, Apt. No., or PO Box No.: 3401 E. 30th St.
City, State, ZIP+4: Farmington, NM 87402

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OKLAHOMA CITY, OK 73102

Postage	\$	\$1.48	0602
Certified Fee		\$2.85	03
Return Receipt Fee (Endorsement Required)		\$2.30	
Restricted Delivery Fee (Endorsement Required)		\$0.00	
Total Postage & Fees	\$	\$6.63	

Sent To: Devon Energy Corporation
Street, Apt. No., or PO Box No.: 20 N. Broadway
City, State, ZIP+4: Oklahoma City, OK 73102

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HOUSTON, TX 77056

Postage	\$	\$1.48	0602
Certified Fee		\$2.85	03
Return Receipt Fee (Endorsement Required)		\$2.30	
Restricted Delivery Fee (Endorsement Required)		\$0.00	
Total Postage & Fees	\$	\$6.63	

Sent To: ExxonMobil Production Company
Street, Apt. No., or PO Box No.: 396 West Greens Road
City, State, ZIP+4: Houston, TX 77057

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HOUSTON, TX 77056

Postage	\$	\$1.48	0602
Certified Fee		\$2.85	03
Return Receipt Fee (Endorsement Required)		\$2.30	
Restricted Delivery Fee (Endorsement Required)		\$0.00	
Total Postage & Fees	\$	\$6.63	

Sent To: McCombs Energy, LLC
Street, Apt. No., or PO Box No.: 5559 San Felipe, Suite 1220
City, State, ZIP+4: Houston, TX 77056

PS Form 3800, August 2006 See Reverse for Instructions

Cimarex Energy Company
Spiketail SWD #1
2610' FSL & 1980' FWL
Sec. 5, T17S-R29E Eddy County, NM

Item XIII:

Certified Mail Receipts

7010 1870 0002 4544 6568

U.S. Postal Service TM	
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MIDLAND, TX 79705	
OFFICIAL USE	
Postage	\$ \$1.48
Certified Fee	\$2.85
Return Receipt Fee (Endorsement Required)	\$2.30
Restricted Delivery Fee (Endorsement Required)	\$0.00
Total Postage & Fees	\$ \$6.63

Postmark: 0602 03 SEP 21 2011

Sent to: Clayton Williams Energy, Inc.
Street, Apt. No., or PO Box No.: 6 Desta Dr., Suite 3000
City, State, ZIP+4: Midland, TX 79705

PS Form 3800, August 2006 See Reverse for Instructions

Injection Permit Checklist (11/15/2010)

WFX _____ PMX _____ SWD 1268-B Permit Date 10/2/11 UIC Qtr (0/N/D)

Wells 1 Well Name(s): SPRINTAIL SWD #1

API Num: 30-0 15-38599 Spud Date: 6/1/11 New/Old: N (UIC primacy March 7, 1982)

Footages 2610 FSL/1980 FWL Unit K Sec 5 Tsp 17S Rge 29E County _____

General Location: _____

Operator: Cimarron Energy Co. of Colorado Contact Kay Adams

OGRID: 162683 RULE 5.9 Compliance (Wells) 0/12/16 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed _____ Current Status: _____

Planned Work to Well: Pull PKR / add Perfs / acidize / Reset

Diagrams: Before Conversion ☒ After Conversion ☒ Elogs in Imaging File: Sandy GGS

Well Details:	Sizes		Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
	Hole.....	Pipe				
New ___ Existing ___ Surface	<u>17 1/2</u>	<u>13 3/8</u>			<u>450 SX</u>	<u>Surf</u>
New ___ Existing ___ Interm	<u>12 1/4</u>	<u>9 5/8</u>			<u>1200 SX</u>	<u>Surf</u>
New ___ Existing ___ LongSt	<u>8 3/4</u>	<u>7"</u>	<u>9400 TD</u>		<u>2300 SX</u>	<u>Surf</u>
New ___ Existing ___ Liner						
New ___ Existing ___ OpenHole						

Depths/Formations:	Depths, Ft.	Formation	Tops?
Formation(s) Above	<u>8312</u> <u>8870</u>	<u>Penn</u> <u>Canyon</u>	☒ ☒
Injection TOP:	<u>8145</u>	<u>WOLF CANYON</u>	Max. PSI <u>1629</u> OpenHole ___ Perfs ☒
Injection BOTTOM:	<u>9300</u>	<u>Canyon</u>	Tubing Size <u>3 1/2</u> Packer Depth <u>8095</u>
Formation(s) Below	<u>9442</u>	<u>Stream</u>	☒

Capitan Reef? (Notach? Noticed?) [WIPP? Noticed?] Salado Top/Bot 375'-525' Cliff House? _____

Fresh Water: Depths: > 160' Formation QAL Wells? NO Analysis? NO Affirmative Statement ☒

Disposal Fluid Analysis? Sources: Operator own needs / also / WOLF CANYON

Disposal Interval: Analysis? 0 Production Potential/Testing: Passal over for Productive Testing

Notice: Newspaper Date 8/24/11 Surface Owner S.L.O. Mineral Owner(s) _____

RULE 26.7(A) Affected Persons: See applic (8/29/11)

AOR: Maps? ☒ Well List? ☒ Producing in Interval? 0 Wellbore Diagrams? ☒

.....Active Wells 2 Repairs? 0 Which Wells? _____

.....P&A Wells 1 Repairs? 0 Which Wells? _____

Issues: _____ Request Sent _____ Reply: _____