STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

### Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

FORM C-108 Revised June 10, 2003

### **APPLICATION FOR AUTHORIZATION TO INJECT**

I.	PURPOSE: X - EOR Secondary Recovery Application qualifies for administrative approval?	Pressure Maintenance Yes X	Disposal _No	Storage
II.	OPERATOR: Celero Energy II, LP			
	ADDRESS: 400 West Illinois Avenue, Suite 1601, Midland	, Texas 79701		
	CONTACT PARTY: M. W. Metza or D. R. Catanach	Cell PHONE: (432)5	56-0829 or (505)690-9453	
III.	WELL DATA: Complete the data required on the reverse sid Additional sheets may be attached if necessar		ell proposed for injection.	
iV.	Is this an expansion of an existing project? X Ye If yes, give the Division order number authorizing the project	esNo :: R-1541		
V.	Attach a map that identifies all wells and leases within two m drawn around each proposed injection well. This circle ident	iles of any proposed inje		lius circle
VI.	Attach a tabulation of data on all wells of public record within Such data shall include a description of each well's type, conschematic of any plugged well illustrating all plugging detail.	truction, date drilled, loc		
VII.	Attach data on the proposed operation, including:		Oil Conservation Division Case No.	
	<ol> <li>Proposed average and maximum daily rate and volume of</li> <li>Whether the system is open or closed;</li> <li>Proposed average and maximum injection pressure;</li> <li>Sources and an appropriate analysis of injection fluid and produced water; and,</li> <li>If injection is for disposal purposes into a zone not produce chemical analysis of the disposal zone formation water (rewells, etc.).</li> </ol>	compatibility with the rective of oil or gas at or w	Exhibit No. 29 ecceiving formation if other than re	ll, attach a
*VIII.	Attach appropriate geologic data on the injection zone included depth. Give the geologic name, and depth to bottom of all ur total dissolved solids concentrations of 10,000 mg/l or less) known to be immediately underlying the injection interval.	derground sources of dri	nking water (aquifers containing v	waters with
JX.	Describe the proposed stimulation program, if any.			
*X.	Attach appropriate logging and test data on the well. (If well	logs have been filed wit	h the Division, they need not be re	submitted)
*XI.	Attach a chemical analysis of fresh water from two or more fi injection or disposal well showing location of wells and dates		able and producing) within one mi	le of any
XII.	Applicants for disposal wells must make an affirmative state data and find no evidence of open faults or any other hydrole sources of drinking water.			
XIII.	Applicants must complete the "Proof of Notice" section on the	e reverse side of this for	m.	
XIV.	Certification: I hereby certify that the information submitted and belief.	with this application is to	ue and correct to the best of my ki	nowledge
	NAME: M. W. Metza	TITLE:	Sr. Production Engineer	
	NAME: M. W. Metza		DATE:	
*	E-MAIL ADDRESS: mmetza@celeroenergy.com If the information required under Sections VI, VIII, X, and X Please show the date and circumstances of the earlier submitt	I above has been previou	·	

### 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.

### Rock Queen Unit-Attachment to NM Form C-108

Data for Items VII (Proposed Operation), VIII (Geologic Data), IX (Stimulation Program), and XI (Fresh Water Wells).

Lease Location: All or portions of Sec. 22 through 27, 34 through 36, T13S, R31E, Chaves County, NM, and all or portions of Sec. 19, 30, and 31, T13S, R32E, Lea County, NM.

Operator: Celero Energy II, LP

### VII. Data on the Proposed Operation:

1. The proposed average water injection rate is 600 BWPD per well, and the proposed maximum injection rate is 1500 BWPD per well.

The proposed average CO2 injection rate is 1250 MCFPD per well, and the proposed maximum injection rate is 3000 MCFPD per well.

This is an Enhanced Oil Recovery Pilot in which Celero plans to inject carbon dioxide and water into the Queen Formation using a "water alternating gas (WAG)" method. Celero is initially planning to use a tapered WAG flooding schedule and adjust it as needed based on how the Queen reservoir responds and subsequently performs. The Project will begin using a higher WAG ratio to allow for reservoir fillup then the WAG ratio will be reduced during the primary flooding phase of the project. The WAG ratio will again increase as the project reaches maturity.

- 2. The system will be closed. Produced water will be recovered and reinjected into the Queen Formation. Produced carbon dioxide and hydrocarbon gas will be recovered and compressed then mixed with clean carbon dioxide as part of the normal injection schedule in the Pilot Area.
- 3. The proposed average and maximum water injection pressure is 800 psi. This pressure is higher than the 610 psi that would normally be allowed using the traditional calculation of 0.2 psi/ft X 3050 (ft) (depth to the Queen formation). Celero has performed step rate tests on ten water injection wells in the Rock Queen Unit area, and these tests show that Celero can safely inject at 800 psi without exceeding the fracture pressure of the Queen Formation. A summary of the test results along with the actual tests are attached.

Celero is seeking approval to apply the average and maximum produced water injection pressure of 800 psi to all current and future water injection wells and WAG injection wells in the entire Rock Queen Unit.

The proposed average and maximum carbon dioxide injection pressure is 1200 psi. The higher injection pressure for carbon dioxide is necessary to account for the lower density of carbon dioxide at field operating conditions.

4. The source water for the Rock Queen Unit is recycled produced water and fresh water (Ogallala formation) from local wells. Water analyses for both and a compatibility test are attached.

Data for Items VII (Proposed Operation), VIII (Geologic Data), IX (Stimulation Program), and XI (Fresh Water Wells).

Lease Location: All or portions of Sec. 22 through 27, 34 through 36, T13S, R31E, Chaves County, NM, and all or portions of Sec. 19, 30, and 31, T13S, R32E, Lea County, NM.

Operator: Celero Energy II, LP

### VIII. The Geologic Data:

• Geologic Age: Permian

• Geologic Name: Queen Formation (a member of the Artesian Group)

• Average Thickness: 15 feet

Lithology: Shaley sandstone

Measured Depth: 3000' to 3100'

Sources of underground drinking water: Ogallala formation at depths from 100' to 200'.

### IX. Data on the Proposed Stimulation Program:

- Celero will initially attempt to produce or inject into these wells without additional stimulation treatments.
- Should a stimulation treatment become necessary, then a mild 7 ½% NEFE HCL treatment with appropriate additives will be used.
- In the event a mild acid treatment is not adequate, then a gelled water/proppant hydraulic fracture treatment would be considered.

### XI. Data on the Fresh Water Wells:

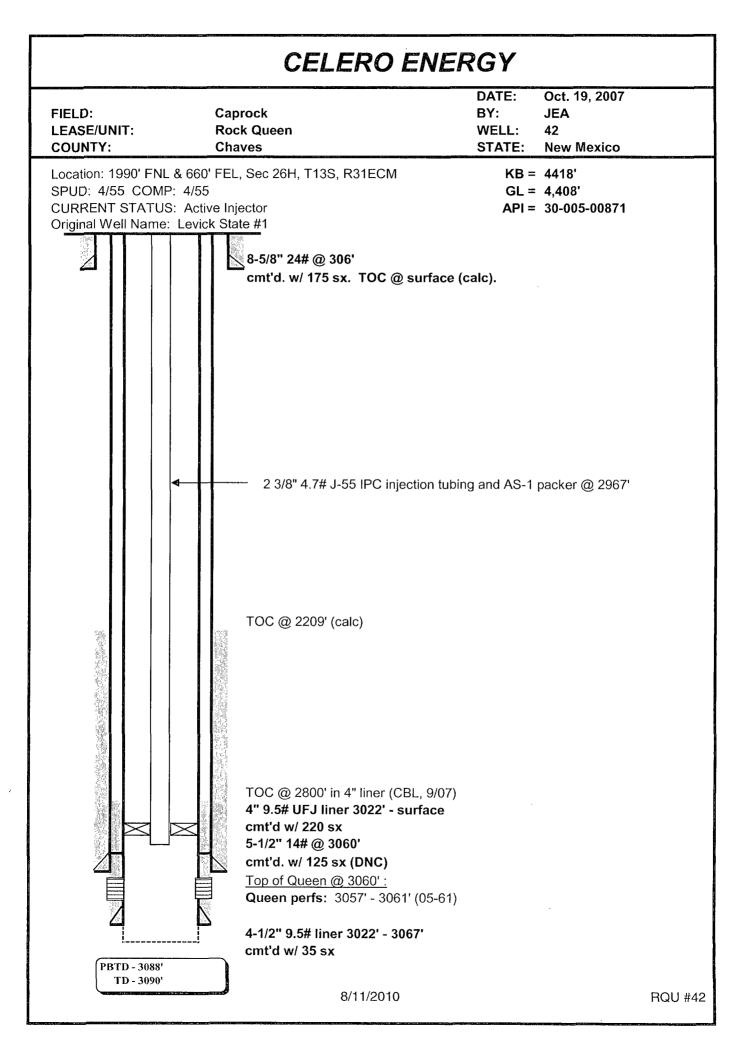
There is one fresh water well within one mile of any injection well on the Rock Queen Unit. The well is located in Section 35 (F), T13S, R31E, Chaves County, NM. A recent chemical analysis of the well's water and a map showing the location of the water well are attached.

### CAPROCK - ROCK QUEEN UNIT Hearing and Administrative Order Summary

Order No.	Order Date (mm/dd/yy)	Rock Queen Unit Wells
R-1541	11/30/59	22L, 22N, 22J, 28, 27F, & 27B
WFX-46	08/08/60	38 & 27H
WFX-55	10/07/60	46, 27J, & 34
WFX-58	10/28/60	114
WFX-61	10/28/60	12
WFX-64	12/20/60	23L & 23N
WFX-68	01/12/61	40
WFX-70	01/30/61	99
WFX-71	01/30/61	36
WFX-73	02/01/61	16 & 19
WFX-74	01/30/61	44
WFX-81	04/06/61	23P, 54, 42, & 24L
WFX-84	06/01/61	48, 50, 101, 103, & 97
WFX-90	09/27/61	24N, 56, & 62
WFX-95	11/10/61	24J, 24P, & 52
WFX-99	01/12/62	58, 60, & 70
WFX-106	05/23/62	106, 64, 66, 85, & 83
WFX-119	10/01/62	68, 6, & 78
WFX-120	11/15/62	108 & 3
WFX-126	01/02/63	31DN, 36H. 91, & 93
WFX-131	02/13/63	8, 76, & 14
WFX-168	02/14/64	87, 36J, & 95
??	??	22B & 22H

															WELLBORE SCHEMATIC (See Attached)	ION	WELL LOCATION: 1990' FNL & 660' FEL	WELL NAME & NUMBER: Rock Queen Unit #42	OPERATOR: Celero Energy II, L P	Side 1(Cont) INJECT
			Total Depth: 3067'	Top of Cement: 2800'	Cemented with: 255	Hole Size: 5.012"		Top of Cement:	Cemented with:	Hole Size:		Top of Cement:	Cemented with:	Hole Size:		UNIT LETTER	H			INJECTION WELL DATA SE
(Perforated or Open Hole; indicate which)	3057 feet to 3090' (Perforated + Open Hole)	Injection Interval		0' Method Determined: Cmt. Bond Log	5 sx. or ft <sup>3</sup>	Casing Size: 4-1/2", 9.5#	Liner/Casing	Method Determined:	or ft <sup>3</sup>	Casing Size:	Intermediate Casing	Method Determined:	orft³	Casing Size:	WELL CONSTRUCTION DATA Surface Casing	SECTION TOWNSHIP	26 T13S R31E			HEET

.5	4.	<u>.</u> 3	2.		<del></del>		Otl	Pac	Tyj	Tul
Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None	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	Name of Field or Pool (if applicable): Caprock	Name of the Injection Formation: Queen	If no, for what purpose was the well originally drilled? Primary depletion oil producer	Is this a new well drilled for injection? Yes	Additional Data	Other Type of Tubing/Casing Seal (if applicable):	Packer Setting Depth: 2967'	Type of Packer: AS-1X	Tubing Size: 2-3/8"/ 4.7#/ J-55 Lining Material: Internally Plastic Coated
overlying the proposed	such perforated used. No			depletion oil producer	XNo					nally Plastic Coated



(Perforated or Open Hole; indicate which)		<u>Injection Interval</u>	Total Depth: 3049'	Top of Cement: 2520' Method Determined: Cmt Bond Log	Cemented with: 125sx. or ft <sup>3</sup>	Hole Size: Casing Size: 5-1/2" 14#	Production Casing	Top of Cement: Method Determined:	Cemented with: . or ft <sup>3</sup>	Hole Size: Casing Size:	Intermediate Casing	Top of Cement: Surface Method Determined: Calculated	Cemented with: 100 sx. or ft <sup>3</sup>	Hole Size: Casing Size: 8-5/8" 32#	WELLBORE SCHEMATIC (See Attached)  Surface Casing	WELL LOCATION: 1980' FSL & 1980' FEL J 26 T13S R31E FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE	WELL NAME & NUMBER: Rock Queen Unit #44	OPERATOR: Celero Energy II, L P		26 SECTION  WELL CONSTRU Surface Ca  Surface Ca  Intermediate of Production C  Production C  1: 3049'  SECTION  Production C	Pueen Unit #44  180° FEL  LOCATION UNIT  HEMATIC (See Attached)	WELL NAME & NUMBER: Row WELL LOCATION: 1980' FSL of FOOTA  WELLBORL
---	--	---------------------------	--------------------	--	--	------------------------------------	-------------------	-----------------------------------	-------------------------------------	-------------------------	---------------------	--	---	------------------------------------	---	---	---	---------------------------------	--	--	---	---

															WELLBORE SCHEMATIC (See Attached)	WELL LOCATION: 1980' FSL & 1980' FEL FOOTAGE LOCATION	WELL NAME & NUMBER: Rock Queen Unit #44	OPERATOR: Celero Energy II, L P	Side 1 (Cont)
			Total Depth: 3007'	Top of Cement: 25'	Cemented with: 100 sx.	Hole Size: 5.012"		Top of Cement:	Cemented with: .	Hole Size:		Top of Cement:	Cemented with:	Hole Size:		J UNIT LETTER			INJECTION WELL DATA SH
(Perforated or Open Hole; indicate which)	3032 feet to 3065' (Open Hole and Perforated)	Injection Interval		Method Determined: Temp Survey	$\frac{\partial}{\partial x} \int dx  dx  dx$	Casing Size: 4", 9.5#	Liner/Casing	Method Determined:	or	Casing Size:	Intermediate Casing	Method Determined:	or ft <sup>3</sup>	Casing Size:	WELL CONSTRUCTION DATA Surface Casing	26 T13S R31E SECTION TOWNSHIP RANGE			HEET

Si	4.	ÿ ;>	<del></del>	Oth	Pacl	Tub Typ
Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None	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	Name of the Injection Formation: Queen  Name of Field or Pool (if applicable): Caprock	Is this a new well drilled for injection?YesXNo  If no, for what purpose was the well originally drilled? Primary depletion oil producer	Other Type of Tubing/Casing Seal (if applicable):	Packer Setting Depth: 2987'	Tubing Size: 2-3/8"/ 4.7#/ J-55  Lining Material: Internally Plastic Coated  Type of Packer: Arrowset 1X
verlying the proposed	used. No		XNo depletion oil producer			nally Plastic Coated

### **CELERO ENERGY**

FIELD:

Caprock

DATE:

BY:

Aug. 12, 2010

LEASE/UNIT:

Rock Queen

WELL:

44

MWM

**COUNTY:** 

Chaves

STATE: **New Mexico** 

Location: 1980' FSL & 1980' FEL, Sec 26J, T13S, R31ECM

GL =

SPUD: 7/55 COMP: 7/55 **CURRENT STATUS: Injector** 

KB = 4406'

Original Well Name: Manery #1

API = 30-005-00873

8-5/8" 32# @ 193'

cmt'd. w/ 100 sx. TOC @ surface (calc).

TOC @ 25' in 4" liner (TS)

2-3/8" OD, 4.7#/J-55 IPC w/ TDC injection tbg with 4" nickel plated Arrowset pkr set @ 2987'

TOC @ 2520' (CBL, 5/07)

4" 9.5# J-55 flush joint liner from 3007' to surface, cmt'd w/ 100 sx Class C cmt

Top of Queen @ 3032':

**Queen:** 3032'-3047' (07-55)

3035' - 3050' (4 SPF) (12-07)

5 1/2" 14# J-55 @ 3049' cmt'd. w/ 125 sx (DNC)

PBTD - 3065' TD - 3065'

8/12/2010

**RQU #44** 

Side 1 INJECTIC	INJECTION WELL DATA SHEET			
OPERATOR: Celero Energy II, L P				
WELL NAME & NUMBER: Rock Queen Unit #46				
WELL LOCATION: 1980' FSL & 660' FWL FOOTAGE LOCATION	L UNIT LETTER	26 SECTION	T13S TOWNSHIP	R31E RANGE
WELLBORE SCHEMATIC (See Attached)		WELL CONSTRUCTION DATA Surface Casing	Sing	
	Hole Size: 11"		Casing Size: 8-5/8" 24#	.4#
	Cemented with: 100 sx.		OF	ft <sup>3</sup>
	Top of Cement: Surface		Method Determined:	Calculated
		Intermediate Casing	Casing	
	Hole Size:		Casing Size:	
	Cemented with:		or	ft³
	Top of Cement:		Method Determined:	
		<u>Production Casing</u>	Sasing	
	Hole Size: 7-7/8"		Casing Size: 5-1/2" 14#	14#
	Cemented with: 125sx.		or	ft³
	Top of Cement: 2171'		Method Determined: Calculated	Calculated
	Total Depth: 3022'			
		Injection Interval	<u>terval</u>	
		3028 feet	to 3058' (Perforated & Openhole)	г Openhole)
	(Pe	(Perforated or Open Hole; indicate which)	e; indicate which)	

															WELLBORE SCHEMATIC (See Attached)	WELL LOCATION: 1980' FSL & 660' FWL FOOTAGE LOCATION	WELL NAME & NUMBER: Rock Queen Unit #46	OPERATOR: Celero Energy II, L P	Side 1(Cont)
			Total Depth: 3039'	Top of Cement: 1370	Cemented with: 131	Hole Size: 5.012"		Top of Cement:	Cemented with:	Hole Size:		Top of Cement:	Cemented with:	Hole Size:		L UNIT LETTER			INJECTION WELL DATA
(Perforated or Open Hole; indicate which)	3028 feet to 3058' (Perforated & Openhole)	Injection Interval		70' Method Determined: Cmt. Bond Log	sx. or ft <sup>3</sup>	Casing Size: 4.5", 9.5#	<u>Liner/Casing</u>	Method Determined:	or ft <sup>3</sup>	Casing Size:	Intermediate Casing	Method Determined:	or ft <sup>3</sup>	Casing Size:	WELL CONSTRUCTION DATA Surface Casing	26 T13S R31E SECTION TOWNSHIP RANGE			SHEET

S	.4	$\omega$	2.		<del></del>		Otl	Pac	Туј	Tui
Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None	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	Name of Field or Pool (if applicable): Caprock	Name of the Injection Formation: Queen	If no, for what purpose was the well originally drilled? Primary depletion oil producer	Is this a new well drilled for injection?Yes	Additional Data	Other Type of Tubing/Casing Seal (if applicable):	Packer Setting Depth: 2845'	Type of Packer: Arrowset 1X	Tubing Size: 2-3/8"/ 4.7#/ J-55 Lining Material: Internally Plastic Coated
overlying the proposed	such perforated used. No			depletion oil producer	XNo					nally Plastic Coated

### CELERO ENERGY DATE: Aug. 12, 2008 BY: FIELD: Caprock MWM WELL: 46 LEASE/UNIT: **Rock Queen New Mexico** COUNTY: Chaves STATE: KB = 4,413'Location: 1980' FSL & 660' FWL, Sec 26L, T13S, R31ECM GL = SPUD: 4/55 COMP: 4/55 **CURRENT STATUS: Injector** API = 30-005-00878Original Well Name: State #12 8-5/8" 24# @ 205' cmt'd. w/ 100 sx. TOC @ surface (calc). Pumped 26 sx thixotropic cement and 75 sx Class C cmt w/ additives down 4" x 5 1/2" casing annulus. TOC @ 1370' in 4" liner (CBL, 1/08) Cmt bond from 1370' - 2860' 2-3/8"/4.7#/J-55 IPC injection tbg with Arrowset pkr set @ 2845" TOC @ 2171' (calc) BOC @ 2860' in 4"-by-5-1/2" (CBL, 1/08) 5 1/2" 14# @ 3022' cmt'd. w/ 125 sx (DNC) Top of Queen @ 3022': Queen Open Hole: 3022-3035' (04-55) 3028' - 3041' (4 SPF) (01-08) 4" 9.5# J-55 liner from 3039' to surface cmt'd. w/ 30 sx Class C cmt w/ additives (DNC) PBTD - 3058' The well was drilled out 19' to a PBTD of 3058' TD - 30631 8/12/2010 **RQU #46**

														WELLBORE SCHEMATIC (See Attached)	WELL LOCATION: 660' FSL & 1980' FWL FOOTAGE LOCATION	WELL NAME & NUMBER: Rock Queen Unit #48	OPERATOR: Celero Energy II, L P	Side 1 INJECTI
		Total Depth: 3028'	Top of Cement: 1730'	Cemented with: 150 sx.	Hole Size: 7-7/8"		Top of Cement:	Cemented with:	Hole Size:		Top of Cement: Surface	Cemented with: 300 sx.	Hole Size: 11"		UNIT LETTER			INJECTION WELL DATA SHEET
3028 feet to 3074' (Open Hole)	Injection Interval		Method Determined: Cmt Bond Log	x. or ft³	Casing Size: 5-1/2" 14#	Production Casing	Method Determined:	or ft <sup>3</sup>	Casing Size:	Intermediate Casing	ce Method Determined: Calculated	sx. or ft <sup>3</sup>	Casing Size: 8-5/8" 24#	WELL CONSTRUCTION DATA Surface Casing	26 T13S R31E SECTION TOWNSHIP RANGE			

Injection Interval 3028 feet to 3074' (Open Hole)		Top of Cement: Surface Method Determined: Circulated	Cemented with: 115 sx. or ft <sup>3</sup>	Hole Size: 5.012" Casing Size: 4", 9.5#	<u>Liner/Casing</u>	Top of Cement: Method Determined:	Cemented with: or ft <sup>3</sup>	Hole Size: Casing Size:	Intermediate Casing	Top of Cement: Method Determined:	Cemented with: or ft <sup>3</sup>	Hole Size: Casing Size:	WELLBORE SCHEMATIC (See Attached)  Surface Casing	WELL LOCATION: 660' FSL & 1980' FWL N 26 T13S R31E FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE	WELL NAME & NUMBER: Rock Queen Unit #48	OPERATOR: Celero Energy II, L P	Side 1(Cont) INJECTION WELL DATA SHEET
---	--	--	---	---	---------------------	-----------------------------------	-----------------------------------	-------------------------	---------------------	-----------------------------------	-----------------------------------	-------------------------	---	--	---	---------------------------------	--

	5. Give the name and depths of any injection zone in this area: None	4. Has the well ever bee intervals and give plu	3. Name of Field or Poo	2. Name of the Injection Formation: Queen	II no, Ior what purpos	1. Is this a new well drilled for injection?			Other Type of Tubing/Casing Seal (if applicable):	Packer Setting Depth: 2966'	Type of Packer: Arrowset 1X	Tubing Size: 2-3/8"/ 4.7#/ J-55
	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None	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	Name of Field or Pool (if applicable): Caprock	Formation: Queen	It no, for what purpose was the well originally drifted? Frimary deptetion on producer	led for injection?Yes	Auditoliai Dala	Additional Data	ing Seal (if applicable):	56'	1X	#/ J-55 Lining Material: Internally Plastic Coated
	overlying the proposed	used. No			depretion on producer	No	4					nally Plastic Coated

### **CELERO ENERGY** DATE: Jan. 04, 2008 FIELD: Caprock BY: **JEA** WELL: 48 **Rock Queen** LEASE/UNIT: Chaves STATE: **New Mexico COUNTY:** Location: 660' FSL & 1980' FWL, Sec 26N, T13S, R31ECM KB = 4,410SPUD: 2/55 COMP: 2/55 GL = **CURRENT STATUS: Injector** API = 30-005-00868Original Well Name: Chaves State AJ #1 🏿 8-5/8" 24# @ 312' cmt'd. w/ 300 sx. TOC @ surface (calc). - 2-3/8'/4.7#/J-55 IPC injection tbg with Arrowset pkr set @ 2966' TOC @ 1730' (CBL, 12/07) 4" 9.5# J-55 FJ liner 3004' to surface cmt'd. w/ 115 sx Class C cmt w/ additives (circ 8 sx) 5 1/2" 14# @ 3028' cmt'd. w/ 150 sx (DNC) Top of Queen @ 3028': Queen Open Hole: 3028-3041' (02-55) PBTD - 3074' TD - 3074' 8/11/2010 **RQU #48**

Injection Interval		
	Total Depth: 3048'	
Method Determined: Cmt Bond Log	Top of Cement: 2606?	
orft³	Cemented with: 100sx.	
Casing Size: 5-1/2"	Hole Size: 7-7/8"	
Production Casing		
Method Determined:	Top of Cement:	
orft³	Cemented with: .	
Casing Size:	Hole Size:	
Intermediate Casing		
Method Determined: Calculated	Top of Cement: Surface	
orft³	Cemented with: 100 sx.	
Casing Size: 8-5/8"	Hole Size: 11"	
WELL CONSTRUCTION DATA Surface Casing		WELLBORE SCHEMATIC (See Attached)
SECTION TOWNSHIP RANGE	UNIT LETTER	FOOTAGE LOCATION
	P	WELL LOCATION: 660' FSL & 990' FEL
		WELL NAME & NUMBER: Rock Queen Unit #50
		OPERATOR: Celero Energy II, L P
	INJECTION WELL DATA SHEET	ide 1 INJECT

(Perforated or Open Hole; indicate which)

3032 feet to 3067' (Perforated & Openhole)

5.	4.	$\mathcal{G}$	2.		1.		Oth	Pacl	Тур	Tub	
Give the name and depths of any oil injection zone in this area: None	Has the well ever been perforated in intervals and give plugging detail, i.	Name of Field or Pool (if applicable): Caprock	Name of the Injection Formation: Queen	If no, for what purpose was the well	Is this a new well drilled for injection?		Other Type of Tubing/Casing Seal (if applicable):	Packer Setting Depth: 2940'	Type of Packer: Arrowset 1X	Tubing Size: 2-3/8"/ 4.7#/ J-55	
Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None	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	e): Caprock	Queen	If no, for what purpose was the well originally drilled? Primary depletion oil producer	n? Yes, X_No	Additional Data	plicable):			Lining Material: Internally Plastic Coated	

OPERATOR: Celero Energy II, LP

WELLBORE SCHEMATIC (See Attached)  Surface Casing	FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE	VELL LOCATION: 660' FNL & 1980' FEL B 25 T13S R31E	VELL NAME & NUMBER: Rock Queen Unit #52
	RANGE	R31E	

### Surrace Cashing

### Hole Size: 12-1/4" Cemented with: 250 sx. Top of Cement: Surface or Method Determined: Circulated Casing Size: 9-5/8" 32# ft3

### Intermediate Casing

Top of Cement:	Cemented with:	Hole Size:
Method Determined:	orft³	Casing Size:

### Production Casing

Hole Size:	Casing Size: 7" 20#
Cemented with: 150 sx.	or ft <sup>3</sup>
Top of Cement: 2100'	Method Determined: Cmt Bond Log
Total Depth: 3059'	

Injection Interval

3059 feet to 3074' (Perforated)

### **CELERO ENERGY** DATE: Feb. 13, 2008 FIELD: Caprock BY: JEA **Rock Queen** WELL: 50 LEASE/UNIT: **COUNTY:** Chaves STATE: **New Mexico** Location: 660' FSL & 990' FEL, Sec 26P, T13S, R31ECN KB = 4407'SPUD: 5/55 COMP: 5/55 GL = **CURRENT STATUS: Injector** API = 30-005-00882Original Well Name: State #15 8-5/8" @ 150' cmt'd. w/ 100 sx. TOC @ surface (calc). 2-3/8'/4.7#/J-55 IPC injection tbg with Arrowset pkr set @ 2940' TOC @ 2606' (CBL, 2/08) Top of Queen @ 3032': Queen: 3032' - 3045' (8 SPF) (05-55) 3033' - 3046' (4 SPF) (02-08) 5-1/2" @ 3048' cmt'd. w/ 100 sx (DNC) PBTD - 3067' TD - 3067' 8/11/2010 **RQU #50**

OPERATOR: Celero Energy II, L P

													WELLBORE SCHEMATIC (See Attached)	FOOTAGE LOCATION	WELL LOCATION: 660' FNL & 1980' FEL	WELL NAME & NUMBER: Rock Queen Unit #52
	Total Depth: 3088'	Top of Cement: 1520'	Cemented with: 425 sx	Hole Size: 6.456"		Top of Cement:	Cemented with:	Hole Size:		Top of Cement:	Cemented with:	Hole Size:		UNIT LETTER	В	
Injection Interval		,	×		<u>Liner/Casing</u>				Intermediate Casing				WELL CONSTRUCT Surface Casing	SECTION	25	
nterval		Method Determined: Cmt Bond Log	OF	Casing Size: 4-1/2", 11.6#	<u>ising</u>	Method Determined:	Or	Casing Size:	Casing	Method Determined:	Or	Casing Size:	WELL CONSTRUCTION DATA Surface Casing	TOWNSHIP	T13S	
		: Cmt Bond Log	ft³	,11.6#			ft <sup>3</sup>				ft³			RANGE	R31E	

(Perforated or Open Hole; indicate which)

3059 feet to 3074' (Perforated)

딜	Tubing Size: 2-3/8"/ 4.7#/ J-55	Lining Material: Internally Plastic Coated
3	Type of Packer: Arrowset 1X	
ac	acker Setting Depth: 3000'	
<u>1</u>	Other Type of Tubing/Casing Seal (if applicable):	plicable):
		Additional Data
•	Is this a new well drilled for injection?	on? Yes X_No
	If no, for what purpose was the wel	If no, for what purpose was the well originally drilled? Primary depletion oil producer
; -	Name of the Injection Formation: Queen	Queen
	Name of Field or Pool (if applicable): Caprock	e): Caprock
•	Has the well ever been perforated ir intervals and give plugging detail, i	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
	Give the name and depths of any oi	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None

### CELERO ENERGY

FIELD:

Caprock

**Rock Queen** 

**COUNTY:** 

LEASE/UNIT:

Chaves

DATE:

Aug. 07, 2007

BY:

WELL:

52

STATE:

**New Mexico** 

**GSA** 

Location: 660' FNL & 1980' FEL, Sec 25B, T13S, R31ECM

SPUD: 10/55 COMP: 10/55

Original Well Name: Government #3-333

**CURRENT STATUS: Injector** 

KB = 4401'

GL =

API = 30-005-00865

9-5/8" 32# J-55 @ 366' cmt'd. w/ 250 sx (circ)

Pump 480 sx down 4-1/2"-by-7" and circulate to surface. BOC @ 850' (CBL, 6/07)

2-3/8'/4.7#/J-55 IPC injection tbg with Arrowset pkr set @ 3000'

TOC @ 1520' on 4-1/2"-by-7"(CBL, 6/07)

TOC @ 2100' (CBL, 6/07)

7" 20# J-55 @ 3059' cmt'd. w/ 150 sx (DNC) Top of Queen @ 3058':

Queen Open Hole: 3059-3069' (10-55)

3059-3074' (4 SPF) (07-07)

4-1/2" 11.6# J-55 liner 3088' to surface, cmt with 425 sx class C cmt with additives in 2 stages.

PBTD - 3085' TD - 3089'

8/11/2010

**RQU #52** 

OPERATOR: Celero Energy II, LP

														WELLBORE SCHEMATIC (See Attached)	FOOTAGE LOCATION	WELL LOCATION: 660' FNL & 660' FWL	WELL NAME & NUMBER: Rock Queen Unit #54
	Total Depth: 3049'	Top of Cement: 1872"	Cemented with: 150 sx.	Hole Size:		Top of Cement:	Cemented with:	Hole Size:			Top of Cement: Surface	Cemented with: 250 sx.	Hole Size: 12-1/4"		UNIT LETTER	D	
Injection Interval					Production Casing					Intermediate Casing				WELL CONSTRUCTION DATA Surface Casing	SECTION	25	
terval		Method Determined: Calculated	01	Casing Size: 7" 20#	Casing	Method Determined:	or	Casing Size:	ĺ	Casing	Method Determined: Circulated	or	Casing Size: 9-5/8" 32#	UCTION DATA asing	TOWNSHIP	T13S	
		1: Calculated	ft <sup>3</sup>	#			$ft^3$				1: Circulated	$ft^3$	32#		RANGE	R31E	

(Perforated or Open Hole; indicate which)

3049 feet to 3057' (Openhole)

# OPERATOR: Celero Energy II, L P

VELL NAME & NUMBER: Rock Queen Unit #54				
VELL LOCATION: 660' FNL & 660' FWL	D	25	T13S	R31E
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
WELLBORE SCHEMATIC (See Attached)		WELL CONSTRUCT Surface Casing	WELL CONSTRUCTION DATA Surface Casing	
	Hole Size:		Casing Size:	
	Cemented with:		01"	ft³
	Top of Cement:		Method Determined:	

# Hole Size: Casing Size: ft<sup>3</sup> Top of Cement: Method Determined:

Intermediate Casing

### Liner/Casing

Total Depth: 3035'	Top of Cement: 2406" Method Determined: Cmt. Bond Log	Cemented with: 4050 sx. or	Hole Size: 6.456" Casing Size: 4-1/2", 11.6#
	Bond Log	ft³	

### Injection Interval

3049 feet to 3057' (Openhole)

Tub	Tubing Size: 2-3/8"/ 4.7#/ J-55	Lining Material: Internally Plastic Coated
Гур	Type of Packer: Arrowset 1X	
Pacl	Packer Setting Depth: 2930'	
Othe	Other Type of Tubing/Casing Seal (if applicable):	plicable):
		Additional Data
	Is this a new well drilled for injection?	on?YesXNo
	If no, for what purpose was the well	If no, for what purpose was the well originally drilled? Primary depletion oil producer
į,	Name of the Injection Formation: Queen	)ueen
	Name of Field or Pool (if applicable): Caprock	e): Caprock
<del>.+-</del>	Has the well ever been perforated ir intervals and give plugging detail, i.	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
.01	Give the name and depths of any oil injection zone in this area: None	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None

FIELD: LEASE/UNIT: COUNTY:	CELERO E  Caprock  Rock Queen Chaves	DATE: BY: WELL: STATE:	Aug. 11, 2010 MWM 54 New Mexico
	660' FWL, Sec 25D, T13S, R31ECM P: 09/55 Shut-in Injector	KB = GL = API =	4,403' 30-005-00863 us and circ cmt up 7"
PBTD - 3057'	4 1/2" casing cmt from 2406 Cement below 2996' to 3035 Four sets of squeeze holes of and 3025'(4)  2-3/8", 4.7#, J-55, 8rd  2450'(4)  Injection packer at 2930' 2934'(3) 2943'(4)  3025'(4) 4 1/2" 11.6# J-55 liner from Cemented and squeezed widen and squeezed wi	'. ② 2450', 2934' (3 ho EUE IPC tubing 3035' to surface, :h 4150 sx cmt + 104	es), and 2943' (4 holes),

8/17/2010 RQU #54

OPERATOR: Celero Energy II, LP

Z		WELL LOCATION: 1980' FSL & 660' FWL	WELL NAME & NUM
WELLBORE SCHEMATIC (See Attached)	FOOTAGE LOCATION	980' FSL & 660' FWL	WELL NAME & NUMBER: Rock Queen Unit #62
	UNIT LETTER	T	
WELL CONSTRUCT	SECTION	25	
WELL CONSTRUCTION DATA	TOWNSHIP	T13S	
	RANGE	R31E	

	Top of Cement: Surface	Cemented with: 250 sx.	Hole Size: 12-1/4"
Intermediate Casing	Method Determined: Circulated	orft <sup>3</sup>	Casing Size: 9-5/8" 32#

# Hole Size: Casing Size: Cemented with: or ft<sup>3</sup> Top of Cement: Method Determined:

Production Casing

# Hole Size: 8-3/4" Casing Size: 7" 20# Cemented with: 1250 sx. or Top of Cement: Surface Method Determined: Circulated Total Depth: 3041'

Injection Interval

3053 feet to 3100' (Perforated & Openhole)

OPERATOR: Celero Energy II, L P

	UCTION DATA asing	WELL CONSTRUCTION DATA Surface Casing	ed)	WELLBORE SCHEMATIC (See Attached
RANGE	TOWNSHIP	SECTION	UNIT LETTER	FOOTAGE LOCATION
R31E	T13S	25	L	WELL LOCATION: 1980' FSL & 660' FWL
		,		WELL NAME & NUMBER: Rock Queen Unit #62

	Top of Cement:	Cemented with:	Hole Size:		Top of Cement:	Cemented with:	Hole Size:
<u>Liner/Casing</u>	Method Determined:	OF	Casing Size:	Intermediate Casing	Method Determined:	Or	Casing Size:
		ft <sup>3</sup>				ft <sup>3</sup>	ļ

Injection Interval

Total Depth: 3072'

Cemented with: 285 sx.

or

Ħ

Method Determined: Circulated

Casing Size: 5-1/2 & 4-1/2", 11.6#

Hole Size: 6.456

Top of Cement: Surface

3053 feet to 3100' (Perforated & Openhole)

Tu	Tubing Size: 2-3/8"/ 4.7#/ J-55	Lining Material: Internally Plastic Coated
Ty	Type of Packer: Arrowset	
Pa	Packer Setting Depth: 2975'	
19	Other Type of Tubing/Casing Seal (if applicable):	pplicable):
		Additional Data
•	Is this a new well drilled for injection?	ion? Yes X No
	If no, for what purpose was the we	If no, for what purpose was the well originally drilled? Primary depletion oil producer
2.	Name of the Injection Formation: Queen	Queen
$\dot{\omega}$	Name of Field or Pool (if applicable): Caprock	le): Caprock
4.	Has the well ever been perforated intervals and give plugging detail,	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
	Give the name and depths of any o injection zone in this area: None	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None
		The state of the s

### CELERO ENERGY DATE: Sep. 05, 2007 **JEA** FIELD: Caprock BY: LEASE/UNIT: **Rock Queen** WELL: 62 STATE: **New Mexico** COUNTY: Chaves Location: 1980' FSL & 660' FWL, Sec 25L, T13S, R31ECM KB = 4405'SPUD: 04/55 COMP: 04/55 GL = **CURRENT STATUS: Water Injector** API = 30-005-00851Original Well Name: W. M. Tulk #1-L 🤇 9-5/8" 32# J-55 @ 309' cmt'd. w/ 250 sx (circ 50 sx) 2-3/8'/4.7#/J-55 IPC injection tbg with Arrowset pkr set @ 2975' 4-1/2" 11.6# J-55 liner from 5 1/2" liner top to surface, cmt'd w/ 100 sx 50/50 POZ w/ additives and 135 sx Class C cmt w/ additives (circ 35 sx) 7" 20# J-55 @ 3041' cmt'd. w/ 1250 sx (circ 30 sx) Top of Queen @ 3054': Queen: 3053-3070' (4 SPF) (08-07) 5-1/2" liner from 3072' to 3005' cmt'd w 50 sx. PBTD - 3100' TD - 3100' 8/11/2010 **RQU #62**

# OPERATOR: Celero Energy II, L P

WELLBORE SCHEMATIC (See Attached)	FOOTAGE LOCATION	WELL LOCATION: 660' FSL & 1980' FWL	WELL NAME & NUMBER: Rock Queen Unit #64
2d)	UNIT LETTER	Z	
WELL CONST	SECTION	25	
WELL CONSTRUCTION DATA Surface Casing	TOWNSHIP	T13S	
	RANGE	R31E	

### Top of Cement: Surface Cemented with: 250 sx. Hole Size: Intermediate Casing or Method Determined: Calculated Casing Size: 10-3/4" 41# ft<sup>3</sup>

	Top of Cement:	Cemented with:	Hole Size:
Production Casing	Method Determined:	or	Casing Size:

Method Determined: Cmt Bond Log	Top of Cement: 2155' Total Depth: 3098'
orft³	Cemented with: 150 sx.
Casing Size: 5-1/2" 15.5#	Hole Size: 7-7/8"

### Injection Interval

3041 feet to 3065' (Perforated)

													WELLBORE SCHEMATIC (See Attached)	WELL LOCATION: 660' FSL & 1980' FWL FOOTAGE LOCATION	WELL NAME & NUMBER: Rock Queen Unit #64	OPERATOR: Celero Energy II, L P
	Total Depth: 3035'	Top of Cement: 720"	Cemented with: 80 sx.	Hole Size: 4.95"		Top of Cement:	Cemented with:	Hole Size:		Top of Cement:	Cemented with:	Hole Size:		UNIT LETTER		
Injection Interval					Liner/Casing				Intermediate Casing				WELL CONSTRUCT Surface Casing	25 SECTION		
nterval	-	Method Determined: Cmt Bond Log	or	Casing Size: 4-1/2", 9.5#	sing	Method Determined:	or	Casing Size:	Casing	Method Determined:	or	Casing Size:	WELL CONSTRUCTION DATA Surface Casing	T13S TOWNSHIP		
		1: Cmt Bond Log	ft³	, 9.5#		:-:-	ft <sup>3</sup>				ft <sup>3</sup>			R31E RANGE		

(Perforated or Open Hole; indicate which)

3041 feet to 3065' (Perforated)

Tul	Tubing Size: 2-3/8"/ 4.7#/ J-55	Lining Material: Internally Plastic Coated
Туј	Type of Packer: Arrowset	
Pac	Packer Setting Depth: 2960'	
110	Other Type of Tubing/Casing Seal (if applicable):	able):
	lb.	Additional Data
<del> </del>	Is this a new well drilled for injection?	YesXNo
	If no, for what purpose was the well or	If no, for what purpose was the well originally drilled? Primary depletion oil producer
2.	Name of the Injection Formation: Queen	en
$\dot{\circ}$	Name of Field or Pool (if applicable): Caprock	Caprock
4.	Has the well ever been perforated in any other zone(s)? List all such perforance intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No	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 injection zone in this area: None	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None

### **CELERO ENERGY**

FIELD:

Caprock

DATE: BY:

Aug. 09, 2007

LEASE/UNIT:

**Rock Queen** 

WELL:

**JEA** 64

COUNTY:

Chaves

STATE:

**New Mexico** 

Location: 660' FSL & 1980' FWL, Sec 25N, T13S, R31ECM

KB = 4401'

GL =

SPUD: 05/55 COMP: 05/55

**CURRENT STATUS: Injector** 

AP1 = 30-005-00860

Original Well Name: Ethel #2



10 3/4" 41# @ 329' cmt'd. w/ 250 sx. TODC @ surface (calc).

TOC @ 720' 4-1/2"-by-5-1/2" (CBL, 8/07)

2-3/8'/4.7#/J-55 IPC injection tbg with Arrowset pkr set @ 2960'

TOC @ 2155' (CBL, 7/07)

Bottom of cmt in 4-1/2"-by-5-1/2" @ 2790' (CBL, 8/07)

4-1/2" 9.5# J-55 flush joint liner from 3035' to surface, cmt'd w/ 80 sx Class C cmt (DNC)

Top of Queen @ 3055':

Queen: 3055'-3063' (05-55)

3041' - 3065' (4 SPF) (07-07)

5 1/2" 15.5# J-55 @ 3098' cmt'd. w/ 150 sx (DNC)

PBTD - 3097' TD - 3100'

8/11/2010

**RQU #64** 

# OPERATOR: Celero Energy II, LP

WELLBORE SCHEMATIC (See Attached)	FOOTAGE LOCATION UNIT LETTER	WELL LOCATION: 660' FNL & 660' FWL	WELL NAME & NUMBER: Rock Queen Unit #70
WELL	,	D 30	
VELL CONSTRUCTION DATA Surface Casing	SECTION TO		
ON DATA	TOWNSHIP	T13S	
	RANGE	R32E	

# Hole Size: 12-1/4" Casing Size: 9-5/8" 32# Cemented with: 250 sx. or ft<sup>3</sup> Top of Cement: Surface Intermediate Casing Intermediate Casing

Top of Cement:	Cemented with:	Hole Size:
Method Determined:	or ft <sup>3</sup>	Casing Size:

### Production Casing

Hole Size: 8-3/4"	Casing Size: 7" 20#
Cemented with: 150 sx.	orfì
Top of Cement: 2160'	Method Determined: Cmt Bong Log
Total Depth: 3047'	I

### Injection Interval

3047 feet to 3090' (Open Hole)

Tul	Tubing Size: 2-3/8"/ 4.7#/ J-55	Lining Material: Internally Plastic Coated
Ty	Type of Packer: Arrowset 1X	
Pac	Packer Setting Depth: 2949'	
0t}	Other Type of Tubing/Casing Seal (if applicable):	licable):
		Additional Data
-	Is this a new well drilled for injection?	? YesXNo
	If no, for what purpose was the well o	If no, for what purpose was the well originally drilled? Primary depletion oil producer
2.	Name of the Injection Formation: Queen	ieen
$\dot{n}$	Name of Field or Pool (if applicable): Caprock	Caprock
4.	Has the well ever been perforated in any other zone(s)? List all such perforatervals and give plugging detail, i.e. sacks of cement or plug(s) used. No	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 of injection zone in this area: None	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None