

RECEIVED: 6/28/2018	REVIEWER: PRG	TYPE: SWD	APP NO: PRM 1818051178
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505

**ADMINISTRATIVE APPLICATION CHECKLIST**

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

Applicant: CHEVRON USA INC **OGRID Number:** 4323
Well Name: DIGNITAS 26 STATE SWD 1 **API:** 30-015-44202
Pool: SWD; SILURIAN-ORDOVICIAN **Pool Code:** 98191

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

JUN 28 2008 #11:44

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. ☒ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☐ Application requires published notice
 D. ☒ Notification and/or concurrent approval by SLO
 E. ☐ Notification and/or concurrent approval by BLM
 F. ☐ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
☐ Application
 Content
 Complete

- 3) 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.

LAURA BECERRA

Print or Type Name

Signature

6/6/2018

Date

(432) 687-7665

Phone Number

LBECERRA@CHEVRON.COM

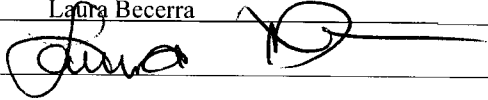
e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance ☒ Disposal Storage
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: CHEVRON USA INC.
ADDRESS: 6301 DEAUVILLE BLVD., MIDLAND, TX 79706
CONTACT PARTY: LAURA BECERRA PHONE: (432) 687-7665
- 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 ☒ 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.
- **No wells penetrate injection interval within 2 mi radius. The Gravitas SWD (see 3mi radius offset well tab for details) is within 3mi radius of proposed Dignitas and is a SWD that is an active SWD in the proposed injection interval.**
- 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. - **Pump 50 Gal/Ft of 20% HCL (Hydrochloric Acid)**
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- **No current logs or test data exist, this is a new drill.**
- *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: Laura Becerra TITLE: Regulatory Specialist

SIGNATURE:  DATE: 6/25/2018

E-MAIL ADDRESS: LBecerra@Chevron.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: _____

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

VII.	Proposed average and maximum daily rate and volume of fluids to be injected	PROPOSED AVERAGE DAILY RATE: 72,000 BWPD, PROPOSED MAX DAILY RATE: 86,000 BWPD
	Open or closed system	CLOSED SYSTEM
	Proposed average and maximum injection pressure:	AVERAGE INJECTION PRESSURE: 2600 PSIG MAXIMUM INJECTION PRESSURE: 2780 PSIG
	Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water	SEE ATTACHED
	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.)	SEE ATTACHED

VIII.	Formation	Depth		Thickness		Pore Pressure		Mud V
		shallow-deep , ft TVD		thin-thick, ft		low - high, psi		low - hi
	Castille	871	971	-	-	427	427	8.9
	Lamar LS	2,191	2,291	-	-	1,040	1,040	8.9
	Bell Canyon	2,256	2,356	-	-	1,070	1,070	8.9
	Cherry Canyon	3,014	3,114	-	-	1,424	1,604	8.9
	Brushy Canyon	4,181	4,281	-	-	1,967	2,215	8.9
	T/Bone Spring	5,891	5,991	-	-	2,782	3,131	8.9
	T/Avalon Shale	5,994	6,094	-	-	2,837	3,192	8.9
	T/1st Bone Spring Sand	6,739	6,839	-	-	3,028	3,419	8.9
	T/2nd Bone Spring Sand	7,294	7,394	-	-	3,246	3,677	8.9
	3rd Bone Spring Lime	7,814	7,914	-	-	3,470	3,931	8.9
	T/3rd Bone Spring Sand	8,550	8,650	-	-	3,796	4,301	8.9
	Top of Wolfcamp	8,909	9,009	-	-	3,965	4,490	9.0
	Top of Wolfcamp B	9,411	9,511	-	-	5,582	6,171	9.0
	Top of Wolfcamp C	9,694	9,794	-	-	6,207	6,783	12.5
	Top of Wolfcamp D	9,827	9,927	-	-	6,283	6,879	12.5
	Top of Strawn	11,121	11,521	-	-	7,916	8,579	12.5
	Top of Atoka	11,771	12,171	-	-	8,351	9,052	12.5
	Top of Morrow	11,871	12,271	-	-	8,377	9,085	12.5
	Top Barnett Shale	12,291	12,691	-	-	8,074	8,807	12.5
	Mississippian Lime	13,011	14,011	-	-	6,612	7,357	9.0
	Top of Woodford	13,171	14,171	-	-	7,118	7,917	9.0
	Top Silurian	13,286	14,286	-	-	6,515	6,991	8.9
	TD - Base of Fusselman	14,346	15,346	-	-	6,154	7,024	8.9

potential salt water disposal formations

This well will dispose into the Silurian aged, highly fractured/karsted, Upper Silurian and Fusselman formations that are predominately composed of mixed lime/dolostone carbonates over a 1,200' gross open hole injection interval from 13,900' - 15,100' TVD. Base of potential fresh water for the area occurs at the Rustler-Castille boundary, 350' - 400' TVD, putting the top of our open hole injection interval 13,500' below boundary.

INJECTION WELL DATA SHEET

Revised 11/25/19

OPERATOR: CHEVRON USA INC.

WELL NAME & NUMBER: DIGNITAS 26 STATE SWD I

WELL LOCATION: 1920' FSL & 200' FEL
FOOTAGE LOCATION

I UNIT LETTER
26 SECTION
25S TOWNSHIP
27E RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

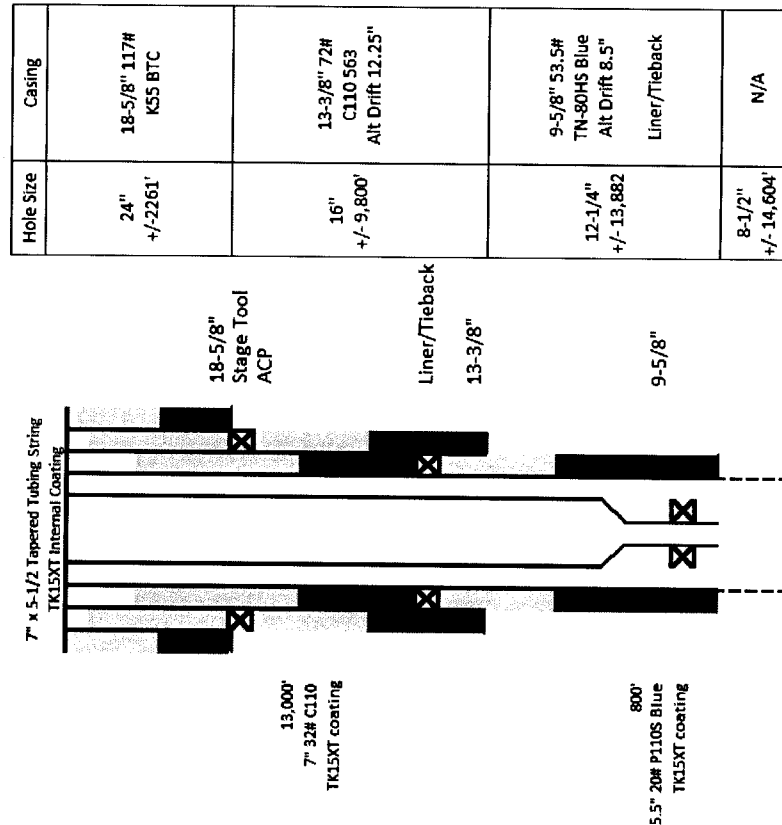
Hole Size: 24" Casing Size: 18-5/8"
Cemented with: 1732 sx. or ft³
Top of Cement: 0' Method Determined: Circulation

Intermediate Casing

Hole Size: 16" Casing Size: 13-3/8"
Cemented with: 2,269 sx. or ft³
Top of Cement: 200' Method Determined: Calculation

Production Liner

Hole Size: 12-1/4" Casing Size: 9-5/8"
Cemented with: 1107 sx. or ft³
Top of Cement: 9,500' Method Determined: Circulation



Production Tieback

Hole Size: N/A Casing Size: 9-5/8
Cemented with: 2424 sx. *or* ft³
Top of Cement: 500' Method Determined: Calculation

Liner

Hole Size: Casing Size:
Cemented with: sx. *or* ft³
Top of Cement: Method Determined:
Total Depth:

Injection Interval

13,872' feet to 14,604'
 Perforated or X Open Hole

INJECTION WELL DATA SHEETTubing Size: 7" x 5.5" Lining Material: TK15 XT IPC (NOV)Type of Packer: Baker Premier PackerPacker Setting Depth: 13,810'Other Type of Tubing/Casing Seal (if applicable): Additional Data

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

If no, for what purpose was the well originally drilled? Utilize as a salt water disposal well

2. Name of the Injection Formation:
- Silurian-Ordovician

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.
-

None

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
-

Depth to next higher and lower O&G zone in area: Producing zones above are in Morrow Formation(11,900' TVD) approx. 2,000' above Silurian Formation. None are below.

Goetze, Phillip, EMNRD

From: Storrick, Samuel J <storrick@chevron.com>
Sent: Friday, January 25, 2019 11:29 AM
To: Goetze, Phillip, EMNRD
Cc: Heaster, Sean P; Verner, Frederick C; Rouse, Leonor [Lynn]; Hodges, Kenneth E.; Storrick, Samuel J
Subject: [EXT] RE: Dignitas C-103 and C-108: Request for information

Good Afternoon Mr. Goetze,

We apologize for the delayed response, but would like to provide clarification regarding your questions around the cementing operations for the 9-5/8" liner tie-back:

Reason for tie-back Vs. long string:

1. During drilling of the 12-1/4" section of the nearby Gravitas SWD we experienced high gas which could have resulted in a potential well control situation. One of the concerns was having a well control event while running casing due to the length of the string and requiring the BOPE to close on the casing. By running a liner, we can close on the drill pipe which is easier and quicker to execute.
2. Additionally, it was determined that during the cementing operation of a long string the hydrostatic pressure of the cement could be greater than the breakdown pressure of the formation. This would lead to losses during the cement job and potentially poor zonal isolation. The packer of the liner will also ensure cement will circulate above the liner top and the zone below will be isolated.

DV tool depth:

1. Due to the fact that we are running a liner with a tie-back a DV tool is not needed. The item depicted on the 9-5/8" string, in the picture, represents the liner hanger and packer.
2. The reason for the liner hanger and packer to be located above the shoe is because it is not good practice to set the liner hanger and packer inside of the previous casing string shoe track. This is to help us avoid any potential issues with sealing the packer inside the 13-3/8" due to potential cement sheath left behind.

Cement in 13-3/8" shoe:

1. By cementing the liner first, the hydrostatic pressure in the annulus will be less than breakdown pressure of the formation (as opposed to long string cement job). This will minimize losses and help ensure cement is above the 13-3/8" shoe.
2. Our procedure is to pump enough excess cement volume such that the cement will be above the liner hanger packer.

Thank you very much for your time and consideration. Hopefully we have addressed your concerns and questions. If you would like to discuss these plans further or need more information/clarification, please feel free to reach out. We will gladly provide anything you may need. It is the upmost importance to Chevron for these cementing operations to be successful and safe.

Thanks,
Sam

Sam Storrick
AD Performance Team Lead
Mid-Continent Business Unit
Chevron North America Exploration & Production

6301 Deauville Blvd, Room N3306, Midland, TX 79706

Tel: Office – (432) 687-7769

Mobile – (281) 254-0359

Email: storricks@chevron.com

Please provide feedback on my CSOC behaviors; <http://csocbehavior.chevron.com/GiveFeedback.aspx?cai=sxvw>

From: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>

Sent: Tuesday, January 22, 2019 2:43 PM

To: Verner, Frederick C <fredverner@chevron.com>

Subject: [**EXTERNAL**] Dignitas C-103 and C-108: Request for information

Fred:

In drafting the final order for this well, I find no design for the tapered tubing set – the 7-inch to 5.5-inch tubing. In the conversation with the technical team on the requirements for the well not to go to hearing, a depth for the taper conversion was suggested. I would like someone at Chevron to recommend a depth based on the model used for the IS assessment submitted for this well.

I also notice that the stage tool for the 9 5/8-inch liner tie back is above the shoe of the 13 3/8-inch intermediate casing. How would Chevron address the issue of the 9 5/8-inch liner tie with the 13 3/8-inch casing should the cement fail to reach past the 13 3/8-inch shoe? Better to know now. PRG

Phillip Goetze, PG

Engineering Bureau, Oil Conservation Division

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive, Santa Fe, NM 87505

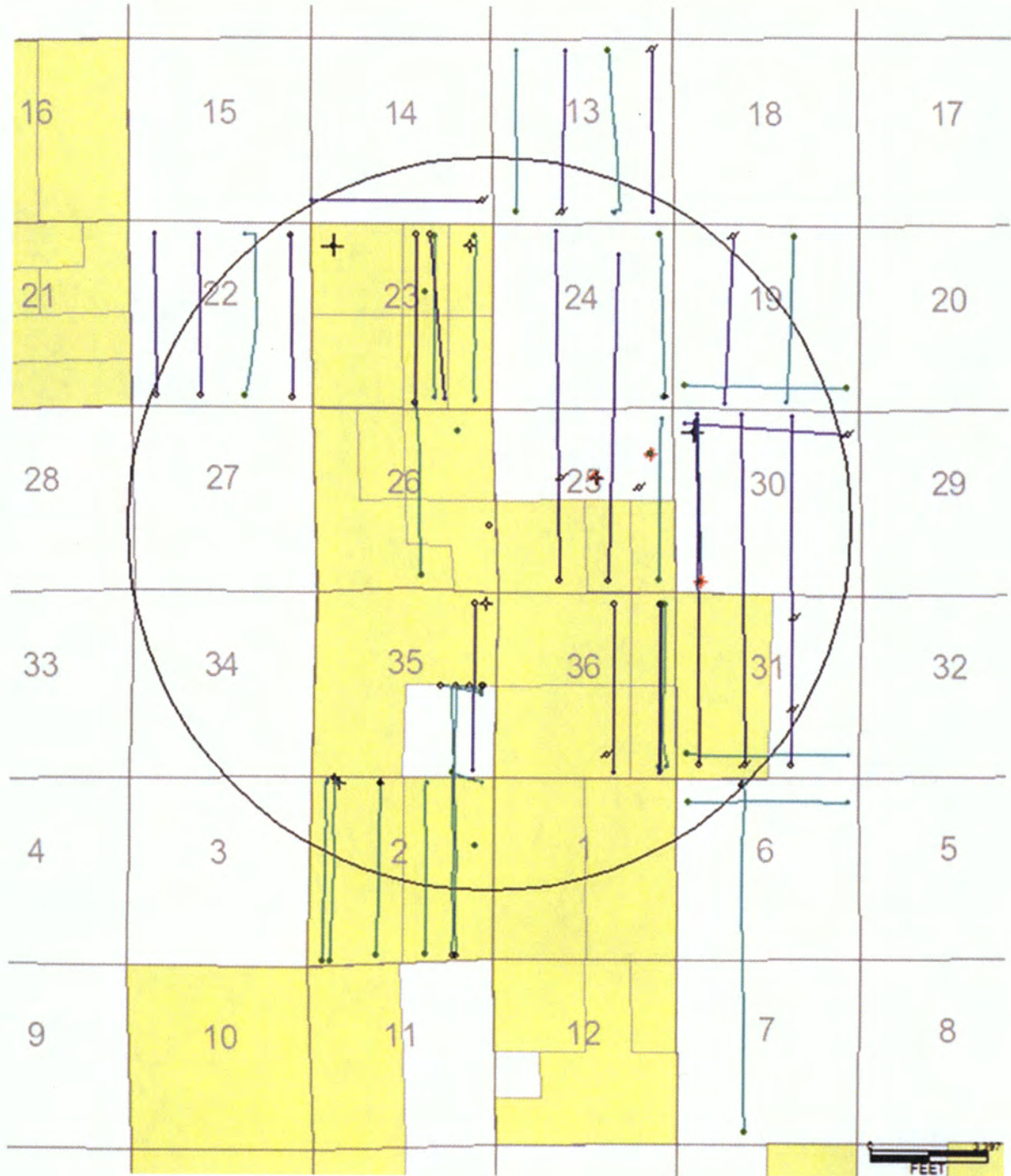
Direct: 505.476.3466

E-mail: phillip.goetze@state.nm.us



DIGNITAS 26 STATE SWD 1

2-Mile Offset Radius Map



API	Well Name	Comment as per reference to Dignitas	Well Number	Operator	Final Status	TD	Upper Perf	Lower Perf	Spud Date	Comp Date	SHL to SHL Distance-- Dignitas	Horizontal to horizontal distance-- Dignitas	Distance between closest endpoints-- Dignitas	Closest endpoints-- Dignitas	Well Summary--Dignitas
3001501430000	STATE A		1	MORAN E F INCORPORATED	DRY & ABANDONED	2753			5/4/1949	4/6/1949	10860	not horizontal	10860 SHL_To_SHL	Vertical well, TD at 2733'. Perfs not listed. Distance from SHL to SHL is 10860' at N26W.	
3001501471000	LOXW-00D		1	CHAMBERS&KENDY-RTICHE	DRY & ABANDONED	2414			7/14/1958	6/8/1958	2260	not horizontal	2260 SHL_To_SHL	Vertical well, TD at 2414'. Perfs not listed. Distance from SHL to SHL is 2260' at S4W.	
3001502521000	SHORL-PECOS		1	ALDRIDGE & STROUD INCORPORATED	D&A-O	2370			7/24/1956	6/9/1956	6530	not horizontal	6530 SHL_To_SHL	Vertical well, TD at 2370'. Perfs not listed. Distance from SHL to SHL is 6530' at N46E.	
3001523755000	MOORE STATE		1	WOOD & LOCKER INCORPORATED	ABP-O-W	7583	7531		3/29/1982	5/29/1981	6975	not horizontal	6975 SHL_To_SHL	Vertical well, TD at 7583'. Perfed from 5833' to 7531' MD. Distance from SHL to SHL is 6975' at N15W.	
3001523846000	AMOCO FEDERAL		1	WOOD & LOCKER INCORPORATED	ABP-O-W	7670	5949		8/9/1982	6/29/1981	2870	not horizontal	2870 SHL_To_SHL	Vertical well, TD at 7670'. Perfed from 5877' to 5949' MD. Distance from SHL to SHL is 2870' at N13W.	
3001523999000	ATZEC STATE		1	MOORE WAYNE	D&A-O-G	6910			8/1/1984	11/30/1981	9210	not horizontal	9210 SHL_To_SHL	Vertical well, TD at 6910'. Perfs not listed. Distance from SHL to SHL is 9210' at S3W.	
3001524064000	BLUE LAKE 31, STAT		1	GETTY OIL COMPANY	ABANDON LOCATION						9250	not horizontal	9250 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 9250' at S73E.	
3001524188000	STATE 36		1	JUBILEE ENERGY CORPORATION	ABANDON LOCATION						7445	not horizontal	7445 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 7445' at S27E.	
3001525260000	HAY HOLLOW 25 STATE		1	HMS OIL COMPANY	ABP-G-W	12960	12432		7/11/1985	4/25/1985	3370	not horizontal	3370 SHL_To_SHL	Vertical well, TD at 12960'. Perfed from 12237' to 12432' MD. Distance from SHL to SHL is 3370' at N66E.	
3001525260001	HAY HOLLOW 25 STATE		1	GREAT WESTERN DRILLING COMPANY	ABP-G-W	12960	11065		8/16/1996	8/13/1996	3370	not horizontal	3370 SHL_To_SHL	Vertical well, TD at 12960'. Perfed from 11065' to 11069' MD. Distance from SHL to SHL is 3370' at N66E.	
3001525264000	ALLIGRE 25 STATE		1	WING OIL COMPANY	DRY & ABANDONED	3374			3/18/1986	11/19/1985	3415	not horizontal	3415 SHL_To_SHL	Vertical well, TD at 3374'. Perfs not listed. Distance from SHL to SHL is 3415' at N67E.	
3001526240000	WOLVERINE STATE		1	CHI OPERATING INCORPORATED	DRY & ABANDONED	5860			8/27/1993	12/12/1992	8065	not horizontal	8065 SHL_To_SHL	Vertical well, TD at 5860'. Perfs not listed. Distance from SHL to SHL is 8065' at N47W.	
3001527790000	STATE 23		1	POSSO PRODUCING COMPANY	D&A-O	6028			5/17/1994	12/31/1993	9250	not horizontal	9250 SHL_To_SHL	Vertical well, TD at 6028'. Perfs not listed. Distance from SHL to SHL is 9250' at N29W.	
3001534580000	MOODY FEE COM		1	MARBOB ENERGY CORPORATION	GAS PRODUCER	13238	11694	11719	7/4/2007	2/4/2007	13700	not horizontal	13700 SHL_To_SHL	Vertical well, TD at 13238'. Perfed from 11694' to 11719' MD. Distance from SHL to SHL is 13700' at N48E.	
3001535148000	MYOX 31 STATE COM		2	MARBOB ENERGY CORPORATION	ABANDON LOCATION						9255	not horizontal	9255 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 9255' at S73E.	
3001535149000	CROSSMAN STATE COM		1	MARBOB ENERGY CORPORATION	OIL PRODUCER						5135	not horizontal	5135 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 5135' at N67E.	
3001535150000	RED RYDER STATE		1	MARBOB ENERGY CORPORATION	OIL-WO	13230	8178	8204	11/13/2007	5/31/2007	2525	not horizontal	2525 SHL_To_SHL	Vertical well, TD at 13230'. Perfed from 8178' to 8204' MD. Distance from SHL to SHL is 2525' at N67E.	
3001535150001	RED RYDER STATE		1	MARBOB ENERGY CORPORATION	OIL-WO	13230	5775	5786	2/5/2008	12/2/2008	5135	not horizontal	5135 SHL_To_SHL	Vertical well, TD at 13230'. Perfed from 5775' to 5786' MD. Distance from SHL to SHL is 5135' at N67E.	
30015351510000	MYOX 31 STATE COM		3	COG OPERATING LIMITED LIABILITY CORP	ABANDON LOCATION						10300	not horizontal	10300 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 10300' at S58E.	
30015351510000	RED RYDER STATE		3	YATES PETROLEUM CORPORATION	ABANDON LOCATION						13675	not horizontal	13675 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 13675' at N46W.	
30015351680000	ERINCHO BK1 STATE COM		2	MARBOB ENERGY CORPORATION	ABANDON LOCATION						4520	not horizontal	4520 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 4520' at N77E.	
30015355980000	RED RYDER STATE		1	YATES PETROLEUM CORPORATION	ABANDON LOCATION						12505	not horizontal	12505 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 12505' at S44W.	
30015363410000	SCARABLE BLE FEDERAL													**Abandoned location** Non-adjacent horizontal well, TVD not provided, SHL is 6400' at N63E from proposed SHL. Perfs not listed. Distance from SHL to SHL is 6400' at N63E.	
30015374140000	MYOX 30 FEE		10H	MARBOB ENERGY CORPORATION	ABANDON LOCATION						6400	Non-adjacent	6400 SHL_To_SHL	Non-adjacent horizontal well, TD at 6560' TVD, SHL is 6965' at N55E from proposed SHL. Perfed from 6425 to 10770' MD. Distance from SHL to SHL is 6965' at N55E.	
30015374150000	MYOX 19 FEE COM		11H	COG OPERATING LIMITED LIABILITY CORP	OIL PRODUCER	10839	6425	10770	1/5/2011	8/3/2010	6965	Non-adjacent	6965 SHL_To_SHL	Non-adjacent horizontal well, TD at 6389' TVD, SHL is 9770' at S38E from proposed SHL. Perfed from 6610' to 10825' MD. Distance from SHL to SHL is 9770' at S38E.	
30015374680000	MYOX 6 STATE COM		12H	MARBOB ENERGY CORPORATION	OIL PRODUCER	10905	6510	10825	6/27/2010	2/9/2010	13100	Non-adjacent	9770 SHL_To_SHL2	Non-adjacent horizontal well, TD at 6635' TVD, SHL is 8725' at S40E from proposed SHL. Perfed from 6475 to 10820' MD. Distance from SHL to SHL is 13100' at S53E.	
30015374970000	MYOX 31 STATE COM		13H	COG OPERATING LIMITED LIABILITY CORP	OIL PRODUCER	11052	6675	10820	1/27/2011	8/24/2010	12365	Non-adjacent	8725 SHL_To_SHL2	Non-adjacent horizontal well, TD at 6635' TVD, SHL is 8725' at S40E from proposed SHL. Perfed from 6475 to 10820' MD. Distance from SHL to SHL is 12365' at S53E.	
30015378040000	HAYHURST 23 STATE COM		1H	MEMBOURNE OIL COMPANY	SPUD & ABANDONED	92			1/16/2012	8/29/2011	4115	not horizontal	4115 SHL_To_SHL	Vertical well, TD at 92'. Perfs not listed. Distance from SHL to SHL is 4115' at N33W.	
30015379160000	COCKSEY 26' FEDERAL COM		1H	CHESAPEAKE OPERATING INCORPORATED	OIL PRODUCER	11025	6280	11000	3/21/2011	7/30/2010	4150	2070	2475 SHL1_To_SHL2	Adjacent horizontal well, TD at 6270' TVD, 2070' at S88W from proposed lateral. Perfed from 6280' to 11000' MD. Distance from SHL to SHL is 4150' at N31W.	
30015379400000	MYOX 30 FEE		10H	COG OPERATING LIMITED LIABILITY CORP	GAS PRODUCER	10943	6535	6647	2/18/2011	8/30/2010	6735	6085	6340 SHL1_To_SHL2	Adjacent horizontal well, TD at 6535' TVD, 6085' at N89E from proposed lateral. Perfed from 6647' to 10850' MD. Distance from SHL to SHL is 6735' at N64E.	
3001538060000	ERINCHO BK1 STATE COM		1	YATES PETROLEUM CORPORATION	ABANDON LOCATION						13630	not horizontal	13630 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 13630' at M46W.	
30015385230000	DALSEY 24' FEE COM		4H	COG OPERATING LIMITED LIABILITY CORP	PILOT HOLE	9260	9258		4/10/2011	3/28/2011	6240	not horizontal	6240 SHL_To_SHL	Vertical well, TD at 9260'. Perfs not listed. Distance from SHL to SHL is 6240' at N34E.	
30015385230100	DALSEY 24' FEE COM		4H	COG OPERATING LIMITED LIABILITY CORP	OIL-WO	10950	6549	6584	8/4/2011	4/10/2011	6240	Non-adjacent	6240 SHL_To_SHL	Non-adjacent horizontal well, TD at 6549' TVD, SHL is 6240' at N54E from proposed SHL. Perfed from 6584' to 10700' MD. Distance from SHL to SHL is 6240' at N54E.	
30015389270000	COCKSEY 36 STATE COM		1H	COG OPERATING LIMITED LIABILITY CORP	OIL PRODUCER	11269	8874	7100	11/4/2011	8/23/2011	5885	4960	5195 SHL1_To_SHL2	Adjacent horizontal well, TD at 6874' TVD, 4960' at S90E from proposed lateral. Perfed from 7100' to 11196' MD. Distance from SHL to SHL is 5885' at N59E.	
30015394260000	HAYHURST 23' STATE COM		1H	MEMBOURNE OIL COMPANY	GAS PRODUCER	10845	6402	6792	5/2/2012	8/29/2011	8620	Non-adjacent	5545 SHL1_To_SHL2	Non-adjacent horizontal well, TD at 6434' TVD, SHL is 4045' at S55E from proposed SHL. Perfed from 6792' to 10818' MD. Distance from SHL to SHL is 8600' at N23W.	
30015394270000	COCKSEY 36 PA STATE COM		1H	MEMBOURNE OIL COMPANY	OIL PRODUCER	10876	6494	6799	12/29/2011	11/13/2011	4045	Non-adjacent	4045 SHL_To_SHL	Non-adjacent horizontal well, TD at 7858' TVD, SHL is 4045' at S55E from proposed SHL. Perfed from 6792' to 10818' MD. Distance from SHL to SHL is 4045' at N23W.	
30015395850000	MOODY 18 STATE COM		1H	COG OPERATING LIMITED LIABILITY CORP	PILOT HOLE	9022	7858	8205	10/13/2013	8/28/2013	8505	Non-adjacent	5545 SHL1_To_SHL2	Vertical well, TD at 9022'. Perfs not listed. Distance from SHL to SHL is 14790' at N23E.	
30015395850100	MOODY 18 STATE COM		1H	COG OPERATING LIMITED LIABILITY CORP	OIL-WO	12297	7899	8110	3/16/2013	12/31/2012	14790	Non-adjacent	14790 SHL_To_SHL	Non-adjacent horizontal well, TD at 7899' TVD, SHL is 10725' at N33E from proposed SHL. Perfed from 8110' to 12127' MD. Distance from SHL to SHL is 14790' at N23E.	
30015410460000	SKEN 2-26-27 STATE		1H	CHEVRON U S A INCORPORATED	OIL PRODUCER	12905	7746	8092	12/1/2014	7/13/2014	8800	Non-adjacent	8800 SHL_To_SHL	Non-adjacent horizontal well, TD at 7746' TVD, SHL is 8075' at S24W from proposed SHL. Perfed from 8174' to 12568' MD. Distance from SHL to SHL is 8800' at S33W.	
30015410470000	SKEN 2-26-27 STATE		2H	CHEVRON U S A INCORPORATED	OIL PRODUCER	12619	7792	8174	3/27/2014	11/18/2013	8075	Non-adjacent	8075 SHL_To_SHL	Vertical well, TD at 8050'. Perfs not listed. Distance from SHL to SHL is 8075' at S24W.	
30015410477000	SKEN 2-26-27 STATE		2H	CHEVRON U S A INCORPORATED	PILOT HOLE	8050	8047		11/18/2013	11/4/2013	8075	not horizontal	8075 SHL_To_SHL	Non-adjacent horizontal well, TD at 7768' TVD, SHL is 7620' at S15W from proposed SHL. Perfed from 8222' to 12248' MD. Distance from SHL to SHL is 7620' at S15W.	
30015411170000	SKEN 2-26-27 STATE		3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	12556	7768	8222	3/26/2014	12/8/2013	7620	Non-adjacent	7620 SHL_To_SHL	Non-adjacent horizontal well, TD at 7768' TVD, SHL is 7400' at S3W from proposed SHL. Perfed from 8304' to 12554' MD. Distance from SHL to SHL is 7400' at S3W.	
30015411180000	SKEN 2-26-27 STATE		4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	12780	7788	8304	9/14/2014	6/14/2014	7400	Non-adjacent	7400 SHL_To_SHL	**Abandoned location** Non-adjacent horizontal well, TVD not provided, SHL is 10190' at N28E from proposed SHL. Perfs not listed. Distance from SHL to SHL is 10190' at N28E.	
30015412930000	TRANQUIL 13 STATE COM		1H	DEVON ENERGY PRODUCTION COMPANY L P	ABANDON LOCATION						10190	Non-adjacent	10190 SHL_To_SHL	Non-adjacent horizontal well, TD at 7858' TVD, SHL is 9705' at N22E from proposed SHL. Perfed from 8070' to 12135' MD. Distance from SHL to SHL is 9705' at N22E.	
30015412940000	TRANQUIL 13 STATE COM		2H	DEVON ENERGY PRODUCTION COMPANY L P	OIL PRODUCER	12240	7858	8070	11/5/2015	7/12/2015	9705	Non-adjacent	9705 SHL_To_SHL	**Abandoned location** Non-adjacent horizontal well, TVD not provided, SHL is 9245' at N42E from proposed SHL. Perfs not listed. Distance from SHL to SHL is 9245' at N42E.	
30015412950000	TRANQUIL 13 STATE COM		3H	DEVON ENERGY PRODUCTION COMPANY L P	ABANDON LOCATION						13840	Non-adjacent	9245 SHL1_To_SHL2	Non-adjacent horizontal well, TD at 7871' TVD, SHL is 9040' at N5E from proposed SHL. Perfed from 8050' to 12075' MD. Distance from SHL to SHL is 13840' at N10E.	
30015412960100	TRANQUIL 13 STATE		4H	DEVON ENERGY PRODUCTION COMPANY L P	OIL-WO	12159	7871	8050	7/13/2015	3/18/2015	13675	Non-adjacent	9040 SHL1_To_SHL2	Non-adjacent horizontal well, TD at 7871' TVD, SHL is 9040' at N5E from proposed SHL. Perfed from 8050' to 12075' MD. Distance from SHL to SHL is 13675' at N4E.	
30015413550000	HAYHURST 23 OB STATE COM		1H	MEMBOURNE OIL COMPANY	WELL PERMIT						3955	Non-adjacent	3865 SHL_To_SHL	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 3865' at N19W. Perfs not listed. Distance from SHL to SHL is 3865' at N19W.	
30015413560000	HAYHURST 23 PA STATE COM		1H	MEMBOURNE OIL COMPANY	OIL PRODUCER	12290	7801	8095	9/21/2013	8/1/2013	3670	Non-adjacent	3670 SHL_To_SHL	Non-adjacent horizontal well, TD at 7801' TVD, SHL is 3670' at N6W from proposed SHL. Perfed from 8095' to 12250' MD. Distance from SHL to SHL is 3670' at N6W.	
30015413570000	IRRITABLE 22 STATE COM		1H	DEVON ENERGY PRODUCTION COMPANY L P	WELL PERMIT						10190	not horizontal	10190 SHL_To_SHL	**Well permit only** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 10190' at N34W.	
30015413570100	IRRITABLE 22 STATE COM		1H	DEVON ENERGY PRODUCTION COMPANY L P	WELL PERMIT						10190	Non-adjacent	6875 SHL1_To_SHL2	**Well permit only** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 10190' at N34W.	
30015413590000	IRRITABLE 22 STATE COM		2H	DEVON ENERGY PRODUCTION COMPANY L P	PILOT HOLE	8015			2/23/2015	2/7/2015	11005	Non-adjacent	11005 SHL_To_SHL	Vertical well, TD at 8015'. Perfs not listed. Distance from SHL to SHL is 11005' at N40W.	
30015413590100	IRRITABLE 22 STATE COM		2H	DEVON ENERGY PRODUCTION COMPANY L P	OIL-WO	12157	7755	7900	10/11/2015	2/24/2015	11005	Non-adjacent	8020 SHL1_To_SHL2	Non-adjacent horizontal well, TD at 7755' TVD, SHL is 8020' at N62W from proposed SHL. Perfed from 7900' to 12075' MD. Distance from SHL to SHL is 11005' at N40W.	
30015413610000	IRRITABLE 22 STATE COM		3H	DEVON ENERGY PRODUCTION COMPANY L P	WELL PERMIT						11945	Non-adjacent	9230 SHL1_To_SHL2	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 9230' at N65W from proposed SHL. Perfs not listed. Distance from SHL to SHL is 11945' at N43W.	
30015413620000	IRRITABLE 22 STATE COM		004H	DEVON ENERGY PRODUCTION COMPANY L P	WELL PERMIT						12925	Non-adjacent	10460 SHL1_To_SHL2	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 10460' at N68W from proposed SHL. Perfs not listed. Distance from SHL to SHL is 12925' at N43W.	
30015415260000	MYOX 19 STATE		004H	COG OPERATING LIMITED LIABILITY CORP	WELL PERMIT						10835	Non-adjacent	10835 SHL_To_SHL	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 10835' at N72E. Perfs not listed. Distance from SHL to SHL is 10835' at N72E.	
30015416260000	ERINCHO BK1 STATE COM		1	YATES PETROLEUM CORPORATION	ABANDON LOCATION						13630	not horizontal	13630 SHL_To_SHL	**Abandoned location** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 13630' at N46W.	

30015417010000	MYOX 19 STATE COM	2H	COG OPERATING LIMITED LIABILITY CORP	ABANDON LOCATION	7705	Non-adjacent	7705	SHL ₁ To SHL ₂	**Abandoned location** Non-adjacent horizontal well, TVD not provided, SHL is 7705' at N63E from proposed SHL. Perfs not listed. Distance from SHL to SHL is 10620' at N73E.
30015417340000	MYOX 30 STATE COM	001H	COG OPERATING LIMITED LIABILITY CORP	WELL PERMIT	10620	10135	10620	SHL ₁ To SHL ₂	**Well permit only** Adjacent horizontal well, TVD not provided, 10135' at S59E from proposed lateral. Perfs not listed. Distance from SHL to SHL is 9370' at N73E.
30015417350000	MYOX 30 STATE COM	002H	COG OPERATING LIMITED LIABILITY CORP	WELL PERMIT	9370	8815	9370	SHL ₁ To SHL ₂	**Well permit only** Adjacent horizontal well, TVD not provided, 8815' at S59E from proposed lateral. Perfs not listed. Distance from SHL to SHL is 7957' at N97E.
30015417360000	MYOX 30 STATE COM	3H	COG OPERATING LIMITED LIABILITY CORP	ABANDON LOCATION	7995	7355	7995	SHL ₁ To SHL ₂	**Well permit only** Adjacent horizontal well, TVD not provided, 6070' at S90E from proposed lateral. Perfs not listed. Distance from SHL to SHL is 6855' at N63E.
30015417370000	MYOX 30 STATE COM	004H	COG OPERATING LIMITED LIABILITY CORP	WELL PERMIT	6855	6070	6855	SHL ₁ To SHL ₂	Vertical well, TD at 9350'. Perfs not listed. Distance from SHL to SHL is 10505' at S4E.
30015417860000	MYOX 6 STATE COM	3H	COG OPERATING LIMITED LIABILITY CORP	PILOT HOLE	10505	not horizontal	10505	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TD at 7898' TVD, SHL is 10505' at S44E from proposed SHL. Perfled from 8103' to 17585' MD. Distance from SHL to SHL is 10505' at S44E.
30015417880100	MYOX 6 STATE COM	3H	COG OPERATING LIMITED LIABILITY CORP	OIL-WO	10505	Non-adjacent	10505	SHL ₁ To SHL ₂	**Well permit only** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 8645' at N29E.
30015418520000	DAISY 24 FEE COM	006H	COG OPERATING LIMITED LIABILITY CORP	WELL PERMIT	8645	not horizontal	8645	SHL ₁ To SHL ₂	**Well permit only** Adjacent horizontal well, TVD not provided, 3515' at S58E from proposed lateral. Perfs not listed. Distance from SHL to SHL is 8645' at N29E.
30015418620100	DAISY 24 FEE COM	006H	COG OPERATING LIMITED LIABILITY CORP	WELL PERMIT	8645	3515	8645	SHL ₁ To SHL ₂	**Well permit only** Adjacent horizontal well, TVD not provided, 2025' at N90E from proposed lateral. Perfs not listed. Distance from SHL to SHL is 8710' at N13E.
30015418630000	DAISY 24 FEE COM	007H	COG OPERATING LIMITED LIABILITY CORP	WELL PERMIT	8710	2025	8710	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TD at 7874' TVD, SHL is 9325' at N68E from proposed SHL. Perfled from 8115' to 12105' MD. Distance from SHL to SHL is 9325' at N68E.
30015418640000	MYOX 19 STATE	3H	COG OPERATING LIMITED LIABILITY CORP	OIL PRODUCER	9325	Non-adjacent	9325	SHL ₁ To SHL ₂	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 10705' at N29W from proposed SHL. Perfs not listed. Distance from SHL to SHL is 10705' at N29W.
30015418930000	IFERICO BK1 STATE COM	5H	EOG RESOURCES INCORPORATED	WELL PERMIT	10705	Non-adjacent	10705	SHL ₁ To SHL ₂	**Abandoned location** Non-adjacent horizontal well, TVD not provided, SHL is 9325' at N1W from proposed SHL. Perfs not listed. Distance from SHL to SHL is 10589' at N28W.
30015419150000	PERFECTO BOX STATE COM	4H	YATES PETROLEUM CORPORATION	ABANDON LOCATION	10690	Non-adjacent	10690	SHL ₁ To SHL ₂	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 12530' at S53E from proposed SHL. Perfs not listed. Distance from SHL to SHL is 12530' at S53E.
30015419180000	MYOX 6 STATE	001H	COG OPERATING LIMITED LIABILITY CORP	WELL PERMIT	12530	Non-adjacent	12530	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TD at 7995' TVD, SHL is 11515' at S49E from proposed SHL. Perfled from 8141' to 12320' MD. Distance from SHL to SHL is 13515' at S49E.
30015419190000	MYOX 6 STATE	002H	COG OPERATING LIMITED LIABILITY CORP	OIL PRODUCER	12520	Non-adjacent	12520	SHL ₁ To SHL ₂	Vertical well, TD at 6560'. Perfs not listed. Distance from SHL to SHL is 8620' at S31W.
30015430400000	MIDNIGHT SUN 2 26 27	5H	HEVRON U S A INCORPORATED	JUNKED & ABANDONED PILOT HOLE - WO	6560	not horizontal	6560	SHL ₁ To SHL ₂	Vertical well, TD at 9199'. Perfs not listed. Distance from SHL to SHL is 8620' at S31W.
30015430400100	MIDNIGHT SUN 2 26 27	5H	HEVRON U S A INCORPORATED	PILOT HOLE - WO	9199	not horizontal	9199	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TD at 8984' TVD, SHL is 8620' at S31W from proposed SHL. Perfled from 9412' to 13824' MD. Distance from SHL to SHL is 8620' at S31W.
30015430400200	MIDNIGHT SUN 2 26 27	5H	HEVRON U S A INCORPORATED	OIL-WO	14126	Non-adjacent	8894	9412	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 4285' at S57E from proposed SHL. Perfs not listed. Distance from SHL to SHL is 7855' at S32E.
30015431590000	COCKNEY 36 B20B STATE COM	1H	MEWBOURNE OIL COMPANY	WELL PERMIT	7935	Non-adjacent	7935	SHL ₁ To SHL ₂	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 5480' at S55E from proposed SHL. Perfs not listed. Distance from SHL to SHL is 8655' at S34E.
30015431600000	COCKNEY 36 W2FA STATE COM	2H	MEWBOURNE OIL COMPANY	WELL PERMIT	8655	Non-adjacent	8655	SHL ₁ To SHL ₂	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 2270' at S11W from proposed SHL. Perfs not listed. Distance from SHL to SHL is 7020' at S33W.
30015435490000	SAGE 35 B27A FED COM	1H	MEWBOURNE OIL COMPANY	WELL PERMIT	7030	Non-adjacent	7030	SHL ₁ To SHL ₂	**Well permit only** Vertical well, TD not provided. Perfs not listed. Distance from SHL to SHL is 1515' at N59W.
30015442020000	DIGNITAS 26 STATE SMD	1	HEVRON U S A INCORPORATED	WELL PERMIT	1515	not horizontal	1515	SHL ₁ To SHL ₂	**Well permit only** Non-adjacent horizontal well, TVD not provided, SHL is 8845' at S32E from proposed SHL. Perfs not listed. Distance from SHL to SHL is 1610' at S14E.
30015442030000	HH SO 12 FED COM	001H	HEVRON U S A INCORPORATED	WELL PERMIT	1610	Non-adjacent	1610	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TVD not provided, SHL is 4835' at SAW from proposed SHL. Perfs not listed. Distance from SHL to SHL is 4835' at SAW.
300154434350000	HH CE 35 2 FEDERAL 006	005H	HEVRON U S A INCORPORATED	WELL START	4835	Non-adjacent	4835	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TVD not provided, SHL is 4765' at SAW from proposed SHL. Perfs not listed. Distance from SHL to SHL is 4765' at SAW.
30015443460000	HH CE 35 2 FED 006	002H	HEVRON U S A INCORPORATED	WELL START	4765	Non-adjacent	4765	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TVD not provided, SHL is 4740' at SAW from proposed SHL. Perfs not listed. Distance from SHL to SHL is 4740' at SAW.
30015443470000	HH CE 35 2 FED 006	001H	HEVRON U S A INCORPORATED	WELL START	4740	Non-adjacent	4740	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TVD not provided, SHL is 4860' at SAW from proposed SHL. Perfs not listed. Distance from SHL to SHL is 4860' at SAW.
30015443480000	HH CE 35 2 FED 006	006H	HEVRON U S A INCORPORATED	WELL START	4860	Non-adjacent	4860	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TVD not provided, SHL is 4810' at SAW from proposed SHL. Perfs not listed. Distance from SHL to SHL is 4810' at SAW.
30015443490000	HH CE 35 2 FED 006	004H	HEVRON U S A INCORPORATED	AT TOTAL DEPTH	4810	Non-adjacent	4810	SHL ₁ To SHL ₂	Non-adjacent horizontal well, TVD not provided, SHL is 4790' at SAW from proposed SHL. Perfs not listed. Distance from SHL to SHL is 4790' at SAW.
30015443500000	HH CE 35 2 FED 006	003H	HEVRON U S A INCORPORATED	AT TOTAL DEPTH	4790	Non-adjacent	4790	SHL ₁ To SHL ₂	**Injector** Non-adjacent vertical well, TD at 15400' SHL is 27775' at S44E from proposed FTP. Perfled from 5318' to 15373' MD. Distance from SHL to SHL is 27775' at S44E.
30015219980001	SRO SMD	102	MAROB ENERGY CORPORATION	SMD-WO	15400	not horizontal	27775	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 5200' SHL is 18020' at S68E from proposed FTP. Perfs not listed. Distance from SHL to SHL is 18025' at N59E.
30015224340001	MYOX 21 SMD	1	COG OPERATING LIMITED LIABILITY CORP	SMD-WO	5200	not horizontal	18025	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 13301' SHL is 18190' at S29E from proposed FTP. Perfled from 5240' to 5490' MD. Distance from SHL to SHL is 18195' at N219E.
30015228940003	STATE GQ COM	1	LEGEND NATURAL GAS III LP	SMD-WO	13301	not horizontal	18195	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 8300' SHL is 16875' at S56E from proposed FTP. Perfled from 4286' to 5488' MD. Distance from SHL to SHL is 16880' at S56E.
30015261050003	SRO S SMD	1	MAROB ENERGY CORPORATION	ABD-SWD	8300	not horizontal	16880	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 8300' SHL is 16875' at S56E from proposed FTP. Perfs not listed. Distance from SHL to SHL is 16880' at S56E.
30015261050004	SRO SMD	101	COG OPERATING LIMITED LIABILITY CORP	ABD-SWD	8300	not horizontal	16880	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 6260' SHL is 21850' at S59E from proposed FTP. Perfled from 2820' to 3763' MD. Distance from SHL to SHL is 21850' at N59E.
30015334500000	CENTER SIXTEEN SMD	1	MAROB ENERGY CORPORATION	ABD-SWD	6280	not horizontal	21850	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 6280' SHL is 21850' at S59E from proposed FTP. Perfs not listed. Distance from SHL to SHL is 21850' at N59E.
30015334500001	CENTER SIXTEEN SMD	1	MAROB ENERGY CORPORATION	ABD-SWD	6280	not horizontal	21850	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 6280' SHL is 16355' at S59E from proposed FTP. Perfs not listed. Distance from SHL to SHL is 16355' at S59E.
30015414070000	APPLE 5 STATE SMD	1	COG OPERATING LIMITED LIABILITY CORP	SWDOP	15400	not horizontal	16355	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 5600' SHL is 12960' at S19W from proposed BHL. Perfs not listed. Distance from SHL to SHL is 12960' at S19W.
30015417440000	SKREEN 2 SMD	1	HEVRON U S A INCORPORATED	SWDOP	5600	not horizontal	12960	BHL1 To SHL2	**Injector** Non-adjacent vertical well, TD at 15232' SHL is 18000' at S55E from proposed FTP. Perfs not listed. Distance from SHL to SHL is 18005' at N59E.
30015418060000	WILLOW 17 STATE SMD	1	COG OPERATING LIMITED LIABILITY CORP	SWDOP	15292	not horizontal	18005	FTP1 To SHL2	**Injector** Non-adjacent vertical well, TD at 15292' SHL is 18000' at S55E from proposed FTP. Perfs not listed. Distance from SHL to SHL is 18005' at N59E.
30015438930000	GRAVITAS 7 STATE SMD	2	HEVRON U S A INCORPORATED	SWDOP	14860	not horizontal	32040	BHL1 To SHL2	**Injector** Non-adjacent vertical well, TD at 16890' SHL is 12840' at S17W from proposed BHL. Perfled from 12842' to 43660' MD. Distance from SHL to SHL is 12840' at S17W.



Lynn Rouse

Water Management and Planning Team Lead, Operations

December 5, 2018

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448

Dear Mr. McMillan,

Chevron has completed technical work using the SCITS Fault Slip Potential modeling software to more fully understand the potential risk of initiating an induced seismic event as a result of disposal operations through the predicted service life of the Dignitas 26 State SWD. Based upon the information provided by the Fault Slip Potential modeling software and other information as provided herein, it is Chevron's position that this well can be drilled, completed, and operated at the requested disposal rates with a low probability of inducing slip on a fault.

Stress and hydrology inputs to the FSP modeling were derived in part from logs and derivative products collected from Chevron's analog Hay Martin 41 SWD well, which penetrates the proposed injection interval in Culberson County, Texas. The deterministic hydrologic parameters used were 1230 feet of aquifer thickness, 5% average porosity, and 10 mD permeability. These inputs, combined with a simulated disposal volume of 70,000 barrels of water per day for 20 years at the proposed Dignitas 26 SWD location, and a radial flow assumption, yield a projected pore pressure increase of 730 PSI at a distance of 0.75 miles from the proposed well.

Fault inputs for FSP modeling were derived from interpretation of 3D seismic data. When considered jointly with the regional stress field, these faults do not appear to be susceptible to slip with modeled pore pressure increases in the disposal interval. Variations in the stress, hydrology, and fault inputs were also considered as part of a probabilistic analysis, and resultant model runs result in low probabilities of inducing slip on interpreted faults.

Similar wells in the Delaware Basin in which Chevron participates have shown no reservoir pressure increases to date in 6 years of operations. While Chevron is utilizing available tools, such as FSP modeling software, to more fully understand the risks of induced seismicity, there are assumptions and uncertainties carried in the analysis and software.

From an operational standpoint, Chevron continuously measures surface pressure in all Chevron-operated Silurian disposal facilities. Material changes in reservoir pressure will be indicated and, if warranted, fault slip potential assessments can be reevaluated and injection volumes could be adjusted in the future.

As Chevron and the industry advance its understanding of induced seismicity and its causes, Chevron may modify or supplement this response as appropriate.

Sincerely,

Lynn Rouse
Water Management and Planning Team Lead - Operations



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE) C=the file is closed)																				
(quarters are smallest to largest) (NAD83 UTM in meters)																				
(acre ft per annum)																				
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	q	Sec	Tws	Rng	X	Y	Distance	
<u>C 02307</u>	C	STK	3	HORACE HOLLAND	ED	<u>C 02307</u>				6416	4	23	25S	27E			579170	3553530*		1818
<u>C 03938</u>	CUB	MON	0	CONCHO OPERATING LLC	ED	<u>C 03938</u>	POD1	NON	Shallow	2	2	2	25	25S	27E		581481	3552616		2190
<u>C 02048</u>	C	STK	0	DELAWARE RANCH INC	ED	<u>C 02048</u>				2	02	26S	27E				579582	3549072*		2667
<u>C 02103</u>	C	STK	0	DELAWARE RANCH INC	ED	<u>C 02103</u>				2	02	26S	27E				579582	3549072*		2667
<u>C 03262</u>	CUB	PLS	3	CLARAMAI R HAYHURST	ED	<u>C 03262</u>	POD1			2	1	2	22	25S	27E		577837	3554244*		2994
Record Count: 5																				

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 579475.25

Northing (Y): 3551737

Radius: 3218

Sorted by: Distance

*UTM location was derived from PLSS - see Help

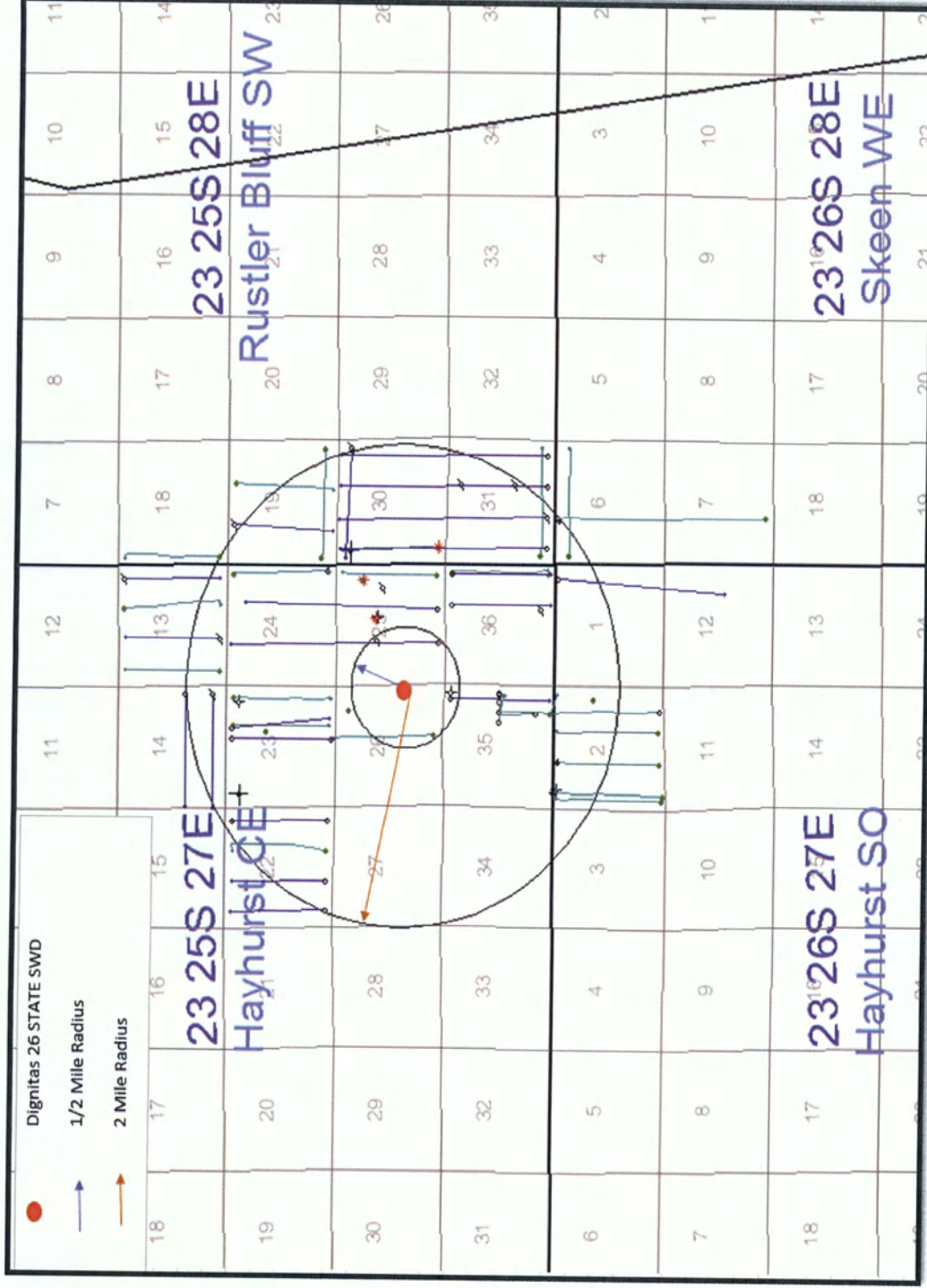
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/15/18 3:47 PM

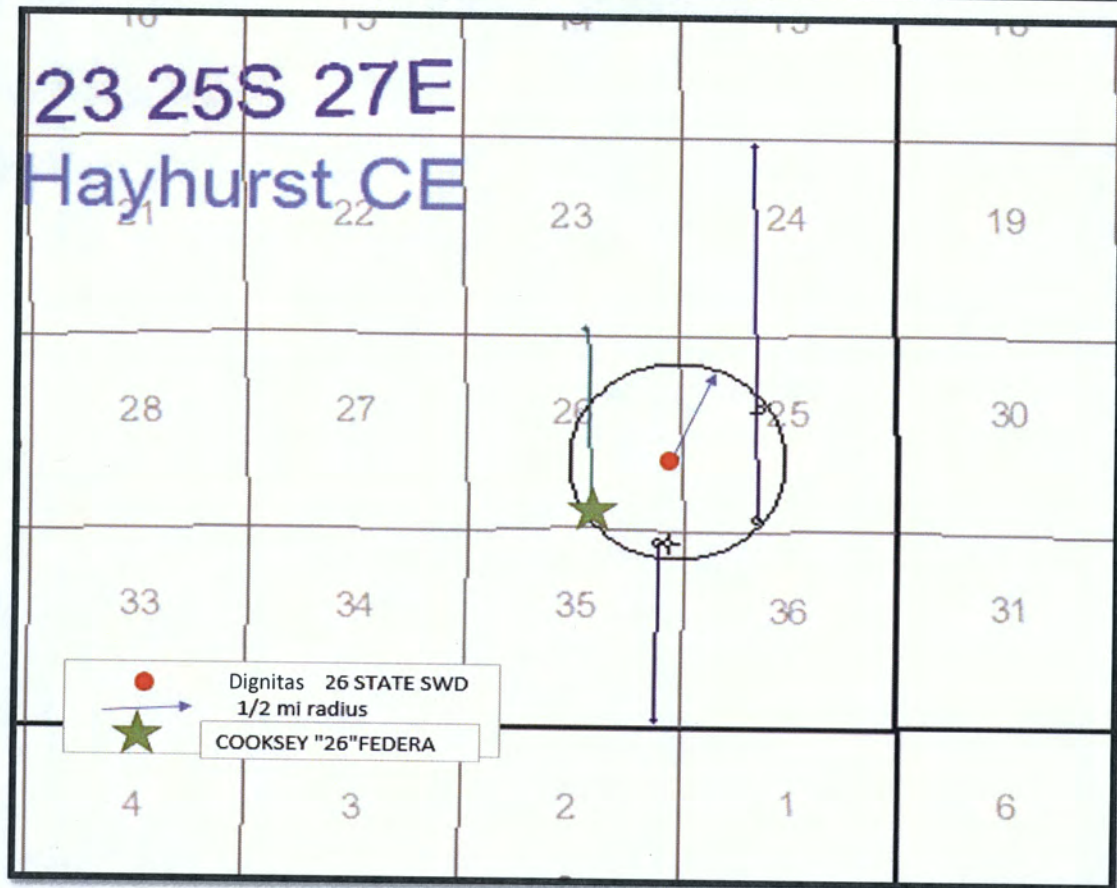
Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION

Dignitas 26 STATE SWD
 (Sec 26, T25S, R27E)
 1920 FSL
 200 FEL
 (API: 30-015-44202)



UWI (APINum)	Well Name	Comments	Perfs	Operator
30015011470000	LOCKWOOD	Dry hole		CHAMBERS&KENEDY-RITC
30015379160000	COOKSEY '26' FEDERAL COM No. 001H	Bone Spring Oil Well- 452 BSPG	6280' - 11000' MD	CHESAPEAKE OPERATING INCORPORATED
30015418630000	DAISY 24 FEE COM No. 007H	Re-permitted (drilling?) Oil Well- 452 BSPG		COG OPERATING LLC
30015439540000	SAGE 35 B2PA FED COM No. 001H	permitted Oil Well- 452 BSPG		MEWBORNE OIL CO
30015351490000	CROSSMAN STATE COM No. 001F	Abandon Location		MARBOB ENERGY CORP





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub- Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03938 POD1	CUB	ED		2	2	2	25	25S	27E	581482	3552616	1793	21	12	9

Average Depth to Water: 12 feet

Minimum Depth: 12 feet

Maximum Depth: 12 feet

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 579936.37

Northing (Y): 3551706.36

Radius: 3218.8

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.



Permian Basin Area Laboratory
2101 Market Street,
Midland, Texas 79703

Upstream Chemicals

REPORT DATE: 2/8/2018

COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER: CHEVRON
DISTRICT: NEW MEXICO
AREA/LEASE: HAYHURST
SAMPLE POINT NAME: HAYHURST SE 7 SWD INLET
SITE TYPE: FACILITY
SAMPLE POINT DESCRIPTION: INLET

ACCOUNT REP: HECTOR M ESPINOZA
SAMPLE ID: 201801006648
SAMPLE DATE: 1/31/2018
ANALYSIS DATE: 2/7/2018
ANALYST: DG

CHEVRON, HAYHURST, HAYHURST SE 7 SWD INLET

FIELD DATA			ANALYSIS OF SAMPLE					
			ANIONS:		mg/L		meq/L	
Initial Temperature (°F):	250	Chloride (Cl ⁻):	63630.1	1794.9	Sodium (Na ⁺):	33854.0	1473.2	
Final Temperature (°F):	97	Sulfate (SO ₄ ²⁻):	315.0	6.6	Potassium (K ⁺):	570.0	14.6	
Initial Pressure (psi):	100	Borate (H ₃ BO ₃):	368.6	6.0	Magnesium (Mg ²⁺):	493.6	40.6	
Final Pressure (psi):	15	Fluoride (F ⁻):	ND		Calcium (Ca ²⁺):	3437.0	171.5	
		Bromide (Br ⁻):	ND		Strontium (Sr ²⁺):	986.1	22.5	
pH:		Nitrite (NO ₂ ⁻):	ND		Barium (Ba ²⁺):	4.0	0.1	
pH at time of sampling:	6.7	Nitrate (NO ₃ ⁻):	ND		Iron (Fe ²⁺):	81.2	2.9	
		Phosphate (PO ₄ ³⁻):	ND		Manganese (Mn ²⁺):	0.6	0.0	
		Silica (SiO ₂):	ND		Lead (Pb ²⁺):	0.0	0.0	
					Zinc (Zn ²⁺):	0.0	0.0	
ALKALINITY BY TITRATION:	mg/L	meq/L						
Bicarbonate (HCO ₃ ⁻):	205.7	3.4			Aluminum (Al ³⁺):	0.6	0.1	
Carbonate (CO ₃ ²⁻):	ND				Chromium (Cr ³⁺):	ND		
Hydroxide (OH ⁻):	ND				Cobalt (Co ²⁺):	ND		
					Copper (Cu ²⁺):	0.0	0.0	
aqueous CO ₂ (ppm):	170.0	Formic Acid:	ND		Molybdenum (Mo ²⁺):	0.0	0.0	
aqueous H ₂ S (ppm):	0.0	Acetic Acid:	ND		Nickel (Ni ²⁺):	ND		
aqueous O ₂ (ppb):	ND	Propionic Acid:	ND		Tin (Sn ²⁺):	ND		
		Butyric Acid:	ND		Titanium (Ti ²⁺):	ND		
Calculated TDS (mg/L):	103577	Valeric Acid:	ND		Vanadium (V ²⁺):	ND		
Density/Specific Gravity (g/cm ³):	1.0664				Zirconium (Zr ²⁺):	ND		
Measured Specific Gravity	1.0717				Lithium (Li):	ND		
Conductivity (mmhos):	ND							
Resistivity:	ND				Total Hardness:	11753	N/A	
MCF/D:	No Data							
BOPD:	No Data							
BWPD:	No Data	Anion/Cation Ratio:	1.05					

SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FURTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₄)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
97°F	15 psi	0.61	1.799	0.81	32.107	-0.91	0.000	-1.03	0.000
114°F	24 psi	0.49	1.626	0.85	33.065	-0.90	0.000	-0.95	0.000
131°F	34 psi	0.40	1.431	0.91	34.812	-0.89	0.000	-0.86	0.000
148°F	43 psi	0.31	1.218	0.99	36.725	-0.89	0.000	-0.77	0.000
165°F	53 psi	0.23	0.993	1.06	38.608	-0.88	0.000	-0.68	0.000
182°F	62 psi	0.17	0.762	1.14	40.393	-0.87	0.000	-0.58	0.000
199°F	72 psi	0.11	0.529	1.22	42.057	-0.85	0.000	-0.48	0.000
216°F	81 psi	0.06	0.299	1.31	43.714	-0.84	0.000	-0.37	0.000
233°F	91 psi	0.01	0.074	1.40	45.285	-0.83	0.000	-0.27	0.000
250°F	100 psi	-0.03	0.000	1.49	46.705	-0.82	0.000	-0.17	0.000

Conditions		Celestite (SrSO ₄)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO ₃)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
97°F	15 psi	0.26	80.452	-1.49	0.000	-8.04	0.000	0.89	29.341
114°F	24 psi	0.27	81.852	-1.50	0.000	-8.12	0.000	0.97	31.177
131°F	34 psi	0.27	83.678	-1.51	0.000	-8.15	0.000	1.06	33.396
148°F	43 psi	0.28	86.139	-1.52	0.000	-8.16	0.000	1.15	35.491
165°F	53 psi	0.30	89.346	-1.52	0.000	-8.16	0.000	1.24	37.340
182°F	62 psi	0.31	93.322	-1.52	0.000	-8.14	0.000	1.32	38.927
199°F	72 psi	0.33	98.010	-1.52	0.000	-8.12	0.000	1.39	40.267
216°F	81 psi	0.36	103.296	-1.52	0.000	-8.09	0.000	1.45	41.502
233°F	91 psi	0.39	109.021	-1.52	0.000	-8.05	0.000	1.51	42.586
250°F	100 psi	0.42	115.001	-1.52	0.000	-8.00	0.000	1.56	43.474

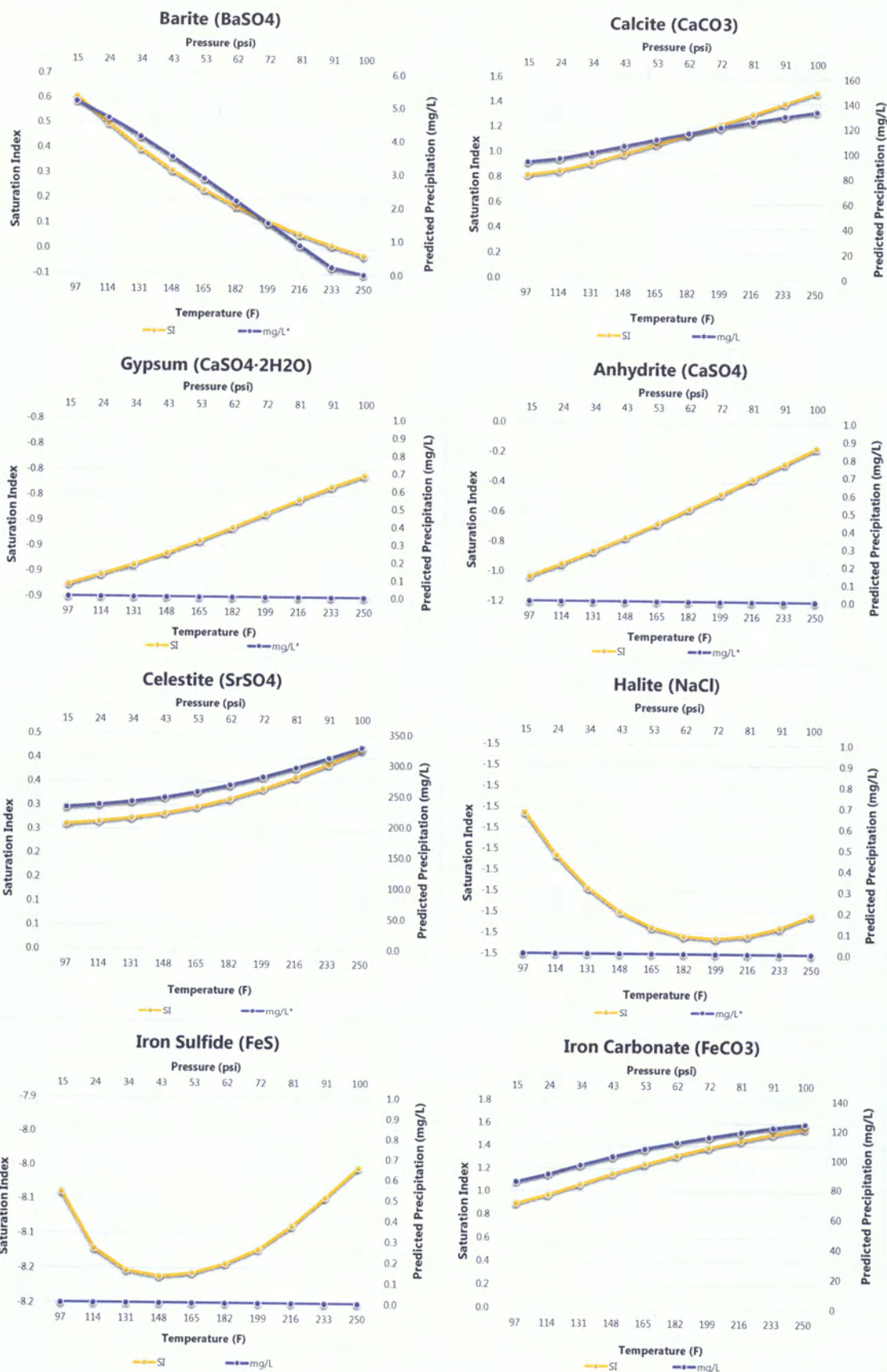
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales.

Note 3: Saturation Index predictions on this sheet use pH and alkalinity; %CO₂ is not included in the calculations.

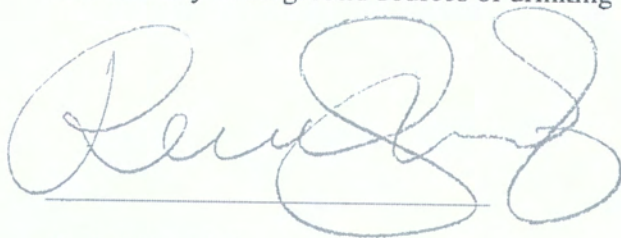
ScaleSoft Pitzer™
SSP2010

Comments:



SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

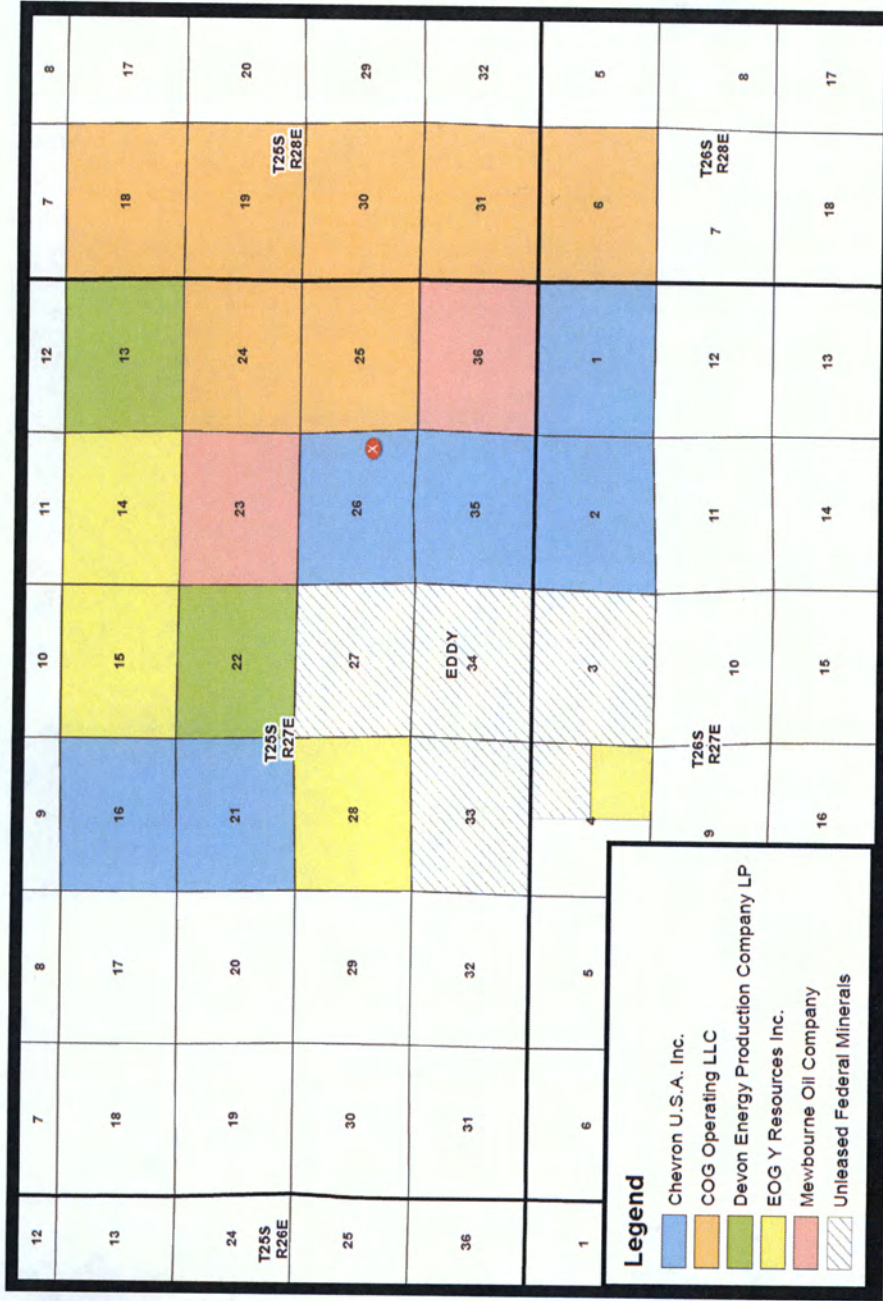
I have examined the available data for this disposal well (Dignitas 26 State SWD No. 001) and find no evidence of open faults or other hydrologic connections between the disposal zone in this well and any underground sources of drinking water.

A handwritten signature in blue ink, appearing to read 'Rachel Storniolo', written over a horizontal line.

Rachel Storniolo
Geologist
Chevron USA Inc.

Company	
Chevron U.S.A. Inc.	
COG Operating, LLC	
Devon Energy Production Company LP	
Mewbourne Oil Company	
EOG Y Resources, Inc.	

Dignitas 26 STATE SWD





Chevron North America
Exploration and Production Company
(A Chevron U.S.A. Inc. Division)
6301 Deauville Blvd
Midland, TX 79706
Tel 432.687.7665
LBecerra@Chevron.com

June 11, 2018

State of New Mexico Land Office
P.O. Box 1148
Santa Fe, New Mexico 87504

Re: Application for Authorization to Inject
SWD-NMOCD Form C-108
Dignitas 26 State SWD 1
Eddy County, New Mexico

Chevron USA, Inc. respectfully requests administration approval to inject salt water into the Dignitas 26 State SWD 1 (API: 30-015-440202), which is located 1920' FSL & 200' FEL, Unit Letter J, Section 26, T25S-R27E, Eddy County, New Mexico.

The injection interval will be in the Silurian - Ordovician formation from 13,900' to 15,100' through perforations with a maximum daily anticipated injection rate to 86,000 BWPD and a maximum injection pressure to be confirmed and approved by a step rate test. There will be no CO₂ or produced gas injected. There is no production from this interval in the immediate area.

Attached is OCD form C-108 with information relative to the SWD injection of the referenced well. A copy of the letter sent to applicable surface land owners and offset operators is included in the attachments. Chevron USA Inc owns a 100% working interest as to the SW Section 26, T25S-R27E, NMPM, Eddy County, New Mexico.

Your prompt consideration and approval of this application will be greatly appreciated. If additional information is required, you may contact me at (432) 687-7665 or by email at LBecerra@Chevron.com

Sincerely,

A handwritten signature in black ink, appearing to read "Laura", followed by a large, stylized flourish or initial.

Laura Becerra
Regulatory Specialist
Midcontinent BU

Enclosure

٩٦٠٩ ٠٠٩٠ ٠٠٠٠ ٦٦٦٦ ٩٦٦٩

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P.O. Box No. 1148

City, State, ZIP+4[®]

8750 Santa Fe, N.Y. 12150

© Evans 2000

Goetze, Phillip, EMNRD

From: Goetze, Phillip, EMNRD
Sent: Friday, October 19, 2018 2:23 PM
To: 'Becerra, Laura'
Cc: Jones, William V, EMNRD; McMillan, Michael, EMNRD; Verner, Frederick C; Holm, Anchor E. (aholm@slo.state.nm.us)
Subject: RE: Chevron Dignitas 26 State SWD Well No. 1

RE: Dignitas 26 State SWD No. 1; API 30-015-44202; Admin Appl pMAM1818051178; 1920' FSL / 200' FEL; UL I, Sec 26, T25S, R27E, NMPM

Ms. Becerra:

The Bureau has not received any response to the requested information. Therefore, the C-108 application for the referenced well is being cancelled due to improper notification and the lack of response for the requested information. Please contact either Mr. McMillan or myself with any questions regarding the content of this e-mail. PRG

Phillip Goetze, PG
Engineering Bureau, Oil Conservation Division, NM EMNRD
1220 South St. Francis Drive, Santa Fe, NM 87505
Direct: 505.476.3466
E-mail: phillip.goetze@state.nm.us

From: Becerra, Laura <LBecerra@chevron.com>
Sent: Friday, June 29, 2018 2:31 PM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Cc: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: RE: Chevron Dignitas 26 State SWD Well No. 1

Hello Michael,

I will send you a copy of the affidavit along with the rest of the information next week once I discuss with the engineer.

Have a great weekend,

Laura

From: McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]
Sent: Friday, June 29, 2018 3:26 PM
To: Becerra, Laura <LBecerra@chevron.com>
Cc: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: [**EXTERNAL**] Chevron Dignitas 26 State SWD Well No. 1

Laura:

The OCD received your administrative SWD Application for the Chevron Dignitas 26 State SWD Well No. 1 API 30-015-44202.

Your application has been suspended until the OCD receives the affidavit of publication..

Please verify that NMSLO is the surface owner.

Because your letter to the NMSLO states that the well will inject up to 86,000 BWPD, Chevron will be required to submit the additional information.

Application for Disposal in Devonian and Silurian Formations: Due to the potential for the projected injection volume of the proposed well to impact an area greater than the one-half mile radius applied in Division Form C-108 and Division rule, the applicant has provided the following supplementary information:

1. Notification following Division Rule 19.15.26.8(B) NMAC for a radius of one mile from the surface location of the proposed well;
2. An expanded Area of Review for wells penetrating the disposal interval for a radius of one mile from the surface location of the proposed well; and
3. A statement by a qualified person assessing the potential of induced-seismic events associated with the disposal activities for the predicted service life of the proposed well.

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us

Goetze, Phillip, EMNRD

From: Becerra, Laura <LBecerra@chevron.com>
Sent: Friday, June 29, 2018 2:31 PM
To: McMillan, Michael, EMNRD
Cc: Goetze, Phillip, EMNRD; Jones, William V, EMNRD
Subject: RE: Chevron Dignitas 26 State SWD Well No. 1

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Have a great weekend,

Laura

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Sent: Friday, June 29, 2018 3:26 PM
To: Becerra, Laura <LBecerra@chevron.com>
Cc: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: [**EXTERNAL**] Chevron Dignitas 26 State SWD Well No. 1

Laura:

The OCD received your administrative SWD Application for the Chevron Dignitas 26 State SWD Well No. 1 API 30-015-44202.

Your application has been suspended until the OCD receives the affidavit of publication..

Please verify that NMSLO is the surface owner.

Because your letter to the NMSLO states that the well will inject up to 86,000 BWPD, Chevron will be required to submit the additional information.

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1. Notification following Division Rule 19.15.26.8(B) NMAC for a radius of one mile from the surface location of the proposed well;
2. An expanded Area of Review for wells penetrating the disposal interval for a radius of one mile from the surface location of the proposed well; and
3. A statement by a qualified person assessing the potential of induced-seismic events associated with the disposal activities for the predicted service life of the proposed well.

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us



**Chevron North America
Exploration and Production Company**
(A Chevron U.S.A. Inc. Division)
6301 Deauville Blvd
Midland, TX 79706
Tel 432.687.7665
LBecerra@Chevron.com

June 7, 2018

**Devon Energy Production Company LP
333 West Sheridan Avenue
Oklahoma City, Oklahoma 73102**

**Re: Application for Authorization to Inject
Dignitas 26 State SWD 1
Eddy County, New Mexico**

Chevron USA, Inc. respectfully requests administration approval to inject salt water into the Dignitas 26 State SWD 1 (API: 30-015-440202), which is located 1920' FSL & 200' FEL, Unit Letter J, Section 26, T25S-R27E, Eddy County, New Mexico.

The injection interval will be in the Silurian - Ordovician formation from 13,900' to 15,100' through perforations with a maximum daily anticipated injection rate to 86,000 BWPD and a maximum injection pressure to be confirmed and approved by a step rate test. There will be no CO₂ or produced gas injected. There is no production from this interval in the immediate area.

Interest parties should file objections or requests for hearing with the NM Oil Conservation Division, 1220 south Francis Dr., Santa Fe, New Mexico 87505, within 15 days. Inquiries regarding this application should be directed to Chevron USA Inc, Attn: Justin Freeman, 1400 Smith St., Houston, TX 77002.

Your prompt consideration to this matter will be greatly appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "Laura Becerra", followed by a long horizontal flourish.

Laura Becerra
Regulatory Specialist
Midcontinent BU



**Chevron North America
Exploration and Production Company**
(A Chevron U.S.A. Inc. Division)
6301 Deauville Blvd
Midland, TX 79706
Tel 432.687.7665
LBecerra@Chevron.com

June 7, 2018

**COG Operating LLC
600 West Illinois Avenue
Midland, Texas 79701**

**Re: Application for Authorization to Inject
Dignitas 26 State SWD 1
Eddy County, New Mexico**

Chevron USA, Inc. respectfully requests administration approval to inject salt water into the Dignitas 26 State SWD 1 (API: 30-015-440202), which is located 1920' FSL & 200' FEL, Unit Letter J, Section 26, T25S-R27E, Eddy County, New Mexico.

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Your prompt consideration to this matter will be greatly appreciated.

Sincerely,

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**Laura Becerra
Regulatory Specialist
Midcontinent BU**



Chevron North America
Exploration and Production Company
(A Chevron U.S.A. Inc. Division)
6301 Deauville Blvd
Midland, TX 79706
Tel 432.687.7665
LBecerra@Chevron.com

June 7, 2018

Mewbourne Oil Company
500 West Texas, Suite 1020
Midland, Texas 79701

Re: Application for Authorization to Inject
Dignitas 26 State SWD 1
Eddy County, New Mexico

Chevron USA, Inc. respectfully requests administration approval to inject salt water into the Dignitas 26 State SWD 1 (API: 30-015-440202), which is located 1920' FSL & 200' FEL, Unit Letter J, Section 26, T25S-R27E, Eddy County, New Mexico.

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Your prompt consideration to this matter will be greatly appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "Laura Becerra", followed by a large, stylized flourish.

Laura Becerra
Regulatory Specialist
Midcontinent BU



**Chevron North America
Exploration and Production Company**
(A Chevron U.S.A. Inc. Division)
6301 Deauville Blvd
Midland, TX 79706
Tel 432.687.7665
LBecerra@Chevron.com

June 7, 2018

**EOG Resources Inc
5509 Champions Drive
Midland, Texas 79706**

**Re: Application for Authorization to Inject
Dignitas 26 State SWD 1
Eddy County, New Mexico**

Chevron USA, Inc. respectfully requests administration approval to inject salt water into the Dignitas 26 State SWD 1 (API: 30-015-440202), which is located 1920' FSL & 200' FEL, Unit Letter J, Section 26, T25S-R27E, Eddy County, New Mexico.

The injection interval will be in the Silurian - Ordovician formation from 13,900' to 15,100' through perforations with a maximum daily anticipated injection rate to 86,000 BWPD and a maximum injection pressure to be confirmed and approved by a step rate test. There will be no CO₂ or produced gas injected. There is no production from this interval in the immediate area.

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Your prompt consideration to this matter will be greatly appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "Laura Becerra", with a long horizontal flourish extending to the right.

**Laura Becerra
Regulatory Specialist
Midcontinent BU**

DIGNITAS 26 STATE SWD 1					
Name	Address	City	State	Zip	Certified #
COG Operating Limited Liability Corp	600 West Illinois Avenue	Midland	TX	79701	7015 3010 0001 0770 0000
Devon Energy Production Company L P	333 West Sheridan Avenue	Oklahoma City	OK	73102	7015 3010 0001 0775 5956
EOG Resources Inc	5509 Champions Drive	Midland	TX	79706	7016 0600 0000 4111 8447
Mewbourne Oil Company	500 West Texas, Ste 1020	Midland	TX	79701	7016 0600 0000 4111 8454

[illegible]

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Ship To: 600 W. Illinois Ave
City: Midland TX 79701

PS Form 3800, April 2015 PSN 7520-02-000-9007 See Reverse for Instructions

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
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Sent To: Newbourne Oil Co.
Ship To: 300 West Texas Stc 1020
City: Midland TX 79701

PS Form 3800, April 2015 PSN 7520-02-000-9007 See Reverse for Instructions

2015 3010 0001 0775 5949
2015 3010 0001 0775 5949

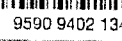
2016 0600 0000 4111 8454
2016 0600 0000 4111 8454

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

COG Operating LLC
600 W. Illinois Ave
Midland, TX 79701



9590 9402 1345 5285 9237 04

Article Number (Transfer from service label)

7015 3010 0001 0775 5949

COMPLETE THIS SECTION ON DELIVERY	
A. Signature  ☐ Agent ☒ Addressee	
B. Received by (Printed Name)	C. Date of Delivery
D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No	
3. Service Type ☐ Adult Signature ☐ Adult Signature Restricted Delivery ☒ Certified Mail® ☐ Certified Mail Restricted Delivery ☐ Collect on Delivery ☐ Collect on Delivery Restricted Delivery ☐ Insured Mail ☐ Mail Restricted Delivery	
☐ Priority Mail Express® ☐ Registered Mail™ ☐ Registered Mail Restricted Delivery ☐ Return Receipt for Merchandise ☐ Signature Confirmation™ ☐ Signature Confirmation Restricted Delivery	

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ECG Resources
5509 Champions Dr.
Midland, TX 79706

9590 9402 1345 5285 8696 13

2. Article Number (Transfer from service label)

7016 0600 0000 4111 8441

COMPLETE THIS

A. Signature 

X  Agent  Address 

B. Recipient's Name (Name) 

C. District  Delivery 

D. Is delivery address different from item 17? ☐ Yes ☐ No

IF YES, enter delivery address below:

3. Service Type

☒ Adult Signature

☒ Adult Signature Restricted Delivery

☒ Certified Mail

☒ Certified Mail Restricted Delivery

☒ Collect on Delivery

☒ Collect on Delivery Restricted Delivery

☐ Mail

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation

☐ Signature Confirmation Restricted Delivery

Mail Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

COG Operating LLC
600 W. Illinois Ave
Midland, TX 79701



9590 9402 1345 5285 9237 04

2. Article Number (Transfer from service label)

7015 3010 0001 0775 5949

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

[Signature]

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Mail
- ☐ Mail Restricted Delivery

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ECG Resources
5509 Champions Dr.
Midland, TX 79706



9590 9402 1345 5285 8696 13

2. Article Number (Transfer from service label)

7016 0600 0000 4111 8447

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

[Signature]

☒ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Mail
- ☐ Mail Restricted Delivery

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

CARLSBAD CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

Ad No.
0001252932

CHEVRON USA, INC.
6301 DEUAVILLE BLVD

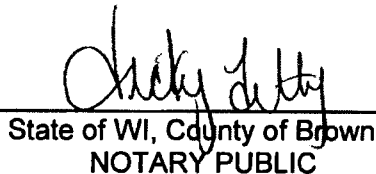
MIDLAND TX 79705

I, a legal clerk of the **Carlsbad Current-Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

06/30/18

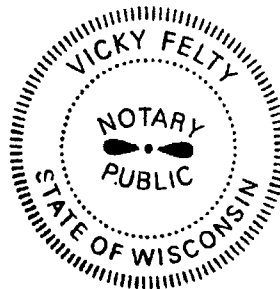

Legal Clerk

Subscribed and sworn before me this
2nd of July 2018.


State of WI, County of Brown
NOTARY PUBLIC


My Commission Expires

Notice is hereby given of the application of CHEVRON U.S.A. INC, 6301 Deauville Blvd, Midland, TX 79706, to the Oil Conservation Division of the state of New Mexico, and the Commissioner of Public Lands, State of New Mexico for approval for Dignitas 26 State SWD 1 to a Salt Water Disposal. The Chevron Dignitas 26 State SWD 1 is located 1920' FSL & 200' FEL, Unit Letter I, Section 26, T25S-R27E, Eddy County, New Mexico. The formation will be Silurian-Ordovician and the intervals are 13,872-14,604' open hole. The maximum anticipated injection rate will be 86,000 BWPD at a maximum injection pressure of 2780 PSIG. Interested parties should file objections or requests for hearing with the Oil Conservation Division, 1220 South St Francis Dr., Santa Fe, New Mexico 87505, within 15 days. Inquiries regarding this application should be directed to Chevron North America, Attn: Justin Freeman, 1400 Smith St, Houston, TX 77002.
June 30, 2018



Ad#:0001252932
P O : Dignitas
of Affidavits :0.00

CARLSBAD
CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

Ad No.
0001252932

CHEVRON USA, INC.
6301 DEAUVILLE BLVD, S3004

MIDLAND TX 79706

I, a legal clerk of the **Carlsbad Current-Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

06/30/18

Kenn Yang

Legal Clerk

Subscribed and sworn before me this
13th of July 2018.

Vicky Felty

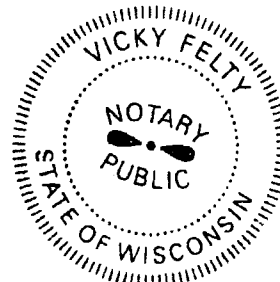
State of WI, County of Brown
NOTARY PUBLIC

9-19-21

My Commission Expires

Notice is hereby given of the application of CHEVRON U.S.A. INC, 6301 Deauville Blvd, Midland, TX 79706, to the Oil Conservation Division of the state of New Mexico, and the Commissioner of Public Lands, State of New Mexico for approval for Dignitas 26 State SWD 1 to a Salt Water Disposal. The Chevron Dignitas 26 State SWD 1 is located 1920' FSL & 200' FEL, Unit Letter I, Section 26, T25S-R27E, Eddy County, New Mexico. The formation will be Silurian-Ordovician and the intervals are 13,872-14,604' open hole. The maximum anticipated injection rate will be 86,000 BWPD at a maximum injection pressure of 2780 PSIG. Interested parties should file objections or requests for hearing with the Oil Conservation Division, 1220 South St Francis Dr., Santa Fe, New Mexico 87505, within 15 days. Inquiries regarding this application should be directed to Chevron North America, Attn: Justin Freeman, 1400 Smith St, Houston, TX 77002.

June 30, 2018



Ad#:0001252932
P O : Dignitas
of Affidavits :0.00

Goetze, Phillip, EMNRD

From: Becerra, Laura <LBecerra@chevron.com>
Sent: Sunday, October 21, 2018 1:29 PM
To: Goetze, Phillip, EMNRD
Cc: Jones, William V, EMNRD; McMillan, Michael, EMNRD; Verner, Frederick C; Holm, Anchor E.
Subject: [EXT] RE: Chevron Dignitas 26 State SWD Well No. 1

Hello Phillip,

We have been doing additional data analysis to determine the direction we want to follow with this well. I will discuss with my team lead and submit a new C-108 once a final decision has been made.

Thank you,

Laura Becerra

From: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Sent: Friday, October 19, 2018 3:23 PM
To: Becerra, Laura <LBecerra@chevron.com>
Cc: Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>; McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>; Verner, Frederick C <fredverner@chevron.com>; Holm, Anchor E. <aholm@slo.state.nm.us>
Subject: [**EXTERNAL**] RE: Chevron Dignitas 26 State SWD Well No. 1

RE: Dignitas 26 State SWD No. 1; API 30-015-44202; Admin Appl pMAM1818051178; 1920' FSL / 200' FEL; UL I, Sec 26, T25S, R27E, NMPM

Ms. Becerra:

The Bureau has not received any response to the requested information. Therefore, the C-108 application for the referenced well is being cancelled due to improper notification and the lack of response for the requested information. Please contact either Mr. McMillan or myself with any questions regarding the content of this e-mail. PRG

Phillip Goetze, PG
Engineering Bureau, Oil Conservation Division, NM EMNRD
1220 South St. Francis Drive, Santa Fe, NM 87505
Direct: 505.476.3466
E-mail: phillip.goetze@state.nm.us

From: Becerra, Laura <LBecerra@chevron.com>
Sent: Friday, June 29, 2018 2:31 PM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Cc: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: RE: Chevron Dignitas 26 State SWD Well No. 1

Hello Michael,

I will send you a copy of the affidavit along with the rest of the information next week once I discuss with the engineer.

Have a great weekend,

Laura

From: McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]
Sent: Friday, June 29, 2018 3:26 PM
To: Becerra, Laura <LBecerra@chevron.com>
Cc: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: **[**EXTERNAL**]** Chevron Dignitas 26 State SWD Well No. 1

Laura:

The OCD received your administrative SWD Application for the Chevron Dignitas 26 State SWD Well No. 1 API 30-015-44202.

Your application has been suspended until the OCD receives the affidavit of publication..

Please verify that NMSLO is the surface owner.

Because your letter to the NMSLO states that the well will inject up to 86,000 BWPD, Chevron will be required to submit the additional information.

Application for Disposal in Devonian and Silurian Formations: Due to the potential for the projected injection volume of the proposed well to impact an area greater than the one-half mile radius applied in Division Form C-108 and Division rule, the applicant has provided the following supplementary information:

1. Notification following Division Rule 19.15.26.8(B) NMAC for a radius of one mile from the surface location of the proposed well;
2. An expanded Area of Review for wells penetrating the disposal interval for a radius of one mile from the surface location of the proposed well; and
3. A statement by a qualified person assessing the potential of induced-seismic events associated with the disposal activities for the predicted service life of the proposed well.

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us



Clay Williams

Permian Basin Earth Science Team Lead, Asset Development

October 22, 2018

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448

Dear Mr. McMillan,

Chevron has completed technical work using SCITS Fault Slip Potential modeling software to more fully understand the potential risk of initiating an induced seismic event as a result of disposal operations through the predicted service life of the Dignitas 26 State SWD. Based upon the information provided by the Fault Slip Potential modeling software and other information as provided herein, it is Chevron's position that this well can be drilled, completed, and operated at the requested disposal rates with a low probability of inducing slip on a fault.

Similar wells in the Delaware Basin in which Chevron participates have shown no reservoir pressure increases to date in 6 years of operations. Given this evidence, Chevron has adjusted the hydrologic modeling assumptions (including porosity and permeability) to be consistent with the observed pressure behavior. While Chevron is utilizing available tools, such as the SCITS Fault Slip Potential modeling software, to more fully understand the risks of induced seismicity, there are assumptions and uncertainties carried in the analysis and software.

From an operational standpoint, Chevron continuously measures surface pressure in all Chevron-operated Silurian disposal facilities. Material changes in reservoir pressure will be monitored and, if warranted, fault slip potential assessments can be reevaluated and injection volumes could be adjusted in the future.

As Chevron and the industry advance its understanding of induced seismicity and its causes, Chevron may modify or supplement this response as appropriate.

Sincerely,

A handwritten signature in black ink, appearing to read "Clay Williams", followed by a period.

Clay R Williams
Permian Basin Earth Science Team Lead – Asset Development

Goetze, Phillip, EMNRD

From: Becerra, Laura <LBecerra@chevron.com>
Sent: Monday, October 22, 2018 7:28 AM
To: Goetze, Phillip, EMNRD
Cc: Jones, William V, EMNRD; McMillan, Michael, EMNRD; Verner, Frederick C; Holm, Anchor E.
Subject: [EXT] RE: Chevron Dignitas 26 State SWD Well No. 1

Hello Phillip,

It seems like we might be able to gather the rest of the information requested by Mr. McMillan by tomorrow. Would it be possible to keep the application pending until tomorrow?

I apologize for the inconvenience.

Laura

From: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Sent: Friday, October 19, 2018 3:23 PM
To: Becerra, Laura <LBecerra@chevron.com>
Cc: Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>; McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>; Verner, Frederick C <fredverner@chevron.com>; Holm, Anchor E. <aholm@slo.state.nm.us>
Subject: **[**EXTERNAL**]** RE: Chevron Dignitas 26 State SWD Well No. 1

RE: Dignitas 26 State SWD No. 1; API 30-015-44202; Admin Appl pMAM1818051178; 1920' FSL / 200' FEL; UL I, Sec 26, T25S, R27E, NMPM

Ms. Becerra:

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Phillip Goetze, PG
Engineering Bureau, Oil Conservation Division, NM EMNRD
1220 South St. Francis Drive, Santa Fe, NM 87505
Direct: 505.476.3466
E-mail: phillip.goetze@state.nm.us

From: Becerra, Laura <LBecerra@chevron.com>
Sent: Friday, June 29, 2018 2:31 PM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Cc: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: RE: Chevron Dignitas 26 State SWD Well No. 1

Hello Michael,

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Have a great weekend,

Laura

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Cc: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: [****EXTERNAL****] Chevron Dignitas 26 State SWD Well No. 1

Laura:

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2. An expanded Area of Review for wells penetrating the disposal interval for a radius of one mile from the surface location of the proposed well; and
3. A statement by a qualified person assessing the potential of induced-seismic events associated with the disposal activities for the predicted service life of the proposed well.

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us

Goetze, Phillip, EMNRD

From: Verner, Frederick C <fredverner@chevron.com>
Sent: Wednesday, December 5, 2018 5:17 PM
To: Goetze, Phillip, EMNRD; Becerra, Laura
Cc: McMillan, Michael, EMNRD; Jones, William V, EMNRD
Subject: [EXT] RE: Dignitas 26 State SWD 1 - Fault Slip Potential Results

Phil, Mike and Will,

- 1) We backed off the 86,000 to provide a larger safety margin. 70,000 was what was needed to meet business needs – this leaves a little wiggle room should some pads come in above expected rate or one of the other disposal outlets lose capacity. We still like 86 (more wiggle) but 70 is workable and I thought more acceptable.
- 2) The pore pressure at one mile is approximately 500 psi. At one and a half mile it drops to 300. I am encouraging our Water Team to talk to Solaris about moving their well a little further away. As we are a big customer maybe they will listen.

I am in town the rest of this week, but suspect you have a full day Thursday – my Friday is wide open. I will be in Houston next week but the week after is good.

Thanks
Fred

From: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Sent: Wednesday, December 05, 2018 4:21 PM
To: Verner, Frederick C <fredverner@chevron.com>; Becerra, Laura <LBecerra@chevron.com>
Cc: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: **[**EXTERNAL**]** RE: Dignitas 26 State SWD 1 - Fault Slip Potential Results

Fred and Laura:

The Division is in receipt of the C-103 with the well design changes, the new pages for the C-108 proposed well design, and the IS assessment. Thank you. Two final questions on my part:

1. The proposed rates of injection per Section VII (1): In light of the current design, is the proposed average rate to be the 70,000 BWPD as used in the model with a maximum rate of 86,000 BWPD as contained in the notice letter? Just confirming.
2. The IS assessment (fault-slip potential model) identifies a pressure front (pore pressure increase of 730 PSI) at a ¾-mile radius. What is the best assessment of the pressure elevation for the remaining quarter mile from the ¾-mile radius to a one-mile radius. The reason for this question is confirm that the one-mile notice is satisfactory and to see if the Dignitas application is sufficiently “protected” at the ¾-mile radius when considering the adjacent SWD application: Solaris Water Midstream; Centaurus SWD No. 1; 30-015-45458; Lot 3; Sec. 19; T25S, R28E, NMPM. This will be a commercial operation with the potential for 25,000 to 35,000 BWPD. I do not accept this estimate as real considering the tubing design (with the ability to convert the upper section of the tapered tubing from 5.5-in to 7-inch) and Solaris’ operational history in other states.

Yes, Fred I’ll take a look at the model run, but at your convenience next week. Meanwhile, I’ll continue with the preparation of a draft order. PRG

Phillip Goetze, PG
Engineering Bureau, Oil Conservation Division, NM EMNRD

1220 South St. Francis Drive, Santa Fe, NM 87505

Direct: 505.476.3466

E-mail: phillip.goetze@state.nm.us

From: Verner, Frederick C <fredverner@chevron.com>

Sent: Wednesday, December 5, 2018 12:31 PM

To: Becerra, Laura <LBecerra@chevron.com>; Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>

Subject: [EXT] RE: Dignitas 26 State SWD 1 - Fault Slip Potential Results

Mike and Phil,

I see you have the letter from the Geophysical team concerning pressures and fault slip. And I heard you had the revised well design.

I have more details on the fault slip analysis if you are interested in reviewing it. I can bring it by whenever you want.

Fred

From: Becerra, Laura

Sent: Wednesday, December 05, 2018 11:44 AM

To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>

Cc: Verner, Frederick C <fredverner@chevron.com>

Subject: Dignitas 26 State SWD 1 - Fault Slip Potential Results

Good afternoon Mike/Phil,

Attached you will find the summary of the Fault Slip Potential results for the Dignitas SWD well. Please let us know if there is anything else you need.

Thank you,

Laura Becerra ●●

Permitting & Compliance Specialist

Chevron North America Exploration Production Co.

a division of Chevron U.S.A Inc.

6301 Deauville Blvd. S3004, Midland, TX 79706

432.687.7665

LBecerra@chevron.com

Goetze, Phillip, EMNRD

From: Heaster, Sean P <SHeaster@chevron.com>
Sent: Tuesday, December 4, 2018 12:46 PM
To: Goetze, Phillip, EMNRD
Cc: Verner, Frederick C; Becerra, Laura
Subject: [EXT] Dignitas C-108 & C-101

Good afternoon Phil,

I wanted to send you a quick note to make you aware of an internal mistake made on our Dignitas SWD paperwork. This afternoon I was notified that our TD depths for the Dignitas SWD, provided on both our C-101 and C-108, would not fully penetrate the Fusselman. The depth sent was 14,604' but we will be requesting 15,100'. I spoke with Fred earlier on how to address, and he recommended I reached out to you. I will be working with Laura, our regulatory specialist, to see if we can adjust the TD depths in both of these documents. I sincerely apologize for the inconvenience and will relay it back to our team that we need to be more detailed in all of our future work. Please let me know if there is any question or concern on your end and we will address ASAP.

Sean Heaster
Execution Coordinator
281-387-2475

Goetze, Phillip, EMNRD

From: Becerra, Laura <LBecerra@chevron.com>
Sent: Wednesday, December 5, 2018 7:39 AM
To: Goetze, Phillip, EMNRD
Cc: McMillan, Michael, EMNRD; Brown, Maxey G, EMNRD; Podany, Raymond, EMNRD; Klein, Ranell, EMNRD; Jones, William V, EMNRD; Verner, Frederick C; Lowe, Leonard, EMNRD
Subject: [EXT] RE: Dignitas 26 State SWD 1 - API 30-015-44202 - Submittal of Updated C-103
Attachments: DIGNITAS 26 STATE SWD 1 - C-103_Change of casing design V3-signed.pdf; DIGNITAS 26 State SWD 1_INJECTION WELL DATA SHEET_v2.pdf

Good morning Phil,

Upon further review, our drilling engineer has revised the wellbore design based on your feedback. The pending C-103 was only a request to update the casing to match the design on the C-108.

Attached you will find a copy of the C-103 submitted to Artesia as wells as a copy of the revised wellbore design for your consideration. Please let me know if there is anything else you need.

Thank you,

Laura

From: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Sent: Monday, November 19, 2018 2:40 PM
To: Becerra, Laura <LBecerra@chevron.com>
Cc: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>; Brown, Maxey G, EMNRD <MaxeyG.Brown@state.nm.us>; Podany, Raymond, EMNRD <Raymond.Podany@state.nm.us>; Klein, Ranell, EMNRD <Ranell.Klein@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>; Verner, Frederick C <fredverner@chevron.com>; Lowe, Leonard, EMNRD <Leonard.Lowe@state.nm.us>
Subject: [**EXTERNAL**] Dignitas 26 State SWD 1 - API 30-015-44202 - Submittal of Updated C-103

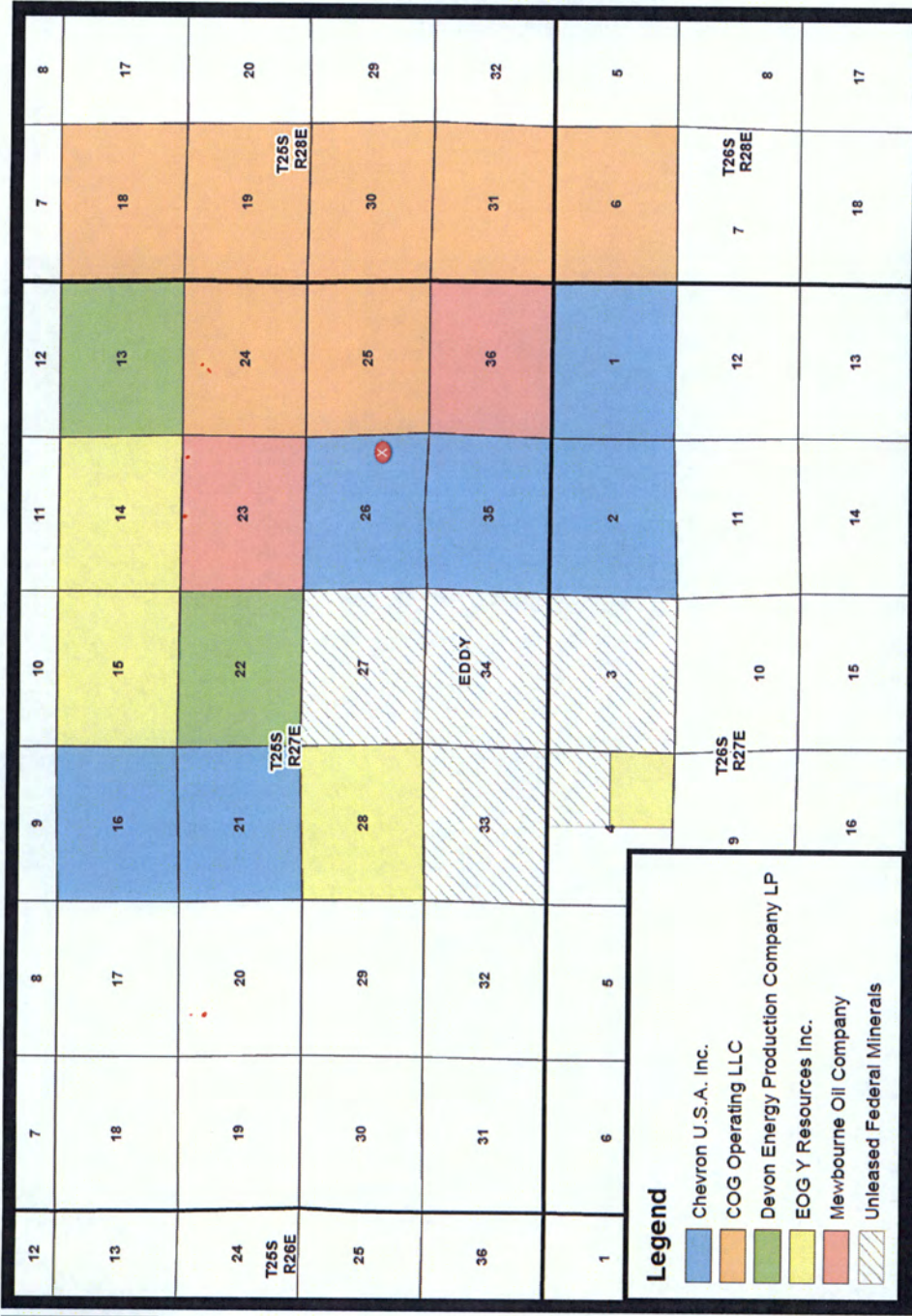
Ms. Becerra:

I have been provided by the Artesia District copies of the C-103 for this large-volume, Devonian disposal well. Noted in the C-103 attachments is an application to utilize 7-inch diameter tubing for the disposal well. Currently, there are no SWD wells with 7-inch diameter tubing operating within New Mexico and there is no operational history for the use of this size tubing at the depths proposed for this well. Additionally, several operators have found it difficult to successfully complete 7 5/8-inch casing at this depth which has resulted in incomplete cementing across lower Permian – Penn sections and, in at least two cases, sidetracking of the lower portions of these deep wells. If Chevron finds no alternative to this sizing of the tubing, then the Division shall deny the application for administrative approval and shall require a hearing before a Division examiner. Further, the Division may elect to appear in opposition to the application at the hearing based on current information and experiences. Please offer this finding to your staff and management for consideration and provide a response at your convenience. Please contact me with any questions regarding this matter either by phone or e-mail. PRG

Phillip Goetze, PG
Engineering Bureau, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive, Santa Fe, NM 87505
Direct: 505.476.3466
E-mail: phillip.goetze@state.nm.us

Company	
Chevron U.S.A. Inc.	
COG Operating, LLC	
Devon Energy Production Company LP	
Mewbourne Oil Company	
EOG Y Resources, Inc.	

Dignitas 26 STATE SWD



Goetze, Phillip, EMNRD

From: Becerra, Laura <LBecerra@chevron.com>
Sent: Tuesday, October 23, 2018 1:24 PM
To: McMillan, Michael, EMNRD
Cc: Goetze, Phillip, EMNRD; Jones, William V, EMNRD
Subject: [EXT] RE: Chevron Dignitas 26 State SWD Well No. 1
Attachments: Dignitas C108_Expanded area of review.pdf

Good afternoon Mr. McMillan,

I received an expanded area of review for a 3 mile radius. The rest of the documents you requested were attached to the email I sent yesterday. Please let me know if any additional information is necessary.

Thank you,

Laura

From: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Sent: Friday, June 29, 2018 3:26 PM
To: Becerra, Laura <LBecerra@chevron.com>
Cc: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: **[**EXTERNAL**]** Chevron Dignitas 26 State SWD Well No. 1

Laura:

The OCD received your administrative SWD Application for the Chevron Dignitas 26 State SWD Well No. 1 API 30-015-44202.

Your application has been suspended until the OCD receives the affidavit of publication..

Please verify that NMSLO is the surface owner.

Because your letter to the NMSLO states that the well will inject up to 86,000 BWPD, Chevron will be required to submit the additional information.

Application for Disposal in Devonian and Silurian Formations: Due to the potential for the projected injection volume of the proposed well to impact an area greater than the one-half mile radius applied in Division Form C-108 and Division rule, the applicant has provided the following supplementary information:

1. Notification following Division Rule 19.15.26.8(B) NMAC for a radius of one mile from the surface location of the proposed well;
2. An expanded Area of Review for wells penetrating the disposal interval for a radius of one mile from the surface location of the proposed well; and
3. A statement by a qualified person assessing the potential of induced-seismic events associated with the disposal activities for the predicted service life of the proposed well.

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us



FORM C-108 Technical Review Summary [Prepared by reviewer and included with application; V16.2]

DATE RECORD: First Rec: 6/28/19 Admin Complete: 6/28/19 or Suspended: Division Requested Multiple Add. Request/Reply: Information Requests
ORDER TYPE: WFX / PMX / SWD Number: 1818 Order Date: 01/25/19 Legacy Permits/Orders: None

Well No. 1 Well Name(s): Dignitas 26 State SWD
 API: 30-0 15-44202 Spud Date: TBD New or Old (EPA): New (UIC Class II Primacy 03/07/1982)

Footages 1920 FSL / 200 FEL Lot — or Unit I Sec 26 Tsp 25E Rge 27E County Eddy
 General Location: ~10 miles SW of Malaga / 4.75 mi W of US285 Pool: SWD; Devonian-Silurian Pool No.: (District)
 BLM 100K Map: Red Bluff Draw Operator: Chevron Inc OGRID: 4323 Contact: Various Chevron

COMPLIANCE RULE 5.9: Total Wells: 1816 Inactive: 6 Fincl Assur: Yes Compl. Order? No IS 5.9 OK? Yes Date: 01/25/19

WELL FILE REVIEWED ☒ Current Status: Operator requested 7-inch tubing to TD; Division ☒ limited rate - 86000 BWPD
☒ requested IS assessment

WELL DIAGRAMS: NEW: Proposed ☒ or RE-ENTER: Before Conv. ☐ After Conv. ☐ Logs in Imaging: —

Planned Rehab Work to Well: - Requested add. info. on well construction

Well Construction Details		Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ☒ or Existing <u>Surface</u>		<u>24 / 18 5/8</u>	<u>0 to 1732</u>	<u>1732</u>	<u>Cr to Surface</u>
Planned ☒ or Existing <u>Intern/Prod</u>		<u>16 / 13 3/8</u>	<u>0 to 9800</u>	<u>Yes/DV</u>	<u>2269</u>
Planned ☒ or Existing <u>Intern/Prod</u>		<u>Tieback 12 1/4 / 9 5/8</u>	<u>0 to 9500</u>	<u>Yes/DV</u>	<u>2424</u>
Planned ☒ or Existing <u>Prod/Liner</u>		<u>Bottom</u>	<u>9500 to 13882</u>	<u>—</u>	<u>1107</u>
Planned ☒ or Existing <u>Liner</u>		<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Planned ☒ or Existing <u>OH/PERF</u>		<u>8 1/2</u>	<u>13882 to 14604</u>	<u>Inj Length</u>	<u>—</u>

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.		<u>Mississippian</u>	<u>13011</u>
Confining Unit: <u>Litho</u> Struc. <u>Por.</u>	<u>± 0 to 200' ±</u>	<u>Woodford</u>	<u>13171</u>
Proposed Inj Interval TOP:	<u>13882</u>	<u>Devonian</u>	<u>~13171</u>
Proposed Inj Interval BOTTOM:	<u>14604</u>	<u>Silurian</u>	<u>13286</u>
Confining Unit: Litho. Struc. <u>Por.</u>	<u>(15364-14604)</u>	<u>Monkford</u>	<u>15364</u>
Adjacent Unit: Litho. Struc. Por.		<u>—</u>	<u>—</u>

Completion/Operation Details:	
Drilled TD <u>—</u>	PBTD <u>—</u>
NEW TD <u>14604</u>	NEW PBTD <u>—</u>
NEW Open Hole ☒ or NEW Perfs ☐	
Tubing Size <u>7.5 in</u> Inter Coated? <u>Yes</u>	
Proposed Packer Depth <u>13010</u> ft	
Min. Packer Depth <u>13782</u> (100-ft limit)	
Proposed Max. Surface Press. <u>2785</u> psi	
Admin. Inj. Press. <u>2785</u> (0.2 psi per ft)	

AOR: Hydrologic and Geologic Information

POTASH: R-111-P No Noticed? — BLM Sec Ord 16 WIPP 16 Noticed? — Salt/Salado T: ~1600 B ~2200 NW: Cliff House fm NA

FRESH WATER: Aquifer Alluvial / Dewey / Rustler Max Depth < 1600 HYDRO AFFIRM STATEMENT By Qualified Person ☒

NMOSE Basin: Carlshad CAPITAN REEF: thru — adj — NA ☒ No. GW Wells in 1-Mile Radius? 1 FW Analysis? No

Disposal Fluid: Formation Source(s) BS/WC / Penn (?) Analysis? Yes On Lease ☐ Operator Only ☒ or Commercial ☐

Disposal Interval: Inject Rate (Avg/Max BWPD): 70,000/84,000 Protectable Waters? Low Source: Historical / Area System: Closed or Open ☒

HC Potential: Producing Interval? No Formerly Producing? No Method: Logs/DST/P&A/Other Mudlog 1/2-Mi Radius Pool Map ☒

AOR Wells: one 1/2-M Radius Map and Well List? ☒ No. Penetrating Wells: 0 [AOR Horizontals: — AOR SWDs: —]

Penetrating Wells: No. Active Wells 0 Num Repairs? — on which well(s)? — Diagrams? —

Penetrating Wells: No. P&A Wells 0 Num Repairs? — on which well(s)? — Diagrams? —

NOTICE: Newspaper Date 06/30/2018 Mineral Owner NMSLO Surface Owner NMSLO N. Date 6/11/18

RULE 26.7(A): Identified Tracts? Yes Affected Persons: COG / EDG / Markbourne / Devon N. Date 6/11/18

Order Conditions: Issues: Volume of proposed well / IS potential / HC potential
 Additional COAs: Rate Limitation - use of 5.5-in tubing at base / Mudlog / BH pressure

Pending Application for High-Volume Devonian Disposal Well
C-108 Application for Dignitas 26 SWD No. 1 – Chevron USA

