STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DIVISION
OIL CONSERVATION DIVISION

APPLICATION OF HELMS OIL & GAS LLC FOR APPROVAL OF A SALTWATER DISPOSAL WELL, LEA COUNTY, NEW MEXICO.

Case No. 16039

FEB 14 2018 PM03:55

APPLICATION

Helms Oil & Gas, LLC, by and through its counsel, Gallegos Law Firm, P.C., hereby files this application for an order approving the drilling of a commercial saltwater disposal well in Unit E, Section 20, T26S, R35E, Lea County, New Mexico. In support of this application, Helms states:

1. Helms Oil & Gas, LLC (OGRID 372153) is the contract operator for Mustang Operating SWD. Mustang has a surface use agreement with Beckham Ranch, the surface owner of land on which the well will be drilled, which authorizes Mustang and Helms to drill and operate the proposed well on the lands at issue.

2. Helms originally intended to seek administrative approval for the disposal well and published notice in the Hobbs News Sun in December, 2017. Helms received no response to the published notice.

3. Helms has determined to seek approval through the formal application process. A copy of Helms' C-108 form is attached as Exhibit A.

4. Helms is providing notice of this application by certified mail to the surface owner(s), designated operators and affected persons within a ½ mile radius pursuant to Rule 19.15.26.8(B) NMAC. A list of those persons served is attached as an exhibit to the C-108 form.

5. The disposal well will be newly drilled, completed and cemented. It will not utilize a preexisting wellbore. The well will be drilled at a location 1,980 feet FNL & 660 feet FWL in Section 20, T26S, R35E, Lea County, New Mexico. The target zone for disposal is the Upper Delaware (Bell Canyon and Cherry Canyon) from 5,620 feet to a maximum depth of 7,420 feet. Maximum injection pressure will be 1,124 psi with a maximum rate limited by such pressure.

6. There is significant demand for saltwater disposal in Lea County given the level of drilling and production activity. The scarcity of produced water disposal facilities is impeding the development of horizontal oil wells in Lea and Eddy Counties.

7. The granting of this application will prevent waste and protect correlative rights.

8. A copy of the proposed advertisement is attached as Exhibit B.

WHERREFORE, Helms Oil & Gas LLC requests that the Division set this matter for hearing before an Examiner of the Oil Conservation Division on March 22, 2018, and that after notice and hearing enter an order approving this application.

Respectfully submitted,

GALLEGOS LAW FIRM, P.C.

By /s/ Michael J. Condon
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Attorneys for Helms Oil & Gas, LLC

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

Case 16039

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance __X__Disposal _____Storage
Application qualifies for administrative approval? __X__Yes _____No

II. OPERATOR: HELMS OIL & GAS, LLC

ADDRESS: P.O. BOX 52808, MIDLAND, TX 79710

CONTACT PARTY: MICHAEL STEWART PHONE: (432) 682-1122

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____Yes __X__No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: MICHAEL STEWART TITLE: CONSULTING ENGINEER

SIGNATURE: _____ DATE: _____

E-MAIL ADDRESS: MSTEWART@HELMSOIL.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

Exhibit A

III. WELL DATA

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

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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

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

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

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

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

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

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

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

Side 1

INJECTION WELL DATA SHEET

OPERATOR: HELMS OIL & GAS, LLC

WELL NAME & NUMBER: BECKHAM RANCH 20 SWD #1

WELL LOCATION:	1,980' FNL & 660' FWL	E	20	26S	35E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

SEE ATTACHED WELLBORE DIAGRAM (C-108 Item III)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"

Cemented with: 1,050 sx. *or* 1,657.5 ft^3

Top of Cement: SURFACE Method Determined: CIRCULATED

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 9-5/8"

Cemented with: 1,800 sx. *or* 3,465 ft^3

Top of Cement: SURFACE Method Determined: CIRCULATED

Production Casing

DV TOOL @ 5,630'

Hole Size: 8-3/4" Casing Size: 7"

Cemented with: 975 sx. *or* 1,568 ft^3

Top of Cement: SURFACE Method Determined: CIRCULATED

Total Depth: 7,500'

Injection Interval

5,620 feet to 7,420' (PERFORATIONS PER LOG ANALYSIS)

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 4-1/2" Lining Material: IPC TBG

Type of Packer: 7" x 3-1/2" ARROWSET 1-XS NP PKR

Packer Setting Depth: 5,590'

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

Additional Data

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

   If no, for what purpose was the well originally drilled? N/A

2. Name of the Injection Formation: UPPER DELAWARE (BELL CANYON & CHERRY CANYON)

3. Name of Field or Pool (if applicable): N/A

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. N/A

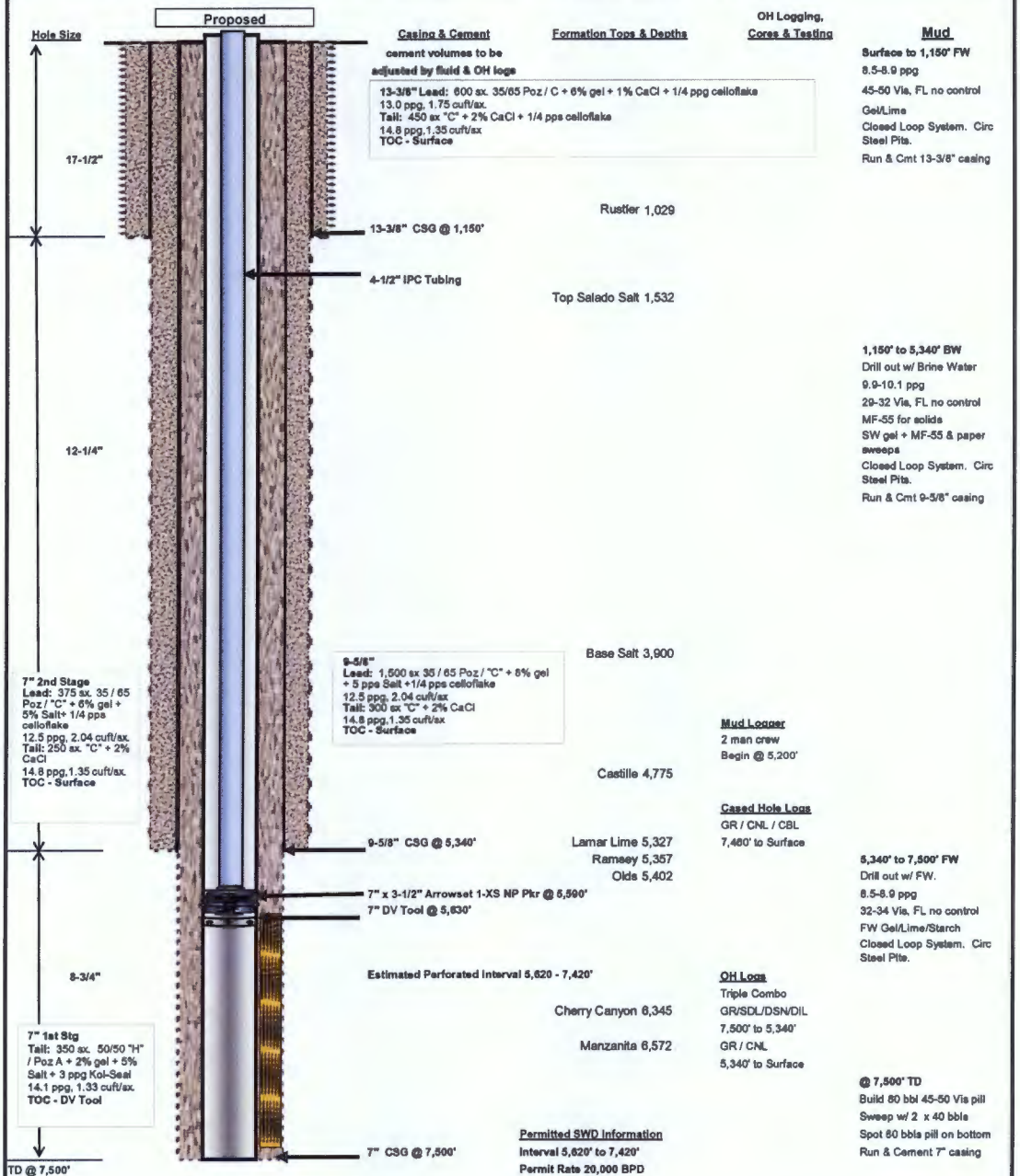
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   SEE ATTACHED GEOPROGNOSIS (C-108 ITEM VIII-4).

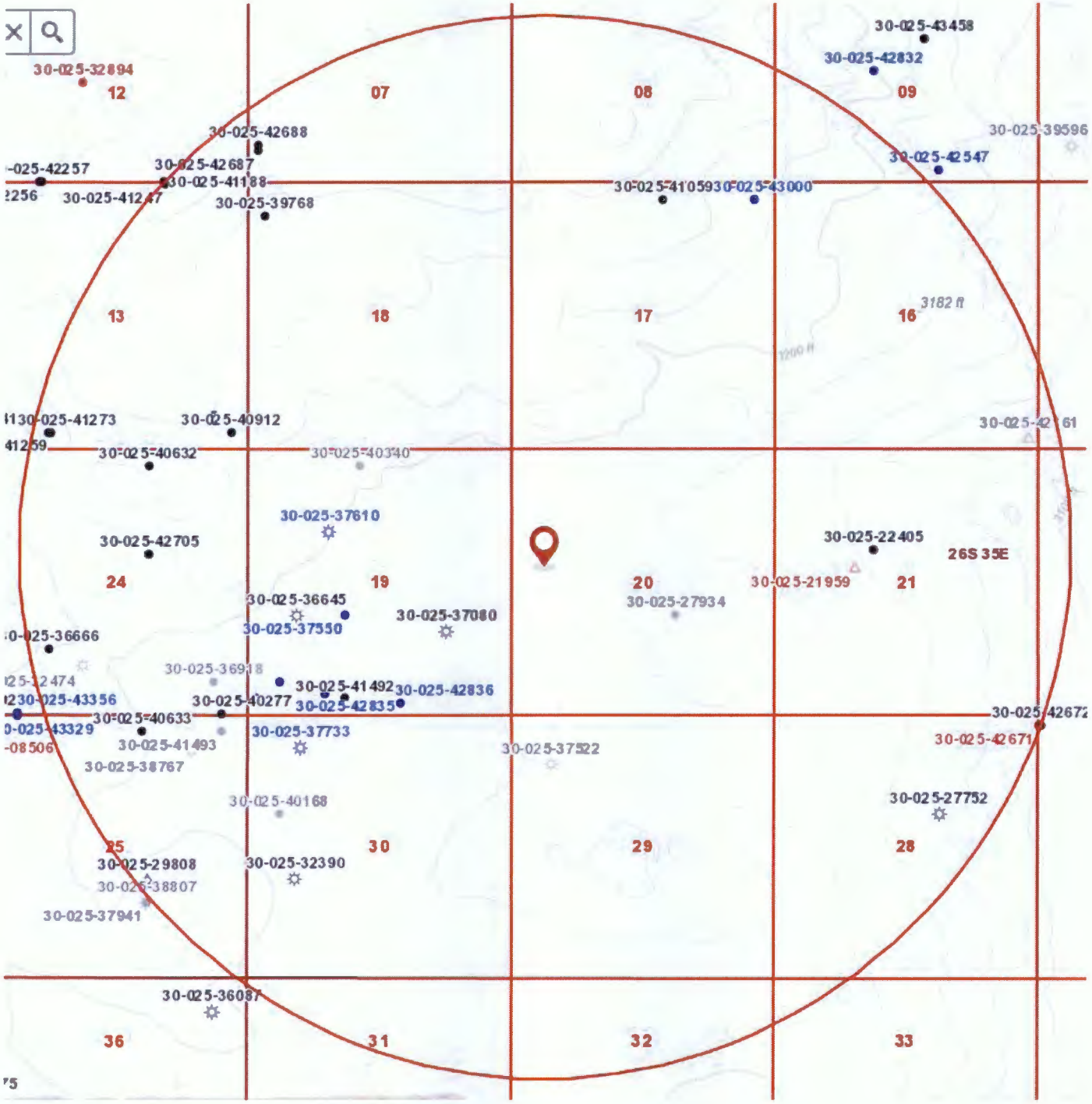
HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item III

HeLMS Oil & Gas
Proposed Wellbore Diagram - 3 String Casing Design - Perforations

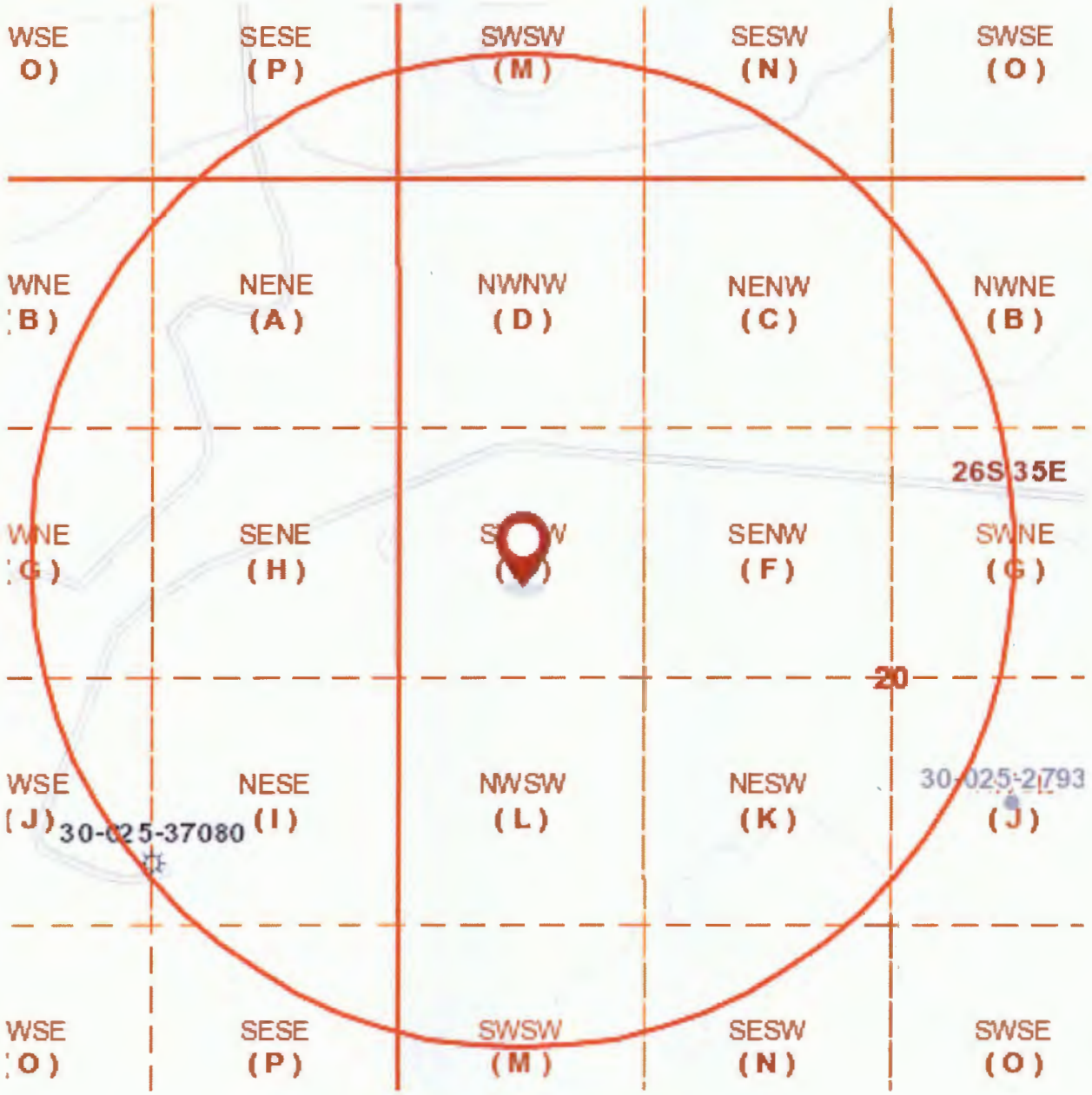
WELL NAME:	Beckham Ranch 20 SWD #1			FIELD:			
LOCATION:	1,980' FNL & 660' FWL, Sec 20, T26S, R35E, Unit E			COUNTY:	Lea	STATE:	NM
ELEVATION:	GL = 3,180'; KB = 3,193' (Est. 13' KB Corr)		Lat 32.03060624 N, Long 103.39582336 W	SPUD DATE:		COMP DATE:	
API#				PREPARED BY:	M. Stewart		
	DEPTH	HOLE SIZE	SIZE	WEIGHT	GRADE	THREAD	CEMENT / TOC
CASING:	1,150	17-1/2"	13-3/8"	61 #	J-55	BTC	600 sx lead + 450 sx tail. Surface
CASING:	5,340	12-1/4"	9-5/8"	36 & 40 #	L-80	LTC	1,500 sx lead + 300 sx tail. Surface
CASING:	7,500	8-3/4"	7"	26 #	J-55	LTC	1st stg 350 sx., DV @ 5,630' 2nd stg 375 sx. lead + 250 sx. tail. Surface
TUBING:	5,590		4-1/2"	11.6 #	J-55	LTC	IPC Casing / Tbg
TUBING:							



HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1 – 2 Mile Radius
C-108 Item V(a)



HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1 – 1/2 Mile Radius
C-108 Item V(b)



HeLMS Oil Gas, LLC - Beckham Ranch 20 SWD #1

2 Mile Radius - Offset Well Data
C-108 Item V(c)

API No	Current Operator	Original Operator	Well Name / No	Current Status	SHL				BHL			
					TWS	RNG	Sec	Unit	Tws	Rng	Sec	Unit
30-025-32894	Devon Energy		Madera 12 Fed SWD #1	P&A - SWD	26S	34E	12	K	26S	34E	12	K
30-025-41188	Devon Energy	Devon Energy	Ragin Cajun 12 Federal #1H	Active - Oil	26S	34E	12	O	26S	34E	12	B
30-025-41247	Devon Energy	Devon Energy	Rattlesnake 13 Federal #1H	Active - Oil	26S	34E	13	B	26S	34E	13	O
30-025-41273	Devon Energy	Devon Energy	Ragin Cajun 13 Federal #2H	Active - Oil	26S	34E	13	M	26S	34E	13	D
30-025-41259	Devon Energy	Devon Energy	Ragin Cajun 13 Federal #1H	Active - Oil	26S	34E	13	N	26S	34E	13	C
30-025-40912	Devon Energy	Devon Energy	Rattlesnake 12 Federal #1H	Active - Oil	26S	34E	13	P	26S	34E	12	A
30-025-37629	Devon Energy	Devon Energy	Rattlesnake Federal #6	Active - Oil	26S	34E	13	P	26S	34E	13	P
30-025-40632	Marathon Oil Permian	RMR Operating	Madera 24 Federal #3H	Active - Oil	26S	34E	24	B	26S	34E	24	O
30-025-36666	Marathon Oil Permian	Pure Resources	Madera 24 Federal #1	Active - Oil	26S	34E	24	M	26S	34E	24	M
30-025-40277	Marathon Oil Permian	Cabal Energy	Madera 24 Federal #2H	Active - Oil	26S	34E	24	P	26S	34E	24	A
30-025-40633	Marathon Oil Permian	RMR Operating	Madera 25 Federal #2H	Active - Oil	26S	34E	25	B	26S	34E	36	G
30-025-29808	Marathon Oil Permian	Transglobe Oil & Gas	Madera 25 Federal #1	Active - SWD	26S	34E	25	J	26S	34E	25	J
30-025-42687	Devon Energy	Devon Energy	Billiken 7 Federal #1H	Active - Oil	26S	35E	7	M	26S	35E	7	P
30-025-42688	Devon Energy	Devon Energy	Billiken 7 Federal #2H	Active - Oil	26S	35E	7	M	26S	35E	7	I
30-025-41059	Oxy	Oxy	Madera 17 Federal #1H	Active - Oil	26S	35E	17	B	26S	35E	17	O
30-025-39768	EOG	Yates	Renegade BPG Federal #1H	Active - Oil	26S	35E	18	D	26S	35E	18	A
30-025-37080	Marathon Oil Permian	Pure Resources	Beckham 19 #1	Active - Gas	26S	35E	19	I	26S	35E	19	I
30-025-36645	Marathon Oil Permian	Jumbo American Petroleum	Madera 19 Federal #1	Active - Gas	26S	35E	19	L	26S	35E	19	L
30-025-41492	Marathon Oil Permian	RMR Operating	Madera 19 Federal #4H	Active - Oil	26S	35E	19	N	26S	35E	18	K
30-025-22405	Impetro Operating	Falcon Engineering	Mexico P Federal #1	Active - Oil	26S	35E	21	F	26S	35E	21	F
30-025-21959	Texas Exploration	Texas Exploration	Mexico Federal P #2	Plugged - SWD	26S	35E	21	F	26S	35E	21	F
30-025-27752	Devon Energy	Pre-Ongard Well Operator	Arena Roja Federal Unit #6	Active - Gas	26S	35E	28	G	26S	35E	28	G
30-025-32390	Great Western Drilling	Transglobe Oil & Gas	Madera 30 Federal #1	Active - Gas	26S	35E	30	L	26S	35E	30	L

HeLMS Oil Gas, LLC - Beckham Ranch 20 SWD #1

2 Mile Radius - Offset Well Data
C-108 Item V(c)

API No	Drilling Permit		Well Type	Spud Date	Comp Date	P&A Date	Current NMOCD Field
	Approved	Expired	V / H				
30-025-32894	3/17/1995	3/17/1995	V	3/31/1995	6/1/1996	5/19/2015	SWD: Bell Canyon-Cherry Canyon
30-025-41188	5/15/2013	5/15/2015	H	12/28/2013	3/27/2014		Jabaline; Delaware, SW
30-025-41247	6/24/2013	6/24/2015	H	11/21/2013			Jabaline; Delaware, SE
30-025-41273	7/8/2013	7/8/2015	H	3/4/2014	7/15/2014		Jabaline; Delaware, SW
30-025-41259	7/8/2013	7/8/2015	H	4/2/2014	7/14/2014		Jabaline; Delaware, SW
30-025-40912	1/4/2013	1/4/2015	H	2/19/2013	4/3/2013		Jabaline; Delaware, SW
30-025-37629	1/5/2006	1/5/2008	V	12/26/2006	3/9/2007		Jabaline; Delaware, SW
30-025-40632	6/15/2012	6/15/2014	H	2/7/2013	5/15/2013		Jabaline; Delaware, SW
30-025-36666	2/26/2004	2/26/2006	V	9/20/2004	4/29/2005		Morrow
30-025-40277	8/30/2011	8/30/2013	H	10/26/2011	1/17/2012		Jabaline; Delaware, SW
30-025-40633	6/15/2012	6/15/2014	H	9/28/2013	11/23/2013		Jabaline; SW Brushy Canyon
30-025-29808	12/1/1986	3/28/2015	D	12/30/1986	7/27/1987		Wildcat
30-025-42687	7/7/2015	7/7/2017	H	9/19/2015	5/24/2017		Jabaline; Delaware, SW
30-025-42688	7/7/2015	7/7/2017	H	10/6/2015	5/20/2017		Jabaline; Delaware, SW
30-025-41059	3/15/2013	3/15/2015	H	4/10/2013	7/23/2013		Jabaline; Delaware, SW
30-025-39768	6/7/2010	6/7/2012	H	8/15/2010	1/5/2011		Wildcat Bone Spring
30-025-37080	2/7/2005	2/7/2007	V	4/12/2005	10/15/2005		Jabalina; Atoka, SW
30-025-36645	12/9/2003	12/9/2005	V	5/28/2004	2/12/2005		Jabaline; Delaware, SW
30-025-41492	11/1/2013	11/1/2015	H	11/29/2013	11/29/2013		Jabaline; Delaware, SW
30-025-22405	1/9/1968		V	1/27/1968	2/10/1969		Jabaline; Delaware, SW
30-025-21959	1/1/1900?	1/1/1902?	V	3/12/1969	3/24/1969		Rustler
30-025-27752	2/12/1982	2/12/1984	V	2/25/1982	3/28/1983		Roja Strawn
30-025-32390	1/19/1994	1/19/1996	V	1/28/1994	7/21/1994		Jabaline; Atoka Gas, SW

HeLMS Oil Gas, LLC - Beckham Ranch 20 SWD #1

2 Mile Radius - Offset Well Data
C-108 Item V(c)

	Surface Hole / Casing							1st Intermediate Hole / Casing						
API No	Hole Size	Csg Size	T/ Depth	B/ Depth	Sx Cmt	TOC	Method	Hole Size	Csg Size	T/ Depth	B/ Depth	Sx Cmt	TOC	Method
30-025-32894		13.375	0	635	685	Surf	Circ							
30-025-41188	17.5	13.375	0	1,130	1,070	Surf	Circ	12.25	9.625	0	5,269	1,590	Surf	Circ
30-025-41247	17.5	13.375	0	1,148	1,185	Surf	Circ	12.25	9.625	0	5,300	1,461	395	TS
30-025-41273	17.5	13.3	0	1,149	750	Surf	Circ	12.25	9.625	0	5,253	1,590	Surf	Circ
30-025-41259	17.5	13.375	0	1,118	1,025	Surf	Circ	12.25	9.625	0	5,280	2,245	Surf	Circ
30-025-40912	17.5	13.375	0	1,141	1,150	Surf	Circ	12.25	9.625	0	5,214	1,800	Surf	Circ
30-025-37629	17.5	13.375	0	1,010	1,005	Surf		12.25	9.625	0	5,365	1,986	Surf	
30-025-40632	17.5	13.375	0	1,092	1,075	Surf		12.25	9.625	0	5,368	2,025	Surf	
30-025-36666	17.5	13.375	0	1,112	875	Surf		12.25	9.625	0	5,430	2,225	Surf	
30-025-40277	17.5	13.375	0	1,132	1,175	Surf		12.25	9.625	0	5,289	2,525	Surf	
30-025-40633	17.5	13.375	0	1,134	370	Surf	Circ	12.25	9.625	0	5,373	1,700	Surf	Circ
30-025-29808	24	20	0	1,044	2,250	Surf		17.25	13.375	0	5,400	5,400	Surf	
30-025-42687	17.5	13.375	0	1,190	1,255	Surf	Circ	12.25	9.625	0	5,396	1,765	Surf	
30-025-42688	17.5	13.375	0	1,191	1,255	Surf	Circ	12.25	9.625	0	5,331	1,765	Surf	Circ
30-025-41059	17.5	13.375	0	1,215	1,340	Surf	Circ	12.25	9.625	0	5,400	1,850	Surf	Circ
30-025-39768	17.5	13.375	0	1,100	880	Surf		12.25	9.625	0	5,389	1,775	Surf	
30-025-37080	17.5	13.375	0	1,117	885	Surf	Circ	12.25	9.625	0	5,297	1,500	Surf	Circ
30-025-36645	17.5	13.375	0	1,065	1,000	Surf		12.25	9.625	0	5,340	2,050	Surf	
30-025-41492	17.5	13.375	0	1,174	1,125	Surf	Circ	12.25	9.625	0	5,390	1,760	35	Calc
30-025-22405	36	30	0	34	5 yds			26.00	20.000	0	803	1,700		
30-025-21959														
30-025-27752	26	20	0	1,505	2,500	Surf		17.50	13.378	0	5,200	4,500	Surf	
30-025-32390	17.5	13.375	0	1,030	1,010	Surf		12.25	10.750	0	5,300	1,100	Surf	

HeLMS Oil Gas, LLC - Beckham Ranch 20 SWD #1

2 Mile Radius - Offset Well Data
C-108 Item V(c)

	2nd Intermediate Hole / Casing							3nd Intermediate Hole / Casing						
API No	Hole Size	Csg Size	T/ Depth	B/ Depth	Sx Cmt	TOC	Method	Hole Size	Csg Size	T/ Depth	B/ Depth	Sx Cmt	TOC	Method
30-025-32894														
30-025-41188														
30-025-41247														
30-025-41273														
30-025-41259														
30-025-40912														
30-025-37629														
30-025-40632	8.75	7.00	-	8,550	1,290	5,990								
30-025-36666	8.00	7.63	-	13,400	1,150	5,421								
30-025-40277	8.75	7.00	-	8,538	1,280	-								
30-025-40633														
30-025-29808	12.25	9.875	-	13,463	5,500	-		8.75	7.75	13,156	18,718	850	13,156	
30-025-42687														
30-025-42688														
30-025-41059														
30-025-39768														
30-025-37080	8.75	7.00	-	13,335	1,700	3,333								
30-025-36645	8.75	7.00	-	13,407	1,620	3,714								
30-025-41492														
30-025-22405	17.5	13.38	-	5,320	6,700									
30-025-21959														
30-025-27752	12.25	9.63	-	13,500	2,850	7,080								
30-025-32390														

HeLMS Oil Gas, LLC - Beckham Ranch 20 SWD #1

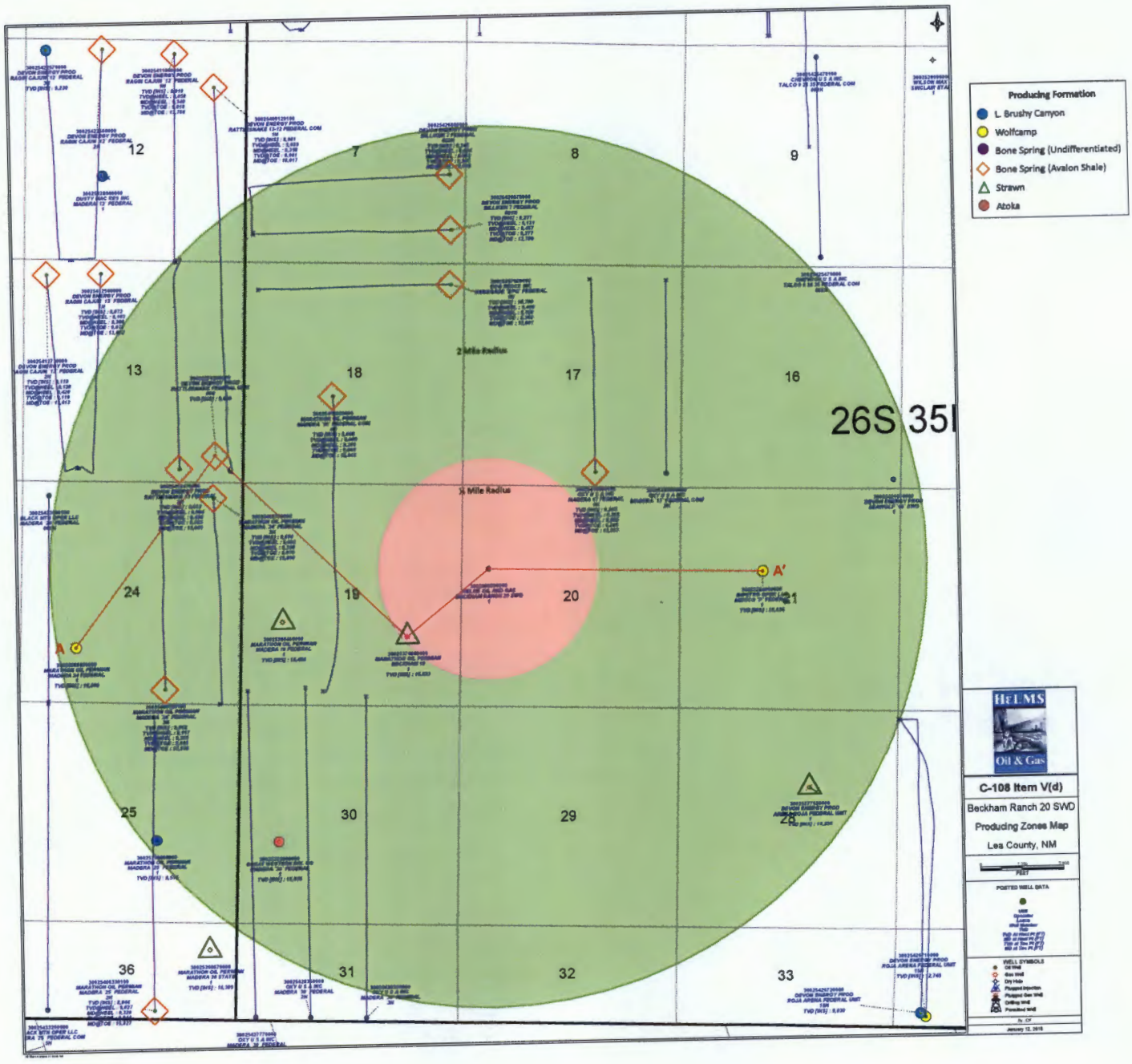
2 Mile Radius - Offset Well Data
C-108 Item V(c)

	4th Intermediate Hole / Casing							Production Hole / Casing - Liner						
API No	Hole Size	Csg Size	T/ Depth	B/ Depth	Sx Cmt	TOC	Method	Hole Size	Csg Size	T/ Depth	B/ Depth	Sx Cmt	TOC	Method
30-025-32894														
30-025-41188								8.750	5.50	0	13,740	2,030	4,010	Calc
30-025-41247								8.750	5.50	0	13,842	2,515	4,750	CBL
30-025-41273								8.750	5.50	0	13,597	2,490	4,417	Calc
30-025-41259								8.750	5.50	0	13,652	2,075	-	
30-025-40912								8.750	5.50	0	17,993	2,581	1,220	Calc
30-025-37629								7.875	5.50	0	9,600	1,040	-	
30-025-40632								6.125	4.50	8,450	13,570			
30-025-36666								6.500	5.50	13,169	16,596	-		
30-025-40277								6.500	4.50	0	13,600	1,280	-	
30-025-40633								8.750	5.50	0	15,703	1,000	5,900	Oth
30-025-29808	7.00	5.50	12,765	15,700	625	12,765			5.00	18,316	22,500	500	18,316	
30-025-42687								8.500	5.50	0	13,711	1,990	-	
30-025-42688								8.500	5.50	0	13,815	2,040	-	
30-025-41059								8.750	5.50	0	13,524	1,680	3,200	CBL
30-025-39768								8.500	5.50	0	13,891	1,840		
30-025-37080								6.250	4.50		15,819	385	10,500	
30-025-36645								6.125	5.00	0	15,454	170	13,118	
30-025-41492								8.750	5.50	0	15,773	1,500	-	
30-025-22405								12.250	10.75	0	13,315	3,400		
30-025-21959								6.250	4.5	0	1,600	562		
30-025-27752								8.625	7.875	0	16,460	450	13,100	
30-025-32390								9.500	7.875	0	13,000	1,890	-	

HeLMS Oil Gas, LLC - Beckham Ranch 20 SWD #1

2 Mile Radius - Offset Well Data
C-108 Item V(c)

	Original TD		KOP (DD Survey)		Landing Pt (>85% Inc)		Current 3 Mo Avg Prod Rates			Cumulative Prod		
API No	TVD	MD	TVD	MD	TVD	MD	BOPD	MCFPD	BWOD	BO	MCF	BW
30-025-32894	12,950	12,950					0	0	0	0	0	0
30-025-41188	9,018	13,788	8,493	8,500	9,058	9,340	58	140	257	125,481	251,911	384,539
30-025-41247	9,023	13,861	8,488	8,492	9,084	9,436	59	123	113	169,875	363,564	361,067
30-025-41273	9,119	13,612	8,554	8,575	9,128	9,420	24	60	146	75,250	166,868	342,495
30-025-41259	9,072	13,652	8,548	8,567	9,103	9,388	43	98	186	99,195	255,516	424,757
30-025-40912	8,961	18,017	8,504	8,509	9,039	9,358	89	210	600	322,164	638,622	1,036,401
30-025-37629	9,600	9,600					10	20	91	33,078	55,727	335,546
30-025-40632	9,062	13,570	8,732	8,735	9,117	9,335	33	110	122	120,915	409,954	280,249
30-025-36666	16,600	16,600					1	0	16,394	7,175	32,354	1,016,528
30-025-40277	9,070	13,800	8,649	8,651	9,022	9,250	31	94	166	163,262	610,732	475,277
30-025-40633	8,944	15,827	8,444	8,445	9,027	9,329	18	123	50	51,874	243,676	166,622
30-025-29808	9,515	22,500	13,150	13,152			0	0	0	5,950	153,358	20
30-025-42687	9,277	13,700	8,637	8,638	9,131	9,457	153	246	1,051	10,727	17,091	78,654
30-025-42688	9,245	13,818	8,588	8,674	8,924	9,053	125	205	1,277	5,627	8,209	70,325
30-025-41059	9,265	13,537	8,355	8,357	9,282	9,655	15	24	142	28,803	46,015	199,308
30-025-39768	10,780	13,891	8,968	8,969	9,436	6,700	20	16	111	46,209	84,958	223,451
30-025-37080	15,823	15,823					2	170	0	49,303	1,576,023	7,861
30-025-36645	15,456	15,456					0	0	0	10,337	567,979	5,994
30-025-41492	9,046	15,843					34	115	129	110,556	378,786	282,544
30-025-22405	22,926	22,926					11	7	29	37,270	3,780,659	118,141
30-025-21959	1,600	1,600					0	0	0	0	0	0
30-025-27752	18,535	18,535					3	170	53	10,279	439,376	69,127
30-025-32390	15,555	15,555					0	9	0	106,117	3,806,845	1,584


Producing Formation
L. Brushy Canyon
Wolfcamp
Bone Spring (Undifferentiated)
Bone Spring (Avalon Shale)
Strawn
Atoka
2 Mile Radius
½ Mile Radius
26S 35E
A
A'
12
7
8
9
13
18
17
16
24
19
20
21
25
30
29
28
36
31
32
33
HELMS Oil & Gas
C-108 Item V(d)
Beckham Ranch 20 SWD
Producing Zones Map
Lea County, NM
FEET
POSTED WELL DATA
WELL SYMBOLS
Oil Well
Gas Well
Dry Hole
Plugged Injection
Plugged Gas Well
Drilling Well
Permitted Well
January 12, 2018

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1 – 1/2 Mile Tabulation
C-108 Item VI(a)

API	30-025-37080
Well Name	Beckham 19
Well Number	1
Section	19
Township	26S
Range	35E
County	Lea
Unit Letter	I
OGRID Name	Marathon Oil Permian LLC
OGRID Number	372098
Well Type	GAS
Construction	VERTICAL
Date Spudded	4/12/2005
Date TD Reached	7/13/2005
Date Completed	10/15/2005
Total Depth	15,823'
PBTD	15,013'
Record of Completion	SEE NEXT PAGE

CSG SIZE	13-3/8"	9-5/8"	7"	4-1/2"
WEIGHT LB/FT	54.5	40	29	15.1
DEPTH SET	1,117'	5,297'	13,335'	15,819'
HOLE SIZE	17-1/2"	12-1/4"	8-3/4"	6-1/4"
CMT (AMT & TYPE)	885 sx "C"	1,500 sx "C"	1,700 sx "H"	385 sx "H"
CMT TOP	SURF; CIRC	SURF; CIRC	3,333'; LOG	10,500'; LOG

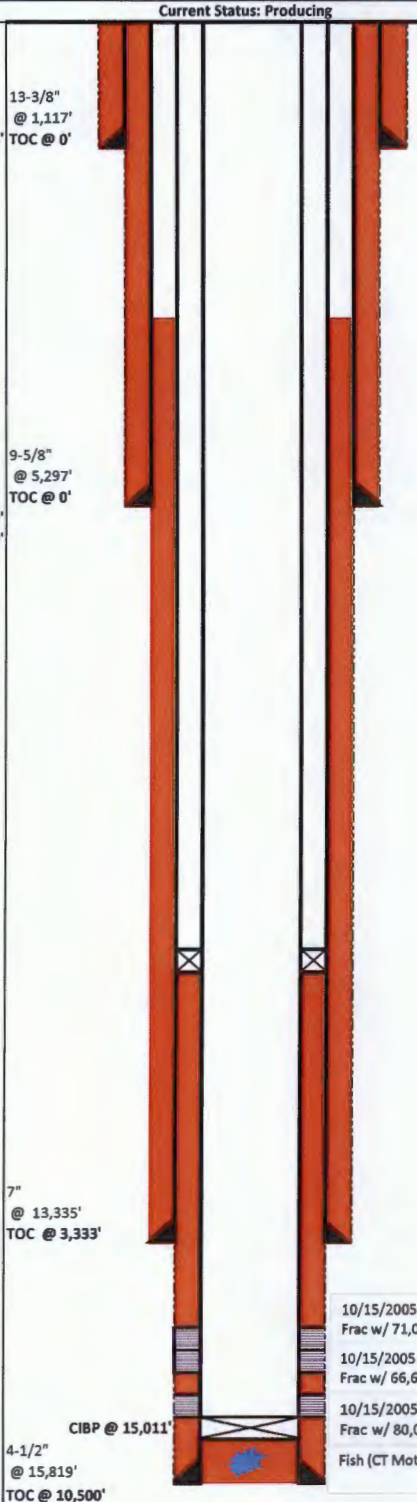
	TOP	BOTTOM
PERF	14,803'	15,006'
	14,661'	14,686'
	14,500'	14,553'
CIBP	15,013'	

HELMS OIL & GAS, LLC – Beckham "19" #1 WBD
C-108 Item VI(b)

WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC
Current Status: Producing

FORM.	DEPTH
Rustler	1,036'
Delaware Lm	5,340'
Delaware Sd	5,380'
Bone Spring	9,063'
1st Sd	10,320'
3rd Carb	11,366'
3rd Sd	12,142'
Wolfcamp	12,437'
Strawn	14,490'
Atoka	15,008'



API:	30-025-37080				
Operator	Marathon Oil				
Lease Name	Beckham "19"				Well NO. 1
Surf Loc:	UL: I	SEC: 19	TWN: 26S	RNG: 35E	
	1,650 FSL		1,310 FEL		
BH Loc:	UL: I	SEC: 19	TWN :26S	RNG: 35E	
	1,650 FSL		1,310 FEL		
MD 15,823'		KB: 30'	DF:		
		GL: 3,197			
POOL	Lower Strawn		PERFS: 14,803' - 15,006'		
POOL	Middle Strawn		PERFS: 14,661' - 14,686'		
POOL	Upper Strawn		PERFS: 14,500' - 14,553'		

IP Test Data

Date	Oil	Gas	Tbg Pressure	Choke	Test Method
2/16/2005	36 bbls	1,200 MCF	9,200 psi	13/64"	Flowing

CASING RECORD

	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	13.375"	1,117'	885 sx	17.5"	0' Circ
INTM1	9.625"	5,297'	1,500 sx	12.25"	0' Circ
INTM2	7"	13,335'	1700 sx	8.75"	3,333' TS
PROD	4.5"	15,819'	385 sx	6.25"	10,500' TS

SPUD: 4/12/2005
COMP: 10/15/2005

10/15/2005 Upper Strawn: 14,500'-02', 14,518-26', 14,530'-32', 14,536'-44', 14,551'-53'. 3 SPF 66 holes.
Frac w/ 71,064 gal and 83,642# 20/40 bauxite.

10/15/2005 Middle Strawn: 14,661'-14,686. 3SPF 75 holes.
Frac w/ 66,690 gal and 49,414# 20/40 bauxite.

10/15/2005 Lower Strawn: 14,803-15,006. 1 SPF 16 holes.
Frac w/ 80,000 gal and 71,000 # 20/40 bauxite.

Fish (CT Motor, etc) @ 15,013' - 15,032' (approx bottom) Drilling mud, cement, brine and shale all below fish.

UPDATED: 10/16/2017

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VII – 1

Proposed Operation

The proposed average daily injection rate is **18,500 BFPD.**
The proposed maximum daily injection rate is estimate at **22,500 BFPD** but will be dictated by the NMOCD standard permitted WH injection pressure of 1,124 psi (0.20 psi/ft to top perf).

These rates are based on the following:
Top of injection interval @ 5,620'
Bottom of injection interval @ 7,420'
4-1/2", 11.6 ppf, J-55, LTC IPC injection tbg /casing. ID = 3.765"
Packer setting depth @ 5,590'
Average injection fluid density = 9.20 ppg
Est. Frac Gradient = 0.60 psi/ft
Maximum standard permitted WH injection pressure = 1,124 psi (0.20 psi/ft to top perf)
Detailed calculations are presented below:

HeLMS
Beckham Ranch 20 SWD #1
Calculated WH Injection Pressures

	Top	Bottom
Permitted Inj Interval	**5,620**	**7,420**
Actual Injection Interval	5,620 ft	7,420 ft
NMOCD Standard Permitted Max Inj Gradient (psi/ft)	0.2 psi/ft	
NMOCD Standard Max WH Inj Pressure (psi)	1,124 psi	
Estimated Frac Gradient (psi/ft)	0.6 psi/ft	
Calc BH Frac Pressure @ MP Perfs based of Est Frac Gradient (psi)	3,912 psi	
Safety Factor (SF) to stay below Calc BH Frac Pressure	90.0% percent	
Calc BH Inj Pressure w/ SF to stay below Calc BH Frac Pressure	3,521 psi	

Projected Surface Inj Pressures based on Assumed BH Inj Pressure at various Rates

Injection Fluid Density	9.20 ppg									
	Type		ID (in)	Hazen Williams Friction Cf						
Injection Via	4-1/2", 11.6 ppf, J-55, LTC, IPC 700		3.765	150						
Packer Depth *ft*	5,590									
Assumed Injection Rate *BPD*	1,500	2,500	5,000	7,500	10,000	12,500	15,000	17,500	20,000	22,500
ΔP Hydrostatic to MP Perfs *psi*	3,119	3,119	3,119	3,119	3,119	3,119	3,119	3,119	3,119	3,119
ΔP due to tubing friction *psi*	4	11	38	80	137	206	289	385	492	612
Assumed BH Inj Pressure *psi*	3,521	3,521	3,521	3,521	3,521	3,521	3,521	3,521	3,521	3,521
Calc WH Inj Pressure *psi*	406	412	440	482	538	608	691	786	894	1,014
Δ WH Inj Press vs Permit Pmax *psi*	-718	-712	-684	-642	-586	-516	-433	-338	-230	-110

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VII – 2

Closed System

The SWD will be operated as a **closed system**.

The system will utilize a tank battery facility located adjacent to the well site to accommodate both trucked and pipeline delivered produced water. It is tentatively estimated that 60% of the PW will be delivered via tanker trucks and 40% will be delivered via pipelines laid to offsetting wells.

The tank battery will generally consist of:

3	1,000 bbl steel coated "off-load" tanks
2	750 bbl vertical gun barrels
4	1,000 bbl steel coated pump "suction" tanks
2	500 bbl steel oil tanks
	Associated piping, valves and fittings

All tanks will be located within a spray-on polyurea liner with steel containment walls to provide a seamless, durable and continuous barrier that protects against environmental contamination.

The truck off loading facility will generally consist of:

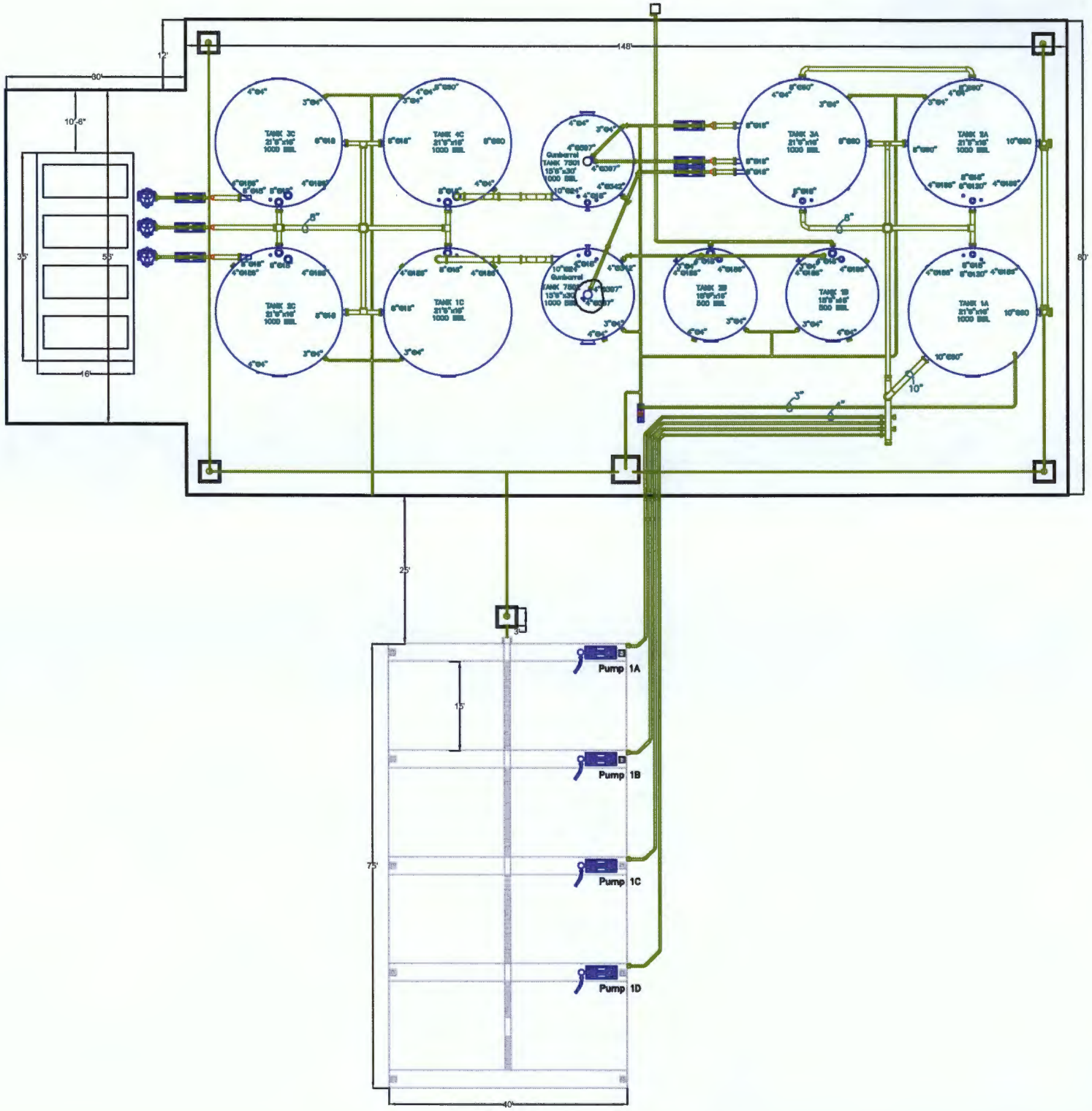
4 Off load valve stations with transfer pumps

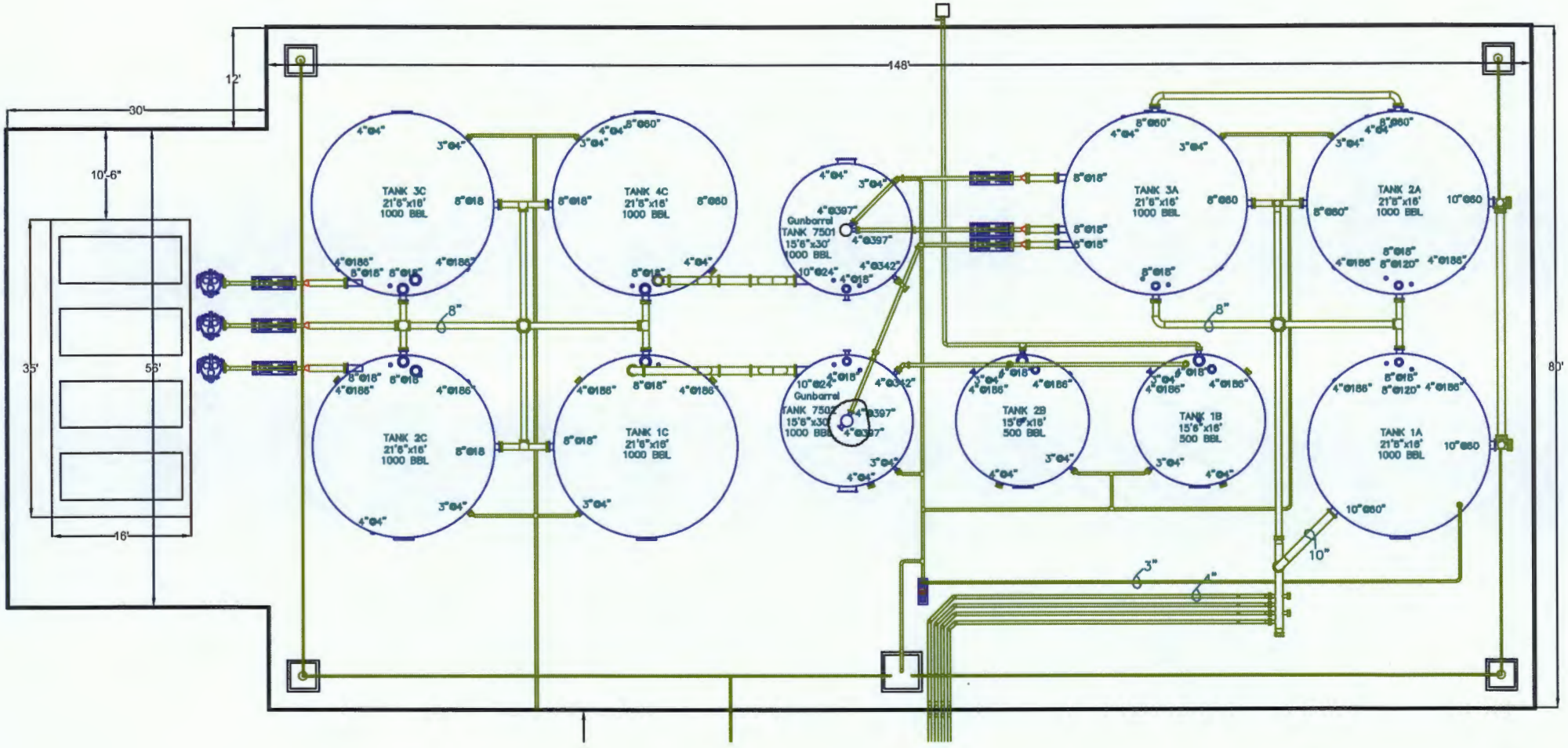
The truck off loading facility will be located on a poured-in-place cement pad complete with slopes and sumps to contain and collect fluids. A steel overhead canopy will cover the truck offloading facility.

The injection pump facility will be equipped with 3 - 4 positive displacement (PD) electric driven pumps capable of injecting the maximum allowable volume at the NMOCD standard WH injection pressure at the equivalent of 0.20 psi/ft to the top perf or 1,124 psi. Additional pump capacity will be available to provide continuous operation of the facility while performing maintenance operations on selected pumps. A NOV Tore Trap Desanding skids will be utilized upstream of the PD pumps to remove solids prior to injection into the wellbore.

The tank battery facility will have remote monitoring equipment with associated alarms and automated shut-down capabilities based on tank levels, WH pressures and various other operating parameters. Routine maintenance of the facility will be ongoing, and any releases will be reported within 24 hours to the NMOCD on form C-141 pursuant to various portions of 19.15.30 NMAC. The facility will be manned during peak hours and will be available for inspections at any time deemed necessary by the NMOCD.

Schematics typical of the tank battery facility to be constructed adjacent to the wellsite are attached.


148'
80'
12'
10'-6"
35'
55'
16'
80'
TANK 3C
21'6"x16'
1000 BBL
TANK 4C
21'6"x16'
1000 BBL
Gunbarrel
TANK 7501
15'6"x30'
1000 BBL
TANK 3A
21'6"x16'
1000 BBL
TANK 2A
21'6"x16'
1000 BBL
TANK 2C
21'6"x16'
1000 BBL
TANK 1C
21'6"x16'
1000 BBL
Gunbarrel
TANK 7502
15'6"x30'
1000 BBL
TANK 2B
18'6"x16'
500 BBL
TANK 1B
18'6"x16'
500 BBL
TANK 1A
21'6"x16'
1000 BBL
8"
10"
3"
4"
25'
15'
Pump 1A
Pump 1B
Pump 1C
Pump 1D
75'
40'


148'
12'
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80'
TANK 3C
21'6"x16'
1000 BBL
TANK 4C
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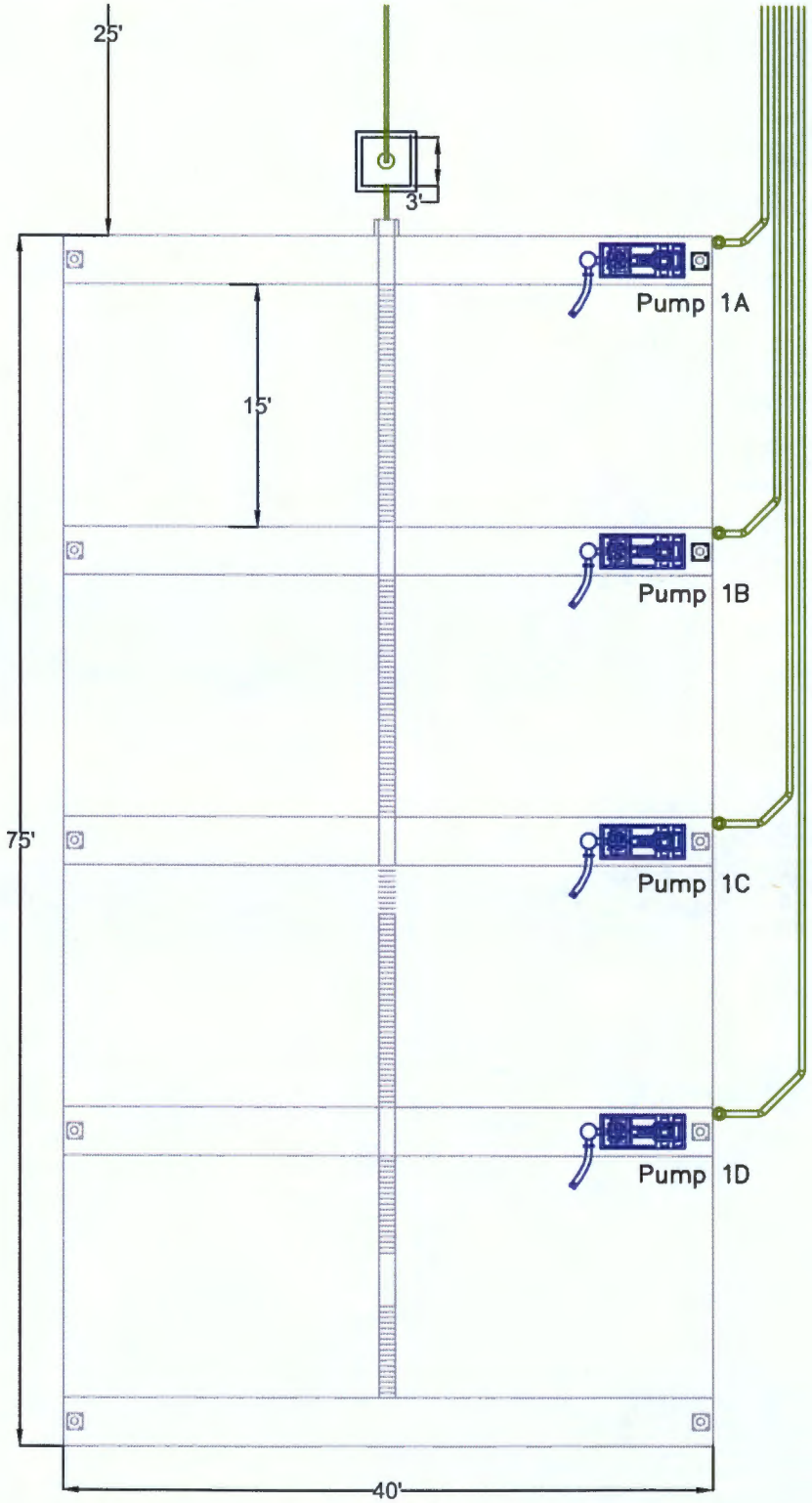
1000 BBL
Gunbarrel
TANK 7501
15'6"x30'
1000 BBL
TANK 3A
21'6"x16'
1000 BBL
TANK 2A
21'6"x16'
1000 BBL
TANK 2C
21'6"x16'
1000 BBL
TANK 1C
21'6"x16'
1000 BBL
Gunbarrel
TANK 7502
15'6"x30'
1000 BBL
TANK 2B
15'6"x16'
500 BBL
TANK 1B
15'6"x16'
500 BBL
TANK 1A
21'6"x16'
1000 BBL
8"
10"
3"
4"


25'
3'
15'
75'
40'
Pump 1A
Pump 1B
Pump 1C
Pump 1D

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VII – 3

Proposed Pressures

The proposed maximum injection pressure will be based on the NMOCD standard WH injection pressure at the equivalent of 0.20 psi/ft to the top perf or **1,124 psi**. **Rates will be limited only by the proposed maximum injection pressure.** In the future, HeLMS may opt to conduct a Step-Rate injection test, conducted in accordance with NMOCD regulations, to determine if the maximum injection pressure could be increased without evidence of fracturing the proposed injection interval.

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VII – 4

Injection Fluid & Receiving Formation

The injection fluid is to be locally produced waters from the Lower Delaware Brushy Canyon, Avalon Shale, Wolfcamp, Bone Spring Sands, Strawn and Atoka formations wells operated by various operators. Attached are water samples from the following wells in that area:

Operator	Well Name and Number	Location	Production Formation
Impetro Operating LLC	Wolfe Unit #6	Winkler Co., TX PSL Survey, Blk C23, Sec 24, A-1393	Bell Canyon
Marathon Oil Permian LLC	Madera 25 Federal Com #2H	B-25-26S-34E	Jabalina; Delaware
Devon Energy Production Company, LP	Ragin Cajun 13 Federal #1H	N-13-26S-34E	Jabalina; Delaware
Devon Energy Production Company, LP	Rattlesnake 13-12 Federal Com #1H	P-13-26S-34E	Jabalina; Delaware

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VII – 4

Martin Water Laboratories, Inc.

Analysts & Consultants since 1953
Bacterial & Chemical Analysis

TO:	Mike Stewart	LABORATORY NO.	17-12-187
ADDRESS:	P.O. Box 52808 Midland, TX 79710	SAMPLE RECEIVED:	12/19/17
COMPANY:	Helms Oil and Gas	RESULTS REPORTED:	12/21/17
LEASE:	Mustang Beckham Ranch	COUNTY, STATE:	
FORMATION:		FIELD OR POOL:	

DESCRIPTION OF SAMPLES

No. 1	Submitted water sample - taken 12/18/17 from Impetro Wolf Unit #6
No. 2	Submitted water sample - taken 12/18/17 from Marathon Madera Federal 25
No. 3	Submitted water sample - taken 12/18/17 from Devon Ragin Cajun 13 Federal
No. 4	Submitted water sample - taken 12/18/17 from Devon Rattlesnake 13-12 Fed

Chemical and Physical Properties (milligrams per liter)	No. 1	No. 2	No. 3	No. 4
Specific Gravity @ 60°F.	1.2060	1.1640	1.1640	1.1610
pH When Received	5.60	5.90	6.10	6.20
Bicarbonate as HCO_3	24	24	37	37
Total Hardness, as $CaCO_3$	100,000	54,000	54,000	51,500
Calcium, as Ca	34,000	17,400	17,400	16,600
Magnesium, as Mg	3,645	2,552	2,552	2,430
Sodium and/or Potassium	91,340	70,171	70,153	70,403
Sulfate, as SO_4	208	288	240	283
Chloride, as Cl	211,580	146,260	146,260	144,840
Iron, as Fe	63	2,517	134	56
Barium, as Ba	0	0	0	0
Total Dissolved Solids, Calculated	340,797	236,695	236,641	234,592
Hydrogen Sulfide	0.00	0.00	0.00	0.00
Resistivity, ohms/m @ 77°F.	0.042	0.051	0.051	0.051

REMARKS: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

By: Greg Ogden, B.S.

(432) 683-4521 * 709 W. Indiana, Midland, Texas 79701 * (fax) 682-8819
Remit to Address: P.O. Box 98, Midland, Texas 79702
Email: office@martinwaterlabs.com

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VII – 5

Chemical Analysis of Disposal Zone Formation Water

Injection will be into the Delaware Bell Canyon and Cherry Canyon formations. Delaware formation water is known to be compatible with the formation water of the locally produced Lower Delaware Brushy Canyon, Avalon Shale, Wolfcamp, Bone Spring Sands, Strawn and Atoka formations. Attached is a produced water sample from the nearest Bell Canyon / Cherry Canyon producer, Impetro – Wolfe Unit #6, which is located ± 8 miles S-SE of the proposed Beckham Ranch 20 SWD #1 in Section 24, Blk C-23, PSL Survey, Winkler Co., Texas (API No 42-495-32768).

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VII – 5

Martin Water Laboratories, Inc.

Analysts & Consultants since 1953
Bacterial & Chemical Analysis

TO:	Mike Stewart	LABORATORY NO.	17-12-187
ADDRESS:	P.O. Box 52808 Midland, TX 79710	SAMPLE RECEIVED:	12/19/17
COMPANY:	Helms Oil and Gas	RESULTS REPORTED:	12/21/17
LEASE:	Mustang Beckham Ranch	COUNTY, STATE:	
FORMATION:		FIELD OR POOL:	

DESCRIPTION OF SAMPLES

No. 1	Submitted water sample - taken 12/18/17 from Impetro Wolf Unit #6
No. 2	Submitted water sample - taken 12/18/17 from Marathon Madera Federal 25
No. 3	Submitted water sample - taken 12/18/17 from Devon Ragin Cajun 13 Federal
No. 4	Submitted water sample - taken 12/18/17 from Devon Rattlesnake 13-12 Fed

Chemical and Physical Properties (milligrams per liter)	No. 1	No. 2	No. 3	No. 4
Specific Gravity @ 60°F.	1.2060	1.1640	1.1640	1.1610
pH When Received	5.60	5.90	6.10	6.20
Bicarbonate as HCO_3	24	24	37	37
Total Hardness, as $CaCO_3$	100,000	54,000	54,000	51,500
Calcium, as Ca	34,000	17,400	17,400	16,600
Magnesium, as Mg	3,645	2,552	2,552	2,430
Sodium and/or Potassium	91,340	70,171	70,153	70,403
Sulfate, as SO_4	208	288	240	283
Chloride, as Cl	211,580	146,260	146,260	144,840
Iron, as Fe	63	2,517	134	56
Barium, as Ba	0	0	0	0
Total Dissolved Solids, Calculated	340,797	236,695	236,641	234,592
Hydrogen Sulfide	0.00	0.00	0.00	0.00
Resistivity, ohms/m @ 77°F.	0.042	0.051	0.051	0.051

REMARKS: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

By: Greg Ogden, B.S.

(432) 683-4521 * 709 W. Indiana, Midland, Texas 79701 * (fax) 682-8819
Remit to Address: P.O. Box 98, Midland, Texas 79702
Email: office@martinwaterlabs.com

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VIII

Geologic Data

1. Lithologic detail:

The proposed disposal will be into the Bell Canyon and Cherry Canyon formations.

The Delaware Mountain Group consists of moderate to well sorted, fine to very fine grained, poorly consolidated light gray to buff sands with thin interbedded siltstone, shale and limestone layers. The Delaware is split up into three predominant formations being the Bell Canyon, Cherry Canyon and Brushy Canyon. The marker for the top of the Bell Canyon is the Lamar Limestone member.

The lowest limestone member in the Bell Canyon is the Hegler Limestone which ranges in thickness throughout the area. The Manzanita limestone member is the marker typically used to define the top of the Cherry Canyon sand package. Porosities range from 14 to 24% and permeabilities range from 10 to 60 md in Lower Cherry Canyon sandstone reservoirs. Siltstones are prevalent throughout the Delaware Mountain Group and typically have porosities of less than 5%. These siltstones act as stratigraphic traps to fluid migration and are regionally extensive throughout the Delaware Mountain Group. Carbonate beds within the Delaware also serve as lateral and top seals that separate the massive sandstone members. Structural control of fluid migration is influenced by the regional eastward downward dip towards the Central Basin Platform. The Delaware Mountain Group is overlain by the Lamar Lime member and underlain by tight Bone Spring shales (Avalon) and Bone Spring carbonates.

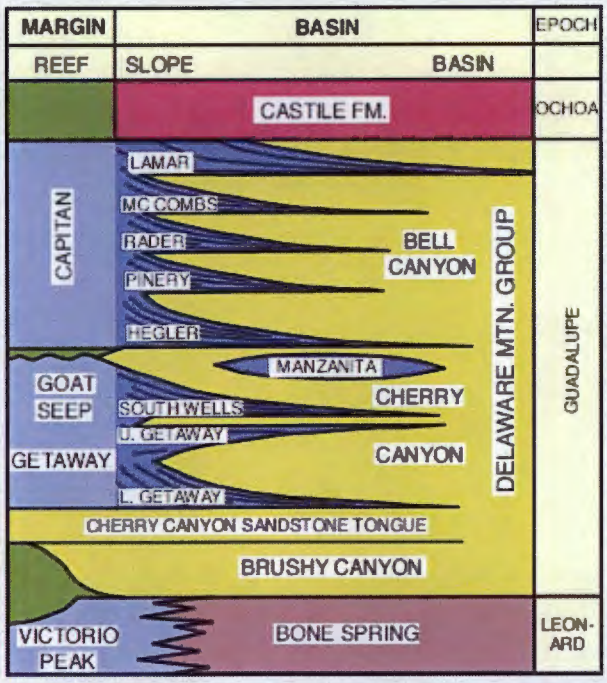
The production quality porosity in the Bell Canyon and Cherry Canyon formations in this deep portion of the Delaware Basin area are accompanied with low resistivity yielding high water saturations typically greater than 75%. No current or historic Bell Canyon or Cherry Canyon production is found within two (2) miles of the proposed well.

A type log was created from the offsetting Marathon Oil Beckham 19 #1 well (I-19-26S-35E) located approximately 2,500' SE from the Beckham Ranch 20 SWD #1 proposed location (Item VIII -1(a)). The type log displays the gamma ray, compensated neutron density, and high resolution lateral log array side-by-side. A digital LAS log containing gamma-ray and compensated neutron porosity curves was utilized to calculate net and gross pay based on gamma-ray and porosity cut-offs.

The gross footage between the bottom proposed perforation to the top of the Lower Brushy Canyon horizontal target zone in offsetting wells is approximately **1,635 feet**.

Confining unit barriers to flow were chosen and displayed on the type log based upon high gamma-ray siltstones and/or tight carbonates displaying low porosity and high resistivity (low permeability). These units are shown highlighted in purple on the type log. The net cumulative footage of low porosity and low permeability confining barriers was calculated to be approximately 429 feet from the bottom perforation to the top of the Lower Brushy Canyon horizontal target zone as shown on Item VIII -1(a).

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VIII



Diagrammatic representation of Guadalupian shelf margin to basin stratigraphic nomenclature in the Delaware basin region. After King (1948).

It should be noted that the proposed injection interval in the referenced well excludes the upper portion of the Bell Canyon formation which is locally called the Ramsey & Olds sandstones.

2. Geologic name: Delaware Mountain Group (Includes Bell Canyon, Cherry Canyon, and Brushy Canyon members)

3. Thickness: 3,786' (Top or Lamar to top of Bone Spring), 1,800' (Injection Interval)

4. Depth: Top of Bell Canyon is projected at 5,357 (-2,134' ss) at the proposed wellsite. See below Geological Prognosis (Item VIII -4(a)).

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VIII

Item VIII - 4(a)
Injection Well Proposed Tops
Helms Oil and Gas, LLC

Date: 11/08/17
Revised: 12/11/17
Geoscientist: Franklin

Well Name:	**Beckham Ranch 20 #1 SWD**
API:	30-025-
Prospect / Field:	
County:	Lea
State:	New Mexico
Surface Location:	1980' FNL & 660' FWL
Section:	20
Survey:	Congressional
Township:	26S
Range:	35E
Elevation:	KB: 3,193'
	GL: 3,180'

Formation	Depth	Subsea	Hydro-Carbons
			na
			na
Rustler	1,029'	2,164 '	na
USDW		3,193 '	na
Salado Salt	1,532'	1,661 '	na
Base Salt	3,900'	(707)'	na
Castille	4,775'	(1,582)'	na
Lamar	5,327'	(2,134)'	
Ramsey	5,357'	(2,164)'	Wet
Olds	5,402'	(2,209)'	Wet
Cherry Canyon	6,345'	(3,152)'	Wet
Manzanita	6,572'	(3,379)'	
TD	**7,500'**	(4,307)'	
Brushy Canyon			

Comparison Well:	**Beckham 19 #1**
API:	30-025-37080
Prospect / Field:	Jabalina SW
County:	Lea
State:	New Mexico
Surface Location:	1650' FSL & 1310' FEL
Section:	19
Survey:	Congressional
Township:	26S
Range:	35E
Elevation:	KB: 3,205'

Formation	Depth	Subsea
Rustler	1,037'	2,168 '
Salado Salt	1,540'	1,665 '
Base Salt	3,918'	(713)'
Castille	4,786'	(1,581)'
Lamar	5,337'	(2,132)'
Ramsey	5,368'	(2,163)'
Olds	5,413'	(2,208)'
Cherry Canyon	6,362'	(3,157)'
Manzanita	6,590'	(3,385)'
TD	15,823'	(12,618)'
Brushy Canyon	7,918'	(4,713)'

LATERAL LENGTH: Vertical

TESTS / AZIMUTH: As required

MUDLOGGING: NA

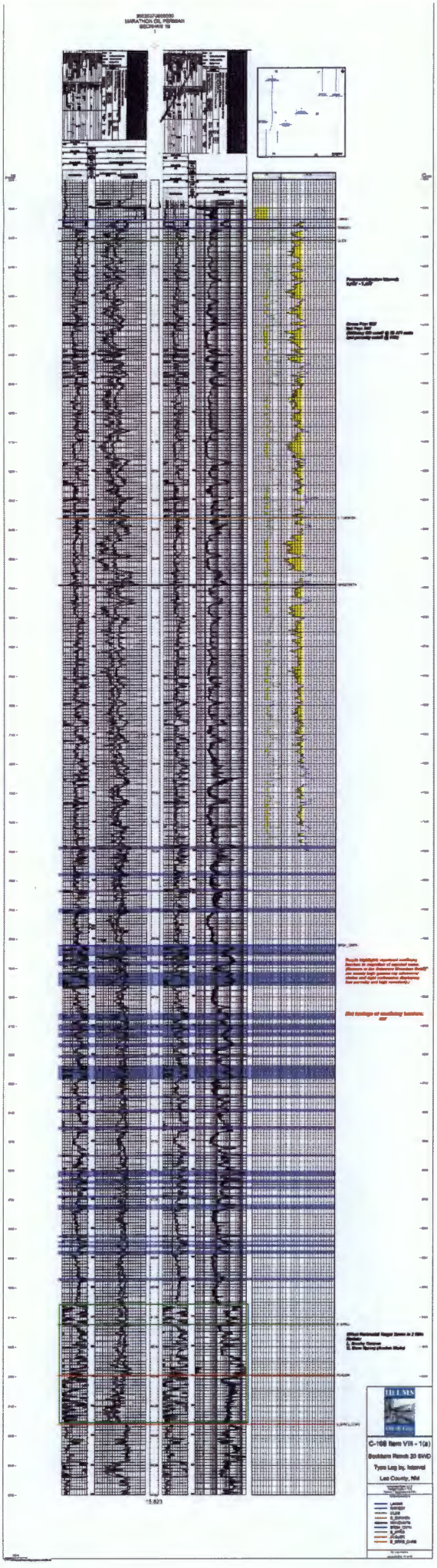
WIRELINE LOGS: **Open Hole:** Triple Combo - GR / SDL / DSN / DIL / MFL TD to 9-5/8" shoe. GR/DSN to Surface.
Cased Hole: CBL - GR / CNL / CCL (**TD to Surface**)

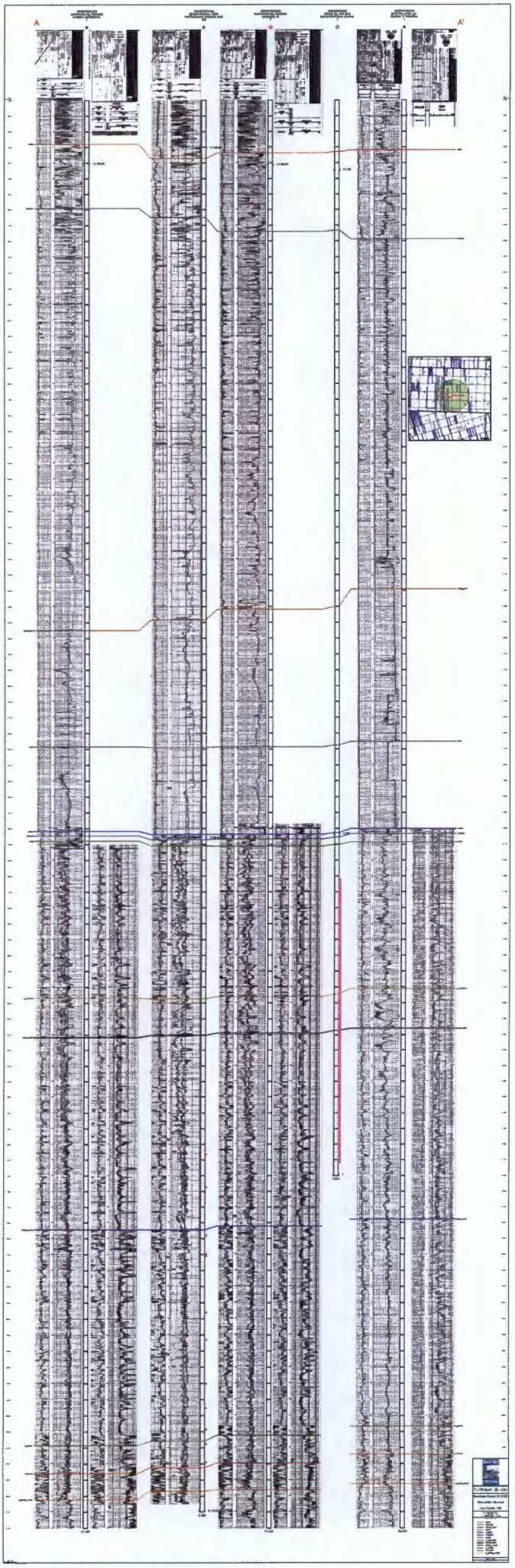
COMMENTS:

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item VIII

Attached is a structural cross-section A-A' (Item VIII - 4(b)) trending West to East through the proposed wellsite illustrating the formation tops as detailed on the Geo-Prog.

5. Geologic name and depth to bottom of all USDW overlying proposed injection zone and/or any knows to be immediately underlying injection interval: Santa Rosa (Minimum depth to fresh water in area is 230' and maximum depth is 250').


MARATHON OIL PERMIAN
SECTION 19
C-108 Item VIII - 1(a)
Buckhorn Ranch 20 SWD
Type Log by. Interval
Lea County, NM


A
A'

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item IX

Proposed Stimulation Program

The proposed Bell Canyon and Cherry Canyon injection intervals will be perforated as based on open hole log analysis for acceptable porosity and associated permeabilities. The perforated intervals will be segregated into 200' to 250' gross height stage intervals and each stage will be acid stimulated utilizing approximately 35 – 40 gals of 15% NEFE per net feet of perforated interval utilizing RNCB's and rock salt blocks to divert the acid and ensure that all perforations are "broken down" and open to the injection casing.

The stage acid stimulations will be down a 2-7/8" tubing workstring utilizing a retrievable bridge plug and stimulation packer to isolate each stage. Acid stimulation pressures / rates will be below the published frac gradient of 0.60 psi/ft.

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item X

Proposed Logging Program

If borehole conditions will allow, a standard "triple combo" open hole suite consisting of GR/DSN/SDL /DIL/Micro Log will be run in the 8-3/4" open hole from the proposed TD of 7,500' to the 9-5/8" intermediate casing shoe at a proposed depth of 5,430'. GR/CNL will be run from the 9-5/8" shoe to surface.

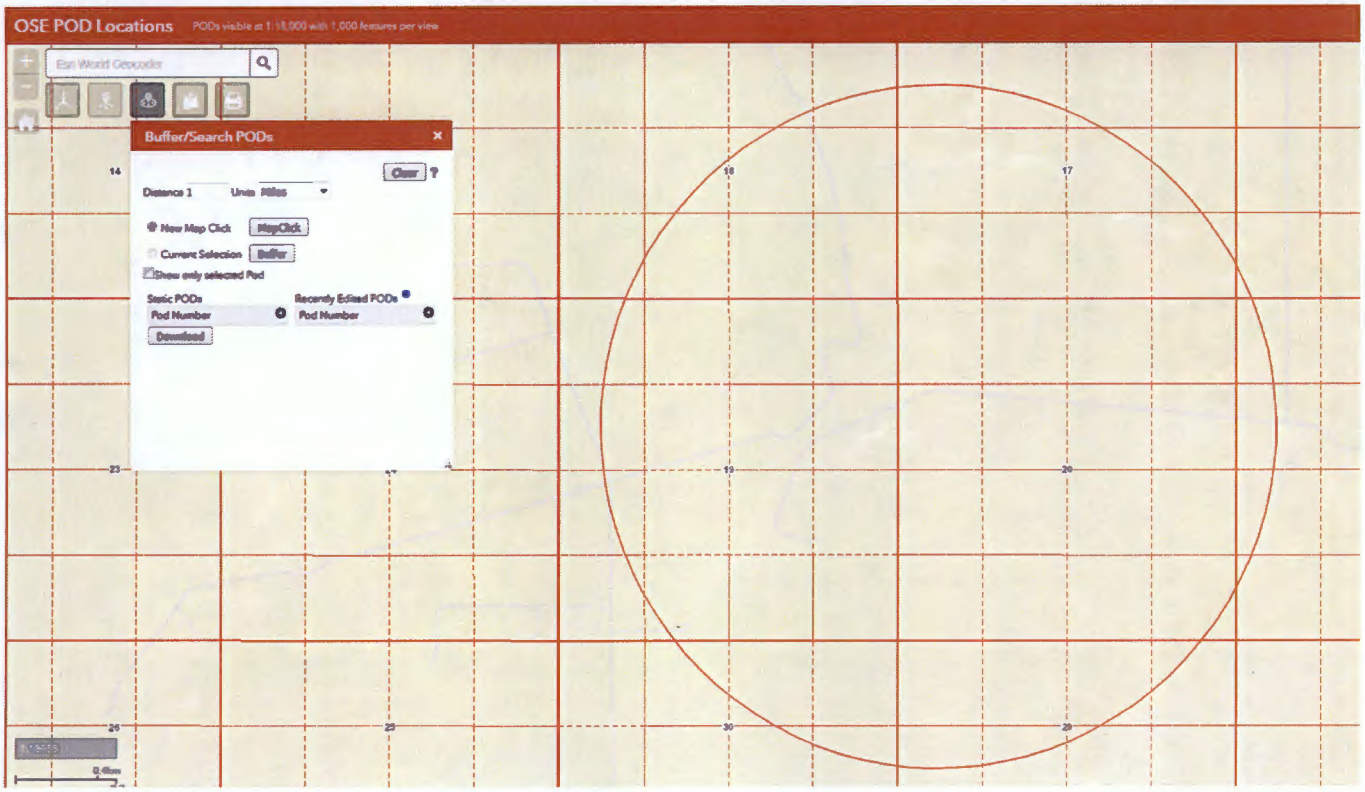
A cased hole GR/CCL/CNL/CBL log suite will be run on the well from the 7" injection casing PBTD to surface.

All well logs will be filed with the NMOCD after the drilling and completion of the well.

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item XI

Fresh Water Wells

Pursuant to the New Mexico Office of the State Engineer website there are no freshwater wells located within 1 mile of the proposed Beckham Ranch 20 SWD #1 (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/).



HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item XII

Geologic Affirmation

I have examined available geologic and engineering data and have found no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

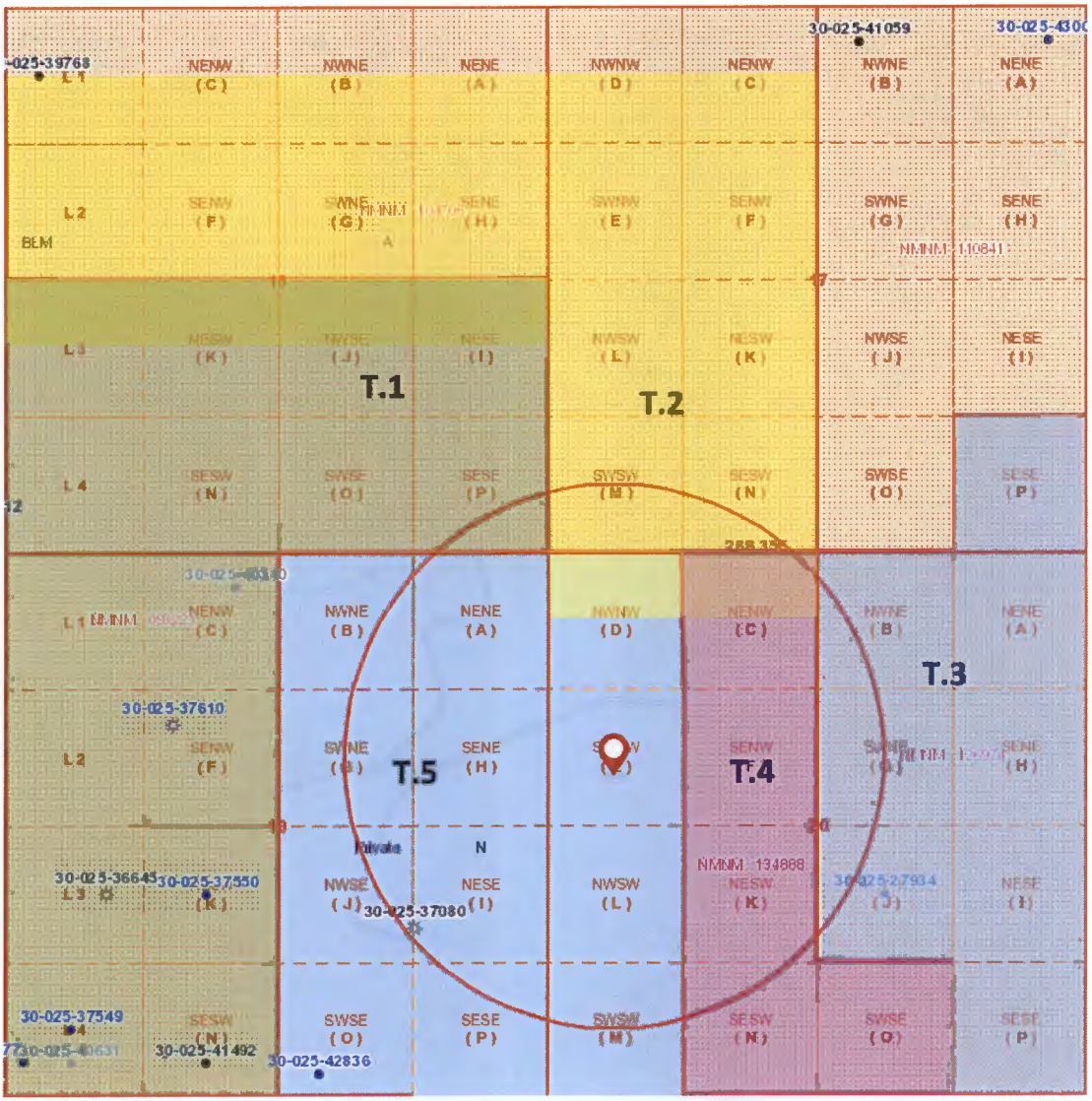
_____

John Franklin, Geologist
HeLMS Oil and Gas, LLC

Project: HeLMS Oil and Gas, LLC
Beckham Ranch 20 SWD
1/12/2018

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item XIII(a)

Offset Notification Map



HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item XIII(b)

Offset Notification Map Legend

Map Marker	BLM Lease Number	Lessee 1 / %	Lessee 2 / %	Lessee 3 / %	Lessee 4 / %	Lessee 5 / %
T.1	NMNM-093223	Black Mountain Operating LLC / 50%	Black Rock Capital Inc / 50%			
T.2	NMNM-104706	EOG Y Resources Inc / 40%	EOG A Resources Inc / 20%	Oxy Y-1 Company / 20%	EOG M Resources Inc / 16%	Sharbro Oil Ltd. Co. / 4%
T.3	NMNM-126974	EOG Y Resources Inc / 60%	EOG A Resources Inc / 20%	EOG M Resources Inc / 20%		
T.4	NMNM-134888	Devon Energy Prod Co LP / 100%				
T.5	Private Land	Beckham Ranch Inc.				

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item XIII(c)

Notification List

I certify that copies of the application in its entirety for the Beckham Ranch 20 SWD #1 in Lea County, NM, were sent via regular mail and certified mail to the parties below on _____.

Surface Owners: (T.5 on attached leasehold plat)

Beckham Ranch, Inc.
PO Box 1203
Jal, NM 88252

Offset Minerals Lessees & Operators:

BLM Lease NMNM-093223 (T.1 on attached leasehold plat)

Lessee
Black Rock Capital Inc.
16623 Cantrell Rd., Ste. 1-B
Little Rock, AR 72223

Black Mountain Operating LLC
500 Main St., Ste. 1200
Ft. Worth, TX 76102

Operator
Marathon Oil Permian LLC
5555 San Felipe Rd
Houston, TX 77056

Chevron Midcontinent LP
1400 Smith St.
Houston, TX 77002

BLM Lease NMNM-104706 (T.2 on attached leasehold plat)

Lessee
EOG A Resources Inc.
105 S. 4th St.
Artesia, NM 88210

EOG M Resources Inc.
105 S. 4th St.
Artesia, NM 88210

OXY Y-1 Company
PO Box 27570
Houston, TX 77227

HELMS OIL & GAS, LLC – Beckham Ranch 20 SWD #1
C-108 Item XIII(c)

Notification List

I certify that copies of the application in its entirety for the Beckham Ranch 20 SWD #1 in Lea County, NM, were sent via regular mail and certified mail to the parties below on _____.

EOG Y Resources Inc.
105 S. 4th St.
Artesia, NM 88210

Sharbro Oil Ltd. Co.
PO Box 840
Artesia, NM 88210

BLM Lease NMNM-126974 (T.3 on attached leasehold plat)

Lessee
EOG A Resources Inc.
105 S. 4th St.
Artesia, NM 88210

EOG M Resources Inc.
105 S. 4th St.
Artesia, NM 88210

EOG Y Resources Inc.
105 S. 4th St.
Artesia, NM 88210

BLM Lease NMNM-134888 (T.4 on attached leasehold plat)

Lessee
Devon Energy Prod. Co. LP
333 West Sheridan Ave.
Oklahoma City, OK 73102

Advertisement for Case No. _____

Case No. _____: Hearing to consider the application of Helms Oil & Gas, LLC for approval of a commercial saltwater disposal well in Unit E, Section 20, T26S, R35E, Lea County, New Mexico, 1,980 feet FNL & 660 feet FWL. The target zone for disposal is the Upper Delaware (Bell Canyon and Cherry Canyon) from 5,620 feet to a maximum depth of 7,420 feet. Maximum injection pressure will be 1,124 psi with a maximum rate limited by such pressure. The area is located approximately 13 miles southwest of Jal, New Mexico.

Exhibit B