District I
1625 N. French Drive, Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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-107A
Revised August 1, 2011

APPLICATION TYPE
___Single Well
___Establish Pre-Approved Pools
EXISTING WELLBORE
_X_Yes ___No

APPLICATION FOR DOWNHOLE COMMINGLING

H. L. Brown Operating, LLC — P.O. Box 2237 Midland, TX 79702
Operator — Address

Federal 27 | 2 | Unit L, Sec. 27, T-7-S R-37-E | Roosevelt, NM
Lease | Well No. | Unit Letter-Section-Township-Range | County

OGRID No. 213179 Property Code _____ API No. 30-041-20871 Lease Type: _X_Federal ____State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Bluitt Wolfcamp		Bluitt Devonian
Pool Code			
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	7945' – 8152'		8800' – 8933'
Method of Production (Flowing or Artificial Lift)	Sucker rod lift		Sucker rod lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)			
Producing, Shut-In or New Zone	S.I.		S.I.
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: 02/22/2019 Rates: 0/0/30	Date: Rates:	Date: 11/18/2019 Rates: 15/160/30
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 0 % Gas 50 %	Oil % Gas %	Oil 100 % Gas 50 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes__X__ No_____
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes_____ No_____

Are all produced fluids from all commingled zones compatible with each other? Yes__X__ No_____

Will commingling decrease the value of production? Yes_____ No__X__

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes__X__No_____

NMOCD Reference Case No. applicable to this well: _____

Attachments:
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Bailey Aguilar TITLE Production Analyst DATE 3-3-2022

TYPE OR PRINT NAME Bailey Aguilar TELEPHONE NO. (432) 688-3722

E-MAIL ADDRESS baguilar@hlboperating.com

Downhole Commingle Application

Federal 27 #2

Proposed date for work to begin: 04-01-2022

Procedure Description:

Downhole commingle existing wolfcamp perforations from 7,945'-7,974' ; 8,007'-8,022' ; 8,094'-8,102' ; 8,146'-8,152' ; with existing Devonian perforations from 8,662'-8,684' ; 8,800-8,826' ; 8,834'-8,842' ; 8,852'-8,854' ; 8,862'-8,865' in order to prevent waste and optimize ultimate recover form both zones.

1.) POOH w/ production equipment
2.) Drill out CIBP @ 8,770'
3.) Install production equipment
4.) Place on production

Downhole commingling will not reduce value of any production.

Federal 27 #2

2590' FSL & 330 FWL, Unit L, Sec 27, T-7S, R-37E, Roosevelt County, New Mexico

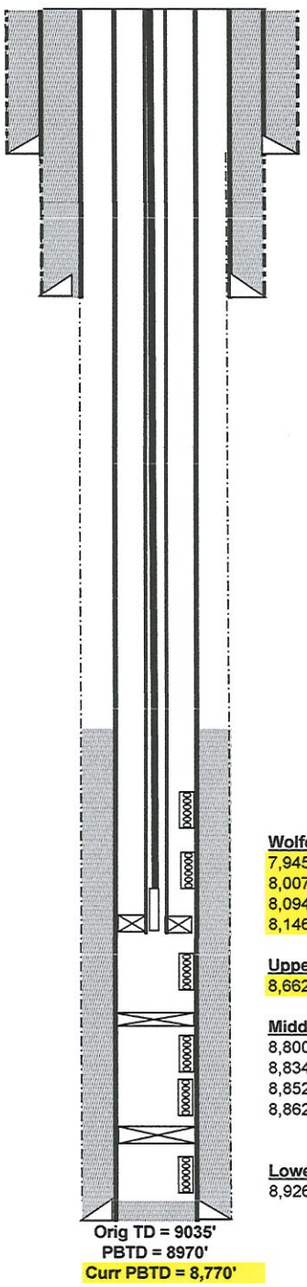
Field: Bluitt Wolfcamp | Elev: 4055', KB: 4066'(11') | API # 30-041-20871

Spud: 9/28/93
Initial Completion: 11/5/93

Status: Shut In

Production

Initial:	9 BO/2 BW/230 MCF
Current:	0 BO/0 BW/0 MCF
Cum:	3 MBO & 581 MMCF



Surface Casing
13-3/8",55#,J-55 @ 583'
500 sxs cement, circ 200 sxs
17-1/2" Hole

Intermediate Casing
8-5/8", 32, J-55 @ 3902'
1525 sxs, circ 200 sxs
12-1/4"/11" hole

TOC @ 7,810'

CIBP @ 8,770'

CICR @ 8,920'

Orig TD = 9035'
PBTD = 8970'
Curr PBTD = 8,770'

Tubing Detail

27	Jts 2 7/8" L-80	851
244	Jts 2 7/8" CS Hydrill	7696
1	2.25" SN	1
1	1.78 R Profile nipple	1
1	On/Off Tool	1
1	2 7/8" x 5 1/2" ASIX pkr	7
	Total	8,557
	SN	8,547

Rod Detail

1	1 1/4" polish rod w/1 1/2" x 8' liner	22
145	7/8" rods	3,625
182	3/4" rods	4,550
12	1 1/2" sinker bars	300
1	2 1/2"x 1 1/2" x 20' RHBC pump w/1" x 10' gas anchor	20
	Total	8,517

Wolfcamp
7,945,49,51,56,58,62,64,67,69,71,74 11' 44 holes
8,007-8,022 15' 30 holes
8,094-8,102 8' 32 holes
8,146-8,152 6' 24 holes

Upper Devonain
8,662-8,684 22' 22 holes

Middle Devonian
8,800-8,826' 26' 52 holes Abnd by CIBP @ 8,770'
8,834-8,842 8' 32 holes Cmt squeezed
8,852-8,854 2' 8 holes Cmt squeezed
8,862-8,865 3' 12 holes Cmt squeezed

Lower Devonian
8,926-8,933 7' 28 holes Cmt squeezed

Production Casing
5-1/2", 17# & 20#, K-55 & N-80/K-55 @ 9035'
760 sxs, TOC @ 7,810' by CBL 11-4-93
7-7/8" Hole

Federal 27 #2
Post Workover

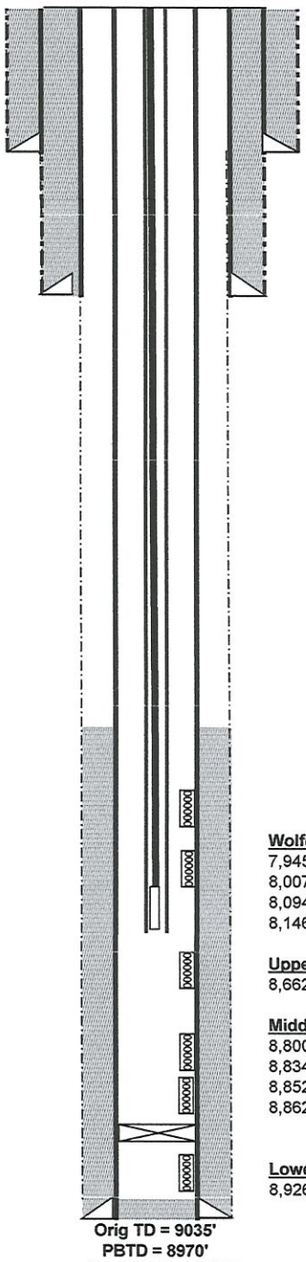
2590' FSL & 330 FWL, Unit L, Sec 27, T-7S, R-37E, Roosevelt County, New Mexico
Field: Bluitt Wolfcamp Elev: 4055', KB: 4066'(11') API # 30-041-20871

Spud: 9/28/93
Initial Completion: 11/5/93

Status: Producing

Production

Initial:	9 BO/2 BW/230 MCF
Current:	0 BO/0 BW/0 MCF
Cum:	3 MBO & 581 MMCF



Surface Casing
13-3/8",55#,J-55 @ 583'
500 sxs cement, circ 200 sxs
17-1/2" Hole

Intermediate Casing
8-5/8", 32, J-55 @ 3902'
1525 sxs, circ 200 sxs
12-1/4"/11" hole

TOC @ 7,810'

CICR @ 8,920'

Orig TD = 9035'
PBTD = 8970'
Curr PBTD = 8,920'

Tubing Detail

27	Jts 2 7/8" L-80	
244	Jts 2 7/8" CS Hydrill	
1	2.25" SN	
1	1.78 R Profile nipple	
1	On/Off Tool	
1	2 7/8" x 5 1/2" ASIX pkr	
	Total	0
	SN	0

Rod Detail

1	1 1/4" polish rod w/1 1/2" x 8' liner	
145	7/8" rods	
182	3/4" rods	
12	1 1/2" sinker bars	
1	2 1/2"x 1 1/2" x 20' RHBC pump w/1" x 10' gas anchor	
	Total	0

Wolfcamp

7,945,49,51,56,58,62,64,67,69,71,74	11'		44 holes
8,007-8,022	15'	30 holes	
8,094-8,102	8'	32 holes	
8,146-8,152	6'	24 holes	

Upper Devonain

8,662-8,684	22'	22 holes	

Middle Devonian

8,800-8,826'	26'	52 holes	Abnd by CIBP @ 8,770'
8,834-8,842	8'	32 holes	Cmt squeezed
8,852-8,854	2'	8 holes	Cmt squeezed
8,862-8,865	3'	12 holes	Cmt squeezed

Lower Devonian

8,926-8,933	7'	28 holes	Cmt squeezed

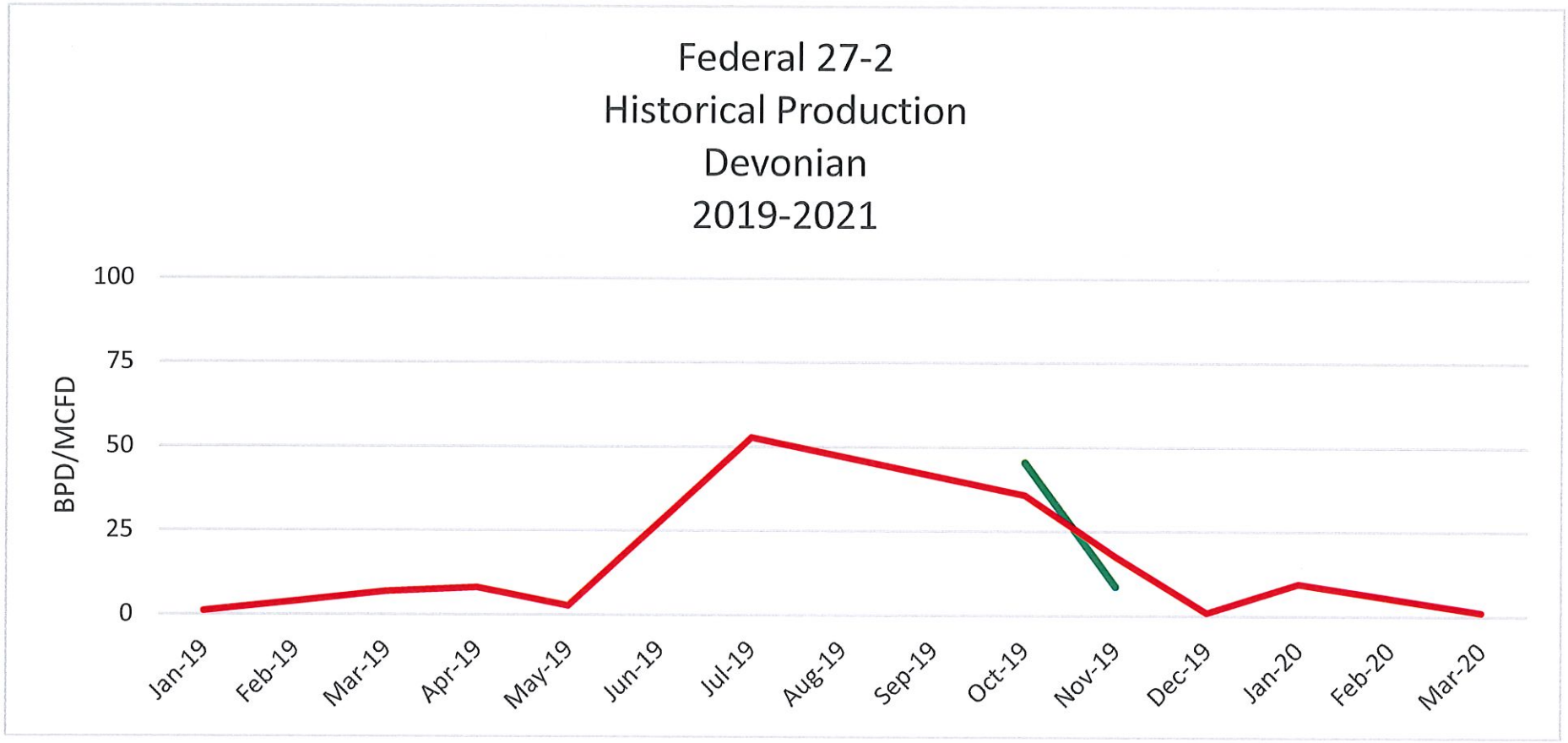
Production Casing
5-1/2", 17# & 20#, K-55 & N-80/K-55 @ 9035'
760 sxs, TOC @ 7,810' by CBL 11-4-93
7-7/8" Hole

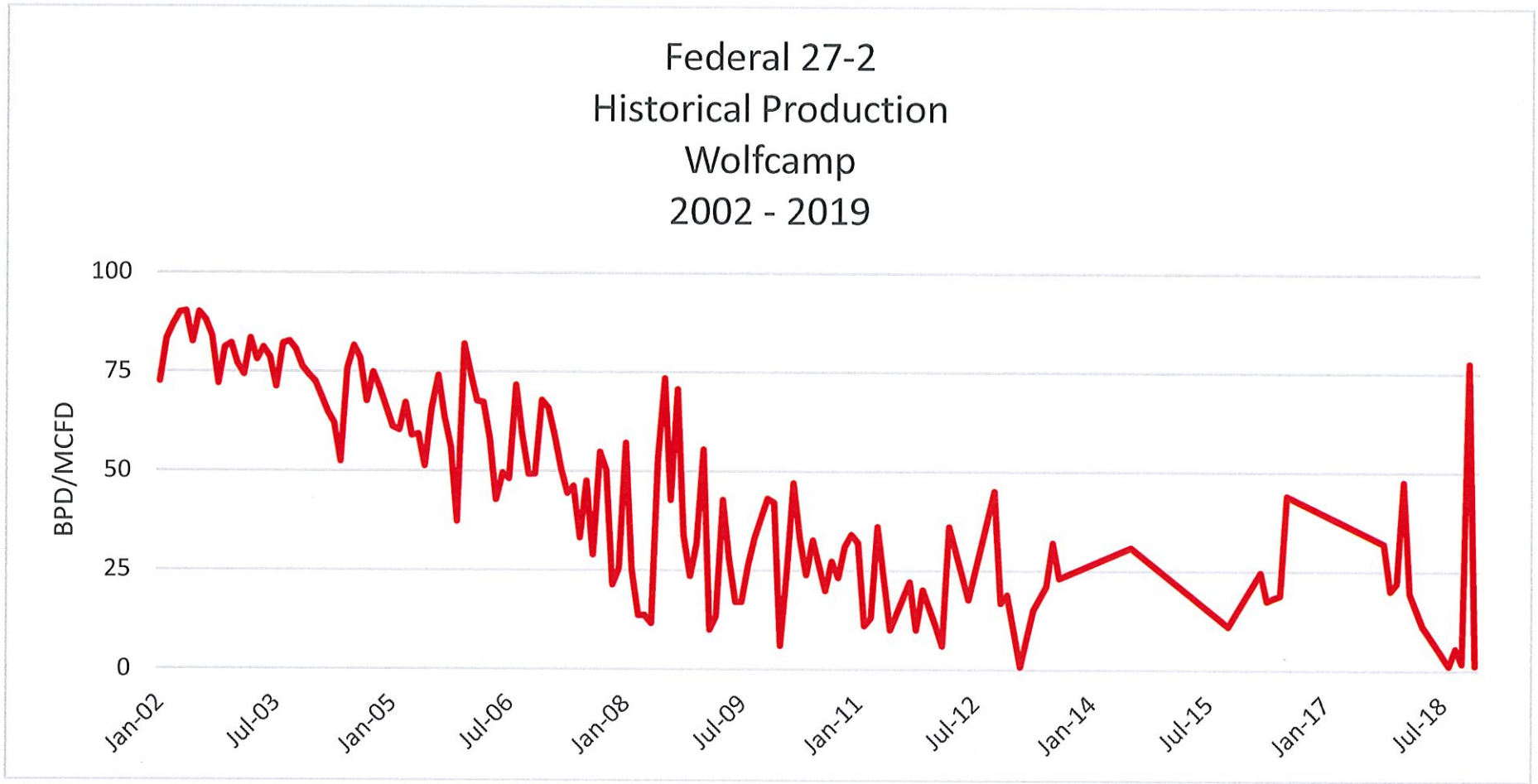
Federal 27 #2

Due to information from previous well production from each zone we would allocate as follows:

100% Oil production to Devonian

60% Gas production to Devonian ; 40% Gas production to Wolfcamp





Downhole Commingle Application

Federal 27 #2

Proposed date for work to begin: 04-01-2022

Procedure Description:

Downhole commingle existing wolfcamp perforations from 7,945'-7,974' ; 8,007'-8,022' ; 8,094'-8,102' ; 8,146'-8,152' ; with existing Devonian perforations from 8,662'-8,684' ; 8,800-8,826' ; 8,834'-8,842' ; 8,852'-8,854' ; 8,862'-8,865' in order to prevent waste and optimize ultimate recover form both zones.

1.) POOH w/ production equipment
2.) Drill out CIBP @ 8,770'
3.) Install production equipment
4.) Place on production

Downhole commingling will not reduce value of any production.

From: Engineer, OCD, EMNRD
To: Bailey Aguilar
Cc: McClure, Dean, EMNRD; Kautz, Paul, EMNRD; Wrinkle, Justin, EMNRD; Powell, Brandon, EMNRD; lisa@rwbyram.com; Glover, James; Paradis, Kyle O; Walls, Christopher
Subject: Approved Administrative Order DHC-5192
Date: Monday, April 25, 2022 10:43:40 AM
Attachments: DHC5192 Order.pdf

NMOCD has issued Administrative Order DHC-5192 which authorizes H L Brown Operating, LLC (213179) to downhole commingle production within the following well:

Well Name: **Federal 27 Com #2**
Well API: **30-041-20871**

The administrative order is attached to this email and can also be found online at OCD Imaging.

Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

H.L. Brown Operating, L.L.C.
Post Office Box 2237
Midland, Texas 79702-2237

April 21,2022

DHC Application DHC-5192

To whom it may concern,

I have included all necessary information that was requested to process our application. Please note the Wolfcamp is a dry formation only producing gas so oil gravity was not included for that zone. The gravity shown on oil haul tickets from 2021 show that the gravity was 39.5 & 40.1 for the Devonian formation.

Please let me know if you require any further information.

Thank you,

Bailey Aguilar

H.L. Brown Operating, L.L.C.
P.O. Box 2237
Midland, TX 79702
(432) 688-3722

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

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: H. L. Brown Operating, LLC **OGRID Number:** 213179
Well Name: Federal 27 #2 **API:** 30-041-20871
Pool: Devonian **Pool Code:**

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

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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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.

Bailey Aguilar
Print or Type Name

Bailey Aguilar
Signature

04/21/2022
Date

432-683-5216
Phone Number

baguilar@hlboperating.com
e-mail Address

H.L. Brown Operating, L.L.C.
P.O. Box 2237
Midland, Texas 79702-2237

April 21, 2022

State of New Mexico
Energy, Minerals and Natural Resources Department
Attn: Mr. Dean McClure

Re: Downhold Commingle DHC-5192

Hello,

I am sending this as a statement confirming that the ownership in our Federal 27 COM #2 well (API 30-041-20871) has the identical ownership in both the Deovonian and Wolfcamp pools/formations that we are commingling.

If you should have any questions, please email me at jwilson@hlboperating.com or call my phone directly at 432-688-3724.

Sincerely,

Julie Wilson, Land Assistant

/jlw

Encls.

Telephone (432) 688-3724 Fax (432) 688-3737

H.L. Brown Operating, L.L.C.
Post Office Box 2237
Midland, Texas 79702-2237

April 21, 2022

Mr. Dean McClure
Petroleum Engineering
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division

Re: Fluid Compatibility
H.L. Brown Operating
Federal 27-2
Downhole Commingling Application DHC-5192

Dear Mr. McClure,

Regarding H.L. Brown's commingling application, DHC-5192, with respect to the compatibility of fluids associated with the commingling of the Wolfcamp and Devonian formations, please be advised that there will not be any compatibility issues. The Wolfcamp is a dry gas zone and does not produce any oil or water. The Devonian zone produces oil, water, and gas. A water analysis for the Federal 27-6 is attached for your review. The Federal 27-6 is an offset well which produces from the Devonian.

In conjunction, the production optimization plan includes lift equipment capable of maintaining producing bottomhole pressures less than 100 psi. This will ensure that the producing fluid level is well below the Wolfcamp completion to prevent potential cross flow and maximize production from both the Wolfcamp and Devonian Completions.

Should you have additional questions, please do not hesitate to contact me at the numbers below.

Sincerely,

4/21/22

Jeff Ryan
Operations Manager
H.L. Brown Operating Inc
432-683-5216 – office
432-664-6737 - cell

BAKER HUGHES

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

Upstream Chemicals

REPORT DATE: 6/11/2020

COMPLETE WATER ANALYSIS REPORT SSP v.2010

Report Completed With Exception

CUSTOMER:	H.L. BROWN OPERATING, L.L.C.	ACCOUNT REP:	CODY D BOUNDS
DISTRICT:	NORTH PERMIAN	SAMPLE ID:	202001044964
AREA/LEASE:	FEDERAL	SAMPLE DATE:	5/28/2020
SAMPLE POINT NAME	FEDERAL 27-6	ANALYSIS DATE:	6/9/2020
SITE TYPE:	WELL SITES	ANALYST:	AT
SAMPLE POINT DESCRIPTION:	WELL HEAD		

NO PH VALUE GIVEN, UNABLE TO RUN SSP CALCULATIONS.

H.L. BROWN OPERATING, L.L.C., FEDERAL, FEDERAL 27-6

FIELD DATA

Initial Temperature (°F):	250
Final Temperature (°F):	80
Initial Pressure (psi):	100
Final Pressure (psi):	15
pH:	
pH at time of sampling:	Needs pH

ALKALINITY BY TITRATION:	mg/L	meq/L
Bicarbonate (HCO_3^-):	ND	
Carbonate (CO_3^{2-}):	ND	
Hydroxide (OH^-):	ND	

aqueous CO_2 (ppm):	ND
aqueous H_2S (ppm):	ND
aqueous O2 (ppb):	ND
Calculated TDS (mg/L):	83599
Density/Specific Gravity (g/cm³):	1.0091
Measured Specific Gravity	1.0598
Conductivity (mmhos):	ND
Resistivity:	ND
MCF/D:	No Data
BOPD:	No Data
BWPD:	No Data

ANALYSIS OF SAMPLE

ANIONS:	mg/L	meq/L
Chloride (Cl^-):	50902.1	1435.9
Sulfate (SO_4^{2-}):	1106.1	23.0
Borate (H_3BO_3):	63.2	1.0
Fluoride (F^-):	ND	
Bromide (Br^-):	ND	
Nitrite (NO_2^-):	ND	
Nitrate (NO_3^-):	ND	
Phosphate (PO_4^{3-}):	ND	
Silica (SiO_2):	ND	

ORGANIC ACIDS:	mg/L	meq/L
Formic Acid:	ND	
Acetic Acid:	ND	
Propionic Acid:	ND	
Butyric Acid:	ND	
Valeric Acid:	ND	

CATIONS:	mg/L	meq/L
Sodium (Na^+):	26512.3	1153.7
Potassium (K^+):	668.5	17.1
Magnesium (Mg^{2+}):	732.1	60.3
Calcium (Ca^{2+}):	3397.4	169.5
Strontium (Sr^{2+}):	132.3	3.0
Barium (Ba^{2+}):	0.7	0.0
Iron (Fe^{2+}):	143.3	5.1
Manganese (Mn^{2+}):	3.8	0.1
Lead (Pb^{2+}):	ND	
Zinc (Zn^{2+}):	0.0	0.0
Aluminum (Al^{3+}):	0.0	0.0
Chromium (Cr^{3+}):	ND	
Cobalt (Co^{2+}):	ND	
Copper (Cu^{2+}):	0.7	0.0
Molybdenum (Mo^{2+}):	ND	
Nickel (Ni^{2+}):	ND	
Tin (Sn^{2+}):	ND	
Titanium (Ti^{2+}):	ND	
Vanadium (V^{2+}):	ND	
Zirconium (Zr^{2+}):	ND	
Lithium (Li):	14.6	
Total Hardness:	11661	N/A

Anion/Cation Ratio: 1.04

ND = Not Determined

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

Conditions		Barite ($BaSO_4$)		Calcite ($CaCO_3$)		Gypsum ($CaSO_4 \cdot 2H_2O$)		Anhydrite ($CaSO_4$)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	0.49	2.972	0.02	1.359	-2.22	0.000	-2.47	0.000
99°F	24 psi	0.33	2.244	0.08	6.152	-2.23	0.000	-2.39	0.000
118°F	34 psi	0.21	1.510	0.18	13.086	-2.22	0.000	-2.30	0.000
137°F	43 psi	0.10	0.811	0.30	20.398	-2.20	0.000	-2.19	0.000
156°F	53 psi	0.02	0.182	0.42	27.491	-2.18	0.000	-2.08	0.000
174°F	62 psi	-0.04	0.000	0.55	34.125	-2.15	0.000	-1.95	0.000
193°F	72 psi	-0.09	0.000	0.68	40.204	-2.12	0.000	-1.82	0.000
212°F	81 psi	-0.12	0.000	0.83	46.118	-2.09	0.000	-1.69	0.000
231°F	91 psi	-0.15	0.000	0.99	51.325	-2.05	0.000	-1.55	0.000
250°F	100 psi	-0.16	0.000	1.14	55.882	-2.01	0.000	-1.40	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)
80°F	15 psi	-1.25	0.000	-3.08	0.000	1.55	1.906	0.69	28.844
99°F	24 psi	-1.25	0.000	-3.10	0.000	1.51	1.900	0.82	32.658
118°F	34 psi	-1.23	0.000	-3.12	0.000	1.53	1.904	0.97	36.626
137°F	43 psi	-1.21	0.000	-3.12	0.000	1.59	1.912	1.12	40.114
156°F	53 psi	-1.18	0.000	-3.13	0.000	1.66	1.921	1.27	43.017
174°F	62 psi	-1.13	0.000	-3.13	0.000	1.74	1.930	1.42	45.368
193°F	72 psi	-1.08	0.000	-3.12	0.000	1.84	1.938	1.56	47.240
212°F	81 psi	-1.01	0.000	-3.11	0.000	1.96	1.945	1.70	48.831
231°F	91 psi	-0.95	0.000	-3.10	0.000	2.08	1.951	1.84	50.054
250°F	100 psi	-0.87	0.000	-3.09	0.000	2.20	1.956	1.96	50.992

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; $\%CO_2$ is not included in the calculations.

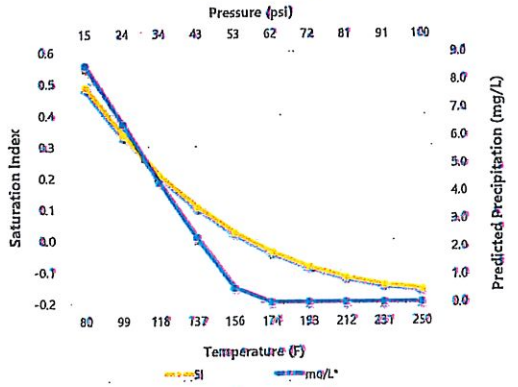
ScaleSoftPitzer™ SSP2010

Comments:

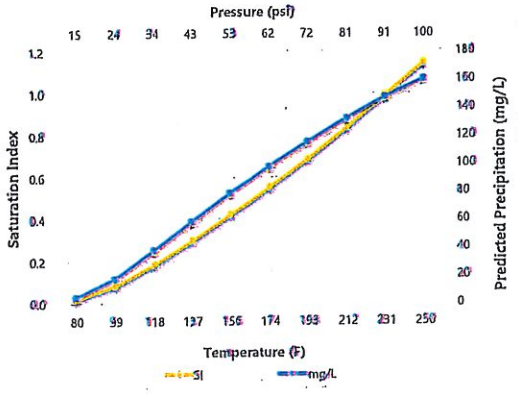
NO PH VALUE GIVEN, UNABLE TO RUN SSP CALCULATIONS.

SAMPLE ID: 43979 H.L. BROWN OPERATING, L.L.C., FEDERAL, FEDERAL 27-6

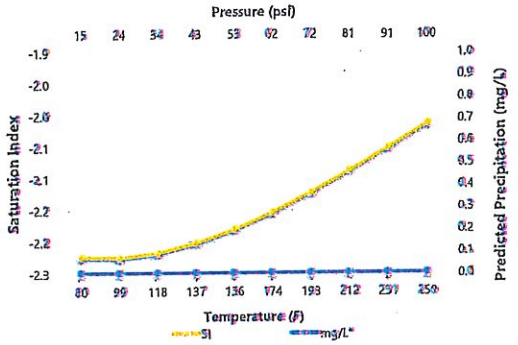
Barite (BaSO4)



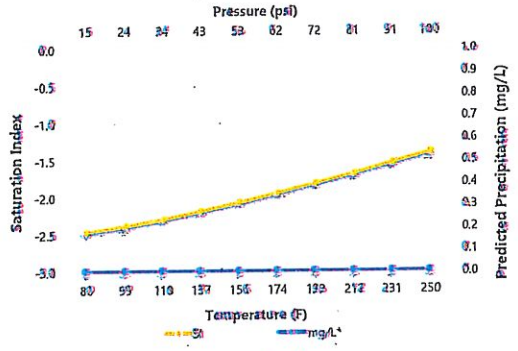
Calcite (CaCO3)



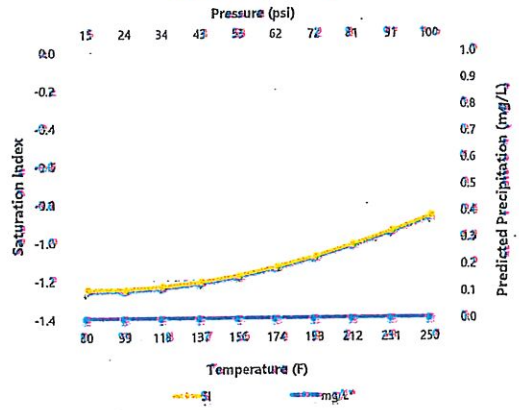
Gypsum (CaSO4·2H2O)



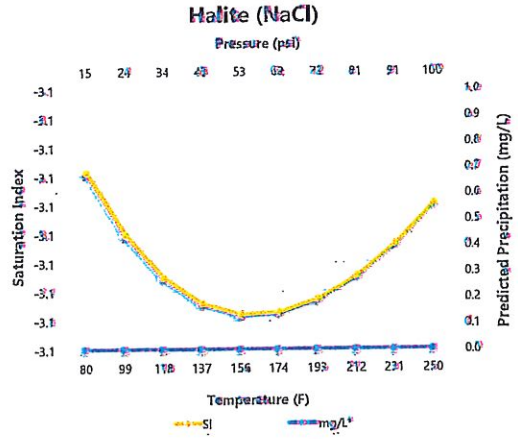
Anhydrite (CaSO4)



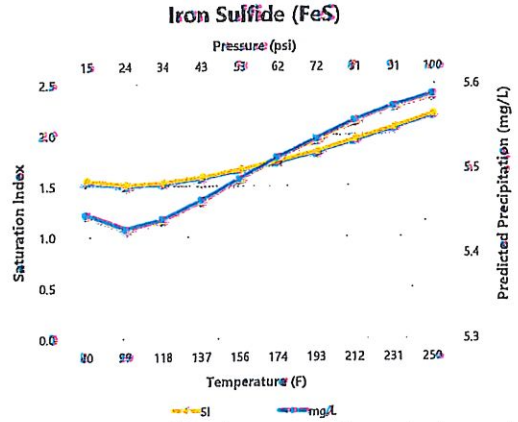
Celestite (SrSO4)



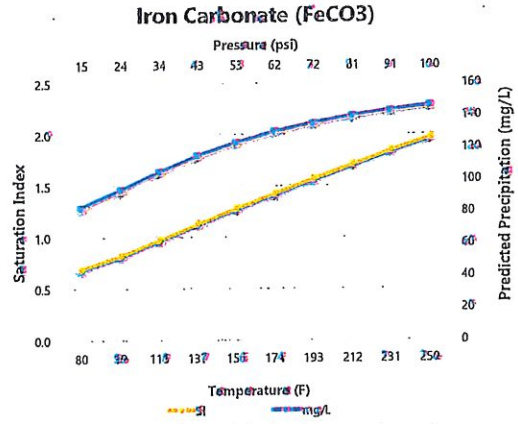
Halite (NaCl)



Iron Sulfide (FeS)



Iron Carbonate (FeCO3)



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

Well Name: FEDERAL 27 COM	**Well Location:** T7S / R37E / SEC 27 / NWSW /	**County or Parish/State:** ROOSEVELT / NM
Well Number: 2	**Type of Well:** CONVENTIONAL GAS WELL	**Allottee or Tribe Name:**
Lease Number: NMNM54449	**Unit or CA Name:** FEDERAL 27 COM	**Unit or CA Number:** NMNM91048
US Well Number: 300412087101S2	**Well Status:** Producing Gas Well	**Operator:** H L BROWN OPERATING, LLC

Notice of Intent

Sundry ID: 2659426

Type of Submission: Notice of Intent

Type of Action: Commingling (Subsurface)

Date Sundry Submitted: 03/01/2022

Time Sundry Submitted: 12:49

Date proposed operation will begin: 04/01/2022

Procedure Description: Downhole commingle existing wolfcamp perforations from 7,945-7,974' ; 8,007-8,022' ; 8,094-8,102' ; 8,146-8,152' with Devonian perforations from 8,662-8,684' ; 8,800-8,826' ; 8,834-8,842' ; 8,852-8,854' ; 8,862-8,865' in order to prevent waste and optimize ultimate recovery from both zones. 1.) POOH w/ production equipment 2.) Drill out CIBP @ 8,770' 3.) Install production equipment 4.) Place on production

Notice to
BLM 3-1-22
BA

Well Name: FEDERAL 27 COM	**Well Location:** T7S / R37E / SEC 27 / NWSW /	**County or Parish/State:** ROOSEVELT / NM
Well Number: 2	**Type of Well:** CONVENTIONAL GAS WELL	**Allottee or Tribe Name:**
Lease Number: NMNM54449	**Unit or CA Name:** FEDERAL 27 COM	**Unit or CA Number:** NMNM91048
US Well Number: 300412087101S2	**Well Status:** Producing Gas Well	**Operator:** H L BROWN OPERATING, LLC

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature:

Signed on:

Name: H L BROWN OPERATING, LLC

Title: Production Analyst

Street Address: 300 W LOUISIANA

City: MIDLAND **State:** TX

Phone: (432) 688-3722

Email address: BAguilar@HLBOperating.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: JENNIFER SANCHEZ

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5756270237

BLM POC Email Address: j1sanchez@blm.gov

Disposition: Sundry Returned

Disposition Date: 03/01/2022

Signature: null

Submit to Appropriate
District Office
State Lease – 4 copies
Fee Lease – 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
H.L. BROWN, JR.	FEDERAL 27	2

Unit Letter	Section	Township	Range	County
L	27	7 SOUTH	37 EAST NMPM	ROOSEVELT

Actual Footage Location of Well:
2590 feet from the SOUTH line and 330 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
4054.7'	North Bluitt	Siluro - Devonian	~~320~~ 80 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

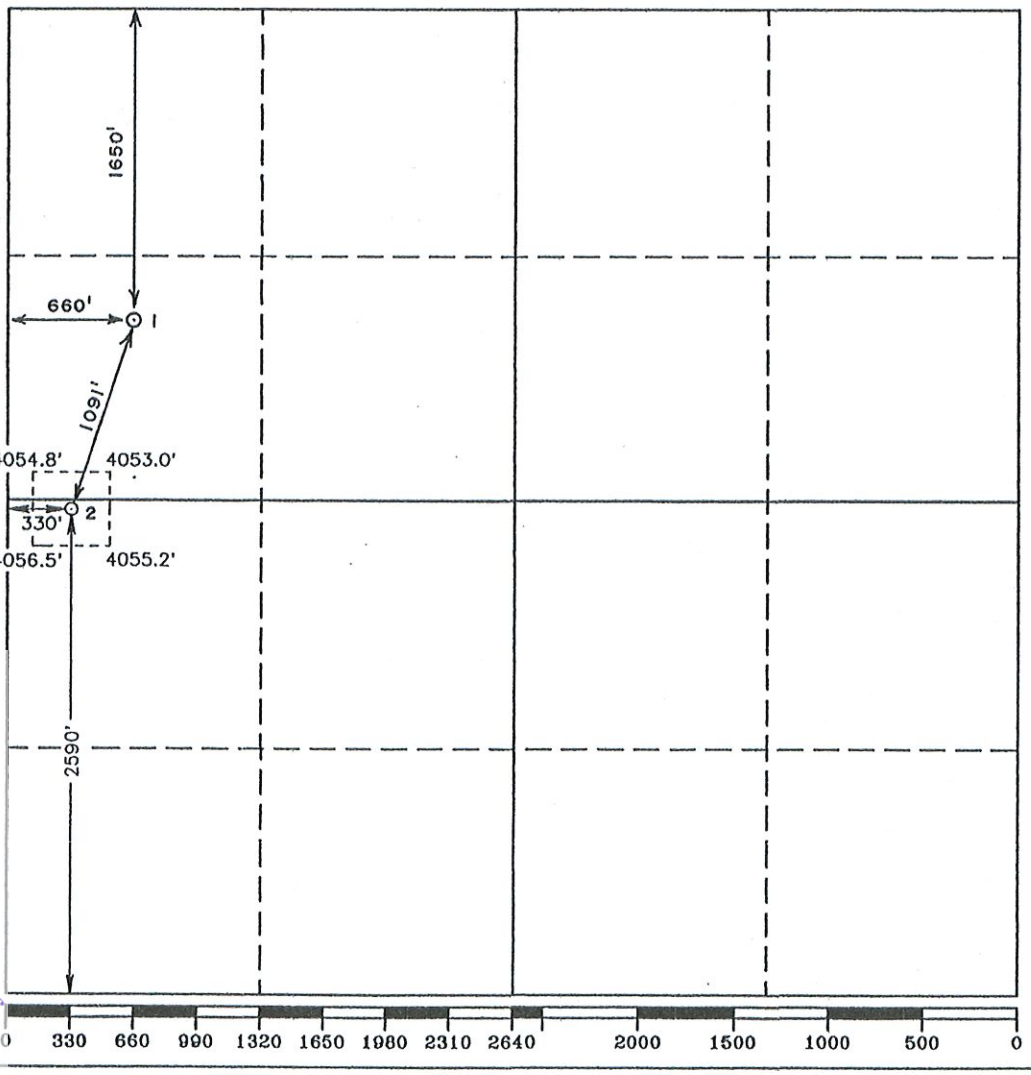
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary. _____

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature: John T. Gray
Printed Name: John T. Gray
Position: Production Engineer
Company: H. L. Brown, Jr.
Date: May 28, 1993

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: MAY 22, 1993

Signature & Seal of Professional Surveyor: GARY L. JONES, NEW MEXICO, 7977, REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. JOHN W. WEST, 676
RONALD J. EIDSON, 3239
GARY L. JONES, 7977

93-11-0933

Submit to Appropriate District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
H.L. BROWN, JR.	FEDERAL 27	2

Unit Letter	Section	Township	Range	County
L	27	7 SOUTH	37 EAST NMPM	ROOSEVELT

Actual Footage Location of Well:
2590 feet from the SOUTH line and 330 feet from the WEST line 848 12/3

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
4054.7'	~~Montoya~~ Bluitt (DD 12/30/93)	~~Siluro - Devonian~~ Wolfcamp 848 12/30/93	~~320~~ ~~80~~ 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

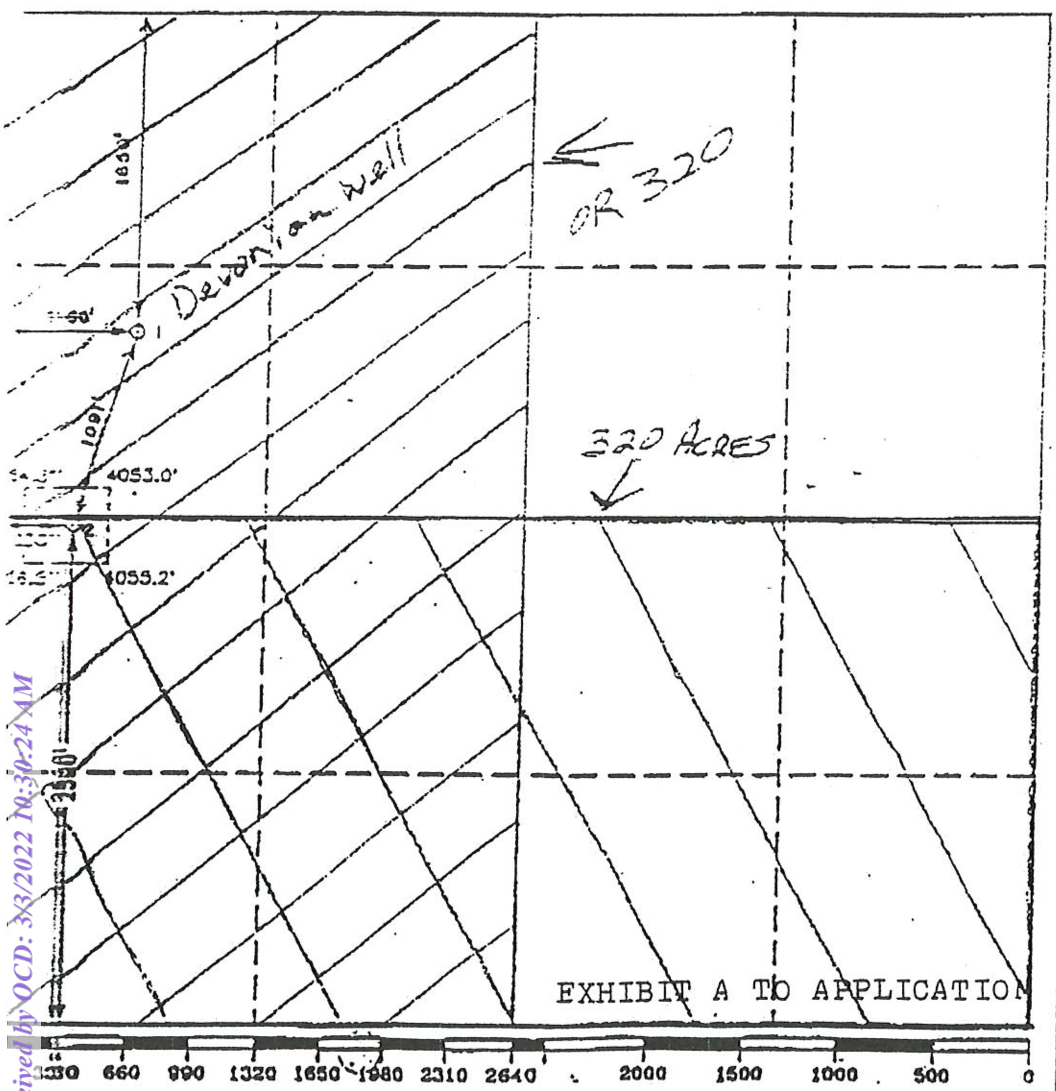
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation ____________

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary. ____________

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature [signature]

Printed Name
John T. Gray

Position
Production Engineer

Company
H. L. Brown, Jr.

Date
May-28, 1993

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
MAY 22, 1993

Signature & Seal of Professional Surveyor
[seal: GARY L. JONES, NEW MEXICO, 7977, REGISTERED PROFESSIONAL LAND SURVEYOR] [signature]

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. JONES 7977

93-11-0933

LABORATORY SERVICES
Natural Gas Analysis

www.permianls.com
575.397.3713 2609 W Marland Hobbs NM 88240

For: American Valve & Meter
Attention: Jerry Martin
P. O. Box 166
Hobbs, New Mexico 88241

Sample: Sta#
Identification: Federal 27 # 2
Company: HL Brown
Lease:
Plant:

Sample Data:
Sample Date: 11/30/2018
Analysis Date: 12/3/2018
Sample Temp:
Sample Press.: 50 PSIA

Sampled by: D Stewart
Analysis by: T Galvan
Atmos Temp:
Sample Time:

H2S = 2 PPM

Press. Base: 14.73

Component Analysis

		Mol Percent	GPM Real	GPM Ideal
Hydrogen Sulfide	H2S			
Nitrogen	N2	7.496		
Methane	C1	67.753		
Carbon Dioxide	CO2	0.239		
Ethane	C2	8.039	2.149	2.144
Propane	C3	5.465	1.505	1.502
I-Butane	IC4	1.148	0.376	0.375
N-Butane	NC4	3.756	1.184	1.181
I-Pentane	IC5	1.458	0.528	0.532
N-Pentane	NC5	1.996	0.866	0.722
Hexanes Plus	C6+	2.650	1.150	1.147
		100.000	7.758	7.603

REAL BTU/CU.FT.

At 14.65	1398.7 Dry 1375.8 Wet
At 14.696	1403.1 Dry 1380.1 Wet
At 14.73	1406.4 Dry 1383.3 Wet

Specific Gravity:
Calculated (Real) 0.891 / (Ideal) 0.887

Remarks:

wolfcamp Gas

CRITICAL CONTROL Energy Services

C6+ Gas Analysis Report

Critical Control Energy Services

Bossier City, Louisiana
1408 Alpine Boulevard
Bossier City, LA 71111

Report Date: Oct 1, 2021 4:33p

Client:	H.L. BROWN	Date Sampled:	Sep 21, 2021
Client Code:	2701	Analysis Date:	Sep 28, 2021
Site:	FEDERAL 27-2	Collected By:	DB
Field:	130 - BLUITT	Date Effective:	Oct 1, 2021 12:00a
Meter:	27-2	Source Pressure (PSI):	50.0
Source Laboratory:	Bossier City, LA	Source Temp (°F):	55
Lab File No:	**517326268**	Field H2O (lb/MMSCFD):	
Cylinder No:	2575		
Analysis Status:	good		
Sample Type:	Spot		
Measurement Analyst:	Ashley Free		

Component	Mol %	Liquid Recovery GPM
H2S (H2S)	0.0025	0.0000
Nitrogen (N2)	7.7382	0.0000
CO2 (CO2)	3.0463	0.0000
Methane (C1)	68.6319	0.0000
Ethane (C2)	8.5725	2.3474
Propane (C3)	5.9476	1.6778
I-Butane (IC4)	0.8875	0.2974
N-Butane (NC4)	2.6250	0.8474
I-Pentane (IC5)	0.6519	0.2441
N-Pentane (NC5)	0.8174	0.3034
Hexanes Plus (C6+)	1.0792	0.4822
TOTAL	100.0000	6.1997

Analytical Results at Base Conditions (Real)

BTU/SCF (Dry):	1,228.1085 BTU/ft³
BTU/SCF (Saturated):	1,207.1917 BTU/ft³
PSIA:	14.696 PSI
Temperature (°F):	60.0 °F
Z Factor (Dry):	0.99603
Z Factor (Saturated):	0.99565

Analytical Results at Contract Conditions (Real)

BTU/SCF (Dry):	1,255.7142 BTU/ft³
BTU/SCF (Saturated):	1,234.8068 BTU/ft³
PSIA:	15.025 PSI
Temperature (°F):	60.0 °F
Z Factor (Dry):	0.99594
Z Factor (Saturated):	0.99566

Calculated Specific Gravities at Contract Conditions

Ideal Gravity:	0.8227	Real Gravity:	0.8256
Molecular Wt:	23.8271	lb/lbmol	

Methods, standards, and uncertainties based on GPA 2261-13.
Analytical Calculations performed in accordance with GPA 2172-09.

Source	Date	Notes
Bossier City, LA	Sep 28, 2021 12:00 am	OVER RANGED STAIN TUBE

Devonian Gas

From: Bailey Aguilar
To: McClure, Dean, EMNRD
Subject: RE: [EXTERNAL] RE: downhole commingling application DHC-5192
Date: Friday, April 22, 2022 7:16:56 AM

Mr. McClure,

Yes, it is MCFD on the graphs. And also yes for the predicted production being allocated from each formation.
Please let me know if you have any further questions.

Thank you,

Bailey

From: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>
Sent: Thursday, April 21, 2022 3:31 PM
To: Bailey Aguilar <baguilar@hlboperating.com>
Subject: RE: [EXTERNAL] RE: downhole commingling application DHC-5192

Ms. Aguilar,

The historical production has its y-axis labeled as BPD/MCFD like the inverse of GOR. Are these graphs depicting MCFD instead? If so, was the 50% allocation split derived from a predicted production of ~25 MCFD from each formation then?

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

From: Bailey Aguilar <baguilar@hlboperating.com>
Sent: Thursday, April 21, 2022 9:56 AM
To: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>
Subject: [EXTERNAL] RE: downhole commingling application DHC-5192

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning Mr. McClure,

I have attached all the requested documents.
The data in the graphs was obtained from this well.
As for the inconsistency in production percentage the correct percentage is as follows:

50% Gas to Devonian 50% Gas to Wolfcamp

100% Oil to Devonian 0% Oil to Wolfcamp

Please let me know if you require any further information.

Thank you!

Bailey

From: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>
Sent: Tuesday, April 19, 2022 1:28 PM
To: Bailey Aguilar <baguilar@hlboperating.com>
Subject: downhole commingling application DHC-5192

Ms. Aguilar,

I am reviewing downhole commingling application DHC-5192 which involves the commingling of 2 pools within the Federal 27 Com #2 (30-041-20871) and is operated by H L Brown Operating, LLC (213179).

Please provide the following:

- BTU and gravity values for the gas and oil from these two pools; they may be estimated based off neighboring production.
- A statement from a landman or other qualified person confirming that ownership is identical between these two pools for this well.
- A C-102 for each pool.
- An analysis report of a water sample from each of the pools which may be obtained from neighboring wells. This analysis should include the dissolved solids.
- A statement from an engineer or other qualified person regarding the compatibility between the fluids and between the fluids and formations which may include a scalability test and consideration for damage to any of the formations due to swelling of clays, precipitation, and any other potential damaging factors.
- An analysis report of a gas sample from each of the pools which may be obtained from neighboring wells. This analysis should include the composition of the gas including quantity of H2S, C02, and N2.
- A completed admin checklist. A blank one has been attached to this email.
- Confirmation that the BLM has been notified of this application. If sent by certified mail, then the tracking number will be sufficient. If they were informed via sundry, then a print off of that sundry will be sufficient.

Regarding the allocation of production; reference is made to historical production from the well. However, it seems that oil has been reported to have been produced from the Wolfcamp in the past, but the proposed percentage of oil production proposed to be allocated to the Wolfcamp is 0%. Do you feel this is accurate and if so, why? Additionally, the graphs included with historical production depicted seem to be in Oil/Gas units. Are these the correct units? Was this data obtained from this

well or neighboring wells? Additionally, the C-107A and included spreadsheet has an inconsistently in that the proposed percentage of gas production to each pool is different. Which is the correct proposed value?

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

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

APPLICATION FOR DOWNHOLE COMMINGLING
SUBMITTED BY H L BROWN OPERATING, LLC **ORDER NO. DHC-5192**

ORDER

The Director of the New Mexico Oil Conservation Division ("OCD"), having considered the application and the recommendation of the Engineering Bureau, issues the following Order.

FINDINGS OF FACT

1. H L Brown Operating, LLC ("Applicant") submitted a complete application ("Application") to downhole commingle the pools described in Exhibit A ("the Pools") within the well bore of the well identified in Exhibit A ("the Well").
2. Applicant proposed a method to allocate the oil and gas production from the Well to each of the Pools that is satisfactory to the OCD and protective of correlative rights.
3. Applicant has certified that all produced fluids from all the Pools are compatible with each other.
4. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
5. To the extent that ownership is identical, Applicant submitted a certification by a licensed attorney or qualified petroleum landman that ownership in the Pools is identical as defined by 19.15.12.7(B) NMAC.
6. To the extent that ownership is diverse, Applicant identified all owners of interest in the Pools, provided evidence a copy of the Application was given to each person, and those persons either submitted a written waiver or did not file an objection to the Application.
7. Applicant provided notice of the Application to the Bureau of Land Management ("BLM") or New Mexico State Land Office ("NMSLO"), as applicable.

CONCLUSIONS OF LAW

8. OCD has jurisdiction to issue this Order pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-6, 70-2-11, 70-2-12, 70-2-16, 70-2-17, and 19.15.12 NMAC.
9. The downhole commingling of the Pools is common, or Applicant has provided evidence that the fluids are compatible and will not damage the Pools in accordance with 19.15.12.11(A)(1) NMAC.
10. The bottom perforation of the lower zone is within one hundred fifty percent (150%) of the depth of the top perforation in the upper zone or Applicant has provided evidence that the

proposed commingling of the Pools shall not result in shut-in or flowing well bore pressure in excess of the commingled pool's fracture parting pressure in accordance with 19.15.12.11(A)(3) NMAC.

11. Applicant's proposed method of allocation, as modified herein, complies with 19.15.12.11(A)(8) NMAC.

12. To the extent that ownership is diverse, Applicant identified all owners of interest in the Pools and provided evidence the application was given to those persons in accordance with 19.15.12.11(C)(1)(b) NMAC.

13. By granting the Application with the conditions specified below, this Order prevents waste and protects correlative rights, public health, and the environment.

ORDER

1. Applicant is authorized to downhole commingle the Pools described in Exhibit A within the well bore of the well identified in Exhibit A.

2. Applicant shall allocate a fixed percentage of the oil and gas production from the Well to each of the Pools as described in Exhibit A.

3. If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Order to become inaccurate, then no later than sixty (60) days after that event, Applicant shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Order shall terminate on the date of such action.

4. If any of the pools being commingled is prorated, or the Well's production has been restricted by an OCD order in any manner, the allocated production from each producing pool in the commingled well bore shall not exceed the top oil or gas allowable rate for a well in that pool or rate restriction applicable to the well.

5. If the Well is deepened, then no later than forty-five (45) days after the Well is deepened, Applicant shall conduct and provide logs to OCD that are sufficient for OCD to determine which pool(s) each new completed interval of the Well will produce from.

6. If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred Applicant shall submit a new downhole commingling application to OCD to amend this Order to remove the pool that caused the decrease in value. If Applicant fails to submit a new application, this Order shall terminate on the following day, and if OCD denies the application, this Order shall terminate on the date of such action.

7. If a completed interval of the Well is altered from what is submitted within the Application as identified in Exhibit A, then no later than sixty (60) days after the alteration, Applicant shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.

8. If OCD determines that Applicant has failed to comply with any provision of this Order, OCD may take any action authorized by the Oil and Gas Act or the New Mexico Administrative Code (NMAC).
9. OCD retains jurisdiction of this matter and reserves the right to modify or revoke this Order as it deems necessary.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

DATE: 4/22/2022

ADRIENNE E. SANDOVAL
DIRECTOR

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

	Order:	DHC-5192			
	Operator:	H L Brown Operating, LLC (213179)			
	Well Name:	Federal 27 Com #2			
	Well API:	30-041-20871			
Upper Zone	Pool Name:	BLUITT; WOLFCAMP (GAS)			
	Pool ID:	72640	Current:	X	New:
	Allocation:	Fixed Percent	Oil:	0%	Gas: 50%
	Interval:	Perforations	Top:	7,945	Bottom: 8,152
Intermediate Zone	Pool Name:				
	Pool ID:		Current:		New:
	Allocation:		Oil:		Gas:
	Interval:		Top:		Bottom:
	Bottom of Interval within 150% of Upper Zone's Top of Interval:				
Lower Zone	Pool Name:	BLUITT; SILURO DEVONIAN, NORTH			
	Pool ID:	6910	Current:		New: X
	Allocation:	Fixed Percent	Oil:	100%	Gas: 50%
	Interval:	Perforations	Top:	8,662	Bottom: 8,933
	Bottom of Interval within 150% of Upper Zone's Top of Interval:	YES			

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 85501

CONDITIONS

Operator: H L BROWN OPERATING, LLC P.O. Box 2237 Midland, TX 79702	OGRID: 213179
	Action Number: 85501
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.	4/25/2022