

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

511 South First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
New 3-12-96

APPROVAL PROCESS :

☒ Administrative
☐ Hearing

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil and Gas

PO Box 4289, Farmington, NM 87499

Operator	Address		
Hardie A	#2A	C 24-29N-08W	San Juan
Lessee	Well No.	Unit Ltr. - Sec - Twp - Rge	County
Spacing Unit Lease Types: (check 1 or more)			
OGRID NO. 14538	Property Code 7085	API NO. 30-045- 21766	Federal ☒ , State ☐ , Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Blanco Pictured Cliffs- 72359		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3391'-3454'		5030'-5937'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	(Current) a. 615 psi (see attachment)		a. 144 psi (see attachment)
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1051 psi (see attachment)		b. 952 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1241		BTU 1251
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		No
* If Shut-In and oil/gas/water rates of last production	Date: N/A Rates:		Date: N/A Rates:
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: 6/17/98 Rates: 12 mcf/d 0.0 bopd		Date: 6/17/98 Rates: 317 mcf/d 1.4 bopd
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Will be supplied upon completion.		Will be supplied upon completion.

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No
11. Will cross-flow occur? ☒ Yes ☐ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____
16. 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 all offset operators.
* Notification list of working, overriding, and royalty interests for uncommon interest cases.
* Any additional statements, data, or documents required to support commingling.

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

SIGNATURE L. Tom Loveland TITLE Production Engineer DATE 6/23/98
TYPE OR PRINT NAME L. Tom Loveland TELEPHONE NO. (505) 326-9700

All distances must be from the outer boundaries of the Section.

Operator EL PASO NATURAL GAS COMPANY		Lease HARDIE A. (SF-078502-A)		Well No. 2A
Unit Letter C	Section 24	Township 29-N	Range 8-W	County SAN JUAN
Actual Footage Location of Well: 800 feet from the NORTH line and 1700 feet from the WEST line				
Ground Level Elev. 6706	Producing Formation Pic. Cliffs MESA VERDE	Pool Blanco Pictured Cliffs BLANCO MESA VERDE	Dedicated Acreage: 160.0 320.00 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 interests of all owners been consolidated by communitization; unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation Communitization

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

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

Note: Plat reissued to show addition of PC Formation 4-11-85

RECEIVED
JUL 14 1985
BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

RECEIVED
APR 15 1985
BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

SF-078502-A

SECTION 24

A#5

SF-078416

CERTIFICATION

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

Reggie Donk
Name
Drilling Clerk

Position
El Paso Natural Gas Co

Company
April 12, 1985

Date

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
MARCH 4, 1975

Registered Professional Engineer
and/or Land Surveyor

HARDIE A : 2A : MESAVERDE

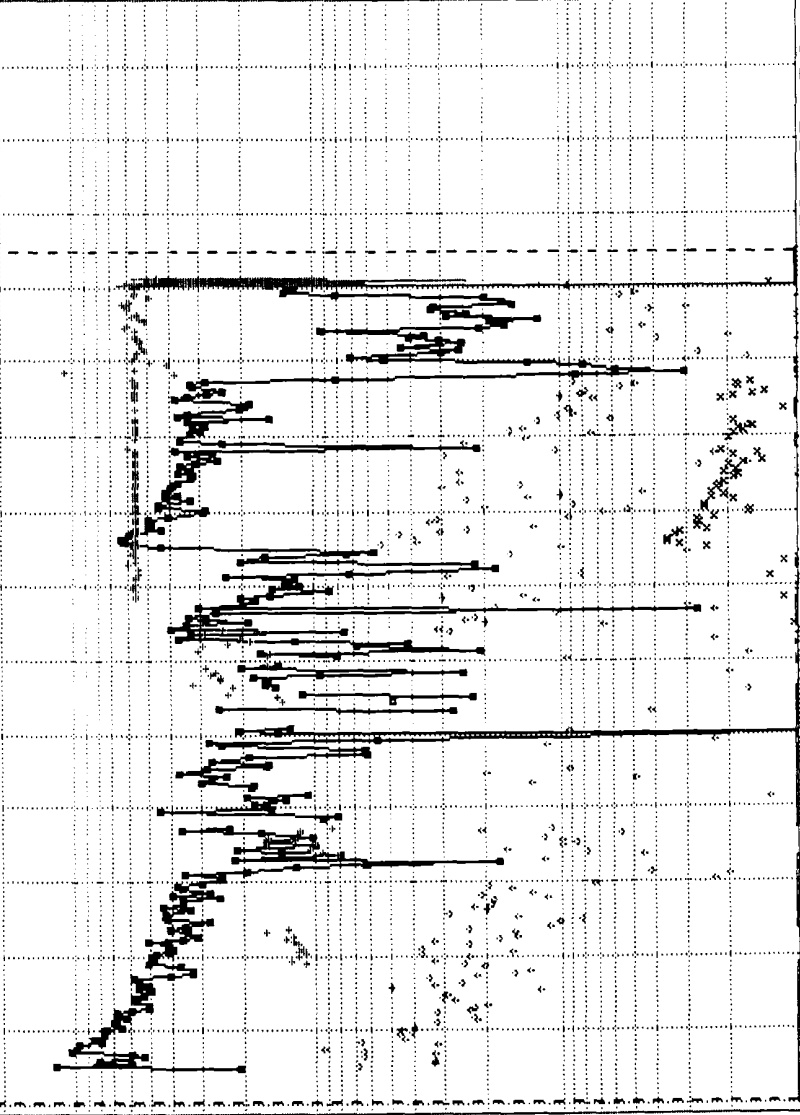
• OIL
• WATER/GAS
• GAS
• WATER

Prop 179 *

— DAILY RATE
— IBS PRESSURE

- WATER Bbls/d
- GAS Mcf/d
- WATER/GAS
- OIL Bbl/d

RateTime
Semi Log



Major = GAS

HARDIE A : 2A : PICTURED CLIFFS

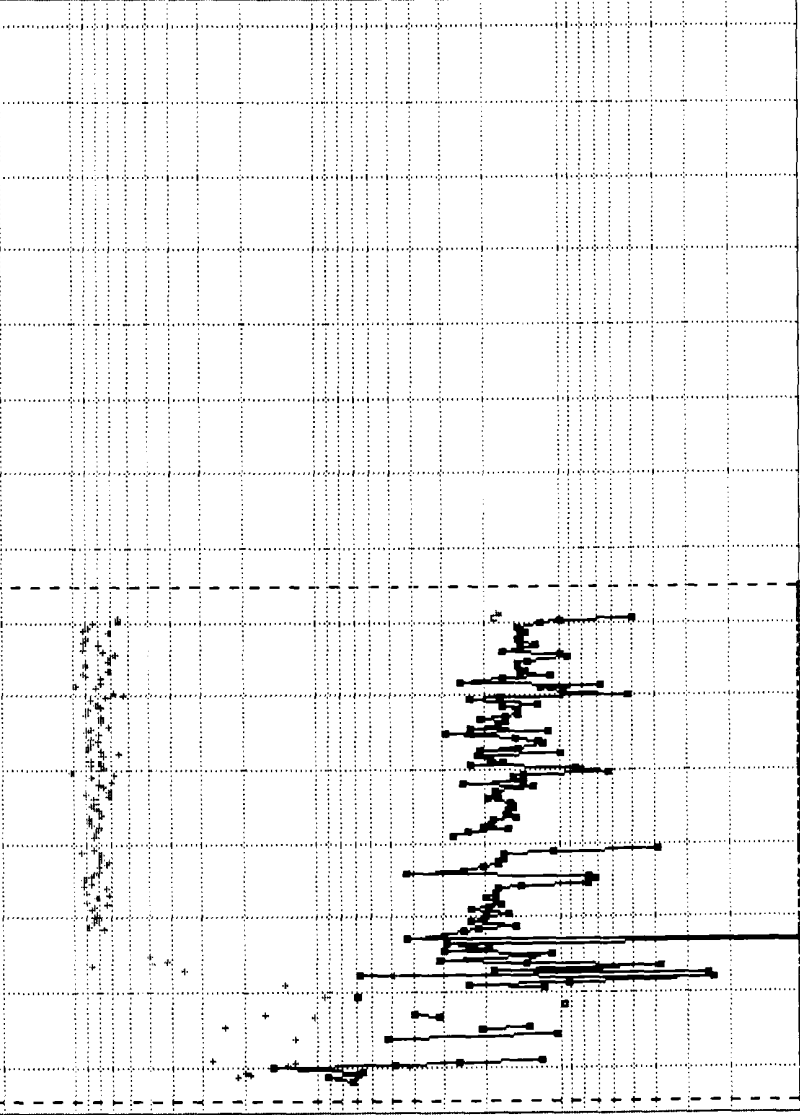
Prop 180 *

- OIL
 - WATER/GAS
 - GAS
 - WATER

— DAILY RATE
 — TBG PRESSURE

- * WATER Bbls/d
- * GAS Mcf/d
- * WATER/GAS
- * OIL Bbl/d

RateTime
 Semi Log



Major = GAS

Pictured Cliffs**PC-Current**

GAS GRAVITY	<u>0.719</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.62</u>
%CO2	<u>0.21</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>7</u>
DEPTH (FT)	<u>3423</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>115</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>560</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>615.4</u>

Mesa Verde**MV-Current**

GAS GRAVITY	<u>0.705</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.58</u>
%CO2	<u>0.22</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.375</u>
DEPTH (FT)	<u>5484</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>155</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>126</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>143.6</u>

PC-Original

GAS GRAVITY	<u>0.719</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.62</u>
%CO2	<u>0.21</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>7</u>
DEPTH (FT)	<u>3423</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>115</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>949</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>1051.3</u>

MV-Original

GAS GRAVITY	<u>0.705</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.58</u>
%CO2	<u>0.22</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.375</u>
DEPTH (FT)	<u>5484</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>155</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>821</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>951.9</u>

PC

Page No.: 20
Print Time: Fri May 08 08:28:40 1998
Property ID: 180
Property Name: HARDIE A | 2A | PICTURED CLIFFS
Table Name: S:\ARIES\78LTL\TEST.DBF

<u>--DATE--</u>	<u>--CUM_OIL--</u> Bbl	<u>---CUM_GAS---</u> Mcf	<u>M_SIWHP</u> Psi	
01/01/84		0	949.0	Original
10/22/85		7091	625.0	
4/1/98		85375	560.0	Current estimated from P/z data

MV

Page No.: 19
Print Time: Fri May 08 08:28:40 1998
Property ID: 179
Property Name: HARDIE A | 2A | MESAVERDE
Table Name: S:\ARIES\78LTL\TEST.DBF

--DATE--	--CUM OIL- Bbl	---CUM GAS-- Mcf	M SIWHP Psi
10/27/76		0	821.0
05/25/77		120079	640.0
05/16/78		415082	453.0
08/21/79		650513	474.0
07/29/80		794816	437.0
05/28/82		1017391	458.0
08/28/84		1137691	505.0
10/03/86		1251457	417.0
08/14/89		1406893	422.0
05/20/91		1549671	275.0
07/15/91		1580380	287.0
04/16/93		1839843	171.0
06/01/93		1844466	212.0
04/01/98		2110335	126.0

Original

Current estimated from P/z data

Package Preparation Volume Data

DP No: 25789A HARDIE A 2A Form: MV

Supt: 60 KEN RAYBON FF: 335 LARY BYARS MS: 318 J.R TRUJILLO
Pipeline: EPNG Plunger: No Dual: Yes Compressor: No

Ownership (No Trust)			Prior Year			Current Year		
Gas	Oil				Days			Days
GWI:	100.0000%	100.0000%	MCF/M	BOPM	On	MCF/M	BOPM	On
GNI:	83.5000%	83.5000%						
<u>Volumes</u>								
<u>(Days On)</u>	<u>MCFD</u>	<u>BOPD</u>						
7 Day Avg	362	20.6	Jan	503	2.0	31	4,699	28.0
30 Day Avg	473	2.1	Feb	298	0.0	28	7,174	3.0
60 Day Avg	448	2.2	Mar	799	1.0	31	10,563	27.0
3 Mo Avg	345	1.1	Apr	655	0.0	30	12,929	68.0
6 Mo Avg	239	0.8	May	938	13.0	31	0	0.0
12 Mo Avg	137	0.5	Jun	948	9.0	22.7	0	0.0
			Jul	392	1.0	31	0	0.0
			Aug	430	1.0	31	0	0.0
			Sept	537	0.0	30	0	0.0
			Oct	2,459	17.0	31	0	0.0
			Nov	4,099	15.0	30	0	0.0
			Dec	3,731	9.0	31	0	0.0
			Total	15,789	68.0		35,365	126.0
<u>Volumes</u>								
<u>(Days in Month)</u>	<u>MCFD</u>	<u>BOPD</u>						
30 Day Avg	317	1.4						
60 Day Avg	373	1.8						
3 Mo Avg	345	1.1						
6 Mo Avg	237	0.8						
12 Mo Avg	134	0.5						

Print Form

Exit Volumes Data

6/17/98

Package Preparation Volume Data

DPNo: 48789B HARDIE A 2A Form: PC

Supt: 60 KEN RAYBON FF: 335 LARY BYARS MS: 318 J.R TRUJILLO
 Pipeline: EPNG Plunger: No Dual: Yes Compressor: No

<u>Ownership (No Trust)</u>			<u>Prior Year</u>			<u>Current Year</u>		
<u>Gas</u>	<u>Oil</u>		<u>MCF/M</u>	<u>BOPM</u>	<u>Days On</u>	<u>MCF/M</u>	<u>BOPM</u>	<u>Days On</u>
GWI: 100.0000%	100.0000%							
GNI: 83.5000%	83.5000%	Jan	290	0.0	31	310	0.0	31
		Feb	306	0.0	28	156	0.0	28
		Mar	533	0.0	26	465	0.0	31
		Apr	446	0.0	30	459	0.0	30
		May	387	0.0	31	0	0.0	23.6
		Jun	447	0.0	24.6	0	0.0	0
		Jul	456	0.0	31	0	0.0	0
		Aug	455	0.0	31	0	0.0	0
		Sept	427	0.0	30	0	0.0	0
		Oct	449	0.0	31	0	0.0	0
		Nov	466	0.0	30	0	0.0	0
		Dec	369	0.0	31	0	0.0	0
		Total	5,031	0.0		1,390	0.0	
<u>Volumes (Days On)</u>	<u>MCFD</u>	<u>BOPD</u>						
7 Day Avg	20	0.0						
30 Day Avg	16	0.0						
60 Day Avg	16	0.0						
3 Mo Avg	12	0.0						
6 Mo Avg	12	0.0						
12 MoAvg	13	0.0						
<u>Volumes (Days in Month)</u>	<u>MCFD</u>	<u>BOPD</u>						
30 Day Avg	12	0.0						
60 Day Avg	14	0.0						
3 Mo Avg	12	0.0						
6 Mo Avg	12	0.0						
12 Mo Avg	13	0.0						

Print Form

Exit Volumes Data

6/17/98

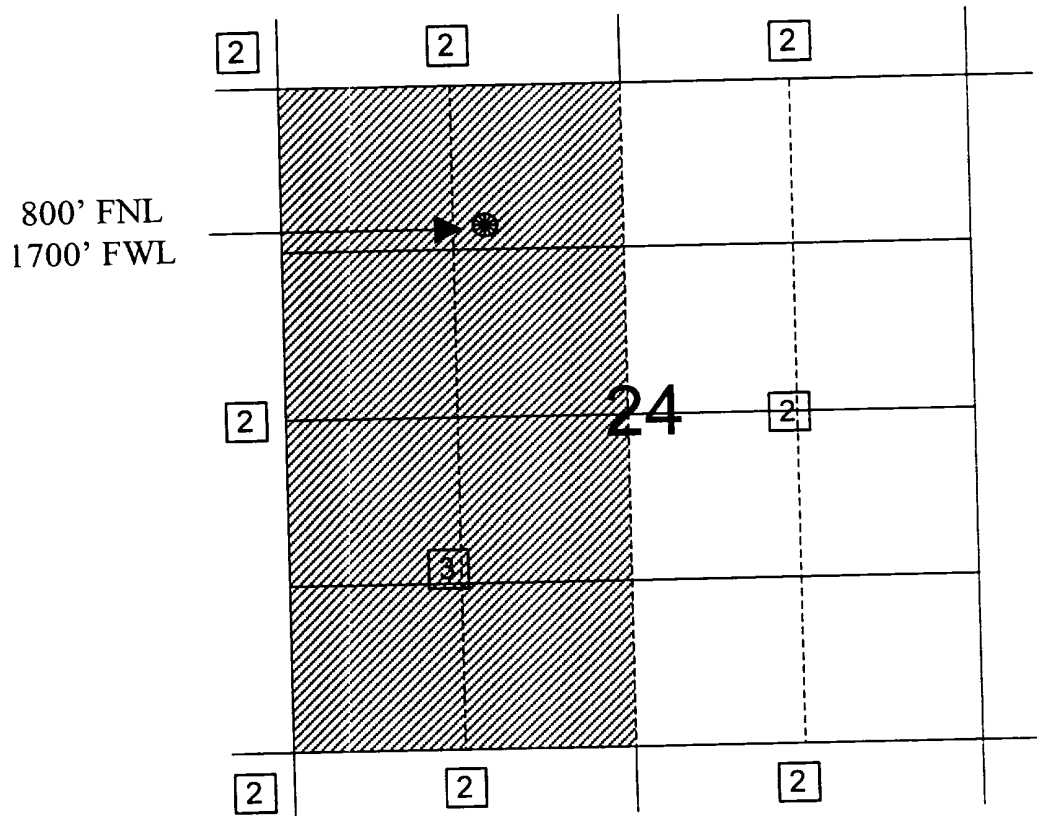
BURLINGTON RESOURCES OIL AND GAS COMPANY

Hardie A #2A

Offset Operator/Owner Plat

Pictured Cliffs (NW/4) / Mesaverde (W/2) Formations Commingle Well

Township 29 North, Range 8 West



- 1) Burlington Resources
- 2) Amoco Production Company
P.O. Box 800, 1670 Broadway
Denver, CO 80201
- 3) Taurus Exploration U.S.A.
2198 Bloomfield Hwy.
Farmington, NM 87401

3A ●	337 ● 1A ☀ 3-A	1 ●	
2 ●	2A 7 5 1-R ☀ ● 2R 1 4 5A 2 ● 5 2-A	3A ● 4 13 3 ● 4A	76A 81 ● ● 76R 18 ● 76
7 ☀	5A ● 4 23 42 11 5 ☀ 4A 1A 10	Hardie A 2A ☀ 6 24 6A 353 2R 2	94A 87 ● ● 94 19 ●
2 ● 8 2A ● 1	7 ☀ 1A ● 3 26 1A 12 ☀ 1 ● ☀	8 ☀ 2A 3 9 25 3A ☀ 2 11 ☀	78A 98 ● ● 30 104 109M ☀ 78 ●

PLH 5/7/98

Hardie A 2A
Sec. 24, T29N, R8W
Mesaverde/Picture Cliffs