Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
05/21/2019	MAM	DHC	pMAM1914138387

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: Hilcorp Energy Company **OGRID Number:** 372171
Well Name: Richardson 8E **API:** 30-045-24019
Pool: Blanco Mesaverde / Dusenberry Gallup / Basin Dakota **Pool Code:** 72319 / 76180 / 71599

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

1) **TYPE OF APPLICATION:** Check those which apply for [A] DHC-4991

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.

Thomas Jacques
Print or Type Name

Signature

5/21/2019
Date

832.839.4582
Phone Number

tjacques@hilcorp.com
e-mail Address

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
_X_ Single Well
____ Establish Pre-Approved Pools
EXISTING WELLBORE
__X__ Yes ____ No

APPLICATION FOR DOWNHOLE COMMINGLING

Hilcorp Energy Company (Operator) — 382 Road 3100, Aztec, NM 87410 (Address)

RICHARDSON (Lease) — 8E (Well No.) — H 10 31N 12W (Unit Letter-Section-Township-Range) — San Juan County (County)

OGRID No. 372171 Property Code 318679 API No. 30-045-24019 Lease Type: __X__ Federal ____ State ____ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blanco Mesaverde	Dusenberry Gallup	Basin Dakota
Pool Code	72319	76180	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	~4468'-5290	5994' – 6920'	7186' – 7356'
Method of Production (Flowing or Artificial Lift)	New Zone	Flowing	Flowing
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)	800 psi	1130 psi	1500 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1000 BTU	1000 BTU	1000 BTU
Producing, Shut-In or New Zone	New Zone	Producing	Producing
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: N/A Rates:	Date: 01/2019 Rates: 0 BOPD, 56 MCFPD, 0 BWPD	Date: 01/2019 Rates: 1.5 BOPD, 22 MCFPD, 0.65 BWPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas Will be supplied upon completion	Oil Gas Will be supplied upon completion	Oil Gas Will be supplied upon completion

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 Priscilla Shorty TITLE Operations/Regulatory Technician DATE 5/21/2019

TYPE OR PRINT NAME Priscilla Shorty TELEPHONE NO. (505) 324-5188

E-MAIL ADDRESS pshorty@hilcorp.com

Hilcorp

May 21, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Michael McMillan

Re: C-107-A (Downhole Commingle)
Richardson 008E
API: 30-045-24019
T31N-R12W-Section 10, Unit Letter: H
San Juan County, NM

Mr. McMillan:

Concerning Hilcorp Energy Company's C-107-A application to downhole commingle production in the subject well, this letter serves to confirm the following:

- All working, royalty and overriding royalty interests are identical between the Dusenberry Gallup (76180), Basin Dakota (71599) and Blanco Mesaverde (72319) in the spacing unit dedicated to these formations; being the NE/4 (Gallup) and E/2 (Mesaverde/Dakota) of Township 31 North, Range 12 West, Section 5. Therefore, no notice to interest owners is required.
- The spacing unit is comprised of a federal lease. Therefore, pursuant to Subsection C.(1) of 19.15.12.11 NMAC, a copy of the C-107-A has been sent to the BLM as of the date of this letter.

If you have any questions or concerns regarding this matter, please do not hesitate to contact me at the email or number provided below.

Regards,

Hilcorp Energy Company

Robert T. Carlson
Landman
(832) 839-4596
rcarlson@hilcorp.com

Hilcorp

May 21, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Michael McMillan

Re: C-107-A (Downhole Commingle)
Richardson 8E
API: 30-045-24019
T31N-R12W-Section 5, Unit Letter: H
San Juan County, NM

Mr. McMillan:

Concerning Hilcorp Energy Company's C-107-A application to downhole commingle production in the subject well, this letter serves to confirm the following:

- That notification to the BLM office has been sent via a hand delivered copy of the packet.

If you have any questions or concerns regarding this matter, please do not hesitate to contact me at the email or number provided below.

Regards,

Hilcorp Energy Company

Priscilla Shorty

Priscilla Shorty
Operations/Regulatory Tech Sr.
(505)324.5188
pshorty@hilcorp.com

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

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

Operator	Lease	Well No.
SOUTHLAND ROYALTY COMPANY	RICHARDSON	8-E

Unit Letter	Section	Township	Range	County
H	10	31N	12W	San Juan

Actual Footage Location of Well: 1590 feet from the North line and 1070 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6183	Dakota - Pictured Cliffs	Basin - ~~Blanco~~ Aztec ext	320 / 160 Acres

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

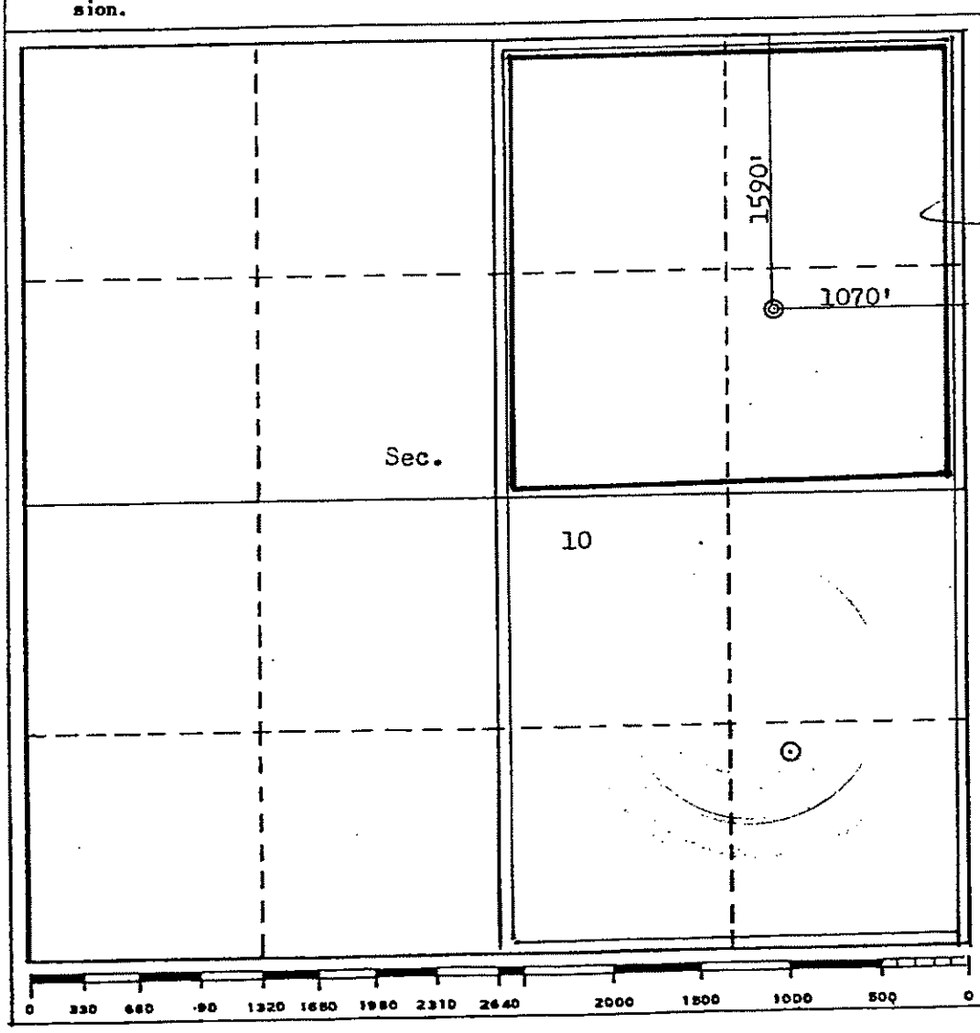
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 _____

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.



CERTIFICATION

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

Name: L. O. Van Ryan

Position: District Production Manager

Company: Southland Royalty Company

Date: November 6, 1979

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: October 11, 1979

Registered Professional Engineer and/or Land Surveyor: Fred B. Kerr Jr.

Certificate No. 3950

REGISTERED LAND SURVEYOR STATE OF NEW MEXICO FRED B. KERR, JR.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-24019	76180/71599	Dusenberry Gallup/Basin Dakota

[4] Property Code	[5] Property Name	[6] Well Number
7422	Richardson	8E

[7] OGRID No.	[8] Operator Name	[9] Elevation
14538	Burlington Resources Oil & Gas Company	6183' GR

[10] Surface Location

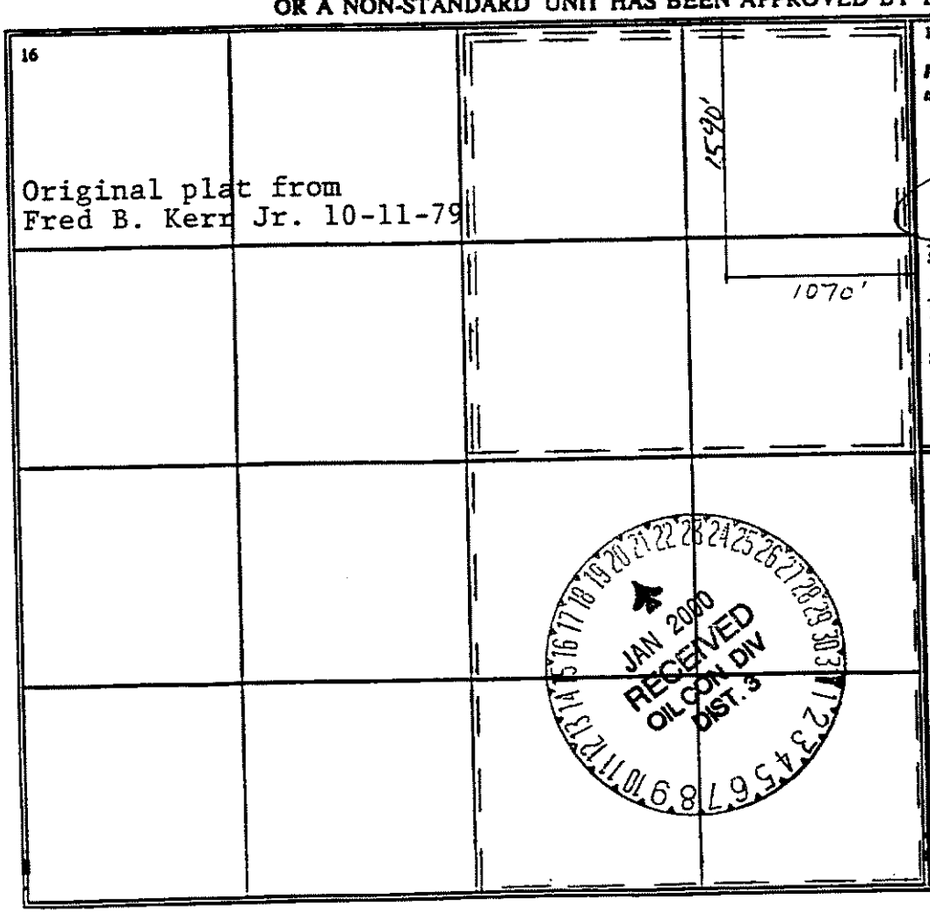
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	10	31N	12W		1590'	North	1070'	East	SJ

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
Gal-160 DK-E/320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



[17] OPERATOR CERTIFICATION

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

Signature

Peggy Cole
Printed Name

Regulatory Administrator
Title

1-11-00
Date

[18] 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 belief.

Date of Survey

Signature and Seal of Professional Surveyer:

Certificate Number

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

Form C-102
August 1, 2011

Permit 263614

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-24019	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318679	RICHARDSON	008E
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6183

10. Surface Location

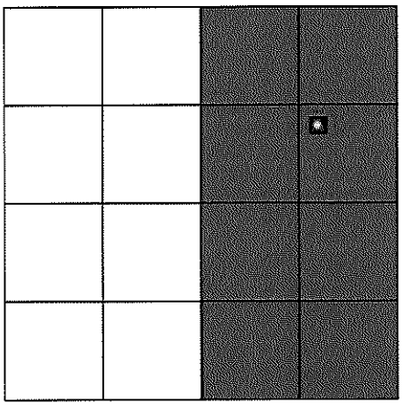
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	10	31N	12W		1590	N	1070	E	SAN JUAN

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
320.00			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By: Priscilla Shorty
Title: Operations Regulatory Technician - Sr.
Date: 02/12/2019

SURVEYOR CERTIFICATION

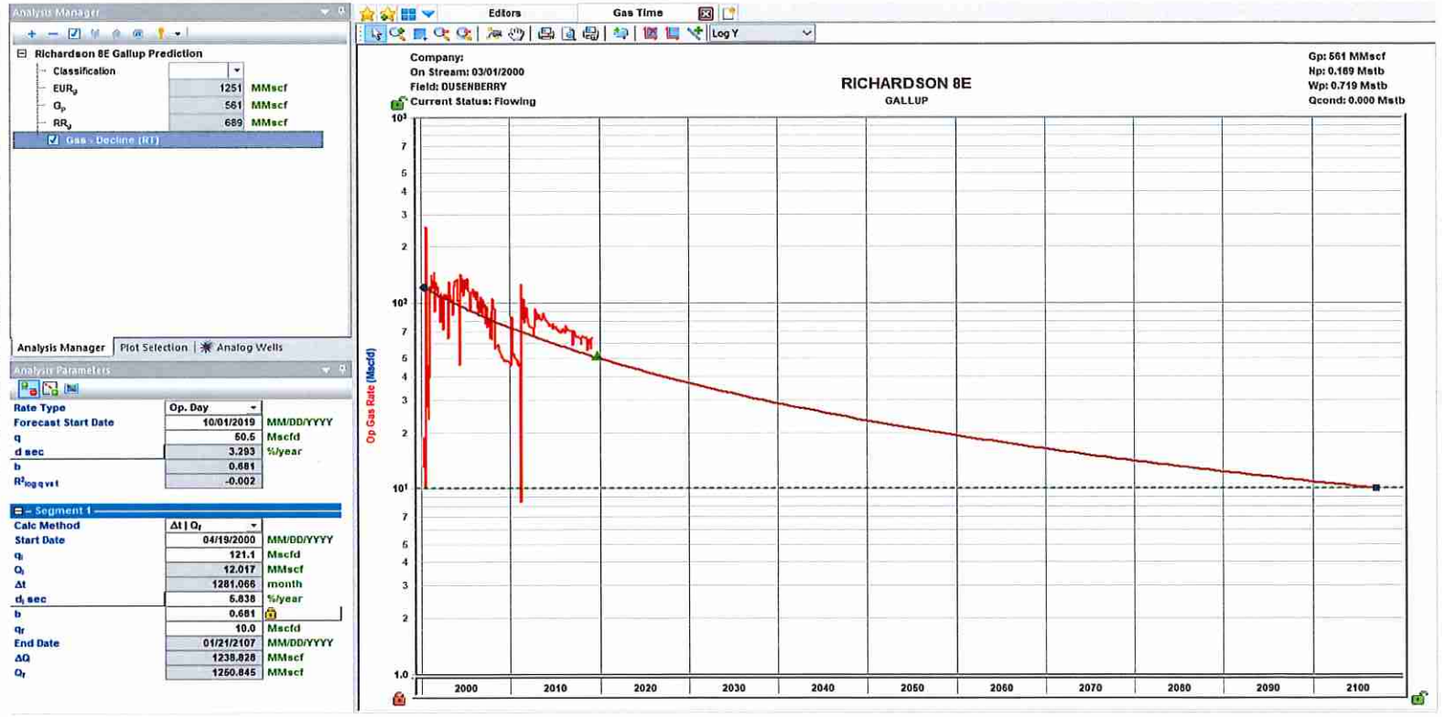
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: Fred Kerr
Date of Survey: 10/11/1979
Certificate Number: 3950

Subtraction Allocation Forecast - Richardson 8E - Gallup

Base formations are the Gullup and Dakota, and the added formation to be trimingled is the MesaVerde. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceding the forecast will be allocated to the new formation.

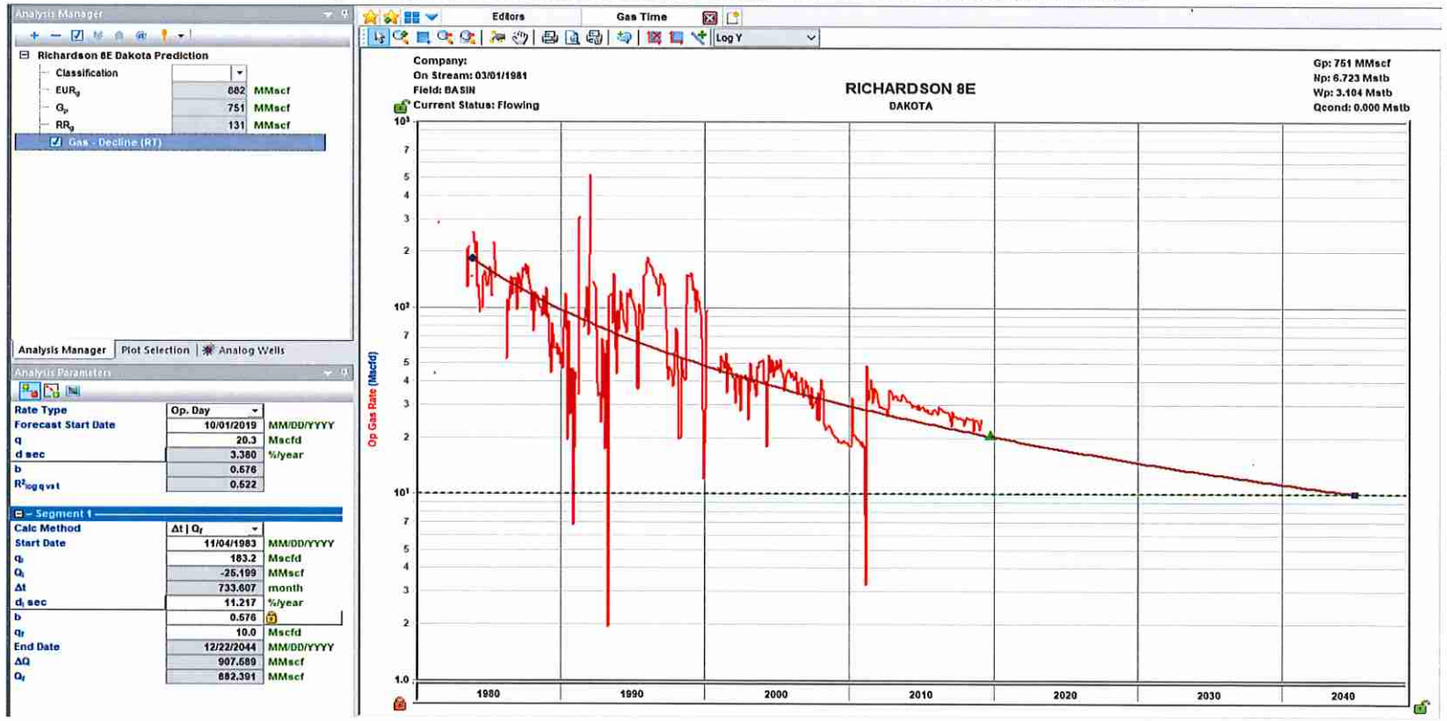
Date	Mcfd	Date	Mcfd
Oct-19	50.50	Nov-21	47.10
Nov-19	50.30	Dec-21	47.00
Dec-19	50.20	Jan-22	46.80
Jan-20	50.00	Feb-22	46.70
Feb-20	49.90	Mar-22	46.60
Mar-20	49.80	Apr-22	46.50
Apr-20	49.60	May-22	46.40
May-20	49.50	Jun-22	46.20
Jun-20	49.30	Jul-22	46.10
Jul-20	49.20	Aug-22	46.00
Aug-20	49.10	Sep-22	45.90
Sep-20	48.90	Oct-22	45.70
Oct-20	48.80	Nov-22	45.60
Nov-20	48.70	Dec-22	45.50
Dec-20	48.50	Jan-23	45.40
Jan-21	48.40	Feb-23	45.30
Feb-21	48.30	Mar-23	45.20
Mar-21	48.10	Apr-23	45.00
Apr-21	48.00	May-23	44.90
May-21	47.90	Jun-23	44.80
Jun-21	47.70	Jul-23	44.70
Jul-21	47.60	Aug-23	44.60
Aug-21	47.50	Sep-23	44.50
Sep-21	47.40	Oct-23	44.30
Oct-21	47.20		



Subtraction Allocation Forecast - Richardson 8E - Dakota

Base formations are the Gullup and Dakota, and the added formation to be trimingled is the MesaVerde. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceding the forecast will be allocated to the new formation.

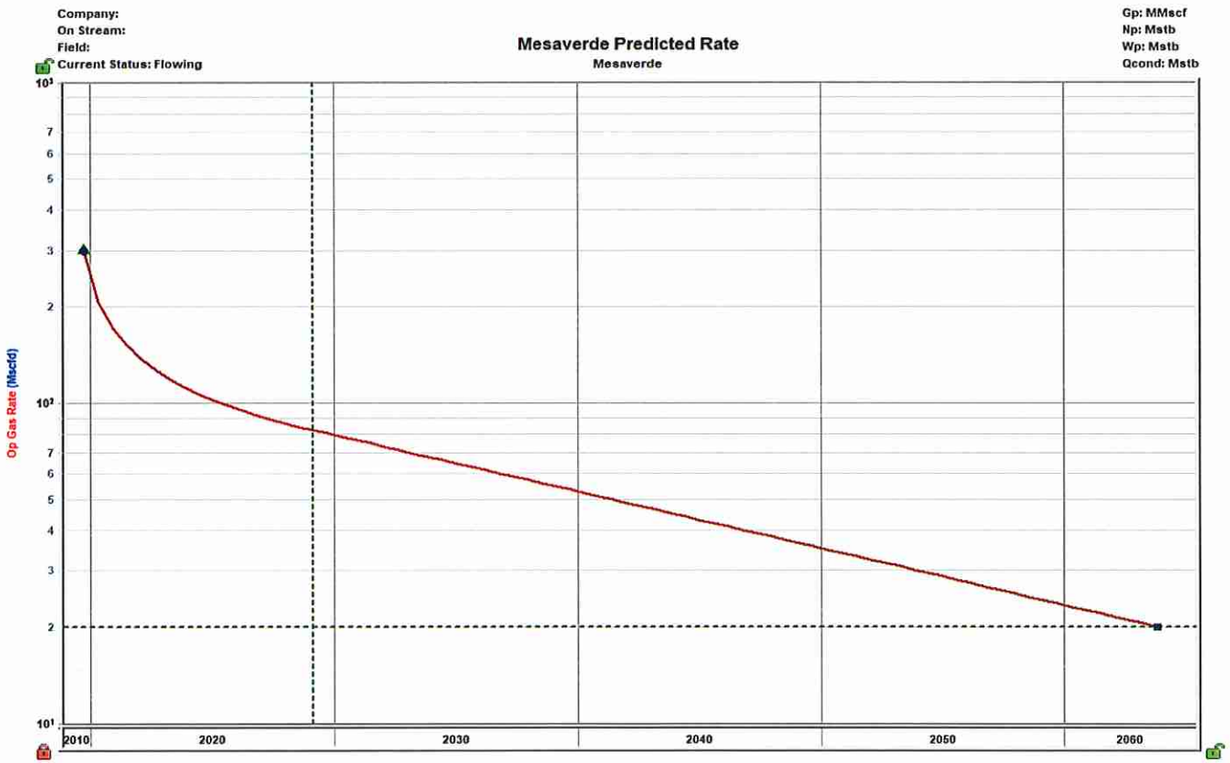
Date	Mcfd	Date	Mcfd
Oct-19	20.30	Nov-21	18.90
Nov-19	20.20	Dec-21	18.90
Dec-19	20.20	Jan-22	18.80
Jan-20	20.10	Feb-22	18.80
Feb-20	20.10	Mar-22	18.70
Mar-20	20.00	Apr-22	18.70
Apr-20	19.90	May-22	18.60
May-20	19.90	Jun-22	18.50
Jun-20	19.80	Jul-22	18.50
Jul-20	19.80	Aug-22	18.40
Aug-20	19.70	Sep-22	18.40
Sep-20	19.70	Oct-22	18.30
Oct-20	19.60	Nov-22	18.30
Nov-20	19.60	Dec-22	18.20
Dec-20	19.50	Jan-23	18.20
Jan-21	19.40	Feb-23	18.10
Feb-21	19.40	Mar-23	18.10
Mar-21	19.30	Apr-23	18.10
Apr-21	19.30	May-23	18.00
May-21	19.20	Jun-23	18.00
Jun-21	19.20	Jul-23	17.90
Jul-21	19.10	Aug-23	17.90
Aug-21	19.10	Sep-23	17.80
Sep-21	19.00	Oct-23	17.80
Oct-21	19.00		



Subtraction Allocation Forecast - Richardson 8E

Base formations are the Gullup and Dakota, and the added formation to be trimingled is the MesaVerde. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceding the forecast will be allocated to the new formation.

Date	Mcfd	Date	Mcfd
Oct-19	288.00	Nov-21	141.90
Nov-19	268.20	Dec-21	140.00
Dec-19	252.40	Jan-22	138.30
Jan-20	239.30	Feb-22	136.60
Feb-20	228.60	Mar-22	135.10
Mar-20	219.50	Apr-22	133.50
Apr-20	211.30	May-22	132.00
May-20	204.20	Jun-22	130.60
Jun-20	197.80	Jul-22	129.20
Jul-20	192.10	Aug-22	127.80
Aug-20	186.80	Sep-22	126.50
Sep-20	182.10	Oct-22	125.30
Oct-20	177.80	Nov-22	124.10
Nov-20	173.80	Dec-22	122.90
Dec-20	170.10	Jan-23	121.80
Jan-21	166.60	Feb-23	120.70
Feb-21	163.50	Mar-23	119.70
Mar-21	160.60	Apr-23	118.70
Apr-21	157.80	May-23	117.70
May-21	155.10	Jun-23	116.70
Jun-21	152.60	Jul-23	115.80
Jul-21	150.20	Aug-23	114.90
Aug-21	148.00	Sep-23	114.00
Sep-21	145.80	Oct-23	113.10
Oct-21	143.80		



DAKOTA PRODUCTION
RICHARDSON 8E (30-045-24019)

Year	Month	Liquid	Gas	Water
1981	MAR	0	44	0
1981	APR	0	0	0
1981	MAY	0	0	0
1981	JUN	51	8562	58
1981	JUL	0	0	0
1981	AUG	0	0	0
1981	SEP	0	0	0
1981	OCT	0	0	0
1981	NOV	0	0	0
1981	DEC	0	0	0
1983	JAN	0	0	0
1983	FEB	0	0	0
1983	MAR	0	0	0
1983	APR	0	0	0
1983	MAY	0	0	0
1983	JUN	0	6158	0
1983	JUL	0	4010	0
1983	AUG	0	5511	2
1983	SEP	0	0	0
1983	OCT	1	1609	1
1983	NOV	0	0	0
1983	DEC	0	2791	1
1984	JAN	4	5861	2
1984	FEB	1	6546	2
1984	MAR	0	3998	2
1984	APR	0	3081	2
1984	MAY	0	1601	1
1984	JUN	0	0	0
1984	JUL	0	1592	7
1984	AUG	2	4619	13
1984	SEP	0	4684	13
1984	OCT	0	4166	13
1984	NOV	0	3908	13
1984	DEC	0	3953	13
1985	JAN		5138	13
1985	FEB		4493	13
1985	MAR		2559	9
1985	APR		0	0
1985	MAY		2457	6
1985	JUN		1456	5
1985	JUL		0	0
1985	AUG		0	0
1985	SEP		0	0
1985	OCT		0	0
1985	NOV		0	0
1985	DEC		0	0
1986	JAN	0	0	0
1986	FEB	0	0	0
1986	MAR	6	635	11
1986	APR	0	1102	1
1986	MAY	19	2858	5
1986	JUN	24	3877	4
1986	JUL	48	4426	9
1986	AUG	24	3649	7
1986	SEP	34	4256	16
1986	OCT	39	4344	0
1986	NOV	24	3602	0
1986	DEC	7	2945	0
1987	JAN	41	4731	13
1987	FEB	15	4208	13
1987	MAR	45	3409	12
1987	APR	32	4276	13
1987	MAY	43	4919	13
1987	JUN	43	4721	13
1987	JUL	49	5141	13
1987	AUG	33	4713	13
1987	SEP	43	4172	11
1987	OCT	35	4316	13
1987	NOV	24	3762	13
1987	DEC	43	2901	13
1988	JAN	21	3783	13
1988	FEB	9	2158	13
1988	MAR	38	3517	12
1988	APR	18	2886	11
1988	MAY	28	3536	13
1988	JUN	16	3196	13
1988	JUL	31	2996	13
1988	AUG	27	3115	13
1988	SEP	25	2710	13
1988	OCT	0	3472	13
1988	NOV	87	2735	13
1988	DEC	11	3835	13
1989	JAN	42	2763	
1989	FEB	22	2589	
1989	MAR	11	2022	
1989	APR	11	1343	
1989	MAY	49	2562	
1989	JUN	14	2159	
1989	JUL	17	1868	
1989	AUG	5	1894	
1989	SEP	67	1929	
1989	OCT	0	1741	
1989	NOV	0	1835	
1989	DEC	0	1546	
1990	JAN	1	1763	
1990	FEB	14	1324	
1990	MAR	0	2425	
1990	APR	18	3555	
1990	MAY	55	2364	
1990	JUN	1	588	
1990	JUL	0	423	
1990	AUG	6	803	
1990	SEP	18	1117	
1990	OCT	6	1453	
1990	NOV	2	204	
1990	DEC	0	585	
1991	JAN	19	1275	
1991	FEB	8	0	
1991	MAR	22	1024	
1991	APR	7	917	
1991	MAY	0	0	
1991	JUN	0	0	
1991	JUL	1	0	
1991	AUG	20	1882	
1991	SEP	13	2959	
1991	OCT	22	4005	
1991	NOV	65	2560	
1991	DEC	6	2218	
1992	JAN	21	2059	
1992	FEB	2	0	
1992	MAR	0	0	
1992	APR	42	4140	
1992	MAY	24	3995	
1992	JUN	25	2278	
1992	JUL	0	1218	
1992	AUG	15	1037	
1992	SEP	11	1049	
1992	OCT	0	750	
1992	NOV	7	2044	
1992	DEC	0	1912	
1993	JAN	0	537	
1993	FEB	0	1584	
1993	MAR	0	2051	
1993	APR	55	58	
1993	MAY	0	2417	
1993	JUN	0	3566	
1993	JUL	68	2839	
1993	AUG	18	1487	
1993	SEP	1	4239	
1993	OCT	0	1841	
1993	NOV	32	1323	
1993	DEC	15	3002	
1994	JAN	8	2348	
1994	FEB	29	3425	
1994	MAR	26	3301	
1994	APR	4	2942	
1994	MAY	44	2662	
1994	JUN	19	2363	
1994	JUL	10	2271	
1994	AUG	35	3707	
1994	SEP	26	3398	
1994	OCT	31	3882	
1994	NOV	31	3364	
1994	DEC	8	3409	
1995	JAN	30	3314	
1995	FEB	29	2717	
1995	MAR	12	2474	
1995	APR	6	1117	
1995	MAY	6	1128	
1995	JUN	36	3127	
1995	JUL	20	2912	
1995	AUG	17	2339	
1995	SEP	110	2782	
1995	OCT	49	4601	
1995	NOV	28	4623	
1995	DEC	35	5483	
1996	JAN	40	5744	
1996	FEB	66	5040	
1996	MAR	34	5124	
1996	APR	37	4951	
1996	MAY	36	4845	
1996	JUN	30	4446	
1996	JUL	30	4454	
1996	AUG	29	4187	
1996	SEP	28	3958	
1996	OCT	34	3609	
1996	NOV	30	4539	
1996	DEC	33	4540	
1997	JAN	33	4472	
1997	FEB	30	3708	
1997	MAR	22	4228	
1997	APR	36	2285	
1997	MAY	2	1458	
1997	JUN	8	1229	
1997	JUL	2	1484	
1997	AUG	21	1424	
1997	SEP	21	1284	
1997	OCT	0	1163	
1997	NOV	8	1281	
1997	DEC	8	2383	
1998	JAN	3	2321	0
1998	FEB	24	1308	0
1998	MAR	30	612	0
1998	APR	8	598	0
1998	MAY	22	1633	0
1998	JUN	3	1410	0
1998	JUL	3	1310	0
1998	AUG	2	1255	0
1998	SEP	54	3139	0
1998	OCT	37	4677	0
1998	NOV	23	4450	0
1998	DEC	10	4553	3
1999	JAN	28	4775	0
1999	FEB	25	3949	0
1999	MAR	14	3841	0
1999	APR	15	3840	0
1999	MAY	24	2926	6
1999	JUN	22	3711	0
1999	JUL	31	3394	0
1999	AUG	28	3357	0
1999	SEP	17	2746	0
1999	OCT	0	2128	0
1999	NOV	0	843	0
1999	DEC	53	374	0
2000	JAN	0	884	
2000	FEB	9	2764	
2000	MAR	0	0	
2000	APR	0	0	
2000	MAY	0	0	
2000	JUN	0	0	
2000	JUL	0	0	
2000	AUG	0	0	
2000	SEP	0	0	
2000	OCT	0	0	
2000	NOV	3	0	
2000	DEC	3	1478	
2001	JAN	9	1376	
2001	FEB	7	1529	
2001	MAR	3	1600	
2001	APR	0	1532	
2001	MAY	1	1451	
2001	JUN	0	1691	
2001	JUL	5	1079	
2001	AUG	8	1557	
2001	SEP	34	1363	
2001	OCT	8	1479	
2001	NOV	5	1330	
2001	DEC	34	1294	
2002	JAN	0	1298	
2002	FEB	26	855	
2002	MAR	19	1361	
2002	APR	14	1257	
2002	MAY	9	1295	
2002	JUN	0	830	
2002	JUL	18	1341	
2002	AUG	20	1315	
2002	SEP	15	1241	
2002	OCT	17	1338	
2002	NOV	6	1218	
2002	DEC	18	1277	
2003	JAN	18	773	
2003	FEB	7	1056	
2003	MAR	11	1338	
2003	APR	52	1184	
2003	MAY	22	1272	
2003	JUN	13	1181	
2003	JUL	18	1034	
2003	AUG	19	1492	
2003	SEP	6	1415	
2003	OCT	9	1579	
2003	NOV	23	1538	
2003	DEC	6	1615	
2004	JAN	7	1606	
2004	FEB	14	1156	
2004	MAR	8	1235	
2004	APR	26	535	
2004	MAY	22	1246	
2004	JUN	28	1655	
2004	JUL	24	1383	
2004	AUG	27	1619	
2004	SEP	27	1534	
2004	OCT	16	1317	
2004	NOV	1	1438	
2004	DEC	0	1611	
2005	JAN	36	1437	0
2005	FEB	32	1320	0
2005	MAR	22	1624	5
2005	APR	30	1361	0
2005	MAY	27	1385	0
2005	JUN	20	1261	2
2005	JUL	18	1104	1
2005	AUG	23	1342	0
2005	SEP	34	1335	0
2005	OCT	34	1425	0
2005	NOV	27	1385	0
2005	DEC	17	1291	5
2006	JAN	30	1379	0
2006	FEB	30	1201	0
2006	MAR	38	1257	0
2006	APR	27	1346	0
2006	MAY	24	1126	0
2006	JUN	14	1024	0
2006	JUL	33	1231	0
2006	AUG	24	1233	0
2006	SEP	25	1261	0
2006	OCT	27	1073	0
2006	NOV	17	987	0
2006	DEC	13	1252	31
2007	JAN	2	1136	31
2007	FEB	0	1079	28

DAKOTA PRODUCTION
RICHARDSON 8E (30-045-24019)

Year	Month	Liquid	Gas	Water
2007	MAR	1	1064	31
2007	APR	0	898	30
2007	MAY	0	1151	31
2007	JUN	0	862	30
2007	JUL	0	917	31
2007	AUG	0	943	31
2007	SEP	16	969	30
2007	OCT		775	10
2007	NOV		1041	
2007	DEC		763	
2008	JAN	0	1272	0
2008	FEB	106	1039	10
2008	MAR	21	1127	10
2008	APR	0	710	10
2008	MAY	1	680	10
2008	JUN	3	681	10
2008	JUL		704	10
2008	AUG		716	10
2008	SEP		674	10
2008	OCT		675	10
2008	NOV		633	10
2008	DEC		635	10
2009	JAN	0	615	10
2009	FEB	0	556	9
2009	MAR	0	608	10
2009	APR	0	568	10
2009	MAY	0	588	10
2009	JUN	9	560	10
2009	JUL		582	10
2009	AUG		595	10
2009	SEP		563	10
2009	OCT		581	10
2009	NOV		564	10
2009	DEC		569	10
2010	JAN	0	553	10
2010	FEB	0	504	9
2010	MAR	0	1017	10
2010	APR	0	608	10
2010	MAY	8	648	11
2010	JUN	11	607	10
2010	JUL		606	10
2010	AUG		605	10
2010	SEP		577	10
2010	OCT		565	10
2010	NOV		571	10
2010	DEC		549	10
2011	JAN	2	566	10
2011	FEB	0	68	7
2011	MAR	111	1510	10
2011	APR	28	726	7
2011	MAY	27	992	20
2011	JUN	33	1224	20
2011	JUL	33	1153	20
2011	AUG	2	914	20
2011	SEP	30	971	20
2011	OCT	26	1141	20
2011	NOV	18	1059	20
2011	DEC	18	1003	20
2012	JAN	41	945	20
2012	FEB	27	846	19
2012	MAR	21	895	20
2012	APR	26	865	19
2012	MAY	14	902	20
2012	JUN	13	856	20
2012	JUL	22	886	20
2012	AUG	25	811	20
2012	SEP	16	849	20
2012	OCT	0	1120	20
2012	NOV	26	1051	20
2012	DEC	24	1054	20
2013	JAN	12	986	20
2013	FEB	20	929	18
2013	MAR	29	1049	20
2013	APR	9	993	19
2013	MAY	23	985	20
2013	JUN	14	957	19
2013	JUL	11	969	20
2013	AUG	19	1042	0
2013	SEP	20	1024	19
2013	OCT	15	1031	20
2013	NOV	0	968	20
2013	DEC	6	972	20
2014	JAN	0	955	20
2014	FEB	0	868	18
2014	MAR	6	955	20
2014	APR	1	903	20
2014	MAY	6	901	20
2014	JUN	7	903	20
2014	JUL	15	910	20
2014	AUG	17	911	20
2014	SEP	22	854	20
2014	OCT	15	928	20
2014	NOV	0	844	20
2014	DEC	1	900	20
2015	JAN	1	895	20
2015	FEB	1	809	18
2015	MAR	3	867	20
2015	APR	5	824	20
2015	MAY	3	876	20
2015	JUN	4	816	20
2015	JUL	2	836	20
2015	AUG	4	834	20
2015	SEP	5	803	19
2015	OCT	19	870	20
2015	NOV	16	842	20
2015	DEC	27	875	20
2016	JAN	11	847	20
2016	FEB	21	772	19
2016	MAR	31	910	20
2016	APR	20	852	20
2016	MAY	19	880	20
2016	JUN	21	830	20
2016	JUL	12	849	20
2016	AUG	16	850	20
2016	SEP	30	813	19
2016	OCT	8	857	20
2016	NOV	9	819	19
2016	DEC	26	814	20
2017	JAN	23	707	20
2017	FEB	15	768	18
2017	MAR	16	829	20
2017	APR	15	770	19
2017	MAY	20	806	20
2017	JUN	15	757	19
2017	JUL	8	792	20
2017	AUG	15	763	20
2017	SEP	0	754	20
2017	OCT	19	775	20
2017	NOV	23	759	20
2017	DEC	9	717	20
2018	JAN	0	785	20
2018	FEB	2	720	18
2018	MAR	57	782	20
2018	APR	28	755	20
2018	MAY	9	777	20
2018	JUN	7	759	20
2018	JUL	0	780	20
2018	AUG	5	670	20
2018	SEP	2	740	20
2018	OCT	3	770	20
2018	NOV	63	730	20
2018	DEC		726	20
2019	JAN	47	678	20

GALLUP PRODUCTION
RICHARDSON 8E (30-045-24019)

Year	Month	Liquid	Gas	Water
2000	MAR	1	407	5
2000	APR	8	567	6
2000	MAY	15	311	0
2000	JUN	3	281	0
2000	JUL	6	256	0
2000	AUG	20	747	0
2000	SEP	2	830	0
2000	OCT	4	733	0
2000	NOV	3	1181	0
2000	DEC	3	3800	
2001	JAN	10	3539	
2001	FEB	7	3931	
2001	MAR	3	4113	
2001	APR	0	3938	
2001	MAY	1	3732	
2001	JUN	1	4347	
2001	JUL	5	2774	
2001	AUG	8	4004	
2001	SEP	1	3506	
2001	OCT	8	3803	
2001	NOV	0	3419	
2001	DEC	1	3328	
2002	JAN	0	3338	
2002	FEB	0	2199	
2002	MAR	1	3499	
2002	APR	0	3231	
2002	MAY	0	3331	
2002	JUN	0	2135	
2002	JUL	0	3449	
2002	AUG	0	3379	
2002	SEP	1	3190	
2002	OCT	0	3440	
2002	NOV	0	3131	
2002	DEC	1	3283	
2003	JAN	0	1987	
2003	FEB	0	2717	
2003	MAR	0	3441	
2003	APR	1	3043	
2003	MAY	1	3271	
2003	JUN	0	3036	
2003	JUL	0	2658	
2003	AUG	1	3835	
2003	SEP	0	3639	
2003	OCT	0	4061	
2003	NOV	0	3954	
2003	DEC	0	4154	
2004	JAN	1	4130	
2004	FEB	0	2973	
2004	MAR	0	3175	
2004	APR	1	1376	
2004	MAY	0	3204	
2004	JUN	0	4255	
2004	JUL	1	3555	
2004	AUG	0	4164	
2004	SEP	1	3946	
2004	OCT	0	3386	
2004	NOV	0	3697	
2004	DEC	0	4142	
2005	JAN	1	3694	
2005	FEB	1	3395	
2005	MAR	0	4176	
2005	APR	0	3499	

Year	Month	Liquid	Gas	Water
2005	MAY	1	3561	
2005	JUN	0	3242	
2005	JUL	1	2839	
2005	AUG	0	3450	
2005	SEP	1	3434	
2005	OCT	1	3664	
2005	NOV	0	3560	
2005	DEC	1	3319	
2006	JAN	0	3546	0
2006	FEB	1	3087	0
2006	MAR	0	3233	0
2006	APR	1	3460	0
2006	MAY	0	2896	0
2006	JUN	1	2632	0
2006	JUL	0	3166	0
2006	AUG	0	3170	0
2006	SEP	1	3243	0
2006	OCT	0	2760	0
2006	NOV	1	2538	0
2006	DEC		3218	31
2007	JAN		2922	31
2007	FEB		2776	28
2007	MAR		2737	31
2007	APR		2311	30
2007	MAY		2962	31
2007	JUN		2215	30
2007	JUL		2358	31
2007	AUG		2425	31
2007	SEP		2492	30
2007	OCT		1994	10
2007	NOV		2677	
2007	DEC		1962	
2008	JAN	0	3270	0
2008	FEB	2	2671	10
2008	MAR	1	2898	10
2008	APR		1824	10
2008	MAY		1750	10
2008	JUN		1749	10
2008	JUL		1811	10
2008	AUG		1842	10
2008	SEP		1733	10
2008	OCT		1737	10
2008	NOV		1626	10
2008	DEC		1633	10
2009	JAN	0	1578	10
2009	FEB	0	1429	9
2009	MAR	0	1561	10
2009	APR	0	1458	10
2009	MAY	0	1510	10
2009	JUN	1	1437	10
2009	JUL		1495	10
2009	AUG		1527	10
2009	SEP		1445	10
2009	OCT		1492	10
2009	NOV		1450	10
2009	DEC		1460	10
2010	JAN	0	1420	10
2010	FEB	0	1297	9
2010	MAR	0	2614	10
2010	APR	0	1562	10
2010	MAY	1	1666	10
2010	JUN		1561	10

Year	Month	Liquid	Gas	Water
2010	JUL		1561	10
2010	AUG		1556	10
2010	SEP		1481	10
2010	OCT		1455	10
2010	NOV		1467	10
2010	DEC		1412	10
2011	JAN	0	1456	10
2011	FEB	0	177	7
2011	MAR	2	3884	10
2011	APR	0	1866	8
2011	MAY	1	2550	1
2011	JUN	1	3147	0
2011	JUL	0	2964	1
2011	AUG	0	2349	0
2011	SEP	0	2497	0
2011	OCT	1	2931	1
2011	NOV	0	2725	0
2011	DEC	1	2576	1
2012	JAN	0	2429	1
2012	FEB	1	2174	0
2012	MAR	0	2301	1
2012	APR	1	2224	0
2012	MAY	0	2319	1
2012	JUN	1	2199	0
2012	JUL	0	2280	1
2012	AUG	0	2087	0
2012	SEP	0	2182	0
2012	OCT	0	2880	0
2012	NOV	1	2703	0
2012	DEC		2710	1
2013	JAN	0	2536	1
2013	FEB	1	2390	1
2013	MAR	0	2698	
2013	APR	0	2553	
2013	MAY	1	2534	
2013	JUN	0	2459	
2013	JUL	0	2491	
2013	AUG	1	2678	
2013	SEP	0	2632	
2013	OCT	0	2650	
2013	NOV	0	2488	
2013	DEC	1	2498	
2014	JAN	0	2457	
2014	FEB	0	2233	
2014	MAR	0	2456	
2014	APR	0	2324	
2014	MAY	0	2316	
2014	JUN	0	2321	
2014	JUL	0	2342	
2014	AUG	1	2342	
2014	SEP		2196	
2014	OCT		2385	
2014	NOV		2168	
2014	DEC		2315	
2015	JAN	0	2301	
2015	FEB	0	2079	
2015	MAR	0	2231	
2015	APR	0	2120	
2015	MAY	0	2252	
2015	JUN	0	2099	
2015	JUL	0	2151	
2015	AUG	1	2144	

Year	Month	Liquid	Gas	Water
2015	SEP	0	2065	
2015	OCT	0	2237	
2015	NOV	0	2165	
2015	DEC	1	2250	
2016	JAN	0	2176	
2016	FEB	0	1985	
2016	MAR	1	2340	
2016	APR	1	2190	
2016	MAY	0	2263	
2016	JUN	0	2133	
2016	JUL	0	2183	
2016	AUG	0	2185	
2016	SEP	1	2090	
2016	OCT		2205	
2016	NOV		2106	
2016	DEC		2093	
2017	JAN	1	1819	
2017	FEB	0	1975	
2017	MAR	0	2131	
2017	APR	0	1979	
2017	MAY	0	2073	
2017	JUN	0	1947	
2017	JUL	0	2036	
2017	AUG	0	1963	
2017	SEP	27	1940	
2017	OCT		1992	
2017	NOV		1953	
2017	DEC		1845	
2018	JAN	0	2018	
2018	FEB	0	1850	
2018	MAR	1	2010	
2018	APR	1	1939	
2018	MAY	0	2000	
2018	JUN	0	1954	
2018	JUL	0	2004	
2018	AUG	0	1722	
2018	SEP	0	1904	
2018	OCT	0	1981	
2018	NOV	1	1879	
2018	DEC		1869	
2019	JAN	1	1744	

Hilcorp Energy Company

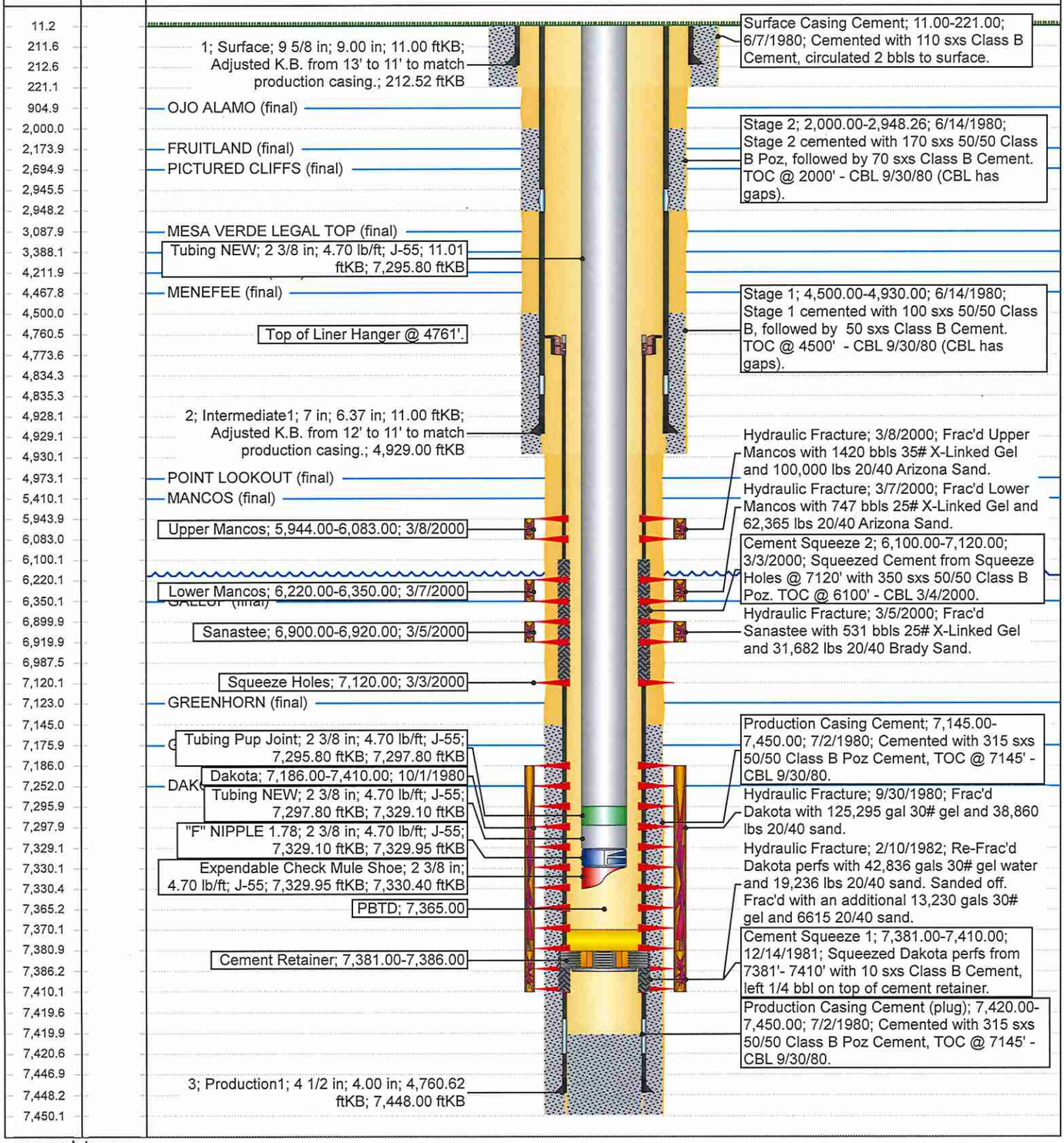
Current Schematic

Well Name: RICHARDSON #8E

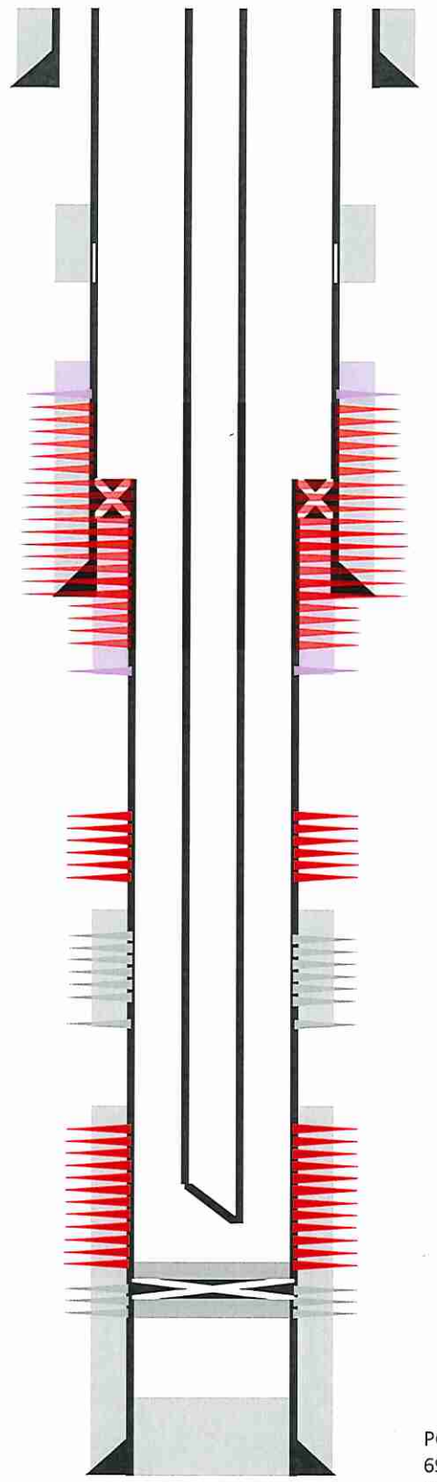
API / UWI	Surface Legal Location	Field Name	Route	State/Province	Well Configuration Type
3004524019	010-031N-012W-H	WILDCAT	0108	NEW MEXICO	

Ground Elevation (ft)	Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)
6,183.00	6,194.00	11.00		

Original Hole, 5/20/2019 3:45:05 PM



Richardson 8E (API: 3004524019): Mesa Verde Recomplete - Proposed Schematic



KB = 11'

SC: 9-5/8" 32.3# H40 @ 213'
Cmt'd to surface w/ 110 sx

DV Tool @ 2948', cmt'd w/ 240 sx, TOC @ 2000' (CBL - 9/30/80)

Cement remediation: circulated sqz f/ 4450' to 3950'

Proposed Mesa Verde perforations: 4468-5290'

TOL @ 4761'

IC: 7" 23# K55 @ 4929', cmt'd w/ 150 sx, TOC @ 4500' (CBL - 9/30/80)

Cement remediation: suicide sqz f/ ~5500 to below TOL

Upper Mancos: 5944-6083'

Lower Mancos: 6220-6350'. Sqz'd 3/3/00.

Senastee: 6900-6920'. Sqz'd

Sqz perf: 7120'. Sqz'd (3/3/00) w/ 350 sx, TOC @ 6100' (CBL - 3/4/00)

Dakota: 7186-7410'.

CICR @ 7381'. Sqz'd 7381-7410' w/ 10 sx, 15' cmt on top on 12/14/81. PBTD @ 7366'

PC: 4-1/2" 10.5#/11.6# K55 @ 6988'/7448', cmt'd w/ 315 sx, TOC @ 7145' (CBL - 9/30/80)

BURLINGTON RESOURCES

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: Richardson #8E
SENE, Section 10, T-31-N, R-12-W
30-045-24019
San Juan County, New Mexico

Gentlemen:

The above referenced well is a Gallup/Dakota commingle. Attached is a copy of the allocation for the commingling of the subject well completed on November 19, 2000. DHC-2809 was issued for this well.

Gas:	Gallup	72%
	Dakota	28%
Oil:	Gallup	2%
	Dakota	98%

These allocations were calculated using rate-time reserve estimate comparisons for each respective formation. Please let me know if you have any questions.

Sincerely,

Peggy Cole
Regulatory Supervisor

Xc: NMOCD – Santa Fe
Bureau of Land Management

3401 East 30th, Post Office Box 4289, Farmington, NM 87499 505-326-9727 Fax: 505-326-9563

PRODUCTION ALLOCATION FORMULA BASED ON REMAINING RESERVES

Richardson #8E
(Dakota/Gallup) Commingle
Unit H, 10-T31N-R12W
San Juan County, New Mexico

Allocation Formula Method:

GAS:

Capital Workover - November 2000
(effective December 2000)

	EUR	RR	Gas Allocation %
Dakota	818	257	28%
Both Formations	963	925	
Gallup		668	72%

OIL:

	EUR	RR	Allocation
Dakota	5.31	1.78	98%
Both Formations	2.03	1.83	
Gallup		0.05	2%

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Farmington Field Office
1235 La Plata Highway, Suite A
Farmington, New Mexico 87401

IN REPLY REFER TO:
Richardson #8E
3162.7 (07100)

January 8, 2002

Ms. Peggy Cole
Burlington Resources
PO Box 4289
Farmington, NM 87499

RE: Richardson #8E - Accept downhole commingle applications & allocation factors

Dear Ms. Cole:

The Richardson #8E well was reviewed for downhole commingling of the Gallup and Dakota formations. After reviewing the production history for this well, we concur with the allocation factors established in your application. The effective date is the date that downhole commingling actually occurs. The well and the approved allocation factors are listed below.

Well Name	Lease	Location	API#	Formation Allocation	Formation Allocation
Richardson #8E	NMSF077651	sec 10, T31N, R12W	3004524019	GP gas 72% oil 2%	DK gas 28% oil 98%

If you have any questions, please contact Adrienne Garcia at (505) 599-6358 or the undersigned with this office at (505) 599-6367.

Sincerely,

Jim Lovato
Team Lead, Petroleum Management Team

cc: NMOCD, Santa Fe, NM
NMOCD, Aztec, NM

bcc: 1 well file
DOMR
07100:AGarcia:1/8/02:x6358Burlington

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

5. Lease Serial No.
NMSF077651

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Richardson 8E

2. Name of Operator
Hilcorp Energy Company

9. API Well No.
30-045-24019

3a. Address
382 Road 3100, Aztec, NM 87410

3b. Phone No. (include area code)
505-599-3400

10. Field and Pool or Exploratory Area
Blanco Mesaverde/Basin Dakota/ Dusenberry Gallup

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
Surface Unit H (SE/NE) 1590' FNL & 1070' FEL, Sec. 10, T31N, R12W

11. Country or Parish, State
San Juan , New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☒ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Hilcorp Energy Company requests permission to recomplete the subject well in the Mesaverde and downhole commingle with the existing Dakota formation. Attached is the procedure, wellbore diagram, plat, and gas capture plan. A DHC application will be filed and approved prior to commingling. A closed loop system will be used. Interim reclamation will be performed afer surface disturbing activities.

*****Well pending density approval*****

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Priscilla Shorty Title **Operations/Regulatory Technician - Sr.**

Signature Priscilla Shorty Date **5/6/2019**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

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.

(Instruction on page 2)

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

Form C-102
August 1, 2011

Permit 263614

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-24019	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318679	RICHARDSON	008E
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6183

10. Surface Location

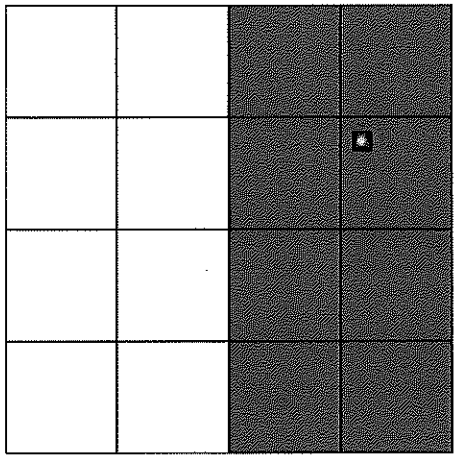
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	10	31N	12W		1590	N	1070	E	SAN JUAN

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
320.00			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By: *Priscilla Shorty*
Title: Operations Regulatory Technician - Sr.
Date: 02/12/2019

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 belief.

Surveyed By: Fred Kerr
Date of Survey: 10/11/1979
Certificate Number: 3950

HILCORP ENERGY COMPANY
RICHARDSON 8E
MESA VERDE RECOMPLETION SUNDRY

API #:	3004524019

JOB PROCEDURES		
☑	NMOCD	**Contact OCD and BLM (where applicable) 24 hrs prior to MIRU. Record and document all casing pressures daily, including**
☑	BLM	**BH, IC (if present) and PC. Comply with all NMOCD, BLM (where applicable), and HEC safety and environmental regulations.**

1. MIRU workover rig and associated equipment; NU and test BOP.
2. TOOH with **2 3/8"** tubing set at **7,330'.**
3. Set a **4-1/2"** cast iron bridge plug at +/- **5,894'** to isolate the **Dakota and Mancos**
4. Load hole with fluid, PT the csg to 600 psi and run a CBL on the 4-1/2" casing. Verify cement bond within the **Mesa Verde** and confirm TOC. Review CBL results with the regulatory agencies and perform cmt remediation, as required.
5. Perform a witnessed MIT test on the csg with the appropriate regulatory agencies to 600 psi
6. Perforate the **Mesa Verde**. (Top perforation @ 4,468', Bottom perforation @ 5,290')
7. RIH w/ BHA (frac string, packer, burst disc sub), set packer @ ~4,350'.
8. ND BOPs, NU frac stack. PT frac stack to 9,000#. PT frac string to 9,000#, PT backside to 300# (to insure packer is set).
   NOTE: frac string is 2-7/8" 6.5# P110 with BTS-8 connections. PT is to max anticipated treating pressure (~60% of burst)
9. Break disc with slickline
10. Frac the **Mesa Verde** in 1-2 stages down the frac string.
11. Flowback well for 1-3 days as required
12. MIRU workover rig. Nipple down frac stack, nipple up BOPs and test.
13. Release packer and POOH w/ frac string
14. TIH w/ mill and clean down to the top of the **DK/MN isolation plug** at **5,894'**. Take **Mesa Verde** gas samples and send for analysis
15. Drill out **DK/MN isolation plug** and cleanout to PBTD at **7,420'**. POOH.
16. TIH and land production tubing. ND BOPs and NU tree. Pump off expendable check.
17. RDMO. Get a trimingled **Dakota/Mancos/Mesa Verde** flow rate.

HILCORP ENERGY COMPANY
RICHARDSON 8E
MESA VERDE RECOMPLETION SUNDRY

RICHARDSON 8E - CURRENT WELLBORE SCHEMATIC

Hilcorp Energy Company

Schematic - Current

Well Name: RICHARDSON #8E

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004524019	010-031N-012W-H	WILDCAT		NEW MEXICO	

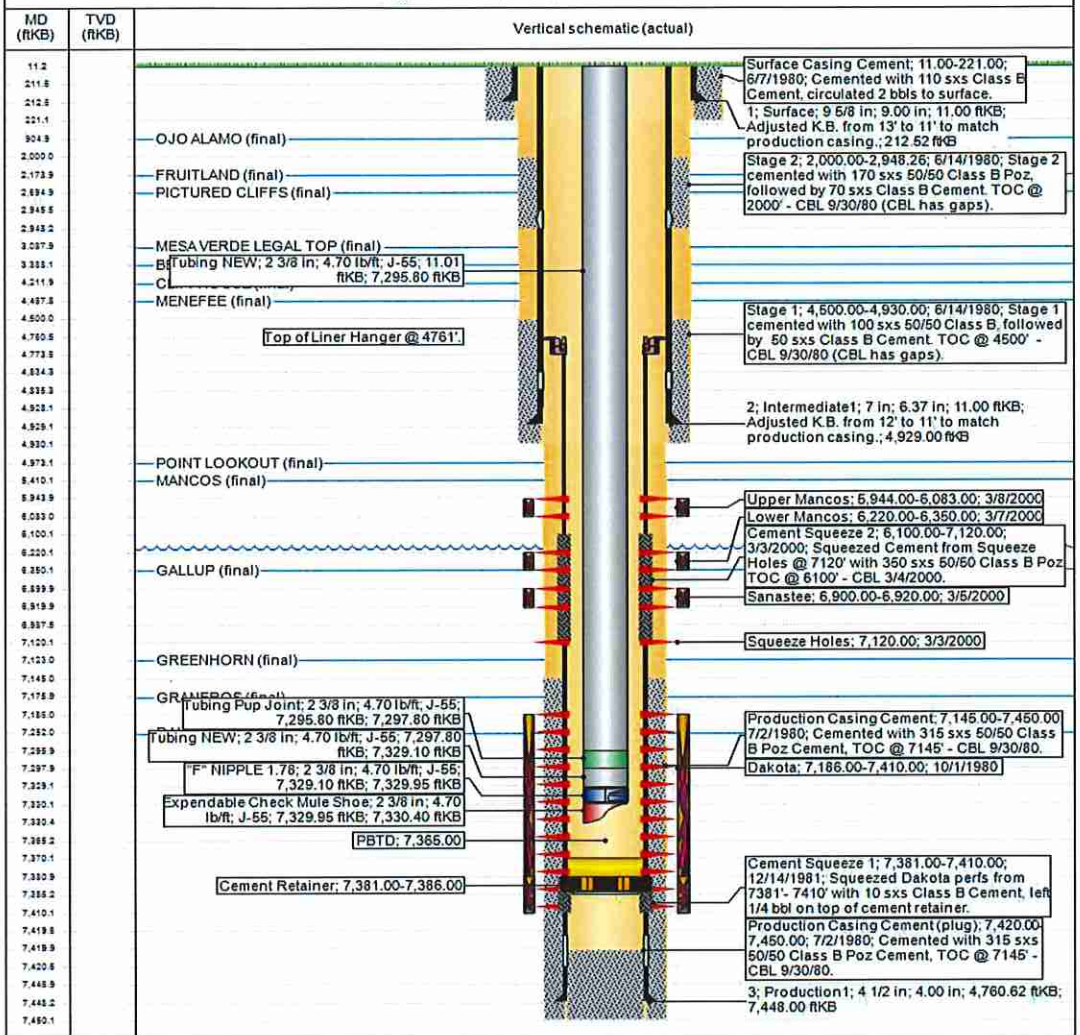
Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	Original Spud Date	Rig Release Date	PBTD (All) (ftKB)	Total Depth All (TVD) (ftKB)
6,194.00	11.00	6/7/1980 00:00	11/19/2000 12:00	Original Hole - 7,365.0	

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
WELL INTERVENTION	TUBING REPAIR		2/9/2011	2/15/2011

TD: 7,450.0

Original Hole, 5/4/2019 6:34:06 AM



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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, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 5/6/2019

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: **Hilcorp Energy Company 372171**

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
RICHARDSON 8E	3004524019	H, 10, 31N, 12W	1590' FNL, 1070' FEL	300	Vented	

Gathering System and Pipeline Notification

This is a recompletion of a producing gas well. Gas production, sales and transportation infrastructure is already in place. The gas is dedicated to Harvest and will be connected to their gathering system located in San Juan County, New Mexico. Gas from these wells will be processed at Kutz Processing Plant located in Sec 13 , Twn. 28N , Rng. 11W , San Juan County, New Mexico.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be routed to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Harvest system at that time. Based on current information, it is Hilcorp's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

ADMINISTRATIVE ORDER DHC-2809

Burlington Resources Oil & Gas Company
P.O. Box 4289
Farmington, New Mexico 87499

Attention: Ms. Peggy Cole

Richardson No. 8E
API No. 30-045-24019
Unit H, Section 10, Township 31 North, Range 12 West, NMPM,
San Juan County, New Mexico
Dusenberry-Gallup (Gas – 76180) and
Basin-Dakota (Prorated Gas – 71599) Pools

Dear Ms. Cole:

Reference is made to your recent application for an exception to Rule 303.A. of the Division Rules and Regulations to permit the above described well to commingle production from the subject pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303.C., and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the zones is hereby placed in abeyance.

The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

The applicant shall consult with the supervisor of the Aztec District Office of the Division upon completion and testing of the well in order to determine a fixed allocation of production from each of the commingled zones. Upon approval by the Division's Aztec District Office, the applicant shall submit the allocation formula to the Santa Fe Office of the Division.

REMARKS: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303.C.(2), the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 11th day of September, 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Lori Wrotenbery by DC

LORI WROTENBERY
Director

S E A L

LW/DRC

cc: Oil Conservation Division - Aztec
Bureau of Land Management-Farmington

McMillan, Michael, EMNRD

From: Priscilla Shorty <pshorty@hilcorp.com>
Sent: Tuesday, May 21, 2019 12:44 PM
To: McMillan, Michael, EMNRD
Cc: Jones, William V, EMNRD; Powell, Brandon, EMNRD; Pickford, Katherine, EMNRD; Scott Anderson
Subject: [EXT] RE: [EXTERNAL] RE: Richardson 8E_C107A Full Application
Attachments: Richardson 8E_NOI MV RC_05.06.2019.pdf

Michael,

Please see attached recomplete NOI packet that was submitted. The procedure indicates that a CBL will be ran. The results from the CBL will be reviewed with regulatory agencies and if need be, perform cement remediation.

Priscilla

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]
Sent: Tuesday, May 21, 2019 12:39 PM
To: Priscilla Shorty <pshorty@hilcorp.com>
Cc: Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>; Pickford, Katherine, EMNRD <Katherine.Pickford@state.nm.us>
Subject: RE: [EXTERNAL] RE: Richardson 8E_C107A Full Application

Priscilla:
What are HilCorp's plans for cement across the Mesaverde which is currently uncemented?

Mike

From: Priscilla Shorty <pshorty@hilcorp.com>
Sent: Tuesday, May 21, 2019 10:46 AM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: [EXT] RE: [EXTERNAL] RE: Richardson 8E_C107A Full Application

Yes it is.

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]
Sent: Tuesday, May 21, 2019 10:45 AM
To: Priscilla Shorty <pshorty@hilcorp.com>
Subject: RE: [EXTERNAL] RE: Richardson 8E_C107A Full Application

Is this the standard BLM commingle application based on subtraction and final allocation after four years?

Mike

From: Priscilla Shorty <pshorty@hilcorp.com>
Sent: Tuesday, May 21, 2019 9:00 AM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: [EXT] RE: [EXTERNAL] RE: Richardson 8E_C107A Full Application

I apologize. The letters were behind the long application and did not seem to scan. The attached now includes the letters.

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]
Sent: Tuesday, May 21, 2019 8:55 AM
To: Priscilla Shorty <pshorty@hilcorp.com>
Subject: [EXTERNAL] RE: Richardson 8E_C107A Full Application

I do not see a statement about ownership

From: Priscilla Shorty <pshorty@hilcorp.com>
Sent: Tuesday, May 21, 2019 8:53 AM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: [EXT] Richardson 8E_C107A Full Application
Importance: High

Good morning Michael,

Attached is a C107A application packet for the Richardson 8E recomplete project. Please let me know if you have questions or concerns.

Thank you,

Priscilla A. Shorty
San Juan North Regulatory Technician
Hilcorp Energy Company
505-324-5188
pshorty@hilcorp.com
