DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
811 South First St., Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410
DISTRICT IV
2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A
Revised March 17, 1999
APPROVAL PROCESS:
_X_ Administrative ___Hearing
EXISTING WELLBORE
_X_ YES ___ NO

BURLINGTON RESOURCES OIL & GAS COMPANY (Operator) PO Box 4289, Farmington, NM 87499 (Address)

Frontier E (Lease) 1E (Well No.) G, Sec 4, T27N, R11W (Unit Ltr. - Sec - Twp - Rge) San Juan (County)

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. __14538_____ Property Code ___18527_____ API NO. _30-045-2410200_____ Federal __X_ , State ____, (and/or) Fee ____

The following items must be submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Kutz Gallup - 36550		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	5812' – 5994'		6556' – 6644'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	(Current) a. 335 psia @ 5903'	a.	a. 317 psia @ 6600'
	(Original) b. 2301 psia @ 5903'	b.	b. 1461 psia @ 6600'
6. Oil Gravity (°API) or Gas BTU Content	1210 BTU		1210 BTU
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give 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: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/ water rates of recent test (within 60 days)	Date: 03/31/99 Rates: 42 MCFD 3 BOD, 0 BWD	Date: Rates:	Date: 03/31/99 Rates: 129 MCFD, 0.5 BOD, 0.3 BWD
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: Gas: Will supply for commingling	Oil: % Gas: %	Oil: Gas: Will supply for commingling

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MAY 21 1999
OIL CON. DIV.
DIST. 3

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? X 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? __X Yes ___ No

11. Will cross-flow occur? _X_ 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. _X_ Yes ___ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? _X_ Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes _X_ 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. _X_ 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 _____ TITLE Operations Engineer DATE 05-12-99

TYPE OR PRINT NAME Timothy J. Friesenhahn TELEPHONE NO. (505) 326-9700

MEXICO OIL CONSERVATION COMMI[SSION] RECEIVED FT. WORTH

WELL LOCATION AND ACREAGE DEDICATION PLAT

JAN - 7 1982

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease		Well No.
SOUTHLAND ROYALTY COMPANY	FRONTIER "E"	PRODUCTION	1-E

Unit Letter	Section	Township	Range	County
G	4	27N	11W	San Juan

Actual Footage Location of Well:
1865 feet from the North line and 1520 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6155'	Dakota/Gallup	Basin/Kutz	320 Acres

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

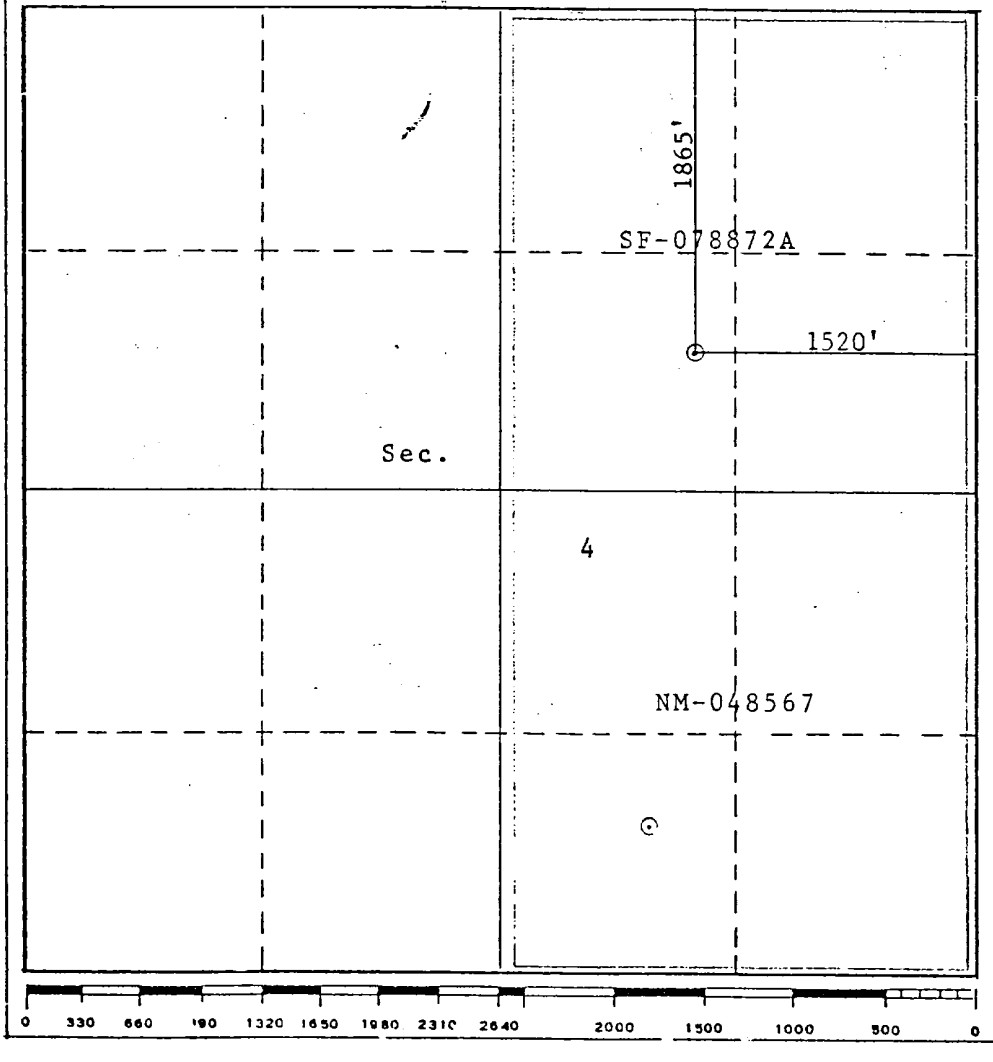
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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

[X] Yes [ ] No If answer is "yes," type of consolidation Communitized

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 Comm s-sion.



CERTIFICATION

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

R. E. Fielder

Name: R. E. Fielder

Position: District Engineer

Company: Southland Royalty Company

Date: January 4, 1982

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

Registered Professional Engineer and/or Land Surveyor

Certificate No.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
SOUTHLAND ROYALTY COMPANY	Frontier "E"	1-E

Unit Letter	Section	Township	Range	County
G	4	27N	11W	San Juan

Actual Footage Location of Well: 1865 feet from the North line and 1520 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6155'	Gallup	Kutz	40 Acres

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

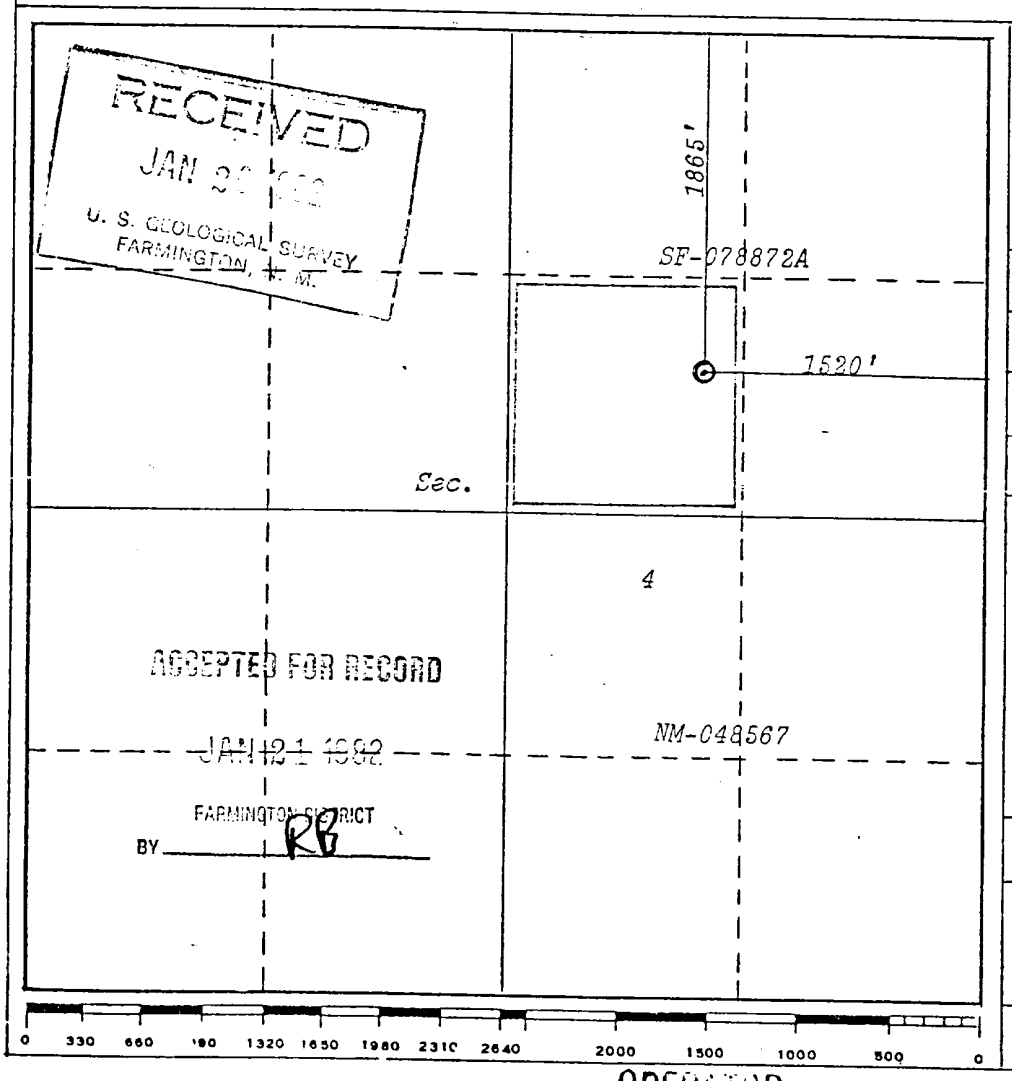
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.



CERTIFICATION

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

R. E. Fielder

Name: R. E. Fielder

Position: District Engineer

Company: Southland Royalty Company

Date: January 18, 1982

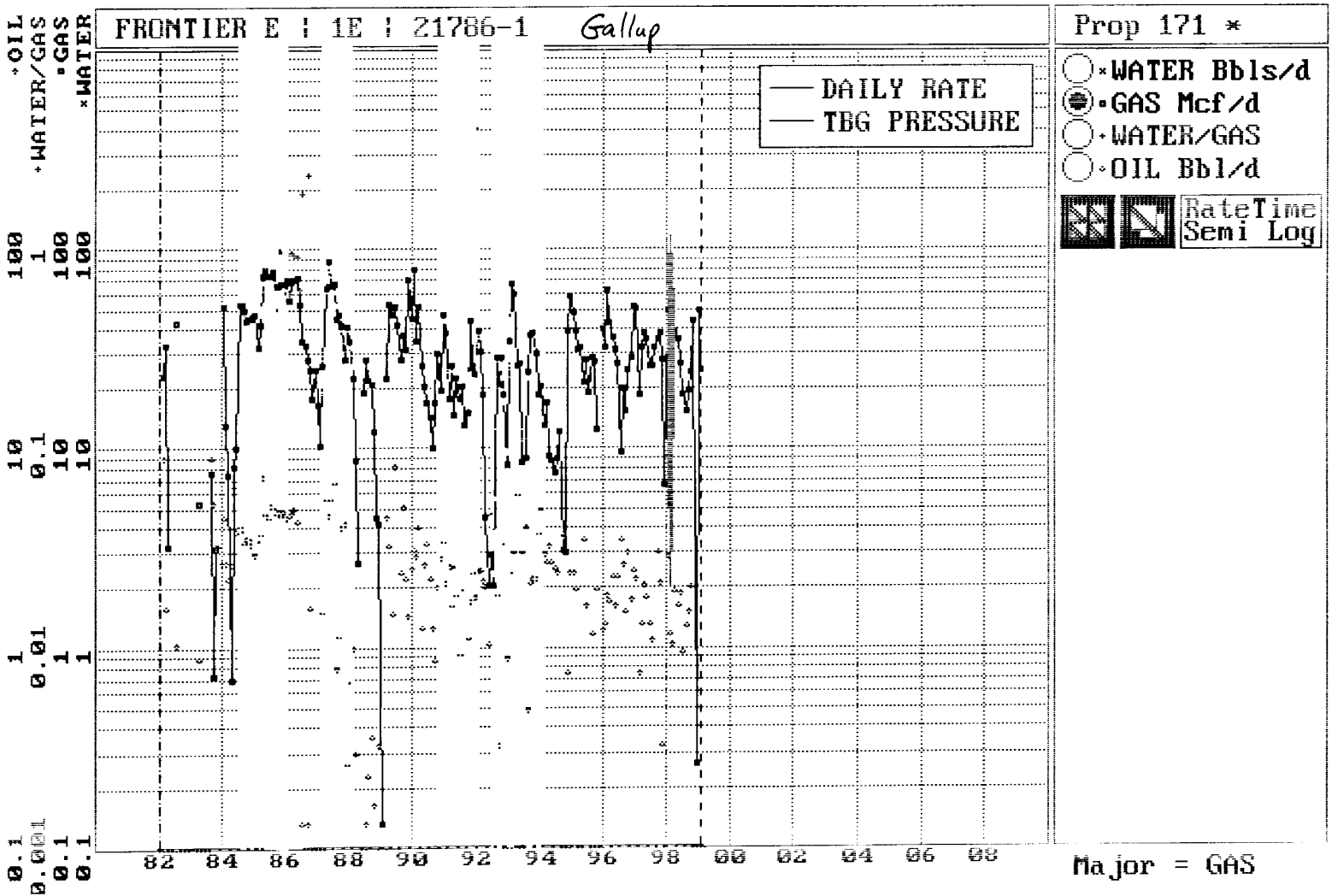
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

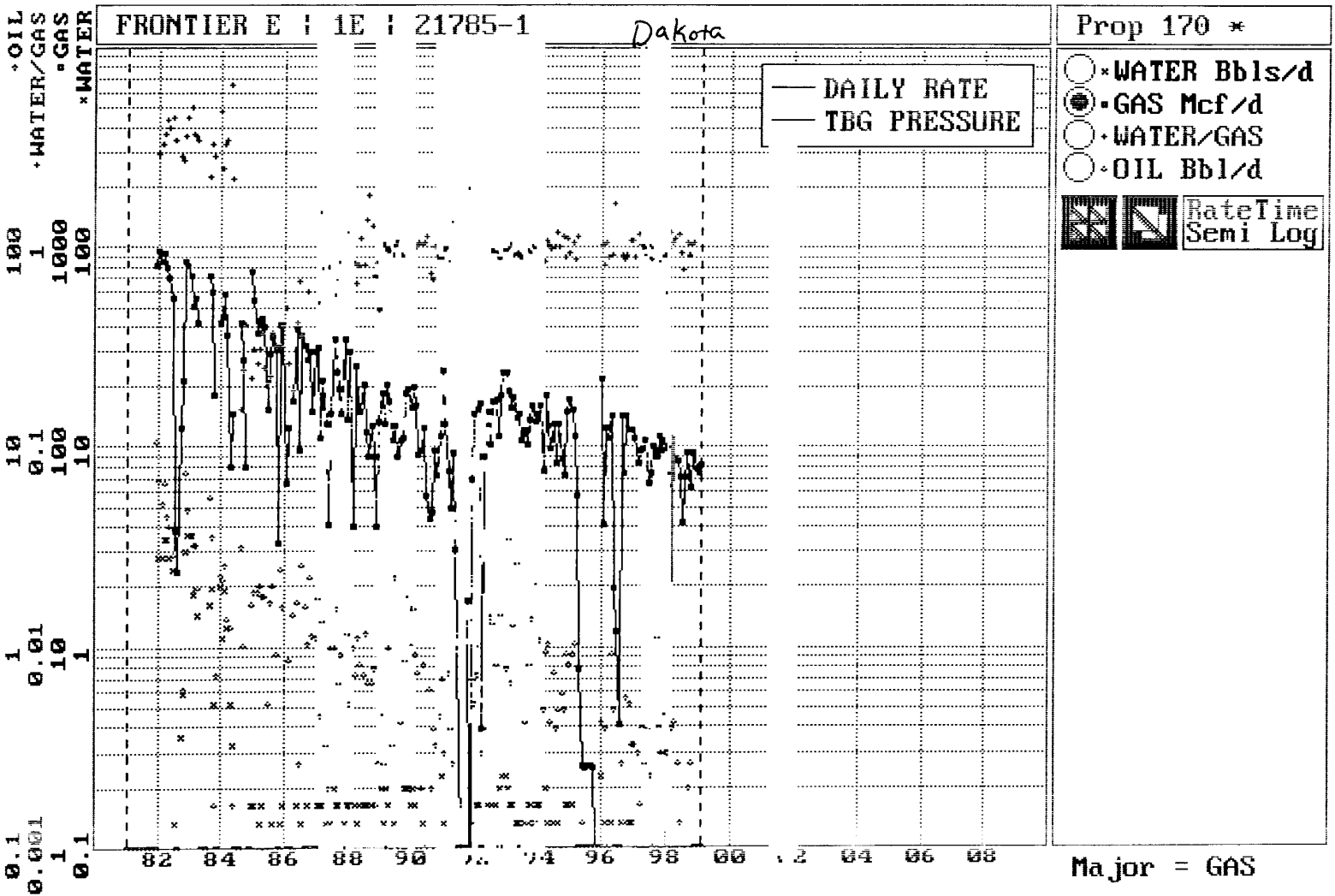
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

OPERATOR


FRONTIER E | 1E | 21786-1
Gallup
DAILY RATE
TBG PRESSURE
Prop 171 *
WATER Bbls/d
GAS Mcf/d
WATER/GAS
OIL Bbl/d
RateTime
Semi Log
OIL
WATER/GAS
GAS
WATER
100 1 100 100
10 0.1 10 10
1 0.01 1 1
0.1 0.001 0.1 0.1
82 84 86 88 90 92 94 96 98 00 02 04 06 08
Major = GAS


FRONTIER E ¦ 1E ¦ 21785-1
Dakota
DAILY RATE
TBG PRESSURE
Prop 170 *
WATER Bbls/d
GAS Mcf/d
WATER/GAS
OIL Bbl/d
RateTime
Semi Log
Major = GAS
OIL
WATER/GAS
GAS
WATER
82
84
86
88
90
94
96
98
00
02
04
06
08

GL-DK
Offset well for
Frontier E #1E - GL

Page No.: 3
Print Time: Mon May 03 13:07:27 1999
Property ID: 7802
Property Name: NAGEEZI | 5 | 45685A-1
Table Name: K:\ARIES\RR99PDP\TEST.DBF

--DATE--	---CUM_GAS-- Mcf	M_SIWHP Psi	
02/12/80	0	1848.0	Original
01/20/81	17127	1280.0	
07/20/81	76575	1084.0	
06/04/82	180024	1031.0	
10/12/83	282328	1259.0	
05/06/93	1588956	668.0	
3/31/99	2130473	285.	Current Based on Cum Gas vs Pressure Curve

Page No.: 1
Print Time: Thu Apr 29 10:43:16 1999
Property ID: 170
Property Name: FRONTIER E | 1E | 21785-1 Dakota
Table Name: S:\JSMITH\ARIES\99WORK\TEST.DBF

--DATE--	---CUM_GAS-- Mcf	M_SIWHP Psi	
12/19/80	0	1211.0	Original
05/04/82	153865	708.0	
10/12/83	345551	573.0	
06/12/85	525274	479.0	
05/31/88	757461	686.0	
05/08/90	856763	457.0	
07/01/92	921690	468.0	
3/31/99	1171227	270	Current Based on CumGas vs Pressure Curve

Frontier E #1E
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 3/13/94

Gallup

GL-Current

GAS GRAVITY	0.76
COND. OR MISC. (C/M)	M
%N2	1.12
%CO2	0.65
%H2S	0
DIAMETER (IN)	6.366
DEPTH (FT)	5903
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	133
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	285
BOTTOMHOLE PRESSURE (PSIA)	334.9

GL-Original

GAS GRAVITY	0.76
COND. OR MISC. (C/M)	M
%N2	1.12
%CO2	0.65
%H2S	0
DIAMETER (IN)	6.366
DEPTH (FT)	5903
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	133
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1848
BOTTOMHOLE PRESSURE (PSIA)	2300.8

Dakota

DK-Current

GAS GRAVITY	0.686
COND. OR MISC. (C/M)	M
%N2	0.48
%CO2	1.11
%H2S	0
DIAMETER (IN)	6.366
DEPTH (FT)	6600
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	142
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	270
BOTTOMHOLE PRESSURE (PSIA)	316.5

DK-Original

GAS GRAVITY	0.686
COND. OR MISC. (C/M)	M
%N2	0.48
%CO2	1.11
%H2S	0
DIAMETER (IN)	6.366
DEPTH (FT)	6600
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	142
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1211
BOTTOMHOLE PRESSURE (PSIA)	1460.9

Cumulative Monthly Well Report

November 1998 -- April 1999

Select By : **Completions**
Sort By :

Report Number : R_290
Last Update :
Print Date : 04/29/1999, 10:04:06

Completion			Date	Cur Oil	Cum Oil	Cur Gas	Cum Gas	Cur Wat	Cum Wat
FRONTIER E	1E	DK	11/30/1998	11.87	27.28	2,848.13	2,848.13	2.79	2.79
			12/31/1998	4.05	31.33	2,412.52	5,260.65	2.36	5.15
			01/31/1999	19.11	50.44	2,344.87	7,605.52	2.30	7.45
			02/28/1999	18.98	69.42	2,537.01	10,142.53	2.49	9.94
			03/31/1999	14.74	84.16	4,002.67	14,145.20	8.58	18.52
			04/30/1999	0.00	84.16	0.00	14,145.20	0.00	18.52
		GL	11/30/1998	16.58	71.49	1,350.63	1,350.63	0.00	0.00
			12/31/1998	0.00	71.49	166.56	1,517.19	0.00	0.00
			01/31/1999	81.09	152.58	1,618.49	3,135.68	0.00	0.00
			02/28/1999	64.28	216.86	881.58	4,017.26	0.00	0.00
			03/31/1999	91.24	308.10	1,293.98	5,311.24	3.49	3.49
			04/30/1999	0.00	308.10	0.00	5,311.24	0.00	3.49

FARMINGTON 1998 MONTHLY PRODUCTION FOR 21786 PHS030M1
FRONTIER E 1E
KUTZ (GALLUP) FIELD GALLUP ZONE

			DAYS		OIL			GAS					
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER PROD	C
1	1	F	31	00	88	53.0	03	1516	31	1188	15.025		
2	1	F	28	00	36		03	1360	28	1188	15.025		
3	1	F	31	00	32	47.6	03	1192	31	1188	15.025		
4	1	F	30	00	59		03	1186	30	1188	15.025		
5	1	F	31	00	50		03	1087	31	1188	15.025		
6	1	F	30	00	57	40.7	03	805	30	1188	15.025		
7	1	F	17	00	29		03	574	17	1188	15.025		
8	1	F	21	00	39		03	474	21	1188	15.025		
9	1	F	30	00	46		03	596	30	1188	15.025		
10	1	F	31	00	62	42.0	03	734	31	1188	15.025		
11	1	F					03	1327		1188	15.025		
12													

PF6 - RETURNS TO ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE
PF10 - HELP INFORMATION PF9 - DISPLAY MONTHLY INJECTION
00/00/00 00:00:00:0 PRS 01/06/99

FARMINGTON ANNUAL PRODUCTION FOR 21786 PHS020M1

FRONTIER E 1E

KUTZ (GALLUP) FIELD GALLUP ZONE

====== OIL CUM =======		====== GAS CUM =======		==== WATER CUM =====	
PC DATE	BBLS	PC DATE	MCF	DATE	BBLS

YEAR	OIL	OIL CUM	GAS	GAS CUM	WATER	WATER CUM
1991	628	8536	8456	110162		31
1992	825	9361	6253	116415		31
1993	884	10245	11582	127997		31
1994	856	11101	6108	134105		31
1995	420	11521	9959	144064		31
1996	787	12308	11631	155695		31
1997	489	12797	11234	166929		31
1998	498	13295	10851	177780		31

3/31/99 190,598

POSITION CURSOR BY YEAR AND PRESS ENTER TO DISPLAY MONTHLY PRODUCTION

ENTER - CONTINUES ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF6 - RETURN TO WELL-INFO DISPLAY

PF9 - ANNUAL INJECTION DISPLAY

PF10 - HELP INFORMATION

FARMINGTON ANNUAL PRODUCTION FOR 21785 PHS020M1
FRONTIER E 1E
BASIN DAKOTA (PRORATED GAS) FIELD DAKOTA ZONE

====== OIL CUM =======		====== GAS CUM =======		==== WATER CUM =====	
PC DATE	BBLS	PC DATE	MCF	DATE	BBLS

YEAR	OIL	OIL CUM	GAS	GAS CUM	WATER	WATER CUM
1991	97	4908	18805	896084	19	1657
1992	253	5161	54352	950436	54	1721
1993	392	5553	52875	1003311	52	1773
1994	258	5811	45008	1048319	46	1819
1995	77	5888	17414	1065733	17	1836
1996	111	5999	32363	1098096	31	1867
1997	132	6131	34946	1133042	34	1901
1998	68	6199	26888	1159930	28	1929
			3/31/99	1171227		

POSITION CURSOR BY YEAR AND PRESS ENTER TO DISPLAY MONTHLY PRODUCTION
ENTER - CONTINUES ANNUAL DISPLAY
PF3 - TRANSFER TO UPDATE
PF6 - RETURN TO WELL-INFO DISPLAY
PF9 - ANNUAL INJECTION DISPLAY
PF10 - HELP INFORMATION

Allocation

DK	1,167,040	87%
CL	180,030	13%
	1,347,070	

FARMINGTON 1998 MONTHLY PRODUCTION FOR 21785 PHS030M1
FRONTIER E 1E
BASIN DAKOTA (PRORATED GAS) FIELD DAKOTA ZONE

			DAYS	OIL			GAS						
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER PROD	C
1	2	F	31	02	9		01	3030	31	1146	15.025	3	
2	2	F	28	02	3		01	2535	28	1146	15.025	3	
3	2	F	31	02	12	54.3	01	2840	31	1146	15.025	3	
4	2	F	30	02	13		01	2682	30	1146	15.025	3	
5	2	F	31	02	8		01	2593	31	1146	15.025	3	
6	2	F	30	02	4	53.5	01	2151	30	1146	15.025	2	
7	2	F	15	02	3		01	1276	15	1146	15.025	1	
8	2	F	21	02	2		01	2838	21	1146	15.025	3	
9	2	F	30	02	6		01	2174	30	1146	15.025	2	
10	2	F	31	02	8		01	1923	31	1146	15.025	2	
11	2	F					01	2846		1146	15.025	3	
12													

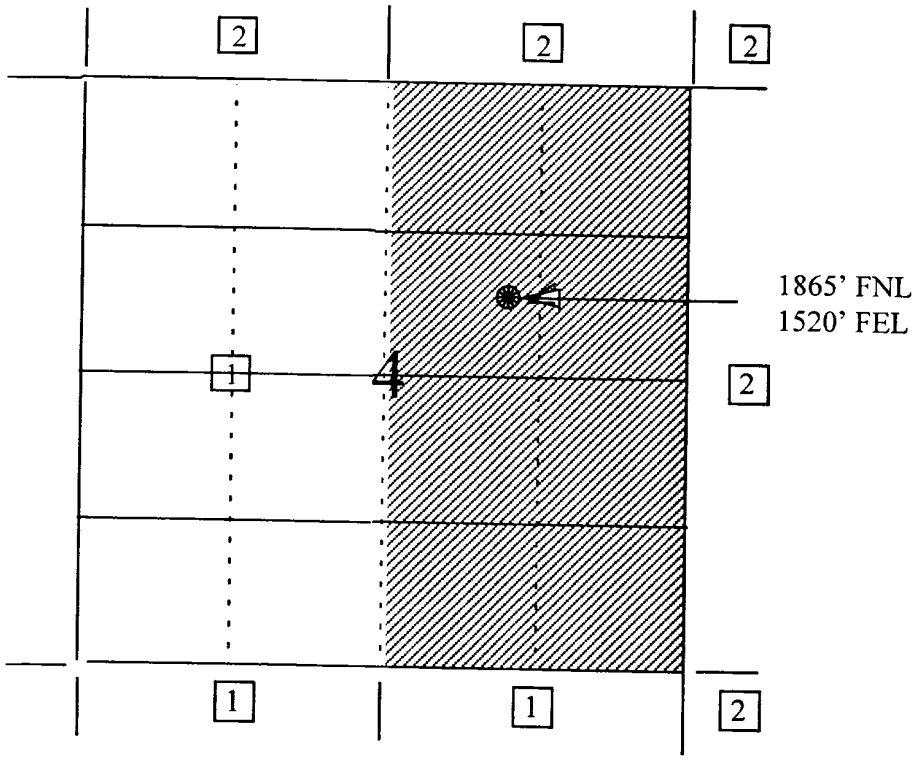
PF6 - RETURNS TO ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE
PF10 - HELP INFORMATION PF9 - DISPLAY MONTHLY INJECTION
00/00/00 00:00:00:0 PRS 01/06/99

BURLINGTON RESOURCES OIL AND GAS COMPANY

Frontier E #1E
OFFSET OPERATOR \ OWNER PLAT
Downhole Commingle

Gallup / Dakota Formations Well

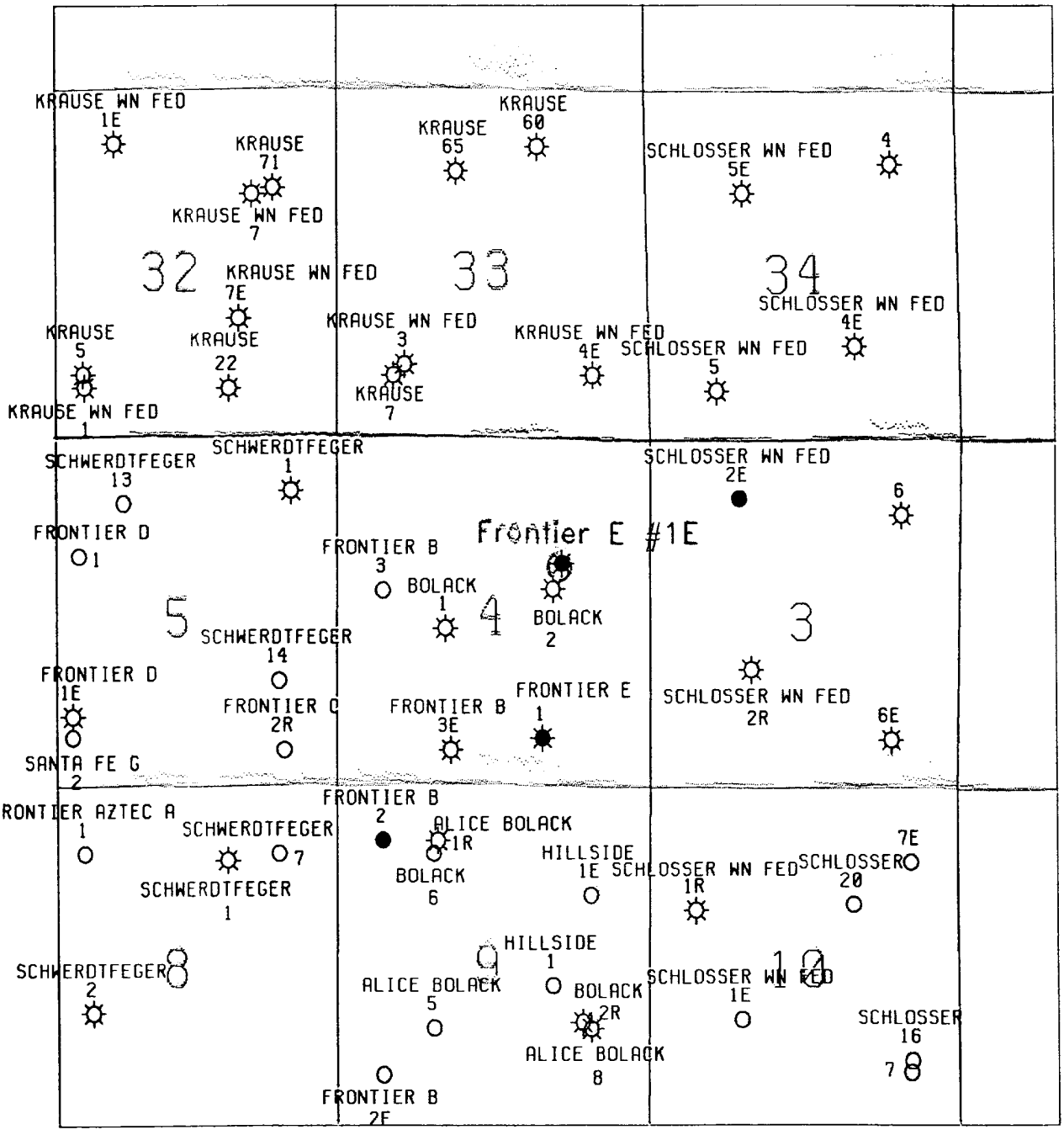
Township 27 North, Range 11 West



1) Burlington Resources

2) ARCO Oil & Gas Company
P.O. Box 1610
Midland, TX 79702

vkh 5-17-99



Frontier E #1E

Sec 4 T27N R11W

Gallup/Dakota