

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

Form C-107-A
Revised August 1999

APPROVAL PROCESS:

___ Administrative ___ Hearing

EXISTING WELLBORE

___ YES ___ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Burlington Resources Oil and Gas Company

P.O. Box 4289, Farmington, NM 87499

Operator

Address

Huerfano Unit

#110

I-03-26N-10W

San Juan

Lease

Well No

Unit Ltr. - Sec - Twp - Rge

County

OGRID NO. 14538 Property Code 7139 API NO. 30-045-13031 Federal ☒ State ___ (and/or) Fee ___

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Angels Peak Gallup-2170		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	5917-6220'		6791'-6915'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	Current		
Oil Zones - Artificial Lift: Estimated Current	a. 611 psi (see attachment)		a. 653 psi (see attachment)
Gas & Oil - Flowing: Measured Current	b. (Original)	b.	b. 2114 psi (see attachment)
All Gas Zones: Estimated Or Measured Original	1193 psi (see attachment)		
6. Oil Gravity (EAPI) or Gas BTU Content	BTU 1244		BTU 1279
7. Producing or Shut-In?	Producing		Producing
	Yes		Yes
Production Marginal? (yes or no)			
* If Shut-In, give date and oil/gas/water rates of last production	Date: N/A Rates:	Date: 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 date and oil/gas/water rates of recent test (within 60 days)	Date: 12/99 Rates: 14.0 mcf/d 0.0 bopd	Date: Rates:	Date: 12/99 Rates: 50.4 mcf/d 0.7 bopd
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

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

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 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 [Signature] TITLE ENGINEER DATE 02/07/00

TYPE OR PRINT NAME Joe Michetti TELEPHONE NO. (505) 326-9700

MEXICO OIL CONSERVATION COMMISSION
Well Location and Acreage Dedication Plat

Date **SEPTEMBER 11, 1959**

Section A.

Operator **EL PASO NATURAL GAS COMPANY** Lease **HUERFANO** **SF 078267-A**
 Well No. **110(GD)** Unit Letter **I** Section **3** Township **26-N** Range **10-W** NMPM
 Located **1650** Feet From **SOUTH** Line, **990** Feet From **EAST** Line
 County **SAN JUAN** G. L. Elevation **6689** Dedicated Acreage **401.80 & 320.317.11** Acres
 Name of Producing Formation **GALLUP AND DAKOTA** Pool **ANGEL PEAK GALLUP EXT. & WILDCAT DAKOTA**

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?

Yes ☐ No ☒2. If the answer to question one is "no", have the interests of all the owners been consolidated by communization agreement or otherwise? Yes ☒ No ☐ If answer is "yes", Type of Consolidation.**Unit Agreement.**

3. If the answer to question two is "no", list all the owners and their respective interests below:

OwnerLand Description

Section B.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

El Paso Natural Gas Company(Operator)
Original Signed By: **D.H. Oheim**

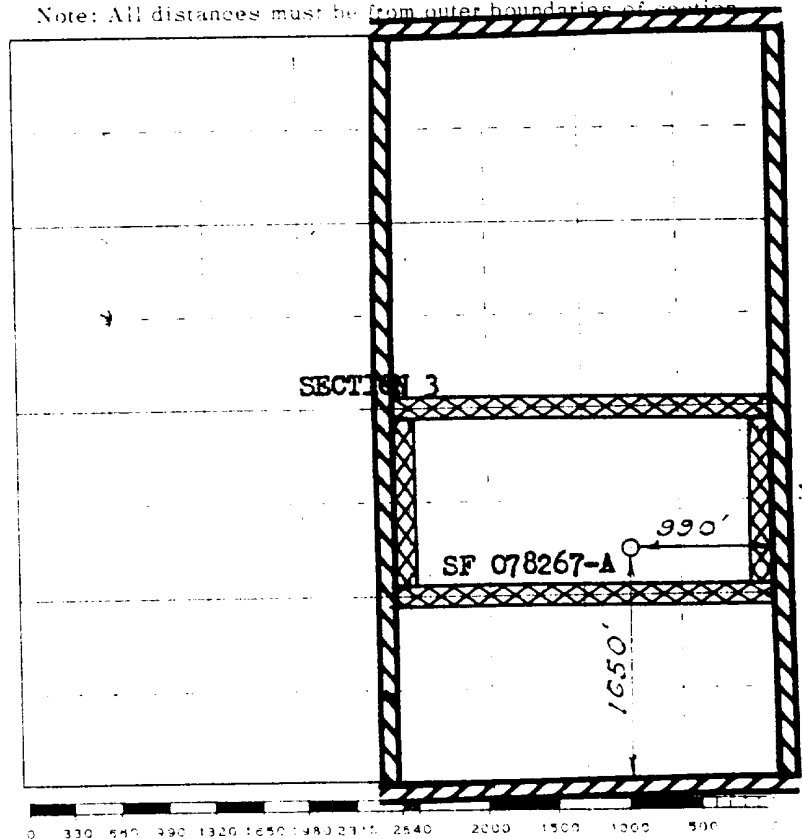
(Representative)

Box 997

(Address)

Farmington, New Mexico

Note: All distances must be from outer boundaries of section.



Scale 1 inch equals 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Seal)

Date Surveyed

MAY 11, 1959

Paul Q. Kilner
 Registered Professional Engineer and/or Land Surveyor

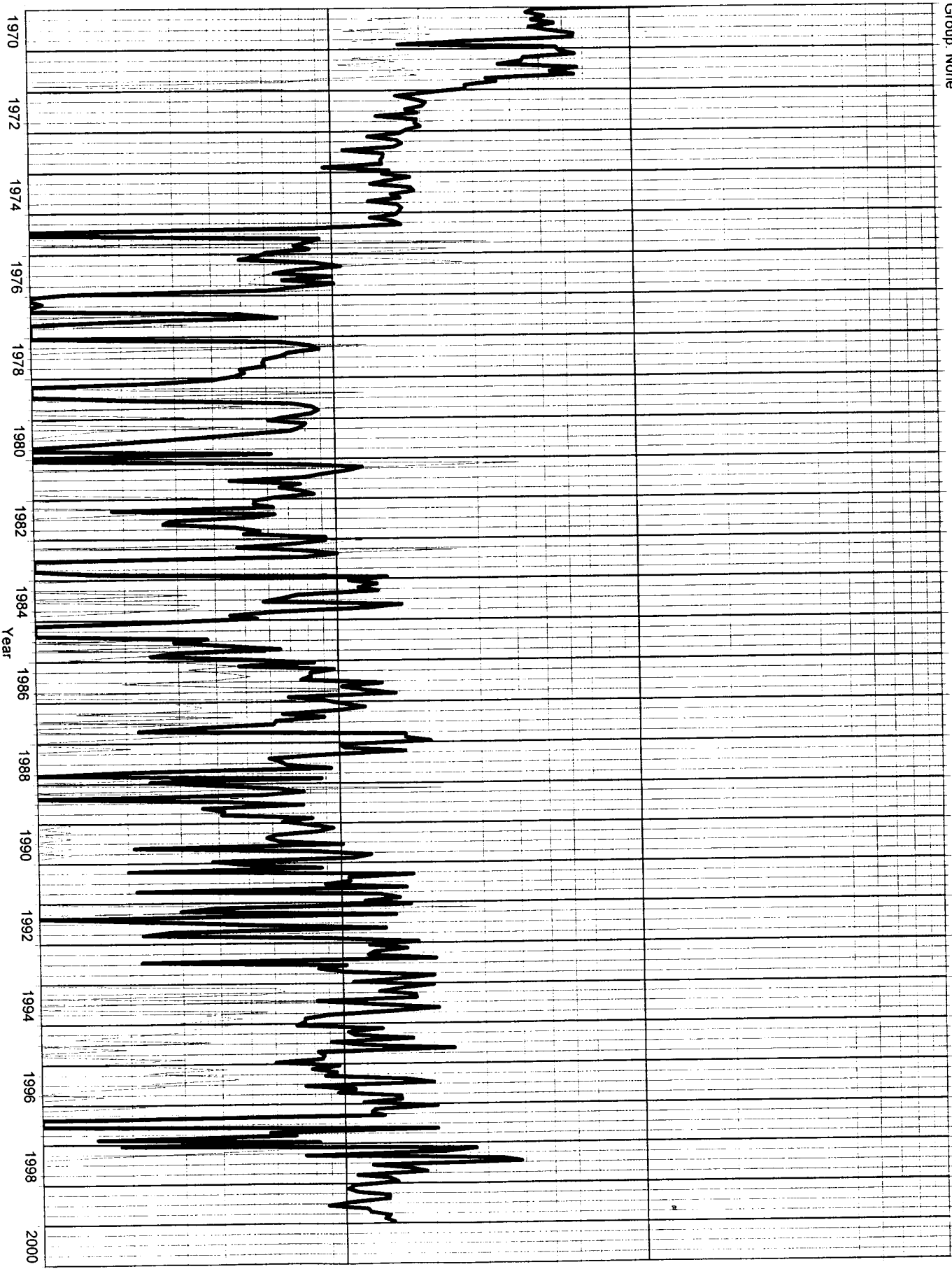
Farmington, New Mexico

Operator: BURLINGTON RESOURCES OIL GAS CO
Field: ANGELS PEAK GALLUP (ASSOCIATED)

Zone:
Type: Gas
Group: None

No
Active
Forecast

10	Cal Day Gas1 - mcf/d	100	1000
1	Cal Day Condensate - Bbl/d	10	100
10	Cal Day Oil - Bbl/d	100	1000



Operator: BURLINGTON RESOURCES OIL GAS CO
Field: BASIN DAKOTA (PRORATED GAS)

Zone:

Type: Gas

Group: None



Cal Day Gas1 - mcf/d

10

Cal Day Condensate - Bbl/d

0.1

Cal Day Oil - Bbl/d

10

100

1

100

1000

10

1000

1

.01

1

1970

1972

1974

1976

1978

1980

1982

1984

1986

1988

1990

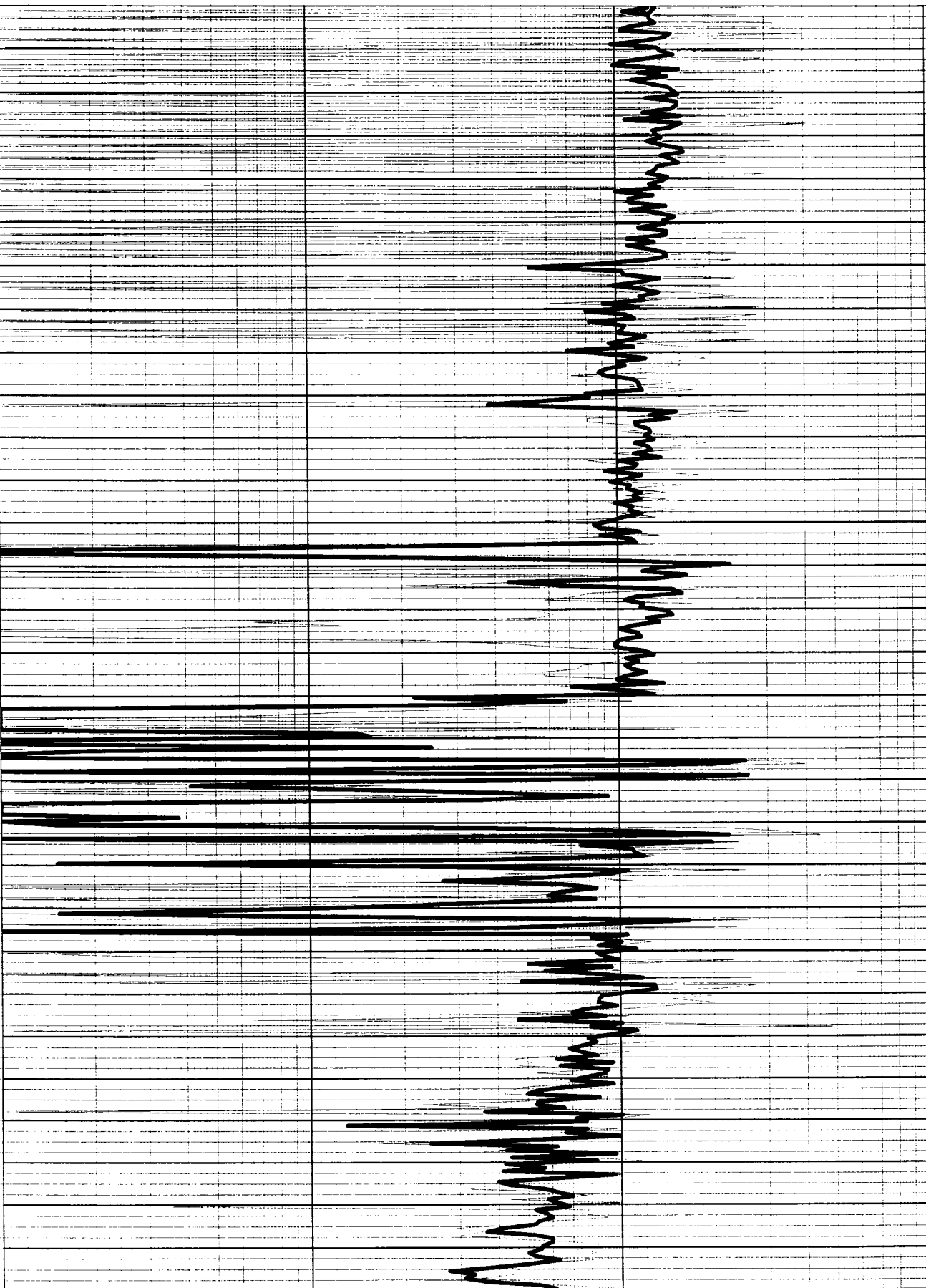
1992

1994

1996

1998

Year



Huerfano Unit #110
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 3/13/94

Gallup	Dakota
<u>GL-Current</u>	<u>DK-Current</u>
GAS GRAVITY 0 COND. OR MISC. (C/M) M %N2 0 %CO2 0 %H2S 0 DIAMETER (IN) 0 DEPTH (FT) 0 SURFACE TEMPERATURE (DEG F) 0 BOTTOMHOLE TEMPERATURE (DEG F) 0 FLOWRATE (MCFPD) 0 SURFACE PRESSURE (PSIA) 0	GAS GRAVITY 0.757 COND. OR MISC. (C/M) M %N2 0.86 %CO2 1.02 %H2S 0 DIAMETER (IN) 7 DEPTH (FT) 6853 SURFACE TEMPERATURE (DEG F) 60 BOTTOMHOLE TEMPERATURE (DEG F) 145 FLOWRATE (MCFPD) 0 SURFACE PRESSURE (PSIA) 537
BOTTOMHOLE PRESSURE (PSIA) #DIV/0!	BOTTOMHOLE PRESSURE (PSIA) 652.8
Calculated BHP = 611 psia This calculation is documented on a following page.	
<u>GL-Original</u>	<u>DK-Original</u>
GAS GRAVITY 0.717 COND. OR MISC. (C/M) M %N2 1.18 %CO2 0.92 %H2S 0 DIAMETER (IN) 2.375 DEPTH (FT) 6069 SURFACE TEMPERATURE (DEG F) 60 BOTTOMHOLE TEMPERATURE (DEG F) 135 FLOWRATE (MCFPD) 0 SURFACE PRESSURE (PSIA) 997	GAS GRAVITY 0.757 COND. OR MISC. (C/M) M %N2 0.86 %CO2 1.02 %H2S 0 DIAMETER (IN) 7 DEPTH (FT) 6853 SURFACE TEMPERATURE (DEG F) 60 BOTTOMHOLE TEMPERATURE (DEG F) 145 FLOWRATE (MCFPD) 0 SURFACE PRESSURE (PSIA) 1657
BOTTOMHOLE PRESSURE (PSIA) 1192.7	BOTTOMHOLE PRESSURE (PSIA) 2114.2

Huerfano Unit NP #110 - Current Gallup BHP Determination

- A fluid level was obtained with an Echometer on 1/5/00 at 5390' for the Gallup.
- The lease operator reported that the Gallup produces minimal water. Because this is a quantity that is not measured, it was assumed that all of the liquid in the wellbore was condensate (water cut = 0%).
- The well had been SI less than 1 hour when the fluid level was obtained.

Casing Pressure =	327.5	psig	Condensate Gravity =	15.5	API
Fluid Depth =	5390	ft	Cond Spec Gravity =	0.963	
Top Perf Depth =	5917	ft	Cond Density =	60.065	lb/ft ³
Bottom Perf Depth =	6220	ft	Cond Press Grad =	0.417	psi/ft
Mid-Perf Depth =	6068.5	ft	Bottomhole Press =	611	psig

Huerfano Unit 110
5305501/5305502
Dakota/Gallup

GALLUP

PRESSURE DATA		
Date	Gas Cum	Press
01/21/1960	0	997
01/05/2000	435986	611

VOLUMES			
Prod Month	Days On	Gas	Oil
		Production	Production
1/31/99	31	331	0.01
2/28/99	28	286	0
3/31/99	31	341	0
4/30/99	30	418	0
5/31/99	31	432	0
6/30/99	30	312	0
7/31/99	31	272	0
8/31/99	31	366	0
9/30/99	30	362	0
10/31/99	31	434	0.02
11/30/99	30	404	0
12/31/99	31	448	0
		14.0 mcf	0.0 bopd

DAKOTA

PRESSURE DATA		
Date	Gas Cum	SIWHP
10/29/1959	0	1657
04/22/1990	1349790	537

VOLUMES			
Prod Month	Days On	Gas	Oil
		Production	Production
1/31/99	31	1700	21.99
2/28/99	28	1398	23.16
3/31/99	31	1631	22.5
4/30/99	30	1886	24.34
5/31/99	31	1570	15.04
6/30/99	30	1151	12.73
7/31/99	28	857	15.04
8/31/99	31	1031	13.89
9/30/99	30	929	10.42
10/31/99	31	1118	16.2
11/30/99	30	1624	18.52
12/31/99	31	1899	29.13
		50.4 mcf	0.69 bopd

JOHN P WINDLE PERS REP FOR THE
JANE LOLAX
ANNE ZACHAREK ESTATE
HELEN G PIENKOWSKI
JOSEPHINE ADAMS WESTEFELD
SIDNEY E LICHT & MARTIN C
GUY A WEILL
NELLY WIHL
GROSS OIL DELAWARE CORP
MARIANNE WEILL LESTER
EMILY BARTON
RICHARD LORE ADMINISTRATOR CTA
MARGARET JENSIS DECD
NANCI L FOX
JUDY WINDLE
SIDNEY H DUNKEN
SUSAN REID GALT
EDWARD GRAPEL
LAWRENCE L LAVALLE
KATHLEEN COLWILL
JOSEPH C JASTRZEMBSKI
DEBORAH JANE KELLY SLAUGHTER
MARGARET DORIS MCCONNELL
SINGER BROS
JOHN LEE TURNER
BEVERLY D WHITEHEAD
JIM L SHARP
HENRIETTA E SCHULTZ TRUSTEE
THORNTON HARDIE III TRUSTEE
CORINNE MIRIAM KELLY CALDER
LAURA PATRICIA LODEWICK
JOHN WIDNEY LODEWICK
HUBERT D JOHNSON & ANNE M
HUBERT D JOHNSON & ANNE M
SHOSS LEVINE TRUSTS 8146 8148
SHOSS LEVINE TRUSTS 8149 8150
GEORGE GALERSTEIN TRUSTEE
CAROLYN BEAMON TILLEY
ROSE MARION BERG
DENNA ELY
JFP INTERESTS A GENERAL PTSHP
ANNA CELIA HOWELL HILTON
DANIEL D DUDEN & TRUST ACCOUNT
ROBERT W DUDEN & TRUST ACCOUNT
G R FASKEN
FRANK ANDREW FASKEN
EDWIN ROY KELLY
KELLY MINERALS INTERESTS JV
JON BRUSS TRUST
HEDBERG FAMILY LTD PARTNERSHIP
MARY ROBERTSON JEFFS EXEC
MARY ROBERTSON JEFFS FOR LIFE
PATTI JO WOOD
VIRGINIA M SIMMONS
MELCONE CORPORATION
JERRY J ANDREW

JANE C GORDEN
MARY MILLICENT KELLY WEAR
SUSAN BEAMON PORTER
ADELE ALCORN READ
ROSALINE WEISS IND EXEC
JAMES ROBERT BEAMON TRUSTEE
BETTY T JOHNSTON LYLE E CARBAUGH
JAMES ROBERT BEAMON
BETTY T JOHNSTON/LYLE E
PATTIE ANN BEAMON LUNDELL EST
ROBERT WALTER LUNDELL
CATHRYN BEAMON
RODMAN E GRISCOM II
F STEPHEN KELLY III
CLAUDIA MARCIA LUNDELL GILMER
ROBERT E BEAMON III
MABELLE BRAMHALL TRUSTEE
THOMAS H YATES JR
PRIME ENERGY CORPORATION
PEGGY ALCORN KIPP
LEE AYCOCK IND EXECUTRIX
WALKER & KATHRYN DUFFIE
KATHRYN A DUFFIE
JULIA B LILLY INDVDLY AND
SOUTHERN NATL BANK OF HOUSTON
UNITED PIPE SUPPLY CO
V A JOHNSTON FAMILY TRUST
JOHNNIE PETTIE JR
HUFFAKER GREEN AND HUFFAKER
ANNE SIMMONS IND ADMINISTRATOR
GEORGIA PETTIE
BETTIANNE H BOWEN TRUSTEE
WILLIAM J GREEN
THE FASKEN FOUNDATION
BALWICK LTD PARTNERSHIP
RACHEL LYMAN
MICHAEL FITZGERALD AND
MONTEZ JOHNSON TRUSTEE
BARRON PROPERTIES LTD
JOHN DICKEY
BRIAN DICKEY
KATHRYN D ASHBY
DIANNA DICKEY
JAMES B WOODARD
WHITE STAR ENERGY INC
SILVERADO OIL & GAS CORP
R H FEUILLE
BEN HOWELL LANGFORD
EMILY D GRAMBLING
JOHN A GRAMBLING
EMILIE M HARDIE ROYALTY TRUST
JANE HARDIE TRUSTEE
ELIZABETH H LUND TRUSTEE
JULIE LEVINE MULLEN
CYNTHIA VOGL
HENRY B KRAUSE
JUDITH ANN HERINGER
LAURA DICHTER

UW FOSTER MORRELL DECD 11-1065
EDNA E MORRELL LIV TR 11-1073
MINERALS MANAGEMENT SERVICE
NORWEST BANK TRUSTEE
CELESTE FASKEN & NORWEST BANK
DONEVA J HUNTINGTON
ELLIOTT-HALL COMPANY
MADELEINE MOORE
GERALD FITZGERALD JR TRUSTEE
CHESTER E THOMPSON JR
JO ANN SCHMIDT ESTATE
JAMES R PAYNE & JEAN PAYNE
PETER BRUSS TRUST
MAUREEN G WRIGHT TRUSTEE
MCCONNELL LTD CO
LANGDON D HARRISON
JULIE ANN ANTWEIL TRUST
CHERYL L POTENZIANI
POTENZIANI FAMILY PTSP
TAMANACO OIL CORP
DONNA S RIDDLE SUCC TRUSTEE
DONALD A PAULEK
BOLACK MINERALS COMPANY
ALBERT R GREER
CHARLES A & NANCIE A GREER TTE
BENSON MONTIN GREER
LEWIS C & BOBBIE D TOWNSEND
KEITH TOWNSEND LIVING TRUST
KENNETH TOWNSEND LIVING TRUST
NEW MEXICO GEOLOGICAL SOCIETY
JAMES LISLE HINKLE
ELLIOTT INDUSTRIES
ROBERT M WILLIAMS
J BURTON VETETO
ANNA LOU HOME TRUSTEE
JUNE ELAINE MACDONALD
SUNLAND REFINING CORP
DIANNE CLEES & HOMER N CLEES
TERESA HOME
CHARLES E HINKLE
DAVID WILLIAM WALTERS TRUSTEE
SHARON BEAMON BURNS
EVKO DEVELOPMENT COMPANY
JULIA EVETTS SIMPSON TRSTEE
KENNETH ROBERT SCHMIDT
WILLIAM DENNIS SCHMIDT
ROBERT KLINGER SUCC TRUSTEE
ANN HOME EMMERSON TR
DOROTHY J BREWSTER
SIDNEY E LICHT
MURRAY LANGFELDER
WM M WESTERMAN PERSONAL REP
AMOCO PRODUCTION COMPANY
ROBERTA JUNE DENOON THOMAS EX
FIRST NATL BK & WILFRED B
ELLIOTT D DULANEY
JANE E WILLERS
OFFICE OF THE COMPTROLLER

W BENTON HARRISON III
ENERGEN RESOURCES MAQ INC
DAVID A BERNOUDY
CORINNE ROY KELLY INDVDLY
DEOBRAH K SLAUGHTER TRUSTEE
ZZZ KELLY & TRUST LLC
ALICE JANE WEBB
FREDERICK EUGENE TURNER
FREDERICK EUGENE TURNER
LA PLATA GATHERING SYSTEM INC
ELIZABETH JEANNE TURNER
ELIZABETH JEANNE T CALLOWAY
ELIZABETH T CALLOWAY
J GLENN TURNER JR
J GLENN TURNER JR
DAVID G MCLANE
WILLIAM G WEBB
WILLIAM G WEBB
ROSE MARION BERG DENNA ELY,
EVELYN SMITH
CROSS TIMBERS OIL COMPANY
NATIONSBANK NA
NATIONSBANK NA
NATIONSBANK NA
NATIONSBANK NA
CYRENE L INMAN
BANK OF AMERICA NA TRUSTEE
MCCONNELL TRUST
NATIONSBANK NA
NATIONSBANK NA
NATIONSBANK NA
NATIONSBANK
NATIONSBANK
SHELIA MARIE LEVINE TRUST
SAN JUAN 1990-A LP
ATNA/SJ 1993-A
MAP 1998-A LP
ROGERS-GIBBARD TRUST
LINDA JEANNE LUNDELL LINDSEY
LINDA JEANNE LUNDELL LINDSEY
ROGER B NIELSEN
LEE ETTA HEDBERG
DORIS F FAMBRO
TOM L HAIL TR
BALLARD EXPLORATION CO INC
ROBERT BEAMON
ELLIS RUDY LTD
LOWE PARTNERS LP
CHASE BANK OF TEXAS NA
CHASE BANK OF TEXAS NA TRUSTEE
CHASE BANK OF TEXAS NA TRUSTEE
CHASE BANK OF TEXAS NA TRSTEE
CHASE BANK OF TEXAS NA TRUSTEE
CHASE BANK OF TEXAS NA TRSTEE
GLOBAL NATURAL RESOURCES
CONOCO INC
MATAGORDA OIL COMPANY
RANDALL T JOHNSON TRUSTEE

VIOLA I STEWART TRUST
GARY W HARVEY INDEP EXEC
SANDRA CHAMBERS
RACHEL LYMAN & THOMAS C BROWN
PATSY R CUMMINS
JAMES ROBERT MARTIN
VIRGINIA GIPSON
RICHARD PARKER LANGFORD
MINERALS MANAGEMENT SERVICE
WENDT & ASSOCIATES
STEVEN PRICE FASKEN REV TRUST
PATRICIA G HARVEY
MARY ANN HONEY
FRANK D GORHAM JR
MAXINE S GRAHAM
STATE OF NEW MEXICO
HANSON MCBRIDE PETROLEUM CO
JOHN T HINKLE & LINDA J
CHASE OIL CORPORATION
KATHLEEN EARNEST RIOS TRUSTEE
FRESNO INTERNAL REVENUE SERV
CYNTHIA LACKEY TRUSTEE FOR
JEANNETTE C CARNS DECD
CASSANDRA KEYSER
LORIS MACOR TRTE/EXEC UWO E J