

**Risk Penalty Analysis**

Case #9593

February 1, 1989

Atlantic B Com #220  
S/2 Sec. 34, T31N, R10W  
San Juan County, New Mexico

Risk Penalty

Geological Risk

Coal Stratigraphy and Thickness  
Cleating/Fractures  
Coal Characteristics

60%

Reservoir Risk

Sustained Deliverability  
Dewatering  
Reserve Recovery  
Undefined Coal Producing Characteristics

50%

Economic Risk

Project - Gathering, Facilities, Water Disposal  
Treating - Water, CO<sub>2</sub>  
Marketing - Testing, Demand, Mechanical Downtime

20%

Operations Risk

Completion Operations  
Equipment Failures While Drilling  
Formation Problems While Drilling

70%

Recommended Non-consent Penalty

200%

Capital Recovery Factor

100%

Total Recommended

300%

10  
BHP

2579J

# RISK PENALTY ANALYSIS

GALLEGOS CANYON UNIT #391 and #390  
SECTION 23, T29N, R13W

## RISK PENALTY

### GEOLOGICAL RISK

Cleating/fractures	
Coal characteristics	40%

### RESERVOIR RISK

Sustained deliverability	
Reserve Recovery	
Undefined coal producing characteristics	50%

### ECONOMIC RISK

Marketing - price, demand	50%
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### OPERATIONS RISK

Completion operations - mechanical	10%
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Recommend Non-consent penalty	150%
Capital Recovery Factor	100%

Total Recommended	250%
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BHP

11

# FRUITLAND COAL GAS PRODUCTION GALLEGO CANYON #377

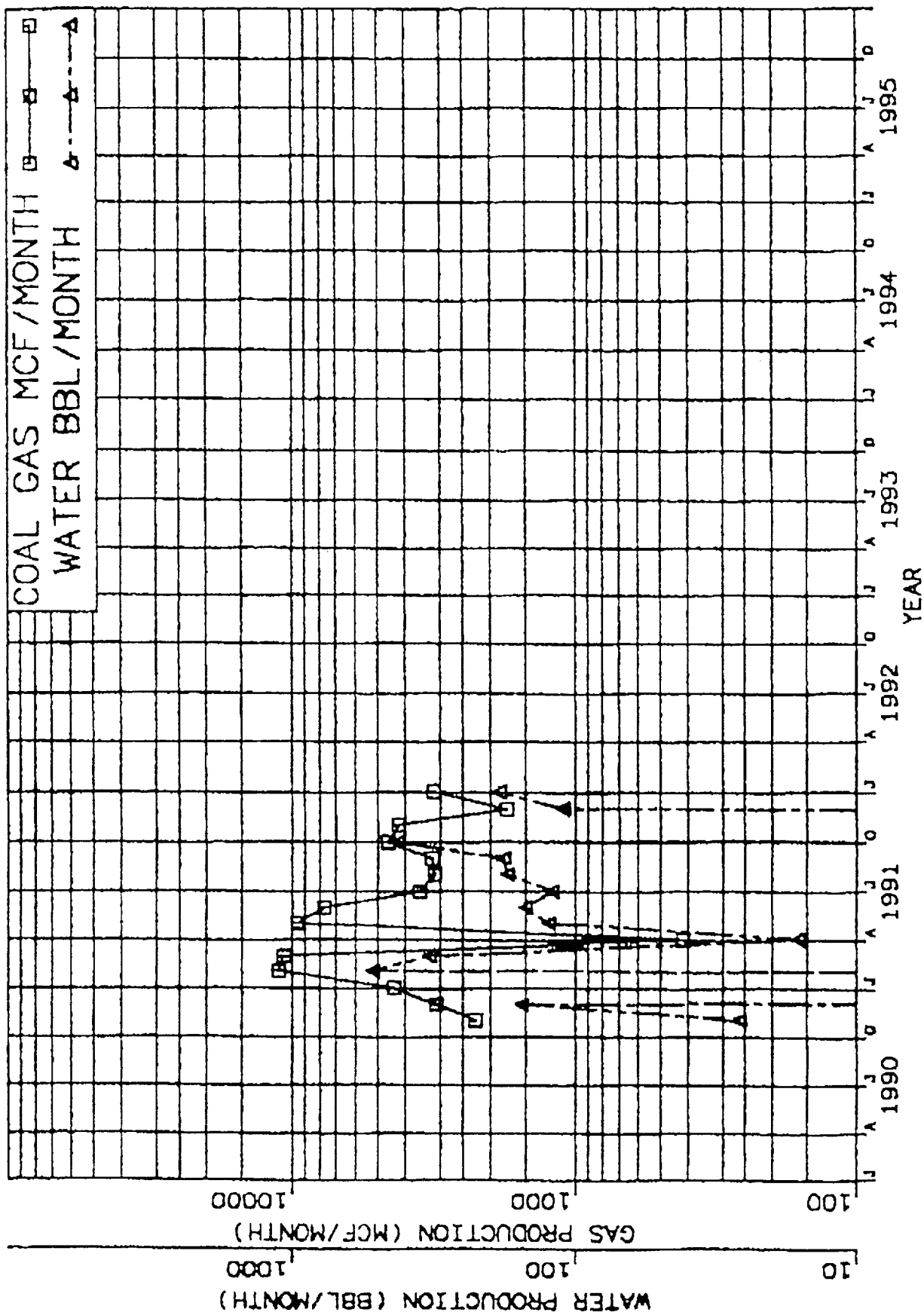
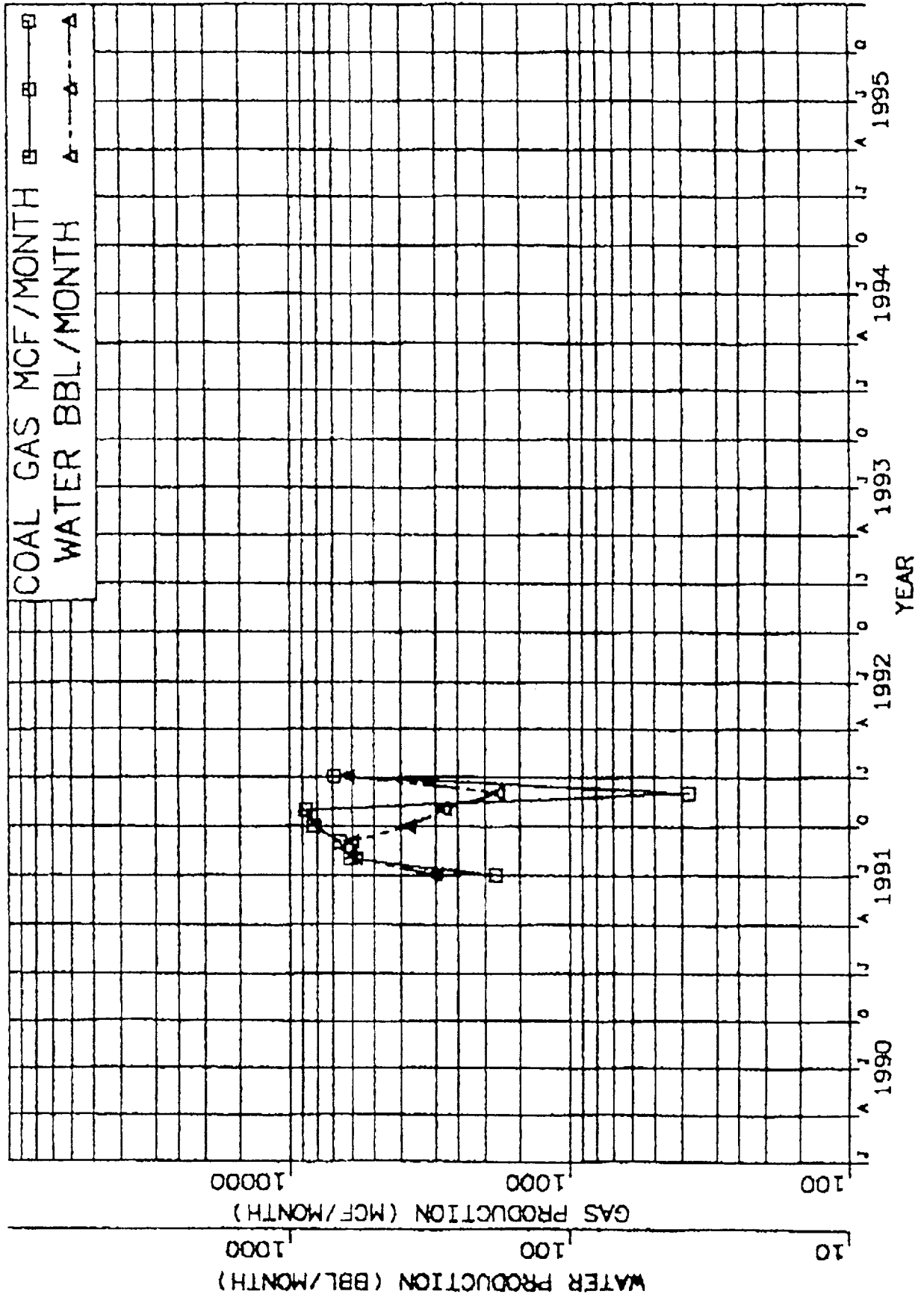


EXHIBIT  
BHP  
11A  
FALCON-DALLAS, TX

# FRUITLAND COAL GAS PRODUCTION GALLEGOS CANYON #387



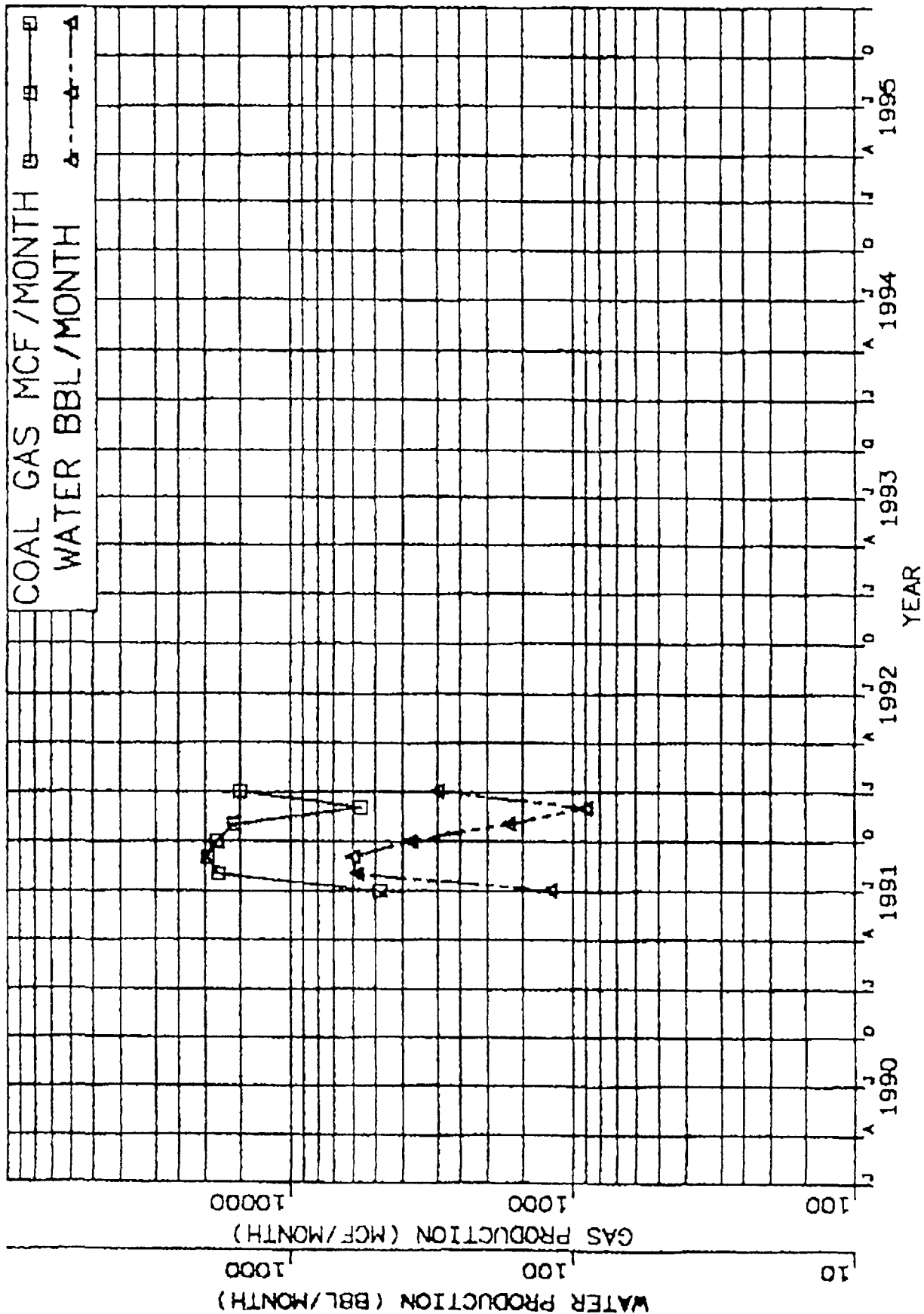
03-06-1992 14:48  
03-06-82 10:42

0713 750 5328

BHP PETRO 06 FL

FIG 0003

# FRUITLAND COAL GAS PRODUCTION GALLECOS CANYON #389

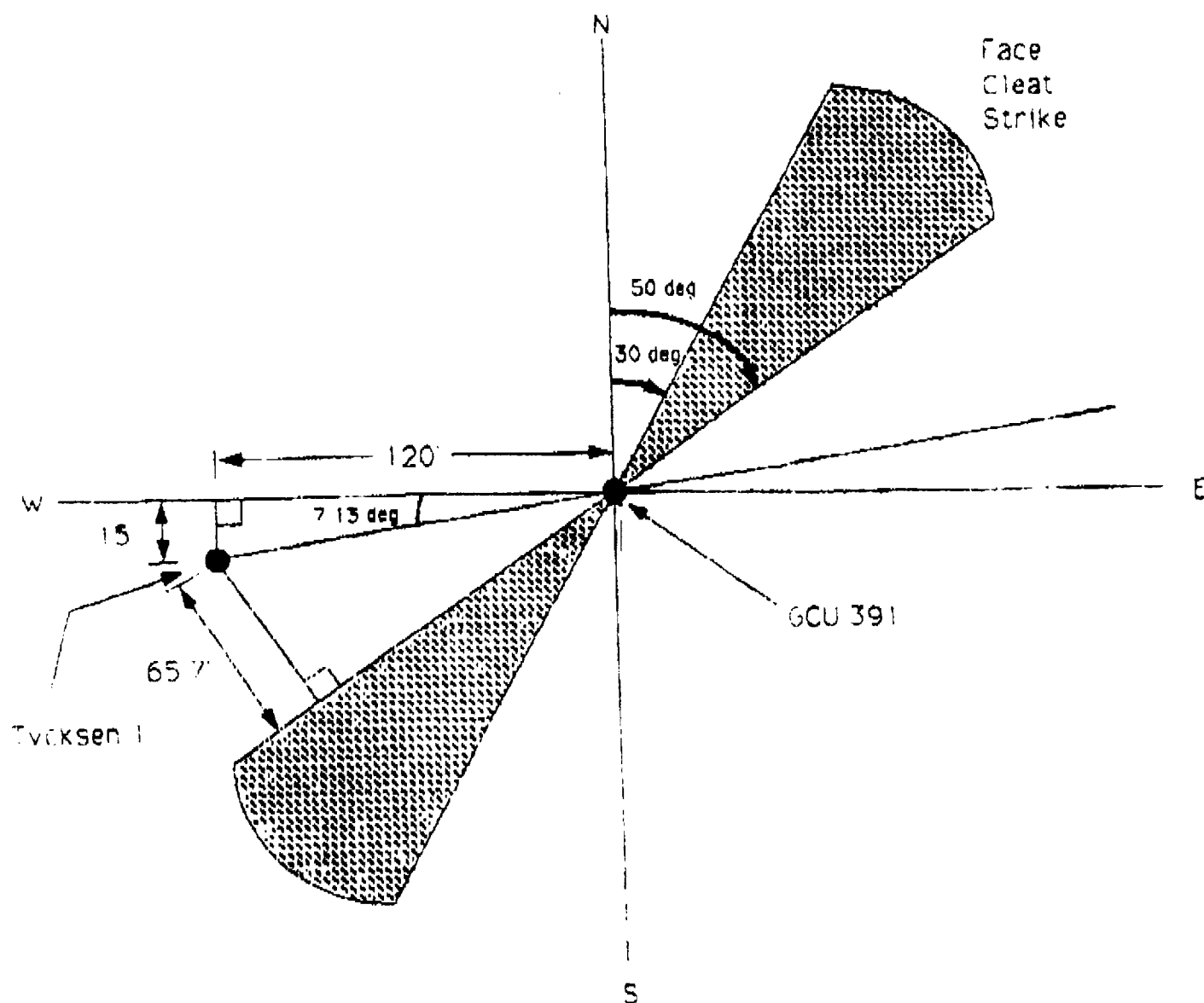


03-11-1992 08:01  
03/11/92 08:44

713 780 5320

BHP PETRO 18 FL

P.02  
002



03-11-1992 08:02  
03-11-92 08:44

713 780 5320

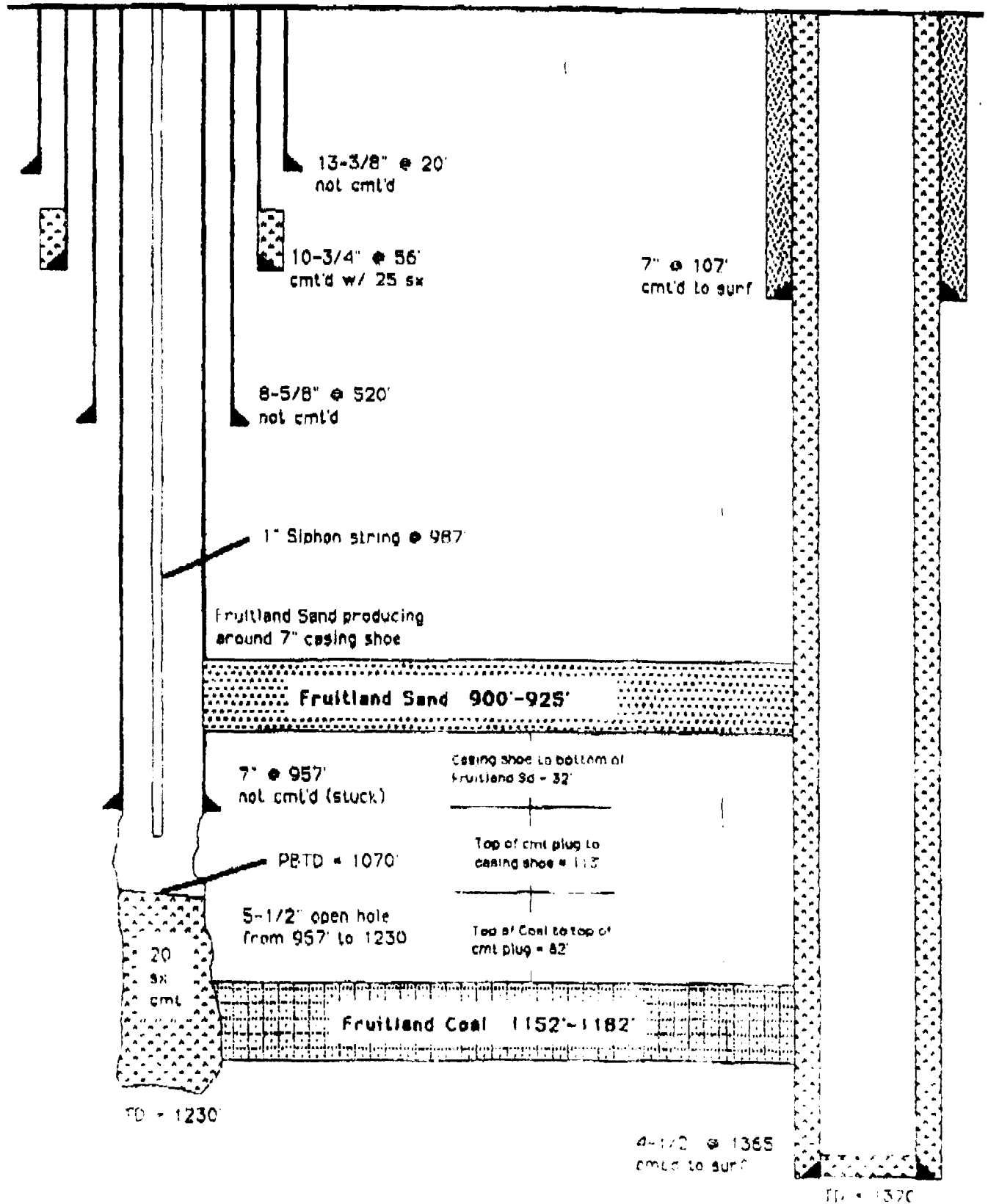
BHP PETRO 38 FL

P.03  
0003

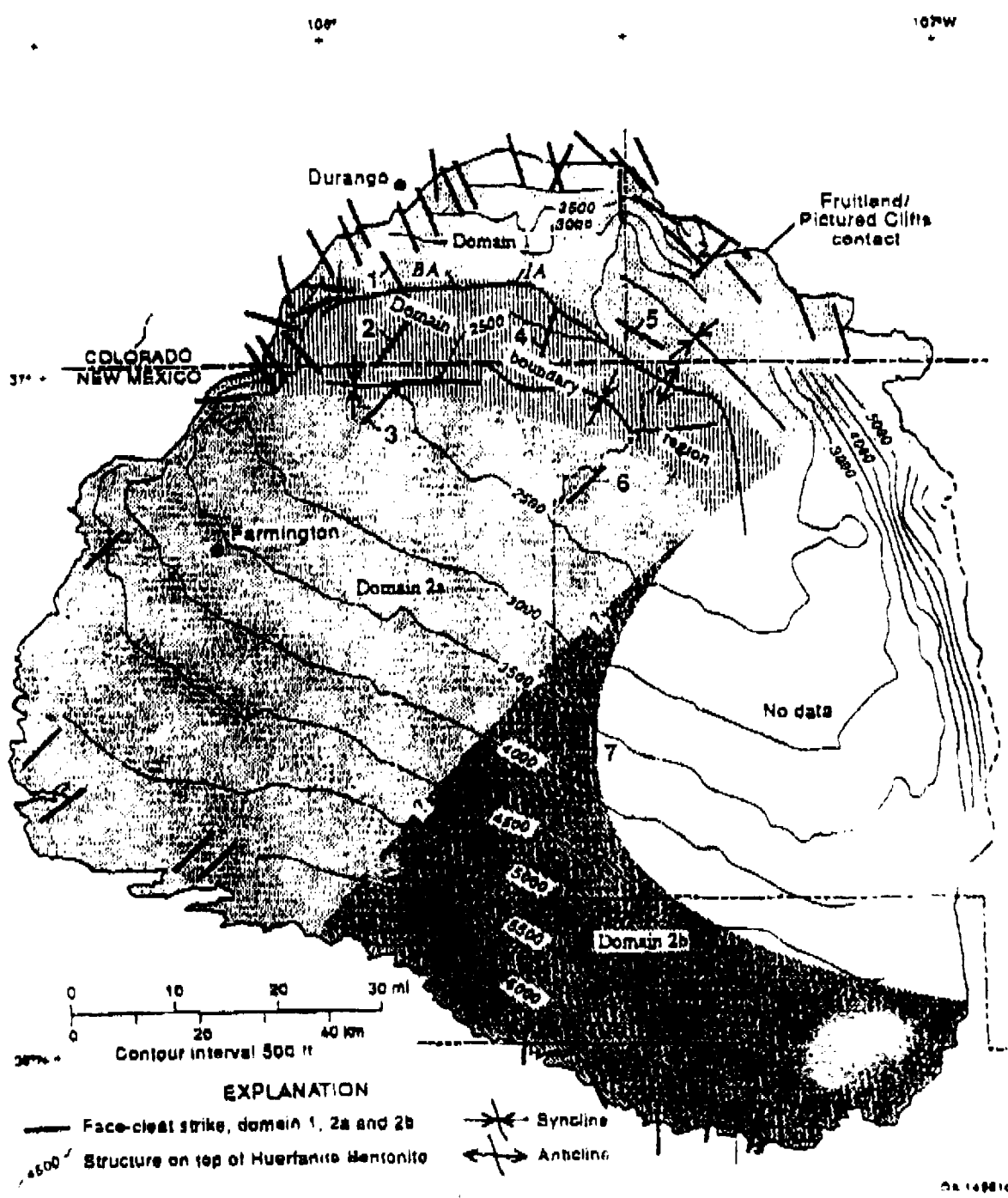
TYCKSEN #1

Distance between wells - 120

GALLEGOS CANYON UNIT #391



03-11-1992 11:12



Structure map of the San Juan Basin, contoured on the Huerfano Bentonite, and predominant face-cleat strikes. Two domains of contrasting face-cleat strike are evident. The domains are separated by a gradational boundary near the Colorado-New Mexico state line.

This exhibit from  
COALBED METHANE WORKSHOP  
Sponsored by The Gas Research Institute  
1991 SPE Rocky Mountain Regional/  
Low Permeability Reservoirs Symposium  
April 14, 1991

11D



EL PASO NATURAL GAS COMPANY  
VOLUME ACCOUNTING DEPARTMENT  
MEASUREMENT DIVISION  
POST OFFICE BOX 1492  
EL PASO, TEXAS 79978  
PHONE: (915) 541-5267  
CHROMATOGRAPHIC GAS ANALYSIS REPORT

DATE 10/12/90

MAILEE  
41956

LOCKE TAYLOR DRILLING COMPANY  
PO BOX 1425  
RIFLE, CO 81650-1425

METER NUMBER 74162 - TYCKSEN #1  
OPERATOR 5677 - LOCKE TAYLOR DRLG CO

ANALYSIS DATE 99/99/99  
SAMPLE DATE 9/13/90  
EFFECTIVE DATE 10/01/90  
EFFECTIVE FOR 6 MONTHS

TYPE CODE 2 - ACTUAL  
H2S GRAINS 0269  
LOCATION F - FARMINGTON

COMPONENTS	NORMALIZED MOL %	BPM
CO2	1.27	.000
H2S	.00	.000
N2	1.62	.000
METHANE	86.42	.000
ETHANE	6.41	1.715
PROPANE	2.15	.893
ISO-BUTANE	.44	.144
NORM-BUTANE	.51	.161
ISO-PENTANE	.31	.113
NORM-PENTANE	.24	.087
HEXANE PLUS	<u>.63</u>	<u>.275</u>
	100.00	3.088

SPECIFIC GRAVITY .668  
MIXTURE HEATING VALUE  
(BTU @ 14.73 DRY) 1131  
RATIO OF SPECIFIC HEATS .000  
NO TEST SECURED FOR H2S CONTENT

12

BHP

ATTN: RED WALSH

EL PASO NATURAL GAS COMPANY  
VOLUME ACCOUNTING DEPARTMENT  
MEASUREMENT DIVISION  
POST OFFICE BOX 1492  
EL PASO, TEXAS 79978  
PHONE: (915) 541-5267  
CHROMATOGRAPHIC GAS ANALYSIS REPORT

DATE 1/09/92

MAILEE  
27800

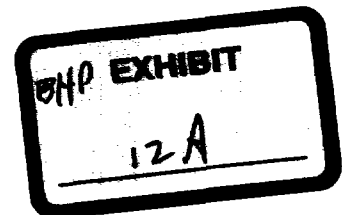
BHP PETROLEUM (AMERICAS) INC.  
ATTN: BECKY ERMIS  
5848 SAN FELIPE STE 3600  
HOUSTON, TEXAS 77057

METER NUMBER 95973 - GALLEGOS CAN U #341 FRT  
OPERATOR 0641 - BHP PETROLEUM (AMERICAS) INC

ANALYSIS DATE 99/99/99 TYPE CODE 2 - ACTUAL  
SAMPLE DATE 12/19/91 H2S GRAINS 0  
EFFECTIVE DATE 1/01/92 LOCATION F - FARMINGTON  
EFFECTIVE FOR 6 MONTHS

COMPONENTS	NORMALIZED MOL %	GPM
CO2	.24	.000
H2S	.00	.000
N2	.43	.000
METHANE	85.59	.000
ETHANE	6.79	1.816
PROPANE	3.65	1.006
ISO-BUTANE	.77	.252
NORM-BUTANE	1.19	.375
ISO-PENTANE	.49	.179
NORM-PENTANE	.40	.145
HEXANE PLUS	<u>.45</u>	<u>.196</u>
	100.00	3.969

SPECIFIC GRAVITY .686  
MIXTURE HEATING VALUE  
(BTU @ 14.73 DRY) 1206  
RATIO OF SPECIFIC HEATS .000  
NO TEST SECURED FOR H2S CONTENT




**MEASUREMENT  
AUDITORS  
COMPANY**

BHP PETROLEUM COMPANY  
P.O. BOX 977  
FARMINGTON, N.M. 87401

# GAS CHROMATOGRAPH ANALYSIS

MAC CUST/STAT : 6629030006  
CUST STAT NO :  
CUST STAT NAME : G.C.U. 377  
FIELD : GALLEGOS CYN UNIT  
COUNTY : SAN JUAN  
STATE : NM

SAMPLING DATE : 11-30-90  
SAMPLED BY : STEVE MAHLER  
PRESSURE : 170  
FLOW TEMP : N/A  
ACCOUNT CODE : 0000-3200-01145NNN01014  
PRESSURE BASE : 15.025 DRY  
SOURCE : MTR. RUN  
ANALYZED BY : B.L.  
DATE OF ANALYSIS : 12/01/90  
RUN NUMBER : 1370-215

COMPONENT	CURRENT MOLE %	GPM @ 14.696 D
OXYGEN	0.00	0.000
CO2	0.70	0.000
NITROGEN	0.46	0.000
METHANE	98.59	0.000
ETHANE	0.25	0.057
PROPANE	0.00	0.000
I-BUTANE	0.00	0.000
N-BUTANE	0.00	0.000
I-PENTANE	0.00	0.000
N-PENTANE	0.00	0.000
HEXANES	0.00	0.000
HEPTANES	0.00	0.000
HELIUM	N/A	
HYDROGEN	N/A	
H2S	N/A	
TOTAL	100.00	0.067

SPECIFIC GRAVITY 0.5640  
GROSS BTU/CU. FT. @15.025 DRY 1022.6  
GROSS BTU/CU. FT. @15.025 SAT 1005.2  
GROSS BTU/CU. FT. @14.730 DRY 1002.5  
GROSS BTU/CU. FT. @14.730 SAT 985.1  
GROSS BTU/CU. FT. @14.696 DRY 1000.2  
GROSS BTU/CU. FT. @14.696 SAT 982.8

REMARKS :

# ILLEGIBLE

BHP

13



**ALSHI** ENGINEERING & PRODUCTION CORP.

Petroleum Engineering Consulting  
Lease Management  
Contract Pumping

204 N. Auburn  
P. O. Drawer 419  
Farmington, New Mexico 87401  
(505) 327-4892

May 2, 1991

Mr. Richard T. C. Tully  
Attorney At Law  
111 Orchard Avenue  
Farmington, New Mexico 87401

REF: Locke Taylor Drilling  
N/2 Section 23-T29N-R13W

Dear Mr. Tully:

Enclosed you will find five (5) copies of report concerning the above-referred-to acreage.

The report was prepared on the basis of Locke Taylor Drilling having 100.0% Ownership of the Operating Rights in the acreage.

In a buy or sell situation the value of a property would be considered to be the net value of production estimated to occur in a time period of three (3) to five (5) years. A buyer would normally want to recover a purchase price in that time period.

The value of the natural gas to be produced from the Fruitland Coal is dependent upon Locke Taylor Drilling being able to utilize or not utilize the Sec. 107 Tax Credit.

The estimated value of natural gas, on a present worth basis, would be as follows:

With Section 107 Tax Credit - \$423,486 to \$495,694

Without Section 107 Tax Credit - \$222,748 to \$266,280

If you have any questions please do not hesitate to call upon me.

Very truly yours,

Ewell N. Walsh, P.E.  
President

ENW:rr

Enclosure

BHP

14

# NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

Indicate Type of Log  
 State ☐ ☒ ☐  
 State Oil & Gas Commission

10. TYPE OF WELL  
 a. TYPE OF COMPLETION  
 NEW WELL ☐ WORK OVER ☐ DEEPEN ☐  
 b. WELL ☐ GAS WELL ☒ OIL ☐ OTHER ☐  
 c. PLUG BACK ☒ DIFF. RESER. ☐

7. Unit Agreement Name  
 Gallegos Canyon Unit  
 8. Name of Lease Name

2. Name of Operator  
 BHP PETROLEUM (AMERICAS)  
 3. Address of Operator  
 P.O. BOX 977 FARMINGTON NM 87499  
 4. Location of Well

6. Well No.  
 340  
 10. Field and Pool, or Allient  
 N. PINON FRUITLAND SAND

UNIT LETTER E LOCATED 1370 FEET FROM THE North LINE AND 475 FEET FROM  
 THE West LINE OF SEC. 24 TWP. 29N RRR. 13W NMPM

13. County  
 San Juan

15. Date Spudded 1-28-85 16. Date T.D. Reached 1-31-85 17. Date Compl. (Ready to Prod.) 9-8-89  
 18. Elevations (DF, RKR, RT, GR, etc.) GR 5335' KB 5343' 19. Elev. Casinghead 5335'

20. Total Depth 1310 21. Plug Back T.D. 1125' 22. If Multiple Entry NO 23. Casing Tools NONE

24. Producing Interval(s), of this completion - Top, Bottom, Name  
FRUITLAND SAND 917' - 934' OCT - 3 1989

25. Was Directional Survey Made  
NO

26. Type Electric and Other Log Item  
GR/CBL OIL CONSERVATION DIV. SANTA FE

27. Was Well Cased  
NO

28. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7"	23	159	9 7/8"	242.8 ft <sup>3</sup> Class B w/2% CaCl <sub>2</sub> & 1/4#/sx Flocele	-0-
4 1/2"	10.5	1310	6 1/4"	220 ft <sup>3</sup> 50-50 pozmix w/2% gel, 0.5% CFR-2 & 1/4#/sx Celloflake	-0-

29. LINER RECORD				30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET
					2 3/8	837'

31. Perforation Record (Interval, size and number)  
917' - 934' 1JSPF 17 HOLES .40 DIA.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
917' - 934'	Frac'd w/ 23,000 gal 70.0 foam 33,500# 12-20 sand & 145,000 scf N <sub>2</sub> @ 20bpm

33. PRODUCTION							
Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)					Well Status (Prod. or Shut-in)	
-----	Flowing					Shut-in	
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
9-9-89	26	3/8"	→	-0-	596	0	-0-
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	
150	180	→	-0-	550	0	-0-	

34. Disposition of Gas (Sold, used for fuel, vented, etc.)  
Vented Test Witnessed By J.C. HARRIS

35. List of Attachments  
NONE

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.  
 SIGNED FRED LOWERY TITLE OPERATIONS SUPT. DATE 9-13-89

Case No. BHP  
 Submitted BHP  
 Hearing BHP

Locke Exhibits A through Q  
Complete Set

GENERAL OFFICES  
318 19 PETROLEUM BUILDING  
OKLAHOMA CITY, OKLAHOMA  
PHONE 7-8844

BENSON & MONTIN

OIL PRODUCERS AND OPERATORS  
November 8, 1952

EARL A. BENSON  
WM. V. MONTIN

RECEIVED  
NOV. 10 1952  
U. S. GEOLOGICAL SURVEY  
ROSWELL, NEW MEXICO

The United States Geological Survey  
Washington, District of Columbia

Via  
The United States Geological Survey  
Roswell, New Mexico

Re: Gallegos Canyon Unit,  
San Juan County, New Mexico.

Gentlemen:

Benson and Montin and Stanolind Oil and Gas Company would like to withdraw tract 102 from the Gallegos Canyon Unit Agreement. This tract is located in the N/2 of Section 23, Township 29N, Range 13W and contains 133 acres. We have tried unsuccessfully to obtain the royalty owner's commitment of this tract to the Unit.

Well spacing for Pictured Cliffs production in this area is 320 acres per well. The remaining 187 acres in the N/2 of this section, which is required for a well spacing unit, has been leased by an independent operator who prefers not to join the Unit, and whose royalty owner absolutely refuses to become a party to the Unit. This operator, Locke-Taylor Drilling Company, proposed the drilling of a Pictured Cliffs well in the N/2 of Section 23 last June and requested that we farm out to them our 133 acres inasmuch as they preferred not to join the Unit and since it was impossible to obtain the unitization commitment of any of the royalty owners owning land in the N/2 of Section 23.

We felt that it was advantageous to the Unit from the standpoint of information obtained to have a well drilled at this location and both Stanolind and Benson and Montin, working interest owners of tract 102, agreed to farm out their interest to Locke-Taylor for this proposed test. However, since this tract had been committed to the Gallegos Canyon Unit insofar as working interest was concerned, we realized that some legal action might be required to withdraw this land from the Unit Agreement. We solicited an opinion from Mr. Canfield of the USGS Roswell office, who referred us to Mr. Duncan of the USGS Washington office.

It happened that Mr. Duncan was at that time visiting in Farmington and we were able to discuss this matter with him. Mr. Duncan advised us that ordinarily the USGS does not consider a tract fully committed to a unit, unless the royalty owners commit their interest as well as the working interest owner's, and that as such, tract 102 would not be considered fully committed to the Unit. He further said that he was of the opinion that we could farm out the tract, insofar as the USGS was concerned and that he felt the USGS would offer no objection. Mr. Duncan advised us that when we were ready to make the final assignments of our interests, it would be well to direct a letter to the USGS, setting out our problem and

NOTED

NOV 10 1952

3431  
JULIA A. ANDERSON

requesting any proceedings that the USGS might at that time require. Locke and Taylor have now completed their obligation to Benson and Montin and Stanolind, and have earned a working interest in tract 102. Accordingly, we wish to follow Mr. Duncan's suggestion and request herewith instructions as to how we should proceed to officially remove tract 102 from the Gallegos Canyon Unit Agreement, insofar as the USGS is concerned.

Very truly yours,  
BENSON AND MONTIN,

by: Albert R. Greer  
Albert R. Greer,  
Field Sup't.

ARG/mp

cc: United States Geological Survey  
Farmington, New Mexico  
Att'n: Mr. Phil McGrath

Stanolind Oil and Gas Company  
Albuquerque, New Mexico  
Att'n: Mr. Ben Kee

Benson and Montin  
Oklahoma City, Oklahoma

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

Case No. \_\_\_\_\_ Exhibit No. A

Submitted by \_\_\_\_\_

Hearing Date \_\_\_\_\_



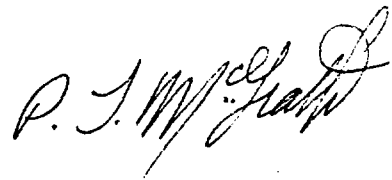
## Office Memorandum • UNITED STATES GOVERNMENT

TO : Oil & Gas Supervisor, Roswell, New Mexico      DATE: November 24, 1952

FROM : District Engineer, Farmington, New Mexico

SUBJECT: Gallegos Canyon Unit, I-Sec. No. 844, and Rincon Unit, I-Sec. No. 916 -  
offsets and non-unit wells within unit areas.

Attached plats show wells offsetting the subject units with the initial production of the wells. The attached list gives the operator, well name and number, location and tie-in or first delivery date.



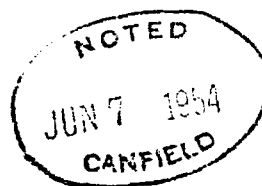
P. T. McGrath

PTMcGra th:jhb

Encl: Attached list of units I-Sec. No. 844 and  
No. 916 (Non-unit wells).

RECEIVED  
NOV 26 1952  
U. S. GEOLOGICAL SURVEY  
ROSWELL, NEW MEXICO

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico	
Case No. <u>10345+</u>	Exhibit No. <u>B</u>
Submitted by <u>Locke</u>	
Hearing Date <u>02/27/92</u>	



NOTED  
NOV 26 1952

JOHN A. ANDERSON

Noted  
recessed



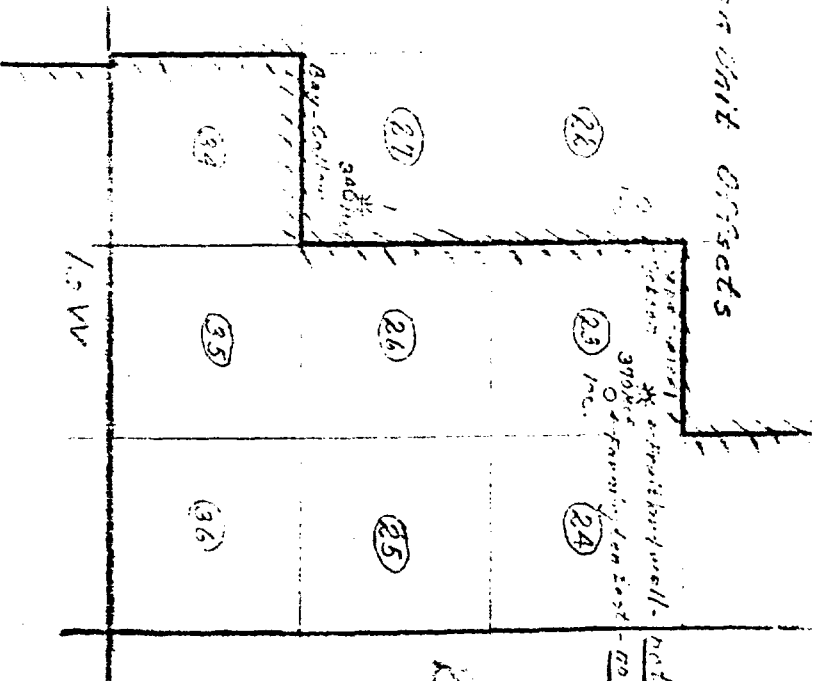
6/21/54  
3425

Operator:	Well Number & Name:	Location:	Tie-in or first delivery date:
Bay Petroleum Co.	#1 Callow	SE 1/4 sec. 27, T. 29 N., R. 13 W.	Not Producing
Benson & Montin, Inc.	#1 Lilly	NE 1/4 sec. 4, T. 27 N., R. 12 W.	11-14-52
"	#1 Payne	NE 1/4 sec. 36, T. 28 N., R. 12 W.	10-13-52
"	#2 "	NW 1/4 sec. 36, T. 28 N., R. 12 W.	9-21-52
"	#6 "	NW 1/4 sec. 35, T. 28 N., R. 12 W.	9-18-52
"	#7 "	SW 1/4 sec. 35, T. 28 N., R. 12 W.	9-18-52
"	#8 "	SE 1/4 sec. 36, T. 28 N., R. 12 W.	9-18-52
"	#2 Rhodes	SW 1/4 sec. 31, T. 28 N., R. 11 W.	10-13-52
Danube Oil Co.	#5 Thompson	NW 1/4 sec. 3, T. 27 N., R. 12 W.	2-28-52
"	#7 "	SW 1/4 sec. 3, T. 27 N., R. 12 W.	4-1-52
"	#3 "	SE 1/4 sec. 3, T. 27 N., R. 12 W.	1-5-52
"	#2 Harmon	NW 1/4 sec. 2, T. 27 N., R. 12 W.	1-5-52
James D. Hancock & Co. Ltd.	#11 Hancock	NE 1/4 sec. 3, T. 27 N., R. 12 W.	7-13-52
Loeike & Taylor	#1 Foutz	NW 1/4 sec. 5, T. 27 N., R. 12 W.	3-28-52
"	#1 Tyckson	NE 1/4 sec. 23, T. 29 N., R. 13 W.	Not Producing
Lowry et al Opr. Acct.	#1-44 Doswell	SW 1/4 sec. 34, T. 27 N., R. 6 W.	Will tie-in week of Nov. 24.
"	#8-36	NE 1/4 sec. 5, T. 26 N., R. 6 W.	"
"	#9-37	SW 1/4 sec. 5, T. 26 N., R. 6 W.	"
"	#1-43	SW 1/4 sec. 13, T. 26 N., R. 7 W.	"
"	#1-42	SW 1/4 sec. 14, T. 26 N., R. 7 W.	"
Robert Mead #1-B Scott	#1-D Scott	SE 1/4 sec. 5, T. 26 N., R. 6 W.	"
"	"	SE 1/4 sec. 14, T. 26 N., R. 7 W.	"

Gallegos Canyon Unit Objects

BEST AVAILABLE COPY

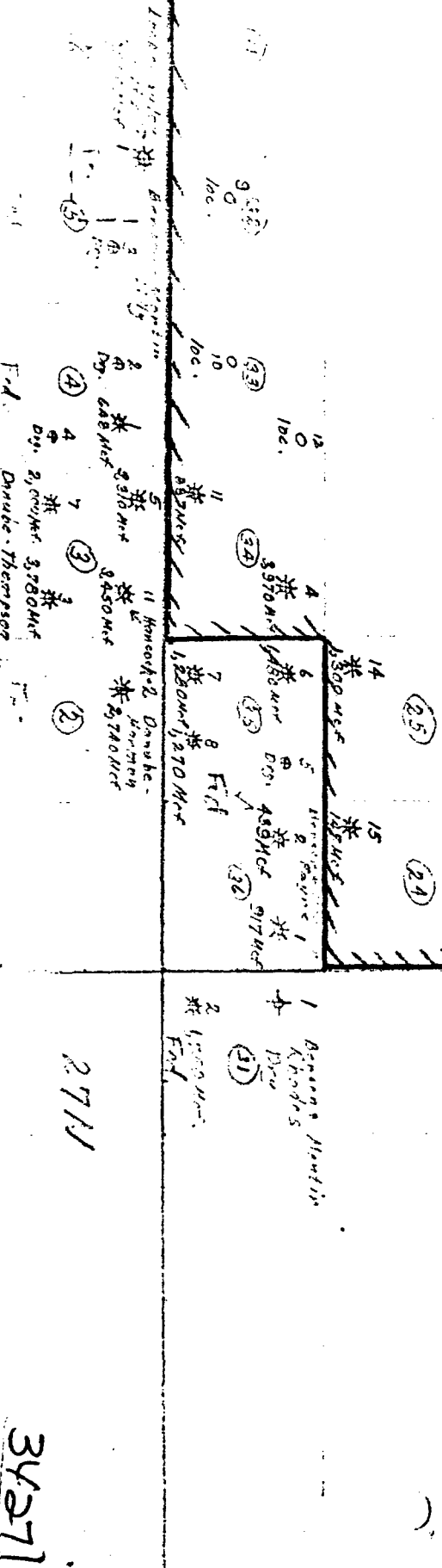
Gallegos Canyon Unit Boundary —  
Township Lines —



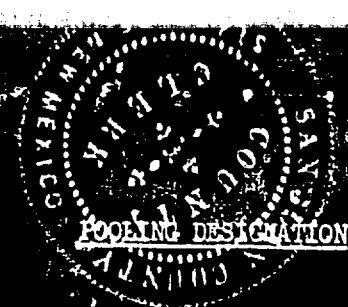
12 W

28 N

11 W



34271



STATE OF NEW MEXICO, } ss. 23.  
County of San Juan  
I hereby certify that this instrument was  
filed for record on the 2 day of  
Feb. 1955.  
at 11:37 o'clock A.M., and duly re-  
corded in book 270 page 23  
of the Records of said county.

*Lisa Aish*  
Probate Clerk and ex-officio Recorder.

*Bonnie Lane*  
Deputy

WHEREAS, Lloyd D. Locke and Lloyd B. Taylor, doing business under the name and style of Locke-Taylor Drilling Company, of Farmington, New Mexico, are the owners and holders of that certain oil and gas lease executed and delivered by William S. Allen and Melva J. Allen, husband and wife, and Ula Allen, a widow, lessors, dated and executed December 13, 1951, reference to which is more particularly made in that certain instrument recorded in Book 186 at page 178 of the records in the office of the County Clerk and Recorder of San Juan County, New Mexico, covering and embracing the following described land situate in said San Juan County, to-wit:

The NW $\frac{1}{4}$ , Sec. 23, Twp. 29N, Rge. 13W, N.M.P.M.,  
containing 160 acres, more or less; and,

WHEREAS, the said Lloyd D. Locke and Lloyd B. Taylor, doing business under the name and style of Locke-Taylor Drilling Company, of Farmington, New Mexico, are the owners and holders of that certain oil and gas lease executed and delivered by John A. Lee and Elinore K. Lee, husband and wife, lessors, to Lloyd D. Locke and Lloyd B. Taylor, which said lease is recorded in Book 192 at Page 161 of the public records in the office of the County Clerk and Recorder of San Juan County, New Mexico, covering and embracing the following described lands situate in San Juan County, New Mexico, to-wit:

Beginning at a point on the North line of Sec. 23, 40 rods E. from the NW corner of the NE $\frac{1}{4}$  of said section, thence S. 746.8 feet, thence E. 770 feet, thence N. 746.8 feet, thence W. 770 feet, to place of beginning, all in Twp. 29N, Rge. 13W, N.M.P.M., containing 12 acres, more or less; and,

WHEREAS, Lloyd D. Locke and Lloyd B. Taylor, doing business under the name and style of Locke-Taylor Drilling Company, of Farmington, New Mexico, are the owners and holders of that certain oil and gas lease executed and delivered by Helen Zimmerman and R. J. Zimmerman, husband and wife, on February 20, 1947, to Charles Newbold, Aztec, New Mexico, which said lease is recorded in Book 125 and Page 153 of the public records of San Juan County, New Mexico, and which said lease was assigned to said Lloyd D. Locke

APR 1955

1-A

and Lloyd B. Taylor, dba Locke-Taylor Drilling Company, insofar as said lease pertains to and covers the oil and gas and petroleum products to and including the Pictured Cliffs formation and all other geological formations lying and being lesser in depth than the Pictured Cliffs formation, covering the following described land situate in the County of San Juan, New Mexico, to-wit:

The E $\frac{1}{2}$  of the NE $\frac{1}{4}$ , the SW $\frac{1}{4}$  of the NE $\frac{1}{4}$  and 13 acres in the south part of the NW $\frac{1}{4}$  of the NE $\frac{1}{4}$ , all in Sec. 23, Twp. 29N, Rge. 13W, N.M.P.M., containing 133 acres, more or less; and

WHEREAS, B. E. Dustin and Ruth Dustin, husband and wife, and Louis Dustin, a widow, executed and delivered to Earl A. Benson and William V. Montin, of Oklahoma City, Oklahoma, that certain oil and gas lease dated the 21st day of April, 1951, which said lease is recorded in Book 175 at Page 137 of the Public records in the office of the County Clerk and Recorder of San Juan County, New Mexico, and the said Earl A. Benson and William V. Montin, joined by their respective wives, executed and delivered to Lloyd D. Locke and Lloyd B. Taylor, doing business under the name and style of Locke-Taylor Drilling Company, of Farmington, New Mexico, an assignment of the aforesaid oil and gas lease to and including the Pictured Cliffs formation and any and all geological formations situated at a lesser depth than the Pictured Cliffs formation, as to the following described lands situate and being in San Juan County, New Mexico, to-wit:

Beginning at the NW corner of the NE $\frac{1}{4}$  of Sec. 23, Twp. 29N, Rge. 13W, N.M.P.M., thence South 60 rods; thence east 40 rods; thence North 60 rods; thence West 40 rods to the place of beginning, containing 15 acres, more or less; and,

WHEREAS, it is specifically provided in each of the aforesaid oil and gas leases, or amendments thereto, that the owners of said respective oil and gas leases at any time, and from time to time, may pool or unitize all or any part or parts of the lands embraced in said respective

leases, as is more particularly set out in said respective leases; and the said Lloyd D. Locke and Lloyd B. Taylor, doing business under the name and style of Locke-Taylor Drilling Company, joined by Stanolind Oil and Gas Company, a corporation, and joined by said Earl A. Benson and William V. Montin, joined by their respective wives, have elected to pool or unitize all of the lands embraced in said several respective leases under a unitized drilling unit, embracing the N $\frac{1}{2}$  of Sec. 23, Twp. 29N, Rge. 13W, N.M.P.M., to conform with the spacing rules and regulations provided by the Oil Conservation Commission of the State of New Mexico.

NOW, THEREFORE, we, the said Lloyd D. Locke and Lloyd B. Taylor, doing business under the name and style of Locke-Taylor Drilling Company, of Farmington, New Mexico, and said Stanolind Oil and Gas Company, a corporation, and joined by said Earl A. Benson and William V. Montin, so by these presents unitize and pool all and singular the lands embraced in said respective oil and gas leases, as hereinabove more particularly described, into one drilling unit and acreage pool for the purpose of operating and drilling, producing and marketing ~~oil~~ gas, and hydrocarbon substances from the said lands embraced in said above mentioned leases, embracing and covering all and singular the following described lands situate in San Juan County, New Mexico, as one drilling unit or pool, to-wit:

*[Handwritten signature]*  
07/10  
WUM  
RGP

The N $\frac{1}{2}$  of Sec. 23, Twp. 29N, Rge. 13W, N.M.P.M., containing 320 acres, more or less.

PROVIDED, HOWEVER, that this Pooling Designation and Declaration shall apply to and be binding upon said Stanolind Oil and Gas Company, a corporation, and Earl A. Benson and William V. Montin as embracing and pertaining to only those geological formations lying in and above the Pictured Cliffs formation.

IT HEREBY IS FURTHER DECLARED by the said Lloyd D. Locke and Lloyd B. Taylor, dba Locke-Taylor Drilling Company, and said Stanolind Oil and

Gas Company, a corporation, and said Earl A. Benson and William V. Montin, that all of the production of gas and hydrocarbon substances produced and saved from any and all wells drilled on the said hereinabove described lands be, and they hereby are unitized and pooled under one unit of lands, provided, however, that such unitization shall apply only to the Pictured Cliffs formation and other formations of lesser depth or depths than the Pictured Cliffs formation insofar as the same pertains to said lands embraced in the aforesaid lease to said Stanolind Oil and Gas Company, a corporation, and the lands embraced in said lease to Earl A. Benson and William V. Montin, more particularly hereinabove described.

IN WITNESS WHEREOF, the said Lloyd D. Locke and Lloyd B. Taylor have hereunto set their hands this 30 day of Sept., 1953, and said Stanolind Oil and Gas Company, a corporation, has caused its name to be hereto subscribed and attested by its duly authorized and acting officials, this 14th day of December, <sup>1954</sup>~~1953~~, and said Earl A. Benson and William V. Montin have hereunto set their hands this 30th day of October, 1953.



Lloyd D. Locke  
LLOYD D. LOCKE

Lloyd B. Taylor  
LLOYD B. TAYLOR

AND  
STANOLIND OIL & GAS COMPANY

BY: Carl A. Benson  
ATTORNEY-IN-FACT



Carl A. Benson  
EARL A. BENSON

William V. Montin  
WILLIAM V. MONTIN

STATE OF COLORADO )  
COUNTY OF LA PLATA ) SS.

On this 30<sup>th</sup> day of September, 1953, before me personally appeared Lloyd D. Locke, to me known to be the person named in and who signed the foregoing instrument, and he acknowledged that he signed the same as his free act and deed.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above in this certificate written.

Ray M. Coon

My Commission Expires:

July 25 1956

STATE OF COLORADO )  
COUNTY OF LA PLATA ) SS.

On this 30<sup>th</sup> day of September, 1953, before me personally appeared Lloyd B. Taylor, to me known to be the person named in and who signed the foregoing instrument, and he acknowledged that he signed the same as his free act and deed.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above in this certificate written.

Ray M. Coon

My Commission Expires:

July 25 1956

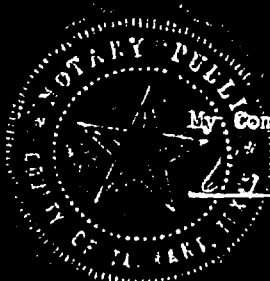


STATE OF TEXAS        )  
COUNTY OF TARRANT ) SS.

On this 14<sup>th</sup> day of December, <sup>1954</sup>1953, before me  
appeared E. J. Bedford, to me personally known,  
who, being by me duly sworn did say that he is the Attorney in Fact  
of Stanolind Oil and Gas Company, and that the seal affixed to said  
Instrument is the corporate seal of said corporation and that said  
instrument was signed and sealed in behalf of said corporation by  
authority of its board of directors, and said E. J. Bedford  
acknowledged said instrument to be the free act and deed of said  
corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my  
seal on this, the day and year first above written.

[Signature]  
Notary Public in and for  
Tarrant County, Texas



My Commission Expires: 6-30-54

STATE OF OKLAHOMA )  
 ) SS.  
COUNTY OF OKLAHOMA )

On this 30<sup>th</sup> day of October, 1953, before me personally appeared Earl A. Benson, to me known to be the person named in and who signed the foregoing instrument, and he acknowledged that he signed the same as his free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above in this certificate written.

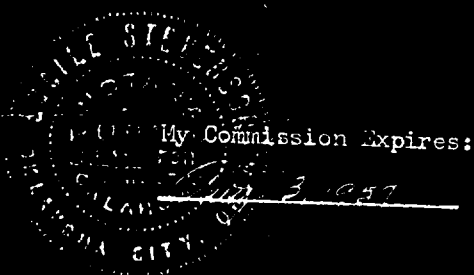
Lucile Stevenson  
Notary Public



STATE OF OKLAHOMA )  
 ) SS.  
COUNTY OF OKLAHOMA )

On this 30<sup>th</sup> day of October, 1953, before me personally appeared William V. Montin, to me known to be the person named in and who signed the foregoing instrument, and he acknowledged that he signed the same as his free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above in this certificate written.



Lucile Stevenson  
Notary Public

STATE OF NEW MEXICO }  
COUNTY OF SAN JUAN }

I hereby certify that the foregoing

Leasing, Resignature

is a true copy of the original on file in my  
said office this 22nd day of

July 1991

Carol Bandip Clerk

Vera B. Brown, Regatp

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

Case No. 10345 Exhibit No. C

Submitted by Locke

Hearing Date 2/27/92

# OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

10345

Case No. 10346 Exhibit No. P

Submitted by LOCKE

Hearing Date 2/27/92

## AMENDMENT TO OIL AND GAS LEASE

STATE OF NEW MEXICO )  
COUNTY OF SAN JUAN )

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, on the 20th day of February, 1947,  
Helen Zimmerman and R. J. Zimmerman, her husband

as Lessor, did execute and deliver an oil and gas lease to Charles Newbold  
as Lessee, covering the following  
described land situated in the County of San Juan, State of New Mexico, to wit:

The East one-half of the Northeast  
Quarter (NE 1/4) ; Southwest Quarter  
of the Northeast Quarter (SW 1/4) and  
Thirteen (13) acres in the South part  
of the Northwest Quarter of the Northeast  
Quarter, all in Section 23, Township  
Twenty Nine (29) North, Range 13 West.  
San Juan County, New Mexico, containing  
137 Acres more or less.

said lease having been recorded in Volume 125 at Page 153 of the Records of  
San Juan County, New Mexico; and

WHEREAS, the above described lease is in full force and effect and is  
presently owned and held by Stanolind Oil and Gas Company, and Locke-Taylor Drilling Co.,  
Stanolind Oil and Gas Company and Benson & Montin, and

WHEREAS, the undersigned parties are the owners of all or a part of the  
oil and gas in and under the above described land, subject to said lease, and desire  
to amend and supplement said lease so as to include the additional provisions herein-  
after set forth;

NOW THEREFORE, in consideration of the premises and the sum of One Dollar  
(\$1.00) and other good and valuable considerations in hand paid to the undersigned  
parties by Stanolind Oil and Gas Company, the receipt and sufficiency of which are  
hereby acknowledged, the undersigned parties do hereby and by these presents amend  
and supplement the above described oil and gas lease so as to include therein the  
following:

"Lessee is hereby given the power and right, at any time during  
the term of this lease, as to all or any part of the land described  
herein and as to any one or more of the formations thereunder and the  
minerals therein or produced therefrom, at its option and without  
Lessor's joinder or further consent, to pool and unitize the leasehold  
estate and the Lessor's royalty estate created by this lease with the  
rights of any third parties in all or any part of the land described  
herein, and with any other land, lands, lease, leases, mineral and royal-  
ty rights, or any of them, adjacent, adjoining or located within the  
immediate vicinity of the land covered by this lease, whether owned by  
Lessee or some other person, firm or corporation, so as to create by such  
pooling and unitization, one or more drilling or production units. Each  
such drilling or production unit shall not exceed 320 acres, whether  
created for the purpose of drilling for or producing oil, gas, casinghead  
gas or casinghead gasoline, or any combination of such minerals, there-  
from, except that larger units may be created to conform to the spacing

*Lease No 74463*

EXHIBIT "F"

140-A

or well unit patterns prescribed by State or Federal authorities having jurisdiction in the premises. The commencement, drilling, completion of or production from a well on any portion of a unit created hereunder, including the completion of a well capable of producing gas only from which gas is not being sold or used, shall for all purposes, except the payment of royalties, have the same effect upon the terms and provisions of this lease, as if a well were commenced, drilled, completed producing, or capable of producing gas only and shut-in (gas not being sold or used) on the land embraced by this lease. As to each such unit so created by Lessee, Lessor agrees to accept and shall receive out of the production or the proceeds from the production from such unit, such portion of the royalties elsewhere herein specified as the number of acres out of this lease placed in any such unit bears to the total number of acres included in such unit; provided, however, that, anything to the contrary contained in this lease notwithstanding, in the event a well capable of producing gas only is completed on a unit created hereunder and gas is not sold or used from said well, Lessor agrees to accept and shall receive as royalty, an amount equal to One Dollar (\$1.00) for each acre herein recited to be covered by this lease, payable annually at the end of each year during which such gas is not sold or used, and while said royalty is so paid or tendered, this lease shall continue in full force and effect and said well shall be considered a producing well under the paragraph hereof setting forth the term of this lease. The Lessee may place and use on each unit created hereunder common measuring and receiving tanks for production from such unit. If Lessee does create any such unit or units under the option herein granted, then Lessee shall execute in writing and file for record in the County or Counties in which each such unit or units created hereunder may be located, an instrument identifying and describing each such unit or units. The provisions of this paragraph shall be construed to be covenants running with the land and shall inure to the benefit of and be binding upon the parties hereto, their heirs, legal representatives, successors and assigns." THE ABOVE ONE DOLLAR PER ACRE SHUT IN SHALL APPLY TO THE PRESENT WELL NOW IN PRODUCTION AS TO PAST SHUT IN PAYMENTS.

Except as herein amended and supplemented, the terms and provisions of the above described lease shall remain in full force and effect as originally written. This instrument shall be binding upon all of the parties who sign the same regardless of whether it is signed by all of the parties owning interests in the oil and gas in and under the above described land. This amendment may be executed in as many counterparts as deemed necessary, and, when so executed shall have the same effect as if all parties had executed the same instrument.

EXECUTED THIS 1<sup>st</sup> day of October, 1954

Helen Zimmerman  
Helen Zimmerman  
R. J. Zimmerman  
R. J. Zimmerman

We the undersigned, Howard N. Tykseen and Zelma H. Tykseen, present owners of a an undivided one-half (1/2) interest in and to the above described tract approve this Amendment to to the lease.

Howard N. Tykseen  
Howard N. Tykseen  
Zelma H. Tykseen  
Zelma H. Tykseen

140B

STATE OF OREGON

COUNTY OF Benton

ss.

On this 1<sup>st</sup> day of Oct 1954, before me appeared Helen Zimmerman and R. J. Zimmernam, her husband, to me known to the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my notarial seal the day and year first above written.

Michael Dick  
Notary Public

My commission expires 11-10-55



STATE OF NEW MEXICO

COUNTY OF SAN JUAN

ss.

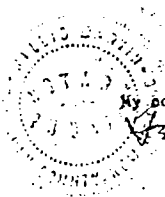
On this 15 day of Sept 1954, before me personally appeared Howard N. Tycksen and Zelma H. Tycksen, his wife, to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

IN WITNESS WHEREOF, I have set me official signature and affixed my notarial seal the day and year first above written.

Willis Martin  
Notary Public

My commission expires

Feb 24-1956



PLAN OF DEVELOPMENT FOR THE CALENDAR YEAR 1955  
PICTURED CLIFFS ZONE - GALLEGOS CANYON UNIT  
SAN JUAN COUNTY, NEW MEXICO

TO: The Oil and Gas Supervisor (6)  
United States Geological Survey  
Roswell, New Mexico

Commissioner of Public Lands (3)  
State of New Mexico  
Santa Fe, New Mexico

Oil Conservation Commission (3)  
State of New Mexico  
Santa Fe, New Mexico

In compliance with the Section 9 of the Gallegos Canyon Unit Agreement dated November 1, 1950, Stanolind Oil and Gas Company, as successor Unit Operator to Benson-Montin, on behalf of itself and all other owners of oil and gas leases or of operating rights under oil and gas leases covering lands committed to the Gallegos Canyon Unit, hereby submits a Plan of Development for the Pictured Cliffs Zone of said Gallegos Canyon Unit as follows:

1. Description of Participating Area in Pictured Cliffs Zone: The participating area for the Pictured Cliffs Zone is comprised of the following described acreage:

T-27-N, R-12-W:

Section 4

Section 5, NE/4

T-28-N, R-11-W:

Section 31, S/2

T-28-N, R-12-W:

All of Sections 7 through 10 and 14 through 36

W/2 Section 11.

T-28-N, R-13-W:

All of Sections 12, 13, and 24

E/2 of Section 11

E/2 of Section 14

T-29-N, R-12-W:

All of Sections 19 and 29 through 33

T-29-N, R-13-W:

All of Sections 24, 25, 26, 35, and 36

All located in San Juan County, New Mexico comprising approximately 25,785 acres.

BEFORE THE	
OIL CONSERVATION COMMISSION	
Santa Fe, New Mexico	
Case No. <u>103454</u>	Exhibit No. <u>E</u>
Submitted by <u>Lucke</u>	
Hearing Date <u>02/27/92</u>	

17185.

2. Past Development History of Pictured Cliffs Zone: Sixty-eight wells have now been drilled in the Gallegos Canyon Unit. The following tabulation reflects the current status of development for the unit:

<u>Well</u>	<u>Location</u>	<u>Completion Date</u>	<u>Initial Potential (MCF)</u>	<u>Remarks *</u>
GCU #1	SW 19-29N-12W	9-28-51	1475	
GCU #2	SW 35-29N-12W	11-1-51	Dry Hole	Outside Participating Area
GCU #3	SW 24-28N-12W	11-1-51	550	
GCU #4	NE 34-28N-12W	11-1-51	3970	
GCU #5	NE 13-28N-13W	11-1-51	4830	
GCU #6	SW 22-28N-12W	2-8-52	2830	
GCU #7	NE 30-28N-12W	11-1-51	750	
GCU #8	SW 22-28N-12W	12-7-51	125(Dakota)	Non-commercial determination for Dakota approved by U.S.G.S. Well being operated on lease basis as V. W. McManus (Dakota) #1.
GCU #9	SW 32-28N-12W	2-6-53	1210	
GCU #10	SW 33-28N-12W	1-23-53	2519	
GCU #11	SW 34-28N-12W	10-28-52	887	
GCU #12	NE 33-28N-12W	1-23-53	2930	
GCU #13	SW 27-28N-12W	11-13-52	2305	
GCU #14	SW 26-28N-12W	10-28-52	1300	
GCU #15	SW 25-28N-12W	10-28-52	147	
GCU #16	NE 27-28N-12W	9-19-52	2265	
GCU #17	Sec. 28-28N-12W	8-18-52	6035	
GCU #18	NE 21-28N-12W	4-3-53	2486	
GCU #19	NE 20-28N-12W	8-25-53	3120	
GCU #20	SW 17-28N-12W	3-16-53	2215	
GCU #21	SW 18-28N-12W	2-26-53	7672	
GCU #22	NE 18-28N-12W	2-22-53	2580	
GCU #23	SW 13-28N-13W	3-17-53	1604	
GCU #24	SE 34-28N-12W	1-23-53	3590	
GCU #25	SW 26-29N-13W	6-29-53	87	
GCU #26	NE 25-29N-13W	9-26-53	134	
GCU #27	SW 30-29N-12W	5-6-53	Dry Hole	Initial Participating Area. Temporarily Abandoned. (PC)

17195



GCU #28	NE 30-29N-12W	6-26-53	734	
GCU #29	SW 32-29N-12W	9-22-53	Dry Hole	Initial Participating Area. Plugged and Abandoned.
GCU #30	SE 33-28N-12W	5-17-53	1885	
GCU #31	NW 34-28N-12W	4-3-53	1130	
GCU #32	SW 7-28N-12W	8-18-53	2310	
GCU #33	SW 21-28N-12W	9-12-53	3400	
GCU #34	Sec. 28-28N-12W	6-29-53	1951	
GCU #35	Sec. 20-28N-12W	9-12-53	5020	
GCU #36	NE 19-28N-12W	9-12-53	4593	
GCU #37	SW 19-28N-12W	9-11-53	1350	
GCU #38	NE 24-28N-13W	8-25-53	1230	
GCU #39	SW 16-28N-12W	8-18-53	1120	
GCU #40	NE 29-28N-12W	9-12-53	3165	
GCU #41	NE 32-28N-12W	6-26-53	1470	
GCU #42	SW 12-28N-13W	10-31-53	3120	
GCU #43	NE 14-28N-13W	11-16-53	1930	
GCU #44	SW 35-29N-13W	12-10-53	2172	
GCU #45	SW 29-28N-12W	12-10-53	887	
GCU #46	NE 17-28N-12W	10-15-53	Dry Hole	Initial Participating Area. Permanently Abandoned.
GCU #48	SW 30-28N-12W	1-4-54	768	
GCU #49	NE 31-28N-12W	11-29-53	1050	
GCU #50	SW 21-28N-12W	8-15-53	Dry Hole	Shallow test Farmington Sand. Plugged and Abandoned.
GCU #51	NE 36-28N-12W	9-19-52	917	First Enlargement Participating Area. (PC)
GCU #52	NW 36-28N-12W	9-10-52	449	Ditto Above.
GCU #53	SW 36-28N-12W	10-19-54	1250	Ditto Above.
GCU #54	SE 36-28N-12W	3-17-54	196	Ditto Above.
GCU #55	Sec. 35-28N-12W	12-18-52	2100	Ditto Above.
GCU #56	NW 35-28N-12W	9-18-52	1480	Ditto Above.
GCU #57	SW 35-28N-12W	8-18-52	1280	Ditto Above.
GCU #58	SE 35-28N-12W	9-10-52	1270	Ditto Above.
GCU #59	SW 31-28N-11W	10-10-52	1750	Ditto Above.
GCU #60	SE 31	10-10-52	971	Ditto Above.
GCU #61	NE 4-27N-12W	11-13-53	648	Ditto Above.

GCU #62	NW 4-27N-12W	12-30-52	3400	Ditto Above
GCU #63	NE 5-27N-12W	12-10-52	2658	Ditto Above
GCU #64	SE 4-27N-12W	12-30-52	2658	Ditto Above
GCU #65	SW 36-29N-13W	5-27-54	1020	
GCU #66	NE 35-29N-13W	4-7-54	2516	
GCU #67	NE 22-28N-12W	4-9-54	350	
GCU #68	NE 14-28N-12W	5-29-54	113	
✓ GCU #69	NE 28-29N-12W	10-11-54	205	Outside Pictured Cliffs Participating Area.

\*All wells are in Initial Participating Area Pictured Cliffs Formation unless shown otherwise.

The Texas Company completed their Navajo "A" No. 1 in the NE of Section 6, T-27-N, R-12-W on December 14, 1953, for a potential of 1350 MCFD outside of the unit area. An application for an enlargement of the unit area and the Pictured Cliffs Participating Area to include the acreage proven productive by this well is pending approval of the U. S. Geological Survey.

3. Proposed Additional Wells: Based on our present interpretation of the Pictured Cliffs production trend, only two locations offer drilling prospects for 1955. Accordingly, the Unit Operator proposes to drill the following two Pictured Cliffs locations during 1955:

SW/4 Sec. 24, T-28-N, R-13-W Tr 6

SW/4 Sec. 31, T-28-N, R-12-W 70

This drilling program has received sufficient concurrence under provisions of Paragraph 5 of the Unit Accounting Agreement to constitute approval by the working interest owners in the unit.

4. Well Casing Program: The well casing program will generally follow the program currently used in the Pictured Cliffs wells in San Juan County, including such surface casing and other casing as may be required by the Supervisor, the Commissioner, and the Commission, or as set forth in approvals of the applicable U.S.G.S. and State of New Mexico forms. The producing string of casing may be set and cemented either on top or through or partially through the producing zone.

5. Off-set Obligations: The Unit Operator on behalf of the owners of working, royalty, and other interests, in the Gallegos Canyon Unit, will take appropriate and adequate measures to prevent drainage from lands subject to the Gallegos Canyon Unit Agreement, by wells on lands not subject to said agreement or pursuant to applicable regulations, will pay a fair and reasonable compensatory royalty as provided in Section

17135

15 of the Gallegos Canyon Unit Agreement.

6. Further Development: This Plan of Development for the Pictured Cliffs Zone shall constitute the future drilling obligations of the Unit Operator pursuant to the provisions of the Gallegos Canyon Unit Agreement for the Pictured Cliffs Zone for the period ending December 31, 1955. It is further agreed that prior to the expiration of this Plan of Development another plan of development shall be submitted to the above named addressed for further development of the unit.

7. Effective Date: This Plan of Development shall be effective January 1, 1955.

8. Modifications: It is understood that portions of the Plan of Development herein outlined are dependent upon certain information to be obtained prior and subsequent to drilling and other contingencies such as availability of well casing; and for these reasons this Plan of Development may be modified from time to time with the approval of the Supervisor, the Commissioner, and the Commission, to meet changing conditions. Submitted this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_.

STANOLIND OIL AND GAS COMPANY, Unit Operator

By: \_\_\_\_\_  
Attorney-in-fact

APPROVED: \_\_\_\_\_  
Regional Oil and Gas Supervisor  
United States Geological Survey

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
Commissioner of Public Lands  
State of New Mexico

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
Secretary Director  
New Mexico Oil Conservation Commission

DATE: \_\_\_\_\_

17195

WORKING INTEREST OWNERS  
GALLEGOS CANYON UNIT  
SAN JUAN COUNTY, NEW MEXICO

Mid-Continent Petroleum Corporation  
P. O. Box 381  
Tulsa, Oklahoma

Aztec Oil and Gas Company  
920 Mercantile Securities Building  
Dallas, Texas

Albuquerque Associated Oil Co.  
Albuquerque,  
New Mexico

Mr. L. B. Hodges  
Roswell, B-4671  
New Mexico

Miss Elma R. Jones  
764 Twentieth Avenue  
San Francisco, California

Miss Pauline S. McNaughton  
1423 Madison Street  
Oakland, California

The Texas Company  
P. O. Box 2332  
Houston, Texas

Mr. Glenn J. Smith  
1st. National Bldg.  
Tulsa, Oklahoma

New Mexico Natural Gas Company  
Box 553  
Sheboygan, Wisconsin

Brookhaven Oil Company  
P. O. Box 644  
Albuquerque, New Mexico

Mr. L. M. Johnson  
Box 594  
Greensboro, N. C.

Mr. E. H. Colby  
118 Woodstock  
Crystal Lake, Illinois

Texas Pacific Coal and Oil Co.  
P. O. Box 2110  
Fort Worth, Texas

Mr. George J. Darnielle  
3251 Coldwater Canyon  
North Hollywood, California

Devonian Gas and Oil Company  
1103 House Building  
Pittsburg, Pennsylvania

Mr. Edward J. Johnson  
223 Greenbank Avenue  
Piedmont 10, California

17185

# PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 480, Farmington, New Mexico  
December 20, 1960

File: E-917-416

Subject: 1961 Plan of Development  
Gallegos Canyon Unit  
San Juan County, New Mexico

The Oil and Gas Supervisor (6)  
United States Geological Survey  
Roswell, New Mexico

Commissioner of Public Lands (3)  
State of New Mexico  
Santa Fe, New Mexico

Oil Conservation Commission (3)  
State of New Mexico  
Santa Fe, New Mexico

All Working Interest Owners  
Gallegos Canyon Unit  
(See Attached Addressee List)

TEXAS PACIFIC COAL AND OIL COMPANY

RECEIVED

DEC 28 1960

LAND & LEASING DEPARTMENT  
RECEIVED

DEC 29 1960

TITLE AND REVENUE DEPARTMENT

Gentlemen:

In compliance with Section 9 of the Gallegos Canyon Unit Agreement dated November 1, 1950, designated I-Sec. No. 844, Pan American Petroleum Corporation, as Unit Operator, respectfully submits for your approval a Plan of Development for the calendar year 1961. The recommended 1961 Plan of Development has been approved by a majority of the Working Interest Owners as provided by the Unit Operating Agreement.

History of Past Development - There has been, to date, a total of 86 wells drilled in the Gallegos Canyon Unit. Of these, 67 are Pictured Cliffs producers, 4 are Gallup-Dakota duals, 1 a single Dakota completion well, 2 Gallup wells, 1 Fruitland completion, and 11 wells that are either dry holes or abandoned Pictured Cliffs wells.

An initial Gallup Participating Area has been established for the commercial production from Gallegos Canyon Unit No. 83. The performance of other Gallup completions are being carefully observed inasmuch as information now available indicates that the Gallup may prove to be non-commercial in these completions. One Gallup completion has already been classified non-commercial (Gallegos Canyon Unit No. 84), and application has been made for the non-commercial determination of the Gallup in the Gallegos Canyon Units No. 86 and 87, and in all probability, applications will also be made for the non-commercial determination for the two remaining Gallup completions.

A non-commercial determination application has also been made for the Fruitland formation in Gallegos Canyon Unit No. 77.

An initial Dakota Participating Area has been approved as well as a First Enlargement thereof, and application has been filed for a Second Enlargement of the Gallegos Canyon Unit Dakota Participating Area.

The Oil and Gas Supervisor  
Commissioner of Public Lands  
Oil Conservation Commission  
All Working Interest Owners

-2-

December 20, 1960

File: E-917-416

Subject: 1961 Plan of Development  
Gallegos Canyon Unit  
San Juan County, New  
Mexico

Attached is a tabulation showing wells by producing formation, production data, etc., for the Gallegos Canyon Unit.

Proposed Additional Wells - It is planned to drill six additional Dakota wells during 1961, the location of which will be around the perimeter of the Gallegos Canyon Unit Area. We propose to drill no additional Pictured Cliffs wells during 1961 in view of the high risk involved insofar as further development of this zone is concerned. Prospects for further Gallup development in the Unit Area will be determined from information derived from the drilling of Dakota wells, inasmuch as the Gallup overlies the Dakota and log analysis will be the basis for future Gallup development and/or exploration.

Well Casing Program - The well casing program will generally follow the program currently used in similar wells in San Juan County, including such surface casing and other casing as may be required by the Supervisor, the Commissioner and the Commission, or as set forth in approvals of the applicable U.S.G.S. and State of New Mexico forms. The producing string of casing may be set and cemented on top, partially through or completely through the producing zone.

Off-Set Obligations - Appropriate and adequate measures will be taken to prevent drainage of unitized substances from lands subject to the Gallegos Canyon Unit Agreement, or, pursuant to applicable regulations, fair and reasonable compensatory royalty will be paid as provided in Section 15 of said Agreement.

Further Development - This plan of development shall constitute the drilling obligations of the Unit Operator under the terms of the Gallegos Canyon Unit Agreement for the period ending December 31, 1961. Before this plan expires, another plan for further development of the unit area will be submitted.

Modifications - It is understood that this plan of development is dependent upon certain information to be obtained prior to and subsequent to drilling, and upon other contingencies, such as availability of well casing; therefore, this plan of development may be modified from time to time to meet changing conditions.

Effective Date - This plan of development shall be effective January 1, 1961.

The Oil and Gas Supervisor  
Commissioner of Public Lands  
Oil Conservation Commission  
All Working Interest Owners

-3-

December 20, 1960

File: E-917-416

Subject: 1961 Plan of Development  
Gallegos Canyon Unit  
San Juan County, New  
Mexico

Dated: December 19, 1960.

PAN AMERICAN PETROLEUM CORPORATION  
Unit Operator

By: L. O. Jenkins  
Area Superintendent

F.F:  
Attach.

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
Regional Oil & Gas Supervisor  
United States Geological Survey

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
Commissioner of Public Lands  
State of New Mexico

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
Oil Conservation Commission  
State of New Mexico

STATISTICAL REVIEW OF OPERATIONS  
GALLEGOS CANYON UNIT  
DECEMBER 1, 1960

Total Wells Drilled In Unit	86
Unit Area	43,146.82 acres

Pictured Cliffs Statistics

Pictured Cliffs Participating Area	27,456.46 acres
Total Wells Drilled	78
Dry Holes	10
Producing Wells as of 12-1-60	67
Temporarily Abandoned Wells	1
Current Production	
October, 1960	161,901 MCF
November, 1960	92,365 MCF
Cumulative Production to 12-1-60	26,878,991 MCF

Dakota Statistics

Dakota Participating Area	3,840 acres
Proposed Second Enlargement	11,027.02 acres
Total Wells Drilled	5
Producing Wells	1
Current Production	
October, 1960	13,265 MCF
November, 1960	12,927 MCF
Cumulative Production to 12-1-60	200,076 MCF

Gallup Statistics

Gallup Participating Area	360 acres
Total Wells Drilled	6
Producing Wells	6
Current Production	
October, 1960	6,036 bbls./oil
November, 1960	5,575 bbls./oil
Cumulative Production to 12-1-60	77,963 bbls./oil

Fruitland Statistics

Total Wells Drilled	1 (Non-Commercial)
Current Production	
October, 1960	5,854 MCF
November, 1960	3,356 MCF
Cumulative Production to 12-1-60	32,792 MCF



MAILING LIST OF WORKING INTEREST OWNERS  
GALLAGOS CANYON UNIT AREA  
SAN JUAN COUNTY, NEW MEXICO

San Petrolina Co. of Texas  
P. O. Box 2159  
Dallas 21, Texas

Delta Oil and Gas Company  
Mercantile Securities Building  
Dallas 1, Texas

Robert Berry  
Washington Street  
Washington, Iowa

Rockhaven Oil Company  
P. O. Box 396  
Tulsa 1, Arizona

Walter F. Colby, Trustee  
Route 1  
Crystal Lake, Illinois

M. H. and Dyvena Crawford  
Farmington, New Mexico

George J. Darneille  
5521 Bordley  
Houston, Texas

Ernest A. Hanson  
P. O. Box 852  
Roswell, New Mexico

L. B. Hodges  
P. O. Box 671  
Roswell, New Mexico

Edward J. Johnson  
23 Greenbank Avenue  
Berkeley 10, California

Southern Union Gas Company  
Fidelity Union Tower Building  
1507 Pacific Avenue  
Dallas, Texas  
Attn: Dr. W. Whitlow

Elma R. Jones  
764 Twentieth Avenue  
San Francisco, California

Nathan Kessler  
5900 States Drive  
Oakland, California

George H. Krause, et al  
P. O. Box 1107  
Colorado Springs, Colorado

Delta Oil Company of Utah  
2606 Oak Lawn Avenue  
Dallas 19, Texas

El Paso Natural Gas Company  
P. O. Box 1492  
El Paso, Texas

M. H. and Eula Stark  
Route 3  
Farmington, New Mexico

Petro-Atlas Inc.  
2000 National Bank of Tulsa Building  
Tulsa 3, Oklahoma

John J. Redfern, Jr.  
P. O. Box 1747  
Midland, Texas

H. K. Riddle  
65 East 4th South  
Salt Lake City, Utah

Robb Woods  
501 W. Grand River Street  
Clinton, Missouri

Skelly Oil Company  
Tulsa 2, Oklahoma  
Attn: Mr. D. E. Smith

Summit Oil Company  
Fidelity Union Tower Building  
1507 Pacific Avenue  
Dallas, Texas

Sunray Mid-Continent Oil Company  
P. O. Box 2692  
Denver 1, Colorado  
Attn: Mr. A. W. Wadman

Olen F. Featherstone  
Roswell Petroleum Building  
Roswell, New Mexico

Locke-Taylor Drilling Co.  
801 Second Avenue  
Durango, Colorado

Texaco, Inc.  
P. O. Box 3109  
Midland, Texas

Texas Pacific Coal and Oil Company  
P. O. Box 2110  
Fort Worth 1, Texas

John H. Trigg  
P. O. Box 6529  
Roswell, New Mexico

Wood Oil Company  
Room 800, Midstates Building  
Tulsa, Oklahoma.

Tom Bolack  
1010 N. Dustin  
Farmington, New Mexico

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

Case No. 10345+  
10346 Exhibit No. F

Submitted by Locke

Hearing Date 02/27/92

August 18, 1989



Amoco Production Company  
Post Office Box 800  
Denver, CO 80201

Attn: Leon Thurmon

RE: 1989 Plan of Development and 1988 Review of Operations  
Gallegos Canyon Unit  
Pictured Cliffs, Farmington and Fruitland Formations  
San Juan County, New Mexico

Gentlemen:

Attached are BHP's 1989 Plan of Development and 1988 Review of Operations for those lands which BHP sub-operates in the Gallegos Canyon Unit. BHP requests that you review and submit the plan at your earliest convenience to the five agencies listed on this attachment due to a September 10, 1989 deadline.

Should you have questions or comments in connection with the plan, please contact the undersigned. Also, to enable BHP to track the progress of its plan, please provide a copy of your submittal to BHP at the time of submission to the various agencies.

Very truly yours,

BHP PETROLEUM (AMERICAS) INC.

A handwritten signature in cursive script that reads 'Donald Wood'.

Donald Wood  
Engineering Manager  
Rocky Mountain Region

DW:PWA:gb

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico	
Case No. <u>10345+</u> <u>10346</u>	Exhibit No. <u>G</u>
Submitted by <u>Locke</u>	
Hearing Date <u>02/27/92</u>	

Date

Bureau of Land Management  
P. O. Box 1449  
Santa Fe, NM 87501

New Mexico State Land Office  
Oil & Gas Development  
P. O. Box 1148  
Santa Fe, NM 87501-1148

Bureau of Land Management  
P. O. Box 6770  
Albuquerque, NM 87197-6770

Oil & Conservation Commission  
State of New Mexico  
P. O. Box 2088  
Santa Fe, NM 87501

Office of District Engineer  
Bureau of Land Management  
1235 La Plata Highway  
Farmington, NM 87401

RE: 1989 Plan of Development and 1988 Review of Operations  
Gallegos Canyon Unit  
Pictured Cliffs, Farmington and Fruitland Formations  
San Juan County, New Mexico

Gentlemen:

Amoco Production Company, as Operator of the Gallegos Canyon Unit, on behalf of BHP Petroleum (Americas), Inc., the Sub-Operator of certain unit lands, submits the following 1988 Review of Operations and proposed 1989 Plan of Development.

1988 Review of Operations

Total cumulative and 1988 production for those wells operated by BHP Petroleum (Americas) Inc. within the Gallegos Canyon Unit is summarized below.

<u>Formation</u>	<u>1988 Production</u> <u>12/31/88, MMCF</u>	<u>Cum. Production</u> <u>12/31/88, MMCF</u>
Pictured Cliffs	3,758.277	83,680.877
Fruitland	505.093	2,834.143
Farmington	3.231	54.772

BHP completed five (5) Pictured Cliffs wells and recompleted one (1) Fruitland well during 1988. The following table provides information for each of these wells.

<u>Well#</u>	<u>Location</u>	<u>Spud Date</u>	<u>Comp. Date</u>	<u>Perforations</u>	<u>Initial Rate</u>
		Dual			
331	29-29N-12W	Recomp.	7/6/88	936'-948' Fruit	230 M/D
363	26-29N-14W	5/11/88	5/27/88	1572'-1584" PC	275 M/D
364	25-29N-13W	4/26/88	5/23/88	1210'-1226' PC	414 M/D
365	25-29N-13W	4/30/88	5/25/88	1246'-1266' PC	465 M/D
367	31-29N-12W	5/3/88	5/26/88	1455'-1470' PC	543 M/D
368	26-28N-12W	5/6/88	7/13/88	1589'-1618' PC	210 M/D

1989 Plan of Development

BHP proposes to drill five (5) Fruitland coal seam wells and six (6) Fruitland coal seam/Fruitland sandstone dual wells as shown on the attached map and tabulated below.

<u>Well</u>	<u>Location</u>	<u>Formation(s)</u>
381	NE Sec. 20-29N-12W	Fruitland Coal
382	SW Sec. 13-29N-13W	Fruitland Coal
383	NE Sec. 18-29N-12W	Fruitland Coal
384	NE Sec. 21-29N-12W	Fruitland Coal
385	SW Sec. 17-29N-12W	Fruitland Coal
373	SWSW Sec. 12-28N-13W	Fruitland Coal/Fruitland Sd.
375	SENE Sec. 17-28N-12W	Fruitland Coal/Fruitland Sd.
377	NE Sec. 24-29N-13W	Fruitland Coal/Fruitland Sd.
378*	SE Sec. 34-28N-12W	Fruitland Coal/Fruitland Sd.
379	NE Sec. 30-28N-12W	Fruitland Coal/Fruitland Sd.
380	SW Sec. 23-28N-12W	Fruitland Coal/Fruitland Sd.

\*Exception location for coal seam gas well for which BHP intends to apply for an exception to allow dual completion.

Drilling will commence upon all formal approvals including AFE's. These locations are limited to the lands which BHP sub-operates and do not include any wells which would require submittal by Amoco to the unit working interest owners.

In addition to the above drilling, BHP will recomplete the GCU #340 well located SWNW Section 24-T29N, R13W, in the Fruitland Sand situated at 917'-934'. This well was originally completed as a Pictured Cliffs well, but water production and related trucking costs have resulted in uneconomic operations.

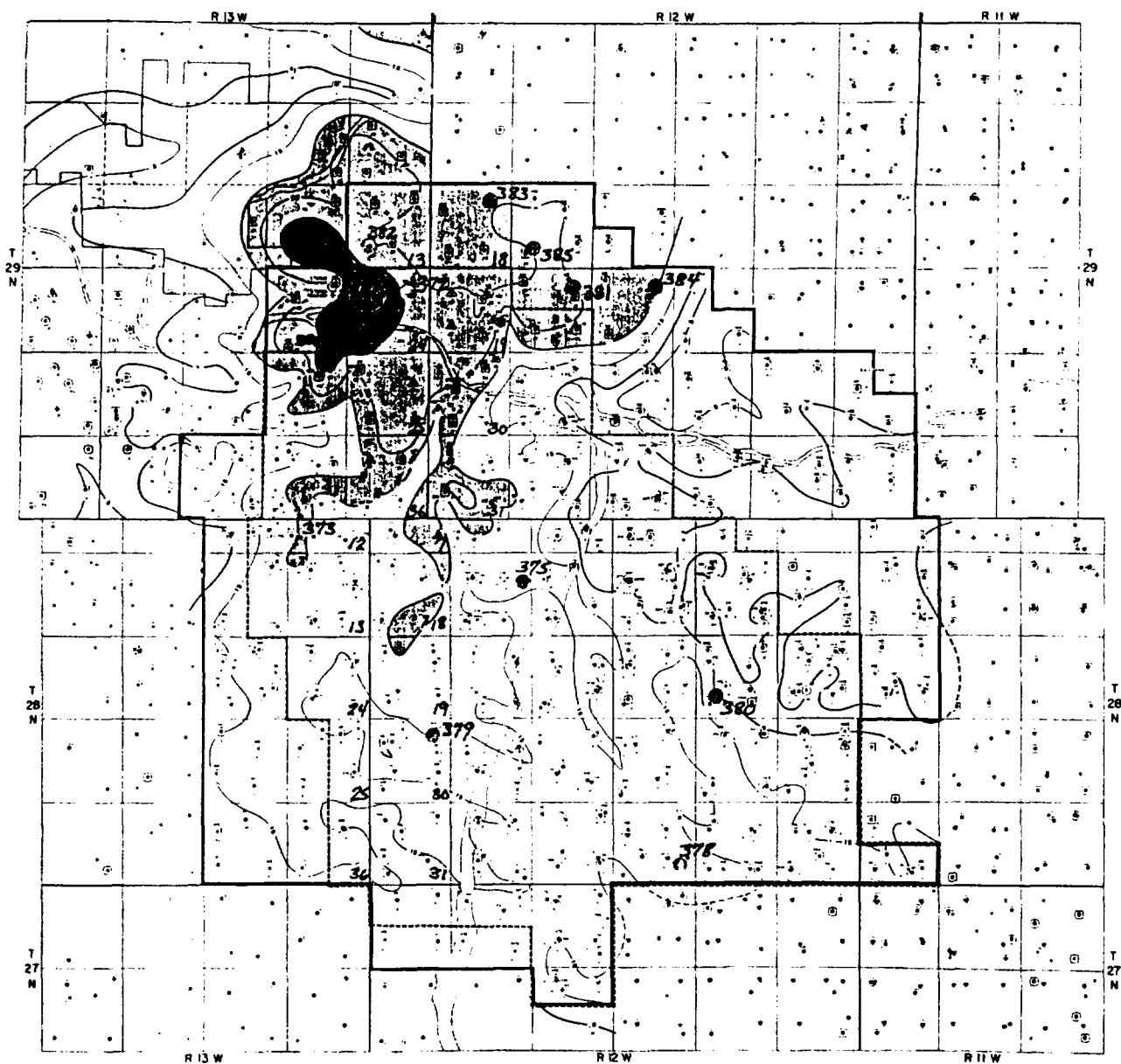
1989 Plan of Development  
Gallegos Canyon Unit  
Page 3

We respectfully submit this Plan of Development and request your approval at your earliest convenience. Please provide notice to both Amoco and BHP upon approval of the plan.

Very truly yours,

AMOCO PRODUCTION COMPANY

cc: BHP Petroleum (Americas) Inc.  
1560 Broadway, Suite 1900  
Denver, Colorado 80202



Top 100

- Faulted
- Pictorial Core
- Surface - Boundary
- Boundary - State
- Boundary - Formation
- Boundary - Coal
- Boundary - Shale

10' No percent for section they entered  
or daylight in hole

- 10' No percent for section they entered  
or daylight in hole
- 10' No percent for section they entered  
or daylight in hole
- 10' No percent for section they entered  
or daylight in hole



GALLEGOS CANYON

1st Coal above Pictorial Core



MINERAL BRANCH  
 BRANCH CHIEF \_\_\_\_\_  
 DEPUTY \_\_\_\_\_  
 FLUIDS MGR \_\_\_\_\_  
 FLUIDS IST \_\_\_\_\_  
 GPM \_\_\_\_\_  
 T & L E \_\_\_\_\_  
 T & S W \_\_\_\_\_  
 ALL SURV \_\_\_\_\_  
 FILES \_\_\_\_\_

**Americas**  
 5847 San Felipe Suite 3600  
 Houston, Texas 77057  
 Telephone: (713) 780-5000  
 Fax (713) 780-5273  
 Telex 9108813603

**BHP**  
**Petroleum**

April 16, 1990

Bureau of Land Management  
 P.O. Box 1449  
 Santa Fe, NM 87501

Bureau of Land Management  
 P.O. Box 6770  
 Albuquerque, NM 87197-6670

New Mexico State Land Office  
 Oil & Gas Development  
 P.O. Box 1148  
 Santa Fe, NM 87501-1148

State of New Mexico  
 Oil Conservation Commission  
 P.O. Box 2088  
 Santa Fe, NM 87501

Bureau of Land Management  
 Office of District Engineer  
 1235 LaPlata Highway  
 Farmington, NM 87401

Re: 1989 Review of Operations  
 1990 Plan of Development  
 Gallegos Canyon Unit  
 Pictured Cliffs, Fruitland, and Farmington Formations  
 San Juan County, New Mexico

Gentlemen:

As a sub-operator of certain unit lands within the Gallegos Canyon Unit located in San Juan County, New Mexico, BHP Petroleum (Americas) Inc. (BHP P(A)) submits for your review and approval the following 1989 Review of Operations and the 1990 Plan of Development.

1989 REVIEW OF OPERATIONS

For the BHP P(A) operated unit wells within the Gallegos Canyon Unit, the production of gas and water by reservoir for 1989 and on a cumulative basis to 12/31/89 is shown in Table I. A production curve for the summation of all unit wells is attached.

BEFORE THE  
 OIL CONSERVATION COMMISSION  
 Santa Fe, New Mexico  
 10345+

Case No. 10346 Exhibit No. H

Submitted by Locke

Hearing Date 02/27/92

TABLE I  
1989 PRODUCTION AND CUMULATIVE PRODUCTION

<u>Formation</u>	<u>1989 Production</u>		<u>Cumulative Production</u>	
	<u>Gas, MMCF</u>	<u>Water, BW</u>	<u>Gas, MMCF</u>	<u>Water, BW</u>
Pictured Cliffs	4,063.621	208,946	87,744.498	2,966,431
Fruitland	510.330	15,812	3,344.473	63,766
Farmington	2.227	80	56.999	80

The only development action taken by BHP P(A) in 1989 was the recompletion of the GCU No. 340. This well, located in the SW NW of section 24 T29N-R13W, had an initial test rate of 596 MCFD from Fruitland sand perfs at 917'-934'. The drilling program proposed in the 1989 Plan of Development was not commenced in 1989 due to rig availability and permitting problems. As is further discussed in the 1990 Plan of Development, this program has been partially carried over into the 1990.

**1990 PLAN OF DEVELOPMENT**

In 1990, BHP P(A) proposes to drill 37 wells and recomplete 3 existing wells. Well number, location, and objective formation for these wells is summarized in Table II and Table III and also shown on the attached plat. Well numbers 373, 375, 379, and 380 proposed in the 1989 Plan of Development have been deferred to a later date pending further evaluation of the Fruitland Coal in the southern half of the Unit.

Commencement of this work will begin upon formal approval of AFEs, permits, and any applicable location exceptions.

We respectfully submit this Plan of Development and request your approval at your earliest convenience. Please provide both BHP P(A) and the Unit operator, Amoco Production Company, notice of approval of this plan.

Thank you.

Very truly yours,

BHP Petroleum (Americas) Inc.

*Paul C. Bertoglio*

Paul C. Bertoglio  
Sr. Petroleum Engineer  
Inland Business Unit

cc: Amoco Production Company  
1670 Broadway  
P.O. Box 800  
Denver, CO 80201  
Attn: Rocky Mountain Land Manager

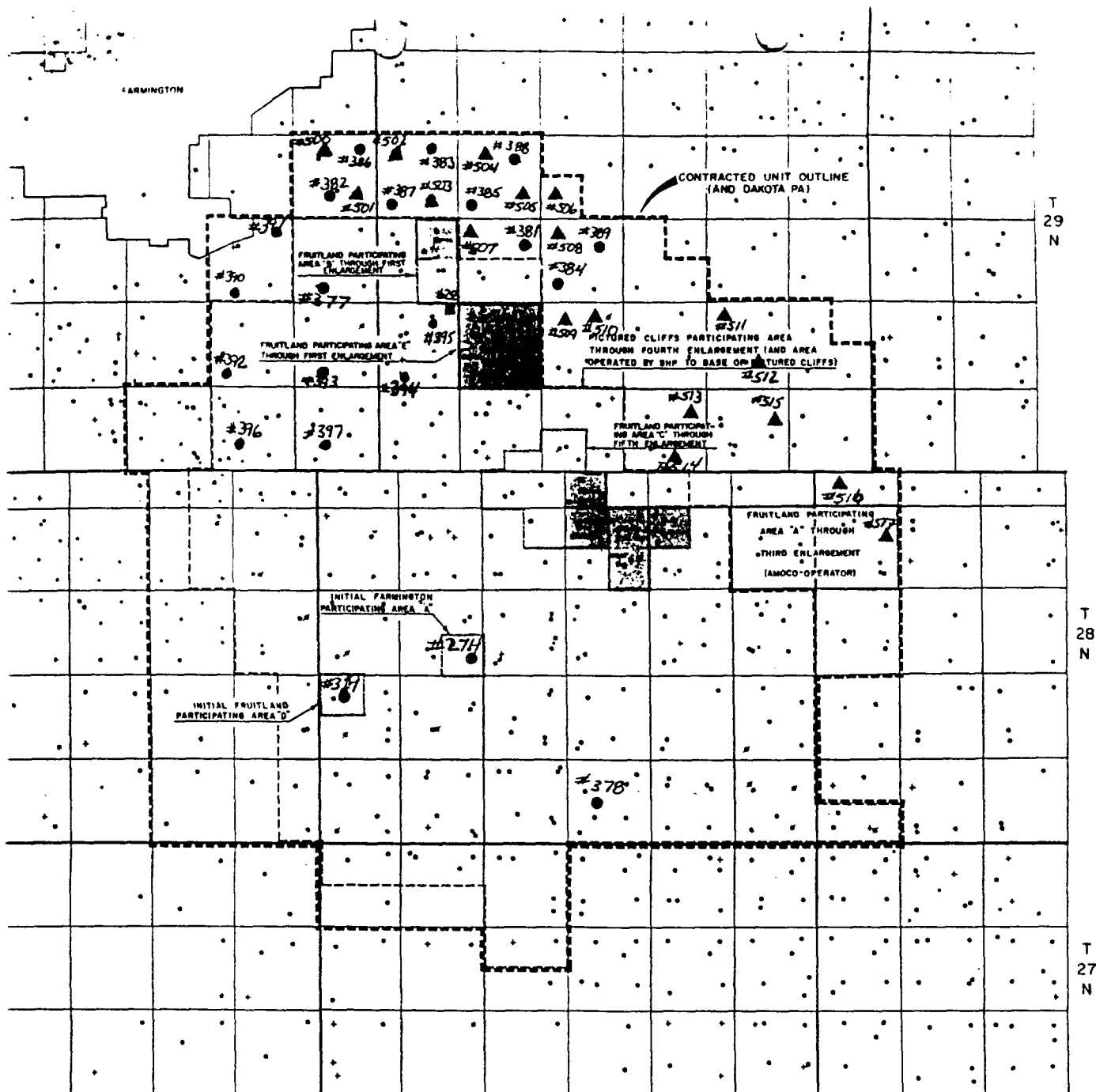
Approved **APR 26 1990**  
*[Signature]*  
Chief, Branch of  
Mineral Resources  
Farmington Resource Area

TABLE II  
1990 PROPOSED DRILLING WELLS

<u>Well No.</u>	<u>Location</u>	<u>Primary Objective</u>
377	SE SW Sec. 24 29N-13W	Fruitland Coal
378	NE SW Sec. 34 28N-12W	Fruitland Coal
381	SE NE Sec. 20 29N-12W	Fruitland Coal
382	SE SW Sec. 13 29N-13W	Fruitland Coal
383	NW NE Sec. 18 29N-12W	Fruitland Coal
384	SW SW Sec. 21 29N-12W	Fruitland Coal
385	SW SW Sec. 17 29N-12W	Fruitland Coal
386	NE NE Sec. 13 29N-13W	Fruitland Coal
387	SW SW Sec. 18 29N-12W	Fruitland Coal
388	SW NE Sec. 17 29N-12W	Fruitland Coal
389	SW NE Sec. 21 29N-12W	Fruitland Coal
390	SE SW Sec. 23 29N-13W	Fruitland Coal
391	NE NE Sec. 23 29N-13W	Fruitland Coal
392	SW SW Sec. 26 29N-12W	Fruitland Coal
393	SE SW Sec. 25 29N-12W	Fruitland Coal
394	SE SW Sec. 30 29N-12W	Fruitland Coal
395	NW NE Sec. 30 29N-12W	Fruitland Coal
396	NE SW Sec. 35 29N-12W	Fruitland Coal
397	NE SW Sec. 36 29N-12W	Fruitland Coal
500	NE NW Sec. 13 29N-13W	Pictured Cliffs
501	NW SE Sec. 13 29N-13W	Pictured Cliffs
502	SW NW Sec. 18 29N-12W	Pictured Cliffs
503	SW SE Sec. 18 29N-12W	Pictured Cliffs
504	NE NW Sec. 17 29N-12W	Pictured Cliffs
505	NE SE Sec. 17 29N-12W	Pictured Cliffs
506	NW SW Sec. 16 29N-12W	Pictured Cliffs
507	NW NW Sec. 20 29N-12W	Pictured Cliffs
508	NW NW Sec. 21 29N-12W	Pictured Cliffs
509	NE NW Sec. 28 29N-12W	Pictured Cliffs
510	NW NE Sec. 28 29N-12W	Pictured Cliffs
511	NW NW Sec. 26 29N-12W	Pictured Cliffs
512	NW SE Sec. 26 29N-12W	Pictured Cliffs
513	SE NE Sec. 34 29N-12W	Pictured Cliffs
514	SW SE Sec. 34 29N-12W	Pictured Cliffs
515	SE NE Sec. 35 29N-12W	Pictured Cliffs
516	NW SW Sec. 7 28N-11W	Pictured Cliffs
517	SE NE Sec. 18 28N-11W	Pictured Cliffs

TABLE III  
1990 PROPOSED RECOMPLETIONS

<u>Well No.</u>	<u>Location</u>	<u>Objective Zone</u>
28	NE NE Sec. 30 29N-12W	Fruitland Sand
274	SE SE Sec. 20 28N-12W	Fruitland Coal
319	SE NW Sec. 30 28N-12W	Fruitland Coal



5847 San Felipe Suite 3600  
Houston, Texas 77057  
Telephone: (713) 780-5000  
Fax (713) 780-5273  
Telex 9108813603

July 23, 1990

Mr. Robert Hopkins  
Meridian Oil Production, Inc.  
P. O. Box 4289  
Farmington, NM 87499



Re: Proposed Development Wells  
Gallegos Canyon Unit  
San Juan County, NM

Dear Mr. Hopkins:

BHP Petroleum (Americas) Inc. proposes the drilling of the following wells in Gallegos Canyon Unit on drilling blocks in which Meridian owns a leasehold interest:

<u>Well Name</u>	<u>Location</u>	<u>Drilling Block</u>	<u>Primary Objective</u>
GCU #386	NE/4 NE/4 Sec. 13-T29N, R13W	E/2 Sec. 13-T29N, R13W	Fruitland Coal
GCU #391	NE/4 NE/4 Sec. 23-T29N, R13W	E/2 Sec. 23-T29N, R13W	Fruitland Coal
GCU #392	SW/4 SW/4 Sec. 26-T29N, R13W	W/2 Sec. 26-T29N, R13W	Fruitland Coal
GCU #393	SE/4 SW/4 Sec. 25-T29N, R13W	W/2 Sec. 25-T29N, R13W	Fruitland Coal
GCU #394	SE/4 SW/4 Sec. 30-T29N, R12W	W/2 Sec. 30-T29N, R12W	Fruitland Coal
GCU #395	NW/4 NE/4 Sec. 30-T29N, R12W	E/2 Sec. 30-T29N, R12W	Fruitland Coal
GCU #396	NW/4 NE/4 Sec. 35-T29N, R13W	E/2 Sec. 35-T29N, R13W	Fruitland Coal
GCU #397	NE/4 SW/4 Sec. 36-T29N, R13W	W/2 Sec. 36-T29N, R13W	Fruitland Coal
GCU #500	NE/4 NW/4 Sec. 13-T29N, R13W	NW/4 Sec. 13-T29N, R13W	Pictured Cliffs
GCU #501	NW/4 SE/4 Sec. 13-T29N, R13W	SE/4 Sec. 13-T29N, R13W	Pictured Cliffs
GCU #509	NE/4 NW/4 Sec. 28-T29N, R12W	NW/4 Sec. 28-T29N, R12W	Pictured Cliffs
GCU #511	NW/4 NW/4 Sec. 26-T29N, R13W	NW/4 Sec. 26-T29N, R13W	Pictured Cliffs
GCU #513	SE/4 NE/4 Sec. 34-T29N, R13W	NE/4 Sec. 34-T29N, R13W	Pictured Cliffs
GCU #514	SW/4 SE/4 Sec. 34-T29N, R13W	SE/4 Sec. 34-T29N, R13W	Pictured Cliffs
GCU #515	SE/4 NE/4 Sec. 35-T29N, R13W	NE/4 Sec. 35-T29N, R13W	Pictured Cliffs

Enclosed for Meridian's consideration are two copies each of AFEs for each of the proposed wells. Please advise within thirty (30) days whether or not Meridian wishes to participate in any of the above described wells.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Donald Reinhardt".

Donald Reinhardt  
Landman  
Inland Business Unit

DR:CFL

Enclosures

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico 10345+	
Case No. 10346	Exhibit No. I
Submitted by Locke	
Hearing Date 02/27/92	

August 10, 1990

Mr. Michael E. Cuba  
Amoco Production Company  
P. O. Box 800  
Denver, CO 80201

Re: Proposed Farmout Wells  
Farmout Contract dated October 20, 1989  
Gallegos Canyon Unit  
San Juan County, NM



Dear Mr. Cuba:

BHP Petroleum (Americas) Inc. is required to drill a total of fifteen wells during calendar year 1990 in order to maintain its rights under an amended Farmout Contract with Amoco dated October 20, 1989. BHP has staked and is now permitting the below listed wells which it intends to drill under the terms of the said farmout.

<u>Well</u>	<u>Location</u>	<u>Objective</u>
GCU #386	NE/4 NE/4 Section 13-T29N, R13W	Fruitland Coal
GCU #387	SW/4 SW/4 Section 18-T29N, R12W	Fruitland Coal
GCU #388	SW/4 NE/4 Section 17-T29N, R12W	Fruitland Coal
GCU #390	SE/4 SW/4 Section 23-T29N, R13W	Fruitland Coal
GCU #391	NE/4 NE/4 Section 23-T29N, R13W	Fruitland Coal
GCU #500	NE/4 NW/4 Section 13-T29N, R13W	Pictured Cliffs
GCU #501	NW/4 SE/4 Section 13-T29N, R13W	Pictured Cliffs
GCU #502	Lot 2, Section 18-T29N, R12W	Pictured Cliffs
GCU #503	SW/4 SE/4 Section 18-T29N, R12W	Pictured Cliffs
GCU #504	NE/4 NW/4 Section 17-T29N, R12W	Pictured Cliffs
GCU #505	NE/4 SE/4 Section 17-T29N, R12W	Pictured Cliffs
GCU #506	NW/4 SW/4 Section 16-T29N, R12W	Pictured Cliffs
GCU #507	NW/4 NW/4 Section 20-T29N, R12W	Pictured Cliffs
GCU #509	NE/4 NW/4 Section 28-T29N, R12W	Pictured Cliffs
GCU #510	NW/4 NE/4 Section 28-T29N, R12W	Pictured Cliffs
GCU #511	NW/4 NW/4 Section 26-T29N, R12W	Pictured Cliffs
GCU #512	NW/4 SE/4 Section 26-T29N, R12W	Pictured Cliffs
GCU #513	SE/4 NE/4 Section 34-T29N, R12W	Pictured Cliffs
GCU #514	SW/4 SE/4 Section 34-T29N, R12W	Pictured Cliffs
GCU #515	SE/4 NE/4 Section 35-T29N, R12W	Pictured Cliffs
GCU #516	Lot 4 Section 7-T28N, R11W	Pictured Cliffs

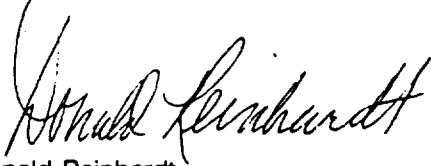
In addition to the wells described above, BHP will also resume operations on the GCU #382 which were suspended in July due to the lack of a certain drilling permit from the City of Farmington, New Mexico. The necessary permit has been issued and operations will resume once a drilling rig arrives. Once the GCU #382 is completed, a request for an assignment of leasehold will be submitted for the interest earned in the drilling of the first five wells.

As noted above, the wells listed above are being permitted now. Please review the list and advise as soon as possible should Amoco has any objections to any of the proposed wells or locations.

Amoco Production Company  
Page 2  
August 10, 1990

We appreciate your continued support in this project. Please let us know if we can be of any additional assistance.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Donald Reinhardt".

Donald Reinhardt  
Landman  
Inland Business Unit

DR:CFL

cc: BHP Petroleum (Americas) Inc.  
Lee McLean  
Jason Edgington  
Bob McNeil  
Randall Davis

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

Case No. 10345+ 10346 Exhibit No. J

Submitted by Locke

Hearing Date 02/27/92





Scale  
1" = 200'

Con'l Henry  
4 ac  
9/6/512  
9/9/516

Arrows Indus  
Park  
Resource Avenue Subdivisi

Arrows  
Properties  
1014  
970

T89N, R13W  
← Sec. 14  
SE 1/4 SE 1/4

HWY # 64

HWY # 64

T29N, R13W  
← Sec. 14  
NE 1/4 NE 1/4

T29N, R13W  
← Sec. 14  
NE 1/4 NE 1/4

All Traffic  
in and out  
of location  
will use  
this road

Bradford,  
Inc.  
775/448

Lawrence  
Sims  
710/346

Joseph  
Williams  
1628/595

George  
McDonald  
849/379

John  
Williams  
851/892

Wichem  
International  
Inc.  
1085/600

Mary Newlon  
1117/329

Mary  
Newlon  
Trustee  
7900/995

Existing Equip.  
& Pit

Existing  
AMOCO  
Pipeline &  
Well #94E

BHP Tie in  
Existing  
Well #1  
Tyckson

Proposed BHP Well  
#391 & Equip Site

Existing E.P.N.G.  
Pipeline

Jack Nelson  
1070/748

Graig Nelson  
1042/464

Road

Basin

SE 1/4 NE 1/4

AUTHORITY FOR EXPENDITURE  
Inland Business Unit  
(Drilling, Workovers, Recomp.'s, Etc.)Operator BHP PETROLEUM (AMERICAS) INC. AFE No. 9101208Contract/Agreement No. \_\_\_\_\_ Land Lease No. \_\_\_\_\_ Budget Year 1991

Project must be commenced by: Date \_\_\_\_\_

Lease Name & Well No. Gallegos Canyon Unit No.390	Prospect Name _____ Prospect No. _____	Activity No. <u>NM003000390</u> Focal Area <u>FA106</u>
Field or Area Basin Fruitland Field	Location SE/SW Section 23 T29N - R13W	County and State San Juan, New Mexico
Type of AFE Drill, Complete, Equip	Development ( X ) Exploratory ( ) AAPG Class: _____ Others _____	Formation & Depth Fruitland Coal - ±1470' Well TD - 1640'
Last Well on Lease Yes ( ) No ( )	Expected Production Gas - ( X ) Oil - ( )	
Project Description: (To Include Special Provisions and Remarks)  Drill, complete, and equip a 1640 foot Fruitland Coal well at the referenced location.		BHP Interest BPO W.I. <u>100.00</u> NRI <u>76.75</u>  APO W.I. _____ NRI _____

## ESTIMATED COSTS

COMPANY	WORKING INTEREST OR ALLOCATION %		DRILLING WELLS		OTHER
	To Csg. Pt.	Aft. Csg. Pt.	Dry Hole	Producer	Total Cost
BHP Petroleum	100		43,655	132,130	
Total	100		43,655	132,130	
Less: Contributions			( - 0 - )	( - 0 - )	( )
Net Costs			43,655	132,130	

Prepared by Paul C. Bertoglio *PCB* Date May 14, 1990

## Recommended:

Operations	Date	Land	Date	Marketing	Date	Technology	Date
						<i>J.C. McEwen</i>	<u>5/24/90</u>
<i>Tom Bean</i>	<u>6-4-90</u>						

Approved *J.M. Edgerton* 6/5/90  
Date

Joint Interest Approval - It is recognized that the amounts provided for herein are estimates only, and approval of this authorization shall extend to the actual costs incurred in conducting the operation specified, either more or less than herein set out.

\_\_\_\_\_  
Company By \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

## PROJECT JUSTIFICATION

BHP Net Working Interest: <u>100%</u>	Before Payout <u>100%</u>	After Payout <u>100%</u>
BHP Net Revenue Interest: <u>76.75%</u>	Before Payout <u>76.75%</u>	After Payout <u>76.75%</u>
Expected Benefits:	Net Increase in Ultimate Recovery <u>0</u>	Bbls. <u>528,634</u> MCF/D
	Net Increase in Current Production <u>0</u>	Bbls/D <u>154</u> MCF/D
Future Cash Flow (Before Investment) \$ <u>1,112,528 (BTAX)</u>		Net Cash Flow (After Investment) \$ <u>645,492 (ATAX)</u>
Net Present Value \$ <u>305,415 (ATAX)</u>	@ <u>14</u> % Discount	
Net Present Value/Investment <u>3.291 (ATAX)</u>		Payout - Years <u>1.922</u>
Discounted Cash Flow Rate of Return <u>100</u> %		- Months _____
F&D Cost \$ <u>1.18</u> /BOE		



DETAILED COST ESTIMATE  
DRILLING, RECOMPLETIONS AND WORKOVERS

Lease Name & Well No. Gallegos Canyon Unit No. 390

AFE No. 9101208

Location SE/SW Section 23 T29N - R13W

County and State San Juan, New Mexico

INTANGIBLE DRILLING COSTS

CODE 4527-20	Gross Cost To Csg Pt.
01 Rotary Footage 1,640 ft. @ \$ 9.00	\$ 14,760
02 Rotary Daywork 2 days WDP @ \$ 4,000 day days WOPD @ \$ day	8,000
03 Drillsite Camp Expense	
05 Rotary Turnkey	
06 Drilling Deals (W.I.)	
07 Rental Tools/Equipment	1,500
08 Rig Move	
09 Inspection Services	
10 Trucking/Boats	2,000
11 Personnel Transportation	
12 Power/Fuel	
13 Drlg Mud & Additives	2,000
14 Drill Bits/Reamers	
16 Water	1,200
17 Mud Logging	
18 Open Hole Logs	4,000
20 DST's/Surveys	
22 Cement & Cementing	2,000
24 Cores	
29 Directional Drilling	
30 Engineering & Consulting	
31 Location Dirtwork/Cln Up	2,500
32 Geological	
34 Drlg Permits/Bonds	
35 Drlg Title Opinion	
36 Stake/Survey Location	500
37 Right of Way/Damages	2,000
38 Well Control Insurance	
40 Overhead - Drlg	
41 Material & Supplies	
42 Co. Labor/Supervision	1,200
43 Contract Labor	
44 Other Drilling Costs	
Supplemental	
Total TCP	\$ 41,660
BHP Net	\$ 41,660

TANGIBLE DRILLING COSTS

CODE 4515-10	X-on Hand	TCP
01 Installation Cost		\$ 250
06 Casinghead		500
07 Cond./Surface Csg 120 ft 7" 23# K-55 @\$ 10.37 ft		1,245
10 Inter./Liner Csg ft @\$ ft ft @\$ ft		
Supplemental		
Total Tangible TCP		\$ 1,995
BHP Net		\$ 1,995
Total Drilling Cost TCP		\$ 43,655
BHP Net Cost TCP		\$ 43,655

CODE 4527-30	Gross Completion Costs
01 Completion Rig	\$ 7,500
03 Camp Expense	
04 Wireline Services	
07 Rental Tools/Equipment	1,000
09 Inspection Services	
10 Trucking/Boats	2,000
11 Personnel Transportation	
12 Power/Fuel	
14 Drill Bits/Reamers	
15 Completion Fluids	
16 Water	1,000
18 Cased Hole Logs	
19 Perforate	1,500
20 Well Surveys & Testing	
21 Acidize & Frac	17,500
22 Cement & Cementing	5,000
23 Squeeze Jobs	
30 Engr. & Consulting	
31 Location Dirtwork/Cln. Up	1,500
37 ROW/Damages	
40 Overhead - Completion	
41 Material & Supplies	2,000
42 Co. Labor/Supervision	1,500
43 Contract Labor	
45 Other Completion Costs	
Supplemental	
Total Comp. Costs	\$ 40,500
BHP Net	\$ 40,500

CODE 4515-20	X-on Hd	Comp. Costs
01 Installation Costs		\$ 1,500
02 Sucker Rods		1,500
03 Btm Hole Pump		1,200
04 Pumping Unit		5,000
05 Prime Mover		7,500
06 Wellhead/Tree		2,500
07 Casing: 1,640 ft 4 1/2" 10.5# J-55 @\$ 5.00 ft ft @\$ ft ft @\$ ft		8,200
08 Tubing: 1,525 ft 2 3/8" 4.7# J-55 @\$ 3.00 ft		4,575
09 Hyd. & Other Pmp Equip.		
20 Packers		
23 Other Well Equipment		

CODE 4515-21	
01 Installation Costs	\$ 5,000
11 Tanks	1,500
12 Buildings	
13 Compressors	
14 Elec Line & Equip.	
15 Sepr. & Treaters	2,500
16 Line Pipe	5,000
17 Dehy. Equipment	
18 Other Lse Equipment	
19 Misc Valves & Ftg.	2,000
Supplemental	
Total Tang Comp. Cost	\$ 47,975
BHP NET	\$ 47,975

TOTAL WELL COSTS GROSS \$ 132,130  
BHP NET \$ 132,130

PREPARED BY: Paul C. Bertoglio

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

Case No. 10345 + 10346 Exhibit No. L-1

Submitted by Locke

Hearing Date 02/27/92

BHP Net Working Interest:	62.50%	Before Payout	62.5%	After Payout	62.50%
BHP Net Revenue Interest:	48.75%	Before Payout	48.75%	After Payout	48.75%
Expected Benefits:					
Net Increase in Ultimate Recovery	0	Bbls.	335.777	MMCF	
Net Increase in Current Production	0	Bbls/D	99	MCF/D	
Future Cash Flow (Before Investment)	\$ 706,655 (BTAX)	Net Cash Flow (After Investment)	\$ 410,003 (ATAX)		
Net Present Value	\$ 193,944 (ATAX)	@ 14 % Discount			
Net Present Value/Investment	3.291 (ATAX)	Payout - Years	1.922		
Discounted Cash Flow Rate of Return	100 %	- Months			
F&D Cost	1.18 /BOE				



DETAILED COST ESTIMATE  
DRILLING, RECOMPLETIONS AND WORKOVERS

Lease Name & Well No. Gallegos Canyon Unit No. 391

AFE No. 9101209

Location NE/NE Section 23 T29N - R13W

County and State San Juan, New Mexico

INTANGIBLE DRILLING COSTS

	Gross Cost To Csg Pt.
CODE 4527-20	
01 Rotary Footage	
<u>1,350</u> ft. @ \$ <u>9.00</u>	\$ <u>12,150</u>
02 Rotary Daywork	
<u>2</u> days WDP @ \$ <u>4,000</u> day	<u>8,000</u>
<u>      </u> days WOPD @ \$ <u>      </u> day	
03 Drillsite Camp Expense	
05 Rotary Turnkey	
06 Drilling Deals (W.I.)	
07 Rental Tools/Equipment	<u>1,500</u>
08 Rig Move	
09 Inspection Services	
10 Trucking/Boats	<u>2,000</u>
11 Personnel Transportation	
12 Power/Fuel	
13 Drlg Mud & Additives	<u>2,000</u>
14 Drill Bits/Reamers	
16 Water	<u>1,200</u>
17 Mud Logging	
18 Open Hole Logs	<u>4,000</u>
20 DST's/Surveys	
22 Cement & Cementing	<u>2,000</u>
24 Cores	
29 Directional Drilling	
30 Engineering & Consulting	
31 Location Dirtwork/Cln Up	<u>2,500</u>
32 Geological	
34 Drlg Permits/Bonds	
35 Drlg Title Opinion	
36 Stake/Survey Location	<u>500</u>
37 Right of Way/Damages	<u>2,000</u>
38 Well Control Insurance	
40 Overhead - Drlg	
41 Material & Supplies	
42 Co. Labor/Supervision	<u>1,200</u>
43 Contract Labor	
44 Other Drilling Costs	
Supplemental	
Total TCP	\$ <u>39,050</u>
BHP Net	\$ <u>24,406</u>

	X-on Hand	TCP
CODE 4515-10		
01 Installation Cost		\$ <u>250</u>
06 Casinghead		<u>500</u>
07 Cond./Surface Csg		
<u>120</u> ft 7" 23# K-55		
@\$ <u>10.37</u> ft		<u>1,245</u>
10 Inter./Liner Csg		
<u>      </u> ft		
@\$ <u>      </u> ft		
<u>      </u> ft		
@\$ <u>      </u> ft		
Supplemental		
Total Tangible TCP		\$ <u>1,995</u>
BHP Net		\$ <u>1,247</u>
Total Drilling Cost TCP		\$ <u>41,045</u>
BHP Net Cost TCP		\$ <u>25,653</u>

	Gross Completion Costs
CODE 4527-30	
01 Completion Rig	\$ <u>7,500</u>
03 Camp Expense	
04 Wireline Services	
07 Rental Tools/Equipment	<u>1,000</u>
09 Inspection Services	
10 Trucking/Boats	<u>2,000</u>
11 Personnel Transportation	
12 Power/Fuel	
14 Drill Bits/Reamers	
15 Completion Fluids	
16 Water	<u>1,000</u>
18 Cased Hole Logs	
19 Perforate	<u>1,500</u>
20 Well Surveys & Testing	
21 Acidize & Frac	<u>17,500</u>
22 Cement & Cementing	<u>5,000</u>
23 Squeeze Jobs	
30 Engr. & Consulting	
31 Location Dirtwork/Cln. Up	<u>1,500</u>
37 ROW/Damages	
40 Overhead - Completion	
41 Material & Supplies	<u>2,000</u>
42 Co. Labor/Supervision	<u>1,500</u>
43 Contract Labor	
45 Other Completion Costs	
Supplemental	
Total Comp. Costs	\$ <u>40,500</u>
BHP Net	\$ <u>25,312</u>

	X-on Hd	Comp. Costs
CODE 4515-20		
01 Installation Costs		\$ <u>1,500</u>
02 Sucker Rods		<u>1,500</u>
03 Btm Hole Pump		<u>1,200</u>
04 Pumping Unit		<u>5,000</u>
05 Prime Mover		<u>7,500</u>
06 Wellhead/Tree		<u>2,500</u>
07 Casing:		
<u>1,350</u> ft 4 1/2" 10.5# J-55		
@\$ <u>5.00</u> ft		
<u>      </u> ft		
@\$ <u>      </u> ft		
<u>      </u> ft		
@\$ <u>      </u> ft		
<u>      </u> ft		
@\$ <u>      </u> ft		<u>6,750</u>
08 Tubing:		
<u>1,250</u> ft 2 3/8" 4.7# J-55		
@\$ <u>3.00</u> ft		<u>3,750</u>
09 Hyd. & Other Pmp Equip.		
20 Packers		
23 Other Well Equipment		

CODE 4515-21	
01 Installation Costs	\$ <u>5,000</u>
11 Tanks	<u>1,500</u>
12 Buildings	
13 Compressors	
14 Elec Line & Equip.	
15 Sepr. & Treaters	<u>2,500</u>
16 Line Pipe	<u>5,000</u>
17 Dehy. Equipment	
18 Other Lse Equipment	
19 Misc Valves & Ftgs.	<u>2,000</u>
Supplemental	
Total Tang Comp. Cost	\$ <u>45,700</u>
BHP NET	\$ <u>28,563</u>

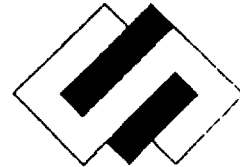
TOTAL WELL COSTS GROSS \$ 127,245  
BHP NET \$ 79,528

PREPARED BY: Paul C. Bertoglio

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico	
Case No. <u>103454</u> <u>10346</u>	Exhibit No. <u>L-2</u>
Submitted by <u>Locke</u>	
Hearing Date <u>02/27/92</u>	

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico	
Case No. <u>10345+</u> <u>10346</u>	Exhibit No. <u>M1</u>
Submitted by <u>Locke</u>	
Hearing Date <u>02/27/92</u>	

BHP PETROLEUM (AMERICAS) INC.  
5847 San Felipe, Suite 3600  
Houston, Texas 77057  
Telephone (713) 780-5000  
Fax (713) 780-5461



FACSIMILE TRANSMISSION

Date: December 11, 1990  
To: Richard Tully  
Company: Attorney  
Phone Number: (505) 327-3388  
Fax Number: (505) 327-7483

From: Donald Reinhardt  
Phone Number: (713) 780-5443

Number of Pages  
Including This  
Cover Sheet: 8

Comments: The following are copies of instruments  
affecting Louise Locke's working interest  
in the NW 1/4 Sec. 23 T29N, R13W Den Locke  
asked me to fax you copies in order to  
assist you in your review of title. Please  
call if we can be of any additional help.

This transmission was sent from a Xerox 295, telephone number (713) 780-5461.

If there are any problems with transmission, please call Carolyn Lindsey at (713) 780-5027.



5847 San Felipe Suite 3600  
Houston, Texas 77057  
Telephone: (713) 780-5000  
Fax (713) 780-5273  
Telex 9108813803

December 11, 1990

Mr. Don Locke  
139 1/2 2nd  
Rifle, Colorado 81650



Offer to Purchase Leasehold Interest  
San Juan County, New Mexico

Dear Mr. Locke:

Enclosed for your information are copies of instruments affecting title to Louise Locke's working interest in the NW/4 Section 23-T29N, R13W, San Juan County, New Mexico. The instruments were copied for BHP by its New Mexico attorney from materials being examined for a title opinion which is yet unfinished. Copies of these instruments are being faxed today to Richard Tully in Farmington. Please let me know if I can be of any additional assistance.

Very truly yours,

A handwritten signature in cursive script that reads "Donald Reinhardt".

Donald Reinhardt  
Senior Landman

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico	
Case No. <u>103454</u>	Exhibit No. <u>M-2</u>
Submitted by <u>Locke</u>	
Hearing Date <u>02/27/92</u>	

BRIEF

SWB 6/22/89  
GLH: 8/22/83 Unit Agent  
UNIT#: 073279 0938  
PROSPECT: Pan Am Unit Op. Agent  
2634

UNIT AGREEMENT & OPERATING AGREEMENT

Effective July 25, 1951

Energy Reserves Group, Inc. (Sub-Operator)  
AMOCO (Unit Operator)

BHP

PA's  
Need to be  
updated

Gallegos Canyon Unit Area

San Juan County, New Mexico

Status:

Producing Unit

ERG operates portion of unit lands from surface to the base of the Pictured Cliffs Formation (which is coincident with the Pictured Cliffs P.A.).

Unit Acreage:

Unit comprises <sup>43,146.62</sup>~~27,794.68~~ acres (which is coincident with the Dakota P.A.). AMOCO OPERATOR PICTURED CLIFFS P.A. 27,794.68  
Effective Date: 7/25/51

Brief Unit History:

Producing Unit: 9/28/51

1st Unit Enlargement: 9/3/53

2nd Unit Enlargement: 3/27/56

Amendment as to Dual Completions:  
9/1/60

Assignment of Production  
Payment from Pan Am to OILCO, Inc.:  
12/31/65

Amendment of Sale of  
Excess Gas: 1/16/68

Communitization of #82 well:  
8/12/68

San Juan  
9/5 update

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico	
Case No. <u>10345+</u> <u>10346</u>	Exhibit No. <u>0</u>
Submitted by <u>Locke</u>	
Hearing Date <u>02/27/92</u>	

Unit Brief  
Page two

Clinton Purchase of Pan Am  
Interest: 12/31/69

Amendment to Chargeable  
Employee Benefits:  
1/25/80

Designation of ERG as  
Sub-operator: 6/19/80

Purchase of Dugan #3 Well:  
9/29/80

Amendment to Expenditure  
Limits: 5/15/81

Pooling of Shallow Formations  
on Lands Operated by ERG:  
1/25/82

Amendment to Overhead Rates:  
1/1/83

ERG Working/Pooled Interest:

30.53902% (Note currently making  
offers to buy additional WI

Participating Areas:

Dakota  
Operated by AMOCO.

Gallup "A"- "B"- "C"- "D"  
Operated by AMOCO.

( "C" terminated 1984 )  
Pictured Cliffs

	Eff	Total Acres
Original PA:	9/28/51	23,644.81
1st Enlargement :	7/1/53	26,042.82
2nd Enlargement :	1/1/56	26,362.82
3rd Enlargement :	3/1/56	27,002.82
4th Enlargement :	3/27/56	27,794.68

Farmington "A"  
Original PA: 9/1/81 160.00

Fruitland "A" through  
Third Enlargement  
(Operated by AMOCO. 1275.68 acres)

Southland Op  
Now  
terminated  
OK

Unit Brief  
Page three

EFF. T.A.

2nd Enlarg. 1/1/85 832.56  
3rd 3/1/85 992.56  
4th 8/1/85 1312.56  
5th 9/1/85 1448.49

~~Fruitland "B"~~

Operating Agreement:

Orig. PA 2/1/85 160 ac.  
1st Enlarg. 9/1/85 ~~480~~ ac.  
640 ac.

Note:

Special Note:

cc: M. Conlon  
B. Wirth  
J. Bair  
L. Mull  
Geology Dept.  
R. Gillespie/Casper  
D. Smette/Wichita

Fruitland "B"		Total Acres
	Eff	
Original PA:	9/1/80	160.00
1st Enlargement	8/1/85	<del>160.00</del> 320.00
Fruitland "C"		
Original PA:	3/1/81	160.00
1st Enlargement:	6/1/81	672.56

←  
Fruitland "D"  
Original PA: 9/1/81 152.45

←  
No Casing Point Election  
150% Non-consent penalty.  
Most unit operations require consent of 60% WI owners in affected participating area, including the drilling of wells, even if less than 60% actually participate in costs.

Extensive land review as to unit status, check for open acreage, review of leases, etc. done in 1980 by Carl Smith on a contract basis.  
No recent title available.  
A few tracts never committed to unit.

Departments which do not have contract or pertinent portions should request same from land.



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Farmington Resource Area  
1235 Laplata Highway  
Farmington, New Mexico 87401

Gallegos Canyon Unit (GC)  
3180 (019)



IN REPLY REFER TO:

JUL 12 1991

Mr. Richard Tully, P.A.  
P.O. Box 268  
Farmington, NM 87499-0268

Dear Mr. Tully:

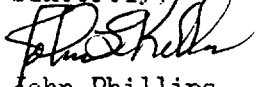
Your letter of June 20, 1991, requested this office to issue BHP Petroleum, as operator of the Gallegos Canyon Unit, an order to cease all operations on Well No's. 390 and 391 because of your concerns about trespass on patented lands in the N/2 Sec. 23, T. 29 N., R. 13 W. These patented lands are not committed to the Gallegos Canyon Unit.

We are unable to comply with your request for the following reasons. Well No. 391 was drilled in the NE/4 of Sec. 23 on patented lands. The BLM has no jurisdiction on operations on patented or state lands and therefore cannot address your trespass issue. Well No. 390 is currently being drilled on Federal Oil and Gas Lease NM-3654, which is committed to the Gallegos Canyon Unit. Since this well is located in an approved location within the unit, we decline to issue an order to BHP Petroleum to cease all operations.

As you are aware, the NMOCD has established 320 acre spacing for the Fruitland Coal. Both of these wells are being drilled within the established spacing. Upon their completion, BHP will be required to submit communitization agreements (CA's) covering each well. These CA's will allocate production to both the Gallegos Canyon Unit and those patented lands not committed to the unit.

Please call Duane Spencer at 327-5344 if you have any questions concerning this matter.

Sincerely,

  
John Phillips  
Acting Area Manager

1 Enclosure

1 - Copy of June 20, 1991 Letter

cc:

BHP Petroleum (Americas) Inc., 5847 San Felipe, Ste. 3600,  
Houston, TX 77057-3005

New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, NM 87410

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

Case No. 10345+  
14346 Exhibit No. P

Submitted by Locke

Hearing Date 02/27/92