

FARMINGTON, NEW MEXICO 87401 5525 HWY. 64 NBU 3004

April 28, 2000

Bureau of Land Management Attn: Errol Becher 1235 La Plata Hwy. Farmington, NM 87401

State of New Mexico Attn: David Catanach Energy, Minerals & Natural Resources Dept. Oil Conservation Division 2040 S. Pacheco New Mexico Oil & Gas Conservation Attn: Frank Chavez

1000 Rio Brazos Rd. Aztec, NM 87410

3

30-5 #1 CPD Off-Lease Measurement of Gas Addition of San Juan 30-5 #265

### Gentlemen:

Santa Fe, NM 87505

Phillips Petroleum Company requests approval to add the San Juan 30-5 #265 to the off-lease measurement/commingling application for the subject CPD. The original application was approved by the BLM on April 4, 1995 and the allocation method was approved by the NMOCD on April 10, 1995.

The San Juan 30-5 Unit #265 is located in Unit G, 140' FNL & 2510' FEL, Section 10, T30N, R5W. The federal lease number is SF-078997. This well will be connected to the 30-5 # 1 CPD.

Production from the 30-5 Unit #265 to the CPD will be in the month of May 2000. Phillips Petroleum Company will follow Onshore Oil and Gas Order #5 and the allocation procedures outlined in the original approved application in regards to gas production from this well.

If you have any questions concerning this well addition, please call me at 599-3450.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Steve Huddleston Accounting Specialist

Store Huddleston

cc: Danny Japp

5525 HWY. 64 NBU 3004

April 28, 2000

Bureau of Land Management Attn: Errol Becher 1235 La Plata Hwy. Farmington, NM 87401 New Mexico Oil & Gas Conservation Attn: Frank Chavez 1000 Rio Brazos Rd. Aztec, NM 87410

State of New Mexico Attn: David Catanach Energy, Minerals & Natural Resources Dept. Oil Conservation Division 2040 S. Pacheco Santa Fe, NM 87505

> 30-5 #1 CPD Off-Lease Measurement of Gas Addition of San Juan 30-5 #266

### Gentlemen:

Phillips Petroleum Company requests approval to add the San Juan 30-5 #266 to the off-lease measurement/commingling application for the subject CPD. The original application was approved by the BLM on April 4, 1995 and the allocation method was approved by the NMOCD on April 10, 1995.

The San Juan 30-5 Unit #266 is located in Unit M, 665' FSL & 670' FWL, Section 10, T30N, R5W. The federal lease number is SF-078997. This well will be connected to the 30-5 # 1 CPD.

Production from the 30-5 Unit #266 to the CPD will be in the month of April 2000. Phillips Petroleum Company will follow Onshore Oil and Gas Order #5 and the allocation procedures outlined in the original approved application in regards to gas production from this well.

If you have any questions concerning this well addition, please call me at 599-3450.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Steve Huddleston Accounting Specialist

Store Hartelliston

cc: Danny Japp



April 9, 1999

Bureau of Land Management Attn: Duane Spencer 1235 La Plata Hwy. Farmington, NM 87401

State of New Mexico Attn: David Catanach Ennergy, Minerals & Natural Resources Dept. Oil Conservation Division 2040 S. Pacheco Santa Fe, NM 87505 New Mexico Oil & Gas Conservation Attn: Frank Chavez 1000 Rio Brazos Rd. Aztec, NM 87410

30-5 #1 CPD Off-Lease Measurement of Gas Addition of San Juan 30-5 #264

### Gentlemen:

Phillips Petroleum Company requests approval to add the San Juan 30-5 #264 to the off-lease measurement/commingling application for the subject CPD. The original application was approved by the BLM on April 4, 1995 and the allocation method was approved by the NMOCD on April 10, 1995. The application dated February 19, 1998 to David Catanach is still waiting for approval.

The San Juan 30-5 #264 is located in Unit G, 2190' FNL & 1850' FEL, Section 9, T30N, and R5W. The federal lease number is NMSF078997. This well will be connected to the 30-5 #1 CPD.

We expect first production to the CPD this week for the San Juan 30-5 #264. Phillips Petroleum Company will follow Onshore Oil and Gas Order #5 and the allocation procedures outlined in the original approved application in regards to gas production from this well.

If you have any questions concerning these weil additions, please call me at 599-3450.

Sincerely,

Phillips Petroleum Company

Doyle Pruden

Accounting Specialist

cc: Danny Jaap

April 9, 1999

Bureau of Land Management Attn: Duane Spencer 1235 La Plata Hwy. Farmington, NM 87401

State of New Mexico
Attn: David Catanach
Ennergy, Minerals & Natural Resources Dept.
Oil Conservation Division
2040 S. Pacheco
Santa Fe. NM 87505

New Mexico Oil & Gas Conservation Attn: Frank Chavez 1000 Rio Brazos Rd. Aztec, NM 87410

30-5 #1 CPD Off-Lease Measurement of Gas Addition of San Juan 30-5 #264

### Gentlemen:

Phillips Petroleum Company requests approval to add the San Juan 30-5 #264 to the off-lease measurement/ commingling application for the subject CPD. The original application was approved by the BLM on April 4, 1995 and the allocation method was approved by the NMOCD on April 10, 1995. The application dated February 19, 1998 to David Catanach is still waiting for approval.

The San Juan 30-5 #264 is located in Unit G, 2190' FNL & 1850' FEL, Section 9, T30N, and R5W. The federal lease number is NMSF078997. This well will be connected to the 30-5 #1 CPD.

We expect first production to the CPD this week for the San Juan 30-5 #264. Phillips Petroleum Company will follow Onshore Oil and Gas Order #5 and the allocation procedures outlined in the original approved application in regards to gas production from this well.

If you have any questions concerning these well additions, please call me at 599-3450.

Sincerely,

Phillips Petroleum Company

Doyle Pruden

**Accounting Specialist** 

cc: Danny Jaap

Called Duane 4-9-99 and he gave me verbul for this approval.



October 7, 1998

Bureau of Land Management Attn: Duane Spencer 1235 La Plata Hwy. Farmington, NM 87401 New Mexico Oil & Gas Conservation Attn: Frank Chavez 1000 Rio Brazos Rd. Aztec, NM 87410

State of New Mexico
Attn: David Catanach
Energy, Minerals & Natural Resources Dept.
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

30-5 #1 CPD Off-Lease Measurement of Gas Addition of San Juan 30-5 #260

### Gentlemen:

Phillips Petroleum Company requests approval to add the San Juan 30-5 #260 to the off-lease measurement/commingling application for the subject CPD. The original application was approved by the BLM on April 4, 1995 and the allocation method was approved by the NMOCD on April 10, 1995. The application dated February 19, 1998 to David Catanach is still waiting for approval.

The San Juan 30-5 #260 is located in Unit L, 1490' FSL & 1175' FWL, Section 9, T30N, and R5W. The federal lease number is NMSF078997. This well will be connected to the 30-5 #1 CPD.

We expect first production to the CPD in early November for the San Juan 30-5 #260. Phillips Petroleum Company will follow Onshore Oil and Gas Order #5 and the allocation procedures outlined in the original approved application in regards to gas production from this well.

If you have any questions concerning these well additions, please call me at 599-3450.

Sincerely,

Phillips Petroleum Company

Doyle Pruden

**Accounting Specialist** 

cc: Danny Jaap



February 19, 1998

: 8

Re: 30-5 #1 CPD
Off-Lease Measurement of Gas

State of New Mexico
Energy, Minerals & Natural Resources Dept.
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

COPY

Attn: David Catanach

Phillips Petroleum Company respectfully requests New Mexico Oil Conservation approval for off-lease measurement/commingling of gas through the subject central point of delivery (CPD) located in Rio Arriba County, New Mexico. The original application was approved by the BLM on April 4, 1995 and the allocation method was approved by the OCD on April, 10 1995. A copy of the following documents are attached for your reference:

- 1) Original application for the 30-5 #1 CPD dated February 23,1995 and approved by the BLM on April 4, 1995
- 2) Approval of the allocation method for the 30-5 #1 CPD by Frank Chavez of the OCD dated April 10, 1995.

There are a total of 29 wells connected to this central delivery point.

As we discussed by phone last year, Phillips has several cases where off-lease measurement/commingling approval was obtained from the BLM without approval from the OCD in Santa Fe. This was unintentional. We did obtain approval for the allocation method on these cases from the OCD office in Aztec. It was not known at that time that additional approval was needed from the OCD in Santa Fe. I will be forwarding for approval these additional applications in the coming weeks.

If you have any questions concerning this, please call me at (505) 599-3450.

Sincerely,

Phillips Petroleum Company

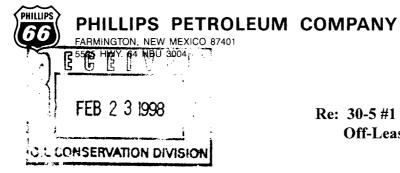
Doyle Pruden

Accounting Specialist

Igh Paul

cc: Frank Chavez-OCD Aztec, NM Danny Jaap

CTB 509 (DEVCO20119410



February 19, 1998

Re: 30-5 #1 CPD
Off-Lease Measurement of Gas

State of New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division 2040 S. Pacheco Santa Fe, NM 87505

Attn: David Catanach

Phillips Petroleum Company respectfully requests New Mexico Oil Conservation approval for off-lease measurement/commingling of gas through the subject central point of delivery (CPD) located in Rio Arriba County, New Mexico. The original application was approved by the BLM on April 4, 1995 and the allocation method was approved by the OCD on April, 10 1995. A copy of the following documents are attached for your reference:

- 1) Original application for the 30-5 #1 CPD dated February 23,1995 and approved by the BLM on April 4, 1995
- 2) Approval of the allocation method for the 30-5 #1 CPD by Frank Chavez of the OCD dated April 10, 1995.

There are a total of 29 wells connected to this central delivery point.

As we discussed by phone last year, Phillips has several cases where off-lease measurement/commingling approval was obtained from the BLM without approval from the OCD in Santa Fe. This was unintentional. We did obtain approval for the allocation method on these cases from the OCD office in Aztec. It was not known at that time that additional approval was needed from the OCD in Santa Fe. I will be forwarding for approval these additional applications in the coming weeks.

If you have any questions concerning this, please call me at (505) 599-3450.

Sincerely,

Phillips Petroleum Company

Doyle Pruden

Accounting Specialist

cc: Frank Chavez-OCD Aztec, NM Danny Jaap



February 23, 1995

Bureau of Land Management ATTN: Mr. Mike Pool 1235 La Plata Highway Farmington, NM 87401 COPY

30-5 #1 CPD Off-Lease Measurement of Gas

Dear Mr. Pool:

. . . .

Phillips Petroleum Company requests approval for off-lease measurement/commingling of gas through the subject central point of delivery (CPD) located in Rio Arriba County, New Mexico. Our original request for approval was submitted on August 31, 1994. Due to additional information requests and changes in our proposal, a complete new application is being submitted.

The required information for this application is attached. Phillips is the only operator participating in this CPD which contains only 30-5 Unit Fruitland Coal wells. If additional wells are proposed to be added to the system, prior approval will be obtained.

If you have any questions or if additional information is required, please contact me at 599-3460.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Ed Hasely

5 1 Hanky

Environmental/Regulatory Engineer

attachments

cc: Frank Chavez - OCD Aztec, NM

J. W. Taylor

leh\305#1cpd.mea

APPROVED

- DISTRICT WANAGER

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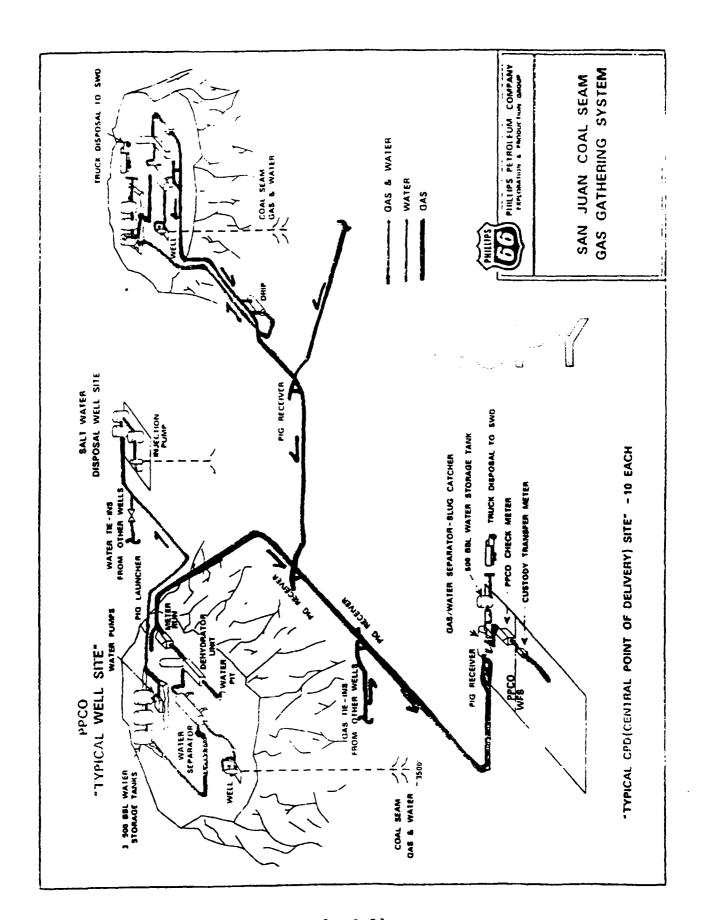
OPERATOR

### Off Lease Measurement/Commingling Application

### Contents:

General Well/CPD Schematic Map showing wells and CPD List of wells with Lease/Agreement Number Description of System Mechanical Integrity Narrative Equipment Specifications Narrative Equipment List Burner Size List Allocation Details Fuel Gas Letter Monthly Production Narrative Evidence on Federal Royalties Narrative **Economic Justification** 1995 Projected Gas Volumes Allocation Examples Produced Water Disposition List Onshore Oil and Gas Order No. 5 Statement

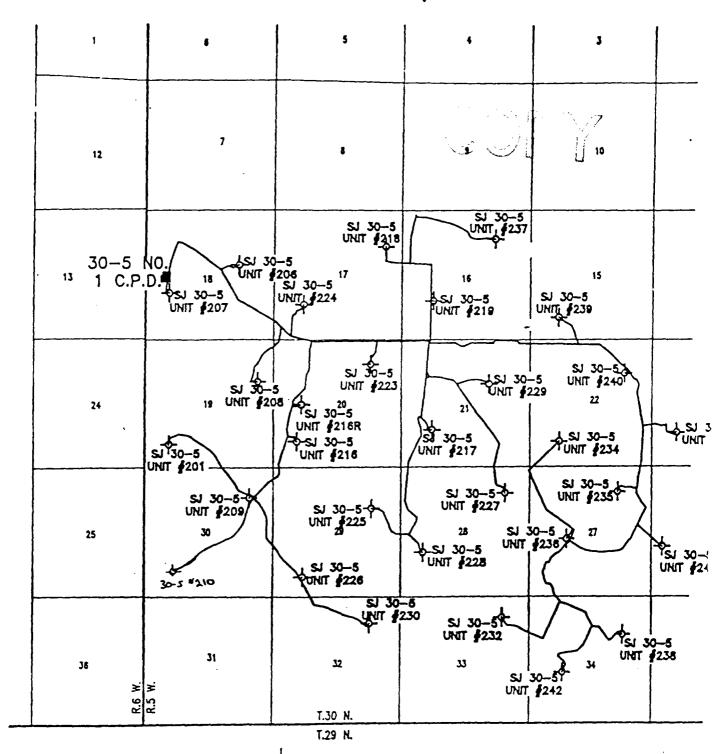


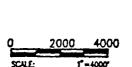


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FRILLIFO I LINOLLOIN CO.

## S.J. 30-5 No.1 C.D.P. GATHERING T.30 N., R.5 W., N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO







## Daggett, Inc.

420 West Elm Street
FARMINGTON, NEW MEXICO 874
(505) 328-1772
REGISTERED LAND SURVEYOF
NEW MEXICO No.8894

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## PHILLIPS PETROLEUM COMPANY - FARMINGTON AREA

		CI LOCA			WELL	CONNECT	LEASE OR AGREEMENT	CPD
UNIT	SEC	TWN	RNG	Q/Q	#	DATE	NUMBER	OWNER
CPD #1 38-5	18	30N	5W	N/SW		07/07/92		WILLIAMS FIELD SERVICE
S. J. 30-5					201	11/23/92	891000346D	
S. J. 30-5					206	07/07/92	NMSF078994	
S. J. 30-5					207	07/07/92	NMSF078994	
S. J. 30-5				-	208	07/07/92	NMSF078740	
S. J. 30-5					209	08/13/92	891000346D	
S. J. 30-5					210		NMSF078740	
S. J. 30-5					216 R	12/29/93	NMSF078740	
S. J. 30-5					217	07/07/92	NMSF078739	
S. J. 30-5					218	07/07/92	891000346X	
S. J. 30-5					219	07/07/92	891000346X	
S. J. 30-5					223	01/29/93	NMSF078740	
S. J. 30-5					224	07/07/92	NMSF078994	
S. J. 30-5					225	06/01/93	NMSF078740	
S. J. 30-5					226	07/07/92	NMSF078740	
S. J. 30-5					227	07/07/92	891000346X	
S. J. 30-5					228	06/01/93	NMSF078739	
S. J. 30-5					229	07/07/92	NMSF078739	
S. J. 30-5					230	07/07/92	891 <b>000346X</b>	
s. J. 30-5					232	12/13/93	NMSF078739	
i. J. 30-5					234	10/19/93	NMSF078739	
i. J. 30-5					235	10/18/93	NMSF078738	
i. J. 30-5					236	10/18/93	NMSF078738	
i. J. 30-5					237	06/02/93	891 <b>000346X</b>	
i. J. 30-5					238	10/18/93	NMNM012332	
i. J. 30-5					239	01/11/94	NMSF078994	
i. J. 30-5					240	10/18/93	NMSF078739	
s. J. 30-5			Ī		241	10/19/93	NMSF078738	
S. J. 30-5					242		NMNM012332	
. J. 30-5					246		891000346X	

•• INDICATES WELLS THAT HAVE NOT PRODUCED THROUGH CPD BUT COULD AT LATER DATE.

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### Description of System

Fruitland Coal wells, operated by Phillips Petroleum, are tied into a Phillips gathering system. The gathering system delivers gas to the Central Point of Delivery (CPD) which is operated by Williams Field Service (WFS). The CPD is the point of interconnection on WFS's Manzanares System where WFS receives Phillips Petroleum's gas for gathering. (See Attached Map)

Each of the wells are equipped with a separator, a dehydrator and an electronic flow gas meter. Some wells may also have a small compressor on location. The gas is produced through the separator to remove excess water. The water is stored in water storage tanks on location prior to disposal. The gas is further dried by the dehydrator prior to measurement. Fuel gas required to operate the well equipment (separator, dehydrator, compressors and tank heaters) is taken from the dehydrator prior to measurement. The gas leaving the well location is measured through Phillips Petroleum's electronic flow meter.

After the gas is measured at the individual well locations, the combined gas enters the gathering system which is operated by Phillips Petroleum. The gathering system delivers the gas to the CPD.

At the CPD, the gas enters a gas/water separator which separates any free water that drops out in the pipeline. Since all the gas flows through dehydrators on individual well locations prior to entering the gathering system, this water volume is normally negligible. The gas then goes through Phillips Petroleum's check meter (electronic flow meter) and directly through WFS's CPD meter. Williams compresses the gas downstream of the CPD meter. No gas is removed for fuel between Phillips Petroleum's allocation gas meters on the individual wells and the CPD meter.

### Mechanical Integrity

All lines downstream of the meter runs on the individual well locations to the CPDs have been pressure tested with either water or nitrogen. (See affective)

### **Equipment Specifications**

A sheet is attached that lists the size and make of all fuel burning equipment on each well location. A separate sheet details the burner size for each type of equipment. The equipment list is subject to change as operational needs vary over time. Equipment changes will be reflected in our fuel gas calculations.

### PHILLIPS PETROLEUM COMPANY

WELL	PROD SEP		DEHY		TANK#1	TANK #2	TANK #3	REN
NUMBER	MFG	SIZE	MFG	SIZE	MFG	MFG	MFG	Н
CPD # 1 30-5		<u> </u>						
30-5 #201 \24543	PESCO	6 MM	PESCO	6 MM	WESTERN	WESTERN	WESTERN	<del>!</del>
30-5 #206 24691	P&A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
30-5 #207 24790	PESCO	6 MM	PESCO	6 MM	PALMER	PALMER	PALMER	
30-5 #208 24806	PESCO	6 MM	PESCO	6 MM	PERMIAN	PERMIAN	PERMIAN	
30-5 #209 24692	PESCO	6 MM	PESCO	6 MM	PERMIAN	PERMIAN	PERMIAN	
30-5 #210 24 971	PESCO	6 MM	PESCO	6 MM	PERMIAN	PERMIAN	PERMIAN	
30-5 #216 R 253/8	PESCO	6 MM	PESCO	6 MM	PESCO	PESCO	1	
30-5 #217 2-1849	PESCO	2 MM	PESCO	2 MM	PERMIAN	PERMIAN		
30-5 #218 24789	P&A	2 MM	P & A	2 MM	WESTERN	WESTERN	WESTERN	
30-5 #219 24768	P&A	2 MM	P & A	2 MM	PALMER	PALMER		
30-5 #223 24 901	P & A	2 MM	P & A	2 MM	PESCO	PESCO	PERMIAN	!
30-5 #224 24902	P&A	2 MM	P & A	2 MM	PALMER	PALMER	:	
30-5 #225 25087	PESCO	2 MM	PESCO	2 MM	PESCO	PESCO	PALMER	
30-5 #226 24965	P&A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
24/65	P&A	2 MM	P&A	2 MM	PALMER	PALMER	PALMER	
30-5 #227 24892.	P&A	2 MM	P & A	2 MM	PALMER	PALMER		
30-5#228- 25127	P&A	2 MM	P&A	2 MM	PESCO	PESCO	PESCO	
30-5 #229 24979	P&A	2 MM	P & A	2 MM	PALMER	PALMER		
30-5 #230 2490 3	P&A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
30-5 #232 25194	P&A	2 MM	P & A	2 MM	PERMIAN	PERMIAN		
30-5 #234 25171	PESCO	4 MM	PESCO	4 MM	PESC <b>O</b>	PESCO	PALMER	
30-5 #235 2514D	PESCO	4 MM	PESCO	4 MM	PESCO	PERMIAN	PESCO	
30-5 #236 Z5077	PESCO	6 MM	PESCO	6 MM	PESCO	PERMIAN	PALMER	
30-5#237 25110	P&A	2 MM	P & A	2 MM	PESCO	PALMER	PALMER	
30-5 #238 25141	PESCO	6 MM	PESCO	6 MM	PESCO	PESCO	PESCO	<u></u>
30-5 #239 25165	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN		: 
30-5#240 25202	P&A	2 MM	P & A	2 MM	PESCO	PALMER	PERMIAN	
30-5 #241 2 5 203	P & A	2 MM	P & A	2 MM	PESCO	PERMIAN	PERMIAN	
30-5#242 25166	P & A	2 MM	P & A	2 MM	PERMIAN	PERMIAN	PERMIAN	
30-5#246 25265	P & A	2 MM	P & A	2 MM	PERMIAN	PESCO		·



### **BURNER SIZES**

	Size (MMCF/D)	Manufacturer	Burner Size (BTU/HR)
Separators			
	2	P&A	250,000
	2	Pesco	250,000
	2	Enertek	250,000
	4	P&A	400,000
	4	Pesco	400,000
	4	Enertek	400,000
	4	American Tank	400,000
	6	P&A	450,000
" '	6	Pesco	450,000
Dehydrators			
	2	P&A	150,000
	2	Pesco	125,000
	4	P&A	250,000
•	4	Pesco	125,000
	4	Enertek	250,000
	6	P&A	350,000
	6	Pesco	200,000
Tank Heaters			
	N/A	All	350,000



### **ALLOCATION DETAILS**

Basically, the gas sales volume (mcf) will be allocated on a volume basis and the gas sales MMBTUs will be allocated on an MMBTU basis.

The gas sales volume (mcf) from an individual well is determined by first calculating a ratio by dividing its metered volume (mcf) by the sum of the metered volumes (mcf) of all wells connected to the CPD. This ratio is then multiplied by the total CPD volume (mcf). The gas production volume for an individual well is determined by adding the well's estimated fuel gas volume and the "Flared or Vented" gas volume to the well's allocated sales volume.

The fuel gas volumes are based upon the type and size of equipment on each well location and the number of producing days for each well. The fuel gas usage for the equipment was detailed in Phillips Petroleum's August 17, 1994 letter addressed to Mr. Mike Pool (attached).

The MMBTUs assigned to an individual well is determined by first calculating a ratio by dividing its metered MMBTUs by the sum of the metered MMBTUs of all wells connected to the CPD. This ratio is then multiplied by the total CPD MMBTUs. The individual well BTU value (MMBTU/mcf) will be calculated by dividing the allocated MMBTUs by the allocated volume (mcf).

If a section of line is blown down, the calculated volume of blowdown gas will be allocated to the affected wells. This allocated blowdown volume will be reported as "Flared or Vented" gas.

Since all the gas flows through dehydrators on individual well locations prior to entering the gathering system, water volumes at the CPD are normally negligible. If these water volumes become significant, they will be allocated to the wells.

Allocation examples using actual data for the months October, November and December, 1994 are attached.





August 17, 1994

Bureau of Land Management 1235 La Plata Hwy. Farmington, NM 87041 Attn: Mike Pool

> Gas Used on Lease As Reported On Form MMS-3160 (Monthly Report of Operations)

Dear Mr. Pool:

It has been brought to our attention that there are volume discrepancies between gas used on lease as reported by Phillips Petroleum Company on Form MMS-3160 and gas used on lease as calculated by Mike Wade of your office. This was found during the recent Production Accountability Inspections conducted by Mike Wade. The most notable volume discrepancy is the gas used by water tank heaters on our coal seam wells. We have not been calculating or reporting any gas used on lease volumes for these tank heaters.

I am proposing that effective with August 1994 production. Phillips Petroleum Company report gas used on lease based on the attached table for all leases that we operate in the area that your office administers. I would also like to recommend for your approval that we not be required to make retroactive corrections prior to August 1994 for gas used on lease as reported on the Form MMS-3160. The reasoning behind this request is the manpower involved for both Phillips Petroleum Company and the federal agencies to process these corrections, the relatively small gas volumes as compared to the produced volumes, and the fact that volumes are not royalty bearing.

Please let me know your decision concerning this as early as possible to allow our Production Accounting personnel time to make adjustments prior to August's production reports. My phone number is 599-3460 if you would like to discuss.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Ed Hasely

Eu Hasely

Environmental/Regulatory Engineer

cc:

J. W. Taylor E. D. Pruden

leh\mms3160.gas

### FUEL USE EQUIPMENT

### (All factors at 15.025 Pressure Base)

SEPARATORS	≤ 2 MM 4 MM 6 MM	-	4.3 6.9 7.7	mcf/producing day mcf/producing day mcf/producing day
DEHYDRATORS	≤ 2 MM 4 MM 6 MM 10 MM	•	2.4 3.2 4.7 6.0	mcf/producing day mcf/producing day mcf/producing day mcf/producing day

### TANK HEATERS

1.8 mcf/producing day/tank

Note:

Anticipate tank heaters to operate from November through March, but this may vary year to year.

<u>COMPRESSORS</u>	50 HP	-	8	mcf/producing day
	80 HP	-	13	mcf/producing day
	100 HP	٠ ـ	16	mcf/producing day
	120 HP	-	19	mcf/producing day
	165 HP	-	26	mcf/producing day

### **BLOWDOWN GAS**

Fruitland Sand & Mesaverde - 0.7 mcf/minute of blowdown

Dakota - 1.0 mcf/minute of blowdown

### Monthly Production

Sheets are attached that show the estimated 1995 production for each of the wells connected to the CPD. The allocation examples show the BTU content of the gas from the individual wells, as well as the BTU content of the combined gas at the CPD. Since all the gas is produced from wells completed in the same formation and in the same general area, the BTU content of the gas does not vary substantially.

### **Evidence on Federal Royalties**

Gas volumes and MMBTU quantities are allocated to the wells from the CPD because the most accurate volumes and MMBTU quantities available are from the CPD. The reasons for this, such as measurement errors, stable flow rates, BTU content, etc., have been discussed on numerous occasions. The inherently greater accuracy of the CPD volume, as compared to the sum of the individual well metered volumes, warrants the acceptance of the CPD volume as representative of the total sales volume from the individual wells. It is then necessary only to reduce the total sales volume to its individual components through the proposed allocation method.

Sheets are attached (Allocation Examples) that compare the allocated sales volume with the metered volume for the months October, November and December, 1994. The results vary well by well, month by month, and CPD by CPD, but overall the volumes are extremely close. At the 30-5 #1 CPD, the sum of the allocate MMBTUs were 3.9% higher than sums of the individual well's metered MMBTUs for these three months. This computes to higher overall royalties by following the described off-lease measurement practice.

### **Economic Justification**

The CPD system utilizing off-lease gas measurement will extend the economic life of all affected wells due to the reduction of back pressure on the wells. Without the system, the gas would have been produced into a conventional gas pipeline operated at a substantially higher pressure. The higher pipeline pressure would decrease the recoverable reserves from each well or force Phillips to install compressors on each well location. Either scenario will reduce the economic life of the wells.



## 1995 PROJECTED CPD VOLUMES

CPD			VEADIV	CPD
CPD	********		YEARLY	CPD
NUMBER	UNIT	WELL	MMCF	TOTAL
30-5 #1 CPD		201	2,555	:
	S.J. 30 – 5	206	610	
	S.J. 30 – 5	207	1,633	
	S.J. 30 – 5	208	2,920	
	S.J. 30 – 5	209	1,372	
	S.J. $30-5$	216 R	1,898	
	S.J. 30 – 5	217	544	:
	S.J. $30-5$	218	110	
	S.J. 30 – 5	219	105	
	S.J. 30 – 5	223	788	
	S.J. 30-5	224	315	,,
	S.J. 30 – 5	225	614	
	S.J. $30-5$	226	1,682	
	S.J. 30-5	227	219	
	S.J. 30-5	228	511	
	S.J. 30-5	229	657	
	S.J. $30-5$	230	767	
	S.J. 30-5	232	73	
	S.J. 30-5	234	1,034	
	S.J. $30-5$	235	37	
	S.J. $30-5$	236	292	
	S.J. $30-5$	237	37	
	S.J. 30-5	238	602	
	S.J. 30-5	239	329	
	S.J. 30-5	240	475	
	S.J. 30-5	241	110	
	S.J. 30-5	242	110	
	S.J. 30 – 5	246	55	
		TOTAL		20,454
			-	



# wollimes and RTII values assume a 14.73 Pressure Base.



# ALLOCATION EXAMPLE 30-5 #1 CPD OCTOBER, 1994

	WELL	METERED METERED	VOLUME RATIO	ALLOCATED GAS	MEASURED WELL BTU	METERED MMBTU's	MMBTU RATIO	ALLOCATED	ALLOCATED WELL BTU	VOLUME	MMBTU DIFFERENCE	WELL BIU
TINU	*	(mcf)		(mcf)	VALUE				VALUE	(%)	(%)	(%)
5 #1 CPD	СРД	1,561,042			0.908	1,417,426						
30-5	201	185,920	0.1258226	196,414	0.897	166,861	0.122578	173,745	0.885	5.64%	4.13%	-1.44%
30-5	206	60,625	0.0410284	64,047	0.916	55,527	0.040791	57,818	0.903	5.64%	4.13%	-1.44%
30 - 5	207	141,528	0.09578	149,517	0.903	127,744	0.093842	133,014	0.890	5.64%	4.13%	-1.44%
. 30 – 5	208	224,090	0.1516544	236,739	0.909	203,640	0.149596	212,042	0.896	5.64%	4.13%	-1.44%
30-5	209	95,520	0.0646438	100,912	0.915	87,390	0.064197	90,995	0.902	5.64%	4.13%	-1.44%
. 30-5	216	0	0	0	0.000	0	0	0				
30-5	217	40,516	0.0274195	42,803	0.925	37,482	0.027535	39,028	0.912	5.64%	4.13%	-1.44%
30-5	218	10,702	0.0072426	11,306	0.928	9,933	0.007297	10,343	0.915	5.64%	4.13%	-1.44%
. 30-5	219	11,509	0.0077888	12,159	0.952	10,953	0.008046	11,405	0.938	5.64%	4.13%	-1.44%
. 30 – 5	223	57,237	0.0387355	60,468	0.921	52,717	0.038726	54,892	0.908	5.64%	4.13%	-1.44%
30-5	224	30,746	0.0208076	32,481	0.927	28,507	0.020941	29,683	0.914	5.64%	4.13%	-1.44%
. 30-5	225	51,505	0.0348564	54,412	0.918	47,279	0.034732	49,230	0.905	5.64%	4.13%	-1.44%
. 30 – 5	226	98,266	0.0665022	103,813	0.927	91,109	0.066929	94,867	0.914	5.64%	4.13%	-1.44%
. 30 – 5	227	10,221	0.0069171	10,798	0.940	9,613	0.007061	10,009	0.927	5.64%	4.13%	-1.44%
. 30 – 5	229	58,906	0.039865	62,231	0.936	55,158	0.04052	57,434	0.923	5.64%	4.13%	-1.44%
30-5	230	70,797	0.0479123	74,793	0.928	65,713	0.048273	68,424	0.915	5.64%	4.13%	-1.44%
30-5	236	23,136	0.0156574	24,442	0.969	22,422	0.016471	23,347	0.955	5.64%	4.13%	-1.44%
30-5	228	50,735	0.0343352	53,599	0.945	47,922	0.035204	49,899	0.931	5.64%	4.13%	-1.44%
30-5	234	49,118	0.0332409	51,890	0.959	47,099	0.034599	49,042	0.945	5.64%	4.13%	-1.44%
30-5	235	3,053	0.0020661	3,225	0.971	2,965	0.002178	3,087	0.957	5.64%	4.13%	-1.44%
30-5	237	2,366	0.0016012	2,500	. 0.945	2,235	0.001642	2,327	0.931	5.64%	4.13%	-1.44%
30-5	238	42,621	0.028844	45,027	0.979	41,741	0.030663	43,463	0.965	5.64%	4.13%	-1.44%
30-5	240	45,652	0.0308953	48,229	0.941	42,981	0.031574	44,754	0.928	5.64%	4.13%	-1.44%
30-5	241	10,543	0.007135	11,138	0.963	10,153	0.007458	10,572	0.949	5.64%	4.13%	-1.44%
30-5	242	9,869	0.0066789	10,426	0.926	9,140	0.006714	9,517	0.913	5.64%	4.13%	-1.44%

# ALLOCATION EXAMPLE 30-5 #1 CPD OCTOBER, 1994

07-Feb-95

	4.13%	5.64%		1,417,426	1	1,361,266		1,561,042	1	1,477,636		TOTAL
-1.44%	4.13%	5.64%		54,039	0.038125	51,898	0.905	60,606	0.0388242	57,368	216R	J. 30-5
-1.44%	4.13%	5.64%		26,248	0.018518	25,209	0.937	28,410	0.0181993	26,892	239	J. 30-5
-1.44%	4.13%	5.64%	0.987	2,386	0.001683	2,291	1.002	2,416	0.0015477	2,287	246	J. 30-5
-1.44%	4.13%	5.64%	0.932	5,817	0.004104	5,587	0.946	6,241	0.0039983	5,908	232	J. 30-5
(%)	(%)	(%)	AVEOL				47505	(mcf)		(mcf)	#	TINU
WELL BTO VALUE	DIFFERENCE	DIFFERENCE DIFFERENCE	WELL BTU	ALLOCATED MMBTU	MMBTU RATIO	METERED MMBTU's	MEASURED WELL BTU	ALLOCATED MEASURED  GAS WELL BTU  VALUE  VAL	VOLUME RATIO	WELL GAS VOLUME	WELL	



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# ALLOCATION EXAMPLE 30-5 #1 CPD NOVEMBER, 1994

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(%)	(%)	(%)						(mcf)		(mcf)	*
DIFFERENCE			VALUE				VALUE	VOLUME			
VALUE	IFFERENCE DIFFERENCE	DIFFERENCE	WELL BTU	MMBTU	RATIO	MMBTU's	WELL BTU	GAS	RATIO	WELL GAS VOLUME	WELL
WELL BIU	MMBTU	VOLUME	ALLOCATED	ALLOCATED	NIBWW	METERED	VOLUME MILLOCATED MEASURED	MILLOCATED	VOLUME	METERED	
	07-Feb-95			(							

	WELL	METERED GAS VOLUME	VOLUME RATIO	ALLOCATED GAS	MEASURED WELL BTU	METERED MMBTU's	MMBTU RATIO	ALLOCATED	WELL BTU	VOLUME DIFFERENCE	MMBTU DIFFERENCE	WELL BTU
TINU	*	(mcf)		(mcf)	VALUE				VALUE	(%)	(%)	OIFFERENCE (%)
-5 #1 CPD	СРД	1,767,297			0.924	1,632,982						
. 30-5	201	205,362	0.1212625	214,307	0.897	184,310	0.118171	192,971	0.900	4.36%	4.70%	0.33%
. 30 – 5	206	63,534	0.0375157	66,301	0.916	58,191	0.03731	60,926	0.919	4.36%	4.70%	0.33%
. 30 – 5	207	144,968	0.085601	151,282	0.903	130,849	0.083894	136,998	0.906	4.36%	4.70%	0.33%
. 30 – 5	208	222,660	0.1314767	232,358	0.909	202,341	0.129732	211,850	0.912	4.36%	4.70%	0.33%
. 30 – 5	209	112,613	0.0664959	117,518	0.915	103,028	0.066057	107,870	0.918	4.36%	4.70%	0.33%
. 30-5	216	0	0	0	0.000	0	0	0				
. 30 – 5	217	47,459	0.0280237	49,526	0.925	43,905	0.02815	45,968	0.928	4.36%	4.70%	0.33%
. 30 – 5	218	10,748	0.0063465	11,216	0.928	9,976	0.006396	10,445	0.931	4.36%	4.70%	0.33%
. 30 – 5	219	10,697	0.0063164	11,163	0.952	10,181	0.006527	10,659	0.955	4.36%	4.70%	0.33%
. 30 – 5	223	71,017	0.0419343	74,110	0.921	65,408	0.041937	68,482	0.924	4.36%	4.70%	0.33%
. 30 – 5	224	31,064	0.0183427	32,417	0.927	28,801	0.018466	30,155	0.930	4.36%	4.70%	0.33%
. 30 – 5	225	54,476	0.0321671	56,849	0.918	50,006	0.032062	52,357	0.921	4.36%	4.70%	0.33%
. 30 – 5	226	109,840	0.0648585	114,624	0.927	101,840	0.065295	106,626	0.930	4.36%	4.70%	0.33%
. 30 – 5	227	21,786	0.0128642	22,735	0.940	20,489	0.013137	21,452	0.944	4.36%	4.70%	0.33%
. 30 – 5	229	59,972	0.0354124	62,584	0.936	56,156	0.036005	58,795	0.939	4.36%	4.70%	0.33%
. 30 – 5	230	70,622	0.041701	73,698	0.928	65,550	0.042028	68,631	0.931	4.36%	4.70%	0.33%
. 30-5	236	26,742	0.0157907	27,907	0.969	25,916	0.016616	27,134	0.972	4.36%	4.70%	0.33%
. 30 – 5	228	48,099	0.0284016	50,194	0.945	45,432	0.029129	47,568	0.948	4.36%	4.70%	0.33%
. 30 – 5	234	69,961	0.0413107	73,008	0.959	67,085	0.043012	70,237	0.962	4.36%	4.70%	0.33%
. 30-5	235	2,970	0.0017537	3,099	0.971	2,884	0.001849	3,020	0.974	4.36%	4.70%	0.33%
30-5	237	2,875	0.0016976	3,000	0.945	2,716	0.001741	2,843	0.948	4.36%	4.70%	0.33%
30-5	238	51,457	0.0303844	53,698	0.979	50,395	0.032311	52,763	0.983	4.36%	4.70%	0.33%
. 30 – 5	240	44,730	0.0264123	46,678	0.941	42,113	0.027001	44,092	0.945	4.36%	4.70%	0.33%
. 30 - 5	241	8,874	0.0052399	9,261	0.963	8,546	0.005479	8,947	0.966	4.36%	4.70%	0.33%
. 30 – 5	242	9,326	0.0055068	9,732	0.926	8,637	0.005538	9,043	0.929	4.36%	4.70%	0.33%

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# ALLOCATION EXAMPLE 30-5 #1 CPD NOVEMBER, 1994

	WELL	METERED WELL GAS VOLUME	VOLUME RATIO	ALLOCATED	MEASURED WELL BTU	METERED MMBTU's	MMBTU RATIO	ALLOCATED MMBTU	WELL BTU	DIFFERENCE DIFFERENCE		WELL BTU VALUE
				VOLUME	VALUE				VALUE			DIFFERENCE
UNIT	*	(mcf)		(mcf)						(%)	(%)	(%)
. 30 – 5	232	6,356	0.0037531	6,633	0.946	6,010	0.003853	6,293	0.949	4.36%	4.70%	0.33%
30-5	246	3.493	0.0020626	3.645	1.002	3,500	0.002244	3,664	1.005	4.36%	4.70%	0.33%
30-5	239	28.289	0.0167041	29,521	0.937	26,518	0.017002	27,764	0.940	4.36%	4.70%	0.33%
30-5	216R	153.542	0.0906638	160.230	0.905	138,902	0.089058	145,429	0.908	4.36%	4.70%	0.33%
TOTAL		1.693.532	1	1.767.297		1,559,685	1	1,632,982		4.36%	4.70%	



# All volumes and RTII values assume a 14 73 Pressure Base.

# ALLOCATION EXAMPLE 30-5 #1 CPD DECEMBER, 1994



	WELL	METERED	VOLUME	ALLOCATED	MEASURED WELL BILL	METERED MARTIES	MMBTU	ALLOCATED	WELL BTU	VOLUME DIFFERENCE I	MMBTU DIFFERENCE	WELL BTU
CNIT	* !	(mcf)		VOLUME (mcf)	VALUE				VALUE			DIFFEREI (%)
-5 #1 CPD	CPD	1,835,039			0.923	1,693,741						er Bjører
J. 30-5	201	207,911	0.1165863	213,940	0.897	186,597	0.11344	192,138	0.898	2.90%	2.97%	0.
J. 30-5	206	65,111	0.0365111	66,999	0.916	59,636	0.036255	61,407	0.917	2.90%	2.97%	0.0
J. 30-5	207	148,859	0.0834729	153,176	0.903	134,361	0.081683	138,351	0.903	2.90%	2.97%	0.0
J. 30-5	208	225,265	0.1263176	231,798	0.909	204,708	0.124451	210,787	0.909	2.90%	2.97%	0.07%
J. 30-5	209	121,724	0.0682569	125,254	. 0.915	111,363	0.067702	114,670	0.916	2.90%	2.97%	0.0
J. 30-5	216	0	0	0	0.000	0	0	0				
J. 30-5	217	62,852	0.0352443	64,675	0.925	58,145	0.035349	59,872	0.926	2.90%	2.97%	0.0
J. 30-5	218	11,410	0.0063982	11,741	0.928	10,591	0.006438	10,905	0.929	2.90%	2.97%	0.0
J. 30-5	219	10,604	0.0059462	10,912	0.952	10,092	0.006135	10,392	0.952	2.90%	2.97%	0.0
J. 30-5	223	76,272	0.0427696	78,484	0.921	70,248	0.042707	72,334	0.922	2.90%	2.97%	0.0
J. 30-5	224	31,755	0.0178067	32,676	0.927	29,442	0.017899	30,316	0.928	2.90%	2.97%	0.0
J. 30-5	225	56,551	0.031711	58,191	0.918	51,911	0.031559	53,453	0.919	2.90%	2.97%	0.0
J. 30-5	226	107,560	0.0603144	110,679	0.927	99,726	0.060627	102,687	0.928	2.90%	2.97%	0.0
J. 30-5	227	31,111	0.0174455	32,013	0.940	29,259	0.017788	30,128	0.941	2.90%	2.97%	0.0
J. 30-5	229	63,811	0.0357821	65,662	0.936	59,751	0.036325	61,525	0.937	2.90%	2.97%	0.0
J. 30-5	230	73,608	0.0412758	75,743	0.946	69,603	0.042314	71,669	0.946	2.90%	2.97%	0.0
J. 30-5	236	28,800	0.0161496	29,635	0.969	27,911	0.016968	28,740	0.970	2.90%	2.97%	0.0
J. 30-5	228	50,307	0.0282097	51,766	0.945	47,518	0.028888	48,929	0.945	2.90%	2.97%	0.0
J. 30-5	234	83,556	0.0468541	85,979	0.959	80,121	0.048709	82,500	0.960	2.90%	2.97%	0.0
J. 30-5	235	3,480	0.0019514	3,581	0.971	3,380	0.002055	3,480	0.972	2.90%	2.97%	0.0
J. 30-5	237	4,014	0.0022509	4,130	. 0.945	3,791	0.002305	3,904	0.945	2.90%	2.97%	0.0
J. 30-5	238	59,296	0.0332503	61,016	0.979	58,072	0.035304	59,796	0.980	2.90%	2.97%	0.0
J. 30-5	240	45,965	0.0257749	47,298	0.941	43,276	0.026309	44,561	0.942	2.90%	2.97%	0.0
J. 30-5	241	9,556	0.0053585	9,833	0.963	9,202	0.005594	9,476	0.964	2.90%	2.97%	0.0
J. 30-5	242	9,478	0.0053148	9,753	0.926	8,778	0.005336	9,039	0.927	2.90%	2.97%	0.07%

# ALLOCATION EXAMPLE 30-5 #1 CPD DECEMBER, 1994

	2.97%	2.90%		1,693,741	1	1,644,895		1,835,039	1	1,783,322	\L	TOTAL
0.07%	2.97%	2.90%	0.905		0.084576	139,118	0.905	158,241	0.0862329	153,781	216R	J. 30 – 5
0.07%	2.97%	2.90%	0.938	28,762	0.016981	27,933	0.937	30,662	0.0167093	29,798	239	J. 30-5
0.07%	2.97%	2.90%	0.989	1,607	0.000949	1,561	0.989	1,625	0.0008854	1,579	246	J. 30-5
0.07%	2.97%	2.90%	0.946	9,063	0.005351	8,802	0.946	9,578	0.0052195	9,308	232	J. 30-5
WELL BTU VALUE DIFFERENCE (%)		DIFFERENCE DIFFERENCE (%)  (%)  MMBTU DIFFERENCE	WELL BTU VALUE	ALLOCATED MMBTU	MMBTU RATIO	METERED MMBTU's	MEASURED WELL BTU VALUE	ALLOCATED MEASURED GAS WELL BTU VOLUME VALUE (mcf)	VOLUME RATIO	WELL GAS VOLUME # (mcf)	WELL	TINU

## PHILLIPS PETROLEUM COMPANY FARMINGTON AREA

	1	<del></del>	<del>7</del>	<u> </u>
	WELL	PIPELINE	TRUCKED	swb
UNIT	#	WATER	WATER	LOCATION
CPD#130-5				
S. J. 30-5	201	X		29-6 SWD
S. J. 30-5	206	X		29-6 SWD
S. J. 30-5	207	X		29-6 SWD
S. J. 30-5	208	X		29-6 SWD
S. J. 30-5	209	X		29-6 SWD
S. J. 30-5	217	X		29-6 SWD
S. J. 30-5	218	X		29-6 SWD
S. J. 30-5	219	<u> </u>		29-6 SWD
S. J. 30-5	223	X		29-6 SWD
S. J. 30-5	224	X		29-6 SWD
S. J. 30-5	225	X		29-6 SWD
S. J. 30-5	226	X	_	29-6 SWD
S. J. 30-5	227	X		29-6 SWD
S. J. 30-5	229	X		29-6 SWD
S. J. 30-5	230	x		29-6 SWD
S. J. 30-5	236	X		29-6 SWD
S. J. 30-5	228	х		29-6 SWD
S. J. 30-5	234	x		29-6 SWD
S. J. 30-5	235	х		29-6 SWD
S. J. 30-5	237	x		29-6 SWD
S. J. 30-5	238	x	· .	29-6 SWD
S. J. 30-5	240	x		29-6 SWD
S. J. 30-5	241	x		29-6 SWD
S. J. 30-5	242	x		29-6 SWD
S. J. 30-5	232		X	29-6 SWD
S. J. 30-5	246		х	29-6 SWD
S. J. 30-5	239	х		29-6 SWD
S. J. 30-5	216R	x		29-6 SWD



### October 19, 1994

PHILLIPS PETROLEUM COMPANY
San Juan Basin, New Mexico
Off-Lease Measurement of Gas Applications

STATEMENT: The allocation meters are calibrated and gas samples are collected in accordance with Onshore Oil and Gas Order No. 5.

C DY

### STATE OF NEW MEXICO



### ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

## OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

GARY E. JOHNSON GOVERNOR

JENNIFER A. SALISBURY CABINET SECRETARY

1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6178 FAX: (505) 334-6170

April 10, 1995

Mr Ed Hasely Phillips Petroleum Company 5525 Hwy 64 NBU 3004 Farmington NM 87401 COPY

Re: 30-5 #1 CPD

Dear Mr. Hasely:

As per Rule 403.C. your application for the approval of the allocation method to be used at the referenced CPD is hereby approved.

Sincerely,

Frank T. Chavez, Supervisor District III

FTC/sh