OLM N/R

460

PHILLIPS PETROLEUM COMPANY
FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

August 25, 1997

Re: 31-6 #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

AUG 27

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 31-6 #1 CPD dated February 23,1995 and approved by the BLM on April 4, 1995.**
2) **Approval of the allocation method for the 31-6 #1 CPD by Frank Chavez of the OCD dated April 10, 1995.**
3) **Request to add the San Juan 31-6 #205R to the application dated August 21, 1997.**

As we discussed by phone last week, 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
Sherry Richard

PHILLIPS PETROLEUM COMPANY
FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

August 21, 1997

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

31-6 #1 CPD
Off-Lease Measurement of Gas
Addition of San Juan 31-6 #205R

Dear Mr. Spencer:

Phillips Petroleum Company requests approval to add the San Juan 31-6 #205R 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 OCD on April, 10 1995.

This well is located in Unit G, 2510' FNL & 1850' FEL, Section 4, T30N, and R6W. The federal lease number is NMSF079012. The well will be connected to 31-6 #1 CPD.

A gas line is currently being laid to the well and we expect first production to the CPD next week. 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

Doyle Pruden
Accounting Specialist

cc: Frank Chavez-OCD Aztec, NM
Sherry Richard

PHILLIPS PETROLEUM COMPANY
FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

February 23, 1995

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

31-6 #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 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
Environmental/Regulatory Engineer

attachments
cc: Frank Chavez - OCD Aztec, NM
J. W. Taylor

leh\316#1cpd.mea

APPROVED
APR 04 1995
DISTRICT MANAGER

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

New Mexico DRUG FREE It's a State of Mind!

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

Re: 31-6 #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.

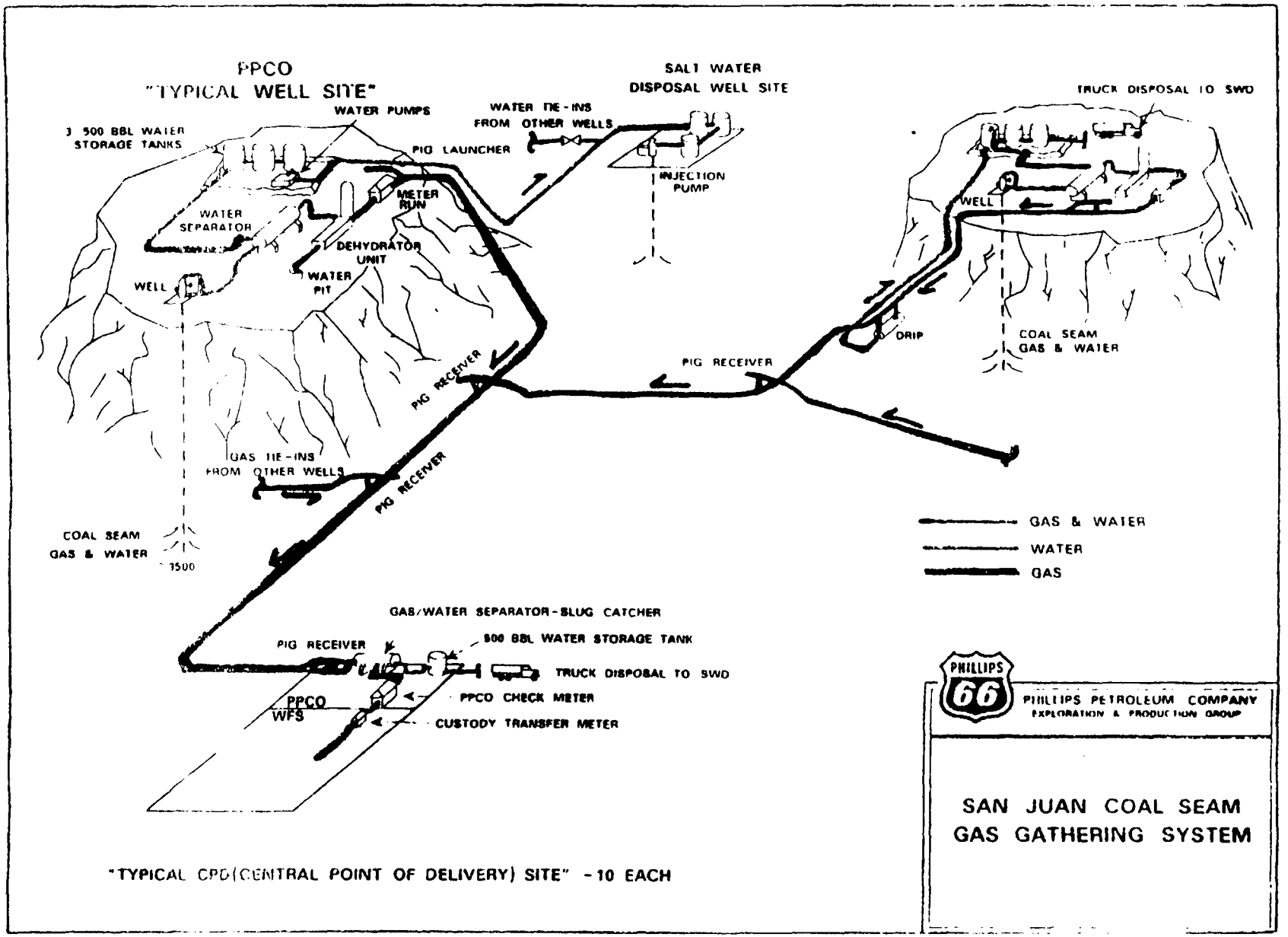
Sincerely,

Frank T. Chavez, Supervisor District III

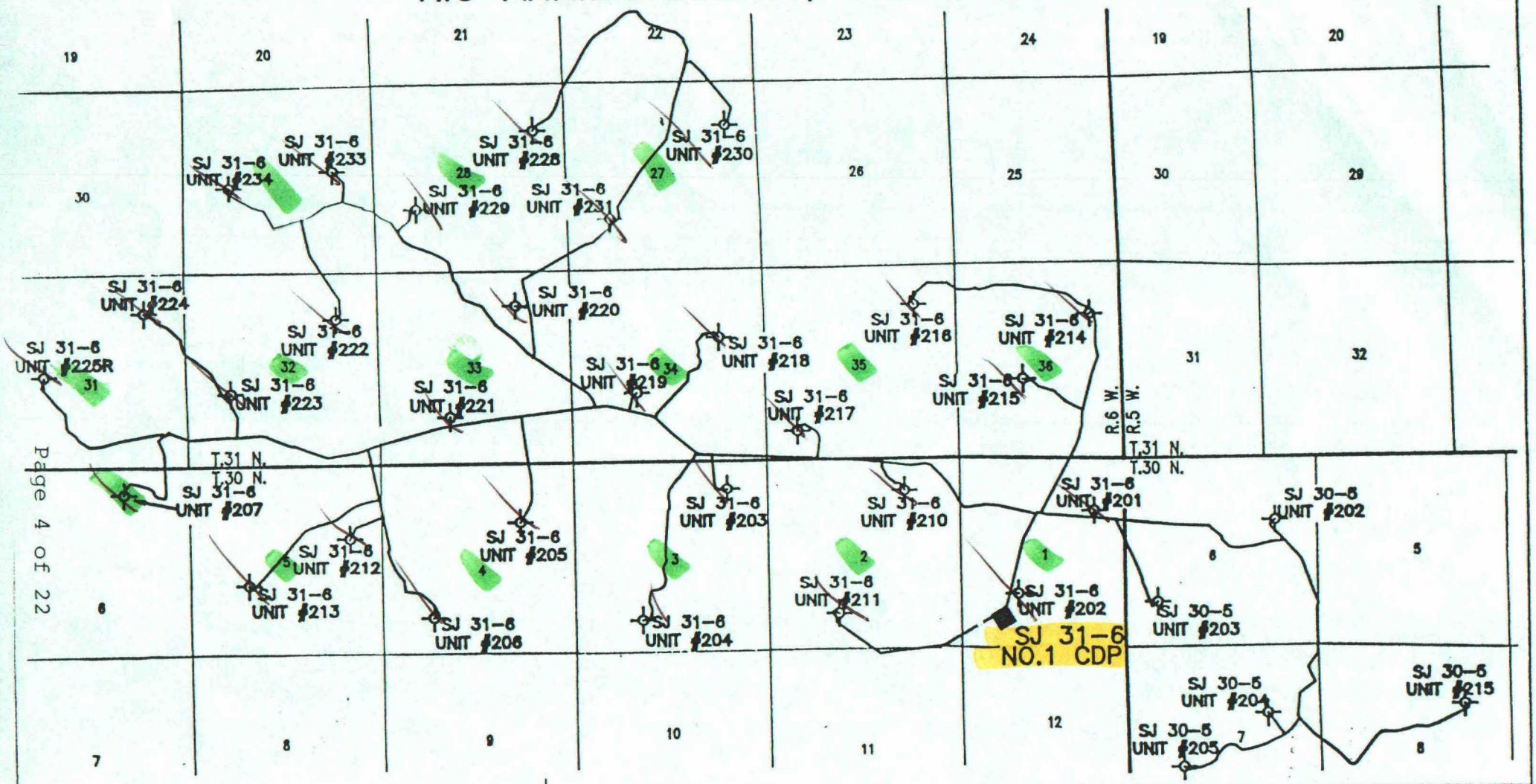
FTC/sh

Off Lease Measurement/Commingling Application

Contents:


PPCO
"TYPICAL WELL SITE"
WATER PUMPS
3 500 BBL WATER STORAGE TANKS
WATER TIE-INS FROM OTHER WELLS
PIG LAUNCHER
METER RUN
WATER SEPARATOR
DEHYDRATOR UNIT
WATER PIT
WELL
SALT WATER DISPOSAL WELL SITE
INJECTION PUMP
TRUCK DISPOSAL TO SWD
WELL
DRIP
COAL SEAM GAS & WATER
PIG RECEIVER
PIG RECEIVER
PIG RECEIVER
GAS TIE-INS FROM OTHER WELLS
COAL SEAM GAS & WATER
1500
GAS & WATER
WATER
GAS
GAS/WATER SEPARATOR-SLUG CATCHER
PIG RECEIVER
500 BBL WATER STORAGE TANK
TRUCK DISPOSAL TO SWD
PPCO CHECK METER
PPCO WFS
CUSTODY TRANSFER METER
"TYPICAL CPD(CENTRAL POINT OF DELIVERY) SITE" - 10 EACH
PHILLIPS 66
PHILLIPS PETROLEUM COMPANY
EXPLORATION & PRODUCTION GROUP
SAN JUAN COAL SEAM
GAS GATHERING SYSTEM

PHILLIPS PETROLEUM CO.
S.J. 31-6 No.1 C.D.P. GATHERING
T.31 N., T.30 N., R.6 W., N.M.P.M.,
T.30 N., R.5 W., N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO



0 2000 4000
SCALE: 1"=4000'

N

Daggett, Inc.
420 West Elm Street
FARMINGTON, NEW MEXICO 87401
(505) 326-1772
REGISTERED LAND SURVEYOR
NEW MEXICO No.6894

PHILLIPS PETROLEUM COMPANY
FARMINGTON AREA

UNIT	CPD LOCATION SEC	TWN	RNG	Q/Q	WELL #	CONNECT DATE	LEASE OR AGREEMENT NUMBER	CPD OWNER
CPD #1 31-6	1	30N	6W	S / SW		09/23/92		WILLIAMS FIELD SERVICE
S. J. 30-5					202	09/23/92	NMSF080066	
S. J. 30-5					203	09/23/92	891000346D	
S. J. 30-5					204	09/23/92	NMSF078997	
S. J. 30-5					205	09/24/93	891000346X	
S. J. 30-5					215	09/23/92	891000346X	
S. J. 31-6					201	09/23/92	891000464B	
S. J. 31-6					202	09/23/92	891000464B	
S. J. 31-6					203	11/06/92	891000464B	
S. J. 31-6					204	10/21/92	891000464B	
S. J. 31-6					205	11/06/92	891000464B	
S. J. 31-6					206	10/21/92	891000464B	
S. J. 31-6					207	09/23/92	891000464B	
S. J. 31-6					210	09/23/92	891000464B	
S. J. 31-6					211	09/23/92	891000464B	
S. J. 31-6					212	11/05/92	891000464B	
S. J. 31-6					213	06/28/93	891000464B	
S. J. 31-6					214	09/23/92	891000464X	
S. J. 31-6					215	09/23/92	891000464X	
S. J. 31-6					216	09/23/92	NMSF078999	
S. J. 31-6					217	09/23/92	891000464B	
S. J. 31-6					218	09/23/92	891000464B	
S. J. 31-6					219	09/23/92	NMSF078999	
S. J. 31-6					220	11/06/92	NMSF078999	
S. J. 31-6					221	11/05/92	NMSF078999	
S. J. 31-6					222	11/23/92	891000464X	
S. J. 31-6					223	11/06/92	891000464B	
S. J. 31-6					224	11/05/92	NMSF078995	
S. J. 31-6					225R	10/05/92	NMSF078995	
S. J. 31-6					228	11/13/92	NMSF078995	
S. J. 31-6					229	11/11/92	NMSF078995	
S. J. 31-6					230	11/06/92	891000464B	
S. J. 31-6					231	11/17/92	NMSF078999	
S. J. 31-6					233	11/24/92	NMSF078995	
S. J. 31-6					234	11/13/92	NMSF078995	

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.

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 NUMBER	PROD SEP MFG	SIZE	DEHY MFG	SIZE	TANK #1 MFG	TANK #2 MFG	TANK #3 MFG	RENTAL COMP. HP
CPD # 1 31-6								
30-5 #202	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN		
30-5 #203	PESCO	2 MM	PESCO	2 MM	PERMIAN	PERMIAN		
30-5 #204	P & A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
30-5 #205	P & A	2 MM	P & A	2 MM	PESCO	PESCO	PESCO	
30-5 #215	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN	WESTERN	1(
31-6 #201	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN		
31-6 #202	ENERTEK	4 MM	ENERTEK	4 MM	WESTERN	WESTERN		
31-6 #203	PESCO	2 MM	P & A	2 MM	PERMIAN	PERMIAN	PERMIAN	
31-6 #204	ENERTEK	2 MM	PESCO	2 MM	PERMIAN	PERMIAN	PERMIAN	
31-6 #205	PESCO	2 MM	P & A	2 MM	PERMIAN	PERMIAN	PERMIAN	
31-6 #206	PESCO	2 MM	PESCO	2 MM	PERMIAN	PERMIAN	PERMIAN	
31-6 #207	PESCO	2 MM	PESCO	2 MM	PERMIAN	PERMIAN	PERMIAN	
31-6 #210	PESCO	2 MM	PESCO	2 MM	PERMIAN	PERMIAN		
31-6 #211	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN		
31-6 #212	PESCO	6 MM	PESCO	6 MM	PERMIAN	PERMIAN		
31-6 #213	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN		
31-6 #214	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN	WESTERN	
31-6 #215	PESCO	2 MM	PESCO	2 MM	PERMIAN	PERMIAN	PERMIAN	
31-6 #216	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN	WESTERN	
31-6 #217	P & A	2 MM	P & A	2 MM	PALMER	PALMER		
31-6 #218	P & A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
31-6 #219	PESCO	2 MM	PESCO	2 MM	PERMIAN	PERMIAN		
31-6 #220	P & A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
31-6 #221	PESCO	4 MM	PESCO	4 MM	PERMIAN	PERMIAN		
31-6 #222	P & A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
31-6 #223	PESCO	6 MM	PESCO	6 MM	PERMIAN	PERMIAN		
31-6 #224	P & A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
31-6 #225R	PESCO	6 MM	PESCO	6 MM	PALMER	PALMER	PALMER	
31-6 #228	PESCO	2 MM	PESCO	2 MM	PESCO	PESCO	PESCO	
31-6 #229	P & A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
31-6 #230	P & A	2 MM	P & A	2 MM	WESTERN	WESTERN	PERMIAN	
31-6 #231	P & A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	
31-6 #233	P & A	2 MM	P & A	2 MM	PALMER	PALMER	PALMER	1(
31-6 #234	PESCO	2 MM	PESCO	2 MM	PESCO	PESCO	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.

PHILLIPS PETROLEUM COMPANY
FARMINGTON NEW MEXICO 87401
5525 HWY 64 NBU 3004

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
Environmental/Regulatory Engineer

cc: J. W. Taylor
E. D. Pruden

lch\mms3160.gas

FUEL USE EQUIPMENT

(All factors at 15.025 Pressure Base)

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

COMPRESSORS	50 HP	-	8	mcf/producing day
	80 HP	-	13	mcf/producing day
	100 HP	-	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 31-6 #1 CPD, the sum of the allocate MMBTUs were 1.0% 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

cpd95pjt.wk3

CPD NUMBER	UNIT	WELL	YEARLY MMCF	CPD TOTAL
31-6 #1 CPD	S.J. 30-5	202	18	
	S.J. 30-5	203	228	
	S.J. 30-5	204	73	
	S.J. 30-5	205	292	
	S.J. 30-5	215	61	
	S.J. 31-6	201	161	
	S.J. 31-6	202	1,205	
	S.J. 31-6	203	310	
	S.J. 31-6	204	1,825	
	S.J. 31-6	205	219	
	S.J. 31-6	206	1,460	
	S.J. 31-6	207	803	
	S.J. 31-6	210	456	
	S.J. 31-6	211	913	
	S.J. 31-6	212	1,095	
	S.J. 31-6	213	365	
	S.J. 31-6	214	55	
	S.J. 31-6	215	237	
	S.J. 31-6	216	256	
	S.J. 31-6	217	365	
	S.J. 31-6	218	128	
	S.J. 31-6	219	511	
	S.J. 31-6	220	91	
	S.J. 31-6	221	456	
	S.J. 31-6	222	402	
	S.J. 31-6	223	1,059	
	S.J. 31-6	224	475	
	S.J. 31-6	225 R	1,387	
	S.J. 31-6	228	100	
	S.J. 31-6	229	9	
	S.J. 31-6	230	110	
	S.J. 31-6	231	9	
	S.J. 31-6	233	91	
	S.J. 31-6	234	9	
		TOTAL		15,234

ALLOCATION EXAMPLE

CDP1094.WK3

31-6 #1 CPD OCTOBER, 1994

07-Feb-95

UNIT	WELL #	METERED GAS VOLUME (mcf)	VOLUME RATIO	ALLOCATED GAS VOLUME (mcf)	MEASURED WELL BTU VALUE	METERED MMBTU's	MMBTU RATIO	ALLOCATED MMBTU	ALLOCATED WELL BTU VALUE		VOLUME DIFFERENCE (%)	MMBTU DIFFERENCE (%)	WELL BTU VALUE DIFFERENCE (%)
31-6 #1 CPD	CPD	1,236,007			0.918	1,134,654							
S. J. 30-5	202	1,143	0.0008811	1,089	0.929	1,062	0.000895	1,015	0.932		-4.72%	-4.40%	0.34%
S. J. 30-5	203	23,562	0.0181633	22,450	0.929	21,894	0.018447	20,931	0.932		-4.72%	-4.40%	0.34%
S. J. 30-5	204	5,056	0.0038975	4,817	0.943	4,765	0.004015	4,556	0.946		-4.72%	-4.40%	0.34%
S. J. 31-6	231	0	0	0	0.000	0	0	0					
S. J. 31-6	233	7,346	0.0056628	6,999	0.927	6,811	0.005739	6,511	0.930		-4.72%	-4.40%	0.34%
S. J. 31-6	234	0	0	0	0.000	0	0	0					
S. J. 30-5	215	6,230	0.0048025	5,936	0.944	5,878	0.004953	5,620	0.947		-4.72%	-4.40%	0.34%
S. J. 30-5	205	24,621	0.0189797	23,459	0.935	23,029	0.019404	22,017	0.939		-4.72%	-4.40%	0.34%
S. J. 31-6	201	17,753	0.0136853	16,915	0.924	16,405	0.013823	15,684	0.927		-4.72%	-4.40%	0.34%
S. J. 31-6	202	98,898	0.0762378	94,230	0.913	90,278	0.076066	86,308	0.916		-4.72%	-4.40%	0.34%
S. J. 31-6	203	36,163	0.0278771	34,456	0.925	33,455	0.028188	31,984	0.928		-4.72%	-4.40%	0.34%
S. J. 31-6	204	78,467	0.0604881	74,764	0.904	70,905	0.059743	67,787	0.907		-4.72%	-4.40%	0.34%
S. J. 31-6	205	26,649	0.020543	25,391	0.891	23,753	0.020014	22,709	0.894		-4.72%	-4.40%	0.34%
S. J. 31-6	206	119,588	0.0921872	113,944	0.890	106,472	0.089711	101,791	0.893		-4.72%	-4.40%	0.34%
S. J. 31-6	207	78,507	0.060519	74,802	0.906	71,102	0.059909	67,976	0.909		-4.72%	-4.40%	0.34%
S. J. 31-6	210	47,484	0.0366041	45,243	0.929	44,123	0.037177	42,183	0.932		-4.72%	-4.40%	0.34%
S. J. 31-6	211	69,546	0.0536112	66,264	0.914	63,555	0.05355	60,761	0.917		-4.72%	-4.40%	0.34%
S. J. 31-6	212	108,311	0.0834941	103,199	0.904	97,873	0.082465	93,569	0.907		-4.72%	-4.40%	0.34%
S. J. 31-6	213	4,234	0.0032639	4,034	0.894	3,787	0.003191	3,620	0.897		-4.72%	-4.40%	0.34%
S. J. 31-6	214	6,322	0.0048735	6,024	0.940	5,946	0.00501	5,684	0.944		-4.72%	-4.40%	0.34%
S. J. 31-6	215	27,432	0.0211466	26,137	0.923	25,322	0.021335	24,208	0.926		-4.72%	-4.40%	0.34%
S. J. 31-6	216	25,804	0.0198916	24,586	0.928	23,951	0.02018	22,898	0.931		-4.72%	-4.40%	0.34%
S. J. 31-6	217	37,019	0.028537	35,272	0.962	35,611	0.030005	34,045	0.965		-4.72%	-4.40%	0.34%
S. J. 31-6	218	11,955	0.0092158	11,391	0.933	11,158	0.009401	10,667	0.936		-4.72%	-4.40%	0.34%
S. J. 31-6	219	55,801	0.0430155	53,167	0.916	51,109	0.043063	48,861	0.919		-4.72%	-4.40%	0.34%

** All volumes and BTU values assume a 14.73 Pressure Base.

ALLOCATION EXAMPLE

31-6 #1 CPD OCTOBER, 1994

CDP1094.WK3

07-Feb-95

UNIT	WELL #	METERED GAS VOLUME (mcf)	VOLUME RATIO	ALLOCATED GAS VOLUME (mcf)	MEASURED WELL BTU VALUE	METERED MMBTU's	MMBTU RATIO	ALLOCATED MMBTU	ALLOCATED WELL BTU VALUE		VOLUME DIFFERENCE (%)	MMBTU DIFFERENCE (%)	WELL BTU VALUE DIFFERENCE (%)
S. J. 31-6	220	0	0	0	0.933	0	0	0					
S. J. 31-6	221	48,812	0.0376279	46,508	0.905	44,158	0.037206	42,216	0.908		-4.72%	-4.40%	0.34%
S. J. 31-6	222	40,893	0.0315233	38,963	0.936	38,291	0.032263	36,608	0.940		-4.72%	-4.40%	0.34%
S. J. 31-6	223	103,920	0.0801092	99,015	0.917	95,287	0.080287	91,098	0.920		-4.72%	-4.40%	0.34%
S. J. 31-6	224	36,463	0.0281084	34,742	0.936	34,143	0.028768	32,642	0.940		-4.72%	-4.40%	0.34%
S. J. 31-6	225R	132,363	0.1020351	126,116	0.914	120,961	0.101919	115,643	0.917		-4.72%	-4.40%	0.34%
S. J. 31-6	228	9,363	0.0072177	8,921	0.941	8,815	0.007427	8,428	0.945		-4.72%	-4.40%	0.34%
S. J. 31-6	229	0	0	0	0.000	0	0	0					
S. J. 31-6	230	7,525	0.0058008	7,170	0.922	6,938	0.005846	6,633	0.925		-4.72%	-4.40%	0.34%
TOTAL		1,297,230	1	1,236,007		1,186,837	1	1,134,654			-4.72%	-4.40%	

** All volumes and BTU values assume a 14.73 Pressure Base.

ALLOCATION EXAMPLE

CDP1094.WK3

31-6 #1 CPD NOVEMBER, 1994

07-Feb-95

UNIT	WELL #	METERED GAS VOLUME (mcf)	VOLUME RATIO	ALLOCATED GAS VOLUME (mcf)	MEASURED WELL BTU VALUE	METERED MMBTU's	MMBTU RATIO	ALLOCATED MMBTU	ALLOCATED WELL BTU VALUE		VOLUME DIFFERENCE (%)	MMBTU DIFFERENCE (%)	WELL BTU VALUE DIFFERENCE (%)
31-6 #1 CPD	CPD	1,308,433			0.917	1,199,833							
S. J. 30-5	202	1,279	0.0010474	1,370	0.929	1,188	0.001064	1,276	0.931		7.15%	7.38%	0.21%
S. J. 30-5	203	21,698	0.0177695	23,250	0.929	20,162	0.018044	21,650	0.931		7.15%	7.38%	0.21%
S. J. 30-5	204	4,640	0.0037999	4,972	0.943	4,373	0.003914	4,696	0.944		7.15%	7.38%	0.21%
S. J. 31-6	231	0	0	0	0.000	0	0	0					
S. J. 31-6	233	7,140	0.0058473	7,651	0.927	6,620	0.005924	7,108	0.929		7.15%	7.38%	0.21%
S. J. 31-6	234	0	0	0	0.000	0	0	0					
S. J. 30-5	215	6,557	0.0053698	7,026	0.944	6,187	0.005537	6,643	0.946		7.15%	7.38%	0.21%
S. J. 30-5	205	23,353	0.0191248	25,024	0.935	21,843	0.019549	23,455	0.937		7.15%	7.38%	0.21%
S. J. 31-6	201	16,207	0.0132726	17,366	0.924	14,977	0.013403	16,082	0.926		7.15%	7.38%	0.21%
S. J. 31-6	202	90,539	0.0741464	97,016	0.913	82,647	0.073965	88,746	0.915		7.15%	7.38%	0.21%
S. J. 31-6	203	34,253	0.0280513	36,703	0.925	31,688	0.028359	34,026	0.927		7.15%	7.38%	0.21%
S. J. 31-6	204	68,931	0.0564507	73,862	0.904	62,288	0.055744	66,884	0.906		7.15%	7.38%	0.21%
S. J. 31-6	205	12,603	0.0103212	13,505	0.891	11,234	0.010054	12,063	0.893		7.15%	7.38%	0.21%
S. J. 31-6	206	113,254	0.0927487	121,356	0.890	100,833	0.09024	108,273	0.892		7.15%	7.38%	0.21%
S. J. 31-6	207	72,365	0.0592629	77,542	0.906	65,539	0.058654	70,375	0.908		7.15%	7.38%	0.21%
S. J. 31-6	210	45,447	0.0372186	48,698	0.929	42,230	0.037793	45,346	0.931		7.15%	7.38%	0.21%
S. J. 31-6	211	63,728	0.0521897	68,287	0.914	58,239	0.05212	62,536	0.916		7.15%	7.38%	0.21%
S. J. 31-6	212	114,769	0.0939894	122,979	0.904	103,708	0.092813	111,361	0.906		7.15%	7.38%	0.21%
S. J. 31-6	213	12,703	0.0104031	13,612	0.894	11,362	0.010168	12,200	0.896		7.15%	7.38%	0.21%
S. J. 31-6	214	6,825	0.0055893	7,313	0.940	6,419	0.005744	6,892	0.942		7.15%	7.38%	0.21%
S. J. 31-6	215	24,522	0.0200822	26,276	0.923	22,636	0.020258	24,306	0.925		7.15%	7.38%	0.21%
S. J. 31-6	216	26,503	0.0217045	28,399	0.928	24,600	0.022015	26,415	0.930		7.15%	7.38%	0.21%
S. J. 31-6	217	35,378	0.0289726	37,909	0.962	34,032	0.030457	36,543	0.964		7.15%	7.38%	0.21%
S. J. 31-6	218	10,599	0.00868	11,357	0.933	9,892	0.008853	10,622	0.935		7.15%	7.38%	0.21%
S. J. 31-6	219	50,180	0.0410946	53,770	0.916	45,960	0.041132	49,351	0.918		7.15%	7.38%	0.21%

** All volumes and BTU values assume a 14.73 Pressure Base.

ALLOCATION EXAMPLE

31-6 #1 CPD NOVEMBER, 1994

CDP1094.WK3

07-Feb-95

UNIT	WELL #	METERED GAS VOLUME (mcf)	VOLUME RATIO	ALLOCATED GAS VOLUME (mcf)	MEASURED WELL BTU VALUE	METERED MMBTU's	MMBTU RATIO	ALLOCATED MMBTU	ALLOCATED WELL BTU VALUE		VOLUME DIFFERENCE (%)	MMBTU DIFFERENCE (%)	WELL BTU VALUE DIFFERENCE (%)
S. J. 31-6	220	0	0	0	0.933	0	0	0					
S. J. 31-6	221	44,898	0.036769	48,110	0.905	40,617	0.03635	43,614	0.907		7.15%	7.38%	0.21%
S. J. 31-6	222	32,906	0.0269482	35,260	0.936	30,812	0.027575	33,086	0.938		7.15%	7.38%	0.21%
S. J. 31-6	223	93,278	0.0763895	99,951	0.917	85,529	0.076544	91,840	0.919		7.15%	7.38%	0.21%
S. J. 31-6	224	43,075	0.035276	46,156	0.936	40,334	0.036097	43,310	0.938		7.15%	7.38%	0.21%
S. J. 31-6	225R	123,967	0.1015221	132,835	0.914	113,289	0.101387	121,648	0.916		7.15%	7.38%	0.21%
S. J. 31-6	228	9,269	0.0075908	9,932	0.941	8,727	0.00781	9,371	0.943		7.15%	7.38%	0.21%
S. J. 31-6	229	0	0	0	0.000	0	0	0					
S. J. 31-6	230	10,218	0.008368	10,949	0.922	9,421	0.008432	10,117	0.924		7.15%	7.38%	0.21%
TOTAL		1,221,084	1	1,308,433		1,117,386	1	1,199,833			7.15%	7.38%	

** All volumes and BTU values assume a 14.73 Pressure Base.

ALLOCATION EXAMPLE

CDP1094.WK3

31-6 #1 CPD DECEMBER, 1994

08-Feb-95

UNIT	WELL #	METERED GAS VOLUME (mcf)	VOLUME RATIO	ALLOCATED GAS VOLUME (mcf)	MEASURED WELL BTU VALUE	METERED MMBTU's	MMBTU RATIO	ALLOCATED MMBTU	ALLOCATED WELL BTU VALUE		VOLUME DIFFERENCE (%)	MMBTU DIFFERENCE (%)	WELL BTU VALUE DIFFERENCE (%)
31-6 #1 CPD	CPD	1,400,238			0.916	1,282,618							
S. J. 30-5	202	1,432	0.0010252	1,436	0.929	1,331	0.001042	1,336	0.931		0.25%	0.41%	0.16%
S. J. 30-5	203	22,941	0.0164245	22,998	0.929	21,317	0.016688	21,405	0.931		0.25%	0.41%	0.16%
S. J. 30-5	204	4,714	0.003375	4,726	0.943	4,443	0.003478	4,461	0.944		0.25%	0.41%	0.16%
S. J. 31-6	231	0	0	0	0.000	0	0	0					
S. J. 31-6	233	6,134	0.0043916	6,149	0.927	5,687	0.004452	5,711	0.929		0.25%	0.41%	0.16%
S. J. 31-6	234	0	0	0	0.000	0	0	0					
S. J. 30-5	215	7,675	0.0054949	7,694	0.944	7,242	0.005669	7,272	0.945		0.25%	0.41%	0.16%
S. J. 30-5	205	23,561	0.0168684	23,620	0.935	22,038	0.017253	22,129	0.937		0.25%	0.41%	0.16%
S. J. 31-6	201	16,559	0.0118553	16,600	0.924	15,302	0.01198	15,365	0.926		0.25%	0.41%	0.16%
S. J. 31-6	202	96,286	0.0689354	96,526	0.913	87,893	0.068809	88,256	0.914		0.25%	0.41%	0.16%
S. J. 31-6	203	34,934	0.0250108	35,021	0.925	32,318	0.025301	32,451	0.927		0.25%	0.41%	0.16%
S. J. 31-6	204	164,357	0.1176705	164,767	0.904	148,517	0.11627	149,130	0.905		0.25%	0.41%	0.16%
S. J. 31-6	205	8,555	0.0061249	8,576	0.891	7,625	0.00597	7,657	0.893		0.25%	0.41%	0.16%
S. J. 31-6	206	117,311	0.0839882	117,603	0.890	104,445	0.081767	104,875	0.892		0.25%	0.41%	0.16%
S. J. 31-6	207	75,116	0.0537789	75,303	0.906	68,031	0.053259	68,311	0.907		0.25%	0.41%	0.16%
S. J. 31-6	210	47,029	0.0336702	47,146	0.929	43,700	0.034211	43,880	0.931		0.25%	0.41%	0.16%
S. J. 31-6	211	70,852	0.0507261	71,029	0.914	64,749	0.05069	65,016	0.915		0.25%	0.41%	0.16%
S. J. 31-6	212	125,037	0.0895196	125,349	0.904	112,987	0.088454	113,453	0.905		0.25%	0.41%	0.16%
S. J. 31-6	213	36,280	0.0259745	36,370	0.894	32,449	0.025404	32,583	0.896		0.25%	0.41%	0.16%
S. J. 31-6	214	6,332	0.0045334	6,348	0.946	5,987	0.004687	6,012	0.947		0.25%	0.41%	0.16%
S. J. 31-6	215	24,853	0.0177934	24,915	0.936	23,272	0.018219	23,368	0.938		0.25%	0.41%	0.16%
S. J. 31-6	216	27,316	0.0195567	27,384	0.932	25,466	0.019937	25,571	0.934		0.25%	0.41%	0.16%
S. J. 31-6	217	36,840	0.0263754	36,932	0.962	35,439	0.027744	35,585	0.964		0.25%	0.41%	0.16%
S. J. 31-6	218	11,225	0.0080365	11,253	0.933	10,476	0.008202	10,520	0.935		0.25%	0.41%	0.16%
S. J. 31-6	219	51,720	0.0370287	51,849	0.916	47,371	0.037085	47,566	0.917		0.25%	0.41%	0.16%

** All volumes and BTU values assume a 14.73 Pressure Base.

ALLOCATION EXAMPLE

CDP1094.WK3

31-6 #1 CPD DECEMBER, 1994

08-Feb-95

UNIT	WELL #	METERED GAS VOLUME (mcf)	VOLUME RATIO	ALLOCATED GAS VOLUME (mcf)	MEASURED WELL BTU VALUE	METERED MMBTU's	MMBTU RATIO	ALLOCATED MMBTU	ALLOCATED WELL BTU VALUE		VOLUME DIFFERENCE (%)	MMBTU DIFFERENCE (%)	WELL BTU VALUE DIFFERENCE (%)
S. J. 31-6	220	2,524	0.001807	2,530	0.933	2,356	0.001844	2,365					
S. J. 31-6	221	46,421	0.0332349	46,537	0.905	41,995	0.032876	42,168	0.906		0.25%	0.41%	0.16%
S. J. 31-6	222	36,867	0.0263947	36,959	0.936	34,521	0.027026	34,664	0.938		0.25%	0.41%	0.16%
S. J. 31-6	223	98,912	0.0708155	99,159	0.917	90,695	0.071003	91,069	0.918		0.25%	0.41%	0.16%
S. J. 31-6	224	44,647	0.0319648	44,758	0.936	41,806	0.032729	41,979	0.938		0.25%	0.41%	0.16%
S. J. 31-6	225R	129,305	0.0925752	129,627	0.914	118,167	0.092509	118,654	0.915		0.25%	0.41%	0.16%
S. J. 31-6	228	9,323	0.0066748	9,346	0.949	8,844	0.006924	8,881	0.950		0.25%	0.41%	0.16%
S. J. 31-6	229	0	0	0	0.000	0	0	0					
S. J. 31-6	230	11,698	0.0083751	11,727	0.930	10,882	0.008519	10,927	0.932		0.25%	0.41%	0.16%
TOTAL		1,396,756	1	1,400,238		1,277,351	1	1,282,618			0.25%	0.41%	

** All volumes and BTU values assume a 14.73 Pressure Base.

PHILLIPS PETROLEUM COMPANY
FARMINGTON AREA

UNIT	WELL #	PIPELINE WATER	TRUCKED WATER	SWD LOCATION
CPD #1 31-6				
S. J. 30-5	202	X		29-6 SWD
S. J. 30-5	203	X		29-6 SWD
S. J. 30-5	204	X		29-6 SWD
S. J. 31-6	231	X		31-6 SWD
S. J. 31-6	233	X		31-6 SWD
S. J. 31-6	234	X		31-6 SWD
S. J. 30-5	215	X		29-6 SWD
S. J. 30-5	205	X		29-6 SWD
S. J. 31-6	201	X		31-6 SWD
S. J. 31-6	202	X		31-6 SWD
S. J. 31-6	203	X		31-6 SWD
S. J. 31-6	204	X		31-6 SWD
S. J. 31-6	205	X		31-6 SWD
S. J. 31-6	206	X		31-6 SWD
S. J. 31-6	207	X		31-6 SWD
S. J. 31-6	210	X		31-6 SWD
S. J. 31-6	211	X		31-6 SWD
S. J. 31-6	212	X		31-6 SWD
S. J. 31-6	213	X		31-6 SWD
S. J. 31-6	214	X		31-6 SWD
S. J. 31-6	215	X		31-6 SWD
S. J. 31-6	216	X		31-6 SWD
S. J. 31-6	217	X		31-6 SWD
S. J. 31-6	218	X		31-6 SWD
S. J. 31-6	219	X		31-6 SWD
S. J. 31-6	220	X		31-6 SWD
S. J. 31-6	221	X		31-6 SWD
S. J. 31-6	222	X		31-6 SWD
S. J. 31-6	223	X		31-6 SWD
S. J. 31-6	224	X		31-6 SWD

PHILLIPS PETROLEUM COMPANY
FARMINGTON AREA

UNIT	WELL #	PIPELINE WATER	TRUCKED WATER	SWD LOCATION
S. J. 31-6	225R	X		31-6 SWD
S. J. 31-6	228	X		31-6 SWD
S. J. 31-6	229	X		31-6 SWD
S. J. 31-6	230	X		31-6 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.