STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

January 27, 1993

Phillips Petroleum Company
5525 Highway 64
NBU 3004
Farmington, New Mexico 87401

Attention: Mr. Ed Hasely

Re: Amendment of Division Order No. SWD-374

Dear Mr. Hasely:

Reference is made to your request dated January 22, 1993, for authorization to accept third party produced water for disposal into the San Juan 31-6 Unit Well No. 301. It is our understanding that the subject well was permitted for disposal by Order No. SWD-374, dated September 7, 1989. It is further our understanding that the additional water accepted will be produced from the Basin-Fruitland Coal Gas Pool.

You are hereby authorized to accept and dispose of such additional produced water into the San Juan 31-6 Unit Well No. 301.

Please note that while the Division does not currently classify disposal wells as commercial/non-commercial, such classification may be forthcoming in the near future, and as such, the San Juan 31-6 Unit Well No. 1 may fall into the commercial classification at that time. If classified as commercial, the subject well will be subject to additional requirements as may be promulgated at a later time by the Environmental Protection Agency.

Sincerely,

William J. LeMay
Director

xc: OCD-Aztec
File-SWD-374

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

January 22, 1993

Mr. David Catanach
Oil Conservation Division
State Land Office Bldg.
P.O. Box 2088
Santa Fe, New Mexico 87504

RE: San Juan 31-6 #301 SWD
Third Party Water Disposal

Dear Mr. Catanach:

Per our discussion on January 21, 1993, Phillips Petroleum Company, as operator of the San Juan 31-6 Unit (31-6), plans to dispose of third party produced water at the San Juan 31-6 #301 SWD facility. The San Juan 31-6 #301 SWD facility is located in the NE Section 6-T30N-R6W, Rio Arriba County, New Mexico.

The third party water will come from 5 wells in the Northeast Blanco Unit (NEBU). Although ownership in the NEBU wells and the San Juan 31-6 Unit are not identical, there are many common owners. This arrangement is predicated by the fact that there are different operators of these respective units. The specific well names and locations are attached along with water analyses for each well. Phillips understands this is a common practice entertained by area operators.

The owners of the San Juan 31-6 Unit Facility will receive payment for the disposal of the NEBU water. The payment will consist of NEBU's share of the operating cost, plus a fee to recoup NEBU's share of the original capital investment of the SWD facility. The payment is not intended to reap a profit.

The San Juan 31-6 #301 SWD facility currently disposes of approximately 1500 BPD of produced water from the 31-6. All the water is from the Fruitland Coal member of the Fruitland Formation, which is the same formation as the NEBU water. There will be no compatibility problems associated with the mixing of the 31-6 water with NEBU water.

Phillips Petroleum Company will appreciate your timely approval of the subject proposal. If you have any questions or need further information, please call me at (505) 599-3460.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Ed Hasely

Ed Hasely
Environmental Engineer

Attachments

cc: Frank Chavez-OCD
R.G. Flesher r)file
Bill Penhall, Devon Energy
A.J. Kieke

Wells/Water Source Points

Well Name	Formation	Location (Rio Arriba County, New Mexico
1. NEBU 491	*	1756' FSL & 1442' FEL Sec. 25-31N-7W
2. NEBU 493	*	1477' FNL & 793' FEL Sec. 25-31N-7W
3. NEBU 495	*	1658' FSL & 957' FWL Sec. 30-31N-6W
4. NEBU 497	*	2335' FNL & 1143' FEL Sec. 30-31N-6W
5. NEBU 499	*	925' FSL & 910' FEL Sec. 20-31N-6W

* Fruitland Coal member of the Fruitland Formation

CDS LABORATORIES
SUTTLE STREET
P.O. BOX 2645
DURANGO CO 81302
(303) 247-4220

CLIENT: BLACKWOOD & NICHOLS
P O BOX 1237
DURANGO, CO 81302

ATTN:

CDS ID# 3565
SAMPLE DESCRIPTION:
NEBU 491 FRUITLAND

SAMPLER:
DATE TAKEN: 04/30/90 TIME: 1445
DATE RECEIVED: 05/03/90 COC:

TRACE METALS TOTAL DISSOLVED	mg/L	CHEMICAL PARAMETERS	mg/L	PHYSICAL PARAMETERS		
ALUMINUM	< 1	BICARBONATE as CaCO3	8410	ACIDITY as CaCO3		mg/L
ANTIMONY		HYDROXIDE as CaCO3	0	ALKALINITY as CaCO3	9070	mg/L
ARSENIC	< .001	CARBONATE as CaCO3	660	COLOR		
BARIUM	22.4	BOD		CONDUCTIVITY at 25	12000	umho/cm
BERYLLIUM		BORON	1.80	DISSOLVED OXYGEN		mg/L
BISMUTH		COD		HARDNESS as CaCO3		mg/L
CADMIUM	< .005	CHLORIDE	517	pH	7.93	UNITS
CALCIUM	7.6	CHLORINE		SPECIFIC GRAVITY		
CHROMIUM	< .01	CHLORINE DEMAND		TEMPERATURE		DEGREES C.
+3 FORM		COLIFORM-TOTAL/100ml		TOTAL COMBUSTIBLE		mg/L
+6 FORM		COLIFORM-FECAL/100ml		TOTAL DISSOLVED SOLIDS	9520	mg/L
COBALT	< .02	CYANIDE		TOTAL FILTERABLE SOLIDS		mg/L
COPPER	< .25	FLUORIDE	.88	TOTAL SOLIDS		mg/L
IRON	1.6	MBAS		TOTAL SUSPENDED SOLIDS		mg/L
LEAD	< .02	AMMONIA-N		TOTAL SETTLEABLE SOLIDS		ml/L
MAGNESIUM	27.3	NITRATE/NITRITE-N	.04	TURBIDITY		NTU
MANGANESE		NITRATE-N				
MERCURY	< .001	NITRITE-N				
MOLYBDENUM		TOTAL KJELDAHL (TKN)-N		GROSS ALPHA		pCi/L
NICKEL	< .5	OIL AND GREASE	23	GROSS BETA		pCi/L
POTASSIUM	21.5	PHENOLS	.014	RADIUM 226	2.5 +/- 1.5	pCi/L
SELENIUM	< .001	PHOSPHATE-P		RADIUM 228	1.2 +/- 2.3	pCi/L
SILVER		TOTAL PHOSPHORUS-P		STRONTIUM 90	9.1 +/- 1.3	pCi/L
SODIUM	4170	SILICA				
THALLIUM		SULFATE	< 20	ENDRIN		ug/L
TIN		SULFIDE		LINDANE		mg/L
VANADIUM	< .05	SULFITE		METHOXYCHLOR		mg/L
ZINC	< .1	H2S as S		TOXAPHENE		mg/L
		SAR		2, 4, -D		mg/L
		TOC		2, 4, 5 -TP (silvex)		mg/L
		+/- BALANCE		TOTAL TRIHALOMETHANES		ug/L

COMMENTS:

APPROVED BY: Susan Kay Beckmann for
DR. JOE BORDEN, DIRECTOR

CHECKED BY:

...ATORIES
...E STREET
...OX 2605
...GO CO 81302
...03) 247-4220

BLACKWOOD & NICHOLS
P O BOX 1237
DURANGO, CO 81302

DATE 05/11/90
CDS ID# 3885
WELL: NEBU 493 BLOOIE LINE-AFTER FLOW TEST #1
DATE TAKEN: 05/16/90
DATE REC'D: 05/21/90

CONSTITUENT		mg/L	meq/L
SODIUM	Na+ **	4320	187.909
POTASSIUM	K+	NA	0.000
CALCIUM	Ca++ *	93	4.641
MAGNESIUM	Mg++	NA	0.000
IRON TOTAL	Fe++ & Fe+++	47.8	2.567
POSITIVE SUB-TOTAL		4460.800	195.117
CHLORIDE	CL-	730	20.591
CARBONATE	CO3=	480	16.000
BICARBONATE	HCO3-	9520	156.022
HYDROXIDE	OH-	0	0.000
SULFATE	SO4=	< 10	0.000
NEGATIVE SUB-TOTAL		10730.00	192.612

TOTAL DISSOLVED SOLIDS **	15200	mg/L
	8.10	units
SPECIFIC GRAVITY	1.000	@ 73 Deg. F
CONDUCTIVITY		umho/cm
RESISTIVITY	82	ohm-cm
HARDNESS as CaCO3	233	mg/L
TOTAL ALKALINITY AS CaCO3	8600	mg/L
SAR		
LANGLIER		

+ Mg Calculated as Ca
ılculated
- Not Analyzed

APPROVED BY: Susan Kay Dickinson for
DR. JOE BOWDEN, DIRECTOR

CHECKED BY: SKD

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To	From
Ed Hasley	Mark Manson
Co.	Co. Blackwood & Nichols
Dept.	Phone #
Fax #	Fax #

CDS LABORATORIES
75 SUTTLE STREET
P.O. BOX 2605
DURANGO CO 81302

(303) 247-4220

BLACKWOOD & NICHOLS
P O BOX 1237
DURANGO, CO 81302

DATE 06/12/90
CDS ID# 3887
WELL: NEBU 495
MANIFOLD, FINAL
FLOW TEST
DATE TAKEN: 05/11/90
DATE REC'D: 05/21/90

CONSTITUENT		mg/L	meq/L
SODIUM	Na+ **	4290	186.604
POTASSIUM	K+	NA	0.000
CALCIUM	Ca++ *	75	3.743
MAGNESIUM	Mg++	NA	0.000
IRON TOTAL	Fe++ & Fe+++	42	2.256
POSITIVE SUB-TOTAL		4407.000	192.603
CHLORIDE	CL-	650	18.334
CARBONATE	CO3=	1680	56.000
BICARBONATE	HCO3-	7080	116.033
HYDROXIDE	OH-	0	0.000
SULFATE	SO4=	< 10	0.000
NEGATIVE SUB-TOTAL		9410.000	190.367

TOTAL DISSOLVED SOLIDS **	13800	mg/L
pH	8.25	units
SPECIFIC GRAVITY	1.006	@ 73 Deg. F
CONDUCTIVITY		umho/cm
RESISTIVITY	82	ohm-cm
HARDNESS as CaCO3	186	mg/L
TOTAL ALKALINITY AS CaCO3	8600	mg/L
SAR		
LANGLIER		

*Ca + Mg Calculated as Ca
**Calculated
NA - Not Analyzed

APPROVED BY: Susan Kay Dickerson for DR. JOE BOWDEN, DIRECTOR CHECKED BY: SKD

CDS LABORATORIES
75 SUTTLE STREET
P.O. BOX 2609
DURANGO CO 81302

(303) 247-4220

BLACKWOOD & NICHOLS
P O BOX 1237
DURANGO, CO 81302

DATE 06/11/90
CDS ID# 4206
WELL: NEBU 497
BLOOIE LINE

DATE TAKEN: 05/24/90
DATE REC'D: 05/29/90

CONSTITUENT		mg/L	meq/L
SODIUM	Na+ **	4380	190.519
POTASSIUM	K+	NA	0.000
CALCIUM	Ca++ *	75	3.743
MAGNESIUM	Mg++	NA	0.000
IRON TOTAL	Fe++ & Fe+++	0.2	0.011
POSITIVE SUB-TOTAL		4455.200	194.273
CHLORIDE	Cl-	1620	45.694
CARBONATE	CO3=	720	24.000
BICARBONATE	HCO3-	7560	123.900
HYDROXIDE	OH-	0	0.000
SULFATE	SO4=	28	0.583
NEGATIVE SUB-TOTAL		9928.000	194.177

TOTAL DISSOLVED SOLIDS **	14400	mg/L
pH	8.27	units
SPECIFIC GRAVITY	1.012	@ 73 Deg. F
CONDUCTIVITY		umho/cm
RESISTIVITY	75	ohm-cm
HARDNESS as CaCO3	198	mg/L
TOTAL ALKALINITY AS CaCO3	7400	mg/L
SAR		
LANGLIER		

*Ca + Mg Calculated as Ca
**Calculated
NA - Not Analyzed

APPROVED BY: Susan Kay Dickinson for DR. JOE BOWDEN / DIRECTOR

CHECKED BY: SKS

CDS LABORATORIES
75 SUTTLE STREET
P.O. BOX 2605
DURANGO CO 81302

(303) 247-4220

BLACKWOOD & NICHOLS
P O BOX 1237
DURANGO, CO 81302

DATE 06/12/90
CDS ID# 4424
WELL: NEBU 499

DATE TAKEN: 06/03/90
DATE REC'D: 06/04/90

CONSTITUENT		mg/L	meq/L
SODIUM	Na+ **	4360	189.649
POTASSIUM	K+	NA	0.000
CALCIUM	Ca++ *	317	15.818
MAGNESIUM	Mg++	NA	0.000
IRON TOTAL	Fe++ & Fe+++	12.6	0.677
POSITIVE SUB-TOTAL		4689.600	206.144
CHLORIDE	CL-	5020	141.596
CARBONATE	CO3=	0	0.000
BICARBONATE	HCO3-	3890	63.753
HYDROXIDE	OH-	0	0.000
SULFATE	SO4=	< 20	0.000
NEGATIVE SUB-TOTAL		8910.000	205.349

TOTAL DISSOLVED SOLIDS **	13600	mg/L
pH	7.50	units
SPECIFIC GRAVITY	1.012	@ 73 Deg. F
CONDUCTIVITY		umho/cm
RESISTIVITY	64	ohm-cm
HARDNESS as CaCO3	793	mg/L
TOTAL ALKALINITY AS CaCO3	3200	mg/L
SAR		
LANGLIER		

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To	From
Ed Hasley	Mark Manson
Co.	Co. Blackwood & Nichols
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Ca + Mg Calculated as Ca
*Calculated
A - Not Analyzed

APPROVED BY: Susan Kay Jackson for CHECKED BY: SKJ
DR. JOE BOWDEN, DIRECTOR