

EXHIBIT "B"
RINCON UNIT
RIO ARriba COUNTY, NEW MEXICO
GEOLOGIC REPORT
DAKOTA PRODUCING INTERVAL
PROPOSED FIFTEENTH EXPANSION
OF THE DAKOTA PARTICIPATING AREA

EL PASO NATURAL GAS COMPANY

By: R. F. Lemon
R. F. Lemon, Director
Reservoir Engineering Dept.

EXHIBIT "B"

RINCON UNIT
RIO ARRIBA COUNTY, NEW MEXICO

GEOLOGIC REPORT
DAKOTA PRODUCING INTERVAL

PROPOSED FIFTEENTH EXPANSION
OF THE DAKOTA PARTICIPATING AREA

INTRODUCTION

The Rincon Unit, located in the east-central portion of the San Juan Basin, is comprised of 20,471.87 acres in Townships 26 and 27 North, Ranges 6 and 7 West, Rio Arriba County, New Mexico.

Hydrocarbons are produced in this unit from three horizons of upper Cretaceous age. In descending order these are: (1) Pictured Cliffs sandstone, (2) Mesaverde group and (3) Dakota Producing Interval. The "Dakota Producing Interval", as defined by the New Mexico Commission in Rule 25, Order No. R-1670-C, is "...from the base of the Greenhorn limestone to a point 400 feet below the base of the said formation and consisting of the Graneros formation, the Dakota formation, and the productive upper portion of the Morrison formation.

Within the Rincon Unit, 61 wells have been drilled to test the Dakota interval. Of these, 57 wells are commercial producers, one is non-commercial, two are plugged and abandoned and one is non-committed.

Included as part of this report are two maps entitled Exhibit "C". Exhibit "C", Figure No. 1 shows the subsurface structure of the Dakota Producing Interval" as reflected by using the top of the Graneros formation as the mapping horizon and mean sea level as the datum plane. The overall picture presented by this map is primarily that of gentle, regional north-east dip. Exhibit "C", Figure No. 2 is an isopachous map showing the number of feet of net reservoir sandstone which is interpreted to be present within the "Dakota Producing Interval". Detailed discussions of the stratigraphy and lithology of the "Dakota Producing Interval" in the general area of the Rincon Unit may be found in geologic reports which have been previously submitted.

Also included with this report as Exhibit "D", Table No. 1 is a tabulation of the Rincon Unit Dakota gas production. This tabulation shows by well the absolute open flow potential, date of first delivery into the gathering system, cumulative gas production to January 1, 1977, production by months for 1977 from January through October, 1977 annual production

and cumulative production to November 1, 1977. Wells within the Dakota Participating Area have produced a cumulative total of 74,722,771 Mcf as of November 1, 1977.

PROPOSED FIFTEENTH EXPANSION
OF THE DAKOTA PARTICIPATING AREA

Effective Date: November 1, 1977

The proposed Fifteenth Expansion of the Dakota Participating Area is based upon the completion of the Rincon Unit Well No. 227 by El Paso Natural Gas Company, the Unit operator. This well is located 1850 feet from the south line, 2080 feet from the east line, Section 28, T-27-N, R-7-W, Rio Arriba County, New Mexico. On November 21, 1977, the Rincon Unit No. 227 well, on after frac gauge for sizing equipment only, flowed at the rate of 217 Mcf/D. Shut-in pressures were 2555 psia casing and 1193 psia tubing.

Proposed Expanded Acreage

Township 27 North, Range 7 West

Section 28: South half

The subject well produces from the sand zone within the Graneros shale and from the Dakota "A" and "B" zones which are the upper and middle sandstone members of the Dakota formation. These producing horizons are correlative with other wells in the unit. The proposed acreage is inferred to be capable of producing unitized substances in commercial quantities from the Dakota "A" and "B" zones and the Graneros sandstone. Exhibit "C", Figure No. 2 illustrates the net reservoir sand which is interpreted to be present under the acreage proposed for admission to the Dakota Participating Area by the Fifteenth Expansion.

PYMONT, NY
 TOWN OF
 BINGEN
 RTO ADIRONDACK COUNTY, NEW YORK

VOLUMES IN MCF AT 15.0% DSIA AND 60 DEGREES F.

WELL NAME AND NO.	DATE OF FIRST DELIVERY	NO. OF MCF/D	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	12-1-77 CUM PROD
BINGEN UNIT #227***														
BINGEN UNIT #1	53/12/17	217	7945	5551	7189	7614	7220	6148	5522	7384	6310	7910	6939	246262
BINGEN UNIT #57	57/12/14	306	4840	6104	5710	3944	4034	5671	4226	6503	5922	5197	4946	129130
BINGEN UNIT #108	59/02/16	5600	124053	2099	3923	4235	1905	6209	5792	4014	5292	5093	5093	129130
BINGEN UNIT #149	60/02/09	184804	6785	4455	6609	6609	5426	7070	5922	6814	7154	6430	6309	1923407
BINGEN UNIT #195	60/00/17	1671	1830387	7928	4745	7218	7520	5062	5062	7184	7154	6430	6309	1894564
BINGEN UNIT #126	60/00/23	4016	1821491	7115	5150	6434	4999	5543	5543	7387	7501	7501	6595	1867642
BINGEN UNIT #150	60/00/28	3920	1245379	4756	4627	4501	3592	4168	3928	4247	4147	4133	4133	1248449
BINGEN UNIT #130	60/05/04	13075	9348404	29147	3560	21789	19979	21222	208	4049	4049	4049	4049	183601
BINGEN UNIT #137	60/05/04	9245	1492895	7495	3924	4096	6457	5866	6993	4911	4314	4784	4784	552405
BINGEN UNIT #136	60/05/16	4603	1423227	7731	7789	9371	8794	9560	9627	7740	9150	7475	7475	48310
BINGEN UNIT #129	60/06/24	4471	2463801	9948	7050	9389	10157	9362	9518	12272	11540	10617	10617	1509144
BINGEN UNIT #127	60/06/02	5373	1619523	5691	7541	5908	7720	6225	6437	7142	6715	5614	5614	48474
BINGEN UNIT #128	60/07/06	2641	2030270	8176	5884	7944	7579	6991	5743	7405	7577	7051	7051	1686071
BINGEN UNIT #135	60/07/19	7120	2147910	4654	8124	8124	8090	6348	5743	7405	7577	7051	7051	2100743
BINGEN UNIT #151	60/11/23	5983	1391799	2462	2840	3429	3335	1199	8744	6450	6450	6450	6450	2254949
BINGEN UNIT #152	60/11/28	4250	1111189	3371	3371	3371	3371	4324	3874	3223	3223	3223	3223	1420349
BINGEN UNIT #159	61/09/08	3615	926466	2052	1708	2855	2855	3327	3327	3327	3327	3327	3327	1140873
BINGEN UNIT #158	61/09/08	3615	926466	2052	1708	2855	2855	3327	3327	3327	3327	3327	3327	1140873
BINGEN UNIT #156	62/07/25	1160	1341594	5884	2755	4097	4097	4097	4097	4097	4097	4097	4097	4097
BINGEN UNIT #157	62/07/26	4201	1384099	4864	2755	4097	4097	4097	4097	4097	4097	4097	4097	4097
BINGEN UNIT #136	62/07/26	4201	1384099	4864	2755	4097	4097	4097	4097	4097	4097	4097	4097	4097
BINGEN UNIT #173	62/07/29	5700	1442748	666410	1493	1854	1747	1747	1747	1747	1747	1747	1747	1504961
BINGEN UNIT #155	62/07/29	3605	666410	2835	1493	1854	1747	1747	1747	1747	1747	1747	1747	1504961
BINGEN UNIT #165	62/07/27	4209	916275	2078	4127	4373	4373	4373	4373	4373	4373	4373	4373	4373
BINGEN UNIT #172	62/07/28	4050	1127485	4336	3644	4815	5723	4667	4667	4667	4667	4667	4667	1844045
BINGEN UNIT #180	62/10/03	3147	825426	3322	3749	3341	4091	2991	3727	3731	4091	4091	4091	361144
BINGEN UNIT #177	62/10/03	4052	1321424	5849	2682	5085	4885	4775	5284	5251	4885	5633	5633	49474
BINGEN UNIT #170	62/11/08	2179	874075	3861	4854	4350	4684	3551	4304	4304	4304	4304	4304	1371004
BINGEN UNIT #181	62/11/10	4291	1141945	4812	3604	4840	5676	5012	5157	6056	5676	5676	5676	1192564
BINGEN UNIT #179	62/11/16	3201	745250	2852	4024	5009	4235	3476	4864	3455	3549	3549	3549	423515
BINGEN UNIT #157	62/11/20	3308	2376183	15714	1947	14787	15601	13693	16442	15647	15647	15647	15647	2822714
BINGEN UNIT #166	62/12/07	3429	763302	5007	5028	4811	3582	4846	4272	5147	5234	4567	4567	810742
BINGEN UNIT #176	62/12/07	7043	1318099	5359	4122	5524	7422	6701	5415	3276	2680	5692	5692	164223
BINGEN UNIT #183	62/12/12	4837	1570274	4335	7972	8017	5643	4373	4261	8142	8142	7142	7142	164223
BINGEN UNIT #174	62/12/13	7431	1278532	4377	3364	4391	4242	4684	2583	3959	3509	6540	6540	1324323
BINGEN UNIT #175	62/12/13	4343	1278532	2443	3257	5623	6411	5517	5673	5321	4544	5254	5254	1285206
BINGEN UNIT #161	63/01/04	4618	1008000	4250	6605	5640	5304	3819	4673	4792	4214	4673	4673	1055470
BINGEN UNIT #182	63/01/10	3529	605984	2070	3590	3349	3653	2589	3822	2731	3014	3207	3207	30695
BINGEN UNIT #168	63/01/23	5727	1412144	4330	7035	8325	6979	5944	4419	5442	5904	5203	5203	1080641
BINGEN UNIT #139	63/02/08	2552	946072	4245	4245	4245	4245	4245	4245	4245	4245	4245	4245	1080641
BINGEN UNIT #184	63/02/11	5846	1247134	5263	3345	3345	3345	4950	4502	5132	4741	4661	4661	1012509
BINGEN UNIT #178	63/02/21	7192	1247134	5263	3345	3345	3345	4950	4502	5132	4741	4661	4661	1012509
BINGEN UNIT #185	63/04/10	1777	1008474	4519	4049	4625	6525	1367	6705	7484	6424	7814	7814	1264043
BINGEN UNIT #184*	63/11/29	1830	119605	602	772	727	375	464	6705	6424	6424	6424	6424	1064470
BINGEN UNIT #11	65/01/23	4009	1408710	8010	8219	8126	5845	8340	7768	9214	11914	8514	8514	125643
BINGEN UNIT #146	69/01/08	3349	599112	5722	4102	4778	5513	4682	3588	5208	5513	6491	6491	1040420
BINGEN UNIT #131	69/01/08	4871	913568	7050	7053	6747	6290	6504	3588	5208	5513	6491	6491	1040420
BINGEN UNIT #149	69/01/10	3045	613414	4834	3460	4487	4295	4513	4154	4614	4614	4614	4614	822868
BINGEN UNIT #164	69/01/13	1777	1111489	2688	7847	4934	7061	4772	4772	6180	5942	3544	3544	164877
BINGEN UNIT #192	72/07/25	3633	343161	2848	3469	4233	3094	4095	4104	4348	4095	3494	3494	427747
BINGEN UNIT #193	72/07/26	4957	344142	4866	4444	4524	3514	5236	4248	4348	4095	3494	3494	427747
BINGEN UNIT #203	74/03/07	5101	749156	7417	12437	12573	9491	12437	10803	12437	10803	7284	7284	877418
BINGEN UNIT #201	74/03/07	5528	457454	6253	6104	4548	6070	4753	4992	8444	8004	7284	7284	534535
BINGEN UNIT #194	74/03/11	3236	340397	9247	4970	10045	7194	4994	4022	8104	6634	6347	6347	424223
BINGEN UNIT #202	74/04/14	2842	3435584	7592	6472	6619	5840	7039	5592	7494	6450	7700	7700	402223
TOTALS			340356	326677	467423	357564	346491	340432	319356	341414	340437	354434	340437	74722771

*Non-commercial
 **Uncommitted
 ***After frac gauge - used
 for sizing equipment only