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## Hand delivered

David K. Brooks
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re

Case No. 13,976/Application of McKay Oil Corporation to amend the special rules and regulations for the West Pecos Slope-Abo Gas Pool, Chaves County, New Mexico.

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## Dear David:

Enclosed is a spreadsheet regarding estimated ultimate drainage of the wells identified on applicant's technical plats. While the average drainage figure seems relatively high, please note that drainage calculations are highly dependent on water saturation ( $S_w$ ). In his testimony, Mr. Horne stated that, although an  $S_w$  of 35% was used in the calculations, wells in the pool produce virtually no water. Thus, in the drainage calculation, ( $1 - S_w$ ) results in a factor of 1.00 - 0.35 = 0.65 being used in the denominator, when the factor should be 1.00 - 0.00 = 1.00. As a result, the average drainage area of the wells (112.55 acres) is over-estimated by 35%. Changing the  $S_w$  to 0% would result in average drainage areas of about 73 acres.

Please call me if you need anything further on this matter.

ry truly yours,

Attorney for McKay Oil & Gas, LLC

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rtical Well Drainage Area	Drainage Diameter (Ft)	747	1585	1948	1115			1		683		625	1406	1638	485	595											
	Drainage Area (Ft²)	1754161		1	3906025	)	_	8520710	١					8425846	739780	1001460											
	Drainage Area (Acres)	40.27	181.02	273.58	29.68	277.72	81.54	195.61	47.09	71.99	25.7	28.19	142.48	193.43	16.98	22.99											
	»S	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35											
	Net Pay	16	15	7	11	2	20	13	4	20	14	22	15	4	20	23											
ell Dra	Porosity	0.11	0.11	0.11	0.12	60.0	0.13	0.16	0.12	0.14	0.13	0.15	0.11	0.1	0.14	. 0.13						,					
tical W	FVF	0.016	0.016	0.016	0.016	0.016	0.016		0.016	0.016			0.016	0.016	0.016	0.016											
McKay Ver	OGIP (MMCF)	125.42	528.55	372.77	209.46	88.46	375.17	720	40	356.71	82.77	164.62	416.02	136.92	84.15	121.65											
McK	RF	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65								-			
	EUR (MMCF)	81.52	343.56	242.3	136.15	57.5	243.86	468	26	231.86	53.8	107	270.41	68	54.7	79.07				,			,				
	Location	SW SE NE	SW SE 15-6	SW SW 14-6	NE NW 22-6	SW NW 14-	NE SW 15-6	SE NW 15-6	NW SE 10-6	NE SW 10-6	NE SE 9-6S	NE SE 21-6	NW SE 22-6	NE NE 22-6	NE SW 22-6	SW SE NW											
	Well #	1		3	1								8	6	11-B	1-B		-		7							
	Well	3.001E+09 Four Mile Dr	3.001E+09 Four Mile Dr	Four Mile Dr	3.001E+09 So Four Mile	Four Mile Dr	Four Mile Dr	3.001E+09 So Four Mile	-ookout Fed	3.001E+09 Lookout Fed	3.001E+09 Lookout Fed	So Four Mile	So Four Mile	3.001E+09 So Four Mile	3.001E+09 So Four Mile	3.001E+09 So Four Mile			`					. ,			) = 112.55 A
	API#	3.001E+09	3.001E+09	3.001E+09 Four Mile Dr	3.001E+09	3.001E+09 Four Mile Dr	3.001E+09 Four Mile Dr	3.001E+09	3.001E+09	3.001E+09	3.001E+09	3.001E+09	3.001E+09 So Four Mile	3.001E+09	3.001E+09	3.001E+09											age Drainage = 112.55 A

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lage (in Acres)

Malanne Factor (0.016 for the Abo Sandstones)

age of 100) ss of Gas Crossover) আ (Used 35% Although Abo Produces Little Water)

Rock Resources LL