

PENNZOIL COMPANY
Valdez 2918-011D (Well P)
Vermejo Ranch Coal Bed Methane Pilot

Geologic Summary
C. Hillenbrand 10/25/89

Raton Formation

Coals:

| <u>Depth</u> | <u>Thickness</u> | |
|--------------|------------------|---|
| 431.75 | 75' | Show # 1 @ 1553-1613 6 units/10 units spotty yell flour in sand. |
| 465 | 1.75' | |
| 583.25 | 5.25 | |
| 592.25 | 1' | Show # 2 @ 1716-42' 7 units/38 units in sand. |
| 601.5 | 1' | |
| 632.25 | 1.75' | |
| 657.75 | 1' | Show # 3 @ 1764-80' 10 units/20 units in coal. |
| 695.25 | 4.5' | |
| 706 | 1.25' | |
| 718 | 1.75' | Show # 4 @ 1828-36' 8 units/75 units in coal. |
| 776.25 | .75' | |
| 778 | 1.25' | |
| 782.25 | 1.75' | Show # 5 @ 1894-1900 20 units/140 units in coal. |
| 802 | 1.5' | |
| 806.75 | 1.25' | |
| 815 | 1' | Show # 6 @ 1968-2130' 5 units/ 180 units in sand. |
| 824.5 | 2' | |
| 827.5 | 2' | |
| 831 | 1' | Show # 7 @ 2142-64 80 units/140 units in sand. |
| 861.5 | 2' | |
| 864 | 2' | |
| 900 | 1.25' | |
| 905 | 1' | |
| 928 | 1.25' | |
| 930 | 1' | |
| 941.25 | 1.5' | |
| 960.25 | 2' | |
| 975.25 | 1' | |
| 989 | 1' | |
| 1017.25 | .75' | |
| 1022.5 | 1' | |
| 1030 | 1.25' | |
| 1042.25 | 2.5' | |
| 1045.75 | 1' | |
| 1069 | 1' | |
| 1083.5 | 1' | |
| 1100.25 | 2.5' | |
| 1130.75 | 1.5' | |
| 1158.5 | 4' | |
| 1203.25 | 2' | |
| 1223.35 | 2.75' | |
| 1227.25 | .5' | |