

FILE

Pennzoil Company
Van Bremmer 3019-302E (Well C)
Vermejo Ranch Coal Bed Methane Pilot

Geologic Summary
C. Hillenbrand 6/5/89

Raton Formation

Coals:

Shows:

<u>Depth</u>	<u>Thickness</u>
396'	(3')
400'	(2')
403.5'	(2')
418'	(2')
469.7'	(1')
501'	(2.5')
563.5'	(3')
733.5'	(1.5')
755'	(1.5')
812'	(2.25')
848.5'	(1')
850.7'	(1')
1013.25'	(.75')
1071.5'	(1.5')
1079'	(.75')
1384.5'	(2')
1392.4'	(1.5')
1465.4'	(2')
1494.8'	(1')
1529'	(3')
1538'	(2')
Total Raton Fm Coal	38.75'

Show #1 @ 1461' 6 units/25 units
in cooly zone

slightly higher background gas and
neutron-density cross over (gas
indicator) noted in Lower Raton
conglomerate; 1683-89, 1704-08,
1711-14, 1729-38, 1748-72, and
1778-92.

Vermejo Formation

Coals:

Shows:

<u>Depth</u>	<u>Thickness</u>
1846'	(6')
1942'	(3')
1969'	(1.5')
1983.7'	(1')
1987.4'	(2')
2001'	(4')
2005.7'	(.25')
2006.7'	(.25')
2044'	(2.25')
Total Vermejo Fm Coal	20.25'

Show #2 @ 1955' 1 unit/27 units/
3 units slightly sandy shale
section (potential fracture)

Show #3 @ 1984' 3 units/300 units
coal section

Vermejo Formation continued

Shows:

Show #4 @ 2044' 330 units/430 units
coal section

* Dual Induction Laterolog Log indicates igneous sills present in the Lower Vermejo Formation at 2036-40' and 2046-49'

Trinidad Sandstone

Top at 2051' (+5698), 0' low to prognosis.

Shows:

Show #5 65 units/140 units lower
Trinidad Sandstone porosity
approximately 10%

Total coal encountered in the Van Bremmer 3019-302E (Well C) is 59 feet.

CJH37

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