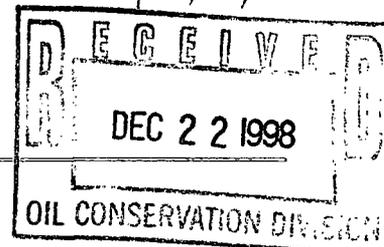


# BURLINGTON RESOURCES

SAN JUAN DIVISION

LOAD 23.

NSL 1/11/99



Sent Federal Express – December 21, 1998

Mr. Michael Stogner  
New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Re: McConnell #504  
1110'FNL, 800'FWL Section 25, T-26-N, R-9-W, San Juan County, New Mexico  
30-045-not assigned

Dear Mr. Stogner:

Burlington Resources is applying for administrative approval of an off-pattern gas well location for the Basin Fruitland Coal pool.

This application for the referenced location is for geological reasons as referenced in the attached geological explanation and maps. This off-pattern location in the northwest quarter of Section 25 will increase the probability of intersecting a thickened Fruitland Coal section.

Production from the Basin Fruitland Coal is to be included in a 320 acre gas spacing and proration unit for the west half (W/2) of Section 25.

The following attachments are for your review:

- Application for Permit to Drill.
- Completed C-102 at referenced location.
- Offset operators/owners plat – Burlington is offset operator.
- 7.5 minute topographic map showing the orthodox windows and enlargement of the map to define these features.
- Geological Explanation and Maps

We appreciate your earliest consideration of this application.

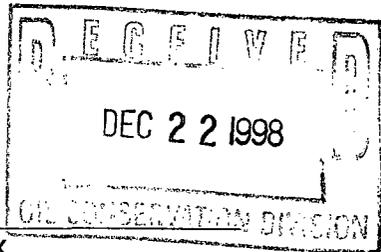
Sincerely,

A handwritten signature in cursive script, appearing to read "Peggy Bradfield".

Peggy Bradfield  
Regulatory/Compliance Administrator

xc: NMOCD - Aztec District Office  
Bureau of Land Management – Farmington

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT



APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NM-09840 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON RESOURCES</b> Oil & Gas Company	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name McConnell 9. Well Number #504	
4. Location of Well 1110' FNL, 800' FWL  Latitude 36° 28.0 , Longitude 107° 44.8	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) Sec.25, T-26-N, R-9-W API # 30-045-	
14. Distance in Miles from Nearest Town 6 miles to Huerfano Trading Post	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 800'		
16. Acres in Lease	17. Acres Assigned to Well 320.00	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 600'		
19. Proposed Depth 2170'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6448' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u><i>Deann Strathairn</i></u> Regulatory/Compliance Administrator	<u>11-30-98</u> Date	

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Archaeological Report to be submitted  
Threatened and Endangered Species Report to be submitted  
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3  
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or presentations as to any matter within its jurisdiction.

District I  
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District II  
PO Drawer 00, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

AMENDED REPORT

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland Coal
<sup>4</sup> Property Code 7299	<sup>5</sup> Property Name MCCONNELL	<sup>6</sup> Well Number 504
<sup>7</sup> OGRID No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	<sup>9</sup> Elevation 6448'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	25	26N	9W		1110	NORTH	800	WEST	SAN JUAN

<sup>11</sup> Bottom Hole Location  Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres W/320	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Peggy Bradfield</i> Signature</p> <p>Peggy Bradfield Printed Name</p> <p>Regulatory Administrator Title</p> <p>11-30-98 Date</p>
	<p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>JULY 20, 1998 Date of Survey.</p> <p>Signature and Seal of Professional Surveyor</p> <p><b>NEALE C. EDWARDS</b> NEW MEXICO 6857</p> <p>Certification Number: _____</p>

OPERATIONS PLAN

**Well Name:** McConnell #504  
**Location:** 1110' FNL, 800' FWL, Section 25, T-26-N, R-9-W  
 San Juan County, New Mexico  
 Latitude 36° 28.0', Longitude 107° 44.8'  
**Formation:** Basin Fruitland Coal  
**Elevation:** 6448' GR

<b>Formation:</b>	<b>Top</b>	<b>Bottom</b>	<b>Contents</b>
Surface	San Jose	1285'	
Ojo Alamo	1285'	1376'	aquifer
Kirtland	1376'	1783'	gas
Fruitland	1783'	2069'	gas
Fruitland Coal	1936'	2069'	gas
Pictured Cliffs	2069'		
Total Depth	2170'		

**Logging Program:** AIT/Dens/ML - TD to surface  
 GR/Neut - TD to surface

**Mud Program:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 120'	Spud	8.4-8.9	40-50	no control
120-2170'	Non-dispersed	8.4-9.5	30-60	no control

**Casing Program:**

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csq.Size</u>	<u>Wt.</u>	<u>Grade</u>
8 3/4"	0 - 120'	7"	20.0#	J-55
6 1/4"	0 - 2170'	4 1/2"	10.5#	J-55

**Tubing Program:**

0 - 2170'	2 3/8"	4.7#	J-55
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**Float Equipment:** 7" surface casing - saw tooth guide shoe.  
 Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Two centralizers run every 3rd joint to the base of the Ojo Alamo @ 1376'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1376'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 7" x 4 1/2" x 2 3/8" x 11" 2000 psi xmas tree assembly.

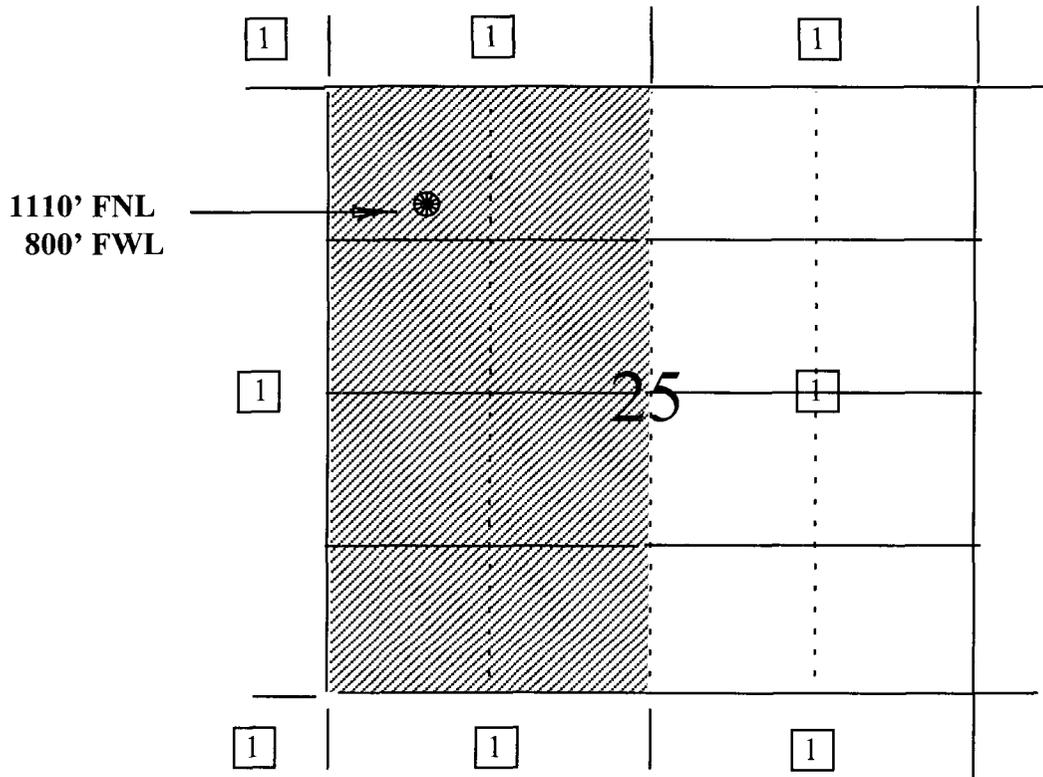


**BURLINGTON RESOURCES OIL AND GAS COMPANY**

**McConnell #504  
OFFSET OPERATOR \ OWNER PLAT  
Nonstandard Location**

**Fruitland Coal Formation Well**

**Township 26 North, Range 9 West**



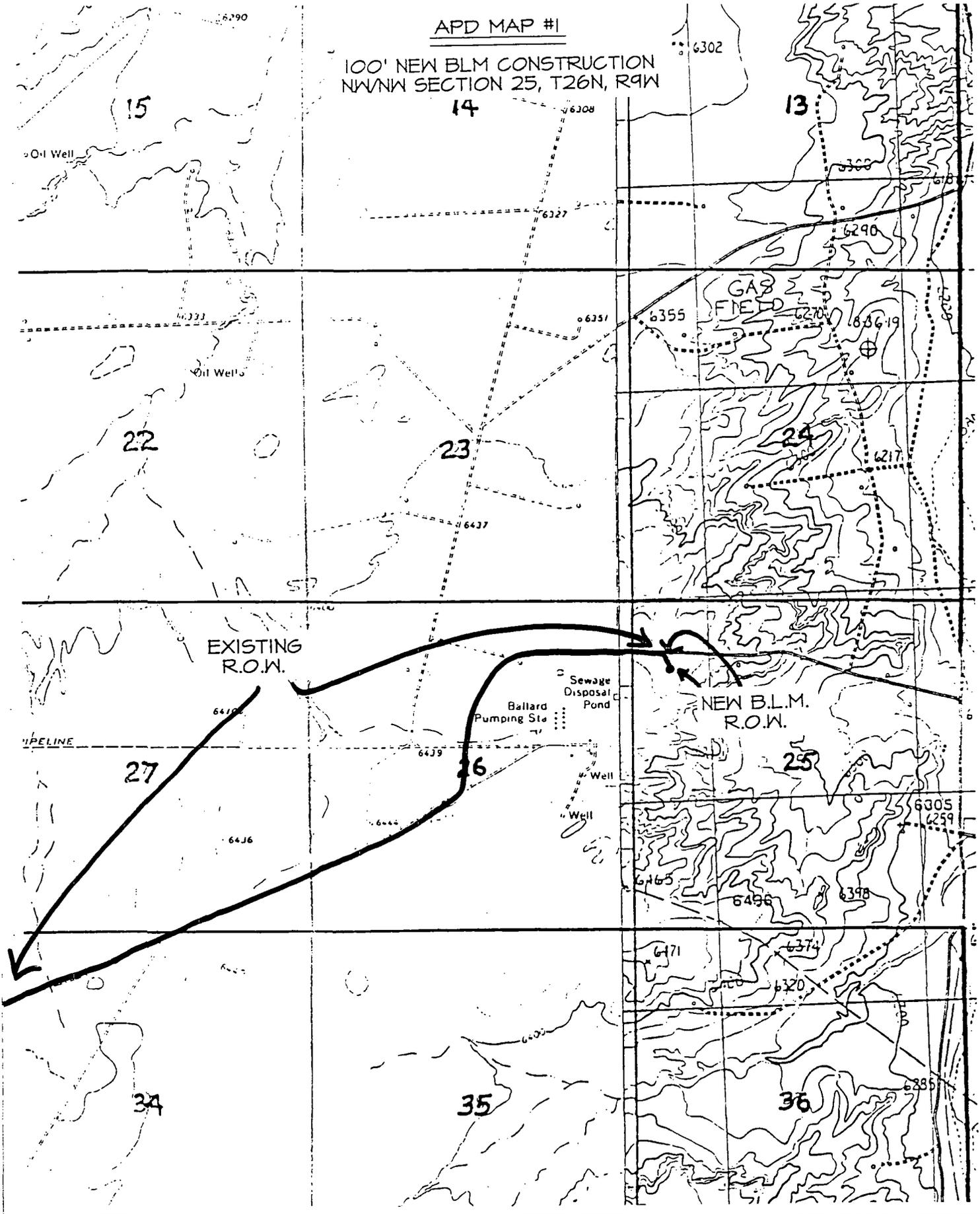
1) Burlington Resources

BURLINGTON RESOURCES OIL & GAS COMPANY MCCONNELL #504

1110' FNL & 800' FWL, SECTION 25, T26N, R9W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO

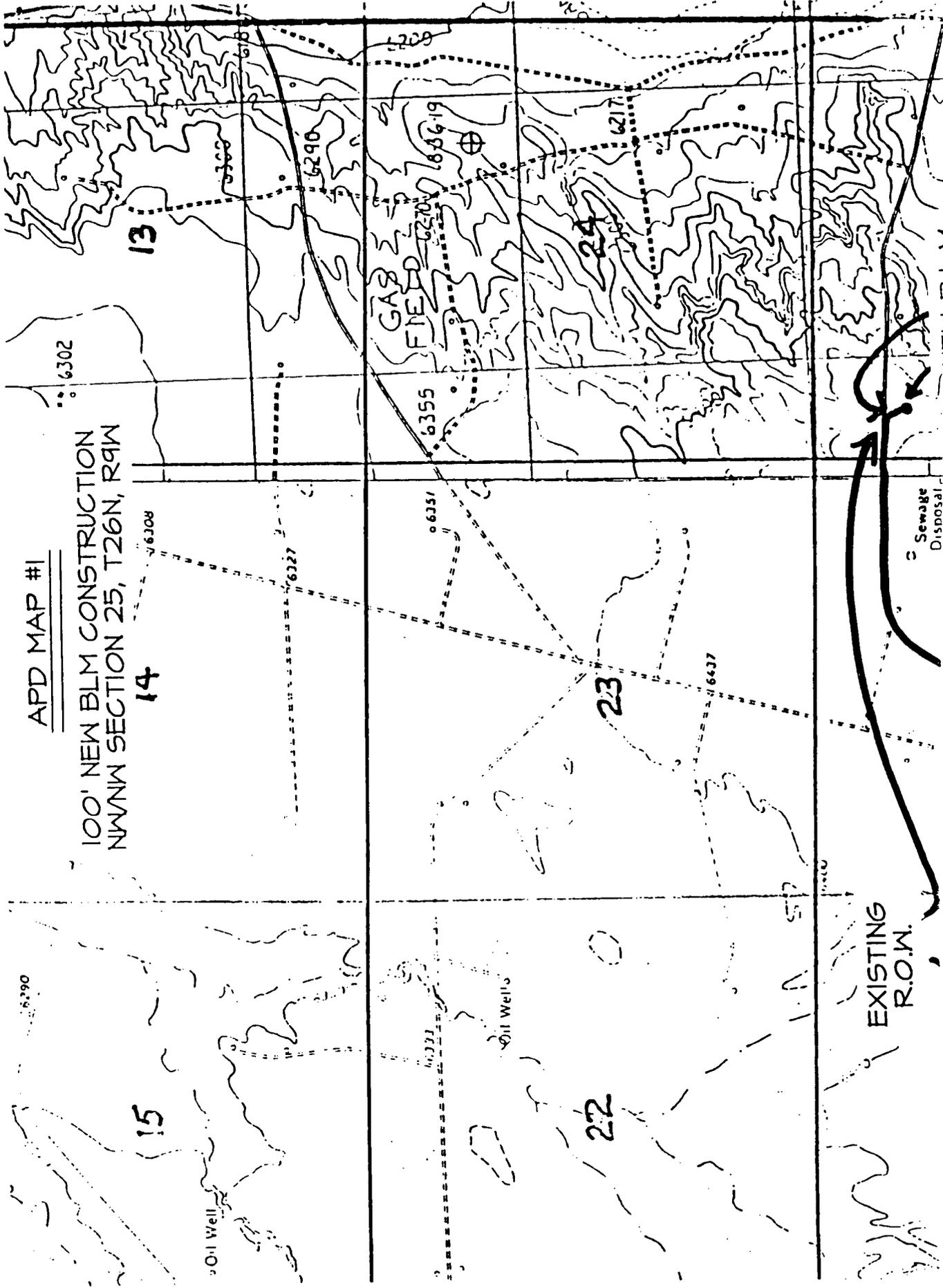
APD MAP #1

100' NEW BLM CONSTRUCTION  
NWNW SECTION 25, T26N, R9W



# BURLINGTON RESOURCES OIL & GAS COMPANY MCCONNELL #504

1110' FNL & 800' FWL, SECTION 25, T26N, R9W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO



APD MAP #1

100' NEW BLM CONSTRUCTION  
NWNW SECTION 25, T26N, R9W

EXISTING  
R.O.W.

Sewage  
Disposal

Proposed McConnell #504  
1110' FNL and 800' FWL  
Section 25, T26N, R9W  
San Juan County, New Mexico

Basin Fruitland Coal Pool

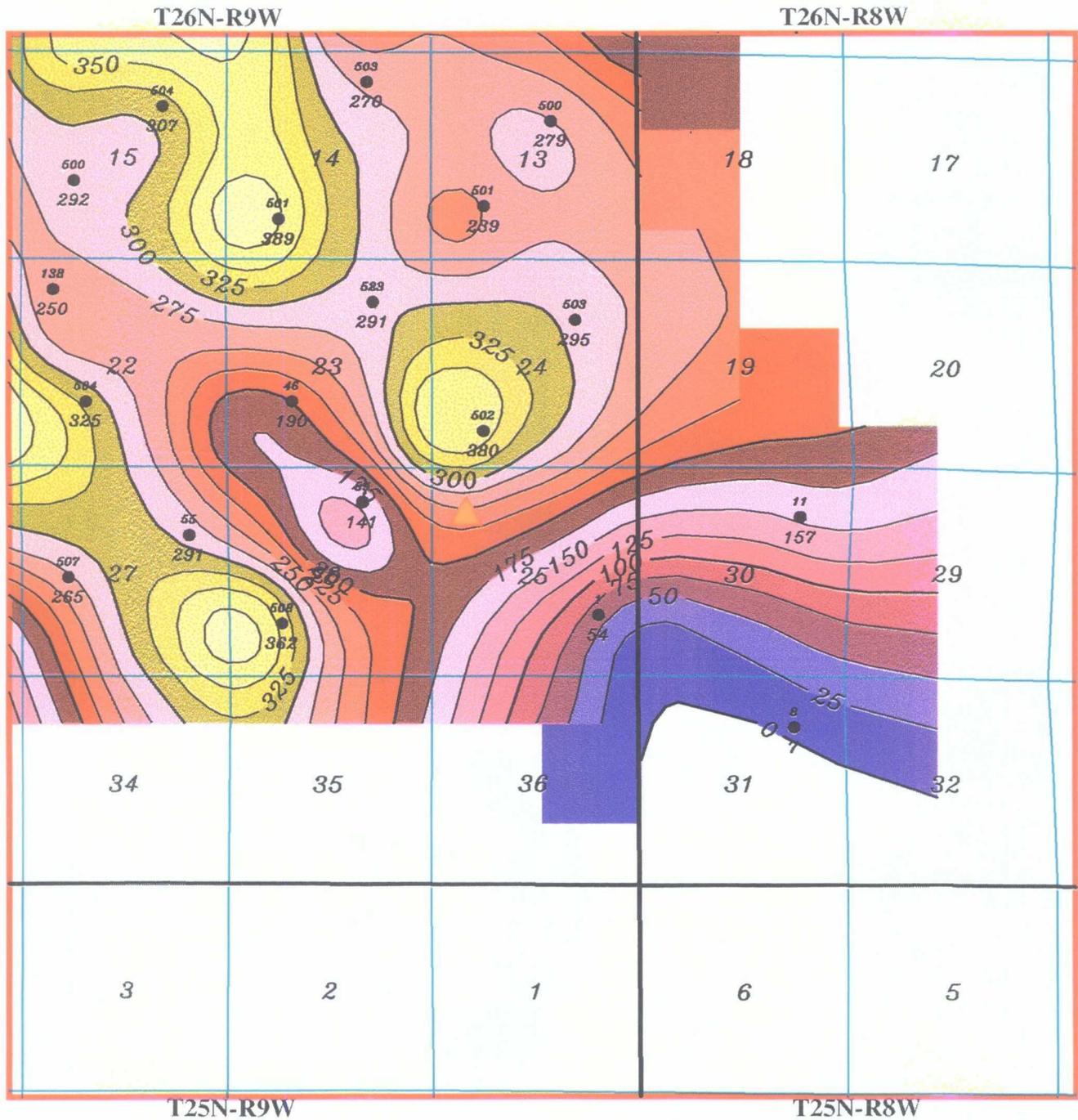
The McConnell #504 is currently staked in the non-standard location of NW/NW of Section 25 in T26N-R9W. The primary reason this location was chosen was to increase the probability of intersecting a thickened Fruitland Coal section favorable to commercial production.

The proposed #504 is located in the southeastern portion of the San Juan Basin. The Cretaceous units are gently dipping to the northeast at approximately 70-75 ft/mi. Current day structure is similar throughout the area, with only minor changes in dips.

The Fruitland Coal is completed in approximately 19 wells offset to the #504 location. Cumulative production for these wells range from 100-700 mmcf (See attached Cumulative Production Map). Daily rates likewise range from 10-350 mcf/d (See attached Daily Rate Map). As observed from the production maps, the majority of the production is located in the northwest portion of the mapped area.

Thorough mapping of both the interval thickness between the uppermost and lowermost coals (Gross Coal Isopach, attached) and the net coal thickness in the Fruitland (Net Coal Isolith, attached) was undertaken to explain this superior production located in the northwest of the mapped area. As observed from the isopach maps, there is a general thickening to the northwest (See attached cross section). This thickening is believed to have a major role in the wells productivity and therefore, the NW/NW of Section 25 is much more advantageous geologically for the McConnell #504 location. In fact, a Mesaverde well (McConnell #7) is located in the NE/NW of Section 25 and does show that the coal is thicker in the northwest quarter than all three control points in the other quarter sections in Section 25. Therefore, net coal thickness is thought to be maximized in the NW/NW as currently staked and as a result, gas production will likewise be maximized.

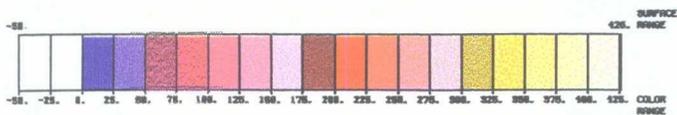


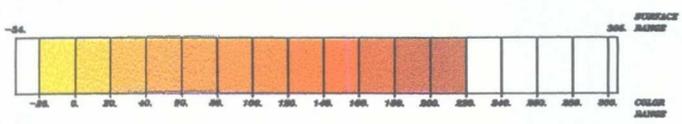
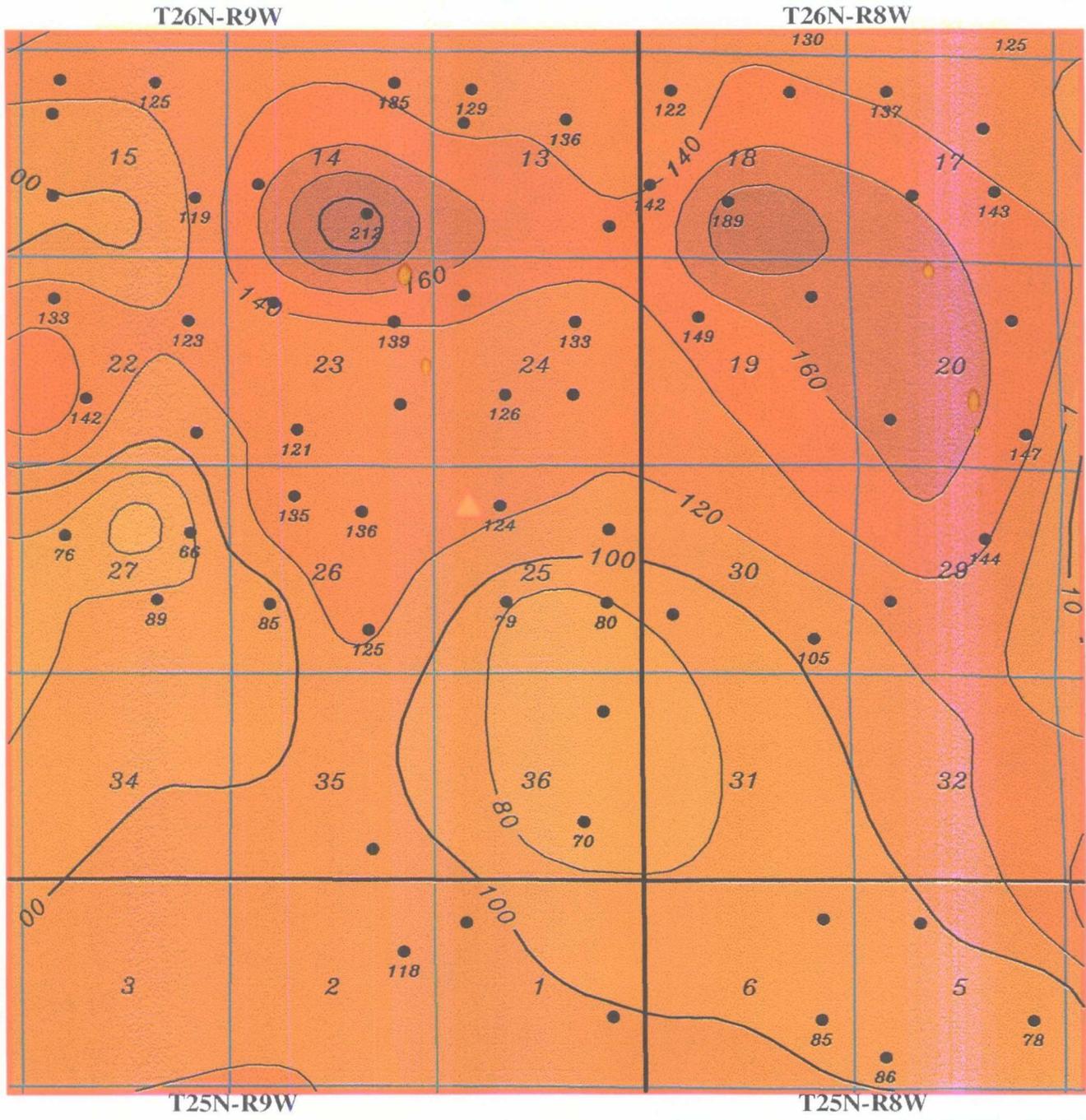


**Burlington Resources O&G**  
**McConnell #504 - NSL Application**

**Fruitland Coal Daily Production Rate**  
 Contour Interval = 25 Mcf/d (Data from PI - 12/17/98)

==== GSC      == 16-DEC-98



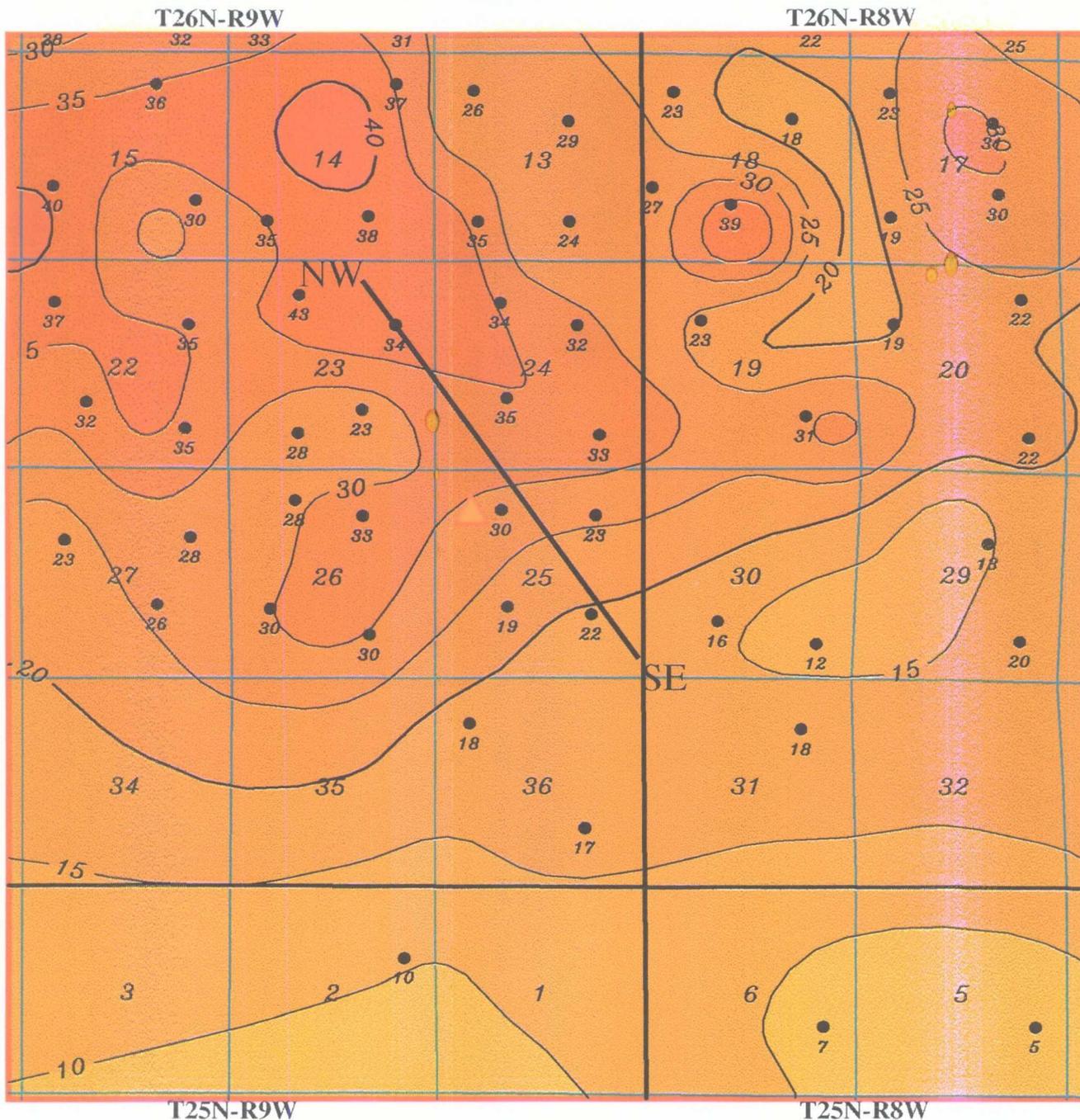


*Burlington Resources O&G  
 McConnell #504 - NSL Application*

*Fruitland Gross Coal Isopach  
 Contour Interval = 20 ft.*

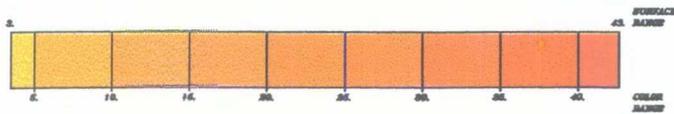
DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

BY: GEC DATE: 16-DEC-08



Burlington Resources O&G  
 McConnell #504 - NSL Application

Fruitland Net Coal Isolith  
 Contour Interval = 5 ft.



==== CSC      == 16-DEC-08

Pictured Cliffs Fm.

Fruitland Fm.

NW

SE

Huerfano Unit #523  
B 23-26N-9W

McConnell #7  
C 25-26N-9W  
(McConnell #504)

Ka Souse #1  
I 25-26N-9W

