U.S. Geological Survey Coal Exploratory Program—
Coal Drilling Activities—FY 79

By

Gary B. Schneider

Open-File Report 79-1356
1979

This report is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards.
CONTENTS

| Introduction | 1 |
| Montana Drilling Projects | 2 |
| Wyoming Drilling Projects | 12 |
| Colorado Drilling Projects | 24 |
| New Mexico Drilling Projects | 33 |
| Utah Drilling Projects | 37 |
| North Dakota Drilling Projects | 45 |
| Oklahoma Drilling Projects | 55 |

ILLUSTRATIONS

Plate 1. Eastern Part Montana Drilling---In pocket
2. Wyoming Drilling
3. Colorado Drilling
4. New Mexico Drilling
5. Utah Drilling
6. North Dakota Drilling
7. Oklahoma Drilling
INTRODUCTION

The U.S. Geological Survey Coal Exploratory Program is conducted under authority of the Federal Coal Leasing Amendments Act of 1975, PL 93-377, which was signed into law on August 4, 1976. Information in this report was provided by the U.S. Geological Survey offices that are responsible for the drilling activities in this program.

Results of the rotary and core drilling and of the logging will be made public in various forms after the projects are completed.
Montana Drilling Projects - see Figure 1

COAL EVALUATION DRILLING--1979

Drilling Project: Northern Rocky Mountain Area (NRMA), Conservation Division

Location: Big Horn, Rosebud Counties, Montana

7 1/2-minute Quads: Lacey Gulch, Spring Gulch, Tongue River Dam, Half Moon Hill, Kirby, Bar V NE, Spring Creek Ranch

Starting Date: Spring Completion Date: Fall

No. of Holes: 53

Average Depth: 643'

Maximum Depth: 800'

Rotary Footage: 34,570 Coring: 1340'

Type Logs: Density, Gamma, SP, Resistivity


Targets: most holes are deep enough to drill thru the Wall

Sampling Plan: 10' intervals

Person-in-charge: Montana Bureau of Mines & Geology (Robert Matson) & V. Niermeier

Contractor or Driller: Montana Bureau of Mines and Geology (MBMG)

Remarks: The four latter quads may not be drilled this year even though the holes are proposed. This would account for 34 of the 53 holes proposed.
COAL EVALUATION DRILLING—1979

Drilling Project: Ft. Peck (Branch of Coal Resources)

Location: Roosevelt, Daniels, and Sheridan Counties, Montana

7½-minute Quads: incomplete coverage

Starting Date: about June 1, 1979 Completion Date: September 30, 1979

No. of Holes: about 29

Average Depth: ± 450 feet

Maximum Depth: ± 900 feet

Rotary Footage: ± 17,850 feet Coring: ± 385 feet

Type Logs: Natural Gamma, Gamma-Gamma, Resistivity, Caliper

Purpose: Assessment of coal resources in Ft. Peck Indian Reservation (BIA)

Targets: Coal-bearing Fort Union Formation (Paleocene)

Sampling Plan: Random sampling on 6- to 8-mile centers

Person-in-charge: H. H. Arndt

Contractor or Driller: Mountain States Drilling*

Remarks: *About 14 holes remain to be drilled on existing contract (let in FY 78):

Note:
Area includes Cuskers NE, Cuskers SE, Hay Creek (15 min), Smoke Creek (NW, NE, SW), Coyote Coulee, Rocky Pt., Johnson Lake, Homestead NW, Homestead N, Alkali Coulee, Reserve, plus six other unnamed 7½ min. quad.
Branch of Coal Resources
Drilling Project: Prairie Dog Creek EMRIA - Montana

Location: Powder River Co.; all or parts of sec. 5, 7, 8, 9, 10, 14, 15, 16, 17, 18, 21, 25, 26, 31, T. 6 S., R. 41 E.
7½-minute Quads: Birney SW

Starting Date: ___________________________ Completion Date: ___________________________
No. of Holes: ___________________________
Average Depth: ________________________
Maximum Depth: _______________________
Rotary Footage: ________________________ Coring: _______________________
Type Logs: _____________________________
Purpose: _______________________________
Targets: _______________________________
Sampling Plan: _________________________
Person-in-charge: Schneider
Contractor or Driller: BLM
Remarks: No additional information received.
Conservation Division

Drilling Project: Roosevelt County, east of Big Muddy Creek

Location: Roosevelt County, east of Big Muddy Creek, Montana

7½-minute Quads: see below

Starting Date: June 1, 1979
Completion Date: mid-July, 1979

No. of Holes: 62

Average Depth: 407 feet

Maximum Depth: 600 feet

Rotary Footage: 25,000
Coring: 120

Type Logs: gamma

Purpose: Coal evaluation

Targets: Fort Union Formation

Sampling Plan: information not included

Person-in-charge: Mary Alice Spencer

Contractor or Driller: Montana Bureau of Mines Geology

Remarks: 

Three Buttes - Bainville 3 NW - Johnson Lake - Medicine Lake -
- Bainville SW - Bainville 3 NE - Bainville 2 SW - Capeneys Lake -
Bainville SE - Bainville 4 NW - Bainville 2 SE - Brush Mountain -
Fort Kipp - Red Bank Creek - Bainville 1 SW -
Culbertson - Rocky Point - Bull Butte -
Drilling Project: Bull Mountains NRMA- Conservation Division

Location: Musselshell Co., Montana

7½-minute Quads: Numerous quads in Bull Mountain Field

Starting Date: Spring snowmelt Completion Date: ?

No. of Holes: 16± (remainder from last year's program)

Average Depth: 300'±

Maximum Depth: 800'±

Rotary Footage: 6,000'± Coring: ?

Type Logs: gamma, density, resistivity, S. P.

Purpose: Establish KRCRA boundary and evaluate

Targets: all coals to Roundup bed.

Sampling Plan: .5' cuttings

Person-in-charge: Bob Matson, MBMG;

Contractor or Driller: MBMG

Remarks: Continuation of program from 1978 which was interrupted by weather
Drilling Project: Sidney

Location: Richland, Wibaux, Dawson Co., Mont.

7½-minute Quads: Numerous, some unpublished

Starting Date: Summer 79 Completion Date: Fall 79

No. of Holes: 46

Average Depth: 282 ft.

Maximum Depth: 800 ft.

Rotary Footage: 17,000 Coring: 60 ft.

Type Logs: Gamma, Density, Resistivity, S. P.

Purpose: Evaluate Sidney KRCRA

Targets: Coals in the Tongue River Member of the Fort Union Formation, particularly G&H beds

Sampling Plan: 10 ft. sample

Person-in-charge: Matson, MBMG

Contractor or Driller: M.B.M.G.

Remarks: Previously planned program (1977) never accomplished
<table>
<thead>
<tr>
<th><strong>Drilling Project:</strong></th>
<th>East Glendive, NRMA- Conservation Division</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>Dawson and Wibaux Counties, Montana</td>
</tr>
<tr>
<td><strong>7½-minute Quads:</strong></td>
<td>Unpublished - AMS only</td>
</tr>
<tr>
<td><strong>Starting Date:</strong></td>
<td>July (?) 79</td>
</tr>
<tr>
<td><strong>Completion Date:</strong></td>
<td>Aug (?) 79</td>
</tr>
<tr>
<td><strong>No. of Holes:</strong></td>
<td>24</td>
</tr>
<tr>
<td><strong>Average Depth:</strong></td>
<td>285 feet</td>
</tr>
<tr>
<td><strong>Maximum Depth:</strong></td>
<td>400 feet</td>
</tr>
<tr>
<td><strong>Rotary Footage:</strong></td>
<td>6,850</td>
</tr>
<tr>
<td><strong>Coring:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Type Logs:</strong></td>
<td>Gamma, Density, Resistivity, SP</td>
</tr>
<tr>
<td><strong>Purpose:</strong></td>
<td>Evaluation of nominated areas &amp; KRCRA Established</td>
</tr>
<tr>
<td><strong>Targets:</strong></td>
<td>Coal beds in the Fort Union Formation</td>
</tr>
<tr>
<td><strong>Sampling Plan:</strong></td>
<td>10 ft. samples</td>
</tr>
<tr>
<td><strong>Person-in-charge:</strong></td>
<td>Matson-MBMG</td>
</tr>
<tr>
<td><strong>Contractor or Driller:</strong></td>
<td>MBMG</td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td>Left over project from previous year.</td>
</tr>
</tbody>
</table>
COAL EVALUATION DRILLING—1979

Drilling Project: Prairie  
NRMA—Conservation Division

Location: McCone, Prairie, and Dawson Counties, Montana

7½-minute Quads: Diamond G Creek, Papps Reservoir, McCloud, South Fork Reservoir, Little Sheep Mountain, Watkins, Berry Slough

Starting Date: July 1979  
Completion Date: Sept. 79

No. of Holes: 55

Average Depth: 400 feet

Maximum Depth: 600 feet

Rotary Footage: 20,360 feet  
Coring: None

Type Logs: Gamma, Density, Resistivity, S.P.

Purpose: KRCRA establishment and evaluation

Targets: section from surface through Tongue River Member of the Fort Union Formation

Sampling Plan: 10 foot sample intervals of cuttings

Person-in-charge: Herbert Wincentsen (USGS), Ken Williams MBMG

Contractor or Driller:

Remarks: Many holes not located on 7½' quadrangles; therefore an altimeter will be needed for accurate surface elevations.
<table>
<thead>
<tr>
<th><strong>Drilling Project:</strong></th>
<th>Conservation Division - Northern Rocky Mountain Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>Montana-Bighorn County T. 6 S., R. 40 E. sec. 11 2300' FSL 1800' FWL</td>
</tr>
<tr>
<td><strong>7½-minute Quads:</strong></td>
<td>Taintor Desert T. 7 S., R. 40 E. sec. 5 500' FSL 4250' FWL</td>
</tr>
<tr>
<td><strong>Starting Date:</strong></td>
<td>Spring 1979</td>
</tr>
<tr>
<td><strong>Completion Date:</strong></td>
<td>Fall 1979</td>
</tr>
<tr>
<td><strong>No. of Holes:</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Average Depth:</strong></td>
<td>600'</td>
</tr>
<tr>
<td><strong>Maximum Depth:</strong></td>
<td>865'</td>
</tr>
<tr>
<td><strong>Rotary Footage:</strong></td>
<td>1465</td>
</tr>
<tr>
<td><strong>Coring:</strong></td>
<td>No coring</td>
</tr>
<tr>
<td><strong>Type Logs:</strong></td>
<td>Gamma, Density, SP-Res.</td>
</tr>
<tr>
<td><strong>Purpose:</strong></td>
<td>Coal information - Resource evaluation</td>
</tr>
<tr>
<td><strong>Targets:</strong></td>
<td>Canyon &amp; Wall coal beds</td>
</tr>
<tr>
<td><strong>Sampling Plan:</strong></td>
<td>10-ft intervals</td>
</tr>
<tr>
<td><strong>Person-in-charge:</strong></td>
<td>MBMG - Steven Volz</td>
</tr>
<tr>
<td><strong>Contractor or Driller:</strong></td>
<td>Montana Bureau of Mines and Geology</td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td></td>
</tr>
</tbody>
</table>
CONSERVATION DIVISION, CRMA
COAL EVALUATION DRILLING – 1979

Drilling Project: Carbon Basin, Wyo. (Edison Development)

Location: T. 21 N., R. 79 & 80 W., Carbon County, Wyoming

1/4-minute Quads.: Carbon, Halfway Hill, and TL Ranch

Starting Date: May, 1979 Completion Date: June

No. of Holes: 6

Average Depth: 800 feet

Maximum Depth: 1,000 feet

Rotary Footage: 4,800 Coring: 100

Type Logs: Natural gamma; Gamma-gamma density; SP; Resistivity

Purpose: Coal Evaluation – Lease Application

Targets: Hanna Fm. – Coal zones above Johnson bed

Sampling Plan: Cuttings – 5-ft. intervals

Person-in-charge: Tim Timmons

Contractor or Driller: Conservation Division – In-house

Remarks: Drilling may not be done by us if Morrison-Knudson, prime contractor for Edison Development, does the drilling.
Branch of Coal Resources
Drilling Project: Coal Resource Evaluation, Wind River Indian Reservation

Location: Fremont County, Wyoming

7½-minute Quads: 12+

Starting Date: June Completion Date: November

No. of Holes: 10

Average Depth: 800'

Maximum Depth: 1000'

Rotary Footage: 10,000' Coring: 400'+

Type Logs: Gamma-Gamma, Natural Gamma, Resistivity, Caliper

Purpose: Determination of coal thickness, depth, quality, samples

Targets Coal beds in Cretaceous Mesaverde, Meeteetse, Lance, etc. Fms.

Sampling Plan: Coal beds 5' + will be sampled by Twin Hole

Person-in-charge: John F. Windolph, Jr.

Contractor or Driller: to be determined

Remarks: Coal-bed continuity will be checked downdip in basin, and in covered areas under Wind River Formation overlap.
Branch of Coal Resources
Drilling Project: Coal Resource Evaluation Wind River, Indian Reservation

Location: Fremont County, Wyoming

7½-minute Quads: 12+

Starting Date: May - late June Completion Date: October - late November

No. of Holes: 35+

Average Depth: 400'

Maximum Depth: 1000'

Rotary Footage: 17,000'+ Coring: 600+

Type Logs: Gamma-Gamma, Natural Gamma, Resistivity, Caliper

Purpose: Coal Resource Evaluation, thickness, depth, quality, samples

Targets: Coal beds in Cretaceous Mesaverde, Meeteetse, Lance, etc. Fms.

Sampling Plan: Coal beds 3 feet+ will be cored and sampled

Person-in-charge: J ohn F. Windolph, Jr.

Contractor or Driller: B & B Drilling Co., Bull Lake

Remarks: Several holes may be completed as water observation wells.
Branch of Coal Resources
Drilling Project: Hanna and Rock Creek Coal Fields (1978 project)

Location: Carbon and Albany Counties, Wyo.

7½-minute Quads: Elmo, Come West, Pierce Reservoir, Bengough Hills

Starting Date: July, 1978 Completion Date: Dec., 1978

No. of Holes: 44

Average Depth: 450 ft.

Maximum Depth: 1200 ft.

Rotary Footage: 20,000+ Coring: 1,000

Type Logs: Gamma Ray, resistivity, density, and caliper

Purpose: coal exploration

Targets: various coal beds

Sampling Plan: analyze core samples

Person-in-charge: Dan Hansen

Contractor or Driller: K & K Drilling, Montrose, CO

Remarks: Finish drilling contract in spring of 1979. Weathered out during late November - early December. No additional drilling scheduled for these coal fields during FY 79, according to Branch Chief.

Completed
Branch of Coal Resources
Drilling Project: West Powder River

Location: Campbell County Wyo. - Powder River 6, Montana

7½-minute Quads: Recluse - Broadus SW 1°

Starting Date: Summer 1979
Completion Date: Fall 1979

No. of Holes: 30

Average Depth: 500'

Maximum Depth: 300-700'

Rotary Footage: 15,000
Coring: 1,500

Type Logs: Full suite - calibrated

Purpose: Coal exploratory

Targets: Lebo Sh. Mbr.

Sampling Plan: Full

Person-in-charge: R. G. Hobbs

Contractor or Driller: USGS - OER

Remarks:
Drilling Project: NRMA - Conservation Division Coal Evaluation program

Location: Eastern Powder River Basin, Wyoming

7½-minute Quads: North Star School (SE & SW), Rawhide School

Starting Date: June, 1979 Completion Date: October, 1979

No. of Holes: 8

Average Depth: 340'

Maximum Depth: 520'

Rotary Footage: 2720' Coring: 0

Type Logs: Gamma, SP, Resistance

Purpose: Determine top and thickness of 3 coal units

Targets: Felix, Anderson, and Wyodak coal beds

Sampling Plan: Grab sample every 10 feet

Person-in-charge: Lee Jefferis and Frank Kistner

Contractor or Driller: NRMA rig

Remarks:
Drilling Project: NRMA - Conservation Division
Location: Campbell County, Wyoming
7½-minute Quads: Eagle Rock
Starting Date: Spring, 1979 Completion Date: Fall, 1979
No. of Holes: 3
Average Depth: 620 feet
Maximum Depth: 840 feet
Rotary Footage: 1,860 feet Coring: None
Type Logs: SP, Resistivity, Gamma ray
Purpose: Determine top & thickness of coal - Resource Evaluation
Targets: C & Wyodak beds
Sampling Plan: 10-ft intervals
Person-in-charge: Kistner - Schell
Contractor or Driller: NRMA rig
Remarks: 

-18-

Location: T. 21, 22 N., R. 79, 80 W.

7½-minute Quads: Halfway Hill, TL Ranch, Carbon

Starting Date: Spring, 1979  Completion Date: Fall, 1979

No. of Holes: 9

Average Depth: 425'

Maximum Depth: 600'

Rotary Footage: 3800'  Coring: 170'

Type Logs: SP, Resistivity, Gamma

Purpose: Coal Resource evaluation

Targets: Johnson coal bed; 109 bed; and 107 bed

Sampling Plan: 10'

Person-in-charge: Frank Kistner, geologist; J. Williams, project geologist

Contractor or Driller: USGS, NRMA rig

Remarks: 

-19-
COAL EXPLORATION DRILLING--1979

Drilling Project: USGS/CD/NRMA/Casper

Location: Campbell County, Wyoming

7.5 Minute Quads: Weston SW, Lone Tree Creek

Starting Date: June, 1979  Completion Date: Oct., Nov., 1979

No. of Holes: 4

Average Depth: 450 feet

Maximum Depth: 500 feet

Rotary Footage: 1,800 feet  Coring: 0

Type Logs: electric, Gamma

Purpose: To determine coal occurrence

Targets: 2 coal zones

Sampling Plan: driller's cuttings

Person-in-charge: Katock - Kistner

Contractor or Driller: U.S.G.S. NRMA drill crew

Remarks: ________________________________
**Drilling Project:** USGS/ CD/ NRMA/ Casper

**Location:** Converse Co., Wyo

**7½-minute Quads:** Coal Draw; Betty Reservoir - SW/4

**Starting Date:** Spring 1979  
**Completion Date:** Fall/Winter 1979

**No. of Holes:** 12

**Average Depth:** 725'

**Maximum Depth:** 900'

**Rotary Footage:** 8700'  
**Coring:** 0

**Type Logs:** GR/SP/RES/LITH/Samples

**Purpose:** Correlation of coals; update KRCRA

**Targets:** 10' cuttings

**Sampling Plan:** Frank B. Kistner

**Person-in-charge:** USGS/ CD/NRMA/ Casper

**Contractor or Driller:**

**Remarks:**
Drilling Project: USGS/CD/NRMA

Location: Campbell Co., Wyo.

7½-minute Quads: Teckla S.W.

Starting Date: Spring 1979

Completion Date: __________

No. of Holes: 2

Average Depth: 550'

Maximum Depth: 700'

Rotary Footage: 1100' Coring: 0

Type Logs: Res/SP/Gamma

Purpose: Coal Correlation

Targets: Thin coals

Sampling Plan: 10-Ft. Cuttings

Person-in-charge: Ken Bowen

Contractor or Driller: USGS/CD/NRMA

Remarks: 

__________________________
Drilling Project: Carbon Basin, Wyo. (Edison Development)

Location: T. 21 N., R. 79 & 80 W., Carbon County, Wyoming

7½-minute Quads.: Carbon, Halfway Hill, and TL Ranch

Starting Date: July, 1979  Completion Date: ________________

No. of Holes: 7

Average Depth: 800 feet

Maximum Depth: 1,100 feet

Rotary Footage: 5,800'  Coring: ________________

Type Logs: Natural gamma; Gamma-gamma density; SP; Resistivity

Purpose: Coal Evaluation - Lease Application

Targets: Hanna Fm. - Coal zones above Johnson bed

Sampling Plan: Cuttings - 5-ft. intervals

Person-in-charge: Tim Timmons

Contractor or Driller: Conservation Division - in-house

Remarks: Drilling may not be done by us if Morrison-Knudson, prime contractor for Edison Development, does it.
COAL EVALUATION DRILLING—1979

Branch of Coal Resources
Drilling Project: Colorado Geological Survey - Coal Drilling and Coring Program

Location: Adams, Arapahoe, Douglas, and Elbert Counties

7½-minute Quads: Denver East 1/2° x 1°

Starting Date: Sept. 1979  Completion Date: Oct. 1979

No. of Holes: 15-20

Average Depth: 400'

Maximum Depth: 800'

Rotary Footage: 10,000'  Coring: 2,000'

Type Logs: full suite

Purpose: coal evaluation

Targets: Denver and Laramie Formations (Denver A-E beds)

Sampling Plan: coal core

Person-in-charge: Karl Brand  (303) 839-2611

Contractor or Driller: Contract not let

Remarks: At least two holes completely cored
CONSERVATION DIVISION, CRMA
COAL EVALUATION DRILLING - 1979

Drilling Project: Gunnison County, Colorado

Location: T. 14 & 15 S., R. 86 & 87 W.

7½-minute Quads: Squirrel Creek; Mt. Axtell

Starting Date: July  Completion Date: August

No. of Holes: 4 – 5

Average Depth: 1,000 feet

Maximum Depth: 1,500 feet

Rotary Footage: 4,500 Coring: --

Type Logs: Natural gamma; Gamma-gamma density; SP; Resistivity

Purpose: Coal exploration to define KRCRA

Targets: Mesaverde Fm. coals

Sampling Plan: Cuttings - 5-ft. intervals

Person-in-charge: Dave Gaskill

Contractor or Driller: Conservation Division - In-house

Remarks: Drilling may not be done by us if Brent Exploration, Inc. (company most interested in area) does the drilling.
Branch of Coal Resources
Drilling Project: McCallum EMRIA - Colo.

Location: Jackson Co.

7½-minute Quads: ________________________________

Starting Date: ____________________ Completion Date: ____________________

No. of Holes: ________________________________

Average Depth: ________________________________

Maximum Depth: ________________________________

Rotary Footage: ____________________ Coring: ________________________________

Type Logs: ________________________________

Purpose: ________________________________

Targets: ________________________________

Sampling Plan: ________________________________

Person-in-charge: Schneider

Contractor or Driller: BLM

Remarks: No additional information received
<table>
<thead>
<tr>
<th>Branch of Coal Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drilling Project: Lay Creek EMRIA - Colo.</td>
</tr>
</tbody>
</table>

| Location: Moffat Co.: sec. 25, 26, 27, 28, T. 8 N., R. 93 W. |

<table>
<thead>
<tr>
<th>7(\frac{1}{2}) minute Quads:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Starting Date:</th>
<th>Completion Date:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>No. of Holes:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Average Depth:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Maximum Depth:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Rotary Footage:</th>
<th>Coring:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Type Logs:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Purpose:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Targets:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sampling Plan:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Person-in-charge: Schneider</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Contractor or Driller: BLM</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Remarks: No additional information received</th>
</tr>
</thead>
</table>

---

27
<table>
<thead>
<tr>
<th>Branch of Coal Resources</th>
<th>Drilling Project:</th>
<th>Trinidad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td></td>
<td>Huerfano and Las Animas Counties, Colorado</td>
</tr>
<tr>
<td>7½-minute Quads</td>
<td></td>
<td>Black Hills, Santa Clara, Weston</td>
</tr>
<tr>
<td>Starting Date</td>
<td></td>
<td>July 1979</td>
</tr>
<tr>
<td>Completion Date</td>
<td></td>
<td>August 1979</td>
</tr>
<tr>
<td>No. of Holes</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Average Depth</td>
<td></td>
<td>1500'</td>
</tr>
<tr>
<td>Maximum Depth</td>
<td></td>
<td>1500'</td>
</tr>
<tr>
<td>Rotary Footage</td>
<td></td>
<td>5,000?</td>
</tr>
<tr>
<td>Coring</td>
<td></td>
<td>500?</td>
</tr>
<tr>
<td>Type Logs</td>
<td></td>
<td>Resist Gamma, Density, Neut. Caliper, B H Temp</td>
</tr>
<tr>
<td>Purpose</td>
<td></td>
<td>Coal evaluation</td>
</tr>
<tr>
<td>Targets</td>
<td></td>
<td>All coals, Vermejo (Upper Cret.) &amp; Raton (Upper Cret. &amp; Paleocene) Fms.</td>
</tr>
<tr>
<td>Sampling Plan</td>
<td></td>
<td>Core coals &gt;2', Methane desorption</td>
</tr>
<tr>
<td>Person-in-charge</td>
<td></td>
<td>Danilchik</td>
</tr>
<tr>
<td>Contractor or Driller</td>
<td></td>
<td>Not known</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
<td>Fed. coal, private surface</td>
</tr>
</tbody>
</table>

-28-
Drilling Project:  Gunnison County, Colorado

Location:  T. 14 & 15 S., R. 86 & 87 W.

7½-minute Quads.:  Squirrel Creek; Mt. Axtell

Starting Date:  September  Completion Date:  

No. of Holes:  4 - 5

Average Depth:  1,000'

Maximum Depth:  1,500'

Rotary Footage:  4,500  Coring:  

Type Logs:  Natural gamma; Gamma-gamma density; SP; Resistivity

Purpose:  Coal exploration to define KRCRA

Targets:  Mesaverde Fm. coals

Sampling Plan:  Cuttings - 5-ft. intervals

Person-in-charge:  Dave Gaskill

Contractor or Driller:  Conservation Division – in-house

Remarks:  Drilling may not be done by us if Brent Exploration, Inc. (company most interested in area) does it.
Drilling Project: Colo-Wyo Coal Company, D-034365
Location: sec. 29 & 26, T. 3 N., R. 93 W., Rio Blanco County, Colorado
7½-minute Quads.: Ninemile
Starting Date: July, 1979 Completion Date: July 1979
No. of Holes: 4 (1 twinned, possibly 2)
Average Depth: 1,630'
Maximum Depth: 2,300'
Rotary Footage: 6,522' Coring: 200'
Type Logs: Natural gamma; Gamma-gamma; SP; Resistivity
Purpose: Coal evaluation - short-term lease application
Targets: Trout Creek Sandstone Mbr. of Iles Fm.
Sampling Plan: Cuttings at 5-foot intervals
Person-in-charge: G. Stuckey
Contractor or Driller: Conservation Division (in-house)
Remarks:
Drilling Project: Sun Coal, C-25889
Location: T. 6, 7 N., R. 87 W.
\( 7\frac{1}{2}\)-minute Quads.: Milner
Starting Date: June, 1979 Completion Date: June 1979
No. of Holes: 4 (2 optional)
Average Depth: 600'
Maximum Depth: \( 1,000' (1,500')\)
Rotary Footage: 1,200 Coring: 10'
Type Logs: Natural gamma; Gamma-gamma; Density; SP; Resistivity
Purpose: Coal evaluation - short-term lease application
Targets: Pinnacle coals - to top of Mancos Shale
Sampling Plan: Cuttings - 5-ft. interval
Person-in-charge: G. Stuckey (R. Brown)
Contractor or Driller: Conservation Division (in-house)
Remarks: Area subject to revision by BLM. If area retains its outline, two holes are needed, two optional depending on time.
Drilling Project: Energy Fuels, C-22676 (Colorado)

Location: sec. 7, T. 5 N., R. 85 W.

7½-minute Quads.: Cow Creek, Colorado

Starting Date: June, 1979

Completion Date: 

No. of Holes: 2 (1 twinned)

Average Depth: 500

Maximum Depth: 500

Rotary Footage: 750

Coring: 12

Type Logs: Natural gamma; Gamma-gamma; SP; Resistivity

Purpose: Coal evaluation-short-term lease application

Targets: Trout Creek Ss. Mbr., Iles Fm.

Sampling Plan: Cuttings at 5-foot intervals

Person-in-charge: G. Stuckey (R. Brown)

Contractor or Driller: Conservation Division (in-house)

Remarks: 

-32-
COAL EVALUATION DRILLING—1979

Branch of Coal Resources
Drilling Project: Zuni Plateau

Location: Fence Lake SW Quad., Cerco Prieto Quad., N. Mexico

7½-minute Quads: ____________________________________________

Starting Date: Spring Completion Date: ________________

No. of Holes: __________ Average Depth: __________

Maximum Depth: __________ Rotary Footage: __________ Coring: Selective - 10'/hole

Type Logs: Gamma, density, resistivity, caliper

Purpose: ________________________________________________

Targets: 7' coal bed

Sampling Plan: __________________________________________

Person-in-charge: E. J. McKay

Contractor or Driller: in-house

Remarks: ________________________________________________
Branch of Coal Resources
Drilling Project: Acoma Indian Reservation

Location: Vicinity of Grants, New Mexico

7½-minute Quads: see below

Starting Date: spring 1979 Completion Date: fall 1979

No. of Holes: 6
Average Depth: 500'
Maximum Depth: 700'
Rotary Footage: 14,000' Coring: 100'

Type Logs: Gamma ray

Purpose: coal evaluation

Targets: Coal in Crevasse Canyon Formation, Mesaverde Group

Sampling Plan: One sample, each bed more than 3 ft. thick in each coal zone

Person-in-charge: W. J. Mapel

Contractor or Driller: in-house

Remarks:

Los Pilares
Crown Point
North Pasture
Laguna Honda
Blue Mesa
Sand Canyon
Cehollita Peak
Mecate Meadows
<table>
<thead>
<tr>
<th>Branch of Coal Resources</th>
<th>Drilling Project: Navajo Reservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>Northwestern New Mexico</td>
</tr>
<tr>
<td>7½-minute Quads:</td>
<td>Burnham Trading Post, Bisti Trading Post, The Pillar 3 NE, SE, NW, SW</td>
</tr>
<tr>
<td>Starting Date:</td>
<td>after mid-July, 1979</td>
</tr>
<tr>
<td>Completion Date:</td>
<td>by Oct 30, 1979</td>
</tr>
<tr>
<td>No. of Holes:</td>
<td>about 10</td>
</tr>
<tr>
<td>Average Depth:</td>
<td>350'</td>
</tr>
<tr>
<td>Maximum Depth:</td>
<td>500'</td>
</tr>
<tr>
<td>Rotary Footage:</td>
<td>3500</td>
</tr>
<tr>
<td>Coring:</td>
<td>200</td>
</tr>
<tr>
<td>Type Logs:</td>
<td></td>
</tr>
<tr>
<td>Purpose:</td>
<td>coal evaluation</td>
</tr>
<tr>
<td>Targets:</td>
<td>Coal in Menefee Fm. (1 or 2 holes in Fruitland Fm.)</td>
</tr>
<tr>
<td>Sampling Plan:</td>
<td></td>
</tr>
<tr>
<td>Person-in-charge:</td>
<td>O'Sullivan</td>
</tr>
<tr>
<td>Contractor or Driller:</td>
<td>contract after June 1, 1979</td>
</tr>
<tr>
<td>Remarks:</td>
<td></td>
</tr>
<tr>
<td><strong>COAL EVALUATION DRILLING—1979</strong></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td></td>
</tr>
<tr>
<td>Conservation Division - Farmington, New Mexico</td>
<td></td>
</tr>
<tr>
<td>Drilling Project: Nageezi</td>
<td></td>
</tr>
<tr>
<td><strong>Location:</strong> 32 sections in T. 23 and 24 N. and R. 9, 10, and 11 W.</td>
<td></td>
</tr>
<tr>
<td>7 1/2-minute Quads: Huerfano T. P., Blanco T. P., Kimbeto, Pueblo Bonito N.W.</td>
<td></td>
</tr>
<tr>
<td><strong>Starting Date:</strong> Summer '79</td>
<td><strong>Completion Date:</strong> Summer '79</td>
</tr>
<tr>
<td><strong>No. of Holes:</strong> Undetermined</td>
<td></td>
</tr>
<tr>
<td><strong>Average Depth:</strong> 1000'</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum Depth:</strong> 1600'</td>
<td></td>
</tr>
<tr>
<td><strong>Rotary Footage:</strong> Undetermined</td>
<td><strong>Coring:</strong> Yes</td>
</tr>
<tr>
<td><strong>Type Logs:</strong> Electric, Natural Gamma, High Resolution Density</td>
<td></td>
</tr>
<tr>
<td><strong>Purpose:</strong> Coal data collection by sampling and logging</td>
<td></td>
</tr>
<tr>
<td><strong>Targets:</strong> Coal in Fruitland Fm.</td>
<td></td>
</tr>
<tr>
<td><strong>Sampling Plan:</strong> Cuttings will be described by geologists at site</td>
<td></td>
</tr>
<tr>
<td><strong>Person-in-charge:</strong> Russell Jentgen</td>
<td></td>
</tr>
<tr>
<td><strong>Contractor or Driller:</strong> Not advertised yet.</td>
<td></td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td></td>
</tr>
</tbody>
</table>
Drilling Project: Kaiparowits Plateau, Utah (UP&L Exchange)

Location: T. 36, 37 & 38 S., R. 2 & 3 E., Garfield & Kane Cos., Utah

7½-minute Quads.: Canaan Creek; Dave Canyon; Death Ridge; Carcus Canyon

Starting Date: 1980's (?) Completion Date: ____________

No. of Holes: 82

Average Depth: 1,354 (900 - 1,920)

Maximum Depth: 1,920

Rotary Footage: 111,010 Coring: 10,000

Type Logs: Natural gamma; Gamma-gamma density; SP; Resistivity

Purpose: Coal Evaluation - Offered Lands - UP&L Exchange

Targets: 3 coal beds in the John Henry Member, Straight Cliffs Fm.

Sampling Plan: Cuttings - 5-ft. intervals

Person-in-charge: Whitey Zeller

Contractor or Driller: Contract

Remarks: May not be necessary - would require road construction - very costly.
CONSERVATION DIVISION, CRMA
COAL EVALUATION DRILLING - 1979

Drilling Project: Wasatch Plateau, Utah (UP&L Exchange)

Location: T. 16, 17, & 18 S., R. 6 & 7 E., Emery County, Utah

7½-minute Quads.: The Cap; Mahogany Pt.; Joe's Valley Reservoir; Red Point;

Starting Date: June 1, 1979 Completion Date: October 31

No. of Holes: 21

Average Depth: 2,045’

Maximum Depth: 2,600’

Rotary Footage: 43,000 Coring: Holes to be selected later

Type Logs: Natural gamma; Gamma-gamma density; SP; Resistivity

Purpose: Coal Evaluation - Selected lands - UP&L exchange

Targets: Blackhawk Formation and Star Point Ss.

Sampling Plan: Cuttings - 5-ft. intervals

Person-in-charge: Gene Ellis

Contractor or Driller: Utah Geological and Mineral Survey

Remarks: Grant Program
Drilling Project: Wasatch #2, North Horn Mt., Utah (continuation)

Location: T. 18 & 19 S., R. 5, 6, 7 E., San Pete & Emery Cos., Utah

7½-minute Quads.: Castledale; Ferron Canyon; Hiawatha

Starting Date: June 1979 Completion Date: 

No. of Holes: 8

Average Depth: 1,333 (range 1,100 - 1,700)'

Maximum Depth: 1,700'

Rotary Footage: 10,500 Coring: --

Type Logs: Natural gamma; Gamma-gamma density; SP; Resistivity; (Caliper)

Purpose: Coal evaluation

Targets: (50 ft. into Star Point Ss below the Blackhawk Fm.)

Sampling Plan: Cuttings - 5-ft. intervals

Person-in-charge: Gene Ellis

Contractor or Driller: Himes Drilling, Grand Junction, Colorado

Remarks: Uranium Exploration Contract terminated for default
Drilling Project: Wasatch #2, Utah (continuation)

Location: T. 18 & 19 S., R. 5, 6, 7 E., San Pete & Emery Cos., Utah

7½-minute Quads.: Castledale; Ferron Canyon; Hiawatha

Starting Date: June 1 or earlier, 1979 Completion Date: July 31, 1979

No. of Holes: 8

Average Depth: 1,333 (Range 1,100 - 1,700)

Maximum Depth: 1,700'

Rotary Footage: 10,500 Coring: ---

Type Logs: Natural gamma; Gamma-gamma density; SP; Resistivity; (Caliper)

Purpose: Coal evaluation

Targets: (50 ft. into Star Point Ss below the Blackhawk Fm.)

Sampling Plan: Cuttings - 5-ft. intervals

Person-in-charge: Gene Ellis

Contractor or Driller: Himes Drilling, Grand Junction, Colorado

Drilling Project: Muddy Creek Area - Wasatch Plateau, Utah

Location: T. 20 & 21 S., R. 5 E., San Pete & Sevier Cos., Utah

7½-minute Quads: Flagstaff Peak; Emery West; Heliotrope Mt.

Starting Date: June 15, 1979 Completion Date: Oct. 1979

No. of Holes: 34

Average Depth: 1,292'

Maximum Depth: 2,450'

Rotary Footage: 41,060' Coring: 2,815'

Type Logs: Natural gamma; Gamma-gamma density; Resistivity; Caliper

Purpose: Coal Evaluation

Targets: Star Point Sandstone, below the Blackhawk Fm.

Sampling Plan: Cuttings - 5 ft. intervals

Person-in-charge: Howard Albee

Contractor or Driller: Contract (Utah Geological & Mineral Survey)

Remarks: To better define and extend known recoverable coal resource area.
CONSERVATION DIVISION, CRMA
COAL EVALUATION DRILLING - 1979

Drilling Project: Muddy Creek Area - Wasatch Plateau, Utah

Location: T. 20 & 21 S., R. 5 E., San Pete & Sevier Cos., Utah

71/2-minute Quads.: Muddy Creek; Flagstaff Peak; Emery West; Heliotrope Mt.

Starting Date: June 15, 1979 Completion Date: Aug. 31, 1979

No. of Holes: 10

Average Depth: 1,350'

Maximum Depth: 1,500'

Rotary Footage: 11,500 Coring: 800

Type Logs: Natural gamma; Gamma-gamma density; SP; Resistivity

Purpose: Coal Evaluation

Targets: Star Point Ss, below the Blackhawk Fm.

Sampling Plan: Cuttings - 5-ft. intervals

Person-in-charge: Howard Albee

Contractor or Driller: Contract

Remarks: To better define and extend KRCRA
Branch of Coal Resources
Drilling Project: Muddy Creek

Location: Area SE and E of Emery, Utah

7½-minute Quads: Emery East

Starting Date: May 7, 1979
Completion Date: May or June 1979

No. of Holes: 11

Average Depth: 100 ft.

Maximum Depth: 110 ft.

Rotary Footage: 0
Coring: 1,070

Type Logs: __________________________

Purpose: to obtain coal samples for petrographic study

Targets: I-J coal

Sampling Plan: all core to Ed Chav for slabbing

Person-in-charge: T. A. Ryer

Contractor or Driller: in-house

Remarks: __________________________

__________________________________
<table>
<thead>
<tr>
<th><strong>Branch of Coal Resources</strong></th>
<th><strong>Wasatch Plateau Coal Field</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td><strong>Central Utah</strong></td>
</tr>
<tr>
<td>7½-minute Quads:</td>
<td>Emery West, Acord Lakes</td>
</tr>
<tr>
<td><strong>Starting Date:</strong></td>
<td>Late May, early June, 1979</td>
</tr>
<tr>
<td>Completion Date:</td>
<td>Late July, 1979</td>
</tr>
<tr>
<td><strong>No. of Holes:</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Average Depth:</strong></td>
<td>1000 ft.</td>
</tr>
<tr>
<td><strong>Maximum Depth:</strong></td>
<td>1025 ft.</td>
</tr>
<tr>
<td><strong>Rotary Footage:</strong></td>
<td>2,125 ft.</td>
</tr>
<tr>
<td>Coring:</td>
<td>700 ft.</td>
</tr>
<tr>
<td><strong>Type Logs:</strong></td>
<td>Gamma Gamma, Natural Gamma, Caliper, Resistivity, drift Survey</td>
</tr>
<tr>
<td><strong>Purpose:</strong></td>
<td>To obtain cores of coal beds for comprehensive analysis and relate the analytical data to depositional environments previously worked out of nearby outcrop</td>
</tr>
<tr>
<td><strong>Targets:</strong></td>
<td>Star Point Sandstone (Cretaceous)</td>
</tr>
<tr>
<td><strong>Sampling Plan:</strong></td>
<td>Cuttings every 10 ft., core</td>
</tr>
<tr>
<td><strong>Person-in-charge:</strong></td>
<td>Joseph D. Sanchez</td>
</tr>
<tr>
<td><strong>Contractor or Driller:</strong></td>
<td>Contract Driller</td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td></td>
</tr>
</tbody>
</table>


**Drilling Project:** Dunn-Stark-Billings Counties NRMA-Conservation Division

**Location:** Dunn County, Stark County, Billings County, North Dakota

**7½-minute Quads:** see attached

**Starting Date:** June 1979  
**Completion Date:** August 1979

**No. of Holes:** 150

**Average Depth:** 420 feet

**Maximum Depth:** 700 feet

**Rotary Footage:** 63,100 feet  
**Coring:** 160 feet

**Type Logs:** Gamma, Gamma Density, Resistivity, SP

**Purpose:** KRCRA establishment and evaluation

**Targets:** Shallow coal beds of the Fort Union Formation

**Sampling Plan:** 5-foot intervals of cuttings

**Person-in-charge:** Michael Menge (USGS)

**Remarks:**
- Quadrangle maps:
  - Antelope
  - Belfield
  - Belfield NE
  - Belfield SE
  - Belfield SW
  - Boyle
  - Bratburg Butte
  - Clark Butte NW
  - Davis Buttes
  - Dickinson North
  - Dickinson South
  - Dunn Center
  - Dunn Center NE
  - Fairfield
  - Fairfield SE
  - Fayette
  - Fryburg
  - Fryburg NE
  - Fryburg NW
  - Gladstone
  - Gorham
  - Gorham NW
  - Gorham SE
  - Gorham SW
  - Grass Butte SE
  - Grass Butte SW
  - Halliday NW
  - Hanks Gully
  - Hungry Man Butte
  - Indian Butte
  - Killdeer
  - Killdeer Mountains
  - Lake Ilo
  - Lefor
  - Lefor NW
  - Lehigh
  - Lone Butte SE
  - Lost Bridge
  - Manning NW
  - Marshall NW
  - New England NW
  - New-Hradec South
  - North Killdeer Mountain
  - North Killdeer Mountain NW
  - Pine Creek
  - Richardton
  - Richardton SE
  - Roosevelt Creek East
  - Schaffner Creek
  - Scheidt
  - South Heart
  - Squaretop Butte
  - Tracy Mountain
  - Werner
  - White Butte NE
  - White Butte NW
  - Ziner Butte

**Preliminary maps:**
- Belfield 3 NE
- Belfield 3 NW
- Belfield 4 NE
- Belfield 4 NW
Drilling Project: West Williams                NRMA Conservation Division

Location: Williams Co., ND

7½-minute Quads: see attached list

Starting Date: June 1979           Completion Date: August 1979

No. of Holes: 27

Average Depth: 517 feet

Maximum Depth: 700 feet

Rotary Footage: 13,980 feet       Coring: 100 ft

Type Logs: gamma, gamma density, resistance, SP

Purpose: establish and evaluate coal resource areas

Targets: Lignites Fort Union Fm.

Sampling Plan: cuttings at 5' intervals


Contractor or Driller:

Remarks:

Bainville SE
Bonetraill SE
Bonetraill SW
Bull Butte
Marmion SE
Otter Tail Creek
Red Bank Creek
Trenton
Trenton NE
Trenton NW
Trenton SW
Williston West
Drilling Project: MOUNTRAIL NRMA - Cons. Division

Location: Mountrail County, North Dakota

7½-minute Quads: see attached

Starting Date: June 1979 Completion Date: September 1979

No. of Holes: 32

Average Depth: 318 feet

Maximum Depth: 400 feet

Rotary Footage: 10,180 feet Coring: 50 feet

Type Logs: Gamma, Gamma Density, Resistivity, SP

Purpose: KRCRA establishment and evaluation

Targets: Shallow coal beds of Fort Union Formation

Sampling Plan: 5-foot intervals of cuttings

Persoin-in-charge: John Spencer (USGS), C. G. Carlson (NDGS)

Contractor or Driller: 

Remarks: 

Quadrangle maps:

Battleview
Charlson NE
Powers Lake
Ross NW
White Earth

Preliminary map:

White Earth 2 SE

AMS map:

Williston
Drilling Project: WARD NRMA Conservation Division

Location: Ward County, North Dakota

7½-minute Quads: see attached

Starting Date: June 1979 Completion Date: September 1979

No. of Holes: 17

Average Depth: 478 feet

Maximum Depth: 540 feet

Rotary Footage: 8,140 feet Coring: 20 feet

Type Logs: Gamma, Gamma Density, Resistivity, SP

Purpose: KRCRA establishment and evaluation

Targets: Shallow coal beds of Fort Union Formation

Sampling Plan: 5-foot intervals of cuttings

Person-in-charge: Susan M. Cook (USGS), C.G. Carlson (NDGS)

Contractor or Driller:

Remarks:

Quadrangle Map:

Douglas West

AMS Map:

McClusky AMS
Drilling Project: DIVIDE NRMA Conservation Division

Location: Divide County, North Dakota

7½-minute Quads: see attached

Starting Date: June 1979 Completion Date: September 1979

No. of Holes: 67

Average Depth: 395 feet

Maximum Depth: 700 feet

Rotary Footage: 26,440 feet Coring: 100 feet

Type Logs: Gamma, Gamma Density, Resistivity, SP

Purpose: KRCRA establishment and evaluation

Targets: Section from surface through Fort Union Formation

Sampling Plan: 5-foot sample intervals of cuttings

Person-in-charge: John Spencer (USGS), C. G. Carlson (NDGS)

Contractor or Driller:

Remarks:

Quadrangle maps:

Alamo
Ambrose
Atcoal
Bright Water Lake
Bush Lake
Columbus SW
Crosby
Hamlet
Noonan
Noonan SE
Noonan SW
Paulson
Stady
Wildrose

AMS maps:

Williston
Wolf Point
Drilling Project: Northern Williams NRMA, Conservation Division

Location: Williams Co., ND

7½-minute Quads: see attached list

Starting Date: Sept. 1978 Completion Date: Aug. 1979

No. of Holes: 77

Average Depth: 440 ft

Maximum Depth: 600 ft

Rotary Footage: 33,980 ft Coring: 200 ft

Type Logs: gamma, gamma density, resistance, SP

Purpose: establish and evaluate coal resource areas

Targets: Lignites in Fort Union Fm.

Sampling Plan: cuttings at 5' intervals

Person-in-charge: John M. Spencer

Contractor or Driller: Superior Drilling, Evergreen, CO

Remarks:

Appam, Big Meadow, Bonetraill, Bonetraill SE, Bonetraill SW, Blacktail Lake, Brush Lake, Brush Mountain, Bright Water Lake, Bull Butte, Charlson NE, Grenora, Hanks, Marmon SE, McGregor, Ray 1NE, Ray 1NW, Ray 1SW, Ray 2NE, Ray 2NW, Ray 2SE, Ray 2SW, Tom Berg Lake, Twin Lakes, West Bonetraill, White Earth 2NW, White Earth 2SE, Zahl
Drilling Project: WARD NRMA Conservation Division

Location: Ward County, North Dakota

7½-minute Quads: see attached

Starting Date: September 1978 Completion Date: August 1979

No. of Holes: 31

Average Depth: 465 feet

Maximum Depth: 700 feet

Rotary Footage: 14,400 feet Coring: 40 feet

Type Logs: Gamma, Gamma Density, Resistivity, SP

Purpose: KRCRA establishment and evaluation

Targets: Shallow coal beds of Fort Union Formation

Sampling Plan: 5-foot intervals of cuttings

Person-in-charge: Susan M. Cook

Contractor or Driller: Superior Drilling Co.

Remarks: Completion of 1978 drilling program that was delayed

Quadrangle Maps:

- Burlington
- Carpio
- Carpio NE
- Coulee
- Des Lacs
- Burlington NW
- Hartland
- Kenmare
- Minot NW
- Minot-15'
- Mosquito Butte
- Niobe
- Tolley SE

AMS Map:

Minot AMS -51-
Drilling Project: MOUNTRAIL NRMA Conservation Division

Location: Mountrail County, North Dakota

7½-minute Quads: see attached

Starting Date: September 1978 Completion Date: August 1979

No. of Holes: 5

Average Depth: 624 feet

Maximum Depth: 740 feet

Rotary Footage: 3120 feet Coring:

Type Logs: Gamma, Gamma Density, Resistivity, SP

Purpose: XRCRA establishment and evaluation

Targets: Shallow coal beds of Fort Union Formation

Sampling Plan: 5-foot intervals of cuttings

Person-in-charge: Susan M. Cook

Contractor or Driller: Superior Drilling Co.

Remarks: Completion of delayed 1978 drilling program

Quadrangle Maps:

Coulee
Donnybrook

AMS Map:

Williston AMS
Drilling Project: RENVILLE, NRMA, Conservation Division

Location: Renville County, North Dakota

7½-minute Quads: see attached

Starting Date: September 1978  Completion Date: August 1979

No. of Holes: 3

Average Depth: 280 feet

Maximum Depth: 400 feet

Rotary Footage: 840 feet  Coring:________________________

Type Logs: Gamma, Gamma Density, Resistivity, SP

Purpose: KRCRA establishment and evaluation

Targets: Shallow coal beds of Fort Union Formation

Sampling Plan: 5-foot intervals of cuttings

Person-in-charge: Susan M. Cook

Contractor or Driller: Superior Drilling Co.

Remarks: Completion of delayed 1978 drilling program

Quadrangle Maps:

Carpio
Carpio NE
Hartland
Branch of Coal Resources

Drilling Project: Rattlesnake Butte EMRIA - No. Dak.


Starting Date: ________________ Completion Date: ________________

No. of Holes: ________________________________

Average Depth:

Maximum Depth:

Rotary Footage: ________________ Coring:

Type Logs: ________________________________

Purpose: ________________________________

Targets: ________________________________

Sampling Plan: ________________________________

Person-in-charge: Schneider

Contractor or Driller: BLM

Remarks: No additional information received
Drilling Project: Arkoma Basin EMRIA (Branch of Coal Resources)

Location: Eastern Oklahoma

7½-minute Quads: Blocker, Stigler East and West, Red Oak, Panama, Spiro, Hackett

Starting Date: May 1979  Completion Date: October 1979

No. of Holes: 18

Average Depth: 175'

Maximum Depth: 220'

Rotary Footage: Coring: 100%

Type Logs: full suite

Purpose: rehabilitation potential  -  coal evaluation

Targets: Pennsylvanian coals

Sampling Plan: complete core

Person-in-charge: Will Witt (Bur. Rec.)  Schneider (BCR)

Contractor or Driller:

Remarks: BLM Program