



Geophysics
International

- 1) **COMPANY:** CONTACT:
ADDRESS: PHONE:
SURVEY DATE: 5/6-10/87
- 2) **LOCATION:**
UNION COUNTY, KENTUCKY, U.S.A.
- 3) **TOPOGRAPHIC CONTROL:**
ALL DATA POINTS AND CALIBRATION WELLS WERE SURVEYED AND STAKED FOR HORIZONTAL LOCATION AND ELEVATION.
- 4) **OBJECTIVE OF THE PETRO-SONDE SURVEY:**
TO DELINEATE LATERAL EXTENT AND THICKNESS OF CAMP #11 COAL SEAM AND AREA(S) OF COAL ABSENCE FOR RESERVE ESTIMATIONS.
- 5) **GEOLOGY:**
THE COAL OF PRINCIPLE INTEREST IS THE NUMBER 11 SEAM OF PENNSYLVANIAN AGE. THE NO. 11 SEAM IS LENTICULAR, AND OVERLAIN BY A LOCALLY DISCONTINUOUS LIMESTONE. THE SEQUENCE ABOVE THE LIMESTONE IS A SERIES OF SHALES AND SANDSTONES. UNDERLYING THE COAL IS UNDERCLAY, SHALES, AND SANDSTONES.
- 6) **INFORMATION AVAILABLE:**
TOPOGRAPHIC MAPS, DRILL HOLE DATA, SURVEYED AND STAKED LOCATIONS AND MINE MAPS.
- 7) **CALIBRATION STATIONS:**
DH-51C, DH-444B
- 8) **PETRO-SONDE SURVEY STRATEGY:**
CALIBRATE TO AVAILABLE DRILL HOLES TO ASCERTAIN ELECTROTELLURIC RESPONSE PATTERNS FOR CAMP #11 COAL SEAM AND FOR NON-COAL MATERIAL. TRAVERSE SIX LINES TO DETERMINE LATERAL EXTENT AND THICKNESS OF CAMP #11 COAL SEAM, AND AREAS OF COAL ABSENCE.
- 9) **CONCLUSIONS AND COMMENTS:**
LINE #1 IS PRESENTED FOR REVIEW. THE PETRO-SONDE WAS CALIBRATED AT DH-444-B. CORRELATION OF THE ELECTROTELLURIC LOG AND THE GEOPHYSICAL LOG INDICATED THAT THE LOCATION OF COAL SEAM AND KEY MARKERS WERE WITHIN ACCEPTABLE ACCURACY LIMITS TO PRODUCE A MEANINGFUL SURVEY. THE CORRELATION OF DH-51-C AT THE END OF THE TRAVERSE WAS ALSO SATISFACTORY.

AT STATION 24, THE COAL THINS TO LESS THAN 3 FEET. IT IS GONE ENTIRELY AT STATIONS 25, 26, AND 27.

MAPPING LATERAL VARIATIONS AND DISTRIBUTION OF RELEVANT OVERLYING FORMATIONS ARE ALSO POSSIBLE.

SW

NE

A

A'

DH 51-C

DH 444-B

PS-28

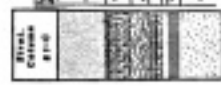
PS-25

PS-26

PS-27

PS-24

PS-23



SANDSTONE

CLAYSTONE

COAL #11

SANDSTONE

CLAYSTONE

COAL #11

SANDSTONE

CLAYSTONE

COAL #11

SANDSTONE

CLAYSTONE

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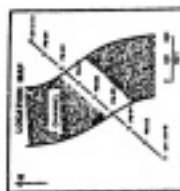
CLAYSTONE

COAL #11

SANDSTONE

CLAYSTONE

COAL #11



	COAL RESERVE STUDY		
	LINE #1		
	UNION CO. RESERVE #24		
	INDUSTRIAL SCALE 1:100'		