1986 - 1987 EXPLORATION PROGRAM

LINE CREEK RIDGE
LOWER SOUTH PIT AND EAST POD

Crows Nest Resources Ltd.

March, 1987

1986 - 1987 EXPLORATION PROGRAM

LINE CREEK RIDGE
LOWER SOUTH PIT AND EAST POD

S.E. B.C.

Part of COAL LEASE #4

KOOTENAY LAND DISTRICT

N.T.S. 82G/I5

LATITUDE: 49° 57' North
LONGITUDE: 114° 45' West

HELD BY: SHELL CANADA RESOURCES LIMITED

OPERATED BY: CROWS NEST RESOURCES LIMITED

00728

REPORT BY: T. Hannah,
Sr. Geologist
March, 1987

3GE1/k.1

SUMMARY

Line Creek Ridge , is contained within B.C. Coal Lease #4. This lease is held by Shell Canada Resources Limited and operated by its wholly-owned subsidiary, Crows Nest Resources Limited (CNRL).

The property is located in the Crows Nest Pass area of the Rocky Mountains in southeastern British Columbia about 1150 km east of Vancouver and 25 km northeast of Sparwood (Figure 1). Line Creek Ridge is 9.5 km from CNRL's coal preparation plant and rail loop (Figure 2).

The project area is located on the upper plate of the Ewin Pass thrust fault. The west limb, axial region and part of the east limb of the Fording Syncline have been preserved in the upper plate at Line Creek Ridge.

The Mist Mountain Formation preserved in Line Creek Ridge is up to 445 meters thick and includes 59 meters of coal in 15 seams.

Proven reserves include coal in the west limb and axial portion of the syncline. Possible reserves include coal in the present project area, some of which is outside the original Line Creek ultimate pit limit.

Exploration to date in the project area has consisted of rotary drill holes, diamond holes, 1 adit and geological mapping.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

1.	Hole Location Plan	1:2000
2.	Survey Data	
3.	Lithology Data	
4.	Quality Data	
5.	Cross-Sections (13)	1:2000

I INTRODUCTION

1. LOCATION AND ACCESS

Crows Nest Resources Limited, a wholly owned subsidiary of Shell Canada Resources Limited, has been operating the Line Creek Mine since start up in 1981. The mine is situated approximately 25km north of Sparwood in southeastern British Columbia. The coal deposit is located in the Front Range of the Rocky Mountains, on the Line Creek Ridge. Figure 2.

Mining was initiated at a height of 2074m above sea level, with the first coal shipments made in 1982. In 1987, it is planned to mine approximately 10.0 million cubic meters of waste to produce 1.6 million tonnes of saleable product divided between metallurgical quality and thermal quality coals.

The mine is developed as a conventional multi-bench open pit. Detailed planning is required to produce a consistent quality metallurgical coal which is blended from up to six coal seams. Present dips of the coal seams range from 15° to 45°.

The project area lies immediately east of CNRL's Line Creek Main Pit (Figure 3), and 9.5 km from the Line Creek coal preparation plant and rail loop. the coal measures underlie the lower slopes of Line Creek Ridge and the Line Creek valley.

Vehicular access into the area is via the main haul road or exploration branch roads.

2. SUMMARY OF PREVIOUS WORK

Very limited data was available in the project area prior to this program.

1969 - 1971 - Crows Nest Industries constructed access roads onto Line Creek Ridge, did some geological mapping and drilled 17 (3145 m) reverse-circulation rotary holes in the project area.

1978 - Crows Nest Resources (CNRL) drilled 2 diamond core holes (450 m) in this area.

1979 - CNRL drilled four rotary coal holes (370 m) and drove one adit in S8 seam.

1983 - CNRL drilled one rotary hole (113 m).

3. SUMMARY OF WORK DONE IN 1986-1987 PROGRAM

- road building (1800 m) and drill site preparation
- geological mapping of road-cuts
- reverse-circulation rotary drilling
  - CNRL rig - 90 holes (5381 m)
  - Contract rig - 32 holes (3496 m)

  112 holes (8877 m)
- lab analysis of one-meter increment samples from the above holes
- geological interpretation of the data utilizing CNRL's MINCOM MINER2 software.
- aside from short holes drilled for coal quality delineation, all holes were drilled to the limit allowed by equipment or ground conditions, or until it was certain that the Morrissey Formation had been encountered.

II OBJECTIVE OF THE PRESENT PROGRAM

As indicated in the original application for government funding, the purpose of this program was to define the stratigraphy, structure and coal quality of the Lower South Pit and East Pod areas. It was intended that approximately 7000 meters of drilling would be done, starting in August of 1986 and to be completed by August of 1987.

Preliminary mine designs were started in November, 1986, and it soon became apparent that the value of this area to the future of the Line Creek Mine had been underestimated.

Drilling data obtained in September and November, 1986, showed very encouraging results and prompted CNRL to accelerate the program by utilizing a contract exploration drill as well as the Company's own equipment.

The final objective of this program is now to provide sufficient geological information for detailed mine planning. This may allow this area to be incorporated into the active pits in the near future.

III REGIONAL GEOLOGY

1. GEOLOGICAL OVERVIEW

Line Creek Ridge is a portion of the Canadian Rocky Mountains which is a narrow but distinctive physiological province of the Eastern Cordillera fold belt. The Canadian Rockies are characterized by northerly trending thrust faults and shallow folds.

Coal in southeastern British Columbia occurs in the Jurassic-Cretaceous Kootenay Group. It is an eastward thinning wedge of non-marine coal-bearing clastic sediments derived from rising mountain ranges to the south and west.

Southeastern British Columbia was covered by a sea during the Jurassic time. The Fernie Formation is the evidence of this sea, hosting marine shale, siltstone, limestone and sandstone with a 300 meter stratigraphic thickness. It is invariably folded and faulted.

With uplift in the southwest in the late Jurassic, the Fernie sea retreated from the area to the northeast. This withdrawal of the sea is represented by sediments grading from marine (Fernie Formation) through deltaic (Kootenay Group) in which the coal occurs, to continental (Blairmore Group).

2. REGIONAL STRATIGRAPHY

The stratigraphic nomenclature proposed by Gibson (1979) has been followed in this report. It is compared to previous nomenclatures on Figure 4, as the old terminology is still widely used.

The Fernie Formation consists of marine shale, siltstone, limestone and sandstone.

The Kootenay Group is comprised of the Morrissey, Mist Mountain and Elk Formations in an ascending order.

The Morrissey Formation is an upward coarsening sandstone sequence some 50 m thick. It is subdivided into two members:

- Weary Ridge Member

  It is comprised of fine to medium grained grey, thin bedded, slightly argillaceous sandstone. It weathers readily, further enhancing bedding, with a characteristic orange colour. It is some 30 m thick.

- Moose Mountain Member

  It is grey to darker grey weathering, medium to coarse grained, thick bedded to massive sandstone. It is cliff-forming, readily mappable and is used to locate the base of the coal-bearing sequence. It is approximately 20 m thick.

- Mist Mountain Formation

  The Mist Mountain Formation is the economically important part of the Kootenay Group called the "Coal Bearing Member" in previous nomenclatures. It is composed of siltstone, sandstone, mudstone, shale, and coal.

  The Mist Mountain strata are attributed to deposition within the subaerial portions of the deltas as well as on coastal and alluvial plains. The strata are dominated (90%) by fine-grained rocks accumulated within flood plain areas. At places, lenticular, coarse-grained sandstone bodies occur, deposited within meandering river channels. Coal seams resulted from accumulations of peat within swamp-marsh bog settings. Thick, widespread coal seams reflect a delicate, long-term balance between the accumulation of peat and subsidence.

The Mist Mountain Formation at Line Creek Ridge is up to 445 m thick with an average of 59.5 m of coal, representing 13% of the section.

The depositional environment of the Mist Mountain Formation becomes less stable towards the top of the section. The lower section, directly above the Morrissey Formation, is laterally the most continuous and uniform. The upper section shows rapid lithological changes: coal seams splitting, inter-seam thicknesses and lithologies varying, attributed to the more unstable depositional environment of an alluvial plan.

- The Elk Formation consists of a cliff-forming succession of interbedded sandstone, siltstone, shale, mudstone, thick congolmerate, sporadic "needle-coal", and thin coal seams. The Elk Formation is eroded at Line Creek Ridge and the nearest exposure of it is the south end of Mt. Michael.

3. REGIONAL STRUCTURE

Late Proterozoic to early Tertiary miogeoclinal sedimentary strata in the southern Rocky Mountains were deformed by compressional forces in two periods. The first was the Late Jurassic to Early Cretaceous Columbian orogeny and involved uplift to the south and west of this area resulting in sediments which make up Kootenay-Blairmore being shed northeast into the Fernie sea. The second was the Late Cretaceous to early Tertiary Laramide orogeny, and resulted in the complex pattern of imbricate thrust faults and folds now observed in the main ranges and foothills of the Rocky Mountains. The Laramide orogeny, which created our present day structures, will be discussed here.

Deformation during the Laramide orogeny has segmented the sedimentary strata into plates bounded by major northwest striking thrust faults, with complex faulting and folding within

these plates. Thrust faulting in the southern Rocky Mountains occurred on scales ranging from faults such as the Lewis, with displacements of greater than 50 km, to faults with displacements measured in millimeteres. Most major thrust faults dip southwest to west, although east-dipping folded thrust faults occur. Individual thrust faults can vary in displacement and may die out along strike, in which case displacement is taken up along adjacent en-echelon faults or through folding, so that shortening across the deformed belt remain constant.

Thrust faults preferentially follow incompetent units (coal seams) and cut up-section rapidly in the competent units, resulting in a "stepped" character to individual fault surfaces. Coal seams have been highly deformed because of their extremely incompetent nature. Faulting within coal seams occurs on a profusion of shear surfaces resulting in a very friable character, and complex patterns of thinning and thickening.

The general structure of Line Creek Ridge conforms to the model of major west and southwest-dipping thrust faults with associated complex faulting and folding. The Fording syncline, forms the basic structure of Line Creek Ridge and is the result of folding along the hanging wall of the Ewin Pass thrust (Grieve, 1981), locally referred to as the Fording thrust.

The Line Creek Ridge portion of the Fording syncline is a broad, asymmetric complex syncline with a shallow northward plunging fold axis. The plunge of the Fording syncline at Line Creek ridge is variable but with a net northward plunge of seven degrees.

The asymmetry of the Fording syncline is generalized by a moderately steep to steeply dipping west limb and a gently dipping east limb. The west side of the syncline is further complicated by several "step" folds, one with up to 100 m of

vertical bedding, which produce a "stepped" limb. The east limb of the syncline is characterized by low-angle thrust faults which step up through the section as they move east. As many as four or five main thrust faults have been identified though these are probably thrust zones with numerous planes of movement.

Thrust faults of small scale are common and are the result of movement within a folded section allowing volume and space adjustments.

Later stage normal faults are observed on the highwall of the Main Pit and are the result of extensional faulting in the Rocky Mountains. Smaller scale normal faults should be expected throughout the area.

Faults repetitions of the Moose Mountain sandstone have been observed on both the east and west limbs of the Fording syncline.

VI LINE CREEK GEOLOGY

1. STRATIGRAPHY

The project area is underlain by up to 300 meters of Kootenay Group strata. Erosion has removed the Elk Formation and left approximately 260 meters of the Mist Mountain Formation and the full section of the Morissey Formation. Natural outcrop exposures are limited to a discontinuous line of the Moose Mountain Member of the Morissey Formation which are exposed from the south end of Line Creek Ridge, down the east flank in an north-easterly direction. Artificial or man-made outcrops occur along road cuts and do expose some of the coal seams of the Mist Mountain Formation.

The coal seam stratigraphy found in the Main Pit is continuous in an easterly direction into this project area, however, the seams do show more lateral variations than seen in the Main Pit. The main coal zones of interest in the project area are numbered 8, 9, and 10 in decending order down-section.

It must be noted at this point that because the CNRL Mincom MINER2 computer system is not yet capable of handling angled thrust faults, the coal stratigraphy in the project area has been divided into four conformable sequences. Each conformable sequence has been given a bottom horizon, and by using artificial control on this bottom horizon for each sequence, it was possible to generate a geological model and cross-sections with the bottom horizons representing thrust faults. It can be seen on the cross-sections that the first, second and fourth conformable sequences contain the coal seams; the third conformable sequence has a bottom horizon called Till and this sequence has been used to represent the deposits of gravel which were encountered in the valley bottom and which have eroded the coal seams. Each conformable sequence has been given a letter prefix designation in front of the seam number with "S" representing the western

conformable sequence, which is continuous with the stratigrphy from the Main Pit. The second conformable sequence has a letter designation "R"; this zone or conformable sequence has very little data and is structurally very complex. The fourth conformable sequence has the letter designation "V" and, as can be seen on the sections the stratigraphy is quite different from that seen in the Main Pit area. The stratigraphy in this eastern conformable sequence, or "V" sequence, is probably more similar to the stratigraphy on Horseshoe Ridge, which is east of the Line Creek Valley and comprises the east limb of the Fording Syncline.

In general, 8 seam changes from a thick seam of approximately 10 meters on the west side of this project area to a split zone on the eastern side containing two thinner seams. Seam 9, in the western portion of the project area, is very similar in stratigraphy to the Main Pit, and as one progresses eastward across the project area it splits into two or three very thins seams and in some places disappears altogether. It should be noted that through the project area there is a significant development of sandstone above 9 seam which in some areas erodes the seam completely. Seam 10 on the west side of the project area, normally consists of two seams designated 10B and 10A; 10A rests directly on the Moose Mountain of the Morissey Formation. As one moves in an easterly direction across the project area there appears to be a development of an interbedded zone of shale and siltstone between the base of 10 and the top of the Moose Mountain Member. The 10 zone itself develops in an easterly direction into a series of three or more coal seams which seem to part and coalesce in a variable manner over the full strike length of the eastern half the project area. In the eastern half where the 10 zone subcrops under the till, numerous intersections of very thick coal in the order of 20 to 40 meters were found directly under the gravels.

In general the initial engineering studies indicate the project area could be divided into three zones of economic interest, the first zone would be the "S" conformable sequence where it appears that the full section from 8 down to 10A could be mineable. The second economic area would include the "R" conformable sequence where at this point and time there is insufficient data to indicate that anything more than 8 seam would be mineable. The third area of economic interest would be the "V" conformable sequence where 8 seam may have some economic potential, but the largest zone of interest is obviously 10 seam.

2. STRUCTURE

The Line Creek Ridge portion of the Fording Syncline is a broad assymetric syncline with a shallow northward plunging fold axis. The Main Pit is presently mining the moderately dipping (25° to 45°) west limb of the syncline and will eventually mine down through the axis and into a portion of the east limb.

The project area includes the Fording Syncline axis and the faulted east limb. The main structural feature in the project area is a thrust zone bounded on the west by the "S" conformable sequence and bounded on the east by the "V" conformable sequence. Insufficient data has been gathered at this time to firmly define the structure in this thrust zone therefore on the cross-sections it has been represented by the "R" conformable sequence. Data in this area indicates highly deformed coal seams which are difficult to correlate from one drill hole to the next. Some drill hole intersections probably represent drag folding on fairly significant thrust faults. Bedding dips in the project area seldom exceed 25° except in areas of severe drag folding and faulting.

It is expected that infill exploration drilling will continue on an ongoing basis in an effort to better define the complex structure in the middle of the project area and to also define the stratigraphic changes which occur across the area in an east-west and north-south direction.

Author's

Note 1: The Mincom Miner 2 computer system is not yet able to handle angle holes as a single drill hole, therefore, all angle holes have been divided into a number of partial holes with each individual partial hole representing a vertical hole drilled through one coal seam. For example drill hole 5010 has been dividied into seven partial holes, with each one representing one coal seam that was intersected in that particular hole.

Author's

Note 2: In the computer modelling system insufficient data can allow the computer to create structural and stratigraphical models which are obviously incorrect. Therefore, control horizons are utilized to control the structure and stratigraphy as much as possible. In the "R" and "V" conformable sequences, the footwalls of two coal seams, one in each sequence, have been used as control horizons. Seams are chosen as control horizons which have sufficient control on their structural model to warrent using them to control the modelling of the seams which have less control. This modelling extrapolation problem is also evident in the lower portion of the each section where the model has been extended to the bottom of the cross-section, well below the limit of any hard data. This problem will hopefully be resolved in the future either by inserting false data to manipulate the model or by hard data when obtained from drilling.

V. COAL QUALITY

No formal assessment has yet been made of the coal quality obtained from this driling program. All of the data which has been obtained to date is included in Appendix Four. In general the data for seams 8 and 9 indicates that its quality should be quite similar to that which has been encountered in the Main Pit. The main surprise appears to be 10 seam in the "V" conformable seqeuence where excellent quality metallurgical coal appears to exist almost directly underneath the gravels in the valley bottom.

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

EXPLORATION BRITISH COLUMBIA

Grant Identification No. 10963M-27

COST STATEMENT

1. Date of this Application
February 16, 1987

2. Applicant's identification and Location
Name: Crows Nest Resources Ltd. - Line Creek Mine

Address — Street Number and Name, Apt. No.		Telephone No.
P.O. Box 2003		425-2555
City, Town, Village: Sparwood,	Province: B.C.	Postal Code: V0B 2G0

3. Head Office Location

Address — Street Number and Name, Apt. No.		Telephone No.
Box 2699 Stn. M - 525 - 3rd Ave. S.W.		232-4355
City, Town, Village: Calgary	Province: Alberta	Postal Code: T2P 3Y9

4. Mailing Address (if different from above)

Address — Street Number and Name, Apt. No.		Telephone No.
City, Town, Village	Province	Postal Code

5. British Columbia Free Miner Certificate No.

6. I/We, Crows Nest Resources Ltd., hereby apply for payment of a grant under the Exploration British Columbia Financial Assistance for Mineral Exploration Program and declare the information given above to be true and accurate.

T. Hannah
Signature of Applicant or Signing Officer

T.W. Hannah
Name (please print)

Sr. Geologist
Title/Occupation (please print)

Line Creek Lower South Pit
Project Name (please print)

Crows Nest Resources Ltd.
Company (please print)

March 12, 1987
Date

7. EXPENDITURES (N.B. Please provide actual all-inclusive costs, including salaries and wages, equipment and machinery rental, supplies, services, transportation and accommodation directly attributable to the field program.)

(a) For the following, the full cost (100% of expenditures) are eligible:

		Total Eligible Expenses
Geological Surveys, Map and Report Preparation and Related Costs		$ 17,000
Geophysical Surveys (line-kilometres)		
Ground		
Magnetic	$	
Electromagnetic	$	
Induced Polarization	$	
Radiometric	$	
Seismic	$	
Other	$	
Airborne	$	
	$	$
Geochemical Surveys (No. of samples analysed for _____)		
Soil	$	
Silt	$	
Rock	$	
Other	$	
	$	$
Drilling - Surface		
CNRL = 5,381 m @ $ 21/m	= $ 113,000	
Contractor = 3,496 m @ $ 34.65/m	= $ 121,125	
8,877	$ 234,125	$ 234,125
Related Technical Surveys		
Sampling/Assaying	$	
Petrographic	$	
Mineralogic	$	
Metallurgic	$	
	$	$
Preparatory/Physical		
* Line/Grid (kilometres) 195 hr. @ $100/hr	$ 19,500	
Trenching (metres)	$	
* road and drill site prep.	$ 19,500	$ 19,500
Other Exploration Costs (attach detailed schedules)		
	$	
	$	
	$	
	$	$
Total Eligible Expenses		$ 270,625

(b) For the following activities only 25% of total costs are eligible:

Tunneling, Drifting, Other Lateral Excavation, Shaft Sinking (25% of total expenses are eligible)		
m @ $	= $ × 25% = $	
m @ $	= $ × 25% = $	
	$	$

(c) TOTAL ELIGIBLE EXPENDITURES: $ _____

8 **SUPPLEMENTARY INFORMATION:** The following information is required in order to help us determine the contribution which mineral exploration activity makes to the economy, and relates to the utilization of B.C. vs. outside labour and services. Only figures directly attributable to the funded program should be included (approximate figures acceptable, but please be as accurate as possible).

(a) Employment, wages and salaries

Type	No. Employed		No. Person-days		Salaries/Wages Paid	
	B.C.	Outside	B.C.	Outside	B.C.	Outside
Prospectors					$	$
Linecutters						
Technicians						
General Labourers						
Drillers/Helpers	3	6	123	236	28,000	54,000
Equipment Operators	1		30		4,500	
Geologists	1		85		17,000	
Geophysicists						
Geochemists						
Engineers						
Supervisory						
Consulting						
Secretarial						
Managerial						
Legal						
Accounting						
Others (specify) Draftsman	1		5		800	
Others (specify)						
TOTALS					$50,300	$ 54,000

(b) Goods and Services

Description	Expenditure	
	B.C.	Outside
Meals, Groceries, etc.	$	$
Camping Supplies, Equipment, etc.		
Accommodation		
Transportations — Scheduled Air		
— Air Charter		
— Vehicle Rentals		
— Vehicle O and M Costs		
— Other (specify)		
Equipment Rentals —		
Equipment Rentals — Trenching, etc.		
— Geophysical, etc.		
— Other (specify)		
Contract Drilling 39 days @ $129/hr		$121,125
Consultant Services		
Assays and Analyses		
Communications		
Other (specify)		

9. IMPACT OF **FAME** GRANT

(a) Please indicate what level of **expansion** of your project was attributable to receiving a FAME grant.

$ 121,125

195 person/days employment.

(b) Please indicate what you feel to be the main achievement of this FAME funded program.

- expansion of the low-cost reserve base for the Line Creek Mine

ACKNOWLEDGEMENTS:

The author would like to acknowledge the contributions of M. West, R. Morris, A. White, J. Schlender, J. Kinnear and M. Ruzek in the preparation of this report.

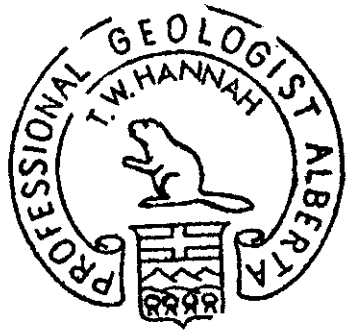
AUTHOR'S QUALIFICATIONS FOR PREPARATION OF THIS REPORT

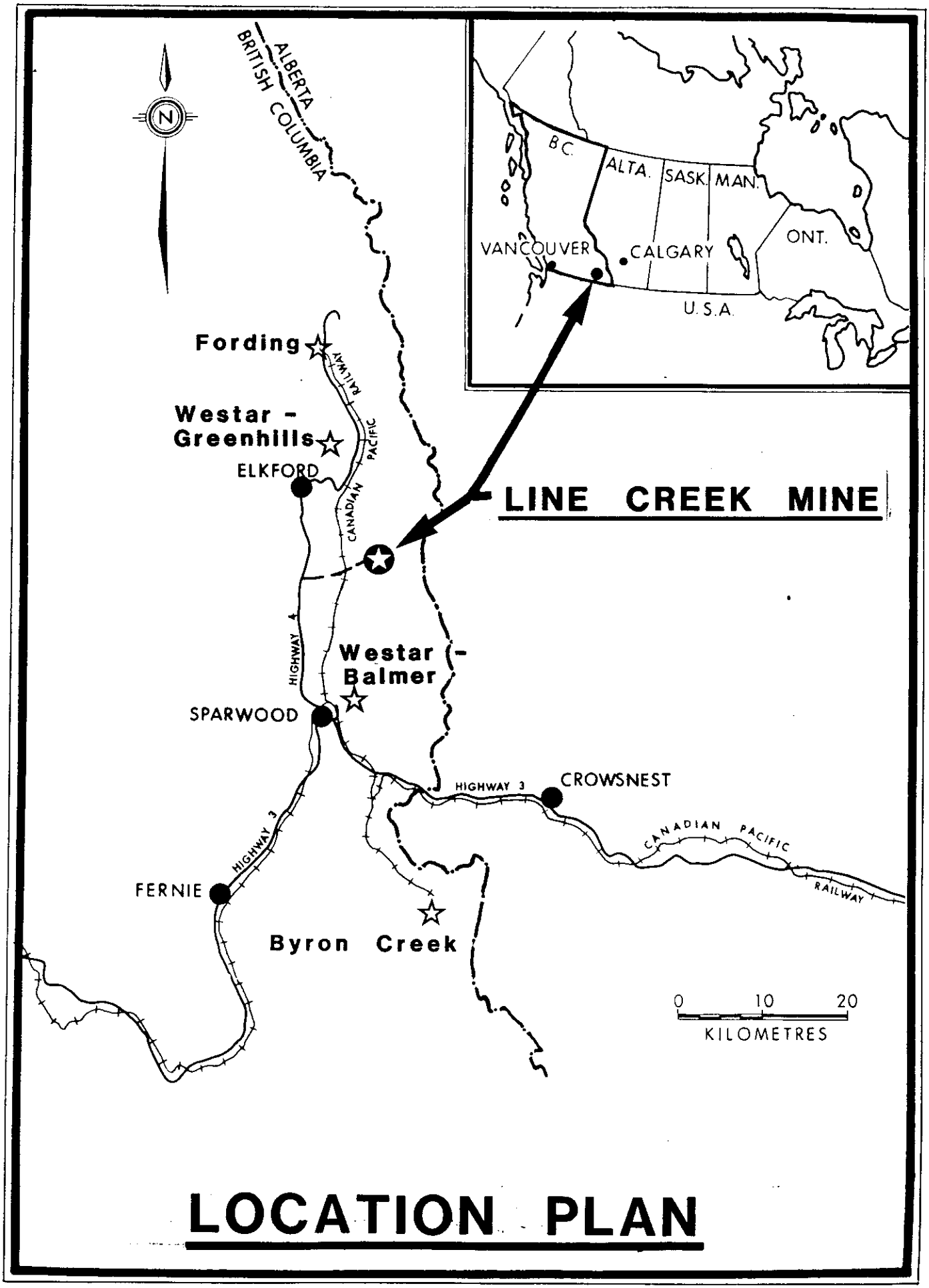
Entitled: 1986 - 1987 Exploration Program
Line Creek Ridge
Lower South Pit and East Pod

Mr. Ted W. Hannah planned and carried out the 1986 - 1987 drilling program in the Lower South Pit and East Pod area of Line Creek Ridge. He also handled the data interpretation and the preparation of this report.

Ted W. Hannah graduated with a BSc in Geology from the University of New Brunswick in 1973. During his 14 year career with Shell/CNRL, Mr. Hannah has worked as a geologist in oil & gas exploration and has spent the past 13 years working on numerous coal exploration projects in Alberta and British Columbia. He currently holds the position of Senior Geologist, Development Engineering Group, Line Creek Mine, and is registered as a Professional Geologist in Alberta.

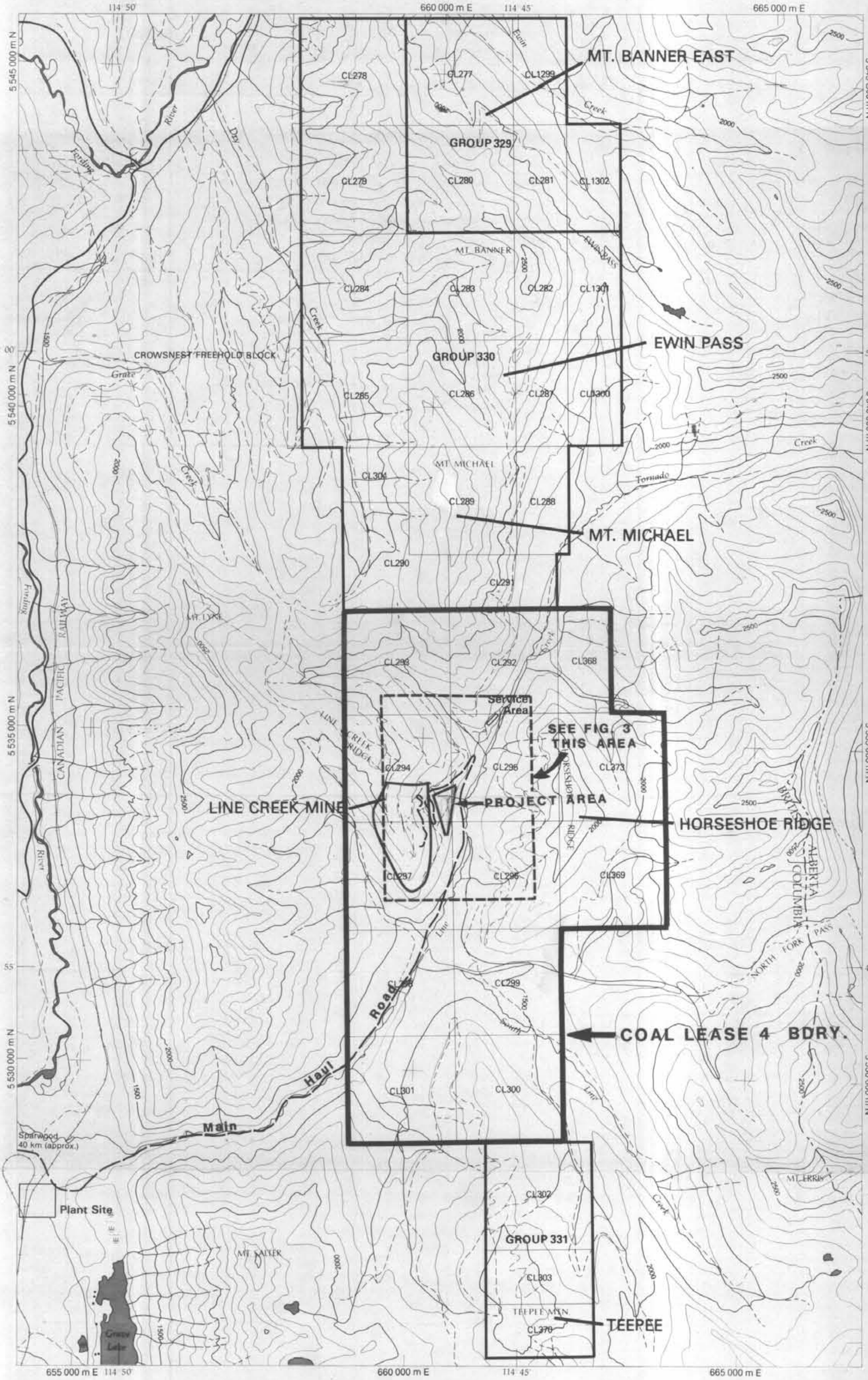
T. W. Hannah





LOCATION PLAN

FIGURE 1



Reference map produced by the Surveys and Mapping Branch, Department of Energy, Mines and Resources in 1975 and updated from 1979 Province of British Columbia 1:100 000 mapping. Metric contours were manually interpolated.

Scale 1:50 000

Kilometres 0.5 0 0.5 1.0 1.5 2.0 2.5 3.0 Kilometres

Miles 0.5 0 0.5 1.0 1.5 2.0 Miles

Contour Interval 100m

Transverse Mercator Projection

Universal Transverse Mercator Grid Zone II

T.N. 1°43' Grid North

Legend

- Road: Highway, Main road
- Road: Loose surface, Dry weather
- Track or trail
- Railway
- River
- Stream
- Contours (2000, 1500)
- Licence boundary
- Licence group boundary

HARDY ASSOCIATES (1978) LTD.

Crows Nest Resources Limited

COAL LEASE 4

LOCATION PLAN

AUTHOR J.W.K.	SCALE 1:50000	ENCLOSURE NO.
DATE MAR. '81	REVISED	N.T.S. 82G/15 & 82J/2
To Accompany		

FIGURE 2

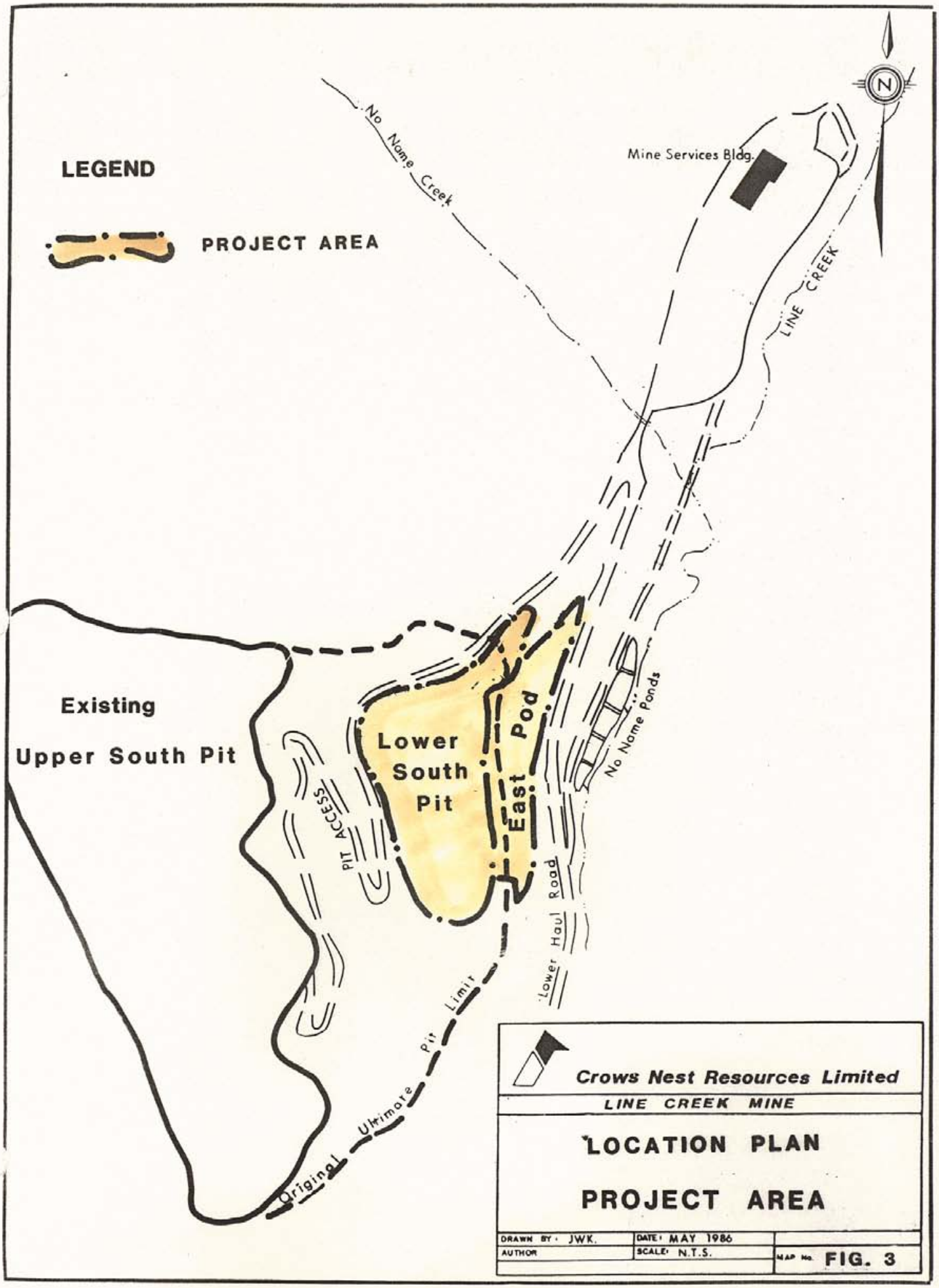
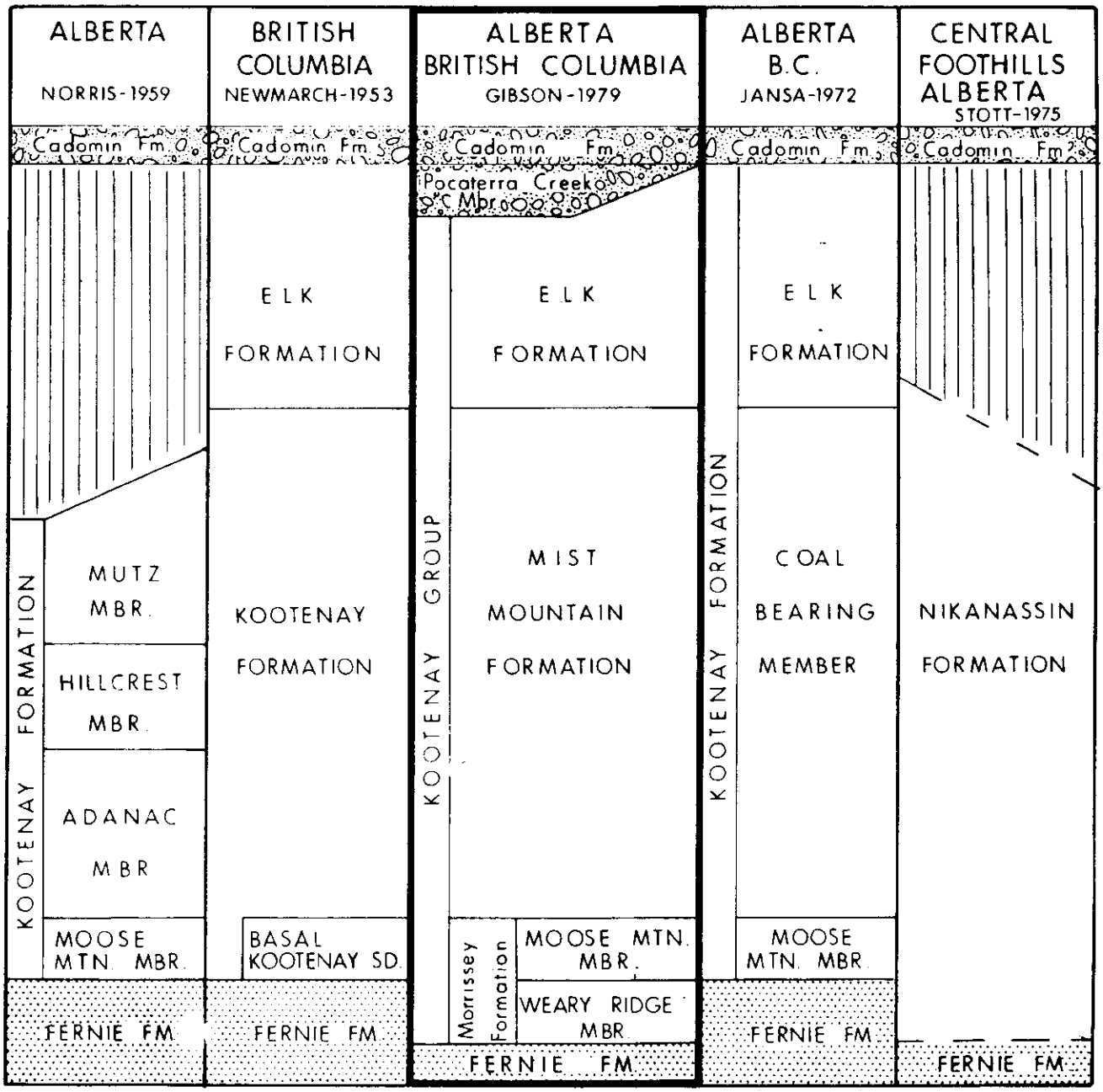

LEGEND
PROJECT AREA
No Name Creek
Mine Services Bldg.
N
LINE CREEK
Existing
Upper South Pit
Lower
South
Pit
East Pod
PIT ACCESS
No Name Ponds
Lower Haul Road
Original Ultimate Pit Limit
Crows Nest Resources Limited
LINE CREEK MINE
LOCATION PLAN
PROJECT AREA
DRAWN BY: JWK.
DATE: MAY 1986
AUTHOR
SCALE: N.T.S.
MAP No. FIG. 3

TABLE OF FORMATIONS

Nomenclature of the Kootenay Group (after Gibson, 1979)



CROWS NEST RESOURCES

FIGURE 4

PROJECT AREA STRATIGRAPHY

CONFORMABLE SEQUENCE "S"		CONFORMABLE SEQUENCE "R"		CONFORMABLE SEQUENCE "EROSION"	CONFORMABLE SEQUENCE "V"	
S6U						
S6L						
S7	S7U					
	S7L					
	S8UF		R8UF			V8UF
	S8U		R8U			V8U
S8	S8L	R8	R8L		V8	V8L
	S8LF		R8LF			V8LF
S9	S9U	R9	R9U		V9	V9R
	S9L		R9L			V9U
						V9L
S9U1						
S9U2						
S9L1						
S9L2						
S1B1					V1F1	
S10B			R10B			V1R1
S1B2		R10			V10	V1R2
S1A1			R10A			V1F2
S10A						
S1A2						
BOS		BOR		TILL	BOV	

Figure 5

COAL SEAM LITHOLOGY STATISTICS REPORT

SEAM	NUM OCCUR	MINIMUM THICK	MINIMUM HOLE	MAXIMUM THICK	MAXIMUM HOLE	THICKNESS MEAN	THICKNESS S.D.	THICKNESS MODE	THICKNESS MEDIAN	THICKNESS SKEW	THICKNESS KURT	AVERAGE DEPTH
S6U	1*	3.00	1	3.00	1	3.00	-	3.00	3.00	-	-	15.20
S6L	2*	2.10	1	3.00	1906	2.55	-	2.91	2.28	-	-	11.38
S7U	3*	1.22	14	1.90	1	1.51	-	1.83	1.42	-	-	23.72
S7	1*	5.40	1859	5.40	1859	5.40	-	5.40	5.40	-	-	13.70
S7L	4	3.05	14	13.10	21	5.76	4.90	4.05	4.39	1.14	-0.68	22.19
S8U	78	0.20	OC25	8.80	22	5.22	1.19	5.46	5.26	-0.89	4.93	44.65
S8L	84	0.20	OC24	13.70	63	7.44	2.28	7.63	7.49	-0.63	2.81	48.79
S9U	13	2.10	5106C	7.40	5076	3.40	1.40	2.63	3.08	1.87	3.23	96.82
S9	22	0.50	ADIT4P	9.80	5077	5.93	2.12	5.15	5.71	-0.78	1.03	95.21
S9L	11	1.20	5083	5.40	5105	2.07	1.31	1.62	1.78	1.79	1.88	118.77
S1B1	3*	1.10	5076	2.20	5107D	1.77	-	2.09	2.04	-	-	106.72
S10B	39	0.50	2183B10	12.20	44	4.93	2.55	4.68	4.63	0.74	1.11	108.37
S1B2	3*	0.80	5104	2.70	48	2.00	-	2.51	2.42	-	-	153.60
S10A	42	0.10	SURV9	10.70	5085	3.78	2.52	3.89	3.53	1.23	1.86	103.19
R8U	7	3.00	5097	32.00	5037	9.64	9.99	5.90	6.38	1.93	1.93	28.81
R8L	8	4.60	5081	21.20	5037	9.87	5.47	9.58	9.03	1.21	0.30	40.53
R8LF	4	0.88	5010F	5.80	5090	3.35	2.29	5.31	2.85	0.00	-1.71	44.98
R9U	2*	1.83	22	6.21	5010H	4.02	-	5.77	2.71	-	-	70.08
R9	3*	15.40	5098	18.80	5106D	17.63	-	18.46	18.29	-	-	75.46
R9L	3*	2.00	5025	3.58	5010J	2.77	-	3.42	2.79	-	-	79.40
R10B	4	4.20	5046	6.70	5098	5.18	1.18	4.45	4.70	0.47	-1.39	93.69
R10A	4	4.50	5089	25.40	5098	10.98	9.72	6.59	7.29	1.08	-0.72	110.36
V8U	7	4.90	5061	14.10	5062	7.89	3.17	5.82	7.20	1.14	0.11	58.75
V8L	7	1.00	21	5.60	5096	2.75	1.52	2.38	2.49	0.93	-0.16	74.13
V8LF	1*	1.00	21	1.00	21	1.00	-	1.00	1.00	-	-	134.50
V9R	6	0.40	5064	3.00	5044	1.32	0.96	1.18	1.18	0.81	-0.35	98.74
V9U	12	0.30	69	5.03	115B	1.63	1.52	0.77	1.11	1.48	0.75	99.48
V9L	10	0.40	5093	4.43	115D	1.63	1.16	1.61	1.41	1.39	1.52	101.68
V1F1	4	6.40	5050	13.50	21	9.52	3.49	7.11	7.82	0.17	-1.76	133.39
V1R1	11	2.90	5095	15.00	21	6.43	3.71	4.11	5.62	1.27	0.68	110.80
V10	25	4.70	5095	35.20	5044	17.07	8.75	12.33	15.50	0.61	-0.62	86.01
V1R2	8	2.50	5064	9.20	5050	4.62	1.99	4.51	4.17	1.66	1.85	97.53
V1F2	7	3.00	5095	52.90	5103	13.31	17.87	7.99	8.82	1.86	1.75	109.28

- WARNING, less than 4 occurences of this seam. Not able to provide any statistics. Seam cannot be included in model.

Figure 6

HORIZONS STATISTICS REPORT

HORIZON	OCCURRENCES	AVERAGE DEPTH	
BOS	12	44.98	
COR	8	45.46	- CONTROL HORIZON FOR "R" SEQUENCE
BOR	10	34.90	
TILL	39	32.59	
COV	13	92.59	- CONTROL HORIZON FOR "V" SEQUENCE
BOV	31	63.07	

Figure 7

APPENDIX 1

MAP INDEX

N24B	024A	024B
N24D	024C	024D
N25B	025A	025B

MAP REFERENCE

MAIN ROAD
SECONDARY ROAD
TRAIL OR TRACK
RAILWAY
BRIDGE, CULVERT
RIVER, LAKE
DITCH, CREEK WITH FLOW DIRECTION
TREES
DEPRESSION
SPOT ELEVATION
BUILDING
SURVEY STATION

MAP PROJECTION U.T.M. CENTRAL MERIDIAN 117° W

SCALE 1:2000

DIP & STRIKE
DRILL HOLE
B SEAM ONLY
POWER POLE
New Roads
UPDATED NOV. 1986
UPDATED JAN 1987
REV. MAR. 1987

Crows Nest Resources Limited
LINE CREEK MINE

GEOLOGY
LOWER SOUTH PIT

DRAWN BY JWK	DATE APR 1986	U.T.M. DATA
AUTHOR PG	SCALE 1:2000	MAP No. FP-003

728

LINE CREEK PROJECT SURVEY DATA APPENDIX 2

HOLE		EAST.	NORTH.	COLLAR	T.D.
1		660039.70	5534359.20	1736.50	235.00
108		660199.50	5533758.20	1688.50	173.00
11		660149.60	5533955.70	1703.20	184.00
*115B	P	660463.40	5534010.00	1458.00	6.00
115D	P	660466.50	5534010.00	1449.00	5.00
115F	P	660486.60	5534014.00	1415.00	27.00
115H	P	660489.00	5534014.00	1386.00	5.00
115J	P	660491.30	5534015.00	1379.00	5.00
12		660050.50	5533746.10	1766.60	214.00
14		660285.00	5534405.00	1712.30	217.00
1799		660182.30	5533401.40	1742.30	102.00
1800		660159.20	5533509.80	1748.10	133.50
1801		660206.50	5533222.40	1728.20	42.00
1812		660076.50	5533399.50	1797.40	153.00
1859		660012.70	5533858.40	1761.60	205.00
1906		660019.50	5534254.40	1738.80	223.00
203		660285.47	5534316.99	1679.24	101.50
203R		660291.13	5534314.04	1679.24	101.53
206		660150.93	5533497.09	1745.20	32.80
207		660238.04	5533885.54	1666.32	66.20
2075		660025.20	5533321.00	1833.80	155.00
207R		660236.24	5533895.08	1666.83	69.85
2081		660017.20	5533576.20	1808.80	17.00
21		660509.5	5534533.0	1651.9	271.0
2137		660138.00	5533971.60	1703.70	193.00
2138		660116.80	5533804.40	1728.30	190.00
*2183A10		660147.00	5533360.50	1665.90	3.40
2183B10		660142.00	5533359.00	1670.70	0.70
2183L8		660084.00	5533343.50	1748.10	7.00
2183T9		660127.50	5533355.00	1690.20	1.70
2183U8		660078.00	5533342.00	1755.60	6.20
2184		660042.80	5533268.60	1823.00	137.00
*2185A10		660155.00	5533300.70	1680.70	3.10
2185B10		660149.30	5533299.00	1687.00	1.30
2185B8		660090.00	5533282.00	1766.70	8.50
2185T9		660131.00	5533294.00	1712.80	6.00
2185U8		660083.00	5533280.00	1774.30	6.40
22		660295.70	5534247.90	1639.20	221.00
36		660150.70	5533590.70	1765.50	187.00
41		660197.60	5533951.50	1682.40	170.00
44		660294.50	5533983.10	1681.60	190.00
48		660198.30	5534089.80	1649.00	175.00
49		660106.10	5533637.30	1766.30	203.00
5000AD		660448.60	5534306.20	1639.10	70.00
5001D		660447.60	5534305.20	1639.10	91.00
5002		660411.10	5534289.80	1641.40	90.00
*5010B	P	660405.00	5534184.00	1552.00	8.00
5010D	P	660410.50	5534186.00	1543.00	10.00
5010F	P	660412.00	5534186.00	1533.00	2.00
5010H	P	660429.70	5534193.00	1504.00	7.00
5010J	P	660431.70	5534193.00	1497.00	4.00
5010L	P	660451.00	5534200.00	1464.00	8.00
5010N	P	660457.40	5534203.00	1448.00	5.00

5010P	P	660476.30	5534210.00	1409.00	2.00
5010R	P	660482.00	5534211.00	1399.00	2.00
5010T	P	660484.80	5534213.00	1393.00	2.00
5011D		660300.10	5534144.00	1614.70	36.00
5025		660372.70	5534171.00	1604.40	242.00
5026D		660317.10	5534072.50	1624.70	11.80
5027		660329.80	5534063.00	1624.30	25.00
5028		660853.72	5534487.48	1531.95	70.00
5029		660889.76	5534602.83	1535.09	71.00
5031		660269.41	5534186.26	1629.07	136.00
5036		660718.18	5534215.99	1522.83	77.00
5037		660457.00	5533995.80	1593.00	238.40
5038		660564.39	5533655.43	1551.33	145.00
5039		660570.08	5533552.17	1546.08	115.00
5040		660354.68	5534123.57	1605.86	239.00
5041		660482.20	5533811.10	1574.30	117.00
*5042		660344.87	5534947.99	1670.25	242.00
5042A	P	660363.50	5533955.00	1622.00	7.00
5042B	P	660366.20	5533956.00	1615.00	8.00
5042C	P	660383.30	5533962.00	1566.00	8.00
5042D	P	660403.00	5533969.00	1511.00	11.00
5042E	P	660408.10	5533971.00	1492.00	7.00
5043		660650.60	5534062.30	1517.70	95.70
5044		660510.40	5534030.80	1568.20	221.00
5045		660678.97	5534322.20	1552.70	116.60
5046		660564.30	5533841.80	1545.10	193.20
5047		660656.00	5533913.60	1517.40	65.00
5048		660772.70	5534360.80	1526.90	102.00
5049		660658.10	5534004.99	1516.30	89.00
5050		660803.30	5534823.80	1594.40	156.80
5051		660570.90	5533622.40	1549.60	140.00
5051a		660605.8	5533635.0	1488.0	2.0
5052		660806.70	5534609.97	1562.60	129.00
5053		660756.70	5534476.13	1555.94	132.00
5054		660713.96	5534404.84	1555.05	126.00
5055		660822.24	5534434.47	1529.66	55.00
5056		660748.77	5534289.32	1524.60	91.00
5057		660689.60	5534151.08	1520.30	83.00
5058		660698.74	5534084.62	1515.63	59.00
5059		660791.07	5534564.34	1560.21	132.00
5060		660557.97	5534349.39	1587.97	59.00
5061		660531.30	5534220.69	1572.54	83.40
5062		660497.07	5534133.14	1574.91	108.00
*5063A	P	660615.80	5533844.00	1475.00	15.00
5063B	P	660622.20	5533846.00	1456.00	5.00
5064		660554.70	5534060.90	1555.80	150.20
5076		660332.20	5534009.70	1650.20	182.50
5077		660361.60	5533958.60	1649.90	173.00
5078		660360.10	5533895.50	1650.20	149.50
5079		660307.20	5533874.10	1650.40	145.00
5080		660447.30	5534065.20	1588.30	90.00
5081		660498.60	5533965.40	1569.20	77.00
5082		660478.50	5534020.90	1577.90	137.00
5083		660396.00	5533756.00	1606.70	84.00
5084		660424.90	5533687.10	1597.60	71.00
5085		660469.60	5533878.10	1582.10	62.50
5086		660463.80	5533937.50	1588.00	77.50
5087		660424.60	5534054.20	1597.80	141.00
5088		660399.60	5534111.20	1596.40	77.00
5089		660551.60	5533785.10	1551.90	98.00

5090	660415.10	5534153.30	1594.40	118.00
5091	660425.10	5534214.60	1603.10	82.00
5092	660449.90	5534235.30	1601.80	72.00
5093	660613.50	5534426.80	1580.20	199.00
5094	660875.70	5534719.50	1544.00	53.00
5095	660850.90	5534649.20	1542.80	81.00
5096	660501.80	5534261.50	1595.50	120.50
5097	660384.80	5534081.40	1603.10	116.00
5098	660344.0	5534081.8	1613.4	215
5099	660542.3	5533670.4	1555.2	81.5
5100	660573.6	5533900.0	1544.1	42.5
5101	660620.0	5533861.6	1520.4	66.5
5102	660642.1	5533792.1	1517.5	52
5103	660750.6	5534673.6	1584.7	174
5104	660176.6	5534156.4	1649.9	163
5105	660287.9	5534056.0	1640.9	193.6
*5106a	660358.5	5534015.0	1626	7
5106b	660360.3	5534015.0	1619.	7
5106c	660373.5	5534020.0	1563.0	3
5106d	660390.8	5534026.0	1511	20
*5107a	660376.3	5533963.0	1632	8
5107b	660378.4	5533964.0	1624	12
5107c	660386.5	5533967.0	1566	3
5107d	660395.0	5533970.0	1515	3.5
5107e	660397.0	5533971.0	1508	9
5107f	660398.9	5533971.0	1494	6
5108	660563.0	5534145.2	1557.5	145
5109	660734.0	5534443.6	1556.3	83
5110	660804.7	5534525.5	1558.9	67
5111	660821.9	5534567.7	1560.5	67.5
*5112a	660383.3	5533899.0	1629	6
5112b	660387.3	5533900.0	1624	8
5112c	660436.9	5533913.0	1539	12
5112d	660443.6	5533914.0	1515.8	7
60	660176.73	5533300.75	1747.11	70.00
61	660233.97	5533298.13	1714.67	50.00
610	660286.46	5533976.12	1680.18	116.00
63	660345.70	5534261.70	1638.40	52.00
69	660532.40	5534301.40	1590.30	300.00
71	660115.60	5534225.50	1683.00	199.00
72	660595.40	5534279.70	1559.50	205.00
906	660596.00	5534071.30	1539.30	113.00
Adit18C	660270.50	5533860.70	1616.50	15.00
Adit18E	660260.80	5533864.50	1616.80	15.00
Adit18S	660298.00	5533849.00	1615.50	15.00
Adit12p	660292.2	5533263.8	1666.5	2.0
Adit12x	660170.8	5533287.9	1674.8	2.0
Adit3p	660082	5533193	1789	2.0
Adit4p	660108.9	5533156.0	1748	2.0
Adit5p	660096.8	5533091.7	1748.8	2.0
Adit5x	660029.8	5533100.8	1750.9	2.0
Adit6p	660101	5533059.2	1751	2.0
Adit7p	660295.8	5533551.9	1672	2.0
BOR1	660425.00	5534235.00	1486.00	5.00
BOR2	660457.00	5534248.00	1549.00	5.00
BOR3	660422.00	5533983.00	1443.00	5.00
BOR5	660513.00	5533824.00	1398.00	5.00
BOR6	660245.00	5534173.00	1200.00	5.00
BOR7	660245.00	5533920.00	1200.00	5.00
BOS1	660381.00	5534174.00	1598.00	5.00

BOS4		660455.00	5533804.00	1410.00	5.00
BOS5		660502.00	5533820.00	1510.00	5.00
F5003		660349.30	5534243.80	1648.40	89.00
F5004		660218.00	5534231.90	1655.20	86.00
F5005		660166.80	5534210.60	1660.80	85.00
F5006		660254.10	5534199.40	1633.10	66.50
F5007		660284.90	5534187.30	1625.00	41.00
F5008		660244.50	5534167.10	1632.80	66.00
F5009		660228.30	5534151.30	1636.80	72.00
F5012		660139.80	5534122.30	1671.30	85.00
F5013		660262.20	5534125.30	1629.30	63.00
F5014		660244.10	5534099.50	1637.50	60.50
F5015		660284.20	5534092.30	1626.80	50.00
F5016		660319.30	5534091.50	1613.80	22.50
F5017		660346.10	5534048.60	1623.10	20.00
F5018		660368.90	5534034.90	1627.60	10.50
F5019		660266.90	5534052.80	1656.50	80.00
F5020		660334.00	5533949.80	1679.40	97.00
*F5021A	P	660362.20	5533961.00	1621.00	6.00
F5021B	P	660365.70	5533962.00	1615.00	8.00
*F5022A	P	660381.60	5533968.00	1633.00	5.00
F5022B	P	660387.00	5533970.00	1628.00	6.00
F5023		660305.70	5533907.90	1679.80	94.00
*F5024A	P	660345.10	5533894.00	1612.00	5.00
F5024B	P	660349.60	5533892.00	1607.00	9.00
F5032		660261.20	5534174.90	1629.20	59.00
F5033		660256.50	5534165.30	1629.70	59.00
F5034		660292.34	5534128.29	1616.63	34.00
F5035		660297.26	5534116.26	1616.91	34.00
F5065		660300.60	5534029.80	1650.20	69.00
F5067		660332.00	5534012.20	1650.30	60.00
F5068		660344.80	5534015.40	1650.60	54.00
F5069		660365.10	5533991.80	1650.00	42.00
F5070		660365.30	5533926.20	1650.60	46.00
F5071		660379.80	5533932.90	1650.80	40.00
F5072		660364.10	5533904.50	1650.60	48.00
F5073		660378.70	5533910.50	1650.10	41.00
F5074		660331.90	5533867.20	1650.40	53.00
F5075		660325.00	5533881.60	1650.60	54.00
LC9		660285.00	5533818.00	1641.00	29.00
OC1		660500.0	5534340.0	1615.0	25.0
OC19		660300.0	5533226.0	1678.1	0.2
OC20		660404.0	5533324.0	1624.1	0.2
OC21		660431.0	5533346.0	1615.1	0.2
OC22		660188.3	5533197.5	1734.0	8.0
OC23		660268.9	5533526.7	1680.6	0.5
OC24		660262.1	5533509.2	1684.7	0.5
OC25		660266.1	5533568.7	1684.7	0.5
SURV10		660104.00	5533057.20	1749.80	0.20
SURV9		660070.20	5533018.00	1763.20	0.20
WW2		660207.20	5534044.30	1675.80	110.00

* A = ANGLE HOLE

LINE CREEK PROJECT - ANGLED HOLES

HOLE	AZIMUTH	ANGLE
115	080°	70° east
2183	075°	51° east
2185	074°	51° east
5010	070°	61° east
5042	070°	70° east
5063	073°	55° east
5106	070°	75° east
5107	070°	80° east
5112	076°	60° east
F5021	070°	65° east
F5022	070°	45° east
F5024	110°	60° east

3GE1/k.23

LINE CREEK PROJECT LITHOLOGY DATA APPENDIX 3

HOLE	SEAM	DRILL DEPTH TOP	BASE
1	S6U CO	13.70	16.70
1	S6L CO	18.00	20.10
1	S7U CO	34.70	36.60
1	S7L CO	37.60	40.80
1	S8U CO	137.20	141.80
1	S8L CO	142.70	150.00
1	S9 CO	187.20	194.20
1	S10BCO	219.60	225.00
1	S10ACO	227.50	230.80
108	S8U CO	41.86	47.50
108	S8L CO	48.53	55.89
108	S9U CO	103.52	106.28
108	S9L CO	106.76	108.46
108	S10BCO	133.04	137.90
108	S10ACO	142.57	145.80
11	S8U CO	84.79	89.98
11	S8L CO	90.89	98.21
11	S9U CO	137.86	140.91
11	S9L CO	142.44	144.57
11	S10BCO	168.36	173.24
11	S10ACO	175.68	178.73
115B	V9U CO	0.21	5.24
115D	V9L CO	0.55	4.98
115F	V10 CO	0.36	26.94
115H	V1R2CO	0.87	4.58
115J	V1F2CO	0.05	4.13
12	S8U CO	89.06	93.64
12	S8L CO	94.86	101.26
12	S9 CO	148.84	155.55
12	S10BCO	175.07	179.95
12	S10ACO	185.44	188.80
14	S7U CO	11.59	12.81
14	S7L CO	14.64	17.69
14	S8U CO	155.00	163.00
14	S8L CO	164.50	177.00
14	S9 CO	208.32	213.50
1799	S8L CO	0.00	1.00
1799	S10BCO	85.70	90.20
1799	S10ACO	94.80	98.00
1800	S8U CO	20.00	26.50
1800	S8L CO	27.80	32.60
1800	S10BCO	117.80	123.00
1800	S10ACO	127.40	130.60
1801	S9 CO	3.00	7.80
1801	S10BCO	24.40	27.80
1801	S10ACO	32.90	35.90
1812	S8U CO	53.30	58.40
1812	S8L CO	59.50	66.70
1812	S9 CO	114.30	121.50
1812	S10BCO	137.00	141.50
1812	S10ACO	146.00	149.50
1859	S7 CO	11.00	16.40
1859	S8U CO	106.10	110.60

1859	S8L CO	111.90	118.40
1859	S9 CO	167.20	172.60
1859	S10BCO	190.20	194.40
1859	S10ACO	200.10	203.50
1906	S6L CO	2.20	5.20
1906	S7U CO	22.60	24.00
1906	S7L CO	25.00	28.70
1906	S8U CO	129.40	134.10
1906	S8L CO	134.60	141.20
1906	S9U CO	181.70	185.20
1906	S9L CO	186.00	187.40
1906	S10BCO	210.00	214.60
1906	S10ACO	217.80	220.40
203	S8U CO	79.00	84.80
203	S8L CO	86.00	96.40
203R	S8U CO	77.10	83.20
203R	S8L CO	84.20	95.20
206	S8U CO	13.00	18.80
206	S8L CO	19.40	25.40
207	S8U CO	50.00	55.00
207	S8L CO	55.90	62.70
2075	S8U CO	62.40	67.60
2075	S8L CO	68.90	75.90
2075	S9 CO	116.00	121.70
2075	S10BCO	138.60	142.30
2075	S10ACO	149.50	152.00
207R	S8U CO	51.50	56.30
207R	S8L CO	57.40	64.00
2081	ST	0.00	0.00
21	s7l co	0.0	13.1
21	v8u co	105.0	113.0
21	v8l co	130.0	131.0
21	v8lfco	134.0	135.0
21	v9u co	192.0	192.5
21	v1f1co	216.5	230.0
21	v1r1co	253.0	268.0
2137	S8U CO	86.00	91.60
2137	S8L CO	92.60	99.80
2137	S9 CO	138.60	144.40
2137	S10BCO	168.20	172.60
2137	S10ACO	176.30	179.60
2138	S8U CO	80.80	86.30
2138	S8L CO	87.40	97.10
2138	S9 CO	140.60	146.60
2138	S10BCO	167.80	173.00
2138	S10ACO	177.30	180.30
2183A10	S10ACO	0.10	3.30
2183A10	ST	3.30	3.32
2183B10	S10BCO	0.10	0.60
2183L8	S8L CO	0.10	6.90
2183T9	S9 CO	0.10	1.60
2183U8	S8U CO	0.10	6.10
2183U8	ST	6.10	6.12
2184	S8U CO	40.70	46.20
2184	S8L CO	47.40	54.20
2184	S9 CO	94.40	99.80
2184	S10BCO	117.10	121.10
2184	S10ACO	128.10	131.00
2185A10	S10ACO	0.10	3.00
2185B10	S10BCO	0.10	1.20

2185B8	S8L CO	0.10	8.40
2185B8	ST	8.40	8.42
2185T9	S9 CO	0.10	5.90
2185U8	S8U CO	0.10	6.30
22	S8U CO	31.50	40.30
22	S8L CO	41.20	48.80
22	S9 CO	114.00	118.95
22	bos ho	130	130
22	r9u CO	135.42	137.25
22	r9l CO	143.05	145.79
36	S8U CO	59.78	64.97
36	S8L CO	68.93	75.03
36	S9 CO	125.05	129.02
36	S10BCO	151.59	158.60
36	S10ACO	163.48	166.53
41	S8U CO	68.93	73.81
41	S8L CO	74.73	81.44
41	S9U CO	122.31	125.66
41	S9L CO	126.58	128.10
41	S10BCO	153.40	158.30
41	S10ACO	161.65	164.70
44	S8U CO	75.64	80.83
44	S8L CO	82.35	88.76
44	S9U CO	131.76	135.73
44	S9L CO	137.86	139.69
44	S10BCO	167.14	179.34
44	S10ACO	182.39	186.05
48	S8U CO	47.58	52.46
48	S8L CO	53.68	61.61
48	S9U CO	100.65	105.23
48	S9L CO	106.38	107.67
48	S10BCO	135.00	139.90
48	S1B2CO	144.20	146.90
48	S10ACO	157.99	164.40
49	S8U CO	63.14	67.10
49	S8L CO	68.93	74.42
49	S9 CO	132.50	138.40
49	S10BCO	155.55	161.65
49	S10ACO	165.92	169.58
5000AD	ST	0.00	70.00
5001D	ST	0.00	90.00
5002	ST	0.00	90.00
5010B	R8U CO	0.51	7.51
5010D	R8L CO	0.96	9.01
5010F	R8LFCO	0.14	1.02
5010H	R9U CO	0.71	6.92
5010J	R9L CO	0.18	3.76
5010L	V8U CO	0.85	7.67
5010N	V8L CO	0.16	4.01
5010P	V9R CO	0.95	1.39
5010R	V9U CO	0.75	1.45
5010T	V9L CO	0.43	1.74
5011D	ST	0.00	36.00
5025	BOS ho	10.00	10.00
5025	R9L CO	90.80	92.80
5025	BOR ho	210.00	210.00
5025	V9R CO	210.20	211.80
5025	V9U CO	217.80	219.30
5025	V9L CO	227.40	229.70
5026D	ST	0.00	11.80

5027	S8U CO	9.50	14.30
5027	S8L CO	15.30	23.30
5027	ST	23.30	23.32
5028	bov ho	35	35
5028	tillho	35	35
5028	st	35	65
5029	tillho	34	34
5029	v10 co	47.6	54.6
5029	bov ho	54.6	54.6
5031	S8U CO	34.40	38.50
5031	S8L CO	39.40	46.40
5031	S9 CO	85.00	92.40
5036	TILLho	33.00	33.00
5036	V1r1CO	35.90	41.70
5036	bov ho	41.7	41.7
5037	R8U CO	2.00	34.00
5037	R8L CO	38.40	59.60
5037	V1F1CO	174.80	186.20
5037	V1R1CO	193.50	197.00
5037	V10 CO	207.60	216.60
5037	V1R2CO	219.60	223.90
5037	V1F2CO	232.30	238.40
5038	bov ho	23	23
5038	TILLho	23.00	23.00
5039	bov ho	20	20
5039	TILLho	20.00	20.00
5040	bos ho	40.00	40.00
5040	R8U CO	45.00	50.50
5040	R8L CO	52.00	58.80
5040	st	58.8	239.0
5041	S10ACO	6.00	16.60
5042a	s8u co	1.12	6.06
5042b	s8l co	0.45	7.15
5042c	s9 co	0.88	7.95
5042d	s10bco	0.04	10.46
5042e	s10aco	0.31	6.49
5043	TILLho	27.00	27.00
5043	V1R1CO	31.80	38.80
5043	V10 CO	43.20	67.10
5043	V1R2CO	68.00	72.40
5043	bov ho	72.4	72.4
5044	tillho	0	0
5044	V9R CO	103.50	106.50
5044	V9U CO	110.90	112.60
5044	V9L CO	116.60	118.60
5044	V10 CO	154.00	189.20
5044	V1R2CO	191.00	194.80
5044	bov ho	194.8	194.8
5045	TILLho	53.00	53.00
5045	V10 CO	78.00	113.00
5046	TILLho	30.00	30.00
5046	R10BCO	55.20	59.40
5046	R10ACO	64.50	70.60
5046	BOR ho	83.00	83.00
5046	V1R1CO	95.20	98.50
5046	V10 CO	112.70	124.00
5047	bov ho	37	37
5047	TILLho	37.00	37.00
5048	TILLho	34.40	34.40
5048	V10 CO	34.40	50.90

5048	bov ho	50.9	50.9
5049	TILLho	39.00	39.00
5049	V10 CO	39.00	47.20
5049	bov ho	47.2	47.2
5050	v9u co	41.8	46.2
5050	v9l co	48.6	50.4
5050	v1f1co	69.8	76.2
5050	v1r1co	78.0	81.6
5050	v1r2co	89.6	98.8
5050	v1f2co	103.4	106.8
5050	bov ho	106.8	106.8
5051a	bov ho	0.12	0.12
5051a	tillho	0.12	0.12
5052	V10 CO	74.60	89.00
5052	V1F2CO	100.80	113.60
5052	bov ho	113.60	113.60
5053	TILLho	56.00	56.00
5053	V10 CO	56.20	69.30
5053	V1F2CO	90.90	101.80
5053	bov ho	101.8	101.8
5054	TILLho	60.00	60.00
5054	V10 CO	60.00	87.00
5054	bov ho	87	87
5055	bov ho	33	33
5055	TILLho	33.00	33.00
5056	TILLho	33.00	33.00
5056	V1R1CO	33.20	44.40
5056	V10 co	55.20	66.30
5056	bov ho	66.3	66.3
5057	TILLho	32.00	32.00
5057	V10 CO	45.00	65.00
5057	bov ho	65	65
5058	TILLho	28.00	28.00
5058	V10 CO	28.00	45.50
5058	bov ho	45.5	45.5
5059	bov ho	48	48
5059	TILLho	48.00	48.00
5060	TILLho	16.00	16.00
5060	V8U CO	27.00	32.90
5060	V8L CO	45.60	47.60
5061	TILLho	15.00	15.00
5061	V8U CO	47.90	52.80
5061	V8L CO	66.60	69.20
5062	TILLho	40.00	40.00
5062	V8U CO	62.90	77.00
5062	V8L CO	87.20	89.30
5063a	v10 co	0.41	14.17
5063b	v1r2co	0.74	4.75
5063b	bov ho	4.75	4.75
5064	V9R CO	78.30	78.70
5064	V9L CO	97.80	98.80
5064	V10 CO	127.90	138.00
5064	V1R2CO	139.60	142.10
5064	bov ho	142.1	142.1
5076	S8U CO	36.70	43.40
5076	S8L CO	44.40	53.40
5076	S9u CO	97.00	104.40
5076	S9L CO	108.50	112.20
5076	S1b1CO	162.50	163.60
5076	S10bCO	166.60	171.10

5076	S10ACO	176.60	181.10
5077	S8U CO	28.70	35.20
5077	S8L CO	36.50	44.20
5077	S9 CO	83.30	93.10
5077	S1b1CO	154.20	156.20
5077	S10bCO	162.60	166.90
5078	S8U CO	31.90	37.00
5078	S8L CO	38.20	46.60
5078	S9 CO	85.20	93.10
5078	S10BCO	128.60	133.80
5078	S10ACO	139.60	144.40
5079	S8U CO	37.60	43.30
5079	S8L CO	44.20	51.50
5079	S9 CO	84.40	93.40
5079	S10BCO	119.80	126.30
5079	S10ACO	130.90	141.60
5080	st	0	90.0
5081	r8l co	42.4	47.0
5081	r8lfco	47	51.7
5082	bor ho	2	2
5082	V9R CO	114.30	115.70
5082	V9U CO	126.30	128.00
5082	V9L CO	131.30	132.80
5083	S9U CO	17.60	19.80
5083	S9L CO	21.30	22.50
5083	S10BCO	61.50	69.50
5083	S10ACO	73.50	78.50
5084	S10BCO	39.50	42.50
5084	S10ACO	46.30	49.50
5085	S10BCO	31.70	38.00
5085	S10ACO	45.70	56.40
5086	s10bco	46.5	49.5
5086	bos ho	49.6	49.6
5087	r9 CO	72.10	90.80
5087	r10bCO	109.70	114.00
5087	r10aCO	119.30	127.20
5088	st	27.5	77.0
5089	tillho	30	30
5089	R10BCO	32.70	38.20
5089	R10ACO	46.10	50.60
5090	R8U CO	42.80	50.40
5090	R8L CO	53.60	62.80
5090	R8LFCO	63.10	68.90
5091	R8U CO	37.80	45.20
5091	R8L CO	47.00	61.50
5091	R8LFCO	63.00	65.00
5092	tillho	0	0
5092	CO	7.80	13.50
5093	tillho	11	11
5093	V9U CO	127.80	128.80
5093	V9L CO	131.20	131.60
5093	V10 CO	158.40	175.40
5093	bov ho	175.40	175.40
5094	tillho	33	33
5094	bov ho	33	33
5095	tillho	48.6	48.6
5095	V1R1CO	48.60	51.50
5095	V10 CO	54.50	59.20
5095	V1F2CO	69.80	72.80
5095	bov ho	72.8	72.8

5096	tillho	30	30
5096	V8U CO	89.40	95.20
5096	V8L CO	107.80	113.40
5097	bos ho	30.0	30.0
5097	R8U CO	38.80	41.80
5097	R8L CO	43.40	49.00
5098	bos ho	80	80
5098	r9 co	127.4	142.8
5098	r10bco	166.8	173.5
5098	r10aco	189.6	215.0
5099	bov ho	5.5	5.5
5099	tillho	5.5	5.5
5100	bor ho	42	42
5100	tillho	42	42
5101	tillho	44	44
5101	v10 co	44.0	50.6
5101	v1r2co	52.4	57.4
5101	bov ho	57.4	57.4
5102	bov ho	35	35
5102	tillho	35	35
5103	tillho	25	25
5103	v1f1co	53.4	60.2
5103	v10 co	65.6	86.5
5103	v1f2co	121.1	174.0
5104	s8u co	51.0	56.3
5104	s8l co	57.2	64.2
5104	s9u co	104.8	107.8
5104	s9l co	109.3	110.7
5104	s10bco	137.6	141.2
5104	s1b2co	144.2	145.0
5104	s10aco	154.8	158.8
5105	s8u co	37.6	43.4
5105	s8l co	44.4	53.5
5105	s9u co	101.3	104.1
5105	s9l co	107.8	113.2
5105	s10bco	160.6	163.3
5105	s1b2co	169.4	171.9
5105	s10aco	180.3	187.4
5105	bos ho	187.5	187.5
5106a	s8u co	0.24	6.14
5106b	s8l co	0.09	6.29
5106c	s9u co	0.64	2.74
5106d	bos ho	0.42	0.42
5106d	r9 co	0.43	19.23
5107a	s8u co	0.74	7.54
5107b	s8l co	0.85	11.75
5107c	s9u co	0.49	2.59
5107d	s1b1co	0.8	3.0
5107e	s10bco	0.21	8.21
5107f	s10aco	0.04	5.44
5108	tillho	42	42
5108	v9r co	81.2	82.3
5108	v9u co	98.2	98.9
5108	v9l co	105.0	106.1
5108	v1r1co	133.0	138.2
5109	tillho	58	58
5109	v10 co	58	73
5109	bov ho	73	73
5110	bov ho	55	55
5110	tillho	55	55

5111	tillho	57.5	57.5
5111	bov ho	57.5	57.5
5112a	s8u co	.34	5.64
5112b	s8l co	.64	7.74
5112c	s10bco	.55	11.25
5112d	s10aco	.2	6.2
5112d	bos ho	6.2	6.2
60	S10BCO	57.91	60.66
60	S10ACO	65.84	68.88
61	S10BCO	29.57	34.75
61	S10ACO	39.62	42.37
610	S8U CO	74.30	79.70
610	S8L CO	80.70	87.40
63	S8U CO	22.00	29.00
63	S8L CO	32.10	45.80
69	V8U CO	50.60	60.30
69	V8L CO	71.90	74.00
69	V9U CO	148.70	149.00
69	V9L CO	149.70	150.20
69	V1R1CO	179.50	186.00
69	V10 CO	186.50	210.90
71	S8U CO	81.74	85.71
71	S8L CO	87.23	93.94
71	S9U CO	136.95	140.30
71	S9L CO	142.13	143.35
71	S10BCO	171.41	178.12
71	S10ACO	181.78	185.44
72	V9u CO	72.50	73.70
72	V1R1CO	101.80	108.50
72	V10 CO	121.90	151.20
906	TILL	28.00	28.00
906	V9u CO	47.00	47.80
906	V10 CO	83.80	93.00
Adit12p	s10aco	0.0	0.5
Adit12x	s10aco	0.0	0.5
Adit18C	S8U CO	0.10	4.63
Adit18C	S8L CO	5.43	11.26
Adit18E	S8U CO	0.10	4.63
Adit18E	S8L CO	5.43	11.26
Adit18S	S8U CO	0.10	4.63
Adit18S	S8L CO	5.43	11.26
Adit3p	s8l co	0.0	0.5
Adit4p	s9 co	0.0	0.5
Adit5p	s10bco	0.0	0.5
Adit5x	s10bco	0.0	0.5
Adit6p	s10aco	0.0	0.5
Adit7p	s8l co	0.0	0.5
BOR1	BOR ho	2.00	2.00
BOR2	BOR ho	2.00	2.00
BOR3	BOR ho	2.00	2.00
BOR5	BOR ho	2.00	2.00
BOR6	BOR ho	2.00	2.00
BOR7	BOR ho	2.00	2.00
BOS1	BOS ho	2.00	2.00
BOS4	BOS ho	2.00	2.00
BOS5	BOS ho	2.00	2.00
F5003	S8L CO	38.80	50.02
F5004	S8U CO	66.50	71.80
F5004	S8L CO	72.80	80.00
F5005	S8U CO	66.20	70.80

F5005	S8L CO	71.80	79.00
F5006	S8U CO	42.50	47.00
F5006	S8L CO	48.00	56.00
F5007	S8L CO	32.00	36.50
F5008	S8U CO	41.90	48.80
F5008	S8L CO	49.80	57.80
F5009	S8U CO	45.00	50.00
F5009	S8L CO	51.00	62.50
F5012	S8U CO	62.60	67.40
F5012	S8L CO	68.40	75.20
F5013	S8U CO	33.00	40.20
F5013	S8L CO	41.40	53.00
F5014	S8U CO	42.50	48.00
F5014	S8L CO	49.00	56.00
F5015	S8U CO	25.80	31.40
F5015	S8L CO	32.40	40.80
F5016	S8L CO	6.00	15.00
F5017	S8U CO	2.20	7.00
F5017	S8L CO	8.00	15.50
F5018	S8U CO	0.00	1.60
F5018	S8L CO	2.80	10.30
F5019	S8U CO	58.20	63.20
F5019	S8L CO	64.00	73.00
F5020	S8U CO	68.60	73.90
F5020	S8L CO	75.00	82.50
F5021a	s8u co	0.55	5.95
F5021b	s8l co	0.9	7.92
F5022a	s8u co	0.27	4.57
F5022b	s8l co	0.22	5.03
F5023	S8U CO	71.50	76.00
F5023	S8L CO	77.00	84.50
F5024a	s8u co	.15	4.95
F5024b	s8l co	.09	8.09
F5032	S8U CO	37.00	41.00
F5032	S8L CO	42.00	50.00
F5033	S8U CO	38.00	43.00
F5033	S8L CO	44.00	51.00
F5034	S8U CO	14.80	16.80
F5034	S8L CO	18.10	25.60
F5035	S8U CO	11.00	15.70
F5035	S8L CO	16.60	24.00
F5065	S8U CO	47.00	51.50
F5065	S8L CO	52.00	60.00
F5067	S8U CO	38.00	43.00
F5067	S8L CO	43.75	55.00
F5068	S8U CO	33.00	39.00
F5068	S8L CO	40.00	48.00
F5069	S8U CO	23.50	30.00
F5069	S8L CO	30.50	40.00
F5070	S8U CO	28.00	33.50
F5070	S8L CO	34.50	43.00
F5071	S8U CO	21.00	26.50
F5071	S8L CO	27.00	36.00
F5072	S8U CO	30.50	36.50
F5072	S8L CO	37.00	45.50
F5073	S8U CO	22.50	28.00
F5073	S8L CO	29.00	38.00
F5074	S8U CO	36.50	42.00
F5074	S8L CO	42.50	50.00
F5075	S8U CO	38.50	44.00

F5075	S8L CO	44.50	52.00
LC9	S8U CO	5.20	10.70
LC9	S8L CO	11.60	19.70
OC1	R8U CO	1.0	6.0
OC1	R8L CO	7.0	16.0
OC19	S10ACO	0.0	0.1
OC20	CO	0.0	0.1
OC21	CO	0.0	0.1
OC22	S9 CO	0.3	7.8
OC23	S8L CO	0.0	0.2
OC24	S8L CO	0.0	0.2
OC25	S8U CO	0.3	0.5
SURV10	S10ACO	0.00	0.10
SURV9	S10ACO	0.00	0.10
WW2	S8U CO	75.00	79.80
WW2	S8L CO	80.80	87.50

LINE CREEK PROJECT COAL QUALITY DATA APPENDIX 4

HOLE	SEAM	DRILL DEPTH TOP	DRILL DEPTH BOT	RAW ASH	RAW FSI
1	S10A	227.50	230.80	27.70	2.50
1	S10B	219.60	225.00	21.90	5.00
1	S6L	18.00	20.10	18.90	3.50
1	S6U	13.70	16.70	30.00	3.00
1	S7L	37.60	40.80	34.20	3.50
1	S8L	142.70	150.00	22.90	2.50
1	S8U	137.20	141.80	23.80	3.00
1	S9	187.20	194.20	36.00	2.00
108	S10A	142.04	145.18	17.11	5.00
108	S10B	132.66	137.37	18.28	7.50
108	S8L	48.38	55.92	19.13	2.50
108	S8U	42.44	47.46	17.80	5.00
108	S9L	106.68	108.20	16.82	7.00
108	S9U	103.40	106.21	23.23	2.50
11	S10B	168.36	173.24	26.10	4.00
11	S8L	90.89	98.21	37.40	2.00
11	S8U	84.79	89.98	37.40	2.00
11	S9L	142.44	144.57	38.10	2.50
11	S9U	137.86	140.91	38.10	2.50
12	S10A	185.44	188.80	32.80	1.50
12	S10B	175.07	179.95	49.50	1.00
12	S8L	94.86	101.26	31.50	1.00
12	S8U	89.06	93.64	29.10	3.50
12	S9	148.84	155.55	28.40	2.50
14	S7L	14.64	17.69	34.40	1.00
14	S7U	11.59	12.81	27.00	0.00
14	S8L	164.50	177.00	24.70	4.00
14	S8U	155.00	163.00	42.70	1.50
14	S9	208.32	213.50	23.20	2.50
1799	S10A	94.80	98.00	23.00	2.00
1799	S10B	85.70	90.20	17.40	5.00
1800	S10A	127.40	130.60	21.30	2.50
1800	S10B	117.80	123.00	24.10	6.00
1800	S8L	27.80	32.60	15.50	1.00
1800	S8U	20.00	26.50	20.70	1.00
1801	S10A	32.90	35.90	29.60	3.00
1801	S10B	24.40	27.80	29.80	2.00
1801	S9	3.00	7.80	22.80	0.00
1812	S10A	146.00	149.50	28.20	3.50
1812	S10B	137.00	141.50	40.60	3.00
1812	S8L	59.50	66.70	18.40	2.00
1812	S8U	53.30	58.40	19.70	3.50
1812	S9	114.30	121.50	26.30	3.00
1859	S10A	200.10	203.50	22.90	4.00
1859	S10B	190.20	194.40	22.60	3.50
1859	S7L	13.40	16.40	36.70	0.00
1859	S7U	11.00	12.50	18.80	0.00
1859	S8L	111.90	118.40	19.80	1.50
1859	S8U	106.10	110.60	14.20	5.00
1859	S9	167.20	172.60	30.30	3.00
1906	S10A	217.80	220.40	25.90	3.00

1906	S10B	210.00	214.60	33.10	2.00
1906	S6L	2.20	5.20	20.90	0.00
1906	S7L	25.00	28.70	26.90	4.00
1906	S7U	22.60	24.00	30.80	3.50
1906	S8L	134.60	141.20	23.40	2.00
1906	S8U	129.40	134.10	21.60	2.50
1906	S9	181.70	187.40	23.90	2.50
203	S8L	86.00	96.40	20.10	3.00
203	S8U	79.00	84.80	23.10	3.50
206	S8L	19.54	25.43	19.83	1.00
206	S8U	13.59	18.42	17.77	1.00
2137	S10A	176.30	179.60	18.60	4.00
2137	S10B	168.20	172.60	18.40	6.00
2137	S8L	92.60	99.80	22.50	2.50
2137	S8U	86.00	91.60	23.20	3.00
2137	S9	138.60	144.40	28.90	2.50
2138	S10A	177.30	180.30	23.80	3.00
2138	S10B	167.80	173.00	25.70	2.50
2138	S8L	87.40	97.10	19.40	3.00
2138	S8U	80.80	86.30	22.20	2.50
2138	S9	140.60	146.60	23.50	2.50
2139	S10A	24.00	28.40	18.10	0.00
2139	S10B	11.40	16.20	18.90	1.50
22	S10B	135.42	137.25	46.30	1.50
22	S8L	41.20	48.80	27.8	5.5
22	S8U	31.42	40.30	17.90	4.00
22	S9	114.00	118.95	47.90	1.50
36	S10B	151.59	158.60	-	-
36	S8L	68.93	75.03	-	-
36	S8U	59.78	64.97	-	-
36	S9	125.05	129.02	-	-
41	S10A	161.65	164.70	-	-
41	S10B	153.40	158.30	-	-
41	S8L	74.73	81.44	22.20	3.50
41	S8U	68.93	73.81	22.20	3.50
41	S9L	126.58	128.10	-	-
41	S9U	122.31	125.66	-	-
44	S10A	182.39	186.05	22.60	2.50
44	S10B	167.14	179.34	16.90	6.00
44	S8L	82.35	88.76	26.50	2.50
44	S8U	75.64	80.83	26.50	2.50
44	S9L	137.86	139.69	38.90	3.00
44	S9U	131.76	135.73	38.90	3.00
48	S10A	157.99	164.40	25.10	3.50
48	S10B	144.20	149.40	36.60	4.50
48	S8L	53.68	61.61	-	-
48	S8U	47.58	52.46	-	-
48	S9L	106.38	107.67	34.00	3.00
48	S9U	100.65	105.23	34.00	3.00
49	S10A	165.92	169.58	-	1.00
49	S10B	155.55	161.65	24.30	4.00
49	S8L	68.93	74.42	21.70	4.00
49	S8U	63.14	67.10	21.70	4.00
49	S9	132.50	138.40	44.40	2.50
5003	S8L	38.80	50.00	30.70	2.50
5004	S8L	72.80	80.00	26.30	2.50
5004	S8U	66.50	71.80	24.90	2.50
5005	S8L	71.80	79.00	19.80	4.00
5005	S8U	66.20	70.80	24.70	4.70
5006	S8L	48.00	56.00	23.30	3.50

5006	S8U	42.50	47.00	23.00	3.50
5007	S8L	32.00	36.50	31.90	0.00
5008	S8L	49.80	57.80	24.10	2.50
5008	S8U	41.90	48.80	24.70	3.50
5009	S8L	51.00	62.50	25.50	3.50
5009	S8U	45.00	50.00	25.10	3.50
5012	S8L	68.40	75.20	19.80	4.00
5012	S8U	62.60	67.40	16.40	4.50
5013	S8L	41.40	53.00	27.50	2.50
5013	S8U	33.00	40.20	17.30	3.50
5014	S8L	49.00	56.00	22.00	3.00
5014	S8U	42.50	48.00	21.00	3.50
5015	S8L	32.40	40.80	26.90	2.60
5015	S8U	25.80	31.40	21.60	3.50
5016	S8L	6.00	15.00	19.60	0.00
5016B	S8U	9.50	14.30	29.30	1.80
5017	S8L	7.50	11.80	18.90	1.00
5017	S8U	2.20	7.00	20.20	0.00
5018	S8L	2.80	10.30	31.10	0.00
5019	S8L	64.00	73.00	22.10	3.50
5019	S8U	58.20	63.20	20.30	3.50
5020	S8L	75.00	82.50	24.60	3.00
5020	S8U	68.60	73.90	20.20	3.50
5021	S8L	58.00	66.00	20.90	4.00
5021	S8U	50.00	56.50	22.20	3.50
5022	S8L	31.50	40.00	25.30	2.50
5022	S8U	23.00	30.00	20.00	4.00
5023	S8L	77.00	84.50	20.80	3.00
5023	S8U	71.50	76.00	17.10	3.50
5024A8	S8L	63.50	71.00	24.60	3.00
5024A8	S8U	58.00	62.50	18.40	3.50
5029	v10	47.6	54.6	38.16	3.00
5031	s8u	34.4	38.5	15.2	2.0
5031	s8l	39.4	46.4	34.7	1.0
5036	v1r1	35.90	41.70	47.68	2.5
5037	r8l	38.40	59.60	25.0	2.5
5037	v1f1	174.80	186.20	37.0	3.5
5037	v1r1	193.50	197.0	37.7	5.5
5037	v1r2	219.6	223.90	28.7	3.5
5037	v1f2	232.30	238.40	28.0	2.0
5041	s10a	6.0	16.60	16.1	2.5
5042A	S8U	1.12	6.06	20.3	4.5
5042B	S8L	0.45	7.15	20.3	4.0
5042C	S9	0.88	7.95	45.3	2.5
5042D	S10B	0.04	10.46	25.0	4.0
5042E	S10A	0.31	6.49	23.9	4.0
5043	v1r1	31.80	38.80	27.5	5.5
5043	v10	43.20	67.10	37.7	3.0
5044	v9l	116.60	118.60	57.1	1.0
5044	v10	154.00	189.20	29.0	3.5
5044	v1r2	191.00	194.80	23.3	5.0
5045	v10	78.00	113.00	25.6	5.5
5046	r10b	55.20	59.40	24.0	5.5
5046	r10a	64.50	70.60	25.3	3.0
5046	v10	112.70	124.00	35.8	2.0
5048	V10	34.4	50.9	31.8	3.0
5049	V10	39.0	47.2	27.9	5.0
5050	v9u	41.8	46.2	29.0	1.0
5050	v1f1	69.8	76.2	23.5	2.0
5050	v1r1	78.0	81.6	28.9	5.5

5050	v1r2	89.6	98.8	25.4	3.0
5050	v1f2	103.4	106.8	34.7	3.5
5052	v10	74.6	89.0	24.0	5.5
5052	V1F2	100.8	113.6	36	4.5
5053	v10	56.20	69.30	40.95	3.5
5053	v1f2	90.90	101.80	51.85	2.0
5054	v10	60.0	87.0	36.99	3.5
5056	V1R1	33.2	44.0	50	1.0
5056	v10	55.2	66.3	62.14	.5
5057	v10	45.0	65.0	29.12	3.5
5058	v10	28.0	45.5	32.91	2.5
5060	v8u	27.0	32.9	23.05	2.0
5061	v8u	47.90	52.8	48.56	1.5
5061	v8l	66.6	69.2	15.50	2.0
5062	v8u	62.90	77.0	41.02	2.0
5062	v8l	87.20	89.3	42.03	4.0
5063A	V10	0.41	14.17	30	4.5
5063B	V1R2	0.74	4.75	29.4	2.0
5064	v10	127.90	138.0	25.03	5.0
5064	v1r2	139.60	142.10	24.53	4.0
5076	s8u	36.7	43.4	18.3	3.5
5076	s8l	44.40	53.4	21.1	3.5
5076	s9u	97.0	104.4	29.6	3.5
5076	s9l	108.5	112.2	43.7	3.5
5076	s10b	162.5	163.6	24.4	5.5
5076	s1b1	166.6	171.1	28.6	6.0
5076	s10a	176.6	181.1	23.3	3.0
5077	s8u	28.70	35.2	17.8	5.0
5077	s8l	36.5	44.2	23.7	3.0
5077	s9	83.3	93.1	24.6	5.0
5077	s10b	154.2	156.2	40.5	2.0
5077	s10a	162.6	166.9	26.4	3.0
5078	s8u	31.9	37.0	17.8	4.0
5078	s8l	38.2	46.6	20.0	4.0
5078	s9	85.2	93.1	38.4	3.0
5078	s10b	128.6	133.8	41.2	3.0
5078	S10A	139.6	144.4	35.2	2.0
5079	s8u	37.6	43.3	21.7	4.0
5079	s8l	44.2	51.5	25.9	3.5
5079	s9	84.4	93.4	44.3	3.0
5079	s10b	119.8	126.3	43.2	2.5
5079	S10A	130.9	141.6	42.7	1.0
5081	r8l	42.4	47.0	39.1	3.5
5083	s10b	61.5	69.5	29.7	5.5
5083	s10a	73.5	78.5	26.5	2.5
5084	s10a	46.3	49.5	29.2	4.0
5085	s10b	31.7	38.0	25.2	5.5
5085	s10a	45.7	56.4	24.3	4.0
5087	R9	72.1	90.8	37.6	3.5
5087	R10B	109.7	114	20.7	0
5087	R10A	119.3	127.2	21.4	0
5089	r10b	32.7	38.2	19.4	7.5
5089	r10a	46.1	50.6	48.4	2.0
5091	r8u	37.8	45.2	44.9	2.5
5091	R8L	47	61.5	48.5	2.5
5091	r8lf	63.0	65.0	32.5	3.0
5093	v10	158.4	175.4	23.9	4.5
5095	V1R1	48.6	51.5	18.0	2.5
5095	V10	54.5	59.2	27.2	3.0
5095	V1F2	69.8	72.8	31.6	3.0

5096	V8U	89.4	95.2	37.8	2.0
5096	V8L	107.8	113.4	27.3	4.5
5097	V8U	38.8	41.8	29.5	4.0
5097	V8L	43.4	49	46	3.0
60	S10ACOMP	65.84	68.88	12.70	4.50
60	S10BCOMP	57.91	60.66	44.70	1.50
61	S10ACOMP	39.62	42.37	33.00	1.50
61	S10BCOMP	29.57	34.75	24.00	4.50
63	S8L 01	32.10	45.75	32.90	1.50
63	S8U 01	21.96	29.00	32.90	1.50
71	S10ACOMP	181.78	185.44	22.00	4.00
71	S10BCOMP	171.41	178.12	19.40	6.50
71	S8L COMP	87.23	93.94	18.70	3.00
71	S8U COMP	81.74	85.71	18.70	3.00
71	S9L COMP	142.13	143.35	34.20	3.50
71	S9U COMP	136.95	140.30	34.20	3.50
ADIT18C	S8L 2	5.43	11.26	15.80	2.70
ADIT18C	S8U 1	0.10	4.63	13.70	3.80
ADIT18E	S8L 2	5.43	11.26	15.80	2.70
ADIT18E	S8U 1	0.10	4.63	13.70	3.80
ADIT18S	S8L 2	5.43	11.26	15.80	2.70
ADIT18S	S8U 1	0.10	4.63	13.70	3.80
F5032	s8u	37.00	41.0	28.4	3.5
F5032	s8l	42.0	50.	29.5	3.0
F5033	s8u	38.0	43.0	33.3	3.5
F5033	s8l	44.00	51.00	28.2	3.5
F5034	s8u	14.80	16.80	27.9	0.5
F5034	s8l	18.10	25.60	24.5	2.0
F5035	s8u	11.0	15.7	20.2	1.0
F5035	s8l	16.60	24.00	27.1	1.0
F5065	s8u	47.0	51.50	30.3	3.5
F5065	s8l	52.0	60.0	22.2	3.0
F5067	s8u	38.0	43.0	18.4	3.5
F5067	s8l	43.75	55.0	23.1	4.0
F5068	s8u	33.0	39.0	20.7	4.5
F5068	s8l	40.0	48.0	23.5	3.0
F5069	s8u	23.50	30.0	22.1	3.0
F5069	s8l	30.5	40.	22.8	2.5
F5070	s8u	28.0	33.5	19.91	2.5
F5070	s8l	34.5	43.0	27.9	2.5
F5071	s8u	21.0	26.50	21.1	1.5
F5071	s8l	27.0	36.0	23.8	2.0
F5072	s8u	30.5	36.5	22.8	3.0
F5072	s8l	37.0	45.5	26.8	3.0
F5073	s8u	22.5	28.0	22.2	2.0
F5073	s8l	29.0	38.0	26.8	2.0
F5074	s8u	36.5	42.0	19.7	3.0
F5074	s8l	42.5	50.0	19.4	2.5
F5075	s8u	38.5	44.0	30.4	3.0
F5075	s8l	44.5	52.0	27.7	3.0

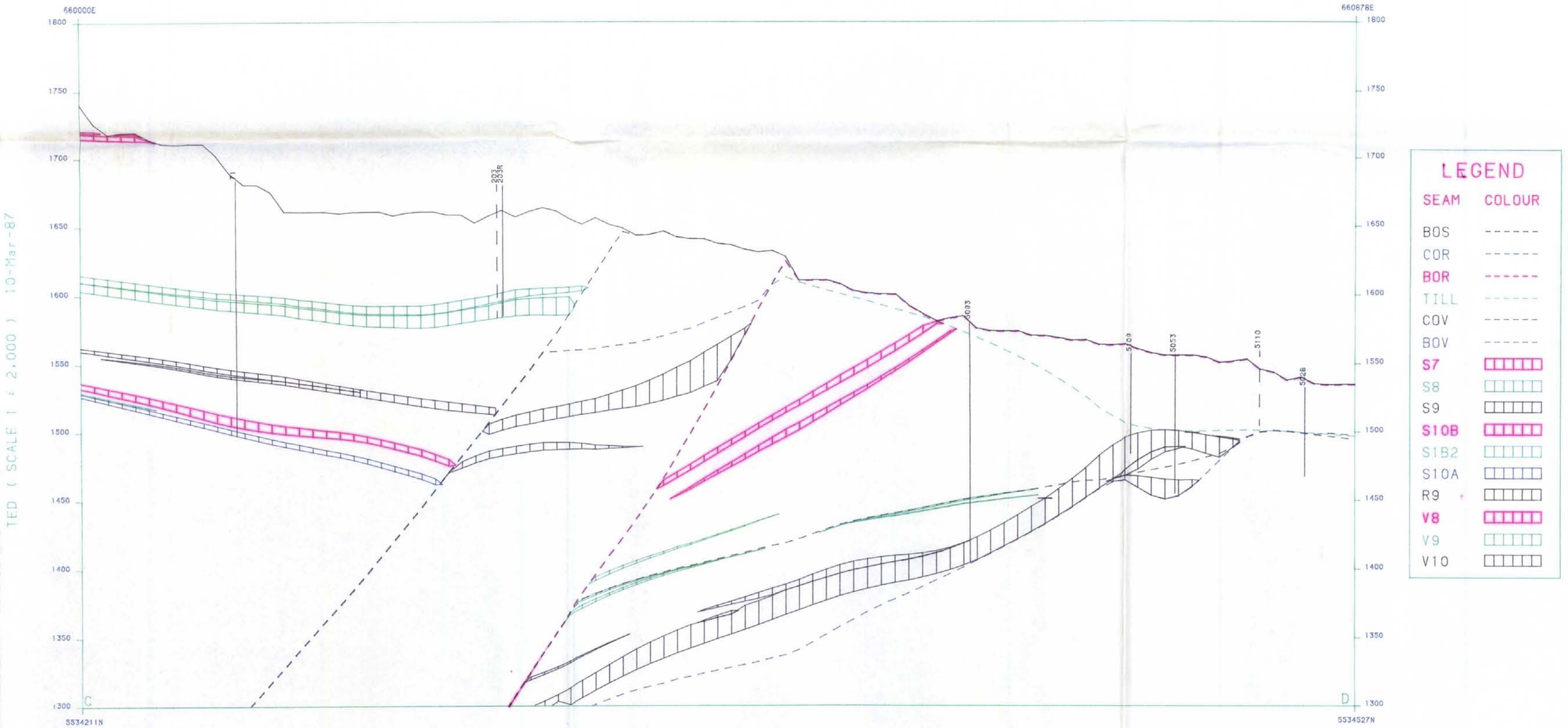
EAST PROJECT

TED (SCALE 1 : 2,000) 10-Mar-87

SECTION A-B

728

EAST PROJECT

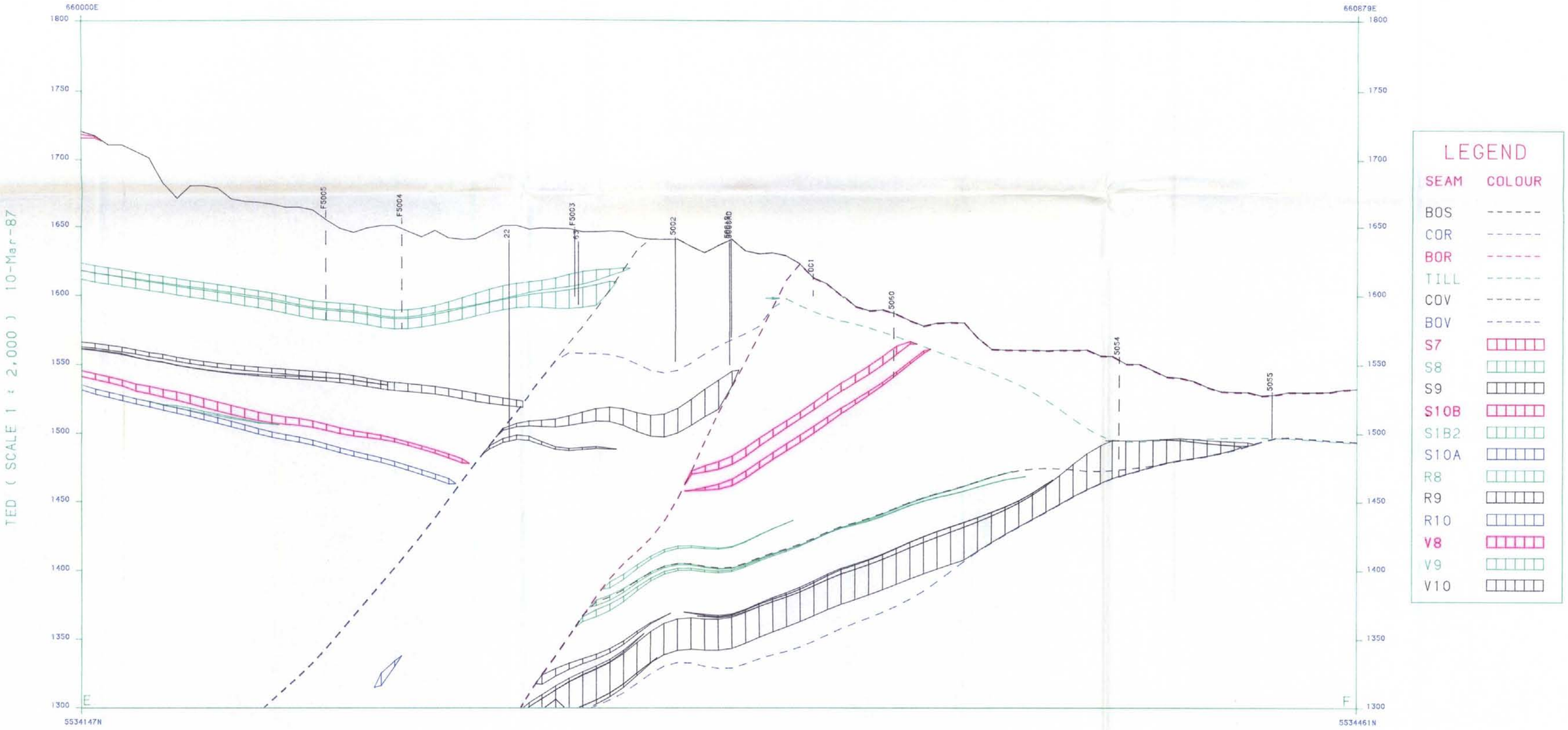


TED (SCALE 1 : 2,000) 10-Mar-87

SECTION C-D

728

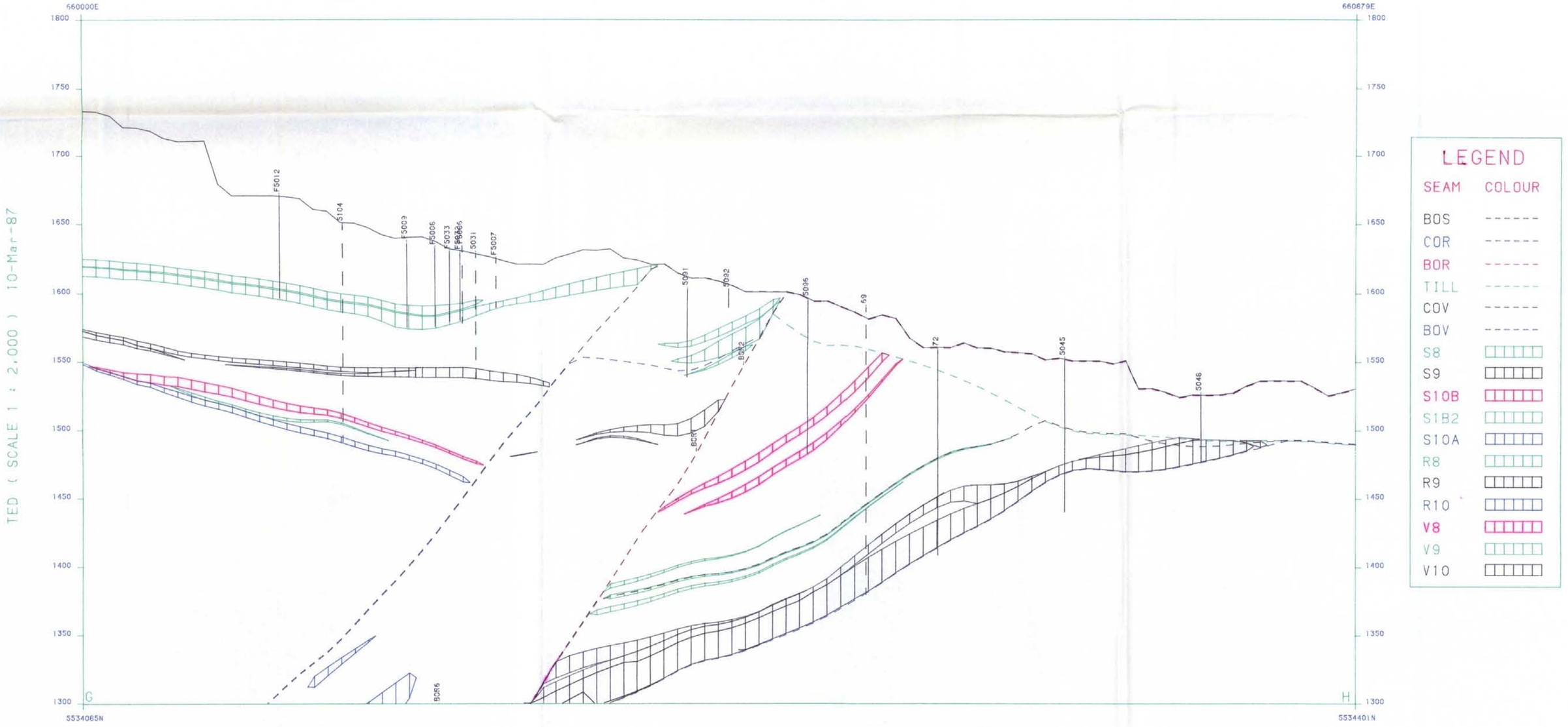
EAST PROJECT



SECTION E-F

728

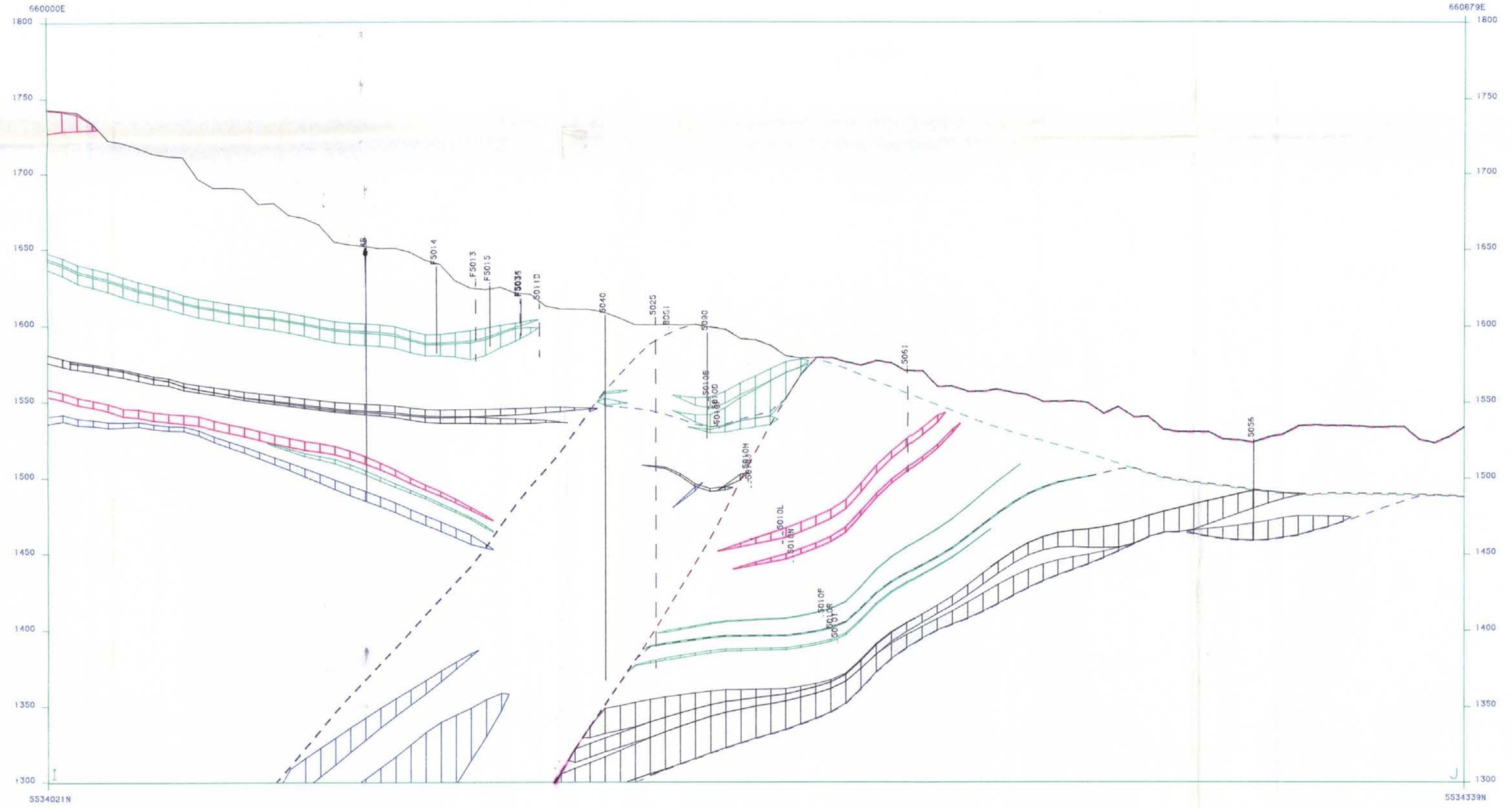
EAST PROJECT



SECTION G-H

728

EAST PROJECT



TED (SCALE 1 : 2,000) 10-Mar-87

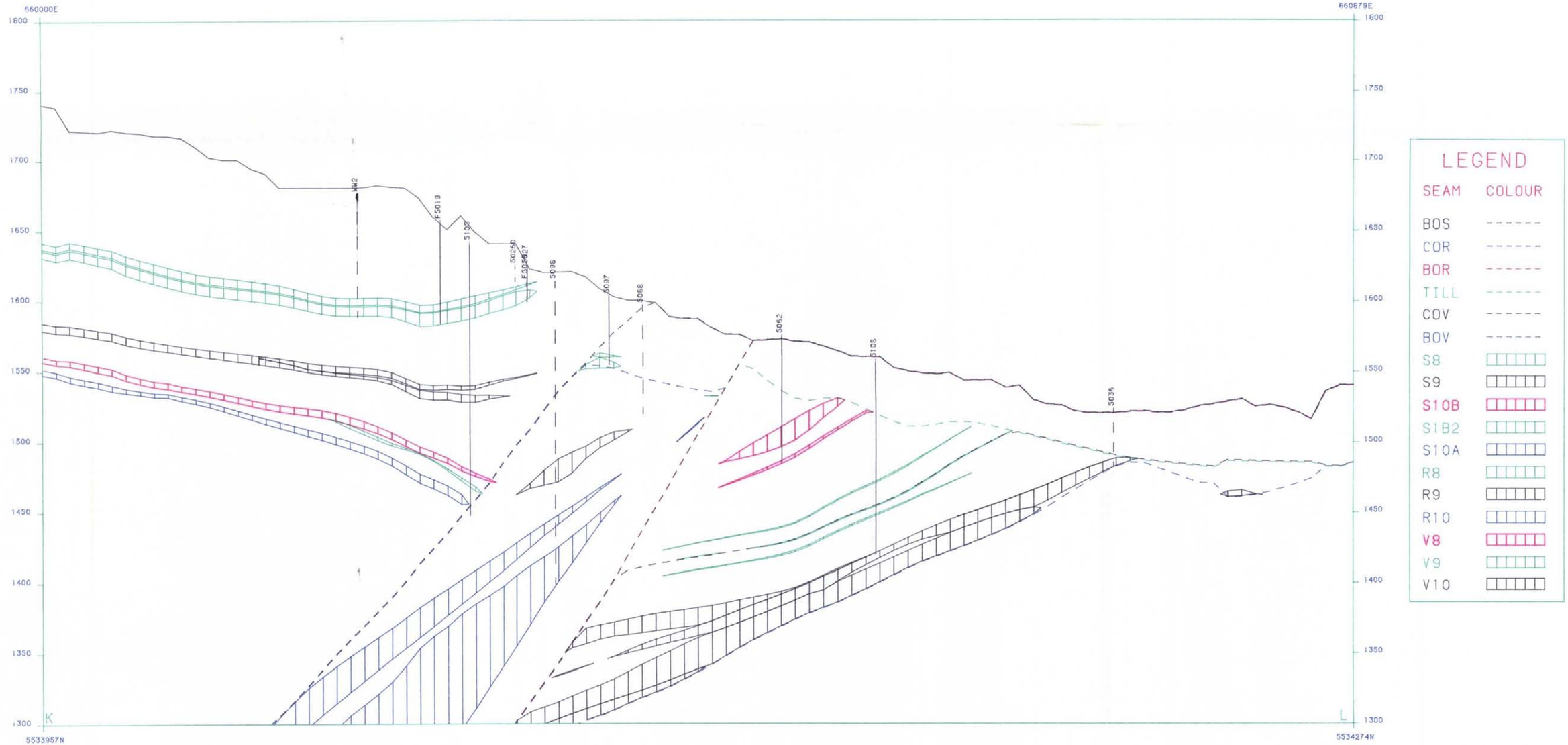
LEGEND

SEAM	COLOUR
BOS	------
COR	------
BOR	------
TILL	------
COV	------
BOV	------
S7	
S8	
S9	
S10B	
S1B2	
S10A	
R8	
R9	
R10	
V8	
V9	
V10	

SECTION I-J

728

EAST PROJECT



TED (SCALE 1 : 2,000) 10-Mar-87

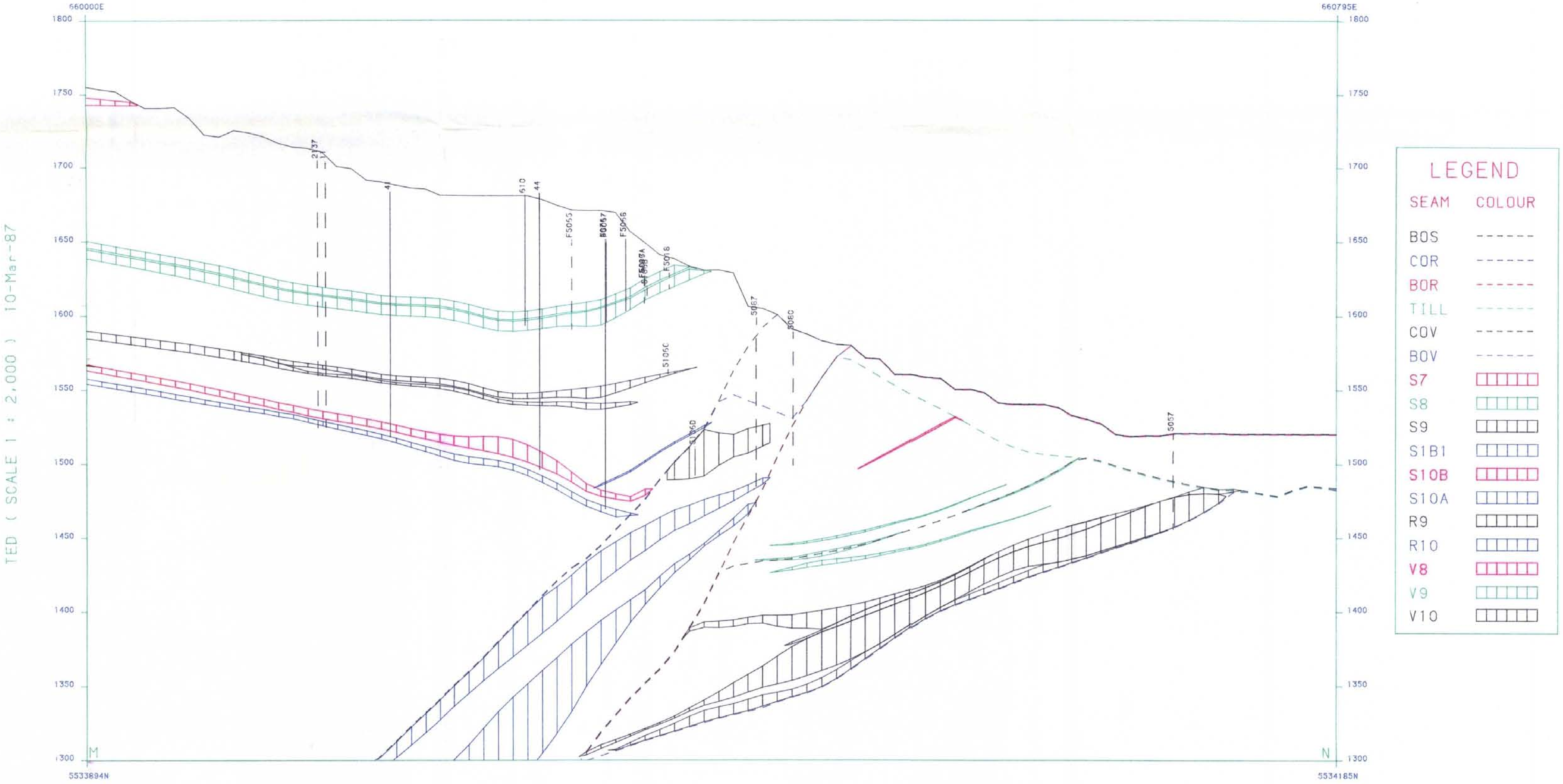
LEGEND

SEAM	COLOUR
BOS	
COR	
BOR	
TILL	
COV	
BOV	
S8	
S9	
S10B	
S1B2	
S10A	
R8	
R9	
R10	
V8	
V9	
V10	

SECTION K-L

728

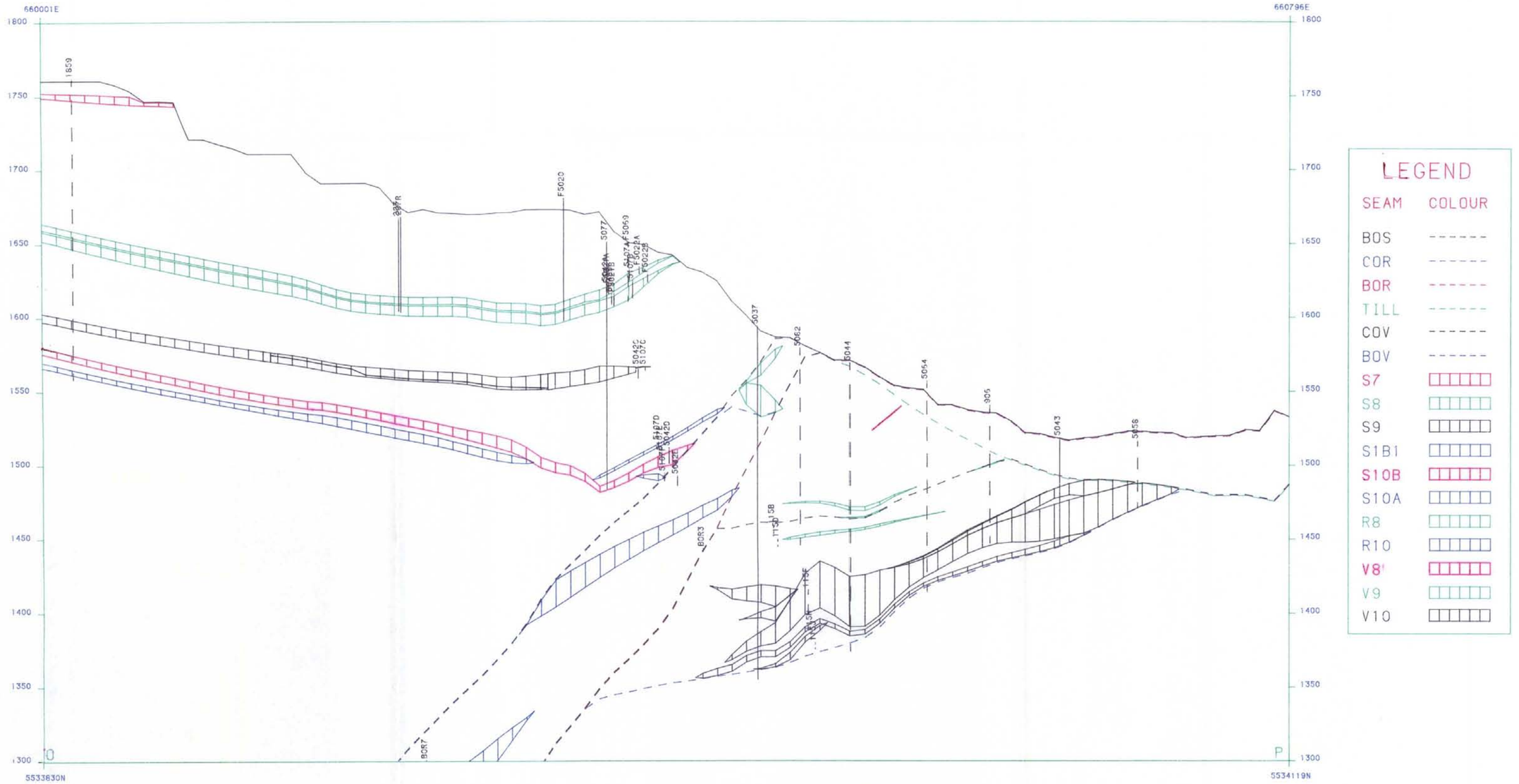
EAST PROJECT



SECTION M-N

728

EAST PROJECT



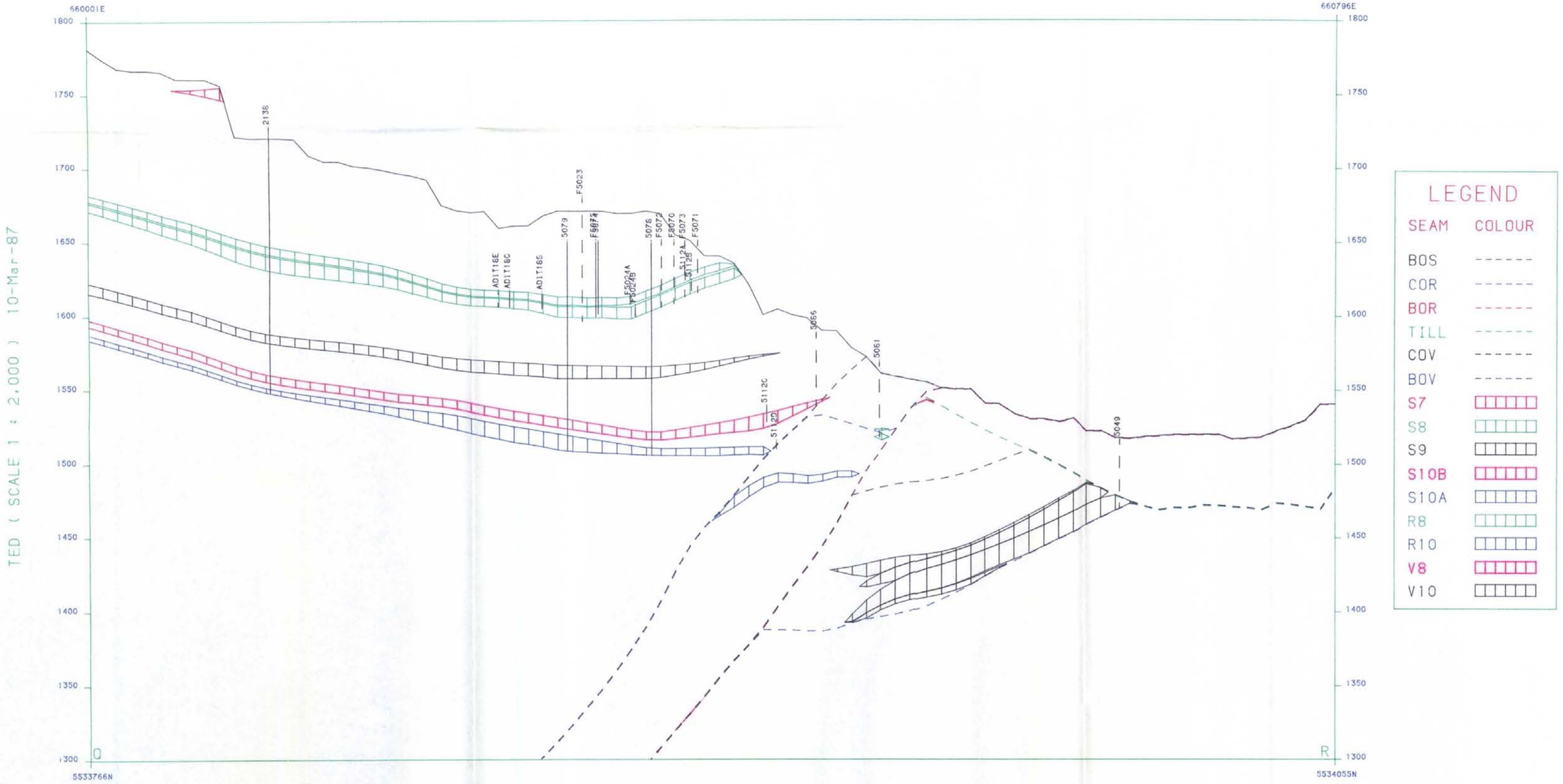
LEGEND

SEAM	COLOUR
BOS	------
COR	------
BOR	------
TILL	------
COV	------
BOV	------
S7	
S8	
S9	
S1B1	
S10B	
S10A	
R8	
R10	
V8'	
V9	
V10	

SECTION O-P

728

EAST PROJECT

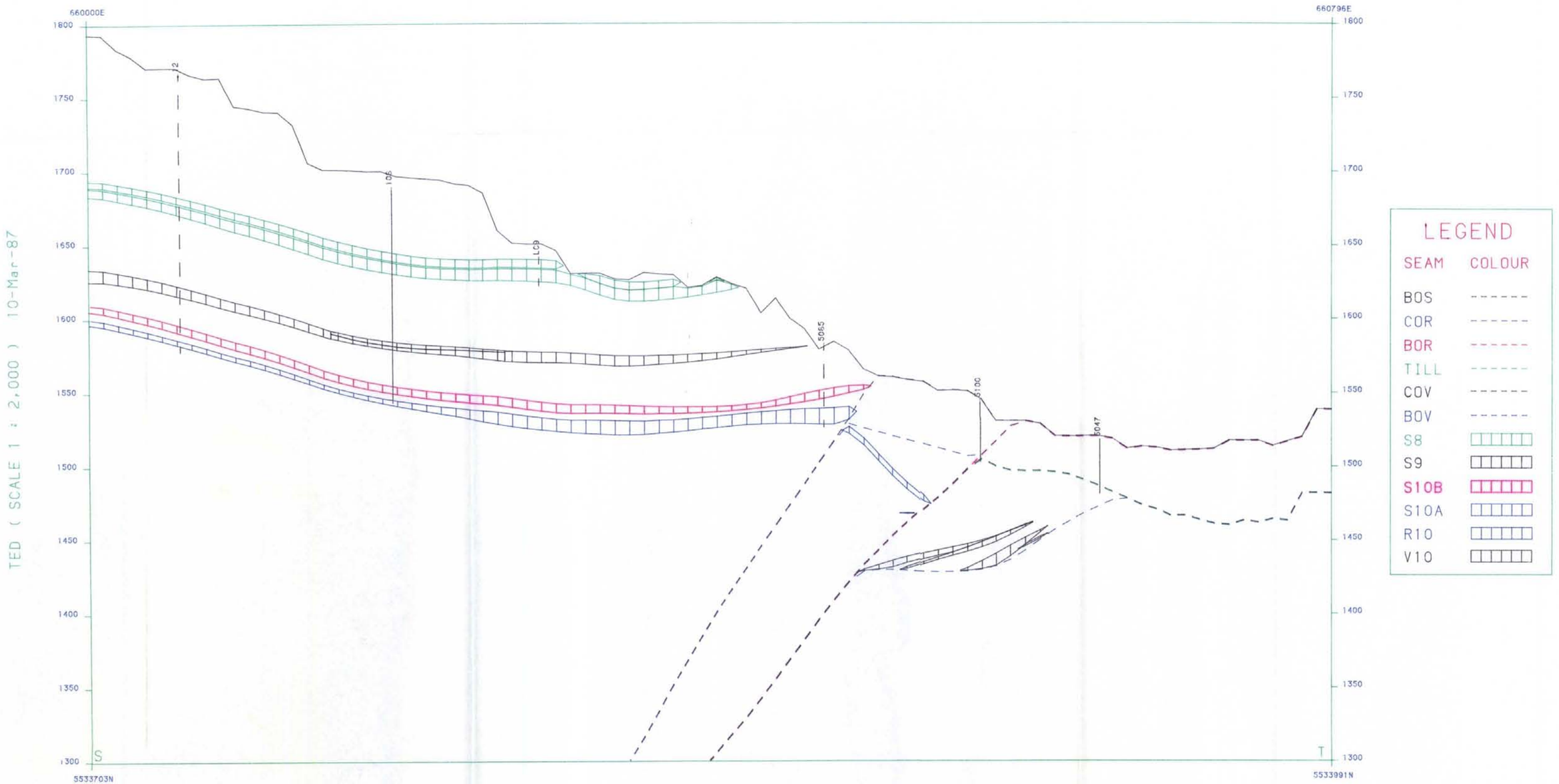


TED (SCALE 1 : 2,000) 10-Mar-87

SECTION Q-R

728

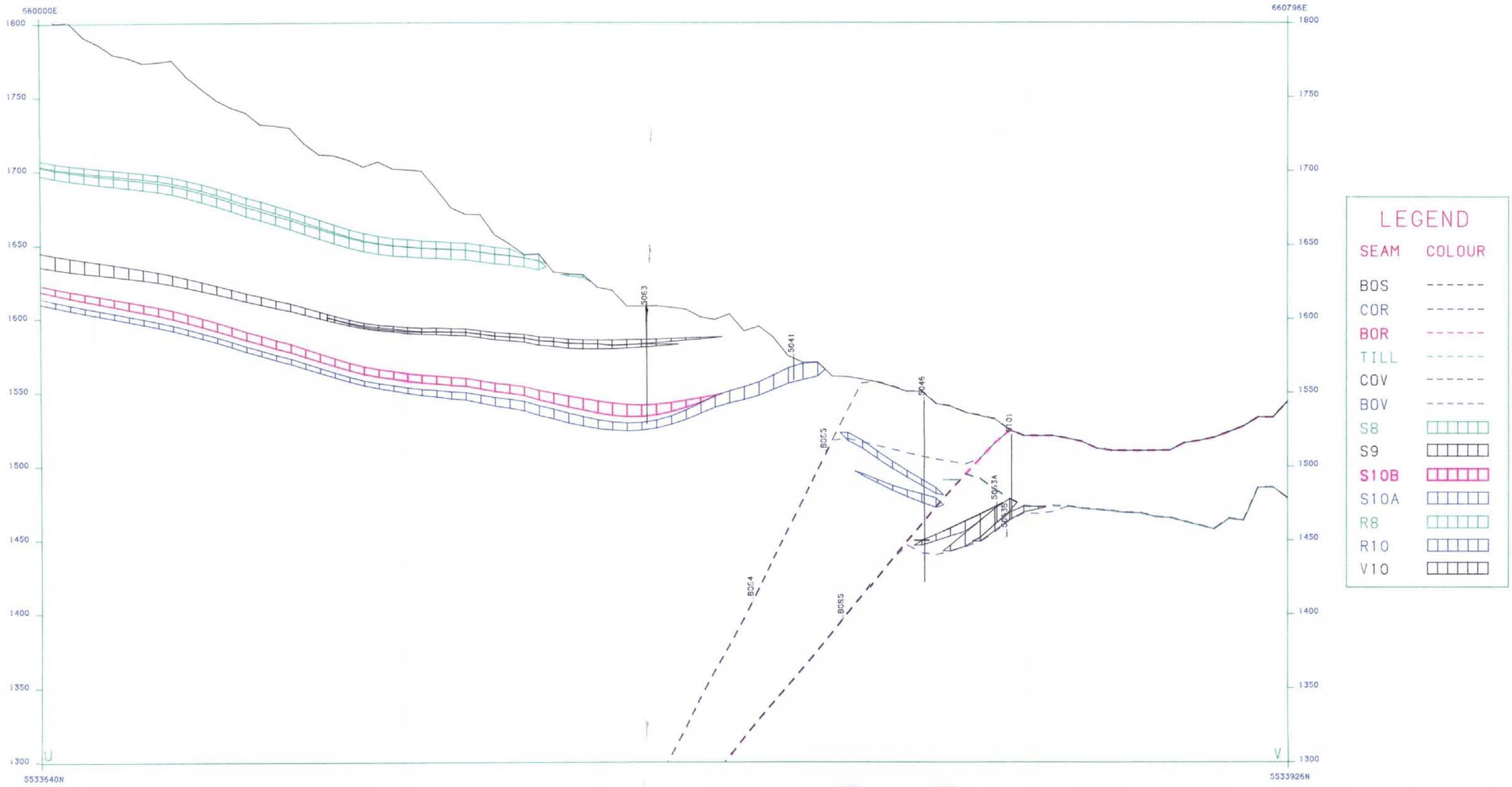
EAST PROJECT



SECTION S-T

728

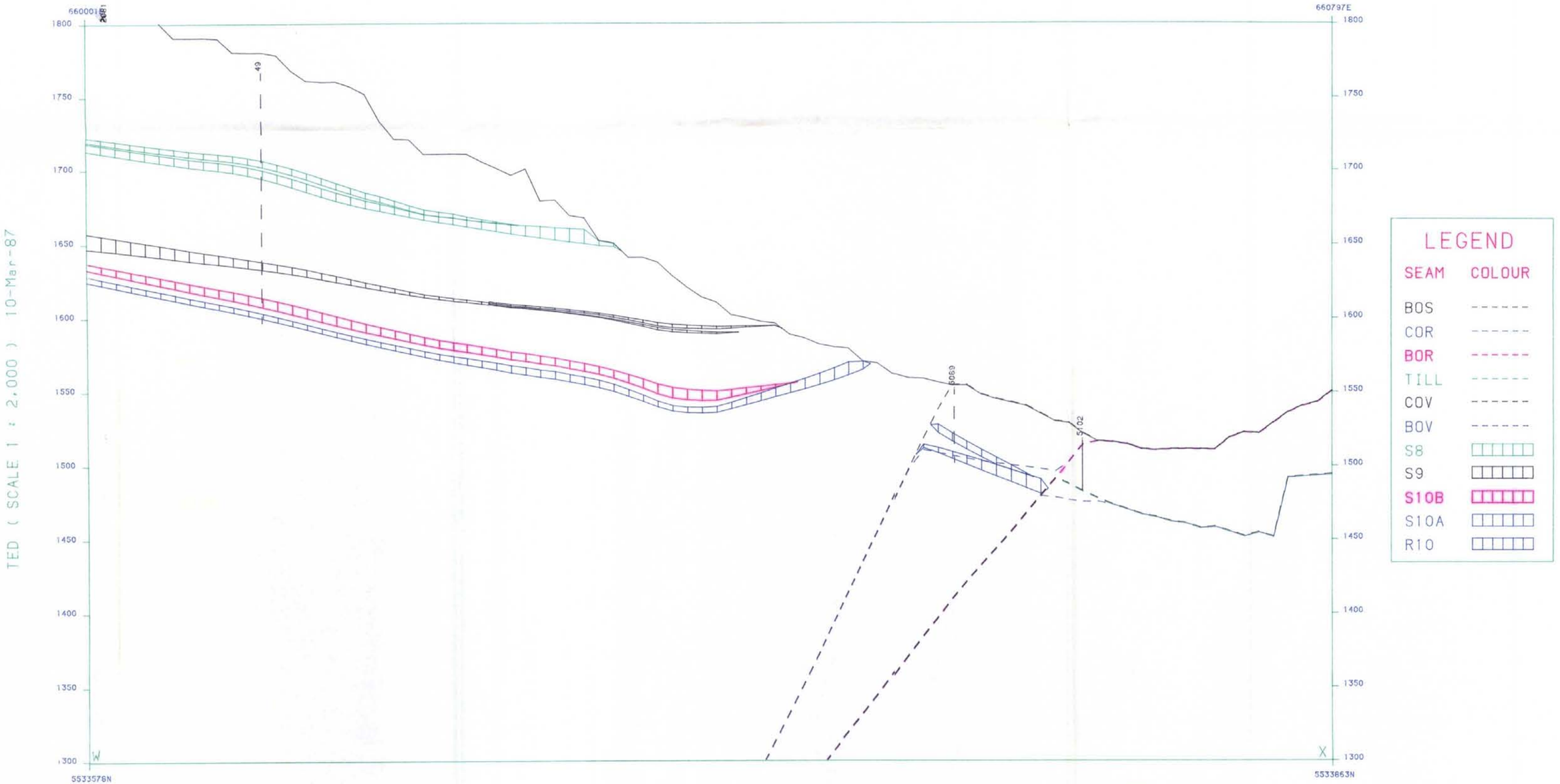
EAST PROJECT



SECTION U-V

728

EAST PROJECT

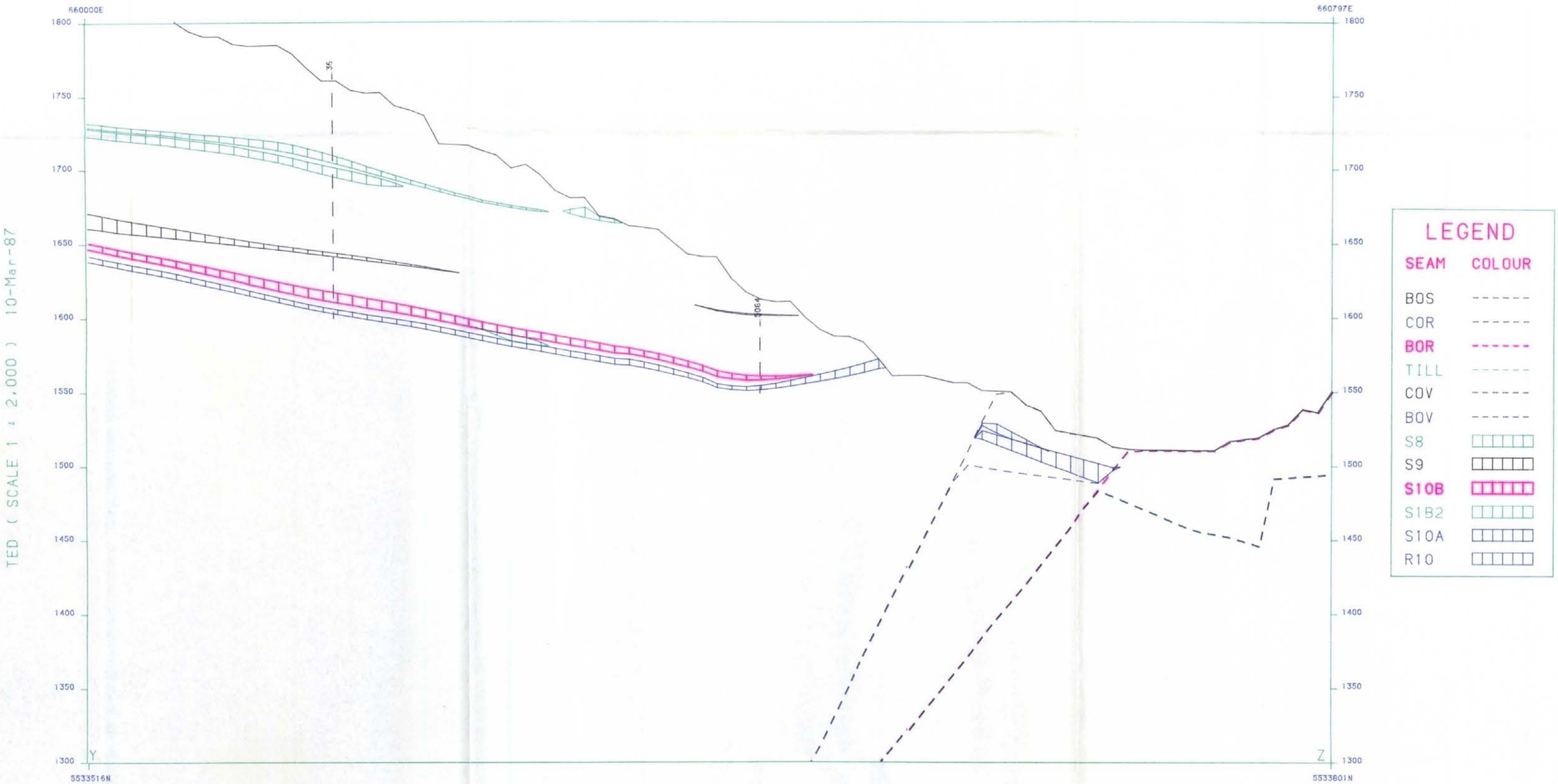


TED (SCALE 1 : 2,000) 10-Mar-87

SECTION W-X

728

EAST PROJECT



SECTION Y-Z

728