SHELL
K-HORSESHOE RIDGE 80(2) A

April 30, 1981

HORSESHOE RIDGE
COAL PROJECT
SHELL CANADA RESOURCE LTD.
C.L# 245, 296, 299, 368,
369, 373 MAPS Dave Handy

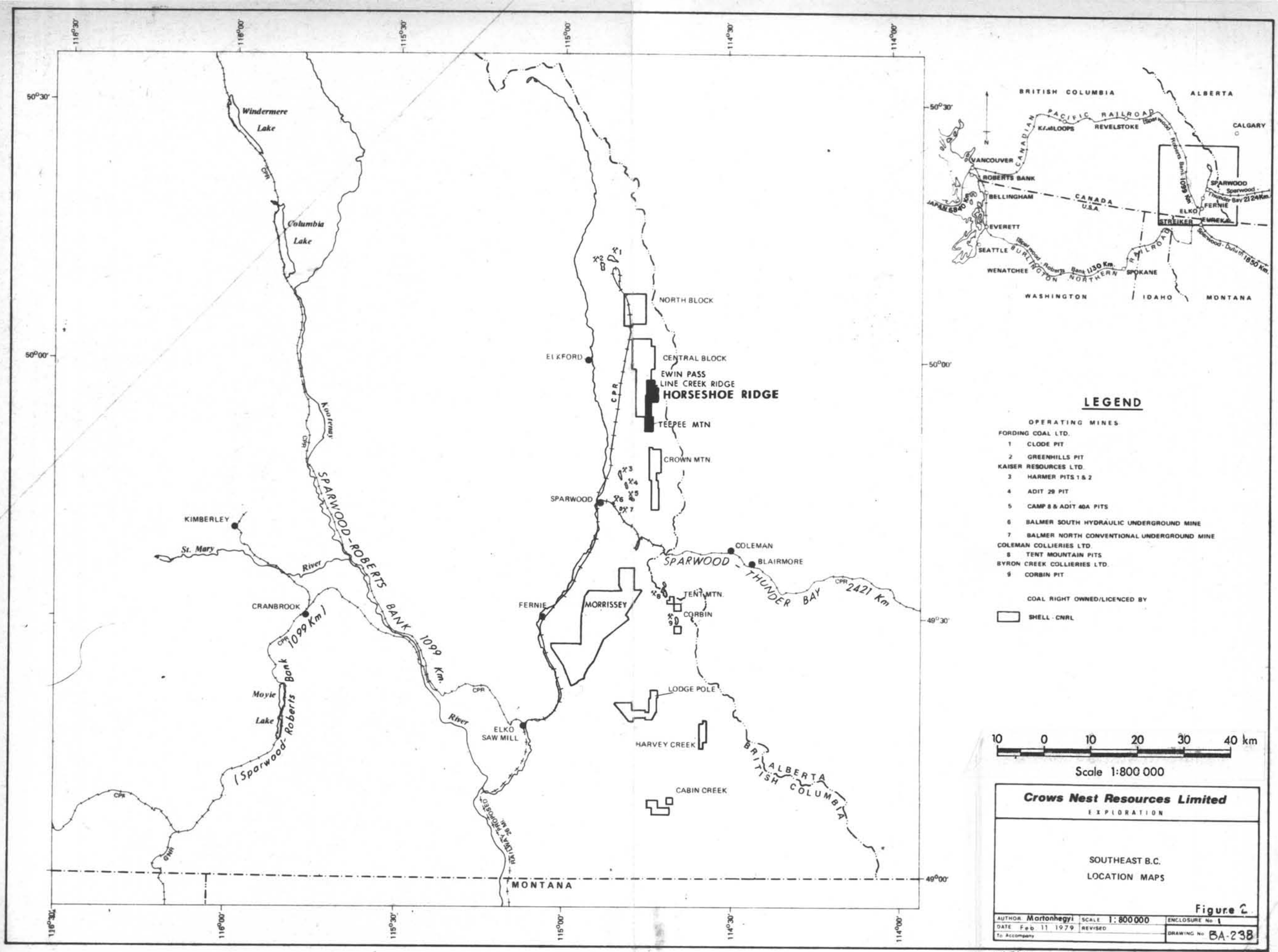
404

ENCLOSURE 2

CONFIDENTIAL

GEOLOGICAL BRANCH
ASSESSMENT REPORT

00 404



LEGEND

OPERATING MINES

FORDING COAL LTD.
1 CLODE PIT
2 GREENHILLS PIT

KAISER RESOURCES LTD.
3 HARMER PITS 1 & 2
4 ADIT 29 PIT
5 CAMP 8 & ADIT 40A PITS
6 BALMER SOUTH HYDRAULIC UNDERGROUND MINE
7 BALMER NORTH CONVENTIONAL UNDERGROUND MINE

COLEMAN COLLIERIES LTD.
8 TENT MOUNTAIN PITS

BYRON CREEK COLLIERIES LTD.
9 CORBIN PIT

COAL RIGHT OWNED/LICENCED BY

SHELL - CNRL

10 0 10 20 30 40 km

Scale 1:800 000

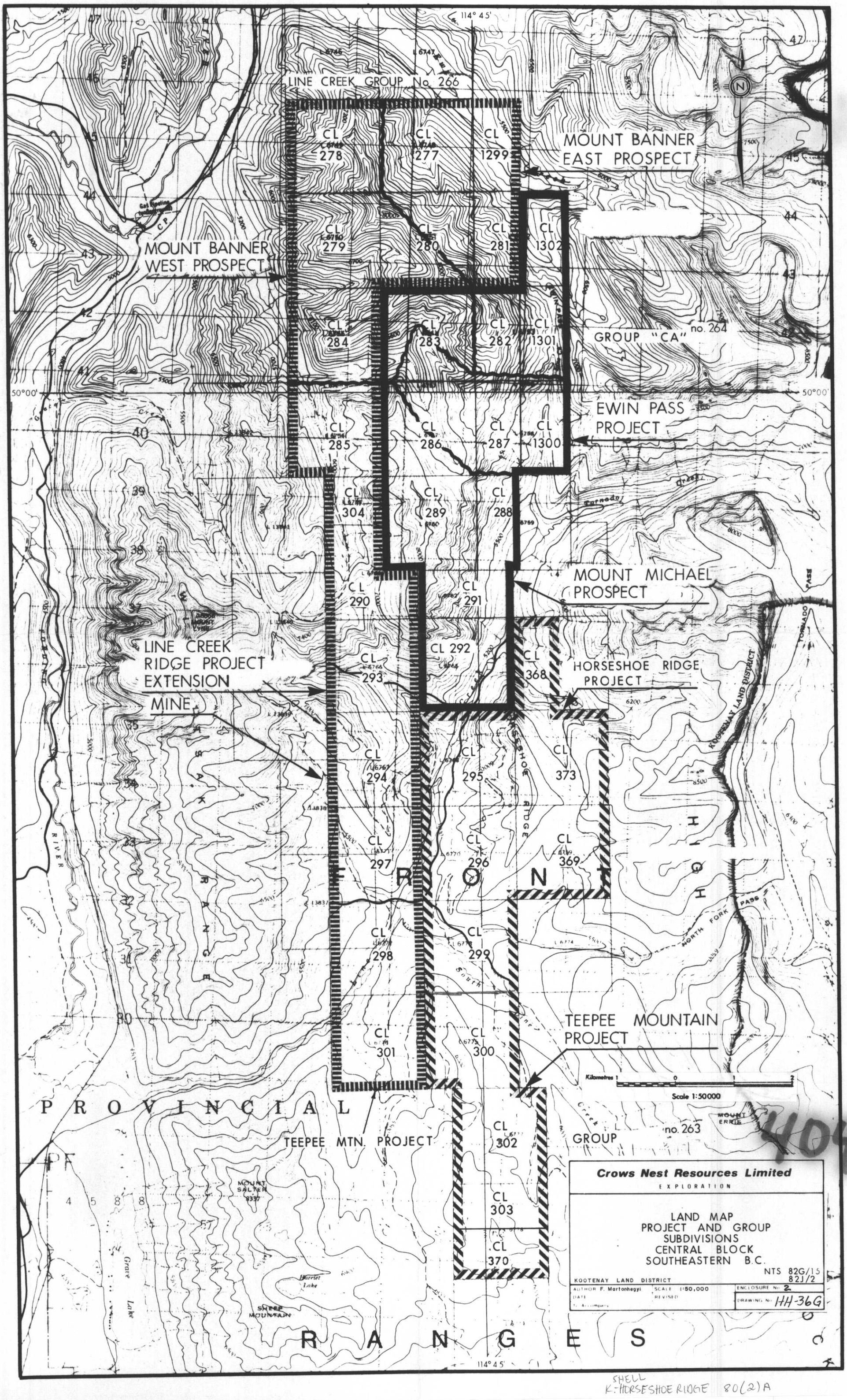
Crows Nest Resources Limited
EXPLORATION

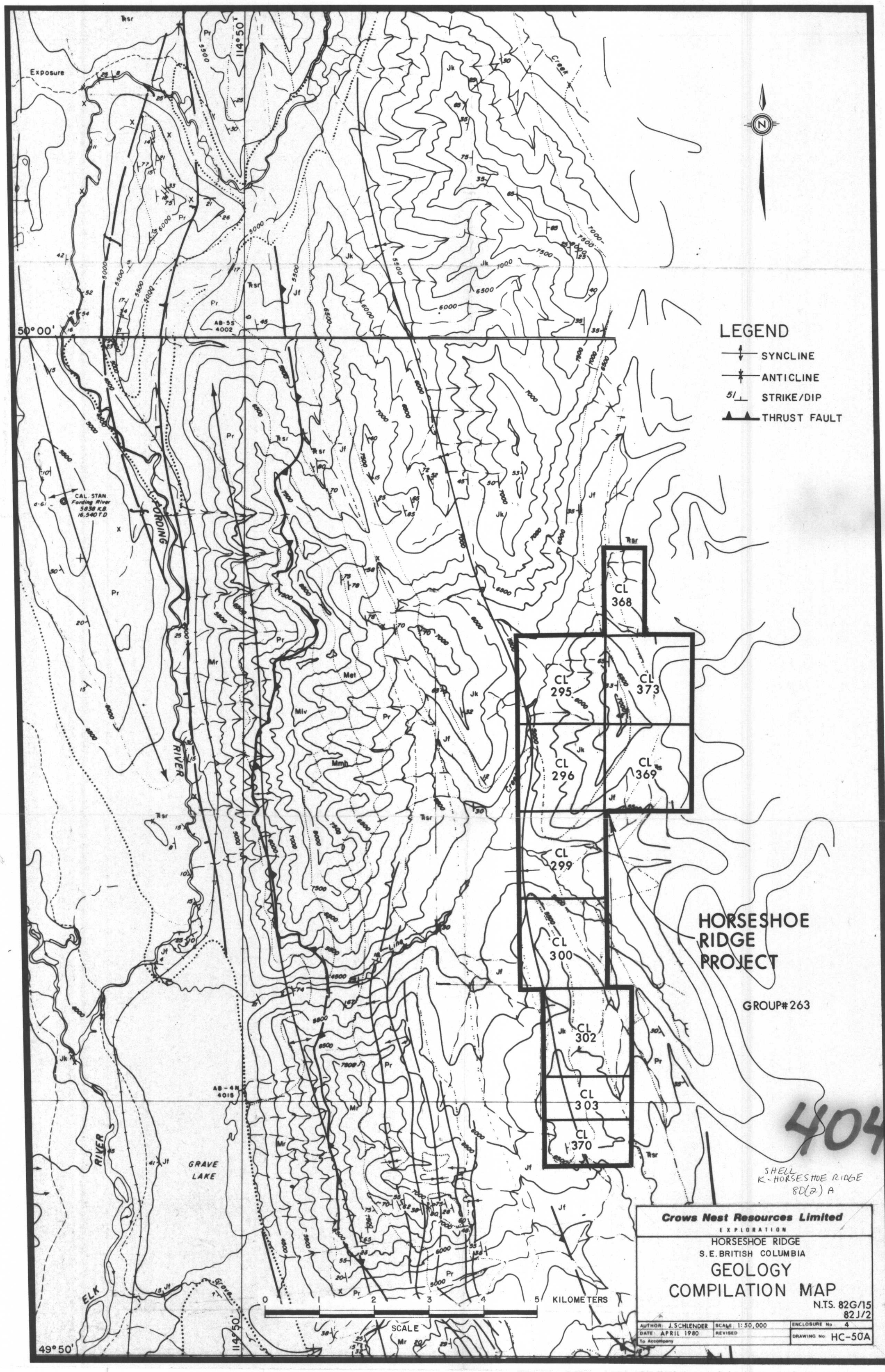
SOUTHEAST B.C.
LOCATION MAPS

Figure 2.

AUTHOR Martonhegyi	SCALE 1: 800 000	ENCLOSURE No. 1
DATE Feb. 11 1979	REVISED	DRAWING No. BA-238
To Accompany		

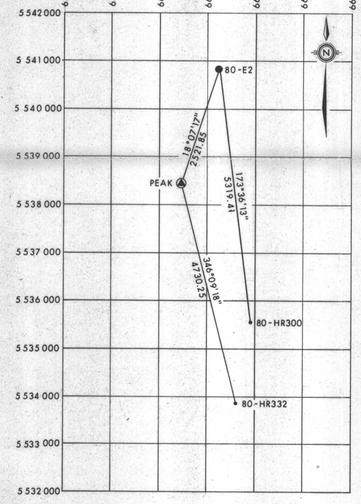
SHELL
K - HORSESHOE RIDGE 80(2)A

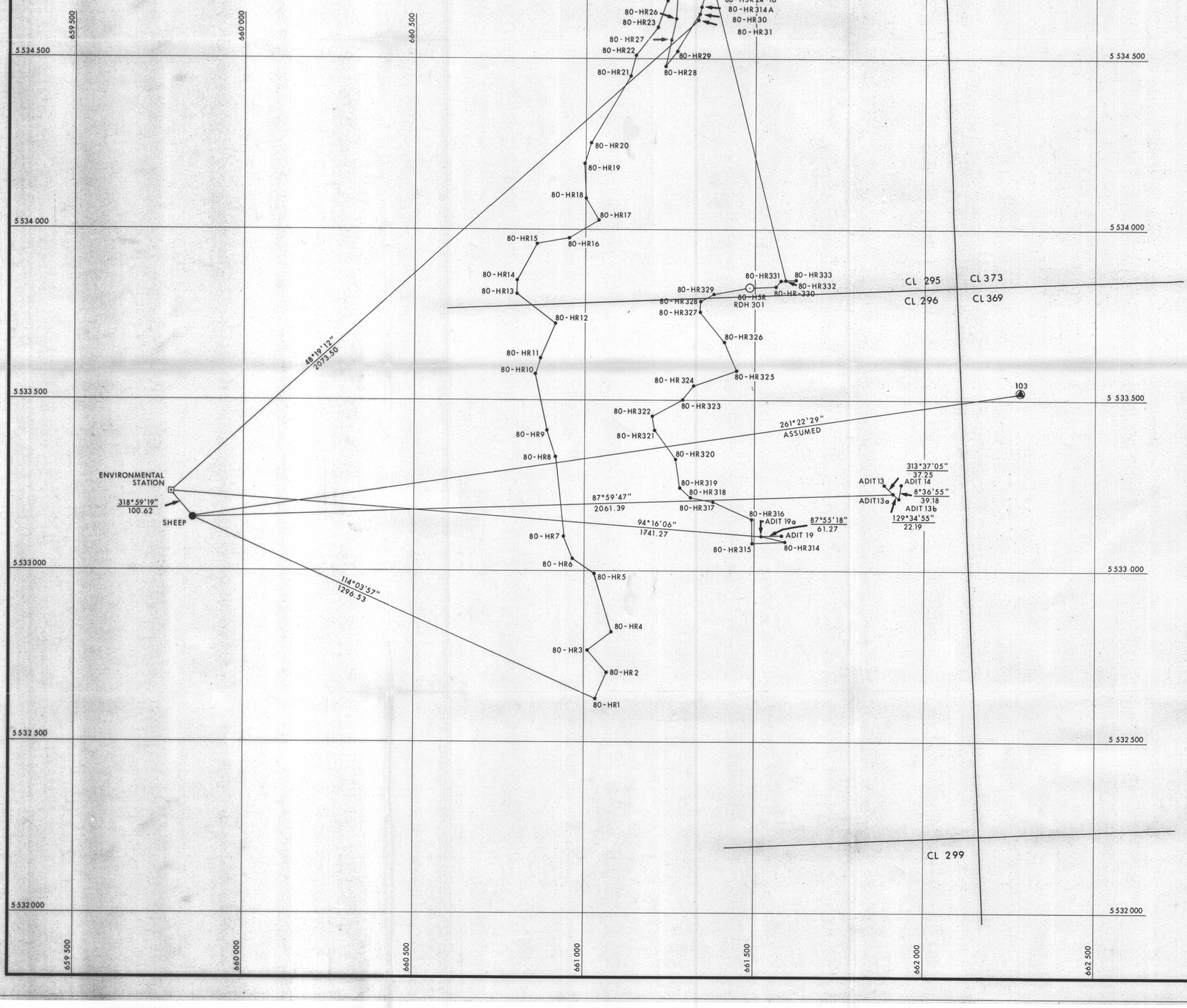

114° 45'
LINE CREEK GROUP No. 266
CL 278
CL 277
CL 1299
MOUNT BANNER EAST PROSPECT
MOUNT BANNER WEST PROSPECT
CL 279
CL 280
CL 281
CL 1302
CL 284
CL 283
CL 282
CL 1301
GROUP "CA" no. 264
50°00'
EWIN PASS PROJECT
CL 285
CL 286
CL 287
CL 1300
CL 304
CL 289
CL 288
MOUNT MICHAEL PROSPECT
CL 290
CL 291
LINE CREEK RIDGE PROJECT EXTENSION MINE
CL 293
CL 292
CL 368
HORSESHOE RIDGE PROJECT
CL 294
CL 295
CL 373
CL 297
CL 296
CL 369
CL 298
CL 299
TEEPEE MOUNTAIN PROJECT
CL 301
CL 300
TEEPEE MTN. PROJECT
CL 302
GROUP no. 263
CL 303
CL 370
PROVINCIAL
RANGES
Kilometres 1 0 1 2
Scale 1:50000
Crows Nest Resources Limited
EXPLORATION
LAND MAP
PROJECT AND GROUP
SUBDIVISIONS
CENTRAL BLOCK
SOUTHEASTERN B.C.
NTS 82G/15
82J/2
KOOTENAY LAND DISTRICT
AUTHOR F. Martonhegyi
SCALE 1:50,000
REVISED
ENCLOSURE No. 2
DRAWING No. HH-36G
404
SHELL
K-HORSESHOE RIDGE 80(2)A


114°50'
50°00'
49°50'
Exposure
Trsr
Pr
5900
Jk
Jf
Creek
CAL. STAN.
Fording River
5838 K.B.
16,540 T.D
FORDING
RIVER
ELK
RIVER
GRAVE
LAKE
Mr
Mel
Mlv
Mmh
AB-5S
4002
AB-4N
4015
Line
CL
368
CL
295
CL
373
CL
296
CL
369
CL
299
CL
300
CL
302
CL
303
CL
370
HORSESHOE
RIDGE
PROJECT
GROUP# 263
LEGEND
SYNCLINE
ANTICLINE
STRIKE/DIP
THRUST FAULT
0 1 2 3 4 5 KILOMETERS
SCALE
404
SHELL
K-HORSESHOE RIDGE
80(2) A
Crows Nest Resources Limited
EXPLORATION
HORSESHOE RIDGE
S.E. BRITISH COLUMBIA
GEOLOGY
COMPILATION MAP
N.T.S. 82G/15
82J/2
AUTHOR J. SCHLENDER
SCALE 1:50,000
ENCLOSURE No 4
DATE APRIL 1980
REVISED
To Accompany
DRAWING No HC-50A

MAJOR CONTROL USED FOR HORSESHOE RIDGE

SCALE = 1 : 50000





ROAD TRAVERSE STATIONS

STATION	BEARING	DISTANCE	NORTHING	EASTING	ELEVATION
103					
SHEEP	261° 22' 29"		5 533 153.16	659 850.57	1924.19
80-HR1	114° 03' 57"	1296.53	5 532 624.45	661 034.40	1580.5
80-HR2	22° 34' 37"	84.99	5 532 702.93	661 067.03	1575.4
80-HR3	318° 02' 37"	83.24	5 532 764.83	661 011.38	1576.2
80-HR4	52° 17' 13"	89.69	5 532 819.70	661 082.33	1577.3
80-HR5	344° 06' 01"	179.52	5 532 992.35	661 033.15	1573.9
80-HR6	302° 47' 43"	78.03	5 533 034.61	660 967.56	1577.4
80-HR7	335° 53' 53"	71.39	5 533 099.78	660 938.41	1577.5
80-HR8	354° 58' 14"	233.34	5 533 332.22	660 917.95	1577.1
80-HR9	338° 18' 06"	84.83	5 533 411.04	660 886.59	1580.6
80-HR10	349° 06' 46"	169.69	5 533 577.68	660 854.54	1586.5
80-HR11	19° 56' 50"	48.31	5 533 623.09	660 871.02	1590.7
80-HR12	22° 56' 29"	109.42	5 533 723.85	660 913.67	1573.8
80-HR13	307° 18' 11"	144.43	5 533 811.38	660 798.78	1554.7
80-HR14	0° 34' 23"	40.72	5 533 852.10	660 799.19	1554.2
80-HR15	29° 51' 48"	120.77	5 533 956.83	660 859.33	1572.6
80-HR16	79° 51' 29"	97.33	5 533 973.97	660 955.14	1583.7
80-HR17	58° 31' 08"	100.97	5 534 026.70	661 041.24	1597.4
80-HR18	330° 52' 40"	79.50	5 534 096.15	661 002.55	1605.6
80-HR19	358° 00' 48"	96.11	5 534 192.20	660 999.22	1612.8
80-HR20	16° 45' 06"	63.98	5 534 253.47	661 017.66	1619.8
80-HR21	30° 27' 24"	224.80	5 534 447.25	661 131.61	1634.6
80-HR22	14° 29' 22"	63.63	5 534 508.85	661 147.53	1639.4
80-HR23	38° 15' 44"	106.56	5 534 592.52	661 213.52	1647.6
80-HR24	18° 59' 08"	79.50	5 534 667.70	661 239.38	1653.6
80-HR25	33° 18' 33"	60.17	5 534 717.97	661 272.42	1659.1
80-HR26	183° 48' 33"	101.30	5 534 616.90	661 265.69	1673.1
80-HR27	191° 17' 48"	60.86	5 534 557.22	661 253.77	1679.0
80-HR28	192° 28' 08"	83.86	5 534 475.34	661 235.66	1684.4
80-HR29	36° 26' 38"	55.58	5 534 520.05	661 268.68	1695.2
80-HR30	31° 57' 18"	128.68	5 534 629.23	661 336.78	1702.7
80-HR31	189° 42' 08"	21.93	5 534 607.61	661 333.09	1705.2
PEAK			5 538 446.10	660 460.84	2481.1
80-E2			5 540 842.91	661 245.22	2436.3
80-HR300	173° 36' 13"	5319.41	5 535 556.61	661 837.84	1757.5
80-HR301	245° 31' 16"	49.73	5 535 536.01	661 792.58	1760.0
80-HR302	217° 08' 54"	146.30	5 535 419.40	661 704.23	1749.5
80-HR303	223° 31' 24"	65.61	5 535 371.83	661 659.05	1746.2
80-HR304	238° 57' 41"	58.18	5 535 341.83	661 609.20	1744.8
80-HR305	231° 55' 37"	67.39	5 535 300.27	661 556.15	1738.7
80-HR306	279° 16' 34"	62.15	5 535 310.29	661 494.81	1733.1
80-HR307	196° 07' 44"	34.43	5 535 277.21	661 485.24	1732.1
80-HR308	202° 41' 09"	187.85	5 535 103.90	661 412.79	1715.1
80-HR309	174° 08' 57"	59.35	5 535 044.86	661 418.84	1709.6
80-HR310	147° 51' 30"	82.84	5 534 974.71	661 462.92	1705.9
80-HR311	206° 35' 33"	66.80	5 534 914.98	661 433.01	1699.5
80-HR312	166° 02' 41"	183.56	5 534 736.84	661 477.28	1687.9
80-HR313	233° 15' 41"	56.19	5 534 703.22	661 432.25	1694.4
80-HSR24-16	238° 35' 03"	37.59	5 534 683.63	661 400.17	1697.3
80-HSR24-15	272° 55' 58"	48.40	5 534 686.11	661 351.84	1700.9
80-HSR314A	201° 40' 18"	34.46	5 534 654.08	661 339.11	1702.9
80-HR30	183° 58' 22"	24.10			
SHEEP					
ADIT 19A	94° 16' 06"		5 533 099.49	661 520.98	1776.8
80-HR314	100° 48' 09"	70.61	5 533 086.26	661 590.34	1770.7
80-HR315	266° 14' 09"	94.86	5 533 080.03	661 495.69	1762.5
80-HR316	359° 33' 03"	71.84	5 533 151.86	661 495.12	1758.8
80-HR317	293° 06' 12"	126.81	5 533 201.62	661 378.48	1749.8
80-HR318	279° 59' 26"	65.96	5 533 213.07	661 313.52	1751.0
80-HR319	314° 16' 26"	42.60	5 533 242.80	661 283.02	1750.0
80-HR320	351° 54' 19"	85.93	5 533 327.88	661 270.92	1751.3
80-HR321	322° 24' 40"	106.51	5 533 412.27	661 205.95	1755.5
80-HR322	352° 21' 05"	40.93	5 533 452.84	661 200.50	1755.4
80-HR323	61° 33' 26"	100.32	5 533 500.62	661 288.71	1755.4
80-HR324	38° 15' 47"	47.98	5 533 538.29	661 318.43	1757.4
80-HR325	69° 59' 53"	135.34	5 533 584.58	661 445.60	1761.2
80-HR326	338° 00' 05"	91.20	5 533 669.14	661 411.44	1760.6
80-HR327	321° 26' 50"	113.60	5 533 757.98	661 340.64	1763.0
80-HR328	3° 12' 50"	32.17	5 533 790.10	661 342.44	1764.9
80-HR329	63° 39' 02"	42.56	5 533 808.98	661 380.58	1766.5
80-RDH301	79° 13' 50"	105.73	5 533 828.74	661 484.45	1771.8
80-HR330	89° 46' 32"	79.41	5 533 829.05	661 563.86	1777.2
80-HR331	35° 53' 26"	23.85	5 533 848.37	661 577.85	1780.1
80-HR332	71° 57' 41"	15.40	5 533 853.14	661 592.49	1781.1
80-HR333	92° 04' 24"	29.21	5 533 852.08	661 621.68	1783.0

ADIT STATIONS

STATION	NORTHING	EASTING	ELEVATION
ADIT 13a	5 533 225.23	661 910.70	1916.7
ADIT 13b	5 533 211.09	661 927.80	1921.0
ENVIRON.STA.	5 533 229.09	659 784.54	1943.13
ADIT 19a	5 533 099.49	661 520.98	1776.8
ADIT 13	5 533 250.93	661 883.73	1917.6
ADIT 14	5 533 249.83	661 933.67	1920.7
ADIT 19	5 533 101.71	661 582.21	1774.3

DRILL HOLE

STATION	NORTHING	EASTING	ELEVATION
80-HSR RDH 301	5 533 828.74	661 484.45	1771.8

SURVEY PERFORMED BY SHELTECH CANADA, 1980
ALL DISTANCES HAVE BEEN REDUCED TO THE U.T.M. PLANE AND ARE METRE AND DECIMALS THEREOF.
BEARINGS ARE REFERRED TO 117° W.

LEGEND

- PLANT 4" NAIL
- PLANT 6" NAIL
- X — PLANT 12" SPIKE
- FOUND 12" SPIKE
- FOUND IRON POST (I.P.)
- FOUND 1st GEODETIC CONTROL STATION
- FOUND 2nd GEODETIC CONTROL STATION
- CONTROL POINT OF NETWORK
- ADIT
- DRILL HOLE
- TRENCH
- OUTCROP
- ENVIRONMENTAL STATION
- 1979 C.N.R.L. PHOTO. CONTROL

Sheltech Canada

Crows Nest Resources Limited

ENGINEERING

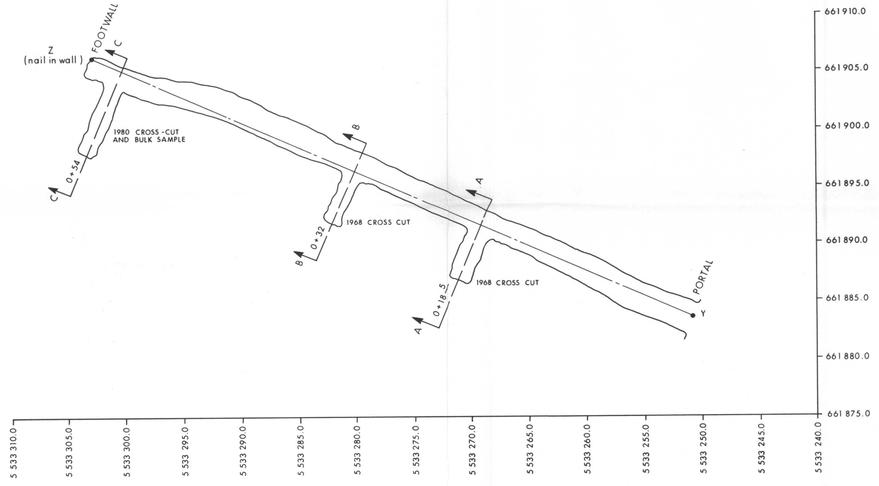
HORSESHOE RIDGE
S.E. BRITISH COLUMBIA

TRAVERSE SURVEY MAP

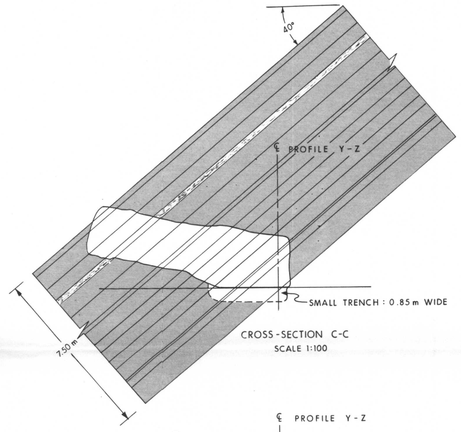
404

AUTHOR: SHELTECH	SCALE:	ENCLOSURE No:
DATE: 80 12 16	REVISED:	DRAWING No: HI-65A
To Accompany		

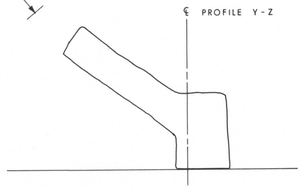
K-HORSESHOE RIDGE 80(2)A



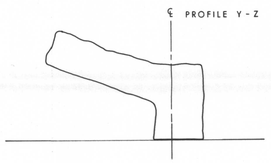
PLAN VIEW
SCALE 1:200



CROSS-SECTION C-C
SCALE 1:100



CROSS-SECTION B-B
SCALE 1:100



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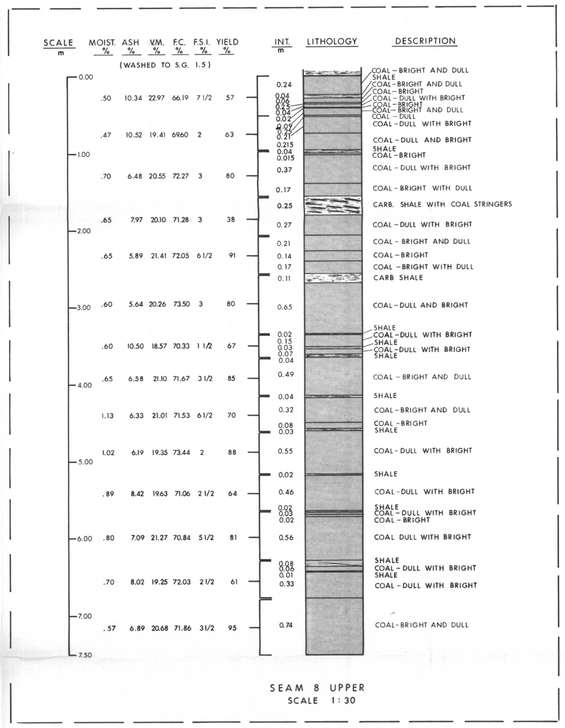
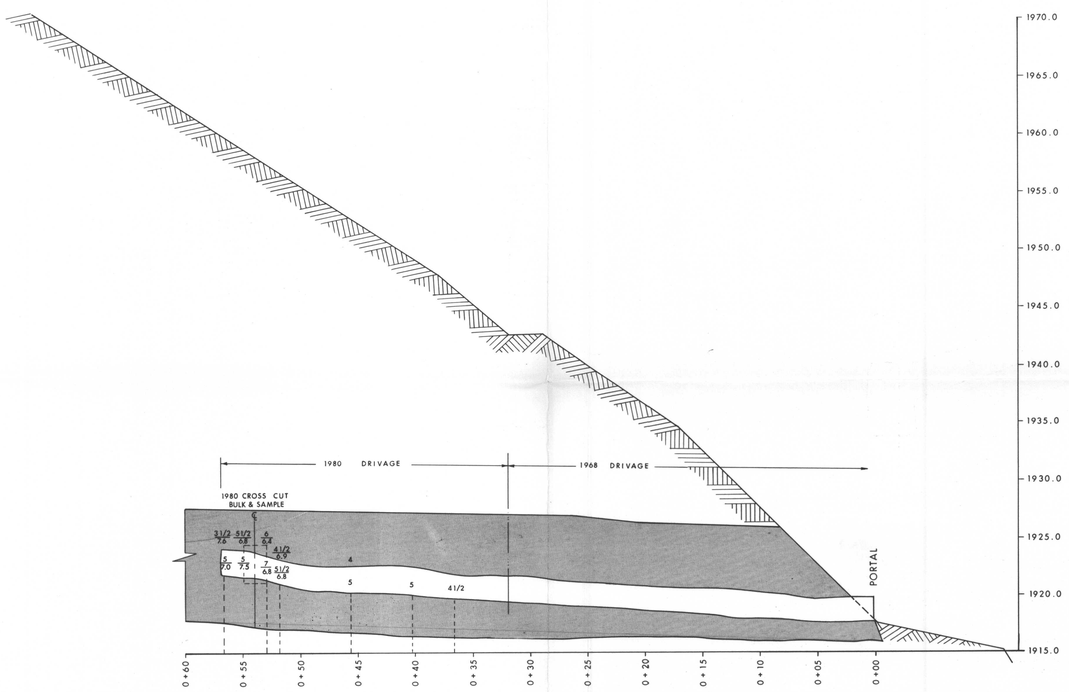
SCALE 1:100



SEAM 8 UPPER
SCALE 1:30



OVERBURDEN PROFILE
SCALE 1:200

LEGEND
4 1/2 / 6.9 = FSI / ASH WASHED TO S.G. 1.5

STATION	NORTHING	EASTING	ELEVATION
PORTAL - Y	5 533 250.93	661 883.73	1917.63
FOOTWALL-Z	5 533 302.97	661 906.23	1921.68

SURVEY PERFORMED BY Sheltech Canada, AUGUST 1980
UTM PROJECTION REFERRED TO 117° W LONGITUDE
ELEVATION AND CHAINAGES ARE IN METRES AND DECIMALS
ELEVATIONS ARE REFERRED TO SEA LEVEL

LEGEND
NAIL PLANTED —•
SMALL TRENCH — — — — —

404

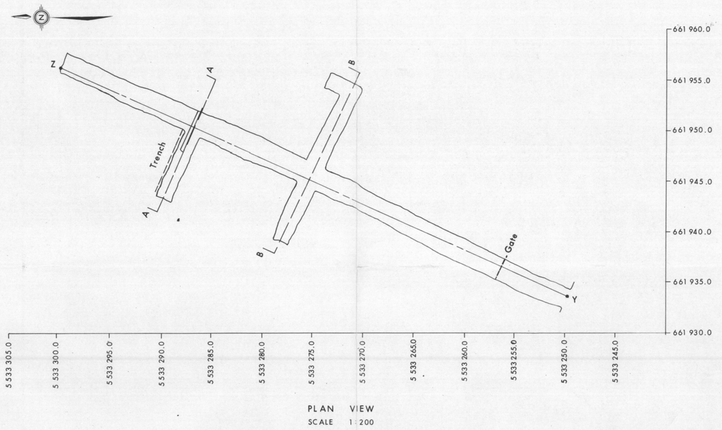
K-SHELL "HORSESHOE RIDGE 82(2)A

Crows Nest Resources Limited
EXPLORATION

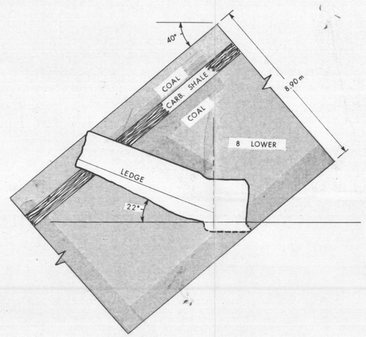
HORSESHOE RIDGE AREA
S.E. BRITISH COLUMBIA

ADIT No.13
SEAM 8 UPPER

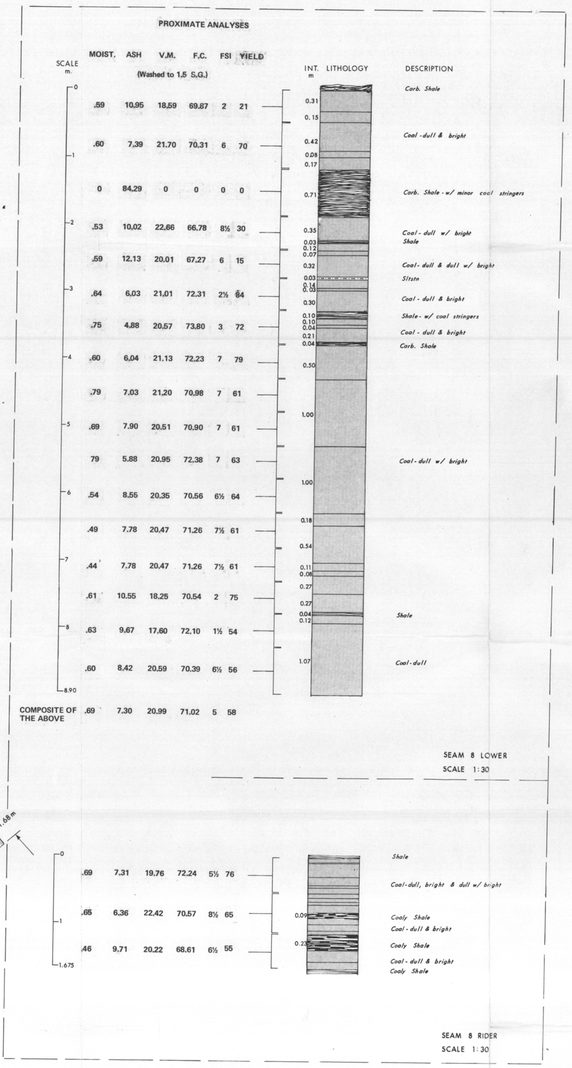
AUTHOR: SHELTECH/D. HANDY	SCALE: AS NOTED	ENCLOSURE No: 5
DATE: 81 01 08	REVISED:	DRAWING No: HK-65C
To Accompany		

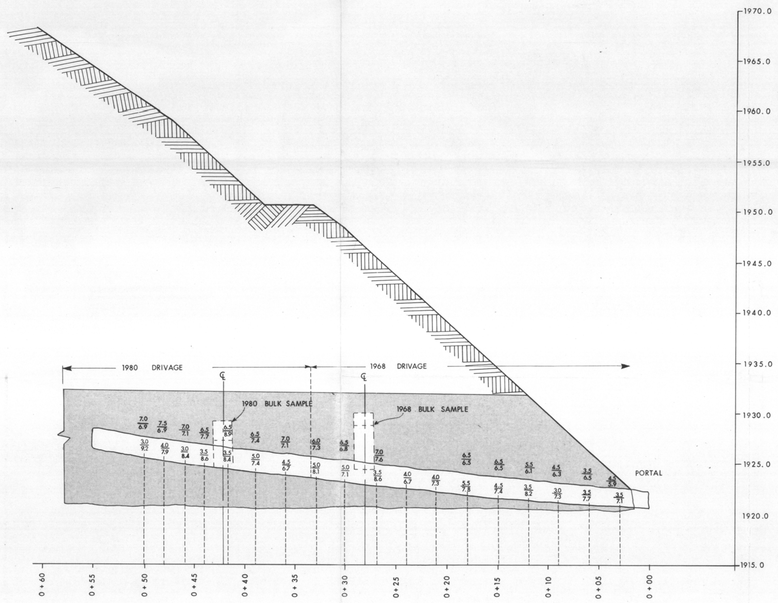


PLAN VIEW
SCALE 1:200

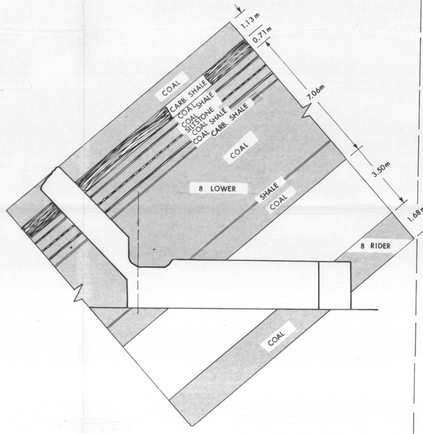


SECTION A - A
SCALE = 1:100





OVERBURDEN PROFILE
SCALE 1:200



SECTION B - B
SCALE 1:100

STATION	NORTHING	EASTING	ELEVATION
PORTAL Y	5 533 249.83	661 933.67	1920.69
FOOTWALL Z	5 533 299.87	661 956.23	1926.79

LEGEND

3.5 * FSI
7.1 * %ASH (WASHED TO S.G. 1.5)

ROOF SAMPLES WERE TAKEN WITH A 6 FOOT AUGER
RIB SAMPLES WERE CHANNELLED

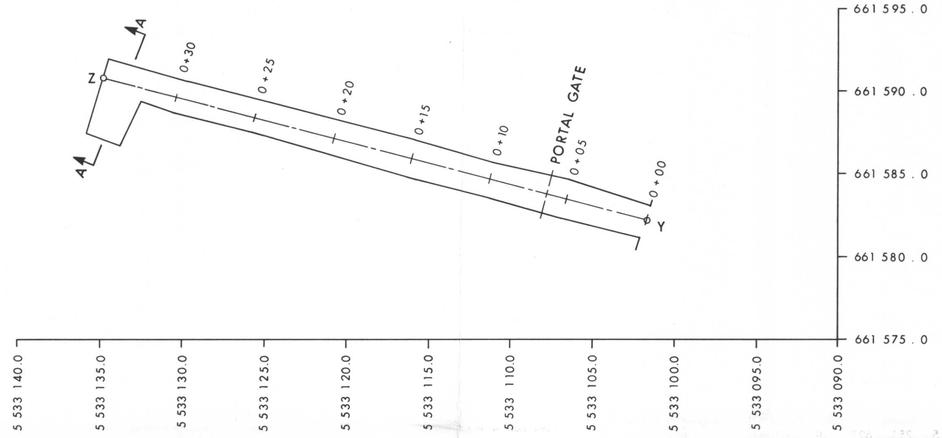
SURVEY PERFORMED BY Sheltech Canada.
U.T.M. PROJECTION REFERRED TO 117° WEST LONGITUDE
ELEVATION AND CHAINAGE IN METRES
ELEVATIONS ARE REFERRED TO SEA LEVEL.

404 K-SHELL HORSESHOE 82(2) A

Crows Nest Resources Limited
EXPLORATION
HORSESHOE AREA
S.E. B.C.

ADIT No. 14
SEAM 8 LOWER
SEAM 8 RIDER

AUTHOR: SHELTECH D. HANDY	SCALE: AS SHOWN	ENCLOSURE No: 6
DATE: 81 04 23	REVISED:	DRAWING No: HK-65D
To Accompany		

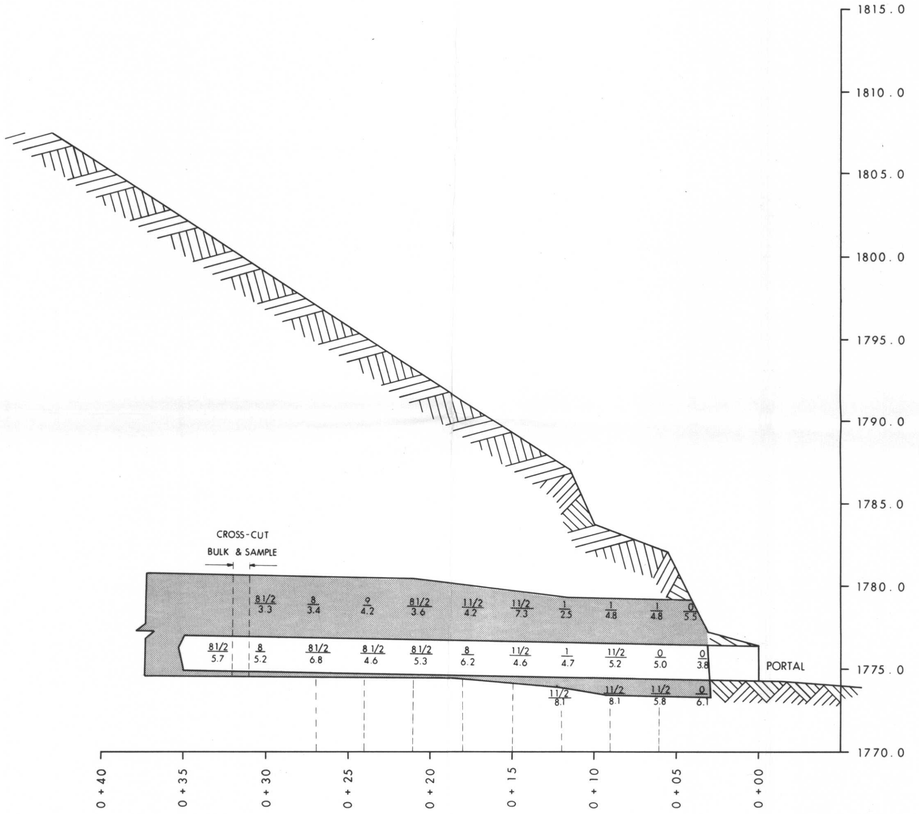


PLAN VIEW
SCALE 1:200

PROXIMATE ANALYSES
(WASHED TO S.G. 1.5)

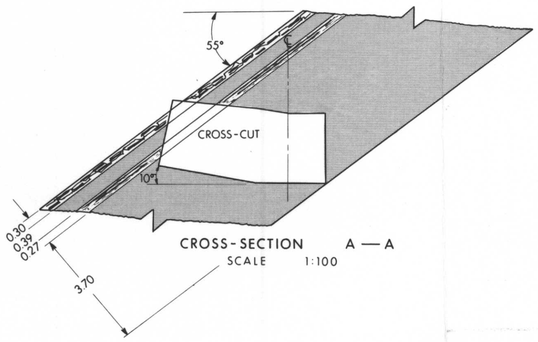
MOIST. %	ASH %	V.M. %	F.C. %	F.S.I.	YIELD %	INT.	LITHOLOGY	DESCRIPTION
						0.30		CARB / COALY SHALE
.97	3.9	26.0	69.2	2	13	0.05		COALY SHALE
						0.06		COAL - DULL WITH BRIGHT
						0.28		COAL - BRIGHT WITH DULL
.57	4.4	24.5	70.5	6 1/2	16	0.27		COAL - BRIGHT
								CARB. SHALE WITH COAL STRINGERS
.40	3.8	25.3	70.6	8 1/2	90	0.50		COAL - BRIGHT AND DULL
						0.07		COAL - DULL AND BRIGHT
.87	4.0	24.4	70.8	8 1/2	87	0.02		COAL - BRIGHT
						0.15		COAL - BRIGHT WITH DULL
						0.05		COAL - BRIGHT
						0.09		COAL - BRIGHT AND DULL
.77	5.8	23.6	69.8	8 1/2	83	0.06		COAL - BRIGHT
						0.48		COAL-DULL WITH BRIGHT
						0.03		SHALE
.81	5.7	24.0	69.4	8 1/2	76	0.13		COAL - BRIGHT WITH DULL
						0.40		COAL - DULL
.85	4.0	23.7	71.4	8 1/2	46	0.27		COAL - DULL, SOFT
						0.22		COAL - DULL WITH BRIGHT - MINOR SHALE LENSES
.65	5.1	24.4	69.8	8 1/2	66	0.50		COAL - DULL
						0.30		COAL - DULL WITH BRIGHT
.76	4.5	25.1	69.7	9	87	0.13		COAL - BRIGHT WITH DULL
						0.30		COAL - DULL WITH BRIGHT
.85	6.6	24.0	68.6	8	14	4.66 m.		CARB. SHALE
COMPOSITE OF THE ABOVE SAMPLES	.71	4.3	26.0	69.0	8	47		

SEAM 7
SCALE 1:30



OVERBURDEN PROFILE
SCALE 1:200

LEGEND
8 1/2 / 3.6 FSI / ASH WASHED TO S.G. 1.5



CROSS-SECTION A — A
SCALE 1:100

STATION	NORTHING	EASTING	ELEVATION
PORTAL Y	5 533 101.71	661 582.21	1774 . 262 floor 1776 . 19 top
FOOTWALL	5 533 134 . 85	661 590 . 81	1775.92

SURVEY PERFORMED BY Sheltech Canada , OCTOBER 1980
U.T.M. PROJECTION REFERRED TO 117° W. LONGITUDE
ELEVATION AND CHAINAGES ARE IN METRES AND DECIMALS
ELEVATIONS ARE REFERRED TO SEA LEVEL.

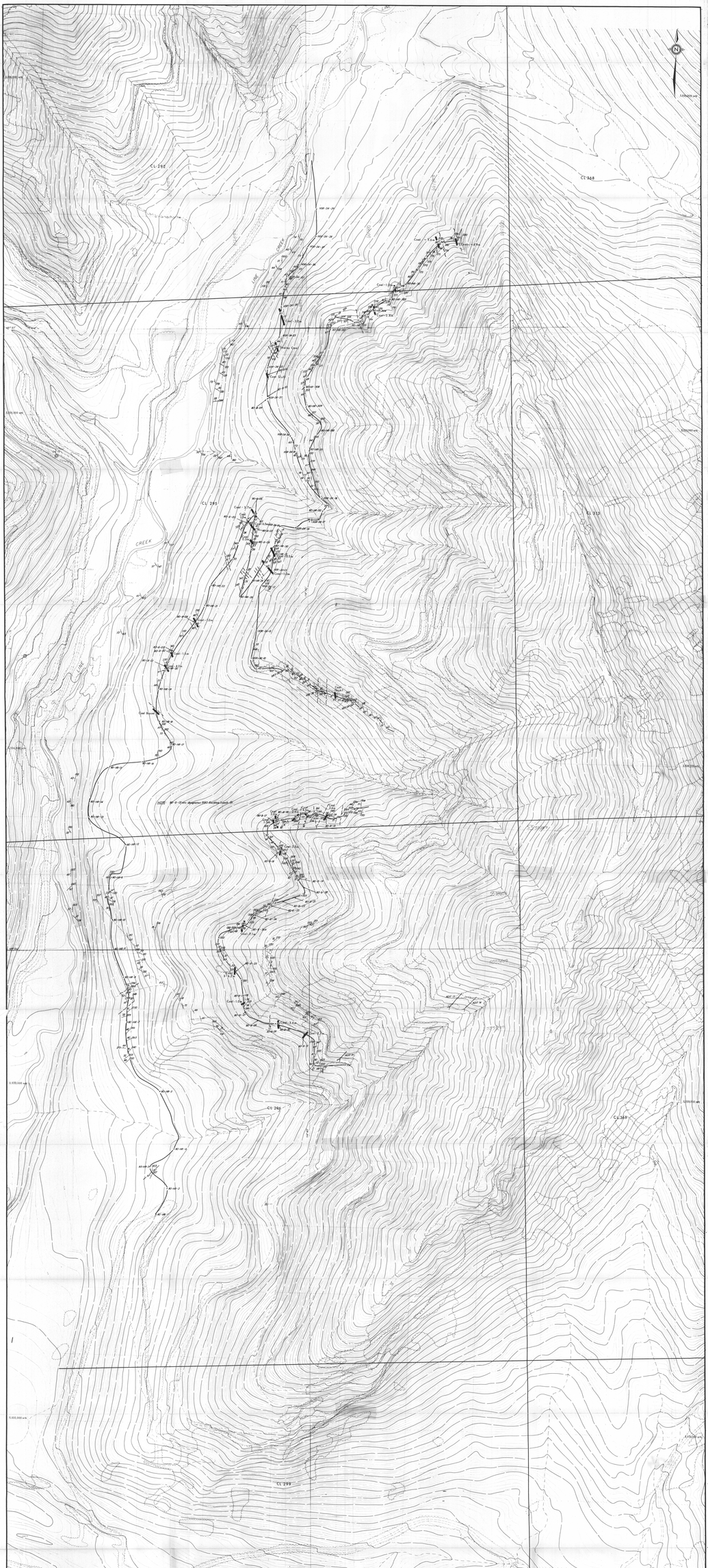
404 K-SHELL HORSERIDGE 80(2)A

Crows Nest Resources Limited
EXPLORATION

HORSESHOE RIDGE AREA
S.E. BRITISH COLUMBIA

ADIT No. 19
SEAM 7

AUTHOR: SHELTECH/D. HANDY	SCALE: AS NOTED	ENCLOSURE No: 7
DATE: OCT 1980	REVISED:	DRAWING No: HK-65E
To Accompany		


CL 298
CL 368
CL 291
CL 312
CL 296
CL 369
CL 299
HORSESHOE CREEK
HORSESHOE RIDGE
Cmw-1.5m
Cmw-1.6m
Cmw-1.7m
Cmw-1.8m
Cmw-1.9m
Cmw-2.0m
Cmw-2.1m
Cmw-2.2m
Cmw-2.3m
Cmw-2.4m
Cmw-2.5m
Cmw-2.6m
Cmw-2.7m
Cmw-2.8m
Cmw-2.9m
Cmw-3.0m
Cmw-3.1m
Cmw-3.2m
Cmw-3.3m
Cmw-3.4m
Cmw-3.5m
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Cmw-3.9m
Cmw-4.0m
Cmw-4.1m
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Cmw-4.8m
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Cmw-5.0m
Cmw-5.1m
Cmw-5.2m
Cmw-5.3m
Cmw-5.4m