'81 #55-# 9053

REPORT

ON THE

UNDERGROUND DIAMOND DRILLING

ON THE ASPEN GROUP

NELSON MINING DIVISION, B.C.

CONSISTING OF

THE ROCK	RECORD NO.	1507(2)
THE CRUNCH		1508(2)
SALMO MALARTIC #4		1494(2)
CAROLINE & SILVERTON FR.		944(2)
EMMA		948(2)
ASPEN		945(2)
MOHAWK		946(2)
INTERNATIONAL		947(2)
SALMO MALARTIC #2		950(2)
SALMO MALARTIC #3		951(2)
SALMO MALARTIC #1		949(2)

N.T.S. 82F/3E
LATITUDE 49° 10'N
LONGITUDE 171° 01'W

OWNER/OPERATOR: EXTOTAL RESOURCES INC. (formerly Total Resources Inc.)

AUTHOR: ANTONIO M. DE QUADROS

WORK DONE: 1st MARCH 1980 - 14th FEBRUARY 1981

DATE: 10th MARCH 1981

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 9053

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INTRODUCTION

The program on the Aspen property was undertaken after samples taken in old underground workings on the property showed the presence of a silver-gold mineralized zone largely missed by previous operators.

In the fall of 1980 the main drill program underground was started and is still in progress at this time, utilizing two drills.

This report will give a description of the work related to the drilling to date. Only partial geology, D.D.H. logs, and assay results are available at this time.

Location Access and Physiography:

The property is located approximately 3 km. east of Salmo, B.C. and 40 km. south of Nelson, B.C.

The access road leaves Hwy. #3 4 km. south of Salmo and heads east up the valley of Sheep creek to the Cominco H.B. Mine. A 6 km. four-wheel drive road joins the H.B. Mine to the Aspen property.

The workings are situated on the east side of upper Aspen creek valley. The steep mountain side is covered in post forest-fire vegetation. Moderate to heavy rain and snowfall is typical in the area at this elevation of 1500 M. in the fall and winter months. The summer months are mostly quite dry with only occassional heavy showers.

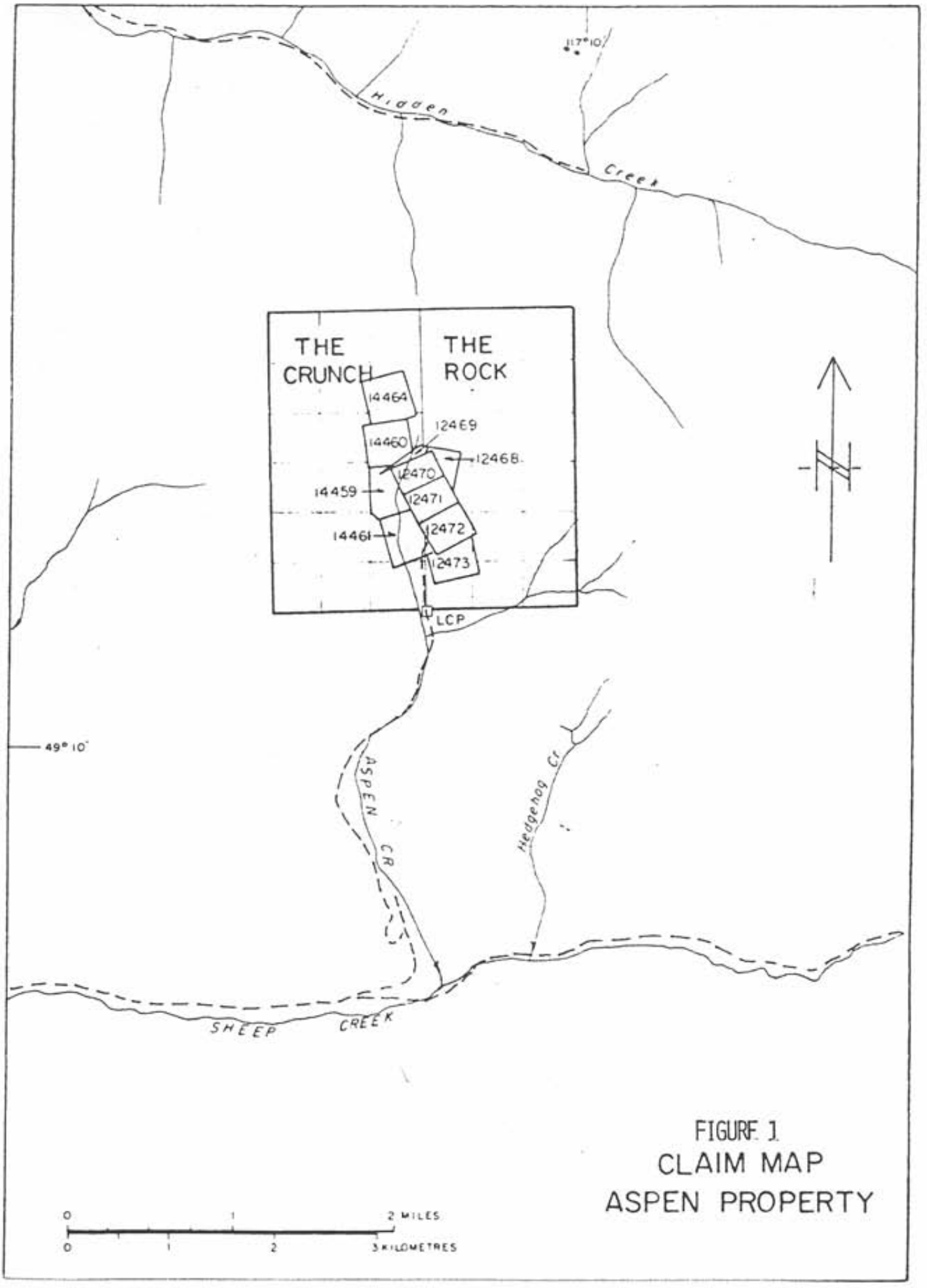

FIGURE 1.
CLAIM MAP
ASPEN PROPERTY

Property Status:

The eleven claims making up the Aspen group are held 100% by Extotal Resources Inc. of Vancouver, B.C.

They are the ---- Aspen, Salmo Malartic #1, Salmo Malartic #2, Salmo Malartic #3, Salmo Malartic #4, Emma, Mohawk, International, Silverton - Caroline Fr, The Crunch, The Rock.

Diamond Drill Program - Description and Interpretation:

During the spring and early fall of 1980 the access roads and underground workings were cleaned up and rebuilt to facilitate a drill program. An all-weather permanent cookshack and office building was erected, along with a core storage, logging and sampling building. Three large tent frames were built for accomodation.

A power plant and weatherproof waterline and well were installed. After the underground rehabilitation, over 900 m. of steel airline and 800 m. of steel and plastic waterline was hung to service the drill sites. All portals on the different levels were equipped with covers to prevent total freeze up. A 750 c.f.m. compressor was installed at the lower level site and fuel is obtained by gravity feed from a stationary 500 gallon tank. A mobile tank is hauled up weekly by a D-6 bulldozer to serve the stationary tank. Camp fuel

and heating oil is hauled by four wheel drive truck. A full-time bulldozer also keeps the access roads clear of snow. Early snow caused all surface work to be halted shortly after final camp construction.

After mobilization, underground drilling commenced on the first day of November, 1980 and has been continuous to date using two J.V. rigs coring E.X.K.

Only the first fifteen drill holes have been logged and correllated with finalized assay results. Underground geology has not been fully completed due to the amount of inaccessible workings at this time. Geology maps compiled by previous operators are currently being used.

4,421 feet drilled to February 14, 1981 in a total of fifty holes has outlined a mineralized zone in a bedded - siliceous dolomite - limestone slump breccia 1.5 m. to 10 m. thick and is as yet of undetermined length and width. Further drilling and drifting will be used to delineate size and grade in 1981.

Respectfully submitted by:

M. de Quadros
Geologist

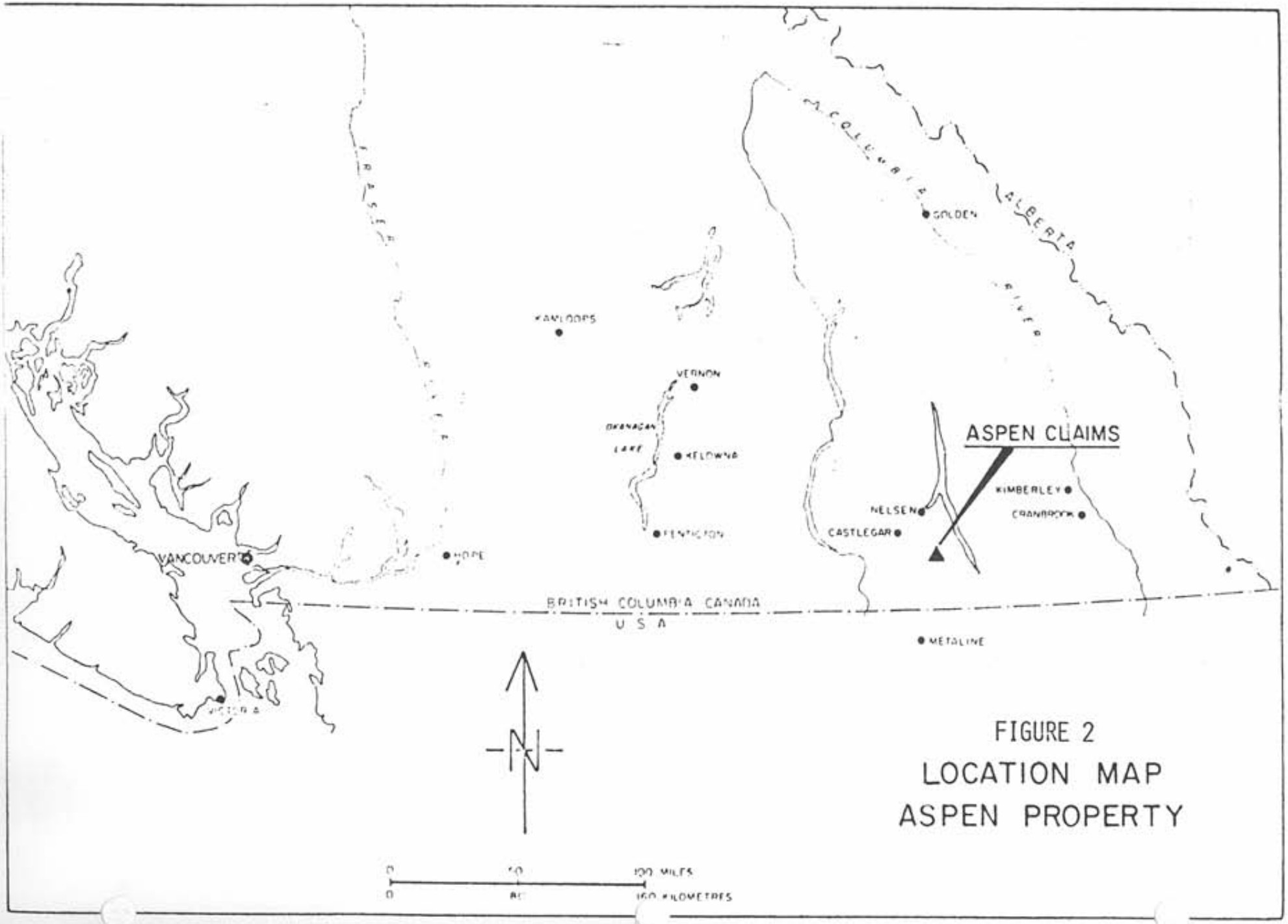

FIGURE 2
LOCATION MAP
ASPEN PROPERTY

EXTOTAL RESOURCES INC. ASPEN PROPERTY

LIST OF UNDERGROUND DRILL HOLES

DDH No.	START	END	LENGTH	DIP	BEARING	ELEVATION	RECOVERY
80-01	10 Nov. 80	11 Nov. 80	81'	+10°	N 005°	4731'	98%
80-02	12 Nov. 80	12 Nov. 80	70'	+30°	N 105°	4731'	96%
80-03	12 Nov. 80	14 Nov. 80	59'	0°	N 230°	4762	90%
80-04	13 Nov. 80	17 Nov. 80	102'	0°	N 156°	4711'	98%
80-05	14 Nov. 80	14 Nov. 80	60'	0°	N 270°	4762'	98%
80-06	17 Nov. 80	19 Nov. 80	46'	-40°	N 246°	4711'	80%
80-07	17 Nov. 80	17 Nov. 80	50'	-45°	N 230°	4762'	88%
80-08	20 Nov. 80	21 Nov. 80	85'	+40°	N 066°	4711'	97%
80-09	18 Nov. 80	19 Nov. 80	60'	+45°	N 050°	4762'	83%
80-10	24 Nov. 80	25 Nov. 80	71'	+90°	-	4692'	98%
80-11	20 Nov. 80	20 Nov. 80	58'	-45°	N 066°	4762'	91%
80-12	25 Nov. 80	26 Nov. 80	55'	-90°	-	4692'	85%
80-13	21 Nov. 80	24 Nov. 80	66'	+90°	-	4762'	98%
80-14	27 Nov. 80	02 Dec. 80	112'	+45°	N 066°	4692'	88%

DDH No.	START	END	LENGTH	DIP	BEARING	ELEVATION	RECOVERY
80-15	24 Nov. 80	25 Nov. 80	101'	FLAT	N066	4762'	98%
80-16	02 Dec. 80	08 Dec. 80	151'	FLAT	-	4692'	
80-17	26 Nov. 80	27 Nov. 80	60'	-90°		4752'	
80-18	09 Dec. 80	15 Dec. 80	172'	+45°		4692'	
80-19	27 Nov. 80	28 Nov. 80	60'	+90°	-	4752'	
80-20	16 Dec. 80	19 Dec. 80	123'	+90°	-	4692'	
80-21	01 Dec. 80	02 Dec. 80	62'	-90°	-	4742'	
81-22	08 Jan. 81	12 Jan. 81	86'06"	+60°		4692'	
80-23	02 Dec. 80	05 Dec. 80	66'	+90°	-	4742'	
81-24	13 Jan. 81	14 Jan. 81	80'	+10°		4762'	
80-25	08 Dec. 80	09 Dec. 80	60'	-90°	-	4742'	
81-26	14 Jan. 81	16 Jan. 81	101'	+10°		4762'	
80-27	09 Dec. 80	10 Dec. 80	75'	+90°		4742'	
81-28	16 Jan. 81	16 Jan. 81	59'	+70°		4762'	
80-29	11 Dec. 80	16 Dec. 80	150'	+45°		4742'	

DDH NO.	START	END	LENGTH	DIP	BEARING	ELEVATION	RECOVERY
81-30	20 Jan. 81	21 Jan. 81	101'	-20°		4762'	
80-31	16 Dec. 80	19 Dec. 80	160'	FLAT		4742'	
81-32	22 Jan. 81	26 Jan. 81	100'	-42°		4762'	
81-33	08 Jan. 81	12 Jan. 81	103'	FLAT		4742'	
81-34	26 Jan. 81	27 Jan. 81	46'	-45°		4762'	
81-35	13 Jan. 81	14 Jan. 81	97'	+30°		4762'	
81-36	28 Jan. 81	30 Jan. 81	103'	+90°	-	4762'	
81-37	15 Jan. 81	16 Jan. 81	95'	-45°		4762'	
81-38	02 Feb. 81	04 Feb. 81	72'	-45°	N 246°	4772'	
81-39	19 Jan. 81	21 Jan. 81	93'	+90°	-	4762'	
81-40	04 Feb. 81	06 Feb. 81	125'	FLAT	N 246°	4772'	
81-41	22 Jan. 81	23 Jan. 81	101'	+25°	N 280°	4762'	
81-42	09 Feb. 81	11 Feb. 81	120'	-35°	N 246°	4772'	
81-43	23 Jan. 81	27 Jan. 81	64'	+45°	N 280°	4762'	

DDH No.	START	END	LENGTH	DIP	BEARING	ELEVATION
81-44	11 Feb. 81	12 Feb. 81	121'	-30°	N 216°	4772'
81-45	27 Jan. 81	28 Jan. 81	50'	-45°	N 280°	4762'
81-46	13 Feb. 81	16 Feb. 81	100'	FLAT	N 246°	4772'
81-47	29 Jan. 81	02 Feb. 81	166'	FLAT	N 066°	4762'
81-48	17 Feb. 81	19 Feb. 81	120'	FLAT	N 246°	4772'
81-49	02 Feb. 81	04 Feb. 81	85'	+90°	-	4762'
81-50	20 Feb. 81			-90°	-	4772'
81-51	09 Feb. 81	11 Feb. 81	120'	+90°	-	4635'
81-52				+90°	-	4772'
81-53	12 Feb. 81	15 Feb. 81	100'	+90°	-	4635'
81-54						
81-55	16 Feb. 81			-45°	N 246°	4635'
81-56						
81-57						

Cost Statement

Compressor - 3.5 mths. X 2,900.00	$10,150.00
Diamond Drilling - 4,421 ft. X $10.50 ft. + moves etc.	$48,750.00
Wages - Geologist - 5.5 Mths. X $4,000.00	$22,000.00
Project Manager - 5.0 mths. X $3,300.00	$16,500.00
Assistant - 3.0 mths. X $2,700.00	$ 8,100.00
Drafting	$ 610.00
4 X 4 Blazer, Winch, Tow, Hitch - 4.0 mths. X $700.00	$ 2,800.00
4 X 4 Ford P.U. - 5.5 mths. X $700.00	$ 3,850.00
Assays -	$ 8,500.00
D-6 bulldozer - 4.0 mths. X contract + part time X 45.00 hr.	$16,500.00
966 loader - 21 hrs. X $45.00 without operator	$ 950.00
Mine Rehabilitation and Equipment	$18,400.00
Compressor fuel, oil, service etc.	$ 7,000.00
Camp supplies, water line, generator, tools, food, equipment, fuel drums and tanks, lumber, hardware, fuel, truck gas, oil, mine lamps, charger, freight, air transportation - Vancouver, core splitter, core boxes, etc. -	$30,500.00
Total Expenditure	$ 195,010.00

Respectfully submitted by:

M. de Quadros
Geologist

CERTIFICATE

I, Antonio M. de Quadros, of 2741 Chesterfield Avenue, North Vancouver, B.C. do hereby certify that:

1. I am a consulting geologist with an office at 2741 Chesterfield Avenue, North Vancouver, B.C.

2. I hold the following degrees in geology:

   a) B.Sc. Hons. 1st Class University of London, 1964

   b) M.S. U.C.L.A., 1968

   c) Ph.D. University of Nairobi, 1972

3. I have practised my profession continuously since 1964 while being employed by Union Carbide Exploration, Kerr Adison Mines, Dolmage, Campbell and Associates, and Chinook Construction and Engineering Ltd. I have been working independently since 1978.

4. I have no interest, direct or indirect, in the properties or securities of Total Resources Ltd.

5. I am a Fellow of the Geological Association of Canada.

A. M. de Quadros
March 14, 1981
North Vancouver, B.C.

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 10 Nov. 1980
FINISH: 11 Nov. 1980

LENGTH: 81 feet
BEARING: N.005°
DIP: +10°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4731'
LOCATION:

D.D.H. NO. U80-01
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0 00	8 00	SILICEOUS DOLOMITE BRECCIA								
		8"			fine grained light grey to greyish-blue dolostone fragments	296 01	0 00	1 11	n.d.	19.3	31	86	82
		8"			cemented by calcite; minor grey metallic mineral - tetrahedrite? Details:								
					0'00" - 1'00" dolostone breccia	02		3 00	10	2.6	2	54	87
10					- 3'00" banded dolostone with fractures at 45° - 60° to core axis 3'00" - 30°								
					- 5'06" dolostone breccia	03		5 06	20	15.6	17	124	72
					- 8'00" mixed grey & white dolostone and dolomite breccia hard, siliceous; rare skarney zones								
		8"			and minor sulphides 1'00" - 30°	04		8 00	20	13.7	27	510	339
20			8 00	11 05	GREY SILICEOUS DOLOSTONE	05		11 05	20	61.9	390	569	2280
					very fine grained, unbanded Pyrrhotite - 6% 10'00" - 30°								
			11 05	44 00	GREY & WHITE BANDED LIMESTONE	06		16 05	n.d.	3.3	7	118	109
					medium to course grained, with minor sulphides 0.5% 20' 00" - 30°								
30					sulphides occur in the darker carboneous partings, usually equal pyrite and pyrrhotite 40' 00" - 40°	07		21 05	n.d.	1.1	8	66	72
					21' 05" - 23' 00": siliceous dolomite breccia	08		23 00	90	27.8	16	346	117
					30' 05 : 2/10 Pyrrhotite parting								
					32' 10" - 34' 00": siliceous dolomite breccia	09		28 00	20	51.3	157	950	3560
40					38' 09" : 1/2" Pyrrhotite-Sphalerite parting								
						10		32 10	10	2.3	37	194	178

U80-01

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	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			44 00	61 06	PALE GREY LIMESTONE	296 11	32 10	34 00	10	6.0	15	730	203
					course with very thin grey partings with pyrrhotite								
					50' 00" - 45°								
50					scattered crystals of pyrite; sulphides (- 1%	12		39 00	n.d.	1.7	8	295	346
			61 06	71 04	MINERALIZED SILICEOUS DOLOMITE LIMESTONE	13		44 00	n.d.	0.4	2	200	267
					banded, grey & white, fine grained rock with bands of								
					pyrrhotite & pyrite								
					sulphides overall 7 - 10%. Very minor sphalerite (- 0.5%	14		49 00	n.d.	0.9	n.d.	231	362
					61' 06 - 64' 10": brecciated, minor pyrite								
60					66' 00 - 67' 00": pyrite & pyrrhotite 35%	15		54 00	n.d.	n.d,	n.d.	76	200
					68' 06 - 69' 06": pyrite & pyrrhotite 35%								
						16		59 00	10	0.3	n.d.	110	110
			71 04	81 00	GREY DOLOSTONE								
70					fairly massive, coarse almost sandy' texture; siliceous	17		61 06	10	0.1	n.d.	41	146
					and homogeneous. Pyrite minor (- 5%. Folliation vague								
					- approx. 50°	18		64 10	10	0.4	1	49	45
				81 00	END OF HOLE	19		68 06	10	1.8	19	202	350
80					FIRE ASSAYS (BONDAR-CLEGG)	20		71 04	10	1.7	19	146	1200
					296 01 Width 1' 11" Au oz/ton (0.002 Ag oz/ton 0.64								
					296 03 2' 6" 0.002 0.50	21		76 00	n.d.	0.7	2	65	360
					296 04 2' 6" 0.002 0.35								
					296 05 3' 5" 0.003 1.78	22		81 00	10	2.4	4	119	300
					296 08 2' 7" 0.002 0.57								
					296 09 5' 0" 0.002 1.60								
					296 10 4' 10" (0.002 0.08								
					296 11 1' 2" (0.002 0.21								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 12 Nov. 1980
FINISH: 12 Nov. 1980

LENGTH: 70 feet
BEARING: N105°
DIP: +30°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4731'
LOCATION:

D.D.H. NO. U80-02
RECOVERY: 96%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0		6"	0 00	23 00	MIXED SILICEOUS MINERALIZED DOLOSTONE BRECCIA & LIMESTONE	296 23	0 00	2 04	220	568.8	296	12100	7800
					White, massive, poorly folliated dolostone & dolostone breccia with bands of black & white limestone. Well-mineralized Details:	24		6 03	70	58.2	168	368	6900
					0' 00" - 0' 06": fine barren siliceous limestone 60°								
					- 2' 04": white dolostone, hard with tetrahedrite and galena	25		9 03	1380	239.0	1590	1460	70000
10					6' 03": banded limestone, minor sphalerite; pyrrhotite 45°								
					9' 03": white dolostone, breccia, siliceous, hard with pyrrhotite, minor sphalerite and galena 45°	26		11 06	260	102.5	340	2710	16100
					11' 06": brecciated banded limestone, with pyrite pyrrhotite, sphalerite and galena	27		13 04	40	121.1	216	1800	15100
					13' 04": white brecciated siliceous dolostone; sphalerite and galena	28		17 00	180	4.6	107	144	247
					17' 00": grey & white banded dolomitic limestone fracturing in parts low in silica; with pyrite and sphalerite	29		18 00	10	6.9	22	570	490
					Skarn bands (green) at 16'03"-17'00" 45°								
30					18' 00": white dolostone; with pyrite and minor grey mineral	30		23 00	20	11.9	37	530	480
			23 00	41 00	GREY & WHITE BANDED LIMESTONE	31		28 00	n.d.	4.2	11	128	372
					Slightly siliceous, well folliated rock with minor pyrite in their partings. Trace grey metallic mineral, but overall appears barren	32		33 00	10	12.1	21	169	290
40		7"				33		37 00	n.d.	0.5	1	65	219

U80-02

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	RUN	LOSS	FROM FT	TO FR	LITHOLOGY
			41 00	63 04	MINERALIZED SILICEOUS DOLOSTONE
50					Fine grained, dark grey banded rock, with partings of pyrite, pyrrhotite - 1-12% and trace sphalerite? Does not appear argentiferous - no grey mineral 30°
					41' 00"-54' 00": heavily pyritized, total sulphides - 15%
					63' 00": poorly mineralized, minor calcitic zones
60					63' 04": SKARNED - green, fine grained, silicified
			63 04	70 00	GRANITE
					greyish-white, fine grained; biotite granite
70				70 00	END OF HOLE

FIRE ASSAYS (BONDAR-CLEGG)

SAMPLE #	WIDTH	Au oz/ton	Ag oz/ton	Pb%	Zu%
296 23	2' 4"	0.005	12.35	1.26	0.70
24	3'11"	0.003	1.11	0.04	0.60
25	6' 0"	0.031	7.83	0.20	7.10
26	2' 3"	0.005	4.42	0.27	1.56
27	1'10"	0.005	3.26	0.17	1.38
28	3' 8"	(0.002	0.10		
29	1' 0"	(0.002	0.23		
30	5' 0"	(0.002	0.34		
31	5' 0"	(0.002	0.06		
32	5' 0"	(0.002	0.35		

SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
296 34	37 00	41 00	n.d.	1.6	1	249	340
35		45 00	n.d.	2.7	25	99	4900
36		49 00	10	2.2	20	16	178
37		54 00	10	3.6	18	97	2940
38		59 00	n.d.	0.3	n.d.	40	110
39		63 04	10	0.6	1	57	171

WEIGHTED AVERAGE
00" - 13' 04"
Au 0.017 oz/ton
Ag 7.20 oz/ton
Pb 0.39%
Zu 3.95%

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.
PROPERTY: ASPEN MINE

START: 12 Nov. 1980
FINISH: 14 Nov. 1980

LENGTH: 59 feet
BEARING: N230°
DIP: FLAT
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. U80-03
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0 00	32 06	BLACK & WHITE BANDED LIMESTONE Medium to fine grained, thinly banded rock with negligible sulphides, mainly pyrite and pyrrhotite; minor skarny bands 1/10 to 2/10" thick 0'00"- 1'06" minor sulphides - 1% 40° 7'00" banded limestones 40° 11'08" dolomitic limestones, slightly siliceous 11'10" minor dolomitic band 32'06" banded limestones, banding becoming less prominent towards end. 45°								
10													
20													
			32 06	42 08	GREY & WHITE SILICEOUS LIMESTONE Poorly banded, minor pyrite & pyrrhotite - 2%, hard, siliceous 32'06"-35'03" White with minor brown bands 45° 42'08" Poorly banded white & grey limestone, sulphides - 2%	296 40	32 06	35 03	n.d.	1.6	11	77	86
						41		37 06	10	0.4	4	29	75
30						42		42 08	n.d.	0.3	1	46	31
			42 08	59 00	STREAKY BANDED LIMESTONE Fine to medium grained, poorly banded, irregular grey streaks. Very minor siliceous bands, with trace pyrite								
40				59 00	END OF HOLE								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.
PROPERTY: ASPEN MINE

START: 13 Nov. 1980
FINISH: 17 Nov. 1980

LENGTH: 102 Feet
BEARING: N156°
DIP: FLAT
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION:
LOCATION:

D.D.H. NO. U80-04
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0 00	50 01	MINERALIZED SILICEOUS DOLOMITIC LIMESTONE	384 01	0 00	1 06	40	23.5	24	344	37
					Light grey, unhomogenous fine to medium grained rock, with								
	3"				dolomitic zones. Minor pyrite and pyrrhotite - 2-4%, usually	296 45		2 09	1290	658.1	680	4900	124
					disseminated. Occasionally grain of sphalerite, galena? and								
					tetrahedrite?								
10					0'00"- 1'06": trace tetrahedrite? 1'00" - 10°	384 02		7 00	120	100.1	93	610	119
					2'09": dolomitic, brecciated - tetrahedrite? 12°								
					19'11": pale grey, coarse, core angle increasing too	03		10 00	10	3.8	20	99	54
					pyrrhotite layers 1/10" at 10'03" - 11'02"								
					massive pyrrhotite 1/2" at 10'08" 30°	04		14 00	n.d.	4.0	145	110	26
20					20'11": dolomitic								
					50'01": grey & white well banded limstone, with	05		19 00	10	3.9	220	74	26
					minor pyrite and pyrrhotite								
						06		24 00	30	30.2	25	126	24
			50 01	94 04	SKARNED LIMESTONE								
30					Appears very much as above, but more siliceous & cherty.	07		29 00	10	4.0	2	118	11
					Very fractured in part a breccia. Many green skarn bands.								
					50'01"-52'08": few skarn bands 25-35°	08		34 00	n.d.	0.4	1	57	13
					65'09": brecciated-dolomitic; minor grey metallic								
					mineral-tetrahedrite? pyrite 3-5%, core	09		39 00	10	0.3	1	43	17
					angle 10-20°, decreasing to almost sub-								
					parallel to core axis								
40					74'02": largely fine grained green skarn 30°	10		44 00	20	24.1	7	190	216
					74'02" 95'00": dark grey, streaky, siliceous limestone,								
					very fractured. Bedding uneven with much	11		50 00	n.d.	3.8	2	67	23
					crossbedding and swirling folliation. Minor								
					pyrite & pyrrhotite, about 3%, with a grey	12		52 08	n.d.	1.2	13	36	139
					metallic mineral, possibly tetrahedrite.								
					Overall core abgle about 30° to axis.	296 46		55 02	2700	2437.8	790	7100	293

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	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					74'02"-95'04": hard, cherty, skarned limestone	296 47		60 04	90	88.2	19	222	287
			95 04	102 00	BIOTITE GRANITE	48		65 04	20	9.1	54	50	152
					Medium grained, except fine at contact. Mesocratic with biotite flakes. Very little major skarning seen.	49		69 04	10	14.5	93	87	316
				102 00	END OF HOLE	50		74 04	210	59.9	198	170	8000
					FIRE ASSAYS (BONDAR-CLEGG)	51		79 04	20	38.0	199	470	980
					SAMPLE WIDTH Au oz/ton Ag oz/ton Pb% Zu%	52		84 04	100	48.2	153	1430	2150
					384 01 1'6" 0.004 0.71) Weighted Average (0'00-7'00) Au 0.016 oz/ton Ag 6.34 oz/ton	53		89 04	220	47.4	324	3150	3880
					296 45 1'3" 0.055 20.25)	296 54		94 04	330	127.2	160	900	160
					384 02 4'3" 0.009 4.23)								
					296 26 2'4" 0.11 63.10)								
					47 5'2" 0.010 2.91)								
					48 5'0" 0.010 0.28)								
					49 4'0" 0.003 0.25)								
					50 5'0" 0.005 1.87 0.02 0.74)								
					51 5'0" 0.002 0.79) Weighted Average 52'08" to 94'04" (41' 08") Au 0.018 oz/ton Ag 5.35 oz/ton								
					52 5'0" 0.003 1.54)								
					53 5'0" 0.026 1.99)								
					54 5'0" 0.040 5.50)								

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			167'00	169'00	WHITE QUARTZITE hard, very well foliated, brittle. Pyrite 2% 50°								
			169'00	172'00 172'	LOSS OF CORSE END OF HOLE								
					FIRE ASSY								
					No. 20794 17'06" - 19'00" Au 0.002 oz/ton Ag 0.17 oz/ton								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.
PROPERTY: ASPEN MINE

START: 14 Nov. 1980
FINISH: 14 Nov. 1980

LENGTH: 60 Feet
BEARING: N270°
DIP: FLAT
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. U80-05
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0 00	6 03	MINERALIZED BANDED LIMESTONE Light grey and white rock, with bands of pyrrhotite and rare sphalerite 1'08"-2'06": numerous pyrrhotite bands Core angle 30° Minor pyrite and pyrrhotite disseminated; siliceous	296 43 296 44	0 00 6 03	2 02 6 03	10 10	6.7 6.9	17 3	211 116	34 35
10			6 03	20 06	BANDED DARK GREY LIMESTONE Well banded, medium grained unit with minor brecciation. Pyrite and pyrrhotite (1% fractures sub-parallel to core axis. 15'06"-15'09": White quartz vein 16'00" Thin green skarny band 35°								
20			20 06	60 00	GREY LIMESTONE Grading from above a medium to coarse poorly folliated 'sandy' rock. Only a trace of pyrite. ?								
30					46'09"-54'02": Band of white limestone with minor pyrite (1% 35°								
				60 00	END OF HOLE								
40					FIRE ASSAY (BONDAR-CLEGG) #296 43 Au (0.002 oz/ton Ag 0.03 oz/ton #296 44 (0.002 oz/ton 0.09 oz/ton								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.
PROPERTY: ASPEN MINE

START: 17 Nov. 1980
FINISH: 19 Nov. 1980

LENGTH: 46 FEET
BEARING: N246°
DIP: -40°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4711'
LOCATION:

D.D.H. NO. U80-6
RECOVERY: 80%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0 00	6 00	CASING - NO CORE								
		12"											
			6 00	46 00	LIGHT GREY BANDED LIMESTONE	384 13	12 06	15 00	n.d.	0.8	12	65	22
		9"			Coarse, moderately well banded limestone tending to break								
					in discs along folliation. Only a trace of sulphides -	14		20 00	n.d.	0.2	9	65	65
10					appears barren. Sulphides largely pyrite.								
					6'00"-9'02": darker grey, massive 80°	15		24 00	n.d.	n.d.	1	48	19
		10"			14'06": pale grey to white, coarse 80°								
					19'06": banded dark grey to white 60°	16		29 00	10	n.d.	1	41	13
		8"			19'08": BLACK ARGILLITE 70°								
20					43'02": coarse grey banded limestone 80°	17		34 00	n.d.	n.d.	1	43	11
					46'00 darker grey 80°								
		6"		46 00	END OF HOLE								
30					Hole lost due to driller burning bit								
		8"											
40													

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.
PROPERTY: ASPEN MINE

START: 17 Nov. 1980
FINISH: 17 Nov. 1980

LENGTH: 50 FEET
BEARING: N230°
DIP: -45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. U80-07
RECOVERY: 38%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0 00	50 00	GREY & WHITE BANDED LIMESTONE								
					Coarse, moderately well banded fairly clean rock, with rare rusty band. Sulphides trace, mainly specks of pyrite	384 18	0 00	50 00	n.d.	0.6	1	100	34
					Competent, some sections tend to break into discs along	19		11 00	n.d.	0.7	1	171	35
		12"			foliation. Details:								
					0'00"- 4'09": black and grey banded rock 75°								
10					14'05": black and grey thinly banded rock· rusty band at 13'06"	20		15 00	n.d.	0.4	3	77	77
		6"			30'00": white and grey limestone, thinly banded broken 80°								
					35'00": SAND & GOUGE - FAULT								
20					ALMOST TOTAL CORE LOSS								
					35'08": rusty bands in white limestone 80°								
					50'00": grey & white banded limestone								
		6"			rustry bands at 41'06"								
30													
				50 00	END OF HOLE								
		36"											
40													
		12"											

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.
PROPERTY: ASPEN MINE

START: 20 Nov. 1980
FINISH: 21 Nov. 1980

LENGTH: 85 FEET
BEARING: N066°
DIP: -45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4711'
LOCATION:

D.D.H. NO. U80-08
RECOVERY: 97%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0		8" 19'	0 00	2 00	LIGHT GREY LIMESTONE Coarse, faintly banded: trace sulphides Core Angle 45°	296 55	0 00	2 00	n.d.	2.6	3	95	54
			2 00	3 09	WHITE DOLOSTONE Slightly brecciated; trace sulphides	56		2 09	n.d.	1.8	n.d.	71	39
10	6"		3 09	22 08	GREY LIMESTONE Light grey, 'sandy' coarse limestone with minor pyrite & pyrrhotite 30-45° 3'09"- 7'00": black streaks, some fracturing 8'07": light grey limestone 45° 8'11": white dolomite 12'09": light grey limestone 14'10": grey limestone with black streaks 15'11": white limestone 30° 22'08": grey limestone, faintly banded 30°	57		7 00	20	3.3	8	225	221
						58		10 00	10	0.4	6	43	145
						59		15 11	n.d.	0.4	8	46	39
20						60		18 02	n.d.	0.9	3	47	18
						61		22 08	n.d.	0.4	6	54	118
30						62		25 08	10	1.0	9	45	1180
			22 08	29 00	MINERALIZED BANDED CALCITIC DOLOSTONE Faintly banded, massive, coarse grained light grey rock. Thin partings of pyrrhotite with pyrite; some sulphides disseminated, Overall 2% sulphides. Minor fracturing but no evidence of brecciation. 25'06" : 1/2" pyrrhotite layer 45° 27'09"-28'00": 1/2" pyrite - pyrrhotite lens	63		29 00	n.d.	0.9	29	62	197
40													
			29 00	46 05	GREY LIMESTONE Medium to coarse, poorly banded, unmineralized but for rare pyrite or pyrrhotite 29'00"-37'06": grainy texture, faint banding 29'00"-35° 43'05": pale grey, banded with some fracturing and brecciation healed with black carbonaceous material 36'00"-45°	64	46 05	49 05	20	n.d.	1	34	38
50						65		52 05	20	0.4	2	34	490
						66		55 05	10	0.2	6	36	158

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
60					29'00"-46'05": banded grey 30°	296 67		58 05	10	0.7	16	43	920
			46 05	68 03	MINERALIZED WHITE DOLOSTONE	68		61 05	n.d.	0.2	9	35	120
70					White coarse, massive dolostone, mineralized with pyrite and pyrrhotite, total sulphides about 5-7%. Trace galena?	69		64 05	n.d.	n.d.	6	29	100
					The sulphides tend to occur largely in fractures sub-parallel to core axis. Folliation erratic and changes rapidly from 30°-60°	70		68 03	n.d.	0.2	1	37	62
			68 03	85 00	GREY & WHITE LIMESTONE	71		71 09	10	0.1	n.d.	50	8
80					Coarsely crystalline, poorly banded fairly homogenous limestone· white bands contain rare grey streaks. Rare pyrite and pyrrhotite.	72		74 09	n.d.	0.1	n.d.	87	20
					68'03"-71'09": grey grainy limestone 40°	73		78 07	n.d.	n.d.	2	33	9
					78'07": white limestone with trace pyrite and galena 45°								
					85'00": grey grainy limestone 50°	74		80 03	n.d.	n.d.	1	35	7
90				85 00	END OF HOLE	75		85 00	n.d.	n.d.	1	36	9

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 18 Nov. 1980
FINISH: 19 Nov. 1980

LENGTH: 60 FEET
BEARING: N050°
DIP: +45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. U80-09
RECOVERY: 83.3%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0 00	6 00	GREY LIMESTONE Pale grey, poorly banded; black partings. Rare sulphides	296 76	0 00	3 00	20	0.5	5	139	140
		2"			(1% Folliation uneven and erratic ranging from 65°-85°	77		6 00	n.d.	0.3	4	138	620
10			6 00	43 03	MINERALIZED SILICEOUS LIMESTONE (=Zinc Zone)	78		7 10	30	1.1	9	144	1190
		8"			Light grey, siliceous mineralized limestone. Pyrite and pyrrhotite occur disseminated and in clots and along fractures.	79		11 00	10	1.4	7	62	1580
					6'00"-11'00": less mineralized and siliceous; sulphides 5% 80°	80		14 03	10	0.9	13	41	5000
					16'00": very siliceous, 10% sulphides								
20					17'03": minor green skarn bands 70°-80°								
					20'10": very siliceous, 10% sulphides	81		17 03	10	0.4	4	51	480
					21'09": less siliceous, 5% sulphides 70°								
					32'02": faintly banded, very siliceous·15% sulphides	82		20 10	20	0.3	1	68	286
					33'03": white limestone, less mineralized and siliceous; 5% sulphides 80°								
30					35'00": as above, but siliceous; 3% sulphides 80°	83		21 09	20	0.3	n.d.	88	2260
					41'00": highly siliceous; 5% sulphides 80°								
					45'03": highly siliceous; 3% sulphides	84		24 06	n.d.	0.6	1	46	450
40			45 03	50 00	SILICEOUS LIMESTONE Much as above, but low sulphide content - less than 1% 80°	85		27 06	20	0.5	5	99	1030

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY
			50 00	52 00	GREY LIMESTONE Broken, unmineralized, barren 75°
50					
		96"	52 00	60 00	OVERBURDEN
60				60	END OF HOLE SURFACE

FIRE ASSAYS (BONDAR-CLEGGS)

SAMPLE	WIDTH	Au oz/ton	Ag oz/ton	Zu%	
296 86	4'8"	(0.002	0.05	1.37)	Weighted Average
296 87	2'10"	(0.002	0.02	0.24)	13' 6"
296 88	3'0"	(0.002	0.05	3.15)	
296 89	3'0"	(0.002	0.05	0.71)	Zu 1.38%

SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
296 86	27 06	32 02	n.d.	0.9	11	130	12100
87		35 00	n.d.	0.1	n.d.	34	2430
88		38 00	30	2.8	10	294	28600
89		41 00	30	0.7	1	46	7000
90		45 03	10	0.1	1	39	145

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 24 November, 1980
FINISH: 25 November, 1980

LENGTH: 71 feet
BEARING:
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4692'
LOCATION:

D.D.H. NO. U80-10
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0		2'	000	1100	MIXED MINERALIZED SILICEOUS DOLOMITE BRECCIA AND BANDED LIMESTONE	29724	000	200	4700	739.8	2340	3250	35000
					Hard, brittle mineralized siliceous dolostone fragments in a banded limestone - distribution of these dolomitic zones erratic.	29725		306	8500	698.8	1190	2460	6500
					0'00"-0'-08"; highly siliceous dolostone; 10% sulphide including pyrite, pyrrhotite, minor sphalerite and galena - core angle 50°	29526		600	n.d.	3.2	7	120	85
10					-2'00"; white dolomite, pyrite, pyrrhotite, sphalerite 1% grey mineral-tetrahedrite	29527		810	10	1.6	5	84	22
					-3'06": dolomite breccia cemented by limestone- 50°								
					pyrite, sphalerite and galena 1%-tetrahedrite?	29528		1100	n.d.	0.5	4	68	59
20					-6'00": banded limestone, pyrite 1% 60°								
					-8'10": banded limestone,	29529		1300	10	0.3	2	75	62
					-11'00": alternating limestone and dolostone- minor pyrite, pyrrhotite, trace sphalerite 55°	38421		1800	n.d.	n.d.	2	134	59
30			1100	2006	GREY BANDED LIMESTONE	38422		2006	n.d.	n.d.	1	70	38
					Coarse, grey and white competent limestone barren but for rare pyrite grain 55°	29530		2202	n.d.	0.3	1	101	71
		8'	2006	2202	MIXED LIMESTONE AND DOLOSTONE	29531		2510	10	0.4	1	69	90
40					20'06"-21'01": black and grey banded limestone; pyrite and pyrrhotite 1% 50°								
					-21'07": grey banded dolostone - barren 50°	29532		2909	10	0.3	2	69	72
					-21'10": grey limestone - barren 45°								
		10'			-22'02": grey dolostone - barren 45°								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			2202	3208	GREY SILICEOUS LIMESTONE Medium to coarse, irregularly handed with several fracture sets.	29533	2909	3200	10	4.2	28	720	223
50	[redacted]				Very competent and massive, core angle variable. 20'02"-24'00": Broadly handed, less siliceous 40°	29534		3400	80	14.2	90	940	1710
					-25'10": siliceous, with dark green skarn bands, fractured. sulphides - pyrite and pyrrhotite 2%	29535		3700	10	2.1	59	136	394
60					-27'00": erratic banding, pyrite and pyrrhotite 2% 45° -28'09": erratic banding	29536		4100	20	5.7	20	670	1060
					-29'09": grey limestone, thickly handed 50°	29537		4210	n.d.	1.5	2	218	40
					-30'04": BLACK ARGILLITE-PYRRHOTITE 2% -31'00": erratic banding, pyrrhotite 3% 30°	29538		4405	50	4.7	127	228	430
70					-32'00": banded limestone, pyrrhotite 1% 30°	29539		4806	10	2.9	21	150	1250
			3200	4806	MINERALIZED SILICEOUS DOLOMITIC LIMESTONE BRECCIA Hard, brittle highly fractured rock with large pyrrhotite bands up to 3" across; minor pyrite bands to ½". Dolostone and dolomitic limestone fragments in a calcitic matrix. Minor sphalerite seen; overall 25-30% sulphides.	29540		5100	n.d.	0.3	2	65	15
80					32'00"-37'00": 35% Sulphides 30°	29541		5400	n.d.	0.3	3	40	5
					-42'10": less brecciated, 5% sulphides -44'05": 30% Pyrrhotite	29542		5700	n.d.	0.3	2	46	13
					-48'06": decreasing sulphide and dolomite content - more calcitic.	29543		6000	10	0.3	2	39	15

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			48'06"	51'00	BANDED LIMESTONE Dark grey, coarse banded; less than 0.5% sulphides 45°	29544	62'03"		10	0.3	7	42	33
			51'00"	60'00	GREY SILICEOUS LIMESTONE Hard, massive; sulphides 2-3% mainly pyrite and pyrrhotite. 45°	29545	63'10"		n.d.	n.d.	3	43	18
			60'00"	63'10	FAULT ZONE-GOUGE & BROKEN ROCK 60'00"-60'01": GOUGE -62'00": broken mineralized dolostone and limestone 45° -62'03": GOUGE -63'10": broken limestone, minor gouge at 62'03"-62'05" 45°	29546 29547	66'00"		20 10	0.7 0.5	16 9	150 47	62 29
			63'10"	66'00	GREEN ARGILLITE Fine grained banded, slightly broken with minor limestone lenses. Minor pyrite and pyrrhotite. 45°								
			66'00"	71'00	GREY LIMESTONE Banded, slightly siliceous and mineralized. 66'00"-69'00": white banded limestone. 45° -69'06": GREEN ARGILLITE -71'00": grey banded limestone								
				71'00	END OF HOLE								

FIRE ASSAYS (BONDAR CLEGG)

Sample	Width	Au oz/t	Ag oz/t	Cu %	Pb %	Zn %	
29724	2'0"	0.18	22.00	-	-	3.50	) WEIGHTED AVERAGE
29725	3'6:	0.28	21.70	-	-	0.67	) 0'00-3'6"

Au 0.22 oz/ton
Ag 21.87 oz/ton
Zn 2.29%

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					Sample Width Au oz/t Ag oz/t								
					29533 2'3" 0.002 0.12								
					29534 2'0" 0.002 0.45								
					29536 4'0" 0.002 0.18								
					29538 1'7" 0.002 0.25								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 20 November, 1980
FINISH: 20 November 1980

LENGTH: 59 feet
BEARING: N066°
DIP: -45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION:
LOCATION:

D.D.H. NO. U80-11
RECOVERY: 91%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0'00"	59'00"	GREY AND WHITE BANDED LIMESTONE								
		18"			Coarse, well banded and folliated, fairly competent, Minimal sulphides, appears barren.	29693	0'00"	5'00	n.d.	n.d.	1	39	22
		12"			0'00"-9'10": grey and white limestone 80°	29694		9'10	20	n.d.	6	49	25
10					-14'00": white limestone 75°								
					-17'11": some brecciation, rusty bands 75°	29695		14'00"	n.d.	n.d.	n.d.	41	18
					-23'00": DRILLER REPORTS LOSS OF WATER								
					-47'00": grey and white banded limestone								
					30'00"- 75°	29696		17'11	n.d.	1.7	4	70	54
					35'00"- 50°								
20					40'00"- 50°								
		11"			45'00"- 75°								
		5"			-52'00": light grey and white banded limestone, slightly siliceous								
					-few thin garnet-skarn partings								
					48'00"- 75°								
		10"			50'00"- 45°								
					52'00"- 65°								
30					-59'00": grey and white banded limestone; largely white bands. 75°								
40				59'00	END OF HOLE								
		8"											

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 25 November, 1980
FINISH: 26 November, 1980

LENGTH: 55 feet
BEARING: -
DIP: -90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4692'
LOCATION:

D.D.H. NO. U80-12
RECOVERY: 85%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0'00"	28'00	GREY AND WHITE BANDED LIMESTONE								
		12"			Coarse well banded grey, white and black lime-								
					stone - barren								
					0'00"-4'00": grey limestone 70°								
					-4'08": grey and brown limestone 60°								
10					-7'09": white and brown limestone,								
					minor blue bands 70°								
		24"			-10'04": grey banded limestone 80°								
					-13'0;": blue limestone 70°								
					-24'00": banded blue and white limestone								
					45°	38423	24'00"	28'00	n.d.	9	0.3	43	47
		10"			-25'05": BLACK ARGILLITE 30°								
					-28'00": grey limestone	38424		32'00	n.d.	8	0.5	41	15
20		14"	28'00"	37'03	BLACK ARGILLITE	38425		37'03	n.d.	8	0.3	35	49
					Black, fine grained, banded; folliation erratic								
					Up per contact 80°								
					32'00" 30°								
30					37'00" 45°								
		6"											
			37'03"	55'00	GREY LIMESTONE								
		12"			as above, banded 45°								
40				55'00	END OF HOLE								
		12"											
		6"											

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

D.D.H. NO. U80-13

PROPERTY: ASPEN MINE

LENGTH:

LATITUDE:

RECOVERY:

BEARING:

DEPARTURE:

START:

DIP:

ELEVATION:

ASSAYS BY: VANGEOCHEM LABS

FINISH:

HOLE SIZE: EQX

LOCATION:

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0'00"	27'06"	MINERALIZED SILICEOUS DOLOMITE BRECCIA	29697	0'00"	1'06"	20	55.9	146	1430	1350
		6'"			0'00"-1'06": grey limestone, low sulphide 1% (pyrite, pyrrhotite) 40°								
					-2'03": grey limestone, sulphides 5%; tetrahedrite?	29698		2'03	700	398.9	810	4500	4800
					-4'11": white dolomite breccia-4% grey mineral-galena/tetrahedrite								
10		12"			-6'11": as above - 2% galena/tetrahedrite 30°	29699		4'00	3700	378.3	600	20700	348
					-9'01": grey limestone, mineralized tetrahedrite								
					-12'07": white dolomite breccia - 2% sulphides - tetrahedrite	29700		6'11"	560	139.5	269	2300	3730
					-17'10": mixed limestone and dolomite - 1% sulphides 45°								
					-25'02": calcitic dolomite breccia - 5% sulphides - tetrahedrite	29701		9'01"	800	99.9	143	1460	880
20					-27'06": mineralized limestone, pyrrhotite lenses 30°								
			27'06"	66'00	MINERALIZED SILICEOUS LIMESTONE	29702		12'07	20	73.5	46	81	123
					27'06"-28'08": mineralized banded limestone, with pyrrhotite lenses								
					-32'06": banded limestone-trace sulphides	29703		15'07	50	8.9	1	122	275
					-36'00": white limestone -trace sulphides 45°								
30					-40'00": mixed limestone/dolostone breccia siliceous, sparse sulphides	29704		17'10	10	5.1	3	339	168
					-40'08": as above, 15% sulphides								
					-49'08": as above, 6% sulphides	29705		18'10	10	4.4	45	44	450
					-58'06": mineralized dolomite breccia 2% sulphides, pyrite, pyrrhotite	29706		21'06	80	23.0	540	72	10000

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY
40					-59'04": mineralized dolomitic limestone, siliceous -63'00": pyritized siliceous limestone with thin skarn bands 70° -64'00": siliceous dolomite breccia -66'00": grey sparsely siliceous and mineralized limestone
				66'00	OVERBURDEN - END OF HOLE
50					
					FIRE ASSAYS (BONDAR-CLEGG)
					SAMPLE WIDTH Au oz/t Ag oz/t Cu% Pb% Zn% 29697 1'6" 0.002 1.80 - - - * 29698 0'09" 0.02 12.75 - - - * 29699 2'8" 0.11 35.60 - 2.50 - * 29700 2'0" 0.013 6.77 - - - * 29701 2'2" 0.021 4.55 - - - * 29702 3'6" 0.003 2.25 - - - * 29703 3'0" 0.003 0.22 - - - 29704 2'3" 0.002 0.14 - - - 29705 1'0" - - - 29706 3'0" 0.003 0.74 - - 1.10** 29707 2'10" 0.005 14.40 - - 1.59** 29708 1'10" 0.005 3.86 - - 3.35** 29709 2'4" 0.002 0.14 - - - ** 29714 1'8" 0.002 0.14
60		14"			

SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
29707		23'04	240	289.0	460	970	15800
29708	23'04'	25'02	140	113.0	1160	195	32100
29709		27'06	30	22.0	238	700	398
29710		28'08	10	3.6	3	221	410
29711		32'06	10	2.6	1	146	126
29712		36'00	10	2.3	1	144	230
29713		40'00	10	0.7	1	110	600
29714		41'08	10	6.0	14	950	347
29715		43'07	n.d.	0.3	1	78	327
29716		45'08	n.d.	0.3	2	40	121
29717		48'02	10	2.0	1	44	190
29718		49'08	n.d.	3.2	2	45	190
29719		52'01	n.d.	2.4	1	600	480
29720		56'02	n.d.	0.9	1	142	890
29721		59'04	n.d.	0.4	1	43	220
29722		63'00	n.d.	0.9	1	150	192
29723		66'00	10	1.1	1	155	342

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					WEIGHTED AVERAGE * 0'00-12'07" Au 0.031 oz/ton Ag 11.02 oz/ton WEIGHTED AVERAGE ** 18'16"- 25'02" (6'8") Ag 5.35 oz/ton								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 27 November, 1980
FINISH: 02 December, 1980

LENGTH: 112 feet
BEARING: N066°
DIP: +45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 3692 feet
LOCATION:

D.D.H. NO. U80-14
RECOVERY: 88%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0'00	52'00	GREY LIMESTONE WITH DOLOMITIC ZONES - BARREN	29548	00'00	04'00	n.d.	0.3	1	61	12
		22"			0'00-3'06": grey banded limestone, slightly mineralized. 80-90°								
					-3'10": grey dolomite, slightly mineralized 90°	29549		06'00	10	0.1	3	55	25
					-13'00": grey limestone 70°								
10		24"			-15'00": alternating limestone and dolostone	29550		10'00	10	n.d.	2	45	208
					-17'00": grey limestone								
					-19'00": alternating bands of limestone and dolostone 60°	29551		13'00	n.d.	0.1	1	74	107
					-21'06": grey limestone								
					-24'06": white limestone - trace sulphides	29552		15'00	n.d.	0.1	2	88	41
20					-30'06": grey banded limestone, trace sulphides								
					-34'00": as above, slightly siliceous 60°	29553		17'00	n.d.	n.d.	1	65	49
					-39'00": as above, minor dolostone and sulphides								
					-44'00": as above, minor sulphides, slightly siliceous	29554		19'00	n.d.	n.d.	1	166	66
					-50'00" as above, minor sulphides, slightly siliceous and dolomitic								
30					-52'00: grey to white limestone	29555		21'00	10	0.1	1	176	151
		6"				29556		24'00	n.d.	0.2	1	94	170
			52'00	87'00	SILICEOUS MINERALIZED LIMESTONE								
		30"			Grey, banded, hard with black carbonaceous streaks and partings. Coarse, competent and siliceous. Pyrite and Pyrrhotite are main	29557		27'06	10	n.d.	1	95	139
40					sulphides, with just a trace of sphalerite.								
		4"			Numerous fractures, rock somewhat brecciated.	29558		30'06	n.d.	n.d.	1	96	195

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					52'00"-54'06": lightly mineralized 60°	29559	30'06"	34'00	10	0.2	1	57	169
					-57'06": 4% sulphides; black partings								
50					-62'00": 2% sulphides	29560		39'00	n.d.	0.6	1	140	185
					-67'00": 4% sulphides; uneven banding								
					-72'00": 6% sulphides; rusty zones 50°	29561		44'00	n.d.	0.2	1	209	193
		18"			-87'00": 3% sulphides 80°								
60						29562		46'00	n.d.	0.1	1	70	122
			87'00"	105'00	GREY LIMESTONE								
					Broken incompetent lightly banded, slightly siliceous 80°	29563		48'00	n.d.	n.d.	1	120	130
					97'00 - WATER COURSE								
						29564		50'00	n.d.	0.8	2	201	332
70													
			105'00	112'00	GREEN ARGILLITE	29565		52'00	n.d.	0.4	6	174	283
		6"			Fine grained, dark green, well banded and cleaved. 60°								
						29566		54'06	n.d.	0.2	2	145	160
				112'	END OF HOLE								
						29567		57'06	n.d.	0.9	3	175	376
					FIRE ASSAY - (BONDAR-CLEGG)	29568		62'00	10	0.8	5	260	272
		15"											
		6"			29572 5 feet - Au 0.003 oz/ton Ag 0.32 oz/ton	29569		67'00	n.d.	0.6	2	292	710
90						29570		72'00	n.d.	0.7	1	271	200
		12"				29571		77'00	10	0.8	2	158	70
						29572		82'00	110	10.1	26	3850	138
100						29573		87'00	20	0.3	11	121	23

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 24 November, 1980
FINISH: 25 November, 1980

LENGTH: 101 feet
BEARING: N066°
DIP: Flat
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762 feet
LOCATION:

D.D.H. NO. U80-15
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM ft IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0			0'00	2'06	GREY LIMESTONE								
		6"			thinly banded, trace sulphides 40°	29726	0'00	02'06	n.d.	4.4	40	182	146
			2'06	59'00	MINERALIZED SILICEOUS LIMESTONE	29727		07'06	250	157.0	370	3030	2480
10					Banded, grey, hard with a bleached appearance; sulphides, mainly pyrite and pyrrhotite, occur in lenses, partings and disseminations, but most often in lenses, parallel to foliation.	29728		12'06	n.d.	5.4	18	228	520
					2'06"-3'00": 15% pyrrhotite, minor pyrite, tetrahedrite 30°	29729		13'06	n.d.	1.9	16	73	540
					-13'06": siliceous limestone breccia; pyrite and pyrrhotite 5% minor grey mineral either galena or tetrahedrite with trace sphalerite. Erratic banding 45°	29730		18'06	n.d.	1.0	21	83	760
20													
		6"			-20'06": very pyritic and siliceous. Pyrite 10-15%, Pyrrhotite 2-5% 40°	29731		23'06	n.d.	4.4	23	74	840
					-25'06": as above, with black carbonaceous bands								
					-26'00": as above, minor green skarn bands 40°	29732		28'06	n.d.	1.9	16	72	320
30					-43'06": as above, pyrite 10%, pyrrhotite 5-15% 70°								
					-59'00": as above, pyrite content decreases to 2-3% 40°	29733		33'06	n.d.	1.1	17	39	230
						29734		38'06	n.d.	0.7	18	28	296
40						29735		43'06	n.d.	0.9	6	41	124
						29736		48'06	n.d.	3.7	4	141	356

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY
			59'06	101'00	SILICEOUS DOLOMITIC LIMESTONE
50					Grey, faintly banded medium grained, with minor pyrite and pyrrhotite. Folliation appears to change erratically - barren 40°
					59'06"-71'05": minor pyrite, pyrrhotite bands
					101'00": almost white coarse dolomitic limestone. Appears barren
60					
				101'	END OF HOLE
					FIRE ASSAYS (BONDAR-CLEGG)
70					# Au oz/ton Ag oz/ton
					29727 5'0" 0.007 7.57
					29728 5'0" 0.002 0.17
80					
100					

SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
29737	48'06	53'06	n.d.	0.5	1	44	430
29738		58'06	n.d.	n.d.	1	32	142
29739		63'06	n.d.	0.5	1	70	870
29740		68'06	n.d.	0.5	1	44	110
29741		73'06	n.d.	0.1	1	44	325
29742		78'06	n.d.	0.3	1	45	96
29743		83'06	n.d.	0.2	1	510	510
29744		88'06	n.d.	0.1	1	44	133
29745		93'06	n.d.	0.3	1	560	560
29746		98'06	n.d.	0.4	1	45	20
29747		101'00	n.d.	2.2	5	78	76

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 02 December, 1980

FINISH: 08 December, 1980

LENGTH: 151 feet LATITUDE:

BEARING: N336° DEPARTURE:

DIP: Flat ELEVATION: 4692 feet

HOLE SIZE: EQX LOCATION: 4692 level

D.D.H. NO. U80-16

RECOVERY: 85%

ASSAYS BY: VANGEOCHEM LABS

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
		2 14"	00'00	107'10	BANDED GREY SILICEOUS LIMESTONE	29574	00'00	04'00	n.d.	0.1	1	44	16
		4 14"			Medium grained, thinly banded, from medium grey to greyish white; in part siliceous. Sulphides mainly pyrite, disseminated in trace quantities	29575		09'00	10	0.1	2	42	24
		9 42"			Minor fracturing, fractures may be covered with greyish mineral (galena)? or with small calcite crystals: Details:								
		11 12"			99'00-14'00: DRILLED PARALLEL TO BEDDING PLANE	29576		14'00	n.d.	0.2	1	46	21
		14 6"			SHEAR AND GOUGE HEAVY CORE LOSS								
					Core Angles 0.00-2.00 - 10°								
					4.00 - 0°	29577	22'00	25'00	n.d.	2.0	3	128	47
		24"			9.00 20°								
					11.00 0°								
		22			14.00 15°	29578	30'00	31'00	n.d.	1.9	1	179	300
					-22'00: GREY LIMESTONE - COMPETENT ?								
					-25'00: LIGHT GREY LIMESTONE - mineralized fractures								
		18"			-30'00: GREY LIMESTONE ?								
		31			-31'00: White LIMESTONE - trace galena								
					-33'00: GREY LIMESTONE ?								
					-42'03: BANDED LIMESTONE, foliation uneven but averages 10-20°								
					-55'08: Grey limestone - poorly foliated								
					-57'05: grey limestone with brown bands 20°								
		12"			-73'05: Dark grey very siliceous limestone very hard and competent foliation uneven, but averages 25-0° Fractures 0-40° to c.a. some with grey coating (galena?)								

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
		45			73'05-79'01: as above but with black carbonaceous partings 10-0°	29579	67'00	72'00	10	n.d.	1	51	6
					087'00: siliceous lmst, with carbonaceous partings, fractures with grey mineral - galena? 10°	29580		78'00	n.d.	n.d.	1	31	16
		6" 53	107'10	118'09	GREY AND WHITE NON SILICEOUS LIMESTONE 88.00 10°								
					Medium to coarse grained, less competent and hard than above 95.00 30°	29581	85'02	87'00	10	n.d.	1	32	18
		60			Bedding tends to uneven but flattening 100,00 45°								
					out from before. Rare pyrite 103.00 30°								
					107.00 20°								
		67	118'09	121'02	WHITE AND GREY DOLOSTONE	29582	118'09	121'02	10	n.d.	1	68	15
					Banded, slight brecciation - pyrite 2%								
		12" 72	121'02	130'02	GREY AND WHITE NON SILICEOUS LIMESTONE								
					As above 123.00 30°								
					126.00 30°								
		12"	130'02	130'09	DOLOMITE 130.00 35°								
		80			White								
		6"	130'09	148'00	BLACK AND GREY SILICEOUS LIMESTONE								
					Hard, brittle, tending to fracture 135.00 20°								
					along foliation. Cores well 140.00 0°								
					143.00 15°								
			148'00	151'00	CORE LOST 148.00 10°								
		95											
				151'00	END OF HOLE								

D.D.H. NO. U80-16

	RUN	LOSS	FROM	TO	LITHOLOGY	SAMPLE #	FROM	TO	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
m		103											
		6"											
		109											
		117											

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 26 November, 1980
FINISH: 27 November, 1980

LENGTH: 60 feet
BEARING: -
DIP: -90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4752 feet
LOCATION: Pyrite decline

D.D.H. NO. U80-17
RECOVERY: 90%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
	2		00'00	02'00	CASING - NO CORE	38426	02'00	06'00	n.d.	1.8	1	69	124
	6"												
	6		02'00	22'00	GREY AND WHITE BANDED LIMESTONE	38427	06'00	11'00	n.d.	4.5	10	44	26
	11 12"				Medium to coarse grained, generally weakly banded, poor foliation	38428	11'00	14'00	20	6.8	24	121	188
					2'00-4'0.: white limestone Core angle 80°	38429	14'00	16'00	230	64.6	720	1780	10,000
	14				-7'03: alternate grey and white limestone 60°								
					-13'06: white limestone 45°	38430	18'00	20'00	220	93.9	192	3030	1990
	18 24"				-14'00: grey limestone, broken								
	20				-16'00: grey limestone with pyrrhotite bands coreless	29748	20'00	22'00	40	6.6	14	187	30
					-18'00: NO CORE								
	6"				-22'00: grey limestone 30°	29749		23'04	2180	257.0	1240	1660	950
	25				-23'04: DOLOMITE MINERALIZED								
					-28'06 - grey limestone	29750		25'00	150	107.0	188	2480	700
					-48'02: well banded -rey and white limestone								
	30				30.00 45°								
					- 34.00-35½ CAVE 38.00 55°	38431	25'00	27'00	120	48.0	68	2440	165
					43.00 40°								
	34 18"				-60'00: mixed grey banded and white limestone 48.00 50°	38432		32'00	10	0.4	1	48	11
	38				53.00 45°								
					53.00-56.00: SAND - NO RECOVERY								
					61.00 45°								
				60'00	END OF HOLE								

	RUN	LOSS	FROM	TO	LITHOLOGY	SAMPLE #	FROM	TO	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm

FIRE ASSAYS (BONDAR-CLEGG)

SAMPLE NO.	WIDTH	Au oz/ton	Ag oz/ton	Cu %	Pb %	Zn %
38429	2'00	0.016	2.76	-	0.24	1.24
38430	2'00	0.023	3.41	-	0.36	0.22
29748	2'00	0.002	0.17	-	-	-
29749	1'04"	0.064	12.40	-	-	-
29750	1'08	0.006	3.02	-	-	-
38431	2'00	0.007	1.38	-	0.29	0.02

Weighted Averages
14'00"-27'00" Au 0.015 oz/ton Ag 2.84 oz/ton

14'00"-25'00" Au 0.016 oz/ton Ag 3.11 oz/ton

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START:

FINISH:

LENGTH: 172'

BEARING: N336°

DIP: +45°

HOLE SIZE: EQX

LATITUDE:

DEPARTURE:

ELEVATION: 4692'

LOCATION: 4692 Level

D.D.H. NO. U80-18

RECOVERY: 92%

ASSAYS BY: VANGEOCHEM LABS

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0.00	30.06	GREY AND WHITE BANDED LIMESTONE Coarse, fairly competent rock, often with black partings, Sulphides minimal, usually a scattered pyrite grain. Some minor siliceous zones. Details:- 0.00-5.00: broken, heavy core loss. Core Angle 1.00' 30° 4.08' 45°	38433	12'00"	15'00"	n.d.	0.3	1	70	14
					-13.02: competent, white and grey banded 10.00' 45° 13.00' 45°	38434	15'00"	17'06"	n.d.	1.5	4	49	17
					-17.04: grey, slightly siliceous 14.00' 50° 17.00' 45°								
					-19.00: DOLOMITIC ZONE 19.00' 45°	20794	17'06"	19'00"	10	9.0	16	123	37
					-25.02: grey limestone 45°								
					-25.03: PYRRHOTITE LAYER 45°	38435		22'00"	n.d.	1.0	1	75	20
					-30.06: grey limestone small green skarny band at 26.06 45°	38436		25'00"	n.d.	0.1	1	101	22
						38437		27'00"	n.d.	0.8	14	100	144
			30.06	80.10	INTERBANDED GREY SILICEOUS LIMESTONE AND DOLOSTONE Coarse to medium grained grey and white well-foliated rock, MINERALIZED unevenly with pyrrhotite-rich zones. Minor pyrite and sphalerite; does not appear to be a breccia.	20795	30'06"	33'00"	n.d.	2.8	68	104	33
						20796		36'00"	n.d.	0.2	11	83	45
					30.06-31.04: dolostone, trace sulphides, white -32.08: dolomitic limestone with pyrrhotite bands 45° sulphide 15%	20797		41'00"	n.d.	0.2	3	142	97
					-35.02" thinly interbedded limestone and dolostone Sulphides 0.5% 45°								
					35.02-41.03: grey limestone, siliceous sulphides 0.5% 45°	20798	41'00''	46'00"	n.d.	n.d.	1	54	46
					41.07: grey dolomite dolostone sulphides 0.5%								
					-51.00: banded limestonel sulphides to 1.0% 50°	20799		51'00"	10	0.2	2	101	74
					-51.02: dolostone								

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					-51.10: limestone 45°	20800		54'00"	n.d.	n.d.	3	93	48
					-52.00: dolostone								
					-52.03: limestone	20801		58'00"	n.d.	0.2	1	70	74
					-52.08: dolostone								
					-52.10: limestone 45°	20802		62'00"	n.d.	0.6	3	154	171
					-53.08: dolostone								
					-53.11: limestone	20803		66'08"	n.d.	0.5	3	257	239
					-57.06: dolostone - 54.00'-57.00 very broken 40°								
					-57.10: limestone	20804		71'00"	10	0.4	4	144	152
					-58.00: dolostone								
					-66.08: limestone, non siliceous 50°	20805		74'03"	n.d.	0.6	6	123	181
					-71.00: limestone, siliceous 1% sulphides								
					-71.03: dolostone	20806		80'00"	10	0.5	3	72	267
					-80.01: siliceous limestone, 5.0% sulphide mainly pyrrhotite	20807		85'00"	20	1.9	11	310	365
					-80.10: dolostone mineralized - 5% sulphides	20808		90'00"	10	1.3	11	101	620
						20809		95'00"	n.d.	1.6	17	41	580
						20810		100'00"	10	0.5	4	98	126
						20811		105'00"	10	0.7	4	50	189
			80'10"	108'10	SILICEOUS MINERALIZED LIMESTONE	20812	105.00	108'00"	30	1.3	13	43	690
					In appearance, very much like above unit, but for absence of dolomitic zones.	20813	121'00	124'00"	10	0.4	6	74	57
					80.10-81.09: siliceous limestone, 5% sulphide, mainly pyrrhotite 50°								
					-85.00: 2%	20814		128'05"	10	n.d.	2	43	21

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					-95.00: dark grey limestone 10% sulphide, mainly pyrrhotite, pyrite, minor sphalerite 30° (-94.8-94.11-dolostone)	20815		130'10	10	1.1	39	76	95
					-108.00: well mineralized limestone, siliceous, white Pyrite 6%, Pyrrhotite 5%, sphalerite 0.5% 102'00" 45°	20816		133'00	n.d.	0.5	2	73	23
					- rusty zones: 95.02-95.05 and 100.11-101.06 106'00" 35°	20817	170'00	172'00	10	1.9	4	56	74
			108'10	121'00	GREY LIMESTONE Coarse grainy limestone, banded 45° 115-127- VERY BROKEN CORE - FAULT ZONE? DRILLER REPORTS MUD AT 119' and 120'								
				128'06	WHITE LIMESTONE Coarse, broken, rusty; parts siliceous - grey mineral?								
				130'10	BLACK MINERALIZED ARGILLITE Black fine banded; pyrite and pyrrhotite 5% - sphalerite? 128.06 45° 130.10 30°								
			130'10	167'00	GREY AND WHITE BANDED LIMESTONE Coarse grey grey and white limestone, usually poorly foliated - small sections (3-6") may be siliceous. BARREN Details: 130.10-133.06: well foliated argillic, pyrite 2% 45° 144.00: poorly foliated grey limestone 55° 146.02: white limestone 150.00: grey limestone 45° 152.06: white limestone, siliceous broken along fractures parallel to core axis 170.00: grey limestone								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 27 November, 1980
FINISH: 28 November, 1980

LENGTH: 60 feet
BEARING: -
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4752 feet
LOCATION: Pyrite decline

D.D.H. NO. U80-19
RECOVERY: 96%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT IN	TO FT IN	LITHOLOGY	SAMPLE #	FROM FT IN	TO FT IN	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			00'00		SILICEOUS PYRITIZED LIMESTONE WITH MINOR DOLOSTONE								
		6'			Medium grained, grey and white lightly banded	29751	00'00	05'00	40	4.8	20	118	179
		6			limestone with minor dolomitic zones. Pyritic lenses up to ½" across parallel to the bedding	29752		10'00	n.d.	0.7	6	40	263
					occasionally parallel to fractures. Not brecciated to any extent. Hard competent, cores well.	29753		15'00	n.d.	0.6	4	37	1500
		13			Minor sphalterite, pyrrhotite and galena. Some sections contain darker carbonaceous streaks usually erratic. Details below:	29754		20'00	n.d.	0.5	1	73	74
					00'00-01'08: limestone Core angle 50°	29755		25'00	n.d.	0.1	1	44	68
		18			-08'00: dolostone slightly brecciated, cemented by pyrite 60°								
					-10'03: limestone 60°								
					-15'06: limestone with carbonaceous bands 60°	29756		30'00	n.d.	0.4	1	69	44
		24			-29'04: grey lmst hard 18.05 50°								
					-40'03: grey lmst with carbonaceous bands; foliation erratic. 24.00 30°	29757		35'00	n.d.	0.3	1	145	204
					-54'10: grey limestone 28.00 45°								
					-56'10 rusty brown lmst. oxidized. 55.00 60°	29758		40'00	n.d.	0.4	1	100	88
		31			55.00-56.06: CAVE - NO CORE 56.00 60°								
					-59.00: grey limestone 59.00 70°	29759		45'00	n.d.	0.6	1	75	122
		38			-60.00: CAVE - NO CORE	29760		50'00	n.d.	0.9	1	46	190
					WATER COURSE AT 41'06"	29761		55'00	n.d.	1.1	1	46	113
		45		60'00	END OF HOLE	29762	56'05	59'00	n.d.	1.4	1	67	58

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 16 Dec. 1980
FINISH: 19 Dec. 1980

LENGTH: 123 feet
BEARING:
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4692'
LOCATION: 4692 level

D.D.H. NO.U80-20
RECOVERY: 80%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	
			0.00	33.00	GREY & WHITE BANDED LIMESTONE Medium grained fairly undistinguished banded limestone with the rare pynte or pyrrhotite crystal. Generally fairly competent. Core Angles: 1.00' 65° 6.00 70° 12.00 65° 17.00 60° 22.00 60° 27.00 50°	20830	18.00	19.06	-	10	1.7	22	80	19
			33.00	45.00	MIXED LIMESTONE & DOLOSTONE (?DOLOMITF BRECCIA?) Fine to medium grained banded rock with zones of dolostone. May be a dolomite breccia. Minor Pynte & Pyrrhotite - dolomitic zones often bluish-grey as in silver bearing areas. Core broken with heavy core loss - Details:- 33.00-34.06: Very broken-dolomite-grey mineral 60° -35.08: grey limestone 45° -36.11: dolomite -36.05: limestone -36.07: dolomite 45° -38.00: limestone -38.02: dolomite -42.00: limestone 80°	20831	33.00	35.00	-	nd	nd	1	73	65
						32		42.00	-	0.2	nd	1	73	57
						33		45.00	-	2.3	10	1	394	69

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	
					42.00-44.06: limestone -45.00: dolomite 55^0									
			45.00	53.00	GREY BANDED LIMESTONE Coarse, barren, slight siliceous content 70^0									
			53.00	64.00	MINERAUSED SILICEOUS LIMESTONE Hard, coarse, well banded rock; hard and competent - brecciated. Folliation tends to be errotic; mineralisation mainly pyrite, pyrrhohte and sphalentc - 8% 53.00' - 80^0 55.00 - 45^0 57.00 - 30^0	20834	53.00	57.00	-	10	0.5	1	98	188
						35		60.00	3'0"	80	17.8	84	2800	120
						36		64.00	4'0"	30	6.5	55	980	101
			64.00	66.00	DRILLER REPORTS MUD - NO CORE - FAULT? CORE VERY BROKEN TO ABOUT 110.00'	37	66.00	66.00 72.00	NO CORE	20	0.6	13	52	226
			66.00	72.00	BROKEN SILICEOUS LIMESTONE (BRECCIA?) with minor gougy zones.									
			72.00	73.00	GREY ARGILLITE Lower Contact 80^0									
			73.00	77.06	GREY LIMESTONE - BROKEN									
			77.06	79.06	DRILLER REPORTS 2 ft. MUD - NO CORE									
			79.06	96.06	GREY LIMESTONE - BROKEN									

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY		
			96.06	99.06	GREY & WHITE BANDED LIMESTONE - BROKEN		
			99.06	102.00	GREY SILICEOUS LIMESTONE - BROKEN		
			102.00	109.00	GREY LIMESTONE		
			109.00	122.00	GREY ARGILLITE		
			122.00	123.00	MIXED LIMESTONE, SKARN & ARGILLITE	109.00 115.00 122.00	45^0 50^0 70^0
				123.00	END OF HOLE		
					FIRE ASSAYS		
					#20435 3'00" Au 0.002 Oz hou Ag 0.44 Zu 1.24%		
					20436 4'00" 20.002 0.17 1.09%		

SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	
20838	99.06	102.00	-	nd	0.4	1	140	51
38438	115'00"	118'00"		60	1.2	17	46	65
38439		121'00"		20	0.9	6	28	32
38440		123'00"		70	0.7	7	37	33

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 01 Dec. 1980
FINISH: 02 Dec. 1980

LENGTH: 62 feet
BEARING:
DIP: -90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4742'
LOCATION: Pyrite decline

D.D.H. NO. U80-21
RECOVERY: 90%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	
			0.00	2.00	CASING - NO CORE									
			2.00	62.00	BANDED GREY & WHITE LIMESTONE WITH MINOR ARGILLITE. Coarse, generally poorly banded, non-siliceous rock with only trace sulphides, generally scattered pyrite crystals. Appears quite barren	29583	2.00	5.00		20	2.0	9	70	145
						84		12.00		10	0.1	1	49	40
					2.00-5.00: banded grey & white limestone, trace pyrite — Core Angle 55°									
					-12.00: as above, more grey & better folliated 50°									
					-16.00: grey limestone 50°									
					-16.08: GREY ARGILLITE partly brecciated ?	38441	49'00"	52'00"		10	nd	1	34	11
					-20.05: grey limestone 45°									
					-24.07: GREY ARGILLITE erratic folliation; contacts 45°	38442		55'00"		nd	nd	4	45	14
					-33.00: grey & white banded limestone 45-55°									
					-35.00: CORE LOSS - cave?	38443		58'00"		nd	nd	1	43	14
					-37.06: grey & white limestone with Argillite partings - variable ?									
					-54.00: grey & white limestone, some silica-harder and more competent 40°	38444		62'00"		nd	nd	1	37	10
					-62.00: grey & white limestone 45° (58'00" - 62'00" 1 ft core loss)									
				62.00	END OF HOLE.									

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 08 Jan. 1981
FINISH: 12 Jan. 1981

LENGTH: 84½ feet
BEARING: N155°
DIP: +60°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4692
LOCATION:

D.D.H. NO. V81-22
RECOVERY: 95%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	
			0'00"	36'02"	GREY & WHITE BANDED LIMESTONE Competent, well-folliated medium to coarse grained rock with rare thin carbonaceous parting, and thin (1"-2"thick) bands of colomite. Folliahou may change abruptly locally. Some silicification and mineralisation towards base of unit. Details: 0'00"-20'09": as above description, rare pynte xal — 3'00" 40°; 7'00" 45°; 8'00" 80° -22'04": alternating bands of moderately siliceous limestone and dolomite, with low pynte (1%) content, usually in clots and bands. — 12'00" 80°; 17'00" 55°; 23'00" 70°; 30'00" 80°; 35'00" 70°									
						21301	20'09"	22'04"		nd	1.0	10	81	47
						02		26'00"		nd	0.2	2	93	82
						03		29'06"		nd	0.4	2	88	73
					-34'04": grey & white banded limestone; trace grey metallic specks	04		33'00"		10	0.8	1	109	120
					-34'06": white dolomite	05		36'02"		nd	0.3	1	96	80
					-36'02": grey & white banded limestone	06		39'02"		nd	1.2	13	124	144
			36'02	48'00	SILICEOUS MINERALISED LIMESTONE Hard, competent, in part brecciated, poorly folliated; well develloped cleavage 20° to core axis, folliation varying from sub parallel to 90° to core axis. Sulphides mainly pynite and pyrrhotite occur in crosscutting fractures and along folliation planes-very fine grained but suggestive of tedrahedrite. 36'02-37'00"- with carbonaceous bands, sulphides--3% -38'01"- palegrey with swirling folliation, sulphides --0.5% -44'00"- hard with carbonaceous bands, sulphides 1-2%	07		44'00"			10	1.2	51	100
						08		46'10"		10	0.8	15	47	13

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					44'00-46'10: grainy texture, trace sulphides. Coarse limestone.	21309	46'10"	47'10"	10	0.7	7	52	114
					47'10: as above, minor sulphides	21310		50'10"	nd	0.5	4	49	150
			47'10"	84'06"	SILICEOUS DOLOMITIC LIMESTONE								
					Very much as above unit; hard, siliceous, with some sulphides, overall much less than 1%. The sulphides appear to consist mainly of pyrite, with possibly a grey metallic mineral, probably galena, in trace - definitely not a dolomite breccia - expected to carry very low values in Ag. Generally poorly foliated, but core angle generally 60° to core axis.	21311		53'10"	10	n.d.	2	51	148
						21312		57'10"	n.d.	0.2	1	45	115
						21313		60'10"	n.d.	n.d.	1	43	96
						21314		65'00"	n.d.	n.d.	1	44	89
					80'06"-84'6" - more calcarerous - grany coarse texture	21315		70'00"	n.d.	1.1	1	250	251
				84'06"	END	21316		75'00"	n.d.	0.2	1	54	144
						21317		80'00"	n.d.	0.2	1	55	143
						21318		84'06"	n.d.	0.3	2	58	98

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 02 December, 1980
FINISH: o5 December, 1980

LENGTH: 66 feet
BEARING: -
DIP: +90o
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4742'
LOCATION: Pyrite decline

D.D.H. NO. U80-23
RECOVERY: 96%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			00'00"	43'04	MINERALIZED SILICEOUS LIMESTONE								
					Coarse to medium grained, light grey, hard competent limestone; poorly banded, banding usually shown by sulphides. Sulphides consist of pyrrhotite, pyrite and sphalerite (minor). Sulphide quantity variable, overall about 10-15%, though locally cover 6"-12" may approach 60-70°. Details below:	29585	00.00	1'00"	10	1.8	22	690	2750
					0.00-1.00: very mineralized, sulphide 60-70%	29586		5'00	10	1.0	1	211	2860
					-5.00: Sulphides 4% Core angle 45°	29587		6'05	n.d.	1.3	6	146	3500
					-6.05: very mineralized, sulphide 25% 45°	29588		9'05	10	0.5	1	92	1500
					-9.05: sulphides 4% 50°	29589		13'00	n.d.	0.2	1	48	490
					-13.00: as above								
					-16.00: as above	29590		16.00	n.d.	0.2	1	91	100
					-18.00: as above 6% 45°								
					-24.00: white limestone, iron stained, very broken core, rare pyrite; streaks of a grey mineral-galena?	29591		18.00	10	0.4	1	136	191
					19.06-21.06: CAVE - NO CORE	29592		19.06	10	0.8	1	334	48
					-28.06: broken limestone, sulphide 0.5-1.0% light grey, poorly foliated	29593	21.06	24.00	10	0.5	1	227	26
					-30.06: siliceous, with pyrrhotite - 3%	29594		28.06	10	n.d.	1	68	18
					-43.04: siliceous, very mineralized, mainly pyrrhotite minor pyrite and sphalerite, very competent hard. Minor brecciation 50°	29595		30.06	10	n.d.	1	46	109
					43.00-WATER COURSE	29596		35.06	10	2.0	11	296	300
			43'04"	66'00	MIXED GREY LIMESTONE AND DOLOSTONE	29597	35.06	40.06	n.d.	0.4	1	92	174
					As above, siliceous hard and competent. Mineralized usually pyrite. Pyrrhotite and minor sphalerite. Dolomite zones appear but are narrow. Sulphide content 3-5%. Details:	29598		43.04	n.d.	n.d.	1	43	206

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY		SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					43.04-44.10: dolostone, light grey to white	45°	29599		48.04	n.d.	0.5	7	46	8200
					45.11: limestone "									
					47.03: dolostone "		29600		53.04	n.d.	4.3	2	126	3200
					48.04: limestone "									
					48.06: dolostone "		20776		57.06	0.3	n.d.	1	45	143
					49.04: limestone "	55°								
					52.01: dolostone "	60°	20777		61.06	n.d.	n.d.	2	51	40
					52.06: limestone - small brown mud seam									
					52.07: dolostone light grey to white	45°	20778		63.06	10	0.5	14	51	51
					52,09: limestone "									
					54.01: dolostone "		20779		66.00	60	1.1	12	96	72
					57.06: limestone "									
					61.04: limestone, dark grey, coarse									
					61.06: rusty brown, stained limestone									
					63.06: grey limestone									
					64.06: grey dolomite	50°								
					66.00: grey limestone									
				66.00	END OF HOLE - OVERBURDEN									
					FIRE ASSAYS:									
					29599 Au- Ag- Zn 0.84%									
					29600 0.002 oz/ton 0.14 oz/ton Zn -									

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 13 January 1981
FINISH: 14 January 1981

LENGTH: 80 feet
BEARING: N335°
DIP: +10°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. U-81-24
RECOVERY: 96%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			00'00"	34'00"	MINERALIZED SILICEOUS DOLOMITE BRECCIA Alternating fragments of dolostone in parts heavily mineralized both in the dolostone fragments and in the calcareous matrix - Foliation seen in the calcareous zones. Sulphides occur both disseminated and in clots, consisting of pyrite, pyrrhotite, sphalerite, minor galena and tetrahedrite. Minor green zones show skarning to diopside; minor lenses may contain wollastonite. Details 0'00-1'02: pyrite, pyrrhotite, sphalerite in dolomite - 5% sulphides -3'06": limestone, 0.5% sulphides core angle 45° -4'00: argillite, dark grey, pyrite hands - 2% -6'00: grey limestone 0.5% sulphides -8'00: pyritic limestone and dolomite, sulphides in thick hands - 10% 45° -8'10: white limestone 0.5% sulphides -9'12: limestone with pyrite, pyrrhotie and sphalerite 20% -11'00: grey siliceous limestone, pyrite bands - sulphides 1-2% 80° -13'00: pyrite and sphalerite bands - 10% sulphides 45° -17'00: siliceous limestone, pyrite hands - sulphides 5% 45° -17'06: thick pyrite-sphalerite band, 1½" thick sulphides 25% 45° -23'08: siliceous limestone with pyrite bands sulphides 10% 45° -23'09: pyrite-sphalerite bands -23'11: siliceous limestone sulphides 25% -24'00: pyrite, sphalerite band -25;11: siliceous limestone sulphide 20% 45°	21319 21320 21321 21322 21323 21324 21325 21326 21327 21328	0.00	3.06 7.00 10.00 13.00 17.00 20.00 24.00 28.00 31.00 34.00	10 20 20 n.d. n.d. n.d. n.d. n.d. n.d. n.d.	3.6 5.6 3.4 1.1 2.3 0.3 n.d. 1.1 0.5 0.8	11 14 20 2 1 3 1 6 9 14	129 1340 188 119 168 88 70 74 79 88	164 960 1530 226 268 309 166 162 171 2490

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					-26'02: pyrite - sphalerite band 27'00-27'10: siliceous limestone sulphides - 15% 45° -28'04: pyrite - sphalerite band -31'06: siliceous limestone with pyrite and sphalerite - 15% 50° -31'09: pyrite - sphalerite? band -34'00: siliceous limestone, pyrite, pyrrhotite - sphalerite - 5% 40°	21329	34.00	38.00	n.d.	0.5	1	79	510
						21330		43.00	n.d.	0.3	1	35	101
						21331		47.00	n.d.	0.2	2	43	206
			34'00	80'00	SILICEOUS LIMESTONE Coarse, hard, competent limestone, light grey, poorly foliated, massive and generally uniform. Pyrite - 2% minor pyrrhotie and sphalerite in large coarse clots but zinc less than 0.5% overall. 34'00-34'09: white coarse limestone -48'06: siliceous limestone, pyrite 0.5% 30° -49'00: sphalerite clots, chalcopyrite - 1% -54'07: siliceous limestone 64'00 40° -54'10: sphalerite clots -80'00: siliceous limestone, pyrite 0.5% 75'00 45°	21332		49.00	n.d.	1.7	2	84	5400
				80'00	END								

FIRE ASSAYS

21319	Au 0.002 oz/ton	Ag 0.12 oz/ton	Pb 0.02%	Zn 0.01%	
21320	0.002 oz/ton	0.17 oz/ton	0.13%	0.10%	
21321	0.002 oz/ton	0.10 oz/ton	0.05%	0.16%	

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 08 December, 1980
FINISH: 09 December, 1980

LENGTH: 60feet
BEARING: -
DIP: -90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4742 feet
LOCATION:

D.D.H. NO. U80-25
RECOVERY: 97%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0.00	44'04	GREY AND WHITE BANDED LIMESTONE	20780	0.00	3.00	10	1.5	2	790	48
					Coarse grained, moderately well banded competent rock.								
					Rare pyrite on pyrrhotite grains scattered. Details	20781		6.00	10	n.d.	1	41	34
					0'00-5'03: thinly banded black and white limestone:								
					foliation erratic, minor fracturing								
					Core Angle 45°	46491	12.00	15.00		0.4	2	42	14
					6'00: white corase limestone	46492	15.00	17.00		1.0	n.d.	45	22
					-15'07: dark grey limestone, well banded 50°	46493	17.00	19.00		0.4	n.d.	50	30
					-18'02: grey, white and brown handed limestone	46494	19.00	22.00		0.9	10	46	31
					15.09-16.00: GOUGE	46495	22.00	25.00		1.1	14	45	95
					-24'00: grey and white handed limestone 45°	46496	25.00	28.10		0.1	4	63	12
					-25'06: white limestone 45°	38445	50.00	52.00	n.d.	0.3	15	50	375
					-26'00: CAVE								
					-44.04: mixed white and grey banded limestone 30.00 45°	38446		54.00	n.d.	0.2	1	25	42
					35.00 45°								
					43.00 50°	38447		57.00	n.d.	0.4	8	32	23
			44'00	60'00	MIXED ARGILLITE AND LIMESTONE								
					44'00-49'06: grey argillite 50°								
					-50'00: gouge and broken rock								
					-51'04: limestone								
					-58'04: argillite with minor limestone partings 50°								
					-60'00: limestone								
				60'00	END OF HOLE								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 14 Jan. 1981
FINISH: 16 Jan. 1981

LENGTH: 101 feet
BEARING: N095°
DIP: +10°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. V81 - 26
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00	11'00"	MINERALISED SILICEOUS DOLOMITE BRECCIA Broken core, with moderate core loss with alternating dolostone fragments and calcareous matrix. Sulphides low - 1-2% consist mainly of pyrite, with lesser pyrrhohte, sphalente and minor tetrahednte. Minor carboraceous zones often with more sulphides. 0'00" - 3'06": dolomite breccia, broken Folliation erratic 3'05" 45° - 5'06": very broken white siliceous limestone, trace grey mineral 45° - 7'08": grey siliceous pyritic limestone 5-7% sulphide, 45° - 11'00": white siliceous limestone, with dots of pynte & grey mineral	21333	0'00	3'06"	40	20.9	21	1050	191
						21334		5'06"	nd	7.4	5	136	194
						21335		7'08"	30	15.4	14	1560	540
						21336		11'00"	nd	1.2	1	117	95
						21337		15'08"	20	8.6	15	540	398
						21338		19'05"	nd	0.1	1	41	174
						21339		22'02"	nd	1.0	3	44	320
						21340		27'00"	16	0.3	10	42	640
			11'00"	82'00"	GREY MINERALISED SILICEOUS LIMESTONE Hard, competent with some bands dolomitic; pynte overall 5% occurring largely in bands and clots up to ½" thick; green cherty bands usually parallel to bedding. Minor sphalente and pyrrhotite. Scattered blobs of grey metallic mineral, possibly tetrahednte 11'00" - 14'00": hard grey pynte increasing to base 12'00" 50° - 15'08": green cherty bands folliation errotic but tends to be 55° -19'05": light grey limestone, coarse, sulphide - 1% 60° - 31'00": grey limestone, sulphides - 5% core angle from 35 - 65° to c.a. - 63'03": grey limestone, honuogeuous with ½ to¼ bands of pynte with lesser pyrrhotite.	21341		31'00"	10	nd	10	39	295
						21342		36'00"	nd	0.1	1	34	650
						21343		41'00"	nd	nd	3	41	376

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY			SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					Appears barren of Ag.	36'00	20°								
						39'00	40°								
					63'03" - 63'09: Bleached grey limestone c̄ py & galnea?	43'00"	30°	21344	41'00	46'00	nd	nd	1	47	211
					- 64'00: massive sulphide - 75% pynte & pyrrhotite	54'00"	30°	21345		52'00	nd	nd	2	40	288
					- 65'00: bleached grey limestone c̄ pynte & galena			21346		57'00	10	nd	3	42	271
					- 67'00: siliceous limestone, pynte 10%	57'00"	40°	21347		62'00	10	nd	4	37	230
					- 70'00: siliceous limestone pynte 3%	61'00	45°	21348		63'03	10	0.3	2	83	1220
					- 71'00: siliceous limestone pynte 10%			21349		65'00	nd	0.4	20	52	3460
					- 82'00: siliceous limestone pynte 1%			21350		67'00	nd	0.7	2	48	1170
			82'00"	101'00"	WHITE LIMESTONE										
					Coarse white limestone, cores well.core angle		40°	21351		70'00	nd	0.2	5	40	1240
					98'06" - 101'00: grey limestone			21352		71'00	10	nd	38	72	387
				101'00"	END OF HOLE										

FIRE ASSAYS

#21333	Au 0.002 oz/ton	Ag 0.55 oz/ton	Pb 0.12%	Zu 0.02%
21334	0.002	0.21	0.03	0.02
21335	0.002	0.34	0.25	0.05
21336	0.002	0.08	0.02	0.02
21337	0.002	0.18	0.12	0.04

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 09 December, 1980
FINISH: 10 December, 1980

LENGTH: 75 feet
BEARING: -
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4742 feet
LOCATION:

D.D.H. NO. U80-27
RECOVERY: 92%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00	6'09	BANDED SILICEOUS DOLOSTONE Grey poorly banded, hard competent with medium to coarse grain size, lightly mineralized with pyrite and pyrrhotite 1-2%. Core Angle 50°	20782	0.00	3.00	10	n.d.	2	56	250
						20783	3.00	6.09	n.d.	0.1	1	57	100
						20784		8.10	10	0.5	6	53	116
			6'09	42'04	SILICEOUS LIMESTONE Coarse, grainy, grey, poorly handed. Generally hard and competent. With bands of white limestone and minor argillite. Details: 6'09-8'10: similar to previous unit, lightly mineralized. 1% CORE ANGLE 50° -24'06: massive grey grainly limestone 10.00 60° -21'06: Coarse white limestone NON SILICEOUS BROKEN 16.00 55° -22'06: as above with green argilaceous partings BROKEN 22.00 45° -30'07: grey banded siliceous limestone, well handed competent and hard 40° -31'04: SKARNED CALCAREOUS ARGILLITE -32'00: grey banded limestone 45° -34'04: SKARNED CALCAREOUS ARGILLITE: pyrrhotie 0.5% -37'00: hard banded limestone: pyrrhotie 0.5% 50° -42'04: broken banded limestone: pyrrhotite and pyrite 1.0%								
			42'04	75'00	WHITE LIMESTONE Massive, generally broken non siliceous limestone, poorly foliated. Minor sulphides, less than 1%, mainly pyrite. A dark grey mineral, very fine grained, not identifiable. Details:	20785	42.04	47.04	n.d.	n.d.	2	32	13
						20786		51.06	n.d.	n.d.	2	41	16

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					42'04-51'06: white limestone, broken Core angle 50°	20787	52.06	54.02	n.d.	2.2	2	44	15
					-52'06: CAVE - NO CORE								
					-54'02: grey limestone, slightly siliceous, trace pyrrhotite 50°	20788		58.00	n.d.	n.d.	3	36	15
					-58'00: white limestone, broken, few siliceous bands	20789		62.00	n.d.	n.d.	2	42	30
					-62'00: grey limestone								
					-67'00: white limestone	20790		67.00	n.d.	0.2	2	45	490
					-68'06: rusty stained grey limestone - vuggy								
					-75'00: white limestone	20791		68.06	n.d.	n.d.	15	44	3450
				75'00	SURFACE	20792		72.00	n.d.	0.1	8	40	1720
						20793		75.00	20	0.3	3	55	42

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 16 January, 1981
FINISH: 16 January, 1981

LENGTH: 59 feet
BEARING: N145°
DIP: +70°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762 feet
LOCATION:

D.D.H. NO. U81-28
RECOVERY: 96%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	40'10	SILICEOUS LIMESTONE Hard, grey, competent with minor sulphides in clots and layers. The sulphides are mainly pyrite and pyrrhotite with minor sphalerite. The section appears barren of any silver minerals. Details: 0'00-4'06: siliceous with carbonaceous streaks, sulphide 3% 70-80° -6'01: white limestone, trace sulphides -6'04: grey argillaceous limestone -7'01: siliceous limestone, sulphide - 2% -7.04: dolostone -7'09: siliceous limestone - sulphide - 2% -8'00: massive pyrrhotie with pyrite 80° -15'00: siliceous limestone -16'00: pyrite-pyrrhotie lens 45° -24'07: siliceous limestone - 3% sulphides -26'00: coarse limestone 18'00" 50° -26'06: bands of pyrite and pyrrhotie 5% -40'10: siliceous limestone, low sulphide content 1% 50°	21353	0.00	3.00	10	3.2	9	210	226
						21354		6.00	n.d.	3.2	9	169	137
						21355		9.00	n.d.	1.5	12	226	450
						21356		12.00	n.d.	1.8	5	278	330
						213567		17.00	n.d.	1.0	2	196	357
						21358		22.02	10	0.1	2	111	376
						21339	26.00	29.09	n.d.	0.3	1	47	144
			40'10"	49'10"	COARSE GREY ARGILLACEOUS LIMESTONE Coarse, grainy, siliceous, poorly mineralized. Details: 40'10: 43'00: fairly competent 45° -45'00: very broken -46'00: DRILLER REPORTS MUD SEAM -47'00: DRILLER REPORTS CAVE -48'00: broken core -49'00: DRILLER REPORTS MUD SEAM -49'10: DRILLER REPORTS GROUND CORE								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			49'00	57'00	WHITE LIMESTONE Clean, white blocky								
			57'00	59'00	DRILLER REPORTS CAVE Few pebbles recovered.								
				59'00	END OF HOLE								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 11 Dec. 1980
FINISH: 16 Dec. 1980

LENGTH: 150'
BEARING: N060°
DIP: +45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4742'
LOCATION:

D.D.H. NO. V80 - 29
RECOVERY: 95%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0.00	56.06	MINERALISED SILICIOUS LIMESTONE Light to dark grey coarse poorly folliated banded limestone. Mineralised variably, generally with both pynte and pyrrhotite. Details: - 0.00 - 5.06: heavily mineralised with perhaps 20% sulphides and 1% sphalorite : a breccia cemented by sulphides and secondary calcite. - 15.06: light grey limestone, lightly mineralised N 2% Core angle 6.03- 45° 15.00- 30° - 27.00: Coarse grainly limestone aranaceous appearnace. 25.00- 20° minor sulphides fine - 0.5% 23.00 - 24.00: DRILLER 30.00- 20° GROUND 1 FOOT OF CORE - 30.10: mineralised white limestone; pynte - 3% - 38.10 dark grey grainy limestone minor sulphides fine grained - 0.5% - 40.06: white limestone, sulphides - 2% 37.00- 40° - 42.02 dark grey grainy limestone - 43.04 white limestone sulphides 3% - 48.06 dark grey grainy limestone 45.00- 50° - 56.06 white limestone with rusty fractures - very broken in 51.00- 60° part appears brecciated -	20818	0.00	3.00	10	4.2	36	161	540
						20819		5.06	nd	2.2	24	89	450
						20820		11.00	20	0.4	2	80	500
						20821		15.06	nd	0.8	1	194	351
						20822		19.00	10	0.3	1	46	100
						20823	27.00	30.10	10	nd	1	35	49
						20824		34.00	10	nd	2	48	18
						20825		38.10	nd	nd	1	36	228
						20827	48.06	52.06	10	nd	1	56	29
						20828		56.06	nd	nd	2	39	15

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					grey mineral?								
					49.00' - 50.00' DRILLER REPORTS								
					51.06 - 52.06 Cave - NO CORE 56.00' 50°								
			56.06	84.00	GREY & WHITE BANDED LIMESTONE								
					Coarse well folliated alternating bands of grey and white limestones. Non siliceous, rare scattered pynte crystals. Blocky to competent tending to break along folliation								
					Details:								
					56.06-62.01: grey limestone Core angle 50°								
					-70.01: largely white limestone 63.00- 50°								
					-83.00: grey & white limestone 68.00- 60°								
					-84.00: hard, siliceous limestone 68.06- 50°								
					73.00- 65°								
					78.00- 60°								
					80.00- 70°								
					83.00- 75°								
					85.00- 75°								
			84.00	93.06	WHITE & GREY ARGILLITE								
					Hard white & grey fine grained generally well-folliated rock (?could this be an aplite Dyke?)								
			93.06	07.00	MIXED ARGILLITE, LIMESTONE & SKARN 87.00 75°								
					93.06-93.08: Garnet-diopside skarn 89.00 70°								
					-94.02: white argillite (or silcifiect limestone?)								
					-94.06: White limestone								
					-94.07: garnet scarn 60°								
					-95.05: White limestone								
					-95.07: White argillite								
					-95.08: Garnet diopside skarn								
					-96.06: White limestone								
					-97.00: garnet diopside skarn 60°								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			97.00	150.00	WHITE LIMESTONE Coarse, poorly banded, well folliated, fairly competent rock. Core angle 103.00 70° 106.00 55° 120.00-122.08: ARGILLITE 110.00 50° -PYRITE & PYRRHOTITE -4% 50°	20829	120.00	122.08	290	1.3	51	28	46
					123.08-124.02: Argillite								
				150.00	END OF HOLE								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START:

FINISH:

LENGTH: 101 feet

BEARING: N060

DIP: -30°

HOLE SIZE: EQX

LATITUDE:

DEPARTURE:

ELEVATION: 4762'

LOCATION:

D.D.H. NO. U81-30

RECOVERY: 96%

ASSAYS BY: VANGEOCHEM LABS

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00	101'00	GREY LIMESTONE								
					Coarse, banded, poorly foliated limestone, competent, cores well. Very minor sulphides, mainly pyrite, rate pyrrhotite, total sulphides 0.5%. Details	21360	0.00	3.06	n.d.	2.6	1	89	95
					0'00-7'00: slightly siliceous, pyrite 0.5% 45°	21361		7.00	10	3.4	1	146	68
					-21'00: banded grey and white limestone 7'00 45°								
					-32'06: slightly more carbonaceous, darker bands 13'00 45°								
					-54'00: banded grey and white limestone 17'00 45°								
					22'00 45°								
					28'00 45°								
					32'00 40°								
					38'00 40°								
					38'00 40°								
					44'00 45°								
					48'00 35°								
					54'00-62'00: darker grey coarse banded limestone 54'00 30°								
					-68'06: grey and white banded limestone 59'00 45°								
					72'00: largely white limestone, banded 64'00 45°								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY			SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					-78'06: dark limestone with irregular white bands	69'00	40°								
					-82'02: white limestone	78'06	45°								
					-86'08: dark grey limestone, argillaceous	83'00	45°								
					-92'00: white and grey banded limestone	88'00	45°								
					-101'00: banded white and grey limestone	92'00	20°								
					uneven swishing foliation	95'00	40°								
				101'00	END OF HOLE	100'00	40°								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 16 Dec. 1980
FINISH: 19 Dec. 1980

LENGTH: 160 Feet
BEARING N066°
DIP: flat
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4742'
LOCATION:

D.D.H. NO. U80-31
RECOVERY: 96%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0.00	13.04	GREY & WHITE BANDED LIMESTONE Coarse, poorly folliated limestone, with very minor dolomite zones. Slight imineralisation - pynte & pyrrhotite Core Angle 30°	20839	0.00	5.00	nd	0.4	1	140	51
						20840		9.00	nd	nd	1	88	58
						20841		13.04	nd	nd	1	65	26
			13.04	28.00	MIXED SILICEOUS DOLOSTONE AND LIMESTONE (DOLOMITE BRECCIA) Coarse grey & white rapidly alternating bands of dolostone and limestone - may be a breccia in part. Minor sulphide mineralisation in dolomitic parts, overall probably 0.5% 13.04-14.02:dolostone 30° -14.05:limestone -15.02:dolostone -15.05:limestone -17.07:dolostone 45° -17.09:limestone -18.00:dolostone -18.06:limestone -19.00:dolostone -19.07:mixed doloston & limestone, thinly banded -22.00:dolostone -23.00:limestone -25.04:dolostone -26.00:limestone -28.00:dolostone	20842		17.00	nd	nd	1	68	39
						20843		22.00	nd	nd	1	82	63
						20844		28.00	10	0.3	1	117	90
						20845		32.00	nd	0.4	2	154	199
						20846		35.06	10	nd	1	249	266
						20847		39.10	20	3.8	1	1200	148
						20848		44.08	20	2.9	3	321	345
						20849		48.00	10	2.4	12	620	730

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			28.00	35.06	BANDED GREY & WHITE LIMESTONE Coarse, well folliated, fairly competent, with some black partings slightly siliceous, minor sulphides 29.00' 40° 34.00' 30°	20850	49.00	51.10	nd	o.3	3	48	172
						20951		54.07	nd	1.4	32	119	356
						20952		58.00	nd	0.5	6	67	93
			35.06	48.00	MIXED SILICEOUS MINERALISED DOLOSTONE & LIMESTONE (BRECCIA) Coarse, hard & competent; lightly mineralised with pynte(?) and sphalente? (very fine grained) 35.06-36.02:dolostone 38.00' 45° -37.00:limestone -37.02:dolostone -37.10:limestone -39.10:dolostone -40.06:limestone 45° -40.08:dolostone -40.11:limestone -41.00:dolostone -41.05:limestone -41.07:dolostone -46.08:limestone 40° -46.10:dolostone -48.00:limestone	20953		61.06	nd	nd	2	41	98
						20954		66.06	nd	1.9	40	850	353
						20955		71.06	nd	0.5	21	103	326
						20956		75.06	10	nd	18	119	690
						20957	77.03	82.03	10	0.2	8	396	680
						20958		86.00	10	nd	1	189	690
			48.00	49.00	DRILLER REPORTS 1 FOOT MUD - NO CORE								
			49.00	61.06	SILICEOUS LIMESTONE - LIGHTLY MINERALISED Alternating bands of barren & mineralised limestone Details:								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					49.06-50.00:limestone, minor sulphides 45°	20959	86.00	91.00	nd	nd	1	60	289
					-52.00:white limestone, barren, broken								
					-52.02:white limestone sulphides 0.5%	20960		96.00	10	0.3	1	220	85
					-52.04:massive pyrrhotite 20°								
					-52.10:limestone, sulphides, mainly pyrrhotite 10%	20961		101.00	10	nd	1	43	72
					-53.06:limestone, trace sulphides								
					-54.07:limestone 5% sulphides	20962		106.00	10	0.1	5	51	334
					-55.08:limestone trace sulphide 50°								
					-56.06:limestone 10% sulphides with massive pynte/pyrrhotite bands.	20963		111.00	nd	0.4	11	94	140
					-61.06:white limestone, largely barren, minor pynte. 55°	20964		116.00	nd	nd	4	46	267
						20965		121.00	10	2.0	16	309	1060
			61.06	86.00	SILICEOUS HEAVILY MINERALISED DOLOMITIC LIMESTONE (Zinc Zone?)	20966		126.00	nd	0.7	2	90	1170
					Hard competent, coarse and dark. Details:								
					61.06-75.06:Dark, hard siliceous pynte & pyrrhotite 15% sphalente 2% 61.08 50°	20967		131.00	nd	0.3	2	46	2800
					67.00 50°	20968		136.00	10	nd	1	57	190
					-77.03:Very broken non-siliceous 75.00 55° barren white limestone - broken into discs.	20969		141.00	nd	0.1	1	52	179
					-86.00:dark, hard siliceous; partly brecciated pynte & pyrrhotite - 10% sphalente 1%? 82.00 60°	20970		145.00	nd	1.5	19	268	244
			86.00	145.00	SILICEOUS LIGHTLY MINERALISED DOLOSTONE								
					As above, with lower sulphide content of - 6%. Fairly homogenous. Folliation poor. Fairly pale greyish - white								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					The sulphides occur both in lenses and disseminated; the folliation tends to swirl, and is generally erratic. In part a breccia healed by calcite and/or pynte. Equivalent? to the "ZINC ZONE"?	38448	145'00	147'00	80	39	19	50	375
						38449		148'00	30	3.0	70	25	42
			145.00	158.00	GREY LIMESTONE Broken to very broken, grey limestone, poorly folliated, barren. 146.00 45° minor pynte/pyrrhotite lens at 147.06- 151.00 50° 147.09. 155.00 40°	38450		151'00	10	1.0	9	32	23
						20971		155'00	70	19.9	88	5000	2180
						20972		158'00	10	0.2	2	86	49
			158.00	160.00	DRILLER REPORTS GROUND CORE								
				160.00	END OF HOLE								

FIRE ASSAYS	Au oz/ton	Ag oz/ton	Cu%	Pb%	Zu%
#20971	0.006	0.43	0.01	0.47	0.19
20972	0.002	0.02	0.01	0.01	0.01

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.
PROPERTY: ASPEN MINE

START: January 22, 1981
FINISH: January 26, 1981

LENGTH: 100 FEET LATITUDE:
BEARING: N015° DEPARTURE:
DIP: -42° ELEVATION: 4762'
HOLE SIZE: EX LOCATION:

D.D.H. NO. U81-32
RECOVERY: 96%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	12'00"	NO CORE - CASING	21362	12'00"	14'00"	250	196.6	365	3350	5300
					DRILLER REPORTS 12 FEET OF MUCK ON ROOM FLOOR	21363		16'00"	nd	2.7	2	82	50
			12'00"	16'00"	SLIGHTLY SILICEOUS LIMESTONE								
					Coarse slightly siliceous and slightly mineralized with very minor pyrite and trace pyrrhotite. May represent the base of the mineralized zone.								
			16'00"	100'00"	GREY AND WHITE LIMESTONE								
					Coarse well banded alternating white and grey limestone. Rare pyrite crystals. Details:								
					16'00" - 33'06" Grey limestone with minor white bands. 16'00" - 45°								
					23'00" - 45°								
					28'00" - 45°								
					33'00" - 45°								
					- 39'04" White coarse limestone 39'04" - 30°								
					- 40'02" Grey limestone 43'00" - 45°								
					- 41'04" White limestone								
					- 47'06" Grey limestone								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

D.D.H. NO. U81-32 (PAGE 2)

PROPERTY: ASPEN MINE

LENGTH:

LATITUDE:

RECOVERY:

BEARING:

DEPARTURE:

START:

DIP:

ELEVATION:

ASSAYS BY: VANGEOCHEM LABS

FINISH:

HOLE SIZE: EQX

LOCATION:

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			16'00"	100'00"	(continued)								
					47'06" - 49'02" White limestone 49'00" - 45°								
					68'06" Alternating bands of grey and white limestone. Banding in grey limestone very erratic but contacts between the grey and white bands. - 45°								
					73'00" Largely white limestone - 45°								
					100'00" Alternating bands of grey and white limestone 74'00" - 45°								
					87'00" - 45°								
					95'00" - 45°								
			100'00"		END OF HOLE								
					FIRE ASSAYS								
					#21362 Au 0.009 oz/ton; Ag 6.95 oz/ton; Pb 0.42%; Zn	0.58%							
					#21363 Au 0.002 oz/ton; Ag 0.09 oz/ton; Pb 0.01%; Zn	0.01%							

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: January 8, 1981
FINISH: January 12, 1981

LENGTH: 103 FEET LATITUDE:
BEARING: N335° DEPARTURE:
DIP: FLAT ELEVATION: 4742'
HOLE SIZE: EQX LOCATION:

D.D.H. NO. U81-33
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	103'00"	GREY AND WHITE BANDED LIMESTONE Coarse grey and white limestone with minor carbonaceous zones. Trace grain and pyrite and pyrrhotite. Details: 0'00" - 4'00" White siliceous limestone - 12'00" Grey-black limestone 7'00" - 05° - 43'00" White limestone 12'00" - 20° - 51'00" Grey limestone with thin black partings 25'00" - 30° - 53'00" Very siliceous grey limestone 30'00" - 30° 40'00" - 35° 54'00" GROUND - NO CORE 50'00" - 0° 54'09" Grey limestone, black partings 54'00" - 20° 59'03" Grey limestone 62'00" - 15° 68'06" Dark grey limestone with black bands 68'00° - 25° 69'00" - 05° 84'00" Mainly white limestone 73'00" - 30° 84'00" - 103'00" Mixed grey and white limestone with thin carbonaceous bands. Core Angle 30°								
			103'00"		END OF HOLE								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 26 Jan. 1981
FINISH: 27 Jan. 1981

LENGTH: 46 feet
BEARING: N156°
DIP: -45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. V81-34
RECOVERY: 80%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY			SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	10'00	CASING - DRILLER REPORTS ROCK FILL NO CORE			46168	1000	1500		7.6	46	250	1400
								46169		1900		nd	5	44	33
			10'00	30'00	BANDED GREY LIMESTONE - VERY BROKEN Poorly folliated, soft, tending to break into thin discs	15'00"	80°	46170		2106		nd	9	45	24
										2300	NO CORE				
					21'06" - 23'00" - NO CORE	21'00"	85°								
								46171	3000	3300		nd	1	51	12
			30'00"	46'00"	BANDED WHITE LIMESTON - BROKEN Coarse, white soft, with minor grey bands	27'00"	80°	46172		3606		0.3	6	123	10
					36'06" - 38'00" - NO CORE	33'00"	70°								
			44'06	46'00	GREY LIMESTONE - BROKEN As in the first unit	43'00"	80°			3800	NO CORE				
								46173		4100		1.0	10	290	115
				46'00"	END OF HOLE										
								46174		4400					
					FIRE ASSAYS #46168 au 0.002oz/ton ag 0.19oz/ton cu - % pb - % zu -46175 46175 0.002 0.36 0.01 0.58 0.52					4600		13.3	45	5500	6500

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 13 Jan. 1981
FINISH: 14 Jan. 1981

LENGTH: 97'00
BEARING: N050°
DIP: +30°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. V81-35
RECOVERY: 92%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	6'06"	BANDED GREY LIMESTON Thinly banded well folliated medium grained rock. Minor sulphides 0'00"-3'00": grey weel folliated 80° -6'06": as above with bleached appearance 75°	21364	0'00"	3'00"	nd	2.3	1	82	39
						21365		6'06"	70	50.0	42	1580	128
						21366		9'06"	10	1.2	19	54	1010
			6'06"	52'00"	SILICEOUS LIMESTONE Poorly banded, medium to coarse grained, mineralised unit. su part a dolomitic limestone. Mineralised, with bands of pynte & pyrrhotite, usually parallel to folliation. Very minor sphalente and chalcopynte seen as disseminated blebs. Details: 6'06"-11'06": Siliceous limestone; sulphides - 5% 50° -12'00": dark grey siliceous limestone; sulphides - 2% 70° -18'00": siliceous limeston, sulphides - 4% minor green cherty bands & blebs 50° -24'00": siliceous limeston, sulphides - 5% -29'00": siliceous limestone, 71% -40'00": Thickly banded while limestone with dark & light green cherty bands - skarn diopside 36'00 60° -52'00": grey limestone, banded silver content decreasing to base. Minor pynte & Pyrrhotite 45'00 60° 50'00 50°	21367		12'00"	10	1.6	8	50	332
						21368		15'00"	nd	0.3	6	39	196
						21369		18'00"	nd	0.1	1	39	390
						21370		21'00"	10	0.1	3	34	278
						21371		24'00"	nd	0.4	5	40	319
						21372		27'00"	nd	1.7	1	77	102

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			52'00'	97'00"	GREY BANDED LIMESTONE Coarse, poorly folliated grey & white limestone. Rare pyntecrystal or band - not mineralised 52'00" - 78'02": grey & white limestone 59'00 50° - 87'00": very coarse almost porous limestone very broken 66'00" 45° - 97'00": grey & white limestone very broken - weathered? 71'00" 40° 76'00" 45°								
				97'00"	END OF HOLE								
					FIRE ASSAYS #21364 au o.oo2oz/ton ag 0.02oz/ton pb 0.01% zu 0.01% 21365 0.004 2.59 0.16 0.02								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 28 Jan. 1981
FINISH: 30 Jan. 1981

LENGTH: 103 feet
BEARING:
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO.V81-36
RECOVERY: 88%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	3'02"	LIGHT GREY LIMESTONE Poorly mineralised, banded limestone, with trace sulphides mainly pynte & sphalente 2'00" 50°	22011	0'00"	3'02"	nd	o.3	1	72	306
						22012		6'00"	nd	1.9	1	460	1950
			3'02"	24'06"	MINERALISED DARK GREY SILICEOUS DOLOMITIC LIMESTONE Hard competent, in part brecciated limeston, well banded and folliated. Minor bands of greenish cherty material. Sulphides prominent, averaging about 15 - 20%, occurring in lenses bands and as dissemination. The sulphides consist of pynte pyrrhotite and minor sphalente. This zone appears equivalent to the "ZINC ZONE" and is expected to run 1%zu and 1 oz/ton ag. 3'02"-9'00":lighter grey, less mineralised, sulphides - 10% 6'00" 45°	22013		9'00"	10	1.8	10	96	263
						22014		12'00"	nd	0.6	1	123	144
						22015		15'00"	nd	2.4	6	324	640
						22016		13'00"	nd	10.8	17	348	1100
						22017		21'00"	10	3.7	8	470	1080
					-16'00":dark grey, sulphides 20-25% partly brecciated 13'00" 40°	22018		24'06"	10	3.2	32	80	2600
						22019		27'00"	10	0.4	3	39	1690
					18'00":light grey cherty bands, 10% sulphides core broken 19'00" 50°	22120		30'00"	20	0.2	3	31	3310
					-24'06":darl grey, sulphides 30% partly brecciated trace chalospynte 25'00" 45°	22121		33'00"	nd	0.8	1	96	370

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			24'06"	48'10"	LIGHT GREY SILICEOUS LIMESTONE	22022	33'00"	36'00"	nd	0.4	2	46	166
					Hard competent, fairly well folliated limestone.								
					Sulphides mainly pyrrhotite, occuring 33'00" 40°	22023		39'00"	nd	0.7	1	117	309
					both in thin partings conformable with								
					folliation and disseminated. Overall,	22024		42'00"	nd	0.4	1	39	600
					not more than 5% sulphides, 75% pyrrhotite								
					20-25% pynte. Trace sphalerite, appears 38'00" 45°	22025		45'00"	10	0.2	2	32	140
					to be 0.5%. No silver minerals seen.								
					unit probably barren 45'00" 50°	22026		48'00"	nd	0.3	1	53	368
					50'00" 50°	22027		51'00"	nd	0.5	1	64	171
			48'10"	68'00"	LIGHT GREY SILICEOUS DOLOMITIC LIMESTONE56'00" 70°	22028		53'00"	10	0.5	1	218	126
					Hard competent with numerous green cherty bands								
					and blobs. Sulphides, mainly pynte & pyrrhotite -5-7%	22029		56'00"	10	0.7	2	149	180
					51'00"-56'00":grey metallic mineral - tetrahedrite? Trace								
					-57'00":DRILLER REPORTS MUD- NO CORE	22030		59'00"	10	0.4	4	73	650
					-65'00":very broken								
					-65'00":DRILLER GROUND 1 FOOT - NO CORE	22031		63'00"	10	1.8	1	570	74
					-65'06:rusty limestone								
					-67'06":DRILLER REPORTS MUD	22032		68'00"	20	1.2	10	143	92
					-68'00:white limestone								
						22033		73'00"	10	0.6	14	37	65
			68'00"	103'00"	MIXED SEQUENCE								
					68'00"-73'00":GREEN ARGILLITE	22034		76'00"	10	0.3	4	42	30
					-76'00":SKARNED LIMESTONE								
					-83'00":GRANITE								
					-84'06":CHERTY GREEN ARGILLITE								
					-86'00":MUD								
					-98'00":GRANITE 101'-103':mud								
					-101'00"LIMESTONE 103'- surface								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: January 15, 1981
FINISH: January 16, 1981

LENGTH: 95 FEET
BEARING: N230°
DIP: -45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. U81-37
RECOVERY: 97%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	87'04"	GREY LIMESTONE Medium to coarse well banded and foliated with thin (1/4") black partings. Competent, generally coring well. Rare sulphides, generally pyrite, seen. DETAILS: 0'00" - 2'00" CASING - NO CORE - 23'00" Banded grey limestone 30'00" Largely white limestone, foliation erratic 31'10" White limestone 33'00" Grey and white limestone 42'00 Broken core - some core loss 44'00" Broken core - white limestone with rusty streaks 47'00" DRILLER REPORTS CAVE 55'00" Broken grey limestone 55'00" DRILLER REPORTS LOSS OF WATER. Rusty streaks for a foot on either side 2'00" - 60° 8'00" - 60° 13'00" - 45° 18'00" - 60° 23'00" - 65° 28'00" - 45° 31'00" - 45° 36'00" - 60° 50'00" - 60° 60'00" - 60° 64'00" - 70° 70'00" - 75 74'00" - 80° 79'00" - 60° 84'00" - 60°								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START:

FINISH:

LENGTH:

BEARING:

DIP:

HOLE SIZE: EQX

LATITUDE:

DEPARTURE:

ELEVATION:

LOCATION:

D.D.H. NO. U81-37 (PAGE 2)

RECOVERY:

ASSAYS BY: VANGEOCHEM LABS

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	87'04"	(continued)								
					55'00" - 62'00" Grey and white limestone								
					63'00" DRILLER REPORTS CAVE								
					87'04" Grey limestone.								
			87'04"	91'00"	SLIGHTLY SILICEOUS LIMESTONE								
					Hard, competent, cores very well. Trace sulphides, pyrite and pyrrhotite. 88'00" - 45°								
			91'00"	95'00"	WHITE LIMESTONE								
					Coarse, poorly foliated.								
			95'00"		END OF HOLE								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 02 Feb. 1981
FINISH: 04 Feb. 1981

LENGTH: 72 Feet
BEARING: N230°
DIP: -45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO.V81-38
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM	TO	LITHOLOGY	SAMPLE #	FROM	TO	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00	72'00"	GREY & WHITE LIMESTONE Banded competent, cores well; minor carbonaceous bands Trace pynte Details: 0'00" - 8'06: grey & white banded limestone 3'00" 70° -14'00: largely white, with minor grey bands 9'00" 50° 14'00" 60° -21'00":well folliated dark grey limestone 19'00" 80° -27'05":lighter grey limestone, with swirling folliation and minor brecciation 32'00" 80° -32'04" lighter grey limestone, well folliated 39'00" 75° -41'00":white limestone, coarse 49'00" 80° -41'08":grey banded limestone 54'00" 70° -44'11":white limestone -54'01":grey banded limestone 64'00" 65° -65'06":coarse white limestone, with rusty stains 69'00" 80° -72'00":grey banded limestone DRILLER REPORTS MUD 70'06"-71'06"								
				72'00	END OF HOLE								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 19 Jan. 1981
FINISH: 21 Jan. 1981

LENGTH: 93 feet
BEARING:
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. V81-39
RECOVERY: 90%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00	17'03"	MINERALISED SILICEOUS LIMESTONE Hard, competent, siliceous limestone, with varying amounts of pynte & pyrrhotite - silver values probably fairly low to negligible. Details: 0'00"-6'00" - grey & white slightly siliceous limestone poorly mineralised sulphides - 3% 2'00" 50° -17'03"- grey & white siliceous limestone, erratically mineralised with richer pyntic/pyrrhotitic zones at 8'00" 45° 6'06" - 6'10" - 35% 13'00 45° 9'08" - 10'02"- 40% 11'00"-11'06" - 40% 17'00" 30° and 15'10"-17'00 - 50% Su the heavily mineralised areas, the rock appears brecciated with sulphides in fractures and lenses in errotic orientation. Overall, total sulphides - 10%	21373	0'00"	3'00"	180	194.9	160	2680	166
						21374		6'00"	nd	1.7	17	183	346
						21375		9'00"	10	20	22	46	1150
						21376		12'00"	nd	2.4	49	39	2750
						21377		14'06"	nd	nd	8	41	274
						21378		17'03"	nd	0.5	45	36	1030
						21379		20'00"	nd	0.6	11	40	250
						21380		23'00"	nd	0.4	1	39	143
						21381		26'00"	20	0.1	1	46	271
			17'03"	54'02"	SILICEOUS LIMESTONE 21'00" 50° As above, but with very minor sulphides. Generally poorly folliated. Minor sulphide zones detailed below:- 25'00 45° 17'03"-31'09" poorly folliated massive -32'03" pyritic somewhat brecciated 10% sulphides 45° -34'09" massive poorly folliated -35'06" pyntic 5% sulphides 45° -38'02" massive poorly folliated -39'01" pyntic pyrrhotitic 5%	21382		28'09"	10	0.1	1	32	155
						21383		31'09"	10	nd	1	34	159
						21384		35'00	nd	0.8	1	98	600

D.D.H. No. V81-39

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					39'10"-40'03": weathered, broken rusty -54'02": massive, poorly folliated, sulphides -0.5% - 47.01 - 48.06: green cherty bands								
			54'02"	63'00	WHITE LIMESTONE Coarse, unfolliated, trace mineralisation. - minor grey mineral-tetrahednte? Pynte - 1% 58'00" 50°								
			63'00"	72'00"	FAULTY ZONE - VERY BROKEN CORE LESS THAN 45% recovery 63'00"-65'08" - Rusty broken limestone 63'06-65'06" - Driller reports cave -72'00" - BROKEN ARGILLITE 70'00"-72'00" - Driller reports cave								
			72'00"	88"00"	GREY ARGILLITE Compact, poorly folliated 73'00" 45° 72'00"-81'00" - competent, coming well -82'00" - very broken, rust stained -83'00" - DRILLER REPORTS CAVE 81'00" 40° -85'00" - competent -87'00" - DRILLER REPORTS 2FT MUD -87'09" - competent -88'00" - DRILLER REPORTS CAVE								
			88'00"	93'00 93'00	GREY LIMESTONE - COARSE END OF HOLE								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					FIRE ASSAY								
					#21373 au 0.007 oz/ton ag 6.94 oz/ton pb 0.28% zu 0.002%								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 04 Feb. 1981
FINISH: 06 Feb. 1981

LENGTH: 125 feet
BEARING: N245°
DIP: flat
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4772'
LOCATION:

D.D.H. NO. V81-40
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY
			0'00"	5'10"	WHITE LIMESTONE Coarse, broken competent; appears barren; trace pynte & trace grey metallic mineral. 3'00 45°
			5'10"	60'06"	MINERALISED SILICEOUS CARBONATE BRECCIA =ZINC ZONE Brecciated & recemented, appears largely calcitic rather than dolomitic; breccia fragments recemlented by sulphides, green cherty material, or calcite. Very unhomogenous rock, sulphide content quite variable, generally less than 5% consisting of pynte, lesser pyrrhotite, minor sphalerite. Details: 5'10" - 17'00": Fairly pale grey, less brecciated; core angle vanes, 30°-40° - 54'00": dark grey, intensely brecciated, with overall 3-5% sulphides minor sphalente, no silver minerals seen. Often cherty & hard, very siliceous 36'00" 45° - 60'06": pale grey, less brecciated, very siliceous; decrease in sulphides, but more dolomitic than above. Occasional quartz lens, e.g. at 54'02" up to 1" thick 44'00" 50° 51'00" 50° 59'00" 45°

SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
22036	0'00	5'10		0.3	1	59	15
22037		8'00"		1.0	22	94	182
22038		11'00"		3.4	19	319	730
22039		14'00"		1.2	14	119	273
22040		17'00"		3.0	34	262	232
22041		20'00"		2.7	16	388	1110
22042		23'00"		3.3	11	500	138
22043		26'00"		3.2	6	720	208
22044		29'00"		1.7	6	480	75
22045		32'00"		2.9	11	125	108

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY			SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			60'06"	74'06"	SILICEOUS BANDED LIMESTONE Pale grey folliated coarse limestone, slightly dolomitic in parts. Trace pynte, pyrrhotite, especially at 73.00-74'06" - 3% in Bands	60'06"	45°								
			74'06"	125'00"	GREY & WHITE BANDED LIMESTONE Coarse, poorly folliated limestone, with trace pynte & occasional pyrrhotite band	68'00" 73'00"	50° 50°								
					113'00" - 120'00" - rust bands parallel to folliation	78'00"	45°								
					- 125'00" - grey with pyrrhotite bands	88'00"	40°								
						101'00"	50°								
						111'00"	55°								
				125'00	END OF HOLE	117'00"	50°								
						122'00"	50°								
					FIRE ASSAYS #46051 au o.oo2oz/ton ag o.19oz/ton 46052 o.oo2 0.13 46053 0.002 0.21 46056 0.002 0.3										

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 22 Jan. 1980
FINISH: 23 Jan. 1980

LENGTH: 101 Feet
BEARING: N280°
DIP: +25°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO. V81-41
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY			SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00	19'00	BANDED GREY LIMESTONE										
					Grey, white & black medium to coarse limestone, with minor siliceous zone; trace sulphides. Details:			21389	0'00"	4'00"	nd	1.1	3	145	223
					0'00"-11'06": grey banded limestone, rare siliceous zones	5'00"	15°	21390		10'00"	10	2.1	19	95	211
					-19'00": Dark grey silicrous limestone, with minor cherty zones	10'00"	30°	21391		12'00"	10	0.8	1	140	173
								21392		15'00"	10	0.8	34	129	107
			19'00"	38'06"	MIXED BANDED LIMESTONE & DOLOMITE BRECCIA	12'00"	45°	21393		19'00"	nd	2.7	11	224	116
					19'00-19'10": cherty dolostone - grey mettallic mineral - galena	17'00"	45°	21394		22'10"	nd	2.4	8	339	92
					-21'10": grey banded limestone										
					-22"10": cherty dolostone	24'00"	45°	21395		24'10"	nd	3.1	46	152	305
					-24'10": grey limestone - minor pyrrhohtite			21396		28'10"	nd	1.8	6	168	54
					-28'10": cherty dolostone	29'00"	30°								
					-34'08": grey limestone			21397		34'08"	10	1.5	23	111	65
					-38'06": cherly colostone	34'00"	30°								
								21398		38'06	150	100.0	114	5100	268
			38'06	101'00"	GREY BANDED LIMESTONE										
					Coarse thinly banded competent trace sulphides	39'00"	45°								
						43'00"	45°								
						49'00	35°								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY			SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					70'00"-82"00": white limestone coarse poorly folliated	52'00"	45°								
					-101'00": Grey banded limestone	57'00"	45°								
						61'00"	30°								
				101'00'	END OF HOLE	66'00"	45°								
						71'00"	70°								
						74'00"	45°								
						79'00"	45°								
					FIRE ASSAYS	84'00"	45°								
					#21398 Ag 3.66oz/ton zu o.o3%	91'00"	45°								
						95'00"	30°								
						100'00"	40°								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 09 Feb. 1981
FINISH: 11 Feb. 1981

LENGTH: 120 feet
BEARING: N246°
DIP: -35°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4772'
LOCATION:

D.D.H. NO. V81-42
RECOVERY: 92%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0.00	7.01	SILICEOUS MINERALISED LIMESTONE - ZINC ZONE Coarse, well mineralised limestone, with little or no brecciahou. Moderately sillicoeus, 0'00" 80° sulphides consist of pynte 2% and sphalecite - 3% or less in bands 3'00 70° and disemminations 5'09 50° Few frachives towards bass becoming rusty 5'09"-7'01" - very rusty more siliceous	46059	0'00"	5'09"		+.3	5	54	10000
						46060		8'00"		nd	2	69	315
						46061		13'00"		nd	1	60	128
						46062		18'00"		0.2	1	76	520
						46063		23'00"		0.2	1	71	168
			7.01	56'00	SILICEOUS CALCITICUS DOLOSTONE - Poorly mineralised coarse, poorly folliated, poorly banded dolostone, with minor calcitic bands. Sulphides 1-3% largely pyrrhotite with minor pynte & sphalente? Silver content appears negligible, content - 0.5% 8'00" 45° 7'01"-23'11":dolostone, minor brecciation, appears barren of silver, trace zu. 14'00" 70° -24'10":broken coarse limestone trace sulphides -56'00":as previous unit 19'00" 60-70° minor rusty zones at 26'00"-28'04" usually broken 32'00"-32'06" 49'00"-50'09" 27'00 50° Folliation (=bedding?) very irregular & erratic	46064		28'00"		nd	1	48	161
						46065		33'00"		nd	1	47	51
						46066		39'00"		nd	1	46	97
						46067		44'00"		nd	nd	46	204
						46068		49'99"		0.4	1	121	490
						46069		51'03		nd	1	118	269
						46070		56'00"		0.4	4	550	331

	RUN	LOSS	FROM	TO	LITHOLOGY	SAMPLE #	FROM	TO	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			56'00"	110'00	WHITE AND GREY LIMESTONE Coarse. poorly banded & folliated with trace pyrite and have grey mettallic mineral - tetrhednte?- Details 56'00" 45° 56'00-58'00":fairly well banded, grey & white limestone slightly silicic -68'00":white poorly banded limestone, occassional dolomitie layer trace grey metallic mineral -70'00":DRILLER REPORTS GROUND CORE -79'00":coarse, white limestone 78'00" 50° -97'00":coarse grey & white banded limestone, better folliation 84'00" 50° -97'03":calcareous argillite, greenish 88'00" 50° -110'00"grey & white brecciated limestone in parts some what argillaceous 97'00" 60° 106'00" 45°	46071	56'00	58'00"		0.4	nd	660	30
						46072		63'00"		0.2	nd	285	14
						46073		68'00"		0.1	1	128	14
						46074	70'00"	73'00"		nd	1	65	108
				110.00	END OF HOLE ASSAY #46059 zu 3.12% over 5'09"								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

D.D.H. NO. V81-43

PROPERTY: ASPEN MINE

LENGTH: 64 feet

LATITUDE:

RECOVERY: 94%

BEARING: N280°

DEPARTURE:

START: 23 Jan. 1981

FINISH: 27 Jan. 1981

DIP: +45°

HOLE SIZE: EQX

ELEVATION: 4762'

LOCATION:

ASSAYS BY: VANGEOCHEM LABS

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY			SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	7'08"	GREY LIMESTONE										
					Poorly folliated coars with carbonaceous bands and minor dolomitic zones; trace solphides, largely pynte &			21399	9'00"	11'00"	nd	2.0	2	156	277
					spalente	1'06"	50°	21400		13'00"	20	0.8	2	71	156
						6'00"	45°								
			7'08"	41'00"	SILICEOUS DOLOMITIC LIMESTONE	11'00"	45°	22001		16'00"	nd	0.9	9	71	810
					Medium to coarse grained hard competent.										
					Overall sulphide content low, about	18'00"	60°	22002		18'00"	nd	0.1	2	66	68
					2-3% mainly pynte, pyrrhotite and										
					minor sphalente, though with richer	23'00"	60°								
					zones detailed below - silver content										
					appears minimal										
					7'08"-13'00":siliceous limestone with	27'00"	60°								
					green cherty bands.										
					-14'00":thick sulphide bands			22003	23'08"	26'06"	nd	nd	3	43	117
					20% overall										
					-18'00":siliceous limestone sulphides			22004		27'11"	20	3.0	20	460	10000
					5%										
					-27'00":siliceous domitic limestone			22005		30'10"	nd	0.1	1	46	10000
					sulphides 1%	30'06"	60°								
					-28'00":sulphide bands 15%overall			22006		31'08"	60	3.1	26	155	10000
					-30'10":siliceous dolomtic limestone										
					sulphides 1%			22007		33'06"	nd	0.4	2	54	7800
					-31'08":pyrrhotite layers - 15% sulphides										
					-33'06": siliceous dolomitic limestone										
					sulphides 1%										
					-34'06":pyrrhotite rich limestone	34'00"	50°								
					15%										
					-41'00":siliceous dolomitic limestone										
					70.5% sulphites										

	RUN	LOSS	FROM	TO	LITHOLOGY	SAMPLE #	FROM	TO	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			41'00"	48'03"	COARSE GREY LIMESTONE Poorly folliated, grainy texture, porous	22008	33'06"	34'06"	50	6.1	38	730	10000
						22009		37'06"	10	0.4	5	64	10000
			48'03"	57'06"	FAULT ZONE? - VERY BROKEN 48'03"-49'06": Grey argillite -49'09": Coarse grey limestone -51'09": Cave-sand - No core -55'03": White dolomitic limestone, very broken cherty -57'00": Grey argillite & sand -57'06": Grey argillite	22010	52'00"	55'03"	nd	nd	1	40	104
			57'06"	64'00"	LIGHT GREY LIMESTONE Coarse grey, unfolliated 62'00 80°								
				64'00"	END OF HOLE ASSAYS 22004 1'5" zn 1.16% 27"11" - 34'06" 22005 2'11" 1.02 average 22006 0'10" 18.72 5.04%zu 22007 1'10" 0.60 22008 1'00" 19.06 22009 3'00" 1.05								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: February 11, 1981
FINISH: February 12, 1981

LENGTH: 121 FEET
BEARING: N246°
DIP: FLAT
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4772'
LOCATION:

D.D.H. NO. U81-44
RECOVERY: 97%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	64'00"	SILICEOUS CALCAREOUS DOLOSTONE (BRECCIA?) ▪ (ZINC ZONE?) Hard, competent, generally poor brecciated; often showing fairly good foliation. Mineralized, generally with minor pyrite, pyrrhotite, and sphalerite. Minor calcitic bands. DETAILS: 0'00" - 4'00" Sphalerite - 4% — 2'00" - 60° - 6'00" As above, sphalerite 70.5%; total sulphides 2% — 4'00" - 50°, 9'00" - 45° - 9'00" As above, with rusty fractures; total sulphides 2% — 14'00" - 50°, 24'00" - 50°, 26'00" - 45° - 13'05" Appears brecciated, total sulphides 2% — 29'00" - 45° - 18'10" Fairly well banded — 39'00" - 60° - 20'01" Calcitic — 42'00" - 45° - 25'04" Dolostone, hard, partly foliated — 49'00" - 50°, 62'06" - 70° - 26'08" Calcitic - 33'06" Pale, almost white dolostone, siliceous with green skarn partings; sulphides 0.5%	46075	0'00"	4'00"	-	+4	9	51	710,000
						46076		8'00"	-	0.3	2	55	123
						46077		12'00"	-	0.1	2	51	94
						46078		16'00"	-	nd	3	46	690
						46079		20'00"	-	0.1	2	65	124
						46080		24'00"	-	0.4	3	346	176
						46081		28'00"	-	nd	2	61	122
						46082		32'00"	-	0.5	nd	46	143
						46083		36'00"	-	0.4	1	44	348
						46084		40'00"	-	nd	4	40	345
						46085		44'00"	-	0.1	3	44	230
						46086		48'00"	-	0.2	1	50	179
						46087		52'00"	-	2.2	5	1550	640
						46088		56'00"	-	nd	4	97	134
						46089		62'00"	-	nd	6	70	393

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START:

FINISH:

LENGTH:

BEARING:

DIP:

HOLE SIZE: EQX

LATITUDE:

DEPARTURE:

ELEVATION:

LOCATION:

D.D.H. NO. U81-44 (PAGE 2)

RECOVERY:

ASSAYS BY: VANGEOCHEM LABS

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	64'00"	(continued)	46090	62'00"	64'00"	-	2.4	174	770	2290
					33'06' - 39'00" Grey dolomite, grainy texture; with pyrite-filled fractures subparallel to core axis - sulphides 2%.	46091		70'00"	-	0.7	4	355	68
						46092		74'00"	-	nd	1	79	18
						46093		76'10"	-	1.9	15	1180	110
					- 42'05" Ø white dolomite, banded with pyrite - sulphides 1%	46094		82'00"	-	nd	nd	68	12
					- 43'00" Coarse white limestone.	46095		87'00"	-	0.1	2	136	9
					- 50'00" White dolomite, minor pyrite.	46096		90'00"	-	0.3	1	51	6
					- 52'00" Grey dolomite, pyrite 2 to 3%, slightly brecciation.								
					- 62'00" White dolomite, pyrite 1% - silver ?								
					- 64'00" Grey calcite dolomite - pyrite and pyrrhotite - 5 to 7%.								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

D.D.H. NO. U81-44 (PAGE 3)

PROPERTY: ASPEN MINE

LENGTH:

LATITUDE:

RECOVERY:

BEARING:

DEPARTURE:

START:

DIP:

ELEVATION:

ASSAYS BY: VANGEOCHEM LABS

FINISH:

HOLE SIZE: EQX

LOCATION:

LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			64'00"	87'00"	ALTERNATING BANDS OF LIMESTONE AND DOLOSTONE DOLOMITE BRECCIA White and grey, banded, in part brecciated, poorly siliceous section, generally sulphides 0.5%. Trace grey mineral, possibly silver? Details: 64'00" - 69'00" Very minor dolomite, slightly siliceous. - 87'00" Up to 30% dolomite bands, core tending to be fairly broken - pyrite as disseminated specks, occasional grey metallic blob seen too fine to identify. Silver content probably quite low. 72'00" - 60° 80'00" - 70°								
			87'00"	121'00"	GREY BANDED LIMESTONE Well banded and foliated rock, cores well. Trace sulphides. 116'00" - 121'00" Tends to be stained brown - weathering? 90'00" - 70° 96'00" - 45° 102'00" - 50° 107'00" - 45° 112'00" - 60° 120'00" - 50°								
			121'00"		END OF HOLE ASSAY #46075 4.0 feet Zn 4.35%								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 27 Jan. 1981
FINISH: 28 Jan. 1981

LENGTH: 50 feet
BEARING: N280°
DIP: -45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO.V81-45
RECOVERY: 83%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	50'00"	BANDED GREY LIMESTONE Well banded and folliated, competent coarse grained granular limestone. Details: 0'00" - 4'09": swirling folliation, slightly fractured siliceous sulphiates - 0.5% 4'00" 45° 9'00" 45° - 13'06": grey banded limestone 15'00" 50° - 17'03": greenish grey limestone 19'00" 60° - 22'00": grey granular limestone 24'00" 70° 29'00" 75° - 30'05": greenish-grey limestone 38'00" 65° - 49'00": grey & white banded limestone 43'00" 60° - 50'00": DRILLER REPORTS GROUND CORE 48'00" 60°	46097 46098	0'00	4'09" 7'00"		0.8 nd	8 8	201 75	22 25
				50'00"	END OF HOLE								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 13 Feb. 1981
FINISH: 16 Feb. 1981

LENGTH: 100
BEARING: N246°
DIP: flat
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4772'
LOCATION:

D.D.H. NO.081-46
RECOVERY: 93%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY
			0'00"	20'00"	SILICEOUS DOLOSTONE (BRECCIA?) = ZINC ZONE Low grade, siliceous dolostone, slightly brecciated, with minor pynte, pyrrhotite and little sphalente, zu 0.5%. Fractures random though one set parallel to core axin appears more prominent. Sulphides tend to occur mainly along the fractures. Folliation indeterminate. 0'00"-10'00"=light grey dolostone -12'00"=calcareous unit with green irregular bands and somewhat lighter sulphide content - 1-2% -20'00"=pale, almost white, coarse, with minor green bands
			20'00"	53'06"	WHITE AND GREY LIMESTONE Grading from above, the upper section appears dolomitic & siliceous 20'00"-24'00"=siliceous, dolomitic, sulphides - 3% -28'08"=well mineralised, especially 24'08-25'08" - pynte pyrrhotite - 40% siliceous, dolomitic 21'00" 60° 24'00" 75° -41'04"=white limestone trace sulphides - 1% 30'00" 45° 45'00"=slightly siliceous coarse grey limestone -48'00"=siliceous grey limestone, sulphides 2-3% 41'00" 50° -53'06"=grey poorly folliated limestone 48'00" 50° 53'00" 80°

SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
46099	0'00"	5'00"		nd	1	41	113
46100		10'00"		0.3	1	44	86
46101		12'00"		5.9	3	2400	210
46102		16'00"		nd	1	95	49
46103		20'00"		nd	2	66	43
46104		24'00"		nd	11	122	332
46105		28'04"		0.2	68	79	327
46106		32'00"		01	1	157	197
46107	45'00"	48'00"		nd	2	65	70

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY			SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			53'06"	63'00"	MIXED LIMESTONE - DOLOSTONE (=DOLOSITTE BRECCIA")			46108	51'06"	53'06"		0.8	1	510	15
					Largely limestone (70%) with small areas of white dolostone, Suggesting a dolomite breccia - dolomite areas tend to be very broken. Limestone pale grey to white, poorly folliated with trace wulphides, dolostone fragments tend to be white, broken with minor pynte and streaks of grey mineral - tefiahadrite?			46109		55'00"		6.0	8	1300	9
								46110		59'00"		11.1	22	1740	35
								46111		63'00"		8.6	12	1160	45
			63'00	100'00"	GREY & WHITE LIMESTONE	49'00"	60°	46112		66'00"		nd	1	70	4
					Largely grey coarse competent limestone, with minor siliceous zones, trace sulphides	55"oo"	70°	46113	80'10"	82'10"		nd	2	33	16
					63'00"-86'00"-poorly folliated limestone	60'00"	30°	46114		84'00"		0.1	2	53	9
					-87'00"-1Foot core loss	65'00"	80°	46115		88'00"		0.5	1	42	30
					-88'00"-siliceous limestone, dark grey	74'00"	65°	46116		90'04"		0.4	1	38	16
								46117		92'04"		nd	3	75	37
					-90'04"-siliceous white limestone with carbonaceous partings - trace grey metallic mineral	84'00"	80°								
					-100'00" broken coarse limestone	89'00	90°								
				100'00"	END OF HOLE										

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					FIRE ASSAYS								
					#46101 au 0.002oz/ton ag 0.19oz/ton								
					46109 0.002 0.15								
					46110 0.002 0.28								
					46111 0.005 0.32								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 29 Jan. 1981
FINISH: 02 Feb. 1981

LENGTH: 166 Feet
BEARING: N066°
DIP: flat
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO.V81-47
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	44'00"	GREY BANDED LIMESTONE Medium to coarse, well banded and folliated light and dark grey limestones, folliation usually shown by dark corbonaceous partings. 1'00" 45° 0'00"-4'00":poorly folliated light grey limestone -11'06"alternating light grey & dark grey limestone 6'00" 45°	46118	37'02"	41'00"		0.5	5	87	124
					-22'00"dark grey well folliated limestone	46119		44'00"		5.8	49	176	840
					-28'00"largely poorly folliated light grey limestone, with minor darker bands 12'00" 65°	46120		50'00"		100.0	228	1360	2010
					-29'00"light grey limeston, rust-stained 7'00" 45°	46121		55'00"		23.5	215	550	9000
					22'00" 50°	46122		57'00"		22.8	61	272	364
					28'00" 45°	46123		59'00"		8.7	23	203	270
			44'00"	55'00"	SILICEOUS MINERALISED DOLOSTONE BRECCIA Greenish grey, hard, siliceous, consisting of about 65% dolostone fragments in a calcitic matrix; total sulphides low, but consist of minor pynte sphalente, trace galena & tetrahednte; the galena & tetrahednte occur in dots but also sometimes in lenses. Overall 30'00" 50° sulphides 1-2%; light silver values 35'00" 60° expected, dolomitic sectious tend to be 40'00" 50° broken to rubby core loss appears to be 45'00" 45° mainly in these sectious. 55'00" 60°	46124		63'00"		2.2	16	249	304

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					High sulphide zones at: 44'10"-45'06"	46125	63'00	67'00		0.7	8	86	69
					49'06"-50'00" sphalente &								
					54'03"-55'00" galena	46126		71'00		0.5	7	149	110
			55'00"	92'00"	MINERALISED SILICEOUS LIMESTONE	46127		75'00		0.4	5	321	258
					Hard competent grey limestone, coarse, poorly folliated, sulphide content low, generally 1-2%, mainly pynte &	46128		79'00		0.3	3	133	490
					pyrrhatite. Very minor sphalente, trace tetohednte? expected to be low in ag & zu. Dolomitic, dolomite increasing	46129		83'00		0.5	3	97	480
					towards base of unit. Details								
					57'00"-59'00"=minor argillite lenses	46130		87'00		0.6	2	177	213
					-66'00"=pale grey, trace sulphides								
					-68'05"=with carbonaceous partings-pynte in the	46131		92'00		nd	2	105	249
					partings 61'00" 45°								
					-71'00"=grey limestone, coarse, 67'00" 50°	46132		96'00		0.5	10	52	490
					trace pynte 77'00" 65°								
					-79'00"=with carbonaceous bands 85'00" 55°	46133		99'00		nd	26	56	1550
					sulphides - 3-4% 91'00" 70°								
					-92'00"=coarse grey limestone 97'00" 50°	46134		103'00		0.2	31	44	1900
					pyrrhotite & pynte - 2% 102'00" 50°								
					increase in pyrrhotite 108'00" 45°	46135		106'00		nd	20	43	1100
					to 1½%								
						46136		109'00		0.2	36	54	980
			92'00"	109'00"	MIXED LIMESTONE AND DOLOSTONE - SILICEOUS								
					Very much as above, but mixed, with zones of limestone, dolomitic limestone and dolostone; errotic distribution of above.								
					92'00-99'00:largely calcitic with pure barren limestone bands								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					92'00-103'00:dolomitic; sulphides 5%	46137	109'00"	113'00"		1.6	15	226	145
					-106'00:dolomitic; sulphides 3%								
					-109'00:brownish sulphides 8-10%	46138		117'00"		o.3	17	109	490
			109'00	141'00	SILICEOUS DOLOMITE	46139		120'00"		0.3	10	50	259
					Pale grey to white, coarsely crystalline in part brecciated with poor folliation. Sulphide content low, mainly pynte & pyrrhotite, seldom over 1%; occasional grey mineral may be tefrahednt	46140		123'00"		nd	2	42	66
						46141		126'00"		0.6	4	116	92
					109'00"-126'03":tends to be slightly brecciated with sulphides along fractures. Sulphide content 1.5-2%	46142		129'00"		nd	2	41	95
					-132'00";coarsely crystlline, sulphide 0.5%	46143		132'00"		nd	1	45	116
					-141'00":very siliceous with some grey metallic mineral; appears somewhat brecciated.	46144		135'00"		nd	1	41	91
			141'00"	152'00"	SILICEOUS DOLOMITIC LIMESTONE.	46145		138'00"		nd	2	46	207
					Very much as above in appearance, with lower silica and dolomite content. Sulphide content, mainly pynte & pyrrhotite - 1%	46146		141'00"		nd	2	44	128
						46147		144'00"		nd	2	42	97
			152'00"	166'00"	GREY AND WHITE BANDED LIMESTONE								
					Grey & white medium grained limestone, poorly banded except at the base.	46148		147'00"		0.1	1	44	55
					152'00-161'00:pale grey getting less siliceous and better banded towards base; Sulphides trace	46149		150'00"		0.1	4	45	66
					-165'00:fairly well banded limestone	46150		152'00"		nd	4	47	30
					-166'00:with argillite bands 156'00" 70°								
					162'00" 80°								
				166'00"	END OF HOLE 166'00" 50°								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					ASSAYS Au oz/ton Agoz/ton cu% Pb% Zu%								
					#46119 o.oo2 0.23 0.02 0.16 0.20								
					46120 0.010 4.52 0.02 0.06 0.89								
					46121 0.005 1.04								
					46122 0.002 0.83								
					46123 0.002 0.29								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 17 Feb. 1981
FINISH: 19 Feb. 1981

LENGTH: 120 Feet
BEARING: N246°
DIP: Flat
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4772'
LOCATION:

D.D.H. NO.U81-48
RECOVERY: 87%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			o'oo	1100	GREY LIMESTONE								
					Dark grey poorly folliated coarse-grained 'grainy' limestone, fairly competnet, appearing bleached	46176	1100	1400		0.5	3	50	94
					2'00 90°	46177		1700		0.7	12	41	1250
					5'00 70°								
			1100	2608	SILICEOUS DOLOMITIC LIMESTONE	46178		2000		0.4	5	124	1020
					Pale grey to white poorly folliated rock slightly mineralised.	46179		2300		0.8	7	215	900
					11'00"-14'00:rust stained, sulphides 5%, mainly pynte & pyrrhotite? trace sphalente 45°	46180		2608		2.8	14	510	1240
					-26'08:siliceous, poorly folliated light grey to white; with 5% sulphides, mainly pynte & pyrrhotite; also sphdolite 0.5% 50°	46181		2908		3.8	16	950	2160
						---------		3208	LAMPROPHYRE				
			2608	2908	SILICEOUS DOLOSTONE								
					Pale grey to almost white, appearance similar to above unit. Sulphide content 5%, mainly pynte & pyrrhotite.	46182		3406		11.2	22	6200	7500
					ephalente 0.5% 27'00" 80°			3506	MUD-NO	CORE			
			2908	3208	LAMPROPHYRE DIKE								
					Coarse, green; upper contact 10° to core axis								
					lower contact 15° to core axis								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			3208	4005	MINERALISED SILICEOUS DOLOMITE								
					White, sometimes rust stained along fractures, partially brecciated. Coarse poorly folliated; sulphides mainly pynte	46183	3506	3800		0.5	5	178	1100
					pyrrhotite with minor sphalente - few specks of galena and tetrahednte. visible.	46184		4005		8.6	23	3160	9600
					32'08"-34'06":well mineralised, sulphides 6-8% 50°	46185	5108	5300		1.8	9	500	1310
					-35'06":DRILLER REPORTS 1FT MUD - NO CORE								
					-40'05":less mineralised, sulphides 1-2%, galena & tetrohednt? visible	46186		5700		nd	7	135	235
						46187		6000		0.7	10	208	160
			4005	4200	LAMPROPHYRE DYKE								
						46188		6300		nd	5	97	145
			4200	5108	GREY BANDED CALCITIC DOLOSTONE								
					Well folliated, thinly banded, medium grained trace sulphides 42'00" 50°	46189		6506		1.1	5	305	245
					49'00" 50°	46190		6800		0.3	6	87	242
			5108	7405	MINERALISED SILICEOUS DOLOSTONE								
					While unbanded poorly folliated, medium to coarse grained	46191		7100		1.6	11	158	268
					5108-53'00":gradational from above. Sulphides 1% pynte & Pyrrhotite	46192		7405		0.5	7	124	1400
					-74'05":white massive, poorly mineralised 1% appears to contain tetrahednte. Unit appears to be a breccia in parts but hard to see any matrix material. Rare calcite lenses	46193		7800		0.3	6	105	182
						46194		8200		nd	4	118	198
						46195		8400		nd	5	50	46

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			7405	9100	MINERALISED SILICEOUS LIMESTONE		8400	8600	NO CORE				
					Very similar to above in appearance								
					74'05"-82'00":white siliceous, hard,poorly folliated.	46196		8800		nd	4	39	23
					sulphide content - 1% but appears to								
					contain rare specks of tetrohednte 50-60°	46197		9100		nd	18	80	750
					-84'00":banded limestone appears barren 45°								
					-86'00":DRILLER GROUND CORE			9300	NO CORE				
					-88'00":white limestone, trace sulphides								
					-91'00":banded limestone and white limestone trace	46198		9800		0.3	8	53	192
					sulphides. core broken 80°								
					-93'00":DRILLER GROUND CORE	46199		10300		nd	2	28	15
			9100	12000	BANDED GREY LIMESTONE								
					Thinly banded, nonsiliceous rock, appears barren	46200	11300	11600		nd	1	44	20
					91'00"-103'00":VERY BROKEN CORE - heavy core loss								
					91'00"-106'09":banded limestone 70°								
					-107'06":lamprophyre dyke								
					-113'00":banded limestone 50°								
					-120'00":thickly banded mixed grey & white limestone								
				12000	END OF HOLE								
					ASSAYS								
					#46182 auo.oosoz/ton ag0.22oz/ton cu0.01% pb0.65%	zu 0.76							
					46183 0.002 0.05 0.01 0.02	0.12							
					46184 0.002 0.31 0.01 0.34	0.97							
					46185 0.002 0.06 0.01 0.05	0.14							

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 02 Feb. 1981
FINISH: 04 Feb. 1981

LENGTH: 85 Feet
BEARING:
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4762'
LOCATION:

D.D.H. NO.U81-49
RECOVERY: 95%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			000	1400	GREY LIMESTONE Medium to coarse grained moderately-well folliated limestone, completed. Sulphides just a trace, largely rare crystals of pynte. 0'00-4'06":grey & white banded limestone 50° -12'03"coarse white limestone -14'00"banded limestone 50°	46151	14'00	18'00		nd	4	62	25
			1400	50'00	DARK GREY SILICEOUS LIMESTONE Well banded siliceous rock with 1% pynte/pyrrhotite - barren 14'00"-16'00":less siliceous 45° -20'00":brecciated & broken, folliation errotic -24'00":dark grey siliceous limestone; slight brecciation folliation errotic -29'00":lighter grey, very siliceous, occasional pyntic band folliation 27'00 45° vanes, 50°-30° -36'00":grey limestone well banded 45° -46'00":pale grey, lightly banded 50° -47'00":pale grey well banded -48'08":dark, hard, with mineralised fracture parallel to core axis -50'00":light grey limeston 50° 55'00 60°	46152		22'00		3.5	6	93	45
						46153		26'00		3.4	5	163	40
						46154		30'00		1.5	9	112	41
						46155		34'00		nd	2	72	22
						46156		38'00		0.2	4	70	23
						46157		42'00		0.4	2	68	40
						46158		46'00		0.4	3	92	136

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			5000	7300	MIXED DOLOMITIC LIMESTONE AND SILICEOUS LIMESTONE	46159	4600	50'00		nd	5	46	700
					Broken core, often rust stained (and weathered) siliceous but generally poorly mineralised	46160		53'00		0.1	2	43	75
					50'00"-62'00:dolomitic limeston 50°								
					-63'00:DRILLER REPORTS SAND - NO CORE	46161		56'00		0.2	5	43	124
					-68'00:dolomitic limestone								
					-73'00:grey limestone 50°	46162		58'00		nd	1	41	173
			7300	8500	OVER BURDEN - few pebbles recovered	46163		62'00		0.3	5	44	220
				8500	END OF HOLE	46164	6300	6600		0.3	2	43	290
						46165		6800		nd	1	39	74
						46166		7000		0.1	4	45	24
						46167		7300		nd	8	40	39

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 20 Feb. 1981
FINISH: 24 Feb. 1981

LENGTH: 62 Feet
BEARING:
DIP: -90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4772'
LOCATION:

D.D.H. NO. U81-50
RECOVERY: 90%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'0"	11'0"	DOLOMITE BRECCIA								
					Composed of randomly sized black & white fragments, there appears to be a relatively equal proportion of black & white fragmants, fragmants & matrix are medium grained, Py pronent 2% finely disseminated, moderately silicious	46329	9'00	3'00		0.5	9	66	111
						46330		6'00		0.3	4	74	86
						46331		9'00		0.5	5	147	213
			1'0"	12'9"	MASSIVE SULPHIDES	46332		11'00		3.2	31	1260	1870
					60-70% Pb - Zn combined & 10% Py & 15% silgmontal.	46333		12'09		1000	750	10000	10000
			12'9"	53'6"	LIMESTONE BRECCIA								
					Made up of alternating zones of black & white breccia fragmants, also zones of mixing where either black or white fragmants will both exist. Fragmants are randomly sized, range .05' to .5' across the long axis.	46334		15'00		4.5	34	980	610
						46335		17'00		nd	1	116	106
					14'8" to 15' laminations noted, 45° to core axis, laminae .1" or less.	46336		20'00		0.3	2	213	35
					24' - 25' massive zone, chalky & vitreous, no visible mineralization.	46337		23'00		nd	1	70	22
					28'1" - 29' laminations .05' to .1' along core axis, laminue at 55° to core axis.	46338		26'00		0.2	1	89	30
					30' to 31'6" slight more silicous portion of breccia zone	46339		30'00		2.2	12	388	90
			33'6"	37'10"	MASSIVE LIMESTONE	46340		33'06		nd	1	48	24
					Dullwhite appearance on outop portion of core, somewhat vitregus luster fine grained, moderate to low silica content. No apparent mineration	46341	33'06	37'10		nd	nd	72	7
						46342		40'00		0.3	3	88	16

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			37'10"	62'0"	BANDED & BRECCIATED LIMESTONE Brecciation here appears to be a result of slumpage of banded limestone. Size of fragments along longest axis .05' to .7' approx. 59'5"-60'1" laminations (.05' to .1" along axis), Laminue 65° to core axis. Py 1% or less diss. throughout section. SO_2 content moderate.	46343		43'00		0.5	3	60	32
						46344		46'00		0.5	1	35	31
						46345		49'00		nd	2	62	25
						46346		52'00		0.1	4	75	23
					FIRE ASSAYS Au oz/ton Ag oz/ton Pb% Zu% #46332 0.002 0.21 0.10 0.18 46333 0.010 10.28 9.93 30.57 46334 0.002 0.21	46347		55'00		nd	4	53	19
						46348		58'00		nd	2	43	20
						46349		62'00		nd	2	46	22

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 09 Feb. 1981
FINISH: 11 Feb. 1981

LENGTH: 120 Feet
BEARING:
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4635'
LOCATION:

D.D.H. NO.U81-51
RECOVERY: 94%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			000	5600	GREY LIMESTONE Very competent light grey coarse grained limestone, well banded and folliated with minor white limestone bands. Cores beautifully - almost no core loss. Only very occasional pynte bleb 0'00"-7'06":somewhat broken, especially 5'00-7'00 45° -11'06"white massive limestone -41'00"grey banded limestone 12'00 45° -43'00"grey banded limestone, broken along vertical fractures -56'00"grey banded limestone 21'00" 50° 42'00" 60° 48'00" 65° 52'00" 60°	46201	4000	4300		nd	5	40	20
						46202	43'00	45'00		0.3	4	66	20
						46203	4500	4800		3.9	11	95	39
						46204	5600	5700		100.0	550	3240	2320
						46205		6000		33.0	116	2040	3010
			5600	8100	SILICEOUS DOLOMITIC LIMESTONE Hard brittle limestone, with strong black partings and white bands. Folliation tends to be errotic and in parts some degree of brecciation and dolomitisation. Sulphide content low - 1%, mainly pynte & pyrrhotite, with rare sphalente & galena? Does not appear argeutiferous	46206		6300		4.8	10	315	253
						46207		6600		4.2	19	352	356

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					51'00"-57'00":dolomite breccia - argeutiferous	46208	6600	6900		3.0	5	300	247
					-59'06":hard siliceous dolomitic limestone, fine pyrrhotite 2% 50°	46209		7200		22.4	8	318	210
					-73'00":banded has siliceous dolomitic limestone with green stain & white limestone bands; sulphide content - 2% rarely a grey metallic crystal seen - galena	46210		7500		0.9	2	97	111
					65'00 50°	46211		7800		0.7	2	117	122
					-76'00":coarse grey grainy limestone	46212		8100		1.4	4	166	298
					-81'00":as previous unit 77'00 30°	46213		8400		0.3	1	54	55
			8100	10706	SILICEOUS DOLOMITIC LIMESTONE 81'00 30°	46214		8600		1.4	1	93	75
					Mixed white and grey limestone, sometimes dolomitic appears to be partly a breccia. Light green cherty bands common in the white zones. Sulphide content mainly pynte & pyrrhotite - 1%, but appears argentiferous due to specks of grey metallic mineral			8700	GROUND CORE				
					81'00"-86'00":white siliceous limeston 45°	46215		9200		2.7	11	120	220
					-92'00";dark grey banded siliceous limestone	46216		9600		9.9	21	298	540
					-96'00":white siliceous limestone								
					-99'00":siliceous dolomitic limestone breccia	46217		9900		1.5	7	357	156
					-101'00:white siliceous limestone 45°	46218		10200		2.1	6	342	179
					-107'06:coarse grey limestone with dark grey partings 45°	46219		10500		1.2	3	570	395
			107	12000	GREY SILICEOUS LIMESTONE	46220		10706		0.3	4	173	253
					Light grey, poorly folliated, competent and hard; with minor siliceous zones. Sulphides - 0.5%. Appears barren 45°								
				12000	END OF HOLE								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY

ASSAYS	Au oz/ton	Ag oz/ton	Cu %	Pb %	Zu
#461204	0.010	9.83	0.06	0.34	0.25
461205	0.002	1.32	0.02	0.22	0.32
461206	0.002	0.14			
461207	0.002	0.20			
461208	0.002	0.12			
461209	0.002	0.47			
46216	0.002	0.22			

SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
46221	10706	10900		0.6	6	96	398
46222		11200		nd	3	75	193
46223		11500		1.4	6	690	285
46224		11700		0.4	2	50	51
46225		12000		nd	2	41	187

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 24 Feb. 1981
FINISH: 28 Feb. 1981

LENGTH: 83 feet
BEARING +90°
DIP:
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4772'
LOCATION:

D.D.H. NO. U81-52
RECOVERY: 93%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'00"	34'9"	MASSIVE & BRECCIATED DOLOMITE								
					0'-2'4":relatively massive dolomite, coarse grained, white in color. Mineralization note, 2-3% diss.	46296	0'00"	2'04		0.5	4	114	810
					Py and at 0'2" a sooty grey mineral noted - tetrahedrite?	46297		3'08		nd	1	76	65
					2'4"-3'8":Breccia zone, dark fragmants hosted in coarse grained white matrix, matrix has vitreous luster in some instances, Py stringers & diss. Py noted 3-4%	46298		6'00		nd	1	48	264
					3'8"-6':As described in 1 above but 4-5% Py instead.	46299		8'00		0.1	nd	44	142
					6'-13':As described in 2 but 3-4% disseminated py & few random stringers of py also, a larger proportion of white breccia fragments are also	46300		10'00		nd	1	55	990
					visible, approximately 40-6- white to black.	46301		13'00		nd	2	123	216
					13'-21':As described in 1 but py not as extensive, blue vitreous luster in broken core, small stringers	46302		15'00		nd	nd	42	68
					& clots of callaceous material (possibly Ag ore here?)	46303		17'00		nd	2	51	163
					21'-27'5":As described in 2 minor zones of vitreous dolomite (Ag bearing?), minor PY - Pyrr.	46304		19'00		nd	nd	46	127
					stringer zone at 24'								
					27.5-28.0:As in 3 without argillite or Py.	46305		21'00		0.2	1	58	113
					28'-30':Black & white breccia zone, varying % of black vs. white fragments through section & fragments	46306		23'00		0.3	5	120	720
					randomly sized. 3-4% diss. py., at 29' Py-pyhrotite stringer zone.	46307	23'00	2706		nd	3	55	333
					30'-34'9":Breccia zone with 95% white fragments, sub-angular & .1-.4" across numerous randomly	46308		2800		0.3	1	55	93
					oriented fractures. At 30'5", fault gauge (45° to core axis)	46309		3000		0.1	2	54	2820

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			34'9"	44'9"	LIMESTONE BRECCIA	46310		3200		nd	1	43	171
					As in 4 above but fragments on host are not dolomitic.								
					Less than 1% disseminat py but the occasional clot of	46311		3404		nd	1	46	190
					Py can be seen or fracture plains. Mudslips were noted								
					by drillers at 38'-40' & at 41'6" to 42'6". Stylite	46312		3704		0.9	115	122	9000
					present at 40'4".								
					42'10"-44'4":massive section fine grained & chalk white	46313		4200		nd	8	58	73
					in color, barren of mineralization.								
					44'4"-44'7":section ends in limestone breccia, smaller	46314		42'10		nd	2	46	28
					fragments of black & white breccia, angular .1" across,								
					no apparent mineralization.	46315		4407		nd	1	35	15
			44'7"	53'9"	LAMINATED LIMESTONE	46316		4900		nd	2	36	12
					Finely laminated fine grained, laminations approximately.								
					Laminations at 40° to core axis	46317		5200		nd	3	41	10
			53'9"	54'7"	MATRIX DYKE (lamprophyre?)	46318		5400		nd	16	50	15
					Green in color, massive ,								
						46319		5508		0.1	9	45	22
			54'7"	55'8"	As in 5 above.								
						46320		5800		nd	4	38	16
			55'8"	57'4"	WEAKLY BANDED LIMESTONE								
					Dark & light brown of silicous looking limestone, this	46321		6100		nd	2	44	19
					unit is very fine grained. The unit lacks mineralization								
					bands are very thick 1"-1½" along core axis, banding	46322	6100	6400		nd	1	32	10
					at approximately 40° to core axis.								
						46323		6700		nd	6	43	17
			57'4"	58'3"	DOLOMITE BRECCIA								
					Black & white breccia fragments from .1"-.4" in width	46324		7000		0.3	15	37	42

	RUN	LOSS	FROM FT	TO FT	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					Mineralization noted, 2% Py disseminated & small stringers.	46325		7300		0.2	23	41	42
						46326		7600		nd	13	39	40
			58'3"	58'6"	BANDED LIMESTONE These sediments are believed to be the start of a small a neonfamily, it appears contact, cromnal surface.	46327		7900		nd	10	44	31
					Fine grained sediments, .1" laminations, laminations 45° to core axis.	46328		8300		nd	9	23	65
			58'6"	64'2"	LIMESTONE White fine grained limestone, minor diss. py mineralization 4%. 61'8"-63':zone of brecciation, light grey dasts in white fine grained matrix, fragments are .3" length wise max. & about .05" min. 63'-63'5":Fine laminations, black & white in color , 20° to core axis 63'5"-64'0":As in 5 above 64'-64'2":Banding in limestone, fine laminations at 45° to core axis, limestone laminue .1" & limestone fine grained.								
			64'2"	83'	DOLOMITE BRECCIA 64'2"-68':Light grey fragments in white matrix, both matrix & fragments are fine grained & dolomitized, $S.O._2$ rich. Some evidence of lamination at 20° to axis 68'-81'8":Dark grey silicous section, large breccia fragments and in many instances little of the matrix is visible. 3% finely disseminated Py noted in this section.								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					Nomanent luminations at 45° to core axis. 81'-63':Zones of strong lamination mixed in with breccia, 60° to core axis, laminue very minute .oz in. ASSAYS #46309 Zu 0.29% 46312 0.83%								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 12 Feb. 1981
FINISH: 15 Feb. 1981

LENGTH: 100 Feet
BEARING:
DIP: +90°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4635'
LOCATION: 'B' adit

D.D.H. NO. U81-53
RECOVERY: 97%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			000	1106	GREY LIMESTONE Medium to fine grained light grey to white, fairly massive and lightly banded; competent Core Angle 50° 9'04"-11'06":appears slightly siliceous; trace pynte	46226	904	1106		0.2	3	65	68
			1106	27'00	MIXED GREY LIMESTONE AND BLACK ARGILLITE Alternating bands often with gradational & mixed contacts. Folliation erratic - core broken 11'06"-12'01":argillite -13'10":coarse grey limestone 50° -15'06":mixed argillite & limestone -16'03":grey limestone -17'09":argillite 50° -19'04":grey limestone -21'02":argillite -21'10":grey limestone -24'06":argillite -26'06":grey limestone -27'00":argillite	46227	1300	1600		1.6	5	61	92

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			2706	3704	GREY LIMESTONE Medium to coarse, poorly folliated, competent and massive less than 12 Py 29'00" 80°	46228	3405	3605		50.0	80	1240	510
						46229		4006		130.0	850	3800	17800
			37'04"	40'03"	MIXED GREY LIMESTONE Fragmented? fragments dark grey & buff to beed host 38'09" 60°	46230		4306		758.0	2140	4200	29300
						46231		4510		129.0	335	1010	343
					soliation limited, medium grained rock pyminealization, clots & stringers 3-4% minor chakopy 1%	46232		4900		21.0	55	165	45
			40'03"	44'05"	DARK GREY DOLOMITE Somewhat silicified massive appearance, fine grained	46233		5200		2.6	14	74	33
					4-5% mineralization, sphalerite mainly, with Py & minor chakopy	46234		5500		0.8	11	63	89
			44'05"	61'05"	BANDED GREY LIMESTONE Folliation 49'01" 40° Limeston well banded, grain size ranges 57'04" 70° from fine to medium, no evidence of any mineralization.	46235		5701		1.5	1	100	42
						46236		6009		1.1	3	73	49
					Minor dolomitization in some instances; partial silicificaiton (minor) also noted; green alteration towards end of hole (sericite?)	46237		6300		1.0	4	87	52
						46238		6600		1.3	7	144	450
			61'05"	72'02"	SILIFIED LIMESTONE Buff colored, grain size fine to coarse, finer in more silicified portions of the core very massive in appearance, no foliation apparent at 67.6' a small zone of breccia is present, minor clots of Py no fed in breccia zone; fragments are small - 3mm and angular. 1-2% disseminated randomly distributed	46239		6900		1.0	10	65	146

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					through this section.	46240	6900	7201		0.6	7	130	127
			72'2"	80'2"	MASSIVE GREY LIMESTONE								
					greyish in color, speckled appearance due to coarse nature of grains, no foliation evident	46241		7601		0.8	8	50	20
					this section is barren; no mineralization whatsoever.	46242		8001		32.1	43	630	194
			80'2"	86'3"	DOLOMITIC LIMESTONE	46243		8201		6.5	40	116	299
					Majority of section composed of dolomitic, minor portions are limestone; dolomitization pervasive	46244		8306		1.4	44	45	42
					extensive silicification of this unit is also prevalent. Minor disseminated Py (1%) exist through most of this section.	46245		8509		20.4	101	172	183
					The unit is massive & fine grained	46246		8809		100.0	222	343	1670
					This zone possibly hosts Ag mineralization!?	46247		9300		2.4	31	74	90
			86'03"	100'00"	SILICIOUS DOLOMITE Foliation 55°								
					Buff to light grey, poorly banded to massive rock; fine to medium grained.	46248		9600		2.4	34	67	49
					Py mineralization was no fed throughout this unit; (3-5%py) in disseminated & massive form.	46249		10000		0.8	11	49	28
					Minor occurences of garnet are also present.								
					This unit is very hard (harder than steel) suggesting a high silica content.								
				100'00	END OF HOLE								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
					ASSAYS Au oz/ton Ag oz/ton Cu% Pb% Zu% Width								
					#46228 0.002 1.20 0.01 0.13 0.06 2'00"								
					46229 0.005 2.68 0.08 0.59 2.03 4'01"								
					46230 0.032 27.42 0.22 0.72 2.82 3'00"								
					46231 0.004 3.62 0.04 0.10 0.04 3'02"								
					46232 0.004 0.50								
					4'00"								
					46242 0.002 0.76 2'00"								
					46243 0.002 0.15 1'05"								
					46244 0.002 0.08 2'03"								
					46245 0.002 0.80 3'00"								
					46246 0.011 3.92								

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 03 March 81
FINISH: 03 march 81

LENGTH: 52 Feet
BEARING: N065°
DIP: Flat
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4635'
LOCATION:

D.D.H. NO 081-54
RECOVERY: 98%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'	12'6"	BANDED LIMESTON								
					Unit consists of primarily banded limestone with minor sections of massive & brecciated limestone.	46350	000	200		nd	1	78	49
					Unit is very fine grained	46351		400		0.1	1	61	56
					Laminue may be fine 45' or up to 3/4" in some instances								
					Laminue oriented 40°-50° in relation to core axis	46352		600		nd	nd	99	56
					Mineralization; Py strings at 11'								
					11'6" to 12'6" diss. grop mineral	46353		800		nd	1	66	35
					6'-8' brecciation associated with banding slumpage?								
						46354		1000		nd	1	75	60
			12'6"	35'0"	BRECCIATED LIMESTONE								
					White & grey fragments, angular & random sizes, some instances breccia is not pronouned & fragments are not	46355		1206		nd	nd	108	171
					distinctive. 24'4" to 25' 1", unit has a more massive	46356		1500		nd	3	112	159
					appearance but indistinct greyish fragments in lighter colored host rock are visible. This area is dolomitized	46357		1700		nd	nd	73	40
					& has high $S.0_2$ content, believed that this section is								
					Ag bearing from 25'1" to the end of this section, the	46358		1900		nd	1	43	97
					breccia is as described in above except that there appears								
					to be a large number of urgillaceous stringr material	46359		2100		0.2	1	55	194
					interstistial to the breccia fragments, fine Py								
					mineralization & occasional stringer of Py-Pyhr	46360		2300		01	nd	108	71
					mineralization - 2?								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			35'52	52'	QUARTZITE Coarse grained massive silicious unit, minor zones of brecciation with associated argillaceous, possibly graphitic material, interstitial to breccia fragments, sugary testure on fresh surface, this unit has about 2-3% disseminated Py associated with other than that. the unit is barren & believed to have no Ag potential	46361	2300	2500		0.1	nd	42	36
						46362		2700		0.9	7	236	345
						46363		2900		1.0	5	710	117
						46364		3100		0.4	2	231	125
					FIRE ASSAYS Au oz/ton Ag oz/ton Pb% Zu% #46367 0.002 0.42 0.48 0.09 46368 0.002 0.14	46365		3300		0.3	5	185	179
						46366		3500		nd	1	93	170
						46367		3800		3.7	70	1830	700
						46368		4100		7.7	53	4500	800
						46369		4400		0.9	8	600	130
						46370		4700		2.0	8	1320	620
						46371		5000		1.4	2	2160	340
						46372		5200		0.6	1	364	94

DIAMOND DRILL RECORD

COMPANY: EXTOTAL RESOURCES INC.

PROPERTY: ASPEN MINE

START: 16 Feb. 1981
FINISH: 21 Feb. 1981

LENGTH: 271 Feet
BEARING: N246°
DIP: -45°
HOLE SIZE: EQX

LATITUDE:
DEPARTURE:
ELEVATION: 4635'
LOCATION:

D.D.H. NO.U81-55
RECOVERY: 97%

ASSAYS BY: VANGEOCHEM LABS
LOGGED BY: MEL deQUADROS

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			0'	4'	CASING								
			4'	43'4"	LIMESTONE This unit is banded grey & white limestone, laminue ar .05" to .2", the unit is medium grained at 5' laminue oriented 35° to core axis. "5-6"' 11 to core axis minor fold 19" 40' to core axis 42'-3" 30" to core axis 31'-33' - minor zone of brecciation, angular white and black fragments in grey matrix, limestone fragments and matrix. 36'8" minor Py & gassan, this is the only significant mineralization in this section.								
			45'4"	58'8"	LIMESTONE Unit primarily massive, white limeston, with the occasional grey & white laminated zone. The unit is medium grained and has very little mineralization associated with it -1% disseminated pyrite. Laminated zones show a laminue orientation of 25° to core axis	46537	61'5"	64'0"		nd		45	21
			58'8"	75'6"	LIMESTONE The section is grey & white banded limestone, in some instances this banding is very poor and portions it look massive. Laminue rung from .05 to almost .75" at times, the laminue are oriented about 35° to core axis. No mineralization present								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			75'6"	81'1"	LIMESTONE Fine grained massive white limestone, barren of any mineralization.								
			81'1"	98'6"	LIMESTONE Grey & white banded limestone, medium to coarse grained, laminue are oriented about 45° to core axis. In some instances the laminue are not very distinct and portions of the unit appear massive. This unit is barren of mineralization.								
			98'6"	124'9"	LIMESTONE BRECCIA This unit is made up of a few different types of breccia 98'-6" to 102'4" is breccia made up of white & grey fragments, those appear somewhat chogate & angular, this portion of the unit is fine grained & barren of mineralization. 102'-4" to 116'10", only a small portion of this section is made up of both grey & white fragments this section is primarily made up of large white angular breccia fragments with a orange alteration interstistial to the fragments, Py mineralization & a grey mineral noted to be present at 108', both of these in disseminated form. 116'10" to 120'4" as described previously in above, but this section also has some banding, luminue are very narrow .05", these are oriented 45° to core axis. 120'-122' massive coarse grained, barren white limestone. 122'-124'8" is breccia consits of white & brown fragments, fragments are angular and this portion contains about 22 disseminated PY	46538 46539 46540	102'00	10700 10900 11207		1.5 0.8 1.3		560 255 325	2000 710 90

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			124'9"	159'	MIXED GREY & WHITE LIMESTONE This section consists of barren white limestone & grey limestone. The white limeston is fine grained & occasionally somewhat brecciated. This white limestone occasionally has disseminated PY present within it. The grey limestone is coarser grained, it may also be brecciated occasionally but for the most part it too is massive, the grey limestone is barren of mineralization								
			159'	190'8"	LIMESTONE Poorly banded white limestone, where laminated, laminations were observed to be 35° to core axis. There is also the occasional patch of laminated white & grey limestone (177'4" to 180'8") 179'-179'4" minor breccia zone, clongated angular white fragments in a grey matrix. This section appears to be barren of mineralization								
			190'8"	194'4"	MATIC DYKE Very fine grained massive & black in color. Occasional quartz eye noted & minor PY also disseminated.								
			190'4"	201'2"	LIMESTONE As described previously in above, orientation of lumination 30° to core axis, this section barren of mineralization.								
			201'2"	205'6"	MATIC DYKE As described previously in 3								

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			205'6"	217'8"	DOLOMITIC LIMESTONE BRECCIA Two types of breccia exist white & black fragments randomly sized and angular, in a slightly dolomitic matrix type, also there are light greyish fragments which are dolomitic in a white dolomitic matrix; this is the second type of breccia. In type two the silica content is surprisingly low, this type of breccia sometimes hosts ore but it is usually more silicious. Some banding is associated with type 1 breccia, the luminue are oriented 40° to the core axis. The breccia zone is relatively barren of any mineralization								
			217'8"	246'9"	ARGILLITE This unit consists of banded black & white argillite. This unit has approximately 1% disseminated Py mineralization & more Py mineralization a long fractures. The laminue on the average in this argillite are oriented 40° to core axis. On some occasions the alminue within the argillite are intensely cronulated as a result of folding, this is particularily evident from 228' - 230'	46541	20508	20800		nd		40	17
						46542		21004		nd		32	20
						46543		21304		nd		40	26
			246'9"	247'11"	MATRIC DYKE As described previously in 3 except this dyke has a brown color on the exterior & minor Py less 2%	46544		21500		nd		40	34
						46545		21708		nd		29	32
			247'11"	250'4"	LIMESTONE Coarse grained barren white limestone	46546		24604		0.6		32	85

	RUN	LOSS	FROM FT	TO FR	LITHOLOGY	SAMPLE #	FROM FT	TO FT	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			250'4"	254'10"	ARGILLITE As described previously in 4; orientation of luminue still approximately 45° to core axis								
			254'10"	257'4"	LIMESTONE SKARN Massive white limestone with garnet, minor PY less 1%								
			257'4"	259'11"	ARGILLITE As described previously in above								
			259'11"	291'0"	GRANODIOZITE Coarse grained granitic rock with quartz grains & plagiorlaze phono crystals up to 0.1" across, minor brutite also, & hurnblende. less 27° Py mineralization no texture.								

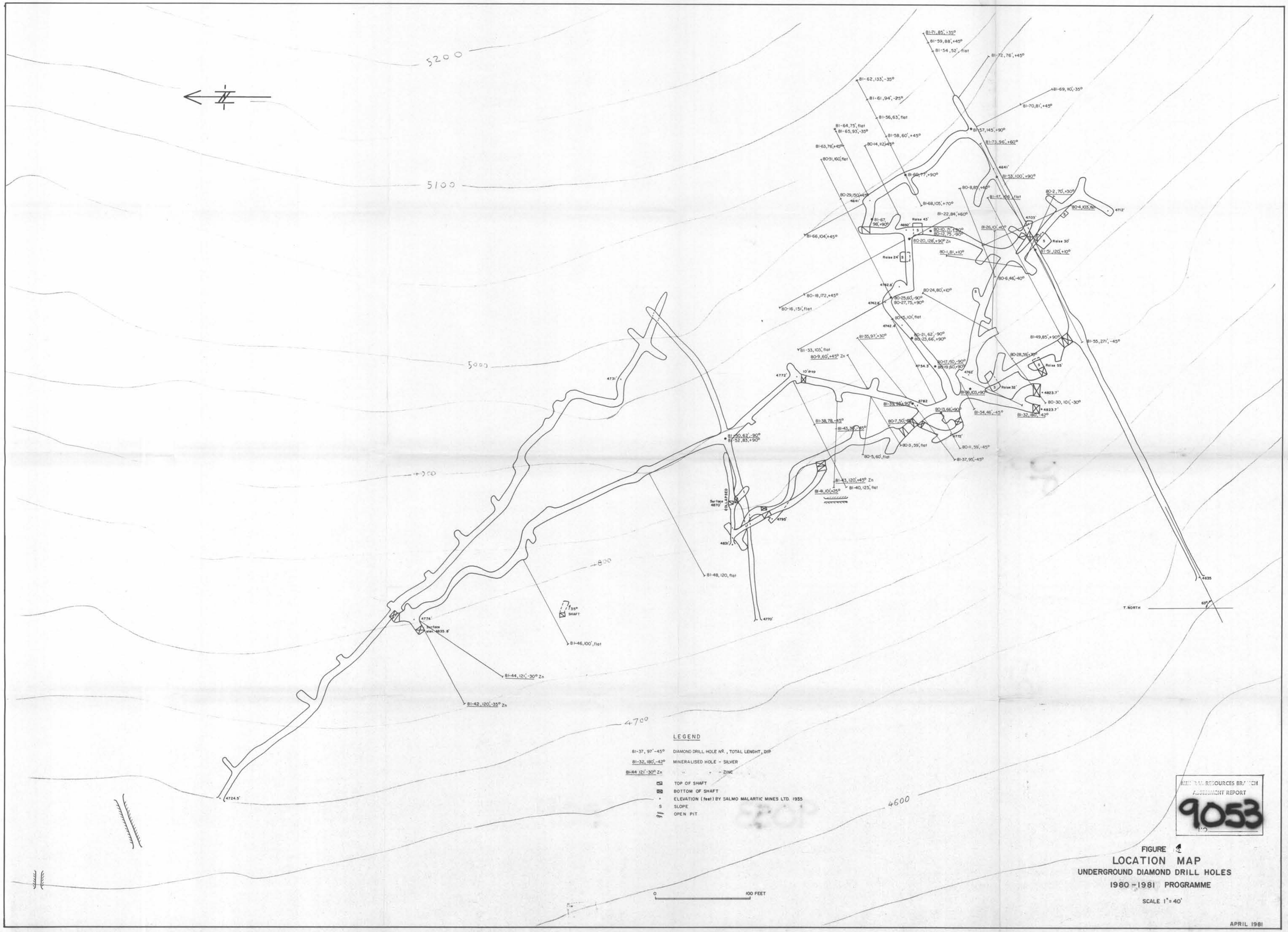

FIGURE 4

LOCATION MAP

UNDERGROUND DIAMOND DRILL HOLES

1980 - 1981 PROGRAMME

SCALE 1" = 40'

APRIL 1981

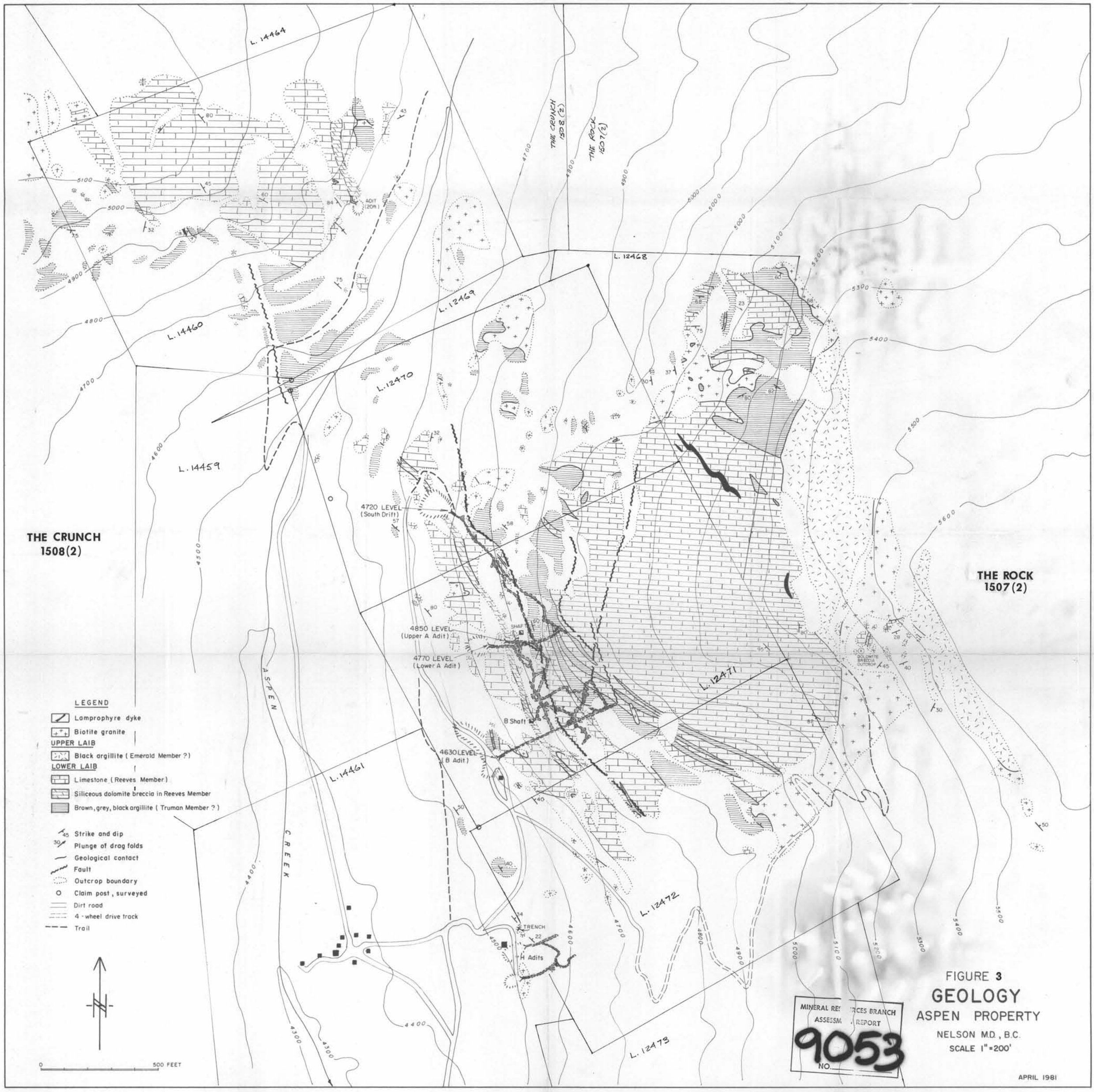

FIGURE 3
GEOLOGY
ASPEN PROPERTY
NELSON M.D., B.C.
SCALE 1"=200'