

PC-XPLOR

DATABASES

F8701

VOL 1

001556

124+035 70
124+070 71
124+105 72

125+000 73

		+035	+070	+105
126+000	77	78	79	80
127+000	81	82	83	84
128+000	85	86	87	88
129+000	89	90	91	92
130+000	93	94	95	96
131+000	97	98	99	100
132+000	101	102	103	104
133+000	105	106	107	108
134+000	109	110	111	112
135+000	113			
136+000	117			
137+000	121			
138+000	125			
138+105	128			

Notes on the FARO F8701 Model Grid

The Faro F8701 Geological Model uses the same grid coordinate system as the Faro 8608 Geological Model. The grid is oriented parallel to the existing geological cross and long sections. It is rotated 45 degrees in an anticlockwise direction from the existing Mine Grid system. Model North is therefore at an azimuth orientation of 315 degrees with respect to the Mine Grid.

The F8701 model grid is superimposed on the Mine grid so that the Mine grid point 12000E, 9000N, has F8701 Model coordinates of 20000E, 40000N. Both grids are defined in units of feet. Conversion equations between the two grid systems are as follows:

Mine Grid to F8701 Model Grid

$$\begin{aligned}\text{Model E} &= 5150.758 + ((1/\text{SQRT}(2)) * (\text{Mine E} + \text{Mine N})) \\ \text{Model N} &= 42121.320 + ((1/\text{SQRT}(2)) * (\text{Mine N} - \text{Mine E}))\end{aligned}$$

F8701 Model Grid to Mine Grid

$$\begin{aligned}\text{Mine E} &= 26142.136 + ((1/\text{SQRT}(2)) * (\text{Model E} - \text{Model N})) \\ \text{Mine N} &= -33426.407 + ((1/\text{SQRT}(2)) * (\text{Model E} + \text{Model N}))\end{aligned}$$

Table 1 lists F8701 Model coordinates and Mine coordinates for selected geological cross sections on long section lines 9 + 000, 14 + 000, and 29 + 000. Geological cross section 107 + 000 corresponds to a Model Northing of 40000, and geological long section 9 + 000 corresponds to a Model Easting of 20000. Cross section numbers increase as Model Northing decreases; long section numbers increase as Model Easting increases.

Blocks for the Faro F8701 model extend from geological cross sections 107 + 000 to 138 + 105. The row width in the block model is 35.36 feet; this ensures a regular correspondence between row numbers and the geological cross sections. The southwest corner of the block model was selected so that the evenly spaced geological cross sections pass through the centres of the blocks. Cross section 107 + 000 therefore passes through the centre of Row 1 in the F8701 block model. Table 2 details the correspondence between the geological cross sections and the rows in the F8701 block model.

With a column width of 25 feet for the F8701 blocks, the block model extends between geological long sections 9 + 000 and 30 + 090. In contrast to the regular correlation between block rows and geological cross sections, the long sections and model block columns do not have an exact correspondence in the model easting direction.

TABLE 1. MINE COORDINATES AND FB701 MODEL (WORLD) COORDINATES FOR CROSS-SECTION LINES

FARO DEPOSIT

Cross-Section	LONG SECTION 9 + 000				LONG SECTION 14 + 000				LONG SECTION 29 + 000			
	MINE COORDINATES		FB701 COORDINATES		MINE COORDINATES		FB701 COORDINATES		MINE COORDINATES		FB701 COORDINATES	
	Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing
107 + 000	12000.000	9000.000	20000.000	40000.000	12500.000	9500.000	20707.107	40000.000	14000.000	11000.000	22828.428	40000.000
108 + 000	12100.000	8900.000	20000.000	39858.578	12600.000	9400.000	20707.107	39858.578	14100.000	10900.000	22828.428	39858.578
109 + 000	12200.000	8800.000	20000.000	39717.157	12700.000	9300.000	20707.107	39717.157	14200.000	10800.000	22828.428	39717.157
110 + 000	12300.000	8700.000	20000.000	39575.736	12800.000	9200.000	20707.107	39575.736	14300.000	10700.000	22828.428	39575.736
111 + 000	12400.000	8600.000	20000.000	39434.314	12900.000	9100.000	20707.107	39434.314	14400.000	10600.000	22828.428	39434.314
112 + 000	12500.000	8500.000	20000.000	39292.893	13000.000	9000.000	20707.107	39292.893	14500.000	10500.000	22828.428	39292.893
113 + 000	12600.000	8400.000	20000.000	39151.472	13100.000	8900.000	20707.107	39151.472	14600.000	10400.000	22828.428	39151.472
114 + 000	12700.000	8300.000	20000.000	39010.050	13200.000	8800.000	20707.107	39010.050	14700.000	10300.000	22828.428	39010.050
115 + 000	12800.000	8200.000	20000.000	38868.629	13300.000	8700.000	20707.107	38868.629	14800.000	10200.000	22828.428	38868.629
116 + 000	12900.000	8100.000	20000.000	38727.207	13400.000	8600.000	20707.107	38727.207	14900.000	10100.000	22828.428	38727.207
116 + 070	12950.000	8050.000	20000.000	38656.497	13450.000	8550.000	20707.107	38656.497	14950.000	10050.000	22828.428	38656.497
116 + 105	12975.000	8025.000	20000.000	38621.141	13475.000	8525.000	20707.107	38621.141	14975.000	10025.000	22828.428	38621.141
117 + 000	13000.000	8000.000	20000.000	38585.786	13500.000	8500.000	20707.107	38585.786	15000.000	10000.000	22828.428	38585.786
117 + 035	13025.000	7975.000	20000.000	38550.431	13525.000	8475.000	20707.107	38550.431	15025.000	9975.000	22828.428	38550.431
117 + 070	13050.000	7950.000	20000.000	38515.075	13550.000	8450.000	20707.107	38515.075	15050.000	9950.000	22828.428	38515.075
117 + 105	13075.000	7925.000	20000.000	38479.720	13575.000	8425.000	20707.107	38479.720	15075.000	9925.000	22828.428	38479.720
118 + 000	13100.000	7900.000	20000.000	38444.365	13600.000	8400.000	20707.107	38444.365	15100.000	9900.000	22828.428	38444.365
118 + 035	13125.000	7875.000	20000.000	38409.009	13625.000	8375.000	20707.107	38409.009	15125.000	9875.000	22828.428	38409.009
118 + 070	13150.000	7850.000	20000.000	38373.654	13650.000	8350.000	20707.107	38373.654	15150.000	9850.000	22828.428	38373.654
118 + 105	13175.000	7825.000	20000.000	38338.299	13675.000	8325.000	20707.107	38338.299	15175.000	9825.000	22828.428	38338.299
119 + 000	13200.000	7800.000	20000.000	38302.943	13700.000	8300.000	20707.107	38302.943	15200.000	9800.000	22828.428	38302.943
119 + 035	13225.000	7775.000	20000.000	38267.588	13725.000	8275.000	20707.107	38267.588	15225.000	9775.000	22828.428	38267.588
119 + 070	13250.000	7750.000	20000.000	38232.233	13750.000	8250.000	20707.107	38232.233	15250.000	9750.000	22828.428	38232.233
119 + 105	13275.000	7725.000	20000.000	38196.877	13775.000	8225.000	20707.107	38196.877	15275.000	9725.000	22828.428	38196.877
120 + 000	13300.000	7700.000	20000.000	38161.522	13800.000	8200.000	20707.107	38161.522	15300.000	9700.000	22828.428	38161.522
120 + 035	13325.000	7675.000	20000.000	38126.167	13825.000	8175.000	20707.107	38126.167	15325.000	9675.000	22828.428	38126.167
120 + 070	13350.000	7650.000	20000.000	38090.811	13850.000	8150.000	20707.107	38090.811	15350.000	9650.000	22828.428	38090.811
120 + 105	13375.000	7625.000	20000.000	38055.456	13875.000	8125.000	20707.107	38055.456	15375.000	9625.000	22828.428	38055.456
121 + 000	13400.000	7600.000	20000.000	38020.101	13900.000	8100.000	20707.107	38020.101	15400.000	9600.000	22828.428	38020.101
121 + 035	13425.000	7575.000	20000.000	37984.745	13925.000	8075.000	20707.107	37984.745	15425.000	9575.000	22828.428	37984.745
121 + 070	13450.000	7550.000	20000.000	37954.340	13950.000	8050.000	20707.107	37949.390	15450.000	9550.000	22828.428	37949.390
121 + 105	13475.000	7525.000	20000.000	37914.035	13975.000	8025.000	20707.107	37914.035	15475.000	9525.000	22828.428	37914.035
122 + 000	13500.000	7500.000	20000.000	37878.679	14000.000	8000.000	20707.107	37878.679	15500.000	9500.000	22828.428	37878.679
122 + 035	13525.000	7475.000	20000.000	37843.324	14025.000	7975.000	20707.107	37843.324	15525.000	9475.000	22828.428	37843.324
122 + 070	13550.000	7450.000	20000.000	37807.969	14050.000	7950.000	20707.107	37807.969	15550.000	9450.000	22828.428	37807.969
122 + 105	13575.000	7425.000	20000.000	37772.613	14075.000	7925.000	20707.107	37772.613	15575.000	9425.000	22828.428	37772.613

TABLE 1. MINE COORDINATES AND FB701 MODEL (WORLD) COORDINATES FOR CROSS-SECTION LINES

FARO DEPOSIT

Cross-Section	LONG SECTION 9 + 000				LONG SECTION 14 + 000				LONG SECTION 29 + 000			
	MINE COORDINATES		FB701 COORDINATES		MINE COORDINATES		FB701 COORDINATES		MINE COORDINATES		FB701 COORDINATES	
	Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing
123 + 000	13600.000	7400.000	20000.000	37737.258	14100.000	7900.000	20707.107	37737.258	15600.000	9400.000	22828.428	37737.258
123 + 035	13625.000	7375.000	20000.000	37701.903	14125.000	7875.000	20707.107	37701.903	15625.000	9375.000	22828.428	37701.903
123 + 070	13650.000	7350.000	20000.000	37666.547	14150.000	7850.000	20707.107	37666.547	15650.000	9350.000	22828.428	37666.547
123 + 105	13675.000	7325.000	20000.000	37631.192	14175.000	7825.000	20707.107	37631.192	15675.000	9325.000	22828.428	37631.192
124 + 000	13700.000	7300.000	20000.000	37595.837	14200.000	7800.000	20707.107	37595.837	15700.000	9300.000	22828.428	37595.837
124 + 035	13725.000	7275.000	20000.000	37560.481	14225.000	7775.000	20707.107	37560.481	15725.000	9275.000	22828.428	37560.481
124 + 070	13750.000	7250.000	20000.000	37525.126	14250.000	7750.000	20707.107	37525.126	15750.000	9250.000	22828.428	37525.126
124 + 105	13775.000	7225.000	20000.000	37489.771	14275.000	7725.000	20707.107	37489.771	15775.000	9225.000	22828.428	37489.771
125 + 000	13800.000	7200.000	20000.000	37454.415	14300.000	7700.000	20707.107	37454.415	15800.000	9200.000	22828.428	37454.415
126 + 000	13900.000	7100.000	20000.000	37312.994	14400.000	7600.000	20707.107	37312.994	15900.000	9100.000	22828.428	37312.994
127 + 000	14000.000	7000.000	20000.000	37171.573	14500.000	7500.000	20707.107	37171.573	16000.000	9000.000	22828.428	37171.573
128 + 000	14100.000	6900.000	20000.000	37030.151	14600.000	7400.000	20707.107	37030.151	16100.000	8900.000	22828.428	37030.151
129 + 000	14200.000	6800.000	20000.000	36888.730	14700.000	7300.000	20707.107	36888.730	16200.000	8800.000	22828.428	36888.730
130 + 000	14300.000	6700.000	20000.000	36747.308	14800.000	7200.000	20707.107	36747.308	16300.000	8700.000	22828.428	36747.308
131 + 000	14400.000	6600.000	20000.000	36605.887	14900.000	7100.000	20707.107	36605.887	16400.000	8600.000	22828.428	36605.887
132 + 000	14500.000	6500.000	20000.000	36464.466	15000.000	7000.000	20707.107	36464.466	16500.000	8500.000	22828.428	36464.466
133 + 000	14600.000	6400.000	20000.000	36323.044	15100.000	6900.000	20707.107	36323.044	16600.000	8400.000	22828.428	36323.044
134 + 000	14700.000	6300.000	20000.000	36181.623	15200.000	6800.000	20707.107	36181.623	16700.000	8300.000	22828.428	36181.623
135 + 000	14800.000	6200.000	20000.000	36040.202	15300.000	6700.000	20707.107	36040.202	16800.000	8200.000	22828.428	36040.202
136 + 000	14900.000	6100.000	20000.000	35898.780	15400.000	6600.000	20707.107	35898.780	16900.000	8100.000	22828.428	35898.780
137 + 000	15000.000	6000.000	20000.000	35757.359	15500.000	6500.000	20707.107	35757.359	17000.000	8000.000	22828.428	35757.359
138 + 000	15100.000	5900.000	20000.000	35615.938	15600.000	6400.000	20707.107	35615.938	17100.000	7900.000	22828.428	35615.938
139 + 000	15200.000	5800.000	20000.000	35474.516	15700.000	6300.000	20707.107	35474.516	17200.000	7800.000	22828.428	35474.516

Table 2. F8701 Model Rows for Cross-Section Lines

<u>Cross-Section</u>	<u>Model Row</u>
107+000	1
108+000	5
109+000	9
110+000	13
111+000	17
112+000	21
113+000	25
114+000	29
115+000	33
116+000	37

116+070	39
116+105	40
117+000	41
117+035	42
117+070	43
117+105	44
118+000	45
118+035	46
118+070	47
118+105	48
119+000	49
119+035	50
119+070	51
119+105	52
120+000	53
120+035	54
120+070	55
120+105	56
121+000	57
121+035	58
121+070	59
121+105	60
122+000	61
122+035	62
122+070	63
122+105	64
123+000	65
123+035	66
123+070	67
123+105	68
124+000	69

PTY. DEF.

PRINTOUT OF PROPERTY INFORMATION **FARODDH1**

Model description (max 64 characters) :	Faro F8701 Geological Reserve Model
Easting co-ordinate of model bottom left hand corner :	20000.00
Northing co-ordinate of model bottom left hand corner :	35492.20
Easting co-ordinate of model top right hand corner :	23200.00
Northing co-ordinate of model top right hand corner :	40017.68
Datum elevation of top of model :	4270.00
Number of columns in model (max 128) :	128
Number of rows in model (max 128) :	128
Width of columns :	25.00
Width of rows :	35.36

Number of labels : 5 ; S.G. ; %Pb ; %Zn ; Ag g/t ; Au g/t

Current units are :

L : ft
Area : ft**2
Volumetric : bcf
Density : tn/bcf
Monetary : Cdn \$

MODEL SCALE FACTORS

S.G.	1000
%Pb	1000
%Zn	1000
Ag g/t	10
Au g/t	1000
Density	10000
Grids Elev	1
Variance	1000
Economic	10

PRINTOUT OF PROPERTY INFORMATION

BENCH	HEIGHT [ft]	CREST ELEVATION [ft]	TOE ELEVATION [ft]	CREST DEPTH [ft]	TOE DEPTH [ft]
1	40.00	4270.00	4230.00	.00	40.00
2	40.00	4230.00	4190.00	40.00	80.00
3	40.00	4190.00	4150.00	80.00	120.00
4	40.00	4150.00	4110.00	120.00	160.00
5	40.00	4110.00	4070.00	160.00	200.00
6	40.00	4070.00	4030.00	200.00	240.00
7	40.00	4030.00	3990.00	240.00	280.00
8	40.00	3990.00	3950.00	280.00	320.00
9	40.00	3950.00	3910.00	320.00	360.00
10	20.00	3910.00	3890.00	360.00	380.00
11	20.00	3890.00	3870.00	380.00	400.00
12	20.00	3870.00	3850.00	400.00	420.00
13	20.00	3850.00	3830.00	420.00	440.00
14	20.00	3830.00	3810.00	440.00	460.00
15	20.00	3810.00	3790.00	460.00	480.00
16	20.00	3790.00	3770.00	480.00	500.00
17	20.00	3770.00	3750.00	500.00	520.00
18	20.00	3750.00	3730.00	520.00	540.00
19	20.00	3730.00	3710.00	540.00	560.00
20	20.00	3710.00	3690.00	560.00	580.00
21	20.00	3690.00	3670.00	580.00	600.00
22	20.00	3670.00	3650.00	600.00	620.00
23	20.00	3650.00	3630.00	620.00	640.00
24	20.00	3630.00	3610.00	640.00	660.00
25	20.00	3610.00	3590.00	660.00	680.00
26	20.00	3590.00	3570.00	680.00	700.00
27	20.00	3570.00	3550.00	700.00	720.00
28	20.00	3550.00	3530.00	720.00	740.00
29	20.00	3530.00	3510.00	740.00	760.00
30	20.00	3510.00	3490.00	760.00	780.00
31	20.00	3490.00	3470.00	780.00	800.00
32	20.00	3470.00	3450.00	800.00	820.00
33	20.00	3450.00	3430.00	820.00	840.00
34	20.00	3430.00	3410.00	840.00	860.00
35	20.00	3410.00	3390.00	860.00	880.00
36	20.00	3390.00	3370.00	880.00	900.00
37	20.00	3370.00	3350.00	900.00	920.00
38	20.00	3350.00	3330.00	920.00	940.00
39	20.00	3330.00	3310.00	940.00	960.00

40	20.00	3310.00	3290.00	960.00	980.00
41	20.00	3290.00	3270.00	980.00	1000.00
42	20.00	3270.00	3250.00	1000.00	1020.00
43	20.00	3250.00	3230.00	1020.00	1040.00
44	20.00	3230.00	3210.00	1040.00	1060.00
45	20.00	3210.00	3190.00	1060.00	1080.00
46	20.00	3190.00	3170.00	1080.00	1100.00
47	20.00	3170.00	3150.00	1100.00	1120.00
48	20.00	3150.00	3130.00	1120.00	1140.00
49	20.00	3130.00	3110.00	1140.00	1160.00
50	20.00	3110.00	3090.00	1160.00	1180.00

PRINTOUT OF PROPERTY INFORMATION

FARODDH 2

Model description (max 64 characters) :	Faro FB701 Geological Reserve Model
Easting co-ordinate of model bottom left hand corner :	20000.00
Northing co-ordinate of model bottom left hand corner :	35492.20
Easting co-ordinate of model top right hand corner :	23200.00
Northing co-ordinate of model top right hand corner :	40017.68
Datum elevation of top of model :	4270.00
Number of columns in model (max 128) :	128
Number of rows in model (max 128) :	128
Width of columns :	25.00
Width of rows :	35.36

Number of labels : 5 ; %Pb+Zn ; %Pb ; %Zn ; Ag g/t ; Au g/t

Current units are :

Length : ft
Area : ft**2
Volumetric : bcf
Density : tn/bcf
Monetary : Cdn \$

MODEL SCALE FACTORS

<i>% Pb+Zn</i>	<i>1000</i>
<i>% Pb</i>	<i>1000</i>
<i>% Zn</i>	<i>1000</i>
<i>Ag g/t</i>	<i>10</i>
<i>Au g/t</i>	<i>1000</i>
<i>Density</i>	<i>10000</i>
<i>Grids Elev</i>	<i>1</i>
<i>Variance</i>	<i>1000</i>
<i>Economic</i>	<i>10</i>

PRINTOUT OF PROPERTY INFORMATION

BENCH	HEIGHT [ft]	CREST ELEVATION [ft]	TOE ELEVATION [ft]	CREST DEPTH [ft]	TOE DEPTH [ft]
1	40.00	4270.00	4230.00	.00	40.00
2	40.00	4230.00	4190.00	40.00	80.00
3	40.00	4190.00	4150.00	80.00	120.00
4	40.00	4150.00	4110.00	120.00	160.00
5	40.00	4110.00	4070.00	160.00	200.00
6	40.00	4070.00	4030.00	200.00	240.00
7	40.00	4030.00	3990.00	240.00	280.00
8	40.00	3990.00	3950.00	280.00	320.00
9	40.00	3950.00	3910.00	320.00	360.00
10	20.00	3910.00	3890.00	360.00	380.00
11	20.00	3890.00	3870.00	380.00	400.00
12	20.00	3870.00	3850.00	400.00	420.00
13	20.00	3850.00	3830.00	420.00	440.00
14	20.00	3830.00	3810.00	440.00	460.00
15	20.00	3810.00	3790.00	460.00	480.00
16	20.00	3790.00	3770.00	480.00	500.00
17	20.00	3770.00	3750.00	500.00	520.00
18	20.00	3750.00	3730.00	520.00	540.00
19	20.00	3730.00	3710.00	540.00	560.00
20	20.00	3710.00	3690.00	560.00	580.00
21	20.00	3690.00	3670.00	580.00	600.00
22	20.00	3670.00	3650.00	600.00	620.00
23	20.00	3650.00	3630.00	620.00	640.00
24	20.00	3630.00	3610.00	640.00	660.00
25	20.00	3610.00	3590.00	660.00	680.00
26	20.00	3590.00	3570.00	680.00	700.00
27	20.00	3570.00	3550.00	700.00	720.00
28	20.00	3550.00	3530.00	720.00	740.00
29	20.00	3530.00	3510.00	740.00	760.00
30	20.00	3510.00	3490.00	760.00	780.00
31	20.00	3490.00	3470.00	780.00	800.00
32	20.00	3470.00	3450.00	800.00	820.00
33	20.00	3450.00	3430.00	820.00	840.00
34	20.00	3430.00	3410.00	840.00	860.00
35	20.00	3410.00	3390.00	860.00	880.00
36	20.00	3390.00	3370.00	880.00	900.00
37	20.00	3370.00	3350.00	900.00	920.00
38	20.00	3350.00	3330.00	920.00	940.00

39	20.00	3330.00	3310.00	960.00	980.00
40	20.00	3310.00	3290.00	980.00	1000.00
41	20.00	3290.00	3270.00	1000.00	1020.00
42	20.00	3270.00	3250.00	1020.00	1040.00
43	20.00	3250.00	3230.00	1040.00	1060.00
44	20.00	3230.00	3210.00	1060.00	1080.00
45	20.00	3210.00	3190.00	1080.00	1100.00
46	20.00	3190.00	3170.00	1100.00	1120.00
47	20.00	3170.00	3150.00	1120.00	1140.00
48	20.00	3150.00	3130.00	1140.00	1160.00
49	20.00	3130.00	3110.00	1160.00	1180.00
50	20.00	3110.00	3090.00	1180.00	

PRINTOUT OF PROPERTY INFORMATION **FARODDH3**

Model description (max 64 characters) :	Faro F8701 Geological Reserve Model
Easting co-ordinate of model bottom left hand corner :	20000.00
Northing co-ordinate of model bottom left hand corner :	35492.20
Easting co-ordinate of model top right hand corner :	23200.00
Northing co-ordinate of model top right hand corner :	40017.68
Datum elevation of top of model :	4270.00
Number of columns in model (max 128) :	128
Number of rows in model (max 128) :	128
Width of columns :	25.00
Width of rows :	35.36

Number of labels : 5 ; %Pb+Zn ; %Cu ; %Po ; %Py ; %BaO

Current units are :

Length : ft
Area : ft**2
Volumetric : bcf
Density : tn/bcf
Monetary : Cdn \$

MODEL SCALE FACTORS

%Pb+Zn	1000
%Cu	1000
%Po	1000
%Py	1000
%BaO	1000
Density	10000
Grids Elev	1
Variance	1000
Economic	10

BENCH -- 3790

<u>D.D.H. No.</u>	<u>TONNAGE</u>	<u>COMB. GR.</u>	<u>TONNAGE X COMB. GR.</u>
66.- 23	237,191	10.25	2,431,208
70.- 6	60,981	8.19	499,434
70 - 14	79,313	6.70	531,397
70 - 15	118,527	6.70	794,131
66 - 8	453,431	8.72	3,953,918
65 - 11	83,428	11.67	973,605
66 - 15	175,461	9.42	1,652,843
65 - 5A	227,838	7.46	1,699,671
70 - 5	144,409	11.82	1,706,914
70 - 16	94,222	7.79	733,989
70 - 2	129,819	7.05	915,224
70 - 4	94,222	7.22	680,283
70 - 9	94,222	5.74	540,834
65 - 4	63,600	8.43	536,148
66 - 14	92,033	10.05	924,931
70 - 11	94,222	14.46	1,362,450
66 - 9	50,880	8.44	429,427
66 - 2	270,861	7.47	2,023,332
66 - 22	517,031	5.84	3,019,461
65 - 6	202,024	6.51	1,315,176
66 - 30	170,972	8.30	1,419,067
66 - 57	<u>121,214</u>	5.01	<u>607,282</u>
Total	3,575,901		27,956,594

Av. Grade -- 7.81

40	20.00	3310.00	3270.00	980.00	1000.00
41	20.00	3290.00	3270.00	1000.00	1020.00
42	20.00	3270.00	3250.00	1020.00	1040.00
43	20.00	3250.00	3230.00	1040.00	1060.00
44	20.00	3230.00	3210.00	1060.00	1080.00
45	20.00	3210.00	3190.00	1080.00	1100.00
46	20.00	3190.00	3170.00	1100.00	1120.00
47	20.00	3170.00	3150.00	1120.00	1140.00
48	20.00	3150.00	3130.00	1140.00	1160.00
49	20.00	3130.00	3110.00	1160.00	1180.00
50	20.00	3110.00	3090.00	1180.00	

PRINTOUT OF ROCK-TYPE INFORMATION FOR RECORDS [1] TO [25]

GEOLOGICAL AND GEOTECHNICAL DATA

REC	STAT	ROCK CODE	DESCRIPTION	RELATIVE DENSITY [tn/bcf]	PEN	SLOPE ANGLES [DEGREES]							
						NW	N	NE	W	E	SW	S	SE
1	1	20	2ACD ribbon banded graphitic quartzite	.085	1	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
2	1	21	2ACD-ribbon banded graphitic quartzite/basal horizon	.085	1	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
3	1	22	2ACD ribbon banded graphitic quartzite/middle horizon	.085	1	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
4	1	23	2ACD ribbon banded graphitic quartzite/upper horizon	.085	1	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
5	1	30	2BCD pyritic quartzite	.092	2	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
6	1	31	2BCD pyritic quartzite/basal horizon	.090	2	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
7	1	32	2BCD pyritic quartzite/middle horizon	.082	2	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
8	1	33	2BCD pyritic quartzite/upper horizon	.092	2	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
9	1	40	2EC semi-massive quartzose pyritic sulphides	.104	4	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
10	1	50	2EF pyritic massive sulphides	.112	4	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
11	1	60	2EFG baritic massive sulphides	.113	4	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
12	1	70	2H pyrrhotitic massive sulphides	.105	5	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
13	1	80	1H/2ABCDEFG Altered metabasite interbanded with ore	.094	4	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
14	1	100	1D0/1C0/1CD schist and phyllite waste	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
15	1	110	1D2/1E0 graphitic schist and phyllite	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
16	1	120	2L/1D4 altered schist and phyllite (WME)	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
17	1	130	1H/1F Altered metabasite	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
18	1	150	3A basal graphitic unit of 3D Calc-silicate	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
19	1	160	3D Calc-silicate	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
20	1	170	3D BXA Calc-silicate breccia	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
21	1	180	10E Biotite hornblende quartz diorite	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
22	1	190	10F Smokey quartz feldspar porphyry	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
23	1	300	Unconsolidated overburden	.060	7	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5
24	1	400	Partially above topography	.076	7	45.0	39.0	36.5	45.0	38.5	45.0	45.0	45.0
25	1	500	Air	.000	0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0

010765

PRINTOUT OF ROCK-TYPE INFORMATION FOR RECORDS [1] TO [25]

MINING COST DATA

REC	STAT	ROCK DESCRIPTION CODE	COST DATA [Cdn \$ PER bcf]				
			DRILLING	BLASTING	LOADING	FIXED HAULAGE	MINING SERVICES
1	1	20 2ACD ribbon banded graphitic quartzite	.0000	.0000	.0000	.0000	.0000
2	1	21 2ACD-ribbon banded graphitic quartzite/basal horizon	.0000	.0000	.0000	.0000	.0000
3	1	22 2ACD ribbon banded graphitic quartzite/middle horizon	.0000	.0000	.0000	.0000	.0000
4	1	23 2ACD ribbon banded graphitic quartzite/upper horizon	.0000	.0000	.0000	.0000	.0000
5	1	30 2BCD pyritic quartzite	.0000	.0000	.0000	.0000	.0000
6	1	31 2BCD pyritic quartzite/basal horizon	.0000	.0000	.0000	.0000	.0000
7	1	32 2BCD pyritic quartzite/middle horizon	.0000	.0000	.0000	.0000	.0000
8	1	33 2BCD pyritic quartzite/upper horizon	.0000	.0000	.0000	.0000	.0000
9	1	40 2EC semi-massive quartzose pyritic sulphides	.0000	.0000	.0000	.0000	.0000
10	1	50 2EF pyritic massive sulphides	.0000	.0000	.0000	.0000	.0000
11	1	60 2EFG baritic massive sulphides	.0000	.0000	.0000	.0000	.0000
12	1	70 2H pyrrhotitic massive sulphides	.0000	.0000	.0000	.0000	.0000
13	1	80 1H/2ABCDEFG Altered metabasite interbanded with ore	.0000	.0000	.0000	.0000	.0000
14	1	100 1D0/1C0/1CD schist and phyllite waste	.0000	.0000	.0000	.0000	.0000
15	1	110 1D2/1E0 graphitic schist and phyllite	.0000	.0000	.0000	.0000	.0000
16	1	120 2L/1D4 altered schist and phyllite (WNE)	.0000	.0000	.0000	.0000	.0000
17	1	130 1H/1F Altered metabasite	.0000	.0000	.0000	.0000	.0000
18	1	150 3A basal graphitic unit of 3D Calc-silicate	.0000	.0000	.0000	.0000	.0000
19	1	160 3D Calc-silicate	.0000	.0000	.0000	.0000	.0000
20	1	170 3D BXA Calc-silicate breccia	.0000	.0000	.0000	.0000	.0000
21	1	180 10E Biotite hornblende quartz diorite	.0000	.0000	.0000	.0000	.0000
22	1	190 10F Smokey quartz feldspar porphyry	.0000	.0000	.0000	.0000	.0000
23	1	300 Unconsolidated overburden	.0000	.0000	.0000	.0000	.0000
24	1	400 Partially above topography	.0000	.0000	.0000	.0000	.0000
25	1	500 Air	.0000	.0000	.0000	.0000	.0000

Rock Mdz.

Notes on the FARO F8701 Rock Type Model

1.) Introduction

Rock types for the F8701 model blocks are interpolated from regularly spaced, digitized geological cross sections; each row of the model corresponds to a unique cross sectional geology interpolation. In this initial stage of the F8701 model, only the cross sections from 116+070 to 125+000 are included in the block model.

2.) Geology Cross Section Interpretation

The most extensive drilling on the Faro deposit has been completed on the +000 cross and long sections. These sections form a 43m (141 feet) rectangular grids of drill holes. Selected fill in drilling was completed in 1986 on the +000 and +070 cross and long sections.

Preparatory to constructing the F8701 model, all drill hole lithology information between cross sections 116+070 and 125+000 was plotted on the +000 and +070 cross sections. Drill hole traces and lithologies were projected horizontally onto the sections in a NW-SE direction (normal to the section orientation). For each section only the drill hole traces occurring within an offset distance of 12.2m (40 feet) from the section were plotted on that section. Because the plotted sections are regularly spaced every 21.5m (70 feet), this 12.2m (40 feet) offset distance results in a 3m (10 foot) overlap of drill hole information between adjacent sections. A total of 18 sections were plotted in the area of interest. The 1986 drillholes are included in the appropriate cross sections.

Drill hole traces and lithologies were also plotted on all +000 long sections between sections 17+000 and 28+000. These sections are regularly spaced every 43m (141 feet). Again all drill hole data was projected horizontally normal to the section orientation. For the long sections the offset distance for including a drill hole in a particular section is 21.5m (70 feet).

Summary assay data for each drill hole was manually plotted on the cross and long sections. In addition outcrops from bench plan surface pit geology maps were compiled on all the sections. This information, although limited in extent, proved useful in the subsequent geological interpretation of the sections.

Geological interpretation for each cross section was restricted to the area between long sections 14+000 and 29+000 and elevations 2900 feet and 4030 feet. With respect to the F8701 blocks, this includes all blocks from columns 29 through 113 for all benches below (and including) bench 7. Major effort was spent trying to generate an internally consistent set of cross section interpretations. During this exercise the long

sections were used dominantly as a check for fault and intrusive dyke locations. The long sections were not interpreted and systematically incorporated into the cross section geology because of time constraints.

Initially the geology was interpreted on the +000 cross sections because they contained the most extensive drill hole control. Adjacent sections were compared and adjusted to insure continuity of major geological structures and lithologic units. Surface geology outcrops were especially useful in resolving fault and dyke locations and orientations on section.

Next the geology for the +070 cross sections was interpolated from the completed adjacent +000 sections. Limited drill hole data, especially in the northeast part of the deposit, helped constrain and enhance the geological interpretation on these sections. Adjustments were made in all the +000 and +070 sections to improve the internal consistency of the geological interpretation.

Finally the geology for the +035 and +105 cross sections was interpolated from the adjacent +000 and +070 sections. Interpolation of the geology to these sections resulted in a smoothing and averaging of the variations encountered between the adjacent +000 and +070 sections. This smoothing is especially relevant for intrusive dykes and faults because these features do not trend parallel to the major structural grain of the deposit.

This procedure resulted in a (largely) internally consistent set of 35 geological cross sections regularly spaced every 10.9m (35.36 feet). Each section corresponds to a separate row in the F8701 model. The sections have incorporated all 1986 drilling results and all recent geology pit surface mapping. Each of the sections was digitized and interpolated into the F8701 rock type model.

PC-MINE VERSION 1.10
SERIAL NO : 20000
2/1987

GEMCOM SERVICES INC.
Faro FB701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 3.02
PAGE 1

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 39

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
1	116+070;1	116B	160	179
2	116+070;2	116B	160	3
3	116+070;3	116B	150	56
4	116+070;4	116B	150	26
5	116+070;5	116B	130	10
6	116+070;6	116B	130	11
7	116+070;7	116B	110	2
8	116+070;8	116B	110	13
9	116+070;9	116B	110	2
10	116+070;10	116B	120	0
11	116+070;11	116B	120	5
12	116+070;12	116B	110	17
13	116+070;13	116B	110	0
14	116+070;14	116B	120	0
15	116+070;15	116B	110	4
16	116+070;16	116B	120	0
17	116+070;17	116B	120	30
18	116+070;18	116B	120	14
19	116+070;19	116B	23	1
20	116+070;20	116B	50	1
21	116+070;21	116B	21	2
22	116+070;22	116B	23	6
23	116+070;23	116B	23	11
24	116+070;24	116B	50	7
25	116+070;25	116B	21	20
26	116+070;26	116B	70	1
27	116+070;27	116B	70	1
28	116+070;28	116B	50	19
29	116+070;29	116B	32	2
30	116+070;30	116B	21	10
31	116+070;31	116B	70	2
32	116+070;32	116B	180	825
33	116+070;33	116B	180	48
34	116+070;34	116B	180	326

PC-MINE VERSION 1.10
SERIAL NO : 20000
2/1987

GEMCOM SERVICES INC.
Faro FB701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 3.09
PAGE 6

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : Geology of Cross Section 116+070

CREATED ON : 11/ 2/1987

SECTION ALONG ROW : 39 FROM COLUMN [126] TO COLUMN [128] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

126 127 128

	126	127	128
1 :	100	100	100
2 :	100	100	100
3 :	100	100	100
4 :	100	100	100
5 :	100	100	100
6 :	100	100	100
7 :	100	100	100
8 :	100	100	100
9 :	100	100	100
10 :	100	100	100
11 :	100	100	100
12 :	100	100	100
13 :	100	100	100
14 :	100	100	100
15 :	100	100	100
16 :	100	100	100
17 :	100	100	100
18 :	100	100	100
19 :	100	100	100
20 :	100	100	100
21 :	100	100	100
22 :	100	100	100
23 :	100	100	100
24 :	100	100	100
25 :	100	100	100
26 :	100	100	100
27 :	100	100	100
28 :	100	100	100
29 :	100	100	100
30 :	100	100	100
31 :	100	100	100
32 :	100	100	100
33 :	100	100	100
34 :	100	100	100
35 :	100	100	100
36 :	100	100	100
37 :	100	100	100
38 :	100	100	100
39 :	100	100	100
40 :	100	100	100
41 :	100	100	100
42 :	100	100	100
43 :	100	100	100

PC-MINE VERSION 1.10
SERIAL NO : 20000
/ 2/1987

GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 3.09
PAGE 12

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : Geology of Cross Section 116+070

CREATED ON : 11/ 2/1987

SECTION ALONG ROW : 39 FROM COLUMN [126] TO COLUMN [128] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

126 127 128

44	100	100	100
45	100	100	100
46	100	100	100
47	100	100	100
48	100	100	100
49	100	100	100
50	100	100	100

PC-MINE VERSION 1.10
SERIAL NO : 20000
1987

GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 3.02
PAGE 1

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 40

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
35	116+105;35	116C	160	189
36	116+105;36	116C	160	5
37	116+105;37	116C	150	62
38	116+105;38	116C	150	29
39	116+105;39	116C	130	11
40	116+105;40	116C	130	15
41	116+105;41	116C	110	12
42	116+105;42	116C	120	6
43	116+105;43	116C	110	3
44	116+105;44	116C	120	0
45	116+105;45	116C	110	15
46	116+105;46	116C	110	0
47	116+105;47	116C	120	4
48	116+105;48	116C	110	5
49	116+105;49	116C	120	2
50	116+105;50	116C	120	29
51	116+105;51	116C	120	17
52	116+105;52	116C	23	1
53	116+105;53	116C	50	2
54	116+105;54	116C	21	3
55	116+105;55	116C	23	9
56	116+105;56	116C	50	6
57	116+105;57	116C	70	1
58	116+105;58	116C	21	20
59	116+105;59	116C	23	11
60	116+150;60	116C	33	1
61	116+105;61	116C	70	0
62	116+105;62	116C	70	0
63	116+105;63	116C	50	27
64	116+105;64	116C	32	2
65	116+105;65	116C	60	1
66	116+105;66	116C	70	0
67	116+105;67	116C	21	17
68	116+105;68	116C	70	2
69	116+105;69	116C	180	1772
70	116+105;70	116C	100	273
***	116+105;1681	116C	110	5

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 3/ 4/1987

SECTION ALONG ROW : 40 FROM COLUMN [79] TO COLUMN [103] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103
1 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
3 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
4 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
5 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
6 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7 :	100	100	100	100	100	100	100	100	100	100	100	180	180	100	100	100	100	100	100	100	100	100	100	100	100
8 :	100	100	100	100	100	100	100	100	100	100	100	180	180	180	100	100	100	100	100	100	100	100	100	100	100
9 :	100	100	100	100	100	100	100	100	100	100	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100
10 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100
11 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100
12 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100
13 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100
14 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100
15 :	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100
16 :	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100
17 :	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100
18 :	180	180	180	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	180
19 :	180	180	180	180	180	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
20 :	180	180	180	180	180	180	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
21 :	180	180	180	180	180	180	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
22 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100
23 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100
24 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100
25 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100
26 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100
27 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100
28 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100
29 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100
30 :	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100
31 :	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100
32 :	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100
33 :	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100	100
34 :	100	100	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100	100
35 :	100	100	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100	100
36 :	100	100	100	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100	100
37 :	100	100	100	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100	100
38 :	100	100	100	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100	100
39 :	100	100	100	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100	100
40 :	100	100	100	180	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	100	180
41 :	100	100	100	100	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	100	180	180
42 :	100	100	100	100	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	100	100	180	180	180
43 :	100	100	100	100	180	180	180	180	180	180	180	180	100	100	100	100	100	100	100	100	180	180	180	180	180

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GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

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GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 41

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
71	117+000;71	117	160	201
72	117+000;72	117	160	12
73	117+000;73	117	150	64
74	117+000;74	117	150	35
75	117+000;75	117	130	13
76	117+000;76	117	130	13
77	117+000;77	117	110	4
78	117+000;78	117	110	13
79	117+000;79	117	120	3
80	117+000;80	117	110	7
81	117+000;81	117	110	12
82	117+000;82	117	120	4
83	117+000;83	117	120	24
84	117+000;84	117	110	5
85	117+000;85	117	120	14
86	117+000;86	117	120	14
87	117+000;87	117	120	1
88	117+000;88	117	23	1
89	117+000;89	117	50	2
90	117+000;90	117	21	5
91	117+000;91	117	23	10
92	117+000;50	117	50	8
93	117+000;93	117	21	20
94	117+000;94	117	70	0
95	117+000;95	117	70	1
96	117+000;96	117	32	0
97	117+000;97	117	23	9
98	117+000;98	117	33	5
99	117+000;99	117	70	0
100	117+000;100	117	70	1
101	117+000;101	117	32	1
102	117+000;102	117	50	34
103	117+000;103	117	60	4
104	117+000;104	117	70	0
105	117+000;105	117	70	2
106	117+000;106	117	21	24
107	117+000;107	117	180	1810
108	117+000;108	117	100	79

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 42

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
109	117+035;109	117A	160	210
110	117+035;110	117A	160	5
111	117+035;111	117A	160	39
112	117+035;112	117A	150	66
113	117+035;113	117A	150	26
114	117+000;114	117A	150	27
115	117+000;115	117A	130	12
116	117+035;116	117A	130	12
117	117+035;117	117A	130	2
118	117+035;118	117A	130	5
119	117+035;119	117A	110	4
120	117+035;120	117A	110	11
121	117+035;121	117A	110	9
122	117+035;122	117A	120	0
123	117+035;123	117A	120	5
124	117+035;124	117A	120	1
125	117+035;125	117A	110	8
126	117+035;126	117A	110	13
127	117+035;127	117A	120	0
128	117+035;128	117A	120	19
129	117+035;129	117A	120	4
130	117+035;130	117A	120	24
131	117+035;131	117A	120	15
132	117+035;132	117A	120	7
133	117+035;133	117A	120	8
134	117+035;134	117A	150	6
135	117+035;135	117A	23	12
136	117+035;136	117A	23	8
137	117+035;137	117A	33	5
138	117+035;138	117A	33	4
140	117+035;140	117A	50	60
141	117+035;141	117A	50	2
142	117+035;142	117A	21	6
143	117+035;143	117A	21	22
144	117+035;144	117A	70	0
145	117+035;145	117A	70	0
146	117+035;146	117A	32	0
147	117+035;147	117A	32	1
148	117+035;148	117A	70	0

149 117+035;149
150 117+035;150
151 117+035;151
152 117+035;152
153 117+035;153
154 117+035;154
155 117+035;155
156 117+035;156
157 117+035;157
158 117+035;158
*** 117+035;1682
*** 117+035;1683
*** 117+035;1684

117A 70 0
117A 21 36
117A 70 1
117A 60 9
117A 70 1
117A 70 0
117A 32 6
117A 21 8
117A 23 2
117A 180 1605
117A 50 9
117A 50 2
117A 50 1

Deleted polygon 139

Replaced it with polygons 1682, 1683, 1684

Manually corrected

Bench: 29

Column: 68

Row: 42

to 180

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GEMCOM SERVICES INC.
Faro FB701 Geological Reserve Model

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MODULE 3.09
PAGE 4

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 3/ 4/1987

SECTION ALONG ROW : 42 FROM COLUMN [104] TO COLUMN [113] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

	104	105	106	107	108	109	110	111	112	113
1 :	100	100	100	100	100	100	100	100	100	100
2 :	100	100	100	100	100	100	100	100	100	100
3 :	100	100	100	100	100	100	100	100	100	100
4 :	100	100	100	100	100	100	100	100	100	100
5 :	100	100	100	100	100	100	100	100	100	100
6 :	100	100	100	100	100	100	100	100	100	100
7 :	180	180	180	180	180	180	180	180	180	100
8 :	180	180	180	180	180	180	180	180	100	100
9 :	180	180	180	180	180	180	180	180	100	100
10 :	180	180	180	180	180	180	180	180	100	100
11 :	180	180	180	180	180	180	180	180	100	100
12 :	180	180	180	180	180	180	180	180	100	100
13 :	180	180	180	180	180	180	180	180	100	100
14 :	180	180	180	180	180	180	180	180	100	100
15 :	180	180	180	180	180	180	180	100	100	100
16 :	180	180	180	180	180	180	180	100	100	100
17 :	180	180	180	180	180	180	180	100	100	100
18 :	180	180	180	180	180	180	180	100	100	100
19 :	180	180	180	180	180	180	180	100	100	100
20 :	180	180	180	180	180	180	180	100	100	100
21 :	180	180	180	180	180	180	180	100	100	100
22 :	180	180	180	180	180	180	180	100	100	100
23 :	180	180	180	180	180	180	180	100	100	100
24 :	180	180	180	180	180	180	180	100	100	100
25 :	180	180	180	180	180	180	180	100	100	100
26 :	180	180	180	180	180	180	180	100	100	100
27 :	180	180	180	180	180	180	180	100	100	100
28 :	180	180	180	180	180	180	180	100	100	100
29 :	180	180	180	180	180	180	180	100	100	100
30 :	180	180	180	180	180	180	180	100	100	100
31 :	180	180	180	180	180	180	180	100	100	100
32 :	180	180	180	180	180	180	180	100	100	100
33 :	180	180	180	180	180	180	180	100	100	100
34 :	180	180	180	180	180	180	180	100	100	100
35 :	180	180	180	180	180	180	180	100	100	100
36 :	180	180	180	180	180	100	100	100	100	100
37 :	180	180	180	180	180	100	100	100	100	100
38 :	180	180	180	180	180	100	100	100	100	100
39 :	180	180	180	180	180	100	100	100	100	100
40 :	180	180	180	180	100	100	100	100	100	100
41 :	180	180	180	180	100	100	100	100	100	100
42 :	180	180	180	180	100	100	100	100	100	100
43 :	180	180	180	180	100	100	100	100	100	100

PC-MINE VERSION 1.10
SERIAL NO : 20000
1987

GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 3.09
PAGE 8

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 3/ 4/1987

SECTION ALONG ROW : 42 FROM COLUMN [104] TO COLUMN [113] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

	104	105	106	107	108	109	110	111	112	113
44 !	180	180	180	180	100	100	100	100	100	100
45 !	180	180	180	180	100	100	100	100	100	100
46 !	180	180	180	180	100	100	100	100	100	100
47 !	180	180	180	100	100	100	100	100	100	100
48 !	180	180	180	100	100	100	100	100	100	100
49 !	180	180	180	100	100	100	100	100	100	100
50 !	180	180	180	100	100	100	100	100	100	100

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 43

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
159	117+070;159	117B	150	69
160	117+070;160	117B	160	218
161	117+070;161	117B	130	13
162	117+070;162	117B	110	4
163	117+070;120	117B	120	1
164	117+070;164	117B	110	9
165	117+070;165	117B	160	8
166	117+070;166	117B	150	30
167	117+070;167	117B	160	3
168	117+070;168	117B	130	11
169	117+070;110	117B	110	14
170	117+070;170	117B	120	4
171	117+070;171	117B	110	12
172	117+070;172	117B	120	0
173	117+070;173	117B	160	78
174	117+070;174	117B	150	27
175	117+070;175	117B	130	1
176	117+070;176	117B	130	3
177	117+070;177	117B	110	9
178	117+070;178	117B	120	21
179	117+070;179	117B	110	6
180	117+070;180	117B	120	8
181	117+070;181	117B	120	14
182	117+070;182	117B	120	6
183	117+070;183	117B	120	24
184	117+070;184	117B	120	14
185	117+070;185	117B	120	8
186	117+070;186	117B	120	7
187	117+070;187	117B	150	16
188	117+070;188	117B	100	0
189	117+070;189	117B	21	7
190	117+070;190	117B	23	13
191	117+070;191	117B	50	13
192	117+070;192	117B	21	22
193	117+070;193	117B	70	1
194	117+070;194	117B	70	0
195	117+070;195	117B	32	0
196	117+070;196	117B	70	1
197	117+070;197	117B	23	1

198 117+070;198
199 117+070;199
200 117+070;200
201 117+070;201
202 117+070;202
203 117+070;203
204 117+070;204
205 117+070;205
206 117+070;206
207 117+070;207
208 117+070;208
209 117+070;209
210 117+070;210
211 117+070;211
212 117+070;212
213 117+070;213
214 117+070;214
215 117+070;215

117B 50 74
117B 21 37
117B 70 2
117B 33 5
117B 60 20
117B 70 5
117B 20 2
117B 70 0
117B 33 6
117B 32 7
117B 50 13
117B 40 0
117B 40 1
117B 21 7
117B 23 2
117B 50 3
117B 180 1245
117B 180 25

Manually edited

Bench: 32

Row: 43

to 50

Column: 69

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 2/ 4/1987

SECTION ALONG ROW : 43 FROM COLUMN [104] TO COLUMN [113] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

	104	105	106	107	108	109	110	111	112	113
1 :	100	100	100	100	100	100	100	100	100	100
2 :	100	100	100	100	100	100	100	100	100	100
3 :	100	100	100	100	100	100	100	100	100	100
4 :	100	100	100	100	100	100	100	100	100	100
5 :	100	100	100	100	100	100	100	100	100	100
6 :	100	100	100	100	100	100	100	100	100	100
7 :	180	180	180	180	180	180	180	100	100	100
8 :	180	180	180	180	180	180	100	100	100	100
9 :	180	180	180	180	180	180	100	100	100	100
10 :	180	180	180	180	180	180	100	100	100	100
11 :	180	180	180	180	180	180	100	100	100	100
12 :	180	180	180	180	180	180	100	100	100	100
13 :	180	180	180	180	180	180	100	100	100	100
14 :	180	180	180	180	180	180	100	100	100	100
15 :	180	180	180	180	180	180	100	100	100	100
16 :	180	180	180	180	180	180	100	100	100	100
17 :	180	180	180	180	180	180	100	100	100	100
18 :	180	180	180	180	180	180	100	100	100	100
19 :	180	180	180	180	180	180	100	100	100	100
20 :	180	180	180	180	180	180	100	100	100	100
21 :	180	180	180	180	180	180	100	100	100	100
22 :	180	180	180	180	180	180	100	100	100	100
23 :	180	180	180	180	180	180	100	100	100	100
24 :	180	180	180	180	180	180	100	100	100	100
25 :	180	180	180	180	180	180	100	100	100	100
26 :	180	180	180	180	180	180	100	100	100	100
27 :	180	180	180	180	180	180	100	100	100	100
28 :	180	180	180	180	180	180	100	100	100	100
29 :	180	180	180	180	180	180	100	100	100	100
30 :	180	180	180	180	180	180	100	100	100	100
31 :	180	180	180	180	180	180	100	100	100	100
32 :	180	180	180	180	180	180	100	100	100	100
33 :	180	180	180	180	180	180	100	100	100	100
34 :	180	180	180	180	100	100	100	100	100	100
35 :	180	180	180	180	100	100	100	100	100	100
36 :	180	180	180	180	100	100	100	100	100	100
37 :	180	180	180	180	100	100	100	100	100	100
38 :	180	180	180	180	100	100	100	100	100	100
39 :	180	180	180	100	100	100	100	100	100	100
40 :	180	180	180	100	100	100	100	100	100	100
41 :	180	180	180	100	100	100	100	100	100	100
42 :	180	180	180	100	100	100	100	100	100	100
43 :	180	180	180	100	100	100	100	100	100	100

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GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

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PAGE 1

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 44

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
216	117+105;216	117C	160	223
217	117+105;217	117C	150	73
218	117+105;218	117C	130	13
219	117+105;219	117C	110	3
220	117+105;220	117C	120	4
221	117+105;221	117C	110	10
222	117+105;222	117C	160	8
223	117+105;223	117C	150	27
224	117+105;224	117C	130	12
225	117+105;225	117C	110	14
226	117+105;226	117C	120	3
227	117+105;227	117C	110	12
228	117+105;228	117C	160	107
229	117+105;229	117C	150	33
230	117+105;230	117C	130	2
231	117+105;231	117C	120	0
232	117+000;232	117C	120	56
233	117+105;233	117C	110	28
234	117+105;234	117C	130	2
235	117+105;235	117C	150	13
236	117+105;236	117C	160	13
237	117+105;237	117C	120	5
238	117+105;238	117C	120	0
239	117+105;239	117C	120	10
240	117+105;240	117C	120	0
241	117+105;241	117C	120	0
242	117+105;242	117C	120	7
243	117+105;243	117C	120	22
244	117+105;244	117C	120	29
245	117+105;245	117C	120	12
246	117+105;246	117C	50	13
247	117+105;247	117C	21	24
248	117+105;248	117C	32	2
249	117+105;249	117C	70	2
250	117+105;250	117C	70	1
251	117+105;251	117C	50	102
252	117+105;252	117C	23	4
253	117+105;253	117C	33	6
254	117+105;254	117C	21	27

255	117+105;255	117C	70	2
256	117+105;256	117C	60	12
257	117+105;257	117C	70	0
258	117+105;258	117C	20	2
259	117+105;259	117C	70	3
260	117+105;260	117C	32	8
261	117+105;261	117C	33	7
262	117+105;262	117C	60	1
263	117+105;263	117C	60	6
264	117+105;264	117C	40	3
265	117+105;265	117C	40	2
266	117+105;266	117C	70	0
267	117+105;267	117C	40	1
268	117+105;268	117C	50	27
269	117+105;269	117C	21	20
270	117+105;270	117C	33	0
271	117+105;271	117C	60	10
272	117+105;272	117C	33	3
273	117+105;273	117C	33	8
274	117+105;274	117C	50	1
275	117+105;275	117C	40	16
276	117+105;276	117C	21	10
277	117+105;277	117C	21	15
278	117+105;278	117C	40	1
279	117+105;279	117C	23	14
280	117+105;280	117C	23	2
281	117+105;281	117C	50	3
282	117+105;282	117C	21	8
283	117+105;283	117C	180	1
284	117+105;284	117C	180	120
285	117+105;285	117C	180	699

Manually change

Column: 84

Row: 44

Bench: 27

to 50

Done

GEOLOGICAL ROCK-TYPE MODEL

change to 50

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 2/ 4/1987

SECTION ALONG ROW : 44 FROM COLUMN [79] TO COLUMN [103] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103
1 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
3 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
4 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
5 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
6 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7 :	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	100	180	180	180	180	180	180	180	180	180
8 :	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100	180	180	180	180	180	180	180	180	180	180
9 :	180	180	180	180	180	180	180	180	180	180	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180
10 :	180	180	180	180	180	180	180	180	180	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180
11 :	100	100	100	100	100	180	180	180	180	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180
12 :	100	100	100	100	100	100	100	180	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180
13 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180
14 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180
15 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180
16 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	120	180	180	180	180	180	180	180	180	180
17 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	120	120	40	120	120	120	180	180	180	180
18 :	100	100	100	100	100	100	100	100	100	100	100	100	100	60	60	60	33	120	120	120	120	33	33	33	40
19 :	100	100	100	100	100	100	180	180	180	180	180	60	60	60	60	120	120	33	50	33	40	40	40	40	21
20 :	100	100	100	100	100	180	180	180	180	180	180	60	60	33	100	120	33	33	40	40	40	40	21	21	21
21 :	100	100	100	100	100	180	180	180	180	180	180	33	100	100	40	40	40	40	40	21	21	21	21	21	21
22 :	100	100	120	100	100	100	60	180	180	180	180	180	180	180	180	40	40	21	21	21	21	21	21	21	21
23 :	120	120	100	100	100	60	60	180	180	180	180	180	180	180	180	180	180	180	180	180	180	21	21	21	21
24 :	100	100	100	100	120	60	60	60	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
25 :	100	120	120	120	50	50	50	40	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
26 :	120	120	120	50	40	40	50	50	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
27 :	33	50	60	50	50	100	40	50	30	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
28 :	50	50	50	50	40	50	50	50	50	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
29 :	50	50	50	50	50	50	50	50	40	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
30 :	50	21	21	21	21	21	21	21	50	30	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
31 :	120	21	21	21	21	21	21	21	50	50	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
32 :	120	120	120	120	120	120	120	21	21	50	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
33 :	100	120	120	120	100	100	100	120	21	21	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
34 :	100	100	100	100	100	100	100	100	21	21	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
35 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
36 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
37 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
38 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
39 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
40 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
41 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100
42 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	180	180	100	100
43 :	100	100	100	100	100	100	100	100	100	180	180	180	180	180	180	180	180	180	180	180	180	100	100	100	100

PC-MINE VERSION 1.10
SERIAL NO : 20000
1987

GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 3.09
PAGE 8

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 2/ 4/1987

SECTION ALONG ROW : 44 FROM COLUMN [104] TO COLUMN [113] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

104 105 106 107 108 109 110 111 112 113

44 : 100 100 100 100 100 100 100 100 100 100
45 : 100 100 100 100 100 100 100 100 100 100
46 : 100 100 100 100 100 100 100 100 100 100
47 : 100 100 100 100 100 100 100 100 100 100
48 : 100 100 100 100 100 100 100 100 100 100
49 : 100 100 100 100 100 100 100 100 100 100
50 : 100 100 100 100 100 100 100 100 100 100

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 45

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
286	118+000;286	118	160	357
287	118+000;287	118	150	77
288	118+000;288	118	130	17
289	118+000;289	118	110	5
290	118+000;290	118	120	3
291	118+000;291	118	110	13
292	118+000;292	118	150	24
293	118+000;293	118	130	11
294	118+000;294	118	110	16
295	118+000;295	118	120	1
296	118+000;296	118	110	9
297	118+000;297	118	150	29
298	118+000;298	118	130	2
299	118+000;299	118	130	2
300	118+000;300	118	120	0
301	118+000;301	118	120	57
302	118+000;302	118	110	25
303	118+000;303	118	150	10
304	118+000;304	118	160	41
305	118+000;305	118	180	0
306	118+000;306	118	110	4
307	118+000;307	118	100	2
308	118+000;308	118	120	46
309	118+000;309	118	120	2
310	118+000;310	118	100	7
311	118+000;311	118	120	4
312	118+000;312	118	120	8
313	118+000;313	118	120	19
314	118+000;314	118	120	23
315	118+000;315	118	120	13
316	118+000;316	118	120	3
317	118+000;317	118	120	7
318	118+000;318	118	180	7
319	118+000;319	118	160	0
320	118+000;320	118	180	1
321	118+000;321	118	180 110	1
322	118+000;322	118	120	1
323	118+000;323	118	21	11
324	118+000;325	118	50	17
325	118+000;326	118	32	0

326	118+000;327	118	70	2
327	118+000;328	118	21	23
328	118+000;329	118	70	0
329	118+000;330	118	23	3
330	118+000;331	118	33	17
331	118+000;332	118	50	103
332	118+000;333	118	60	4
333	118+000;334	118	32	7
334	118+000;335	118	70	1
335	118+000;336	118	21	29
336	118+000;337	118	70	2
337	118+000;339	118	60	3
338	118+000;340	118	60	24
339	118+000;341	118	33	2
340	118+000;342	118	50	61
341	118+000;343	118	40	48
342	118+000;344	118	33	8
343	118+000;345	118	50	1
344	118+000;346	118	21	53
345	118+000;347	118	40	8
346	118+000;348	118	70	0
347	118+000;349	118	50	1
348	118+000;350	118	33	1
349	118+000;351	118	40	1
350	118+000;352	118	21	29
351	118+000;353	118	50	0
352	118+000;354	118	33	1
353	118+000;355	118	23	2
354	118+000;356	118	50	4
355	118+000;357	118	23	16
356	118+000;358	118	180	1
357	118+000;359	118	180	45
358	118+000;360	118	180	291

edit rock type for block 321 Done

Manually change

Bench : 23 Done
 Row : 45 to 110
 Column: 57

Bench : 30 Done
 Row : 45 to 50
 Column: 80

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 46

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
359	118+035;359	118A	160	239
360	118+035;360	118A	150	75
361	118+035;361	118A	130	15
362	118+035;362	118A	110	6
363	118+035;363	118A	160	11
364	118+035;364	118A	150	24
365	118+035;365	118A	130	12
366	118+035;366	118A	110	11
367	118+035;367	118A	160	106
368	118+035;368	118A	150	24
369	118+035;369	118A	130	1
370	118+035;370	118A	120	1
371	118+035;371	118A	120	41
372	118+035;372	118A	160	68
373	118+035;373	118A	150	21
374	118+035;374	118A	130	4
375	118+035;375	118A	110	21
376	118+035;376	118A	120	85
377	118+035;377	118A	120	1
378	118+035;378	118A	100	5
379	118+035;379	118A	120	11
380	118+035;380	118A	120	17
381	118+035;381	118A	120	13
382	118+035;382	118A	110	4
383	118+035;383	118A	120	16
384	118+035;384	118A	110	1
385	118+035;385	118A	120	5
386	118+035;386	118A	23	0
387	118+035;387	118A	50	4
388	118+035;388	118A	21	10
389	118+035;389	118A	23	15
390	118+035;390	118A	21	23
391	118+035;391	118A	50	17
392	118+035;392	118A	32	0
393	118+035;393	118A	70	2
394	118+035;394	118A	70	0
395	118+035;395	118A	33	20
396	118+035;396	118A	50	77
397	118+035;397	118A	60	23

398 118+035;398
 399 118+035;399
 400 118+035;400
 401 118+035;401
 402 118+035;402
 403 118+035;403
 404 118+035;404
 405 118+035;405
 406 118+035;406
 407 118+035;407
 408 118+035;408
 409 118+035;409
 410 118+035;410
 411 118+035;411
 412 118+035;412
 413 118+035;413
 414 118+035;414

118A 32 5
 118A 23 5
 118A 70 0
 118A 21 33
 118A 70 1
 118A 70 2
 118A 60 5
 118A 40 1
 118A 33 2
 118A 60 25
 118A 40 68
 118A 50 54
 118A 21 129
 118A 40 3
 118A 50 2
 118A 180 2
 118A 180 13

change

Bench : 32
 Row : 46 to 50 Done
 Column: 42

Bench : 13
 Row : 46 to 160 Done
 Column: 56

Bench : 8
 Row : 46 to 180 Done
 Column: 71

Bench : 23
 Row : 46 to 40 Done
 Column: 91

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 47

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
415	118+070:415	118B	160	245
416	118+070:416	118B	150	74
417	118+070:417	118B	130	17
418	118+070:418	118B	110	9
419	118+070:419	118B	160	13
420	118+070:420	118B	150	25
421	118+070:421	118B	130	14
422	118+070:422	118B	110	14
423	118+070:423	118B	120	0
424	118+070:424	118B	110	1
425	118+070:425	118B	110	4
426	118+070:426	118B	120	0
427	118+070:427	118B	160	94
428	118+070:428	118B	150	22
429	118+070:429	118B	130	1
430	118+070:430	118B	160	70
431	118+070:431	118B	150	26
432	118+070:432	118B	130	2
433	118+070:433	118B	110	18
434	118+070:434	118B	120	33
435	118+070:435	118B	120	7
436	118+070:436	118B	120	79
437	118+070:437	118B	100	5
438	118+070:438	118B	120	8
439	118+070:439	118B	120	12
440	118+070:440	118B	110	1
441	118+070:441	118B	120	19
442	118+070:442	118B	120	15
443	118+070:443	118B	23	5
444	118+070:444	118B	50	5
445	118+070:445	118B	21	11
446	118+070:446	118B	23	11
447	118+070:447	118B	33	0
448	118+070:448	118B	50	21
449	118+070:449	118B	32	0
450	118+070:450	118B	70	3
451	118+070:451	118B	21	22
452	118+070:452	118B	21	0

454 118+070;454
455 118+070;455
456 118+070;456
457 118+070;457
458 118+070;458
459 118+070;459
460 118+070;460
61 118+070;461
462 118+070;462
463 118+070;463
464 118+070;464
465 118+070;465
466 118+070;466
467 118+070;467
468 118+070;468
469 118+070;469
470 118+070;470
471 118+070;471
472 118+070;472
473 118+070;473
474 118+070;474
*** 118+070;1685

118B 33 11
118B 60 62
118B 22 4
118B 70 0
118B 40 2
118B 80 1
118B 70 1
118B 21 29
118B 33 3
118B 80 1
118B 60 14
118B 40 60
118B 33 13
118B 60 1
118B 60 1
118B 21 131
118B 50 55
118B 50 1
118B 50 70
118B 180 2
118B 180 12
118B 120 7

manually edit blocks —

bench: 12
row: 47 to 150
col: 53

bench: 31
row: 47 to 180
col: 58

bench 29
row 47 to 120
col 64

bench 28
row 47 to 33
col 78

bench 20
row 47 to 40
col 103

bench 19
row 47 to 33
col 105

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 48

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
475	118+105;475	118C	160	251
476	118+105;476	118C	150	72
477	118+105;477	118C	130	15
478	118+105;478	118C	110	6
479	118+105;479	118C	160	17
480	118+105;480	118C	150	25
481	118+105;481	118C	130	14
482	118+105;482	118C	110	12
483	118+105;483	118C	120	2
484	118+105;484	118C	110	2
485	118+105;485	118C	160	100
486	118+105;486	118C	150	22
487	118+105;487	118C	130	1
488	118+105;488	118C	130	2
489	118+105;489	118C	110	5
490	118+105;490	118C	120	20
491	118+105;491	118C	110	2
492	118+105;492	118C	160	53
493	118+105;493	118C	150	32
494	118+105;494	118C	110	15
495	118+105;495	118C	120	5
496	118+105;496	118C	120	110
497	118+105;497	118C	120	9
498	118+105;498	118C	120	8
499	118+105;499	118C	110	0
500	118+105;500	118C	120	18
501	118+105;501	118C	110	2
502	118+105;502	118C	23	7
503	118+105;503	118C	50	5
504	118+105;504	118C	21	10
505	118+105;505	118C	23	12
506	118+105;506	118C	50	22
507	118+105;507	118C	21	22
508	118+105;508	118C	70	3
509	118+105;509	118C	70	2
510	118+105;510	118C	33	12
511	118+105;511	118C	60	66
512	118+105;512	118C	50	72
513	118+105;513	118C	50	75

514	118+105;514	118C	22	4
515	118+105;515	118C	32	4
516	118+105;516	118C	70	0
517	118+105;517	118C	40	4
518	118+105;518	118C	80	3
519	118+105;519	118C	33	9
520	118+105;520	118C	80	1
521	118+105;521	118C	50	6
522	118+105;522	118C	40	78
523	118+105;523	118C	50	30
524	118+105;524	118C	21	141
525	118+105;525	118C	50	2
526	118+105;526	118C	180	4
527	118+105;527	118C	180	18
***	118+105;1686	118C	120	5
***	118+105;1687	118C	60	7
***	118+105;1688	118C	120	30
***	118+105;1689	118C	120	8
***	118+105;1690	118C	120	26
***	118+105;1691	118C	120	31

manually edit blocks

bench 12
row 48 to 150
col 54

bench 22
row 48 to 120
col 99

bench 33
row 48 to 120
col 95

bench 21
row 48 to 120
col 107

manually edit blocks

bench 30
rows 49 to 60
col. 60

bench 10
row 49 to 160
col. 79

PC-MINE VERSION 1.10
SERIAL NO : 20000
6/ 4/1987

GEMCOM SERVICES INC.
Faro FB701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 3.02
PAGE 1

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 49

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

528	119+000;528	119	160	380
529	119+000;529	119	150	71
530	119+000;530	119	130	16
531	119+000;531	119	110	8
532	119+000;532	119	150	28
533	119+000;533	119	130	15
534	119+000;534	119	110	12
535	119+000;535	119	110	7
536	119+000;536	119	120	3
537	119+000;537	119	110	2
538	119+000;538	119	150	26
539	119+000;539	119	130	3
540	119+000;540	119	160	43
541	119+000;541	119	130	2
542	119+000;542	119	110	11
543	119+000;543	119	110	5
544	119+000;544	119	120	22
545	119+000;545	119	120	2
546	119+000;546	119	100	7
547	119+000;547	119	100	3
548	119+000;548	119	120	110
549	119+000;549	119	120	6
550	119+000;550	119	120	7
551	119+000;551	119	110	3
552	119+000;552	119	110	4
553	119+000;553	119	120	15
554	119+000;554	119	150	33
555	119+000;555	119	50	6
556	119+000;556	119	21	9
557	119+000;557	119	23	11
558	119+000;558	119	50	25
559	119+000;559	119	70	0
560	119+000;560	119	60	1
561	119+000;561	119	21	4
562	119+000;562	119	70	4
563	119+000;563	119	21	10
564	119+000;564	119	70	2
565	119+000;565	119	33	6
566	119+000;566	119	60	63
567	119+000;567	119	50	72
568	119+000;568	119	21	23
569	119+000;569	119	22	7
570	119+000;570	119	32	5
571	119+000;571	119	70	2
572	119+000;572	119	80	5
573	119+000;573	119	40	7
574	119+000;574	119	30	6
575	119+000;575	119	60	7
576	119+000;576	119	50	6
577	119+000;577	119	33	6
578	119+000;578	119	40	75
579	119+000;579	119	50	25
580	119+000;580	119	21	152
581	119+000;581	119	50	4
582	119+000;582	119	70	0
583	119+000;583	119	23	8
584	119+000;584	119	33	1
585	119+000;585	119	180	2
586	119+000;586	119	180	15
***	119+000;1692	119	100	7
***	119+000;1693	119	100	3

48 : 100
49 : 100
50 : 100

PC-MINE VERSION 1.10
SERIAL NO : 20000
6/ 4/1987

GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 3.09
PAGE 8

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 6/ 4/1987

SECTION ALONG ROW : 49 FROM COLUMN [104] TO COLUMN [113] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

104 105 106 107 108 109 110 111 112 113

44 : 100 100 100 100 100 100 100 100 100 100
45 : 100 100 100 100 100 100 100 100 100 100
46 : 100 100 100 100 100 100 100 100 100 100

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 50

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLDCKS
587	119+035;587	119A	160	257
588	119+035;588	119A	150	70
589	119+035;589	119A	130	16
590	119+035;590	119A	110	8
591	119+035;591	119A	160	26
592	119+035;592	119A	150	36
593	119+035;593	119A	130	12
594	119+035;594	119A	110	14
595	119+035;595	119A	120	3
596	119+035;596	119A	110	4
597	119+035;597	119A	160	92
598	119+035;598	119A	150	19
599	119+035;599	119A	130	1
600	119+035;600	119A	160	47
601	119+035;601	119A	150	30
602	119+035;602	119A	130	4
603	119+035;603	119A	110	10
604	119+035;604	119A	120	19
605	119+035;605	119A	120	1
606	119+035;606	119A	120	0
607	119+035;607	119A	120	109
608	119+035;608	119A	120	8
609	119+035;609	119A	120	7
610	119+035;610	119A	120	6
611	119+035;611	119A	110	1
612	119+035;612	119A	110	3
613	119+035;613	119A	120	19
614	119+035;614	119A	110	1
615	119+035;615	119A	33	2
616	119+035;616	119A	60	4
617	119+035;617	119A	50	19
618	119+105;618	119A	21	16
619	119+035;619	119A	33	7
620	119+035;620	119A	70	1
621	119+035;621	119A	60	62
622	119+035;622	119A	70	2
623	119+035;623	119A	50	80
624	119+035;624	119A	21	27
625	119+035;625	119A	22	2

627	119+035;627
628	119+035;628
629	119+035;629
630	119+035;630
631	119+035;631
632	119+035;632
633	119+035;633
634	119+035;634
635	119+035;635
636	119+035;636
637	119+035;637
638	119+035;638
639	119+035;639
640	119+035;640
641	119+035;641
642	119+035;642
643	119+035;643
644	119+035;644
645	119+035;645
646	119+035;646
***	119+035;1694

119A	70	0
119A	40	2
119A	80	5
119A	40	9
119A	50	2
119A	50	1
119A	60	0
119A	33	4
119A	50	5
119A	40	74
119A	50	22
119A	33	0
119A	21	138
119A	50	4
119A	23	9
119A	23	10
119A	50	6
119A	21	9
119A	190	57
119A	180	17
119A	120	8

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 51

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECDRD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
647	119+070;647	119B	160	258
648	119+070;648	119B	150	70
649	119+070;649	119B	130	12
650	119+070;650	119B	110	11
651	119+070;651	119B	160	31
652	119+070;652	119B	150	39
653	119+070;653	119B	130	8
654	119+070;654	119B	110	11
655	119+070;655	119B	120	1
656	119+070;656	119B	110	0
657	119+070;657	119B	160	90
658	119+070;658	119B	150	11
659	119+070;659	119B	130	0
660	119+070;660	119B	110	1
661	119+070;661	119B	110	0
662	119+070;662	119B	110	7
663	119+070;663	119B	130	2
664	119+070;664	119B	150	27
665	119+070;665	119B	160	56
666	119+070;666	119B	120	14
667	119+070;667	119B	120	5
668	119+070;668	119B	120	98
669	119+070;669	119B	120	7
670	119+070;670	119B	120	6
671	119+070;671	119B	110	1
672	119+070;672	119B	110	4
673	119+070;673	119B	120	7
674	119+070;674	119B	23	9
675	119+070;675	119B	50	6
676	119+070;676	119B	21	11
677	119+070;677	119B	23	5
678	119+070;678	119B	33	5
679	119+070;679	119B	50	17
680	119+070;680	119B	21	14
681	119+070;681	119B	60	4
682	119+070;682	119B	70	2
683	119+070;683	119B	60	51
684	119+070;684	119B	70	3
685	119+070;685	119B	50	81
686	119+070;686	119B	21	39

687	119+070;687
688	119+070;688
689	119+070;689
690	119+070;690
691	119+070;691
692	119+070;692
693	119+070;693
	119+070;694
695	119+070;695
696	119+070;696
697	119+070;697
698	119+070;698
699	119+070;699
700	119+070;700
701	119+000;701
702	119+070;702
703	119+070;703
704	119+070;704

119B	32	0
119B	70	1
119B	33	5
119B	40	2
119B	40	10
119B	50	2
119B	80	6
119B	33	13
119B	50	3
119B	40	59
119B	50	14
119B	50	2
119B	50	8
119B	21	113
119B	33	3
119B	50	3
119B	190	65
119B	180	19

manually edit the following blocks

✓ bench: 12
row: 51 to 150
col: 75

✓ bench: 28
row: 51 to 120
col: 77

✓ bench: 33
row: 51 to 50
col: 74

✓ bench: 18
row: 51 to 190
col: 94

✓ bench: 18
row: 51 to 120
col: 98

✓ bench: 22
row: 51 to 120
col: 102

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 52

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
705	119+105;705	119C	160	254
706	119+105;706	119C	150	71
707	119+105;707	119C	130	9
708	119+105;708	119C	110	6
709	119+105;709	119C	160	35
710	119+105;710	119C	150	42
711	119+105;711	119C	130	7
712	119+105;712	119C	110	9
713	119+105;713	119C	120	0
714	119+105;714	119C	110	0
715	119+105;715	119C	120	0
716	119+105;716	119C	110	2
717	119+105;717	119C	160	77
718	119+105;718	119C	150	6
719	119+105;719	119C	160	63
720	119+105;720	119C	150	24
721	119+105;721	119C	130	3
722	119+105;722	119C	110	4
723	119+105;723	119C	110	2
724	119+105;724	119C	120	3
725	119+105;725	119C	120	4
726	119+105;726	119C	120	4
727	119+ 105 ¹⁰⁵ ;727	119C	120	11
728	119+ 105 ¹⁰⁵ ;728	119C	120	98
729	119+ 105 ¹⁰⁵ ;729	119C	120	9
730	119+105;730	119C	120	23
731	119+105;731	119C	110	1
732	119+105;732	119C	110	0
733	119+105;733	119C	50	5
734	119+105;734	119C	21	10
735	119+105;735	119C	23	2
736	119+105;736	119C	33	7
737	119+105;737	119C	50	13
738	119+105;738	119C	21	60
739	119+105;739	119C	60	4
740	119+105;740	119C	70	2
741	119+105;741	119C	60	50
742	119+ 105 ¹⁰⁵ ;742	119C	50	86
743	119+105;743	119C	70	5

745	119+105;745	119C	33	4
746	119+105;746	119C	23	9
747	119+105;747	119C	70	0
748	119+105;748	119C	40	4
749	119+105;749	119C	70	0
750	119+105;750	119C	33	7
751	119+105;751	119C	80	5
752	119+105;752	119C	40	16
753	119+105;753	119C	50	1
754	119+105;754	119C	32	0
755	119+105;755	119C	40	0
756	119+105;756	119C	33	9
757	119+105;757	119C	50	1
758	119+105;758	119C	33	3
759	119+105;759	119C	40	51
760	119+105;760	119C	50	24
761	119+105;761	119C	21	107
762	119+105;762	119C	50	4
763	119+105;763	119C	190	82
764	119+105;764	119C	180	16
***	119+105;1695	119C	120	4

manually edit blocks

✓ bench 36
row 52 to 23
col 36

✓ bench 35
row 52 to 23
col 40

✓ bench 27
row 52 to 21
col 104

✓ bench 24
row 52 to 21
col 107

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 53

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
765	120+000;765	120	160	355
766	120+000;766	120	150	71
767	120+000;767	120	130	9
768	120+000;768	120	110	6
769	120+000;769	120	150	48
770	120+000;770	120	110	7
771	120+000;771	120	110	7
772	120+000;772	120	120	3
773	120+000;773	120	150	2
774	120+000;774	120	110	1
775	120+000;775	120	160	75
776	120+000;776	120	110	4
777	120+000;777	120	130	8
778	120+000;778	120	110	1
779	120+000;779	120	110	4
780	120+000;780	120	120	17
781	120+000;781	120	120	0
782	120+000;782	120	120	32
783	120+000;783	120	120	67
784	120+000;784	120	120	7
785	120+000;785	120	120	18
786	120+000;786	120	120	7
787	120+000;787	120	150	20
788	120+000;788	120	50	3
789	120+000;789	120	21	13
790	120+000;790	120	23	1
791	120+000;791	120	33	6
792	120+000;793	120	21	62
794	120+000;795	120	70	7
795	120+000;796	120	32	9
796	120+000;797	120	33	2
797	120+000;798	120	70	0
798	120+000;799	120	70	2
799	120+000;800	120	32	3
800	120+000;803	120	70	1
801	120+000;804	120	33	6
802	120+000;805	120	40	22
803	120+000;806	120	50	2
804	120+000;807	120	33	4

B06	120+000;B09	120	50	16
B07	120+000;B12	120	70	1
B08	120+000;B13	120	23	9
B09	120+000;B14	120	190	94
B10	120+000;B15	120	180	16
***	120+000;1671	120	50	9
***	120+000;1672	120	50	84
***	120+000;1673	120	40	5
***	120+000;1674	120	70	2
***	120+000;1675	120	21	92
***	120+000;1676	120	21	12
***	123+000;1677	120	50	2
***	120+000;1694	120	60	10
***	120+000;1695	120	60	15
***	120+000;1696	120	60	13
***	120+000;1697	120	60	13
***	120+000;1696	120	80	3

manually edit blocks

*bench : 29
row : 53
column: ~~74~~ to 60*

*bench : 30
row : 53
column: 73 to 110*

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 54

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
811	120+035;816	120A	160	309
812	120+035;817	120A	150	69
813	120+035;818	120A	110	9
814	120+035;819	120A	150	42
815	120+035;820	120A	130	3
816	120+035;821	120A	130	1
817	120+035;822	120A	110	10
818	120+035;823	120A	150	1
819	120+035;824	120A	110	1
820	120+035;825	120A	160	62
821	120+035;826	120A	150	25
822	120+035;827	120A	120	17
823	120+035;828	120A	110	1
824	120+035;829	120A	130	3
825	120+035;830	120A	120	1
826	120+035;831	120A	120	3
827	120+035;832	120A	110	2
828	120+035;833	120A	120	3
829	120+035;834	120A	120	118
830	120+035;835	120A	120	12
831	120+035;836	120A	120	29
832	120+035;837	120A	160	55
833	120+035;838	120A	50	6
834	120+035;839	120A	21	11
835	120+035;840	120A	23	2
836	120+035;841	120A	50	107
837	120+035;842	120A	21	64
838	120+035;843	120A	60	57
839	120+035;844	120A	70	9
840	120+035;845	120A	33	4
841	120+035;846	120A	32	5
842	120+035;847	120A	70	0
843	120+035;848	120A	70	2
844	120+035;849	120A	40	7
845	120+035;850	120A	33	2
846	120+035;851	120A	33	4
847	120+035;852	120A	80	5
848	120+035;853	120A	33	0
849	120+035;854	120A	40	30
850	120+035;855	120A	33	5
851	120+035;856	120A	40	10

852	120+035;857
853	120+035;858
854	120+035;859
855	120+035;860
856	120+035;861
857	120+035;862
858	120+035;863
859	120+035;864

120A	21	97
120A	50	1
120A	40	36
120A	80	1
120A	23	10
120A	33	4
120A	190	80
120A	180	15

manually edit blocks —

✓ bench 31
row 54 to 32
column 68

✓ bench 28
row 54 to 70
column 73

✓ bench 36
row 54 to 50
column 81

✓ bench 19
row 54 to 120
column 100

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 55

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
860	120+070;865	120B	160	333
861	120+070;866	120B	150	107
862	120+070;867	120B	110	13
863	120+070;868	120B	110	13
864	120+070;869	120B	130	5
865	120+000;870	120B	110	1
866	120+000;871	120B	160	51
867	120+000;872	120B	160	58
868	120+070;873	120B	150	1
869	120+070;874	120B	150	31
870	120+070;875	120B	110	1
871	120+070;876	120B	120	25
872	120+070;877	120B	120	7
873	120+070;878	120B	110	0
874	120+070;879	120B	120	20
875	120+070;880	120B	120	124
876	120+070;881	120B	120	37
877	120+070;882	120B	130	1
878	120+070;883	120B	50	119
879	120+070;884	120B	23	12
880	120+070;885	120B	21	76
881	120+070;886	120B	33	11
882	120+070;887	120B	60	69
883	120+070;888	120B	70	13
884	120+070;889	120B	32	3
885	120+070;890	120B	32	0
886	120+070;891	120B	70	1
887	120+070;892	120B	70	4
888	120+070;893	120B	70	2
889	120+070;894	120B	40	7
890	120+070;895	120B	80	6
891	120+070;896	120B	33	4
892	120+070;897	120B	50	2
893	120+070;898	120B	40	37
894	120+070;899	120B	21	3
895	120+070;900	120B	50	1
896	120+070;901	120B	40	9
897	120+070;902	120B	21	100
898	120+070;903	120B	33	5
899	120+070;904	120B	40	6
900	120+070;905	120B	50	1

901 120+000;906
902 120+070;907
903 120+070;908

120B 70 0
120B 180 17
120B 190 75

manually edit blocks:

✓ bench 32
row 55 to 50
column 65

✓ bench 31
row 55 to 120
column 96

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : Faro F8701 Rock Type Model

CREATED ON : 26/ 2/1987

SECTION ALONG ROW : 55 FROM COLUMN [54] TO COLUMN [78] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
1 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
3 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
4 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
5 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
6 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	180	180	160
8 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	180	160	160
9 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	180	160	160	160
10 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	180	160	160	160	160
11 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	180	160	160	160	160	160
12 :	160	160	160	160	160	160	160	160	160	160	160	160	150	150	160	160	160	160	160	160	160	160	160	160	150
13 :	160	160	160	160	160	160	150	150	150	150	150	150	150	150	160	160	160	160	160	160	150	150	150	150	150
14 :	150	150	150	150	150	150	150	150	150	150	150	150	100	100	100	160	160	160	160	150	150	150	150	150	100
15 :	150	150	150	150	150	150	150	150	100	100	100	100	100	100	100	150	160	160	150	150	150	100	100	100	100
16 :	150	150	150	150	100	100	100	100	100	100	100	100	100	100	130	160	150	150	100	100	100	100	100	100	100
17 :	100	100	100	100	100	100	100	100	100	100	100	100	100	130	100	100	100	100	100	100	100	100	100	100	100
18 :	100	100	100	100	100	100	100	100	100	130	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
19 :	100	100	100	100	100	100	100	130	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
20 :	100	100	100	100	130	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
21 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
22 :	100	100	100	100	100	100	100	100	100	110	110	120	110	100	120	120	120	120	120	100	100	100	100	100	120
23 :	100	100	100	100	100	100	110	110	110	100	100	100	120	120	120	120	120	120	120	120	100	100	120	120	100
24 :	100	100	110	110	110	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
25 :	110	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
26 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
27 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	120	33	33	33	60	60	70	120	100
28 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	33	60	60	60	60	70	120	120	120	60
29 :	100	100	100	100	100	33	33	33	33	100	100	100	33	60	60	70	60	60	70	70	60	60	60	60	80
30 :	33	33	50	50	50	60	70	70	70	70	70	70	70	70	60	60	60	60	32	60	60	60	60	60	60
31 :	50	50	50	50	50	50	60	60	70	70	70	70	60	32	32	60	70	70	60	60	60	60	60	60	40
32 :	21	21	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	60	60	60	60	60	50
33 :	120	21	21	21	21	50	50	50	50	50	50	50	50	50	50	50	50	50	50	60	60	60	50	50	50
34 :	100	100	100	120	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	50	50	50	50	50	50
35 :	100	100	100	100	120	120	21	21	21	21	21	21	21	21	21	21	21	21	21	50	50	50	50	50	50
36 :	100	100	100	100	100	120	120	120	21	21	21	21	21	21	21	21	21	21	21	21	50	50	50	40	50
37 :	100	100	100	100	100	100	120	120	120	120	120	120	120	120	120	120	21	21	50	50	50	50	50	50	50
38 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	120	21	50	50	50	21	21	21
39 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	21	21	21	21	21	120
40 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	21	21	21	120	100	100
41 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	100	100	100	100	100	100
42 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
43 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

30 50

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 56

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
904	120+105;909	120C	160	340
905	120+105;910	120C	150	109
906	120+105;911	120C	130	2
907	120+105;912	120C	130	5
908	120+105;913	120C	110	31
909	120+105;914	120C	110	0
910	120+105;915	120C	120	2
911	120+105;916	120C	120	28
912	120+105;917	120C	150	2
913	120+105;918	120C	160	43
914	120+105;919	120C	160	50
915	120+105;920	120C	150	32
916	120+105;921	120C	120	14
917	120+105;922	120C	110	0
918	120+105;923	120C	120	27
919	120+105;924	120C	120	121
920	120+105;925	120C	120	41
921	120+105;926	120C	23	12
922	120+105;927	120C	50	125
923	120+105;928	120C	21	70
924	120+105;929	120C	33	5
925	120+105;930	120C	60	1
926	120+105;931	120C	70	15
927	120+105;932	120C	32	0
928	120+105;933	120C	70	1
929	120+105;934	120C	40	7
930	120+105;935	120C	70	1
931	120+105;936	120C	60	74
932	120+105;937	120C	22	2
933	120+105;938	120C	70	2
934	120+105;939	120C	70	6
935	120+105;940	120C	33	4
936	120+105;941	120C	80	5
937	120+105;942	120C	50	4
938	120+105;943	120C	33	2
939	120+105;944	120C	33	3
940	120+105;945	120C	40	5
941	120+105;946	120C	40	5
942	120+105;947	120C	40	0

944 120+105;949
945 120+105;950
946 120+105;951
947 120+105;952
948 120+105;953
949 120+105;954
:** 120+105;1697

120C 21 1
120C 21 75
120C 50 1
120C 180 14
120C 190 102
120C 180 2
120C 40 46

manually edit blocks

✓ bench 11
row 56 to 180
col 73

✓ bench 24
row 56 to 180
col 64

✓ bench 35
row 56 to 40
col 83

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 57

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
950	121+000;955	121	160	396
951	121+000;956	121	150	100
952	121+000;957	121	110	34
953	121+000;958	121	110	0
954	121+000;959	121	130	2
955	121+000;960	121	130	3
956	121+000;961	121	120	13
957	121+000;962	121	160	49
958	121+000;963	121	150	37
959	121+105;964	121	120	21
960	121+000;965	121	120	52
961	121+000;966	121	120	11
962	121+000;967	121	110	0
963	121+000;968	121	120	110
964	121+000;969	121	120	20
965	121+000;970	121	120	27
966	121+000;971	121	150	1
967	121+000;972	121	23	12
968	121+000;973	121	50	7
969	121+000;974	121	21	73
970	121+000;975	121	70	2
971	121+000;976	121	50	1
972	121+000;977	121	33	1
973	121+000;978	121	60	5
974	121+000;979	121	50	110
975	121+000;980	121	70	7
976	121+000;981	121	32	2
977	121+000;982	121	40	10
978	121+000;983	121	60	45
979	121+000;984	121	70	18
980	121+000;985	121	60	11
981	121+000;986	121	33	4
982	121+000;987	121	22	2
983	121+000;988	121	70	0
984	121+000;989	121	80	10
985	121+000;990	121	33	2
986	121+000;991	121	60	15
987	121+000;992	121	50	10
988	121+000;993	121	40	44

990	121+000;995
991	121+000;996
992	121+000;997
993	121+000;998
994	121+000;999
995	121+000;1000
996	121+000;1001
997	121+000;1002
998	121+000;1003
999	121+000;1004
***	121+000;1005
***	121+000;1698

121	21	1
121	33	5
121	40	2
121	21	64
121	40	7
121	50	1
121	70	1
121	180	3
121	180	12
121	190	143
121	180	1
121	120	5

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 58

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1001	121+035;1006	121A	160	395
***	121+035;1007	121A	150	107
***	121+035;1008	121A	130	3
***	121+035;1009	121A	110	25
***	121+035;1010	121A	120	8
***	121+035;1011	121A	130	2
*	121+035;1012	121A	130	4
*	121+035;1013	121A	120	9
***	121+035;1014	121A	150	8
***	121+035;1015	121A	160	31
***	121+035;1016	121A	150	23
***	121+035;1017	121A	120	28
***	121+035;1018	121A	120	37
***	121+035;1019	121A	120	78
***	121+035;1020	121A	120	15
***	121+035;1021	121A	120	29
***	121+035;1022	121A	23	12
***	121+035;1023	121A	50	137
***	121+035;1024	121A	21	84
***	121+035;1025	121A	32	3
***	121+035;1026	121A	33	4
***	121+035;1027	121A	60	10
***	121+035;1028	121A	70	6
***	121+035;1029	121A	33	1
***	121+035;1030	121A	60	14
***	121+035;1031	121A	70	12
***	121+035;1032	121A	32	6
***	121+035;1033	121A	70	2
***	121+035;1034	121A	60	48
***	121+035;1035	121A	40	6
***	121+035;1036	121A	70	0
***	121+035;1037	121A	130	14
*	121+035;1038	121A	33	3
***	121+035;1039	121A	50	8
***	121+035;1040	121A	23	5
***	121+035;1041	121A	40	69
***	121+035;1042	121A	21	1
***	121+035;1043	121A	23	5
***	121+035;1044	121A	40	1
***	121+035;1045	121A	21	57

*** 1041 121+035;1046
*** 121+035;1047
*** 121+035;1048
*** 121+035;1049
*** 1045 121+035;1050

121A 40 4
121A 33 3
121A 180 15
121A 190 83
121A 180 2

manually edit blocks -

✓ bench : 34
row : 58 to 50
col : 38

✓ bench : 26
row : 58 to 50
col : 90

✓ bench : 8
row : 58 to 150
col : 88

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 6/ 4/1987

SECTION ALONG ROW : 58 FROM COLUMN [29] TO COLUMN [53] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
1 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
3 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
4 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
5 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
6 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
8 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
9 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
10 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
11 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
12 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
13 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
14 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
15 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	150	150
16 :	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	150	150	150	150	150	150
17 :	160	160	160	160	160	160	160	160	160	160	160	160	160	150	150	150	150	150	150	150	150	150	150	150	150
18 :	160	160	160	160	160	160	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	100	100	100	100
19 :	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	100	100	100	100	100	100	100	100	100	100
20 :	150	150	150	150	150	150	150	150	150	150	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
21 :	150	150	150	150	150	150	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
22 :	150	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
23 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
24 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	130	100	100	100	100
25 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110	110
26 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110	110	100	100	100
27 :	100	130	130	130	100	100	100	100	100	100	100	100	100	100	100	100	110	110	110	100	100	100	100	100	100
28 :	100	100	100	100	100	100	100	100	100	100	100	100	110	110	110	100	100	100	100	100	100	100	100	100	100
29 :	100	100	100	100	100	100	100	100	110	110	110	100	100	100	100	100	100	100	100	100	100	100	100	100	100
30 :	100	100	100	100	110	110	110	110	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	23	23
31 :	100	100	110	110	100	100	100	100	100	100	100	100	100	100	100	120	23	23	50	50	50	50	50	21	50
32 :	100	100	100	100	100	100	100	100	100	100	100	100	120	23	23	50	50	21	21	21	21	21	21	21	21
33 :	100	100	100	100	100	100	100	100	120	23	23	50	50	21	21	21	21	21	120	120	120	100	100	100	100
34 :	100	100	100	100	120	23	23	50	50	100	21	21	21	120	120	120	120	120	120	100	100	100	100	100	100
35 :	120	23	23	50	50	50	21	21	21	21	120	100	100	100	100	100	100	100	100	100	100	100	100	100	100
36 :	50	50	21	21	21	21	21	120	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
37 :	21	21	21	120	120	120	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
38 :	120	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
39 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
40 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
41 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
42 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
43 :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

manually edit blocks

*bench : 11
row : 59 to 160
col : 67*

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

*bench : 26
row : 59 to 50
col : 90*

SECTION ALONG ROW : 59

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1046	121+070;1051	121B	160	388
***	121+070;1052	121B	150	122
***	121+000;1053	121B	130	5
***	121+000;1054	121B	130	0
***	121+070;1055	121B	110	19
***	121+070;1056	121B	120	18
**	121+070;1057	121B	130	4
***	121+070;1058	121B	120	9
***	121+070;1059	121B	150	11
***	121+070;1060	121B	130	15
***	121+070;1061	121B	160	27
***	121+070;1062	121B	120	74
***	121+070;1063	121B	120	20
***	121+070;1064	121B	120	31
***	121+070;1065	121B	23	6
***	121+070;1066	121B	50	123
***	121+070;1067	121B	21	99
***	121+070;1068	121B	33	4
***	121+070;1069	121B	60	73
***	121+070;1070	121B	32	3
***	121+070;1071	121B	33	4
***	121+070;1072	121B	70	11
***	101+070;1073	121B	32	3
***	121+070;1074	121B	40	2
***	121+070;1075	121B	70	0
***	121+070;1076	121B	40	87
***	121+070;1077	121B	50	0
***	121+070;1078	121B	50	8
***	121+070;1079	121B	23	6
***	121+070;1080	121B	23	5
***	121+070;1081	121B	21	67
**	121+070;1082	121B	50	1
**	121+070;1083	121B	180	18
***	121+070;1084	121B	180	3
***	121+070;1085	121B	190	46
***	121+070;1086	121B	40	3
*** 1082	121+070;1087	121B	120	66
*** 1700	121+070;1699	121B	70	4

manually edit blocks

*bench 31
row : 60 to 70
col : 68*

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

*bench : 27
row : 60 to 40
col : 88*

SECTION ALONG ROW : 60

BACKGROUND ROCK-TYPE : 100 100/100/100 schist and phyllite waste

*bench : 26
row : 60 to 50
col : 90*

POLYGON RECORD DESCRIPTION CODE ROCK-TYPE BLOCKS

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1083	121+105;1088	121C	160	383
***	121+105;1089	121C	150	121
***	121+105;1090	121C	130	10
***	12+105;1091	121C	110	20
***	121+105;1092	121C	120	22
***	121+105;1093	121C	130	3
***	121+105;1094	121C	120	9
***	121+105;1095	121C	120	8
***	121+105;1096	121C	160	28
***	121+105;1097	121C	150	10
***	121+105;1098	121C	120	39
***	121+105;1099	121C	130	13
***	121+105;1100	121C	120	41
***	121+105;1101	121C	120	46
***	121+105;1102	121C	23	15
***	121+105;1103	121C	50	121
***	121+105;1104	121C	21	127
***	121+105;1105	121C	33	5
***	121+105;1106	121C	60	75
***	121+105;1107	121C	32	2
***	121+105;1108	121C	33	1
***	121+105;1109	121C	70	16
***	121+105;1110	121C	32	2
***	121+105;1111	121C	40	1
***	121+105;1112	121C	70	2
***	121+105;1113	121C	40	2
***	121+105;1114	121C	40	105
***	121+105;1115	121C	60	2
***	121+105;1116	121C	50	8
***	121+105;1117	121C	50	3
***	121+105;1118	121C	23	11
***	121+105;1119	121C	21	54
*** 1115	121+105;1120	121C	180	14

manually edit blocks —

*bench : 28
row : 61 to 32
col : 70*

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 61

*bench : 32
row : 61 to 40
col : 69*

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1116	122+000;1121	122	160	384
***	122+000;1122	122	150	122
***	122+000;1123	122	130	11
***	122+000;1124	122	110	23
***	122+000;1125	122	120	24
***	122+000;1126	122	130	3
***	122+000;1127	122	120	8
***	122+000;1128	122	160	29
***	122+000;1129	122	150	10
***	122+000;1130	122	120	5
***	122+000;1131	122	120	42
***	122+000;1132	122	130	14
***	122+000;1133	122	120	19
***	122+000;1134	122	120	18
***	122+000;1135	122	120	2
***	122+000;1136	122	23	16
***	122+000;1137	122	50	100
***	122+000;1138	122	21	139
***	122+000;1139	122	33	5
***	122+000;1140	122	60	92
***	122+000;1141	122	32	3
***	122+000;1142	122	70	14
***	122+000;1143	122	32	2
***	122+000;1144	122	33	1
***	122+000;1145	122	40	2
***	122+000;1146	122	40	107
***	122+000;1147	122	60	3
***	122+000;1148	122	70	0
***	122+000;1149	122	60	3
***	122+000;1150	122	50	5
***	122+000;1151	122	40	2
***	122+000;1152	122	50	6
***	122+000;1153	122	23	8
***	122+000;1154	122	21	43
***	122+000;1155	122	21	2
*** 1151	122+000;1156	122	180	10

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 62

BACKGROUND ROCK-TYPE : 100 100/100/100 schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1153	122+035;1157	122A	160	376
***	122+035;1158	122A	150	128
***	122+035;1159	122A	130	9
***	122+035;1160	122A	110	21
***	122+035;1161	122A	120	10
***	122+035;1162	122A	130	4
***	122+035;1163	122A	120	2
***	122+035;1164	122A	120	4
***	122+035;1165	122A	160	12
***	122+035;1166	122A	150	10
***	122+035;1167	122A	120	1
***	122+035;1168	122A	120	30
***	122+035;1169	122A	130	0
***	122+035;1170	122A	120	2
***	122+035;1171	122A	120	32
***	122+035;1172	122A	120	7
***	122+035;1173	122A	120	19
***	122+035;1174	122A	130	16
***	122+035;1175	122A	50	111
***	122+035;1176	122A	21	144
***	122+035;1177	122A	33	4
***	122+035;1178	122A	60	81
***	122+035;1179	122A	70	1
***	122+035;1180	122A	32	1
***	122+035;1181	122A	33	3
***	122+035;1182	122A	60	9
***	122+035;1183	122A	70	2
***	122+035;1184	122A	32	6
***	122+035;1185	122A	70	10
***	122+035;1186	122A	40	1
***	122+035;1187	122A	40	2
***	122+035;1188	122A	40	114
***	122+035;1189	122A	50	5
***	122+035;1190	122A	60	3
***	122+035;1191	122A	70	0
***	122+035;1192	122A	23	5
***	122+035;1193	122A	21	6
***	122+035;1194	122A	21	32
***	122+035;1195	122A	23	16

*** 122+035;1197
*** 122+035;1700
*** 122+035;1701

122A 180 7
122A 120 55
122A 21 35

manually edit blocks —

✓ bench: 30
row: 62 to 23
col: 47

✓ bench: 32
row: 62 to 40
col: 79

manually edit blocks

✓ bench: 15
 row: 63 to 150
 col: 48

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

✓ bench: 28
 row: 63 to 40
 col: 81

SECTION ALONG ROW : 63

BACKGROUND ROCK-TYPE : 100 100/100/100 schist and phyllite waste

bench: 26
 row: 63 to 120
 col: 67

POLYGON RECORD DESCRIPTION CODE ROCK-TYPE BLOCKS

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1193	122+070;1198	122B	160	373
***	122+070;1199	122B	150	117
***	122+070;1200	122B	130	10
***	122+070;1201	122B	110	23
***	122+070;1202	122B	120	10
***	122+070;1203	122B	130	5
***	122+070;1204	122B	120	6
***	122+070;1205	122B	120	17
***	122+070;1206	122B	130	15
***	122+070;1207	122B	130	3
***	122+070;1208	122B	120	9
***	122+070;1209	122B	120	2
***	122+070;1210	122B	120	19
***	122+070;1211	122B	160	7
***	122+070;1212	122B	150	11
***	122+070;1213	122B	120	13
***	122+070;1214	122B	120	23
***	122+070;1215	122B	23	13
***	122+070;1216	122B	50	140
***	122+070;1217	122B	21	129
***	122+070;1218	122B	33	3
***	122+070;1219	122B	60	10
***	122+070;1220	122B	32	29
***	122+070;1221	122B	70	2
***	122+070;1222	122B	70	1
***	122+070;1223	122B	33	6
***	122+070;1224	122B	60	6
***	122+070;1225	122B	70	0
***	122+070;1226	122B	70	6
***	122+070;1227	122B	60	57
***	122+070;1228	122B	40	1
**	122+070;1229	122B	40	0
**	122+070;1230	122B	40	96
***	122+070;1231	122B	23	5
***	122+070;1232	122B	21	14
***	122+070;1233	122B	21	6
***	122+070;1234	122B	21	30
***	122+070;1235	122B	170	43
***	122+070;1236	122B	190	14

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 64

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1233	122+105;1238	122C	160	364
***	122+105;1239	122C	150	117
***	122+105;1240	122C	130	9
***	122+105;1241	122C	110	21
***	122+105;1242	122C	120	10
***	122+105;1243	122C	110	2
**	122+105;1244	122C	120	7
***	122+105;1245	122C	120	1
***	122+105;1246	122C	130	5
***	122+105;1247	122C	110	2
***	122+105;1248	122C	120	4
***	122+105;1249	122C	120	49
***	122+105;1250	122C	120	4
***	122+105;1251	122C	130	7
***	122+105;1252	122C	130	1
***	122+105;1253	122C	120	3
***	122+105;1254	122C	120	10
***	122+105;1255	122C	120	7
***	122+105;1256	122C	120	20
***	122+105;1257	122C	120	4
***	122+105;1258	122C	50	127
***	122+105;1259	122C	21	105
***	122+105;1260	122C	70	0
***	122+105;1261	122C	23	0
***	122+105;1262	122C	33	5
***	122+105;1263	122C	70	0
***	122+105;1264	122C	60	12
***	122+105;1265	122C	70	0
***	122+105;1266	122C	22	13
***	122+105;1267	122C	32	15
***	122+105;1268	122C	70	1
***	122+105;1269	122C	60	49
**	122+105;1270	122C	70	0
***	122+105;1271	122C	70	2
***	122+105;1272	122C	33	6
***	122+105;1273	122C	60	4
***	122+105;1274	122C	70	1
***	122+105;1275	122C	60	1
***	122+105;1276	122C	70	6

***	1273	122+105;1278	122C	40	0
***		122+105;1279	122C	40	112
***		122+105;1280	122C	23	5
***		122+105;1281	122C	21	16
***		122+105;1282	122C	21	8
***		122+105;1283	122C	40	0
***		122+105;1284	122C	21	11
**		122+105;1285	122C	22	0
***		122+105;1286	122C	23	14
***		122+105;1287	122C	190	55
***		122+105;1288	122C	170	71
***	1284	122+105;1289	122C	180	15
***	1704	122+105;1703	122C	130	2

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 65

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1285	123+000;1290	123	160	353
***	123+000;1291	123	150	118
***	123+000;1292	123	130	10
***	123+000;1293	123	110	21
***	123+000;1294	123	130	2
***	123+000;1295	123	120	15
***	123+000;1296	123	110	1
***	123+000;1297	123	120	15
***	123+000;1298	123	120	14
***	123+000;1299	123	110	3
***	123+000;1300	123	130	6
***	123+000;1301	123	120	83
***	123+000;1302	123	120	17
***	123+000;1303	123	130	3
***	123+000;1304	123	120	3
***	123+000;1305	123	120	6
***	123+000;1306	123	120	2
***	123+000;1307	123	120	13
***	123+000;1308	123	120	25
*** 1304	123+000;1309	123	23	10
*** 1365	123+000;1311	123	21	88
***	123+000;1312	123	70	0
***	123+000;1314	123	23	2
***	123+000;1315	123	60	11
***	123+000;1316	123	70	2
***	123+000;1317	123	22	21
***	123+000;1318	123	70	2
***	123+000;1319	123	70	0
***	123+000;1320	123	70	7
***	123+000;1321	123	33	8
***	123+000;1322	123	70	0
***	123+000;1323	123	120	22
***	123+000;1324	123	60	16
***	123+000;1325	123	70	0
***	123+000;1326	123	33	6
***	123+000;1327	123	60	2
***	123+000;1328	123	70	0
***	123+000;1329	123	60	29
***	123+000;1330	123	70	0

*** 1325	123+000;1332	123	40	112
***	123+000;1333	123	60	7
***	123+000;1334	123	70	0
***	123+000;1335	123	23	1
***	123+000;1336	123	21	13
***	123+000;1337	123	21	1
***	123+000;1338	123	21	2
***	123+000;1339	123	21	2
***	123+000;1340	123	170	60
***	123+000;1341	123	180	1
***	123+000;1342	123	180	9
***	123+000;1343	123	170	47
***	123+000;1344	123	190	127
***	123+000;1345	123	180	11
*** 1339	123+000;1346	123	180	3
*** 1664	123+000;1678	123	50	26
***	123+000;1679	123	60	3
*** 1666	123+000;1680	123	50	81
*** 1705	123+000;1703	123	21	12
***	123+000;1705	123	40	2
*** 1707	123+000;1706	123	33	2

manually edit blocks —

✓ bench: 30
row: 65 to 120
col: 45

✓ bench: 32
row: 65 to 21
col: 40

✓ bench: 26
row: 65 to 33
col: 82

✓ bench: 26
row: 65 to 21
col: 98

manually edit blocks

*bench: 15
 row: 66 to 150
 col: 43*

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

*bench: 31
 row: 66 to 50
 col: 64*

SECTION ALONG ROW : 66

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

*bench: 35
 row: 66 to 21
 col: 76*

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1340	123+035;1347	123A	160	347
***	123+035;1348	123A	150	108
***	123+035;1349	123A	130	16
***	123+035;1350	123A	110	22
***	123+035;1351	123A	120	10
***	123+035;1352	123A	120	8
***	123+035;1353	123A	120	14
***	123+035;1354	123A	120	19
***	123+035;1355	123A	120	73
***	123+035;1357	123A	120	4
***	123+035;1358	123A	120	37
***	123+035;1359	123A	23	11
***	123+035;1361	123A	21	115
***	123+035;1363	123A	33	8
***	123+035;1364	123A	60	14
***	123+035;1365	123A	22	21
***	126+035;1366	123A	70	0
***	123+035;1368	123A	70	7
***	123+035;1370	123A	70	0
***	123+035;1371	123A	70	0
***	123+035;1372	123A	33	1
***	123+035;1373	123A	60	1
***	123+035;1374	123A	70	0
***	123+035;1375	123A	23	2
***	123+035;1376	123A	33	3
***	123+035;1377	123A	40	103
***	123+035;1379	123A	23	5
***	123+035;1381	123A	180	7
***	123+035;1382	123A	190	155
***	123+035;1383	123A	170	13
*** 1371	123+035;1384	123A	180	29
*** 1667	123+035;1682	123A	50	35
*** 1668	123+035;1683	123A	60	3
*** 1669	123+035;1686	123A	32	3
***	123+035;1687	123A	60	41
***	123+035;1688	123A	130	2
***	123+035;1689	123A	21	5
***	123+035;1690	123A	170	169
***	123+035;1691	123A	50	41
***	123+035;1692	123A	50	58

manually edit blocks -

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

*band: 31
row: 67 to 40
col: 71*

SECTION ALONG ROW : 67

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1372	123+070; 1386	123B	170	18
***	123+070; 1387	123B	160	337
***	123+070; 1388	123B	150	102
***	123+070; 1389	123B	130	25
***	123+070; 1390	123B	110	23
***	123+070; 1391	123B	120	9
***	123+070; 1392	123B	120	8
***	123+070; 1393	123B	120	17
***	123+070; 1394	123B	120	15
***	123+070; 1395	123B	120	61
***	123+070; 1396	123B	120	1
***	123+070; 1397	123B	120	42
***	123+070; 1398	123B	23	15
***	123+070; 1399	123B	50	130
***	123+070; 1400	123B	21	126
***	123+070; 1401	123B	70	0
***	123+070; 1402	123B	60	3
***	123+070; 1403	123B	60	15
***	123+070; 1404	123B	22	20
***	123+070; 1405	123B	32	11
***	123+070; 1406	123B	70	7
***	123+070; 1407	123B	33	6
***	123+070; 1408	123B	60	36
***	123+070; 1409	123B	70	0
***	123+070; 1410	123B	40	105
***	123+070; 1411	123B	60	8
***	123+070; 1412	123B	33	1
***	123+070; 1413	123B	23	5
***	123+070; 1414	123B	21	1
***	123+070; 1415	123B	23	3
***	123+070; 1416	123B	60	0
***	123+070; 1417	123B	180	5
***	123+070; 1418	123B	180	45
***	123+070; 1419	123B	170	272
*** 1406	123+070; 1420	123B	190	162

manually edit blocks -

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

*bench: 26
row: 68 to 60
col: 62*

SECTION ALONG ROW : 68

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1407	123+105;1421	123C	160	274
***	123+105;1422	123C	150	30
***	123+070;1423	123C	130	32
***	123+105;1424	123C	110	4
***	123+070;1425	123C	120	4
***	123+105;1426	123C	150	97
**	123+105;1427	123C	130	2
***	123+105;1428	123C	110	7
***	123+105;1429	123C	120	6
***	123+105;1430	123C	120	59
***	123+105;1431	123C	120	18
***	123+105;1432	123C	120	16
***	123+105;1433	123C	120	6
***	123+035;1434	123C	120	48
***	123+105;1435	123C	23	8
***	123+105;1436	123C	50	125
***	123+105;1437	123C	21	103
***	123+105;1438	123C	70	9
***	123+105;1439	123C	22	12
***	123+105;1440	123C	32	17
***	123+105;1441	123C	60	16
***	123+105;1442	123C	33	4
***	123+105;1443	123C	60	30
***	123+105;1444	123C	70	0
***	123+105;1445	123C	40	96
***	123+105;1446	123C	60	14
***	123+105;1447	123C	23	6
***	123+105;1448	123C	50	3
***	123+105;1449	123C	21	5
***	123+105;1450	123C	170	22
***	123+105;1451	123C	180	53
**	123+105;1452	123C	170	355
**	123+105;1453	123C	190	171
*** 1440	123+105;1454	123C	180	4
***	123+105;1707	123C	23	2

manually edit blocks

✓ bench: 16
 row: 69 to 150
 col: 36

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

✓ bench: 32
 row: 69 to 23
 col: 40

SECTION ALONG ROW : 69

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

✓ bench: 31 to 40 ✓
 row: 69
 col: 72
 bench: 33
 row: 69 to 50
 col: 65

POLYGON RECORD DESCRIPTION CODE ROCK-TYPE BLOCKS

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1441	124+000;1455	124	160	264
***	124+000;1456	124	150	27
***	124+000;1457	124	130	45
***	124+000;1458	124	110	4
***	124+000;1459	124	120	3
***	124+000;1460	124	150	79
***	124+000;1461	124	130	2
***	124+000;1462	124	110	5
***	124+000;1463	124	120	5
***	124+000;1464	124	23	14
***	124+000;1465	124	120	22
***	124+000;1466	124	120	56
***	124+000;1467	124	120	6
***	124+000;1468	124	120	63
***	124+000;1469	124	170	29
***	124+000;1470	124	180	56
***	124+000;1471	124	170	464
***	124+000;1472	124	170	13
***	124+000;1473	124	180	6
***	124+000;1474	124	190	64
***	124+000;1475	124	23	4
***	124+000;1476	124	50	2
***	124+000;1477	124	21	3
***	124+000;1478	124	50	101
***	124+000;1479	124	21	88
***	124+000;1480	124	70	6
***	124+000;1481	124	60	15
***	124+000;1482	124	32	24
***	124+000;1483	124	22	7
***	124+000;1484	124	23	8
***	124+000;1485	124	60	12
***	124+000;1487	124	50	4
***	124+000;1488	124	60	21
***	124+000;1489	124	50	6
***	124+000;1490	124	70	1
***	124+000;1491	124	21	5
***	124+000;1492	124	21	15
***	124+000;1493	124	40	3
*** 1480	123+000;1494	124	180	0

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 70

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1491	124+035; 1495	124A	160	154
***	124+035; 1496	124A	150	30
***	124+035; 1497	124A	110	4
***	124+035; 1498	124A	120	4
***	124+035; 1499	124A	160	115
***	124+035; 1500	124A	150	77
***	124+035; 1501	124A	23	12
***	124+035; 1502	124A	120	1
***	124+035; 1503	124A	120	0
***	124+035; 1504	124A	120	20
***	124+035; 1505	124A	120	56
***	124+035; 1506	124A	120	2
***	124+035; 1507	124A	120	7
***	124+035; 1508	124A	120	2
***	124+035; 1509	124A	120	6
***	124+035; 1510	124A	120	54
***	124+035; 1511	124A	170	27
***	124+035; 1512	124A	180	57
***	124+035; 1513	124A	170	449
***	124+035; 1514	124A	170	41
***	124+035; 1515	124A	180	8
***	124+035; 1516	124A	180	5
***	124+035; 1517	124A	190	65
***	124+035; 1518	124A	50	3
***	124+035; 1519	124A	21	5
***	124+035; 1520	124A	50	112
***	124+035; 1521	124A	21	81
***	124+035; 1522	124A	33	12
***	124+035; 1523	124A	70	3
***	124+035; 1524	124A	22	8
***	124+035; 1525	124A	32	12
***	124+035; 1526	124A	60	7
***	124+035; 1527	124A	23	6
***	124+035; 1528	124A	60	24
***	124+035; 1529	124A	40	58
***	124+035; 1530	124A	60	6
***	124+035; 1531	124A	60	3
***	124+035; 1532	124A	40	11
***	124+035; 1533	124A	21	5
***	124+035; 1534	124A	23	6
*** 1535	124+035; 1535	124A	50	0

*** 1522 124+035;1536
*** 124+035;1537
*** 1524 124+035;1538

124A 21 14
124A 70 6
124A 180 0

manually edit blocks

✓ bench: 28
row: 70 to 60
col: 68

✓ bench: 28
row: 70 to 120
col: 77

✓ bench: 32
row: 70 to 120
col: 92

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 71

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1566	124+070;1580	124B	160	162
***	124+070;1581	124B	150	36
***	124+070;1582	124B	130	45
***	124+105;1583	124B	110	4
***	124+070;1584	124B	120	4
***	124+070;1585	124B	160	108
***	124+070;1586	124B	150	75
***	124+070;1587	124B	120	9
***	124+070;1588	124B	120	2
***	124+070;1589	124B	120	18
***	124+070;1590	124B	120	53
***	124+070;1591	124B	170	30
***	124+070;1592	124B	180	53
***	124+070;1593	124B	170	425
***	124+070;1594	124B	170	86
***	124+070;1595	124B	180	11
*** 1582	124+070;1596	124B	180	28
*** 1583	120+070;1597	124B	120	4
***	120+070;1598	124B	120	10
***	120+070;1599	124B	120	8
***	120+070;1600	124B	120	42
***	124+070;1601	124B	23	7
***	124+070;1602	124B	50	5
***	124+070;1603	124B	21	5
***	124+070;1604	124B	23	12
***	124+070;1605	124B	50	16
***	124+070;1606	124B	21	66
***	124+070;1607	124B	33	15
***	124+070;1608	124B	70	16
***	124+070;1609	124B	22	7
***	124+070;1610	124B	32	4
***	124+070;1611	124B	60	7
***	124+070;1612	124B	50	77
***	124+070;1613	124B	60	31
***	124+070;1614	124B	40	49
***	124+070;1615	124B	60	5
***	124+070;1616	124B	40	4
***	124+070;1617	124B	21	32
***	124+070;1618	124B	21	3

*** 124+070;1620
*** 124+070;1621
*** 124+070;1622
*** 1609 124+070;1623

124B 32 2
124B 120 1
124B 180 0
124B 190 273

manually edit blocks:

✓ bench: 28
row: 71 to 33
col: 58

✓ bench: 28
row: 71 to 22
col: 60

✓ bench: 29
row: 71 to 50
col: 62

✓ bench: 39
row: 71 to 120
col: 67

GEOLOGICAL ROCK-TYPE MODEL

DESCRIPTION : GEOLOGY SECTION MODEL

CREATED ON : 8/ 4/1987

SECTION ALONG ROW : 71 FROM COLUMN [29] TO COLUMN [53] TOP ELEVATION : 4270.00 ft BOTTOM ELEVATION : 3090.00 ft

Table with 24 columns (29-53) and 43 rows (1-43) of numerical data. Values range from 100 to 120.

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 72

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1525	124+105;1539	124C	160	165
***	124+105;1540	124C	150	40
***	124+105;1541	124C	130	45
***	124+105;1542	124C	110	3
***	124+105;1543	124C	23	8
***	124+105;1544	124C	160	74
***	124+105;1545	124C	150	83
***	124+105;1546	124C	130	2
***	124+105;1547	124C	110	3
***	124+105;1548	124C	120	9
***	124+105;1549	124C	120	17
***	124+105;1550	124C	120	63
***	124+105;1551	124C	170	54
***	124+105;1552	124C	180	52
***	124+105;1553	124C	170	409
***	124+105;1554	124C	180	8
***	124+105;1555	124C	170	104
***	124+105;1556	124C	120	9
***	124+105;1557	124C	120	9
***	124+105;1558	124C	120	28
***	124+105;1559	124C	120	8
***	124+105;1560	124C	50	6
***	124+105;1561	124C	21	10
***	124+105;1562	124C	23	0
***	124+105;1563	124C	50	1
***	124+105;1564	124C	21	4
***	124+105;1565	124C	23	7
***	124+105;1566	124C	50	75
***	124+105;1567	124C	21	59
***	124+105;1568	124C	33	17
***	124+105;1569	124C	60	17
**	124+105;1570	124C	22	6
**	124+105;1571	124C	70	9
***	124+105;1572	124C	32	4
***	124+105;1573	124C	70	2
***	124+105;1574	124C	60	17
***	124+105;1575	124C	40	28
***	124+105;1576	124C	40	10
***	124+105;1577	124C	50	3

manually edit blocks

bench: 11

✓ row: 72 to 150

col: 51

bench: 29

✓ row: 72 to 180

col: 86

GEOLOGICAL ROCK-TYPE MODEL CONSTRUCTION

SECTION ALONG ROW : 73

BACKGROUND ROCK-TYPE : 100 1D0/1C0/1CD schist and phyllite waste

POLYGON RECORD	DESCRIPTION	CODE	ROCK-TYPE	BLOCKS
*** 1610	125+000;1624	125	160	163
***	125+000;1625	125	150	41
***	125+000;1626	125	130	48
***	125+000;1627	125	110	8
***	125+000;1628	125	160	49
***	125+000;1629	125	150	81
***	125+000;1630	125	130	4
***	125+000;1631	125	110	8
***	125+000;1632	125	120	33
***	125+000;1633	125	120	50
***	125+000;1634	125	170	93
***	125+000;1635	125	180	56
***	125+000;1636	125	170	357
***	125+000;1637	125	170	98
***	125+000;1638	125	180	6
***	125+000;1639	125	120	6
***	125+000;1640	125	120	11
***	125+000;1641	125	120	13
***	125+000;1642	125	120	1
***	125+000;1643	125	120	11
***	125+000;1644	125	23	4
***	125+000;1645	125	50	6
***	125+000;1646	125	21	15
***	125+000;1647	125	70	0
***	125+000;1648	125	60	1
***	125+000;1649	125	23	4
***	125+000;1650	125	60	10
***	125+000;1651	125	23	0
***	125+000;1652	125	50	2
***	125+000;1653	125	70	2
***	125+000;1654	125	21	11
***	125+000;1655	125	23	1
***	125+000;1656	125	33	16
***	125+000;1657	125	60	22
***	125+000;1658	125	32	1
***	125+000;1659	125	70	10
***	125+000;1660	125	60	1
***	125+000;1661	125	50	47
***	125+000;1662	125	70	3

*** 1650 125+000;1664
 *** 1651 125+000;1665
 *** 125+000;1666
 *** 125+000;1667
 *** 125+000;1668
 *** 125+000;1669
 *** 1656 125+000;1670
 ** 1711 125+000;1710

125 40 12
 125 60 0
 125 50 3
 125 40 22
 125 50 8
 125 21 15
 125 190 269
 125 22 5

manually edit blocks -

✓ bench: 34
 row: 73 to 50
 col: 39

✓ bench: 35
 row: 73 to 50
 col: 36

✓ bench: 27
 row: 73 to 60
 col: 58

✓ bench: 29
 row: 73 to 120
 col: 65

Cross Section Digitizing

Raw Section	Deleted	Polygons start	Polygons End	ore Polygons start	ore Polygons End	
39	116+070	1	34	19	31	
40	116+105	35	70 + 1681	52	68	
41	117+000	71	108	88	106	
42	117+035	109	158	135	157	
43	117+070	159	215	189	213	
44	117+105	216	285	246	282	
45	118+000	286	358	323	355	
46	118+035	359	414	386	412	
47	118+070	415	474 + 1685	443	472	
48	118+105	475	527 + 1686-1691	502	525	
49	119+000	528	586 + 1692 ⁺ 1693	555	584	
50	119+035	587	646 + 1694	615	644	
51	119+070	647	704 + 1695	674	702	
52	119+105	705	764 +	733	762	
53	120 +000	792, 801, 802, 810, 811, 793	765 791 793 800 803 809 812 815 11671 11677	788 793 803 11671	791 800 813 11677	
54	120+035	(1694-1697)	816	864	838	862
55	120+070		865	908	883	906
56	120+105		909	954	926	951
57	121+000		955	1005	972	1001
58	121+035		1006	1050	(1022 1038	1036 1047

Row	Section	Deleted	Polygons		Orc Polygons	
			start	End	start	End
59	121+070		1051	1087	(1066 1086)	1082
60	121+105		1088	1120	1102	1119
61	122+000		1121	1156	1136	1155
62	122+035		1157	1197	1175	1195
63	122+070		1198	1237	1215	1234
64	122+105		1238	1289	1258	1286
65	123+000	1310, 1313	{ 1290 1311 1314 1678	{ 1309 1312 1346 1680	{ 1309 1311 1314 1324 1678	{ 1312 1322 1339 1680
66	123+035	1356, 1360, 1362, 1367, 1369, 1378, 1380, 1385, 1684, 1685	1347 1357 1361 1363 1368 1370 1377 1379 1381 1682 1686	1355 1359 1366	1361 1363 1368 1370 1379 1682 1686 1691	1366 1377 1683 1689 1693
67	123+070		1386	1420	1398	1416
68	123+105		1421	1454	1435	1449
69	124+000		1455	1494	1475	1493
70	124+035		1539	1579	1560	1578

Row	Section	Polygons		Ore Polygons	
		Start	End	Start	End
71	124+105	1539	1579	1560	1578
72	124+070	1580	1623	1602	1620
73	125+000	1624	1670	1644	1669

TOPOGRAPHY

CURRAGH RESOURCES
PERSONAL COMPUTER
PROGRAM LIBRARY

Program ID: BSLIMPRT.EXE

Language: FORTRAN77

Program name: Program Dev\$\Program Dir\$\BSLIMPRT.FOR

Description: BSLIMPRT is designed to read the survey traverse strings contained in a BSL-month end survey file. The strings are decoded and written to an output ASCII file as elevation data records. The output file is fully compatible with importing into PCMINE software system as an extraction file.

Panels: Screen #1 - Program Run Parameters

1.) INTRODUCTION

All pit elevation measurements for the Faro pit area are stored in the Survey Point Data Base (SPDB) on the HP3000 computer located at the Minesite. Elevations are stored as strings forming traverses; each traverse consists of a sequence of elevation data points. Each data point within a single traverse contains a Northing, Easting, and elevation. Northings and Eastings are reported in Faro Mine coordinates.

At the end of each month the survey traverses are updated and transferred to a BSL file (Bench-Status-Line) within the SPDB system. The BSL file contains all survey traverses delineating the pit outline topographic surface for that month-end. This file represents a useful source of Faro pit surface elevation data for updating the surface topography grids in PCMINE mine modelling software.

BSLIMPRT.FOR is a FORTRAN77 program designed to read the survey traverse elevation strings contained in the BSL file. The strings are decoded, Mine coordinates (Northings and Eastings) are converted to PC Mine Model coordinates, and elevation data points are output to a sequential ASCII file.

2.) HARDWARE CONFIGURATION

BSLIMPRT was written for an IBM-compatible personal computer with 640 Kbytes of available memory. The operating system for the computer is MS-DOS 3.0 or equivalent. Screen escape codes in the program are designed for a colour monitor coupled with an EGA enhanced graphics card.

The program requires at least one disk drive for input and output. This drive may be either for a hard disk or floppy disk.

BSLIMPRT is written in FORTRAN77. The program was compiled and linked using Microsoft Fortran77 version 3.31 (August 1985). The program is fully compatible with Fortran77 system requirements.

3.) DATA FILES

Input File

The BSL input data file for BSLIMPRT must be a sequential ASCII file copy of the desired BSL file stored on the HP3000 computer. This ASCII file must be downloaded from the HP3000 system to an IBM compatible personal computer system. At the Faro Minesite this file transfer is readily accomplished using the software package REFLECTIONS (consult with Computer Information Services at the Minesite). The input data file readily fits on a double sided, double density, 5.25 inch floppy diskette.

Figure 1 illustrates the initial records for the November 1986 month end BSL file (file BSL8611D). The first traverse is outlined by the box; it consists of 7 elevation measurements. Each string of 16 numbers consists of Mine Northing, Mine Easting, and elevation for a single data point.

Output File

The output data file created and filled by BSLIMPRT is also a sequential ASCII file. This output file readily fits on a double sided, double density, floppy diskette.

Figure 2 shows the initial records for the output file generated by BSLIMPRT from the BSL8611D November month end file. The 7 lines outlined by the box correspond to the 7 elevation data points forming the traverse indicated in Figure 1. Each record in the output file consists of a PCMINE Mine Model Northing, PCMINE Mine Model Easting, and Mine Elevation corresponding to a single surveyed data point. The record format of the output file is fully compatible with importing the elevation data points into the PCMINE software system as an extraction file.

Each data record in the output file has the following format:

FORMAT	ITEM
2X, F 10.2	PCMINE Model Northing
2X, F 10.2	PCMINE Model Easting
2X, F 10.2	Mine Elevation
2X, F 11.3	YMMM.000 - year and month of input BSL file.
2X, I 10	sequential record number of output file - increases from 1 at start of file.
10X, I 4	YMMM - year and month of input BSL file

This format corresponds exactly to the standard format described for PCMINE extraction files. The last three items in the above list are correlated with the real, integer, and character variable, respectively, of the extraction file.

4.) PROGRAM EXECUTION

Program Start

Execution of BSLIMPRT is started by simply typing BSLIMPRT after the MS-DOS prompt. For this command to work properly, the executable file BSLIMPRT.EXE must either be located on the current drive or be accessible through a previously defined MS-DOS PATH command.

Program Run Parameters (Screen #1)

With start of the program, BSLIMPRT clears the monitor display and generates a program header display. The program then proceeds to request information on several parameters required for successful completion of the program run. The following illustrates the screen display for the BSLIMPRT program:

CURRAGH RESOURCES

PROGRAM BSLIMPRT

Enter name of BSL File containing elevations: _____
Enter name of output extraction file: _____

Enter minimum and maximum model coordinates for screening the data points.

Minimum Easting: _____
Maximum Easting: _____

Minimum Northing: _____
Maximum Northing: _____

TOTAL NUMBER OF DATA POINTS PROCESSED: 5429
NUMBER OF POINTS WRITTEN TO OUTPUT FILE: 2819

Initially the program asks for the names of the input BSL data file and the output file. Up to a maximum of 64 characters are allowed for each file name. The data files do not have to be located on the current directory; if not, the file names entered should include the appropriate drive and subdirectories as part of the file name. File names must correspond to MS-DOS file naming conventions.

Next the program requests the minimum and maximum Eastings and Northings outlining the area of interest for a particular program run. Only those elevation data points located within the area of interest are written to the output file; all data points outside the defined rectangle are ignored.

Eastings and Northings requested by BSLIMPRT are in PCMINE Mine Model coordinates. The edge of the rectangle outlining the area of interest are therefore parallel to geological cross and long sections for Faro. The rectangle is rotated 45 degrees relative to the Faro Mine coordinates.

This rectangular area of interest restriction provided a useful means of subdividing the input BSL data file into 2 or more subset output data files.

PCMINE software restricts elevation files to a maximum of 5000 records. The output file created from the November 1986 BSL file contains 5429 records. For proper use within the PCMINE system, this output file had to be subdivided into two or more output files with a smaller number of records. The area of interest request allows one to separate the data points into different output files on the basis of location.

BSLIMPRT then proceeds to read each of the traverses contained in the input BSL file. Each traverse is decoded into its constituent elevation data points. Mine coordinates for each data point are converted to PCMINE Mine Model coordinates. Each data point is then checked against the rectangle defined by the minimum and maximum Eastings and Northings. If the data point is outside the rectangle, it is discarded. Any data point located within the desired area is written to the output ASCII file as a data record.

After all the points in the BSL input file are processed, the program automatically terminates. The final two lines on the screen display summarize the total number of data points contained in the input file and the number of data points written to the output file.

5. ERROR MESSAGES

BSLIMPRT does not contain any error-trapping subroutines. If an unexpected response is encountered, the program terminates with an error condition and a system error message is displayed on the screen. To continue just retype the program name to restart the program; be careful to check your screen entries for correctness before pressing the ENTER key.

Figure 1. Input file BSL8611D - November 1986 month end SPDB data file.

603590108611	7	9589513883436236	9645713927136164	9703913969936112
61	9723914041736034	9711514115035993	9653914170135950	9699614273835984
603590118611	22	9582614335435952	9595314341735971	9607414389135988
61	9633014402435984	9700314407035978	9729414374435979	9743714315535993
61	9758214269735993	9773214212835980	9786214168835987	9793314138835985
61	9827114088936030	9812814065636025	9788814043836019	9804014005636033
61	9800113975636052	9800213939536052	9773713914336092	9700713871436137
61	9617513829836244	9555113766136298	9435713663936419	
603590118611	26	9582614335435952	9557014333635948	9517514351835936
61	9475014387135909	9444214396435909	9407814363735900	9378814321635904
61	9338314280335915	9301614236235906	9272214197735915	9241514156335927
61	9242114118335935	9225614073935931	9228014036235938	9273314023635902
61	9309914053435895	9340614089235909	9389214105035905	9444614103935905
61	9481514109135919	9521514121935920	9561014091335939	9594814078835979
61	9620914091635978	9662414062736015	9673214025436085	
603590108611	8	9282114122935903	9352114140635894	9419114152135900
61	9498714163535898	9604914190135915	9577114285535906	9469414277735907
61	9379314264235900			
603610118611	4	9845214085836153	9863014021336091	9875213991036106
61	9814213942636093			
603610128611	6	9814213942636093	9823913989436091	9801914041236086
61	9821014062736120	9840814068336104	9845214085836153	
603610118611	22	9164614066136094	9129213998936100	9107113947236116
61	9082113896636098	9078613856836098	9090213823136096	9119613780636110
61	9144813733936097	9143113695736107	9174513664636104	9196513643336104
61	9234513644736120	9238213682836118	9235013754436096	9266813767236117
61	9298613761036149	9318713780636147	9278213816636116	9299313830936118
61	9358413841736165	9360113883236118	9448013867236106	
603610128611	5	9582614335435952	9579714360836094	9600814409436112
61	9642314419236101	9711514428836151		
603610118611	9	9711514428836151	9694814455736113	9717714503536132
61	9749214553236141	9722214591736106	9675414606736100	9644514600936095
61	9634114609136094	9622714604436083		
603610108611	6	9697914516936092	9641014564236073	9582314524736057
61	9620014465036083	9563314421836101	9533514486536072	
603610108611	12	9620313970036156	9553614000436142	9467213995236129
61	9390213987836090	9318613971336080	9244913983536081	9204413942636079
61	9148913911036077	9204013862236074	9210413788736075	9159213774736077
61	9172313731036086			
603610118611	5	9447313867236103	9494813891736101	9535413920236106
61	9531213942936111	9510813951336115		
603610118611	11	9622414604136083	9565414561136074	9510714503736080
61	9452414443636113	9416714391636120	9359014343136167	9316914283036106
61	9277814225836101	9240914183636110	9204114124636105	9164214065736095
603610128611	17	9673214025436085	9660414043636135	9624914067436149
61	9586414059636135	9534114081636125	9512814105036119	9463314086136105
61	9408814088536075	9360714075436090	9329514049736102	9296314020436093
61	9274814006536053	9238614017036067	9212914048136068	9211314077736024
61	9222314119336045	9220514149636055		
603610128611	5	9582614335435952	9564014347236095	9520114378736110
61	9483714409136097	9446714421236109		
603630108611	9	9524513854436336	9463413766136401	9413313693036432
61	9425413643136453	9366413607236511	9324513533236553	9314613495436530
61	9349313509936547	9386013443736594		

Figure 2. Output file created by program BSLIMPRT from input file
BSL8611D (November 1986 month end SPDB data file)

39085.07	21748.61	3623.60	8611.000	1	8611
39093.91	21819.24	3616.40	8611.000	2	8611
39104.80	21890.66	3611.20	8611.000	3	8611
39068.18	21955.58	3603.40	8611.000	4	8611
39007.57	21998.64	3599.30	8611.000	5	8611
38927.89	21996.87	3595.00	8611.000	6	8611
38886.87	22102.51	3598.40	8611.000	7	8611
38760.58	22063.34	3595.20	8611.000	8	8611
38765.11	22076.77	3597.10	8611.000	9	8611
38740.15	22118.85	3598.80	8611.000	10	8611
38748.84	22146.35	3598.40	8611.000	11	8611
38793.18	22197.19	3597.80	8611.000	12	8611
38836.81	22194.72	3597.90	8611.000	13	8611
38888.57	22163.18	3599.30	8611.000	14	8611
38931.21	22141.05	3599.30	8611.000	15	8611
38982.05	22111.42	3598.00	8611.000	16	8611
39022.36	22089.50	3598.70	8611.000	17	8611
39048.59	22073.31	3598.50	8611.000	18	8611
39107.77	22061.92	3603.00	8611.000	19	8611
39114.14	22035.34	3602.50	8611.000	20	8611
39112.58	22002.95	3601.90	8611.000	21	8611
39150.34	21986.69	3603.30	8611.000	22	8611
39168.80	21962.72	3605.20	8611.000	23	8611
39194.39	21937.26	3605.20	8611.000	24	8611
39193.47	21900.70	3609.20	8611.000	25	8611
39172.19	21818.75	3613.70	8611.000	26	8611
39142.77	21730.50	3624.40	8611.000	27	8611
39143.70	21641.34	3629.80	8611.000	28	8611
39131.53	21484.64	3641.90	8611.000	29	8611
38760.58	22063.34	3595.20	8611.000	30	8611
38743.75	22043.96	3594.80	8611.000	31	8611
38702.95	22028.90	3593.60	8611.000	32	8611
38647.94	22023.81	3590.90	8611.000	33	8611
38619.59	22008.61	3590.90	8611.000	34	8611
38616.97	21959.75	3590.00	8611.000	35	8611
38626.23	21909.47	3590.40	8611.000	36	8611
38626.80	21851.63	3591.50	8611.000	37	8611
38632.03	21794.50	3590.60	8611.000	38	8611
38638.46	21746.48	3591.50	8611.000	39	8611
38646.03	21695.50	3592.70	8611.000	40	8611
38673.32	21669.05	3593.50	8611.000	41	8611
38693.05	21625.99	3593.10	8611.000	42	8611
38721.41	21601.03	3593.80	8611.000	43	8611
38762.35	21624.15	3590.20	8611.000	44	8611
38767.16	21671.11	3589.50	8611.000	45	8611
38763.55	21718.13	3590.90	8611.000	46	8611
38786.75	21763.67	3590.50	8611.000	47	8611
38826.70	21802.06	3590.50	8611.000	48	8611
38849.11	21831.83	3591.90	8611.000	49	8611
38868.35	21869.17	3592.00	8611.000	50	8611

PC-MINE VERSION 1.10
SERIAL NO : 20000
2/1987

GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 4.01
PAGE 6

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - North

CREATED ON : 13/ 2/1987

GRID RECORD : 1

COLUMN [101] TO COLUMN [125] ROW [1] TO ROW [43]

	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	
1	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
2	4041	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
3	4044	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
4	4043	4043	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
5	4043	4043	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
6	4042	4041	4041	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
7	4042	4042	4042	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
8	4042	4042	4042	4042	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
9	4043	4044	4044	4045	4046	4046	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
10	4045	4045	4045	4046	4046	4046	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
11	4045	4045	4047	4046	4046	4046	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
12	4041	4045	4046	4045	4045	4046	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
13	4045	4045	4045	4044	4045	4044	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
14	4044	4044	4044	4044	4044	4044	4043	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
15	4018	4035	4043	4043	4043	4043	4043	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
16	4005	4033	4038	4042	4042	4042	4042	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
17	4014	4034	4041	4041	4041	4043	4043	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
18	3985	4029	4041	4041	4043	4044	4044	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
19	3973	4008	4036	4035	4046	4047	4048	4270	4270	4270	4270	4270	4136	4137	4135	4135	4139	4142	4142	4270	4270	4270	4270	4270	4270	
20	3942	3965	4011	4029	4044	4044	4044	4270	4270	4270	4270	4120	4123	4126	4130	4137	4135	4135	4136	4140	4140	4270	4270	4270	4270	
21	3941	3947	3978	4023	4029	4041	4041	4042	4038	4270	4106	4116	4116	4120	4128	4135	4134	4135	4134	4135	4139	4139	4270	4270	4270	
22	3941	3944	3980	3996	4021	4038	4038	4038	4038	4270	4103	4104	4106	4111	4115	4122	4125	4133	4134	4133	4132	4139	4270	4270	4270	
23	3941	3951	3977	3994	4041	4041	4043	4044	4044	4270	4096	4099	4099	4098	4106	4115	4119	4129	4131	4131	4129	4130	4139	4270	4270	
24	3935	3941	3945	3982	4045	4045	4046	4046	4046	4058	4088	4089	4094	4094	4094	4098	4107	4117	4117	4125	4126	4132	4139	4139		
25	3931	3943	3944	3964	4015	4032	4044	4031	4049	4059	4270	4072	4074	4072	4087	4087	4095	4099	4109	4114	4121	4127	4133	4133	4134	
26	3907	3932	3948	3951	3964	4006	4014	4014	4012	4038	4064	4068	4073	4069	4070	4068	4090	4098	4109	4117	4122	4133	4131	4131	4130	
27	3868	3911	3944	3950	3950	3950	3959	3962	3950	3990	4017	4057	4051	4049	4064	4058	4081	4094	4095	4104	4116	4121	4128	4130	4130	
28	3858	3868	3917	3950	3950	3950	3950	3949	3949	3949	3949	3982	4013	4044	4044	4045	4058	4066	4084	4084	4089	4101	4119	4120	4125	4132
29	3829	3837	3859	3885	3900	3925	3950	3950	3949	3949	3950	3977	4019	4044	4043	4055	4067	4074	4084	4093	4105	4111	4119	4126	4133	
30	3826	3833	3838	3857	3872	3891	3917	3939	3943	3950	3950	3951	3978	3993	4023	4060	4066	4068	4065	4091	4095	4105	4112	4119	4129	
31	3815	3825	3834	3842	3855	3867	3879	3906	3950	3951	3951	3951	3951	3951	3983	4045	4052	4057	4065	4065	4082	4090	4106	4118	4120	
32	3805	3810	3821	3834	3847	3865	3869	3868	3898	3937	3952	3952	3951	3951	3952	3981	4015	4047	4042	4065	4076	4082	4092	4109	4108	
33	3779	3789	3798	3809	3828	3845	3860	3862	3869	3899	3917	3946	3949	3952	3952	3951	3984	4020	4042	4053	4059	4061	4077	4088	4100	
34	3747	3775	3783	3798	3800	3825	3846	3854	3861	3869	3891	3915	3934	3945	3948	3947	3958	3974	3995	4025	4037	4042	4066	4078	4095	
35	3730	3745	3761	3778	3792	3797	3806	3827	3854	3862	3868	3886	3911	3921	3941	3946	3956	3963	3985	4021	4028	4038	4047	4059	4082	
36	3716	3728	3746	3764	3775	3788	3796	3806	3839	3846	3860	3871	3885	3905	3929	3934	3946	3958	3966	3976	4010	4026	4041	4049	4054	
37	3712	3717	3721	3740	3759	3771	3790	3790	3806	3822	3839	3856	3876	3882	3913	3932	3940	3948	3958	3972	3986	4003	4026	4035	4053	
38	3697	3709	3720	3745	3747	3757	3775	3786	3793	3805	3827	3836	3861	3870	3899	3924	3928	3947	3957	3981	3989	3990	4012	4025	4058	
39	3676	3692	3706	3712	3717	3745	3757	3776	3787	3797	3809	3827	3847	3854	3880	3900	3911	3942	3954	3971	3985	3989	4004	4025	4040	
40	3644	3662	3698	3701	3711	3725	3735	3754	3778	3791	3803	3809	3825	3844	3869	3883	3903	3929	3947	3955	3977	3983	3995	4006	4036	
41	3634	3654	3686	3697	3710	3712	3722	3741	3758	3786	3797	3802	3811	3837	3846	3880	3906	3934	3942	3953	3964	3976	3983	3994	4014	
42	3648	3675	3691	3696	3712	3715	3716	3726	3756	3787	3798	3799	3811	3822	3845	3860	3921	3924	3944	3950	3962	3980	3980	3994	4009	
43	3675	3685	3690	3695	3704	3713	3714	3717	3755	3784	3794	3801	3818	3829	3840	3841	3884	3919	3937	3950	3954	3974	3983	3994	4007	

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SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - North

CREATED ON : 13/ 2/1987

GRID RECORD : 1

COLUMN [126] TO COLUMN [128] ROW [1] TO ROW [43]

	126	127	128
1	4270	4270	4270
2	4270	4270	4270
3	4270	4270	4270
4	4270	4270	4270
5	4270	4270	4270
6	4270	4270	4270
7	4270	4270	4270
8	4270	4270	4270
9	4270	4270	4270
10	4270	4270	4270
11	4270	4270	4270
12	4270	4270	4270
13	4270	4270	4270
14	4270	4270	4270
15	4270	4270	4270
16	4270	4270	4270
17	4270	4270	4270
18	4270	4270	4270
19	4270	4270	4270
20	4270	4270	4270
21	4270	4270	4270
22	4270	4270	4270
23	4270	4270	4270
24	4270	4270	4270
25	4270	4270	4270
26	4129	4139	4270
27	4136	4136	4270
28	4133	4139	4145
29	4138	4141	4153
30	4140	4138	4163
31	4129	4143	4146
32	4121	4142	4148
33	4111	4133	4143
34	4111	4116	4142
35	4098	4122	4133
36	4081	4106	4129
37	4061	4090	4108
38	4071	4082	4108
39	4061	4082	4108
40	4057	4085	4093
41	4058	4063	4085
42	4038	4054	4074
43	4028	4053	4063

PC-MINE VERSION 1.10
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GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

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SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - North

CREATED ON : 13/ 2/1987

GRID RECORD : 1

COLUMN [126] TO COLUMN [128] ROW [44] TO ROW [86]

126 127 128

44	4025	4044	4064
45	4020	4038	4058
46	4026	4044	4066
47	4025	4044	4060
48	4030	4039	4057
49	4030	4039	4053
50	4026	4033	4053
51	4028	4042	4068
52	4030	4046	4075
	4033	4051	4076
	4038	4059	4077
55	4046	4068	4081
56	4061	4079	4081
57	4074	4087	4101
58	4087	4084	4105
59	4097	4112	4114
60	4108	4106	4126
61	4107	4127	4139
62	4121	4139	4150
63	4135	4148	4149
64	4143	4162	4165
65	4155	4170	4182
66	4166	4171	4191
67	4190	4208	4225
68	4229	4236	4243
69	4233	4256	4264
70	4258	4258	4260
71	4258	4270	4270
72	4270	4270	4270
73	4270	4270	4270
74	4270	4270	4270
75	4270	4270	4270
76	4270	4270	4270
77	4270	4270	4270
78	4270	4270	4270
	4270	4270	4270
80	4270	4270	4270
81	4270	4270	4270
82	4270	4270	4270
83	4270	4270	4270
84	4270	4270	4270
85	4270	4270	4270
86	4270	4270	4270

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Faro F8701 Geological Reserve Model

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SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - North

CREATED ON : 13/ 2/1987

GRID RECORD : 1

COLUMN [126] TO COLUMN [128] ROW [87] TO ROW [128]

126 127 128

87	4270	4270	4270
88	4270	4270	4270
89	4270	4270	4270
90	4270	4270	4270
91	4270	4270	4270
92	4270	4270	4270
93	4270	4270	4270
94	4270	4270	4270
95	4270	4270	4270
96	4270	4270	4270
97	4270	4270	4270
98	4270	4270	4270
99	4270	4270	4270
100	4270	4270	4270
101	4270	4270	4270
102	4270	4270	4270
103	4270	4270	4270
104	4270	4270	4270
105	4270	4270	4270
106	4270	4270	4270
107	4270	4270	4270
108	4270	4270	4270
109	4270	4270	4270
110	4270	4270	4270
111	4270	4270	4270
112	4270	4270	4270
113	4270	4270	4270
114	4270	4270	4270
115	4270	4270	4270
116	4270	4270	4270
117	4270	4270	4270
118	4270	4270	4270
119	4270	4270	4270
120	4270	4270	4270
121	4270	4270	4270
122	4270	4270	4270
123	4270	4270	4270
124	4270	4270	4270
125	4270	4270	4270
126	4270	4270	4270
127	4270	4270	4270
128	4270	4270	4270

PC-MINE VERSION 1.10
SERIAL NO : 20000
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Faro F8701 Geological Reserve Model

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SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [126] TO COLUMN [128] ROW [1] TO ROW [43]

	126	127	128
1 :	4270	4270	4270
2 :	4270	4270	4270
3 :	4270	4270	4270
4 :	4270	4270	4270
5 :	4270	4270	4270
6 :	4270	4270	4270
7 :	4270	4270	4270
8 :	4270	4270	4270
9 :	4270	4270	4270
10 :	4270	4270	4270
11 :	4270	4270	4270
12 :	4270	4270	4270
13 :	4270	4270	4270
14 :	4270	4270	4270
15 :	4270	4270	4270
16 :	4270	4270	4270
17 :	4270	4270	4270
18 :	4270	4270	4270
19 :	4270	4270	4270
20 :	4270	4270	4270
21 :	4270	4270	4270
22 :	4270	4270	4270
23 :	4270	4270	4270
24 :	4270	4270	4270
25 :	4270	4270	4270
26 :	4270	4270	4270
27 :	4270	4270	4270
28 :	4270	4270	4270
29 :	4270	4270	4270
30 :	4270	4270	4270
31 :	4270	4270	4270
32 :	4270	4270	4270
33 :	4270	4270	4270
34 :	4270	4270	4270
35 :	4270	4270	4270
36 :	4270	4270	4270
37 :	4270	4270	4270
38 :	4270	4270	4270
39 :	4270	4270	4270
40 :	4270	4270	4270
41 :	4270	4270	4270
42 :	4270	4270	4270
43 :	4270	4270	4270

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [1] TO COLUMN [25] ROW [44] TO ROW [86]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
44 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
45 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
46 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
47 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
48 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
49 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
50 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
51 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
52 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
53 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
54 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
55 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
56 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
57 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270		
58 :	4128	4081	4126	4132	4270	4270	4270	4270	4126	4115	4115	4126	4270	4270	4270	4270	4124	4117	4099	4039	4038	4090	4270	4104	4096		
59 :	4075	4100	4122	4103	4110	4146	4270	4153	4137	4153	4093	4050	4051	4126	4123	4091	4090	4076	4066	4013	4018	4055	4069	4020	4060		
60 :	4108	4091	4084	4098	4143	4124	4133	4183	4187	4077	4072	4090	4094	4089	4092	4132	4120	4072	4061	4044	4019	4037	4064	4072	4057		
61 :	4060	4033	4027	4056	4069	4091	4105	4095	4087	4057	4045	4032	4034	4002	4003	4062	4039	4001	4002	4006	3990	3961	3969	4012	4021		
62 :	4023	3982	3982	3983	4013	3983	4018	4030	4034	4020	4004	3990	3990	3957	4001	4011	4002	3956	3954	3953	3945	3938	3927	3918	3915		
63 :	3981	3981	3982	3983	3983	3983	3983	3984	3984	3974	3963	3999	3957	3957	3957	3957	3959	3959	3958	3956	3956	3952	3950	3941	3932		
64 :	3981	3981	3982	3983	3983	3983	3984	3984	3984	3984	3969	3964	3958	3958	3960	3960	3962	3964	3962	3959	3957	3956	3956	3951	3945		
65 :	3981	3981	3982	3983	3983	3984	3984	3984	3985	3985	3985	3977	3966	3959	3961	3963	3964	3965	3965	3962	3958	3957	3956	3954	3954		
66 :	3981	3981	3982	3983	3983	3984	3984	3985	3985	3986	3986	3986	3987	4270	3966	3964	3965	3965	3963	3962	3961	3958	3957	3954	3954		
67 :	3981	3981	3982	3982	3983	3984	3985	3985	3986	3986	3986	3987	3987	4270	4270	4270	3969	3965	3962	3962	3962	3962	3963	3958	3954	3954	
68 :	3981	3981	3982	3982	3983	3983	3984	3985	3986	3986	3987	3988	3988	3988	3988	3988	4270	4270	4270	3966	3962	3961	3961	3961	3954	3953	
69 :	3981	3981	3981	3982	3982	3983	3984	3985	3986	3987	3988	3988	3988	3988	3988	3988	3988	4270	4270	3968	3969	3963	3961	3961	3956	3950	
70 :	3982	3982	3982	3982	3983	3983	3984	3986	3986	3988	3988	3988	3988	3988	3988	3988	3989	3989	3989	4270	3979	3968	3965	3965	3963	3967	
71 :	3982	3982	3982	3982	3983	3983	3984	3986	3986	3987	3987	3987	3987	3988	3988	3988	3989	3989	3989	4270	3979	3968	3965	3965	3963	3967	
72 :	3982	3982	3983	3983	3983	3984	3985	3986	3986	3987	3987	3987	3987	3988	3989	3989	3990	3990	3990	3990	3990	3990	3989	3988	3985	3979	
73 :	3982	3983	3983	3983	3984	3984	3985	3986	3987	3987	3988	3988	3988	3988	3989	3989	3990	3990	3990	3990	3990	3990	3990	3990	3988	3985	
74 :	3983	3983	3983	3984	3985	3985	3986	3987	3988	3988	3989	3989	3989	3990	3990	3990	3990	3991	3991	3990	3990	3990	3990	3990	3990	3990	
75 :	3983	3984	3984	3985	3985	3986	3986	3988	3988	3990	3990	3991	3991	3991	3990	3990	3991	3991	3991	3991	3991	3991	3990	3990	3990	3990	
76 :	3984	3984	3985	3985	3986	3987	3988	3989	3989	3990	3991	3992	3992	3992	3992	3992	3992	3992	3992	3992	3992	3992	3991	3990	3990	3990	
77 :	3985	3985	3985	3987	3987	3988	3989	3989	3989	3990	3991	3992	3993	3993	3993	3993	3993	3993	3994	3993	3994	3993	3995	4270	4270	4270	
78 :	3985	3986	3987	3988	3988	3988	3989	3990	3991	3992	3993	3994	3994	3994	3994	3995	3995	3996	3996	3996	3996	3996	3995	4270	4270	4270	3994
79 :	3985	3987	3987	3988	3989	3989	3989	3989	3991	3991	3993	3994	3994	3994	3995	3995	3996	3996	3996	3996	3997	4270	4270	4270	3997	3998	
80 :	3987	3987	3988	3988	3989	3989	3990	3991	3992	3994	3995	3995	3996	3996	3996	3996	3997	3997	3997	3997	3997	3997	4270	4270	4270	3998	3998
81 :	3986	3987	3989	3989	3989	3990	3990	3992	3993	3994	3995	3995	3996	3996	3996	3996	3996	3996	4270	4270	4270	4270	4270	4270	4000	4000	
82 :	4270	4270	4270	4270	4270	3991	4270	4270	3994	3994	3994	3997	3997	3997	4270	3997	4270	4270	4270	4270	4270	4270	4270	4270	4001	4001	
83 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4005	4004	
84 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4011	
85 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4017	4012	
86 :	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4017	4017	

FILE NO : 20000
2/1987

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [26] TO COLUMN [50] ROW [44] TO ROW [86]

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
44	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
45	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
46	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
47	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
48	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
49	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
50	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
51	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
52	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
53	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
54	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
55	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
56	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
57	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
58	4087	4091	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	
59	4054	4052	4006	4002	4045	4048	3993	4016	4092	4092	4054	4109	4091	4090	4106	4050	4087	4143	4111	4122	4270	4270	4270	4270	4157	
60	4022	3989	4047	4040	3966	3971	4045	4049	4049	4053	4102	4099	4053	4055	4098	4121	4078	4077	4165	4187	4175	4270	4270	4211	4105	
61	3975	3958	3976	3933	3872	3872	3966	3964	3922	4006	3996	3926	4003	4012	3942	3990	4017	3946	4035	4081	4071	4120	4199	4195	4057	
62	3915	3915	3913	3901	3873	3873	3870	3870	3870	3870	3939	3928	3906	3926	3939	3944	3940	3938	3947	3951	4004	4017	4018	3976	4025	
63	3918	3914	3914	3908	3907	3889	3875	3870	3870	3870	3870	3870	3871	3871	3871	3871	3871	3871	3870	3870	3869	3869	3869	3925	3928	3869
64	3935	3918	3915	3913	3907	3904	3889	3880	3871	3871	3871	3870	3871	3871	3871	3871	3871	3870	3869	3869	3869	3869	3869	3869	3869	3869
65	3944	3937	3919	3919	3913	3912	3907	3893	3881	3876	3871	3871	3871	3871	3871	3871	3870	3870	3869	3868	3868	3869	3869	3868	3869	3869
66	3953	3947	3940	3931	3921	3912	3911	3905	3887	3879	3884	3871	3871	3871	3870	3870	3869	3868	3868	3868	3868	3868	3868	3868	3868	3868
67	3953	3952	3946	3945	3939	3928	3916	3910	3903	3898	3895	3888	3877	3870	3869	3869	3868	3868	3867	3867	3867	3867	3867	3867	3867	3868
68	3951	3950	3950	3949	3948	3945	3935	3911	3909	3909	3901	3891	3883	3876	3882	3869	3868	3868	3867	3867	3867	3867	3867	3867	3867	3868
69	3949	3949	3949	3947	3947	3947	3947	3934	3924	3909	3909	3903	3898	3892	3881	3880	3873	3867	3867	3867	3867	3867	3867	3867	3867	3867
70	3957	3951	3947	3947	3946	3945	3946	3943	3942	3918	3913	3909	3903	3904	3892	3885	3874	3873	3867	3867	3867	3867	3867	3867	3867	3868
71	3964	3953	3949	3945	3945	3944	3942	3944	3941	3932	3923	3915	3908	3908	3904	3894	3878	3874	3880	3867	3868	3868	3867	3868	3869	3869
72	3970	3960	3955	3948	3950	3945	3943	3941	3942	3942	3932	3919	3914	3908	3908	3904	3897	3891	3878	3875	3869	3868	3868	3869	3869	3869
73	3980	3971	3962	3958	3962	3966	3963	3950	3939	3940	3935	3929	3923	3921	3910	3910	3900	3904	3897	3884	3872	3869	3868	3869	3869	3869
74	3985	3982	3976	3971	3972	3975	3975	3959	3943	3937	3936	3934	3928	3919	3915	3912	3912	3907	3908	3902	3885	3873	3868	3868	3859	3859
75	3990	3986	3984	3978	3976	3980	3981	3966	3950	3935	3936	3933	3930	3919	3914	3918	3918	3913	3912	3901	3890	3877	3868	3869	3861	3861
76	3990	3990	4270	3985	3984	3978	3979	3980	3966	3951	3932	3932	3931	3931	3932	3925	3921	3921	3913	3905	3901	3887	3873	3868	3854	3854
77	4270	4270	4270	4270	3986	3986	3981	3981	3974	3957	3940	3929	3928	3929	3927	3925	3921	3922	3919	3913	3900	3900	3887	3864	3849	3849
78	3995	3996	3996	3997	3987	3987	3987	3981	3972	3963	3943	3926	3925	3924	3924	3923	3923	3920	3919	3915	3906	3898	3874	3856	3839	3839
79	3998	3998	3998	3998	3996	3991	3988	3988	3983	3975	3965	3944	3932	3921	3921	3921	3920	3919	3916	3907	3900	3903	3886	3862	3826	3826
80	3998	3997	3997	3998	3994	3990	3984	3984	3984	3987	3969	3952	3923	3918	3917	3919	3917	3916	3902	3900	3887	3873	3860	3836	3823	3823
81	4000	4001	3998	3995	3993	3988	3983	3985	3977	3969	3962	3943	3922	3920	3916	3915	3903	3901	3910	3897	3879	3861	3837	3826	3819	3819
82	4001	4003	3999	4001	3994	3991	3984	3973	3963	3957	3946	3926	3919	3914	3914	3914	3901	3898	3887	3872	3847	3837	3822	3822	3822	3822
83	4003	4006	4005	4008	4007	3992	3987	3972	3961	3943	3935	3924	3911	3912	3906	3899	3891	3889	3867	3843	3839	3827	3828	3825	3823	3823
84	4013	4013	4013	4009	4003	3987	3980	3962	3946	3930	3914	3914	3909	3909	3905	3897	3882	3870	3850	3841	3830	3829	3830	3830	3828	3828
85	4017	4017	4016	4005	3979	3970	3965	3947	3920	3921	3918	3905	3906	3907	3904	3889	3870	3855	3851	3832	3832	3832	3831	3831	3801	3801
86	4012	4014	4012	3986	3971	3965	3941	3933	3920	3909	3902	3901	3895	3898	3892	3877	3858	3848	3842	3838	3838	3838	3833	3833	3792	3792

PC-MINE VERSION 1.10
 SERIAL NO : 20000
 2/1987

GEMCOM SERVICES INC.
 Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
 MODULE 4.01
 PAGE 10

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [51] TO COLUMN [75] ROW [44] TO ROW [86]

	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
44	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
45	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
46	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
47	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
48	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
49	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
50	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
51	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
52	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
53	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
54	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
55	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
56	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
57	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
58	4270	4066	4066	4053	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
59	4073	3978	3970	4010	3992	3921	3900	4081	4013	3961	3877	3951	3948	3907	3886	4018	4090	3973	3974	4031	4107	3990	4072	4110	4113
60	4036	4013	3990	3982	3906	3964	3951	3958	3964	3964	3948	3844	3838	3934	3960	3967	3966	4064	4075	4016	3995	4097	4096	4035	3999
61	4016	3935	3918	3864	3865	3859	3800	3818	3836	3871	3729	3788	3770	3807	3873	3918	3833	3896	3970	3859	3908	3939	3980	3869	3921
62	3923	3909	3850	3827	3775	3756	3755	3736	3731	3715	3717	3717	3722	3733	3738	3737	3737	3841	3838	3817	3820	3842	3835	3804	3739
63	3869	3868	3859	3858	3824	3780	3764	3744	3739	3740	3734	3746	3745	3744	3746	3742	3753	3758	3756	3750	3751	3756	3749	3742	3744
64	3869	3868	3868	3864	3841	3801	3785	3762	3758	3757	3760	3771	3776	3777	3772	3772	3769	3766	3765	3762	3762	3761	3756	3751	3747
65	3868	3869	3859	3855	3834	3809	3793	3772	3772	3774	3773	3783	3781	3779	3778	3777	3776	3774	3771	3761	3765	3765	3765	3766	3756
66	3869	3863	3853	3848	3835	3820	3810	3795	3787	3786	3786	3786	3784	3781	3779	3779	3779	3779	3775	3770	3768	3769	3767	3767	3764
67	3868	3870	3863	3860	3844	3822	3806	3797	3788	3787	3785	3785	3784	3783	3781	3780	3782	3781	3784	3775	3778	3776	3782	3778	3776
68	3868	3869	3865	3862	3846	3823	3810	3799	3789	3788	3787	3785	3784	3784	3793	3792	3791	3791	3790	3799	3801	3795	3805	3794	3793
69	3869	3870	3870	3864	3842	3823	3807	3795	3789	3789	3787	3786	3786	3817	3837	3835	3840	3838	3836	3839	3834	3832	3824	3832	3822
70	3869	3869	3871	3859	3840	3808	3797	3791	3790	3789	3787	3797	3805	3848	3870	3868	3868	3869	3865	3869	3867	3872	3870	3853	3857
71	3870	3858	3855	3838	3817	3803	3798	3792	3791	3790	3799	3830	3860	3874	3875	3880	3878	3880	3878	3877	3875	3877	3880	3879	3880
72	3864	3859	3840	3827	3806	3799	3793	3793	3792	3809	3822	3856	3872	3875	3885	3891	3893	3892	3898	3895	3894	3896	3888	3891	3905
73	3862	3853	3828	3813	3801	3795	3795	3794	3800	3813	3846	3873	3873	3878	3889	3895	3899	3900	3901	3903	3905	3902	3902	3904	3906
74	3851	3839	3828	3810	3809	3797	3795	3796	3797	3828	3865	3873	3874	3873	3884	3897	3897	3900	3899	3902	3905	3906	3910	3910	3909
75	3847	3823	3816	3806	3804	3801	3799	3800	3810	3835	3833	3844	3864	3873	3874	3883	3890	3892	3899	3899	3900	3907	3899	3908	3902
76	3832	3816	3807	3807	3803	3804	3805	3807	3815	3820	3828	3838	3857	3869	3871	3875	3878	3883	3876	3883	3879	3884	3887	3884	3884
77	3828	3814	3809	3805	3807	3808	3809	3812	3814	3819	3822	3844	3850	3865	3870	3870	3872	3873	3871	3870	3875	3874	3876	3876	3881
78	3825	3815	3808	3808	3807	3808	3809	3811	3816	3819	3821	3828	3829	3858	3868	3870	3870	3870	3870	3869	3869	3870	3870	3870	3870
79	3816	3814	3810	3808	3807	3806	3806	3807	3812	3816	3817	3825	3829	3855	3868	3871	3871	3870	3870	3870	3870	3870	3870	3870	3870
80	3821	3814	3813	3809	3806	3805	3802	3803	3801	3804	3809	3815	3836	3860	3869	3869	3871	3870	3870	3870	3870	3871	3871	3871	3870
81	3818	3817	3813	3812	3807	3802	3801	3797	3795	3793	3790	3797	3799	3833	3854	3870	3871	3871	3871	3871	3871	3871	3870	3870	3870
82	3822	3820	3816	3813	3808	3801	3801	3797	3793	3789	3788	3787	3784	3784	3798	3820	3845	3871	3872	3871	3871	3871	3870	3870	3870
83	3821	3820	3805	3781	3770	3763	3775	3796	3789	3788	3789	3787	3782	3781	3779	3791	3813	3842	3863	3863	3871	3870	3870	3870	3870
84	3826	3754	3735	3722	3724	3731	3732	3751	3781	3789	3789	3779	3779	3779	3779	3776	3787	3821	3841	3853	3859	3859	3864	3864	3870
85	3764	3721	3721	3722	3722	3725	3724	3731	3744	3753	3770	3773	3777	3776	3776	3774	3772	3791	3828	3836	3844	3860	3865	3872	3873
86	3749	3721	3721	3721	3721	3723	3723	3724	3743	3739	3755	3765	3775	3774	3771	3770	3768	3774	3807	3826	3832	3844	3858	3867	3868

PC-MINE VERSION 1.10
SERIAL NO : 20000
2/1987

GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 4.01
PAGE 11

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [76] TO COLUMN [100] ROW [44] TO ROW [86]

	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
44	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
45	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
46	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
47	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
48	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
49	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
50	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
51	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
52	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
53	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
54	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
55	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
56	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
57	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
58	4270	4270	4270	4270	4270	4270	4270	4270	4270	4014	3999	4005	4270	4270	4270	4270	4270	4270	4001	4012	4270	4270	4270	4270	4270
59	3993	4075	4118	3990	3984	3935	3985	4034	3972	3962	4061	4007	3915	3884	4002	4006	3969	3981	4092	4075	4023	3963	4018	4087	4034
60	4063	4099	3995	3984	3984	3977	3973	3986	4076	4015	3913	3947	3966	3957	3930	3948	4041	4057	3989	3987	4044	4072	4019	3978	4034
61	3925	3907	3907	3920	3864	3854	3831	3876	3926	3911	3887	3899	3879	3849	3750	3823	3910	3940	3950	3901	3901	3929	3950	3903	3823
62	3740	3743	3740	3737	3738	3739	3739	3741	3836	3829	3724	3711	3717	3714	3722	3787	3826	3838	3883	3874	3827	3835	3752	3762	3787
63	3745	3750	3748	3740	3740	3743	3742	3741	3742	3734	3738	3727	3729	3724	3726	3724	3722	3801	3767	3721	3728	3733	3742	3758	3786
64	3751	3752	3753	3746	3744	3744	3743	3742	3741	3739	3736	3735	3733	3731	3730	3729	3725	3724	3722	3726	3730	3730	3736	3766	3787
65	3754	3753	3752	3750	3746	3745	3743	3740	3738	3737	3735	3733	3732	3731	3730	3727	3726	3726	3724	3741	3742	3746	3749	3790	3790
66	3763	3761	3760	3761	3761	3751	3748	3745	3744	3733	3739	3732	3736	3731	3728	3726	3726	3726	3735	3736	3740	3749	3770	3790	3799
67	3766	3769	3774	3782	3780	3762	3764	3753	3746	3753	3766	3772	3761	3761	3758	3742	3740	3760	3775	3772	3756	3774	3789	3789	3817
68	3795	3799	3804	3792	3799	3805	3779	3779	3778	3806	3808	3799	3789	3793	3789	3783	3784	3784	3786	3787	3785	3789	3795	3819	3826
69	3822	3835	3828	3831	3830	3844	3836	3826	3827	3842	3835	3826	3823	3827	3826	3810	3800	3803	3804	3804	3806	3819	3836	3832	3841
70	3862	3858	3868	3857	3858	3859	3856	3865	3859	3862	3866	3872	3861	3859	3864	3855	3860	3867	3865	3865	3867	3872	3871	3867	3864
71	3874	3880	3873	3878	3872	3875	3865	3871	3878	3878	3878	3879	3880	3879	3881	3879	3887	3889	3880	3887	3886	3873	3875	3871	3872
72	3896	3893	3892	3900	3889	3885	3884	3891	3899	3900	3904	3894	3900	3898	3892	3898	3905	3902	3904	3912	3912	3907	3917	3925	3918
73	3905	3911	3906	3903	3901	3899	3904	3905	3907	3907	3912	3909	3907	3903	3908	3907	3912	3912	3911	3912	3912	3924	3938	3949	3943
74	3909	3909	3909	3910	3911	3912	3912	3911	3911	3911	3910	3911	3911	3911	3912	3911	3910	3911	3910	3919	3931	3943	3949	3949	3950
75	3904	3908	3902	3902	3909	3910	3911	3910	3910	3910	3910	3910	3910	3910	3909	3910	3909	3909	3914	3928	3939	3947	3950	3950	3951
76	3890	3891	3897	3900	3903	3905	3910	3910	3910	3909	3910	3910	3909	3909	3909	3909	3908	3908	3918	3930	3946	3951	3950	3951	3962
77	3877	3880	3886	3895	3906	3904	3909	3910	3910	3909	4270	3909	3909	3909	3909	3909	3909	3909	3922	3937	3951	3951	3951	3951	3967
78	3871	3876	3882	3889	3895	3904	3910	3910	3910	3910	3909	3909	3909	3910	3910	3910	3910	3915	3924	3942	3951	3950	3950	3958	3974
79	3871	3877	3886	3894	3901	3905	3910	3910	4270	4270	3910	4270	3910	3910	3910	3910	3911	3915	3934	3945	3950	3950	3950	3962	3958
80	3870	3882	3879	3893	3904	3905	3910	3910	3911	3911	3910	3910	3910	3910	3911	3911	3915	3925	3944	3952	3951	3950	3950	3959	3983
81	3870	3876	3885	3897	3903	3910	3910	3910	3911	3911	3911	3911	3910	3910	3911	3911	3916	3925	3943	3952	3950	3950	3956	3970	3977
82	3870	3876	3883	3898	3905	3911	3911	3911	3911	3911	3911	3911	3911	3910	3911	3911	3915	3923	3942	3949	3948	3956	3963	3967	3983
83	3875	3877	3891	3897	3907	3911	3911	3911	3911	3911	3911	3911	3911	3911	3911	3916	3912	3933	3942	3947	3946	3955	3960	3973	3981
84	3870	3876	3879	3902	3905	3911	3911	3911	3911	3911	3911	3910	3911	3911	3916	3918	3926	3937	3946	3946	3953	3953	3967	3991	4001
85	3873	3880	3885	3896	3905	3910	3910	3910	3911	3911	3910	3910	3911	3911	3920	3924	3935	3947	3946	3952	3962	3965	3983	4006	4010
86	3848	3877	3892	3901	3906	3910	3910	3911	3911	3911	3910	3910	3911	3911	3917	3924	3940	3943	3947	3947	3966	3977	3994	4006	4028

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/B6 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [101] TO COLUMN [125] ROW [44] TO ROW [86]

	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
44	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
45	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
46	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
47	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
48	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
49	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
50	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
51	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
52	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
53	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
54	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
55	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
56	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
57	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270	4270
58	4270	4270	4270	4270	4270	4270	4070	4072	4073	4010	4022	4026	4097	4095	4270	4270	4270	4270	4270	4161	4158	4155	4175	4180	4270
59	3984	4004	4020	3954	3956	4020	4023	3997	4009	4041	4042	4000	4004	4072	4080	4094	4157	4201	4137	4111	4115	4136	4142	4148	4192
60	4051	4003	4012	3997	3990	3939	4017	4008	4029	4032	4009	4019	4032	4056	4069	4129	4132	4149	4132	4123	4122	4125	4134	4163	4197
61	3914	3884	3896	3901	3882	3896	3932	3978	3998	3964	3944	3969	3998	3964	3997	4064	4098	4123	4075	4074	4077	4079	4094	4136	4155
62	3790	3790	3821	3831	3831	3846	3868	3887	3896	3905	3916	3933	3939	3947	3995	4023	4077	4035	4035	4035	4043	4047	4073	4107	4122
63	3790	3797	3831	3831	3839	3861	3874	3881	3883	3903	3935	3945	3952	3952	3959	4012	4037	4037	4037	4042	4050	4061	4087	4109	4120
64	3796	3811	3827	3835	3849	3875	3881	3887	3895	3906	3944	3946	3950	3951	3978	4019	4039	4038	4037	4052	4062	4079	4088	4114	4137
65	3804	3819	3825	3852	3863	3877	3882	3891	3904	3920	3942	3949	3955	3984	4003	4039	4041	4040	4044	4058	4085	4095	4106	4137	4146
66	3825	3835	3847	3865	3876	3878	3889	3907	3927	3942	3948	3948	3964	4003	4037	4037	4041	4040	4045	4079	4107	4105	4128	4149	4153
67	3840	3847	3860	3866	3883	3889	3902	3922	3942	3943	3945	3974	4003	4033	4037	4044	4049	4047	4066	4094	4113	4126	4141	4159	4170
68	3838	3853	3864	3884	3888	3903	3911	3928	3941	3956	3963	4016	4032	4033	4043	4053	4058	4082	4094	4110	4117	4141	4157	4183	4197
69	3847	3870	3890	3891	3904	3916	3923	3935	3971	3993	4017	4032	4032	4033	4059	4076	4090	4105	4106	4117	4135	4156	4174	4203	4213
70	3871	3880	3891	3904	3910	3926	3940	3959	3992	4016	4030	4031	4037	4064	4083	4084	4099	4106	4117	4132	4148	4176	4194	4207	4218
71	3888	3895	3902	3909	3921	3936	3951	3978	4004	4030	4030	4032	4055	4077	4083	4103	4111	4112	4131	4143	4173	4187	4201	4212	4216
72	3888	3907	3916	3934	3943	3958	3989	4014	4029	4029	4030	4053	4065	4079	4093	4109	4111	4127	4141	4149	4167	4194	4208	4216	4216
73	3920	3917	3928	3941	3959	3970	3998	4020	4030	4040	4043	4063	4073	4087	4107	4107	4117	4133	4157	4177	4183	4209	4213	4211	4225
74	3950	3959	3965	3970	3978	3992	4015	4023	4035	4045	4062	4074	4082	4101	4107	4118	4137	4156	4162	4187	4195	4204	4211	4210	4224
75	3956	3964	3976	3986	3996	4009	4027	4031	4048	4059	4068	4079	4092	4108	4118	4131	4144	4158	4178	4194	4208	4205	4222	4222	4270
76	3964	3972	3985	4007	4014	4021	4022	4045	4065	4072	4077	4094	4111	4121	4132	4149	4158	4179	4197	4207	4204	4224	4224	4224	4270
77	3974	3989	3995	4012	4023	4037	4039	4061	4068	4078	4102	4112	4120	4131	4144	4167	4188	4199	4204	4221	4221	4223	4224	4270	4270
78	3981	3997	4005	4009	4024	4049	4055	4070	4079	4099	4112	4121	4132	4144	4152	4172	4194	4209	4218	4219	4220	4222	4222	4221	4270
79	3984	3999	4014	4021	4031	4044	4054	4075	4101	4106	4122	4133	4146	4156	4161	4181	4198	4218	4218	4218	4220	4223	4226	4227	4233
80	3994	4002	4015	4022	4038	4042	4071	4094	4115	4115	4136	4150	4155	4177	4185	4196	4219	4223	4224	4223	4220	4230	4235	4236	4244
81	4010	4018	4028	4033	4038	4054	4081	4099	4109	4129	4151	4152	4165	4184	4205	4216	4222	4223	4223	4226	4238	4247	4246	4239	4256
82	4007	4024	4039	4040	4059	4075	4081	4099	4116	4137	4154	4154	4164	4183	4207	4215	4216	4221	4220	4227	4238	4248	4249	4256	4256
83	4008	4021	4038	4053	4067	4076	4098	4112	4118	4140	4149	4160	4175	4187	4211	4213	4214	4217	4221	4232	4243	4249	4252	4256	4256
84	4023	4041	4047	4051	4063	4086	4100	4112	4120	4138	4145	4171	4179	4195	4211	4213	4215	4218	4229	4242	4248	4249	4248	4253	4270
85	4027	4042	4049	4052	4062	4093	4108	4118	4134	4142	4159	4174	4192	4210	4211	4212	4214	4216	4231	4241	4248	4248	4248	4253	4270
86	4030	4044	4055	4071	4083	4083	4112	4137	4141	4139	4170	4178	4198	4211	4212	4213	4213	4216	4230	4242	4244	4247	4246	4251	4270

PC-MINE VERSION 1.10
PROJECT ID : 20000
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GEMCOM SERVICES INC.
Faro FB701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 4.01
PAGE 13

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [126] TO COLUMN [128] ROW [44] TO ROW [86]

	126	127	128
44	4270	4270	4270
45	4270	4270	4270
46	4270	4270	4270
47	4270	4270	4270
48	4270	4270	4270
49	4270	4270	4270
50	4270	4270	4270
51	4270	4270	4270
52	4270	4270	4270
53	4270	4270	4270
54	4270	4270	4270
55	4270	4270	4270
56	4270	4270	4270
57	4270	4270	4270
58	4270	4270	4270
59	4217	4237	4224
60	4185	4206	4221
61	4178	4172	4182
62	4121	4139	4160
63	4135	4148	4149
64	4143	4162	4165
65	4155	4170	4182
66	4166	4171	4191
67	4175	4189	4210
68	4217	4218	4214
69	4213	4232	4233
70	4218	4231	4233
71	4217	4229	4270
72	4226	4227	4270
73	4224	4270	4270
74	4270	4270	4270
75	4270	4270	4270
76	4270	4270	4270
77	4270	4270	4270
78	4270	4270	4270
79	4270	4270	4270
80	4270	4270	4270
81	4270	4270	4270
82	4270	4270	4270
83	4270	4270	4270
84	4270	4270	4270
85	4270	4270	4270
86	4270	4270	4270

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [26] TO COLUMN [50] ROW [87] TO ROW [128]

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
87	4009	4004	3992	3970	3967	3939	3919	3912	3909	3897	3896	3894	3891	3887	3875	3859	3847	3838	3839	3839	3839	3839	3839	3839	3746
88	4003	3992	3974	3968	3961	3931	3906	3900	3894	3894	3891	3890	3887	3875	3862	3851	3846	3841	3843	3839	3839	3839	3839	3839	3725
89	4010	3991	3980	3962	3951	3910	3899	3894	3893	3891	3886	3877	3871	3863	3852	3848	3844	3843	3843	3842	3841	3840	3725	3725	3723
90	4004	3987	3970	3947	3929	3901	3891	3891	3892	3891	3884	3867	3862	3854	3853	3847	3846	3846	3845	3845	3814	3750	3724	3723	3723
91	3996	3978	3964	3943	3911	3896	3889	3889	3889	3888	3878	3865	3855	3857	3851	3850	3850	3848	3847	3831	3785	3742	3734	3726	3723
92	3991	3971	3949	3924	3902	3890	3885	3887	3886	3879	3874	3868	3863	3856	3855	3853	3851	3850	3849	3794	3762	3749	3738	3729	3729
93	3986	3964	3925	3912	3896	3887	3884	3885	3882	3873	3873	3865	3862	3858	3857	3856	3853	3852	3830	3783	3753	3749	3740	3732	3728
94	3975	3950	3920	3908	3883	3878	3883	3884	3880	3874	3867	3864	3861	3860	3860	3858	3853	3830	3795	3779	3772	3756	3745	3729	3726
95	3973	3955	3928	3897	3885	3880	3881	3882	3876	3874	3871	3866	3862	3860	3863	3853	3846	3819	3805	3789	3782	3766	3747	3744	3729
96	3964	3941	3918	3900	3888	3877	3880	3881	3875	3871	3868	3865	3866	3864	3862	3851	3843	3827	3808	3792	3791	3790	3779	3765	3748
97	3961	3946	3917	3904	3887	3876	3878	3879	3874	3872	3869	3868	3869	3868	3859	3851	3841	3834	3818	3807	3793	3791	3789	3779	3768
98	3961	3941	3917	3905	3888	3877	3877	3877	3876	3873	3871	3870	3872	3868	3856	3849	3839	3834	3831	3821	3805	3795	3791	3788	3788
99	3968	3945	3918	3906	3894	3875	3877	3877	3875	3873	3872	3873	3874	3873	3859	3853	3841	3837	3837	3827	3815	3807	3800	3797	3792
100	3959	3942	3926	3905	3884	3881	3877	3877	3877	3875	3874	3873	3874	3874	3870	3854	3847	3844	3842	3834	3819	3814	3811	3803	3801
101	3967	3945	3923	3914	3889	3881	3876	3877	3876	3876	3875	3875	3874	3874	3866	3862	3849	3850	3844	3840	3834	3822	3814	3810	3810
102	3978	3952	3929	3910	3890	3872	3875	3876	3877	3877	3877	3876	3876	3873	3872	3864	3855	3852	3849	3851	3839	3828	3822	3819	3823
103	3990	3956	3936	3918	3897	3882	3878	3875	3877	3877	3877	3877	3877	3877	3879	3875	3874	3867	3863	3853	3853	3848	3834	3829	3830
104	3989	3985	3940	3913	3906	3887	3879	3875	3876	3878	3878	3878	3878	3880	3881	3880	3876	3870	3864	3856	3854	3855	3850	3853	3852
105	4001	3988	3942	3921	3911	3898	3882	3879	3879	3875	3877	3879	3880	3881	3880	3878	3874	3872	3871	3867	3865	3868	3870	3867	3867
106	4004	3989	3968	3926	3921	3904	3888	3880	3873	3875	3877	3879	3881	3881	3881	3879	3873	3870	3869	3869	3869	3869	3871	3871	3872
107	3999	3990	3985	3955	3933	3906	3904	3889	3882	3879	3876	3879	3880	3881	3882	3878	3878	3872	3870	3868	3869	3871	3872	3872	3876
108	3993	3986	3985	3976	3953	3922	3905	3899	3886	3880	3876	3879	3882	3882	3884	3883	3880	3878	3876	3875	3876	3876	3875	3881	3882
109	3974	3972	3975	3981	3982	3937	3911	3906	3894	3887	3885	3879	3881	3883	3884	3885	3887	3887	3886	3887	3889	3889	3892	3896	3899
110	3951	3952	3970	3979	3980	3969	3922	3912	3906	3893	3887	3884	3883	3884	3885	3885	3887	3889	3890	3893	3894	3895	3897	3899	3901
111	3949	3952	3955	3975	3978	3981	3948	3916	3914	3910	3900	3891	3892	3885	3886	3887	3887	3888	3890	3891	3895	3895	3899	3904	3907
112	3944	3948	3950	3958	3968	3975	3962	3939	3930	3912	3907	3899	3889	3886	3887	3887	3888	3892	3898	3906	3907	3912	3917	3915	3913
113	3940	3939	3934	3941	3957	3974	3976	3958	3930	3916	3910	3901	3894	3889	3888	3891	3900	3902	3909	3913	3918	3923	3923	3928	3932
114	3940	3932	3933	3945	3952	3969	3981	3984	3954	3929	3928	3913	3907	3895	3889	3894	3899	3908	3910	3923	3939	3938	3943	3945	3949
115	3937	3934	3933	3942	3964	3976	4001	3995	3960	3948	3941	3928	3901	3896	3891	3894	3900	3902	3912	3936	3950	3952	3957	3956	3974
116	3935	3932	3939	3954	3984	3998	3993	3988	3967	3952	3937	3921	3906	3897	3892	3895	3897	3903	3909	3936	3949	3962	3968	3972	3978
117	3931	3939	3948	3969	3984	4003	4001	3993	3965	3953	3939	3927	3907	3893	3894	3896	3903	3905	3916	3929	3961	3969	3970	3980	3985
118	3936	3947	3959	3977	3985	3990	3994	3986	3972	3957	3936	3923	3897	3897	3897	3901	3904	3907	3930	3946	3963	3972	3972	3976	3985
119	3949	3960	3961	3981	3983	3986	3986	3984	3975	3955	3929	3906	3899	3899	3900	3903	3903	3917	3934	3959	3971	3974	3978	3978	3986
120	3927	3938	3946	3970	3983	3981	3984	3981	3950	3926	3911	3900	3900	3899	3899	3901	3909	3926	3955	3963	3979	3982	3980	3979	3981
121	3921	3921	3920	3942	3980	3980	3976	3969	3936	3909	3905	3901	3901	3903	3902	3913	3925	3943	3963	3971	3974	3979	3979	3979	4270
122	3919	3919	3919	3938	3969	3967	3962	3945	3924	3910	3903	3903	3903	3905	3910	3918	3942	3954	3973	3975	3975	3975	3978	4270	4270
123	3915	3917	3916	3925	3956	3954	3951	3941	3917	3909	3904	3904	3904	3912	3913	3927	3944	3961	3975	3978	3978	3978	3977	4270	4270
124	3917	3916	3916	3914	3924	3941	3938	3938	3913	3906	3905	3910	3911	3924	3933	3941	3953	3959	3978	3977	3975	3978	4270	4270	4270
125	3916	3917	3915	3913	3912	3911	3913	3917	3907	3906	3911	3913	3924	3935	3943	3953	3951	3964	3971	3972	3972	3984	4270	4270	4270
126	3912	3914	3913	3912	3911	3910	3909	3908	3908	3908	3914	3920	3934	3947	3949	3954	3961	3969	3974	3973	3984	3984	4270	4270	4270
127	3914	3913	3912	3911	3910	3910	3909	3909	3909	3913	3921	3932	3943	3949	3950	3953	3959	3969	3976	3974	3985	4270	4270	4270	4270
128	3913	3913	3913	3912	3911	3911	3911	3910	3910	3920	3931	3942	3949	3949	3950	3956	3960	3971	3974	3974	3985	4270	4270	4270	4270

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [76] TO COLUMN [100] ROW [87] TO ROW [128]

	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	
87	3878	3877	3889	3898	3905	3909	3910	3910	3910	3911	3910	3911	3911	3912	3916	3923	3943	3943	3948	3955	3966	3979	3997	4013	4032	
88	3874	3877	3883	3894	3902	3904	3910	3910	3911	3911	3912	3912	3912	3912	3930	3943	3944	3947	3948	3962	3967	3980	4004	4028	4029	
89	3852	3869	3878	3880	3892	3903	3906	3910	3910	3911	3912	3912	3916	3918	3938	3948	3948	3948	3956	3957	3976	3996	4010	4028	4034	
90	3823	3846	3856	3869	3881	3901	3905	3905	3910	3910	3912	3913	3914	3919	3929	3944	3946	3949	3956	3966	3979	4001	4015	4030	4037	
91	3807	3818	3825	3842	3860	3891	3896	3898	3903	3910	3911	3913	3914	3915	3916	3928	3940	3945	3950	3961	3971	4002	4016	4028	4038	
92	3795	3805	3823	3832	3845	3870	3881	3895	3897	3910	3912	3913	3914	3914	3915	3920	3935	3939	3950	3954	3961	3993	4025	4032	4036	
93	3784	3798	3816	3824	3851	3877	3893	3895	3900	3912	3913	3914	3914	3919	3921	3929	3937	3945	3951	3963	3982	4004	4035	4035	4041	
94	3781	3800	3820	3838	3851	3893	3898	3904	3910	3913	3913	3914	3923	3925	3938	3945	3950	3950	3958	3989	3993	4034	4034	4050	4063	
95	3785	3801	3828	3839	3858	3889	3906	3905	3911	3912	3917	3918	3932	3948	3948	3949	3950	3957	3984	4005	4023	4033	4033	4042	4094	
	3797	3807	3826	3858	3868	3881	3899	3911	3911	3917	3922	3933	3946	3947	3949	3950	3956	3982	4003	4031	4033	4032	4032	4042	4063	
	3818	3829	3862	3868	3881	3891	3906	3910	3916	3932	3942	3943	3946	3949	3957	3966	3985	4000	4009	4016	4027	4033	4032	4046	4072	
98	3848	3860	3868	3880	3891	3906	3911	3918	3934	3939	3943	3947	3949	3958	3968	3983	4000	4017	4020	4027	4029	4033	4038	4048	4075	
99	3856	3874	3884	3893	3905	3912	3923	3930	3933	3936	3944	3953	3956	3959	3989	4003	4014	4027	4027	4029	4034	4034	4039	4044	4065	
100	3877	3892	3893	3906	3911	3914	3918	3929	3931	3939	3945	3951	3956	3990	4011	4031	4035	4029	4035	4035	4035	4035	4042	4047	4073	
101	3883	3893	3899	3912	3915	3916	3921	3923	3927	3938	3951	3951	3978	4002	4014	4033	4037	4037	4038	4036	4041	4040	4060	4069	4081	
102	3901	3902	3914	3914	3915	3915	3917	3921	3924	3950	3963	3985	3997	4016	4026	4034	4038	4037	4037	4036	4041	4052	4071	4084	4088	
103	3908	3912	3915	3915	3915	3915	3915	3927	3945	3971	3994	4001	4015	4031	4039	4038	4038	4037	4036	4036	4042	4065	4082	4091	4090	
104	3913	3914	3916	3915	3916	3922	3928	3941	3979	3992	4004	4021	4036	4038	4037	4038	4037	4036	4043	4041	4053	4074	4096	4094	4096	
105	3914	3915	3916	3927	3930	3937	3946	3966	3979	3998	4018	4036	4036	4036	4036	4036	4035	4035	4043	4038	4071	4083	4098	4098	4100	
106	3914	3915	3921	3931	3942	3951	3969	3984	3992	4010	4030	4035	4035	4034	4036	4034	4035	4035	4043	4060	4078	4101	4101	4102	4104	
107	3914	3923	3928	3947	3962	3969	3984	3989	4008	4025	4035	4034	4035	4035	4034	4034	4036	4042	4057	4081	4098	4106	4105	4106	4110	
108	3927	3932	3944	3960	3962	3981	3983	4002	4024	4033	4033	4034	4034	4034	4034	4033	4038	4037	4047	4071	4092	4104	4109	4109	4110	4112
109	3938	3952	3968	3971	3978	3984	4005	4017	4033	4033	4034	4034	4034	4035	4039	4040	4040	4060	4074	4102	4107	4110	4111	4113	4113	
110	3953	3966	3975	3982	3988	3999	4008	4024	4031	4033	4033	4033	4033	4038	4037	4042	4044	4055	4073	4089	4103	4112	4114	4115	4115	
111	3959	3967	3972	3989	3998	4013	4019	4027	4031	4032	4032	4035	4039	4042	4043	4046	4045	4045	4058	4093	4115	4117	4118	4118	4118	
112	3992	3997	3999	4003	4018	4018	4017	4023	4024	4031	4033	4034	4038	4042	4048	4048	4052	4052	4055	4270	4270	4122	4122	4122	4120	
113	4028	4027	4027	4026	4026	4027	4028	4029	4031	4033	4034	4034	4035	4042	4051	4053	4053	4053	4064	4084	4102	4125	4123	4123	4122	
114	4028	4027	4026	4026	4026	4026	4027	4270	4270	4032	4033	4039	4039	4041	4045	4053	4057	4061	4065	4066	4095	4109	4124	4123	4124	
115	4028	4027	4026	4026	4026	4027	4027	4270	4270	4031	4033	4034	4034	4043	4044	4057	4064	4066	4068	4270	4270	4099	4110	4125	4124	
116	4028	4027	4026	4027	4027	4028	4029	4031	4031	4270	4270	4270	4270	4270	4270	4065	4066	4067	4072	4073	4074	4088	4093	4112	4118	
117	4026	4026	4027	4027	4028	4030	4030	4031	4033	4033	4034	4035	4035	4270	4270	4270	4270	4270	4074	4075	4077	4078	4270	4107	4114	
118	4026	4026	4027	4029	4030	4032	4033	4034	4036	4036	4037	4037	4270	4270	4270	4270	4270	4075	4076	4081	4081	4081	4270	4097	4108	
119	4026	4026	4028	4030	4031	4033	4034	4037	4038	4040	4040	4039	4041	4270	4270	4270	4270	4270	4088	4088	4087	4086	4086	4086	4107	
120	4270	4270	4270	4030	4270	4037	4038	4039	4041	4043	4044	4044	4043	4045	4045	4270	4270	4270	4270	4091	4093	4094	4094	4096	4104	
121	4270	4270	4270	4270	4270	4270	4270	4044	4044	4045	4046	4046	4048	4048	4270	4270	4270	4270	4270	4097	4096	4098	4100	4102	4104	
	4270	4270	4270	4270	4270	4270	4046	4046	4047	4049	4049	4049	4051	4052	4270	4270	4270	4270	4099	4099	4100	4101	4101	4102	4106	
123	4270	4270	4270	4270	4270	4270	4270	4270	4053	4052	4053	4053	4054	4053	4054	4054	4270	4270	4099	4099	4101	4102	4103	4105	4106	
124	4270	4270	4270	4270	4270	4270	4270	4055	4055	4056	4055	4055	4056	4057	4056	4270	4270	4270	4270	4101	4102	4103	4104	4106	4108	
125	4270	4270	4270	4270	4270	4270	4270	4056	4057	4058	4059	4060	4059	4060	4061	4270	4270	4098	4098	4101	4103	4103	4106	4109		
126	4270	4270	4270	4270	4270	4270	4270	4063	4062	4062	4062	4062	4063	4062	4062	4062	4073	4270	4098	4098	4098	4101	4102	4106	4109	
127	4270	4270	4270	4270	4270	4270	4270	4064	4064	4065	4065	4064	4064	4065	4064	4070	4083	4095	4097	4097	4098	4100	4101	4102	4107	
128	4270	4270	4270	4270	4270	4270	4270	4270	4270	4068	4068	4067	4067	4072	4077	4086	4094	4095	4096	4098	4098	4100	4101	4102	4105	

PC-MINE VERSION 1.10
SERIAL NO : 20000
2/1987

GEMCOM SERVICES INC.
Faro F8701 Geological Reserve Model

SOFTWARE BY GEMCOM SERVICES INC
MODULE 4.01
PAGE 19

SURFACE ELEVATION GRID

CREATED BY INVERSE DISTANCE INTERPOLATION

DESCRIPTION : Faro November/86 Month End Pit Elevations - South

CREATED ON : 16/ 2/1987

GRID RECORD : 2

COLUMN [126] TO COLUMN [128] ROW [87] TO ROW [128]

	126	127	128
87 :	4270	4270	4270
88 :	4270	4270	4270
89 :	4270	4270	4270
90 :	4270	4270	4270
91 :	4270	4270	4270
92 :	4270	4270	4270
93 :	4270	4270	4270
94 :	4270	4270	4270
95 :	4270	4270	4270
96 :	4270	4270	4270
97 :	4270	4270	4270
98 :	4270	4270	4270
99 :	4270	4270	4270
100 :	4270	4270	4270
101 :	4270	4270	4270
102 :	4270	4270	4270
103 :	4270	4270	4270
104 :	4270	4270	4270
105 :	4270	4270	4270
106 :	4270	4270	4270
107 :	4270	4270	4270
108 :	4270	4270	4270
109 :	4270	4270	4270
110 :	4270	4270	4270
111 :	4270	4270	4270
112 :	4270	4270	4270
113 :	4270	4270	4270
114 :	4270	4270	4270
115 :	4270	4270	4270
116 :	4270	4270	4270
117 :	4270	4270	4270
118 :	4270	4270	4270
119 :	4270	4270	4270
120 :	4270	4270	4270
121 :	4270	4270	4270
122 :	4270	4270	4270
123 :	4270	4270	4270
124 :	4270	4270	4270
125 :	4270	4270	4270
126 :	4270	4270	4270
127 :	4270	4270	4270
128 :	4270	4270	4270

ASSAYS

Notes on F8701 Borehole Files

1.) INTRODUCTION

The DDHDB (Diamond Drill Hole Data Base) located on the HP3000 computer at the Faro Minesite contains assays, lithologies, downhole surveys and collar information for all the Faro Zone 3 drill holes. PCMINE software allows for importing drill hole data from an appropriately formatted ASCII file. I have written two FORTRAN programs to create the sequential ASCII file required by PCMINE.

2.) PROGRAM DH203A (HP3000 SYSTEM)

The first program, DH203A, is resident on the HP3000 computer at the Faro Minesite. This program creates a sequential ASCII file on the HP3000 disc and transfers the appropriate data for all drill holes in the DDHDB to this file. The ASCII file is named FARODDHS.PUB.GEOLOGY. Information stored in FARODDHS for each drill hole includes DDHID, collar coordinates, total depth, lithologic units, assays, and downhole surveys.

During execution of this program, collar coordinates for each drill hole are transformed from Mine Grid coordinates to F8701 model coordinates. All non-assayed waste intervals are given identical assay intervals with all elements being assigned an assay value of -1.0 (not measured).

Calculation of downhole surveys follows a more complex procedure. PCMINE software contains a very simple straight line downhole deviation correction. In contrast DDHDB contains a spline calculation resulting in a smoothly curving drill hole trace. To closely approximate this curved trace, the following procedures are followed in calculating a sequence of "theoretical" downhole surveys for importing to PCMINE. First azimuths in the existing downhole surveys are corrected by adding 45° to the measured azimuths. This accounts for the 45 degree rotation between the Mine Grid and the F8701 Model Grid. Next the downhole spline for the drill hole is calculated using existing DDHDB software. The position of the drill hole is determined relative to the collar for each 50 foot interval down the hole. Downhole deviations are calculated for each segment so that drillhole locations correspond to calculated drill hole positions. These calculated downhole surveys are then transferred to the output ASCII file.

Using program DH203A, all Faro drillholes presently in DDHDB were downloaded to the output ASCII file. This included the 25 drill holes completed in 1986. Program DH203A is not included on the Menu System at the Faro Minesite. If further drilling necessitates the downloading of additional drill holes, this may be accomplished using program DH203. In DH203 drill holes to be downloaded are requested by DDHID; this program is included in the Menu System at the Faro Minesite.

3.) FILE TRANSFER (HP3000 to IBM-Compatible Personal Computer)

The sequential ASCII file FARODDHS.PUB.GEOLOGY was transferred from the HP3000 system to an IBM-Compatible personal computer system using the software package REFLECTIONS. Consult with Faro Minesite Computer Information Services for help with connecting the two machines and using REFLECTIONS.

4.) PROGRAM DDHIMPRT (IBM-Compatible Personal Computer)

The sequential ASCII file transferred to the personal computer is still not fully compatible with PCMINE software. Lithology units from DDHDB are too complicated and detailed for the simplified geology represented by the F8701 model. DDHDB contains analyses for up to 15 elements; in contrast PCMINE only allows assays for a maximum of 5 elements to be imported into the mine model.

DDHIMPRT is a FORTRAN77 program which reads the DDHDB ASCII file and transfers the appropriate data to an output sequential file which is fully compatible with the PCMINE software restrictions. The User selects the elements to be transferred to the output file during each program run. In addition options are included for ignoring all drill holes whose collars are located outside a user-specified rectangle of interest and clipping all assay values for each element to user-specified maximum values.

Lithology units are not transferred to the output file by DDHIMPRT. After the program run is completed, the simplified geology units need to be entered using a text editor.

5.) F8701 DRILL HOLE DATA FILE (Pass 1)

3 data files, each containing assay results for 5 elements, were created ~~in~~ in separate DDHIMPRT runs. Elements included in these files were:

File Name	Elements	Purpose
FARODDH1.DAT	SG, Pb, Zn, Ag, Au	modelling
FARODDH2.DAT	Pb+Zn, Pb, Zn, Ag, Au	stats., plotting
FARODDH3.DAT	Pb+Zn, Cu, Po, Py, Ba	stats., plotting

assays transferred to the output file.
All -1.0 assays were changed to 0.0 in the output file. Waste intervals were included in the
With all these files only those drill holes between cross sections 116+070 and 125+000 were included. The rectangular area of interest defining this restriction was:

EASTING	Minimum: 20400.0	Maximum: 22850.0
NORTHING	Minimum: 37430.0	Maximum: 38680.0

None of the transferred assays were clipped to user-specified maximum values.

Lithology units for each drill hole ^{were} ~~was~~ determined using the F8701 geological cross-section interpretation. These units were also checked against the original field logs to determine the appropriate downhole from-to intervals. The desired lithology

information was added to the drill hole files using the text editor
VEDIT.

6.) F8701 DRILL HOLE DATA FILE (Pass 2)

#CONTRDL USLINIT, CROSSREF, LABEL
PROGRAM DH203

C*****

C CURRAGH RESOURCES

C*****

C PROGRAM DH203

C-----

C*****

C

C MAIN PROGRAM IN DIAMOND DRILL HOLE DATA BASE SYSTEM

C

C DESIGNED AND PROGRAMMED BY

C LEE PIGAGE

C CURRAGH RESOURCES - WHITEHORSE

C

C VERSION 1.0 FEBRUARY 1987

C*****

C SPECIAL '* FARD *' VERSION

C*****

C

C PROGRAM DH203 CREATES A DDH DATA FILE ON THE HP3000.

C THIS OUTPUT FILE CONTAINS COLLAR, LITHOLOGY, ASSAY, AND

C DOWNHOLE SURVEY DATA FOR REQUESTED DRILL HOLES IN THE DDHDB.

C THE FORMAT OF THE OUTPUT FILE IS COMPATIBLE (WITH ONLY MINOR

C EDITING) FOR INPUT TO PCMINE.

C*****

C

C INITIALIZE PROGRAM AND SET CONSTANTS

C

C 'DRILL-HOLE' MASTER DATA SET

C-----

C

C COMMON /DHMSTR/ DDHIDM, UTMS(3),TOTALD,SECTION,RFE,IRDIR,

1 MPLNGE(2),INDDDM,DUTMS(3),GEO LCS(3),

2 DDHBOX(6),INDSSM

CHARACTER*8 DDHIDM, SECTION

CHARACTER*2 RFE

DOUBLE PRECISION DUTMS, DDHBOX

C

C

C 'LITHOLOGIES' DETAIL DATA SET

C-----

C

C COMMON /DLITH/ DDHIDL,TDEPTH,ILITHU,CLITH,DLITH,RECOV,

1 INDDDL,DD2L(3)

CHARACTER DDHIDL*8, CLITH*8, DLITH*30

C

C

C 'ORE SAMPLES & ASSAYS' DETAIL DATA SET

C-----

C

C COMMON /DDHSAM/ DDHIDN,JSAMPL,LITHCD,ASLAB,ASCERT,NASC,

1 FDPHTA,TDPHTA,SRECOV,ASSAYS(20),

2 INDDDS,DD1S(3),DD2S(3),UTMS(3)

CHARACTER DDHIDN*8, ASLAB*10, ASCERT*8, LITHCD*8

INTEGER*4 JSAMPL

DOUBLE PRECISION UTMS

C

```

COMMON /DDHSUR/ DDHIDZ,SDEPTH,ZENITH,AZMUTH
C
COMMON /SURVBLK/ NSURRECS,SURVDATA(3,100)
C
COMMON /SURVEYX/ XDATA(4,100)
C
COMMON /PDATA/ PDATA(30,150),CBDATA(150)

CHARACTER*72 CHUNIT, CH72
CHARACTER*5 CH05, LITH

C
CHARACTER*8 DDHID, DDHIDX, CH08, CBDATA, DDHIDZ, PCMINE

C
CHARACTER*50 TITLE(3)
CHARACTER*1 CH01, BELL, APOS
CHARACTER*72 BUFFER
CHARACTER*6 SYSTEM, PROGRAM, DDHIDW
CHARACTER*38 LITH1, LITH2(300)
DIMENSION XLSORT(300), DPLITH(300), LITPTR(300)
REAL MN
INTEGER*4 NCHAIN

C
PI = 3.1415926
CHUNIT = " \"
CH72 = " \"
APOS = " \"
BELL = " \"
AZMCDR = -45.0
PCMINE = "FARODDHS"

C
C*****
C
IZ = 49
TITLE(1) = "      CREATION OF DIAMOND DRILL HOLE DATA FILE      "
TITLE(2) = "      FOR INPUT TO PCMINE (GEMCOM)                    "
TITLE(3) = "      (SPECIAL * FARD * MODEL - FEBRUARY 1987)      "
SYSTEM = "DDHDB \"
PROGRAM = "DH203 \"
DISPLAY \"      *****\"
DISPLAY \"      * \"
DISPLAY \"      *   PROGRAM DH203 *\"
DISPLAY \"      * \"
DISPLAY \"      *****\"
DISPLAY \" \"
DISPLAY TITLE(1)
DISPLAY TITLE(2)
DISPLAY TITLE(3)
DISPLAY \" \"

C
C
C
OPEN LINE PRINTER FOR OUTPUT AS UNIT FTN09

BUFFER = "FILE FTN09;DEV=LP,8;REC=-132,,F,ASCII;CCTL \"
BUFFER(43:1) = %15C
CALL COMMAND(BUFFER,IERR,IPARM)
IF (.CC.) 10,20,10
10  DISPLAY \" UNABLE TO OPEN LINE PRINTER FOR PRINTED OUTPUT\"
    DISPLAY \" DH203PR RUN TERMINATED ***\"
    STOP
    CONTINUE

C
C
C
PURGE ANY EXISTING PCMINE OUTPUT DATA FILE (FTN10)

BUFFER = "PURGE FARODDHS \"
BUFFER(15:1) = %15C
CALL COMMAND(BUFFER,IERR,IPARM)
IF (.CC.) 40,30,40

```

```

30 DISPLAY " *EXISTING 'PCMINE' FILE PURGED* "
C
C CREATE PCMINE OUTPUT DATA FILE (FTN10)
C
40 BUFFER = "BUILD FARODDHS;DISC=5000,1,1;REC=-72,3,F,ASCII "
BUFFER[47:1] = %15C
CALL COMMAND(BUFFER,IERR,IPARM)
IF (.CC.) 50,60,50
C
50 DISPLAY " UNABLE TO BUILD NEW 'PCMINE' DATA FILE"
DISPLAY " DH203PR RUN TERMINATED ***"
STOP
C
60 DISPLAY " *NEW 'PCMINE' DATA FILE BUILT =", PCMINE
BUFFER = "FILE FTN10=FARODDHS,OLD "
BUFFER[24:1] = %15C
CALL COMMAND(BUFFER,IERR,IPARM)
IF (.CC.) 70,80,70
C
70 DISPLAY " * UNABLE TO ASSIGN NEW 'PCMINE' DATA FILE *"
DISPLAY " *** DH203PR RUN TERMINATED ***"
STOP
80 CONTINUE
C
C PRINT REPORT TITLE PAGE
C
NTITLE = 3
CALL LTITLE(SYSTEM,PROGRAM,NTITLE,TITLE)
INXT = 0
IUSER = 20
MODE = 3
NLPP = 40
NLINE = 40
C
C OPEN 'DDHDB.ANVIL' DATA BASE
C
BUFFER = "FILE DDHDB=DDHDB.ANVIL.GEOLOGY "
BUFFER[31:1] = %15C
CALL COMMAND(BUFFER,IERR,IPARM)
IF (.CC.) 90,95,90
C
90 DISPLAY " * UNABLE TO ASSIGN 'ANVIL' DDHDB *"
DISPLAY " *** DH203PR RUN TERMINATED ***"
STOP
C
95 CALL DH700(IUSER,MODE)
C
C*****
C
C PROCESS A SPECIFIC DIAMOND DRILL HOLE
C -----
C
C SELECT THE DRILL HDLE
C
100 DISPLAY " "
DISPLAY " PLEASE ENTER DDH-ID FOR DATA EXTRACTION"
DISPLAY " ENTER 'END' TO STOP ", BELL
ACCEPT CH08
DDHID = CH08
IF (DDHID[1:1] .EQ. "*") GOTO 1000
IF (DDHID[1:3] .EQ. "END") GOTO 1000
NSUR = 0
NSURV = 0
NSAM = 0
NLITH = 0
NLREC = 1

```

```

C
C*****
C
C   GET DDHID MASTER RECDR FOR COLLAR INFORMATION
C
C   DDHIDX = DDHID
C   CALL DH710(DDHIDX,IRTRN)
C   IF (IRTRN .EQ. 0) GOTO 110
C   DISPLAY " "
C   DISPLAY " *** ERROR *** DDH=",DDHID," NOT IN 'ANVIL' DATA BASE"
C   DISPLAY BELL, BELL, BELL
C   GOTO 100
C
C 110 CONTINUE
C
C   DHUTMN = UTMCS(1)
C   DHUTME = UTMCS(2)
C   DHUTML = UTMCS(3)
C   TOTDDH = TOTALD
C
C   CALL LPAGE
C   WRITE (9,9000) DDHIDM, DHUTMN, TOTDDH, DHUTME, DHUTML
9000 FORMAT(/,4X,"DDH= ",A8,3X,"COLLAR COORDINATES = ",F10.1,
1      "MINE-N",5X,"TOTAL-DEPTH = ",F6.1,/,
2      9X,7(1H*),26X,F10.1," MINE-E",/,42X,F10.1," MINE-EL",/ )
C
C   CALCULATE COLLAR COORDINATES IN PCMINE MODEL COORDINATES
C
C   SQ = SQRT(2.0)
C   DDHE = 5150.758 + ((1.0/SQ) * (DHUTMN + DHUTME))
C   DDHN = 42121.320 + ((1.0/SQ) * (DHUTMN - DHUTME))
C
C   WRITE (9,9010) DDHN, DDHE, DHUTML
9010 FORMAT (15X,"TRANSFORMED COORDINATES = ",F10.1," MODEL-N",
1      /,42X,F10.1," MODEL-E",/,42X,F10.1," MODEL-EL" )
C
C*****
C
C   SEARCH RECORD CHAIN FOR 'DDHID' DOWN-HOLE SURVEYS
C
C   CALL DH716(DDHID,NCHAIN,IRTRN)
C   IF (IRTRN .EQ. 0) GOTO 210
C   DISPLAY " *** PROBLEM *** NO SURVEYS FOUND FOR DDH =", DDHID
C   WRITE (9, 9020) DDHID
9020 FORMAT (/,5X,"*** PROBLEM *** NO SURVEYS FOUND FOR DDH =",A8)
C   GOTO 100
C
C 210 IXSUR = NCHAIN
C   DISPLAY IXSUR,"DOWN-HOLE SURVEYS FOUND FOR DDH =",DDHID
C   WRITE (9, 9030) IXSUR,DDHID
9030 FORMAT(/,15X,I4," DOWN-HOLE SURVEYS FOUND FOR DDH = ",A7)
C
C 220 CALL DH717(IRTRN)
C   NSURRECS = NSUR
C   IF (IRTRN .NE. 0) GOTO 230
C
C   NSUR = NSUR + 1
C   SURVDATA(1,NSUR) = SDEPTH
C   SURVDATA(2,NSUR) = ZENITH
C   SURVDATA(3,NSUR) = AZMUTH
C
C   GOTO 220
C
C   SORT DOWN-HOLE SURVEY DATA INTO ORDER
C
C 230 CALL DH800(SURVDATA,1,NSUR)

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```

C
CALL LPAGE
WRITE (9,9040)
9040 FORMAT(5X,"DOWN-HOLE SURVEY DATA RETRIEVED FROM DATA BASE",
1 /,5X,46(1H*),//,5X,"DEPTH",5X,"ZENITH",4X,"AZIMUTH" )

DO 240 I = 1,NSUR
WRITE (9,9050) (SURVDATA(J,I), J=1,3)
9050 FORMAT (4X,F6.1,6X,F5.1,5X,F5.1)
240 CONTINUE

C
C ADJUST AZIMUTH FOR ROTATION TO PCMINE MODEL GRID
C
WRITE (9,9060) AZMCDR
9060 FORMAT (/,5X,"ROTATED DOWN-HOLE SURVEY DATA",
1 10X,"ROTATION =",F11.6," DEGREES",/,
2 5X,29(1H*),//,5X,"DEPTH",5X,"ZENITH",7X,"AZIMUTH")

C
DO 250 I = 1,NSUR
AZMUTH = SURVDATA(3,I) + AZMCDR
IF (AZMUTH .GE. 360.0) AZMUTH = AZMUTH - 360.0
IF (AZMUTH .LT. 0.0) AZMUTH = AZMUTH + 360.0
SURVDATA(3,I) = AZMUTH
WRITE (9, 9070) (SURVDATA(J,I), J=1,3)
9070 FORMAT (4X,F6.1,6X,F5.1,5X,F10.6)
250 CONTINUE

C
C CALCULATE DDH CUBIC-SPLINE PARAMETERS
C
CALL DH403(IERROR)
IF (IERROR .EQ. 0) GOTO 300
DISPLAY "*** ERROR *** CANNOT COMPUTE SPLINES FOR DDH = ",DDHIDM
DISPLAY BELL, BELL, BELL
GOTO 100

C
C*****
C
C SEARCH RECORD CHAIN FOR 'DDHID' LITHOLOGIES
C
300 CALL DH726 (DDHID,NCHAIN,IRTRN)
IF (IRTRN .EQ. 0) GOTO 310
IXLITH = 1
LITH2(IXLITH) = "NO LITHOLOGIES"
LITPTR(IXLITH) = 1
NLREC = 0
DPLITH(IXLITH) = TOTDDH
LITPTR(1) = 1
NLITH = 1
GOTO 320
310 IXLITH = NCHAIN
320 DISPLAY IXLITH, " LITHOLOGY UNITS FOUND FOR DDH = ", DDHID
WRITE (9, 9080) IXLITH, DDHID
9080 FORMAT (/4X,I4," LITHOLOGY UNITS FOUND FOR DDH = ", A7)
C
C RETRIEVE AND STORE THESE UNITS WITH THEIR LITH CODES
C
IF (NLREC .EQ. 0) GOTO 340
DO 330 IX=1, IXLITH
CALL DH727(IRTRN)
IF (IRTRN .NE. 0) GOTO 330
NLITH = NLITH + 1
LITHI = "
LITHI[1:8] = CLITH
LITHI[9:38] = DLITH
LITH2(NLITH) = LITHI

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DPLITH(NLITH) = TDETH
LITPTR(NLITH) = NLITH

330 CONTINUE

C
C
C
C
C

SDRT LITHOLOGY UNITS INTO ORDER
CALL DH800 (XLSORT, DPLITH, LITPTR,1,NLITH)
CONTINUE

C*****

C
C
C

SEARCH RECORD CHAIN FOR 'DDHID' ASSAY SAMPLES

400 CALL DH741(DDHID,NCHAIN,IRTRN)
IF (IRTRN .EQ. 0) GOTO 420
410 FROM1 = 0.0
TO1 = TOTDDH
CALL WASTE(NSAM,FROM1,TO1)
GOTO 500

C

420 IXSN = NCHAIN
DISPLAY IXSN," SAMPLES FOUND FOR DDH = ",DDHID
WRITE (9, 9090) IXSN,DDHID
9090 FORMAT (/,4X,I4," SAMPLES FOUND FOR DDH = ",A7)

C
C
C

STORE THESE SAMPLES WITH THEIR ASSAYS

IF (IXSN .LE. 0) GOTO 410
TO1 = 0.0
DO 450 IX=1, IXSN
CALL DH742(IRTRN)
IF (IRTRN .NE. 0) GOTO 450

FDEPTH = FDPHTA
TDEPTH = TDPHTA
RECOV = SRECOV
IF (ABS(FDEPTH - TO1) .LE. 0.01) GOTO 430
CALL WASTE(NSAM,TO1,FDEPTH)

C

430 NSAM = NSAM + 1
PDATA(1,NSAM) = FDEPTH
PDATA(2,NSAM) = TDEPTH
PDATA(3,NSAM) = RECOV
PDATA(4,NSAM) = 0.0

C

CBDATA(NSAM) = LITHCD
PDATA(5,NSAM) = JSAMPL
PDATA(6,NSAM) = 0.0
PDATA(7,NSAM) = 0.0
PDATA(8,NSAM) = 0.0
PDATA(9,NSAM) = 0.0
PDATA(10,NSAM) = 0.0

C

DO 440 IA=1,20
IP = IA + 10
PDATA(IP,NSAM) = ASSAYS(IA)

440 CONTINUE

TO1 = TDEPTH
CONTINUE
IF ((TOTDDH - TO1) .GE. 0.01) CALL WASTE(NSAM,TO1,TOTDDH)

C
C
C

SDRT SAMPLE DATA INTO DOWN-HOLE ORDER

IF (NSAM .LE. 1) GOTO 500
CALL DH492(PDATA,CBDATA,1,NSAM)

C

C*****

C
C WORK OUT DOWNHOLE SEGMENT SEQUENCE
C CREATE FICTITIOUS DOWNHOLE SURVEYS TO CLOSELY
C PARALLEL THE SMOOTH QUADRATIC SPLINE CALCULATIONS
C

500 CONTINUE
NSURV = 0
CALL SURVEY(NSURV, TOTDDH)

C*****

C GENERATION OF DDH OUTPUT RECORDS
C -----
C

C WRITE DDHID AND COLLAR COORDINATES TO OUTPUT FILE
C

WRITE (10,9100)
9100 FORMAT ('X*X') *delete these 2 spaces*

DDHIDW = DDHID[1:6]
WRITE (10,9110) APOS, DDHIDW, APOS

9110 FORMAT (A1,A6,A1)
WRITE (10,9120) APOS, ~~DDHIDW~~, APOS *→ WRITE(10,9125) DDHW, DDHE, DHUTAL, TOTDDH*

9120 FORMAT (A1,"DDH",A1) *9125 FORMAT (4F15.3)*

C WRITE LITHOLOGIC (GEOLOGY) UNITS TO OUTPUT FILE
C

WRITE (10,9130) NLITH
TDEPTH = 0.0

9130 FORMAT (I5)
DO 600 I = 1, NLITH
FDEPTH = TDEPTH
TDEPTH = DPLITH(I)
KPTR = LITPTR(I)
WRITE (10,9140) FDEPTH, TDEPTH, APOS, LITH2(KPTR), APOS

9140 FORMAT (2(2X,F6.1),5X,"XXX",5X,A1,A38,A1)

600 CONTINUE

C WRITE ASSAY SAMPLES TO OUTPUT FILE
C

WRITE (10,9130) NSAM
DO 800 I = 1, NSAM
FROM = PDATA(1,I)
TO = PDATA(2,I)
RECOV = PDATA(3,I)
JSAMPL = PDATA(5,I)
CHOB = CBDATA(I)
PB = -1.0
ZN = -1.0
AG = -1.0
CU = -1.0
AU = -1.0
SG = -1.0
WRSB = -1.0
PY = -1.0
PD = -1.0
TOTFE = -1.0
BAD = -1.0
MN = -1.0
HG = -1.0
AS = -1.0
PBZN = -1.0

C IF (PDATA(13,I) .LE. 0.0) GOTO 610

```

PB = PDATA (13,I)
C
610 IF (PDATA(14,I) .LE. 0.0) GOTO 620
    ZN = PDATA (14,I)
C
620 IF (PDATA(16,I) .LE. 0.0) GOTO 630
    AG = PDATA (16,I)
    GOTO 640
630 IF (PDATA(15,I) .GT. 0.0) AG = PDATA(15,I)
C
640 IF (PDATA(12,I) .LE. 0.0) GOTO 650
    CU = PDATA(12,I)
C
650 IF (PDATA(17,I) .LE. 0.0) GOTO 660
    AU = PDATA(17,I)
C
660 IF (PDATA(11,I) .LE. 0.0) GOTO 670
    SG = PDATA(11,I)
C
670 IF (PDATA(19,I) .LE. 0.0) GOTO 680
    PY = PDATA(19,I)
C
680 IF (PDATA(18,I) .LE. 0.0) GOTO 690
    PO = PDATA(18,I)
C
690 IF (PDATA(20,I) .LE. 0.0) GOTO 700
    BAD = PDATA(20,I)
C
700 IF (PB .LT. 0.0 .AND. ZN .LT. 0.0) GOTO 730
    IF (PB .GT. 0.0 .AND. ZN .GT. 0.0) GOTO 720
    IF (PB .LT. 0.0) GOTO 710
    PBZN = ZN
    GOTO 730
    PBZN = PB
    GOTO 730
    PBZN = PB + ZN
C
720 IF (PDATA(21,I) .LE. 0.0) GOTO 740
    HG = PDATA(21,I)
C
740 IF (PDATA(22,I) .LE. 0.0) GOTO 750
    MN = PDATA(22,I)
C
750 IF (PDATA(23,I) .LE. 0.0) GOTO 760
    AS = PDATA(23,I)
C
760 IF (PD .LT. 0.0 .AND. PY .LT. 0.0) GOTO 790
    IF (PD .GT. 0.0 .AND. PY .GT. 0.0) GOTO 780
    IF (PD .LT. 0.0) GOTO 770
    TOTFE = PY
    GOTO 790
770 TOTFE = PD
    GOTO 790
780 TOTFE = PD + PY
790 CONTINUE
C
    WRITE (10,9150) FROM,TD,RECOV,PB,ZN,AG,AU,CU,SG,WRSG
    FORMAT (2F8.1,F6.1,2F6.2,F6.1,2F6.2,2F5.2)
    WRITE (10,9160) PY,PD,TOTFE,BAD,MN,HG,AS,PBZN,CH08,JSAMPLE
    FORMAT (5F6.2,F6.3,F6.2,2X,AB,I10)
9160 CONTINUE
C
C WRITE DOWNHOLE SURVEY DATA TO OUTPUT FILE
C
    WRITE (10,9130) NSURV
    DO 810 IX = 1,NSURV

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WRITE (10,9170) (XDATA(J,IX), J=1,4)

9170 FORMAT (4F8.1)

810 CONTINUE

C
C*****

C
C LOOP BACK FOR NEXT DRILL HOLE

C
C GOTO 100

C
C CLOSE THE 'DDHDB' DATA BASE

C
1000 CALL DH799
ENDFILE 10
REWIND 10

C
C STDP
C END

C
C*****

C
#CONTROL USLIMIT,CROSSREF,LABEL
SUBROUTINE SURVEY(IXSUR,TOTDDH)

C
C*****

C
C SUBROUTINE SURVEY *
C ----- *
C *
C*****

C
C THIS SUBROUTINE CALCULATES DOWNHOLE DEVIATIONS EVERY 50 FEET *
C USING THE CHORD SEGMENTS FROM THE DDHDB SPLINE DOWNHOLE *
C TRAJECTORY CALCULATION. THESE DOWNHOLE DEVIATIONS ARE *
C ENTERED IN PCMINE AS SEQUENTIAL DOWNHOLE SURVEYS *
C *
C*****

C
COMMON /SURVEYX/ XDATA(4,100)

C
RTDD = 57.29578
XDATA(1,1) = 0.0
XDATA(2,1) = 0.0
XDATA(3,1) = 0.0
XDATA(4,1) = 0.0

C
C CALCULATE DOWN-HOLE CHORDS AND DEVIATIONS

C
IXSUR = 0
FROM = 0.0
TO = 0.0
X2 = 0.0
Y2 = 0.0
Z2 = 0.0

C
5 CONTINUE
TO = TO + 50.0
IF (TO .GT. TOTDDH) TO = TOTDDH
IXSUR = IXSUR + 1
X1 = X2
Y1 = Y2
Z1 = Z2
CALL DH405(TO,Y2,X2,Z2,IERRDR)
IF (IERRDR .NE. 0) GOTO 9800

C

```

C   CALCULATE ZENITH (DOWNHOLE DEVIATION) ANGLE
C
C   CHORD = SQRT((X2-X1)**2 + (Y2-Y1)**2 + (Z2-Z1)**2)
C   ZENR = ACOS((Z2-Z1)/CHORD)
C   ZENITH = ZENR*RTOD
C   ZENITH = ZENITH - 90.0
C
C   CALCULATE AZIMUTH ANGLE RELATIVE TO GRID NORTH
C
C   AZIMUTH = 0.0
C   IF ((ABS(X2-X1) .LT. 0.1) .AND. (ABS(Y2-Y1) .LT. 0.1)) GOTO 90
C
C   AZMR = ATAN2(ABS(X2-X1),ABS(Y2-Y1))
C   AZIMUTH = AZMR * RTOD
C
C   IF ((X2-X1) .LT. 0.0) GOTO 10
C   IF ((Y2-Y1) .LT. 0.0) AZIMUTH = 180.0 - AZIMUTH
C   GOTO 90
C
C   IF ((Y2-Y1) .LT. 0.0) GOTO 20
C   AZIMUTH = 360.0 - AZIMUTH
C   GOTO 90
C
C   AZIMUTH = 180.0 + AZIMUTH
C
C   CONTINUE
C
C   OUTPUT DOWNHOLE SURVEY INFORMATION TO LABELLED COMMON
C
C   XDATA(1,IXSUR) = FROM
C   XDATA(2,IXSUR) = TO
C   XDATA(4,IXSUR) = ZENITH
C   XDATA(3,IXSUR) = AZIMUTH
C
C   FROM = TO
C   IF (TO .EQ. TOTDDH) GOTO 100
C   GOTO 5
C
C   100 CONTINUE
C   RETURN
C
C   ERROR RETURN FOR DOWNHOLE SURVEY CALCULATIONS
C
C   9800 WRITE (9, 9901) TO
C   9901 FORMAT (/,5X,"*** FATAL ERROR *** WHILE COMPUTING DOWN-HOLE",
C   1      /,5X,"          COORDINATES AT DISTANCE =",F10.2,
C   2      /,5X,"          (OCCURRED IN S/R DH491 )" )
C   STOP
C   END
C
C*****
C
C$CONTROL USLINIT, CROSSREF, LABEL
C  SUBROUTINE WASTE(NSAM,FROM,TO)
C
C*****
C
C          S U B R O U T I N E   W A S T E
C          -----
C
C*****
C
C   THIS SUBROUTINE CREATES A "DUMMY" ASSAY SAMPLE FOR WASTE
C   INTERVALS.
C
C*****

```

```
C
COMMON /PDATA/ PDATA(30,150),CBDATA(150)
C
NSAM = NSAM + 1
CBDATA(NSAM) = "WASTE "
PDATA(1,NSAM) = FROM
PDATA(2,NSAM) = TO
DO 100 IX = 3,30
    PDATA(IX,NSAM) = 0.0
100 CONTINUE
RETURN
C
C*****
```

#CONTROL USLIMIT, CROSSREF, LABEL
PROGRAM DH203A

C*****
C CURRAGH RESOURCES *

C*****
C PROGRAM DH203A *

C*****

C MAIN PROGRAM IN DIAMOND DRILL HOLE DATA BASE SYSTEM *

C DESIGNED AND PROGRAMMED BY *

C VERSION 1.0 FEBRUARY 1987 *

C*****
C SPECIAL '* FARD *' VERSION *

C*****
C PROGRAM DH203A CREATES A DDH DATA FILE ON THE HP3000. *
C THIS OUTPUT FILE CONTAINS COLLAR, LITHOLOGY, ASSAY, AND *
C DOWNHOLE SURVEY DATA FOR EACH DRILL HOLE IN THE DDHDB. *
C THE FORMAT OF THE OUTPUT FILE IS COMPATIBLE (WITH ONLY MINOR *
C EDITING) FOR INPUT TO PCMINE. *
C*****

C INITIALIZE PROGRAM AND SET CONSTANTS

C 'DRILL-HOLE' MASTER DATA SET

C
COMMON /DHMSTR/ DDHIDM, UTMCS(3),TOTALD,SECTION,RFE,IRDIR,
1 MPLNGE(2),INDDDM,DUTMS(3),GEOLCS(3),
2 DDHBOX(6),INDSSM
CHARACTER*8 DDHIDM, SECTION
CHARACTER*2 RFE
DOUBLE PRECISION DUTMS, DDHBOX

C 'LITHOLOGIES' DETAIL DATA SET

C
COMMON /DLITH/ DDHIDL,TDEPTH,ILITHU,CLITH,DLITH,RECOV,
1 INDDDL,DD2L(3)
CHARACTER DDHIDL*8, CLITH*8, DLITH*30

C 'ORE SAMPLES & ASSAYS' DETAIL DATA SET

C
COMMON /DDHSAM/ DDHIDN,JSAMPL,LITHCD,ASLAB,ASCERT,NASC,
1 FDPHTA,TDPHTA,SRECOV,ASSAYS(20),
2 INDDDS,DD1S(3),DD2S(3),UTMS(3)
CHARACTER DDHIDN*8, ASLAB*10, ASCERT*8, LITHCD*8
INTEGER*4 JSAMPL
DOUBLE PRECISION UTMS

```

COMMON /DDHSUR/ DDHIDZ,SDEPTH,ZENITH,AZMUTH
C
COMMON /SURVBLK/ NSURRECS,SURVDATA(3,100)
C
COMMON /SURVEYX/ XDATA(4,100)
C
COMMON /PDATA/ PDATA(30,150),CBDATA(150)
C
CHARACTER*72 CHUNIT, CH72
CHARACTER*5 CH05, LITH
C
CHARACTER*8 DDHID, DDHIDX, CH08, CBDATA, DDHIDZ, PCMINE
C
CHARACTER*50 TITLE(3)
CHARACTER*1 CH01, BELL, APOS
CHARACTER*72 BUFFER
CHARACTER*6 SYSTEM, PROGRAM, DDHIDW
CHARACTER*38 LITH1, LITH2(300)
DIMENSION XLSORT(300), DPLITH(300), LITPTR(300)
REAL MN
INTEGER*4 NCHAIN
C
PI = 3.1415926
CHUNIT = " "
CH72 = " "
APOS = ""
BELL = ""
AZMCR = -45.0
PCMINE = "FARODDHS"
C
C*****
C
IZ = 49
TITLE(1) = "      CREATION OF DIAMOND DRILL HOLE DATA FILE      "
TITLE(2) = "      FOR INPUT TO PCMINE (GEMCOM)                  "
TITLE(3) = "      (SPECIAL * FARD * MODEL - FEBRUARY 1987)     "
SYSTEM = "DDHDB "
PROGRAM = "DH203A"
DISPLAY "      *****"
DISPLAY "      *                               *"
DISPLAY "      *   PROGRAM DH203A   *"
DISPLAY "      *                               *"
DISPLAY "      *****"
DISPLAY " "
DISPLAY TITLE(1)
DISPLAY TITLE(2)
DISPLAY TITLE(3)
DISPLAY " "
C
C OPEN LINE PRINTER FOR OUTPUT AS UNIT FTN09
C
BUFFER = "FILE FTN09;DEV=LP,8;REC=-132,,F,ASCII;CCTL "
BUFFER(43:11) = %15C
CALL COMMAND(BUFFER,IERR,IPARM)
IF (.CC.) 10,20,10
10 DISPLAY " UNABLE TO OPEN LINE PRINTER FOR PRINTED OUTPUT"
DISPLAY " DH203PR RUN TERMINATED ***"
STOP
CONTINUE
C
C PURGE ANY EXISTING PCMINE OUTPUT DATA FILE (FTN10)
C
BUFFER = "PURGE FARODDHS "
BUFFER(15:11) = %15C
CALL COMMAND(BUFFER,IERR,IPARM)
IF (.CC.) 40,30,40

```

```

30  DISPLAY " *EXISTING 'PCMINE' FILE PURGED* "
C
C  CREATE PCMINE OUTPUT DATA FILE (FTN10)
C
40  BUFFER = "BUILD FARDDH5;DISC=50000,1,1;REC=-72,3,F,ASCII "
    BUFFER[48:1] = %15C
    CALL COMMAND(BUFFER,IERR,IPARM)
    IF (.CC.) 50,60,50
C
50  DISPLAY " UNABLE TO BUILD NEW 'PCMINE' DATA FILE"
    DISPLAY " DH203PR RUN TERMINATED ***"
    STOP
C
60  DISPLAY " *NEW 'PCMINE' DATA FILE BUILT =", PCMINE
    BUFFER = "FILE FTN10=FARDDH5,OLD "
    BUFFER[24:1] = %15C
    CALL COMMAND(BUFFER,IERR,IPARM)
    IF (.CC.) 70,80,70
C
70  DISPLAY " * UNABLE TO ASSIGN NEW 'PCMINE' DATA FILE *"
    DISPLAY " *** DH203PR RUN TERMINATED ***"
    STOP
80  CONTINUE
C
C  PRINT REPORT TITLE PAGE
C
    NTITLE = 3
    CALL LTITLE(SYSTEM,PRGRAM,NTITLE,TITLE)
    INXT = 0
    IUSER = 20
    MODE = 3
    NLPP = 40
    NLINE = 40
C
C  OPEN 'DDHDB.ANVIL' DATA BASE
C
    BUFFER = "FILE DDHDB=DDHDB.ANVIL.GEOLOGY "
    BUFFER[31:1] = %15C
    CALL COMMAND(BUFFER,IERR,IPARM)
    IF (.CC.) 90,95,90
C
90  DISPLAY "* UNABLE TO ASSIGN 'ANVIL' DDHDB *"
    DISPLAY " *** DH203PR RUN TERMINATED ***"
    STOP
C
95  CALL DH700(IUSER,MODE)
C
C*****
C
C  PROCESS A SPECIFIC DIAMOND DRILL HOLE
C  -----
C
C  SELECT THE DRILL HOLE
C
100 CONTINUE
    NSUR = 0
    NSURV = 0
    NSAM = 0
    NLITH = 0
    NLREC = 1
C
C*****
C
C  GET DDHID MASTER RECRD FOR COLLAR INFORMATION
C
    CALL DH711(DDHIDX,IINTRN)

```

```

IF (IRTRN .EQ. 0) GOTO 110
GOTO 1000
C
110 CONTINUE
C
DDHID = DDHIDX
DISPLAY " "
DISPLAY " DDHID FOR DATA EXTRACTION", DDHIDX
DHUTMN = UTMCS(1)
DHUTME = UTMCS(2)
DHUTML = UTMCS(3)
TOTDDH = TOTALD
C
CALL LPAGE
WRITE (9,9000) DDHIDM, DHUTMN, TOTDDH, DHUTME, DHUTML
9000 FORMAT(/,4X,"DDH= ",A8,3X,"COLLAR COORDINATES = ",F10.1,
1      "MINE-N",5X,"TOTAL-DEPTH = ",F6.1,/,
2      9X,7(1H*),26X,F10.1," MINE-E",/,42X,F10.1," MINE-EL",/ )
C
C CALCULATE COLLAR COORDINATES IN PCMINE MODEL COORDINATES
C
SQ = SQRT(2.0)
DDHE = 5150.758 + ((1.0/SQ) * (DHUTMN + DHUTME))
DDHN = 42121.320 + ((1.0/SQ) * (DHUTMN - DHUTME))
C
WRITE (9,9010) DDHN, DDHE, DHUTML
9010 FORMAT (15X,"TRANSFORMED COORDINATES = ",F10.1," MODEL-N",
1      /,42X,F10.1," MODEL-E",/,42X,F10.1," MODEL-EL" )
C
C*****
C
C SEARCH RECORD CHAIN FOR 'DDHID' DOWN-HOLE SURVEYS
C
CALL DH716(DDHID,NCHAIN,IRTRN)
IF (IRTRN .EQ. 0) GOTO 210
DISPLAY " *** PROBLEM *** NO SURVEYS FOUND FOR DDH =", DDHID
WRITE (9, 9020) DDHID
9020 FORMAT (/,5X,"*** PROBLEM *** NO SURVEYS FOUND FOR DDH =",A8)
GOTO 100
C
210 IXSUR = NCHAIN
DISPLAY IXSUR,"DOWN-HOLE SURVEYS FOUND FOR DDH =",DDHID
WRITE (9, 9030) IXSUR,DDHID
9030 FORMAT(/,15X,I4," DOWN-HOLE SURVEYS FOUND FOR DDH = ",A7)
C
220 CALL DH717(IRTRN)
NSURRECS = NSUR
IF (IRTRN .NE. 0) GOTO 230
C
NSUR = NSUR + 1
SURVDATA(1,NSUR) = SDEPTH
SURVDATA(2,NSUR) = ZENITH
SURVDATA(3,NSUR) = AZMUTH
C
GOTO 220
C
C SORT DOWN-HOLE SURVEY DATA INTO ORDER
C
CALL DH800(SURVDATA,1,NSUR)
NSURRECS = NSUR
C
CALL LPAGE
WRITE (9,9040)
9040 FORMAT(5X,"DOWN-HOLE SURVEY DATA RETRIEVED FROM DATA BASE",
1      /,5X,46(1H*),//,5X,"DEPTH",5X,"ZENITH",4X,"AZIMUTH" )
C

```

```

DO 240 I = 1, NSUR
    WRITE (9, 9050) (SURVDATA(J, I), J=1, 3)
9050    FORMAT (4X, F6.1, 6X, F5.1, 5X, F5.1)
240    CONTINUE
C
C    ADJUST AZIMUTH FOR ROTATION TO PCMINE MODEL GRID
C
    WRITE (9, 9060) AZMCDR
9060    FORMAT (/ , 5X, "ROTATED DOWN-HOLE SURVEY DATA",
1        10X, "ROTATION =", F11.6, " DEGREES", /,
2        5X, 29(1H*), //, 5X, "DEPTH", 5X, "ZENITH", 7X, "AZIMUTH")
C
    DO 250 I = 1, NSUR
        AZMUTH = SURVDATA(3, I) + AZMCDR
        IF (AZMUTH .GE. 360.0) AZMUTH = AZMUTH - 360.0
        IF (AZMUTH .LT. 0.0) AZMUTH = AZMUTH + 360.0
        SURVDATA(3, I) = AZMUTH
        WRITE (9, 9070) (SURVDATA(J, I), J=1, 3)
9070    FORMAT (4X, F6.1, 6X, F5.1, 5X, F10.6)
250    CONTINUE
C
C    CALCULATE DDH CUBIC-SPLINE PARAMETERS
C
    CALL DH403(IERROR)
    IF (IERROR .EQ. 0) GOTO 300
    DISPLAY "*** ERROR *** CANNOT COMPUTE SPLINES FOR DDH = ", DDHIDM
    DISPLAY BELL, BELL, BELL
    GOTO 100
C
C*****
C
C    SEARCH RECORD CHAIN FOR 'DDHID' LITHOLOGIES
C
    CALL DH726 (DDHID, NCHAIN, ITRN)
    IF (ITRN .EQ. 0) GOTO 310
    IXLITH = 1
    LITH2(IXLITH) = "NO LITHOLOGIES"
    LITPTR(IXLITH) = 1
    NLREC = 0
    DPLITH(IXLITH) = TOTDDH
    LITPTR(1) = 1
    NLITH = 1
    GOTO 320
310    IXLITH = NCHAIN
320    DISPLAY IXLITH, " LITHOLOGY UNITS FOUND FOR DDH = ", DDHID
    WRITE (9, 9080) IXLITH, DDHID
9080    FORMAT (/4X, 14, " LITHOLOGY UNITS FOUND FOR DDH = ", A7)
C
C    RETRIEVE AND STORE THESE UNITS WITH THEIR LITH CODES
C
    IF (NLREC .EQ. 0) GOTO 340
    DO 330 IX=1, IXLITH
        CALL DH727(ITRNR)
        IF (ITRNR .NE. 0) GOTO 330
        NLITH = NLITH + 1
        LITH1 = "
        LITH1[1:8] = CLITH
        LITH1[9:38] = DLITH
        LITH2(NLITH) = LITH1
        DPLITH(NLITH) = TDEPTH
        LITPTR(NLITH) = NLITH
330    CONTINUE
C
C    SORT LITHOLOGY UNITS INTO ORDER
C
    CALL DH800 (XLSORT, DPLITH, LITPTR, 1, NLITH)

```

```

340 CONTINUE
C
C*****
C
C SEARCH RECDRD CHAIN FOR 'DDHID' ASSAY SAMPLES
C
400 CALL DH741(DDHID,NCHAIN,IRTRN)
IF (IRTRN .EQ. 0) GOTO 420
410 FROM1 = 0.0
TO1 = TOTDDH
CALL WASTE(NSAM,FROM1,TO1)
GOTO 500
C
420 IXSN = NCHAIN
DISPLAY IXSN," SAMPLES FOUND FOR DDH = ",DDHID
WRITE (9, 9090) IXSN,DDHID
9090 FORMAT (/,4X,I4," SAMPLES FOUND FOR DDH = ",A7)
C
C STORE THESE SAMPLES WITH THEIR ASSAYS
C
IF (IXSN .LE. 0) GOTO 410
TO1 = 0.0
DO 450 IX=1, IXSN
CALL DH742(IRTRN)
IF (IRTRN .NE. 0) GOTO 450
C
FDEPTH = FDPHTA
TDEPTH = TDPHTA
RECOV = SRECOV
IF (ABS(FDEPTH - TO1) .LE. 0.01) GOTO 430
CALL WASTE(NSAM,TO1,FDEPTH)
C
NSAM = NSAM + 1
PDATA(1,NSAM) = FDEPTH
PDATA(2,NSAM) = TDEPTH
PDATA(3,NSAM) = RECOV
PDATA(4,NSAM) = 0.0
C
CBSDATA(NSAM) = LITHCD
PDATA(5,NSAM) = JSAMPL
PDATA(6,NSAM) = 0.0
PDATA(7,NSAM) = 0.0
PDATA(8,NSAM) = 0.0
PDATA(9,NSAM) = 0.0
PDATA(10,NSAM) = 0.0
C
DO 440 IA=1,20
IP = IA + 10
PDATA(IP,NSAM) = ASSAYS(IA)
440 CONTINUE
TO1 = TDEPTH
450 CONTINUE
IF ((TOTDDH - TO1) .GE. 0.01) CALL WASTE(NSAM,TO1,TOTDDH)
C
C SORT SAMPLE DATA INTO DOWN-HOLE ORDER
C
IF (NSAM .LE. 1) GOTO 500
CALL DH492(PDATA,CBSDATA,1,NSAM)
C*****
C
C WORK OUT DOWNHOLE SEGMENT SEQUENCE
C CREATE FICTITIOUS DOWNHOLE SURVEYS TO CLOSELY
C PARALLEL THE SMOOTH QUADRATIC SPLINE CALCULATIONS
C
500 CONTINUE

```

C
C*****

C
C GENERATION OF DDH OUTPUT RECORDS
C -----

C
C WRITE DDHID AND COLLAR COORDINATES TO OUTPUT FILE
C

```
9100 WRITE (10,9100)
      FORMAT (" # ") delete from 2 spaces
      DDHIDW = DDHID[1:6]
      WRITE (10,9110) APOS, DDHIDW, APOS
9110  FORMAT (A1,A6,A1)
      WRITE (10, 9120) APOS,"DDH",APOS
9120  FORMAT (A1,"DDH",A1)
```

C
C WRITE LITHOLOGIC (GEOLOGY) UNITS TO OUTPUT FILE
C

```
      WRITE (10,9130) NLITH
      TDEPTH = 0.0
9130  FORMAT (15)
      DO 600 I = 1, NLITH
          FDEPTH = TDEPTH
          TDEPTH = DPLITH(I)
          KPTR = LITPTR(I)
          WRITE (10,9140) FDEPTH,TDEPTH,APOS,LITH2(KPTR),APOS
9140  FORMAT (2(2X,F6.1),5X,"XXX",5X,A1,A38,A1)
600   CONTINUE
```

C
C WRITE ASSAY SAMPLES TO OUTPUT FILE
C

```
      WRITE (10,9130) NSAM
      DO 800 I = 1, NSAM
          FROM = PDATA(1,I)
          TO = PDATA(2,I)
          RECDV = PDATA(3,I)
          JSAMPL = PDATA(5,I)
          CHOB = CSDATA(I)
          PB = -1.0
          ZN = -1.0
          AG = -1.0
          CU = -1.0
          AU = -1.0
          SG = -1.0
          WRSB = -1.0
          PY = -1.0
          PD = -1.0
          TOTFE = -1.0
          BAD = -1.0
          MN = -1.0
          HG = -1.0
          AS = -1.0
          PBZN = -1.0
```

```
      IF (PDATA(13,I) .LE. 0.0) GOTO 610
      PB = PDATA (13,I)
```

```
C
610  IF (PDATA(14,I) .LE. 0.0) GOTO 620
      ZN = PDATA (14,I)
```

```
C
620  IF (PDATA(16,I) .LE. 0.0) GOTO 630
      AG = PDATA (16,I)
```

```

GOTO 640
630 IF (PDATA(15,I) .GT. 0.0) AG = PDATA(15,I)
C
640 IF (PDATA(12,I) .LE. 0.0) GOTO 650
CU = PDATA(12,I)
C
650 IF (PDATA(17,I) .LE. 0.0) GOTO 660
AU = PDATA(17,I)
C
660 IF (PDATA(11,I) .LE. 0.0) GOTO 670
SG = PDATA(11,I)
C
670 IF (PDATA(19,I) .LE. 0.0) GOTO 680
PY = PDATA(19,I)
C
680 IF (PDATA(18,I) .LE. 0.0) GOTO 690
PO = PDATA(18,I)
C
690 IF (PDATA(20,I) .LE. 0.0) GOTO 700
BAD = PDATA(20,I)
C
700 IF (PB .LT. 0.0 .AND. ZN .LT. 0.0) GOTO 730
IF (PB .GT. 0.0 .AND. ZN .GT. 0.0) GOTO 720
IF (PB .LT. 0.0) GOTO 710
PBZN = ZN
GOTO 730
710 PBZN = PB
GOTO 730
720 PBZN = PB + ZN
C
730 IF (PDATA(21,I) .LE. 0.0) GOTO 740
HG = PDATA(21,I)
C
740 IF (PDATA(22,I) .LE. 0.0) GOTO 750
MN = PDATA(22,I)
C
750 IF (PDATA(23,I) .LE. 0.0) GOTO 760
AS = PDATA(23,I)
C
760 IF (PD .LT. 0.0 .AND. PY .LT. 0.0) GOTO 790
IF (PD .GT. 0.0 .AND. PY .GT. 0.0) GOTO 780
IF (PD .LT. 0.0) GOTO 770
TOTFE = PY
GOTO 790
770 TOTFE = PD
GOTO 790
780 TOTFE = PD + PY
790 CONTINUE
C
WRITE (10,9150) FROM,TO,RECDV,PB,ZN,AG,AU,CU,SG,WRS6
9150 FORMAT (2F8.1,F6.1,2F6.2,F6.1,2F6.2,2F5.2)
WRITE (10,9160) PY,PD,TOTFE,BAD,MN,HG,AS,PBZN,CHOB,JSAMPLE
9160 FORMAT (5F6.2,F6.3,F6.2,2X,AB,I10)
800 CONTINUE
C
C WRITE DOWNHOLE SURVEY DATA TO OUTPUT FILE
C
WRITE (10,9130) NSURV
DO 810 IX = 1,NSURV
WRITE (10,9170) (XDATA(J,IX), J=1,4)
9170 FORMAT (4F8.1)
810 CONTINUE
C
C*****
C
C LOOP BACK FOR NEXT DRILL HOLE

```

```

C      GOTO 100
C
C      CLOSE THE 'DDHDB' DATA BASE
C
C      1000 CALL DH799
C      ENDFILE 10
C      REWIND 10
C
C      STOP
C      END
C
C*****
C
C$CONTROL USLINIT,CROSSREF,LABEL
C      SUBROUTINE SURVEY(IXSUR,TOTDDH)
C
C*****
C
C      SUBROUTINE SURVEY
C      -----
C*****
C
C      THIS SUBROUTINE CALCULATES DOWNHOLE DEVIATIONS EVERY 50 FEET
C      USING THE CHORD SEGMENTS FROM THE DDHDB SPLINE DOWNHOLE
C      TRAJECTORY CALCULATION. THESE DOWNHOLE DEVIATIONS ARE
C      ENTERED IN PCMINE AS SEQUENTIAL DOWNHOLE SURVEYS
C*****
C
C      COMMON /SURVEYX/ XDATA(4,100)
C
C      RTOD = 57.29578
C      XDATA(1,1) = 0.0
C      XDATA(2,1) = 0.0
C      XDATA(3,1) = 0.0
C      XDATA(4,1) = 0.0
C
C      CALCULATE DOWN-HOLE CHORDS AND DEVIATIONS
C
C      IXSUR = 0
C      FROM = 0.0
C      TO = 0.0
C      X2 = 0.0
C      Y2 = 0.0
C      Z2 = 0.0
C
C      5 CONTINUE
C      TO = TO + 50.0
C      IF (TO .GT. TOTDDH) TO = TOTDDH
C      IXSUR = IXSUR + 1
C      X1 = X2
C      Y1 = Y2
C      Z1 = Z2
C      CALL DH405(TO,Y2,X2,Z2,IERRDR)
C      IF (IERRDR .NE. 0) GOTO 9800
C
C      CALCULATE ZENITH (DOWNHOLE DEVIATION) ANGLE
C
C      CHORD = SQRT((X2-X1)**2 + (Y2-Y1)**2 + (Z2-Z1)**2)
C      ZENR = ACOS((Z2-Z1)/CHORD)
C      ZENITH = ZENR*RTOD
C      ZENITH = ZENITH - 90.0
C

```

```

C   CALCULATE AZIMUTH ANGLE RELATIVE TO GRID NORTH
C
C   AZIMUTH = 0.0
C   IF ((ABS(X2-X1) .LT. 0.1) .AND. (ABS(Y2-Y1) .LT. 0.1)) GOTO 90
C
C   AZMR = ATAN2(ABS(X2-X1),ABS(Y2-Y1))
C   AZIMUTH = AZMR * RTOD
C
C   IF ((X2-X1) .LT. 0.0) GOTO 10
C   IF ((Y2-Y1) .LT. 0.0) AZIMUTH = 180.0 - AZIMUTH
C   GOTO 90
C
C   10  IF ((Y2-Y1) .LT. 0.0) GOTO 20
C   AZIMUTH = 360.0 - AZIMUTH
C   GOTO 90
C
C   20  AZIMUTH = 180.0 + AZIMUTH
C
C   90  CONTINUE
C
C   OUTPUT DOWNHOLE SURVEY INFORMATION TO LABELLED COMMON
C
C   XDATA(1,IXSUR) = FROM
C   XDATA(2,IXSUR) = TO
C   XDATA(4,IXSUR) = ZENITH
C   XDATA(3,IXSUR) = AZIMUTH
C
C   FROM = TO
C   IF (TO .EQ. TOTDDH) GOTO 100
C   GOTO 5
C
C   100 CONTINUE
C   RETURN
C
C   ERROR RETURN FOR DOWNHOLE SURVEY CALCULATIONS
C
C   9800 WRITE (9, 9901) TO
C   9901 FORMAT (/ ,5X, "*** FATAL ERROR *** WHILE COMPUTING DOWN-HOLE",
C   1      / ,5X, "          COORDINATES AT DISTANCE =",F10.2,
C   2      / ,5X, "          (OCCURRED IN S/R DH491 )" )
C   STOP
C   END
C
C*****
C
C#CONTROL USLINIT, CROSSREF, LABEL
C   SUBROUTINE WASTE(NSAM,FROM,TO)
C
C*****
C
C           S U B R O U T I N E   W A S T E
C   -----
C
C*****
C
C   THIS SUBROUTINE CREATES A "DUMMY" ASSAY SAMPLE FOR WASTE
C   INTERVALS.
C
C*****
C
C   COMMON /PDATA/ PDATA(30,150),CBDATA(150)
C
C   NSAM = NSAM + 1
C   CBDATA(NSAM) = "WASTE "
C   PDATA(1,NSAM) = FROM
C   PDATA(2,NSAM) = TO

```

DO 100 IX = 3,30
PDATA(IX,NSAM) = 0.0

100 CONTINUE
RETURN

C
C*****

D Line# 1 7

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```

1 #NOFLOATCALLS
2 #DEBUG
3 PROGRAM DDHIMPRT
4 C
5 C*****
6 C
7 C CURRAGH RESOURCES
8 C
9 C*****
10 C
11 C PROGRAM DDHIMPRT
12 C
13 C*****
14 C
15 C Designed and programmed by
16 C
17 C Lee C. Pigage
18 C Curragh Resources
19 C Whitehorse, YT
20 C
21 C Version 1.0 February 1987
22 C
23 C*****
24 C
25 C DDHIMPRT reads the drill hole database file written from the DDHDB
26 C (Diamond Drill Hole DataBase). Up to 5 elements are selected for
27 C transfer of assays to an ASCII file written by this program.
28 C The output ASCII file is in a format fully compatible with
29 C importing the boreholes into the Faro F8701 Model using Module
30 C 8 (see description of Module 8 in PCMINE software documentation).
31 C
32 C Each drill hole in the DDHDB input ASCII file has the following
33 C sequence of records:
34 C
35 C LINE VARIABLE FORMAT
36 C 1 Drill hole name 'A6'
37 C 2 Drill hole type 'A3'
38 C 3 Collar Northing F15.3
39 C 3 Collar Easting F15.3
40 C 3 Collar Elevation F15.3
41 C 3 Total drill hole length F15.3
42 C 4 Number of lithology units I5
43 C 5 Lithology From 2X,F6.1
44 C 5 Lithology To 2X,F6.1
45 C 5 Lithology Rock Code 5X,'A38'
46 C (line 5 is repeated for the number of lithology units)
47 C 6 Number of assays I5
48 C 7 Assay From F8.1
49 C 7 Assay To F8.1
50 C 7 Assay recovery F6.1
51 C 7 Pb F6.2
52 C 7 Zn F6.2
53 C 7 Ag F6.1
54 C 7 Au F6.2
55 C 7 Cu F6.2
56 C 7 SG F6.2

```

```

D Line# 1 7
57 C 7 WRSB F6.2
58 C 8 Py F6.2
59 C 8 Po F6.2
60 C 8 TotFe F6.2
61 C 8 BaO F6.2
62 C 8 Mn F6.2
63 C 8 Hg F7.3
64 C 8 As F6.2
65 C 8 Pb+Zn F6.2
66 C 8 Rock Type 2X,AB
67 C 8 Assay sample number 110
68 C (lines 7 and 8 are repeated for the number of assays)
69 C 9 Number of downhole surveys 15
70 C 10 Survey From F8.1
71 C 10 Survey To F8.1
72 C 10 Survey azimuth F8.1
73 C 10 Survey zenith (dip) F8.1
74 C (line 10 is repeated for the number of surveys)
75 C
76 C
  
```

Each drill hole in the output ASCII file has the following sequence of records:

LINE	VARIABLE	FORMAT
1	Drill hole name	'A6'
2	Drill hole type	'A3'
3	Collar Northing	F15.3
3	Collar Easting	F15.3
3	Collar Elevation	F15.3
3	Total drill hole length	F15.3
4	Number of assays	15
5	Assay From	F8.1
5	Assay To	F8.1
5	Assay element #1	F10.3
5	Assay element #2	F10.3
5	Assay element #3	F10.3
5	Assay element #4	F10.3
5	Assay element #5	F10.3
(line 5 is repeated for the number of assays)		
6	Number of downhole surveys	15
7	Survey From	F8.1
7	Survey To	F8.1
7	Survey azimuth	F8.1
7	Survey zenith (dip)	F8.1
(line 7 is repeated for the number of surveys)		
C*****		
C*****		
C*****		
Set Dimensions and Initialize Program Constants and Counters		
CHARACTER*64 FINAME, FONAME		
CHARACTER*1 E,IYES,ACOPY		
CHARACTER*5 ELEMENT(15),DDHTYPE		
CHARACTER*8 DDHID, RKTYPE		

```
D Line# 1 7
113 CHARACTER*40 DESC
114 DIMENSION ASSAY(15),PASSAY(5),ISELECT(5),XMAXVAL(5)
115 NASSAY = 0
116 NDDH = 0
117 NDDHU = 0
118 IWINDOW = 0
119 ICLIP = 0
120 E = CHAR(27)
121 DATA ELEMENT / 'Pb ', 'Zn ', 'Ag ', 'Au ', 'Cu ', 'SG ',
122 1 'WRSg ', 'Py ', 'Po ', 'TotFe', 'BaO ', 'Mn ',
123 2 'Hg ', 'As ', 'Pb+Zn' /
124 C
125 C Initialize display screen
126 C
127 CALL DISPLAY
128 C
129 C*****
130 C Enter names of input and output files from console
131 C
132 WRITE(*,900)
133 900 FORMAT (' Enter name of DDH file containing drill holes: '\)
134 READ (*,905) FINAME
135 905 FORMAT (A64)
136 WRITE (*,910)
137 910 FORMAT (' Enter name of output extraction file: '\)
138 READ (*,905) FONAME
139 C
140 C Open the indicated files for I/O operations
141 C 7 = Input file
142 C 8 = Output file
143 C
144 OPEN (7,FILE=FINAME, ACCESS='SEQUENTIAL', STATUS='OLD')
145 OPEN (8,FILE=FONAME, ACCESS='SEQUENTIAL', STATUS='NEW')
146 WRITE (8,915) FINAME
147 915 FORMAT ('* Drill Hole File created from file = ', A64)
148 C
149 C Set up window (PCMINE Model Coordinates) for rejecting drillholes
150 C outside the rectangle of interest
151 C
152 WRITE (*,920)
153 920 FORMAT ('OExclude drill holes outside a rectangle of interest ',
154 1 '(Y/N) ? '\)
155 READ (*,925) IYES
156 925 FORMAT (A1)
157 C
158 IF (IYES .EQ. 'Y' .OR. IYES .EQ. 'y') THEN
159 IWINDOW = 1
160 WRITE (*,930)
161 930 FORMAT ('OEnter minimum and maximum model coordinates for ',
162 1 'rectangle of interest')
163 WRITE (*,935)
164 935 FORMAT ('O Minimum Easting : '\)
165 READ (*,940) XMINE
166 940 FORMAT (F20.0)
167 WRITE (*,945)
168 945 FORMAT (' Maximum Easting : '\)
```

```

D Line# 1 7 Microsoft FORTRAN77 V3.31 August 1985
169 READ (*,940) XMAXE
170 WRITE (*,950)
171 950 FORMAT ('0 Minimum Northing : '\)
172 READ (*,940) XMINN
173 WRITE (*,955)
174 955 FORMAT (' Maximum Northing : '\)
175 READ (*,940) XMAXN
176 WRITE (8,960)
177 960 FORMAT ('* Drill holes selected from area bounded by: ')
178 WRITE (8,965) XMINE, XMAXE
179 965 FORMAT('* Minimum Easting = ',F10.2,' Maximum Easting = ',F10.2)
180 WRITE (8,970) XMINN, XMAXN
181 970 FORMAT('* Minimum Northing = ',F10.2,' Maximum Northing = ',F10.2)
182 ENDIF
183 IF (IWINDOW .EQ. 0) WRITE (8,975)
184 975 FORMAT ('* No rectangle area of interest specified')
185 C
186 C*****
187 C Select up to 5 elements for which assays are to be transferred
188 C from the input file to the output file
189 C
190 CALL DISPLAY
191 C
192 WRITE (*,980)
193 980 FORMAT (' Select up to 5 elements to be transferred to the',
194 1 ' output data file.')
195 WRITE (*,985)
196 985 FORMAT (' Indicate the order of the elements chosen by',
197 1 ' using numerals 1-5.')
198 WRITE (*,990)
199 990 FORMAT (' (1 = first element in output sequence)')
200 C
201 DO 100 IX = 1,15
1 202 WRITE (*,995) ELEMENT(IX)
1 203 995 FORMAT (' ',A5,' = ')
1 204 100 CONTINUE
205 DO 110 IX = 1,15
1 206 IY = IX + 7
1 207 IF (IY .GE. 10) THEN
1 208 WRITE (*,1000) E, IY
1 209 ELSE
1 210 WRITE (*,1002) E, IY
1 211 1002 FORMAT (' ',A1,'[',I1,';',19H'\)
1 212 1000 FORMAT (' ',A1,'[',I2,';',19H'\)
1 213 ENDIF
1 214 READ (*,1005) ICHOOSE
1 215 1005 FORMAT (I10)
1 216 IF (ICHOOSE .LE. 0) GOTO 110
1 217 NASSAY = NASSAY + 1
1 218 ISELECT(ICHOOSE) = IX
1 219 IF (NASSAY .GE. 5) GOTO 120
1 220 110 CONTINUE
221 120 CONTINUE
222 WRITE (*,1010) E
223 1010 FORMAT (' ',A1,'[10;25H'\)
224 WRITE (*,1015) NASSAY, (ELEMENT(ISELECT(I)),I=1,NASSAY)

```

```

D Line# 1      7      - Microsoft FORTRAN77 V3.31 August 1985
225 1015 FORMAT (' The following ',I2,' elements have been selected'
226      1      , / ,25X,5A8)
227      WRITE (8,1020) (ELEMENT(ISELECT(I)),I=1,NASSAY)
228 1020 FORMAT ('* Elements in this file = ', 5A8)
229      WRITE (*,1022) E
230 1022 FORMAT (' ',A1,'[23;5H'\)
231      PAUSE
232 C
233 C*****
234 C      Set up clipping routine to establish a maximum allowed assay
235 C      value for each of the selected elements
236 C
237      CALL DISPLAY
238      WRITE (*,1025)
239 1025 FORMAT (' Clip the assays to maximum permitted values (Y/N) ? '\)
240      READ (*,925) IYES
241 C
242      IF (IYES .EQ. 'Y' .OR. IYES .EQ. 'y') THEN
243      ICLIP = 1
244      DO 130 I = 1,NASSAY
1 245          WRITE (*,1030) ELEMENT(ISELECT(I))
1 246 1030      FORMAT (' Maximum permitted value for ', A5, ' : '\)
1 247          READ (*,940) XMAXVAL(I)
1 248 130      CONTINUE
249      WRITE (8,1035)
250 1035 FORMAT ('* Assays in this file clipped to maximum values')
251      WRITE (8,1040) (XMAXVAL(I),I=1,NASSAY)
252 1040 FORMAT ('*', 5F10.3)
253      ENDIF
254 C
255      IF (ICLIP .EQ. 0) WRITE (8,1045)
256 1045 FORMAT ('* No clipping of assays')
257 C
258 C*****
259 C      Start transferring the DDH data to the output file
260 C
261 C      Erase screen and rewrite display for data transfer
262 C
263      CALL DISPLAY
264 C
265 200      CONTINUE
266      READ (7,925,END=800) ACOPY
267      IF (ACOPY .NE. '*') GOTO 200
268 C
269 C      Read DDHID = Drill Hole Name
270 C
271      NDDH = NDDH + 1
272      READ (7,1050) DDHID
273 1050 FORMAT (A8)
274      WRITE (*,1055) E, DDHID
275 1055 FORMAT (' ',A1,'[5;5HProcessing Drill Hole = ',A8)
276 C
277 C      Read drill hole type
278 C
279      READ (7,1060) DDHTYPE
280 1060 FORMAT (A5)

```

```

D Line# 1      7      Microsoft FORTRAN77 V3.31 August 1985
281 C
282 C      Read Northing, Easting, Elevation, Total Depth
283 C
284      READ (7,1065) XNORTH,XEAST,XELEV,TOTDDH
285 1065      FORMAT (4F15.3)
286      IF (IWINDOW .EQ. 0) GOTO 210
287      IF (XNORTH .LT. XMINN .OR. XNORTH .GT. XMAXN) GOTO 700
288      IF (XEAST .LT. XMINE .OR. XEAST .GT. XMAXE) GOTO 700
289 210      CONTINUE
290      WRITE (8,925) ACOPY
291      WRITE (8,1050) DDHID
292      WRITE (8,1060) DDHTYPE
293      NDDHU = NDDHU + 1
294      WRITE (*,1070) NDDH, NDDHU
295 1070      FORMAT ('      DDH PROCESSED = ',I10,'      DDH WRITTEN = ',I10)
296      WRITE (8,1065) XNORTH,XEAST,XELEV,TOTDDH
297 C
298 C      Read Number of Lithology Units
299 C
300      READ (7,1075) NLITH
301 1075      FORMAT (I5)
302 C
303 C      Read Lithology Units
304 C
305      DO 220 IX = 1,NLITH
1 306          READ (7,1080) FROM,TO,DESC
1 307 1080          FORMAT (2(2X,F6.1),5X,A40)
308 220      CONTINUE
309 C
310 C      Read Number of Assay Units
311 C
312      READ (7,1075) NSAM
313      WRITE (8,1075) NSAM
314 C
315 C      Read Assay Samples
316 C
317      DO 240 IX = 1,NSAM
1 318          READ (7,1085) FROM,TO,(ASSAY(I),I=1,7)
1 319 1085          FORMAT (2F8.1,6X,2F6.2,F6.1,4F6.2)
1 320          READ (7,1090) (ASSAY(I),I=8,15), RKTYPE
1 321 1090          FORMAT (5F6.2,F7.3,2F6.2,2X,A8)
1 322          IF (RKTYPE .EQ. 'WASTE' .AND. ASSAY(6) .EQ. -1.0)
1 323              1      ASSAY(6) = 2.70
1 324          DO 230 JX = 1,NASSAY
2 325              PASSAY(JX) = ASSAY(ISELECT(JX))
2 326              IF (PASSAY(JX) .EQ. -1.0) PASSAY(JX) = 0.0
2 327              IF (ICLIP .EQ. 0) GOTO 230
2 328              IF (PASSAY(JX) .GT. XMAXVAL(ISELECT(JX)))
2 329              1      PASSAY(JX) = XMAXVAL(ISELECT(JX))
2 330 230          CONTINUE
1 331          WRITE (8,1100) FROM,TO,(PASSAY(I),I=1,NASSAY)
1 332 1100          FORMAT (2F8.1,5F10.3)
333 240      CONTINUE
334 C
335 C      Read Number of Down-hole Surveys
336 C

```

```

D Line# 1      7
337          READ (7,1075) NSURV
338          WRITE (8,1075) NSURV
339 C
340 C      Read Down-hole Surveys
341 C
342          DO 250 I = 1,NSURV
1 343          READ (7,1110) FROM,TO,AZIMUTH,ZENITH
1 344 1110          FORMAT (4F8.1)
1 345          WRITE (8,1110) FROM,TO,AZIMUTH,ZENITH
1 346 250          CONTINUE
347 C
348 C      Loop back to process another drill hole
349 C
350          GOTO 200
351 C
352 700          CONTINUE
353          WRITE (8,1115) ACOFY,DDHID
354 1115          FORMAT (A1,5X,A8)
355 C
356          GOTO 200
357 C
358 C      Close the input and output files
359 C
360 800          CONTINUE
361          CLOSE (7)
362          CLOSE (8)
363          STOP
364          END

```

Name	Type	Offset	P	Class
ACOPY	CHAR*1	1874		
ASSAY	REAL	156		
AZIMUT	REAL	2334		
CHAR				INTRINSIC
DDHID	CHAR*8	1875		
DDHTYP	CHAR*5	1950		
DESC	CHAR*40	2172		
E	CHAR*1	236		
ELEMEN	CHAR*5	80		
FINAME	CHAR*64	293		
FONAME	CHAR*64	413		
FROM	REAL	2164		
I	INTEGER*4	1486		
ICHOOS	INTEGER*4	1454		
ICLIP	INTEGER*4	232		
ISELEC	INTEGER*4	60		
IWINDO	INTEGER*4	228		
IX	INTEGER*4	1378		
IY	INTEGER*4	1402		
IYES	CHAR*1	613		
JX	INTEGER*4	2302		
SSAY	INTEGER*4	216		
DDH	INTEGER*4	220		
NDDHU	INTEGER*4	224		
NLITH	INTEGER*4	2096		

```

D Line# 1      7
NSAM  INTEGER*4      2232
NRV   INTEGER*4      2326
SAY   REAL           40
RKTYPE CHAR*8       2268
TO    REAL           2168
TOTDDH REAL         2028
XEAST REAL          2020
XELEV REAL          2024
XMAXE REAL          838
XMAXN REAL           910
XMAXVA REAL         20
XMINE REAL          794
XMINN REAL          874
XNORTH REAL         2016
ZENITH REAL         2338

```

```
365      SUBROUTINE DISPLAY
```

```
366 C
```

```
367 C      Clear screen and set up colour heading for display
```

```
368 C
```

```
369      CHARACTER*1 E
```

```
370      E = CHAR(27)
```

```
371      WRITE (*,10) E
```

```
372 10      FORMAT (' ',A1,'[2J')
```

```
373      WRITE (*,20) E
```

```
374 20      FORMAT (' ',A1,'[0m')
```

```
375      WRITE (*,30) E
```

```
376 30      FORMAT (' ',A1,'[1;1H-----')
```

```
377      WRITE (*,40) E
```

```
378 40      FORMAT (' ',A1,'[1;42H-----')
```

```
379      WRITE (*,50) E
```

```
380 50      FORMAT (' ',A1,'[31;47m')
```

```
381      WRITE (*,60) E
```

```
382 60      FORMAT (' ',A1,'[2;5H CURRAGH RESOURCES')
```

```
383      WRITE (*,70) E
```

```
384 70      FORMAT (' ',A1,'[2;53H PROGRAM DDHIMPRT')
```

```
385      WRITE (*,80) E
```

```
386 80      FORMAT (' ',A1,'[0m')
```

```
387      WRITE (*,90) E
```

```
388 90      FORMAT (' ',A1,'[3;1H-----')
```

```
389      WRITE (*,100) E
```

```
390 100     FORMAT (' ',A1,'[3;42H-----')
```

```
391      WRITE (*,110) E,E
```

```
392 110     FORMAT (' ',A1,'[32m',A1,'[5;1H\')
```

```
393      RETURN
```

```
394      END
```

```
Name      Type      Offset P Class
```

```
CHAR      INTRINSIC
```

```
E         CHAR*1    2410
```

```
395
```

D.Line# 1 7

File	Type	Size	Class
DDHIMP			PROGRAM
DISPLA			SUBROUTINE

Pass One No Errors Detected
395 Source Lines

D:\>

PRINTOUT OF CURRENT EXTRACTION DATA

DESCRIPTION : Borehole Header Data

NORTHING:	EASTING:	ELEVATION:	REAL VALUE:	INTEGER VALUE:	STRING VALUE:
38445.78	21837.06	4100.40	744.000	1	66-03
38444.79	21272.51	4018.10	673.200	2	66-05
38444.02	22403.81	4188.30	766.000	3	66-06
38163.15	22120.54	4156.70	810.000	4	66-07
37875.22	21828.50	4121.40	849.000	5	66-10
37878.40	22403.45	4191.50	759.500	6	66-11
38443.66	22120.47	4161.10	800.000	7	66-46
38161.52	22686.72	4217.10	700.000	8	66-47
38161.38	21554.79	4059.50	750.000	9	66-49
38442.81	21552.80	4038.80	725.000	10	66-52
37560.63	21825.89	4135.00	852.500	11	67-06
37554.12	22078.18	4186.00	800.000	12	67-09
37549.88	21520.98	4057.00	723.000	13	67-11
37833.42	21513.21	4061.00	1006.000	14	67-12
37552.70	21263.03	4023.70	661.000	15	67-30
37872.03	20997.02	4006.70	701.000	16	70-12
38152.12	21276.54	4019.00	703.000	17	70-17
37979.80	20772.87	3967.20	695.000	18	71-01
38449.31	20985.00	4005.00	603.000	19	71-02
38161.52	20985.71	3992.60	645.000	20	71-03
37582.41	20979.34	3992.60	570.000	21	71-04
37854.92	22114.11	4161.80	810.000	22	72-16
38566.77	22400.98	4182.60	549.000	23	73-01
38570.87	21788.48	4060.20	700.000	24	73-02
38439.63	22552.44	4112.80	523.000	25	74-01
38633.23	21412.87	3965.50	474.000	26	74-02
38159.26	22404.59	4138.50	777.000	27	74-07
38163.01	21842.65	4056.90	754.000	28	74-15
38471.59	22257.58	4060.70	641.000	29	74-16
37897.63	21297.96	4031.00	585.000	30	74-17
38049.73	22253.62	4139.60	688.000	31	75-03
38294.46	22405.71	4109.70	651.000	32	75-05
38422.23	21981.24	4042.60	701.000	33	75-06
38296.87	22219.46	4063.70	723.000	34	75-09
38021.23	22406.42	4141.00	957.000	35	75-10
38431.14	21396.75	4000.10	2120.000	36	75-11
38301.39	21695.36	4025.50	687.000	37	75002
37622.00	20402.34	3981.90	1410.000	38	754-18
37831.02	22264.72	4185.60	754.000	39	76-01
37732.31	22115.24	4181.50	821.000	40	76-02

PRINTOUT OF CURRENT EXTRACTION DATA

DESCRIPTION : Borehole Header Data

NORTHING:	EASTING:	ELEVATION:	REAL VALUE:	INTEGER VALUE:	STRING VALUE:
37729.63	21985.13	4166.00	866.000	41	76-03
37573.49	21968.30	4156.90	890.000	42	76-04
37728.07	21683.62	4100.20	744.000	43	76-05
38023.71	21700.80	4058.70	801.000	44	76-06
38025.48	21428.64	4051.30	787.000	45	76-07
37719.02	21425.81	4041.90	690.000	46	76-08
37722.05	21145.16	4012.50	638.000	47	76-09
38008.30	21139.22	4009.10	626.000	48	76-10
38324.94	21134.98	3992.00	595.000	49	76-11
38010.70	21979.82	4069.00	787.000	50	76-12
38305.70	21698.68	4002.20	714.000	51	76-13
38306.48	21980.61	4002.60	611.000	52	76-14
38283.01	21432.88	4012.10	630.000	53	76-22
38530.91	21707.95	3926.10	793.000	54	76916
38447.90	22676.40	4041.20	637.000	55	76X-10
38418.06	22812.73	4076.00	829.000	56	76X-14
37711.66	22702.70	4223.20	464.500	57	76X-17
37697.16	22378.92	4202.30	847.000	58	76X-20
37438.30	21661.56	4096.70	765.000	59	77-09
37452.37	21114.33	4007.00	670.000	60	77-16
37458.59	21395.90	4026.30	650.000	61	77-17
38439.20	21561.93	3921.10	576.000	62	79-01
38400.10	22110.57	3889.50	458.000	63	79-02
38427.61	22267.48	3879.60	516.000	64	79-03
38397.70	21794.64	3905.00	584.000	65	80-01
37448.20	21569.92	4061.20	680.000	66	80-02
37445.79	21866.76	4109.20	704.000	67	80-04
38158.48	21418.67	3955.00	589.000	68	80-05
37830.38	21971.20	4027.50	753.000	69	80-06
37847.99	21692.11	4031.20	699.000	70	80-07
38151.34	21934.64	3954.50	601.000	71	80-08
37573.42	22258.99	4071.30	903.000	72	82F-01
37551.86	22542.19	4071.20	787.000	73	82F-04
37555.74	21690.90	4069.00	792.000	74	82F-06
37449.75	21264.87	3908.90	541.000	75	82F-08
37598.24	21406.43	4040.10	667.000	76	82F-09
37456.40	20835.52	3940.60	627.000	77	82F-10
37598.17	21121.82	4009.40	603.600	78	82F-11
37596.34	20806.88	3946.60	641.000	79	82F-13
38285.27	21842.43	3810.00	516.000	80	84F-01

PRINTOUT OF CURRENT EXTRACTION DATA

DESCRIPTION : Borehole Header Data

NORTHING:	EASTING:	ELEVATION:	REAL VALUE:	INTEGER VALUE:	STRING VALUE:
38264.48	22128.25	3791.70	381.000	81	84F-03
38296.79	22329.42	3776.60	460.000	82	84F-05
38441.89	21976.43	3690.40	301.000	83	84F-06
38301.46	22543.25	3758.70	280.000	84	84F-08
38017.77	21579.60	3915.60	585.000	85	84F-18
38017.70	21836.07	3913.80	597.000	86	84F-19
38018.27	22121.75	3912.50	556.000	87	84F-20
38025.20	22686.86	3908.40	397.000	88	84F-21
38306.20	22685.31	3752.00	185.000	89	84F-22
37726.16	21585.12	3909.70	572.000	90	84F-23
37720.01	20982.88	3910.10	545.000	91	84F-24
37721.70	21839.89	3911.00	591.000	92	84F-25
37724.32	22255.88	3912.20	504.000	93	84F-26
37728.49	22538.09	3914.40	355.000	94	84F-27
38409.01	22298.09	3726.00	209.000	95	86F-01
38399.32	22472.26	3737.90	272.000	96	86F-05
38401.59	22174.00	3713.70	364.000	97	86F-06
38289.16	21571.68	3838.60	547.000	98	86F-07
37724.39	21276.33	3870.10	492.000	99	86F-08
38030.57	21174.64	3869.50	476.000	100	86F-09
38300.26	21057.69	3873.90	522.000	101	86F-10
38164.00	21998.50	3739.50	337.000	102	86F-11
38159.33	21831.90	3740.50	463.000	103	86F-12
38159.33	21831.90	3740.50	412.000	104	86F-13
38442.53	22068.85	3706.90	270.000	105	86F-14
37858.03	21799.45	3737.50	416.500	106	86F-15
38364.89	22238.13	3706.70	297.000	107	86F-16
38375.78	22379.98	3708.70	325.000	108	86F-17
38163.22	22351.27	3704.50	277.000	109	86F-18
38162.94	22261.32	3702.60	313.000	110	86F-19
38237.40	22258.57	3705.40	257.000	111	86F-20
38229.76	22364.49	3708.40	299.000	112	86F-21
38304.92	22063.20	3708.40	327.000	113	86F-22
38020.67	22236.29	3705.10	387.000	114	86F-23
38018.20	22054.21	3710.20	391.000	115	86F-24
38024.63	21945.68	3713.00	411.000	116	86F-25

FARO DEPOSIT

DISTRIBUTION OF THICKNESSES OF ORE INTERSECTIONS
(Geological Sections 116+070 - 125+000)

ORE TYPE (Description)	NUMBER of Samples	MINIMUM VALUE	MAXIMUM VALUE	NUMBER < 2.5 ft	%	NUMBER < 5 ft	%	NUMBER < 10 ft	%	NUMBER < 20 ft	%
21 (2ACD-BASAL)	136	1.2	155.0	1	0.7%	7	5.1%	19	14.0%	53	39.0%
22 (2ACD-MIDDLE)	11	5.0	85.9	0	0.0%	0	0.0%	5	45.5%	7	63.6%
23 (2ACD-UPPER)	24	2.4	31.9	1	4.2%	3	12.5%	11	45.8%	19	79.2%
32 (2BCD-MIDDLE)	14	3.3	80.0	0	0.0%	1	7.1%	2	14.3%	8	57.1%
33 (2BCD-UPPER)	59	0.8	28.5	3	5.1%	15	25.4%	32	54.2%	52	88.1%
40 (2EC)	102	3.0	141.3	0	0.0%	7	6.9%	23	22.5%	49	48.0%
50 (2EF)	165	2.0	122.6	1	0.6%	18	10.9%	52	31.5%	86	52.1%
60 (2EFG)	102	2.5	59.7	0	0.0%	11	10.8%	35	34.3%	58	56.9%
70 (2H)	60	1.8	35.0	2	3.3%	17	28.3%	37	61.7%	53	88.3%
80 (1H + ORE)	5	15.5	37.8	0	0.0%	0	0.0%	0	0.0%	2	40.0%

CURRAGH RESOURCES
PERSONAL COMPUTER
PROGRAM LIBRARY

Program ID: BSLIMPRT.EXE Language: FORTRAN77

Program name: Program Dev#\Program Dir#\BSLIMPRT.FOR

Description: BSLIMPRT is designed to read the survey traverse strings contained in a BSL-month end survey file. The strings are decoded and written to an output ASCII file as elevation data records. The output file is fully compatible with importing into PCMINE software system as an extraction file.

Panels: Screen #1 - Program Run Parameters

1.) INTRODUCTION

All pit elevation measurements for the Faro pit area are stored in the Survey Point Data Base (SPDB) on the HP3000 computer located at the Minesite. Elevations are stored as strings forming traverses; each traverse consists of a sequence of elevation data points. Each data point within a single traverse contains a Northing, Easting, and elevation. Northings and Eastings are reported in Faro Mine coordinates.

At the end of each month the survey traverses are updated and transferred to a BSL file (Bench-Status-Line) within the SPDB system. The BSL file contains all survey traverses delineating the pit outline topographic surface for that month-end. This file represents a useful source of Faro pit surface elevation data for updating the surface topography grids in PCMINE mine modelling software.

BSLIMPRT.FOR is a FORTRAN77 program designed to read the survey traverse elevation strings contained in the BSL file. The strings are decoded, Mine coordinates (Northings and Eastings) are converted to PC Mine Model coordinates, and elevation data points are output to a sequential ASCII file.

2.) HARDWARE CONFIGURATION

BSLIMPRT was written for an IBM-compatible personal computer with 640 Kbytes of available memory. The operating system for the computer is MS-DOS 3.0 or equivalent. Screen escape codes in the program are designed for a colour monitor coupled with an EGA enhanced graphics card.

The program requires at least one disk drive for input and output. This drive may be either for a hard disk or floppy disk.

BSLIMPRT is written in FORTRAN77. The program was compiled and linked using Microsoft Fortran77 version 3.31 (August 1985). The program is fully compatible with Fortran77 system requirements.

3.) DATA FILES

Input File

The BSL input data file for BSLIMPRT must be a sequential ASCII file copy of the desired BSL file stored on the HP3000 computer. This ASCII file must be downloaded from the HP3000 system to an IBM compatible personal computer system. At the Faro Minesite this file transfer is readily accomplished using the software package REFLECTIONS (consult with Computer Information Services at the Minesite). The input data file readily fits on a double sided, double density, 5.25 inch floppy diskette.

Figure 1 illustrates the initial records for the November 1986 month end BSL file (file BSL8611D). The first traverse is outlined by the box; it consists of 7 elevation measurements. Each string of 16 numbers consists of Mine Northing, Mine Easting, and elevation for a single data point.

Output File

The output data file created and filled by BSLIMPRT is also a sequential ASCII file. This output file readily fits on a double sided, double density, floppy diskette.

Figure 2 shows the initial records for the output file generated by BSLIMPRT from the BSL8611D November month end file. The 7 lines outlined by the box correspond to the 7 elevation data points forming the traverse indicated in Figure 1. Each record in the output file consists of a PCMINE Mine Model Northing, PCMINE Mine Model Easting, and Mine Elevation corresponding to a single surveyed data point. The record format of the output file is fully compatible with importing the elevation data points into the PCMINE software system as an extraction file.

Each data record in the output file has the following format:

FORMAT	ITEM
2X, F 10.2	PCMINE Model Northing
2X, F 10.2	PCMINE Model Easting
2X, F 10.2	Mine Elevation
2X, F 11.3	YYMM.000 - year and month of input BSL file.
2X, I 10	sequential record number of output file - increases from 1 at start of file.
10X, I 4	YYMM - year and month of input BSL file

This format corresponds exactly to the standard format described for PCMINE extraction files. The last three items in the above list are correlated with the real, integer, and character variable, respectively, of the extraction file.

4.) PROGRAM EXECUTION

Program Start

Execution of BSLIMPRT is started by simply typing BSLIMPRT after the MS-DOS prompt. For this command to work properly, the executable file BSLIMPRT.EXE must either be located on the current drive or be accessible through a previously defined MS-DOS PATH command.

Program Run Parameters (Screen #1)

With start of the program, BSLIMPRT clears the monitor display and generates a program header display. The program then proceeds to request information on several parameters required for successful completion of the program run. The following illustrates the screen display for the BSLIMPRT program:

CURRAGH RESOURCES

PROGRAM BSLIMPRT

Enter name of BSL File containing elevations: _____
Enter name of output extraction file: _____

Enter minimum and maximum model coordinates for screening the data points.

Minimum Easting: _____
Maximum Easting: _____

Minimum Northing: _____
Maximum Northing: _____

TOTAL NUMBER OF DATA POINTS PROCESSED: 5429
NUMBER OF POINTS WRITTEN TO OUTPUT FILE: 2819

Initially the program asks for the names of the input BSL data file and the output file. Up to a maximum of 64 characters are allowed for each file name. The data files do not have to be located on the current directory; if not, the file names entered should include the appropriate drive and subdirectories as part of the file name. File names must correspond to MS-DOS file naming conventions.

Next the program requests the minimum and maximum Eastings and Northings outlining the area of interest for a particular program run. Only those elevation data points located within the area of interest are written to the output file; all data points outside the defined rectangle are ignored.

Eastings and Northings requested by BSLIMPRT are in PCMINE Mine Model coordinates. The edge of the rectangle outlining the area of interest are therefore parallel to geological cross and long sections for Faro. The rectangle is rotated 45 degrees relative to the Faro Mine coordinates.

This rectangular area of interest restriction provided a useful means of subdividing the input BSL data file into 2 or more subset output data files.

PCMINE software restricts elevation files to a maximum of 5000 records. The output file created from the November 1986 BSL file contains 5429 records. For proper use within the PCMINE system, this output file had to be subdivided into two or more output files with a smaller number of records. The area of interest request allows one to separate the data points into different output files on the basis of location.

BSLIMPRT then proceeds to read each of the traverses contained in the input BSL file. Each traverse is decoded into its constituent elevation data points. Mine coordinates for each data point are converted to PCMINE Mine Model coordinates. Each data point is then checked against the rectangle defined by the minimum and maximum Eastings and Northings. If the data point is outside the rectangle, it is discarded. Any data point located within the desired area is written to the output ASCII file as a data record.

After all the points in the BSL input file are processed, the program automatically terminates. The final two lines on the screen display summarize the total number of data points contained in the input file and the number of data points written to the output file.

5. ERROR MESSAGES

BSLIMPRT does not contain any error-trapping subroutines. If an unexpected response is encountered, the program terminates with an error condition and a system error message is displayed on the screen. To continue just retype the program name to restart the program; be careful to check your screen entries for correctness before pressing the ENTER key.

Figure 1. Input file BSL8611D - November 1986 month end SPDB data file.

603590108611	7	9589513883436236	9645713927136164	9703913969936112
61 9723914041736034		9711514115035993	9653914170135950	9699614273835984
603590118611	22	9582614335435952	9595314341735971	9607414389135988
61 9633014402435984		9700314407035978	9729414374435979	9743714315535993
61 9758214269735993		9773214212835980	9786214168835987	9793314138835985
61 9827114088936030		9812814065636025	9788814043836019	9804014005636033
61 9800113975636052		9800213939536052	9773713914336092	9700713871436137
61 9617513829836244		9555113766136298	9435713663936419	
603590118611	26	9582614335435952	9557014333635948	9517514351835936
61 9475014387135909		9444214396435909	9407814363735900	9378814321635904
61 9338314280335915		9301614236235906	9272214197735915	9241514156335927
61 9242114118335935		9225614073935931	9228014036235938	9273314023635902
61 9309914053435895		9340614089235909	9389214105035905	9444614103935905
61 9481514109135919		9521514121935920	9561014091335939	9594814078835979
61 9620914091635978		9662414062736015	9673214025436085	
603590108611	8	9282114122935903	9352114140635894	9419114152135900
61 9498714163535898		9604914190135915	9577114285535906	946941427735907
61 9379314264235900				
603610118611	4	9845214085836153	9863014021336091	9875213991036106
61 9814213942636093				
603610128611	6	9814213942636093	9823913989436091	9801914041236086
61 9821014062736120		9840814068336104	9845214085836153	
603610118611	22	9164614066136094	9129213998936100	9107113947236116
61 9082113896636098		9078613856836098	9090213823136096	9119613780636110
61 9144813733936097		9143113695736107	9174513664636104	9196513643336104
61 9234513644736120		9238213682836118	9235013754436096	9266813767236117
61 9298613761036149		9318713780636147	9278213816636116	9299313830936118
61 9358413841736165		9360113883236118	9448013867236106	
603610128611	5	9582614335435952	9579714360836094	9600814409436112
61 9642314419236101		9711514428836151		
603610118611	9	9711514428836151	9694814455736113	9717714503536132
61 9749214553236141		9722214591736106	9675414606736100	9644514600936095
61 9634114609136094		9622714604436083		
603610108611	6	9697914516936092	9641014564236073	9582314524736057
61 9620014465036083		9563314421836101	9533514486536072	
603610108611	12	9620313970036156	9553614000436142	9467213995236129
61 9390213987836090		9318613971336080	9244913983536081	9204413942636079
61 9148913911036077		9204013862236074	9210413788736075	9159213774736077
61 9172313731036086				
603610118611	5	9447313867236103	9494813891736101	9535413920236106
61 9531213942936111		9510813951336115		
603610118611	11	9622414604136083	9565414561136074	9510714503736080
61 9452414443636113		9416714391636120	9359014343136167	9316914283036106
61 9277814225836101		9240914183636110	9204114124636105	9164214065736095
603610128611	17	9673214025436085	9660414043636135	9624914067436149
61 9586414059636135		9534114081636125	9512814105036119	9463314086136105
61 9408814088536075		9360714075436090	9329514049736102	9296314020436093
61 9274814006536053		9238614017036067	9212914048136068	9211314077736024
61 9222314119336045		9220514149636055		
603610128611	5	9582614335435952	9564014347236095	9520114378736110
61 9483714409136097		9446714421236109		
603630108611	9	9524513854436336	9463413766136401	9413313693036432
61 9425413643136453		9366413607236511	9324513533236553	9314613495436530
61 9349313509936547		9386013443736594		

Figure 2. Output file created by program BSLIMPRT from input file
BSL8611D (November 1986 month end SPDB data file)

39085.07	21748.61	3623.60	8611.000	1	8611
39093.91	21819.24	3616.40	8611.000	2	8611
39104.80	21890.66	3611.20	8611.000	3	8611
39068.18	21955.58	3603.40	8611.000	4	8611
39007.57	21998.64	3599.30	8611.000	5	8611
38927.89	21996.87	3595.00	8611.000	6	8611
38886.87	22102.51	3598.40	8611.000	7	8611
38760.58	22063.34	3595.20	8611.000	8	8611
38765.11	22076.77	3597.10	8611.000	9	8611
38740.15	22118.85	3598.80	8611.000	10	8611
38748.84	22146.35	3598.40	8611.000	11	8611
38793.18	22197.19	3597.80	8611.000	12	8611
38836.81	22194.72	3597.90	8611.000	13	8611
38888.57	22163.18	3599.30	8611.000	14	8611
38931.21	22141.05	3599.30	8611.000	15	8611
38982.05	22111.42	3598.00	8611.000	16	8611
39022.36	22089.50	3598.70	8611.000	17	8611
39048.59	22073.31	3598.50	8611.000	18	8611
39107.77	22061.92	3603.00	8611.000	19	8611
39114.14	22035.34	3602.50	8611.000	20	8611
39112.58	22002.95	3601.90	8611.000	21	8611
39150.34	21986.69	3603.30	8611.000	22	8611
39168.80	21962.72	3605.20	8611.000	23	8611
39194.39	21937.26	3605.20	8611.000	24	8611
39193.47	21900.70	3609.20	8611.000	25	8611
39172.19	21818.75	3613.70	8611.000	26	8611
39142.77	21730.50	3624.40	8611.000	27	8611
39143.70	21641.34	3629.80	8611.000	28	8611
39131.53	21484.64	3641.90	8611.000	29	8611
38760.58	22063.34	3595.20	8611.000	30	8611
38743.75	22043.96	3594.80	8611.000	31	8611
38702.95	22028.90	3593.60	8611.000	32	8611
38647.94	22023.81	3590.90	8611.000	33	8611
38619.59	22008.61	3590.90	8611.000	34	8611
38616.97	21959.75	3590.00	8611.000	35	8611
38626.23	21909.47	3590.40	8611.000	36	8611
38626.80	21851.63	3591.50	8611.000	37	8611
38632.03	21794.50	3590.60	8611.000	38	8611
38638.46	21746.48	3591.50	8611.000	39	8611
38646.03	21695.50	3592.70	8611.000	40	8611
38673.32	21669.05	3593.50	8611.000	41	8611
38693.05	21625.99	3593.10	8611.000	42	8611
38721.41	21601.03	3593.80	8611.000	43	8611
38762.35	21624.15	3590.20	8611.000	44	8611
38767.16	21671.11	3589.50	8611.000	45	8611
38763.55	21718.13	3590.90	8611.000	46	8611
38786.75	21763.67	3590.50	8611.000	47	8611
38826.70	21802.06	3590.50	8611.000	48	8611
38849.11	21831.83	3591.90	8611.000	49	8611
38868.35	21869.17	3592.00	8611.000	50	8611