

017894

 PC-MINE VERSION 1.10 CURRAGH RESOURCES 25/ 7/1986 SERIAL NO: 20320 BY STEFFEN ROBERTSON AND KIRSTEN (BC) INC
 Orebody Modelling and Pit Evaluation System Module : 3.11
 Vangorda 8607 Geological Model Page : 2

IN-SITU ORE RESERVE EVALUATION

DESCRIPTION : VANGORDA DEPOSIT--GEOLOGICAL RESERVES--NORTHWEST PART

TOTAL FOR ALL BENCHES

TOP ELEVATION : 1155.50 [m]
 BOTTOM ELEVATION : 1007.00 [m]

RESERVE INSIDE POLYGON RECORD : 226 NW END OF DEPOSIT - 3W TO 13E

CUMULATIVE RESULTS

CUT-OFF GRADES		ROCK-TYPE CODE	VOLUME		DENSITY [tn/bcm]	TONNAGE [TONS x1000]	A V E R A G E G R A D E S				
FROM [%Pb+Zn]	TO [%Pb+Zn]		[bcm	x1000]			[%Pb+Zn]	[%Pb]	[%Zn]	[Ag g/t]	[Au g/t]
6.000	100.000	1	130.41	2.951	384.83	7.845	3.194	4.650	39.783	.701	
6.000	100.000	2	130.82	2.953	386.32	7.843	3.207	4.636	39.851	.705	
6.000	100.000	3	136.28	2.988	407.19	7.787	3.192	4.595	40.292	.708	

6.000	100.000	4	137.43	2.993	411.31	7.776	3.186	4.590	40.362	.707
6.000	100.000	5	1033.29	4.052	4186.98	10.445	4.580	5.865	65.352	.767
6.000	100.000	6	1057.99	4.047	4281.96	10.477	4.630	5.847	65.747	.762
5.000	6.000	1	1223.03	3.895	4763.81	9.968	4.378	5.591	62.324	.741
5.000	6.000	2	1224.85	3.895	4770.23	9.962	4.376	5.586	62.287	.741
5.000	6.000	3	1231.74	3.895	4797.38	9.937	4.366	5.571	62.173	.742
5.000	6.000	4	1234.57	3.894	4806.92	9.928	4.362	5.566	62.122	.741
5.000	6.000	5	1251.79	3.895	4875.52	9.866	4.337	5.529	61.796	.742
5.000	6.000	6	1255.84	3.895	4891.74	9.852	4.331	5.521	61.709	.741
4.500	5.000	1	1338.05	3.837	5133.69	9.611	4.212	5.399	60.188	.733
4.500	5.000	2	1349.80	3.834	5174.73	9.571	4.201	5.371	59.949	.736
4.500	5.000	3	1357.90	3.834	5206.75	9.542	4.189	5.352	59.799	.738
4.500	5.000	4	1361.88	3.834	5221.13	9.528	4.183	5.345	59.722	.737
4.500	5.000	5	1369.57	3.834	5250.82	9.501	4.172	5.329	59.577	.737
4.500	5.000	6	1370.18	3.834	5253.18	9.499	4.171	5.328	59.564	.737
4.000	4.500	1	1445.92	3.787	5475.08	9.287	4.068	5.218	58.245	.729
4.000	4.500	2	1475.08	3.780	5576.07	9.195	4.038	5.158	57.683	.733
4.000	4.500	3	1484.59	3.781	5613.13	9.162	4.025	5.137	57.533	.736
4.000	4.500	4	1492.83	3.780	5643.54	9.136	4.013	5.123	57.379	.734
4.000	4.500	5	1494.85	3.781	5651.44	9.129	4.011	5.119	57.344	.735
4.000	4.500	6	1495.26	3.781	5653.00	9.128	4.010	5.118	57.335	.734
3.500	4.000	1	1576.87	3.736	5891.70	8.910	3.906	5.004	55.981	.726
3.500	4.000	2	1617.77	3.729	6032.54	8.789	3.860	4.929	55.226	.729
3.500	4.000	3	1636.40	3.731	6105.44	8.729	3.837	4.891	54.945	.732
3.500	4.000	4	1656.85	3.731	6181.35	8.667	3.812	4.855	54.620	.728
3.500	4.000	5	1657.26	3.731	6183.04	8.666	3.812	4.854	54.612	.728
3.500	4.000	6	1657.87	3.731	6185.32	8.664	3.811	4.853	54.601	.728
3.000	3.500	1	1768.23	3.680	6507.23	8.396	3.685	4.712	52.955	.719
3.000	3.500	2	1812.58	3.675	6660.47	8.278	3.637	4.641	52.226	.721
3.000	3.500	3	1842.14	3.678	6775.57	8.192	3.604	4.588	51.823	.722
3.000	3.500	4	1855.71	3.678	6825.42	8.156	3.589	4.566	51.640	.720
3.000	3.500	5	1855.91	3.678	6826.28	8.155	3.589	4.566	51.638	.721
3.000	3.500	6	1855.91	3.678	6826.28	8.155	3.589	4.566	51.638	.721
.000	3.000	1	2180.32	3.579	7804.39	7.381	3.242	4.139	47.056	.694
.000	3.000	2	2992.61	3.546	10611.77	5.811	2.559	3.252	38.295	.722
.000	3.000	3	3189.24	3.572	11391.50	5.571	2.469	3.102	37.210	.753
.000	3.000	4	3199.77	3.572	11428.77	5.559	2.464	3.095	37.150	.751
.000	3.000	5	3200.18	3.572	11429.98	5.558	2.464	3.094	37.146	.751
.000	3.000	6	3202.60	3.571	11437.27	5.555	2.462	3.092	37.122	.751
.000	9999.000	****	16621.20	2.735	45452.05	1.397	.620	.779	9.349	.189

TOTAL 16621.20 2.735 45452.05 1.397 .620 .779 9.349 .189

IN-SITU ORE RESERVE EVALUATION

DESCRIPTION : GEOLOGICAL RESERVES FOR NORTHWEST PART OF DEPOSIT

TOTAL FOR ALL BENCHES

TOP ELEVATION : 1209.50 [m]
 BOTTOM ELEVATION : 1007.00 [m]

RESERVE INSIDE POLYGON RECORD : 226 NW END OF DEPOSIT - SW TO 13E

OLD POLYGON 226

INCREMENTAL RESULTS

CUT-OFF GRADES FROM	TO	ROCK-TYPE CODE	VOLUME		DENSITY	TONNAGE		AVERAGE GRADES			
			[bcm	x1000]	[tn/bcm]	[TONS x1000]	[Pb+Zn]	[Pb %]	[Zn %]	[Ag g/t]	[Au g/t]
6.000	100.000	1	132.84		2.956	392.70	7.837	3.190	4.648	39.662	.691
6.000	100.000	2	.41		3.685	1.49	7.414	6.404	1.010	57.510	1.769
6.000	100.000	3	5.47		3.817	20.87	6.756	2.924	3.831	48.456	.758
6.000	100.000	4	1.22		3.606	4.38	6.687	2.569	4.117	46.500	.634
6.000	100.000	5	904.16		4.214	3809.79	10.727	4.725	6.002	67.931	.773
6.000	100.000	6	24.70		3.844	94.98	11.874	6.822	5.051	83.145	.541
5.000	6.000	1	168.07		2.922	491.15	5.445	2.133	3.313	31.954	.551
5.000	6.000	2	1.82		3.520	6.41	5.322	3.321	2.001	34.851	1.104
5.000	6.000	3	6.89		3.944	27.15	5.521	2.567	2.954	42.188	.833
5.000	6.000	4	3.24		3.358	10.88	5.384	2.168	3.216	36.117	.443
5.000	6.000	5	20.45		3.984	81.48	5.543	2.642	2.901	39.394	.804
5.000	6.000	6	4.05		4.004	16.22	5.600	2.538	3.062	35.538	.419
4.500	5.000	1	85.86		2.948	253.09	4.737	1.806	2.931	29.448	.564
4.500	5.000	2	11.74		3.494	41.04	4.681	2.785	1.896	30.044	1.062
4.500	5.000	3	8.10		3.953	32.02	4.709	2.373	2.336	35.709	1.094
4.500	5.000	4	4.45		3.619	16.12	4.730	1.800	2.930	31.480	.514
4.500	5.000	5	8.10		3.857	31.24	4.764	2.246	2.519	33.935	.694
4.500	5.000	6	.61		3.894	2.37	4.722	2.130	2.592	30.666	.381
4.000	4.500	1	79.58		2.941	234.04	4.259	1.631	2.628	27.203	.529
4.000	4.500	2	29.77		3.465	103.15	4.241	2.373	1.868	27.345	.968
4.000	4.500	3	9.52		3.894	37.06	4.240	2.130	2.110	34.977	1.150
4.000	4.500	4	10.33		3.732	38.54	4.227	1.786	2.441	28.907	.472
4.000	4.500	5	2.84		3.915	11.10	4.276	2.031	2.245	31.488	.756
4.000	4.500	6	.41		3.840	1.56	4.067	1.792	2.275	27.000	.333
3.500	4.000	1	87.28		2.914	254.31	3.753	1.434	2.318	23.836	.550
3.500	4.000	2	41.11		3.443	141.55	3.730	1.957	1.773	23.678	.819
3.500	4.000	3	18.63		3.913	72.89	3.741	1.936	1.805	31.730	.988
3.500	4.000	4	20.86		3.717	77.53	3.711	1.779	1.932	28.428	.437
3.500	4.000	5	.41		4.180	1.69	3.830	1.542	2.288	26.000	1.558
3.500	4.000	6	.61		3.749	2.28	3.693	1.625	2.068	25.003	.336

.000	3.500	1	464.94	2.993	1391.43	2.265	.915	1.349	16.442	.510
.000	3.500	2	882.49	3.452	3046.30	1.539	.706	.833	14.295	.789
.000	3.500	3	226.19	3.956	894.83	2.422	1.310	1.112	23.225	1.123
.000	3.500	4	27.94	3.660	102.27	2.542	1.267	1.275	22.974	.427
.000	3.500	5	.61	3.408	2.07	1.438	.732	.706	13.634	.672
.000	3.500	6	2.43	3.000	7.29	.000	.000	.000	.000	.000
.000	9999.000	10	19876.59	2.700	53666.79	.000	.000	.000	.000	.000
.000	9999.000	****	16118.39	2.100	33849.24	-.001	.001	.001	.010	.000

TOTAL			39293.10	2.526	99269.30	.651	.288	.363	4.354	.088
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.000	3.500	1	2158.45	3.568	7700.51	7.468	3.267	4.202	47.424	.687
.000	3.500	2	3040.94	3.534	10746.81	5.788	2.541	3.247	38.033	.716
.000	3.500	3	3267.14	3.563	11641.64	5.529	2.446	3.083	36.895	.747
.000	3.500	4	3295.08	3.564	11743.91	5.503	2.436	3.067	36.774	.744
.000	3.500	5	3295.69	3.564	11745.98	5.502	2.436	3.067	36.769	.744
.000	3.500	6	3298.12	3.564	11753.27	5.499	2.434	3.065	36.747	.744
.000	9999.000	10	23174.71	2.823	65420.06	.988	.437	.551	6.602	.134
.000	9999.000	****	39293.10	2.526	99269.30	.651	.288	.363	4.354	.088

TOTAL 39293.10 2.526 99269.30 .651 .288 .363 4.354 .088

Ungorda

Need to compare to other whole deposit calcns

Then compare to other computer models - point out grade averaging as tonnage increase at 10 - 5% compared to int-p

discuss the sectional approximation part of possible exaggeration

Note need for higher dilution factor

80-10	Actual tonnes	ore type	tonnes	
	1269,333	4G	3,343,564	4EE
	1479,111	4EFH		
	595,120	4GE		
	15,522	4CE	925,607	4C
	772,085	4BCD		
	942,308	4A	942,308	
	<u>5209,479</u>			

80 - 10 Model

Grade 4%

	Tonnes	1/SG	Pb	Zn	Ag	AU
4G	1,269,333	.24	3,758	5,226	54,485	.651
4EFH	1,479,111	.24	3,504 3,504	4,244 4,244	49,837 49,837	.792
4GE	595,120	.24	3,631	4,590	52,265	.769
4CE	151,522	.27	3,102	3,998	44,702	.808
4BCD	722,085	.28	2,509	3,258	36,476	.863
4A	942,308	.33	2,903	4,065	42,532	.672
<u>Total</u>	<u>5,209,479</u>		<u>3,834</u>	<u>3,251</u>	<u>47,541</u>	<u>.737</u>

~~XXXXXXXXXX~~

Total for one types all grades

4G	1,326,222	.24	3,639,059	@ 4.167
4EFH	1,671,111			
4GE	641,726	.27	222,448	@ 3.704
4CE	222,448			
4BCD	3,618,383	.28	3,618,383	@ 3.571
4A	1,895,057	.33	1,895,057	@ 3.030

9,374,947
 av SG = 3.695

Vol = 2,536,511.634 m³

Total for 86-07 = ~~XXXXXX~~
 11,753,270
 av SG = 3.564

Vol = 3,297,774.972 m³

Vancouver
86-07 model

20 ffs
3.0
3.5
4.0
4.5
5.0
5.0

Polygon 226 should be (done)

Point 1 N 9976.0
 E 10120.0

bottom of calca. 1013.0
top of calca. 1205.0

Point 2
 N 10456.0
 E 10120.0

Point 3
 N 10456.0
 E 9880.0

Point 4
 N 9976.0
 E 9880.0

Point 5
 N 9976.0
 E 10120.0

to equate to area of VA model.

10600

1 2 3 4 5 6 7 8 9 10

20

30

40

10600 N

9880 E

10120 E

10456 N

10456 N

70

60

50

40

30

9976 N

9976 N

9880 E

10120 E

20

10

9
8
7
6
5
4
3
2
1

9640

9784 E

10264 E

9640 N

AREA OF DEPOSIT MODELED

all the of area interpolated

dx = 12
dy = 12
dz = 6

mesh height = 6m except 1-6 = 12m

CYPRUS ANVIL VANSOORVA MODEL VA Oct 1980 (80-10 model)

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FILE: "VANULT"
28-Aug-86

CURRAGHILE: "VANULT"
VANGORDA: 28-Aug-86
PIT # 4
FROM: K. f

CURRAGHILE: "VANULT"
VANGORDA: 28-Aug-86
PIT # 4
FROM: K.

CURRAGHILE: "VANULT"
VANGORDA: 28-Aug-86
PIT # 4
FROM: K. A

CURRAGHILE: "VANULT"
VANGORDA: 28-Aug-86
PIT # 4
FROM: K.

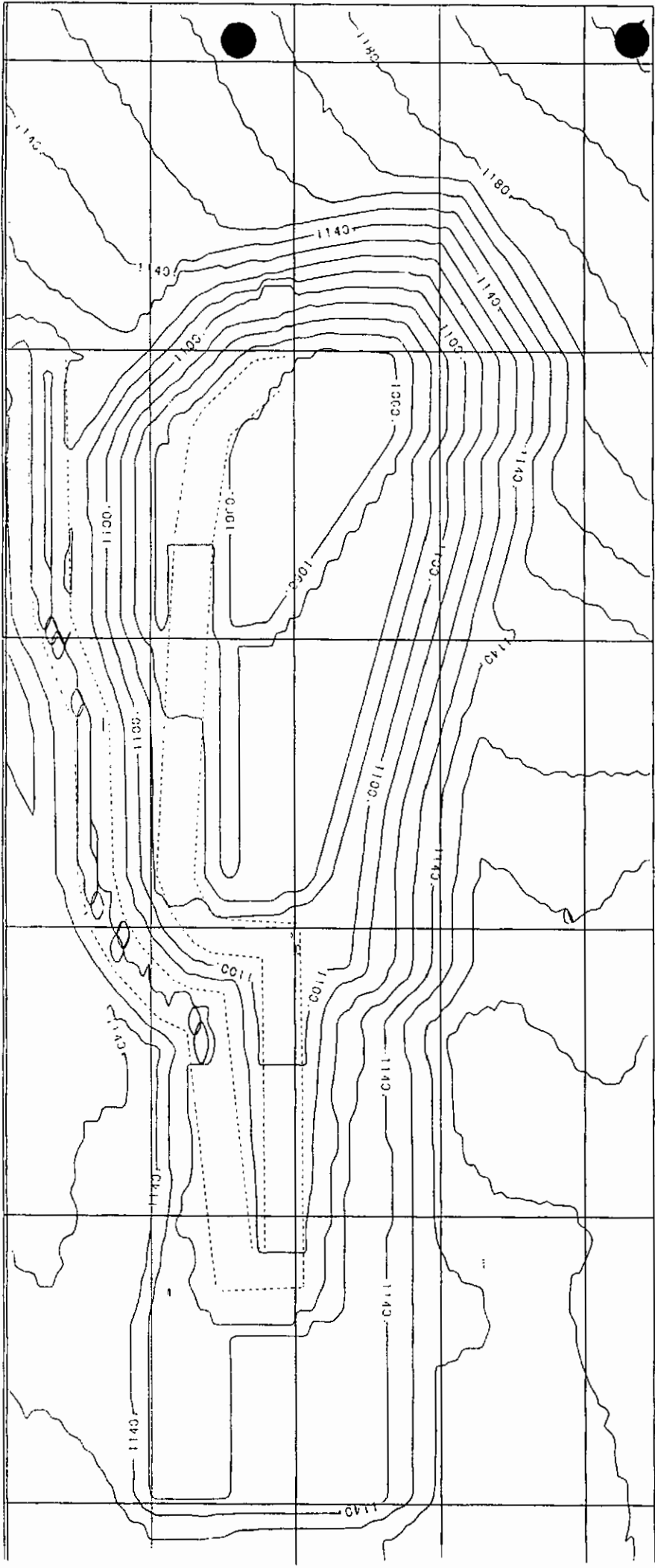
Bench
PIT # 4
STAGE 1
TONNES

Cumulative
PIT # 4
STAGE 1
CUMM TONNES

Cumulative
PIT # 4
STAGE 1
CUMM S.R.

Bench
PIT # 4
STAGE 1
S.R.

BENCH	WASTE	4-6% DRE	+6% DRE	WASTE	4-6% DRE	+6% DRE	+4% DRE	+6% DRE	4/+6% DRE	+4% DRE	+6% DRE	4/+6% DRE
1	0.00	0.00	0.00	0.00	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
2	3.53	0.00	0.00	3.53	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
3	1.31	0.00	0.00	4.84	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
4	0.00	0.00	0.00	4.84	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
5	0.00	0.00	0.00	4.84	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
6	0.00	0.00	0.00	4.84	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
7	0.00	0.00	0.00	4.84	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
8	9.56	0.00	0.00	14.40	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
9	42.44	0.00	0.00	56.84	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
10	130.02	0.00	0.00	186.86	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
11	272.40	0.00	0.00	459.26	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
12	502.38	0.00	0.00	961.64	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
13	840.74	0.00	0.00	1802.38	0.00	0.00	ERR	ERR	ERR	ERR	ERR	ERR
14	1252.36	15.94	15.48	3054.74	15.94	15.48	97.23	197.39	198.42	39.86	80.93	81.96
15	1556.04	38.16	94.26	4610.78	54.10	109.73	28.14	42.02	42.51	11.75	16.51	16.91
16	1693.86	46.65	218.60	6304.64	100.76	328.33	14.69	19.20	19.51	6.39	7.75	7.96
17	1712.31	70.06	292.34	8016.95	170.82	620.67	10.13	12.92	13.19	4.72	5.86	6.10
18	1620.40	79.26	242.69	9637.35	250.08	863.36	8.66	11.16	11.45	5.03	6.68	7.00
19	1639.11	51.21	146.02	11276.46	301.29	1009.38	8.60	11.17	11.47	8.31	11.22	11.58
20	1555.93	37.19	228.38	12832.39	338.49	1237.76	8.14	10.37	10.64	5.86	6.81	6.98
21	1324.30	69.83	209.03	14156.69	408.32	1446.79	7.63	9.78	10.07	4.75	6.34	6.67
22	1164.63	98.84	211.39	15321.32	507.16	1658.19	7.08	9.24	9.55	3.75	5.51	5.98
23	999.55	97.87	258.21	16320.87	605.03	1916.40	6.47	8.52	8.83	2.81	3.87	4.25
24	923.71	101.59	227.60	17244.58	706.62	2144.00	6.05	8.04	8.37	2.81	4.06	4.50
25	855.49	62.04	254.13	18100.07	768.65	2398.13	5.72	7.55	7.87	2.71	3.37	3.61
26	759.93	38.53	285.59	18860.00	807.19	2683.72	5.40	7.03	7.33	2.34	2.66	2.80
27	672.67	32.06	285.27	19532.67	839.25	2968.99	5.13	6.58	6.86	2.12	2.36	2.47
28	710.35	19.05	182.75	20243.02	858.30	3151.74	5.05	6.42	6.70	3.52	3.89	3.99
29	540.50	68.99	212.01	20783.52	927.29	3363.75	4.84	6.18	6.45	1.92	2.55	2.87
30	423.35	28.57	321.91	21206.87	955.85	3685.66	4.57	5.75	6.01	1.21	1.32	1.40
31	319.56	30.13	375.24	21526.43	985.99	4060.90	4.27	5.30	5.54	0.79	0.85	0.93
32	125.34	43.03	191.29	21651.77	1029.01	4252.19	4.10	5.09	5.33	0.53	0.66	0.88
33	113.38	34.77	138.00	21765.15	1063.78	4390.19	3.99	4.96	5.20	0.66	0.82	1.07
34	114.00	6.17	99.56	21879.15	1069.95	4489.75	3.94	4.87	5.11	1.08	1.15	1.21



N+10600.00

N+10400.00

N+10200.00

N+10000.00

N+9800.00

N+9600.00