

MINING RESERVE EVALUATION

DESCRIPTION : Vangorda Remaining Reserves By Rock Type

TOP SURFACE GRID RECORD : 20 JAN/91 Month End Surface MERGED - Dec/90 Corrected Surface
 BOTTOM SURFACE GRID RECORD : 21 "W" Ult. Pit MERGED to JAN/91 corrected Surface

BLOCKS USED : COLUMNS 1 TO 100 ROWS 1 TO 128
 CATEGORY : 1 : Low Grade Quartzites Footwall

CUT-OFF GRADES FOR THIS CATEGORY

LABEL	FROM	TO
%Pb+Zn	.000	4.000

ROCK-TYPES IN THIS CATEGORY : 40

INCREMENTAL BENCH TOTALS

BENCH	CREST		TOE		VOLUME [bcm x1000]	DENSITY [tn/bcm]	TONNAGE [TONS x1000]	AVERAGE GRADES				ECONOMIC FACTOR [\$Cdn x1000]	
	[m]	[m]				[%Pb+Zn]	[%Pb]	[%Zn]
19	1176.00	1173.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
20	1173.00	1170.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
21	1170.00	1167.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
22	1167.00	1164.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
23	1164.00	1161.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
24	1161.00	1158.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
25	1158.00	1155.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
26	1155.00	1152.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
27	1152.00	1149.00	.00	.000	.00	.000	.00	.000	.000	.000	.00	.000	.00
28	1149.00	1146.00	.13	3.765	.50	1.389	.553	.835	11.39	.479	.00	.00	.00
29	1146.00	1143.00	.36	3.726	1.35	1.999	.843	1.155	15.53	.651	.00	.00	.00
30	1143.00	1140.00	5.23	3.600	18.85	1.751	.862	.889	17.62	.884	.00	.00	.00
31	1140.00	1137.00	6.17	3.541	21.84	1.963	.941	1.022	19.04	.936	.00	.00	.00
32	1137.00	1134.00	8.28	3.500	28.99	1.833	.817	1.016	16.82	.830	.00	.00	.00
33	1134.00	1131.00	9.51	3.644	34.67	2.121	1.018	1.102	15.98	.912	.00	.00	.00
34	1131.00	1128.00	17.97	3.646	65.54	1.958	.899	1.059	16.07	.889	.00	.00	.00
35	1128.00	1125.00	16.98	3.699	62.83	2.183	.973	1.210	18.53	.892	.00	.00	.00
36	1125.00	1122.00	19.29	3.727	71.91	2.017	.892	1.125	18.40	.881	.00	.00	.00
37	1122.00	1119.00	13.26	3.691	48.94	1.799	.881	.919	18.03	.994	.00	.00	.00
38	1119.00	1116.00	19.48	3.689	71.84	2.010	.968	1.042	17.12	1.018	.00	.00	.00
39	1116.00	1113.00	10.56	3.698	39.05	2.119	1.015	1.104	17.42	.888	.00	.00	.00
40	1113.00	1110.00	10.06	3.647	36.68	2.179	1.011	1.168	17.95	.818	.00	.00	.00
41	1110.00	1107.00	8.96	3.651	32.71	2.392	1.152	1.241	17.24	.945	.00	.00	.00
42	1107.00	1104.00	11.98	3.621	43.38	2.479	1.158	1.321	16.82	.965	.00	.00	.00
43	1104.00	1101.00	17.97	3.630	65.22	2.229	1.012	1.217	17.27	.922	.00	.00	.00
44	1101.00	1098.00	17.60	3.636	64.00	1.927	.863	1.064	16.07	.928	.00	.00	.00
45	1098.00	1095.00	17.15	3.655	62.67	1.548	.733	.815	15.47	.887	.00	.00	.00
46	1095.00	1092.00	15.00	3.580	53.68	1.543	.744	.799	15.45	.758	.00	.00	.00

47	1092.00	1089.00	10.88	3.625	39.45	1.516	.842	.674	15.07	.834	.00
48	1089.00	1086.00	14.86	3.634	54.00	1.708	.902	.806	16.16	.856	.00
49	1086.00	1083.00	16.60	3.678	61.04	1.709	.868	.841	16.12	.874	.00
50	1083.00	1080.00	18.20	3.675	66.87	1.749	.875	.874	16.06	.903	.00
51	1080.00	1077.00	17.69	3.639	64.38	1.833	.930	.902	15.75	.868	.00
52	1077.00	1074.00	20.71	3.632	75.23	1.853	.952	.901	14.84	.852	.00
53	1074.00	1071.00	21.53	3.654	78.69	1.882	.976	.906	15.17	.857	.00
54	1071.00	1068.00	23.32	3.675	85.68	1.843	.944	.899	15.69	.898	.00
55	1068.00	1065.00	20.67	3.698	76.42	1.696	.859	.837	15.88	.927	.00
56	1065.00	1062.00	19.66	3.649	71.73	1.649	.834	.815	15.73	.901	.00
57	1062.00	1059.00	23.36	3.601	84.12	1.732	.851	.882	15.86	.865	.00
58	1059.00	1056.00	28.21	3.596	101.45	1.903	.896	1.008	15.59	.853	.00
59	1056.00	1053.00	20.80	3.557	73.99	1.888	.886	1.002	15.27	.850	.00
60	1053.00	1050.00	13.99	3.608	50.47	1.974	.911	1.063	15.96	.866	.00
61	1050.00	1047.00	10.01	3.658	36.63	1.995	.937	1.058	17.29	.944	.00
62	1047.00	1044.00	6.22	3.741	23.26	2.230	1.080	1.150	18.77	1.123	.00
63	1044.00	1041.00	2.51	3.785	9.52	2.372	1.136	1.235	20.41	1.049	.00
64	1041.00	1038.00	1.97	3.865	7.60	2.015	.986	1.028	20.10	1.109	.00
65	1038.00	1035.00	.64	4.025	2.58	2.517	1.267	1.250	22.23	1.279	.00
66	1035.00	1032.00	.64	4.044	2.59	2.095	1.044	1.052	20.80	1.140	.00
67	1032.00	1029.00	.00	.000	.00	.000	.000	.000	.00	.000	.00
68	1029.00	1026.00	.00	.000	.00	.000	.000	.000	.00	.000	.00

TOTAL FOR ALL BENCHES			518.42	3.646	1890.35	1.895	.916	.980	16.38	.894	.00
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MINING RESERVE EVALUATION

DESCRIPTION : Vangorda Remaining Reserves By Rock Type

TOP SURFACE GRID RECORD : 20 JAN/91 Month End Surface MERGED - Dec/90 Corrected Surface
 BOTTOM SURFACE GRID RECORD : 21 "W" Ult. Pit MERGED to JAN/91 corrected Surface

BLOCKS USED : COLUMNS 1 TO 100 ROWS 1 TO 128
 CATEGORY : 2 : Medium Grade Footwall Quartzite

CUT-OFF GRADES FOR THIS CATEGORY

LABEL FROM TO
 %Pb+Zn 4.000 5.000

ROCK-TYPES IN THIS CATEGORY : 40

INCREMENTAL BENCH TOTALS

BENCH	CREST		TOE	VOLUME [bcm x1000]	DENSITY [tn/bcm]	TONNAGE [TONS x1000]	AVERAGE GRADES					ECONOMIC FACTOR [\$Cdn x1000]
	[m]	[m]					[%Pb+Zn]	[%Pb]	[%Zn]	[Ag g/t]	[Au g/t]	
19	1174.00	1173.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
20	1173.00	1170.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
21	1170.00	1167.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
22	1167.00	1164.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
23	1164.00	1161.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
24	1161.00	1158.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
25	1158.00	1155.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
26	1155.00	1152.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
27	1152.00	1149.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
28	1149.00	1146.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
29	1146.00	1143.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
30	1143.00	1140.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
31	1140.00	1137.00		.09	3.299	.30	4.016	2.169	1.847	32.20	1.913	.00
32	1137.00	1134.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
33	1134.00	1131.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
34	1131.00	1128.00		.14	3.229	.44	4.319	1.774	2.545	22.40	.656	.00
35	1128.00	1125.00		.70	3.727	2.61	4.440	1.948	2.491	32.03	.598	.00
36	1125.00	1122.00		1.51	3.696	5.58	4.384	2.051	2.332	29.58	.824	.00
37	1122.00	1119.00		1.65	3.527	5.81	4.283	2.117	2.166	23.18	1.133	.00
38	1119.00	1116.00		1.23	3.587	4.43	4.371	2.110	2.261	22.73	1.163	.00
39	1116.00	1113.00		.69	3.837	2.63	4.450	2.081	2.369	17.76	.967	.00
40	1113.00	1110.00		1.65	3.702	6.09	4.524	2.091	2.433	19.88	.899	.00
41	1110.00	1107.00		.69	3.891	2.67	4.601	2.236	2.365	20.11	.729	.00
42	1107.00	1104.00		1.51	3.756	5.67	4.472	1.961	2.510	22.60	.702	.00
43	1104.00	1101.00		.14	3.506	.48	4.246	1.716	2.530	21.42	.611	.00
44	1101.00	1098.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
45	1098.00	1095.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
46	1095.00	1092.00		.41	3.563	1.47	4.209	2.233	1.976	25.67	.570	.00

47	1092.00	1089.00	.27	3.498	.96	4.483	2.412	2.071	27.33	.585	.00
48	1089.00	1086.00	.00	.000	.00	.000	.000	.000	.00	.000	.00
49	1086.00	1083.00	.14	4.162	.57	4.347	2.324	2.023	38.36	1.183	.00
50	1083.00	1080.00	.27	4.123	1.13	4.232	2.262	1.969	36.59	1.236	.00
51	1080.00	1077.00	.14	3.405	.47	4.268	1.538	2.730	23.73	.566	.00
52	1077.00	1074.00	.23	3.707	.85	4.570	1.431	3.139	19.53	.778	.00
53	1074.00	1071.00	.46	3.856	1.76	4.339	1.896	2.443	20.11	.956	.00
54	1071.00	1068.00	.64	3.692	2.36	4.359	1.847	2.513	22.41	.911	.00
55	1068.00	1065.00	.27	4.105	1.13	4.590	1.806	2.784	33.37	.872	.00
56	1065.00	1062.00	.46	3.920	1.79	4.570	1.976	2.594	31.24	.973	.00
57	1062.00	1059.00	.00	.000	.00	.000	.000	.000	.00	.000	.00
58	1059.00	1056.00	.27	3.712	1.02	4.288	1.909	2.380	26.30	.828	.00
59	1056.00	1053.00	.00	.000	.00	.000	.000	.000	.00	.000	.00
60	1053.00	1050.00	.27	3.792	1.04	4.371	2.377	1.994	31.08	1.366	.00
61	1050.00	1047.00	.69	3.749	2.57	4.209	1.941	2.268	26.28	1.115	.00
62	1047.00	1044.00	.69	3.694	2.53	4.453	1.843	2.610	26.03	.910	.00
63	1044.00	1041.00	.41	3.701	1.52	4.433	1.827	2.606	25.52	.886	.00
64	1041.00	1038.00	.00	.000	.00	.000	.000	.000	.00	.000	.00
65	1038.00	1035.00	.00	.000	.00	.000	.000	.000	.00	.000	.00
66	1035.00	1032.00	.00	.000	.00	.000	.000	.000	.00	.000	.00
67	1032.00	1029.00	.00	.000	.00	.000	.000	.000	.00	.000	.00
68	1029.00	1026.00	.00	.000	.00	.000	.000	.000	.00	.000	.00

TOTAL FOR ALL BENCHES			15.60	3.709	57.87	4.406	2.026	2.380	24.73	.911	.00
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MINING RESERVE EVALUATION

DESCRIPTION : Vangorda Remaining Reserves By Rock Type

TOP SURFACE GRID RECORD : 20 JAN/91 Month End Surface MERGED - Dec/90 Corrected Surface
 BOTTOM SURFACE GRID RECORD : 21 "W" Ult. Pit MERGED to JAN/91 corrected Surface

BLOCKS USED : COLUMNS 1 TO 100 ROWS 1 TO 128
 CATEGORY : 3 : High Grade Footwall Quartzite

CUT-OFF GRADES FOR THIS CATEGORY

LABEL FROM TO
 %Pb+Zn 5.000 100.000

ROCK-TYPES IN THIS CATEGORY : 40

INCREMENTAL BENCH TOTALS

BENCH	CREST		TOE		VOLUME [bcm x1000]	DENSITY [tn/bcm]	TONNAGE [TONS x1000]	A V E R A G E G R A D E S				ECONOMIC FACTOR [\$Cdn x1000]	
	[m]	[m]				[%Pb+Zn]	[%Pb]	[%Zn]
19	1176.00		1173.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
20	1173.00		1170.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
21	1170.00		1167.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
22	1167.00		1164.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
23	1164.00		1161.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
24	1161.00		1158.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
25	1158.00		1155.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
26	1155.00		1152.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
27	1152.00		1149.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
28	1149.00		1146.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
29	1146.00		1143.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
30	1143.00		1140.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
31	1140.00		1137.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
32	1137.00		1134.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
33	1134.00		1131.00		.36	3.543	1.28	6.886	3.394	3.491	33.59	1.588	.00
34	1131.00		1128.00		.41	3.677	1.51	6.873	3.388	3.484	33.51	1.590	.00
35	1128.00		1125.00		.91	3.737	3.42	6.351	2.550	3.801	48.96	.741	.00
36	1125.00		1122.00		1.92	3.757	7.21	5.847	2.684	3.163	34.93	.769	.00
37	1122.00		1119.00		.73	3.580	2.62	5.227	2.635	2.592	22.96	1.210	.00
38	1119.00		1116.00		.55	3.923	2.15	6.189	2.606	3.583	39.27	.608	.00
39	1116.00		1113.00		.82	3.757	3.09	5.717	2.455	3.262	22.30	.922	.00
40	1113.00		1110.00		1.92	3.715	7.13	6.137	2.628	3.509	23.70	.868	.00
41	1110.00		1107.00		2.19	3.678	8.07	5.784	2.481	3.304	23.15	.657	.00
42	1107.00		1104.00		.69	3.671	2.52	5.723	2.385	3.338	25.46	.662	.00
43	1104.00		1101.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
44	1101.00		1098.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
45	1098.00		1095.00		.00	.000	.00	.000	.000	.000	.00	.000	.00
46	1095.00		1092.00		.00	.000	.00	.000	.000	.000	.00	.000	.00

47	1092.00	1089.00	.00	.000	.00	.000	.000	.000	.000	.00	.000	.00
48	1089.00	1086.00	.00	.000	.00	.000	.000	.000	.000	.00	.000	.00
49	1086.00	1083.00	.00	.000	.00	.000	.000	.000	.000	.00	.000	.00
50	1083.00	1080.00	.00	.000	.00	.000	.000	.000	.000	.00	.000	.00
51	1080.00	1077.00	.00	.000	.00	.000	.000	.000	.000	.00	.000	.00
52	1077.00	1074.00	.00	.000	.00	.000	.000	.000	.000	.00	.000	.00
53	1074.00	1071.00	.14	4.142	.57	5.058	2.687	2.371	23.07	1.255	.00	.00
54	1071.00	1068.00	.55	3.481	1.91	5.528	2.053	3.476	25.37	.630	.00	.00
55	1068.00	1065.00	.96	3.958	3.80	6.845	2.717	4.128	47.15	.948	.00	.00
56	1065.00	1062.00	.50	3.973	2.00	6.791	2.709	4.082	46.32	.922	.00	.00
57	1062.00	1059.00	.14	3.623	.50	5.473	2.258	3.215	28.81	.806	.00	.00
58	1059.00	1056.00	.00	.000	.00	.000	.000	.000	.00	.000	.00	.00
59	1056.00	1053.00	.00	.000	.00	.000	.000	.000	.00	.000	.00	.00
60	1053.00	1050.00	.14	3.790	.52	5.901	3.336	2.565	37.12	1.512	.00	.00
61	1050.00	1047.00	.00	.000	.00	.000	.000	.000	.00	.000	.00	.00
62	1047.00	1044.00	.00	.000	.00	.000	.000	.000	.00	.000	.00	.00
63	1044.00	1041.00	.14	3.704	.51	5.672	2.329	3.343	31.53	1.020	.00	.00
64	1041.00	1038.00	.05	3.789	.17	6.502	2.662	3.840	35.87	1.165	.00	.00
65	1038.00	1035.00	.00	.000	.00	.000	.000	.000	.00	.000	.00	.00
66	1035.00	1032.00	.00	.000	.00	.000	.000	.000	.00	.000	.00	.00
67	1032.00	1029.00	.00	.000	.00	.000	.000	.000	.00	.000	.00	.00
68	1029.00	1026.00	.00	.000	.00	.000	.000	.000	.00	.000	.00	.00

TOTAL FOR ALL BENCHES			13.12	3.735	48.99	6.032	2.615	3.417	31.35	.863	.00	.00
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