

Vangorda 8803 Geological Reserves  
no dilution  
length-weighted geological composites

007252

PLUS 6 % (Pb + Zn)

rock type	vol bcm*1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t
4ACD	98.76	6.3%	290.86	2.945	7.095	2.850	4.245	39.366	0.637
4C0	0.41	0.0%	1.40	3.415	6.152	2.444	3.708	11.890	0.130
4EC	11.52	0.7%	45.54	3.953	8.081	4.739	3.342	61.667	0.867
4E	0.00	0.0%	0.00	0.000	0.000	0.000	0.000	0.000	0.000
4EG	1424.95	91.3%	5928.75	4.161	9.704	4.253	5.451	60.580	0.802
4EH	7.82	0.5%	30.46	3.895	12.29	6.28	6.00	83.08	0.33
4DJ	17.28	1.1%	70.22	4.064	10.36	4.47	5.89	61.17	0.62
TOTAL	1560.74	100.0%	6367.23	4.080	9.592	4.204	5.388	59.722	0.791

PLUS 4 % (Pb + Zn)

rock type	vol bcm*1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t
4ACD	490.91	23.4%	1452.51	2.959	5.354	2.062	3.292	30.725	0.564
4C0	24.69	1.2%	85.25	3.453	4.447	2.253	2.194	23.447	0.700
4EC	65.83	3.1%	255.33	3.879	5.463	2.927	2.537	41.956	0.877
4E	1.23	0.1%	5.97	4.854	4.558	3.884	0.674	0.000	0.000
4EG	1488.72	70.9%	6176.95	4.149	9.506	4.173	5.334	59.508	0.795
4EH	11.11	0.5%	42.81	3.853	10.424	5.257	5.167	69.934	0.286
4DJ	18.10	0.9%	73.27	4.048	10.122	4.381	5.741	60.143	0.601
TOTAL	2100.59	100.0%	8092.09	3.852	8.587	3.742	4.845	53.425	0.750

MODEL COMPARISON

Model	cut-off	vol bcm*1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t	(Pb+Zn) tonnes (*1000)
8803	> 6%	1,560.74	100.0%	6,367.23	4.08	9.59	4.20	5.39	59.72	0.79	610.74
8607	> 6%	1,396.24	100.0%	5,417.43	3.88	10.17	4.45	5.72	62.55	0.74	550.95
Difference		164.50		949.80	0.20	(0.58)	(0.25)	(0.33)	(2.83)	0.05	59.79
Coef Var		12%		18%	5%	-6%	-6%	-6%	-5%	7%	11%
8803	> 4%	2,100.59	100.0%	8,092.09	3.85	8.59	3.74	4.85	53.42	0.75	694.85
8607	> 4%	2,026.34	100.0%	7,456.94	3.68	8.71	3.78	4.92	53.46	0.69	649.50
Difference		74.25		635.15	0.17	(0.12)	(0.04)	(0.07)	(0.04)	0.06	45.35
Coef Var		4%		9%	5%	-1%	-1%	-2%	-0%	9%	7%

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specific gravity + length-weighted geological composites

PLUS 6 % (Pb + Zn)

rock type	vol bcm*1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t
4ACD	107.40	6.8%	315.79	2.940	7.099	2.844	4.255	39.515	0.631
4C0	0.41	0.0%	1.40	3.415	6.158	2.446	3.712	11.540	0.127
4EC	11.93	0.8%	47.11	3.949	8.026	4.702	3.325	61.376	0.873
4E	0.00	0.0%	0.00	0.000	0.000	0.000	0.000	0.000	0.000
4EG	1431.95	90.8%	5956.37	4.160	9.826	4.317	5.510	61.391	0.813
4EH	7.82	0.5%	30.46	3.895	12.682	6.491	6.191	85.909	0.337
4DJ	17.28	1.1%	70.22	4.064	10.478	4.527	5.951	62.075	0.625
TOTAL	1576.79	100.0%	6421.35	4.072	9.699	4.259	5.440	60.428	0.800

PLUS 4 % (Pb + Zn)

rock type	vol bcm*1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t
4ACD	501.60	23.6%	1483.28	2.957	5.38	2.07	3.31	30.96	0.57
4C0	27.57	1.3%	95.33	3.458	4.45	2.31	2.13	24.01	0.72
4EC	65.83	3.1%	255.49	3.881	5.48	2.94	2.54	41.98	0.88
4E	1.23	0.1%	5.97	4.854	4.58	3.90	0.68	0.00	0.00
4EG	1496.14	70.5%	6205.09	4.147	9.62	4.23	5.39	60.28	0.80
4EH	11.11	0.5%	42.81	3.853	10.71	5.40	5.30	71.95	0.29
4DJ	18.10	0.9%	73.27	4.048	10.24	4.44	5.80	61.01	0.60
TOTAL	2121.58	100.0%	8161.24	3.847	8.670	3.786	4.884	53.980	0.759

MODEL COMPARISON

Model	cut-off	vol bcm*1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t	(Pb+Zn) tonnes (*1000)
8803	> 6%	1,576.79	100.0%	6,421.35	4.07	9.70	4.26	5.44	60.43	0.80	622.81
8607	> 6%	1,396.24	100.0%	5,417.43	3.88	10.17	4.45	5.72	62.55	0.74	550.95
Difference		180.55		1,003.92	0.19	(0.47)	(0.19)	(0.28)	(2.12)	0.06	71.85
Coef Var		13%		19%	5%	-5%	-4%	-5%	-3%	8%	13%
8803	> 4%	2,121.58	100.0%	8,161.24	3.85	8.67	3.79	4.88	53.98	0.76	707.58
8607	> 4%	2,026.34	100.0%	7,456.94	3.68	8.71	3.78	4.92	53.46	0.69	649.50
Difference		95.24		704.30	0.17	(0.04)	0.01	(0.04)	0.52	0.07	58.08
Coef Var		5%		9%	5%	-0%	0%	-1%	1%	10%	9%

MODEL COMPARISON

8803 for SG+LENGTH composites vs 8803 for LENGTH composites

Model	cut-off	vol bcm*1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t	(Pb+Zn) tonnes (*1000)
8803 sgl> 6%		1576.79	100.0%	6421.35	4.072	9.699	4.259	5.440	60.428	0.800	622.80
8803 ln > 6%		1560.74	100.0%	6367.23	4.080	9.592	4.204	5.388	59.722	0.791	610.74
Difference		16.05		54.12	(0.01)	0.11	0.06	0.05	0.71	0.01	12.05
Coef Var		1%		1%	-0%	1%	1%	1%	1%	1%	2%
8803 sgl> 4%		2121.58	100.0%	8161.24	3.847	8.670	3.786	4.884	53.980	0.759	707.55
88803 ln > 4%		2100.59	100.0%	8092.09	3.852	8.587	3.742	4.845	53.425	0.750	694.85
Difference		20.99		69.15	(0.01)	0.08	0.04	0.04	0.56	0.01	12.69
Coef Var		1%		1%	-0%	1%	1%	1%	1%	1%	2%

Vangorda 8803 Mining Reserves (6 metre high blocks)  
no dilution  
Length-weighted geological composites

PLUS 4 % (Pb + Zn)

rock type	vol bcm#1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t
4ACD	297.89	18.4%	869.40	2.919	5.660	2.200	3.460	30.640	0.511
4C0	11.52	0.7%	40.60	3.524	4.371	2.635	1.737	29.342	0.996
4EC	30.04	1.9%	118.55	3.946	5.869	3.159	2.710	43.377	0.911
4E	1.23	0.1%	5.97	4.854	4.558	3.884	0.674	0.000	0.000
4E6	1255.24	77.5%	5226.56	4.164	9.698	4.256	5.443	60.612	0.784
4EH	7.82	0.5%	30.46	3.895	12.286	6.284	6.002	83.079	0.330
4DJ	16.87	1.0%	68.56	4.064	10.388	4.481	5.907	61.049	0.632
TOTAL	1,620.61	100.0%	6,360.10	3.925	9.056	3.956	5.100	56.049	0.746

Vangorda 8803A Mining Reserves (3 metre high blocks)  
no dilution  
length-weighted geological composites

PLUS 4 % (Pb + Zn)

rock type	vol bcm#1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t
4ACD	316.12	19.7%	921.44	2.915	5.64	2.20	3.44	30.78	0.51
4C0	12.24	0.8%	43.08	3.520	4.56	2.69	1.86	30.34	0.95
4EC	27.60	1.7%	108.88	3.945	5.54	2.80	2.74	39.23	0.91
4E	1.85	0.1%	8.97	4.849	4.57	3.90	0.67	0.00	0.00
4E6	1212.40	75.6%	5043.76	4.160	9.64	4.23	5.41	60.26	0.78
4EH	10.49	0.7%	41.73	3.978	12.40	6.32	6.08	82.40	0.39
4DJ	23.45	1.5%	95.73	4.082	10.21	4.47	5.74	59.60	0.73
TOTAL	1,604.15	100.0%	6,263.59	3.905	8.966	3.916	5.051	55.406	0.743

MODEL COMPARISON

Model	cut-off	vol bcm#1000	vol %	tonnes (*1000)	density (tn/bcm)	Pb+Zn %	Pb %	Zn %	Ag g/t	Au g/t	Tonnes Pb	Tonnes Zn	kg Ag	kg Au
8803	> 4%	1,620.61	100.0%	6,360.10	3.93	9.06	3.96	5.10	56.05	0.75	251,606	324,365	356,477	4,745
8803A	> 4%	1,604.15	100.0%	6,263.59	3.91	8.97	3.92	5.05	55.41	0.74	245,282	316,374	347,040	4,654
Difference		16.46		96.51	0.02	0.09	0.04	0.05	0.64	0.00	6,323	7,991	9,437	91
Coef Var		1%		2%	1%	1%	1%	1%	1%	0%	3%	3%	3%	2%