

TABLE 1: SUMMARY OF MINERAL DEPOSITS

Name	Dimensions (ft)		Tons X 1,000	Grade Ni;Cu		Co ore Co waste		Cr ore Cr waste		Plunge of ore	Discovery
	Horizontal	Vertical		Ni;Cu	Ni;Cu						
Pride of Emory	max. @ 3550' 150x60'	875' 3250-4125	704	1.46;0.38	3.84	-	-	-	-	N40W 53° 3200-4000	Prospecting
Br 1	max. @ 3850' 110x60'	525' 3350-3875	123	1.10;0.35	3.14	-	-	-	-	N20W 75° 3350-3800	Prospecting
Br 2	max. @ 3150' 180x70'	825' 2700-3525	570	1.40;0.60	2.33	-	-	-	-	N30W 56° 2800-3525	S.P.?
Br 2A	max. @ 3675' 110x70'	350' 3575-3925	290	0.98;0.35	2.80	-	-	-	-	N40W 72° 3600-3750	S.P.?
Br 2G	max. @ 2800' 70x65'	300' 2675-2975	131	0.56;0.27	2.07	0.07/0.01=7	-	-	-	N45W 77° 2700-2875	Below Br 2
Br 5	max. @ 3550' 120x70'	600' 3300-3900	409	1.49;0.50	2.98	-	-	-	-	N30E 77° 3600-3825 Vertical 33-3600	S.P.?
Br 7	max. @ 3350' 90x50'	200' 3275-3475	23	2.37;0.75	3.16	-	-	-	-	N30W 68° 3275-3450	Underground
Br 8	max. @ 3600' 20x40'	175' 3475-3650	12	1.75;0.61	2.86	-	-	-	-	N20E 79°	Underground
Br 10	max. @ 3500' 70x55'	200' + 3350-3575	38	0.74;0.35	2.11	-	-	-	-	N30W 70-80°	Underground
2663	max. @ 2750' 50x60'	325' 2675-3025	102	0.86;0.32	2.69	-	-	-	-	N40W 68°	Underground
6800	max. @ 3100' 50x50'	300' 2950-3250	47	0.66;0.24	2.75	0.052/0.002=26	-	-	-	N70W 56°	Underground

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	Horizontal	Vertical									
600	max. @ 100x45'	300' 3225-3550	83	1.42;0.42	3.04	-	-	-	-	S30W 66°	Underground
Portal Zone		620'	2,375	0.25;0.11	2.27	-	-	-	-	probable steep southeast plunge surface 2700'	Underground
4600	max. @ 3100' 250x100'	643' + 2800-3550	805	1.35;0.73	1.80	0.027/0.002 = 13.5	0.185/0.152 = 1.22			N45W 82° 2800-3250	Underground
4400	max. 40x50'	150' + 3075-3275	27½	0.51;0.22	2.31	0.012/0.006 = 2.0	-			N50W 76° 3075-3275	Underground
4300	max. 90x40'	225' 3200-3425	62	0.91;0.51	1.78	0.063/0.002 = 31.5	0.083/0.040 = 2.07			N50W 61°	Underground
2200	max. 50x50'	750' 2650-3350 +	135	0.68;0.38	1.79	0.036/0.002 = 18.0	0.148/0.087 = 1.70			N60W 75° 2650-3350	Underground
2000	max. 30x30'	50'	3.4	1.33;0.33	4.03	-	-			N45W 80°	Offset of 2200?
1900	max. 50x80'	300' 3295-3575 +	45	0.86;0.45	1.91	-	-			N60W 63° 3400-3550	Underground
1800	max. 50x80'	150' 3250-3400	40	0.53;0.23	2.30	0.023/0.005 = 5.0	-			S60E 60°	Above 2200
1700	max. 12x12'	50'	1	2.00 approx	-	-	-			-	Offset of 2000?
1600	max. 170x90'	425' 3225-3650	216	0.97;0.34	2.85	0.04/0.01 = 4.0	-			S50W 69° 3200-3600	Underground 200' interval D.D. on 3550 level
1500	max. 200x70'	1,130' 2675-3675 +	668	1.37;0.45	3.04	0.06/0.01 = 6.0	0.12/0.01 = 12.0			N30E 55° 2700-3400	Underground 200' interval D.D. on 3550 level

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	Horizontal	Vertical				Co waste	Cr waste				
1400	max. 50x60'	468' 3275-3725 +	53	0.71;0.32	2.21	0.03/0.005 = 6.0	-	-	-	N50W 65° 3275-3725	Underground 200' interval D.D. on 3550 level
Chinaman	max. 90/100'	638' 2700-3290 +	376	0.73;0.30	2.43	0.046/0.010 = 4.6	0.225/0.10 = 2.50	-	-	N60W 68° 2650-3050	Below Trail Surface showing
Climax	max. 50x90'	598' 2700-3200 +	211	0.78;0.36	2.16	0.028/0.010 = 2.8	-	-	-	N30W 63° 2650-3200	Intersected in 3050 X.C.
512	max. 30x50'	225' 3875-4015	28	1.08;0.41	2.63	-	-	-	-	S45W 75° 3725-3850'	Below Nickel Star showing

TABLE 2: SUMMARY OF MINERAL DEPOSITS

NAME	GEOLOGICAL SETTING	ALTERATION	STRUCTURAL SETTING
Pride of Emory	Several elongate mineralized bodies; in ore zone, rock grades from dunite to bronzite; sharp contact to east with H.Px and grades into Pdt or dunite on the west.	Strong talc in H Px immediately north of P. E. pit	N 20E strong fractures; NW and NE faulting
Brunswick 1	Zoned from dunite core to harzburgite to barren bronzite; main diorite contact to the south is parallel to footwall of ore.		Sketchy information indicates moderate faulting NW-NE throughout Br. 1,2,2A.
Brunswick 2; 2A,2G	Massive type; enstatine and olivine with interstitial sulfides;	Moderate-strong Ac , in hanging wall parallel to plunge.	
Brunswick 5;7	Enclosed in enstatitic Px, Br 5 has dunitic core grading to Pdt to barren enstatite rock.	Most of the dunite shows crumbly	Weak NW faults dip 45°E.
Brunswick 8	Massive ore body; ore is enstatitic Px in sulfide groundmass ; barren Px and norite lenses may be inclusions	Ac in H.px on NW side	
Brunswick 10	Ore associated with lense of enstatite.		Intersecting NW and NE fault zones below ore zone.
2663	Mineralized Pdt core surrounded by barren Px; diorite contact in footwall.	Moderate crumbly in Pdt to north, moderate Ac parallel to Pdt-Px contact to south	Faulting N 75 W60°N; N 20E 40E.
6800	Several tabular zones; fine sulfides in Px, breccia fragments of norite occur in ore zone	Crumbly zone below deposit on 2950 level.	Faulting N 50-70 W
600	Pdt ore follows steeply plunging norite - H Px contact	Zones of crumbly have irregular distribution.	Faulting N15E parallel to long axis.
Portal Zone	Low grade Pdt mineralization enclosed in H px		

T A B L E 2: con't

NAME	GEOLOGICAL SETTING	ALTERATION	STRUCTURAL SETTING
4600	Zoned with olivine barren core and olivine rich rim; Inclusions of diorite occur in ultramafic; Massive ore sections favor footwall side of ore body.	Weak Ac in footwall moderate crumbly at Px-Pdt contact to north	Fault N 15E 40°W
4400	Ore lies along a N-S Pdt-Px contact	Crumbly parallel to north and east contacts on footwall; Ac with faults	Faulting NW dip E; N 20E 35E, N 15W 55E
4300	Probably off-shoot of 4600; disseminated sulfides in H Px	Fracture zones contain act.	Faulting N 15W vertical
2200	Ore near the contact of norite embayment; Sulfides are disseminated in Pdt pipe enclosed in barren px.		
1900	Zoned body; consists of irregular disseminations in an oval shaped body with H. Pdt core rimmed by enstatite-hypersthene rock and a partial H. Px shell	Strong talc in ore near footwall	Faulting N 15W 40W
1800	Mineralized body occurs in pipe-like body of Pdt enclosed in px.	Some talc at contact	1800 may be a faulted off-set of 2200
1700	Dunitic ore NW of 2000	Crumbly altered	
1600	Zoned body; dunitic core to barren H. Pdt; On 3200 level a breccia with ore fragments in norite may indicate post-ore faulting.	Strong talc in ore near diorite contact along hanging-wall; strong crumbly near top of ore.	

T A B L E 2: con't

NAME	GEOLOGICAL SETTING	ALTERATION	STRUCTURAL SETTING
1500	Ore in both H. Pdt and H Px as both massive and lacy types with a concentration of massive near bottom; ore has been either dammed or cut off by a flat hornblendite dike; footwall contains a breccia with diorite fragments in mineralized H Px	Large zone of crumbly north of ore zone; some crumbly in ore zone.	Moderate faulting parellel to to major axis of ore body.
1400	Ore in a Pdt-px mixture with diorite on southwest and northeast contacts.	Moderate act. in px	NW trending faults dip east and west.
Chinaman	Ore mainly in H Px with barren Pdt core; footwall and NE side is a H Px-diorite	Strong act - talc-magnetite below and in hanging-wall of zone.	
Climax	Ore parallels norite contact and overlaps Pdt-px contact	Crumbly near north contact	
512	Zoned structure with barren core and sulfides in shell of olivine px; barren H Px and hornblendite surrounds ore.		

T A B L E 3:

Remaining Mineral Reserves at the Giant Mascot Mine

Deposit Name	Original* tonnage	Original* grade Ni; Cu	Remaining* tonnage	Remaining* grade	Location in mine
Brunswick 2	570,000	1.40;0.60	36,600	0.79;0.28	above and below 2600 level
Brunswick 2A	290,000	0.98;0.35	12,500	?	above 3550 level
2663	102,000	0.86;0.32	61,700	0.61;0.23	footwall of shaft
6800	47,000	0.66;0.24	all	same	between 2950 and 3250 levels
	54,000	0.57;0.21	all	same	
	66,500	0.53;0.18	all	same	
600	83,000	1.42;0.42	1,536	1.42;0.42	below 3225 level
Portal Zone	2,375,000	0.25;0.11	all	same	below 2700 ^t elevation near 2600 portal
4600	805,000	1.35;0.73	46,800	0.81;0.85	mainly in 2950 pillar
4400	27,250	0.51;0.22	all	same	ENE of 4600
4300	62,000	0.91;0.51	11,400	1.14;0.70	between 3200 and 3275; broken and in place; left because of shaft breakdown
2000	3,400	1.33;0.33	1,750	1.33;0.33	between 2625' and 2655'
1800	40,000	0.53;0.23	all	same	between 3225' and 3340'
1700 showing	1,000	approx. 2% Ni	all	same	
1500	668,000	1.37;0.45	48,000	0.75;0.29	2950 Level pillar
1400	53,000	0.71;0.32	21,000	0.64;0.41	In place above 3550 level
Chinaman	376,300	0.73;0.30	127,000	0.73;0.30	Between 3000 and 3393'
Climax	210,700	0.78;0.36	22,000	0.78;0.36	3050 level pillar

* Estimates based on company reports, mine plans, and information provided by company engineers.

Where data was available, values were recalculated and checked by N. Berg

ORE RESERVES, Dec. 1956

OREBODY	TONNAGE	%Cu	%Ni
Brunswick No. 1	165,700	0.96	1.05
" " " 2	177,600	0.84	1.30
" " " 5	171,100	0.41	1.30
" " " 6	5,400	0.77	2.08
" " " 7	80,000	0.75	2.37
" " " 8	4,100	0.61	1.75
" " " 9	2,400	0.52	1.40
Pride of Emory	402,300	0.57	1.49
1900	32,000	0.48	0.92
1600	109,000	0.36	1.20
512	15,000	0.42	1.40
Trail	18,900	0.49	1.26
TOTAL	1,183,500	0.50	1.39

