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DEPARTMENT OF SUPPLY AND SHIPPING.

BUREAU OF MINERAL RESOURCES GEOLOGY AND GEOPHYSICS.

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BEACH SANDS INVESTIGATION.

THE "TROUGH" AREA, SOUTH STRADBROKE ISLAND, FROM 2100 FEET NORTH TO 1100 FEET NORTH.

by

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SOUTHPORT, QUEENSLAND. 14th October, 1948.

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THE "TROUGH" AREA.

A plan and sections of the area are given at the back of this report. The Trough Area extends parallel to and 200 to 300 feet west of the eastern beach from approximately 4800 feet north of the zero line shown on the locality plan, to 6000 feet south of the zero line. It has a flat sandy floor 150 to 200 feet wide, and a foot or two below water level. The "trough" is bounded on the east by the fore-dunes, and on the west by an area of shifting sand which rises sharply to elevations of 25 to 35 or 40 feet. Deposits of heavy minerals occur at or near the surface along the western edge of the trough at the following localities (referred to the zero line shown in the locality plan):-

(a) From approximately 3800 feet north to 2800 feet north,
(b) from 2000 feet north to 1100 feet north,
(c) from 460 feet north to 360 feet north,
(d) from 80 feet north to 320 feet south,
(e) from 1280 feet south to 1600 feet south,
(f) from 2100 feet south to 2400 feet south,
(g) from 3600 feet south to 3800 feet south,

This report gives an estimate of the quantities of heavy minerals occuring from 2100 feet north to 1100 feet north. A subsequent report will give an estimate of the quantities of heavy minerals occuring in the other deposits mentioned above.

SAMPLING.

The area was sampled on the 8th September, 1948. Where the heavy minerals were at or close to the surface, samples were obtained from shovel holes. Where the mineral was at some depth below the surface, the samples were obtained from bores put down with a post-hole digger.

DETERMINATION OF SAMPLES.

Samples were dried, and their weights and volumes determined. The samples were then concentrated by panning, and the weights and volumes of the dry concentrates were determined. The percentage composition of a composite sample of concentrates from each bore line was determined by grain counting.

RESULTS.

Estimates of the quantities and grades of heavy mineral concentrates, the quantities of overburden, and the quantities of each of the heavy minerals are tabulated in this report as follows :-

Table 1. Tonnage of Heavy Mineral Concentrate, Volumes and Average Thicknesses of Mineral-Bearing Sands and of Overburden, and Average Grades of Mineral-Bearing Sands.

Table 2. Tonnages of Heavy Mineral Concentrate, Volumes and Average Thicknesses of Mineral-Bearing Sands and of Overburden, and Average Grade of Mineral-Bearing Sands in a Strip 1 Yard Wide along Each Bore Line.

Table 3. Tonnages of Each of the Heavy Minerals.

The figures of Tables1, 2 and 3 were derived from data tabulated in the Appendix as follows:-

Appendix.

Table A. Quantities of Heavy Minerals Intersected in Bores.

Table B. Weight of Mineral in 1 Yard Stripalong Bore Line.

Table C. Volume and Average Thickness of Mineral-Bearing Sand along Bore Line.

Table D. Volume and Average Thickness of Overburden along Bore Line.

Table E. Average Weight of Heavy Mineral Concentrate per 1 Yard Strip between Bore Lines, and Average Area of Longitudinal Section of Mineral-Bearing Sands and of Overburden between Bore Lines.

Table F. Total Weight of Heavy Mineral Concentrate, Total Volume of Mineral-Bearing Sands, and Total Volume of Overburden between Bore Lines.

Table G. Average Thickness of Mineral-Bearing Sands and of Overburden.

Table H. Percentage Compositions of Concentrates.

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14/10/1948.

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TABLE 1.

TONNAGES OF HEAVY MINERAL CONCENTRATE, VOLUMES AND AVERAGE THICKNESSES OF MINERAL-BEARING SANDS AND OF OVERBURDEN, AND AVERAGE GRADES OF MINERAL-BEARING SANDS.

AREA BETWEEN BORE LINES.	WEIGHT OF HEAVY MINERAL CONCENTRATE. (TABLE F.) TONS	VOLUME MINERAL-BEARING SANDS (TABLE F.) CUBIC YDS.	VOLUME OVERBURDEN (TABLE F.) CUBIC YDS.	AVERAGE THICKNESS MINERAL-BEARING SANDS (TABLE G.) FEET	AVERAGE THICKNESS MINERAL-BEARING SANDS (TABLE G.) INCHES	AVERAGE THICKNESS OVERBURDEN (TABLE G.) FEET	AVERAGE THICKNESS OVERBURDEN (TABLE G.) INCHES	AVERAGE GRADE OF MINERAL-BEARING SANDS. LBS. OF HEAVY MINERAL CONCENTRATE PER CUB YD
2076N & 2044N	0.6	6.8	33.0	0	4.2	1	8.2	192.5
2044N - 1984N	4.9	57.0	128.2	1	1.6	2	6.8	193.5
1984N - 1918N	13.7	103.6	124.2	1	3.5	1	6.6	296.6
1918N - 1880N	8.4	56.0	66.1	1	2.4	1	5.0	336.0
1880N - 1824N	5.3	57.8	73.5	0	10.9	1	1.9	205.6
1824N - 1764N	8.1	90.2	118.0	0	8.5	0	11.2	200.3
1764N - 1708N	10.2	86.6	119.3	0	9.1	1	0.5	265.7
1708N - 1646N	32.9	141.0	114.2	1	2.5	0	11.7	522.3
1646N - 1588N	37.1	192.8	148.3	1	5.4	1	1.3	431.4
1588N - 1464N	28.1	386.0	495.2	1	4.1	1	8.7	162.8
1464N - 1348N	29.1	455.5	322.6	1	8.1	1	2.3	143.3
1348N - 1230N	27.9	320.2	53.2	1	2.7	0	2.9	195.7
1230N - 1110N	20.9	89.2	76.4	0	5.5	0	4.7	526.0
TOTAL	227.2	2042.7	1882.2	1	1.9	1	0.8	249.1.

TABLE 2.

TONNAGES OF HEAVY MINERAL CONCENTRATE, VOLUMES AND AVERAGE THICKNESSES OF MINERAL-BEARING SANDS AND OF OVERBURDEN, AND AVERAGE GRADE OF MINERAL-BEARING SANDS, IN STRIP 1 YARD WIDE ALONG BORE LINES.

LINE	WEIGHT OF HEAVY MINERAL CONCENTRATE (TABLE B.)		VOLUME		AVERAGE THICKNESS				AVERAGE GRADE OF MINERAL-BEARING SANDS.
			MINERAL-BEARING SANDS (TABLE C.)	OVERBURDEN (TABLE D.)	MINERAL-BEARING SANDS (TABLE C.)		OVERBURDEN (TABLE D.)		
	LBS.	TONS	CUBIC YDS.	CUBIC YDS.	FEET	INCHES	FEET	INCHES	LBS. OF HEAVY MINERAL CONCENTRATE PER CUBIC YARD.
2076N	107.15		0.7	0.48	0	5	0	3.5	153.1
2044N	137.4		0.58	5.68	0	3.5	2	10	236.9
1984N	965.7		5.13	7.14	1	8.5	2	5	188.2
1918N	2038.0		5.22	5.28	1	0.5	1	1	401.9
1880N	590.5		2.78	4.17	1	8	2	6	212.4
1824N	660.8		3.31	3.57	0	7.5	0	8	199.6
1764N	1146.0		5.71	8.23	0	9.4	1	1	200.7
1708N	1411.0		4.07	5.04	0	9.1	0	11	346.7
1646N	5954.4		10.03	6.39	1	7	1	0	593.6
1588N	1966.4		8.33	7.74	1	3.8	1	3	236.1
1464N	1176.3		10.97	17.03	1	4.4	2	2	107.2
1348N	2356.5		13.65	0.42	2	0.5	0	1	172.6
1250N	854.3		2.77	2.82	0	5	0	5	308.4
1110N	1491.9		1.70	1.0	0	6.8	0	4	877.6

TABLE 3.

TONNAGES OF EACH OF THE HEAVY MINERALS

ESTIMATED FROM PERCENTAGE COMPOSITIONS DETERMINED BY GRAIN COUNTING

AREA BETWEEN BORE LINES.	TONNAGES OF HEAVY MINERAL CONCENTRATES.	PERCENTAGE COMPOSITIONS & TONNAGES OF HEAVY MINERALS.											
		MONAZITE		ZIRCON		RUTILE		ILMENITE		GARNET		OTHER MINERALS	
		%	TONS	%	TONS	%	TONS	%	TONS	%	TONS	%	TONS
TOTAL AREA LINE 2076N TO 1110N.	227.2	0.5	1.1	27.9	63.4	33.3	75.7	32.6	74.1	1.9	4.3	3.8	8.6

2100N - 1100N.

APPENDIX. TABLE A. PAGE 1.

QUANTITIES OF HEAVY MINERALS INTERSECTED IN BORES.

BORE NO. & R.L.	CO-ORDINATES FROM ZERO POINT.	SAMPLE NO. FIELD	SAMPLE NO. LABORATORY	DEPTH FROM	DEPTH TO	QUANTITY OF HEAVY MINERALS LBS PER CU. YD.	QUANTITY OF HEAVY MINERALS WT. PER CENT	THICKNESS OF SAMPLE (FT.) X (LBS. PER CU. YD).	REMARKS.
LINE 2076N. 382	2076N/216W	1		4"	0'5"	251.5	8.55	20.92	
		2		0'8"	0'10"	176.2	6.83	29.37	
			Thickness of 0'6"			100.58		50.29	
383	2076N/201W	1		0'3"	0'7"	235	8	78.3	Estimate
LINE 2044N. 381	2044N/122W	1		0'10"	1'7"	60.9	2.22		
		2		3'8"	4'1"	266	9.35	110.83	
			Thickness of 0'5"			266.0		110.8	
388	2044N/104W	1		2'0"	2'2"	159.5	5.675	26.58	
LINE 1984N. 380	1984N/228W	1		3'6"	5'3"	97.1	3.6	169.9	
		2		5'9"	6'6"	536.7	17.9	402.5	
			Thickness of 3'0"			190.8		572.4	
384	1984N/201W	1		0'0"	0'2"	166.5	5.625	27.75	Overburden
		2		1'0"	1'2"	47.4	1.65		1'3".
		3		1'5"	1'8"	174.5	6.2	43.6	
			Thickness of 0'5"			171.24		71.35	

APPENDIX. TABLE A. PAGE 2. QUANTITIES OF HEAVY MINERALS INTERSECTED IN BORES.

BORE NO. & R.L.	CO-ORDINATES FROM ZERO POINT.	SAMPLE NO. FIELD	SAMPLE NO. LABORATORY	DEPTH FROM	DEPTH TO	QUANTITY OF HEAVY MINERALS LBS PER CU. YD.	QUANTITY OF HEAVY MINERALS WT. PER CENT	THICKNESS OF SAMPLE (FT.) X (LBS. PER CU. YD).	REMARKS.
LINE 1918N. 386	1918N/245W	1		0'6"	1'6"	699.3	23.0	699.3	
385	1918N/215W			1'4"	2'9"	263	2.675	373.0	
389	1918N/200W	No record of this bore.							
LINE 1860N. 387	1860N/235W	1		3'	4'	383.2	13.6	383.2	
360	1880N/220W	1		0'4"	1'0"	53.2	1.95		
		2		2'0"	3'6"	185.7	6.75	278.55	
		3		4'0"	4'4"	145.2	5.42	48.4	
				Thickness 2'4"		140.1		326.9	
LINE 1860N. 363	1860N/184W			1'	1'4"	213.1	7.6	71.0	
LINE 1824N. 362	1824N/252W	No record of this bore.							
359	1824N/204W	1		0'8"	1'11"	198.2	7.1	247.8	
LINE 1764N. 347	1764N/236W	1		0'6"	0'11"	651.1	22.0	271.3	
		2		1'5"	2'3"	820.6	25.3	683.8	
				Thickness 1'9"		545.8		955.1	

APPENDIX. TABLE A. PAGE 3.

QUANTITIES OF HEAVY MINERALS INTERSECTED IN BORES.

BORE NO. & R.L.	CO-ORDINATES FROM ZERO POINT.	SAMPLE NO. FIELD	SAMPLE NO. LABORATORY	DEPTH FROM	DEPTH TO	QUANTITY OF HEAVY MINERALS LBS PER CU. YD.	QUANTITY OF HEAVY MINERALS WT. PER CENT	THICKNESS OF SAMPLE (FT.) X (LBS. PER CU. YD).	REMARKS.
LINE 1764N.									
361	1764N/254W	1		3'6"	3'9"	91.8	33.5	22.95	
357	1764N/242W	1		0'0"	0'2"	404.5	13.65	67.4	
		2		0'8"	1' 2"	355.6	12.82	177.8	
			Thickness 1'2"			210.		245.2	
356	1764N/233W	1		0'9"	1'1"	33.0	1.45		
		2		1'3"	1'9"	106.7	3.75	53. 3	
			Thickness 0'6"			106.7		53.3	
364	1764N/200W	1		0'2"	0'5"	98.8	3.6	24.7	
		2		0'11"	1'1"	77.	2.67	12.8	
			Thickness 11"			40.9		37.5	
LINE 1708N.									
346	1708N/160W	1		0'10"	2'1"	748.8	24.3	936.0	
348	1708N/139W	1		182"	2'0"	43.	1.59	35.8	
350	1708N/124W	1		0'0"	0'2"	638.	20.65	106.33	Overburden
		2		1'	1'3"	203.3	7.15	50.82	1'0"
			Thickness 0'5"			377.1		157.15	

APPENDIX. TABLE A. PAGE 4.

QUANTITIES OF HEAVY MINERALS INTERSECTED IN BORES.

BORE NO. & R.L.	CO-ORDINATES FROM ZERO.	SAMPLE NO. FIELD	SAMPLE NO. LABORATORY	DEPTH FROM	DEPTH TO	QUANTITY OF HEAVY MINERALS LBS PER CU. YD.	QUANTITY OF HEAVY MINERALS WT. PER CENT	THICKNESS OF SAMPLE (FT.) X (LBS. PER CU. YD).	REMARKS.
LINE 1708N.									
344	1708N/112W			0'4"	0'10"	67.	2.49	33.5	
LINE 1646N.									
358	1646N/279W	1		4'	4'3"	75.1	2.8	18.8	
345	1646N/261W	1		2"	1'6"	251.9	8.95	339.1	
		2		1'6"	3'9"	842.7	27.8	1896.01	
			Thickness 3'7"			623.75		2235.11	
349	1646N/234W	1		0'7"	0'11"	323.	11.23	107.66	
339	1646N/222W	1		1'	1'2"	1040.3	31.7	173.4	
LINE 1588N.									
354	1588N/275W.	1		2'3"	3'9"	93.4	3.41	140.1	
342	1588N/260W	1		2'3"	3'9"	436.3	16.	654.45	
337	1588N/236W	1		0'5"	1'5"	72.9	2.65	72.9	
338	1588N/218W			0'0"	1'6"	174.7	6.05	262.05	
LINE 1464N.									
355	1464N/252W	1		1'9"	2'3"	117.8	4.2	58.9	Overburden
		2		4'2"	5'	212.0	6.97	176.66	1'9" plus
		3		6'6"	6'9"	506.8	16.85	126.7	1'11"
			Thickness 3'1"			117.6		362.26	

APPENDIX. TABLE A. PAGE 5. QUANTITIES OF HEAVY MINERALS INTERSECTED IN BORES.

BORE NO. & R.L.	CO-ORDINATES FROM ZERO.	SAMPLE NO. FIELD	SAMPLE NO. LABORATORY	DEPTH FROM	DEPTH TO	QUANTITY OF HEAVY MINERALS LBS PER CU. YD.	QUANTITY OF HEAVY MINERALS WT. PER CENT	THICKNESS OF SAMPLE (FT.) X (LBS. PER CU. YD).	REMARKS.
LINE 1464N.									
333.	1464N/225W.	1		0'0"	0'9"	43.8	1.826		
		2		3'9"	4'6"	150.5	5.4	112.9	
			Thickness 0'9"			150.5		112.9	
332.	1464N/198W	1		0'0"	1'3"	65.1	2.44	81.375	
336.	1464N/180W.	1		0'3"	0'10"	115.7	4.375	67.6	
		2		1'	1'3"	96.3	3.43	24.07	
			Thickness 1'			91.67		91.67	
LINE 1348 N. 325.	1348N/260W.		Disregard Bore 325 on 362N/260W.						
343.	1348N/242W.	1		0'0"	4'9"	156.8	5.75	744.8	
331.	1348N/215W.	1		0'0"	0'7"	325.2	11.18	189.7	
335.	1348N/200W.	1		0'6"	1'0"	124.2	4.4	62.1	
LINE 1230N. 341.	1230N/256W.	1		0'0"	5'0"	25.2	0.93	126.0	
330	1230N/223W.	1		0'0"	0'2"	435.2	14.65	72.53	Ovefburden
		2		0'7"	1'3"	112.0	4.13	74.66	0'5".
			Thickness o'10"			176.6		147.19	

APPENDIX. TABLE A. PAGE 6.

QUANTITIES OF HEAVY MINERALS INTERSECTED IN BORES.

BORE NO. & R.L.	CO-ORDINATES FROM ZERO.	SAMPLE NO. FIELD	SAMPLE NO. LABORATORY	DEPTH FROM	DEPTH TO	QUANTITY OF HEAVY MINERALS LBS PER CU. YD.	QUANTITY OF HEAVY MINERALS WT. PER CENT	THICKNESS OF SAMPLE (FT.) X (LBS. PER CU. YD).	REMARKS.
LINE 1230N.									
334.	1230N/208W.	1		0'2"	0'5"	366.7	12.52	91.7	
351.	1230N/196W.	1		1'0"	1'3"	561.8	18.10	140.45	
LINE 1110N.									
340.	1110N/253W.	1		0'0"	0'4"	379.7	13.03	126.56	
329.	1110N/235W.	1		0'6"	0'11"	1746.0	49.80	727.4	
		2		1'1"	1'5"	548.5	18.2	182.8	
			Thickness 11"			992.9		910.2	
335.	1110N/226W.		Disregard Bore335 logged for line 1348N.						

2100N - 1100N.

APPENDIX. TABLE B. PAGE 1.

WEIGHT OF MINERAL IN 1 YARD STRIP ALONG BORE LINE.

BORE NOS.	LBS. OF MINERAL PER SQ. YD. AT BORE. (FROM TABLE A.)	AVERAGE LBS. WEIGHT OF MINERAL PER SQ. YD. BETWEEN BORES.	DISTANCE BETWEEN BORES (YDS) (FROM TABLE A.)	WEIGHT OF MINERAL In 1 YD. STRIP BETWEEN BORES (LBS)
LINE 2076' NORTH.				
382	50.29 ÷ 3 = 16.76	$\frac{42.86}{2}$ = 21.43	5	107.15
383	78.3 ÷ 3 = 26.1			
LINE 2044' NORTH.				
381	110.8 ÷ 3 = 36.9	$\frac{45.8}{2}$ = 22.9	6	137.4
388	26.6 ÷ 3 = 8.9			
LINE 1984' NORTH.				
380	572.4 ÷ 3 = 190.8	$\frac{214.6}{2}$ = 107.3	9	965.7
384	71.35 ÷ 3 = 23.78			
LINE 1918' NORTH.				
386	699.3 ÷ 3 = 233.1	$\frac{357.4}{2}$ = 178.7	10	1787.0
385	373.0 ÷ 3 = 124.3			
385	124.3	$\frac{124.3}{2}$ = 62.2	5	311.0
389	No record.			
TOTAL - 386 - 389.			15	2098.0

APPENDIX. TABLE B. **PAGE 2.** WEIGHT OF MINERAL IN 1 YARD STRIP ALONG BORE LINE.

BORE NOS.	LBS. OF MINERAL PER SQ. YD. AT BORE. (FROM TABLE A.)	AVERAGE LBS. WEIGHT OF MINERAL PER SQ. YD. BETWEEN BORES.	DISTANCE BETWEEN BORES (YDS) (FROM TABLE A.)	WEIGHT OF MINERAL In 1 YD. STRIP BETWEEN BORES (LBS)
LINE 1880' NORTH.				
387	$\frac{382.3}{3}$ = 127.4			
		$\frac{236.3}{2}$ = 118.1	5	590.5
360	$\frac{326.9}{3}$ = 108.9			
LINE 1824' NORTH.				
362	No record.			
		$\frac{82.6}{2}$ = 41.3	16	660.8
359	$\frac{247.8}{3}$ = 82.6			
LINE 1764' NORTH.				
347	$\frac{955.1}{3}$ = 318.4			
		$\frac{326.0}{2}$ = 163.0	4	652.0
361	$\frac{22.95}{3}$ = 7.65			
361	7.65			
357	$\frac{245.2}{3}$ = 81.7	$\frac{89.35}{2}$ = 44.7	4	178.8
357	81.7			
356	$\frac{53.3}{3}$ = 17.8	$\frac{99.5}{2}$ = 49.7	3	149.1
356	17.8			
364	$\frac{37.5}{3}$ = 12.5	$\frac{30.3}{2}$ = 15.1	11	166.1
TOTAL 347 - 364.			22	1146.0

APPENDIX. TABLE B. PAGE 3. WEIGHT OF MINERAL IN 1 YARD STRIP ALONG BORE LINE.

BORE NOS.	LBS. OF MINERAL PER SQ. YD. AT BORE. (FROM TABLE A.)	AVERAGE LBS. WEIGHT OF MINERAL PER SQ. YD. BETWEEN BORES.	DISTANCE BETWEEN BORES (YDS) (FROM TABLE A.)	WEIGHT OF MINERAL In 1 YD. STRIP BETWEEN BORES (LBS)
LINE 1708' NORTH.				
346	$\frac{936.0}{3} = 312.0$	$\frac{323.9}{2} = 161.9$	7	1123.3
348	$\frac{35.8}{3} = 11.9$			
348	11.9			
350	$\frac{157.15}{3} = 52.4$	$\frac{64.28}{2} = 32.1$	5	160.5
350	52.4			
344	$\frac{33.5}{3} = 11.2$	$\frac{63.6}{2} = 31.8$	4	127.2
TOTAL 346 - 344			16	1411.0
LINE 1646' NORTH.				
358	$\frac{18.8}{3} = 6.3$	$\frac{751.29}{2} = 375.64$	6	2253.6
345	$\frac{2235.1}{3} = 745.0$			
345	745.0			
349	$\frac{107.6}{3} = 35.9$	$\frac{780.91}{2} = 390.4$	9	3513.6
349	35.9			
339	$\frac{173.4}{3} = 57.8$	$\frac{93.68}{2} = 46.84$	4	187.2
TOTAL 358 - 339.			19	5954.4

APPENDIX. TABLE B. **PAGE 4.**

WEIGHT OF MINERAL IN 1 YARD STRIP ALONG BORE LINE.

BORE NOS.	LBS. OF MINERAL PER SQ. YD. AT BORE. (FROM TABLE A.)	AVERAGE LBS. WEIGHT OF MINERAL PER SQ. YD. BETWEEN BORES.	DISTANCE BETWEEN BORES (YDS) (FROM TABLE A.)	WEIGHT OF MINERAL In 1 YD. STRIP BETWEEN BORES (LBS)
LINE 1588' NORTH.				
354	$\frac{140.1}{3} = 46.7$	$\frac{264.85}{2} = 132.4$	5	662.0
342	$\frac{654.4}{3} = 218.1$			
342	218.1			
337	$\frac{72.9}{3} = 24.3$	$\frac{242.45}{2} = 121.2$	8	969.6
337	24.3			
338	$\frac{262.0}{3} = 87.3$	$\frac{111.85}{2} = 55.8$	6	334.8
TOTAL 354 - 338			19	1966.4
LINE 1464' NORTH.				
355	$\frac{362.3}{3} = 120.8$	$\frac{158.4}{2} = 79.2$	9	712.8
333	$\frac{112.9}{3} = 37.6$			
333	37.6			
332	$\frac{81.4}{3} = 27.1$	$\frac{64.7}{2} = 32.3$	9	290.7
332	27.1			
336	$\frac{91.7}{3} = 30.6$	$\frac{57.7}{2} = 28.8$	6	172.8
TOTAL 355 - 336			24	1176.3

APPENDIX. TABLE B. PAGE 5. WEIGHT OF MINERAL IN 1 YARD STRIP ALONG BORE LINE.

BORE NOS.	LBS. OF MINERAL PER SQ. YD. AT BORE. (FROM TABLE A.)	AVERAGE LBS. WEIGHT OF MINERAL PER SQ. YD. BETWEEN BORES.	DISTANCE BETWEEN BORES (YDS) (FROM TABLE A.)	WEIGHT OF MINERAL In 1 YD. STRIP BETWEEN BORES (LBS)
LINE 1348' NORTH.				
325	Disregard			
343	$\frac{744.8}{3}$ = 248.3	$\frac{248.3}{2}$ = 124.2	6	745.2
343	248.3			
331	$\frac{189.7}{3}$ = 63.2	$\frac{311.49}{2}$ = 155.7	9	1401.3
331	63.2			
335	$\frac{62.1}{3}$ = 20.7	$\frac{83.93}{2}$ = 42.0	5	210.0
TOTAL 325 - 335			20	2356.5
LINE 1230' NORTH.				
341	$\frac{126.0}{3}$ = 42.0			
		$\frac{91.06}{2}$ = 45.5	11	500.5
330	$\frac{147.2}{3}$ = 49.1			
330	49.1			
334	$\frac{91.7}{3}$ = 30.6	$\frac{79.66}{2}$ = 39.8	5	199.0
334	30.6			
351	$\frac{140.5}{3}$ = 46.8	$\frac{77.41}{2}$ = 38.70	4	154.8
TOTAL 341 - 351			20	854.3

APPENDIX. TABLE B. **PAGE 6.** WEIGHT OF MINERAL IN 1 YARD STRIP ALONG BORE LINE.

BORE NOS.	LBS. OF MINERAL PER SQ. YD. AT BORE. (FROM TABLE A.)	AVERAGE LBS. WEIGHT OF MINERAL PER SQ. YD. BETWEEN BORES.	DISTANCE BETWEEN BORES (YDS) (FROM TABLE A.)	WEIGHT OF MINERAL In 1 YD. STRIP BETWEEN BORES (LBS)
LINE 1110' NORTH				
340	$\frac{126.6}{3}$ = 42.2			
		$\frac{345.53}{2}$ = 172.8	6	1036.8
329	$\frac{910.2}{3}$ = 303.4			
329	303.4	$\frac{303.4}{2}$ = 151.7	3	455.1
335	Disregard.			
TOTAL 340 - 335			9	1491.9

2100N - 1100N.

APPENDIX. TABLE C. **PAGE 1.** VOLUME AND AVERAGE THICKNESS OF MINERAL-BEARING SAND ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE INCHES	AV. BETWEEN BORES INCHES	AV. BETWEEN BORES FEET	DISTANCE BETWEEN BORES. (TABLE A.) FEET	AREA OF LONGITUDINAL SECTION BETWEEN BORES. SQ. FEET	SQ. YDS.	COMPLETE BORE LINE AV. THICKNESS FEET	AV. THICKNESS INCHES	VOLUME OF 1YD. STRIP CUBIC YDS.
LINE 2076' NORTH.									
382	6	5	0.42	15	6.30	0.70	0.42	5	0.7
383	4								
LINE 2044' NORTH.									
381	5	3.5	0.29	18	5.22	0.58	0.29	3.5	0.58
388	2								
LINE 1984' NORTH.									
380	36	20.5	1.71	27	46.17	5.13	1.71	20.5	5.13
384	5								
LINE 1918' NORTH.									
386	12	14.5	1.21	30	36.30	4.03			
385	17								
385	17	8.5	0.71	15	10.65	1.18			
389	No record								
TOTAL 386 - 389				45	46.95	5.22	1.04	12.5	5.22

APPENDIX. TABLE C. **PAGE 2.** VOLUME AND AVERAGE THICKNESS OF MINERAL-BEARING SAND ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE	AV. BETWEEN BORES		DISTANCE BETWEEN BORES. (TABLE A.)	AREA OF LONGITUDINAL SECTION BETWEEN BORES.		COMPLETE BORE LINE AV. THICKNESS		VOLUME OF 1YD. STRIP
	INCHES	INCHES	FEET	FEET	SQ. FEET	SQ. YDS.	FEET	INCHES	CUBIC YDS.
LINE 1880' NORTH.									
387	12								
		20.0	1.67	15	25.05	2.78	1.67	20.0	2.78
360	28								
LINE 1860' NORTH.									
363	4								
LINE 1824' NORTH.									
362	No record.								
359	15	7.5	0.62	48	29.76	3.31	0.62	7.5	3.31
LINE 1764' NORTH.									
347	21								
		12.0	1.0	12	12.0	1.33			
361	3								
361	3								
		8.5	0.71	12	8.52	0.95			
357	14								
357	14								
		10.0	0.83	9	7.47	0.83			
356	6								
356	6								
		8.5	0.71	33	23.43	2.60			
364	11								
TOTAL 347 - 364				66	51.42	5.71	0.78	9.4	5.71

APPENDIX. TABLE C. PAGE 3.

VOLUME AND AVERAGE THICKNESS OF MINERAL-BEARING SAND ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE (INCHES)	AV. BETWEEN BORES (INCHES)	AV. BETWEEN BORES (FEET)	DISTANCE BETWEEN BORES. (TABLE A.) (FEET)	AREA OF LONGITUDINAL SECTION BETWEEN BORES. (SQ. FEET)	AREA OF LONGITUDINAL SECTION BETWEEN BORES. (SQ. YDS.)	COMPLETE BORE LINE AV. THICKNESS (FEET)	COMPLETE BORE LINE AV. THICKNESS (INCHES)	COMPLETE BORE LINE VOLUME OF 1YD. STRIP (CUBIC YDS.)
LINE 1708' NORTH.									
346	15								
		12.5	1.04	21	21.84	2.43			
348	10								
348	10								
		7.5	0.62	15	9.30	1.03			
350	5								
350	5								
		5.5	0.46	12	5.52	0.61			
344	6								
TOTAL 346 - 344				48	36.66	4.07	0.76	9.1	4.07
LINE 1646' NORTH.									
358	3								
		23	1.91	18	34.38	3.82			
345	43								
345	43								
		23.5	1.96	27	52.92	5.88			
349	4								
349	4								
		3.0	0.25	12	3.00	0.33			
339	2								
TOTAL 358 - 339				57	90.30	10.03	1.58	19.0	10.03

APPENDIX. TABLE C. **PAGE 4.** VOLUME AND AVERAGE THICKNESS OF MINERAL-BEARING SAND ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE INCHES	AV. BETWEEN BORES INCHES	AV. BETWEEN BORES FEET	DISTANCE BETWEEN BORES. (TABLE A.) FEET	AREA OF LONGITUDINAL SECTION BETWEEN BORES. SQ. FEET	SQ. YDS.	COMPLETE BORE LINE AV. THICKNESS FEET	AV. THICKNESS INCHES	VOLUME OF 1YD. STRIP CUBIC YDS.
LINE 1588' NORTH.									
354	18								
		18	1.5	15	22.50	2.50			
342	18								
342	18								
		15	1.25	24	30.00	3.33			
337	12								
337	12								
		15	1.25	18	22.50	2.50			
338	18								
TOTAL 354 - 338				57	75.00	8.33	1.32	15.8	8.33
LINE 1464' NORTH.									
355	37								
		23	1.91	27	51.57	5.73			
333	9								
333	9								
		12	1.0	27	27.00	3.00			
332	15								
332	15								
		13.5	1.12	18	20.16	2.24			
336	12								
TOTAL 355 - 336				72	98.73	10.97	1.37	16.4	10.97

APPENDIX. TABLE C. **PAGE 5.** VOLUME AND AVERAGE THICKNESS OF MINERAL-BEARING SAND ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE INCHES	AV. BETWEEN BORES INCHES	AV. BETWEEN BORES FEET	DISTANCE BETWEEN BORES. (TABLE A.) FEET	AREA OF LONGITUDINAL SECTION BETWEEN BORES. SQ. FEET	SQ. YDS.	COMPLETE BORE LINE AV. THICKNESS FEET	INCHES	VOLUME OF 1YD. STRIP CUBIC YDS.
LINE 1348' NORTH.									
325	Disregard								
343	57	28.5	2.37	18	42.66	4.74			
343	57								
		32	2.67	27	72.09	8.01			
331	7								
331	7								
		6.5	0.54	15	8.10	0.90			
335	6								
TOTAL 325 - 335				60	122.85	13.65	2.05	24.5	13.65
LINE 1230' NORTH.									
341	Low grade.								
		5.0	0.42	33	13.86	1.54			
330	10								
330	10								
		6.5	0.54	15	8.10	0.90			
334	3								
334	3								
		3.0	0.25	12	3.00	0.33			
351	3								
TOTAL 341 - 351				60	24.96	2.77	0.41	5.0	2.77
LINE 1110' NORTH.									
340	4								
329	11	7.5	0.62	18	11.16	1.24			
329	11								
335	Disregard.	5.5	0.46	9	4.14	0.46			
TOTAL 340 - 335				27	15.30	1.70	0.57	6.8	1.70

2100N - 1100N.

APPENDIX TABLE D. PAGE 1.

VOLUME AND AVERAGE THICKNESS OF OVERBURDEN ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE	AVERAGE BETWEEN BORES	DISTANCE BETWEEN BORES (TABLE A.)	AREA OF LONGITUDINAL SECTION BETWEEN BORES.		COMPLETE BORE LINE. AVERAGE THICKNESS	VOLUME OF 1YD STRIP
	FEET	FEET	FEET	SQUARE FEET	SQUARE YARDS	FEET	CUBIC YARDS
LINE 2076' NORTH.							
382	0.33	0.29	15	4.35	0.48	0.29	0.48
383	0.25						
LINE 2044' NORTH.							
381	3.67	2.84	18	51.12	5.68	2.84	5.68
388	2.00						
LINE 1984' NORTH.							
380	3.50	2.38	27	64.26	7.14	2.38	7.14
384	1.25						
LINE 1918' NORTH.							
386	0.50	0.92	30	27.60	3.07		
385	1.33						
385	1.33	1.33	15	19.95	2.22		
389	No record.						
TOTAL 386 - 389			45	47.55	5.28	1.06	5.28
LINE 1880' NORTH.							
387	3.0	2.5	15	37.5	4.17	2.5	4.17
360	2.0						
LINE 1860' NORTH.							
363	1.0						
LINE 1824' NORTH.							
362	No record.	0.67	48	32.16	3.57	0.67	3.57
359	0.67						

APPENDIX TABLE D. **PAGE 2.** VOLUME AND AVERAGE THICKNESS OF OVERBURDEN ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE	AVERAGE BETWEEN BORES	DISTANCE BETWEEN BORES (TABLE A.)	AREA OF LONGITUDINAL SECTION BETWEEN BORES.		COMPLETE BORE LINE. AVERAGE THICKNESS	VOLUME OF 1YD STRIP
	FEET	FEET	FEET	SQUARE FEET	SQUARE YARDS	FEET	CUBIC YARDS
LINE 1764' NORTH.							
347	0.5						
		2.0	12	24.00	2.67		
361	3.5						
361	3.5						
		1.75	12	21.00	2.33		
357	0.0						
357	0.00						
		0.63	9	5.67	0.63		
356	1.25						
356	1.25						
		0.71	33	23.43	2.60		
364	0.17						
TOTAL 347 - 364			66	74.10	8.23	1.12	8.25
LINE 1708' NORTH.							
346	0.83						
		1.00	21	21.00	2.33		
348	1.17						
348	1.17						
		1.09	15	16.35	1.82		
350	1.00						
350	1.00						
		0.67	12	8.04	0.89		
344	0.33						
TOTAL 346 - 344			48	45.39	5.04	0.94	5.04

APPENDIX TABLE D. **PAGE 3.** VOLUME AND AVERAGE THICKNESS OF OVERBURDEN ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE	AVERAGE BETWEEN BORES	DISTANCE BETWEEN BORES (TABLE A.)	AREA OF LONGITUDINAL SECTION BETWEEN BORES.		COMPLETE BORE LINE. AVERAGE THICKNESS	VOLUME OF 1YD STRIP
	FEET	FEET	FEET	SQUARE FEET	SQUARE YARDS	FEET	CUBIC YARDS
LINE 1646' NORTH.							
358	4.00	2.09	18	37.62	4.18		
345	0.17						
345	0.17	0.38	27	10.26	1.14		
349	0.58						
349	0.58	0.79	12	9.48	1.05		
339	1.00						
TOTAL 358 - 339			57	57.36	6.39	1.00	6.39
LINE 1588' NORTH.							
354	2.25	2.25	15	33.75	3.75		
342	2.25						
342	2.25	1.34	24	32.16	3.57		
337	0.42						
337	0.42	0.21	18	3.78	0.42		
338	0.00						
TOTAL 354 - 338			57	69.69	7.74	1.22	7.74

APPENDIX TABLE D. PAGE 4. VOLUME AND AVERAGE THICKNESS OF OVERBURDEN ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE	AVERAGE BETWEEN BORES	DISTANCE BETWEEN BORES (TABLE A.)	AREA OF LONGITUDINAL SECTION BETWEEN BORES.		COMPLETE BORE LINE. AVERAGE THICKNESS	VOLUME OF LYD STRIP
	FEET	FEET	FEET	SQUARE FEET	SQUARE YARDS	FEET	CUBIC YARDS
LINE 1464' NORTH.							
355	3.67	3.71	27	100.17	11.13		
353	3.75						
333	3.75	1.88	27	50.76	5.64		
332	0.00						
332	0.00	0.13	18	2.34	0.26		
333	0.25						
TOTAL 355 - 333			72	153.27	17.03	2.13	17.03
LINE 1348' NORTH.							
325	Disregard	0.0	18	0.00	0.0		
343	0.0						
343	0.0	0.0	27	0.00	0.0		
331	0.0						
331	0.0	0.25	15	3.75	0.42		
335	0.5						
TOTAL 325 - 335			60	3.75	0.42	0.06	0.42

APPENDIX TABLE D. **PAGE 5.**

VOLUME AND AVERAGE THICKNESS OF OVERBURDEN ALONG BORE LINE.

BORE NO.	THICKNESS (TABLE A.) AT BORE	AVERAGE BETWEEN BORES	DISTANCE BETWEEN BORES (TABLE A.)	AREA OF LONGITUDINAL SECTION BETWEEN BORES.		COMPLETE BORE LINE. AVERAGE THICKNESS	VOLUME OF 1YD STRIP
	FEET	FEET	FEET	SQUARE FEET	SQUARE YARDS	FEET	CUBIC YARDS
LINE 1230' NORTH.							
341	Low grade.						
		0.42	33	13.86	1.54		
330	0.42						
330	0.42						
		0.30	15	4.50	0.50		
334	0.17						
334	0.17						
		0.59	12	7.08	0.79		
351	1.00						
TOTAL 341 - 334			60	25.44	2.82	0.42	2.82
LINE 1110' NORTH.							
340	0.0						
		0.25	18	4.5	0.5		
329	0.5						
329	0.5						
		0.5	9	4.5	0.5		
335	Disregard.						
TOTAL 340 - 335			27	9.0	1.0	0.33	1.0

APPENDIX. TABLE. E. **PAGE 1.**

AVERAGE WEIGHT OF HEAVY MINERAL CONCENTRATE PER 1 YARD STRIP BETWEEN BORE LINES, AND AVERAGE AREA OF LONGITUDINAL SECTION OF MINERAL-BEARING SANDS AND OF OVERBURDEN BETWEEN BORE LINES.

LINES	ALONG BORE LINES			AVERAGE BETWEEN BORE LINES.		
	WEIGHT OF MINERAL PER 1 YARD STRIP. FROM TABLE B. LBS.	AREA OF LONGITUDINAL SECTION OF MINERAL-BEARING SANDS FROM TABLE C. SQ. YARDS	AREA OF LONGITUDINAL SECTION OF OVERBURDEN FROM TABLE D. SQ. YARDS	WEIGHT OF MINERAL PER 1 YARD STRIP. LBS.	AREA OF LONGITUDINAL SECTION OF MINERAL-BEARING SANDS SQ. YARDS	AREA OF LONGITUDINAL SECTION OF OVERBURDEN SQ. YARDS
2076N.	107.15	0.70	0.48	122.3	0.64	3.08
2044N.	137.4	0.58	5.68			
2044N.	137.4	0.58	5.68	551.5	2.85	6.41
1984N.	965.7	5.13	7.14			
1984N.	965.7	5.13	7.14	1536.8	5.18	6.21
1918N	2098.0	5.22	5.28			
1918N.	2098.0	5.22	5.28	1344.2	4.00	4.72
1880N.	590.5	2.78	4.17			
1880N.	590.5	2.78	4.17	625.6	3.04	3.87
1824N.	660.8	3.31	3.57			
1824N.	660.8	3.31	3.57	903.4	4.51	5.90
1764N.	1146.0	5.71	8.23			
1764N.	1146.0	5.71	8.23	1278.5	4.89	6.63
1708N.	1411.0	4.07	5.04			
1708N.	1411.0	4.07	5.04	3682.7	7.05	5.71
1646N.	5954.4	10.03	6.39			

APPENDIX. TABLE. E. **PAGE 2.**

AVERAGE WEIGHT OF HEAVY MINERAL CONCENTRATE PER 1 YARD STRIP BETWEEN BORE LINES, AND AVERAGE AREA OF LONGITUDINAL SECTION OF MINERAL-BEARING SANDS AND OF OVERBURDEN BETWEEN BORE LINES.

LINES	ADJOINING BORE LINES			AVERAGE BETWEEN BORE LINES.		
	WEIGHT OF MINERAL PER 1 YARD STRIP. FROM TABLE B.	AREA OF LONGITUDINAL SECTION OF MINERAL-BEARING SANDS FROM TABLE C.	OVERBURDEN FROM TABLE D.	WEIGHT OF MINERAL PER 1 YARD STRIP.	AREA OF LONGITUDINAL SECTION OF MINERAL-BEARING SANDS	OVERBURDEN
	LBS.	SQ. YARDS	SQ. YARDS	LBS.	SQ. YARDS	SQ. YARDS
1646N.	5954.4	10.03	6.39	3960.4	9.18	7.06
1588N.	1966.4	8.33	7.74			
1588N.	1966.4	8.33	7.74	1571.3	9.65	12.38
1464N.	1176.3	10.97	17.03			
1464N.	1176.3	10.97	17.03	1766.4	12.31	8.72
1348N.	2356.5	13.65	0.42			
1348N.	2356.5	13.65	0.42	1605.4	8.21	1.62
1230N.	854.3	2.77	2.82			
1230N.	854.3	2.77	2.82	1173.1	2.23	1.91
1110N.	1491.9	1.70	1.00			

APPENDIX. TABLE F. PAGE 1.

TOTAL WEIGHT OF HEAVY MINERAL CONCENTRATE, TOTAL VOLUME OF MINERAL-BEARING SANDS AND TOTAL VOLUME OF OVERBURDEN BETWEEN BORE LINES.

BORE LINES (TABLE A.)				WT. OF HEAVY MIN. CONC.		VOL. OF MINERAL-BEARING SANDS		VOL. OF OVERBURDEN	
DESIG-NATION	LENGTH	DISTANCE BETWEEN	AREA BETWEEN	AV. PER 1 YD. STRIP (TABLE E.)	TOTAL BE-TWEEN LINES	AV. AREA OF LONGI-TUDINAL SECTION. (TABLE E.)	VOL. BETWEEN BORE LINES.	AV. AREA OF LONG. SECTION (TABLE E.)	VOL. BETWEEN BORE LINES.
Y	YDS.	YDS.	SQ. YDS.	LBS.	TONS & LBS.	SQ. YDS.	CU. YDS.	SQ. YDS.	CU. YDS.
2076N.	5	10.7	58.8	122.3	1,309 0.6	0.64	6.8	3.08	33.0
2044N.	6								
2044N.	6	20.0	150	511.5	11,030 4.9	2.85	57.0	6.41	128.2
1984N.	9								
1984N.	9	20.0	240	1536.8	30,736 13.7	5.18	103.6	6.21	124.2
1918N.	15								
1918N.	15	14	140	1344.2	18,819 8.4	4.00	56.0	4.72	66.1.
1880N.	5								
1880N.	5	19	191.9	625.6	11,886 5.3	3.04	57.8	3.87	73.5
1824N.	16								
1824N.	16	20	380	903.4	18,068 8.1	4.51	90.2	5.90	118.0
1764N.	22								
1764N.	22	18	342	1278.5	23,013 10.2	4.81	86.6	6.63	119.3
1708N.	16								

&

APPENDIX. TABLE F. PAGE 2.

TOTAL WEIGHT OF HEAVY MINERAL CONCENTRATE, TOTAL VOLUME OF MINERAL-BEARING SANDS AND TOTAL VOLUME OF OVERBURDEN BETWEEN BORE LINES.

BORE LINES (TABLE A.)				WT. OF HEAVY MIN. CONC.		VOL. OF MINERAL-BEARING SANDS		VOL. OF OVERBURDEN	
DESIG-NATION	LENGTH	DISTANCE BETWEEN	AREA BETWEEN	AV. PER 1 YD. STRIP (TABLE E.)	TOTAL BE-TWEEN LINES	AV. AREA OF LONGI-TUDINAL SECTION. (TABLE E.)	VOL. BETWEEN BORE LINES.	AV. AREA OF LONG. SECTION (TABLE E.)	VOL. BETWEEN BORE LINES.
Y	YDS.	YDS.	SQ. YDS.	LBS.	TONS & LBS.	SQ. YDS.	CU. YDS.	SQ. YDS.	CU. YDS.
1708N.	16	20	350	3382.7	73,654 32.9	7.05	141.0	5.71	114.2
1646N.	19								
1646N.	19	21	399	3960.4	83,168 37.1	9.18	192.8	7.06	148.3
1588N.	19								
1588N.	19	40	860	1571.3	62,852 28.1	9.65	386.0	12.38	495.2
1464N.	24								
1464N.	24	37	814	1764.4	65,283 29.1	12.31	455.5	8.72	322.6
1348N.	20								
1348N.	20	39	780	1605.4	62,611 27.9	8.21	320.2	1.62	63.2
1230N.	20								
1230N.	20	40	580	1173.1	46,924 20.9	2.23	89.2	1.91	76.4
1110N.	9								
TOTAL			5285.7		492,956 227.2 tons				

&

APPENDIX. TABLE G. PAGE 1. AVERAGE THICKNESSES OF MINERAL-BEARING SANDS AND OF OVERBURDEN.

BORE LINES (TABLE F.)		VOLUME (TABLE F.)		AVERAGE THICKNESS.			
DESIGNATION.	AREA BETWEEN LINES	MINERAL-BEARING SANDS	OVERBURDEN	MINERAL-BEARING SANDS		OVERBURDEN	
	SQUARE YARDS	CUBIC YARDS	CUBIC YARDS	FEET	INCHES	FEET	INCHES
2076N - 2044N.	58.8	6.8	33.0	0	4.2	1	8.2
2044N - 1984N.	150	57.0	128.2	1	1.6	2	6.8
1984N - 1918N.	240	103.6	124.2	1	3.5	1	6.6
1918N - 1880N.	140	56.0	66.1	1	2.4	1	5.0
1880N - 1824N.	191.9	57.8	73.5	0	10.9	1	1.9
1824N - 1764N.	380	90.2	118.0	0	8.5	0	11.2
1764N - 1708N.	342	86.6	119.3	0	9.1	1	0.5
1708N - 1646N.	350	141.0	114.2	1	2.5	0	11.7
1646N - 1588N.	399	192.8	148.3	1	5.4	1	1.3
1588N - 1464N.	860	386.0	495.2	1	4.1	1	8.7
1464N - 1348N.	814	455.5	322.6	1	8.1	1	2.3
1348N - 1230N.	780	320.2	63.2	1	2.7	0	2.9
1230N - 1110N.	580	89.2	76.4	0	5.5	0	4.7

APPENDIX. TABLE H. PERCENTAGE COMPOSITIONS OF CONCENTRATES

LINE	LABORATORY DETERMINATIONS						TOTAL WEIGHT (LBS.) OF MINERAL IN ~~1 YD. STRIP ALONG BORE LINE~~ ∠ From Table E. F.						
	Mon.	Zir.	Rut.	Ilmen.	Gar.	Others	Total Conc. ∠	Monazite	Zircon	Rutile	Ilmen.	Garnet	Others
Composite of samples from 2100N to 1100N.	0.5	27.9	33.3	32.6	1.9	3.8	220	1.1	61.4	73.3	71.7	4.2	8.3

SOUTH STRADBROKE

"TROUGH AREA" FROM 2100N TO 1100N

0^{333} = BORE Nº 333

- - - - - - - = APPROX TROUGH BOUNDARY

SCALE 0 10 50 100 150 200'

Drawn by A.D Cameron 23/9/48

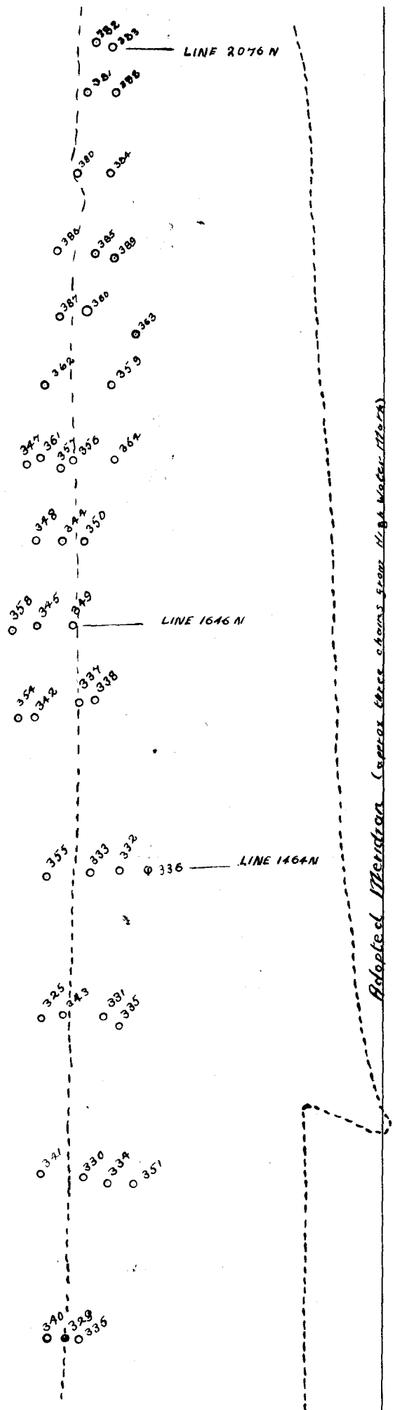


FIG 1

SECTIONS ALONG BORE LINES

^{333} = BORE Nº 333

= WATER TABLE

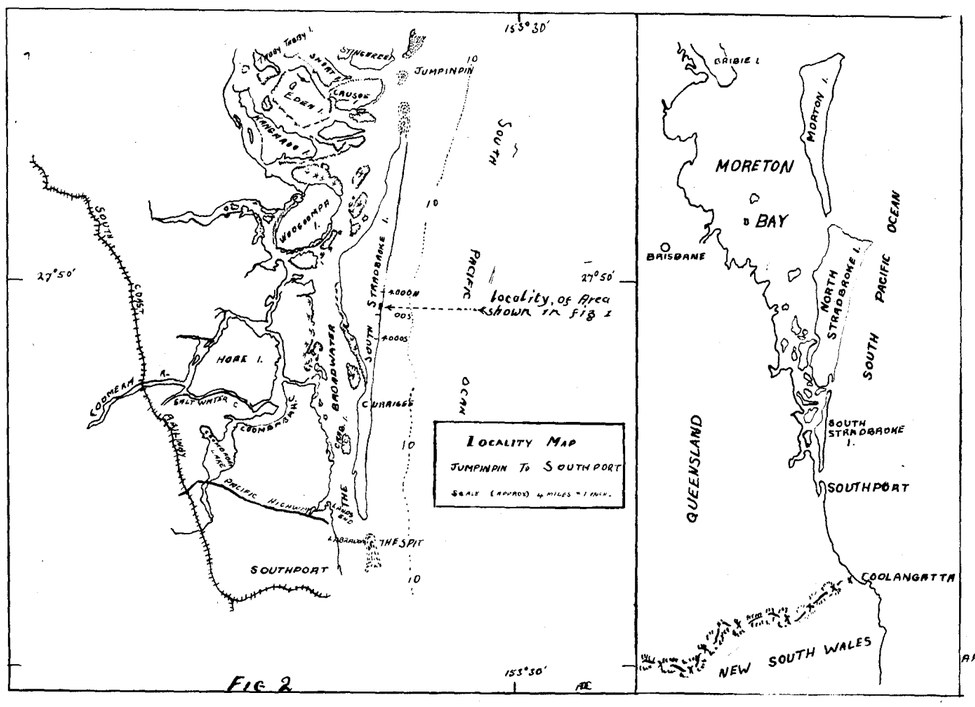


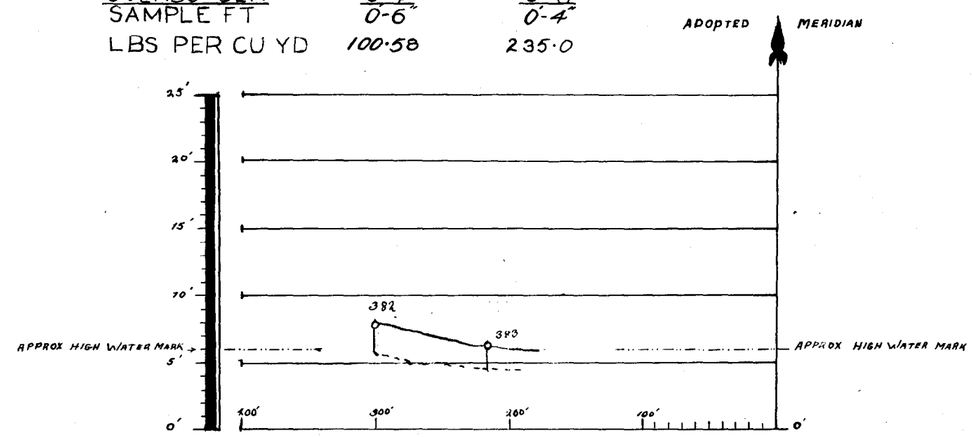
FIG 2

BORE Nº 382 383

OVERBURDEN 0'-4" 0'-3"

SAMPLE FT 0'-6" 0'-4"

LBS PER CU YD 100·58 235·0



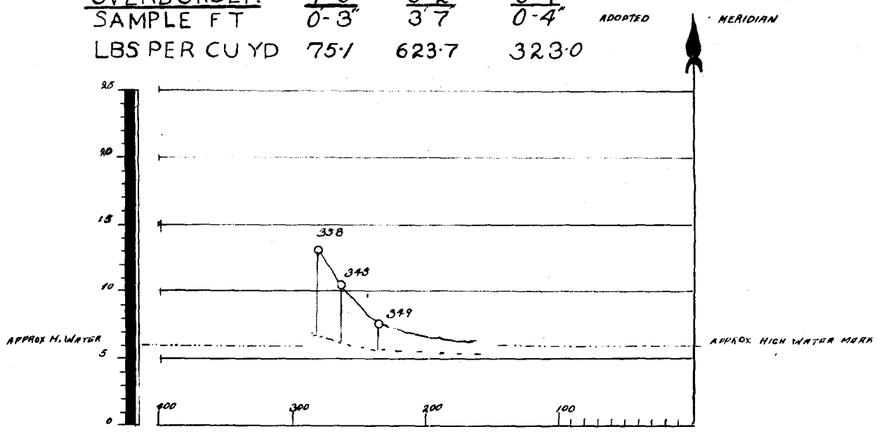
LINE 2076 N

BORE Nº 358 345 349

OVERBURDEN 4'-0" 0'-2" 0'-7"

SAMPLE FT 0'-3" 3' 7" 0'-4"

LBS PER CU YD 75·1 623·7 323·0



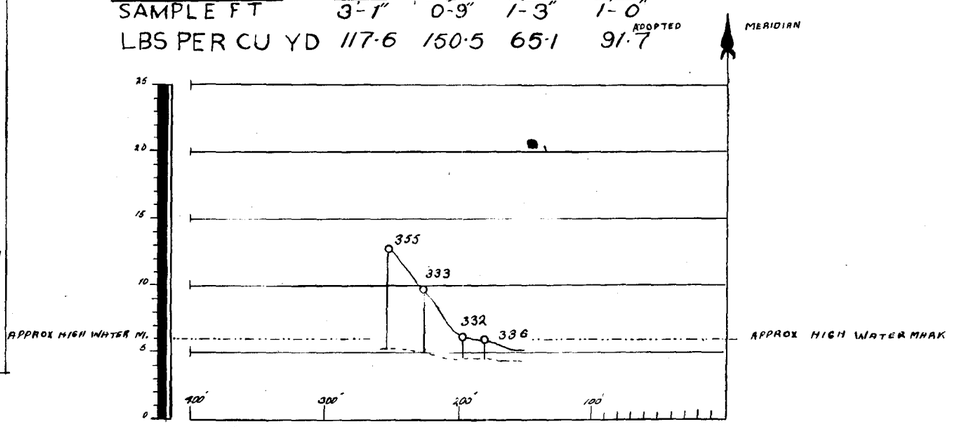
LINE 1646 N

BORE Nº 355 333 332 336

OVERBURDEN 3'-8" 3'-9" 0'-0" 0'-3"

SAMPLE FT 3'-1" 0'-9" 1'-3" 1'-0"

LBS PER CU YD 117·6 150·5 65·1 91·7



LINE 1464 N

Q25-13A-10