

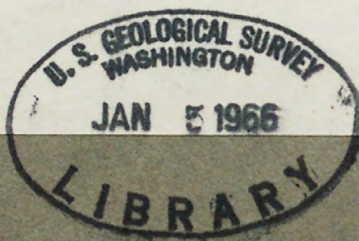
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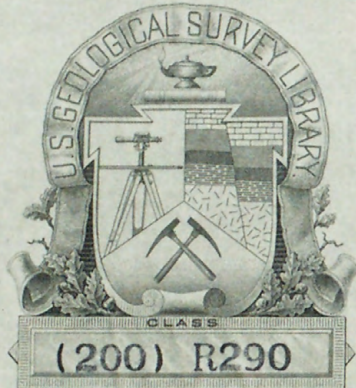


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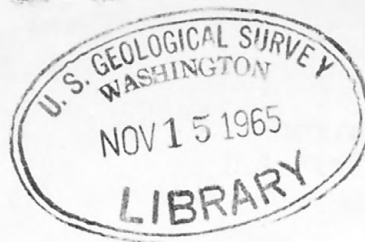


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U. S. Geological Survey Open File Report

Physical properties, dynamic and static test results, Straight Creek Tunnel pilot bore

Analysts: E. F. Monk and R. A. Farrow

Laboratory number	Field number	Physical property results					Dynamic; pulse-method, air dried core samples					
		Rock type	Porosity (percent)	Dry bulk density (calipered-bulk-volume method) (g/cc)	Grain density (powdered grain in kerosene) (g/cc)	Magnetic susceptibility (10 ⁻⁶ cgs units)	V _p Compressional velocity (ft/sec)	V _s Shear velocity (ft/sec)	σ Poisson's ratio	E Young's modulus (10 ⁶ psi)	G Shear modulus (10 ⁶ psi)	K Bulk modulus (10 ⁶ psi)
D800538	39+18N	granite	1.9	2.57	2.62	17	14,550	8,700	0.22	6.4	2.6	3.8
D800539	44+65S	granite	.7	2.68	2.70	2,090	14,450	9,550	.11	7.3	3.3	3.1
D800540	69+25.4N	biotite gneiss	2.2	2.71	2.77	908	17,500	10,650	.21	10	4.1	5.7
D800541	57+51S	granite	1.1	2.72	2.75	3,938	17,700	10,400	.24	9.8	4	6.2
D800542	75+20S	granite	1.9	2.63	2.68	42	15,550	10,400	.10	8.4	3.8	3.5
D800543	84+64S	granite	2.2	2.64	2.70	17	14,700	9,900	.09	7.6	3.5	3
D800544	94+47N	granite	2.2	2.64	2.70	79	16,000	9,950	.19	8.3	3.5	4.4
D800545	106+73S	biotite gneiss	4.1	2.58	2.69	991	18,100	10,500	.16	8.9	3.8	4.4
D800546	113+82S	granite	.7	2.68	2.70	712	16,050	10,400	.14	8.8	3.9	4.1
D800547	118+15S	granite	3	2.61	2.69	345	17,900	9,950	.28	8.9	3.5	6.6

Static test results

		Core size		Secant Young's mod. 10 ⁶ psi (E)	Poisson's ratio (p)	Bulk modulus 10 ⁶ psi (K)	Shear modulus 10 ⁶ psi (u)	Unconfined Secant range psi	Confined Secant range psi*	Confined stress-strain ratio 10 ⁶ psi (e)*	Confined Poisson's ratio (P) *	Confined bulk modulus K 10 ⁶ psi*	Confined shear modulus M 10 ⁶ psi*	Confined compressive strength psi*
		diameter (inches)	length (inches)											
D800538	39+18N	2-1/8	4-5/8	4.37	0.076	1.72	1.51	0-2,800	2,900-8,600	7.69				8,600
D800539	44+65S	2-1/8	4-5/8	6.32	.136	2.54	1.88	0-8,500	11,400-25,500	8.90	0.213	5.16	3.67	44,200
D800540	69+25.4N	2-1/4	4-3/8	8.54	.191	4.60	3.58	0-13,600	7,800-15,400	10.4				37,700
D800541	57+51S	2-1/8	4-21/64	8.65	.158	4.22	3.74	0-7,900	11,400-25,500	10.58	.211	6.09	4.36	38,500
D800542	75+20S	2-1/8	4-11/32	4.97	.238	3.16	2.01	1,412-8,500	11,400-22,700	10.4	.328	10.08	3.92	35,100
D800543	84+64S	2-1/4	4-1/16	4.72	.131	2.13	2.08	0-6,000	11,300-22,900	7.16	.255	4.87	2.95	27,900
D800544	94+47N	2-1/4	4-11/32	5.54	.0357	1.99	2.67	504-2,500	10,300-20,400	8.06	.196	4.42	2.37	32,600
D800545	Sample too small for testing													
D800546	113+82S	2-1/8	4-3/8	6.65	.133	3.02	2.99	0-6,800	8,600-24,100	24.1(?)	.369	35.1	8.87	35,600
D800547	Sample too small for testing													

* 1500 psi confining pressure

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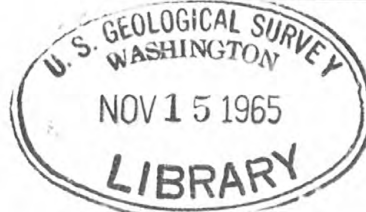
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1. A preliminary report on some magnetite-bearing rocks near Frying Pan Lake, Iliamna D7 quadrangle, Alaska, by Bruce L. Reed and Robert L. Detterman. 3 p., 2 figs., 1 table. Brooks Bldg., College, Alaska; 203 Simpson Bldg.; 222 Seward St., Juneau, Alaska; State Div. of Mines and Minerals, 404 State Capitol Bldg., Juneau, Alaska; State Div. of Mines and Minerals, 800 L. St., Anchorage, Alaska; 108 Skyline Bldg., 508 2nd Ave., Anchorage, Alaska; South 157 Howard St., Spokane, Wash.; 504 Custom House, 555 Battery St., San Francisco, Calif.; 7638 Federal Bldg., 300 North Los Angeles St., Los Angeles, Calif.; 15426 Federal Bldg., Denver, Colo.; 602 Thomas Bldg., 1314 Wood St., Dallas, Texas.

2. Physical properties, dynamic and static test results, Straight Creek Tunnel pilot bore, Clear Creek and Summit Counties, Colorado, by E. F. Monk and R. A. Farrow. 1 chart.¹⁵⁴²⁶ 7638 Federal Bldg., Denver, Colo.; 8102 Federal Office Bldg., Salt Lake City, Utah.

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An additional depository is hereby announced for the following report, open-filed Sept. 20, 1965:

Approximate location of fault traces and historic surface ruptures within the Hayward fault zone between San Pablo and Warm Springs, California, by Dorothy H. Radbruch. Map with text, scale 1:62,500 (one sheet). California Division of Mines and Geology, Dept. of Conservation, Ferry Building, San Francisco, Calif.

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