

## Frozen Rock Experiment

**Short Name:** FRE

**Assembled Date Set #:** 09-007

**PI:** Jessie Bonner

**Institution:** Weston Geophysical Corp.

**Project Description:** The Frozen Rock Experiment was conducted to characterize the differences in ground motion scaling and coupling for explosions in frozen and unfrozen rocks. The experiment helped quantify bias in estimated seismic yield of explosions in frozen rocks. Six blasts were conducted and recorded on multiple lines of RT125 recorders.

### Station Locations:

Station	DAS	Latitude	Longitude	Elev (m)
AM01	2332	64.90609	-147.59180	284
AM02	2215	64.90834	-147.59131	326
AM03	2354	64.91057	-147.59188	335
AM04	2373	64.91270	-147.59364	335
AM05	2323	64.91462	-147.59646	324
AM06	2318	64.91626	-147.60014	313
AM07	2330	64.91792	-147.60381	298
AM08	2331	64.91958	-147.60745	283
AM09	1978	64.92119	-147.61101	265
AM10	2350	64.92301	-147.61502	246
AM11	2366	64.92452	-147.61899	239
AM12	2334	64.92611	-147.62287	232
AM13	2368	64.92774	-147.62644	228
AM14	2353	64.92986	-147.63204	226
AM15	2324	64.93138	-147.63660	222
AM16	2307	64.95716	-147.61711	233
AM17	2319	64.96074	-147.61917	239
AM18	2315	64.96256	-147.62270	243
AM19	2349	64.96462	-147.62501	249
AM20	2339	64.96687	-147.62653	260
AM21	2328	64.96908	-147.62813	273
AM22	1946	64.97123	-147.62966	278
AM23	2369	64.97364	-147.63139	275
AM24	2326	64.97582	-147.63340	279
AM25	2341	64.97823	-147.63422	288

AM26	2360	64.98032	-147.63557	293
AM27	2305	64.98288	-147.63597	298
AM28	2198	64.98482	-147.63556	305
AM29	2367	64.98751	-147.63466	338
AM30	2335	64.98967	-147.63302	348
AM31	2333	64.99181	-147.63166	357
AM32	2370	64.99435	-147.63157	378
AM33	2347	64.99550	-147.63602	394
AM34	2325	64.99706	-147.63993	406
AM35	2338	64.99900	-147.63647	421
JJ01	1955	64.95619	-147.61531	234
JJ02	2343	64.95441	-147.61810	223
JJ03	1968	64.95281	-147.62161	223
JJ04	1944	64.95119	-147.62553	224
JJ05	2290	64.94979	-147.62966	224
JJ06	2271	64.94866	-147.63433	222
JJ07	2316	64.94765	-147.63806	221
JJ08	2306	64.94622	-147.64179	226
JJ09	2356	64.93367	-147.64464	229
JJ10	2359	64.93538	-147.64812	209
JJ11	2378	64.93705	-147.65159	222
JJ12	1965	64.93889	-147.65468	233
JJ13	2355	64.94100	-147.65708	223
JJ14	2345	64.94373	-147.65422	227
JJ15	2357	64.94452	-147.65889	229
JJ16	1970	64.94587	-147.66539	230
JJ17	2090	64.94653	-147.67083	216
JJ18	1947	64.94770	-147.67548	232
JJ19	1963	64.94847	-147.68033	238
JJ20	1987	64.94930	-147.68532	238
JJ21	2344	64.95015	-147.69007	233
JJ22	2302	64.95086	-147.69543	238
JJ23	2289	64.95157	-147.70049	231
JJ24	1979	64.95239	-147.70526	225
JJ25	2376	64.95314	-147.71020	227
JJ26	1932	64.95405	-147.71525	241
JJ27	2297	64.95484	-147.72042	257
JJ28	2291	64.95563	-147.72595	268
JJ29	2273	64.95614	-147.73140	274
JJ30	2342	64.95623	-147.73662	283

JJ31	1984	64.95628	-147.74190	294
JJ32	2295	64.95814	-147.74526	312
JJ33	1960	64.96069	-147.74500	332
JJ34	2304	64.96263	-147.74521	347
WM01	1949	64.96087	-147.61260	235
WM02	1958	64.96240	-147.60861	240
WM03	1962	64.96398	-147.60480	243
WM04	2311	64.96490	-147.59985	246
WM05	2382	64.96572	-147.59482	249
WM06	2379	64.96656	-147.58990	254
WM07	2386	64.96745	-147.58505	252
WM08	2375	64.96824	-147.58002	252
WM09	2299	64.96907	-147.57485	257
WM10	2236	64.97001	-147.56994	260
WM11	2389	64.97086	-147.56500	262
WM12	2156	64.97194	-147.56027	270
WM13	2177	64.97335	-147.55621	270
WM14	2381	64.97470	-147.55176	271
WM15	2377	64.97603	-147.54730	276
WM16	2301	64.97774	-147.54350	281
WM17	2336	64.97975	-147.54124	284
WM18	2329	64.98194	-147.53999	287
WM19	2385	64.98407	-147.53804	294
WM20	2388	64.98626	-147.53663	298
WM21	2383	64.98838	-147.53494	306
WM22	2380	64.99054	-147.53346	310
WM23	2387	64.99268	-147.53195	313
WM24	2210	64.99477	-147.53034	315
WM25	2200	64.99694	-147.52880	315
WM26	2216	64.99895	-147.52635	319
WM27	2224	65.00080	-147.52327	324
WM28	2272	65.00257	-147.52012	331
WM29	2242	65.00428	-147.51664	335
WM30	2266	65.00573	-147.51259	337
WM31	2281	65.00695	-147.50811	341
WM32	2280	65.00810	-147.50351	345
WM33	2278	65.00922	-147.49902	348

**Shot Characteristics:**

<b>Shot</b>	<b>Date</b>	<b>Time</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Elev (m)</b>	<b>Depth (m)</b>	<b>Weight (lbs)</b>
1	8/24/2006	17:12:36.40	64.94657	-147.69580	203	7	200
2	8/24/2006	18:24:54.66	64.94655	-147.69603	191	7	350
3	8/24/2006	22:13:41.81	64.94027	-147.71993	218	12	359
4	8/26/2006	21:13:28.53	64.95389	-147.67982	353	7	200
5	8/26/2006	22:32:52.73	64.95386	-147.67992	359	7	350
6	8/26/2006	23:30:38.61	64.95404	-147.67966	354	7.5	100