

Concrete Platform - #16 - Initial Meas. 3.4 1/2" 2/8/67

MATILISA DAM

METER OH-14

.001204 INCHES PER .01% RATIO CHANGE  
 .001194

125

MOVEMENT FROM INITIAL POSITION - INCHES

	00	01	02	03	04	05	06	07	08	09
		.0012	.0024	.0036	.0048	.0060	.0072	.0084	.0096	.0107
.10	.0119 . <del>0120</del>	.0131 . <del>0132</del>	.0143 . <del>0144</del>	.0155 . <del>0157</del>	.0167 . <del>0169</del>	.0179 . <del>0181</del>	.0191 . <del>0193</del>	.0203 . <del>0205</del>	.0215 . <del>0217</del>	.0227 . <del>0229</del>
.20	.0239 . <del>0241</del>	.0251 . <del>0253</del>	.0263 . <del>0265</del>	.0275 . <del>0277</del>	.0287 . <del>0289</del>	.0298 . <del>0301</del>	.0310 . <del>0313</del>	.0322 . <del>0325</del>	.0334 . <del>0337</del>	.0346 . <del>0349</del>
.30	.0358 . <del>0361</del>	.0370 . <del>0373</del>	.0382 . <del>0385</del>	.0394 . <del>0397</del>	.0406 . <del>0409</del>	.0418 . <del>0421</del>	.0430 . <del>0433</del>	.0442 . <del>0445</del>	.0454 . <del>0458</del>	.0466 . <del>0470</del>
.40	.0478 . <del>0482</del>	.0490 . <del>0494</del>	.0501 . <del>0506</del>	.0513 . <del>0518</del>	.0525 . <del>0530</del>	.0537 . <del>0542</del>	.0549 . <del>0554</del>	.0561 . <del>0566</del>	.0573 . <del>0578</del>	.0585 . <del>0590</del>
.50	.0597 . <del>0602</del>	.0609 . <del>0614</del>	.0621 . <del>0626</del>	.0633 . <del>0638</del>	.0645 . <del>0650</del>	.0657 . <del>0662</del>	.0669 . <del>0674</del>	.0681 . <del>0686</del>	.0693 . <del>0698</del>	.0704 . <del>0710</del>
.60	.0716 . <del>0722</del>	.0728 . <del>0734</del>	.0740 . <del>0746</del>	.0752 . <del>0759</del>	.0764 . <del>0771</del>	.0776 . <del>0783</del>	.0788 . <del>0795</del>	.0800 . <del>0807</del>	.0812 . <del>0819</del>	.0824 . <del>0831</del>
.70	.0836 . <del>0843</del>	.0848 . <del>0855</del>	.0860 . <del>0867</del>	.0872 . <del>0879</del>	.0884 . <del>0891</del>	.0896 . <del>0903</del>	.0907 . <del>0915</del>	.0919 . <del>0927</del>	.0931 . <del>0939</del>	.0943 . <del>0951</del>
.80	.0955 . <del>0963</del>	.0967 . <del>0975</del>	.0979 . <del>0987</del>	.0991 . <del>0999</del>	.1003 . <del>1011</del>	.1015 . <del>1023</del>	.1027 . <del>1035</del>	.1039 . <del>1047</del>	.1051 . <del>1060</del>	.1063 . <del>1072</del>
.90	.1075 . <del>1084</del>	.1087 . <del>1096</del>	.1098 . <del>1108</del>	.1110 . <del>1120</del>	.1122 . <del>1132</del>	.1134 . <del>1144</del>	.1146 . <del>1156</del>	.1158 . <del>1168</del>	.1170 . <del>1180</del>	.1182 . <del>1192</del>
1.00	.1194 . <del>1204</del>	.1206 . <del>1216</del>	.1218 . <del>1228</del>	.1230 . <del>1240</del>	.1242 . <del>1252</del>	.1254 . <del>1264</del>	.1266 . <del>1276</del>	.1278 . <del>1288</del>	.1290 . <del>1300</del>	.1301 . <del>1312</del>

CHANGE IN RATIO FROM INITIAL ...ADING - 7.

MATILJA DAM

METER 04-2L

~~0.01085~~ INCHES PER .01% RATIO CHANGE  
.001073

22

MOVEMENT FROM INITIAL POSITION - INCHES

	00	01	02	03	04	05	06	07	08	09
		.0011	<del>.0021</del> .0022	<del>.0032</del> .0033	.0043	.0054	<del>.0064</del> .0065	<del>.0075</del> .0076	<del>.0086</del> .0087	<del>.0097</del> .0098
.10	<del>.0107</del> .0108	<del>.0118</del> .0119	<del>.0129</del> .0130	<del>.0139</del> .0141	<del>.0150</del> .0152	<del>.0161</del> .0163	<del>.0172</del> .0174	<del>.0182</del> .0184	<del>.0193</del> .0195	<del>.0204</del> .0206
.20	<del>.0215</del> .0217	<del>.0225</del> .0228	<del>.0236</del> .0239	<del>.0247</del> .0250	<del>.0258</del> .0260	<del>.0268</del> .0271	<del>.0279</del> .0282	<del>.0290</del> .0293	<del>.0300</del> .0304	<del>.0311</del> .0315
.30	<del>.0322</del> .0326	<del>.0333</del> .0336	<del>.0343</del> .0347	<del>.0354</del> .0358	<del>.0365</del> .0369	<del>.0376</del> .0380	<del>.0386</del> .0391	<del>.0397</del> .0401	<del>.0408</del> .0412	<del>.0418</del> .0423
.40	<del>.0429</del> .0434	<del>.0440</del> .0445	<del>.0451</del> .0456	<del>.0461</del> .0469	<del>.0472</del> .0477	<del>.0483</del> .0488	<del>.0494</del> .0499	<del>.0504</del> .0510	<del>.0515</del> .0521	<del>.0526</del> .0532
.50	<del>.0536</del> .0542	<del>.0547</del> .0553	<del>.0558</del> .0564	<del>.0569</del> .0575	<del>.0579</del> .0586	<del>.0590</del> .0597	<del>.0601</del> .0608	<del>.0611</del> .0618	<del>.0622</del> .0629	<del>.0633</del> .0640
.60	<del>.0644</del> .0651	<del>.0655</del> .0662	<del>.0665</del> .0673	<del>.0676</del> .0684	<del>.0687</del> .0694	<del>.0697</del> .0705	<del>.0708</del> .0716	<del>.0719</del> .0727	<del>.0730</del> .0738	<del>.0740</del> .0749
.70	<del>.0751</del> .0760	<del>.0762</del> .0770	<del>.0773</del> .0781	<del>.0783</del> .0792	<del>.0794</del> .0803	<del>.0805</del> .0814	<del>.0815</del> .0825	<del>.0826</del> .0835	<del>.0837</del> .0846	<del>.0848</del> .0857
.80	<del>.0858</del> .0868	<del>.0869</del> .0879	<del>.0880</del> .0890	<del>.0891</del> .0901	<del>.0901</del> .0911	<del>.0912</del> .0922	<del>.0923</del> .0933	<del>.0934</del> .0944	<del>.0944</del> .0955	<del>.0955</del> .0966
.90	<del>.0966</del> .0976	<del>.0976</del> .0987	<del>.0987</del> .0998	<del>.0998</del> .1009	<del>.1009</del> .1020	<del>.1019</del> .1031	<del>.1030</del> .1042	<del>.1041</del> .1052	<del>.1052</del> .1063	<del>.1062</del> .1074
1.00	<del>.1073</del> .1085	<del>.1084</del> .1096	<del>.1094</del> .1109	<del>.1105</del> .1118	<del>.1116</del> .1128	<del>.1127</del> .1139	<del>.1137</del> .1150	<del>.1148</del> .1161	<del>.1159</del> .1172	<del>.1170</del> .1183

CHANGE IN RATIO FROM INITIAL READING - %

Meter DH-221

221 ✓

~~.001043~~ / .01% Ratio Change  
.001032

	0	01	02	03	04	05	06	07	08	09
.		.0010	.0021	.0031	.0041 <del>.0042</del>	.0052	.0062 <del>.0063</del>	.0072 <del>.0073</del>	.0083	.0093 <del>.0094</del>
.1	.0103 <del>.0104</del>	.0114 <del>.0115</del>	.0124 <del>.0125</del>	.0134 <del>.0136</del>	.0144 <del>.0146</del>	.0155 <del>.0156</del>	.0165 <del>.0167</del>	.0175 <del>.0177</del>	.0186 <del>.0188</del>	.0196 <del>.0198</del>
.2	.0206 <del>.0209</del>	.0217 <del>.0219</del>	.0227 <del>.0229</del>	.0237 <del>.0240</del>	.0248 <del>.0250</del>	.0258 <del>.0261</del>	.0268 <del>.0271</del>	.0279 <del>.0282</del>	.0289 <del>.0292</del>	.0299 <del>.0302</del>
.3	.0310	.0320	.0330	.0341	.0351	.0361	.0372	.0382	.0392	.0402
.4	.0413	.0423	.0433	.0444	.0454	.0464	.0475	.0485	.0495	.0506
.5	.0516	.0526	.0537	.0547	.0557	.0568	.0578	.0588	.0599	.0609
.6	.0619	.0630	.0640	.0650	.0660	.0671	.0681	.0691	.0702	.0712
.7	.0722	.0733	.0743	.0753	.0764	.0774	.0784	.0795	.0805	.0815
.8	.0826	.0836	.0846	.0857	.0867	.0877	.0888	.0898	.0908	.0918
.9	.0929	.0939	.0949	.0960	.0970	.0980	.0991	.1001	.1011	.1022
1.0	.1032	.1042	.1053	.1063	.1073	.1084	.1094	.1104	.1115	.1125

MATILILJA DAM

METER DH - 3L

.00453 INCHES PER .01% RATIO CHANGE  
.001117

31

MOVEMENT FROM INITIAL POSITION - INCHES

CHANGE IN RATIO FROM INITIAL READING - %

	00	01	02	03	04	05	06	07	08	09
		.0011 .0012	.0022 .0023	.0034 .0035	.0045 .0046	.0056 .0058	.0067 .0069	.0078 .0081	.0089 .0092	.0101 .0104
.10	.0117 .0115	.0123 .0127	.0134 .0138	.0145 .0150	.0156 .0161	.0168 .0173	.0179 .0184	.0190 .0196	.0201 .0208	.0212 .0219
.20	.0223 .0221	.0235 .0242	.0246 .0254	.0257 .0265	.0268 .0279	.0279 .0288	.0290 .0298	.0302 .0311	.0313 .0323	.0324 .0334
.30	.0335 .0348	.0346 .0357	.0357 .0367	.0369 .0380	.0380 .0392	.0391 .0404	.0402 .0415	.0413 .0427	.0424 .0438	.0436 .0450
.40	.0447 .0461	.0458 .0473	.0469 .0484	.0480 .0496	.0491 .0507	.0503 .0519	.0514 .0530	.0525 .0542	.0536 .0553	.0547 .0565
.50	.0558 .0576	.0570 .0588	.0581 .0600	.0592 .0611	.0603 .0623	.0614 .0634	.0626 .0646	.0637 .0657	.0648 .0669	.0659 .0680
.60	.0670 .0692	.0681 .0703	.0693 .0715	.0704 .0726	.0715 .0738	.0726 .0749	.0737 .0761	.0748 .0773	.0760 .0784	.0771 .0796
.70	.0787 .0804	.0793 .0819	.0804 .0830	.0815 .0842	.0827 .0853	.0838 .0865	.0849 .0876	.0860 .0888	.0871 .0899	.0882 .0911
.80	.0894 .0922	.0905 .0934	.0916 .0945	.0927 .0957	.0938 .0969	.0949 .0980	.0961 .0992	.0972 .1003	.0983 .1015	.0994 .1026
.90	.1008 .1038	.1016 .1049	.1028 .1061	.1039 .1072	.1050 .1084	.1065 .1095	.1074 .1107	.1083 .1118	.1095 .1130	.1106 .1141
1.00	.1117 .1153	.1128 .1165	.1139 .1176	.1151 .1188	.1162 .1199	.1173 .1211	.1184 .1222	.1195 .1234	.1206 .1245	.1218 .1257
1.10	.1229	.1240	.1251	.1262	.1273	.1285	.1296	.1307	.1318	.1329
1.20	.1340	.1352	.1363	.1374	.1385	.1396	.1407	.1419	.1430	.1441
1.30	.1452	.1463	.1474	.1486	.1497	.1508	.1519	.1530	.1541	.1553

MATILIJIA DAM

METER DH-1R

.00161 INCHES PER .01% RATIO CHANGE  
.001159

1R

MOVEMENT FROM INITIAL POSITION - INCHES

	00	01	02	03	04	05	06	07	08	09
		.0012	.0023	.0035	.0046	.0058	.0070	.0081	.0093	.0104
.10	.0116	.0127 <del>.0128</del>	.0139	.0151	.0162 <del>.0163</del>	.0174	.0185 <del>.0186</del>	.0197	.0209	.0220 <del>.0221</del>
.20	.0232	.0243 <del>.0244</del>	.0255	.0267	.0278 <del>.0279</del>	.0290	.0301 <del>.0302</del>	.0313	.0325	.0336 <del>.0337</del>
.30	.0348	.0359 <del>.0360</del>	.0371 <del>.0372</del>	.0382 <del>.0383</del>	.0394 <del>.0395</del>	.0406	.0417 <del>.0418</del>	.0429 <del>.0430</del>	.0440 <del>.0441</del>	.0452 <del>.0453</del>
.40	.0464	.0475 <del>.0476</del>	.0487 <del>.0488</del>	.0498 <del>.0499</del>	.0510 <del>.0511</del>	.0522	.0533 <del>.0534</del>	.0545 <del>.0546</del>	.0556 <del>.0557</del>	.0568 <del>.0569</del>
.50	.0580	.0591 <del>.0592</del>	.0603 <del>.0604</del>	.0614 <del>.0615</del>	.0626 <del>.0627</del>	.0637 <del>.0639</del>	.0649 <del>.0650</del>	.0661 <del>.0662</del>	.0672 <del>.0673</del>	.0684 <del>.0685</del>
.60	.0695 <del>.0697</del>	.0707 <del>.0708</del>	.0719 <del>.0720</del>	.0730 <del>.0731</del>	.0742 <del>.0743</del>	.0753 <del>.0755</del>	.0765 <del>.0766</del>	.0777 <del>.0778</del>	.0788 <del>.0789</del>	.0800 <del>.0801</del>
.70	.0811 <del>.0813</del>	.0823 <del>.0824</del>	.0834 <del>.0836</del>	.0846 <del>.0848</del>	.0858 <del>.0859</del>	.0869 <del>.0871</del>	.0881 <del>.0882</del>	.0892 <del>.0894</del>	.0904 <del>.0906</del>	.0916 <del>.0917</del>
.80	.0927 <del>.0929</del>	.0939 <del>.0940</del>	.0950 <del>.0952</del>	.0962 <del>.0964</del>	.0974 <del>.0975</del>	.0985 <del>.0987</del>	.0997 <del>.0998</del>	.1008 <del>.1010</del>	.1020 <del>.1022</del>	.1032 <del>.1033</del>
.90	.1043 <del>.1045</del>	.1055 <del>.1057</del>	.1066 <del>.1068</del>	.1078 <del>.1080</del>	.1089 <del>.1091</del>	.1101 <del>.1103</del>	.1113 <del>.1115</del>	.1124 <del>.1126</del>	.1136 <del>.1138</del>	.1147 <del>.1149</del>
1.00	.1159 <del>.1161</del>	.1171 <del>.1173</del>	.1182 <del>.1184</del>	.1194 <del>.1196</del>	.1205 <del>.1207</del>	.1217 <del>.1219</del>	.1229 <del>.1231</del>	.1240 <del>.1242</del>	.1252 <del>.1254</del>	.1263 <del>.1265</del>

CHANGE IN RATIO FROM INITIAL READING - %

MATILIJA DAM

METER DH - 2R

.00457 INCHES PER .01% RATIO CHANGE  
.001147

2R

MOVEMENT FROM INITIAL POSITION - INCHES

	00	01	02	03	04	05	06	07	08	09
		.0011 <del>.0012</del>	.0023	.0034 <del>.0035</del>	.0046	.0057 <del>.0058</del>	.0069	.0080 <del>.0081</del>	.0092 <del>.0093</del>	.0103 <del>.0104</del>
.10	.0115 <del>.0116</del>	.0126 <del>.0127</del>	.0138 <del>.0139</del>	.0149 <del>.0150</del>	.0161 <del>.0162</del>	.0172 <del>.0173</del>	.0184 <del>.0185</del>	.0195 <del>.0197</del>	.0206 <del>.0208</del>	.0218 <del>.0220</del>
.20	.0229 <del>.0231</del>	.0241 <del>.0243</del>	.0252 <del>.0255</del>	.0264 <del>.0266</del>	.0275 <del>.0278</del>	.0287 <del>.0289</del>	.0298 <del>.0301</del>	.0310 <del>.0312</del>	.0321 <del>.0324</del>	.0333 <del>.0336</del>
.30	.0344 <del>.0347</del>	.0356 <del>.0359</del>	.0367 <del>.0370</del>	.0379 <del>.0382</del>	.0390 <del>.0393</del>	.0401 <del>.0405</del>	.0413 <del>.0417</del>	.0424 <del>.0428</del>	.0436 <del>.0440</del>	.0447 <del>.0451</del>
.40	.0459 <del>.0463</del>	.0470 <del>.0474</del>	.0482 <del>.0486</del>	.0493 <del>.0498</del>	.0505 <del>.0509</del>	.0516 <del>.0521</del>	.0528 <del>.0532</del>	.0539 <del>.0544</del>	.0551 <del>.0555</del>	.0562 <del>.0567</del>
.50	.0573 <del>.0578</del>	.0585 <del>.0590</del>	.0596 <del>.0602</del>	.0608 <del>.0613</del>	.0619 <del>.0625</del>	.0631 <del>.0636</del>	.0642 <del>.0648</del>	.0654 <del>.0659</del>	.0665 <del>.0671</del>	.0677 <del>.0683</del>
.60	.0688 <del>.0694</del>	.0700 <del>.0706</del>	.0711 <del>.0717</del>	.0723 <del>.0729</del>	.0734 <del>.0740</del>	.0746 <del>.0752</del>	.0757 <del>.0764</del>	.0768 <del>.0775</del>	.0780 <del>.0787</del>	.0791 <del>.0798</del>
.70	.0803 <del>.0810</del>	.0814 <del>.0821</del>	.0826 <del>.0833</del>	.0837 <del>.0845</del>	.0849 <del>.0856</del>	.0860 <del>.0868</del>	.0872 <del>.0879</del>	.0883 <del>.0891</del>	.0895 <del>.0902</del>	.0906 <del>.0914</del>
.80	.0918 <del>.0926</del>	.0929 <del>.0934</del>	.0941 <del>.0949</del>	.0952 <del>.0960</del>	.0963 <del>.0972</del>	.0975 <del>.0983</del>	.0986 <del>.0995</del>	.0998 <del>.1007</del>	.1009 <del>.1018</del>	.1021 <del>.1030</del>
.90	.1032 <del>.1041</del>	.1044 <del>.1053</del>	.1055 <del>.1064</del>	.1067 <del>.1076</del>	.1078 <del>.1088</del>	.1090 <del>.1099</del>	.1101 <del>.1111</del>	.1113 <del>.1122</del>	.1124 <del>.1134</del>	.1136 <del>.1146</del>
1.00	.1147 <del>.1157</del>	.1158 <del>.1169</del>	.1170 <del>.1180</del>	.1181 <del>.1192</del>	.1193 <del>.1203</del>	.1204 <del>.1215</del>	.1216 <del>.1226</del>	.1227 <del>.1238</del>	.1239 <del>.1250</del>	.1250 <del>.1261</del>

CHANGE IN RATIO FROM INITIAL READING - %

MATILIJA DAM

METER DH-2aR

.001208 INCHES PER .01% RATIO CHANGE  
.001194

2AR

MOVEMENT FROM INITIAL POSITION - INCHES

	00	01	02	03	04	05	06	07	08	09
		.0012	.0024	.0036	.0048	.0060	.0072	.0084 <del>.0085</del>	.0096 <del>.0097</del>	.0107 <del>.0107</del>
.10	.0119 <del>.0121</del>	.0131 <del>.0133</del>	.0143 <del>.0145</del>	.0155 <del>.0157</del>	.0167 <del>.0169</del>	.0179 <del>.0181</del>	.0191 <del>.0193</del>	.0203 <del>.0205</del>	.0215 <del>.0217</del>	.0227 <del>.0230</del>
.20	.0239 <del>.0242</del>	.0251 <del>.0254</del>	.0263 <del>.0266</del>	.0275 <del>.0278</del>	.0287 <del>.0290</del>	.0299 <del>.0302</del>	.0310 <del>.0314</del>	.0322 <del>.0326</del>	.0334 <del>.0338</del>	.0346 <del>.0350</del>
.30	.0358 <del>.0362</del>	.0370 <del>.0374</del>	.0382 <del>.0387</del>	.0394 <del>.0399</del>	.0406 <del>.0411</del>	.0418 <del>.0423</del>	.0430 <del>.0435</del>	.0442 <del>.0447</del>	.0454 <del>.0459</del>	.0466 <del>.0471</del>
.40	.0478 <del>.0483</del>	.0490 <del>.0495</del>	.0501 <del>.0507</del>	.0513 <del>.0519</del>	.0525 <del>.0532</del>	.0537 <del>.0544</del>	.0549 <del>.0556</del>	.0561 <del>.0568</del>	.0573 <del>.0580</del>	.0585 <del>.0592</del>
.50	.0597 <del>.0604</del>	.0609 <del>.0616</del>	.0621 <del>.0628</del>	.0633 <del>.0640</del>	.0645 <del>.0652</del>	.0657 <del>.0664</del>	.0669 <del>.0676</del>	.0681 <del>.0684</del>	.0693 <del>.0697</del>	.0704 <del>.0713</del>
.60	.0716 <del>.0725</del>	.0728 <del>.0737</del>	.0740 <del>.0749</del>	.0752 <del>.0761</del>	.0764 <del>.0773</del>	.0776 <del>.0785</del>	.0788 <del>.0797</del>	.0800 <del>.0809</del>	.0812 <del>.0821</del>	.0824 <del>.0834</del>
.70	.0836 <del>.0846</del>	.0848 <del>.0858</del>	.0860 <del>.0870</del>	.0872 <del>.0882</del>	.0884 <del>.0894</del>	.0896 <del>.0906</del>	.0907 <del>.0918</del>	.0919 <del>.0930</del>	.0931 <del>.0942</del>	.0943 <del>.0954</del>
.80	.0955 <del>.0966</del>	.0967 <del>.0978</del>	.0979 <del>.0991</del>	.0991 <del>.1003</del>	.1003 <del>.1015</del>	.1015 <del>.1027</del>	.1027 <del>.1039</del>	.1039 <del>.1051</del>	.1051 <del>.1063</del>	.1063 <del>.1075</del>
.90	.1087 <del>.1097</del>	.1087 <del>.1097</del>	.1098 <del>.1111</del>	.1110 <del>.1123</del>	.1122 <del>.1136</del>	.1134 <del>.1148</del>	.1146 <del>.1160</del>	.1158 <del>.1172</del>	.1170 <del>.1184</del>	.1182 <del>.1196</del>
1.00	.1194 <del>.1208</del>	.1206 <del>.1220</del>	.1218 <del>.1232</del>	.1230 <del>.1244</del>	.1242 <del>.1256</del>	.1254 <del>.1268</del>	.1266 <del>.1280</del>	.1278 <del>.1293</del>	.1290 <del>.1305</del>	.1301 <del>.1317</del>

CHANGE IN RATIO FROM INITIAL LEADING - %

MATILIJA DAM

METER DH-3R

.00115 INCHES PER .01% RATIO CHANGE  
 .001088

✓ 3R

MOVEMENT FROM INITIAL POSITION - INCHES

	00	01	02	03	04	05	06	07	08	09
		.0011	.0022	.0033	<del>.0044</del> .0045	<del>.0054</del> .0056	<del>.0065</del> .0067	<del>.0076</del> .0078	<del>.0087</del> .0089	<del>.0098</del> .0100
.10	<del>.0109</del> .0112	<del>.0120</del> .0123	<del>.0131</del> .0134	<del>.0141</del> .0145	<del>.0152</del> .0156	<del>.0163</del> .0167	<del>.0174</del> .0178	<del>.0185</del> .0190	<del>.0196</del> .0201	<del>.0207</del> .0212
.20	<del>.0218</del> .0223	<del>.0228</del> .0234	<del>.0239</del> .0245	<del>.0250</del> .0256	<del>.0261</del> .0268	<del>.0272</del> .0279	<del>.0283</del> .0290	<del>.0294</del> .0301	<del>.0305</del> .0312	<del>.0316</del> .0323
.30	<del>.0326</del> .0334	<del>.0337</del> .0346	<del>.0348</del> .0357	<del>.0359</del> .0368	<del>.0370</del> .0379	<del>.0381</del> .0390	<del>.0392</del> .0401	<del>.0403</del> .0413	<del>.0413</del> .0424	<del>.0424</del> .0435
.40	<del>.0435</del> <del>.0446</del>	<del>.0446</del> .0457	<del>.0457</del> .0468	<del>.0468</del> .0479	<del>.0479</del> .0491	<del>.0490</del> .0502	<del>.0500</del> .0513	<del>.0511</del> .0524	<del>.0522</del> .0535	<del>.0533</del> .0546
.50	<del>.0544</del> <del>.0558</del>	<del>.0555</del> .0569	<del>.0566</del> .0580	<del>.0577</del> .0591	<del>.0588</del> .0602	<del>.0598</del> .0613	<del>.0609</del> .0624	<del>.0620</del> .0636	<del>.0631</del> .0647	<del>.0642</del> .0658
.60	<del>.0653</del> <del>.0669</del>	<del>.0664</del> .0680	<del>.0675</del> .0691	<del>.0685</del> .0702	<del>.0696</del> .0714	<del>.0707</del> .0724	<del>.0718</del> .0738	<del>.0729</del> .0747	<del>.0740</del> .0758	<del>.0751</del> .0769
.70	<del>.0767</del> .0780	<del>.0777</del> .0792	<del>.0783</del> .0803	<del>.0794</del> .0814	<del>.0805</del> .0825	<del>.0816</del> .0836	<del>.0827</del> .0847	<del>.0838</del> .0857	<del>.0849</del> .0870	<del>.0860</del> .0881
.80	<del>.0870</del> <del>.0882</del>	<del>.0881</del> .0903	<del>.0892</del> .0914	<del>.0903</del> .0925	<del>.0914</del> .0937	<del>.0925</del> .0948	<del>.0936</del> .0959	<del>.0947</del> .0970	<del>.0957</del> .0981	<del>.0968</del> .0992
.90	<del>.0979</del> <del>.1002</del>	<del>.0990</del> .1015	<del>.1001</del> .1026	<del>.1012</del> .1037	<del>.1023</del> .1048	<del>.1034</del> .1059	<del>.1044</del> .1070	<del>.1055</del> .1082	<del>.1066</del> .1093	<del>.1077</del> .1104
1.00	<del>.1087</del> <del>.1111</del>	<del>.1098</del> .1120	<del>.1109</del> .1134	<del>.1120</del> .1145	<del>.1131</del> .1162	<del>.1141</del> .1172	<del>.1152</del> .1183	<del>.1163</del> .1194	<del>.1174</del> .1205	<del>.1185</del> .1215

CHANGE IN RATIO FROM INITIAL RADING - %



























# ABUTMENT YIELD MEASUREMENT DATA

Project: MATILUA DAM

Drill-hole No. DH-3L  
 Meter No. M-2  
 Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads: 001117 inches per 0.01% ratio change  
 Resistance ratio at initial reading 101.09 per cent  
 Resistance ratio, meter closed: 98.1 per cent  
 Resistance ratio, meter open: 103.6 per cent  
 Meter resistance at 0°F, corrected for leads 51.69 ohms  
 Change in temperature per ohm change in resistance 10.95 °F

1969	Pac Std	Temperature F°			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
4-14	9:30A	41°	71°	63°	open circuit						
4-17	3:00P	52°	77°	75°	57.20	5.51	60	101.95	+0.86	+0.0961	1072.23
5-1	9:30A	44°	80°	67°	57.29	5.60	61	102.05	.96	.1072	
5-13	9:30A	43°	86°	58°	57.16	5.47	60	102.04	.95	.1061	
6-3	8:00A	48°	84°	58	57.65	5.96	65	101.93	.84	.0938	
6-16	9:00A	50°	73°	60°	57.64	5.95	65	101.88	.79	.0882	
7-1	9:00A	54°	91°	83°	57.85	6.16	67	101.85	+0.76	+0.0849	























































































# ABUTMENT YIELD MEASUREMENT DATA

Project: MATILIJA DAM

Drill-hole No. DH-2aL

Meter No. M-7

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001032 inches per 0.01 % ratio change  
 Resistance ratio at initial reading 101.04 per cent  
 Resistance ratio, meter closed: 98.4 per cent  
 Resistance ratio, meter open: 104.2 per cent  
 Meter resistance at 0°F, corrected for leads 49.84 ohms  
 Change in temperature per ohm change in resistance 10.91 °F

1968 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1/19	9:00A	37	72	57	54.99	5.15	56	101.08	+0.04	+0.0041	
2/2	9:00A	33	80	58	54.87	5.03	55	101.08	.04	.0041	
2/13	3:00P	43	74	50	54.83	4.99	54	101.07	.03	.0031	
3/1	8:30A	43	83	54	55.58	5.74	63	101.09	.05	.0052	
3/14	8:30A	39	82	48	54.90	5.06	55	101.09	.05	.0052	
"	11:00A			57	55.13	5.29	58	101.08	.04	.0041	
"	1:30P			61	55.62	5.78	63	101.11	.07	.0072	
"	4:00P			61	56.03	6.19	68	101.16	.12	.0124	
4/2	8:30A	43	83	52	55.06	5.22	57	101.10	+0.06	+0.0062	









# ABUTMENT YIELD MEASUREMENT DATA

Project: MATILIJA DAM

Drill-hole No. DH-3R

Meter No. M-4

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .001088 inches per 0.01 % ratio change  
 Resistance ratio at initial reading 101.79 per cent  
 Resistance ratio, meter closed: 98.9 per cent  
 Resistance ratio, meter open: 104.5 per cent  
 Meter resistance at 0°F, corrected for leads 50.57 ohms  
 Change in temperature per ohm change in resistance 10.93 °F

1968 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1/19	9:00A	37	65	54	55.21	4.64	51	102.03	+0.24	+0.0261	
2/2	9:00A	37	72	52	55.17	4.60	50	102.02	.73	.0250	
2/13	3:00P	42	66	50	55.29	4.72	52	101.97	.18	.0196	
3/1	8:30A	43	76	53	55.53	4.96	54	101.94	.15	.0163	
3/14	8:30A	39	75	46	55.10	4.53	50	101.92	.13	.0141	
"	11:00A			53	55.37	4.80	52	101.93	.14	.0152	
"	1:30P			55	55.46	4.89	53	101.93	.14	.0152	
"	4:00P			56	55.50	4.93	54	101.92	.13	.0141	
4/2	8:30A	41	74	50	55.34	4.77	52	101.90	+0.11	+0.0120	



# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1L

New meter installed 11/18/76 and adjusted to equal reading of old meter at time of replacement.

Meter No. J-78

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads, 0.00622 inches per 0.01% ratio change  
 Resistance ratio at initial reading 102.46 per cent \*  
 Resistance ratio, meter closed: 97.0 per cent  
 Resistance ratio, meter open: 105.1 per cent  
 Meter resistance at 0°F, corrected for leads 54.96 ohms  
 Change in temperature per ohm change in resistance 9.72 °F  
 \* Adjusted resistance ratio after 7/21/76 (111.559)

CKD - G.G.

Date	Pac Std Time	Temperature		At time of Obs.	Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.								
1977											
10-10	8:30A	51°	90°	63°	60.80	5.84	57°	100.46	-11.099	-0.6904	1078.43
10-24	8:00A	48°	98°	70°	61.18	6.22	60°	100.37	-11.189	-0.6960	1078.57
11-7	8:45A	46°	98°	63°	60.30	5.34	52°	100.40	-11.159	-0.6941	1078.64
11-21	9:15A	40°	88°	59°	59.91	4.95	48°	100.42	-11.139	-0.6928	1078.52
12-5	8:30A	46°	92°	71°	61.44	6.48	63°	100.21	-11.349	-0.7059	1078.50
12-19	9:00A	42°	83°	48°	59.21	4.25	41°	100.48	-11.079	-0.6891	1078.60
12-29	9:00A	48°	68°	57°	60.16	5.22	51°	100.47	-11.089	-0.6897	1089.32
1978											
1-12	7:30A	43°	60°	49°	59.63	4.57	45°	100.57	-10.989	-0.6835	1089.24
1-15	9:30A	48°	67°	58°	59.94	4.98	48°	100.56	-10.999	-0.6841	1096.17
1-23	7:30A	45°	74°	46°	59.69	4.73	46°	100.50	-11.059	-0.6879	1094.43
2-6	7:30A	39°	81°	52°	60.31	5.35	52°	100.39	-11.169	-0.6947	1095.70
2-10	2:00P	44°	64°	56°	OUT OF ORDER			OUT OF ORDER			1097.83
2-21	9:00A	40°	82°	62°	" " "			" " "			1095.17
2-7	8:00A	43°	98°	52°	" " "			" " "			1096.29
3-20	7:30A	43°	97°	56°	" " "			" " "			1095.22
4-3	7:15A	45°	91°	48°	" " "			" " "			1095.40
4-5	10:30A	49°	71°	60°	" " "			" " "			1095.36
4-6	10:00A	47°	71°	55°	" " "			" " "			1095.32
4-6	3:00P	Installed new J-80 point meter									1095.31
4-10	1:35P	41°	76°	77°	out of order			out of order			1095.16
4-10	4:27P	Dynamite charge set off on Pt. abutment									
4-10	4:35P	out of order						Out of order			1095.16
4-25	10:15A	41°	82°	55°	" " "			" " "			1094.85
5-8	7:45A	46°	86°	66°	" " "			" " "			1089.16
5-22	7:30A	51°	99°	56°	" " "			" " "			1083.82
6-5	8:00A	53°	106°	64°	" " "			" " "			1092.31
6-20	6:45A	53°	106°	70°	" " "			" " "			Empty (1050)
7-3	8:15A	58°	100°	70°	" " "			" " "			" (1050)

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2L

Original meter-cleaned & reinstalled 9-28-72.

Meter No. M-3

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001073 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.20 per cent \*  
 Resistance ratio, meter closed: 98.6 per cent  
 Resistance ratio, meter open: 104.2 per cent  
 Meter resistance at 0°F, corrected for leads 49.67 ohms  
 Change in temperature per ohm change in resistance 10.95 °F  
 \*Adjusted resistance ratio after 9-28-72 ( 100.06 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1977											
10-10	8:30A	51°	90°	63°	55.99	6.32	69°	99.87	-0.190	-0.0204	
10-24	8:00A	48°	98°	70°	55.91	6.24	68°	99.90	-0.160	-0.0172	
11-7	8:45A	46°	98°	63°	55.30	5.63	62°	99.88	-0.180	-0.0193	
11-21	9:15A	40°	88°	59°	54.99	5.32	58°	99.91	-0.150	-0.0161	
12-5	8:30A	46°	92°	71°	55.69	6.02	66°	99.92	-0.140	-0.0150	
12-19	9:00A	42°	83°	48°	54.47	4.80	53°	99.89	-0.170	-0.0182	
12-29	9:00A	48°	68°	57°	54.86	5.19	57°	99.94	-0.120	-0.0129	
1978											
1-12	7:30A	43°	60°	49°	55.19	5.52	60°	99.82	-0.240	-0.0258	
1-15	9:30A	48°	67°	58°	55.96	6.29	69°	99.93	-0.130	-0.0139	
1-23	7:30A	45°	74°	46°	55.43	5.76	63°	99.82	-0.240	-0.0258	
2-6	7:30A	39°	81°	52°	55.69	6.02	66°	99.95	-0.110	-0.0118	
2-10	2:00P	44°	64°	36°	56.05	6.38	70°	99.95	-0.110	-0.0118	
2-21	9:00A	40°	82°	62°	56.22	6.55	72°	99.82	-0.240	-0.0258	
3-7	8:00A	43	88°	52°	56.11	6.44	71°	99.86	-0.200	-0.0215	
3-20	7:30A	43	97°	56°	56.08	6.41	70°	99.86	-0.200	-0.0215	
4-2	7:15A	45°	91°	48°	55.97	6.30	69°	99.84	-0.220	-0.0236	
4-5	10:30A	44°	71°	60°	55.97	6.30	69°	99.96	-0.100	-0.0107	
4-6	10:00A	47°	71°	55°	55.97	6.30	69°	99.95	-0.110	-0.0118	
4-6	1:30P										
4-10	1:35P										
4-10	4:27P										
4-10	4:35P										
4-25	10:15A	41°	82°	55°	55.88	6.21	68°	99.95	-0.110	-0.0118	
5-8	7:45A	46°	86°	66°	55.84	6.17	68°	99.97	-0.090	-0.0097	
5-22	7:30A	51°	99°	56°	55.38	5.71	63°	99.95	-0.110	-0.0118	
6-5	8:00A	53°	106°	64°	55.60	5.93	65°	99.96	-0.100	-0.0107	
6-20	6:45A	53°	106°	70°	56.38	6.71	73°	99.97	-0.090	-0.0097	
7-3	8:15A	58°	100°	70°	56.21	6.54	72°	99.98	-0.080	-0.0086	

ckd - GG

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aL

New meter installed 10/21/76 and adjusted to equal reading of old meter at time of replacement.

Meter No. J-18

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads, .000647 inches per 0.01% ratio change

Resistance ratio at initial reading 100.19 per cent \*

Resistance ratio, meter closed: 96.2 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 55.35 ohms

Change in temperature per ohm change in resistance 9.49 °F

\* Adjusted resistance ratio after 9/28/72 (99.88)

ckd - G.G

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1977											
10-10	8:30A	51°	90°	63°	62.83	7.48	71°	100.28	+0.400	+0.0259	
10-24	8:00A	48°	98°	70°	62.72	7.37	70°	100.30	+0.420	+0.0272	
11-7	8:45A	46°	98°	63°	62.10	6.75	64°	100.27	+0.390	+0.0252	
11-21	9:15A	40°	88°	59°	61.75	6.40	61°	100.30	+0.420	+0.0272	
12-5	8:30A	46°	92°	71°	62.43	7.08	67°	100.33	+0.450	+0.0291	
12-19	9:00A	42°	83°	48°	61.17	5.82	55°	100.36	+0.480	+0.0311	
12-29	9:00A	48°	68°	57°	62.47	7.12	63°	100.38	+0.500	+0.0324	
1978											
1-12	7:30A	43°	60°	49°	62.31	6.96	66°	100.36	+0.480	+0.0311	
1-15	9:30A	48°	67°	58°	62.22	6.87	65°	100.36	+0.480	+0.0311	
1-23	7:30A	45°	74°	46°	62.10	6.75	64°	100.40	+0.520	+0.0336	
2-6	7:30A	39°	81°	52°	62.17	6.82	65°	100.41	+0.530	+0.0343	
2-10	2:00 P	44°	64°	56°	62.12	6.77	64°	100.41	+0.530	+0.0343	
2-21	9:00A	40°	82°	62°	62.18	6.83	65°	100.40	+0.520	+0.0336	
3-7	8:00A	43°	88°	52°	62.17	6.82	65°	100.35	+0.490	+0.0304	
3-20	7:30A	43°	97°	56°	62.31	6.96	66°	100.42	+0.540	+0.0349	
4-3	7:15A	45°	91°	48°	OUT OF ORDER			OUT OF ORDER			
4-5	10:30A	44°	71°	60°	"			"	"	"	"
4-6	Removed Joint Meter J-18 and replaced with new Meter J-80 - See next sheet										

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aI

New meter installed 4/6/78 and adjusted to equal reading of previous meter at last observation on 3/20/78.

Meter No. J-80

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .000637 inches per 0.01% ratio change

Resistance ratio at initial reading 100.45 per cent

Resistance ratio, meter closed: 96.9 per cent

Resistance ratio, meter open: 104.8 per cent

Meter resistance at 0°F, corrected for leads 54.85 ohms

Change in temperature per ohm change in resistance 9.64 °F

\* Adjusted resistance ratio after 9/28/72 = (99.88)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1978											
4-6	3:00PM				61.33	6.48	62°	100.45	+0.570	+0.0363	1095.31
4-10	1:35P			77°	61.82	6.97	67°	100.44	+0.560	+0.0357	
4-10	4:27P				Dynamite charge set off - Mt. abutment						
4-10	4:35P				61.84	6.99	67°	100.43	+0.550	+0.0350	
4-25	10:15A	41°	82°	55°	61.34	6.49	63°	100.46	+0.580	+0.0370	
5-8	7:45A	46°	86°	66°	61.42	6.57	63°	100.47	+0.590	+0.0376	
5-22	7:30A	51°	99°	56°	61.38	6.53	63°	100.49	+0.610	+0.0389	
6-5	8:00A	53°	106°	64°	61.50	6.65	64°	100.47	+0.590	+0.0376	
6-20	6:45A	53°	106°	70°	62.36	7.51	72°	100.48	+0.600	+0.0382	
7-3	8:15A	58°	100°	70°	62.21	7.36	71°	100.50	+0.620	+0.0395	

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-3L

Meter No. J-14

New meter installed 9-28-72.

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .000681 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.14 per cent \*  
 Resistance ratio, meter closed: 95.2 per cent  
 Resistance ratio, meter open: 102.9 per cent  
 Meter resistance at 0°F, corrected for leads 56.75 ohms  
 Change in temperature per ohm change in resistance 9.61 °F  
 \*Adjusted resistance ratio after 9-28-72 ( 98.231 ).

V. W. C. M. G. G.

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1977											
10-10	8:30A	51°	90°	63°	63.67	6.92	66°	100.51	+2.279	+0.1552	
10-24	8:00A	48°	98°	70°	62.53	6.78	65°	100.52	+2.289	+0.1559	
11-7	8:45A	46°	98°	63°	63.20	6.45	62°	100.50	+2.269	+0.1545	
11-21	9:15A	40°	88°	59°	62.85	6.10	59°	100.52	+2.289	+0.1559	
12-5	8:30A	46°	92°	71°	62.77	6.02	58°	100.52	+2.289	+0.1559	
12-19	9:00A	42°	83°	48°	62.52	5.77	55°	100.52	+2.289	+0.1559	
12-29	9:00A	48°	68°	57°	62.42	5.67	54°	100.50	+2.269	+0.1545	
1978											
1-12	7:30A	43°	60°	49°	62.39	5.64	54°	100.46	+2.229	+0.1518	
1-15	9:30A	48°	67°	58°	62.36	5.61	54°	100.41	+2.179	+0.1484	
1-23	7:30A	45°	74°	46°	62.20	5.45	52°	100.38	+2.149	+0.1463	
2-6	7:30A	39°	81°	52°	62.30	5.55	53°	100.38	+2.149	+0.1463	
2-10	2:00 P	44°	64°	56°	62.00	5.25	50°	100.29	+2.059	+0.1402	
2-21	9:00A	40°	82°	62°	62.07	5.32	51°	100.26	+2.029	+0.1382	
3-7	8:00A	43°	88°	52°	OUT OF ORDER			OUT OF ORDER			
3-20	7:30A	43°	97°	56°	" "			" "			
4-3	7:15A	45	91°	48°	" "			" "			
4-5	10:30A	44°	71°	60°	" "			" "			
4-6	10:00A				" "			" "			
4-6	3:00P				installed new J-80 joint meter						
4-10	1:35P				out of order			out of order			
4-10	4:27P				dynamite charge set off at abutment						
4-10	4:35P				out of order			out of order			
4-25	10:15A				" " "			" " "			
5-8	7:45A				" " "			" " "			
5-22	7:30A				" " "			" " "			
6-5	8:00 A				" " "			" " "			
6-20	6:45A				" " "			" " "			
7-3	8:15A				" " "			" " "			

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 1R

Leads extended 2-26-75

Meter No. M - 6

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads, .001216 inches per 0.01% ratio change

Resistance ratio at initial reading 100.57 per cent\*

Resistance ratio, meter closed: 98.0 per cent

Resistance ratio, meter open: 103.6 per cent

Meter resistance at 0°F, corrected for leads 52.19 ohms

Change in temperature per ohm change in resistance 10.88 °F

\*Adjusted resistance ratio after 2-26-75 (100.723)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1977											
10-10	8:30A	51°	86°	61°	58.00	5.81	63°	99.85	-0.873	-0.1062	1078.43
10-24	8:00A	49°	93°	67°	58.29	6.10	66°	99.85	-0.873	-0.1062	1078.57
11-7	8:45A	46°	84°	59°	57.66	5.47	60°	99.88	-0.843	-0.1025	1078.64
11-21	9:15	39°	83°	55°	57.27	5.08	55°	99.89	-0.833	-0.1013	1078.52
12-5	8:30	46°	88°	71°	58.52	6.33	69°	99.86	-0.863	-0.1049	1078.50
12-19	9:00	43°	79°	49°	56.81	4.62	50°	99.93	-0.793	-0.0964	1078.60
12-29	9:00A	47°	66°	58°	57.40	5.21	57°	100.01	-0.713	-0.0867	1089.32
1978											
1-12	7:30A	42°	60°	47	56.90	4.71	51°	100.23	-0.493	-0.0599	1089.24
1-15	9:30A	No	Access		57.00	4.81	52°	100.26	-0.463	-0.0563	1096.17
1-23	7:30A	"	"		56.71	4.52	49°	100.33	-0.393	-0.0478	1094.42
2-6	7:30A	"	"		57.21	5.02	55°	100.32	-0.403	-0.0490	1095.70
2-10	2:00P	"	"		56.97	4.78	52°	100.33	-0.393	-0.0478	1097.83
2-21	9:00A	"	"		57.39	5.20	57°	100.44	-0.283	-0.0344	1095.17
3-7	8:00A	"	"		56.90	4.71	51°	100.30	-0.423	-0.0514	1096.29
3-20	7:30A	"	"		57.57	5.38	59°	100.54	-0.183	-0.0223	1095.22
4-3	7:15A	"	"		57.51	5.32	58	102.38	+1.657	+0.2015	1095.40
4-5	10:30A	"	"		57.23	5.04	55°	100.30	-0.423	-0.0514	1095.36
4-6	10:00A	"	"		57.22	5.03	55°	100.30	-0.423	-0.0514	1095.32
4-10	1:35P	"	"		58.07	5.88	64°	100.29	-0.433	-0.0526	1095.16
4-10	4:27P	Dynamite charge set off at abutment									
4-10	4:35P	No	Access		57.95	5.76	63°	100.29	-0.433	-0.0526	1095.16
4-25	10:15A	"	"	"	57.32	5.13	56°	100.27	-0.453	-0.0551	1094.85
5-8	7:45A	"	"	"	58.10	6.91	64°	100.26	-0.463	-0.0563	1089.16
5-22	7:30A	"	"	"	57.61	5.42	59°	100.23	-0.493	-0.0600	1083.82
6-5	9:00A	"	"	"	58.15	5.96	65°	100.20	-0.523	-0.0636	1092.31
6-20	6:45A	"	"	"	58.59	6.40	70°	100.19	-0.533	-0.0648	Empty (1050)
7-3	9:15A	"	"	"	58.66	6.47	70°	100.17	-0.553	-0.0672	" (1050)

1 WCM  
ckd - GG  
sic

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 2R

Leads extended 2-26-75

Meter No. M - 1

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001202 inches per 0.01% ratio change

Resistance ratio at initial reading 100.00 per cent \*

Resistance ratio, meter closed: 97.9 per cent

Resistance ratio, meter open: 103.0 per cent

Meter resistance at 0°F, corrected for leads 52.73 ohms

Change in temperature per ohm change in resistance 10.95 °F

\*Adjusted resistance ratio after 2-26-75 (99.828)

R.W.M.

C.K.D. - G.G.

M.C.

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1977											
10-10	8:30A	51°	86°	61°	58.28	5.55	61°	100.05	+0.222	+0.0267	
10-24	8:00A	49°	93°	67°	58.52	5.79	63°	100.07	+0.242	+0.0291	
11-7	8:45A	46°	84°	59°	57.94	5.21	57°	100.09	+0.262	+0.0315	
11-21	9:15A	39°	83°	55°	57.56	4.83	53°	100.10	+0.272	+0.0327	
12-5	8:30A	46°	88°	71°	58.69	5.96	65°	100.06	+0.232	+0.0279	
12-19	9:00A	43°	79°	49°	57.17	4.44	49°	100.10	+0.272	+0.0327	
12-29	9:00A	47°	66°	58°	58.16	5.43	59°	100.04	+0.212	+0.0255	
1978											
1-12	7:30A	42°	60°	47	57.29	4.56	50°	100.04	+0.212	+0.0255	
1-15	9:30A	No	Access		58.02	5.29	58°	100.04	+0.212	+0.0255	
1-23	7:30A	"	"		57.72	4.99	55°	100.04	+0.212	+0.0255	
2-6	7:30A	"	"		57.84	5.11	56°	100.02	+0.192	+0.0231	
2-10	2:00P	"	"		57.85	5.12	56°	100.01	+0.182	+0.0219	
2-21	9:00A	"	"		58.00	5.27	58°	100.04	+0.212	+0.0255	
3-7	8:00A	"	"		57.86	5.13	56°	100.03	+0.202	+0.0243	
3-20	7:30A	"	"		57.93	5.20	57°	100.01	+0.182	+0.0219	
4-3	7:15A	"	"		57.87	5.14	56°	102.01	+2.182	+0.2623	
4-5	10:30A	"	"		57.93	5.20	57°	100.03	+0.202	+0.0243	
4-6	10:00A	"	"		57.89	5.16	56°	100.02	+0.192	+0.0231	
4-10	1:35P	"	"		58.12	5.39	59°	100.02	+0.192	+0.0231	
4-10	4:27P	"	Dynamite	charge		Set off	at	abutment			
4-10	4:35P	No	Access		58.07	5.34	58°	100.02	+0.192	+0.0231	
4-25	10:15A	"	"		57.83	5.10	56°	100.01	+0.182	+0.0219	
5-8	7:45A	"	"		58.12	5.39	59°	100.01	+0.182	+0.0219	
5-22	7:30A	"	"		57.69	4.96	54°	100.01	+0.182	+0.0219	
6-5	8:00A	"	"		58.21	5.48	60°	100.00	+0.172	+0.0207	
6-20	6:45A	"	"		58.73	6.00	66°	100.04	+0.212	+0.0255	
7-3	9:15A	"	"		58.83	6.10	67°	100.05	+0.222	+0.0267	

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILJA DAM

Drill-hole No DH-2aR

New meter installed 11/17/76 and adjusted to equal reading of old meter at time of replacement.

Meter No. J-79

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads 0.00690 inches per 0.01% ratio change

Resistance ratio at initial reading 100.40 per cent \*

Resistance ratio, meter closed: 96.4 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 57.46 ohms

Change in temperature per ohm change in resistance 9.72 °F

\* Adjusted resistance ratio after 2/26/75 (99.827)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1977											
10-10	8:30A	51°	86°	61°	64.10	6.64	65°	100.46	+0.633	+0.0437	
10-24	8:00A	49°	93°	67°	64.08	6.62	64°	100.46	+0.633	+0.0437	
11-7	8:45A	46°	84°	59°	63.80	6.34	62°	100.47	+0.643	+0.0444	
11-21	9:15A	39°	83°	55°	63.56	6.10	59°	100.47	+0.643	+0.0444	
12-5	8:30A	46°	88°	71°	63.97	6.51	63°	100.47	+0.643	+0.0444	
12-19	9:00A	43°	79°	49°	63.29	5.83	57°	100.48	+0.653	+0.0451	
12-29	9:00A	47°	66°	58°	63.62	6.16	60°	100.47	+0.643	+0.0444	
1978											
1-12	7:30A	42°	60°	47°	63.39	5.93	58°	100.47	+0.643	+0.0444	
1-15	9:30A	No Access			63.53	6.07	59°	100.47	+0.643	+0.0444	
1-23	7:30A	"	"	"	63.24	5.78	56°	100.50	+0.673	+0.0464	
2-6	7:30A	"	"	"	63.33	5.87	57°	100.49	+0.663	+0.0457	
2-10	2:00P	"	"	"	63.46	5.94	58°	100.49	+0.663	+0.0457	
2-21	9:00A	"	"	"	63.39	5.93	58°	100.50	+0.673	+0.0464	
3-7	8:00A	"	"	"	63.29	5.83	57°	100.49	+0.663	+0.0457	
3-20	7:30A	"	"	"	63.44	5.98	58°	100.45	+0.623	+0.0430	
4-3	7:15A	"	"	"	63.28	5.82	57°	100.47	+0.643	+0.0444	
4-5	10:20A	"	"	"	63.30	5.84	57°	100.49	+0.663	+0.0457	
4-6	10:00A	"	"	"	63.27	5.81	56°	100.49	+0.663	+0.0458	
4-10	1:35P	"	"	"	63.45	5.99	58°	100.48	+0.653	+0.0451	
4-10	4:27P	"	Dynamite charge set off								
4-10	4:35P	No	Access			63.44	5.98	58°	100.48	+0.653	+0.0451
4-25	10:15A	"	"	"	63.31	5.85	57°	100.47	+0.643	+0.0444	
5-8	7:45A	"	"	"	63.62	6.16	60°	100.47	+0.643	+0.0444	
5-22	7:30A	"	"	"	63.47	6.01	58°	100.47	+0.643	+0.0444	
6-5	8:00A	"	"	"	63.70	6.24	61°	100.47	+0.643	+0.0444	
6-20	6:45A	"	"	"	64.24	6.78	66°	100.48	+0.653	+0.0451	
7-3	9:15A	"	"	"	64.27	6.81	66°	100.47	+0.643	+0.0444	

vmm

Ckd - G.G.

JK



# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-3R

New meter installed 11/17/76 and adjusted to equal reading of old meter at time of replacement.

Meter No. J-77

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .000679 inches per 0.01% ratio change

Resistance ratio at initial reading 100.44 per cent \*

Resistance ratio, meter closed: 95.8 per cent

Resistance ratio, meter open: 103.7 per cent

Meter resistance at 0°F, corrected for leads 58.08 ohms

Change in temperature per ohm change in resistance 9.77 °F

\* Adjusted resistance ratio after 2/26/75 (100.16)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1977											
10-10	8:30A	51°	86°	61°	64.61	6.53	64°	100.29	+0.130	+0.0088	
10-24	8:00A	49°	93°	67°	64.56	6.48	63°	100.31	+0.150	+0.0102	
11-7	8:45A	46°	84°	59°	64.07	5.99	59°	100.33	+0.170	+0.0115	
11-21	9:15A	39°	83°	55°	63.71	5.63	55°	100.37	+0.210	+0.0143	
12-5	8:30	46°	88°	71°	64.43	6.35	62°	100.36	+0.200	+0.0136	
12-19	9:00	43°	79°	49°	63.32	5.24	51°	100.40	+0.240	+0.0163	
12-29	9:00A	47°	66°	58°	63.77	5.69	56	100.36	+0.200	+0.0136	
1978											
1-12	7:30A	42°	60°	47°	63.38	5.30	52°	100.38	+0.220	+0.0149	
1-15	9:30A	No	Access		63.51	5.43	53°	100.36	+0.200	+0.0136	
1-23	7:30A	"	"		63.10	5.02	49°	100.39	+0.230	+0.0156	
2-6	7:30A	"	"		63.45	5.37	52°	100.37	+0.210	+0.0143	
2-10	2:00P	"	"		OUT OF ORDER			OUT OF ORDER			
2-21	9:00A	"	"		"			"			
3-7	8:00A	"	"		"			"			
3-20	7:30A	"	"		"			"			
4-3	7:15A	"	"		"			"			
4-5	10:30A	"	"		"			"			
4-6	10:00A	"	"		"			"			
4-10	1:35P	"	"		"			"			
4-10	4:27P										
4-10	4:35P	No	Access		Out of order			Out of order			
4-25	10:15A	"	"		"			"			
5-8	7:45A	"	"		"			"			
5-22	7:30A	"	"		"			"			
6-5	8:00A	"	"		"			"			
6-20	6:45A	"	"		"			"			
7-3	9:15A	"	"		"			"			

Ckd B.B.

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1L

New meter installed 11/18/76 and adjusted to equal reading of old meter at time of replacement.

Meter No. J-78

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads, 0.00622 inches per 0.01% ratio change

Resistance ratio at initial reading 102.46 per cent \*

Resistance ratio, meter closed: 97.0 per cent

Resistance ratio, meter open: 105.1 per cent

Meter resistance at 0°F, corrected for leads 54.96 ohms

Change in temperature per ohm change in resistance 9.72 °F

\* Adjusted resistance ratio after 7/21/76 (111.559)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
11/19/76	8:55 A	44°	86°	65°	60.76	5.80	56°	102.46	-9.099	-0.5660	1061.47
12-7-76	8:45 A	36°	82°	53°	59.74	4.78	46°	102.63	-8.929	-0.5554	1061.23
12-20-76	8:15 A	39°	78°	49°	59.74	4.78	46°	102.62	-8.939	-0.5560	1061.12
1-4-77	9:00 A	36°	74°	44°	58.95	3.99	39°	102.69	-8.869	-0.5517	1066.24
1-17-77	8:30 A	35°	73°	58°	60.18	5.22	51°	102.57	-8.989	-0.5591	1060.82
1-31-77	8:45 A	39°	77°	52°	59.69	4.73	46°	102.53	-9.029	-0.5616	1060.66
2-14-77	8:45 A	42°	86°	67°	60.83	5.87	57°	102.32	-9.239	-0.5747	1060.72
2-28-77	9:15 A	42°	88°	59°	60.05	5.09	49°	102.33	-9.229	-0.5740	1060.53
3-9-77	9:45 A	41°	77°	57°	60.07	5.11	50°	102.33	-9.229	-0.5740	1060.57
3-21-77	9:45 A	34°	70°	67°	60.30	5.34	52°	102.27	-9.289	-0.5778	1061.97
4-4-77	9:00 A	35°	79°	62°	60.22	5.26	51°	102.19	-9.369	-0.5828	1061.39
4-18-77	9:00 A	41°	86°	57°	60.35	5.39	52°	102.04	-9.519	-0.5921	1061.26
5-2-77	7:45 A	46°	84°	56°	60.24	5.28	51°	101.96	-9.599	-0.5971	1061.28
5-16-77	8:00 A	41°	73°	53°	59.74	4.78	46°	102.00	-9.559	-0.5946	1078.48
5-31-77	7:45 A	47°	84°	65°	61.24	6.28	61°	101.65	-9.909	-0.6163	1079.14
6-9-77	8:30 A	55°	92°	60°	61.09	6.13	60°	101.54	-10.019	-0.6232	1078.64
6-20-77	8:30 A	48°	82°	61°	60.95	5.99	58°	101.51	-10.049	-0.6250	1078.60
7-5-77	7:30 A	56°	90°	60°	61.25	6.29	61°	101.31	-10.249	-0.6375	1078.55
7-18-77	8:30 A	52°	96°	79°	62.21	7.25	70°	101.10	-10.459	-0.6505	1078.49
8-1-77	7:30 A	57°	102°	72°	62.33	7.37	72°	100.88	-10.679	-0.6642	1078.41
8-12-77	10:00 A	58°	76°	77°	61.95	6.99	68°	100.86	-10.699	-0.6655	1078.49
NOTE:	The above reading made due to earthquake in Sylmar @ 1920 hr 8-11-77										
8-22-77	8:00 A	60°	100°	69°	61.81	6.85	67°	100.74	-10.819	-0.6729	1078.51
9-6-77	8:00 A	56°	99°	80°	62.37	7.41	72°	100.54	-11.019	-0.6854	1078.48
9-12-77	8:45 A	52°	100°	64°	61.04	6.08	59°	100.59	-10.969	-0.6823	1078.50
9-26-77	7:30 A	51°	84°	66°	61.70	6.74	66°	100.46	-11.099	-0.6904	1078.53

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2L

Meter No. M-3

Original meter-cleaned & reinstalled 9-28-72.

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001073 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.20 per cent \*  
 Resistance ratio, meter closed: 98.6 per cent  
 Resistance ratio, meter open: 104.2 per cent  
 Meter resistance at 0°F, corrected for leads 49.67 ohms  
 Change in temperature per ohm change in resistance 10.95 °F  
 \*Adjusted resistance ratio after 9-28-72 ( 100.06 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
11/9/76	8:55A	44°	86°	65°	55.56	5.89	64°	100.06	0.000	0.0000	
12-7-76	8:45A	36°	82°	53°	54.77	5.10	56°	100.09	+0.03	+0.0032	
12-20-76	8:15A	39°	78°	49°	54.66	4.99	55°	100.09	+0.03	+0.0032	
1-4-77	9:00 A	36°	74°	44°	54.19	4.52	49°	100.13	+0.07	+0.0075	
1-17-77	8:30 A	35°	73°	58°	54.65	4.98	55°	100.14	+0.08	+0.0086	
1/31/77	8:45 A	39°	77°	52°	54.63	4.96	54°	100.12	+0.06	+0.0064	
2/14/77	8:45 A	42°	86°	67°	55.39	5.72	63°	100.11	+0.05	+0.0054	
2-28-77	9:15 A	42°	88°	59°	55.15	5.48	60°	100.11	+0.05 +0.06	+0.0054 +0.0064	
3-9-77	9:45 A	41°	77°	57°	55.23	5.56	61°	100.11	+0.05 +0.06	+0.0054 +0.0064	
3-21-77	9:45 A	34°	70°	67°	55.30	5.63	62°	100.11	+0.05 +0.06	+0.0054 +0.0064	
4-4-77	9:00 A	35°	71°	62°	55.21	5.54	61°	100.10	+0.04	+0.0043	
4-18-77	9:00 A	41°	86°	57°	55.37	5.70	62°	100.09	+0.03	+0.0032	
5-2-77	7:45 A	46°	84°	56°	55.37	5.70	62°	100.08	+0.02	+0.0021	
5-16-77	8:00 A	41°	73°	53°	54.66	4.99	55°	100.09	+0.03	+0.0032	
5-31-77	7:45 A	47°	84°	65°	55.71	6.04	66°	100.08	+0.02	+0.0021	
6-9-77	8:30 A	55°	92°	60°	55.75	6.08	67°	100.05	-0.01	-0.0011	
6-20-77	8:30 A	48°	82°	61°	55.65	5.98	65°	100.05	-0.01	-0.0011	
7-5-77	7:30 A	51°	90°	60°	55.98	6.31	69°	100.00	-0.06	-0.0064	
7-18-77	8:30 A	52°	96°	79°	56.59	6.92	76°	100.00	-0.06	-0.0064	
8-1-77	7:30 A	57°	102°	72°	56.79	7.12	78°	99.94	-0.12	-0.0129	
8-12-77	10:00 A	58°	76°	77°	56.60	6.93	76°	99.93	-0.13	-0.0139	
NOTE: The above reading was made due to earthquake in Symar @ 1920 hr. 8-11-77											
8-22-77	8:00 A	60°	100°	69°	56.57	6.90	76°	99.92	-0.14	-0.0150	
9-6-77	8:00 A	56°	99°	80°	56.92	7.25	79°	99.90	-0.16	-0.0172	
9-12-77	8:45 A	52°	100°	64°	56.33	6.66	73°	99.86	-0.20	-0.0215	
9-26-77	7:30 A	51°	84°	66°	56.32	6.65	73°	99.90	-0.16	-0.0172	

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aL

New meter installed 10/21/76 and adjusted to equal reading of old meter at time of replacement.

Meter No. J-18

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads, .000647 inches per 0.01% ratio change

Resistance ratio at initial reading 100.19 per cent \*

Resistance ratio, meter closed: 96.2 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 55.35 ohms

Change in temperature per ohm change in resistance 9.49 °F

\* Adjusted resistance ratio after 9/28/72 (99.88)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
10-25-76	8:00 A	47°	94°	60°	62.21	6.86	65°	100.18	+0.30	+0.0194	
11-8-76	9:00 A	47°	95°	69°	62.68	7.33	70°	100.20	+0.32	+0.0207	
11-19-76	8:55 A	44°	86°	65°	62.33	6.98	66°	100.19	+0.31	+0.0201	
12-7-76	8:45 A	36°	82°	53°	61.51	6.16	58°	100.19	+0.31	+0.0201	
12-20-76	8:15 A	39°	78°	49°	61.40	6.05	57°	100.18	+0.30	+0.0194	
1-4-77	9:00 A	36°	74°	44°	60.77	5.42	51°	100.16	+0.28	+0.0181	
1-17-77	8:30 A	35°	73°	58°	61.17	5.82	55°	100.16	+0.28	+0.0181	
1-31-77	8:45 A	39°	77°	52°	61.30	5.95	56°	100.16	+0.28	+0.0181	
2-14-77	8:45 A	42°	86°	67°	62.14	6.79	64°	100.17	+0.29	+0.0188	
2-28-77	9:15 A	42°	88°	59°	61.89	6.54	62°	100.18	+0.30	+0.0194	
3-9-77	9:45 A	41°	77°	57°	61.95	6.60	63°	100.18	+0.30	+0.0194	
3-21-77	9:45 A	34°	70°	67°	61.89	6.54	62°	100.20	+0.32	+0.0207	
4-4-77	9:00 A	35°	79°	62°	61.79	6.44	61°	100.19	+0.31	+0.0201	
4-18-77	9:00 A	41°	86°	57°	62.09	6.74	64°	100.20	+0.32	+0.0207	
5-2-77	7:45 A	46°	84°	56°	62.08	6.73	64°	100.24	+0.36	+0.0233	
5-16-77	8:00 A	41°	73°	53°	61.26	5.91	56°	100.26	+0.38	+0.0246	
5-31-77	7:45 A	47°	84°	65°	62.32	6.97	66°	100.26	+0.38	+0.0246	
6-9-77	8:30 A	55°	92°	60°	62.42	7.07	67°	100.26	+0.38	+0.0246	
6-20-77	8:30 A	48°	82°	61°	62.37	7.02	67°	100.27	+0.39	+0.0252	
7-5-77	7:30 A	56°	90°	60°	62.76	7.41	70°	100.27	+0.39	+0.0252	
7-18-77	8:30 A	52°	96°	79°	63.34	7.99	76°	100.29	+0.41	+0.0265	
8-1-77	7:30 A	57°	102°	72°	63.62	8.27	78°	100.29	+0.41	+0.0265	
8-12-77	10:00 A	58°	76°	71°	63.40	8.05	76°	100.29	+0.41	+0.0265	
NOTE:	The above reading was made due to earthquake in Sylmar @ 1920 hr. 8-11-77										
8-22-77	8:00 A	60°	100°	69°	63.39	8.04	76°	100.29	+0.41	+0.0265	
9-6-77	8:00 A	56°	99°	80°	63.78	8.43	80°	100.29	+0.41	+0.0265	
9-12-77	8:45 A	52°	100	64°	63.15	7.80	74°	100.28	+0.40	+0.0259	
9-26-77	7:30 A	51°	84°	66°	63.12	7.77	74°	100.28	+0.40	+0.0259	

MLA

WCM

WCM

WCM

**ABUTMENT YIELD MEASUREMENT DATA**

Project MATILIJA DAM

Drill-hole No DH-3L

New meter installed 9-28-72.

Meter No. J-14

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .000681 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.14 per cent \*

Resistance ratio, meter closed: 95.2 per cent

Resistance ratio, meter open: 102.9 per cent

Meter resistance at 0°F, corrected for leads 56.75 ohms

Change in temperature per ohm change in resistance 9.61 °F

\*Adjusted resistance ratio after 9-28-72 (98.231).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
11/9/76	8:55A	44°	86°	65°	63.12	6.37	61°	100.56	+2.329	+0.1586	
12-7-76	8:45A	36°	82°	53°	62.41	5.66	54°	100.57	+2.339	+0.1593	
12-20-76	8:15A	39°	78°	49°	62.14	5.39	52°	100.58	+2.349	+0.1600	
1-4-77	9:00 A	36°	74°	44°	61.96	5.21	50°	100.59	+2.359	+0.1606	
1-17-77	8:30 A	35°	73°	58°	61.91	5.16	50°	100.61	+2.379	+0.1620	
1-31-77	8:45 A	39°	77°	52°	62.09	5.34	51°	100.61	+2.379	+0.1620	
2-14-77	8:45 A	42°	86°	67°	62.30	5.55	53°	100.61	+2.379	+0.1620	
2-28-77	9:15 A	42°	88°	59°	62.41	5.66	54°	100.62	+2.389	+0.1627	
3-9-77	9:45 A	41°	77°	57°	62.41	5.66	54°	100.63	+2.399	+0.1634	
3-21-77	9:45 A	34°	70°	67°	62.45	5.70	55°	100.62	+2.389	+0.1627	
4-4-77	9:00 A	35°	79°	62°	62.62	5.87	56°	100.62	+2.389	+0.1627	
4-18-77	9:00 A	41°	86°	57°	63.17	6.42	62°	100.61	+2.379	+0.1620	
5-2-77	7:45 A	46°	84°	56°	63.31	6.56	63°	100.61	+2.379	+0.1620	
5-16-77	8:00 A	41°	73°	53°	62.45	5.70	55°	100.59	+2.359	+0.1606	
5-31-77	7:45 A	47°	84°	65°	62.70	5.95	57°	100.57	+2.339	+0.1593	
6-9-77	8:30 A	56°	92°	60°	63.06	6.31	61°	100.56	+2.329	+0.1586	
6-20-77	8:30 A	48°	82°	61°	63.47	6.72	65°	100.57	+2.339	+0.1593	
7-5-77	7:30 A	56°	90°	60°	63.79	7.04	68°	100.53	+2.299	+0.1566	
7-18-77	8:30 A	52°	96°	79°	64.10	7.35	71°	100.54	+2.309	+0.1572	
8-1-77	7:30 A	57°	102°	72°	64.29	7.54	72°	100.51	+2.279	+0.1552	
8-12-77	10:00 A	58°	76°	77°	64.36	7.61	73°	100.51	+2.279	+0.1552	
NOTE:	The above reading was made due to earthquake in Sylmar @ 1920 hr 8-11-77										
8-22-77	8:00 A	60°	100°	69°	64.32	7.57	73°	100.51	+2.279	+0.1552	
9-6-77	8:00 A	56°	99°	80°	64.06	7.31	70°	100.50	+2.269	+0.1545	
9-12-77	8:45 A	52°	100°	64°	64.02	7.27	70°	100.50	+2.269	+0.1545	
9-26-77	7:30 A	51°	84°	66°	63.90	7.15	69°	100.51	+2.279	+0.1552	

MLH  
WCM  
WCM  
WCM

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 1R

Leads extended 2-26-75

Meter No. M - 6

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads, 001216 inches per 0.01% ratio change

Resistance ratio at initial reading 100.57 per cent\*

Resistance ratio, meter closed: 98.0 per cent

Resistance ratio, meter open: 103.6 per cent

Meter resistance at 0°F, corrected for leads 52.19 ohms

Change in temperature per ohm change in resistance 10.88 °F

\*Adjusted resistance ratio after 2-26-75 (100.723)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
11/9/76	8:55 A	45°	77°	63°	57.92	5.73	62°	100.26	-0.463	-0.0563	1061.47
12-7-76	8:45 A	37°	74°	52°	57.00	4.81	52°	100.31	-0.413	-0.0502	1061.23
12-20-76	8:15 A	41°	70°	49°	56.86	4.67	51°	100.32	-0.403	-0.0490	1061.12
1-4-77	9:00 A	37°	67°	43°	56.47	4.28	47°	100.33	-0.393	-0.0479	1066.24
1-17-77	8:30 A	36°	66°	62°	57.37	5.18	56°	100.38	-0.343	-0.0417	1060.82
1-31-77	8:45 A	41°	68°	53°	56.96	4.77	52°	100.39	-0.333	-0.0405	1060.66
2-14-77	8:45 A	42°	72°	66°	57.86	5.67	62°	100.36	-0.363	-0.0441	1060.72
2-28-77	9:15 A	42°	79°	56°	57.31	5.12	56°	100.36	-0.363	-0.0441	1060.53
2-9-77	9:45 A	42°	73°	56°	57.28	5.09	55°	100.35	-0.373	-0.0454	1060.57
3-21-77	9:45 A	35°	65°	65°	57.58	5.39	59°	100.35	-0.373	-0.0454	1061.97
4-4-77	9:00 A	35°	75°	61°	57.42	5.23	57°	100.34	-0.383	-0.0466	1061.39
4-18-77	9:00 A	42°	83°	58°	57.52	5.33	58°	100.28	-0.443	-0.0539	1061.26
5-2-77	7:45 A	48°	82°	59°	57.68	5.39	59°	100.22	-0.503	-0.0612	1061.28
5-16-77	8:00 A	40°	71°	57°	57.31	5.12	56°	100.22	-0.503	-0.0612	1078.48
5-31-77	7:45 A	48°	81°	71°	58.27	6.08	66°	100.19	-0.533	-0.0648	1079.14
6-9-77	9:30 A	56°	89°	60°	58.03	5.84	64°	100.16	-0.563	-0.0685	1078.64
6-20-77	8:30 A	49°	81°	63°	58.08	5.89	64°	100.13	-0.593	-0.0721	1078.60
7-5-77	7:30 A	57°	88°	64°	58.27	6.08	66°	100.04	-0.683	-0.0881	1078.55
7-18-77	8:30 A	52°	94°	79°	59.08	6.89	75°	99.96	-0.763	-0.0928	1078.49
8-1-77	7:30 A	58°	101°	77°	59.29	7.10	77°	99.88	-0.843	-0.1025	1078.41
8-12-77	10:00 A	58°	92°	78°	59.09	6.90	75°	99.86	-0.863	-0.1049	1078.49
NOTE:	The above reading was made due to earthquake in Sylmar @ 1920 h										
8-22-77	8:00 A	62°	98°	70°	58.83	6.64	72°	99.85	-0.873	-0.1062	1078.51
9-6-77	8:00 A	57°	95°	80°	59.24	7.05	77°	99.83	-0.893	-0.1086	1078.48
9-12-77	8:45 A	53°	97°	65°	58.28	6.09	66°	99.83	-0.893	-0.1086	1078.50
9-26-77	7:30 A	51°	80°	67°	58.56	6.37	69°	99.84	-0.883	-0.1074	1078.53

MLH  
 W2M  
 W2M  
 W2M

## ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 2R

Leads extended 2-26-75

Meter No. M - 1

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .001202 inches per 0.01% ratio change

Resistance ratio at initial reading 100.00 per cent \*

Resistance ratio, meter closed: 97.9 per cent

Resistance ratio, meter open: 103.0 per cent

Meter resistance at 0°F, corrected for leads 52.73 ohms

Change in temperature per ohm change in resistance 10.95 °F

\*Adjusted resistance ratio after 2-26-75 (99.828)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
11-19-76	8:55 A	45°	77°	63°	58.17	5.44	60°	100.09	+0.267	+0.0315	
12-7-76	8:45 A	37°	74°	52°	57.33	4.60	50°	100.11	+0.282	+0.0339	
12-20-76	8:15 A	41°	70°	48°	57.20	4.47	49°	100.11	+0.282	+0.0339	
1-4-77	9:00 A	37°	67°	43°	56.82	4.09	45°	100.11	+0.282	+0.0339	
1-17-77	8:30 A	36°	66°	62°	57.63	4.90	54°	100.11	+0.282	+0.0339	
1-31-77	8:45 A	41°	68°	53°	57.26	4.53	50°	100.11	+0.282	+0.0339	
2-14-77	8:45 A	42°	72°	66°	58.11	5.38	59°	100.08	+0.252	+0.0303	
2-28-77	9:15 A	42°	79°	56°	57.62	4.89	54°	100.11	+0.282	+0.0339	
3-9-77	9:45 A	42°	73°	56°	57.59	4.86	53°	100.11	+0.282	+0.0339	
3-21-77	9:45 A	35°	65°	65°	57.86	5.13	56°	100.11	+0.282	+0.0339	
4-4-77	9:00 A	35°	75°	61°	57.73	5.00	55°	100.12	+0.292	+0.0351	
4-18-77	9:00 A	42°	83°	58°	57.81	5.08	56°	100.10	+0.272	+0.0327	
5-2-77	7:45 A	48°	82°	59°	57.88	5.15	56°	100.10	+0.272	+0.0327	
5-16-77	8:00 A	40°	71°	57°	57.61	4.88	53°	100.07	+0.242	+0.0291	
5-31-77	7:45 A	48°	81°	71°	58.45	5.72	63°	100.04	+0.212	+0.0255	
6-9-77	9:30 A	56°	89°	60°	58.25	5.52	60°	100.03	+0.202	+0.0243	
6-20-77	8:30 A	49°	81°	63°	58.29	5.56	61°	100.04	+0.212	+0.0255	
7-5-77	7:30 A	57°	88°	64°	58.50	5.77	63°	100.02	+0.192	+0.0231	
7-18-77	8:30 A	52°	94°	79°	59.20	6.47	71°	100.01	+0.182	+0.0219	
8-1-77	7:30 A	58°	101°	77°	59.38	6.65	73°	100.01	+0.182	+0.0219	
8-12-77	10:00 A	58°	92°	78°	59.22	6.49	71°	100.02	+0.192	+0.0231	
NOTE	The above reading was made due earthquake in Sylmar @ 1920 hr. 8-1-77										
8-22-77	8:00 A	62°	98°	70°	59.02	6.29	69°	100.03	+0.202	+0.0243	
9-6-77	8:00 A	57°	95°	80°	59.39	6.67	73°	100.03	+0.202	+0.0243	
9-12-77	8:45 A	53°	97°	65°	58.52	5.79	63°	100.05	+0.222	+0.0267	
9-26-77	7:30 A	51°	80°	67°	58.70	5.97	65°	100.06	+0.232	+0.0279	

11.4

wcm

wcm

wcm

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILILJA DAM

Drill-hole No DH-2aR

New meter installed 11/17/76 and adjusted to equal reading of old meter at time of replacement.

Meter No. J-79

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads 0.000690 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.40 per cent \*

Resistance ratio, meter closed: 96.4 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 57.46 ohms

Change in temperature per ohm change in resistance 9.72 °F

\* Adjusted resistance ratio after 2/26/75 (99.827)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
11-19-76	8:55 A	45°	77°	63°	63.60	6.14	60°	100.40	+0.573	+0.0395	
12-7-76	8:45 A	37°	74°	52°	62.73	5.27	51°	100.40	+0.573	+0.0395	
12-20-76	8:15 A	41°	70°	48°	62.63	5.17	50°	100.40	+0.573	+0.0395	
1-4-77	9:00 A	37°	67°	43°	62.69	5.23	51°	100.42	+0.573	+0.0409	
1-17-77	8:30 A	36°	66°	62°	62.87	5.41	53°	100.43	+0.603	+0.0416	
1-31-77	8:45 A	41°	68°	53°	62.62	5.16	50°	100.42	+0.593	+0.0409	
2-14-77	8:45 A	42°	72°	66°	63.41	5.95	58°	100.42	+0.593	+0.0409	
2-28-77	9:15 A	42°	79°	56°	62.94	5.48	53°	100.43	+0.603	+0.0416	
3-9-77	9:45 A	42°	73°	56°	62.91	5.45	53°	100.43	+0.603	+0.0416	
3-21-77	9:45 A	36°	65°	65°	63.00	5.54	54°	100.43	+0.603	+0.0416	
4-4-77	9:00 A	35°	75°	61°	62.94	5.48	53°	100.43	+0.603	+0.0416	
4-18-77	9:00 A	42°	83°	58°	63.20	5.74	56°	100.43	+0.603	+0.0416	
5-2-77	7:45 A	48°	82°	59°	63.29	<del>6.00</del> 6.43	58°	100.42	+0.593	+0.0409	
5-16-77	8:00 A	40°	71°	57°	63.41	5.95	58°	100.43	+0.603	+0.0416	
5-31-77	7:45 A	48°	81°	71°	63.73	6.27	61°	100.42	+0.593	+0.0409	
6-9-77	9:30 A	56°	89°	60°	63.74	6.28	61°	100.43	+0.603	+0.0416	
6-20-77	8:30 A	49°	81°	63°	63.78	6.32	61°	100.43	+0.603	+0.0416	
7-5-77	7:30 A	57°	88°	64°	64.00	6.54	64°	100.42	+0.593	+0.0409	
7-18-77	8:30 A	52°	94°	79°	64.34	6.88	67°	100.42	+0.593	+0.0409	
8-1-77	7:30 A	58°	101°	77°	64.56	7.10	69°	100.43	+0.603	+0.0416	
8-12-77	10:00 A	58°	92°	78°	64.43	6.97	68°	100.43	+0.603	+0.0416	
NOTE:	The above reading was made due to earthquake in Sylmar @ 12:20 hr. 8-11-77										
8-22-77	8:00 A	62°	98°	70°	64.48	7.02	68°	100.45	+0.623	+0.0430	
9-6-77	8:00 A	57°	95°	80°	64.58	7.12	69°	100.45	+0.623	+0.0430	
9-12-77	8:45 A	53°	97°	65°	64.24	6.78	66°	100.45	+0.623	+0.0430	
9-26-77	7:30 A	51°	80°	67°	64.19	6.73	65°	100.47	+0.643	+0.0444	

MLH  
 WCM  
 WCM  
 WCM



# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-3R

New meter installed 11/17/76 and adjusted to equal reading of old meter at time of replacement. (10-28-76)

Meter No. J-77

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads 0.00679 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.44 per cent \*

Resistance ratio, meter closed: 95.8 per cent

Resistance ratio, meter open: 103.7 per cent

Meter resistance at 0°F, corrected for leads 58.08 ohms

Change in temperature per ohm change in resistance 9.77 °F

\* Adjusted resistance ratio after 2/26/75 (100.16)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
11/19/76	8:55 A	45°	77°	63°	64.21	6.13	60°	100.44	+0.28	+0.0190	
12-7-76	8:45 A	37°	74°	52°	63.27	5.19	51°	100.56	+0.40	+0.0272	
12-20-76	8:15 A	41°	70°	48°	63.16	5.08	50°	100.57	+0.41	+0.0278	
1-4-77	9:00 A	37°	67°	43°	<del>63.98</del>	<del>4.61</del>	<del>48°</del>	100.59	+0.43	+0.0292	
1-17-77	8:30 A	36°	66°	62°	63.25	5.17	51°	100.63	+0.47	+0.0319	
1-31-77	8:45 A	41°	68°	53°	63.23	5.15	50°	100.62	+0.46	+0.0312	
2-14-77	8:45 A	42°	72°	66°	63.86	5.78	56°	100.59	+0.43	+0.0292	
2-28-77	9:15 A	42°	79°	56°	63.60	5.52	54°	100.58	+0.42	+0.0285	
3-9-77	9:45 A	42°	73°	56°	63.55	5.47	53°	100.59	+0.43	+0.0292	
3-21-77	9:45 A	35°	65°	65°	63.66	5.58	55°	100.60	+0.44	+0.0299	
4-4-77	9:00 A	35°	75°	61°	63.63	5.55	54	100.60	+0.44	+0.0299	
4-18-77	9:00 A	42°	83°	58°	63.92	5.84	57°	100.55	+0.39	+0.0265	
5-2-77	7:45 A	48°	82°	59°	64.03	5.95	58°	100.51	+0.35	+0.0238	
5-16-77	8:00 A	40°	71°	57°	63.81	5.73	56°	100.47	+0.31	+0.0210	
5-31-77	7:45 A	48°	81°	71°	64.39	6.31	62°	100.39	+0.23	+0.0156	
6-9-77	9:30 A	51°	89°	60°	64.40	6.32	62°	100.34	+0.18	+0.0122	
6-20-77	8:30 A	49°	81°	63°	64.44	6.36	62°	100.30	+0.14	+0.0095	
7-5-77	7:30 A	57°	88°	64°	64.76	6.68	65°	100.27	+0.11	+0.0075	
7-18-77	8:30 A	52°	94°	79°	65.31	7.23	71°	100.25	+0.09	+0.0061	
8-1-77	7:30 A	58°	101°	77°	65.53	7.45	73°	100.22	+0.06	+0.0041	
8-12-77	10:00 A	58°	92°	78°	65.34	7.26	71°	100.24	+0.08	+0.0054	
NOTE: The above readings were made due to earthquake in Sylmar @ 1920 hrs. 8-11-77											
8-22-77	8:00 A	62°	98°	70°	65.31	7.23	71°	100.21	+0.05	+0.0034	
9-6-77	8:00 A	57°	95°	80°	65.41	7.33	72°	100.22	+0.06	+0.0041	
9-12-77	8:45 A	53°	97°	65°	64.83	6.75	66°	100.24	+0.08	+0.0054	
9-26-77	7:30 A	51°	80°	67°	64.89	6.81	67°	100.29	+0.13	+0.0088	

ALM  
 WCM  
 WCM  
 WCM

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 1L

New Meter installed 9-28-72

Meter No. J - 12

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .000642 inches per 0.01% ratio change

Resistance ratio at initial reading 100.06 per cent\*

Resistance ratio, meter closed: 95.8 per cent

Resistance ratio, meter open: 103.7 per cent

Meter resistance at 0°F, corrected for leads 55.05 ohms

Change in temperature per ohm change in resistance 9.61 °F

\*Adjusted resistance ratio after 9-28-72 (103.409)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1-14-76	8:45A	38°	86°	68°	61.57	6.52	63°	* 96.12	-7.289	-0.4680	1060.11
2-2-76	8:45A	38°	86°	56°	60.65	5.60	54°	* 96.12	-7.289	-0.4680	1060.31
2-10-76	7:30	35°	79°	48°	59.89	4.84	47°	* 96.11	-7.299	-0.4686	1086.03
2-23-76	8:45A	38°	74°	57°	60.07	5.02	48°	* 96.13	-7.279	-0.4673	1060.78
3-8-76	8:45A	32°	80°	45°	59.90	4.85	47°	* 96.11	-7.299	-0.4686	1062.30
3-23-76	7:15A	39°	82°	54°	61.10	6.05	58°	* 96.08	-7.329	-0.4705	1061.54
4-5-76	8:30A	37°	76°	45°	59.34	4.29	41°	* 96.11	-7.299	-0.4686	1061.21
4-8-76	11:00 A	40°	67°	54°	60.68	5.63	54°	* 96.12	-7.289	-0.4680	1061.42
4-19-76	9:00 A	38°	70°	65°	60.71	5.66	54°	* 96.10	-7.309	-0.4692	1061.18
5-3-76	8:15 A	42°	89°	57°	61.39	6.34	61°	* 96.03	-7.379	-0.4737	1060.44
5-17-76	8:00 A	44°	98°	55°	60.75	5.70	55°	* 96.06	-7.349	-0.4718	1060.37
6-1-76	7:30 A	46°	79°	73°	62.00	6.95	67°	* 96.06	-7.349	-0.4718	1060.33
6-14-76	7:30 A	47°	86°	68°	61.77	6.72	65°	* 96.06	-7.349	-0.4718	1060.29
6-28-76	6:15 A	51°	104°	73°	62.97	7.92	76°	* 96.03	-7.379	-0.4737	1060.02
7-12-76	7:45A	52°	102°	62°	61.77	6.72	65°	* 96.09	-7.319	-0.4699	1059.67

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJIA DAM

Drill-hole No DH-11

Meter No. J-17

New meter installed 7/23/76

Sheet No. \_\_\_\_\_

**Calibrations:**

- Calibration constant, corrected for leads, 0.00653 inches per 0.01% ratio change
- Resistance ratio at initial reading 102.60 per cent\*
- Resistance ratio, meter closed: 96.3 per cent
- Resistance ratio, meter open: 104.2 per cent
- Meter resistance at 0°F, corrected for leads 55.70 ohms
- Change in temperature per ohm change in resistance 9.51 °F

\* Adjusted resistance ratio at initial reading after 7/21/76 (111.559)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
7-26-76	8:00 A	54°	92°	75°	63.09	7.39	70°	102.60	-8.959	-0.5850	1060.00
8-9-76	8:30 A	50°	90°	69°	62.49	6.79	65°	102.55	-9.009	-0.5883	1059.98
8-23-76	9:00 A	54°	83°	76°	62.65	6.95	66°	102.53	-9.029	-0.5896	1060.19
9-3-76	8:00 A	59°	104°	71°	63.31	7.61	72°	102.24	-9.319	-0.6085	1060.23
9-14-76	8:00 A	51°	95°	61°	62.19	6.49	62°	102.37	-9.189	-0.6000	1060.98
9-27-76	7:30 A	52°	79°	62°	62.25	6.55	62°	102.36	-9.199	-0.6007	1060.84
10-11-76	8:15 A	52°	96°	68°	62.38	6.68	64°	102.24	-9.319	-0.6085	1061.50
10-25-76	8:00 A	47°	94°	60°	61.26	5.56	53°	102.46	-9.099	-0.5942	1061.26
11-8-76	9:00 A	47°	95°	69°	62.06	6.36	60°	102.36	-9.199	-0.6007	1061.05

11-8-76 9:00 A

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILILJA DAM

Drill-hole No DH-2L

Original meter-cleaned &  
reinstalled 9-28-72.

Meter No. M-3

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads, 0.01073 inches per 0.01% ratio change

Resistance ratio at initial reading 100.20 per cent \*

Resistance ratio, meter closed: 98.6 per cent

Resistance ratio, meter open: 104.2 per cent

Meter resistance at 0°F, corrected for leads 49.67 ohms

Change in temperature per ohm change in resistance 10.95 °F

\*Adjusted resistance ratio after 9-28-72 (100.06).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1-19-76	8:45A	38°	86°	68°	55.45	5.78	63°	100.16	+0.10	+0.0107	
2-2-76	8:45A	38°	86°	56°	55.21	5.54	61°	100.14	+0.08	+0.0086	
2-10-76	7:30A	35°	79°	48°	54.37	4.70	51°	100.16	+0.10	+0.0107	
2-23-76	8:45A	38°	74°	57°	54.91	5.24	57°	100.16	+0.10	+0.0107	
3-8-76	8:45A	32°	80°	45°	54.75	5.08	56°	100.16	+0.10	+0.0107	
3-23-76	7:15A	39°	82°	54°	55.64	5.97	65°	100.13	+0.07	+0.0075	
4-5-76	8:30A	37°	76°	45°	54.63	4.96	54°	100.14	+0.08	+0.0086	
4-8-76	11:00A	40°	87°	54°	55.04	5.37	59°	100.15	+0.09	+0.0097	
4-19-76	9:00A	38°	70°	65°	55.30	5.63	62°	100.15	+0.09	+0.0097	
5-3-76	8:15A	42°	89°	57°	55.87	6.20	68°	100.11	+0.05	+0.0054	
5-17-76	8:00A	44°	98°	55°	55.70	6.03	66°	100.07	+0.01	+0.0011	
6-1-76	7:30A	44°	79°	73°	56.08	6.41	70°	100.11	+0.05	+0.0054	
6-14-76	7:30A	47°	86°	68°	56.07	6.40	70°	100.10	+0.04	+0.0043	
6-28-76	6:15A	51°	104°	73°	57.05	7.38	81°	100.04	-0.02	-0.0021	
7-12-76	7:45A	52°	102°	62°	56.39	6.72	74°	100.00	-0.06	-0.0064	
7-26-76	8:00A	54°	92°	75°	56.65	6.98	76°	100.03	-0.03	-0.0032	
8-9-76	8:30A	50°	90°	69°	56.46	6.79	74°	100.00	-0.06	-0.0064	
8-23-76	9:00A	54°	83°	76°	56.49	6.83	75°	100.01	-0.05	-0.0054	
9-3-76	8:00A	59°	104°	71°	56.90	7.23	79°	99.96	-0.10	-0.0107	
9-14-76	8:00A	51°	95°	61°	56.17	6.50	71°	99.97	-0.09	-0.0097	
9-27-76	7:30A	52°	79°	62°	55.96	6.29	69°	99.99	-0.07	-0.0075	
10-11-76	8:15A	52°	96°	68°	56.38	6.71	73°	99.98	-0.08	-0.0086	
10-25-76	8:00A	47°	94°	60°	55.44	5.77	63°	100.04	-0.02	-0.0021	
11-8-76	9:00A	47°	95°	69°	55.85	6.18	68°	100.04	-0.02	-0.0021	

1/2" MP  
 1/2" WCM  
 1/2" MLH



## ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-3L

New meter installed 9-28-72.

Meter No. J-14

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .000681 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.14 per cent \*  
 Resistance ratio, meter closed: 95.2 per cent  
 Resistance ratio, meter open: 102.9 per cent  
 Meter resistance at 0°F, corrected for leads 56.75 ohms  
 Change in temperature per ohm change in resistance 9.61 °F  
 \*Adjusted resistance ratio after 9-28-72 ( 98.231 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1-14-76	8:45A	38°	86°	68°	61.91	5.16	50°	100.38	+2.149	+0.1463	
2-2-76	8:45A	38°	86°	56°	62.04	5.29	51°	100.38	+2.149	+0.1463	
2-10-76	7:30A	35°	79°	48°	61.80	5.05	49°	100.33	+2.099	+0.1429	
2-23-76	8:45A	38°	74°	57°	62.11	5.36	52°	100.39	+2.159	+0.1470	
3-8-76	8:45A	32°	80°	45°	62.18	5.43	52°	100.39	+2.159	+0.1470	
3-23-76	7:15A	39°	82°	54°	62.61	5.86	56°	100.39	+2.159	+0.1470	
4-5-76	8:30A	37°	76°	45°	62.54	5.79	56°	100.40	+2.169	+0.1477	
4-8-76	11:00A	40°	67°	54°	62.64	5.89	57°	100.40	+2.169	+0.1477	
4-19-76	9:00A	38°	70°	65°	62.69	5.94	57°	100.41	+2.179	+0.1484	
5-3-76	8:15A	42°	89°	57°	63.25	6.50	62°	100.41	+2.179	+0.1484	
5-17-76	8:00A	44°	98°	55°	63.67	6.92	66°	100.42	+2.189	+0.1491	
6-1-76	7:30A	46°	79°	73°	63.71	6.96	67°	100.44	+2.209	+0.1504	
6-14-76	7:30A	47°	86°	68°	63.80	7.05	68°	100.45	+2.219	+0.1511	
6-28-76	6:15A	51°	104°	73°	64.32	7.57	73°	100.46	+2.229	+0.1518	
7-12-76	7:45A	52°	102°	62°	64.44	7.69	74°	100.47	+2.239	+0.1525	
7-26-76	8:00A	54°	92°	75°	64.45	7.70	74°	100.49	+2.259	+0.1538	
8-9-76	8:30A	50°	90°	69°	64.29	7.54	72°	100.49	+2.259	+0.1538	
8-23-76	7:00A	54°	83°	76°	63.69	6.94	67°	100.51	+2.279	+0.1552	
9-3-76	8:00A	59°	104°	71°	63.96	7.21	69°	100.54	+2.309	+0.1572	
9-14-76	8:00A	51°	95°	61°	63.97	7.22	69°	100.52	+2.289	+0.1559	
9-27-76	7:30A	52°	79°	62°	63.81	7.06	68°	100.53	+2.299	+0.1566	
10-11-76	8:15A	52°	96°	68°	63.48	6.73	65°	100.55	+2.319	+0.1579	
10-25-76	8:00A	47°	94°	60°	63.19	6.44	62°	100.56	+2.329	+0.1586	
11-8-76	9:00A	47°	95°	69°	63.33	6.58	63°	100.56	+2.329	+0.1586	

WCM  
 WCM  
 MCH







ABUTMENT YIELD MEASUREMENT DATA

Project MATILJA DAM

Drill-hole No DH - 2aR

Leads extended 2-26-75

Meter No. J-15

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .000669 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.37 per cent \*

Resistance ratio, meter closed: 96.1 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 57.46 ohms

Change in temperature per ohm change in resistance 9.65 °F

\* Adjusted resistance ratio after 2-26-75 (99.827)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1-19-76	8:45A	39°	80°	67°	63.63	6.17	60°	100.42	+0.593	+0.0397	
2-2-76	8:45A	39°	80°	55°	63.26	5.80	56°	100.41	+0.583	+0.0390	
2-10-76	7:30A	36°	73°	46°	63.31	5.85	56°	100.41	+0.583	+0.0390	
2-23-76	8:45A	42°	67°	53°	62.80	5.34	52°	100.40	+0.573	+0.0383	
3-8-76	8:45A	34°	74°	47°	62.45	4.99	48°	100.41	+0.583	+0.0390	
3-23-76	7:15A	40°	77°	55°	63.40	5.94	57°	100.42	+0.593	+0.0397	
4-5-76	8:30A	38°	72°	48°	62.47	5.01	48°	100.41	+0.583	+0.0390	
4-8-76	11:00A	42°	62°	53°	62.84	5.38	52°	100.42	+0.593	+0.0397	
4-19-76	9:00A	39°	65°	66°	63.14	5.68	55°	100.42	+0.593	+0.0397	
5-3-76	8:15A	44°	85°	57°	63.64	6.18	60°	100.42	+0.593	+0.0397	
5-17-76	8:00A	47°	95°	59°	63.64	6.18	60°	100.42	+0.593	+0.0397	
6-1-76	7:30A	48°	77°	75°	64.29	6.83	66°	100.43	+0.603	+0.0403	
6-14-76	7:30A	50°	82°	72°	64.17	6.71	65°	100.43	+0.603	+0.0403	
6-28-76	6:15A	53°	100°	78°	65.12	7.66	74°	100.43	+0.603	+0.0403	
7-12-76	7:45A	53°	98°	63°	64.46	7.00	68°	100.40	+0.573	+0.0383	
7-26-76	8:00A	55°	90°	77°	64.83	7.37	71°	100.41	+0.583	+0.0390	
8-9-76	8:30A	52°	89°	71°	64.45	6.99	67°	100.40	+0.573	+0.0383	
8/18/76	Meter 2aR damaged while trying to remove it for inspection; all meters to be inspected by Carlson in October										

### ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 3R

Meter No. J - 16

Leads extended 2-26-75

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .000678 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.38 per cent\*

Resistance ratio, meter closed: 96.7 per cent

Resistance ratio, meter open: 104.6 per cent

Meter resistance at 0°F, corrected for leads 58.29 ohms

Change in temperature per ohm change in resistance 9.66 °F

\* Adjusted resistance ratio after 2-26-75 (100.16)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
1-19-76	8:45A	39°	80°	67°	64.56	6.27	61°	100.42	+0.26	+0.0176	
2-2-76	8:45A	39°	80°	55°	63.94	5.65	55°	100.43	+0.27	+0.0183	
2-10-76	7:30A	36°	73°	46°	63.27	4.98	48°	100.37	+0.21	+0.0142	
2-23-76	8:45A	42°	67°	53°	63.52	5.23	51°	100.46	+0.30	+0.0203	
3-8-76	8:45A	34°	74°	47°	63.14	4.85	47°	100.46	+0.30	+0.0203	
3-23-76	7:15A	40°	77°	55°	64.09	5.80	56°	100.42	+0.26	+0.0176	
4-5-76	8:30A	38°	72°	48°	63.30	5.01	48°	100.44	+0.28	+0.0190	
4-8-76	11:00A	42°	62°	53°	63.76	5.47	53°	100.42	+0.26	+0.0176	
4-19-76	9:00A	39°	65°	66°	64.20	5.91	57°	100.41	+0.25	+0.0170	
5-3-76	8:15A	44°	85°	57°	64.46	6.17	60°	100.34	+0.18	+0.0122	
5-17-76	8:00A	47°	95°	59°	64.48	6.19	60°	100.30	+0.14	+0.0095	
6-1-76	7:30A	48°	77°	75°	65.38	7.09	68°	100.28	+0.12	+0.0081	
6-14-76	7:30A	50°	82°	72°	65.17	6.88	66°	100.25	+0.09	+0.0061	
6-28-76	6:15A	53°	100°	78°	65.96	7.67	74°	100.14	-0.02	-0.0014	
7-12-76	7:45A	53°	98°	63°	65.29	7.00	68°	100.17	+0.01	+0.0007	
7-26-76	8:00A	55°	90°	77°	65.82	7.53	73°	100.16	0.00	0.0000	
8-9-76	8:30A	52°	89°	71°	65.45	7.16	69°	100.19	+0.03	+0.0020	
8-23-76	9:00A	53°	85°	73°	65.39	7.10	69°	100.21	+0.05	+0.0034	
9-3-76	8:00A	60°	99°	72°	65.72	7.43	72°	100.19	+0.03	+0.0020	
9-14-76	8:00A	52°	89°	61°	65.04	6.75	65°	100.22	+0.06	+0.0041	
9-27-76	7:30A	54°	75°	62°	64.97	6.68	65°	100.22	+0.06	+0.0041	
10-11-76	8:15A	55°	88°	67°	65.03	6.74	65°	100.26	+0.10	+0.0068	
10-25-76	8:00A	49°	85°	59°	64.34	6.05	58°	100.32	+0.16	+0.0108	
11-8-76					Meter damaged			10-28-76			

GONSMAN

ABUTMENT YIELD MEASUREMENT DATA

Project MATILILJA DAM

Drill-hole No DH - 1L

Meter No. J - 12

New Meter installed 9-28-72

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .000642 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.06 per cent  
 Resistance ratio, meter closed: 95.8 per cent  
 Resistance ratio, meter open: 103.7 per cent  
 Meter resistance at 0°F, corrected for leads 55.05 ohms  
 Change in temperature per ohm change in resistance 9.61 °F

Adjusted resistance ratio after 9-28-72 (103.409)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2-26-75	8:00 A	41°	78°	47°	59.81	4.76	46°	97.81	-5.599	-0.3595	1074.25
3-4-75	8:00 A	40°	77°	57°	60.32	5.27	51°	97.68	-5.729	-0.3678	1075.84
3-7-75	11:00 P				Full reservoir spilling over notch.						
3-8-75	1:00 P	47°	64°	53°	60.56	5.51	53°	97.69	-5.719	-0.3672	1096.10
3-10-75	12:00 N	42°	58°	49°	60.07	5.02	48°	97.70	-5.709	-0.3665	1096.74
3-12-75	7:30 A	37°	57°	42°	59.32	4.27	41°	97.81	-5.599	-0.3595	1073.10
3-24-75	7:00 A	35°	72°	47°	60.06	5.01	48°	97.65	-5.759	-0.3697	1071.93
4-4-75	7:00 A	37°	72°	47°	60.19	5.14	49°	97.51	-5.899	-0.3787	1079.40
4-14-75	7:00 A	34°	66°	51°	60.40	5.35	51°	97.55	-5.859	-0.3761	1068.93
4-28-75	7:00 A	38°	74°	49°	60.21	5.16	50°	97.44	-5.969	-0.3832	1080.30
5-12-75	7:45 A	45°	83°	65°	61.52	6.47	62°	97.11	-6.299	-0.4044	1075.08
		Next reading made			because of earthquake occurring			@ 5:20 P		5-12-75	
5-14-75	7:30 A	48°	84°	55°	61.03	5.98	52°	97.11	-6.299	-0.4044	1074.90
5-27-75	8:15 A	45°	80°	56°	61.02	5.97	57°	97.05	-6.359	-0.4082	1074.89
6-10-75	7:45 A	50°	84°	59°	61.14	6.09	59°	96.96	-6.449	-0.4140	1075.09
6-23-75	9:00 A	46°	88°	60°	61.56	6.51	63°	96.86	-6.549	-0.4204	1074.56
7-3-75	7:45 A	50°	87°	63°	61.52	6.47	62°	96.72	-6.689	-0.4294	1073.58
7-18-75	7:45 A	51°	97°	61°	61.74	6.69	64°	96.52	-6.889	-0.4423	1073.33
7-28-75	8:00 A	54°	92°	67°	61.99	6.94	67°	96.42	-6.989	-0.4487	1073.21
8-11-75	8:45 A	55°	100°	66°	61.94	6.89	66°	96.26	-7.149	-0.4590	1073.38
8-25-75	7:30 A	50°	92°	65°	62.06	7.01	67°	96.21	-7.199	-0.4622	1073.33
9-8-75	8:00 A	54°	96°	64°	62.01	6.96	67°	96.15	-7.259	-0.4660	1073.12
9-22-75	7:45 A	52°	95°	77°	62.69	7.64	73°	96.13	-7.279	-0.4673	1073.33
10-3-75	7:30 A	52°	100°	72°	62.25	7.20	69°	96.11	-7.299	-0.4686	1073.18
10-20-75	7:15 A	45°	97°	55°	60.74	5.69	55°	96.11	-7.299	-0.4686	1073.43
11/3/75	8:30 A	44°	82°	70°	61.21	6.16	59°	96.14	-7.269	-0.4667	1073.66
11-17-75	9:30 A	42°	90°	55°	60.63	5.58	54°	96.15	-7.259	-0.4660	1060.13
12-1-75	9:00 A	35°	85°	55°	59.84	4.79	46°	96.20	-7.209	-0.4628	1060.10
12-15-75	8:45 A	37°	86°	50°	59.57	4.52	43°	96.20	-7.209	-0.4628	1060.05
1-5-76	9:00 A	32°	78°	48°	59.64	4.59	44°	96.16	-7.249	-0.4654	1060.27

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2L

Original meter-cleaned & reinstalled 9-28-72.

Meter No. M-3

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .001073 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.20 per cent \*

Resistance ratio, meter closed: 98.6 per cent

Resistance ratio, meter open: 104.2 per cent

Meter resistance at 0°F, corrected for leads 49.67 ohms

Change in temperature per ohm change in resistance 10.95 °F

\*Adjusted resistance ratio after 9-28-72 ( 100.06 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2-26-75	8:00 A	41°	78°	47°	54.85	5.18	57°	100.29	+0.23	+0.0247	
3-4-75	8:00 A	40°	77°	57°	55.04	5.37	59°	100.27	+0.21	+0.0225	
3-7-75	11:00 P		Full reservoir spilling over notch								
3-8-75	1:00 P	47°	64°	53°	55.89	6.22	68°	100.22	+0.16	+0.0172	
3-10-75	12:00 N	42°	58°	49°	55.77	6.10	67°	100.21	+0.15	+0.0161	
3-12-75	7:30 A	37°	57°	42°	54.39	4.72	52°	100.25	+0.19	+0.0204	
3-24-75	7:00 A	35°	72°	47°	54.86	5.19	57°	100.27	+0.21	+0.0225	
4-4-75	7:00 A	37°	72°	47°	55.00	5.33	58°	100.25	+0.19	+0.0204	
4-14-75	7:00 A	34°	66°	51°	54.82	5.15	56°	100.29	+0.23	+0.0247	
4-28-75	7:00 A	38°	74°	49°	55.01	5.34	58°	100.27	+0.21	+0.0225	
5-12-75	7:45 A	45°	83°	65°	55.88	6.21	68°	100.25	+0.19	+0.0204	
5-14-75	7:30 A	48°	84°	55°	55.63	5.96	65°	100.24	+0.18	+0.0193	
5-27-75	8:15 A	45°	80°	56°	55.58	5.91	65°	100.24	+0.18	+0.0193	
6-10-75	7:45 A	50°	84°	59°	55.65	5.98	65°	100.23	+0.17	+0.0182	
6-23-75	9:00 A	46°	88°	60°	55.81	6.14	67°	100.23	+0.17	+0.0182	
7-3-75	7:45 A	50°	87°	63°	56.06	6.39	70°	100.20	+0.14	+0.0150	
7-18-75	7:45 A	51°	97°	61°	56.15	6.48	71°	100.17	+0.11	+0.0118	
7-28-75	8:00 A	54°	92°	67°	56.39	6.72	74°	100.15	+0.09	+0.0097	
8-11-75	8:45 A	55°	100°	66°	56.53	6.86	75°	100.11	+0.05	+0.0054	
8-25-75	7:30 A	50°	92°	65°	56.55	6.88	75°	100.12	+0.06	+0.0064	
9-8-75	8:00 A	54°	96°	64°	56.56	6.89	75°	100.09	+0.03	+0.0032	
9-22-75	7:45 A	52°	95°	79°	56.84	7.17	79°	100.11	+0.05	+0.0054	
10-3-75	7:30 A	52°	100°	72°	56.59	6.92	76°	100.09	+0.03	+0.0032	
10-20-75	7:15 A	45°	97°	55°	55.65	5.98	65°	100.10	+0.04	+0.0043	
11/75	8:30 A	44°	82	70°	55.66	5.99	66°	100.13	+0.07	+0.0075	
11-17-75	9:30 A	42°	90°	55°	55.24	5.57	61°	100.13	+0.07	+0.0075	
12-1-75	9:00 A	35°	85°	55°	54.69	5.02	55°	100.16	+0.10	+0.0107	
12-15-75	8:45 A	37°	86°	50°	54.47	4.80	53°	100.16	+0.10	+0.0107	
1-5-76	9:00 A	32°	78°	48°	54.47	4.80	53°	100.17	+0.11	+0.0118	

2-26-75  
 3-10-75  
 5-14-75  
 5-27-75  
 6-10-75  
 6-23-75  
 7-3-75  
 7-18-75  
 7-28-75  
 8-11-75  
 8-25-75  
 9-8-75  
 9-22-75  
 10-3-75  
 10-20-75  
 11-17-75  
 12-1-75  
 12-15-75  
 1-5-76

Next reading made because of earthquake occurring @ 5:20 P, 5-12-75

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aL

New meter installed 9-28-72.

Meter No. J-13

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads, 0.00627 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.04 per cent \*  
 Resistance ratio, meter closed: 96.0 per cent  
 Resistance ratio, meter open: 104.0 per cent  
 Meter resistance at 0°F, corrected for leads 54.84 ohms  
 Change in temperature per ohm change in resistance 9.56 °F  
 \*Adjusted resistance ratio after 9-28-72 ( 99.88 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2-26-75	8:00 A	41°	78°	47°	61.02	6.18	59°	100.11	+0.23	+0.0144	
3-4-75	8:00 A	40°	77°	57°	61.22	6.38	61°	100.11	+0.23	+0.0144	
3-7-75	11:00 P				Full reservoir spilling over notch						
3-8-75	1:00 P	47°	69°	53°	61.44	6.60	63°	100.10	+0.22	+0.0138	
3-10-75	12:00 N	42°	58°	49°	61.36	6.52	62°	100.09	+0.21	+0.0132	
3-12-75	7:30 A	37°	57°	42°	61.19	6.35	61°	100.10	+0.22	+0.0138	
3-24-75	7:00 A	35°	72°	47°	60.94	6.10	58°	100.11	+0.23	+0.0144	
4-4-75	7:00 A	37°	72°	47°	61.14	6.30	60°	100.10	+0.22	+0.0138	
4-14-75	7:00 A	34°	66°	51°	60.81	5.97	57°	100.12	+0.24	+0.0150	
4-28-75	7:00 A	38°	74°	49°	61.12	6.28	60°	100.12	+0.24	+0.0150	
5-12-75	7:45 A	45°	83°	65°	62.02	7.18	69°	100.13	+0.25	+0.0157	
Next reading made because of earthquake occurring @ 5:20 P 5-12-75											
5-14-75	7:30 A	48°	84°	55°	61.80	6.96	67°	100.12	+0.24	+0.0150	
5-27-75	8:15 A	45°	80°	56°	61.68	6.84	65°	100.12	+0.24	+0.0150	
6-10-75	7:45 A	50°	84°	59°	61.75	6.91	66°	100.12	+0.24	+0.0150	
6-23-75	9:00 A	46°	88°	60°	61.90	7.06	67°	100.12	+0.24	+0.0150	
7-3-75	7:45 A	50°	87°	63°	62.23	7.39	71°	100.12	+0.24	+0.0150	
7-8-75	7:45 A	51°	97°	61°	62.34	7.50	72°	100.12	+0.24	+0.0150	
7-28-75	8:00 A	54°	92°	67°	62.62	7.78	74°	100.12	+0.24	+0.0150	
8-11-75	8:45 A	55°	100°	66°	62.82	7.98	76°	100.12	+0.24	+0.0150	
8-25-75	7:30 A	50°	92°	65°	62.80	7.96	76°	100.12	+0.24	+0.0150	
9-8-75	8:00 A	54°	96°	64°	62.87	8.03	77°	100.12	+0.24	+0.0150	
9-22-75	7:45 A	52°	95°	79°	63.14	8.30	79°	100.13	+0.25	+0.0157	
10-3-75	7:30 A	52°	100°	72°	62.91	8.07	77°	100.12	+0.24	+0.0150	
10-20-75	7:15 A	45°	97°	55°	61.96	7.12	68°	100.13	+0.25	+0.0157	
11/3/75	8:30 A	44°	82°	70°	61.93	7.09	68°	100.14	+0.24	+0.0163	
11-7-75	9:30 A	42°	90°	55°	61.49	6.65	64°	100.13	+0.25	+0.0157	
12-1-75	9:00 A	35°	85°	55°	60.83	5.99	57°	100.14	+0.26	+0.0163	
12-15-76	8:45 A	37°	86°	50°	60.55	5.71	55°	100.13	+0.25	+0.0157	
1-5-76	9:00 A	32°	78°	48°	60.58	5.74	55°	100.14	+0.26	+0.0163	

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-3L

Meter No. J-14

New meter installed 9-28-72.

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .000681 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.14 per cent \*  
 Resistance ratio, meter closed: 95.2 per cent  
 Resistance ratio, meter open: 102.9 per cent  
 Meter resistance at 0°F, corrected for leads 56.75 ohms  
 Change in temperature per ohm change in resistance 9.61 °F  
 \*Adjusted resistance ratio after 9-28-72 ( 98.231 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2-26-75	8:00 A	41°	78°	47°	61.92	5.17	50°	100.21	+1.979	+0.1348	
3-4-75	8:00 A	40°	77°	57°	62.12	5.37	52°	100.21	+1.979	+0.1348	
3-7-75	11:00 P		Full reservoir spilling over notch								
3-8-75	1:00 P	47°	64°	53°	61.99	5.24	50°	100.11	+1.879	+0.1280	
10-75	12:00 N	42°	58°	49°	61.98	5.23	50°	100.12	+1.889	+0.1286	
3-12-75	7:30 A	37°	57°	42°	61.95	5.20	50°	100.15	+1.919	+0.1307	
3-24-75	7:00 A	35°	72°	47°	62.29	5.54	53°	100.18	+1.949	+0.1327	
4-4-75	7:00 A	37°	72°	47°	62.15	5.40	52°	100.16	+1.929	+0.1314	
4-14-75	7:00 A	34°	66°	51°	62.37	5.62	54°	100.20	+1.969	+0.1341	
4-28-75	7:00 A	38°	74°	49°	62.45	5.70	55°	100.18	+1.949	+0.1327	
5-12-75	7:45 A	45°	83°	65°	62.93	6.18	59°	100.20	+1.969	+0.1341	
	Next reading made because of earthquake occurring @ 5:20 P 5-12-75										
5-14-75	7:30 A	48°	84°	55°	63.00	6.25	60°	100.20	+1.969	+0.1341	
5-27-75	8:15 A	45°	80°	56°	63.25	6.50	62°	100.20	+1.969	+0.1341	
6-10-75	7:45 A	50°	84°	59°	63.63	6.88	66°	100.21	+1.979	+0.1348	
6-23-75	9:00 A	46°	88°	60°	63.75	7.00	67°	100.21	+1.979	+0.1348	
7-3-75	7:45 A	50°	87°	63°	63.94	7.19	69°	100.21	+1.979	+0.1348	
7-18-75	7:45 A	51°	97°	61°	64.26	7.51	72°	100.23	+1.999	+0.1361	
7-28-75	8:00 A	54°	92°	67°	64.40	7.65	74°	100.23	+1.999	+0.1361	
8-11-75	8:45 A	55°	100°	66°	64.47	7.72	74°	100.23	+1.999	+0.1361	
8-25-75	7:30 A	50°	92°	65°	64.20	7.45	72°	100.23	+1.999	+0.1361	
9-8-75	8:00 A	54°	96°	64°	64.16	7.41	71°	100.24	+2.009	+0.1368	
9-22-75	7:45 A	52°	95°	79°	64.17	7.42	71°	100.24	+2.009	+0.1368	
10-3-75	7:30 A	52°	100°	72°	63.95	7.20	69°	100.24	+2.009	+0.1368	
10/20/75	7:15 A	45°	97°	55°	63.38	6.63	64°	100.22	+1.989	+0.1355	
11/3/75	8:30 A	44°	82°	70°	62.99	6.24	60°	100.24	+2.009	+0.1368	
11-17-75	9:30 A	42°	90°	55°	62.61	5.86	56°	100.31	+2.079	+0.1416	
12-1-75	9:00 A	35°	85°	55°	62.03	5.28	51°	100.34	+2.109	+0.1436	
12-15-75	8:45 A	37°	86°	50°	61.96	5.21	50°	100.34	+2.109	+0.1436	
1-5-76	9:00 A	32°	78°	48°	61.53	4.78	46°	100.37	+2.139	+0.1457	

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 1R

Leads extended 2-26-75

Meter No. M - 6

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001216 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.57 per cent

Resistance ratio, meter closed: 98.0 per cent

Resistance ratio, meter open: 103.6 per cent

Meter resistance at 0°F, corrected for leads 52.19 ohms

Change in temperature per ohm change in resistance 10.88 °F

Adjusted resistance ratio after 2-26-75 (100.723)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
		After	Leads	extended							
2-26-75	8:00 A	—	—	49°	56.83	4.64	50°	100.57	-0.153	-0.0186	1074.25
3-4-75	8:00 A	—	—	55°	57.20	5.01	55°	100.56	-0.163	-0.0198	1075.84
3-7-75	11:00 P			Full reservoir spilling over notch							
3-8-75	1:00 P	—	—	53°	57.31	5.12	56°	100.52	-0.203	-0.0247	1096.10
3-10-75	12:00 N	—	—	51°	56.94	4.75	52°	100.53	-0.193	-0.0235	1090.74
3-12-75	7:30 A	—	—	45°	56.63	4.44	48°	100.57	-0.153	-0.0186	1073.10
3-24-75	7:00 A	—	—	48°	56.85	4.66	51°	100.59	-0.133	-0.0162	1071.93
4-4-75	7:00 A	—	—	48°	56.84	4.65	51°	100.58	-0.143	-0.0174	1079.40
4-14-75	7:00 A	—	—	50°	57.04	4.85	53°	100.61	-0.113	-0.0137	1068.93
4-28-75	7:00 A	—	—	51°	57.14	4.95	54°	100.58	-0.143	-0.0174	1080.30
5-12-75	7:45 A	—	—	67°	58.29	6.08	66°	100.51	-0.213	-0.0259	1075.08
	Next	reading			Taken because of earthquake occurring @ 5:20 P 5-12-75						
5-14-75	7:30 A	New thermistr	5-13-75	59°	57.66	5.47	60°	100.51	-0.213	-0.0259	1074.90
5-27-75	8:30 A	46°	76°	54°	57.70	5.51	60°	100.49	-0.233	-0.0283	1074.89
6-10-75	8:15 A	51°	80°	64°	58.04	5.85	64°	100.46	-0.263	-0.0320	1075.09
6-23-75	9:00 A	47°	82°	62°	58.15	5.96	65°	100.41	-0.313	-0.0381	1074.56
7-3-75	7:45 A	50°	85°	68°	58.34	6.15	67°	100.35	-0.373	-0.0454	1073.58
7-18-75	7:45 A	52°	92°	62°	58.36	6.17	67°	100.26	-0.463	-0.0563	1073.83
7-28-75	8:00 A	54°	88°	70°	58.72	6.53	71°	100.21	-0.513	-0.0624	1073.21
8-11-75	8:45 A	57°	97°	68°	58.70	6.51	71°	100.14	-0.583	-0.0709	1073.38
8-25-75	7:30 A	51°	87°	70°	58.69	6.50	71°	100.14	-0.583	-0.0709	1073.33
9-8-75	8:00 A	54°	90°	64°	58.56	6.37	69°	100.09	-0.633	-0.0770	1073.12
9-22-75	7:45 A	54°	89	79°	59.27	7.08	77°	100.07	-0.653	-0.0794	1073.83
10-3-75	7:30 A	53°	94°	72°	58.80	6.61	72°	100.06	-0.663	-0.0806	1073.18
10-20-75	7:15 A	46°	91°	56°	57.62	5.43	59°	100.11	-0.613	-0.0745	1073.43
11/3/75	8:30 A	45°	75°	70°	58.07	5.88	64°	100.13	-0.593	-0.0721	1073.66
11/17/75	9:30 A	42°	83°	56°	57.50	5.31	58°	100.16	-0.563	-0.0685	1060.13
12-1-75	9:00 A	38°	78°	54°	56.93	4.74	52°	100.23	-0.493	-0.0599	1060.10
12-15-75	8:45 A	38°	78°	51°	56.73	4.54	49°	100.24	-0.483	-0.0587	1060.05
1-5-76	9:00 A	32°	72°	49°	56.71	4.52	49°	100.25	-0.473	-0.0575	1060.27

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 2R

Leads extended 2-26-75

Meter No. M - 1

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001202 inches per 0.01% ratio change

Resistance ratio at initial reading 100.00 per cent

Resistance ratio, meter closed: 97.9 per cent

Resistance ratio, meter open: 103.0 per cent

Meter resistance at 0°F, corrected for leads 52.73 ohms

Change in temperature per ohm change in resistance 10.95 °F

Adjusted resistance ratio after 2-26-75 (99.828)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
				After leads extended							
2-26-75	8:00 A	—	—	49°	57.18	4.45	49°	100.00	+ 0.172	+0.0207	
3-4-75	8:00 A	—	—	55°	57.50	4.77	52°	99.98	+ 0.152	+0.0183	
3-7-75	11:00 P			Full reservoir Spilling over notch							
3-8-75	1:00 P	—	—	53°	57.54	4.81	53°	99.95	+ 0.122	+0.0147	
3-10-75	12:00 N	—	—	51°	57.17	4.44	49°	99.96	+ 0.132	+0.0159	
3-12-75	7:30 A	—	—	45°	56.97	4.24	46°	99.99	+ 0.162	+0.0195	
3-24-75	7:00 A	—	—	48°	57.16	4.43	49°	99.99	+ 0.162	+0.0195	
4-4-75	7:00 A	—	—	48°	57.16	4.43	49°	99.98	+ 0.152	+0.0183	
4-14-75	7:00 A	—	—	50°	57.32	4.59	50°	99.99	+ 0.162	+0.0195	
4-28-75	7:00 A	—	—	51°	57.45	4.72	52°	99.98	+ 0.152	+0.0183	
5-12-75	7:45 A	—	—	67°	58.48	5.75	63°	99.95	+ 0.122	+0.0147	
		New + reading Taken because of earthquake occurring @ 5:20 P 5-12-73									
5-14-75	7:30 A	New	Thermist	59°	57.92	5.19	57°	99.95	+ 0.122	+0.0147	
5-27-75	8:30 A	46°	76°	54°	57.93	5.20	57°	99.96	+ 0.132	+0.0159	
6-10-75	8:15 A	51°	80°	64°	58.24	5.51	60°	99.96	+ 0.132	+0.0159	
6-23-75	9:00 A	47°	82°	62°	58.34	5.61	61°	99.95	+ 0.122	+0.0147	
7-3-75	7:45 A	50°	85°	68°	58.51	5.78	63°	99.95	+ 0.122	+0.0147	
7-18-75	7:45 A	52°	92°	62°	58.54	5.81	64°	99.95	+ 0.122	+0.0147	
7-28-75	8:00 A	54°	88°	70°	58.88	6.15	67°	99.94	+ 0.112	+0.0135	
8-11-75	8:45 A	57°	97°	68°	58.87	6.14	67°	99.95	+ 0.122	+0.0147	
8-25-75	7:30 A	51°	87°	70°	58.87	6.14	67°	99.96	+ 0.132	+0.0159	
9-8-75	8:00 A	54°	90°	64°	58.71	5.98	65°	99.95	+ 0.122	+0.0147	
9-22-75	7:45 A	54°	89°	79°	59.39	6.66	73°	99.95	+ 0.122	+0.0147	
10-3-75	7:30 A	53°	94°	72°	58.97	6.24	68°	99.96	+ 0.132	+0.0159	
10-20-75	7:15 A	46°	91°	56°	57.91	5.18	57°	100.00	+ 0.172	+0.0207	
11/3/75	8:30 A	45°	75°	70°	58.28	5.55	61°	99.99	+ 0.162	+0.0195	
11/17/75	9:30 A	42°	83°	56°	57.78	5.05	55°	100.01	+ 0.182	+0.0219	
12-1-75	9:00 A	38°	78°	54°	57.28	4.55	50°	100.05	+ 0.222	+0.0267	
12-15-75	8:45 A	38°	78°	51°	57.11	4.38	48°	100.05	+ 0.222	+0.0267	
1-5-76	9:00 A	32°	72°	49°	57.07	4.34	48°	100.05	+ 0.222	+0.0267	



# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 2aR

Leads extended 2-26-75

Meter No. J-15

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .000669 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.37 per cent

Resistance ratio, meter closed: 96.1 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 57.46 ohms

Change in temperature per ohm change in resistance 9.65 °F

Adjusted resistance ratio after 2-26-75 (99.827)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
		After leads extended									
2-26-75	8:00 A	—	—	49°	63.16	5.70	55°	100.37	+0.543	+0.0363	
3-4-75	8:00 A	—	—	55°	63.31	5.85	56°	100.40	+0.573	+0.0383	
3-7-75	11:00 P			Full reservoir spilling over notch							
3-8-75	1:00 P	—	—	53°	63.46	6.00	58°	100.40	+0.573	+0.0383	
3-10-75	12:00 N	—	—	51°	63.35	5.89	57°	100.42	+0.593	+0.0397	
3-12-75	7:30 A	—	—	45°	63.10	5.64	54°	100.41	+0.583	+0.0390	
3-24-75	7:00 A	—	—	48°	62.98	5.52	53°	100.40	+0.573	+0.0383	
4-4-75	7:00 A	—	—	48°	63.10	5.64	54°	100.40	+0.573	+0.0383	
4-14-75	7:00 A	—	—	50°	62.96	5.50	53°	100.41	+0.583	+0.0390	
4-28-75	7:00 A	—	—	51°	63.33	5.87	57°	100.41	+0.583	+0.0390	
5-12-75	7:45 A	—	—	67°	63.74	6.28	61°	100.41	+0.583	+0.0390	
		Next reading taken because of earthquake occurring @ 5:20 P 5-12-75									
5-14-75	7:30 A	New Thermometer 5-13-75			59°	63.52	6.06	58°	100.41	+0.583	+0.0390
5-27-75	8:30 A	46°	76°	54°	63.50	6.04	58°	100.42	+0.593	+0.0397	
6-10-75	8:15 A	51°	80°	64°	63.71	6.25	60°	100.42	+0.593	+0.0397	
6-23-75	9:00 A	47°	82°	62°	63.76	6.30	61°	100.41	+0.583	+0.0390	
7-3-75	7:45 A	50°	85°	68°	63.94	6.48	63°	100.41	+0.583	+0.0390	
7-18-75	7:45 A	52°	92°	62°	64.00	6.64	63°	100.41	+0.583	+0.0390	
7-28-75	8:00 A	54°	88°	70°	64.23	6.77	65°	100.41	+0.583	+0.0390	
8-11-75	8:45 A	57°	97°	68°	64.33	6.87	66°	100.41	+0.583	+0.0390	
8-25-75	7:30 A	57°	87°	70°	64.30	6.84	66°	100.42	+0.593	+0.0397	
9-8-75	8:00 A	54°	90°	64°	64.27	6.81	66°	100.42	+0.593	+0.0397	
9-22-75	7:45 A	54°	89°	79°	64.56	7.10	69°	100.42	+0.593	+0.0397	
10-3-75	7:30 A	53°	94°	72°	64.36	6.90	67°	100.42	+0.593	+0.0397	
10-20-75	7:15 A	46°	91°	56°	63.84	6.38	62°	100.42	+0.593	+0.0397	
11/3/75	8:30 A	45°	75°	70°	63.91	6.45	62°	100.42	+0.593	+0.0397	
11-17-75	9:30 A	42°	83°	56°	63.23	5.77	56°	100.40	+0.573	+0.0383	
12-1-75	9:00 A	38°	78°	54°	62.65	5.19	50°	100.40	+0.573	+0.0383	
12-15-75	8:45 A	38°	78°	51°	62.46	5.00	48°	100.40	+0.573	+0.0383	
1-5-76	9:00 A	32°	72°	49°	62.45	4.99	48°	100.40	+0.573	+0.0383	

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH - 3R

Leads extended 2-26-75

Meter No. J - 16

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .000678 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.38 per cent

Resistance ratio, meter closed: 96.7 per cent

Resistance ratio, meter open: 104.6 per cent

Meter resistance at 0°F, corrected for leads 58.29 ohms

Change in temperature per ohm change in resistance 9.66 °F

Adjusted resistance ratio after 2-26-75 (100.16)

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
		After	leads	extended							
2-26-75	8:00 A	—	—	49°	63.37	5.08	49°	100.38	+0.22	+0.0149	
3-4-75	8:00 A	—	—	55°	63.70	5.41	52°	100.35	+0.19	+0.0129	
3-7-75	11:00 P			Full reservoir Spilling over notch							
3-8-75	11:00 P	—	—	53°	63.57	5.28	51°	100.23	+0.07	+0.0047	
3-10-75	12:00 N	—	—	51°	63.39	5.10	49°	100.25	+0.09	+0.0061	
3-12-75	7:30 A	—	—	45°	63.21	4.92	47°	100.33	+0.17	+0.0115	
3-24-75	7:00 A	—	—	48°	63.33	5.04	49°	100.36	+0.20	+0.0136	
4-4-75	7:00 A	—	—	48°	63.35	5.06	49°	100.34	+0.18	+0.0122	
4-14-75	7:00 A	—	—	50°	63.52	5.23	51°	100.35	+0.19	+0.0129	
4-28-75	7:00 A	—	—	51°	63.65	5.36	52°	100.30	+0.14	+0.0095	
5-12-75	7:45 A	—	—	67°	64.82	6.53	63°	100.22	+0.06	+0.0046	
		Next	reading	Taken	because of earthquake						
5-14-75	7:30 A	New The	5-13-75	59°	64.24	5.95	57°	100.22	+0.06	+0.0041	5-12-75
5-27-75	8:30 A	46°	76°	54°	64.26	5.97	58°	100.18	+0.02	+0.0014	
6-10-75	8:15 A	51°	80°	64°	64.64	6.35	61°	100.15	-0.01	-0.0007	
6-23-75	9:00 A	47°	82°	62°	64.76	6.47	62°	100.13	-0.03	-0.0020	
7-3-75	7:45 A	50°	85°	68°	65.01	6.72	65°	100.10	-0.06	-0.0041	
7-18-75	7:45 A	52°	92°	62°	65.05	6.76	65°	100.06	-0.10	-0.0068	
7-28-75	8:00 A	54°	88°	70°	65.43	7.14	69°	100.05	-0.11	-0.0075	
8-11-75	8:45 A	57°	97°	68°	65.50	7.21	70°	100.02	-0.14	-0.0095	
8-25-75	7:30 A	51°	87°	70°	65.46	7.17	69°	100.06	-0.10	-0.0068	
9-8-75	8:00 A	54°	90°	64°	65.30	7.01	68°	100.05	-0.11	-0.0075	
9-22-75	7:45 A	54°	89°	79°	65.92	7.63	74°	100.04	-0.12	-0.0081	
10-3-75	7:30 A	53°	94°	72°	65.47	7.18	69°	100.07	-0.09	-0.0061	
10-20-75	7:15 A	46°	91°	56°	64.33	6.04	58°	100.13	-0.03	-0.0020	
11-3-75	8:30 A	45°	75°	70°	64.65	6.36	61°	100.19	+0.03	+0.0020	
11-17-75	9:30 A	42°	83°	56°	64.00	5.71	55°	100.30	+0.04	+0.0027	
12-1-75	9:00 A	38°	78°	54°	63.44	5.15	50°	100.41	+0.25	+0.0170	
12-15-75	8:45 A	38°	78°	51°	63.18	4.89	47°	100.44	+0.28	+0.0190	
1-5-76	9:00 A	32°	72°	49°	63.11	4.82	47°	100.49	+0.33	+0.0224	

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1L

New meter installed 9-28-72.

Meter No. J-12

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads 0.000642 inches per 0.01% ratio change

Resistance ratio at initial reading 100.06 per cent \*

Resistance ratio, meter closed: 95.8 per cent

Resistance ratio, meter open: 103.7 per cent

Meter resistance at 0°F, corrected for leads 55.05 ohms

Change in temperature per ohm change in resistance 9.61 °F

\*Adjusted resistance ratio after 9-28-72 (103.409 )

Date	Daylight Savings Pac Std Time	Temperature			Total resistance from 0°F ohms. (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
4-16-74	DST 0820	44°	64°	57°	60.91	5.86	56°	99.23	-4.179	-0.2683	1080.80
4-29-74	DST 0800	43°	80°	72°	61.37	6.32	61°	99.21	-4.199	-0.2696	1072.85
5-13-74	DST 0800	48°	88°	55°	60.82	5.77	55°	98.99	-4.419	-0.2837	1074.44
5-28-74	0945	44°	98°	58°	61.44	6.39	61°	98.95	-4.459	-0.2863	1074.67
6-10-74	0830	48°	86°	61°	61.38	6.33	61°	98.97	-4.419	-0.2837	1073.98
6-24-74	0900	49°	92°	78°	62.43	7.38	71°	98.87	-4.539	-0.2914	1073.12
6-27-74	0830	63°	96°	78°	62.42	7.37	71°	98.79	-4.619	-0.2965	1072.75
7-8-74	0845	53°	98°	61°	61.98			98.89			1071.81
7-8-74	0845	53°	98°	61°	61.51	6.46	62°	98.70	-4.709	-0.3023	1071.81
7-22-74	0930	54°	98°	73°	62.19	7.14	69°	98.53	-4.879	-0.3132	1071.72
8-6-74	0400	61°	96°	71°	62.16	7.11	68°	98.42	-4.989	-0.3203	1071.68
8-20-74	0830	55°	91°	60°	61.53	6.48	62°	98.46	-4.949	-0.3197	1071.65
9-3-74	0830	53°	95°	69°	62.26	7.21	67°	98.29	-5.119	-0.3286	1071.60
9-16-74	0815	53°	97°	62°	61.60	6.55	63°	98.26	-5.149	-0.3306	1071.58
9-30-74	0930	51°	98°	73°	61.98	6.93	67°	98.09	-5.319	-0.3415	1071.52
10-14-74	0920	49°	88°	60°	60.82	5.77	55°	98.04	-5.369	-0.3447	1071.58
10-25-74	0930	47°	97°	65°	61.27	6.22	60°	98.07	-5.339	-0.3428	1071.37
11-11-74	DST 0845	42°	83°	72°	61.38	6.33	61°	98.02	-5.389	-0.3460	1060.25
11-25-74	DST 0835	42°	91°	56°	60.25	5.20	50°	98.05	-5.359	-0.3440	1060.86
12-9-74	DST 0945	40°	80°	55°	60.10	5.05	49°	98.08	-5.329	-0.3421	1065.26
12-23-74	DST 0830	38°	78°	44°	59.00	3.95	38°	97.98	-5.429	-0.3485	1065.39
1-6-75	DST 0900	35°	66°	56°	60.26	5.21	50°	98.03	-5.379	-0.3453	1066.14
	Pac Std Time										
1-20-75	8:15 A	44°	85°	57°	60.76	5.71	55°	97.87	-5.539	-0.3556	1065.35
2-3-75	8:00 A	32°	86°	44°	59.48	4.43	43°	98.04	-5.369	-0.3447	1067.52
2-18-75	8:45 A	35°	68°	51°	59.37	4.32	42°	97.92	-5.489	-0.3524	1070.02
2-21-75	8:00 A	37°	69°	49°	59.77	4.72	45°	97.88	-5.529	-0.3550	1072.03







ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aL

New meter installed 9-28-72.

Meter No. J-13

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads, 0.000627 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.04 per cent \*

Resistance ratio, meter closed: 96.0 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 54.84 ohms

Change in temperature per ohm change in resistance 9.56 °F

\*Adjusted resistance ratio after 9-28-72 (99.88).

Date	Daylight Savings Pac. Std. Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
4-16-74	0820	44°	84°	57°	61.92	7.08	68°	100.13	+0.25	+0.0157	1080.80
4-29-74	0900	43°	80°	72°	61.97	7.13	68°	100.09	+0.21	+0.0132	1072.85
5-13-74	0800	48°	88°	55°	61.50	6.66	64°	100.11	+0.23	+0.0144	1074.44
5-28-74	0945	44°	98°	58°	62.17	7.33	70°	100.11	+0.23	+0.0144	1074.67
6-10-74	0830	48°	86°	61°	62.00	7.16	68°	100.08	+0.20	+0.0125	1073.98
6-24-74	0900	49°	92°	78°	62.75	7.91	76°	100.12	+0.24	+0.0150	1073.12
6-27-74	0830	63°	96°	78°	63.20	8.36	80°	100.11	+0.23	+0.0144	1072.75
7-8-74	0845	53°	98°	61°	62.34	7.50	72°	100.08	+0.20	+0.0125	1071.81
7-22-74	0930	54°	98°	73°	62.91	8.07	77°	100.10	+0.22	+0.0138	1071.72
8-6-74	0900	61°	96°	71°	62.97	8.13	78°	100.10	+0.22	+0.0138	1071.68
8-20-74	0830	55°	91°	60°	62.62	7.78	74°	100.10	+0.22	+0.0138	1071.65
9-3-74	0830	53°	95°	69°	63.14	8.30	79°	100.11	+0.23	+0.0144	1071.60
9-16-74	0815	53°	97°	62°	62.83	7.99	76°	100.09	+0.21	+0.0132	1071.58
9-30-74	0930	51°	98°	73°	62.96	7.92	76°	100.10	+0.22	+0.0138	1071.57
10-11-74	0920	49°	88°	60°	62.02	7.18	69°	100.09	+0.21	+0.0132	1071.58
10-25-74	0830	47°	97°	65°	62.03	7.19	69°	100.11	+0.23	+0.0144	1071.37
11-11-74	0845	42°	83°	72°	61.90	7.06	67°	100.13	+0.25	+0.0157	1060.25
11-25-74	0835	42°	91°	56°	61.29	6.45	62°	100.10	+0.22	+0.0138	1060.86
12-4-74	0945	40°	80°	55°	60.97	6.03	58°	100.11	+0.23	+0.0144	1065.26
12-25-74	0830	38°	78°	44°	60.61	5.77	55°	100.12	+0.24	+0.0150	1065.39
1-6-75	0900	35°	66°	56°	60.65	5.81	56°	100.29	+0.41	+0.0257	1066.14
	Pac. Std. Time										
1-20-75	8:15 A	44°	85°	57°	61.33	6.49	62°	100.11	+0.23	+0.0144	
2-3-75	8:00 A	32°	86°	44°	60.16	5.32	51°	100.10	+0.22	+0.0138	
2-18-75	8:45 A	35°	68°	51°	60.40	5.56	53°	100.10	+0.22	+0.0138	
2-21-75	8:00 A	37°	64°	49°	60.56	5.72	55°	100.09	+0.21	+0.0132	









ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1R

Original meter-cleaned & reinstalled 9-28-72.

Meter No. M-6

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads 0.01158 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.17 per cent \*

Resistance ratio, meter closed: 98.0 per cent

Resistance ratio, meter open: 103.6 per cent

Meter resistance at 0°F, corrected for leads 49.76 ohms

Change in temperature per ohm change in resistance 10.88 °F

\*Adjusted resistance ratio after 9-28-72 (100.861).

checked WCM

WCM

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	60°	54°	54.63	4.87	53°	100.77	-0.091	-0.0105	1087.10
3/9/73	10:30 A	39°	56°	53°	54.24	4.48	49°	100.81	-0.051	-0.0059	1068.78
3/23/73	8:45 A	38°	56°	50°	54.00	4.24	46°	100.81	-0.051	-0.0059	1072.73
4/4/73	8:00 A	41°	60°	53°	54.31	4.55	50°	100.82	-0.041	-0.0047	1072.29
4/18/73	9:45 A	46°	66°	65°	54.41	4.65	51°	100.78	-0.081	-0.0094	1072.29
5/2/73	7:30 A	46°	71°	59°	54.74	4.98	54°	100.76	-0.101	-0.0117	1071.86
5/16/73	9:00 A	48°	76°	64°	55.20	5.44	59°	100.72	-0.141	-0.0163	1072.12
5/30/73	8:00 A	50°	94°	60°	55.39	5.63	61°	100.64	-0.221	-0.0256	1077.18
6/12/73	8:00 A	53°	94°	64°	55.32	5.56	60°	100.61	-0.251	-0.0291	1080.82
6/25/73	7:30 A	50°	100°	74°	56.25	6.49	71°	100.49	-0.371	-0.0430	1081.40
7/5/73	7:00 A	50°	100°	71°	55.97	6.21	68°	100.44	-0.421	-0.0488	1081.71
7/16/73	8:30 A	56°	85°	64°	55.54	5.78	63°	100.44	-0.421	-0.0488	1081.77
8/1/73	6:30 A	54°	94°	68°	55.95	6.19	67°	100.36	-0.501	-0.0580	1080.96
8/14/73	8:00 A	55°	92°	70°	55.93	6.17	67°	100.33	-0.531	-0.0615	1080.20
8/28/73	8:30 A	52°	94°	67°	55.57	5.81	63°	100.31	-0.551	-0.0638	1080.02
9/1/73	8:00 A	54°	85°	60°	55.43	5.67	62°	100.31	-0.551	-0.0638	1079.97
10/3/73	8:00 A	46°	90°	54°	54.71	4.95	54°	100.33	-0.531	-0.0615	1079.93
10/15/73	9:00 A	49°	84°	70°	55.59	5.83	63°	100.32	-0.547	-0.0633	1079.82
10/29/73	8:30 A	48°	86°	66°	55.48	5.72	62°	100.33	-0.531	-0.0615	1079.91
11/12/73	9:30 A	40°	80°	60°	55.19	5.43	59°	100.34	-0.521	-0.0603	1079.96
11/27/73	7:30 A	35°	64°	42°	53.73	3.97	43°	100.50	-0.361	-0.0418	1062.05
12/1/73	I received orders not to go past 2nd bay of the walkway. Readings of the strain gages on the right abutment have been temporarily discontinued due to hazardous condition of the walkway.										
2-21-75	8:00 A	—	—	48°	54.03	4.27	46°	100.70	-0.161	-0.0186	1072.03
2-21-75	9:00 A	Leads being extended to left abutment side.									

*Marcus L. Hansen*



ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2R

Original meter-cleaned & reinstalled 9-28-72.

Meter No. M-1

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads 0.01145 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.21 per cent \*

Resistance ratio, meter closed: 97.9 per cent

Resistance ratio, meter open: 103.0 per cent

Meter resistance at 0°F, corrected for leads 50.07 ohms

Change in temperature per ohm change in resistance 10.95 °F

\*Adjusted resistance ratio after 9-28-72 (100.079).

checked wcm

wcm

wcm

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	60°	54°	54.81	4.74	52°	100.21	+0.131	+0.0150	
3/9/73	10:30 A	39°	56°	53°	54.54	4.47	49°	100.25	+0.171	+0.0196	
3/23/73	8:45 A	38°	56°	50°	54.34	4.27	47°	100.27	+0.191	+0.0219	
4/4/73	8:00 A	41°	60°	53°	54.50	4.43	49°	100.25	+0.171	+0.0196	
4/18/73	9:45 A	46°	66°	65°	54.69	4.63	51°	100.24	+0.161	+0.0184	
5/2/73	7:30 A	46°	71°	59°	54.92	4.85	53°	100.24	+0.161	+0.0184	
5/16/73	9:00 A	48°	76°	64°	55.41	5.34	58°	100.21	+0.131	+0.0150	
5/30/73	8:00 A	50°	94°	60°	55.52	5.45	60°	100.18	+0.101	+0.0116	
6/12/73	8:00 A	53°	94°	64°	55.50	5.43	59°	100.19	+0.111	+0.0127	
6/25/73	7:30 A	50°	100°	74°	56.24	6.17	68°	100.16	+0.081	+0.0093	
7/5/73	7:00 A	50°	100°	71°	56.04	5.97	65°	100.17	+0.091	+0.0104	
7/16/73	8:30 A	56°	85°	64°	55.69	5.62	62°	100.19	+0.111	+0.0127	
8/1/73	6:30 A	54°	94°	68°	56.04	5.97	65°	100.17	+0.091	+0.0104	
8/14/73	8:00 A	55°	92°	70°	56.03	5.96	65°	100.19	+0.111	+0.0127	
8/28/73	8:30 A	52°	94°	67°	55.74	5.67	62°	100.21	+0.131	+0.0150	
9/11/73	8:00 A	54°	85°	60°	55.60	5.53	61°	100.20	+0.121	+0.0139	
10/3/73	8:00 A	46°	90°	54°	54.99	4.92	54°	100.22	+0.141	+0.0161	
10/15/73	9:00 A	49°	84°	70°	55.72	5.65	62°	100.22	+0.141	+0.0161	
10/28/73	8:30 A	48°	86°	66°	55.64	5.57	61°	100.21	+0.131	+0.0150	
11/12/73	9:30 A	40°	80°	60°	55.38	5.31	58°	100.22	+0.141	+0.0161	
11/27/73	7:30 A	35°	64°	42°	54.10	4.03	44°	100.28	+0.201	+0.0230	
2-21-75	8:00 A	—	—	48°	54.34	4.27	47°	100.26	+0.181	+0.0207	
2-21-75	9:00 A			Leads being extended to left abutment side.							



ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aR

New meter installed 9-28-72.

Meter No. J-15

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads, 0.000639 inches per 0.01% ratio change

Resistance ratio at initial reading 100.52 per cent \*

Resistance ratio, meter closed: 96.1 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 54.63 ohms

Change in temperature per ohm change in resistance 9.65 °F

\*Adjusted resistance ratio after 9-28-72 (100.082).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	60°	54°	60.50	5.87	57°	100.56	+0.478	+0.0305	
3/9/73	10:30 A	39°	56°	53°	60.20	5.57	54°	100.63	+0.548	+0.0350	
3/23/73	8:45 A	38°	56°	50°	60.16	5.53	53°	100.55	+0.468	+0.0299	
4/4/73	8:00 A	41°	60°	53°	60.20	5.57	54°	100.57	+0.488	+0.0312	
4/18/73	9:45 A	46°	66°	65°	60.33	5.70	55°	100.56	+0.478	+0.0305	
5/2/73	7:30 A	46°	71°	59°	60.44	5.81	56°	100.56	+0.478	+0.0305	
5/16/73	9:00 A	48°	76°	64°	60.66	6.03	58°	100.56	+0.478	+0.0305	
5/30/73	8:00 A	50°	94°	60°	60.84	6.21	60°	100.56	+0.478	+0.0305	
6/12/73	8:00 A	53°	94°	64°	60.88	6.25	60°	100.56	+0.478	+0.0305	
6/25/73	7:30 A	50°	100°	74°	61.12	6.49	63°	100.56	+0.478	+0.0305	
7/5/73	7:00 A	50°	100°	71°	61.13	6.50	63°	100.56	+0.478	+0.0305	
7/16/73	8:30 A	56°	85°	64°	61.05	6.42	62°	100.56	+0.478	+0.0305	
8/1/73	6:30 A	54°	94°	68°	61.17	6.54	63°	100.56	+0.478	+0.0305	
8/14/73	8:00 A	55°	92°	70°	61.17	6.54	63°	100.57	+0.488	+0.0312	
8/28/73	8:30 A	52°	94°	67°	61.18	6.55	63°	100.56	+0.478	+0.0305	
9/11/73	8:00 A	54°	85°	60°	61.15	6.52	63°	100.56	+0.478	+0.0305	
10/3/73	8:00 A	46°	90°	54°	61.06	6.43	62°	100.56	+0.478	+0.0305	
10/13/73	9:00 A	49°	84°	70°	61.14	6.51	63°	100.56	+0.478	+0.0305	
10/29/73	8:30 A	48°	86°	66°	61.14	6.51	63°	100.56	+0.478	+0.0305	
11/2/73	9:30 A	40°	80°	60°	61.07	6.44	62°	100.56	+0.478	+0.0305	
11/27/73	7:30 A	35°	64°	42°	59.61	4.98	48°	100.54	+0.458	+0.0293	
2-21-75	8:00 A	—	—	48°	60.20	5.57	54°	100.65	+0.568	+0.0363	
2-21-75	9:00 A		Leads	being	extended to	left	abutment	side.			

checked with

M.C.M.

M.C.M.





# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-3R

New meter installed 9-28-72.

Meter No. J-16

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads: 0.000646 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.13 per cent \*

Resistance ratio, meter closed: 96.7 per cent

Resistance ratio, meter open: 104.6 per cent

Meter resistance at 0°F, corrected for leads 55.18 ohms

Change in temperature per ohm change in resistance 9.66 °F

\*Adjusted resistance ratio after 9-28-72 ( 100.13 )

Checked to GWT  
Worm  
LA-2-V

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	60°	54°	60.75	5.57	54°	100.24	+0.11	+0.0071	
3/9/73	10:30 A	39°	56°	53°	60.51	5.33	51°	100.31	+0.18	+0.0116	
3/23/73	8:45 A	38°	56°	50°	60.33	5.15	50°	100.31	+0.18	+0.0116	
4/4/73	8:00 A	41°	60°	53°	60.38	5.20	50°	100.31	+0.18	+0.0116	
4/18/73	9:45 A	46°	66°	56°	60.65	5.47	53°	100.28	+0.15	+0.0097	
5/2/73	7:30 A	46°	71°	59°	60.89	5.71	55°	100.26	+0.13	+0.0084	
5/16/73	9:00 A	48°	76°	64°	61.46	6.28	61°	100.21	+0.08	+0.0052	
5/30/73	8:00 A	50°	94°	60°	61.67	6.49	63°	100.09	-0.04	-0.0026	
6/12/73	8:00 A	53°	94°	64°	61.88	6.70	65°	100.04	-0.09	-0.0058	
6/25/73	7:30 A	50°	100°	74°	62.36	7.18	69°	99.96	-0.17	-0.0110	
7/5/73	7:00 A	50°	100°	71°	62.28	7.10	69°	99.94	-0.19	-0.0123	
7/16/73	8:30 A	56°	85°	64°	61.93	6.75	65°	99.95	-0.18	-0.0116	
8/1/73	6:30 A	54°	94°	68°	62.28	7.10	69°	99.93	-0.20	-0.0129	
8/14/73	8:00 A	55°	92°	70°	62.32	7.14	69°	99.93	-0.20	-0.0129	
8/28/73	8:30 A	52°	94°	67°	62.00	6.82	66°	99.95	-0.18	-0.0116	
9/11/73	8:00 A	54°	85°	60°	61.81	6.63	64°	99.97	-0.16	-0.0103	
10/3/73	8:00 A	46°	90°	54°	61.19	6.01	58°	100.03	-0.10	-0.0065	
10/15/73	9:00 A	49°	84°	70°	61.86	6.68	65°	100.03	-0.10	-0.0065	
10/29/73	8:30 A	48°	86°	66°	61.69	6.51	63°	100.04	-0.09	-0.0058	
11/12/73	9:30 A	40°	80°	60°	61.40	6.22	60°	100.06	-0.07	-0.0045	
11/27/73	7:30 A	35°	64°	42°	60.02	4.84	47	100.28	+0.15	+0.0097	
2-21-75	8:00 A	—	—	48°	60.18	5.00	48°	100.36	+0.23	+0.0149	
2-21-75	9:00 A			Leads being extended to left abutment side.							



ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1L

New meter installed 9-28-72.

Meter No. J-12

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads 0.000642 inches per 0.01% ratio change

Resistance ratio at initial reading 100.06 per cent \*

Resistance ratio, meter closed: 95.8 per cent

Resistance ratio, meter open: 103.7 per cent

Meter resistance at 0°F, corrected for leads 55.05 ohms

Change in temperature per ohm change in resistance 9.61 °F

\*Adjusted resistance ratio after 9-28-72 (103.409 )

Date	Daylight Savings Pac Std. Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
4-16-74	DST 0820	44°	84°	57°	60.91	5.86	56°	99.23	-4.179	-0.2683	1080.80
4-29-74	DST 0800	43°	80°	72°	61.37	6.32	61°	99.21	-4.199	-0.2696	1072.85
5-13-74	DST 0800	48°	88°	55°	60.82	5.77	55°	98.99	-4.419	-0.2837	1074.44
5-28-74	0945	44°	98°	58°	61.44	6.39	61°	98.95	-4.459	-0.2863	1074.67
6-10-74	0830	48°	86°	61°	61.38	6.33	61°	98.97	-4.419	-0.2837	1073.98
6-24-74	0900	49°	92°	78°	62.43	7.38	71°	98.87	-4.539	-0.2914	1073.12
6-27-74	0830	63°	96°	78°	62.42	7.37	71°	98.79	-4.619	-0.2965	1072.75
7-8-74	0845	53°	98°	61°	61.98			98.89			1071.81
7-8-74	0845	53°	98°	61°	61.51	6.46	62°	98.70	-4.709	-0.3023	1071.81
7-22-74	0930	54°	98°	73°	62.19	7.14	69°	98.53	-4.879	-0.3132	1071.72
8-6-74	0900	61°	96°	71°	62.16	7.11	68°	98.42	-4.989	-0.3203	1071.68
8-20-74	0830	55°	91°	60°	61.53	6.48	62°	98.46	-4.949	-0.3177	1071.65
9-3-74	0830	53°	95°	69°	62.26	7.21	69°	98.29	-5.119	-0.3286	1071.60
9-16-74	0815	53°	97°	62°	61.60	6.55	63°	98.26	-5.149	-0.3306	1071.58
9-30-74	0930	51°	98°	73°	61.98	6.93	67°	98.09	-5.319	-0.3415	1071.57
10-17-74	0920	49°	88°	60°	60.82	5.77	55°	98.04	-5.369	-0.3447	1071.58
10-25-74	0930	47°	97°	65°	61.27	6.22	60°	98.07	-5.339	-0.3428	1071.37
11-11-74	DST PST 0845	42°	83°	72°	61.38	6.33	61°	98.02	-5.389	-0.3460	1060.25
11-25-74	PST 0835	42°	91°	56°	60.25	5.20	50°	98.05	-5.359	-0.3440	1060.86
12-9-74	PST 0945	40°	80°	55°	60.10	5.05	49°	98.08	-5.329	-0.3421	1065.26
12-23-74	PST 0830	38°	78°	44°	59.00	3.95	38°	97.98	-5.429	-0.3485	1065.39
1-6-75	PST 0900	35°	66°	56°	60.26	5.21	50°	98.03	-5.379	-0.3453	1066.14
1-20-75	Pac Std Time 8:15 A	44°	85°	57°	60.76	5.71	55°	97.87	-5.539	-0.3556	1065.35
2-3-75	8:00 A	32°	86°	44°	59.48	4.43	43°	98.04	-5.369	-0.3447	1067.52
2-18-75	8:45 A	35°	68°	51°	59.37	4.32	42°	97.92	-5.489	-0.3524	1070.02
2-21-75	8:00 A	37°	67°	49°	59.77	4.72	45°	97.88	-5.529	-0.3550	1072.03







ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1R

Original meter-cleaned & reinstalled 9-28-72.

Meter No. M-6

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001158 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.17 per cent \*

Resistance ratio, meter closed: 98.0 per cent

Resistance ratio, meter open: 103.6 per cent

Meter resistance at 0°F, corrected for leads 49.76 ohms

Change in temperature per ohm change in resistance 10.88 °F

\*Adjusted resistance ratio after 9-28-72 ( 100.861 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	60°	54°	54.63	4.87	53°	100.77	-0.091	-0.0105	1087.10
3/9/73	10:30 A	39°	56°	53°	54.24	4.48	49°	100.81	-0.051	-0.0059	1068.78
3/23/73	8:45 A	38°	56°	50°	54.00	4.24	46°	100.81	-0.051	-0.0059	1072.73
4/4/73	8:00 A	41°	60°	53°	54.31	4.55	50°	100.82	-0.041	-0.0047	1072.29
4/13/73	9:45 A	46°	66°	65°	54.41	4.65	51°	100.78	-0.081	-0.0094	1072.29
5/2/73	7:30 A	46°	71°	59°	54.74	4.98	54°	100.76	-0.101	-0.0117	1071.86
5/16/73	9:00 A	48°	76°	64°	55.20	5.44	59°	100.72	-0.141	-0.0163	1072.12
5/30/73	8:00 A	50°	94°	60°	55.39	5.63	61°	100.64	-0.221	-0.0256	1077.18
6/12/73	8:00 A	53°	94°	64°	55.32	5.56	60°	100.61	-0.251	-0.0291	1080.82
6/25/73	7:30 A	50°	100°	74°	56.25	6.49	71°	100.49	-0.371	-0.0430	1081.40
7/5/73	7:00 A	50°	100°	71°	55.97	6.21	68°	100.44	-0.421	-0.0488	1081.71
7/16/73	8:30 A	56°	85°	64°	55.54	5.78	63°	100.44	-0.421	-0.0488	1081.77
8/1/73	6:30 A	54°	94°	68°	55.95	6.19	67°	100.36	-0.501	-0.0580	1080.96
8/14/73	8:00 A	55°	92°	70°	55.93	6.17	67°	100.33	-0.531	-0.0615	1080.20
8/28/73	8:30 A	52°	94°	67°	55.57	5.81	63°	100.31	-0.551	-0.0638	1080.02
9/1/73	8:00 A	54°	85°	60°	55.43	5.67	62°	100.31	-0.551	-0.0638	1079.97
10/3/73	8:00 A	46°	90°	54°	54.71	4.95	54°	100.33	-0.531	-0.0615	1079.93
10/15/73	9:00 A	49°	84°	70°	55.59	5.83	63°	100.32	-0.541	-0.0623	1079.82
10/29/73	8:30 A	48°	86°	66°	55.48	5.72	62°	100.33	-0.531	-0.0615	1079.91
11/12/73	9:30 A	40°	80°	60°	55.19	5.43	59°	100.34	-0.521	-0.0603	1079.96
11/27/73	7:30 A	35°	64°	42°	53.73	3.97	43°	100.50	-0.361	-0.0418	1062.05
12/1/73	I received orders not to go past 2nd bay of the walk way. Readings of the strain gages on the right abutment have been temporarily discontinued due to hazardous condition of the walk way.										
2-21-75	8:00 A	—	—	48°	54.03	4.27	46°	100.70	-0.161	-0.0186	1072.03
2-21-75	9:00 A		Leads	being	extended to	left	abutment	side.			

checked WCM

WCM

WCM

*Martin L. Hancock*

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2R

Original meter-cleaned & reinstalled 9-28-72.

Meter No. M-1

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads, 0.01145 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.21 per cent \*

Resistance ratio, meter closed: 97.9 per cent

Resistance ratio, meter open: 103.0 per cent

Meter resistance at 0°F, corrected for leads 50.07 ohms

Change in temperature per ohm change in resistance 10.95 °F

\*Adjusted resistance ratio after 9-28-72 (100.079).

Checked WCM

WCM

WCM

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	60°	54°	54.81	4.74	52°	100.21	+0.131	+0.0150	
3/9/73	10:30 A	39°	56°	53°	54.54	4.47	49°	100.25	+0.171	+0.0196	
3/23/73	8:45 A	38°	56°	50°	54.34	4.27	47°	100.27	+0.191	+0.0219	
4/4/73	8:00 A	41°	60°	53°	54.50	4.43	49°	100.25	+0.171	+0.0196	
4/18/73	9:45 A	46°	66°	65°	54.69	4.63	51°	100.24	+0.161	+0.0184	
5/2/73	7:30 A	46°	71°	59°	54.92	4.85	53°	100.24	+0.161	+0.0184	
5/16/73	9:00 A	48°	76°	64°	55.41	5.34	58°	100.21	+0.131	+0.0150	
5/30/73	8:00 A	50°	94°	60°	55.52	5.45	60°	100.18	+0.101	+0.0116	
6/12/73	8:00 A	53°	94°	64°	55.50	5.43	59°	100.19	+0.111	+0.0127	
6/25/73	7:30 A	50°	100°	74°	56.24	6.17	68°	100.16	+0.081	+0.0093	
7/5/73	7:00 A	50°	100°	71°	56.04	5.97	65°	100.17	+0.091	+0.0104	
7/16/73	8:30 A	56°	85°	64°	55.69	5.62	62°	100.19	+0.111	+0.0127	
8/1/73	6:30 A	54°	94°	68°	56.04	5.97	65°	100.17	+0.091	+0.0104	
8/14/73	8:00 A	55°	92°	70°	56.03	5.96	65°	100.19	+0.111	+0.0127	
8/29/73	8:30 A	52°	94°	67°	55.74	5.67	62°	100.21	+0.131	+0.0150	
9/11/73	8:00 A	54°	85°	60°	55.60	5.53	61°	100.20	+0.121	+0.0139	
10/3/73	8:00 A	46°	90°	54°	54.99	4.92	54°	100.22	+0.141	+0.0161	
10/15/73	9:00 A	49°	84°	70°	55.72	5.65	62°	100.22	+0.141	+0.0161	
10/29/73	8:30 A	48°	86°	66°	55.64	5.57	61°	100.21	+0.131	+0.0150	
11/12/73	9:30 A	40°	80°	60°	55.38	5.31	58°	100.22	+0.141	+0.0161	
11/27/73	7:30 A	35°	64°	42°	54.10	4.03	44°	100.28	+0.201	+0.0230	
2-21-75	8:00 A	—	—	48°	54.34	4.27	47°	100.26	+0.181	+0.0207	
2-21-75	9:00 A			Leads being	extended to	left abutment	side.				



ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aR

New meter installed 9-28-72.

Meter No. J-15

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads, 0.000639 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.52 per cent \*  
 Resistance ratio, meter closed: 96.1 per cent  
 Resistance ratio, meter open: 104.0 per cent  
 Meter resistance at 0°F, corrected for leads 54.63 ohms  
 Change in temperature per ohm change in resistance 9.65 °F  
 \*Adjusted resistance ratio after 9-28-72 ( 100.082 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	60°	54°	60.50	5.87	57°	100.56	+0.478	+0.0305	
3/9/73	10:30 A	39°	56°	53°	60.20	5.57	54°	100.63	+0.548	+0.0350	
3/23/73	8:45 A	38°	56°	50°	60.16	5.53	53°	100.55	+0.468	+0.0299	
4/4/73	8:00 A	41°	60°	53°	60.20	5.57	54°	100.57	+0.488	+0.0312	
4/18/73	9:45 A	46°	66°	65°	60.33	5.70	55°	100.56	+0.478	+0.0305	
5/2/73	7:30 A	46°	71°	59°	60.44	5.81	56°	100.56	+0.478	+0.0305	
5/16/73	9:00 A	48°	76°	64°	60.66	6.03	58°	100.56	+0.478	+0.0305	
5/30/73	8:00 A	50°	94°	60°	60.84	6.21	60°	100.56	+0.478	+0.0305	
6/12/73	8:00 A	53°	94°	64°	60.88	6.25	60°	100.56	+0.478	+0.0305	
6/25/73	7:30 A	50°	100°	74°	61.12	6.49	63°	100.56	+0.478	+0.0305	
7/5/73	7:00 A	50°	100°	71°	61.13	6.50	63°	100.56	+0.478	+0.0305	
7/16/73	8:30 A	56°	85°	64°	61.05	6.42	62°	100.56	+0.478	+0.0305	
8/1/73	6:30 A	54°	94°	68°	61.17	6.54	63°	100.56	+0.478	+0.0305	
8/14/73	8:00 A	55°	92°	70°	61.17	6.54	63°	100.57	+0.488	+0.0312	
8/28/73	8:30 A	52°	94°	67°	61.18	6.55	63°	100.56	+0.478	+0.0305	
9/11/73	8:00 A	54°	85°	60°	61.15	6.52	63°	100.56	+0.478	+0.0305	
10/3/73	8:00 A	46°	90°	54°	61.06	6.43	62°	100.56	+0.478	+0.0305	
10/15/73	9:00 A	49°	84°	70°	61.14	6.51	63°	100.56	+0.478	+0.0305	
10/29/73	8:30 A	48°	86°	66°	61.14	6.51	63°	100.56	+0.478	+0.0305	
11/12/73	9:30 A	40°	80°	60°	61.07	6.44	62°	100.56	+0.478	+0.0305	
11/27/73	7:30 A	35°	64°	42°	59.61	4.98	48°	100.54	+0.458	+0.0293	
2-21-75	8:00 A	—	—	48°	60.20	5.57	54°	100.65	+0.568	+0.0363	
2-21-75	9:00 A			Leads being extended to left abutment side.							

checked WCM

WST

Low G. M.

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-3R

New meter installed 9-28-72.

Meter No. J-16

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads: 0.00646 inches per 0.01% ratio change  
Resistance ratio at initial reading: 100.13 per cent \*

Resistance ratio, meter closed: 96.7 per cent

Resistance ratio, meter open: 104.6 per cent

Meter resistance at 0°F, corrected for leads: 55.18 ohms

Change in temperature per ohm change in resistance: 9.66 °F

\*Adjusted resistance ratio after 9-28-72 (100.13).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	60°	54°	60.75	5.57	54°	100.24	+0.11	+0.0071	
3/9/73	10:30 A	39°	56°	53°	60.51	5.33	51°	100.31	+0.18	+0.0116	
3/23/73	8:45 A	38°	56°	50°	60.33	5.15	50°	100.31	+0.18	+0.0116	
4/4/73	8:00 A	41°	60°	53°	60.38	5.20	50°	100.31	+0.18	+0.0116	
4/18/73	9:45 A	46°	66°	<sup>65°</sup> 56°	60.65	5.47	53°	100.28	+0.15	+0.0097	
5/2/73	7:30 A	46°	71°	59°	60.89	5.71	55°	100.26	+0.13	+0.0084	
5/16/73	9:00 A	48°	76°	64°	61.46	6.28	61°	100.21	+0.08	+0.0052	
5/30/73	8:00 A	50°	94°	60°	61.67	6.49	63°	100.09	-0.04	-0.0026	
6/12/73	8:00 A	53°	94°	64°	61.88	6.78 <sup>49</sup>	65°	100.04	-0.09	-0.0058	
6/25/73	7:30 A	50°	100°	74°	62.36	7.18	69°	99.96	-0.17	-0.0110	
7/5/73	7:00 A	50°	100°	71°	62.28	7.10	69°	99.94	-0.19	-0.0123	
7/16/73	8:30 A	56°	85°	64°	61.93	6.75	65°	99.95	-0.18	-0.0116	
8/1/73	6:30 A	54°	94°	68°	62.28	7.10	69°	99.93	-0.20	-0.0129	
8/14/73	8:00 A	55°	92°	70°	62.32	7.14	69°	99.93	-0.20	-0.0129	
8/28/73	8:30 A	52°	94°	67°	62.00	6.82	66°	99.95	-0.18	-0.0116	
9/11/73	8:00 A	54°	85°	60°	61.81	6.63	64°	99.97	-0.16	-0.0103	
10/3/73	8:00 A	46°	90°	54°	61.19	6.01	58°	100.03	-0.10	-0.0065	
10/15/73	9:00 A	49°	84°	70°	61.86	6.68	65°	100.03	-0.10	-0.0065	
10/29/73	8:30 A	48°	86°	66°	61.69	6.51	63°	100.04	-0.09	-0.0058	
11/12/73	9:30 A	40°	80°	60°	61.40	6.22	60°	100.06	+0.07	-0.0045	
11/27/73	7:30 A	35°	64°	42°	60.02	4.84	47	100.28	+0.15	+0.0097	
2-21-75	8:00 A	—	—	48°	60.18	5.00	48°	100.36	+0.23	+0.0149	
2-21-75	9:00 A										

Leads being extended to left abutment side.

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1L

New meter installed 9-28-72.

Meter No. J-12

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads 0.000642 inches per 0.01% ratio change

Resistance ratio at initial reading 100.06 per cent \*

Resistance ratio, meter closed: 95.8 per cent

Resistance ratio, meter open: 103.7 per cent

Meter resistance at 0°F, corrected for leads 55.05 ohms

Change in temperature per ohm change in resistance 9.61 °F

\*Adjusted resistance ratio after 9-28-72 ( 103.409 )

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/23/73	1:30 P	43°	67°	58°	61.42	6.37	61°	100.36	-3.049	-0.1957	1087.10
3/9/73	10:30 A	40°	65°	62°	60.29	5.24	50°	100.76	-2.649	-0.1701	1068.78
3/23/73	8:45 A	38°	69°	53°	59.70	4.65	45°	100.70	-2.709	-0.1739	1072.73
4/4/73	8:00 A	41°	73°	56°	60.55	5.50	53°	100.60	-2.809	-0.1803	1072.29
4/18/73	9:45 A	44°	75°	62°	60.51	5.46	52°	100.43	-2.979	-0.1912	1072.29
5/2/73	7:30 A	44°	80°	61°	60.68	5.63	54°	100.34	-3.069	-0.1970	1071.86
5/16/73	9:00 A	45°	84°	66°	61.30	6.25	60°	100.21	-3.199	-0.2054	1072.12
5/30/73	8:00 A	48°	98°	59°	61.48	6.43	62°	100.04	-3.369	-0.2163	1077.18
6/12/73	8:00 A	52°	96	60°	61.17	6.12	59°	99.90	-3.509	-0.2253	1080.82
6/25/73	7:30 A	48°	102°	74°	62.50	7.45	72°	99.66	-3.749	-0.2407	1081.40
7/5/73	7:00 A	56°	102°	64°	62.09	7.04	68°	99.60	-3.809	-0.2445	1081.71
7/16/73	8:30 A	54°	88°	63°	61.40	6.35	61°	99.62	-3.789	-0.2433	1081.77
8/1/73	6:30 A	52°	96°	66°	62.32	7.22	70°	99.54	-3.869	-0.2484	1080.96
8/14/73	8:00 A	54°	95°	70°	62.10	7.05	68°	99.51	-3.899	-0.2503	1080.20
8/28/73	8:30 A	52°	96°	68°	61.46	6.41	62°	99.48	-3.929	-0.2522	1080.02
9/11/73	8:00 A	52°	90°	60°	61.45	6.40	62°	99.46	-3.949	-0.2535	1079.97
10/3/73	8:00 A	46°	96°	55°	60.36	5.31	51°	99.45	-3.959	-0.2542	1079.93
10/15/73	9:00 A	49°	92°	77°	61.77	6.72	65°	99.44	-3.969	-0.2548	1079.82
10/29/73	8:30 A	48°	94°	70°	61.49	6.44	62°	99.41	-3.999	-0.2567	1079.92
11/12/73	9:30 A	40°	88°	60°	61.26	6.21	60°	99.42	-3.989	-0.2561	1079.96
11/27/73	7:30 A	35°	69°	42°	59.30	4.25	41°	99.61	-3.799	-0.2439	1062.05
12/10/73	9:30 A	41°	78°	60°	60.47	5.42	52°	99.52	-3.889	-0.2497	1065.86
12/24/73	10:30 A	40°	78°	60°	60.82	5.77	55°	99.57	-3.839	-0.2465	1065.42
1/8/74	12:00 P	34°	72°	47°	59.55	4.50	43°	99.59	-3.819	-0.2452	1039.88
1/23/74	DST 9:30 A	38°	67°	48°	59.49	4.44	43°	99.55	-3.859	-0.2477	1063.71
2/5/74	DST 7:30 A	37°	76°	57°	60.86	5.81	56°	99.49	-3.919	-0.2516	1065.63
2/19/74	DST 9:30 A	38°	75°	44°	59.72	4.67	45°	99.49	-3.919	-0.2516	1073.10
3/5/74	DST 9:30 A	40°	80°	52°	59.60	4.55	44°	99.40	-4.009	-0.2574	1077.45
3/18/74	DST 9:30 A	37°	79°	53°	60.36	5.31	51°	99.39	-4.019	-0.2580	1068.38
4/3/74	DST 1:30 P	42°	68°	61°	62.49	7.74	72°	99.44	-3.969	-0.2548	1075.07

Checked w/cm

w/cm

w/cm

w/cm

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2L

Original meter-cleaned & reinstalled 9-28-72.

Meter No. M-3

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001073 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.20 per cent \*

Resistance ratio, meter closed: 98.6 per cent

Resistance ratio, meter open: 104.2 per cent

Meter resistance at 0°F, corrected for leads 49.67 ohms

Change in temperature per ohm change in resistance 10.95 °F

\*Adjusted resistance ratio after 9-28-72 ( 100.06 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	67°	58°	56.03	6.36	70°	100.36	+0.30	+0.0322	
3/9/73	10:30 A	40°	65°	62°	55.96	6.29	69°	100.34	+0.28	+0.0300	
3/23/73	8:45 A	38°	69°	53°	55.82	6.15	67°	100.39	+0.33	+0.0354	
4/4/73	8:00 A	41°	73°	56°	55.25	5.58	61°	100.38	+0.32	+0.0343	
4/18/73	9:45 A	44°	75°	62°	55.11	5.44	60°	100.36	+0.30	+0.0322	
5/2/73	7:30 A	44°	80°	61°	55.32	5.65	62°	100.35	+0.29	+0.0311	
5/16/73	9:00 A	45°	84°	66°	55.74	6.07	66°	100.35	+0.29	+0.0311	
5/30/73	8:00 A	48°	98°	59°	55.98	6.31	69°	100.31	+0.25	+0.0268	
6/12/73	8:00 A	52°	96°	60°	55.85	<del>6.00</del>	66°	100.32	+0.26	+0.0279	
6/25/73	7:30 A	48°	102°	74°	56.69	7.02	77°	100.30	+0.24	+0.0258	
7/5/73	7:00 A	56°	102°	64°	56.57	6.90	76°	100.26	+0.20	+0.0215	
7/16/73	8:30 A	54°	88°	63°	55.98	<del>6.47</del>	<del>71°</del>	100.28	+0.22	+0.0236	
8/1/73	6:30 A	52°	96°	66°	56.60	6.93	76°	100.26	+0.20	+0.0215	
8/14/73	8:00 A	54°	95°	70°	56.53	6.86	75°	100.26	+0.22	+0.0236	
8/28/73	8:30 A	52°	96°	68°	56.19	6.52	71°	100.24	+0.18	+0.0193	
9/11/73	8:00 A	52°	60°	60°	55.97	6.30	69°	100.26	+0.22	+0.0236	
10/3/73	8:00 A	46°	96°	55°	55.59	5.92	65°	100.22	+0.16	+0.0172	
10/15/73	9:00 A	49°	92°	77°	56.18	6.51	71°	100.27	+0.21	+0.0225	
10/29/73	8:30 A	48°	94°	70°	56.01	6.34	69°	100.28	+0.22	+0.0236	
11/12/73	9:30 A	40°	88°	60°	55.55	5.88	64°	100.29	+0.23	+0.0247	
11/27/73	7:30 A	35°	69°	42°	54.31	4.64	51°	100.32	+0.26	+0.0279	
12/10/73	9:30 A	41°	78°	60°	54.91	5.24	57°	100.35	+0.29	+0.0311	
12/24/73	10:30 A	40°	78°	60°	54.76	5.09	56°	100.36	+0.30	+0.0322	
1/8/74	12:00 P	34°	72°	47°	55.69	6.02	66°	100.29	+0.23	+0.0247	
1/23/74	9:30 A	38°	67°	48°	54.33	4.66	51°	100.41	+0.35	+0.0376	
2/5/74	7:30 A	37°	76°	57°	55.00	5.33	58°	100.38	+0.32	+0.0343	
2/19/74	9:30 A	38°	75°	44°	54.52	4.85	53°	100.35	+0.29	+0.0311	
3/5/74	9:30 A	40°	80°	52°	54.66	4.99	55°	100.37	+0.31	+0.0333	
3/18/74	9:30 A	37°	79°	53°	55.11	5.44	60°	100.34	+0.28	+0.0300	
4/3/74	1300 P	42°	68°	61°	55.45	5.78	63°	100.35	+0.29	+0.0311	

Checked WCM

WCM

WCM

WCM

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aL

New meter installed 9-28-72.

Meter No. J-13

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads, 0.00627 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.04 per cent \*

Resistance ratio, meter closed: 96.0 per cent

Resistance ratio, meter open: 104.0 per cent

Meter resistance at 0°F, corrected for leads 54.84 ohms

Change in temperature per ohm change in resistance 9.56 °F

\*Adjusted resistance ratio after 9-28-72 ( 99.88 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	67°	58°	61.55	6.71	64°	100.24	+0.36	+0.0226	
3/9/73	10:30 A	40°	65°	62°	61.42	6.58	63°	100.14	+0.26	+0.0163	
3/23/73	8:45 A	38°	69°	53°	61.34	6.50	62°	100.20	+0.32	+0.0201	
4/4/73	8:00 A	41°	73°	56°	61.39	6.55	63°	100.19	+0.31	+0.0194	
4/18/73	9:45 A	44°	75°	62°	61.16	6.32	60°	100.10	+0.22	+0.0137	
5/2/73	7:30 A	44°	80°	61°	61.44	6.60	63°	100.07	+0.19	+0.0119	
5/16/73	9:00 A	45°	84°	66°	61.88	7.04	67°	100.06	+0.18	+0.0113	
5/30/73	8:00 A	48°	98°	59°	62.19	7.35	70°	100.03	+0.15	+0.0094	
6/12/73	8:00 A	52°	96°	60°	62.02	7.18	69°	100.04	+0.16	+0.0100	
6/25/73	7:30 A	48°	102°	74°	62.85	8.01	77°	100.05	+0.17	+0.0107	
7/5/73	7:00 A	56°	102°	64°	62.79	7.95	76°	100.05	+0.17	+0.0107	
7/16/73	8:30 A	54°	88°	63°	62.19	7.35	70°	100.04	+0.16	+0.0100	
8/1/73	6:30 A	52°	96°	66°	62.80	7.96	76°	100.06	+0.18	+0.0113	
8/14/73	8:00 A	54°	95°	70°	62.74	7.90	76°	100.06	+0.18	+0.0113	
8/28/73	8:30 A	52°	96°	68°	62.40	7.56	72°	100.06	+0.18	+0.0113	
9/11/73	8:00 A	52°	90°	60°	62.17	7.33	70°	100.06	+0.18	+0.0113	
10/3/73	8:00 A	46°	96°	55°	61.97	7.13	68°	100.07	+0.19	+0.0119	
10/15/73	9:00 A	49°	92°	77°	62.44	7.60	73°	100.08	+0.20	+0.0125	
10/29/73	8:30 A	48°	94°	70°	62.32	7.48	72°	100.07	+0.19	+0.0119	
11/12/73	9:30 A	40°	88°	60°	61.82	6.98	67°	100.07	+0.19	+0.0119	
11/27/73	7:30 A	35°	69°	42°	60.53	5.69	54°	100.05	+0.17	+0.0107	
12/10/73	9:30 A	41°	78°	60°	61.04	6.20	59°	100.08	+0.20	+0.0125	
1/2/74	10:30 A	40°	78°	60°	60.84	6.00	57°	100.09	+0.21	+0.0132	
1/8/74	12:00 P	34°	72°	47°	61.20	6.34	61°	100.04	+0.16	+0.0100	
1/23/74	9:30 A	38°	67°	48°	60.42	5.58	53°	100.07	+0.19	+0.0119	
2/5/74	7:30 A	37°	76°	57°	61.15	6.31	60°	100.08	+0.20	+0.0125	
2/19/74	9:30 A	38°	75°	44°	60.84	6.00	57°	100.06	+0.18	+0.0113	
3/5/74	9:30 A	40°	80°	52°	60.81	5.97	57°	100.05	+0.17	+0.0107	
3/19/74	9:30 A	32°	79°	53°	61.32	6.48	62°	100.06	+0.18	+0.0113	
4/3/74	13:00 P	42°	68°	61°	61.46	6.62	63°	100.10	+0.22	+0.0138	

checked WCM

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WCM

# ABUTMENT YIELD MEASUREMENT DATA

Project MATILIA DAM

Drill-hole No DH-3L

New meter installed 9-28-72.

Meter No. J-14

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .000681 inches per 0.01% ratio change  
Resistance ratio at initial reading 100.14 per cent \*

Resistance ratio, meter closed: 95.2 per cent

Resistance ratio, meter open: 102.9 per cent

Meter resistance at 0°F, corrected for leads 56.75 ohms

Change in temperature per ohm change in resistance 9.61 °F

\*Adjusted resistance ratio after 9-28-72 ( 98.231 ).

Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
2/28/73	1:30 P	43°	67°	58°	62.39	5.64	54°	99.99	+1.759	+0.1198	
3/9/73	10:30 A	40°	65°	62°	62.18	5.43	52°	99.92	+1.689	+0.1150	
3/23/73	8:45 A	38°	69°	53°	62.06	5.31	51°	99.89	+1.659	+0.1130	
4/4/73	8:00 A	41°	73°	56°	62.24	5.49	53°	99.98	+1.749	+0.1191	
4/18/73	9:45 A	44°	75°	62°	62.44	5.69	55°	99.92	+1.689	+0.1150	
5/2/73	7:30 A	44°	80°	61°	62.65	5.90	57°	99.91	+1.679	+0.1143	
5/16/73	9:00 A	45°	84°	66°	63.08	6.33	61°	99.93	+1.699	+0.1157	
5/30/73	8:00 A	48°	98°	59°	63.41	6.64	64°	99.93	+1.699	+0.1157	
6/12/73	8:00 A	52°	96°	60°	63.58	6.83	66°	99.92	+1.689	+0.1150	
6/25/73	7:30 A	48°	102°	74°	63.93	7.18	69°	99.94	+1.709	+0.1164	
7/5/73	7:00 A	56°	102°	64°	64.17	7.42	71°	99.93	+1.699	+0.1157	
7/16/73	8:30 A	54°	88°	63°	64.25	7.50	72°	99.94	+1.709	+0.1164	
8/1/73	6:30 A	52°	96°	66°	64.32	7.57	73°	99.94	+1.709	+0.1164	
8/14/73	8:00 A	54°	95°	70°	64.39	7.64	73°	99.96	+1.729	+0.1177	
8/28/73	8:30 A	52°	96°	68°	64.29	7.54	72°	99.95	+1.719	+0.1171	
9/1/73	8:00 A	52°	90°	60°	64.00	7.25	70°	99.96	+1.729	+0.1177	
10/3/73	8:00 A	46°	96°	55°	63.65	6.90	66°	99.95	+1.719	+0.1171	
10/15/73	9:00 A	49°	92°	77°	63.47	6.72	65°	99.96	+1.729	+0.1177	
10/29/73	8:30 A	48°	94°	70°	63.31	6.56	63°	99.97	+1.739	+0.1184	
11/12/73	9:30 A	40°	88°	60°	63.04	6.29	60°	99.96	+1.729	+0.1177	
11/27/73	7:30 A	35°	69°	42°	62.34	5.59	54°	100.04	+1.809	+0.1232	
12/10/73	9:30 A	41°	78°	60°	62.16	5.41	52°	100.08	+1.849	+0.1259	
12/24/73	10:30 A	40°	78°	60°	62.04	5.29	51°	100.09	+1.859	+0.1266	
1/8/74	12:00 P	34°	72°	47°	61.73	4.98	48°	99.98	+1.749	+0.1191	
1/22/74	9:30 A DST	38°	67°	48°	61.90	5.15	49°	100.17	+1.939	+0.1320	
2/5/74	7:30 A DST	37°	76°	57°	62.04	5.29	51°	100.16	+1.929	+0.1314	
2/19/74	9:30 A DST	38°	75°	44°	61.99	5.24	50°	100.09	+1.859	+0.1266	
3/5/74	9:30 A DST	40°	80°	52°	62.10	5.35	51°	100.12	+1.889	+0.1286	
3/18/74	9:30 A DST	37°	79°	53°	62.52	5.77	55°	100.15	+1.919	+0.1307	
4/3/74	13:00 P DST	42°	68°	61°	62.77	6.02	58°	100.12	+1.889	+0.1286	

Checked with

WCM

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WCM

ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1L

New meter installed 9-28-72.

Meter No. J-12

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads 0.000642 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.06 per cent  
 Resistance ratio, meter closed: 95.8 per cent  
 Resistance ratio, meter open: 103.7 per cent  
 Meter resistance at 0°F, corrected for leads 55.05 ohms  
 Change in temperature per ohm change in resistance 9.61 °F

1972 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
9-28-72	12:00P			78°	63.83	8.68	83°	100.06	0.00	0.0000	1046.59
10-5	8:00A	51°	95°	69°	61.27	6.22	60°	100.23	+0.17	+0.0109	1046.12
10-17	8:30A	48°	93°	58°	60.59	5.54	53°	100.37	+0.31	+0.0199	1046.40
10-31	9:30A	40°	82°	60°	60.11	5.06	49°	100.46	+0.40	+0.0256	1046.23
11-15	7:45A	42°	78°	48°	60.06	4.95	48°	100.57	+0.51	+0.0327	1048.00
11-28	7:45A	40°	80°	53°	60.41	5.36	52°	100.68	+0.62	+0.0398	1059.79
12-11	9:00A	29°	78°	38°	58.47	3.42	33°	100.80	+0.74	+0.0475	1059.64
12-26	9:00A	31°	77°	59°	60.60	5.55	53°	100.67	+0.61	+0.0392	1060.09
1973 1-15	10:00A	31°	78°	53°	60.29	5.24	50°	100.76	+0.70	+0.0449	1060.34
1-22-73	0945A	35°	59°	52°	59.26	4.21	40°	100.80	+0.74	+0.0475	1062.70
2-7	3:00P	38°	68°	54°	60.80	5.75	55°	100.72	+0.66	+0.0424	1095.86
2-20	9:00A	39°	72°	59°	60.49	5.44	52°	100.92	+0.86	+0.0552	1060.75
Note: The following measurement was taken 2.25 hours after an earthquake											
2-21	0900A	55°	73°	62°	61.04	5.99	58°	100.71	+0.65	+0.0417	1060.18

**SUPERSEDED**

Adjustment of initial resistance ratio readings to provide computed indicated movements from the new meter readings that will plot in the same range as those from the old meter readings.

-.215 Adjustment of the indicated movement from initial position in inches.

Calibration constant, corrected for leads .000642 inches per 0.01% ratio change or .0642 inches per 1% ratio change.

-.215 ÷ .0642 = -3.349 Adjustment to resistance ratio at initial reading.

100.060 Resistance ratio at initial reading in percent per 9/28/72  
3.349 Adjustment to resistance ratio at initial reading (\*Note)  
103.409 Adjusted resistance ratio at initial reading in percent.

\*Note: if adjusted resistance ratio at initial reading is negative add; if positive subtract.





ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2L

Original meter-cleaned and reinstalled 9-28-72.

Meter No. M-3

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads 0.001073 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.20 per cent  
 Resistance ratio, meter closed: 98.6 per cent  
 Resistance ratio, meter open: 104.2 per cent  
 Meter resistance at 0°F, corrected for leads 49.67 ohms  
 Change in temperature per ohm change in resistance 10.95 °F

1972 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
9-28-72	12:00P			78°	56.86	7.19	74°	100.20	0.00	0.0000	1046.59
10-5	8:00A	51°	95°	69°	55.98	6.31	69°	100.20	0.00	0.0000	1046.12
10-17	8:30A	48°	93°	58°	55.41	5.74	63°	100.23	+0.03	+0.0032	1046.40
10-31	9:30A	40°	82°	60°	55.15	5.48	60°	100.25	+0.05	+0.0054	1046.28
11-15	7:45A	42°	78°	48°	54.71	5.04	55°	100.30	+0.10	+0.0107	1048.00
11-28	7:45A	40°	80°	53°	54.93	5.26	58°	100.30	+0.10	+0.0107	1059.79
12-11	9:00A	29°	78°	38°	53.76	4.09	45°	100.33	+0.13	+0.0139	1059.64
12-26	9:00A	31°	77°	59°	54.97	5.30	58°	100.34	+0.14	+0.0150	1060.09
1973 1-15	10:00A	31°	78°	53°	54.67	5.00	55	100.37	+0.17	+0.0182	1060.34
1-22-73	0945A	35°	59°	52°	54.15	4.48	49°	100.38	+0.18	+0.0193	1062.70
2-7	3:00P	38°	68°	54°	55.78	6.11	67°	100.30	+0.10	+0.0107	1095.86
2-20	9:00	39°	72°	59°	55.92	6.25	68°	100.31	+0.11	+0.0118	1060.75
Note: The following measurement was taken 2.25 hours after an earthquake.											
2-21	9:00	55°	73°	62°	55.93	6.26	69°	100.32	+0.12	+0.0129	1060.18

**SUPERSEDED**

Drill-hole No. DH-2L

Adjustment of initial resistance ratio readings to provide computed indicated movements from the new meter readings that will plot in the same range as those from the old meter readings.

+0.015 Adjustment of the indicated movement from initial position in inches.

Calibration constant, corrected for leads .001073 inches per 0.01% ratio change or .1073 inches per 1% ratio change.

+0.015 ÷ .1073 = +0.140 Adjustment to resistance ratio at initial reading.

100.20 Resistance ratio at initial reading in percent per 9/28/72

.14 Adjustment to resistance ratio at initial reading (\*Note)

100.06 Adjusted resistance ratio at initial reading in percent.

\*Note: if adjusted resistance ratio at initial reading is negative add; if positive subtract.



ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-2aL

New meter installed 9-28-72.

Meter No. J-93

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .000627 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.04 per cent  
 Resistance ratio, meter closed: 96.0 per cent  
 Resistance ratio, meter open: 104.0 per cent  
 Meter resistance at 0°F, corrected for leads 54.84 ohms  
 Change in temperature per ohm change in resistance 9.56 °F

1972 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
4-28-72	12:00P			78°	63.01	8.17	78°	100.04	0.00	0.0000	1046.59
10-5	8:00A	51°	95°	69°	62.22	7.38	71°	100.03	-0.01	-0.0006	1046.12
10-17	8:30A	48°	93°	58°	61.60	6.76	65°	100.04	0.00	0.0000	1046.40
10-31	9:30A	40°	82°	60°	61.33	6.49	62°	100.05	+0.01	+0.0006	1046.28
11-15	7:45A	42°	78°	48°	60.87	6.03	58°	100.05	+0.01	+0.0006	1048.00
11-28	7:45A	40°	80°	53°	61.14	6.30	60°	100.07	+0.03	+0.0019	1059.79
12-11	9:00A	29°	78°	38°	59.85	5.01	48°	100.07	+0.03	+0.0019	1059.69
12-26	9:00A	31°	77°	59°	61.08	6.24	60°	100.09	+0.05	+0.0031	1060.09
1-15	10:00A	31°	78°	53°	60.77	5.93	57°	100.09	+0.05	+0.0031	1060.34
1-22-73	9:45A	35°	59°	52°	60.22	5.38	51°	100.11	+0.07	+0.0044	1062.70
2-7	3:00P	38°	68°	54°	61.35	6.51	62°	100.10	+0.06	+0.0038	1095.86
2-20	9:00A	39°	72°	59°	61.53	6.69	64°	100.16	+0.12	+0.0075	1060.75
Note: The following measurement was taken 2.25 hours after an earthquake											
2-21	9:00A	55°	73°	62°	61.60	6.76	65°	100.13	+0.09	+0.0056	1060.18

SUPERSEDED

1973

Adjustment of initial resistance ratio readings to provide computed indicated movements from the new meter readings that will plot in the same range as those from the old meter readings.

+0.010 Adjustment of the indicated movement from initial position in inches.

Calibration constant, corrected for leads .000627 inches per 0.01% ratio change or .0627 inches per 1% ratio change.

+0.010 ÷ .0627 = +0.160 Adjustment to resistance ratio at initial reading.

100.04 Resistance ratio at initial reading in percent per 9/28/72

.16 Adjustment to resistance ratio at initial reading (\*Note)

99.88 Adjusted resistance ratio at initial reading in percent.

\*Note: if adjusted resistance ratio at initial reading is negative add; if positive subtract.



ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-3L

New meter installed 9-28-72.

Meter No. J-14

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .000681 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.14 per cent  
 Resistance ratio, meter closed: 95.2 per cent  
 Resistance ratio, meter open: 102.9 per cent  
 Meter resistance at 0°F, corrected for leads 56.75 ohms  
 Change in temperature per ohm change in resistance 9.61 °F

1972 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
9-28-72	12:00P			78°	63.95	7.20	69°	100.14	0.00	0.0000	1046.59
10-5	8:00A	51°	95°	69°	63.65	6.90	66°	100.13	-0.01	-0.0007	1046.12
10-17	8:30A	48°	93°	58°	63.26	6.51	63°	100.14	0.00	0.0000	1046.40
10-31	9:30A	40°	82°	60°	62.83	6.08	58°	100.16	+0.02	+0.0014	1046.28
11-15	7:45A	42°	78°	48°	62.74	5.99	58°	100.16	+0.02	+0.0014	1048.00
11-28	7:45A	40°	80°	53°	62.65	5.90	57°	100.18	+0.04	+0.0027	1059.79
12-11	9:00A	29°	78°	38°	61.90	5.15	49°	100.16	+0.02	+0.0014	1059.64
12-26	9:00A	31°	77°	59°	61.88	5.13	49°	100.16	+0.02	+0.0014	1060.09
1973 1-15	10:00A	31°	78°	53°	61.76	5.01	48°	100.19	+0.05	+0.0034	1060.34
1-22-73	9:45A	35°	59°	52°	61.67	4.92	47°	100.02	-0.12	-0.0082	1062.70
2-7	3:00P	38°	68°	54°	61.93	5.18	50°	99.86	-0.28	-0.0191	1095.86
2-20	9:00A	39°	72°	59°	62.15	5.40	52°	99.96	-0.18	-0.0123	1060.75
Note: The following measurement was taken 2.25 hours after an earthquake											
2-21	9:00A	55°	78°	62°	62.22	5.47	53°	99.98	-0.16	-0.0109	1060.18

**SUPERSEDED**



Drill-hole No. DH-3L

Adjustment of initial resistance ratio readings to provide computed indicated movements from the new meter readings that will plot in the same range as those from the old meter readings.

+ .130 Adjustment of the indicated movement from initial position in inches.

Calibration constant, corrected for leads .000681 inches per 0.01% ratio change or .0681 inches per 1% ratio change.

+ .130 ÷ .0681 = +1.909 Adjustment to resistance ratio at initial reading.

100.140 Resistance ratio at initial reading in percent per 9/28/72

1.909 Adjustment to resistance ratio at initial reading (\*Note)

98.231 Adjusted resistance ratio at initial reading in percent.

\*Note: if adjusted resistance ratio at initial reading is negative add; if positive subtract.



ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJA DAM

Drill-hole No DH-1R

Original meter—cleaned and reinstalled 9-28-72.

Meter No. M-6

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001158 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.17 per cent  
 Resistance ratio, meter closed: 98.0 per cent  
 Resistance ratio, meter open: 103.6 per cent  
 Meter resistance at 0°F, corrected for leads 49.76 ohms  
 Change in temperature per ohm change in resistance 10.88 °F

1972 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
9-28-72	1:30 PM			73°	56.04	6.28	68°	100.17	0.00	0.0000	1046.59
10-5	8:00 A	51°	88°	66°	55.46	5.70	62°	100.19	+0.02	+0.0023	1046.12
10-17	8:30 A	48°	86°	56°	54.88	5.12	56°	100.23	+0.06	+0.0069	1046.40
10-31	9:30 A	40°	76°	56°	54.52	4.76	52°	100.29	+0.12	+0.0139	1046.28
11-15	7:45 A	42°	73°	48°	54.29	4.53	49°	100.31	+0.14	+0.0162	1048.00
11-28	7:45 A	40°	72°	51°	54.45	4.69	51°	100.44	+0.27	+0.0313	1059.79
12-11	9:00 A	28°	68°	36°	53.22	3.46	38°	100.60	+0.43	+0.0498	1059.64
12-26	9:00 A	29°	70°	61°	54.78	5.02	55°	100.58	+0.41	+0.0475	1060.09
1-15	10:00 A	30°	68°	50°	54.35	4.59	50°	100.65	+0.48	+0.0556	1060.34
1-22-73	9:45 A	39°	55°	45°	53.60	3.84	42°	100.78	+0.61	+0.0706	1062.70
2-7	3:00 P	37°	64°	53°	54.51	4.75	52°	100.73	+0.56	+0.0648	1095.86
2-20	9:00 A	39°	58°	56°	54.35	4.59	50°	100.83	+0.66	+0.0764	1060.75
Note: The following measurement was taken 2.25 hours after an earthquake.											
2-21	9:00 A	50°	63°	55°	54.52	4.76	52°	100.82	+0.65	+0.0753	1060.18

**SUPERSEDED**

1973

Drill-hole No. DH-1R

Adjustment of initial resistance ratio readings to provide computed indicated movements from the new meter readings that will plot in the same range as those from the old meter readings.

-.080 Adjustment of the indicated movement from initial position in inches.

Calibration constant, corrected for leads .001158 inches per 0.01% ratio change or .1158 inches per 1% ratio change.

-.080 ÷ .1158 = -.691 Adjustment to resistance ratio at initial reading.

100.170 Resistance ratio at initial reading in percent per 9/28/72

.691 Adjustment to resistance ratio at initial reading (\*Note)

100.861 Adjusted resistance ratio at initial reading in percent.

\*Note: if adjusted resistance ratio at initial reading is negative add; if positive subtract.



ABUTMENT YIELD MEASUREMENT DATA

Project MATILJA DAM

Drill-hole No DH-2R

Original meter--cleaned and reinstalled 9-28-72.

Meter No. M-1

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .001145 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.21 per cent  
 Resistance ratio, meter closed: 97.9 per cent  
 Resistance ratio, meter open: 103.0 per cent  
 Meter resistance at 0°F, corrected for leads 50.07 ohms  
 Change in temperature per ohm change in resistance 10.95 °F

1972 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
4-28-72	1:30 P			73°	56.18	6.11	67°	100.21	0.00	0.0000	1046.54
10-5	8:00 A	51°	88°	66°	55.68	5.61	61°	100.25	+0.04	+0.0046	1046.12
10-17	8:30 A	48°	86°	56°	55.16	5.09	56°	100.26	+0.05	+0.0057	1046.40
10-31	9:30 A	40°	76°	56°	54.84	4.77	52°	100.30	+0.09	+0.0103	1046.28
11-15	7:45 A	42°	73°	48°	54.60	4.53	50°	100.28	+0.07	+0.0080	1048.00
11-28	7:45 A	40°	72°	51°	54.74	4.67	51°	100.26	+0.05	+0.0057	1059.79
12-11	9:00 A	28°	68°	36°	53.61	3.54	39°	100.30	+0.09	+0.0103	1059.64
12-26	9:00 A	29°	70°	61°	55.03	4.94	54°	100.26	+0.05	+0.0057	1060.09
1973 1-15	10:00 A	30°	68°	50°	54.62	4.55	50°	100.27	+0.06	+0.0069	1060.34
1-22-73	9:45 A	39°	55°	45°	53.94	3.87	42°	100.27	+0.06	+0.0069	1062.70
2-7	3:00 P	37°	64°	53°	54.67	4.60	50°	100.20	-0.01	-0.0011	1095.86
2-20	9:00 A	39°	58°	56°	54.53	4.46	49°	100.28	+0.07	+0.0080	1060.75
Note: The following measurement was taken 2.25 hours after an earthquake.											
2-21	9:00 A	50°	63°	55°	54.71	4.64	51°	100.28	+0.07	+0.0080	1060.18

SUPERSEDED

Adjustment of initial resistance ratio readings to provide computed indicated movements from the new meter readings that will plot in the same range as those from the old meter readings.

+015 Adjustment of the indicated movement from initial position in inches.

Calibration constant, corrected for leads .001145 inches per 0.01% ratio change or .1145 inches per 1% ratio change.

+015 ÷ .1145 = + .131 Adjustment to resistance ratio at initial reading.

100.210 Resistance ratio at initial reading in percent per 9/28/72

.131 Adjustment to resistance ratio at initial reading (\*Note)

100.079 Adjusted resistance ratio at initial reading in percent.

\*Note: if adjusted resistance ratio at initial reading is negative add; if positive subtract.





ABUTMENT YIELD MEASUREMENT DATA

Project MATILIJDA DAM

Drill-hole No DH-2aR

New meter installed 9-28-72.

Meter No. J-15

Sheet No. \_\_\_\_\_

Calibrations:

Calibration constant, corrected for leads .000639 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.52 per cent  
 Resistance ratio, meter closed: 96.1 per cent  
 Resistance ratio, meter open: 104.0 per cent  
 Meter resistance at 0°F, corrected for leads 54.63 ohms  
 Change in temperature per ohm change in resistance 9.65 °F

1972 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
9-28-72	1300A			73°	61.50	6.87	66°	100.52	0.00	0.0000	1046.59
10-5	8:00A	51°	88°	66°	61.12	6.49	63°	100.50	-0.02	-0.0013	1046.12
10-17	8:30A	48°	86°	56°	60.69	6.06	58°	100.51	-0.01	-0.0006	1046.40
10-31	9:30A	40°	76°	56°	60.24	5.61	54°	100.50	-0.02	-0.0013	1046.28
11-15	7:45A	42°	73°	48°	60.06	5.43	52°	100.51	-0.01	-0.0006	1048.00
11-28	7:45A	40°	72°	51°	60.22	5.59	54°	100.52	-0.00	0.0000	1059.79
12-11	9:00A	28°	68°	36°	59.03	4.40	42°	100.50	-0.02	-0.0013	1059.64
12-26	9:00A	29°	70°	61°	60.37	5.74	55°	100.53	+0.01	+0.0006	1060.09
1973 1-16	10:00A	30°	68°	50°	59.98	5.35	52°	100.53	+0.01	+0.0006	1060.34
1-22-73	9:45A	39°	55°	45°	59.60	4.97	48°	100.54	+0.02	+0.0013	1062.70
2-7	3:00P	37°	64°	53°	60.53	5.90	57°	100.54	+0.02	+0.0013	1095.86
2-20	9:00A	39°	58°	56°	59.99	5.36	52°	100.56	+0.04	+0.0026	1060.75
	Note: The following measurement was taken 2.25 hours after an earthquake.										
2-21	9:00A	50°	63°	55	59.98	5.35	52°	100.57	+0.05	+0.0032	1060.18

**SUPERSEDED**

Adjustment of initial resistance ratio readings to provide computed indicated movements from the new meter readings that will plot in the same range as those from the old meter readings.

+0.028 Adjustment of the indicated movement from initial position in inches.

Calibration constant, corrected for leads .000639 inches per 0.01% ratio change or .0639 inches per 1% ratio change.

+0.028 ÷ .0639 = +0.438 Adjustment to resistance ratio at initial reading.

100.520 Resistance ratio at initial reading in percent per 9/28/72

.438 Adjustment to resistance ratio at initial reading (\*Note)

100.082 Adjusted resistance ratio at initial reading in percent.

\*Note: if adjusted resistance ratio at initial reading is negative add; if positive subtract.





ADJUSTMENTS TO "INDICATED MOVEMENT FROM INITIAL POSITION INCHES" FROM  
SEPTEMBER 28, 1972 ON AS PER INSTRUCTIONS OF GORDON MARSH, MARCH 14, 1973.

1L	-.215
2L	+.015
2aL	+.010
3L	+.130
1R	-.080
2R	+.015
2aR	+.028
3R	No change



# ABUTMENT YIELD MEASUREMENT DATA

Project: MATILIJA DAM

Drill-hole No. DH-2R

Meter No. M-1

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .001147 inches per 0.01% ratio change  
 Resistance ratio at initial reading 100.82 per cent  
 Resistance ratio, meter closed: 97.9 per cent  
 Resistance ratio, meter open: 103.0 per cent  
 Meter resistance at 0°F, corrected for leads 50.07 ohms  
 Change in temperature per ohm change in resistance 10.95 °F

1971 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.	
		Min.	Max.	At time of Obs.								
7/7	8:30A	54°	80°	62°	55.55	5.48	60°	100.93	+0.11	+0.0126		
7/20	8:00A	56°	94°	72°	56.18	6.11	67°	100.92	+0.10	+0.0115		
8/4	8:00A	59°	95°	78°	56.52	6.45	71°	100.92	+0.10	+0.0115		
8/17	8:30A	62°	99°	74°	56.28	6.21	68°	100.93	+0.11	+0.0126		
8/30	9:00A	58°	96°	78°	56.32	6.25	68°	100.94	+0.12	+0.0138		
9/14	8:00A	58°	106°	81°	56.96	6.89	75°	100.90	+0.08	+0.0092		
9/28	8:00A	49°	94°	58°	55.22	5.15	56°	100.96	+0.14	+0.0161		
10/12	8:30A	50°	94°	76°	56.39	6.32	69°	100.93	+0.11	+0.0126		
10/27	8:30A	40°	88°	54°	55.00	4.93	54°	100.98	+0.16	+0.0184		
11/9	8:00A	37°	79°	55°	54.90	4.83	53°	100.98	+0.16	+0.0184		
11/23	7:30A	39°	69°	48°	54.42	4.35	48°	101.00	+0.18	+0.0206		
12/7	7:30A	40°	66°	43°	54.35	4.28	47°	100.99	+0.17	+0.0195		
12/22	11:15A	33°	61°	51°	54.54	4.47	49°	101.01	+0.19	+0.0218		
1972												
1/4	8:30A	34°	59°	40°	53.83	3.76	41°	100.99	+0.17	+0.0195		
1/19	9:30A	35°	68°	41°	54.01	3.94	43°	100.99	+0.17	+0.0195		
2/1	9:00A	34°	64°	41°	53.95	3.90	43°	100.99	+0.17	+0.0195		
2/15	9:00A	39°	68°	59°	54.97	4.90	54°	100.98	+0.16	+0.0184		
2/29	9:00A	40°	75°	51°	54.66	4.59	50°	100.97	+0.15	+0.0172		
3/14	8:45A	44°	82°	56°	54.99	4.92	54°	100.97	+0.15	+0.0172		
3/28	9:30A	40°	80°	55°	54.79	4.72	52°	101.00	+0.18	+0.0206		
4/10	9:00A	40°	74°	55°	54.99	4.92	54°	100.95	+0.13	+0.0149		
4/24	9:15A	40°	74°	60°	55.11	5.04	55°	100.99	+0.17	+0.0195		
5/9	7:15A	46°	81°	57°	55.00	4.93	54°	100.98	+0.16	+0.0184		
5/22	8:00A	43°	92°	59°	55.18	5.11	56°	100.98	+0.16	+0.0184		
6/7	8:15A	52°	92°	59°	55.81	5.74	63°	100.93	+0.11	+0.0126		
6/20	9:00A	54°	85°	77°	56.01	5.94	65°	100.95	+0.13	+0.0149		
7/6	10:00A	52°	96°	83°	56.63	6.56	72°	100.91	+0.09	+0.0103		
8/2	7:30A	56°	100°	74°	56.51	6.44	71°	100.92	+0.10	+0.0115		
		STRAIN METERS WERE REMOVED AFTER READING								8/2/72		





# ABUTMENT YIELD MEASUREMENT DATA

Project: MATILIJA DAM

Drill-hole No. DH-3R

Meter No. M-4

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads .001088 inches per 0.01% ratio change  
 Resistance ratio at initial reading 101.79 per cent  
 Resistance ratio, meter closed: 98.9 per cent  
 Resistance ratio, meter open: 104.5 per cent  
 Meter resistance at 0°F, corrected for leads 50.57 ohms  
 Change in temperature per ohm change in resistance 10.93 °F

1971 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.
		Min.	Max.	At time of Obs.							
7/7	8:30A	54°	80°	62°	56.97	6.40	70°	100.55	-1.24	-0.1349	
7/20	8:00A	56°	94°	72°	57.56	6.99	76°	100.51	-1.28	-0.1393	
8/4	8:00A	59°	95°	78°	57.90	7.33	80°	100.49	-1.30	-0.1414	
8/17	8:30A	62°	99°	74°	57.72	7.15	78°	100.48	-1.31	-0.1425	
8/30	9:00A	58°	96°	78°	57.78	7.21	79°	100.47	-1.32	-0.1436	
9/14	8:00A	58°	106°	81°	58.32	7.75	85°	100.44	-1.35	-0.1469	
9/28	8:00A	49°	94°	58°	56.75	6.18	68°	100.50	-1.29	-0.1404	
10/12	8:30A	50°	94°	76°	57.78	7.21	79°	100.59	-1.20	-0.1306	
10/27	8:30A	40°	88°	54°	56.39	5.82	64°	100.69	-1.10	-0.1197	
11/9	8:00A	37°	79°	55°	56.24	5.67	62°	100.73	-1.06	-0.1153	
11/23	7:30A	39°	69°	48°	55.73	5.16	56°	100.81	-0.98	-0.1066	
12/7	7:30A	40°	66°	43°	55.62	5.05	55°	100.82	-0.97	-0.1055	
12/22	11:15A	33°	61°	51°	55.76	5.19	57°	100.86	-0.93	-0.1012	
1972											
1/4	8:30A	34°	59°	40°	54.98	4.41	48°	100.89	-0.90	-0.0972	9
1/19	9:30A	35°	68°	41°	55.32	4.75	52°	100.88	-0.91	-0.0990	
2/1	9:00A	34°	64°	41°	55.26	4.69	51°	100.87	-0.92	-0.1001	
2/15	9:00A	39°	68°	59°	56.23	5.66	62°	100.84	-0.95	-0.1034	
2/29	9:00A	40°	75°	51°	56.00	5.43	59°	100.80	-0.99	-0.1077	
3/14	8:45A	44°	82°	56°	56.37	5.80	63°	100.76	-1.03	-0.1121	
3/28	9:30A	40°	80°	55°	56.20	5.63	62°	100.78	-1.01	-0.1099	
4/10	9:00A	40°	74°	55°	56.41	5.84	64°	100.74	-1.05	-0.1142	
4/24	9:15A	40°	74°	60°	56.50	5.93	65°	100.75	-1.04	-0.1132	
5/9	7:15A	46°	81°	57°	56.44	5.87	64°	100.72	-1.07	-0.1164	
5/22	8:00A	43°	92°	59°	56.58	6.01	66°	100.70	-1.09	-0.1186	
6/7	8:15A	52°	92°	59°	57.28	6.71	73°	100.63	-1.16	-0.1262	
6/20	9:00A	54°	85°	77°	57.45	6.88	75°	100.63	-1.16	-0.1262	
7/6	10:00A	52°	96°	83°	57.99	7.42	81°	100.60	-1.19	-0.1295	
8/2	7:30A	56°	100°	74°	58.04	7.47	82°	100.55	-1.24	-0.1349	
STRAIN METERS WERE REMOVED AFTER READING 8/2/72											

# ABUTMENT YIELD MEASUREMENT DATA

Project: MATILIVA DAM

Drill-hole No. DH-1L

Meter No. M-8

Sheet No. \_\_\_\_\_

**Calibrations:**

Calibration constant, corrected for leads 0.001194 inches per 0.01 % ratio change  
 Resistance ratio at initial reading 99.96 per cent  
 Resistance ratio, meter closed: 97.3 per cent  
 Resistance ratio, meter open: 102.2 per cent  
 Meter resistance at 0°F, corrected for leads 51.18 ohms  
 Change in temperature per ohm change in resistance 10.84 °F

1971 Date	Pac Std Time	Temperature			Total resistance from 0°F ohms (S <sub>2</sub> )	Increase in resistance from 0°F ohms	Temp °F	Resistance ratio per cent (S <sub>1</sub> )	Change in ratio from initial reading per cent	Indicated movement from initial position inches	Lake elev.	
		Min.	Max.	At time of Obs.								
7/7	8:30A	52°	89°	65°	56.60	5.42	59°	98.88	-1.08	-0.1290	1072.00	
7/20	8:00A	60°	95°	70°	57.40	6.22	67°	98.71	-1.25	-0.1493	1071.77	
8/4	8:00A	57°	100°	77°	57.99	6.81	74°	98.59	-1.37	-0.1636	1071.69	
8/17	8:30A	60°	103°	76°	57.47	6.29	68°	98.59	-1.37	-0.1636	1071.63	
8/30	9:00A	58°	96°	78°	57.53	6.35	69°	98.56	-1.40	-0.1672	1071.62	
9/14	8:00A	58°	114°	80°	58.71	7.53	82°	98.39	-1.57	-0.1875	1071.75	
9/28	8:00A	49°	99°	56°	56.10	4.93	53°	98.63	-1.33	-0.1588	1071.80	
10/12	8:30A	65°	106°	84°	57.67	6.49	70°	98.51	-1.45	-0.1731	1071.78	
10/27	8:30A	40°	95°	54°	56.02	4.48	49°	98.74	-1.22	-0.1457	1071.91	
11/9	8:00A	38°	89°	56°	55.77	4.59	50°	98.80	-1.16	-0.1385	1072.11	
11/23	7:30A	39°	79°	51°	55.22	4.04	44°	98.91	-1.05	-0.1254	1060.36	
12/7	7:30A	40°	73°	44°	55.22	4.04	44°	98.94	-1.02	-0.1218	1060.53	
12/22	11:15A	33°	66°	51°	55.47	4.29	47°	99.03	-0.93	-0.1110	1061.04	
1972												
1/4	8:30A	34°	70°	40°	54.47	3.29	36°	99.16	-0.80	-0.0955	1060.85	
1/19	9:30A	36°	75°	41°	54.82	3.64	39°	99.07	-0.89	-0.1063	1061.47	
2/1	9:00A	34°	70°	43°	54.84	3.66	40°	99.07	-0.89	-0.1063	1066.05	
2/15	9:00A	39°	75°	61°	55.94	4.76	52°	98.98	-0.98	-0.1170	1067.97	
2/29	9:00A	40°	84°	50°	55.72	4.54	49°	98.87	-1.09	-0.1301	1067.98	
3/14	8:45A	44°	91°	58°	55.07	4.89	53°	98.79	-1.17	-0.1397	1068.22	
3/28	9:30A	40°	87°	59°	55.61	4.43	48°	98.82	-1.14	-0.1361	1068.04	
4/10	9:00A	39°	78°	55°	56.20	5.02	54°	98.72	-1.24	-0.1481	1068.74	
4/24	9:15A	40°	78°	61°	56.13	4.95	54°	98.73	-1.23	-0.1469	1070.04	
5/9	7:15A	45°	84°	54°	55.92	4.74	51°	98.69	-1.27	-0.1516	1070.88	
5/22	8:00A	42°	97°	59°	56.02	4.84	52°	98.69	-1.27	-0.1516	1071.30	
6/7	8:15A	48°	94°	63°	57.02	5.84	63°	98.48	-1.48	-0.1767	1071.55	
6/20	9:00A	52°	94°	76	57.03	5.85	63°	98.48	-1.48	-0.1767	1071.52	
7/6	9:30A	50°	99°	81°	open	circuit					1071.50	
8/2	7:30A	55°	104°	73°	open	circuit					1071.42	
		Strain			meters were removed after reading					8/2/72		