The instrumentation calibration data for the large scale tests and tabulated in Appendix Table I-1 through Appendix Table I-7.

Appendix Table I-1. Omega LCCD 50 and 100 lb Calibration Data

Date: 3/11/2010
LCCD 50

	W (lbs)	VDC
Tension	0	0.00
	36.09	0.82
	40.5	0.92
	44.91	1.02
	49.32	1.14
	53.73	1.25
	58.14	1.34
Compression	0	0.00
	-36.09	-0.85
	-40.5	-0.95
	-44.91	-1.07
	-49.32	-1.13
	-53.73	-1.23
	-58.14	-1.33

F=43.33x+0.216

Date: 3/29/2010
LCCD 50

	W (lbs)	VDC
Tension	2.2	0.07
	4.4	0.11
	6.6	0.16
	8.8	0.22
	11	0.25
	13.2	0.33
	15.4	0.38
	17.6	0.44
	19.8	0.48
	22	0.55
	24.2	0.6
	24.2	0.6
	22	0.55
	19.8	0.49
	17.6	0.45
	15.4	0.38
	13.2	0.33
	11	0.26
	8.8	0.22
	6.6	0.17
	4.4	0.11
	2.2	0.06

F=40.45x-0.056

Date: 3/29/2010
LCCD 50

	W (lbs)	VDC
Compression	-2.2	-0.05
	-4.4	-0.11
	-6.6	-0.15
	-8.8	-0.22
	-11	-0.25
	-13.2	-0.33
	-15.4	-0.35
	-17.6	-0.4
	-19.8	-0.44
	-22	-0.49
	-24.2	-0.55
	-24.2	-0.6
	-22	-0.56
	-19.8	-0.49
	-17.6	-0.44
	-15.4	-0.37
	-13.2	-0.32
	-11	-0.26
	-8.8	-0.22
	-6.6	-0.17
	-4.4	-0.12
	-2.2	-0.05

F=42.05x+0.067

Date: 4/6/2010
LCCD 100

	W (lbs)	VDC
Tension	0	0
	11.29	0.13
	23.28	0.28
	34.21	0.41
	44.62	0.54
	54.08	0.69
	65.54	0.83
	75.57	0.95
	84.59	1.07
	96.23	1.21
	96.23	1.21
	84.59	1.07
	75.57	0.95
	65.54	0.83
	54.08	0.69
	44.62	0.54
	34.21	0.41
	23.28	0.28
	11.29	0.13
	0	0

F=78.44x+1.011

Date: 4/6/2010
LCCD 100

	W (lbs)	VDC
Compression	0	0
	-11.29	-0.14
	-23.28	-0.29
	-34.21	-0.42
	-44.62	-0.55
	-54.08	-0.69
	-65.54	-0.84
	-75.57	-0.96
	-84.59	-1.07
	-96.23	-1.21
	-96.23	-1.21
	-84.59	-1.07
	-75.57	-0.96
	-65.54	-0.84
	-54.08	-0.69
	-44.62	-0.55
	-34.21	-0.42
	-23.28	-0.29
	-11.29	-0.14
	0	0

F=78.72x-0.368

Date: 5/5/2010
LCCD 100

	W (lbs)	VDC
Tension	0	0
	11.29	0.14
	23.28	0.292
	34.21	0.428
	44.62	0.555
	54.08	0.7
	65.54	0.845
	75.57	0.966
	84.59	1.082
	96.23	1.23
	96.23	1.23
	84.59	1.087
	75.57	0.97
	65.54	0.846
	54.08	0.701
	44.62	0.557
	34.21	0.426
	23.28	0.292
	11.29	0.14
	0	0.001

F=77.65x+0.451

Date: 5/5/2010
LCCD 100

	W (lbs)	VDC
Compression	0	0
	-11.29	-0.139
	-23.28	-0.288
	-34.21	-0.424
	-44.62	-0.554
	-54.08	-0.7
	-65.54	-0.843
	-75.57	-0.968
	-84.59	-1.082
	-96.23	-1.227
	-96.23	-1.227
	-84.59	-1.082
	-75.57	-0.969
	-65.54	-0.845
	-54.08	-0.701
	-44.62	-0.555
	-34.21	-0.426
	-23.28	-0.291
	-11.29	-0.141
	0	0

F=77.73x-0.506

Date: 5/12/2010
LCCD 100

	W (lbs)	VDC
Tension	0	0
	11.29	0.143
	23.28	0.293
	34.21	0.43
	44.62	0.561
	54.08	0.707
	65.54	0.851
	75.57	0.978
	84.59	1.091
	96.23	1.238
	96.23	1.236
	84.59	1.089
	75.57	0.976
	65.54	0.849
	54.08	0.705
	44.62	0.559
	34.21	0.428
	23.28	0.291
	11.29	0.141
	0	0

F=77.15x+0.464

Date: 5/12/2010
LCCD 100

	W (lbs)	VDC
Compression	0	0
	-11.29	-0.142
	-23.28	-0.292
	-34.21	-0.431
	-44.62	-0.562
	-54.08	-0.709
	-65.54	-0.855
	-75.57	-0.983
	-84.59	-1.098
	-96.23	-1.246
	-96.23	-1.246
	-84.59	-1.102
	-75.57	-0.989
	-65.54	-0.863
	-54.08	-0.718
	-44.62	-0.572
	-34.21	-0.441
	-23.28	-0.304
	-11.29	-0.152
	0	-0.01

F=76.83x-0.095

Appendix Table I-2. Chaser Displacement Calibration

Date: 3/17/2010 WS17KT Chaser Displacment	
L (ft)	VDC
0.0	0.0074
1.0	0.00174
5.0	1.01
10.0	2.028
15.0	3.044
20.0	4.062
L=4.806x+0.367	

Date: 5/4/2010 WS17KT Chaser Displacment	
L (ft)	VDC
0.0	-0.001003
1.0	0.2031
5.0	1.011
10.0	2.03
15.0	3.038
20.0	4.055
L=4.93x+0.003	

Appendix Table I-3. Anchor Force Calibration

Date: 3/11/2010 STI RDE 900 Anchor Force		
	W (lbs)	VDC
Tension	2.538	0.17
	57.4	1.27
	114.16	2.415
	169.377	3.53
	224.68	4.64
	279.967	5.75
	279.967	5.75
	224.68	4.64
	169.377	3.52
	114.16	2.41
	57.4	1.27
	2.538	0.17
F=49.69x-5.806		

Date: 3/29/2010 STI RDE 900 Anchor Force		
	W (lbs)	VDC
Tension	54.862	1.3
	111.622	2.38
	166.839	3.53
	222.144	4.6
	277.429	5.67
	277.429	5.67
	222.144	4.59
	166.839	3.49
	111.622	2.39
	54.862	1.25
F=50.50x-9.537		

Appendix Table I-4. Inclinometer Calibration

Date: 3/16/2010 Inclinometer			
Roll Angle °	VDC	Pitch Angle °	VDC
0.0	5.030	0.0	5.000
-10.0	4.253	11.1	5.840
-20.0	3.450	21.8	6.680
-30.0	2.690	31.0	7.440
-40.0	1.910	42.2	8.300
-50.0	1.120	55.8	9.379
-59.0	0.450	-21.5	3.380
11.9	5.990	-36.7	2.070
20.6	6.680	-50.9	0.947
30.1	7.430	θ=12.69x-63.32	
40.0	8.180		
49.3	8.930		
θ=12.73x-64.31			

Appendix Table I-5. Angle Sensor Calibration

Date: 3/16/2010 Angle Sensors			
Vert. Angle °	VDC	Horiz. Angle °	VDC
0.0	0.518	0.0	0.505
20.0	1.035	20.0	1.020
30.0	1.299	30.0	1.288
45.0	1.694	45.0	1.688
55.0	1.967	55.0	1.960
65.0	2.229	65.0	2.239
θ=37.91x-19.4		θ=34.47x-18.51	

Appendix Table I-6. LCCD 500 lb Carriage Force Calibration Data

Date: 3/11/2010 LCCD 500 lb Carriage Force		
	W (lbs)	VDC
Tension	54.86	0.14
	111.62	0.28
	166.837	0.42
	222.142	0.56
	277.427	0.70
F=396.9x-0.119		

Date: 3/29/2010 LCCD 500 lb Carriage Force		
	W (lbs)	VDC
Tension	54.86	0.13
	111.62	0.28
	166.837	0.42
	222.142	0.56
	277.427	0.70
	277.427	0.70
	222.142	0.56
	166.837	0.42
	111.62	0.28
	54.86	0.13
F=391.2x+3.031		

Date: 5/5/2010 LCCD 500 lb Carriage Force		
	W (lbs)	VDC
Tension	54.86	0.135
	111.62	0.276
	166.837	0.413
	222.142	0.550
	277.427	0.687
F=403.2x+0.364		

Appendix Table I-7. Pressure Transducer Calibration

Date: Early March 20010 STI FT2900 Pressure		
	Depth (ft)	VDC
Water	0	-0.065
	4	0.0476
	8	0.1604
	12	0.273
	16	0.385
D=35.54x+2.306		

Date: Early March 20010 STI FT2900 Pressure		
	Depth (ft)	VDC
Mud	1	0
	2	0.04
	3	0.08
	0	-0.015
	1	-0.01
	2	0.03
	3	0.08
	3.833	0.111
	3.33	0.085
	1	0.019
	2	0.049
	3	0.088
	4	0.125
	3	0.064
	2	0.045
	1	0.002
D=26.339x+0.8923		