

# SOUTHWEST RESEARCH INSTITUTE®

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CHEMISTRY AND CHEMICAL ENGINEERING DIVISION  
FIRE TECHNOLOGY DEPARTMENT  
WWW.FIRE.SWRI.ORG  
FAX (210) 522-3377

October 31, 2006



Mr. Ted DeVit  
DeVit Consulting, Inc.  
353 Greenfield Court  
Marietta, GA 30068

Subject: SwRI® Project No. 01.12694.01.103  
Consisting of 30 pages

**TEST DATA**

Dear Mr. DeVit:

On September 28, 2006, Southwest Research Institute's (SwRI) Fire Technology Department located in San Antonio, Texas, conducted a screening test in accordance with ASTM E 119. The small-scale test assembly consisted of 11/16-in. Dragon Board decking, nominal 2 × 8-in. wood stud framing, 4-in. thick 4-lb/ft<sup>3</sup> mineral wool, 4-in. wide by 9/16-in. thick Dragon Board furring strips, and 9/16-in. Dragon Board.

The 4 × 4-ft nominal 2 × 8-in. wood stud framing had studs spaced 24-in. on center and was constructed with 16d 3-1/4-in. nails. The 11/16-in. Dragon Board decking was fastened to the top of the wood stud framing utilizing #8 × 2-in. DuraSpin™ collated steel screws spaced 6-in. on center. The 4-in. thick, 4-lb/ft<sup>3</sup> mineral wool insulation was fiction-fit in the stud cavity. Dragon Board furring strips, 4-in. wide by 9/16-in. thick, was fastened to the bottom of the stud framing. The 9/16-in. thick Dragon Board was fastened to the 4-in. wide Dragon Board furring strips with #8 × 2-in. DuraSpin™ screws spaced 6-in. on center.

The sample was instrumented with five ASTM E 119 thermocouples mounted to the unexposed surface. The average maximum temperature was exceeded at 2 hr 2 min 30 sec and the maximum single point was exceeded at 2 hr 3 min 20 sec.

Enclosed please find graphical and tabular test data for the above-referenced project conducted for Dragon Board. The enclosed documentation fulfills our contractual requirement for this project.

If you should have any questions or comments or if I can be of further assistance, please feel free to contact me at (210) 522-3466 or by fax at (210) 522-3377.

Sincerely,

*JMB*

Jason M. Barnett  
Engineer  
Fire Resistance Section

Approved:

Barry L. Badders, P.E.  
Acting Group Leader  
Fire Resistance Section

JMB/lo

C:\DOCUMENTS\JASON\REPORTS & DATA\R12694.01.103.DOC

Enclosures: Attachment A – Test Data

cc: Record Copy A – FTD  
Record Copy B – IQS

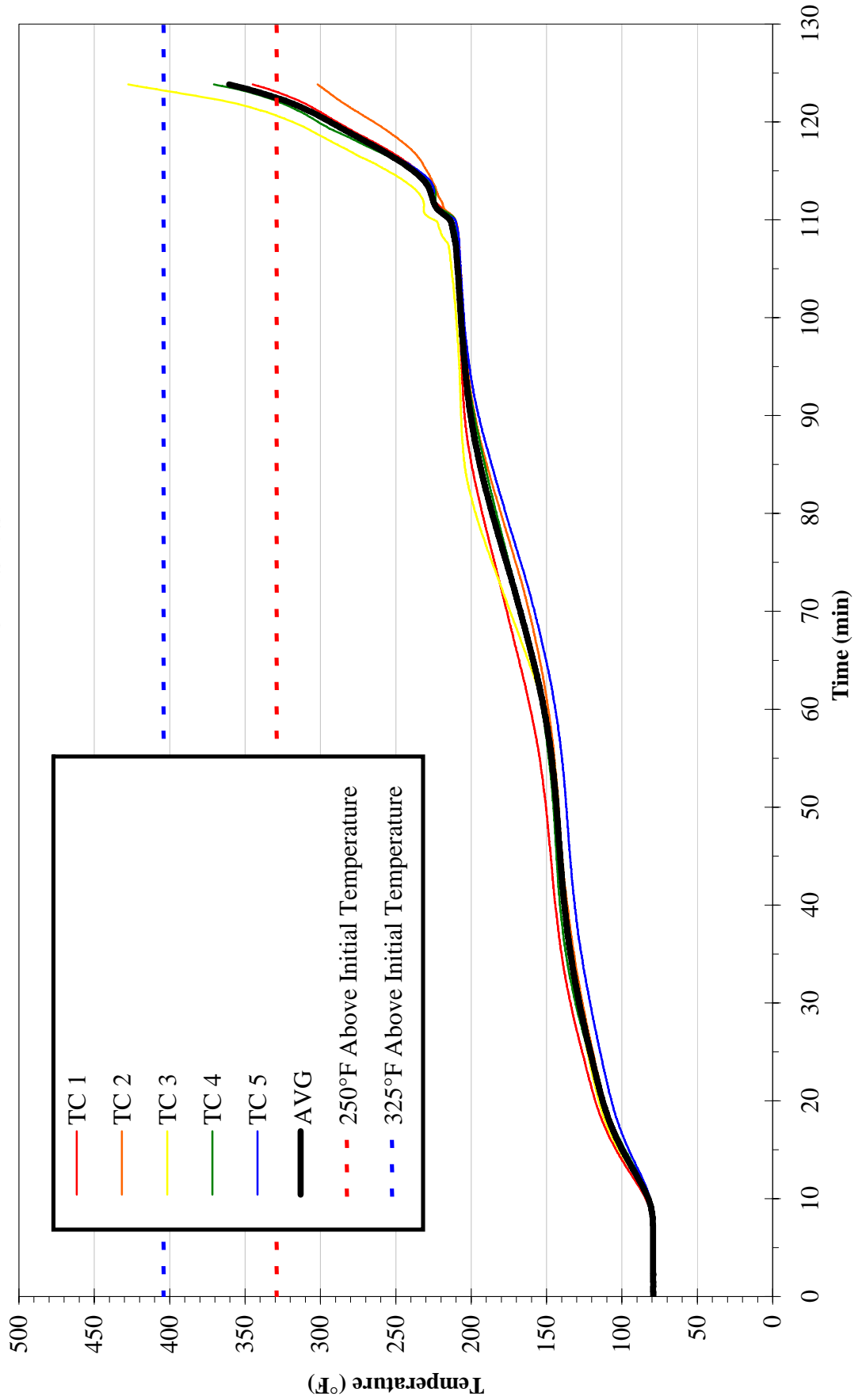
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**ATTACHMENT A**  
**GRAPHICAL AND TABULAR DATA**  
**(CONSISTING OF 28 PAGES)**

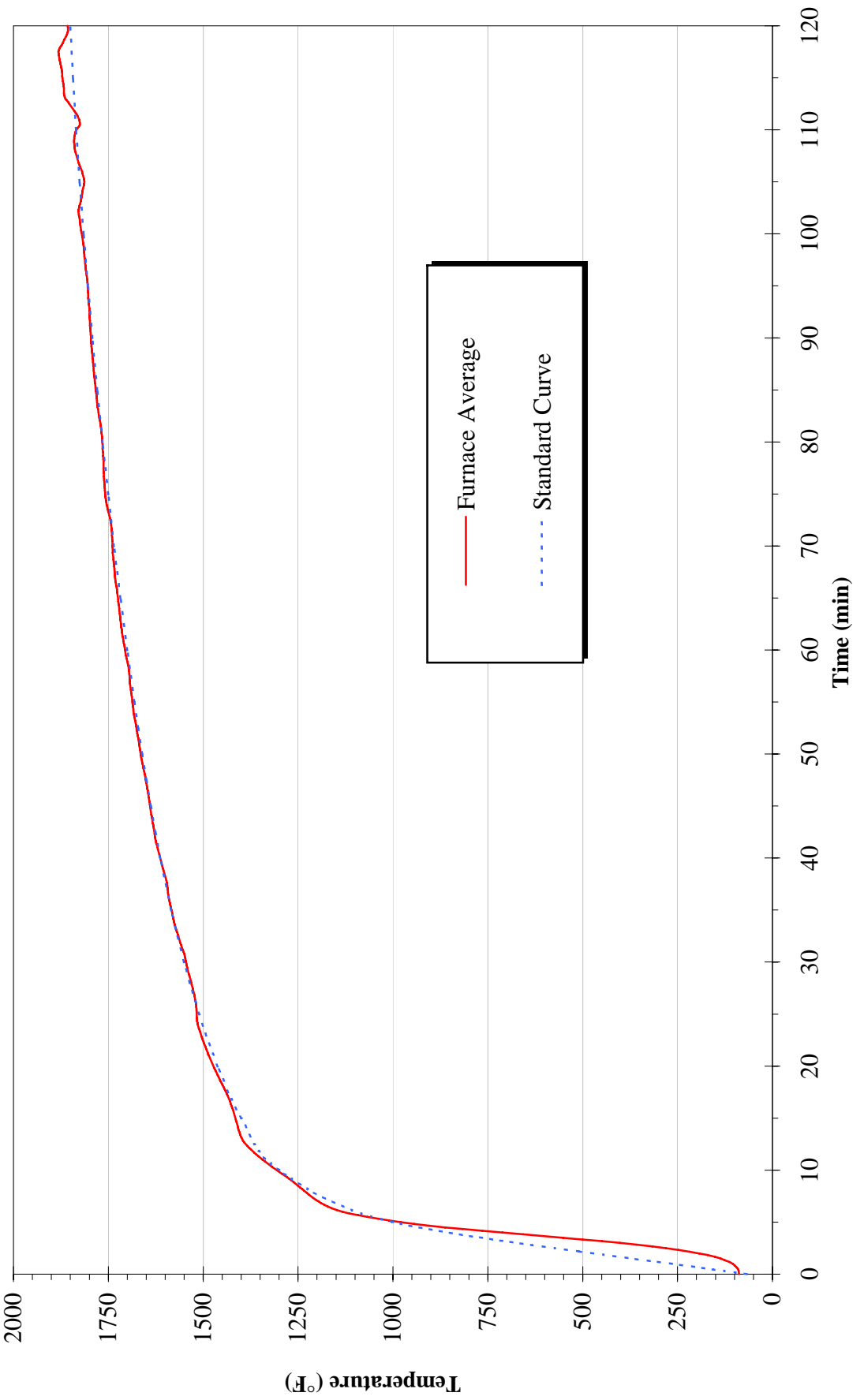
Client: DeVit Consulting, Inc.  
SwRI Project No.: 01.12694.01.103  
Test Date: September 28, 2006  
Test ID: 06-27IDev1.CSV

### UNEXPOSED FACE THERMOCOUPLES TEMPERATURES VS. TIME



Client: DeVit Consulting, Inc.  
SwRI Project No.: 01.12694.01.103  
Test Date: September 28, 2006  
Test ID: 06-271Dev1.CSV

### FURNACE AVERAGE TEMPERATURE VS. TIME



DeVit Consulting, Inc.  
UNEXPOSED FACE TEMPERATURE (°F)

TEST DATE: SEPTEMBER 28, 2006  
FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
0:00:00	79	79	79	79	79	79
0:00:10	79	79	79	79	79	79
0:00:20	79	79	79	79	79	79
0:00:30	79	79	79	79	79	79
0:00:40	80	79	79	79	80	79
0:00:50	79	79	79	79	80	79
0:01:00	79	79	79	79	79	79
0:01:10	79	79	79	79	79	79
0:01:20	79	79	79	79	79	79
0:01:30	79	79	79	79	79	79
0:01:40	79	79	79	79	80	79
0:01:50	80	79	79	79	79	79
0:02:00	80	79	79	79	80	79
0:02:10	79	79	79	79	79	79
0:02:20	79	79	79	79	79	79
0:02:30	80	79	79	79	80	79
0:02:40	79	79	79	79	80	79
0:02:50	80	79	79	79	80	79
0:03:00	80	79	79	79	80	79
0:03:10	79	79	79	79	80	79
0:03:20	80	79	79	79	80	79
0:03:30	79	79	79	79	80	79
0:03:40	80	79	79	79	80	79
0:03:50	80	79	79	79	80	79
0:04:00	80	79	79	79	80	79
0:04:10	80	79	79	79	80	79
0:04:20	80	79	79	79	80	79
0:04:30	80	79	79	79	80	79
0:04:40	80	79	79	79	80	79
0:04:50	80	79	79	79	80	79
0:05:00	80	79	79	79	80	79
0:05:10	80	79	79	79	80	79
0:05:20	80	79	79	79	80	79
0:05:30	80	79	79	79	80	79
0:05:40	80	79	79	79	80	79
0:05:50	80	79	79	79	80	79
0:06:00	80	79	79	79	80	79
0:06:10	80	79	79	79	80	79
0:06:20	80	79	79	79	80	79
0:06:30	80	79	79	79	80	79
0:06:40	80	79	79	79	80	79
0:06:50	80	79	79	79	80	79
0:07:00	80	79	79	79	80	79
0:07:10	80	79	79	79	80	79
0:07:20	80	79	79	79	80	79
0:07:30	80	80	79	79	80	80
0:07:40	80	79	79	79	80	79
0:07:50	80	80	79	80	80	80
0:08:00	80	80	79	80	80	80
0:08:10	80	80	80	80	80	80
0:08:20	80	80	80	80	80	80
0:08:30	81	80	80	80	80	80
0:08:40	81	80	80	80	80	80
0:08:50	81	81	80	80	80	80
0:09:00	81	81	80	80	80	81
0:09:10	82	81	80	80	80	81
0:09:20	82	82	81	81	80	81
0:09:30	83	82	81	81	81	81
0:09:40	83	82	81	81	81	82
0:09:50	84	83	82	81	81	82
0:10:00	84	83	82	82	81	82

DeVit Consulting, Inc.  
UNEXPOSED FACE TEMPERATURE (°F)

TEST DATE: SEPTEMBER 28, 2006  
FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
0:10:10	85	84	83	82	82	83
0:10:20	85	84	83	82	82	83
0:10:30	86	85	84	83	82	84
0:10:40	87	85	84	83	83	84
0:10:50	87	86	85	84	83	85
0:11:00	88	86	85	84	83	85
0:11:10	89	87	86	85	84	86
0:11:20	89	87	87	85	84	87
0:11:30	90	88	87	86	85	87
0:11:40	91	89	88	86	85	88
0:11:50	91	89	89	87	86	88
0:12:00	92	90	90	87	86	89
0:12:10	93	90	90	88	87	90
0:12:20	93	91	91	88	87	90
0:12:30	94	91	92	89	88	91
0:12:40	95	92	93	90	88	91
0:12:50	96	93	93	90	89	92
0:13:00	96	93	94	91	89	93
0:13:10	97	94	95	91	90	93
0:13:20	98	94	96	92	90	94
0:13:30	98	95	96	93	91	95
0:13:40	99	95	97	93	91	95
0:13:50	100	96	98	94	92	96
0:14:00	100	97	98	94	93	96
0:14:10	101	97	99	95	93	97
0:14:20	102	98	100	96	94	98
0:14:30	102	98	100	96	94	98
0:14:40	103	99	101	97	95	99
0:14:50	103	99	102	97	95	99
0:15:00	104	100	102	98	96	100
0:15:10	105	100	103	99	96	100
0:15:20	105	101	103	99	96	101
0:15:30	106	101	104	100	97	101
0:15:40	106	102	105	100	97	102
0:15:50	107	102	105	101	98	102
0:16:00	107	103	106	101	98	103
0:16:10	108	103	106	102	99	104
0:16:20	109	104	107	102	99	104
0:16:30	109	104	107	103	100	105
0:16:40	110	104	108	103	100	105
0:16:50	110	105	108	104	100	105
0:17:00	110	105	109	104	101	106
0:17:10	111	106	109	105	101	106
0:17:20	111	106	110	105	102	107
0:17:30	112	106	110	106	102	107
0:17:40	112	107	110	106	102	108
0:17:50	113	107	111	107	103	108
0:18:00	113	108	111	107	103	109
0:18:10	114	108	112	108	104	109
0:18:20	114	108	112	108	104	109
0:18:30	114	109	112	109	104	110
0:18:40	115	109	113	109	105	110
0:18:50	115	109	113	110	105	110
0:19:00	116	110	114	110	105	111
0:19:10	116	110	114	110	105	111
0:19:20	116	110	114	111	106	111
0:19:30	117	111	115	111	106	112
0:19:40	117	111	115	112	106	112
0:19:50	117	111	115	112	107	112
0:20:00	118	112	115	112	107	113

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UNEXPOSED FACE TEMPERATURE (°F)

TEST DATE: SEPTEMBER 28, 2006  
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SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
0:20:10	118	112	116	113	107	113
0:20:20	118	112	116	113	108	113
0:20:30	119	113	116	113	108	114
0:20:40	119	113	117	114	108	114
0:20:50	119	113	117	114	108	114
0:21:00	120	113	117	114	109	115
0:21:10	120	114	117	115	109	115
0:21:20	120	114	118	115	109	115
0:21:30	121	114	118	115	109	115
0:21:40	121	114	118	116	110	116
0:21:50	121	115	118	116	110	116
0:22:00	121	115	119	116	110	116
0:22:10	122	115	119	117	110	117
0:22:20	122	115	119	117	111	117
0:22:30	122	116	119	117	111	117
0:22:40	123	116	120	118	111	117
0:22:50	123	116	120	118	111	118
0:23:00	123	117	120	118	112	118
0:23:10	123	117	120	119	112	118
0:23:20	124	117	121	119	112	118
0:23:30	124	117	121	119	112	119
0:23:40	124	117	121	120	113	119
0:23:50	124	118	121	120	113	119
0:24:00	125	118	122	120	113	120
0:24:10	125	118	122	121	113	120
0:24:20	125	118	122	121	114	120
0:24:30	126	119	122	121	114	120
0:24:40	126	119	122	122	114	120
0:24:50	126	119	123	122	114	121
0:25:00	126	119	123	122	115	121
0:25:10	127	120	123	123	115	121
0:25:20	127	120	123	123	115	122
0:25:30	127	120	124	123	115	122
0:25:40	128	120	124	124	115	122
0:25:50	128	121	124	124	116	122
0:26:00	128	121	124	124	116	123
0:26:10	128	121	124	125	116	123
0:26:20	129	121	125	125	116	123
0:26:30	129	122	125	125	117	123
0:26:40	129	122	125	125	117	124
0:26:50	129	122	125	126	117	124
0:27:00	130	122	126	126	117	124
0:27:10	130	122	126	126	117	124
0:27:20	130	123	126	127	118	125
0:27:30	131	123	126	127	118	125
0:27:40	131	123	126	127	118	125
0:27:50	131	123	127	127	118	125
0:28:00	131	124	127	128	119	126
0:28:10	132	124	127	128	119	126
0:28:20	132	124	127	128	119	126
0:28:30	132	124	127	128	119	126
0:28:40	132	125	128	129	119	127
0:28:50	133	125	128	129	120	127
0:29:00	133	125	128	129	120	127
0:29:10	133	125	128	130	120	127
0:29:20	133	125	128	130	120	127
0:29:30	133	126	129	130	121	128
0:29:40	134	126	129	130	121	128
0:29:50	134	126	129	131	121	128
0:30:00	134	126	129	131	121	128

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TEST DATE: SEPTEMBER 28, 2006  
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SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
0:30:10	134	126	129	131	121	129
0:30:20	135	127	130	131	122	129
0:30:30	135	127	130	132	122	129
0:30:40	135	127	130	132	122	129
0:30:50	135	127	130	132	122	129
0:31:00	136	127	130	132	122	130
0:31:10	136	128	131	133	123	130
0:31:20	136	128	131	133	123	130
0:31:30	136	128	131	133	123	130
0:31:40	136	128	131	133	123	130
0:31:50	137	128	131	133	123	131
0:32:00	137	129	131	134	124	131
0:32:10	137	129	132	134	124	131
0:32:20	137	129	132	134	124	131
0:32:30	137	129	132	134	124	131
0:32:40	138	129	132	135	124	132
0:32:50	138	130	132	135	125	132
0:33:00	138	130	133	135	125	132
0:33:10	138	130	133	135	125	132
0:33:20	138	130	133	135	125	132
0:33:30	139	130	133	136	125	133
0:33:40	139	131	133	136	126	133
0:33:50	139	131	133	136	126	133
0:34:00	139	131	134	136	126	133
0:34:10	139	131	134	136	126	133
0:34:20	139	131	134	136	126	133
0:34:30	140	131	134	137	126	134
0:34:40	140	131	134	137	127	134
0:34:50	140	132	134	137	127	134
0:35:00	140	132	135	137	127	134
0:35:10	140	132	135	137	127	134
0:35:20	140	132	135	138	127	134
0:35:30	141	132	135	138	127	135
0:35:40	141	133	135	138	128	135
0:35:50	141	133	135	138	128	135
0:36:00	141	133	135	138	128	135
0:36:10	141	133	135	138	128	135
0:36:20	141	133	136	138	128	135
0:36:30	141	133	136	139	129	135
0:36:40	142	133	136	139	129	136
0:36:50	142	134	136	139	129	136
0:37:00	142	134	136	139	129	136
0:37:10	142	134	136	139	129	136
0:37:20	142	134	136	139	129	136
0:37:30	142	134	136	139	129	136
0:37:40	142	134	137	140	130	136
0:37:50	143	134	137	140	130	137
0:38:00	143	135	137	140	130	137
0:38:10	143	135	137	140	130	137
0:38:20	143	135	137	140	130	137
0:38:30	143	135	137	140	130	137
0:38:40	143	135	137	140	130	137
0:38:50	143	135	137	140	130	137
0:39:00	143	135	137	140	131	137
0:39:10	144	136	137	141	131	138
0:39:20	144	136	138	141	131	138
0:39:30	144	136	138	141	131	138
0:39:40	144	136	138	141	131	138
0:39:50	144	136	138	141	131	138
0:40:00	144	136	138	141	131	138

DeVit Consulting, Inc.  
UNEXPOSED FACE TEMPERATURE (°F)

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Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
0:40:10	144	136	138	141	131	138
0:40:20	144	137	138	141	132	138
0:40:30	145	137	138	141	132	139
0:40:40	145	137	138	142	132	139
0:40:50	145	137	138	142	132	139
0:41:00	145	137	139	142	132	139
0:41:10	145	137	139	142	132	139
0:41:20	145	137	139	142	132	139
0:41:30	145	137	139	142	132	139
0:41:40	145	138	139	142	133	139
0:41:50	145	138	139	142	133	139
0:42:00	146	138	139	142	133	139
0:42:10	146	138	139	142	133	140
0:42:20	146	138	139	142	133	140
0:42:30	146	138	139	143	133	140
0:42:40	146	138	139	143	133	140
0:42:50	146	139	139	143	133	140
0:43:00	146	139	139	143	133	140
0:43:10	146	139	140	143	133	140
0:43:20	146	139	140	143	134	140
0:43:30	146	139	140	143	134	140
0:43:40	146	139	140	143	134	140
0:43:50	147	139	140	143	134	140
0:44:00	147	139	140	143	134	141
0:44:10	147	139	140	143	134	141
0:44:20	147	139	140	143	134	141
0:44:30	147	140	140	143	134	141
0:44:40	147	140	140	143	134	141
0:44:50	147	140	140	143	134	141
0:45:00	147	140	140	143	135	141
0:45:10	147	140	140	144	135	141
0:45:20	147	140	140	144	135	141
0:45:30	148	140	140	144	135	141
0:45:40	148	140	140	144	135	141
0:45:50	148	140	141	144	135	141
0:46:00	148	140	141	144	135	141
0:46:10	148	140	141	144	135	142
0:46:20	148	140	141	144	135	142
0:46:30	148	141	141	144	135	142
0:46:40	148	141	141	144	135	142
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0:47:10	149	141	141	144	136	142
0:47:20	149	141	141	144	136	142
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0:47:50	149	141	141	145	136	142
0:48:00	149	141	141	145	136	142
0:48:10	149	141	142	145	136	143
0:48:20	149	141	142	145	136	143
0:48:30	149	141	142	145	136	143
0:48:40	150	142	142	145	136	143
0:48:50	150	142	142	145	136	143
0:49:00	150	142	142	145	136	143
0:49:10	150	142	142	145	137	143
0:49:20	150	142	142	145	137	143
0:49:30	150	142	142	145	137	143
0:49:40	150	142	142	145	137	143
0:49:50	150	142	142	145	137	143
0:50:00	150	142	142	145	137	143

DeVit Consulting, Inc.  
UNEXPOSED FACE TEMPERATURE (°F)

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SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
0:50:10	151	142	142	146	137	144
0:50:20	151	142	142	146	137	144
0:50:30	151	142	142	146	137	144
0:50:40	151	142	143	146	137	144
0:50:50	151	142	143	146	137	144
0:51:00	151	143	143	146	137	144
0:51:10	151	143	143	146	137	144
0:51:20	151	143	143	146	138	144
0:51:30	152	143	143	146	138	144
0:51:40	152	143	143	146	138	144
0:51:50	152	143	143	146	138	144
0:52:00	152	143	143	147	138	145
0:52:10	152	143	143	147	138	145
0:52:20	152	143	144	147	138	145
0:52:30	152	143	144	147	138	145
0:52:40	152	143	144	147	138	145
0:52:50	153	143	144	147	138	145
0:53:00	153	144	144	147	138	145
0:53:10	153	144	144	147	139	145
0:53:20	153	144	144	147	139	145
0:53:30	153	144	144	147	139	145
0:53:40	153	144	144	148	139	146
0:53:50	154	144	145	148	139	146
0:54:00	154	144	145	148	139	146
0:54:10	154	144	145	148	139	146
0:54:20	154	144	145	148	139	146
0:54:30	154	145	145	148	140	146
0:54:40	154	145	145	148	140	146
0:54:50	154	145	145	148	140	147
0:55:00	155	145	146	149	140	147
0:55:10	155	145	146	149	140	147
0:55:20	155	145	146	149	140	147
0:55:30	155	145	146	149	140	147
0:55:40	155	145	146	149	140	147
0:55:50	155	145	146	149	140	147
0:56:00	156	145	147	149	141	147
0:56:10	156	146	147	149	141	148
0:56:20	156	146	147	150	141	148
0:56:30	156	146	147	150	141	148
0:56:40	156	146	147	150	141	148
0:56:50	157	146	147	150	141	148
0:57:00	157	146	148	150	141	148
0:57:10	157	146	148	150	142	149
0:57:20	157	147	148	150	142	149
0:57:30	157	147	148	151	142	149
0:57:40	158	147	149	151	142	149
0:57:50	158	147	149	151	142	149
0:58:00	158	147	149	151	142	149
0:58:10	158	147	149	151	142	150
0:58:20	158	147	149	151	143	150
0:58:30	159	148	150	151	143	150
0:58:40	159	148	150	152	143	150
0:58:50	159	148	150	152	143	150
0:59:00	159	148	150	152	143	151
0:59:10	160	148	151	152	143	151
0:59:20	160	148	151	152	144	151
0:59:30	160	148	151	153	144	151
0:59:40	160	149	151	153	144	151
0:59:50	161	149	152	153	144	152
1:00:00	161	149	152	153	144	152

DeVit Consulting, Inc.  
UNEXPOSED FACE TEMPERATURE (°F)

TEST DATE: SEPTEMBER 28, 2006  
FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
1:00:10	161	149	152	153	144	152
1:00:20	161	149	152	153	145	152
1:00:30	161	149	153	154	145	152
1:00:40	162	150	153	154	145	153
1:00:50	162	150	153	154	145	153
1:01:00	162	150	154	154	145	153
1:01:10	162	150	154	154	145	153
1:01:20	163	150	154	155	146	153
1:01:30	163	150	155	155	146	154
1:01:40	163	151	155	155	146	154
1:01:50	163	151	155	155	146	154
1:02:00	164	151	156	155	146	154
1:02:10	164	151	156	156	147	155
1:02:20	164	151	156	156	147	155
1:02:30	164	152	157	156	147	155
1:02:40	165	152	157	156	147	155
1:02:50	165	152	157	156	147	156
1:03:00	165	152	158	157	148	156
1:03:10	165	152	158	157	148	156
1:03:20	166	152	158	157	148	156
1:03:30	166	153	159	157	148	156
1:03:40	166	153	159	158	149	157
1:03:50	166	153	160	158	149	157
1:04:00	167	153	160	158	149	158
1:04:10	167	153	160	158	149	158
1:04:20	167	154	161	158	149	158
1:04:30	168	154	161	159	150	158
1:04:40	168	154	161	159	150	158
1:04:50	168	154	162	159	150	159
1:05:00	168	155	162	159	150	159
1:05:10	169	155	163	160	151	159
1:05:20	169	155	163	160	151	159
1:05:30	169	155	163	160	151	160
1:05:40	169	155	164	160	151	160
1:05:50	170	156	164	161	152	160
1:06:00	170	156	165	161	152	161
1:06:10	170	156	165	161	152	161
1:06:20	170	156	165	161	152	161
1:06:30	171	156	166	162	153	161
1:06:40	171	157	166	162	153	162
1:06:50	171	157	167	162	153	162
1:07:00	172	157	167	162	153	162
1:07:10	172	157	167	163	154	163
1:07:20	172	158	168	163	154	163
1:07:30	172	158	168	163	154	163
1:07:40	173	158	169	163	154	163
1:07:50	173	158	169	164	155	164
1:08:00	173	159	169	164	155	164
1:08:10	173	159	170	164	155	164
1:08:20	174	159	170	164	155	165
1:08:30	174	159	171	165	156	165
1:08:40	174	160	171	165	156	165
1:08:50	175	160	171	165	156	165
1:09:00	175	160	172	165	156	166
1:09:10	175	160	172	166	157	166
1:09:20	175	161	173	166	157	166
1:09:30	176	161	173	166	157	167
1:09:40	176	161	173	166	158	167
1:09:50	176	161	174	167	158	167
1:10:00	176	162	174	167	158	167

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SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
1:10:10	177	162	175	167	158	168
1:10:20	177	162	175	167	159	168
1:10:30	177	163	175	168	159	168
1:10:40	178	163	176	168	159	169
1:10:50	178	163	176	168	160	169
1:11:00	178	163	177	169	160	169
1:11:10	178	164	177	169	160	169
1:11:20	179	164	177	169	160	170
1:11:30	179	164	178	169	161	170
1:11:40	179	164	178	170	161	170
1:11:50	179	165	179	170	161	171
1:12:00	180	165	179	170	161	171
1:12:10	180	165	179	170	162	171
1:12:20	180	166	180	171	162	172
1:12:30	180	166	180	171	162	172
1:12:40	181	166	180	171	163	172
1:12:50	181	166	181	171	163	173
1:13:00	181	167	181	172	163	173
1:13:10	182	167	182	172	164	173
1:13:20	182	167	182	172	164	173
1:13:30	182	168	183	173	164	174
1:13:40	182	168	183	173	165	174
1:13:50	183	168	183	173	165	174
1:14:00	183	169	184	173	165	175
1:14:10	183	169	184	174	165	175
1:14:20	183	169	185	174	166	175
1:14:30	184	170	185	174	166	176
1:14:40	184	170	185	174	167	176
1:14:50	184	170	186	175	167	176
1:15:00	185	171	186	175	167	177
1:15:10	185	171	187	175	168	177
1:15:20	185	171	187	176	168	177
1:15:30	185	172	187	176	168	178
1:15:40	186	172	188	176	169	178
1:15:50	186	172	188	176	169	178
1:16:00	186	172	188	177	169	179
1:16:10	186	173	189	177	169	179
1:16:20	187	173	189	177	170	179
1:16:30	187	173	190	178	170	180
1:16:40	187	174	190	178	171	180
1:16:50	188	174	190	178	171	180
1:17:00	188	174	191	178	171	180
1:17:10	188	175	191	179	171	181
1:17:20	188	175	191	179	172	181
1:17:30	189	175	192	179	172	181
1:17:40	189	176	192	179	172	182
1:17:50	189	176	193	180	173	182
1:18:00	189	176	193	180	173	182
1:18:10	190	177	193	180	174	183
1:18:20	190	177	194	181	174	183
1:18:30	190	177	194	181	174	183
1:18:40	191	178	194	181	175	184
1:18:50	191	178	195	181	175	184
1:19:00	191	178	195	182	175	184
1:19:10	191	179	195	182	175	184
1:19:20	192	179	196	182	176	185
1:19:30	192	179	196	182	176	185
1:19:40	192	180	197	183	176	185
1:19:50	192	180	197	183	177	186
1:20:00	193	180	197	183	177	186

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TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
1:20:10	193	181	197	184	177	186
1:20:20	193	181	198	184	178	187
1:20:30	193	181	198	184	178	187
1:20:40	194	182	198	184	178	187
1:20:50	194	182	199	185	179	187
1:21:00	194	182	199	185	179	188
1:21:10	194	183	199	185	179	188
1:21:20	195	183	200	185	180	188
1:21:30	195	183	200	186	180	189
1:21:40	195	183	200	186	180	189
1:21:50	195	184	200	186	181	189
1:22:00	196	184	201	186	181	190
1:22:10	196	185	201	187	181	190
1:22:20	196	185	201	187	182	190
1:22:30	196	185	201	187	182	190
1:22:40	197	185	202	188	182	191
1:22:50	197	186	202	188	183	191
1:23:00	197	186	202	188	183	191
1:23:10	197	186	202	188	183	191
1:23:20	198	187	203	189	183	192
1:23:30	198	187	203	189	184	192
1:23:40	198	187	203	189	184	192
1:23:50	198	188	203	189	184	193
1:24:00	198	188	203	190	185	193
1:24:10	199	188	204	190	185	193
1:24:20	199	189	204	190	185	193
1:24:30	199	189	204	190	186	193
1:24:40	199	189	204	191	186	194
1:24:50	200	189	204	191	186	194
1:25:00	200	190	205	191	187	194
1:25:10	200	190	204	191	187	194
1:25:20	200	190	205	192	187	195
1:25:30	200	191	205	192	187	195
1:25:40	201	191	205	192	188	195
1:25:50	201	191	205	192	188	195
1:26:00	201	191	205	193	188	196
1:26:10	201	192	205	193	189	196
1:26:20	201	192	205	193	189	196
1:26:30	202	192	205	193	189	196
1:26:40	202	193	205	193	190	196
1:26:50	202	193	206	194	190	197
1:27:00	202	193	206	194	190	197
1:27:10	202	193	206	194	190	197
1:27:20	202	194	206	194	191	197
1:27:30	203	194	206	195	191	198
1:27:40	203	194	206	195	191	198
1:27:50	203	194	206	195	192	198
1:28:00	203	195	206	195	192	198
1:28:10	203	195	206	196	192	198
1:28:20	203	195	206	196	193	199
1:28:30	203	196	206	196	193	199
1:28:40	203	196	206	196	193	199
1:28:50	204	196	206	196	193	199
1:29:00	204	196	206	197	194	199
1:29:10	204	197	207	197	194	200
1:29:20	204	197	207	197	194	200
1:29:30	204	197	207	197	194	200
1:29:40	204	197	207	198	195	200
1:29:50	204	197	207	198	195	200
1:30:00	204	198	207	198	195	200

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TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
1:30:10	204	198	207	198	195	200
1:30:20	205	198	207	198	196	201
1:30:30	205	198	207	199	196	201
1:30:40	205	198	207	199	196	201
1:30:50	205	199	207	199	196	201
1:31:00	205	199	207	199	197	201
1:31:10	205	199	207	199	197	201
1:31:20	205	199	207	200	197	202
1:31:30	205	199	207	200	197	202
1:31:40	205	200	207	200	198	202
1:31:50	205	200	207	200	198	202
1:32:00	205	200	207	200	198	202
1:32:10	205	200	207	201	198	202
1:32:20	205	200	207	201	198	202
1:32:30	205	200	207	201	199	203
1:32:40	206	201	207	201	199	203
1:32:50	206	201	207	201	199	203
1:33:00	206	201	207	201	199	203
1:33:10	206	201	207	202	199	203
1:33:20	206	201	208	202	199	203
1:33:30	206	201	208	202	200	203
1:33:40	206	201	208	202	200	203
1:33:50	206	202	208	202	200	203
1:34:00	206	202	208	202	200	204
1:34:10	206	202	208	202	200	204
1:34:20	206	202	208	203	201	204
1:34:30	206	202	208	203	201	204
1:34:40	206	202	208	203	201	204
1:34:50	206	202	208	203	201	204
1:35:00	206	202	208	203	201	204
1:35:10	206	203	208	203	201	204
1:35:20	206	203	208	203	202	204
1:35:30	206	203	208	203	202	204
1:35:40	206	203	208	204	202	205
1:35:50	207	203	208	204	202	205
1:36:00	207	203	208	204	202	205
1:36:10	207	203	208	204	202	205
1:36:20	207	203	208	204	202	205
1:36:30	207	203	208	204	203	205
1:36:40	207	204	209	204	203	205
1:36:50	207	204	209	204	203	205
1:37:00	207	204	209	204	203	205
1:37:10	207	204	209	205	203	205
1:37:20	207	204	209	205	203	205
1:37:30	207	204	209	205	203	206
1:37:40	207	204	209	205	203	206
1:37:50	207	204	209	205	204	206
1:38:00	207	204	209	205	204	206
1:38:10	207	204	209	205	204	206
1:38:20	207	205	209	205	204	206
1:38:30	208	205	209	205	204	206
1:38:40	207	205	209	205	204	206
1:38:50	208	205	210	205	204	206
1:39:00	208	205	210	206	204	206
1:39:10	208	205	210	206	205	206
1:39:20	208	205	210	206	205	207
1:39:30	208	205	210	206	205	207
1:39:40	208	205	210	206	205	207
1:39:50	208	205	210	206	205	207
1:40:00	208	205	210	206	205	207

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TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
1:40:10	208	205	210	206	205	207
1:40:20	208	205	210	206	205	207
1:40:30	208	205	210	206	205	207
1:40:40	208	206	210	206	205	207
1:40:50	208	206	210	206	205	207
1:41:00	208	206	210	207	205	207
1:41:10	208	206	211	207	205	207
1:41:20	208	206	211	207	205	207
1:41:30	209	206	211	207	206	207
1:41:40	209	206	211	207	206	208
1:41:50	209	206	211	207	206	208
1:42:00	209	206	211	207	206	208
1:42:10	209	206	211	207	206	208
1:42:20	209	206	211	207	206	208
1:42:30	209	206	211	207	206	208
1:42:40	209	206	211	207	206	208
1:42:50	209	206	212	207	206	208
1:43:00	209	206	212	207	206	208
1:43:10	209	206	212	207	206	208
1:43:20	209	206	212	207	206	208
1:43:30	209	206	212	207	206	208
1:43:40	210	207	212	207	206	208
1:43:50	210	207	212	207	207	208
1:44:00	210	207	212	208	207	208
1:44:10	210	207	213	208	207	209
1:44:20	210	207	213	208	207	209
1:44:30	210	207	213	208	207	209
1:44:40	210	207	213	208	207	209
1:44:50	210	207	213	208	207	209
1:45:00	210	207	213	208	207	209
1:45:10	210	207	213	208	207	209
1:45:20	210	207	213	208	207	209
1:45:30	210	207	214	208	207	209
1:45:40	210	207	214	208	207	209
1:45:50	211	207	214	208	207	209
1:46:00	211	207	214	208	207	210
1:46:10	211	207	214	208	207	210
1:46:20	211	208	214	208	208	210
1:46:30	211	208	214	208	208	210
1:46:40	211	208	214	208	208	210
1:46:50	211	208	214	209	208	210
1:47:00	211	208	215	209	208	210
1:47:10	211	208	215	209	208	210
1:47:20	211	208	215	209	208	210
1:47:30	211	208	215	209	208	210
1:47:40	212	208	216	209	208	210
1:47:50	212	208	217	209	208	211
1:48:00	212	208	218	209	208	211
1:48:10	212	208	218	209	208	211
1:48:20	212	208	219	209	208	211
1:48:30	212	208	220	209	208	212
1:48:40	212	209	220	209	209	212
1:48:50	213	209	220	210	209	212
1:49:00	213	209	221	210	209	212
1:49:10	213	209	221	210	209	212
1:49:20	213	209	222	210	210	213
1:49:30	213	210	222	210	210	213
1:49:40	214	210	222	210	210	213
1:49:50	214	210	223	210	210	213
1:50:00	214	211	225	211	211	214

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TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
1:50:10	214	211	227	211	212	215
1:50:20	215	212	229	212	214	216
1:50:30	215	213	230	214	217	218
1:50:40	216	214	231	215	219	219
1:50:50	217	216	231	217	221	220
1:51:00	218	217	232	219	223	222
1:51:10	219	218	231	221	224	223
1:51:20	220	219	231	222	225	223
1:51:30	222	219	231	223	225	224
1:51:40	223	219	231	223	226	225
1:51:50	224	219	232	224	226	225
1:52:00	225	220	232	224	226	225
1:52:10	226	221	233	224	226	226
1:52:20	227	222	233	224	226	226
1:52:30	227	222	234	224	225	226
1:52:40	228	222	234	224	225	227
1:52:50	228	223	235	224	225	227
1:53:00	228	223	237	224	225	227
1:53:10	229	224	238	224	225	228
1:53:20	229	224	239	225	225	228
1:53:30	229	224	240	225	226	229
1:53:40	230	225	242	226	226	230
1:53:50	230	226	243	227	227	230
1:54:00	231	226	245	228	227	231
1:54:10	231	226	246	229	228	232
1:54:20	232	227	248	230	230	233
1:54:30	233	228	250	232	231	235
1:54:40	234	228	252	233	232	236
1:54:50	235	229	253	235	233	237
1:55:00	236	229	255	237	235	238
1:55:10	237	230	257	238	236	240
1:55:20	238	231	259	240	238	241
1:55:30	239	231	261	242	240	243
1:55:40	241	232	263	244	241	244
1:55:50	242	233	265	247	243	246
1:56:00	244	233	267	249	245	248
1:56:10	245	234	270	251	247	249
1:56:20	247	235	272	253	249	251
1:56:30	249	236	274	255	251	253
1:56:40	250	237	276	257	253	255
1:56:50	252	238	278	260	255	256
1:57:00	254	239	280	262	257	258
1:57:10	256	240	282	264	259	260
1:57:20	258	241	284	267	261	262
1:57:30	260	242	287	269	263	264
1:57:40	262	243	289	271	265	266
1:57:50	263	245	291	273	268	268
1:58:00	265	246	293	275	270	270
1:58:10	268	248	295	278	273	272
1:58:20	269	249	297	280	275	274
1:58:30	271	250	299	282	277	276
1:58:40	274	252	301	284	279	278
1:58:50	276	253	303	287	281	280
1:59:00	278	255	305	289	283	282
1:59:10	280	256	307	292	285	284
1:59:20	282	258	309	294	287	286
1:59:30	283	260	311	296	289	288
1:59:40	285	261	314	298	291	290
1:59:50	287	263	316	300	292	292
2:00:00	289	265	318	302	294	294
2:00:10	291	266	321	303	296	296
2:00:20	293	268	324	305	298	298
2:00:30	295	270	327	307	300	300
2:00:40	296	272	330	309	302	302
2:00:50	298	273	333	311	303	304
2:01:00	300	275	336	313	305	306
2:01:10	302	277	340	315	308	308
2:01:20	304	279	343	317	310	310

DeVit Consulting, Inc.  
UNEXPOSED FACE TEMPERATURE (°F)

TEST DATE: SEPTEMBER 28, 2006  
FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	TC 1	TC 2	TC 3	TC 4	TC 5	AVG
2:01:30	306	281	347	319	312	313
2:01:40	308	282	351	322	314	315
2:01:50	310	284	355	324	317	318
2:02:00	312	286	360	327	319	321
2:02:10	314	287	365	330	322	323
2:02:20	317	289	370	332	325	327
2:02:30	319	290	376	336	328	330
2:02:40	322	292	383	339	331	333
2:02:50	325	293	389	343	334	337
2:03:00	328	295	396	346	337	340
2:03:10	331	296	402	350	341	344
2:03:20	334	298	409	355	345	348
2:03:30	338	299	415	360	349	352
2:03:40	341	300	421	365	353	356
2:03:50	345	302	428	371	358	361

## DeVit Consulting, Inc.

## FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006  
 FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
 TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
0:00:00	87	86	89	88	0.01
0:00:10	88	87	90	88	-0.02
0:00:20	90	88	90	89	-0.06
0:00:30	93	91	91	91	-0.06
0:00:40	97	94	93	95	-0.05
0:00:50	102	98	96	99	-0.04
0:01:00	110	104	100	105	-0.04
0:01:10	118	112	106	112	-0.03
0:01:20	130	123	123	125	-0.02
0:01:30	145	137	128	137	-0.03
0:01:40	162	155	139	152	-0.03
0:01:50	183	177	152	171	-0.02
0:02:00	207	204	169	193	-0.02
0:02:10	235	234	188	219	-0.02
0:02:20	266	266	211	248	-0.01
0:02:30	302	303	237	281	-0.01
0:02:40	341	343	267	317	0.00
0:02:50	385	388	301	358	0.00
0:03:00	431	438	337	402	0.00
0:03:10	478	491	377	449	0.00
0:03:20	529	548	422	500	0.01
0:03:30	582	607	466	552	0.00
0:03:40	637	667	508	604	-0.03
0:03:50	693	725	553	657	-0.05
0:04:00	749	783	601	711	-0.05
0:04:10	804	840	650	764	-0.05
0:04:20	856	893	699	816	-0.06
0:04:30	903	939	745	863	-0.05
0:04:40	947	980	789	905	-0.05
0:04:50	986	1016	831	944	-0.04
0:05:00	1020	1048	870	979	-0.04
0:05:10	1051	1076	905	1010	-0.04
0:05:20	1078	1102	939	1040	-0.04
0:05:30	1104	1127	971	1067	-0.04
0:05:40	1127	1149	1000	1092	-0.05
0:05:50	1146	1168	1026	1114	-0.05
0:06:00	1163	1185	1050	1132	-0.05
0:06:10	1176	1198	1070	1148	-0.04
0:06:20	1186	1209	1087	1161	-0.04
0:06:30	1195	1219	1102	1172	-0.04
0:06:40	1202	1227	1115	1181	-0.05
0:06:50	1208	1234	1126	1189	-0.05
0:07:00	1213	1241	1137	1197	-0.04
0:07:10	1219	1247	1146	1204	-0.04
0:07:20	1224	1253	1155	1210	-0.04
0:07:30	1228	1258	1163	1216	-0.04
0:07:40	1233	1263	1170	1222	-0.04
0:07:50	1237	1269	1178	1228	-0.04
0:08:00	1241	1274	1186	1234	-0.04
0:08:10	1246	1279	1193	1239	-0.05
0:08:20	1250	1284	1200	1245	-0.04
0:08:30	1255	1289	1206	1250	-0.05
0:08:40	1259	1294	1212	1255	-0.04
0:08:50	1264	1300	1219	1261	-0.04
0:09:00	1270	1305	1226	1267	-0.04
0:09:10	1276	1311	1233	1273	-0.04
0:09:20	1282	1317	1240	1279	-0.04
0:09:30	1288	1323	1247	1286	-0.04
0:09:40	1294	1328	1255	1293	-0.04
0:09:50	1301	1335	1263	1299	-0.04
0:10:00	1307	1341	1270	1306	-0.04

## DeVit Consulting, Inc.

## FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006

SwRI PROJECT NO.: 01.12694.01.103

FILE ID: 06-271dev1.CSV

TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
0:10:10	1314	1347	1278	1313	-0.03
0:10:20	1320	1353	1285	1319	-0.04
0:10:30	1326	1358	1292	1325	-0.03
0:10:40	1332	1363	1299	1331	-0.04
0:10:50	1338	1369	1306	1337	-0.03
0:11:00	1344	1374	1312	1343	-0.03
0:11:10	1349	1379	1318	1349	-0.03
0:11:20	1354	1384	1324	1354	-0.03
0:11:30	1359	1389	1331	1360	-0.03
0:11:40	1364	1394	1336	1365	-0.03
0:11:50	1369	1399	1342	1370	-0.03
0:12:00	1374	1403	1348	1375	-0.03
0:12:10	1378	1408	1353	1379	-0.03
0:12:20	1382	1412	1357	1384	-0.03
0:12:30	1386	1416	1362	1388	-0.03
0:12:40	1390	1419	1367	1392	-0.04
0:12:50	1393	1422	1370	1395	-0.05
0:13:00	1395	1424	1373	1397	-0.04
0:13:10	1397	1427	1376	1400	-0.04
0:13:20	1398	1429	1378	1402	-0.05
0:13:30	1400	1430	1380	1403	-0.05
0:13:40	1401	1432	1382	1405	-0.05
0:13:50	1402	1433	1384	1406	-0.05
0:14:00	1403	1435	1385	1408	-0.05
0:14:10	1404	1436	1386	1409	-0.05
0:14:20	1405	1438	1388	1410	-0.05
0:14:30	1406	1439	1389	1411	-0.05
0:14:40	1407	1440	1391	1413	-0.05
0:14:50	1408	1441	1392	1414	-0.05
0:15:00	1409	1443	1393	1415	-0.04
0:15:10	1411	1444	1395	1416	-0.05
0:15:20	1412	1445	1396	1418	-0.05
0:15:30	1413	1446	1398	1419	-0.05
0:15:40	1415	1447	1399	1420	-0.05
0:15:50	1416	1449	1401	1422	-0.05
0:16:00	1418	1450	1403	1424	-0.05
0:16:10	1420	1452	1405	1425	-0.05
0:16:20	1421	1453	1407	1427	-0.05
0:16:30	1423	1454	1409	1429	-0.05
0:16:40	1424	1455	1411	1430	-0.05
0:16:50	1426	1457	1413	1432	-0.05
0:17:00	1428	1459	1415	1434	-0.05
0:17:10	1430	1461	1417	1436	-0.05
0:17:20	1432	1462	1419	1438	-0.05
0:17:30	1434	1464	1421	1440	-0.05
0:17:40	1436	1466	1424	1442	-0.05
0:17:50	1438	1469	1426	1444	-0.05
0:18:00	1441	1471	1428	1447	-0.04
0:18:10	1443	1473	1431	1449	-0.04
0:18:20	1446	1475	1433	1451	-0.05
0:18:30	1448	1477	1436	1453	-0.04
0:18:40	1450	1479	1438	1455	-0.04
0:18:50	1452	1481	1440	1458	-0.04
0:19:00	1454	1483	1443	1460	-0.05
0:19:10	1457	1485	1445	1462	-0.04
0:19:20	1459	1487	1448	1465	-0.05
0:19:30	1461	1489	1450	1467	-0.05
0:19:40	1463	1491	1452	1469	-0.05
0:19:50	1466	1493	1455	1471	-0.04
0:20:00	1468	1495	1457	1473	-0.04

## DeVit Consulting, Inc.

## FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006

SwRI PROJECT NO.: 01.12694.01.103

FILE ID: 06-271dev1.CSV

TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
0:20:10	1470	1497	1459	1475	-0.04
0:20:20	1472	1499	1461	1477	-0.05
0:20:30	1474	1501	1463	1479	-0.04
0:20:40	1475	1503	1465	1481	-0.04
0:20:50	1477	1505	1467	1483	-0.04
0:21:00	1480	1506	1469	1485	-0.04
0:21:10	1481	1508	1471	1487	-0.04
0:21:20	1483	1510	1473	1488	-0.04
0:21:30	1485	1511	1474	1490	-0.04
0:21:40	1487	1513	1476	1492	-0.04
0:21:50	1488	1515	1478	1494	-0.04
0:22:00	1490	1517	1480	1496	-0.04
0:22:10	1492	1518	1482	1497	-0.04
0:22:20	1494	1520	1484	1499	-0.04
0:22:30	1495	1522	1486	1501	-0.04
0:22:40	1497	1523	1488	1503	-0.04
0:22:50	1498	1525	1489	1504	-0.03
0:23:00	1500	1526	1491	1506	-0.04
0:23:10	1501	1528	1493	1507	-0.03
0:23:20	1503	1529	1494	1509	-0.04
0:23:30	1505	1530	1496	1510	-0.04
0:23:40	1506	1531	1497	1511	-0.04
0:23:50	1507	1533	1498	1513	-0.04
0:24:00	1508	1534	1500	1514	-0.04
0:24:10	1509	1535	1501	1515	-0.04
0:24:20	1510	1536	1502	1516	-0.05
0:24:30	1511	1537	1502	1517	-0.05
0:24:40	1511	1537	1503	1517	-0.05
0:24:50	1511	1537	1503	1517	-0.05
0:25:00	1511	1537	1503	1517	-0.05
0:25:10	1511	1538	1503	1517	-0.05
0:25:20	1511	1538	1503	1517	-0.05
0:25:30	1511	1539	1503	1518	-0.05
0:25:40	1512	1539	1504	1518	-0.05
0:25:50	1512	1539	1504	1519	-0.05
0:26:00	1513	1540	1504	1519	-0.05
0:26:10	1514	1541	1505	1520	-0.05
0:26:20	1514	1542	1506	1521	-0.05
0:26:30	1515	1542	1507	1522	-0.04
0:26:40	1516	1543	1508	1522	-0.05
0:26:50	1517	1544	1509	1523	-0.04
0:27:00	1518	1545	1510	1524	-0.05
0:27:10	1519	1546	1511	1525	-0.05
0:27:20	1520	1547	1512	1527	-0.05
0:27:30	1522	1548	1514	1528	-0.04
0:27:40	1523	1549	1515	1529	-0.04
0:27:50	1524	1550	1516	1530	-0.05
0:28:00	1525	1551	1517	1531	-0.05
0:28:10	1526	1552	1519	1532	-0.04
0:28:20	1527	1553	1520	1534	-0.05
0:28:30	1529	1554	1521	1535	-0.05
0:28:40	1530	1556	1523	1536	-0.04
0:28:50	1532	1557	1524	1538	-0.04
0:29:00	1533	1558	1526	1539	-0.05
0:29:10	1534	1559	1527	1540	-0.04
0:29:20	1535	1560	1528	1541	-0.04
0:29:30	1537	1562	1529	1542	-0.04
0:29:40	1538	1563	1531	1544	-0.05
0:29:50	1539	1563	1532	1545	-0.04
0:30:00	1539	1564	1533	1545	-0.04

## DeVit Consulting, Inc.

## FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006

SwRI PROJECT NO.: 01.12694.01.103

FILE ID: 06-271dev1.CSV

TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
0:30:10	1540	1565	1534	1546	-0.05
0:30:20	1541	1566	1535	1547	-0.05
0:30:30	1542	1567	1536	1548	-0.04
0:30:40	1543	1568	1537	1549	-0.04
0:30:50	1544	1569	1538	1551	-0.04
0:31:00	1546	1571	1540	1552	-0.04
0:31:10	1548	1572	1541	1554	-0.04
0:31:20	1549	1574	1543	1555	-0.04
0:31:30	1551	1575	1545	1557	-0.04
0:31:40	1553	1576	1546	1558	-0.04
0:31:50	1554	1578	1548	1560	-0.04
0:32:00	1556	1579	1550	1562	-0.04
0:32:10	1557	1581	1551	1563	-0.04
0:32:20	1559	1582	1553	1564	-0.04
0:32:30	1560	1583	1554	1566	-0.04
0:32:40	1561	1584	1556	1567	-0.04
0:32:50	1563	1586	1557	1569	-0.04
0:33:00	1564	1587	1559	1570	-0.04
0:33:10	1566	1589	1560	1572	-0.04
0:33:20	1567	1590	1562	1573	-0.04
0:33:30	1568	1592	1563	1574	-0.04
0:33:40	1570	1593	1565	1576	-0.04
0:33:50	1571	1594	1566	1577	-0.04
0:34:00	1572	1595	1567	1578	-0.04
0:34:10	1573	1596	1568	1579	-0.04
0:34:20	1573	1597	1569	1580	-0.04
0:34:30	1574	1598	1570	1581	-0.04
0:34:40	1575	1599	1571	1582	-0.04
0:34:50	1576	1600	1572	1582	-0.04
0:35:00	1577	1601	1573	1583	-0.04
0:35:10	1578	1602	1574	1585	-0.04
0:35:20	1580	1603	1575	1586	-0.04
0:35:30	1581	1604	1576	1587	-0.04
0:35:40	1581	1605	1577	1588	-0.04
0:35:50	1583	1606	1578	1589	-0.04
0:36:00	1584	1607	1579	1590	-0.04
0:36:10	1584	1608	1579	1591	-0.04
0:36:20	1585	1609	1580	1591	-0.04
0:36:30	1586	1609	1581	1592	-0.04
0:36:40	1586	1610	1582	1593	-0.04
0:36:50	1586	1610	1582	1593	-0.04
0:37:00	1587	1611	1583	1593	-0.04
0:37:10	1587	1611	1583	1594	-0.04
0:37:20	1588	1612	1584	1595	-0.04
0:37:30	1589	1612	1585	1595	-0.04
0:37:40	1590	1613	1586	1596	-0.04
0:37:50	1590	1614	1587	1597	-0.04
0:38:00	1592	1615	1588	1598	-0.04
0:38:10	1593	1616	1589	1600	-0.04
0:38:20	1595	1618	1591	1601	-0.04
0:38:30	1596	1619	1592	1602	-0.04
0:38:40	1597	1620	1593	1604	-0.04
0:38:50	1599	1621	1595	1605	-0.04
0:39:00	1600	1623	1596	1606	-0.04
0:39:10	1601	1624	1597	1607	-0.04
0:39:20	1602	1625	1598	1609	-0.04
0:39:30	1603	1626	1600	1610	-0.04
0:39:40	1605	1627	1601	1611	-0.04
0:39:50	1606	1628	1602	1612	-0.04
0:40:00	1607	1629	1603	1613	-0.04

DeVit Consulting, Inc.

FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006  
 FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
 TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
0:40:10	1608	1631	1605	1615	-0.04
0:40:20	1610	1632	1606	1616	-0.04
0:40:30	1611	1633	1607	1617	-0.04
0:40:40	1612	1634	1608	1618	-0.04
0:40:50	1613	1635	1609	1619	-0.03
0:41:00	1614	1636	1611	1620	-0.03
0:41:10	1615	1638	1612	1622	-0.03
0:41:20	1617	1639	1613	1623	-0.03
0:41:30	1618	1640	1614	1624	-0.04
0:41:40	1619	1641	1616	1625	-0.04
0:41:50	1619	1641	1617	1626	-0.04
0:42:00	1620	1642	1617	1627	-0.03
0:42:10	1621	1643	1618	1627	-0.04
0:42:20	1622	1644	1619	1628	-0.04
0:42:30	1623	1645	1620	1629	-0.04
0:42:40	1623	1645	1620	1630	-0.04
0:42:50	1624	1646	1621	1630	-0.04
0:43:00	1624	1647	1621	1631	-0.04
0:43:10	1625	1647	1622	1632	-0.03
0:43:20	1626	1648	1623	1632	-0.04
0:43:30	1627	1649	1624	1633	-0.03
0:43:40	1628	1650	1625	1634	-0.04
0:43:50	1629	1651	1625	1635	-0.03
0:44:00	1629	1652	1626	1636	-0.04
0:44:10	1630	1652	1627	1636	-0.03
0:44:20	1631	1654	1628	1638	-0.03
0:44:30	1632	1654	1629	1638	-0.04
0:44:40	1633	1654	1629	1639	-0.03
0:44:50	1633	1655	1630	1639	-0.04
0:45:00	1633	1655	1631	1640	-0.03
0:45:10	1634	1656	1631	1640	-0.04
0:45:20	1635	1657	1632	1641	-0.04
0:45:30	1635	1657	1633	1642	-0.03
0:45:40	1636	1658	1634	1642	-0.03
0:45:50	1637	1659	1634	1643	-0.03
0:46:00	1637	1660	1635	1644	-0.04
0:46:10	1638	1660	1636	1645	-0.03
0:46:20	1639	1661	1637	1646	-0.04
0:46:30	1640	1662	1638	1646	-0.03
0:46:40	1640	1663	1639	1647	-0.03
0:46:50	1641	1663	1639	1648	-0.04
0:47:00	1642	1664	1640	1649	-0.04
0:47:10	1643	1665	1641	1650	-0.03
0:47:20	1644	1666	1642	1651	-0.03
0:47:30	1645	1667	1643	1651	-0.04
0:47:40	1646	1667	1644	1652	-0.03
0:47:50	1646	1668	1644	1653	-0.03
0:48:00	1647	1668	1645	1654	-0.03
0:48:10	1648	1669	1646	1655	-0.03
0:48:20	1649	1670	1647	1655	-0.03
0:48:30	1650	1671	1648	1657	-0.03
0:48:40	1652	1672	1649	1658	-0.03
0:48:50	1653	1673	1650	1659	-0.03
0:49:00	1653	1674	1651	1660	-0.03
0:49:10	1654	1675	1652	1661	-0.03
0:49:20	1655	1676	1653	1661	-0.03
0:49:30	1656	1677	1654	1662	-0.03
0:49:40	1657	1678	1655	1663	-0.03
0:49:50	1658	1678	1656	1664	-0.03
0:50:00	1659	1679	1657	1665	-0.03

DeVit Consulting, Inc.  
**FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)**

TEST DATE: SEPTEMBER 28, 2006  
 FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
 TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
0:50:10	1659	1680	1657	1666	-0.03
0:50:20	1660	1681	1658	1666	-0.03
0:50:30	1660	1681	1659	1667	-0.03
0:50:40	1661	1682	1659	1668	-0.03
0:50:50	1662	1683	1660	1668	-0.03
0:51:00	1663	1684	1661	1669	-0.03
0:51:10	1663	1684	1662	1670	-0.03
0:51:20	1664	1685	1662	1670	-0.03
0:51:30	1665	1685	1663	1671	-0.03
0:51:40	1666	1686	1664	1672	-0.03
0:51:50	1666	1687	1665	1673	-0.03
0:52:00	1667	1688	1666	1674	-0.03
0:52:10	1668	1689	1667	1674	-0.03
0:52:20	1669	1689	1667	1675	-0.03
0:52:30	1670	1690	1668	1676	-0.03
0:52:40	1670	1691	1669	1677	-0.03
0:52:50	1671	1692	1670	1677	-0.03
0:53:00	1672	1692	1671	1678	-0.03
0:53:10	1673	1693	1671	1679	-0.03
0:53:20	1674	1694	1672	1680	-0.03
0:53:30	1675	1695	1673	1681	-0.03
0:53:40	1675	1695	1674	1682	-0.03
0:53:50	1676	1696	1675	1682	-0.03
0:54:00	1677	1697	1676	1683	-0.03
0:54:10	1677	1697	1677	1684	-0.03
0:54:20	1678	1698	1677	1684	-0.03
0:54:30	1678	1699	1678	1685	-0.03
0:54:40	1679	1699	1678	1685	-0.03
0:54:50	1680	1700	1679	1686	-0.03
0:55:00	1680	1701	1679	1687	-0.03
0:55:10	1680	1701	1680	1687	-0.03
0:55:20	1681	1702	1680	1688	-0.03
0:55:30	1681	1702	1681	1688	-0.03
0:55:40	1682	1703	1682	1689	-0.03
0:55:50	1683	1704	1682	1690	-0.03
0:56:00	1683	1704	1683	1690	-0.03
0:56:10	1684	1705	1683	1691	-0.03
0:56:20	1684	1706	1684	1691	-0.03
0:56:30	1685	1706	1685	1692	-0.03
0:56:40	1686	1707	1685	1693	-0.03
0:56:50	1686	1707	1686	1693	-0.03
0:57:00	1687	1708	1686	1694	-0.03
0:57:10	1687	1708	1687	1694	-0.03
0:57:20	1687	1708	1687	1694	-0.03
0:57:30	1687	1708	1687	1694	-0.03
0:57:40	1688	1709	1688	1695	-0.03
0:57:50	1688	1709	1688	1695	-0.03
0:58:00	1689	1710	1689	1696	-0.03
0:58:10	1689	1710	1689	1696	-0.03
0:58:20	1690	1711	1690	1697	-0.03
0:58:30	1691	1711	1691	1698	-0.03
0:58:40	1691	1712	1692	1698	-0.03
0:58:50	1692	1713	1693	1699	-0.03
0:59:00	1694	1714	1694	1701	-0.03
0:59:10	1695	1715	1695	1702	-0.03
0:59:20	1696	1716	1696	1703	-0.03
0:59:30	1697	1717	1697	1704	-0.03
0:59:40	1698	1718	1698	1704	-0.03
0:59:50	1699	1719	1699	1705	-0.03
1:00:00	1699	1719	1699	1706	-0.03

## DeVit Consulting, Inc.

## FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006  
 FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
 TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
1:00:10	1700	1720	1700	1707	-0.03
1:00:20	1701	1721	1701	1707	-0.03
1:00:30	1702	1721	1701	1708	-0.03
1:00:40	1703	1722	1702	1709	-0.03
1:00:50	1704	1723	1703	1710	-0.03
1:01:00	1704	1724	1704	1711	-0.03
1:01:10	1705	1725	1705	1712	-0.03
1:01:20	1706	1726	1705	1712	-0.03
1:01:30	1707	1727	1706	1713	-0.03
1:01:40	1707	1727	1707	1714	-0.03
1:01:50	1708	1728	1707	1714	-0.03
1:02:00	1708	1728	1708	1715	-0.03
1:02:10	1709	1729	1709	1716	-0.03
1:02:20	1710	1730	1709	1716	-0.03
1:02:30	1710	1730	1710	1717	-0.03
1:02:40	1711	1731	1710	1717	-0.03
1:02:50	1711	1731	1711	1718	-0.03
1:03:00	1712	1732	1711	1718	-0.03
1:03:10	1712	1732	1712	1719	-0.03
1:03:20	1713	1732	1712	1719	-0.03
1:03:30	1713	1733	1713	1720	-0.03
1:03:40	1714	1734	1714	1720	-0.03
1:03:50	1714	1734	1714	1721	-0.02
1:04:00	1715	1735	1715	1721	-0.03
1:04:10	1715	1735	1716	1722	-0.02
1:04:20	1716	1735	1716	1723	-0.03
1:04:30	1716	1736	1717	1723	-0.03
1:04:40	1717	1737	1717	1724	-0.02
1:04:50	1717	1737	1718	1724	-0.02
1:05:00	1718	1738	1719	1725	-0.03
1:05:10	1719	1738	1719	1725	-0.03
1:05:20	1719	1739	1720	1726	-0.02
1:05:30	1719	1740	1720	1726	-0.02
1:05:40	1720	1740	1721	1727	-0.03
1:05:50	1721	1741	1721	1728	-0.03
1:06:00	1721	1741	1722	1728	-0.02
1:06:10	1722	1742	1723	1729	-0.02
1:06:20	1723	1743	1724	1730	-0.03
1:06:30	1724	1743	1725	1731	-0.02
1:06:40	1725	1744	1725	1731	-0.03
1:06:50	1725	1745	1726	1732	-0.02
1:07:00	1726	1745	1726	1732	-0.03
1:07:10	1726	1746	1726	1733	-0.03
1:07:20	1726	1746	1727	1733	-0.03
1:07:30	1727	1747	1727	1733	-0.03
1:07:40	1727	1747	1727	1734	-0.03
1:07:50	1727	1747	1728	1734	-0.03
1:08:00	1727	1748	1728	1734	-0.03
1:08:10	1728	1748	1729	1735	-0.03
1:08:20	1728	1748	1729	1735	-0.03
1:08:30	1729	1749	1730	1736	-0.03
1:08:40	1729	1750	1730	1736	-0.03
1:08:50	1730	1750	1730	1737	-0.02
1:09:00	1731	1751	1731	1737	-0.03
1:09:10	1731	1751	1732	1738	-0.03
1:09:20	1732	1752	1732	1738	-0.03
1:09:30	1732	1752	1732	1739	-0.03
1:09:40	1732	1752	1732	1739	-0.03
1:09:50	1732	1752	1732	1739	-0.03
1:10:00	1732	1752	1733	1739	-0.02

DeVit Consulting, Inc.

FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006  
 FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
 TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
1:10:10	1732	1752	1733	1739	-0.03
1:10:20	1732	1752	1733	1739	-0.03
1:10:30	1733	1752	1733	1739	-0.03
1:10:40	1733	1752	1734	1740	-0.02
1:10:50	1733	1753	1734	1740	-0.02
1:11:00	1733	1753	1734	1740	-0.02
1:11:10	1734	1754	1735	1741	-0.02
1:11:20	1734	1754	1735	1741	-0.03
1:11:30	1734	1754	1735	1741	-0.02
1:11:40	1734	1754	1736	1741	-0.03
1:11:50	1735	1754	1736	1742	-0.03
1:12:00	1735	1755	1737	1742	-0.03
1:12:10	1736	1755	1737	1743	-0.02
1:12:20	1737	1756	1738	1744	-0.02
1:12:30	1738	1757	1739	1744	-0.02
1:12:40	1739	1758	1740	1745	-0.02
1:12:50	1740	1759	1741	1746	-0.03
1:13:00	1741	1760	1742	1748	-0.02
1:13:10	1743	1761	1743	1749	-0.02
1:13:20	1744	1762	1745	1750	-0.02
1:13:30	1745	1763	1746	1751	-0.02
1:13:40	1746	1764	1747	1752	-0.02
1:13:50	1747	1765	1748	1753	-0.02
1:14:00	1748	1767	1749	1755	-0.02
1:14:10	1749	1767	1750	1755	-0.02
1:14:20	1749	1768	1751	1756	-0.02
1:14:30	1750	1769	1752	1757	-0.02
1:14:40	1751	1770	1752	1758	-0.02
1:14:50	1751	1770	1753	1758	-0.02
1:15:00	1752	1770	1754	1758	-0.02
1:15:10	1752	1771	1754	1759	-0.02
1:15:20	1752	1771	1754	1759	-0.02
1:15:30	1753	1771	1754	1759	-0.02
1:15:40	1753	1772	1755	1760	-0.02
1:15:50	1753	1772	1755	1760	-0.02
1:16:00	1753	1773	1755	1760	-0.02
1:16:10	1754	1773	1755	1761	-0.02
1:16:20	1754	1774	1756	1761	-0.02
1:16:30	1754	1774	1756	1761	-0.02
1:16:40	1755	1774	1756	1762	-0.02
1:16:50	1755	1774	1756	1762	-0.02
1:17:00	1755	1775	1757	1762	-0.02
1:17:10	1755	1775	1757	1762	-0.02
1:17:20	1755	1775	1757	1762	-0.02
1:17:30	1755	1775	1757	1762	-0.02
1:17:40	1755	1775	1757	1763	-0.02
1:17:50	1755	1775	1757	1763	-0.02
1:18:00	1756	1775	1757	1763	-0.02
1:18:10	1756	1775	1757	1763	-0.02
1:18:20	1756	1776	1758	1763	-0.02
1:18:30	1756	1776	1758	1763	-0.02
1:18:40	1756	1776	1758	1764	-0.02
1:18:50	1757	1776	1758	1764	-0.02
1:19:00	1757	1777	1759	1764	-0.02
1:19:10	1757	1778	1759	1765	-0.02
1:19:20	1758	1778	1759	1765	-0.03
1:19:30	1758	1778	1759	1765	-0.02
1:19:40	1758	1778	1760	1765	-0.02
1:19:50	1758	1778	1760	1765	-0.03
1:20:00	1758	1778	1760	1766	-0.02

## DeVit Consulting, Inc.

## FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006

SwRI PROJECT NO.: 01.12694.01.103

FILE ID: 06-271dev1.CSV

TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
1:20:10	1759	1779	1760	1766	-0.03
1:20:20	1759	1779	1761	1766	-0.02
1:20:30	1760	1779	1761	1767	-0.02
1:20:40	1760	1780	1761	1767	-0.02
1:20:50	1761	1780	1762	1768	-0.02
1:21:00	1761	1781	1763	1768	-0.02
1:21:10	1762	1781	1763	1769	-0.02
1:21:20	1762	1782	1764	1769	-0.02
1:21:30	1763	1782	1764	1770	-0.02
1:21:40	1763	1783	1765	1770	-0.02
1:21:50	1764	1783	1766	1771	-0.02
1:22:00	1765	1784	1767	1772	-0.02
1:22:10	1766	1785	1768	1773	-0.02
1:22:20	1767	1786	1769	1774	-0.02
1:22:30	1768	1786	1770	1774	-0.02
1:22:40	1768	1787	1771	1775	-0.03
1:22:50	1769	1788	1771	1776	-0.02
1:23:00	1769	1789	1772	1777	-0.02
1:23:10	1770	1789	1772	1777	-0.02
1:23:20	1771	1790	1773	1778	-0.02
1:23:30	1772	1791	1774	1779	-0.02
1:23:40	1772	1791	1774	1779	-0.02
1:23:50	1773	1792	1775	1780	-0.02
1:24:00	1773	1792	1775	1780	-0.02
1:24:10	1773	1792	1776	1780	-0.02
1:24:20	1773	1793	1776	1781	-0.02
1:24:30	1774	1793	1776	1781	-0.02
1:24:40	1775	1794	1777	1782	-0.02
1:24:50	1775	1795	1778	1783	-0.02
1:25:00	1776	1795	1779	1783	-0.02
1:25:10	1776	1796	1779	1784	-0.02
1:25:20	1777	1796	1780	1784	-0.02
1:25:30	1777	1796	1780	1784	-0.02
1:25:40	1778	1797	1780	1785	-0.02
1:25:50	1778	1797	1781	1785	-0.02
1:26:00	1779	1798	1781	1786	-0.02
1:26:10	1779	1798	1782	1786	-0.02
1:26:20	1780	1799	1782	1787	-0.02
1:26:30	1780	1799	1783	1787	-0.02
1:26:40	1781	1800	1783	1788	-0.02
1:26:50	1781	1800	1784	1788	-0.02
1:27:00	1781	1801	1784	1789	-0.02
1:27:10	1782	1802	1785	1789	-0.02
1:27:20	1782	1802	1785	1790	-0.02
1:27:30	1783	1802	1785	1790	-0.02
1:27:40	1783	1802	1786	1790	-0.02
1:27:50	1783	1802	1786	1791	-0.02
1:28:00	1784	1803	1786	1791	-0.02
1:28:10	1784	1804	1787	1792	-0.02
1:28:20	1785	1804	1787	1792	-0.02
1:28:30	1785	1804	1788	1792	-0.02
1:28:40	1785	1805	1788	1793	-0.02
1:28:50	1786	1805	1789	1793	-0.02
1:29:00	1786	1806	1789	1794	-0.02
1:29:10	1787	1806	1790	1794	-0.02
1:29:20	1787	1807	1790	1795	-0.02
1:29:30	1788	1807	1791	1795	-0.02
1:29:40	1788	1807	1791	1795	-0.02
1:29:50	1788	1807	1791	1795	-0.02
1:30:00	1788	1807	1791	1796	-0.02

## DeVit Consulting, Inc.

## FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006

SwRI PROJECT NO.: 01.12694.01.103

FILE ID: 06-271dev1.CSV

TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
1:30:10	1788	1807	1791	1796	-0.02
1:30:20	1789	1808	1792	1796	-0.02
1:30:30	1789	1808	1792	1796	-0.02
1:30:40	1789	1808	1793	1797	-0.02
1:30:50	1790	1809	1793	1797	-0.02
1:31:00	1790	1809	1794	1798	-0.02
1:31:10	1791	1810	1794	1798	-0.02
1:31:20	1791	1810	1794	1798	-0.02
1:31:30	1791	1810	1794	1799	-0.02
1:31:40	1791	1810	1794	1798	-0.02
1:31:50	1791	1811	1795	1799	-0.02
1:32:00	1792	1811	1795	1799	-0.02
1:32:10	1792	1811	1795	1800	-0.02
1:32:20	1792	1811	1796	1799	-0.02
1:32:30	1792	1811	1796	1799	-0.02
1:32:40	1792	1811	1796	1800	-0.02
1:32:50	1792	1811	1796	1800	-0.02
1:33:00	1793	1812	1797	1800	-0.02
1:33:10	1793	1812	1797	1801	-0.02
1:33:20	1794	1813	1798	1802	-0.02
1:33:30	1794	1814	1798	1802	-0.02
1:33:40	1795	1814	1799	1802	-0.02
1:33:50	1795	1814	1799	1803	-0.02
1:34:00	1795	1815	1799	1803	-0.02
1:34:10	1795	1815	1800	1803	-0.02
1:34:20	1795	1815	1800	1803	-0.02
1:34:30	1796	1815	1800	1804	-0.02
1:34:40	1796	1816	1800	1804	-0.02
1:34:50	1796	1816	1801	1804	-0.02
1:35:00	1796	1816	1801	1804	-0.02
1:35:10	1797	1816	1801	1804	-0.02
1:35:20	1797	1817	1801	1805	-0.02
1:35:30	1798	1817	1802	1805	-0.02
1:35:40	1798	1817	1803	1806	-0.02
1:35:50	1799	1818	1803	1807	-0.02
1:36:00	1799	1818	1804	1807	-0.02
1:36:10	1800	1819	1805	1808	-0.02
1:36:20	1800	1820	1805	1809	-0.02
1:36:30	1801	1820	1806	1809	-0.02
1:36:40	1802	1821	1806	1810	-0.02
1:36:50	1802	1821	1807	1810	-0.02
1:37:00	1803	1822	1807	1810	-0.02
1:37:10	1803	1822	1807	1811	-0.02
1:37:20	1804	1823	1808	1811	-0.02
1:37:30	1804	1823	1809	1812	-0.02
1:37:40	1804	1823	1809	1812	-0.02
1:37:50	1805	1824	1810	1813	-0.02
1:38:00	1806	1824	1811	1813	-0.02
1:38:10	1806	1824	1811	1814	-0.02
1:38:20	1806	1825	1811	1814	-0.02
1:38:30	1806	1825	1812	1814	-0.02
1:38:40	1807	1826	1812	1815	-0.02
1:38:50	1807	1826	1812	1815	-0.02
1:39:00	1808	1827	1812	1816	-0.02
1:39:10	1808	1828	1813	1816	-0.02
1:39:20	1809	1829	1813	1817	-0.02
1:39:30	1809	1830	1814	1818	-0.02
1:39:40	1810	1831	1815	1818	-0.02
1:39:50	1810	1832	1815	1819	-0.02
1:40:00	1811	1833	1816	1820	-0.02

DeVit Consulting, Inc.  
**FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)**

TEST DATE: SEPTEMBER 28, 2006  
 FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
 TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
1:40:10	1812	1834	1817	1821	-0.02
1:40:20	1812	1835	1817	1822	-0.02
1:40:30	1813	1836	1818	1822	-0.02
1:40:40	1813	1837	1819	1823	-0.02
1:40:50	1814	1837	1819	1824	-0.02
1:41:00	1815	1838	1820	1824	-0.02
1:41:10	1815	1839	1821	1825	-0.02
1:41:20	1816	1839	1821	1825	-0.02
1:41:30	1816	1840	1822	1826	-0.02
1:41:40	1817	1841	1823	1827	-0.01
1:41:50	1818	1841	1823	1827	-0.02
1:42:00	1818	1842	1824	1828	-0.02
1:42:10	1819	1843	1825	1829	-0.03
1:42:20	1818	1842	1825	1828	-0.03
1:42:30	1817	1841	1824	1827	-0.03
1:42:40	1816	1840	1822	1826	-0.03
1:42:50	1815	1839	1821	1825	-0.03
1:43:00	1813	1838	1819	1824	-0.03
1:43:10	1812	1838	1818	1823	-0.03
1:43:20	1811	1837	1817	1821	-0.03
1:43:30	1810	1836	1816	1820	-0.03
1:43:40	1809	1835	1815	1819	-0.03
1:43:50	1808	1834	1814	1819	-0.03
1:44:00	1808	1834	1813	1818	-0.03
1:44:10	1807	1833	1812	1818	-0.03
1:44:20	1806	1832	1812	1817	-0.03
1:44:30	1805	1831	1811	1815	-0.03
1:44:40	1804	1829	1810	1814	-0.03
1:44:50	1804	1828	1809	1813	-0.03
1:45:00	1804	1827	1809	1813	-0.03
1:45:10	1804	1827	1809	1814	-0.03
1:45:20	1805	1828	1810	1814	-0.03
1:45:30	1807	1829	1811	1816	-0.03
1:45:40	1808	1830	1813	1817	-0.03
1:45:50	1810	1831	1814	1818	-0.03
1:46:00	1811	1832	1816	1819	-0.03
1:46:10	1812	1833	1818	1821	-0.04
1:46:20	1814	1834	1821	1823	-0.03
1:46:30	1816	1836	1823	1825	-0.03
1:46:40	1818	1837	1825	1827	-0.03
1:46:50	1819	1838	1827	1828	-0.03
1:47:00	1821	1840	1829	1830	-0.03
1:47:10	1822	1841	1830	1831	-0.03
1:47:20	1824	1842	1832	1833	-0.03
1:47:30	1825	1843	1833	1834	-0.03
1:47:40	1827	1844	1834	1835	-0.03
1:47:50	1829	1845	1836	1837	-0.03
1:48:00	1830	1846	1837	1838	-0.03
1:48:10	1830	1847	1838	1838	-0.03
1:48:20	1831	1848	1839	1839	-0.03
1:48:30	1831	1848	1839	1839	-0.03
1:48:40	1832	1849	1839	1840	-0.03
1:48:50	1832	1850	1839	1840	-0.03
1:49:00	1833	1850	1839	1840	-0.03
1:49:10	1832	1850	1838	1840	-0.03
1:49:20	1831	1850	1837	1839	-0.03
1:49:30	1830	1849	1836	1838	-0.03
1:49:40	1829	1849	1834	1837	-0.03
1:49:50	1828	1848	1833	1836	-0.03
1:50:00	1825	1846	1830	1834	-0.02

DeVit Consulting, Inc.

FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006  
 FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
 TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
1:50:10	1821	1844	1827	1831	-0.02
1:50:20	1817	1842	1823	1827	-0.02
1:50:30	1814	1841	1822	1825	-0.02
1:50:40	1812	1841	1822	1825	-0.02
1:50:50	1812	1842	1823	1826	-0.02
1:51:00	1813	1843	1825	1827	-0.02
1:51:10	1814	1845	1828	1829	-0.01
1:51:20	1815	1847	1831	1831	-0.01
1:51:30	1817	1850	1835	1834	-0.01
1:51:40	1819	1853	1839	1837	-0.01
1:51:50	1821	1855	1843	1840	-0.01
1:52:00	1824	1858	1847	1843	-0.01
1:52:10	1826	1861	1852	1846	-0.01
1:52:20	1829	1864	1856	1849	-0.01
1:52:30	1832	1867	1860	1853	-0.01
1:52:40	1835	1869	1864	1856	-0.01
1:52:50	1838	1872	1869	1860	-0.01
1:53:00	1841	1875	1873	1863	-0.02
1:53:10	1843	1877	1875	1865	-0.03
1:53:20	1845	1878	1877	1866	-0.04
1:53:30	1845	1878	1878	1867	-0.04
1:53:40	1845	1878	1878	1867	-0.04
1:53:50	1845	1878	1878	1867	-0.04
1:54:00	1845	1878	1878	1867	-0.04
1:54:10	1845	1878	1878	1867	-0.04
1:54:20	1846	1879	1879	1868	-0.04
1:54:30	1847	1879	1880	1869	-0.04
1:54:40	1847	1880	1881	1870	-0.04
1:54:50	1848	1880	1883	1871	-0.04
1:55:00	1849	1880	1884	1871	-0.04
1:55:10	1849	1880	1884	1871	-0.04
1:55:20	1850	1880	1884	1871	-0.04
1:55:30	1850	1881	1884	1872	-0.04
1:55:40	1851	1881	1884	1872	-0.04
1:55:50	1852	1882	1885	1873	-0.04
1:56:00	1854	1883	1886	1874	-0.04
1:56:10	1855	1884	1887	1875	-0.05
1:56:20	1856	1885	1888	1876	-0.04
1:56:30	1857	1885	1889	1877	-0.04
1:56:40	1858	1886	1890	1878	-0.04
1:56:50	1859	1887	1891	1879	-0.04
1:57:00	1860	1887	1892	1880	-0.04
1:57:10	1861	1887	1893	1880	-0.04
1:57:20	1861	1888	1894	1881	-0.04
1:57:30	1862	1888	1895	1881	-0.04
1:57:40	1860	1887	1894	1880	-0.04
1:57:50	1858	1884	1892	1878	-0.05
1:58:00	1856	1882	1890	1876	-0.05
1:58:10	1853	1879	1887	1873	-0.04
1:58:20	1851	1876	1885	1871	-0.05
1:58:30	1849	1874	1882	1868	-0.05
1:58:40	1846	1872	1880	1866	-0.05
1:58:50	1844	1869	1877	1863	-0.05
1:59:00	1842	1867	1875	1861	-0.05
1:59:10	1839	1865	1873	1859	-0.05
1:59:20	1838	1863	1872	1858	-0.05
1:59:30	1837	1862	1871	1857	-0.05
1:59:40	1837	1861	1871	1856	-0.05
1:59:50	1837	1861	1871	1856	-0.05
2:00:00	1838	1861	1873	1858	-0.05
2:00:10	1839	1862	1876	1859	-0.05
2:00:20	1841	1863	1878	1861	-0.04
2:00:30	1843	1864	1881	1862	-0.04
2:00:40	1844	1864	1884	1864	-0.05
2:00:50	1844	1863	1885	1864	-0.04
2:01:00	1843	1862	1884	1863	-0.05
2:01:10	1841	1859	1883	1861	-0.05
2:01:20	1839	1857	1882	1859	-0.05

DeVit Consulting, Inc.

FURNACE TEMPERATURE (°F) AND PRESSURE (IN WC)

TEST DATE: SEPTEMBER 28, 2006  
FILE ID: 06-271dev1.CSV

SwRI PROJECT NO.: 01.12694.01.103  
TEST TYPE: S.S. ASTM E 119

Time (min:sec)	FP 1	FP 2	FP 3	Furnace Avg.	Furnace Pressure
2:01:30	1837	1855	1880	1857	-0.05
2:01:40	1834	1851	1877	1854	-0.05
2:01:50	1830	1848	1873	1850	-0.05
2:02:00	1827	1845	1869	1847	-0.05
2:02:10	1824	1841	1865	1843	-0.05
2:02:20	1820	1838	1861	1840	-0.05
2:02:30	1817	1835	1856	1836	-0.05
2:02:40	1815	1833	1852	1833	-0.05
2:02:50	1813	1830	1848	1830	-0.05
2:03:00	1811	1828	1844	1828	-0.05
2:03:10	1811	1828	1843	1827	-0.05
2:03:20	1811	1827	1841	1826	-0.05
2:03:30	1811	1827	1841	1826	-0.05
2:03:40	1811	1827	1840	1826	-0.15
2:03:50	1797	1810	1821	1809	-0.09