



Test Monitoring Center

@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 16-024
DATE: July 19, 2016
TO: EOWT Surveillance Panel
FROM: Michael T. Kasimirsky
SUBJECT: Reference Oil 77-3 Introduction

On July 20, 2015, the EOWT Surveillance Panel approved a motion to introduce reference oil 77-3 into the calibration system, based upon a series of donated tests, to be completed by May 31, 2016.

The initial test targets, which take effect on August 1, 2016, are shown in the following table:

Reference Oil 77-3						
WT%	N	Mean	Std Dev	K	Target Range	
0.6	11	-9.75	3.38	1.96	-16.38	-3.13
1.0	11	-7.97	3.34	1.96	-14.52	-1.43
2.0	11	-10.22	2.85	1.96	-15.82	-4.62
3.0	11	-10.29	2.39	1.96	-14.98	-5.60

Note that the upper and lower limits shown in the "Target Range" block are the official test targets for the EOWT test; the target mean and standard deviation are shown for information purposes only.

The motion also contained provisions for these targets to be updated at 30 data points and then updated and frozen, based on all data completed within six months after the first usage of reference oil 77-3 in the calibration system.

Plots of the initial test targets, the final test targets used for reference oil 77-2, and the individual data points used to calculate the targets are shown on the following pages.

MTK/mtk

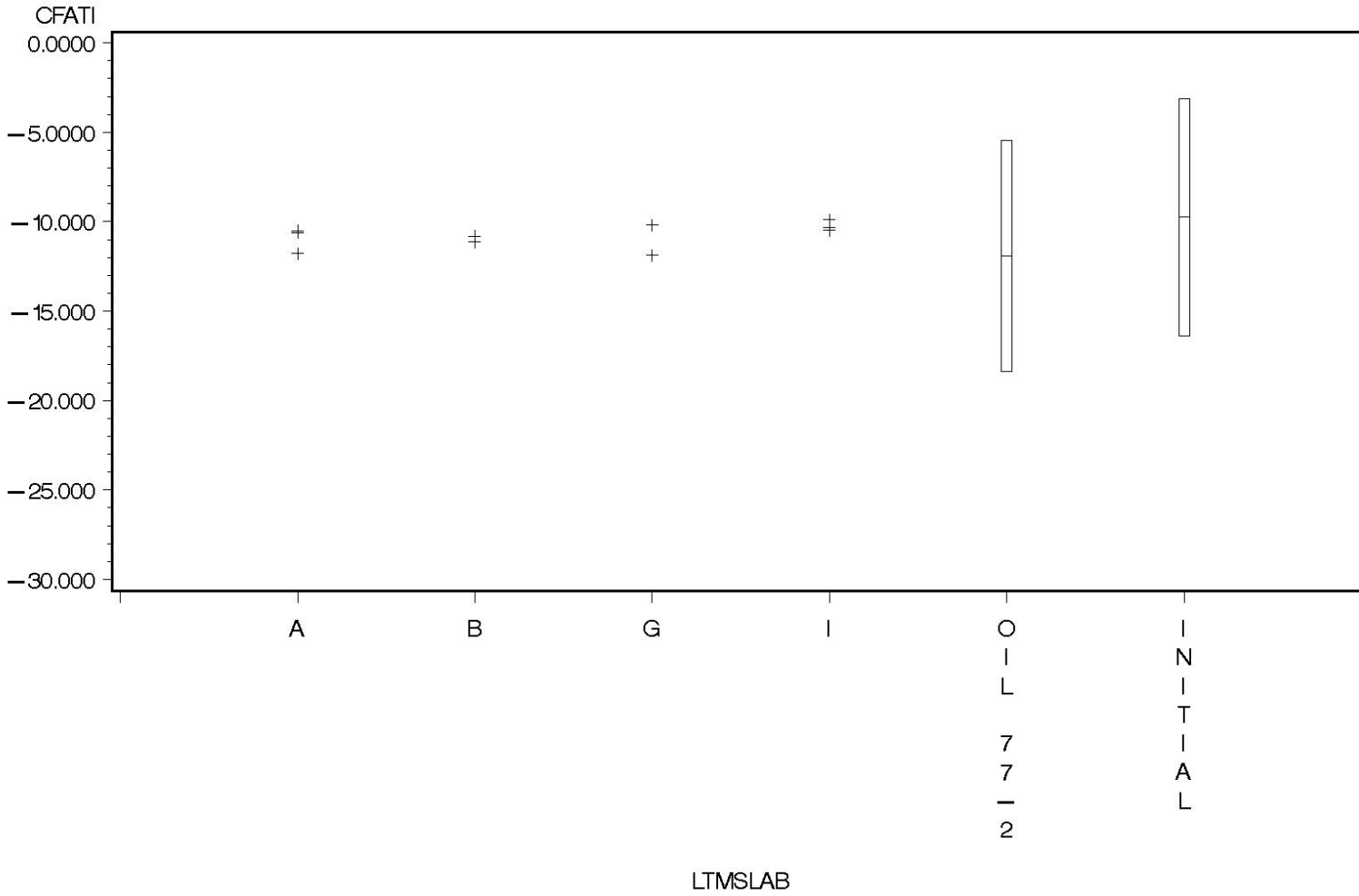
c: <ftp://ftp.astmtmc.cmu.edu/docs/bench/eowt/memo/mem16-024.mtk.pdf>

Distribution: email

EOWT Reference Oil 77-3

Test Target Data Set and Acceptance Bands

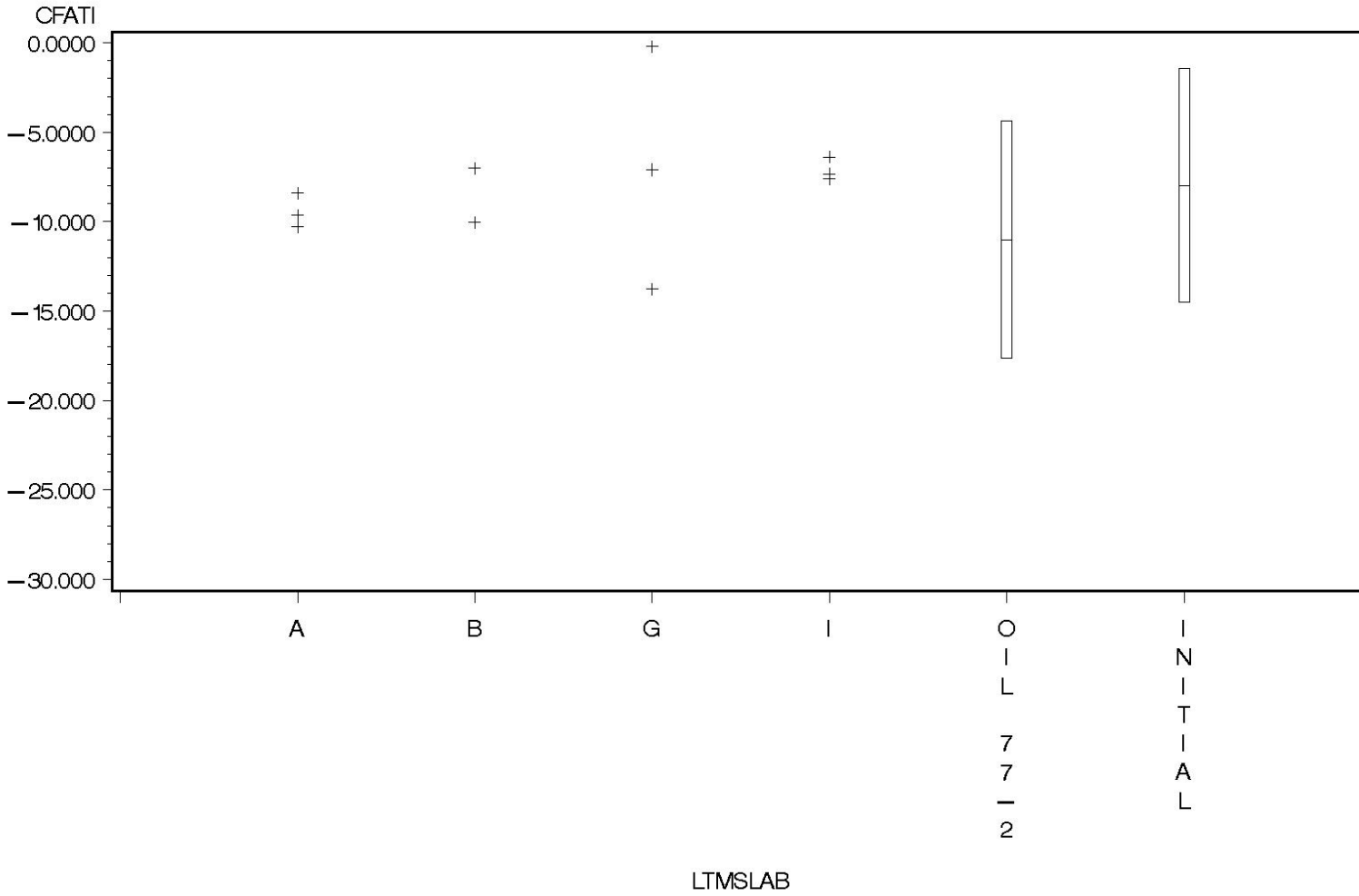
Change in Flowrate Average, 0.6% Water Concentration



EOWT Reference Oil 77-3

Test Target Data Set and Acceptance Bands

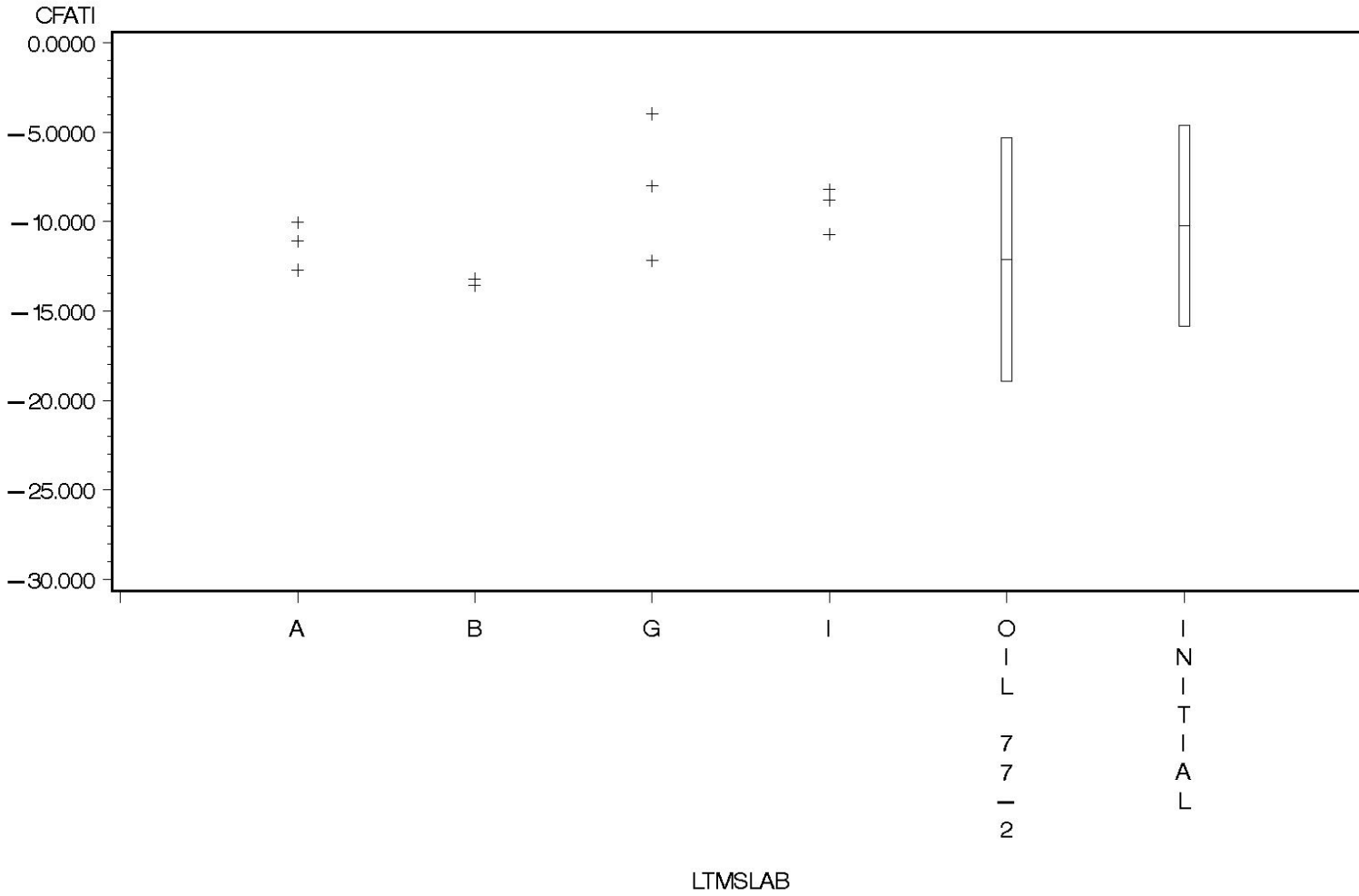
Change in Flowrate Average, 1.0% Water Concentration



EOWT Reference Oil 77-3

Test Target Data Set and Acceptance Bands

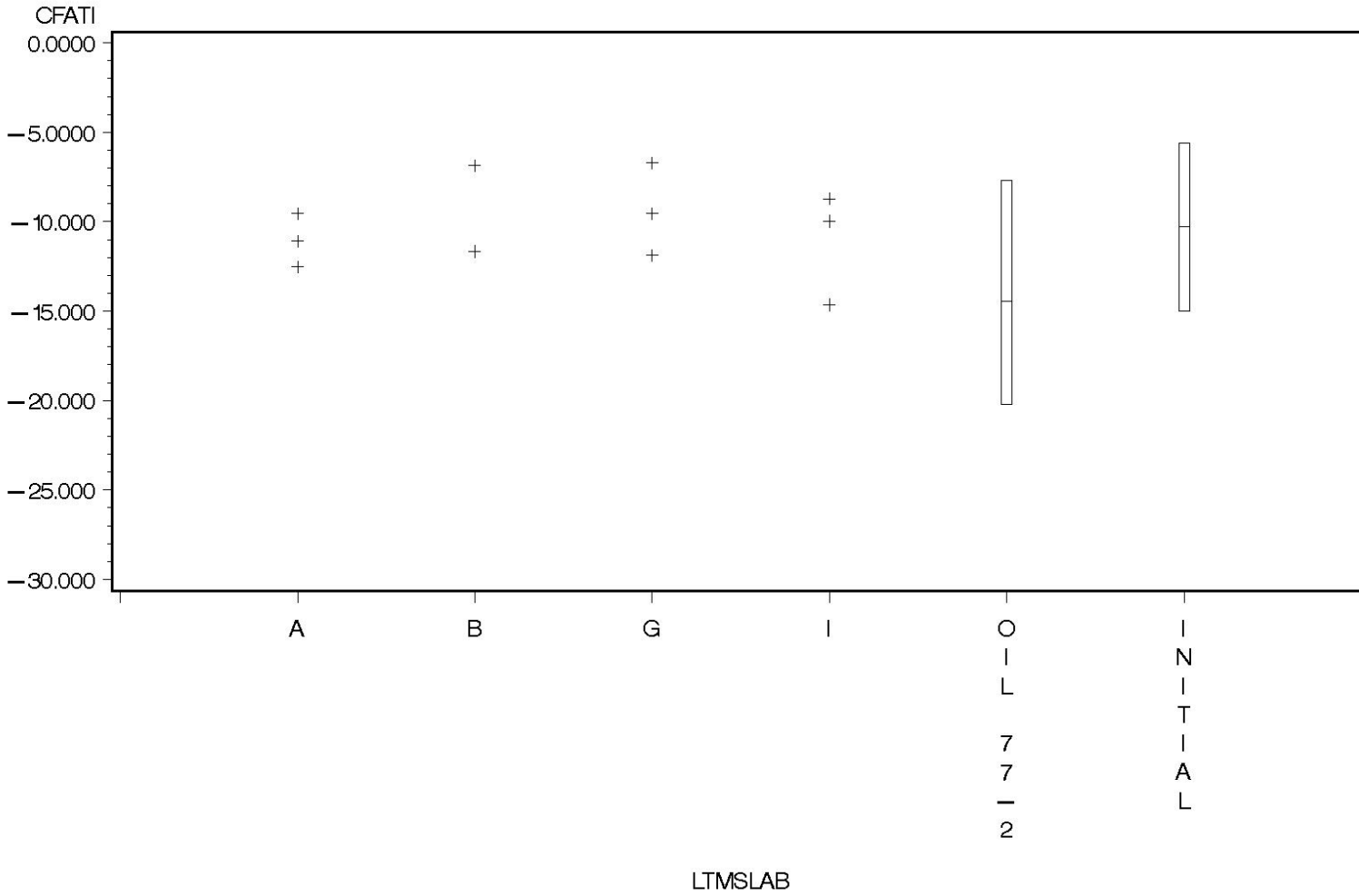
Change in Flowrate Average, 2.0% Water Concentration



EOWT Reference Oil 77-3

Test Target Data Set and Acceptance Bands

Change in Flowrate Average, 3.0% Water Concentration



TESTKEY	LAB	IND	VAL	DATE	TIME	WT%	CF1_R001	CF2_R001	CFA
107716-EOWT	A	77-3	NI	20150802	11:26	0.6	-11.9	-11.63	-11.77
107720-EOWT	A	77-3	NI	20150805	13:41	0.6	-11.43	-9.76	-10.6
108622-EOWT	A	77-3	NI	20150806	09:48	0.6	-9.09	-11.9	-10.5
107017-EOWT	B	77-3	NI	20160714	09:03	0.6	-10.81	-10.81	-10.81
107021-EOWT	B	77-3	NI	20160715	15:42	0.6	-11.43	-10.81	-11.12
106890-EOWT	G	77-3	NI	20150722	16:30	0.6	4.34	-3.8	0.27
106894-EOWT	G	77-3	NI	20150723	16:30	0.6	-9.49	-10.87	-10.18
107476-EOWT	G	77-3	NI	20150724	16:30	0.6	-10.73	-12.99	-11.86
110517-EOWT	I	77-3	NI	20160224	11:00	0.6	-10.26	-9.52	-9.89
110522-EOWT	I	77-3	NI	20160316	11:00	0.6	-8.11	-12.82	-10.47
110526-EOWT	I	77-3	NI	20160406	11:00	0.6	-9.3	-11.36	-10.33
107717-EOWT	A	77-3	NI	20150802	10:51	1.0	-9.09	-7.69	-8.39
107721-EOWT	A	77-3	NI	20150805	13:25	1.0	-11.9	-8.7	-10.3
108623-EOWT	A	77-3	NI	20150806	09:22	1.0	-9.52	-9.76	-9.64
107018-EOWT	B	77-3	NI	20160714	09:03	1.0	-12.2	-7.89	-10.04
107022-EOWT	B	77-3	NI	20160715	15:42	1.0	-8.57	-5.41	-6.99
106891-EOWT	G	77-3	NI	20150722	16:30	1.0	-15.96	-11.54	-13.75
106895-EOWT	G	77-3	NI	20150723	16:30	1.0	0.35	-0.74	-0.2
107477-EOWT	G	77-3	NI	20150724	16:30	1.0	-6.79	-7.37	-7.08
110518-EOWT	I	77-3	NI	20160224	11:00	1.0	-7.89	-7.32	-7.61
110523-EOWT	I	77-3	NI	20160316	11:00	1.0	-5.26	-7.5	-6.38
110527-EOWT	I	77-3	NI	20160406	11:00	1.0	-7.32	-7.32	-7.32
107718-EOWT	A	77-3	NI	20150802	12:35	2.0	-11.11	-14.29	-12.7
107722-EOWT	A	77-3	NI	20150805	14:51	2.0	-10.53	-9.52	-10.03
108624-EOWT	A	77-3	NI	20150806	10:34	2.0	-10.26	-11.9	-11.08
107019-EOWT	B	77-3	NI	20160714	09:03	2.0	-19.44	-7.69	-13.57
107023-EOWT	B	77-3	NI	20160715	15:42	2.0	-12.12	-14.29	-13.2
106892-EOWT	G	77-3	NI	20150722	16:30	2.0	-11.33	-13	-12.17
106896-EOWT	G	77-3	NI	20150723	16:30	2.0	-3.44	-4.46	-3.95
107478-EOWT	G	77-3	NI	20150724	16:30	2.0	-8.23	-7.74	-7.99
110519-EOWT	I	77-3	NI	20160224	11:00	2.0	-5.88	-10.53	-8.21
110524-EOWT	I	77-3	NI	20160316	11:00	2.0	-10.26	-7.32	-8.79
110528-EOWT	I	77-3	NI	20160406	11:00	2.0	-13.89	-7.5	-10.7
107719-EOWT	A	77-3	NI	20150802	11:38	3.0	-11.9	-13.16	-12.53
107723-EOWT	A	77-3	NI	20150805	14:15	3.0	-11.9	-10.26	-11.08
108625-EOWT	A	77-3	NI	20150806	09:47	3.0	-10	-9.09	-9.55
107020-EOWT	B	77-3	NI	20160714	09:03	3.0	-10.81	-12.5	-11.66
107024-EOWT	B	77-3	NI	20160715	15:42	3.0	-5.41	-8.33	-6.87
106893-EOWT	G	77-3	NI	20150722	16:30	3.0	-7.97	-5.46	-6.72
106897-EOWT	G	77-3	NI	20150723	16:30	3.0	-8.08	-11	-9.54
107479-EOWT	G	77-3	NI	20150724	16:30	3.0	-14.35	-9.42	-11.89
110520-EOWT	I	77-3	NI	20160225	11:00	3.0	-8.82	-11.11	-9.97
110521-EOWT	I	77-3	NI	20160317	11:00	3.0	-7.89	-9.52	-8.71
110525-EOWT	I	77-3	NI	20160406	11:00	3.0	-15.38	-13.89	-14.64