

**In Field Instrument Review**

**07/19/2020 to 09/05/2020**

**Performed by Derek Walton**

**100355 (Homer PD):** 2/23 RFI, 1/23 Blank error on subject tests – No action taken

**100359 (AST Bethel):** 2/2 Diagnostic failure on VOCs (Pump On failed) – Instrument was not placed in service at AST Bethel and was returned to the lab for repair. (100359 2020.08.05 Change In Status)

**100362 (AST Kodiak):** 1/4 RFI on subject tests – No action taken

**100367 (Seward PD):** 3/19 RFI, 1/19 Blank error on subject tests – No action taken

**100378 (AST Fairbanks):** 3/62 RFI, 1/62 Pump error – No action taken

**100379 (Wasilla PD):** 1/10 Blank error on subject tests, 2/3 Blank error on VOCs - Out of service 08/10/20 for sticking 5-way valve (100379 2020.08.10 Change In Status)

**100381 (AST Soldotna):** 3/29 RFI on subject tests – No action taken

**100389 (Cordova PD):** 1/7 RFI, 1/7 Blank error on subject tests – No action taken

**100395 (Fairbanks Airport PD):** 2/9 RFI, 1/9 Pump error on subject tests – No action taken

**100400 (Craig Pd):** 1/9 Subject interference, 1/9 Tank interference on subject tests – Both followed by completed tests – No action taken

**100402 (Soldotna PD):** 1/12 Subject interference, 1/12 Blank error on subject tests – Both on same test, subject retest was Incomplete – No further blank errors during timeframe. No action taken

**100406 (Juneau PD):** 1/15 Internal standard error on subject tests – Subject had a successful test on the other Juneau PD instrument – Internal standard values varying between 2-3% regularly – *Recommend monitoring*

**100412 (Unalaska DPS):** 1/1 Tank interference on VOCs during cycle, Numerous ambient fail, internal standard error, and interference detected messages after 09/05/20 observed in DMHost – Contacted Datamaster Supervisor on 10/06/20 – **Recommend replacement**

**100413 (Kenai PD):** 3/35 RFI, 4/35 Subject interference on subject tests – 2 interference messages each on 2 subjects, all tests had elevated filter 2 values – No action taken

**100414 (AST Delta Junction):** 3 failed VOCs on 09/18/20 due to Diagnostic failure, Ambient fail, and Blank error – *Recommend monitoring* (100414 2020.09.18 Change in Status)

**100416 (Fairbanks PD):** 10/64 RFI, 1/64 Standard out of range on subject tests – E-mailed agency Supervisor to remind staff to shut off radios near Datamaster - Standard out of range followed by a completed test and subject positive for alcohol – No further action taken

**100421 (JBER):** 1/18 RFI on subject tests – No action taken

**100423 (Ft Wainwright MP):** 1/9 RFI, 1/9 Ambient fail on subject tests – No action taken

**100667 (AST Tok):** 1/9 Pump error on subject tests – No action taken

**100668 (Palmer PD):** 2/38 RFI, 1/38 Blank error on subject tests – No action taken

**100678 (AST Mat-Su West):** 2/26 RFI, 2/26 Tank interference on subject tests – Both tank interference messages followed by a completed test, both subjects positive for alcohol – No action taken

**100679 (Skagway PD):** 2/4 Tank interference on subject tests – Followed by a completed test – *Recommend monitoring*

**100689 (Anchorage PD):** 2/111 Pump error, 7/111 Tank interference, 2/111 Blank error, 1/111 Ambient fail, 1/111 Diagnostic failed, 2/111 Filter 3 won't zero, 1/111 Filter 2 won't zero on subject tests – Most tank interference messages followed by a successful test on the same instrument; Filter won't zero messages only occurred shortly after the instrument was put into service at APD and have not reoccurred since; Diagnostic failed was due to the breath tube being too cold by 0.2°C and did not reoccur. Two internal standard errors occurred on 9/6/20 and 9/9/20 – these appear to be associated with those particular breath tests and not part of a trend. No status messages on VOCs for this instrument – No action taken

**100690 (Bristol Bay Police):** 1/13 Tank interference, 7/13 Blank errors on subject tests, 1/1 Blank error on VOCs – Removed from service on 09/02/20 due to blank errors and internal standard errors (100690 2020.09.02 Change In Status)

**100693 (Juneau PD):** 1/5 Pump error on subject tests – No action taken

**100694 (Anchorage PD):** 1/136 RFI, 4/136 Tank interference, 4/136 Blank error, 2/136 Internal standard error on subject tests – Taken out of service on 08/31/20 due to blank errors, internal standard errors, standard out of range (100694 2020.08.31 Change In Status)

#### **Follow ups from previous In Field Instrument Review**

**100363 (AST Anchor Point):** No further filter wheel errors – Limited number of tests – *Recommend continue monitoring for one more cycle*

**100367 (Seward PD):** Percentage of RFI status messages is lower than previous cycle. One additional blank error followed by a completed test – No action taken and no monitoring needed

**100416 (Fairbanks PD):** No further tank interference status messages – No further monitoring needed

**100694 (Anchorage PD):** Instrument removed from service on 08/31/20. Additional information above.

Eielson AFB (100346) and AST St Mary's (100377) were excluded from this review.

# Subject Test Data

Serial Number	Total Subject Tests	Date Range								Total Tests		Total Messages											
		RFI		Pump Error		Interference		Tank Interference		Blank Error		Standard Out of Range		Gas Flow Error		Ambient Fail		Internal Standard Error		Diagnostic Failed			
		7/19/2020	9/5/2020																				
100355	23	2	9%	0	0%	0	0%	0	0%	1	4%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100362	4	1	25%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100367	19	3	16%	0	0%	0	0%	0	0%	1	5%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100378	62	3	5%	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100379	10	0	0%	0	0%	0	0%	0	0%	1	10%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100381	29	3	10%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100389	7	1	14%	0	0%	0	0%	0	0%	1	14%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100395	9	2	22%	1	11%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100400	9	0	0%	0	0%	1	11%	1	11%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100402	12	0	0%	0	0%	1	8%	0	0%	1	8%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100406	15	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	7%	0	0%	0	0%
100413	35	3	9%	0	0%	4	11%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100416	64	10	16%	0	0%	0	0%	0	0%	0	0%	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%
100421	18	1	6%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100423	9	1	11%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	11%	0	0%	0	0%	0	0%
100667	9	0	0%	1	11%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100668	38	2	5%	0	0%	0	0%	0	0%	1	3%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100678	26	2	8%	0	0%	0	0%	2	8%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100679	4	0	0%	0	0%	0	0%	2	50%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100689	111	0	0%	2	2%	0	0%	7	6%	2	2%	0	0%	0	0%	1	1%	0	0%	0	0%	1	1%
100690	13	0	0%	0	0%	0	0%	1	8%	7	54%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100693	5	0	0%	1	20%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100694	136	1	1%	0	0%	0	0%	4	3%	4	3%	0	0%	0	0%	0	0%	2	1%	0	0%	0	0%
Total	825	35	4%	6	1%	6	1%	17	2%	19	2%	1	0%	0	0%	2	0%	3	0%	1	0%	0	0%



# VOC Data

Serial Number	Total VOC Tests	RFI		Pump Error		Interference		Tank Interference		Date Range		Total Tests		Total Messages		Ambient Fail		Internal Standard Error		Diagnostic Failed	
										7/19/2020	9/5/2020	111	6	5.4%							
										Blank Error	Standard Out of Range	Gas Flow Error									
100359	2	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	100%
100379	3	0	0%	0	0%	0	0%	0	0%	2	67%	0	0%	0	0%	0	0%	0	0%	0	0%
100412	1	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100690	2	0	0%	0	0%	0	0%	0	0%	1	50%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	111	0	0%	0	0%	0	0%	1	1%	3	3%	0	0%	0	0%	0	0%	0	0%	2	2%

