

In Field Instrument Review

4/12/2021 – 5/30/2021

Performed by Carlie Bailey and Derek Walton

100255 (Clear AFB): 1/7 RFI on subject tests, 2/7 pump error on subject tests, 1/3 blank error on VOC - All subject tests were test, test and all subject tests and VOC were on same day- No action taken

100344 (Juneau PD 1): 1/27 RFI on subject tests – No action taken

100345 (Valdez PD): 2/8 standard out of range on subject tests, isolated to 1 subject with high alcohol content, followed by completed test – No action taken

100348 (North Pole PD): 4/18 RFI on subject tests, 3/18 standard out of range on subject tests isolated to 1 subject with no detector response, has not reoccurred since 5/6/21 despite additional breath tests – *Recommend monitoring*

100351 (Kenai PD): 2/24 pump error on subject tests (both pump errors followed by completed tests), 1/24 subject interference on subject tests, 1/3 diagnostic failed on VOC due to sample chamber temperature too high, VOC on same day completed successfully – No action taken

100355 (Homer PD): 1/27 RFI on subject tests, 1/27 internal standard error on subject tests followed by a completed test; internal standard error has not happened again despite additional breath tests – No action taken

100356 (Anchorage PD): 2/39 pump error on subject tests – instrument taken out of service on 05/01/2021 for touch screen freezing (100356 2021.05.01 Change in Status)

100362 (AST Kodiak): 1/5 blank error on subject tests, 1/5 ambient fail on subject tests, isolated to 1 subject with elevated detector response. Also 3 Maximum Attempts Exceeded status messages on same subject – No action taken

100363 (AST Anchor Point): 2/5 filter wheel error on subject tests, 2 separate individuals followed by completed tests – Recommend replacement

100364 (Anchorage Airport PD): 2/11 pump error on subject tests, 2/11 subject interference on subject tests, all isolated to 1 subject with a detector response – No action taken

100365 (AST Soldotna): 1/4 tank interference on VOC – 4 VOCs after 5/30 with internal standard errors or Diagnostic Failed due to internal standard, instrument was taken out of service on 06/08/2021 (100365 2021.06.08 Change in Status)

100366 (Anchorage PD): 1/125 pump error on subject tests, 4/125 blank error on subject tests, 1/125 ambient fail on subject tests – No action taken, no further monitoring at this time

100367 (Seward PD): 2/21 RFI on subject tests, 2/21 subject interference on subject tests, 2/21 standard out of range on subject tests, all isolated to 1 subject with detector response – No action taken

100376 (Wasilla PD): 1/40 subject interference on subject tests – No action taken

100380 (Anchorage PD): 1/87 pump error on subject tests, 3/87 subject interference on subject tests, isolated to 2 subjects, 1 followed by a completed test. No further subject interference status messages since In Field timeframe – No action taken

100381 (AST Soldotna): 4/31 RFI on subject tests, 1/31 subject interference on subject tests – taken out of service due to high prevalence of RFI status messages (100381 2021.05.11 Change in Status)

100411 (Fairbanks PD): 3/38 RFI on subject tests, 1/38 pump error on subject tests, 2/38 tank interference on subject tests, 5/38 gas flow error on subject tests, tank replaced on 5/11/2021 (same day as 2 of the gas flow errors), no further gas flow or tank interference messages after tank replacement – No action taken

100421 (JBER): 1/27 RFI on subject tests, 3/27 subject interference on subject tests, 2/27 blank error on subject tests, both blank errors followed by completed tests on 2 subjects with elevated alcohol content – No action taken

100668 (Palmer PD): 1/31 blank error on subject tests – No action taken

100670 (Unalaska PD): 1/7 RFI on subject tests – No action taken

100678 (AST Matsu West): 1/13 tank interference on subject tests, 1/1 diagnostic failed on VOC (Detector Overflow) – instrument was taken out of service on 06/02/2021 due to pump failure, frozen screen, and software fatal error (100678 2021.06.02 Change in Status)

100690 (Soldotna PD): 1/15 RFI on subject tests, 1/1 blank error on VOC, there was an additional tank interference on a VOC from 06/03/2021 followed by a completed VOC – *Recommend monitoring*

Follow ups from previous In Field Instrument Review

100366 (Anchorage PD Jail 1): Discontinue monitoring, frequency of status messages reduced and no standard out of range messages produced this cycle.

100381 (AST Soldotna): This instrument was taken out of service on 05/11/2021 (100381 2021.05.11 Change in Status)

Additional information

100386 (Unalakleet): Unable to retrieve data files; instrument records and troubleshooting indicate that the SD card is not working properly. A VOC was performed on 6/8/2021 and saved to the instrument properly (100386 2021.06.08 Change in Status). A copy of this VOC was emailed and included. **A replacement instrument will be sent around 06/23/2021 when the officer returns from leave. Instrument is still in service at this time.**

100370 (Ketchikan PD): Unable to retrieve data files prior to preparation of In Field report. A copy of the 5/30/2021 VOC was emailed and included. Instrument was able to poll after preparation of In Field report; instrument is still in service.

Locations for which data was not included in this review: Eielson AFB (100424), Fairbanks Airport PD (100395), Metlakatla PD (100403), and North Slope Borough PD (100397). All agencies except 100424 (Eielson AFB) provided data, but after the review period was complete.

Subject Test Data

Serial Number	Total Subject Tests	Date Range								Total Tests		Total Messages		Ambient Fail		Internal Standard Error		Diagnostic Failed			
		RFI		Pump Error		Interference		Tank Interference		Blank Error		Standard Out of Range		Gas Flow Error		Ambient Fail		Internal Standard Error		Diagnostic Failed	
		4/12/2021	5/30/2021	4/12/2021	5/30/2021	4/12/2021	5/30/2021	4/12/2021	5/30/2021	4/12/2021	5/30/2021	4/12/2021	5/30/2021	4/12/2021	5/30/2021	4/12/2021	5/30/2021	4/12/2021	5/30/2021	4/12/2021	5/30/2021
100255	7	1	14%	2	29%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100344	27	1	4%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100345	8	0	0%	0	0%	0	0%	0	0%	0	0%	2	25%	0	0%	0	0%	0	0%	0	0%
100348	18	4	22%	0	0%	0	0%	0	0%	0	0%	3	17%	0	0%	0	0%	0	0%	0	0%
100351	24	0	0%	2	8%	1	4%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100355	27	1	4%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	4%	0	0%
100356	39	0	0%	2	5%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100362	5	0	0%	0	0%	0	0%	0	0%	1	20%	0	0%	0	0%	1	20%	0	0%	0	0%
100364	11	0	0%	2	18%	2	18%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100366	125	0	0%	1	1%	0	0%	0	0%	4	3%	0	0%	0	0%	1	1%	0	0%	0	0%
100367	21	2	10%	0	0%	2	10%	0	0%	0	0%	2	10%	0	0%	0	0%	0	0%	0	0%
100376	40	0	0%	0	0%	1	3%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100380	87	0	0%	1	1%	3	3%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100381	31	4	13%	0	0%	1	3%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100411	38	3	8%	1	3%	0	0%	2	5%	0	0%	5	13%	0	0%	0	0%	0	0%	0	0%
100421	27	1	4%	0	0%	3	11%	0	0%	2	7%	0	0%	0	0%	0	0%	0	0%	0	0%
100668	31	0	0%	0	0%	0	0%	0	0%	1	3%	0	0%	0	0%	0	0%	0	0%	0	0%
100670	7	1	14%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100678	13	0	0%	0	0%	0	0%	1	8%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100690	15	1	7%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	780	19	2%	11	1%	13	2%	3	0%	8	1%	7	1%	5	1%	2	0%	1	0%	0	0%

Subject Test Data

		Date Range				Total Tests		780				2		0.3%							
		4/12/2021		5/30/2021																	
Serial Number	Total Subject Tests	User Abort		Detector Overflow		Barometer Error		Filter Wheel Error		Suck Back Error		Undefined Error		Filter 1 Won't Zero		Samp Chamb Low		Breath Tube High		Static Analysis Error	
100363	5	0	0%	0	0%	0	0%	2	40%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	780	0	0%	0	0%	0	0%	2	0%	0	0%	0	0%	0	0%	0	0%	0	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			
										4/13/2021		5/30/2021		100		5.0%							
100255	3	0	0%	0	0%	0	0%	0	0%	1	33%	0	0%	0	0%	0	0%	0	0%	0	0%		
100351	3	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	33%		
100365	4	0	0%	0	0%	0	0%	1	25%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
100678	1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%		
100690	1	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	0	0%	0	0%		
Total	100	0	0%	0	0%	0	0%	1	1%	2	2%	0	0%	0	0%	0	0%	0	0%	2	2%		

VOC Data

Date Range: 4/13/2021 5/30/2021 Total Tests: 100 Total Messages: 0 0.0%

Serial Number	Total VOC Tests	User Abort	Detector Overflow	Barometer Error	Filter Wheel Error	Suck Back Error	Undefined Error	Filter 1 Won't Zero	Samp Chamb Low	Breath Tube High	Static Analysis Error
100255	3	0	0%	0	0%	0	0%	0	0%	0	0%
100342	3	0	0%	0	0%	0	0%	0	0%	0	0%
100343	1	0	0%	0	0%	0	0%	0	0%	0	0%
100344	1	0	0%	0	0%	0	0%	0	0%	0	0%
100345	2	0	0%	0	0%	0	0%	0	0%	0	0%
100346	1	0	0%	0	0%	0	0%	0	0%	0	0%
100347	2	0	0%	0	0%	0	0%	0	0%	0	0%
100348	1	0	0%	0	0%	0	0%	0	0%	0	0%
100349	1	0	0%	0	0%	0	0%	0	0%	0	0%
100350	0	0	0%	0	0%	0	0%	0	0%	0	0%
100351	3	0	0%	0	0%	0	0%	0	0%	0	0%
100352	0	0	0%	0	0%	0	0%	0	0%	0	0%
100353	0	0	0%	0	0%	0	0%	0	0%	0	0%
100354	1	0	0%	0	0%	0	0%	0	0%	0	0%
100355	1	0	0%	0	0%	0	0%	0	0%	0	0%
100356	0	0	0%	0	0%	0	0%	0	0%	0	0%
100357	0	0	0%	0	0%	0	0%	0	0%	0	0%
100358	1	0	0%	0	0%	0	0%	0	0%	0	0%
100359	0	0	0%	0	0%	0	0%	0	0%	0	0%
100360	1	0	0%	0	0%	0	0%	0	0%	0	0%
100361	0	0	0%	0	0%	0	0%	0	0%	0	0%
100362	1	0	0%	0	0%	0	0%	0	0%	0	0%
100363	1	0	0%	0	0%	0	0%	0	0%	0	0%
100364	1	0	0%	0	0%	0	0%	0	0%	0	0%
100365	4	0	0%	0	0%	0	0%	0	0%	0	0%
100366	1	0	0%	0	0%	0	0%	0	0%	0	0%
100367	1	0	0%	0	0%	0	0%	0	0%	0	0%
100368	1	0	0%	0	0%	0	0%	0	0%	0	0%
100369	1	0	0%	0	0%	0	0%	0	0%	0	0%
100370	0	0	0%	0	0%	0	0%	0	0%	0	0%
100371	1	0	0%	0	0%	0	0%	0	0%	0	0%
100372	0	0	0%	0	0%	0	0%	0	0%	0	0%
100373	0	0	0%	0	0%	0	0%	0	0%	0	0%
100374	1	0	0%	0	0%	0	0%	0	0%	0	0%
100375	0	0	0%	0	0%	0	0%	0	0%	0	0%
100376	1	0	0%	0	0%	0	0%	0	0%	0	0%
100377	1	0	0%	0	0%	0	0%	0	0%	0	0%
100378	1	0	0%	0	0%	0	0%	0	0%	0	0%
100379	0	0	0%	0	0%	0	0%	0	0%	0	0%
100380	3	0	0%	0	0%	0	0%	0	0%	0	0%
100381	0	0	0%	0	0%	0	0%	0	0%	0	0%
100382	0	0	0%	0	0%	0	0%	0	0%	0	0%
100384	1	0	0%	0	0%	0	0%	0	0%	0	0%
100385	1	0	0%	0	0%	0	0%	0	0%	0	0%
100386	2	0	0%	0	0%	0	0%	0	0%	0	0%
100387	1	0	0%	0	0%	0	0%	0	0%	0	0%
100388	1	0	0%	0	0%	0	0%	0	0%	0	0%
100389	1	0	0%	0	0%	0	0%	0	0%	0	0%
100390	1	0	0%	0	0%	0	0%	0	0%	0	0%
100391	1	0	0%	0	0%	0	0%	0	0%	0	0%
100392	1	0	0%	0	0%	0	0%	0	0%	0	0%
100395	0	0	0%	0	0%	0	0%	0	0%	0	0%
100396	1	0	0%	0	0%	0	0%	0	0%	0	0%
100397	0	0	0%	0	0%	0	0%	0	0%	0	0%
100398	2	0	0%	0	0%	0	0%	0	0%	0	0%
100399	0	0	0%	0	0%	0	0%	0	0%	0	0%
100400	1	0	0%	0	0%	0	0%	0	0%	0	0%
100402	0	0	0%	0	0%	0	0%	0	0%	0	0%
100403	0	0	0%	0	0%	0	0%	0	0%	0	0%
100404	1	0	0%	0	0%	0	0%	0	0%	0	0%
100405	0	0	0%	0	0%	0	0%	0	0%	0	0%
100406	0	0	0%	0	0%	0	0%	0	0%	0	0%
100410	1	0	0%	0	0%	0	0%	0	0%	0	0%
100411	4	0	0%	0	0%	0	0%	0	0%	0	0%
100412	1	0	0%	0	0%	0	0%	0	0%	0	0%
100413	0	0	0%	0	0%	0	0%	0	0%	0	0%
100414	0	0	0%	0	0%	0	0%	0	0%	0	0%
100415	1	0	0%	0	0%	0	0%	0	0%	0	0%
100416	0	0	0%	0	0%	0	0%	0	0%	0	0%
100417	1	0	0%	0	0%	0	0%	0	0%	0	0%
100418	1	0	0%	0	0%	0	0%	0	0%	0	0%
100420	1	0	0%	0	0%	0	0%	0	0%	0	0%
100421	2	0	0%	0	0%	0	0%	0	0%	0	0%
100422	1	0	0%	0	0%	0	0%	0	0%	0	0%
100423	1	0	0%	0	0%	0	0%	0	0%	0	0%
100424	0	0	0%	0	0%	0	0%	0	0%	0	0%
100665	1	0	0%	0	0%	0	0%	0	0%	0	0%
100666	1	0	0%	0	0%	0	0%	0	0%	0	0%
100667	1	0	0%	0	0%	0	0%	0	0%	0	0%
100668	2	0	0%	0	0%	0	0%	0	0%	0	0%
100669	2	0	0%	0	0%	0	0%	0	0%	0	0%
100670	1	0	0%	0	0%	0	0%	0	0%	0	0%
100671	0	0	0%	0	0%	0	0%	0	0%	0	0%
100672	0	0	0%	0	0%	0	0%	0	0%	0	0%
100673	1	0	0%	0	0%	0	0%	0	0%	0	0%
100674	0	0	0%	0	0%	0	0%	0	0%	0	0%
100675	1	0	0%	0	0%	0	0%	0	0%	0	0%
100676	1	0	0%	0	0%	0	0%	0	0%	0	0%
100677	0	0	0%	0	0%	0	0%	0	0%	0	0%
100678	1	0	0%	0	0%	0	0%	0	0%	0	0%
100679	1	0	0%	0	0%	0	0%	0	0%	0	0%
100680	1	0	0%	0	0%	0	0%	0	0%	0	0%
100681	1	0	0%	0	0%	0	0%	0	0%	0	0%
100682	2	0	0%	0	0%	0	0%	0	0%	0	0%
100683	1	0	0%	0	0%	0	0%	0	0%	0	0%
100684	0	0	0%	0	0%	0	0%	0	0%	0	0%
100685	0	0	0%	0	0%	0	0%	0	0%	0	0%
100686	1	0	0%	0	0%	0	0%	0	0%	0	0%
100687	1	0	0%	0	0%	0	0%	0	0%	0	0%
100688	0	0	0%	0	0%	0	0%	0	0%	0	0%
100689	0	0	0%	0	0%	0	0%	0	0%	0	0%
100690	1	0	0%	0	0%	0	0%	0	0%	0	0%
100691	0	0	0%	0	0%	0	0%	0	0%	0	0%
100692	1	0	0%	0	0%	0	0%	0	0%	0	0%
100693	1	0	0%	0	0%	0	0%	0	0%	0	0%
100694	1	0	0%	0	0%	0	0%	0	0%	0	0%
100695	1	0	0%	0	0%	0	0%	0	0%	0	0%
100696	2	0	0%	0	0%	0	0%	0	0%	0	0%
100697	0	0	0%	0	0%	0	0%	0	0%	0	0%
100698	1	0	0%	0	0%	0	0%	0	0%	0	0%
100699	1	0	0%	0	0%	0	0%	0	0%	0	0%
100700	1	0	0%	0	0%	0	0%	0	0%	0	0%
Total	100	0	0%	0	0%	0	0%	0	0%	0	0%