Attachment 1
VERSO Letter Terminating Permits

Verso Corporation
Luke Mill
Environmental Department
300 Pratt Street
Luke MD 21540

T 301 359 3311
F 301 359 2040
W versoco.com

ES-20-43

May 7, 2020

Ms. Suna Sariscak, Permit Program Administrator
Air & Radiation Management Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Dear Ms. Sariscak:

On behalf of Verso Corporation I would like to inform you that we have exhausted all possibilities of securing a company to purchase the Luke Mill Facilities and keep the Title V Operating Permit active. All of the required conditions within the permit have continued to be maintained since our announcement to close the Luke Mill.

Please accept this letter as our official notification that Verso Luke LLC is requesting a complete closure of the Luke Mill Facility and termination of all associated air quality permits as of the date of this letter. Furthermore, we acknowledge that Verso or any potential new owner of the facility must apply for and obtain all new air quality permits in order for this facility to begin operations any time in the future.

Thank you for your immediate attention to this notification. Please contact me if you require any additional information.

Sincerely

Glen Gilbert
Facility Manager

LAJ:laj

Attachment 2

Ambient Air Monitoring Values After Shutdown

Graph showing hourly SO2 concentrations, in parts per billion, at the three Verso SO2 DRR air monitoring stations, June 1, 2019 through May 8, 2020.

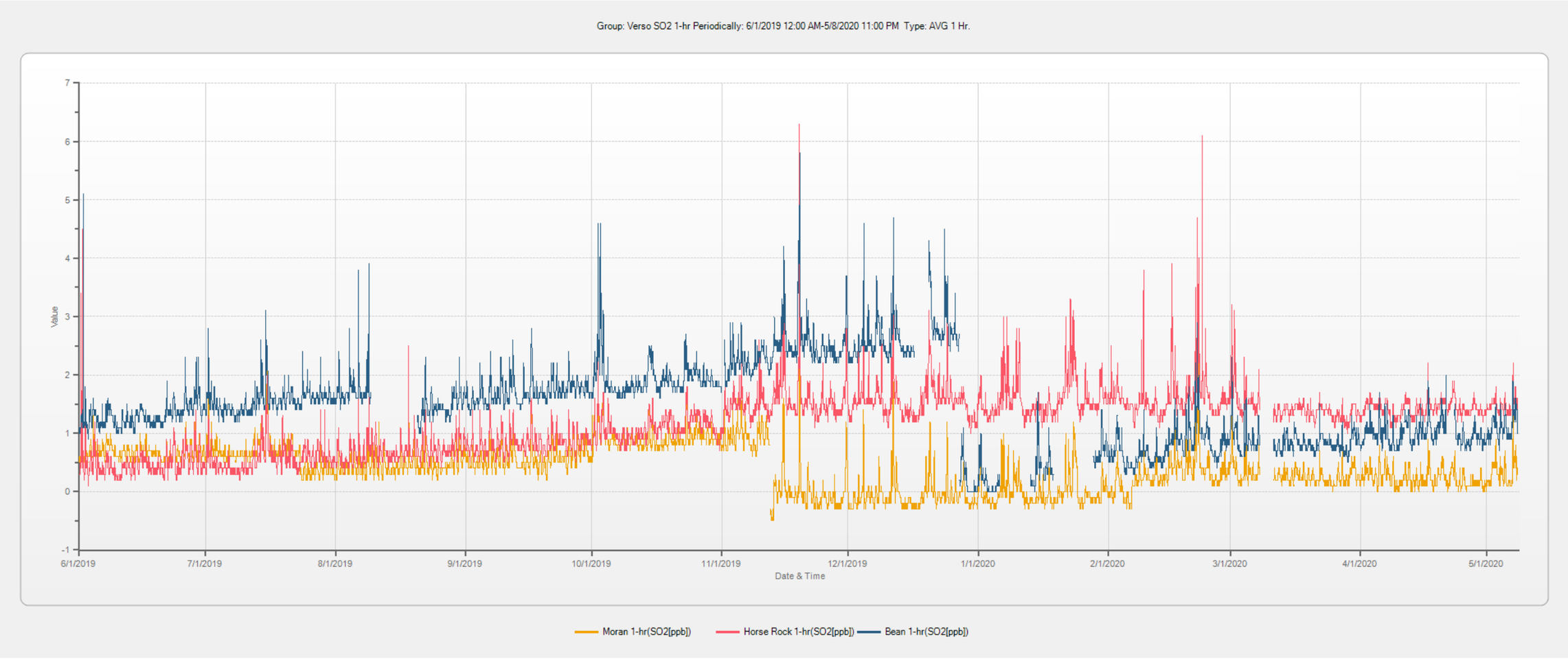

Table showing hourly SO2 concentrations and summary statistics, in parts per billion, at the three Verso SO2 DRR air monitoring stations, June 1, 2019 through May 8, 2020.

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/1/2019 12:00 AM	0.6	0.3	1.1
6/1/2019 1:00 AM	0.6	0.3	1
6/1/2019 2:00 AM	0.5	0.3	1
6/1/2019 3:00 AM	0.6	0.3	1
6/1/2019 4:00 AM	0.5	0.3	1
6/1/2019 5:00 AM	0.6	0.5	1
6/1/2019 6:00 AM	0.5	0.4	1
6/1/2019 7:00 AM	0.6	0.4	1.1
6/1/2019 8:00 AM	0.6	0.4	1.2
6/1/2019 9:00 AM	0.8	0.9	1.3
6/1/2019 10:00 AM	0.7	1.4	1.3
6/1/2019 11:00 AM	0.8	3.4	1.2
6/1/2019 12:00 PM	0.8	0.9	1.2
6/1/2019 1:00 PM	0.8	0.8	1.2
6/1/2019 2:00 PM	0.7	1.5	1.2
6/1/2019 3:00 PM	0.8	0.7	1.2
6/1/2019 4:00 PM	0.8	0.5	1.3
6/1/2019 5:00 PM	1	0.7	1.4
6/1/2019 6:00 PM	0.9	4.5	1.4
6/1/2019 7:00 PM	0.7	0.4	1.1
6/1/2019 8:00 PM	0.8	0.5	1.2
6/1/2019 9:00 PM	0.7	0.5	1.1
6/1/2019 10:00 PM	0.7	0.4	1.3
6/1/2019 11:00 PM	0.6	0.7	5.1
6/2/2019 12:00 AM	0.7	0.6	1.4
6/2/2019 1:00 AM	0.6	0.4	1.2
6/2/2019 2:00 AM	0.6	0.3	1.2
6/2/2019 3:00 AM	0.6	0.2	1.1
6/2/2019 4:00 AM	0.5	0.2	1.1
6/2/2019 5:00 AM	0.5	0.3	1.1
6/2/2019 6:00 AM	0.5	0.3	1.1
6/2/2019 7:00 AM	0.6	0.3	1.2
6/2/2019 8:00 AM	0.6	0.5	1.2
6/2/2019 9:00 AM	0.7	0.6	1.3
6/2/2019 10:00 AM	1.3	1.3	1.8
6/2/2019 11:00 AM	1.2	1.2	1.6
6/2/2019 12:00 PM	0.9	0.8	1.3
6/2/2019 1:00 PM	0.7	0.5	1.1
6/2/2019 2:00 PM	0.7	0.4	1.1
6/2/2019 3:00 PM	0.7	0.4	1.2
6/2/2019 4:00 PM	0.7	0.4	1.2
6/2/2019 5:00 PM	0.7	0.4	1.1
6/2/2019 6:00 PM	0.6	0.4	1.1
6/2/2019 7:00 PM	0.6	0.5	1.1
6/2/2019 8:00 PM	0.7	0.5	1.2
6/2/2019 9:00 PM	0.6	0.6	1.1
6/2/2019 10:00 PM	0.6	0.5	1
6/2/2019 11:00 PM	0.5	0.5	1
6/3/2019 12:00 AM	0.5	0.4	1
6/3/2019 1:00 AM	0.5	0.3	1
6/3/2019 2:00 AM	0.5	0.2	1
6/3/2019 3:00 AM	0.5	0.1	0.9
6/3/2019 4:00 AM	Precision	Precision	Precision
6/3/2019 5:00 AM	0.6	0.2	1
6/3/2019 6:00 AM	0.6	0.3	1.1
6/3/2019 7:00 AM	0.6	0.3	1.2
6/3/2019 8:00 AM	0.7	0.4	1.4
6/3/2019 9:00 AM	0.7	0.4	1.3
6/3/2019 10:00 AM	0.6	0.3	1.2
6/3/2019 11:00 AM	0.6	0.4	1.2
6/3/2019 12:00 PM	0.7	0.4	1.3
6/3/2019 1:00 PM	0.7	0.4	1.3
6/3/2019 2:00 PM	0.8	0.5	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/3/2019 3:00 PM	0.8	0.5	1.4
6/3/2019 4:00 PM	0.8	0.6	1.3
6/3/2019 5:00 PM	0.9	0.6	1.5
6/3/2019 6:00 PM	0.9	0.7	1.4
6/3/2019 7:00 PM	0.8	0.6	1.3
6/3/2019 8:00 PM	0.8	0.7	1.3
6/3/2019 9:00 PM	0.7	0.6	1.2
6/3/2019 10:00 PM	0.6	0.5	1.2
6/3/2019 11:00 PM	0.6	0.5	1.1
6/4/2019 12:00 AM	0.6	0.4	1.1
6/4/2019 1:00 AM	0.6	0.3	1.1
6/4/2019 2:00 AM	0.6	0.3	1.2
6/4/2019 3:00 AM	0.6	0.3	1.2
6/4/2019 4:00 AM	0.6	0.4	1.3
6/4/2019 5:00 AM	0.6	0.5	1.4
6/4/2019 6:00 AM	0.5	0.3	1.4
6/4/2019 7:00 AM	0.6	0.5	1.4
6/4/2019 8:00 AM	1	0.7	1.6
6/4/2019 9:00 AM	1.3	0.7	1.6
6/4/2019 10:00 AM	1	0.9	1.4
6/4/2019 11:00 AM	0.8	0.7	1.4
6/4/2019 12:00 PM	0.8	0.6	1.4
6/4/2019 1:00 PM	0.8	0.7	1.3
6/4/2019 2:00 PM	0.8	0.8	1.3
6/4/2019 3:00 PM	0.9	0.6	1.3
6/4/2019 4:00 PM	0.9	1.2	1.4
6/4/2019 5:00 PM	1	0.8	1.4
6/4/2019 6:00 PM	1	0.6	1.4
6/4/2019 7:00 PM	0.9	0.6	1.4
6/4/2019 8:00 PM	0.8	0.7	1.3
6/4/2019 9:00 PM	0.7	0.5	1.4
6/4/2019 10:00 PM	0.8	0.4	1.3
6/4/2019 11:00 PM	0.7	0.4	1.3
6/5/2019 12:00 AM	0.6	0.4	1.3
6/5/2019 1:00 AM	0.7	0.3	1.1
6/5/2019 2:00 AM	0.6	0.3	1.2
6/5/2019 3:00 AM	0.6	0.2	1.2
6/5/2019 4:00 AM	0.6	0.2	1.2
6/5/2019 5:00 AM	0.7	0.2	1.2
6/5/2019 6:00 AM	0.6	0.4	1.2
6/5/2019 7:00 AM	0.7	0.5	1.2
6/5/2019 8:00 AM	0.7	0.9	1.2
6/5/2019 9:00 AM	0.7	0.7	1.3
6/5/2019 10:00 AM	0.8	0.6	1.3
6/5/2019 11:00 AM	0.7	0.6	1.3
6/5/2019 12:00 PM	0.7	0.5	1.1
6/5/2019 1:00 PM	0.7	0.5	1.2
6/5/2019 2:00 PM	0.7	0.4	1.2
6/5/2019 3:00 PM	0.7	0.3	1.1
6/5/2019 4:00 PM	0.7	0.4	1.1
6/5/2019 5:00 PM	0.7	0.5	1.1
6/5/2019 6:00 PM	0.6	0.4	1.1
6/5/2019 7:00 PM	0.7	0.3	1
6/5/2019 8:00 PM	0.6	0.3	1.1
6/5/2019 9:00 PM	0.8	0.4	1.2
6/5/2019 10:00 PM	0.8	0.4	1.1
6/5/2019 11:00 PM	0.7	0.4	1.1
6/6/2019 12:00 AM	0.7	0.4	1.1
6/6/2019 1:00 AM	0.7	0.3	1.1
6/6/2019 2:00 AM	0.6	0.4	1.1
6/6/2019 3:00 AM	0.7	0.4	1.2
6/6/2019 4:00 AM	0.6	0.3	1.1
6/6/2019 5:00 AM	0.7	0.3	1.2
6/6/2019 6:00 AM	0.6	0.3	1.2
6/6/2019 7:00 AM	0.6	0.3	1.2
6/6/2019 8:00 AM	0.7	0.3	1.2

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/6/2019 9:00 AM	0.7	0.4	1.1
6/6/2019 10:00 AM	0.7	0.3	1.2
6/6/2019 11:00 AM	0.8	0.4	1.5
6/6/2019 12:00 PM	0.8	0.3	1.3
6/6/2019 1:00 PM	0.9	0.5	1.2
6/6/2019 2:00 PM	0.8	0.4	1.2
6/6/2019 3:00 PM	0.8	0.3	1.2
6/6/2019 4:00 PM	0.8	0.3	1.1
6/6/2019 5:00 PM	0.8	0.4	1.2
6/6/2019 6:00 PM	0.7	0.3	1.1
6/6/2019 7:00 PM	0.8	0.4	1.1
6/6/2019 8:00 PM	0.7	0.4	1.1
6/6/2019 9:00 PM	0.7	0.4	1.1
6/6/2019 10:00 PM	0.7	0.4	1.2
6/6/2019 11:00 PM	0.6	0.3	1.1
6/7/2019 12:00 AM	0.6	0.3	1.2
6/7/2019 1:00 AM	0.6	0.3	1.1
6/7/2019 2:00 AM	0.5	0.2	1.1
6/7/2019 3:00 AM	0.6	0.3	1.1
6/7/2019 4:00 AM	0.6	0.3	1.1
6/7/2019 5:00 AM	0.6	0.4	1.2
6/7/2019 6:00 AM	0.6	0.4	1.1
6/7/2019 7:00 AM	0.6	0.3	1.5
6/7/2019 8:00 AM	0.8	0.5	1.5
6/7/2019 9:00 AM	0.9	0.6	1.5
6/7/2019 10:00 AM	1	0.7	1.5
6/7/2019 11:00 AM	1	0.7	1.5
6/7/2019 12:00 PM	1	0.6	1.5
6/7/2019 1:00 PM	0.9	0.5	1.2
6/7/2019 2:00 PM	0.9	0.5	1.2
6/7/2019 3:00 PM	0.9	0.6	1.4
6/7/2019 4:00 PM	0.8	0.4	1.4
6/7/2019 5:00 PM	0.9	0.6	1.5
6/7/2019 6:00 PM	0.9	0.7	1.6
6/7/2019 7:00 PM	0.9	0.7	1.5
6/7/2019 8:00 PM	0.8	0.5	1.4
6/7/2019 9:00 PM	0.8	0.6	1.3
6/7/2019 10:00 PM	0.8	0.5	1.5
6/7/2019 11:00 PM	0.9	0.6	1.4
6/8/2019 12:00 AM	0.9	0.5	1.4
6/8/2019 1:00 AM	0.8	0.4	1.5
6/8/2019 2:00 AM	0.9	0.4	1.5
6/8/2019 3:00 AM	0.8	0.3	1.4
6/8/2019 4:00 AM	0.8	0.3	1.3
6/8/2019 5:00 AM	0.8	0.4	1.5
6/8/2019 6:00 AM	0.7	0.3	1.5
6/8/2019 7:00 AM	0.8	0.4	1.4
6/8/2019 8:00 AM	0.8	0.4	1.4
6/8/2019 9:00 AM	0.9	0.6	1.5
6/8/2019 10:00 AM	1	0.6	1.4
6/8/2019 11:00 AM	0.8	0.6	1.4
6/8/2019 12:00 PM	0.9	0.6	1.4
6/8/2019 1:00 PM	0.9	0.6	1.4
6/8/2019 2:00 PM	0.8	0.4	1.3
6/8/2019 3:00 PM	0.9	0.4	1.4
6/8/2019 4:00 PM	0.9	0.4	1.4
6/8/2019 5:00 PM	0.8	0.4	1.3
6/8/2019 6:00 PM	0.7	0.4	1.3
6/8/2019 7:00 PM	0.8	0.4	1.3
6/8/2019 8:00 PM	0.8	0.4	1.3
6/8/2019 9:00 PM	0.8	0.4	1.3
6/8/2019 10:00 PM	0.7	0.3	1.3
6/8/2019 11:00 PM	0.7	0.4	1.2
6/9/2019 12:00 AM	0.7	0.4	1.2
6/9/2019 1:00 AM	0.7	0.4	1.2
6/9/2019 2:00 AM	0.7	0.3	1.2

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/9/2019 3:00 AM	0.7	0.4	1.2
6/9/2019 4:00 AM	0.7	0.4	1.1
6/9/2019 5:00 AM	0.7	0.4	1.2
6/9/2019 6:00 AM	0.7	0.3	1.2
6/9/2019 7:00 AM	0.6	0.3	1.1
6/9/2019 8:00 AM	0.6	0.2	1.1
6/9/2019 9:00 AM	0.7	0.3	1.1
6/9/2019 10:00 AM	0.7	0.3	1.3
6/9/2019 11:00 AM	0.8	0.5	1.3
6/9/2019 12:00 PM	0.8	0.4	1.2
6/9/2019 1:00 PM	0.7	0.4	1.3
6/9/2019 2:00 PM	0.7	0.4	1.2
6/9/2019 3:00 PM	0.7	0.3	1.2
6/9/2019 4:00 PM	0.6	0.2	1.2
6/9/2019 5:00 PM	0.6	0.3	1.1
6/9/2019 6:00 PM	0.6	0.3	1.1
6/9/2019 7:00 PM	0.6	0.3	1
6/9/2019 8:00 PM	0.6	0.3	1.1
6/9/2019 9:00 PM	0.6	0.3	1
6/9/2019 10:00 PM	0.6	0.2	1.2
6/9/2019 11:00 PM	0.6	0.2	1.1
6/10/2019 12:00 AM	0.6	0.2	1.1
6/10/2019 1:00 AM	0.6	0.2	1
6/10/2019 2:00 AM	0.6	0.2	1.1
6/10/2019 3:00 AM	0.6	0.3	1.1
6/10/2019 4:00 AM	Precision	Precision	Precision
6/10/2019 5:00 AM	0.6	0.2	1
6/10/2019 6:00 AM	0.6	0.2	1
6/10/2019 7:00 AM	0.6	0.2	1.1
6/10/2019 8:00 AM	0.6	0.2	1
6/10/2019 9:00 AM	0.5	0.2	1.1
6/10/2019 10:00 AM	0.6	0.2	1.1
6/10/2019 11:00 AM	0.6	0.2	1.1
6/10/2019 12:00 PM	0.6	0.2	1.1
6/10/2019 1:00 PM	0.7	0.2	1.1
6/10/2019 2:00 PM	0.7	0.3	1.1
6/10/2019 3:00 PM	0.7	0.3	1.1
6/10/2019 4:00 PM	0.7	0.3	1.1
6/10/2019 5:00 PM	0.7	0.2	1.1
6/10/2019 6:00 PM	0.7	0.2	1.1
6/10/2019 7:00 PM	0.6	0.3	1.1
6/10/2019 8:00 PM	0.5	0.2	1.1
6/10/2019 9:00 PM	0.6	0.3	1.1
6/10/2019 10:00 PM	0.6	0.2	1.1
6/10/2019 11:00 PM	0.6	0.3	1.1
6/11/2019 12:00 AM	0.6	0.2	1
6/11/2019 1:00 AM	0.6	0.2	1.1
6/11/2019 2:00 AM	0.6	0.3	1.1
6/11/2019 3:00 AM	0.5	0.3	1
6/11/2019 4:00 AM	0.6	0.3	1
6/11/2019 5:00 AM	0.7	0.5	1.4
6/11/2019 6:00 AM	0.7	0.4	1.3
6/11/2019 7:00 AM	0.7	0.4	1.3
6/11/2019 8:00 AM	0.7	0.4	1.3
6/11/2019 9:00 AM	0.7	0.4	1.4
6/11/2019 10:00 AM	0.7	0.4	1.3
6/11/2019 11:00 AM	0.7	0.5	1.2
6/11/2019 12:00 PM	0.7	0.5	1.2
6/11/2019 1:00 PM	0.7	0.5	1.2
6/11/2019 2:00 PM	0.8	0.4	1.2
6/11/2019 3:00 PM	0.8	0.5	1.2
6/11/2019 4:00 PM	0.8	0.5	1.2
6/11/2019 5:00 PM	0.8	0.4	1.2
6/11/2019 6:00 PM	0.8	0.5	1.2
6/11/2019 7:00 PM	0.8	0.5	1.1
6/11/2019 8:00 PM	0.7	0.5	1.1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/11/2019 9:00 PM	0.7	0.4	1.2
6/11/2019 10:00 PM	0.7	0.5	1.2
6/11/2019 11:00 PM	0.6	0.4	1.2
6/12/2019 12:00 AM	0.6	0.4	1.1
6/12/2019 1:00 AM	0.6	0.4	1.1
6/12/2019 2:00 AM	0.5	0.3	1.2
6/12/2019 3:00 AM	0.5	0.3	1.1
6/12/2019 4:00 AM	0.5	0.3	1.1
6/12/2019 5:00 AM	0.5	0.4	1.3
6/12/2019 6:00 AM	0.5	0.3	1.2
6/12/2019 7:00 AM	0.5	0.3	1.3
6/12/2019 8:00 AM	0.8	0.5	1.5
6/12/2019 9:00 AM	0.8	0.6	1.5
6/12/2019 10:00 AM	0.7	0.6	1.4
6/12/2019 11:00 AM	0.8	0.6	1.3
6/12/2019 12:00 PM	0.8	0.6	1.3
6/12/2019 1:00 PM	0.7	0.5	1.2
6/12/2019 2:00 PM	0.8	0.5	1.2
6/12/2019 3:00 PM	0.7	0.5	1.2
6/12/2019 4:00 PM	0.7	0.4	1.2
6/12/2019 5:00 PM	0.8	0.4	1.2
6/12/2019 6:00 PM	0.7	0.4	1.2
6/12/2019 7:00 PM	0.8	0.4	1.2
6/12/2019 8:00 PM	0.7	0.4	1.2
6/12/2019 9:00 PM	0.7	0.4	1.2
6/12/2019 10:00 PM	0.6	0.5	1.1
6/12/2019 11:00 PM	0.6	0.4	1.2
6/13/2019 12:00 AM	0.6	0.4	1.2
6/13/2019 1:00 AM	0.6	0.4	1.2
6/13/2019 2:00 AM	0.5	0.3	1.1
6/13/2019 3:00 AM	0.6	0.3	1.1
6/13/2019 4:00 AM	0.6	0.3	1.1
6/13/2019 5:00 AM	0.5	0.3	1.3
6/13/2019 6:00 AM	0.5	0.3	1.1
6/13/2019 7:00 AM	0.5	0.3	1.1
6/13/2019 8:00 AM	0.5	0.2	1.1
6/13/2019 9:00 AM	0.6	0.2	1.2
6/13/2019 10:00 AM	0.6	0.3	1.1
6/13/2019 11:00 AM	0.7	0.3	1.3
6/13/2019 12:00 PM	0.7	0.4	1.4
6/13/2019 1:00 PM	0.8	0.5	1.3
6/13/2019 2:00 PM	0.7	0.4	1.2
6/13/2019 3:00 PM	0.7	0.5	1.2
6/13/2019 4:00 PM	0.7	0.4	1.2
6/13/2019 5:00 PM	0.7	0.4	1.3
6/13/2019 6:00 PM	0.7	0.4	1.3
6/13/2019 7:00 PM	0.7	0.6	1.2
6/13/2019 8:00 PM	0.6	0.5	1.2
6/13/2019 9:00 PM	0.6	0.4	1.1
6/13/2019 10:00 PM	0.5	0.4	1
6/13/2019 11:00 PM	0.4	0.3	1
6/14/2019 12:00 AM	0.5	0.4	1.1
6/14/2019 1:00 AM	0.6	0.3	1
6/14/2019 2:00 AM	0.5	0.3	1.1
6/14/2019 3:00 AM	0.5	0.3	1.1
6/14/2019 4:00 AM	0.5	0.3	1.1
6/14/2019 5:00 AM	0.5	0.3	1.1
6/14/2019 6:00 AM	0.5	0.2	1.1
6/14/2019 7:00 AM	0.5	0.2	1
6/14/2019 8:00 AM	0.6	0.3	1
6/14/2019 9:00 AM	0.7	0.5	1.3
6/14/2019 10:00 AM	0.8	0.5	1.3
6/14/2019 11:00 AM	0.8	0.6	1.4
6/14/2019 12:00 PM	0.7	0.6	1.4
6/14/2019 1:00 PM	0.8	0.6	1.4
6/14/2019 2:00 PM	0.8	0.6	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/14/2019 3:00 PM	0.8	0.6	1.4
6/14/2019 4:00 PM	0.8	0.6	1.3
6/14/2019 5:00 PM	0.8	0.6	1.3
6/14/2019 6:00 PM	0.7	0.6	1.3
6/14/2019 7:00 PM	0.8	0.6	1.4
6/14/2019 8:00 PM	0.7	0.7	1.3
6/14/2019 9:00 PM	0.7	0.7	1.3
6/14/2019 10:00 PM	0.6	0.4	1.4
6/14/2019 11:00 PM	0.6	0.4	1.3
6/15/2019 12:00 AM	0.6	0.3	1.3
6/15/2019 1:00 AM	0.6	0.3	1.3
6/15/2019 2:00 AM	0.5	0.3	1.3
6/15/2019 3:00 AM	0.5	0.3	1.2
6/15/2019 4:00 AM	0.5	0.3	1.3
6/15/2019 5:00 AM	0.5	0.3	1.3
6/15/2019 6:00 AM	0.5	0.3	1.2
6/15/2019 7:00 AM	0.5	0.4	1.2
6/15/2019 8:00 AM	0.5	0.5	1.3
6/15/2019 9:00 AM	0.6	0.5	1.4
6/15/2019 10:00 AM	0.9	0.6	1.4
6/15/2019 11:00 AM	0.9	0.7	1.5
6/15/2019 12:00 PM	1	0.8	1.5
6/15/2019 1:00 PM	0.9	0.7	1.4
6/15/2019 2:00 PM	0.8	0.6	1.4
6/15/2019 3:00 PM	0.8	0.6	1.4
6/15/2019 4:00 PM	0.7	0.6	1.4
6/15/2019 5:00 PM	0.8	0.6	1.4
6/15/2019 6:00 PM	0.8	0.6	1.5
6/15/2019 7:00 PM	0.8	0.5	1.4
6/15/2019 8:00 PM	0.8	0.6	1.4
6/15/2019 9:00 PM	0.7	0.7	1.4
6/15/2019 10:00 PM	0.7	0.6	1.5
6/15/2019 11:00 PM	0.7	0.7	1.4
6/16/2019 12:00 AM	0.7	0.5	1.4
6/16/2019 1:00 AM	0.7	0.5	1.4
6/16/2019 2:00 AM	0.7	0.4	1.4
6/16/2019 3:00 AM	0.7	0.4	1.4
6/16/2019 4:00 AM	0.7	0.4	1.3
6/16/2019 5:00 AM	0.8	0.7	1.4
6/16/2019 6:00 AM	0.7	0.6	1.4
6/16/2019 7:00 AM	0.6	0.5	1.3
6/16/2019 8:00 AM	0.7	0.5	1.3
6/16/2019 9:00 AM	0.7	0.5	1.2
6/16/2019 10:00 AM	0.7	0.5	1.2
6/16/2019 11:00 AM	0.7	0.6	1.3
6/16/2019 12:00 PM	0.7	0.6	1.2
6/16/2019 1:00 PM	0.7	0.5	1.2
6/16/2019 2:00 PM	0.7	0.5	1.2
6/16/2019 3:00 PM	0.8	0.5	1.2
6/16/2019 4:00 PM	0.8	0.5	1.3
6/16/2019 5:00 PM	0.9	0.6	1.3
6/16/2019 6:00 PM	0.8	0.6	1.3
6/16/2019 7:00 PM	0.8	0.5	1.4
6/16/2019 8:00 PM	1	0.8	1.4
6/16/2019 9:00 PM	0.9	0.7	1.4
6/16/2019 10:00 PM	1	0.6	1.2
6/16/2019 11:00 PM	0.8	0.5	1.2
6/17/2019 12:00 AM	0.7	0.5	1.2
6/17/2019 1:00 AM	0.7	0.5	1.1
6/17/2019 2:00 AM	0.6	0.4	1.2
6/17/2019 3:00 AM	0.5	0.5	1.2
6/17/2019 4:00 AM	Precision	Precision	Precision
6/17/2019 5:00 AM	0.6	0.5	1.2
6/17/2019 6:00 AM	0.6	0.5	1.2
6/17/2019 7:00 AM	0.7	0.4	1.3
6/17/2019 8:00 AM	0.7	0.6	1.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/17/2019 9:00 AM	0.7	0.6	1.3
6/17/2019 10:00 AM	0.7	0.5	1.2
6/17/2019 11:00 AM	0.7	0.5	1.3
6/17/2019 12:00 PM	0.7	0.3	1.2
6/17/2019 1:00 PM	0.7	0.4	1.2
6/17/2019 2:00 PM	0.7	0.5	1.2
6/17/2019 3:00 PM	0.8	0.5	1.2
6/17/2019 4:00 PM	0.7	0.6	1.2
6/17/2019 5:00 PM	0.7	0.5	1.3
6/17/2019 6:00 PM	0.7	0.5	1.3
6/17/2019 7:00 PM	0.7	0.5	1.2
6/17/2019 8:00 PM	0.7	0.4	1.1
6/17/2019 9:00 PM	0.7	0.4	1.2
6/17/2019 10:00 PM	0.7	0.3	1.1
6/17/2019 11:00 PM	0.7	0.3	1.2
6/18/2019 12:00 AM	0.7	0.4	1.2
6/18/2019 1:00 AM	0.7	0.4	1.1
6/18/2019 2:00 AM	0.7	0.3	1.1
6/18/2019 3:00 AM	0.7	0.3	1.2
6/18/2019 4:00 AM	0.6	0.3	1.2
6/18/2019 5:00 AM	0.7	0.4	1.2
6/18/2019 6:00 AM	0.7	0.4	1.2
6/18/2019 7:00 AM	0.6	0.4	1.2
6/18/2019 8:00 AM	0.6	0.4	1.2
6/18/2019 9:00 AM	0.7	0.5	1.2
6/18/2019 10:00 AM	0.7	0.5	1.1
6/18/2019 11:00 AM	0.7	0.5	1.2
6/18/2019 12:00 PM	0.6	0.5	1.1
6/18/2019 1:00 PM	0.7	0.5	1.2
6/18/2019 2:00 PM	0.7	0.4	1.1
6/18/2019 3:00 PM	0.7	0.3	1.1
6/18/2019 4:00 PM	0.6	0.4	1.2
6/18/2019 5:00 PM	0.7	0.4	1.3
6/18/2019 6:00 PM	0.7	0.4	1.2
6/18/2019 7:00 PM	0.7	0.4	1.1
6/18/2019 8:00 PM	0.7	0.4	1.2
6/18/2019 9:00 PM	0.7	0.3	1.2
6/18/2019 10:00 PM	0.7	0.4	1.1
6/18/2019 11:00 PM	0.7	0.3	1.2
6/19/2019 12:00 AM	0.6	0.3	1.2
6/19/2019 1:00 AM	0.6	0.3	1.2
6/19/2019 2:00 AM	0.6	0.4	1.2
6/19/2019 3:00 AM	0.7	0.3	1.1
6/19/2019 4:00 AM	0.6	0.4	1.2
6/19/2019 5:00 AM	0.8	0.4	1.3
6/19/2019 6:00 AM	0.6	0.3	1.3
6/19/2019 7:00 AM	0.6	0.3	1.2
6/19/2019 8:00 AM	0.7	0.3	1.3
6/19/2019 9:00 AM	0.7	0.4	1.2
6/19/2019 10:00 AM	0.7	0.4	1.3
6/19/2019 11:00 AM	0.7	0.4	1.2
6/19/2019 12:00 PM	0.7	0.5	1.3
6/19/2019 1:00 PM	0.7	0.4	1.2
6/19/2019 2:00 PM	0.7	0.5	1.3
6/19/2019 3:00 PM	0.7	0.3	1.2
6/19/2019 4:00 PM	0.7	0.4	1.3
6/19/2019 5:00 PM	0.7	0.5	1.3
6/19/2019 6:00 PM	0.7	0.5	1.3
6/19/2019 7:00 PM	0.7	0.6	1.2
6/19/2019 8:00 PM	0.6	0.5	1.2
6/19/2019 9:00 PM	0.7	0.5	1.2
6/19/2019 10:00 PM	0.7	0.5	1.2
6/19/2019 11:00 PM	0.6	0.5	1.2
6/20/2019 12:00 AM	0.7	0.5	1.3
6/20/2019 1:00 AM	0.6	0.4	1.2
6/20/2019 2:00 AM	0.6	0.4	1.2

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/20/2019 3:00 AM	0.6	0.3	1.2
6/20/2019 4:00 AM	0.6	0.3	1.2
6/20/2019 5:00 AM	0.7	0.4	1.3
6/20/2019 6:00 AM	0.6	0.4	1.2
6/20/2019 7:00 AM	0.6	0.3	1.1
6/20/2019 8:00 AM	0.6	0.4	1.2
6/20/2019 9:00 AM	0.6	0.6	1.2
6/20/2019 10:00 AM	0.6	0.4	1.1
6/20/2019 11:00 AM	0.5	0.4	1.2
6/20/2019 12:00 PM	0.5	0.4	1.1
6/20/2019 1:00 PM	0.5	0.4	1.1
6/20/2019 2:00 PM	0.5	0.4	1.1
6/20/2019 3:00 PM	0.5	0.4	1.2
6/20/2019 4:00 PM	0.5	0.4	1.2
6/20/2019 5:00 PM	0.5	0.3	1.2
6/20/2019 6:00 PM	0.5	0.3	1.2
6/20/2019 7:00 PM	0.5	0.3	1.2
6/20/2019 8:00 PM	0.5	0.3	1.1
6/20/2019 9:00 PM	0.5	0.4	1.2
6/20/2019 10:00 PM	0.5	0.3	1.2
6/20/2019 11:00 PM	0.5	0.3	1.2
6/21/2019 12:00 AM	0.5	0.3	1.2
6/21/2019 1:00 AM	0.5	0.2	1.2
6/21/2019 2:00 AM	0.6	0.2	1.2
6/21/2019 3:00 AM	0.5	0.2	1.2
6/21/2019 4:00 AM	0.5	0.2	1.2
6/21/2019 5:00 AM	0.5	0.3	1.2
6/21/2019 6:00 AM	0.5	0.3	1.2
6/21/2019 7:00 AM	0.5	0.3	1.2
6/21/2019 8:00 AM	0.5	0.2	1.2
6/21/2019 9:00 AM	0.5	0.4	1.2
6/21/2019 10:00 AM	0.6	0.5	1.3
6/21/2019 11:00 AM	0.6	0.4	1.3
6/21/2019 12:00 PM	0.6	0.4	1.4
6/21/2019 1:00 PM	0.6	0.6	1.3
6/21/2019 2:00 PM	0.6	0.6	1.2
6/21/2019 3:00 PM	0.6	0.6	1.3
6/21/2019 4:00 PM	0.7	0.6	1.4
6/21/2019 5:00 PM	0.7	0.7	1.5
6/21/2019 6:00 PM	0.9	0.9	1.6
6/21/2019 7:00 PM	0.9	0.8	1.6
6/21/2019 8:00 PM	0.8	0.8	1.5
6/21/2019 9:00 PM	0.7	0.6	1.9
6/21/2019 10:00 PM	0.7	0.5	1.6
6/21/2019 11:00 PM	0.7	0.4	1.5
6/22/2019 12:00 AM	0.6	0.4	1.4
6/22/2019 1:00 AM	0.5	0.5	1.4
6/22/2019 2:00 AM	0.5	0.2	1.3
6/22/2019 3:00 AM	0.5	0.4	1.3
6/22/2019 4:00 AM	0.5	0.4	1.3
6/22/2019 5:00 AM	0.6	0.4	1.3
6/22/2019 6:00 AM	0.5	0.6	1.3
6/22/2019 7:00 AM	0.5	0.6	1.3
6/22/2019 8:00 AM	0.6	0.5	1.4
6/22/2019 9:00 AM	0.6	0.4	1.4
6/22/2019 10:00 AM	0.6	0.4	1.3
6/22/2019 11:00 AM	0.7	0.5	1.3
6/22/2019 12:00 PM	0.7	0.6	1.4
6/22/2019 1:00 PM	0.7	0.5	1.4
6/22/2019 2:00 PM	0.7	0.5	1.3
6/22/2019 3:00 PM	0.7	0.5	1.4
6/22/2019 4:00 PM	0.8	0.8	1.5
6/22/2019 5:00 PM	0.8	0.9	1.4
6/22/2019 6:00 PM	0.8	0.8	1.4
6/22/2019 7:00 PM	0.6	0.6	1.4
6/22/2019 8:00 PM	0.6	0.5	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/22/2019 9:00 PM	0.6	0.6	1.4
6/22/2019 10:00 PM	0.6	0.4	1.4
6/22/2019 11:00 PM	0.6	0.6	1.3
6/23/2019 12:00 AM	0.6	0.5	1.3
6/23/2019 1:00 AM	0.5	0.4	1.3
6/23/2019 2:00 AM	0.5	0.5	1.3
6/23/2019 3:00 AM	0.5	0.5	1.3
6/23/2019 4:00 AM	0.5	0.5	1.2
6/23/2019 5:00 AM	0.5	0.6	1.4
6/23/2019 6:00 AM	0.5	0.5	1.4
6/23/2019 7:00 AM	0.5	0.5	1.4
6/23/2019 8:00 AM	0.7	0.7	1.5
6/23/2019 9:00 AM	0.8	0.8	1.6
6/23/2019 10:00 AM	1.1	1	1.6
6/23/2019 11:00 AM	1	1	1.6
6/23/2019 12:00 PM	1	1	1.6
6/23/2019 1:00 PM	0.9	1.1	1.7
6/23/2019 2:00 PM	1	1	1.6
6/23/2019 3:00 PM	0.9	1	1.5
6/23/2019 4:00 PM	0.9	0.9	1.5
6/23/2019 5:00 PM	0.9	0.8	1.5
6/23/2019 6:00 PM	0.9	0.9	1.4
6/23/2019 7:00 PM	0.7	0.8	1.4
6/23/2019 8:00 PM	0.7	0.5	1.4
6/23/2019 9:00 PM	0.7	0.4	1.5
6/23/2019 10:00 PM	0.6	0.4	1.4
6/23/2019 11:00 PM	0.6	0.3	1.3
6/24/2019 12:00 AM	0.5	0.3	1.3
6/24/2019 1:00 AM	0.6	0.3	1.3
6/24/2019 2:00 AM	0.6	0.3	1.2
6/24/2019 3:00 AM	0.5	0.2	1.3
6/24/2019 4:00 AM	Precision	Precision	Precision
6/24/2019 5:00 AM	0.5	0.2	1.3
6/24/2019 6:00 AM	0.6	0.2	1.4
6/24/2019 7:00 AM	0.6	0.3	1.4
6/24/2019 8:00 AM	0.7	0.4	1.4
6/24/2019 9:00 AM	0.8	0.5	1.3
6/24/2019 10:00 AM	0.8	0.4	1.4
6/24/2019 11:00 AM	0.8	0.5	1.3
6/24/2019 12:00 PM	0.7	0.4	1.3
6/24/2019 1:00 PM	0.7	0.3	1.3
6/24/2019 2:00 PM	0.6	0.4	1.3
6/24/2019 3:00 PM	0.7	0.4	1.3
6/24/2019 4:00 PM	0.7	0.5	1.4
6/24/2019 5:00 PM	0.7	0.4	1.4
6/24/2019 6:00 PM	0.7	0.4	1.3
6/24/2019 7:00 PM	0.7	0.4	1.3
6/24/2019 8:00 PM	0.6	0.3	1.2
6/24/2019 9:00 PM	0.6	0.3	1.3
6/24/2019 10:00 PM	0.6	0.3	1.3
6/24/2019 11:00 PM	0.6	0.4	1.2
6/25/2019 12:00 AM	0.6	0.3	1.3
6/25/2019 1:00 AM	0.6	0.3	1.2
6/25/2019 2:00 AM	0.6	0.3	1.3
6/25/2019 3:00 AM	0.5	0.3	1.4
6/25/2019 4:00 AM	0.6	0.4	1.3
6/25/2019 5:00 AM	0.6	0.4	1.3
6/25/2019 6:00 AM	0.6	0.5	1.3
6/25/2019 7:00 AM	0.6	0.6	1.3
6/25/2019 8:00 AM	0.6	0.4	1.4
6/25/2019 9:00 AM	0.6	0.4	1.2
6/25/2019 10:00 AM	0.6	0.6	1.2
6/25/2019 11:00 AM	0.7	0.7	1.2
6/25/2019 12:00 PM	0.7	0.6	1.3
6/25/2019 1:00 PM	0.7	0.7	1.3
6/25/2019 2:00 PM	0.7	0.7	1.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/25/2019 3:00 PM	0.8	0.7	1.4
6/25/2019 4:00 PM	0.9	0.8	1.3
6/25/2019 5:00 PM	0.9	0.9	1.3
6/25/2019 6:00 PM	0.8	0.9	1.4
6/25/2019 7:00 PM	0.8	0.7	1.4
6/25/2019 8:00 PM	0.7	0.6	1.4
6/25/2019 9:00 PM	0.7	0.4	1.3
6/25/2019 10:00 PM	0.6	0.4	1.4
6/25/2019 11:00 PM	0.6	0.5	1.5
6/26/2019 12:00 AM	0.6	0.5	1.4
6/26/2019 1:00 AM	0.6	0.5	1.4
6/26/2019 2:00 AM	0.6	0.5	1.5
6/26/2019 3:00 AM	0.7	0.6	1.9
6/26/2019 4:00 AM	0.9	0.6	2.1
6/26/2019 5:00 AM	0.9	0.8	2
6/26/2019 6:00 AM	0.9	0.8	2.1
6/26/2019 7:00 AM	1.1	1	2.3
6/26/2019 8:00 AM	1.1	1	Audit
6/26/2019 9:00 AM	1.2	1.1	Audit
6/26/2019 10:00 AM	Audit	1	1.8
6/26/2019 11:00 AM	0.9	0.7	1.5
6/26/2019 12:00 PM	0.9	Audit	1.5
6/26/2019 1:00 PM	0.9	0.8	1.6
6/26/2019 2:00 PM	0.8	0.8	1.5
6/26/2019 3:00 PM	0.8	0.7	1.5
6/26/2019 4:00 PM	0.8	0.7	1.4
6/26/2019 5:00 PM	0.8	0.7	1.5
6/26/2019 6:00 PM	0.8	0.8	1.5
6/26/2019 7:00 PM	0.8	0.8	1.5
6/26/2019 8:00 PM	0.8	0.6	1.4
6/26/2019 9:00 PM	0.7	0.6	1.4
6/26/2019 10:00 PM	0.6	0.5	1.3
6/26/2019 11:00 PM	0.6	0.5	1.4
6/27/2019 12:00 AM	0.6	0.5	1.4
6/27/2019 1:00 AM	0.6	0.3	1.3
6/27/2019 2:00 AM	0.6	0.3	1.3
6/27/2019 3:00 AM	0.5	0.3	1.3
6/27/2019 4:00 AM	0.5	0.3	1.3
6/27/2019 5:00 AM	0.6	0.4	1.4
6/27/2019 6:00 AM	0.6	0.3	1.5
6/27/2019 7:00 AM	0.7	0.4	1.6
6/27/2019 8:00 AM	0.9	0.8	1.6
6/27/2019 9:00 AM	0.8	0.7	1.5
6/27/2019 10:00 AM	0.7	0.6	1.6
6/27/2019 11:00 AM	0.9	0.6	1.5
6/27/2019 12:00 PM	0.8	0.6	1.5
6/27/2019 1:00 PM	0.8	0.6	1.4
6/27/2019 2:00 PM	0.8	0.6	1.5
6/27/2019 3:00 PM	0.8	0.6	1.5
6/27/2019 4:00 PM	0.9	0.6	1.6
6/27/2019 5:00 PM	0.9	0.8	1.5
6/27/2019 6:00 PM	0.9	0.7	1.6
6/27/2019 7:00 PM	0.7	0.6	1.5
6/27/2019 8:00 PM	0.7	0.5	1.4
6/27/2019 9:00 PM	0.7	0.5	1.4
6/27/2019 10:00 PM	0.6	0.5	1.4
6/27/2019 11:00 PM	0.6	0.5	1.4
6/28/2019 12:00 AM	0.6	0.4	1.3
6/28/2019 1:00 AM	0.6	0.4	1.3
6/28/2019 2:00 AM	0.5	0.3	1.3
6/28/2019 3:00 AM	0.6	0.4	1.4
6/28/2019 4:00 AM	0.5	0.4	1.4
6/28/2019 5:00 AM	0.6	0.5	1.5
6/28/2019 6:00 AM	0.5	0.5	1.5
6/28/2019 7:00 AM	0.6	0.6	1.6
6/28/2019 8:00 AM	0.8	0.9	1.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
6/28/2019 9:00 AM	0.9	1	1.8
6/28/2019 10:00 AM	1	1.2	1.5
6/28/2019 11:00 AM	0.8	0.8	1.5
6/28/2019 12:00 PM	0.8	0.7	1.7
6/28/2019 1:00 PM	0.7	0.7	1.5
6/28/2019 2:00 PM	0.8	0.8	1.5
6/28/2019 3:00 PM	1	0.8	1.6
6/28/2019 4:00 PM	1.4	1.3	1.9
6/28/2019 5:00 PM	1.3	1.4	1.9
6/28/2019 6:00 PM	0.9	1.1	1.7
6/28/2019 7:00 PM	0.7	0.8	1.6
6/28/2019 8:00 PM	0.7	0.6	2.2
6/28/2019 9:00 PM	0.8	0.5	2.3
6/28/2019 10:00 PM	0.7	0.5	1.9
6/28/2019 11:00 PM	0.7	0.6	1.6
6/29/2019 12:00 AM	0.7	0.5	1.5
6/29/2019 1:00 AM	0.6	0.4	1.6
6/29/2019 2:00 AM	0.6	0.4	1.5
6/29/2019 3:00 AM	0.7	0.4	1.4
6/29/2019 4:00 AM	0.5	0.3	1.5
6/29/2019 5:00 AM	0.6	0.4	1.6
6/29/2019 6:00 AM	0.5	0.3	1.7
6/29/2019 7:00 AM	0.6	0.7	2.3
6/29/2019 8:00 AM	0.8	0.8	1.8
6/29/2019 9:00 AM	0.8	0.7	1.8
6/29/2019 10:00 AM	0.8	0.7	1.7
6/29/2019 11:00 AM	0.8	0.5	1.6
6/29/2019 12:00 PM	0.9	0.6	1.6
6/29/2019 1:00 PM	1	0.7	1.8
6/29/2019 2:00 PM	0.9	0.7	1.7
6/29/2019 3:00 PM	1	0.7	1.7
6/29/2019 4:00 PM	1	0.8	1.6
6/29/2019 5:00 PM	0.9	0.8	1.6
6/29/2019 6:00 PM	1	1	1.8
6/29/2019 7:00 PM	1	1	1.6
6/29/2019 8:00 PM	0.7	0.5	1.4
6/29/2019 9:00 PM	0.6	0.4	1.3
6/29/2019 10:00 PM	0.6	0.3	1.3
6/29/2019 11:00 PM	0.6	0.4	1.3
6/30/2019 12:00 AM	0.6	0.4	1.3
6/30/2019 1:00 AM	0.6	0.3	1.3
6/30/2019 2:00 AM	0.6	0.4	1.2
6/30/2019 3:00 AM	0.6	0.4	1.3
6/30/2019 4:00 AM	0.5	0.3	1.2
6/30/2019 5:00 AM	0.6	0.4	1.3
6/30/2019 6:00 AM	0.6	0.3	1.3
6/30/2019 7:00 AM	0.6	0.4	1.3
6/30/2019 8:00 AM	0.7	0.5	1.4
6/30/2019 9:00 AM	0.7	0.4	1.4
6/30/2019 10:00 AM	0.6	0.4	1.4
6/30/2019 11:00 AM	0.7	0.4	1.4
6/30/2019 12:00 PM	0.7	0.5	1.5
6/30/2019 1:00 PM	0.7	0.5	1.5
6/30/2019 2:00 PM	0.8	0.5	1.5
6/30/2019 3:00 PM	0.7	0.4	1.5
6/30/2019 4:00 PM	0.7	0.5	1.5
6/30/2019 5:00 PM	0.8	0.5	1.4
6/30/2019 6:00 PM	0.8	0.5	1.4
6/30/2019 7:00 PM	0.7	0.5	1.4
6/30/2019 8:00 PM	0.6	0.5	1.5
6/30/2019 9:00 PM	0.6	0.5	1.4
6/30/2019 10:00 PM	0.6	0.5	1.4
6/30/2019 11:00 PM	0.6	0.4	1.4
7/1/2019 12:00 AM	0.5	0.4	1.4
7/1/2019 1:00 AM	0.6	0.3	1.3
7/1/2019 2:00 AM	0.5	0.3	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/1/2019 3:00 AM	0.5	0.3	1.4
7/1/2019 4:00 AM	Precision	Precision	Precision
7/1/2019 5:00 AM	0.6	0.3	1.3
7/1/2019 6:00 AM	0.5	0.3	1.5
7/1/2019 7:00 AM	0.5	0.4	1.5
7/1/2019 8:00 AM	0.8	0.5	1.5
7/1/2019 9:00 AM	1	0.8	1.7
7/1/2019 10:00 AM	0.9	0.8	1.7
7/1/2019 11:00 AM	0.9	0.7	1.7
7/1/2019 12:00 PM	0.7	0.6	1.7
7/1/2019 1:00 PM	0.8	0.5	1.6
7/1/2019 2:00 PM	0.8	0.6	1.6
7/1/2019 3:00 PM	0.8	0.6	1.6
7/1/2019 4:00 PM	0.9	0.7	1.7
7/1/2019 5:00 PM	1.3	0.9	2.7
7/1/2019 6:00 PM	1.7	1.3	2.8
7/1/2019 7:00 PM	1.6	1.2	1.8
7/1/2019 8:00 PM	1.1	1	1.6
7/1/2019 9:00 PM	0.9	0.8	1.5
7/1/2019 10:00 PM	0.8	0.7	1.5
7/1/2019 11:00 PM	0.7	0.5	1.5
7/2/2019 12:00 AM	0.6	0.4	1.7
7/2/2019 1:00 AM	0.7	0.4	1.5
7/2/2019 2:00 AM	0.7	0.4	1.6
7/2/2019 3:00 AM	0.7	0.4	1.6
7/2/2019 4:00 AM	0.7	0.4	1.4
7/2/2019 5:00 AM	0.6	0.5	1.5
7/2/2019 6:00 AM	0.6	0.4	1.4
7/2/2019 7:00 AM	0.8	0.5	1.7
7/2/2019 8:00 AM	0.9	0.7	1.6
7/2/2019 9:00 AM	0.9	0.8	1.7
7/2/2019 10:00 AM	1.1	1	1.9
7/2/2019 11:00 AM	1.2	0.9	1.7
7/2/2019 12:00 PM	1	0.7	1.6
7/2/2019 1:00 PM	0.9	0.6	1.6
7/2/2019 2:00 PM	0.9	0.6	1.5
7/2/2019 3:00 PM	0.8	0.5	1.5
7/2/2019 4:00 PM	0.7	0.5	1.4
7/2/2019 5:00 PM	0.7	0.4	1.4
7/2/2019 6:00 PM	0.8	0.4	1.5
7/2/2019 7:00 PM	0.7	0.5	1.4
7/2/2019 8:00 PM	0.6	0.4	1.4
7/2/2019 9:00 PM	0.7	0.5	1.5
7/2/2019 10:00 PM	0.7	0.4	1.4
7/2/2019 11:00 PM	0.6	0.4	1.4
7/3/2019 12:00 AM	0.7	0.4	1.4
7/3/2019 1:00 AM	0.7	0.4	1.3
7/3/2019 2:00 AM	0.6	0.4	1.4
7/3/2019 3:00 AM	0.7	0.5	1.8
7/3/2019 4:00 AM	0.8	0.6	1.7
7/3/2019 5:00 AM	0.8	0.5	1.5
7/3/2019 6:00 AM	0.7	0.4	1.6
7/3/2019 7:00 AM	0.8	0.5	1.8
7/3/2019 8:00 AM	0.9	0.5	1.5
7/3/2019 9:00 AM	0.6	0.4	1.4
7/3/2019 10:00 AM	0.7	0.4	1.4
7/3/2019 11:00 AM	0.8	0.3	1.4
7/3/2019 12:00 PM	0.8	0.3	1.4
7/3/2019 1:00 PM	0.7	0.3	1.4
7/3/2019 2:00 PM	0.8	0.3	1.5
7/3/2019 3:00 PM	0.9	0.5	1.5
7/3/2019 4:00 PM	1	0.5	1.6
7/3/2019 5:00 PM	1	0.6	1.6
7/3/2019 6:00 PM	0.9	0.6	1.5
7/3/2019 7:00 PM	0.8	0.6	1.6
7/3/2019 8:00 PM	0.7	0.6	1.5

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/3/2019 9:00 PM	0.7	0.5	1.4
7/3/2019 10:00 PM	0.7	0.5	1.4
7/3/2019 11:00 PM	0.7	0.4	1.4
7/4/2019 12:00 AM	0.6	0.4	1.3
7/4/2019 1:00 AM	0.7	0.4	1.3
7/4/2019 2:00 AM	0.6	0.4	1.3
7/4/2019 3:00 AM	0.6	0.3	1.3
7/4/2019 4:00 AM	0.7	0.3	1.2
7/4/2019 5:00 AM	0.7	0.4	1.3
7/4/2019 6:00 AM	0.7	0.3	1.3
7/4/2019 7:00 AM	0.6	0.4	1.4
7/4/2019 8:00 AM	0.7	0.4	1.5
7/4/2019 9:00 AM	0.9	0.5	1.6
7/4/2019 10:00 AM	0.8	0.5	1.5
7/4/2019 11:00 AM	0.8	0.4	1.5
7/4/2019 12:00 PM	0.7	0.4	1.5
7/4/2019 1:00 PM	0.7	0.4	1.4
7/4/2019 2:00 PM	0.7	0.4	1.4
7/4/2019 3:00 PM	0.6	0.4	1.4
7/4/2019 4:00 PM	0.6	0.5	1.4
7/4/2019 5:00 PM	0.6	0.5	1.4
7/4/2019 6:00 PM	0.6	0.4	1.4
7/4/2019 7:00 PM	0.6	0.4	1.4
7/4/2019 8:00 PM	0.6	0.4	1.3
7/4/2019 9:00 PM	0.7	0.4	1.3
7/4/2019 10:00 PM	0.6	0.4	1.4
7/4/2019 11:00 PM	0.6	0.4	1.3
7/5/2019 12:00 AM	0.6	0.3	1.3
7/5/2019 1:00 AM	0.6	0.4	1.3
7/5/2019 2:00 AM	0.6	0.3	1.3
7/5/2019 3:00 AM	0.7	0.4	1.2
7/5/2019 4:00 AM	0.6	0.4	1.3
7/5/2019 5:00 AM	0.7	0.4	1.4
7/5/2019 6:00 AM	0.6	0.4	1.3
7/5/2019 7:00 AM	0.6	0.4	1.2
7/5/2019 8:00 AM	0.5	0.4	1.3
7/5/2019 9:00 AM	0.6	0.4	1.3
7/5/2019 10:00 AM	0.6	0.4	1.4
7/5/2019 11:00 AM	0.7	0.4	1.5
7/5/2019 12:00 PM	0.6	0.4	1.5
7/5/2019 1:00 PM	0.7	0.4	1.4
7/5/2019 2:00 PM	0.7	0.4	1.5
7/5/2019 3:00 PM	0.7	0.5	1.6
7/5/2019 4:00 PM	0.8	0.5	1.5
7/5/2019 5:00 PM	0.8	0.5	1.5
7/5/2019 6:00 PM	0.7	0.4	1.5
7/5/2019 7:00 PM	0.7	0.4	1.5
7/5/2019 8:00 PM	0.6	0.4	1.4
7/5/2019 9:00 PM	0.6	0.4	1.5
7/5/2019 10:00 PM	0.5	0.4	1.4
7/5/2019 11:00 PM	0.5	0.4	1.3
7/6/2019 12:00 AM	0.6	0.3	1.3
7/6/2019 1:00 AM	0.6	0.4	1.3
7/6/2019 2:00 AM	0.6	0.3	1.3
7/6/2019 3:00 AM	0.6	0.3	1.3
7/6/2019 4:00 AM	0.6	0.3	1.3
7/6/2019 5:00 AM	0.6	0.4	1.4
7/6/2019 6:00 AM	0.5	0.4	1.4
7/6/2019 7:00 AM	0.6	0.4	1.4
7/6/2019 8:00 AM	0.6	0.4	1.4
7/6/2019 9:00 AM	0.6	0.7	1.5
7/6/2019 10:00 AM	0.6	0.5	1.5
7/6/2019 11:00 AM	0.6	0.4	1.5
7/6/2019 12:00 PM	0.7	0.4	1.5
7/6/2019 1:00 PM	0.8	0.4	1.5
7/6/2019 2:00 PM	0.7	0.4	1.5

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/6/2019 3:00 PM	0.7	0.6	1.5
7/6/2019 4:00 PM	0.7	0.6	1.5
7/6/2019 5:00 PM	0.8	0.5	1.4
7/6/2019 6:00 PM	0.7	0.4	1.5
7/6/2019 7:00 PM	0.7	0.4	1.5
7/6/2019 8:00 PM	0.6	0.4	1.5
7/6/2019 9:00 PM	0.6	0.4	1.3
7/6/2019 10:00 PM	0.6	0.3	1.4
7/6/2019 11:00 PM	0.6	0.4	1.3
7/7/2019 12:00 AM	0.6	0.4	1.4
7/7/2019 1:00 AM	0.6	0.4	1.3
7/7/2019 2:00 AM	0.7	0.3	1.3
7/7/2019 3:00 AM	0.6	0.3	1.3
7/7/2019 4:00 AM	0.6	0.3	1.3
7/7/2019 5:00 AM	0.7	0.4	1.3
7/7/2019 6:00 AM	0.6	0.3	1.4
7/7/2019 7:00 AM	0.6	0.4	1.4
7/7/2019 8:00 AM	0.6	0.3	1.3
7/7/2019 9:00 AM	0.6	0.4	1.4
7/7/2019 10:00 AM	0.6	0.3	1.5
7/7/2019 11:00 AM	0.6	0.3	1.4
7/7/2019 12:00 PM	0.6	0.3	1.4
7/7/2019 1:00 PM	0.7	0.3	1.4
7/7/2019 2:00 PM	0.6	0.4	1.4
7/7/2019 3:00 PM	0.7	0.3	1.4
7/7/2019 4:00 PM	0.7	0.3	1.4
7/7/2019 5:00 PM	0.7	0.4	1.4
7/7/2019 6:00 PM	0.7	0.4	1.4
7/7/2019 7:00 PM	0.6	0.4	1.4
7/7/2019 8:00 PM	0.6	0.3	1.3
7/7/2019 9:00 PM	0.6	0.3	1.2
7/7/2019 10:00 PM	0.6	0.3	1.3
7/7/2019 11:00 PM	0.6	0.4	1.3
7/8/2019 12:00 AM	0.6	0.4	1.3
7/8/2019 1:00 AM	0.6	0.4	1.3
7/8/2019 2:00 AM	0.6	0.3	1.2
7/8/2019 3:00 AM	0.6	0.3	1.3
7/8/2019 4:00 AM	Precision	Precision	Precision
7/8/2019 5:00 AM	0.5	0.3	1.3
7/8/2019 6:00 AM	0.6	0.3	1.3
7/8/2019 7:00 AM	0.6	0.3	1.2
7/8/2019 8:00 AM	0.5	0.3	1.3
7/8/2019 9:00 AM	0.6	0.3	1.3
7/8/2019 10:00 AM	0.6	0.3	1.3
7/8/2019 11:00 AM	0.6	0.3	1.4
7/8/2019 12:00 PM	0.6	0.4	1.3
7/8/2019 1:00 PM	0.6	0.4	1.4
7/8/2019 2:00 PM	0.7	0.4	1.4
7/8/2019 3:00 PM	0.6	0.4	1.3
7/8/2019 4:00 PM	0.6	0.3	1.3
7/8/2019 5:00 PM	0.6	0.4	1.3
7/8/2019 6:00 PM	0.7	0.4	1.2
7/8/2019 7:00 PM	0.6	0.4	1.3
7/8/2019 8:00 PM	0.6	0.4	1.3
7/8/2019 9:00 PM	0.6	0.3	1.4
7/8/2019 10:00 PM	0.6	0.4	1.4
7/8/2019 11:00 PM	0.6	0.4	1.3
7/9/2019 12:00 AM	0.6	0.3	1.3
7/9/2019 1:00 AM	0.6	0.3	1.2
7/9/2019 2:00 AM	0.6	0.4	1.3
7/9/2019 3:00 AM	0.6	0.2	1.3
7/9/2019 4:00 AM	0.6	0.3	1.3
7/9/2019 5:00 AM	0.6	0.3	1.4
7/9/2019 6:00 AM	0.6	0.2	1.3
7/9/2019 7:00 AM	0.7	0.3	1.3
7/9/2019 8:00 AM	0.6	0.3	1.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/9/2019 9:00 AM	0.6	0.3	1.4
7/9/2019 10:00 AM	0.6	0.4	1.4
7/9/2019 11:00 AM	0.6	0.4	1.5
7/9/2019 12:00 PM	0.7	0.4	1.5
7/9/2019 1:00 PM	0.7	0.4	1.4
7/9/2019 2:00 PM	0.7	0.4	1.5
7/9/2019 3:00 PM	0.7	0.4	1.4
7/9/2019 4:00 PM	0.7	0.4	1.5
7/9/2019 5:00 PM	0.7	0.5	1.5
7/9/2019 6:00 PM	0.7	0.4	1.4
7/9/2019 7:00 PM	0.7	0.5	1.3
7/9/2019 8:00 PM	0.6	0.4	1.4
7/9/2019 9:00 PM	0.6	0.4	1.3
7/9/2019 10:00 PM	0.6	0.4	1.4
7/9/2019 11:00 PM	0.6	0.4	1.3
7/10/2019 12:00 AM	0.6	0.3	1.3
7/10/2019 1:00 AM	0.6	0.4	1.4
7/10/2019 2:00 AM	0.6	0.3	1.3
7/10/2019 3:00 AM	0.6	0.4	1.3
7/10/2019 4:00 AM	0.6	0.3	1.3
7/10/2019 5:00 AM	0.6	0.4	1.4
7/10/2019 6:00 AM	0.6	0.4	1.3
7/10/2019 7:00 AM	0.5	0.4	1.4
7/10/2019 8:00 AM	0.7	0.5	1.5
7/10/2019 9:00 AM	0.7	0.4	1.5
7/10/2019 10:00 AM	0.6	0.4	1.6
7/10/2019 11:00 AM	0.6	0.4	1.5
7/10/2019 12:00 PM	0.7	0.4	1.5
7/10/2019 1:00 PM	0.7	0.4	1.5
7/10/2019 2:00 PM	0.7	0.4	1.6
7/10/2019 3:00 PM	0.9	0.7	1.7
7/10/2019 4:00 PM	0.9	0.5	1.6
7/10/2019 5:00 PM	0.6	0.4	1.5
7/10/2019 6:00 PM	0.6	0.3	1.4
7/10/2019 7:00 PM	0.6	0.4	1.4
7/10/2019 8:00 PM	0.7	0.4	1.3
7/10/2019 9:00 PM	0.6	0.3	1.4
7/10/2019 10:00 PM	0.6	0.3	1.3
7/10/2019 11:00 PM	0.6	0.3	1.4
7/11/2019 12:00 AM	0.6	0.3	1.3
7/11/2019 1:00 AM	0.5	0.3	1.3
7/11/2019 2:00 AM	0.5	0.4	1.3
7/11/2019 3:00 AM	0.6	0.4	1.3
7/11/2019 4:00 AM	0.6	0.4	1.4
7/11/2019 5:00 AM	0.6	0.4	1.4
7/11/2019 6:00 AM	0.6	0.3	1.3
7/11/2019 7:00 AM	0.6	0.4	1.3
7/11/2019 8:00 AM	0.6	0.4	1.4
7/11/2019 9:00 AM	0.6	0.4	1.4
7/11/2019 10:00 AM	0.6	0.4	1.4
7/11/2019 11:00 AM	0.6	0.4	1.4
7/11/2019 12:00 PM	0.6	0.5	1.3
7/11/2019 1:00 PM	0.7	0.4	1.4
7/11/2019 2:00 PM	0.6	0.4	1.4
7/11/2019 3:00 PM	0.6	0.4	1.3
7/11/2019 4:00 PM	0.6	0.4	1.3
7/11/2019 5:00 PM	0.5	0.4	1.3
7/11/2019 6:00 PM	0.6	0.4	1.4
7/11/2019 7:00 PM	0.6	0.4	1.3
7/11/2019 8:00 PM	0.6	0.4	1.4
7/11/2019 9:00 PM	0.6	0.5	1.4
7/11/2019 10:00 PM	0.6	0.4	1.4
7/11/2019 11:00 PM	0.6	0.4	1.5
7/12/2019 12:00 AM	0.7	0.4	1.4
7/12/2019 1:00 AM	0.6	0.4	1.3
7/12/2019 2:00 AM	0.6	0.4	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/12/2019 3:00 AM	0.6	0.3	1.3
7/12/2019 4:00 AM	0.6	0.4	1.5
7/12/2019 5:00 AM	0.6	0.4	1.6
7/12/2019 6:00 AM	0.6	0.5	1.5
7/12/2019 7:00 AM	0.7	0.4	1.5
7/12/2019 8:00 AM	0.8	0.6	1.6
7/12/2019 9:00 AM	0.8	0.7	1.6
7/12/2019 10:00 AM	0.9	0.6	1.6
7/12/2019 11:00 AM	0.8	0.6	1.5
7/12/2019 12:00 PM	0.9	0.6	1.6
7/12/2019 1:00 PM	0.9	0.6	1.5
7/12/2019 2:00 PM	1	0.7	1.5
7/12/2019 3:00 PM	0.9	0.7	1.5
7/12/2019 4:00 PM	0.8	0.7	1.4
7/12/2019 5:00 PM	0.8	0.7	1.5
7/12/2019 6:00 PM	0.9	0.7	1.5
7/12/2019 7:00 PM	1.1	0.9	1.6
7/12/2019 8:00 PM	1.1	0.8	1.9
7/12/2019 9:00 PM	0.9	0.6	1.7
7/12/2019 10:00 PM	0.7	0.4	1.5
7/12/2019 11:00 PM	0.7	0.4	1.4
7/13/2019 12:00 AM	0.7	0.4	1.3
7/13/2019 1:00 AM	0.7	0.4	1.4
7/13/2019 2:00 AM	0.6	0.4	1.4
7/13/2019 3:00 AM	0.6	0.4	1.4
7/13/2019 4:00 AM	0.7	0.4	1.4
7/13/2019 5:00 AM	0.7	0.4	1.5
7/13/2019 6:00 AM	0.7	0.4	1.6
7/13/2019 7:00 AM	0.6	0.4	1.8
7/13/2019 8:00 AM	0.8	0.9	1.6
7/13/2019 9:00 AM	0.8	0.7	1.6
7/13/2019 10:00 AM	0.9	0.7	1.8
7/13/2019 11:00 AM	1	0.8	1.6
7/13/2019 12:00 PM	0.8	0.6	1.6
7/13/2019 1:00 PM	0.9	0.5	1.7
7/13/2019 2:00 PM	0.8	0.5	1.5
7/13/2019 3:00 PM	0.9	0.5	1.6
7/13/2019 4:00 PM	0.9	0.6	1.6
7/13/2019 5:00 PM	0.9	0.6	1.5
7/13/2019 6:00 PM	0.9	0.6	1.5
7/13/2019 7:00 PM	0.8	0.6	1.4
7/13/2019 8:00 PM	0.8	0.6	1.5
7/13/2019 9:00 PM	0.9	0.6	1.6
7/13/2019 10:00 PM	0.9	0.8	1.6
7/13/2019 11:00 PM	0.9	0.6	1.5
7/14/2019 12:00 AM	0.8	0.7	1.6
7/14/2019 1:00 AM	0.8	0.6	1.6
7/14/2019 2:00 AM	0.8	0.5	1.7
7/14/2019 3:00 AM	0.7	0.6	2
7/14/2019 4:00 AM	0.8	0.7	2.6
7/14/2019 5:00 AM	0.9	0.7	1.9
7/14/2019 6:00 AM	0.9	0.7	2.4
7/14/2019 7:00 AM	1.3	1.2	2.2
7/14/2019 8:00 AM	1.2	1.3	2.1
7/14/2019 9:00 AM	1.2	1.2	2
7/14/2019 10:00 AM	1	1	1.8
7/14/2019 11:00 AM	1	0.9	1.6
7/14/2019 12:00 PM	1	0.9	1.7
7/14/2019 1:00 PM	1.2	1.2	1.9
7/14/2019 2:00 PM	1.3	1.3	2.2
7/14/2019 3:00 PM	0.9	0.9	2
7/14/2019 4:00 PM	0.8	0.7	2
7/14/2019 5:00 PM	0.9	0.8	1.7
7/14/2019 6:00 PM	0.9	0.8	1.6
7/14/2019 7:00 PM	1.1	1	1.6
7/14/2019 8:00 PM	1	1.1	1.5

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/14/2019 9:00 PM	0.8	0.9	1.6
7/14/2019 10:00 PM	0.9	0.8	1.6
7/14/2019 11:00 PM	0.8	0.7	1.6
7/15/2019 12:00 AM	0.8	0.6	1.4
7/15/2019 1:00 AM	0.7	0.6	1.4
7/15/2019 2:00 AM	0.6	0.5	1.4
7/15/2019 3:00 AM	0.7	0.5	1.4
7/15/2019 4:00 AM	Precision	Precision	Precision
7/15/2019 5:00 AM	0.6	0.5	1.4
7/15/2019 6:00 AM	0.6	0.5	1.4
7/15/2019 7:00 AM	0.7	0.5	1.7
7/15/2019 8:00 AM	1	1	3.1
7/15/2019 9:00 AM	1.4	1.5	2.7
7/15/2019 10:00 AM	1.5	1.3	2.3
7/15/2019 11:00 AM	1.2	1	2
7/15/2019 12:00 PM	1.1	1	2
7/15/2019 1:00 PM	1	1	2.2
7/15/2019 2:00 PM	1.3	1.3	2.4
7/15/2019 3:00 PM	1.7	1.3	2.6
7/15/2019 4:00 PM	2	1.7	2.2
7/15/2019 5:00 PM	2.1	2	2.4
7/15/2019 6:00 PM	2.1	1.9	2.5
7/15/2019 7:00 PM	1.8	1.7	2.1
7/15/2019 8:00 PM	1.6	1.4	2.2
7/15/2019 9:00 PM	1.2	1.1	1.7
7/15/2019 10:00 PM	0.9	1	1.6
7/15/2019 11:00 PM	0.8	0.8	1.5
7/16/2019 12:00 AM	0.7	0.7	1.5
7/16/2019 1:00 AM	0.7	0.7	1.5
7/16/2019 2:00 AM	0.7	0.7	1.4
7/16/2019 3:00 AM	0.7	0.6	1.5
7/16/2019 4:00 AM	0.7	0.7	1.5
7/16/2019 5:00 AM	0.7	0.6	1.5
7/16/2019 6:00 AM	0.7	0.7	1.4
7/16/2019 7:00 AM	0.6	0.8	1.5
7/16/2019 8:00 AM	0.8	0.9	1.5
7/16/2019 9:00 AM	0.9	0.9	1.8
7/16/2019 10:00 AM	1	0.9	1.7
7/16/2019 11:00 AM	0.9	0.7	1.7
7/16/2019 12:00 PM	0.8	0.7	1.7
7/16/2019 1:00 PM	0.8	0.6	1.6
7/16/2019 2:00 PM	0.8	0.7	1.6
7/16/2019 3:00 PM	0.8	0.6	1.6
7/16/2019 4:00 PM	0.8	0.6	1.6
7/16/2019 5:00 PM	0.8	0.6	1.6
7/16/2019 6:00 PM	0.8	0.6	1.6
7/16/2019 7:00 PM	0.7	0.5	1.6
7/16/2019 8:00 PM	0.7	0.8	1.6
7/16/2019 9:00 PM	0.7	0.6	1.6
7/16/2019 10:00 PM	0.6	0.6	1.6
7/16/2019 11:00 PM	0.6	0.5	1.5
7/17/2019 12:00 AM	0.6	0.5	1.5
7/17/2019 1:00 AM	0.7	0.7	1.5
7/17/2019 2:00 AM	0.6	0.6	1.4
7/17/2019 3:00 AM	0.6	0.6	1.5
7/17/2019 4:00 AM	0.7	0.5	1.5
7/17/2019 5:00 AM	0.7	0.6	1.6
7/17/2019 6:00 AM	0.7	0.6	1.5
7/17/2019 7:00 AM	0.6	0.5	1.5
7/17/2019 8:00 AM	0.7	0.6	1.6
7/17/2019 9:00 AM	0.8	0.5	1.6
7/17/2019 10:00 AM	0.8	Audit	1.6
7/17/2019 11:00 AM	Audit	0.7	1.6
7/17/2019 12:00 PM	0.9	0.7	1.6
7/17/2019 1:00 PM	0.8	0.7	Audit
7/17/2019 2:00 PM	0.7	0.5	1.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/17/2019 3:00 PM	0.6	0.5	1.6
7/17/2019 4:00 PM	0.6	0.5	1.5
7/17/2019 5:00 PM	0.7	0.7	1.5
7/17/2019 6:00 PM	0.7	0.6	1.5
7/17/2019 7:00 PM	0.6	0.5	1.5
7/17/2019 8:00 PM	0.6	0.5	1.4
7/17/2019 9:00 PM	0.7	0.5	1.4
7/17/2019 10:00 PM	0.6	0.4	1.4
7/17/2019 11:00 PM	0.6	0.4	1.4
7/18/2019 12:00 AM	0.6	0.4	1.4
7/18/2019 1:00 AM	0.6	0.4	1.4
7/18/2019 2:00 AM	0.6	0.4	1.4
7/18/2019 3:00 AM	0.6	0.3	1.3
7/18/2019 4:00 AM	0.6	0.4	1.4
7/18/2019 5:00 AM	0.7	0.5	1.5
7/18/2019 6:00 AM	0.6	0.5	1.4
7/18/2019 7:00 AM	0.7	0.5	1.4
7/18/2019 8:00 AM	0.7	0.5	1.4
7/18/2019 9:00 AM	0.7	0.6	1.5
7/18/2019 10:00 AM	0.6	0.6	1.5
7/18/2019 11:00 AM	0.7	0.6	1.6
7/18/2019 12:00 PM	0.7	0.6	1.6
7/18/2019 1:00 PM	0.8	0.6	1.6
7/18/2019 2:00 PM	0.8	0.6	1.6
7/18/2019 3:00 PM	0.8	0.7	1.6
7/18/2019 4:00 PM	0.9	0.8	1.6
7/18/2019 5:00 PM	0.8	0.7	1.6
7/18/2019 6:00 PM	0.8	0.6	1.6
7/18/2019 7:00 PM	0.8	0.7	1.6
7/18/2019 8:00 PM	0.7	0.7	1.5
7/18/2019 9:00 PM	0.6	0.6	1.5
7/18/2019 10:00 PM	0.7	0.5	1.5
7/18/2019 11:00 PM	0.7	0.5	1.5
7/19/2019 12:00 AM	0.7	0.5	1.6
7/19/2019 1:00 AM	0.7	0.5	1.5
7/19/2019 2:00 AM	0.7	0.6	1.4
7/19/2019 3:00 AM	0.6	0.6	1.4
7/19/2019 4:00 AM	0.7	0.3	1.4
7/19/2019 5:00 AM	0.7	0.6	1.4
7/19/2019 6:00 AM	0.7	0.5	1.4
7/19/2019 7:00 AM	0.7	0.8	1.4
7/19/2019 8:00 AM	1	1.2	1.5
7/19/2019 9:00 AM	1.3	1.3	1.6
7/19/2019 10:00 AM	1.1	0.9	1.7
7/19/2019 11:00 AM	1.1	0.9	1.8
7/19/2019 12:00 PM	1	0.7	1.7
7/19/2019 1:00 PM	0.9	0.6	1.7
7/19/2019 2:00 PM	0.9	0.7	1.7
7/19/2019 3:00 PM	0.8	0.6	1.6
7/19/2019 4:00 PM	0.8	0.6	1.6
7/19/2019 5:00 PM	0.8	0.7	1.6
7/19/2019 6:00 PM	0.8	0.7	1.6
7/19/2019 7:00 PM	0.8	0.8	1.6
7/19/2019 8:00 PM	1	1	2
7/19/2019 9:00 PM	1	0.8	1.8
7/19/2019 10:00 PM	0.9	0.9	1.5
7/19/2019 11:00 PM	0.8	0.8	1.5
7/20/2019 12:00 AM	0.7	0.5	1.4
7/20/2019 1:00 AM	0.8	0.5	1.5
7/20/2019 2:00 AM	0.7	0.7	1.5
7/20/2019 3:00 AM	0.7	0.5	1.5
7/20/2019 4:00 AM	0.7	0.4	1.5
7/20/2019 5:00 AM	0.7	0.7	1.5
7/20/2019 6:00 AM	0.7	0.8	1.4
7/20/2019 7:00 AM	0.7	0.6	1.4
7/20/2019 8:00 AM	0.6	0.6	1.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/20/2019 9:00 AM	0.7	0.6	1.6
7/20/2019 10:00 AM	0.8	0.6	1.6
7/20/2019 11:00 AM	0.9	0.5	1.7
7/20/2019 12:00 PM	0.8	0.4	1.7
7/20/2019 1:00 PM	0.9	0.5	1.7
7/20/2019 2:00 PM	0.8	0.5	1.7
7/20/2019 3:00 PM	0.7	0.5	1.7
7/20/2019 4:00 PM	0.9	0.6	1.7
7/20/2019 5:00 PM	0.8	0.6	1.7
7/20/2019 6:00 PM	0.8	0.5	1.7
7/20/2019 7:00 PM	0.9	0.8	1.7
7/20/2019 8:00 PM	1	0.9	2
7/20/2019 9:00 PM	0.9	0.7	1.8
7/20/2019 10:00 PM	0.9	0.7	1.7
7/20/2019 11:00 PM	0.9	0.7	1.7
7/21/2019 12:00 AM	0.8	0.7	1.6
7/21/2019 1:00 AM	0.7	0.7	1.6
7/21/2019 2:00 AM	0.7	0.5	1.5
7/21/2019 3:00 AM	0.7	0.4	1.5
7/21/2019 4:00 AM	0.7	0.5	1.5
7/21/2019 5:00 AM	0.8	0.7	1.5
7/21/2019 6:00 AM	0.7	0.7	1.5
7/21/2019 7:00 AM	0.7	0.8	1.5
7/21/2019 8:00 AM	0.9	1	1.6
7/21/2019 9:00 AM	1	0.8	1.7
7/21/2019 10:00 AM	1	0.7	1.8
7/21/2019 11:00 AM	1	0.6	1.7
7/21/2019 12:00 PM	1	0.7	1.7
7/21/2019 1:00 PM	1	0.7	1.8
7/21/2019 2:00 PM	0.9	0.7	1.8
7/21/2019 3:00 PM	0.9	0.7	1.8
7/21/2019 4:00 PM	1	0.7	1.7
7/21/2019 5:00 PM	1	0.8	1.8
7/21/2019 6:00 PM	0.9	0.8	1.8
7/21/2019 7:00 PM	0.8	0.7	1.6
7/21/2019 8:00 PM	0.7	0.4	1.5
7/21/2019 9:00 PM	0.7	0.6	1.5
7/21/2019 10:00 PM	0.7	0.6	1.5
7/21/2019 11:00 PM	0.7	0.4	1.6
7/22/2019 12:00 AM	0.7	0.5	1.6
7/22/2019 1:00 AM	0.7	0.6	1.6
7/22/2019 2:00 AM	0.7	0.5	1.5
7/22/2019 3:00 AM	0.7	0.4	1.6
7/22/2019 4:00 AM	Precision	Precision	Precision
7/22/2019 5:00 AM	0.7	0.4	1.5
7/22/2019 6:00 AM	0.7	0.5	1.5
7/22/2019 7:00 AM	0.7	0.6	1.6
7/22/2019 8:00 AM	0.7	0.5	1.5
7/22/2019 9:00 AM	0.7	0.5	1.5
7/22/2019 10:00 AM	0.6	0.4	1.5
7/22/2019 11:00 AM	0.7	0.4	1.4
7/22/2019 12:00 PM	0.7	0.4	1.4
7/22/2019 1:00 PM	0.7	0.4	1.5
7/22/2019 2:00 PM	0.6	0.5	1.4
7/22/2019 3:00 PM	0.7	0.4	1.4
7/22/2019 4:00 PM	0.7	0.4	1.5
7/22/2019 5:00 PM	0.7	0.3	1.4
7/22/2019 6:00 PM	0.6	0.5	1.4
7/22/2019 7:00 PM	0.7	0.4	1.4
7/22/2019 8:00 PM	0.7	0.4	1.4
7/22/2019 9:00 PM	0.7	0.4	1.5
7/22/2019 10:00 PM	0.7	0.4	1.5
7/22/2019 11:00 PM	0.7	0.3	1.6
7/23/2019 12:00 AM	0.7	0.3	1.5
7/23/2019 1:00 AM	0.7	0.3	1.5
7/23/2019 2:00 AM	0.7	0.3	1.5

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/23/2019 3:00 AM	0.6	0.3	1.5
7/23/2019 4:00 AM	0.6	0.3	1.5
7/23/2019 5:00 AM	0.7	0.4	1.6
7/23/2019 6:00 AM	0.6	0.3	1.5
7/23/2019 7:00 AM	0.7	0.4	1.5
7/23/2019 8:00 AM	0.7	0.4	1.4
7/23/2019 9:00 AM	0.8	0.5	1.5
7/23/2019 10:00 AM	Calibration	0.5	1.5
7/23/2019 11:00 AM	Calibration	0.4	1.5
7/23/2019 12:00 PM	0.8	0.4	1.5
7/23/2019 1:00 PM	0.3	0.5	1.4
7/23/2019 2:00 PM	0.3	0.5	1.5
7/23/2019 3:00 PM	0.3	0.5	1.5
7/23/2019 4:00 PM	0.3	0.5	1.5
7/23/2019 5:00 PM	0.4	0.5	1.5
7/23/2019 6:00 PM	0.3	0.5	1.5
7/23/2019 7:00 PM	0.4	0.5	1.5
7/23/2019 8:00 PM	0.3	0.5	1.4
7/23/2019 9:00 PM	0.3	0.5	1.4
7/23/2019 10:00 PM	0.3	0.6	1.5
7/23/2019 11:00 PM	0.3	0.6	1.5
7/24/2019 12:00 AM	0.2	0.6	1.5
7/24/2019 1:00 AM	0.2	0.5	1.6
7/24/2019 2:00 AM	0.2	0.6	1.8
7/24/2019 3:00 AM	0.2	0.5	2.1
7/24/2019 4:00 AM	0.2	0.7	2.1
7/24/2019 5:00 AM	0.2	0.5	2.4
7/24/2019 6:00 AM	0.2	0.5	1.9
7/24/2019 7:00 AM	0.2	0.6	1.9
7/24/2019 8:00 AM	0.4	0.8	1.8
7/24/2019 9:00 AM	0.4	0.6	1.7
7/24/2019 10:00 AM	0.4	0.6	1.6
7/24/2019 11:00 AM	0.4	0.7	1.7
7/24/2019 12:00 PM	0.3	0.7	1.7
7/24/2019 1:00 PM	0.4	0.8	1.7
7/24/2019 2:00 PM	0.4	0.7	1.7
7/24/2019 3:00 PM	0.4	0.7	1.6
7/24/2019 4:00 PM	0.5	0.8	1.7
7/24/2019 5:00 PM	0.5	0.9	1.7
7/24/2019 6:00 PM	0.5	0.8	1.7
7/24/2019 7:00 PM	0.4	0.8	1.6
7/24/2019 8:00 PM	0.4	0.8	1.6
7/24/2019 9:00 PM	0.3	0.7	1.6
7/24/2019 10:00 PM	0.2	0.5	1.6
7/24/2019 11:00 PM	0.3	0.6	1.6
7/25/2019 12:00 AM	0.3	0.5	1.6
7/25/2019 1:00 AM	0.3	0.5	1.7
7/25/2019 2:00 AM	0.3	0.5	1.8
7/25/2019 3:00 AM	0.2	0.6	1.8
7/25/2019 4:00 AM	0.2	0.6	1.7
7/25/2019 5:00 AM	0.2	0.5	1.7
7/25/2019 6:00 AM	0.2	0.6	1.8
7/25/2019 7:00 AM	0.2	0.7	1.8
7/25/2019 8:00 AM	0.3	0.8	2.1
7/25/2019 9:00 AM	0.6	0.9	1.8
7/25/2019 10:00 AM	0.5	0.9	1.7
7/25/2019 11:00 AM	0.4	0.8	1.7
7/25/2019 12:00 PM	0.3	0.7	1.7
7/25/2019 1:00 PM	0.3	0.7	1.7
7/25/2019 2:00 PM	0.3	0.7	1.7
7/25/2019 3:00 PM	0.3	0.6	1.7
7/25/2019 4:00 PM	0.4	0.7	1.7
7/25/2019 5:00 PM	0.3	0.6	1.7
7/25/2019 6:00 PM	0.4	0.7	1.7
7/25/2019 7:00 PM	0.4	0.6	1.7
7/25/2019 8:00 PM	0.3	0.6	1.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/25/2019 9:00 PM	0.3	0.7	1.7
7/25/2019 10:00 PM	0.3	0.6	1.6
7/25/2019 11:00 PM	0.2	0.6	1.6
7/26/2019 12:00 AM	0.3	0.5	1.6
7/26/2019 1:00 AM	0.2	0.5	1.5
7/26/2019 2:00 AM	0.2	0.4	1.5
7/26/2019 3:00 AM	0.2	0.5	1.5
7/26/2019 4:00 AM	0.3	0.5	1.5
7/26/2019 5:00 AM	0.3	0.5	1.5
7/26/2019 6:00 AM	0.3	0.4	1.6
7/26/2019 7:00 AM	0.2	0.4	1.5
7/26/2019 8:00 AM	0.3	0.5	1.5
7/26/2019 9:00 AM	0.4	0.6	1.6
7/26/2019 10:00 AM	0.4	0.6	1.7
7/26/2019 11:00 AM	0.3	0.6	1.7
7/26/2019 12:00 PM	0.3	0.7	1.6
7/26/2019 1:00 PM	0.4	0.7	1.7
7/26/2019 2:00 PM	0.3	0.6	1.7
7/26/2019 3:00 PM	0.3	0.7	1.6
7/26/2019 4:00 PM	0.4	0.6	1.7
7/26/2019 5:00 PM	0.4	0.6	1.6
7/26/2019 6:00 PM	0.4	0.8	1.6
7/26/2019 7:00 PM	0.3	0.6	1.6
7/26/2019 8:00 PM	0.3	0.5	1.5
7/26/2019 9:00 PM	0.3	0.5	1.6
7/26/2019 10:00 PM	0.4	0.4	1.6
7/26/2019 11:00 PM	0.3	0.4	1.5
7/27/2019 12:00 AM	0.3	0.4	1.5
7/27/2019 1:00 AM	0.3	0.4	1.5
7/27/2019 2:00 AM	0.2	0.5	1.6
7/27/2019 3:00 AM	0.3	0.4	1.6
7/27/2019 4:00 AM	0.3	0.4	1.5
7/27/2019 5:00 AM	0.3	0.6	1.6
7/27/2019 6:00 AM	0.3	0.4	1.6
7/27/2019 7:00 AM	0.3	0.5	1.5
7/27/2019 8:00 AM	0.3	0.7	1.6
7/27/2019 9:00 AM	0.4	0.7	1.6
7/27/2019 10:00 AM	0.5	0.6	1.7
7/27/2019 11:00 AM	0.4	0.6	1.7
7/27/2019 12:00 PM	0.4	0.5	1.6
7/27/2019 1:00 PM	0.4	0.7	1.6
7/27/2019 2:00 PM	0.4	0.7	1.7
7/27/2019 3:00 PM	0.5	0.7	1.7
7/27/2019 4:00 PM	0.5	0.9	1.6
7/27/2019 5:00 PM	0.5	0.8	1.7
7/27/2019 6:00 PM	0.4	0.9	1.7
7/27/2019 7:00 PM	0.3	0.9	1.6
7/27/2019 8:00 PM	0.3	0.7	1.6
7/27/2019 9:00 PM	0.3	0.8	1.6
7/27/2019 10:00 PM	0.3	0.8	1.6
7/27/2019 11:00 PM	0.3	0.7	1.5
7/28/2019 12:00 AM	0.3	0.7	1.5
7/28/2019 1:00 AM	0.3	0.6	1.5
7/28/2019 2:00 AM	0.2	0.6	1.6
7/28/2019 3:00 AM	0.2	0.5	1.5
7/28/2019 4:00 AM	0.2	0.5	1.5
7/28/2019 5:00 AM	0.2	0.5	1.6
7/28/2019 6:00 AM	0.2	0.5	1.6
7/28/2019 7:00 AM	0.2	0.5	1.5
7/28/2019 8:00 AM	0.3	0.8	1.6
7/28/2019 9:00 AM	0.4	1	2.3
7/28/2019 10:00 AM	1.1	1.3	2.2
7/28/2019 11:00 AM	0.8	1.4	2
7/28/2019 12:00 PM	0.5	0.9	1.7
7/28/2019 1:00 PM	0.4	0.8	1.7
7/28/2019 2:00 PM	0.5	0.8	1.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/28/2019 3:00 PM	0.4	0.7	1.7
7/28/2019 4:00 PM	0.4	0.6	1.6
7/28/2019 5:00 PM	0.4	0.6	1.7
7/28/2019 6:00 PM	0.4	0.7	1.7
7/28/2019 7:00 PM	0.4	0.7	1.7
7/28/2019 8:00 PM	0.4	0.6	1.6
7/28/2019 9:00 PM	0.3	0.6	1.6
7/28/2019 10:00 PM	0.4	0.5	1.6
7/28/2019 11:00 PM	0.4	0.6	1.5
7/29/2019 12:00 AM	0.3	0.5	1.6
7/29/2019 1:00 AM	0.3	0.5	1.6
7/29/2019 2:00 AM	0.3	0.5	1.5
7/29/2019 3:00 AM	0.2	0.5	1.5
7/29/2019 4:00 AM	Precision	Precision	Precision
7/29/2019 5:00 AM	0.3	0.6	1.6
7/29/2019 6:00 AM	0.3	0.4	1.7
7/29/2019 7:00 AM	0.4	0.6	1.7
7/29/2019 8:00 AM	0.4	0.7	1.6
7/29/2019 9:00 AM	0.7	0.9	1.7
7/29/2019 10:00 AM	0.8	1.4	1.8
7/29/2019 11:00 AM	0.5	0.7	1.7
7/29/2019 12:00 PM	0.4	0.6	1.7
7/29/2019 1:00 PM	0.4	0.6	1.6
7/29/2019 2:00 PM	0.4	0.6	1.7
7/29/2019 3:00 PM	0.4	0.5	1.7
7/29/2019 4:00 PM	0.5	0.5	1.6
7/29/2019 5:00 PM	0.4	0.5	1.7
7/29/2019 6:00 PM	0.4	0.5	1.7
7/29/2019 7:00 PM	0.4	0.5	1.7
7/29/2019 8:00 PM	0.3	0.4	1.7
7/29/2019 9:00 PM	0.3	0.6	1.6
7/29/2019 10:00 PM	0.3	0.6	1.6
7/29/2019 11:00 PM	0.3	0.6	1.5
7/30/2019 12:00 AM	0.3	0.5	1.6
7/30/2019 1:00 AM	0.3	0.5	1.6
7/30/2019 2:00 AM	0.3	0.5	1.6
7/30/2019 3:00 AM	0.3	0.5	1.6
7/30/2019 4:00 AM	0.4	0.4	1.6
7/30/2019 5:00 AM	0.3	0.5	1.5
7/30/2019 6:00 AM	0.3	0.5	1.5
7/30/2019 7:00 AM	0.3	0.5	1.5
7/30/2019 8:00 AM	0.3	0.6	1.7
7/30/2019 9:00 AM	0.4	0.8	1.7
7/30/2019 10:00 AM	0.6	0.9	1.9
7/30/2019 11:00 AM	0.6	0.8	1.7
7/30/2019 12:00 PM	0.4	0.6	1.7
7/30/2019 1:00 PM	0.4	0.6	1.7
7/30/2019 2:00 PM	0.5	0.7	1.7
7/30/2019 3:00 PM	0.5	0.6	1.8
7/30/2019 4:00 PM	0.4	0.6	1.7
7/30/2019 5:00 PM	0.4	0.6	1.7
7/30/2019 6:00 PM	0.4	0.5	1.6
7/30/2019 7:00 PM	0.3	0.6	1.6
7/30/2019 8:00 PM	0.3	0.5	1.6
7/30/2019 9:00 PM	0.3	0.5	1.5
7/30/2019 10:00 PM	0.3	0.5	1.6
7/30/2019 11:00 PM	0.3	0.5	1.5
7/31/2019 12:00 AM	0.3	0.5	1.5
7/31/2019 1:00 AM	0.3	0.4	1.5
7/31/2019 2:00 AM	0.3	0.4	1.5
7/31/2019 3:00 AM	0.4	0.5	1.5
7/31/2019 4:00 AM	0.3	0.5	1.5
7/31/2019 5:00 AM	0.4	0.5	1.6
7/31/2019 6:00 AM	0.4	0.4	1.6
7/31/2019 7:00 AM	0.4	0.6	1.6
7/31/2019 8:00 AM	0.4	0.6	1.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
7/31/2019 9:00 AM	0.3	0.5	1.6
7/31/2019 10:00 AM	0.4	0.5	1.5
7/31/2019 11:00 AM	0.4	0.6	1.6
7/31/2019 12:00 PM	0.4	0.5	1.5
7/31/2019 1:00 PM	0.4	0.5	1.7
7/31/2019 2:00 PM	0.3	0.4	1.6
7/31/2019 3:00 PM	0.3	0.4	1.6
7/31/2019 4:00 PM	0.3	0.6	1.6
7/31/2019 5:00 PM	0.3	0.6	1.5
7/31/2019 6:00 PM	0.2	0.6	1.6
7/31/2019 7:00 PM	0.3	0.6	1.5
7/31/2019 8:00 PM	0.3	0.5	1.5
7/31/2019 9:00 PM	0.3	0.5	1.5
7/31/2019 10:00 PM	0.3	0.5	1.5
7/31/2019 11:00 PM	0.3	0.5	1.5
8/1/2019 12:00 AM	0.3	0.5	1.6
8/1/2019 1:00 AM	0.3	0.5	1.5
8/1/2019 2:00 AM	0.3	0.5	1.5
8/1/2019 3:00 AM	0.2	0.4	1.5
8/1/2019 4:00 AM	0.2	0.5	1.6
8/1/2019 5:00 AM	0.3	0.5	1.5
8/1/2019 6:00 AM	0.3	0.4	1.6
8/1/2019 7:00 AM	0.2	0.5	1.6
8/1/2019 8:00 AM	0.3	0.6	1.7
8/1/2019 9:00 AM	0.4	0.8	1.7
8/1/2019 10:00 AM	0.4	0.7	1.8
8/1/2019 11:00 AM	0.5	0.9	1.8
8/1/2019 12:00 PM	0.5	0.9	1.7
8/1/2019 1:00 PM	0.5	0.8	1.8
8/1/2019 2:00 PM	0.5	0.7	1.8
8/1/2019 3:00 PM	0.5	0.7	1.7
8/1/2019 4:00 PM	0.5	0.9	1.7
8/1/2019 5:00 PM	0.7	1.1	2
8/1/2019 6:00 PM	0.6	1	2
8/1/2019 7:00 PM	0.6	0.8	2.2
8/1/2019 8:00 PM	0.4	0.7	2.4
8/1/2019 9:00 PM	0.3	0.7	1.9
8/1/2019 10:00 PM	0.3	0.6	1.8
8/1/2019 11:00 PM	0.3	0.6	1.7
8/2/2019 12:00 AM	0.3	0.6	1.6
8/2/2019 1:00 AM	0.3	0.6	1.6
8/2/2019 2:00 AM	0.3	0.6	1.5
8/2/2019 3:00 AM	0.3	0.6	1.4
8/2/2019 4:00 AM	0.3	0.5	1.5
8/2/2019 5:00 AM	0.4	0.5	1.6
8/2/2019 6:00 AM	0.3	0.4	1.5
8/2/2019 7:00 AM	0.3	0.5	1.6
8/2/2019 8:00 AM	0.3	0.6	1.6
8/2/2019 9:00 AM	0.5	0.7	1.8
8/2/2019 10:00 AM	0.6	0.7	1.7
8/2/2019 11:00 AM	0.5	0.6	1.7
8/2/2019 12:00 PM	0.4	0.6	1.6
8/2/2019 1:00 PM	0.4	0.5	1.6
8/2/2019 2:00 PM	0.4	0.5	1.7
8/2/2019 3:00 PM	0.5	0.5	1.6
8/2/2019 4:00 PM	0.4	0.5	1.7
8/2/2019 5:00 PM	0.3	0.5	1.7
8/2/2019 6:00 PM	0.5	0.5	1.6
8/2/2019 7:00 PM	0.4	0.4	1.7
8/2/2019 8:00 PM	0.3	0.5	1.6
8/2/2019 9:00 PM	0.3	0.5	1.6
8/2/2019 10:00 PM	0.3	0.4	1.5
8/2/2019 11:00 PM	0.3	0.4	1.6
8/3/2019 12:00 AM	0.3	0.4	1.6
8/3/2019 1:00 AM	0.3	0.5	1.5
8/3/2019 2:00 AM	0.3	0.4	1.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/3/2019 3:00 AM	0.3	0.4	1.5
8/3/2019 4:00 AM	0.4	0.3	1.5
8/3/2019 5:00 AM	0.4	0.4	1.5
8/3/2019 6:00 AM	0.3	0.4	1.5
8/3/2019 7:00 AM	0.3	0.4	1.5
8/3/2019 8:00 AM	0.3	0.4	1.6
8/3/2019 9:00 AM	0.5	0.5	1.6
8/3/2019 10:00 AM	0.4	0.6	1.7
8/3/2019 11:00 AM	0.5	0.5	1.7
8/3/2019 12:00 PM	0.4	0.5	1.7
8/3/2019 1:00 PM	0.4	0.6	1.7
8/3/2019 2:00 PM	0.4	0.6	1.7
8/3/2019 3:00 PM	0.4	0.5	1.7
8/3/2019 4:00 PM	0.5	0.5	1.7
8/3/2019 5:00 PM	0.4	0.5	1.7
8/3/2019 6:00 PM	0.5	0.5	1.7
8/3/2019 7:00 PM	0.5	0.5	1.7
8/3/2019 8:00 PM	0.4	0.5	1.7
8/3/2019 9:00 PM	0.4	0.4	1.7
8/3/2019 10:00 PM	0.3	0.5	1.7
8/3/2019 11:00 PM	0.3	0.5	1.6
8/4/2019 12:00 AM	0.4	0.5	1.7
8/4/2019 1:00 AM	0.3	0.5	1.6
8/4/2019 2:00 AM	0.4	0.5	1.6
8/4/2019 3:00 AM	0.3	0.5	1.5
8/4/2019 4:00 AM	0.3	0.4	1.5
8/4/2019 5:00 AM	0.4	0.5	1.6
8/4/2019 6:00 AM	0.3	0.4	1.6
8/4/2019 7:00 AM	0.4	0.4	1.7
8/4/2019 8:00 AM	0.6	0.7	2.8
8/4/2019 9:00 AM	0.7	0.9	2.2
8/4/2019 10:00 AM	0.5	0.8	1.9
8/4/2019 11:00 AM	0.6	0.7	1.9
8/4/2019 12:00 PM	0.6	0.7	1.8
8/4/2019 1:00 PM	0.5	1	1.8
8/4/2019 2:00 PM	0.6	0.8	1.9
8/4/2019 3:00 PM	0.5	0.7	1.8
8/4/2019 4:00 PM	0.6	0.7	1.8
8/4/2019 5:00 PM	0.7	0.9	2
8/4/2019 6:00 PM	0.6	0.8	1.9
8/4/2019 7:00 PM	0.5	0.7	1.8
8/4/2019 8:00 PM	0.4	0.7	1.7
8/4/2019 9:00 PM	0.3	0.6	1.7
8/4/2019 10:00 PM	0.3	0.5	1.7
8/4/2019 11:00 PM	0.4	0.5	1.7
8/5/2019 12:00 AM	0.4	0.4	1.7
8/5/2019 1:00 AM	0.4	0.4	1.8
8/5/2019 2:00 AM	0.3	0.4	1.8
8/5/2019 3:00 AM	0.3	0.4	1.9
8/5/2019 4:00 AM	Precision	Precision	Precision
8/5/2019 5:00 AM	0.3	0.4	1.7
8/5/2019 6:00 AM	0.3	0.4	1.8
8/5/2019 7:00 AM	0.3	0.5	2
8/5/2019 8:00 AM	0.6	0.9	2.1
8/5/2019 9:00 AM	0.8	0.9	1.9
8/5/2019 10:00 AM	0.7	0.7	1.9
8/5/2019 11:00 AM	0.5	0.7	1.8
8/5/2019 12:00 PM	0.5	0.7	1.8
8/5/2019 1:00 PM	0.5	0.7	1.7
8/5/2019 2:00 PM	0.5	0.7	1.8
8/5/2019 3:00 PM	0.4	0.7	1.8
8/5/2019 4:00 PM	0.4	0.8	1.8
8/5/2019 5:00 PM	0.5	0.8	1.7
8/5/2019 6:00 PM	0.4	0.7	1.7
8/5/2019 7:00 PM	0.4	0.6	1.7
8/5/2019 8:00 PM	0.4	0.6	1.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/5/2019 9:00 PM	0.4	0.6	1.7
8/5/2019 10:00 PM	0.3	0.6	1.6
8/5/2019 11:00 PM	0.4	0.5	1.6
8/6/2019 12:00 AM	0.3	0.6	1.6
8/6/2019 1:00 AM	0.2	0.5	1.6
8/6/2019 2:00 AM	0.3	0.5	1.6
8/6/2019 3:00 AM	0.3	0.5	1.6
8/6/2019 4:00 AM	0.3	0.4	1.6
8/6/2019 5:00 AM	0.3	0.5	1.6
8/6/2019 6:00 AM	0.3	0.5	1.6
8/6/2019 7:00 AM	0.3	0.5	1.6
8/6/2019 8:00 AM	0.3	0.6	1.6
8/6/2019 9:00 AM	0.6	0.9	2.6
8/6/2019 10:00 AM	1.2	1.6	3.8
8/6/2019 11:00 AM	1	1.4	3
8/6/2019 12:00 PM	0.7	1	1.8
8/6/2019 1:00 PM	0.6	0.8	2
8/6/2019 2:00 PM	0.8	1	2.2
8/6/2019 3:00 PM	0.5	0.9	1.9
8/6/2019 4:00 PM	0.6	0.8	1.8
8/6/2019 5:00 PM	0.5	0.7	1.8
8/6/2019 6:00 PM	0.4	0.7	1.8
8/6/2019 7:00 PM	0.4	0.8	1.7
8/6/2019 8:00 PM	0.5	0.6	1.7
8/6/2019 9:00 PM	0.4	0.5	1.6
8/6/2019 10:00 PM	0.3	0.6	1.7
8/6/2019 11:00 PM	0.3	0.6	1.7
8/7/2019 12:00 AM	0.3	0.5	1.7
8/7/2019 1:00 AM	0.3	0.5	1.6
8/7/2019 2:00 AM	0.3	0.4	1.6
8/7/2019 3:00 AM	0.3	0.5	1.6
8/7/2019 4:00 AM	0.3	0.4	1.7
8/7/2019 5:00 AM	0.4	0.5	1.7
8/7/2019 6:00 AM	0.3	0.5	1.5
8/7/2019 7:00 AM	0.4	0.5	1.5
8/7/2019 8:00 AM	0.3	0.4	1.6
8/7/2019 9:00 AM	0.2	0.4	1.6
8/7/2019 10:00 AM	0.3	0.4	1.6
8/7/2019 11:00 AM	0.4	0.5	1.5
8/7/2019 12:00 PM	0.4	0.6	1.6
8/7/2019 1:00 PM	0.3	0.5	1.6
8/7/2019 2:00 PM	0.3	0.5	1.7
8/7/2019 3:00 PM	0.4	0.6	1.7
8/7/2019 4:00 PM	0.5	0.8	1.7
8/7/2019 5:00 PM	0.5	0.8	1.7
8/7/2019 6:00 PM	0.5	0.9	1.7
8/7/2019 7:00 PM	0.5	0.8	1.6
8/7/2019 8:00 PM	0.4	0.7	1.6
8/7/2019 9:00 PM	0.4	0.6	1.6
8/7/2019 10:00 PM	0.4	0.5	1.7
8/7/2019 11:00 PM	0.3	0.6	1.6
8/8/2019 12:00 AM	0.3	0.5	1.6
8/8/2019 1:00 AM	0.2	0.5	1.6
8/8/2019 2:00 AM	0.3	0.5	1.6
8/8/2019 3:00 AM	0.3	0.4	1.6
8/8/2019 4:00 AM	0.2	0.4	1.7
8/8/2019 5:00 AM	0.3	0.5	1.8
8/8/2019 6:00 AM	0.3	0.5	1.7
8/8/2019 7:00 AM	0.2	0.5	1.7
8/8/2019 8:00 AM	0.3	0.7	1.7
8/8/2019 9:00 AM	0.4	0.6	1.6
8/8/2019 10:00 AM	0.4	0.7	2.1
8/8/2019 11:00 AM	0.8	1.1	2
8/8/2019 12:00 PM	0.8	1.1	2.4
8/8/2019 1:00 PM	0.9	1.1	2
8/8/2019 2:00 PM	0.6	0.9	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/8/2019 3:00 PM	0.5	0.8	1.7
8/8/2019 4:00 PM	0.7	1	2
8/8/2019 5:00 PM	0.6	0.9	1.9
8/8/2019 6:00 PM	0.5	0.7	1.8
8/8/2019 7:00 PM	0.5	0.8	1.7
8/8/2019 8:00 PM	0.5	0.7	1.8
8/8/2019 9:00 PM	0.7	1.1	2.7
8/8/2019 10:00 PM	1.3	2.1	3.9
8/8/2019 11:00 PM	1.8	2.4	2.5
8/9/2019 12:00 AM	0.9	1	1.7
8/9/2019 1:00 AM	0.5	0.7	1.7
8/9/2019 2:00 AM	0.4	0.7	1.6
8/9/2019 3:00 AM	0.4	0.6	1.6
8/9/2019 4:00 AM	0.4	0.6	1.6
8/9/2019 5:00 AM	0.4	0.8	1.6
8/9/2019 6:00 AM	0.3	0.7	1.5
8/9/2019 7:00 AM	0.3	0.6	1.7
8/9/2019 8:00 AM	0.4	0.8	1.7
8/9/2019 9:00 AM	0.4	0.8	1.7
8/9/2019 10:00 AM	0.4	0.7	1.6
8/9/2019 11:00 AM	0.4	0.6	Power Fail
8/9/2019 12:00 PM	0.4	0.7	Power Fail
8/9/2019 1:00 PM	0.5	0.8	Power Fail
8/9/2019 2:00 PM	0.5	0.9	Power Fail
8/9/2019 3:00 PM	0.7	1.1	Power Fail
8/9/2019 4:00 PM	0.8	1.1	Power Fail
8/9/2019 5:00 PM	0.6	0.9	Power Fail
8/9/2019 6:00 PM	0.5	0.8	Power Fail
8/9/2019 7:00 PM	0.5	0.8	Power Fail
8/9/2019 8:00 PM	0.6	0.9	Power Fail
8/9/2019 9:00 PM	0.5	0.8	Power Fail
8/9/2019 10:00 PM	0.4	0.7	Power Fail
8/9/2019 11:00 PM	0.3	0.6	Power Fail
8/10/2019 12:00 AM	0.3	0.5	Power Fail
8/10/2019 1:00 AM	0.3	0.5	Power Fail
8/10/2019 2:00 AM	0.3	0.6	Power Fail
8/10/2019 3:00 AM	0.3	0.5	Power Fail
8/10/2019 4:00 AM	0.2	0.4	Power Fail
8/10/2019 5:00 AM	0.3	0.6	Power Fail
8/10/2019 6:00 AM	0.3	0.7	Power Fail
8/10/2019 7:00 AM	0.3	0.6	Power Fail
8/10/2019 8:00 AM	0.3	0.8	Power Fail
8/10/2019 9:00 AM	0.4	0.9	Power Fail
8/10/2019 10:00 AM	0.5	0.9	Power Fail
8/10/2019 11:00 AM	0.6	1	Power Fail
8/10/2019 12:00 PM	0.7	1.2	Power Fail
8/10/2019 1:00 PM	0.7	1	Power Fail
8/10/2019 2:00 PM	0.6	1	Power Fail
8/10/2019 3:00 PM	0.8	1	Power Fail
8/10/2019 4:00 PM	0.7	1	Power Fail
8/10/2019 5:00 PM	0.7	1	Power Fail
8/10/2019 6:00 PM	0.5	0.8	Power Fail
8/10/2019 7:00 PM	0.4	0.8	Power Fail
8/10/2019 8:00 PM	0.4	0.8	Power Fail
8/10/2019 9:00 PM	0.4	0.7	Power Fail
8/10/2019 10:00 PM	0.3	0.6	Power Fail
8/10/2019 11:00 PM	0.3	0.6	Power Fail
8/11/2019 12:00 AM	0.3	0.5	Power Fail
8/11/2019 1:00 AM	0.4	0.6	Power Fail
8/11/2019 2:00 AM	0.3	0.5	Power Fail
8/11/2019 3:00 AM	0.3	0.4	Power Fail
8/11/2019 4:00 AM	0.3	0.4	Power Fail
8/11/2019 5:00 AM	0.3	0.4	Power Fail
8/11/2019 6:00 AM	0.2	0.5	Power Fail
8/11/2019 7:00 AM	0.3	0.4	Power Fail
8/11/2019 8:00 AM	0.4	0.6	Power Fail

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/11/2019 9:00 AM	1.2	0.8	Power Fail
8/11/2019 10:00 AM	0.8	0.8	Power Fail
8/11/2019 11:00 AM	0.6	0.6	Power Fail
8/11/2019 12:00 PM	0.6	0.7	Power Fail
8/11/2019 1:00 PM	0.5	0.7	Power Fail
8/11/2019 2:00 PM	0.5	0.7	Power Fail
8/11/2019 3:00 PM	0.5	0.8	Power Fail
8/11/2019 4:00 PM	0.5	0.8	Power Fail
8/11/2019 5:00 PM	0.5	0.8	Power Fail
8/11/2019 6:00 PM	0.5	0.9	Power Fail
8/11/2019 7:00 PM	0.5	0.7	Power Fail
8/11/2019 8:00 PM	0.4	0.7	Power Fail
8/11/2019 9:00 PM	0.4	0.7	Power Fail
8/11/2019 10:00 PM	0.3	0.6	Power Fail
8/11/2019 11:00 PM	0.3	0.6	Power Fail
8/12/2019 12:00 AM	0.3	0.6	Power Fail
8/12/2019 1:00 AM	0.3	0.5	Power Fail
8/12/2019 2:00 AM	0.3	0.5	Power Fail
8/12/2019 3:00 AM	0.2	0.5	Power Fail
8/12/2019 4:00 AM	Precision	Precision	Power Fail
8/12/2019 5:00 AM	0.3	0.5	Power Fail
8/12/2019 6:00 AM	0.2	0.5	Power Fail
8/12/2019 7:00 AM	0.3	0.5	Power Fail
8/12/2019 8:00 AM	0.4	0.7	Power Fail
8/12/2019 9:00 AM	0.6	0.8	Power Fail
8/12/2019 10:00 AM	0.9	0.9	Power Fail
8/12/2019 11:00 AM	0.7	0.8	Power Fail
8/12/2019 12:00 PM	0.6	0.8	Power Fail
8/12/2019 1:00 PM	0.6	0.8	Power Fail
8/12/2019 2:00 PM	0.7	0.8	Power Fail
8/12/2019 3:00 PM	0.6	0.9	Power Fail
8/12/2019 4:00 PM	0.6	0.9	Power Fail
8/12/2019 5:00 PM	0.5	0.7	Power Fail
8/12/2019 6:00 PM	0.5	0.7	Power Fail
8/12/2019 7:00 PM	0.5	0.7	Power Fail
8/12/2019 8:00 PM	0.5	0.7	Power Fail
8/12/2019 9:00 PM	0.4	0.7	Power Fail
8/12/2019 10:00 PM	0.4	0.7	Power Fail
8/12/2019 11:00 PM	0.4	0.7	Power Fail
8/13/2019 12:00 AM	0.4	0.7	Power Fail
8/13/2019 1:00 AM	0.4	0.7	Power Fail
8/13/2019 2:00 AM	0.4	0.6	Power Fail
8/13/2019 3:00 AM	0.3	0.6	Power Fail
8/13/2019 4:00 AM	0.3	0.6	Power Fail
8/13/2019 5:00 AM	0.4	0.7	Power Fail
8/13/2019 6:00 AM	0.3	0.6	Power Fail
8/13/2019 7:00 AM	0.3	0.6	Power Fail
8/13/2019 8:00 AM	0.4	0.6	Power Fail
8/13/2019 9:00 AM	0.3	0.6	Power Fail
8/13/2019 10:00 AM	0.3	0.6	Power Fail
8/13/2019 11:00 AM	0.3	0.7	Power Fail
8/13/2019 12:00 PM	0.5	0.6	Power Fail
8/13/2019 1:00 PM	0.4	0.5	Power Fail
8/13/2019 2:00 PM	0.4	0.5	Power Fail
8/13/2019 3:00 PM	0.4	0.4	Power Fail
8/13/2019 4:00 PM	0.4	0.6	Power Fail
8/13/2019 5:00 PM	0.4	0.6	Power Fail
8/13/2019 6:00 PM	0.4	0.6	Power Fail
8/13/2019 7:00 PM	0.3	0.5	Power Fail
8/13/2019 8:00 PM	0.3	0.6	Power Fail
8/13/2019 9:00 PM	0.3	0.6	Power Fail
8/13/2019 10:00 PM	0.3	0.7	Power Fail
8/13/2019 11:00 PM	0.3	0.5	Power Fail
8/14/2019 12:00 AM	0.3	0.5	Power Fail
8/14/2019 1:00 AM	0.3	0.6	Power Fail
8/14/2019 2:00 AM	0.3	0.6	Power Fail

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/14/2019 3:00 AM	0.3	0.5	Power Fail
8/14/2019 4:00 AM	0.3	0.5	Power Fail
8/14/2019 5:00 AM	0.4	0.5	Power Fail
8/14/2019 6:00 AM	0.3	0.6	Power Fail
8/14/2019 7:00 AM	0.3	0.5	Power Fail
8/14/2019 8:00 AM	0.4	0.7	Power Fail
8/14/2019 9:00 AM	0.4	0.6	Power Fail
8/14/2019 10:00 AM	0.4	0.6	Power Fail
8/14/2019 11:00 AM	0.4	0.5	Power Fail
8/14/2019 12:00 PM	0.3	0.6	Power Fail
8/14/2019 1:00 PM	0.4	0.6	Power Fail
8/14/2019 2:00 PM	0.4	0.6	Power Fail
8/14/2019 3:00 PM	0.4	0.7	Power Fail
8/14/2019 4:00 PM	0.4	0.6	Power Fail
8/14/2019 5:00 PM	0.5	0.6	Power Fail
8/14/2019 6:00 PM	0.4	0.7	Power Fail
8/14/2019 7:00 PM	0.4	0.7	Power Fail
8/14/2019 8:00 PM	0.4	0.7	Power Fail
8/14/2019 9:00 PM	0.3	0.6	Power Fail
8/14/2019 10:00 PM	0.3	0.6	Power Fail
8/14/2019 11:00 PM	0.3	0.7	Power Fail
8/15/2019 12:00 AM	0.4	0.6	Power Fail
8/15/2019 1:00 AM	0.4	0.5	Power Fail
8/15/2019 2:00 AM	0.3	0.5	Power Fail
8/15/2019 3:00 AM	0.3	0.6	Power Fail
8/15/2019 4:00 AM	0.3	0.5	Power Fail
8/15/2019 5:00 AM	0.4	0.6	Power Fail
8/15/2019 6:00 AM	0.2	0.5	Power Fail
8/15/2019 7:00 AM	0.3	0.6	Power Fail
8/15/2019 8:00 AM	0.4	0.6	Power Fail
8/15/2019 9:00 AM	0.5	0.7	Power Fail
8/15/2019 10:00 AM	0.5	0.8	Power Fail
8/15/2019 11:00 AM	0.5	0.8	Power Fail
8/15/2019 12:00 PM	0.5	0.7	Power Fail
8/15/2019 1:00 PM	0.5	0.7	Power Fail
8/15/2019 2:00 PM	0.4	0.6	Power Fail
8/15/2019 3:00 PM	0.4	0.6	Power Fail
8/15/2019 4:00 PM	0.4	0.6	Power Fail
8/15/2019 5:00 PM	0.4	0.6	Power Fail
8/15/2019 6:00 PM	0.5	0.6	Power Fail
8/15/2019 7:00 PM	0.4	0.6	Power Fail
8/15/2019 8:00 PM	0.3	0.5	Power Fail
8/15/2019 9:00 PM	0.3	0.6	Power Fail
8/15/2019 10:00 PM	0.4	0.5	Power Fail
8/15/2019 11:00 PM	0.3	0.5	Power Fail
8/16/2019 12:00 AM	0.3	0.5	Power Fail
8/16/2019 1:00 AM	0.3	0.6	Power Fail
8/16/2019 2:00 AM	0.3	0.5	Power Fail
8/16/2019 3:00 AM	0.3	0.6	Power Fail
8/16/2019 4:00 AM	0.3	0.6	Power Fail
8/16/2019 5:00 AM	0.3	0.6	Power Fail
8/16/2019 6:00 AM	0.3	0.6	Power Fail
8/16/2019 7:00 AM	0.4	0.6	Power Fail
8/16/2019 8:00 AM	0.4	0.6	Power Fail
8/16/2019 9:00 AM	0.5	0.7	Power Fail
8/16/2019 10:00 AM	0.6	0.8	Power Fail
8/16/2019 11:00 AM	0.9	1	Power Fail
8/16/2019 12:00 PM	0.8	1.1	Power Fail
8/16/2019 1:00 PM	0.6	0.9	Power Fail
8/16/2019 2:00 PM	0.6	0.7	Power Fail
8/16/2019 3:00 PM	0.6	0.7	Power Fail
8/16/2019 4:00 PM	0.6	0.7	Power Fail
8/16/2019 5:00 PM	0.6	0.7	Power Fail
8/16/2019 6:00 PM	0.6	0.8	Power Fail
8/16/2019 7:00 PM	0.5	0.8	Power Fail
8/16/2019 8:00 PM	0.4	0.7	Power Fail

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/16/2019 9:00 PM	0.4	0.7	Power Fail
8/16/2019 10:00 PM	0.4	0.6	Power Fail
8/16/2019 11:00 PM	0.4	0.6	Power Fail
8/17/2019 12:00 AM	0.4	0.6	Power Fail
8/17/2019 1:00 AM	0.4	0.6	Power Fail
8/17/2019 2:00 AM	0.3	0.6	Power Fail
8/17/2019 3:00 AM	0.3	0.5	Power Fail
8/17/2019 4:00 AM	0.4	0.5	Power Fail
8/17/2019 5:00 AM	0.4	0.6	Power Fail
8/17/2019 6:00 AM	0.5	0.5	Power Fail
8/17/2019 7:00 AM	0.4	0.5	Power Fail
8/17/2019 8:00 AM	0.4	0.6	Power Fail
8/17/2019 9:00 AM	0.4	0.6	Power Fail
8/17/2019 10:00 AM	0.6	0.7	Power Fail
8/17/2019 11:00 AM	0.5	0.7	Power Fail
8/17/2019 12:00 PM	0.6	0.7	Power Fail
8/17/2019 1:00 PM	0.6	0.8	Power Fail
8/17/2019 2:00 PM	0.6	0.7	Power Fail
8/17/2019 3:00 PM	0.5	0.7	Power Fail
8/17/2019 4:00 PM	0.5	0.7	Power Fail
8/17/2019 5:00 PM	0.5	0.7	Power Fail
8/17/2019 6:00 PM	0.5	0.7	Power Fail
8/17/2019 7:00 PM	0.4	0.7	Power Fail
8/17/2019 8:00 PM	0.4	0.8	Power Fail
8/17/2019 9:00 PM	0.4	0.8	Power Fail
8/17/2019 10:00 PM	0.4	0.7	Power Fail
8/17/2019 11:00 PM	0.4	0.7	Power Fail
8/18/2019 12:00 AM	0.4	0.6	Power Fail
8/18/2019 1:00 AM	0.4	0.6	Power Fail
8/18/2019 2:00 AM	0.4	0.7	Power Fail
8/18/2019 3:00 AM	0.3	0.6	Power Fail
8/18/2019 4:00 AM	0.4	0.6	Power Fail
8/18/2019 5:00 AM	0.4	0.6	Power Fail
8/18/2019 6:00 AM	0.4	0.6	Power Fail
8/18/2019 7:00 AM	0.4	0.6	Power Fail
8/18/2019 8:00 AM	0.4	0.6	Power Fail
8/18/2019 9:00 AM	0.4	0.7	Power Fail
8/18/2019 10:00 AM	0.9	2.5	Power Fail
8/18/2019 11:00 AM	1.2	1.1	Power Fail
8/18/2019 12:00 PM	0.6	0.8	Power Fail
8/18/2019 1:00 PM	0.6	0.9	Power Fail
8/18/2019 2:00 PM	0.5	0.7	Power Fail
8/18/2019 3:00 PM	0.5	0.7	Power Fail
8/18/2019 4:00 PM	0.5	0.8	Power Fail
8/18/2019 5:00 PM	0.4	0.7	Power Fail
8/18/2019 6:00 PM	0.5	0.7	Power Fail
8/18/2019 7:00 PM	0.4	0.6	Power Fail
8/18/2019 8:00 PM	0.5	0.6	Power Fail
8/18/2019 9:00 PM	0.4	0.6	Power Fail
8/18/2019 10:00 PM	0.4	0.6	Power Fail
8/18/2019 11:00 PM	0.4	0.6	Power Fail
8/19/2019 12:00 AM	0.4	0.6	Power Fail
8/19/2019 1:00 AM	0.4	0.6	Power Fail
8/19/2019 2:00 AM	0.4	0.6	Power Fail
8/19/2019 3:00 AM	0.4	0.5	Power Fail
8/19/2019 4:00 AM	Precision	Precision	Power Fail
8/19/2019 5:00 AM	0.4	0.6	Power Fail
8/19/2019 6:00 AM	0.4	0.6	Power Fail
8/19/2019 7:00 AM	0.4	0.6	Power Fail
8/19/2019 8:00 AM	0.4	0.6	Power Fail
8/19/2019 9:00 AM	0.5	0.7	Power Fail
8/19/2019 10:00 AM	0.5	0.7	Power Fail
8/19/2019 11:00 AM	0.6	0.8	Power Fail
8/19/2019 12:00 PM	0.7	0.9	Power Fail
8/19/2019 1:00 PM	0.7	0.9	Power Fail
8/19/2019 2:00 PM	0.6	0.9	Power Fail

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/19/2019 3:00 PM	0.6	0.9	Power Fail
8/19/2019 4:00 PM	0.8	1	Power Fail
8/19/2019 5:00 PM	0.9	1.2	Power Fail
8/19/2019 6:00 PM	0.7	1	Power Fail
8/19/2019 7:00 PM	0.6	1.3	Power Fail
8/19/2019 8:00 PM	0.6	1	Power Fail
8/19/2019 9:00 PM	0.5	0.8	Power Fail
8/19/2019 10:00 PM	0.4	0.8	Power Fail
8/19/2019 11:00 PM	0.4	0.6	Power Fail
8/20/2019 12:00 AM	0.4	0.6	Power Fail
8/20/2019 1:00 AM	0.4	0.6	Power Fail
8/20/2019 2:00 AM	0.3	0.6	Power Fail
8/20/2019 3:00 AM	0.4	0.6	Power Fail
8/20/2019 4:00 AM	0.3	0.6	Power Fail
8/20/2019 5:00 AM	0.4	0.6	Power Fail
8/20/2019 6:00 AM	0.4	0.6	Power Fail
8/20/2019 7:00 AM	0.4	0.6	Power Fail
8/20/2019 8:00 AM	0.5	0.8	Power Fail
8/20/2019 9:00 AM	0.5	0.9	Power Fail
8/20/2019 10:00 AM	0.6	0.9	Power Fail
8/20/2019 11:00 AM	0.5	0.8	Power Fail
8/20/2019 12:00 PM	0.4	0.8	1.3
8/20/2019 1:00 PM	0.4	0.8	1.2
8/20/2019 2:00 PM	0.5	0.8	1.3
8/20/2019 3:00 PM	0.4	0.7	1.3
8/20/2019 4:00 PM	0.4	0.6	1.2
8/20/2019 5:00 PM	0.4	0.7	1.3
8/20/2019 6:00 PM	0.4	0.6	1.2
8/20/2019 7:00 PM	0.3	0.6	1.1
8/20/2019 8:00 PM	0.4	0.6	1.1
8/20/2019 9:00 PM	0.3	0.6	1
8/20/2019 10:00 PM	0.3	0.6	1
8/20/2019 11:00 PM	0.3	0.6	1
8/21/2019 12:00 AM	0.3	0.6	1
8/21/2019 1:00 AM	0.3	0.5	1
8/21/2019 2:00 AM	0.4	0.6	1.1
8/21/2019 3:00 AM	0.4	0.6	1
8/21/2019 4:00 AM	0.3	0.5	1
8/21/2019 5:00 AM	0.3	0.6	1
8/21/2019 6:00 AM	0.4	0.5	1
8/21/2019 7:00 AM	0.4	0.4	1
8/21/2019 8:00 AM	0.3	0.6	1.1
8/21/2019 9:00 AM	0.4	0.7	1.2
8/21/2019 10:00 AM	0.4	0.7	1.3
8/21/2019 11:00 AM	0.5	0.7	1.4
8/21/2019 12:00 PM	0.5	0.7	1.4
8/21/2019 1:00 PM	0.4	0.7	1.4
8/21/2019 2:00 PM	0.4	0.8	1.3
8/21/2019 3:00 PM	0.6	0.8	1.4
8/21/2019 4:00 PM	0.7	1	1.4
8/21/2019 5:00 PM	0.7	1.1	1.6
8/21/2019 6:00 PM	0.8	1.1	1.6
8/21/2019 7:00 PM	0.7	1	1.6
8/21/2019 8:00 PM	0.5	0.9	1.4
8/21/2019 9:00 PM	0.4	0.7	1.3
8/21/2019 10:00 PM	0.4	0.7	1.3
8/21/2019 11:00 PM	0.4	0.7	1.3
8/22/2019 12:00 AM	0.4	0.7	1.4
8/22/2019 1:00 AM	0.4	0.6	1.3
8/22/2019 2:00 AM	0.3	0.6	1.2
8/22/2019 3:00 AM	0.4	0.6	1.2
8/22/2019 4:00 AM	0.4	0.5	1.4
8/22/2019 5:00 AM	0.4	0.6	1.2
8/22/2019 6:00 AM	0.3	0.5	1.3
8/22/2019 7:00 AM	0.4	0.5	1.6
8/22/2019 8:00 AM	0.7	1	1.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/22/2019 9:00 AM	1	1.4	2.3
8/22/2019 10:00 AM	0.9	1.3	2.3
8/22/2019 11:00 AM	1	1.3	1.9
8/22/2019 12:00 PM	0.9	1.1	1.6
8/22/2019 1:00 PM	0.7	1	1.6
8/22/2019 2:00 PM	0.6	0.9	1.5
8/22/2019 3:00 PM	0.6	0.9	1.6
8/22/2019 4:00 PM	0.6	0.8	1.5
8/22/2019 5:00 PM	0.6	0.8	1.5
8/22/2019 6:00 PM	0.5	0.8	1.5
8/22/2019 7:00 PM	0.5	0.8	1.5
8/22/2019 8:00 PM	0.5	0.7	1.4
8/22/2019 9:00 PM	0.4	0.7	1.4
8/22/2019 10:00 PM	0.4	0.7	1.3
8/22/2019 11:00 PM	0.3	0.7	1.3
8/23/2019 12:00 AM	0.4	0.6	1.3
8/23/2019 1:00 AM	0.3	0.6	1.3
8/23/2019 2:00 AM	0.3	0.6	1.3
8/23/2019 3:00 AM	0.3	0.6	1.3
8/23/2019 4:00 AM	0.3	0.6	Precision
8/23/2019 5:00 AM	0.4	0.6	1.4
8/23/2019 6:00 AM	0.3	0.5	1.3
8/23/2019 7:00 AM	0.3	0.5	1.3
8/23/2019 8:00 AM	0.4	0.4	1.3
8/23/2019 9:00 AM	0.4	0.5	1.3
8/23/2019 10:00 AM	0.4	0.6	1.2
8/23/2019 11:00 AM	0.4	0.6	1.3
8/23/2019 12:00 PM	0.4	0.6	1.3
8/23/2019 1:00 PM	0.4	0.6	1.4
8/23/2019 2:00 PM	0.5	0.7	1.5
8/23/2019 3:00 PM	0.6	0.9	1.5
8/23/2019 4:00 PM	0.5	0.9	1.5
8/23/2019 5:00 PM	0.5	0.9	1.7
8/23/2019 6:00 PM	0.6	0.9	1.7
8/23/2019 7:00 PM	0.4	1.2	1.7
8/23/2019 8:00 PM	0.4	1	1.8
8/23/2019 9:00 PM	0.4	0.8	1.8
8/23/2019 10:00 PM	0.4	0.7	1.7
8/23/2019 11:00 PM	0.3	0.7	1.6
8/24/2019 12:00 AM	0.2	0.7	1.5
8/24/2019 1:00 AM	0.3	0.6	1.5
8/24/2019 2:00 AM	0.3	0.6	1.3
8/24/2019 3:00 AM	0.3	0.6	1.3
8/24/2019 4:00 AM	0.3	0.5	1.2
8/24/2019 5:00 AM	0.4	0.6	1.4
8/24/2019 6:00 AM	0.3	0.6	1.3
8/24/2019 7:00 AM	0.3	0.6	1.3
8/24/2019 8:00 AM	0.4	0.7	1.4
8/24/2019 9:00 AM	0.4	0.7	1.3
8/24/2019 10:00 AM	0.4	0.9	1.4
8/24/2019 11:00 AM	0.6	1	1.5
8/24/2019 12:00 PM	0.4	0.8	1.5
8/24/2019 1:00 PM	0.4	0.7	1.4
8/24/2019 2:00 PM	0.4	0.7	1.4
8/24/2019 3:00 PM	0.4	0.8	1.4
8/24/2019 4:00 PM	0.5	0.8	1.4
8/24/2019 5:00 PM	0.4	0.8	1.4
8/24/2019 6:00 PM	0.5	0.8	1.4
8/24/2019 7:00 PM	0.4	0.8	1.4
8/24/2019 8:00 PM	0.4	0.7	1.4
8/24/2019 9:00 PM	0.5	0.8	1.5
8/24/2019 10:00 PM	0.4	0.7	1.5
8/24/2019 11:00 PM	0.4	0.7	1.5
8/25/2019 12:00 AM	0.3	0.6	1.5
8/25/2019 1:00 AM	0.3	0.6	1.4
8/25/2019 2:00 AM	0.3	0.5	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/25/2019 3:00 AM	0.2	0.6	1.3
8/25/2019 4:00 AM	0.2	0.6	1.3
8/25/2019 5:00 AM	0.3	0.6	1.3
8/25/2019 6:00 AM	0.2	0.5	1.3
8/25/2019 7:00 AM	0.2	0.5	1.4
8/25/2019 8:00 AM	0.3	0.5	1.5
8/25/2019 9:00 AM	0.4	0.7	1.6
8/25/2019 10:00 AM	0.5	0.9	1.6
8/25/2019 11:00 AM	0.5	0.9	1.5
8/25/2019 12:00 PM	0.5	0.9	1.5
8/25/2019 1:00 PM	0.4	0.8	1.5
8/25/2019 2:00 PM	0.4	0.8	1.5
8/25/2019 3:00 PM	0.4	0.8	1.5
8/25/2019 4:00 PM	0.4	0.8	1.4
8/25/2019 5:00 PM	0.4	0.8	1.5
8/25/2019 6:00 PM	0.4	0.8	1.5
8/25/2019 7:00 PM	0.4	0.7	1.5
8/25/2019 8:00 PM	0.4	0.7	1.4
8/25/2019 9:00 PM	0.4	0.7	1.5
8/25/2019 10:00 PM	0.4	0.6	1.4
8/25/2019 11:00 PM	0.4	0.6	1.4
8/26/2019 12:00 AM	0.3	0.6	1.5
8/26/2019 1:00 AM	0.4	0.6	1.4
8/26/2019 2:00 AM	0.3	0.5	1.4
8/26/2019 3:00 AM	0.3	0.4	1.4
8/26/2019 4:00 AM	Precision	Precision	1.4
8/26/2019 5:00 AM	0.3	0.5	1.4
8/26/2019 6:00 AM	0.3	0.5	1.4
8/26/2019 7:00 AM	0.4	0.5	1.4
8/26/2019 8:00 AM	0.4	0.7	1.5
8/26/2019 9:00 AM	0.4	0.6	1.5
8/26/2019 10:00 AM	0.4	0.6	1.4
8/26/2019 11:00 AM	0.4	0.6	1.5
8/26/2019 12:00 PM	0.4	0.7	1.4
8/26/2019 1:00 PM	0.4	0.7	1.4
8/26/2019 2:00 PM	0.4	0.8	1.5
8/26/2019 3:00 PM	0.4	0.8	1.4
8/26/2019 4:00 PM	0.4	0.7	1.4
8/26/2019 5:00 PM	0.4	0.7	1.4
8/26/2019 6:00 PM	0.4	0.7	1.4
8/26/2019 7:00 PM	0.4	0.9	1.4
8/26/2019 8:00 PM	0.4	0.8	1.4
8/26/2019 9:00 PM	0.4	0.8	1.4
8/26/2019 10:00 PM	0.4	0.7	1.4
8/26/2019 11:00 PM	0.4	0.7	1.4
8/27/2019 12:00 AM	0.4	0.7	1.4
8/27/2019 1:00 AM	0.4	0.7	1.4
8/27/2019 2:00 AM	0.4	0.6	1.4
8/27/2019 3:00 AM	0.4	0.7	1.3
8/27/2019 4:00 AM	0.4	0.7	1.2
8/27/2019 5:00 AM	0.5	0.6	1.4
8/27/2019 6:00 AM	0.4	0.6	1.3
8/27/2019 7:00 AM	0.4	0.6	1.3
8/27/2019 8:00 AM	0.4	0.6	1.4
8/27/2019 9:00 AM	0.3	0.6	1.3
8/27/2019 10:00 AM	0.4	0.7	1.2
8/27/2019 11:00 AM	0.3	0.7	1.3
8/27/2019 12:00 PM	0.4	0.7	1.3
8/27/2019 1:00 PM	0.3	0.7	1.4
8/27/2019 2:00 PM	0.4	0.6	1.3
8/27/2019 3:00 PM	0.5	0.7	1.4
8/27/2019 4:00 PM	0.4	0.6	1.3
8/27/2019 5:00 PM	0.4	0.7	1.4
8/27/2019 6:00 PM	0.4	0.8	1.4
8/27/2019 7:00 PM	0.4	0.8	1.3
8/27/2019 8:00 PM	0.4	0.6	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/27/2019 9:00 PM	0.4	0.6	1.4
8/27/2019 10:00 PM	0.4	0.7	1.3
8/27/2019 11:00 PM	0.4	0.6	1.3
8/28/2019 12:00 AM	0.4	0.6	1.3
8/28/2019 1:00 AM	0.5	0.7	1.3
8/28/2019 2:00 AM	0.4	0.8	1.3
8/28/2019 3:00 AM	0.4	0.8	1.3
8/28/2019 4:00 AM	0.4	0.7	1.2
8/28/2019 5:00 AM	0.4	0.7	1.3
8/28/2019 6:00 AM	0.4	0.6	1.2
8/28/2019 7:00 AM	0.4	0.6	1.2
8/28/2019 8:00 AM	0.4	0.7	1.3
8/28/2019 9:00 AM	0.4	0.7	1.2
8/28/2019 10:00 AM	0.4	0.7	1.3
8/28/2019 11:00 AM	0.4	0.6	1.3
8/28/2019 12:00 PM	0.4	0.7	1.4
8/28/2019 1:00 PM	0.5	0.8	1.5
8/28/2019 2:00 PM	0.5	0.8	1.4
8/28/2019 3:00 PM	0.6	0.7	1.5
8/28/2019 4:00 PM	0.7	1	1.7
8/28/2019 5:00 PM	0.7	1	1.8
8/28/2019 6:00 PM	0.7	0.9	1.5
8/28/2019 7:00 PM	0.6	0.9	1.4
8/28/2019 8:00 PM	0.5	0.8	1.4
8/28/2019 9:00 PM	0.5	0.7	1.5
8/28/2019 10:00 PM	0.4	0.9	1.4
8/28/2019 11:00 PM	0.5	0.8	1.6
8/29/2019 12:00 AM	0.5	0.8	1.7
8/29/2019 1:00 AM	0.5	0.8	1.7
8/29/2019 2:00 AM	0.4	0.8	1.8
8/29/2019 3:00 AM	0.4	0.7	1.6
8/29/2019 4:00 AM	0.3	0.6	1.7
8/29/2019 5:00 AM	0.3	0.6	1.7
8/29/2019 6:00 AM	0.4	0.5	1.6
8/29/2019 7:00 AM	0.4	0.6	1.6
8/29/2019 8:00 AM	0.6	0.8	1.8
8/29/2019 9:00 AM	0.6	0.8	1.6
8/29/2019 10:00 AM	0.6	0.9	1.6
8/29/2019 11:00 AM	0.6	0.9	1.6
8/29/2019 12:00 PM	0.6	1	1.6
8/29/2019 1:00 PM	0.7	0.9	1.6
8/29/2019 2:00 PM	0.7	1	1.6
8/29/2019 3:00 PM	0.7	1	1.6
8/29/2019 4:00 PM	0.7	0.9	1.7
8/29/2019 5:00 PM	0.8	1.1	1.9
8/29/2019 6:00 PM	0.9	1.3	1.8
8/29/2019 7:00 PM	0.7	1.1	1.7
8/29/2019 8:00 PM	0.6	0.9	1.5
8/29/2019 9:00 PM	0.6	0.7	1.4
8/29/2019 10:00 PM	0.4	0.6	1.5
8/29/2019 11:00 PM	0.4	0.6	1.5
8/30/2019 12:00 AM	0.4	0.5	1.5
8/30/2019 1:00 AM	0.3	0.5	1.5
8/30/2019 2:00 AM	0.3	0.6	1.5
8/30/2019 3:00 AM	0.3	0.7	1.4
8/30/2019 4:00 AM	0.3	0.7	Precision
8/30/2019 5:00 AM	0.4	0.8	1.6
8/30/2019 6:00 AM	0.4	0.7	1.6
8/30/2019 7:00 AM	0.4	0.7	1.5
8/30/2019 8:00 AM	0.5	0.8	1.5
8/30/2019 9:00 AM	0.7	1.1	1.6
8/30/2019 10:00 AM	1.1	1.3	2.3
8/30/2019 11:00 AM	1.1	1.4	2.1
8/30/2019 12:00 PM	0.8	1.2	1.9
8/30/2019 1:00 PM	0.8	1	1.7
8/30/2019 2:00 PM	0.8	0.9	1.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
8/30/2019 3:00 PM	0.7	0.9	1.7
8/30/2019 4:00 PM	0.7	1	1.7
8/30/2019 5:00 PM	0.8	1	1.7
8/30/2019 6:00 PM	0.8	1	1.7
8/30/2019 7:00 PM	0.6	1	1.7
8/30/2019 8:00 PM	0.6	0.9	1.8
8/30/2019 9:00 PM	0.5	0.8	1.6
8/30/2019 10:00 PM	0.5	0.7	1.6
8/30/2019 11:00 PM	0.5	0.7	1.6
8/31/2019 12:00 AM	0.5	0.7	1.5
8/31/2019 1:00 AM	0.5	0.7	1.4
8/31/2019 2:00 AM	0.4	0.6	1.5
8/31/2019 3:00 AM	0.5	0.6	1.4
8/31/2019 4:00 AM	0.5	0.6	1.5
8/31/2019 5:00 AM	0.5	0.7	1.5
8/31/2019 6:00 AM	0.5	0.6	1.4
8/31/2019 7:00 AM	0.4	0.6	1.5
8/31/2019 8:00 AM	0.5	0.7	1.5
8/31/2019 9:00 AM	0.6	0.7	1.5
8/31/2019 10:00 AM	0.6	0.7	1.5
8/31/2019 11:00 AM	0.6	0.7	1.5
8/31/2019 12:00 PM	0.7	0.9	1.7
8/31/2019 1:00 PM	0.7	1	1.7
8/31/2019 2:00 PM	0.7	0.9	1.7
8/31/2019 3:00 PM	0.7	0.9	1.7
8/31/2019 4:00 PM	0.6	0.9	1.7
8/31/2019 5:00 PM	0.8	1.1	1.8
8/31/2019 6:00 PM	0.7	0.9	1.6
8/31/2019 7:00 PM	0.6	0.7	1.6
8/31/2019 8:00 PM	0.6	0.8	1.6
8/31/2019 9:00 PM	0.6	0.7	1.6
8/31/2019 10:00 PM	0.7	0.8	1.6
8/31/2019 11:00 PM	0.6	0.7	1.6
9/1/2019 12:00 AM	0.5	0.7	1.7
9/1/2019 1:00 AM	0.6	0.7	1.6
9/1/2019 2:00 AM	0.6	0.7	1.6
9/1/2019 3:00 AM	0.6	0.7	1.6
9/1/2019 4:00 AM	0.6	0.9	1.7
9/1/2019 5:00 AM	0.6	0.8	1.9
9/1/2019 6:00 AM	0.6	0.7	1.8
9/1/2019 7:00 AM	0.6	0.7	1.7
9/1/2019 8:00 AM	0.5	0.8	1.6
9/1/2019 9:00 AM	0.6	0.9	1.8
9/1/2019 10:00 AM	0.7	1	1.8
9/1/2019 11:00 AM	0.7	0.9	1.6
9/1/2019 12:00 PM	0.6	0.8	1.5
9/1/2019 1:00 PM	0.6	0.8	1.4
9/1/2019 2:00 PM	0.6	0.7	1.5
9/1/2019 3:00 PM	0.5	0.7	1.4
9/1/2019 4:00 PM	0.5	0.8	1.4
9/1/2019 5:00 PM	0.4	0.7	1.5
9/1/2019 6:00 PM	0.4	0.7	1.5
9/1/2019 7:00 PM	0.4	0.7	1.4
9/1/2019 8:00 PM	0.4	0.7	1.4
9/1/2019 9:00 PM	0.4	0.6	1.4
9/1/2019 10:00 PM	0.4	0.6	1.4
9/1/2019 11:00 PM	0.4	0.6	1.4
9/2/2019 12:00 AM	0.5	0.6	1.4
9/2/2019 1:00 AM	0.4	0.5	1.3
9/2/2019 2:00 AM	0.5	0.7	1.4
9/2/2019 3:00 AM	0.4	0.8	1.4
9/2/2019 4:00 AM	Precision	Precision	1.4
9/2/2019 5:00 AM	0.4	0.8	1.4
9/2/2019 6:00 AM	0.4	0.8	1.3
9/2/2019 7:00 AM	0.4	0.8	1.4
9/2/2019 8:00 AM	0.4	0.8	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/2/2019 9:00 AM	0.5	0.7	1.4
9/2/2019 10:00 AM	0.5	0.7	1.5
9/2/2019 11:00 AM	0.5	0.9	1.5
9/2/2019 12:00 PM	0.6	0.9	1.6
9/2/2019 1:00 PM	0.6	1	1.6
9/2/2019 2:00 PM	0.6	0.9	1.6
9/2/2019 3:00 PM	0.6	1	1.6
9/2/2019 4:00 PM	0.8	1.4	1.8
9/2/2019 5:00 PM	0.6	0.8	1.7
9/2/2019 6:00 PM	0.5	0.7	1.5
9/2/2019 7:00 PM	0.5	0.7	1.6
9/2/2019 8:00 PM	0.5	0.7	1.5
9/2/2019 9:00 PM	0.4	0.7	1.6
9/2/2019 10:00 PM	0.4	0.6	1.5
9/2/2019 11:00 PM	0.4	0.6	1.4
9/3/2019 12:00 AM	0.4	0.5	1.5
9/3/2019 1:00 AM	0.4	0.5	1.4
9/3/2019 2:00 AM	0.4	0.6	1.5
9/3/2019 3:00 AM	0.4	0.6	1.4
9/3/2019 4:00 AM	0.3	0.7	1.5
9/3/2019 5:00 AM	0.4	0.6	1.4
9/3/2019 6:00 AM	0.4	0.6	1.4
9/3/2019 7:00 AM	0.4	0.6	1.5
9/3/2019 8:00 AM	0.4	0.7	1.5
9/3/2019 9:00 AM	0.5	0.8	1.5
9/3/2019 10:00 AM	0.5	0.7	1.5
9/3/2019 11:00 AM	0.5	0.8	1.5
9/3/2019 12:00 PM	0.5	0.7	1.6
9/3/2019 1:00 PM	0.5	0.7	1.6
9/3/2019 2:00 PM	0.5	0.7	1.6
9/3/2019 3:00 PM	0.5	0.7	1.6
9/3/2019 4:00 PM	0.5	0.8	1.6
9/3/2019 5:00 PM	0.6	0.8	1.5
9/3/2019 6:00 PM	0.5	0.8	1.6
9/3/2019 7:00 PM	0.5	0.7	1.5
9/3/2019 8:00 PM	0.5	0.7	1.5
9/3/2019 9:00 PM	0.4	0.7	1.5
9/3/2019 10:00 PM	0.4	0.7	1.5
9/3/2019 11:00 PM	0.5	0.7	1.4
9/4/2019 12:00 AM	0.4	0.6	1.5
9/4/2019 1:00 AM	0.4	0.6	1.6
9/4/2019 2:00 AM	0.4	0.6	1.5
9/4/2019 3:00 AM	0.4	0.5	1.5
9/4/2019 4:00 AM	0.4	0.6	1.5
9/4/2019 5:00 AM	0.4	0.6	1.5
9/4/2019 6:00 AM	0.4	0.6	1.5
9/4/2019 7:00 AM	0.4	0.7	1.7
9/4/2019 8:00 AM	0.7	0.9	2
9/4/2019 9:00 AM	1	1.4	2.2
9/4/2019 10:00 AM	0.9	1.2	2
9/4/2019 11:00 AM	0.7	0.9	1.7
9/4/2019 12:00 PM	0.6	0.8	1.6
9/4/2019 1:00 PM	0.6	0.8	1.6
9/4/2019 2:00 PM	0.6	0.9	1.6
9/4/2019 3:00 PM	0.7	0.9	1.7
9/4/2019 4:00 PM	0.7	Audit	1.8
9/4/2019 5:00 PM	Audit	1.1	2
9/4/2019 6:00 PM	0.7	0.9	Audit
9/4/2019 7:00 PM	0.6	0.9	1.8
9/4/2019 8:00 PM	0.5	0.9	1.9
9/4/2019 9:00 PM	0.5	0.8	1.7
9/4/2019 10:00 PM	0.4	0.8	1.6
9/4/2019 11:00 PM	0.5	0.8	2
9/5/2019 12:00 AM	0.5	0.7	2
9/5/2019 1:00 AM	0.5	0.7	1.8
9/5/2019 2:00 AM	0.4	0.7	1.5

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/5/2019 3:00 AM	0.4	0.6	1.5
9/5/2019 4:00 AM	0.4	0.6	1.5
9/5/2019 5:00 AM	0.3	0.6	1.5
9/5/2019 6:00 AM	0.4	0.5	1.5
9/5/2019 7:00 AM	0.4	0.5	1.5
9/5/2019 8:00 AM	0.5	0.6	1.4
9/5/2019 9:00 AM	0.5	0.7	1.4
9/5/2019 10:00 AM	0.5	0.8	1.5
9/5/2019 11:00 AM	0.5	0.8	1.5
9/5/2019 12:00 PM	0.5	0.8	1.5
9/5/2019 1:00 PM	0.7	0.9	1.6
9/5/2019 2:00 PM	0.7	0.9	1.6
9/5/2019 3:00 PM	0.6	0.9	1.5
9/5/2019 4:00 PM	0.6	0.9	1.6
9/5/2019 5:00 PM	0.6	0.9	1.5
9/5/2019 6:00 PM	0.5	0.7	1.5
9/5/2019 7:00 PM	0.5	0.6	1.5
9/5/2019 8:00 PM	0.4	0.7	1.5
9/5/2019 9:00 PM	0.4	0.6	1.5
9/5/2019 10:00 PM	0.5	0.7	1.5
9/5/2019 11:00 PM	0.4	0.6	1.5
9/6/2019 12:00 AM	0.3	0.7	1.4
9/6/2019 1:00 AM	0.3	0.6	1.5
9/6/2019 2:00 AM	0.4	0.7	1.5
9/6/2019 3:00 AM	0.4	0.6	1.5
9/6/2019 4:00 AM	0.4	0.6	Precision
9/6/2019 5:00 AM	0.4	0.6	1.4
9/6/2019 6:00 AM	0.4	0.7	1.5
9/6/2019 7:00 AM	0.4	0.5	1.4
9/6/2019 8:00 AM	0.5	0.6	1.4
9/6/2019 9:00 AM	0.4	0.7	1.5
9/6/2019 10:00 AM	0.4	0.7	1.4
9/6/2019 11:00 AM	0.5	0.7	1.5
9/6/2019 12:00 PM	0.5	0.8	1.5
9/6/2019 1:00 PM	0.5	0.8	1.6
9/6/2019 2:00 PM	0.6	0.8	1.8
9/6/2019 3:00 PM	1	1.3	1.7
9/6/2019 4:00 PM	0.7	1	1.8
9/6/2019 5:00 PM	0.8	1.2	2
9/6/2019 6:00 PM	0.8	1.5	1.9
9/6/2019 7:00 PM	0.7	1.3	1.8
9/6/2019 8:00 PM	0.7	1.3	1.9
9/6/2019 9:00 PM	0.7	1.3	1.8
9/6/2019 10:00 PM	0.9	1.2	2.4
9/6/2019 11:00 PM	0.8	1.4	2.2
9/7/2019 12:00 AM	0.7	1.1	2
9/7/2019 1:00 AM	0.5	0.9	2
9/7/2019 2:00 AM	0.4	0.7	1.7
9/7/2019 3:00 AM	0.4	0.7	1.5
9/7/2019 4:00 AM	0.4	0.7	1.5
9/7/2019 5:00 AM	0.4	0.7	1.6
9/7/2019 6:00 AM	0.3	0.7	1.6
9/7/2019 7:00 AM	0.3	0.7	1.6
9/7/2019 8:00 AM	0.6	0.8	1.6
9/7/2019 9:00 AM	0.6	0.9	1.6
9/7/2019 10:00 AM	0.6	0.9	1.6
9/7/2019 11:00 AM	0.6	0.8	1.6
9/7/2019 12:00 PM	0.5	0.7	1.5
9/7/2019 1:00 PM	0.6	0.8	1.6
9/7/2019 2:00 PM	0.7	0.9	1.6
9/7/2019 3:00 PM	0.6	0.7	1.6
9/7/2019 4:00 PM	0.7	0.9	1.5
9/7/2019 5:00 PM	0.6	0.8	1.6
9/7/2019 6:00 PM	0.6	0.8	1.6
9/7/2019 7:00 PM	0.5	0.7	1.6
9/7/2019 8:00 PM	0.5	0.7	1.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/7/2019 9:00 PM	0.5	0.7	1.7
9/7/2019 10:00 PM	0.5	0.7	1.8
9/7/2019 11:00 PM	0.4	0.7	1.7
9/8/2019 12:00 AM	0.4	0.6	1.7
9/8/2019 1:00 AM	0.4	0.5	1.6
9/8/2019 2:00 AM	0.4	0.6	1.5
9/8/2019 3:00 AM	0.3	0.5	1.5
9/8/2019 4:00 AM	0.4	0.5	1.5
9/8/2019 5:00 AM	0.3	0.5	1.6
9/8/2019 6:00 AM	0.4	0.5	1.5
9/8/2019 7:00 AM	0.3	0.6	1.5
9/8/2019 8:00 AM	0.4	0.6	1.6
9/8/2019 9:00 AM	0.6	0.8	1.5
9/8/2019 10:00 AM	0.7	1.1	1.5
9/8/2019 11:00 AM	0.7	1	1.6
9/8/2019 12:00 PM	0.8	1	1.8
9/8/2019 1:00 PM	0.8	1	1.7
9/8/2019 2:00 PM	0.7	1	1.7
9/8/2019 3:00 PM	0.6	0.9	1.7
9/8/2019 4:00 PM	0.6	0.9	1.6
9/8/2019 5:00 PM	0.7	0.9	1.7
9/8/2019 6:00 PM	0.6	0.9	1.8
9/8/2019 7:00 PM	0.6	0.9	1.6
9/8/2019 8:00 PM	0.5	0.9	1.6
9/8/2019 9:00 PM	0.5	0.7	1.6
9/8/2019 10:00 PM	0.5	0.8	1.6
9/8/2019 11:00 PM	0.4	0.8	1.6
9/9/2019 12:00 AM	0.5	0.8	1.6
9/9/2019 1:00 AM	0.4	0.7	1.6
9/9/2019 2:00 AM	0.4	0.7	1.5
9/9/2019 3:00 AM	0.4	0.6	1.5
9/9/2019 4:00 AM	Precision	Precision	1.5
9/9/2019 5:00 AM	0.4	0.7	1.7
9/9/2019 6:00 AM	0.4	0.6	1.9
9/9/2019 7:00 AM	0.4	0.7	1.7
9/9/2019 8:00 AM	0.7	0.8	2.3
9/9/2019 9:00 AM	0.8	1.1	2.3
9/9/2019 10:00 AM	1.1	1.2	2.2
9/9/2019 11:00 AM	1	1.2	2
9/9/2019 12:00 PM	0.9	1.3	2
9/9/2019 1:00 PM	0.8	1.1	1.9
9/9/2019 2:00 PM	0.9	1.1	1.9
9/9/2019 3:00 PM	0.8	1	1.9
9/9/2019 4:00 PM	0.8	1	1.8
9/9/2019 5:00 PM	0.8	1.2	1.9
9/9/2019 6:00 PM	0.8	1.2	2
9/9/2019 7:00 PM	0.6	0.9	2
9/9/2019 8:00 PM	0.5	0.8	1.9
9/9/2019 9:00 PM	0.4	0.7	1.7
9/9/2019 10:00 PM	0.5	0.7	1.7
9/9/2019 11:00 PM	0.4	0.6	1.6
9/10/2019 12:00 AM	0.4	0.6	1.6
9/10/2019 1:00 AM	0.4	0.6	1.5
9/10/2019 2:00 AM	0.4	0.5	1.5
9/10/2019 3:00 AM	0.4	0.6	1.4
9/10/2019 4:00 AM	0.4	0.6	1.5
9/10/2019 5:00 AM	0.4	0.5	1.5
9/10/2019 6:00 AM	0.3	0.6	1.5
9/10/2019 7:00 AM	0.4	0.5	1.5
9/10/2019 8:00 AM	0.4	0.6	1.5
9/10/2019 9:00 AM	0.6	0.8	1.5
9/10/2019 10:00 AM	0.6	0.9	1.7
9/10/2019 11:00 AM	0.7	0.9	1.9
9/10/2019 12:00 PM	0.8	0.9	1.8
9/10/2019 1:00 PM	0.8	1	1.9
9/10/2019 2:00 PM	0.8	1	1.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/10/2019 3:00 PM	0.7	1	1.8
9/10/2019 4:00 PM	0.7	0.8	1.8
9/10/2019 5:00 PM	0.7	0.8	1.7
9/10/2019 6:00 PM	0.7	0.8	1.7
9/10/2019 7:00 PM	0.6	0.8	1.6
9/10/2019 8:00 PM	0.5	0.8	1.6
9/10/2019 9:00 PM	0.5	0.7	1.6
9/10/2019 10:00 PM	0.4	0.7	1.5
9/10/2019 11:00 PM	0.4	0.7	1.5
9/11/2019 12:00 AM	0.4	0.6	1.5
9/11/2019 1:00 AM	0.4	0.6	1.6
9/11/2019 2:00 AM	0.5	0.7	1.5
9/11/2019 3:00 AM	0.4	0.6	1.6
9/11/2019 4:00 AM	0.4	0.6	1.6
9/11/2019 5:00 AM	0.5	0.6	1.6
9/11/2019 6:00 AM	0.4	0.5	1.6
9/11/2019 7:00 AM	0.4	0.6	1.5
9/11/2019 8:00 AM	0.5	0.7	1.6
9/11/2019 9:00 AM	0.5	0.8	1.7
9/11/2019 10:00 AM	0.9	1.1	2.1
9/11/2019 11:00 AM	1.2	1.4	2.3
9/11/2019 12:00 PM	0.9	1.1	1.9
9/11/2019 1:00 PM	0.9	1.1	2.1
9/11/2019 2:00 PM	0.7	0.9	1.9
9/11/2019 3:00 PM	0.7	0.9	1.8
9/11/2019 4:00 PM	0.7	1.1	2
9/11/2019 5:00 PM	0.8	1.1	2
9/11/2019 6:00 PM	0.8	1	2
9/11/2019 7:00 PM	0.7	0.8	2.1
9/11/2019 8:00 PM	0.6	0.8	2.1
9/11/2019 9:00 PM	0.7	0.8	1.8
9/11/2019 10:00 PM	0.7	0.9	1.7
9/11/2019 11:00 PM	0.6	0.9	1.9
9/12/2019 12:00 AM	0.5	0.8	1.9
9/12/2019 1:00 AM	0.5	0.8	2
9/12/2019 2:00 AM	0.5	0.9	2
9/12/2019 3:00 AM	0.5	0.9	2.1
9/12/2019 4:00 AM	0.5	1	2.4
9/12/2019 5:00 AM	0.7	1.2	2.5
9/12/2019 6:00 AM	0.9	1.3	2.6
9/12/2019 7:00 AM	1	1.4	2.1
9/12/2019 8:00 AM	1.1	1.3	1.9
9/12/2019 9:00 AM	0.9	1.1	1.9
9/12/2019 10:00 AM	0.8	1.1	1.8
9/12/2019 11:00 AM	0.8	1	1.8
9/12/2019 12:00 PM	0.8	1	1.8
9/12/2019 1:00 PM	0.8	1	1.9
9/12/2019 2:00 PM	0.7	0.9	2
9/12/2019 3:00 PM	0.7	0.8	1.8
9/12/2019 4:00 PM	0.7	0.9	1.8
9/12/2019 5:00 PM	0.7	1	1.7
9/12/2019 6:00 PM	0.7	0.9	1.7
9/12/2019 7:00 PM	0.6	0.9	1.7
9/12/2019 8:00 PM	0.6	0.8	1.7
9/12/2019 9:00 PM	0.6	0.8	1.6
9/12/2019 10:00 PM	0.5	0.9	1.6
9/12/2019 11:00 PM	0.6	0.9	1.6
9/13/2019 12:00 AM	0.5	0.9	1.7
9/13/2019 1:00 AM	0.5	0.9	1.6
9/13/2019 2:00 AM	0.5	0.9	1.6
9/13/2019 3:00 AM	0.5	0.9	1.5
9/13/2019 4:00 AM	0.4	0.8	Precision
9/13/2019 5:00 AM	0.4	0.8	1.5
9/13/2019 6:00 AM	0.4	0.8	1.5
9/13/2019 7:00 AM	0.4	0.8	1.5
9/13/2019 8:00 AM	0.4	0.7	1.5

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/13/2019 9:00 AM	0.4	0.9	1.5
9/13/2019 10:00 AM	0.4	0.8	1.5
9/13/2019 11:00 AM	0.4	0.8	1.5
9/13/2019 12:00 PM	0.4	0.7	1.5
9/13/2019 1:00 PM	0.4	0.8	1.5
9/13/2019 2:00 PM	0.4	0.8	1.5
9/13/2019 3:00 PM	0.4	0.8	1.5
9/13/2019 4:00 PM	0.4	0.8	1.5
9/13/2019 5:00 PM	0.4	0.7	1.5
9/13/2019 6:00 PM	0.4	0.7	1.5
9/13/2019 7:00 PM	0.4	0.8	1.5
9/13/2019 8:00 PM	0.4	0.7	1.5
9/13/2019 9:00 PM	0.4	0.7	1.5
9/13/2019 10:00 PM	0.4	0.7	1.4
9/13/2019 11:00 PM	0.4	0.7	1.5
9/14/2019 12:00 AM	0.4	0.7	1.4
9/14/2019 1:00 AM	0.4	0.7	1.4
9/14/2019 2:00 AM	0.4	0.7	1.5
9/14/2019 3:00 AM	0.4	0.7	1.5
9/14/2019 4:00 AM	0.4	0.7	1.5
9/14/2019 5:00 AM	0.4	0.8	1.5
9/14/2019 6:00 AM	0.4	0.7	1.5
9/14/2019 7:00 AM	0.4	0.7	1.5
9/14/2019 8:00 AM	0.5	0.8	1.5
9/14/2019 9:00 AM	0.4	0.7	1.5
9/14/2019 10:00 AM	0.5	0.9	1.5
9/14/2019 11:00 AM	0.4	0.9	1.5
9/14/2019 12:00 PM	0.4	0.8	1.5
9/14/2019 1:00 PM	0.5	0.9	1.6
9/14/2019 2:00 PM	0.5	0.8	1.6
9/14/2019 3:00 PM	0.5	0.9	1.6
9/14/2019 4:00 PM	0.6	0.9	1.6
9/14/2019 5:00 PM	0.7	0.9	1.8
9/14/2019 6:00 PM	0.6	1	1.8
9/14/2019 7:00 PM	0.5	0.8	2.2
9/14/2019 8:00 PM	0.5	0.7	2.1
9/14/2019 9:00 PM	0.5	0.8	1.8
9/14/2019 10:00 PM	0.5	0.8	1.7
9/14/2019 11:00 PM	0.4	0.8	1.6
9/15/2019 12:00 AM	0.4	0.7	1.6
9/15/2019 1:00 AM	0.3	0.6	1.6
9/15/2019 2:00 AM	0.4	0.6	1.6
9/15/2019 3:00 AM	0.3	0.6	1.6
9/15/2019 4:00 AM	0.3	0.7	1.6
9/15/2019 5:00 AM	0.4	0.7	1.7
9/15/2019 6:00 AM	0.3	0.7	1.6
9/15/2019 7:00 AM	0.3	0.6	1.7
9/15/2019 8:00 AM	0.3	0.7	1.7
9/15/2019 9:00 AM	0.5	0.8	1.6
9/15/2019 10:00 AM	0.5	0.9	1.6
9/15/2019 11:00 AM	0.5	0.9	1.6
9/15/2019 12:00 PM	0.6	0.9	1.7
9/15/2019 1:00 PM	0.6	0.9	1.7
9/15/2019 2:00 PM	0.6	1	1.7
9/15/2019 3:00 PM	0.6	1	1.7
9/15/2019 4:00 PM	0.6	0.9	1.7
9/15/2019 5:00 PM	0.6	1	1.7
9/15/2019 6:00 PM	0.5	1.1	1.7
9/15/2019 7:00 PM	0.5	1	1.7
9/15/2019 8:00 PM	0.4	1	1.7
9/15/2019 9:00 PM	0.4	1	1.7
9/15/2019 10:00 PM	0.5	0.9	1.7
9/15/2019 11:00 PM	0.5	0.9	1.6
9/16/2019 12:00 AM	0.4	0.7	1.6
9/16/2019 1:00 AM	0.4	0.7	1.6
9/16/2019 2:00 AM	0.4	0.7	1.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/16/2019 3:00 AM	0.4	0.8	1.6
9/16/2019 4:00 AM	Precision	Precision	1.5
9/16/2019 5:00 AM	0.4	0.7	1.6
9/16/2019 6:00 AM	0.4	0.8	1.6
9/16/2019 7:00 AM	0.3	0.8	1.6
9/16/2019 8:00 AM	0.4	0.9	1.6
9/16/2019 9:00 AM	0.5	0.9	1.8
9/16/2019 10:00 AM	1	1.3	2.5
9/16/2019 11:00 AM	1.2	1.5	2.4
9/16/2019 12:00 PM	1.1	1.4	2.4
9/16/2019 1:00 PM	1.2	1.5	2.4
9/16/2019 2:00 PM	1.4	1.6	2.6
9/16/2019 3:00 PM	1.3	1.6	2.5
9/16/2019 4:00 PM	1.3	1.6	2.8
9/16/2019 5:00 PM	1.2	1.5	2.5
9/16/2019 6:00 PM	1.2	1.4	2.5
9/16/2019 7:00 PM	1.1	1.2	2.4
9/16/2019 8:00 PM	0.8	1.1	2.3
9/16/2019 9:00 PM	0.7	1	2.1
9/16/2019 10:00 PM	0.6	0.9	1.9
9/16/2019 11:00 PM	0.6	0.8	2
9/17/2019 12:00 AM	0.5	0.8	1.9
9/17/2019 1:00 AM	0.5	0.8	1.8
9/17/2019 2:00 AM	0.5	0.8	1.7
9/17/2019 3:00 AM	0.4	0.7	1.6
9/17/2019 4:00 AM	0.5	0.7	1.6
9/17/2019 5:00 AM	0.5	0.7	1.7
9/17/2019 6:00 AM	0.4	0.7	1.6
9/17/2019 7:00 AM	0.5	0.8	1.6
9/17/2019 8:00 AM	0.4	0.8	1.6
9/17/2019 9:00 AM	0.5	0.9	1.7
9/17/2019 10:00 AM	0.6	0.9	1.8
9/17/2019 11:00 AM	0.6	1	1.7
9/17/2019 12:00 PM	0.7	1.1	1.7
9/17/2019 1:00 PM	0.6	1	1.6
9/17/2019 2:00 PM	0.6	0.9	1.6
9/17/2019 3:00 PM	0.6	0.9	1.6
9/17/2019 4:00 PM	0.5	0.9	1.6
9/17/2019 5:00 PM	0.6	0.7	1.6
9/17/2019 6:00 PM	0.5	1	1.6
9/17/2019 7:00 PM	0.5	0.7	1.6
9/17/2019 8:00 PM	0.5	1	1.9
9/17/2019 9:00 PM	0.4	0.9	1.8
9/17/2019 10:00 PM	0.6	0.8	1.7
9/17/2019 11:00 PM	0.5	0.8	1.8
9/18/2019 12:00 AM	0.4	0.7	1.7
9/18/2019 1:00 AM	0.4	0.7	1.6
9/18/2019 2:00 AM	0.3	0.7	1.6
9/18/2019 3:00 AM	0.3	0.7	1.6
9/18/2019 4:00 AM	0.3	0.6	1.6
9/18/2019 5:00 AM	0.4	0.7	1.6
9/18/2019 6:00 AM	0.2	0.6	1.6
9/18/2019 7:00 AM	0.3	0.6	1.5
9/18/2019 8:00 AM	0.3	0.7	1.6
9/18/2019 9:00 AM	0.4	0.7	1.6
9/18/2019 10:00 AM	0.5	0.9	1.7
9/18/2019 11:00 AM	0.5	1	1.7
9/18/2019 12:00 PM	0.5	0.9	1.7
9/18/2019 1:00 PM	0.5	0.9	1.6
9/18/2019 2:00 PM	0.5	0.9	1.6
9/18/2019 3:00 PM	0.6	0.9	1.7
9/18/2019 4:00 PM	0.6	0.9	1.7
9/18/2019 5:00 PM	0.6	0.9	1.7
9/18/2019 6:00 PM	0.7	0.9	1.7
9/18/2019 7:00 PM	0.6	0.9	1.7
9/18/2019 8:00 PM	0.5	0.9	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/18/2019 9:00 PM	0.6	1	1.7
9/18/2019 10:00 PM	0.5	0.9	1.7
9/18/2019 11:00 PM	0.4	0.9	1.7
9/19/2019 12:00 AM	0.4	0.7	1.7
9/19/2019 1:00 AM	0.4	0.7	1.7
9/19/2019 2:00 AM	0.3	0.7	1.7
9/19/2019 3:00 AM	0.3	0.6	1.7
9/19/2019 4:00 AM	0.3	0.6	1.8
9/19/2019 5:00 AM	0.3	0.6	1.9
9/19/2019 6:00 AM	0.3	0.5	1.6
9/19/2019 7:00 AM	0.3	0.6	1.7
9/19/2019 8:00 AM	0.4	0.7	1.7
9/19/2019 9:00 AM	0.5	0.8	1.7
9/19/2019 10:00 AM	0.5	0.8	1.6
9/19/2019 11:00 AM	0.4	0.8	1.6
9/19/2019 12:00 PM	0.5	0.8	1.6
9/19/2019 1:00 PM	0.5	0.8	1.6
9/19/2019 2:00 PM	0.6	0.8	1.6
9/19/2019 3:00 PM	0.6	0.8	1.6
9/19/2019 4:00 PM	0.5	0.8	1.7
9/19/2019 5:00 PM	0.6	0.8	1.6
9/19/2019 6:00 PM	0.5	0.8	1.6
9/19/2019 7:00 PM	0.6	0.8	1.6
9/19/2019 8:00 PM	0.5	0.8	1.7
9/19/2019 9:00 PM	0.4	0.7	1.7
9/19/2019 10:00 PM	0.4	0.7	1.6
9/19/2019 11:00 PM	0.5	0.7	1.6
9/20/2019 12:00 AM	0.4	0.6	1.6
9/20/2019 1:00 AM	0.3	0.6	1.6
9/20/2019 2:00 AM	0.3	0.6	1.5
9/20/2019 3:00 AM	0.2	0.6	1.6
9/20/2019 4:00 AM	0.3	0.6	Precision
9/20/2019 5:00 AM	0.3	0.6	1.6
9/20/2019 6:00 AM	0.3	0.6	1.5
9/20/2019 7:00 AM	0.2	0.6	1.5
9/20/2019 8:00 AM	0.4	0.7	1.6
9/20/2019 9:00 AM	0.4	0.8	1.7
9/20/2019 10:00 AM	0.5	0.8	1.7
9/20/2019 11:00 AM	0.5	0.9	1.8
9/20/2019 12:00 PM	0.6	0.9	1.8
9/20/2019 1:00 PM	0.7	1.1	1.8
9/20/2019 2:00 PM	0.7	1.1	1.9
9/20/2019 3:00 PM	0.7	1	1.8
9/20/2019 4:00 PM	0.7	1	1.8
9/20/2019 5:00 PM	0.7	0.9	1.9
9/20/2019 6:00 PM	0.6	0.9	1.8
9/20/2019 7:00 PM	0.6	0.9	1.8
9/20/2019 8:00 PM	0.6	0.8	1.7
9/20/2019 9:00 PM	0.5	0.8	1.7
9/20/2019 10:00 PM	0.5	0.8	1.7
9/20/2019 11:00 PM	0.5	0.7	1.7
9/21/2019 12:00 AM	0.5	0.8	1.6
9/21/2019 1:00 AM	0.5	0.8	1.6
9/21/2019 2:00 AM	0.5	0.8	1.6
9/21/2019 3:00 AM	0.4	0.8	1.7
9/21/2019 4:00 AM	0.4	0.8	1.6
9/21/2019 5:00 AM	0.4	0.8	1.7
9/21/2019 6:00 AM	0.4	0.7	1.6
9/21/2019 7:00 AM	0.5	0.8	1.6
9/21/2019 8:00 AM	0.5	0.8	1.7
9/21/2019 9:00 AM	0.6	0.9	2.1
9/21/2019 10:00 AM	1.2	1.4	2.2
9/21/2019 11:00 AM	1.1	1.3	2
9/21/2019 12:00 PM	0.9	1.2	2
9/21/2019 1:00 PM	0.9	1.3	1.9
9/21/2019 2:00 PM	0.9	1.2	1.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/21/2019 3:00 PM	0.8	1	1.9
9/21/2019 4:00 PM	0.8	1.1	2
9/21/2019 5:00 PM	0.9	1.2	2.1
9/21/2019 6:00 PM	0.9	1.1	2.2
9/21/2019 7:00 PM	0.7	1	2.1
9/21/2019 8:00 PM	0.7	1	1.9
9/21/2019 9:00 PM	0.7	0.9	2
9/21/2019 10:00 PM	0.6	0.9	2.2
9/21/2019 11:00 PM	0.6	0.8	2
9/22/2019 12:00 AM	0.5	0.8	1.8
9/22/2019 1:00 AM	0.5	0.7	1.7
9/22/2019 2:00 AM	0.5	0.7	1.7
9/22/2019 3:00 AM	0.6	0.7	1.7
9/22/2019 4:00 AM	0.5	0.7	1.6
9/22/2019 5:00 AM	0.6	0.7	1.6
9/22/2019 6:00 AM	0.5	0.8	1.6
9/22/2019 7:00 AM	0.5	0.7	1.7
9/22/2019 8:00 AM	0.6	0.8	1.7
9/22/2019 9:00 AM	0.6	0.9	1.7
9/22/2019 10:00 AM	0.6	1	1.7
9/22/2019 11:00 AM	0.6	1	1.8
9/22/2019 12:00 PM	0.7	0.9	1.8
9/22/2019 1:00 PM	0.7	1	1.9
9/22/2019 2:00 PM	0.8	1.1	1.9
9/22/2019 3:00 PM	0.9	1.2	2
9/22/2019 4:00 PM	1.1	1.3	2.2
9/22/2019 5:00 PM	0.9	1.3	1.9
9/22/2019 6:00 PM	0.7	1.1	1.8
9/22/2019 7:00 PM	0.7	1	1.8
9/22/2019 8:00 PM	0.6	1	1.7
9/22/2019 9:00 PM	0.6	1	1.7
9/22/2019 10:00 PM	0.6	0.9	1.7
9/22/2019 11:00 PM	0.5	0.9	1.6
9/23/2019 12:00 AM	0.5	0.8	1.7
9/23/2019 1:00 AM	0.5	0.8	1.7
9/23/2019 2:00 AM	0.5	0.8	1.9
9/23/2019 3:00 AM	0.5	0.9	1.8
9/23/2019 4:00 AM	Precision	Precision	1.6
9/23/2019 5:00 AM	0.5	0.9	1.8
9/23/2019 6:00 AM	0.5	0.8	1.8
9/23/2019 7:00 AM	0.6	0.9	1.7
9/23/2019 8:00 AM	0.7	0.9	1.7
9/23/2019 9:00 AM	0.6	1	1.8
9/23/2019 10:00 AM	0.6	1	1.8
9/23/2019 11:00 AM	0.7	1	1.7
9/23/2019 12:00 PM	0.6	1	1.7
9/23/2019 1:00 PM	0.5	0.9	1.7
9/23/2019 2:00 PM	0.5	0.8	1.6
9/23/2019 3:00 PM	0.5	0.8	1.6
9/23/2019 4:00 PM	0.5	0.8	1.7
9/23/2019 5:00 PM	0.5	0.8	1.6
9/23/2019 6:00 PM	0.5	0.8	1.7
9/23/2019 7:00 PM	0.5	0.8	1.6
9/23/2019 8:00 PM	0.5	0.8	1.6
9/23/2019 9:00 PM	0.5	0.8	1.6
9/23/2019 10:00 PM	0.5	0.8	1.7
9/23/2019 11:00 PM	0.5	1	1.8
9/24/2019 12:00 AM	0.6	0.9	1.9
9/24/2019 1:00 AM	0.6	0.8	1.7
9/24/2019 2:00 AM	0.6	0.8	1.8
9/24/2019 3:00 AM	0.6	0.9	1.7
9/24/2019 4:00 AM	0.6	0.8	1.7
9/24/2019 5:00 AM	0.6	0.9	1.8
9/24/2019 6:00 AM	0.6	0.8	1.8
9/24/2019 7:00 AM	0.6	0.8	1.9
9/24/2019 8:00 AM	0.6	0.8	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/24/2019 9:00 AM	0.5	0.8	1.7
9/24/2019 10:00 AM	0.5	0.9	1.7
9/24/2019 11:00 AM	0.5	0.9	1.6
9/24/2019 12:00 PM	0.5	0.9	1.6
9/24/2019 1:00 PM	0.6	0.9	1.7
9/24/2019 2:00 PM	0.6	0.9	1.6
9/24/2019 3:00 PM	0.6	0.9	1.7
9/24/2019 4:00 PM	0.7	0.9	1.7
9/24/2019 5:00 PM	0.6	0.9	1.7
9/24/2019 6:00 PM	0.6	0.9	1.7
9/24/2019 7:00 PM	0.6	0.9	1.7
9/24/2019 8:00 PM	0.5	0.9	1.7
9/24/2019 9:00 PM	0.5	0.8	1.7
9/24/2019 10:00 PM	0.4	0.7	1.7
9/24/2019 11:00 PM	0.4	0.7	1.8
9/25/2019 12:00 AM	0.4	0.7	1.7
9/25/2019 1:00 AM	0.4	0.7	1.7
9/25/2019 2:00 AM	0.3	0.6	1.7
9/25/2019 3:00 AM	0.3	0.6	1.6
9/25/2019 4:00 AM	0.3	0.6	1.7
9/25/2019 5:00 AM	0.4	0.7	1.7
9/25/2019 6:00 AM	0.3	0.6	1.7
9/25/2019 7:00 AM	0.3	0.6	1.8
9/25/2019 8:00 AM	0.4	0.7	1.9
9/25/2019 9:00 AM	0.5	0.8	1.9
9/25/2019 10:00 AM	0.9	1.3	2.1
9/25/2019 11:00 AM	1.1	1.4	2.2
9/25/2019 12:00 PM	1	1.3	2.2
9/25/2019 1:00 PM	1	1.3	2.4
9/25/2019 2:00 PM	1	1.2	2.1
9/25/2019 3:00 PM	0.9	1.1	1.9
9/25/2019 4:00 PM	0.7	1	1.9
9/25/2019 5:00 PM	0.7	0.9	1.9
9/25/2019 6:00 PM	0.7	0.9	1.9
9/25/2019 7:00 PM	0.7	0.9	1.8
9/25/2019 8:00 PM	0.6	0.8	1.8
9/25/2019 9:00 PM	0.6	0.8	1.7
9/25/2019 10:00 PM	0.6	0.8	1.8
9/25/2019 11:00 PM	0.6	0.8	1.8
9/26/2019 12:00 AM	0.5	0.7	1.7
9/26/2019 1:00 AM	0.5	0.7	1.8
9/26/2019 2:00 AM	0.5	0.7	1.9
9/26/2019 3:00 AM	0.4	0.7	1.8
9/26/2019 4:00 AM	0.4	0.7	1.7
9/26/2019 5:00 AM	0.6	0.7	1.8
9/26/2019 6:00 AM	0.5	0.6	1.7
9/26/2019 7:00 AM	0.4	0.7	1.7
9/26/2019 8:00 AM	0.5	0.7	1.9
9/26/2019 9:00 AM	0.6	0.9	1.9
9/26/2019 10:00 AM	0.8	0.9	1.8
9/26/2019 11:00 AM	0.8	1	1.8
9/26/2019 12:00 PM	1.1	1.2	2
9/26/2019 1:00 PM	1	1.1	1.9
9/26/2019 2:00 PM	0.9	1	1.8
9/26/2019 3:00 PM	0.9	1.1	1.8
9/26/2019 4:00 PM	1	1.2	1.9
9/26/2019 5:00 PM	1	1.2	1.8
9/26/2019 6:00 PM	1.1	1.1	1.9
9/26/2019 7:00 PM	0.8	1	1.9
9/26/2019 8:00 PM	0.8	0.9	1.8
9/26/2019 9:00 PM	0.7	0.9	1.8
9/26/2019 10:00 PM	0.6	0.7	1.8
9/26/2019 11:00 PM	0.5	0.7	1.8
9/27/2019 12:00 AM	0.5	0.7	1.8
9/27/2019 1:00 AM	0.4	0.7	1.8
9/27/2019 2:00 AM	0.4	0.7	1.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/27/2019 3:00 AM	0.4	0.6	1.6
9/27/2019 4:00 AM	0.4	0.6	Precision
9/27/2019 5:00 AM	0.7	0.6	1.6
9/27/2019 6:00 AM	0.4	0.5	1.6
9/27/2019 7:00 AM	0.4	0.6	1.7
9/27/2019 8:00 AM	0.4	0.7	1.8
9/27/2019 9:00 AM	0.7	0.9	1.8
9/27/2019 10:00 AM	0.9	1.2	2
9/27/2019 11:00 AM	0.9	1.1	1.9
9/27/2019 12:00 PM	1	1.1	2
9/27/2019 1:00 PM	1	1.2	2
9/27/2019 2:00 PM	1	1.1	2
9/27/2019 3:00 PM	1	1.1	2
9/27/2019 4:00 PM	0.9	1.1	1.9
9/27/2019 5:00 PM	0.8	1	1.9
9/27/2019 6:00 PM	0.8	0.9	1.8
9/27/2019 7:00 PM	0.8	0.9	1.8
9/27/2019 8:00 PM	0.7	0.9	1.8
9/27/2019 9:00 PM	0.7	0.9	1.8
9/27/2019 10:00 PM	0.6	0.9	1.8
9/27/2019 11:00 PM	0.6	0.8	1.8
9/28/2019 12:00 AM	0.6	0.8	1.7
9/28/2019 1:00 AM	0.6	0.7	1.7
9/28/2019 2:00 AM	0.6	0.7	1.7
9/28/2019 3:00 AM	0.6	0.8	1.6
9/28/2019 4:00 AM	0.5	0.7	1.7
9/28/2019 5:00 AM	0.8	0.7	1.8
9/28/2019 6:00 AM	0.6	0.8	1.7
9/28/2019 7:00 AM	0.5	0.7	1.7
9/28/2019 8:00 AM	0.5	0.8	1.7
9/28/2019 9:00 AM	0.6	0.8	1.7
9/28/2019 10:00 AM	0.7	0.9	1.8
9/28/2019 11:00 AM	0.8	1	1.8
9/28/2019 12:00 PM	0.9	1	1.9
9/28/2019 1:00 PM	0.8	1	1.8
9/28/2019 2:00 PM	0.8	0.9	1.8
9/28/2019 3:00 PM	0.8	0.9	1.8
9/28/2019 4:00 PM	0.7	0.9	1.8
9/28/2019 5:00 PM	0.7	0.9	1.8
9/28/2019 6:00 PM	0.7	1	1.8
9/28/2019 7:00 PM	0.7	0.9	1.8
9/28/2019 8:00 PM	0.7	1	1.8
9/28/2019 9:00 PM	0.7	0.9	1.8
9/28/2019 10:00 PM	0.7	1	1.8
9/28/2019 11:00 PM	0.7	0.9	1.7
9/29/2019 12:00 AM	0.7	0.9	1.7
9/29/2019 1:00 AM	0.6	0.8	1.7
9/29/2019 2:00 AM	0.7	0.8	1.7
9/29/2019 3:00 AM	0.7	0.7	1.7
9/29/2019 4:00 AM	0.6	0.8	1.7
9/29/2019 5:00 AM	1	0.8	1.7
9/29/2019 6:00 AM	0.6	0.8	1.7
9/29/2019 7:00 AM	0.6	0.8	1.6
9/29/2019 8:00 AM	0.7	0.9	1.6
9/29/2019 9:00 AM	0.7	1	1.7
9/29/2019 10:00 AM	0.8	1	1.9
9/29/2019 11:00 AM	0.8	0.9	1.9
9/29/2019 12:00 PM	0.8	1	1.8
9/29/2019 1:00 PM	0.9	1.1	2
9/29/2019 2:00 PM	0.9	1	1.9
9/29/2019 3:00 PM	0.8	1	1.9
9/29/2019 4:00 PM	1	1.1	1.9
9/29/2019 5:00 PM	0.8	1	1.9
9/29/2019 6:00 PM	0.7	0.9	1.7
9/29/2019 7:00 PM	0.7	1	1.9
9/29/2019 8:00 PM	0.7	1	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
9/29/2019 9:00 PM	0.7	1	1.8
9/29/2019 10:00 PM	0.7	1	1.7
9/29/2019 11:00 PM	0.7	0.9	1.7
9/30/2019 12:00 AM	0.7	0.9	1.8
9/30/2019 1:00 AM	0.6	0.8	1.9
9/30/2019 2:00 AM	0.6	0.8	1.8
9/30/2019 3:00 AM	0.6	0.9	2
9/30/2019 4:00 AM	Precision	Precision	1.9
9/30/2019 5:00 AM	0.7	1	1.7
9/30/2019 6:00 AM	0.5	0.9	1.7
9/30/2019 7:00 AM	0.5	0.8	1.6
9/30/2019 8:00 AM	0.5	0.8	1.6
9/30/2019 9:00 AM	0.6	0.8	1.6
9/30/2019 10:00 AM	0.5	0.8	1.7
9/30/2019 11:00 AM	0.5	0.8	1.6
9/30/2019 12:00 PM	0.6	0.8	1.7
9/30/2019 1:00 PM	0.6	0.8	1.7
9/30/2019 2:00 PM	0.6	0.8	1.7
9/30/2019 3:00 PM	0.6	0.9	1.7
9/30/2019 4:00 PM	0.6	0.9	1.7
9/30/2019 5:00 PM	0.6	0.9	1.7
9/30/2019 6:00 PM	0.5	0.9	1.7
9/30/2019 7:00 PM	0.5	0.8	1.7
9/30/2019 8:00 PM	0.5	0.8	1.7
9/30/2019 9:00 PM	0.5	0.8	1.7
9/30/2019 10:00 PM	0.5	0.8	1.6
9/30/2019 11:00 PM	0.5	0.7	1.6
10/1/2019 12:00 AM	0.6	0.8	1.6
10/1/2019 1:00 AM	0.5	0.8	1.7
10/1/2019 2:00 AM	0.6	0.8	1.6
10/1/2019 3:00 AM	0.6	0.8	1.6
10/1/2019 4:00 AM	0.5	0.8	1.6
10/1/2019 5:00 AM	1.3	0.8	1.7
10/1/2019 6:00 AM	0.6	0.8	1.6
10/1/2019 7:00 AM	0.6	0.8	1.7
10/1/2019 8:00 AM	0.8	0.9	1.7
10/1/2019 9:00 AM	0.9	1	1.7
10/1/2019 10:00 AM	1	0.9	1.9
10/1/2019 11:00 AM	1	1	2.2
10/1/2019 12:00 PM	1.3	1.1	2.1
10/1/2019 1:00 PM	1.3	1.2	2
10/1/2019 2:00 PM	1.2	1.1	1.8
10/1/2019 3:00 PM	1.1	1.1	2
10/1/2019 4:00 PM	1.4	1.3	2
10/1/2019 5:00 PM	1.6	1.6	2.4
10/1/2019 6:00 PM	1.3	1.5	2.2
10/1/2019 7:00 PM	1	1.1	2.1
10/1/2019 8:00 PM	0.9	1	2
10/1/2019 9:00 PM	0.9	0.9	2
10/1/2019 10:00 PM	0.8	0.9	2
10/1/2019 11:00 PM	0.8	0.8	1.9
10/2/2019 12:00 AM	0.8	0.8	1.9
10/2/2019 1:00 AM	0.8	0.8	1.9
10/2/2019 2:00 AM	0.8	0.8	2.2
10/2/2019 3:00 AM	0.8	0.8	2.2
10/2/2019 4:00 AM	0.8	0.7	2.3
10/2/2019 5:00 AM	0.8	0.8	2.1
10/2/2019 6:00 AM	0.8	0.8	2.5
10/2/2019 7:00 AM	0.8	1.1	2.7
10/2/2019 8:00 AM	1.2	1.5	2.5
10/2/2019 9:00 AM	1.2	1.4	2.1
10/2/2019 10:00 AM	1.2	1.3	2.3
10/2/2019 11:00 AM	2.1	2.1	3.8
10/2/2019 12:00 PM	2.7	3.4	4.6
10/2/2019 1:00 PM	1.9	1.8	2.6
10/2/2019 2:00 PM	1.4	1.5	2.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/2/2019 3:00 PM	1.4	1.4	2.6
10/2/2019 4:00 PM	1.5	1.5	2.5
10/2/2019 5:00 PM	1.3	1.4	2.5
10/2/2019 6:00 PM	1.4	1.4	2.5
10/2/2019 7:00 PM	1.2	1.3	2.3
10/2/2019 8:00 PM	1.1	1.2	2
10/2/2019 9:00 PM	1	1.2	2
10/2/2019 10:00 PM	1	1.2	2.2
10/2/2019 11:00 PM	0.9	1	2.9
10/3/2019 12:00 AM	0.9	1	4.6
10/3/2019 1:00 AM	0.9	1	4.1
10/3/2019 2:00 AM	0.9	1	3.1
10/3/2019 3:00 AM	0.9	1	2.8
10/3/2019 4:00 AM	0.8	0.8	3.1
10/3/2019 5:00 AM	0.9	0.9	3.4
10/3/2019 6:00 AM	0.8	0.9	3.4
10/3/2019 7:00 AM	0.9	1	3.2
10/3/2019 8:00 AM	1.2	1.3	2.6
10/3/2019 9:00 AM	1.4	1.4	2.5
10/3/2019 10:00 AM	1.5	1.4	2.5
10/3/2019 11:00 AM	1.4	1.4	2.3
10/3/2019 12:00 PM	1.2	1.3	2
10/3/2019 1:00 PM	1.3	1.2	2.2
10/3/2019 2:00 PM	1.6	1.5	2.4
10/3/2019 3:00 PM	1.5	1.4	2.3
10/3/2019 4:00 PM	1.3	1.4	2.2
10/3/2019 5:00 PM	1.5	1.5	2.6
10/3/2019 6:00 PM	1.7	1.7	3.1
10/3/2019 7:00 PM	1.5	1.7	3
10/3/2019 8:00 PM	1.5	1.5	2.7
10/3/2019 9:00 PM	1.4	1.4	2.4
10/3/2019 10:00 PM	1	1.2	2.3
10/3/2019 11:00 PM	1	1	1.9
10/4/2019 12:00 AM	0.9	1	1.8
10/4/2019 1:00 AM	0.9	1	1.8
10/4/2019 2:00 AM	0.9	0.9	1.7
10/4/2019 3:00 AM	0.9	1	1.8
10/4/2019 4:00 AM	0.9	1.1	Precision
10/4/2019 5:00 AM	0.9	1	1.9
10/4/2019 6:00 AM	0.8	0.9	1.7
10/4/2019 7:00 AM	0.9	0.9	1.7
10/4/2019 8:00 AM	0.9	0.9	1.7
10/4/2019 9:00 AM	0.9	0.9	1.9
10/4/2019 10:00 AM	0.9	0.9	1.9
10/4/2019 11:00 AM	1	1	1.9
10/4/2019 12:00 PM	1	1.1	2
10/4/2019 1:00 PM	1	1	1.9
10/4/2019 2:00 PM	0.9	1	1.9
10/4/2019 3:00 PM	0.9	0.9	1.8
10/4/2019 4:00 PM	0.9	1	1.8
10/4/2019 5:00 PM	0.9	1	1.8
10/4/2019 6:00 PM	0.9	1	1.8
10/4/2019 7:00 PM	0.8	1.3	2
10/4/2019 8:00 PM	0.8	1.6	2.2
10/4/2019 9:00 PM	0.8	1.5	2.3
10/4/2019 10:00 PM	0.8	1.2	1.9
10/4/2019 11:00 PM	0.9	1.2	1.7
10/5/2019 12:00 AM	0.8	1.5	1.7
10/5/2019 1:00 AM	0.8	1.2	1.7
10/5/2019 2:00 AM	0.7	1.2	1.8
10/5/2019 3:00 AM	0.7	1.2	1.7
10/5/2019 4:00 AM	0.7	1.2	1.7
10/5/2019 5:00 AM	0.8	1.1	1.7
10/5/2019 6:00 AM	0.8	1	1.7
10/5/2019 7:00 AM	0.8	1.1	1.7
10/5/2019 8:00 AM	0.8	1	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/5/2019 9:00 AM	0.9	1	1.8
10/5/2019 10:00 AM	0.9	1.1	1.7
10/5/2019 11:00 AM	0.9	1.1	1.8
10/5/2019 12:00 PM	0.9	1.2	1.8
10/5/2019 1:00 PM	0.9	1.2	1.8
10/5/2019 2:00 PM	0.9	1.2	1.8
10/5/2019 3:00 PM	0.9	1.3	1.9
10/5/2019 4:00 PM	0.9	1.2	1.8
10/5/2019 5:00 PM	0.9	1	1.8
10/5/2019 6:00 PM	0.9	1	1.8
10/5/2019 7:00 PM	0.9	1	1.7
10/5/2019 8:00 PM	0.9	1	1.7
10/5/2019 9:00 PM	0.9	1	1.7
10/5/2019 10:00 PM	1	1	1.7
10/5/2019 11:00 PM	0.9	1	1.7
10/6/2019 12:00 AM	0.9	1	1.7
10/6/2019 1:00 AM	0.9	1	1.7
10/6/2019 2:00 AM	0.9	1.1	1.7
10/6/2019 3:00 AM	0.9	1.1	1.7
10/6/2019 4:00 AM	0.9	1.1	1.7
10/6/2019 5:00 AM	1	1.1	1.7
10/6/2019 6:00 AM	0.9	1.1	1.7
10/6/2019 7:00 AM	0.8	1	1.7
10/6/2019 8:00 AM	1	1	1.8
10/6/2019 9:00 AM	0.9	1	1.8
10/6/2019 10:00 AM	0.9	1	1.8
10/6/2019 11:00 AM	0.9	1	1.8
10/6/2019 12:00 PM	0.9	1.1	1.8
10/6/2019 1:00 PM	0.8	1	1.8
10/6/2019 2:00 PM	0.8	1	1.7
10/6/2019 3:00 PM	0.9	1	1.7
10/6/2019 4:00 PM	0.9	1	1.7
10/6/2019 5:00 PM	0.8	0.9	1.7
10/6/2019 6:00 PM	0.8	1	1.7
10/6/2019 7:00 PM	0.8	1	1.7
10/6/2019 8:00 PM	0.8	1	1.7
10/6/2019 9:00 PM	0.8	1	1.7
10/6/2019 10:00 PM	0.8	1	1.7
10/6/2019 11:00 PM	0.8	0.9	1.7
10/7/2019 12:00 AM	0.8	0.9	1.7
10/7/2019 1:00 AM	0.8	1	1.7
10/7/2019 2:00 AM	0.8	1	1.6
10/7/2019 3:00 AM	0.7	0.9	1.7
10/7/2019 4:00 AM	Precision	Precision	1.6
10/7/2019 5:00 AM	0.8	1	1.6
10/7/2019 6:00 AM	0.8	0.9	1.6
10/7/2019 7:00 AM	0.8	0.9	1.6
10/7/2019 8:00 AM	0.8	0.8	1.6
10/7/2019 9:00 AM	0.8	0.9	1.6
10/7/2019 10:00 AM	0.8	0.9	1.7
10/7/2019 11:00 AM	0.8	0.9	1.8
10/7/2019 12:00 PM	0.8	0.9	1.7
10/7/2019 1:00 PM	0.8	1	1.7
10/7/2019 2:00 PM	0.8	0.9	1.7
10/7/2019 3:00 PM	0.8	1	1.7
10/7/2019 4:00 PM	0.7	0.9	1.6
10/7/2019 5:00 PM	0.8	0.7	1.6
10/7/2019 6:00 PM	0.8	0.8	1.7
10/7/2019 7:00 PM	0.8	0.8	1.6
10/7/2019 8:00 PM	0.8	0.8	1.7
10/7/2019 9:00 PM	0.8	0.7	1.6
10/7/2019 10:00 PM	0.8	0.8	1.6
10/7/2019 11:00 PM	0.8	0.9	1.6
10/8/2019 12:00 AM	0.8	0.8	1.6
10/8/2019 1:00 AM	0.8	0.8	1.6
10/8/2019 2:00 AM	0.8	0.9	1.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/8/2019 3:00 AM	0.8	0.8	1.6
10/8/2019 4:00 AM	0.8	0.9	1.7
10/8/2019 5:00 AM	0.9	1	1.6
10/8/2019 6:00 AM	0.9	0.8	1.6
10/8/2019 7:00 AM	0.9	0.9	1.6
10/8/2019 8:00 AM	0.8	0.9	1.6
10/8/2019 9:00 AM	0.9	1	1.7
10/8/2019 10:00 AM	0.9	1	1.7
10/8/2019 11:00 AM	0.9	1.1	1.8
10/8/2019 12:00 PM	1	1.1	1.8
10/8/2019 1:00 PM	1	1	1.8
10/8/2019 2:00 PM	1	1.1	1.7
10/8/2019 3:00 PM	1	1.1	1.8
10/8/2019 4:00 PM	0.9	1.1	1.7
10/8/2019 5:00 PM	0.9	1	1.7
10/8/2019 6:00 PM	0.8	0.8	1.7
10/8/2019 7:00 PM	0.8	0.8	1.7
10/8/2019 8:00 PM	0.8	0.7	1.6
10/8/2019 9:00 PM	0.8	0.9	1.7
10/8/2019 10:00 PM	0.7	0.8	1.7
10/8/2019 11:00 PM	0.8	0.8	1.6
10/9/2019 12:00 AM	0.8	0.7	1.8
10/9/2019 1:00 AM	0.8	0.7	1.8
10/9/2019 2:00 AM	0.8	0.7	1.9
10/9/2019 3:00 AM	0.9	0.8	1.9
10/9/2019 4:00 AM	0.8	0.7	1.7
10/9/2019 5:00 AM	0.8	0.8	1.7
10/9/2019 6:00 AM	0.8	0.8	1.7
10/9/2019 7:00 AM	0.8	0.7	1.8
10/9/2019 8:00 AM	0.9	0.8	1.9
10/9/2019 9:00 AM	1	1	1.9
10/9/2019 10:00 AM	1.1	1.1	1.9
10/9/2019 11:00 AM	1.1	1	1.8
10/9/2019 12:00 PM	0.9	0.9	1.8
10/9/2019 1:00 PM	0.9	1	1.8
10/9/2019 2:00 PM	0.9	0.9	1.7
10/9/2019 3:00 PM	1	0.8	1.8
10/9/2019 4:00 PM	0.9	0.9	1.8
10/9/2019 5:00 PM	0.9	0.9	1.7
10/9/2019 6:00 PM	0.8	1	1.8
10/9/2019 7:00 PM	0.8	1	1.7
10/9/2019 8:00 PM	0.8	1	1.7
10/9/2019 9:00 PM	0.8	1	1.7
10/9/2019 10:00 PM	0.8	1	1.7
10/9/2019 11:00 PM	0.8	1	1.8
10/10/2019 12:00 AM	0.8	1	1.8
10/10/2019 1:00 AM	0.8	0.9	1.7
10/10/2019 2:00 AM	0.7	0.9	1.8
10/10/2019 3:00 AM	0.8	0.9	1.8
10/10/2019 4:00 AM	0.8	0.9	1.7
10/10/2019 5:00 AM	0.8	0.9	1.7
10/10/2019 6:00 AM	0.8	0.9	1.7
10/10/2019 7:00 AM	0.8	0.9	1.7
10/10/2019 8:00 AM	0.8	0.9	1.7
10/10/2019 9:00 AM	0.8	1	1.9
10/10/2019 10:00 AM	0.9	1	1.9
10/10/2019 11:00 AM	1	1	1.9
10/10/2019 12:00 PM	1	1	1.9
10/10/2019 1:00 PM	1	1.1	2
10/10/2019 2:00 PM	1	1.1	1.8
10/10/2019 3:00 PM	0.9	1	1.8
10/10/2019 4:00 PM	0.9	1.1	1.8
10/10/2019 5:00 PM	0.9	1.1	1.9
10/10/2019 6:00 PM	0.8	1	1.9
10/10/2019 7:00 PM	0.8	0.8	1.9
10/10/2019 8:00 PM	0.8	0.9	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/10/2019 9:00 PM	0.8	0.9	1.8
10/10/2019 10:00 PM	0.8	0.9	1.7
10/10/2019 11:00 PM	0.8	0.9	1.7
10/11/2019 12:00 AM	0.8	0.8	1.7
10/11/2019 1:00 AM	0.8	0.8	1.7
10/11/2019 2:00 AM	0.8	0.8	1.6
10/11/2019 3:00 AM	0.8	0.8	1.7
10/11/2019 4:00 AM	0.8	0.8	Precision
10/11/2019 5:00 AM	0.9	0.9	1.8
10/11/2019 6:00 AM	0.8	0.8	1.7
10/11/2019 7:00 AM	0.8	0.8	1.7
10/11/2019 8:00 AM	0.8	0.8	1.7
10/11/2019 9:00 AM	0.8	0.9	1.8
10/11/2019 10:00 AM	0.9	1.1	1.8
10/11/2019 11:00 AM	1	1.1	2
10/11/2019 12:00 PM	0.8	1.1	1.8
10/11/2019 1:00 PM	0.9	1.1	1.8
10/11/2019 2:00 PM	1	1.1	1.8
10/11/2019 3:00 PM	1	1.1	1.9
10/11/2019 4:00 PM	1	1.1	1.8
10/11/2019 5:00 PM	0.9	1.1	1.8
10/11/2019 6:00 PM	0.9	1.1	1.8
10/11/2019 7:00 PM	0.8	1	1.8
10/11/2019 8:00 PM	0.8	1	1.8
10/11/2019 9:00 PM	0.8	0.9	1.8
10/11/2019 10:00 PM	0.8	0.8	1.7
10/11/2019 11:00 PM	0.8	0.9	1.7
10/12/2019 12:00 AM	0.7	1	1.8
10/12/2019 1:00 AM	0.8	0.9	2
10/12/2019 2:00 AM	0.8	1.1	1.9
10/12/2019 3:00 AM	0.8	1	1.9
10/12/2019 4:00 AM	0.7	1.1	1.8
10/12/2019 5:00 AM	0.8	1	1.8
10/12/2019 6:00 AM	0.8	1	1.9
10/12/2019 7:00 AM	0.8	0.9	1.9
10/12/2019 8:00 AM	0.8	1	1.9
10/12/2019 9:00 AM	0.8	1	1.9
10/12/2019 10:00 AM	0.8	1	1.8
10/12/2019 11:00 AM	0.8	0.9	1.8
10/12/2019 12:00 PM	0.8	1	1.8
10/12/2019 1:00 PM	0.9	1	1.8
10/12/2019 2:00 PM	0.9	1	1.8
10/12/2019 3:00 PM	0.9	1.1	1.8
10/12/2019 4:00 PM	0.9	1	1.8
10/12/2019 5:00 PM	0.8	1.1	1.8
10/12/2019 6:00 PM	0.8	1.1	1.7
10/12/2019 7:00 PM	0.8	1	1.7
10/12/2019 8:00 PM	0.8	1.1	1.8
10/12/2019 9:00 PM	0.8	0.9	1.7
10/12/2019 10:00 PM	0.7	0.9	1.7
10/12/2019 11:00 PM	0.7	0.9	1.7
10/13/2019 12:00 AM	0.7	0.9	1.7
10/13/2019 1:00 AM	0.8	1	1.7
10/13/2019 2:00 AM	0.7	1	1.7
10/13/2019 3:00 AM	0.7	0.9	1.7
10/13/2019 4:00 AM	0.7	0.9	1.7
10/13/2019 5:00 AM	0.8	1	1.8
10/13/2019 6:00 AM	0.7	0.9	1.7
10/13/2019 7:00 AM	0.7	0.9	1.7
10/13/2019 8:00 AM	0.7	1	1.8
10/13/2019 9:00 AM	0.8	1.1	1.8
10/13/2019 10:00 AM	0.8	1.1	1.9
10/13/2019 11:00 AM	0.9	1.1	1.9
10/13/2019 12:00 PM	0.9	1.1	2
10/13/2019 1:00 PM	0.9	1.1	2
10/13/2019 2:00 PM	1	1.2	1.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/13/2019 3:00 PM	1	1.2	1.9
10/13/2019 4:00 PM	1	1.2	2
10/13/2019 5:00 PM	0.9	1.1	1.9
10/13/2019 6:00 PM	0.9	1.1	2
10/13/2019 7:00 PM	0.8	1	2
10/13/2019 8:00 PM	0.8	0.8	1.9
10/13/2019 9:00 PM	0.8	0.9	1.8
10/13/2019 10:00 PM	0.8	0.8	1.8
10/13/2019 11:00 PM	0.7	0.8	1.8
10/14/2019 12:00 AM	0.7	0.8	1.7
10/14/2019 1:00 AM	0.7	1	1.8
10/14/2019 2:00 AM	0.7	0.9	1.7
10/14/2019 3:00 AM	0.7	0.8	1.8
10/14/2019 4:00 AM	Precision	Precision	1.8
10/14/2019 5:00 AM	0.8	1	2
10/14/2019 6:00 AM	0.7	1	1.9
10/14/2019 7:00 AM	0.8	0.9	2
10/14/2019 8:00 AM	0.8	1.1	2.1
10/14/2019 9:00 AM	1.1	1.4	2.3
10/14/2019 10:00 AM	1.2	1.4	2.2
10/14/2019 11:00 AM	1.3	1.3	2.2
10/14/2019 12:00 PM	1.3	1.4	2.3
10/14/2019 1:00 PM	1.3	1.4	2.4
10/14/2019 2:00 PM	1.3	1.4	2.4
10/14/2019 3:00 PM	1.4	1.4	2.4
10/14/2019 4:00 PM	1.4	1.5	2.5
10/14/2019 5:00 PM	1.3	1.5	2.5
10/14/2019 6:00 PM	1.2	1.4	2.3
10/14/2019 7:00 PM	1	1.2	2.4
10/14/2019 8:00 PM	0.9	1.1	2.3
10/14/2019 9:00 PM	0.9	1.2	2.3
10/14/2019 10:00 PM	0.8	1.2	2.3
10/14/2019 11:00 PM	0.9	1.3	2.2
10/15/2019 12:00 AM	0.8	1.2	2.3
10/15/2019 1:00 AM	0.8	1.3	2.3
10/15/2019 2:00 AM	0.8	1.3	2.4
10/15/2019 3:00 AM	0.7	1.2	2.5
10/15/2019 4:00 AM	0.8	1.1	2.4
10/15/2019 5:00 AM	0.8	1.2	2.2
10/15/2019 6:00 AM	0.7	1.1	2.1
10/15/2019 7:00 AM	0.7	1.1	2.2
10/15/2019 8:00 AM	0.9	1.3	2.3
10/15/2019 9:00 AM	1.2	1.3	2.2
10/15/2019 10:00 AM	1.4	1.5	2.4
10/15/2019 11:00 AM	1.5	1.6	2.4
10/15/2019 12:00 PM	1.5	1.6	2.4
10/15/2019 1:00 PM	1.3	1.5	2.2
10/15/2019 2:00 PM	1.2	1.3	2.2
10/15/2019 3:00 PM	1.2	1.3	2.2
10/15/2019 4:00 PM	1.1	1.2	2
10/15/2019 5:00 PM	1	1.1	2.1
10/15/2019 6:00 PM	1	1.1	2
10/15/2019 7:00 PM	1	1	2
10/15/2019 8:00 PM	0.9	1	2
10/15/2019 9:00 PM	0.9	1	2
10/15/2019 10:00 PM	0.8	1	2
10/15/2019 11:00 PM	0.8	1.1	2
10/16/2019 12:00 AM	0.8	1.2	1.9
10/16/2019 1:00 AM	0.7	1.1	1.9
10/16/2019 2:00 AM	0.7	1.1	1.9
10/16/2019 3:00 AM	0.8	1.1	1.9
10/16/2019 4:00 AM	0.7	1.2	1.9
10/16/2019 5:00 AM	0.8	1.2	2
10/16/2019 6:00 AM	0.8	1	1.9
10/16/2019 7:00 AM	0.8	1	1.9
10/16/2019 8:00 AM	0.8	1	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/16/2019 9:00 AM	0.9	1	1.8
10/16/2019 10:00 AM	0.8	0.9	1.7
10/16/2019 11:00 AM	0.8	0.9	1.8
10/16/2019 12:00 PM	0.8	0.9	1.8
10/16/2019 1:00 PM	0.7	1	1.8
10/16/2019 2:00 PM	0.8	1.1	1.7
10/16/2019 3:00 PM	0.8	1	1.7
10/16/2019 4:00 PM	0.7	0.9	1.7
10/16/2019 5:00 PM	0.8	0.9	1.8
10/16/2019 6:00 PM	0.8	1	1.7
10/16/2019 7:00 PM	0.8	1.1	1.7
10/16/2019 8:00 PM	0.8	1.1	1.7
10/16/2019 9:00 PM	0.7	1.1	1.8
10/16/2019 10:00 PM	0.8	1.1	1.8
10/16/2019 11:00 PM	0.7	1.1	1.7
10/17/2019 12:00 AM	0.8	1.1	1.8
10/17/2019 1:00 AM	0.8	1.1	1.8
10/17/2019 2:00 AM	0.7	1.2	1.7
10/17/2019 3:00 AM	0.7	1.1	1.8
10/17/2019 4:00 AM	0.8	1.1	1.7
10/17/2019 5:00 AM	0.8	1.2	1.7
10/17/2019 6:00 AM	0.8	1.1	1.6
10/17/2019 7:00 AM	0.8	1.1	1.8
10/17/2019 8:00 AM	0.8	1.1	1.7
10/17/2019 9:00 AM	0.8	1.1	1.8
10/17/2019 10:00 AM	0.8	1.2	1.9
10/17/2019 11:00 AM	0.8	1	1.8
10/17/2019 12:00 PM	0.8	1	1.8
10/17/2019 1:00 PM	0.8	0.9	1.8
10/17/2019 2:00 PM	0.9	0.9	1.9
10/17/2019 3:00 PM	0.8	1.1	1.9
10/17/2019 4:00 PM	0.7	1.2	1.8
10/17/2019 5:00 PM	0.8	1.2	1.8
10/17/2019 6:00 PM	0.8	1.2	1.8
10/17/2019 7:00 PM	0.8	1.3	1.9
10/17/2019 8:00 PM	0.8	1.2	2
10/17/2019 9:00 PM	0.8	1.1	2
10/17/2019 10:00 PM	0.8	1.2	1.9
10/17/2019 11:00 PM	0.8	1.1	2
10/18/2019 12:00 AM	0.9	1.2	2.1
10/18/2019 1:00 AM	0.7	1.2	1.9
10/18/2019 2:00 AM	0.8	1.2	2.1
10/18/2019 3:00 AM	0.8	1.2	2.1
10/18/2019 4:00 AM	0.7	1.3	Precision
10/18/2019 5:00 AM	0.8	1.2	2
10/18/2019 6:00 AM	0.8	1.2	1.9
10/18/2019 7:00 AM	0.8	1.1	1.9
10/18/2019 8:00 AM	0.9	1.2	1.9
10/18/2019 9:00 AM	0.9	1.1	1.8
10/18/2019 10:00 AM	0.8	1.2	1.9
10/18/2019 11:00 AM	0.9	1.3	1.9
10/18/2019 12:00 PM	0.8	1.3	1.9
10/18/2019 1:00 PM	0.9	1.2	2
10/18/2019 2:00 PM	0.9	1.4	2
10/18/2019 3:00 PM	1	1.3	2
10/18/2019 4:00 PM	1	1.4	2
10/18/2019 5:00 PM	0.9	1.4	1.9
10/18/2019 6:00 PM	0.9	1.3	2.1
10/18/2019 7:00 PM	0.8	1.3	2.1
10/18/2019 8:00 PM	0.8	1.3	2.2
10/18/2019 9:00 PM	0.8	1.2	2.1
10/18/2019 10:00 PM	0.8	1.1	2.1
10/18/2019 11:00 PM	0.8	1.1	1.9
10/19/2019 12:00 AM	0.8	1.1	1.9
10/19/2019 1:00 AM	0.7	1	1.8
10/19/2019 2:00 AM	0.8	1	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/19/2019 3:00 AM	0.7	1.2	1.9
10/19/2019 4:00 AM	0.7	1	1.9
10/19/2019 5:00 AM	0.8	1.1	1.9
10/19/2019 6:00 AM	0.8	1	1.8
10/19/2019 7:00 AM	0.8	1.1	1.8
10/19/2019 8:00 AM	0.8	1.1	1.9
10/19/2019 9:00 AM	1	1.3	2
10/19/2019 10:00 AM	1.1	1.4	2
10/19/2019 11:00 AM	1.1	1.3	2.1
10/19/2019 12:00 PM	1.1	1.4	2.1
10/19/2019 1:00 PM	1	1.3	2
10/19/2019 2:00 PM	1	1.2	2.1
10/19/2019 3:00 PM	1	1.3	2
10/19/2019 4:00 PM	1	1.3	2
10/19/2019 5:00 PM	1	1.3	2
10/19/2019 6:00 PM	1	1.4	1.9
10/19/2019 7:00 PM	0.9	1.4	1.9
10/19/2019 8:00 PM	0.9	1.4	2
10/19/2019 9:00 PM	0.9	1.4	1.9
10/19/2019 10:00 PM	0.9	1.3	2
10/19/2019 11:00 PM	0.9	1.3	1.9
10/20/2019 12:00 AM	0.8	1.3	1.9
10/20/2019 1:00 AM	0.8	1.3	1.8
10/20/2019 2:00 AM	0.9	1.1	1.8
10/20/2019 3:00 AM	0.8	1	1.8
10/20/2019 4:00 AM	0.9	1	1.8
10/20/2019 5:00 AM	0.8	1	1.8
10/20/2019 6:00 AM	0.8	1	1.8
10/20/2019 7:00 AM	0.8	0.9	1.7
10/20/2019 8:00 AM	0.8	1	1.8
10/20/2019 9:00 AM	0.8	0.9	1.8
10/20/2019 10:00 AM	0.8	1	1.8
10/20/2019 11:00 AM	0.8	1.1	1.8
10/20/2019 12:00 PM	0.8	1.3	1.8
10/20/2019 1:00 PM	0.8	1.3	1.9
10/20/2019 2:00 PM	0.9	1.2	1.9
10/20/2019 3:00 PM	0.9	1.1	1.8
10/20/2019 4:00 PM	0.9	1.2	1.8
10/20/2019 5:00 PM	0.9	1	1.8
10/20/2019 6:00 PM	0.8	1.1	1.8
10/20/2019 7:00 PM	0.8	1	1.8
10/20/2019 8:00 PM	0.8	1	1.7
10/20/2019 9:00 PM	0.8	1.1	1.8
10/20/2019 10:00 PM	0.7	1	1.8
10/20/2019 11:00 PM	0.9	1	1.8
10/21/2019 12:00 AM	0.8	1	1.8
10/21/2019 1:00 AM	0.8	1	1.8
10/21/2019 2:00 AM	0.8	0.9	1.8
10/21/2019 3:00 AM	0.8	0.9	1.8
10/21/2019 4:00 AM	Precision	Precision	1.8
10/21/2019 5:00 AM	0.8	1	1.8
10/21/2019 6:00 AM	0.8	1	1.8
10/21/2019 7:00 AM	0.8	1	1.7
10/21/2019 8:00 AM	0.8	1.1	1.8
10/21/2019 9:00 AM	0.9	1	1.8
10/21/2019 10:00 AM	0.9	1.1	1.8
10/21/2019 11:00 AM	0.9	1.2	1.9
10/21/2019 12:00 PM	1	1.2	1.9
10/21/2019 1:00 PM	1.1	1.2	1.9
10/21/2019 2:00 PM	1.1	1.2	2
10/21/2019 3:00 PM	1.1	1.2	1.9
10/21/2019 4:00 PM	1	1.1	1.9
10/21/2019 5:00 PM	0.9	1.2	1.8
10/21/2019 6:00 PM	0.8	1.2	1.8
10/21/2019 7:00 PM	0.8	1.1	1.8
10/21/2019 8:00 PM	0.8	1	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/21/2019 9:00 PM	0.9	1	1.8
10/21/2019 10:00 PM	0.8	1	1.8
10/21/2019 11:00 PM	0.8	1	1.8
10/22/2019 12:00 AM	0.9	0.9	1.7
10/22/2019 1:00 AM	0.9	1	1.7
10/22/2019 2:00 AM	0.9	1	1.7
10/22/2019 3:00 AM	0.9	1	1.8
10/22/2019 4:00 AM	0.9	1.1	1.7
10/22/2019 5:00 AM	0.9	1	1.8
10/22/2019 6:00 AM	0.9	1	1.8
10/22/2019 7:00 AM	0.9	1	1.8
10/22/2019 8:00 AM	0.9	1	1.8
10/22/2019 9:00 AM	0.9	1	1.8
10/22/2019 10:00 AM	0.8	1	1.7
10/22/2019 11:00 AM	0.9	1.1	1.8
10/22/2019 12:00 PM	0.9	1	1.8
10/22/2019 1:00 PM	0.9	1.1	1.7
10/22/2019 2:00 PM	0.9	1	1.8
10/22/2019 3:00 PM	0.9	1	1.7
10/22/2019 4:00 PM	0.9	1.1	1.8
10/22/2019 5:00 PM	0.8	1.1	1.8
10/22/2019 6:00 PM	0.8	1	1.8
10/22/2019 7:00 PM	0.9	1.1	1.7
10/22/2019 8:00 PM	0.9	1	1.7
10/22/2019 9:00 PM	0.8	1	1.8
10/22/2019 10:00 PM	0.8	1.1	1.9
10/22/2019 11:00 PM	0.7	1.1	1.9
10/23/2019 12:00 AM	0.7	1	2.3
10/23/2019 1:00 AM	0.8	1	2.5
10/23/2019 2:00 AM	0.8	1.1	2.5
10/23/2019 3:00 AM	0.8	1.1	2.6
10/23/2019 4:00 AM	0.8	1	2.3
10/23/2019 5:00 AM	0.8	1.1	2.2
10/23/2019 6:00 AM	0.8	1	2.1
10/23/2019 7:00 AM	0.8	1.1	2.2
10/23/2019 8:00 AM	0.8	1.5	2.7
10/23/2019 9:00 AM	1.3	1.7	2.4
10/23/2019 10:00 AM	1.2	1.5	2.2
10/23/2019 11:00 AM	1.3	1.5	2.2
10/23/2019 12:00 PM	1.4	1.5	2.1
10/23/2019 1:00 PM	1.7	1.8	2.4
10/23/2019 2:00 PM	1.5	1.7	2.5
10/23/2019 3:00 PM	1.6	1.8	2.5
10/23/2019 4:00 PM	1.6	1.7	2.3
10/23/2019 5:00 PM	1.6	1.8	2.1
10/23/2019 6:00 PM	1.4	1.6	2.2
10/23/2019 7:00 PM	1.3	1.5	2.1
10/23/2019 8:00 PM	1	1.4	1.9
10/23/2019 9:00 PM	0.9	1.2	2.1
10/23/2019 10:00 PM	0.9	1.2	2.2
10/23/2019 11:00 PM	0.8	1.1	2.1
10/24/2019 12:00 AM	0.8	1.1	2
10/24/2019 1:00 AM	0.9	1.1	1.9
10/24/2019 2:00 AM	0.8	1.1	1.9
10/24/2019 3:00 AM	0.9	1	1.9
10/24/2019 4:00 AM	0.8	1	2
10/24/2019 5:00 AM	0.9	1.2	2
10/24/2019 6:00 AM	0.8	1.1	1.9
10/24/2019 7:00 AM	0.8	1.1	2.1
10/24/2019 8:00 AM	0.9	1.3	2
10/24/2019 9:00 AM	1	1.2	2.1
10/24/2019 10:00 AM	1.1	1.2	2.1
10/24/2019 11:00 AM	1	1.3	2.1
10/24/2019 12:00 PM	1.1	1.2	2.1
10/24/2019 1:00 PM	1	1.3	2
10/24/2019 2:00 PM	1	1.4	2

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/24/2019 3:00 PM	1	1.3	2
10/24/2019 4:00 PM	1	1.3	2
10/24/2019 5:00 PM	1	1.4	2.1
10/24/2019 6:00 PM	1	1.4	2
10/24/2019 7:00 PM	1	1.4	2
10/24/2019 8:00 PM	1	1.3	1.9
10/24/2019 9:00 PM	0.9	1.3	2
10/24/2019 10:00 PM	0.9	1.3	1.9
10/24/2019 11:00 PM	1	1.2	1.9
10/25/2019 12:00 AM	0.8	1.2	2
10/25/2019 1:00 AM	0.8	1.2	2
10/25/2019 2:00 AM	0.9	1.3	1.9
10/25/2019 3:00 AM	0.8	1.3	1.9
10/25/2019 4:00 AM	0.8	1.3	Precision
10/25/2019 5:00 AM	0.9	1.2	2.1
10/25/2019 6:00 AM	0.9	1.3	2.1
10/25/2019 7:00 AM	0.9	1.3	2.2
10/25/2019 8:00 AM	0.9	1.3	2
10/25/2019 9:00 AM	1	1.4	2.1
10/25/2019 10:00 AM	1	1.5	2
10/25/2019 11:00 AM	1.1	1.4	2
10/25/2019 12:00 PM	1.1	1.4	2.1
10/25/2019 1:00 PM	1.1	1.4	2.1
10/25/2019 2:00 PM	1.1	1.4	2.1
10/25/2019 3:00 PM	0.9	1.2	2.1
10/25/2019 4:00 PM	1	1.2	2
10/25/2019 5:00 PM	1	1.2	2
10/25/2019 6:00 PM	1.1	1.2	2.1
10/25/2019 7:00 PM	1.1	1.3	2.2
10/25/2019 8:00 PM	1.1	1.3	2.2
10/25/2019 9:00 PM	1.3	1.4	2.2
10/25/2019 10:00 PM	1.2	1.4	2.2
10/25/2019 11:00 PM	1.2	1.4	2.4
10/26/2019 12:00 AM	1.1	1.4	2.4
10/26/2019 1:00 AM	1.1	1.3	2.1
10/26/2019 2:00 AM	1	1.2	2.1
10/26/2019 3:00 AM	1	1.4	2
10/26/2019 4:00 AM	0.9	1.3	2.1
10/26/2019 5:00 AM	1	1.4	2.1
10/26/2019 6:00 AM	1	1.3	2
10/26/2019 7:00 AM	1	1.3	2
10/26/2019 8:00 AM	1	1.3	2
10/26/2019 9:00 AM	1	1.3	2
10/26/2019 10:00 AM	1	1.4	1.9
10/26/2019 11:00 AM	1.2	1.4	2
10/26/2019 12:00 PM	1	1.3	2
10/26/2019 1:00 PM	1	1.3	2
10/26/2019 2:00 PM	1	1.4	2.1
10/26/2019 3:00 PM	1.1	1.4	2.1
10/26/2019 4:00 PM	1.1	1.3	2.1
10/26/2019 5:00 PM	1	1.3	1.9
10/26/2019 6:00 PM	0.9	1.1	1.9
10/26/2019 7:00 PM	0.9	1.2	1.9
10/26/2019 8:00 PM	1	1.3	1.9
10/26/2019 9:00 PM	1	1.2	1.9
10/26/2019 10:00 PM	0.9	1.1	1.8
10/26/2019 11:00 PM	0.9	1.1	1.8
10/27/2019 12:00 AM	0.9	1	1.8
10/27/2019 1:00 AM	0.9	1	1.8
10/27/2019 2:00 AM	0.8	1.1	1.8
10/27/2019 3:00 AM	0.9	1	1.8
10/27/2019 4:00 AM	0.9	1.1	1.8
10/27/2019 5:00 AM	1	1.1	1.8
10/27/2019 6:00 AM	0.9	1	1.8
10/27/2019 7:00 AM	1	1.1	1.8
10/27/2019 8:00 AM	0.9	1.1	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/27/2019 9:00 AM	0.9	1.1	1.8
10/27/2019 10:00 AM	0.9	1.1	1.9
10/27/2019 11:00 AM	0.9	1.2	1.8
10/27/2019 12:00 PM	0.9	1.2	1.9
10/27/2019 1:00 PM	1.1	1.3	1.9
10/27/2019 2:00 PM	1.2	1.4	2.1
10/27/2019 3:00 PM	1	1.3	2.2
10/27/2019 4:00 PM	1	1.2	2.1
10/27/2019 5:00 PM	0.9	1.2	1.9
10/27/2019 6:00 PM	1	1.2	1.9
10/27/2019 7:00 PM	0.9	1.2	1.9
10/27/2019 8:00 PM	0.9	1.2	1.8
10/27/2019 9:00 PM	0.9	1.4	1.8
10/27/2019 10:00 PM	0.9	1.3	1.9
10/27/2019 11:00 PM	0.9	1.4	1.9
10/28/2019 12:00 AM	0.9	1.4	1.8
10/28/2019 1:00 AM	0.9	1.3	1.9
10/28/2019 2:00 AM	0.9	1.3	1.8
10/28/2019 3:00 AM	0.9	1.1	1.9
10/28/2019 4:00 AM	Precision	Precision	Precision
10/28/2019 5:00 AM	1	1.2	1.8
10/28/2019 6:00 AM	0.8	1.1	1.9
10/28/2019 7:00 AM	0.9	1.2	1.8
10/28/2019 8:00 AM	0.9	1.3	2
10/28/2019 9:00 AM	1	1.3	2.1
10/28/2019 10:00 AM	1.1	1.2	2
10/28/2019 11:00 AM	1.1	1.3	2.1
10/28/2019 12:00 PM	1.1	1.3	2
10/28/2019 1:00 PM	1.1	1.3	2
10/28/2019 2:00 PM	1.1	1.3	2
10/28/2019 3:00 PM	1.1	1.2	2
10/28/2019 4:00 PM	1.1	1.2	2
10/28/2019 5:00 PM	1.1	1.1	2
10/28/2019 6:00 PM	1	1.2	1.9
10/28/2019 7:00 PM	1	1.2	1.9
10/28/2019 8:00 PM	1	1.2	1.9
10/28/2019 9:00 PM	0.9	1.1	1.9
10/28/2019 10:00 PM	0.9	1.2	1.9
10/28/2019 11:00 PM	0.8	1.1	1.9
10/29/2019 12:00 AM	0.9	1.1	1.9
10/29/2019 1:00 AM	0.8	1.2	1.9
10/29/2019 2:00 AM	0.8	1.1	1.9
10/29/2019 3:00 AM	0.8	1.2	1.9
10/29/2019 4:00 AM	0.8	1.1	1.9
10/29/2019 5:00 AM	0.9	1.1	1.8
10/29/2019 6:00 AM	0.9	1.1	1.8
10/29/2019 7:00 AM	0.9	1.1	1.8
10/29/2019 8:00 AM	0.9	1.2	1.9
10/29/2019 9:00 AM	0.9	1.3	2
10/29/2019 10:00 AM	1.1	1.4	2
10/29/2019 11:00 AM	1.2	1.4	2
10/29/2019 12:00 PM	1.2	1.3	2.1
10/29/2019 1:00 PM	1.1	1.3	2
10/29/2019 2:00 PM	1.1	1.3	2
10/29/2019 3:00 PM	1	1.2	1.9
10/29/2019 4:00 PM	1	1.3	2
10/29/2019 5:00 PM	0.9	1.2	2
10/29/2019 6:00 PM	0.9	1.2	1.9
10/29/2019 7:00 PM	0.9	1.1	1.9
10/29/2019 8:00 PM	0.8	1.1	1.9
10/29/2019 9:00 PM	0.9	1	1.8
10/29/2019 10:00 PM	0.9	1.1	1.8
10/29/2019 11:00 PM	0.9	1	1.8
10/30/2019 12:00 AM	0.9	1	1.8
10/30/2019 1:00 AM	0.9	1.1	1.8
10/30/2019 2:00 AM	0.9	1	1.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
10/30/2019 3:00 AM	0.9	1.1	1.8
10/30/2019 4:00 AM	0.9	1.1	1.8
10/30/2019 5:00 AM	0.9	1	1.8
10/30/2019 6:00 AM	0.9	1	1.8
10/30/2019 7:00 AM	0.9	1.1	1.8
10/30/2019 8:00 AM	0.9	1	1.8
10/30/2019 9:00 AM	0.9	0.9	1.8
10/30/2019 10:00 AM	0.9	0.9	1.8
10/30/2019 11:00 AM	0.9	1	1.8
10/30/2019 12:00 PM	0.9	1	1.9
10/30/2019 1:00 PM	0.9	1	1.9
10/30/2019 2:00 PM	0.8	1	1.8
10/30/2019 3:00 PM	0.8	1.1	1.8
10/30/2019 4:00 PM	0.9	1.1	1.9
10/30/2019 5:00 PM	0.9	1	1.8
10/30/2019 6:00 PM	0.9	1	1.8
10/30/2019 7:00 PM	1	0.9	1.8
10/30/2019 8:00 PM	0.9	0.8	1.9
10/30/2019 9:00 PM	0.9	0.9	1.8
10/30/2019 10:00 PM	0.9	0.9	1.8
10/30/2019 11:00 PM	0.9	0.9	1.8
10/31/2019 12:00 AM	1	0.9	1.8
10/31/2019 1:00 AM	0.9	0.9	1.8
10/31/2019 2:00 AM	0.9	0.8	1.8
10/31/2019 3:00 AM	0.9	0.8	1.8
10/31/2019 4:00 AM	0.8	0.8	1.8
10/31/2019 5:00 AM	1	0.8	1.9
10/31/2019 6:00 AM	0.9	0.8	1.8
10/31/2019 7:00 AM	1	0.8	1.8
10/31/2019 8:00 AM	1	0.8	1.8
10/31/2019 9:00 AM	1	0.7	1.8
10/31/2019 10:00 AM	0.9	0.8	1.8
10/31/2019 11:00 AM	0.8	0.8	1.8
10/31/2019 12:00 PM	0.9	0.9	1.8
10/31/2019 1:00 PM	0.9	0.9	1.8
10/31/2019 2:00 PM	0.8	1.1	1.8
10/31/2019 3:00 PM	0.8	1	1.8
10/31/2019 4:00 PM	0.8	1.1	1.8
10/31/2019 5:00 PM	0.8	1.1	1.8
10/31/2019 6:00 PM	0.8	0.9	1.8
10/31/2019 7:00 PM	0.8	0.9	1.7
10/31/2019 8:00 PM	0.8	1.1	1.7
10/31/2019 9:00 PM	0.7	1.1	Power Fail
10/31/2019 10:00 PM	0.8	1	Power Fail
10/31/2019 11:00 PM	0.8	1	Power Fail
11/1/2019 12:00 AM	0.8	1.1	Power Fail
11/1/2019 1:00 AM	0.8	1	Power Fail
11/1/2019 2:00 AM	0.7	1	Power Fail
11/1/2019 3:00 AM	0.8	1	Power Fail
11/1/2019 4:00 AM	0.8	1.1	Power Fail
11/1/2019 5:00 AM	0.8	1.1	Power Fail
11/1/2019 6:00 AM	0.8	1.1	Power Fail
11/1/2019 7:00 AM	0.8	1	Power Fail
11/1/2019 8:00 AM	0.8	1	Power Fail
11/1/2019 9:00 AM	0.7	1.1	Power Fail
11/1/2019 10:00 AM	0.9	1.1	Power Fail
11/1/2019 11:00 AM	0.8	1.2	Power Fail
11/1/2019 12:00 PM	1	1.4	Power Fail
11/1/2019 1:00 PM	1.4	1.6	2.6
11/1/2019 2:00 PM	1.3	1.5	2.4
11/1/2019 3:00 PM	1.5	1.5	2.5
11/1/2019 4:00 PM	1.3	1.6	2.3
11/1/2019 5:00 PM	1	1.8	2.1
11/1/2019 6:00 PM	1	1.5	2.2
11/1/2019 7:00 PM	0.9	1.4	1.9
11/1/2019 8:00 PM	0.8	1.4	1.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/1/2019 9:00 PM	0.8	1.5	1.8
11/1/2019 10:00 PM	0.7	1.4	1.8
11/1/2019 11:00 PM	0.8	1.4	1.9
11/2/2019 12:00 AM	0.7	1.4	1.8
11/2/2019 1:00 AM	0.7	1.4	1.9
11/2/2019 2:00 AM	0.7	1.3	1.8
11/2/2019 3:00 AM	0.7	1.3	1.9
11/2/2019 4:00 AM	0.7	1.3	1.8
11/2/2019 5:00 AM	0.7	1.4	1.9
11/2/2019 6:00 AM	0.7	1.3	1.9
11/2/2019 7:00 AM	0.7	1.3	1.9
11/2/2019 8:00 AM	0.7	1.4	1.9
11/2/2019 9:00 AM	0.9	1.6	2
11/2/2019 10:00 AM	1.1	1.5	2.1
11/2/2019 11:00 AM	1.1	1.4	2.1
11/2/2019 12:00 PM	1	1.3	2.1
11/2/2019 1:00 PM	1	1.2	2.1
11/2/2019 2:00 PM	0.9	1.2	2
11/2/2019 3:00 PM	0.9	1.2	2
11/2/2019 4:00 PM	1	1.3	1.9
11/2/2019 5:00 PM	0.9	1.3	2
11/2/2019 6:00 PM	0.9	1.3	1.9
11/2/2019 7:00 PM	0.9	1.3	2
11/2/2019 8:00 PM	0.8	1.2	2.1
11/2/2019 9:00 PM	0.8	1.3	2.2
11/2/2019 10:00 PM	0.8	1.4	2.3
11/2/2019 11:00 PM	0.8	1.5	2.2
11/3/2019 12:00 AM	1	1.6	2.9
11/3/2019 1:00 AM	1.1	1.5	2.8
11/3/2019 2:00 AM	1.1	1.6	2.2
11/3/2019 3:00 AM	1	1.6	2.1
11/3/2019 4:00 AM	1	1.5	2
11/3/2019 5:00 AM	0.9	1.5	2.1
11/3/2019 6:00 AM	0.9	1.5	2.1
11/3/2019 7:00 AM	0.9	1.4	2.1
11/3/2019 8:00 AM	0.9	1.5	2.1
11/3/2019 9:00 AM	0.9	1.4	2.2
11/3/2019 10:00 AM	0.9	1.4	2.1
11/3/2019 11:00 AM	0.8	1.4	2.1
11/3/2019 12:00 PM	1	1.5	2.7
11/3/2019 1:00 PM	1.2	1.6	2.8
11/3/2019 2:00 PM	1.4	1.7	2.9
11/3/2019 3:00 PM	1.2	1.6	2.7
11/3/2019 4:00 PM	1.1	1.6	2.3
11/3/2019 5:00 PM	1.1	1.5	2.5
11/3/2019 6:00 PM	1.1	1.5	2.7
11/3/2019 7:00 PM	1	1.6	2.7
11/3/2019 8:00 PM	1	1.9	2.4
11/3/2019 9:00 PM	0.9	1.6	2.2
11/3/2019 10:00 PM	0.9	1.6	2
11/3/2019 11:00 PM	0.8	1.6	2.2
11/4/2019 12:00 AM	0.8	1.6	2.1
11/4/2019 1:00 AM	0.8	1.5	2
11/4/2019 2:00 AM	0.7	1.6	2.1
11/4/2019 3:00 AM	0.7	1.6	2
11/4/2019 4:00 AM	Precision	Precision	2.1
11/4/2019 5:00 AM	0.8	1.4	2.2
11/4/2019 6:00 AM	0.7	1.4	2
11/4/2019 7:00 AM	0.7	1.5	2
11/4/2019 8:00 AM	0.8	1.6	2.1
11/4/2019 9:00 AM	1	1.6	2.1
11/4/2019 10:00 AM	1.1	1.5	2.2
11/4/2019 11:00 AM	1.1	1.4	2.2
11/4/2019 12:00 PM	1	1.5	2.2
11/4/2019 1:00 PM	1.1	1.5	2.3
11/4/2019 2:00 PM	1.2	1.5	2.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/4/2019 3:00 PM	1.2	1.5	2.3
11/4/2019 4:00 PM	1.3	1.5	2.3
11/4/2019 5:00 PM	1.2	1.5	2.2
11/4/2019 6:00 PM	1.6	1.4	2.2
11/4/2019 7:00 PM	1.3	1.4	2.3
11/4/2019 8:00 PM	1	1.5	2.5
11/4/2019 9:00 PM	1.1	1.6	2.4
11/4/2019 10:00 PM	1	1.6	2.5
11/4/2019 11:00 PM	1	1.7	2.7
11/5/2019 12:00 AM	1	1.6	2.3
11/5/2019 1:00 AM	1	1.5	2.2
11/5/2019 2:00 AM	0.9	1.9	2.1
11/5/2019 3:00 AM	1	2	2.2
11/5/2019 4:00 AM	1	1.7	Precision
11/5/2019 5:00 AM	1	1.4	2.2
11/5/2019 6:00 AM	1	1.6	2.1
11/5/2019 7:00 AM	1	1.5	2.1
11/5/2019 8:00 AM	1	1.5	2.1
11/5/2019 9:00 AM	1	1.5	2.2
11/5/2019 10:00 AM	1.1	1.5	2.2
11/5/2019 11:00 AM	1.1	1.5	2.2
11/5/2019 12:00 PM	1.4	1.6	2.4
11/5/2019 1:00 PM	1.8	1.9	2.7
11/5/2019 2:00 PM	1.6	2	2.9
11/5/2019 3:00 PM	1.5	2	2.8
11/5/2019 4:00 PM	1.5	2.2	2.7
11/5/2019 5:00 PM	1.3	2	2.5
11/5/2019 6:00 PM	1.1	1.7	2.2
11/5/2019 7:00 PM	1.1	1.6	2.3
11/5/2019 8:00 PM	1.1	1.8	2.3
11/5/2019 9:00 PM	1.1	1.7	2.4
11/5/2019 10:00 PM	1.1	1.5	2.4
11/5/2019 11:00 PM	0.9	1.4	2.3
11/6/2019 12:00 AM	1	1.4	2.1
11/6/2019 1:00 AM	0.9	1.4	2.1
11/6/2019 2:00 AM	0.8	1.4	2
11/6/2019 3:00 AM	0.8	1.4	2
11/6/2019 4:00 AM	0.7	1.3	2
11/6/2019 5:00 AM	0.8	1.4	2.1
11/6/2019 6:00 AM	0.7	1.4	2
11/6/2019 7:00 AM	0.7	1.5	2.1
11/6/2019 8:00 AM	0.9	1.5	2.2
11/6/2019 9:00 AM	1	1.4	2.4
11/6/2019 10:00 AM	1.1	1.5	2.4
11/6/2019 11:00 AM	1.2	1.3	2.3
11/6/2019 12:00 PM	1.3	1.5	2.4
11/6/2019 1:00 PM	1.3	1.5	2.3
11/6/2019 2:00 PM	1.1	1.4	2.2
11/6/2019 3:00 PM	1	1.4	2.2
11/6/2019 4:00 PM	1.1	1.5	2.2
11/6/2019 5:00 PM	1.2	1.5	2.2
11/6/2019 6:00 PM	1	1.5	2.1
11/6/2019 7:00 PM	1	1.6	2
11/6/2019 8:00 PM	0.9	1.7	2.1
11/6/2019 9:00 PM	0.9	1.7	2.2
11/6/2019 10:00 PM	1	1.6	2.1
11/6/2019 11:00 PM	0.9	1.6	2.1
11/7/2019 12:00 AM	0.9	1.6	2.2
11/7/2019 1:00 AM	1	1.5	2.2
11/7/2019 2:00 AM	1	1.5	2.2
11/7/2019 3:00 AM	1	1.5	2.3
11/7/2019 4:00 AM	0.9	1.5	2.3
11/7/2019 5:00 AM	1	1.5	2.4
11/7/2019 6:00 AM	0.9	1.5	2.2
11/7/2019 7:00 AM	0.9	1.5	2.2
11/7/2019 8:00 AM	0.9	1.5	2.2

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/7/2019 9:00 AM	0.9	1.7	2.2
11/7/2019 10:00 AM	1	1.6	2.2
11/7/2019 11:00 AM	1	1.5	2.2
11/7/2019 12:00 PM	1	1.5	2.2
11/7/2019 1:00 PM	0.8	1.4	2
11/7/2019 2:00 PM	0.8	1.2	2.1
11/7/2019 3:00 PM	0.8	1.3	2
11/7/2019 4:00 PM	Calibration	Calibration	Calibration
11/7/2019 5:00 PM	Calibration	Calibration	Calibration
11/7/2019 6:00 PM	0.8	1.1	2
11/7/2019 7:00 PM	0.7	1.1	2
11/7/2019 8:00 PM	0.7	1.2	1.9
11/7/2019 9:00 PM	0.8	1.2	1.9
11/7/2019 10:00 PM	0.7	1.3	1.9
11/7/2019 11:00 PM	0.8	1.3	2
11/8/2019 12:00 AM	0.7	1.3	2
11/8/2019 1:00 AM	0.7	1.3	2
11/8/2019 2:00 AM	0.7	1.3	2
11/8/2019 3:00 AM	0.7	1.2	2
11/8/2019 4:00 AM	0.7	1.3	2.1
11/8/2019 5:00 AM	0.7	1.3	2.1
11/8/2019 6:00 AM	0.7	1.2	2
11/8/2019 7:00 AM	0.6	1.3	2
11/8/2019 8:00 AM	0.7	1.2	2
11/8/2019 9:00 AM	0.7	1.2	2
11/8/2019 10:00 AM	0.8	1.3	2.1
11/8/2019 11:00 AM	0.8	1.4	2.1
11/8/2019 12:00 PM	0.9	1.3	2.1
11/8/2019 1:00 PM	0.9	1.3	2.1
11/8/2019 2:00 PM	0.9	1.4	2.2
11/8/2019 3:00 PM	0.9	1.4	2.2
11/8/2019 4:00 PM	0.8	1.3	2.1
11/8/2019 5:00 PM	0.8	1.3	2.1
11/8/2019 6:00 PM	0.8	1.3	2.1
11/8/2019 7:00 PM	0.8	1.4	2.1
11/8/2019 8:00 PM	0.8	1.5	2.1
11/8/2019 9:00 PM	0.8	1.4	2.2
11/8/2019 10:00 PM	0.7	1.5	2.6
11/8/2019 11:00 PM	0.7	1.5	2.5
11/9/2019 12:00 AM	0.8	1.5	2.6
11/9/2019 1:00 AM	0.7	1.4	2.4
11/9/2019 2:00 AM	0.6	1.3	2.3
11/9/2019 3:00 AM	0.6	1.4	2.1
11/9/2019 4:00 AM	0.6	1.4	2.1
11/9/2019 5:00 AM	0.7	1.4	2.1
11/9/2019 6:00 AM	0.6	1.5	2.2
11/9/2019 7:00 AM	0.7	1.4	2.1
11/9/2019 8:00 AM	0.7	1.8	2.2
11/9/2019 9:00 AM	1.1	1.9	2.5
11/9/2019 10:00 AM	1.1	1.5	2.4
11/9/2019 11:00 AM	1.2	1.5	2.4
11/9/2019 12:00 PM	1.1	1.5	2.4
11/9/2019 1:00 PM	1.1	1.5	2.4
11/9/2019 2:00 PM	1.1	1.5	2.3
11/9/2019 3:00 PM	1.1	1.5	2.2
11/9/2019 4:00 PM	1	1.4	2.3
11/9/2019 5:00 PM	1.1	1.4	2.3
11/9/2019 6:00 PM	1.1	1.4	2.2
11/9/2019 7:00 PM	1	1.3	2.3
11/9/2019 8:00 PM	1	1.6	2.4
11/9/2019 9:00 PM	1.4	2.6	2.4
11/9/2019 10:00 PM	1	2	2.4
11/9/2019 11:00 PM	0.9	1.8	2.4
11/10/2019 12:00 AM	0.9	1.9	2.3
11/10/2019 1:00 AM	0.9	1.4	2.3
11/10/2019 2:00 AM	0.9	1.5	2.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/10/2019 3:00 AM	0.9	1.6	2.3
11/10/2019 4:00 AM	0.8	1.5	2.3
11/10/2019 5:00 AM	1	1.5	2.3
11/10/2019 6:00 AM	1	1.5	2.2
11/10/2019 7:00 AM	1	2.1	2.4
11/10/2019 8:00 AM	1.2	1.6	2.5
11/10/2019 9:00 AM	1.3	1.7	2.5
11/10/2019 10:00 AM	1.3	1.7	2.6
11/10/2019 11:00 AM	1.3	1.6	2.5
11/10/2019 12:00 PM	1.2	1.6	2.5
11/10/2019 1:00 PM	1.3	1.7	2.5
11/10/2019 2:00 PM	1.3	1.6	2.5
11/10/2019 3:00 PM	1.3	1.6	2.5
11/10/2019 4:00 PM	1.2	1.6	2.5
11/10/2019 5:00 PM	1.2	1.5	2.4
11/10/2019 6:00 PM	1.1	1.5	2.4
11/10/2019 7:00 PM	1.1	1.7	2.4
11/10/2019 8:00 PM	1.1	1.7	2.4
11/10/2019 9:00 PM	0.9	1.8	2.5
11/10/2019 10:00 PM	0.9	1.6	2.6
11/10/2019 11:00 PM	0.8	1.7	2.5
11/11/2019 12:00 AM	0.8	1.6	2.4
11/11/2019 1:00 AM	0.8	1.5	2.4
11/11/2019 2:00 AM	0.8	1.4	2.3
11/11/2019 3:00 AM	0.8	1.4	2.3
11/11/2019 4:00 AM	Precision	Precision	Precision
11/11/2019 5:00 AM	0.8	1.4	2.3
11/11/2019 6:00 AM	0.9	1.5	2.3
11/11/2019 7:00 AM	0.9	1.5	2.2
11/11/2019 8:00 AM	0.9	1.4	2.2
11/11/2019 9:00 AM	0.9	1.5	2.2
11/11/2019 10:00 AM	1	1.4	2.3
11/11/2019 11:00 AM	1.2	1.5	2.3
11/11/2019 12:00 PM	1.2	1.5	2.4
11/11/2019 1:00 PM	1.2	1.5	2.4
11/11/2019 2:00 PM	1.3	1.5	2.5
11/11/2019 3:00 PM	1.1	1.4	2.3
11/11/2019 4:00 PM	1.1	1.4	2.3
11/11/2019 5:00 PM	1	1.4	2.3
11/11/2019 6:00 PM	1	1.4	2.2
11/11/2019 7:00 PM	0.9	1.3	2.2
11/11/2019 8:00 PM	0.9	1.2	2.2
11/11/2019 9:00 PM	1	1.3	2.2
11/11/2019 10:00 PM	1.1	1.3	2.1
11/11/2019 11:00 PM	1	1.3	2.2
11/12/2019 12:00 AM	1	1.5	2.2
11/12/2019 1:00 AM	0.9	1.4	2.1
11/12/2019 2:00 AM	0.8	1.3	2.1
11/12/2019 3:00 AM	0.9	1.3	2
11/12/2019 4:00 AM	0.8	1.3	2
11/12/2019 5:00 AM	0.8	1.2	2.1
11/12/2019 6:00 AM	0.8	1.2	2
11/12/2019 7:00 AM	0.8	1.2	2
11/12/2019 8:00 AM	Calibration	1.2	2
11/12/2019 9:00 AM	Calibration	1.3	2
11/12/2019 10:00 AM	Calibration	1.3	2.1
11/12/2019 11:00 AM	-0.4	1.3	2.1
11/12/2019 12:00 PM	-0.4	1.3	2.1
11/12/2019 1:00 PM	-0.4	1.3	2.3
11/12/2019 2:00 PM	-0.4	1.4	2.1
11/12/2019 3:00 PM	-0.3	1.4	2.2
11/12/2019 4:00 PM	-0.4	1.3	2.1
11/12/2019 5:00 PM	-0.5	1.3	2.1
11/12/2019 6:00 PM	-0.5	1.3	2.1
11/12/2019 7:00 PM	-0.5	1.3	2.1
11/12/2019 8:00 PM	-0.5	1.3	2.2

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/12/2019 9:00 PM	-0.5	1.3	2.2
11/12/2019 10:00 PM	-0.5	1.3	2.3
11/12/2019 11:00 PM	-0.5	1.3	2.3
11/13/2019 12:00 AM	-0.5	1.5	2.3
11/13/2019 1:00 AM	-0.4	1.5	2.3
11/13/2019 2:00 AM	-0.5	1.5	2.3
11/13/2019 3:00 AM	-0.4	1.5	2.3
11/13/2019 4:00 AM	-0.4	1.5	2.3
11/13/2019 5:00 AM	-0.3	1.6	2.4
11/13/2019 6:00 AM	-0.5	1.7	2.4
11/13/2019 7:00 AM	-0.4	1.7	2.6
11/13/2019 8:00 AM	0	1.9	2.7
11/13/2019 9:00 AM	0.2	1.9	Audit
11/13/2019 10:00 AM	Audit	1.8	3
11/13/2019 11:00 AM	Audit	1.7	2.7
11/13/2019 12:00 PM	0.1	Audit	2.6
11/13/2019 1:00 PM	0.1	1.6	2.5
11/13/2019 2:00 PM	0.1	1.5	2.5
11/13/2019 3:00 PM	0.2	1.6	2.6
11/13/2019 4:00 PM	0.1	1.6	2.6
11/13/2019 5:00 PM	0.2	1.5	2.6
11/13/2019 6:00 PM	0.3	1.6	2.6
11/13/2019 7:00 PM	0.2	1.6	2.5
11/13/2019 8:00 PM	0	2.1	2.5
11/13/2019 9:00 PM	0.1	1.8	2.5
11/13/2019 10:00 PM	0.2	1.6	2.5
11/13/2019 11:00 PM	0	1.7	2.6
11/14/2019 12:00 AM	0	2.2	2.6
11/14/2019 1:00 AM	-0.1	2.1	2.5
11/14/2019 2:00 AM	-0.1	2.1	2.4
11/14/2019 3:00 AM	-0.2	1.9	2.4
11/14/2019 4:00 AM	-0.2	1.5	2.5
11/14/2019 5:00 AM	-0.1	1.7	2.4
11/14/2019 6:00 AM	-0.2	1.6	2.4
11/14/2019 7:00 AM	-0.2	1.7	2.5
11/14/2019 8:00 AM	-0.2	2.2	2.5
11/14/2019 9:00 AM	0	1.9	2.6
11/14/2019 10:00 AM	0	1.7	2.5
11/14/2019 11:00 AM	0.2	1.6	2.4
11/14/2019 12:00 PM	0.1	1.5	2.4
11/14/2019 1:00 PM	0	1.5	2.4
11/14/2019 2:00 PM	0	1.5	2.5
11/14/2019 3:00 PM	0	1.5	2.4
11/14/2019 4:00 PM	0	1.6	2.5
11/14/2019 5:00 PM	0.2	1.7	2.6
11/14/2019 6:00 PM	0.1	1.7	2.4
11/14/2019 7:00 PM	0	2	2.4
11/14/2019 8:00 PM	0	2.3	2.5
11/14/2019 9:00 PM	-0.1	1.8	2.6
11/14/2019 10:00 PM	-0.1	1.8	2.5
11/14/2019 11:00 PM	-0.1	2.1	2.5
11/15/2019 12:00 AM	-0.1	2.5	2.4
11/15/2019 1:00 AM	-0.1	2.2	2.4
11/15/2019 2:00 AM	0	2.1	2.4
11/15/2019 3:00 AM	-0.1	1.9	2.4
11/15/2019 4:00 AM	-0.1	1.8	2.9
11/15/2019 5:00 AM	0	1.8	3.3
11/15/2019 6:00 AM	0	1.8	2.6
11/15/2019 7:00 AM	0	1.8	2.6
11/15/2019 8:00 AM	0	1.6	2.5
11/15/2019 9:00 AM	0.5	1.8	2.9
11/15/2019 10:00 AM	1.5	2.6	3.2
11/15/2019 11:00 AM	1.5	2.7	3
11/15/2019 12:00 PM	1	2.4	2.9
11/15/2019 1:00 PM	0.6	2	2.7
11/15/2019 2:00 PM	0.5	1.9	2.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/15/2019 3:00 PM	1.3	2.7	3.1
11/15/2019 4:00 PM	1.1	2.4	3.7
11/15/2019 5:00 PM	1.1	3	3.7
11/15/2019 6:00 PM	1.6	3.1	4.2
11/15/2019 7:00 PM	1.2	3.1	3.3
11/15/2019 8:00 PM	0.4	2.3	2.9
11/15/2019 9:00 PM	0.2	2.2	3
11/15/2019 10:00 PM	0.2	2.2	3.7
11/15/2019 11:00 PM	0.1	2	3.4
11/16/2019 12:00 AM	0	2	2.9
11/16/2019 1:00 AM	0	2.1	2.7
11/16/2019 2:00 AM	0.2	2.4	2.9
11/16/2019 3:00 AM	0.1	2	2.9
11/16/2019 4:00 AM	0	1.6	2.7
11/16/2019 5:00 AM	0	1.5	2.5
11/16/2019 6:00 AM	-0.1	1.5	2.4
11/16/2019 7:00 AM	-0.1	1.5	2.4
11/16/2019 8:00 AM	-0.1	1.5	2.4
11/16/2019 9:00 AM	0	1.4	2.4
11/16/2019 10:00 AM	-0.1	1.4	2.3
11/16/2019 11:00 AM	-0.2	1.3	2.3
11/16/2019 12:00 PM	-0.1	1.3	2.3
11/16/2019 1:00 PM	-0.1	1.4	2.3
11/16/2019 2:00 PM	-0.2	1.4	2.4
11/16/2019 3:00 PM	-0.1	1.4	2.3
11/16/2019 4:00 PM	-0.1	1.5	2.3
11/16/2019 5:00 PM	0	1.4	2.4
11/16/2019 6:00 PM	0	1.4	2.4
11/16/2019 7:00 PM	0	1.4	2.5
11/16/2019 8:00 PM	0	1.5	2.6
11/16/2019 9:00 PM	0.2	1.6	2.6
11/16/2019 10:00 PM	0.1	1.5	2.6
11/16/2019 11:00 PM	0.1	1.5	2.5
11/17/2019 12:00 AM	0	1.5	2.5
11/17/2019 1:00 AM	0	1.8	2.4
11/17/2019 2:00 AM	0	1.6	2.4
11/17/2019 3:00 AM	-0.1	1.6	2.4
11/17/2019 4:00 AM	-0.1	1.6	2.4
11/17/2019 5:00 AM	0.1	1.5	2.5
11/17/2019 6:00 AM	0	1.5	2.5
11/17/2019 7:00 AM	0	1.5	2.4
11/17/2019 8:00 AM	0	1.4	2.5
11/17/2019 9:00 AM	-0.1	1.4	2.5
11/17/2019 10:00 AM	-0.1	1.4	2.5
11/17/2019 11:00 AM	-0.1	1.4	2.4
11/17/2019 12:00 PM	-0.1	1.5	2.4
11/17/2019 1:00 PM	-0.1	1.4	2.5
11/17/2019 2:00 PM	0	1.4	2.5
11/17/2019 3:00 PM	-0.1	1.4	2.5
11/17/2019 4:00 PM	-0.1	1.4	2.4
11/17/2019 5:00 PM	-0.1	1.4	2.3
11/17/2019 6:00 PM	-0.1	1.4	2.4
11/17/2019 7:00 PM	-0.1	1.4	2.3
11/17/2019 8:00 PM	-0.1	1.4	2.4
11/17/2019 9:00 PM	-0.1	1.4	2.4
11/17/2019 10:00 PM	-0.1	1.4	2.3
11/17/2019 11:00 PM	-0.1	1.5	2.4
11/18/2019 12:00 AM	-0.1	1.5	2.4
11/18/2019 1:00 AM	-0.1	1.5	2.3
11/18/2019 2:00 AM	-0.1	1.5	2.3
11/18/2019 3:00 AM	-0.1	1.5	2.3
11/18/2019 4:00 AM	Precision	Precision	Precision
11/18/2019 5:00 AM	-0.1	1.5	2.4
11/18/2019 6:00 AM	-0.2	1.4	2.3
11/18/2019 7:00 AM	-0.1	1.4	2.3
11/18/2019 8:00 AM	-0.1	1.5	2.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/18/2019 9:00 AM	0.1	1.5	2.5
11/18/2019 10:00 AM	0.1	1.4	2.6
11/18/2019 11:00 AM	0	1.4	2.5
11/18/2019 12:00 PM	0	1.3	2.4
11/18/2019 1:00 PM	0	1.4	2.5
11/18/2019 2:00 PM	0	1.4	2.4
11/18/2019 3:00 PM	0	1.4	2.3
11/18/2019 4:00 PM	0	1.4	2.4
11/18/2019 5:00 PM	-0.1	1.3	2.4
11/18/2019 6:00 PM	-0.1	1.3	2.3
11/18/2019 7:00 PM	-0.1	1.3	2.3
11/18/2019 8:00 PM	-0.2	1.3	2.3
11/18/2019 9:00 PM	-0.2	1.3	2.2
11/18/2019 10:00 PM	-0.2	1.3	2.6
11/18/2019 11:00 PM	-0.2	1.4	3
11/19/2019 12:00 AM	-0.2	1.5	3.1
11/19/2019 1:00 AM	0	1.7	3.6
11/19/2019 2:00 AM	0	1.9	3.6
11/19/2019 3:00 AM	0.1	2	3.4
11/19/2019 4:00 AM	0	2.3	3.4
11/19/2019 5:00 AM	0	1.9	3.7
11/19/2019 6:00 AM	-0.1	1.9	4.3
11/19/2019 7:00 AM	0	2.2	4.2
11/19/2019 8:00 AM	0.7	2.8	3.9
11/19/2019 9:00 AM	3.3	4.8	4.9
11/19/2019 10:00 AM	4.3	6.3	4.5
11/19/2019 11:00 AM	1.4	3.1	4.5
11/19/2019 12:00 PM	1.5	3.1	5
11/19/2019 1:00 PM	2.5	3.9	5.8
11/19/2019 2:00 PM	1.7	3.6	5.4
11/19/2019 3:00 PM	1	2.4	3.4
11/19/2019 4:00 PM	0.5	2	3
11/19/2019 5:00 PM	0.3	1.7	2.9
11/19/2019 6:00 PM	0.2	1.8	2.8
11/19/2019 7:00 PM	0.1	1.7	2.7
11/19/2019 8:00 PM	0	1.5	2.5
11/19/2019 9:00 PM	0	1.5	2.9
11/19/2019 10:00 PM	0	1.6	3
11/19/2019 11:00 PM	-0.1	1.5	2.7
11/20/2019 12:00 AM	-0.1	1.5	2.6
11/20/2019 1:00 AM	-0.1	1.5	2.6
11/20/2019 2:00 AM	-0.1	1.5	2.7
11/20/2019 3:00 AM	0	1.5	2.7
11/20/2019 4:00 AM	0	1.5	2.7
11/20/2019 5:00 AM	-0.1	1.4	2.5
11/20/2019 6:00 AM	-0.2	1.3	2.4
11/20/2019 7:00 AM	-0.1	1.4	2.5
11/20/2019 8:00 AM	0	1.4	2.4
11/20/2019 9:00 AM	0	1.3	2.4
11/20/2019 10:00 AM	-0.1	1.3	2.5
11/20/2019 11:00 AM	-0.1	1.3	2.4
11/20/2019 12:00 PM	-0.1	1.4	2.3
11/20/2019 1:00 PM	-0.2	1.3	2.4
11/20/2019 2:00 PM	0	1.5	2.7
11/20/2019 3:00 PM	0	1.4	2.5
11/20/2019 4:00 PM	0	1.5	2.5
11/20/2019 5:00 PM	0	1.6	2.6
11/20/2019 6:00 PM	0	1.6	2.6
11/20/2019 7:00 PM	0	1.5	2.7
11/20/2019 8:00 PM	0	1.6	2.7
11/20/2019 9:00 PM	-0.1	1.6	2.7
11/20/2019 10:00 PM	-0.1	1.6	2.6
11/20/2019 11:00 PM	-0.1	1.6	2.7
11/21/2019 12:00 AM	-0.3	1.5	2.6
11/21/2019 1:00 AM	-0.3	1.6	2.6
11/21/2019 2:00 AM	-0.2	1.5	2.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/21/2019 3:00 AM	-0.3	1.5	2.7
11/21/2019 4:00 AM	-0.2	1.5	2.6
11/21/2019 5:00 AM	-0.2	1.5	3.3
11/21/2019 6:00 AM	-0.3	1.4	2.8
11/21/2019 7:00 AM	-0.3	1.4	2.5
11/21/2019 8:00 AM	-0.2	1.6	2.8
11/21/2019 9:00 AM	0	1.7	3
11/21/2019 10:00 AM	0.4	1.9	2.9
11/21/2019 11:00 AM	0.5	1.8	3.1
11/21/2019 12:00 PM	0.4	1.7	2.9
11/21/2019 1:00 PM	0.3	1.6	2.8
11/21/2019 2:00 PM	0.2	1.6	2.8
11/21/2019 3:00 PM	0.2	1.6	2.7
11/21/2019 4:00 PM	0.1	1.6	2.7
11/21/2019 5:00 PM	0	1.6	2.8
11/21/2019 6:00 PM	0	1.7	2.7
11/21/2019 7:00 PM	0	1.8	2.8
11/21/2019 8:00 PM	0.1	1.9	2.5
11/21/2019 9:00 PM	0	1.8	2.4
11/21/2019 10:00 PM	0	1.6	2.4
11/21/2019 11:00 PM	0	1.6	2.4
11/22/2019 12:00 AM	0	1.5	2.4
11/22/2019 1:00 AM	0	1.5	2.6
11/22/2019 2:00 AM	0	1.5	2.5
11/22/2019 3:00 AM	0	1.5	2.5
11/22/2019 4:00 AM	0	1.5	2.4
11/22/2019 5:00 AM	0	1.5	2.5
11/22/2019 6:00 AM	-0.1	1.4	2.4
11/22/2019 7:00 AM	-0.1	1.5	2.4
11/22/2019 8:00 AM	-0.1	1.4	2.4
11/22/2019 9:00 AM	-0.2	1.5	2.3
11/22/2019 10:00 AM	-0.2	1.4	2.3
11/22/2019 11:00 AM	-0.2	1.3	2.2
11/22/2019 12:00 PM	-0.2	1.3	2.2
11/22/2019 1:00 PM	-0.2	1.3	2.3
11/22/2019 2:00 PM	-0.2	1.3	2.3
11/22/2019 3:00 PM	0.1	1.6	2.5
11/22/2019 4:00 PM	0	1.7	2.6
11/22/2019 5:00 PM	0	1.6	2.4
11/22/2019 6:00 PM	0.1	1.6	2.6
11/22/2019 7:00 PM	0.2	1.6	2.9
11/22/2019 8:00 PM	0	1.5	2.7
11/22/2019 9:00 PM	-0.1	1.4	2.4
11/22/2019 10:00 PM	-0.2	1.4	2.3
11/22/2019 11:00 PM	-0.3	1.4	2.3
11/23/2019 12:00 AM	-0.2	1.3	2.2
11/23/2019 1:00 AM	-0.3	1.3	2.4
11/23/2019 2:00 AM	-0.3	1.2	2.2
11/23/2019 3:00 AM	-0.3	1.1	2.4
11/23/2019 4:00 AM	-0.3	1.1	2.3
11/23/2019 5:00 AM	-0.2	1.3	2.3
11/23/2019 6:00 AM	-0.3	1.3	2.3
11/23/2019 7:00 AM	-0.3	1.3	2.3
11/23/2019 8:00 AM	-0.2	1.4	2.3
11/23/2019 9:00 AM	-0.1	1.5	2.4
11/23/2019 10:00 AM	0	1.5	2.6
11/23/2019 11:00 AM	0	1.5	2.6
11/23/2019 12:00 PM	0	1.5	2.6
11/23/2019 1:00 PM	-0.1	1.5	2.5
11/23/2019 2:00 PM	-0.1	1.4	2.4
11/23/2019 3:00 PM	-0.2	1.4	2.4
11/23/2019 4:00 PM	-0.1	1.4	2.4
11/23/2019 5:00 PM	-0.2	1.3	2.3
11/23/2019 6:00 PM	-0.3	1.2	2.3
11/23/2019 7:00 PM	-0.3	1.2	2.2
11/23/2019 8:00 PM	-0.3	1.3	2.2

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/23/2019 9:00 PM	-0.3	1.3	2.2
11/23/2019 10:00 PM	-0.3	1.3	2.2
11/23/2019 11:00 PM	-0.2	1.2	2.2
11/24/2019 12:00 AM	-0.3	1.3	2.2
11/24/2019 1:00 AM	-0.3	1.2	2.2
11/24/2019 2:00 AM	-0.3	1.2	2.3
11/24/2019 3:00 AM	-0.3	1.3	2.2
11/24/2019 4:00 AM	-0.3	1.3	2.2
11/24/2019 5:00 AM	-0.2	1.4	2.2
11/24/2019 6:00 AM	-0.3	1.4	2.2
11/24/2019 7:00 AM	-0.3	1.3	2.2
11/24/2019 8:00 AM	-0.3	1.3	2.3
11/24/2019 9:00 AM	-0.1	1.5	2.3
11/24/2019 10:00 AM	-0.2	1.3	2.3
11/24/2019 11:00 AM	-0.2	1.3	2.3
11/24/2019 12:00 PM	-0.2	1.4	2.2
11/24/2019 1:00 PM	-0.2	1.3	2.3
11/24/2019 2:00 PM	-0.3	1.4	2.3
11/24/2019 3:00 PM	-0.2	1.4	2.3
11/24/2019 4:00 PM	-0.2	1.5	2.4
11/24/2019 5:00 PM	-0.1	1.6	2.5
11/24/2019 6:00 PM	-0.1	1.7	2.5
11/24/2019 7:00 PM	0	1.9	2.5
11/24/2019 8:00 PM	0	1.6	2.6
11/24/2019 9:00 PM	0	1.6	2.5
11/24/2019 10:00 PM	0	1.7	2.7
11/24/2019 11:00 PM	0	1.8	2.6
11/25/2019 12:00 AM	0	1.6	2.6
11/25/2019 1:00 AM	0.1	2.2	2.7
11/25/2019 2:00 AM	0.2	1.7	2.6
11/25/2019 3:00 AM	0.1	1.5	2.5
11/25/2019 4:00 AM	Precision	Precision	Precision
11/25/2019 5:00 AM	0	1.4	2.5
11/25/2019 6:00 AM	-0.1	1.5	2.4
11/25/2019 7:00 AM	-0.1	1.5	2.5
11/25/2019 8:00 AM	-0.1	1.5	2.4
11/25/2019 9:00 AM	0	1.4	2.5
11/25/2019 10:00 AM	-0.1	1.5	2.5
11/25/2019 11:00 AM	-0.1	1.4	2.4
11/25/2019 12:00 PM	-0.1	1.4	2.3
11/25/2019 1:00 PM	0	1.4	2.3
11/25/2019 2:00 PM	0	1.4	2.3
11/25/2019 3:00 PM	-0.1	1.4	2.3
11/25/2019 4:00 PM	-0.1	1.4	2.3
11/25/2019 5:00 PM	-0.1	1.3	2.2
11/25/2019 6:00 PM	-0.1	1.4	2.3
11/25/2019 7:00 PM	-0.1	1.6	2.3
11/25/2019 8:00 PM	-0.2	1.5	2.2
11/25/2019 9:00 PM	-0.2	1.5	2.3
11/25/2019 10:00 PM	-0.2	1.5	2.5
11/25/2019 11:00 PM	-0.3	1.4	2.3
11/26/2019 12:00 AM	-0.3	1.4	2.3
11/26/2019 1:00 AM	-0.3	1.4	2.4
11/26/2019 2:00 AM	-0.3	1.3	2.4
11/26/2019 3:00 AM	-0.3	1.3	2.4
11/26/2019 4:00 AM	-0.3	1.2	2.4
11/26/2019 5:00 AM	-0.2	1.4	2.4
11/26/2019 6:00 AM	-0.3	1.4	2.4
11/26/2019 7:00 AM	-0.3	1.4	2.4
11/26/2019 8:00 AM	-0.2	1.5	2.4
11/26/2019 9:00 AM	-0.2	1.5	2.6
11/26/2019 10:00 AM	-0.1	1.6	2.7
11/26/2019 11:00 AM	0	1.6	2.6
11/26/2019 12:00 PM	0	1.5	2.5
11/26/2019 1:00 PM	0	1.5	2.5
11/26/2019 2:00 PM	0	1.5	2.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/26/2019 3:00 PM	0	1.5	2.5
11/26/2019 4:00 PM	0	1.6	2.4
11/26/2019 5:00 PM	0	1.5	2.4
11/26/2019 6:00 PM	0	1.8	2.5
11/26/2019 7:00 PM	0	1.9	2.4
11/26/2019 8:00 PM	-0.1	1.6	2.4
11/26/2019 9:00 PM	-0.1	1.9	2.3
11/26/2019 10:00 PM	-0.2	1.7	2.5
11/26/2019 11:00 PM	-0.1	1.6	2.4
11/27/2019 12:00 AM	-0.2	1.7	2.4
11/27/2019 1:00 AM	-0.2	1.6	2.4
11/27/2019 2:00 AM	-0.2	1.6	2.5
11/27/2019 3:00 AM	-0.2	1.6	2.5
11/27/2019 4:00 AM	-0.2	1.6	2.5
11/27/2019 5:00 AM	-0.2	1.5	2.4
11/27/2019 6:00 AM	-0.2	1.4	2.4
11/27/2019 7:00 AM	-0.2	1.5	2.3
11/27/2019 8:00 AM	-0.2	1.5	2.4
11/27/2019 9:00 AM	-0.2	1.5	2.4
11/27/2019 10:00 AM	-0.1	1.6	2.4
11/27/2019 11:00 AM	0	1.6	2.5
11/27/2019 12:00 PM	0	1.5	2.4
11/27/2019 1:00 PM	0	1.3	2.4
11/27/2019 2:00 PM	0	1.4	2.5
11/27/2019 3:00 PM	-0.1	1.3	2.4
11/27/2019 4:00 PM	-0.1	1.3	2.2
11/27/2019 5:00 PM	0.1	1.5	2.3
11/27/2019 6:00 PM	0.1	1.6	2.6
11/27/2019 7:00 PM	0.3	1.7	2.4
11/27/2019 8:00 PM	0	1.5	2.4
11/27/2019 9:00 PM	-0.3	1.3	2.3
11/27/2019 10:00 PM	-0.2	1.3	2.4
11/27/2019 11:00 PM	0	1.5	2.3
11/28/2019 12:00 AM	-0.3	1.3	2.2
11/28/2019 1:00 AM	-0.3	1.3	2.3
11/28/2019 2:00 AM	-0.3	1.2	2.3
11/28/2019 3:00 AM	-0.3	1.3	2.2
11/28/2019 4:00 AM	-0.3	1.3	2.3
11/28/2019 5:00 AM	-0.2	1.4	2.3
11/28/2019 6:00 AM	-0.3	1.3	2.3
11/28/2019 7:00 AM	-0.3	1.3	2.2
11/28/2019 8:00 AM	-0.2	1.4	2.2
11/28/2019 9:00 AM	-0.2	1.3	2.3
11/28/2019 10:00 AM	-0.2	1.3	2.3
11/28/2019 11:00 AM	-0.2	1.3	2.3
11/28/2019 12:00 PM	-0.3	1.4	2.3
11/28/2019 1:00 PM	-0.3	1.3	2.3
11/28/2019 2:00 PM	-0.2	1.3	2.3
11/28/2019 3:00 PM	-0.2	1.4	2.3
11/28/2019 4:00 PM	-0.2	1.3	2.3
11/28/2019 5:00 PM	-0.2	1.4	2.3
11/28/2019 6:00 PM	-0.2	1.3	2.2
11/28/2019 7:00 PM	-0.3	1.3	2.3
11/28/2019 8:00 PM	-0.2	1.4	2.3
11/28/2019 9:00 PM	-0.2	1.4	2.3
11/28/2019 10:00 PM	-0.2	1.4	2.3
11/28/2019 11:00 PM	-0.3	1.4	2.3
11/29/2019 12:00 AM	-0.2	1.4	2.3
11/29/2019 1:00 AM	-0.2	1.3	2.4
11/29/2019 2:00 AM	-0.2	1.3	2.3
11/29/2019 3:00 AM	-0.2	1.3	2.3
11/29/2019 4:00 AM	-0.2	1.3	2.4
11/29/2019 5:00 AM	-0.2	1.4	2.4
11/29/2019 6:00 AM	-0.3	1.3	2.4
11/29/2019 7:00 AM	-0.2	1.3	2.3
11/29/2019 8:00 AM	-0.2	1.4	2.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
11/29/2019 9:00 AM	-0.2	1.4	2.4
11/29/2019 10:00 AM	-0.1	1.4	2.4
11/29/2019 11:00 AM	-0.1	1.3	2.4
11/29/2019 12:00 PM	-0.2	1.4	2.4
11/29/2019 1:00 PM	-0.1	1.4	2.4
11/29/2019 2:00 PM	-0.1	1.4	2.4
11/29/2019 3:00 PM	-0.1	1.5	2.4
11/29/2019 4:00 PM	-0.1	1.5	2.4
11/29/2019 5:00 PM	-0.1	1.4	2.5
11/29/2019 6:00 PM	-0.2	1.5	2.6
11/29/2019 7:00 PM	-0.1	1.5	2.6
11/29/2019 8:00 PM	-0.1	1.6	2.6
11/29/2019 9:00 PM	0	1.6	2.5
11/29/2019 10:00 PM	0	1.8	2.7
11/29/2019 11:00 PM	0	1.7	2.6
11/30/2019 12:00 AM	0	1.8	2.7
11/30/2019 1:00 AM	0	1.7	2.6
11/30/2019 2:00 AM	0	1.8	2.7
11/30/2019 3:00 AM	0	1.6	2.6
11/30/2019 4:00 AM	0	1.6	2.6
11/30/2019 5:00 AM	0	1.6	2.6
11/30/2019 6:00 AM	0	1.6	2.5
11/30/2019 7:00 AM	0	1.6	2.6
11/30/2019 8:00 AM	0	1.5	2.6
11/30/2019 9:00 AM	0.1	1.8	2.7
11/30/2019 10:00 AM	0.4	1.9	2.8
11/30/2019 11:00 AM	0.4	1.9	3
11/30/2019 12:00 PM	0.6	2.1	3.5
11/30/2019 1:00 PM	1.2	2.8	3.7
11/30/2019 2:00 PM	1	2.6	3.5
11/30/2019 3:00 PM	1.1	2.8	3.6
11/30/2019 4:00 PM	1.1	2.5	3.7
11/30/2019 5:00 PM	1.1	2.5	3.5
11/30/2019 6:00 PM	0.9	2.1	3.4
11/30/2019 7:00 PM	0.6	2	3.1
11/30/2019 8:00 PM	0.4	1.7	2.9
11/30/2019 9:00 PM	0.2	1.6	2.8
11/30/2019 10:00 PM	0.1	1.5	2.7
11/30/2019 11:00 PM	0	1.5	2.6
12/1/2019 12:00 AM	0	1.5	2.4
12/1/2019 1:00 AM	-0.2	1.3	2.3
12/1/2019 2:00 AM	-0.2	1.3	2.3
12/1/2019 3:00 AM	-0.2	1.3	2.3
12/1/2019 4:00 AM	-0.3	1.3	2.2
12/1/2019 5:00 AM	-0.2	1.4	2.4
12/1/2019 6:00 AM	-0.3	1.3	2.2
12/1/2019 7:00 AM	-0.3	1.3	2.3
12/1/2019 8:00 AM	-0.3	1.3	2.3
12/1/2019 9:00 AM	-0.3	1.2	2.2
12/1/2019 10:00 AM	-0.3	1.2	2.3
12/1/2019 11:00 AM	-0.3	1.3	2.2
12/1/2019 12:00 PM	-0.3	1.3	2.2
12/1/2019 1:00 PM	-0.3	1.3	2.3
12/1/2019 2:00 PM	-0.3	1.2	2.3
12/1/2019 3:00 PM	-0.3	1.2	2.3
12/1/2019 4:00 PM	-0.2	1.2	2.2
12/1/2019 5:00 PM	-0.3	1.2	2.3
12/1/2019 6:00 PM	-0.3	1.3	2.3
12/1/2019 7:00 PM	-0.3	1.3	2.3
12/1/2019 8:00 PM	-0.3	1.3	2.3
12/1/2019 9:00 PM	-0.3	1.2	2.3
12/1/2019 10:00 PM	-0.3	1.3	2.2
12/1/2019 11:00 PM	-0.3	1.3	2.2
12/2/2019 12:00 AM	-0.3	1.5	2.2
12/2/2019 1:00 AM	-0.3	1.5	2.3
12/2/2019 2:00 AM	-0.3	1.4	2.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/2/2019 3:00 AM	-0.3	1.5	2.3
12/2/2019 4:00 AM	Precision	Precision	Precision
12/2/2019 5:00 AM	-0.2	1.4	2.3
12/2/2019 6:00 AM	-0.3	1.5	2.4
12/2/2019 7:00 AM	-0.2	1.5	2.4
12/2/2019 8:00 AM	-0.2	1.5	2.3
12/2/2019 9:00 AM	0	1.6	2.4
12/2/2019 10:00 AM	-0.1	1.5	2.4
12/2/2019 11:00 AM	-0.1	1.5	2.4
12/2/2019 12:00 PM	-0.1	1.5	2.5
12/2/2019 1:00 PM	0	1.6	2.6
12/2/2019 2:00 PM	0	1.7	2.5
12/2/2019 3:00 PM	-0.1	1.6	2.5
12/2/2019 4:00 PM	-0.2	1.6	2.4
12/2/2019 5:00 PM	-0.2	1.6	2.4
12/2/2019 6:00 PM	-0.2	1.5	2.4
12/2/2019 7:00 PM	-0.2	1.6	2.4
12/2/2019 8:00 PM	-0.2	1.5	2.4
12/2/2019 9:00 PM	-0.2	1.5	2.4
12/2/2019 10:00 PM	-0.2	1.5	2.3
12/2/2019 11:00 PM	-0.2	1.5	2.3
12/3/2019 12:00 AM	-0.2	1.4	2.3
12/3/2019 1:00 AM	-0.3	1.5	2.3
12/3/2019 2:00 AM	-0.3	1.4	2.3
12/3/2019 3:00 AM	-0.2	1.4	2.3
12/3/2019 4:00 AM	-0.2	1.5	2.3
12/3/2019 5:00 AM	-0.1	1.5	2.2
12/3/2019 6:00 AM	-0.2	1.5	2.4
12/3/2019 7:00 AM	-0.2	1.5	2.3
12/3/2019 8:00 AM	-0.3	1.5	2.4
12/3/2019 9:00 AM	-0.1	1.6	2.4
12/3/2019 10:00 AM	-0.1	1.7	2.5
12/3/2019 11:00 AM	-0.1	1.6	2.4
12/3/2019 12:00 PM	-0.1	1.5	2.6
12/3/2019 1:00 PM	0.3	2.5	2.7
12/3/2019 2:00 PM	0	1.9	2.5
12/3/2019 3:00 PM	-0.1	1.5	2.4
12/3/2019 4:00 PM	-0.1	1.5	2.4
12/3/2019 5:00 PM	-0.2	1.6	2.3
12/3/2019 6:00 PM	-0.2	1.6	2.4
12/3/2019 7:00 PM	-0.2	1.6	2.4
12/3/2019 8:00 PM	-0.2	1.5	2.4
12/3/2019 9:00 PM	-0.2	1.6	2.4
12/3/2019 10:00 PM	-0.2	1.6	2.4
12/3/2019 11:00 PM	-0.1	1.6	2.4
12/4/2019 12:00 AM	-0.2	1.5	2.4
12/4/2019 1:00 AM	-0.1	1.6	2.5
12/4/2019 2:00 AM	-0.1	1.6	2.5
12/4/2019 3:00 AM	-0.1	1.7	2.5
12/4/2019 4:00 AM	-0.1	1.8	2.5
12/4/2019 5:00 AM	0	1.9	2.6
12/4/2019 6:00 AM	0	1.7	2.5
12/4/2019 7:00 AM	-0.1	1.7	2.6
12/4/2019 8:00 AM	0	1.7	2.6
12/4/2019 9:00 AM	0.1	1.7	2.6
12/4/2019 10:00 AM	0.1	1.7	2.8
12/4/2019 11:00 AM	0	1.7	2.7
12/4/2019 12:00 PM	0	1.6	2.5
12/4/2019 1:00 PM	0	1.6	2.5
12/4/2019 2:00 PM	0	1.7	2.6
12/4/2019 3:00 PM	0.4	2.2	2.9
12/4/2019 4:00 PM	0.5	2.3	3.6
12/4/2019 5:00 PM	1.4	3.5	3.3
12/4/2019 6:00 PM	0.4	2	4.6
12/4/2019 7:00 PM	0.1	1.8	4.6
12/4/2019 8:00 PM	0	1.6	3.1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/4/2019 9:00 PM	-0.3	1.5	2.5
12/4/2019 10:00 PM	-0.1	1.6	2.6
12/4/2019 11:00 PM	-0.2	1.5	2.5
12/5/2019 12:00 AM	-0.2	1.5	2.4
12/5/2019 1:00 AM	-0.2	1.5	2.4
12/5/2019 2:00 AM	-0.2	1.5	2.4
12/5/2019 3:00 AM	-0.2	1.5	2.4
12/5/2019 4:00 AM	-0.3	1.5	2.4
12/5/2019 5:00 AM	-0.2	1.5	2.5
12/5/2019 6:00 AM	-0.2	1.5	2.5
12/5/2019 7:00 AM	-0.2	1.5	2.5
12/5/2019 8:00 AM	-0.1	1.5	2.5
12/5/2019 9:00 AM	0	1.5	2.5
12/5/2019 10:00 AM	-0.1	1.5	2.4
12/5/2019 11:00 AM	0	1.6	2.4
12/5/2019 12:00 PM	0	1.5	2.5
12/5/2019 1:00 PM	0	1.6	2.6
12/5/2019 2:00 PM	0	1.5	2.4
12/5/2019 3:00 PM	-0.1	1.5	2.5
12/5/2019 4:00 PM	0	1.6	2.6
12/5/2019 5:00 PM	0	1.5	3.2
12/5/2019 6:00 PM	0.1	2	2.9
12/5/2019 7:00 PM	0.1	2	2.8
12/5/2019 8:00 PM	0	1.8	2.5
12/5/2019 9:00 PM	0	1.8	3.1
12/5/2019 10:00 PM	0	2.4	3.1
12/5/2019 11:00 PM	0.1	2.4	2.9
12/6/2019 12:00 AM	0	1.8	2.6
12/6/2019 1:00 AM	0	1.6	2.5
12/6/2019 2:00 AM	-0.1	1.5	2.5
12/6/2019 3:00 AM	-0.2	1.6	2.6
12/6/2019 4:00 AM	-0.2	1.6	2.6
12/6/2019 5:00 AM	-0.1	1.6	2.6
12/6/2019 6:00 AM	-0.2	1.6	2.6
12/6/2019 7:00 AM	-0.2	1.6	2.5
12/6/2019 8:00 AM	-0.1	1.5	2.5
12/6/2019 9:00 AM	-0.1	1.5	2.6
12/6/2019 10:00 AM	-0.1	1.6	2.5
12/6/2019 11:00 AM	0	1.5	2.6
12/6/2019 12:00 PM	0	1.5	2.5
12/6/2019 1:00 PM	0.1	1.6	2.7
12/6/2019 2:00 PM	0	1.6	2.5
12/6/2019 3:00 PM	-0.1	1.6	2.4
12/6/2019 4:00 PM	-0.1	1.6	2.4
12/6/2019 5:00 PM	-0.1	1.6	2.4
12/6/2019 6:00 PM	0	1.6	2.5
12/6/2019 7:00 PM	0	1.6	2.5
12/6/2019 8:00 PM	-0.1	1.5	2.3
12/6/2019 9:00 PM	-0.1	1.5	2.4
12/6/2019 10:00 PM	-0.1	1.5	2.4
12/6/2019 11:00 PM	-0.1	1.5	2.4
12/7/2019 12:00 AM	-0.1	1.5	2.4
12/7/2019 1:00 AM	-0.2	1.4	2.3
12/7/2019 2:00 AM	-0.2	1.5	2.4
12/7/2019 3:00 AM	-0.2	1.5	2.3
12/7/2019 4:00 AM	-0.3	1.5	2.4
12/7/2019 5:00 AM	-0.2	1.5	2.5
12/7/2019 6:00 AM	-0.3	1.5	2.4
12/7/2019 7:00 AM	-0.3	1.5	2.4
12/7/2019 8:00 AM	-0.1	1.6	2.5
12/7/2019 9:00 AM	-0.1	1.6	2.5
12/7/2019 10:00 AM	-0.1	1.5	2.5
12/7/2019 11:00 AM	-0.1	1.5	2.4
12/7/2019 12:00 PM	0	1.6	2.5
12/7/2019 1:00 PM	0	1.6	2.5
12/7/2019 2:00 PM	0	1.6	2.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/7/2019 3:00 PM	0.1	1.7	2.9
12/7/2019 4:00 PM	0.1	1.7	2.8
12/7/2019 5:00 PM	0.1	1.7	2.9
12/7/2019 6:00 PM	0.1	1.9	3.3
12/7/2019 7:00 PM	0.1	2	3.5
12/7/2019 8:00 PM	0	2	3.7
12/7/2019 9:00 PM	-0.1	1.9	3.4
12/7/2019 10:00 PM	-0.1	2	3.1
12/7/2019 11:00 PM	-0.1	1.7	3.1
12/8/2019 12:00 AM	-0.2	1.8	2.7
12/8/2019 1:00 AM	-0.2	1.8	3.1
12/8/2019 2:00 AM	-0.2	1.9	3
12/8/2019 3:00 AM	-0.2	1.7	3
12/8/2019 4:00 AM	-0.2	1.7	3
12/8/2019 5:00 AM	-0.1	1.8	3.1
12/8/2019 6:00 AM	-0.2	1.8	3
12/8/2019 7:00 AM	-0.1	1.6	2.9
12/8/2019 8:00 AM	0	1.7	3
12/8/2019 9:00 AM	0.6	1.8	2.9
12/8/2019 10:00 AM	0.5	1.7	2.9
12/8/2019 11:00 AM	0.3	1.6	2.9
12/8/2019 12:00 PM	0.2	1.6	2.8
12/8/2019 1:00 PM	0	1.5	2.7
12/8/2019 2:00 PM	0	1.5	2.6
12/8/2019 3:00 PM	0	1.5	2.5
12/8/2019 4:00 PM	0	1.5	2.6
12/8/2019 5:00 PM	0	1.5	2.6
12/8/2019 6:00 PM	0	1.5	2.5
12/8/2019 7:00 PM	0	1.6	2.5
12/8/2019 8:00 PM	0	1.5	2.5
12/8/2019 9:00 PM	0	1.5	2.6
12/8/2019 10:00 PM	0	1.5	2.6
12/8/2019 11:00 PM	0.1	1.7	3
12/9/2019 12:00 AM	0	2.7	2.9
12/9/2019 1:00 AM	0	2.2	3
12/9/2019 2:00 AM	0	2	3
12/9/2019 3:00 AM	0	1.7	2.8
12/9/2019 4:00 AM	Precision	Precision	Precision
12/9/2019 5:00 AM	0	1.6	2.7
12/9/2019 6:00 AM	-0.1	1.5	2.7
12/9/2019 7:00 AM	-0.1	1.5	2.5
12/9/2019 8:00 AM	-0.2	1.4	2.6
12/9/2019 9:00 AM	-0.1	1.3	2.5
12/9/2019 10:00 AM	-0.2	1.4	2.6
12/9/2019 11:00 AM	-0.2	1.3	2.5
12/9/2019 12:00 PM	-0.2	1.2	2.5
12/9/2019 1:00 PM	-0.2	1.2	2.4
12/9/2019 2:00 PM	-0.2	1.3	2.5
12/9/2019 3:00 PM	-0.2	1.4	2.5
12/9/2019 4:00 PM	-0.2	1.3	2.5
12/9/2019 5:00 PM	-0.2	1.3	2.4
12/9/2019 6:00 PM	-0.2	1.3	2.4
12/9/2019 7:00 PM	-0.2	1.3	2.4
12/9/2019 8:00 PM	-0.2	1.3	2.4
12/9/2019 9:00 PM	-0.3	1.3	2.4
12/9/2019 10:00 PM	-0.2	1.5	2.5
12/9/2019 11:00 PM	-0.1	1.5	2.5
12/10/2019 12:00 AM	-0.2	1.4	2.3
12/10/2019 1:00 AM	-0.1	1.4	2.4
12/10/2019 2:00 AM	-0.1	1.4	2.4
12/10/2019 3:00 AM	-0.2	1.3	2.3
12/10/2019 4:00 AM	-0.2	1.4	2.3
12/10/2019 5:00 AM	-0.1	1.3	2.4
12/10/2019 6:00 AM	-0.2	1.3	2.3
12/10/2019 7:00 AM	-0.2	1.2	2.3
12/10/2019 8:00 AM	-0.2	1.4	2.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/10/2019 9:00 AM	-0.2	1.2	2.3
12/10/2019 10:00 AM	-0.2	1.2	2.2
12/10/2019 11:00 AM	-0.2	1.1	2.3
12/10/2019 12:00 PM	-0.2	1.2	2.3
12/10/2019 1:00 PM	-0.2	1.2	2.2
12/10/2019 2:00 PM	-0.2	1.1	2.2
12/10/2019 3:00 PM	-0.1	1.4	2.3
12/10/2019 4:00 PM	-0.2	1.4	2.3
12/10/2019 5:00 PM	-0.2	1.4	2.4
12/10/2019 6:00 PM	-0.1	1.4	2.3
12/10/2019 7:00 PM	-0.2	1.4	2.4
12/10/2019 8:00 PM	-0.1	1.3	2.4
12/10/2019 9:00 PM	0	1.4	2.8
12/10/2019 10:00 PM	-0.1	1.3	2.6
12/10/2019 11:00 PM	-0.1	1.3	2.6
12/11/2019 12:00 AM	-0.1	1.4	2.4
12/11/2019 1:00 AM	0	1.6	2.4
12/11/2019 2:00 AM	0	1.6	2.4
12/11/2019 3:00 AM	-0.1	1.4	2.4
12/11/2019 4:00 AM	-0.2	1.4	2.3
12/11/2019 5:00 AM	-0.1	1.5	2.5
12/11/2019 6:00 AM	0	1.6	3.2
12/11/2019 7:00 AM	0.5	2.2	3.1
12/11/2019 8:00 AM	0.7	2.3	3.4
12/11/2019 9:00 AM	0.7	2.3	2.9
12/11/2019 10:00 AM	0.2	1.7	2.6
12/11/2019 11:00 AM	0	1.6	2.6
12/11/2019 12:00 PM	0	1.5	2.7
12/11/2019 1:00 PM	0.1	1.6	2.7
12/11/2019 2:00 PM	0.1	1.6	2.7
12/11/2019 3:00 PM	0.1	1.7	2.8
12/11/2019 4:00 PM	0.6	2	3.1
12/11/2019 5:00 PM	0.8	2.5	3.1
12/11/2019 6:00 PM	1.9	3.5	3.7
12/11/2019 7:00 PM	1.8	3.8	4.7
12/11/2019 8:00 PM	1.3	2.9	4.3
12/11/2019 9:00 PM	0.8	2.4	3.7
12/11/2019 10:00 PM	0.5	2	3.3
12/11/2019 11:00 PM	0.4	1.9	2.9
12/12/2019 12:00 AM	0.3	1.7	2.9
12/12/2019 1:00 AM	0.2	1.7	3.1
12/12/2019 2:00 AM	0.2	1.7	3.1
12/12/2019 3:00 AM	0.1	1.6	2.8
12/12/2019 4:00 AM	0	1.7	2.8
12/12/2019 5:00 AM	0	1.6	2.8
12/12/2019 6:00 AM	-0.1	1.5	2.7
12/12/2019 7:00 AM	-0.2	1.5	2.6
12/12/2019 8:00 AM	0	1.7	2.6
12/12/2019 9:00 AM	0.4	1.8	2.8
12/12/2019 10:00 AM	0.5	1.8	3.2
12/12/2019 11:00 AM	0.6	2	3.2
12/12/2019 12:00 PM	0.5	1.9	3.1
12/12/2019 1:00 PM	0.5	1.9	3.1
12/12/2019 2:00 PM	0.4	1.8	3
12/12/2019 3:00 PM	0.4	1.7	3
12/12/2019 4:00 PM	0.3	1.7	2.9
12/12/2019 5:00 PM	0.2	1.6	2.8
12/12/2019 6:00 PM	0.1	1.6	2.8
12/12/2019 7:00 PM	0	1.6	2.7
12/12/2019 8:00 PM	0	1.5	2.7
12/12/2019 9:00 PM	0	1.5	2.7
12/12/2019 10:00 PM	0	1.6	2.7
12/12/2019 11:00 PM	0	1.5	2.7
12/13/2019 12:00 AM	0	1.5	2.7
12/13/2019 1:00 AM	0	1.5	2.7
12/13/2019 2:00 AM	0	1.5	2.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/13/2019 3:00 AM	0	1.6	2.6
12/13/2019 4:00 AM	0	1.6	2.6
12/13/2019 5:00 AM	0	1.6	2.8
12/13/2019 6:00 AM	0	1.6	2.7
12/13/2019 7:00 AM	0	1.6	2.6
12/13/2019 8:00 AM	-0.1	1.5	2.5
12/13/2019 9:00 AM	-0.1	1.5	2.6
12/13/2019 10:00 AM	-0.1	1.5	2.5
12/13/2019 11:00 AM	-0.1	1.5	2.5
12/13/2019 12:00 PM	-0.1	1.4	2.5
12/13/2019 1:00 PM	-0.1	1.4	2.5
12/13/2019 2:00 PM	-0.2	1.4	2.5
12/13/2019 3:00 PM	-0.2	1.4	2.5
12/13/2019 4:00 PM	-0.2	1.4	2.5
12/13/2019 5:00 PM	-0.2	1.4	2.4
12/13/2019 6:00 PM	-0.2	1.3	2.4
12/13/2019 7:00 PM	-0.3	1.2	2.4
12/13/2019 8:00 PM	-0.3	1.2	2.4
12/13/2019 9:00 PM	-0.2	1.3	2.4
12/13/2019 10:00 PM	-0.3	1.2	2.5
12/13/2019 11:00 PM	-0.3	1.3	2.4
12/14/2019 12:00 AM	-0.2	1.4	2.4
12/14/2019 1:00 AM	-0.3	1.2	2.4
12/14/2019 2:00 AM	-0.3	1.2	2.4
12/14/2019 3:00 AM	-0.2	1.2	2.4
12/14/2019 4:00 AM	-0.3	1.2	2.3
12/14/2019 5:00 AM	-0.2	1.3	2.5
12/14/2019 6:00 AM	-0.3	1.3	2.4
12/14/2019 7:00 AM	-0.3	1.2	2.4
12/14/2019 8:00 AM	-0.2	1.2	2.4
12/14/2019 9:00 AM	-0.2	1.2	2.3
12/14/2019 10:00 AM	-0.3	1.2	2.3
12/14/2019 11:00 AM	-0.3	1.2	2.3
12/14/2019 12:00 PM	-0.3	1.3	2.4
12/14/2019 1:00 PM	-0.2	1.4	2.4
12/14/2019 2:00 PM	-0.1	1.5	2.4
12/14/2019 3:00 PM	-0.1	1.5	2.4
12/14/2019 4:00 PM	-0.2	1.5	2.4
12/14/2019 5:00 PM	-0.2	1.4	2.3
12/14/2019 6:00 PM	-0.3	1.4	2.3
12/14/2019 7:00 PM	-0.3	1.4	2.3
12/14/2019 8:00 PM	-0.3	1.3	2.4
12/14/2019 9:00 PM	-0.3	1.3	2.3
12/14/2019 10:00 PM	-0.3	1.3	2.4
12/14/2019 11:00 PM	-0.2	1.4	2.4
12/15/2019 12:00 AM	-0.2	1.4	2.5
12/15/2019 1:00 AM	-0.2	1.4	2.4
12/15/2019 2:00 AM	-0.2	1.4	2.4
12/15/2019 3:00 AM	-0.2	1.4	2.5
12/15/2019 4:00 AM	-0.3	1.4	2.4
12/15/2019 5:00 AM	-0.2	1.5	2.4
12/15/2019 6:00 AM	-0.2	1.3	2.4
12/15/2019 7:00 AM	-0.2	1.2	2.4
12/15/2019 8:00 AM	-0.1	1.3	2.4
12/15/2019 9:00 AM	-0.1	1.4	2.5
12/15/2019 10:00 AM	-0.1	1.4	2.4
12/15/2019 11:00 AM	-0.1	1.4	2.4
12/15/2019 12:00 PM	-0.1	1.4	2.4
12/15/2019 1:00 PM	-0.1	1.4	2.4
12/15/2019 2:00 PM	-0.1	1.4	2.3
12/15/2019 3:00 PM	-0.1	1.2	2.4
12/15/2019 4:00 PM	-0.1	1.3	2.4
12/15/2019 5:00 PM	-0.2	1.3	2.3
12/15/2019 6:00 PM	-0.2	1.3	2.3
12/15/2019 7:00 PM	-0.2	1.3	2.4
12/15/2019 8:00 PM	-0.1	1.4	2.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/15/2019 9:00 PM	-0.1	1.5	2.3
12/15/2019 10:00 PM	-0.1	1.5	2.4
12/15/2019 11:00 PM	-0.1	1.6	2.5
12/16/2019 12:00 AM	-0.2	1.5	2.4
12/16/2019 1:00 AM	-0.2	1.4	2.5
12/16/2019 2:00 AM	-0.2	1.3	2.4
12/16/2019 3:00 AM	-0.3	1.3	2.4
12/16/2019 4:00 AM	Precision	Precision	Precision
12/16/2019 5:00 AM	-0.2	1.3	2.4
12/16/2019 6:00 AM	-0.3	1.3	2.4
12/16/2019 7:00 AM	-0.3	1.3	2.4
12/16/2019 8:00 AM	-0.2	1.3	2.4
12/16/2019 9:00 AM	-0.2	1.2	2.4
12/16/2019 10:00 AM	-0.3	1.2	2.4
12/16/2019 11:00 AM	-0.2	1.2	2.4
12/16/2019 12:00 PM	-0.2	1.3	2.5
12/16/2019 1:00 PM	-0.3	1.3	2.4
12/16/2019 2:00 PM	-0.3	1.3	2.4
12/16/2019 3:00 PM	-0.3	1.4	2.4
12/16/2019 4:00 PM	-0.2	1.3	2.4
12/16/2019 5:00 PM	-0.3	1.2	2.4
12/16/2019 6:00 PM	-0.3	1.3	2.4
12/16/2019 7:00 PM	-0.2	1.2	2.4
12/16/2019 8:00 PM	-0.2	1.3	2.3
12/16/2019 9:00 PM	-0.3	1.3	Power Fail
12/16/2019 10:00 PM	-0.3	1.2	Power Fail
12/16/2019 11:00 PM	-0.2	1.2	Power Fail
12/17/2019 12:00 AM	-0.3	1.3	Power Fail
12/17/2019 1:00 AM	-0.2	1.2	Power Fail
12/17/2019 2:00 AM	-0.3	1.2	Power Fail
12/17/2019 3:00 AM	-0.3	1.3	Power Fail
12/17/2019 4:00 AM	-0.2	1.3	Power Fail
12/17/2019 5:00 AM	-0.3	1.3	Power Fail
12/17/2019 6:00 AM	-0.2	1.2	Power Fail
12/17/2019 7:00 AM	-0.3	1.2	Power Fail
12/17/2019 8:00 AM	-0.3	1.2	Power Fail
12/17/2019 9:00 AM	-0.3	1.2	Power Fail
12/17/2019 10:00 AM	-0.3	1.3	Power Fail
12/17/2019 11:00 AM	-0.3	1.3	Power Fail
12/17/2019 12:00 PM	-0.3	1.3	Power Fail
12/17/2019 1:00 PM	-0.3	1.3	Power Fail
12/17/2019 2:00 PM	-0.3	1.3	Power Fail
12/17/2019 3:00 PM	-0.3	1.3	Power Fail
12/17/2019 4:00 PM	-0.3	1.3	Power Fail
12/17/2019 5:00 PM	-0.2	1.3	Power Fail
12/17/2019 6:00 PM	-0.3	1.3	Power Fail
12/17/2019 7:00 PM	-0.3	1.2	Power Fail
12/17/2019 8:00 PM	-0.2	1.3	Power Fail
12/17/2019 9:00 PM	-0.2	1.3	Power Fail
12/17/2019 10:00 PM	-0.3	1.3	Power Fail
12/17/2019 11:00 PM	-0.2	1.3	Power Fail
12/18/2019 12:00 AM	-0.2	1.4	Power Fail
12/18/2019 1:00 AM	-0.2	1.4	Power Fail
12/18/2019 2:00 AM	-0.3	1.4	Power Fail
12/18/2019 3:00 AM	-0.3	1.3	Power Fail
12/18/2019 4:00 AM	-0.3	1.4	Power Fail
12/18/2019 5:00 AM	-0.2	1.5	Power Fail
12/18/2019 6:00 AM	-0.2	1.7	Power Fail
12/18/2019 7:00 AM	-0.2	1.6	Power Fail
12/18/2019 8:00 AM	-0.1	1.8	Power Fail
12/18/2019 9:00 AM	-0.1	1.7	Power Fail
12/18/2019 10:00 AM	-0.1	1.6	Power Fail
12/18/2019 11:00 AM	0	1.5	Power Fail
12/18/2019 12:00 PM	-0.1	1.4	Power Fail
12/18/2019 1:00 PM	-0.1	1.4	Power Fail
12/18/2019 2:00 PM	-0.1	1.3	Power Fail

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/18/2019 3:00 PM	-0.2	1.3	Power Fail
12/18/2019 4:00 PM	-0.2	1.4	Power Fail
12/18/2019 5:00 PM	0	1.7	Power Fail
12/18/2019 6:00 PM	0	1.7	Power Fail
12/18/2019 7:00 PM	-0.1	1.5	Power Fail
12/18/2019 8:00 PM	-0.1	1.3	Power Fail
12/18/2019 9:00 PM	-0.2	1.4	Power Fail
12/18/2019 10:00 PM	-0.2	1.4	Power Fail
12/18/2019 11:00 PM	-0.2	1.3	Power Fail
12/19/2019 12:00 AM	-0.2	1.3	Power Fail
12/19/2019 1:00 AM	-0.2	1.5	Power Fail
12/19/2019 2:00 AM	-0.1	1.5	Power Fail
12/19/2019 3:00 AM	0	1.6	Power Fail
12/19/2019 4:00 AM	0	1.7	Power Fail
12/19/2019 5:00 AM	0	1.7	InVld
12/19/2019 6:00 AM	0	1.8	InVld
12/19/2019 7:00 AM	0	1.8	InVld
12/19/2019 8:00 AM	0	1.7	InVld
12/19/2019 9:00 AM	0.1	1.8	InVld
12/19/2019 10:00 AM	0.6	2	InVld
12/19/2019 11:00 AM	0.3	1.8	InVld
12/19/2019 12:00 PM	0	1.6	InVld
12/19/2019 1:00 PM	0	1.6	InVld
12/19/2019 2:00 PM	0.2	1.6	InVld
12/19/2019 3:00 PM	0.6	2.1	InVld
12/19/2019 4:00 PM	0.5	2.1	InVld
12/19/2019 5:00 PM	0.1	2	InVld
12/19/2019 6:00 PM	0	1.9	InVld
12/19/2019 7:00 PM	-0.1	1.5	InVld
12/19/2019 8:00 PM	-0.1	1.6	InVld
12/19/2019 9:00 PM	0	1.6	InVld
12/19/2019 10:00 PM	0	1.8	InVld
12/19/2019 11:00 PM	0	2	InVld
12/20/2019 12:00 AM	0	1.8	InVld
12/20/2019 1:00 AM	0	1.6	InVld
12/20/2019 2:00 AM	0	1.5	InVld
12/20/2019 3:00 AM	0.2	1.8	InVld
12/20/2019 4:00 AM	0.4	2.4	Zero/Span
12/20/2019 5:00 AM	0.7	3.1	4.3
12/20/2019 6:00 AM	0.4	2.7	3.9
12/20/2019 7:00 AM	0	2.2	3.6
12/20/2019 8:00 AM	0.1	2.2	3.6
12/20/2019 9:00 AM	0.6	2.6	3.9
12/20/2019 10:00 AM	0.7	2.6	3.8
12/20/2019 11:00 AM	1	2.6	4.1
12/20/2019 12:00 PM	1.2	2.6	4.1
12/20/2019 1:00 PM	1.2	2.5	3.8
12/20/2019 2:00 PM	1	2.5	3.7
12/20/2019 3:00 PM	1.1	2.5	3.7
12/20/2019 4:00 PM	0.8	2.4	3.5
12/20/2019 5:00 PM	0.4	2.5	3.6
12/20/2019 6:00 PM	0.3	2.3	3.6
12/20/2019 7:00 PM	0.1	2	3.4
12/20/2019 8:00 PM	0.1	2	3.2
12/20/2019 9:00 PM	0.1	1.8	3
12/20/2019 10:00 PM	0	1.8	3
12/20/2019 11:00 PM	0.1	1.8	2.9
12/21/2019 12:00 AM	0	1.8	2.9
12/21/2019 1:00 AM	0	1.9	2.9
12/21/2019 2:00 AM	0	1.8	2.9
12/21/2019 3:00 AM	0	2	2.8
12/21/2019 4:00 AM	0	1.7	2.7
12/21/2019 5:00 AM	0	1.8	2.7
12/21/2019 6:00 AM	-0.1	1.8	2.6
12/21/2019 7:00 AM	-0.1	1.8	2.6
12/21/2019 8:00 AM	-0.1	1.8	2.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/21/2019 9:00 AM	0	2	2.8
12/21/2019 10:00 AM	0.2	2	3
12/21/2019 11:00 AM	0.4	2.1	3
12/21/2019 12:00 PM	0.5	1.9	3
12/21/2019 1:00 PM	0.7	1.9	3
12/21/2019 2:00 PM	0.7	1.8	3
12/21/2019 3:00 PM	0.5	1.7	3
12/21/2019 4:00 PM	0.2	1.7	2.9
12/21/2019 5:00 PM	0	1.6	2.8
12/21/2019 6:00 PM	0	1.6	2.7
12/21/2019 7:00 PM	-0.1	1.6	2.6
12/21/2019 8:00 PM	-0.1	1.6	2.7
12/21/2019 9:00 PM	-0.2	1.7	2.6
12/21/2019 10:00 PM	-0.2	1.6	2.8
12/21/2019 11:00 PM	-0.2	1.6	2.8
12/22/2019 12:00 AM	-0.2	1.5	2.8
12/22/2019 1:00 AM	-0.2	1.5	2.8
12/22/2019 2:00 AM	-0.3	1.4	2.8
12/22/2019 3:00 AM	-0.2	1.4	2.7
12/22/2019 4:00 AM	-0.2	1.5	2.8
12/22/2019 5:00 AM	-0.1	1.5	2.9
12/22/2019 6:00 AM	-0.2	1.5	2.8
12/22/2019 7:00 AM	-0.2	1.5	2.7
12/22/2019 8:00 AM	-0.1	1.5	2.7
12/22/2019 9:00 AM	0	1.6	2.8
12/22/2019 10:00 AM	0	2	2.8
12/22/2019 11:00 AM	0	1.9	2.8
12/22/2019 12:00 PM	0	1.7	2.8
12/22/2019 1:00 PM	0	1.7	2.7
12/22/2019 2:00 PM	0	1.6	2.6
12/22/2019 3:00 PM	0	1.5	2.7
12/22/2019 4:00 PM	0	1.7	2.6
12/22/2019 5:00 PM	0	2.2	2.6
12/22/2019 6:00 PM	0	1.8	2.7
12/22/2019 7:00 PM	-0.1	1.9	2.6
12/22/2019 8:00 PM	-0.1	1.8	2.7
12/22/2019 9:00 PM	-0.1	1.6	2.7
12/22/2019 10:00 PM	-0.1	1.6	2.7
12/22/2019 11:00 PM	-0.2	1.6	2.7
12/23/2019 12:00 AM	-0.2	1.6	2.7
12/23/2019 1:00 AM	-0.2	1.5	2.6
12/23/2019 2:00 AM	-0.2	1.5	2.6
12/23/2019 3:00 AM	-0.2	1.5	2.6
12/23/2019 4:00 AM	Precision	Precision	2.5
12/23/2019 5:00 AM	-0.1	1.6	2.6
12/23/2019 6:00 AM	-0.2	1.5	2.6
12/23/2019 7:00 AM	-0.1	1.5	2.6
12/23/2019 8:00 AM	-0.1	1.6	2.6
12/23/2019 9:00 AM	0	1.7	2.7
12/23/2019 10:00 AM	0	1.6	2.7
12/23/2019 11:00 AM	-0.1	1.8	2.8
12/23/2019 12:00 PM	0	1.7	2.7
12/23/2019 1:00 PM	0	1.6	2.6
12/23/2019 2:00 PM	0	1.7	2.6
12/23/2019 3:00 PM	0	1.7	2.6
12/23/2019 4:00 PM	0	1.6	2.7
12/23/2019 5:00 PM	0	1.8	2.7
12/23/2019 6:00 PM	0	2	2.6
12/23/2019 7:00 PM	0	1.8	2.6
12/23/2019 8:00 PM	0	1.7	2.6
12/23/2019 9:00 PM	-0.1	1.6	2.7
12/23/2019 10:00 PM	-0.1	1.6	2.8
12/23/2019 11:00 PM	-0.2	1.6	2.9
12/24/2019 12:00 AM	0	1.5	4.5
12/24/2019 1:00 AM	0	1.6	4.1
12/24/2019 2:00 AM	0	1.6	3.3

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/24/2019 3:00 AM	0	1.6	3.3
12/24/2019 4:00 AM	-0.1	1.5	3.3
12/24/2019 5:00 AM	-0.1	1.5	3.3
12/24/2019 6:00 AM	-0.2	1.5	3
12/24/2019 7:00 AM	-0.1	1.5	3
12/24/2019 8:00 AM	-0.1	1.5	3.1
12/24/2019 9:00 AM	0.1	1.8	3.6
12/24/2019 10:00 AM	0.2	1.8	3.3
12/24/2019 11:00 AM	0.3	1.9	3.2
12/24/2019 12:00 PM	0.6	2.1	2.9
12/24/2019 1:00 PM	0.7	2.4	3
12/24/2019 2:00 PM	1.1	2.9	3.2
12/24/2019 3:00 PM	1.2	2.9	3.3
12/24/2019 4:00 PM	0.8	2.8	3.7
12/24/2019 5:00 PM	0.3	2.7	3.6
12/24/2019 6:00 PM	0.2	2.4	3.6
12/24/2019 7:00 PM	0	1.7	3.1
12/24/2019 8:00 PM	-0.1	1.6	2.9
12/24/2019 9:00 PM	-0.1	1.6	2.8
12/24/2019 10:00 PM	-0.2	1.6	2.7
12/24/2019 11:00 PM	-0.2	1.5	2.6
12/25/2019 12:00 AM	-0.2	1.5	2.6
12/25/2019 1:00 AM	-0.2	1.5	2.5
12/25/2019 2:00 AM	-0.2	1.5	2.5
12/25/2019 3:00 AM	-0.2	1.5	2.5
12/25/2019 4:00 AM	-0.2	1.5	2.5
12/25/2019 5:00 AM	-0.2	1.6	2.5
12/25/2019 6:00 AM	-0.2	1.6	2.5
12/25/2019 7:00 AM	-0.2	1.6	2.5
12/25/2019 8:00 AM	-0.2	1.6	2.4
12/25/2019 9:00 AM	-0.1	1.6	2.6
12/25/2019 10:00 AM	0	2	2.9
12/25/2019 11:00 AM	0.1	1.8	2.7
12/25/2019 12:00 PM	0.2	1.7	2.7
12/25/2019 1:00 PM	0.2	1.7	2.7
12/25/2019 2:00 PM	0.1	1.7	2.7
12/25/2019 3:00 PM	0.1	1.7	2.7
12/25/2019 4:00 PM	0	1.6	2.7
12/25/2019 5:00 PM	0	1.6	2.8
12/25/2019 6:00 PM	-0.1	1.7	2.8
12/25/2019 7:00 PM	-0.1	1.6	2.7
12/25/2019 8:00 PM	-0.2	1.5	2.7
12/25/2019 9:00 PM	-0.2	1.5	2.6
12/25/2019 10:00 PM	-0.2	1.5	2.7
12/25/2019 11:00 PM	-0.2	1.4	2.6
12/26/2019 12:00 AM	-0.2	1.4	2.6
12/26/2019 1:00 AM	-0.2	1.5	2.6
12/26/2019 2:00 AM	-0.2	1.5	2.7
12/26/2019 3:00 AM	-0.1	1.4	2.6
12/26/2019 4:00 AM	-0.2	1.4	Precision
12/26/2019 5:00 AM	-0.1	1.5	2.8
12/26/2019 6:00 AM	-0.2	1.4	2.8
12/26/2019 7:00 AM	-0.2	1.4	2.7
12/26/2019 8:00 AM	-0.2	1.5	2.7
12/26/2019 9:00 AM	-0.1	1.6	2.9
12/26/2019 10:00 AM	0	1.6	2.9
12/26/2019 11:00 AM	0.1	1.6	3.4
12/26/2019 12:00 PM	0.1	1.6	3.3
12/26/2019 1:00 PM	0.1	1.7	2.8
12/26/2019 2:00 PM	0.3	1.6	2.7
12/26/2019 3:00 PM	0.3	1.6	2.7
12/26/2019 4:00 PM	0.2	1.5	2.6
12/26/2019 5:00 PM	0.1	1.5	2.6
12/26/2019 6:00 PM	0.1	1.6	2.6
12/26/2019 7:00 PM	0	1.6	2.6
12/26/2019 8:00 PM	0	1.6	2.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/26/2019 9:00 PM	0	1.6	2.6
12/26/2019 10:00 PM	0	1.6	2.7
12/26/2019 11:00 PM	-0.1	1.6	2.5
12/27/2019 12:00 AM	-0.2	1.5	2.5
12/27/2019 1:00 AM	-0.2	1.5	2.5
12/27/2019 2:00 AM	-0.2	1.5	2.5
12/27/2019 3:00 AM	-0.2	1.5	2.5
12/27/2019 4:00 AM	-0.2	1.5	Zero/Span
12/27/2019 5:00 AM	-0.2	1.5	2.5
12/27/2019 6:00 AM	-0.1	1.5	2.4
12/27/2019 7:00 AM	-0.2	1.5	2.4
12/27/2019 8:00 AM	-0.1	1.5	2.4
12/27/2019 9:00 AM	-0.1	1.6	2.6
12/27/2019 10:00 AM	0	1.7	2.7
12/27/2019 11:00 AM	0	1.7	Calibration
12/27/2019 12:00 PM	0	1.7	Calibration
12/27/2019 1:00 PM	0	1.7	0.2
12/27/2019 2:00 PM	0	1.6	0.2
12/27/2019 3:00 PM	0	1.6	0.1
12/27/2019 4:00 PM	0	1.5	0.2
12/27/2019 5:00 PM	-0.1	1.5	0.1
12/27/2019 6:00 PM	0	1.5	0.1
12/27/2019 7:00 PM	0	1.5	0.2
12/27/2019 8:00 PM	0	1.6	0.3
12/27/2019 9:00 PM	0	1.6	0.6
12/27/2019 10:00 PM	0	1.7	0.5
12/27/2019 11:00 PM	0	1.6	0.4
12/28/2019 12:00 AM	0	1.6	0.8
12/28/2019 1:00 AM	0	1.7	0.8
12/28/2019 2:00 AM	0	1.8	1
12/28/2019 3:00 AM	0.1	1.8	0.9
12/28/2019 4:00 AM	0	1.7	0.7
12/28/2019 5:00 AM	0	1.5	0.7
12/28/2019 6:00 AM	0	1.5	0.6
12/28/2019 7:00 AM	0	1.5	0.6
12/28/2019 8:00 AM	0	1.5	0.6
12/28/2019 9:00 AM	0.3	1.6	0.9
12/28/2019 10:00 AM	0.5	1.7	1
12/28/2019 11:00 AM	0.5	1.8	1.1
12/28/2019 12:00 PM	0.3	1.7	1
12/28/2019 1:00 PM	0.4	1.7	0.6
12/28/2019 2:00 PM	0.2	1.6	0.4
12/28/2019 3:00 PM	0.4	1.7	0.5
12/28/2019 4:00 PM	0.2	1.6	0.3
12/28/2019 5:00 PM	0.1	1.6	0.2
12/28/2019 6:00 PM	0.1	1.6	0.3
12/28/2019 7:00 PM	-0.1	1.5	0.4
12/28/2019 8:00 PM	0	1.5	0.4
12/28/2019 9:00 PM	-0.2	1.5	0.3
12/28/2019 10:00 PM	-0.1	1.5	0.4
12/28/2019 11:00 PM	-0.1	1.5	0.4
12/29/2019 12:00 AM	-0.1	1.5	0.5
12/29/2019 1:00 AM	-0.1	1.5	0.3
12/29/2019 2:00 AM	-0.1	1.5	0.2
12/29/2019 3:00 AM	-0.2	1.4	0.3
12/29/2019 4:00 AM	-0.2	1.5	0.2
12/29/2019 5:00 AM	-0.1	1.5	0.3
12/29/2019 6:00 AM	-0.2	1.5	0.4
12/29/2019 7:00 AM	-0.1	1.5	0.3
12/29/2019 8:00 AM	-0.2	1.5	0.1
12/29/2019 9:00 AM	-0.2	1.4	0.1
12/29/2019 10:00 AM	-0.2	1.3	0.1
12/29/2019 11:00 AM	-0.2	1.4	0.1
12/29/2019 12:00 PM	-0.1	1.3	0
12/29/2019 1:00 PM	-0.2	1.2	0
12/29/2019 2:00 PM	-0.2	1.2	0

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
12/29/2019 3:00 PM	-0.2	1.2	0
12/29/2019 4:00 PM	-0.2	1.3	0
12/29/2019 5:00 PM	-0.2	1.3	0
12/29/2019 6:00 PM	-0.2	1.3	0
12/29/2019 7:00 PM	-0.2	1.3	0
12/29/2019 8:00 PM	-0.3	1.3	0
12/29/2019 9:00 PM	-0.2	1.3	0
12/29/2019 10:00 PM	-0.3	1.1	0
12/29/2019 11:00 PM	-0.2	1.2	0
12/30/2019 12:00 AM	-0.2	1.3	0
12/30/2019 1:00 AM	-0.3	1.2	0
12/30/2019 2:00 AM	-0.3	1.2	0
12/30/2019 3:00 AM	-0.3	1.2	0
12/30/2019 4:00 AM	Precision	Precision	Precision
12/30/2019 5:00 AM	-0.2	1.1	0
12/30/2019 6:00 AM	-0.3	1	0
12/30/2019 7:00 AM	-0.3	1.1	0
12/30/2019 8:00 AM	-0.2	1.1	0
12/30/2019 9:00 AM	-0.2	1.2	0
12/30/2019 10:00 AM	-0.2	1.2	0
12/30/2019 11:00 AM	-0.2	1.2	0
12/30/2019 12:00 PM	-0.2	1.3	0
12/30/2019 1:00 PM	-0.1	1.3	0
12/30/2019 2:00 PM	-0.2	1.3	0
12/30/2019 3:00 PM	-0.1	1.3	0
12/30/2019 4:00 PM	-0.1	1.3	0
12/30/2019 5:00 PM	-0.2	1.2	0
12/30/2019 6:00 PM	-0.2	1.2	0
12/30/2019 7:00 PM	-0.3	1.2	0
12/30/2019 8:00 PM	-0.2	1.2	0
12/30/2019 9:00 PM	-0.3	1.2	0
12/30/2019 10:00 PM	-0.2	1.2	0
12/30/2019 11:00 PM	-0.1	1.3	0.1
12/31/2019 12:00 AM	0	1.4	0.2
12/31/2019 1:00 AM	-0.1	1.4	0
12/31/2019 2:00 AM	-0.1	1.4	0.1
12/31/2019 3:00 AM	-0.1	1.3	0.1
12/31/2019 4:00 AM	-0.2	1.2	0.1
12/31/2019 5:00 AM	-0.1	1.3	0.1
12/31/2019 6:00 AM	-0.1	1.1	0
12/31/2019 7:00 AM	-0.2	1.1	0
12/31/2019 8:00 AM	-0.2	1.2	0
12/31/2019 9:00 AM	-0.2	1.2	0.1
12/31/2019 10:00 AM	-0.2	1.1	0
12/31/2019 11:00 AM	-0.2	1.2	0
12/31/2019 12:00 PM	-0.2	1.1	0
12/31/2019 1:00 PM	-0.2	1.1	0
12/31/2019 2:00 PM	-0.2	1.1	0
12/31/2019 3:00 PM	-0.2	1.2	0
12/31/2019 4:00 PM	-0.2	1.1	0
12/31/2019 5:00 PM	-0.3	1.1	0
12/31/2019 6:00 PM	-0.2	1.1	0
12/31/2019 7:00 PM	-0.2	1.3	0
12/31/2019 8:00 PM	-0.1	1.5	0
12/31/2019 9:00 PM	-0.1	1.4	0.1
12/31/2019 10:00 PM	0	1.4	0.3
12/31/2019 11:00 PM	0	1.5	0.2
1/1/2020 12:00 AM	0	1.5	0.2
1/1/2020 1:00 AM	0.1	1.6	0.3
1/1/2020 2:00 AM	0.2	1.7	0.2
1/1/2020 3:00 AM	0.1	1.5	0.1
1/1/2020 4:00 AM	0	1.5	0.2
1/1/2020 5:00 AM	0	1.5	0.4
1/1/2020 6:00 AM	0.2	1.6	0.8
1/1/2020 7:00 AM	0.2	1.7	0.8
1/1/2020 8:00 AM	0.3	1.8	0.5

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/1/2020 9:00 AM	0.3	1.7	0.6
1/1/2020 10:00 AM	0.2	1.6	0.6
1/1/2020 11:00 AM	0.3	1.6	0.4
1/1/2020 12:00 PM	0.3	1.7	0.5
1/1/2020 1:00 PM	0.3	1.6	0.7
1/1/2020 2:00 PM	0.3	1.6	0.9
1/1/2020 3:00 PM	0.4	1.8	1
1/1/2020 4:00 PM	0.7	2	1
1/1/2020 5:00 PM	0.3	1.8	0.4
1/1/2020 6:00 PM	0	1.5	0.2
1/1/2020 7:00 PM	0	1.4	0.2
1/1/2020 8:00 PM	-0.1	1.4	0.2
1/1/2020 9:00 PM	-0.1	1.4	0.3
1/1/2020 10:00 PM	-0.1	1.4	0.2
1/1/2020 11:00 PM	-0.1	1.4	0.2
1/2/2020 12:00 AM	-0.1	1.4	0.2
1/2/2020 1:00 AM	-0.1	1.4	0.2
1/2/2020 2:00 AM	-0.1	1.5	0.3
1/2/2020 3:00 AM	-0.1	1.4	0.2
1/2/2020 4:00 AM	-0.1	1.4	0.2
1/2/2020 5:00 AM	-0.1	1.4	0.4
1/2/2020 6:00 AM	-0.2	1.4	0.2
1/2/2020 7:00 AM	-0.2	1.4	0.2
1/2/2020 8:00 AM	-0.1	1.3	0.2
1/2/2020 9:00 AM	0	1.4	0.2
1/2/2020 10:00 AM	0	1.4	0.2
1/2/2020 11:00 AM	-0.1	1.4	0.1
1/2/2020 12:00 PM	-0.1	1.4	0.1
1/2/2020 1:00 PM	-0.1	1.3	0.1
1/2/2020 2:00 PM	-0.1	1.4	0.1
1/2/2020 3:00 PM	-0.1	1.3	0.2
1/2/2020 4:00 PM	-0.2	1.4	0.3
1/2/2020 5:00 PM	0	1.4	0.2
1/2/2020 6:00 PM	-0.1	1.7	0.3
1/2/2020 7:00 PM	0	1.5	0.4
1/2/2020 8:00 PM	0	1.4	0.3
1/2/2020 9:00 PM	0	1.3	0.3
1/2/2020 10:00 PM	0	1.4	0.3
1/2/2020 11:00 PM	0	1.3	0.2
1/3/2020 12:00 AM	-0.1	1.3	0.2
1/3/2020 1:00 AM	0	1.4	0.2
1/3/2020 2:00 AM	-0.1	1.4	0.1
1/3/2020 3:00 AM	-0.2	1.2	0
1/3/2020 4:00 AM	-0.2	1.2	0
1/3/2020 5:00 AM	-0.1	1.3	0.1
1/3/2020 6:00 AM	-0.2	1.2	0
1/3/2020 7:00 AM	-0.2	1.2	0
1/3/2020 8:00 AM	-0.2	1.2	0
1/3/2020 9:00 AM	-0.2	1.2	0
1/3/2020 10:00 AM	-0.2	1.2	0
1/3/2020 11:00 AM	-0.2	1.3	0.1
1/3/2020 12:00 PM	-0.2	1.3	0
1/3/2020 1:00 PM	-0.2	1.2	0
1/3/2020 2:00 PM	-0.2	1.2	0
1/3/2020 3:00 PM	-0.1	1.3	0
1/3/2020 4:00 PM	-0.1	1.3	0
1/3/2020 5:00 PM	-0.2	1.3	0
1/3/2020 6:00 PM	-0.2	1.3	0
1/3/2020 7:00 PM	-0.2	1.3	0
1/3/2020 8:00 PM	-0.2	1.2	0
1/3/2020 9:00 PM	-0.3	1.3	0
1/3/2020 10:00 PM	-0.2	1.3	0
1/3/2020 11:00 PM	-0.3	1.4	0
1/4/2020 12:00 AM	-0.3	1.3	0
1/4/2020 1:00 AM	-0.2	1.3	0
1/4/2020 2:00 AM	-0.2	1.3	0

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/4/2020 3:00 AM	-0.2	1.3	0
1/4/2020 4:00 AM	-0.2	1.3	0
1/4/2020 5:00 AM	-0.2	1.4	0
1/4/2020 6:00 AM	-0.2	1.5	0
1/4/2020 7:00 AM	-0.2	1.5	0
1/4/2020 8:00 AM	-0.2	1.4	0.1
1/4/2020 9:00 AM	-0.1	1.5	0.1
1/4/2020 10:00 AM	-0.1	1.4	0.1
1/4/2020 11:00 AM	-0.2	1.4	0
1/4/2020 12:00 PM	-0.2	1.3	0
1/4/2020 1:00 PM	-0.1	1.3	0
1/4/2020 2:00 PM	-0.2	1.3	0
1/4/2020 3:00 PM	-0.2	1.3	0
1/4/2020 4:00 PM	-0.2	1.2	0
1/4/2020 5:00 PM	-0.3	1.2	0
1/4/2020 6:00 PM	-0.3	1.2	0
1/4/2020 7:00 PM	-0.2	1.3	0
1/4/2020 8:00 PM	-0.2	1.3	0
1/4/2020 9:00 PM	-0.3	1.3	0
1/4/2020 10:00 PM	-0.2	1.4	0
1/4/2020 11:00 PM	-0.2	1.4	0
1/5/2020 12:00 AM	-0.3	1.4	0
1/5/2020 1:00 AM	-0.2	1.5	0
1/5/2020 2:00 AM	-0.2	1.4	0.1
1/5/2020 3:00 AM	-0.2	1.3	0
1/5/2020 4:00 AM	-0.2	1.3	0.1
1/5/2020 5:00 AM	-0.2	1.3	0
1/5/2020 6:00 AM	-0.2	1.3	0.1
1/5/2020 7:00 AM	-0.3	1.3	0.1
1/5/2020 8:00 AM	-0.2	1.3	0
1/5/2020 9:00 AM	-0.2	1.4	0.1
1/5/2020 10:00 AM	-0.2	1.3	0.1
1/5/2020 11:00 AM	-0.2	1.3	0.1
1/5/2020 12:00 PM	-0.2	1.3	0.1
1/5/2020 1:00 PM	-0.2	1.3	0.1
1/5/2020 2:00 PM	-0.1	1.5	0.2
1/5/2020 3:00 PM	0	1.7	0.2
1/5/2020 4:00 PM	-0.1	1.5	0.1
1/5/2020 5:00 PM	-0.1	1.5	0.3
1/5/2020 6:00 PM	0	1.5	0.2
1/5/2020 7:00 PM	-0.1	1.4	0.1
1/5/2020 8:00 PM	-0.1	1.4	0.1
1/5/2020 9:00 PM	-0.1	1.4	0.1
1/5/2020 10:00 PM	-0.1	1.3	0.2
1/5/2020 11:00 PM	-0.1	1.4	0.1
1/6/2020 12:00 AM	-0.1	1.3	0.2
1/6/2020 1:00 AM	-0.1	1.4	0.2
1/6/2020 2:00 AM	0	1.5	0.3
1/6/2020 3:00 AM	0	1.6	0.3
1/6/2020 4:00 AM	Precision	Precision	Precision
1/6/2020 5:00 AM	0	1.5	InVld
1/6/2020 6:00 AM	0	1.5	InVld
1/6/2020 7:00 AM	0	1.5	InVld
1/6/2020 8:00 AM	0.1	1.7	InVld
1/6/2020 9:00 AM	0	1.6	InVld
1/6/2020 10:00 AM	-0.1	1.4	InVld
1/6/2020 11:00 AM	0.2	1.7	InVld
1/6/2020 12:00 PM	0.6	2	InVld
1/6/2020 1:00 PM	0.9	2.3	InVld
1/6/2020 2:00 PM	0.4	1.9	InVld
1/6/2020 3:00 PM	0.1	1.6	InVld
1/6/2020 4:00 PM	0	1.6	InVld
1/6/2020 5:00 PM	0	1.6	InVld
1/6/2020 6:00 PM	0.6	2.4	InVld
1/6/2020 7:00 PM	0.8	2.4	InVld
1/6/2020 8:00 PM	0.1	1.6	InVld

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/6/2020 9:00 PM	0	1.4	InVld
1/6/2020 10:00 PM	-0.1	1.4	InVld
1/6/2020 11:00 PM	0.2	1.7	InVld
1/7/2020 12:00 AM	0.8	2.3	InVld
1/7/2020 1:00 AM	1	2.7	InVld
1/7/2020 2:00 AM	1	3	InVld
1/7/2020 3:00 AM	0.9	2.6	InVld
1/7/2020 4:00 AM	0.5	2.2	InVld
1/7/2020 5:00 AM	0.2	2	InVld
1/7/2020 6:00 AM	0	2	InVld
1/7/2020 7:00 AM	0	2.1	InVld
1/7/2020 8:00 AM	0.1	2.2	InVld
1/7/2020 9:00 AM	0	2	InVld
1/7/2020 10:00 AM	0	1.9	InVld
1/7/2020 11:00 AM	-0.1	1.7	InVld
1/7/2020 12:00 PM	0	1.9	InVld
1/7/2020 1:00 PM	0	1.8	InVld
1/7/2020 2:00 PM	0.1	1.7	InVld
1/7/2020 3:00 PM	0.2	1.6	InVld
1/7/2020 4:00 PM	0	1.5	InVld
1/7/2020 5:00 PM	-0.1	1.4	InVld
1/7/2020 6:00 PM	-0.1	1.5	InVld
1/7/2020 7:00 PM	-0.1	1.6	InVld
1/7/2020 8:00 PM	0.1	3	InVld
1/7/2020 9:00 PM	0.2	2.9	InVld
1/7/2020 10:00 PM	0.1	2	InVld
1/7/2020 11:00 PM	0.1	1.8	InVld
1/8/2020 12:00 AM	0.2	1.7	InVld
1/8/2020 1:00 AM	0.6	2.1	InVld
1/8/2020 2:00 AM	0.6	2.5	InVld
1/8/2020 3:00 AM	0.6	2.5	InVld
1/8/2020 4:00 AM	0.8	2.4	InVld
1/8/2020 5:00 AM	0.5	1.9	InVld
1/8/2020 6:00 AM	0.4	1.8	InVld
1/8/2020 7:00 AM	0.2	1.7	InVld
1/8/2020 8:00 AM	0	1.5	InVld
1/8/2020 9:00 AM	-0.1	1.4	InVld
1/8/2020 10:00 AM	0	1.8	InVld
1/8/2020 11:00 AM	-0.2	1.4	InVld
1/8/2020 12:00 PM	-0.2	1.4	InVld
1/8/2020 1:00 PM	0	1.5	InVld
1/8/2020 2:00 PM	-0.1	1.5	InVld
1/8/2020 3:00 PM	-0.1	1.5	InVld
1/8/2020 4:00 PM	-0.1	1.4	InVld
1/8/2020 5:00 PM	0	1.6	InVld
1/8/2020 6:00 PM	0	1.5	InVld
1/8/2020 7:00 PM	-0.1	1.4	InVld
1/8/2020 8:00 PM	-0.1	1.4	InVld
1/8/2020 9:00 PM	-0.1	1.4	InVld
1/8/2020 10:00 PM	-0.1	1.4	InVld
1/8/2020 11:00 PM	-0.1	1.4	InVld
1/9/2020 12:00 AM	0	1.5	InVld
1/9/2020 1:00 AM	0	1.5	InVld
1/9/2020 2:00 AM	0	1.5	InVld
1/9/2020 3:00 AM	0	1.4	InVld
1/9/2020 4:00 AM	-0.1	1.5	InVld
1/9/2020 5:00 AM	-0.1	1.8	InVld
1/9/2020 6:00 AM	-0.1	1.8	InVld
1/9/2020 7:00 AM	-0.1	1.6	InVld
1/9/2020 8:00 AM	0	1.9	InVld
1/9/2020 9:00 AM	0.2	1.7	InVld
1/9/2020 10:00 AM	0.4	2	InVld
1/9/2020 11:00 AM	0.7	1.8	InVld
1/9/2020 12:00 PM	0.3	1.6	InVld
1/9/2020 1:00 PM	0.2	1.6	InVld
1/9/2020 2:00 PM	0.2	1.6	InVld

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/9/2020 3:00 PM	0.3	1.7	InVld
1/9/2020 4:00 PM	0.3	1.6	InVld
1/9/2020 5:00 PM	0.2	1.7	InVld
1/9/2020 6:00 PM	0.2	1.7	InVld
1/9/2020 7:00 PM	0.3	1.7	InVld
1/9/2020 8:00 PM	0.3	1.6	InVld
1/9/2020 9:00 PM	0.1	1.7	InVld
1/9/2020 10:00 PM	0.2	1.6	InVld
1/9/2020 11:00 PM	0.3	1.6	InVld
1/10/2020 12:00 AM	0.2	1.9	InVld
1/10/2020 1:00 AM	0.3	2.4	InVld
1/10/2020 2:00 AM	0.4	2.8	InVld
1/10/2020 3:00 AM	0.3	2.2	InVld
1/10/2020 4:00 AM	0.1	1.9	InVld
1/10/2020 5:00 AM	0.1	1.7	InVld
1/10/2020 6:00 AM	0	1.7	InVld
1/10/2020 7:00 AM	0	1.9	InVld
1/10/2020 8:00 AM	0.1	1.8	InVld
1/10/2020 9:00 AM	0.1	2	InVld
1/10/2020 10:00 AM	0.1	1.9	InVld
1/10/2020 11:00 AM	0.1	1.7	InVld
1/10/2020 12:00 PM	0.2	1.8	InVld
1/10/2020 1:00 PM	0.3	2.1	InVld
1/10/2020 2:00 PM	0.4	1.9	InVld
1/10/2020 3:00 PM	0.4	1.9	InVld
1/10/2020 4:00 PM	0.6	2.4	InVld
1/10/2020 5:00 PM	0.6	2.2	InVld
1/10/2020 6:00 PM	0.6	2.5	InVld
1/10/2020 7:00 PM	0.3	2.8	InVld
1/10/2020 8:00 PM	0.2	2.6	InVld
1/10/2020 9:00 PM	0.1	2.5	InVld
1/10/2020 10:00 PM	0	2.3	InVld
1/10/2020 11:00 PM	0	1.9	InVld
1/11/2020 12:00 AM	0	1.9	InVld
1/11/2020 1:00 AM	0	1.6	InVld
1/11/2020 2:00 AM	0	1.6	InVld
1/11/2020 3:00 AM	0.1	1.6	InVld
1/11/2020 4:00 AM	0.1	1.6	InVld
1/11/2020 5:00 AM	0.2	1.6	InVld
1/11/2020 6:00 AM	0.1	1.5	InVld
1/11/2020 7:00 AM	0	1.5	InVld
1/11/2020 8:00 AM	0	1.5	InVld
1/11/2020 9:00 AM	0	1.5	InVld
1/11/2020 10:00 AM	0	1.5	InVld
1/11/2020 11:00 AM	0	1.4	InVld
1/11/2020 12:00 PM	0	1.3	InVld
1/11/2020 1:00 PM	0	1.4	InVld
1/11/2020 2:00 PM	0	1.4	InVld
1/11/2020 3:00 PM	-0.1	1.4	InVld
1/11/2020 4:00 PM	-0.1	1.4	InVld
1/11/2020 5:00 PM	0	1.3	InVld
1/11/2020 6:00 PM	0	1.3	InVld
1/11/2020 7:00 PM	0	1.3	InVld
1/11/2020 8:00 PM	0	1.3	InVld
1/11/2020 9:00 PM	0	1.2	InVld
1/11/2020 10:00 PM	-0.1	1.2	InVld
1/11/2020 11:00 PM	-0.2	1.1	InVld
1/12/2020 12:00 AM	-0.2	1.1	InVld
1/12/2020 1:00 AM	-0.3	1.2	InVld
1/12/2020 2:00 AM	-0.2	1.1	InVld
1/12/2020 3:00 AM	-0.2	1.2	InVld
1/12/2020 4:00 AM	-0.2	1.3	InVld
1/12/2020 5:00 AM	-0.1	1.3	InVld
1/12/2020 6:00 AM	-0.2	1.2	InVld
1/12/2020 7:00 AM	-0.2	1.4	InVld
1/12/2020 8:00 AM	-0.1	1.4	InVld

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/12/2020 9:00 AM	-0.1	1.4	InVld
1/12/2020 10:00 AM	-0.2	1.4	InVld
1/12/2020 11:00 AM	0	1.4	InVld
1/12/2020 12:00 PM	-0.1	1.2	InVld
1/12/2020 1:00 PM	-0.1	1.3	InVld
1/12/2020 2:00 PM	-0.1	1.4	InVld
1/12/2020 3:00 PM	-0.1	1.3	InVld
1/12/2020 4:00 PM	-0.2	1.3	InVld
1/12/2020 5:00 PM	-0.2	1.4	InVld
1/12/2020 6:00 PM	-0.2	1.3	InVld
1/12/2020 7:00 PM	-0.2	1.3	InVld
1/12/2020 8:00 PM	-0.3	1.3	InVld
1/12/2020 9:00 PM	-0.2	1.3	InVld
1/12/2020 10:00 PM	-0.2	1.3	InVld
1/12/2020 11:00 PM	-0.2	1.4	InVld
1/13/2020 12:00 AM	-0.3	1.4	InVld
1/13/2020 1:00 AM	-0.2	1.4	InVld
1/13/2020 2:00 AM	-0.3	1.3	InVld
1/13/2020 3:00 AM	-0.2	1.3	InVld
1/13/2020 4:00 AM	Precision	Precision	Precision
1/13/2020 5:00 AM	-0.1	1.3	InVld
1/13/2020 6:00 AM	-0.2	1.3	InVld
1/13/2020 7:00 AM	-0.2	1.2	InVld
1/13/2020 8:00 AM	-0.2	1.2	InVld
1/13/2020 9:00 AM	-0.2	1.2	InVld
1/13/2020 10:00 AM	-0.2	1.2	InVld
1/13/2020 11:00 AM	-0.2	1.3	0.1
1/13/2020 12:00 PM	-0.2	1.4	0.3
1/13/2020 1:00 PM	-0.1	1.4	0.2
1/13/2020 2:00 PM	-0.1	1.4	0.2
1/13/2020 3:00 PM	-0.1	1.3	0.1
1/13/2020 4:00 PM	-0.1	1.4	0.2
1/13/2020 5:00 PM	-0.1	1.4	0.2
1/13/2020 6:00 PM	-0.1	1.3	0.2
1/13/2020 7:00 PM	-0.2	1.4	0.2
1/13/2020 8:00 PM	-0.2	1.4	0.2
1/13/2020 9:00 PM	-0.1	1.4	0.2
1/13/2020 10:00 PM	-0.2	1.4	0.2
1/13/2020 11:00 PM	-0.2	1.5	0.1
1/14/2020 12:00 AM	-0.2	1.4	0.1
1/14/2020 1:00 AM	-0.2	1.4	0.1
1/14/2020 2:00 AM	-0.2	1.4	0.1
1/14/2020 3:00 AM	-0.2	1.4	0.1
1/14/2020 4:00 AM	-0.2	1.5	0.1
1/14/2020 5:00 AM	-0.2	1.5	0.2
1/14/2020 6:00 AM	-0.2	1.4	0.2
1/14/2020 7:00 AM	-0.2	1.4	0.1
1/14/2020 8:00 AM	-0.2	1.4	0.1
1/14/2020 9:00 AM	-0.2	1.4	0.1
1/14/2020 10:00 AM	-0.2	1.4	0
1/14/2020 11:00 AM	-0.2	1.4	0.1
1/14/2020 12:00 PM	-0.2	1.3	0.1
1/14/2020 1:00 PM	-0.2	1.3	0.1
1/14/2020 2:00 PM	-0.2	1.3	0.1
1/14/2020 3:00 PM	-0.1	1.2	0.1
1/14/2020 4:00 PM	-0.2	1.2	0.2
1/14/2020 5:00 PM	-0.2	1.3	0.5
1/14/2020 6:00 PM	-0.1	1.5	0.6
1/14/2020 7:00 PM	-0.2	1.4	0.5
1/14/2020 8:00 PM	-0.1	1.6	0.6
1/14/2020 9:00 PM	0	1.6	0.5
1/14/2020 10:00 PM	0	1.5	0.3
1/14/2020 11:00 PM	-0.1	1.5	0.4
1/15/2020 12:00 AM	-0.1	1.3	0.3
1/15/2020 1:00 AM	-0.1	1.3	0.4
1/15/2020 2:00 AM	-0.1	1.5	0.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/15/2020 3:00 AM	-0.1	1.5	1.4
1/15/2020 4:00 AM	-0.1	1.5	1.7
1/15/2020 5:00 AM	-0.1	1.5	1.7
1/15/2020 6:00 AM	-0.2	1.5	1.5
1/15/2020 7:00 AM	-0.2	1.4	1.3
1/15/2020 8:00 AM	-0.2	1.3	0.8
1/15/2020 9:00 AM	0	1.6	1.2
1/15/2020 10:00 AM	0.1	1.7	0.8
1/15/2020 11:00 AM	0.3	1.7	0.7
1/15/2020 12:00 PM	0.3	1.5	0.7
1/15/2020 1:00 PM	0.2	1.5	0.3
1/15/2020 2:00 PM	0.1	1.4	0.2
1/15/2020 3:00 PM	0	1.3	0.2
1/15/2020 4:00 PM	0	1.3	0.2
1/15/2020 5:00 PM	0	1.4	0.5
1/15/2020 6:00 PM	0.1	1.4	0.4
1/15/2020 7:00 PM	0	1.5	0.6
1/15/2020 8:00 PM	0	1.5	0.5
1/15/2020 9:00 PM	-0.1	1.4	0.4
1/15/2020 10:00 PM	-0.1	1.4	0.5
1/15/2020 11:00 PM	-0.2	1.4	0.5
1/16/2020 12:00 AM	-0.1	1.5	0.4
1/16/2020 1:00 AM	0	1.4	0.4
1/16/2020 2:00 AM	0	1.4	InVld
1/16/2020 3:00 AM	-0.1	1.2	InVld
1/16/2020 4:00 AM	-0.2	1.2	InVld
1/16/2020 5:00 AM	-0.1	1.2	InVld
1/16/2020 6:00 AM	-0.2	1.1	InVld
1/16/2020 7:00 AM	-0.2	1.2	InVld
1/16/2020 8:00 AM	-0.1	1.2	InVld
1/16/2020 9:00 AM	-0.2	1.2	InVld
1/16/2020 10:00 AM	-0.1	1.2	InVld
1/16/2020 11:00 AM	0.3	1.5	InVld
1/16/2020 12:00 PM	0	1.4	InVld
1/16/2020 1:00 PM	-0.1	1.3	0.2
1/16/2020 2:00 PM	-0.1	1.3	0.3
1/16/2020 3:00 PM	0	1.4	0.4
1/16/2020 4:00 PM	-0.1	1.3	0.3
1/16/2020 5:00 PM	-0.2	1.2	0.2
1/16/2020 6:00 PM	-0.2	1.2	0.2
1/16/2020 7:00 PM	-0.3	1.4	0.2
1/16/2020 8:00 PM	-0.2	1.3	0.2
1/16/2020 9:00 PM	-0.3	1.4	0.2
1/16/2020 10:00 PM	-0.2	1.4	0.2
1/16/2020 11:00 PM	-0.2	1.3	0.3
1/17/2020 12:00 AM	-0.2	1.4	0.2
1/17/2020 1:00 AM	-0.2	1.5	0.3
1/17/2020 2:00 AM	-0.1	1.5	0.4
1/17/2020 3:00 AM	-0.1	1.5	0.5
1/17/2020 4:00 AM	-0.1	1.5	0.4
1/17/2020 5:00 AM	-0.1	1.5	0.5
1/17/2020 6:00 AM	-0.1	1.3	0.4
1/17/2020 7:00 AM	-0.1	1.3	0.4
1/17/2020 8:00 AM	-0.2	1.2	0.4
1/17/2020 9:00 AM	-0.2	1.2	0.3
1/17/2020 10:00 AM	-0.2	1.2	0.3
1/17/2020 11:00 AM	-0.1	1.3	0.4
1/17/2020 12:00 PM	-0.1	1.3	0.3
1/17/2020 1:00 PM	-0.1	1.4	0.4
1/17/2020 2:00 PM	-0.1	1.5	0.4
1/17/2020 3:00 PM	-0.1	1.5	0.5
1/17/2020 4:00 PM	-0.1	1.5	0.5
1/17/2020 5:00 PM	0	1.6	0.5
1/17/2020 6:00 PM	0.2	1.7	0.6
1/17/2020 7:00 PM	0.4	1.8	0.9
1/17/2020 8:00 PM	0.4	1.8	1.1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/17/2020 9:00 PM	0.4	1.7	0.8
1/17/2020 10:00 PM	0.4	1.6	0.6
1/17/2020 11:00 PM	0.1	1.6	0.6
1/18/2020 12:00 AM	0.1	1.6	0.7
1/18/2020 1:00 AM	0.1	1.5	0.6
1/18/2020 2:00 AM	0	1.5	0.7
1/18/2020 3:00 AM	0	1.5	0.5
1/18/2020 4:00 AM	-0.2	1.4	0.4
1/18/2020 5:00 AM	-0.2	1.4	0.3
1/18/2020 6:00 AM	-0.2	1.4	0.4
1/18/2020 7:00 AM	-0.2	1.4	0.3
1/18/2020 8:00 AM	-0.2	1.4	0.3
1/18/2020 9:00 AM	-0.1	1.4	0.3
1/18/2020 10:00 AM	-0.2	1.4	0.4
1/18/2020 11:00 AM	-0.2	1.3	0.3
1/18/2020 12:00 PM	-0.2	1.3	0.4
1/18/2020 1:00 PM	-0.2	1.3	0.4
1/18/2020 2:00 PM	-0.3	1.2	0.4
1/18/2020 3:00 PM	-0.2	1.2	0.3
1/18/2020 4:00 PM	-0.2	1.3	0.3
1/18/2020 5:00 PM	-0.2	1.4	0.3
1/18/2020 6:00 PM	-0.2	1.3	0.3
1/18/2020 7:00 PM	-0.2	1.2	0.2
1/18/2020 8:00 PM	-0.2	1.2	0.3
1/18/2020 9:00 PM	-0.2	1.4	0.3
1/18/2020 10:00 PM	-0.3	1.3	0.3
1/18/2020 11:00 PM	-0.2	1.3	0.3
1/19/2020 12:00 AM	-0.2	1.3	0.3
1/19/2020 1:00 AM	-0.1	1.3	0.3
1/19/2020 2:00 AM	-0.1	1.3	InVld
1/19/2020 3:00 AM	-0.1	1.4	InVld
1/19/2020 4:00 AM	-0.2	1.3	InVld
1/19/2020 5:00 AM	-0.1	1.4	InVld
1/19/2020 6:00 AM	-0.1	1.4	InVld
1/19/2020 7:00 AM	-0.1	1.3	InVld
1/19/2020 8:00 AM	-0.2	1.3	InVld
1/19/2020 9:00 AM	-0.2	1.3	InVld
1/19/2020 10:00 AM	-0.2	1.2	InVld
1/19/2020 11:00 AM	-0.2	1.4	InVld
1/19/2020 12:00 PM	-0.2	1.4	InVld
1/19/2020 1:00 PM	-0.2	1.4	InVld
1/19/2020 2:00 PM	-0.2	1.4	InVld
1/19/2020 3:00 PM	-0.2	1.4	InVld
1/19/2020 4:00 PM	-0.2	1.4	InVld
1/19/2020 5:00 PM	-0.2	1.4	InVld
1/19/2020 6:00 PM	-0.2	1.4	InVld
1/19/2020 7:00 PM	-0.1	1.5	InVld
1/19/2020 8:00 PM	-0.1	1.5	InVld
1/19/2020 9:00 PM	-0.2	1.4	InVld
1/19/2020 10:00 PM	-0.2	1.2	InVld
1/19/2020 11:00 PM	0.1	1.6	InVld
1/20/2020 12:00 AM	0.1	1.7	InVld
1/20/2020 1:00 AM	0	1.5	InVld
1/20/2020 2:00 AM	0	1.5	InVld
1/20/2020 3:00 AM	0	1.5	InVld
1/20/2020 4:00 AM	Precision	Precision	Precision
1/20/2020 5:00 AM	0	1.5	InVld
1/20/2020 6:00 AM	-0.1	1.5	InVld
1/20/2020 7:00 AM	-0.1	1.5	InVld
1/20/2020 8:00 AM	0	1.6	InVld
1/20/2020 9:00 AM	0.1	1.7	InVld
1/20/2020 10:00 AM	0	1.6	InVld
1/20/2020 11:00 AM	0	1.6	InVld
1/20/2020 12:00 PM	0	1.6	InVld
1/20/2020 1:00 PM	0	1.6	InVld
1/20/2020 2:00 PM	0	1.6	InVld

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/20/2020 3:00 PM	0	1.6	InVld
1/20/2020 4:00 PM	-0.1	1.6	InVld
1/20/2020 5:00 PM	0	1.5	InVld
1/20/2020 6:00 PM	0	1.5	InVld
1/20/2020 7:00 PM	-0.1	1.4	InVld
1/20/2020 8:00 PM	-0.1	1.6	InVld
1/20/2020 9:00 PM	-0.2	1.5	InVld
1/20/2020 10:00 PM	-0.1	1.5	InVld
1/20/2020 11:00 PM	-0.1	1.6	InVld
1/21/2020 12:00 AM	0	1.5	InVld
1/21/2020 1:00 AM	-0.1	1.5	InVld
1/21/2020 2:00 AM	-0.2	1.5	InVld
1/21/2020 3:00 AM	-0.2	1.5	InVld
1/21/2020 4:00 AM	-0.2	1.6	InVld
1/21/2020 5:00 AM	-0.1	1.7	InVld
1/21/2020 6:00 AM	-0.1	1.7	InVld
1/21/2020 7:00 AM	-0.1	1.8	InVld
1/21/2020 8:00 AM	0	1.8	InVld
1/21/2020 9:00 AM	0	1.7	InVld
1/21/2020 10:00 AM	0	1.7	Down
1/21/2020 11:00 AM	0	1.6	InVld
1/21/2020 12:00 PM	0	1.6	InVld
1/21/2020 1:00 PM	0	1.7	InVld
1/21/2020 2:00 PM	0	1.7	InVld
1/21/2020 3:00 PM	0	1.7	InVld
1/21/2020 4:00 PM	0.1	1.7	InVld
1/21/2020 5:00 PM	0.1	1.7	InVld
1/21/2020 6:00 PM	0.2	1.8	InVld
1/21/2020 7:00 PM	0.8	2.5	InVld
1/21/2020 8:00 PM	0.8	3	InVld
1/21/2020 9:00 PM	1	3	InVld
1/21/2020 10:00 PM	0.5	2.8	InVld
1/21/2020 11:00 PM	0.2	2.3	InVld
1/22/2020 12:00 AM	0.1	1.9	InVld
1/22/2020 1:00 AM	0	1.8	InVld
1/22/2020 2:00 AM	0	1.9	InVld
1/22/2020 3:00 AM	0	1.9	InVld
1/22/2020 4:00 AM	0	1.9	InVld
1/22/2020 5:00 AM	0	1.9	InVld
1/22/2020 6:00 AM	0	1.8	InVld
1/22/2020 7:00 AM	-0.1	1.6	InVld
1/22/2020 8:00 AM	0	1.7	InVld
1/22/2020 9:00 AM	0.1	2.1	InVld
1/22/2020 10:00 AM	0.2	2.4	InVld
1/22/2020 11:00 AM	0.9	2.4	InVld
1/22/2020 12:00 PM	0.7	2	InVld
1/22/2020 1:00 PM	0.5	1.9	InVld
1/22/2020 2:00 PM	0.5	1.8	InVld
1/22/2020 3:00 PM	0.4	1.8	InVld
1/22/2020 4:00 PM	0.4	1.8	InVld
1/22/2020 5:00 PM	0.3	1.7	InVld
1/22/2020 6:00 PM	0.3	1.8	InVld
1/22/2020 7:00 PM	0.4	1.8	InVld
1/22/2020 8:00 PM	0.2	3	InVld
1/22/2020 9:00 PM	0.2	3.3	InVld
1/22/2020 10:00 PM	0.1	2.6	InVld
1/22/2020 11:00 PM	0	3.3	InVld
1/23/2020 12:00 AM	0.1	3.2	InVld
1/23/2020 1:00 AM	0	2.8	InVld
1/23/2020 2:00 AM	0	2.3	InVld
1/23/2020 3:00 AM	0	2.2	InVld
1/23/2020 4:00 AM	-0.1	2.5	InVld
1/23/2020 5:00 AM	0	2.3	InVld
1/23/2020 6:00 AM	-0.1	2	InVld
1/23/2020 7:00 AM	0	1.8	InVld
1/23/2020 8:00 AM	0	2.2	InVld

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/23/2020 9:00 AM	0	2.1	InVld
1/23/2020 10:00 AM	0.1	2.2	InVld
1/23/2020 11:00 AM	0.1	3	InVld
1/23/2020 12:00 PM	0.7	2.4	InVld
1/23/2020 1:00 PM	0.4	2	InVld
1/23/2020 2:00 PM	0.5	1.9	InVld
1/23/2020 3:00 PM	0.5	1.9	InVld
1/23/2020 4:00 PM	0.8	2.5	InVld
1/23/2020 5:00 PM	1.2	3.1	InVld
1/23/2020 6:00 PM	1.1	2.9	InVld
1/23/2020 7:00 PM	0.9	2.6	InVld
1/23/2020 8:00 PM	0.9	2.7	InVld
1/23/2020 9:00 PM	0.9	2.6	InVld
1/23/2020 10:00 PM	0.9	2.3	InVld
1/23/2020 11:00 PM	1	2.2	InVld
1/24/2020 12:00 AM	1	2.1	InVld
1/24/2020 1:00 AM	0.7	2.3	InVld
1/24/2020 2:00 AM	0.6	2.4	InVld
1/24/2020 3:00 AM	0.7	2.2	InVld
1/24/2020 4:00 AM	0.6	2.3	InVld
1/24/2020 5:00 AM	0.7	2.2	InVld
1/24/2020 6:00 AM	0.6	2	InVld
1/24/2020 7:00 AM	0.5	2	InVld
1/24/2020 8:00 AM	0.6	1.9	InVld
1/24/2020 9:00 AM	0.4	1.9	InVld
1/24/2020 10:00 AM	0.5	2	InVld
1/24/2020 11:00 AM	0.5	1.8	InVld
1/24/2020 12:00 PM	0.5	1.8	InVld
1/24/2020 1:00 PM	0.4	2	InVld
1/24/2020 2:00 PM	0.3	1.7	InVld
1/24/2020 3:00 PM	0	1.6	InVld
1/24/2020 4:00 PM	0	1.5	InVld
1/24/2020 5:00 PM	-0.1	1.5	InVld
1/24/2020 6:00 PM	-0.1	1.4	InVld
1/24/2020 7:00 PM	-0.1	1.5	InVld
1/24/2020 8:00 PM	-0.2	1.4	InVld
1/24/2020 9:00 PM	-0.1	1.4	InVld
1/24/2020 10:00 PM	-0.2	1.4	InVld
1/24/2020 11:00 PM	-0.2	1.3	InVld
1/25/2020 12:00 AM	-0.2	1.3	InVld
1/25/2020 1:00 AM	-0.2	1.3	InVld
1/25/2020 2:00 AM	-0.2	1.4	InVld
1/25/2020 3:00 AM	-0.2	1.3	InVld
1/25/2020 4:00 AM	-0.2	1.3	InVld
1/25/2020 5:00 AM	-0.1	1.4	InVld
1/25/2020 6:00 AM	-0.2	1.3	InVld
1/25/2020 7:00 AM	-0.3	1.2	InVld
1/25/2020 8:00 AM	-0.2	1.3	InVld
1/25/2020 9:00 AM	-0.3	1.3	InVld
1/25/2020 10:00 AM	-0.2	1.3	InVld
1/25/2020 11:00 AM	-0.2	1.4	InVld
1/25/2020 12:00 PM	-0.2	1.5	InVld
1/25/2020 1:00 PM	-0.1	1.5	InVld
1/25/2020 2:00 PM	-0.1	1.4	InVld
1/25/2020 3:00 PM	-0.1	1.4	InVld
1/25/2020 4:00 PM	-0.1	1.4	InVld
1/25/2020 5:00 PM	-0.1	1.4	InVld
1/25/2020 6:00 PM	-0.2	1.5	InVld
1/25/2020 7:00 PM	-0.2	1.4	InVld
1/25/2020 8:00 PM	-0.2	1.4	InVld
1/25/2020 9:00 PM	-0.3	1.3	InVld
1/25/2020 10:00 PM	-0.3	1.3	InVld
1/25/2020 11:00 PM	-0.2	1.4	InVld
1/26/2020 12:00 AM	-0.2	1.4	InVld
1/26/2020 1:00 AM	-0.3	1.5	InVld
1/26/2020 2:00 AM	-0.2	1.5	InVld

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/26/2020 3:00 AM	-0.2	1.4	InVld
1/26/2020 4:00 AM	-0.2	1.5	InVld
1/26/2020 5:00 AM	-0.2	1.5	InVld
1/26/2020 6:00 AM	-0.2	1.5	InVld
1/26/2020 7:00 AM	-0.2	1.5	InVld
1/26/2020 8:00 AM	-0.2	1.7	InVld
1/26/2020 9:00 AM	-0.1	1.7	InVld
1/26/2020 10:00 AM	-0.1	1.7	InVld
1/26/2020 11:00 AM	0	2	InVld
1/26/2020 12:00 PM	0.1	2.2	InVld
1/26/2020 1:00 PM	0.1	2	InVld
1/26/2020 2:00 PM	0	1.6	InVld
1/26/2020 3:00 PM	0	1.6	InVld
1/26/2020 4:00 PM	0	1.6	InVld
1/26/2020 5:00 PM	-0.1	1.5	InVld
1/26/2020 6:00 PM	-0.1	1.5	InVld
1/26/2020 7:00 PM	0	1.6	InVld
1/26/2020 8:00 PM	-0.1	1.6	InVld
1/26/2020 9:00 PM	-0.1	1.6	InVld
1/26/2020 10:00 PM	-0.1	1.5	InVld
1/26/2020 11:00 PM	0	1.6	InVld
1/27/2020 12:00 AM	0	1.9	InVld
1/27/2020 1:00 AM	0	1.6	InVld
1/27/2020 2:00 AM	0	1.6	InVld
1/27/2020 3:00 AM	-0.1	1.5	InVld
1/27/2020 4:00 AM	Precision	Precision	Precision
1/27/2020 5:00 AM	0	1.6	InVld
1/27/2020 6:00 AM	0	1.6	InVld
1/27/2020 7:00 AM	0	1.6	InVld
1/27/2020 8:00 AM	0	1.7	InVld
1/27/2020 9:00 AM	0	1.6	InVld
1/27/2020 10:00 AM	0	1.5	InVld
1/27/2020 11:00 AM	0	1.5	InVld
1/27/2020 12:00 PM	0	1.5	InVld
1/27/2020 1:00 PM	0	1.5	InVld
1/27/2020 2:00 PM	-0.1	1.5	InVld
1/27/2020 3:00 PM	-0.1	1.4	InVld
1/27/2020 4:00 PM	-0.1	1.5	InVld
1/27/2020 5:00 PM	-0.1	1.5	InVld
1/27/2020 6:00 PM	-0.1	1.5	InVld
1/27/2020 7:00 PM	-0.2	1.4	InVld
1/27/2020 8:00 PM	-0.1	1.5	InVld
1/27/2020 9:00 PM	-0.1	1.5	InVld
1/27/2020 10:00 PM	-0.1	1.4	InVld
1/27/2020 11:00 PM	-0.1	1.4	InVld
1/28/2020 12:00 AM	-0.1	1.4	InVld
1/28/2020 1:00 AM	-0.2	1.4	InVld
1/28/2020 2:00 AM	-0.1	1.4	InVld
1/28/2020 3:00 AM	-0.2	1.4	InVld
1/28/2020 4:00 AM	-0.2	1.4	InVld
1/28/2020 5:00 AM	-0.1	1.5	InVld
1/28/2020 6:00 AM	-0.2	1.4	InVld
1/28/2020 7:00 AM	-0.1	1.5	InVld
1/28/2020 8:00 AM	-0.1	1.6	InVld
1/28/2020 9:00 AM	-0.1	1.4	InVld
1/28/2020 10:00 AM	-0.1	1.5	0.6
1/28/2020 11:00 AM	-0.1	1.5	0.6
1/28/2020 12:00 PM	-0.1	1.5	0.6
1/28/2020 1:00 PM	-0.1	1.5	0.5
1/28/2020 2:00 PM	-0.1	1.5	0.5
1/28/2020 3:00 PM	-0.1	1.5	0.5
1/28/2020 4:00 PM	-0.1	1.5	0.5
1/28/2020 5:00 PM	-0.1	1.5	0.5
1/28/2020 6:00 PM	-0.1	1.4	0.4
1/28/2020 7:00 PM	-0.2	1.5	0.5
1/28/2020 8:00 PM	-0.2	1.4	0.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/28/2020 9:00 PM	-0.1	1.4	0.5
1/28/2020 10:00 PM	-0.1	1.5	0.5
1/28/2020 11:00 PM	-0.1	1.5	0.6
1/29/2020 12:00 AM	-0.1	1.5	0.7
1/29/2020 1:00 AM	-0.1	1.5	0.5
1/29/2020 2:00 AM	-0.1	1.4	0.6
1/29/2020 3:00 AM	-0.1	1.4	0.5
1/29/2020 4:00 AM	-0.2	1.4	0.6
1/29/2020 5:00 AM	-0.1	1.4	0.5
1/29/2020 6:00 AM	-0.1	1.3	0.5
1/29/2020 7:00 AM	-0.1	1.4	0.5
1/29/2020 8:00 AM	-0.1	1.4	0.6
1/29/2020 9:00 AM	-0.1	1.5	0.6
1/29/2020 10:00 AM	0	1.5	0.6
1/29/2020 11:00 AM	-0.1	1.5	0.6
1/29/2020 12:00 PM	-0.1	1.4	0.6
1/29/2020 1:00 PM	-0.1	1.5	0.5
1/29/2020 2:00 PM	0	1.5	0.5
1/29/2020 3:00 PM	0	1.5	0.7
1/29/2020 4:00 PM	-0.1	1.5	0.6
1/29/2020 5:00 PM	-0.1	1.4	0.6
1/29/2020 6:00 PM	-0.1	1.5	0.6
1/29/2020 7:00 PM	-0.2	1.5	0.5
1/29/2020 8:00 PM	-0.1	1.6	0.5
1/29/2020 9:00 PM	-0.1	1.9	0.7
1/29/2020 10:00 PM	-0.1	1.9	0.7
1/29/2020 11:00 PM	-0.1	2	0.6
1/30/2020 12:00 AM	-0.2	2.1	0.6
1/30/2020 1:00 AM	-0.2	2.1	0.5
1/30/2020 2:00 AM	-0.2	2	0.5
1/30/2020 3:00 AM	-0.2	1.8	0.6
1/30/2020 4:00 AM	-0.2	1.9	0.5
1/30/2020 5:00 AM	-0.2	1.9	0.7
1/30/2020 6:00 AM	-0.2	2	0.6
1/30/2020 7:00 AM	-0.2	1.8	0.6
1/30/2020 8:00 AM	-0.1	1.8	0.8
1/30/2020 9:00 AM	0.2	2.1	1.4
1/30/2020 10:00 AM	0.4	2.2	1.4
1/30/2020 11:00 AM	0.5	2.2	1.3
1/30/2020 12:00 PM	0.5	2	1.3
1/30/2020 1:00 PM	0.4	1.8	1.2
1/30/2020 2:00 PM	0.4	1.8	1.1
1/30/2020 3:00 PM	0.2	1.7	1
1/30/2020 4:00 PM	0.1	1.6	0.8
1/30/2020 5:00 PM	0	1.6	0.7
1/30/2020 6:00 PM	0	1.6	0.7
1/30/2020 7:00 PM	0.1	1.6	0.8
1/30/2020 8:00 PM	0.2	1.6	0.8
1/30/2020 9:00 PM	0.2	1.5	0.7
1/30/2020 10:00 PM	0.1	1.6	0.7
1/30/2020 11:00 PM	0	1.6	0.7
1/31/2020 12:00 AM	0.1	1.6	0.7
1/31/2020 1:00 AM	0.1	1.6	0.6
1/31/2020 2:00 AM	0.1	1.6	0.7
1/31/2020 3:00 AM	0.1	1.6	0.8
1/31/2020 4:00 AM	0	1.7	0.7
1/31/2020 5:00 AM	0	1.7	0.7
1/31/2020 6:00 AM	0	1.8	0.7
1/31/2020 7:00 AM	0	1.7	0.7
1/31/2020 8:00 AM	0.1	1.6	0.8
1/31/2020 9:00 AM	0.3	1.7	0.9
1/31/2020 10:00 AM	0.2	1.7	1
1/31/2020 11:00 AM	0.2	1.6	0.9
1/31/2020 12:00 PM	0.2	1.7	1
1/31/2020 1:00 PM	0.1	1.5	0.9
1/31/2020 2:00 PM	0.1	1.5	0.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
1/31/2020 3:00 PM	0	1.5	0.7
1/31/2020 4:00 PM	0	1.5	0.7
1/31/2020 5:00 PM	0.1	1.5	0.7
1/31/2020 6:00 PM	0	1.5	0.6
1/31/2020 7:00 PM	0	1.6	0.6
1/31/2020 8:00 PM	0	1.5	0.6
1/31/2020 9:00 PM	-0.1	1.5	0.6
1/31/2020 10:00 PM	-0.1	1.6	0.6
1/31/2020 11:00 PM	-0.1	1.7	0.6
2/1/2020 12:00 AM	-0.1	1.7	0.8
2/1/2020 1:00 AM	0	1.7	0.6
2/1/2020 2:00 AM	-0.1	1.7	0.5
2/1/2020 3:00 AM	-0.1	1.6	0.6
2/1/2020 4:00 AM	-0.1	1.6	0.6
2/1/2020 5:00 AM	0	1.6	0.7
2/1/2020 6:00 AM	-0.1	1.5	0.6
2/1/2020 7:00 AM	-0.1	1.5	0.5
2/1/2020 8:00 AM	-0.1	1.5	0.5
2/1/2020 9:00 AM	-0.1	1.5	0.5
2/1/2020 10:00 AM	-0.1	1.5	0.6
2/1/2020 11:00 AM	-0.1	1.5	0.5
2/1/2020 12:00 PM	0	1.7	0.6
2/1/2020 1:00 PM	0	1.6	0.6
2/1/2020 2:00 PM	0	1.7	0.6
2/1/2020 3:00 PM	0	2	0.6
2/1/2020 4:00 PM	0.1	2.5	0.8
2/1/2020 5:00 PM	0	2.2	0.8
2/1/2020 6:00 PM	0.1	2	0.7
2/1/2020 7:00 PM	0	1.8	0.6
2/1/2020 8:00 PM	0	1.7	0.7
2/1/2020 9:00 PM	-0.1	1.6	0.5
2/1/2020 10:00 PM	-0.1	1.6	0.5
2/1/2020 11:00 PM	-0.2	1.6	0.5
2/2/2020 12:00 AM	-0.1	1.6	0.5
2/2/2020 1:00 AM	-0.2	1.5	0.6
2/2/2020 2:00 AM	-0.1	1.6	0.6
2/2/2020 3:00 AM	-0.2	1.5	0.6
2/2/2020 4:00 AM	-0.1	1.5	0.6
2/2/2020 5:00 AM	0	1.5	0.5
2/2/2020 6:00 AM	-0.1	1.9	0.5
2/2/2020 7:00 AM	0	1.8	0.7
2/2/2020 8:00 AM	-0.1	1.8	0.6
2/2/2020 9:00 AM	0	1.6	0.6
2/2/2020 10:00 AM	0	1.6	0.6
2/2/2020 11:00 AM	0	1.6	0.8
2/2/2020 12:00 PM	0	1.6	0.7
2/2/2020 1:00 PM	0	1.6	0.6
2/2/2020 2:00 PM	-0.1	1.5	0.6
2/2/2020 3:00 PM	0	1.5	0.6
2/2/2020 4:00 PM	0	1.5	0.6
2/2/2020 5:00 PM	0.2	1.6	0.7
2/2/2020 6:00 PM	0.3	1.7	0.7
2/2/2020 7:00 PM	0.2	1.6	0.9
2/2/2020 8:00 PM	0.3	1.7	1
2/2/2020 9:00 PM	0.3	1.7	1.1
2/2/2020 10:00 PM	0.5	1.9	1.1
2/2/2020 11:00 PM	0.4	1.9	1
2/3/2020 12:00 AM	0.4	2	1.2
2/3/2020 1:00 AM	0.5	1.9	1.3
2/3/2020 2:00 AM	0.5	2	1.3
2/3/2020 3:00 AM	0.5	2	1.3
2/3/2020 4:00 AM	Precision	Precision	Precision
2/3/2020 5:00 AM	0.7	2.2	1.2
2/3/2020 6:00 AM	0.4	1.9	0.9
2/3/2020 7:00 AM	0.3	1.7	1
2/3/2020 8:00 AM	0.3	1.7	1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/3/2020 9:00 AM	0.3	1.8	0.9
2/3/2020 10:00 AM	0.3	1.8	1.1
2/3/2020 11:00 AM	0.4	1.7	1
2/3/2020 12:00 PM	0.2	1.7	1.1
2/3/2020 1:00 PM	0.1	1.6	0.9
2/3/2020 2:00 PM	0.1	1.6	0.8
2/3/2020 3:00 PM	0.1	1.6	0.7
2/3/2020 4:00 PM	0.1	1.6	0.8
2/3/2020 5:00 PM	0.1	1.5	0.8
2/3/2020 6:00 PM	0.1	1.6	0.7
2/3/2020 7:00 PM	0	1.6	0.7
2/3/2020 8:00 PM	0	1.5	0.8
2/3/2020 9:00 PM	0	1.5	0.7
2/3/2020 10:00 PM	0.2	1.5	0.7
2/3/2020 11:00 PM	0.3	1.5	0.7
2/4/2020 12:00 AM	0.3	1.6	0.7
2/4/2020 1:00 AM	0	1.6	0.7
2/4/2020 2:00 AM	0	1.6	0.7
2/4/2020 3:00 AM	0	1.6	0.7
2/4/2020 4:00 AM	0.1	1.8	1.1
2/4/2020 5:00 AM	0.2	1.8	0.8
2/4/2020 6:00 AM	0.1	1.6	0.7
2/4/2020 7:00 AM	0.1	1.6	0.7
2/4/2020 8:00 AM	0	1.6	0.7
2/4/2020 9:00 AM	0	1.6	0.6
2/4/2020 10:00 AM	0	1.6	0.6
2/4/2020 11:00 AM	0	1.6	0.6
2/4/2020 12:00 PM	0	1.6	0.6
2/4/2020 1:00 PM	0	1.6	0.5
2/4/2020 2:00 PM	-0.1	1.6	0.5
2/4/2020 3:00 PM	-0.1	1.5	0.5
2/4/2020 4:00 PM	-0.2	1.5	0.5
2/4/2020 5:00 PM	-0.2	1.5	0.4
2/4/2020 6:00 PM	-0.1	1.5	0.5
2/4/2020 7:00 PM	-0.2	1.5	0.4
2/4/2020 8:00 PM	-0.2	1.5	0.4
2/4/2020 9:00 PM	-0.2	1.4	0.3
2/4/2020 10:00 PM	-0.2	1.4	0.4
2/4/2020 11:00 PM	-0.2	1.5	0.4
2/5/2020 12:00 AM	-0.2	1.4	0.4
2/5/2020 1:00 AM	-0.2	1.4	0.4
2/5/2020 2:00 AM	-0.2	1.4	0.3
2/5/2020 3:00 AM	-0.2	1.5	0.4
2/5/2020 4:00 AM	-0.2	1.4	0.4
2/5/2020 5:00 AM	-0.1	1.4	0.4
2/5/2020 6:00 AM	-0.2	1.4	0.3
2/5/2020 7:00 AM	-0.3	1.4	0.4
2/5/2020 8:00 AM	-0.2	1.4	0.4
2/5/2020 9:00 AM	-0.1	1.5	0.5
2/5/2020 10:00 AM	0	1.6	0.6
2/5/2020 11:00 AM	0	1.5	0.5
2/5/2020 12:00 PM	-0.1	1.5	0.6
2/5/2020 1:00 PM	0	1.5	0.5
2/5/2020 2:00 PM	0	1.6	0.6
2/5/2020 3:00 PM	-0.1	1.5	0.5
2/5/2020 4:00 PM	0	1.5	0.5
2/5/2020 5:00 PM	-0.1	1.4	0.5
2/5/2020 6:00 PM	-0.1	1.4	0.4
2/5/2020 7:00 PM	-0.2	1.4	0.4
2/5/2020 8:00 PM	-0.2	1.4	0.4
2/5/2020 9:00 PM	-0.3	1.4	0.4
2/5/2020 10:00 PM	-0.2	1.4	0.4
2/5/2020 11:00 PM	-0.3	1.4	0.4
2/6/2020 12:00 AM	-0.3	1.4	0.4
2/6/2020 1:00 AM	-0.2	1.4	0.4
2/6/2020 2:00 AM	-0.3	1.4	Power Fail

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/6/2020 3:00 AM	-0.3	1.4	Power Fail
2/6/2020 4:00 AM	-0.3	1.5	Power Fail
2/6/2020 5:00 AM	-0.2	1.5	Power Fail
2/6/2020 6:00 AM	-0.2	1.5	Power Fail
2/6/2020 7:00 AM	-0.2	1.5	0.5
2/6/2020 8:00 AM	-0.2	1.5	0.4
2/6/2020 9:00 AM	-0.2	1.5	0.5
2/6/2020 10:00 AM	-0.2	1.5	0.5
2/6/2020 11:00 AM	-0.2	1.5	0.4
2/6/2020 12:00 PM	-0.3	1.5	0.5
2/6/2020 1:00 PM	-0.3	1.5	0.4
2/6/2020 2:00 PM	-0.2	1.5	0.4
2/6/2020 3:00 PM	0.2	1.5	0.4
2/6/2020 4:00 PM	0.1	1.5	0.4
2/6/2020 5:00 PM	0.2	1.5	0.4
2/6/2020 6:00 PM	0.1	1.5	0.4
2/6/2020 7:00 PM	0.1	1.5	0.4
2/6/2020 8:00 PM	0.1	1.4	0.4
2/6/2020 9:00 PM	0.1	1.3	0.4
2/6/2020 10:00 PM	0.1	1.2	0.4
2/6/2020 11:00 PM	0.1	1.2	0.4
2/7/2020 12:00 AM	0.1	1.2	0.3
2/7/2020 1:00 AM	0.1	1.2	0.4
2/7/2020 2:00 AM	0.1	1.1	0.4
2/7/2020 3:00 AM	0.1	1.1	0.3
2/7/2020 4:00 AM	0.1	1.1	0.4
2/7/2020 5:00 AM	0.1	1.2	0.4
2/7/2020 6:00 AM	0.1	1.1	0.3
2/7/2020 7:00 AM	0.1	1.1	0.3
2/7/2020 8:00 AM	0.2	1.3	0.3
2/7/2020 9:00 AM	0.3	1.5	0.4
2/7/2020 10:00 AM	0.3	1.4	0.4
2/7/2020 11:00 AM	0.2	1.4	0.5
2/7/2020 12:00 PM	0.2	1.4	0.6
2/7/2020 1:00 PM	0.2	1.4	0.5
2/7/2020 2:00 PM	0.2	1.4	0.6
2/7/2020 3:00 PM	0.3	1.5	0.5
2/7/2020 4:00 PM	0.2	1.4	0.5
2/7/2020 5:00 PM	0.2	1.4	0.5
2/7/2020 6:00 PM	0.2	1.4	0.5
2/7/2020 7:00 PM	0.1	1.4	0.5
2/7/2020 8:00 PM	0.1	1.3	0.4
2/7/2020 9:00 PM	0.2	1.4	0.5
2/7/2020 10:00 PM	0.2	1.3	0.4
2/7/2020 11:00 PM	0.1	1.4	0.5
2/8/2020 12:00 AM	0.2	1.4	0.5
2/8/2020 1:00 AM	0.2	1.4	0.6
2/8/2020 2:00 AM	0.2	1.4	0.5
2/8/2020 3:00 AM	0.2	1.4	0.5
2/8/2020 4:00 AM	0.1	1.4	0.5
2/8/2020 5:00 AM	0.3	1.5	0.7
2/8/2020 6:00 AM	0.3	1.5	0.7
2/8/2020 7:00 AM	0.3	1.6	0.8
2/8/2020 8:00 AM	0.3	1.6	0.8
2/8/2020 9:00 AM	0.5	1.7	0.9
2/8/2020 10:00 AM	0.5	1.6	0.8
2/8/2020 11:00 AM	0.4	1.5	0.8
2/8/2020 12:00 PM	0.3	1.5	0.7
2/8/2020 1:00 PM	0.3	1.5	0.6
2/8/2020 2:00 PM	0.3	1.5	0.7
2/8/2020 3:00 PM	0.3	1.5	0.6
2/8/2020 4:00 PM	0.3	1.5	0.7
2/8/2020 5:00 PM	0.2	1.5	0.6
2/8/2020 6:00 PM	0.2	1.5	0.6
2/8/2020 7:00 PM	0.2	1.5	0.6
2/8/2020 8:00 PM	0.1	2.6	0.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/8/2020 9:00 PM	0.2	2	0.5
2/8/2020 10:00 PM	0.2	1.7	0.7
2/8/2020 11:00 PM	0.2	1.7	0.6
2/9/2020 12:00 AM	0.2	1.6	0.7
2/9/2020 1:00 AM	0.2	1.6	0.7
2/9/2020 2:00 AM	0.2	1.6	0.6
2/9/2020 3:00 AM	0.2	1.5	0.6
2/9/2020 4:00 AM	0.2	1.5	0.6
2/9/2020 5:00 AM	0.2	1.5	0.6
2/9/2020 6:00 AM	0.2	1.5	0.6
2/9/2020 7:00 AM	0.2	1.6	0.7
2/9/2020 8:00 AM	0.2	3.1	0.9
2/9/2020 9:00 AM	0.3	3.8	1.1
2/9/2020 10:00 AM	0.5	2.7	1.1
2/9/2020 11:00 AM	1.2	2	1.4
2/9/2020 12:00 PM	0.9	1.9	1
2/9/2020 1:00 PM	0.5	1.6	0.7
2/9/2020 2:00 PM	0.4	1.5	0.7
2/9/2020 3:00 PM	0.3	1.5	0.7
2/9/2020 4:00 PM	0.4	1.5	0.6
2/9/2020 5:00 PM	0.4	1.4	0.6
2/9/2020 6:00 PM	0.4	1.5	0.6
2/9/2020 7:00 PM	0.4	1.7	0.7
2/9/2020 8:00 PM	0.4	1.5	0.6
2/9/2020 9:00 PM	0.4	1.5	0.6
2/9/2020 10:00 PM	0.3	1.5	0.7
2/9/2020 11:00 PM	0.3	1.4	0.7
2/10/2020 12:00 AM	0.3	1.4	0.7
2/10/2020 1:00 AM	0.2	1.5	0.7
2/10/2020 2:00 AM	0.3	1.7	0.8
2/10/2020 3:00 AM	0.2	1.6	0.7
2/10/2020 4:00 AM	Precision	Precision	Precision
2/10/2020 5:00 AM	0.3	1.6	0.8
2/10/2020 6:00 AM	0.2	1.5	0.7
2/10/2020 7:00 AM	0.2	1.5	0.7
2/10/2020 8:00 AM	0.3	1.6	0.7
2/10/2020 9:00 AM	0.3	1.6	0.7
2/10/2020 10:00 AM	0.4	1.5	0.7
2/10/2020 11:00 AM	0.4	1.5	0.8
2/10/2020 12:00 PM	0.3	1.5	0.6
2/10/2020 1:00 PM	0.3	1.5	0.5
2/10/2020 2:00 PM	0.2	1.4	0.6
2/10/2020 3:00 PM	0.3	1.4	0.6
2/10/2020 4:00 PM	0.2	1.4	0.5
2/10/2020 5:00 PM	0.2	1.4	0.6
2/10/2020 6:00 PM	0.2	1.4	0.5
2/10/2020 7:00 PM	0.2	1.4	0.5
2/10/2020 8:00 PM	0.2	1.4	0.4
2/10/2020 9:00 PM	0.2	1.3	0.5
2/10/2020 10:00 PM	0.2	1.3	0.5
2/10/2020 11:00 PM	0.1	1.3	0.5
2/11/2020 12:00 AM	0.2	1.3	0.4
2/11/2020 1:00 AM	0.2	1.4	0.4
2/11/2020 2:00 AM	0.1	1.4	0.5
2/11/2020 3:00 AM	0.1	1.4	0.4
2/11/2020 4:00 AM	0.1	1.3	0.5
2/11/2020 5:00 AM	0.2	1.4	0.5
2/11/2020 6:00 AM	0.1	1.4	0.4
2/11/2020 7:00 AM	0.1	1.3	0.4
2/11/2020 8:00 AM	0.1	1.4	0.4
2/11/2020 9:00 AM	0.1	1.4	0.4
2/11/2020 10:00 AM	0.2	1.4	0.4
2/11/2020 11:00 AM	0.2	1.4	0.5
2/11/2020 12:00 PM	0.1	1.5	0.5
2/11/2020 1:00 PM	0.3	1.5	0.5
2/11/2020 2:00 PM	0.2	1.4	0.5

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/11/2020 3:00 PM	0.2	1.4	0.5
2/11/2020 4:00 PM	0.2	1.3	0.5
2/11/2020 5:00 PM	0.2	1.4	0.4
2/11/2020 6:00 PM	0.2	1.4	0.4
2/11/2020 7:00 PM	0.1	1.5	0.5
2/11/2020 8:00 PM	0.1	1.4	0.4
2/11/2020 9:00 PM	0.2	1.4	0.5
2/11/2020 10:00 PM	0.2	1.4	0.5
2/11/2020 11:00 PM	0.2	1.3	0.5
2/12/2020 12:00 AM	0.3	1.5	0.5
2/12/2020 1:00 AM	0.3	1.6	0.6
2/12/2020 2:00 AM	0.3	1.6	0.6
2/12/2020 3:00 AM	0.4	1.8	0.5
2/12/2020 4:00 AM	0.5	1.8	0.6
2/12/2020 5:00 AM	0.6	1.7	0.6
2/12/2020 6:00 AM	0.4	1.7	0.6
2/12/2020 7:00 AM	0.3	1.5	0.7
2/12/2020 8:00 AM	0.3	1.5	0.6
2/12/2020 9:00 AM	0.5	1.6	1.1
2/12/2020 10:00 AM	0.7	1.6	1
2/12/2020 11:00 AM	0.7	1.6	1
2/12/2020 12:00 PM	0.6	1.5	0.9
2/12/2020 1:00 PM	0.5	1.5	0.8
2/12/2020 2:00 PM	0.5	1.5	0.7
2/12/2020 3:00 PM	0.5	1.4	0.6
2/12/2020 4:00 PM	0.3	1.3	0.6
2/12/2020 5:00 PM	0.2	1.3	0.5
2/12/2020 6:00 PM	0.1	1.2	0.5
2/12/2020 7:00 PM	0.2	1.3	0.5
2/12/2020 8:00 PM	0.1	1.3	0.6
2/12/2020 9:00 PM	0.2	1.2	0.5
2/12/2020 10:00 PM	0.1	1.2	0.5
2/12/2020 11:00 PM	0.1	1.2	0.6
2/13/2020 12:00 AM	0.1	1.2	0.5
2/13/2020 1:00 AM	0.1	1.2	0.6
2/13/2020 2:00 AM	0.1	1.2	0.5
2/13/2020 3:00 AM	0.1	1.1	0.5
2/13/2020 4:00 AM	0.1	1.2	0.5
2/13/2020 5:00 AM	0.2	1.2	0.6
2/13/2020 6:00 AM	0.1	1.3	0.5
2/13/2020 7:00 AM	0.2	1.3	0.5
2/13/2020 8:00 AM	0.2	1.2	0.5
2/13/2020 9:00 AM	0.2	1.3	0.5
2/13/2020 10:00 AM	0.2	1.4	0.6
2/13/2020 11:00 AM	0.3	1.4	0.6
2/13/2020 12:00 PM	0.2	1.4	0.5
2/13/2020 1:00 PM	0.2	1.3	0.4
2/13/2020 2:00 PM	0.2	1.4	0.5
2/13/2020 3:00 PM	0.2	1.3	0.5
2/13/2020 4:00 PM	0.2	1.3	0.4
2/13/2020 5:00 PM	0.1	1.3	0.5
2/13/2020 6:00 PM	0.1	1.2	0.4
2/13/2020 7:00 PM	0.2	1.3	0.4
2/13/2020 8:00 PM	0.1	1.3	0.5
2/13/2020 9:00 PM	0.2	1.2	0.4
2/13/2020 10:00 PM	0.1	1.3	0.6
2/13/2020 11:00 PM	0.2	1.3	0.5
2/14/2020 12:00 AM	0.2	1.3	0.6
2/14/2020 1:00 AM	0.3	1.4	0.5
2/14/2020 2:00 AM	0.3	1.4	0.6
2/14/2020 3:00 AM	0.2	1.3	0.5
2/14/2020 4:00 AM	0.2	1.3	0.5
2/14/2020 5:00 AM	0.3	1.4	0.6
2/14/2020 6:00 AM	0.2	1.3	0.5
2/14/2020 7:00 AM	0.1	1.3	0.5
2/14/2020 8:00 AM	0.3	1.4	0.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/14/2020 9:00 AM	0.3	1.4	0.7
2/14/2020 10:00 AM	0.3	1.3	0.7
2/14/2020 11:00 AM	0.2	1.3	0.7
2/14/2020 12:00 PM	0.2	1.4	0.7
2/14/2020 1:00 PM	0.3	1.4	0.8
2/14/2020 2:00 PM	0.3	1.4	0.6
2/14/2020 3:00 PM	0.3	1.4	0.7
2/14/2020 4:00 PM	0.4	1.4	0.8
2/14/2020 5:00 PM	0.4	1.5	0.9
2/14/2020 6:00 PM	0.4	1.4	0.8
2/14/2020 7:00 PM	0.3	1.4	0.8
2/14/2020 8:00 PM	0.3	1.5	0.8
2/14/2020 9:00 PM	0.3	1.5	0.7
2/14/2020 10:00 PM	0.3	1.5	0.7
2/14/2020 11:00 PM	0.3	1.5	0.7
2/15/2020 12:00 AM	0.2	1.5	0.7
2/15/2020 1:00 AM	0.1	1.5	0.7
2/15/2020 2:00 AM	0.1	1.6	0.6
2/15/2020 3:00 AM	0.2	1.6	0.6
2/15/2020 4:00 AM	0.2	1.7	0.6
2/15/2020 5:00 AM	0.2	1.9	0.8
2/15/2020 6:00 AM	0.2	1.6	0.7
2/15/2020 7:00 AM	0.2	1.5	0.6
2/15/2020 8:00 AM	0.2	1.6	0.6
2/15/2020 9:00 AM	0.7	1.7	0.9
2/15/2020 10:00 AM	0.7	1.7	1.1
2/15/2020 11:00 AM	0.5	1.6	0.9
2/15/2020 12:00 PM	0.4	1.6	0.8
2/15/2020 1:00 PM	0.4	1.5	0.8
2/15/2020 2:00 PM	0.4	1.6	0.9
2/15/2020 3:00 PM	0.4	1.5	0.8
2/15/2020 4:00 PM	0.4	1.5	0.8
2/15/2020 5:00 PM	0.4	1.5	0.8
2/15/2020 6:00 PM	0.4	1.5	0.8
2/15/2020 7:00 PM	0.4	1.5	0.8
2/15/2020 8:00 PM	0.5	1.5	0.9
2/15/2020 9:00 PM	0.5	1.6	0.9
2/15/2020 10:00 PM	0.7	2.2	0.9
2/15/2020 11:00 PM	0.5	2.8	0.9
2/16/2020 12:00 AM	0.5	2.8	0.9
2/16/2020 1:00 AM	0.4	3.9	1
2/16/2020 2:00 AM	0.3	3.4	0.8
2/16/2020 3:00 AM	0.3	2.4	0.9
2/16/2020 4:00 AM	0.3	2.4	0.9
2/16/2020 5:00 AM	0.3	2.5	0.9
2/16/2020 6:00 AM	0.3	2.5	1
2/16/2020 7:00 AM	0.3	2.5	1
2/16/2020 8:00 AM	0.3	3	0.9
2/16/2020 9:00 AM	0.4	2.2	0.8
2/16/2020 10:00 AM	0.4	1.8	1
2/16/2020 11:00 AM	0.4	1.6	0.8
2/16/2020 12:00 PM	0.4	1.6	0.9
2/16/2020 1:00 PM	0.4	1.6	0.9
2/16/2020 2:00 PM	0.4	1.6	0.9
2/16/2020 3:00 PM	0.4	1.6	0.9
2/16/2020 4:00 PM	0.4	1.6	0.9
2/16/2020 5:00 PM	0.8	1.8	1.1
2/16/2020 6:00 PM	0.9	1.9	1.4
2/16/2020 7:00 PM	0.8	1.9	1.4
2/16/2020 8:00 PM	1.1	2.4	1.6
2/16/2020 9:00 PM	1.1	2.5	1.4
2/16/2020 10:00 PM	0.7	2.2	1.1
2/16/2020 11:00 PM	0.6	2	1.1
2/17/2020 12:00 AM	0.4	1.7	1
2/17/2020 1:00 AM	0.4	1.6	1.1
2/17/2020 2:00 AM	0.3	1.6	0.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/17/2020 3:00 AM	0.3	1.5	1
2/17/2020 4:00 AM	Precision	Precision	Precision
2/17/2020 5:00 AM	0.2	1.4	0.8
2/17/2020 6:00 AM	0.2	1.3	0.8
2/17/2020 7:00 AM	0.2	1.4	0.7
2/17/2020 8:00 AM	0.3	1.6	0.9
2/17/2020 9:00 AM	0.5	1.9	1.4
2/17/2020 10:00 AM	0.7	1.8	1.3
2/17/2020 11:00 AM	0.6	1.6	1
2/17/2020 12:00 PM	0.6	1.6	0.9
2/17/2020 1:00 PM	0.6	1.7	0.9
2/17/2020 2:00 PM	0.5	1.6	0.9
2/17/2020 3:00 PM	0.5	1.5	0.8
2/17/2020 4:00 PM	0.4	1.5	0.9
2/17/2020 5:00 PM	0.5	1.5	0.8
2/17/2020 6:00 PM	0.4	1.5	0.8
2/17/2020 7:00 PM	0.5	1.5	0.8
2/17/2020 8:00 PM	0.5	1.5	0.9
2/17/2020 9:00 PM	0.4	1.5	0.8
2/17/2020 10:00 PM	0.4	1.5	0.8
2/17/2020 11:00 PM	0.4	1.5	0.8
2/18/2020 12:00 AM	0.4	1.4	0.8
2/18/2020 1:00 AM	0.4	1.4	0.8
2/18/2020 2:00 AM	0.4	1.5	0.8
2/18/2020 3:00 AM	0.4	1.5	0.9
2/18/2020 4:00 AM	0.5	1.5	0.9
2/18/2020 5:00 AM	0.5	1.6	1
2/18/2020 6:00 AM	0.5	1.5	0.9
2/18/2020 7:00 AM	0.5	1.5	1
2/18/2020 8:00 AM	0.5	1.5	0.9
2/18/2020 9:00 AM	0.6	1.5	1
2/18/2020 10:00 AM	0.6	1.4	0.9
2/18/2020 11:00 AM	0.5	1.5	0.9
2/18/2020 12:00 PM	0.5	1.5	1
2/18/2020 1:00 PM	0.4	1.6	0.9
2/18/2020 2:00 PM	0.3	1.5	0.7
2/18/2020 3:00 PM	0.3	1.4	0.7
2/18/2020 4:00 PM	0.2	1.4	0.7
2/18/2020 5:00 PM	0.2	1.3	0.7
2/18/2020 6:00 PM	0.2	1.3	0.7
2/18/2020 7:00 PM	0.2	1.3	0.7
2/18/2020 8:00 PM	0.2	1.3	0.7
2/18/2020 9:00 PM	0.2	1.4	0.6
2/18/2020 10:00 PM	0.2	1.3	0.6
2/18/2020 11:00 PM	0.2	1.4	0.6
2/19/2020 12:00 AM	0.2	1.4	0.6
2/19/2020 1:00 AM	0.2	1.4	0.6
2/19/2020 2:00 AM	0.2	1.4	0.6
2/19/2020 3:00 AM	0.2	1.3	0.6
2/19/2020 4:00 AM	0.2	1.3	0.7
2/19/2020 5:00 AM	0.2	1.3	0.7
2/19/2020 6:00 AM	0.2	1.3	0.6
2/19/2020 7:00 AM	0.2	1.4	0.7
2/19/2020 8:00 AM	0.5	1.6	1.1
2/19/2020 9:00 AM	0.9	1.8	1.5
2/19/2020 10:00 AM	0.8	1.7	1.3
2/19/2020 11:00 AM	0.8	1.6	1.2
2/19/2020 12:00 PM	0.6	1.6	1.2
2/19/2020 1:00 PM	0.6	1.5	1.1
2/19/2020 2:00 PM	0.5	1.6	1.1
2/19/2020 3:00 PM	0.8	1.6	1.4
2/19/2020 4:00 PM	1	2	1.4
2/19/2020 5:00 PM	0.6	1.7	0.9
2/19/2020 6:00 PM	0.4	1.6	0.8
2/19/2020 7:00 PM	0.4	1.6	0.8
2/19/2020 8:00 PM	0.4	1.6	0.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/19/2020 9:00 PM	0.3	1.6	0.7
2/19/2020 10:00 PM	0.3	1.6	0.7
2/19/2020 11:00 PM	0.3	1.7	0.8
2/20/2020 12:00 AM	0.4	1.7	1.2
2/20/2020 1:00 AM	0.4	1.9	1.4
2/20/2020 2:00 AM	0.7	2	1.6
2/20/2020 3:00 AM	0.7	2	1.8
2/20/2020 4:00 AM	0.7	1.9	1.7
2/20/2020 5:00 AM	0.5	1.7	1.4
2/20/2020 6:00 AM	0.4	1.6	1.1
2/20/2020 7:00 AM	0.5	1.7	1.1
2/20/2020 8:00 AM	0.9	1.9	1.2
2/20/2020 9:00 AM	0.8	2	1.2
2/20/2020 10:00 AM	0.7	1.7	1.2
2/20/2020 11:00 AM	0.6	1.7	1.2
2/20/2020 12:00 PM	0.5	1.6	1
2/20/2020 1:00 PM	0.6	1.6	1.1
2/20/2020 2:00 PM	0.6	1.6	1.1
2/20/2020 3:00 PM	0.6	1.6	1.1
2/20/2020 4:00 PM	0.4	1.6	1
2/20/2020 5:00 PM	0.4	1.5	0.8
2/20/2020 6:00 PM	0.4	1.5	0.8
2/20/2020 7:00 PM	0.3	1.4	0.8
2/20/2020 8:00 PM	0.3	1.4	0.8
2/20/2020 9:00 PM	0.3	1.4	0.7
2/20/2020 10:00 PM	0.3	1.5	0.8
2/20/2020 11:00 PM	0.3	1.5	0.8
2/21/2020 12:00 AM	0.2	1.4	0.8
2/21/2020 1:00 AM	0.2	1.4	0.7
2/21/2020 2:00 AM	0.2	1.5	0.7
2/21/2020 3:00 AM	0.3	1.7	0.8
2/21/2020 4:00 AM	0.6	1.7	0.8
2/21/2020 5:00 AM	0.3	1.8	0.8
2/21/2020 6:00 AM	0.2	1.6	0.7
2/21/2020 7:00 AM	0.2	1.6	0.7
2/21/2020 8:00 AM	0.3	1.5	0.7
2/21/2020 9:00 AM	0.3	1.5	0.9
2/21/2020 10:00 AM	0.4	1.6	1
2/21/2020 11:00 AM	0.5	1.7	1.1
2/21/2020 12:00 PM	0.7	1.7	1.2
2/21/2020 1:00 PM	0.4	1.7	1
2/21/2020 2:00 PM	0.4	1.6	0.9
2/21/2020 3:00 PM	0.4	1.6	0.8
2/21/2020 4:00 PM	1.4	2.4	1.9
2/21/2020 5:00 PM	0.8	2.2	1.2
2/21/2020 6:00 PM	0.7	1.9	1.3
2/21/2020 7:00 PM	0.9	2.3	2.2
2/21/2020 8:00 PM	2.1	3.5	2.2
2/21/2020 9:00 PM	0.8	2.2	1.1
2/21/2020 10:00 PM	0.5	1.7	1
2/21/2020 11:00 PM	0.5	1.7	1
2/22/2020 12:00 AM	0.7	1.8	1.2
2/22/2020 1:00 AM	0.6	1.8	1.3
2/22/2020 2:00 AM	2.3	3.4	1.7
2/22/2020 3:00 AM	1.3	3	1.5
2/22/2020 4:00 AM	1.5	2.8	2.3
2/22/2020 5:00 AM	3.1	4.7	2.9
2/22/2020 6:00 AM	1.4	2.7	1.7
2/22/2020 7:00 AM	1.3	2.5	1.7
2/22/2020 8:00 AM	1	2.2	1.4
2/22/2020 9:00 AM	0.8	2	1.4
2/22/2020 10:00 AM	1.5	2.7	1.9
2/22/2020 11:00 AM	2.8	4	2
2/22/2020 12:00 PM	1.8	3.1	1.6
2/22/2020 1:00 PM	1.1	2.3	1.4
2/22/2020 2:00 PM	0.9	2.2	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/22/2020 3:00 PM	0.9	2.5	1.5
2/22/2020 4:00 PM	0.7	2.1	1.2
2/22/2020 5:00 PM	0.6	1.7	1
2/22/2020 6:00 PM	0.4	1.7	1
2/22/2020 7:00 PM	0.5	1.7	1
2/22/2020 8:00 PM	0.5	1.7	1
2/22/2020 9:00 PM	0.4	1.7	1
2/22/2020 10:00 PM	0.4	1.7	1
2/22/2020 11:00 PM	0.4	1.7	1
2/23/2020 12:00 AM	0.4	1.6	1
2/23/2020 1:00 AM	0.4	1.6	1
2/23/2020 2:00 AM	0.3	1.7	1
2/23/2020 3:00 AM	0.3	1.6	0.9
2/23/2020 4:00 AM	0.3	1.6	1
2/23/2020 5:00 AM	0.4	1.6	1.1
2/23/2020 6:00 AM	0.4	2.2	1.1
2/23/2020 7:00 AM	0.4	2.2	1.1
2/23/2020 8:00 AM	0.4	6.1	1.1
2/23/2020 9:00 AM	0.4	1.9	1.1
2/23/2020 10:00 AM	0.4	2.2	1
2/23/2020 11:00 AM	0.4	1.7	1
2/23/2020 12:00 PM	0.4	1.6	1
2/23/2020 1:00 PM	0.4	1.6	0.9
2/23/2020 2:00 PM	0.4	1.6	0.9
2/23/2020 3:00 PM	0.3	1.6	0.9
2/23/2020 4:00 PM	0.4	1.5	0.9
2/23/2020 5:00 PM	0.3	1.6	0.9
2/23/2020 6:00 PM	0.3	1.6	0.9
2/23/2020 7:00 PM	0.3	1.5	0.9
2/23/2020 8:00 PM	0.3	1.5	0.9
2/23/2020 9:00 PM	0.3	1.6	0.8
2/23/2020 10:00 PM	0.2	2	0.9
2/23/2020 11:00 PM	0.3	1.9	1
2/24/2020 12:00 AM	0.3	1.7	0.9
2/24/2020 1:00 AM	0.4	2.8	1
2/24/2020 2:00 AM	0.4	2.8	1
2/24/2020 3:00 AM	0.3	2.3	1
2/24/2020 4:00 AM	Precision	Precision	Precision
2/24/2020 5:00 AM	0.4	1.9	1
2/24/2020 6:00 AM	0.4	2.2	1
2/24/2020 7:00 AM	0.4	2.1	1.1
2/24/2020 8:00 AM	0.4	1.9	1
2/24/2020 9:00 AM	0.4	1.8	1.2
2/24/2020 10:00 AM	0.4	1.8	1.1
2/24/2020 11:00 AM	0.5	1.7	1.2
2/24/2020 12:00 PM	0.6	1.7	1.2
2/24/2020 1:00 PM	0.6	1.7	1.3
2/24/2020 2:00 PM	0.6	1.7	1.2
2/24/2020 3:00 PM	0.5	1.7	1
2/24/2020 4:00 PM	0.7	1.7	1.1
2/24/2020 5:00 PM	0.6	1.6	1
2/24/2020 6:00 PM	0.4	1.6	1.1
2/24/2020 7:00 PM	0.4	1.6	0.9
2/24/2020 8:00 PM	0.5	1.6	0.9
2/24/2020 9:00 PM	0.5	1.6	1.1
2/24/2020 10:00 PM	0.7	1.6	1.1
2/24/2020 11:00 PM	0.6	1.6	1.1
2/25/2020 12:00 AM	0.6	1.7	1.1
2/25/2020 1:00 AM	0.5	1.7	1
2/25/2020 2:00 AM	0.2	1.5	0.8
2/25/2020 3:00 AM	0.3	1.5	0.8
2/25/2020 4:00 AM	0.3	1.4	0.8
2/25/2020 5:00 AM	0.2	1.4	0.8
2/25/2020 6:00 AM	0.2	1.4	0.7
2/25/2020 7:00 AM	0.2	1.4	0.7
2/25/2020 8:00 AM	0.2	1.5	0.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/25/2020 9:00 AM	0.3	1.5	0.8
2/25/2020 10:00 AM	0.3	1.5	0.7
2/25/2020 11:00 AM	0.3	1.5	0.8
2/25/2020 12:00 PM	0.3	1.5	0.8
2/25/2020 1:00 PM	0.3	1.5	0.8
2/25/2020 2:00 PM	0.3	1.5	0.7
2/25/2020 3:00 PM	0.3	1.4	0.7
2/25/2020 4:00 PM	0.2	1.4	0.7
2/25/2020 5:00 PM	0.2	1.3	0.7
2/25/2020 6:00 PM	0.1	1.3	0.7
2/25/2020 7:00 PM	0.2	1.3	0.6
2/25/2020 8:00 PM	0.2	1.3	0.6
2/25/2020 9:00 PM	0.1	1.3	0.6
2/25/2020 10:00 PM	0.2	1.4	0.6
2/25/2020 11:00 PM	0.1	1.3	0.6
2/26/2020 12:00 AM	0.1	1.3	0.6
2/26/2020 1:00 AM	0.1	1.4	0.6
2/26/2020 2:00 AM	0.2	1.3	0.6
2/26/2020 3:00 AM	0.1	1.3	0.6
2/26/2020 4:00 AM	0.1	1.3	0.6
2/26/2020 5:00 AM	0.2	1.3	0.7
2/26/2020 6:00 AM	0.1	1.3	0.6
2/26/2020 7:00 AM	0.2	1.3	0.5
2/26/2020 8:00 AM	0.2	1.3	0.6
2/26/2020 9:00 AM	0.2	1.3	0.7
2/26/2020 10:00 AM	0.2	1.3	0.7
2/26/2020 11:00 AM	0.2	1.4	0.7
2/26/2020 12:00 PM	0.3	1.4	0.7
2/26/2020 1:00 PM	0.3	1.4	0.6
2/26/2020 2:00 PM	0.3	1.4	0.6
2/26/2020 3:00 PM	0.3	1.4	0.6
2/26/2020 4:00 PM	0.2	1.4	0.5
2/26/2020 5:00 PM	0.3	1.4	0.6
2/26/2020 6:00 PM	0.2	1.3	0.6
2/26/2020 7:00 PM	0.1	1.3	0.5
2/26/2020 8:00 PM	0.1	1.3	0.4
2/26/2020 9:00 PM	0.1	1.3	0.4
2/26/2020 10:00 PM	0.1	1.3	0.5
2/26/2020 11:00 PM	0.1	1.3	0.5
2/27/2020 12:00 AM	0.1	1.4	0.5
2/27/2020 1:00 AM	0.2	1.4	0.6
2/27/2020 2:00 AM	0.1	1.4	0.6
2/27/2020 3:00 AM	0.2	1.5	0.6
2/27/2020 4:00 AM	0.1	1.4	0.5
2/27/2020 5:00 AM	0.2	1.4	0.6
2/27/2020 6:00 AM	0.1	1.3	0.6
2/27/2020 7:00 AM	0.1	1.3	0.6
2/27/2020 8:00 AM	0.1	1.3	0.6
2/27/2020 9:00 AM	0.1	1.3	0.6
2/27/2020 10:00 AM	0.1	1.4	0.6
2/27/2020 11:00 AM	0.2	1.4	0.6
2/27/2020 12:00 PM	0.1	1.4	0.6
2/27/2020 1:00 PM	0.2	1.4	0.7
2/27/2020 2:00 PM	0.2	1.5	0.9
2/27/2020 3:00 PM	0.4	1.5	0.9
2/27/2020 4:00 PM	0.3	1.4	0.9
2/27/2020 5:00 PM	0.3	1.5	0.9
2/27/2020 6:00 PM	0.4	1.6	0.8
2/27/2020 7:00 PM	0.2	1.5	0.6
2/27/2020 8:00 PM	0.2	1.5	0.9
2/27/2020 9:00 PM	0.3	1.6	0.8
2/27/2020 10:00 PM	0.2	1.5	0.8
2/27/2020 11:00 PM	0.4	1.7	1
2/28/2020 12:00 AM	0.3	1.6	0.7
2/28/2020 1:00 AM	0.3	1.6	0.9
2/28/2020 2:00 AM	0.5	1.7	0.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
2/28/2020 3:00 AM	0.5	1.7	1
2/28/2020 4:00 AM	0.5	1.8	0.9
2/28/2020 5:00 AM	0.4	1.7	0.9
2/28/2020 6:00 AM	0.3	1.6	0.9
2/28/2020 7:00 AM	0.3	1.5	0.8
2/28/2020 8:00 AM	0.3	1.5	1
2/28/2020 9:00 AM	0.3	1.5	0.9
2/28/2020 10:00 AM	0.3	1.5	0.9
2/28/2020 11:00 AM	0.3	1.5	0.9
2/28/2020 12:00 PM	0.5	1.7	1.3
2/28/2020 1:00 PM	0.5	1.6	0.9
2/28/2020 2:00 PM	0.3	1.5	0.8
2/28/2020 3:00 PM	0.4	1.5	0.9
2/28/2020 4:00 PM	0.6	1.7	0.8
2/28/2020 5:00 PM	0.7	1.7	0.8
2/28/2020 6:00 PM	0.5	1.6	0.8
2/28/2020 7:00 PM	0.5	1.7	1
2/28/2020 8:00 PM	0.3	1.6	0.9
2/28/2020 9:00 PM	0.2	1.5	0.9
2/28/2020 10:00 PM	0.3	1.5	0.7
2/28/2020 11:00 PM	0.3	1.5	0.9
2/29/2020 12:00 AM	0.3	1.5	0.9
2/29/2020 1:00 AM	0.4	1.6	0.8
2/29/2020 2:00 AM	0.3	1.5	0.7
2/29/2020 3:00 AM	0.3	1.4	0.9
2/29/2020 4:00 AM	0.3	1.5	0.8
2/29/2020 5:00 AM	0.2	1.5	0.8
2/29/2020 6:00 AM	0.2	1.4	0.9
2/29/2020 7:00 AM	0.3	1.5	0.8
2/29/2020 8:00 AM	0.4	1.5	0.9
2/29/2020 9:00 AM	0.4	1.6	0.9
2/29/2020 10:00 AM	0.4	1.6	1
2/29/2020 11:00 AM	0.3	1.6	0.9
2/29/2020 12:00 PM	0.3	1.5	0.9
2/29/2020 1:00 PM	0.3	1.5	0.9
2/29/2020 2:00 PM	0.5	1.5	0.8
2/29/2020 3:00 PM	0.4	1.6	0.9
2/29/2020 4:00 PM	0.4	1.6	0.8
2/29/2020 5:00 PM	0.3	1.5	0.8
2/29/2020 6:00 PM	0.3	1.7	0.8
2/29/2020 7:00 PM	0.4	1.9	0.8
2/29/2020 8:00 PM	0.5	1.6	0.9
2/29/2020 9:00 PM	0.5	1.6	0.9
2/29/2020 10:00 PM	0.5	1.8	0.9
2/29/2020 11:00 PM	0.4	1.5	0.9
3/1/2020 12:00 AM	0.4	1.6	0.9
3/1/2020 1:00 AM	0.4	1.6	1
3/1/2020 2:00 AM	0.5	1.7	1.1
3/1/2020 3:00 AM	0.5	1.6	1.1
3/1/2020 4:00 AM	0.5	1.6	1.3
3/1/2020 5:00 AM	0.6	1.9	1.3
3/1/2020 6:00 AM	0.6	2.2	1.2
3/1/2020 7:00 AM	0.7	2.6	1.5
3/1/2020 8:00 AM	1.1	3.2	1.7
3/1/2020 9:00 AM	1.4	2.6	2.3
3/1/2020 10:00 AM	1.4	2.6	1.8
3/1/2020 11:00 AM	1.3	2.4	1.9
3/1/2020 12:00 PM	1.3	2.5	1.7
3/1/2020 1:00 PM	1.1	2.2	1.4
3/1/2020 2:00 PM	0.7	1.8	1.2
3/1/2020 3:00 PM	0.5	1.7	1.1
3/1/2020 4:00 PM	0.5	1.6	1
3/1/2020 5:00 PM	0.4	1.6	0.9
3/1/2020 6:00 PM	0.4	1.6	1
3/1/2020 7:00 PM	0.5	1.8	0.9
3/1/2020 8:00 PM	0.6	1.9	1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/1/2020 9:00 PM	0.4	2.2	0.9
3/1/2020 10:00 PM	0.4	2.5	0.8
3/1/2020 11:00 PM	0.4	2.3	0.9
3/2/2020 12:00 AM	0.5	3.1	1
3/2/2020 1:00 AM	0.4	2.8	1.1
3/2/2020 2:00 AM	0.4	2	1.1
3/2/2020 3:00 AM	0.3	1.8	1.1
3/2/2020 4:00 AM	Precision	Precision	Precision
3/2/2020 5:00 AM	0.4	1.8	1.1
3/2/2020 6:00 AM	0.3	2.1	1.2
3/2/2020 7:00 AM	0.3	2.2	1.1
3/2/2020 8:00 AM	0.4	1.9	1.2
3/2/2020 9:00 AM	0.6	1.7	1.2
3/2/2020 10:00 AM	0.5	1.7	1.2
3/2/2020 11:00 AM	0.5	1.7	1.2
3/2/2020 12:00 PM	0.4	1.6	1
3/2/2020 1:00 PM	0.4	1.6	0.9
3/2/2020 2:00 PM	0.4	1.5	1.1
3/2/2020 3:00 PM	0.4	1.6	1.1
3/2/2020 4:00 PM	0.3	1.6	1.1
3/2/2020 5:00 PM	0.3	1.7	1.3
3/2/2020 6:00 PM	0.3	1.6	0.9
3/2/2020 7:00 PM	0.2	1.5	0.8
3/2/2020 8:00 PM	0.2	1.4	0.7
3/2/2020 9:00 PM	0.1	1.4	0.7
3/2/2020 10:00 PM	0.2	1.4	0.7
3/2/2020 11:00 PM	0.1	1.4	0.8
3/3/2020 12:00 AM	0.1	1.4	0.7
3/3/2020 1:00 AM	0.2	1.5	0.8
3/3/2020 2:00 AM	0.2	1.6	0.7
3/3/2020 3:00 AM	0.2	1.5	0.7
3/3/2020 4:00 AM	0.2	1.5	0.7
3/3/2020 5:00 AM	0.2	1.4	0.7
3/3/2020 6:00 AM	0.2	1.4	0.6
3/3/2020 7:00 AM	0.2	1.4	0.6
3/3/2020 8:00 AM	0.2	1.4	0.7
3/3/2020 9:00 AM	0.2	1.3	0.6
3/3/2020 10:00 AM	0.1	1.4	0.6
3/3/2020 11:00 AM	0.1	1.4	0.6
3/3/2020 12:00 PM	0.2	1.3	0.7
3/3/2020 1:00 PM	0.3	1.5	0.6
3/3/2020 2:00 PM	0.3	1.4	0.7
3/3/2020 3:00 PM	0.2	1.4	0.6
3/3/2020 4:00 PM	0.2	1.4	0.6
3/3/2020 5:00 PM	0.1	1.4	0.6
3/3/2020 6:00 PM	0.1	1.3	0.6
3/3/2020 7:00 PM	0.2	1.3	0.6
3/3/2020 8:00 PM	0.2	1.2	0.6
3/3/2020 9:00 PM	0.2	1.4	Power Fail
3/3/2020 10:00 PM	0.2	1.3	Power Fail
3/3/2020 11:00 PM	0.2	1.3	Power Fail
3/4/2020 12:00 AM	0.2	1.3	Power Fail
3/4/2020 1:00 AM	0.2	1.3	Power Fail
3/4/2020 2:00 AM	0.2	1.3	Power Fail
3/4/2020 3:00 AM	0.2	1.3	Power Fail
3/4/2020 4:00 AM	0.2	1.3	Power Fail
3/4/2020 5:00 AM	0.3	1.4	Power Fail
3/4/2020 6:00 AM	0.3	1.3	0.6
3/4/2020 7:00 AM	0.7	1.5	1.5
3/4/2020 8:00 AM	1.5	2.3	1.5
3/4/2020 9:00 AM	1	1.9	0.9
3/4/2020 10:00 AM	0.3	1.4	0.7
3/4/2020 11:00 AM	0.2	1.4	0.6
3/4/2020 12:00 PM	0.3	1.5	0.8
3/4/2020 1:00 PM	0.3	1.4	0.7
3/4/2020 2:00 PM	0.3	1.5	0.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/4/2020 3:00 PM	0.4	1.5	0.8
3/4/2020 4:00 PM	0.4	1.5	0.9
3/4/2020 5:00 PM	0.7	1.6	1
3/4/2020 6:00 PM	0.9	1.9	1.5
3/4/2020 7:00 PM	0.9	2	1.6
3/4/2020 8:00 PM	0.8	1.9	1.6
3/4/2020 9:00 PM	0.6	1.8	1.4
3/4/2020 10:00 PM	0.4	1.6	1
3/4/2020 11:00 PM	0.3	1.5	0.8
3/5/2020 12:00 AM	0.2	1.5	0.8
3/5/2020 1:00 AM	0.2	1.5	0.7
3/5/2020 2:00 AM	0.2	1.5	0.8
3/5/2020 3:00 AM	0.2	1.5	0.7
3/5/2020 4:00 AM	0.2	1.5	0.8
3/5/2020 5:00 AM	0.3	1.5	0.8
3/5/2020 6:00 AM	0.1	1.5	0.7
3/5/2020 7:00 AM	0.2	1.5	0.8
3/5/2020 8:00 AM	0.3	1.5	1
3/5/2020 9:00 AM	0.5	1.6	1
3/5/2020 10:00 AM	0.4	1.6	1
3/5/2020 11:00 AM	0.4	1.6	0.9
3/5/2020 12:00 PM	0.4	1.5	1
3/5/2020 1:00 PM	0.3	1.5	0.9
3/5/2020 2:00 PM	0.3	Audit	0.9
3/5/2020 3:00 PM	0.3	Audit	0.9
3/5/2020 4:00 PM	Audit	1.5	0.9
3/5/2020 5:00 PM	0.4	1.5	Audit
3/5/2020 6:00 PM	0.3	1.5	0.9
3/5/2020 7:00 PM	0.4	1.5	0.8
3/5/2020 8:00 PM	0.4	1.5	0.8
3/5/2020 9:00 PM	0.4	1.5	0.8
3/5/2020 10:00 PM	0.3	1.6	0.8
3/5/2020 11:00 PM	0.3	1.6	0.8
3/6/2020 12:00 AM	0.2	1.6	0.7
3/6/2020 1:00 AM	0.2	1.5	0.8
3/6/2020 2:00 AM	0.2	1.7	0.8
3/6/2020 3:00 AM	0.2	1.6	0.8
3/6/2020 4:00 AM	0.2	1.5	0.8
3/6/2020 5:00 AM	0.2	1.6	1.1
3/6/2020 6:00 AM	0.3	1.6	1.1
3/6/2020 7:00 AM	0.3	1.6	0.9
3/6/2020 8:00 AM	0.4	1.6	0.9
3/6/2020 9:00 AM	0.5	1.7	1.1
3/6/2020 10:00 AM	0.5	1.6	1.1
3/6/2020 11:00 AM	0.5	1.6	0.9
3/6/2020 12:00 PM	0.3	1.5	0.9
3/6/2020 1:00 PM	0.3	1.4	0.8
3/6/2020 2:00 PM	0.3	1.5	0.8
3/6/2020 3:00 PM	0.3	1.5	1
3/6/2020 4:00 PM	0.2	1.4	0.7
3/6/2020 5:00 PM	0.2	1.4	0.8
3/6/2020 6:00 PM	0.2	1.4	0.8
3/6/2020 7:00 PM	0.2	1.3	0.8
3/6/2020 8:00 PM	0.2	1.3	0.8
3/6/2020 9:00 PM	0.2	1.5	0.8
3/6/2020 10:00 PM	0.2	1.5	0.8
3/6/2020 11:00 PM	0.2	1.4	0.8
3/7/2020 12:00 AM	0.3	1.4	0.8
3/7/2020 1:00 AM	0.2	1.4	0.8
3/7/2020 2:00 AM	0.2	1.3	0.7
3/7/2020 3:00 AM	0.2	1.4	0.8
3/7/2020 4:00 AM	0.2	1.4	0.8
3/7/2020 5:00 AM	0.3	1.5	0.8
3/7/2020 6:00 AM	0.2	1.4	0.7
3/7/2020 7:00 AM	0.2	1.4	0.8
3/7/2020 8:00 AM	0.2	1.3	0.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/7/2020 9:00 AM	0.2	1.3	0.8
3/7/2020 10:00 AM	0.2	1.4	0.7
3/7/2020 11:00 AM	0.2	1.5	0.8
3/7/2020 12:00 PM	0.3	1.5	0.9
3/7/2020 1:00 PM	0.3	1.5	0.8
3/7/2020 2:00 PM	0.3	1.5	0.8
3/7/2020 3:00 PM	0.3	1.5	0.8
3/7/2020 4:00 PM	0.3	1.5	0.8
3/7/2020 5:00 PM	0.5	1.7	1.3
3/7/2020 6:00 PM	0.8	1.9	1.2
3/7/2020 7:00 PM	0.5	2.1	1.1
3/7/2020 8:00 PM	0.4	1.7	1.3
3/7/2020 9:00 PM	0.5	1.7	1.2
3/7/2020 10:00 PM	0.4	1.6	0.9
3/7/2020 11:00 PM	0.3	1.6	0.8
3/8/2020 12:00 AM	0.3	1.6	0.8
3/8/2020 1:00 AM	0.3	1.4	0.8
3/8/2020 2:00 AM	InVld	InVld	InVld
3/8/2020 3:00 AM	InVld	InVld	InVld
3/8/2020 4:00 AM	InVld	InVld	InVld
3/8/2020 5:00 AM	InVld	InVld	InVld
3/8/2020 6:00 AM	InVld	InVld	InVld
3/8/2020 7:00 AM	InVld	InVld	InVld
3/8/2020 8:00 AM	InVld	InVld	InVld
3/8/2020 9:00 AM	InVld	InVld	InVld
3/8/2020 10:00 AM	InVld	InVld	InVld
3/8/2020 11:00 AM	InVld	InVld	InVld
3/8/2020 12:00 PM	InVld	InVld	InVld
3/8/2020 1:00 PM	InVld	InVld	InVld
3/8/2020 2:00 PM	InVld	InVld	InVld
3/8/2020 3:00 PM	InVld	InVld	InVld
3/8/2020 4:00 PM	InVld	InVld	InVld
3/8/2020 5:00 PM	InVld	InVld	InVld
3/8/2020 6:00 PM	InVld	InVld	InVld
3/8/2020 7:00 PM	InVld	InVld	InVld
3/8/2020 8:00 PM	InVld	InVld	InVld
3/8/2020 9:00 PM	InVld	InVld	InVld
3/8/2020 10:00 PM	InVld	InVld	InVld
3/8/2020 11:00 PM	InVld	InVld	InVld
3/9/2020 12:00 AM	InVld	InVld	InVld
3/9/2020 1:00 AM	InVld	InVld	InVld
3/9/2020 2:00 AM	InVld	InVld	InVld
3/9/2020 3:00 AM	InVld	InVld	InVld
3/9/2020 4:00 AM	InVld	InVld	InVld
3/9/2020 5:00 AM	InVld	InVld	InVld
3/9/2020 6:00 AM	InVld	InVld	InVld
3/9/2020 7:00 AM	InVld	InVld	InVld
3/9/2020 8:00 AM	InVld	InVld	InVld
3/9/2020 9:00 AM	InVld	InVld	InVld
3/9/2020 10:00 AM	InVld	InVld	InVld
3/9/2020 11:00 AM	InVld	InVld	InVld
3/9/2020 12:00 PM	InVld	InVld	InVld
3/9/2020 1:00 PM	InVld	InVld	InVld
3/9/2020 2:00 PM	InVld	InVld	InVld
3/9/2020 3:00 PM	InVld	InVld	InVld
3/9/2020 4:00 PM	InVld	InVld	InVld
3/9/2020 5:00 PM	InVld	InVld	InVld
3/9/2020 6:00 PM	InVld	InVld	InVld
3/9/2020 7:00 PM	InVld	InVld	InVld
3/9/2020 8:00 PM	InVld	InVld	InVld
3/9/2020 9:00 PM	InVld	InVld	InVld
3/9/2020 10:00 PM	InVld	InVld	InVld
3/9/2020 11:00 PM	InVld	InVld	InVld
3/10/2020 12:00 AM	InVld	InVld	InVld
3/10/2020 1:00 AM	InVld	InVld	InVld
3/10/2020 2:00 AM	InVld	InVld	InVld

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/10/2020 3:00 AM	InVld	InVld	InVld
3/10/2020 4:00 AM	InVld	InVld	InVld
3/10/2020 5:00 AM	InVld	InVld	InVld
3/10/2020 6:00 AM	InVld	InVld	InVld
3/10/2020 7:00 AM	InVld	InVld	InVld
3/10/2020 8:00 AM	InVld	InVld	InVld
3/10/2020 9:00 AM	InVld	InVld	InVld
3/10/2020 10:00 AM	InVld	InVld	InVld
3/10/2020 11:00 AM	InVld	InVld	InVld
3/10/2020 12:00 PM	InVld	InVld	InVld
3/10/2020 1:00 PM	InVld	InVld	InVld
3/10/2020 2:00 PM	InVld	InVld	InVld
3/10/2020 3:00 PM	InVld	InVld	InVld
3/10/2020 4:00 PM	InVld	InVld	InVld
3/10/2020 5:00 PM	InVld	InVld	InVld
3/10/2020 6:00 PM	InVld	InVld	InVld
3/10/2020 7:00 PM	InVld	InVld	InVld
3/10/2020 8:00 PM	InVld	InVld	InVld
3/10/2020 9:00 PM	InVld	InVld	InVld
3/10/2020 10:00 PM	InVld	InVld	InVld
3/10/2020 11:00 PM	InVld	InVld	InVld
3/11/2020 12:00 AM	InVld	InVld	InVld
3/11/2020 1:00 AM	InVld	InVld	InVld
3/11/2020 2:00 AM	InVld	InVld	InVld
3/11/2020 3:00 AM	InVld	InVld	InVld
3/11/2020 4:00 AM	InVld	InVld	InVld
3/11/2020 5:00 AM	InVld	InVld	InVld
3/11/2020 6:00 AM	InVld	InVld	InVld
3/11/2020 7:00 AM	InVld	InVld	InVld
3/11/2020 8:00 AM	InVld	InVld	InVld
3/11/2020 9:00 AM	0.2	1.2	0.7
3/11/2020 10:00 AM	0.2	1.4	0.9
3/11/2020 11:00 AM	0.3	1.5	0.8
3/11/2020 12:00 PM	0.3	1.5	0.9
3/11/2020 1:00 PM	0.4	1.4	0.8
3/11/2020 2:00 PM	0.3	1.4	0.8
3/11/2020 3:00 PM	0.3	1.3	0.7
3/11/2020 4:00 PM	0.2	1.3	0.8
3/11/2020 5:00 PM	0.2	1.4	0.7
3/11/2020 6:00 PM	0.2	1.3	0.7
3/11/2020 7:00 PM	0.2	1.3	0.7
3/11/2020 8:00 PM	0.2	1.3	0.7
3/11/2020 9:00 PM	0.2	1.3	0.7
3/11/2020 10:00 PM	0.2	1.3	0.6
3/11/2020 11:00 PM	0.2	1.3	0.7
3/12/2020 12:00 AM	0.2	1.2	0.7
3/12/2020 1:00 AM	0.2	1.2	0.7
3/12/2020 2:00 AM	0.2	1.3	0.7
3/12/2020 3:00 AM	0.2	1.3	0.6
3/12/2020 4:00 AM	0.2	1.3	0.6
3/12/2020 5:00 AM	0.2	1.3	0.7
3/12/2020 6:00 AM	0.2	1.3	0.7
3/12/2020 7:00 AM	0.2	1.3	0.7
3/12/2020 8:00 AM	0.2	1.3	0.7
3/12/2020 9:00 AM	0.2	1.5	0.7
3/12/2020 10:00 AM	0.4	1.4	0.9
3/12/2020 11:00 AM	0.4	1.5	0.9
3/12/2020 12:00 PM	0.4	1.5	0.9
3/12/2020 1:00 PM	0.3	1.4	0.9
3/12/2020 2:00 PM	0.4	1.4	0.9
3/12/2020 3:00 PM	0.4	1.5	0.9
3/12/2020 4:00 PM	0.4	1.4	0.9
3/12/2020 5:00 PM	0.4	1.5	0.9
3/12/2020 6:00 PM	0.4	1.5	0.8
3/12/2020 7:00 PM	0.3	1.4	0.7
3/12/2020 8:00 PM	0.3	1.3	0.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/12/2020 9:00 PM	0.3	1.3	0.7
3/12/2020 10:00 PM	0.3	1.3	0.7
3/12/2020 11:00 PM	0.3	1.2	0.7
3/13/2020 12:00 AM	0.2	1.3	0.6
3/13/2020 1:00 AM	0.2	1.2	0.7
3/13/2020 2:00 AM	0.2	1.2	0.6
3/13/2020 3:00 AM	0.2	1.3	0.6
3/13/2020 4:00 AM	0.2	1.2	0.6
3/13/2020 5:00 AM	0.1	1.3	0.7
3/13/2020 6:00 AM	0.2	1.3	0.6
3/13/2020 7:00 AM	0.2	1.3	0.6
3/13/2020 8:00 AM	0.2	1.3	0.7
3/13/2020 9:00 AM	0.3	1.3	0.6
3/13/2020 10:00 AM	0.2	1.3	0.6
3/13/2020 11:00 AM	0.2	1.3	0.8
3/13/2020 12:00 PM	0.2	1.3	0.7
3/13/2020 1:00 PM	0.2	1.3	0.9
3/13/2020 2:00 PM	0.2	1.4	1
3/13/2020 3:00 PM	0.3	1.4	0.8
3/13/2020 4:00 PM	0.3	1.4	0.8
3/13/2020 5:00 PM	0.4	1.4	0.7
3/13/2020 6:00 PM	0.4	1.4	0.8
3/13/2020 7:00 PM	0.2	1.4	0.8
3/13/2020 8:00 PM	0.2	1.4	0.9
3/13/2020 9:00 PM	0.4	1.4	1.1
3/13/2020 10:00 PM	0.5	1.5	1
3/13/2020 11:00 PM	0.3	1.4	0.9
3/14/2020 12:00 AM	0.4	1.3	0.9
3/14/2020 1:00 AM	0.2	1.3	0.9
3/14/2020 2:00 AM	0.2	1.4	0.7
3/14/2020 3:00 AM	0.2	1.4	0.8
3/14/2020 4:00 AM	0.2	1.4	0.9
3/14/2020 5:00 AM	0.3	1.5	1
3/14/2020 6:00 AM	0.3	1.5	0.9
3/14/2020 7:00 AM	0.3	1.5	0.9
3/14/2020 8:00 AM	0.3	1.5	1
3/14/2020 9:00 AM	0.4	1.5	1.1
3/14/2020 10:00 AM	0.4	1.5	1
3/14/2020 11:00 AM	0.4	1.5	1
3/14/2020 12:00 PM	0.4	1.5	1
3/14/2020 1:00 PM	0.3	1.5	1
3/14/2020 2:00 PM	0.3	1.5	1.1
3/14/2020 3:00 PM	0.4	1.5	1.1
3/14/2020 4:00 PM	0.3	1.5	1
3/14/2020 5:00 PM	0.2	1.4	0.9
3/14/2020 6:00 PM	0.2	1.4	0.7
3/14/2020 7:00 PM	0.2	1.4	0.9
3/14/2020 8:00 PM	0.2	1.4	0.8
3/14/2020 9:00 PM	0.2	1.3	0.7
3/14/2020 10:00 PM	0.2	1.3	0.8
3/14/2020 11:00 PM	0.2	1.3	0.8
3/15/2020 12:00 AM	0.2	1.2	0.7
3/15/2020 1:00 AM	0.2	1.2	0.7
3/15/2020 2:00 AM	0.1	1.3	0.7
3/15/2020 3:00 AM	0.1	1.3	0.8
3/15/2020 4:00 AM	0.1	1.4	0.7
3/15/2020 5:00 AM	0.2	1.4	0.9
3/15/2020 6:00 AM	0.2	1.3	0.8
3/15/2020 7:00 AM	0.1	1.3	0.7
3/15/2020 8:00 AM	0.1	1.3	0.8
3/15/2020 9:00 AM	0.2	1.4	0.8
3/15/2020 10:00 AM	0.2	1.4	0.8
3/15/2020 11:00 AM	0.2	1.4	0.8
3/15/2020 12:00 PM	0.2	1.4	0.9
3/15/2020 1:00 PM	0.3	1.4	0.8
3/15/2020 2:00 PM	0.3	1.5	0.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/15/2020 3:00 PM	0.3	1.5	0.9
3/15/2020 4:00 PM	0.3	1.5	0.8
3/15/2020 5:00 PM	0.4	1.5	0.9
3/15/2020 6:00 PM	0.3	1.4	0.8
3/15/2020 7:00 PM	0.3	1.4	0.8
3/15/2020 8:00 PM	0.2	1.4	0.8
3/15/2020 9:00 PM	0.2	1.3	0.8
3/15/2020 10:00 PM	0.2	1.3	0.7
3/15/2020 11:00 PM	0.2	1.3	0.8
3/16/2020 12:00 AM	0.1	1.3	0.6
3/16/2020 1:00 AM	0.1	1.4	0.7
3/16/2020 2:00 AM	0.2	1.3	0.7
3/16/2020 3:00 AM	0.1	1.3	0.7
3/16/2020 4:00 AM	Precision	Precision	Precision
3/16/2020 5:00 AM	0.4	1.4	0.9
3/16/2020 6:00 AM	0.2	1.4	0.9
3/16/2020 7:00 AM	0.2	1.4	1.2
3/16/2020 8:00 AM	0.3	1.4	1
3/16/2020 9:00 AM	0.5	1.5	1.1
3/16/2020 10:00 AM	0.4	1.5	1.1
3/16/2020 11:00 AM	0.4	1.5	1.1
3/16/2020 12:00 PM	0.4	1.5	1.1
3/16/2020 1:00 PM	0.4	1.5	1
3/16/2020 2:00 PM	0.4	1.5	1.1
3/16/2020 3:00 PM	0.4	1.5	1
3/16/2020 4:00 PM	0.5	1.5	1
3/16/2020 5:00 PM	0.4	1.5	1
3/16/2020 6:00 PM	0.4	1.5	0.9
3/16/2020 7:00 PM	0.3	1.5	1
3/16/2020 8:00 PM	0.3	1.5	0.9
3/16/2020 9:00 PM	0.3	1.5	0.9
3/16/2020 10:00 PM	0.3	1.5	0.9
3/16/2020 11:00 PM	0.3	1.4	0.9
3/17/2020 12:00 AM	0.4	1.4	0.9
3/17/2020 1:00 AM	0.3	1.4	0.9
3/17/2020 2:00 AM	0.3	1.4	0.8
3/17/2020 3:00 AM	0.2	1.4	0.9
3/17/2020 4:00 AM	0.2	1.5	0.8
3/17/2020 5:00 AM	0.2	1.4	0.8
3/17/2020 6:00 AM	0.3	1.4	0.8
3/17/2020 7:00 AM	0.2	1.4	0.8
3/17/2020 8:00 AM	0.2	1.4	0.8
3/17/2020 9:00 AM	0.2	1.5	0.9
3/17/2020 10:00 AM	0.2	1.5	0.9
3/17/2020 11:00 AM	0.3	1.6	0.8
3/17/2020 12:00 PM	0.4	1.5	0.8
3/17/2020 1:00 PM	0.4	1.5	0.8
3/17/2020 2:00 PM	0.3	1.4	0.8
3/17/2020 3:00 PM	0.2	1.4	0.7
3/17/2020 4:00 PM	0.2	1.4	0.7
3/17/2020 5:00 PM	0.2	1.4	0.7
3/17/2020 6:00 PM	0.2	1.5	0.8
3/17/2020 7:00 PM	0.2	1.4	0.8
3/17/2020 8:00 PM	0.2	1.4	0.8
3/17/2020 9:00 PM	0.2	1.4	0.7
3/17/2020 10:00 PM	0.2	1.4	0.8
3/17/2020 11:00 PM	0.2	1.3	0.8
3/18/2020 12:00 AM	0.2	1.4	0.8
3/18/2020 1:00 AM	0.2	1.4	0.8
3/18/2020 2:00 AM	0.3	1.5	0.7
3/18/2020 3:00 AM	0.2	1.4	0.8
3/18/2020 4:00 AM	0.2	1.4	0.7
3/18/2020 5:00 AM	0.3	1.4	0.8
3/18/2020 6:00 AM	0.2	1.4	0.8
3/18/2020 7:00 AM	0.2	1.5	0.8
3/18/2020 8:00 AM	0.3	1.5	0.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/18/2020 9:00 AM	0.4	1.5	1
3/18/2020 10:00 AM	0.4	1.5	1
3/18/2020 11:00 AM	0.5	1.6	0.9
3/18/2020 12:00 PM	0.5	1.6	0.9
3/18/2020 1:00 PM	0.5	1.5	0.9
3/18/2020 2:00 PM	0.5	1.5	1
3/18/2020 3:00 PM	0.4	1.5	0.9
3/18/2020 4:00 PM	0.3	1.4	0.8
3/18/2020 5:00 PM	0.2	1.3	0.9
3/18/2020 6:00 PM	0.2	1.3	0.9
3/18/2020 7:00 PM	0.3	1.3	0.8
3/18/2020 8:00 PM	0.2	1.3	0.8
3/18/2020 9:00 PM	0.2	1.3	0.8
3/18/2020 10:00 PM	0.2	1.3	0.8
3/18/2020 11:00 PM	0.2	1.3	0.8
3/19/2020 12:00 AM	0.2	1.3	0.8
3/19/2020 1:00 AM	0.1	1.3	0.7
3/19/2020 2:00 AM	0.2	1.3	0.8
3/19/2020 3:00 AM	0.1	1.2	0.8
3/19/2020 4:00 AM	0.2	1.2	0.8
3/19/2020 5:00 AM	0.2	1.3	0.8
3/19/2020 6:00 AM	0.1	1.4	0.7
3/19/2020 7:00 AM	0.2	1.3	0.7
3/19/2020 8:00 AM	0.2	1.4	0.7
3/19/2020 9:00 AM	0.2	1.5	0.7
3/19/2020 10:00 AM	0.3	1.5	0.7
3/19/2020 11:00 AM	0.3	1.4	0.8
3/19/2020 12:00 PM	0.4	1.5	0.9
3/19/2020 1:00 PM	0.3	1.4	0.8
3/19/2020 2:00 PM	0.3	1.4	0.8
3/19/2020 3:00 PM	0.3	1.4	0.8
3/19/2020 4:00 PM	0.3	1.4	0.8
3/19/2020 5:00 PM	0.4	1.4	0.8
3/19/2020 6:00 PM	0.3	1.4	0.8
3/19/2020 7:00 PM	0.3	1.3	0.9
3/19/2020 8:00 PM	0.2	1.2	0.8
3/19/2020 9:00 PM	0.2	1.3	0.8
3/19/2020 10:00 PM	0.2	1.3	0.8
3/19/2020 11:00 PM	0.2	1.3	0.8
3/20/2020 12:00 AM	0.2	1.3	0.9
3/20/2020 1:00 AM	0.2	1.3	0.9
3/20/2020 2:00 AM	0.1	1.6	0.8
3/20/2020 3:00 AM	0.2	1.4	0.7
3/20/2020 4:00 AM	0.2	1.3	0.8
3/20/2020 5:00 AM	0.2	1.4	0.7
3/20/2020 6:00 AM	0.2	1.3	0.8
3/20/2020 7:00 AM	0.2	1.3	0.8
3/20/2020 8:00 AM	0.2	1.3	0.7
3/20/2020 9:00 AM	0.2	1.3	0.7
3/20/2020 10:00 AM	0.3	1.3	0.7
3/20/2020 11:00 AM	0.3	1.3	0.7
3/20/2020 12:00 PM	0.2	1.3	0.7
3/20/2020 1:00 PM	0.3	1.3	0.7
3/20/2020 2:00 PM	0.3	1.3	0.8
3/20/2020 3:00 PM	0.4	1.3	0.8
3/20/2020 4:00 PM	0.4	1.4	0.8
3/20/2020 5:00 PM	0.4	1.3	0.7
3/20/2020 6:00 PM	0.4	1.4	0.7
3/20/2020 7:00 PM	0.3	1.3	0.8
3/20/2020 8:00 PM	0.3	1.3	0.7
3/20/2020 9:00 PM	0.3	1.2	0.7
3/20/2020 10:00 PM	0.3	1.2	0.7
3/20/2020 11:00 PM	0.2	1.2	0.7
3/21/2020 12:00 AM	0.2	1.2	0.6
3/21/2020 1:00 AM	0.1	1.2	0.7
3/21/2020 2:00 AM	0.1	1.2	0.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/21/2020 3:00 AM	0.1	1.1	0.6
3/21/2020 4:00 AM	0.1	1.1	0.7
3/21/2020 5:00 AM	0.2	1.2	0.7
3/21/2020 6:00 AM	0.1	1.2	0.7
3/21/2020 7:00 AM	0.1	1.2	0.6
3/21/2020 8:00 AM	0.1	1.2	0.7
3/21/2020 9:00 AM	0.1	1.2	0.7
3/21/2020 10:00 AM	0.2	1.4	0.7
3/21/2020 11:00 AM	0.2	1.4	0.7
3/21/2020 12:00 PM	0.1	1.4	0.8
3/21/2020 1:00 PM	0.2	1.4	0.8
3/21/2020 2:00 PM	0.2	1.4	0.9
3/21/2020 3:00 PM	0.2	1.4	0.8
3/21/2020 4:00 PM	0.2	1.4	0.8
3/21/2020 5:00 PM	0.2	1.4	0.9
3/21/2020 6:00 PM	0.2	1.4	0.7
3/21/2020 7:00 PM	0.2	1.4	0.8
3/21/2020 8:00 PM	0.2	1.4	0.8
3/21/2020 9:00 PM	0.2	1.4	0.8
3/21/2020 10:00 PM	0.2	1.4	0.8
3/21/2020 11:00 PM	0.2	1.4	0.8
3/22/2020 12:00 AM	0.2	1.4	0.8
3/22/2020 1:00 AM	0.2	1.5	0.8
3/22/2020 2:00 AM	0.2	1.4	0.7
3/22/2020 3:00 AM	0.2	1.4	0.8
3/22/2020 4:00 AM	0.1	1.5	0.8
3/22/2020 5:00 AM	0.4	1.6	1
3/22/2020 6:00 AM	0.3	1.5	1.1
3/22/2020 7:00 AM	0.7	1.7	1.5
3/22/2020 8:00 AM	0.4	1.5	1
3/22/2020 9:00 AM	0.4	1.5	1
3/22/2020 10:00 AM	0.3	1.5	1
3/22/2020 11:00 AM	0.2	1.5	0.9
3/22/2020 12:00 PM	0.3	1.5	0.9
3/22/2020 1:00 PM	0.3	1.5	1
3/22/2020 2:00 PM	0.3	1.4	1
3/22/2020 3:00 PM	0.3	1.5	1
3/22/2020 4:00 PM	0.3	1.5	1
3/22/2020 5:00 PM	0.3	1.4	1
3/22/2020 6:00 PM	0.4	1.5	1
3/22/2020 7:00 PM	0.3	1.5	1
3/22/2020 8:00 PM	0.4	1.5	1
3/22/2020 9:00 PM	0.4	1.5	1
3/22/2020 10:00 PM	0.4	1.5	1
3/22/2020 11:00 PM	0.3	1.4	1
3/23/2020 12:00 AM	0.3	1.4	1
3/23/2020 1:00 AM	0.3	1.4	1
3/23/2020 2:00 AM	0.2	1.4	1
3/23/2020 3:00 AM	0.2	1.4	0.9
3/23/2020 4:00 AM	Precision	Precision	Precision
3/23/2020 5:00 AM	0.2	1.4	0.9
3/23/2020 6:00 AM	0.2	1.4	0.8
3/23/2020 7:00 AM	0.2	1.3	0.8
3/23/2020 8:00 AM	0.2	1.3	0.8
3/23/2020 9:00 AM	0.1	1.3	0.9
3/23/2020 10:00 AM	0.2	1.3	0.8
3/23/2020 11:00 AM	0.2	1.3	0.8
3/23/2020 12:00 PM	0.2	1.4	0.9
3/23/2020 1:00 PM	0.1	1.4	0.8
3/23/2020 2:00 PM	0.2	1.4	0.8
3/23/2020 3:00 PM	0.1	1.4	0.9
3/23/2020 4:00 PM	0.2	1.4	0.8
3/23/2020 5:00 PM	0.2	1.4	0.8
3/23/2020 6:00 PM	0.2	1.4	0.8
3/23/2020 7:00 PM	0.2	1.5	0.8
3/23/2020 8:00 PM	0.2	1.5	0.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/23/2020 9:00 PM	0.1	1.5	0.8
3/23/2020 10:00 PM	0.2	1.4	0.9
3/23/2020 11:00 PM	0.1	1.4	0.8
3/24/2020 12:00 AM	0.2	1.4	0.8
3/24/2020 1:00 AM	0.2	1.4	0.8
3/24/2020 2:00 AM	0.1	1.4	0.8
3/24/2020 3:00 AM	0.2	1.4	0.8
3/24/2020 4:00 AM	0.1	1.4	0.8
3/24/2020 5:00 AM	0.2	1.4	0.9
3/24/2020 6:00 AM	0.1	1.4	0.8
3/24/2020 7:00 AM	0.2	1.4	0.8
3/24/2020 8:00 AM	0.1	1.3	0.8
3/24/2020 9:00 AM	0.1	1.3	0.8
3/24/2020 10:00 AM	0.1	1.4	0.8
3/24/2020 11:00 AM	0.2	1.4	0.8
3/24/2020 12:00 PM	0.2	1.4	0.8
3/24/2020 1:00 PM	0.2	1.5	0.8
3/24/2020 2:00 PM	0.3	1.5	1
3/24/2020 3:00 PM	0.3	1.5	0.9
3/24/2020 4:00 PM	0.3	1.5	1
3/24/2020 5:00 PM	0.3	1.4	0.9
3/24/2020 6:00 PM	0.2	1.3	0.9
3/24/2020 7:00 PM	0.1	1.3	0.8
3/24/2020 8:00 PM	0.2	1.4	0.8
3/24/2020 9:00 PM	0.2	1.4	0.8
3/24/2020 10:00 PM	0.2	1.4	0.8
3/24/2020 11:00 PM	0.2	1.4	0.9
3/25/2020 12:00 AM	0.2	1.4	0.8
3/25/2020 1:00 AM	0.1	1.3	0.8
3/25/2020 2:00 AM	0.1	1.3	0.8
3/25/2020 3:00 AM	0.1	1.3	0.7
3/25/2020 4:00 AM	0.1	1.3	0.8
3/25/2020 5:00 AM	0.1	1.3	0.8
3/25/2020 6:00 AM	0.1	1.2	0.8
3/25/2020 7:00 AM	0.1	1.3	0.7
3/25/2020 8:00 AM	0.1	1.3	0.7
3/25/2020 9:00 AM	0	1.2	0.8
3/25/2020 10:00 AM	0.1	1.2	0.7
3/25/2020 11:00 AM	0	1.2	0.7
3/25/2020 12:00 PM	0.1	1.2	0.7
3/25/2020 1:00 PM	0.2	1.2	0.8
3/25/2020 2:00 PM	0.1	1.2	0.8
3/25/2020 3:00 PM	0.1	1.3	0.7
3/25/2020 4:00 PM	0.2	1.2	0.8
3/25/2020 5:00 PM	0.1	1.2	0.8
3/25/2020 6:00 PM	0.1	1.2	0.7
3/25/2020 7:00 PM	0.1	1.1	0.7
3/25/2020 8:00 PM	0.1	1.1	0.7
3/25/2020 9:00 PM	0.1	1.1	0.7
3/25/2020 10:00 PM	0.1	1.1	0.7
3/25/2020 11:00 PM	0.1	1.1	0.8
3/26/2020 12:00 AM	0.1	1.1	0.7
3/26/2020 1:00 AM	0.1	1.1	0.8
3/26/2020 2:00 AM	0.1	1.3	0.7
3/26/2020 3:00 AM	0.1	1.2	0.8
3/26/2020 4:00 AM	0.1	1.2	0.7
3/26/2020 5:00 AM	0.1	1.3	0.7
3/26/2020 6:00 AM	0.1	1.2	0.7
3/26/2020 7:00 AM	0.1	1.3	0.8
3/26/2020 8:00 AM	0.1	1.4	0.8
3/26/2020 9:00 AM	0.2	1.4	0.8
3/26/2020 10:00 AM	0.2	1.4	0.9
3/26/2020 11:00 AM	0.3	1.3	0.9
3/26/2020 12:00 PM	0.2	1.3	0.9
3/26/2020 1:00 PM	0.2	1.4	0.9
3/26/2020 2:00 PM	0.4	1.4	1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/26/2020 3:00 PM	0.4	1.4	0.8
3/26/2020 4:00 PM	0.4	1.3	1
3/26/2020 5:00 PM	0.4	1.3	0.9
3/26/2020 6:00 PM	0.5	1.3	0.9
3/26/2020 7:00 PM	0.4	1.2	0.8
3/26/2020 8:00 PM	0.4	1.3	0.9
3/26/2020 9:00 PM	0.3	1.4	0.7
3/26/2020 10:00 PM	0.3	1.4	0.7
3/26/2020 11:00 PM	0.2	1.4	0.7
3/27/2020 12:00 AM	0.2	1.3	0.8
3/27/2020 1:00 AM	0.2	1.3	0.7
3/27/2020 2:00 AM	0.1	1.2	0.6
3/27/2020 3:00 AM	0.1	1.2	0.7
3/27/2020 4:00 AM	0.1	1.2	0.7
3/27/2020 5:00 AM	0.2	1.2	0.8
3/27/2020 6:00 AM	0.1	1.2	0.8
3/27/2020 7:00 AM	0.1	1.2	0.7
3/27/2020 8:00 AM	0.2	1.3	0.7
3/27/2020 9:00 AM	0.2	1.3	0.8
3/27/2020 10:00 AM	0.2	1.3	0.8
3/27/2020 11:00 AM	0.2	1.2	0.7
3/27/2020 12:00 PM	0.3	1.3	0.9
3/27/2020 1:00 PM	0.3	1.2	0.9
3/27/2020 2:00 PM	0.4	1.3	0.9
3/27/2020 3:00 PM	0.5	1.4	1.1
3/27/2020 4:00 PM	0.7	1.6	1.2
3/27/2020 5:00 PM	0.5	1.5	1.1
3/27/2020 6:00 PM	0.3	1.3	0.8
3/27/2020 7:00 PM	0.3	1.3	0.7
3/27/2020 8:00 PM	0.3	1.2	0.8
3/27/2020 9:00 PM	0.2	1.3	0.7
3/27/2020 10:00 PM	0.2	1.2	0.7
3/27/2020 11:00 PM	0.2	1.2	0.6
3/28/2020 12:00 AM	0.1	1.2	0.7
3/28/2020 1:00 AM	0.2	1.2	0.7
3/28/2020 2:00 AM	0.1	1.1	0.6
3/28/2020 3:00 AM	0.1	1.2	0.7
3/28/2020 4:00 AM	0.1	1.1	0.6
3/28/2020 5:00 AM	0.2	1.3	0.7
3/28/2020 6:00 AM	0.2	1.2	0.6
3/28/2020 7:00 AM	0.1	1.1	0.6
3/28/2020 8:00 AM	0.1	1.1	0.7
3/28/2020 9:00 AM	0.1	1.1	0.7
3/28/2020 10:00 AM	0.1	1.1	0.6
3/28/2020 11:00 AM	0.2	1.2	0.7
3/28/2020 12:00 PM	0.1	1.2	0.7
3/28/2020 1:00 PM	0.2	1.2	0.8
3/28/2020 2:00 PM	0.2	1.2	0.7
3/28/2020 3:00 PM	0.3	1.2	0.8
3/28/2020 4:00 PM	0.3	1.2	0.8
3/28/2020 5:00 PM	0.3	1.3	0.8
3/28/2020 6:00 PM	0.2	1.2	0.7
3/28/2020 7:00 PM	0.2	1.2	0.6
3/28/2020 8:00 PM	0.2	1	0.6
3/28/2020 9:00 PM	0.2	1	0.5
3/28/2020 10:00 PM	0.1	1	0.5
3/28/2020 11:00 PM	0.1	1.2	0.6
3/29/2020 12:00 AM	0.2	1.2	0.5
3/29/2020 1:00 AM	0.2	1.2	0.6
3/29/2020 2:00 AM	0.1	1.1	0.5
3/29/2020 3:00 AM	0.2	1.1	0.5
3/29/2020 4:00 AM	0.1	1.2	0.7
3/29/2020 5:00 AM	0.3	1.2	0.7
3/29/2020 6:00 AM	0.2	1.2	0.6
3/29/2020 7:00 AM	0.1	1.1	0.6
3/29/2020 8:00 AM	0.1	1.2	0.6

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
3/29/2020 9:00 AM	0.1	1.2	0.7
3/29/2020 10:00 AM	0.3	1.2	0.7
3/29/2020 11:00 AM	0.4	1.3	0.9
3/29/2020 12:00 PM	0.4	1.3	0.9
3/29/2020 1:00 PM	0.4	1.3	0.8
3/29/2020 2:00 PM	0.4	1.3	0.8
3/29/2020 3:00 PM	0.4	1.4	0.9
3/29/2020 4:00 PM	0.4	1.3	0.7
3/29/2020 5:00 PM	0.4	1.3	0.8
3/29/2020 6:00 PM	0.3	1.3	0.8
3/29/2020 7:00 PM	0.4	1.3	0.9
3/29/2020 8:00 PM	0.3	1.4	0.9
3/29/2020 9:00 PM	0.4	1.4	0.9
3/29/2020 10:00 PM	0.6	1.5	0.9
3/29/2020 11:00 PM	0.6	1.5	1.3
3/30/2020 12:00 AM	0.4	1.4	1
3/30/2020 1:00 AM	0.4	1.4	1
3/30/2020 2:00 AM	0.4	1.4	1
3/30/2020 3:00 AM	0.5	1.5	1
3/30/2020 4:00 AM	Precision	Precision	Precision
3/30/2020 5:00 AM	0.5	1.5	0.9
3/30/2020 6:00 AM	0.4	1.5	1
3/30/2020 7:00 AM	0.5	1.5	1
3/30/2020 8:00 AM	0.4	1.5	1
3/30/2020 9:00 AM	0.4	1.5	1.1
3/30/2020 10:00 AM	0.5	1.5	1.1
3/30/2020 11:00 AM	0.5	1.5	1.1
3/30/2020 12:00 PM	0.6	1.5	1.2
3/30/2020 1:00 PM	0.5	1.5	1.2
3/30/2020 2:00 PM	0.5	1.5	1
3/30/2020 3:00 PM	0.5	1.5	1.1
3/30/2020 4:00 PM	0.6	1.5	1
3/30/2020 5:00 PM	0.5	1.5	1
3/30/2020 6:00 PM	0.4	1.5	1
3/30/2020 7:00 PM	0.4	1.5	0.9
3/30/2020 8:00 PM	0.3	1.3	1
3/30/2020 9:00 PM	0.2	1.3	0.8
3/30/2020 10:00 PM	0.2	1.3	1
3/30/2020 11:00 PM	0.2	1.3	1
3/31/2020 12:00 AM	0.2	1.3	1.1
3/31/2020 1:00 AM	0.2	1.3	0.8
3/31/2020 2:00 AM	0.1	1.3	0.8
3/31/2020 3:00 AM	0.2	1.2	0.9
3/31/2020 4:00 AM	0.2	1.3	0.8
3/31/2020 5:00 AM	0.2	1.3	0.9
3/31/2020 6:00 AM	0.2	1.3	0.8
3/31/2020 7:00 AM	0.2	1.4	0.8
3/31/2020 8:00 AM	0.3	1.4	0.9
3/31/2020 9:00 AM	0.3	1.4	0.9
3/31/2020 10:00 AM	0.3	1.4	1.1
3/31/2020 11:00 AM	0.3	1.4	1
3/31/2020 12:00 PM	0.3	1.4	0.9
3/31/2020 1:00 PM	0.3	1.4	0.9
3/31/2020 2:00 PM	0.3	1.3	1
3/31/2020 3:00 PM	0.3	1.3	0.9
3/31/2020 4:00 PM	0.2	1.3	0.9
3/31/2020 5:00 PM	0.3	1.3	0.8
3/31/2020 6:00 PM	0.2	1.3	0.8
3/31/2020 7:00 PM	0.2	1.3	0.8
3/31/2020 8:00 PM	0.2	1.3	0.8
3/31/2020 9:00 PM	0.1	1.3	0.8
3/31/2020 10:00 PM	0.1	1.2	0.8
3/31/2020 11:00 PM	0.1	1.3	0.8
4/1/2020 12:00 AM	0.1	1.2	0.8
4/1/2020 1:00 AM	0.1	1.3	0.8
4/1/2020 2:00 AM	0.1	1.2	0.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/1/2020 3:00 AM	0.2	1.2	0.7
4/1/2020 4:00 AM	0.2	1.2	0.8
4/1/2020 5:00 AM	0.3	1.3	0.8
4/1/2020 6:00 AM	0.2	1.3	0.8
4/1/2020 7:00 AM	0.2	1.2	0.8
4/1/2020 8:00 AM	0.2	1.3	0.8
4/1/2020 9:00 AM	0.3	1.3	0.8
4/1/2020 10:00 AM	0.3	1.3	0.8
4/1/2020 11:00 AM	0.3	1.3	0.8
4/1/2020 12:00 PM	0.4	1.3	0.8
4/1/2020 1:00 PM	0.2	1.3	0.9
4/1/2020 2:00 PM	0.2	1.3	0.9
4/1/2020 3:00 PM	0.3	1.3	0.9
4/1/2020 4:00 PM	0.3	1.4	0.8
4/1/2020 5:00 PM	0.3	1.4	0.8
4/1/2020 6:00 PM	0.2	1.3	0.8
4/1/2020 7:00 PM	0.1	1.3	0.8
4/1/2020 8:00 PM	0.2	1.3	0.8
4/1/2020 9:00 PM	0.1	1.4	0.9
4/1/2020 10:00 PM	0.2	1.4	0.9
4/1/2020 11:00 PM	0.3	1.4	0.9
4/2/2020 12:00 AM	0.3	1.3	1
4/2/2020 1:00 AM	0.4	1.3	1
4/2/2020 2:00 AM	0.5	1.4	1.1
4/2/2020 3:00 AM	0.4	1.5	1.1
4/2/2020 4:00 AM	0.4	1.5	1.1
4/2/2020 5:00 AM	0.3	1.5	1
4/2/2020 6:00 AM	0.3	1.4	1
4/2/2020 7:00 AM	0.4	1.5	1.1
4/2/2020 8:00 AM	0.5	1.6	1.2
4/2/2020 9:00 AM	0.4	1.5	1.1
4/2/2020 10:00 AM	0.3	1.5	1.1
4/2/2020 11:00 AM	0.3	1.5	1.1
4/2/2020 12:00 PM	0.3	1.5	1
4/2/2020 1:00 PM	0.4	1.5	1.2
4/2/2020 2:00 PM	0.4	1.5	1.1
4/2/2020 3:00 PM	0.4	1.5	1.1
4/2/2020 4:00 PM	0.4	1.5	1
4/2/2020 5:00 PM	0.4	1.6	1.1
4/2/2020 6:00 PM	0.4	1.5	1.1
4/2/2020 7:00 PM	0.3	1.5	1
4/2/2020 8:00 PM	0.2	1.4	1
4/2/2020 9:00 PM	0.2	1.5	1
4/2/2020 10:00 PM	0.2	1.5	1
4/2/2020 11:00 PM	0.2	1.5	1
4/3/2020 12:00 AM	0.2	1.5	1.1
4/3/2020 1:00 AM	0.3	1.5	1.1
4/3/2020 2:00 AM	0.3	1.5	1.1
4/3/2020 3:00 AM	0.3	1.5	1.1
4/3/2020 4:00 AM	0.3	1.5	1
4/3/2020 5:00 AM	0.5	1.6	1.4
4/3/2020 6:00 AM	0.6	1.6	1.5
4/3/2020 7:00 AM	0.6	1.7	1.4
4/3/2020 8:00 AM	0.5	1.6	1.1
4/3/2020 9:00 AM	0.4	1.5	1.1
4/3/2020 10:00 AM	0.3	1.5	1
4/3/2020 11:00 AM	0.3	1.5	1.1
4/3/2020 12:00 PM	0.3	1.5	1.1
4/3/2020 1:00 PM	0.3	1.5	1.1
4/3/2020 2:00 PM	0.3	1.5	1.2
4/3/2020 3:00 PM	0.3	1.5	1
4/3/2020 4:00 PM	0.4	1.6	1.1
4/3/2020 5:00 PM	0.4	1.5	1.2
4/3/2020 6:00 PM	0.4	1.6	1.2
4/3/2020 7:00 PM	0.3	1.5	1
4/3/2020 8:00 PM	0.3	1.5	1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/3/2020 9:00 PM	0.2	1.5	1.1
4/3/2020 10:00 PM	0.1	1.5	1.1
4/3/2020 11:00 PM	0.1	1.5	0.9
4/4/2020 12:00 AM	0.2	1.5	0.9
4/4/2020 1:00 AM	0.1	1.5	0.9
4/4/2020 2:00 AM	0.1	1.5	1
4/4/2020 3:00 AM	0.1	1.5	1.1
4/4/2020 4:00 AM	0.2	1.5	1
4/4/2020 5:00 AM	0.2	1.4	1
4/4/2020 6:00 AM	0.1	1.4	1
4/4/2020 7:00 AM	0.2	1.5	1
4/4/2020 8:00 AM	0.2	1.4	1
4/4/2020 9:00 AM	0.2	1.4	0.9
4/4/2020 10:00 AM	0.2	1.4	1
4/4/2020 11:00 AM	0.3	1.4	0.9
4/4/2020 12:00 PM	0.3	1.4	1
4/4/2020 1:00 PM	0.3	1.5	1
4/4/2020 2:00 PM	0.4	1.4	1
4/4/2020 3:00 PM	0.4	1.5	1
4/4/2020 4:00 PM	0.3	1.5	0.9
4/4/2020 5:00 PM	0.3	1.4	1
4/4/2020 6:00 PM	0.3	1.5	1
4/4/2020 7:00 PM	0.3	1.5	1
4/4/2020 8:00 PM	0.3	1.5	1
4/4/2020 9:00 PM	0.2	1.5	1
4/4/2020 10:00 PM	0.1	1.5	1
4/4/2020 11:00 PM	0.2	1.5	0.9
4/5/2020 12:00 AM	0.1	1.5	0.9
4/5/2020 1:00 AM	0	1.4	0.8
4/5/2020 2:00 AM	0.1	1.5	0.8
4/5/2020 3:00 AM	0.1	1.4	0.8
4/5/2020 4:00 AM	0.1	1.5	0.9
4/5/2020 5:00 AM	0.1	1.4	1
4/5/2020 6:00 AM	0.1	1.5	1
4/5/2020 7:00 AM	0.1	1.5	1
4/5/2020 8:00 AM	0.2	1.6	1.1
4/5/2020 9:00 AM	0.3	1.6	1
4/5/2020 10:00 AM	0.6	1.6	1.3
4/5/2020 11:00 AM	0.6	1.6	1.7
4/5/2020 12:00 PM	0.6	1.6	1.3
4/5/2020 1:00 PM	0.6	1.6	1.4
4/5/2020 2:00 PM	0.8	1.7	1.4
4/5/2020 3:00 PM	0.5	1.6	1.3
4/5/2020 4:00 PM	0.5	1.6	1.1
4/5/2020 5:00 PM	0.4	1.6	1.2
4/5/2020 6:00 PM	0.4	1.5	1
4/5/2020 7:00 PM	0.3	1.5	1
4/5/2020 8:00 PM	0.3	1.4	0.9
4/5/2020 9:00 PM	0.2	1.4	1.1
4/5/2020 10:00 PM	0.2	1.5	1
4/5/2020 11:00 PM	0.2	1.4	0.9
4/6/2020 12:00 AM	0.1	1.4	0.9
4/6/2020 1:00 AM	0.2	1.4	0.8
4/6/2020 2:00 AM	0.2	1.3	0.8
4/6/2020 3:00 AM	0.1	1.3	0.7
4/6/2020 4:00 AM	0.3	1.3	1.1
4/6/2020 5:00 AM	0.1	1.3	0.7
4/6/2020 6:00 AM	0.1	1.3	0.8
4/6/2020 7:00 AM	0.1	1.4	0.9
4/6/2020 8:00 AM	0.1	1.3	0.9
4/6/2020 9:00 AM	0.3	1.3	1
4/6/2020 10:00 AM	0.3	1.3	1.1
4/6/2020 11:00 AM	0.3	1.4	1.1
4/6/2020 12:00 PM	0.3	1.4	1
4/6/2020 1:00 PM	0.3	1.4	1
4/6/2020 2:00 PM	0.3	1.4	1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/6/2020 3:00 PM	0.3	1.4	1
4/6/2020 4:00 PM	0.4	1.4	1
4/6/2020 5:00 PM	0.4	1.4	1
4/6/2020 6:00 PM	0.4	1.4	1.4
4/6/2020 7:00 PM	0.5	1.5	1.5
4/6/2020 8:00 PM	0.7	1.5	1.4
4/6/2020 9:00 PM	0.5	1.6	1.3
4/6/2020 10:00 PM	0.5	1.5	1.2
4/6/2020 11:00 PM	0.5	1.6	1
4/7/2020 12:00 AM	0.4	1.5	0.9
4/7/2020 1:00 AM	0.3	1.5	0.9
4/7/2020 2:00 AM	0.2	1.5	0.9
4/7/2020 3:00 AM	0.2	1.5	1
4/7/2020 4:00 AM	0.3	1.5	1.1
4/7/2020 5:00 AM	0.2	1.5	1.2
4/7/2020 6:00 AM	0.2	1.4	1.2
4/7/2020 7:00 AM	0.3	1.5	1.3
4/7/2020 8:00 AM	0.6	1.6	1.5
4/7/2020 9:00 AM	0.5	1.6	1.3
4/7/2020 10:00 AM	0.4	1.5	1.1
4/7/2020 11:00 AM	0.3	1.4	1
4/7/2020 12:00 PM	0.3	1.5	1.1
4/7/2020 1:00 PM	0.4	1.5	1
4/7/2020 2:00 PM	0.3	1.4	0.9
4/7/2020 3:00 PM	0.3	1.4	0.8
4/7/2020 4:00 PM	0.3	1.4	0.9
4/7/2020 5:00 PM	0.3	1.4	0.9
4/7/2020 6:00 PM	0.4	1.4	0.9
4/7/2020 7:00 PM	0.3	1.3	0.9
4/7/2020 8:00 PM	0.2	1.4	0.9
4/7/2020 9:00 PM	0.2	1.3	0.8
4/7/2020 10:00 PM	0.2	1.3	0.9
4/7/2020 11:00 PM	0.2	1.3	0.7
4/8/2020 12:00 AM	0.3	1.4	0.7
4/8/2020 1:00 AM	0.3	1.3	0.7
4/8/2020 2:00 AM	0.1	1.2	0.8
4/8/2020 3:00 AM	0.1	1.1	0.7
4/8/2020 4:00 AM	0.1	1.1	0.7
4/8/2020 5:00 AM	0.1	1.1	0.8
4/8/2020 6:00 AM	0.1	1.2	0.7
4/8/2020 7:00 AM	0.1	1.2	0.8
4/8/2020 8:00 AM	0.1	1.1	0.7
4/8/2020 9:00 AM	0.1	1.1	0.8
4/8/2020 10:00 AM	0.2	1.2	0.8
4/8/2020 11:00 AM	0.2	1.2	0.8
4/8/2020 12:00 PM	0.2	1.2	0.8
4/8/2020 1:00 PM	0.3	1.2	0.7
4/8/2020 2:00 PM	0.3	1.2	0.9
4/8/2020 3:00 PM	0.3	1.3	0.9
4/8/2020 4:00 PM	0.3	1.3	1
4/8/2020 5:00 PM	0.4	1.4	1.1
4/8/2020 6:00 PM	0.5	1.5	1.3
4/8/2020 7:00 PM	0.6	1.5	1.3
4/8/2020 8:00 PM	0.4	1.5	1.3
4/8/2020 9:00 PM	0.5	1.5	0.9
4/8/2020 10:00 PM	0.4	1.4	0.8
4/8/2020 11:00 PM	0.3	1.3	0.8
4/9/2020 12:00 AM	0.2	1.3	0.8
4/9/2020 1:00 AM	0.1	1.3	0.8
4/9/2020 2:00 AM	0.1	1.2	0.8
4/9/2020 3:00 AM	0	1.3	0.7
4/9/2020 4:00 AM	0.1	1.2	0.7
4/9/2020 5:00 AM	0.2	1.2	0.7
4/9/2020 6:00 AM	0.1	1.2	0.7
4/9/2020 7:00 AM	0	1.3	0.7
4/9/2020 8:00 AM	0.1	1.3	0.7

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/9/2020 9:00 AM	0	1.2	0.7
4/9/2020 10:00 AM	0.1	1.2	0.7
4/9/2020 11:00 AM	0	1.2	0.7
4/9/2020 12:00 PM	0.1	1.1	0.7
4/9/2020 1:00 PM	0.1	1.2	0.7
4/9/2020 2:00 PM	0.2	1.3	0.9
4/9/2020 3:00 PM	0.1	1.3	0.7
4/9/2020 4:00 PM	0.1	1.3	0.7
4/9/2020 5:00 PM	0.1	1.2	0.7
4/9/2020 6:00 PM	0	1.2	0.7
4/9/2020 7:00 PM	0.1	1.2	0.8
4/9/2020 8:00 PM	0	1.2	0.7
4/9/2020 9:00 PM	0	1.3	0.7
4/9/2020 10:00 PM	0.1	1.3	0.7
4/9/2020 11:00 PM	0.1	1.3	0.8
4/10/2020 12:00 AM	0.1	1.3	0.8
4/10/2020 1:00 AM	0	1.3	0.8
4/10/2020 2:00 AM	0	1.3	0.8
4/10/2020 3:00 AM	0.1	1.3	0.7
4/10/2020 4:00 AM	0	1.3	0.8
4/10/2020 5:00 AM	0.2	1.3	0.9
4/10/2020 6:00 AM	0	1.3	0.8
4/10/2020 7:00 AM	0.1	1.3	0.8
4/10/2020 8:00 AM	0.1	1.3	0.8
4/10/2020 9:00 AM	0.1	1.3	1
4/10/2020 10:00 AM	0.2	1.3	1
4/10/2020 11:00 AM	0.1	1.3	1.1
4/10/2020 12:00 PM	0.1	1.2	1
4/10/2020 1:00 PM	0.2	1.3	0.9
4/10/2020 2:00 PM	0.1	1.4	0.9
4/10/2020 3:00 PM	0.1	1.4	1.1
4/10/2020 4:00 PM	0.1	1.4	1.2
4/10/2020 5:00 PM	0.2	1.4	1.2
4/10/2020 6:00 PM	0.2	1.4	1.1
4/10/2020 7:00 PM	0.2	1.5	0.8
4/10/2020 8:00 PM	0.1	1.4	0.8
4/10/2020 9:00 PM	0.1	1.4	0.9
4/10/2020 10:00 PM	0.1	1.4	0.9
4/10/2020 11:00 PM	0.1	1.3	1
4/11/2020 12:00 AM	0.1	1.4	1
4/11/2020 1:00 AM	0.2	1.4	1
4/11/2020 2:00 AM	0.2	1.4	1.1
4/11/2020 3:00 AM	0.2	1.4	1
4/11/2020 4:00 AM	0.2	1.4	1.1
4/11/2020 5:00 AM	0.3	1.5	1.1
4/11/2020 6:00 AM	0.2	1.5	1.1
4/11/2020 7:00 AM	0.2	1.5	1.1
4/11/2020 8:00 AM	0.2	1.5	1.1
4/11/2020 9:00 AM	0.2	1.4	1
4/11/2020 10:00 AM	0.2	1.4	InVld
4/11/2020 11:00 AM	0.3	1.4	1.2
4/11/2020 12:00 PM	0.3	1.5	1.2
4/11/2020 1:00 PM	0.4	1.5	1.3
4/11/2020 2:00 PM	0.4	1.5	1.3
4/11/2020 3:00 PM	0.4	1.6	1.4
4/11/2020 4:00 PM	0.5	1.6	1.3
4/11/2020 5:00 PM	0.5	1.7	1.2
4/11/2020 6:00 PM	0.5	1.7	1.2
4/11/2020 7:00 PM	0.4	1.7	1.2
4/11/2020 8:00 PM	0.3	1.6	1.2
4/11/2020 9:00 PM	0.2	1.5	1.2
4/11/2020 10:00 PM	0.3	1.6	1.2
4/11/2020 11:00 PM	0.2	1.6	1.3
4/12/2020 12:00 AM	0.2	1.6	1.2
4/12/2020 1:00 AM	0.2	1.6	1.2
4/12/2020 2:00 AM	0.1	1.5	1.1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/12/2020 3:00 AM	0.1	1.5	1.1
4/12/2020 4:00 AM	0.2	1.5	1.2
4/12/2020 5:00 AM	0.2	1.5	1.2
4/12/2020 6:00 AM	0.2	1.6	1.2
4/12/2020 7:00 AM	0.2	1.6	1.1
4/12/2020 8:00 AM	0.3	1.6	1.2
4/12/2020 9:00 AM	0.5	1.6	1.3
4/12/2020 10:00 AM	0.5	1.5	1.4
4/12/2020 11:00 AM	0.5	1.6	1.3
4/12/2020 12:00 PM	0.4	1.6	1.3
4/12/2020 1:00 PM	0.5	1.6	1.4
4/12/2020 2:00 PM	0.5	1.6	1.3
4/12/2020 3:00 PM	0.4	1.5	1.3
4/12/2020 4:00 PM	0.5	1.6	1.3
4/12/2020 5:00 PM	0.4	1.5	1.3
4/12/2020 6:00 PM	0.5	1.5	1.1
4/12/2020 7:00 PM	0.3	1.5	1.1
4/12/2020 8:00 PM	0.2	1.4	0.9
4/12/2020 9:00 PM	0.2	1.3	0.8
4/12/2020 10:00 PM	0.1	1.3	0.8
4/12/2020 11:00 PM	0.1	1.3	0.8
4/13/2020 12:00 AM	0	1.3	0.9
4/13/2020 1:00 AM	0.1	1.3	0.8
4/13/2020 2:00 AM	0	1.2	0.8
4/13/2020 3:00 AM	0	1.2	0.7
4/13/2020 4:00 AM	0.2	1.3	0.7
4/13/2020 5:00 AM	0.1	1.2	0.8
4/13/2020 6:00 AM	0	1.2	0.8
4/13/2020 7:00 AM	0.1	1.2	0.8
4/13/2020 8:00 AM	0.1	1.2	0.7
4/13/2020 9:00 AM	0.1	1.2	0.9
4/13/2020 10:00 AM	0.1	1.3	0.8
4/13/2020 11:00 AM	0.2	1.3	0.9
4/13/2020 12:00 PM	0.3	1.3	0.8
4/13/2020 1:00 PM	0.2	1.2	0.8
4/13/2020 2:00 PM	0.2	1.3	0.8
4/13/2020 3:00 PM	0.2	1.3	0.8
4/13/2020 4:00 PM	0.2	1.3	0.9
4/13/2020 5:00 PM	0.2	1.3	0.9
4/13/2020 6:00 PM	0.2	1.3	0.9
4/13/2020 7:00 PM	0.1	1.2	0.9
4/13/2020 8:00 PM	0.1	1.2	0.8
4/13/2020 9:00 PM	0	1.2	0.8
4/13/2020 10:00 PM	0	1.3	0.9
4/13/2020 11:00 PM	0.1	1.3	0.9
4/14/2020 12:00 AM	0.1	1.3	1
4/14/2020 1:00 AM	0.2	1.3	1
4/14/2020 2:00 AM	0.2	1.3	1.1
4/14/2020 3:00 AM	0.2	1.4	1
4/14/2020 4:00 AM	0.1	1.4	1
4/14/2020 5:00 AM	0.3	1.4	1.1
4/14/2020 6:00 AM	0.3	1.5	1.1
4/14/2020 7:00 AM	0.4	1.6	1.2
4/14/2020 8:00 AM	0.4	1.6	1.3
4/14/2020 9:00 AM	0.2	1.5	1.2
4/14/2020 10:00 AM	0.2	1.5	1.1
4/14/2020 11:00 AM	0.3	1.5	1
4/14/2020 12:00 PM	0.2	1.4	0.9
4/14/2020 1:00 PM	0.2	1.4	0.9
4/14/2020 2:00 PM	0.2	1.3	1
4/14/2020 3:00 PM	0.1	1.4	1
4/14/2020 4:00 PM	0.1	1.4	1
4/14/2020 5:00 PM	0.1	1.4	0.9
4/14/2020 6:00 PM	0.1	1.4	0.8
4/14/2020 7:00 PM	0.1	1.4	0.9
4/14/2020 8:00 PM	0	1.3	0.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/14/2020 9:00 PM	0.1	1.3	0.8
4/14/2020 10:00 PM	0.1	1.4	0.9
4/14/2020 11:00 PM	0.1	1.4	1.1
4/15/2020 12:00 AM	0.2	1.5	1.2
4/15/2020 1:00 AM	0.2	1.5	1
4/15/2020 2:00 AM	0.1	1.4	1
4/15/2020 3:00 AM	0.2	1.5	1
4/15/2020 4:00 AM	0.2	1.5	1.1
4/15/2020 5:00 AM	0.2	1.5	1.2
4/15/2020 6:00 AM	0.2	1.5	1.3
4/15/2020 7:00 AM	0.5	1.6	1.5
4/15/2020 8:00 AM	0.4	1.5	1.3
4/15/2020 9:00 AM	0.3	1.5	1.1
4/15/2020 10:00 AM	0.3	1.4	1.1
4/15/2020 11:00 AM	0.2	1.4	1
4/15/2020 12:00 PM	0.1	1.4	1
4/15/2020 1:00 PM	0.2	1.3	0.9
4/15/2020 2:00 PM	0.2	1.3	0.9
4/15/2020 3:00 PM	0.3	1.5	1.2
4/15/2020 4:00 PM	0.3	1.4	1.1
4/15/2020 5:00 PM	0.2	1.4	0.9
4/15/2020 6:00 PM	0.2	1.3	1
4/15/2020 7:00 PM	0.1	1.4	1
4/15/2020 8:00 PM	0.3	1.3	1.1
4/15/2020 9:00 PM	0.3	1.4	1.3
4/15/2020 10:00 PM	0.2	1.4	1.2
4/15/2020 11:00 PM	0.1	1.3	1
4/16/2020 12:00 AM	0.1	1.3	1
4/16/2020 1:00 AM	0.1	1.3	1
4/16/2020 2:00 AM	0.2	1.3	1
4/16/2020 3:00 AM	0.1	1.3	0.9
4/16/2020 4:00 AM	0.1	1.3	1
4/16/2020 5:00 AM	0.2	1.3	1
4/16/2020 6:00 AM	0.1	1.3	1
4/16/2020 7:00 AM	0.1	1.2	1
4/16/2020 8:00 AM	0.1	1.3	1
4/16/2020 9:00 AM	0.1	1.3	0.9
4/16/2020 10:00 AM	0.2	1.3	0.9
4/16/2020 11:00 AM	0.1	1.3	1
4/16/2020 12:00 PM	0.2	1.3	1.1
4/16/2020 1:00 PM	0.2	1.4	1
4/16/2020 2:00 PM	0.1	1.4	0.9
4/16/2020 3:00 PM	0.2	1.3	1
4/16/2020 4:00 PM	0.3	1.5	1
4/16/2020 5:00 PM	0.2	1.5	1
4/16/2020 6:00 PM	0.3	1.5	1
4/16/2020 7:00 PM	0.2	1.5	1
4/16/2020 8:00 PM	0.2	1.5	1.1
4/16/2020 9:00 PM	0.2	1.5	1.2
4/16/2020 10:00 PM	0.1	1.5	1.1
4/16/2020 11:00 PM	0.3	1.6	1.1
4/17/2020 12:00 AM	0.9	2.2	1.2
4/17/2020 1:00 AM	0.4	1.9	1.2
4/17/2020 2:00 AM	0.5	1.7	1.5
4/17/2020 3:00 AM	0.5	1.6	1.9
4/17/2020 4:00 AM	0.3	1.5	1.8
4/17/2020 5:00 AM	0.3	1.5	1.4
4/17/2020 6:00 AM	0.3	1.6	1.3
4/17/2020 7:00 AM	0.3	1.5	1.4
4/17/2020 8:00 AM	0.7	1.6	1.4
4/17/2020 9:00 AM	0.7	1.6	1.4
4/17/2020 10:00 AM	0.5	1.6	1.4
4/17/2020 11:00 AM	0.5	1.6	1.3
4/17/2020 12:00 PM	0.4	1.5	1.3
4/17/2020 1:00 PM	0.4	1.5	1.2
4/17/2020 2:00 PM	0.4	1.5	1.2

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/17/2020 3:00 PM	0.4	1.5	1.2
4/17/2020 4:00 PM	0.4	1.5	1.2
4/17/2020 5:00 PM	0.4	1.4	1.1
4/17/2020 6:00 PM	0.2	1.4	1.1
4/17/2020 7:00 PM	0.2	1.4	1.1
4/17/2020 8:00 PM	0.2	1.5	1
4/17/2020 9:00 PM	0.2	1.5	0.9
4/17/2020 10:00 PM	0.2	1.4	0.9
4/17/2020 11:00 PM	0.2	1.4	1
4/18/2020 12:00 AM	0.1	1.4	1
4/18/2020 1:00 AM	0.1	1.4	0.9
4/18/2020 2:00 AM	0.1	1.4	1
4/18/2020 3:00 AM	0.1	1.4	0.9
4/18/2020 4:00 AM	0.1	1.4	0.8
4/18/2020 5:00 AM	0.2	1.4	0.9
4/18/2020 6:00 AM	0.1	1.4	0.9
4/18/2020 7:00 AM	0.1	1.4	0.9
4/18/2020 8:00 AM	0	1.3	0.9
4/18/2020 9:00 AM	0	1.3	0.9
4/18/2020 10:00 AM	0.1	1.4	0.8
4/18/2020 11:00 AM	0.1	1.3	0.9
4/18/2020 12:00 PM	0.1	1.3	0.9
4/18/2020 1:00 PM	0.1	1.4	0.9
4/18/2020 2:00 PM	0.1	1.4	1
4/18/2020 3:00 PM	0.1	1.4	0.9
4/18/2020 4:00 PM	0.2	1.4	1.1
4/18/2020 5:00 PM	0.3	1.5	1.1
4/18/2020 6:00 PM	0.3	1.5	1
4/18/2020 7:00 PM	0.2	1.6	0.9
4/18/2020 8:00 PM	0.2	1.5	1
4/18/2020 9:00 PM	0.1	1.5	0.9
4/18/2020 10:00 PM	0.1	1.5	1
4/18/2020 11:00 PM	0.1	1.5	0.8
4/19/2020 12:00 AM	0.1	1.4	0.9
4/19/2020 1:00 AM	0.1	1.5	0.9
4/19/2020 2:00 AM	0.1	1.4	1.1
4/19/2020 3:00 AM	0.1	1.3	1
4/19/2020 4:00 AM	0.1	1.3	0.9
4/19/2020 5:00 AM	0.1	1.3	1
4/19/2020 6:00 AM	0.1	1.3	1.1
4/19/2020 7:00 AM	0.2	1.4	1.1
4/19/2020 8:00 AM	0.3	1.5	1.2
4/19/2020 9:00 AM	0.3	1.4	1.1
4/19/2020 10:00 AM	0.4	1.4	1.2
4/19/2020 11:00 AM	0.3	1.5	1.2
4/19/2020 12:00 PM	0.4	1.5	1.2
4/19/2020 1:00 PM	0.3	1.5	1.2
4/19/2020 2:00 PM	0.4	1.5	1.1
4/19/2020 3:00 PM	0.3	1.5	1
4/19/2020 4:00 PM	0.3	1.5	1
4/19/2020 5:00 PM	0.3	1.5	1.1
4/19/2020 6:00 PM	0.3	1.5	1.1
4/19/2020 7:00 PM	0.3	1.4	1
4/19/2020 8:00 PM	0.3	1.5	1.2
4/19/2020 9:00 PM	0.3	1.5	1.1
4/19/2020 10:00 PM	0.3	1.5	1.1
4/19/2020 11:00 PM	0.2	1.5	1.1
4/20/2020 12:00 AM	0.2	1.5	1.2
4/20/2020 1:00 AM	0.3	1.6	1.2
4/20/2020 2:00 AM	0.3	1.5	1.3
4/20/2020 3:00 AM	0.3	1.6	1.2
4/20/2020 4:00 AM	0.5	1.7	1.2
4/20/2020 5:00 AM	0.3	1.6	1.2
4/20/2020 6:00 AM	0.3	1.5	1.3
4/20/2020 7:00 AM	0.4	1.6	1.6
4/20/2020 8:00 AM	0.5	1.6	1.4

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/20/2020 9:00 AM	0.6	1.6	1.4
4/20/2020 10:00 AM	0.6	1.6	1.3
4/20/2020 11:00 AM	0.6	1.6	1.3
4/20/2020 12:00 PM	0.5	1.6	1.3
4/20/2020 1:00 PM	0.4	1.5	1.1
4/20/2020 2:00 PM	0.4	1.5	1.1
4/20/2020 3:00 PM	0.4	1.5	1.1
4/20/2020 4:00 PM	0.6	1.6	1.4
4/20/2020 5:00 PM	0.5	1.6	1.2
4/20/2020 6:00 PM	0.4	1.6	1.1
4/20/2020 7:00 PM	0.4	1.5	1.1
4/20/2020 8:00 PM	0.3	1.5	1
4/20/2020 9:00 PM	0.3	1.5	1
4/20/2020 10:00 PM	0.3	1.6	1.2
4/20/2020 11:00 PM	0.3	1.6	1.1
4/21/2020 12:00 AM	0.2	1.6	1
4/21/2020 1:00 AM	0.2	1.5	1.1
4/21/2020 2:00 AM	0.3	1.5	1.1
4/21/2020 3:00 AM	0.2	1.5	1.3
4/21/2020 4:00 AM	0.2	1.5	1.4
4/21/2020 5:00 AM	0.2	1.6	1.2
4/21/2020 6:00 AM	0.2	1.6	1
4/21/2020 7:00 AM	0.2	1.5	1
4/21/2020 8:00 AM	0.3	1.5	1.1
4/21/2020 9:00 AM	0.2	1.5	1.2
4/21/2020 10:00 AM	0.2	1.5	2
4/21/2020 11:00 AM	0.1	1.4	Power Fail
4/21/2020 12:00 PM	0.1	1.4	Power Fail
4/21/2020 1:00 PM	0.2	1.4	Power Fail
4/21/2020 2:00 PM	0.1	1.4	Power Fail
4/21/2020 3:00 PM	0.1	1.4	Power Fail
4/21/2020 4:00 PM	0.2	1.4	Power Fail
4/21/2020 5:00 PM	0.2	1.4	Power Fail
4/21/2020 6:00 PM	0.1	1.4	Power Fail
4/21/2020 7:00 PM	0.1	1.4	Power Fail
4/21/2020 8:00 PM	0	1.3	Power Fail
4/21/2020 9:00 PM	0.1	1.4	Power Fail
4/21/2020 10:00 PM	0.1	1.5	Power Fail
4/21/2020 11:00 PM	0.1	1.4	Power Fail
4/22/2020 12:00 AM	0.1	1.4	Power Fail
4/22/2020 1:00 AM	0.1	1.4	Power Fail
4/22/2020 2:00 AM	0.3	1.5	Power Fail
4/22/2020 3:00 AM	0.2	1.5	Power Fail
4/22/2020 4:00 AM	0.2	1.4	Power Fail
4/22/2020 5:00 AM	0.2	1.4	Power Fail
4/22/2020 6:00 AM	0.1	1.4	Power Fail
4/22/2020 7:00 AM	0.1	1.4	Power Fail
4/22/2020 8:00 AM	0.2	1.4	Power Fail
4/22/2020 9:00 AM	0.3	1.5	Power Fail
4/22/2020 10:00 AM	0.3	1.5	Power Fail
4/22/2020 11:00 AM	0.4	1.6	Power Fail
4/22/2020 12:00 PM	0.3	1.5	Power Fail
4/22/2020 1:00 PM	0.3	1.5	Power Fail
4/22/2020 2:00 PM	0.3	1.6	Power Fail
4/22/2020 3:00 PM	0.4	1.5	Power Fail
4/22/2020 4:00 PM	0.5	1.6	Power Fail
4/22/2020 5:00 PM	0.5	1.6	Power Fail
4/22/2020 6:00 PM	0.4	1.6	Power Fail
4/22/2020 7:00 PM	0.4	1.6	Power Fail
4/22/2020 8:00 PM	0.4	1.6	Power Fail
4/22/2020 9:00 PM	0.4	1.6	Power Fail
4/22/2020 10:00 PM	0.4	1.6	Power Fail
4/22/2020 11:00 PM	0.5	1.9	Power Fail
4/23/2020 12:00 AM	0.4	1.9	Power Fail
4/23/2020 1:00 AM	0.4	1.7	Power Fail
4/23/2020 2:00 AM	0.3	1.7	Power Fail

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/23/2020 3:00 AM	0.3	1.7	Power Fail
4/23/2020 4:00 AM	0.3	1.7	Power Fail
4/23/2020 5:00 AM	0.3	1.7	Power Fail
4/23/2020 6:00 AM	0.2	1.9	Power Fail
4/23/2020 7:00 AM	0.3	1.8	Power Fail
4/23/2020 8:00 AM	0.5	1.7	1.3
4/23/2020 9:00 AM	0.5	1.7	1.3
4/23/2020 10:00 AM	0.6	1.7	1.4
4/23/2020 11:00 AM	0.5	1.7	1.4
4/23/2020 12:00 PM	0.7	1.7	1.5
4/23/2020 1:00 PM	0.5	1.6	1.4
4/23/2020 2:00 PM	0.4	1.6	1.3
4/23/2020 3:00 PM	0.3	1.6	1.2
4/23/2020 4:00 PM	0.3	1.5	1.1
4/23/2020 5:00 PM	0.2	1.5	1.1
4/23/2020 6:00 PM	0.1	1.5	0.9
4/23/2020 7:00 PM	0.2	1.4	0.9
4/23/2020 8:00 PM	0.2	1.4	0.9
4/23/2020 9:00 PM	0.2	1.4	0.9
4/23/2020 10:00 PM	0.1	1.4	0.9
4/23/2020 11:00 PM	0.1	1.4	0.9
4/24/2020 12:00 AM	0.1	1.4	0.9
4/24/2020 1:00 AM	0.1	1.4	0.8
4/24/2020 2:00 AM	0.1	1.3	0.8
4/24/2020 3:00 AM	0.1	1.3	0.9
4/24/2020 4:00 AM	0.1	1.2	0.9
4/24/2020 5:00 AM	0.1	1.4	1
4/24/2020 6:00 AM	0.1	1.3	0.8
4/24/2020 7:00 AM	0	1.3	0.8
4/24/2020 8:00 AM	0	1.3	0.8
4/24/2020 9:00 AM	0.1	1.4	0.9
4/24/2020 10:00 AM	0.1	1.4	0.9
4/24/2020 11:00 AM	0.1	1.4	1
4/24/2020 12:00 PM	0.2	1.4	1
4/24/2020 1:00 PM	0.2	1.5	1
4/24/2020 2:00 PM	0.2	1.4	0.9
4/24/2020 3:00 PM	0.2	1.3	1
4/24/2020 4:00 PM	0.4	1.5	1
4/24/2020 5:00 PM	0.2	1.6	1
4/24/2020 6:00 PM	0.2	1.5	0.9
4/24/2020 7:00 PM	0.1	1.4	0.9
4/24/2020 8:00 PM	0.1	1.4	0.7
4/24/2020 9:00 PM	0.1	1.3	0.9
4/24/2020 10:00 PM	0.1	1.3	0.8
4/24/2020 11:00 PM	0	1.4	0.8
4/25/2020 12:00 AM	0.1	1.3	0.8
4/25/2020 1:00 AM	0.1	1.3	0.8
4/25/2020 2:00 AM	0.1	1.2	0.8
4/25/2020 3:00 AM	0.1	1.3	0.8
4/25/2020 4:00 AM	0.1	1.3	0.8
4/25/2020 5:00 AM	0.1	1.3	0.9
4/25/2020 6:00 AM	0.1	1.4	0.8
4/25/2020 7:00 AM	0.2	1.3	0.9
4/25/2020 8:00 AM	0.2	1.5	1
4/25/2020 9:00 AM	0.4	1.4	1.1
4/25/2020 10:00 AM	0.3	1.5	1.1
4/25/2020 11:00 AM	0.4	1.5	1.1
4/25/2020 12:00 PM	0.4	1.5	1.2
4/25/2020 1:00 PM	0.3	1.5	1.1
4/25/2020 2:00 PM	0.3	1.5	1
4/25/2020 3:00 PM	0.4	1.5	1
4/25/2020 4:00 PM	0.2	1.5	1
4/25/2020 5:00 PM	0.3	1.4	1
4/25/2020 6:00 PM	0.3	1.4	0.9
4/25/2020 7:00 PM	0.2	1.4	0.7
4/25/2020 8:00 PM	0.2	1.4	0.8

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/25/2020 9:00 PM	0.1	1.3	0.8
4/25/2020 10:00 PM	0.2	1.4	0.8
4/25/2020 11:00 PM	0.1	1.4	0.8
4/26/2020 12:00 AM	0.1	1.3	0.8
4/26/2020 1:00 AM	0.1	1.3	0.8
4/26/2020 2:00 AM	0.1	1.3	0.8
4/26/2020 3:00 AM	0.1	1.3	0.8
4/26/2020 4:00 AM	0	1.3	0.7
4/26/2020 5:00 AM	0.1	1.3	0.8
4/26/2020 6:00 AM	0.1	1.4	0.8
4/26/2020 7:00 AM	0.1	1.3	0.8
4/26/2020 8:00 AM	0.1	1.3	0.9
4/26/2020 9:00 AM	0.1	1.3	0.8
4/26/2020 10:00 AM	0.1	1.3	0.8
4/26/2020 11:00 AM	0.1	1.3	0.8
4/26/2020 12:00 PM	0.1	1.3	0.8
4/26/2020 1:00 PM	0.1	1.4	0.8
4/26/2020 2:00 PM	0.1	1.3	0.8
4/26/2020 3:00 PM	0.1	1.3	0.8
4/26/2020 4:00 PM	0.1	1.3	0.9
4/26/2020 5:00 PM	0.1	1.3	0.8
4/26/2020 6:00 PM	0.1	1.3	0.9
4/26/2020 7:00 PM	0.1	1.4	0.8
4/26/2020 8:00 PM	0.1	1.3	0.8
4/26/2020 9:00 PM	0.1	1.4	0.8
4/26/2020 10:00 PM	0.1	1.3	0.8
4/26/2020 11:00 PM	0.1	1.3	0.7
4/27/2020 12:00 AM	0.1	1.3	0.7
4/27/2020 1:00 AM	0.1	1.3	0.8
4/27/2020 2:00 AM	0.1	1.3	0.8
4/27/2020 3:00 AM	0.1	1.3	0.7
4/27/2020 4:00 AM	0.3	1.4	0.9
4/27/2020 5:00 AM	0.1	1.3	0.9
4/27/2020 6:00 AM	0.1	1.4	0.8
4/27/2020 7:00 AM	0.1	1.3	0.9
4/27/2020 8:00 AM	0.1	1.4	0.8
4/27/2020 9:00 AM	0.1	1.4	0.8
4/27/2020 10:00 AM	0.1	1.4	0.9
4/27/2020 11:00 AM	0.1	1.4	0.9
4/27/2020 12:00 PM	0.1	1.4	0.9
4/27/2020 1:00 PM	0.1	1.4	1
4/27/2020 2:00 PM	0.2	1.5	0.9
4/27/2020 3:00 PM	0.2	1.5	1
4/27/2020 4:00 PM	0.3	1.5	1
4/27/2020 5:00 PM	0.3	1.5	1
4/27/2020 6:00 PM	0.3	1.5	1
4/27/2020 7:00 PM	0.3	1.5	0.9
4/27/2020 8:00 PM	0.2	1.4	1
4/27/2020 9:00 PM	0.1	1.6	1
4/27/2020 10:00 PM	0.2	1.6	1.1
4/27/2020 11:00 PM	0.2	1.7	1
4/28/2020 12:00 AM	0.1	1.6	1.2
4/28/2020 1:00 AM	0.1	1.5	1.1
4/28/2020 2:00 AM	0.2	1.6	1.1
4/28/2020 3:00 AM	0.2	1.5	1.1
4/28/2020 4:00 AM	0.1	1.5	1
4/28/2020 5:00 AM	0.2	1.6	1.3
4/28/2020 6:00 AM	0.2	1.5	1.2
4/28/2020 7:00 AM	0.2	1.5	1.1
4/28/2020 8:00 AM	0.1	1.5	1
4/28/2020 9:00 AM	0.2	1.4	1
4/28/2020 10:00 AM	0.2	1.5	1.2
4/28/2020 11:00 AM	0.2	1.5	1
4/28/2020 12:00 PM	0.2	1.4	1
4/28/2020 1:00 PM	0.2	1.5	1
4/28/2020 2:00 PM	0.1	1.4	1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
4/28/2020 3:00 PM	0.1	1.4	0.9
4/28/2020 4:00 PM	0.1	1.4	1
4/28/2020 5:00 PM	0.1	1.4	1
4/28/2020 6:00 PM	0.1	1.4	1
4/28/2020 7:00 PM	0.1	1.4	0.9
4/28/2020 8:00 PM	0.2	1.4	0.8
4/28/2020 9:00 PM	0.1	1.4	0.9
4/28/2020 10:00 PM	0.1	1.4	0.9
4/28/2020 11:00 PM	0.1	1.4	1
4/29/2020 12:00 AM	0.1	1.3	0.9
4/29/2020 1:00 AM	0.2	1.3	0.9
4/29/2020 2:00 AM	0.1	1.3	0.9
4/29/2020 3:00 AM	0.1	1.4	0.9
4/29/2020 4:00 AM	0.2	1.4	1
4/29/2020 5:00 AM	0.2	1.4	1
4/29/2020 6:00 AM	0.1	1.4	0.9
4/29/2020 7:00 AM	0.1	1.3	0.9
4/29/2020 8:00 AM	0.2	1.4	0.9
4/29/2020 9:00 AM	0.2	1.3	0.9
4/29/2020 10:00 AM	0.1	1.3	0.8
4/29/2020 11:00 AM	0.2	1.4	0.9
4/29/2020 12:00 PM	0.2	1.4	0.9
4/29/2020 1:00 PM	0.2	1.4	1
4/29/2020 2:00 PM	0.3	1.5	1.1
4/29/2020 3:00 PM	0.3	1.5	1.1
4/29/2020 4:00 PM	0.4	1.4	1.1
4/29/2020 5:00 PM	0.4	1.4	1.1
4/29/2020 6:00 PM	0.3	1.4	1
4/29/2020 7:00 PM	0.3	1.4	1
4/29/2020 8:00 PM	0.2	1.3	0.9
4/29/2020 9:00 PM	0.2	1.3	0.9
4/29/2020 10:00 PM	0.1	1.3	0.8
4/29/2020 11:00 PM	0.1	1.3	0.9
4/30/2020 12:00 AM	0.1	1.4	0.9
4/30/2020 1:00 AM	0.1	1.3	0.7
4/30/2020 2:00 AM	0	1.3	0.8
4/30/2020 3:00 AM	0	1.3	0.7
4/30/2020 4:00 AM	0	1.2	0.8
4/30/2020 5:00 AM	0.1	1.3	0.9
4/30/2020 6:00 AM	0.1	1.3	0.8
4/30/2020 7:00 AM	0	1.3	0.8
4/30/2020 8:00 AM	0	1.3	0.9
4/30/2020 9:00 AM	0	1.3	0.8
4/30/2020 10:00 AM	0.1	1.3	0.8
4/30/2020 11:00 AM	0.1	1.3	0.8
4/30/2020 12:00 PM	0	1.3	0.8
4/30/2020 1:00 PM	0.1	1.3	0.8
4/30/2020 2:00 PM	0.1	1.3	1
4/30/2020 3:00 PM	0.2	1.4	0.9
4/30/2020 4:00 PM	0.1	1.4	0.8
4/30/2020 5:00 PM	0.1	1.4	0.8
4/30/2020 6:00 PM	0.1	1.4	0.8
4/30/2020 7:00 PM	0.1	1.4	0.8
4/30/2020 8:00 PM	0.1	1.3	0.8
4/30/2020 9:00 PM	0	1.3	0.8
4/30/2020 10:00 PM	0.1	1.4	0.8
4/30/2020 11:00 PM	0.1	1.3	0.8
5/1/2020 12:00 AM	0.2	1.3	0.9
5/1/2020 1:00 AM	0.1	1.4	0.9
5/1/2020 2:00 AM	0.2	1.4	1
5/1/2020 3:00 AM	0.2	1.5	0.9
5/1/2020 4:00 AM	0.1	1.4	0.9
5/1/2020 5:00 AM	0.2	1.5	0.9
5/1/2020 6:00 AM	0.2	1.4	0.9
5/1/2020 7:00 AM	0.2	1.4	0.9
5/1/2020 8:00 AM	0.2	1.4	1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
5/1/2020 9:00 AM	0.2	1.4	1.1
5/1/2020 10:00 AM	0.2	1.4	1.1
5/1/2020 11:00 AM	0.1	1.4	1
5/1/2020 12:00 PM	0.2	1.4	0.9
5/1/2020 1:00 PM	0.1	1.4	1
5/1/2020 2:00 PM	0.2	1.4	0.8
5/1/2020 3:00 PM	0.2	1.4	0.9
5/1/2020 4:00 PM	0.2	1.5	1
5/1/2020 5:00 PM	0.2	1.4	0.9
5/1/2020 6:00 PM	0.2	1.4	0.9
5/1/2020 7:00 PM	0.1	1.4	0.9
5/1/2020 8:00 PM	0.1	1.4	0.9
5/1/2020 9:00 PM	0.1	1.4	0.8
5/1/2020 10:00 PM	0.2	1.4	0.9
5/1/2020 11:00 PM	0.2	1.4	0.9
5/2/2020 12:00 AM	0.2	1.5	1
5/2/2020 1:00 AM	0.2	1.4	1
5/2/2020 2:00 AM	0.1	1.4	0.9
5/2/2020 3:00 AM	0.2	1.4	1
5/2/2020 4:00 AM	0.2	1.4	1.1
5/2/2020 5:00 AM	0.3	1.5	1
5/2/2020 6:00 AM	0.3	1.6	1.2
5/2/2020 7:00 AM	0.5	1.6	1.1
5/2/2020 8:00 AM	0.3	1.5	1.2
5/2/2020 9:00 AM	0.4	1.5	1.2
5/2/2020 10:00 AM	0.4	1.5	1.3
5/2/2020 11:00 AM	0.4	1.5	1.3
5/2/2020 12:00 PM	0.4	1.5	1.3
5/2/2020 1:00 PM	0.4	1.5	1.3
5/2/2020 2:00 PM	0.5	1.5	1.3
5/2/2020 3:00 PM	0.5	1.5	1.3
5/2/2020 4:00 PM	0.4	1.5	1.2
5/2/2020 5:00 PM	0.4	1.5	1.2
5/2/2020 6:00 PM	0.4	1.6	1.3
5/2/2020 7:00 PM	0.4	1.6	1.3
5/2/2020 8:00 PM	0.5	1.6	1.2
5/2/2020 9:00 PM	0.4	1.6	1.2
5/2/2020 10:00 PM	0.4	1.6	1.2
5/2/2020 11:00 PM	0.4	1.5	1.1
5/3/2020 12:00 AM	0.4	1.5	1.1
5/3/2020 1:00 AM	0.4	1.6	1.1
5/3/2020 2:00 AM	0.4	1.5	1.1
5/3/2020 3:00 AM	0.5	1.6	1.2
5/3/2020 4:00 AM	0.7	1.6	1.4
5/3/2020 5:00 AM	0.9	1.8	1.5
5/3/2020 6:00 AM	0.8	1.8	1.5
5/3/2020 7:00 AM	0.6	1.6	1.3
5/3/2020 8:00 AM	0.4	1.5	1.1
5/3/2020 9:00 AM	0.5	1.5	1.1
5/3/2020 10:00 AM	0.5	1.5	1.2
5/3/2020 11:00 AM	0.4	1.4	1
5/3/2020 12:00 PM	0.3	1.4	1
5/3/2020 1:00 PM	0.4	1.4	1
5/3/2020 2:00 PM	0.3	1.4	1
5/3/2020 3:00 PM	0.3	1.4	0.9
5/3/2020 4:00 PM	0.3	1.4	0.9
5/3/2020 5:00 PM	0.3	1.4	1
5/3/2020 6:00 PM	0.3	1.4	0.9
5/3/2020 7:00 PM	0.3	1.3	0.9
5/3/2020 8:00 PM	0.2	1.3	0.9
5/3/2020 9:00 PM	0.2	1.3	0.8
5/3/2020 10:00 PM	0.2	1.4	0.9
5/3/2020 11:00 PM	0.2	1.4	0.8
5/4/2020 12:00 AM	0.2	1.3	0.8
5/4/2020 1:00 AM	0.2	1.3	0.7
5/4/2020 2:00 AM	0.1	1.3	0.9

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
5/4/2020 3:00 AM	0.1	1.4	1
5/4/2020 4:00 AM	0.4	1.4	1.1
5/4/2020 5:00 AM	0.1	1.4	1
5/4/2020 6:00 AM	0.3	1.5	1.5
5/4/2020 7:00 AM	0.6	1.6	1.4
5/4/2020 8:00 AM	0.5	1.6	1.4
5/4/2020 9:00 AM	0.4	1.5	1.4
5/4/2020 10:00 AM	0.4	1.5	1.4
5/4/2020 11:00 AM	0.3	1.5	1.2
5/4/2020 12:00 PM	0.3	1.4	1.1
5/4/2020 1:00 PM	0.3	1.5	1.2
5/4/2020 2:00 PM	0.3	1.5	1.1
5/4/2020 3:00 PM	0.4	1.5	1.2
5/4/2020 4:00 PM	0.4	1.5	1.1
5/4/2020 5:00 PM	0.4	1.5	1.1
5/4/2020 6:00 PM	0.4	1.5	1.1
5/4/2020 7:00 PM	0.3	1.5	1
5/4/2020 8:00 PM	0.3	1.4	1
5/4/2020 9:00 PM	0.3	1.4	0.9
5/4/2020 10:00 PM	0.2	1.4	1
5/4/2020 11:00 PM	0.2	1.4	1.1
5/5/2020 12:00 AM	0.2	1.4	1
5/5/2020 1:00 AM	0.2	1.4	1
5/5/2020 2:00 AM	0.2	1.3	1
5/5/2020 3:00 AM	0.1	1.4	1
5/5/2020 4:00 AM	0.2	1.4	1
5/5/2020 5:00 AM	0.3	1.5	1
5/5/2020 6:00 AM	0.6	1.6	1.2
5/5/2020 7:00 AM	0.6	1.5	1.3
5/5/2020 8:00 AM	0.4	1.5	1.3
5/5/2020 9:00 AM	0.6	1.6	1.4
5/5/2020 10:00 AM	0.6	1.6	1.4
5/5/2020 11:00 AM	0.6	1.7	1.5
5/5/2020 12:00 PM	0.7	1.6	1.4
5/5/2020 1:00 PM	0.4	1.5	1.3
5/5/2020 2:00 PM	0.3	1.5	1.2
5/5/2020 3:00 PM	0.2	1.4	1.1
5/5/2020 4:00 PM	0.2	1.4	1.1
5/5/2020 5:00 PM	0.2	1.4	1.2
5/5/2020 6:00 PM	0.1	1.4	1
5/5/2020 7:00 PM	0.1	1.4	1
5/5/2020 8:00 PM	0.1	1.4	1.1
5/5/2020 9:00 PM	0.1	1.4	1
5/5/2020 10:00 PM	0.1	1.3	0.9
5/5/2020 11:00 PM	0.1	1.3	1
5/6/2020 12:00 AM	0.1	1.4	0.9
5/6/2020 1:00 AM	0.1	1.3	0.9
5/6/2020 2:00 AM	0.1	1.3	1
5/6/2020 3:00 AM	0.1	1.3	1
5/6/2020 4:00 AM	0.1	1.3	0.9
5/6/2020 5:00 AM	0.2	1.4	1.1
5/6/2020 6:00 AM	0.1	1.3	0.9
5/6/2020 7:00 AM	0.1	1.3	1
5/6/2020 8:00 AM	0.2	1.3	1
5/6/2020 9:00 AM	0.2	1.4	1
5/6/2020 10:00 AM	0.2	1.4	0.9
5/6/2020 11:00 AM	0.2	1.4	1
5/6/2020 12:00 PM	0.2	1.5	1
5/6/2020 1:00 PM	0.1	1.4	0.9
5/6/2020 2:00 PM	0.2	1.3	0.9
5/6/2020 3:00 PM	0.1	1.3	0.9
5/6/2020 4:00 PM	0.2	1.4	0.9
5/6/2020 5:00 PM	0.1	1.4	1
5/6/2020 6:00 PM	0.1	1.3	0.9
5/6/2020 7:00 PM	0.1	1.4	0.9
5/6/2020 8:00 PM	0.1	1.4	1

Date & Time	Moran 1-hr	Horse Rock 1-hr	Bean 1-hr
5/6/2020 9:00 PM	0.1	1.4	1
5/6/2020 10:00 PM	0.1	1.4	0.9
5/6/2020 11:00 PM	0.1	1.4	1
5/7/2020 12:00 AM	0.2	1.4	1.1
5/7/2020 1:00 AM	0.2	1.4	1.2
5/7/2020 2:00 AM	0.1	1.4	1.1
5/7/2020 3:00 AM	0.2	1.4	1.2
5/7/2020 4:00 AM	0.2	1.4	1.1
5/7/2020 5:00 AM	0.3	1.4	1.5
5/7/2020 6:00 AM	0.4	1.5	1.9
5/7/2020 7:00 AM	0.9	2	1.9
5/7/2020 8:00 AM	1.3	2.2	1.6
5/7/2020 9:00 AM	0.5	1.7	1.6
5/7/2020 10:00 AM	0.5	1.6	1.5
5/7/2020 11:00 AM	0.4	1.6	1.3
5/7/2020 12:00 PM	0.4	1.5	1.3
5/7/2020 1:00 PM	0.5	1.6	1.4
5/7/2020 2:00 PM	0.6	1.6	1.3
5/7/2020 3:00 PM	0.6	1.6	1.3
5/7/2020 4:00 PM	0.5	1.6	1.2
5/7/2020 5:00 PM	0.5	1.6	1.3
5/7/2020 6:00 PM	0.6	1.7	1.4
5/7/2020 7:00 PM	0.6	1.7	1.4
5/7/2020 8:00 PM	0.6	1.8	1.5
5/7/2020 9:00 PM	0.7	1.8	1.6
5/7/2020 10:00 PM	0.8	1.8	1.6
5/7/2020 11:00 PM	0.5	1.6	1.2
5/8/2020 12:00 AM	0.4	1.6	1.4
5/8/2020 1:00 AM	0.6	1.6	1.5
5/8/2020 2:00 AM	0.6	1.6	1.4
5/8/2020 3:00 AM	0.5	1.6	1.5
5/8/2020 4:00 AM	0.4	1.6	1.4
5/8/2020 5:00 AM	0.4	1.6	1.4
5/8/2020 6:00 AM	0.2	1.5	1.4
5/8/2020 7:00 AM	0.4	1.6	1.4
5/8/2020 8:00 AM	0.3	1.5	1.1
5/8/2020 9:00 AM	0.3	1.5	1.1
5/8/2020 10:00 AM	0.3	1.4	1
5/8/2020 11:00 AM	0.3	1.4	1
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5/8/2020 1:00 PM	NoData	NoData	NoData
5/8/2020 2:00 PM	NoData	NoData	NoData
5/8/2020 3:00 PM	NoData	NoData	NoData
5/8/2020 4:00 PM	NoData	NoData	NoData
5/8/2020 5:00 PM	NoData	NoData	NoData
5/8/2020 6:00 PM	NoData	NoData	NoData
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5/8/2020 10:00 PM	NoData	NoData	NoData
5/8/2020 11:00 PM	NoData	NoData	NoData
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MinDate	11/12/2019 5:00 PM	6/3/2019 3:00 AM	12/29/2019 12:00 PM
Maximum	4.3	6.3	5.8
MaxDate	11/19/2019 10:00 AM	11/19/2019 10:00 AM	11/19/2019 1:00 PM
Avg	0.3	1.1	1.4
Num	8085	8090	7261
Data[%]	98.2	98.2	88.2
STD	0.3	0.5	0.7

Attachment 3
VERSO_Luke Stationary SO_2 QAPP

AECOM

Submitted to:
Verso Corporation
Luke, Maryland

Submitted by:
AECOM
Chelmsford, MA
60445858.0500
January 2017

Verso Luke Mill Stationary Ambient Air Quality Measurements Program

Quality Assurance Project Plan

AECOM Environment
January 2017
Document No.: 60445858.0500

A Project Management Elements

A.1 Approvals

1/9/17

Steve Jelinek — Date
AECOM
Technical Lead

1/9/17

Frank Tringale — Date
AECOM
Senior Project Manager

1/9/17

Leo Gendron — Date
AECOM
Quality Assurance Manager1

1-11-17

Mr. Ron Paugh — Date
Verso
Environmental Manager
Verso Luke Operations

A Project Management Elements

A.1 Approvals, continued

1/10/17

George (Tad) Aburn
Maryland Department of the Environment
PQAO Representative

Date

1-10-17

Jennifer Hains
Maryland Department of the Environment
Quality Assurance Officer

Date

1-10-17

Kia Hence
EPA Region 3
Quality Assurance Officer

Date

1/10/17

Elizabeth Gaige
EPA Region 3
SO_2 Contact

Date

January 10, 2017

Alice Chow
EPA Region 3
Air Protection Division

Date

A.2 Table of Contents

List of Appendices

List of Tables

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List of Acronyms

AQ – Air Quality

CFR – Code of Federal Regulations

DAS – Data Acquisition System

MDE – Maryland Department of the Environment

MQO – Measurement Quality Objectives

NAAQS – National Ambient Air Quality Standard

NIOSH - National Institute for Occupational Safety and Health

NIST – National Institute of Standards and Technology

PPB – Parts per Billion

PPM – Parts per Million

PQAO – Primary Quality Assurance Organization

QA/QC – Quality Assurance / Quality Control

QAPP – Quality Assurance Project Plan

SLAMS – State and Local Air Monitoring Stations

SOP – Standard Operating Procedure

USEPA – United States Environmental Protection Agency

A.3 Distribution List

The following individuals will be provided with a copy of this Quality Assurance Project Plan (QAPP).

Name/Title	Organization	Email Address	Address	Phone Number
Mr. Ron Paugh Environmental Manager Verso Luke Operations	Verso	Ronald.Paugh@versoco.com	Verso Corporation 300 Pratt Street Luke, MD 21540	(301) 359-3262 w (301) 268-1553 m
Mr. Paul Alkire Onsite Field Technician	STI CEMS Services (under contract to Verso)	Paul.Alkire@sticems.com	4564 Rebecca's Rd Waldron, AR 72958 (Headquarters)	(479) 637-2222 w
Mr. Steve Jelinek Technical Lead	AECOM	Steve.Jelinek@aecom.com	250 Apollo Drive Chelmsford, MA 01824	(978) 905-2256 w
Mr. Frank Tringale Senior Project Manager	AECOM	Frank.Tringale@aecom.com	250 Apollo Drive Chelmsford, MA 01824	(978) 905-2434 w
David Krask Air Monitoring Program Manager	MDE	David.Krask@maryland.gov	1800 Washington Blvd. Baltimore, MD 21230	(410) 537-3756 w
Ms. Colleen Williams Ambient Air Monitoring Program	MDE	Colleen.Williams@maryland.gov	1800 Washington Blvd. Baltimore, MD 21230	(410) 537-4412 w
Jennifer Haines Quality Assurance Officer	MDE	Jennifer.Haines@maryland.gov	1800 Washington Blvd. Baltimore, MD 21230	(410) 537-4027 w
Kia Hence Quality Assurance Officer	USEPA Region 3	Hence.Kia@epa.gov	1650 Arch St. (3AP40) Philadelphia, PA 19103	(215) 814-2111 w
Elizabeth Gaige SO_2 Contact	USEPA Region 3	Gaige.Elizabeth@epa.gov	1650 Arch St. (3AP40) Philadelphia, PA 19103	(215) 814-5676 w
Alice Chow Associate Director for the Office of Air Monitoring and Analysis	USEPA Region 3	Chow.Alice@epa.gov	1650 Arch St. (3AP40) Philadelphia, PA 19103	(215) 814-2144 w

A.4 Project/Task Organization

Verso personnel will be responsible for overall project management, including routine sulfur dioxide (SO_2) analyzer operations, calibrations, and routine maintenance. AECOM will be responsible for the following tasks: equipment procurement, installation, and startup; training the field technician on equipment operations and routine maintenance; and data management and validation. The Maryland Department of the Environment (MDE) will serve as the Primary Quality Assurance Organization (PQAO) for this project. The MDE will report the monitoring data to the United States Environmental Protection Agency (USEPA) Air Quality System (AQS) on a quarterly basis.

A.4.1 Definitions and Statements of Responsibility

Primary Quality Assurance Organization – Maryland Department of the Environment (MDE) will be the PQAO for these monitoring sites. 40 CFR Part 58 Appendix A Section 1.2 states that the PQAO is "responsible for a set of stations that monitors the same pollutant and for which data quality assessments will be pooled. Each criteria pollutant sampler/monitor must be associated with only one PQAO." Each of the sites will be installed and operated to meet the monitoring requirements of the SO_2 DRR and will be included in the Maryland SO_2 QAPP and Air Monitoring Network Plan. MDE will provide oversight in the form of Annual Performance Evaluations and will work with the EPA to perform the necessary Technical Systems Audits (TSAs) and ensure that each site is included in the EPA Through-the-Probe (TTP) National Performance Audit Program (NPAP). MDE will also include the data generated from these sites in the data certification submitted to EPA on an annual basis.

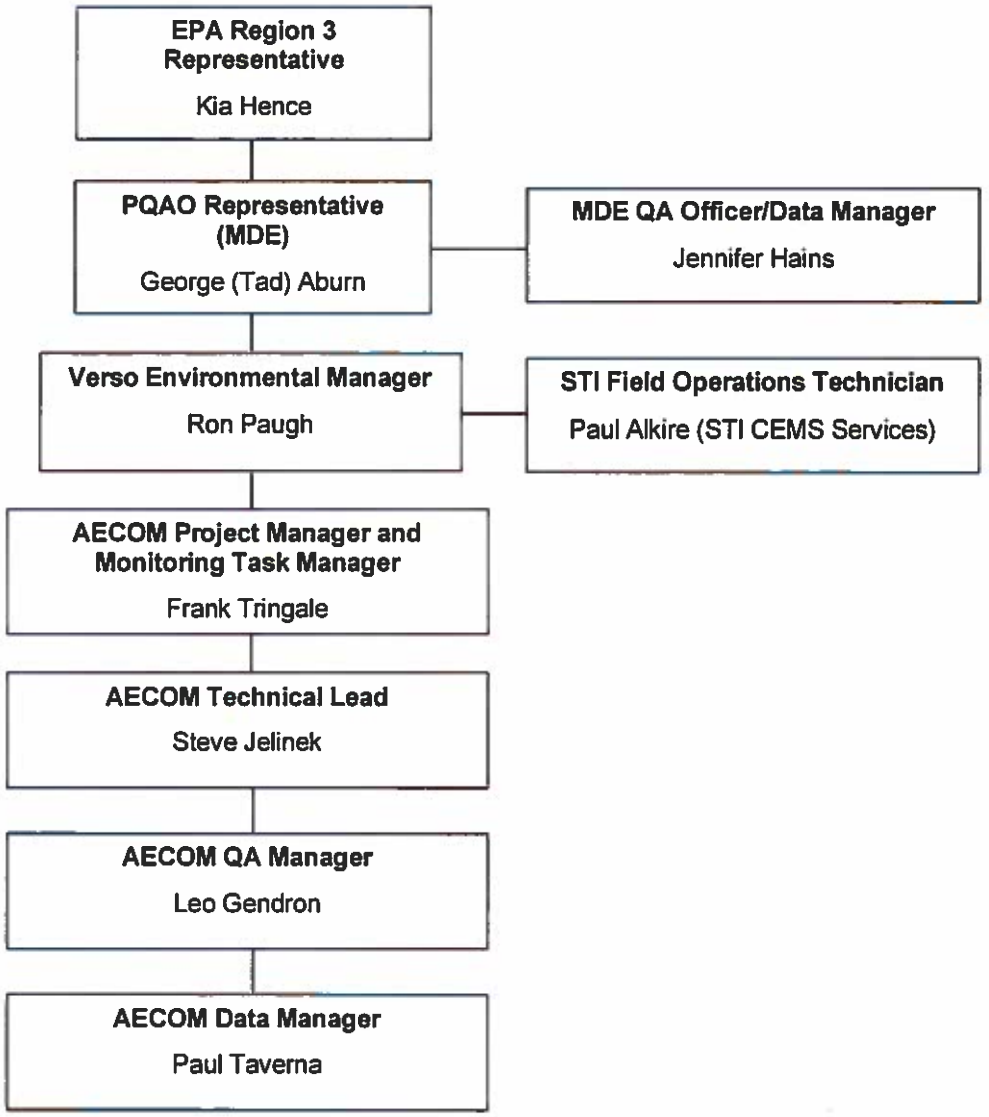
Monitoring Organization – Verso Luke Mill will be the monitoring organization and will be responsible for operating the monitoring sites. Verso Luke Mill will collect, review, report, validate, and certify their data and submit to MDE for verification that the data were properly certified. Verso Luke Mill will be required to report the raw data in pipe-delimited text format to the PQAO (MDE) on a quarterly basis for review and approval. The data will be due to MDE no later than 45 days following the end of any given quarter. Verso Luke Mill will also be required to perform, record, store, and report to MDE all quality assurance activities performed. The QA activities outlined in this QAPP document will be incorporated into the MDE SO_2 QAPP. Verso Luke Mill will be expected to operate the monitoring sites and perform all maintenance, routine QA procedures, and calibrations throughout the program. As a Monitoring Organization reporting to the PQAO, Verso is expected to be the certifying organization and the reporting organization for the data generated at their respective sites. Annual data certification will be accepted in the form of a letter from Verso Luke Mill to MDE, and signed by the Senior Air Monitoring official, stating that the data were reviewed and certified as correct to the best of the knowledge of the Monitoring Organization (Verso), taking into consideration the quality assurance findings.

Duties and responsibilities of certain individuals associated with the project are presented in Section D and Table 1 below. An organizational chart is presented in Figure 1.

Table 1: Key Individuals and Responsibilities

Key Role	Individual(s) Fulfilling Role	Responsibilities
Project Manager and Technical Manager for the monitoring task (AECOM)	Mr. Frank Tringale	Responsible for overseeing and coordinating all aspects of the measurement project.
Monitoring Data Manager (AECOM)	Mr. Paul Taverna	Responsible for reviewing the data analyst's work products and preparing data reports.
Field Operations Manager /Technician (STI CEMS Services)	Mr. Paul Alkire	Responsible for coordinating calibrations, maintenance, and operation of the monitoring systems.
Quality Assurance Manager (AECOM)	Mr. Leo Gendron	Responsible for ensuring that established QA/QC procedures are followed, and will review results of QA/QC activities.
Technical Lead (AECOM)	Mr. Steve Jelinek	Overall review of monitoring and dispersion modeling activities.
Environmental Manager, Verso Operations	Mr. Ron Paugh	Oversight of Verso Luke environmental issues and coordination with AECOM staff.
Air Compliance Engineer, Verso Operations	Mr. Ron Paugh	Responsible for Verso Luke Operations air compliance program and coordination with AECOM staff.
PQAO Representative (MDE)	George (Tad) Aburn	Ultimately responsible for the SO_2 monitoring stations for which data quality assessments will be pooled.
MDE Data Manager/QA Officer	Jennifer Hains	Responsible for final data validation activities, including the review of SO_2 and associated quality assurance data and submission of quarterly reports to AQS.

Figure 1: Organizational Chart



A.5 Problem Definition/Background

Verso's Luke Paper Mill is located in the town of Luke Maryland, along the Potomac River. The facility specializes in the creation of printing paper, specialty paper and pulp, and has sources of SO_2 emissions. The United States Environmental Protection Agency (USEPA) final Data Requirements Rule (DRR) for the 2010 1-hour SO_2 primary NAAQS[1] defines primary sources as those sources which have over 2,000 TPY of SO_2 emissions based on the most recent year of emissions data. The Luke Mill was identified by MDE as having actual SO_2 emissions in excess of 2,000 TPY for the most recent calendar year. As a result, ambient air quality monitoring will be conducted in order to characterize SO_2 concentrations in the vicinity of the Luke Mill and identify maximum 1-hour concentrations in ambient air.

A.6 Project/Task Description

The purpose of this project is to conduct a three-year (2017 – 2019) campaign of ambient air quality measurements at locations in the vicinity of the Verso Luke Paper Mill using three stationary SO_2 monitors. The three fixed stations will be maintained in climate controlled enclosures with sufficient electric line power connected to the enclosure. The monitoring stations will operate 24 hours per day, 7 days per week for a period of 3 years. At the end of the 3-year monitoring period, one or all of the monitors may be shut down, according to the United States Environmental Protection Agency's (USEPA) SO_2 Data Requirements Rule, if the monitor's 3-year average 99th percentile peak daily 1-hour maximum concentration is less than 50% of the National Ambient Air Quality Standard (NAAQS), or less than 37.5 ppb. A decision as to whether the operation of the monitoring network needs to be continued will be made in consultation with the MDE at the end of the 3-year monitoring period.

EPA's monitoring Technical Assistance Document (2016) was used to guide the siting of the monitors. Appendix A of that document prescribes an approach whereby dispersion modeling is used to determine the relative magnitude of concentrations as well as the frequency of high concentrations.

Appendix B of this QAPP summarizes the results of a preliminary computer dispersion modeling analysis that was used to identify general site locations for the proposed monitors. The dispersion modeling methodology generally follows the procedures outlined in the EPA Modeling TAD[2] and as defined in Appendix B. AERMET and AERMOD were both run with default model options using the historical multi-tower meteorological data collected at the Mill in the 1980s. Figures B-3 and B-4 of Appendix B provide maps of receptors locations ranked by relative concentration magnitude. Figure B-5 of Appendix B provides a map of receptor locations ranked by relative high concentration frequency. The information in these figures, along with a review of logistical feasibility for siting monitors, was used to provide the recommendations for the monitoring location, as described in the conclusions in Appendix B.

This monitoring program will be conducted by Verso to characterize SO_2 concentrations at three locations in the vicinity of the plant selected on the basis of information discussed above. Figure 2 below shows the proposed locations of the monitoring stations based on the preliminary modeling performed as described in Appendix B. Figures 3 through 5 show pictures of the individual site locations for each cardinal wind direction.

The procedures outlined in this document have been designed to support the USEPA's Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard (NAAQS)[1] with the ultimate goal of characterizing the 1-hour concentrations of SO_2 in the vicinity of the Verso facility. The data will be collected using procedures described in this document that meet ambient sampling and operational guidelines of 40 CFR Part 58 Appendix A, D, and E, and the USEPA's *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Quality Program (EPA-454/B-13-003, May 2013)* to ensure that the data will be of sufficient quality to support the program's objectives.

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[1] 80 FR 51052, August 21, 2015
[2] https://www3.epa.gov/airquality/sulfurdioxide/pdfs/SO2ModelingTAD.pdf

The SO_2 monitors will be sited and operated either as State and Local Air Monitoring Stations (SLAMS) or in a manner equivalent to SLAMS. The quality of the data will be assured on a regular basis using calibrated equipment and certified calibration gas standards to verify the instruments' performance. The project will include the use of a data logger at each site to record 1-min, 5-min and 60-min averages of SO_2 concentrations. The 1-minute averages will be used for AECOMs internal validation, while the 5-minute and 60-minute averages will be used for reporting purposes. The 1-minute data will not be submitted to the MDE, but will be available upon request. In addition to the items mentioned, field documentation will be kept on a regular basis and will provide associated information such as instrument conditions, calibrations, and response values. The values recorded on the station logs will serve to support the quality of the program data.

Figure 2: Location of the Candidate SO_2 Monitoring Sites

Figure 3: Horse Rock Site – Cardinal Directions (Area 1)

Facing North

Facing South

Facing East

Facing West

Figure 4: Moran Property Site – Cardinal Directions (Area 5)

Facing North

Facing South

Facing East

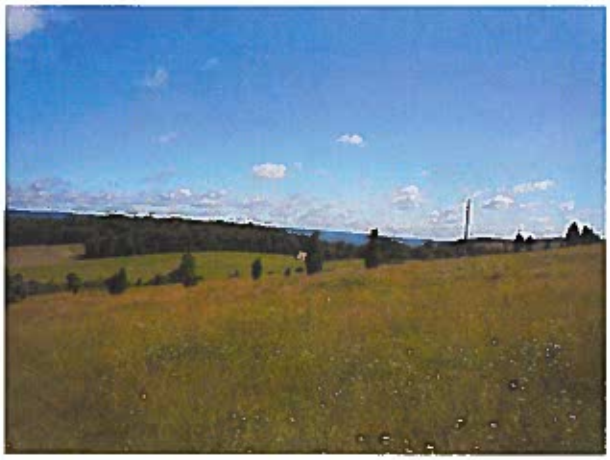
Facing West

Figure 5: Bean Property Site – Cardinal Directions (Area 2)

Facing North

Facing South

Facing East



Facing West

A.6.1 Ambient SO_2 Monitoring Activities

The SO_2 measurement systems will be maintained by Verso. AECOM will assist Verso in the installation and startup of the monitoring systems, including system power-up, initial calibration, system operation review, and verification of system outputs.

The activities during the preparation of the network before the measurement period begins include:

- Conduct the candidate site selection process. AECOM has conducted a dispersion modeling study to determine candidate locations for the three measurement sites. Once the sites have been selected and installed, pictures of each of the sites will be provided, including pictures from each location facing the four cardinal directions.
- Prepare the field equipment. The equipment includes SO_2 analyzers, in-station calibration systems, sample intake systems, and data loggers. Each of the three sites will use an enclosed climate-controlled shelter to house the instrumentation.
- Conduct the equipment installation and start-up procedures. These procedures include a full multipoint calibration of each analyzer and verification of the data logger. The location of the sample intake will be carefully considered. The objective will be to place the inlet within the breathing zone (2 to 15-meters above ground) in a location that is free from interference or obstacles. Once the three sites are in place, Verso will document the final locations and provide pictures of the sites including views of the four cardinal compass directions.

After the installation of the sites is completed, the routine activities during the monitoring period will be conducted by a Verso field technician. The technician will conduct routine site visits approximately once per week during the measurement program to verify system operations. Weekly calibration checks of the instruments' response to known concentrations of SO_2 will be performed at each site. The instrument response will be checked on a daily basis by using an in-station gas-dilution system that includes a zero-air source and compressed gas cylinder of SO_2 in nitrogen balance gas. The daily checks will be automatically initiated by the in-station calibration system and will include a zero point and an upscale point. The calibration-gas cylinder will be a Protocol Gas, according to EPA guidelines and have a known concentration of SO_2 that is within ±1% of the actual value.

The routine instrument checks will include:

- The initial (startup) multipoint calibration check. This initial check will be conducted after the analyzer is fully warmed up. During the multipoint calibration, the full operational range of the analyzer will be tested and the instrument response will be compared to the known values as generated by the in-station calibration system.
- Weekly instrument point checks. This point-check process will be performed every week and involves challenging the analyzer with a QC check gas of known concentration of SO_2. This one-point QC check will be between 5 and 80ppb.
- Daily instrument verification checks. This automated point-check process challenges the analyzer with two SO_2 concentrations over the analyzer full range using the in-station calibration system. The two concentrations are: 1.) a zero value (zero SO_2); and 2.) a high concentration of 80 – 90% of analyzer full scale (approximately 850 ppb of SO_2).
- Annual Performance Evaluation. This Performance Evaluation is made by challenging the analyzers with audit gas standard of known concentration at a minimum of three audit levels in addition to a zero point (Section C). The performance evaluation must be performed for each site at least once per year, and will be conducted by an experienced MDE technician who is not involved with routine operations. A separate audit gas dilution system with a separate SO_2 compressed gas cylinder will be used for this audit challenge. In addition to the annual PEs, AECOM will conduct quarterly system challenges

that will be similar in scope to the PE. Four separate audits per year will be conducted on a quarterly basis by an experienced AECOM technician using a calibration system that is separate from the network calibrator in order to verify analyzer performance at each site.

- Multipoint Verifications/Calibrations. The full operational range of the analyzer will be tested and the instrument response will be compared to the known values as generated by the in-station calibration system. Multipoint calibrations consist of a zero and 4 upscale points, the highest being a concentration above the NAAQS and higher than any routine values one might expect at the site. At a minimum, the multipoint verifications/calibrations will be conducted by a trained AECOM technician at installation and start-up, once per year thereafter, and when instruments are moved/repaired/adjusted etc.

- Takedown multipoint calibration. A full multipoint calibration check will be conducted to verify the analyzer operations at the end of the three-year program period.

Other activities that will be conducted during the monitoring period are described in this document and include:

- Validation and archiving of the SO_2 monitoring data.
- Production of quarterly data reports for submittal to the AQS.

Equipment and related certifications required for this Monitoring Program are described in Section B.2.

A.7 Quality Objectives and Criteria for Measurement of Data

The data quality objectives (DQOs) of this program are to provide quality SO_2 data as 1-hour averages for comparison to the NAAQS in order to satisfy the regulating authorities' requirements as specified in the DRR. In addition, 5-minute averages will also be provided to the MDE. This data will be used to report the maximum 5-minute SO_2 block average of the twelve 5-minute block averages in each hour. The specific data validation criteria used to ensure the quality and quantity of the SO_2 data are presented in Table 2 below.

Measurement Quality Objectives (MQOs) are designed to evaluate and control various phases of the measurement process to ensure that total measurement uncertainty is within the prescribed range of the DQOs.

The program MQOs are defined in terms of the following data quality indicators (*Quality Assurance Handbook for Air Pollution Measurement Systems Volume II Ambient Air Quality Monitoring Program, May 2013*):

Precision: A measure of the agreement among repeated measurements of the same property under identical, or substantially similar, conditions. This is the random component of error. Precision is estimated by various statistical techniques typically using some derivation of the standard deviation. For this program, precision will be calculated for each of the weekly 1-point QC checks.

Bias: The systematic or persistent distortion of a measurement process which causes error in one direction. Bias will be determined by estimating the positive and negative deviation from the true value as a percentage of the true value. Bias will be calculated for each daily instrument verification check, 1-point QC check, multi-point calibration, and Performance Evaluation.

Detection Limit: The lowest concentration of SO_2 that can be determined to be different from zero by a single measurement at a stated level of probability.

Representativeness: The degree in which data accurately and precisely represent a characteristic of a population, parameter variation at a sampling point, a process condition, or an environmental condition.

Comparability: A measure of confidence with which one data set can be compared to another.

Completeness: A measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under correct, normal conditions. For the purpose of comparing the SO_2 data to the primary 1-hour NAAQS, the following data capture requirements will be met in order to have a complete, valid data set: every hour of data must include at least 75 percent of the 1-minute concentration values to be considered valid; a sampling day must have at least 75 percent of hourly concentration values to be considered valid; a quarter must have at least 75 percent of sampling days to be considered valid; and a year must have 4 complete quarters of data.

Representativeness is determined qualitatively by siting and exposure conditions of the air quality analyzers.

Comparability and detection limit objectives are met by using EPA approved methods and reference or equivalent method instrumentation, as applicable for particular measurement parameters, and following EPA monitoring guidance as described in this QAPP.

Table 2: SO_2 Data Validation Template

1) Requirement (SO_2)	2) Frequency	3) Acceptance Criteria	Information /Action
CRITICAL CRITERIA- SO_2			
One Point QC Check Single analyzer	***1/2 weeks***	≤ ±10% (percent difference)	1 and 2) 40 CFR Part 58 App A Sec 3.2 3) Recommendation based on DQO in 40 CFR Part 58 App A Sec 2.3.1.2 QC Check Conc range 0.005 - 0.080ppm Relative to routine concentrations
Zero/span check	1/2 weeks	Zero drift ≤ ± 1.5 ppb Span drift ≤ ± 10 %	1 and 2) QA Handbook Volume 2 Section 12.3 3) Recommendation and related to DQO
OPERATIONAL CRITERIA- SO_2			
Shelter Temperature Range	**Daily** (hourly values)	20 to 30° C. (Hourly avg) or per manufacturers specifications if designated to a wider temperature range	1, 2 and 3) QA Handbook Volume 2 Section 7.2.2 Generally the 20-30 ° C range will apply but the most restrictive operable range of the instruments in the shelter may also be used as guidance. FRM/FEM list found on AMTIC provides temp. range for given instrument.FRM/FEM monitor testing is required at 20-30 ° C range per 40 CFR Part 53.32
Shelter Temperature Control	Daily (hourly values)	≤ ± 2° C SD over 24 hours	1, 2 and 3) QA Handbook Volume 2 Section 7.2.2
Shelter Temperature Device Check	1/6 mo	± 2° C of standard	1, 2 and 3) QA Handbook Volume 2 Section 7.2.2
Annual Performance Evaluation Single Analyzer	***Every site 1/year 25 % of sites quarterly***	Percent difference of audit levels 3-10 ≤ ±15% Audit levels 1&2 ± 1.5 ppb difference or ±15%	1 and 2) 40 CFR Part 58 App A sec 3.2.2 3) Recommendation - 3-audit concentrations not including zero. AMTIC guidance 2/17/2011 http://www.epa.gov/ttn/amtic/cpreldoc.html
Federal Audits (NPAP)	1/year at selected sites 20% of sites audited	Audit levels 1&2 ± 1.5 ppb difference all other levels percent difference ± 15%	1) 40 CFR Part 58 App A sec 2.4 2) NPAP adequacy requirements on AMTIC 3) NPAP QAPP/SOP
Verification/Calibration	Upon receipt/adjustment/repair/ installation/moving 1/6 months if manual zero/span performed biweekly 1/year if continuous zero/span performed daily	All points within ± 2 % of calibration range of best-fit straight line	1) 40 CFR Part 50 App A-1 Section 4 2 and 3) Recommendation Multi-point calibration (0 and 4 upscale points)
Gaseous Standards	***All gas cylinders***	***NIST Traceable (e.g., EPA Protocol Gas)***	1) 40 CFR Part 50 App A-1 Section 4.1.6.1 2) NA Green book 3) 40 CFR Part 50 App F Section 1.3.1 Producers must participate in Ambient Air Protocol Gas Verification Program 40 CFR Part 58 App A sec 2.6.1
Zero Air/ Zero Air Check	1/year	Concentrations below LDL < 0.1 ppm aromatic hydrocarbons	1) 40 CFR Part 50 App A-1 Section 4.1.6.2 2) Recommendation

Table 2: SO_2 Data Validation Template

1) Requirement (SO_2)	2) Frequency	3) Acceptance Criteria	Information /Action
			3) Recommendation and 40 CFR Part 50 App A-1 Section 4.1.6.2
Gas Dilution Systems	1/year or after failure of 1 point QC check or performance evaluation	*Accuracy ± 2 %*	1) 40 CFR Part 50 App A-1sec 4.1.2 2) Recommendation 3) 40 CFR Part 50 App A-1 sec 4.1.2
Detection (FEM/FRMs)			
Noise	NA	*0.001 ppm (standard range)* *0.0005 ppm (lower range)*	1) 40 CFR Part 53.23 (b) (definition & procedure) 2) NA 3)) 40 CFR Part 53.20 Table B-1
Lower detectable level	1/year	*0.002 ppm (standard range)* *0.001 ppm (lower range)*	1) 40 CFR Part 53.23 (c) (definition & procedure) 2) Recommendation 3) 40 CFR Part 53.20 Table B-1
SYSTEMATIC CRITERIA- SO_2			
Sampler/Monitor	NA	*Meets requirements listed in FRM/FEM designation*	1) 40 CFR Part 58 App C Section 2.1 2) NA 3) 40 CFR Part 53 & FRM/FEM method list
Standard Reporting Units	*All data*	*ppb (final units in AQS)*	1, 2 and 3) 40 CFR Part 50 App T Sec 2 (c)
Rounding convention for data reported to AQS	*All data*	*1 place after decimal with digits to right truncated*	1, 2 and 3) 40 CFR Part 50 App T Sec 2 (c)
Completeness	*1 hour standard*	*Hour – 75% of hour* *Day- 75% hourly Conc* *Quarter- 75% complete days* *Years- 4 complete quarters* *5-min value reported only for valid hours*	1, 2 and 3) 40 CFR Part 50 App T Section 3 (b), (c) More details in CFR on acceptable completeness. 5-min values or 5-min max value only reported for the valid portion of the hour reported. If the hour is incomplete no 5-min or 5-min max reported.
Sample Residence Time Verification	1/year	*< 20 seconds*	1) 40 CFR Part 58 App E, section 9 (c) 2) Recommendation 3) 40 CFR Part 58 App E, section 9 (c)
Sample Probe, Inlet, Sampling train	*All sites*	*Borosilicate glass (e.g., Pyrex®) or Teflon®*	1, 2 and 3) 40 CFR Part 58 App E sec 9 (a) FEP and PFA have been accepted as equivalent material to Teflon. Replacement or cleaning is suggested as 1/year and more frequent if pollutant load or contamination dictate
Siting	1/year	*Meets siting criteria or waiver documented*	1) 40 CFR Part 58 App E, sections 2-5 2) Recommendation 3) 40 CFR Part 58 App E, sections 2-5
Precision(using 1-point QC checks)	*Calculated annually and as appropriate for design value estimates*	*90% CL CV ≤ 10%*	1) 40 CFR Part 58 App A sec 2.3.1.6 & 3.2.1 2) 40 CFR Part 58 App A sec 4 (b) 3) 40 CFR Part 58 App A sec 4.1.2
Bias (using 1-point QC checks)	*Calculated annually and as appropriate for design value estimates*	*95% CL ≤ ± 10%*	1) 40 CFR Part 58 App A sec 2.3.1.6 & 3.2.1 2) 40 CFR Part 58 App A sec 4 (b) 3) 40 CFR Part 58 App A sec 4.1.3
Annual PE Primary QA Organization (PQAO) Evaluation	1/year	*95% of audit percent differences fall within the one point QC check 95% probability intervals at PQAO level of aggregation*	1) 40 CFR Part 58 App A Section 3.2.2 2) Recommendation 3) 40 CFR Part 58 App A sec 4.1.4 and 4.1.5

A.8 Training Requirements

The data analysts and field technician(s) that will participate in the Monitoring Program are familiar with data management and data quality assurance/quality control procedures as they apply to air quality monitoring programs.

The field technician that will participate in the Monitoring Program will receive training by a member of AECOM's air measurements group on SO_2 analyzer operational procedures. This training will focus primarily on routine instrument operations and inspection, maintenance, and quality assurance activities. The technician will therefore be responsible for performing the various operational and maintenance tasks, calibration of the equipment, and field QA/QC procedures.

The on-site field technician will be provided with the following support documentation in hard copy or electronic files:

- Copies of manufacturer's operation and service manuals for each piece of monitoring, calibration, and test equipment.
- Copies of applicable Standard Operating Procedures (SOPs) covering tasks to be performed in the operation and servicing of the monitoring system.
- Calibration forms, station logs, and checklists for recording site visits and maintenance activities.
- A copy of this Quality Assurance Project Plan prepared by AECOM.

A.9 Documentation and Records

The Verso field technician will compile logs of activities, including periodic calibration records, measurement dates/times and other operational observations and comments for each monitoring site. If there are any corrections made to the original field documentation, a single strikethrough line will be used and the editor will sign his or her initials along with the date the edit was made. Field notes and edits will be done using black or blue ink. Field documentation will be sent to AECOM's Chelmsford, MA office where it will be held and used for validation purposes. The documentation will later be sent to Verso Luke Mill for archival at the end of each program year where it will be stored for a minimum of three years following the end of the program. Table 3 provides the documentation that will be generated during this program and the corresponding storage locations and retention periods are listed below.

Table 3: Documentation Retention and Archival

Documentation	Media Type	Archival Location(s) and Storage Periods
Data Records (SO_2 monitoring data and QA data)	Electronic	Stored in the data logger at each site, at AECOM's central server in New Jersey, at Verso's local server (Luke Mill), and Verso's Corporate server in Wisconsin. Servers at AECOM and Verso Luke are backed up on a daily basis. Records to be stored for a minimum of three years following the end of the program.
Field Records (Field logs, checklists etc.)	Hard-copies with three carbon copies	Originals to be sent to AECOM each week, then to Verso at the end of each program year for storage. Carbon copies will be retained at each air monitoring shelter. Records to be stored for a minimum of three years following the end of the program.

Once the monitoring locations have been finalized they will be assigned AQS identification codes. Documentation of the monitor placements will be done via GPS or Smart Phone mapping, where the latitude and longitude coordinates will be recorded and used to gather satellite images of each location. Photos will

also be taken of each monitoring site after installation of the measurement station for further identification and will include, at a minimum, pictures from each site facing the four cardinal directions.

AECOM will report the monthly monitoring data to Verso within 30 days of the completion of that month. Verso will then submit the data reports and the valid measurement quality checks carried out during the monitoring period to the MDE in the form of pipe-delimited AIRS files. The MDE will review the data and validation activities carried out by AECOM and Verso and conduct final data validation before submitting the data to the AQS. Each report will be submitted directly to the AQS via electronic submission consistent with the data reporting requirements as set forth in 40 CFR Part 58.15 and 58.16.

B Measurement and Data Acquisition

B.1 Sampling Process Design

The monitoring program will consist of three stationary monitoring sites equipped with air quality analyzers and data loggers that will measure and digitally record continuous ambient concentrations of SO_2. The monitoring program, including the positioning of the monitoring systems during the 3-year program, has been designed to meet the objectives outlined in Section A.7. A spare analyzer will be prepared by AECOM and left in the network in the event of instrumentation failure to ensure the units will experience minimal down time. The Data Manager will review the data each business day and will notify the AECOM Project Manager in the event that there is a suspected problem. If it is determined that the analyzer must be replaced, then AECOM will direct the site technician to take appropriate action. The spare analyzer will be installed by the site technician within one business day after the need is identified.

The manufacturer's specifications for the monitoring instrumentation are contained in Appendix E.

B.2 Sampling Methods

B.2.1 Standard Operating Procedures (SOPs)

Written SOPs are provided in Appendix D. These SOPs present instrument operation, maintenance, and calibration procedures in sufficient detail to minimize the possibility of producing inconsistent results through misinterpretation or a change of personnel. A list of relevant SOPs that are included in Appendix D is provided in Table 4 below. In the case of a conflict between what is stated in the body of the QAPP and in an SOP, the QAPP takes precedence. Data validation procedures for specific parameters are shown in Section D.

Table 4: List of Standard Operating Procedures

Title
Operations and Maintenance Procedures
2000-115 – Air Quality Shelter Maintenance
2000-210 – Operation and Maintenance of the Thermo Electron Model 111 Zero Air Generator with External Air Compressor
Calibration Procedures
2000-102 – Ambient Monitoring Field Calibration Control Plan
CAL-023_TECO 43i&c SO2 Analyzer Calibration
CAL-027_TECO 146i&c Gas Dilution Unit Calibration

B.2.2 Instrumentation and Support Equipment

Monitoring program equipment has been chosen based on the specific requirements of the program. The air monitoring equipment and supporting equipment that will be used as part of this monitoring program in addition to supplier information is referenced in Table 5 through Table 9 below. Section B.4 provides detailed information about the measurement methods that will be used as well as calibration check frequency and measurement ranges.

As part of the ambient air quality monitoring systems, a Thermo Scientific® 43i SO_2 analyzer, Thermo Scientific® 146i dilution calibrator, and a Thermo Scientific® 111 Zero Air Supply with an external compressor unit will be used at each monitoring site. A separate compressed gas cylinder of sulfur dioxide at a precise, known concentration will be used as part of each system to calibrate and verify analyzer performance. An AECOM designed and built sample intake system will be used at each location to draw the sample air into the

shelter and to the back of the analyzer. The intake system will consist of Teflon® coated "inverted-can" weather head, a Teflon® sample tube leading to a borosilicate glass sample manifold, borosilicate glass knockout jar, solenoid valve, other Teflon® tubing to deliver the ambient sample to the analyzer, and an exhaust system to remove the analyzer exhaust from the monitoring station building. The sample exhaust will include Teflon® tubing, fittings, and a blower fan. The sample inlet will be placed in the breathing zone at a height that is within 2-15 meters above the ground.

Data storage for each monitoring site will be facilitated with Campbell Scientific data logging systems that will be configured to use a cellular modem that will allow the data to be available via an IP address to AECOM, Verso, and the MDE. The rugged terrain may present a challenge to obtain good cellular connectivity. The quality of the cellular connection will be preplanned and then evaluated at the beginning of the program.

The monitoring equipment at each site will be housed inside a Cassone® shelter (or equivalent) with reliable AC line power (60 to 100 amps, 120VAC @ 60 Hz). Each shelter building will be temperature controlled to maintain an interior temperature between 20 and 30 degrees centigrade. The shelter temperature will be measured at each site using a thermocouple directly connected to the data logger where the data will be stored as 60-min averages. The shelter temperature will be evaluated on a regular basis to confirm that the shelter conditions are within the acceptable range.

Each monitoring shelter will be placed in a secure location with fencing, as needed, to protect the site and equipment from damage or unauthorized access. Verso will provide internet service with a static IP address so that AECOM, Verso, and the MDE can remotely connect to each site and download the data on a daily basis or as needed.

Table 5: Equipment and Measurement Methods: Candidate SO_2 Analyzers

Parameter	Measurement Sample Inlet Level (meters above ground)	Manufacturer/ Model	Sample Frequency	Averaging Period	Measurement Range	Detection Limit	Measurement Method
Sulfur Dioxide	3-4	Thermo Scientific/ 43i	Continuous	1-hour	0 to 1000 ppb	<0.5 ppb	USEPA Equivalent Method EQSA-0486-060
		Thermo Scientific/43i or 43C (Spare analyzer)	Continuous	1-hour	0 to 1000 ppb	<0.5 ppb	USEPA Equivalent Method EQSA-0486-060

Table 6: Equipment List – Data Acquisition and Support Equipment

System	Manufacturer	Model	Function
Data Acquisition System			
Data logger	Campbell Scientific	CR-1000	Digital data acquisition system
Support			
Gas dilution system	Thermo Scientific	Model 146i	Calibration system for continuous gas analyzers
Zero air supply	Thermo Scientific	Model 111	Provides zero air for gas dilution system
Performance Evaluations/MDE Audits			
Gas dilution system	Teledyne	API T700U	Calibration system for continuous gas analyzers
Gas cylinder	Scott Specialty Gases	NA	Compressed SO_2 Gas Cylinder

Table 7: Equipment List – Air Monitoring Shelters

System	Manufacturer	Model	Function
Air Monitoring Shelter	Cassone Inc. (or equivalent)	OC-10	Shelter housing for air monitoring system
Sample Air Inlet System	AECOM	N/A	Sample intake manifold system with inert glass and Teflon® tubing/connectors, blower, and a weather-protected external Teflon® sampling inlet tube.

Table 8: Calibration Equipment

Equipment	Certification Frequency	Range
Certified digital multi-meter	Annually	N/A
Gas dilution/gas phase system with zero air supply	Quarterly	See Note 1
NIST-traceable gas flow meter BIOS, DeltaCal or equivalent	Annually	Various
NIST-traceable gas cylinder	Every four years	See Note 1
Note 1: Together, the flow rate of the gas dilution system with zero air supply and the gas cylinder concentration must be capable of generating concentrations of SO_2 between 0 and 1000 ppb.		

Table 9: Equipment Suppliers

Air Quality Monitoring Equipment - SO_2 Analyzers
Thermo Fisher Scientific 81 Wyman Street Waltham, MA 02451 (800) 678-5599 www.thermoscientific.com
Support Systems – Calibrator
Thermo Fisher Scientific 81 Wyman Street Waltham, MA 02451 (800) 678-5599 www.thermoscientific.com
Data Acquisition System – Data Logger
Campbell Scientific 815 W 1800 N Logan, UT 84321-1784 (435) 753-2342 www.campbellsci.com

B.3 Quality Control

Quality control (QC) is a system of technical activities designed to measure the attributes and performance of a system against defined standards in order to verify that they meet the stated requirements and also to fix any problems identified via the routine QC checks—it is both proactive and corrective. The goal of a QC system in this context is to minimize the loss of data through invalidation. The QC program is intertwined with the data management system and data validation, topics which are discussed separately in Sections B.6 and D, but it is acknowledged here that the QC system cannot operate separately from these systems.

This section will focus on the analytical QC checks which are used in the data validation criteria documented in Table 2. When QC checks indicate that a particular attribute of the system has drifted significantly towards the validation limits listed in these tables, the system will be reviewed to see if adjustment is warranted. For the QC checks related to instrument calibration, action limits are set at a value lower than the data validation limit to indicate when an instrument may require recalibration and/or some other form of maintenance. If an action limit is exceeded, the instrument will be evaluated and the performance returned to more optimal standards as soon as logistically possible. QC checks are performed according to the appropriate SOP, USEPA guidelines, and the instrument user's manual. The use of QC-related documentation in the data validation decision process is detailed in Section D.

B.3.1 Gas Phase Air Quality Measurements

An EPA-Protocol calibration gas cylinder, calibrated dilution system, and a zero air source will be used as reference standards for each SO_2 calibration system. The calibration system combines a gas phase dilution system, flow controllers, mixing chambers, power supplies, and control technology which allows for on-site Level I zero/span and precision checks as well as multi-point calibrations. The reference standard will consist of SO_2 gas blended with nitrogen, and will be certified as traceable to the National Institute of Standards and Technology (NIST).

For this monitoring program, instruments will be calibrated by AECOM at the start of the program, on an annual basis, and as needed (i.e. following repair/replacement of the instrument or any of its components). The in-station gas dilution systems shall be calibrated at program startup, then once per calendar year, and prior to takedown using NIST-traceable primary flow standards. A label shall be affixed to each gas dilution system listing the date of the most recent calibration, the due date for the next calibration, and the name of the person who performed the calibration. If any of the gas dilution systems are removed for repair or replacement of the calibration unit or any of its components, the systems will be calibrated prior to removal, provided that the unit is operational, as well as immediately following the re-installation of the unit.

B.3.2 Calibration Checks

Various tools will be employed in evaluating the validity of air quality measurements. Periodic testing of the instruments with zero/span and precision checks will provide evidence that an instrument is operating within specifications. If a calibration check is outside of the acceptable concentration range, the site operator will notify the AECOM Project Manager as soon as possible, and appropriate action will be taken.

B.3.2.1 Precision Checks

Single point QC checks (precision) will be automatically performed by the in-station calibrator once per week using concentrations between 5 and 80 ppb using standards documented as traceable to NIST or other authoritative standards. The critical acceptance criteria for QC checks is ≤±10 percent of the known input. If the percent difference of a weekly precision check exceeds 10%, then AECOM will invalidate the data back to the last acceptable precision check and initiate an appropriate response action. The instrument in question will be evaluated and the performance returned to operational standards.

B.3.2.2 Zero/Span Checks

Level I zero/span checks will be automatically performed on a daily basis using the in-station calibration system and standards documented as traceable to NIST or other authoritative standards. Span checks will be performed using concentrations that are equal to 80 to 90 percent of analyzer full scale (1.0ppm). The critical acceptance criteria for zero/span checks is ≤±10 percent of the known input for the span check and ≤±1.5 ppb for the zero point.

B.3.2.3 Visual Inspection

The air quality instruments and associated components will be visually inspected during each site visit to assess the physical condition of the instruments, sample intake system and general condition of the enclosure.

B.4 Instrument/Equipment Testing, Inspection, and Maintenance Requirements

Testing of the monitoring equipment will be conducted during the pre-operation phases of the program. Project equipment and operational checks/tests will be documented and, where appropriate, test equipment will be traceable to NIST or other authoritative standards. The equipment involved includes the SO_2 analyzer, calibration gas cylinder and calibration gas, and the data logger (using a calibrated volt meter). Operational checks include but are not limited to checking system diagnostics (e.g. lamp voltage, internal pump vacuum, sample flow) and preventative maintenance (e.g. replacing fan filter, cleaning the mirrors, replacing pump diaphragm, capillary inspection). The manufacturer's operating manual should be consulted for the specifics of the operational checks.

Prior to systems integration and assembly, an operational check will be performed on each monitoring instrument. These operational checks will be conducted to determine instrument accuracy and stability. If an instrument or system fails the operational check, appropriate repairs will be made, or the instrument will be replaced. The operational check for any repaired or replaced instrument will then be repeated.

After the equipment is checked and accepted, each complete monitoring system will be assembled, integrated, and tested in the same configuration as anticipated during the monitoring program. The operational tests of the integrated monitoring systems will consist of calibration checks on the analyzers and confirmation that the data collection and communications system is working as anticipated.

B.5 Instrument Calibration and Frequency

To facilitate collection of high quality data of known accuracy, calibration checks will be performed according to requirements of EPA regulatory guidelines for traceability and documentation. Each of the in-station gas dilution systems will be calibrated in place at program startup, once each year after installation (minimum), and prior to take down using NIST-traceable primary flow standards.

Additionally, weekly calibration checks using the automated in-station calibration system will be conducted. These checks will consist of a level-1 zero/span and precision point. Acceptable criteria for each parameter are listed in Table 2.

In addition to weekly calibration checks, the in-station calibration systems will be used for daily "zero" and "span" instrument checks that will be automatically initiated to confirm that the instruments are operating correctly and within the prescribed tolerances.

AECOM will perform internal audits on a quarterly basis to ensure that the instruments are operating within prescribed tolerances. These quarterly audits will be done separately from the Annual Performance Evaluations performed by the MDE. The MDE will also work with the EPA to perform the necessary Technical Systems Audits (TSAs) and ensure that each site is included in the EPA Through-the-Probe (TTP) National Performance Audit Program (NPAP).

The test equipment used for calibrations will be maintained and certified on a regular basis. The gas dilution system (Thermo 146i) shall be recalibrated once per calendar year using NIST-traceable primary flow standards with an uncertainty ≤0.25 percent. A label shall be affixed at all times to the gas dilution system listing the date of the most recent calibration, the due date for the next calibration, and the person or manufacturer who carried out the calibration. Records that provide traceability to the NIST or other authoritative standards of equipment used for adjusting monitoring systems will be maintained by Verso. Information regarding specific calibration equipment make/model/certification data etc. will be included on forms generated for each calibration check.

Additionally, the data logger date and time will be checked during each site visit to make sure that: 1) the date is correct; 2) the time is correct to within ±5 minutes of Local Standard time; and 3) output is correct by comparison with the digital data logger output. Results of the data collection system calibration will be recorded on the station log form.

Details of the calibration of each monitoring system are provided in the SOPs provided in Appendix D. Calibration data forms are provided in Appendix C.

B.6 Data Management

The primary data collection system will be a Campbell Scientific (or equivalent) digital data logger connected to each SO_2 monitor. The data logging system averages, formats, and temporarily stores the data from which the primary data file is generated. The data loggers will be configured to communicate the 1-minute, 5-minute and 60-minute data to AECOM on a daily basis for integration into a database.

The averaging equations used by the station data loggers for the air quality parameters are those specified in EPA guidance documents. Pertinent plant operating data including load and SO_2 emissions will be collected by Verso on a continuing basis and will be available to the agency upon request.

Details of the data processing, validation, and editing process can be found in Section D.

C Assessments and Oversight

Assessment activities during the program are designed to determine whether the QAPP is being implemented as approved in order to increase confidence in the data obtained, and ultimately to determine whether the data may be used for their intended purpose.

The MDE will serve as the primary quality assurance organization for this project. A PQAO is defined as a monitoring organization or a coordinated aggregation of such organizations that is responsible for a set of stations that monitors the same pollutant and for which data quality assessments can logically be pooled. As such, the MDE will be responsible for overseeing QA activities and measurement quality checks in order to ensure the collection of high quality air monitoring data during this program. The MDE will also provide oversight in the form of Annual Performance Evaluations and will work with the EPA to perform the necessary Technical Systems Audits (TSAs) and ensure that each site is included in the EPA Through-the-Probe (TTP) National Performance Audit Program (NPAP). MDE will also include the data generated from these sites in the data certification submitted to EPA on an annual basis.

The routine multipoint calibrations, precision and level-1, zero/span checks and other associated records maintained by Verso will serve as the Quality Assurance archive. In addition, each of the SO_2 analyzers will undergo an annual performance evaluation (audit).

The performance evaluations are done by challenging each analyzer with an audit gas standard of known concentration from at least three consecutive audit levels in addition to a zero point (40 CFR Part 58, Appendix A). The acceptance criterion for the zero point is ±1.5ppb. The acceptance criteria for audit levels 1-2 is ±15% difference between the actual and indicated concentrations, or ±1.5ppb, whichever is greater. For audit levels 3-10, the acceptance criterion is ≤±15% difference between the actual and indicated concentrations. The first audit level selected should be approximately two to three times the detection limit of the instrument being evaluated. The second audit level selected should be less than or equal to the 99th percentile of the data at the site, or the next highest audit concentration level. The third audit level selected should be the NAAQS for SO_2 (75ppb) or greater than the highest 3-year routine hourly concentration at the site. A separate calibration system will be used for the audits.

Sections of this QAPP will be updated as necessary when additional information is received, to account for changes in any system or procedure, or when conditions at the site change such as changing the brand of analyzer. Revisions to this QAPP will be made by a written amendment, which will become a permanent part of this plan and placed in Appendix A of the QAPP.

C.1 Reports to Management

The Verso (STI) field technician will report directly to the AECOM Project Manager (PM) on matters related to the ambient air quality network operations. The field technician will provide field data documentation, calibration data, and operator data assessments to the PM to ensure adherence to tolerances and procedures, and to provide the review essential to quality control.

On a monthly basis, the SO_2 and quality assurance data will be reviewed, validated, and summarized by AECOM and reported to Verso. Pipe-delimited text files of the 5-minute and 60-minute data will be generated using the ENVISTA software and submitted to Verso. Each monthly report will be submitted by AECOM to Verso within 30 days of the last day of that month. Verso will be responsible for submitting the text data files to the MDE each month, and an annual air monitoring data certification letter due by May 1 each year (40 CFR 58.15).

The results of each audit performed during the program will be shared among Verso, AECOM, the MDE, and EPA Region 3 to maintain record of the results and any corrective actions that may have taken place. AECOM will submit the results of their internal audits to Verso who will then submit them to the MDE.

The MDE will be responsible for reporting the SO_2 data and QA data to the AQS on a quarterly basis (for a total of 12 reports) consistent with the reporting requirements set forth in 40 CFR 58.15 and 58.16, The specific quarterly reporting periods are January 1–March 31, April 1–June 30, July 1–September 30, and October 1–December 31. The data and information reported for each reporting period will contain the data and information gathered during the reporting period and be received in the AQS within 90 days after the end of the quarterly reporting period.

D Data Validation and Usability

This section defines the criteria used for accepting, rejecting, or qualifying project data. These criteria are applicable to the data collected and apply to the personnel performing these tasks. The data validation Tables 10-13 detail the criteria that will be considered in validating, invalidating or qualifying data. Critical criteria, including the minimum standards listed in section D.1, are those criteria which must be met for the data to be considered valid. Operational criteria are criteria which may indicate that the data deserves a more detailed review or is potentially invalid. Systematic criteria are those criteria which must be met for the dataset to be considered valid for the intended use but which do not pertain to the validity of any particular sample in an analytical sense. The data validation tables provide references, where applicable, for the criteria.

D.1 Minimum Standards for Data Acceptance

In order for data from the monitoring systems to be considered valid, the following conditions must be satisfied:

- The instruments must be operated and calibrated according to applicable SOPs and instrument manuals, USEPA regulations and guidance documents, and the appropriate FRM/FEM method.
- The data must be bracketed by calibration checks or tests which document that the systems are performing, at a minimum, within the project accuracy goals outlined in the data validation tables.
- The data must be completely identified with respect to time, site, parameter, scale, and units.
- There must be sufficient documentary evidence in the form of calibration data to support the validity of the data.

For the purpose of comparing the SO_2 data to the primary 1-hour NAAQS, the following data capture requirements will be met in order to have a complete, valid data set: every hour of data must include at least 75 percent of the 1-minute concentration values to be considered valid; a sampling day must have at least 75 percent of hourly concentration values to be considered valid; a quarter must have at least 75 percent of sampling days to be considered valid; and a year must have 4 complete quarters of data.

D.2 Validation and Verification Methods

This section defines the process for determining the validity of ambient air quality data collected as part of this monitoring program.

For data to be considered valid, they should: 1) be accurate and precise within prescribed limits; 2) represent factual conditions; 3) be obtained from a calibrated, well-functioning instrument; 4) be from air sampled without interference or obstruction; and 5) be thoroughly documented as to traceability to recognized primary standards. The project MQOs, data validation criteria and minimum standards for acceptance are designed to ensure that all these factors are considered when determining data validity.

D.2.1 Roles and Responsibilities

The on-site field technician is responsible for the first phase of data validation, wherein first-hand knowledge of instrument performance to prescribed tolerances is required to determine data quality. Documentation of the operator's data assessment is critical to validation. For this monitoring program, responsibility for instrument performance evaluation will be shared by program data analysts and the field technician through daily interrogation and operational assessment of the data via computer telecommunications link and routine site visits. Problems in real-time data capture or data validity will be in large part detectable on a daily basis through the data acquisition system's (DAS's) daily report obtained by AECOM. Each business day a trained AECOM air quality scientist will review the data report and note any anomalies and contact the local Verso technician to take immediate action.

Documentation of the daily near real-time assessment will be part of the operation control information database and will also assist in the data validation task.

The AECOM Data Manager and AECOM Project Manager are responsible for the second phase of data validation, wherein they selectively review the field data documentation, calibration data, and operator data assessments to ensure adherence to tolerances and procedures and to provide the review essential to quality control. Such activities will be documented on standard forms and project documentation.

Final data validation activities are the responsibility of the MDE (PQAO), who has the responsibility for reviewing the project data validation activities, verifying the accuracy and completeness of the data, and approving the finalized data reports before submittal to the AQS. Specific data validation activities are outlined in the section below.

D.2.2 Data Validation Methods

The data validation process is dependent upon the documentation produced during the routine data screening process, the routine site reviews by the on-site technician and the manual QC checks performed by the program field technician. Calibrations methods are documented in the instrument specific Calibration SOPs. Data validation will be performed on a regular basis. Although the AECOM Data Analyst and Data Manager will conduct regular data screening and validation, the MDE has final responsibility for the validity of the data. The MDE will conduct their final validation to ensure that the data is accurate and complete before submitting to the AQS. This includes but is not limited to reviewing the SO_2 and QA data for reasonability and completeness and ensuring that the proper AQS qualifier codes have been assigned to periods of questionable or invalid data.

Steps in the validation process will include the following:

- The raw data will be assessed using the data validation criteria provided in this QAPP.
- The AECOM data analyst will collect available documentation, including daily data values, corrective actions reports, calibration reports, project notes, and stations logs and checklists.
- Documentation of any problems or events that affected either data validity or data collection will be checked by AECOM. These events will be noted in the project file, and in the event that data are considered invalid, they will be flagged in the Envista Software using the appropriate AQS qualifier codes before the data is reviewed by the MDE.
- The data analyst will provide the data processing notes and comments, data validation database, and data summary tables to the AECOM Data Manager for review.
- The Data Manager will review the summaries, data validation database, and any pertinent documentation. The Data Manager will indicate either his/her agreement or disagreement with the data analyst's assessment, or will indicate further action to be taken by the data analyst to determine the data validity.
- Following AECOMs validation and review, the MDE will review the SO_2 data and QA data for accuracy and completeness. Each AQS qualifier code will be checked and any necessary changes will be made before submitting the data to the AQS.

For the air quality instruments, where applicable, the calculations of bias, precision and percent difference will be performed in conformance with 40 CFR 58 Appendix A. Other calculations used in evaluating the data validation criteria in Table 10 through Table 14 (below) are based upon those provided in EPA guidance documents (EPA 2013).

Table 10: Data Validation Table – Air Quality Systematic Criteria Table

Parameter	Requirement	Evaluation	Acceptance Criteria [1, 2]	Frequency of Data Evaluation	Evaluation Level	Reference
Station	Representativeness	Station and Probe Siting Parameters	See Reference	At installation	Systematic	QA Handbook Volume II Section 6
SO_2	Precision Bias	Precision Checks (at least once every 2 weeks. Will be conducted on a weekly basis for this program.)	90% CL CV ≤ 10% 95% CL ≤ ±10%	Weekly	Systematic	40 CFR 58 App. A Sections 4.1.2 and 4.1.3 QA Handbook Volume II App. D

[1] CL CV is the upper bound confidence limit of the coefficient of variation of the precision checks as defined in 40 CFR 58 Appendix A Section 4.1.2.

[2] CL is the upper bound confidence limit on the mean absolute value of the percent differences of the precision checks as defined in 40 CFR 58 Appendix A Section 4.1.3. d_i is the percent difference between the reference value and the measurement reported by the measurement system as defined in 40 CFR 58 Appendix A Section 4.1.1.

Table 11: Data Validation Table – Air Quality Data Screening Criteria Table

Parameter	Requirement	Samples Evaluated	Acceptance Criteria	Action Limit	Frequency of Evaluation	Evaluation Level	Reference
SO_2	One point QC check (precision check)	Precision check samples QC check concentration will be between 5 and 80 ppb	≤±10% (percent difference)	≥±5% (percent difference)	Minimum of once every 2 weeks (will be conducted on a weekly basis for this program)	Critical	QA Handbook Volume II Sec. 12.3 and App. D
SO_2	Zero/span check	Zero/span checks	Zero drift ≤±1.5 ppb Span drift ≤±10%	Zero drift ≥±1.5 ppb Span drift ≥±5%	Minimum of once every 2 weeks (will be done on a daily basis)	Critical	QA Handbook Volume II Sec. 12.3 and App. D
SO_2	Range check Variability check	Hourly data	Check for reasonableness using professional judgment and knowledge of site	NA	During each visit and during the initial review of data	Operational	AECOM Recommendation
Data Logger	Time and date accuracy	Data logger output	Date is correct Time is correct to within ±5 minutes of standard time	NA	During each visit	Critical	AECOM Recommendation
Shelter Temperature	Shelter temperature range	Hourly data	20 to 30°C. (Hourly avg.) or per analyzer manufacturer's specifications if designated to a wider temperature range	NA	Daily (hourly values)	Operational	QA Handbook Volume II Appendix D

Table 12: Data Validation Table – Air Quality Calibration Criteria Table

Parameter	Criteria	Samples Evaluated	Acceptance Criteria	Frequency of Evaluation	Evaluation Level	Reference
SO_2	Zero check in addition to four upscale concentrations	Multi-point calibration check samples	Each point within ±3% of full scale of best fit straight line	At a minimum- once upon installation and start-up, once per year thereafter, and when instruments are moved/repaired/adjusted etc. (see Section B.5)	Operational	QA Handbook Volume II Appendix D

Table 13: Data Validation Table – Air Quality Audit Criteria Table

Parameter	Criteria	Samples Evaluated	Acceptance Criteria	Frequency of Evaluation	Evaluation Level	Reference
SO_2	Zero check in addition to four upscale audit level concentrations with levels selected from CFR audit table	Audit samples	≤±15% difference for each audit level	Once per year	Operational	QA Handbook Volume II, Section 10.3 and Appendix D

Table 14: Quantitative Measurement Quality Objectives: Air Quality Data

Parameter	Reporting Units	Operating Range [1]	Precision [2]	Bias [3]
SO_2	ppm/ppb	0-1.0/0-1000	90% CL CV ≤ 10% based on precision checks	95% CL ≤ ±10% based on precision checks

[1] Operating range for air quality instruments is selected to bracket the anticipated ambient conditions. Data can be reported as ppb or ppm. Units will be noted in the report document.

[2] CL CV is the upper bound confidence limit of the coefficient of variation of the precision checks as defined in 40 CFR 58 Appendix A Section 4.1.2.

[3] CL is the upper bound confidence limit on the mean absolute value of the percent differences of the precision checks as defined in 40 CFR 58 Appendix A Section 4.1.3. d_i is the percent difference between the reference value and the measurement reported by the measurement system as defined in 40 CFR 58 Appendix A Section 4.1.1.

E References

Code of Federal Regulations, Title 40, Chapter 1, Subchapter C, Part 58, Ambient Air Quality Surveillance.

Code of Federal Regulations, Title 40, Chapter 1, Subchapter A, Part 52.21, Prevention of Significant Deterioration of Air Quality.

Code of Federal Regulations, Title 40, Chapter 1, Subchapter C, Part 51, Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard (NAAQS); Final Rule

Code of Federal Regulations, Title 40, Chapter 1, Subchapter C, Part 50, national primary and secondary ambient air quality standards

United States Environmental Protection Agency (EPA). Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: May 2013.

Appendix A

QAPP Revisions

Appendix B

Modeling Analysis for Monitor Siting

Results of Preliminary Modeling Analysis to Support the Location of Candidate Ambient SO_2 Monitor Location for the Verso Luke Mill

This appendix provides a general description of the methodology used and the results obtained for the preliminary dispersion modeling analysis that was used to support the identification of the candidate ambient SO_2 monitor locations in the vicinity of the Verso Luke Mill. The Mill is located approximately 30 kilometers southwest of Cumberland, MD along the Potomac River and spans three counties and two states (Allegany and Garrett counties in Maryland and Mineral County, West Virginia). The Mill's primary sources of SO_2 emissions are located on the Maryland side of the Potomac River.

The methodology that was followed to conduct this modeling analysis is summarized below and includes the following steps:

- Based upon initial modeling, the AERMOD model was run using a reduced receptor grid that covered the areas in the vicinity of the mill that were determined to include the areas with the highest SO2 impacts.
- The model output was analyzed following the steps outlined in Appendix A of the USEPA monitoring TAD[3]. These steps focus upon first identifying the "top 200 receptors" based upon peak daily 1-hour maximum predicted concentrations. Then these candidate receptors are subsequently each given a score based upon the magnitude and frequency of their predicted peak daily 1-hour maximum concentrations.
- The analyses provided below include an evaluation of modeled design value (DV[4]) spatial distributions in combination with the frequency of 1-hour daily maxima predicted by AERMOD using the MAXDAILY output option.

In accordance with Appendix A of the EPA Monitoring TAD, the sections below describe the steps that were followed to obtain a prioritized list of receptor locations for consideration as candidate monitor location sites using modeled receptor DVs and frequency of receptors having the 1-hour daily maximum concentration among the top 200 DV receptors. This analysis also takes into account whether the potential monitor locations are logistically feasible based on local topography, availability of electric power and land ownership. Final justification for preferred monitoring locations will require ground reconnaissance review of candidate sites.

The modeling procedures that were employed generally follow the guidance provided in the USEPA Modeling TAD[5]. AERMOD was applied using default options and an emissions profile for the Mill that is representative of combination of current and future allowable emission rates. Specifically, each source's modeled emission rate was based on either:

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[3] http://www3.epa.gov/airquality/sulfurdioxide/pdfs/SO2MonitoringTAD.pdf

[4] The design value is the 99th percentile peak daily 1-hour maximum concentration averaged over the years modeled, computed at each model receptor.

[5] https://www3.epa.gov/airquality/sulfurdioxide/pdfs/SO2ModelingTAD.pdf

Future Maximum Emission Rate:

- No. 24 Power Boiler – maximum natural gas firing rate/AP-42 emission factor
- No. 25 Power Boiler – 27.06 tons SO2/day; future maximum allowable emission rate for BART conformance
- FM Luke Converting Facility Boiler – Title V permit maximum oil firing rate/future maximum allowable fuel oil sulfur content (0.05% sulfur oil)
- FM King National Boilers 1 and 2 – maximum oil firing rate/future maximum allowable fuel oil sulfur content (0.05% sulfur oil).

Current Maximum Emission Rate:

- No. 26 Power Boiler – maximum natural gas firing rate/AP-42 emission factor
- Recovery Boiler – maximum black liquor firing rate/site specific emission factor from most recent stack test
- Smelt Dissolving Tank – maximum black liquor processing rate/NCASI emission factor

Current Permitted Emission Rate:

- No. 8 Paper Machine Dryer – Title V permit maximum allowable gas firing rate/AP-42 emission factor
- No. 9 Paper Machine Dryer - Title V permit maximum allowable gas firing rate/AP-42 emission factor
- Lime Kiln – maximum emission rate allowed by the mill's Title V permit

The approach that was used to select the emission rates used for the preliminary dispersion modeling will ensure the monitors are placed in the correct location (according to the model) in order capture maximum SO_2 exposure starting in January 2017. The modeling was performed using the historical meteorological multi-tower database used for the Luke Mill AERMOD Evaluations. This data, however, was reprocessed using up-to-date model versions and executables.

The methodology that was used to identify the candidate monitor locations is described in the following paragraphs. The electronic modeling files to support this analysis are provided as Appendix F.

Step 1: Determining and Ranking Maximum Design Value Locations

The AERMOD model (Version 15181) was run with default options for all receptors shown in Figure 1 and 2. The "ambient air boundary" that was used with this preliminary modeling evaluation is shown on Figures 1 and 2 as a purple line. This boundary corresponds to the Mill's property boundary around the main operating areas of the Mill and support facilities on the Maryland side of the Potomac River. It also corresponds to the property boundary where access is controlled on the West Virginia side of the river in areas to the southwest and southeast of the Mill. The ambient air boundary south of the mill was drawn within mill property to be conservative. The basis for modeled emission rates are noted above and have been normalized in accordance with the monitoring TAD.

The first step in the monitor siting process was to account for the location of receptors with the highest magnitude of impacts. The receptors with the maximum design values (DVs, the 99th percentile peak daily 1-hour maximum concentrations averaged over the years modeled) over the entire modeling domain were ranked. Table 1 shows the top 20 DV receptors ranked from highest (highest DV = rank 1) to lowest (lowest DV = rank 20). To prioritize the receptors to be evaluated for

potentially establishing the location of an ambient SO_2 monitor, the top 200 DV receptors identified from this step and shown in Figures 3 and 4 were ranked and analyzed, as recommended by the Monitoring TAD, Appendix A.

Step 2: Determining Frequency of Occurrence of Concentration Maxima

The next step in the analysis is designed to account for the frequency in which the top 200 DV receptors identified in Step 1 have daily maximum 1-hour SO_2 concentrations. To assess the frequency of occurrence of concentration maxima at the top 200 DV receptors, the MAXDAILY option in AERMOD was used, which outputs the maximum 1-hour concentration for each receptor for each day of the model simulation. This output was used to determine the number of days for which each of the top 200 DV receptors was the overall highest 1-hour concentration for the day for the three modeled years. Table 2 shows the top 20 receptors' frequency of days ranked from highest (highest number of days = rank 1) to lowest (lowest number of days frequency = rank 20).

Step 3: Scoring of Maximum DVs and Frequency of Occurrence of Concentration Maxima

The final step in the analysis consisted of creating a prioritized list of receptor locations for consideration of candidate ambient SO_2 monitoring sites by using the receptor-by-receptor DVs and frequency of having the 1-hour daily maximum concentration among the top 200 DV receptors.

Table 3 provides the top 20 results of the score ranking used to generate a list of receptor locations, ranked in general order of desirability with regard to potential new ambient SO_2 monitor(s). Figures 5 through 9 show the receptors ranked by "Score", reflecting rankings of maximum DV and frequency of having the 1-hour daily maxima amongst the top 200 DV receptors. Lower numerical values of "Score1" indicate higher probabilities of experiencing peak 1-hour SO_2 concentrations. Figure 5 shows an overall depiction and Figures 6 through 9 are focused on five potential areas of interest. These areas of interested are highlighted yellow in Figure 5.

Area 1 (as labeled in Figure 5) is located to the east of the Mill's major SO_2 sources and includes:

1. 2 of the top 10 and 5 of the top 20 modeled DV values as shown in Figure 4.
2. 9 of the top 20 receptors ranked by DV and frequency as shown in Figure 6. The highest score ranked location is 1.

Area 2 (as labeled in Figure 5) is located to the south-southwest of the Mill and includes:

1. 5 of the top 10 and 10 of the top 20 modeled DV values as shown in Figure 4.
2. 2 of the top 10 and 4 of the top 20 receptors ranked by DV and frequency as shown in Figure 7. The highest score ranked location is 4.

Area 3 (as labeled in Figure 5) is located to the southeast of the Mill and includes:

1. 1 of the top 10 and 1 of the top 20 modeled DV values as shown in Figure 4.
2. 2 of the top 10 and 2 of the top 20 receptors ranked by DV and frequency as shown in Figure 8. The highest score ranked location is 6.

Area 4 (as labeled in Figure 5) is located to the east-southeast of the Mill and includes:

1. 0 of the top 10 and 0 of the top 20 modeled DV values as shown in Figure 4.

2. 1 of the top 10 and 4 of the top 20 receptors ranked by DV and frequency as shown in Figure 8. The highest score ranked location is 3.

Area 5 (as labeled in Figure 5) is located to the north the Mill and includes:

1. 2 of the top 10 and 4 of the top 20 modeled DV values as shown in Figure 4.
2. 0 of the top 10 and 1 of the top 20 receptors ranked by DV and frequency as shown in Figure 6. The highest score ranked location is 19.

Site Access

Areas 1, 2, 3, and 5 generally have good site access in terms of locating and servicing a monitor. Area 4, however, is located in a very inaccessible place. The terrain has an extremely sharp gradient, rising over 1000 feet in just over 250 meters.

Analysis Conclusions

This preliminary analysis was used to identify the candidate monitor locations that are most likely to be most impacted by SO_2 emissions discharged from Luke Mill sources. The dispersion modeling has been conducted using AERMOD, consistent with guidance provided in EPA's SO_2 monitoring TAD. The modeling involved the use of the Mill's future allowable emission profile in order to ensure proper placement on the monitors based on how the Mill will be operating in the future.

The procedures recommended by the monitoring TAD involved the identification of the top 200 receptors according to the predicted design values. These receptors were then ranked according to the magnitudes and the frequencies of the predicted concentrations.

The modeling identified five potential areas of consideration for candidate monitor locations as shown in Figure 5. One monitor would be placed in the vicinity of the receptor marked with a score rank of 2 (see Figure 6) within Area 1. This location is preferred over the over receptors in this same general area with score ranks of 1, 7, 8, 9 and 10 because the model does not know there is a large physical terrain feature directly between the source and these receptor locations. In reality, this terrain feature makes it unreasonable to expect that the plume from the Mill's SO_2 emission units will be directly transported to these receptor locations in the fashion predicted by the model.

A second monitor would be placed in Area 2 in the vicinity of the receptor marked with a score rank of 4 (see Figure 7), and a third monitor would be placed in Area 5 in the vicinity of receptor marked with a score rank 19 (see Figure 6). Area 5 is lower on the score rank compared to other areas, but it is closer to populated areas than other candidate locations, and moreover 4 of the top 20 ranked modeled DV values are within this area.

No monitors are proposed to be placed in either Areas 3 or 4. In order to characterize air quality in the region south of the mill, Area 3 is considered to be a less representative candidate monitor location than Area 2 because there are significant terrain features that the plume would have to traverse in order to reach Area 3. Area 4 is an unacceptable location due to limitations related to site access. Also there are multiple significant terrain features intervening with the plume transport that the model has not accounted for to the east and south.

Table 1: Top 20 Ranked DV Receptors

UTM_E[1]	UTM_N[1]	Normalized Concentration	DV_Rank	Area Located?
666300.00	4368000.00	41.63	1	2
669800.00	4372000.00	40.79	2	1
666200.00	4368000.00	39.41	3	2
666300.00	4368700.00	38.75	4	2
669300.00	4367000.00	38.55	5	3
666200.00	4368700.00	38.43	6	2
666300.00	4368100.00	37.93	7	2
669900.00	4372300.00	37.49	8	1
666500.00	4372600.00	37.40	9	5
666500.00	4372700.00	37.21	10	5
666200.00	4368100.00	37.09	11	2
666400.00	4368000.00	37.00	12	2
669800.00	4372100.00	36.85	13	1
666200.00	4368600.00	36.79	14	2
669700.00	4372100.00	36.59	15	1
669800.00	4372200.00	36.17	16	1
666300.00	4368200.00	36.07	17	2
666500.00	4372800.00	36.01	18	5
666300.00	4368300.00	35.83	19	2
666600.00	4372500.00	35.76	20	5

[1] Zone 17, NAD83

Where:
DV_Rank = the rank with regard to DV (highest DV is rank 1)

Table 2: Top 20 Receptors, Ranked by Frequency of 1-Hour Daily Maxima

UTM_E[1]	UTM_N[1]	nDays	nDays_Rank
669400.00	4371400.00	35	1
669500.00	4371100.00	29	2
671700.00	4371500.00	25	3
664400.00	4370400.00	21	4
672061.00	4368615.00	16	5
669400.00	4371300.00	14	6
669500.00	4371000.00	14	7
671882.00	4368327.00	14	8
672035.00	4368574.00	14	9
667263.00	4370963.00	13	10
669400.00	4371200.00	13	11
668517.00	4371231.00	12	12
669200.00	4371700.00	12	13
669500.00	4371600.00	12	14
671200.00	4371600.00	12	15
666800.00	4371900.00	11	16
664300.00	4372100.00	9	17
669400.00	4371800.00	9	18
669900.00	4372500.00	9	19
671700.00	4371000.00	9	20

[1] Zone 17, NAD83

Where:
nDays = the number of days that the receptor is the highest concentration for the day
nDays_Rank = the rank of the receptor with regards to nDays (highest nDays is rank 1)

Table 3: Receptor Ranking by Design Value and Frequency 1-Hour Daily Maxima

UTM_E[1]	UTM_N[1]	DV_Rank	nDays	nDays_Rank	Score	Score_Rank	Area Located
669500.00	4371100.00	29	29	2	31	1	1
669800.00	4372000.00	2	7	29	31	2	1
672035.15	4368573.74	28	14	9	37	3	4
666200.00	4368700.00	6	6	32	38	4	2
666400.00	4368000.00	12	7	26	38	5	2
669300.00	4367000.00	5	6	36	41	6	3
669400.00	4371400.00	46	35	1	47	7	1
669400.00	4371200.00	40	13	11	51	8	1
669500.00	4371600.00	41	12	14	55	9	1
669400.00	4371300.00	51	14	6	57	10	1
672060.72	4368614.88	53	16	5	58	11	4
666300.00	4368000.00	1	4	59	60	12	2
671907.30	4368368.07	36	8	24	60	13	4
666300.00	4368700.00	4	4	60	64	14	2
669500.00	4371000.00	59	14	7	66	15	1
669800.00	4371900.00	44	7	28	72	16	1
671932.87	4368409.20	38	6	37	75	17	4
669100.00	4366900.00	43	6	35	78	18	3
666600.00	4372500.00	20	4	63	83	19	5
669900.00	4372300.00	8	4	75	83	20	1

[1] Zone 17, NAD83

Where:
DV_Rank = the rank with regard to DV (highest DV is rank 1)
nDays =the number of days that the receptor is the highest concentration for that day
nDays_Rank = the rank of the receptor with regards to nDays (highest nDays is rank 1)
Score = is the sum of DV_Rank and nDays + Rank for each receptor
Score_Rank = the rank of the scores [lowest total score ("Score" of 20) is rank 1].

Figure 1: Far-Field Receptor Grid

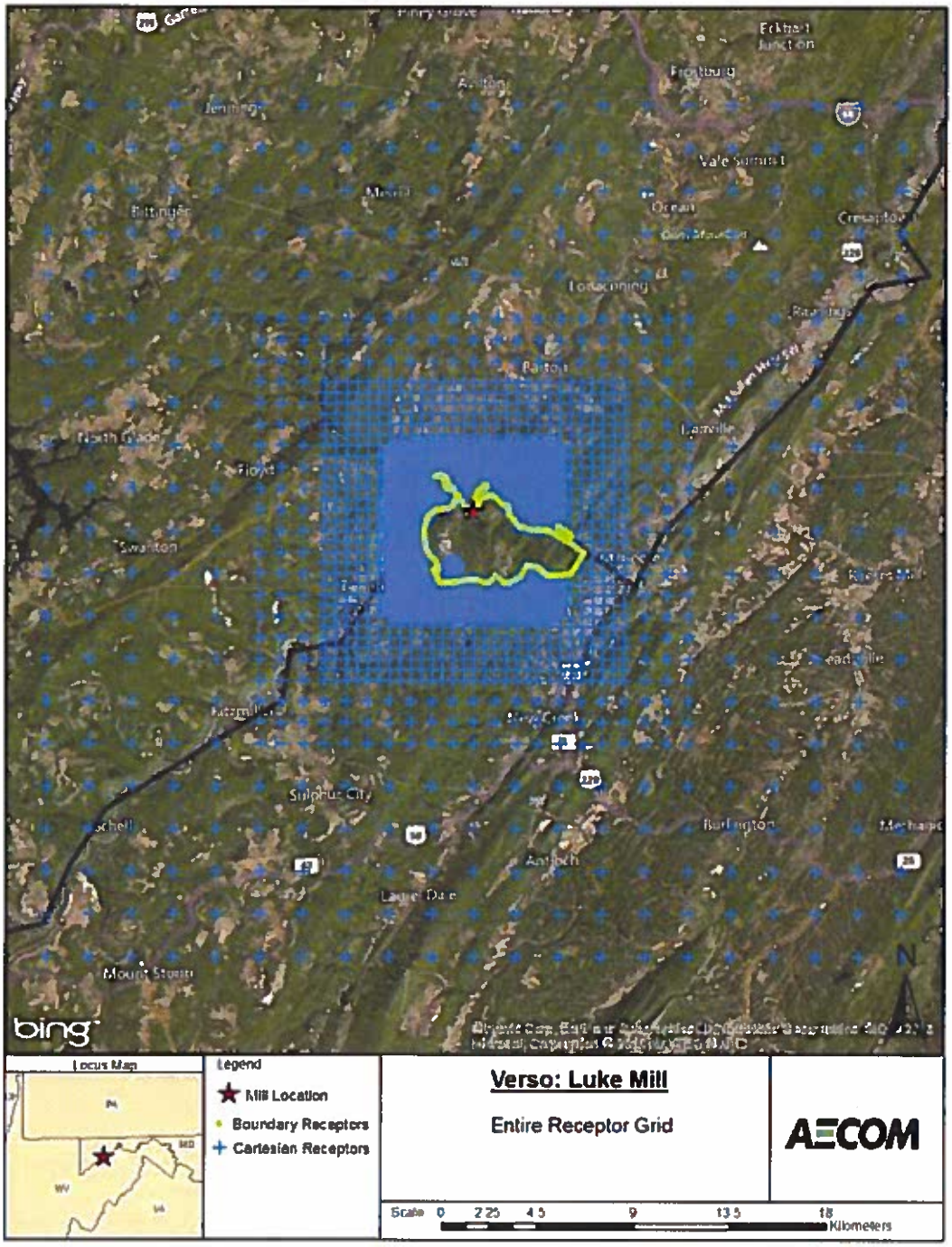


Figure 2: Near-Field Receptor Grid

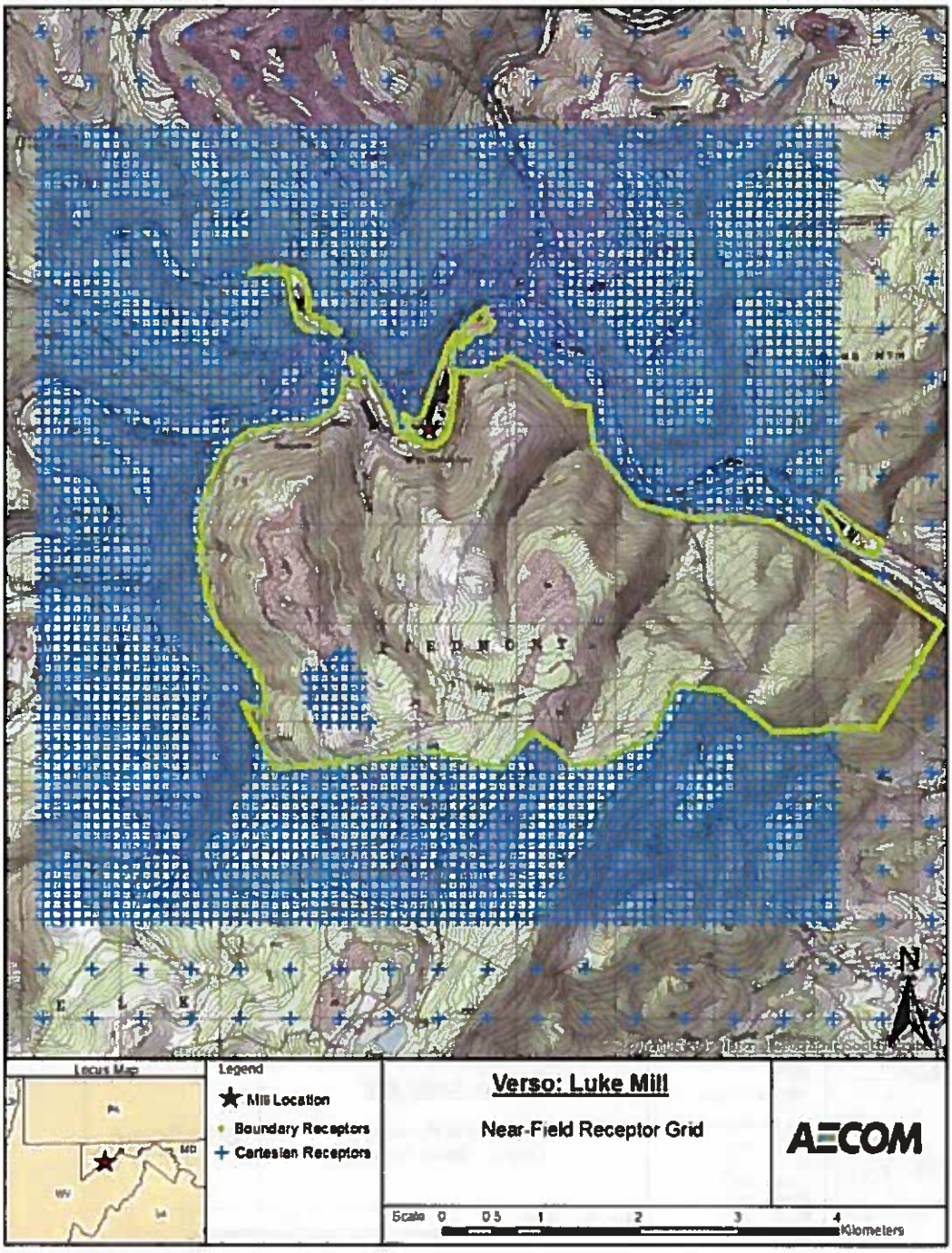


Figure 3: Locations and Ranking of Maximum 1-Hour SO_2 DV Receptors (Top 200)

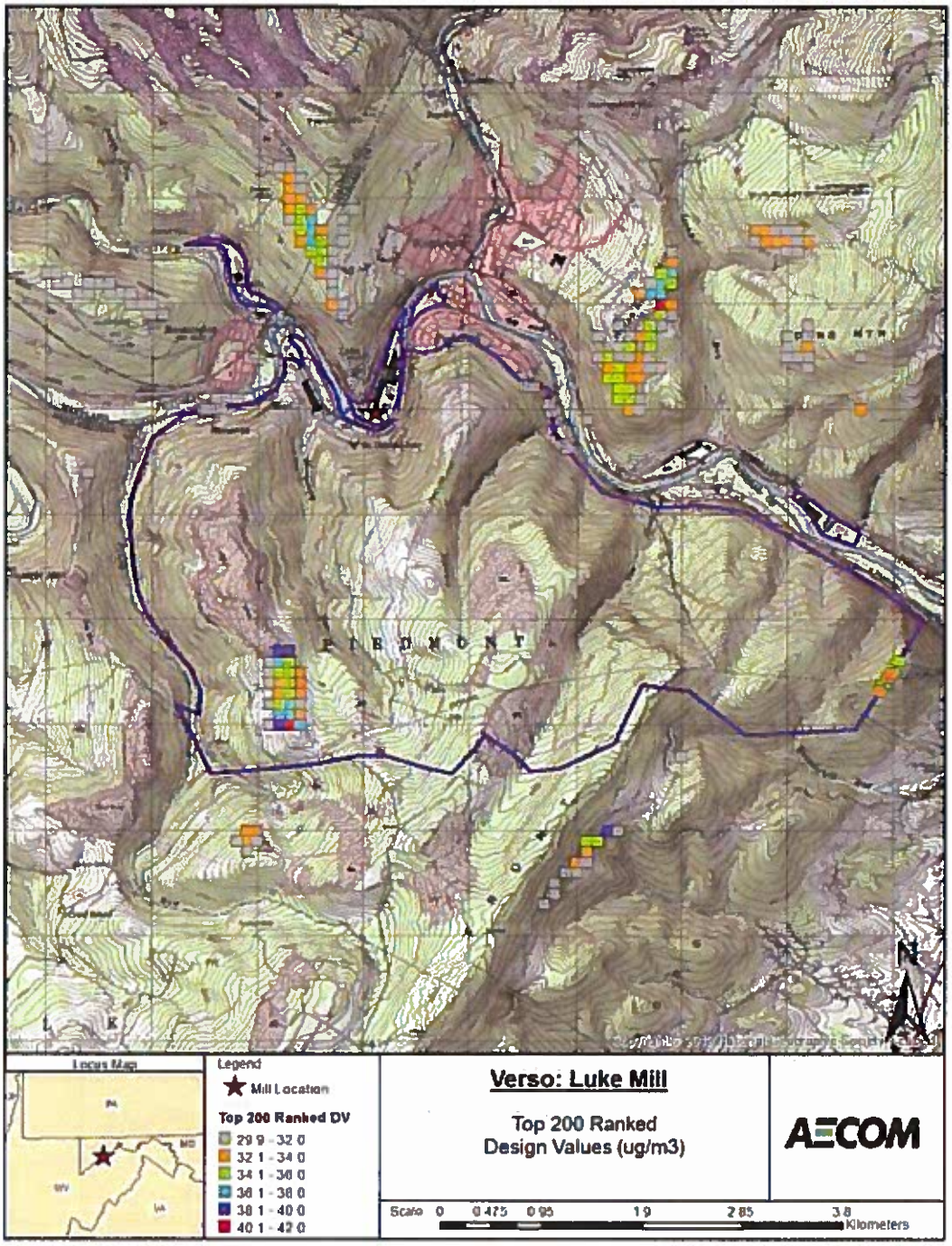


Figure 4: Locations of the Top 10, 20, and 200 1-Hour SO_2 DV Receptors

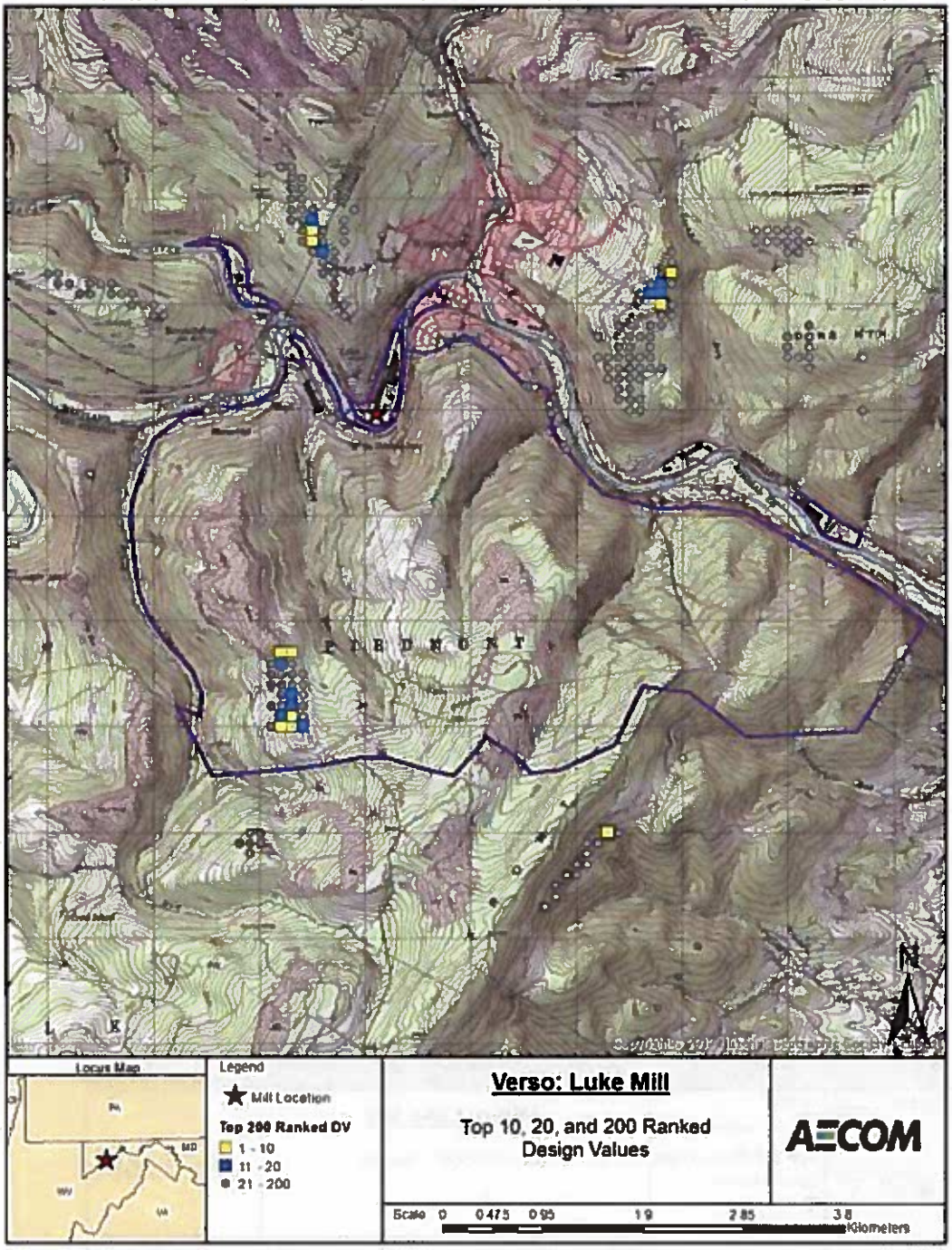


Figure 5: Receptors by Score Calculated from Ranked DV and Frequency of 1-Hour Daily Maxima

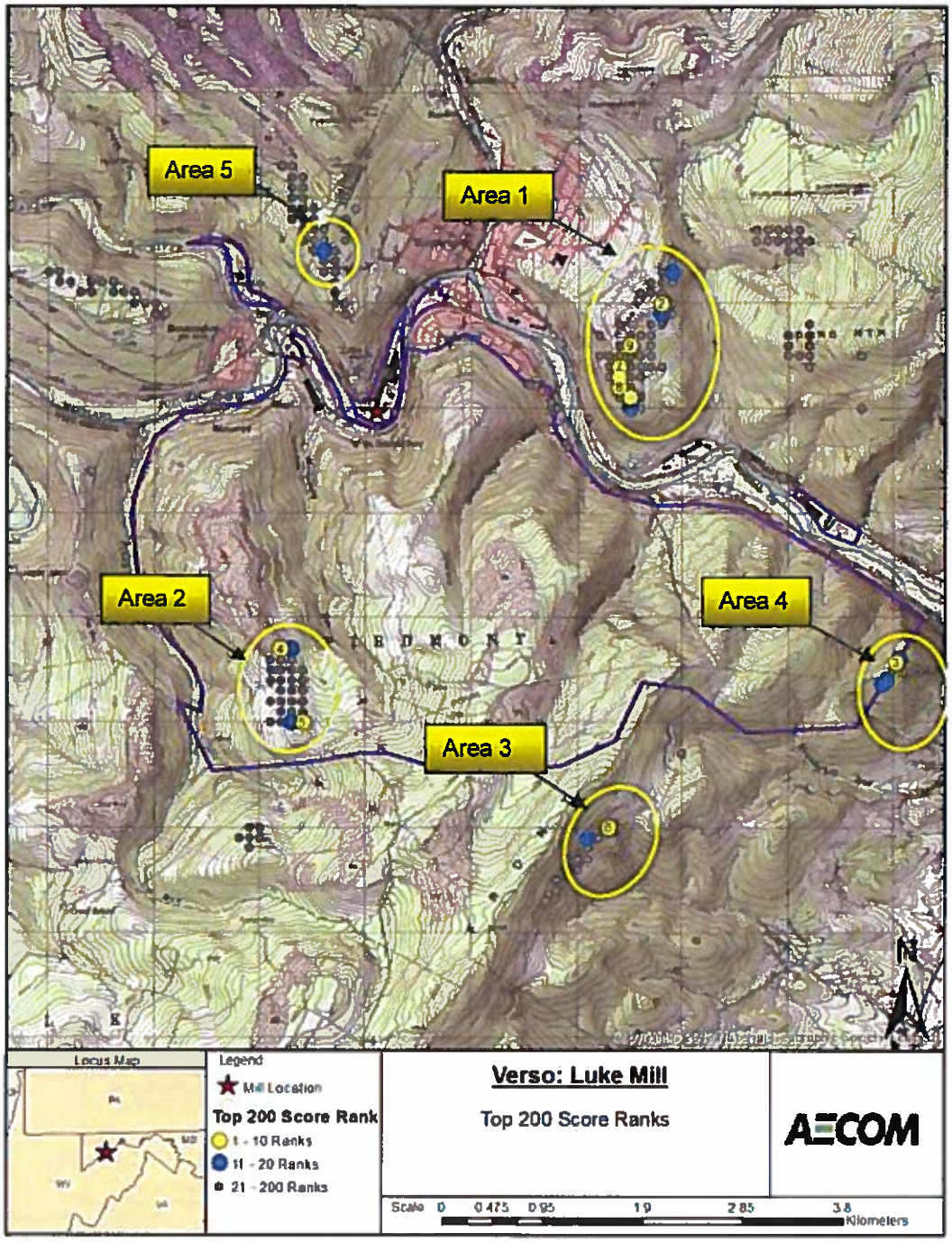


Figure 6: Receptors by Score Calculated from Ranked DV and Frequency of 1-Hour Daily Maxima (Areas 1 and 5)

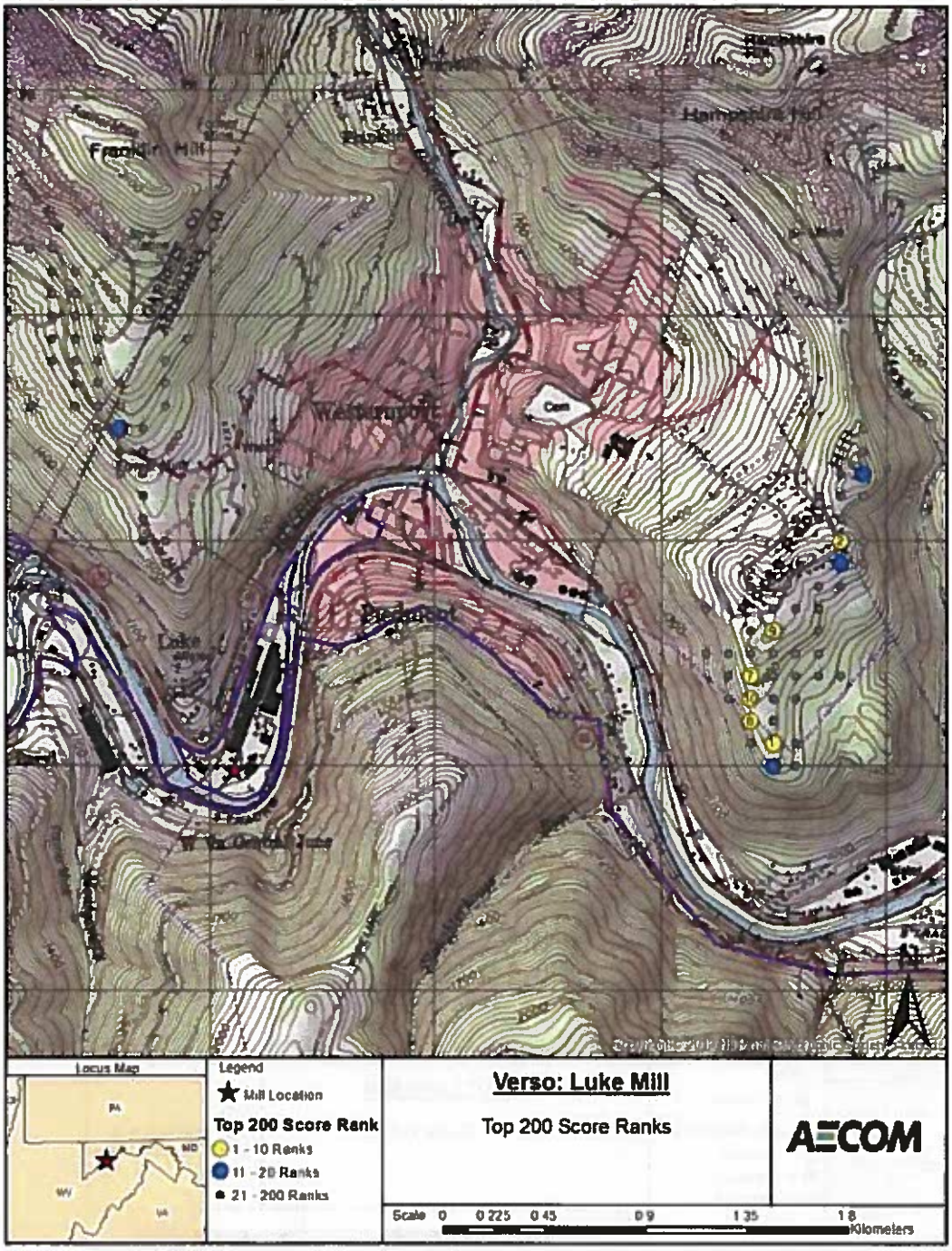


Figure 7: Receptors by Score Calculated from Ranked DV and Frequency of 1-Hour Daily Maxima (Area 2)

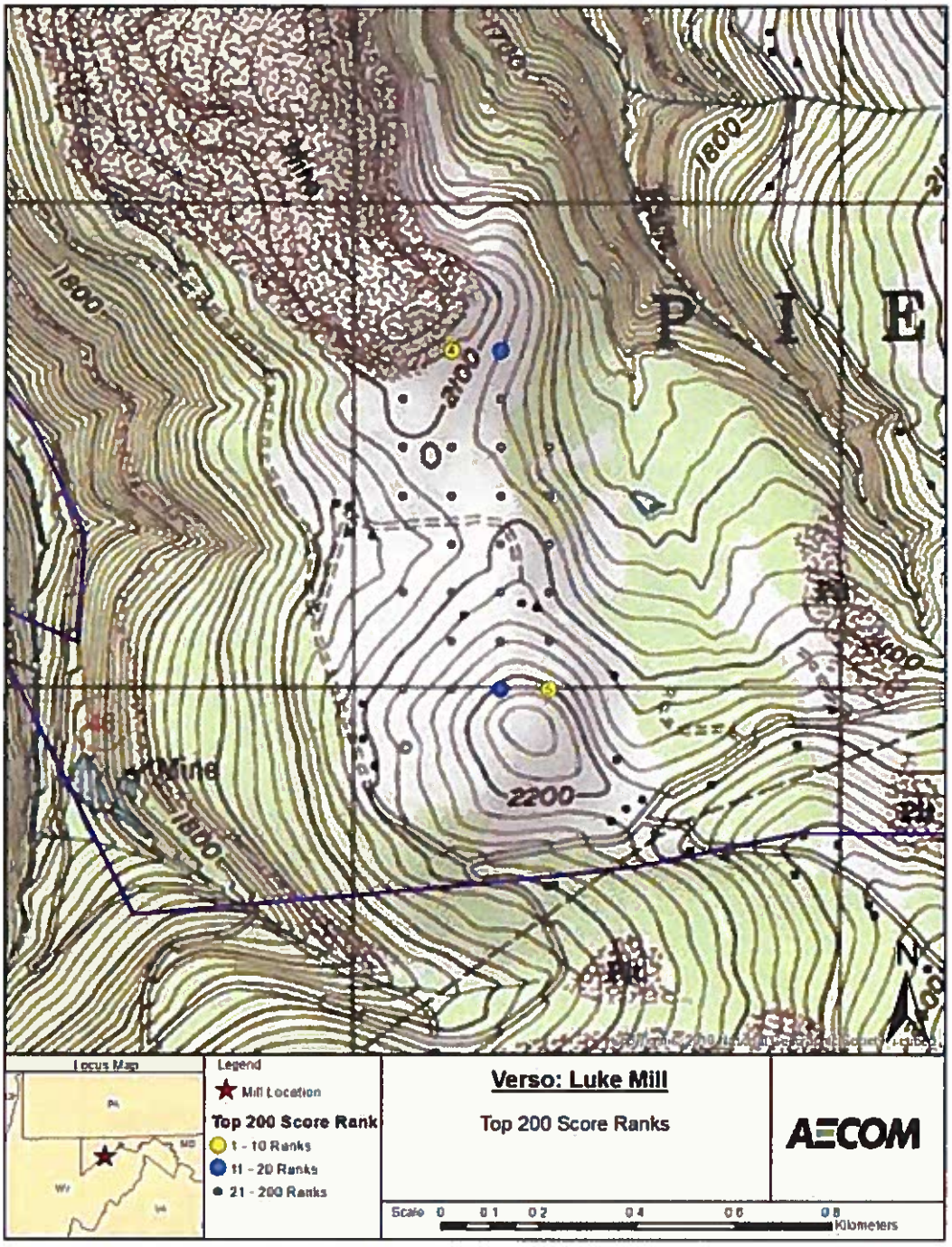


Figure 8: Receptors by Score Calculated from Ranked DV and Frequency of 1-Hour Daily Maxima (Area 3)

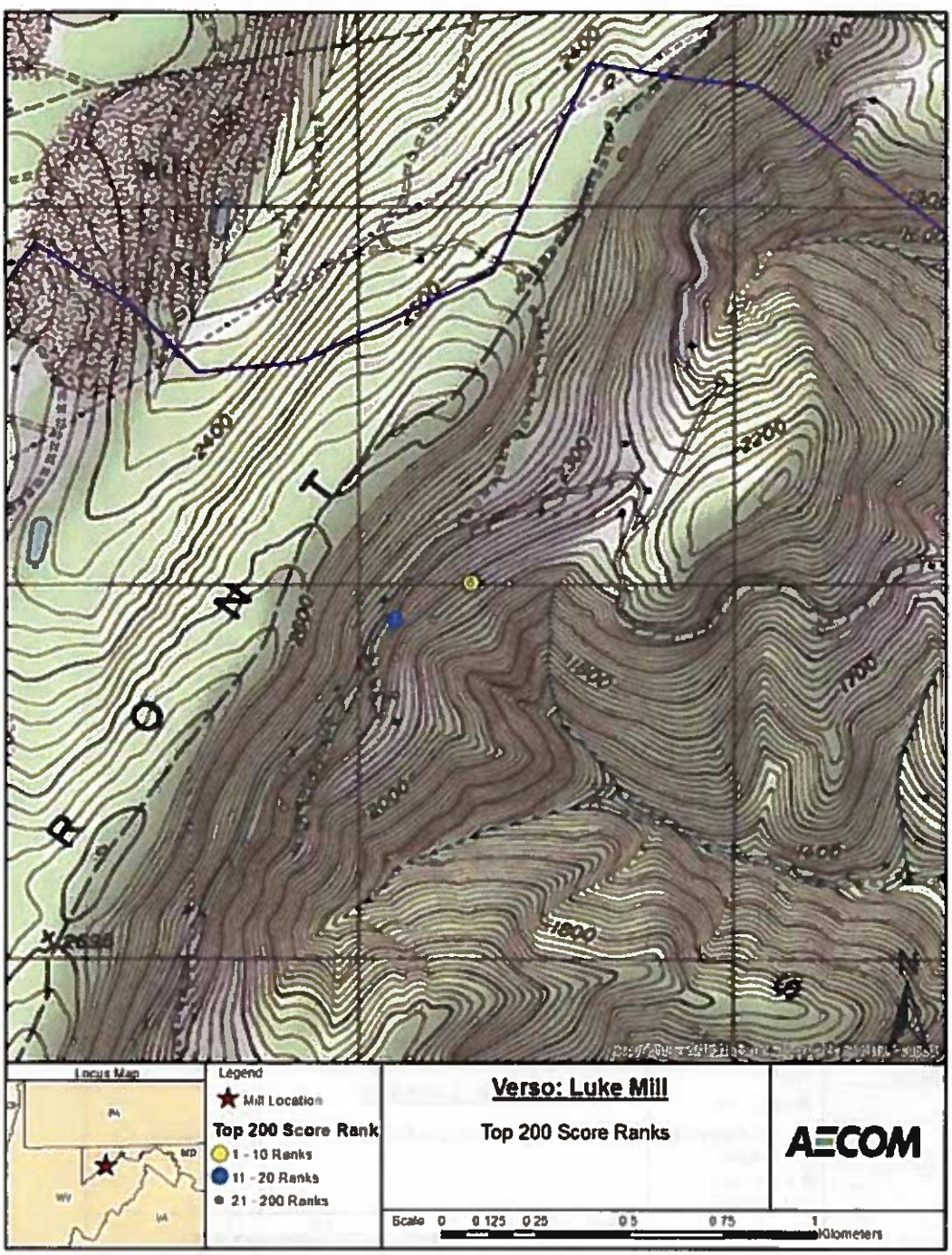
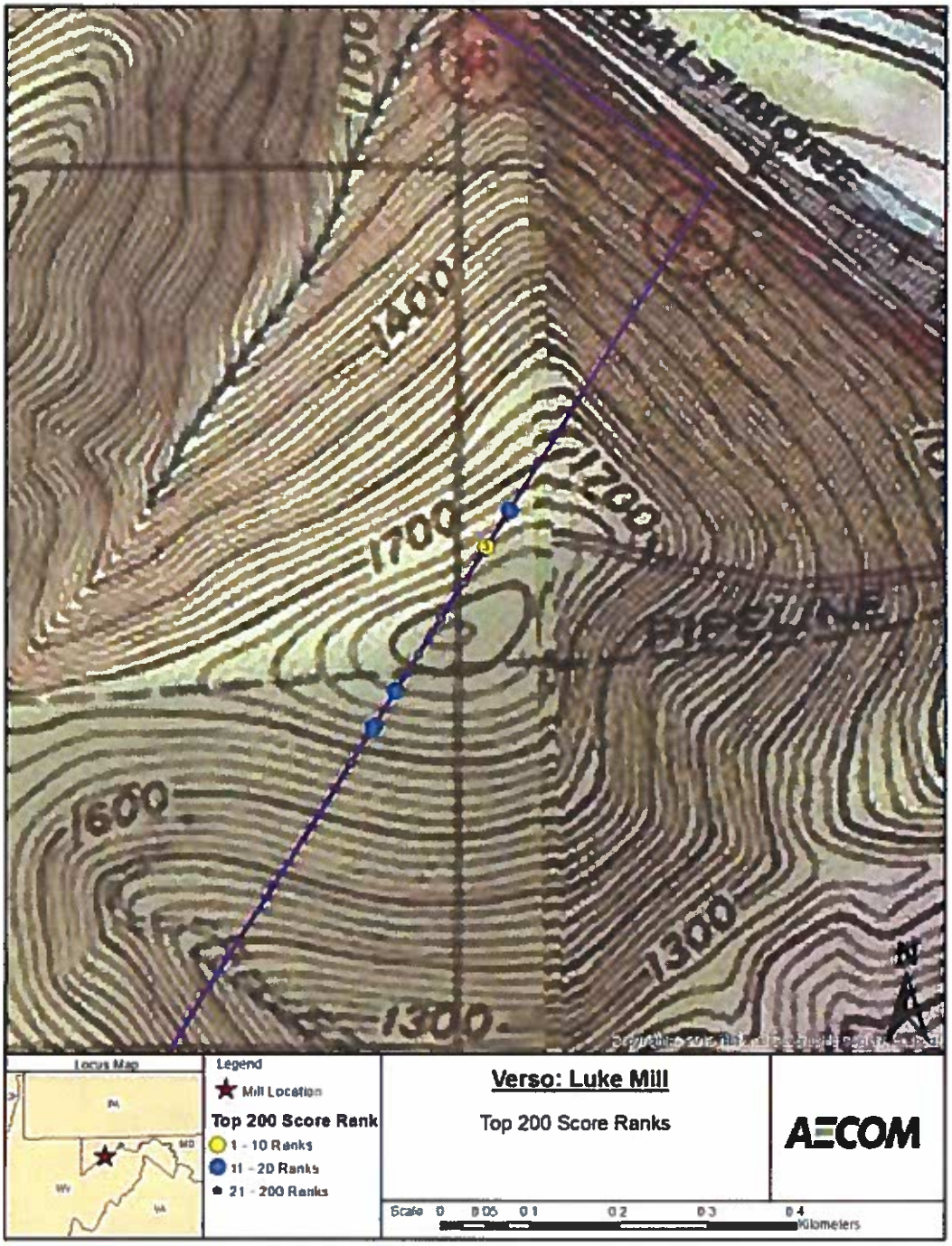


Figure 9: Receptors by Score Calculated from Ranked DV and Frequency of 1-Hour Daily Maxima (Area 4)



Appendix C

Standard Project Forms

AECOM
250 Apollo Drive
Chelmsford, Massachusetts 01824

978.905.2100 tel
978.905.2101 fax

Field Station Log

Site: _____

Network: _____

Project Number: _____

DATE	TIME	COMMENTS	INITIALS	EMPL #

Gas Dilution Calibration

Network: _____ Site: _____ Instrument: _____ S/N: _____ Date: _____

Calibrator: _____ S/N: _____ Cal Date: _____ Cylinder S/N: _____ Conc. (ppm)_____ Date: _____

Initial: Zero Pot _____ Span Pot _____

Final: Zero Pot _____ Span Pot _____

Precision and Level One Check ☐

Multipoint Calibration ☐

Other ☐

DAS: _____

Strip Chart: _____

Time Off: _____ On: _____

Flow Setting		Flow (cc/min)		Input	Initial Analyzer DAS Response			Final Analyzer DAS Response		Strip Chart Percent Full Scale		Final Δ% (≤ 10%)
Span	Dilution	Span	Dilution	(ppm)	(Vdc)	(ppm)	Δ%	(Vdc)	(ppm)	Initial	Final	
										Average Δ%		

Standards Comparison

Network Calibrator: _____ S/N: _____ Cal Date: _____

Cylinder: _____ S/N: _____ Cal Date: _____

	Reference Calibrator			Network Calibrator			
Input	Span	Dilution	Response	Span	Dilution	Response	Δ%

Signature: _____

QC Review: _____

Accepted ☐ Rejected ☐

M11047 pdf

Appendix D

Standard Operating Procedures (SOPs)

AECOM

Operating Procedure – Project Specific

Air Quality Shelter Maintenance

AECOM

Operating Procedure – Project Specific

Air Quality Shelter Maintenance

Contents

Air Quality Shelter Maintenance

1.0 Scope and applicability

1.1 This Operating Procedure (OP) defines a basic method for proper inspection and maintenance of air quality shelters.

2.0 Health and safety considerations

2.1 The health and safety considerations for the work associated with this OP, including both potential physical and chemical hazards, will be addressed in the site specific Health and Safety Plan (HASP). In the absence of a site-specific HASP, work will be conducted according to the AECOM Health and Safety Policy and Procedures Manual and/or direction from the Regional Health and Safety Manager.

3.0 Interferences

Operation of a poorly maintained shelter may cause contamination of samples and improper operation of monitoring equipment.

4.0 Equipment and materials

- Broom
- Mop
- 25' nylon line 1/16" diameter
- Round soft bristle brush 3" diameter
- Squeeze bottle 1 pt. or larger
- Liquid detergent (Calgonite®)

5.0 Procedures

5.1 Exterior – each site visit

5.1.1 General inspection for damage to fencing, posts or pipe courses and ground wires. Note any occurrences of damage in the Field Station Log (AECOM form FM06001) and notify supervisor.

5.1.2 Shelter - Visual inspection for damage to shelter walls, roof, ladders, stairs, and safety rails, etc. Note any occurrences in the station log and notify supervisor. Make temporary repairs if warranted. Note condition of the sample inlet.

5.1.3 Grounds - Visual inspection. Remove debris. Distribute gravel properly, note condition of grass. Note condition of grass in Field Station Log?

5.2 Exterior – weekly

Grounds - Grass and brush around shelters, inside fence and within two feet of the outside of the fence area should be cut at least once a week during the growing season and biweekly at beginning and end of the seasons.

5.3 Exterior – six months

Scrape off any flaking paint and wire brush bare spots. Touch up with an epoxy base outside enamel paint. (Suggest Rustoleum, 4 in 1 brand or equal). Re-caulk cracked caulking.

5.4 Exterior – yearly

Shelters that have had extensive patch work on touch up should be completely repainted after a wash down with detergent and water.

5.5 Interior – each site visit

5.5.1 Perform visual inspection of the heater, air conditioner, thermostat, and shelter high-low thermometer for proper operation. The correct shelter temperature should be 68-80EF as indicated on the high-low thermometer.

5.5.2 Perform a visual check of the air sampling manifold system. Verify that all sample connections are secure and that the manifold fan is operating.

5.5.3 Deposit all waste papers and containers in trash basket.

5.6 Interior – weekly

5.6.1 Empty trash containers.

5.6.2 Sweep shelter floors and spot clean floors where necessary.

5.7 Interior – monthly

5.7.1 Check all sample line connections and tighten if necessary.

5.7.2 Dust tables, racks and ledges.

5.7.3 Wash floors with a light detergent solution. Use steel wool for removal of scuff marks.

5.7.4 Wax floors with a suitable self-polishing wax.

5.7.5 Replace or clean the air conditioner filter.

5.8 Interior – six months preventative maintenance procedure for air sampling manifolds

5.8.1 Before starting, note the time (24-hour clock), day, parameter, and site ID on strip chart recorder. Down all channels on the data logger.

5.8.2 Remove sample line from rear of analyzer (this will prevent foreign matter from entering the analyzer).

5.8.3 After all sample lines are removed, disconnect and remove glass manifold assembly. Using a plastic dishpan or equivalent, mix a solution of water and a small amount of mild, non-ammonia detergent (a laboratory glass cleaner like Calgonite® is suggested). Wash thoroughly and rinse with clear water and let dry.

Note: In some cases removal does not apply; manifold should be cleaned in place.

5.8.4 Check sample tube intake section ahead of manifold for stoppages and clean with brush assembly or other equipment provided for that purpose. For sectional glass sample line assemblies see Section 5.9.

5.8.5 Replace Teflon® span and sample lines.

5.8.6 Re-assemble manifold assembly and re-connect sample lines.

5.8.7 Upon completion of procedure insure that all analyzers are sampling from manifold, mark strip charts accordingly and "up" all channels.

5.9 Cleaning non-removable manifold – sectional glass type

When removal of manifold is not possible, i.e.: when manifold is completely fabricated from glass, the following steps should be used after completing the steps in Section 5.8.

5.9.1 Shut down sample vacuum pump and remove from bottom of manifold.

5.9.2 Set dishpan containing cleaning solution beneath manifold.

5.9.3 From the topside end of the manifold feed nylon line into interior, attach soft bristle brush to this line plus another line from inside shelter.

5.9.4 Position one person on the roof and work brush up/down several times using solution. Remove the brush. Topside person squirts clear water to rinse. Let assembly dry a few minutes. Reconnect sample vacuum pump and let run 10-15 minutes before inserting sample lines.

6.0 Quality assurance / quality control

Shelter maintenance is observed during systems audits of network operations. Adherence or deviation from the requirements of this procedure are noted at that time and corrective actions take if necessary.

7.0 Data and records management

7.1 All shelter maintenance activities are to be recorded in the Field Station Log.

7.2 Unanticipated changes to the procedures or materials described in this OP (deviations) should be appropriately documented in the project records.

7.3 Records associated with the activities described in this SOP should be maintained according to the document management policy for the project.

8.0 Personnel qualifications and training

8.1 Qualifications and training

8.1.1 The individual executing these procedures should have read, and be familiar with, the requirements of this OP.

8.2 Responsibilities

8.2.1 The project manager is responsible for providing the project team with the materials, resources and guidance necessary to properly execute the procedures described in this OP.

8.2.2 The project manager is also responsible for insuring that shelter maintenance is accomplished in accordance with this procedure.

8.2.3 The individual performing the work is responsible for implementing the procedures as described in this OP and any project-specific work plans.

8.2.4 The field technician is responsible for scheduling and carrying out the shelter maintenance outlined in this procedure.

Standard Operating Procedure

Operation and Maintenance of the Thermo Electron Model 111 Zero Air Generator with External Air Compressor

Procedure Number: 2000-210

Revision No.: 0

Revision Date: May 2008

SOP Contributors: Henry Chow

T. M Sacco
Tony, Sacco, SOP Team Leader
Date: June 4, 2008

Joseph Curreri,
Stakeholder/Service Line Leader
Date: 6/4/08

Robert C. Weber
Robert C. Weber,
President and Chief Executive Officer
Date: June 4, 2008

Annual review of this SOP has been performed and the SOP still reflects current practice.

Initials: _____ Date: _____
Initials: _____ Date: _____

Standard Operating Procedure

Operation and Maintenance of the Thermo Electron Model 111 Zero Air Generator with External Air Compressor

Contents

Standard Operating Procedure

Operation and Maintenance of the Thermo Electron Model 111 Zero Air Generator with External Air Compressor

1.0 Scope and applicability

1.1 This Standard Operating Procedure (SOP) defines the use of the operation and routine maintenance of the Thermo Electron Model 111 Zero Air Supply. It conforms to the quality assurance and control requirements specified in the project-specific monitoring plan.

1.2 The Model 111 operates in conjunction with an external air compressor assembly providing carbon monoxide free (CO free) air to the Thermo Electron Model 146C Dynamic Gas Calibrator.

1.3 The Model 111 described in this SOP primarily consists of a CO thermo catalytic converter (reactor) operating at 350-375°C and is capable of providing up to 20 standard liters per minute (slpm) at output pressure of 30 psig. Only CO is required to be remove from the supply air; the pneumatic connection was therefore modified by by-passing both Purafil and Charcoal scrubbers.

1.4 This SOP was based on the assumption that the Model 111 was fully assembled according to the system drawings.

1.5 This SOP is to be utilized to conduct the work identified in the title of this SOP. In the event the Project Manager or Project Team determines that the protocols and procedures listed in this SOP are not applicable to the project, there is the option to either adapt this SOP or to develop a site-specific SOP to more closely match the requirements of the project. Refer to ENSR SOP 1011, Preparation and Control of Standard Operating Procedures, for SOP modification and Project Operating Procedure (POP) development procedures.

2.0 Health and safety considerations

2.1 The health and safety considerations for the work associated with this SOP, including both potential physical and chemical hazards, will be addressed in the site specific Health and Safety Plan (HASP). In the absence of a site-specific HASP, work will be conducted according to the ENSR Health and Safety Policy and Procedures Manual and/or direction from the Regional Health and Safety Manager.

3.0 Interferences

3.1 Operation of this equipment with spent or contaminated scrubbers will cause the degradation of purity of the air being generated. Excessive moisture in the inlet air stream will cause rapid scrubber degradation.

4.0 Equipment and materials

- Tools kits
- Thermo Electron Model 111 zero air generator with external air compressor
- Instruction Manual for the Thermo Electron Model 111
- Ohm Meter or Digital Multi-Meter (e.g. Fluke Model 189 or equivalent)

5.0 Procedures

For normal operation, the Model 111 should be set up as follows:

- Compressor cycles ON and Off between: **80** and b psig
- Delivering pressure from the compressor tank to Model 111: **70** psig
- Delivering pressure from Model 111 to Model 146C: **30** psig
- CO reactor operating temperature: **350-375°C** and the indicating light on the front panel of Model 111 for the temperature controller should be cycling **ON** and **OFF**

5.1 Routine site visit checks

5.1.1 **Check cooling fan:** Inspect and verify that the internal cooling fan located inside the cabinet is operating. Slide the Model 111 out of the instrument rack. Remove of the cover and visually inspect and verify the cooling fan is operating. Alternatively, the operator could put his hands over the venting louvers on the side of the cabinet and verify that warm air is venting out from the louvers.

5.1.2 **Check/troubleshoot temperature controller / CO reactor heater:** Verify the indicating light for the temperature controller is cycling **ON** and **OFF**. Alternatively, if the light is ON, turn the dial on the front panel below the temperature set point; the light should go OFF immediately. If the light is OFF, turn the dial above the set point; the light should be ON. Return the dial to the temperature set point.

5.1.3 If the indicating light fails the check described in step 5.1.2, and is **ON** continuously, remove the cover, inspect the CO reactor; the reactor should be warm to the touch with one's hand. If the reactor is cool, the heating circuit could be faulty. Remove power from Model 111, locate the temperature controller in the cabinet, and inspect the fuse on the temperature controller board. If it is **bad**, replace the fuse and recheck the reactor/heating circuit as described in step 5.1.2 or 5.1.3.

Note: It will take 30 minutes to an hour for the CO reactor to reach its set point when started from cold.

If the fuse is **good**, then the heating element in the reactor could be **faulty**. Locate the terminal block on the temperature controller, remove the 2 conductors (pin 1 and 2) on the

terminal block for the heater, use an ohm meter (set the digital multi-meter in measuring resistance mode) to measure the resistance across these 2 conductors. The reading should be approximately **100 ohms**. If the resistance measurement indicates that the heater is open, replace the heating element in the reactor or the entire reactor, and recheck the reactor/heating circuit as described in step 5.1.2 or 5.1.3.

5.2 Preventive maintenance and servicing of Model 111

The Model 111 described in this SOP was designed with simple routine maintenance requirement. Faulty components may be identified by the performance of step 5.1. The preventive maintenance procedures described below in steps 5.2.1 and 5.2.2 should be performed on an annual basis.

5.2.1 Turn the power OFF to the Model 111, remove the cover, and vacuum clean the interior compartment and components.

5.2.2 Turn the Model 111 power back ON, verify that the Model 111 is operating as in step 5.1.2 or 5.1.3.

Note: It will take approximately 30 minutes to an hour for the CO reactor to reach its set point when started from cold.

5.3 Recommended spare items for Model 111

It is recommended that the following parts, sub-assemblies and quantities be maintained in stock, readily available for the project operation.

TECO Part Number	Description	Quantity
4510	Main Fuse: 3 amp slo-blo	1kg
4510	Temperature Controller Fuse 3 amp slo-blo	1kg
4233	Temperature Controller	1
4300	Cooling fan 115VAC/60HZ	2
8186	CO Reactor	1
11-463-70 (Fisher)	Reactor Heating Element	2

5.4 Preventive maintenance and servicing of external compressor assembly

5.4.1 Routine site visit checks

1. Open the stop cock on the bottom of the tank and drain the water.
2. Check the condition of the filter in the pressure regulator/coalescing filter housing; replace it as needed or semi-annually as required.
3. Verify the compressor is NOT operating continuously. If it does, inspect the entire pneumatic connections between the compressor assembly, Model 111 zero air generator and the Model 146C calibrator for leaks, and repair the leaks as required.
4. Inspect the compressor motor for evidence of overheating or excessive noise; turn power OFF immediately if there is. Replace or repair the compressor per instructions detailed in the Appendix (Compressor Operation and Maintenance) of the Instruction Manual.

5.4.2 Scheduled maintenance/service

Perform annual preventive maintenance on the compressor motor; refer to the Appendix (Compressor Operation and Maintenance) of the Instruction Manual for the overhaul procedures.

5.4.3 Recommended spare items for external compressor assembly

It is recommended that the following parts, sub-assemblies and quantities be maintained in stock, readily available for the project operation.

TECO Part Number	Description	Quantity
8193	Service Kit for Standard Compressor	3
7785	Compressor	1
8192	Pressure Switch	1
4336	Pressure Regulator/filter	1

6.0 Quality assurance / quality control

6.1 Maintenance of this equipment should be documented in the Field Station Log (ENSR form FM06001). System audits will incorporate review of the maintenance log information.

7.0 Data and records management

7.1 Completed maintenance log sheets are subject to senior review in accordance with ENSR's Senior Review Policy PP-9-0. Project identification, and other data will be reviewed for accuracy, completeness and conformance to the relevant ENSR operational SOP and the project-specific monitoring or QA plan.

7.2 Unanticipated changes to the procedures or materials described in this SOP (deviations) will be appropriately documented in the project records.

7.3 Records associated with the activities described in this SOP will be maintained according to the document management policy for the project.

8.0 Personnel qualifications and training

8.1 Qualifications and training

8.1.1 The individual executing these procedures must have read, and be familiar with, the requirements of this SOP.

8.1.2 The operator should have read the Model 111 Instruction Manual and be familiar with the specifications, operation environment requirements, relevant pneumatic connections, front

and back panel layout, and interior component layout of this generator, and options, if any, pertaining to this generator. For operation of the Model 111, the operator should refer to Operation, Chapter 3 of the Instruction Manual.

8.2 Responsibilities

8.2.1 The project manager is responsible for providing the project team with the materials, resources and guidance necessary to properly execute the procedures described in this SOP.

8.2.2 The individual performing the work is responsible for implementing the procedures as described in this SOP and any project-specific work plans.

9.0 References

ENSR Senior Review Policy PP-9-0.

ENSR SOP 1011, Preparation and Control of Standard Operating Procedures.

Instruction Manual for the Thermo Electron Model 111.

United States Environmental Protection Agency. 2001. Guidance for Preparing Standard Operating Procedures (SOPs). EPA QA/G-6. EPA/240/B-01/004. USEPA Office of Environmental Information, Washington, DC. March 2001.

10.0 Revision history

Revision	Date	Changes
0	May 2008	NA

AECOM

Operating Procedure- Project Specific

Ambient Monitoring Field Calibration Control Plan

AECOM

Operating Procedure – Project Specific

Ambient Monitoring Field Calibration Control Plan

Contents

Ambient Monitoring Field Calibration Control Plan

1.0 Scope and applicability

1.1 This Operating Procedure (OP) defines the overall calibration control strategy to be utilized during the program.

1.2 The purpose of this procedure is to ensure that the output of the field measurement process conforms to accurate standards and is traceable to National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) or equivalent.

2.0 Health and safety considerations

2.1 The health and safety considerations for the work associated with this OP, including both potential physical and chemical hazards, will be addressed in the site specific Health and Safety Plan (HASP). In the absence of a site-specific HASP, work will be conducted according to the AECOM Health and Safety Policy and Procedures Manual and/or direction from the Regional Health and Safety Manager.

3.0 Interferences

The following can cause data obtained by this OP to be unacceptable:

- Contaminated zero air and/or calibration gas(es)
- Dirty or leaking calibration equipment
- Improperly specified filter media

4.0 Equipment and materials

- Appropriate calibration data sheets
- Appropriate calibration transfer standards
- Calculator and/or computer

5.0 Procedures

5.1 Calibrators

5.1.1 Span checks may be performed using an in-station or reference calibrator.

5.1.2 Calibration, Level 1 span checks and precision checks may be performed only with an NIST-traceable reference calibrator that has been calibrated within the past three months and a single component gas cylinder which has had its concentration certified within the previous 18 months.

5.1.3 Audits are to be performed with an independent audit calibrator, which is a calibrator which has not been used in the routine operation of the network.

5.1.4 Prior to use of a reference calibrator verify that the calibrator:

- Is drawing dilution air from outside the shelter,
- Is sufficiently warmed up,
- Is properly certified with complete documentation, and
- Preventive maintenance (leak check) has been performed.

5.2 Manual zero/span checks with in-station calibrator

5.2.1 "DOWN" the appropriate channels of the data acquisition system (DAS) to exclude the check from the valid ambient data base. Be sure to "UP" the channels to resume collection following the procedure.

5.2.2 Manually activate zero/span mode and observe stable analyzer responses to zero and span gas.

5.2.3 Compare observations with recent automatic zero/span results to verify consistency. Should the analyzer response to either the zero or span challenge be outside the tolerance limits (±1ppb), verify the input concentration and use the reference calibrator to confirm the results. If the responses of the analyzer to the reference calibrator zero and span challenges are the same, then the analyzer should be adjusted. If the analyzer is subsequently found to be operating within prescribed system tolerances using the reference calibrator, then the in-station calibrator should be adjusted. The in-station calibrator should be adjusted in the span mode.

5.2.4 Refer to Table 1 for corrective action. Both the current span results and the trends observed during the past week or two should be considered.

5.3 Precision checks

5.3.1 "DOWN" the appropriate channels of the data acquisition system (DAS) to exclude the check from the valid ambient data base. Be sure to "UP" the channels to resume collection following the procedure.

5.3.2 Precision checks should be performed at a minimum frequency of once every two weeks. Ideally they are performed in conjunction with but prior to Dynamic Zero and Level 1 span checks. A reference calibrator should be used to perform a precision check.

5.3.3 Zero checks are performed with a reference calibrator during each site visit.

- If the analyzer response to zero air is within the zero tolerance limits (±1ppb) adjustment to designated zero response can be performed as necessary.
- If analyzer response is not within the zero tolerance limits (±1ppb), troubleshoot to determine an assignable cause for the difference before adjusting. Possible sources of zero air contamination such as filters and/or scrubbers should be checked before analyzer zero is adjusted. When the zero response is within the tolerance limits, adjustment is considered complete.

5.3.4 Test gas should pass through all tubing, filters, scrubbers, etc. employed during normal sampling.

5.3.5 Input concentration is 0.01-0.10 ppm.

5.3.6 Δ% between input concentration and analyzer response is the precision statistic required. If the precision check is rerun after a zero or span adjustment, the original Δ% (prior to adjustment) is the result that should be utilized to calculate the quarterly statistics for the site.

5.4 Dynamic Zero Checks (with a reference calibrator)

5.4.1 "DOWN" the appropriate channels of the data acquisition system (DAS) to exclude the check from the valid ambient data base. Be sure to "UP" the channels to resume collection following the procedure.

5.4.2 Zero checks are performed with a reference calibrator during each site visit.

- If the analyzer response to zero air is within the zero tolerance limits ±1ppb), adjustment to designated zero response can be performed as necessary.
- If analyzer response is not within the zero tolerance limits (±1ppb), troubleshoot to determine an assignable cause for the difference before adjusting. Possible sources of zero air contamination such as filters and/or scrubbers should be checked before analyzer zero is adjusted. When the zero response is within the tolerance limits, adjustment is considered complete.

5.4.3 The site zero/span tracking mechanism should be activated each time a zero and Level 1 span check is performed and the results should be compared. Any discrepancy between the site standard and the reference calibrator should be investigated and corrected.

5.5 Level 1 span checks

5.5.1 Perform Level 1 span checks at least once every two weeks. Frequency should be adjusted on the basis of analyzer performance as indicated by control charts, but must be a minimum of every two weeks.

5.5.2 The Level 1 input concentration should be 80-90% of analyzer full scale. The check must be performed using a reference calibrator.

5.5.3 "DOWN" the appropriate channels of the data acquisition system (DAS) to exclude the check from the valid ambient data base. Be sure to "UP" the channels to resume collection following the procedure.

5.5.4 All Level 1 span and precision checks should be documented on the appropriate calibration data sheet.

5.5.5 Test gas should pass through all tubing, filters, scrubbers, etc. employed during normal sampling.

5.5.6 Compute Δ% between analyzer response and input concentration (see Section 5.7.5). The analyzer should respond within ±6.0%. Refer to Table 1 for corrective action. If the analyzer is adjusted, record new analyzer reading, new Δ% and initial and final span pot setting on the data sheet.

5.6 Multipoint calibration

A multipoint calibration is required:

- Upon installation of an analyzer in a field station;
- On an annual basis (quarterly is recommended);
- After repair of a malfunctioning analyzer;
- After replacement of major components of an analyzer;
- Prior to removal of an analyzer from a field station, if it is still functioning;
- When Δ% >±10% in an Automatic Span and subsequent Level 1 span check;
- When Δ% >±15% in an audit;
- When directed by an appropriate supervisor.

5.6.1 Input concentrations for multipoint calibrations are as follows:

(ppm)
0.000
0.010...0.100
0.150...0.200
0.350...0.450
0.800...0.900

A multipoint calibration should always leave the analyzer operating within ±6.0% of the reference calibrator at all concentrations.

5.6.2 Verification of the internal zero/span mechanism is required whenever a multipoint calibration is performed.

5.7 Tolerance limits for accuracy for continuous analyzers.

5.7.1 The maximum allowable deviation of analyzer response from input concentration is ±10%. When analyzer response to calibration gas at any single point in a calibration check falls outside this limit, the data collected back to the last documented multipoint calibration is designated as suspect.

5.7.2 The minimum adjustable deviation is ±6%. When analyzer responses during a calibration check fall within this limit, the analyzer should not be adjusted.

5.7.3 The maximum deviation for which a single-point calibration is adequate is ≤±10%. When analyzer responses fall outside this limit in a Level 1 span check, a multipoint calibration should be performed.

5.7.4 Adjustment should always leave the analyzer within +6% at all points checked.

5.7.5 The deviation of analyzer output from input concentration is determined as follows:

$$\Delta\% - \frac{(\text{concentration})_{\text{output}} - (\text{concentration})_{\text{input}}}{(\text{concentration})_{\text{input}}} \times 100$$

- Average the percentage difference for all of the concentrations.

  Note: It is essential that correct signs (plus or minus) be retained during calculation of average percentage difference.

- Compare the percentage difference at each point with the average percentage difference. If the percentage difference at any individual point differs from the average percentage difference by more than 5 percentage points, run the point again. If, on this second run, the point falls within 5 percentage points of the average, accept it and recompute the average. If not, troubleshoot to determine an assignable cause for the difference.

5.8 Data Acquisition System (DAS)

5.8.1 System responses to calibration and calibration check inputs should be retrieved from the DAS. As such, the proper operation of the DAS is verified and documented each time a calibration or check is performed.

5.8.2 Following the stabilization of analyzer response to calibration input, five minute average readings should be observed until two successive responses agree within two or three ppb of each other. This response should be recorded on the calibration form and used to compute percent difference as well as noted on the strip chart recorder.

5.8.3 Instantaneous DAS voltage responses to calibration inputs should be compared to analyzer analog output as observed with a calibrated digital voltmeter to verify agreement between analyzer output and the value reported by the DAS. The DAS should agree within $\pm$0.002 volts.

5.8.4 If the DAS responds outside this tolerance, an NIST-traceable variable 0-10 volt voltage source should be used to challenge each channel of the DAS using one volt increments. The DAS A/D converters are then to be adjusted as necessary to agree with the designated input within $\pm$0.002 volts.

5.8.5 Voltage inputs and DAS responses as well as test equipment serial numbers and calibration dates should be recorded in the Field Station Log (Figure 1). A calibration seal should be placed on the DAS.

5.9 Strip chart recorders (if applicable)

5.9.1 Strip chart recorders are to be calibrated at the same time as their associated analyzer(s).

5.9.2 DAS responses to calibration or calibration check inputs are to be noted on the strip chart recorder. The notations on the strip chart recorder should explain each significant deflection of the recorder pen, the reason for as well as the beginning and ending times of the period during which the analyzer was not sampling ambient air. The technician performing the procedure should also initial the strip chart recorder along with employee number.

5.9.3 A column on the calibration or calibration check data sheet should be labeled "strip chart recorder" and strip chart readings should be expressed as percent full scale and recorded in this column. Note any recorder zero offset.

5.9.4 Following stabilization of analyzer response to calibration input, strip chart recorder readings plus or minus any recorder zero offsets should agree with DAS readings within $\pm$1.0%. If the strip chart responds outside this tolerance, an NIST-traceable variable 0-10 volt voltage source should be used to challenge the recorder using one volt increments. The strip chart recorder is then to be adjusted as necessary to within $\pm$1.0%.

5.9.5 Voltage inputs and recorder responses as well as test equipment serial numbers and calibration dates should be recorded in the field station log. A calibration seal should be placed on the strip chart recorder.

6.0 Quality assurance / quality control

6.1 This procedure describes the requirements necessary to ensure that the output of the field measurement process is traceable to NIST-SRM. Tolerances and action levels are listed in the procedure and summarized in Table 1.

6.2 Review

6.2.1 If calibrations are rejected, the operator of the network should be notified immediately and corrective action taken. If the calibration was performed by someone other than the network operator, that person should also be notified.

7.0 Data and records management

7.1 Record all calibration and calibration check documentation in ink, at the time of the calibration or calibration check, on the appropriate calibration forms. Complete all sections of the forms using "NA" (not applicable) if necessary.

7.2 Record all appropriate documentation in the field station log and on the strip chart. The notations on the strip chart should explain each significant deflection of the recorder pen (e.g., a calibration point, baseline, amp check, adjustment) as well as the beginning and ending times of the period during which the instrument was not sampling ambient air.

7.3 Label the calibrated analyzer sampler or meteorological system with a calibration sticker showing the instrument serial number, date of the calibration, and signature of the operator (Figure 2 is an example of a calibration sticker).

7.4 Upon completion of the calibration, distribute documentation as follows:

7.4.1 First copy, to supervisor for approval and to the data processing center.

7.4.2 Second copy retained in the shelter for field records.

7.4.3 Original to the project files.

7.5 If the calibration is performed by someone other than the routine operators, such as a field service technician or engineer, then the person who performed the calibration should retain a copy of his or her work.

7.6 Unanticipated changes to the procedures or materials described in this OP (deviations) should be appropriately documented in the project records.

7.7 Records associated with the activities described in this OP should be maintained according to the document management policy for the project.

8.0 Personnel qualifications and training

8.1 Qualifications and training

8.1.1 The individual executing these procedures must have read, and be familiar with, the requirements of this OP.

8.1.2 The project engineer should provide the level of training to the technician based upon the level of complexity that will be required to conduct the tasks pertinent to the project.

8.2 Responsibilities

8.2.1 The project manager is responsible for providing the project team with the materials, resources and guidance necessary to properly execute the procedures described in this OP.

8.2.2 The project manager (or designee) is also responsible for:

- ensuring the availability of proper calibration equipment and the prompt calibration of all analyzers requiring calibration;
- reviewing in a timely manner all calibration data including transfer standards, to detect any circumstances, actions, or lack of actions that are at variance with this OP, or that may have resulted in an unacceptable calibration; and to accept or reject the data based upon such findings; and
- ensuring that rejected calibrations are redone promptly, and forwarding accepted calibration documentation to the appropriate personnel.

8.2.3 The individual performing the work is responsible for implementing the procedures as described in this OP and any project-specific work plans.

8.2.4 The field technician is also responsible for being aware of, and reporting to, his supervisor circumstances that require calibration (see Section 4.6).

9.0 References

Code of Federal Regulations 40 CFR, Part 58, Appendix B, Quality Assurance Requirements for Prevention of Significant Deterioration.

AECOM Senior Review Policy PP-9-0.

AECOM SOP 1011, Preparation and Control of Standard Operating Procedures.

EPA Quality Assurance Handbook for Air Pollution Measurement Systems Volumes I and II.

United States Environmental Protection Agency. 2001. Guidance for Preparing Standard Operating Procedures (SOPs). EPA QA/G-6. EPA/240/B-01/004. USEPA Office of Environmental Information, Washington, DC. March 2001.

Figure 1 Example Field Station Log (FM06001)

ENSR | AECOM

Field Station Log

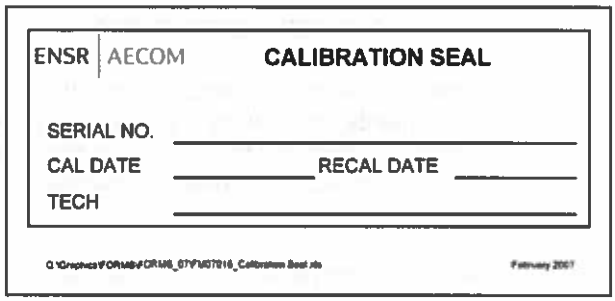
Site _____
Network _____
Project Number _____

DATE	TIME	COMMENT	INITIALS	EMP. NO.

WHITE COPY – DATA REDUCTION & ANALYSIS YELLOW COPY – FIELD OPERATION SUPERVISOR PINK COPY – FIELD STATION LOG BOOK

Q:\GRAPHICS\FORMS\FORMS_08\FM06001\FM06001_FieldStationLog.doc

Figure 2 Example of Calibration Sticker (FM07016)



APPENDIX - DEFINITIONS

Accuracy	The extent to which a measurement or the average of numerous measurements recorded by a single analyzer agrees with the true value. The difference between the true value and the measured value is defined as the error. An analyzer is considered accurate if the error is less than the tolerance or control limits.
Assignable Cause	A cause that can be found and corrected.
Audit	An independent review conducted to compare some aspect of performance with a standard for that performance. A performance audit of a continuous gas analyzer incorporates a calibration check utilizing multiple known inputs; however, it is not a multipoint calibration.
Audit Calibrator	A device other than the in-station calibrator or the reference calibrator that is used only for audits. The audit calibrator must be an EPA-approved transfer standard, in current calibration, capable of producing gases at several concentrations equally spaced over the operating range of the analyzer to be audited. These "test atmospheres" must be traceable to an authoritative standard.
Calibration	The process of establishing the relationship between the output of a measurement process and that of a known input.
Calibration Check	The process of determining the relationship between the output of a measurement process and that of a known input in order to ascertain the extent to which it agrees with the desired relationship.
Calibrator	A device used to generate a known input or range of known inputs.
Control Limit	A value calculated from a sample of test data, and expressed as a hypothetical test value, which defines a limit of random cause in the variation of the test data. Control limits are most often a pair of values defining limits of upward and downward variation. Example: If the designated automatic span value for a given analyzer-calibrator pair is 80 ppb and the calculations indicate that variations of 10 ppb or less are attributable to random cause, then the control limits for these spans are: Upper - 90 ppb Lower - 70 ppb Variations outside control limits are attributable to assignable cause. As used in this SOP, "control" and "tolerance" are nearly identical in meaning.

Data Processing Center	The location and group where data for a network are processed.
In-Station Calibrator	A calibrator integrated with a continuous monitor at a field monitoring site.
Level 1 Span Check	A span check at 80-90% of analyzer full scale, accompanied by a zero check. The standard used for the check must be an NIST-traceable standard. Results of the check are compared to the tolerance and the analyzer is adjusted if the tolerance is exceeded.
Multipoint Calibration	A calibration utilizing (1) multiple known inputs for the initial calibration check to determine linearity and accuracy of response; (2) adjustment or readjustment, if required, based on the tolerance or control limits; (3) a final calibration check to confirm linearity and accuracy of response following adjustment or readjustment; and (4) at least three points and zero.
Precision	The extent to which any individual value in a set of controlled test data can be expected to agree with the average of the set; the variability of data. Precision is not a measurement to determine "how far" from the true value (accuracy), but rather how scattered are the measurements.
Precision Check	An input of 0.01-0.10 ppm of gas using an NIST-traceable calibrator. Actual input concentration and analyzer response are documented, along with calibrator identification. No adjustment is made to the analyzer and the precision check must be performed before any zero or Level I span check. Results are used to compute precision of the data.
Primary Standard	A method, device, or material having known, stable, measurable, traceable and readily reproducible characteristics.
Random Cause	A cause that cannot be isolated and/or attributed to a correctable condition.
Reference Calibrator	A device other than the in-station calibrator that is used to calibrate or check an analyzer in the field. A reference calibrator must be in current calibration and capable of producing concentrations over the range of the analyzer to be calibrated or checked. This calibrator should be traceable to an authoritative standard.
Span Check	An input generated by a calibrator, usually an in-station calibrator or span cells, to verify analyzer performance. A span check is used to indicate changes in system performance and to demonstrate whether or not the instrument is performing within tolerance or control limits.
Standard Reference Material	A material (such as bottled gas or permeation tube) that has been certified as a primary standard.
Tolerance Limit	A noncalculated limit of variation set by contract, regulatory agency, or by judgement based upon experience (e.g., a known input plus/minus some percentage).

Traceability	Refers to written documentation supporting the accuracy, relative to a primary standard, of a method, device, or material, and the data it produces. Documentation must trace the history of calibration, including dates, methods, and procedures used, back to the relevant primary standard (by number, if NIST-SRM).
Transfer Standard (Secondary Standard)	A method, device, or material that is calibrated against a primary standard for comparison with a third method, device, or material.

1.0 Purpose and Applicability

The purpose of this document is to outline the procedures used to perform a calibration of the TECO 43i/c SO_2 analyzer. The purpose of the calibration is to verify that the analyzer meets or exceeds EPA ambient monitoring and quality assurance standards.

This document has been revised in conformance with the EPA QA Handbook for Air Pollution Measurement Systems Volume II: Ambient Air Quality Monitoring Program (May 2013). The following changes were made:

- Section 5.5.6 – Span point revised to 80 – 90% of analyzer full scale.
- Section 5.5.6 – Precision point (QC check) range revised to 0.010ppm – 0.100ppm.
- Section 5.9 – Zero point error revised to ±1.5ppb.

2.0 Responsibilities

2.1. Field Technician

2.1.1. The field technician is responsible for reading and understanding the appropriate calibration SOPs, calibration forms, and project quality assurance project plan (QAPP).

2.1.2. The field technician is responsible for performing the calibration according to procedures found in appropriate SOPs, the project QAPP, and applicable USEPA quality assurance guidance documents.

2.1.3. The field technician is responsible for properly documenting the calibration on all project forms, including the *Station Log* and the appropriate calibration form.

2.2. Field Operations Manager

2.2.1. The Field Operations Manager is responsible for supervising the activities of the Field Technician.

2.2.2. The Field Operations Manager is responsible for ensuring that all necessary calibration equipment is available and properly certified.

2.2.3. The Field Operations Manager is responsible for reviewing all documentation related to calibration activities for accuracy and completeness.

2.3. Project Manager

2.3.1. The Project Manager is responsible for ensuring that calibrations are performed at the proper frequency.

2.3.2. The Project Manager is responsible for ensuring that all calibration documentation is reviewed in a timely manner, and is accurate and complete.

3.0 Required Materials

- Manufacturer's service manuals and/or operating manuals for the analyzer and data logger
- Project QAPP
- Calibration form
- Digital multimeter
- Gas dilution system certified within the past three months, and capable of generating calibration gas levels between zero and 90 percent of the analyzer full scale (e.g., TECO 146C)
- SO_2 NIST-traceable gas cylinder with valid certification
- Zero air (SO_2-free) supply
- Assorted hand tools
- Documentation for all calibration standards and equipment showing that they have been calibration-checked against a NIST- traceable reference standard within the previous 12 months.

4.0 Required Calibration Frequency

The analyzer must be calibrated in place (if possible) and under the following conditions:

- At installation.
- At least every 3 months after installation.
- Prior to takedown.
- Immediately prior to removal, repair, or replacement of the analyzer or any of its components, provided that the analyzer is operational.

- Immediately following installation, repair, or replacement of the analyzer or any of its components.

It is also recommended that an automated zero/span and precision check be performed every other day, at a minimum, to ensure analyzer performance.

5.0 Calibration Check Procedure

5.1. Record the start time of the calibration check (data logger time) in the *Station Log* and down the data channel. The procedure for "downing" a channel is located in the data logger Manufacturer's Manual.

5.2. Fill out all heading information on the calibration form.

5.3. Do not perform any maintenance activities, or make any adjustments of the analyzer, prior to performing an as-found calibration check. Also note that an as-left calibration check is required after instrument maintenance or adjustment

5.4. Leak Check – it is advisable to perform a leak check when leaks are suspected as well as part of a multipoint calibration check. The leak check should be performed following the initial calibration check.

5.4.1. Perform the External Leak check as described in Chapter 5 of the *Model 43i/c Instruction Manual.*

5.4.2. Refer to Figure 1 for a schematic of the pushbuttons on the TECO 43i/c O_3 Analyzer.

5.4.3. Following the external leak check the flow reading should now read zero flow and the pressure reading should be less than 180 mm Hg. If not, check to see that all fittings are tight, and that none of the input lines are cracked or broken. If necessary, tighten all fittings and connectors, **but only after performing the as-found calibration check as described in Section 5.5.**

5.5. As-Found Multipoint Calibration Check Procedure

5.5.1. The as-found multipoint calibration check should be performed according to the directions found below. **Note that no analyzer zero or span adjustments should be made until the as-found multipoint calibration check is completed.**

5.5.2. Prior to performing the multipoint calibration check the analyzer must be completely warmed up and the output must be stable. This may take up to several hours if the analyzer has been shut off for any significant amount of time.

5.5.3. Connect the output from the gas dilution system to the sample line. This connection should be made upstream of any in-line sample filter.

5.5.4. To ensure that the zero air is being measured at atmospheric pressure, check that the flow is about 0.8 LPM. From the Run screen, press the MENU pushbutton to display the Main Menu. Use the ↓ pushbutton to move the cursor to Diagnostics, and press ENTER to display the Diagnostics menu. Use the ↓ pushbutton to move the cursor to Flow and press ENTER to display the flow screen.

5.5.5. Press the RUN pushbutton to monitor the zero air reading and wait for the reading to stabilize.

5.5.6. The multipoint calibration check must consist of least four test concentrations as specified in the QAPP, plus a zero value. Note that the highest concentration tested must be between 80 percent and 90 percent of the analyzer full scale. The lowest test point constitutes the single-point QC check, and the input concentration for this test point must be between 0.010 ppm and 0.100 ppm. Refer to the project QAPP to see if additional test points are required.

5.5.7. The gas dilution system should be used to mix quantities of zero (dilution) air and calibration gas to achieve the desired calibration gas concentration. Adjust the calibrator to deliver the desired calibration gas concentration. The dilution flow and gas flow must be supplied at a rate greater then the total flow requirements of the monitors connected to the calibration system.

5.5.8. Record the gas flow, dilution flow, and input concentration on the calibrator for each test concentration. Verify each gas and dilution flow setting by observing the gas and dilution flows as displayed by the data acquisition system. The data acquisition system output is required to be within ±5 percent of the actual gas dilution system settings.

5.5.9. After the analyzer output has stabilized at each test concentration, record the concentration as displayed by the data acquisition system.

5.6. After completing the as-found multipoint calibration check, compare the system response to the tolerances provided in the project specific QAPP.

5.7. If all measurements were within the acceptable range/limits provided in the QAPP, no further tests are required.

5.8. If the analyzer fails the calibration check, immediately notify the Field Operations Manager or the Project Manager for further instructions. If any adjustments are necessary to bring the analyzer within the acceptable range/limits, make them only after notifying the Field Operations Manager or the Project Manager of the as-found calibration check results. If the analyzer is re-calibrated, the calibration tests listed above must be repeated after the adjustment. Calibration procedures are found in Section 6.0.

5.9. If either 1) the analyzer fails the calibration check, or 2) all measurements were within the acceptable range/limits, but either the zero error is approaching ±1.5ppb, or the span error was greater than ±5 percent of the designated span value, then it is recommended to re-calibrate the analyzer and then perform an as-left multipoint calibration check. Calibration procedures are found in Section 6.0.

5.10. Following the calibration check, return the system back to sampling ambient conditions. Check all connections, and make sure that the instantaneous data reported by the data logger is reasonable for the current conditions.

5.11. Sign the calibration form, enter the calibration results and ending time (data logger time), plus any comments, on the *Station Log* form. Leave a copy of the calibration form on-site.

6.0 Calibration Procedure

Calibration of the analyzer involves making adjustments such that the sensor output is accurate to within specified limits.

6.1. To adjust the analyzer, follow the multipoint calibration procedures in Chapter 4 of the Model 43i/c Instruction Manual.

6.2. Following the multipoint calibration and analyzer adjustments, an as-left multipoint calibration check must be performed and the results recorded on the calibration form. The as-left calibration check should be performed as described in Section 5.5.

7.0 Quality Control

7.1. The Field Operations Manager or his designee must review all calibration documentation for accuracy and completeness. An initial review must be done before the field technician leaves the site. Final review, including review by the Project Manager or his designee, must be completed within 10 business days following the calibration.

7.2. Acceptance criteria are provided in the project QAPP.

8.0 Documentation

8.1. One copy of the completed calibration form must be retained at the site.

8.2. A record of the calibration, including the date, the time the analyzer is taken off-line (local standard time), the time the analyzer is back on-line (local standard time), and the system being calibrated must be entered in the *Station Log*.

9.0 References

Quality Assurance Handbook for Air Pollution Measurement Systems Volume II: Ambient Air Quality Monitoring Program.
EPA-454/B-13-003. May 2013.

Model 43i Instruction Manual Pulsed Fluorescence SO_2 Analyzer Instruction Manual. Thermo Electron Part Number 101589-00. October 17, 2005.

Model 43c Instruction Manual Pulsed Fluorescence SO_2 Analyzer Instruction Manual. . June 5 1997.

Figure 1 Schematic of analyzer front panel

Pushbuttons

The Pushbuttons allow the user to traverse the various screens/menus.

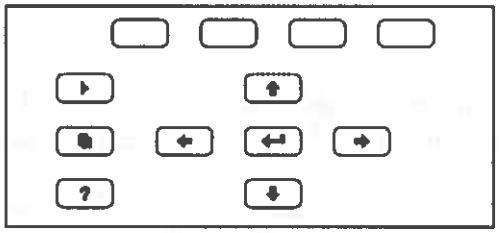


Figure 3-2. Front Panel Pushbuttons

Table 3-1. Front Panel Pushbuttons

= Soft Keys	The soft keys are used to provide shortcuts that allow the user to jump to user-selectable menu screens. For more information on processing soft keys, see "Soft Keys" below.
= Run	The Run key is used to display the Run screen. The Run screen normally displays the SO_2 concentration.
= Menu	The Menu key is used to display the Main Menu when in the Run screen, or back up one level in the menu system. For more information about the Main Menu, see "Main Menu" later in this chapter.
= Help	The Help key is context-sensitive, that is, it provides additional information about the screen that is being displayed. Press Help for a brief explanation about the current screen or menu. Help messages are displayed using lower case letters to easily distinguish them from the operating screens. To exit a help screen, press Menu or Help to return to the previous screen, or Run to return to the Run screen.
= Up, Down = Left, Right	The four arrow pushbuttons (Up, Down, Left, and Right) move the cursor up, down, left, and right or change values and states in specific screens.
= Enter	The Enter key is used to select a menu item, accept/edit/save a change, and/or toggle on/off functions.

1.0 Purpose and Applicability

The purpose of this document is to outline the procedures used to perform a calibration of the TECO 146C Dynamic Gas Calibrator. The purpose of the calibration is to verify that the analyzer meets or exceeds EPA ambient monitoring and quality assurance standards.

2.0 Responsibilities

2.1. Field Technician

2.1.1. The field technician is responsible for reading and understanding the appropriate calibration SOPs, calibration forms, and project monitoring plan.

2.1.2. The field technician is responsible for performing the calibration according to procedures found in appropriate SOPs, the project monitoring plan, and applicable USEPA quality assurance guidance documents.

2.1.3. The field technician is responsible for properly documenting the calibration on all project forms, including the *Station Log* and the appropriate calibration form.

2.2. Field Operations Manager

2.2.1. The Field Operations Manager is responsible for supervising the activities of the Field Technician.

2.2.2. The Field Operations Manager is responsible for ensuring that all necessary calibration equipment is available and properly certified.

2.2.3. The Field Operations Manager is responsible for the reviewing all documentation related to calibration activities for accuracy and completeness.

2.3. Project Manager

2.3.1. The Project Manager is responsible for ensuring that calibrations are performed at the proper frequency.

2.3.2. The Project Manager is responsible for ensuring that all calibration documentation is reviewed in a timely manner, and is accurate and complete.

3.0 Required Materials

- Manufacturer's service manuals and/or operating manuals for the calibration unit and data logger
- Project monitoring plan
- Calibration form
- Fluke 8020A digital multimeter or equivalent
- NIST-traceable flow meter
- Calibrated reference temperature device accurate to within ±0.5°C (±1.0°F)
- Calibrated reference barometer accurate to within ±3 mb (±0.023 in Hg)
- Source of clean, dry air
- Assorted hand tools

4.0 Required Calibration Frequency

The calibration unit must be calibrated in place (if possible) and under the following conditions:

- At installation.
- At least every 3 months after installation.
- Prior to takedown.
- Immediately prior to removal, repair, or replacement of the calibration unit or any of its components, provided that the unit is operational.
- Immediately following installation, repair, or replacement of the calibration unit or any of its components.

5.0 Method

5.1. Record the start time of the calibration (data logger time) in the *Station Log* and down the data channel. The procedure for "downing" a channel is located in the data logger Manufacturer's Manual.

5.2. Fill out all heading information on the calibration form.

5.3. Record the temperature and pressure on the calibration form. The temperature that should be recorded is the temperature in the environment shared by the dynamic gas calibrator, not ambient (outside) temperature.

5.4. Do not make any adjustments to the gas dilution unit prior to performing an as-found calibration check. Also note that an as-left calibration check is required after instrument maintenance or adjustment.

5.5. As-Found Multipoint Calibration Procedure

5.5.1. The as-found multipoint calibration should be performed according to the following procedure. **Note that no adjustments should be made until the as-found multipoint calibration is completed.**

5.5.2. Disconnect the calibrator output from the sample system and connect to the reference flow measurement. Check that the connections are leak-tight and that there are no extra vents open.

5.5.3. Both the gas flow and zero (dilution) air mass flow controllers should be calibrated over at least five flows at approximately 10%, 30%, 50%, 70%, and 90% of the respective mass flow controller full-scale flows. Full scale flow for the zero (dilution) air mass flow controller is 10 liters/minute (10,000 cc/minute). Full scale flow for the gas mass flow controller is 100 cc/minute.

5.5.4. Take the average of at least 3 flow measurement responses and raw voltage readings for each calibration point.

5.5.5. Record the flow as displayed by the reference flow meter, and the corresponding voltage output by the mass flow controller, at each calibration point on the calibration form. The flow controller output can be observed on the dilution raw or gas raw data logger channels. Note that actual flow measured by the reference flow meter must be converted to standard conditions (25°C and 1 atmosphere). This is accomplished by multiplying the measured flow by the factor

$$\frac{(298.15\ K)\,(P_{act})}{(760\ mm\ Hg)\,(T_{act})},$$

where P_{act} and T_{act} are the actual pressure (mm Hg) and temperature (K) as recorded in Step 5.3.

5.5.6. Once all calibration points are completed, calculate the linear regression between the measured flows at standard conditions (y-values) and the mass flow controller voltage output (x-values).

5.6. Check that the system is within the tolerances shown below.

Acceptance Criteria	Acceptable Range/Limit
Linear regression correlation coefficient (R^2)	≥0.995
Calibration curve intercept	≤3% of analyzer full scale

5.7. Update the multiplier and offset readings for the gas and dilution flow channels in the data logger program. Enter the calculated slope as the multiplier and the intercept as the offset.

5.8. Save the updated program with a new program name based on the date (mmddyy) the program is compiled. Prior to loading the program collect any data since the last time data was collected. This can be done by downloading the data remotely or by collecting the data on site and transferring the data back to the project data analyst.

5.9. Load the new program to the data logger. After the new program is loaded check a mid-point flow of both the gas and dilution channels using the flow standard corrected to standard conditions and the observed indication of the data logger. These should agree to within ±2%.

5.10. Re connect gas outlet line to sample system.

5.11. Sign the calibration form, enter the calibration results and ending time (data logger time), plus any comments, on the *Station Log* form. Leave a copy of the calibration form on-site.

5.12. Make notations on strip chart record (if applicable) explaining which data were affected by the calibration.

6.0 References

Quality Assurance Handbook for Air Pollution Measurement Systems Volume II: Part I Ambient Air Quality Monitoring Program Quality System Development. EPA-454/R-98-004. August 1998.

Quality Assurance Handbook for Air Pollution Measurement Systems Volume II Ambient Air Quality Monitoring Program. Draft document dated August 2008.

Model 146C Dynamic Gas Calibrator Instruction Manual. Thermo Electron Part Number 13410. December 1, 2003.

Appendix E

Equipment Specifications

Product Specifications

Sulfur Dioxide Analyzer, Model 43i

Pulsed fluorescence gas analyzer

The Thermo Scientific Sulfur Dioxide (SO_2) Analyzer, Model 43*i* utilizes pulsed fluorescence technology to measure the amount of sulfur dioxide in the air up to 100 ppm.

The pulsing of the U.V. source lamp serves to increase the optical intensity whereby a greater U.V. energy throughput and lower detectable SO_2 concentration are realized.

Reflective bandpass filters, as compared to commonly used transmission filters, are less subject to photochemical degradation and more selective in wavelength isolation. This results in both increased detection specificity and long term stability.

This state-of-the-art gas analyzer offers features such as an Ethernet port as well as flash memory for increased data storage.

Ethernet connectivity provides efficient remote access, allowing the user to download measurement information directly from the instrument without having to be on-site.

You can easily program short-cut keys to allow you to jump directly to frequently accessed functions, menus or screens The larger interface screen can display up to five lines of measurement information while primary screen remains visible.

Key Features

- Approved to meet the following standards: US EPA, UK Environmental Agency and the European Union
- Ethernet connectivity for efficient remote access
- Enhanced user interface with one button programming and large display screen
- Flash memory for increased data storage and user downloadable software
- Enhanced electronics design optimizes product commonality

Sulfur Dioxide Analyzer, Model 43*i*

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific air quality products.

Product Specifications

Preset Ranges	0-0.05, 0.1, 0.2, 0.5, 1, 2, 5, and 10 ppm
	0-0.2, 0.5, 1, 2, 5, 10, 20, and 25 mg/m^3
Extended Ranges	0-0.05, 1, 2, 5, 10, 20, 50 and 100 ppm
	0-2, 5, 10, 20, 50, 100, 200, and 250 mg/m^3
Custom Ranges	0-0.05 to 100 ppm
	0-0.2 to 250 mg/m^3
Zero Noise	1.0 ppb RMS (10 second averaging time), 0.5 ppb RMS (60 second averaging time),
	0.25 ppb RMS (300 second averaging time)
Lower Detectable Limit	2.0 ppb (10 second averaging time), 1.0 ppb (60 second averaging time),
	0.5 ppb (300 second averaging time)
Zero Drift (24 hour)	Less than 1 ppb
Span Drift (24 hour)	+/-1%
Response Time	80 seconds (10 second average time)
	110 seconds (60 second average time)
	320 seconds (300 second average time)
Precision	1% of reading or 1 ppb (whichever is greater)
Linearity	+/-1% full scale ≤ 100ppm
Sample Flow Rate	0.5 liters/min. (standard)
	1 liter/min. (optional)
Interferences	< lower detectable limit except for the following:
(EPA levels)	NO ≤ 3 ppb, M-Xylene ≤ 2 ppb, H_2O ≤ 2% of reading
Operating Temperature	20^{0}C - 30^{0}C
Power Requirements	100 VAC, 115 VAC, 220-240 VAC +/-10% @ 165W
Size and Weight	16.75"(W) x 8.62"(H) x 23"(D), 48 lbs. (21.8 kg)
Outputs	Selectable Voltage, RS232/RS485, TCP/IP, 10 Status Relays, and Power Fail Indication (standard)
	0-20 or 4-20 mA Isolated Current Output (optional)
Inputs	16 Digital Inputs (standard), 8 0-10Vdc Analog Inputs (optional)
Approvals and Certifications	US EPA Equivalent Method: EQSA-0486-060
	MCERTS Certified: Sira MC070094/00
	EN14212: TÜV 936/21203248/D Report

Ordering Information

Sulfur Dioxide Analyzer, Model 43*i*
Choose from the following configurations/options to customize your own Model 43*i*

1. Voltage options:
A = 120 VAC 50/60 Hz
B = 220 VAC 50/60 Hz
J = 100 VAC 50/60 Hz

2. Internal zero /span:
N = No zero / span assembly
Z = Internal zero / span assembly
P = Internal permeation span source with zero/span assembly

3. Kicker type:
S = Standard
H = Heated

4. Optional I/O:
A = No optional I/O (standard)
C = 0-20, 4-20mA current output - 6 channels, 0-10v analog input - 8 channels

5. Mounting hardware:
A = Bench mounting (standard)
B = Ears & handles, EIA
C = Ears & handles, retrofit

Other options:
- Teflon particulate filter
- Rack mounts
- Rear extender

Your Order Code: 43*i* - __ __ __ __ __

This product is manufactured in a plant whose quality management system is ISO 9001 certified.

Lit_43iAQI_08/09

Environmental Instruments Division
Air Quality Instruments
27 Forge Parkway
Franklin, MA 02038 USA
(866) 282-0430
(508) 520-0430
(508) 520-1460 fax
www.thermo.com/air

Thermo SCIENTIFIC

Product Specifications

Model 146*i* Multi-gas Calibrator

Mass flow calibrator with enhanced communication capabilities for ambient air monitoring.

Key Features

- Ethernet connectivity for efficient remote access
- Enhanced user interface with one button programming and large display screen
- Flash memory for increased data storage and user downloadable software
- Enhanced electronics design optimizes product commonality
- Improved layout for easier accessibility to components
- Gas Phase Titration for Generation of O_3 and NO_2
- Permeation Oven for generation of SO2, NO_2, H_2S, NH_3, and other gases.

A change is in the air

The Thermo Electron Model 146i Dynamic Gas Calibrator supplies precise levels of ozone, carbon monoxide, non-methane hydrocarbons, sulfur dioxide, nitric oxide and nitrogen dioxide or other gases that a user may require. The gas levels are used to calibrate instruments that perform zero, precision and level 1 span checks, audits and multipoint measurements. The design of the Model 146i meets or exceeds all published U.S. Environmental Protection Agency requirements for multipoint calibration, audit, Level 1 and 2 span and precision checks.

The Model 146i's mass flow controller, ozone generator, permeation tube oven, power supply, and solenoid valves are integrated into a single microprocessor controlled unit. This permits easy to use, menu driven software and a consistent set of operation screens for all calibration procedures. Additionally, the microprocessor can make many of the necessary calculations, thereby freeing the operator from having to make the calculations in the field or laboratory. If desired, the Model 146i can be operated remotely by a data logger or to perform multipoint calibrations.

Comprehensive Service Solutions

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. Thermo Electron offers comprehensive, flexible support solutions for all phases of the product lifecycle. Through predictable, fixed-cost pricing, Thermo services help protect the return on investment and total cost of ownership of your Thermo Electron air quality products.

Product Specifications

Dilution System	
Flow Measurement Accuracy	+/- 2% setpoint or +/- 1% FS, whichever is less from 20 to 100% FS
Repeatability of flow control	+/- 0.2% FS (Porter flow controller spec - better than 146C)
Linearity of mass flow measurements	+/- 0.5% FS
Flow range of dilution air	0-10 SLPM
optional ranges	0-5/0-20 SLPM
Flow range of cylinder gases	0-100SCCM
optional ranges	0-50/0-200 SCCM
Zero Air requirements	10 SLPM @ 30 PSI
optional ranges	20 SLPM @ 30 PSI
Calibration gas input ports	3, optional 6
Diluent gas input ports	1
Response time	<60 sec. To 99% (146C spec)
Ozone Generator Option	
Maximum output	1 ppm @ 6 SLPM
Minimum output	10 ppb @ 6 SLPM
Physical Specifications	
Test channel analog	6 @ +/- 100 mv, 1, 5, 10 volts (user selectable)
Digital control outputs	10 Relay and 8 24vdc Solenoid
Digital control inputs	16
Temperature range	0-40 deg C
Weight	51 lbs (58 lbs for 220-240VAC)
Dimensions	16.75" W x 8.62" H x 23" D
Power	100VAC 50/60Hz, 115VAC 50/60Hz, 220-240VAC 50/60Hz, 275 watts (with all options)

Ordering Information

Model 146i Calibrator
Choose from the following configurations/options to customize your own Model 146i

Voltage options:
A = 120 Vac 50/60 Hz (standard)
B = 220 Vac 50/60 Hz
J = 100 Vac 50/60 Hz

Calibration Sources
N = No Optional Calibration Sources (standard)
P = Internal Permeation Span Source
T = Gas Phase Titration
C = Internal Permeation Span Source with Gas Phase Titration

Span Ports
3 = Three Span Inputs (standard)
6 = Six Span Inputs

Span Gas Mass Flow Controller
A = 50 SCCM
B = 100 SCCM (standard)
C = 200 SCCM

Zero Gas Mass Flow Controller
D = 5 SLPM
E = 10 SLPM (standard)
F = 20 SLPM

Optional I/O:
A = None (standard)
C = I/O expansion board
(4-20mA outputs - 6 channels, 0-10v inputs - 8 channels)

Mounting Hardware:
A = Bench mounting (standard)
B = Ears & handles, EIA
C = Ears & handles, Retrofit

Your Order Code: 146i - __ __ __ __ __ __ __

Other options:
- Rack mounts
- Rear extender
- Terminal Block Kit & Cable 37 pin
- Cable, DB25M to open end, 6' LG.
- Cable, DB37M to open end, 6' LG.
- Cable, DB37F to open end, 6' LG.
- Terminal Block Kit & Cable 25 pin
- Cable, RS232 Null Modem

This specification sheet is for informational purposes only and is subject to change without notice. Thermo makes no warranties, expressed or implied, in this product summary.

Lit_146iEID_6/06

Thermo ELECTRON CORPORATION

Environmental Instruments
Air Quality Instruments

www.thermo.com/air

27 Forge Parkway
Franklin, MA 02038 USA
+1 (866) 282-0430
+1 (508) 520-1460 fax

Takkebijsters 1
Breda, BL 4817
The Netherlands
+31 (0) 76 5879888
+31 (0) 76 5816520 fax

Thermo Scientific Model 111 Zero Air Supply

Designed for NO, NO_2, O_3, SO_2, CO and hydrocarbon requirements

The Thermo Scientific™ Model 111 Zero Air Supply uses an external compressor; the pressure regulators, chemical scrubbers, reactor and temperature controller are all contained in a single convenient case.

- Critical components are self contained
- Limited Maintenance
- Exceptional ease of use

The Thermo Scientific Model 111 Zero Air Supply uses an external compressor; the pressure regulators, chemical scrubbers, reactor and temperature controller are all contained in a single convenient case.

Designed for any application where pollutant free levels of NO, NO_2, O_3, SO_2, CO and hydrocarbons are required, with flows up to 20 liters per minute at pressure of 30 PSI.

The room air enters the compressor, where it is raised to a pressure of 80-90 PSI. The output of the compressor contains a coalescing filter and a pressure regulator where the pressure is reduced to 70 PSIG.

The air then passes into a column of Purafil (potassium permanganate on alumina) which oxidizes NO to NO_2. Finally, the air passes through a column of activated charcoal which removes NO_2, SO_2, O_3 and hydrocarbons.

Lastly, the air then goes into the reactor where it is heated to 350°C over a catalytic surface which converts CO to CO_2 and any remaining hydrocarbons, including methane, to water and CO_2. This process results in a pollutant free stream of air.

Thermo SCIENTIFIC

Thermo Scientific Model 111 Zero Air Supply

Pressure	10 - 30 PSI
Standard Flow Rate	0-10 liters/min
Water Vapor	0°C Dew point
Physical Dimensions	
Size	15" (D) x 19" (W) x 12.25" (H) [381 mm (D) x 482.6 mm (W) x 311.15 mm (H)]
Weight	20 lbs. (9.07 kg)
Compressor	
Size	120" (D) x 12" (W) x 17" (H). [508 mm D) x 304.8 mm (W) x 431.8 mm (H)]
Weight	40 lbs. (18.14 kg)
Flow Rate	0-10 LPM Standard 0-20 LPM (optional)
Pollutant Concentration Levels	
CO	< 0.1 ppm
HC	< 0.1 ppm
NO	< 0.5 ppb
NO_2	< 0.5 ppb
O_3	< 0.8 ppb
SO_2	< 0.5 ppb
H_2S	< 0.5 ppb
NH_3	< 0.5 ppb

Ordering Information

Model 111 Zero Air Supply
Choose from the following configurations/options to customize your own Model 111

1. Voltage Options:
A = 120 Vac 60 Hz
B = 220 Vac 50/60 Hz

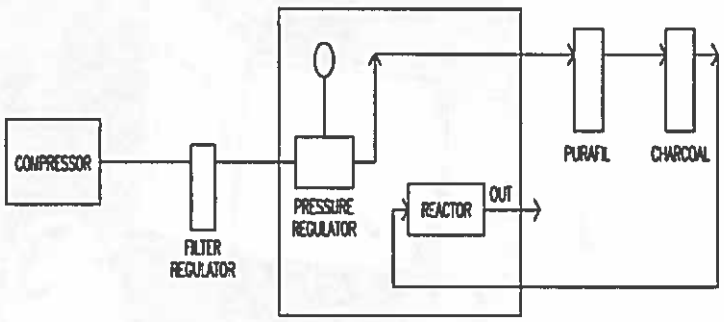
2. Compressor Size:
1 = No Compressor
2 = 10 LPM Compressor
3 = 20 LPM Compressor

3. CO Reactor:
N = No CO Reactor
R = CO Reactor Setup

Options:
- Rack Mount
- Rear Extender

Your Order Code: Model 111 - _ _ _

Flow Diagram: Model 111 Zero Air Supply



To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific products.

For more information, visit our website at thermoscientific.com/ambient

This product is manufactured in a plant whose quality management system is ISO 9001 certified.

USA
27 Forge Parkway
Franklin, MA 02038
Ph: (866) 282-0430
Fax: (508) 520-1460
customerservice.aqi@thermofisher.com

India
C/327, TTC Industrial Area
MIDC Pawane
New Mumbai 400 705, India
Ph: +91 22 4157 8800
india@thermofisher.com

China
+Units 702-715, 7th Floor
Tower West, Yonghe
Beijing, China 100007
+86 10 84193588
info.eid.china@thermofisher.com

Europe
Takkebijsters 1
Breda Netherlands 4801EB
+31 765795641
info.aq.breda@thermofisher.com

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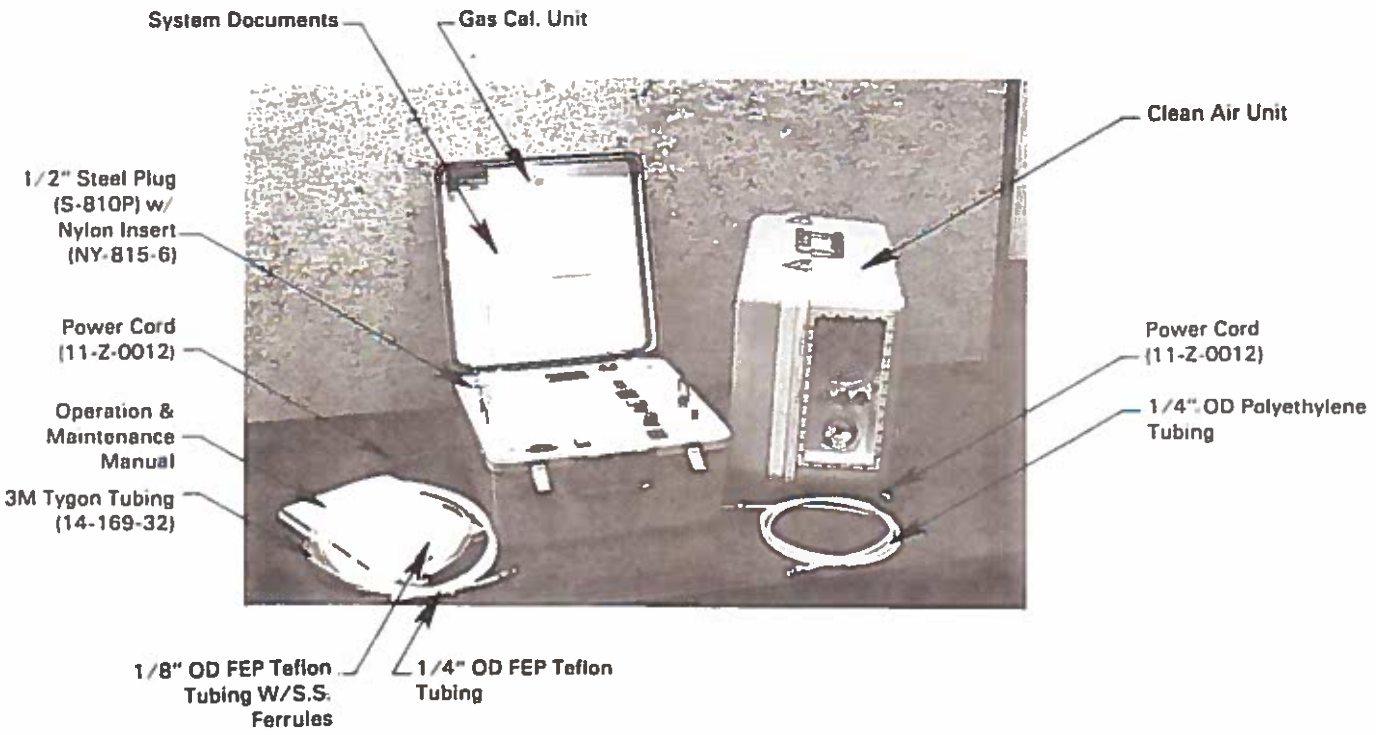


Figure 1-1 Gas Cal. 82 Portable Calibration System

Gas Cal. Unit (GCU)

The GCU module contains two mass flow controllers, a DVM, control circuitry, power supply, a gas phase titration (GPT) sub-system and all local control elements. The components are mounted and sandwiched between two plates approximately 6 in. apart. The two plates assembly is then packed in a lightweight, molded fiberglass case with reinforced shell. A hinged flyleaf is attached to the interior of the cover to form a utility compartment.

TABLE 2
List of Attachments

Item	Qty	Description	Part No.
1	1	Power Cord	11-Z-0012
2	1	3M, tygon tubing 1/2"ODx 3/8"ID	14-169-3Z
3	1	Steel Plug 1/2"	S-810P
4	1	Nylon insert	NY-815-6
5	1	FEP thick-walled teflon tubing 1/4"OD, 4 ft. long.	
6	1	FEP teflon tubing, 1/8" OD,4 ft. long.	
7	2	S.S. nut 1/8"	28-Z-0002
8	2	S.S. ferrule 1/8"	28-Z-0013
9	1	Mass flow controllers flow calibration documents.	
10	1	Operation and Maintenance Manual	

When unpacking the GCU, check for the contents listed on Table 2. All attachments are stored in the utility compartment.

Figure 1-1 shows the two modules and their attachments.

1.2 Instrument Controls and Indicators

Figure 1-2 illustrates the locations of all panel accessible control elements and indicators of the Gas Cal. 82. The control elements are designed for manual operation.

1.3 System Specifications

Clean Air Unit

Flow Capacity	10 liter per minute at 15 psig.
Output air composition:	
Ozone	less than 0.002 ppm.
Sulfur dioxide	less than 0.002 ppm.
Oxides of nitrogen	less than 0.002 ppm.
Hydrogen sulfide	less than 0.002 ppm.
Carbon monoxide	less than 0.500 ppm (Unit equipped with optional CO converter).
Output air condition	Non condensable at operating temperature.
Output air dew point	Approx. 50 degree F at room temperature (72 degree F) with the inlet air dew point at 50 and above.
Operating humidity	To 100% R.H.
Operating temperature	35-100 degree F.
Power Requirements	600 watts, 120 ACV, 60 Hz.
Weight	48 pounds (lbs)
Physical dimensions	19.38"x14.13"x10.69" (LxWxH) (49.2x35.9x27.2 cm.)

Gas Cal. Unit

Span gas flow controller	0--100 cc/min. standard range.
Air flow controller	0--10 liter/min. standard range.
Flow rate accuracy (both flow controllers)	+/-1% of full scale at calibrated temperature and pressure.
Flow rate repeatability (both flow controllers)	+/-0.25% of rate.
Working pressure	5--50 psig differential.
Operating temperature	40-100 degree F.
Ozone output, maximum	1.000 ppm at 5 liter/min. of dilution air flow.
Ozonator air flow	160--180 cc/min. (nominal with dilution air flow rate set at 5.0 liter/min.
Dynamic parameter (Pr) of the GPT	>3.75 ppm-min. with dilution air flow rate set at 5.0 liter/min.
Reactants residence time in the reaction chamber	<2 minutes with dilution air flow rate set at 5.0 liter/min.
GPT Efficiency of Titration (E.T.)	90% of available NO converted to NO_2 with residual 03 equal or less than 3 ppb.
Ozonator temperature	50+/-0.2 degree C.
Digital panel meter accuracy	+/-1 digit.
Unit warm up time	Less than 30 minutes.
Power requirements	240 watts, 120ACV, 60 Hz
Weight	32 pounds (lbs).
Physical dimensions	14.62"x14.12"x9.76" (LxWxH) (37.1 x 35.9 x 24.8 cm.)

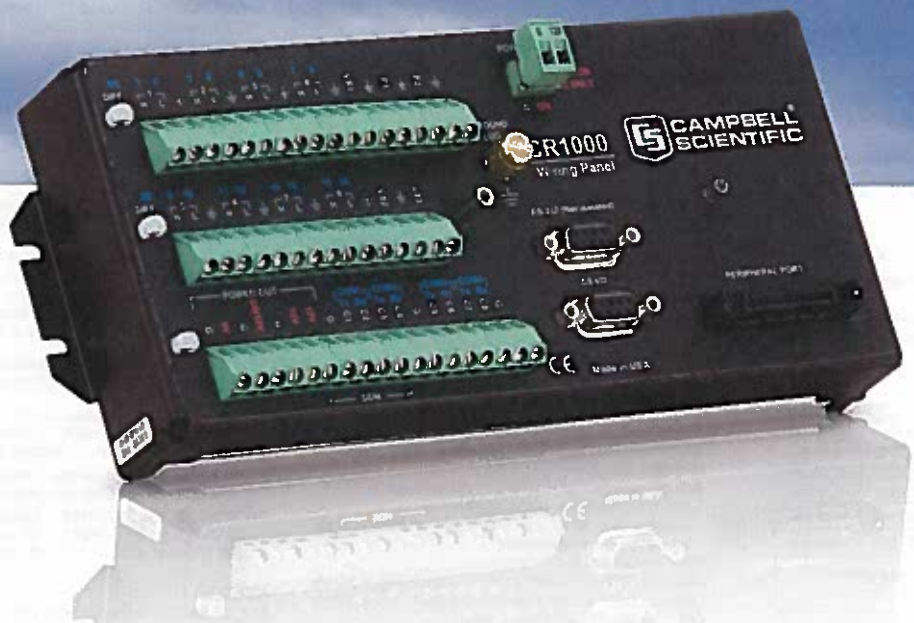
COMPONENT

CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

CR1000

Measurement and Control Datalogger

Rugged, Reliable, and Ready for any Application



More info: 435.227.9000
campbellsci.com/cr1000

CR1000 Specifications

Electrical specifications are valid over a -25° to +50°C, non-condensing environment, unless otherwise specified. Recalibration recommended every three years. Critical specifications and system configuration should be confirmed with Campbell Scientific before purchase.

PROGRAM EXECUTION RATE
10 ms to one day @ 10 ms increments

ANALOG INPUTS (SE1-SE16 or DIFF1-DIFF8)
8 differential (DF) or 16 single-ended (SE) individually configuredinput channels. Channel expansion provided by optional analog multiplexers.

RANGES and RESOLUTION: Basic resolution (Basic Res) is the A/D resolution of a single A/D conversion. A DIFF measurement with input reversal has better (finer) resolution by twice than Basic Res.

Range (mV)[1]	DF Res (µV)[2]	Basic Res (µV)
±5000	667	1333
±2500	333	667
±250	33.3	66.7
±25	3.33	6.7
±7.5	1.0	2.0
±2.5	0.33	0.67

[1]Range overhead of ~9% on all ranges guarantees that full-scale values will not cause over range.
[2]Resolution of DF measurements with input reversal.

ACCURACY[3]:
±(0.06% of reading + offset), 0° to 40°C
±(0.12% of reading + offset), -25° to 50°C
±(0.18% of reading + offset), -55° to 85°C (-XT only)

[3]Accuracy does not include the sensor and measurement noise. Offsets are defined as:
Offset for DF w/input reversal = 1.5·Basic Res + 1.0 µV
Offset for DF w/o input reversal = 3·Basic Res + 2.0 µV
Offset for SE = 3·Basic Res + 3.0 µV

ANALOG MEASUREMENT SPEED:

Integration Type/Code	Integration Time	Settling Time	Total Time[4] SE w/ No Rev	Total Time[4] DF w/ Input Rev
250	250 µs	450 µs	~1 ms	~12 ms
60 Hz[5]	16.67 ms	3 ms	~20 ms	~40 ms
50 Hz[5]	20.00 ms	3 ms	~25 ms	~50 ms

[4]Includes 250 µs for conversion to engineering units.
[5]AC line noise filter.

INPUT NOISE VOLTAGE: For DF measurements with input reversal on ±2.5 mV input range (digital resolution dominates for higher ranges).
250 µs Integration: 0.34 µV RMS
50/60 Hz Integration: 0.19 µV RMS

INPUT LIMITS: ±5 Vdc

DC COMMON MODE REJECTION: >100 dB

NORMAL MODE REJECTION: 70 dB @ 60 Hz when using 60 Hz rejection

INPUT VOLTAGE RANGE W/O MEASUREMENT CORRUPTION: ±8.6 Vdc max.

SUSTAINED INPUT VOLTAGE W/O DAMAGE: ±16 Vdc max.

INPUT CURRENT: ±1 nA typical, ±6 nA max. @ 50°C; ±90 nA @ 85°C

INPUT RESISTANCE: 20 GΩ typical

ACCURACY OF BUILT-IN REFERENCE JUNCTION THERMISTOR (for thermocouple measurements):
±0.3°C, -25° to 50°C
±0.8°C, -55° to 85°C (-XT only)

ANALOG OUTPUTS (VX1-VX3)
3 switched voltage, sequentially active only during measurement.

RANGE AND RESOLUTION:

Channel	Range	Resolution	Current Source/Sink
(VX 1–3)	±2.5 Vdc	0.67 mV	±25 mA

ANALOG OUTPUT ACCURACY (VX):
±(0.06% of setting + 0.8 mV), 0° to 40°C
±(0.12% of setting + 0.8 mV), -25° to 50°C
±(0.18% of setting + 0.8 mV), -55° to 85°C (-XT only)

VX FREQUENCY SWEEP FUNCTION: Switched outputs provide a programmable swept frequency, 0 to 2500 mv square waves for exciting vibrating wire transducers.

PERIOD AVERAGE
Any of the 16 SE analog inputs can be used for period averaging. Accuracy is ±(0.01% of reading + resolution), where resolution is 136 ns divided by the specified number of cycles to be measured.

INPUT AMPLITUDE AND FREQUENCY:

Voltage Gain	Input Range (±mV)	Signal (peak to peak) Min. (mV)[6]	Signal (peak to peak) Max (V)[7]	Min Pulse Width (µV)	Max[8] Freq (kHz)
1	250	500	10	2.5	200
10	25	10	2	10	50
33	7.5	5	2	62	8
100	2.5	2	2	100	5

[6]Signal centered around Threshold (see PeriodAvg() instruction).
[7]With signal centered at the datalogger ground.
[8]The maximum frequency = 1/(twice minimum pulse width) for 50% of duty cycle signals.

RATIOMETRIC MEASUREMENTS
MEASUREMENT TYPES: Provides ratiometric resistance measurements using voltage excitation. 3 switched voltage excitation outputs are available for measurement of 4- and 6-wire full bridges, and 2-, 3-, and 4-wire half bridges. Optional excitation polarity reversal minimizes dc errors.

RATIOMETRIC MEASUREMENT ACCURACY:[9, 10, 11]
±(0.04% of Voltage Measurement + Offset)

[9]Accuracy specification assumes excitation reversal for excitation voltages < 1000 mV. Assumption does not include bridge resistor errors and sensor and measurement noise.

[10]Estimated accuracy, ΔX (where X is value returned from the measurement with Multiplier = 1, Offset = 0):
BrHalf() instruction: $\Delta X = \Delta V_x / V_x$
BrFull() instruction $\Delta X = 1000 \cdot \Delta V_x / V_x$, expressed as mV·V^{-1}.
ΔV_x is calculated from the ratiometric measurement accuracy. See Resistance Measurements Section in the manual for more information.

[11]Offsets are defined as:
Offset for DIFF w/input reversal = 1.5·Basic Res + 1.0 µV
Offset for DIFF w/o input reversal = 3·Basic Res + 2.0 µV
Offset for SE = 3·Basic Res + 3.0 µV
Excitation reversal reduces offsets by a factor of two.

PULSE COUNTERS (P1-P2)
2 inputs individually selectable for switch closure, high frequency pulse, or low-level ac. Independent 24-bit counters for each input.

MAXIMUM COUNTS PER SCAN: 16.7×10^6

SWITCH CLOSURE MODE:
Minimum Switch Closed Time: 5 ms
Minimum Switch Open Time: 6 ms
Max. Bounce Time: 1 ms open w/o being counted

HIGH-FREQUENCY PULSE MODE:
Maximum Input Frequency: 250 kHz
Maximum Input Voltage: ±20 V
Voltage Thresholds: Count upon transition from below 0.9 V to above 2.2 V after input filter with 1.2 µs time constant.

LOW-LEVEL AC MODE: Internal ac coupling removes ac offsets up to ±0.5 Vdc.
Input Hysteresis: 12 mV RMS @ 1 Hz
Maximum ac Input Voltage: ±20 V
Minimum ac Input Voltage:

Sine Wave (mV RMS)	Range(Hz)
20	1.0 to 20
200	0.5 to 200
2000	0.3 to 10,000
5000	0.3 to 20,000

DIGITAL I/O PORTS (C1-C8)
8 ports software selectable, as binary inputs or control outputs. Provide on/off, pulse width modulation, edge timing, subroutine interrupts / wake up, switch closure pulse counting, high frequency pulse counting, asynchronous communications (UARTs), and SDI-12 communications. SDM communications are also supported.

LOW FREQUENCY MODE MAX: <1 kHz

HIGH-FREQUENCY MODE MAX: 400 kHz

SWITCH-CLOSURE FREQUENCY MAX: 150 Hz

EDGE TIMING RESOLUTION: 540 ns

OUTPUT VOLTAGES (no load): high 5.0 V ±0.1 V; low <0.1

OUTPUT RESISTANCE: 330 Ω

INPUT STATE: high 3.8 to 16 V; low -8.0 to 1.2 V

INPUT HYSTERESIS: 1.4 V

INPUT RESISTANCE: 100 Ω with inputs <6.2 Vdc
220 Ω with inputs ≥6.2 Vdc

SERIAL DEVICE/RS-232 SUPPORT: 0 TO 5 Vdc UART

SWITCHED 12 VDC (SW-12)
1 independent 12 Vdc unregulated source is switched on and off under program control. Thermal fuse hold current = 900 mA at 20°C, 650 mA at 50°C, 360 mA at 85°C.

CE COMPLIANCE
STANDARD(S) TO WHICH CONFORMITY IS DECLARED:
IEC61326:2002

COMMUNICATIONS
RS-232 PORTS:
DCE 9-pin: (not electrically isolated) for computer connection or connection of modems not manufactured by Campbell Scientific.
COM1 to COM4: 4 independent Tx/Rx pairs on control ports (non-isolated); 0 to 5 Vdc UART
Baud Rates: selectable from 300 bps to 115.2 kbps.
Default Format: 8 data bits; 1 stop bits; no parity
Optional Formats: 7 data bits; 2 stop bits; odd, even parity

CS I/O PORT: Interface with telecommunications peripherals manufactured by Campbell Scientific.

SDI-12: Digital control ports C1, C3, C5, and C7 are individually configured and meet SDI-12 Standard v 1.3 for datalogger mode. Up to 10 SDI-12 sensors are supported per port.

PERIPHERAL PORT: 40-pin interface for attaching CompactFlash or Ethernet peripherals

PROTOCOLS SUPPORTED: PakBus, AES-128 Encrypted PakBus, Modbus, DNP3, FTP, HTTP, XML, HTML, POP3, SMTP, Telnet, NTCIP, NTP, Web API, SDI-12, SDM.

SYSTEM
PROCESSOR: Renesas H8S 2322 (16-bit CPU with 32-bit internal core running at 7.3 MHz)

MEMORY: 2 MB of flash for operating system; 4 MB of battery-backed SRAM for CPU usage and final data storage; 512 kB flash disk (CPU) for program files.

REAL-TIME CLOCK ACCURACY: ±3 min. per year. Correction via GPS optional.

REAL-TIME CLOCK RESOLUTION: 10 ms

SYSTEM POWER REQUIREMENTS
VOLTAGE: 9.6 to 16 Vdc

INTERNAL BATTERIES: 1200 mAh lithium battery for clock and SRAM backup that typically provides three years of backup

EXTERNAL BATTERIES: Optional 12 Vdc nominal alkaline and rechargeable available. Power connection is reverse polarity protected.

TYPICAL CURRENT DRAIN at 12 Vdc:
Sleep Mode: < 1 mA
1 Hz Sample Rate (1 fast SE meas.): 1 mA
100 Hz Sample Rate (1 fast SE meas.): 6 mA
100 Hz Sample Rate (1 fast SE meas. w/RS-232 communication): 20 mA
Active external keyboard display adds 7 mA (100 mA with backlight on).

PHYSICAL
DIMENSIONS: 23.9 x 10.2 x 6.1 cm (9.4 x 4 x 2.4 in); additional clearance required for cables and leads.

MASS/WEIGHT: 1 kg / 2.1 lb

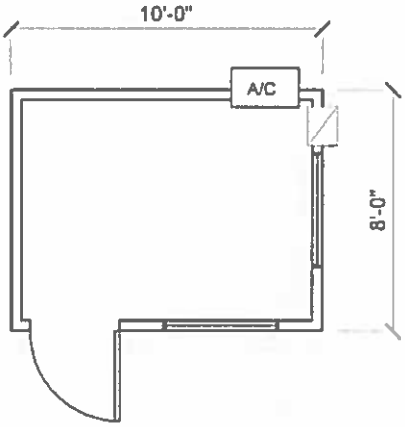
WARRANTY
3 years against defects in materials and workmanship.

May 5, 2015

CASSONE

YOUR SOURCE FOR SPACE

CONTAINER OFFICE OC 10, OFFICE



MODEL OC 10 OFFICE FEATURES:

SIZE
- 8' x 10' Box

INTERIOR
- 1 Office
- VCG Interior Walls
- Vinyl Floors

ELECTRIC
- Fluorescent Ceiling Lights
- 100 Amp Breaker Panel

WINDOWS AND DOORS
- 46" x 27" Sliding Windows
- Steel Exterior Door

HEATING AND COOLING
- 1 Thru Wall AC Unit
- Electric Baseboard Heat

EXTERIOR
- Reinforced Corrugated Steel
- Security Package Available

WE SELL OR LEASE OFFICE FURNITURE!

NOTES: _____

_____

_____

_____

CUSTOMER APPROVAL

Customer Signature _____ **Date** _____

Print Name _____

ADDITIONAL FLOOR PLANS ARE AVAILABLE. FLOOR PLANS AND SPECIFICATIONS MAY VARY FROM THOSE SHOWN ABOVE AND ARE SUBJECT TO AVAILABILITY.

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