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Standard Expe		HighChkStd																																								
Date	LabStd	QA/QC?	Comment	He	He %	Ar	Ar %	H2	H2 %	O2	O2 %	O2+Ar	O2+Ar %	CO2	CO2 %	N2	N2 %	CO	CO %	C1	C1 %	C2	C2 %	C2H4	C2H4 %	C3	C3 %	C3H6	C3H6 %	IC4	IC4 %	NC4	NC4 %	ICS	ICS %	NC5	NC5 %	C6+	C6+ %	Raw Total		
4/11/2018	highkstd	Y		0	0.00635	0	0	0	0.0055	0	0	0	0	0	9.46183	94.65	0	0	90.5263	100.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.017
4/11/2018	highkstd	Y		0	0.00606	0	0	0	0.00613	0	0	0	0	0	9.44718	94.5	0	0	90.5406	100.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.691
Standard Expe		LowChkStd																																								
Date	LabStd	QA/QC?	Comment	He	He %	Ar	Ar %	H2	H2 %	O2	O2 %	O2+Ar	O2+Ar %	CO2	CO2 %	N2	N2 %	CO	CO %	C1	C1 %	C2	C2 %	C2H4	C2H4 %	C3	C3 %	C3H6	C3H6 %	IC4	IC4 %	NC4	NC4 %	ICS	ICS %	NC5	NC5 %	C6+	C6+ %	Raw Total		
4/11/2018	lowchkstd	Y		0	0.03585	0	0	0	0.0061	0	0	0	0.04847	100.15	99.9082	99.96	0	0	0.00045	100.92	0.00009	90.83	0.00001	112.13	0.00008	100.92	0.00009	100.92	0.00008	100.92	0.00008	100.92	0.00008	100.92	0.00009	90.83	0.00009	90.83	0.0001	100.92	99.1004	

Results of Daily Instrument Check

Delta Q: Dual Inlet Carbon Isotope Analysis

Date	zero enrichment	ck std expected	ck std measured
4/25/2018	0.026	-11.31	-11.323
4/25/2018		-11.31	-11.386
4/26/2018	0.007	-11.31	-11.327
4/26/2018		-11.31	-11.347

Delta R: Dual Inlet Hydrogen Isotope Analysis

Date	zero enrichment	ck std expected	ck std measured
4/26/2018	-0.064	-148.55	-148.459
4/26/2018		-148.55	-148.736

Orca Standard

Date Ran	C1	C2	C3	i-C4	n-C4	i-C5	n-C5	CO2
4/23/2018	-41.558	-31.836	-32.512					
4/23/2018	-41.470							-3.431
Expected Value	-41.60	-31.76	-32.69					-3.64

Date Ran	2C1	2C2	2C3
4/23/2018	-179.355	-191.253	-138.995
4/23/2018	-180.86		
Expected Value	-175.28	-188.66	-136.06

GPA Standard

Date Ran	C1	C2	C3	i-C4	n-C4	i-C5	n-C5	CO2
04/19/18	-43.408	-28.939	-32.207					
4/23/2018	-43.448							
Expected Value	-43.57	-28.99	-32.27					

Date Ran	2C1	2C2	2C3
4/19/2018	-194.356	-170.252	-176.293
4/23/2018	-194.322		
Expected Value	-189.78	-172.68	-179.82

Duplicates

Date Ran	C1	C1a	2C1	2C1a	2C1b
4/27/2018			-148.526	-149.076	-146.966
4/27/2018			-152.189	-154.253	-149.596
4/27/2018			-149.799	-145.571	