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Triton Analytics Corp.

Reference Laboratories

- Hydrocarbon
- Chemical
- Environmental

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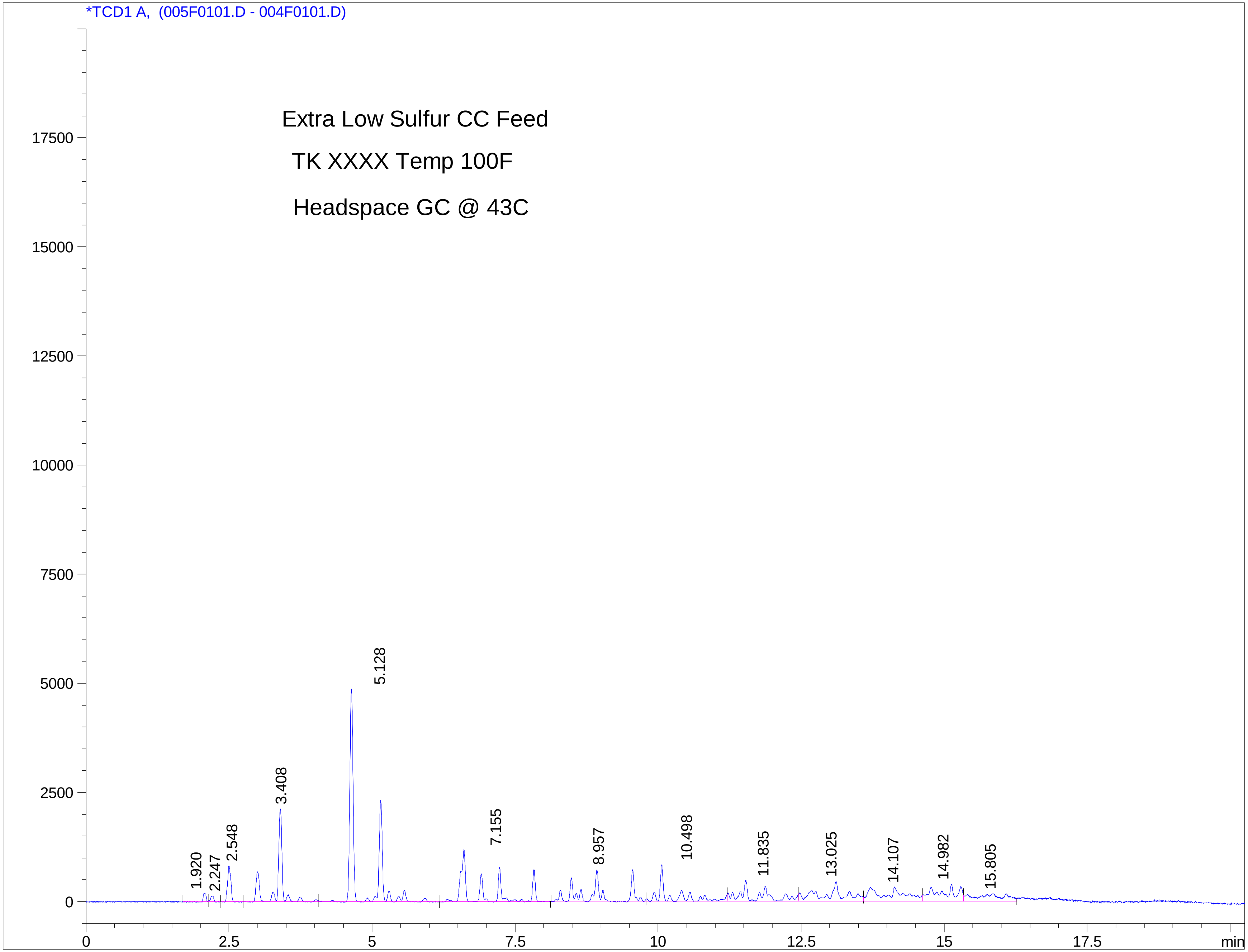
October 28, 2005

Laboratory Reference: TAC XXXX

The results of your vapor pressure by Headspace GC analyses are summarized below:

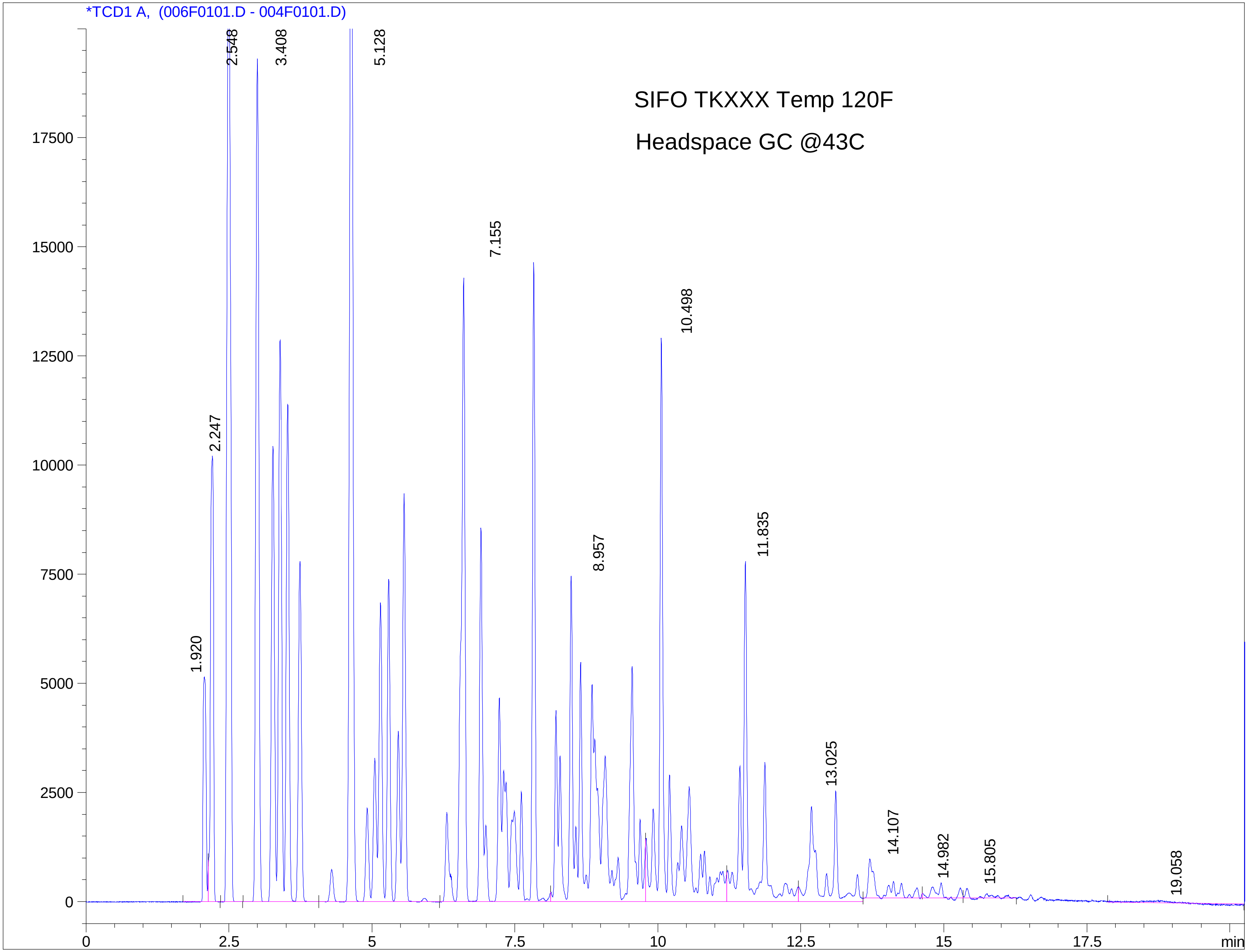
Sample ID	**Pressure Estimate (psi) Headspace Temp (43C)**
Extra Low Sulfur CC Feed (10/12/05) T=100F	0.0061
SIFO (10/04/05) T=120	0.0772

Sample ID	**Pressure Estimate (psi) Headspace Temp (68C)**
SIFO (10/04/05) T=150	0.2423
CC Feed (10/12/05) T=150	0.0132
Cutter Stock (10/12/05) T=160	0.0045


*TCD1 A, (005F0101.D - 004F0101.D)
Extra Low Sulfur CC Feed
TK XXXX Temp 100F
Headspace GC @ 43C
17500
15000
12500
10000
7500
5000
2500
0
1.920
2.247
2.548
3.408
5.128
7.155
8.957
10.498
11.835
13.025
14.107
14.982
15.805
0
2.5
5
7.5
10
12.5
15
17.5
min

Sample: Extra Low Sulfur CC Feed TKXXXX 10/12/05 @100F (GS-Headspace Run @43C)

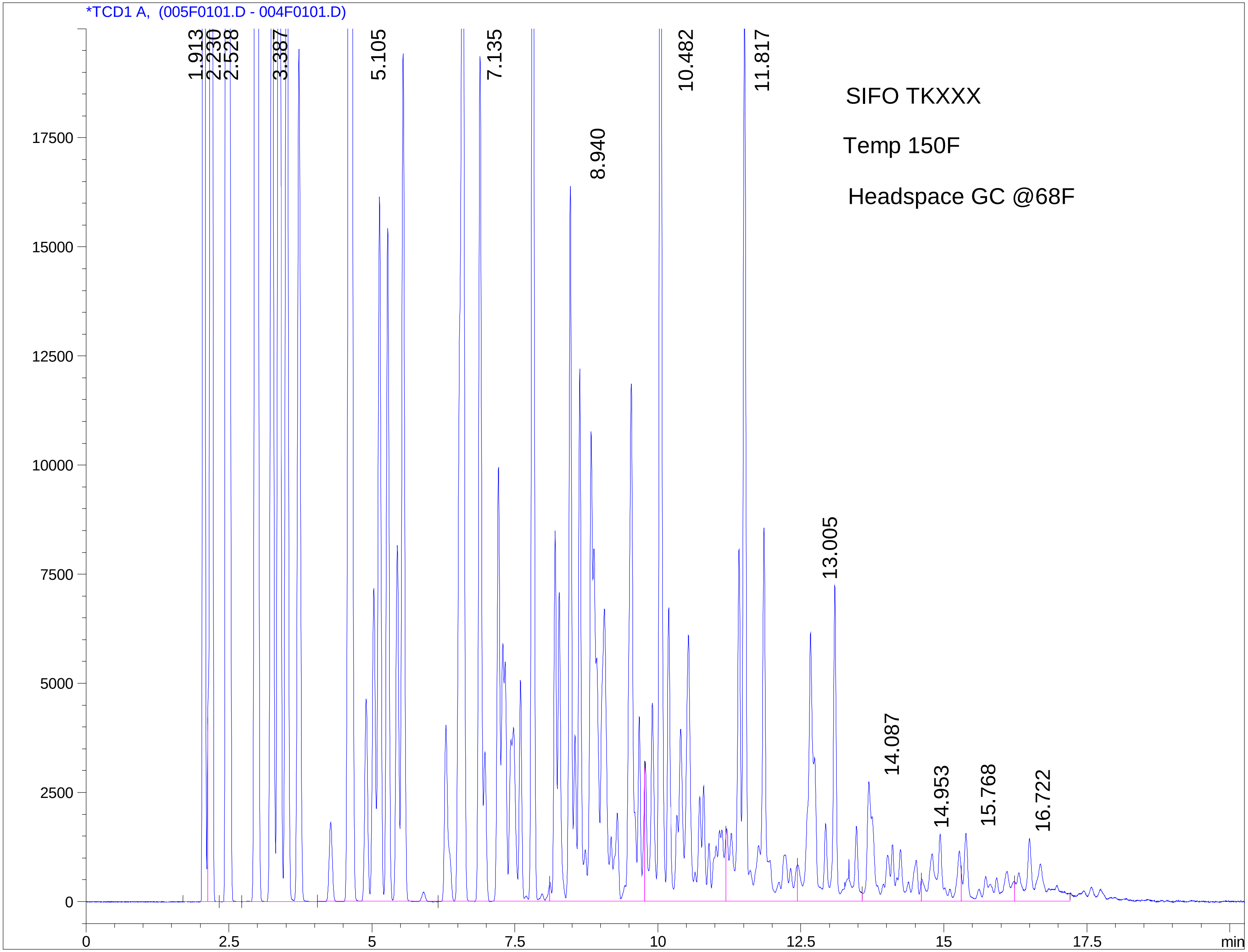
Carbon Number Region	Area Counts of Region	Wt of Hydrocarbon per region	Ave Mole Wt. of Region	# of moles per region	Pres Est by HSGC (atm)	Pres Est by HSGC (PSI)	Pres Est by HSGC (torr)	Pres Est by HSGC (kPa)
1	6.87E+02	0.000000	16	1.09E-08	0.0000	0.0002	0.0097	0.0013
2	5.14E+02	0.000000	30	4.34E-09	0.0000	0.0001	0.0039	0.0005
3	3.28E+03	0.000001	44	1.89E-08	0.0000	0.0003	0.0169	0.0023
4	1.26E+04	0.000003	58	5.48E-08	0.0001	0.0009	0.0491	0.0065
5	3.07E+04	0.000008	72	1.08E-07	0.0001	0.0019	0.0965	0.0129
6	1.45E+04	0.000004	86	4.27E-08	0.0001	0.0007	0.0382	0.0051
7	1.05E+04	0.000003	100	2.65E-08	0.0000	0.0005	0.0238	0.0032
8	7.61E+03	0.000002	114	1.69E-08	0.0000	0.0003	0.0151	0.0020
9	8.57E+03	0.000002	128	1.69E-08	0.0000	0.0003	0.0152	0.0020
10	9.92E+03	0.000003	142	1.77E-08	0.0000	0.0003	0.0158	0.0021
11	9.89E+03	0.000003	156	1.60E-08	0.0000	0.0003	0.0144	0.0019
12	8.28E+03	0.000002	170	1.23E-08	0.0000	0.0002	0.0110	0.0015
13	6.26E+03	0.000002	184	8.61E-09	0.0000	0.0001	0.0077	0.0010
14	0.00E+00	0.000000	198	0.00E+00	0.0000	0.0000	0.0000	0.0000
15	0.00E+00	0.000000	212	0.00E+00	0.0000	0.0000	0.0000	0.0000
16	0.00E+00	0.000000	226	0.00E+00	0.0000	0.0000	0.0000	0.0000
17	0.00E+00	0.000000	240	0.00E+00	0.0000	0.0000	0.0000	0.0000
18	0.00E+00	0.000000	254	0.00E+00	0.0000	0.0000	0.0000	0.0000
19	0.00E+00	0.000000	268	0.00E+00	0.0000	0.0000	0.0000	0.0000
Totals	123207	0.000031		3.54E-07	0.0004	**0.0061**	0.3174	0.0423



*TCD1 A, (006F0101.D - 004F0101.D)
SIFO TKXXX Temp 120F
Headspace GC @43C
1.920
2.247
2.548
3.408
5.128
7.155
8.957
10.498
11.835
13.025
14.107
14.982
15.805
19.058
0
2500
5000
7500
10000
12500
15000
17500
0
2.5
5
7.5
10
12.5
15
17.5
min

Sample: SIFO TK XXX 10/04/05 @ 120F (GS-Headspace Run@43C)

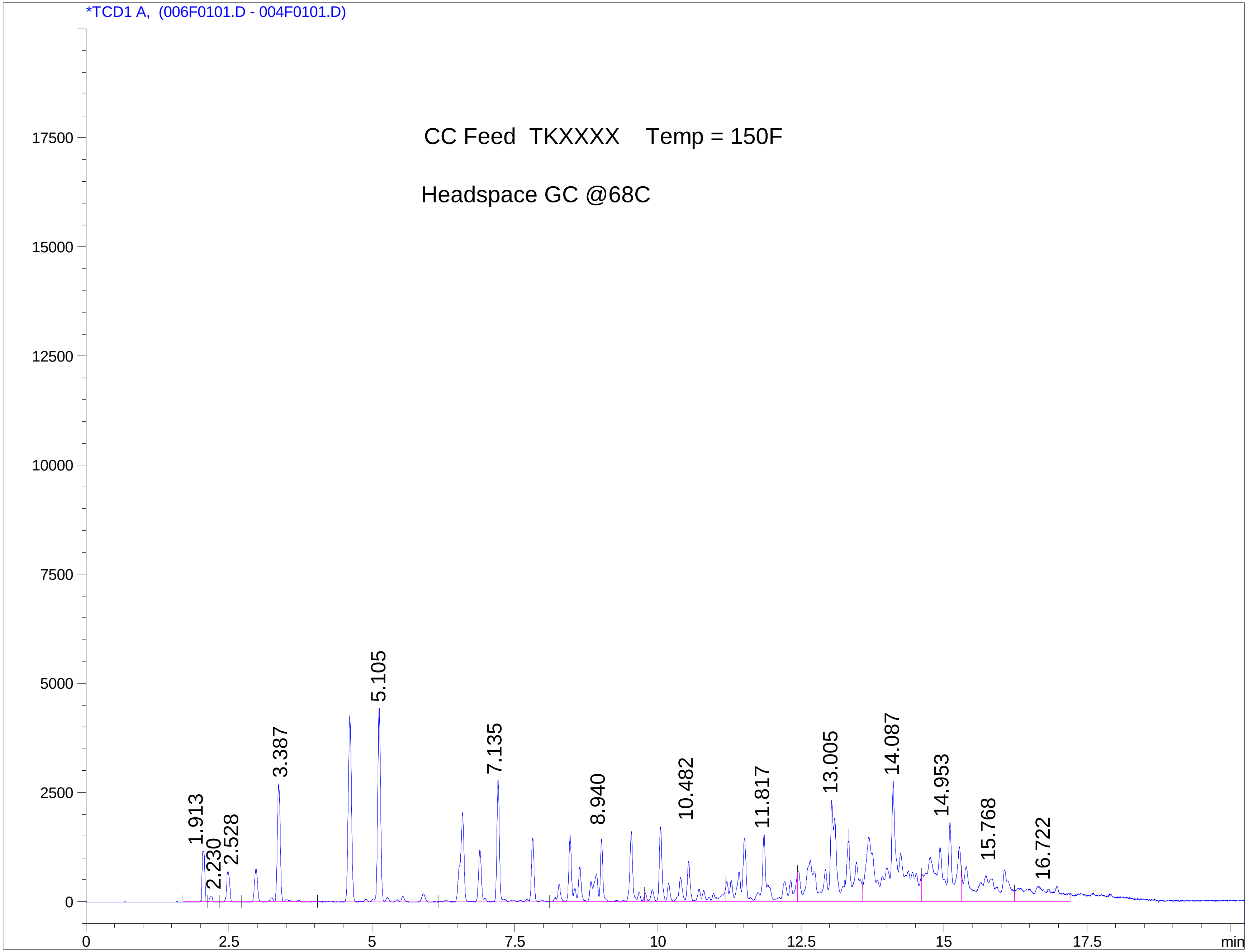
Carbon Number Region	Area Counts of Region	Wt of Hydrocarbon per region	Ave Mole Wt. of Region	# of moles per region	Pres Est by HSGC (atm)	Pres Est by HSGC (PSI)	Pres Est by HSGC (torr)	Pres Est by HSGC (kPa)
1	1.88E+04	0.000005	16	2.98E-07	0.0004	0.0052	0.2670	0.0356
2	3.73E+04	0.000009	30	3.15E-07	0.0004	0.0055	0.2822	0.0376
3	1.04E+05	0.000026	44	5.97E-07	0.0007	0.0103	0.5350	0.0713
4	2.28E+05	0.000058	58	9.94E-07	0.0012	0.0172	0.8909	0.1188
5	2.26E+05	0.000057	72	7.94E-07	0.0009	0.0138	0.7116	0.0949
6	2.06E+05	0.000052	86	6.07E-07	0.0007	0.0105	0.5437	0.0725
7	1.63E+05	0.000041	100	4.12E-07	0.0005	0.0071	0.3694	0.0492
8	1.02E+05	0.000026	114	2.27E-07	0.0003	0.0039	0.2036	0.0271
9	6.31E+04	0.000016	128	1.25E-07	0.0001	0.0022	0.1117	0.0149
10	3.22E+04	0.000008	142	5.73E-08	0.0001	0.0010	0.0513	0.0068
11	1.10E+04	0.000003	156	1.78E-08	0.0000	0.0003	0.0159	0.0021
12	3.83E+03	0.000001	170	5.70E-09	0.0000	0.0001	0.0051	0.0007
13	1.92E+03	0.000000	184	2.64E-09	0.0000	0.0000	0.0024	0.0003
14	6.92E+02	0.000000	198	8.84E-10	0.0000	0.0000	0.0008	0.0001
15	0.00E+00	0.000000	212	0.00E+00	0.0000	0.0000	0.0000	0.0000
16	0.00E+00	0.000000	226	0.00E+00	0.0000	0.0000	0.0000	0.0000
17	0.00E+00	0.000000	240	0.00E+00	0.0000	0.0000	0.0000	0.0000
18	0.00E+00	0.000000	254	0.00E+00	0.0000	0.0000	0.0000	0.0000
19	0.00E+00	0.000000	268	0.00E+00	0.0000	0.0000	0.0000	0.0000
Totals	1198092	0.000303155		4.45E-06	0.0053	**0.0772**	3.9905	0.5320



*TCD1 A, (005F0101.D - 004F0101.D)
SIFO TKXXX
Temp 150F
Headspace GC @68F
1.913
2.230
2.528
3.387
5.105
7.135
8.940
10.482
11.817
13.005
14.087
14.953
15.768
16.722
17500
15000
12500
10000
7500
5000
2500
0
0
2.5
5
7.5
10
12.5
15
17.5
min

Sample: SIFO TKXXX 10/04/05 @150F (GS-Headspace Run @68C)

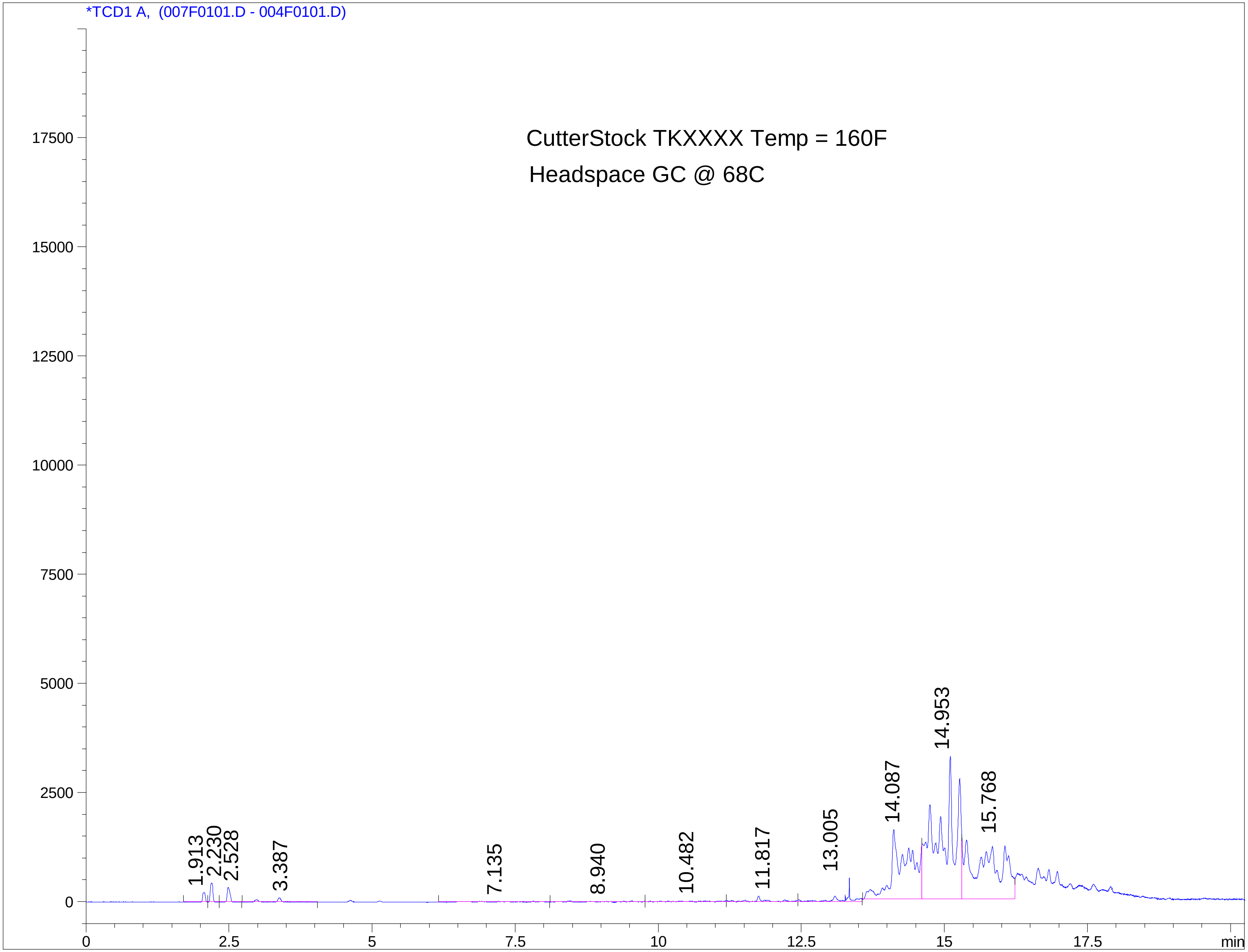
Carbon Number Region	Area Counts of Region	Wt of Hydrocarbon per region	Ave Mole Wt. of Region	# of moles per region	Pres Est by HSGC (atm)	**Pres Est by HSGC (PSI)**	Pres Est by HSGC (torr)	Pres Est by HSGC (kPa)
1	1.28E+05	0.000031	16	1.94E-06	0.0025	0.0363	1.8745	0.2499
2	1.63E+05	0.000040	30	1.32E-06	0.0017	0.0246	1.2741	0.1699
3	3.53E+05	0.000086	44	1.95E-06	0.0025	0.0364	1.8836	0.2511
4	6.48E+05	0.000158	58	2.72E-06	0.0035	0.0508	2.6259	0.3501
5	5.42E+05	0.000132	72	1.83E-06	0.0023	0.0342	1.7682	0.2357
6	4.42E+05	0.000108	86	1.25E-06	0.0016	0.0234	1.2091	0.1612
7	3.46E+05	0.000084	100	8.41E-07	0.0011	0.0157	0.8129	0.1084
8	2.34E+05	0.000057	114	5.00E-07	0.0006	0.0093	0.4833	0.0644
9	1.62E+05	0.000039	128	3.07E-07	0.0004	0.0057	0.2967	0.0396
10	8.78E+04	0.000021	142	1.50E-07	0.0002	0.0028	0.1453	0.0194
11	4.41E+04	0.000011	156	6.87E-08	0.0001	0.0013	0.0664	0.0089
12	2.28E+04	0.000006	170	3.26E-08	0.0000	0.0006	0.0315	0.0042
13	2.18E+04	0.000005	184	2.88E-08	0.0000	0.0005	0.0278	0.0037
14	2.44E+04	0.000006	198	3.00E-08	0.0000	0.0006	0.0290	0.0039
15	0.00E+00	0.000000	212	0.00E+00	0.0000	0.0000	0.0000	0.0000
16	0.00E+00	0.000000	226	0.00E+00	0.0000	0.0000	0.0000	0.0000
17	0.00E+00	0.000000	240	0.00E+00	0.0000	0.0000	0.0000	0.0000
18	0.00E+00	0.000000	254	0.00E+00	0.0000	0.0000	0.0000	0.0000
19	0.00E+00	0.000000	268	0.00E+00	0.0000	0.0000	0.0000	0.0000
Totals	3217248	0.000782		1.30E-05	0.0165	**0.2423**	12.5282	1.6704



*TCD1 A, (006F0101.D - 004F0101.D)
CC Feed TKXXXX Temp = 150F
Headspace GC @68C
17500
15000
12500
10000
7500
5000
2500
0
1.913
2.230
2.528
3.387
5.105
7.135
8.940
10.482
11.817
13.005
14.087
14.953
15.768
16.722
0
2.5
5
7.5
10
12.5
15
17.5
min

Sample: CC FEED TKXXXX 10/12/05 @ 150F (GS-Headspace Run@68C)

Carbon Number Region	Area Counts of Region	Wt of Hydrocarbon per region	Ave Mole Wt. of Region	# of moles per region	Pres Est by HSGC (atm)	**Pres Est by HSGC (PSI)**	Pres Est by HSGC (torr)	Pres Est by HSGC (kPa)
1	3.84E+03	0.000001	16	5.84E-08	0.0001	0.0011	0.0564	0.0075
2	4.66E+02	0.000000	30	3.78E-09	0.0000	0.0001	0.0037	0.0005
3	2.47E+03	0.000001	44	1.37E-08	0.0000	0.0003	0.0132	0.0018
4	1.30E+04	0.000003	58	5.45E-08	0.0001	0.0010	0.0527	0.0070
5	3.30E+04	0.000008	72	1.12E-07	0.0001	0.0021	0.1079	0.0144
6	2.64E+04	0.000006	86	7.46E-08	0.0001	0.0014	0.0721	0.0096
7	2.41E+04	0.000006	100	5.87E-08	0.0001	0.0011	0.0567	0.0076
8	1.82E+04	0.000004	114	3.88E-08	0.0000	0.0007	0.0375	0.0050
9	2.48E+04	0.000006	128	4.71E-08	0.0001	0.0009	0.0455	0.0061
10	4.29E+04	0.000010	142	7.34E-08	0.0001	0.0014	0.0710	0.0095
11	4.88E+04	0.000012	156	7.61E-08	0.0001	0.0014	0.0736	0.0098
12	3.23E+04	0.000008	170	4.63E-08	0.0001	0.0009	0.0447	0.0060
13	2.26E+04	0.000005	184	2.99E-08	0.0000	0.0006	0.0289	0.0039
14	1.42E+04	0.000003	198	1.74E-08	0.0000	0.0003	0.0169	0.0022
15	0.00E+00	0.000000	212	0.00E+00	0.0000	0.0000	0.0000	0.0000
16	0.00E+00	0.000000	226	0.00E+00	0.0000	0.0000	0.0000	0.0000
17	0.00E+00	0.000000	240	0.00E+00	0.0000	0.0000	0.0000	0.0000
18	0.00E+00	0.000000	254	0.00E+00	0.0000	0.0000	0.0000	0.0000
19	0.00E+00	0.000000	268	0.00E+00	0.0000	0.0000	0.0000	0.0000
Totals	307215	0.000075		7.04E-07	0.0009	**0.0132**	0.6808	0.0908


*TCD1 A, (007F0101.D - 004F0101.D)
CutterStock TKXXXX Temp = 160F
Headspace GC @ 68C
17500
15000
12500
10000
7500
5000
2500
0
1.913
2.230
2.528
3.387
7.135
8.940
10.482
11.817
13.005
14.087
14.953
15.768
0
2.5
5
7.5
10
12.5
15
17.5
min

Sample: 2328009 CUTTER STOCK TK1144 10/12/05 @ 160F (GS-Headspace Run@68C)

Carbon Number Region	Area Counts of Region	Wt of Hydrocarbon per region	Ave Mole Wt. of Region	# of moles per region	Pres Est by HSGC (atm)	**Pres Est by HSGC (PSI)**	Pres Est by HSGC (torr)	Pres Est by HSGC (kPa)
1	6.84E+02	0.000000	16	1.04E-08	0.0000	0.0002	0.0100	0.0013
2	1.27E+03	0.000000	30	1.03E-08	0.0000	0.0002	0.0100	0.0013
3	1.13E+03	0.000000	44	6.23E-09	0.0000	0.0001	0.0060	0.0008
4	4.74E+02	0.000000	58	1.99E-09	0.0000	0.0000	0.0019	0.0003
5	0.00E+00	0.000000	72	0.00E+00	0.0000	0.0000	0.0000	0.0000
6	4.48E+02	0.000000	86	1.27E-09	0.0000	0.0000	0.0012	0.0002
7	3.34E+02	0.000000	100	8.12E-10	0.0000	0.0000	0.0008	0.0001
8	7.45E+02	0.000000	114	1.59E-09	0.0000	0.0000	0.0015	0.0002
9	1.57E+03	0.000000	128	2.98E-09	0.0000	0.0001	0.0029	0.0004
10	2.76E+03	0.000001	142	4.72E-09	0.0000	0.0001	0.0046	0.0006
11	3.48E+04	0.000008	156	5.42E-08	0.0001	0.0010	0.0524	0.0070
12	6.17E+04	0.000015	170	8.82E-08	0.0001	0.0016	0.0853	0.0114
13	4.34E+04	0.000011	184	5.74E-08	0.0001	0.0011	0.0555	0.0074
14	0.00E+00	0.000000	198	0.00E+00	0.0000	0.0000	0.0000	0.0000
15	0.00E+00	0.000000	212	0.00E+00	0.0000	0.0000	0.0000	0.0000
16	0.00E+00	0.000000	226	0.00E+00	0.0000	0.0000	0.0000	0.0000
17	0.00E+00	0.000000	240	0.00E+00	0.0000	0.0000	0.0000	0.0000
18	0.00E+00	0.000000	254	0.00E+00	0.0000	0.0000	0.0000	0.0000
19	0.00E+00	0.000000	268	0.00E+00	0.0000	0.0000	0.0000	0.0000
Totals	149271	0.000036		2.40E-07	0.0003	**0.0045**	0.2321	0.0309