PCB Analysis
Standard Raw Data

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 05/29/07

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	MEAN	%RSD
TCX	4.52- 4.62	0.9912	0.9490	0.9356	0.9196	0.9456	0.9482	2.8
DCB	11.10-11.20	3.4073	3.0957	3.0716	3.1023	3.2970	3.1948	4.7

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.1	LVL3 .25	LVL4 0.5	LVL5 1.0	MEAN	%RSD
1	5.68- 5.78	0.0304	0.0258	0.0235	0.0225	0.0221	0.0249	13.7
2	5.97- 6.07	0.0917	0.0822	0.0768	0.0749	0.0751	0.0801	8.8
3	6.09- 6.19	0.0371	0.0326	0.0300	0.0290	0.0287	0.0315	11.1
4	6.34- 6.44	0.0242	0.0209	0.0191	0.0185	0.0181	0.0202	12.5

AROCLOR AVERAGE %RSD = 11.5

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.1	LVL3 .25	LVL4 0.5	LVL5 1.0	MEAN	%RSD
1	8.75- 8.85	0.2424	0.2157	0.2197	0.2147	0.2174	0.2220	5.2
2	9.02- 9.12	0.2161	0.1899	0.1943	0.1910	0.1951	0.1973	5.4
3	9.32- 9.42	0.5131	0.4750	0.4945	0.4975	0.5121	0.4984	3.1
4	9.66- 9.76	0.2592	0.2318	0.2361	0.2361	0.2428	0.2412	4.5
5	9.81- 9.91	0.1243	0.1148	0.1186	0.1187	0.1198	0.1192	2.9

AROCLOR AVERAGE %RSD = 4.2

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8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 05/29/07

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	MEAN	%RSD
TCX	4.62- 4.72	0.9538	0.8840	0.8364	0.8906	0.9673	0.9064	5.9
DCB	11.49-11.59	2.5099	2.2823	2.3976	2.4511	2.6703	2.4622	5.8

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.1	LVL3 .25	LVL4 0.5	LVL5 1.0	MEAN	%RSD
1	5.83- 5.93	0.0471	0.0385	0.0338	0.0346	0.0357	0.0379	14.3
2	6.29- 6.39	0.0893	0.0755	0.0686	0.0720	0.0758	0.0762	10.3
3	6.46- 6.56	0.0362	0.0314	0.0273	0.0278	0.0285	0.0302	12.2
4	6.99- 7.09	0.0299	0.0252	0.0222	0.0224	0.0232	0.0246	13.1

AROCLOR AVERAGE %RSD = 12.5

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.1	LVL3 .25	LVL4 0.5	LVL5 1.0	MEAN	%RSD
1	9.07- 9.17	0.1718	0.1495	0.1537	0.1529	0.1586	0.1573	5.6
2	9.14- 9.24	0.1035	0.0994	0.0932	0.0919	0.0948	0.0966	5.0
3	9.45- 9.55	0.2009	0.1755	0.1847	0.1869	0.1962	0.1888	5.3
4	9.66- 9.76	0.4974	0.4342	0.3961	0.3962	0.4178	0.4283	9.8
5	10.15-10.25	0.2418	0.2230	0.2352	0.2410	0.2555	0.2393	4.9

AROCLOR AVERAGE %RSD = 6.1

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8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 05/29/07

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	4.826	4.78- 4.88	0.01432
2	4.954	4.90- 5.00	0.00868
3	5.026	4.98- 5.08	0.02757

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	5.027	4.98- 5.08	0.02267
2	5.734	5.68- 5.78	0.01110
3	6.024	5.97- 6.07	0.03576
4	6.137	6.09- 6.19	0.01407

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	5.735	5.68- 5.78	0.02235
2	6.026	5.98- 6.08	0.07230
3	6.137	6.09- 6.19	0.02867
4	6.766	6.72- 6.82	0.02645

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.020	5.97- 6.07	0.05150
2	6.139	6.09- 6.19	0.01656
3	6.391	6.34- 6.44	0.02752
4	6.765	6.71- 6.81	0.03904
5	7.100	7.05- 7.15	0.05036

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8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 05/29/07

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	7.352	7.30- 7.40	0.05553
2	7.657	7.61- 7.71	0.03608
3	7.769	7.72- 7.82	0.06564
4	8.052	8.00- 8.10	0.06933
5	8.358	8.31- 8.41	0.04271

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	9.071	9.02- 9.12	0.30847
2	9.368	9.32- 9.42	0.75005
3	9.708	9.66- 9.76	0.22800
4	9.859	9.81- 9.91	0.30454
5	10.399	10.35-10.45	0.21795

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	9.797	9.75- 9.85	0.78787
2	9.857	9.81- 9.91	0.70726
3	10.179	10.13-10.23	0.60487
4	10.814	10.76-10.86	1

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8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 05/29/07

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.125	5.08- 5.18	0.01298
2	5.299	5.25- 5.35	0.00766
3	5.381	5.33- 5.43	0.02399
4	5.892	5.84- 5.94	0.00935

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	5.381	5.33- 5.43	0.01955
2	5.883	5.83- 5.93	0.01847
3	6.344	6.29- 6.39	0.03351
4	7.400	7.35- 7.45	0.01286

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	5.380	5.33- 5.43	0.01720
2	5.881	5.83- 5.93	0.03377
3	6.345	6.29- 6.39	0.06756
4	6.506	6.46- 6.56	0.02738
5	7.400	7.35- 7.45	0.02587

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.343	6.29- 6.39	0.04916
2	6.709	6.66- 6.76	0.02646
3	7.044	6.99- 7.09	0.03353
4	7.399	7.35- 7.45	0.04393

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8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 05/29/07

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	7.648	7.60- 7.70	0.04620
2	8.085	8.04- 8.14	0.03209
3	8.211	8.16- 8.26	0.06805
4	8.860	8.81- 8.91	0.03961

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	9.121	9.07- 9.17	0.30500
2	9.502	9.45- 9.55	0.27986
3	9.711	9.66- 9.76	0.57071
4	10.147	10.10-10.20	0.22996
5	10.787	10.74-10.84	0.15885

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	10.146	10.10-10.20	0.56241
2	10.204	10.15-10.25	0.51336
3	10.539	10.49-10.59	0.41650
4	11.195	11.14-11.24	1

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2007 11:50
End Cal Date : 29-MAY-2007 14:41
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20070529.b/PCB1.m
Cal Date : 29-May-2007 15:38 peter
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20070529.b/ical-1.b/0529B003.d
Level 2: /chem2/ecd5.i/20070529.b/ical-1.b/0529B005.d
Level 3: /chem2/ecd5.i/20070529.b/ical-1.b/0529B002.d
Level 4: /chem2/ecd5.i/20070529.b/ical-1.b/0529B006.d
Level 5: /chem2/ecd5.i/20070529.b/ical-1.b/0529B004.d
Level 7: /chem2/ecd5.i/20070529.b/ical-1.b/0529B012.d

Compound	20.000 Level 1	100.000 Level 2	250.000 Level 3	500.000 Level 4	1000.000 Level 5	250.000 Level 7	RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	0.01432	0.01432	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.00868	0.00868	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.02757	0.02757	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	0.02235	0.02235	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.07230	0.07230	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.02867	0.02867	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.02645	0.02645	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	0.02267	0.02267	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.01110	0.01110	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.03576	0.03576	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.01407	0.01407	0.000
7 Aroclor-1016(1)	0.03038	0.02582	0.02354	0.02245	0.02208	+++++	0.02485	13.735
(2)	0.09166	0.08220	0.07685	0.07487	0.07513	+++++	0.08014	8.836
(3)	0.03708	0.03262	0.03001	0.02900	0.02870	+++++	0.03148	11.088
(4)	0.02425	0.02093	0.01909	0.01846	0.01815	+++++	0.02018	12.488
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	0.05150	0.05150	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.01656	0.01656	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.02752	0.02752	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.03904	0.03904	0.000
(5)	+++++	+++++	+++++	+++++	+++++	0.05036	0.05036	0.000
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	0.05553	0.05553	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2007 11:50
End Cal Date : 29-MAY-2007 14:41
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20070529.b/PCB1.m
Cal Date : 29-May-2007 15:38 peter
Curve Type : Average

Compound	20.000 Level 1	100.000 Level 2	250.000 Level 3	500.000 Level 4	1000.000 Level 5	250.000 Level 7	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	0.03608	0.03608	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.06564	0.06564	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.06933	0.06933	0.000
(5)	+++++	+++++	+++++	+++++	+++++	0.04271	0.04271	0.000
9 Aroclor-1260(1)	0.24237	0.21569	0.21973	0.21469	0.21735	+++++	0.22197	5.210
(2)	0.21610	0.18992	0.19429	0.19104	0.19510	+++++	0.19729	5.442
(3)	0.51310	0.47503	0.49446	0.49749	0.51213	+++++	0.49844	3.120
(4)	0.25922	0.23177	0.23608	0.23613	0.24276	+++++	0.24119	4.484
(5)	0.12427	0.11477	0.11858	0.11867	0.11978	+++++	0.11921	2.855
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	0.30847	0.30847	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.75005	0.75005	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.22800	0.22800	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.30454	0.30454	0.000
(5)	+++++	+++++	+++++	+++++	+++++	0.21795	0.21795	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	0.78787	0.78787	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.70726	0.70726	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.60487	0.60487	0.000
(4)	+++++	+++++	+++++	+++++	+++++	1.41517	1.41517	0.000
$ 1 Tetrachloro-m-xylene	0.99120	0.94898	0.93564	0.91957	0.94558	+++++	0.94819	2.807
$ 13 Decachlorobiphenyl	3.40734	3.09571	3.07161	3.10234	3.29701	+++++	3.19480	4.673

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2007 11:50
End Cal Date : 29-MAY-2007 14:41
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20070529.b/PCB2.m
Cal Date : 29-May-2007 15:36 peter
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20070529.b/ical-2.b/0529B003.d
Level 2: /chem2/ecd5.i/20070529.b/ical-2.b/0529B005.d
Level 3: /chem2/ecd5.i/20070529.b/ical-2.b/0529B002.d
Level 4: /chem2/ecd5.i/20070529.b/ical-2.b/0529B006.d
Level 5: /chem2/ecd5.i/20070529.b/ical-2.b/0529B004.d
Level 7: /chem2/ecd5.i/20070529.b/ical-2.b/0529B012.d

Compound	20.000 Level 1	100.000 Level 2	250.000 Level 3	500.000 Level 4	1000.000 Level 5	250.000 Level 7	RRF	% RSD
1 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	0.01298	0.01298	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.00766	0.00766	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.02399	0.02399	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.00935	0.00935	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	0.01955	0.01955	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.01847	0.01847	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.03351	0.03351	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.01286	0.01286	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	0.01720	0.01720	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.03377	0.03377	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.06756	0.06756	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.02738	0.02738	0.000
(5)	+++++	+++++	+++++	+++++	+++++	0.02587	0.02587	0.000
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	0.04916	0.04916	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.02646	0.02646	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.03353	0.03353	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.04393	0.04393	0.000
7 Aroclor-1016(1)	0.04714	0.03847	0.03379	0.03462	0.03569	+++++	0.03794	14.327
(2)	0.08935	0.07553	0.06862	0.07195	0.07577	+++++	0.07624	10.348
(3)	0.03620	0.03136	0.02726	0.02776	0.02851	+++++	0.03022	12.244
(4)	0.02992	0.02515	0.02215	0.02238	0.02323	+++++	0.02457	13.089

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 29-MAY-2007 14:41
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20070529.b/PCB2.m
Cal Date : 29-May-2007 15:36 peter
Curve Type : Average

Compound	20.000 Level 1	100.000 Level 2	250.000 Level 3	500.000 Level 4	1000.000 Level 5	250.000 Level 7	RRF	% RSD
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	0.04620	0.04620	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.03209	0.03209	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.06805	0.06805	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.03961	0.03961	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	0.30500	0.30500	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.27986	0.27986	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.57071	0.57071	0.000
(4)	+++++	+++++	+++++	+++++	+++++	0.22996	0.22996	0.000
(5)	+++++	+++++	+++++	+++++	+++++	0.15885	0.15885	0.000
9 Aroclor-1260(1)	0.17179	0.14946	0.15372	0.15295	0.15864	+++++	0.15731	5.551
(2)	0.10354	0.09936	0.09324	0.09188	0.09480	+++++	0.09656	4.981
(3)	0.20093	0.17546	0.18465	0.18692	0.19622	+++++	0.18884	5.302
(4)	0.49742	0.43420	0.39610	0.39616	0.41775	+++++	0.42833	9.762
(5)	0.24181	0.22301	0.23523	0.24100	0.25549	+++++	0.23931	4.914
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	0.56241	0.56241	0.000
(2)	+++++	+++++	+++++	+++++	+++++	0.51336	0.51336	0.000
(3)	+++++	+++++	+++++	+++++	+++++	0.41650	0.41650	0.000
(4)	+++++	+++++	+++++	+++++	+++++	1.09199	1.09199	0.000
$ 2 Tetrachloro-m-xylene	0.95384	0.88403	0.83645	0.89060	0.96732	+++++	0.90645	5.942
$ 13 Decachlorobiphenyl	2.50988	2.28233	2.39757	2.45110	2.67029	+++++	2.46223	5.823

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B001.d
Data file 2: 20070529.b/ical-2.b/0529B001.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 29-MAY-2007 10:02
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.583	0.010	18088893	4.666	-0.005	12020006	37.6	41.4	9.7	Tetrachloro-m-xylene
11.158	0.009	9227038	11.546	0.004	5225718	43.3	38.8	11.1	Decachlorobiphenyl

* Indicates RPD > 40%
1 Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	93.9	103.5
Decachlorobiphenyl	108.3	97.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	40627082	26.0
Hexabromobiphenyl	5108210	5332625	4.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	25624909	26.1
Hexabromobiphenyl	3608946	4378204	21.3

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

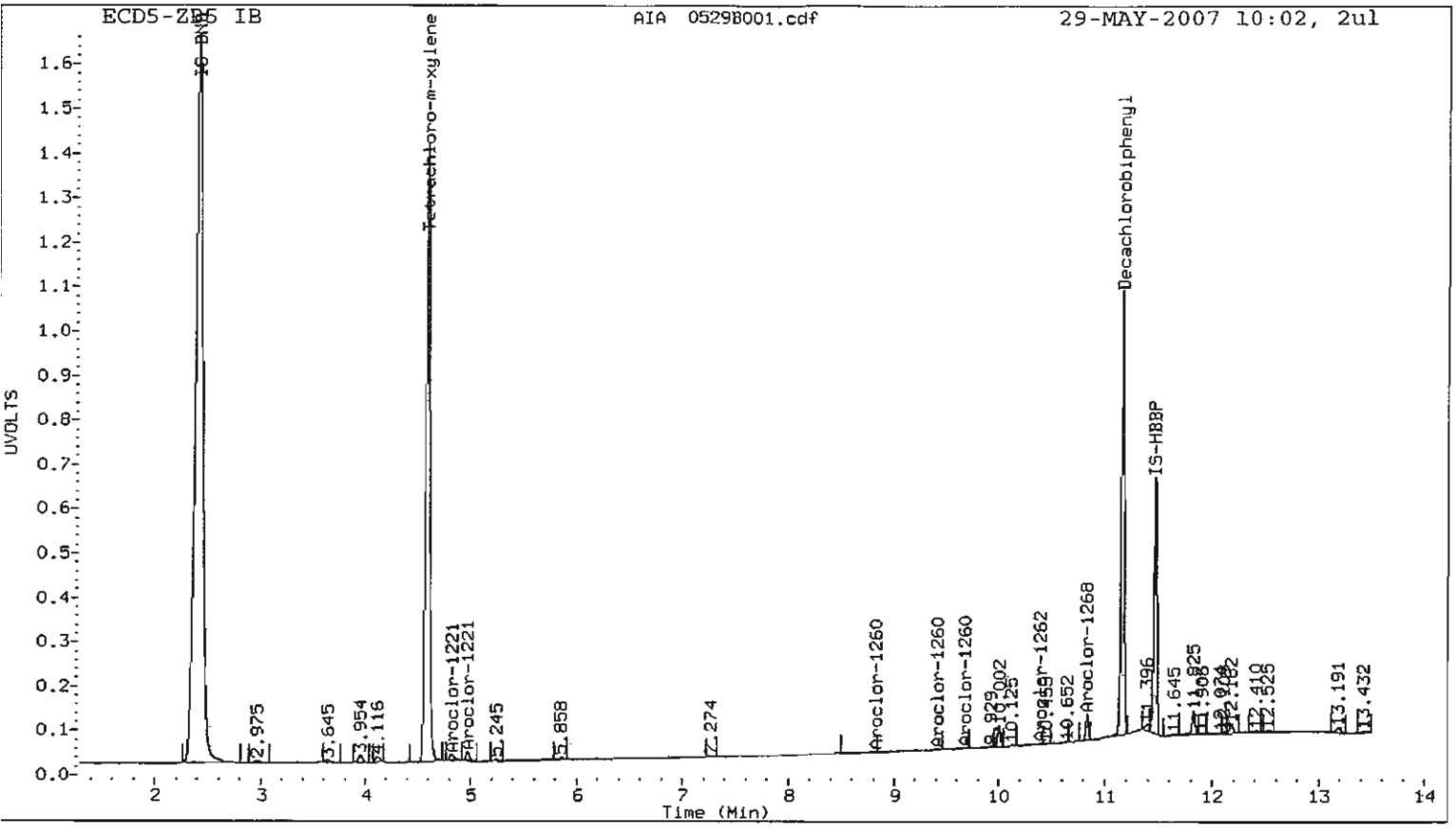
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	5.880	0.001	11235	0.9
Aroclor-1016	2	---			0.0	2	6.343	-0.001	19353	0.8
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	4.819	-0.007	215660	29.6	1	5.165	0.040	146914	35.3
Aroclor-1221	2	4.970	0.016	263441	59.7	2	---			0.0
Aroclor-1221	3	---			0.0	3	5.354	-0.027	10740	1.4
Aroclor-1221	NS	---			----	4	5.880	-0.012	11235	3.8
		Col1Ave: <3 Quant Peaks					Col2Ave: 13.5			
Aroclor-1232	1	---			0.0	1	5.354	-0.027	10740	1.7
Aroclor-1232	2	---			0.0	2	5.880	-0.003	11235	1.9
Aroclor-1232	3	---			0.0	3	6.343	-0.001	19353	1.8
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: 1.8			
Aroclor-1242	1	---			0.0	1	5.354	-0.027	10740	1.9
Aroclor-1242	2	---			0.0	2	5.880	-0.001	11235	1.0
Aroclor-1242	3	---			0.0	3	6.343	-0.002	19353	0.9
Aroclor-1242	4	---			0.0	4	---			0.0
Aroclor-1242	NS	---			----	5	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: 1.3			
Aroclor-1248	1	---			0.0	1	6.343	0.000	19353	1.2
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
Aroclor-1248	5	---			0.0	NS	---			----
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	NS	---			----
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1260	1	8.833	0.030	45840	3.1	1	9.082	-0.039	85565	9.9
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	9.412	0.044	109151	3.3	3	---			0.0
Aroclor-1260	4	9.678	-0.030	32714	2.0	4	---			0.0
Aroclor-1260	5	---			0.0	5	---			0.0
		Total Col1Ave (3 peaks):			2.8		Col2Ave: <3 Quant Peaks			
Aroclor-1262	1	---			0.0	1	9.082	-0.039	85565	5.1
Aroclor-1262	2	9.412	0.044	109151	2.2	2	---			0.0
Aroclor-1262	3	9.678	-0.030	32714	2.2	3	---			0.0
Aroclor-1262	4	---			0.0	4	10.121	-0.026	10965	0.9
Aroclor-1262	5	10.395	-0.004	51945	3.6	5	---			0.0
		Total Col1Ave (3 peaks):			2.6		Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	10.121	-0.025	10965	0.4
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	10.496	-0.043	44192	1.9
Aroclor-1268	4	10.834	0.019	498913	5.3	4	11.216	0.021	15516	0.3
		Col1Ave: <3 Quant Peaks					Col2Ave: 0.9			

Total PCB Area Col1 (4.673 - 11.049) = 1953155 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 1019292 Col2 Total PCB = 0.0 ppm*

Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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29-MAY-2007 10:02, 2ul
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1221
Aroclor-1221
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1262
Aroclor-1268
2.975
3.645
3.954
4.116
4.245
4.858
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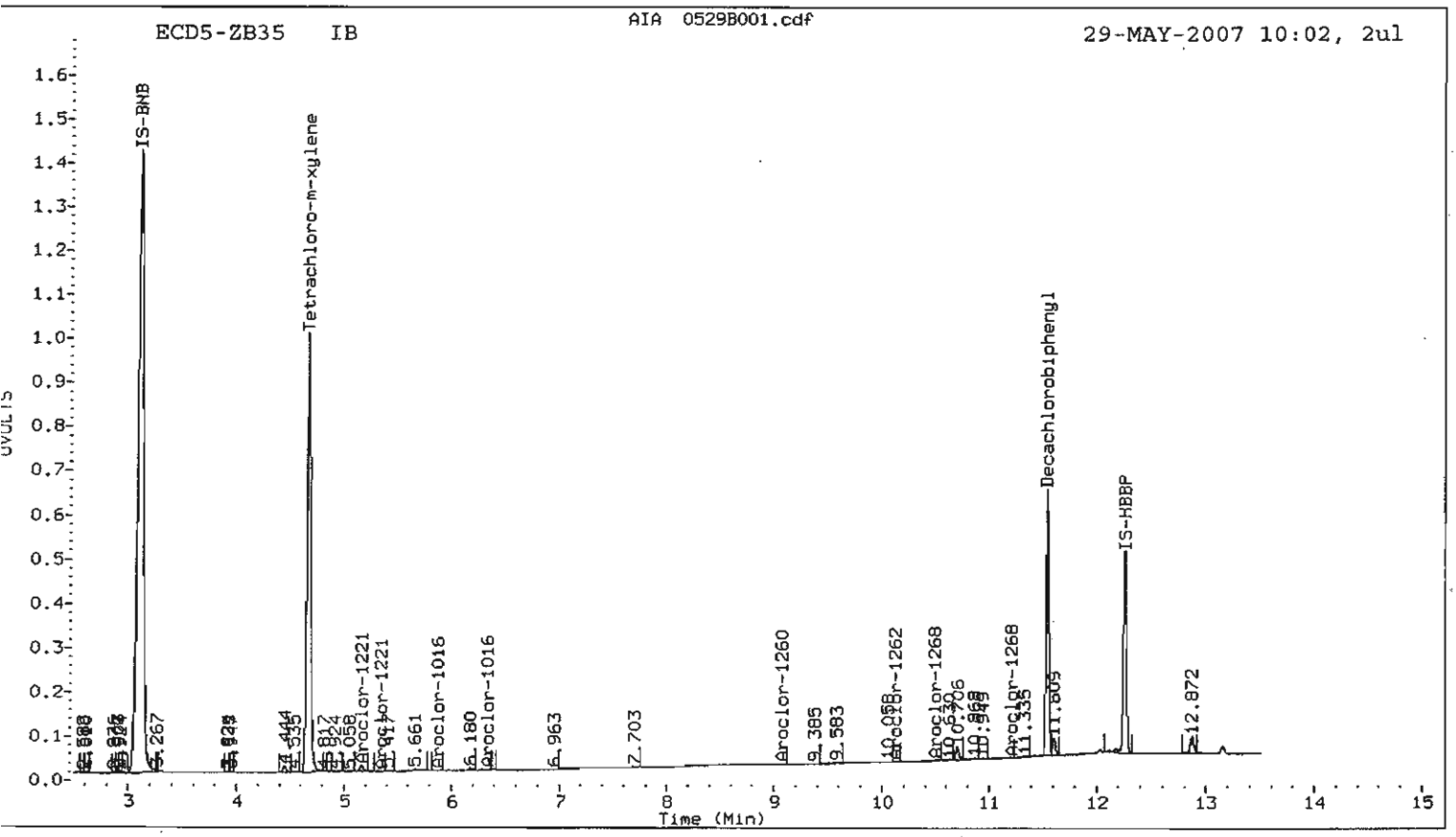
13.191
13.432
UVOLTS
Time (Min)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Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1262
Aroclor-1268
Aroclor-1268
5.267
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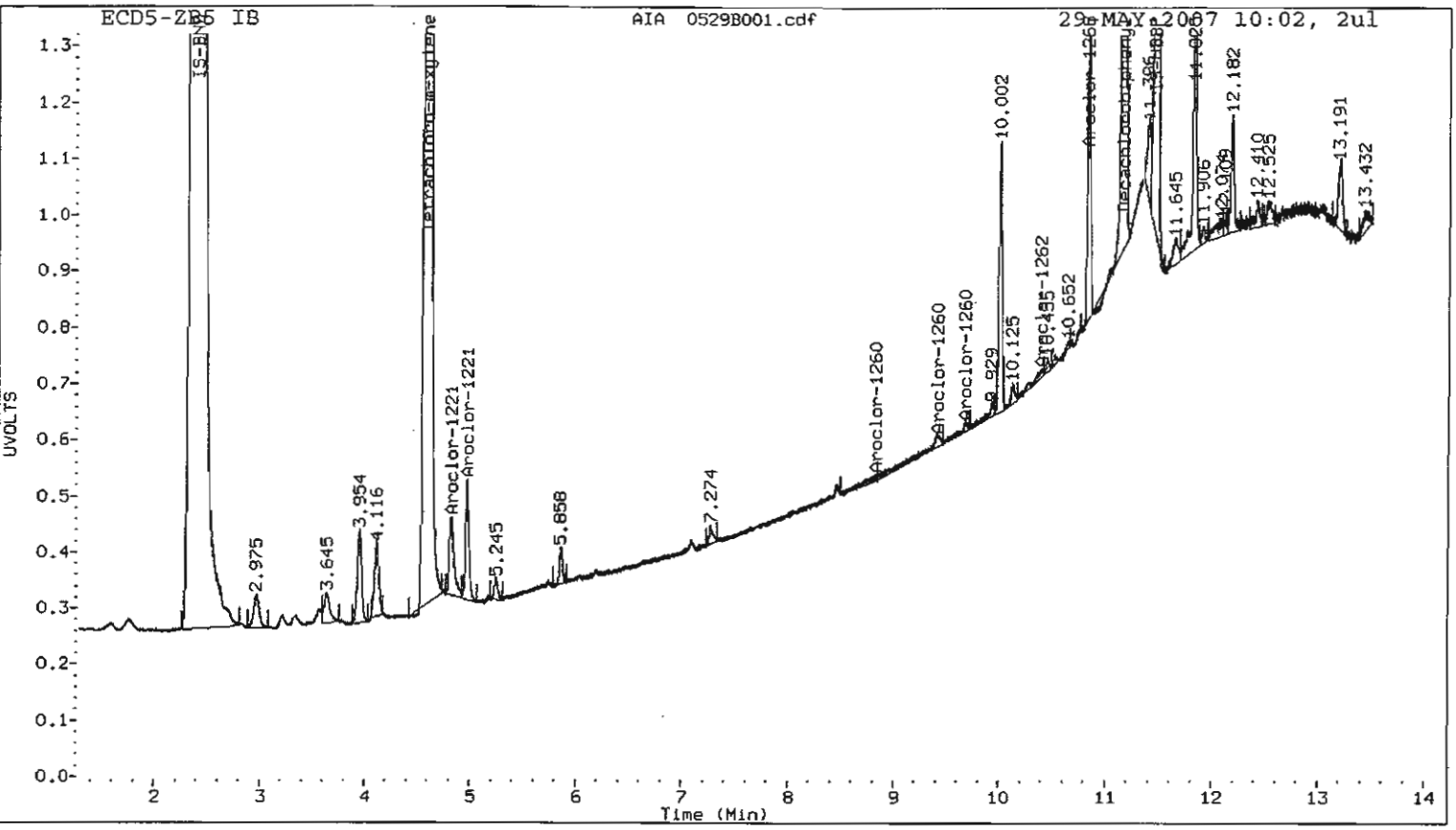
6.180
6.963
7.703
9.385
9.583
11.335
11.809
12.872
UVOLTS
Time (Min)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Time (Min)
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Tetrachloro-m-xylene
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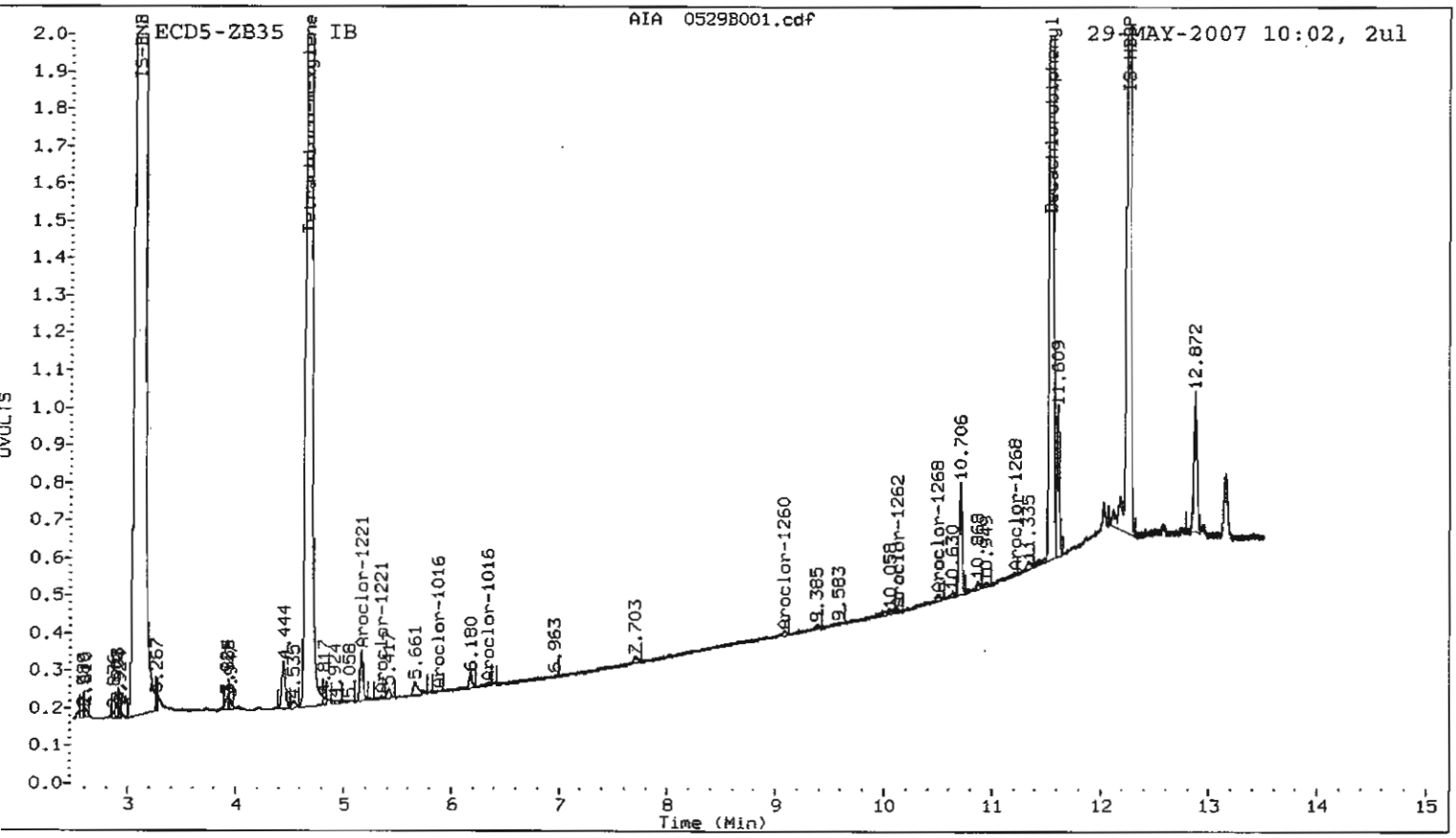
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
2.975
3.645
3.954
4.116
5.245
5.858
7.274
9.929
10.002
10.125
10.652
11.645
11.906
12.182
12.410
12.525
13.191
13.432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29-MAY-2007 10:02, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBP
4.444
5.661
6.180
6.963
7.703
9.385
9.583
10.706
11.609
12.872

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B002.d
Data file 2: 20070529.b/ical-2.b/0529B002.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 .25
Client ID:
Injection Date: 29-MAY-2007 11:50
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.580	0.000	7544252	4.666	-0.005	4248466	19.7	18.5	6.7	Tetrachloro-m-xylene
11.156	0.000	3922613	11.544	0.002	2163177	19.2	19.5	1.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.3	46.1
Decachlorobiphenyl	48.1	48.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	32252907	0.0
Hexabromobiphenyl	5108210	5108210	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	20316673	0.0
Hexabromobiphenyl	3608946	3608946	0.0

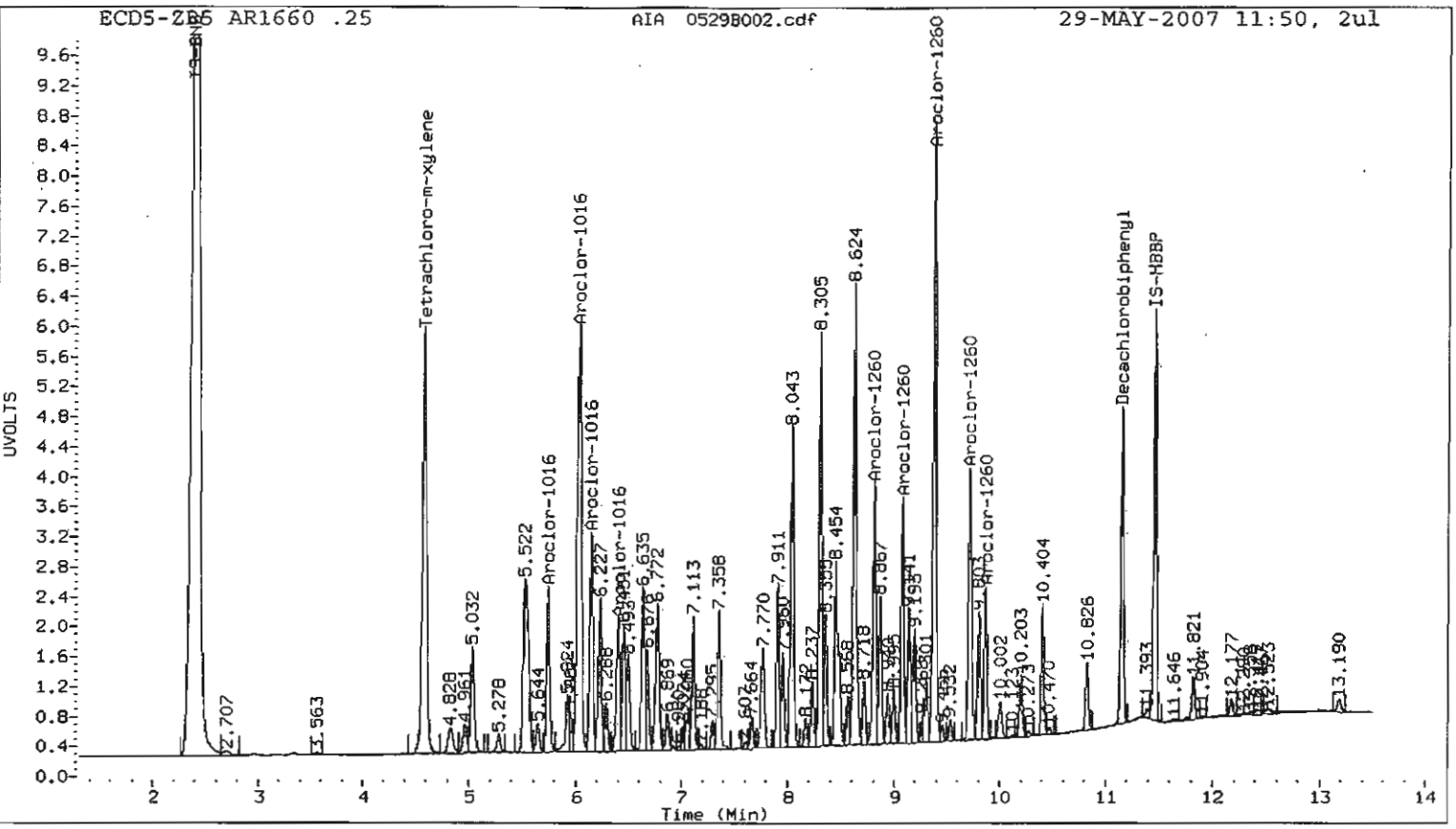
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	5.740	0.000	2372139	236.7	1	5.879	0.000	2145307	222.6
Aroclor-1016	2	6.031	0.000	7745239	239.7	2	6.344	-0.001	4356922	225.0
Aroclor-1016	3	6.143	0.000	3024941	238.3	3	6.505	-0.001	1730917	225.5
Aroclor-1016	4	6.398	0.000	1924207	236.6	4	7.043	0.000	1406423	225.4
Total Col1Ave (4 peaks):					237.8	Total Col2Ave (4 peaks):				224.7 RPD = 6
Corrected Ave (4 peaks):					237.8	Corrected Ave (4 peaks):				224.7 RPD = 6
Aroclor-1260	1	8.809	0.000	3507628	247.5	1	9.122	0.001	1733656	244.3
Aroclor-1260	2	9.076	0.000	3101491	246.2	2	9.191	0.002	1051580	241.4
Aroclor-1260	3	9.375	0.000	7893082	248.0	3	9.504	0.001	2082516	244.5
Aroclor-1260	4	9.714	0.000	3768659	244.7	4	9.711	0.001	4467150	231.2
Aroclor-1260	5	9.865	0.000	1892866	248.7	5	10.201	0.002	2652929	245.7
Total Col1Ave (5 peaks):					247.0	Total Col2Ave (5 peaks):				241.4 RPD = 2
Corrected Ave (5 peaks):					247.0	Corrected Ave (5 peaks):				241.4 RPD = 2

Total PCB Area Col1 (4.680 - 11.056) = 104724857 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 57536010 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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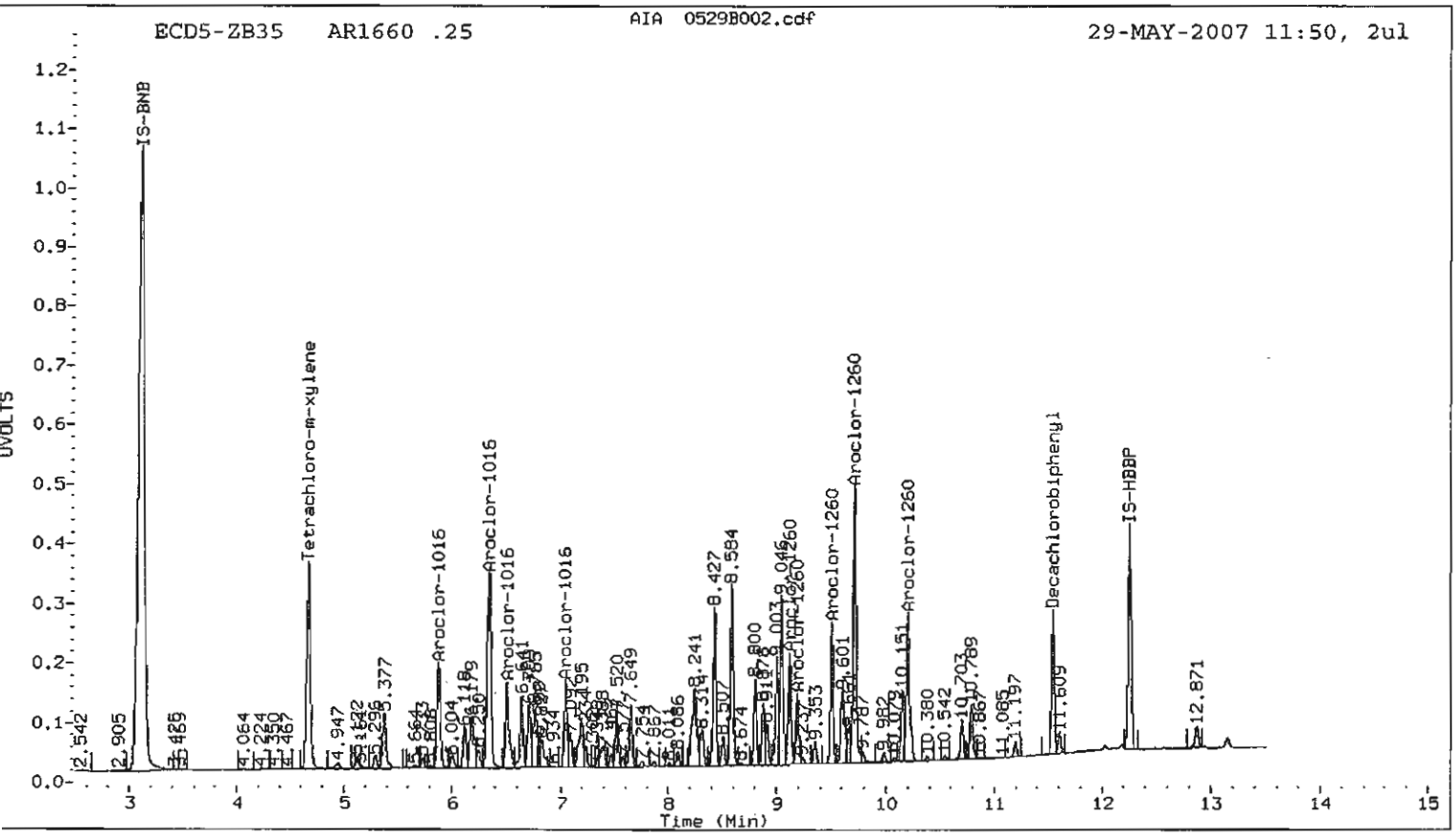
AIA 0529B002.cdf
29-MAY-2007 11:50, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B003.d
Data file 2: 20070529.b/ical-2.b/0529B003.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 .02
Client ID:
Injection Date: 29-MAY-2007 12:07
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.573	0.000	621223	4.668	-0.003	365062	1.7	1.7	0.7	Tetrachloro-m-xylene
11.150	0.000	360533	11.543	0.001	194114	1.7	1.6	4.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	4.2	4.2
Decachlorobiphenyl	4.3	4.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	31336892	-2.8
Hexabromobiphenyl	5108210	5290530	3.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19136425	-5.8
Hexabromobiphenyl	3608946	3866992	7.2

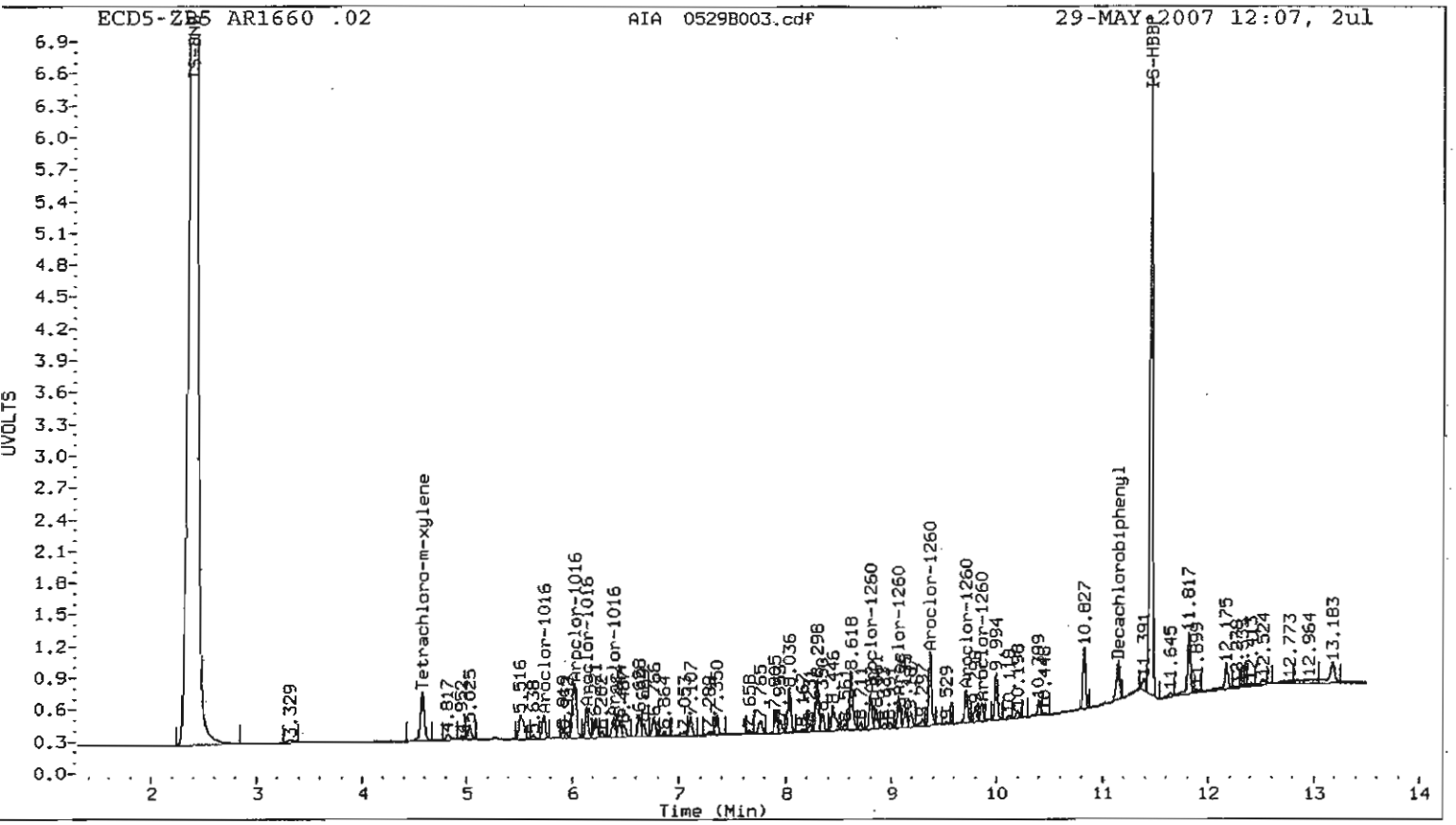
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	5.734	0.000	237982	24.4	1	5.879	0.000	225521	24.8
Aroclor-1016	2	6.026	0.000	718055	22.9	2	6.343	-0.001	427458	23.4
Aroclor-1016	3	6.137	0.000	290527	23.6	3	6.506	-0.001	173185	24.0
Aroclor-1016	4	6.392	0.000	189964	24.0	4	7.043	0.000	143120	24.4
Total Col1Ave (4 peaks):					23.7	Total Col2Ave (4 peaks):				24.1 RPD = 2
Corrected Ave (4 peaks):					23.7	Corrected Ave (4 peaks):				24.1 RPD = 2
Aroclor-1260	1	8.804	0.000	320567	21.8	1	9.121	0.000	166075	21.8
Aroclor-1260	2	9.071	0.000	285821	21.9	2	9.188	-0.001	100097	21.4
Aroclor-1260	3	9.370	0.000	678643	20.6	3	9.502	-0.001	194250	21.3
Aroclor-1260	4	9.708	0.000	342849	21.5	4	9.710	0.000	480880	23.2
Aroclor-1260	5	9.860	0.000	164357	20.8	5	10.199	0.000	233769	20.2
Total Col1Ave (5 peaks):					21.3	Total Col2Ave (5 peaks):				21.6 RPD = 1
Corrected Ave (5 peaks):					21.3	Corrected Ave (5 peaks):				21.6 RPD = 1

Total PCB Area Col1 (4.673 - 11.050) = 10504978 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 6316619 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical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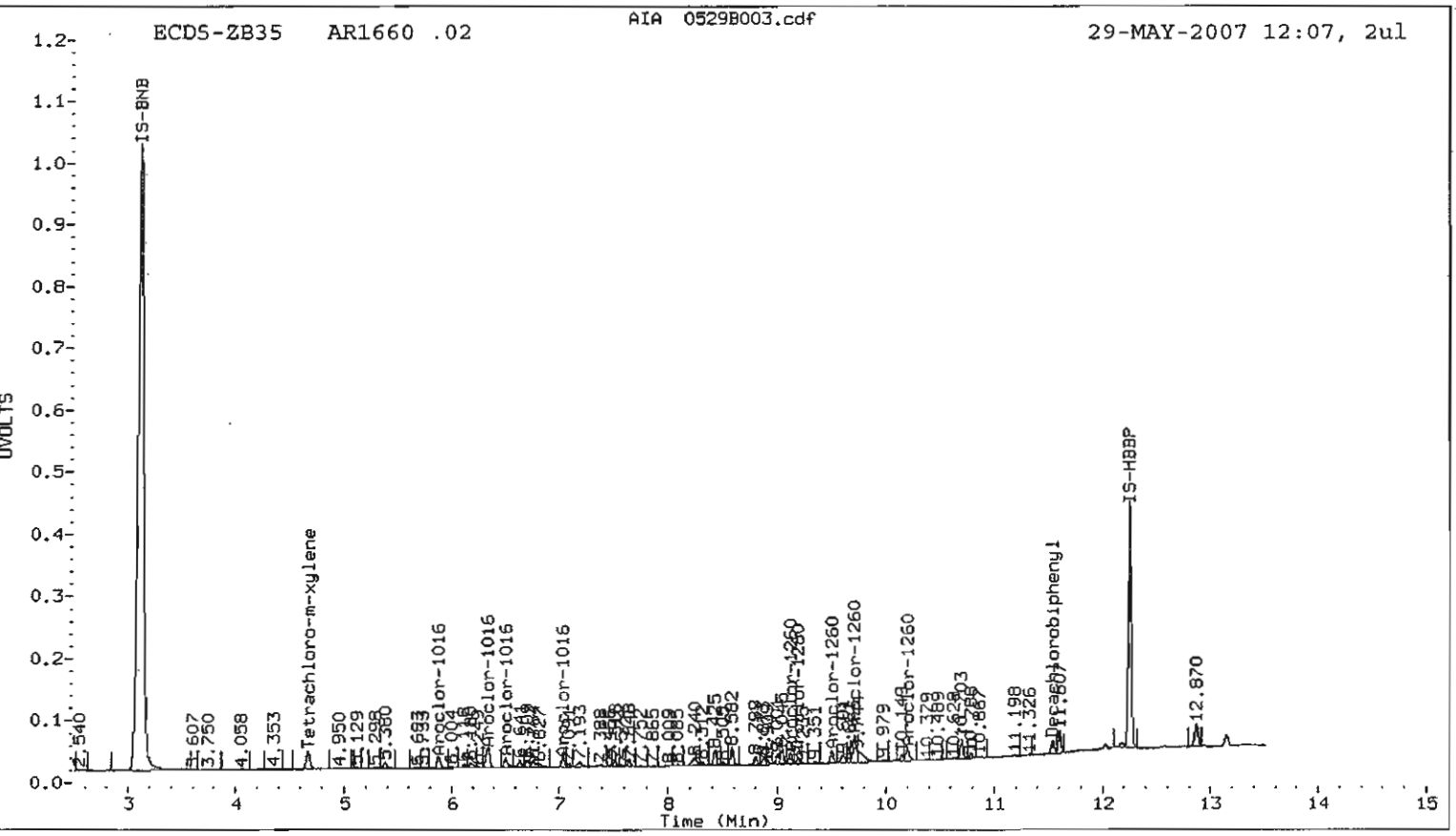
AIA 0529B003.cdf
29-MAY-2007 12:07, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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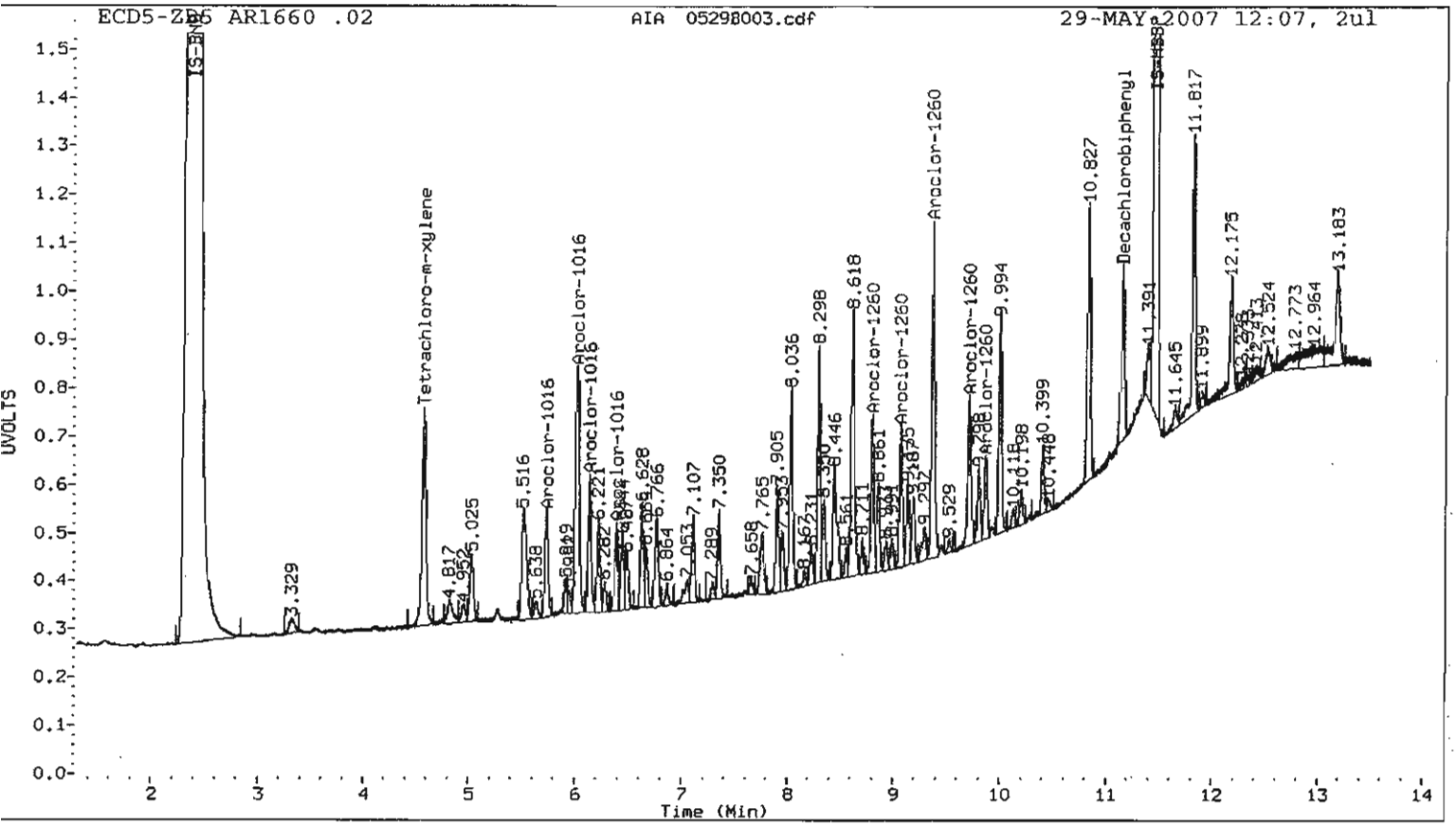
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
12.870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29-MAY-2007 12:07, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB
3.329
4.817
5.516
5.638
6.025
6.221
6.282
6.766
7.107
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7.765
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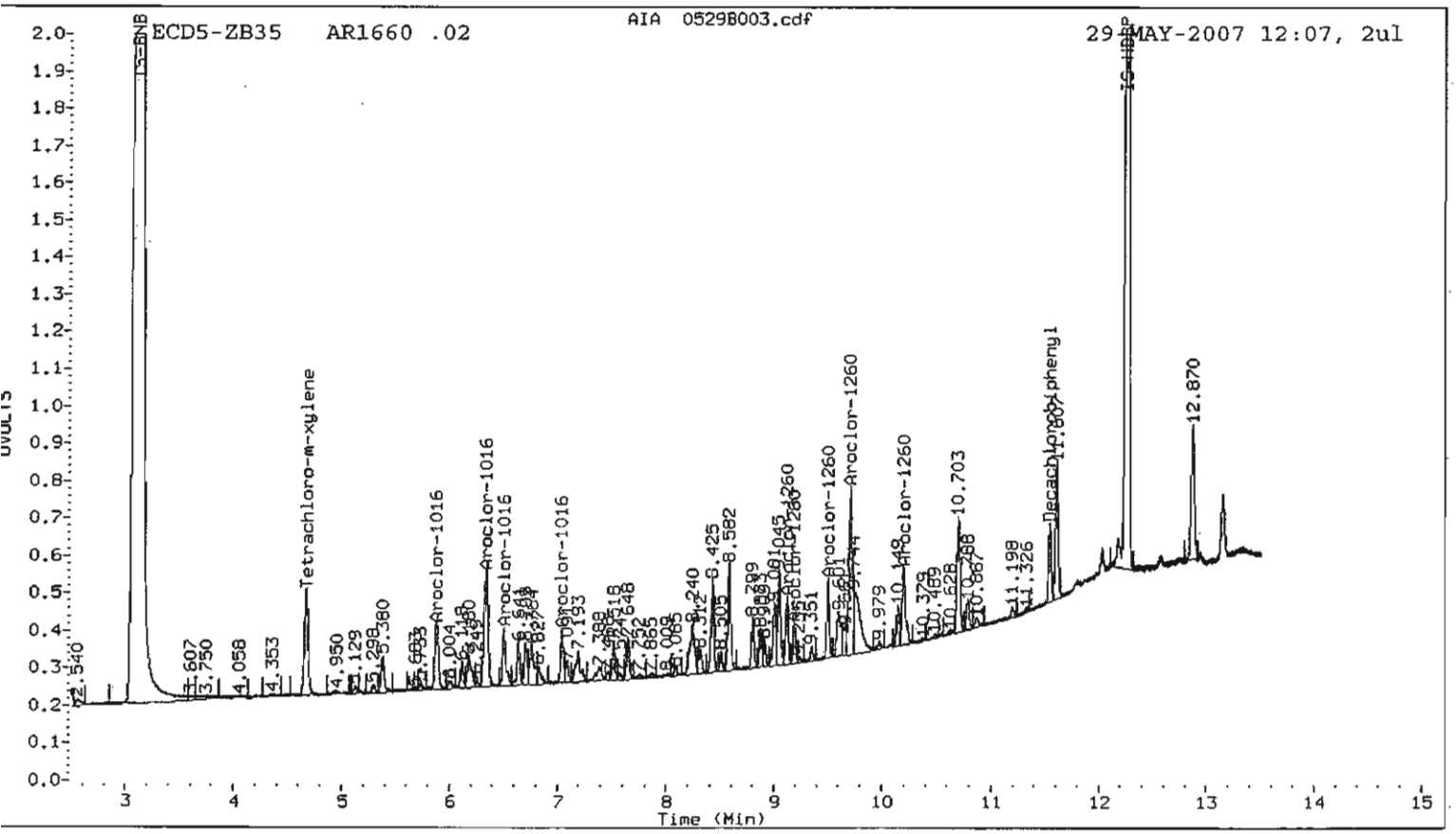
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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB
12.540
12.870

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B004.d
Data file 2: 20070529.b/ical-2.b/0529B004.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 1.0
Client ID:
Injection Date: 29-MAY-2007 12:24
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.573	0.000	28633431	4.669	-0.002	17934350	79.8	85.4	6.8	Tetrachloro-m-xylene
11.150	0.000	16242417	11.543	0.001	9285809	82.6	86.8	5.0	Decachlorobiphenyl

* Indicates RPD > 40%
1 Indicates Column 1 peak was manually integrated
2 Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	199.4	213.4
Decachlorobiphenyl	206.4	216.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	30281473	-6.1
Hexabromobiphenyl	5108210	4926404	-3.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	18540271	-8.7
Hexabromobiphenyl	3608946	3477459	-3.6

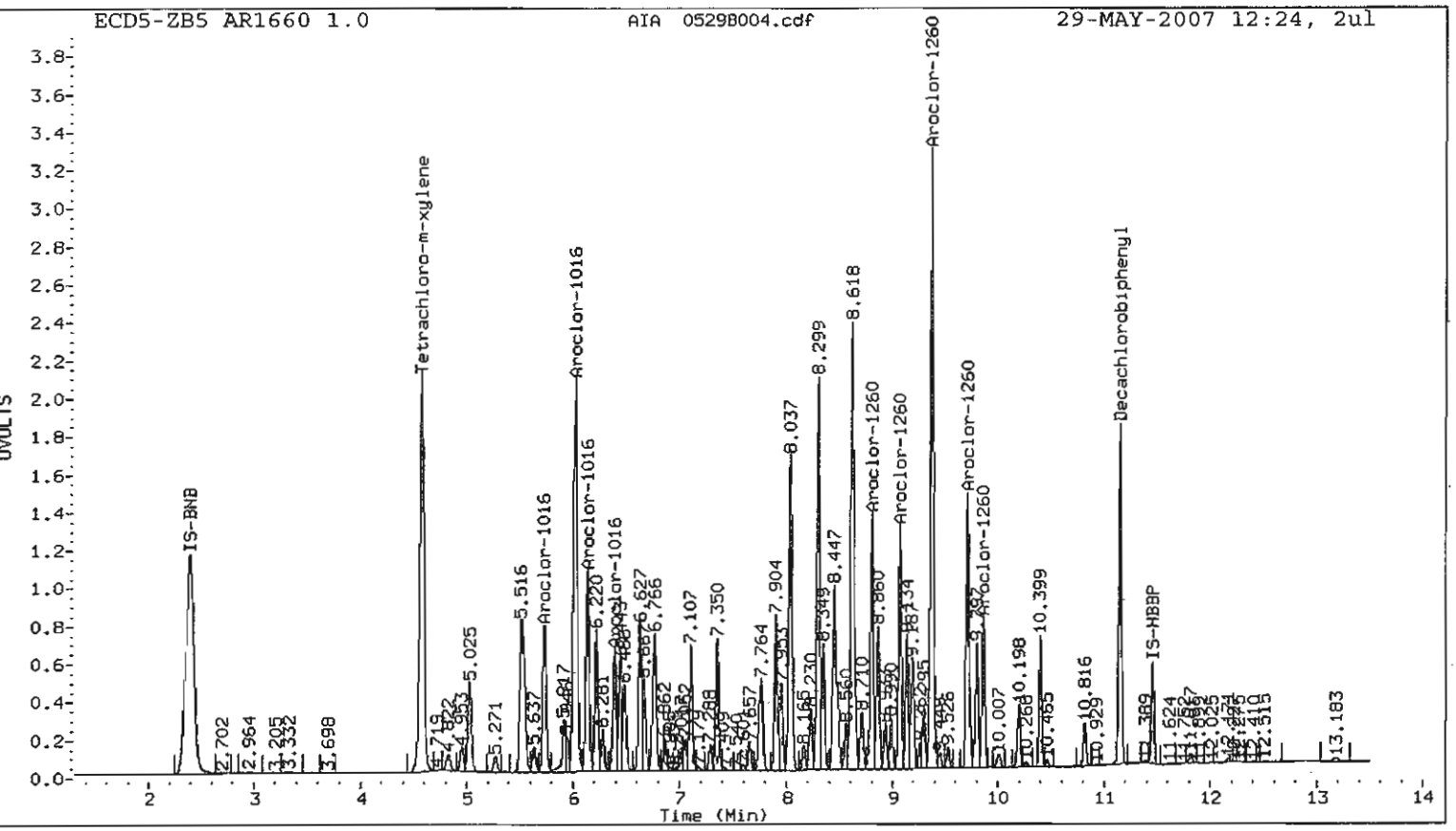
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.733	0.000	8359261	888.6	1	5.879	0.000	8270715	940.6
Aroclor-1016	2	6.024	0.000	28437800	937.5	2	6.344	-0.001	17558866	993.7
Aroclor-1016	3	6.136	0.000	10862622	911.6	3	6.506	-0.001	6607551	943.5
Aroclor-1016	4	6.391	0.000	6868731	899.4	4	7.043	0.000	5384675	945.8
Total Col1Ave (4 peaks):					909.3	Total Col2Ave (4 peaks):				955.9 RPD = 5
Corrected Ave (4 peaks):					909.3	Corrected Ave (4 peaks):				955.9 RPD = 5
Aroclor-1260	1	8.803	0.000	13384577	979.2	1	9.121	0.000	6895949	1008.5
Aroclor-1260	2	9.071	0.000	12014395	988.9	2	9.188	0.000	4120842	981.7
Aroclor-1260	3	9.368	0.000	31536774	1027.5	3	9.503	0.000	8529290	1039.1
Aroclor-1260	4	9.708	0.000	14949343	1006.5	4	9.710	0.000	18159006	975.3
Aroclor-1260	5	9.859	0.000	7376280	1004.8	5	10.200	0.001	11105598	1067.6
Total Col1Ave (5 peaks):					1001.4	Total Col2Ave (5 peaks):				1014.4 RPD = 1
Corrected Ave (5 peaks):					1001.4	Corrected Ave (5 peaks):				1014.4 RPD = 1

Total PCB Area Col1 (4.673 - 11.050) = 387150170 Col1 Total PCB = 1.8 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 222753157 Col2 Total PCB = 1.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical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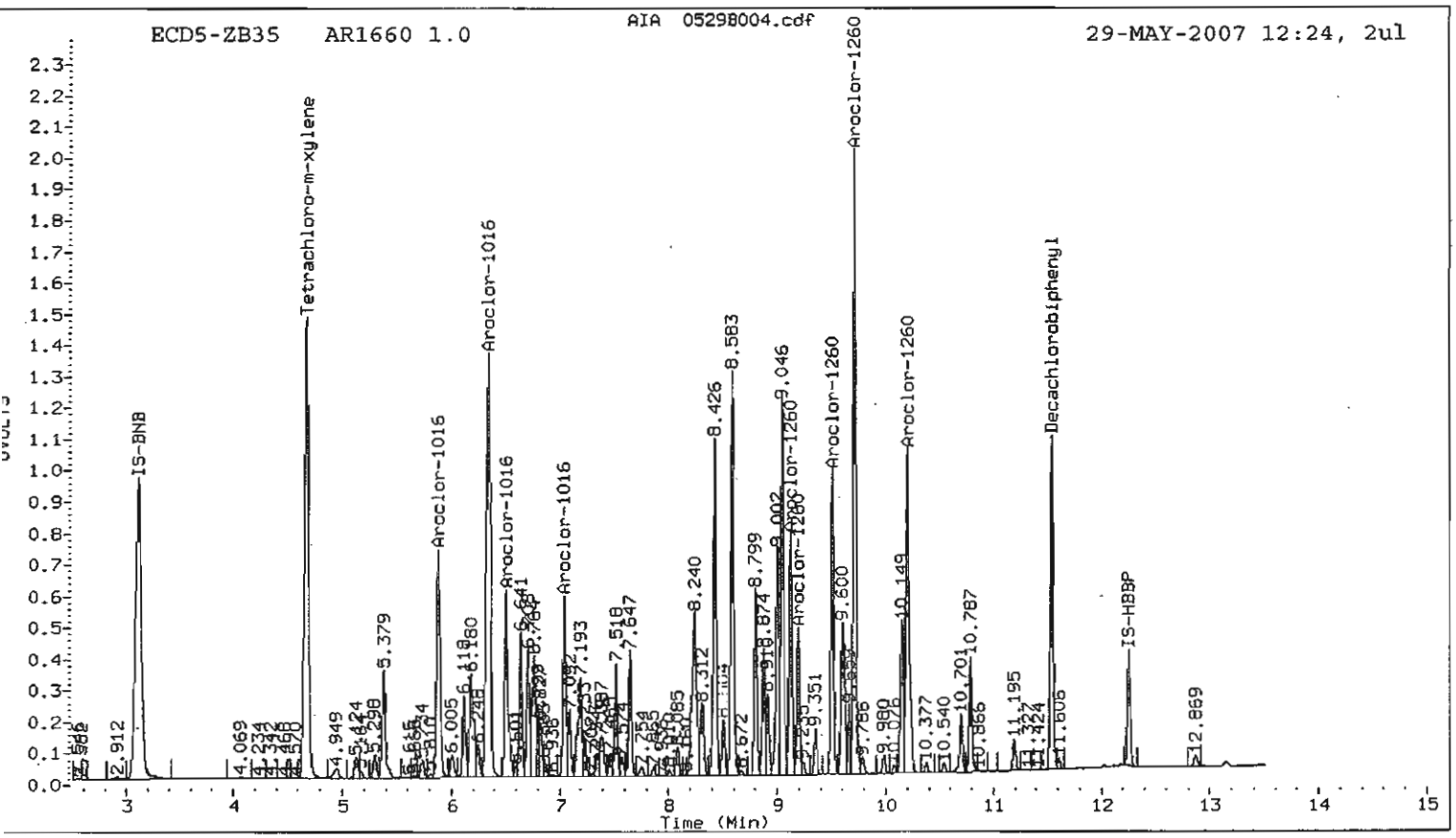
29-MAY-2007 12:24, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B005.d
Data file 2: 20070529.b/ical-2.b/0529B005.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 0.1
Client ID:
Injection Date: 29-MAY-2007 12:41
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.573	0.000	3018055	4.670	-0.001	1751052	8.0	7.8	2.6	Tetrachloro-m-xylene
11.148	0.000	1721614	11.541	-0.001	927185	7.8	7.4	4.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	20.0	19.5
Decachlorobiphenyl	19.4	18.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	31803064	-1.4
Hexabromobiphenyl	5108210	5561298	8.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19807529	-2.5
Hexabromobiphenyl	3608946	4062455	12.6

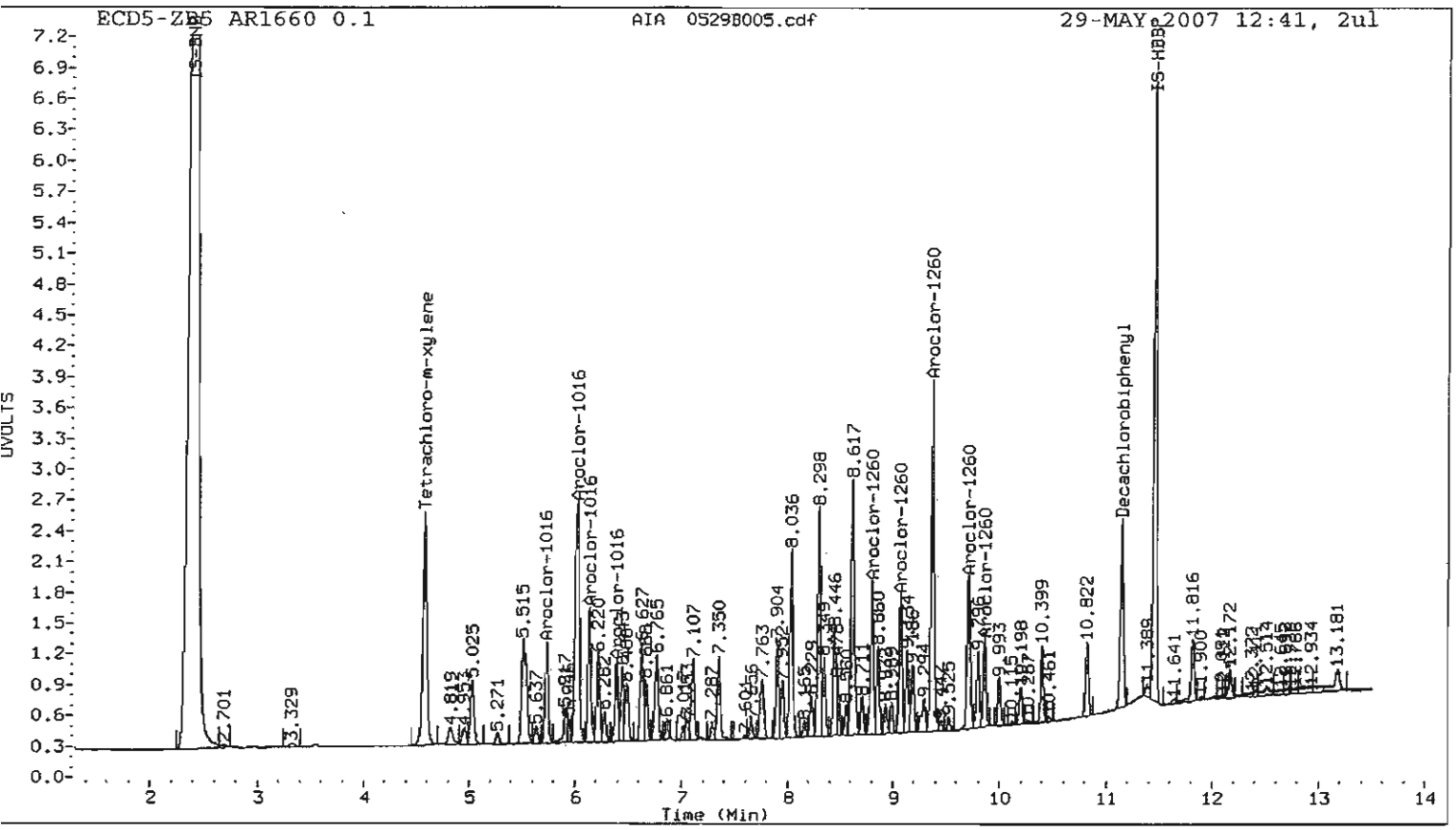
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.733	0.000	1026340	103.9	1	5.880	0.000	952463	101.4
Aroclor-1016	2	6.024	0.000	3267805	102.6	2	6.343	-0.001	1870167	99.1
Aroclor-1016	3	6.136	0.000	1296592	103.6	3	6.506	-0.001	776474	103.8
Aroclor-1016	4	6.390	0.000	832199	103.8	4	7.044	0.000	622815	102.4
Total Col1Ave (4 peaks):					103.5	Total Col2Ave (4 peaks):				101.7 RPD = 2
Corrected Ave (4 peaks):					103.5	Corrected Ave (4 peaks):				101.7 RPD = 2
Aroclor-1260	1	8.802	0.000	1499398	97.2	1	9.120	-0.001	758943	95.0
Aroclor-1260	2	9.069	0.000	1320232	96.3	2	9.188	-0.001	504553	102.9
Aroclor-1260	3	9.368	0.000	3302219	95.3	3	9.502	-0.001	890989	92.9
Aroclor-1260	4	9.707	0.000	1611173	96.1	4	9.710	0.000	2204890	101.4
Aroclor-1260	5	9.858	0.000	797805	96.3	5	10.198	-0.001	1132453	93.2
Total Col1Ave (5 peaks):					96.2	Total Col2Ave (5 peaks):				97.1 RPD = 1
Corrected Ave (5 peaks):					96.2	Corrected Ave (5 peaks):				97.1 RPD = 1

Total PCB Area Col1 (4.673 - 11.048) = 45327610 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 25659017 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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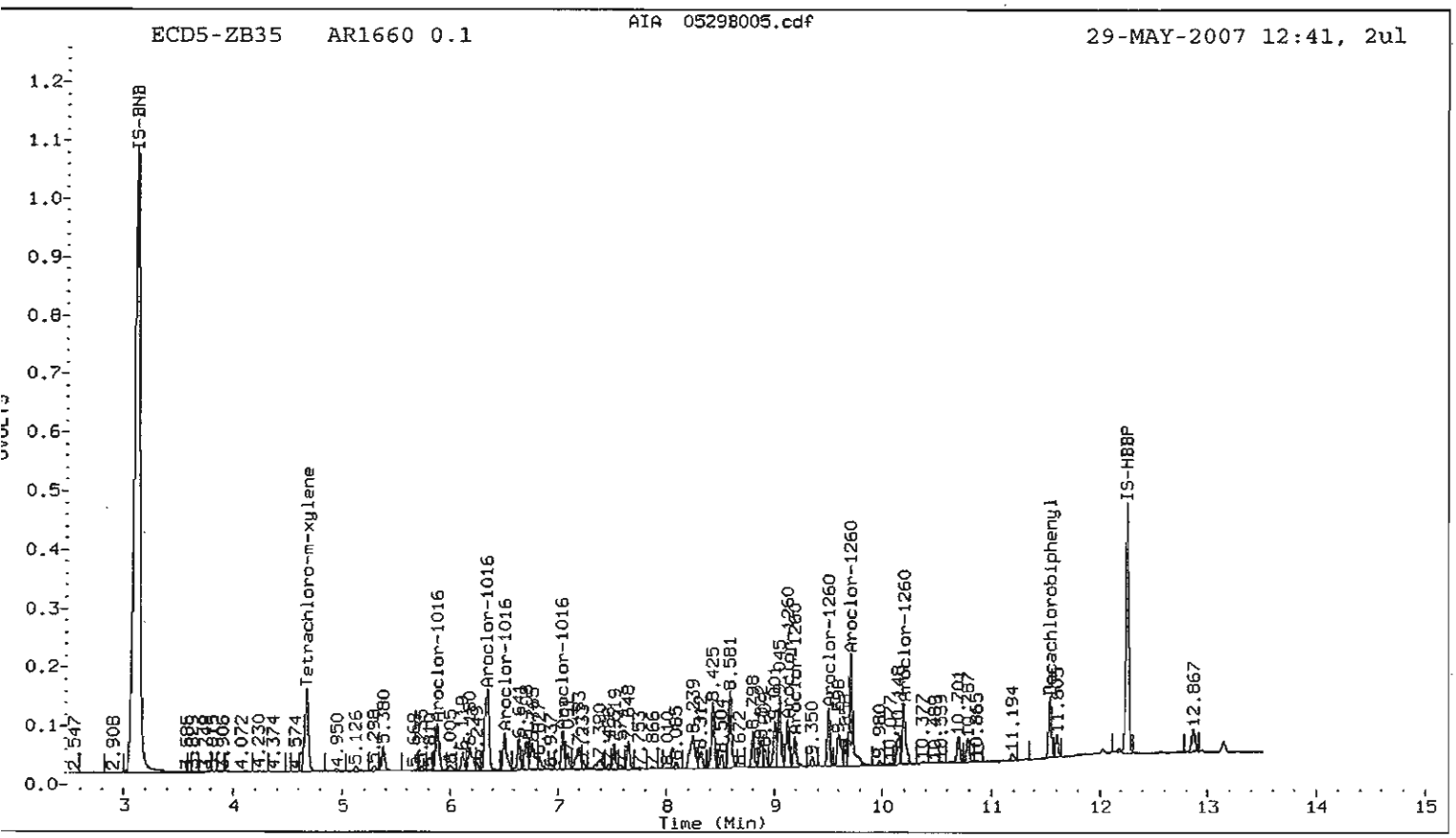
UVOLTS
Time (Min)
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260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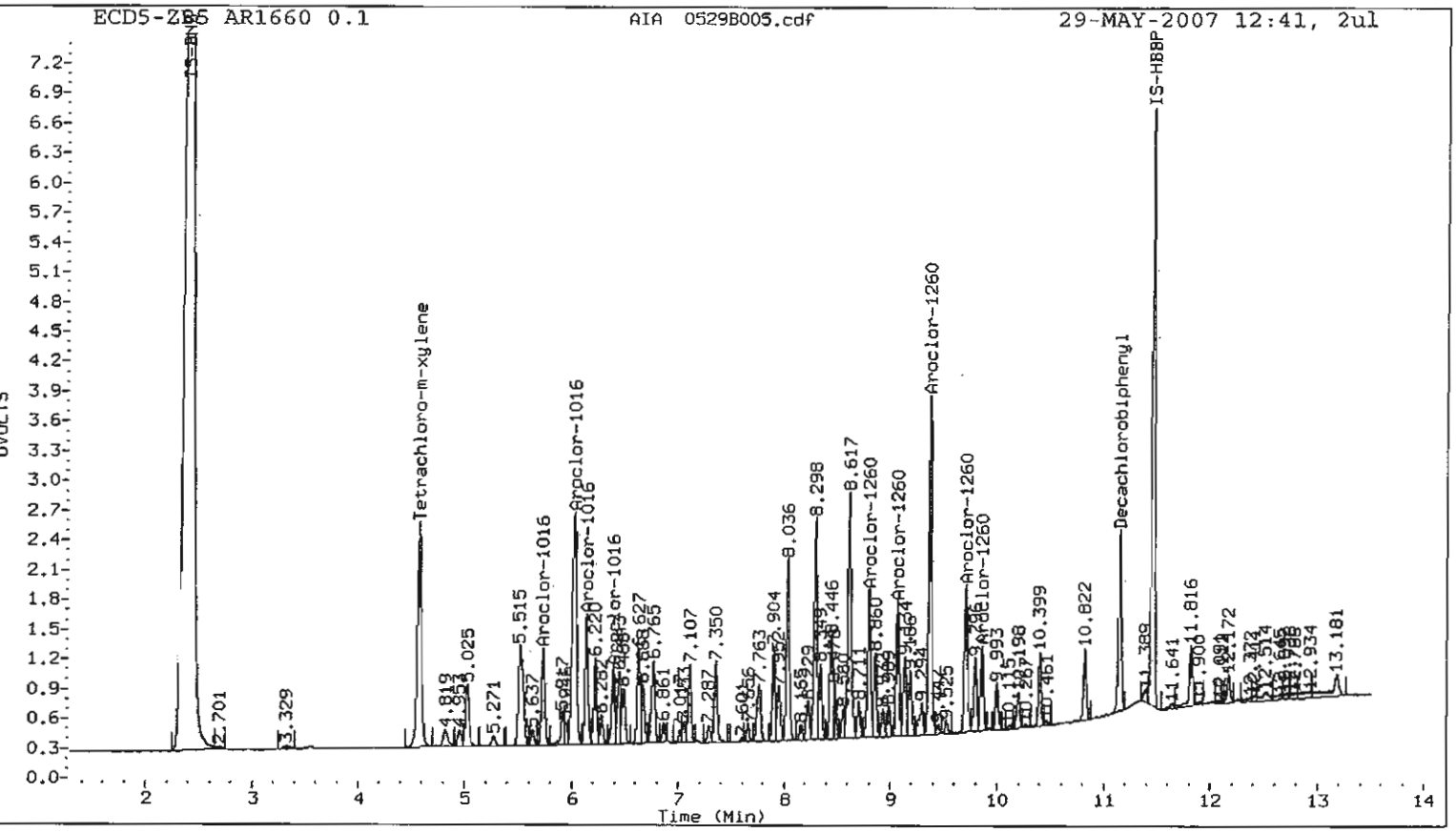
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260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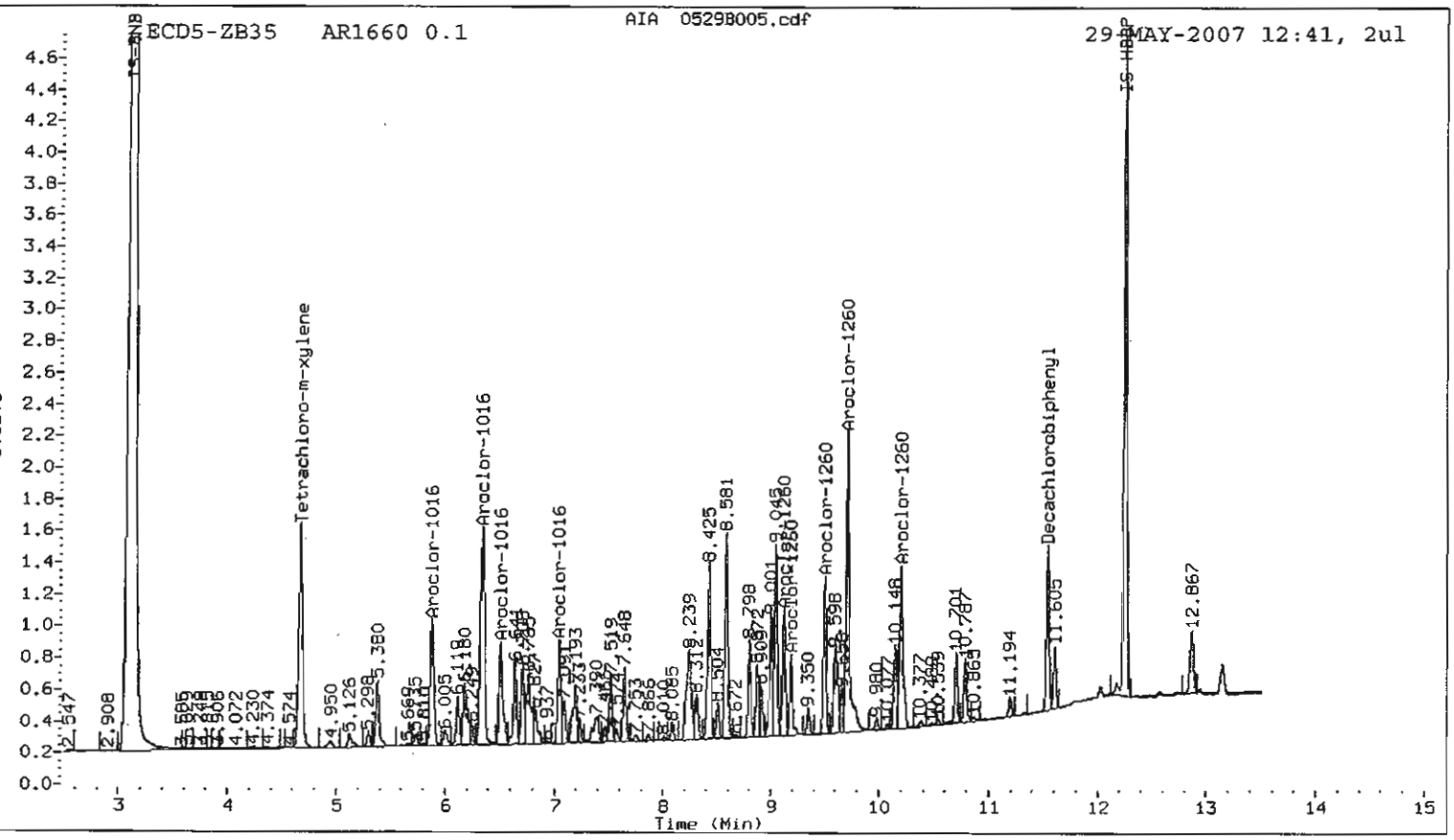
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260
Time (Min)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IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260
Time (Min)

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B006.d
Data file 2: 20070529.b/ical-2.b/0529B006.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 0.5
Client ID:
Injection Date: 29-MAY-2007 12:58
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.573	0.000	14906312	4.669	-0.002	8961117	38.8	39.3	1.3	Tetrachloro-m-xylene
11.150	0.000	8167033	11.543	0.001	4580512	38.8	39.8	2.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	97.0	98.3
Decachlorobiphenyl	97.1	99.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	32420273	0.5
Hexabromobiphenyl	5108210	5265072	3.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	20123786	-0.9
Hexabromobiphenyl	3608946	3737521	3.6

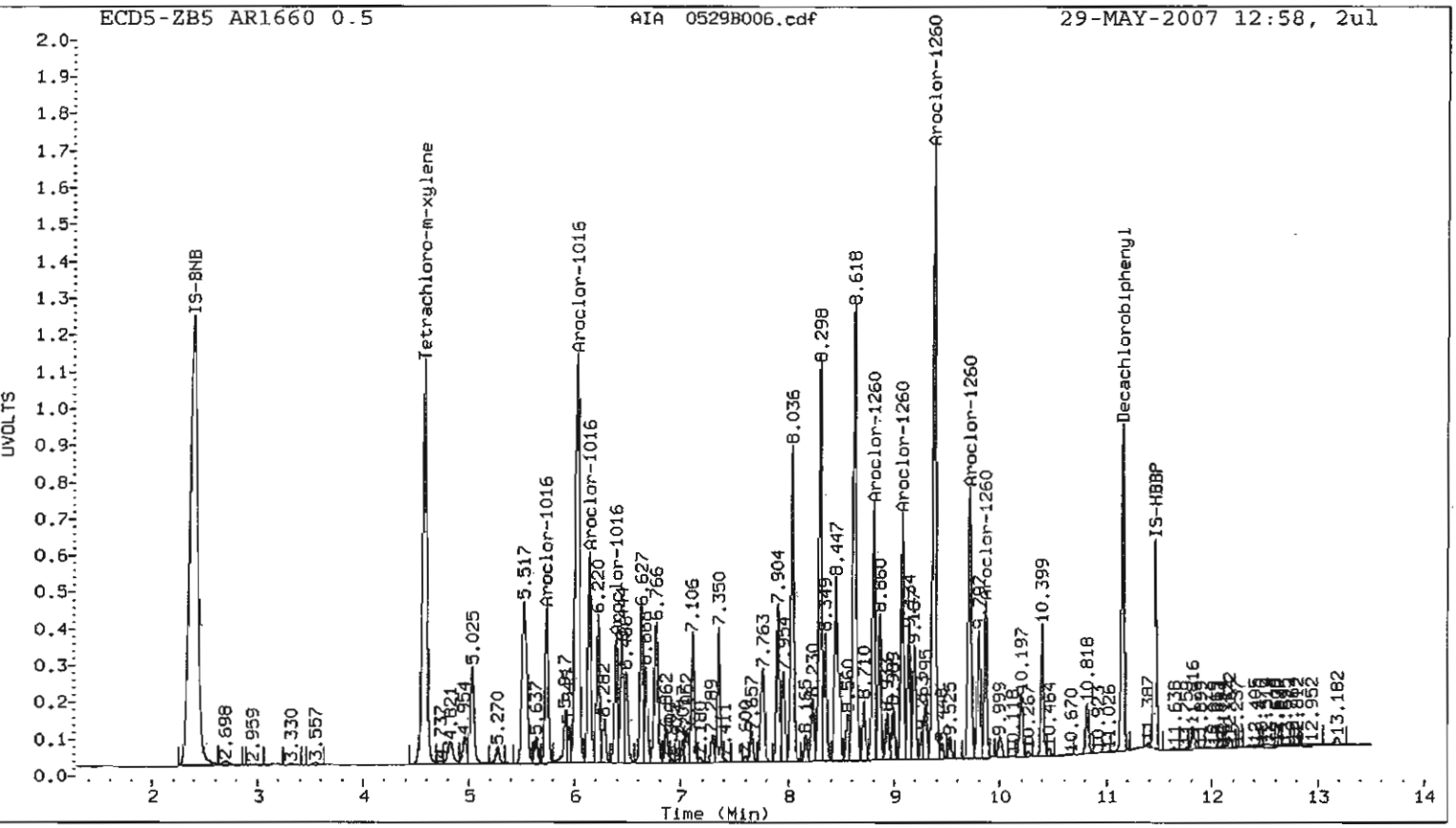
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.733	0.000	4549411	451.7	1	5.879	0.000	4354851	456.3
Aroclor-1016	2	6.023	0.000	15170933	467.1	2	6.345	0.000	9049526	471.8
Aroclor-1016	3	6.136	0.000	5876421	460.6	3	6.507	0.000	3491969	459.4
Aroclor-1016	4	6.392	0.000	3740706	457.5	4	7.044	0.000	2814425	455.4
Total Col1Ave (4 peaks):				459.2		Total Col2Ave (4 peaks):			460.7	RPD = 0
Corrected Ave (4 peaks):				459.2		Corrected Ave (4 peaks):			460.7	RPD = 0
Aroclor-1260	1	8.803	0.000	7064805	483.6	1	9.121	0.000	3572761	486.1
Aroclor-1260	2	9.071	0.000	6286484	484.2	2	9.189	0.000	2146275	475.7
Aroclor-1260	3	9.368	0.000	16370685	499.0	3	9.503	0.000	4366252	494.9
Aroclor-1260	4	9.708	0.000	7770099	489.5	4	9.710	0.000	9254198	462.5
Aroclor-1260	5	9.858	0.000	3905148	497.7	5	10.199	0.000	5629623	503.5
Total Col1Ave (5 peaks):				490.8		Total Col2Ave (5 peaks):			484.6	RPD = 1
Corrected Ave (5 peaks):				490.8		Corrected Ave (5 peaks):			484.6	RPD = 1

Total PCB Area Col1 (4.673 - 11.050) = 207241122 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 117018679 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Time (Min)
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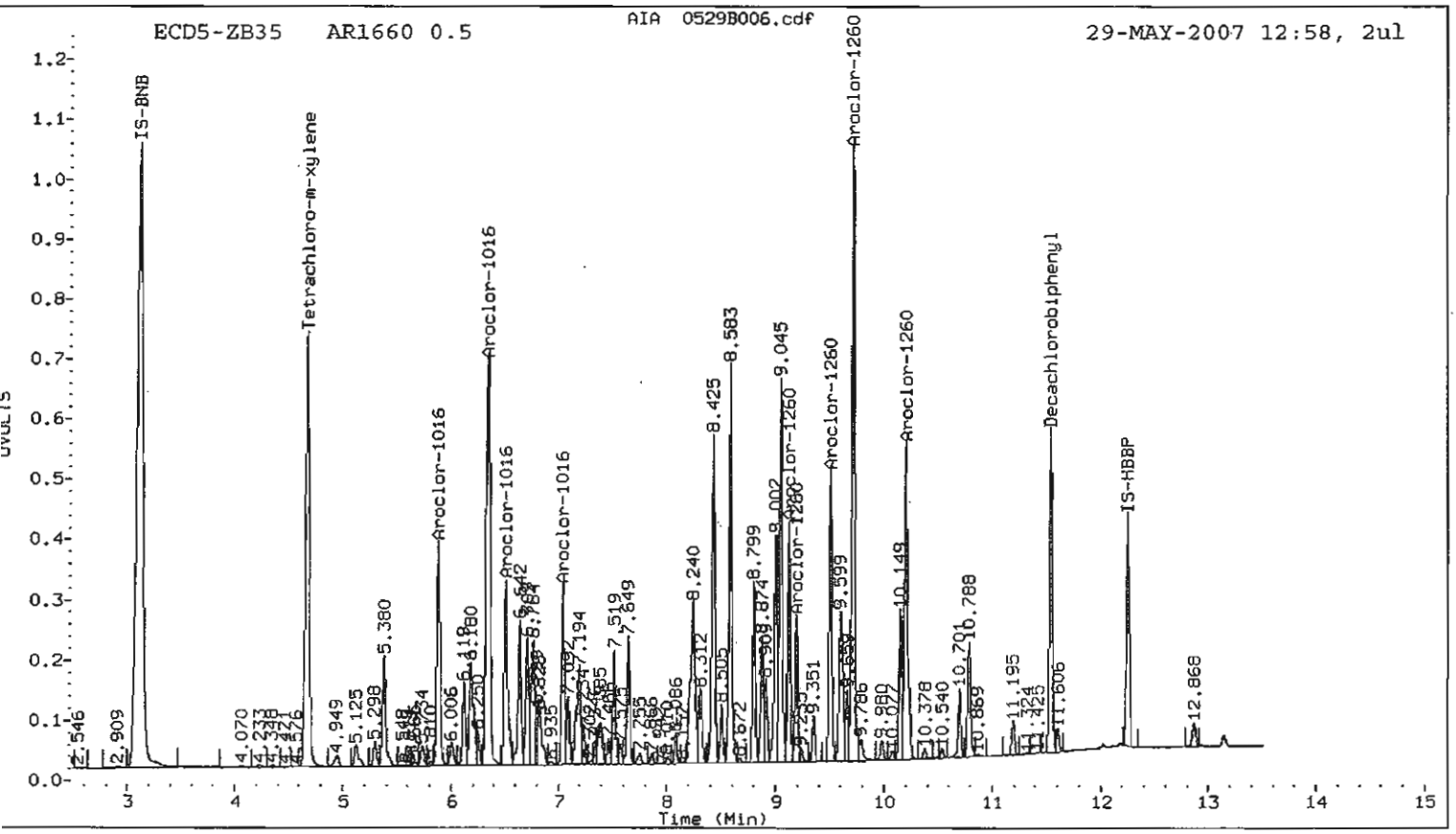
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B007.d
Data file 2: 20070529.b/ical-2.b/0529B007.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: ICV
Client ID:
Injection Date: 29-MAY-2007 13:15
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.535	-0.038	463135	4.692	0.021	60372	1.2	0.3	128.0*	Tetrachloro-m-xylene A B
11.125	-0.024	139832	11.545	0.003	54137	0.7	0.5	33.6	Decachlorobiphenyl

' Indicates RPD > 40%
[Indicates Column 1 peak was manually integrated
] Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	3.1	0.7
Decachlorobiphenyl	1.6	1.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	31519111	-2.3
Hexabromobiphenyl	5108210	5371449	5.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19584789	-3.6
Hexabromobiphenyl	3608946	3789126	5.0

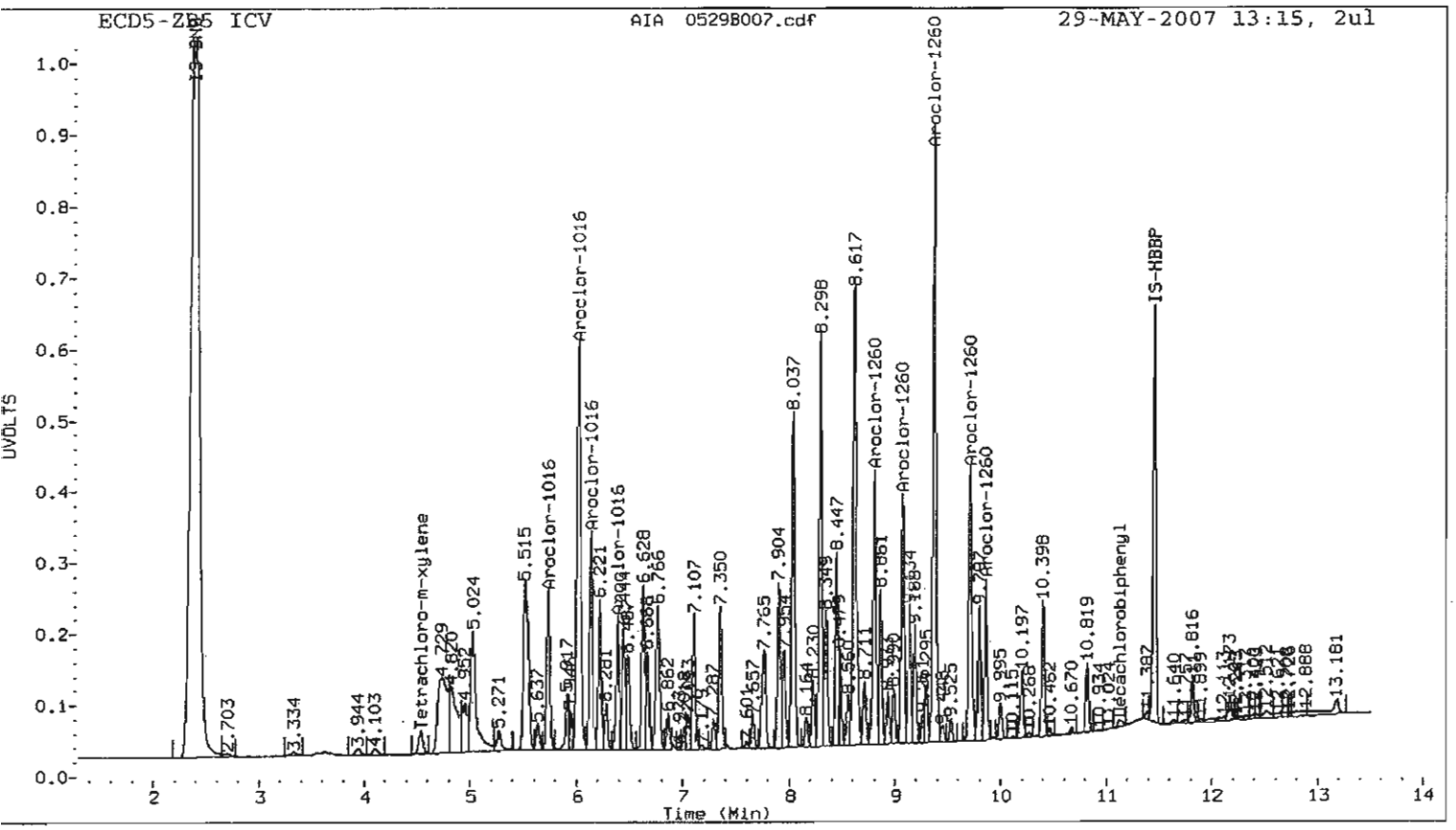
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	5.734	0.001	2396243	244.7	1	5.877	-0.002	2184157	235.1
Aroclor-1016	2	6.024	0.000	7980248	252.7	2	6.345	0.001	4565264	244.6
Aroclor-1016	3	6.137	0.001	3066485	247.2	3	6.506	-0.001	1805915	244.1
Aroclor-1016	4	6.391	0.000	1980250	249.1	4	7.044	0.000	1499454	249.3
Total Col1Ave (4 peaks):					248.4	Total Col2Ave (4 peaks):			243.3	RPD = 2
Corrected Ave (4 peaks):					248.4	Corrected Ave (4 peaks):			243.3	RPD = 2
Aroclor-1260	1	8.803	0.000	3789611	254.3	1	9.120	-0.001	1891799	253.9
Aroclor-1260	2	9.070	-0.001	3350107	252.9	2	9.189	0.000	1150132	251.5
Aroclor-1260	3	9.369	0.000	8609615	257.3	3	9.502	0.000	2278095	254.7
Aroclor-1260	4	9.707	-0.001	4133590	255.2	4	9.709	0.000	4867620	239.9
Aroclor-1260	5	9.858	0.000	2110871	263.7	5	10.198	-0.001	2925425	258.1
Total Col1Ave (5 peaks):					256.7	Total Col2Ave (5 peaks):			251.6	RPD = 2
Corrected Ave (5 peaks):					256.7	Corrected Ave (5 peaks):			251.6	RPD = 2

Total PCB Area Col1 (4.673 - 11.050) = 118057281 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 61848941 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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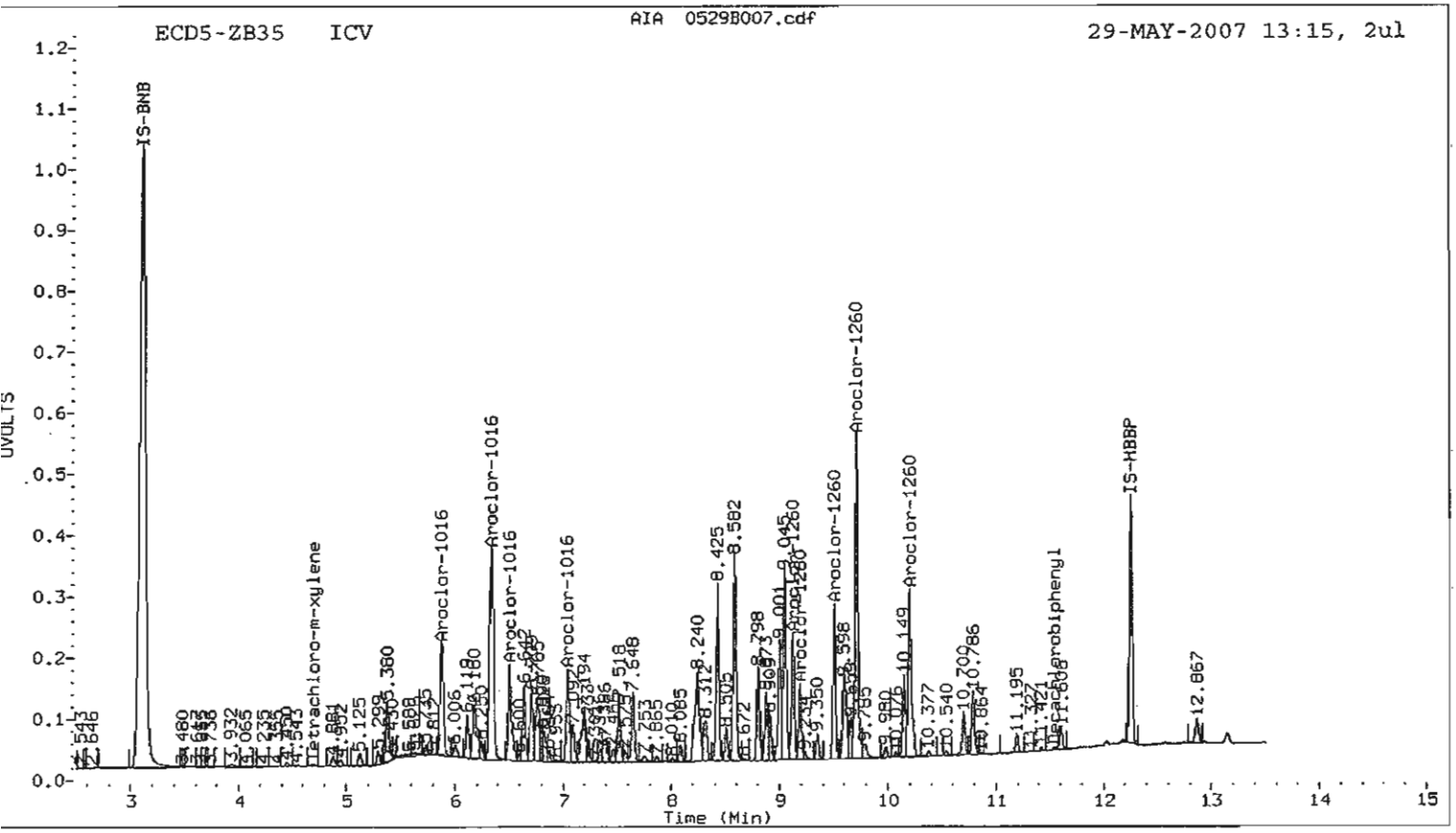
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B008.d
Data file 2: 20070529.b/ical-2.b/0529B008.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 29-MAY-2007 13:33
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.574	0.000	7630251	4.670	-0.001	4607458	20.5	20.9	1.9	Tetrachloro-m-xylene
11.149	0.000	4220909	11.542	0.000	2320422	21.8	21.6	1.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.4	52.3
Decachlorobiphenyl	54.5	53.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	31335303	-2.8
Hexabromobiphenyl	5108210	4847274	-5.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19425653	-4.4
Hexabromobiphenyl	3608946	3494062	-3.2

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	5.735	0.000	2188549	250.0	1	5.380	0.000	1044080	250.0
Aroclor-1242	2	6.026	0.000	7079672	250.0	2	5.881	0.000	2050112	250.0
Aroclor-1242	3	6.137	0.000	2807212	250.0	3	6.345	0.000	4101392	250.0
Aroclor-1242	4	6.766	0.000	2590358	250.0	4	6.506	0.000	1662130	250.0
Aroclor-1242	NS	---			----	5	7.400	0.000	1570495	250.0

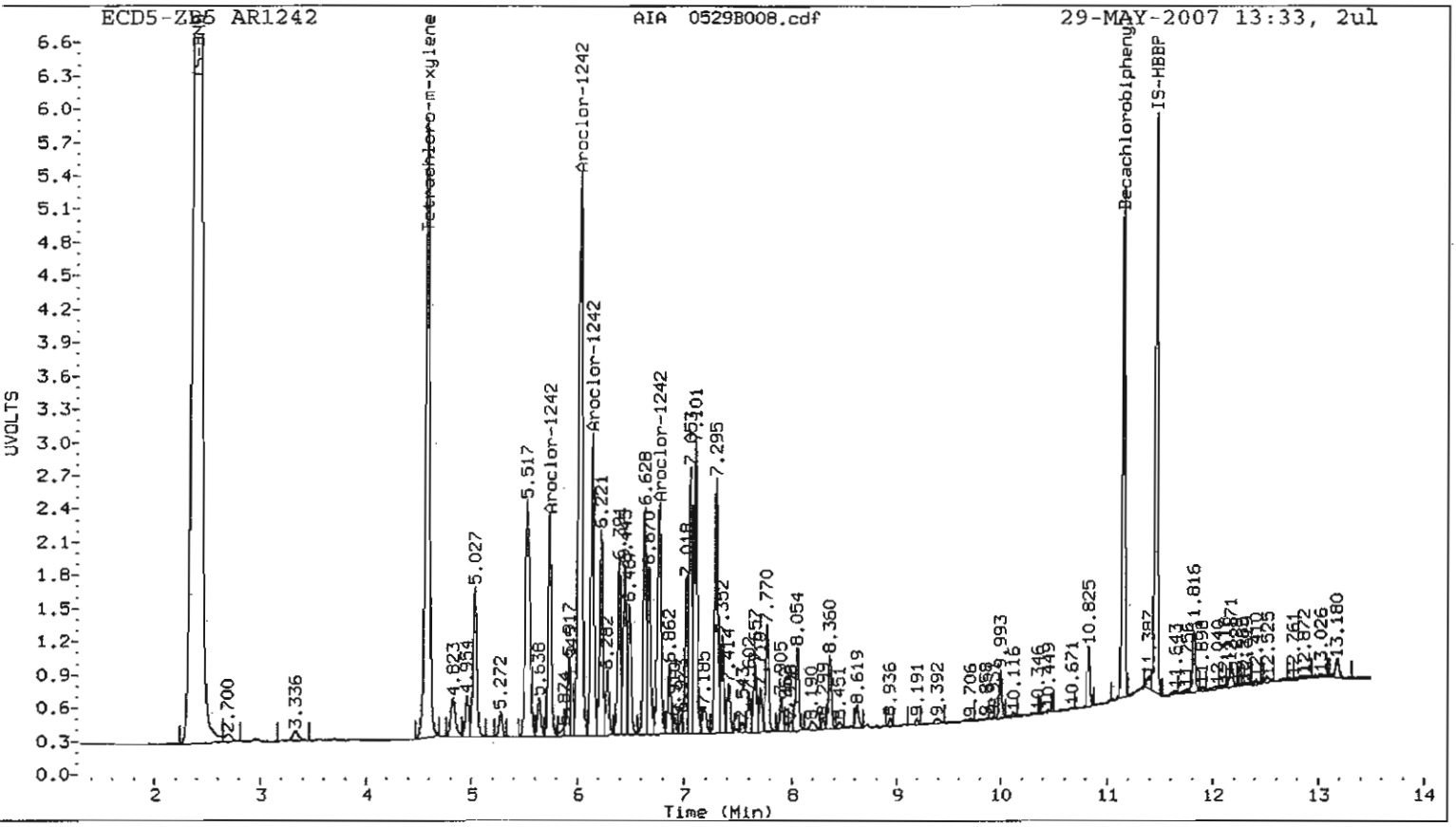
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0
Corrected Ave (4 peaks): 250.0 Corrected Ave (5 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.674 - 11.049) = 51335823 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 30350840 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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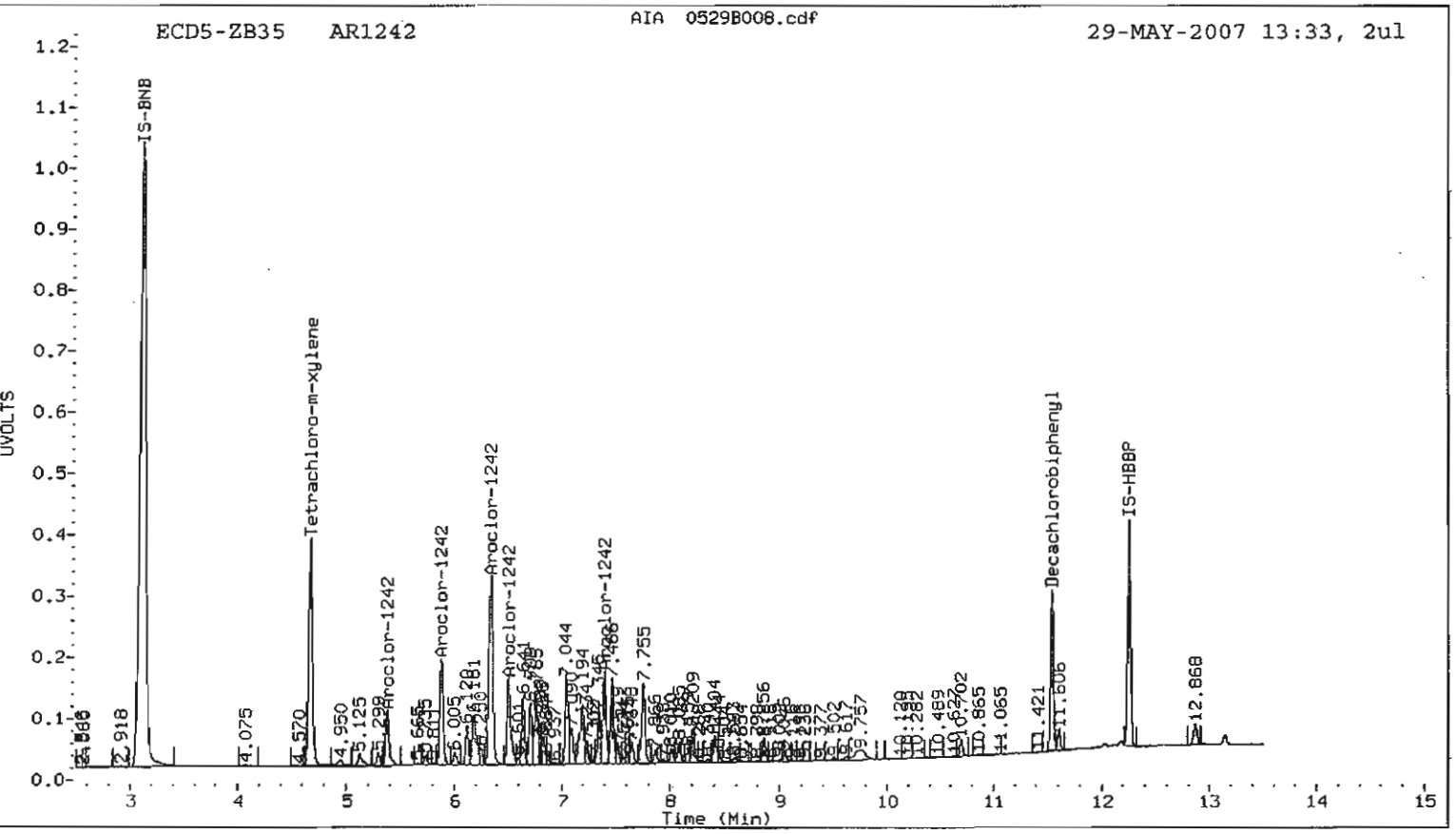
Aroclor-1242
Decachlorobiphenyl
IS-HBBP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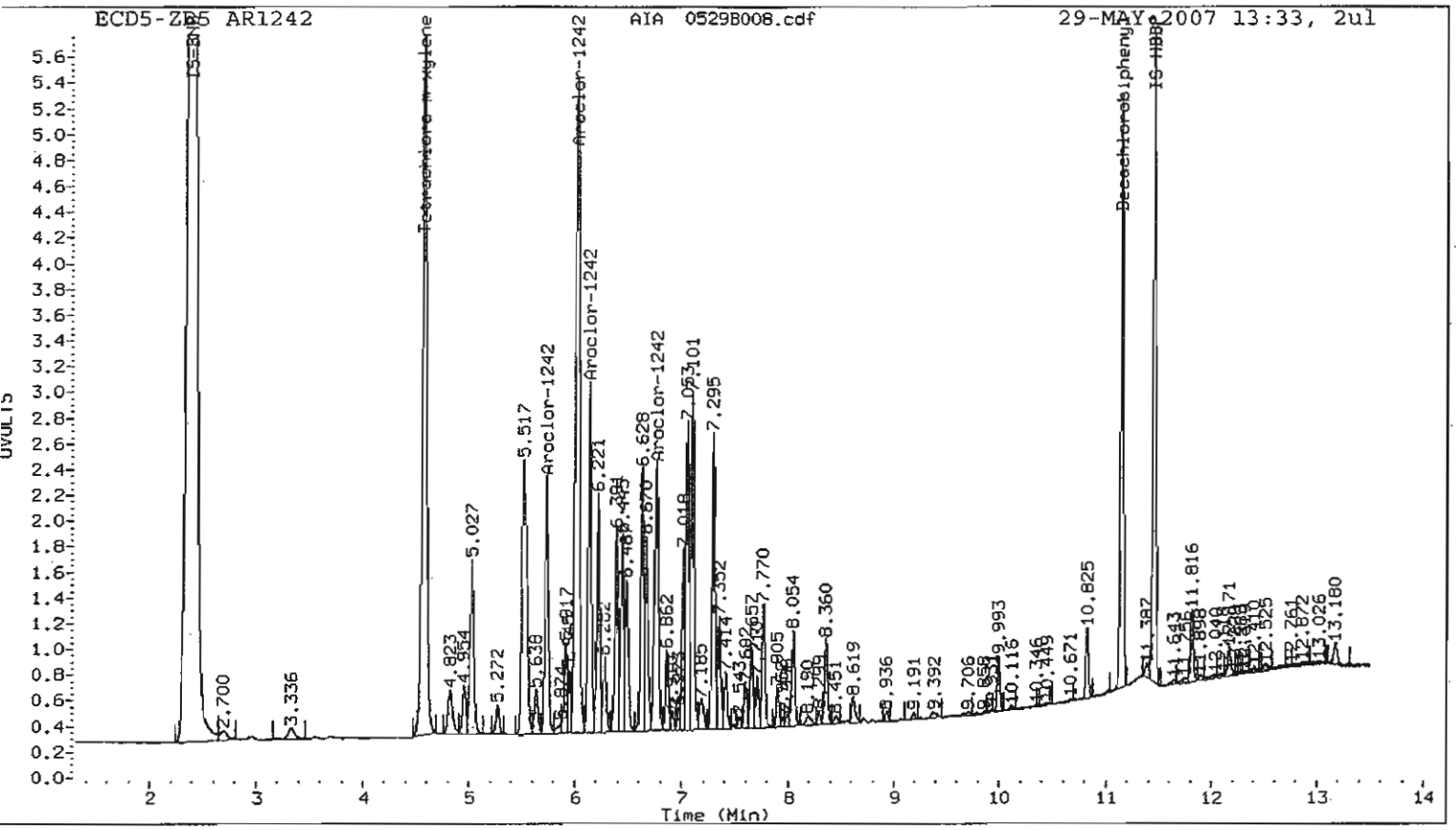
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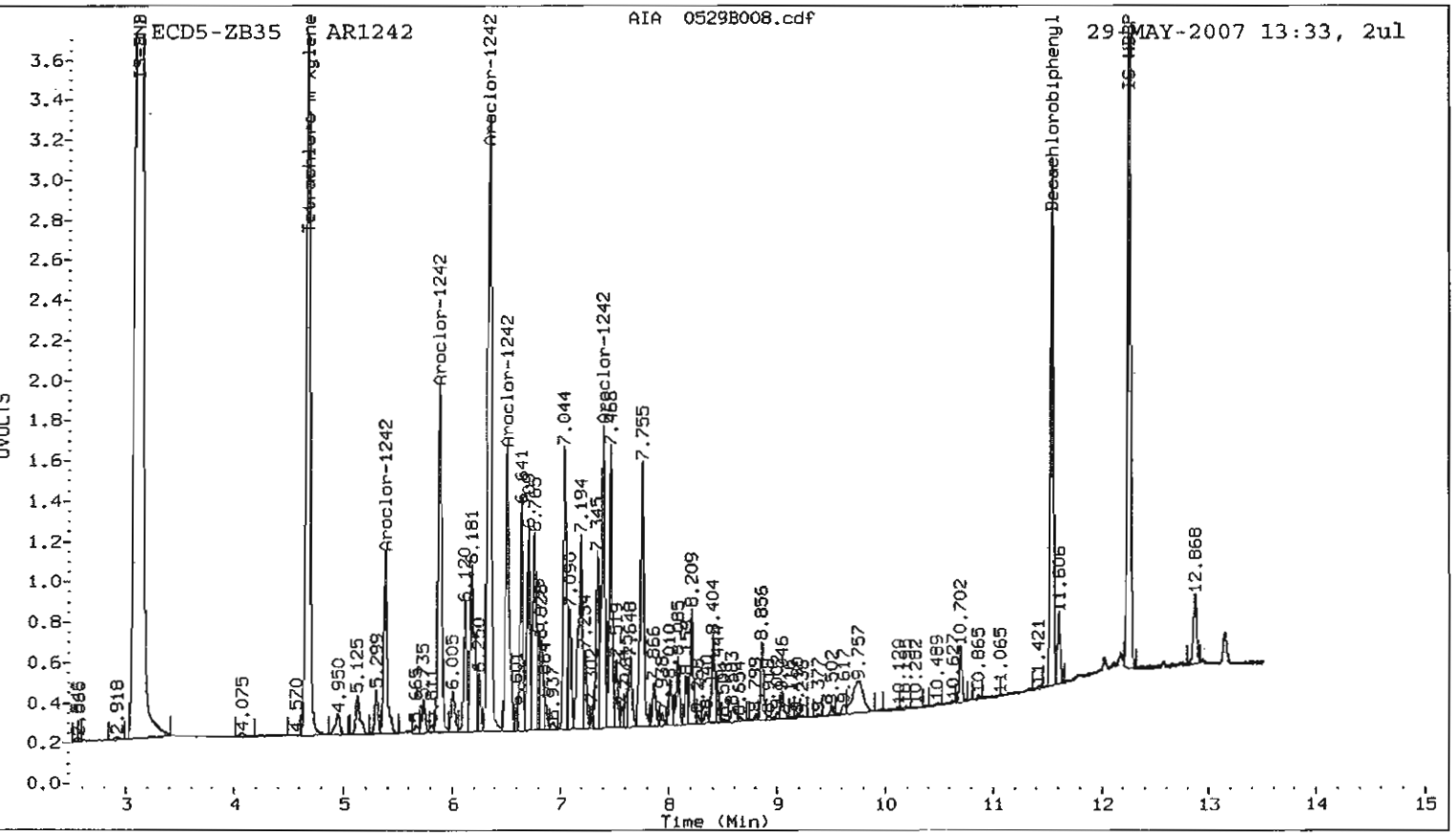
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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AIA 0529B008.cdf
29-MAY-2007 13:33, 2ul
IS=DNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B009.d
Data file 2: 20070529.b/ical-2.b/0529B009.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 29-MAY-2007 13:50
Report Date: 05/29/2007 15:37
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.574	0.000	7101900	4.670	-0.001	4496024	19.4	20.8	7.4	Tetrachloro-m-xylene
11.149	0.000	4358913	11.542	0.000	2424577	22.7	20.9	8.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.4	52.1
Decachlorobiphenyl	56.7	52.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	30953038	-4.0
Hexabromobiphenyl	5108210	4809426	-5.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19042649	-6.3
Hexabromobiphenyl	3608946	3767186	4.4

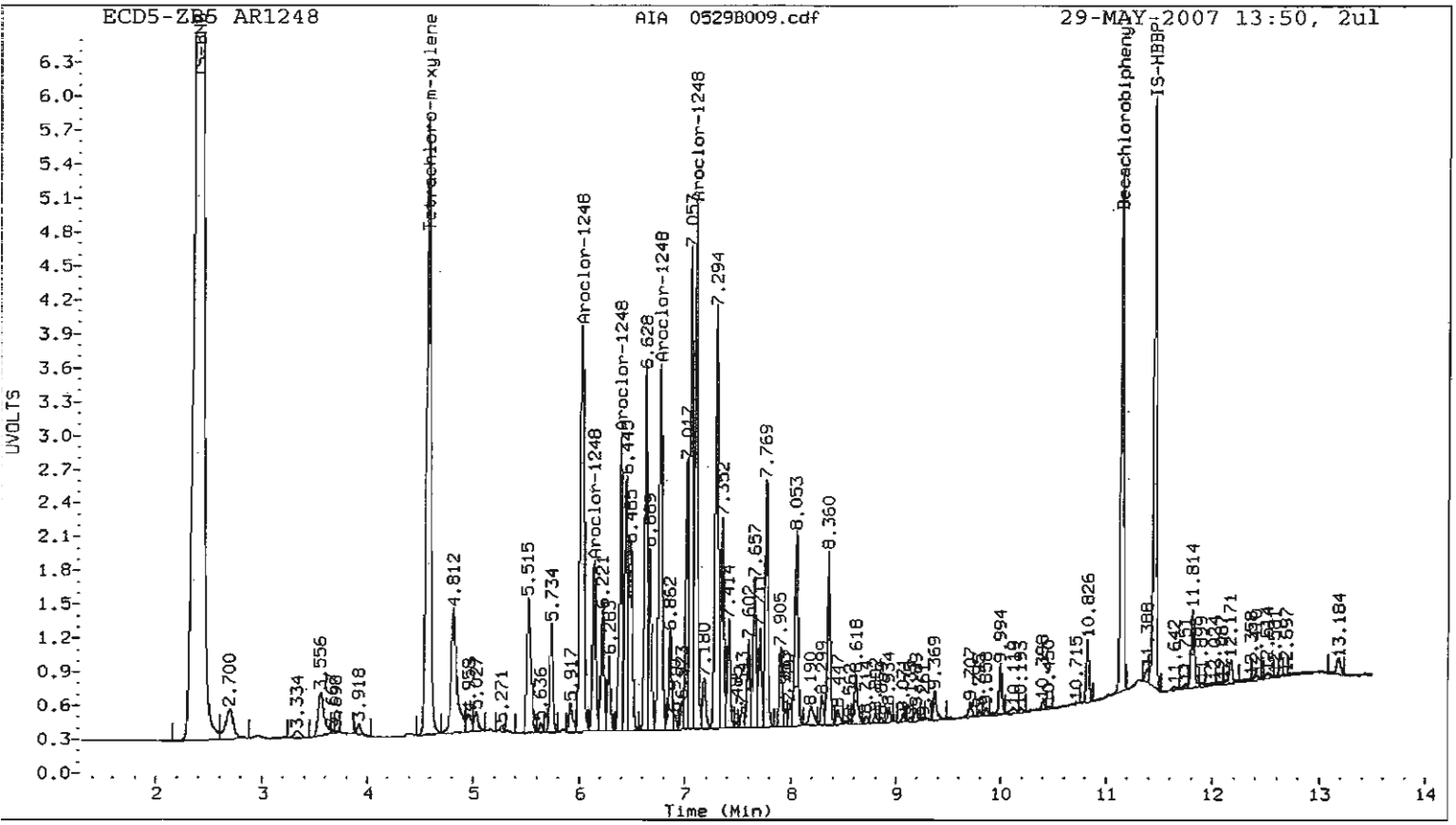
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.020	0.000	4981420	250.0	1	6.343	0.000	2925594	250.0
Aroclor-1248	2	6.139	0.000	1601459	250.0	2	6.709	0.000	1574640	250.0
Aroclor-1248	3	6.391	0.000	2661516	250.0	3	7.044	0.000	1995456	250.0
Aroclor-1248	4	6.765	0.000	3776363	250.0	4	7.399	0.000	2614033	250.0
Aroclor-1248	5	7.100	0.000	4871277	250.0	NS	---			----
Total Col1Ave (5 peaks):					250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
Corrected Ave (5 peaks):					250.0	Corrected Ave (4 peaks):			250.0	RPD = 0

Total PCB Area Col1 (4.674 - 11.049) = 62229374 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 36441146 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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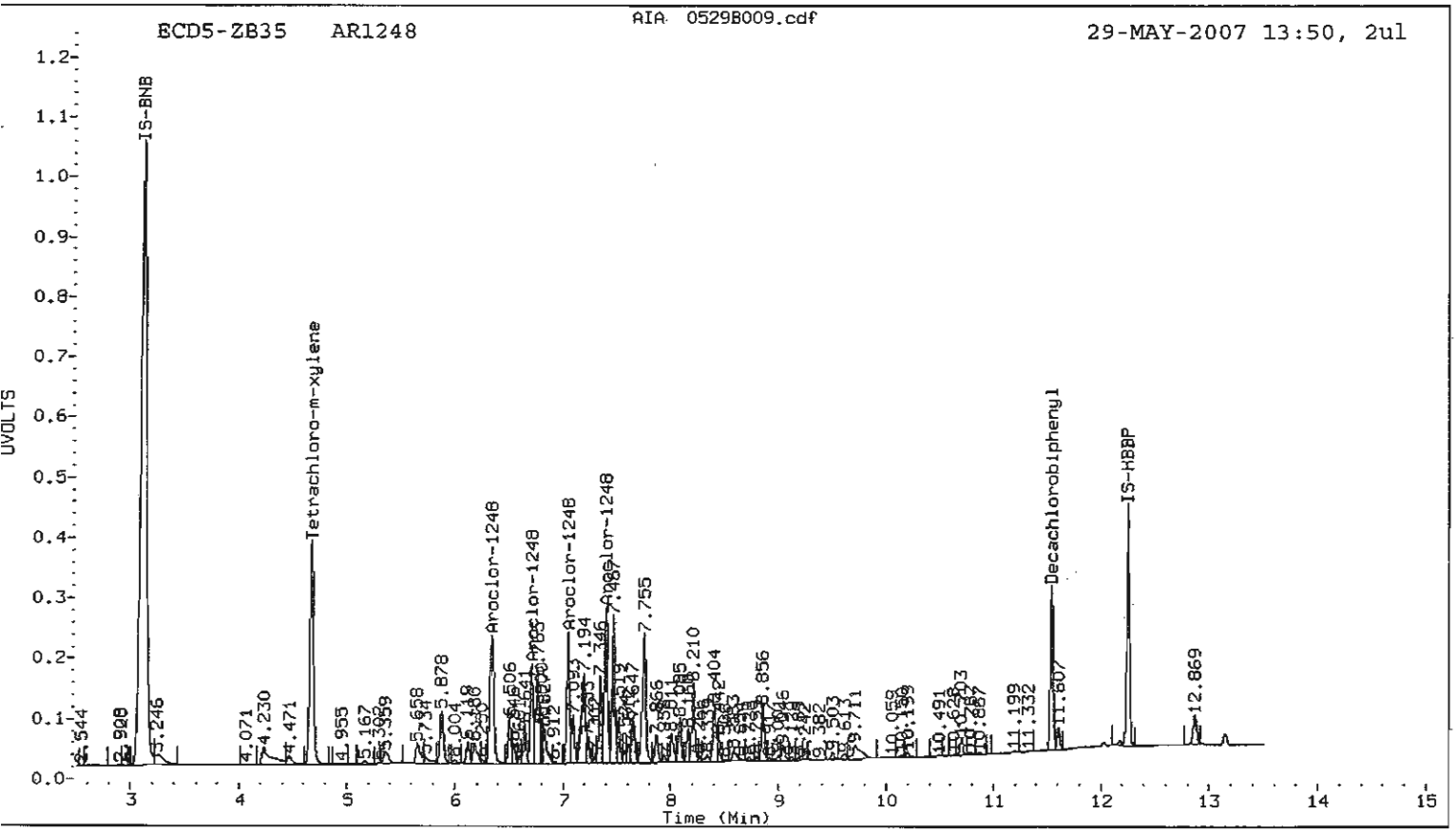
AIA 0529B009.cdf
29-MAY-2007 13:50, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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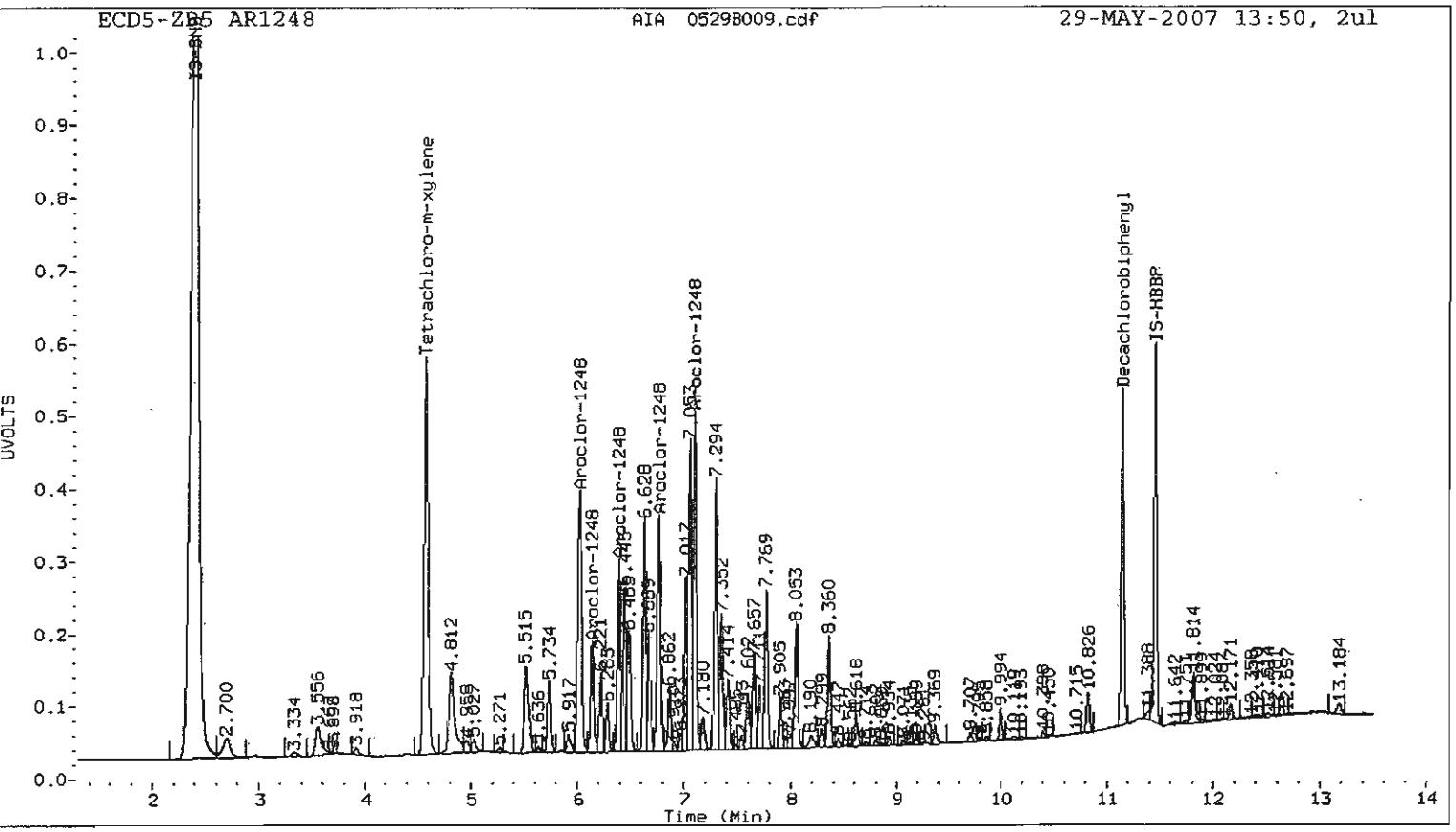
AIA 0529B009.cdf
29-MAY-2007 13:50, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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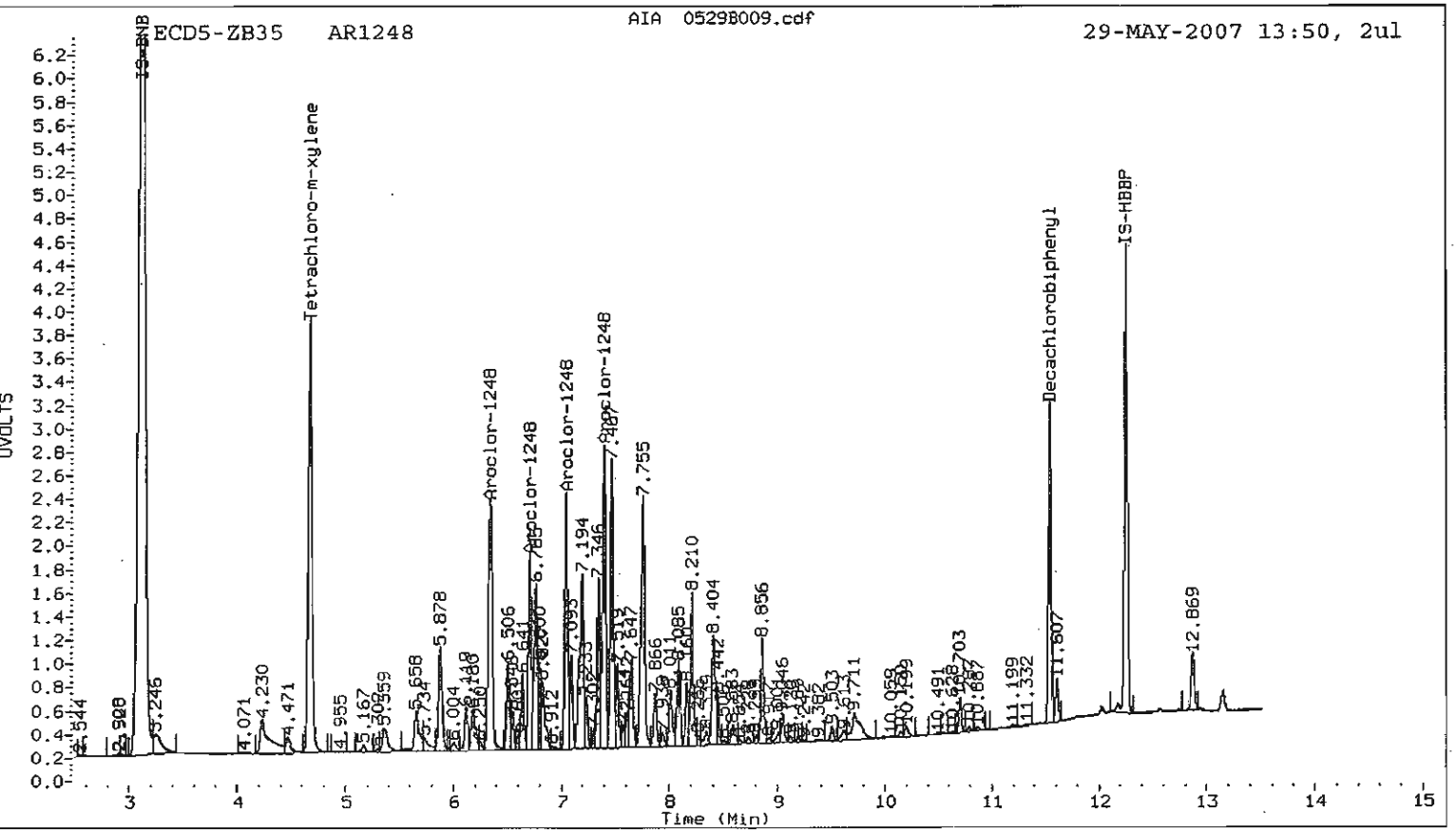
AIA 0529B009.cdf
29-MAY-2007 13:50, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR1248
AIA 0529B009.cdf
29-MAY-2007 13:50, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B010.d
Data file 2: 20070529.b/ical-2.b/0529B010.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 29-MAY-2007 14:07
Report Date: 05/29/2007 15:38
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.573	0.000	7046427	4.670	-0.001	4404790	20.0	21.1	5.3	Tetrachloro-m-xylene
11.150	0.000	4225165	11.543	0.001	2330646	21.8	21.1	3.0	Decachlorobiphenyl

* Indicates RPD > 40%
1 Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.1	52.8
Decachlorobiphenyl	54.4	52.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	29694625	-7.9
Hexabromobiphenyl	5108210	4861666	-4.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	18406828	-9.4
Hexabromobiphenyl	3608946	3585581	-0.6

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	7.352	0.000	5152788	250.0	1	7.648	0.000	2657555	250.0
Aroclor-1254	2	7.657	0.000	3348404	250.0	2	8.085	0.000	1845962	250.0
Aroclor-1254	3	7.769	0.000	6091328	250.0	3	8.211	0.000	3914454	250.0
Aroclor-1254	4	8.052	0.000	6433879	250.0	4	8.860	0.000	2278670	250.0
Aroclor-1254	5	8.358	0.000	3963062	250.0	NS	---			----

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

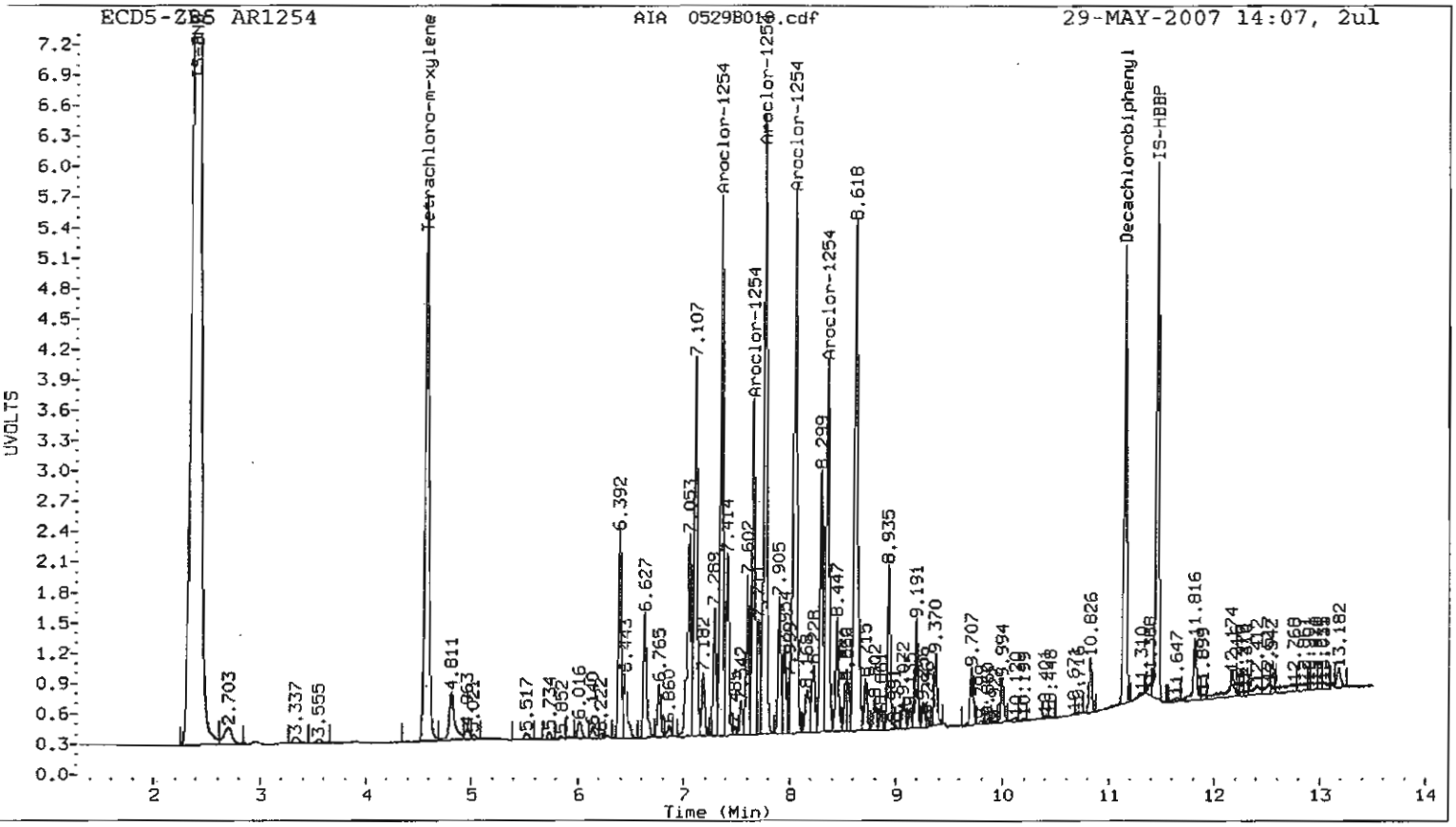
Corrected Ave (5 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.673 - 11.050) = 65349550 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 38412433 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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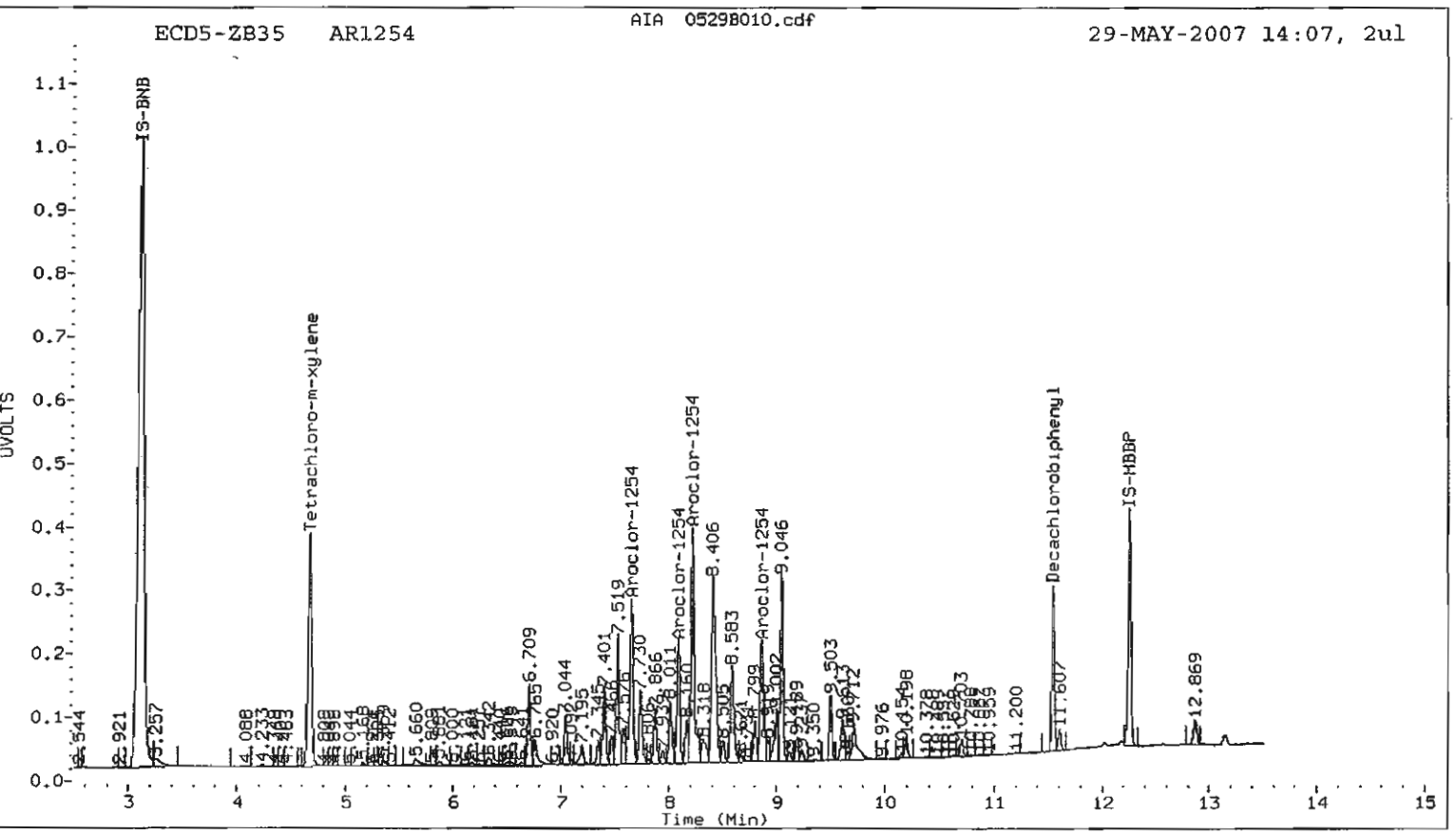
AIA 05298010.cdf
29-MAY-2007 14:07, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP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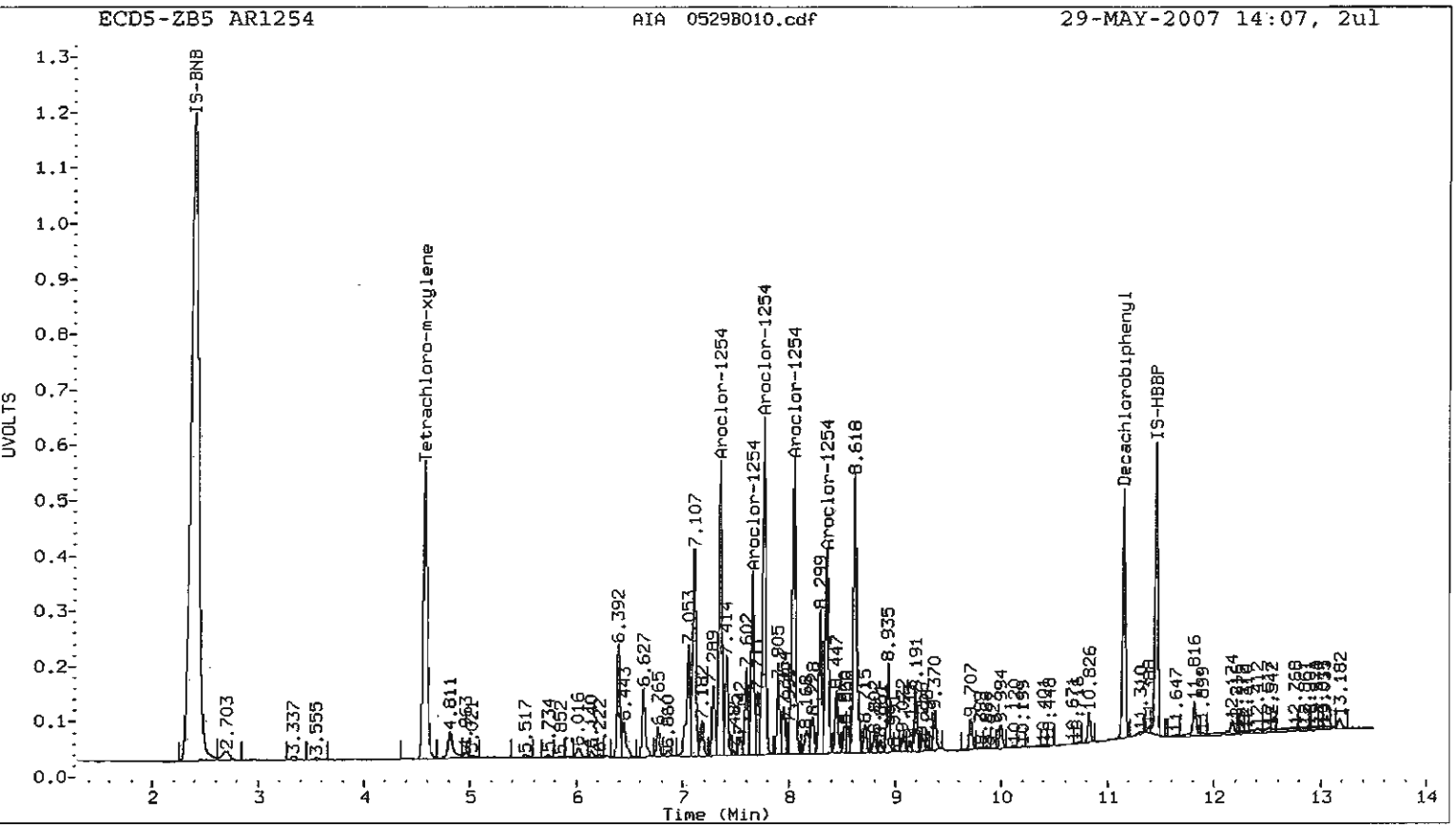
AIA 05298010.cdf
29-MAY-2007 14:07, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP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AIA 0529B010.cdf
29-MAY-2007 14:07, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
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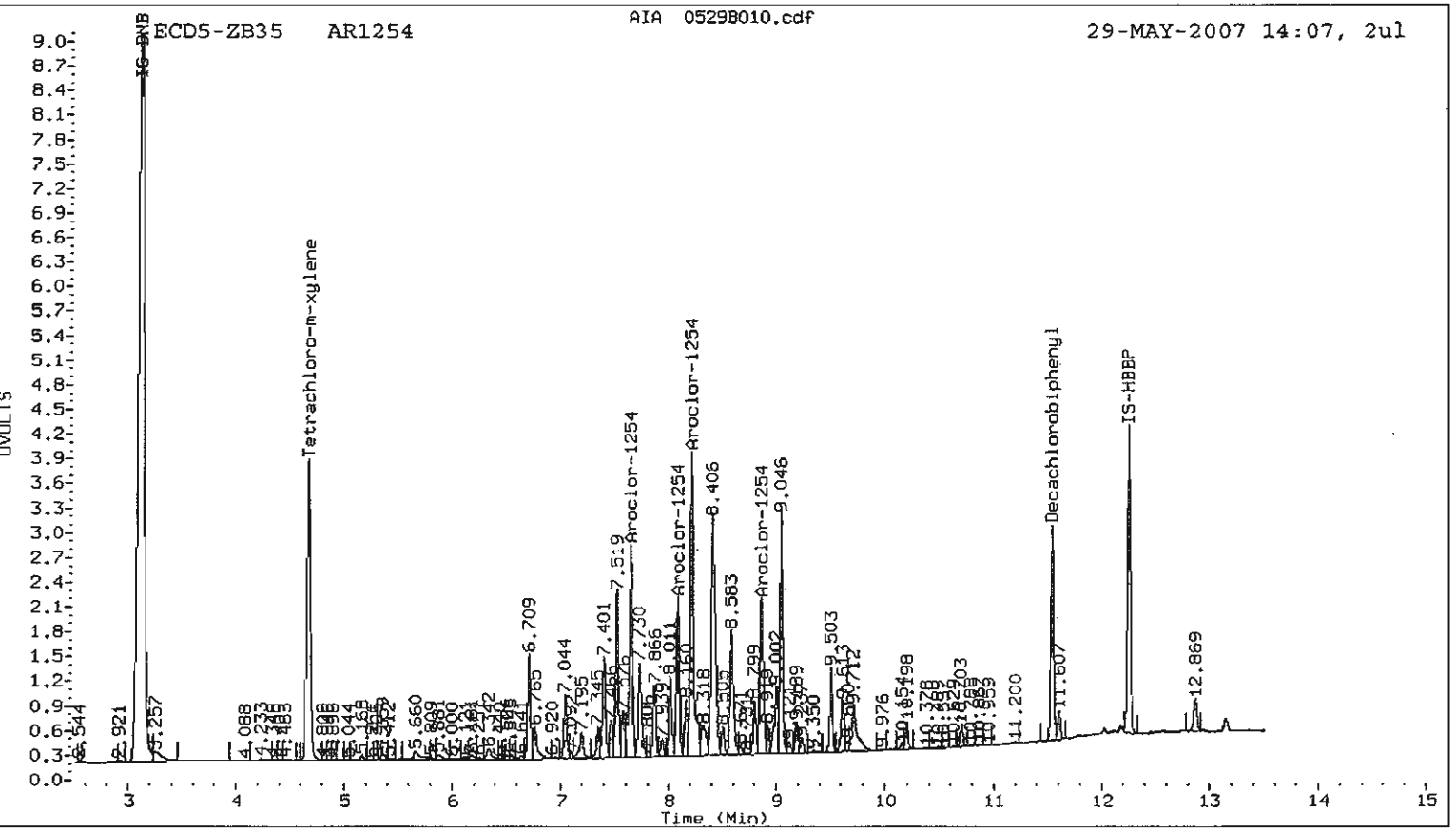
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR1254
AIA 0529B010.cdf
29-MAY-2007 14:07, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B011.d
Data file 2: 20070529.b/ical-2.b/0529B011.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1262
Client ID:
Injection Date: 29-MAY-2007 14:24
Report Date: 05/29/2007 15:38
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.576	0.000	8285339	4.671	0.000	4797722	23.0	22.6	1.6	Tetrachloro-m-xylene
11.149	0.000	4386250	11.541	-0.001	2427150	22.6	22.0	2.8	Decachlorobiphenyl

* Indicates RPD > 40%
1 Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	57.5	56.6
Decachlorobiphenyl	56.4	54.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	30395334	-5.8
Hexabromobiphenyl	5108210	4864436	-4.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	18714250	-7.9
Hexabromobiphenyl	3608946	3591322	-0.5

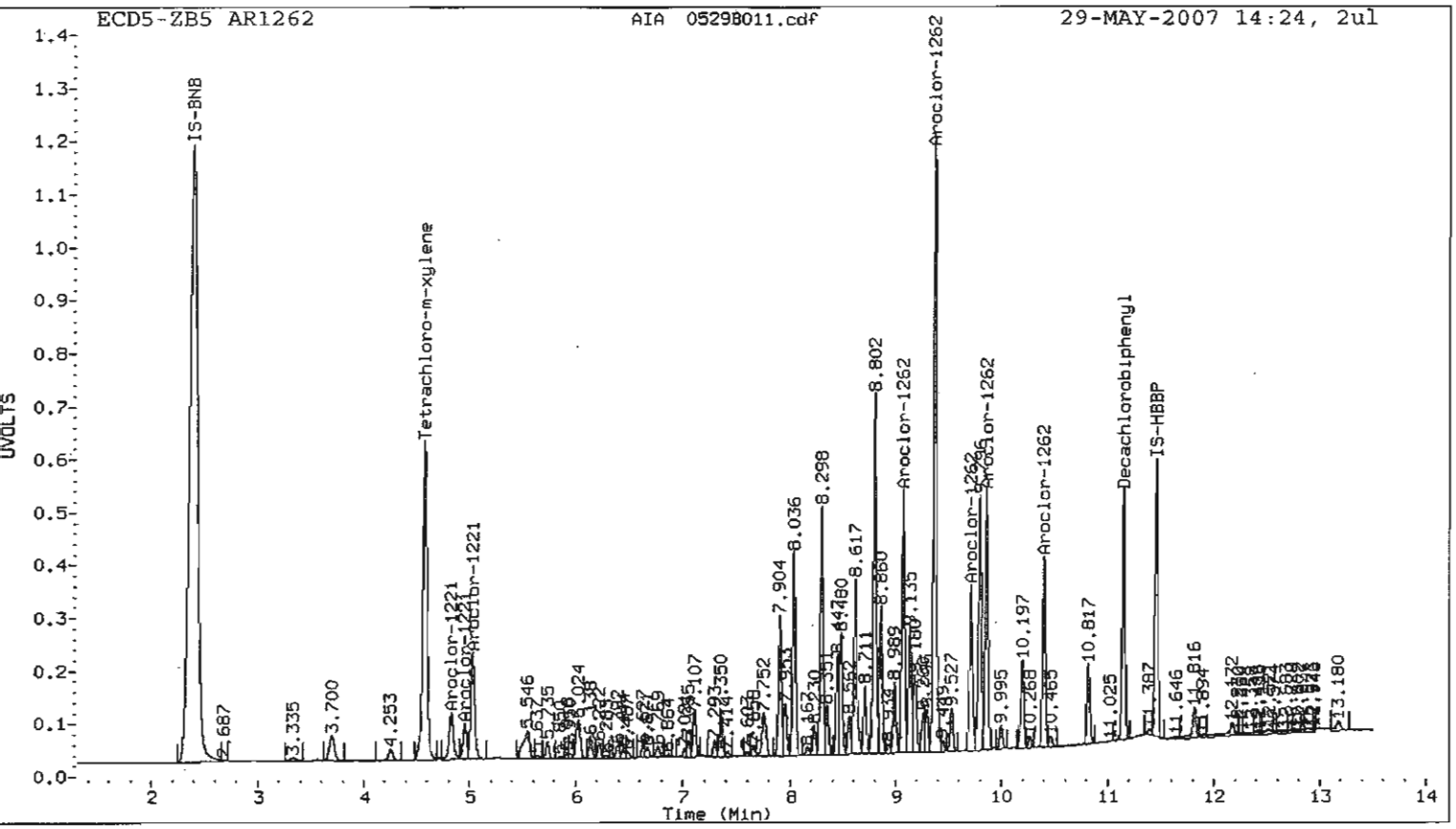
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1221	1	4.826	0.000	1360641	250.0	1	5.125	0.000	758987	250.0
Aroclor-1221	2	4.954	0.000	824815	250.0	2	5.299	0.000	448256	250.0
Aroclor-1221	3	5.026	0.000	2619115	250.0	3	5.381	0.000	1403097	250.0
Aroclor-1221	NS	---			----	4	5.892	0.000	546826	250.0
Total Col1Ave (3 peaks):					250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (4 peaks):			250.0	RPD = 0
Aroclor-1262	1	9.071	0.000	4689116	250.0	1	9.121	0.000	3422947	250.0
Aroclor-1262	2	9.368	0.000	11401791	250.0	2	9.502	0.000	3140786	250.0
Aroclor-1262	3	9.708	0.000	3465891	250.0	3	9.711	0.000	6404996	250.0
Aroclor-1262	4	9.859	0.000	4629486	250.0	4	10.147	0.000	2580843	250.0
Aroclor-1262	5	10.399	0.000	3313181	250.0	5	10.787	0.000	1782779	250.0
Total Col1Ave (5 peaks):					250.0	Total Col2Ave (5 peaks):			250.0	RPD = 0
Corrected Ave (5 peaks):					250.0	Corrected Ave (5 peaks):			250.0	RPD = 0

Total PCB Area Col1 (4.676 - 11.049) = 90356834 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 50080538 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical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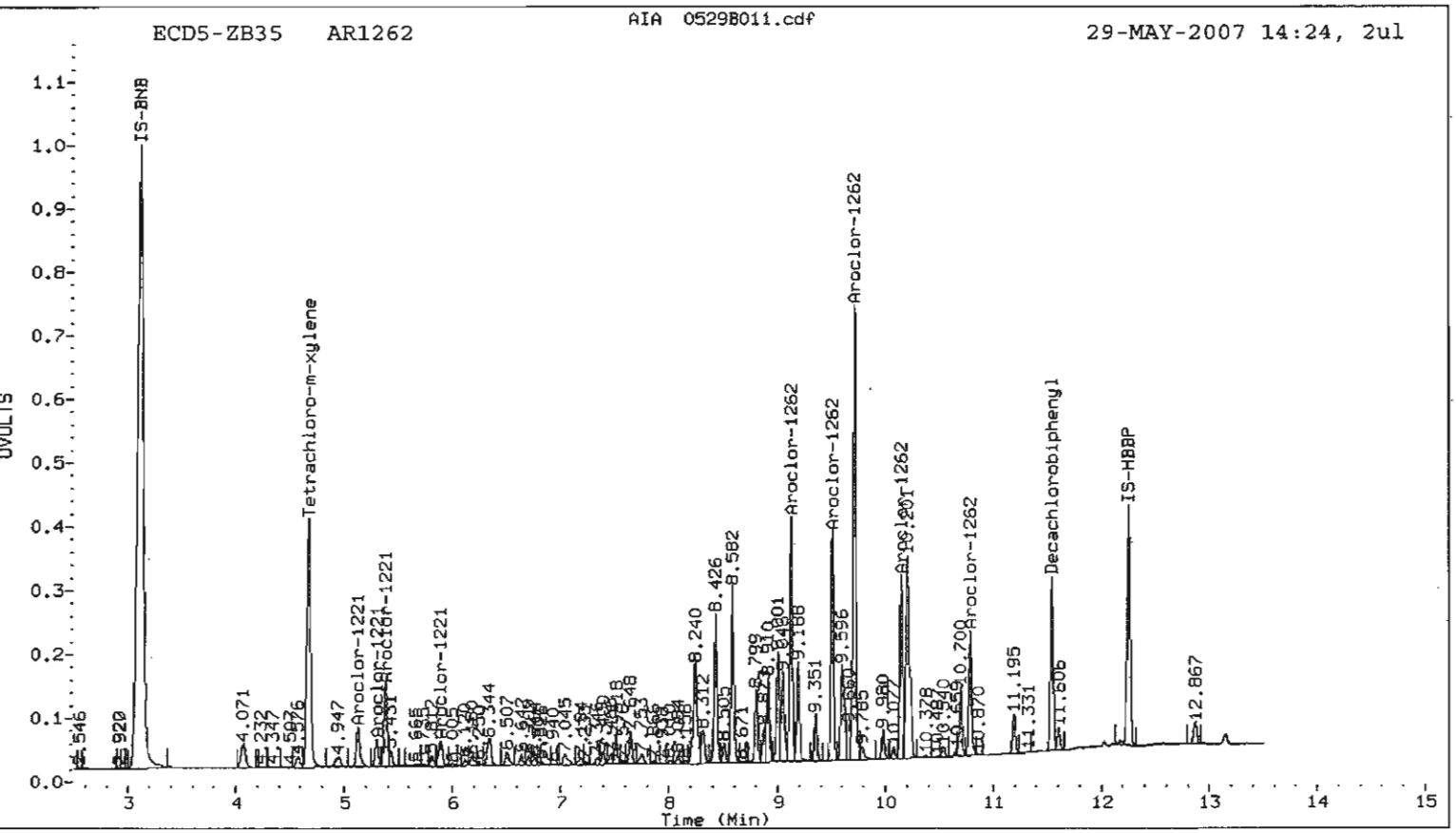
AIA 0529B011.cdf
29-MAY-2007 14:24, 2ul
IS-BNB
Tetrachloro-m-Xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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29-MAY-2007 14:24, 2ul
IS-BNB
Tetrachloro-m-Xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/ical-1.b/0529B012.d
Data file 2: 20070529.b/ical-2.b/0529B012.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 29-MAY-2007 14:41
Report Date: 05/29/2007 15:38
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.573	0.000	8066068	4.671	0.000	4704424	21.0	20.8	0.9	Tetrachloro-m-xylene
11.149	0.000	8274894	11.542	0.000	4647532	39.6	40.5	2.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	52.4	51.9
Decachlorobiphenyl	99.0	101.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	32450627	0.6
Hexabromobiphenyl	5108210	5232239	2.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19984811	-1.6
Hexabromobiphenyl	3608946	3731053	3.4

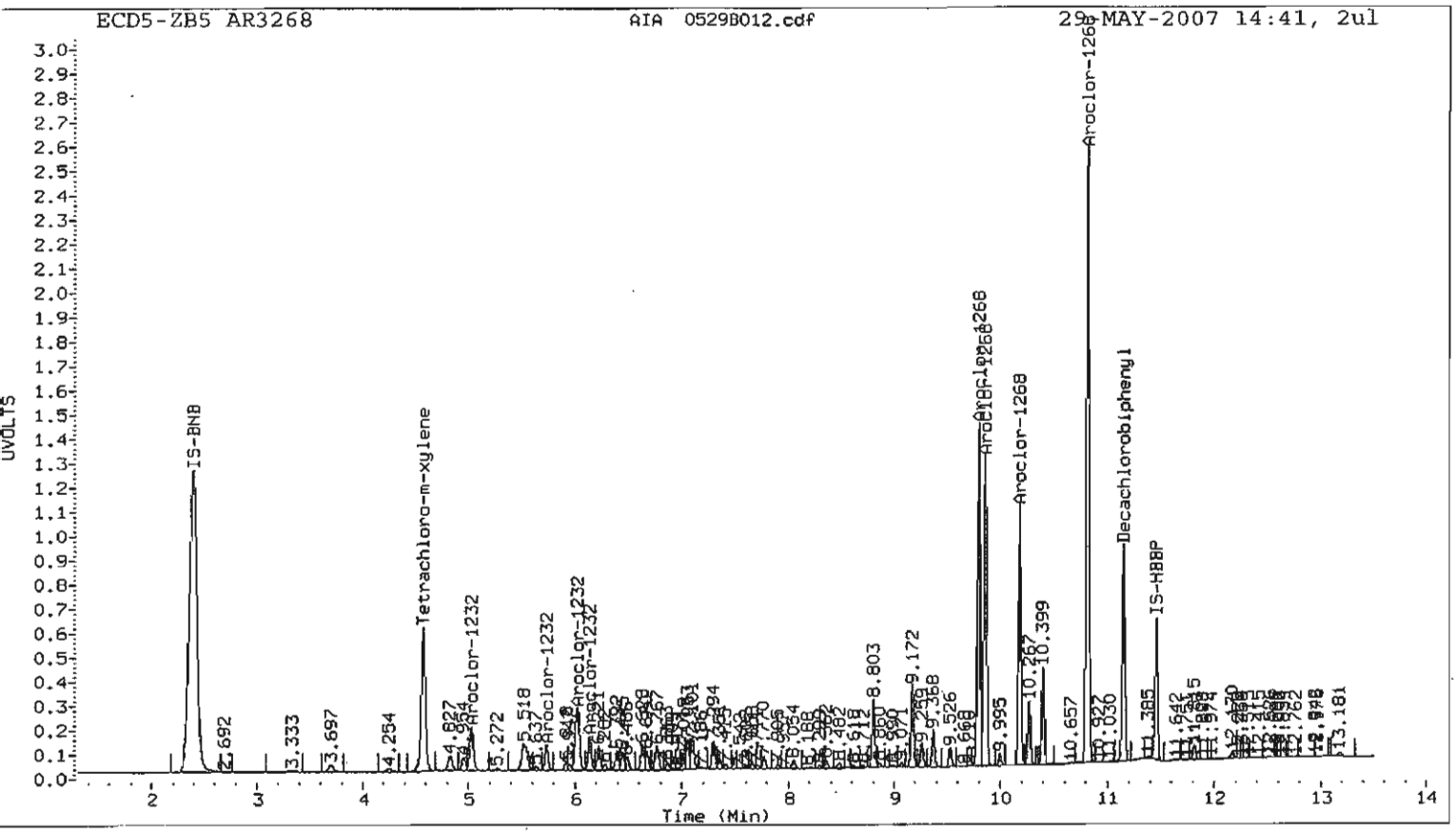
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

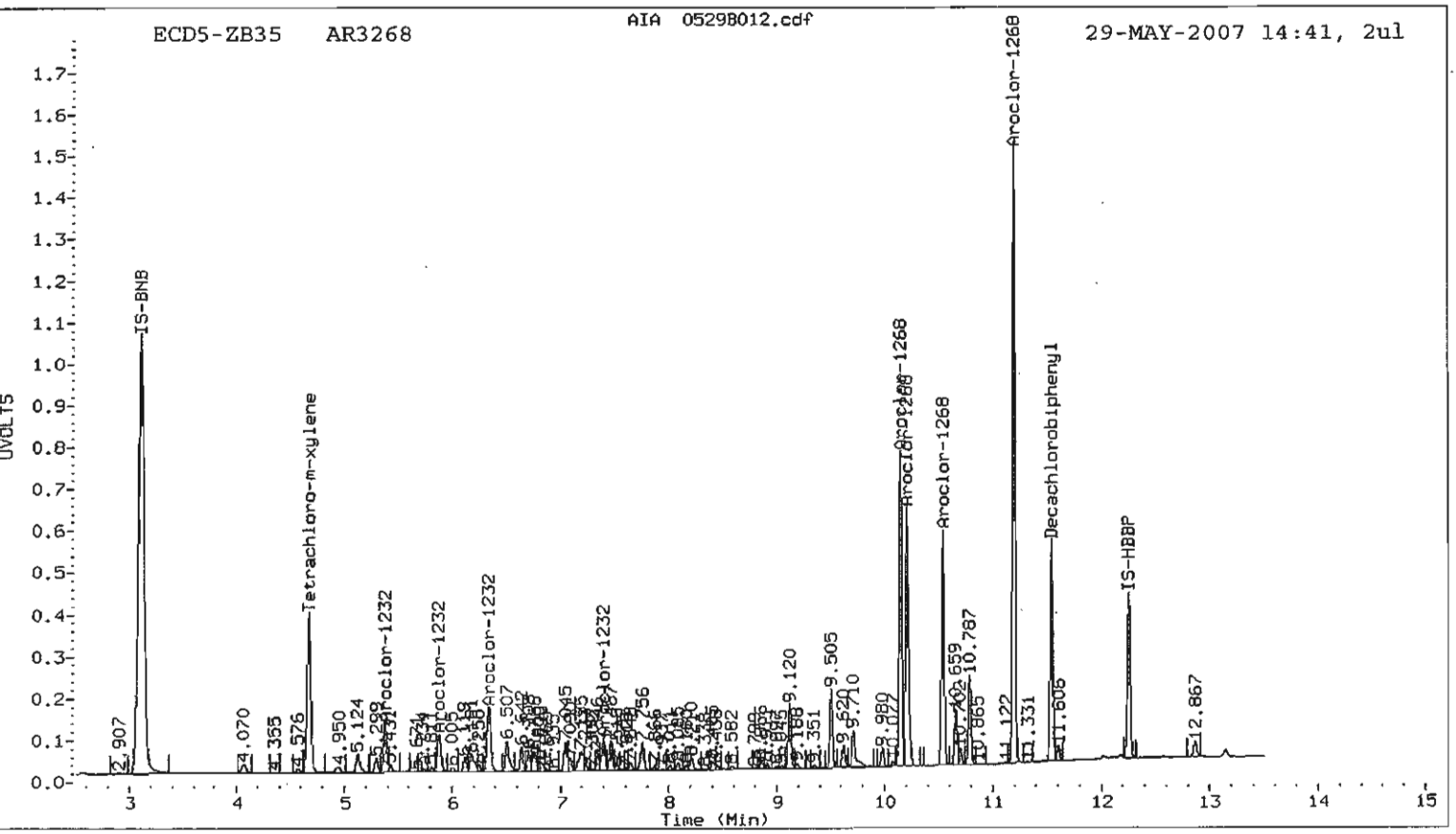
		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	5.027	0.000	2298474	250.0	1	5.381	0.000	1220725	250.0
Aroclor-1232	2	5.734	0.000	1125158	250.0	2	5.883	0.000	1153798	250.0
Aroclor-1232	3	6.024	0.000	3626139	250.0	3	6.344	0.000	2092832	250.0
Aroclor-1232	4	6.137	0.000	1427147	250.0	4	7.400	0.000	803293	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
Corrected Ave (4 peaks):					250.0	Corrected Ave (4 peaks):			250.0	RPD = 0
Aroclor-1268	1	9.797	0.000	12882247	250.0	1	10.146	0.000	6557495	250.0
Aroclor-1268	2	9.857	0.000	11564179	250.0	2	10.204	0.000	5985564	250.0
Aroclor-1268	3	10.179	0.000	9890123	250.0	3	10.539	0.000	4856155	250.0
Aroclor-1268	4	10.814	0.000	23139039	250.0	4	11.195	0.000	12732114	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
Corrected Ave (4 peaks):					250.0	Corrected Ave (4 peaks):			250.0	RPD = 0

Total PCB Area Col1 (4.673 - 11.049) = 101992472 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 55891247 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR3268
AIA 0529B012.cdf
29-MAY-2007 14:41, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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AIA 0529B012.cdf
29-MAY-2007 14:41, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP YEAR

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/29/07

Lab Standard ID: AR12422 Time Analyzed :2042

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	5.74	5.68	5.78	245.5	250.0	-1.8
Aroclor-1242-2	6.03	5.98	6.08	246.0	250.0	-1.6
Aroclor-1242-3	6.14	6.09	6.19	246.0	250.0	-1.6
Aroclor-1242-4	6.77	6.72	6.82	245.7	250.0	-1.7

AVERAGE %D = 1.7

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP YEAR

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/29/07

Lab Standard ID: AR12422 Time Analyzed :2042

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	5.38	5.33	5.43	250.5	250.0	0.2
Aroclor-1242-2	5.88	5.83	5.93	250.1	250.0	0.0
Aroclor-1242-3	6.35	6.29	6.39	250.7	250.0	0.3
Aroclor-1242-4	6.51	6.46	6.56	250.1	250.0	0.0
Aroclor-1242-5	7.40	7.35	7.45	252.5	250.0	1.0

AVERAGE %D = 0.3

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP YEAR

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/29/07

Lab Standard ID: AR16602 Time Analyzed :2059

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.74	5.68	5.78	237.5	250.0	-5.0
Aroclor-1016-2	6.03	5.97	6.07	242.3	250.0	-3.1
Aroclor-1016-3	6.14	6.09	6.19	242.8	250.0	-2.9
Aroclor-1016-4	6.39	6.34	6.44	229.5	250.0	-8.2

AVERAGE %D = 4.8

Date Analyzed :05/29/07

Lab Standard ID: AR16602 Time Analyzed :2059

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	8.80	8.75	8.85	263.4	250.0	5.4
Aroclor-1260-2	9.07	9.02	9.12	263.3	250.0	5.3
Aroclor-1260-3	9.37	9.32	9.42	270.2	250.0	8.1
Aroclor-1260-4	9.71	9.66	9.76	296.0	250.0	18.4
Aroclor-1260-5	9.86	9.81	9.91	276.7	250.0	10.7

AVERAGE %D = 9.6

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP YEAR

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/29/07

Lab Standard ID: AR16602 Time Analyzed :2059

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.88	5.83	5.93	240.4	250.0	-3.8
Aroclor-1016-2	6.35	6.29	6.39	242.6	250.0	-3.0
Aroclor-1016-3	6.51	6.46	6.56	244.5	250.0	-2.2
Aroclor-1016-4	7.05	6.99	7.09	238.9	250.0	-4.4

AVERAGE %D = 3.4

Date Analyzed :05/29/07

Lab Standard ID: AR16602 Time Analyzed :2059

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	9.12	9.07	9.17	248.4	250.0	-0.6
Aroclor-1260-2	9.19	9.14	9.24	246.6	250.0	-1.4
Aroclor-1260-3	9.50	9.45	9.55	247.8	250.0	-0.9
Aroclor-1260-4	9.71	9.66	9.76	234.8	250.0	-6.1
Aroclor-1260-5	10.20	10.15	10.25	250.1	250.0	0.0

AVERAGE %D = 1.8

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/30/07

Lab Standard ID: AR12423 Time Analyzed :1212

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	5.74	5.68	5.78	242.9	250.0	-2.8
Aroclor-1242-2	6.02	5.98	6.08	242.4	250.0	-3.0
Aroclor-1242-3	6.14	6.09	6.19	241.9	250.0	-3.2
Aroclor-1242-4	6.77	6.72	6.82	240.2	250.0	-3.9

AVERAGE %D = 3.2

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/30/07

Lab Standard ID: AR12423 Time Analyzed :1212

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	5.38	5.33	5.43	245.2	250.0	-1.9
Aroclor-1242-2	5.88	5.83	5.93	245.1	250.0	-2.0
Aroclor-1242-3	6.34	6.29	6.39	247.1	250.0	-1.1
Aroclor-1242-4	6.51	6.46	6.56	245.5	250.0	-1.8
Aroclor-1242-5	7.40	7.35	7.45	245.7	250.0	-1.7

AVERAGE %D = 1.7

FORM VII PCB

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0530-1.b/0530B009.d
Data file 2: 20070529.b/0530-2.b/0530B009.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR12423
Client ID:
Injection Date: 30-MAY-2007 12:12
Report Date: 06/05/2007 12:12
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.575	0.002	7495515	4.669	-0.002	4769111	19.8	20.9	5.1	Tetrachloro-m-xylene
11.151	0.002	4885377	11.541	-0.001	2659356	22.8	21.0	8.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.5	52.1
Decachlorobiphenyl	56.9	52.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	31907896	-1.1
Hexabromobiphenyl	5108210	5372651	5.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	20182932	-0.7
Hexabromobiphenyl	3608946	4114650	14.0

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

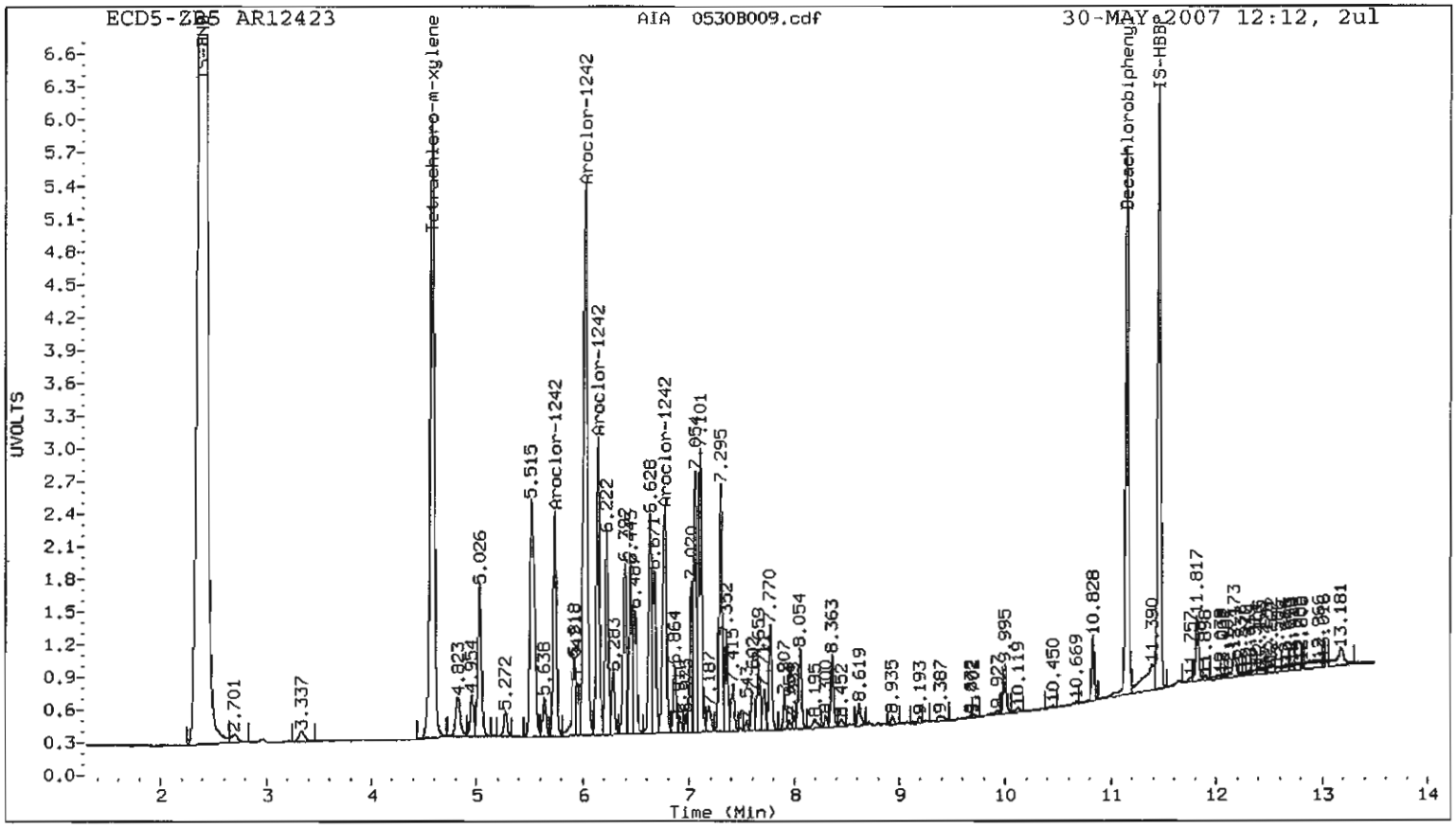
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1242	1	5.735	0.000	2165444	242.9	1	5.379	-0.001	1063924	245.2
Aroclor-1242	2	6.023	-0.003	6991318	242.4	2	5.880	-0.002	2087897	245.1
Aroclor-1242	3	6.137	-0.001	2766325	241.9	3	6.344	-0.001	4212427	247.1
Aroclor-1242	4	6.768	0.002	2534219	240.2	4	6.505	-0.001	1696127	245.5
Aroclor-1242	NS	---			----	5	7.398	-0.001	1603432	245.7
Total Col1Ave (4 peaks):					241.9	Total Col2Ave (5 peaks):			245.7	RPD = 2
Corrected Ave (4 peaks):					241.9	Corrected Ave (5 peaks):			245.7	RPD = 2

Total PCB Area Col1 (4.673 - 11.049) = 50577042 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 31276718 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Tetrachloro-m-xylene
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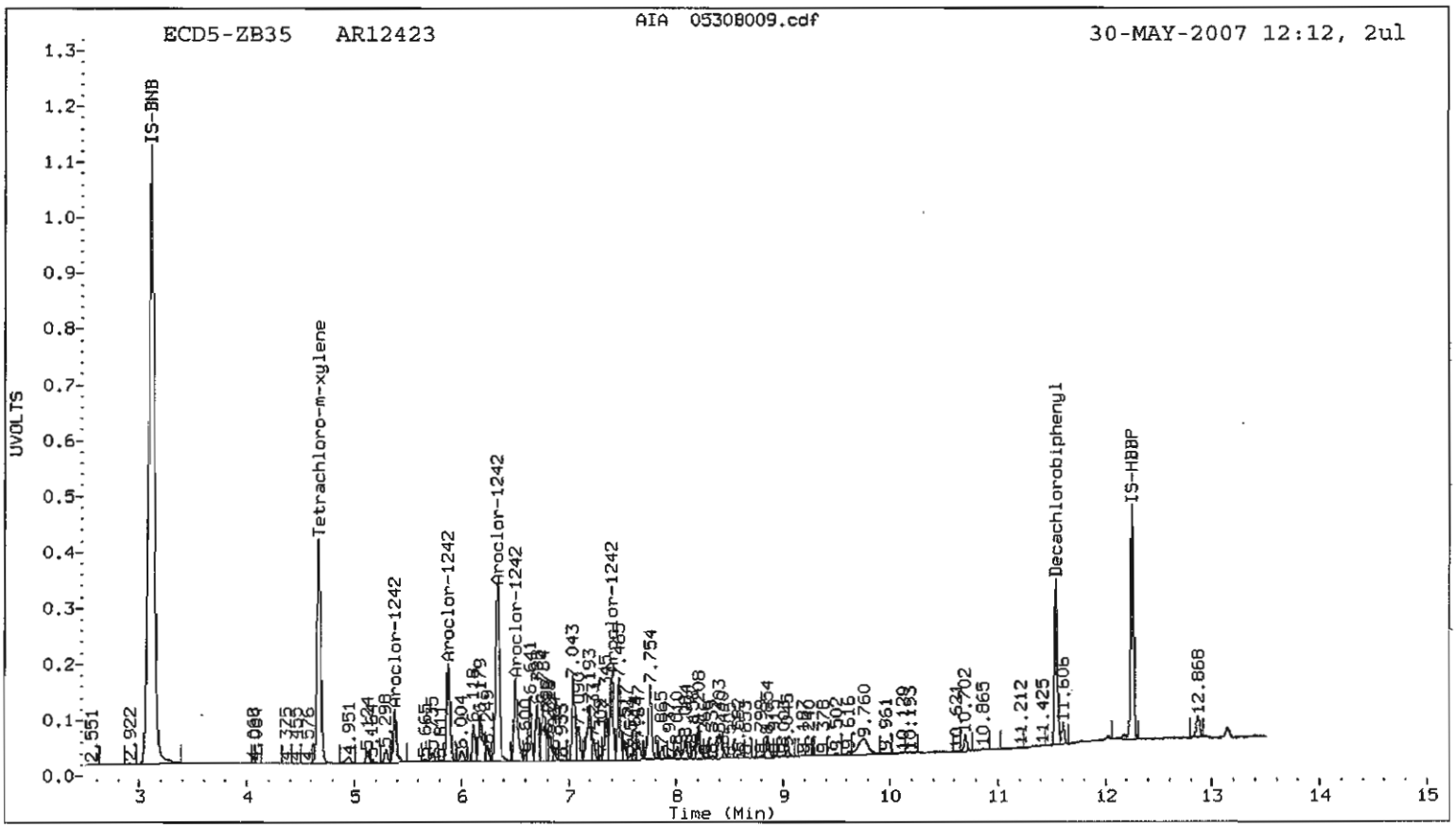
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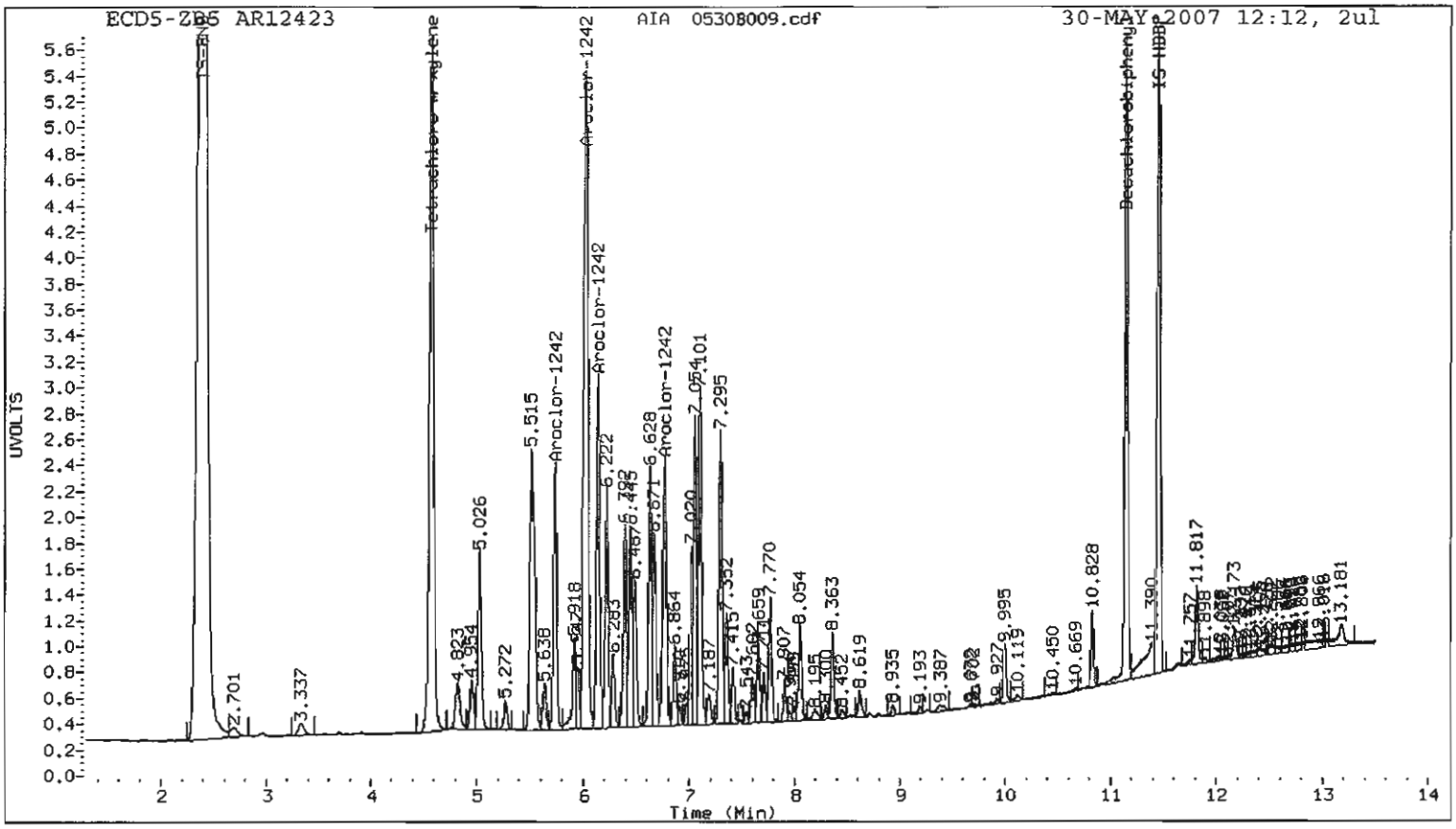
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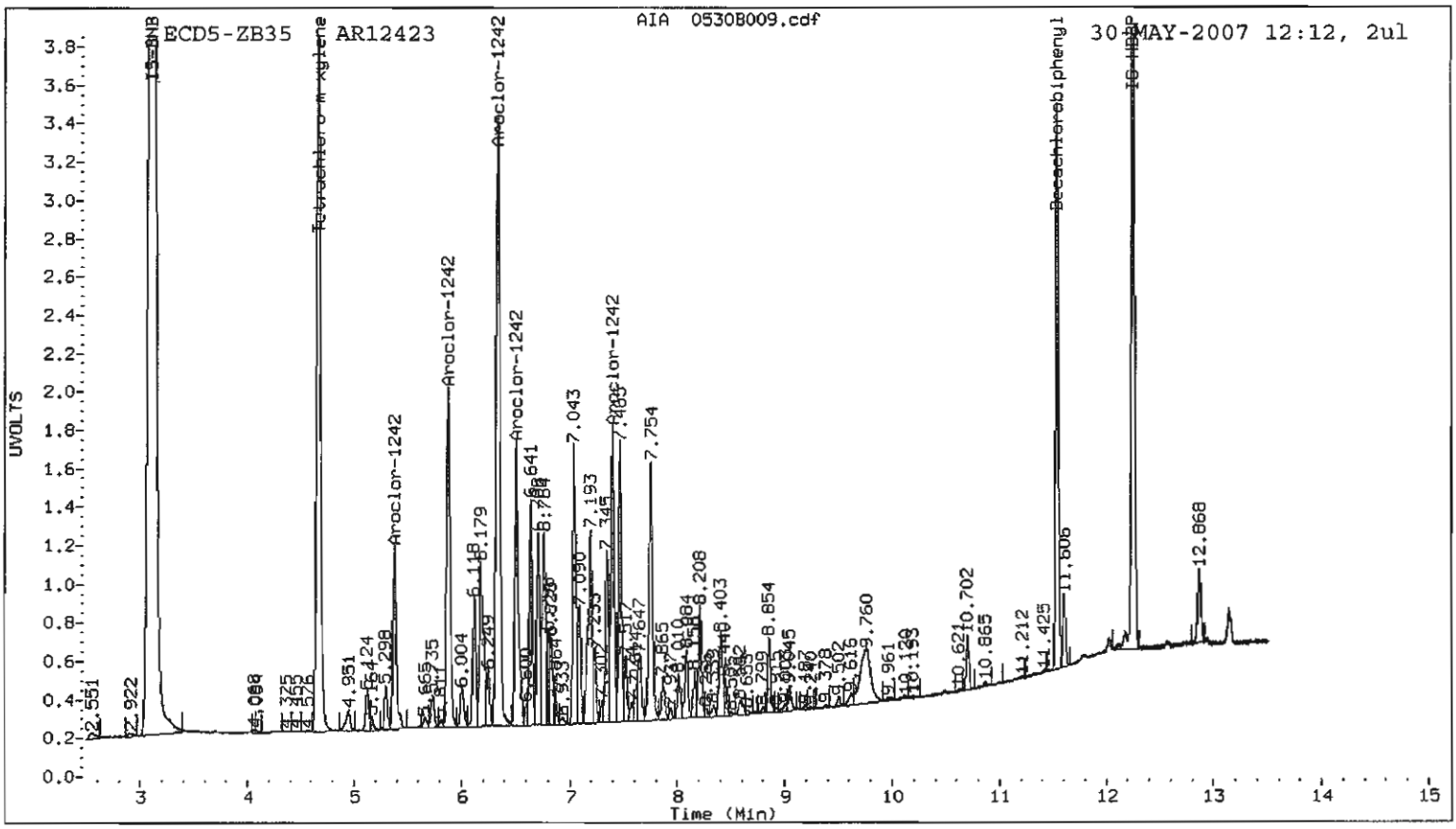
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Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/30/07

Lab Standard ID: AR16605 Time Analyzed :1229

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.73	5.68	5.78	235.6	250.0	-5.8
Aroclor-1016-2	6.03	5.97	6.07	238.5	250.0	-4.6
Aroclor-1016-3	6.14	6.09	6.19	238.6	250.0	-4.6
Aroclor-1016-4	6.39	6.34	6.44	226.7	250.0	-9.3

AVERAGE %D = 6.1

Date Analyzed :05/30/07

Lab Standard ID: AR16605 Time Analyzed :1229

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	8.80	8.75	8.85	239.9	250.0	-4.0
Aroclor-1260-2	9.07	9.02	9.12	239.7	250.0	-4.1
Aroclor-1260-3	9.37	9.32	9.42	246.9	250.0	-1.2
Aroclor-1260-4	9.71	9.66	9.76	248.4	250.0	-0.6
Aroclor-1260-5	9.86	9.81	9.91	251.4	250.0	0.6

AVERAGE %D = 2.1

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/30/07

Lab Standard ID: AR16605 Time Analyzed :1229

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.88	5.83	5.93	238.1	250.0	-4.8
Aroclor-1016-2	6.34	6.29	6.39	241.7	250.0	-3.3
Aroclor-1016-3	6.50	6.46	6.56	243.0	250.0	-2.8
Aroclor-1016-4	7.04	6.99	7.09	237.9	250.0	-4.8

AVERAGE %D = 3.9

Date Analyzed :05/30/07

Lab Standard ID: AR16605 Time Analyzed :1229

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	9.12	9.07	9.17	236.5	250.0	-5.4
Aroclor-1260-2	9.19	9.14	9.24	231.9	250.0	-7.2
Aroclor-1260-3	9.50	9.45	9.55	235.2	250.0	-5.9
Aroclor-1260-4	9.71	9.66	9.76	225.6	250.0	-9.7
Aroclor-1260-5	10.20	10.15	10.25	241.6	250.0	-3.3

AVERAGE %D = 6.3

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0530-1.b/0530B010.d
Data file 2: 20070529.b/0530-2.b/0530B010.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR16605
Client ID:
Injection Date: 30-MAY-2007 12:29
Report Date: 06/05/2007 12:12
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.571	-0.002	7251118	4.668	-0.003	4566757	18.8	19.7	4.7	Tetrachloro-m-xylene
11.149	0.000	4780091	11.539	-0.003	2560999	22.3	20.5	8.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.0	49.3
Decachlorobiphenyl	55.7	51.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	32548307	0.9
Hexabromobiphenyl	5108210	5374203	5.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	20449149	0.7
Hexabromobiphenyl	3608946	4052733	12.3

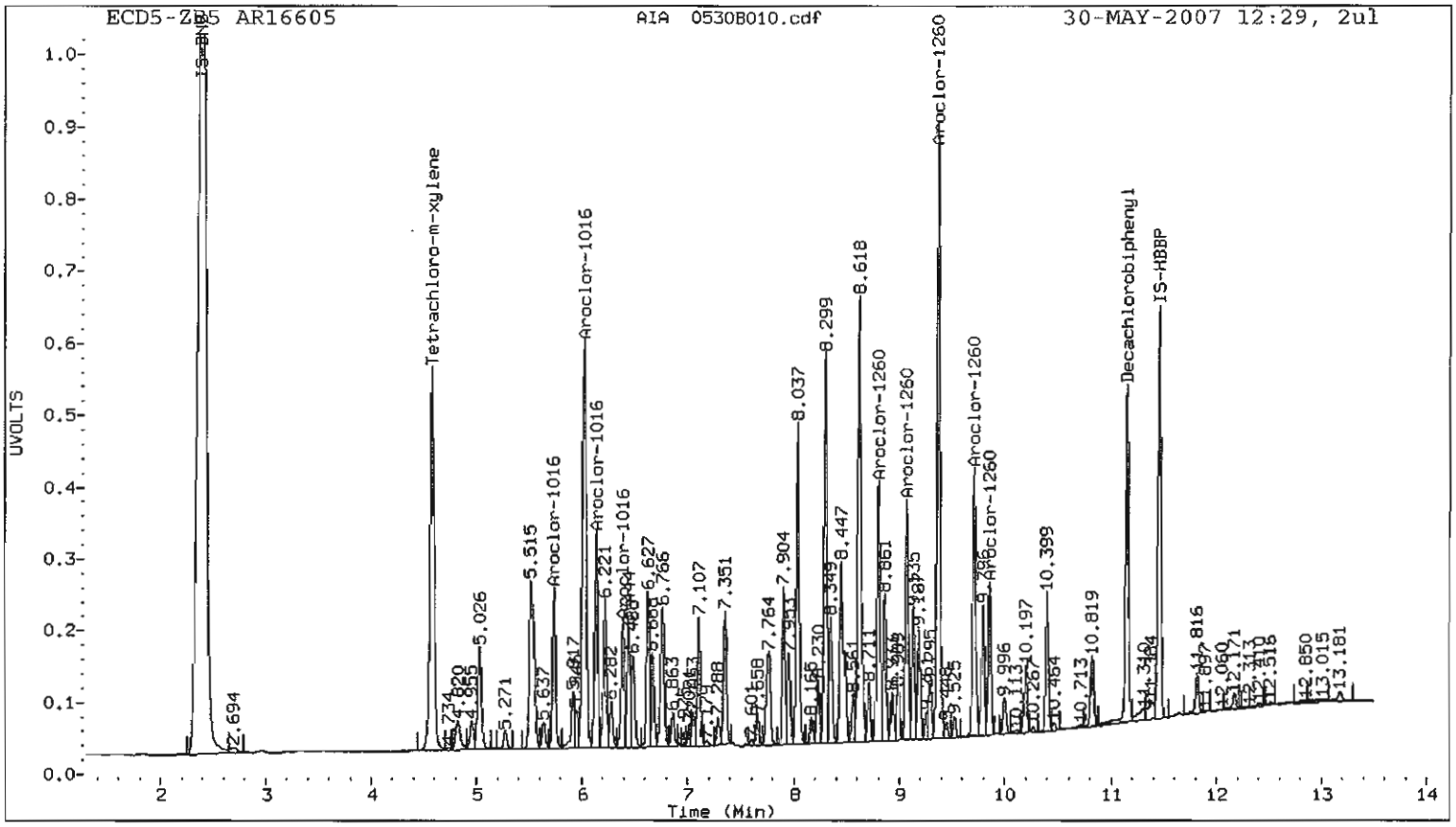
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.733	0.000	2382552	235.6	1	5.878	-0.001	2309124	238.1
Aroclor-1016	2	6.025	0.002	7776757	238.5	2	6.344	0.000	4710538	241.7
Aroclor-1016	3	6.136	0.000	3056240	238.6	3	6.505	-0.002	1876909	243.0
Aroclor-1016	4	6.391	0.000	1860676	226.7	4	7.042	-0.001	1493671	237.9
Total Col1Ave (4 peaks):					234.9	Total Col2Ave (4 peaks):				240.2 RPD = 2
Corrected Ave (4 peaks):					234.9	Corrected Ave (4 peaks):				240.2 RPD = 2
Aroclor-1260	1	8.802	-0.001	3577719	239.9	1	9.119	-0.002	1884480	236.5
Aroclor-1260	2	9.070	-0.001	3176760	239.7	2	9.187	-0.002	1134637	231.9
Aroclor-1260	3	9.369	0.000	8267464	246.9	3	9.500	-0.002	2250316	235.2
Aroclor-1260	4	9.707	-0.001	4024649	248.4	4	9.707	-0.002	4895779	225.6
Aroclor-1260	5	9.858	0.000	2013536	251.4	5	10.195	-0.003	2929298	241.6
Total Col1Ave (5 peaks):					245.3	Total Col2Ave (5 peaks):				234.2 RPD = 5
Corrected Ave (5 peaks):					245.3	Corrected Ave (5 peaks):				234.2 RPD = 5

Total PCB Area Col1 (4.673 - 11.049) = 106744710 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 62447092 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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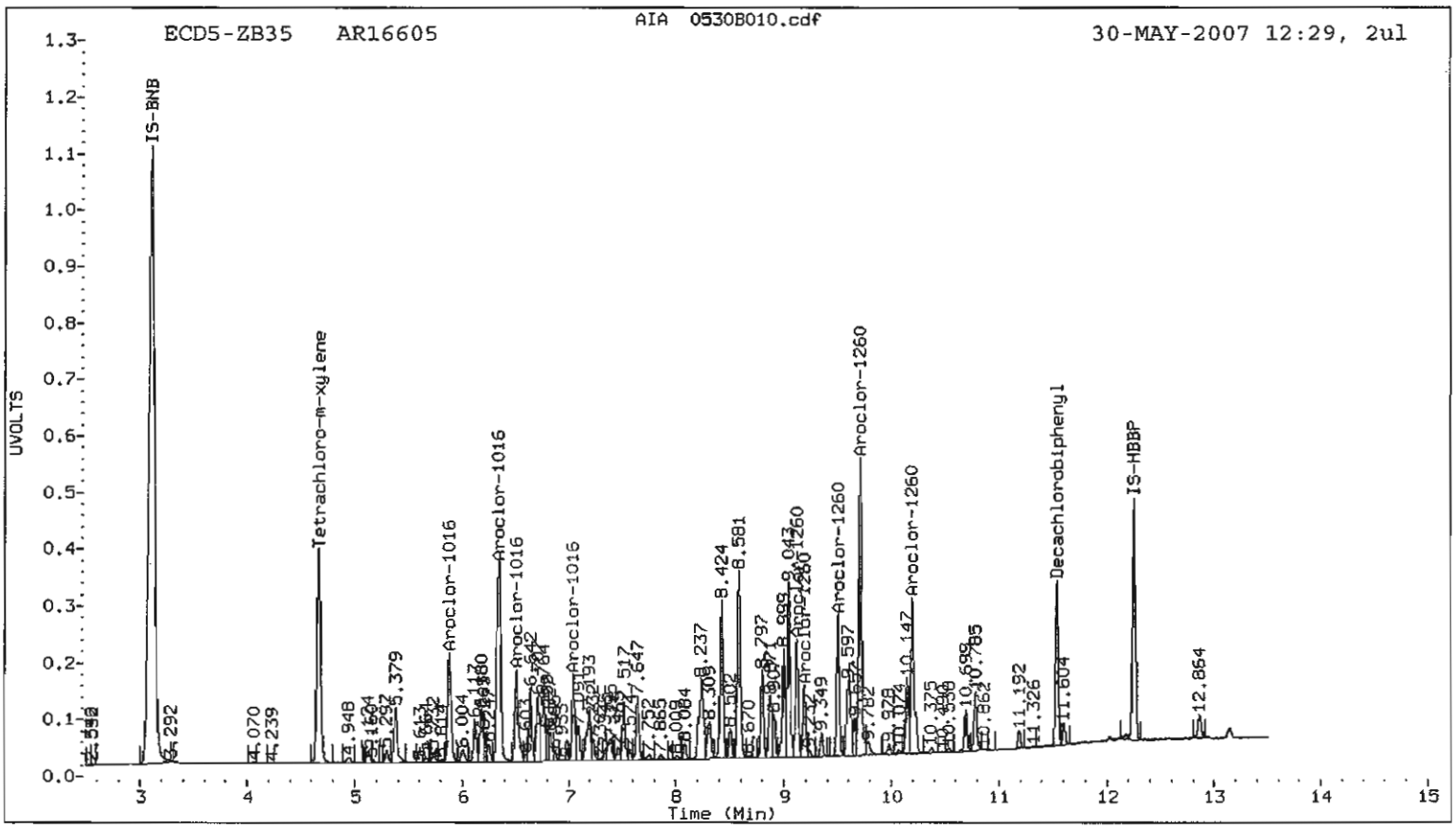
IS-HBBP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Aroclor-1260
Decachlorobiphenyl
IS-HBBP

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/30/07

Lab Standard ID: AR12483 Time Analyzed :2352

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1248-1	6.03	5.97	6.07	208.6	250.0	-16.6	
Aroclor-1248-2	6.14	6.09	6.19	201.9	250.0	-19.2	
Aroclor-1248-3	6.39	6.34	6.44	179.4	250.0	-28.2	<-
Aroclor-1248-4	6.77	6.71	6.81	188.0	250.0	-24.8	
Aroclor-1248-5	7.10	7.05	7.15	209.2	250.0	-16.3	

AVERAGE %D = 21.0

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/30/07

Lab Standard ID: AR12483 Time Analyzed :2352

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.35	6.29	6.39	230.1	250.0	-7.9
Aroclor-1248-2	6.71	6.66	6.76	213.0	250.0	-14.8
Aroclor-1248-3	7.04	6.99	7.09	208.6	250.0	-16.6
Aroclor-1248-4	7.40	7.35	7.45	218.9	250.0	-12.4

AVERAGE %D = 12.9

FORM VII PCB

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0530-1.b/0530B037.d
Data file 2: 20070529.b/0530-2.b/0530B037.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR12483
Client ID:
Injection Date: 30-MAY-2007 23:52
Report Date: 06/05/2007 12:12
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.578	0.005	6884603	4.673	0.002	4487962	19.1	19.9	4.2	Tetrachloro-m-xylene
11.151	0.001	2395834	11.541	-0.001	1114446	23.5	13.5	54.5*	Decachlorobiphenyl A B

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.8	49.9
Decachlorobiphenyl	58.9	33.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	30365292	-5.9
Hexabromobiphenyl	5108210	2548364	-50.1 <-

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19862015	-2.2
Hexabromobiphenyl	3608946	2691608	-25.4

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

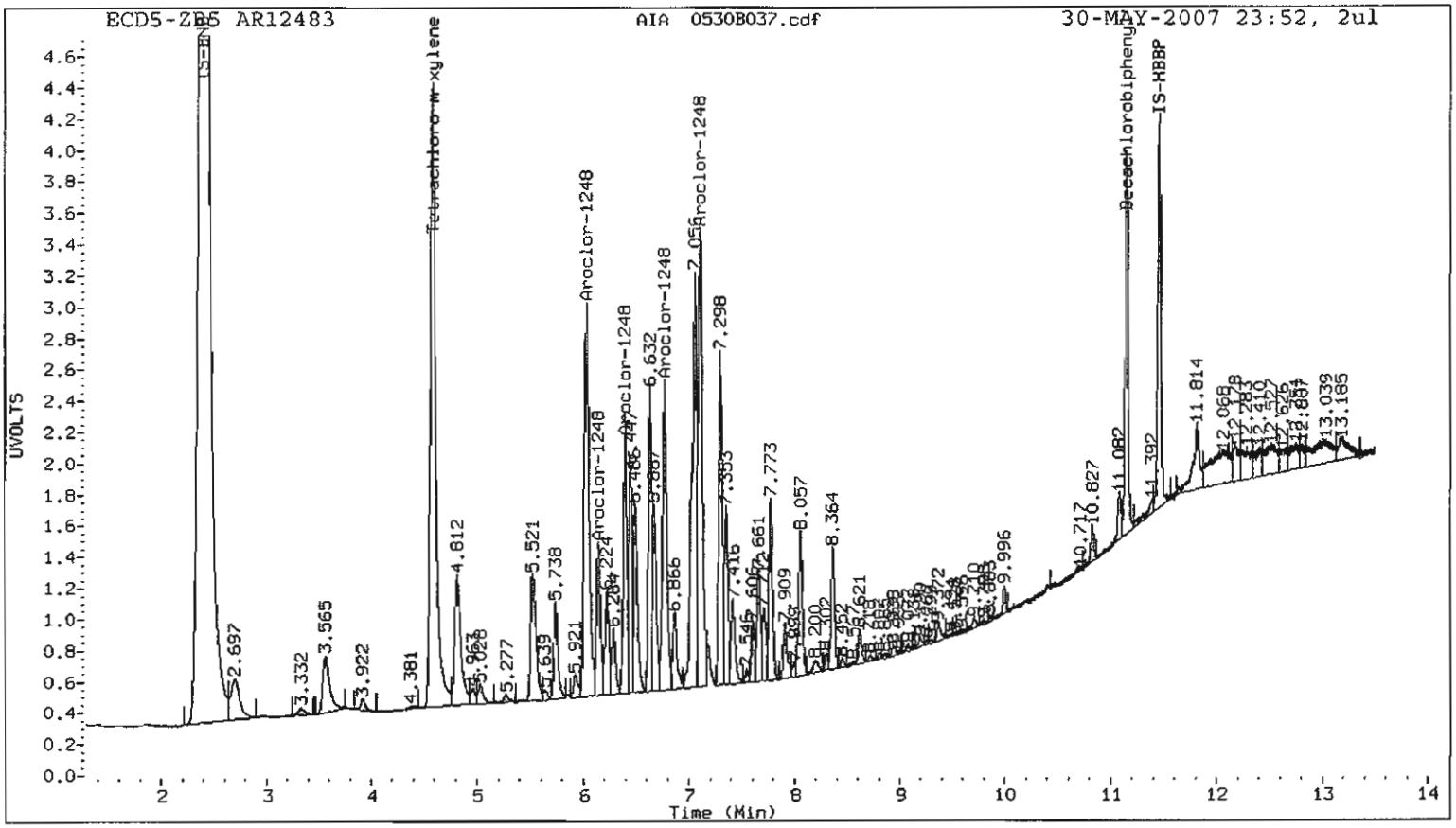
Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.028	0.008	4077033	208.6	1	6.346	0.004	2809088	230.1
Aroclor-1248	2	6.140	0.001	1268828	201.9	2	6.709	0.001	1399065	213.0
Aroclor-1248	3	6.395	0.003	1873464	179.4	3	7.045	0.001	1736828	208.6
Aroclor-1248	4	6.770	0.006	2785747	188.0	4	7.400	0.001	2387280	218.9
Aroclor-1248	5	7.104	0.004	3999504	209.2	NS	---			----
Total Col1Ave (5 peaks):					197.4	Total Col2Ave (4 peaks):			217.7	RPD = 10
Corrected Ave (5 peaks):					197.4	Corrected Ave (4 peaks):			217.7	RPD = 10

Total PCB Area Col1 (4.673 - 11.049) = 43943847 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 30257274 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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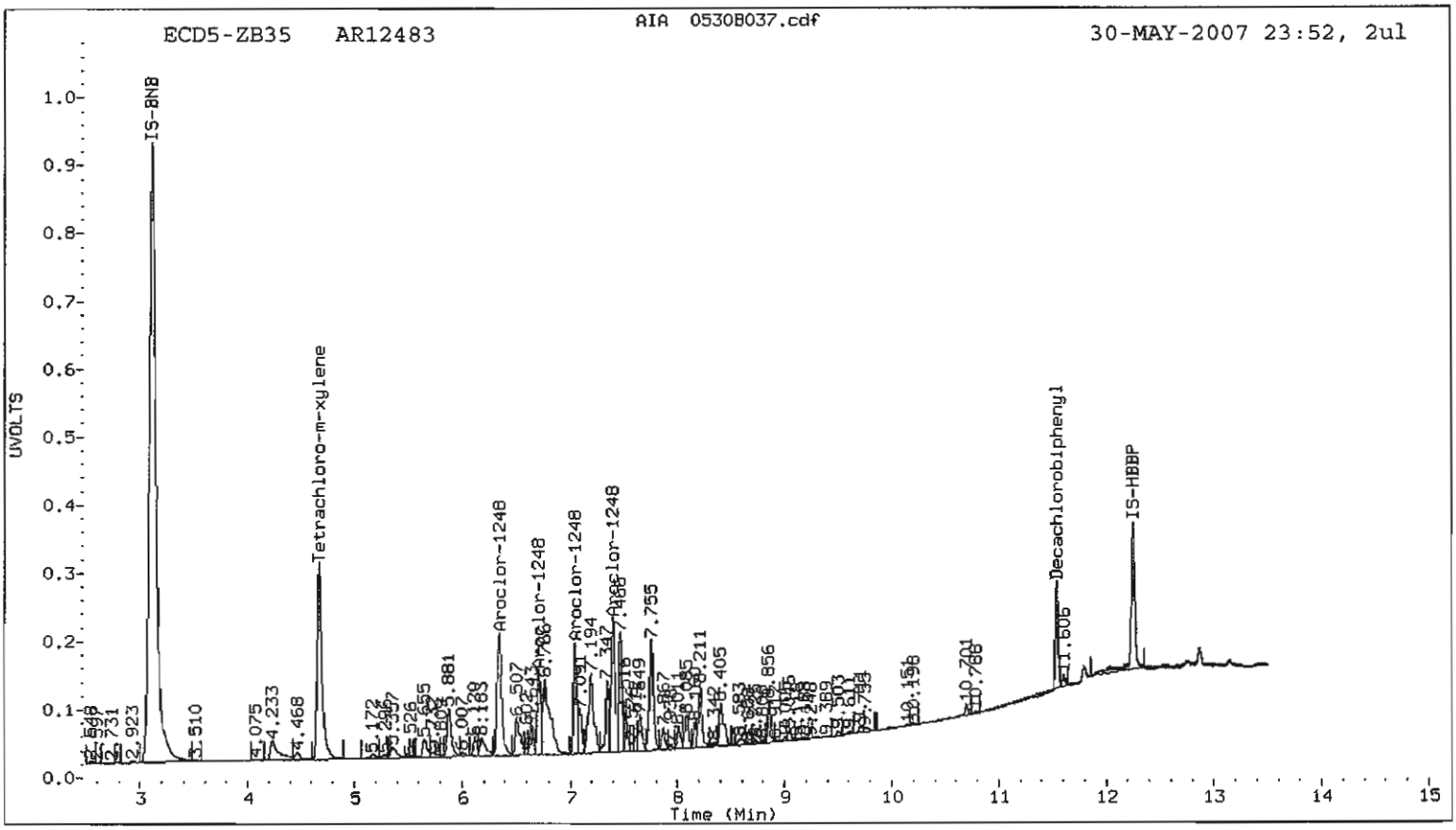
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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Time (Min)
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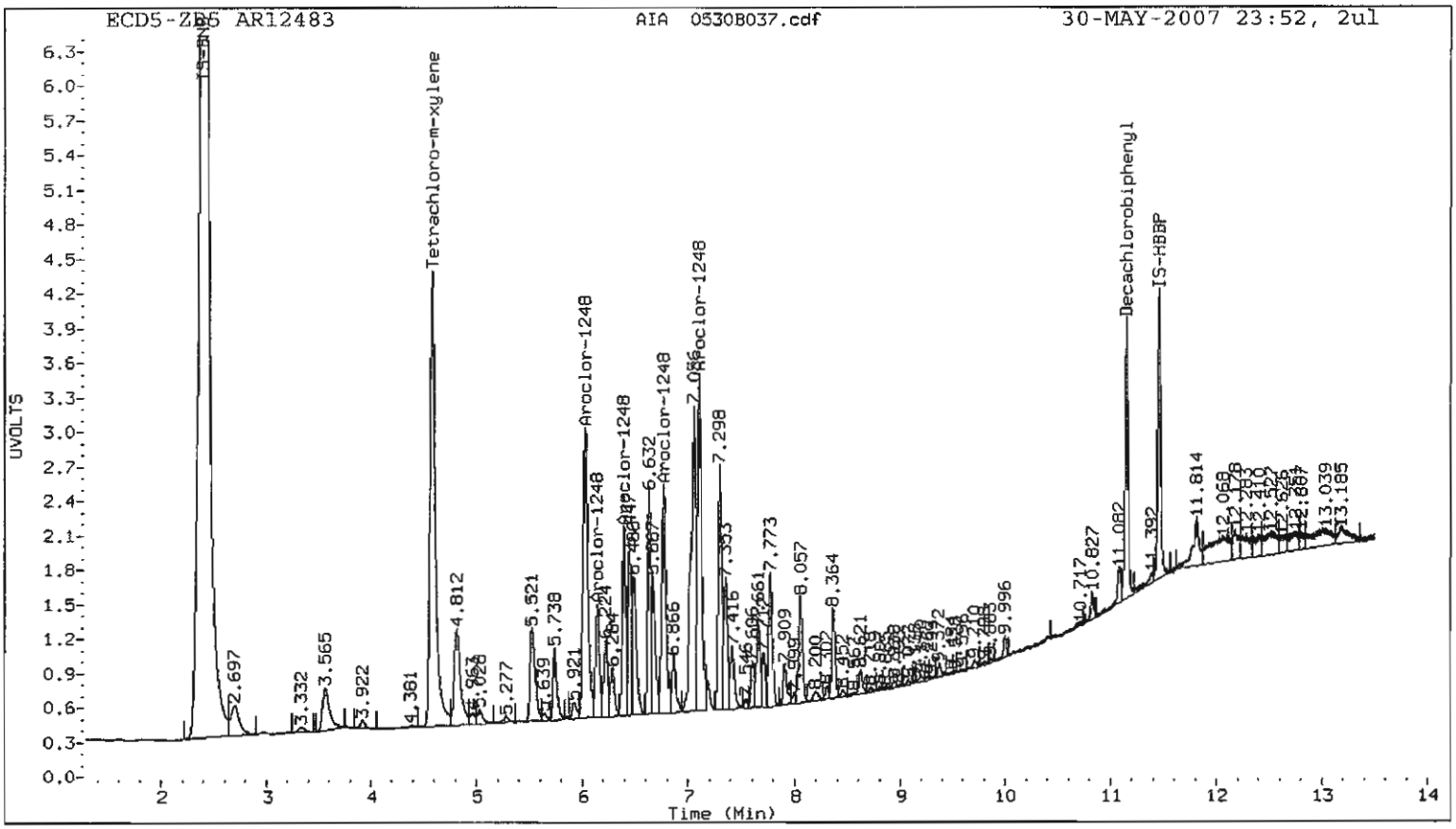
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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Tetrachloro-m-xylene
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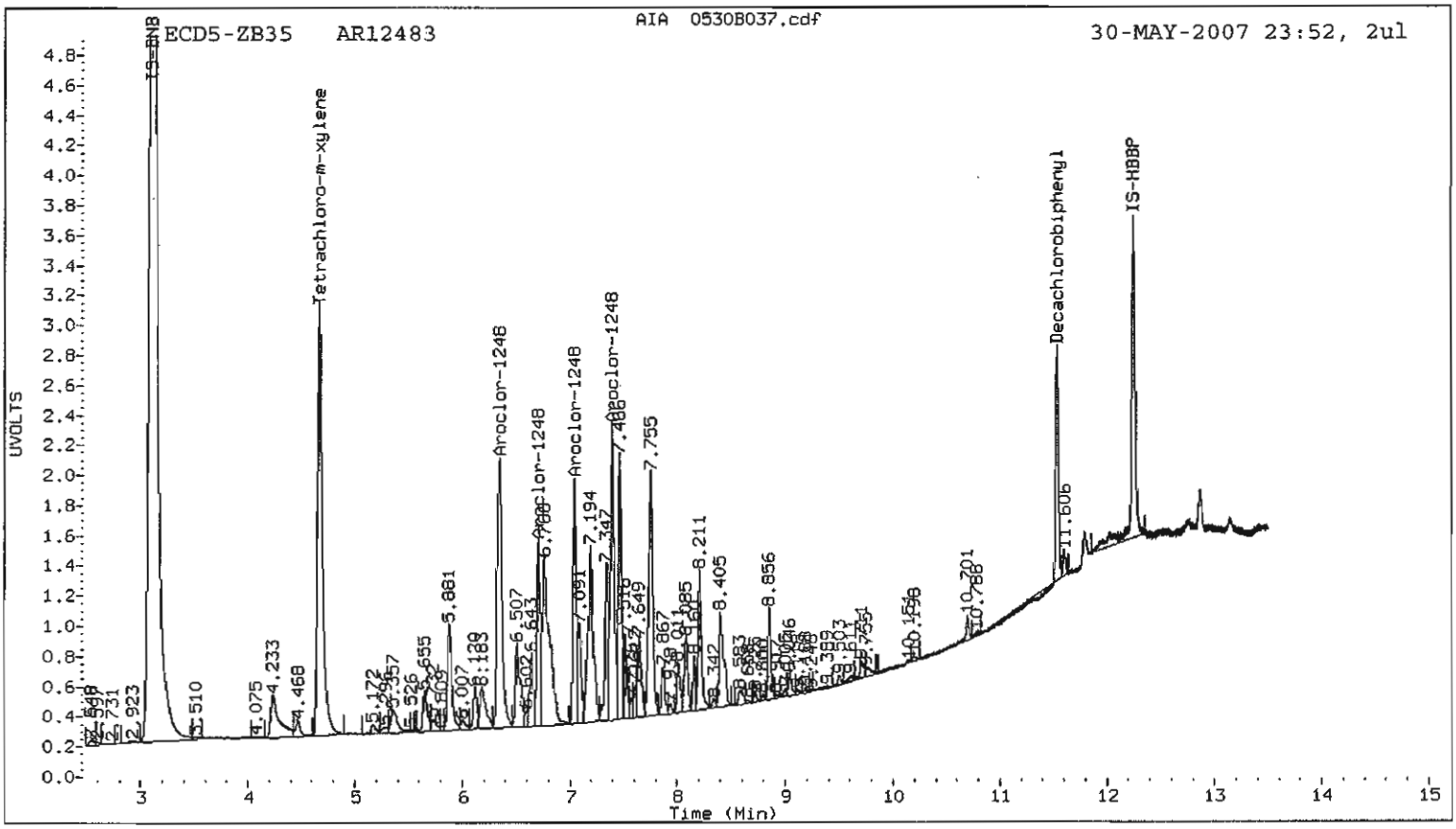
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR16606 Time Analyzed :0009

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1016-1	5.74	5.68	5.78	219.6	250.0	-12.1	
Aroclor-1016-2	6.03	5.97	6.07	213.8	250.0	-14.5	
Aroclor-1016-3	6.14	6.09	6.19	210.8	250.0	-15.7	
Aroclor-1016-4	6.40	6.34	6.44	170.1	250.0	-31.9	<-

AVERAGE %D = 18.5

Date Analyzed :05/31/07

Lab Standard ID: AR16606 Time Analyzed :0009

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	8.81	8.75	8.85	273.7	250.0	9.5
Aroclor-1260-2	9.07	9.02	9.12	266.7	250.0	6.7
Aroclor-1260-3	9.37	9.32	9.42	256.1	250.0	2.4
Aroclor-1260-4	9.71	9.66	9.76	238.5	250.0	-4.6
Aroclor-1260-5	9.86	9.81	9.91	231.8	250.0	-7.3

AVERAGE %D = 6.1

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR16606 Time Analyzed :0009

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.88	5.83	5.93	226.7	250.0	-9.3
Aroclor-1016-2	6.35	6.29	6.39	228.8	250.0	-8.5
Aroclor-1016-3	6.51	6.46	6.56	221.0	250.0	-11.6
Aroclor-1016-4	7.05	6.99	7.09	201.0	250.0	-19.6

AVERAGE %D = 12.2

Date Analyzed :05/31/07

Lab Standard ID: AR16606 Time Analyzed :0009

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	9.12	9.07	9.17	269.6	250.0	7.8
Aroclor-1260-2	9.19	9.14	9.24	255.4	250.0	2.1
Aroclor-1260-3	9.50	9.45	9.55	262.9	250.0	5.2
Aroclor-1260-4	9.71	9.66	9.76	224.1	250.0	-10.4
Aroclor-1260-5	10.20	10.15	10.25	230.9	250.0	-7.6

AVERAGE %D = 6.6

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0530-1.b/0530B038.d
Data file 2: 20070529.b/0530-2.b/0530B038.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR16606
Client ID:
Injection Date: 31-MAY-2007 00:09
Report Date: 06/05/2007 12:12
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.579	0.006	6874439	4.673	0.002	4381551	18.5	19.2	3.7	Tetrachloro-m-xylene
11.151	0.002	2099853	11.541	-0.001	1237428	20.3	17.6	14.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	46.3	48.1
Decachlorobiphenyl	50.9	44.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	31306835	-2.9
Hexabromobiphenyl	5108210	2585115	-49.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	20113860	-1.0
Hexabromobiphenyl	3608946	2284579	-36.7

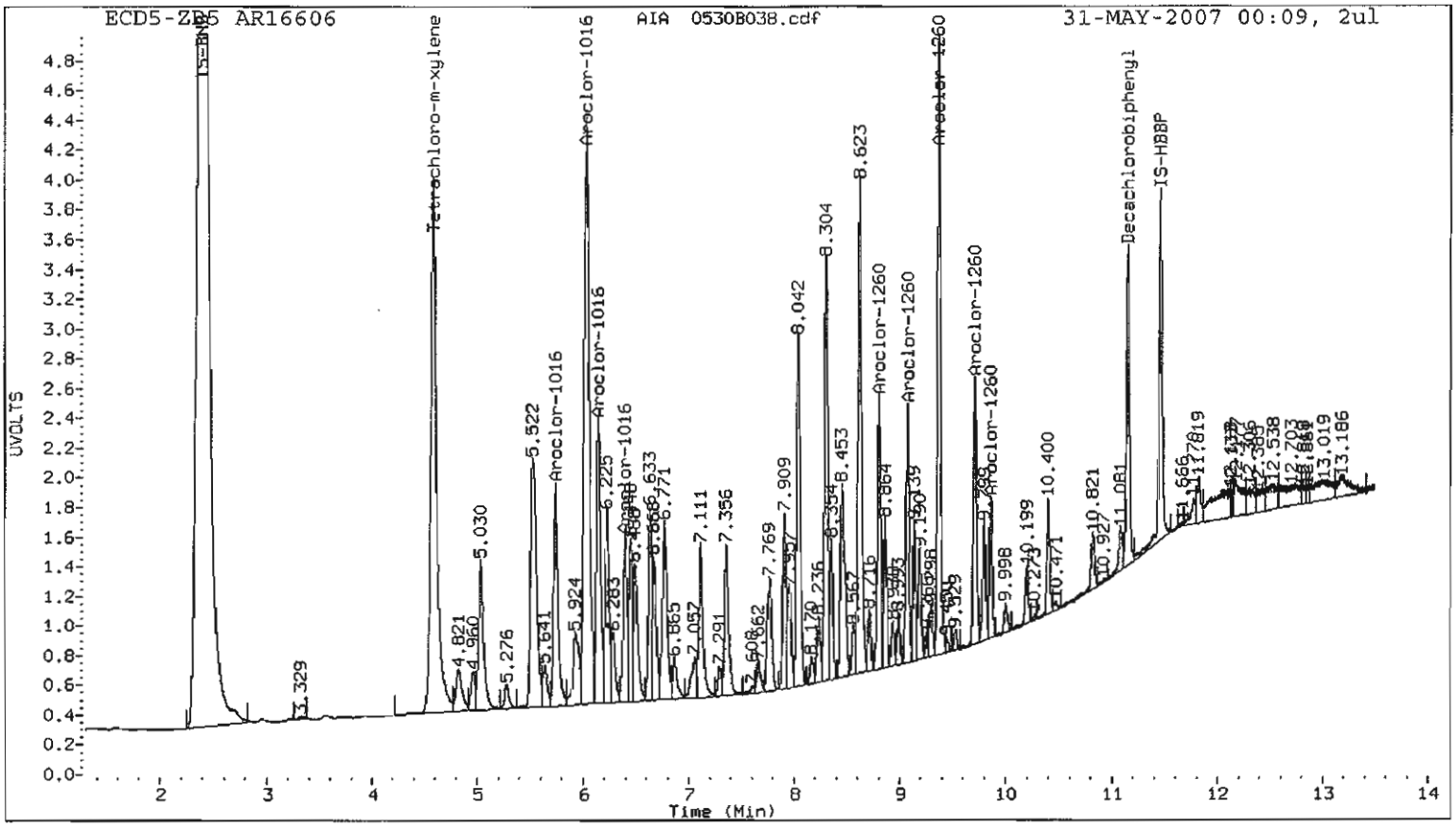
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.739	0.005	2136251	219.6	1	5.883	0.004	2163030	226.7
Aroclor-1016	2	6.028	0.004	6705414	213.8	2	6.347	0.003	4386363	228.8
Aroclor-1016	3	6.140	0.004	2596521	210.8	3	6.508	0.001	1679304	221.0
Aroclor-1016	4	6.395	0.004	1343331	170.1	4	7.046	0.002	1241200	201.0
Total Col1Ave (4 peaks):					203.6	Total Col2Ave (4 peaks):				219.4 RPD = 7
Corrected Ave (4 peaks):					203.6	Corrected Ave (4 peaks):				219.4 RPD = 7
Aroclor-1260	1	8.807	0.004	1963236	273.7	1	9.121	0.000	1211308	269.6
Aroclor-1260	2	9.075	0.003	1700071	266.7	2	9.189	0.000	704212	255.4
Aroclor-1260	3	9.372	0.003	4125467	256.1	3	9.503	0.000	1417965	262.9
Aroclor-1260	4	9.710	0.002	1858677	238.5	4	9.709	-0.001	2741380	224.1
Aroclor-1260	5	9.861	0.002	893070	231.8	5	10.198	-0.001	1577866	230.9
Total Col1Ave (5 peaks):					253.4	Total Col2Ave (5 peaks):				248.6 RPD = 2
Corrected Ave (5 peaks):					253.4	Corrected Ave (5 peaks):				248.6 RPD = 2

Total PCB Area Col1 (4.673 - 11.049) = 69203774 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 45664109 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical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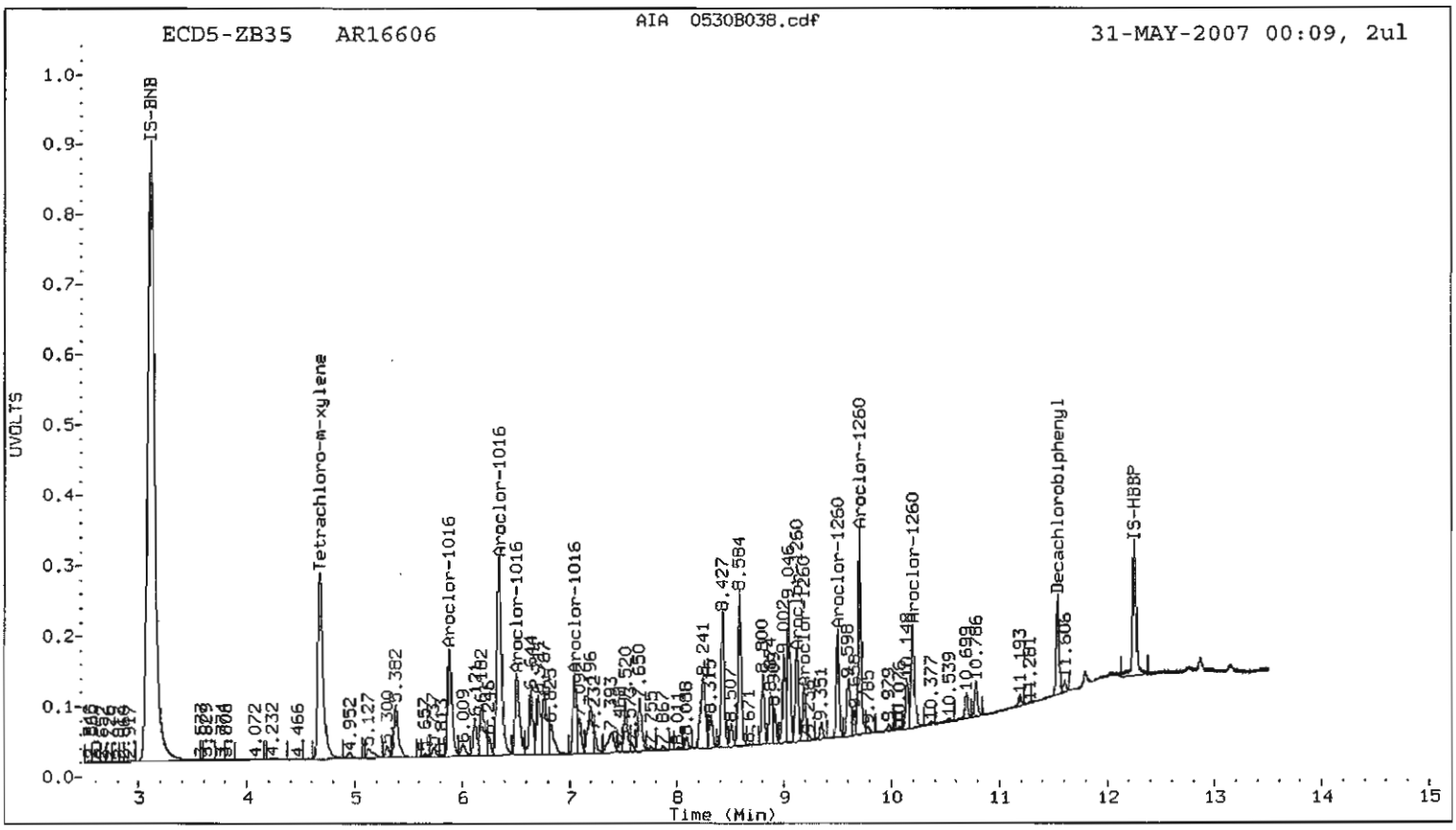
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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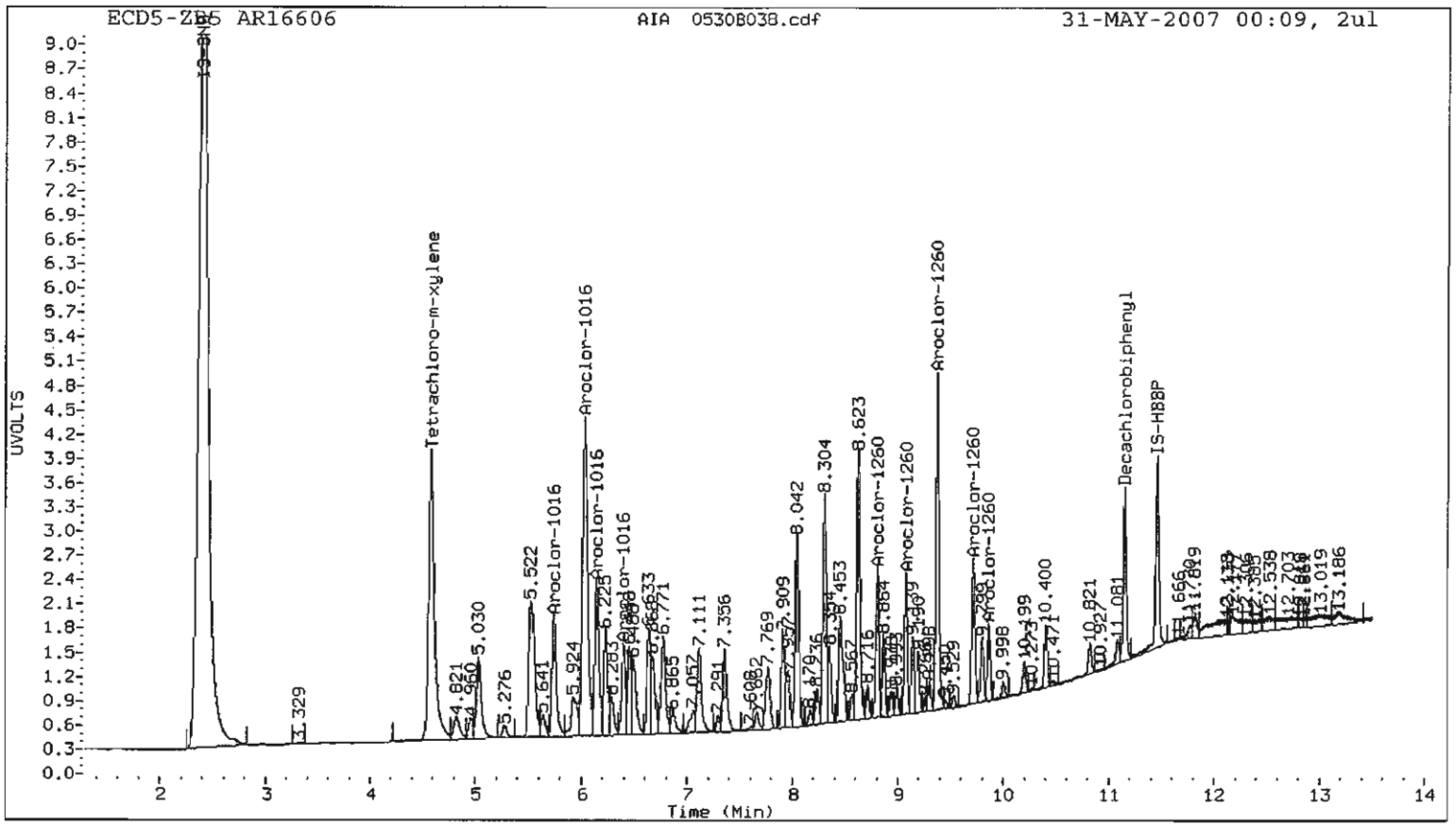
Decachlorobiphenyl
IS-HBBP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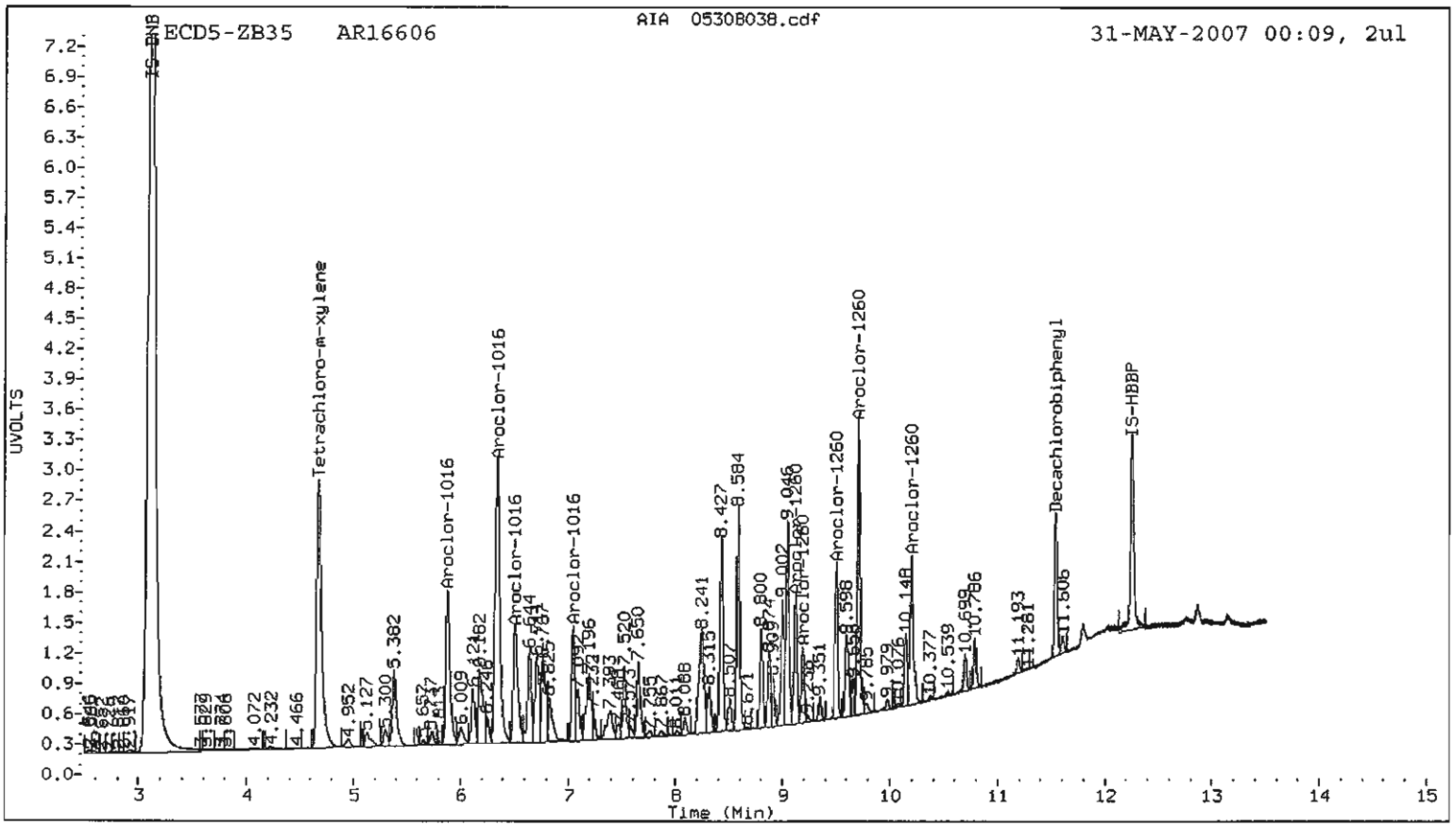
IS-HBBP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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR12424 Time Analyzed :1449

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	5.74	5.68	5.78	238.6	250.0	-4.6
Aroclor-1242-2	6.04	5.98	6.08	232.0	250.0	-7.2
Aroclor-1242-3	6.15	6.09	6.19	231.8	250.0	-7.3
Aroclor-1242-4	6.78	6.72	6.82	229.6	250.0	-8.1

AVERAGE %D = 6.8

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR12424 Time Analyzed :1449

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	5.38	5.33	5.43	239.1	250.0	-4.4
Aroclor-1242-2	5.88	5.83	5.93	236.1	250.0	-5.6
Aroclor-1242-3	6.35	6.29	6.39	236.4	250.0	-5.4
Aroclor-1242-4	6.51	6.46	6.56	230.9	250.0	-7.6
Aroclor-1242-5	7.40	7.35	7.45	235.2	250.0	-5.9

AVERAGE %D = 5.8

FORM VII PCB

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0531-1.b/0531B001.d
Data file 2: 20070529.b/0531-2.b/0531B001.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR12424
Client ID:
Injection Date: 31-MAY-2007 14:49
Report Date: 06/05/2007 12:12
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.583	0.010	7038390	4.667	-0.004	4678891	18.5	19.9	7.3	Tetrachloro-m-xylene
11.158	0.008	2538988	11.542	0.000	1526577	22.4	20.5	9.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	46.2	49.7
Decachlorobiphenyl	56.0	51.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	32159867	-0.3
Hexabromobiphenyl	5108210	2836803	-44.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	20780319	2.3
Hexabromobiphenyl	3608946	2424112	-32.8

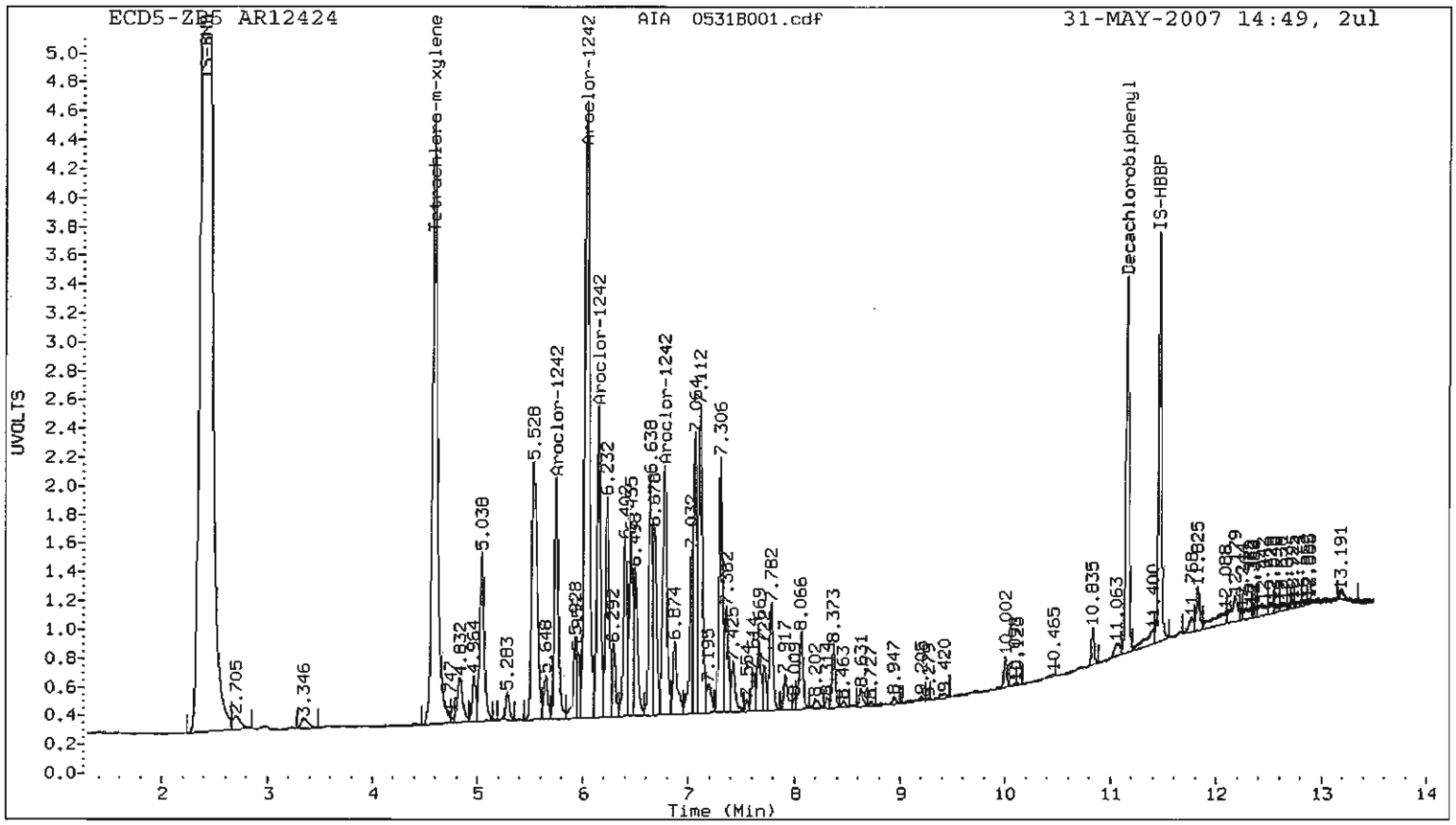
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1242	1	5.745	0.010	2143913	238.6	1	5.380	-0.001	1068242	239.1
Aroclor-1242	2	6.037	0.011	6743093	232.0	2	5.878	-0.003	2070847	236.1
Aroclor-1242	3	6.148	0.010	2671165	231.8	3	6.346	0.001	4148399	236.4
Aroclor-1242	4	6.778	0.011	2441988	229.6	4	6.506	0.000	1642228	230.9
Aroclor-1242	NS	---			----	5	7.399	0.000	1580627	235.2
Total Col1Ave (4 peaks):					233.0	Total Col2Ave (5 peaks):			235.5	RPD = 1
Corrected Ave (4 peaks):					233.0	Corrected Ave (5 peaks):			235.5	RPD = 1

Total PCB Area Col1 (4.673 - 11.049) = 47220277 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 29138186 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Time (Min)
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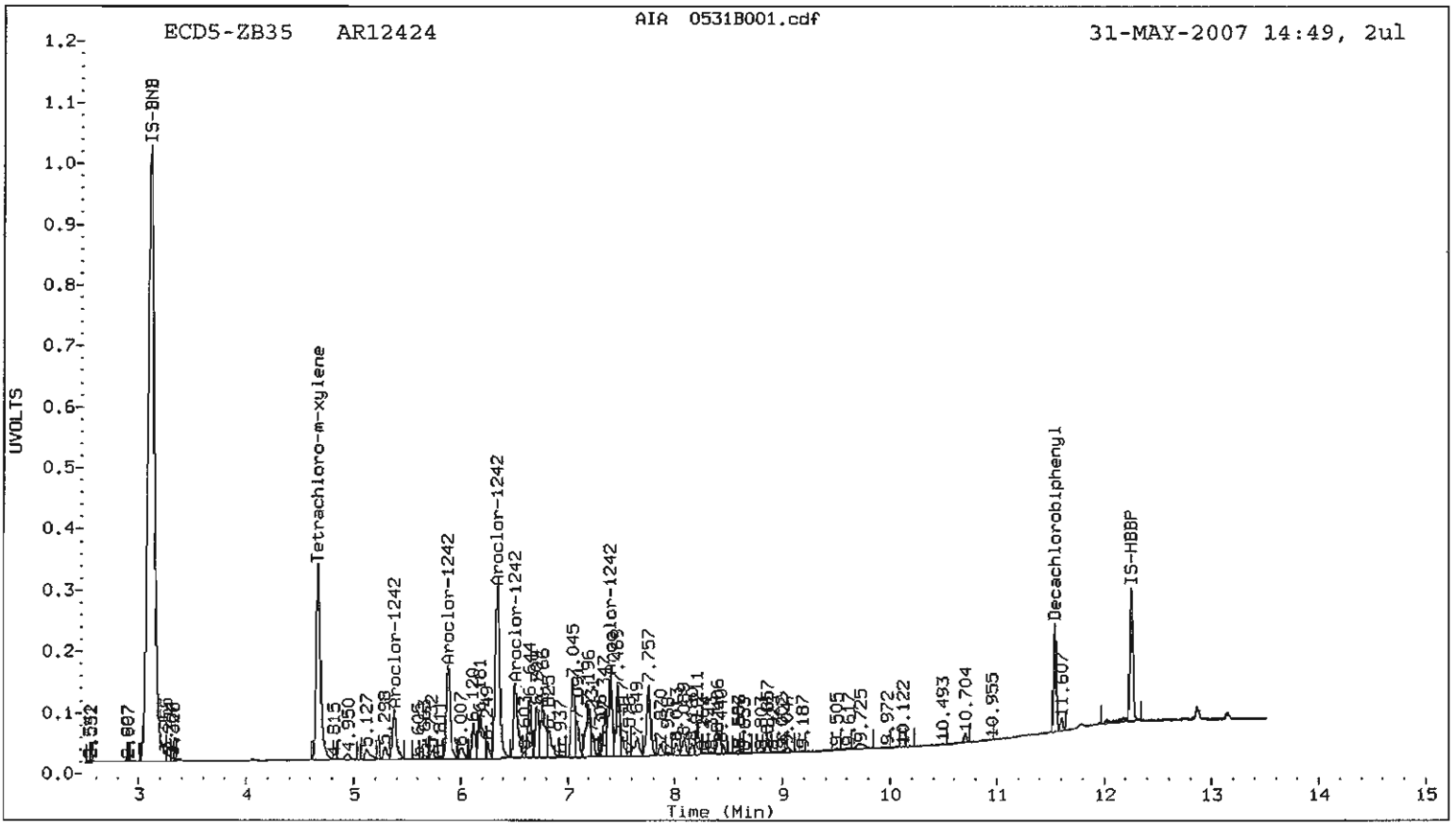
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP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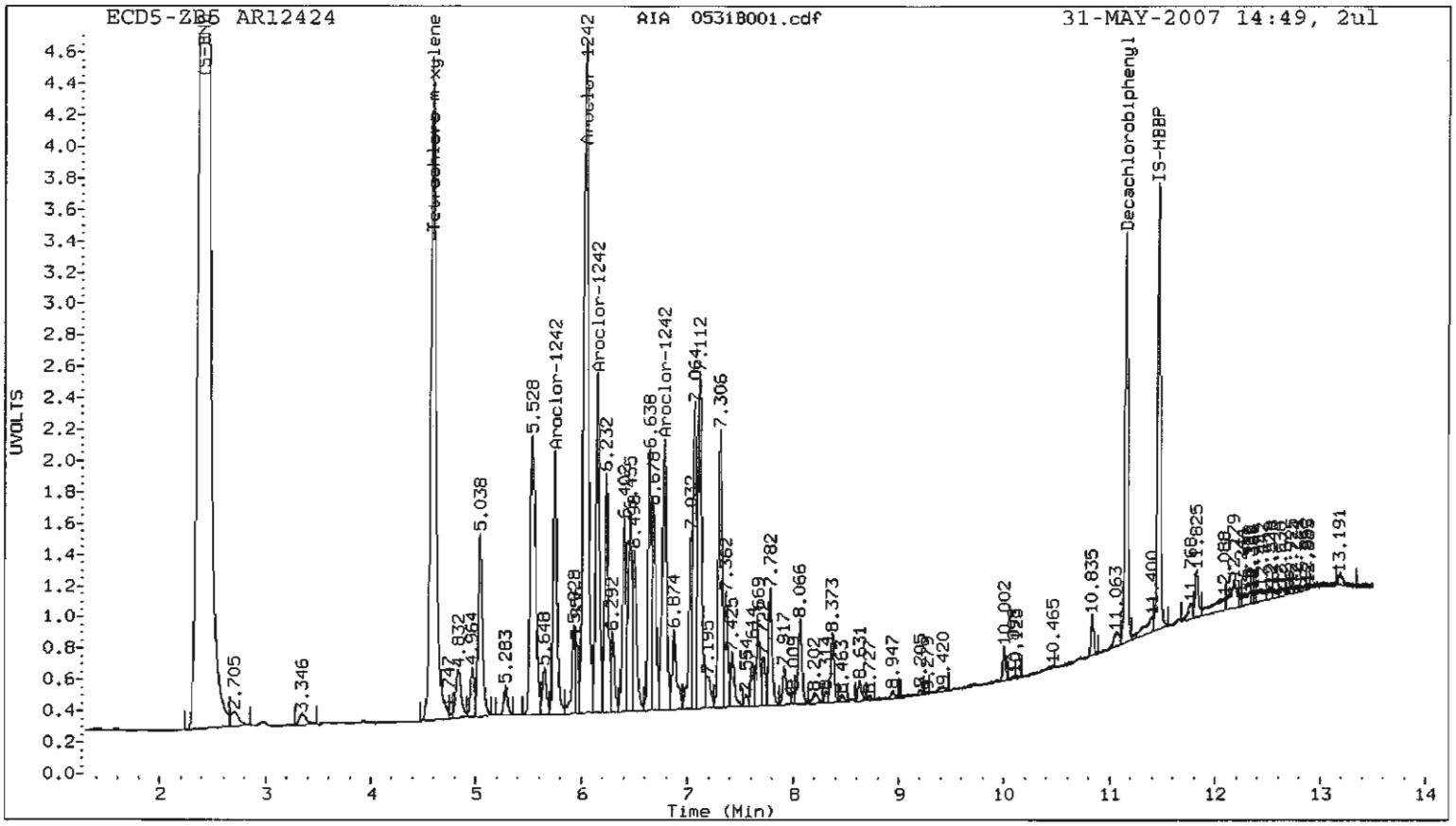
IS-HBBP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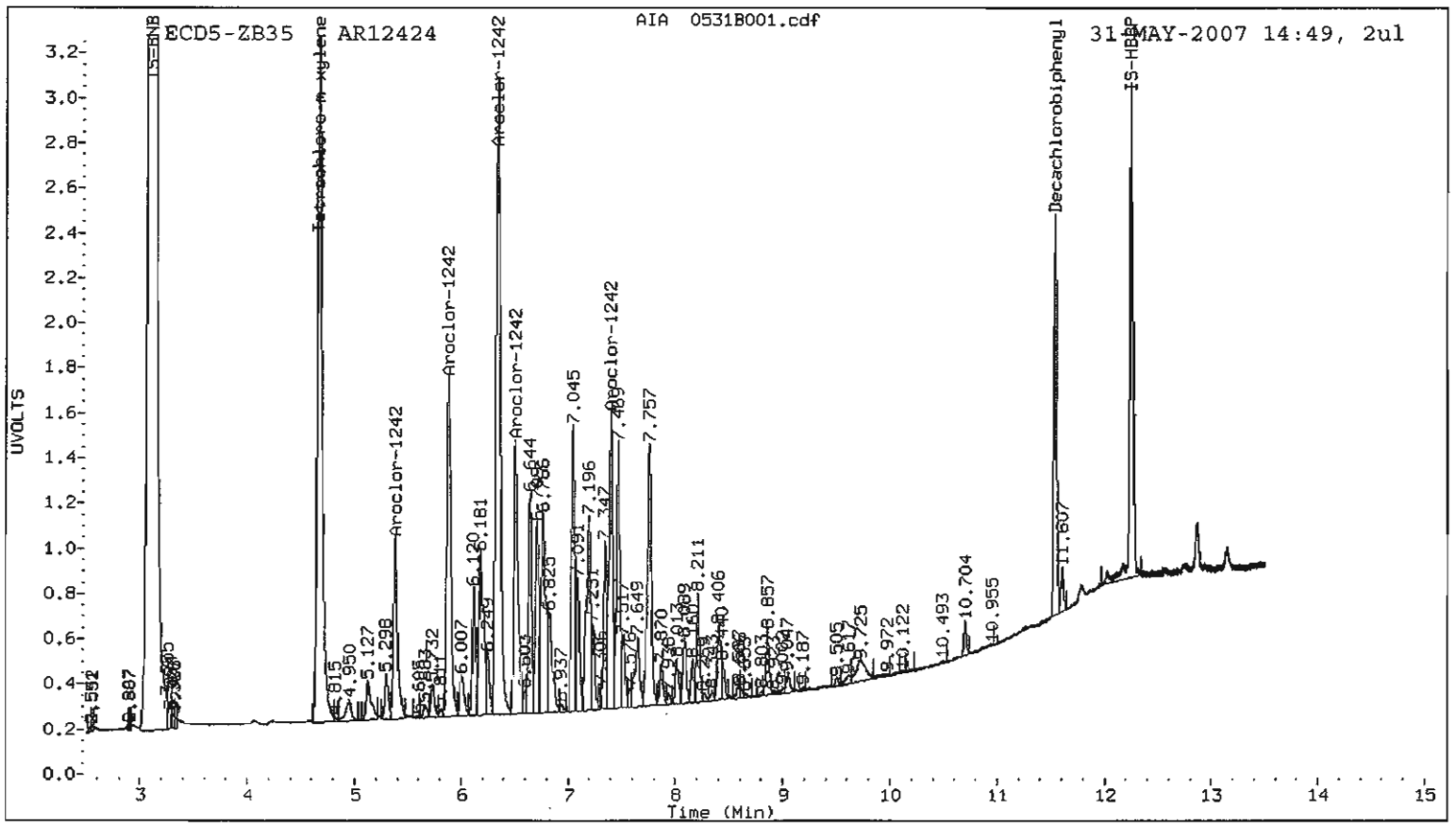
IS-HBBP
UVOLTS
Time (Min)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Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR16607 Time Analyzed :1506

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.74	5.68	5.78	236.0	250.0	-5.6
Aroclor-1016-2	6.03	5.97	6.07	234.1	250.0	-6.4
Aroclor-1016-3	6.14	6.09	6.19	235.9	250.0	-5.6
Aroclor-1016-4	6.39	6.34	6.44	201.0	250.0	-19.6

AVERAGE %D = 9.3

Date Analyzed :05/31/07

Lab Standard ID: AR16607 Time Analyzed :1506

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	8.81	8.75	8.85	298.9	250.0	19.6
Aroclor-1260-2	9.07	9.02	9.12	286.6	250.0	14.6
Aroclor-1260-3	9.37	9.32	9.42	280.3	250.0	12.1
Aroclor-1260-4	9.71	9.66	9.76	265.4	250.0	6.1
Aroclor-1260-5	9.86	9.81	9.91	261.8	250.0	4.7

AVERAGE %D = 11.4

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR16607 Time Analyzed :1506

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.88	5.83	5.93	237.1	250.0	-5.2
Aroclor-1016-2	6.35	6.29	6.39	240.1	250.0	-3.9
Aroclor-1016-3	6.51	6.46	6.56	239.4	250.0	-4.2
Aroclor-1016-4	7.04	6.99	7.09	224.8	250.0	-10.1

AVERAGE %D = 5.8

Date Analyzed :05/31/07

Lab Standard ID: AR16607 Time Analyzed :1506

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-2	9.19	9.14	9.24	303.5	250.0	21.4
Aroclor-1260-3	9.50	9.45	9.55	303.7	250.0	21.5
Aroclor-1260-4	9.71	9.66	9.76	264.1	250.0	5.6
Aroclor-1260-5	10.20	10.15	10.25	273.3	250.0	9.3

AVERAGE %D = 14.5

FORM VII PCB

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0531-1.b/0531B002.d
Data file 2: 20070529.b/0531-2.b/0531B002.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR16607
Client ID:
Injection Date: 31-MAY-2007 15:06
Report Date: 06/05/2007 12:13
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.577	0.004	6833011	4.671	0.000	4381065	18.5	19.5	5.4	Tetrachloro-m-xylene
11.153	0.003	2580176	11.540	-0.002	1546956	21.7	21.5	1.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	46.1	48.7
Decachlorobiphenyl	54.3	53.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	31240132	-3.1
Hexabromobiphenyl	5108210	2974265	-41.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19857643	-2.3
Hexabromobiphenyl	3608946	2338822	-35.2

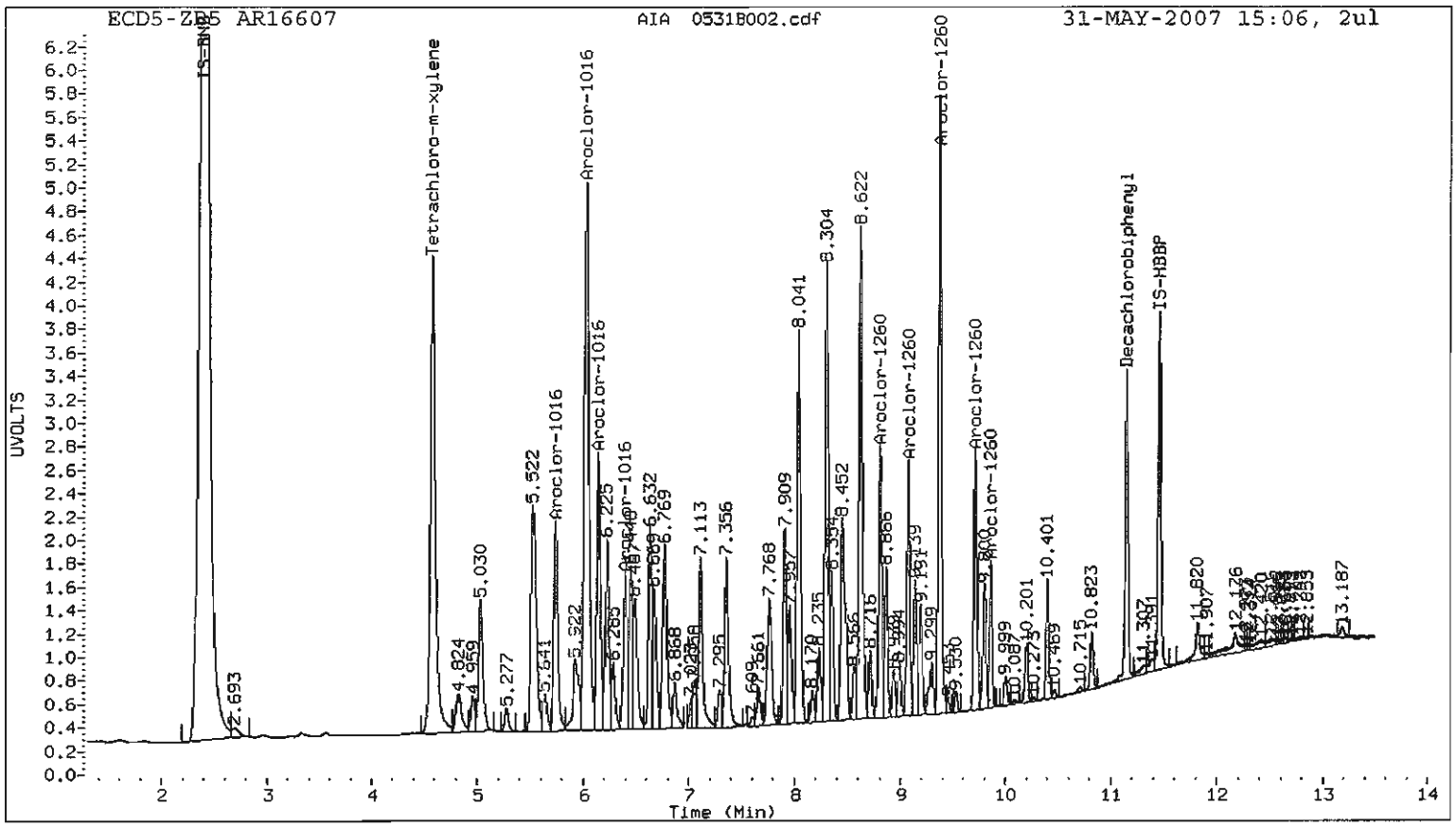
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.739	0.006	2290535	236.0	1	5.882	0.002	2233021	237.1
Aroclor-1016	2	6.030	0.007	7326399	234.1	2	6.345	0.001	4544765	240.1
Aroclor-1016	3	6.140	0.004	2900150	235.9	3	6.507	0.000	1795845	239.4
Aroclor-1016	4	6.395	0.003	1583903	201.0	4	7.045	0.001	1371014	224.8
Total Col1Ave (4 peaks):					226.8	Total Col2Ave (4 peaks):				235.4 RPD = 4
Corrected Ave (4 peaks):					226.8	Corrected Ave (4 peaks):				235.4 RPD = 4
Aroclor-1260	1	8.808	0.005	2466601	298.9	1	9.120	-0.001	1458842	317.2
Aroclor-1260	2	9.075	0.004	2102248	286.6	2	9.189	0.001	856710	303.5
Aroclor-1260	3	9.373	0.004	5193479	280.3	3	9.502	-0.001	1676724	303.7
Aroclor-1260	4	9.711	0.003	2379605	265.4	4	9.710	0.000	3306746	264.1
Aroclor-1260	5	9.861	0.003	1160175	261.8	5	10.198	-0.001	1912306	273.3
Total Col1Ave (5 peaks):					278.6	Total Col2Ave (5 peaks):				292.4 RPD = 5
Corrected Ave (5 peaks):					278.6	Corrected Ave (5 peaks):				292.4 RPD = 5

Total PCB Area Col1 (4.673 - 11.049) = 84729489 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 52174797 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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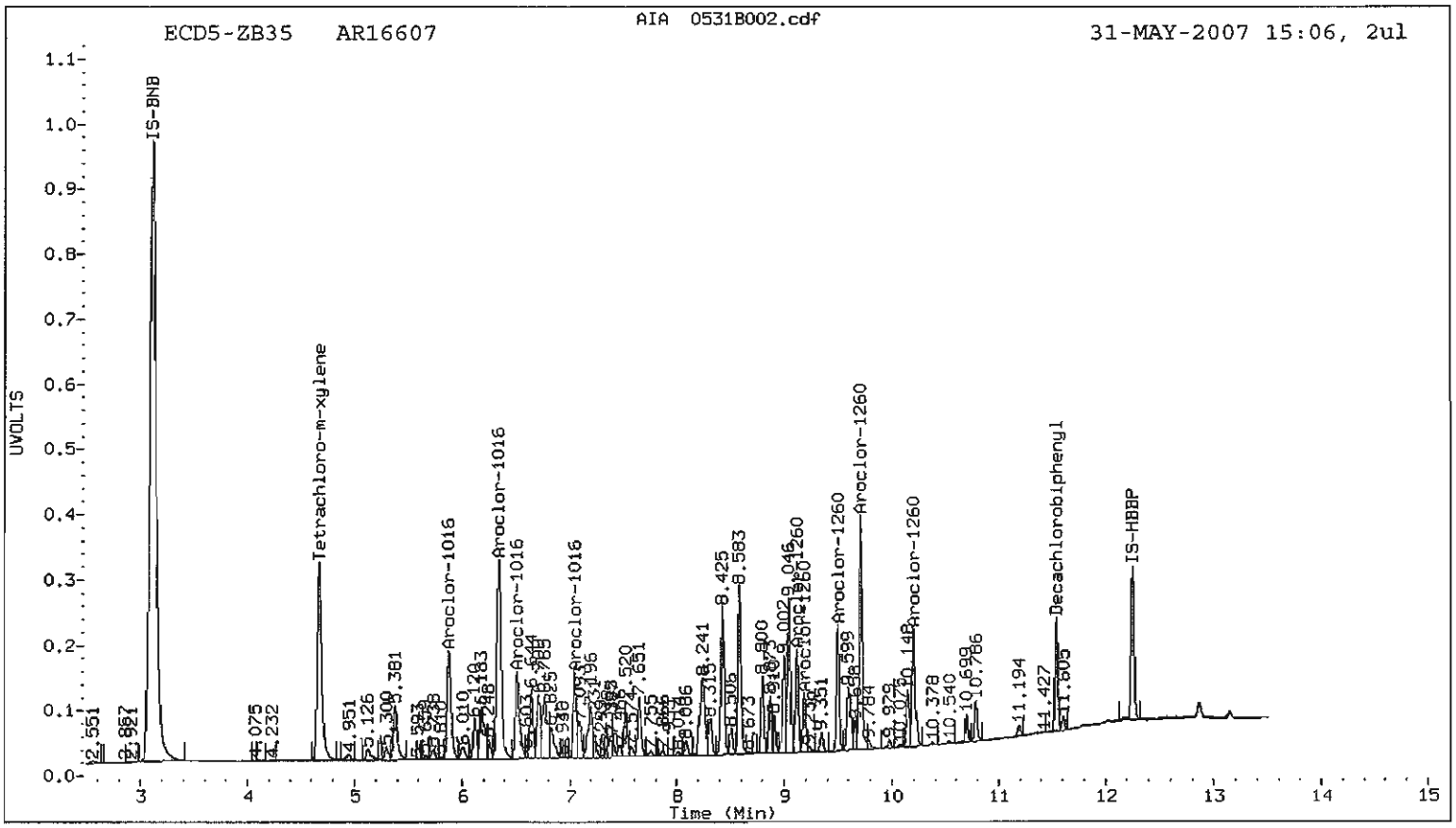
IS-HBBP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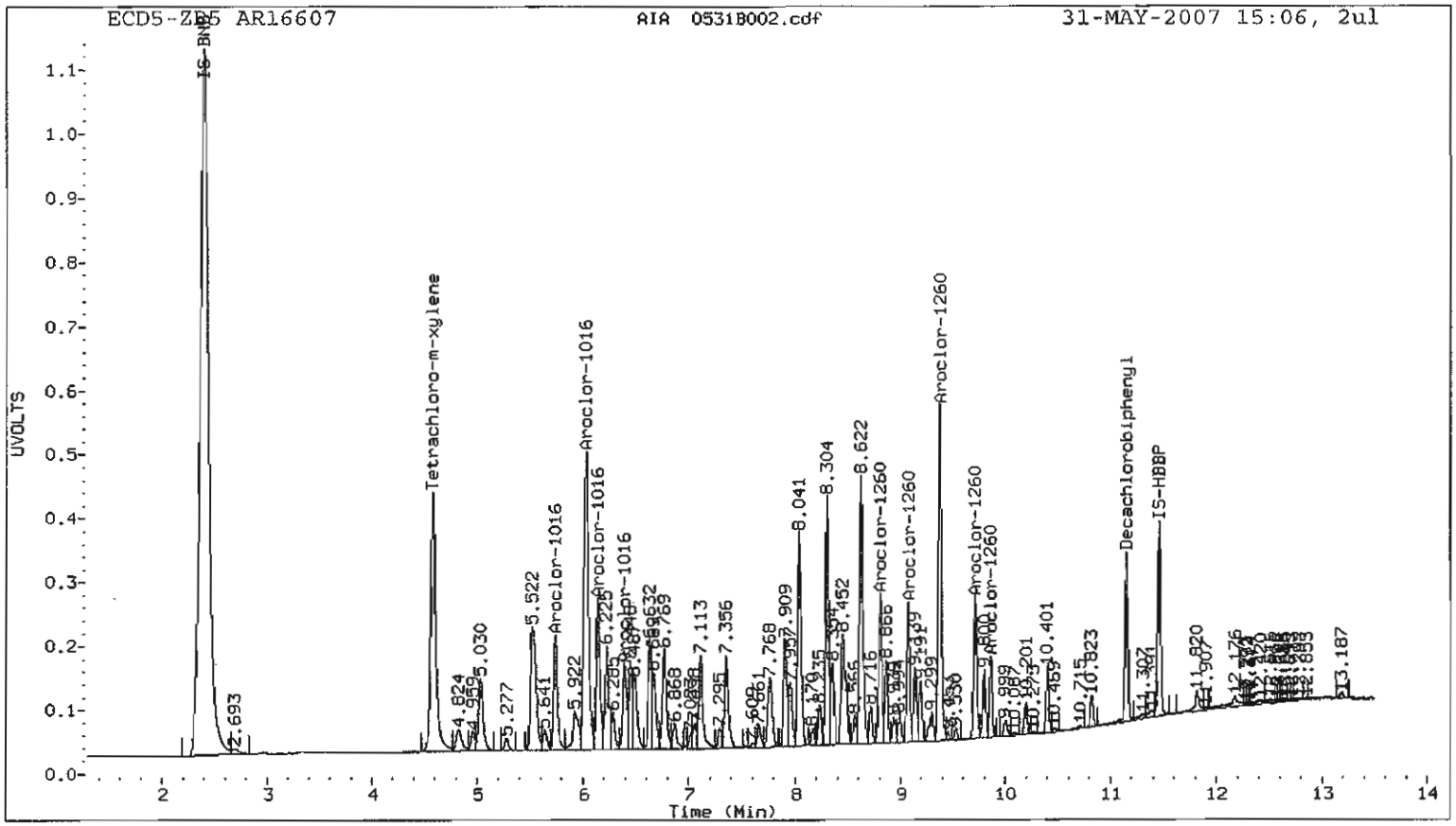
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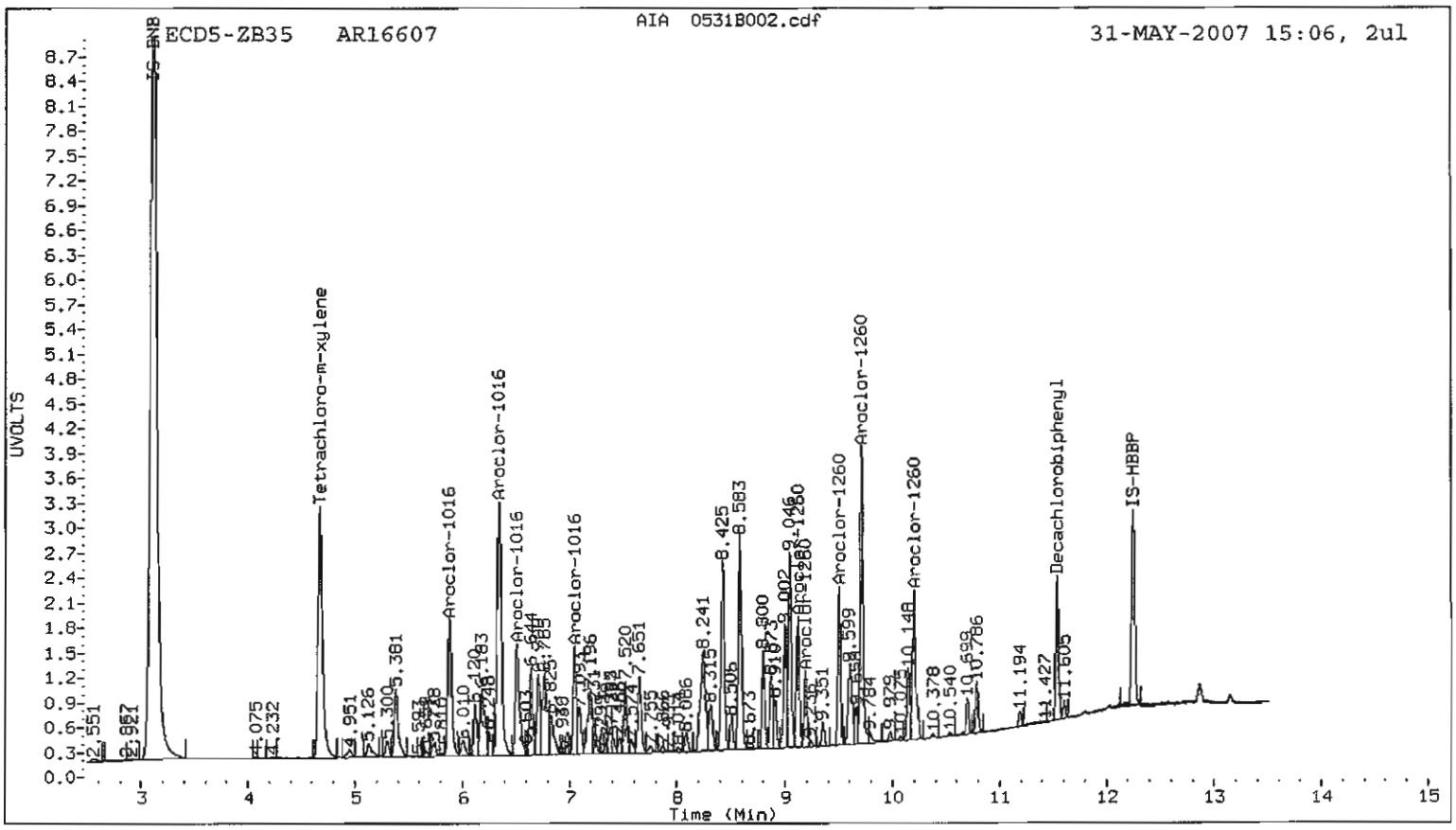
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Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR12544 Time Analyzed :2232

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1254-1	7.36	7.30	7.40	206.2	250.0	-17.5	
Aroclor-1254-2	7.66	7.61	7.71	205.3	250.0	-17.9	
Aroclor-1254-3	7.78	7.72	7.82	201.1	250.0	-19.6	
Aroclor-1254-4	8.06	8.00	8.10	185.8	250.0	-25.7	<-
Aroclor-1254-5	8.36	8.31	8.41	177.9	250.0	-28.8	<-

AVERAGE %D = 21.9

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR12544 Time Analyzed :2232

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	7.65	7.60	7.70	206.0	250.0	-17.6
Aroclor-1254-2	8.09	8.04	8.14	215.3	250.0	-13.9
Aroclor-1254-3	8.21	8.16	8.26	216.5	250.0	-13.4
Aroclor-1254-4	8.86	8.81	8.91	194.3	250.0	-22.3

AVERAGE %D = 16.8

FORM VII PCB

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0531-1.b/0531B028.d
Data file 2: 20070529.b/0531-2.b/0531B028.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR12544
Client ID:
Injection Date: 31-MAY-2007 22:32
Report Date: 06/05/2007 12:13
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.582	0.008	7399925	4.674	0.003	4661984	20.8	21.4	3.1	Tetrachloro-m-xylene
11.152	0.002	2212771	11.540	-0.002	1186173	19.2	17.2	10.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.9	53.6
Decachlorobiphenyl	47.9	43.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	30048235	-6.8
Hexabromobiphenyl	5108210	2890131	-43.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19195505	-5.5
Hexabromobiphenyl	3608946	2234257	-38.1

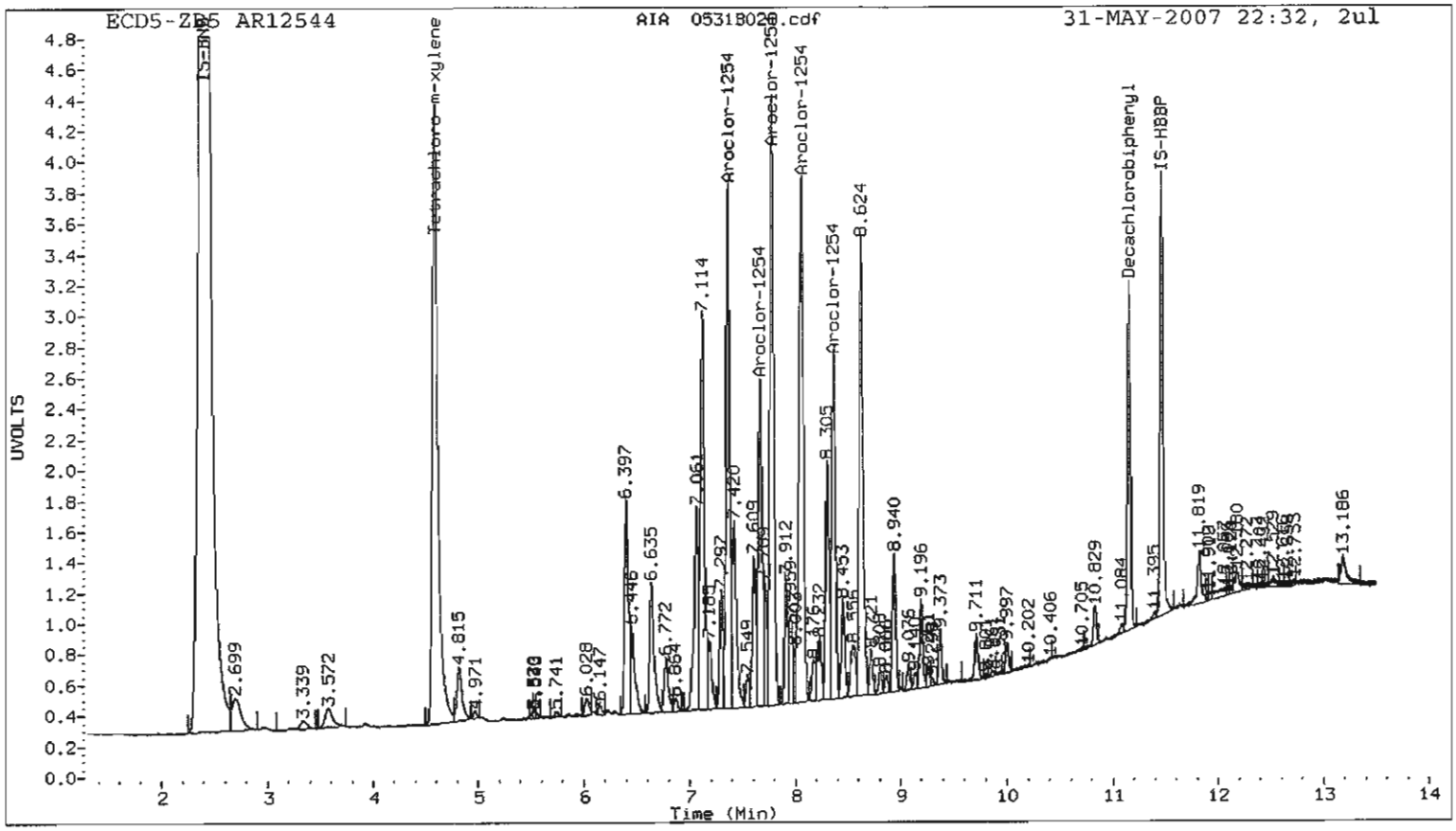
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1254	1	7.359	0.007	4300116	206.2	1	7.652	0.004	2283320	206.0
Aroclor-1254	2	7.664	0.007	2783111	205.3	2	8.089	0.003	1657689	215.3
Aroclor-1254	3	7.775	0.006	4957439	201.1	3	8.213	0.003	3535297	216.5
Aroclor-1254	4	8.057	0.005	4837515	185.8	4	8.864	0.004	1846525	194.3
Aroclor-1254	5	8.364	0.006	2853172	177.9	NS	---			----
Total Col1Ave (5 peaks):					195.2	Total Col2Ave (4 peaks):				208.0 RPD = 6
Corrected Ave (5 peaks):					195.2	Corrected Ave (4 peaks):				208.0 RPD = 6

Total PCB Area Col1 (4.673 - 11.049) = 48640159 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 32284154 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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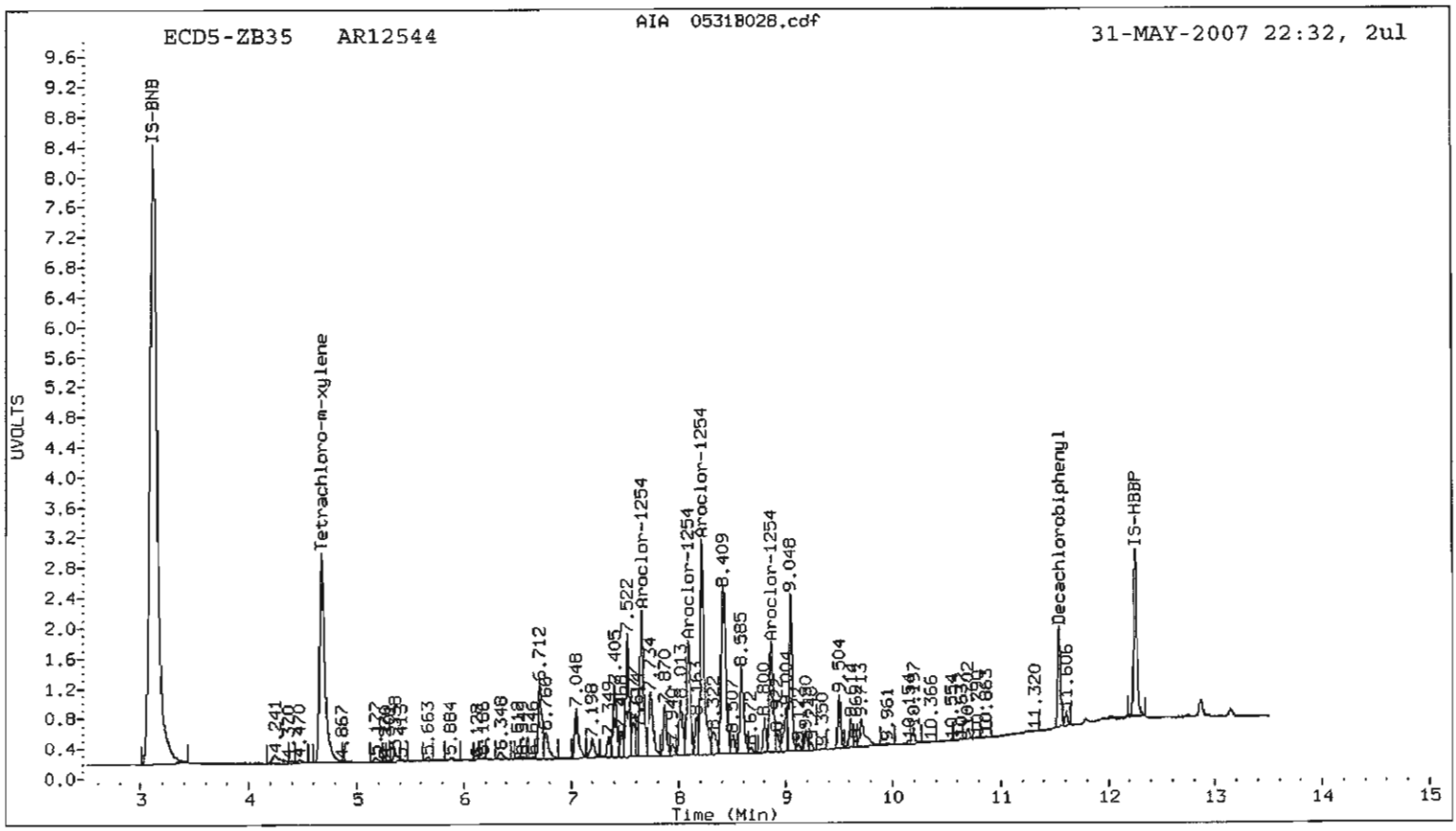
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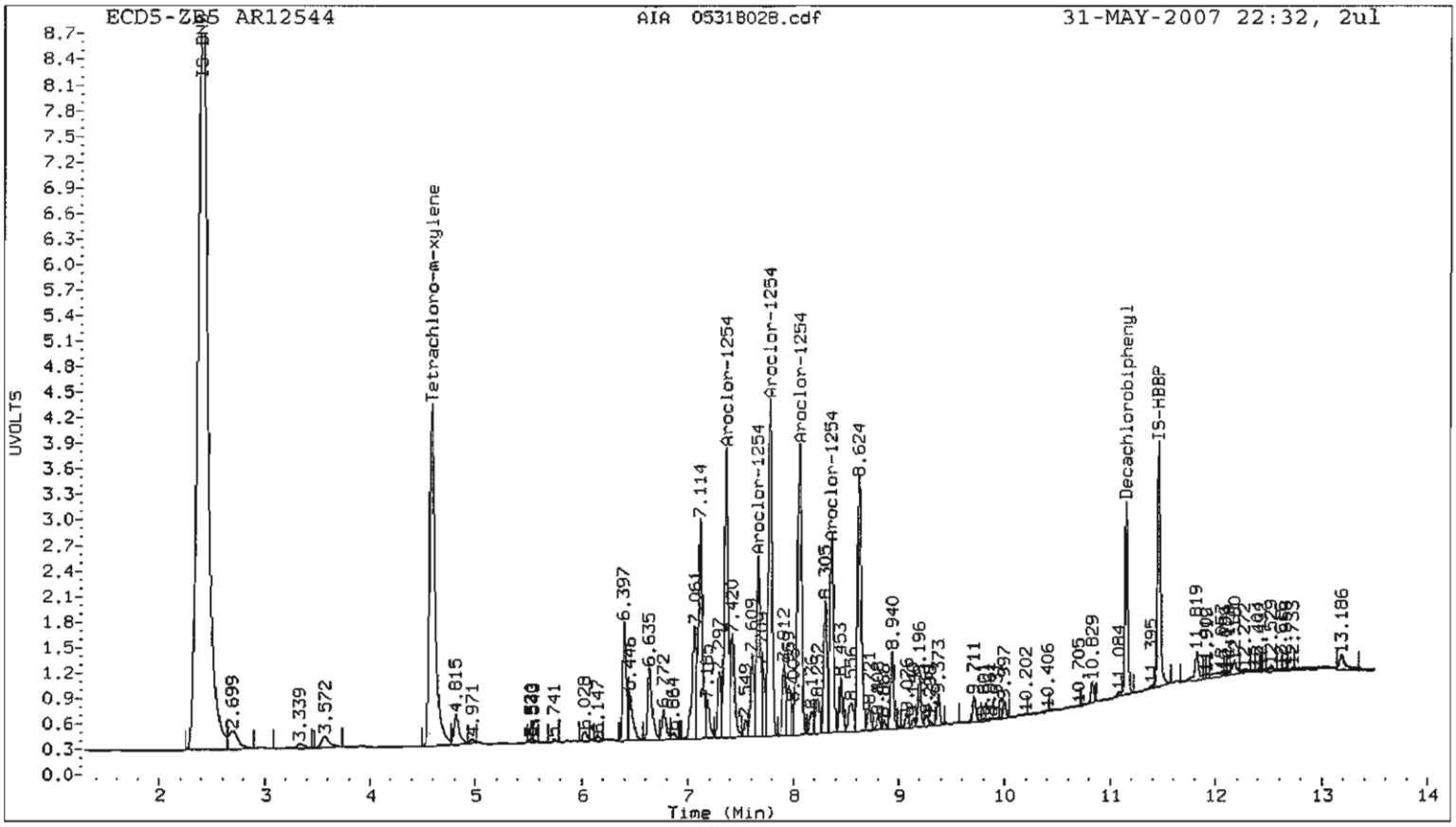
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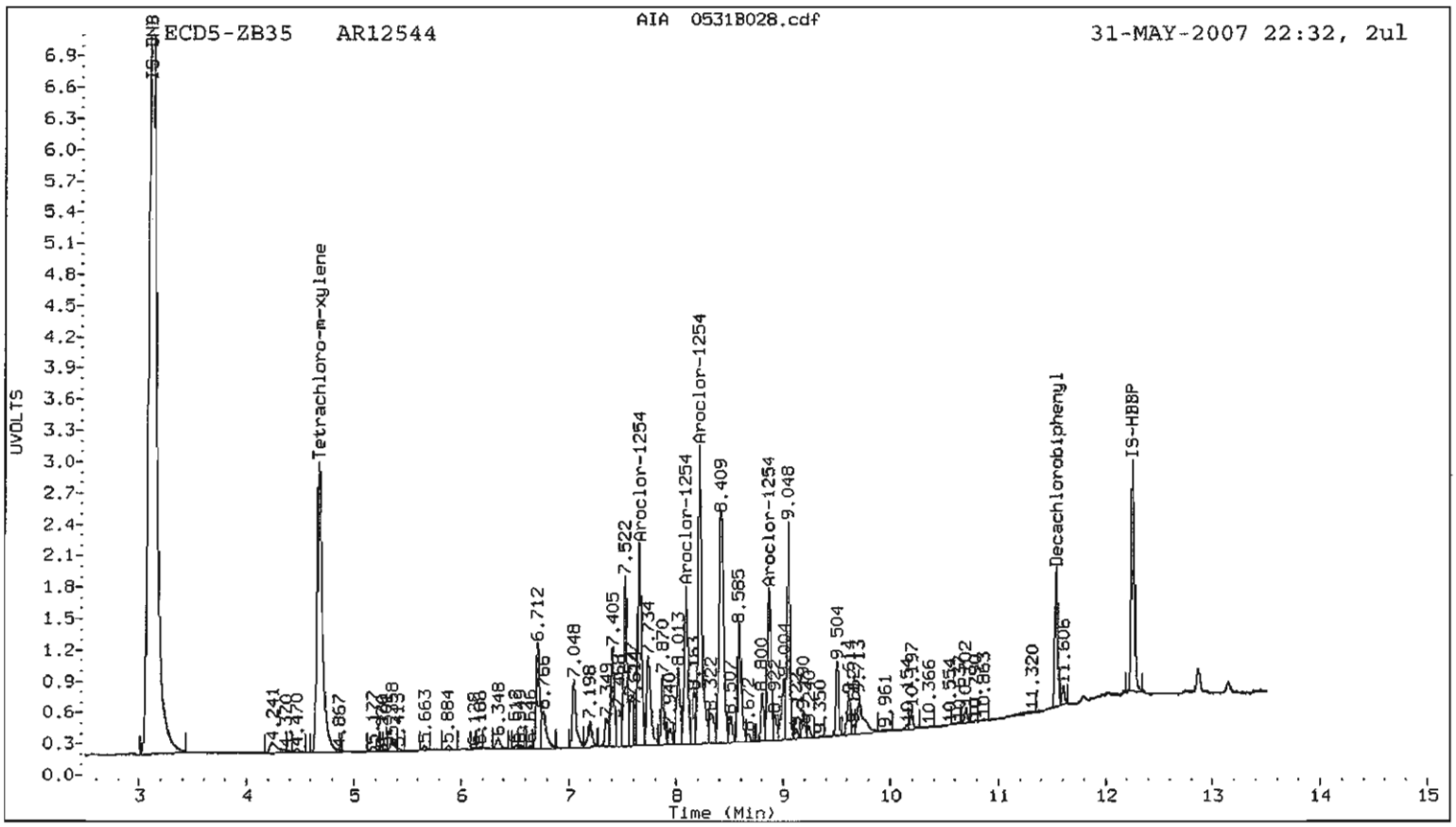
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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR16608 Time Analyzed :2249

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.74	5.68	5.78	238.4	250.0	-4.6
Aroclor-1016-2	6.03	5.97	6.07	231.8	250.0	-7.3
Aroclor-1016-3	6.14	6.09	6.19	231.2	250.0	-7.5
Aroclor-1016-4	6.40	6.34	6.44	189.1	250.0	-24.4

AVERAGE %D = 10.9

Date Analyzed :05/31/07

Lab Standard ID: AR16608 Time Analyzed :2249

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	8.81	8.75	8.85	284.0	250.0	13.6
Aroclor-1260-2	9.08	9.02	9.12	274.1	250.0	9.6
Aroclor-1260-3	9.37	9.32	9.42	255.6	250.0	2.2
Aroclor-1260-4	9.71	9.66	9.76	243.6	250.0	-2.5
Aroclor-1260-5	9.86	9.81	9.91	237.9	250.0	-4.8

AVERAGE %D = 6.5

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH, INC.

ARI Job No.: KZ56 Project: THEA FOSS OMMP

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/29/07

Date Analyzed :05/31/07

Lab Standard ID: AR16608 Time Analyzed :2249

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.88	5.83	5.93	235.0	250.0	-6.0
Aroclor-1016-2	6.35	6.29	6.39	230.4	250.0	-7.8
Aroclor-1016-3	6.51	6.46	6.56	227.0	250.0	-9.2
Aroclor-1016-4	7.05	6.99	7.09	204.3	250.0	-18.3

AVERAGE %D = 10.3

Date Analyzed :05/31/07

Lab Standard ID: AR16608 Time Analyzed :2249

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	9.12	9.07	9.17	290.9	250.0	16.4
Aroclor-1260-2	9.19	9.14	9.24	282.7	250.0	13.1
Aroclor-1260-3	9.50	9.45	9.55	283.3	250.0	13.3
Aroclor-1260-4	9.71	9.66	9.76	241.0	250.0	-3.6
Aroclor-1260-5	10.20	10.15	10.25	241.3	250.0	-3.5

AVERAGE %D = 10.0

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0531-1.b/0531B029.d
Data file 2: 20070529.b/0531-2.b/0531B029.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR16608
Client ID:
Injection Date: 31-MAY-2007 22:49
Report Date: 06/05/2007 12:13
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.582	0.009	7154379	4.674	0.003	4403764	19.7	19.0	3.8	Tetrachloro-m-xylene
11.152	0.002	2127589	11.540	-0.002	1149071	19.2	16.7	13.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.3	47.4
Decachlorobiphenyl	48.0	41.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	30621914	-5.1
Hexabromobiphenyl	5108210	2772994	-45.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	20478703	0.8
Hexabromobiphenyl	3608946	2230162	-38.2

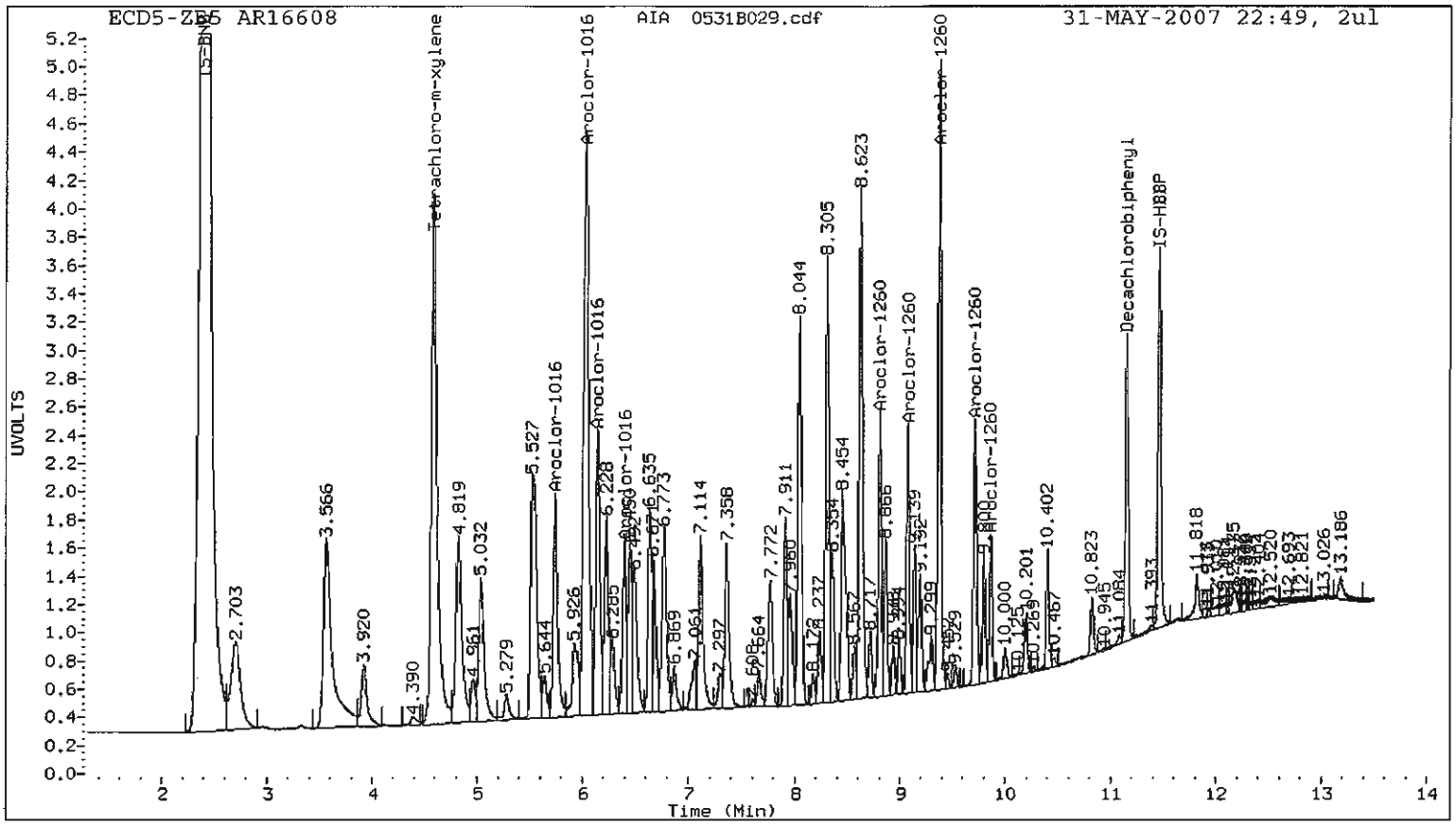
* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	5.742	0.009	2268334	238.4	1	5.884	0.005	2282911	235.0
Aroclor-1016	2	6.032	0.009	7110483	231.8	2	6.347	0.003	4497114	230.4
Aroclor-1016	3	6.144	0.008	2786242	231.2	3	6.509	0.002	1755865	227.0
Aroclor-1016	4	6.398	0.007	1460130	189.1	4	7.047	0.004	1284539	204.3
Total Col1Ave (4 peaks):					222.6	Total Col2Ave (4 peaks):				224.2 RPD = 1
Corrected Ave (4 peaks):					222.6	Corrected Ave (4 peaks):				224.2 RPD = 1
Aroclor-1260	1	8.808	0.005	2184824	284.0	1	9.122	0.001	1275913	290.9
Aroclor-1260	2	9.076	0.004	1874190	274.1	2	9.190	0.001	760908	282.7
Aroclor-1260	3	9.373	0.005	4416015	255.6	3	9.504	0.001	1491341	283.3
Aroclor-1260	4	9.711	0.003	2036881	243.6	4	9.710	0.000	2877440	241.0
Aroclor-1260	5	9.862	0.004	983171	237.9	5	10.199	0.000	1609428	241.3
Total Col1Ave (5 peaks):					259.0	Total Col2Ave (5 peaks):				267.8 RPD = 3
Corrected Ave (5 peaks):					259.0	Corrected Ave (5 peaks):				267.8 RPD = 3

Total PCB Area Col1 (4.673 - 11.049) = 78373905 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 49659349 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical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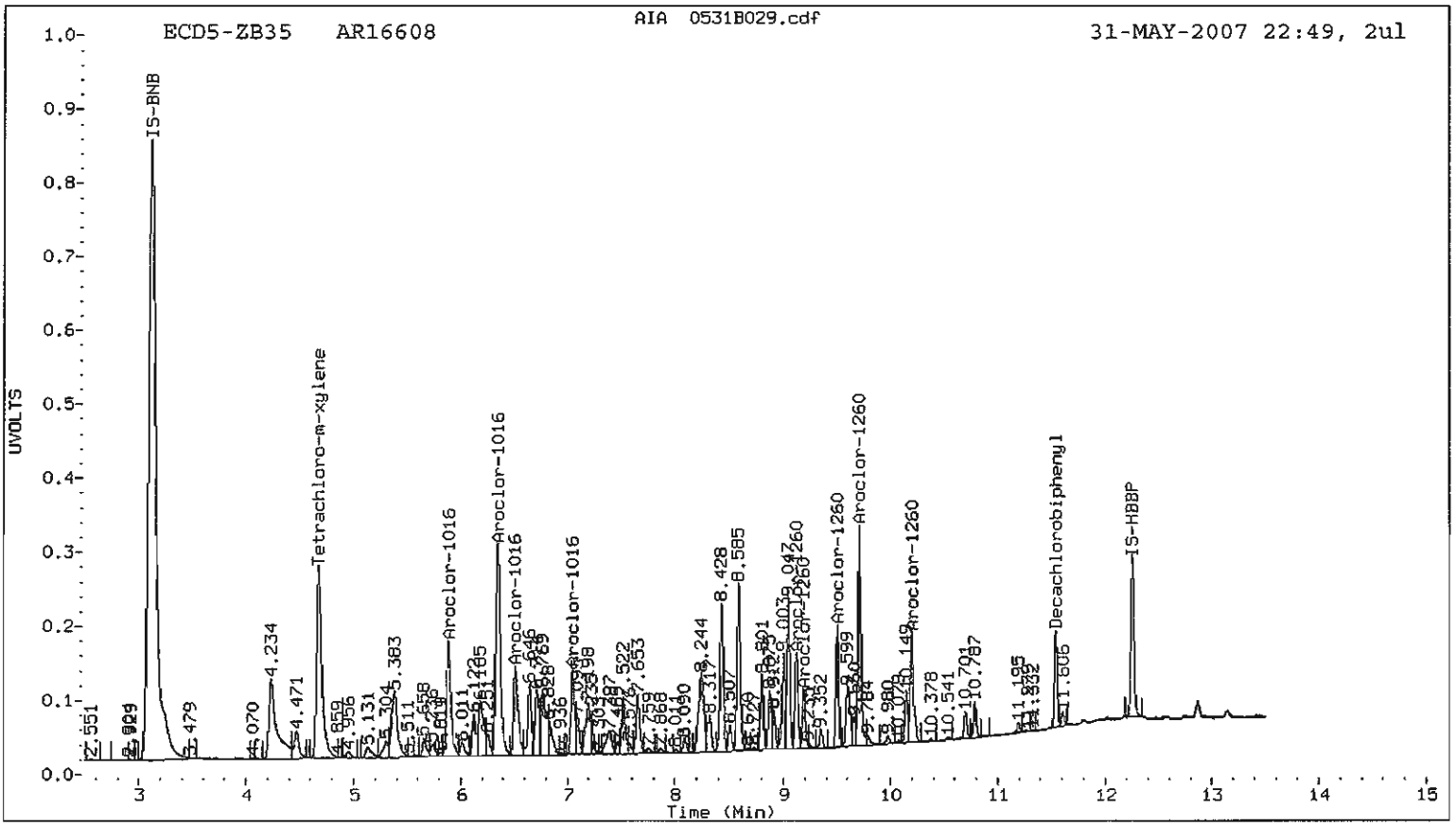
Decachlorobiphenyl
IS-HBBP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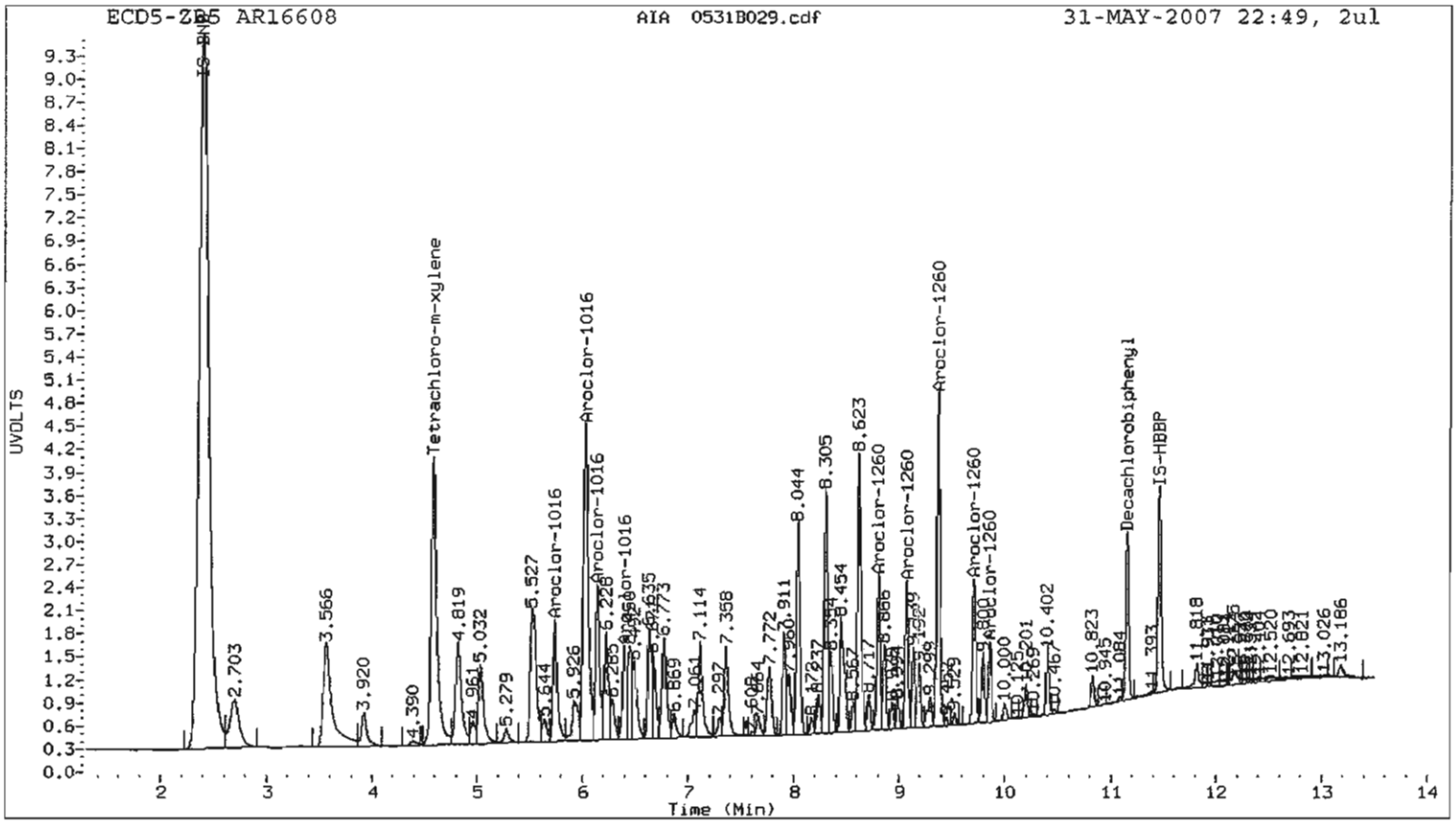
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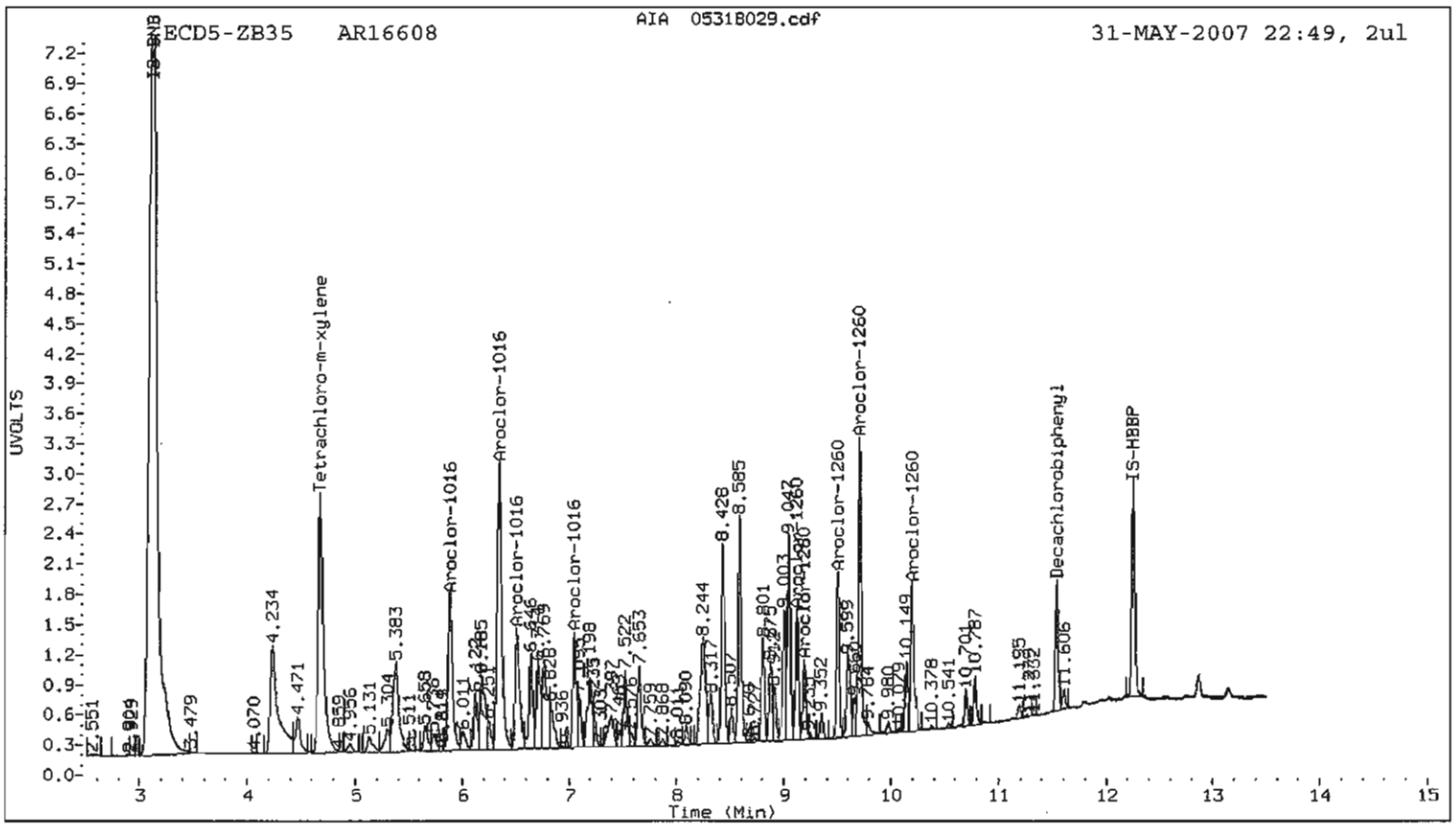
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

PCB Analysis
QC Raw Data

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MB-052307
METHOD BLANK

Lab Sample ID: MB-052307
LIMS ID: 07-9561
Matrix: Water
Data Release Authorized:
Reported: 06/04/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: NA
Date Received: NA

Date Extracted: 05/23/07
Date Analyzed: 05/29/07 14:58
Instrument/Analyst: ECD5/LJR
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	57.2%
Tetrachlorometaxylene	78.2%

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0529-1.b/0529B013.d
Data file 2: 20070529.b/0529-2.b/0529B013.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: KZ56MBW1
Client ID:
Injection Date: 29-MAY-2007 14:58
Report Date: 06/04/2007 14:22
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.574	0.001	17166004	4.670	-0.001	10585039	31.0	31.3	0.7	Tetrachloro-m-xylene
11.150	0.001	6972683	11.543	0.001	3870427	22.9	22.5	2.1	Decachlorobiphenyl

LJK 6/4/07

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	77.6	78.2
Decachlorobiphenyl	57.4	56.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	46662298	44.7
Hexabromobiphenyl	5108210	7610453	49.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	29883506	47.1
Hexabromobiphenyl	3608946	5599420	55.2

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

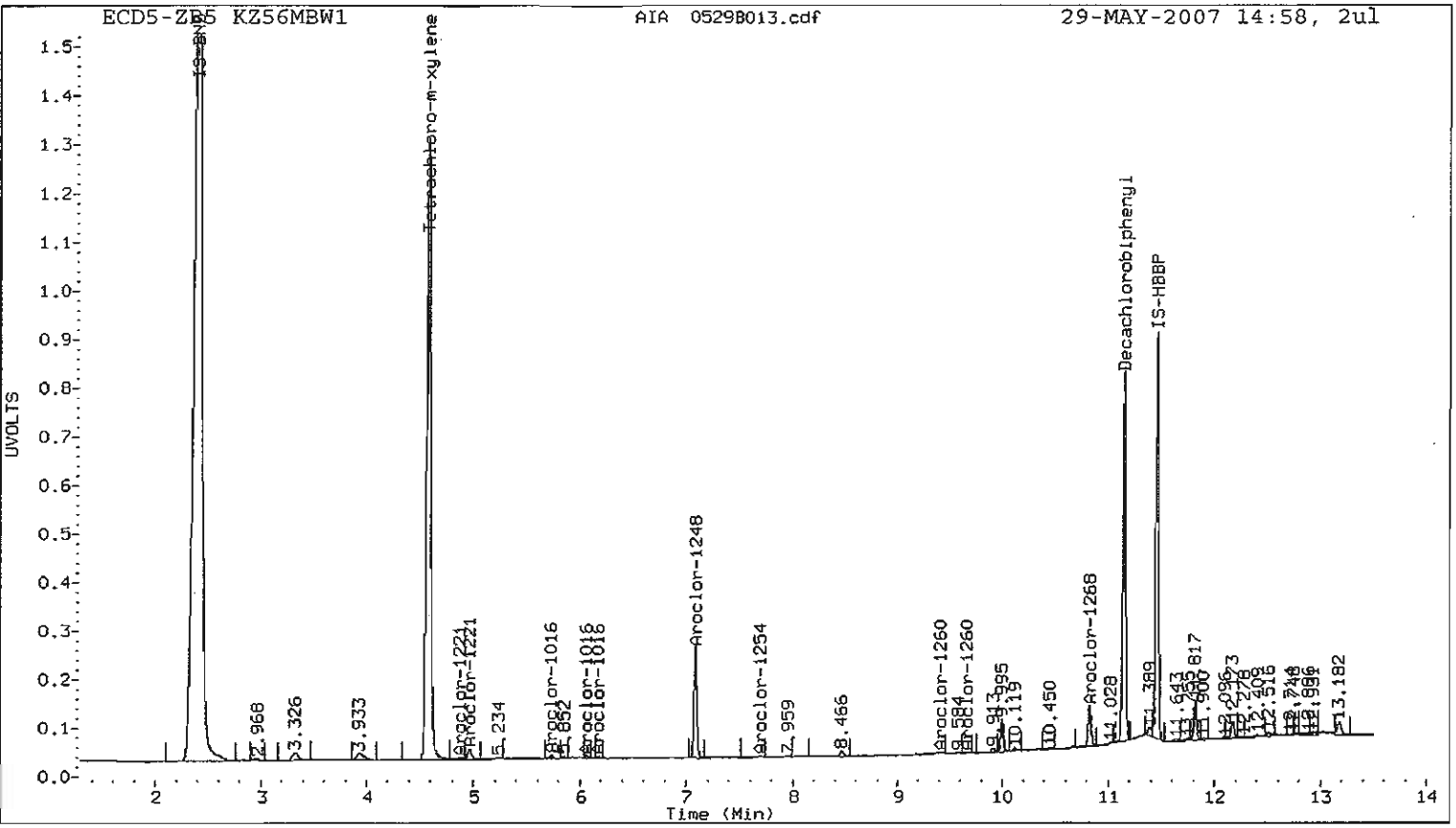
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.732	-0.001	103063	7.1	1	5.877	-0.002	17486	1.2
Aroclor-1016	2	6.059	0.036	55771	1.2	2	6.347	0.002	78277	2.7
Aroclor-1016	3	6.179	0.042	42151	2.3	3	---			0.0
Aroclor-1016	4	---			0.0	4	6.998	-0.045	50372	5.5
	Total Col1Ave (3 peaks):				3.5	Total Col2Ave (3 peaks):			3.2	RPD = 11
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.868	0.042	94814	11.3	1	5.168	0.042	159801	33.0
Aroclor-1221	2	4.962	0.008	286979	56.7	2	5.289	-0.009	12316	4.3
Aroclor-1221	3	---			0.0	3	5.421	0.040	39741	4.4
Aroclor-1221	NS	---			----	4	5.877	-0.015	17486	5.0
	Col1Ave: <3 Quant Peaks					Col2Ave:	11.7			
Aroclor-1232	1	---			0.0	1	5.421	0.041	39741	5.4
Aroclor-1232	2	5.732	-0.002	103063	15.9	2	5.877	-0.006	17486	2.5
Aroclor-1232	3	6.059	0.036	55771	2.7	3	6.347	0.002	78277	6.3
Aroclor-1232	4	6.179	0.042	42151	5.1	4	7.434	0.035	52501	10.9
	Total Col1Ave (3 peaks):				7.9	Total Col2Ave (4 peaks):			6.3	RPD = 23
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			4.7	
Aroclor-1242	1	5.732	-0.003	103063	7.9	1	5.421	0.041	39741	6.2
Aroclor-1242	2	6.059	0.033	55771	1.3	2	5.877	-0.005	17486	1.4
Aroclor-1242	3	6.179	0.041	42151	2.5	3	6.347	0.002	78277	3.1
Aroclor-1242	4	---			0.0	4	---			0.0
Aroclor-1242	NS	---			----	5	7.434	0.035	52501	5.4
	Total Col1Ave (3 peaks):				3.9	Total Col2Ave (4 peaks):			4.0	RPD = 3
	Corrected Ave: < 3 Peaks					Corrected Ave (4 peaks):			4.0	
Aroclor-1248	1	6.059	0.039	55771	1.9	1	6.347	0.004	78277	4.3
Aroclor-1248	2	6.179	0.040	42151	4.4	2	---			0.0
Aroclor-1248	3	---			0.0	3	6.998	-0.046	50372	4.0
Aroclor-1248	4	---			0.0	4	7.434	0.035	52501	3.2
Aroclor-1248	5	7.084	-0.015	2248775	76.6	NS	---			----
	Total Col1Ave (3 peaks):				27.6	Total Col2Ave (3 peaks):			3.8	RPD = 151*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			3.8	
Aroclor-1254	1	---			0.0	1	7.645	-0.003	28172	1.6
Aroclor-1254	2	7.698	0.040	66875	3.2	2	---			0.0
Aroclor-1254	3	---			0.0	3	8.260	0.050	27008	1.1
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	9.417	0.049	279540	5.9	3	---			0.0
Aroclor-1260	4	9.665	-0.043	24980	1.1	4	9.754	0.044	558959	18.6
Aroclor-1260	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	9.417	0.049	279540	3.9	2	---			0.0
Aroclor-1262	3	9.665	-0.043	24980	1.2	3	9.754	0.043	558959	14.0
Aroclor-1262	4	---			0.0	4	10.121	-0.026	24405	1.5
Aroclor-1262	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	10.121	-0.025	24405	0.6
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	10.490	-0.049	13790	0.5
Aroclor-1268	4	10.827	0.012	802389	6.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (4.673 - 11.049) = 5172689 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 1475072 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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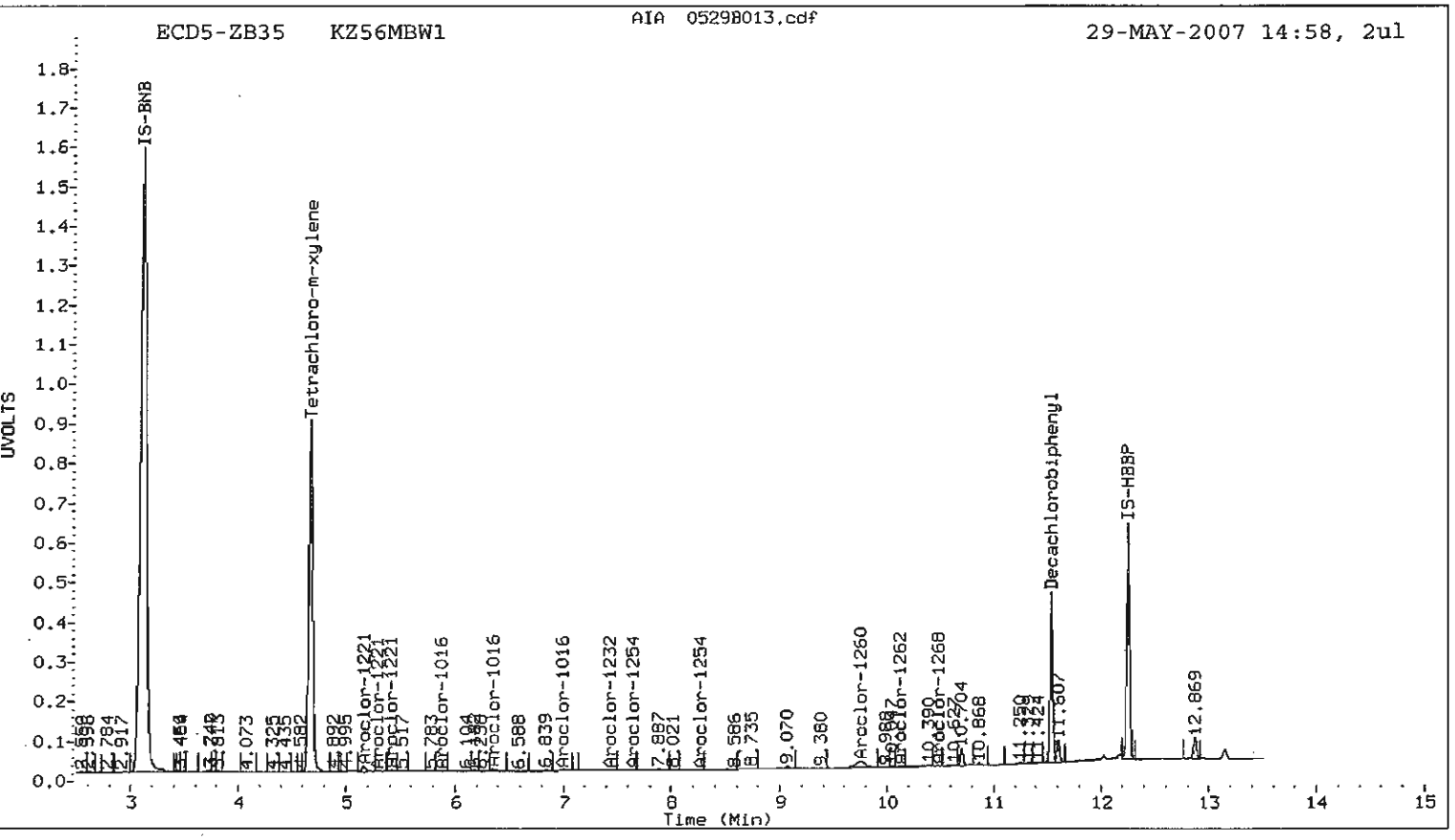
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Time (Min)
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Tetrachloro-m-xylene
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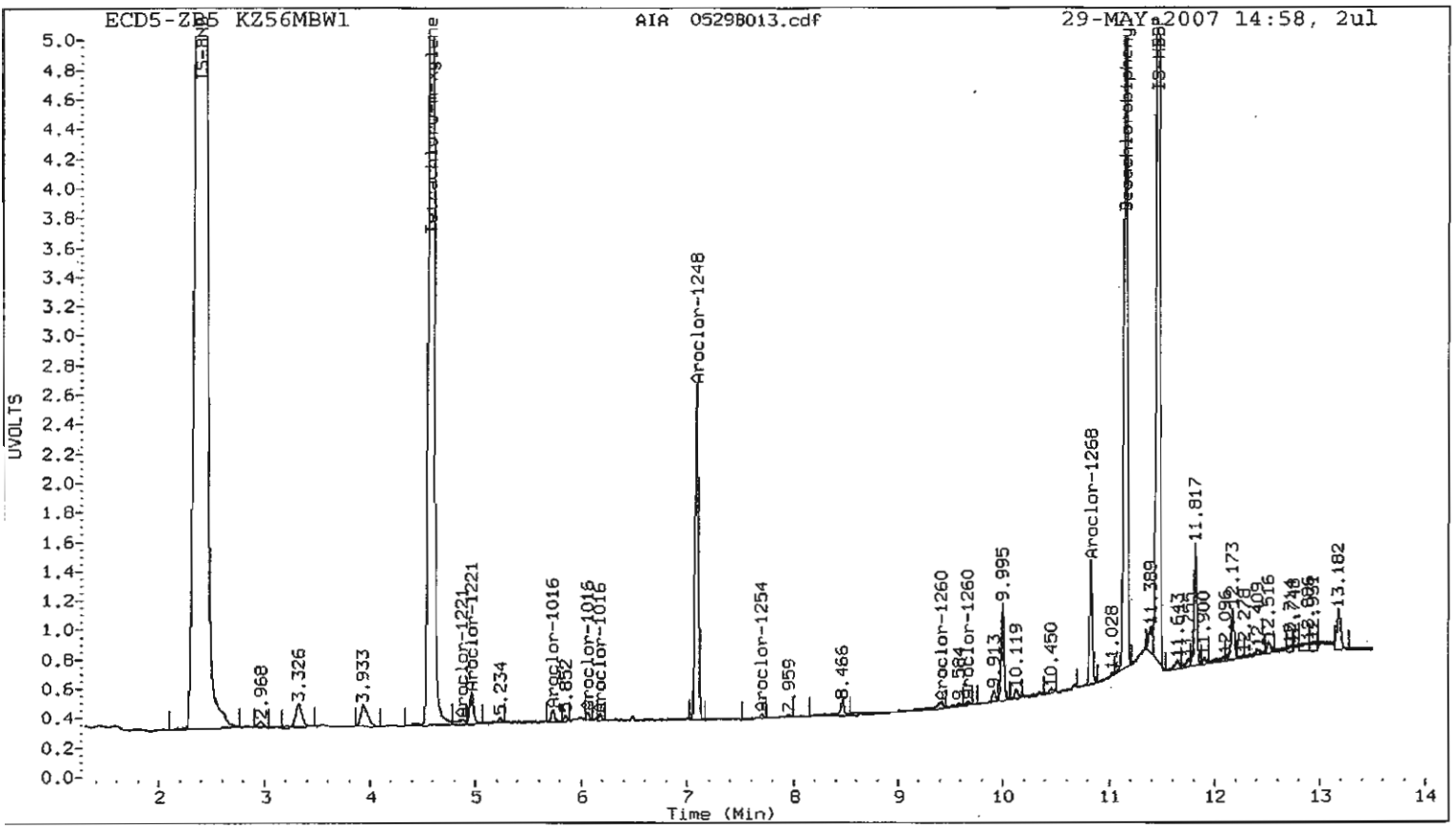
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Aroclor-1248
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Decachlorobiphenyl
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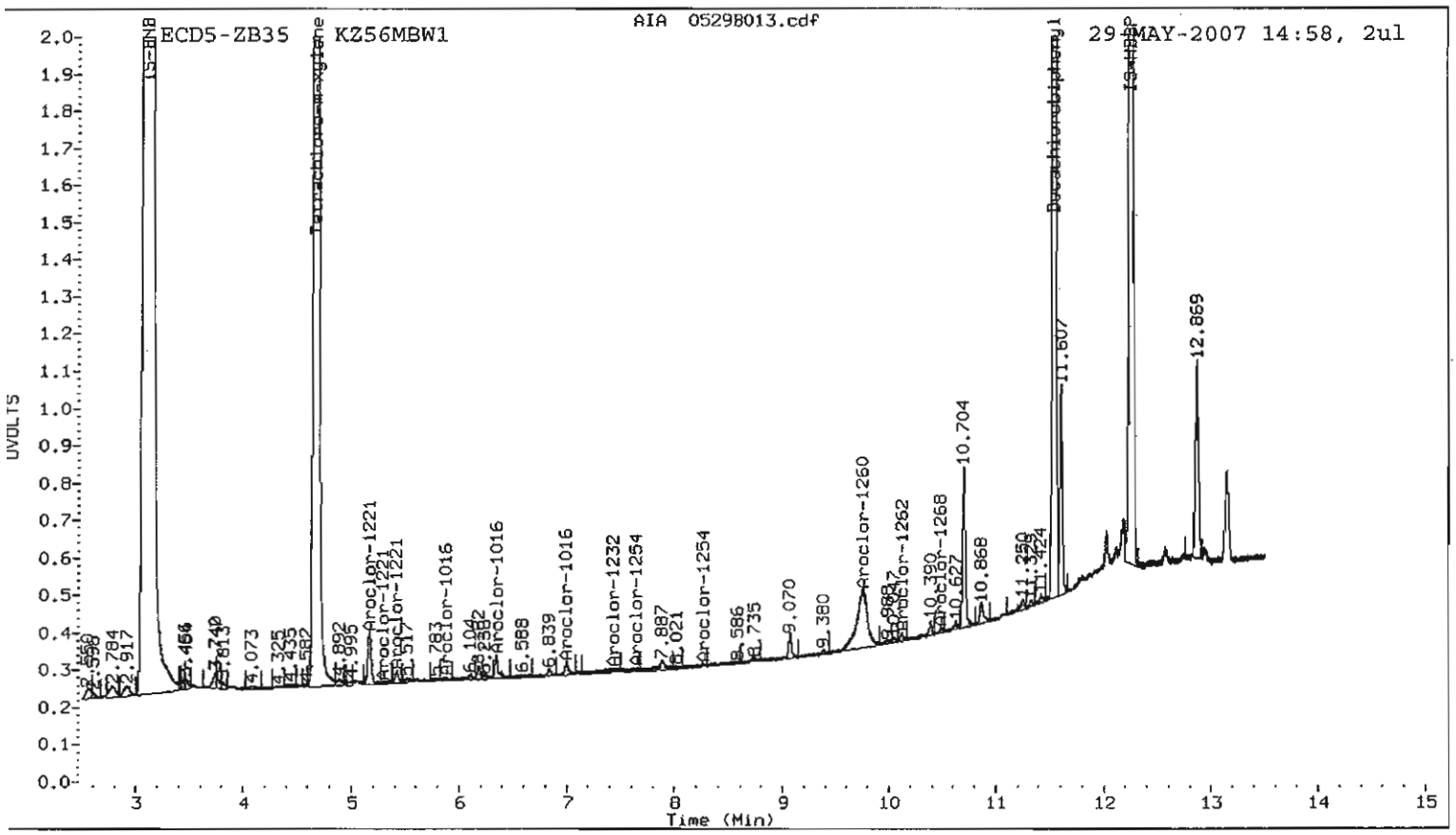
11.817
13.182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Tetrachloro-m-xylene
Decachlorobiphenyl
IS=HBB
Aroclor-1260
10.704
11.607
12.869

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0529-1.b/0529B014.d
Data file 2: 20070529.b/0529-2.b/0529B014.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: KZ56LCSW1
Client ID:
Injection Date: 29-MAY-2007 15:16
Report Date: 06/04/2007 14:22
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.575	0.002	16875796	4.670	-0.001	10411583	32.6	32.8	0.6	Tetrachloro-m-xylene
11.151	0.001	8810686	11.543	0.001	4942498	29.7	29.4	1.0	Decachlorobiphenyl

LJR
6/4/07

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	81.5	82.0
Decachlorobiphenyl	74.3	73.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	43669589	35.4
Hexabromobiphenyl	5108210	7420891	45.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	28021950	37.9
Hexabromobiphenyl	3608946	5455394	51.2

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

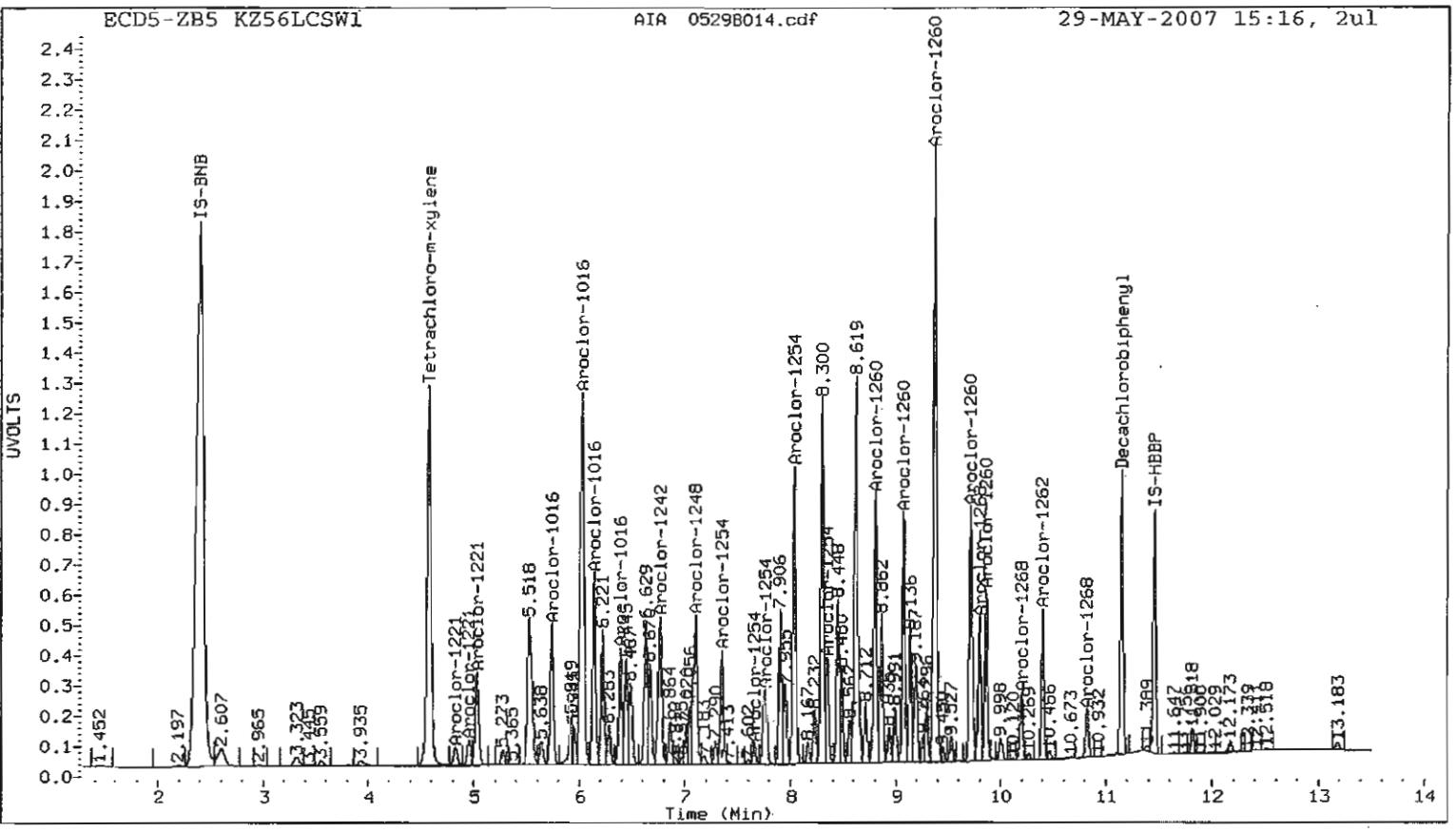
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.735	0.002	5001468	368.7	1	5.881	0.001	4709704	354.4
Aroclor-1016	2	6.025	0.002	16634715	380.3	2	6.345	0.000	9901682	370.8
Aroclor-1016	3	6.138	0.002	6456145	375.7	3	6.507	0.000	3821006	361.0
Aroclor-1016	4	6.392	0.001	3966988	360.2	4	7.045	0.002	3466921	402.9
	Total Col1Ave (4 peaks):				371.2		Total Col2Ave (4 peaks):			372.3 RPD = 0
	Corrected Ave (4 peaks):				371.2		Corrected Ave (4 peaks):			372.3 RPD = 0
Aroclor-1221	1	4.825	-0.001	779685	99.7	1	5.126	0.000	448545	98.7
Aroclor-1221	2	4.954	0.001	1000226	211.0	2	5.299	0.000	479783	178.7
Aroclor-1221	3	5.026	0.000	3619166	240.4	3	5.381	0.000	2254557	268.3
Aroclor-1221	NS	---			----	4	5.881	-0.011	4709704	1438.0
	Total Col1Ave (3 peaks):				183.7		Total Col2Ave (4 peaks):			495.9 RPD = 92*
	Corrected Ave (3 peaks):				183.7		Corrected Ave (3 peaks):			181.9 RPD = 1
Aroclor-1232	1	5.026	0.000	3619166	292.5	1	5.381	0.000	2254557	329.3
Aroclor-1232	2	5.735	0.001	5001468	825.8	2	5.881	-0.002	4709704	727.8
Aroclor-1232	3	6.025	0.001	16634715	852.2	3	6.345	0.001	9901682	843.6
Aroclor-1232	4	6.138	0.001	6456145	840.4	4	7.397	-0.003	1769775	392.8
	Total Col1Ave (4 peaks):				702.7		Total Col2Ave (4 peaks):			573.4 RPD = 20
	Corrected Ave (4 peaks):				702.7		Corrected Ave (4 peaks):			573.4 RPD = 20
Aroclor-1242	1	5.735	0.000	5001468	410.0	1	5.381	0.000	2254557	374.2
Aroclor-1242	2	6.025	-0.001	16634715	421.5	2	5.881	-0.001	4709704	398.1
Aroclor-1242	3	6.138	0.001	6456145	412.6	3	6.345	0.000	9901682	418.4
Aroclor-1242	4	6.768	0.001	5931606	410.8	4	6.507	0.001	3821006	398.4
Aroclor-1242	NS	---			----	5	7.397	-0.003	1769775	195.3
	Total Col1Ave (4 peaks):				413.7		Total Col2Ave (5 peaks):			356.9 RPD = 15
	Corrected Ave (4 peaks):				413.7		Corrected Ave (5 peaks):			356.9 RPD = 15
Aroclor-1248	1	6.025	0.005	16634715	591.7	1	6.345	0.002	9901682	575.0
Aroclor-1248	2	6.138	-0.001	6456145	714.4	2	6.709	0.000	2233411	241.0
Aroclor-1248	3	6.392	0.001	3966988	264.1	3	7.045	0.001	3466921	295.2
Aroclor-1248	4	6.768	0.003	5931606	278.3	4	7.397	-0.002	1769775	115.0
Aroclor-1248	5	7.105	0.005	6616979	240.7	NS	---			----
	Total Col1Ave (5 peaks):				417.9		Total Col2Ave (4 peaks):			306.5 RPD = 31
	Corrected Ave (4 peaks):				343.7		Corrected Ave (3 peaks):			217.1 RPD = 45*
Aroclor-1254	1	7.352	0.000	3663343	120.9	1	7.649	0.000	2049030	126.6
Aroclor-1254	2	7.658	0.001	693459	35.2	2	8.086	0.000	379376	33.7
Aroclor-1254	3	7.762	-0.006	3403353	95.0	3	8.241	0.030	4485873	188.2
Aroclor-1254	4	8.037	-0.014	9671797	255.5	4	8.874	0.014	1875889	135.2
Aroclor-1254	5	8.351	-0.007	3356808	144.0	NS	---			----
	Total Col1Ave (5 peaks):				130.1		Total Col2Ave (4 peaks):			120.9 RPD = 7
	Corrected Ave (4 peaks):				98.8		Corrected Ave (4 peaks):			120.9 RPD = 20
Aroclor-1260	1	8.804	0.001	9053497	439.7	1	9.121	0.000	4587420	427.6
Aroclor-1260	2	9.071	0.000	7662746	418.7	2	9.190	0.001	2541884	386.0
Aroclor-1260	3	9.370	0.001	20076260	434.2	3	9.504	0.001	5217486	405.2
Aroclor-1260	4	9.710	0.002	8703691	389.0	4	9.711	0.001	11482086	393.1
Aroclor-1260	5	9.860	0.001	5297160	479.0	5	10.200	0.002	6814218	417.6
	Total Col1Ave (5 peaks):				432.1		Total Col2Ave (5 peaks):			405.9 RPD = 6
	Corrected Ave (5 peaks):				432.1		Corrected Ave (5 peaks):			405.9 RPD = 6
Aroclor-1262	1	9.071	0.001	7662746	267.8	1	9.121	0.000	4587420	220.6
Aroclor-1262	2	9.370	0.002	20076260	288.6	2	9.504	0.001	5217486	273.4
Aroclor-1262	3	9.710	0.001	8703691	411.5	3	9.711	0.000	11482086	295.0
Aroclor-1262	4	9.860	0.001	5297160	187.5	4	10.150	0.002	3041491	194.0
Aroclor-1262	5	10.400	0.001	4439475	219.6	5	10.787	0.000	2423179	223.7
	Total Col1Ave (5 peaks):				275.0		Total Col2Ave (5 peaks):			241.3 RPD = 13
	Corrected Ave (5 peaks):				275.0		Corrected Ave (5 peaks):			241.3 RPD = 13
Aroclor-1268	1	9.798	0.000	4657520	63.7	1	10.150	0.004	3041491	79.3
Aroclor-1268	2	9.860	0.003	5297160	80.7	2	10.200	-0.004	6814218	194.7
Aroclor-1268	3	10.200	0.020	2184448	38.9	3	10.541	0.001	106337	3.7

Aroclor-1268	4	10.820	0.005	1700896	13.0	4	11.195	0.000	531252	7.1	
Total Col1Ave (4 peaks):		49.1		Total Col2Ave (4 peaks):			71.2		RPD = 37		
Corrected Ave (4 peaks):		49.1		Corrected Ave (3 peaks):			30.1		RPD = 48*		

Total PCB Area Col1 (4.673 - 11.049) = 239660406 Col1 Total PCB = 1.1 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 134508520 Col2 Total PCB = 1.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Time (Min)
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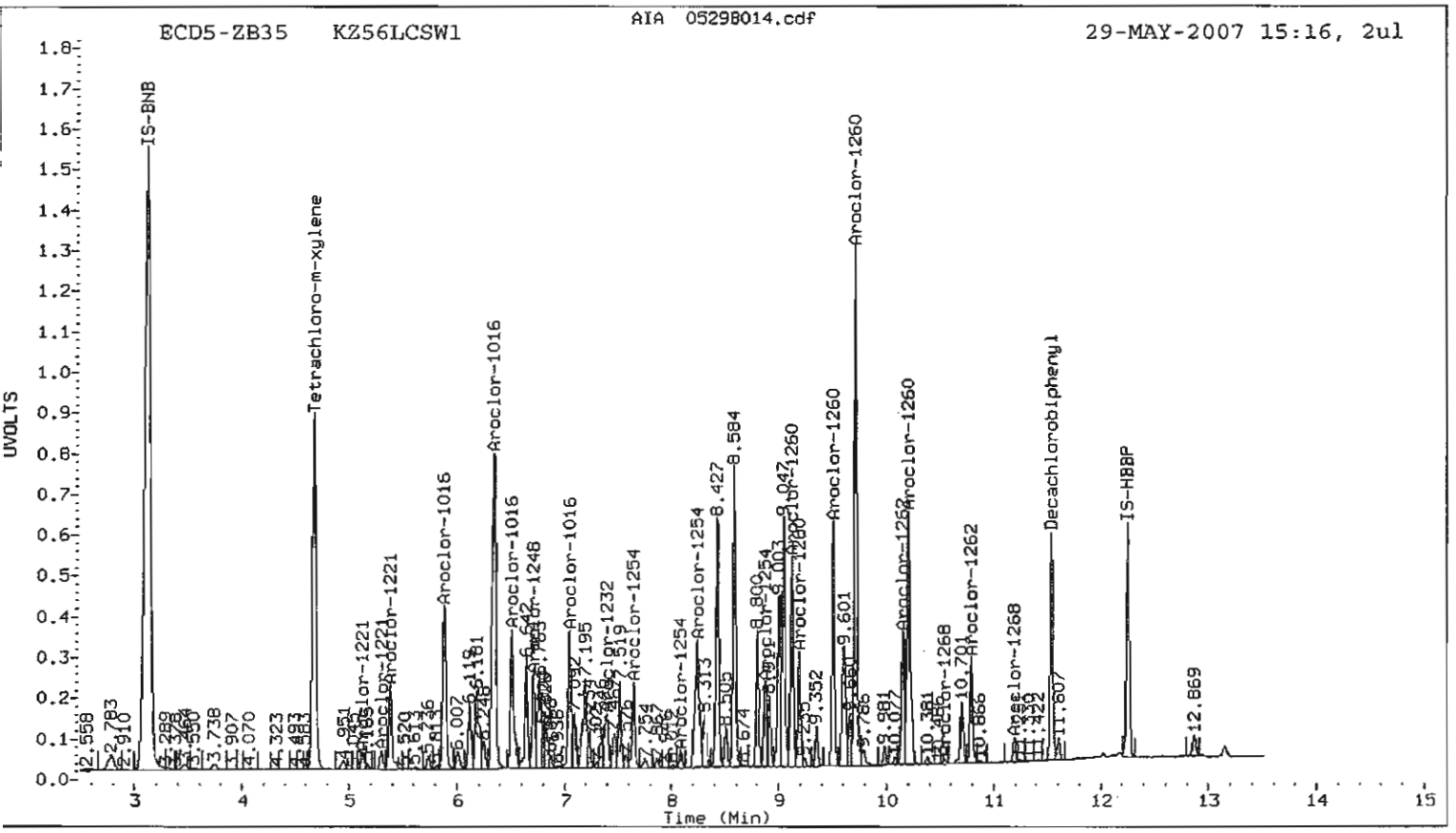
Decachlorobiphenyl
IS-HBBP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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0529-1.b/0529B015.d
Data file 2: 20070529.b/0529-2.b/0529B015.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: KZ56LCSDW1
Client ID:
Injection Date: 29-MAY-2007 15:33
Report Date: 06/04/2007 14:22
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.576	0.003	16391943	4.671	0.000	10055018	34.6	34.5	0.2	Tetrachloro-m-xylene
11.151	0.001	8852126	11.543	0.001	4977872	31.7	32.3	2.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

LJK
6/4/07

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	86.5	86.3
Decachlorobiphenyl	79.2	80.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	39976061	23.9
Hexabromobiphenyl	5108210	6996487	37.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	25699528	26.5
Hexabromobiphenyl	3608946	5004339	38.7

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	5.735	0.002	4878948	392.9	1	5.881	0.002	4623967	379.4
Aroclor-1016	2	6.026	0.003	16174561	403.9	2	6.346	0.001	9726887	397.1
Aroclor-1016	3	6.138	0.002	6338093	402.9	3	6.507	0.001	3765858	387.9
Aroclor-1016	4	6.392	0.001	3908330	387.7	4	7.046	0.003	3382881	428.7
	Total Col1Ave (4 peaks):				396.8	Total Col2Ave (4 peaks):				398.3 RPD = 0
	Corrected Ave (4 peaks):				396.8	Corrected Ave (4 peaks):				398.3 RPD = 0
Aroclor-1221	1	4.827	0.001	778768	108.8	1	5.127	0.002	584903	140.3
Aroclor-1221	2	4.957	0.003	955023	220.1	2	5.300	0.001	473307	192.2
Aroclor-1221	3	5.027	0.001	3589835	260.5	3	5.382	0.001	2232766	289.7
Aroclor-1221	NS	---			----	4	5.881	-0.011	4623967	1539.4
	Total Col1Ave (3 peaks):				196.5	Total Col2Ave (4 peaks):				540.4 RPD = 93*
	Corrected Ave (3 peaks):				196.5	Corrected Ave (3 peaks):				207.4 RPD = 5
Aroclor-1232	1	5.027	0.001	3589835	317.0	1	5.382	0.001	2232766	355.6
Aroclor-1232	2	5.735	0.001	4878948	880.0	2	5.881	-0.002	4623967	779.1
Aroclor-1232	3	6.026	0.002	16174561	905.2	3	6.346	0.001	9726887	903.6
Aroclor-1232	4	6.138	0.001	6338093	901.3	4	7.398	-0.002	1725281	417.5
	Total Col1Ave (4 peaks):				750.9	Total Col2Ave (4 peaks):				613.9 RPD = 20
	Corrected Ave (4 peaks):				750.9	Corrected Ave (4 peaks):				613.9 RPD = 20
Aroclor-1242	1	5.735	0.000	4878948	436.9	1	5.382	0.002	2232766	404.1
Aroclor-1242	2	6.026	0.000	16174561	447.7	2	5.881	0.000	4623967	426.2
Aroclor-1242	3	6.138	0.001	6338093	442.4	3	6.346	0.001	9726887	448.2
Aroclor-1242	4	6.767	0.001	5848115	442.4	4	6.507	0.001	3765858	428.1
Aroclor-1242	NS	---			----	5	7.398	-0.002	1725281	207.6
	Total Col1Ave (4 peaks):				442.4	Total Col2Ave (5 peaks):				382.8 RPD = 14
	Corrected Ave (4 peaks):				442.4	Corrected Ave (5 peaks):				382.8 RPD = 14
Aroclor-1248	1	6.026	0.006	16174561	628.5	1	6.346	0.003	9726887	615.9
Aroclor-1248	2	6.138	-0.001	6338093	766.1	2	6.709	0.001	2173314	255.7
Aroclor-1248	3	6.392	0.001	3908330	284.3	3	7.046	0.002	3382881	314.0
Aroclor-1248	4	6.767	0.003	5848115	299.8	4	7.398	-0.001	1725281	122.3
Aroclor-1248	5	7.102	0.002	9196043	365.4	NS	---			----
	Total Col1Ave (5 peaks):				468.8	Total Col2Ave (4 peaks):				327.0 RPD = 36
	Corrected Ave (5 peaks):				468.8	Corrected Ave (3 peaks):				230.7 RPD = 68*
Aroclor-1254	1	7.352	0.000	3718477	134.0	1	7.650	0.001	2039853	137.4
Aroclor-1254	2	7.659	0.001	683090	37.9	2	8.086	0.001	378454	36.7
Aroclor-1254	3	7.762	-0.007	3400080	103.7	3	8.241	0.030	4484106	205.1
Aroclor-1254	4	8.038	-0.013	9680215	279.4	4	8.874	0.014	1871902	147.1
Aroclor-1254	5	8.350	-0.007	3345562	156.8	NS	---			----
	Total Col1Ave (5 peaks):				142.3	Total Col2Ave (4 peaks):				131.6 RPD = 8
	Corrected Ave (4 peaks):				108.1	Corrected Ave (4 peaks):				131.6 RPD = 20
Aroclor-1260	1	8.804	0.002	9058058	466.6	1	9.122	0.001	4604228	467.9
Aroclor-1260	2	9.072	0.001	7668539	444.4	2	9.190	0.001	2543147	421.0
Aroclor-1260	3	9.370	0.002	20101308	461.1	3	9.504	0.001	5222344	442.1
Aroclor-1260	4	9.710	0.002	8717738	413.3	4	9.711	0.001	11500413	429.2
Aroclor-1260	5	9.860	0.002	5294898	507.9	5	10.200	0.001	6840653	457.0
	Total Col1Ave (5 peaks):				458.7	Total Col2Ave (5 peaks):				443.4 RPD = 3
	Corrected Ave (5 peaks):				458.7	Corrected Ave (5 peaks):				443.4 RPD = 3
Aroclor-1262	1	9.072	0.001	7668539	284.3	1	9.122	0.001	4604228	241.3
Aroclor-1262	2	9.370	0.002	20101308	306.4	2	9.504	0.001	5222344	298.3
Aroclor-1262	3	9.710	0.002	8717738	437.2	3	9.711	0.000	11500413	322.1
Aroclor-1262	4	9.860	0.001	5294898	198.8	4	10.150	0.002	3058689	212.6
Aroclor-1262	5	10.400	0.001	4463193	234.1	5	10.789	0.001	2447062	246.3
	Total Col1Ave (5 peaks):				292.2	Total Col2Ave (5 peaks):				264.1 RPD = 10
	Corrected Ave (5 peaks):				292.2	Corrected Ave (5 peaks):				264.1 RPD = 10
Aroclor-1268	1	9.798	0.001	4656649	67.6	1	10.150	0.004	3058689	86.9
Aroclor-1268	2	9.860	0.003	5294898	85.6	2	10.200	-0.004	6840653	213.0
Aroclor-1268	3	10.199	0.020	2175839	41.1	3	10.542	0.002	106720	4.1

Aroclor-1268	4	10.820	0.005	1665800	13.5	4	11.196	0.001	542091	7.9

Total Col1Ave (4 peaks): 51.9 Total Col2Ave (4 peaks): 78.0 RPD = 40*

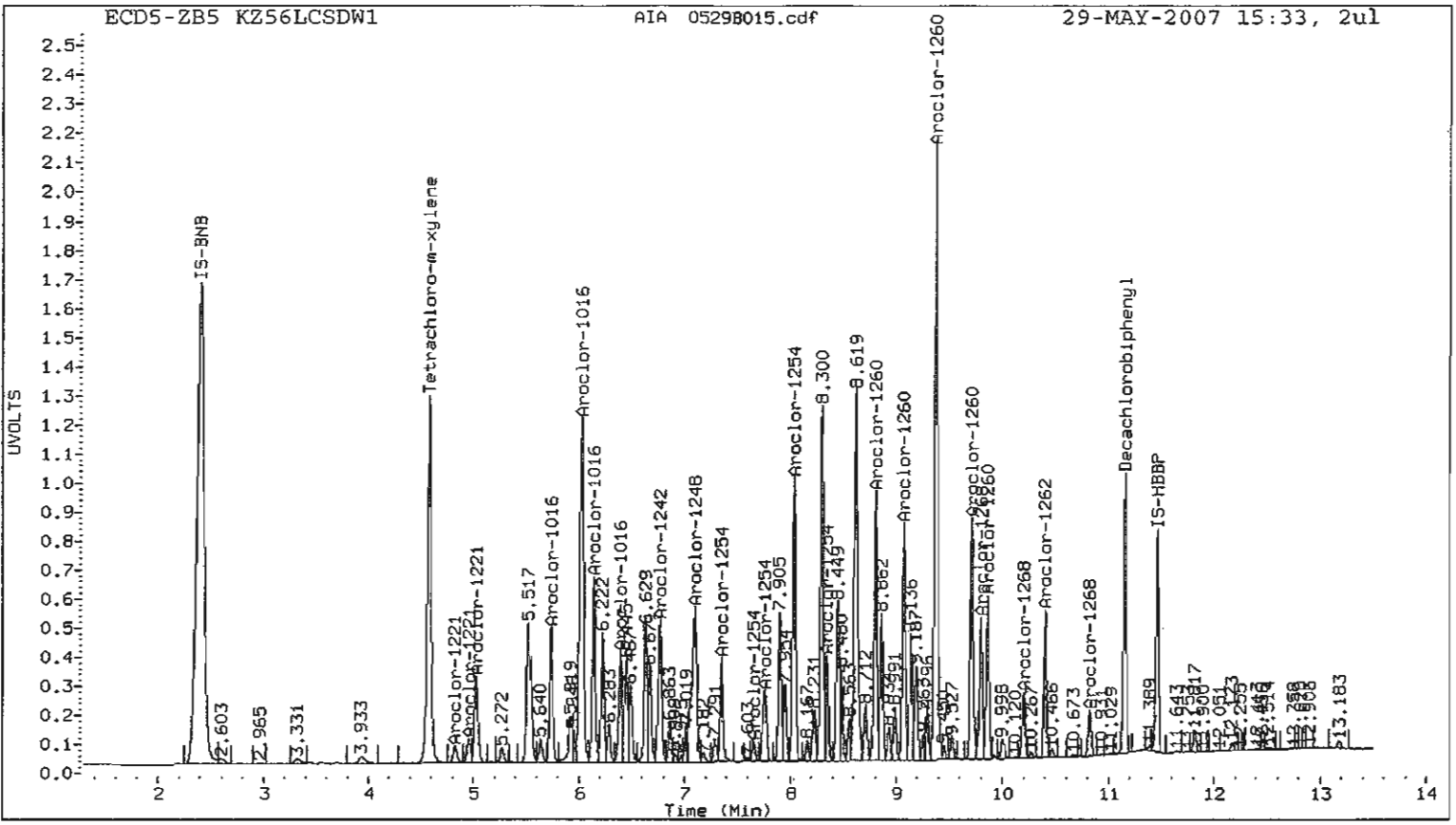
Corrected Ave (4 peaks): 51.9 Corrected Ave (3 peaks): 33.0 RPD = 45*

Total PCB Area Col1 (4.673 - 11.049) = 238674015 Col1 Total PCB = 1.1 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 133679958 Col2 Total PCB = 1.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
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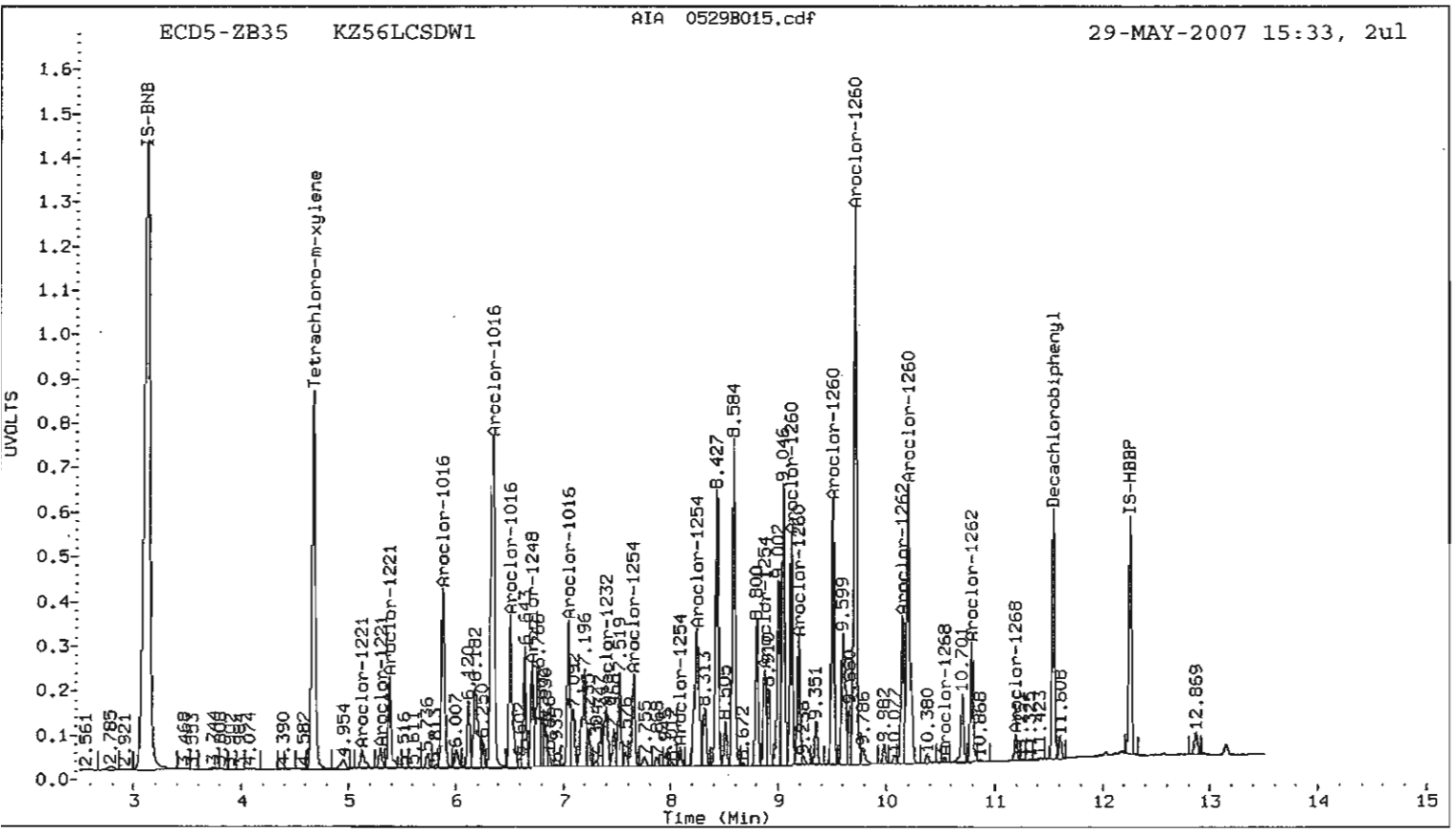
Decachlorobiphenyl
IS-HBBP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Time (Min)
IS-BNB
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Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: MB-052407
METHOD BLANK

Lab Sample ID: MB-052407
LIMS ID: 07-9558
Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: NA
Date Received: NA

Date Extracted: 05/24/07
Date Analyzed: 05/30/07 16:26
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.0 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: No
pH: NA
Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	10	< 10 U
53469-21-9	Aroclor 1242	10	< 10 U
12672-29-6	Aroclor 1248	10	< 10 U
11097-69-1	Aroclor 1254	10	< 10 U
11096-82-5	Aroclor 1260	10	< 10 U
11104-28-2	Aroclor 1221	10	< 10 U
11141-16-5	Aroclor 1232	10	< 10 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	100%
Tetrachlorometaxylene	87.0%

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0530-1.b/0530B011.d
Data file 2: 20070529.b/0530-2.b/0530B011.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: KZ56MBS1
Client ID:
Injection Date: 30-MAY-2007 16:26
Report Date: 06/04/2007 12:25
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.586	0.013	13683269	4.668	-0.003	8555522	34.8	33.5	3.8	Tetrachloro-m-xylene
11.162	0.013	8914719	11.547	0.005	4996273	40.2	38.3	4.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	87.0	83.8
Decachlorobiphenyl	100.6	95.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	33157458	2.8
Hexabromobiphenyl	5108210	5549220	8.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	22532469	10.9
Hexabromobiphenyl	3608946	4235178	17.4

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

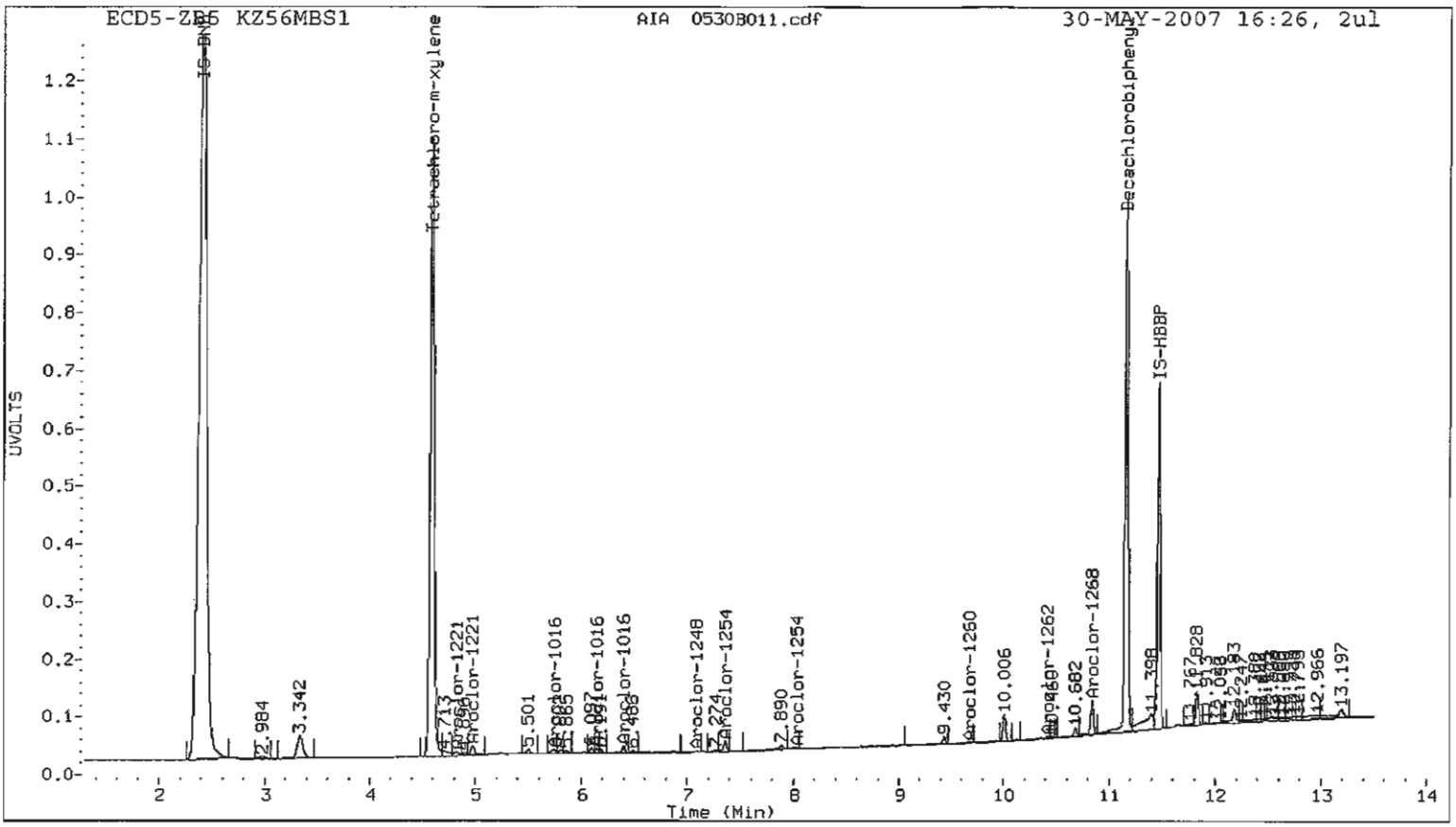
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	5.748	0.015	124598	12.1	1	5.917	0.038	75884	7.1
Aroclor-1016	2	---			0.0	2	6.393	0.048	59693	2.8
Aroclor-1016	3	6.152	0.016	77465	5.9	3	6.495	-0.012	34273	4.0
Aroclor-1016	4	6.403	0.012	154241	18.4	4	---			0.0
Total Col1Ave (3 peaks):		12.2				Total Col2Ave (3 peaks):		4.6	RPD = 90*	
Corrected Ave (3 peaks):		12.2				Corrected Ave (3 peaks):		4.6	RPD = 90*	
Aroclor-1221	1	4.821	-0.005	120807	20.3	1	5.090	-0.035	17794	4.9
Aroclor-1221	2	4.973	0.019	244135	67.8	2	5.272	-0.027	132605	61.4
Aroclor-1221	3	---			0.0	3	5.347	-0.034	27568	4.1
Aroclor-1221	NS	---			----	4	5.917	0.025	75884	28.8
Col1Ave: <3 Quant Peaks						Col2Ave:		24.8		
Aroclor-1232	1	---			0.0	1	5.347	-0.034	27568	5.0
Aroclor-1232	2	5.748	0.014	124598	27.1	2	5.917	0.034	75884	14.6
Aroclor-1232	3	---			0.0	3	6.393	0.048	59693	6.3
Aroclor-1232	4	6.152	0.015	77465	13.3	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave:		8.6		
Aroclor-1242	1	5.748	0.013	124598	13.5	1	5.347	-0.033	27568	5.7
Aroclor-1242	2	---			0.0	2	5.917	0.035	75884	8.0
Aroclor-1242	3	6.152	0.015	77465	6.5	3	6.393	0.048	59693	3.1
Aroclor-1242	4	---			0.0	4	6.495	-0.011	34273	4.4
Aroclor-1242	NS	---			----	5	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave:		5.3		
Aroclor-1248	1	---			0.0	1	6.393	0.050	59693	4.3
Aroclor-1248	2	6.152	0.013	77465	11.3	2	---			0.0
Aroclor-1248	3	6.403	0.012	154241	13.5	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
Aroclor-1248	5	7.093	-0.007	58061	2.8	NS	---			----
Total Col1Ave (3 peaks):		9.2				Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	7.361	0.010	198513	8.6	1	7.663	0.015	13058	1.0
Aroclor-1254	2	---			0.0	2	8.093	0.008	16405	1.8
Aroclor-1254	3	---			0.0	3	8.195	-0.016	59566	3.1
Aroclor-1254	4	8.034	-0.018	55945	1.9	4	---			0.0
Aroclor-1254	5	---			0.0	NS	---			----
Col1Ave: <3 Quant Peaks						Col2Ave:		2.0		
Aroclor-1260	1	---			0.0	1	9.078	-0.043	84297	10.1
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	9.508	0.005	606385	60.7
Aroclor-1260	4	9.680	-0.028	27040	1.6	4	9.714	0.004	16601	0.7
Aroclor-1260	5	---			0.0	5	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave:		23.8		
Aroclor-1262	1	---			0.0	1	9.078	-0.043	84297	5.2
Aroclor-1262	2	---			0.0	2	9.508	0.006	606385	40.9
Aroclor-1262	3	9.680	-0.028	27040	1.7	3	9.714	0.003	16601	0.5
Aroclor-1262	4	---			0.0	4	10.123	-0.025	90135	7.4
Aroclor-1262	5	10.422	0.023	63084	4.2	5	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave:		13.5		
Aroclor-1268	1	---			0.0	1	10.123	-0.023	90135	3.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	10.494	-0.045	30147	1.4
Aroclor-1268	4	10.838	0.024	616505	6.3	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (4.673 - 11.049) = 3295040 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 2665510 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
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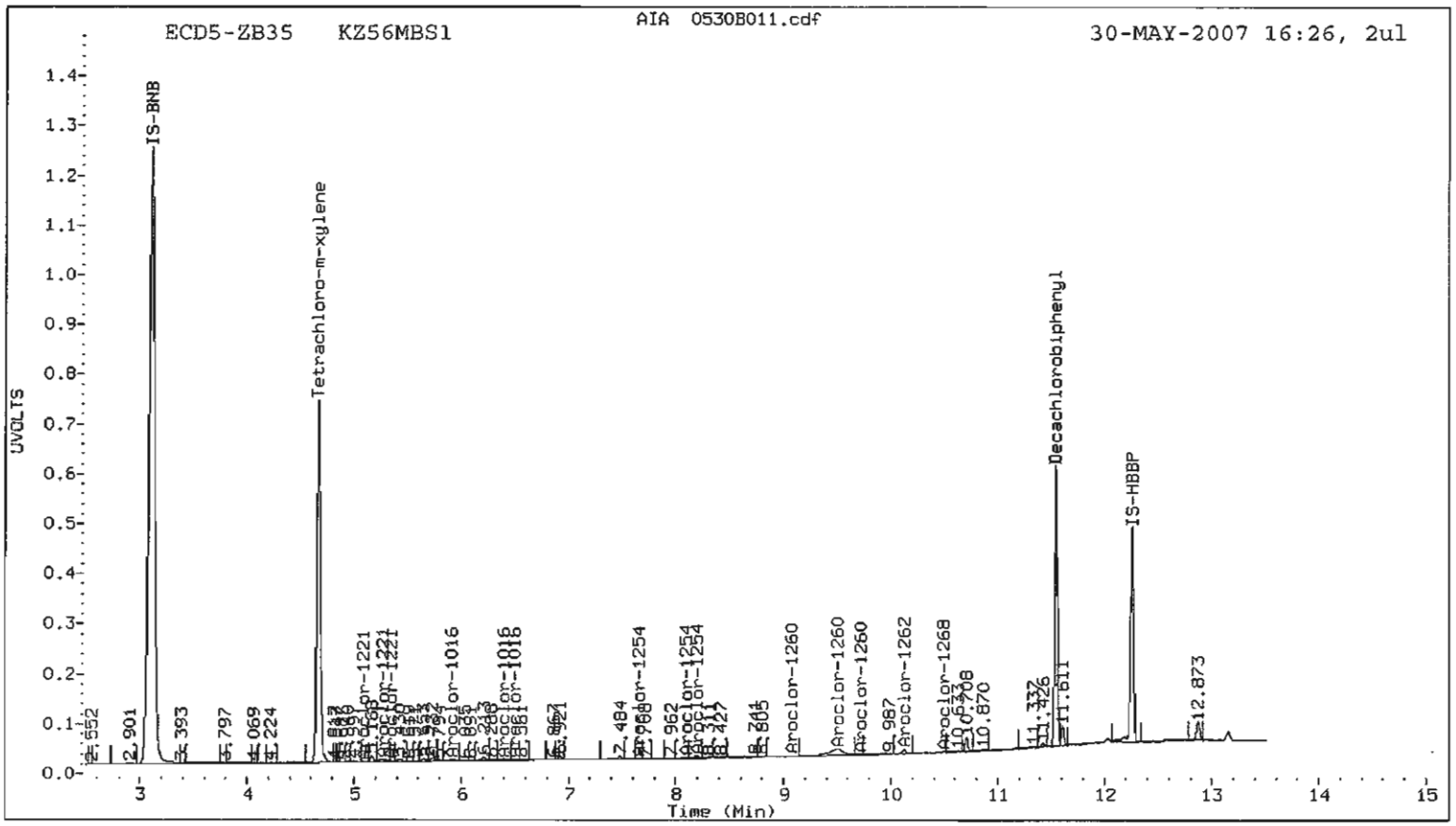
7.713
9.430
10.006
10.682
11.398
12.966
13.197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Decachlorobiphenyl
IS-HBBP
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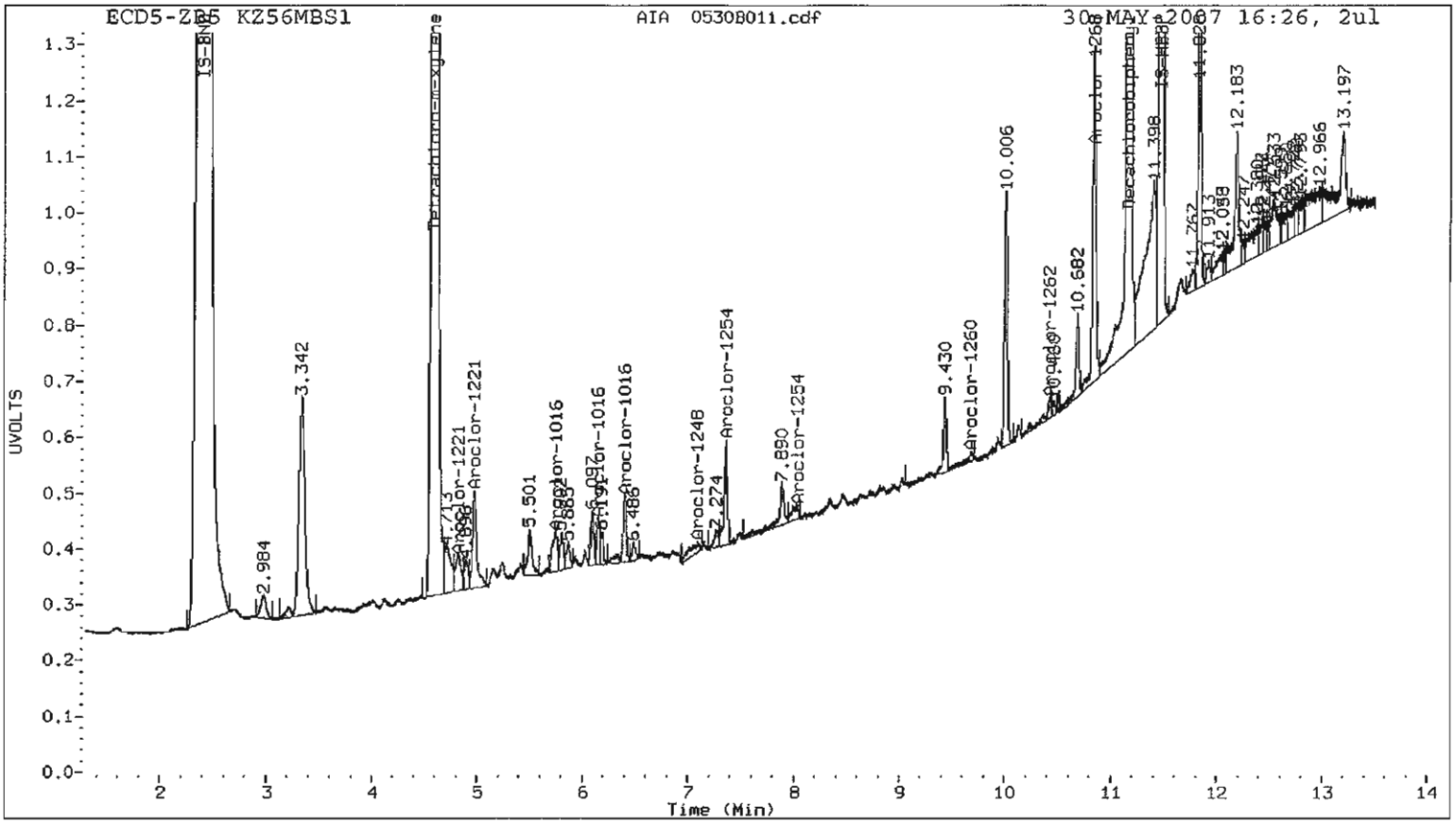
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Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
IS-HBBP
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7.890
9.430
10.006
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12.183
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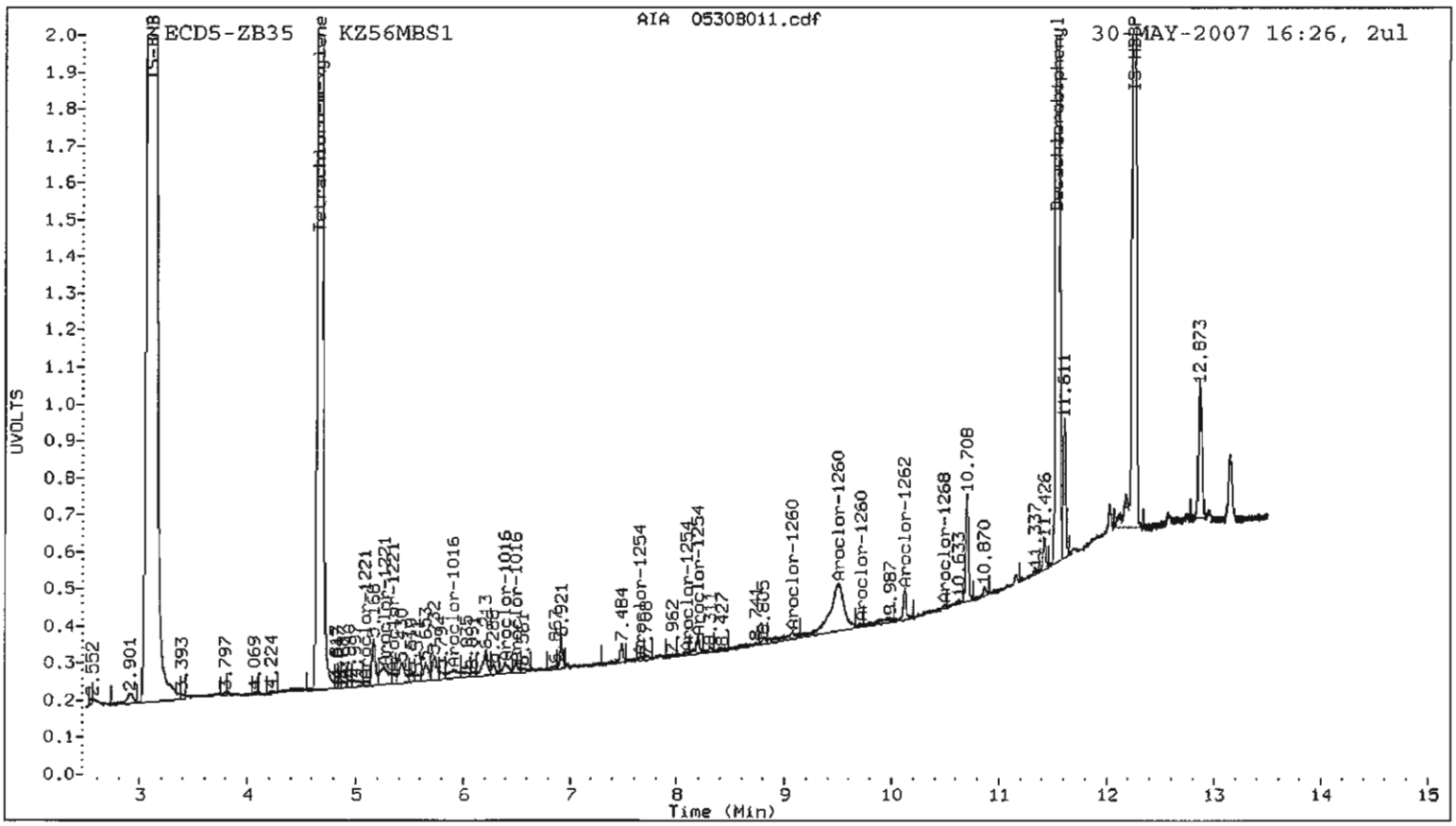
13.197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Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
2.901
3.393
3.797
4.069
4.224
7.484
7.962
8.741
8.805
9.987
10.633
10.708
10.870
11.426
11.611
12.873

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0530-1.b/0530B012.d
Data file 2: 20070529.b/0530-2.b/0530B012.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: KZ56LCSS1
Client ID:
Injection Date: 30-MAY-2007 16:43
Report Date: 06/04/2007 12:25
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.576	0.003	13375260	4.669	-0.002	8276569	35.8	36.1	0.9	Tetrachloro-m-xylene
11.154	0.004	8749632	11.542	0.000	4936952	39.5	40.2	1.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	89.4	90.3
Decachlorobiphenyl	98.7	100.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	31556793	-2.2
Hexabromobiphenyl	5108210	5548395	8.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	20234001	-0.4
Hexabromobiphenyl	3608946	3993173	10.6

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount	
Aroclor-1016	1	5.736	0.003	3826342	390.3	1	5.880	0.001	3705755	386.2	
Aroclor-1016	2	6.026	0.003	12291642	388.8	2	6.344	0.000	7754587	402.1	
Aroclor-1016	3	6.139	0.003	4892119	393.9	3	6.506	-0.001	3020967	395.2	
Aroclor-1016	4	6.394	0.003	3062138	384.8	4	7.044	0.000	2651113	426.7	
	Total Col1Ave (4 peaks):				389.5		Total Col2Ave (4 peaks):			402.5	RPD = 3
	Corrected Ave (4 peaks):				389.5		Corrected Ave (4 peaks):			402.5	RPD = 3
Aroclor-1221	1	4.827	0.001	659276	116.7	1	5.125	-0.001	370647	112.9	
Aroclor-1221	2	4.956	0.002	742248	216.7	2	5.298	0.000	416537	214.9	
Aroclor-1221	3	5.027	0.001	2787446	256.3	3	5.380	-0.001	1820022	299.9	
Aroclor-1221	NS	---			----	4	5.880	-0.012	3705755	1567.0	
	Total Col1Ave (3 peaks):				196.5		Total Col2Ave (4 peaks):			548.7	RPD = 95*
	Corrected Ave (3 peaks):				196.5		Corrected Ave (3 peaks):			209.2	RPD = 6
Aroclor-1232	1	5.027	0.001	2787446	311.8	1	5.380	-0.001	1820022	368.1	
Aroclor-1232	2	5.736	0.002	3826342	874.3	2	5.880	-0.003	3705755	793.1	
Aroclor-1232	3	6.026	0.003	12291642	871.4	3	6.344	0.000	7754587	914.9	
Aroclor-1232	4	6.139	0.002	4892119	881.2	4	7.397	-0.003	1405599	432.1	
	Total Col1Ave (4 peaks):				734.7		Total Col2Ave (4 peaks):			627.0	RPD = 16
	Corrected Ave (4 peaks):				734.7		Corrected Ave (4 peaks):			627.0	RPD = 16
Aroclor-1242	1	5.736	0.001	3826342	434.0	1	5.380	0.000	1820022	418.4	
Aroclor-1242	2	6.026	0.000	12291642	431.0	2	5.880	-0.002	3705755	433.8	
Aroclor-1242	3	6.139	0.001	4892119	432.6	3	6.344	-0.001	7754587	453.8	
Aroclor-1242	4	6.769	0.003	4360989	417.9	4	6.506	0.000	3020967	436.2	
Aroclor-1242	NS	---			----	5	7.397	-0.003	1405599	214.8	
	Total Col1Ave (4 peaks):				428.9		Total Col2Ave (5 peaks):			391.4	RPD = 9
	Corrected Ave (4 peaks):				428.9		Corrected Ave (5 peaks):			391.4	RPD = 9
Aroclor-1248	1	6.026	0.006	12291642	605.1	1	6.344	0.002	7754587	623.6	
Aroclor-1248	2	6.139	0.000	4892119	749.1	2	6.708	0.000	1747572	261.1	
Aroclor-1248	3	6.394	0.003	3062138	282.1	3	7.044	0.000	2651113	312.6	
Aroclor-1248	4	6.769	0.005	4360989	283.2	4	7.397	-0.002	1405599	126.5	
Aroclor-1248	5	7.109	0.009	3410507	171.7	NS	---			----	
	Total Col1Ave (5 peaks):				418.2		Total Col2Ave (4 peaks):			331.0	RPD = 23
	Corrected Ave (4 peaks):				335.5		Corrected Ave (3 peaks):			233.4	RPD = 36
Aroclor-1254	1	7.354	0.002	2857532	130.5	1	7.649	0.000	1655508	141.7	
Aroclor-1254	2	7.660	0.003	505377	35.5	2	8.085	-0.001	304457	37.5	
Aroclor-1254	3	7.765	-0.004	2624117	101.3	3	8.240	0.029	3725446	216.4	
Aroclor-1254	4	8.039	-0.012	7539418	275.7	4	8.873	0.013	1545687	154.3	
Aroclor-1254	5	8.352	-0.005	2637209	156.5	NS	---			----	
	Total Col1Ave (5 peaks):				139.9		Total Col2Ave (4 peaks):			137.5	RPD = 2
	Corrected Ave (4 peaks):				106.0		Corrected Ave (4 peaks):			137.5	RPD = 26
Aroclor-1260	1	8.806	0.003	7310480	474.9	1	9.120	-0.001	3880835	494.2	
Aroclor-1260	2	9.074	0.003	6285479	459.4	2	9.189	0.000	2145994	445.2	
Aroclor-1260	3	9.372	0.003	16517017	477.8	3	9.503	0.000	4392391	466.0	
Aroclor-1260	4	9.711	0.003	7248152	433.3	4	9.710	0.001	9661183	451.9	
Aroclor-1260	5	9.862	0.003	4403686	532.6	5	10.199	0.001	5857442	490.4	
	Total Col1Ave (5 peaks):				475.6		Total Col2Ave (5 peaks):			469.5	RPD = 1
	Corrected Ave (5 peaks):				475.6		Corrected Ave (5 peaks):			469.5	RPD = 1
Aroclor-1262	1	9.074	0.003	6285479	293.8	1	9.120	0.000	3880835	254.9	
Aroclor-1262	2	9.372	0.004	16517017	317.5	2	9.503	0.001	4392391	314.4	
Aroclor-1262	3	9.711	0.003	7248152	458.4	3	9.710	0.000	9661183	339.1	
Aroclor-1262	4	9.862	0.003	4403686	208.5	4	10.148	0.001	2663134	232.0	
Aroclor-1262	5	10.402	0.003	3841012	254.1	5	10.788	0.001	2124573	267.9	
	Total Col1Ave (5 peaks):				306.5		Total Col2Ave (5 peaks):			281.7	RPD = 8
	Corrected Ave (5 peaks):				306.5		Corrected Ave (5 peaks):			281.7	RPD = 8
Aroclor-1268	1	9.801	0.003	3882687	71.1	1	10.148	0.002	2663134	94.9	
Aroclor-1268	2	9.862	0.005	4403686	89.8	2	10.199	-0.005	5857442	228.6	
Aroclor-1268	3	10.201	0.022	1867736	44.5	3	10.539	0.000	97176	4.7	

Aroclor-1268	4	10.822	0.007	1398324	14.2	4	11.195	0.000	475520	8.7

Total Col1Ave (4 peaks): 54.9 Total Col2Ave (4 peaks): 84.2 RPD = 42*

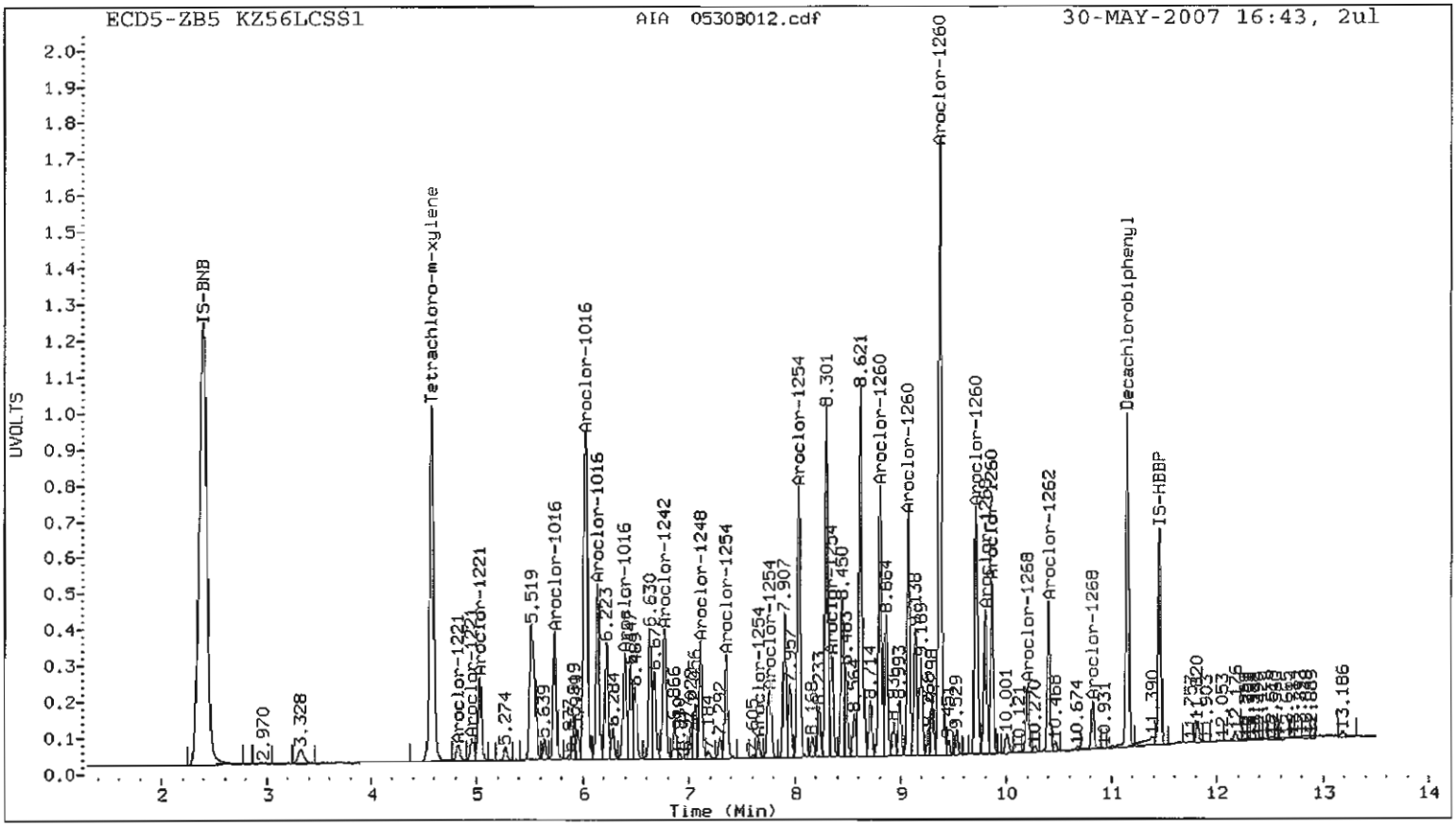
Corrected Ave (4 peaks): 54.9 Corrected Ave (3 peaks): 36.1 RPD = 41*

Total PCB Area Col1 (4.673 - 11.049) = 186261622 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 110140618 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Aroclor-1262
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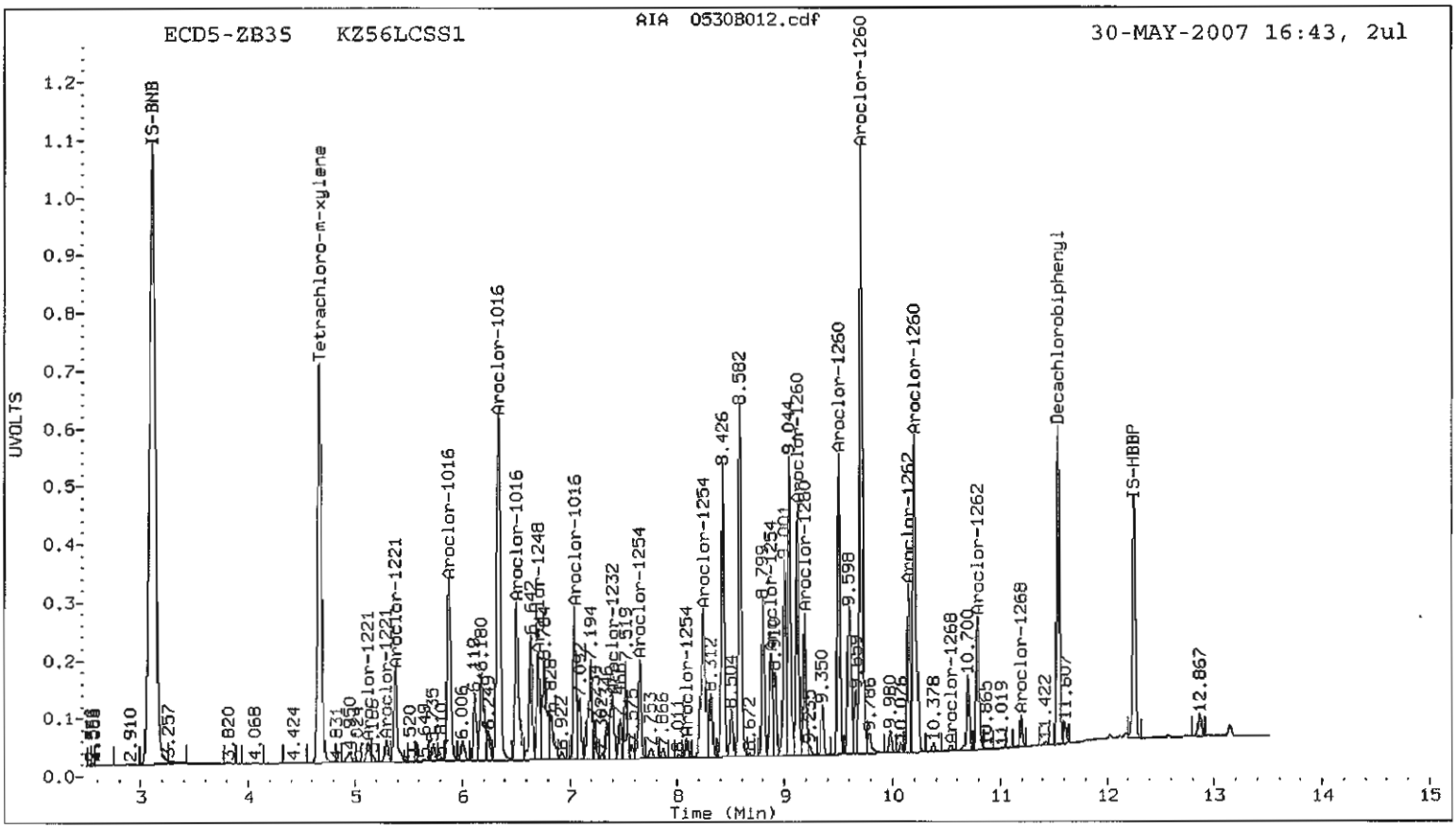
Decachlorobiphenyl
IS-HBBP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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: Y3-RC12-S
MATRIX SPIKE

Lab Sample ID: KZ56L
LIMS ID: 07-9558
Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Date Extracted: 05/24/07
Date Analyzed: 05/30/07 21:01
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.2
Percent Moisture: 35.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	9.7	---
53469-21-9	Aroclor 1242	9.7	< 9.7 U
12672-29-6	Aroclor 1248	24	< 24 Y
11097-69-1	**Aroclor 1254**	**9.7**	**46**
11096-82-5	Aroclor 1260	9.7	---
11104-28-2	Aroclor 1221	9.7	< 9.7 U
11141-16-5	Aroclor 1232	9.7	< 9.7 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	85.5%
Tetrachlorometaxylene	89.2%

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0530-1.b/0530B027.d
Data file 2: 20070529.b/0530-2.b/0530B027.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: KZ56LMS
Client ID: Y3-RC12-S MS
Injection Date: 30-MAY-2007 21:01
Report Date: 06/04/2007 14:17
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.582	0.009	12091563	4.674	0.003	7798458	35.7	34.7	2.7	Tetrachloro-m-xylene
11.157	0.007	4646574	11.542	0.000	3356074	34.2	34.0	0.7	Decachlorobiphenyl MN

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	89.2	86.9
Decachlorobiphenyl	85.5	84.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	28589396	-11.4
Hexabromobiphenyl	5108210	3401833	-33.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	19810074	-2.5
Hexabromobiphenyl	3608946	3211772	-11.0

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	5.738	0.005	3886449	437.6	1	5.879	-0.001	8680749	923.9
Aroclor-1016	2	6.033	0.010	13237206	462.2	2	6.350	0.005	7867781	416.7
Aroclor-1016	3	6.141	0.005	5194066	461.7	3	6.511	0.004	4961769	663.1
Aroclor-1016	4	6.396	0.005	3123007	433.1	4	7.048	0.005	2918792	479.8
	Total Col1Ave (4 peaks):				448.6		Total Col2Ave (4 peaks):			620.9 RPD = 32
	Corrected Ave (4 peaks):				448.6		Corrected Ave (4 peaks):			620.9 RPD = 32
Aroclor-1221	1	4.818	-0.008	1784860	348.7	1	5.130	0.005	298019	92.7
Aroclor-1221	2	4.958	0.004	361301	116.4	2	5.301	0.003	344739	181.6
Aroclor-1221	3	5.034	0.008	1957643	198.7	3	5.361	-0.020	6954281	1170.6
Aroclor-1221	NS	---			----	4	5.879	-0.013	8680749	3749.2
	Total Col1Ave (3 peaks):				221.3		Total Col2Ave (4 peaks):			1298.5 RPD = 142*
	Corrected Ave (3 peaks):				221.3		Corrected Ave (3 peaks):			481.6 RPD = 74*
Aroclor-1232	1	5.034	0.007	1957643	241.7	1	5.361	-0.020	6954281	1436.8
Aroclor-1232	2	5.738	0.004	3886449	980.2	2	5.879	-0.004	8680749	1897.5
Aroclor-1232	3	6.033	0.010	13237206	1035.9	3	6.350	0.005	7867781	948.1
Aroclor-1232	4	6.141	0.004	5194066	1032.8	4	7.402	0.003	2712802	851.7
	Total Col1Ave (4 peaks):				822.6		Total Col2Ave (4 peaks):			1283.5 RPD = 44*
	Corrected Ave (4 peaks):				822.6		Corrected Ave (4 peaks):			1283.5 RPD = 44*
Aroclor-1242	1	5.738	0.003	3886449	486.6	1	5.361	-0.020	6954281	1632.9
Aroclor-1242	2	6.033	0.007	13237206	512.3	2	5.879	-0.003	8680749	1038.0
Aroclor-1242	3	6.141	0.004	5194066	507.0	3	6.350	0.005	7867781	470.3
Aroclor-1242	4	6.772	0.006	3602578	381.1	4	6.511	0.005	4961769	731.8
Aroclor-1242	NS	---			----	5	7.402	0.003	2712802	423.5
	Total Col1Ave (4 peaks):				471.8		Total Col2Ave (5 peaks):			859.3 RPD = 58*
	Corrected Ave (4 peaks):				471.8		Corrected Ave (4 peaks):			665.9 RPD = 34
Aroclor-1248	1	6.033	0.013	13237206	719.3	1	6.350	0.007	7867781	646.3
Aroclor-1248	2	6.141	0.002	5194066	877.9	2	6.713	0.004	2164441	330.3
Aroclor-1248	3	6.396	0.005	3123007	317.6	3	7.048	0.004	2918792	351.5
Aroclor-1248	4	6.772	0.007	3602578	258.2	4	7.402	0.003	2712802	249.4
Aroclor-1248	5	7.113	0.014	6889517	382.8	NS	---			----
	Total Col1Ave (5 peaks):				511.1		Total Col2Ave (4 peaks):			394.4 RPD = 26
	Corrected Ave (4 peaks):				419.5		Corrected Ave (4 peaks):			394.4 RPD = 6
Aroclor-1254	1	7.359	0.007	10268161	517.4	1	7.647	-0.001	6882834	601.6
Aroclor-1254	2	7.667	0.009	8408515	652.1	2	8.091	0.005	2097554	264.0
Aroclor-1254	3	7.776	0.007	10182572	434.1	3	8.216	0.006	9208972	546.5
Aroclor-1254	4	8.050	-0.002	13000263	524.7	4	8.875	0.015	4350641	443.5
Aroclor-1254	5	8.364	0.006	6062022	397.2	NS	---			----
	Total Col1Ave (5 peaks):				505.1		Total Col2Ave (4 peaks):			463.9 RPD = 9
	Corrected Ave (5 peaks):				505.1		Corrected Ave (4 peaks):			463.9 RPD = 9
Aroclor-1260	1	8.811	0.008	7660573	811.6	1	9.124	0.003	4615930	730.9
Aroclor-1260	2	9.079	0.008	6269988	747.4	2	9.193	0.004	2907963	750.1
Aroclor-1260	3	9.378	0.009	16426163	775.0	3	9.506	0.003	6523749	860.5
Aroclor-1260	4	9.712	0.004	6166722	601.3	4	9.714	0.004	11258790	654.7
Aroclor-1260	5	9.866	0.007	4109846	810.7	5	10.202	0.003	6630441	690.1
	Total Col1Ave (5 peaks):				749.2		Total Col2Ave (5 peaks):			737.3 RPD = 2
	Corrected Ave (5 peaks):				749.2		Corrected Ave (5 peaks):			737.3 RPD = 2
Aroclor-1262	1	9.079	0.008	6269988	478.0	1	9.124	0.004	4615930	377.0
Aroclor-1262	2	9.378	0.009	16426163	515.0	2	9.506	0.004	6523749	580.6
Aroclor-1262	3	9.712	0.004	6166722	636.1	3	9.714	0.003	11258790	491.4
Aroclor-1262	4	9.866	0.007	4109846	317.4	4	10.123	-0.025	9002938	975.2
Aroclor-1262	5	10.407	0.009	8419525	908.5	5	10.792	0.005	2576599	404.0
	Total Col1Ave (5 peaks):				571.0		Total Col2Ave (5 peaks):			565.6 RPD = 1
	Corrected Ave (5 peaks):				571.0		Corrected Ave (4 peaks):			463.3 RPD = 21
Aroclor-1268	1	9.805	0.007	3288188	98.1	1	10.123	-0.023	9002938	398.7
Aroclor-1268	2	9.866	0.009	4109846	136.7	2	10.202	-0.002	6630441	321.7
Aroclor-1268	3	10.203	0.024	1836287	71.4	3	10.543	0.004	511054	30.6

Aroclor-1268	4	10.822	0.007	1732571	28.8	4	11.193	-0.002	776891	17.7

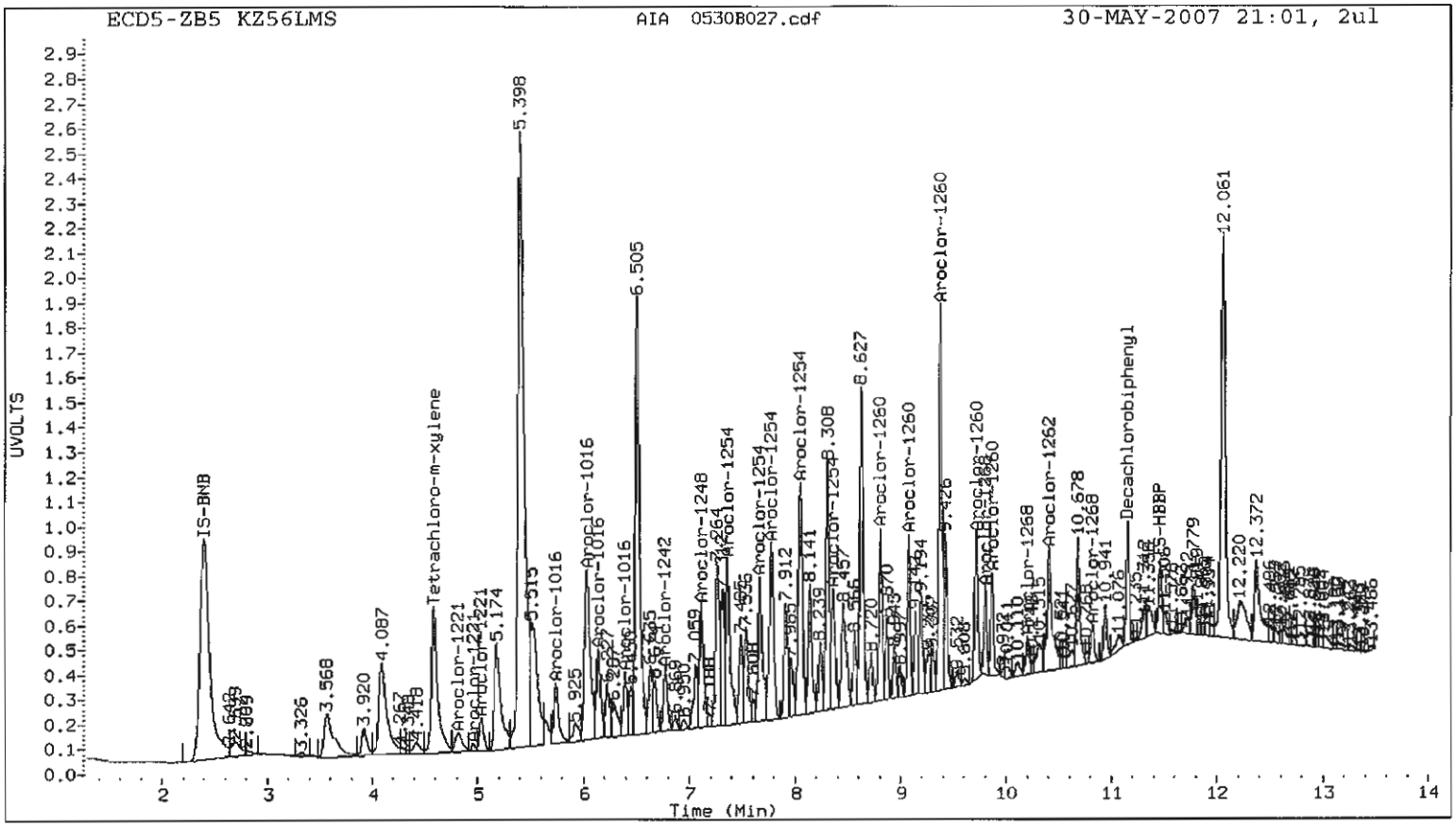
Total Col1Ave (4 peaks): 83.7 Total Col2Ave (4 peaks): 192.2 RPD = 79*

Corrected Ave (4 peaks): 83.7 Corrected Ave (3 peaks): 123.3 RPD = 38

Total PCB Area Col1 (4.673 - 11.049) = 384140975 Col1 Total PCB = 1.8 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 283595039 Col2 Total PCB = 2.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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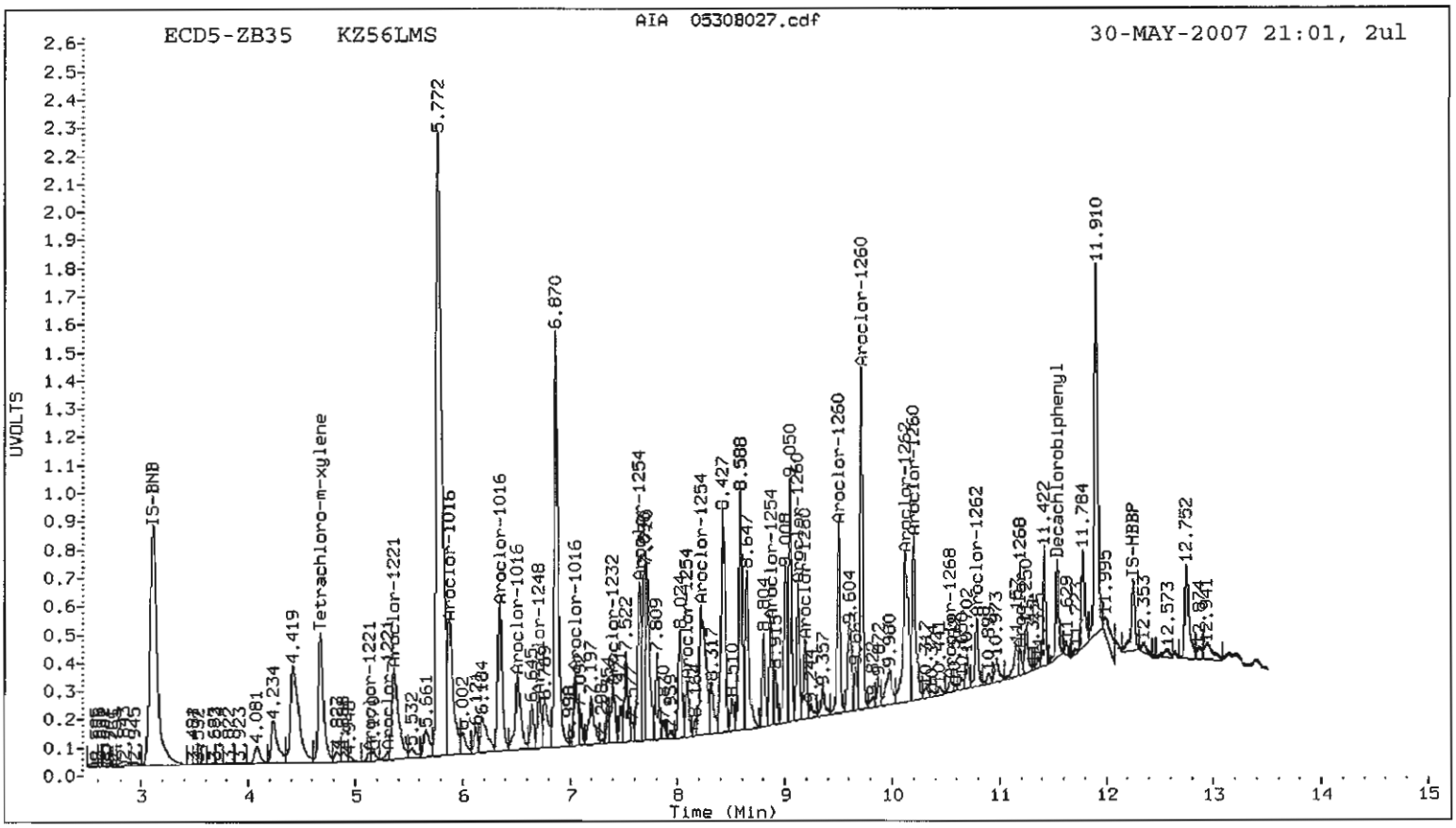
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: Y3-RC12-S
MATRIX SPIKE DUP

Lab Sample ID: KZ56L
LIMS ID: 07-9558
Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Date Extracted: 05/24/07
Date Analyzed: 05/30/07 21:18
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.2
Percent Moisture: 35.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	9.8	---
53469-21-9	Aroclor 1242	9.8	< 9.8 U
12672-29-6	Aroclor 1248	24	< 24 Y
11097-69-1	**Aroclor 1254**	**9.8**	**39**
11096-82-5	Aroclor 1260	9.8	---
11104-28-2	Aroclor 1221	9.8	< 9.8 U
11141-16-5	Aroclor 1232	9.8	< 9.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	106%
Tetrachlorometaxylene	89.2%

Analytical Resources Inc.
Dual Column PCB Quantitation Report

Data file 1: 20070529.b/0530-1.b/0530B028.d
Data file 2: 20070529.b/0530-2.b/0530B028.d
Method: /chem2/ecd5.i/20070529.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: KZ56LMSD
Client ID: Y3-RC12-S MSD
Injection Date: 30-MAY-2007 21:18
Report Date: 06/04/2007 14:17
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.580	0.007	9931550	4.673	0.002	7623261	28.3	35.7	23.3	Tetrachloro-m-xylene
11.157	0.008	4560277	11.542	0.000	3590106	35.7	42.5	17.2	Decachlorobiphenyl M

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	70.6	89.3
Decachlorobiphenyl	89.4	106.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	32252907	29652124	-8.1
Hexabromobiphenyl	5108210	3194454	-37.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	20316673	18834141	-7.3
Hexabromobiphenyl	3608946	2746462	-23.9

* Standard Areas taken from Initial Cal Level 4
Initial Calibration Date: 29-MAY-2007
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	5.738	0.005	3309959	359.3	1	5.881	0.002	6185521	692.5
Aroclor-1016	2	6.031	0.007	11265346	379.3	2	6.348	0.004	6870174	382.7
Aroclor-1016	3	6.140	0.004	4338657	371.8	3	6.509	0.003	3506727	492.9
Aroclor-1016	4	6.393	0.001	4988619	667.1	4	7.048	0.004	2826451	488.7
Total Col1Ave (4 peaks):					444.4	Total Col2Ave (4 peaks):				514.2 RPD = 15
Corrected Ave (4 peaks):					444.4	Corrected Ave (4 peaks):				514.2 RPD = 15
Aroclor-1221	1	4.831	0.005	451180	85.0	1	5.172	0.046	1763692	577.2
Aroclor-1221	2	4.960	0.006	340686	105.8	2	5.301	0.003	163078	90.4
Aroclor-1221	3	5.033	0.007	1764424	172.6	3	5.357	-0.024	6417745	1136.2
Aroclor-1221	NS	---			----	4	5.881	-0.011	6185521	2809.9
Total Col1Ave (3 peaks):					121.2	Total Col2Ave (4 peaks):				1153.4 RPD = 162*
Corrected Ave (3 peaks):					121.2	Corrected Ave (3 peaks):				601.3 RPD = 133*
Aroclor-1232	1	5.033	0.006	1764424	210.0	1	5.357	-0.024	6417745	1394.6
Aroclor-1232	2	5.738	0.004	3309959	804.9	2	5.881	-0.002	6185521	1422.1
Aroclor-1232	3	6.031	0.007	11265346	850.0	3	6.348	0.004	6870174	870.8
Aroclor-1232	4	6.140	0.003	4338657	831.8	4	7.402	0.002	2322932	767.1
Total Col1Ave (4 peaks):					674.2	Total Col2Ave (4 peaks):				1113.7 RPD = 49*
Corrected Ave (4 peaks):					674.2	Corrected Ave (4 peaks):				1113.7 RPD = 49*
Aroclor-1242	1	5.738	0.004	3309959	399.6	1	5.357	-0.024	6417745	1585.0
Aroclor-1242	2	6.031	0.005	11265346	420.4	2	5.881	0.000	6185521	778.0
Aroclor-1242	3	6.140	0.003	4338657	408.3	3	6.348	0.003	6870174	431.9
Aroclor-1242	4	6.773	0.006	3319636	338.6	4	6.509	0.003	3506727	544.0
Aroclor-1242	NS	---			----	5	7.402	0.002	2322932	381.4
Total Col1Ave (4 peaks):					391.7	Total Col2Ave (5 peaks):				744.1 RPD = 62*
Corrected Ave (4 peaks):					391.7	Corrected Ave (4 peaks):				533.8 RPD = 31
Aroclor-1248	1	6.031	0.010	11265346	590.2	1	6.348	0.005	6870174	593.6
Aroclor-1248	2	6.140	0.001	4338657	707.0	2	6.711	0.003	1849061	296.8
Aroclor-1248	3	6.393	0.001	4988619	489.1	3	7.048	0.004	2826451	358.0
Aroclor-1248	4	6.773	0.008	3319636	229.4	4	7.402	0.003	2322932	224.6
Aroclor-1248	5	7.113	0.013	6347453	340.1	NS	---			----
Total Col1Ave (5 peaks):					471.2	Total Col2Ave (4 peaks):				368.3 RPD = 25
Corrected Ave (5 peaks):					471.2	Corrected Ave (4 peaks):				368.3 RPD = 25
Aroclor-1254	1	7.358	0.006	9107531	442.5	1	7.646	-0.002	6086783	559.6
Aroclor-1254	2	7.666	0.008	7327776	547.9	2	8.089	0.004	1791673	237.2
Aroclor-1254	3	7.776	0.007	8392575	344.9	3	8.217	0.006	8051541	502.6
Aroclor-1254	4	8.050	-0.002	11551852	449.5	4	8.875	0.014	3861414	414.0
Aroclor-1254	5	8.362	0.005	5465791	345.3	NS	---			----
Total Col1Ave (5 peaks):					426.0	Total Col2Ave (4 peaks):				428.3 RPD = 1
Corrected Ave (5 peaks):					426.0	Corrected Ave (4 peaks):				428.3 RPD = 1
Aroclor-1260	1	8.810	0.007	7124105	803.8	1	9.125	0.004	4203066	778.3
Aroclor-1260	2	9.077	0.006	5828865	739.9	2	9.192	0.004	2636710	795.4
Aroclor-1260	3	9.377	0.008	14796109	743.4	3	9.505	0.003	6132889	946.0
Aroclor-1260	4	9.715	0.007	5719714	593.9	4	9.714	0.004	10327802	702.3
Aroclor-1260	5	9.866	0.007	4074305	855.9	5	10.201	0.003	5953051	724.6
Total Col1Ave (5 peaks):					747.4	Total Col2Ave (5 peaks):				789.3 RPD = 5
Corrected Ave (5 peaks):					747.4	Corrected Ave (5 peaks):				789.3 RPD = 5
Aroclor-1262	1	9.077	0.007	5828865	473.2	1	9.125	0.004	4203066	401.4
Aroclor-1262	2	9.377	0.008	14796109	494.0	2	9.505	0.003	6132889	638.3
Aroclor-1262	3	9.715	0.007	5719714	628.3	3	9.714	0.003	10327802	527.1
Aroclor-1262	4	9.866	0.007	4074305	335.0	4	10.121	-0.026	8079618	1023.4
Aroclor-1262	5	10.407	0.008	7438346	854.7	5	10.790	0.003	2458720	450.9
Total Col1Ave (5 peaks):					557.0	Total Col2Ave (5 peaks):				608.2 RPD = 9
Corrected Ave (5 peaks):					557.0	Corrected Ave (5 peaks):				608.2 RPD = 9
Aroclor-1268	1	9.803	0.005	3130938	99.5	1	10.121	-0.025	8079618	418.5
Aroclor-1268	2	9.866	0.009	4074305	144.3	2	10.201	-0.003	5953051	337.8
Aroclor-1268	3	10.203	0.023	1733899	71.8	3	10.543	0.004	463231	32.4

Aroclor-1268	4	10.822	0.007	1564556	27.7	4	11.197	0.002	777380	20.7

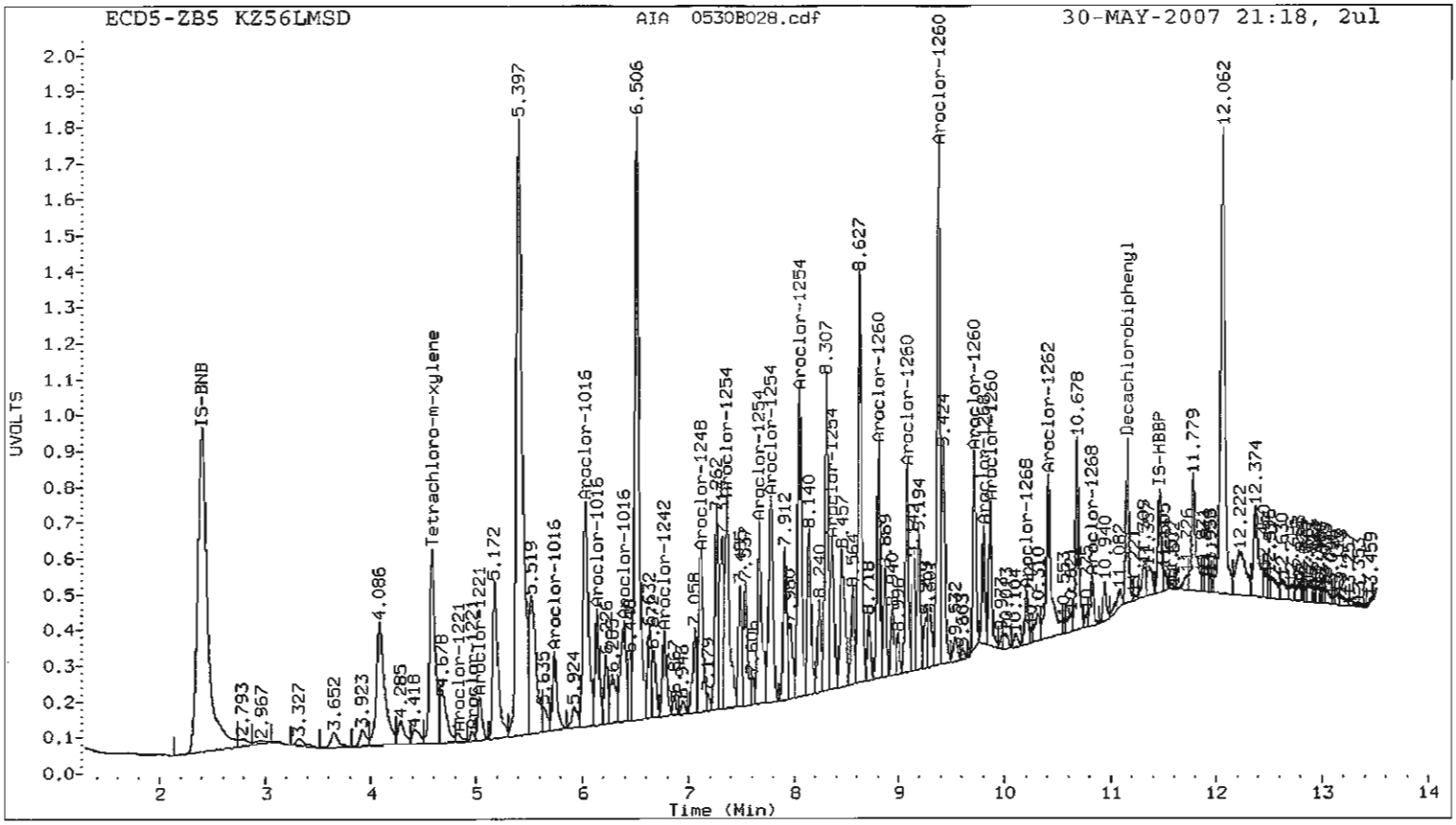
Total Col1Ave (4 peaks): 85.8 Total Col2Ave (4 peaks): 202.3 RPD = 81*

Corrected Ave (4 peaks): 85.8 Corrected Ave (3 peaks): 130.3 RPD = 41*

Total PCB Area Col1 (4.673 - 11.049) = 337001689 Col1 Total PCB = 1.6 ppm*

Total PCB Area Col2 (4.771 - 11.442) = 241802840 Col2 Total PCB = 2.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical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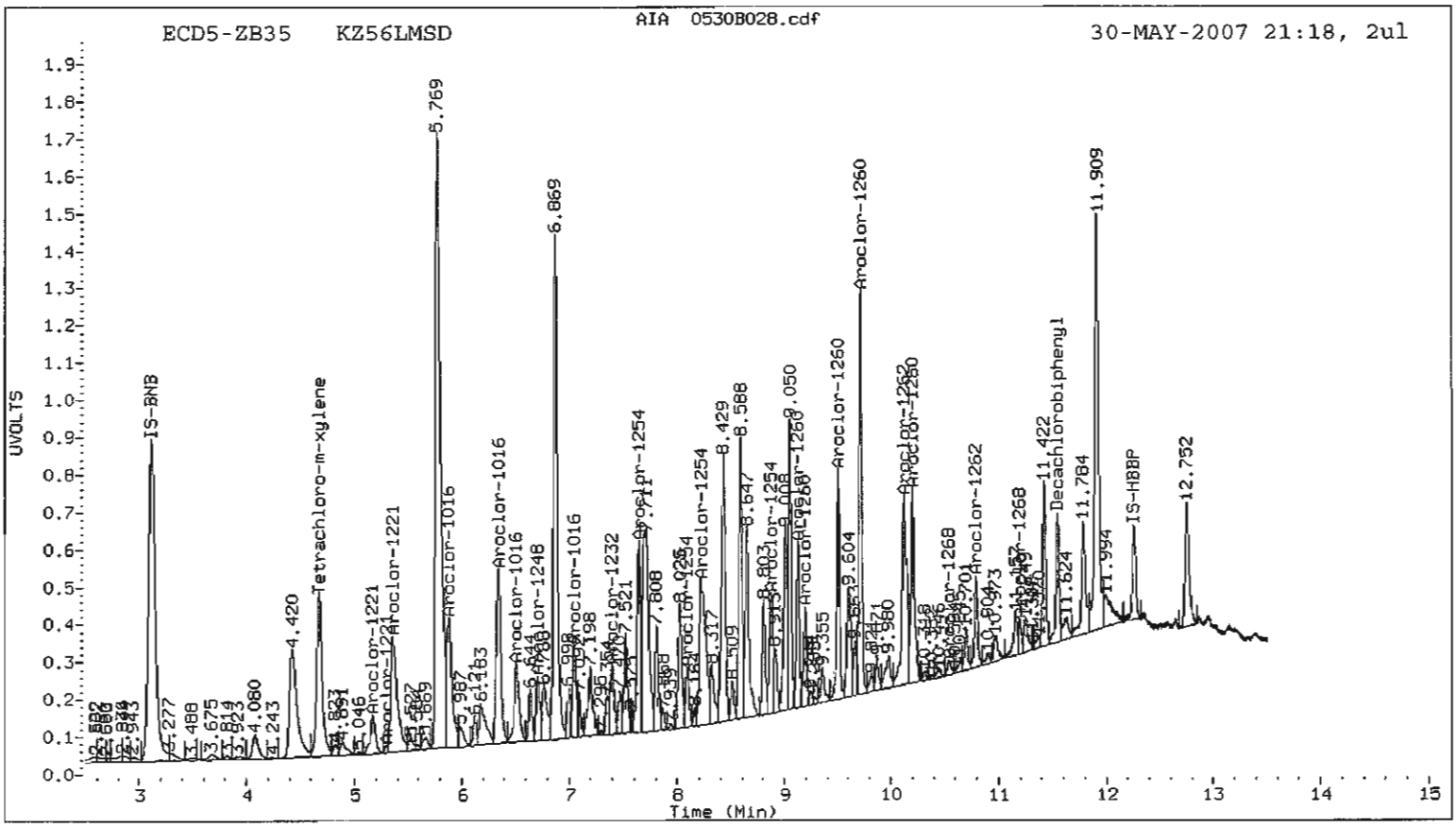
AIA 0530B028.cdf
30-MAY-2007 21:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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AIA 0530B028.cdf
30-MAY-2007 21:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

PCB Analysis
Extraction Bench Sheets/Run Logs

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

Pest / PCB – Water/TCLP

In-House [X] MTCA [ ] Low Level [ ]
QA LIMs # _____ Manchester [ ]
EXT LIMs # _____ Sep Funnel [X]
Bid # FB0518B-01 KD [X]
ARI Job No(s) KZ256, KZ260, LA004 TurboVap [X]

Client Name / Project ID
Tetra Tech (KZ256)
Floyd/Snider (KZ260)

Extraction Requirements	Verify Client ID	Volume Extracted	Silica Gel (Pest)	Acid Clean(part) (PCB) Y (N)	Sulfur Clean(part) Y (N)	Final Effective Volume	Volume to Lab	PH 5-9 (Y) / N	Comments
MB: KZ256MBW	5/23/07	500mL				5mL	1mL		
SB: SBW	↓	↓				↓	↓	↓	
SBWd	↓	↓				↓	↓	↓	
0	checked	↓				↓	↓	↓	
KZ260 T	↓	↓				↓	↓	↓	
LA004 G	↓	↓				↓	↓	↓	
Analyst/Date: WW 5/23/07 →		KD 5/28/07				PL 5/25 →			

9561
9583
9062

Spike	Spike ID	Volume	Conc	Analyst	Witness	Solvent / Reagent	ID
Surrogate	1450-3A	100 µL	2 µg/mL	~~SH~~	WW	(DCM) CH_2Cl_2 ID:	I3755
LCS	1450-2	125 µL	20 µg/mL	~~SH~~	WW	(Hexane) C_6H_{14}:	I3724
LCS(extra)		µL	µg/mL			Na_2SO_4 ID:	5/12 #1
		µL	µg/mL			TBAS ID:	
MS/MSD		µL	µg/mL			Ethyl Acetate ID:	
						(0%) Silica or H_2SO_4:	
Extraction Time: 18:25						Na_2SO_3 ID:	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: KZ56 Client ID: Tetra Tech

Parameter: PCB Client Project: Thea Foss OMMP year 3

SOP Number(s): 31\S **No Anomalies:**

List problems, concerns, corrective actions and any other pertinent information

Analyst Initials:		Date:	

3056F

Revision 006
1/12/07

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

Pest / PCB – Soil / Sediment / Tissue

In-House		PSDDA	X	Low Level	
QA LIMs #				Macrotip	X
EXT LIMs #				Tissuemizer	
Bid #	PB0522B-01			KD	X
ARI Job No(s)	KZ56			TurboVap	X

Client Name / Project ID: Tetra Tech

Extraction Requirements	Verify Client ID	Volume Extracted (g)	Silica Gel (Pest) Y / N	Acid Clean (PCB) Y / N (ReQ)	Sulfur Clean Y / N (ReQ)	Final Effective Volume	Volume to Lab	Comments
MB: KZ56 MBS	5-24-07	25.00		2.5mL	2.5mL	2.5mL	1mL	
SB: SBS	↓	25.00		↓	↓	↓	↓	
A	Verified	47.22						
B		90.90						
C		61.70						
d		47.04						
E		34.22						
F		54.78						
G		44.12						
H		48.38						
I		48.16						
J		[illegible].88						
K		[illegible].72						
L		[illegible]						
Lms		[illegible].70						
Lmsd		[illegible].42						
M		49.38						
N		53.52						
P		42.50						
Analyst/Date:		PC 5/29		SP 5/29/07				

Macro: TAH 5/25 KD WW 5/25/07

Spike	Spike ID	Volume	Conc	Analyst	Witness
Surr.	1450-3A	50 µL	2 µg/mL	PC	WW
LCS	1450-2	63 µL	20 µg/mL	PC	WW
LCS(extra)		µL	µg/mL		
		µL	µg/mL		
MS/MSD		µL	µg/mL		
Extraction Time:		14:20			

Sonication-Solvent/Reag.	ID	KD/Vialing-Solvent/Reag.	ID
8:2 Hexane/Acetone	F723	(Hexane) C_6H_{14}:	I3724
Neutral Glasswool:	9/2#2	Na_2SO_4 ID:	5/15 #5
Na_2SO_4 ID:	5/15#2	TBAS ID:	F688
		Ethyl Acetate ID:	—
4% Silica Gel:		Concent. H_2SO_4:	I3689
0% Silica Gel:		Na_2SO_3 ID:	I3570

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: Kz56 Client ID: Tetra Tech

Parameter: PCB PSDDA Client Project: Thea Foss OMMP Year 3

SOP Number(s): 3545 **No Anomalies:**

List problems, concerns, corrective actions and any other pertinent information
Samples A-P have a strong smell of sulfur AR 5/21/07
GC analyst, sample pre-screens indicate possible aroclor
activity masked by sulfurs. See sample pre-screens. SH 5/22/07

Analyst Initials:		**Date:**	

Analytical Resources Inc.: Organics Instrument Log

ECD5 Serial No.: US00034118

Date: 5/29/07 Analysis: PCB Analyst: [illegible]

GC Program: PCB2 Column No: 105634/105681 Column Type: 2455/2455

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 5/29/07

IS/SS	Ical/Ccal	LCS/ICV
1421-3	1358-4,5	
	1359-1,2,3,4	

	Inject Date/Time	Filename	LabID	ClientId
1	29-MAY-2007 10:02	0529B001.d	IB	
2	29-MAY-2007 11:50	0529B002.d	AR1660 .25	
3	29-MAY-2007 12:07	0529B003.d	AR1660 .02	
4	29-MAY-2007 12:24	0529B004.d	AR1660 1.0	
5	29-MAY-2007 12:41	0529B005.d	AR1660 0.1	
6	29-MAY-2007 12:58	0529B006.d	AR1660 0.5	
7	29-MAY-2007 13:15	0529B007.d	ICV	
8	29-MAY-2007 13:33	0529B008.d	AR1242	
9	29-MAY-2007 13:50	0529B009.d	AR1248	
10	29-MAY-2007 14:07	0529B010.d	AR1254	
11	29-MAY-2007 14:24	0529B011.d	AR1262	
12	29-MAY-2007 14:41	0529B012.d	AR3268	
13	29-MAY-2007 14:58	0529B013.d	KZ56MBW1	
14	29-MAY-2007 15:16	0529B014.d	KZ56LCSW1	
15	29-MAY-2007 15:33	0529B015.d	KZ56LCSDW1	
16	29-MAY-2007 15:50	0529B016.d	KZ56O	
17	29-MAY-2007 16:07	0529B017.d	KZ60T	
18	29-MAY-2007 16:24	0529B018.d	LA04G	
19	29-MAY-2007 16:41	0529B019.d	LA39MBS1	
20	29-MAY-2007 16:59	0529B020.d	LA39LCSS1	
21	29-MAY-2007 17:16	0529B021.d	LA39LCSDS1	
22	29-MAY-2007 17:33	0529B022.d	LA39B	
23	29-MAY-2007 17:50	0529B023.d	LA39C	
24	29-MAY-2007 18:07	0529B024.d	LA39D	
25	29-MAY-2007 18:24	0529B025.d	LA39E	
26	29-MAY-2007 18:42	0529B026.d	LA39F	
27	29-MAY-2007 18:59	0529B027.d	LA39G	
28	29-MAY-2007 19:16	0529B028.d	LA39GMS	
29	29-MAY-2007 19:33	0529B029.d	LA39GMSD	
30	29-MAY-2007 19:50	0529B030.d	RINSE	
31	29-MAY-2007 20:07	0529B031.d	RINSE	
32	29-MAY-2007 20:25	0529B032.d	RINSE	
33	29-MAY-2007 20:42	0529B033.d	AR12422	
34	29-MAY-2007 20:59	0529B034.d	AR16602	
35	29-MAY-2007 21:16	0529B035.d	LA43B	
36	29-MAY-2007 21:33	0529B036.d	LA43D	
37	29-MAY-2007 21:50	0529B037.d	LA43F	
38	29-MAY-2007 22:08	0529B038.d	LA43H	
39	29-MAY-2007 22:25	0529B039.d	LA43J	
40	29-MAY-2007 22:42	0529B040.d	LA43L	
41	29-MAY-2007 22:59	0529B041.d	LA43LMS	
42	29-MAY-2007 23:16	0529B042.d	LA43LMSD	
43	29-MAY-2007 23:33	0529B043.d	LA43MB1	
44	29-MAY-2007 23:51	0529B044.d	LA43LCS1	
45	30-MAY-2007 00:08	0529B045.d	LA43LCSD1	
46	30-MAY-2007 00:25	0529B046.d	LA43A	
47	30-MAY-2007 00:42	0529B047.d	LA43C	
48	30-MAY-2007 00:59	0529B048.d	LA43E	
49	30-MAY-2007 01:16	0529B049.d	LA43G	
50	30-MAY-2007 01:34	0529B050.d	LA43I	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: KZ56 Client ID: Tetra Tech

ARI SOP: **403S**(PCB) **405S**(Herbicides) **407S**(TPH-D) **409S**(HCID) **423S**(Pesticides) **Other**

Parameter(s): PCBs

Instrument: FID: _____ ECD: 5

Dates: Curve: 5/29/07 Analysis Start: 5/29/07

Endrin/DDT Breakdown <15%?	YES / NO / ~~NA~~	LCS/LCSD Recovery in Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	MS/MSD Recovery in Control?	~~YES / NO~~
CCal Meets RF & %RSD Criteria	YES / NO	Surrogate Recovery in Control?	YES / NO
Internal Standard Meets Criteria?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Method Blank in Control?	YES / NO		

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary): – Sample analysis by PK. I did the data reduction + entry.

LJT 6/4/07

Additional Details on Reverse: Yes / No

Analyst Signature: _____ **Date:** 6/4/07

Reviewer's Signature: _____ **Date:** 6/4/07

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: _____ Client ID: _____

ARI SOP: **403S**(PCB) **405S**(Herbicides) **407S**(TPH-D) **409S**(HCID) **423S**(Pesticides) **Other**

Parameter(s): ECDs PCBs Curve 5/29/07

Instrument: FID: _____ ECD: _____

Dates: Curve: _____ Analysis Start: _____

Endrin/DDT Breakdown <15%?	YES / NO / NA	LCS/LCSD Recovery in Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	MS/MSD Recovery in Control?	YES / NO
CCal Meets RF & %RSD Criteria	YES / NO	Surrogate Recovery in Control?	YES / NO
Internal Standard Meets Criteria?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Method Blank in Control?	YES / NO		

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

All 1016/1260 Quant peaks < 20% RSD.

Additional Details on Reverse: Yes / No

Analyst Signature: _____ **Date:** _____

Reviewer's Signature: _____ **Date:** 6/5/07

Analytical Resources Inc.: Organics Instrument Log

ECD5 Serial No.: US00034118

Date: 5/30/07 Analysis: PCB Analyst: [illegible]

GC Program: PCB2 Column No: 105634/105681 Column Type: 3B5/3B3

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 5/29/07

IS/SS	Ical/Ccal	LCS/ICV
	1358-4,5	
1421-3	1359-1,2,3,4	

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd5.i/20070529.b/0530-1.b
/chem2/ecd5.i/20070529.b/0530-2.b

	Inject Date/Time	Filename	LabID	ClientId
1	30-MAY-2007 09:39	0530B001.d	AR12542	
2	30-MAY-2007 09:56	0530B002.d	AR16604	
3	30-MAY-2007 10:14	0530B003.d	LB07MBW1	LB07MBW1
4	30-MAY-2007 10:31	0530B004.d	LB07LCSW1	LB07LCSW1
5	30-MAY-2007 10:48	0530B005.d	LB07A	4500B-072905
6	30-MAY-2007 11:05	0530B006.d	LB07B	255487-072905
7	30-MAY-2007 11:22	0530B007.d	LB07C	254252-072905
8	30-MAY-2007 11:55	0530B008.d	RINSE	
9	30-MAY-2007 12:12	0530B009.d	AR12423	
10	30-MAY-2007 12:29	0530B010.d	AR16605	
11	30-MAY-2007 16:26	0530B011.d	KZ56MBS1	
12	30-MAY-2007 16:43	0530B012.d	KZ56LCSS1	
13	30-MAY-2007 17:00	0530B013.d	KZ56A	
14	30-MAY-2007 17:17	0530B014.d	KZ56B	
15	30-MAY-2007 17:35	0530B015.d	KZ56C	
16	30-MAY-2007 17:52	0530B016.d	KZ56D	
17	30-MAY-2007 18:09	0530B017.d	KZ56E	
18	30-MAY-2007 18:26	0530B018.d	KZ56F	
19	30-MAY-2007 18:43	0530B019.d	KZ56G	
20	30-MAY-2007 19:01	0530B020.d	KZ56H	
21	30-MAY-2007 19:18	0530B021.d	KZ56I	
22	30-MAY-2007 19:35	0530B022.d	KZ56J	
23	30-MAY-2007 19:52	0530B023.d	RINSE	
24	30-MAY-2007 20:09	0530B024.d	RINSE	
25	30-MAY-2007 20:26	0530B025.d	KZ56K	
26	30-MAY-2007 20:43	0530B026.d	KZ56L	
27	30-MAY-2007 21:01	0530B027.d	KZ56LMS	
28	30-MAY-2007 21:18	0530B028.d	KZ56LMSD	
29	30-MAY-2007 21:35	0530B029.d	KZ56M	
30	30-MAY-2007 21:52	0530B030.d	KZ56N	
31	30-MAY-2007 22:09	0530B031.d	KZ56P	
32	30-MAY-2007 22:26	0530B032.d	RINSE	
33	30-MAY-2007 22:43	0530B033.d	RINSE	
34	30-MAY-2007 23:01	0530B034.d	RINSE	
35	30-MAY-2007 23:18	0530B035.d	RINSE	
36	30-MAY-2007 23:35	0530B036.d	RINSE	
37	30-MAY-2007 23:52	0530B037.d	AR12483	
38	31-MAY-2007 00:09	0530B038.d	AR16606	

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

[illegible] 5/31/07

Analytical Resources Inc.: Organics Instrument Log

ECD5 Serial No.: US00034118

Date: 5/31/07 Analysis: PCB Analyst: [illegible]

GC Program: PCB2 Column No: 105634/105681 Column Type: ZB35/ZB35

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 5/29/07

IS/SS	Ical/Ccal	LCS/ICV
1421-3	1358-4,5	
	1359-1,2,3,4	

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd5.i/20070529.b/0531-1.b
/chem2/ecd5.i/20070529.b/0531-2.b

	Inject Date/Time	Filename	LabID	ClientId
1	31-MAY-2007 14:49	0531B001.d	AR12424	
2	31-MAY-2007 15:06	0531B002.d	AR16607	
3	31-MAY-2007 15:23	0531B003.d	KZ56MBS1	
4	31-MAY-2007 15:40	0531B004.d	KZ56LCSS1	
5	31-MAY-2007 15:58	0531B005.d	KZ56A	
6	31-MAY-2007 16:15	0531B006.d	KZ56B	
7	31-MAY-2007 16:32	0531B007.d	KZ56C	
8	31-MAY-2007 16:49	0531B008.d	KZ56D	
9	31-MAY-2007 17:06	0531B009.d	KZ56E	
10	31-MAY-2007 17:23	0531B010.d	KZ56F	
11	31-MAY-2007 17:41	0531B011.d	KZ56G	
12	31-MAY-2007 17:58	0531B012.d	KZ56H	
13	31-MAY-2007 18:15	0531B013.d	KZ56I	
14	31-MAY-2007 18:32	0531B014.d	KZ56J	
15	31-MAY-2007 18:49	0531B015.d	KZ56K	
16	31-MAY-2007 19:06	0531B016.d	KZ56L	
17	31-MAY-2007 19:24	0531B017.d	KZ56LMS	
18	31-MAY-2007 19:41	0531B018.d	KZ56LMSD	
19	31-MAY-2007 19:58	0531B019.d	KZ56M	
20	31-MAY-2007 20:15	0531B020.d	KZ56N	
21	31-MAY-2007 20:32	0531B021.d	KZ56P	
22	31-MAY-2007 20:49	0531B022.d	RINSE	
23	31-MAY-2007 21:06	0531B023.d	RINSE	
24	31-MAY-2007 21:24	0531B024.d	RINSE	
25	31-MAY-2007 21:41	0531B025.d	RINSE	
26	31-MAY-2007 21:58	0531B026.d	RINSE	
27	31-MAY-2007 22:15	0531B027.d	RINSE	
28	31-MAY-2007 22:32	0531B028.d	AR12544	
29	31-MAY-2007 22:49	0531B029.d	AR16608	

Maintenance [illegible]

[illegible] 6/4/07

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: 1256 Client ID: TetraTech

ARI SOP: **403S**(PCB) **405S**(Herbicides) **407S**(TPH-D) **409S**(HCID) **423S**(Pesticides) **Other**

Parameter(s): _____

Instrument: FID: _____ ECD: 5

Dates: Curve: 5/29/07 Analysis Start: 5/30/07

Endrin/DDT Breakdown <15%?	YES / NO / NA	LCS/LCSD Recovery in Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	MS/MSD Recovery in Control?	YES / NO
CCal Meets RF & %RSD Criteria	YES / NO	Surrogate Recovery in Control?	YES / NO
Internal Standard Meets Criteria?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Method Blank in Control?	YES / NO		

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

- Nasty RSDD matrix, causing closing cals to go out.
- Job run 2x. first @ 1x, second @ 3x. 1254 closing cal out both runs – approx 5% low. 1016/1260 ok.
- No Return Bar Forms

Additional Details on Reverse: Yes / No

Analyst Signature: Phyllis **Date:** 6/4/07

Reviewer's Signature: _____ **Date:** _____

NWTPH-Dx Analysis
QC Summary Data

prepared
for

TETRA TECH

PROJECT: THEA FOSS OMMP YEAR 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306

Client ID	OTER	TOT OUT
MB-051907	104%	0
LCS-051907	96.9%	0
LCSD-051907	97.6%	0
Y3-RB-01	95.3%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(60-118)	(54-116)

Prep Method: SW3510C
Log Number Range: 07-9561 to 07-9561

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID **Sample ID: LCS-051907**
Page 1 of 1 LCS/LCSD

Lab Sample ID: LCS-051907 QC Report No: KZ56-Tetra Tech, Inc.
LIMS ID: 07-9561 Project: THEA FOSS OMMP YEAR 3
Matrix: Water 3306
Data Release Authorized: Date Sampled: NA
Reported: 05/30/07 Date Received: NA

Date Extracted LCS/LCSD: 05/19/07 Sample Amount LCS: 500 mL
LCSD: 500 mL
Date Analyzed LCS: 05/22/07 18:05 Final Extract Volume LCS: 1.0 mL
LCSD: 05/22/07 19:04 LCSD: 1.0 mL
Instrument/Analyst LCS: FID3A/JGR Dilution Factor LCS: 1.00
LCSD: FID3A/JGR LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.51	3.00	83.7%	2.45	3.00	81.7%	2.4%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	96.9%	97.6%

Results reported in mg/L
RPD calculated using sample concentrations per SW846.

4

TPH METHOD BLANK SUMMARY

BLANK NO.

KZ03MBW1

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH

SDG No.: KZ56 Project No.: THEA FOSS OMMP

Date Extracted: 05/19/07 Matrix: LIQUID

Date Analyzed : 05/22/07 Instrument ID : FID3A

Time Analyzed : 1751

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	KZ03LCSW1	KZ03LCSW1	05/23/07
02	KZ03LCSDW1	KZ03LCSDW1	05/22/07
03	Y3-RB-01	KZ56O	05/22/07

FORM IV TPH

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH

SDG No.: KZ56 Project: THEA FOSS OMMP

Instrument ID: FID3B GC Column: RTX-1

Run Date: 01/31/07

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.64 TRIAC: 5.85

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	RINSE	RINSE	01/31/07	1429	4.66	5.92*
02	RINSE	RINSE	01/31/07	1444	4.64	5.91*
03	RINSE	RINSE	01/31/07	1459	4.63	5.90
04	RT	RT	01/31/07	1514	4.64	5.85
05	IB	IB	01/31/07	1529	4.64	5.85
06	G/D HCID S	G/D HCID S	01/31/07	1544	4.63	5.86
07	100 PPM MOIL	100 PPM MOIL	01/31/07	1559	4.64	5.85
08	250 PPM MOIL	250 PPM MOIL	01/31/07	1614	4.64	5.86
09	500 PPM MOIL	500 PPM MOIL	01/31/07	1629	4.64	5.86
10	1000 PPM MOI	1000 PPM MOI	01/31/07	1645	4.64	5.86
11	2500 PPM MOI	2500 PPM MOI	01/31/07	1700	4.63	5.89
12	5000 PPM MOI	5000 PPM MOI	01/31/07	1715	4.63	5.89
13	MOIL ICV	MOIL ICV	01/31/07	1730	4.64	5.86
14	MOIL CVS	MOIL CVS	01/31/07	1745	4.64	5.86
15	50 PPM DIESE	50 PPM DIESE	01/31/07	1800	4.63	5.86
16	100 PPM DIES	100 PPM DIES	01/31/07	1815	4.64	5.85
17	250 PPM DIES	250 PPM DIES	01/31/07	1830	4.64	5.85
18	500 PPM DIES	500 PPM DIES	01/31/07	1845	4.64	5.84
19	1000 PPM DIE	1000 PPM DIE	01/31/07	1900	4.64	5.85
20	2500 PPM DIE	2500 PPM DIE	01/31/07	1915	4.66	5.84
21	DIESEL ICV	DIESEL ICV	01/31/07	1931	4.63	5.85
22	DIESEL CVS	DIESEL CVS	01/31/07	1946	4.63	5.86

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH

SDG No.: KZ56 Project: THEA FOSS OMMP

Instrument ID: FID3A GC Column: RTX-1

Run Date: 05/03/07

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.37 TRIAC: 5.64

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	RT	RT	05/03/07	1942	4.37	5.64
02	IB	IB	05/03/07	1956	4.37	5.64
03	50 PPM DIESE	50 PPM DIESEL	05/03/07	2011	4.37	5.65
04	100 PPM DIES	100 PPM DIESEL	05/03/07	2025	4.37	5.64
05	250 PPM DIES	250 PPM DIESEL	05/03/07	2039	4.37	5.64
06	500 PPM DIES	500 PPM DIESEL	05/03/07	2054	4.37	5.65
07	1000 PPM DIE	1000 PPM DIESEL	05/03/07	2108	4.38	5.65
08	2500 PPM DIE	2500 PPM DIESEL	05/03/07	2122	4.39	5.65
09	DIESEL ICV	DIESEL ICV	05/03/07	2137	4.37	5.64
10	DIESEL CVS	DIESEL CVS	05/03/07	2151	4.37	5.64

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH

SDG No.: KZ56 Project: THEA FOSS OMMP

Instrument ID: FID3A GC Column: RTX-1

Run Date: 05/22/07

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.36 TRIAC: 5.63

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	RT	RT	05/22/07	0814	4.36	5.63
02	IB	IB	05/22/07	0828	4.36	5.60
03	DIESEL#3	DIESEL#3	05/22/07	1540	4.36	5.63
04	MOIL#3	MOIL#3	05/22/07	1554	4.36	5.62
05	ZZZZZ	ZZZZZ	05/22/07	1609		5.67
06	ZZZZZ	ZZZZZ	05/22/07	1623	4.37	5.61
07	ZZZZZ	ZZZZZ	05/22/07	1638		5.65
08	ZZZZZ	ZZZZZ	05/22/07	1652	4.36	5.62
09	ZZZZZ	ZZZZZ	05/22/07	1707		5.60
10	ZZZZZ	ZZZZZ	05/22/07	1722	4.36	5.61
11	ZZZZZ	ZZZZZ	05/22/07	1736		5.62
12	ZZZZZ	ZZZZZ	05/22/07	1751	4.36	5.62
13	KZ03LCSW1	KZ03LCSW1	05/22/07	1805	4.36	5.61
14	ZZZZZ	ZZZZZ	05/22/07	1820	4.36	5.65
15	DIESEL#4	DIESEL#4	05/22/07	1834	4.36	5.62
16	MOIL#4	MOIL#4	05/22/07	1849	4.36	5.60
17	KZ03LCSDW1	KZ03LCSDW1	05/22/07	1904	4.36	5.60
18	ZZZZZ	ZZZZZ	05/22/07	1918	4.36	5.61
19	ZZZZZ	ZZZZZ	05/22/07	1933	4.36	5.60
20	ZZZZZ	ZZZZZ	05/22/07	1947	4.36	5.60
21	ZZZZZ	ZZZZZ	05/22/07	2002	4.36	5.61
22	ZZZZZ	ZZZZZ	05/22/07	2016	4.36	5.60
23	ZZZZZ	ZZZZZ	05/22/07	2031	4.36	5.60
24	ZZZZZ	ZZZZZ	05/22/07	2045	4.36	5.61
25	ZZZZZ	ZZZZZ	05/22/07	2100	4.36	5.62
26	ZZZZZ	ZZZZZ	05/22/07	2114	4.36	5.61
27	DIESEL#5	DIESEL#5	05/22/07	2129	4.36	5.63
28	MOIL#5	MOIL#5	05/22/07	2143	4.36	5.61
29	ZZZZZ	ZZZZZ	05/22/07	2158	4.36	5.60
30	ZZZZZ	ZZZZZ	05/22/07	2212	4.36	5.60
31	ZZZZZ	ZZZZZ	05/22/07	2227	4.36	5.60
32	Y3-RB-01	KZ560	05/22/07	2241	4.36	5.59

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH

SDG No.: KZ56 Project: THEA FOSS OMMP

Instrument ID: FID3A GC Column: RTX-1

Run Date: 05/22/07

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.36 TRIAC: 5.63

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	ZZZZZ	ZZZZZ	05/22/07	2255	4.36	5.60
02	ZZZZZ	ZZZZZ	05/22/07	2310	4.36	5.57*
03	ZZZZZ	ZZZZZ	05/22/07	2324	4.36	5.61
04	ZZZZZ	ZZZZZ	05/22/07	2338	4.36	5.59
05	ZZZZZ	ZZZZZ	05/22/07	2353	4.36	5.63
06	DIESEL#6	DIESEL#6	05/23/07	0007	4.36	5.62
07	MOIL#6	MOIL#6	05/23/07	0021	4.36	5.57*

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

ANALYTICAL RESOURCES INCORPORATED

TPHD SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306

Client ID	OTER	TOT OUT
Y3-RC11-S	D	0
052107MBS	97.3%	0
052107LCS	96.2%	0
052107LCSD	103%	0
Y3-RC01-S	D	0
Y3-RC01-S MS	D	0
Y3-RC01-S MSD	D	0
Y3-RC13-S	D	0
Y3-RC14-S	D	0
Y3-RC10-S	D	0
Y3-RC05-S	D	0
Y3-RC07-S	D	0
Y3-RC08-S	D	0
Y3-RC15-S	D	0
Y3-RC09-S	D	0
Y3-RC02-S	D	0
Y3-RC12-S	D	0
Y3-RC06-S	D	0
Y3-RC04-S	D	0
Y3-RC03-S	D	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-116)	(49-109)

Prep Method: SW3550B
Log Number Range: 07-9547 to 07-9562

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID

Sample ID: Y3-RC01-S
MS/MSD

Lab Sample ID: KZ56B
LIMS ID: 07-9548
Matrix: Sediment
Data Release Authorized:
Reported: 05/30/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Date Extracted MS/MSD: 05/21/07

Date Analyzed MS: 05/25/07 09:52
MSD: 05/25/07 14:00
Instrument/Analyst MS: FID3A/JGR
MSD: FID3A/JGR

Sample Amount MS: 2.79 g-dry-wt
MSD: 2.79 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 20.0
MSD: 20.0
Percent Moisture: 72.2%

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	545	1,240	538	129%	1,220	538	125%	1.6%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	D	D

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID

Sample ID: LCS-052107
LCS/LCSD

Lab Sample ID: LCS-052107
LIMS ID: 07-9548
Matrix: Sediment
Data Release Authorized:
Reported: 05/30/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 05/21/07

Date Analyzed LCS: 05/25/07 08:10
LCSD: 05/25/07 08:25

Instrument/Analyst LCS: FID3A/JGR
LCSD: FID3A/JGR

Sample Amount LCS: 10.0 g
LCSD: 10.0 g

Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	124	150	82.7%	134	150	89.3%	7.8%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	96.2%	103%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

4

TPH METHOD BLANK SUMMARY

BLANK NO.

KZ56MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH

SDG No.: KZ56 Project No.: THEA FOSS OMMP YEAR 3

Date Extracted: 05/21/07 Matrix: SOLID

Date Analyzed : 05/25/07 Instrument ID : FID3A

Time Analyzed : 0756

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	KZ56LCSS1	KZ56LCSS1	05/25/07
02	KZ56LCSDS1	KZ56LCSDS1	05/25/07
03	Y3-RC11-S	KZ56A	05/25/07
04	Y3-RC01-S	KZ56B	05/25/07
05	Y3-RC01-S MS	KZ56BMS	05/25/07
06	Y3-RC01-S MS	KZ56BMSD	05/25/07
07	Y3-RC13-S	KZ56C	05/25/07
08	Y3-RC14-S	KZ56D	05/25/07
09	Y3-RC10-S	KZ56E	05/25/07
10	Y3-RC05-S	KZ56F	05/25/07
11	Y3-RC07-S	KZ56G	05/25/07
12	Y3-RC08-S	KZ56H	05/25/07
13	Y3-RC15-S	KZ56I	05/25/07
14	Y3-RC09-S	KZ56J	05/25/07
15	Y3-RC02-S	KZ56K	05/25/07
16	Y3-RC12-S	KZ56L	05/25/07
17	Y3-RC06-S	KZ56M	05/25/07
18	Y3-RC04-S	KZ56N	05/25/07
19	Y3-RC03-S	KZ56P	05/25/07

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH

SDG No.: KZ56 Project: THEA FOSS OMMP YEAR 3

Instrument ID: FID3A GC Column: RTX-1

Run Date: 05/25/07

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.36 TRIAC: 5.60

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	ZZZZZ	ZZZZZ	05/25/07	0616	4.36	5.58
02	ZZZZZ	ZZZZZ	05/25/07	0630	4.35	5.57
03	ZZZZZ	ZZZZZ	05/25/07	0644	4.36	5.56
04	RT	RT	05/25/07	0658	4.36	5.60
05	IB	IB	05/25/07	0713	4.36	5.60
06	DIESEL#1	DIESEL#1	05/25/07	0727	4.36	5.60
07	MOIL#1	MOIL#1	05/25/07	0741	4.36	5.62
08	KZ56MBS1	KZ56MBS1	05/25/07	0756	4.36	5.62
09	KZ56LCSS1	KZ56LCSS1	05/25/07	0810	4.36	5.61
10	KZ56LCSDS1	KZ56LCSDS1	05/25/07	0825	4.36	5.62
11	ZZZZZ	ZZZZZ	05/25/07	0839		
12	ZZZZZ	ZZZZZ	05/25/07	0853		
13	ZZZZZ	ZZZZZ	05/25/07	0908		
14	Y3-RC11-S	KZ56A	05/25/07	0922		
15	Y3-RC01-S	KZ56B	05/25/07	0937		
16	Y3-RC01-S MS	KZ56BMS	05/25/07	0952		
17	ZZZZZ	ZZZZZ	05/25/07	1006	4.36	5.63
18	DIESEL#2	DIESEL#2	05/25/07	1021	4.36	5.60
19	MOIL#2	MOIL#2	05/25/07	1035	4.36	5.64
20	Y3-RC03-S	KZ56P	05/25/07	1050		
21	ZZZZZ	ZZZZZ	05/25/07	1105	4.36	5.62
22	ZZZZZ	ZZZZZ	05/25/07	1119	4.36	5.63
23	ZZZZZ	ZZZZZ	05/25/07	1134	4.36	5.65
24	ZZZZZ	ZZZZZ	05/25/07	1148	4.36	5.64
25	ZZZZZ	ZZZZZ	05/25/07	1203	4.36	5.58
26	ZZZZZ	ZZZZZ	05/25/07	1218	4.36	5.60
27	ZZZZZ	ZZZZZ	05/25/07	1232	4.36	5.60
28	ZZZZZ	ZZZZZ	05/25/07	1247	4.36	5.65
29	ZZZZZ	ZZZZZ	05/25/07	1301	4.36	5.66*
30	DIESEL#3	DIESEL#3	05/25/07	1316	4.36	5.60
31	MOIL#3	MOIL#3	05/25/07	1331	4.36	5.62
32	ZZZZZ	ZZZZZ	05/25/07	1345	4.36	5.62

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: TETRA TECH

SDG No.: KZ56 Project: THEA FOSS OMMP YEAR 3

Instrument ID: FID3A GC Column: RTX-1

Run Date: 05/25/07

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.36 TRIAC: 5.60

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	Y3-RC01-S MS	KZ56BMSD	05/25/07	1400		
02	Y3-RC13-S	KZ56C	05/25/07	1414		
03	Y3-RC14-S	KZ56D	05/25/07	1429		
04	Y3-RC10-S	KZ56E	05/25/07	1444		
05	Y3-RC05-S	KZ56F	05/25/07	1458		
06	Y3-RC07-S	KZ56G	05/25/07	1513		
07	Y3-RC08-S	KZ56H	05/25/07	1528		
08	Y3-RC15-S	KZ56I	05/25/07	1542		
09	ZZZZZ	ZZZZZ	05/25/07	1557	4.36	5.63
10	DIESEL#4	DIESEL#4	05/25/07	1612	4.36	5.60
11	MOIL#4	MOIL#4	05/25/07	1626	4.35	5.65
12	Y3-RC09-S	KZ56J	05/25/07	1641		
13	Y3-RC02-S	KZ56K	05/25/07	1656		
14	Y3-RC12-S	KZ56L	05/25/07	1710		
15	Y3-RC06-S	KZ56M	05/25/07	1725		
16	Y3-RC04-S	KZ56N	05/25/07	1739		
17	ZZZZZ	ZZZZZ	05/25/07	1754	4.36	5.61
18	DIESEL#5	DIESEL#5	05/25/07	1808	4.36	5.60
19	MOIL#5	MOIL#5	05/25/07	1823	4.36	5.62

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

NWTPH-Dx Analysis
Sample Data

prepared
for

TETRA TECH

PROJECT: THEA FOSS OMMP YEAR 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID
Page 1 of 1
Matrix: Water

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Received: 05/17/07

Data Release Authorized:
Reported: 05/30/07

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-051907	Method Blank	05/19/07	05/23/07	1.00	Diesel	0.25	< 0.25 U
07-9561	HC ID: ---		FID3A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		104%
KZ56O	Y3-RB-01	05/19/07	05/22/07	1.00	Diesel	0.25	< 0.25 U
07-9561	HC ID: ---		FID3A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		95.3%

Reported in mg/L (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a065.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: KZ560
Client ID:
Injection: 22-MAY-2007 22:41
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.860	0.000	13808	15524	GAS (Tol-C12)	129459	9
C8	2.049	-0.010	1181	1329	DIESEL (C12-C24)	235866	16
C10	2.804	-0.004	1373	941	M.OIL (C24-C38)	550130	58
C12	3.275	-0.004	1598	1142	AK-102 (C10-C25)	277433	15
C14	3.639	-0.003	1778	1755	AK-103 (C25-C36)	429377	61
C16	3.950	-0.004	2957	2992			
C18	4.233	-0.003	2829	506			
C20	4.498	0.001	3309	3145	JET-A (C10-C18)	152279	12
C22	4.734	-0.006	3311	3809	MIN.OIL (C24-C38)	550130	44
C24	4.976	0.003	3204	828	MSPIRIT (Tol-C12)	129459	8
C25	5.084	-0.002	3459	957	TRANOIL (C12-C28)	350154	23
C26	5.194	-0.002	3672	730	KEROSEN (Tol-C18)	243023	16
C28	5.407	-0.006	6614	6955			
C32	5.856	0.000	6028	5035	FUEL OIL(C10-C24)	274581	1
C34	6.140	0.011	5712	7392			
Filter Peak	7.701	0.002	4546	2628	JP-4 (Tol-C14)	162253	14
C36	6.476	0.005	5072	1315	CREOSOT (C8-C22)	272985	29
C38	6.903	-0.008	4821	2021	HYDRAUL (C24-C38)	550130	62
C40	7.498	0.000	4615	2111	BUNKERC (C10-C38)	824711	273

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	785456	42.9	95.4
Triacontane	679774	47.7	106.0

JR 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

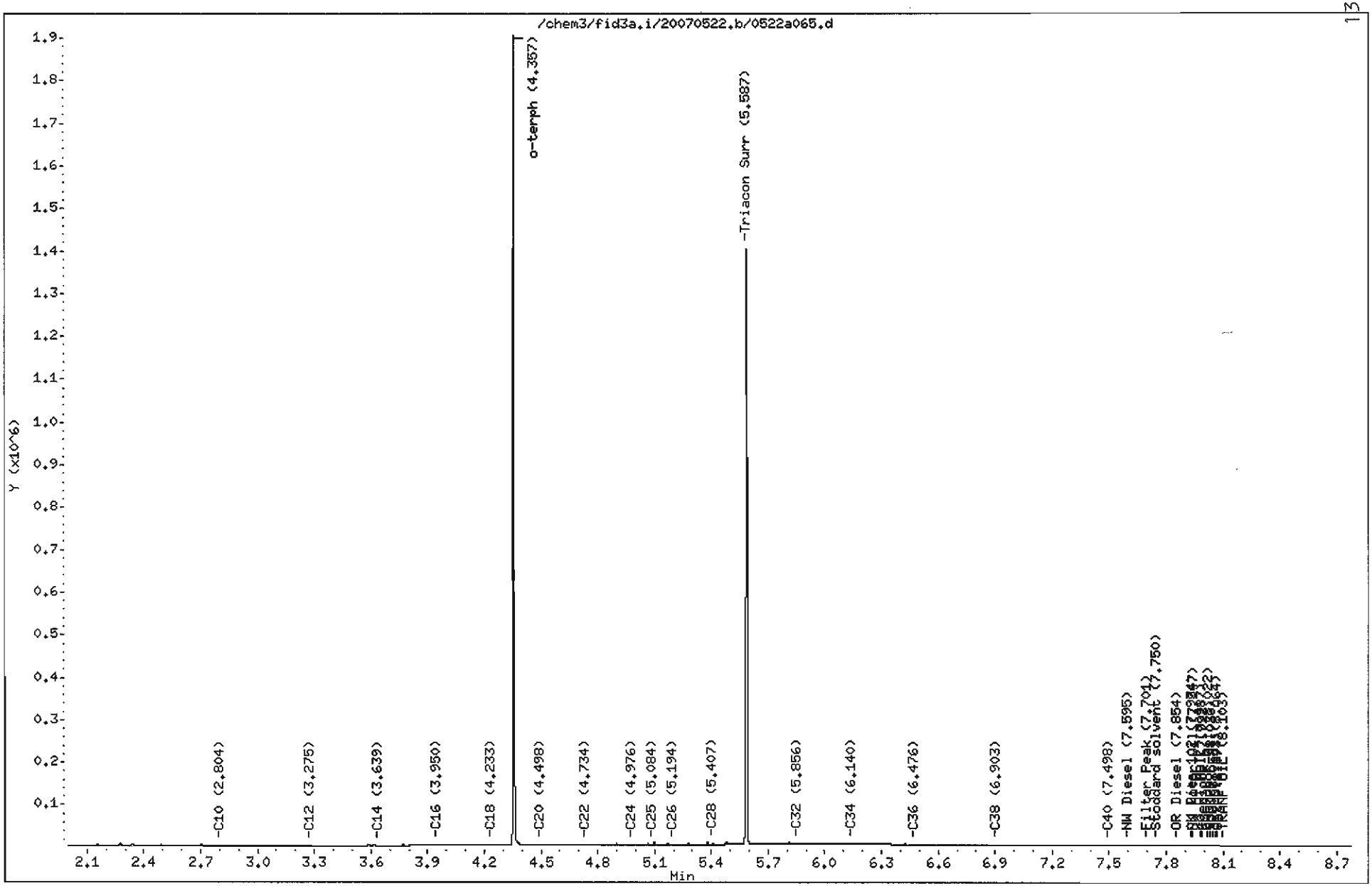
Data File: /chem3/fid3a.i/20070522.b/0522a065.d
Date : 22-MAY-2007 22:41
Client ID:
Sample Info: KZ560

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1392



ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: KZ56
Matrix: Water Project: THEA FOSS OMMP YEAR 3
Date Received: 05/17/07 3306

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
07-9561-051907MB1	Method Blank	500 mL	1.00 mL	05/19/07
07-9561-051907LCS1	Lab Control	500 mL	1.00 mL	05/19/07
07-9561-051907LCSD1	Lab Control Dup	500 mL	1.00 mL	05/19/07
07-9561-KZ56O	Y3-RB-01	500 mL	1.00 mL	05/19/07

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID
Page 1 of 2
Matrix: Sediment

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Received: 05/17/07

Data Release Authorized:
Reported: 05/30/07

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
KZ56A	Y3-RC11-S	05/21/07	05/25/07	1.00	Diesel	190	490
07-9547	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	370	3,000
					o-Terphenyl		D
MB-052107	Method Blank	05/21/07	05/25/07	1.00	Diesel	5.0	< 5.0 U
07-9548	HC ID: ---		FID3A	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		97.3%
KZ56B	Y3-RC01-S	05/21/07	05/25/07	1.00	Diesel	360	540
07-9548	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	720	3,400
					o-Terphenyl		D
KZ56C	Y3-RC13-S	05/21/07	05/25/07	1.00	Diesel	240	560
07-9549	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	480	3,800
					o-Terphenyl		D
KZ56D	Y3-RC14-S	05/21/07	05/25/07	1.00	Diesel	190	300
07-9550	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	380	2,200
					o-Terphenyl		D
KZ56E	Y3-RC10-S	05/21/07	05/25/07	1.00	Diesel	130	140
07-9551	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	270	1,000
					o-Terphenyl		D
KZ56F	Y3-RC05-S	05/21/07	05/25/07	1.00	Diesel	210	540
07-9552	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	430	3,300
					o-Terphenyl		D
KZ56G	Y3-RC07-S	05/21/07	05/25/07	1.00	Diesel	180	310
07-9553	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	350	2,200
					o-Terphenyl		D
KZ56H	Y3-RC08-S	05/21/07	05/25/07	1.00	Diesel	190	490
07-9554	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	380	3,100
					o-Terphenyl		D
KZ56I	Y3-RC15-S	05/21/07	05/25/07	1.00	Diesel	190	520
07-9555	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	380	3,100
					o-Terphenyl		D
KZ56J	Y3-RC09-S	05/21/07	05/25/07	1.00	Diesel	210	560
07-9556	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	410	3,600
					o-Terphenyl		D
KZ56K	Y3-RC02-S	05/21/07	05/25/07	1.00	Diesel	250	790
07-9557	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	500	5,600
					o-Terphenyl		D
KZ56L	Y3-RC12-S	05/21/07	05/25/07	1.00	Diesel	150	220
07-9558	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	310	1,300
					o-Terphenyl		D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID

Matrix: Sediment

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Received: 05/17/07

Data Release Authorized:
Reported: 05/30/07

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
KZ56M	Y3-RC06-S	05/21/07	05/25/07	1.00	Diesel	190	420
07-9559	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	380	2,900
					o-Terphenyl		D
KZ56N	Y3-RC04-S	05/21/07	05/25/07	1.00	Diesel	210	500
07-9560	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	420	3,300
					o-Terphenyl		D
KZ56P	Y3-RC03-S	05/21/07	05/25/07	1.00	Diesel	160	230
07-9562	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil	330	1,500
					o-Terphenyl		D

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a014.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56A
Client ID:
Injection: 25-MAY-2007 09:22
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.852	-0.003	2881	3812	GAS (Tol-C12)	104552	6
C8	2.055	-0.001	880	645	DIESEL (C12-C24)	1972594	131
C10	2.803	-0.004	1156	922	M.OIL (C24-C38)	7569854	798
C12	3.280	0.002	2150	1237	AK-102 (C10-C25)	2085763	116
C14	3.635	-0.006	4212	3289	AK-103 (C25-C36)	6746982	954
C16	3.958	0.004	8777	7537			
C18	4.237	0.002	13533	7170			
C20	4.496	0.002	22205	21133	JET-A (C10-C18)	409768	33
C22	4.732	-0.002	41436	13931	MIN.OIL (C24-C38)	7569854	606
C24	4.962	0.000	68971	25958	MSPIRIT (Tol-C12)	104552	7
C25	5.068	-0.005	78184	59138	TRANOIL (C12-C28)	4308837	283
C26	5.178	-0.003	88194	27950	KEROSEN (Tol-C18)	464826	30
C28	5.398	0.005	97638	17379			
C32	5.832	0.002	80795	31901	FUEL OIL(C10-C24)	2022088	4
C34	6.102	0.000	56332	21332			
Filter Peak	7.702	0.002	13624	12422	JP-4 (Tol-C14)	175345	15
C36	6.442	-0.002	36928	8807	CREOSOT (C8-C22)	1244662	130
C38	6.882	-0.002	23462	9768	HYDRAUL (C24-C38)	7569854	851
C40	7.469	0.003	15535	5200	BUNKERC (C10-C38)	9591941	3173

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JK 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0 D
Triacontane	0	0.0	0.0 D

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a014.d

Date : 25-MAY-2007 09:22

Client ID:

Sample Info: KZ56A,20

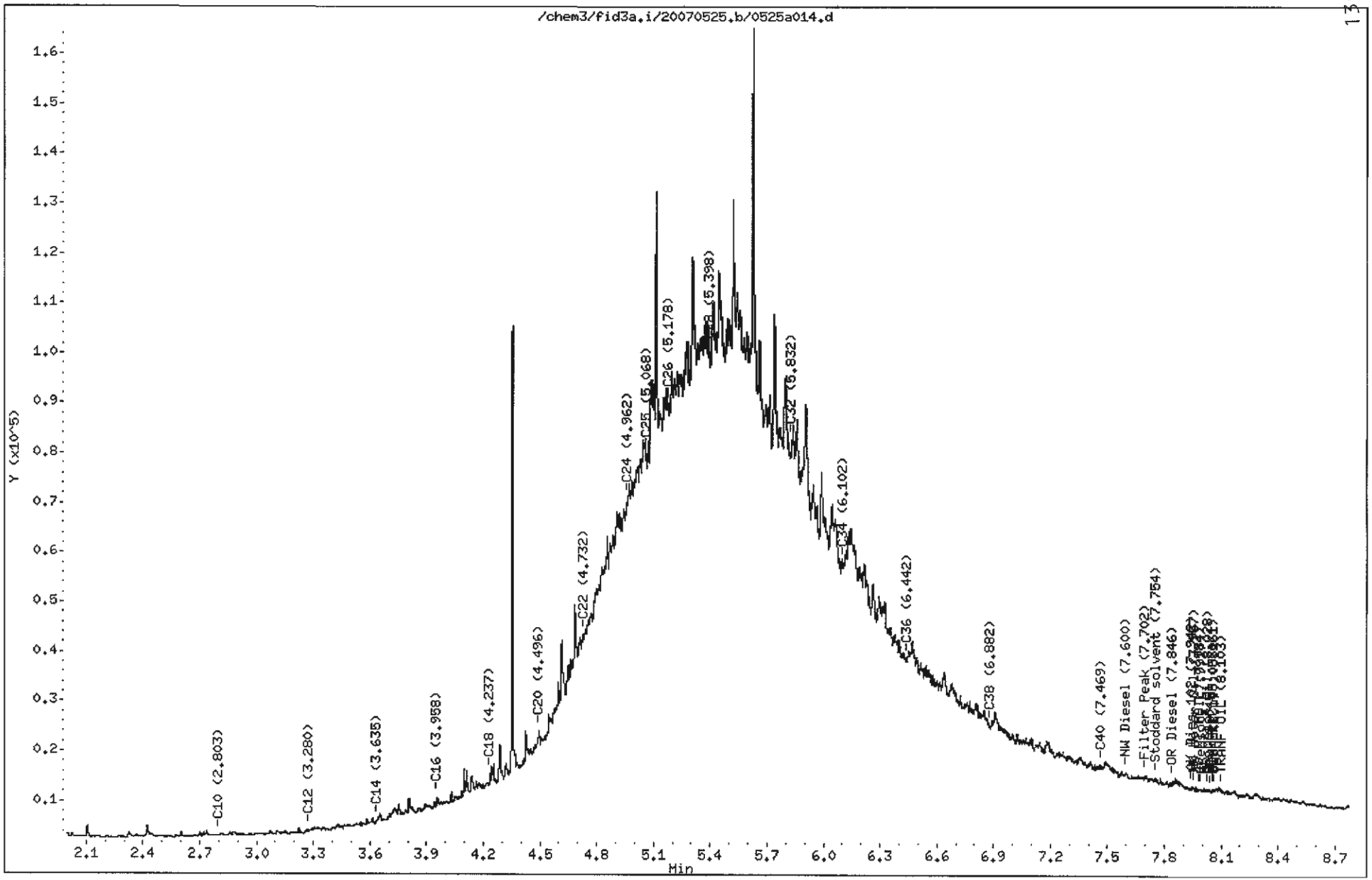
Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

1397



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a015.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56B
Client ID:
Injection: 25-MAY-2007 09:37
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.851	-0.003	2289	3134	GAS (Tol-C12)	96144	5
C8	2.054	-0.001	853	857	DIESEL (C12-C24)	1141917	76
C10	2.801	-0.005	1020	610	M.OIL (C24-C38)	4559949	480
C12	3.281	0.004	1417	1254	AK-102 (C10-C25)	1215541	67
C14	3.638	-0.003	3746	3481	AK-103 (C25-C36)	4023455	569
C16	3.946	-0.007	7094	6825			
C18	4.237	0.003	8014	3648			
C20	4.498	0.005	13364	9093	JET-A (C10-C18)	299014	24
C22	4.734	0.000	21033	9408	MIN.OIL (C24-C38)	4559949	365
C24	4.952	-0.010	72234	49646	MSPIRIT (Tol-C12)	96144	6
C25	5.073	0.000	37597	10292	TRANOIL (C12-C28)	2370187	155
C26	5.184	0.003	42309	10896	KEROSEN (Tol-C18)	350627	23
C28	5.393	0.000	50053	16715			
C32	5.829	-0.001	45747	7265	FUEL OIL(C10-C24)	1186448	2
C34	6.107	0.006	37583	12625			
Filter Peak	7.703	0.004	9479	6007	JP-4 (Tol-C14)	140535	12
C36	6.442	-0.001	25646	10131	CREOSOT (C8-C22)	785276	82
C38	6.882	-0.002	16930	5978	HYDRAUL (C24-C38)	4559949	512
C40	7.461	-0.005	11056	8161	BUNKERC (C10-C38)	5746397	1901

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0 D
Triacontane	0	0.0	0.0

JR 05/26/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a015.d

Date : 25-MAY-2007 09:37

Client ID:

Sample Info: KZ56B,20

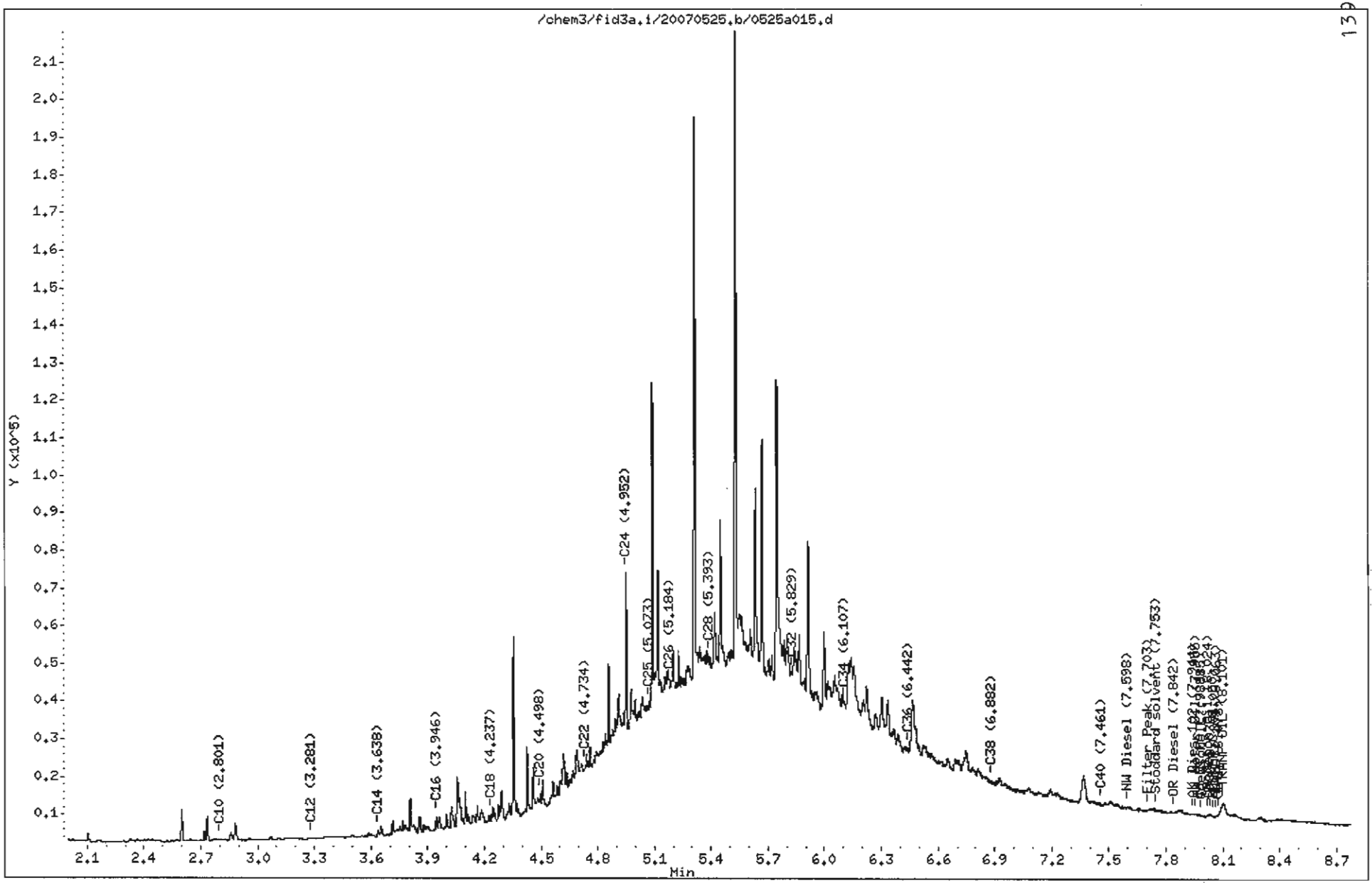
Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

1399



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a034.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56C
Client ID:
Injection: 25-MAY-2007 14:14
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.850	-0.004	2488	3431	GAS (Tol-C12)	95861	5
C8	2.054	-0.002	769	770	DIESEL (C12-C24)	1736030	115
C10	2.813	0.007	1436	720	M.OIL (C24-C38)	7489493	789
C12	3.280	0.003	2060	327	AK-102 (C10-C25)	1807056	100
C14	3.634	-0.006	5876	5828	AK-103 (C25-C36)	6610399	935
C16	3.959	0.006	7456	6939			
C18	4.242	0.007	21769	18795			
C20	4.496	0.003	19229	14022	JET-A (C10-C18)	351505	28
C22	4.735	0.001	33255	5283	MIN.OIL (C24-C38)	7489493	599
C24	4.962	0.000	55822	25041	MSPIRIT (Tol-C12)	95861	6
C25	5.066	-0.007	66510	42739	TRANOIL (C12-C28)	3987791	262
C26	5.177	-0.004	90819	59067	KEROSEN (Tol-C18)	398366	26
C28	5.386	-0.006	89041	60791			
C32	5.826	-0.004	78455	32660	FUEL OIL(C10-C24)	1785029	3
C34	6.105	0.004	61629	18065			
Filter Peak	7.702	0.002	13002	3614	JP-4 (Tol-C14)	154503	14
C36	6.444	0.001	40770	10510	CREOSOT (C8-C22)	1059607	111
C38	6.890	0.006	26423	14665	HYDRAUL (C24-C38)	7489493	842
C40	7.471	0.005	15663	7430	BUNKERC (C10-C38)	9274522	3068

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0
Triacontane	0	0.0	0.0

JK 05/26/07

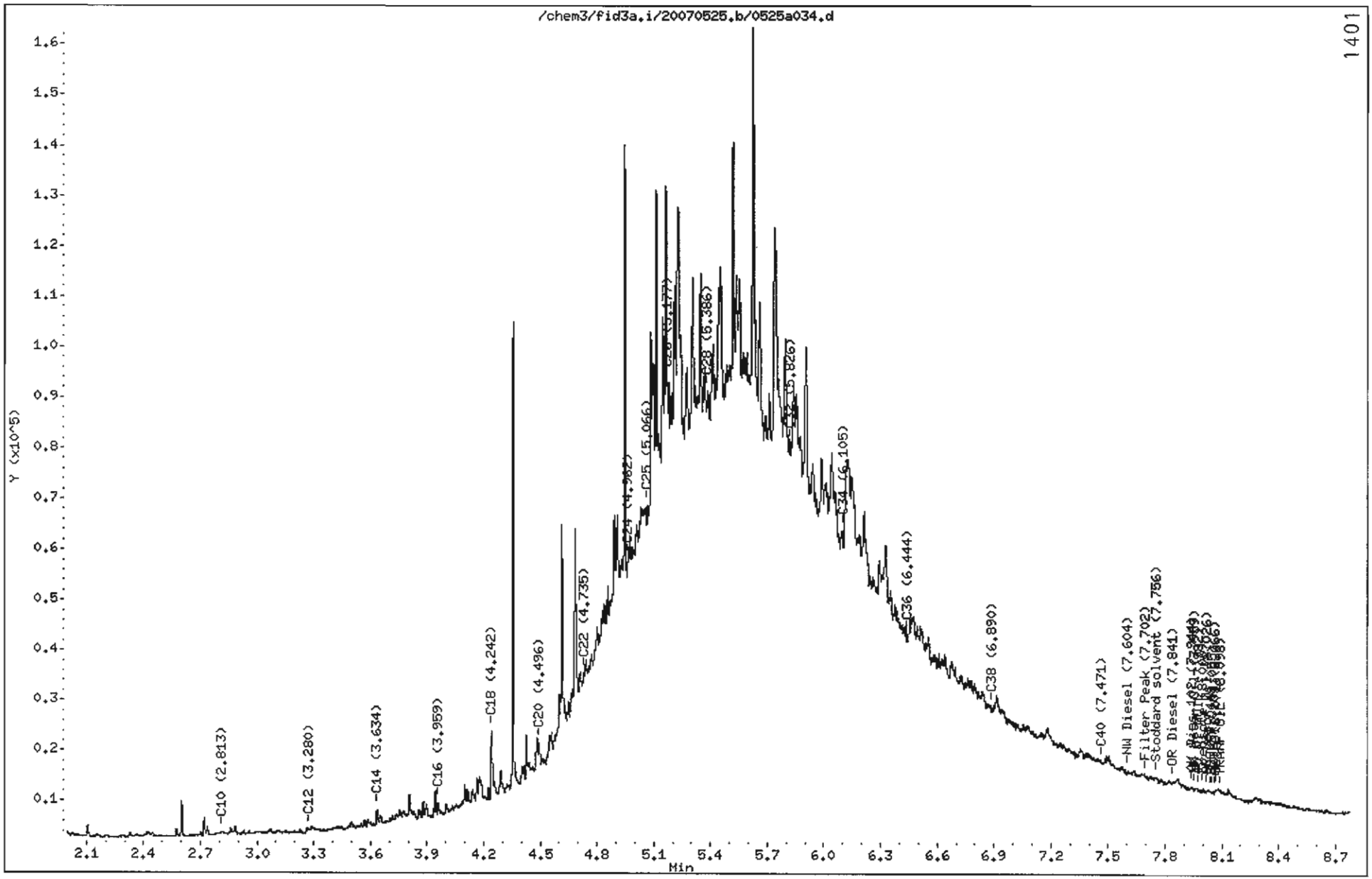
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a034.d
Date : 25-MAY-2007 14:14
Client ID:
Sample Info: KZ56C,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a035.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/30/2007
Macro: FID:3A052307

ARI ID: KZ56D
Client ID:
Injection: 25-MAY-2007 14:29
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.850	-0.005	2321	3399	GAS (Tol-C12)	84978	5
C8	2.055	-0.001	815	1130	DIESEL (C12-C24)	1222524	81
C10	2.805	-0.002	870	656	M.OIL (C24-C38)	5659483	596
C12	3.277	-0.001	1170	301	AK-102 (C10-C25)	1293081	72
C14	3.641	0.000	2787	2104	AK-103 (C25-C36)	4941948	699
C16	3.949	-0.004	7900	5997			
C18	4.226	-0.009	5440	3796			
C20	4.500	0.007	14977	14888	JET-A (C10-C18)	218782	17
C22	4.733	-0.001	23860	8530	MIN.OIL (C24-C38)	5659483	453
C24	4.964	0.001	41411	13069	MSPIRIT (Tol-C12)	84978	5
C25	5.071	-0.002	49246	12717	TRANOIL (C12-C28)	2725087	179
C26	5.177	-0.004	56858	36971	KEROSEN (Tol-C18)	269371	17
C28	5.396	0.003	65305	12880			
C32	5.833	0.002	60623	10851	FUEL OIL(C10-C24)	1256914	2
C34	6.103	0.001	46446	9218			
Filter Peak	7.703	0.003	10485	3966	JP-4 (Tol-C14)	120480	11
C36	6.444	0.000	32992	13636	CREOSOT (C8-C22)	755715	79
C38	6.888	0.004	21488	8457	HYDRAUL (C24-C38)	5659483	636
C40	7.465	-0.002	12652	5755	BUNKERC (C10-C38)	6916397	2288

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) JetA(2.757 - 4.285)

05/30/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0
Triacontane	0	0.0	0.0

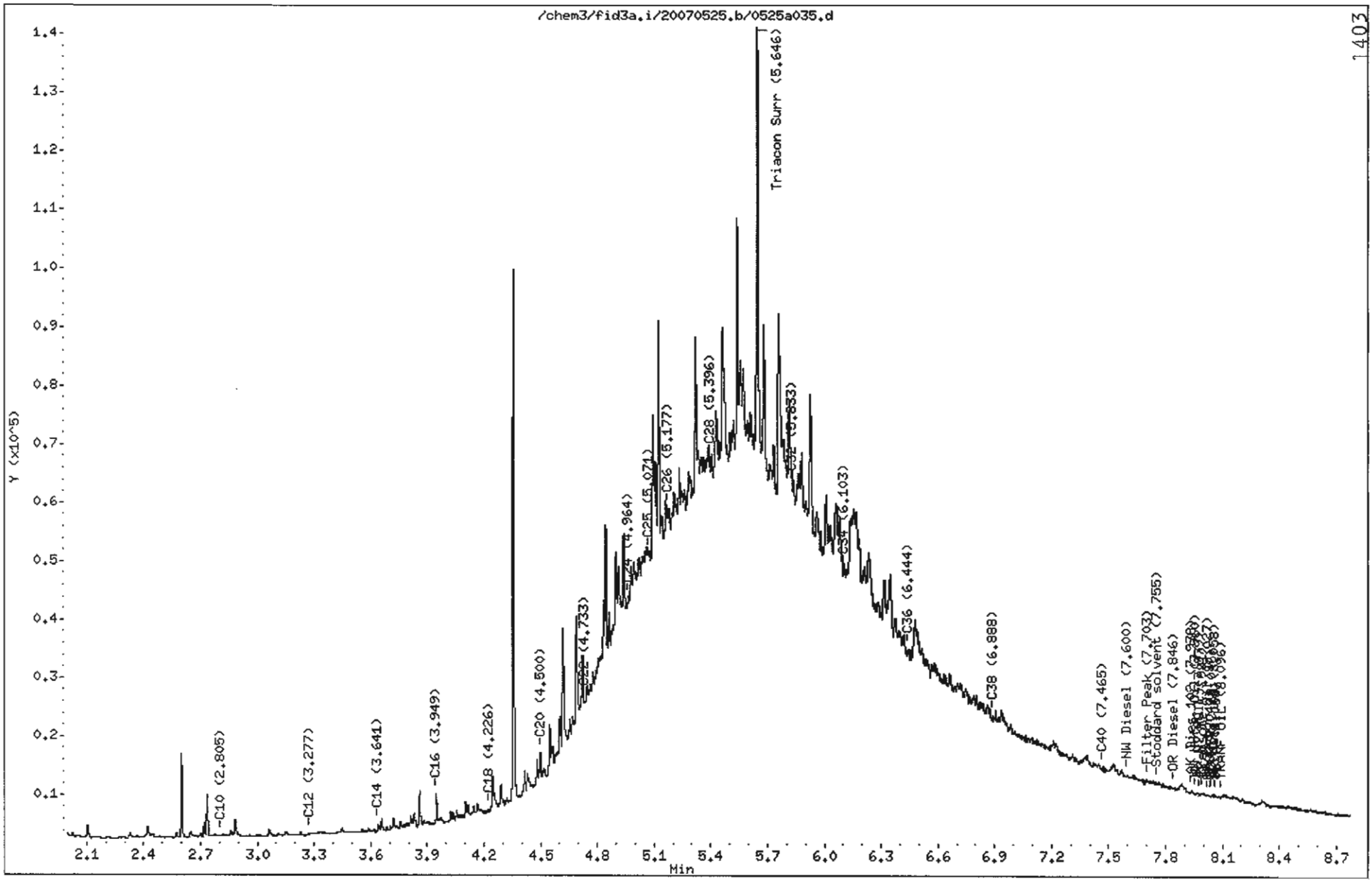
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a035.d
Date : 25-MAY-2007 14:29
Client ID:
Sample Info: KZ56D,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a036.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56E
Client ID:
Injection: 25-MAY-2007 14:44
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.850	-0.005	2288	2635	GAS (Tol-C12)	64814	4
C8	2.053	-0.003	752	404	DIESEL (C12-C24)	797288	53
C10	2.803	-0.004	776	486	M.OIL (C24-C38)	3575224	377
C12	3.279	0.001	826	259	AK-102 (C10-C25)	843848	47
C14	3.648	0.007	1795	1735	AK-103 (C25-C36)	3149011	445
C16	3.949	-0.004	3185	4469			
C18	4.230	-0.005	4807	2863			
C20	4.502	0.009	9059	10195	JET-A (C10-C18)	160967	13
C22	4.737	0.003	16674	11022	MIN.OIL (C24-C38)	3575224	286
C24	4.964	0.001	26771	6346	MSPIRIT (Tol-C12)	64814	4
C25	5.070	-0.003	30988	6778	TRANOIL (C12-C28)	1791150	117
C26	5.182	0.001	36049	19396	KEROSEN (Tol-C18)	198573	13
C28	5.393	0.000	42433	9264			
C32	5.831	0.000	38498	29931	FUEL OIL(C10-C24)	824496	2
C34	6.105	0.003	28792	11349			
Filter Peak	7.704	0.004	7043	3734	JP-4 (Tol-C14)	91600	8
C36	6.444	0.001	19356	3081	CREOSOT (C8-C22)	529316	55
C38	6.886	0.001	13091	2599	HYDRAUL (C24-C38)	3575224	402
C40	7.462	-0.005	8245	3412	BUNKERC (C10-C38)	4399721	1455

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/30/07

Surrogate	Area	Amount	%Rec	
o-Terphenyl	0	0.0	0.0	D
Triacontane	0	0.0	0.0	

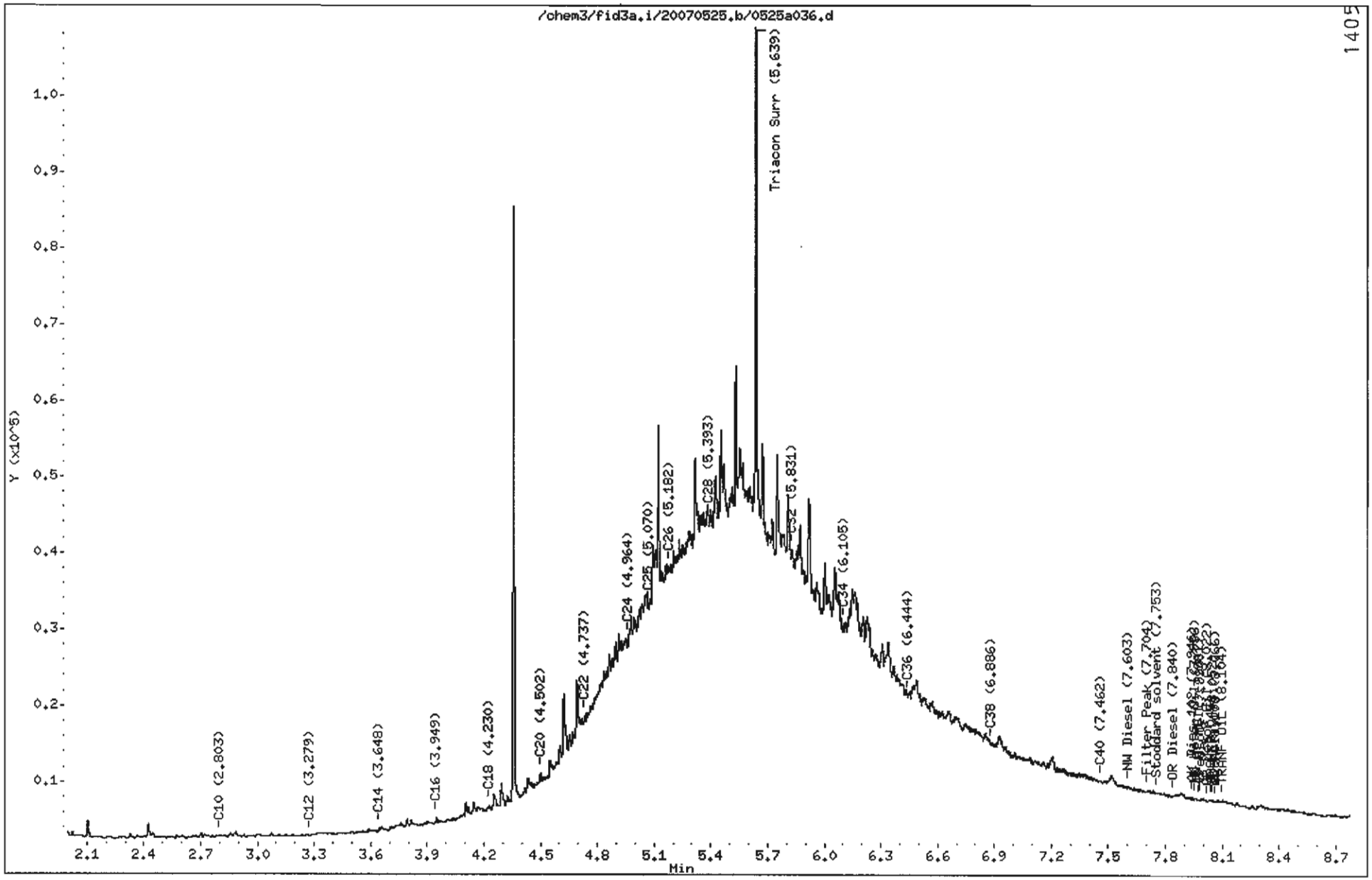
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a036.d
Date : 25-MAY-2007 14:44
Client ID:
Sample Info: KZ56E,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a037.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56F
Client ID:
Injection: 25-MAY-2007 14:58
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.850	-0.004	2760	3725	GAS (Tol-C12)	88260	5
C8	2.052	-0.004	842	517	DIESEL (C12-C24)	1907699	127
C10	2.803	-0.004	929	524	M.OIL (C24-C38)	7411597	781
C12	3.279	0.001	1519	893	AK-102 (C10-C25)	1994994	111
C14	3.640	-0.001	3241	2811	AK-103 (C25-C36)	6670229	944
C16	3.959	0.006	6721	5888			
C18	4.238	0.003	11202	4655			
C20	4.495	0.002	21371	22469	JET-A (C10-C18)	326568	26
C22	4.736	0.002	42052	22965	MIN.OIL (C24-C38)	7411597	593
C24	4.963	0.001	73491	64555	MSPIRIT (Tol-C12)	88260	6
C25	5.074	0.001	110098	92919	TRANOIL (C12-C28)	4343430	285
C26	5.183	0.001	95055	79759	KEROSEN (Tol-C18)	375481	24
C28	5.395	0.002	109382	130674			
C32	5.832	0.002	86148	108834	FUEL OIL(C10-C24)	1947045	4
C34	6.103	0.001	68717	38845			
Filter Peak	7.697	-0.003	10708	8745	JP-4 (Tol-C14)	139679	12
C36	6.445	0.002	41475	30770	CREOSOT (C8-C22)	1140788	120
C38	6.883	-0.001	24371	6755	HYDRAUL (C24-C38)	7411597	833
C40	7.470	0.004	13926	9495	BUNKERC (C10-C38)	9358643	3096

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0
Triacontane	0	0.0	0.0

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JK 05/30/07

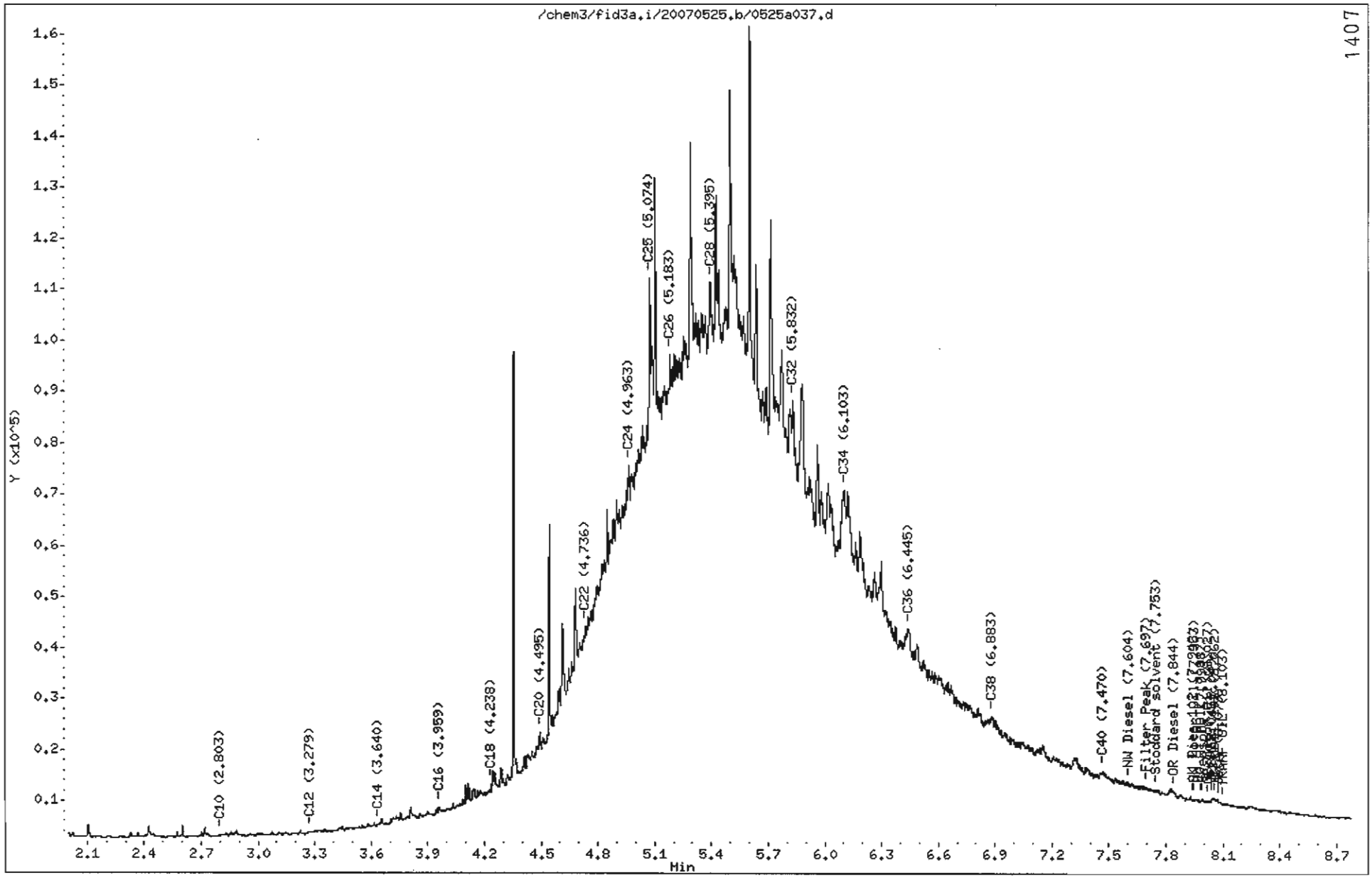
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a037.d
Date : 25-MAY-2007 14:58
Client ID:
Sample Info: KZ56F,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a038.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56G
Client ID:
Injection: 25-MAY-2007 15:13
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.849	-0.005	2584	3320	GAS (Tol-C12)	73210	4
C8	2.052	-0.004	749	782	DIESEL (C12-C24)	1346005	89
C10	2.803	-0.004	847	488	M.OIL (C24-C38)	6006077	633
C12	3.282	0.005	1274	722	AK-102 (C10-C25)	1401890	78
C14	3.643	0.003	2625	2418	AK-103 (C25-C36)	5325669	753
C16	3.960	0.006	4979	4979			
C18	4.239	0.005	8122	3575			
C20	4.494	0.001	14205	7152	JET-A (C10-C18)	262650	21
C22	4.739	0.005	28514	31412	MIN.OIL (C24-C38)	6006077	481
C24	4.966	0.004	45993	20102	MSPIRIT (Tol-C12)	73210	5
C25	5.076	0.003	54392	11869	TRANOIL (C12-C28)	3078136	202
C26	5.183	0.002	63680	37491	KEROSEN (Tol-C18)	302884	20
C28	5.393	0.000	75336	33910			
C32	5.821	-0.009	79588	123076	FUEL OIL(C10-C24)	1378980	3
C34	6.101	-0.001	48136	10480			
Filter Peak	7.705	0.006	9833	11830	JP-4 (Tol-C14)	116402	10
C36	6.446	0.003	31973	13183	CREOSOT (C8-C22)	845700	89
C38	6.879	-0.005	21246	14132	HYDRAUL (C24-C38)	6006077	675
C40	7.465	-0.001	11690	4164	BUNKERC (C10-C38)	7385057	2443

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0 D
Triacontane	0	0.0	0.0

JR 05/30/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a038.d

Date : 25-MAY-2007 15:13

Client ID:

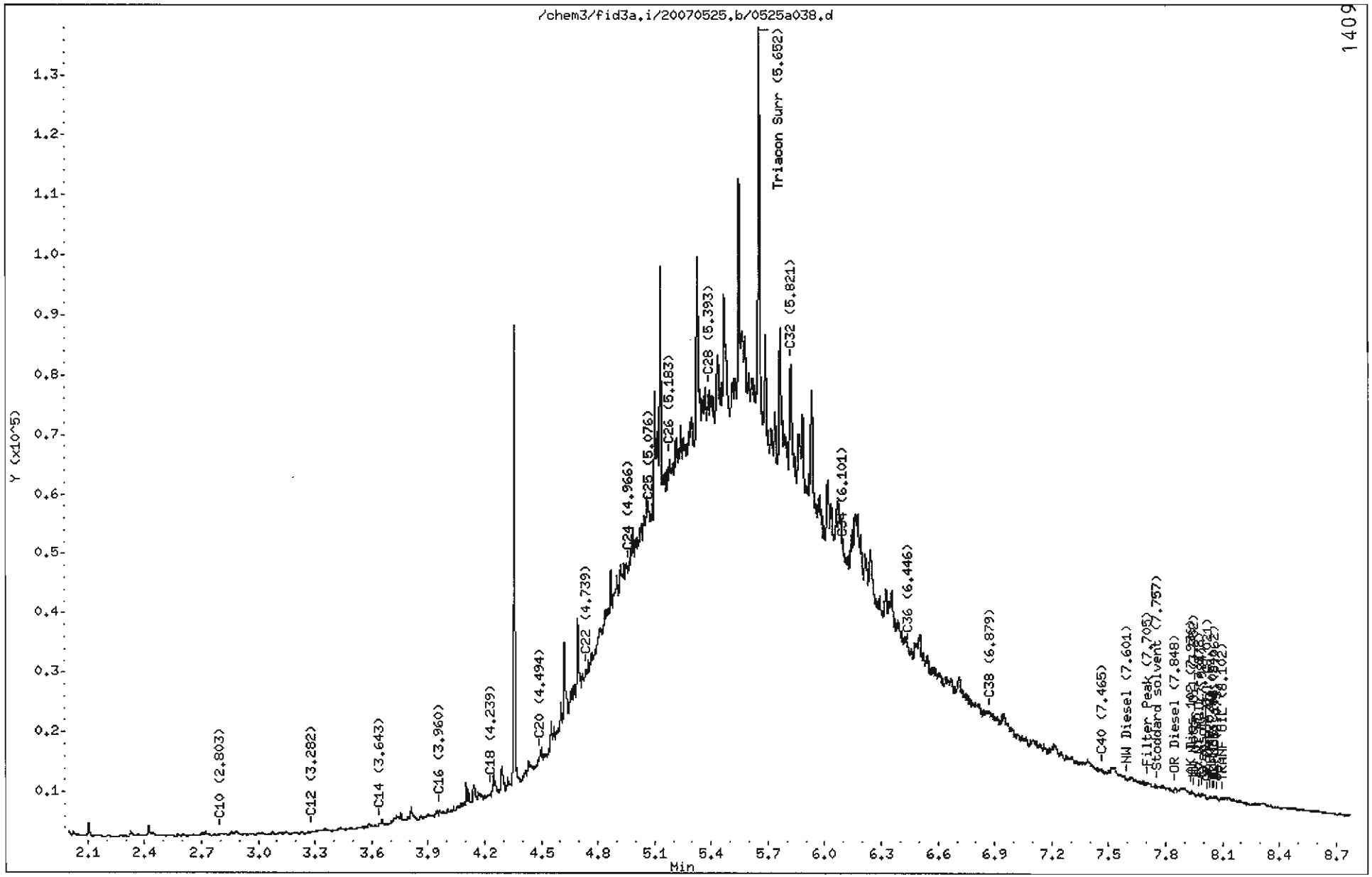
Sample Info: KZ56C,20

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a039.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56H
Client ID:
Injection: 25-MAY-2007 15:28
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.852	-0.003	2687	3521	GAS (Tol-C12)	86061	5
C8	2.052	-0.003	741	460	DIESEL (C12-C24)	1941611	129
C10	2.804	-0.003	927	486	M.OIL (C24-C38)	7724709	814
C12	3.279	0.002	1978	1042	AK-102 (C10-C25)	2060063	114
C14	3.646	0.005	3978	634	AK-103 (C25-C36)	6831062	966
C16	3.960	0.007	7629	7109			
C18	4.226	-0.009	11548	6200			
C20	4.498	0.005	22760	17208	JET-A (C10-C18)	379200	30
C22	4.732	-0.001	40654	24031	MIN.OIL (C24-C38)	7724709	618
C24	4.964	0.002	67806	30682	MSPIRIT (Tol-C12)	86061	5
C25	5.074	0.001	78116	20004	TRANOIL (C12-C28)	4244180	278
C26	5.179	-0.002	87812	32587	KEROSEN (Tol-C18)	422015	27
C28	5.392	-0.001	100513	19825			
C32	5.828	-0.002	82918	76560	FUEL OIL(C10-C24)	1984857	4
C34	6.103	0.001	61694	36244			
Filter Peak	7.702	0.002	11672	4576	JP-4 (Tol-C14)	149113	13
C36	6.444	0.001	41650	27292	CREOSOT (C8-C22)	1217513	128
C38	6.886	0.002	25714	11112	HYDRAUL (C24-C38)	7724709	868
C40	7.465	-0.001	14364	8727	BUNKERC (C10-C38)	9709565	3212

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0
Triacontane	0	0.0	0.0

JR 05/30/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a039.d

Date : 25-MAY-2007 15:28

Client ID:

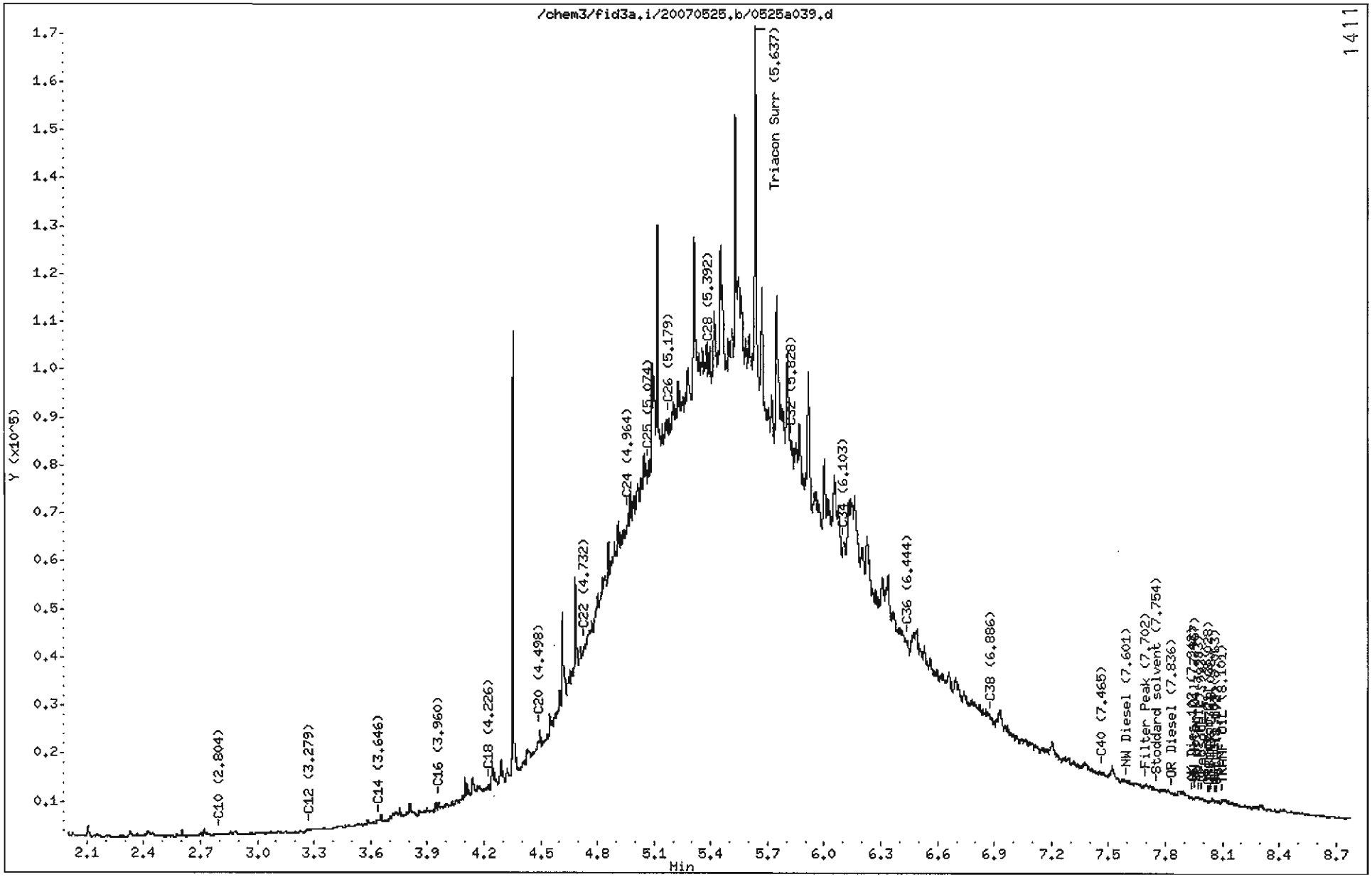
Sample Info: KZ56H,20

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a040.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56I
Client ID:
Injection: 25-MAY-2007 15:42
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.852	-0.003	2839	3669	GAS (Tol-C12)	92676	5
C8	2.054	-0.002	795	501	DIESEL (C12-C24)	2087146	139
C10	2.803	-0.003	1016	297	M.OIL (C24-C38)	7904053	833
C12	3.279	0.001	2070	1046	AK-102 (C10-C25)	2143536	119
C14	3.641	0.000	4040	1516	AK-103 (C25-C36)	7095258	1004
C16	3.947	-0.007	7988	6465			
C18	4.225	-0.010	11846	7178			
C20	4.498	0.005	23730	18917	JET-A (C10-C18)	394380	31
C22	4.733	0.000	42792	16019	MIN.OIL (C24-C38)	7904053	633
C24	4.963	0.001	70918	15493	MSPIRIT (Tol-C12)	92676	6
C25	5.070	-0.003	83758	47236	TRANOIL (C12-C28)	4483158	294
C26	5.179	-0.002	90163	30343	KEROSEN (Tol-C18)	441072	29
C28	5.388	-0.005	103343	24483			
C32	5.827	-0.003	83209	23006	FUEL OIL(C10-C24)	2133130	4
C34	6.097	-0.005	63459	19897			
Filter Peak	7.700	0.001	10884	5593	JP-4 (Tol-C14)	158150	14
C36	6.441	-0.002	41783	13244	CREOSOT (C8-C22)	1259070	132
C38	6.881	-0.003	25155	11228	HYDRAUL (C24-C38)	7904053	888
C40	7.469	0.003	13584	3773	BUNKERC (C10-C38)	10037183	3320

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0
Triacontane	0	0.0	0.0 D

JR 05/30/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a040.d
Date : 25-MAY-2007 15:42
Client ID:
Sample Info: KZ561,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

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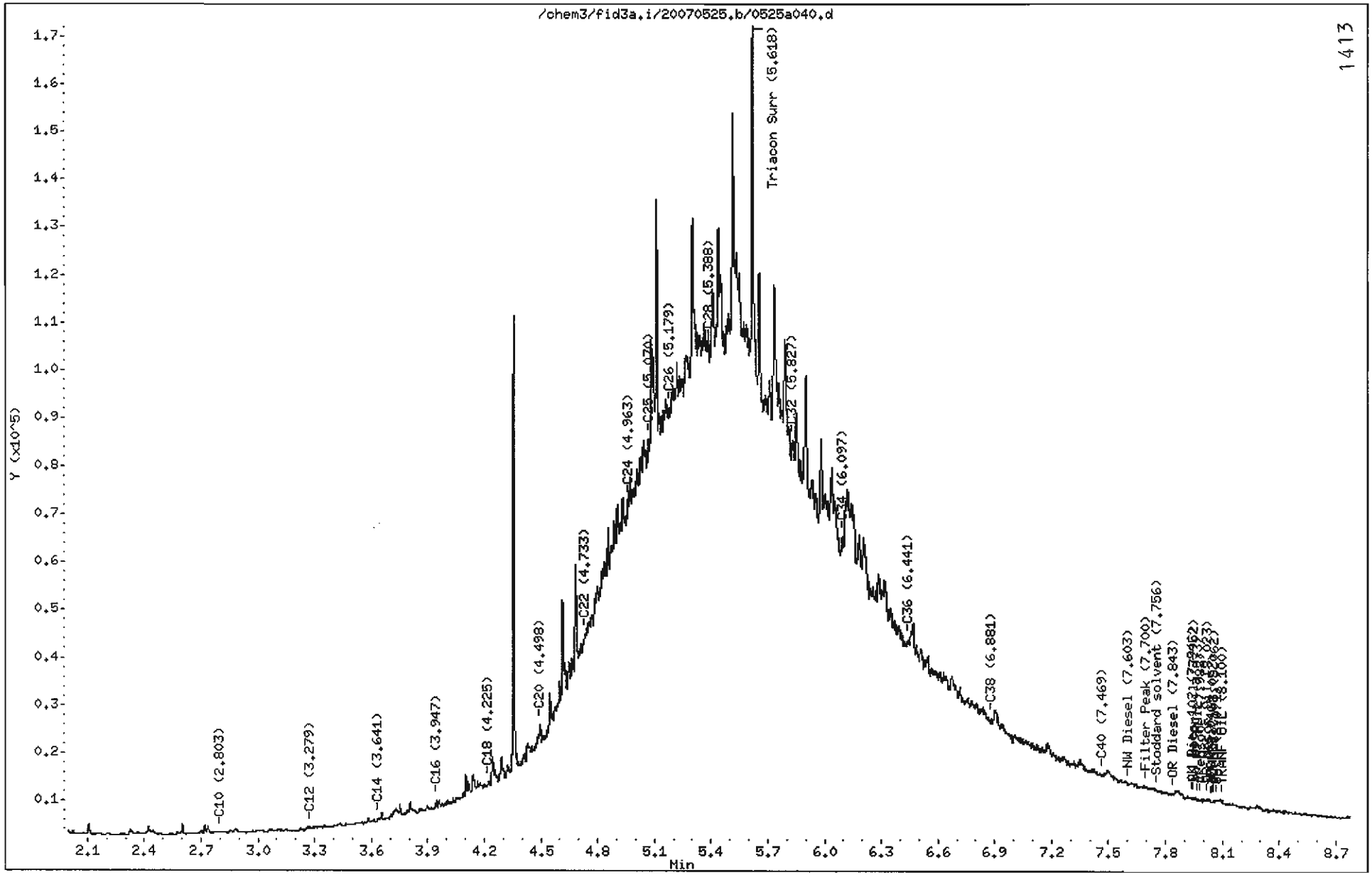


Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a044.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/30/2007
Macro: FID:3A052307

ARI ID: KZ56J
Client ID:
Injection: 25-MAY-2007 16:41
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.851	-0.004	3176	4488	GAS (Tol-C12)	105433	6
C8	2.054	-0.002	968	1010	DIESEL (C12-C24)	2037239	135
C10	2.802	-0.005	1144	661	M.OIL (C24-C38)	8202037	864
C12	3.279	0.001	2101	1440	AK-102 (C10-C25)	2185096	121
C14	3.642	0.001	4152	4322	AK-103 (C25-C36)	7292347	1032
C16	3.959	0.006	8098	7341			
C18	4.225	-0.010	11956	7720			
C20	4.488	-0.005	21234	18376	JET-A (C10-C18)	408570	32
C22	4.732	-0.002	43385	16256	MIN.OIL (C24-C38)	8202037	657
C24	4.963	0.000	71768	32555	MSPIRIT (Tol-C12)	105433	7
C25	5.074	0.000	83740	64505	TRANOIL (C12-C28)	4634959	304
C26	5.184	0.003	94092	37215	KEROSEN (Tol-C18)	464456	30
C28	5.391	-0.002	110046	57954			
C32	5.832	0.002	85495	18547	FUEL OIL(C10-C24)	2086786	4
C34	6.099	-0.002	63741	23901			
Filter Peak	7.702	0.002	10837	5772	JP-4 (Tol-C14)	175632	15
C36	6.439	-0.004	42224	24804	CREOSOT (C8-C22)	1272457	133
C38	6.884	-0.001	26798	24910	HYDRAUL (C24-C38)	8202037	922
C40	7.464	-0.002	13716	9826	BUNKERC (C10-C38)	10288823	3403

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/30/07

Surrogate	Area	Amount	%Rec	
o-Terphenyl	0	0.0	0.0	D
Triacontane	0	0.0	0.0	

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a044.d

Date : 25-MAY-2007 16:41

Client ID:

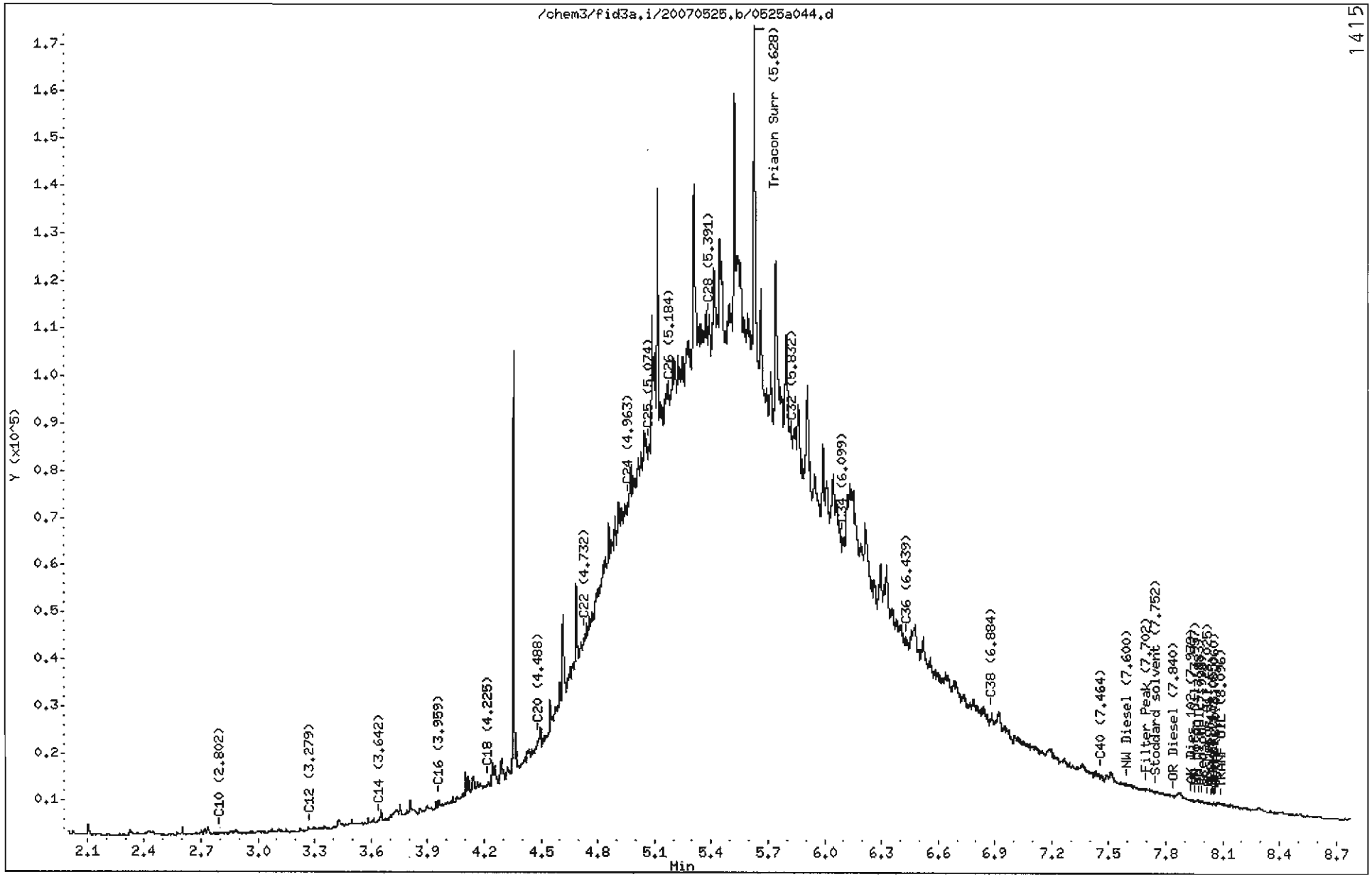
Sample Info: KZ56J,20

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a045.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/30/2007
Macro: FID:3A052307

ARI ID: KZ56K
Client ID:
Injection: 25-MAY-2007 16:56
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.853	-0.002	2669	3566	GAS (Tol-C12)	137229	8
C8	2.056	0.000	914	1113	DIESEL (C12-C24)	2367098	157
C10	2.813	0.006	1459	1514	M.OIL (C24-C38)	10486771	1105
C12	3.277	-0.001	2591	1577	AK-102 (C10-C25)	2510420	139
C14	3.638	-0.003	4576	5341	AK-103 (C25-C36)	9429851	1334
C16	3.959	0.005	9623	7764			
C18	4.241	0.006	24542	22125			
C20	4.494	0.001	26066	19371	JET-A (C10-C18)	442607	35
C22	4.733	-0.001	54322	29885	MIN.OIL (C24-C38)	10486771	839
C24	4.960	-0.002	99771	68960	MSPIRIT (Tol-C12)	137229	9
C25	5.071	-0.003	192975	152517	TRANOIL (C12-C28)	5533243	363
C26	5.178	-0.003	125972	132087	KEROSEN (Tol-C18)	512787	33
C28	5.392	-0.001	150220	236821			
C32	5.829	-0.001	122243	112472	FUEL OIL(C10-C24)	2434147	5
C34	6.108	0.007	104522	42856			
Filter Peak	7.703	0.003	12415	5584	JP-4 (Tol-C14)	207550	18
C36	6.442	-0.001	62348	66943	CREOSOT (C8-C22)	1434374	150
C38	6.883	-0.001	35029	15630	HYDRAUL (C24-C38)	10486771	1178
C40	7.469	0.002	16770	10885	BUNKERC (C10-C38)	12920917	4274

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0 D
Triacontane	0	0.0	0.0

JR 05/30/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a045.d

Date : 25-MAY-2007 16:56

Client ID:

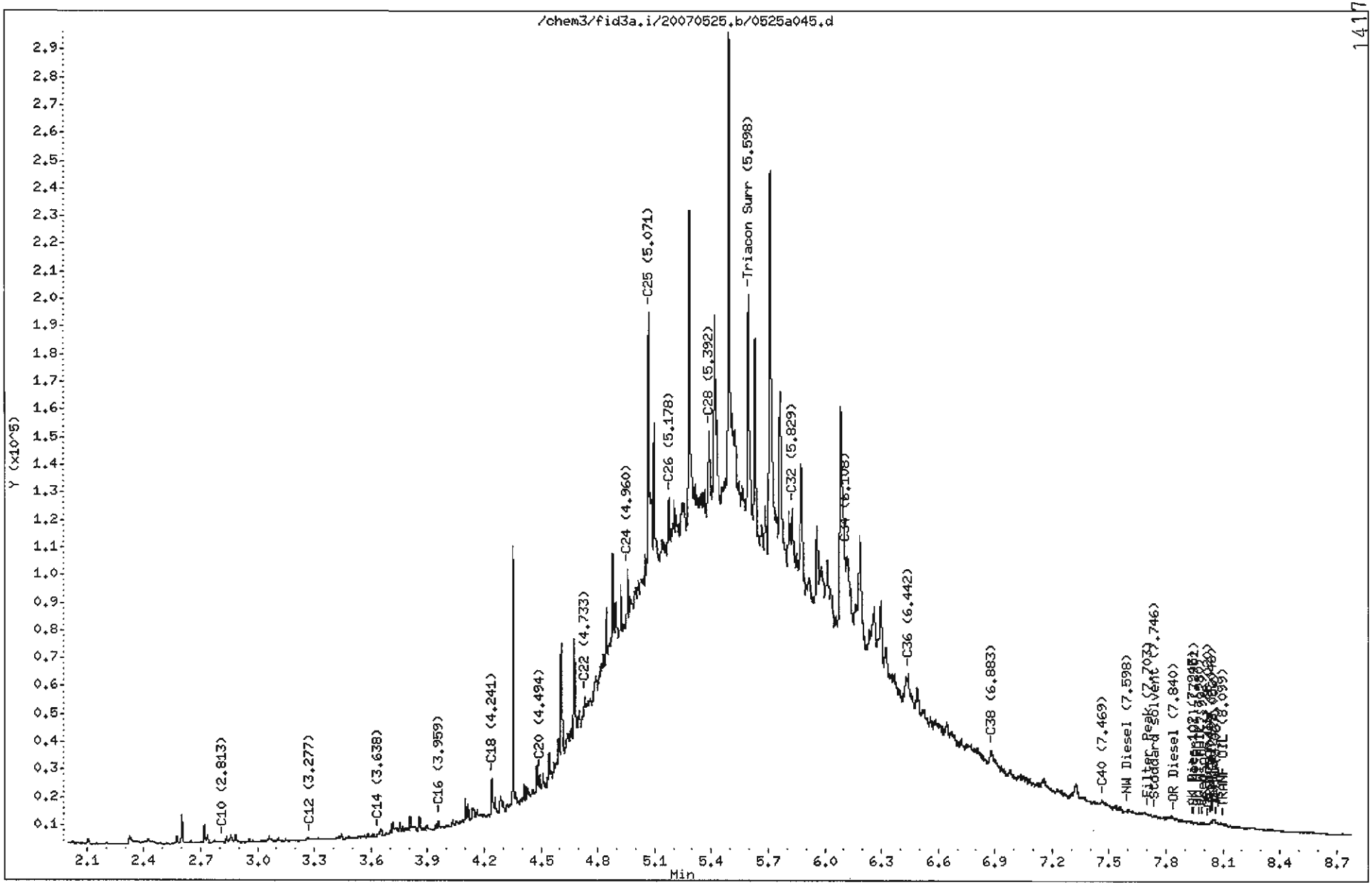
Sample Info: KZ56K,20

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a046.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56L
Client ID:
Injection: 25-MAY-2007 17:10
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.853	-0.002	2449	3255	GAS (Tol-C12)	77205	4
C8	2.052	-0.004	756	476	DIESEL (C12-C24)	1089647	72
C10	2.814	0.007	895	895	M.OIL (C24-C38)	4129030	435
C12	3.283	0.005	1189	969	AK-102 (C10-C25)	1129359	63
C14	3.645	0.004	2233	2274	AK-103 (C25-C36)	3675383	520
C16	3.948	-0.006	4014	3348			
C18	4.225	-0.010	6496	3862			
C20	4.497	0.003	12555	10902	JET-A (C10-C18)	222458	18
C22	4.737	0.003	22184	9901	MIN.OIL (C24-C38)	4129030	330
C24	4.961	-0.002	35441	9144	MSPIRIT (Tol-C12)	77205	5
C25	5.078	0.005	49288	38664	TRANOIL (C12-C28)	2312319	152
C26	5.185	0.004	48217	49719	KEROSEN (Tol-C18)	268203	17
C28	5.399	0.006	58949	69070			
C32	5.826	-0.004	47852	26194	FUEL OIL(C10-C24)	1121107	2
C34	6.101	0.000	38021	32409			
Filter Peak	7.700	0.000	6559	3237	JP-4 (Tol-C14)	112435	10
C36	6.444	0.001	23163	4143	CREOSOT (C8-C22)	724580	76
C38	6.883	-0.001	14768	4634	HYDRAUL (C24-C38)	4129030	464
C40	7.465	-0.001	8265	3737	BUNKERC (C10-C38)	5250137	1737

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0
Triacontane	0	0.0	0.0

D

JL 05/30/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a046.d
Date : 25-MAY-2007 17:10
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Sample Info: KZ56L,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

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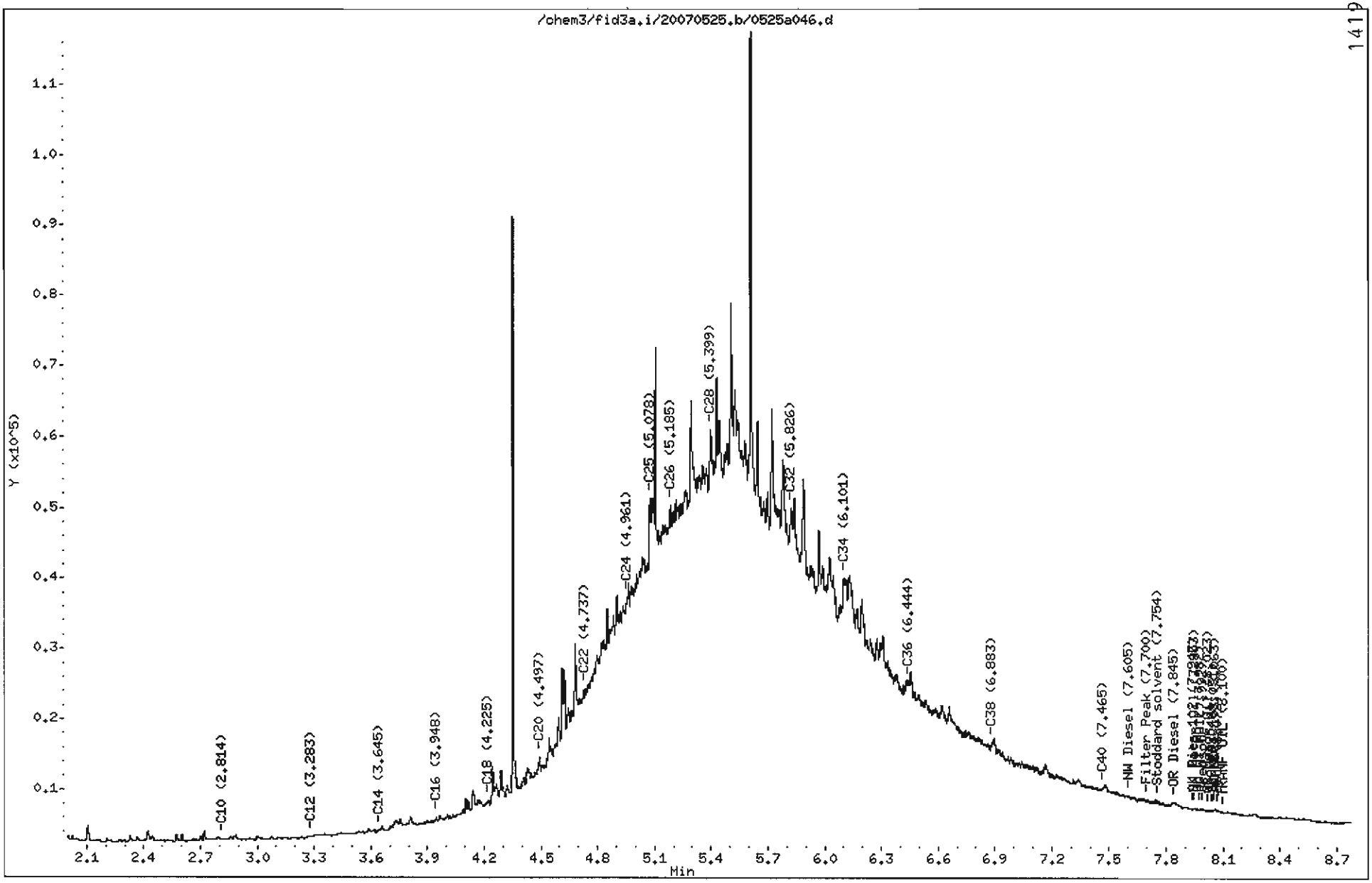


Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a047.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56M
Client ID:
Injection: 25-MAY-2007 17:25
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.851	-0.004	2484	3308	GAS (Tol-C12)	73429	4
C8	2.054	-0.002	702	803	DIESEL (C12-C24)	1629146	108
C10	2.804	-0.003	836	591	M.OIL (C24-C38)	7075646	745
C12	3.278	0.001	1516	954	AK-102 (C10-C25)	1723819	96
C14	3.637	-0.004	3169	3025	AK-103 (C25-C36)	6294025	890
C16	3.947	-0.007	5818	4559			
C18	4.226	-0.009	8913	5400			
C20	4.499	0.006	18377	26156	JET-A (C10-C18)	301251	24
C22	4.736	0.002	34992	8970	MIN.OIL (C24-C38)	7075646	566
C24	4.965	0.003	60373	30640	MSPIRIT (Tol-C12)	73429	5
C25	5.079	0.006	70596	59039	TRANOIL (C12-C28)	3773156	247
C26	5.179	-0.002	77766	27837	KEROSEN (Tol-C18)	338329	22
C28	5.390	-0.003	91771	41846			
C32	5.831	0.001	74946	29456	FUEL OIL(C10-C24)	1665498	3
C34	6.100	-0.001	55893	17639			
Filter Peak	7.698	-0.001	9131	4358	JP-4 (Tol-C14)	122658	11
C36	6.441	-0.003	37174	21056	CREOSOT (C8-C22)	999657	105
C38	6.882	-0.002	22602	7542	HYDRAUL (C24-C38)	7075646	795
C40	7.467	0.001	11641	2764	BUNKERC (C10-C38)	8741144	2892

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0 D
Triacontane	0	0.0	0.0 D

JK 05/30/07

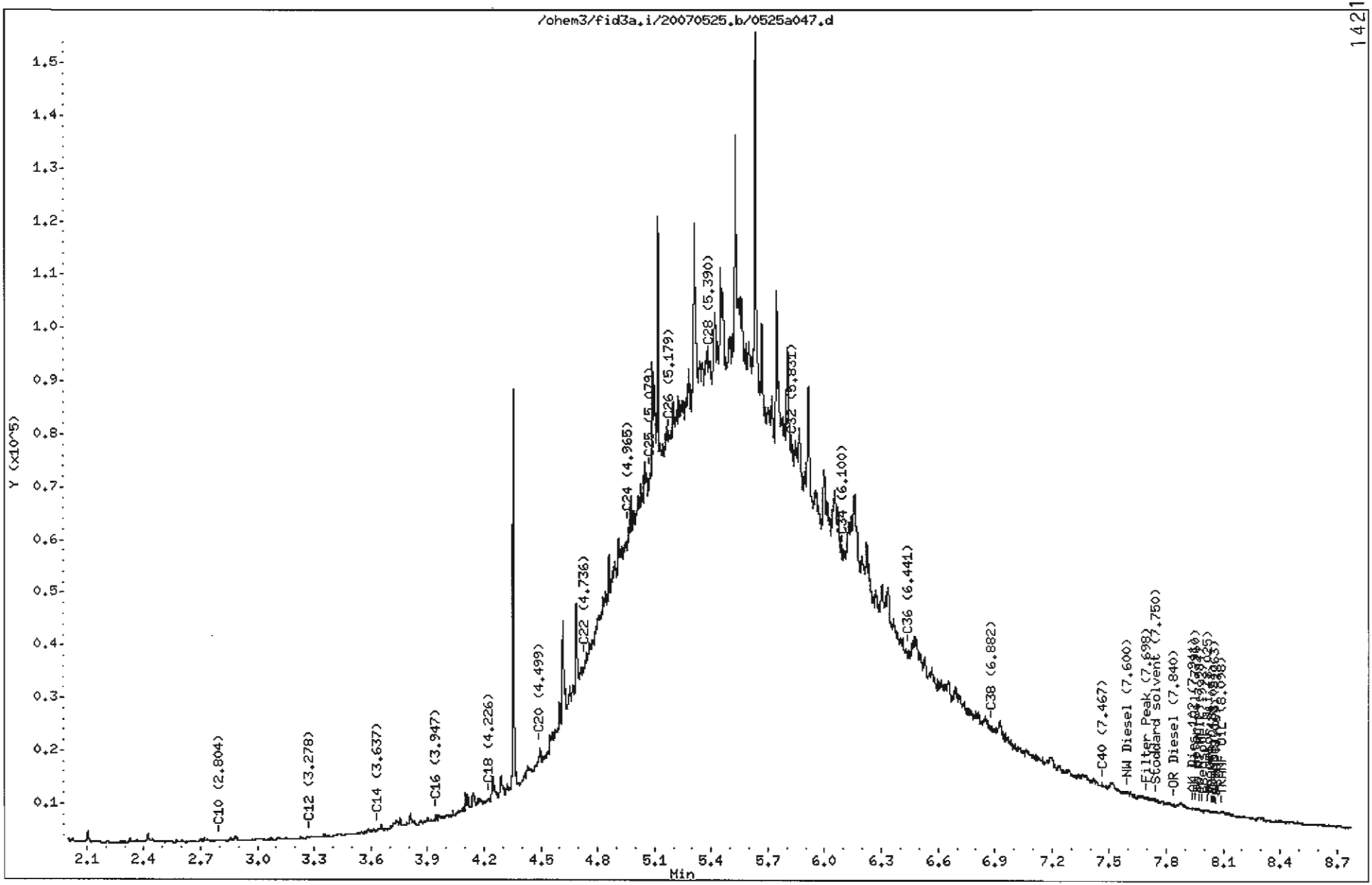
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a047.d
Date : 25-MAY-2007 17:25
Client ID:
Sample Info: KZ56M,20

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a048.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56N
Client ID:
Injection: 25-MAY-2007 17:39
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.851	-0.004	2465	3154	GAS (Tol-C12)	79937	4
C8	2.052	-0.004	706	741	DIESEL (C12-C24)	1774034	118
C10	2.800	-0.007	844	500	M.OIL (C24-C38)	7416132	781
C12	3.278	0.000	1563	921	AK-102 (C10-C25)	1859924	103
C14	3.645	0.004	3104	3281	AK-103 (C25-C36)	6646771	940
C16	3.947	-0.006	6571	5824			
C18	4.245	0.010	14727	15101			
C20	4.497	0.004	20063	15386	JET-A (C10-C18)	315923	25
C22	4.733	-0.001	37415	16243	MIN.OIL (C24-C38)	7416132	594
C24	4.966	0.004	65842	47166	MSPIRIT (Tol-C12)	79937	5
C25	5.073	0.000	74578	19029	TRANOIL (C12-C28)	4045515	265
C26	5.180	-0.001	81876	21193	KEROSEN (Tol-C18)	357263	23
C28	5.390	-0.003	95653	26627			
C32	5.829	-0.002	78422	18637	FUEL OIL(C10-C24)	1812631	3
C34	6.101	0.000	57260	18125			
Filter Peak	7.705	0.005	9659	9500	JP-4 (Tol-C14)	130701	12
C36	6.446	0.003	38351	27035	CREOSOT (C8-C22)	1075046	113
C38	6.880	-0.004	22930	9478	HYDRAUL (C24-C38)	7416132	833
C40	7.465	-0.001	12023	7536	BUNKERC (C10-C38)	9228763	3053

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0
Triacontane	0	0.0	0.0

D JK 05/30/07

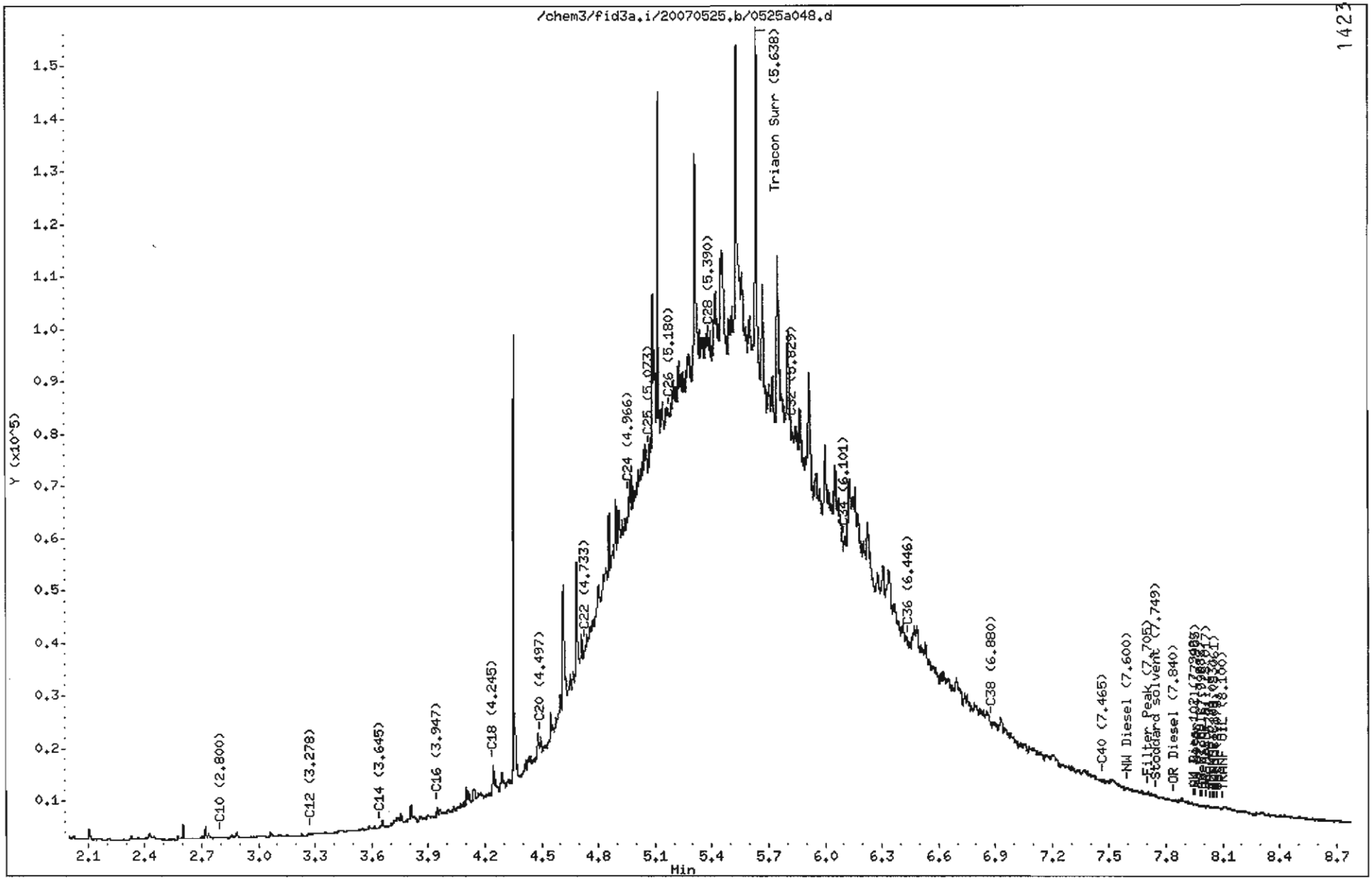
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a048.d
Date : 25-MAY-2007 17:39
Client ID:
Sample Info: KZ56N,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a020.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/30/2007
Macro: FID:3A052307

ARI ID: KZ56P,20
Client ID:
Injection: 25-MAY-2007 10:50
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.849	-0.006	2326	3339	GAS (Tol-C12)	70936	4
C8	2.053	-0.003	779	543	DIESEL (C12-C24)	1035266	69
C10	2.802	-0.005	836	548	M.OIL (C24-C38)	4254427	448
C12	3.282	0.004	973	616	AK-102 (C10-C25)	1098314	61
C14	3.645	0.004	2054	2018	AK-103 (C25-C36)	3737160	529
C16	3.961	0.007	3618	3146			
C18	4.238	0.003	6464	3445			
C20	4.496	0.003	12699	10109	JET-A (C10-C18)	205104	16
C22	4.731	-0.003	21068	7462	MIN.OIL (C24-C38)	4254427	341
C24	4.961	-0.001	34422	14830	MSPIRIT (Tol-C12)	70936	4
C25	5.071	-0.003	40503	29217	TRANOIL (C12-C28)	2300082	151
C26	5.180	-0.001	45135	7147	KEROSEN (Tol-C18)	245841	16
C28	5.397	0.004	49818	13909			
C32	5.832	0.002	45824	42794	FUEL OIL(C10-C24)	1065465	2
C34	6.099	-0.003	34591	12200			
Filter Peak	7.695	-0.004	8741	5201	JP-4 (Tol-C14)	104538	9
C36	6.445	0.001	23281	8312	CREOSOT (C8-C22)	671646	70
C38	6.885	0.001	15148	3909	HYDRAUL (C24-C38)	4254427	478
C40	7.467	0.001	10101	2204	BUNKERC (C10-C38)	5319892	1760

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/30/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0 D
Triacontane	0	0.0	0.0

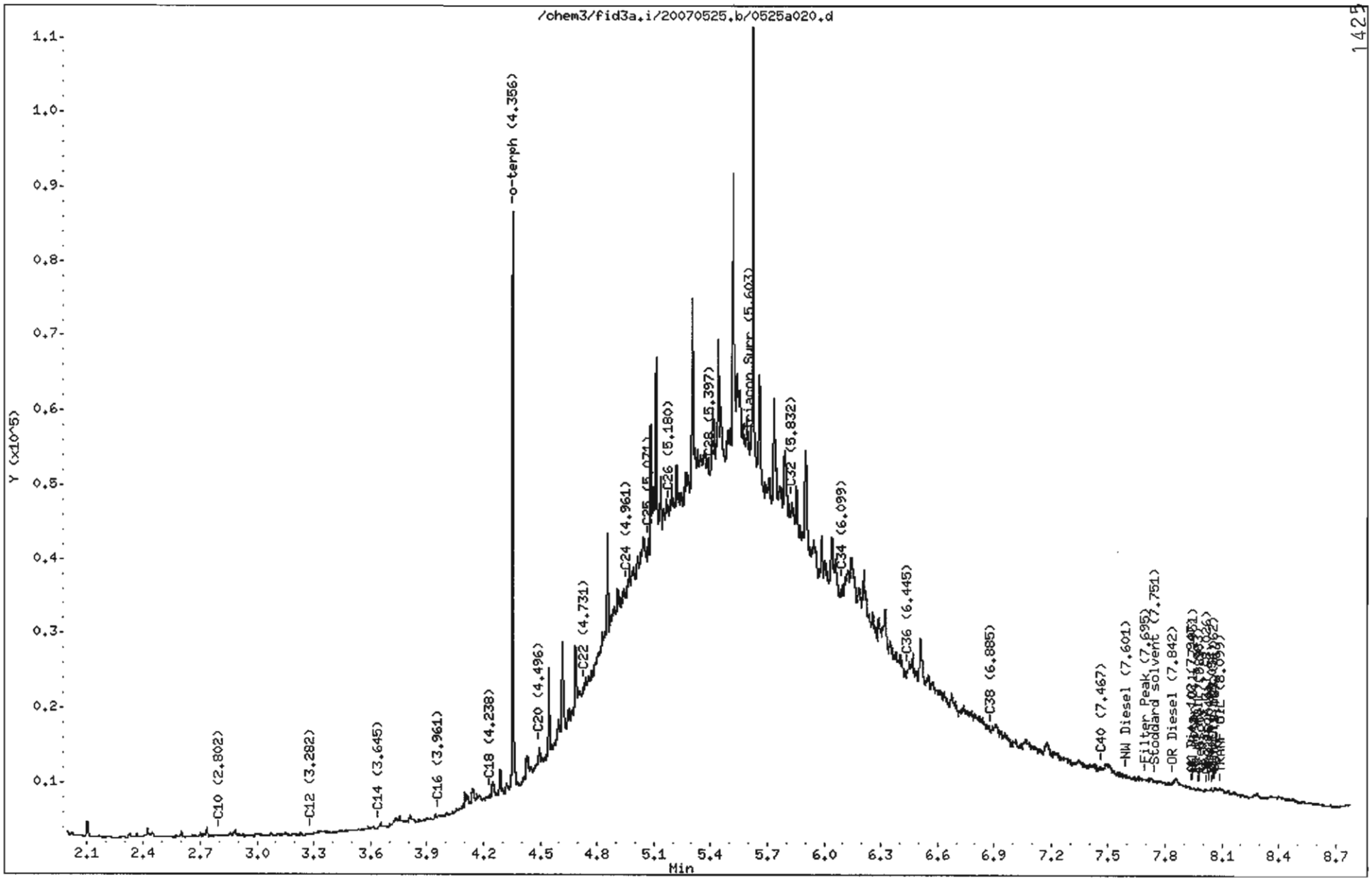
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a020.d
Date : 25-MAY-2007 10:50
Client ID:
Sample Info: KZ56P,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: KZ56
Matrix: Sediment Project: THEA FOSS OMMP YEAR 3
Date Received: 05/17/07 3306

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
07-9547-KZ56A	Y3-RC11-S	5.36 g	1.00 mL	D	05/21/07
07-9548-052107MB1	Method Blank	10.0 g	1.00 mL	-	05/21/07
07-9548-052107LCS1	Lab Control	10.0 g	1.00 mL	-	05/21/07
07-9548-052107LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	05/21/07
07-9548-KZ56B	Y3-RC01-S	2.79 g	1.00 mL	D	05/21/07
07-9548-KZ56BMS	Y3-RC01-S	2.79 g	1.00 mL	D	05/21/07
07-9548-KZ56BMSD	Y3-RC01-S	2.79 g	1.00 mL	D	05/21/07
07-9549-KZ56C	Y3-RC13-S	4.14 g	1.00 mL	D	05/21/07
07-9550-KZ56D	Y3-RC14-S	5.34 g	1.00 mL	D	05/21/07
07-9551-KZ56E	Y3-RC10-S	7.50 g	1.00 mL	D	05/21/07
07-9552-KZ56F	Y3-RC05-S	4.70 g	1.00 mL	D	05/21/07
07-9553-KZ56G	Y3-RC07-S	5.73 g	1.00 mL	D	05/21/07
07-9554-KZ56H	Y3-RC08-S	5.24 g	1.00 mL	D	05/21/07
07-9555-KZ56I	Y3-RC15-S	5.32 g	1.00 mL	D	05/21/07
07-9556-KZ56J	Y3-RC09-S	4.86 g	1.00 mL	D	05/21/07
07-9557-KZ56K	Y3-RC02-S	3.97 g	1.00 mL	D	05/21/07
07-9558-KZ56L	Y3-RC12-S	6.48 g	1.00 mL	D	05/21/07
07-9559-KZ56M	Y3-RC06-S	5.20 g	1.00 mL	D	05/21/07
07-9560-KZ56N	Y3-RC04-S	4.73 g	1.00 mL	D	05/21/07
07-9562-KZ56P	Y3-RC03-S	6.06 g	1.00 mL	D	05/21/07

Basis: D=Dry Weight W=As Received

NWTPH-Dx Analysis
Standard Raw Data

prepared
for

TETRA TECH

PROJECT: THEA FOSS OMMP YEAR 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

6a
NW MOTOR OIL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

Instrument: FID3A.I Project: THEA FOSS OMMP

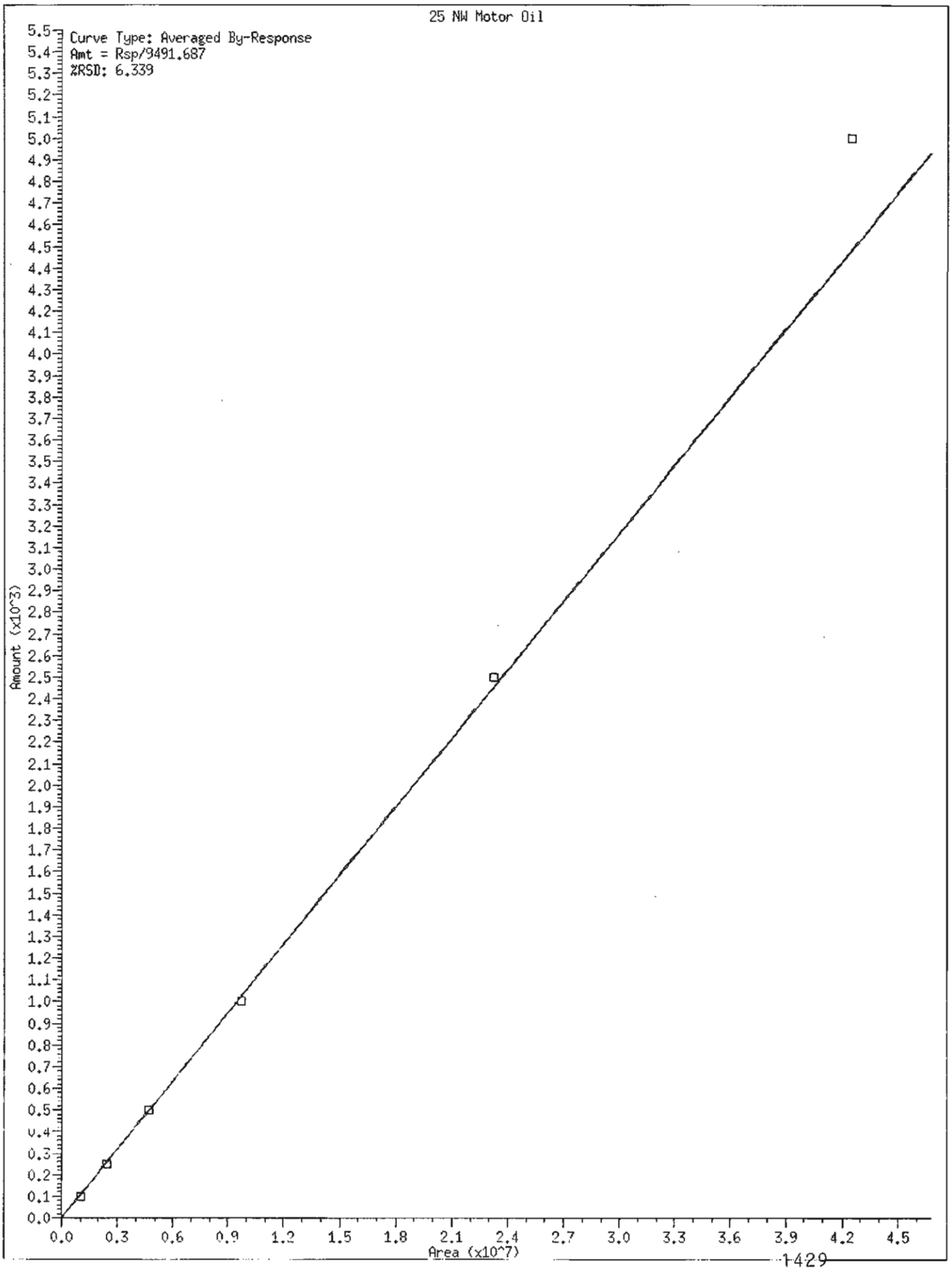
Calibration Date: 31-JAN-2007 SDG No.: KZ56

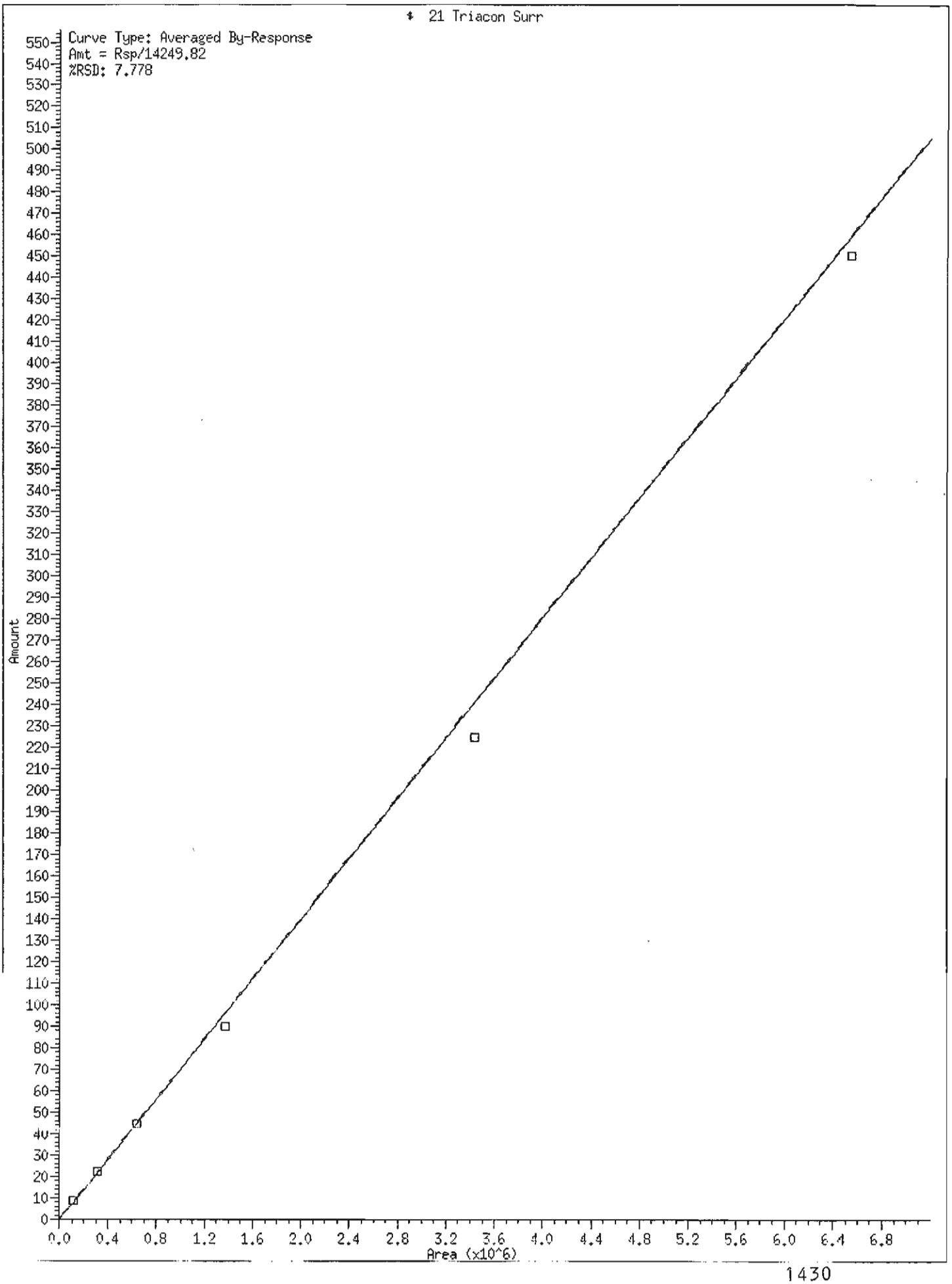
Motor Oil Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil	10279	9827	9323	9702	9315	8505	9492	6.3
AK M.Oil	8428	8219	7869	8178	7972	7360	8004	4.6
OR M.Oil	10053	9092	8517	8679	8174	7173	8615	11.1
Triac Surr	12249	13971	14251	15245	15243	14540	14250	7.8

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

Calibration Files	Analysis Time
0131a009.d	31-JAN-2007 16:29
0131a010.d	31-JAN-2007 16:45
0131a011.d	31-JAN-2007 17:00
0131a012.d	31-JAN-2007 17:15
0131a013.d	31-JAN-2007 17:30
0131a014.d	31-JAN-2007 17:45


25 NW Motor Oil
Curve Type: Averaged By-Response
Amt = Rsp/9491.687
%RSD: 6.339
Amount (x10^3)
Area (x10^7)
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5


* 21 Triacon Surr
Curve Type: Averaged By-Response
Amt = Rsp/14249.82
%RSD: 7.778
Amount
Area (x10^6)

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a006.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: RT
Client ID:
Injection: 31-JAN-2007 15:44
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.154	0.000	244013	334398	GAS (Tol-C12)	1099716	62
C8	2.414	0.000	208928	230328	DIESEL (C12-C24)	1416997	107
C10	3.229	0.000	513052	235582	M.OIL (C24-C38)	1797923	189
C12	3.660	0.000	642481	222474	AK-102 (C10-C25)	1891136	120
C14	3.970	0.000	674124	223783	AK-103 (C25-C36)	1590443	235
C16	4.242	0.000	695593	228224			
C18	4.493	0.000	653758	230252			
C20	4.730	0.000	641987	231091	JET-A (C10-C18)	1178382	79
C22	4.957	0.000	617506	228324	MIN.OIL (C24-C38)	1797923	150
C24	5.179	0.000	596789	232371	MSPIRIT (Tol-C12)	1099716	69
C25	5.287	0.000	821315	324383	TRANOIL (C12-C28)	2230492	136
C26	5.392	0.000	563003	237173	KEROSEN (Tol-C18)	1803958	117
C28	5.600	0.000	559394	230381			
C32	6.042	0.000	410410	231928	FUEL OIL(C10-C24)	1891136	4
C34	6.323	0.000	296265	216169			
Filter Peak	7.469	0.000	3353	2075	JP-4 (Tol-C14)	1332729	120
C36	6.673	0.000	216546	204014	CREOSOT (C12-C22)	1177137	308
C38	7.133	0.000	122696	151663	HYDRAUL (C24-C38)	1797923	202
C40	7.741	0.000	64727	112412	BUNKERC (C10-C38)	3689060	1220

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	759476	40.9	90.8
Triacontane	682880	47.9	106.5

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	14929.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070131.b/0131a006.d
Date : 31-JAN-2007 15:44
Client ID:
Sample Info: RT

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

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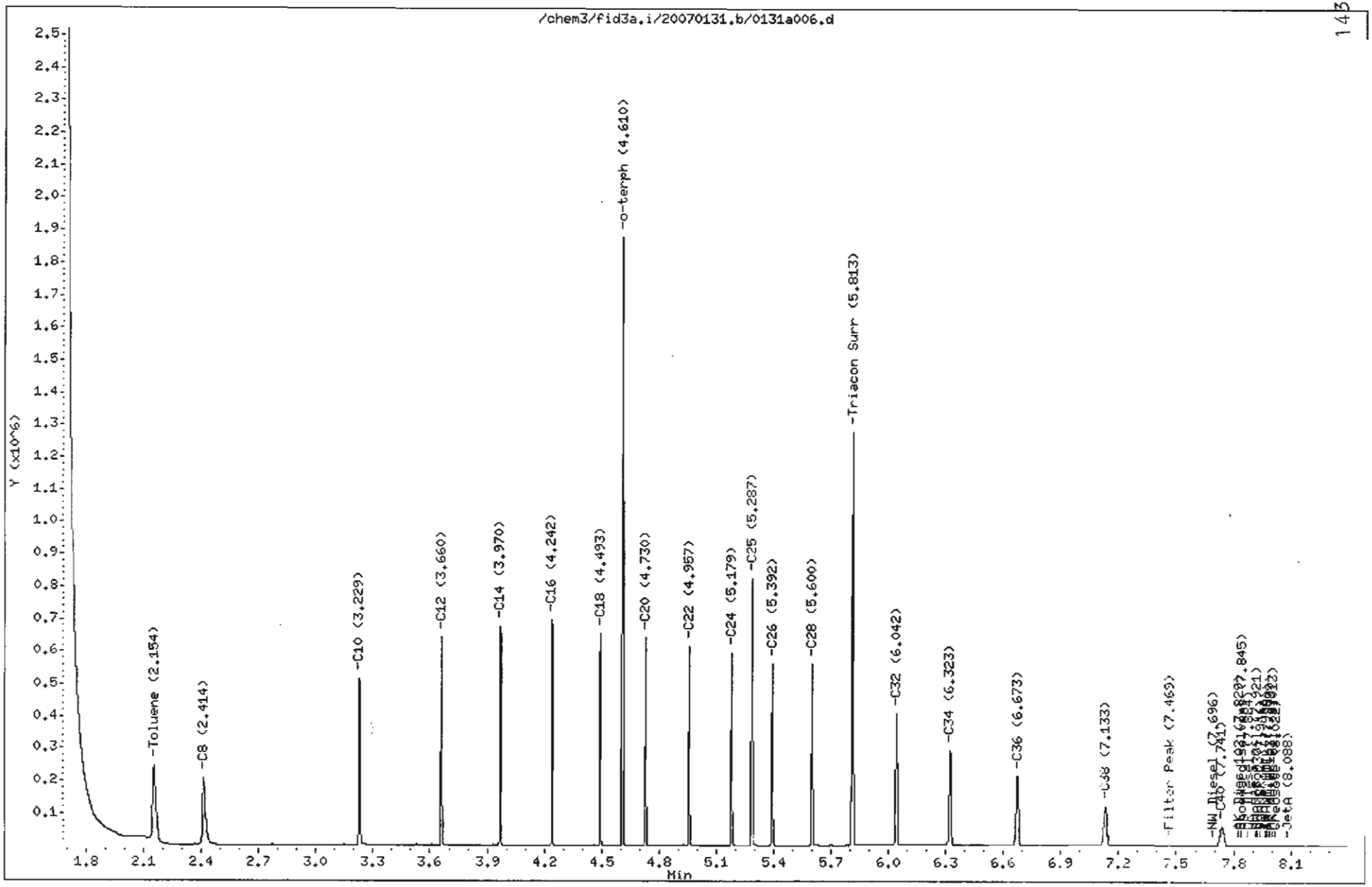

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a007.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: IB
Client ID:
Injection: 31-JAN-2007 15:59
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.171	0.017	1087	2394	GAS (Tol-C12)	112490	6
C8	2.396	-0.018	442	102	DIESEL (C12-C24)	36063	3
C10	3.230	0.000	2027	1131	M.OIL (C24-C38)	247684	26
C12	3.659	-0.001	2143	1133	AK-102 (C10-C25)	49272	3
C14	3.974	0.003	2123	1287	AK-103 (C25-C36)	176890	26
C16	4.244	0.002	2614	1383			
C18	4.494	0.001	2738	1303			
C20	4.732	0.002	2819	1562	JET-A (C10-C18)	29686	2
C22	4.962	0.005	2790	1535	MIN.OIL (C24-C38)	247684	21
C24	5.184	0.005	2969	1993	MSPIRIT (Tol-C12)	112490	7
C25	5.293	0.006	3905	2434	TRANOIL (C12-C28)	64825	4
C26	5.400	0.008	3221	2883	KEROSEN (Tol-C18)	129474	8
C28	5.608	0.008	4372	3887			
C32	6.051	0.009	6202	6997	FUEL OIL(C10-C24)	48765	0
C34	6.331	0.008	3972	6240			
Filter Peak	7.463	-0.006	3128	1493	JP-4 (Tol-C14)	118655	11
C36	6.681	0.008	3739	7632	CREOSOT (C12-C22)	28982	8
C38	7.138	0.005	3663	9968	HYDRAUL (C24-C38)	247684	28
C40	7.746	0.005	3740	5917	BUNKERC (C10-C38)	296449	98

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	751368	40.4	89.9
Triacontane	625333	43.9	97.5

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	14929.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070131.b/0131a007.d

Date : 31-JAN-2007 15:59

Client ID:

Sample Info: IB

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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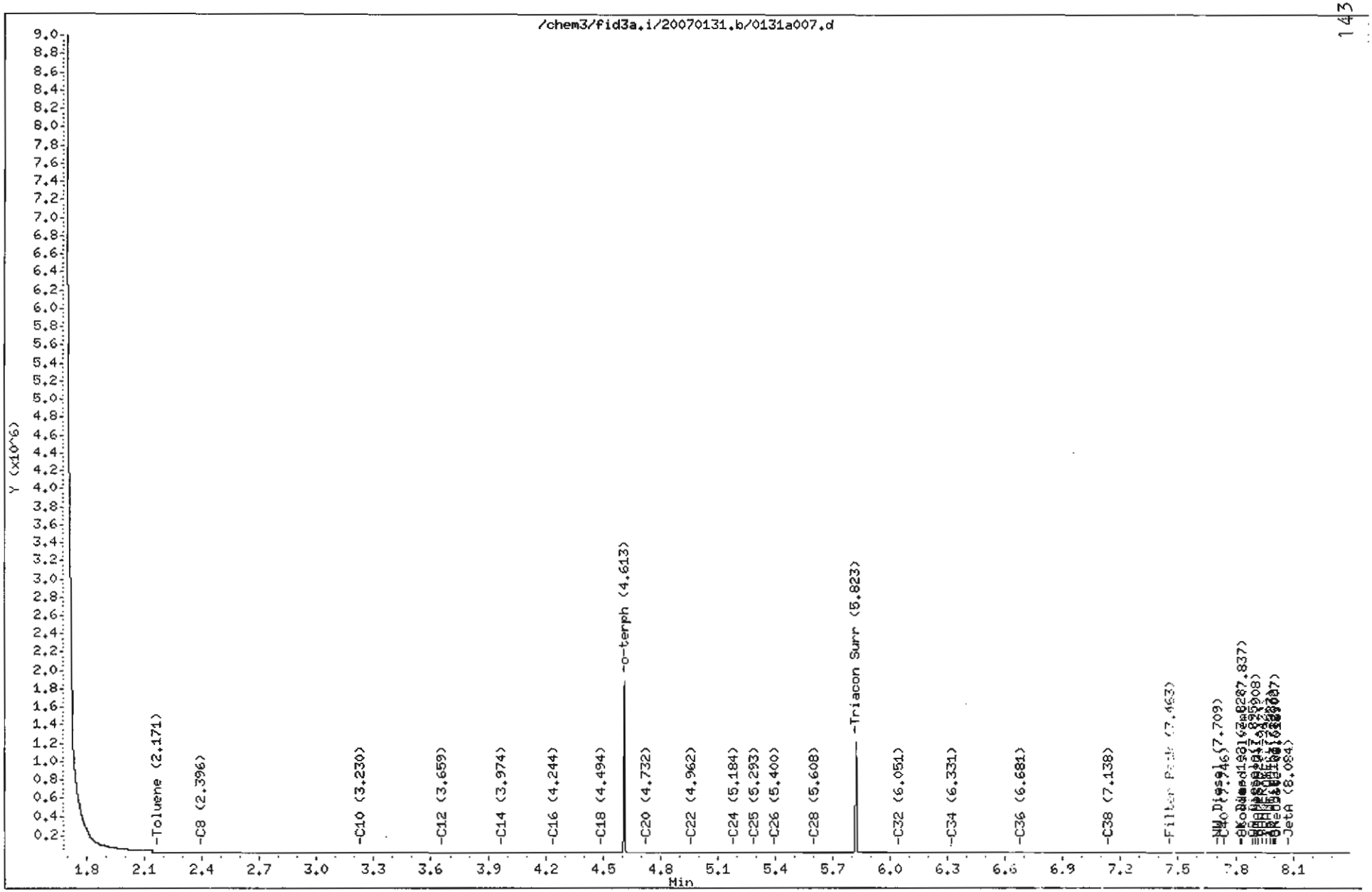


Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a009.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: 100 PPM MOIL
Client ID:
Injection: 31-JAN-2007 16:29
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.159	0.005	777	599	GAS (Tol-C12)	56366	3
C8	2.403	-0.011	447	287	DIESEL (C12-C24)	129299	10
C10	3.230	0.001	661	376	M.OIL (C24-C38)	1027924	108
C12	3.660	0.000	606	507	AK-102 (C10-C25)	143261	9
C14	3.975	0.005	748	747	AK-103 (C25-C36)	842840	124
C16	4.244	0.002	774	614			
C18	4.495	0.003	2619	1401			
C20	4.733	0.003	1327	1119	JET-A (C10-C18)	37652	3
C22	4.964	0.006	2789	2475	MIN.OIL (C24-C38)	1027924	86
C24	5.186	0.007	5717	5741	MSPIRIT (Tol-C12)	56366	4
C25	5.282	-0.004	6235	3082	TRANOIL (C12-C28)	331737	20
C26	5.394	0.002	7539	2981	KEROSEN (Tol-C18)	80056	5
C28	5.597	-0.002	9775	5031			
C32	6.058	0.015	11662	11344	FUEL OIL(C10-C24)	143261	0
C34	6.337	0.014	10165	3405			
Filter Peak	7.468	-0.001	5055	2576	JP-4 (Tol-C14)	63922	6
C36	6.684	0.011	8174	5322	CREOSOT (C12-C22)	64238	17
C38	7.142	0.009	6152	1704	HYDRAUL (C24-C38)	1027924	116
C40	7.752	0.011	4507	1426	BUNKERC (C10-C38)	1171185	387

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	242	0.0	0.0
Triacontane	110241	7.7	17.2

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	14929.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

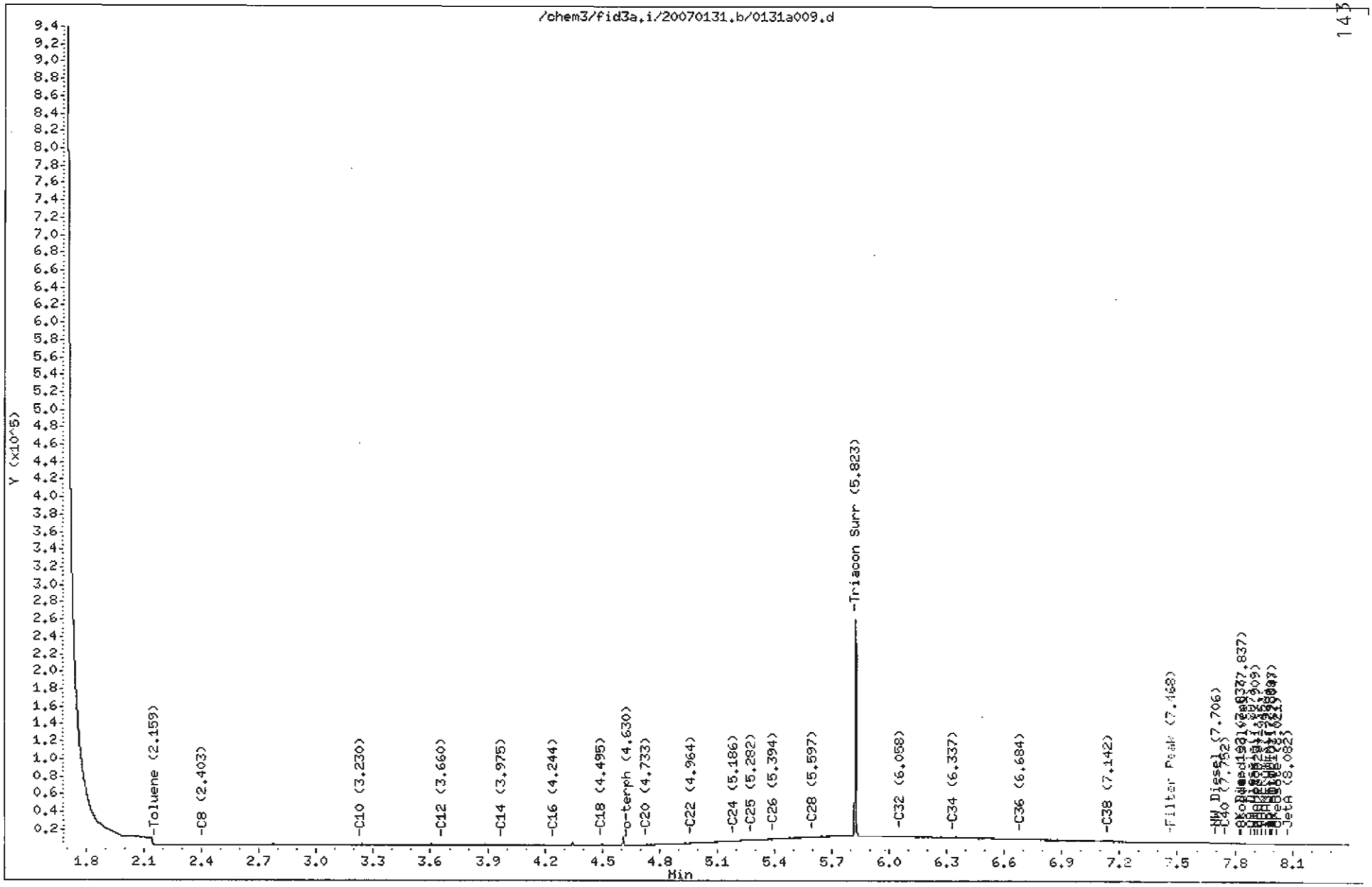
Data File: /chem3/fid3a.i/20070131.b/0131a009.d
Date : 31-JAN-2007 16:29
Client ID:
Sample Info: 100 PPM MOIL

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1436



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a010.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: 250 PPM MOIL
Client ID:
Injection: 31-JAN-2007 16:45
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.130	-0.025	21911	12910	GAS (Tol-C12)	82481	5
C8	2.413	-0.001	479	180	DIESEL (C12-C24)	270095	20
C10	3.230	0.001	761	447	M.OIL (C24-C38)	2456740	259
C12	3.661	0.001	591	650	AK-102 (C10-C25)	294092	19
C14	3.976	0.005	626	696	AK-103 (C25-C36)	2054720	303
C16	4.244	0.002	669	497			
C18	4.495	0.002	5695	2859			
C20	4.732	0.002	2406	1986	JET-A (C10-C18)	40934	3
C22	4.957	0.000	6153	1820	MIN.OIL (C24-C38)	2456740	205
C24	5.178	-0.001	14138	6197	MSPIRIT (Tol-C12)	82481	5
C25	5.284	-0.002	15884	2845	TRANOIL (C12-C28)	792954	48
C26	5.391	-0.001	20064	12086	KEROSEN (Tol-C18)	109922	7
C28	5.600	0.000	25292	7958			
C32	6.043	0.001	27789	12512	FUEL OIL(C10-C24)	283588	1
C34	6.327	0.004	23277	5088			
Filter Peak	7.462	-0.007	9540	9522	JP-4 (Tol-C14)	89419	8
C36	6.672	-0.001	18815	10209	CREOSOT (C12-C22)	119892	31
C38	7.132	-0.001	12407	3194	HYDRAUL (C24-C38)	2456740	276
C40	7.743	0.002	7926	4918	BUNKERC (C10-C38)	2740327	906

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2543	0.1	0.3
Triacontane	314343	22.1	49.0

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
Jet A	14929.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

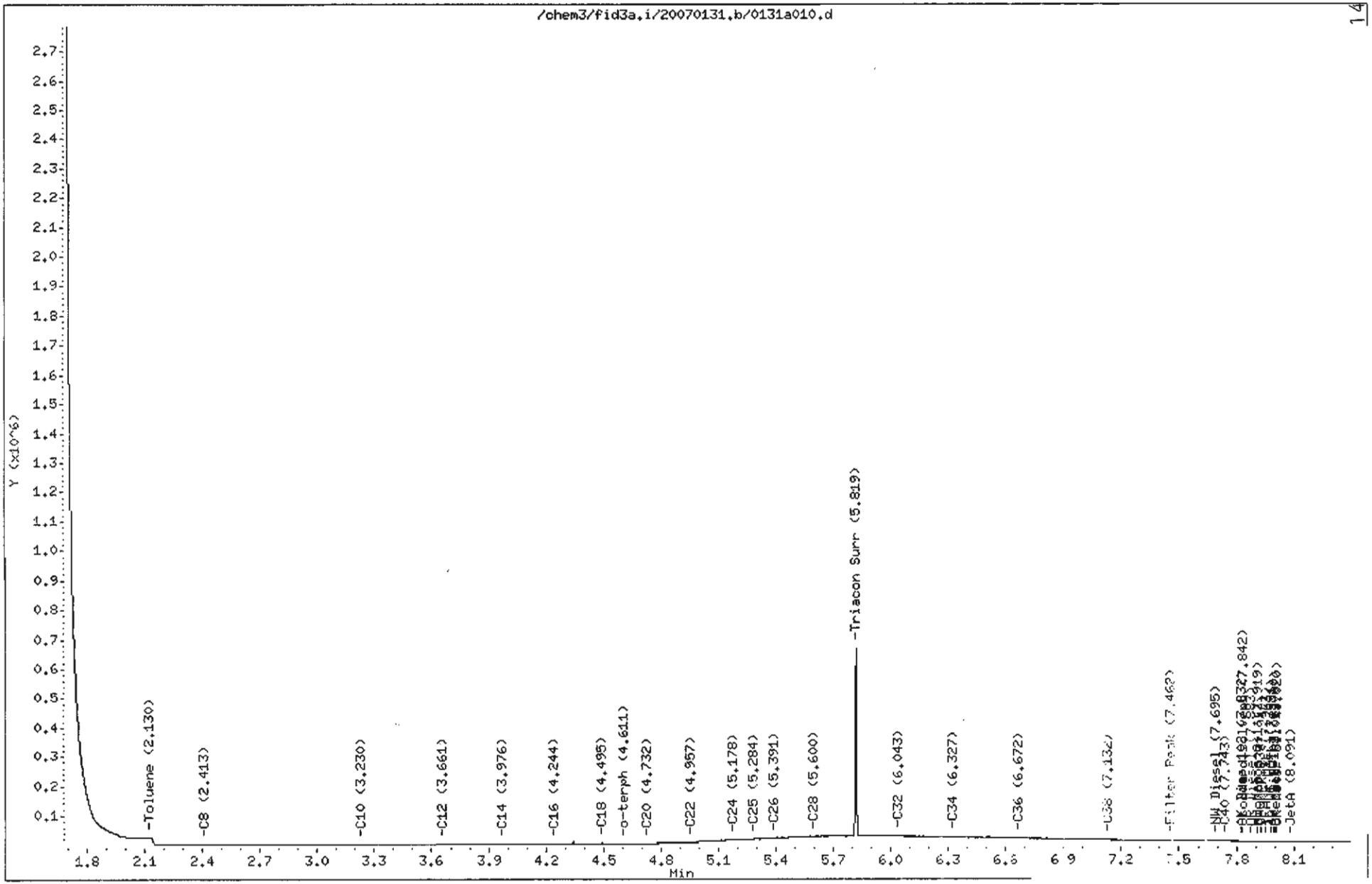
Data File: /chem3/fid3a.i/20070131.b/0131a010.d
Date : 31-JAN-2007 16:45
Client ID:
Sample Info: 250 PPM MOIL

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1438



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a011.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: 500 PPM MOIL
Client ID:
Injection: 31-JAN-2007 17:00
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.132	-0.023	40935	27774	GAS (Tol-C12)	139621	8
C8	2.421	0.007	442	69	DIESEL (C12-C24)	502742	38
C10	3.230	0.001	980	594	M.OIL (C24-C38)	4661256	491
C12	3.660	0.000	784	784	AK-102 (C10-C25)	517607	33
C14	3.974	0.003	772	737	AK-103 (C25-C36)	3934631	580
C16	4.242	0.001	853	590			
C18	4.494	0.001	11100	5129			
C20	4.732	0.002	4316	3231	JET-A (C10-C18)	53135	4
C22	4.964	0.007	12939	12036	MIN.OIL (C24-C38)	4661256	390
C24	5.183	0.004	27224	24544	MSPIRIT (Tol-C12)	139621	9
C25	5.291	0.004	31670	8690	TRANOIL (C12-C28)	1492008	91
C26	5.391	-0.001	37885	9029	KEROSEN (Tol-C18)	177891	12
C28	5.601	0.001	48960	14406			
C32	6.043	0.001	54598	27695	FUEL OIL(C10-C24)	517607	1
C34	6.321	-0.002	45010	18697			
Filter Peak	7.457	-0.013	16966	13958	JP-4 (Tol-C14)	147679	13
C36	6.672	-0.001	35860	25872	CREOSOT (C12-C22)	200167	52
C38	7.137	0.004	22930	7983	HYDRAUL (C24-C38)	4661256	524
C40	7.736	-0.005	12998	9351	BUNKERC (C10-C38)	5178863	1713

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	4061	0.2	0.5
Triacontane	641278	45.0	100.0

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	14929.9	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070131.b/0131a011.d

Date : 31-JAN-2007 17:00

Client ID:

Sample Info: 500 PPM MOIL

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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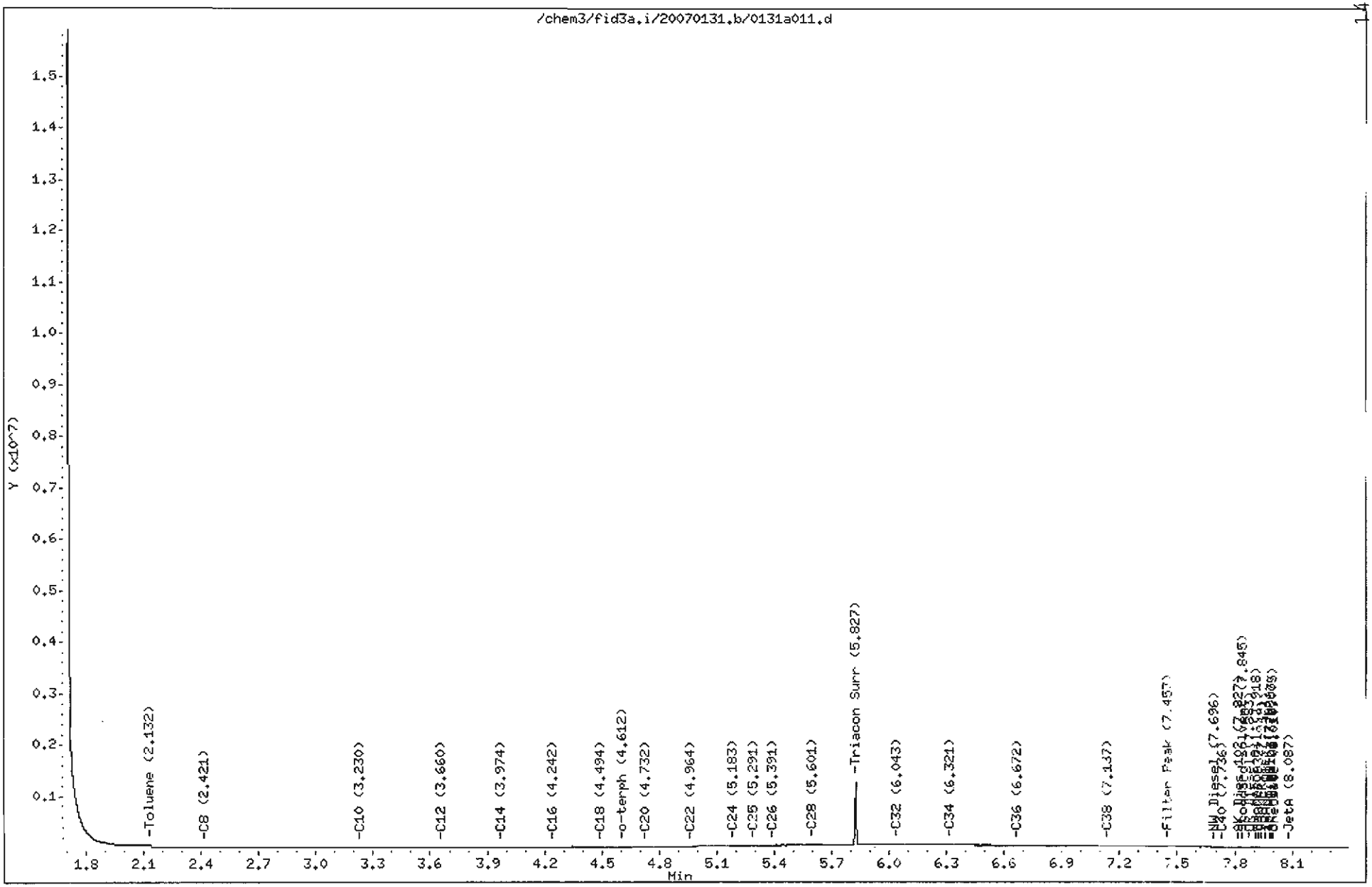


Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a012.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: 1000 PPM MOIL
Client ID:
Injection: 31-JAN-2007 17:15
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.126	-0.028	89503	64938	GAS (Tol-C12)	198649	11
C8	2.402	-0.012	521	133	DIESEL (C12-C24)	1018850	77
C10	3.230	0.001	1515	861	M.OIL (C24-C38)	9701668	1022
C12	3.659	-0.001	1297	1156	AK-102 (C10-C25)	1085588	69
C14	3.972	0.002	1225	1035	AK-103 (C25-C36)	8178087	1206
C16	4.241	0.000	1519	1191			
C18	4.492	-0.001	22886	11212			
C20	4.728	-0.002	8652	6193	JET-A (C10-C18)	84563	6
C22	4.955	-0.002	26571	23541	MIN.OIL (C24-C38)	9701668	811
C24	5.183	0.004	55695	11045	MSPIRIT (Tol-C12)	198649	13
C25	5.293	0.006	71591	26947	TRANOIL (C12-C28)	3154256	192
C26	5.401	0.009	86579	75600	KEROSEN (Tol-C18)	265130	17
C28	5.608	0.009	107482	83541			
C32	6.057	0.015	109645	72811	FUEL OIL(C10-C24)	1036931	2
C34	6.339	0.016	95397	18848			
Filter Peak	7.468	-0.001	31592	6268	JP-4 (Tol-C14)	210074	19
C36	6.686	0.012	69105	44619	CREOSOT (C12-C22)	427327	112
C38	7.147	0.015	44660	21817	HYDRAUL (C24-C38)	9701668	1090
C40	7.756	0.016	24352	14853	BUNKERC (C10-C38)	10738600	3552

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	7486	0.4	0.9
Triacontane	1372083	96.3	214.0

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	14929.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

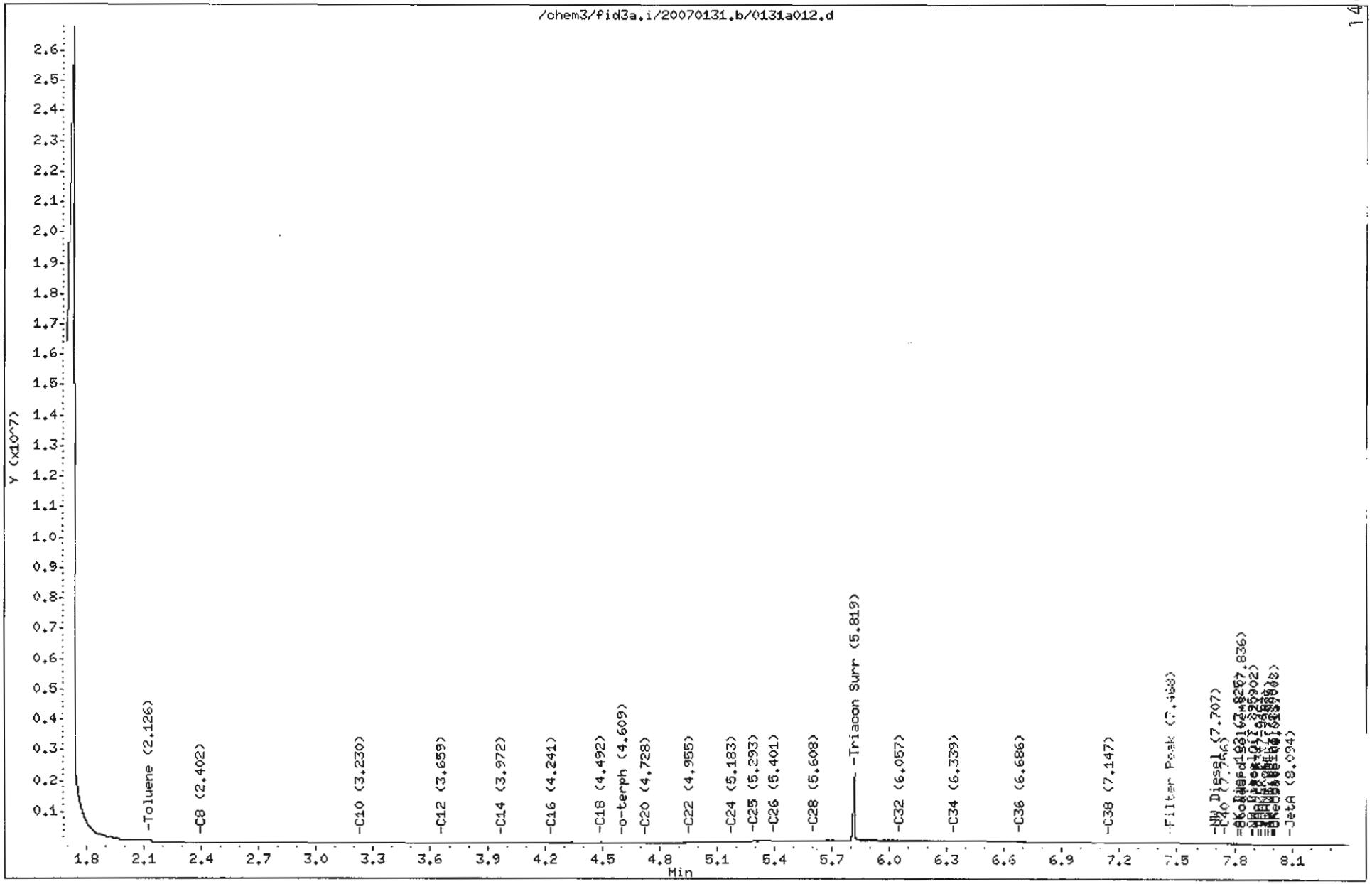
Data File: /chem3/fid3a.i/20070131.b/0131a012.d
Date : 31-JAN-2007 17:15
Client ID:
Sample Info: 1000 PPM MOIL

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1442



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a013.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: 2500 PPM MOIL
Client ID:
Injection: 31-JAN-2007 17:30
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.123	-0.031	225665	151983	GAS (Tol-C12)	384655	22
C8	2.421	0.007	1217	2613	DIESEL (C12-C24)	2524838	191
C10	3.230	0.001	18660	10039	M.OIL (C24-C38)	23286588	2453
C12	3.659	-0.001	42943	16075	AK-102 (C10-C25)	2576904	164
C14	3.970	0.000	3340	2230	AK-103 (C25-C36)	19929141	2939
C16	4.241	0.000	56989	20614			
C18	4.494	0.002	55331	26615			
C20	4.732	0.002	20801	13903	JET-A (C10-C18)	220392	15
C22	4.963	0.006	64713	57425	MIN.OIL (C24-C38)	23286588	1948
C24	5.181	0.003	131877	58932	MSPIRIT (Tol-C12)	384655	24
C25	5.282	-0.004	161615	62988	TRANOIL (C12-C28)	7722733	471
C26	5.393	0.001	190072	67923	KEROSEN (Tol-C18)	552980	36
C28	5.597	-0.002	248658	49191			
C32	6.046	0.004	273950	197555	FUEL OIL(C10-C24)	2576904	5
C34	6.329	0.006	220613	143242			
Filter Peak	7.456	-0.013	72840	50456	JP-4 (Tol-C14)	408001	37
C36	6.674	0.001	165418	45950	CREOSOT (C12-C22)	972945	254
C38	7.130	-0.003	102285	56657	HYDRAUL (C24-C38)	23286588	2617
C40	7.739	-0.001	48678	39778	BUNKERC (C10-C38)	25863493	8555

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	38156	2.1	4.6
Triacontane	3429650	240.7	534.8

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	14929.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070131.b/0131a013.d

Date : 31-JAN-2007 17:30

Client ID:

Sample Info: 2500 PPM MOIL

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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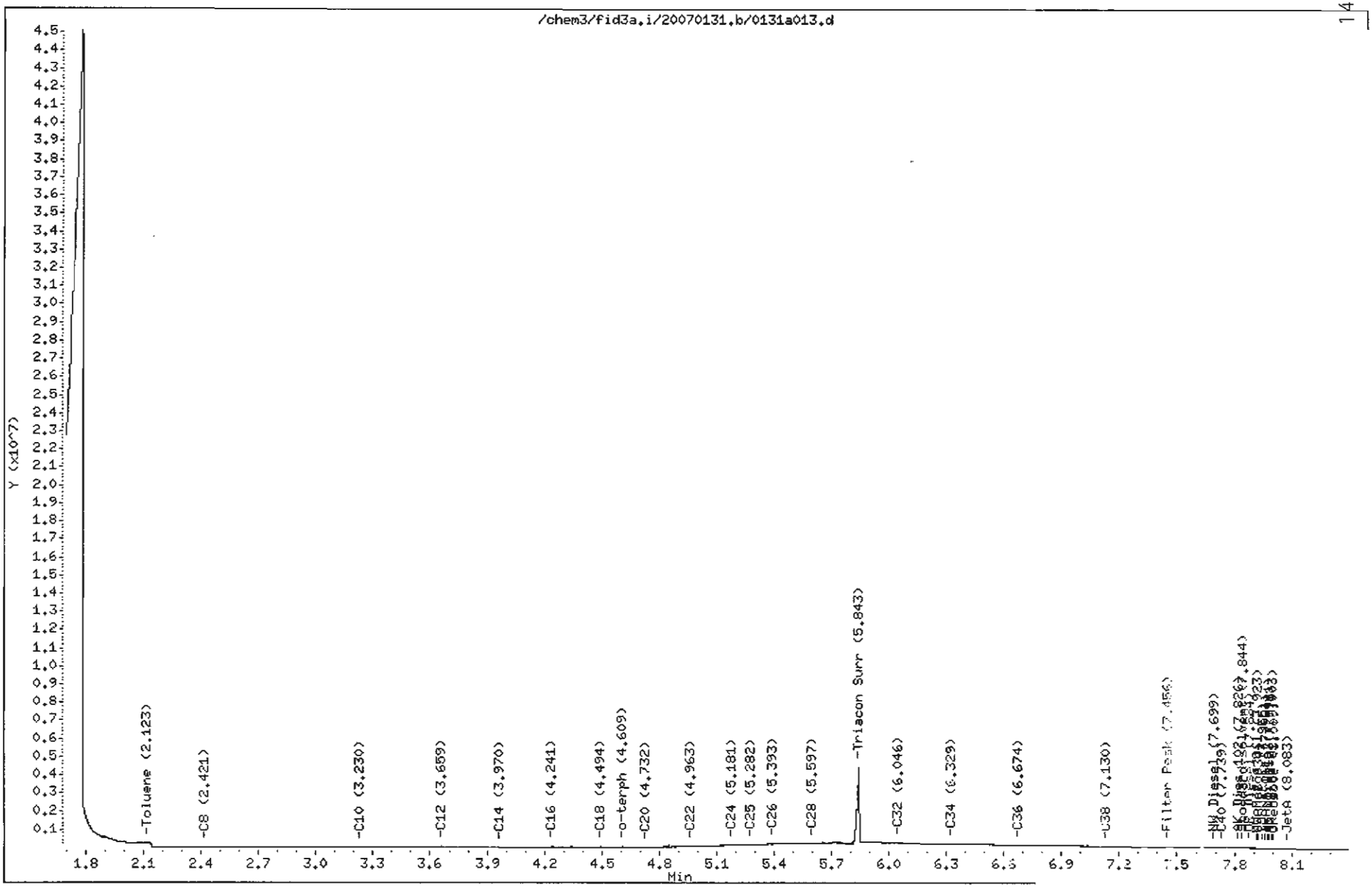

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a014.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: 5000 PPM MOIL
Client ID:
Injection: 31-JAN-2007 17:45
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.163	0.008	2159	2829	GAS (Tol-C12)	946585	54
C8	2.386	-0.028	879	1300	DIESEL (C12-C24)	4331863	328
C10	3.231	0.001	5618	3619	M.OIL (C24-C38)	42525531	4480
C12	3.659	-0.001	5064	3046	AK-102 (C10-C25)	4593262	292
C14	3.971	0.001	4736	2401	AK-103 (C25-C36)	36802498	5427
C16	4.242	0.001	5783	3655			
C18	4.495	0.002	103737	48017			
C20	4.733	0.003	38189	30203	JET-A (C10-C18)	274248	18
C22	4.967	0.010	120755	103190	MIN.OIL (C24-C38)	42525531	3557
C24	5.188	0.010	253227	243221	MSPIRIT (Tol-C12)	946585	60
C25	5.299	0.013	316745	150487	TRANOIL (C12-C28)	14065768	857
C26	5.401	0.009	366281	108486	KEROSEN (Tol-C18)	1186406	77
C28	5.613	0.014	467388	175654			
C32	6.053	0.011	503443	228625	FUEL OIL(C10-C24)	4366290	8
C34	6.335	0.012	406731	127649			
Filter Peak	7.462	-0.007	86210	42159	JP-4 (Tol-C14)	975186	88
C36	6.689	0.016	278908	183142	CREOSOT (C12-C22)	1605157	420
C38	7.144	0.011	154228	80166	HYDRAUL (C24-C38)	42525531	4779
C40	7.758	0.017	50319	19867	BUNKERC (C10-C38)	46891821	15512

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	33593	1.8	4.0
Triacontane	6543113	459.2	1020.4

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	21022.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	2022.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070131.b/0131a014.d

Date : 31-JAN-2007 17:45

Client ID:

Sample Info: 5000 PPM MOIL

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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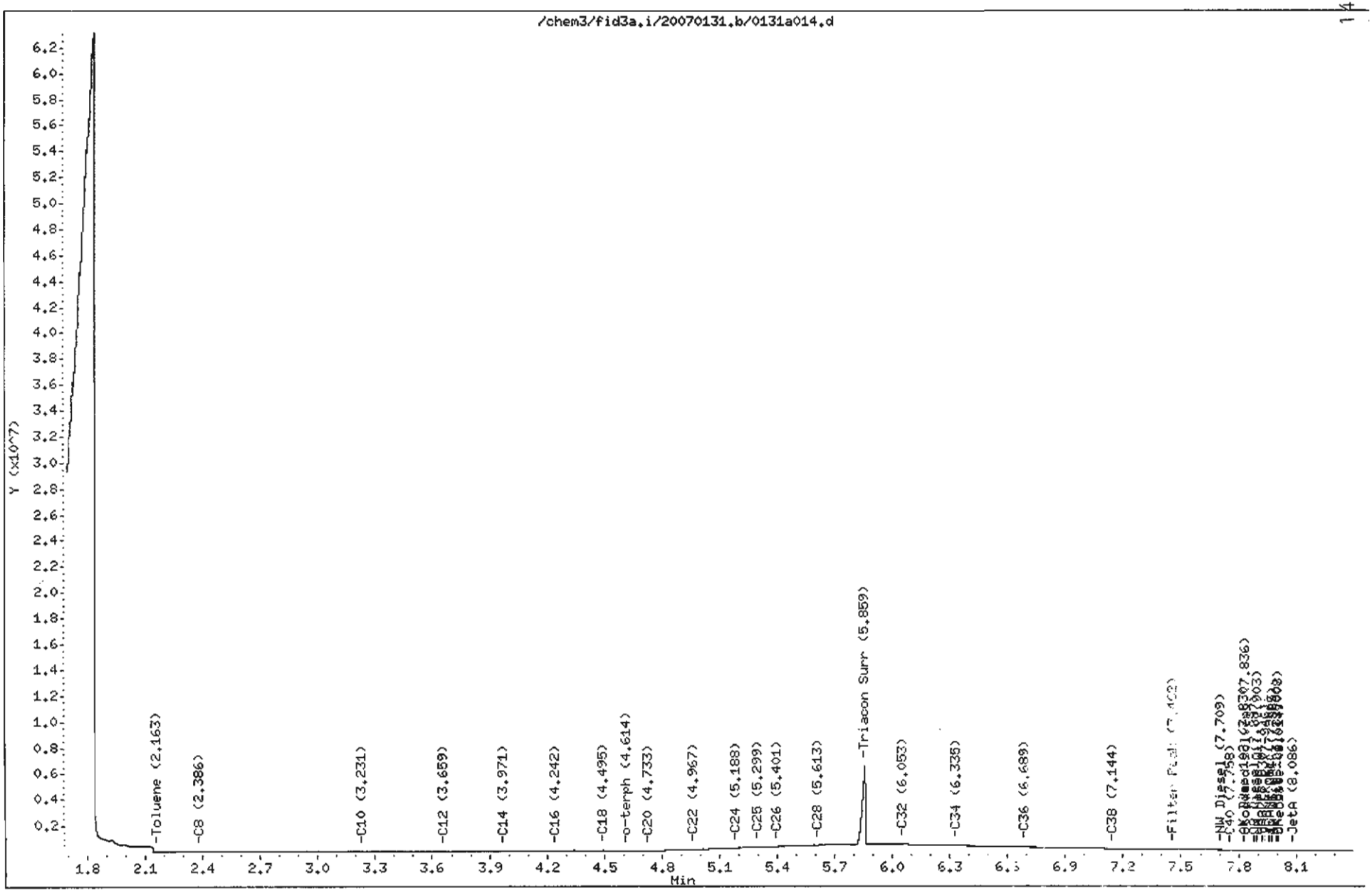


Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a015.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: MOIL ICV
Client ID:
Injection: 31-JAN-2007 18:00
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.126	-0.028	45323	34394	GAS (Tol-C12)	93932	5
C8	2.403	-0.011	437	152	DIESEL (C12-C24)	705730	53
C10	3.229	0.000	966	650	M.OIL (C24-C38)	5504205	580
C12	3.659	-0.001	796	735	AK-102 (C10-C25)	750541	48
C14	3.973	0.003	748	724	AK-103 (C25-C36)	4771899	704
C16	4.241	-0.001	1712	1334			
C18	4.492	-0.001	9803	5114			
C20	4.729	-0.001	5810	5199	JET-A (C10-C18)	66844	4
C22	4.960	0.003	19066	16720	MIN.OIL (C24-C38)	5504205	460
C24	5.179	0.001	37531	36051	MSPIRIT (Tol-C12)	93932	6
C25	5.289	0.002	47813	37246	TRANOIL (C12-C28)	2111698	129
C26	5.406	0.014	57101	50488	KEROSEN (Tol-C18)	146402	9
C28	5.613	0.013	71715	61500			
C32	6.053	0.011	63556	24566	FUEL OIL(C10-C24)	720104	1
C34	6.336	0.013	50221	11913			
Filter Peak	7.466	-0.003	15867	10374	JP-4 (Tol-C14)	101817	9
C36	6.686	0.013	34278	16666	CREOSOT (C12-C22)	300174	79
C38	7.147	0.014	21466	6770	HYDRAUL (C24-C38)	5504205	619
C40	7.755	0.014	12000	4029	BUNKERC (C10-C38)	6224309	2059

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	7133	0.4	0.9
Triacontane	684951	48.1	106.8

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	14020.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

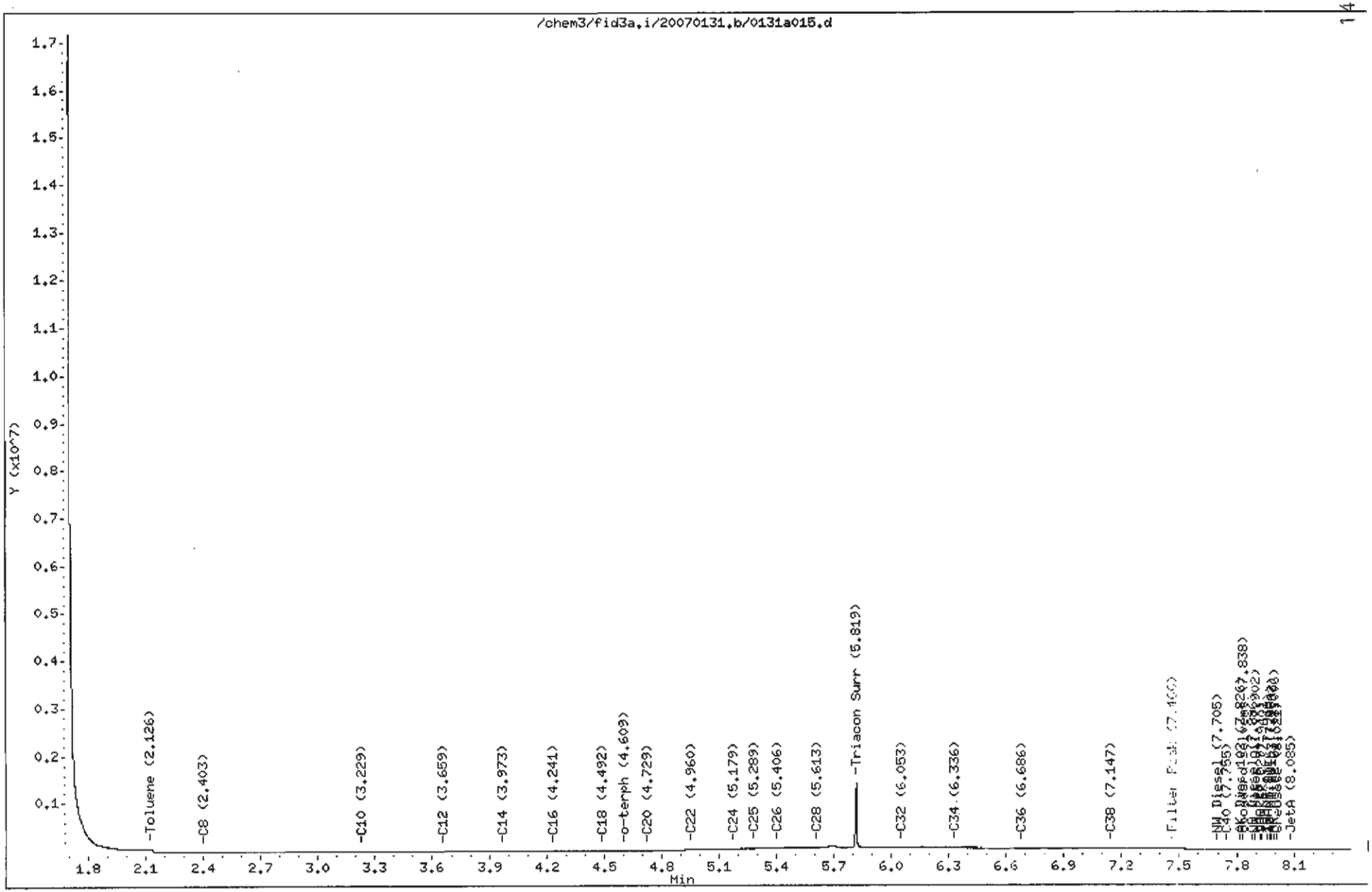
Data File: /chem3/fid3a.i/20070131.b/0131a015.d
Date : 31-JAN-2007 18:00
Client ID:
Sample Info: MOIL ICV

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1448



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070131.b/0131a016.d
Method: /chem3/fid3a.i/20070131.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 02/01/2007
Macro: FID:3A013107

ARI ID: MOIL CVS
Client ID:
Injection: 31-JAN-2007 18:15
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.184	0.030	686	1002	GAS (Tol-C12)	130891	7
C8	2.407	-0.007	476	291	DIESEL (C12-C24)	502196	38
C10	3.229	0.000	1031	606	M.OIL (C24-C38)	4581551	483
C12	3.659	-0.001	964	778	AK-102 (C10-C25)	536770	34
C14	3.974	0.003	811	837	AK-103 (C25-C36)	3870851	571
C16	4.243	0.002	1183	892			
C18	4.495	0.002	10702	5154			
C20	4.733	0.003	4525	3394	JET-A (C10-C18)	59683	4
C22	4.965	0.007	13012	11386	MIN.OIL (C24-C38)	4581551	383
C24	5.181	0.003	26634	25727	MSPIRIT (Tol-C12)	130891	8
C25	5.296	0.009	34304	22365	TRANOIL (C12-C28)	1472315	90
C26	5.401	0.009	39399	14825	KEROSEN (Tol-C18)	174546	11
C28	5.609	0.009	50587	19043			
C32	6.059	0.017	51827	36653	FUEL OIL(C10-C24)	518224	1
C34	6.339	0.016	46081	34001			
Filter Peak	7.462	-0.007	16740	6213	JP-4 (Tol-C14)	140092	13
C36	6.691	0.017	32809	6515	CREOSOT (C12-C22)	212059	55
C38	7.145	0.012	22692	21937	HYDRAUL (C24-C38)	4581551	515
C40	7.757	0.017	12612	5207	BUNKERC (C10-C38)	5099774	1687

Range Times: NW Diesel(3.710 - 5.229) NW Gas(2.104 - 3.710) NW M.Oil(5.229 - 7.183)
AK102(3.179 - 5.237) AK103(5.237 - 6.723) Jet A(3.179 - 4.543)

Surrogate	Area	Amount	%Rec
o-Terphenyl	4589	0.2	0.5
Triacontane	622136	43.7	97.0

Analyte	RF	Curve Date
o-Terph Surr	18580.0	31-JAN-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	17654.3	31-JAN-2007
Diesel	13200.6	31-JAN-2007
Motor Oil	9491.7	31-JAN-2007
AK102	15756.1	31-JAN-2007
AK103	6781.5	18-OCT-2006
JP4	11125.0	12-APR-2004
JP5	8746364.4	10-FEB-1999
JetA	14929.8	09-JAN-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	16409.1	30-SEP-2006
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	3823.0	24-MAR-2005
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

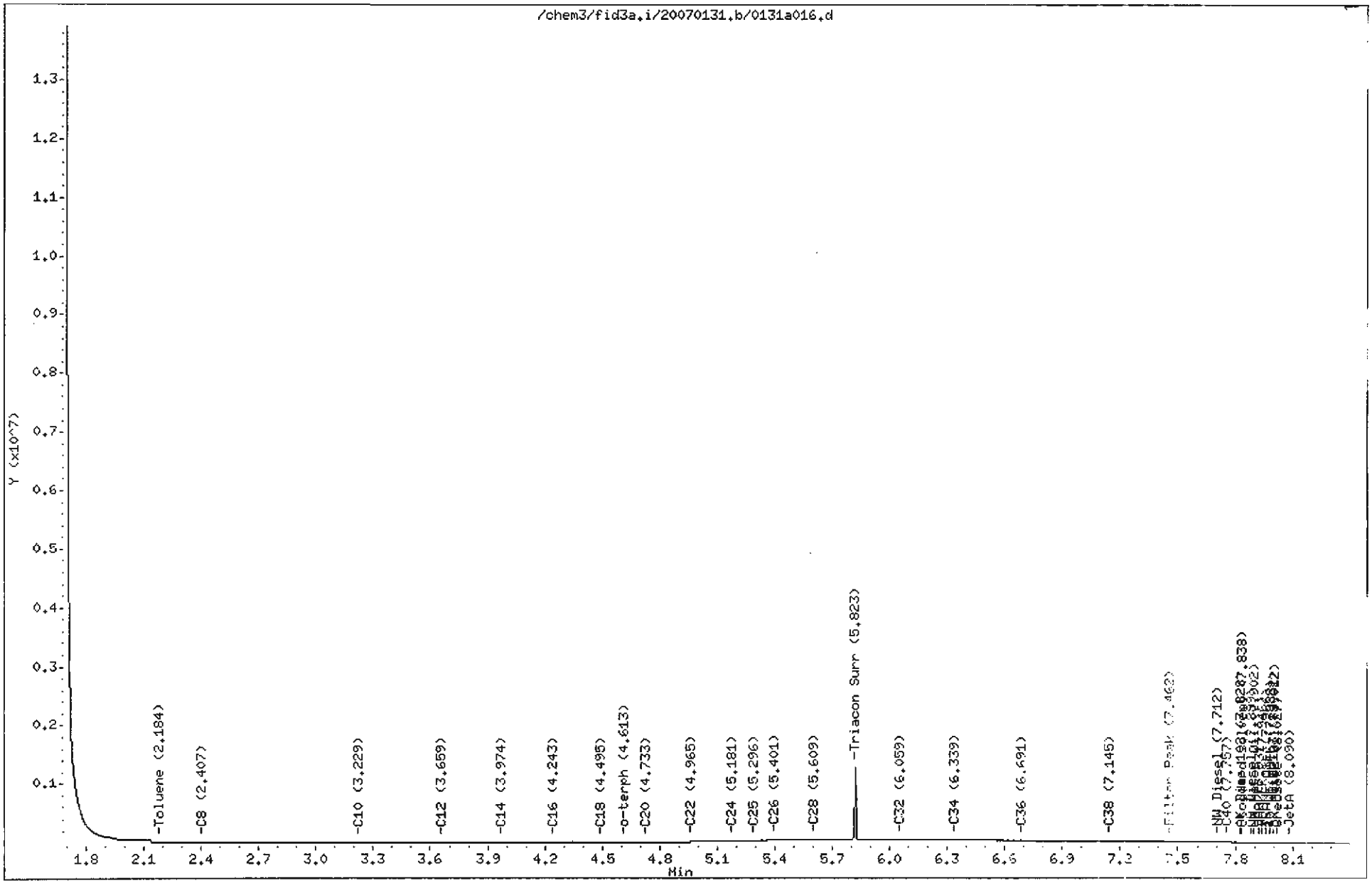
Data File: /chem3/fid3a.i/20070131.b/0131a016.d
Date : 31-JAN-2007 18:15
Client ID:
Sample Info: MOIL CVS

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1450



6a
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

Instrument: FID3A.I Project: THEA FOSS OMMP

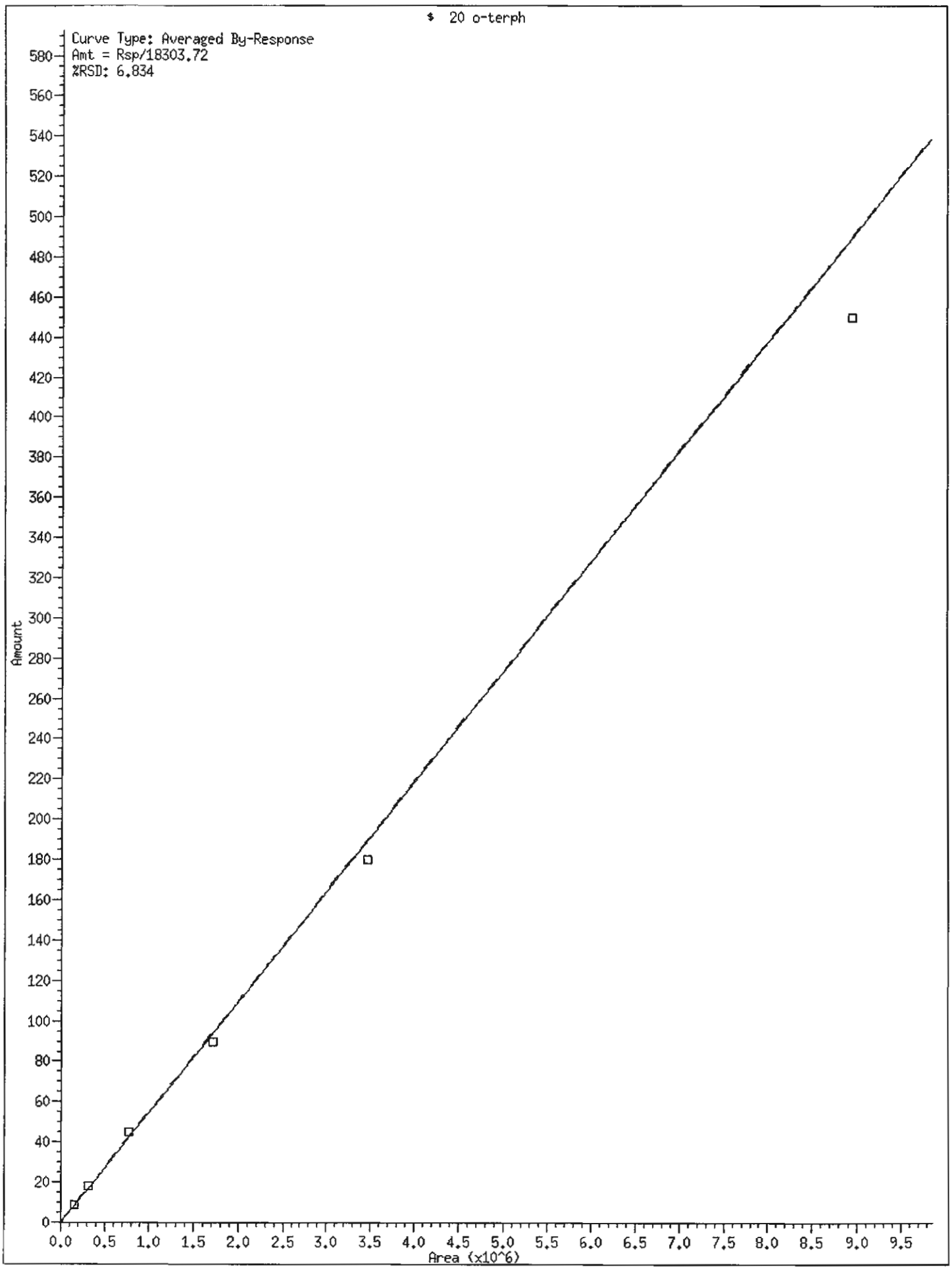
Calibration Date: 03-MAY-2007 SDG No.: KZ56

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	16019	15221	14954	14650	14565	14933	15057	3.5
AK Diesel	19258	18357	17879	17532	17413	17808	18041	3.8
OR Diesel	19776	18818	18187	17795	17658	18050	18381	4.3
o-Terph	17003	17414	17174	19068	19253	19910	18304	6.8

<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (3.282-4.983)
AK Diesel C10-C25 (2.812-5.097)
OR Diesel C10-C28 (2.812-5.425)

Calibration Files	Analysis Time
0503c016.d	03-MAY-2007 20:11
0503c017.d	03-MAY-2007 20:25
0503c018.d	03-MAY-2007 20:39
0503c019.d	03-MAY-2007 20:54
0503c020.d	03-MAY-2007 21:08
0503c021.d	03-MAY-2007 21:22


$ 20 o-terph
Curve Type: Averaged By-Response
Amt = Rsp/18303.72
%RSD: 6.834
Amount
Area (x10^6)
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
480
500
520
540
560
580
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
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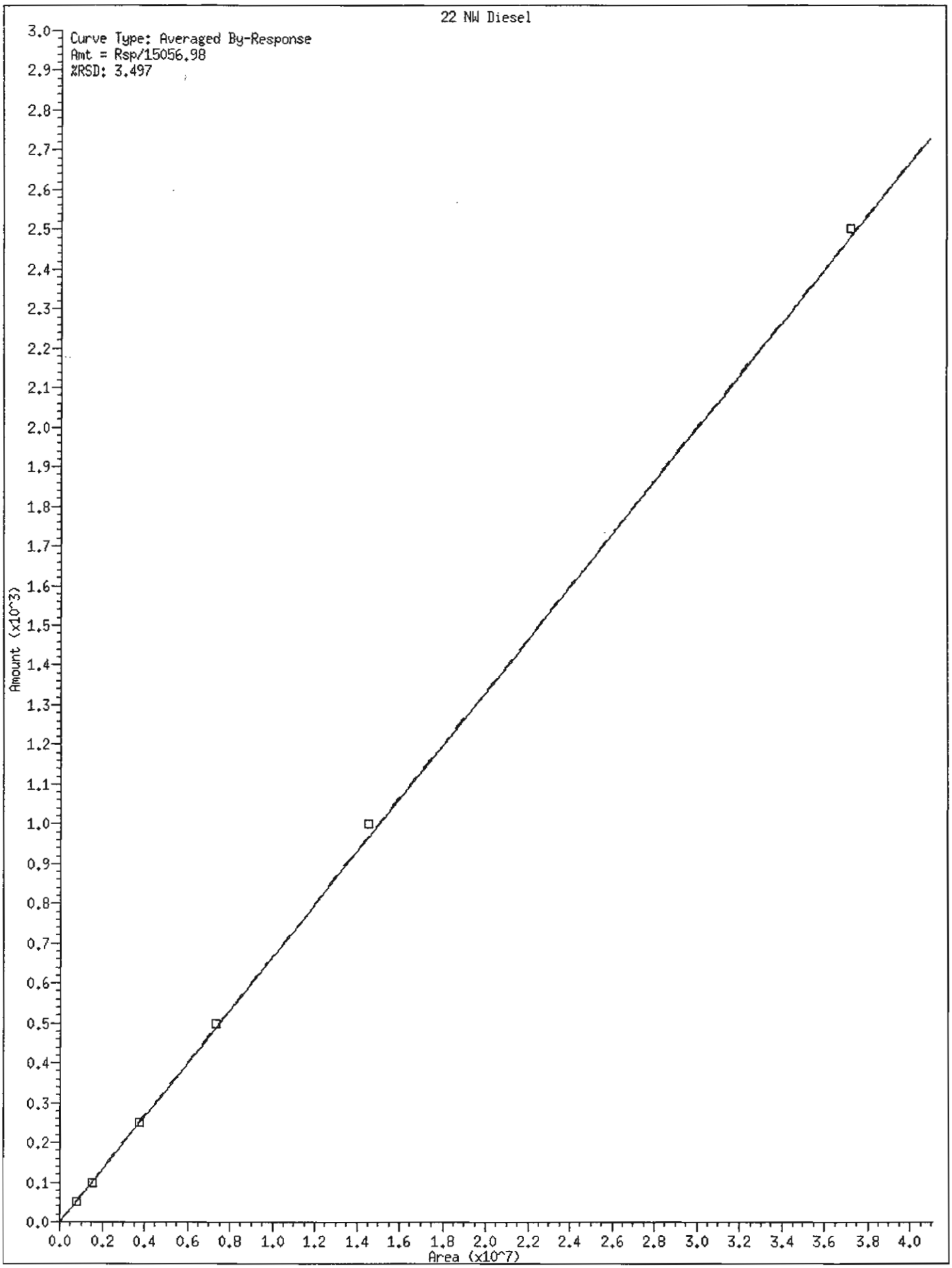
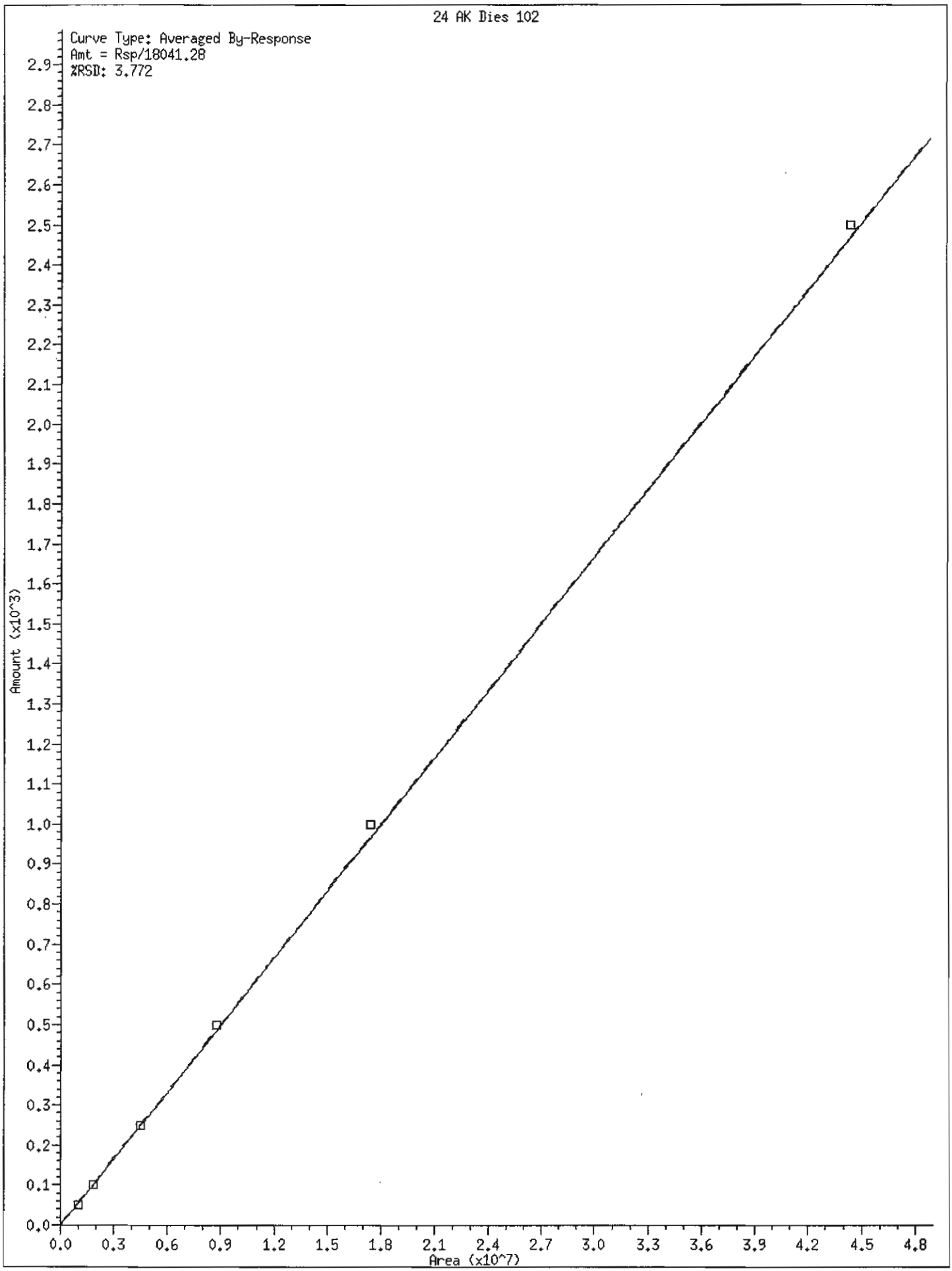
8.0
8.5
9.0
9.5


22 NW Diesel
Curve Type: Averaged By-Response
Amt = Rsp/15056.98
%RSD: 3.497
Amount (x10^3)
Area (x10^7)
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0


24 AK Dies 102
Curve Type: Averaged By-Response
Amt = Rsp/18041.28
%RSD: 3.772
Amount (x10^3)
Area (x10^7)
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c014.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: RT
Client ID:
Injection: 03-MAY-2007 19:42
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.890	0.000	587502	438487	GAS (Tol-C12)	1387005	96
C8	2.083	0.000	429459	256219	DIESEL (C12-C24)	1607101	107
C10	2.812	0.000	622458	266401	M.OIL (C24-C38)	2075801	219
C12	3.282	0.000	607257	260554	AK-102 (C10-C25)	2154961	119
C14	3.648	0.000	560637	256325	AK-103 (C25-C36)	1787874	253
C16	3.963	0.000	654189	258389			
C18	4.246	0.000	703361	257420			
C20	4.506	0.000	711922	259810	JET-A (C10-C18)	1346801	107
C22	4.751	0.000	676194	257421	MIN.OIL (C24-C38)	2075801	174
C24	4.983	0.000	674445	259491	MSPIRIT (Tol-C12)	1387005	88
C25	5.097	0.000	878692	362550	TRANOIL (C12-C28)	2506190	164
C26	5.208	0.000	669171	260785	KEROSEN (Tol-C18)	2186088	142
C28	5.425	0.000	600911	256010			
C32	5.869	0.000	495020	261701	FUEL OIL(C10-C24)	2154819	4
C34	6.141	0.000	383243	258904			
Filter Peak	7.575	0.000	2194	786	JP-4 (Tol-C14)	1654254	146
C36	6.481	0.000	313796	275146	CREOSOT (C8-C22)	2220312	233
C38	6.917	0.000	230930	252633	HYDRAUL (C24-C38)	2075801	233
C40	7.497	0.000	161176	208670	BUNKERC (C10-C38)	4230620	1399

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	855274	46.7	103.8
Triacontane	755979	53.1	117.9

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070503b.b/0503c014.d

Date : 03-MAY-2007 19:42

Client ID:

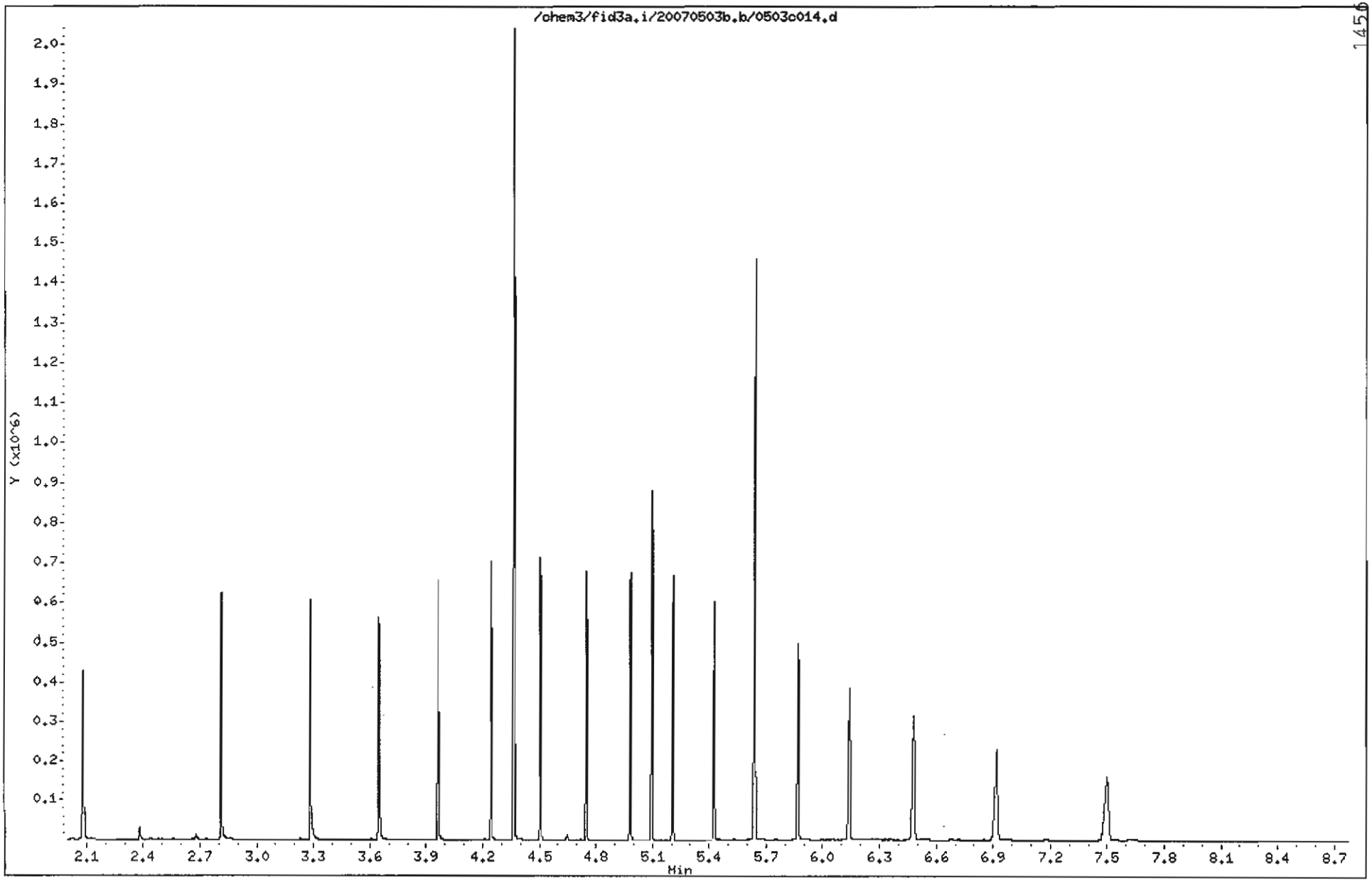
Instrument: fid3a.i

Sample Info: RT

Operator: JR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c015.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: IB
Client ID:
Injection: 03-MAY-2007 19:56
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.891	0.001	45740	10849	GAS (Tol-C12)	264022	18
C8	2.074	-0.009	1069	1432	DIESEL (C12-C24)	34646	2
C10	2.805	-0.007	1353	1287	M.OIL (C24-C38)	194988	21
C12	3.282	-0.001	574	439	AK-102 (C10-C25)	57424	3
C14	3.652	0.004	469	589	AK-103 (C25-C36)	148598	21
C16	3.953	-0.010	856	1090			
C18	4.235	-0.011	293	355			
C20	4.495	-0.011	606	415	JET-A (C10-C18)	41162	3
C22	4.754	0.003	479	151	MIN.OIL (C24-C38)	194988	16
C24	4.991	0.008	600	605	MSPIRIT (Tol-C12)	264022	17
C25	5.103	0.005	708	829	TRANOIL (C12-C28)	61876	4
C26	5.213	0.005	771	797	KEROSEN (Tol-C18)	282899	18
C28	5.426	0.000	1891	2354			
C32	5.872	0.003	4074	4999	FUEL OIL(C10-C24)	56931	0
C34	6.147	0.006	2283	4043			
Filter Peak	7.572	-0.003	1964	1019	JP-4 (Tol-C14)	272641	24
C36	6.480	-0.001	2179	1289	CREOSOT (C8-C22)	94090	10
C38	6.921	0.003	2073	1145	HYDRAUL (C24-C38)	194988	22
C40	7.496	-0.001	2006	1272	BUNKERC (C10-C38)	251920	83

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	852026	46.5	103.4
Triacontane	728279	51.1	113.6

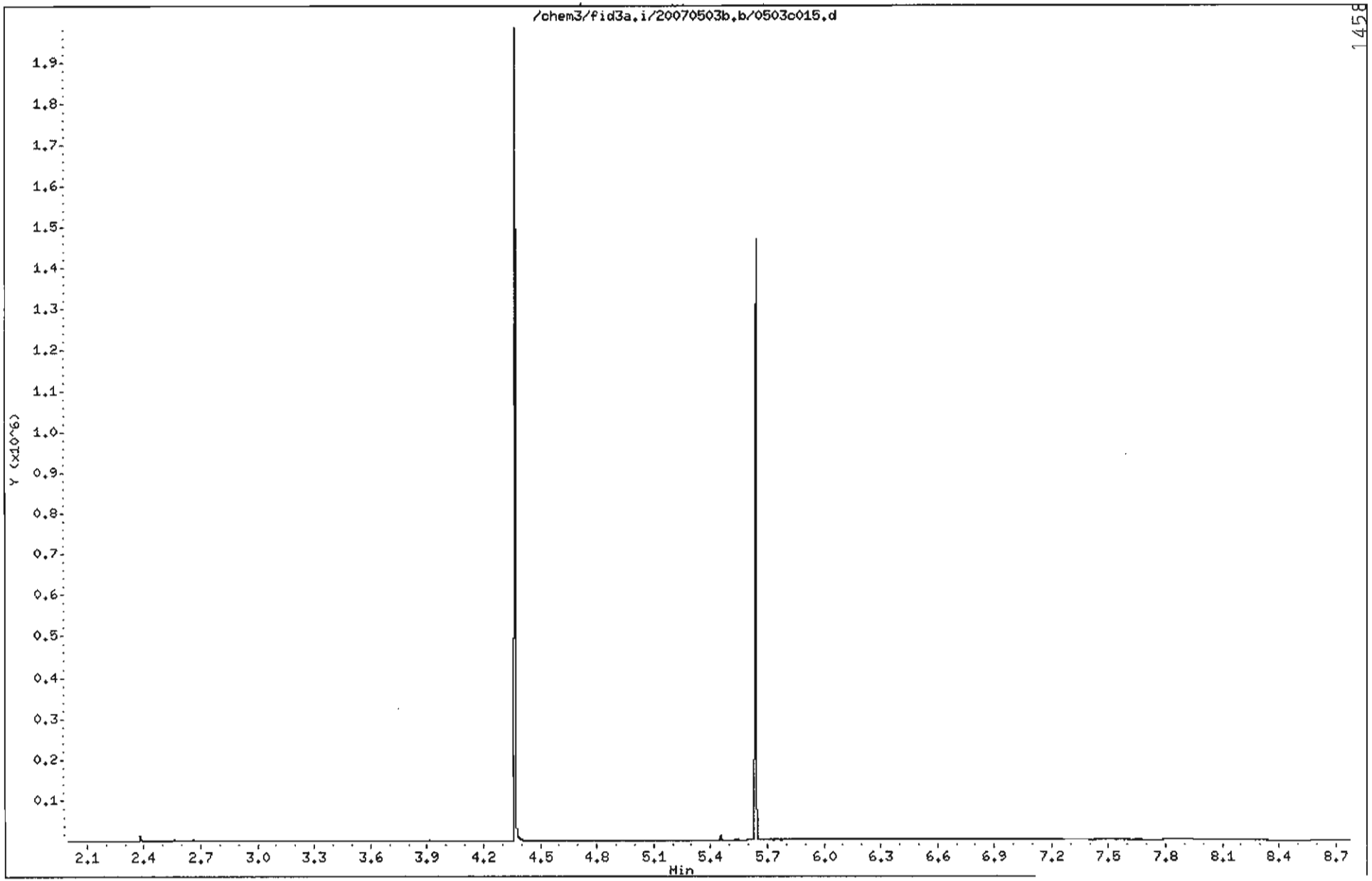
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070503b.b/0503c015.d
Date : 03-MAY-2007 19:56
Client ID:
Sample Info: IB

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c016.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: 50 PPM DIESEL
Client ID:
Injection: 03-MAY-2007 20:11
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.888	-0.002	2127	2861	GAS (Tol-C12)	235100	16
C8	2.081	-0.002	1984	2440	DIESEL (C12-C24)	800942	53
C10	2.815	0.003	10304	10629	M.OIL (C24-C38)	175409	18
C12	3.287	0.004	18668	19638	AK-102 (C10-C25)	962908	53
C14	3.652	0.005	32940	28042	AK-103 (C25-C36)	128695	18
C16	3.965	0.003	34235	18677			
C18	4.248	0.002	30851	16077			
C20	4.511	0.005	20523	13570	JET-A (C10-C18)	728190	58
C22	4.758	0.007	7480	7849	MIN.OIL (C24-C38)	175409	15
C24	4.976	-0.007	1897	1222	MSPIRIT (Tol-C12)	235100	15
C25	5.084	-0.013	1521	1862	TRANOIL (C12-C28)	828555	54
C26	5.210	0.002	1131	622	KEROSEN (Tol-C18)	803053	52
C28	5.425	-0.001	1089	495			
C32	5.865	-0.004	1772	458	FUEL OIL(C10-C24)	961180	2
C34	6.144	0.003	1956	312			
Filter Peak	7.570	-0.004	1891	601	JP-4 (Tol-C14)	422681	37
C36	6.479	-0.002	2063	2914	CREOSOT (C8-C22)	993723	104
C38	6.921	0.004	1914	343	HYDRAUL (C24-C38)	175409	20
C40	7.500	0.003	1882	976	BUNKERC (C10-C38)	1136589	376

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	153028	8.4	18.6
Triacontane	445	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070503b.b/0503c016.d

Page 1

Date : 03-MAY-2007 20:11

Client ID:

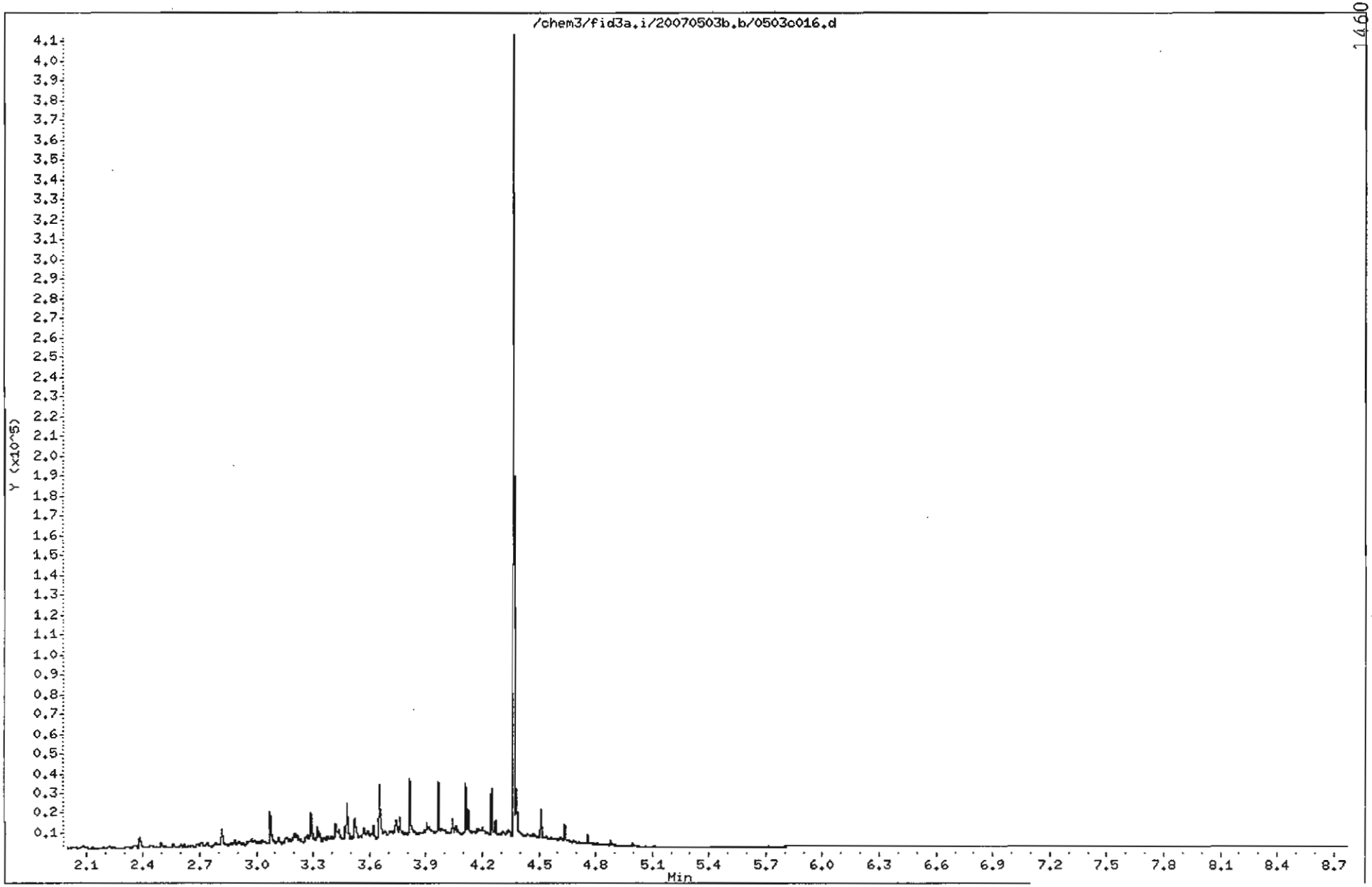
Instrument: fid3a.i

Sample Info: 50 PPM DIESEL

Operator: JR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c017.d
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Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: 100 PPM DIESEL
Client ID:
Injection: 03-MAY-2007 20:25
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.890	0.000	3289	3995	GAS (Tol-C12)	420231	29
C8	2.083	-0.001	3218	3599	DIESEL (C12-C24)	1522126	101
C10	2.813	0.001	24246	20486	M.OIL (C24-C38)	194195	20
C12	3.284	0.002	45883	37093	AK-102 (C10-C25)	1835702	102
C14	3.649	0.001	72456	57023	AK-103 (C25-C36)	152576	22
C16	3.964	0.002	75444	38314			
C18	4.247	0.001	64388	32803			
C20	4.508	0.002	44242	27973	JET-A (C10-C18)	1399494	111
C22	4.754	0.004	16372	12838	MIN.OIL (C24-C38)	194195	16
C24	4.991	0.008	6268	7941	MSPIRIT (Tol-C12)	420231	27
C25	5.090	-0.007	2251	1219	TRANOIL (C12-C28)	1570157	103
C26	5.223	0.016	2263	3276	KEROSEN (Tol-C18)	1508079	98
C28	5.429	0.004	1316	390			
C32	5.870	0.001	1887	2356	FUEL OIL(C10-C24)	1833771	3
C34	6.134	-0.006	1953	1781			
Filter Peak	7.568	-0.007	1866	445	JP-4 (Tol-C14)	773600	68
C36	6.476	-0.005	2057	2784	CREOSOT (C8-C22)	1872910	196
C38	6.915	-0.002	1893	1058	HYDRAUL (C24-C38)	194195	22
C40	7.499	0.003	1858	1406	BUNKERC (C10-C38)	2027966	671

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	313449	17.1	38.1
Triacontane	721	0.1	0.1

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070503b.b/0503c017.d
Date : 03-MAY-2007 20:25
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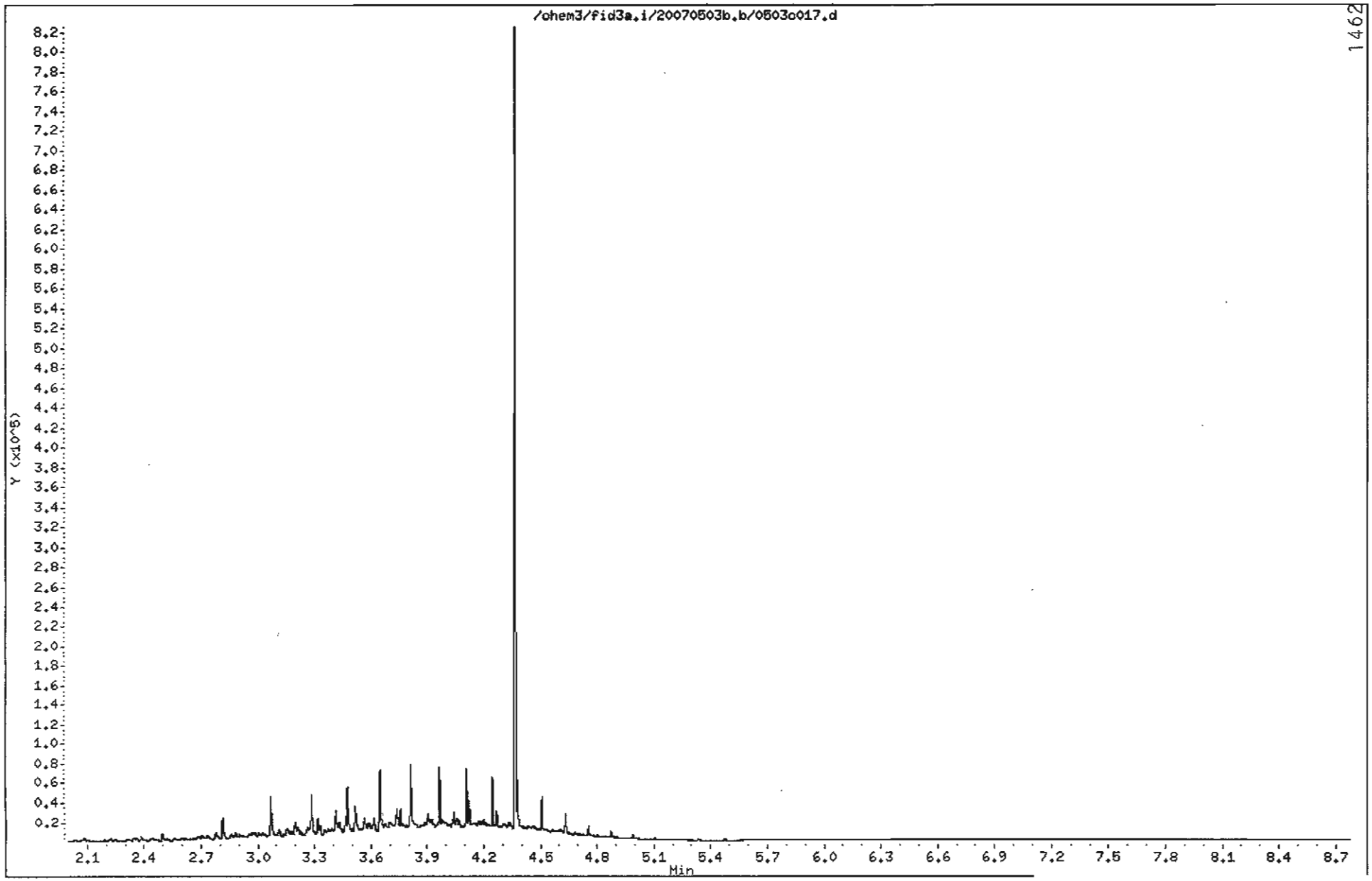
Sample Info: 100 PPM DIESEL

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c018.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: 250 PPM DIESEL
Client ID:
Injection: 03-MAY-2007 20:39
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.889	-0.001	6525	7576	GAS (Tol-C12)	922792	64
C8	2.082	-0.001	6821	5068	DIESEL (C12-C24)	3738612	248
C10	2.811	0.000	69426	46964	M.OIL (C24-C38)	231028	24
C12	3.282	-0.001	128377	71647	AK-102 (C10-C25)	4469773	248
C14	3.646	-0.002	189856	139262	AK-103 (C25-C36)	181733	26
C16	3.962	0.000	199879	91462			
C18	4.245	-0.001	163150	77942			
C20	4.507	0.001	109539	65574	JET-A (C10-C18)	3407005	271
C22	4.753	0.002	42676	27153	MIN.OIL (C24-C38)	231028	19
C24	4.988	0.005	16221	11310	MSPIRIT (Tol-C12)	922792	58
C25	5.103	0.006	9333	10299	TRANOIL (C12-C28)	3819717	251
C26	5.202	-0.006	2975	1958	KEROSEN (Tol-C18)	3602791	234
C28	5.427	0.002	1720	445			
C32	5.870	0.001	2118	2847	FUEL OIL(C10-C24)	4465617	8
C34	6.142	0.001	1959	1680			
Filter Peak	7.576	0.001	1859	811	JP-4 (Tol-C14)	1808725	159
C36	6.471	-0.009	2096	2828	CREOSOT (C8-C22)	4502976	472
C38	6.916	-0.001	1875	670	HYDRAUL (C24-C38)	231028	26
C40	7.495	-0.001	1831	401	BUNKERC (C10-C38)	4696645	1554

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	772851	42.2	93.8
Triacontane	1123	0.1	0.2

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070503b.b/0503c018.d

Date : 03-MAY-2007 20:39

Client ID:

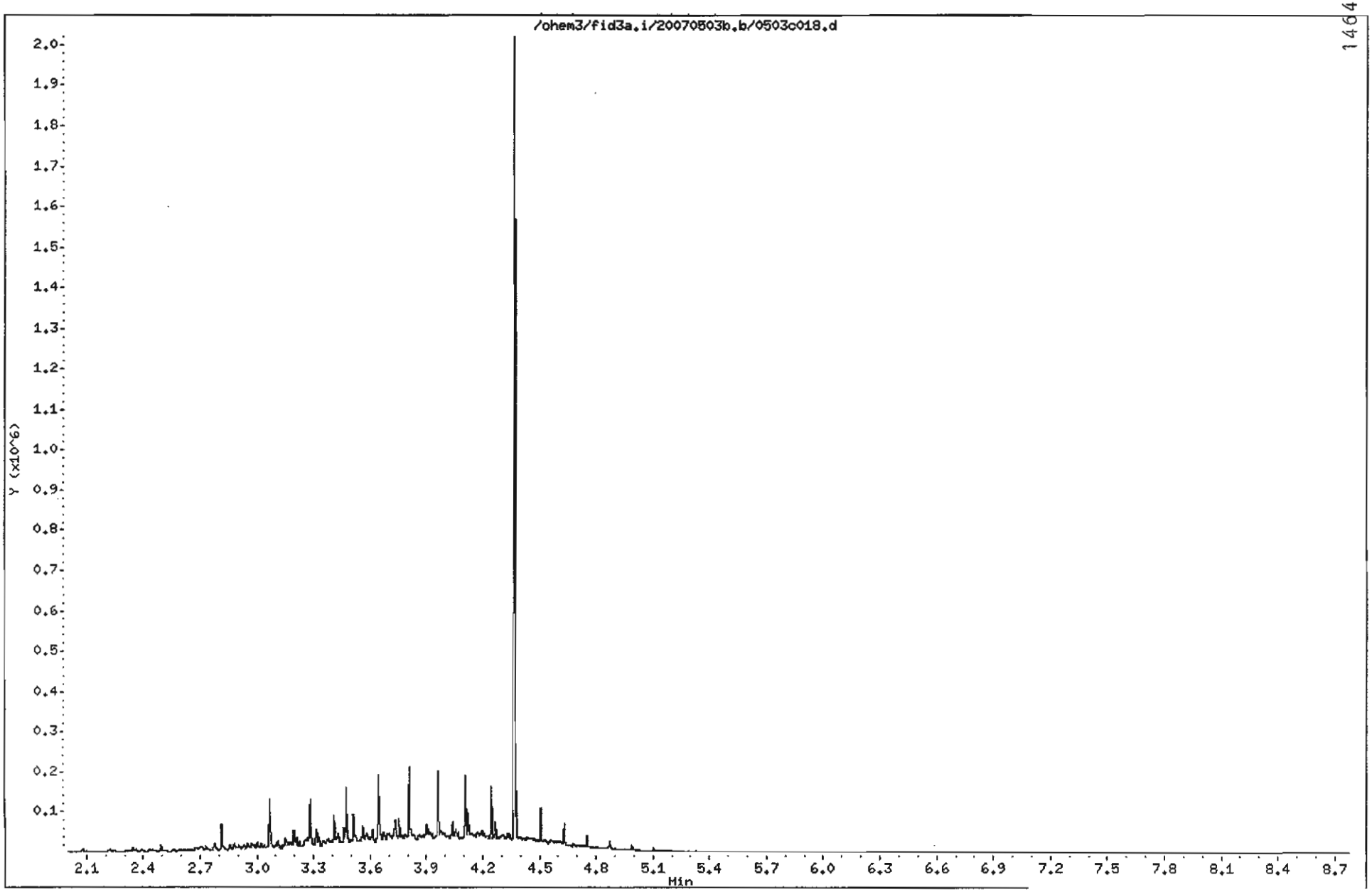
Sample Info: 250 PPM DIESEL

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

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Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: 500 PPM DIESEL
Client ID:
Injection: 03-MAY-2007 20:54
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.890	0.000	12490	11865	GAS (Tol-C12)	1785278	124
C8	2.084	0.000	13605	9004	DIESEL (C12-C24)	7324984	486
C10	2.811	-0.001	147431	89931	M.OIL (C24-C38)	297612	31
C12	3.282	-0.001	271885	142553	AK-102 (C10-C25)	8765985	486
C14	3.646	-0.002	387712	278533	AK-103 (C25-C36)	246133	35
C16	3.962	-0.001	404932	183673			
C18	4.245	0.000	343242	163446			
C20	4.505	-0.001	228698	114037	JET-A (C10-C18)	6815346	542
C22	4.750	-0.001	84907	54760	MIN.OIL (C24-C38)	297612	25
C24	4.983	0.000	33437	21934	MSPIRIT (Tol-C12)	1785278	113
C25	5.097	0.000	19639	16808	TRANOIL (C12-C28)	7463303	490
C26	5.209	0.001	10524	11394	KEROSEN (Tol-C18)	7166392	465
C28	5.431	0.005	3190	5054			
C32	5.875	0.006	1967	468	FUEL OIL(C10-C24)	8759217	17
C34	6.140	0.000	2018	883			
Filter Peak	7.573	-0.002	1840	1577	JP-4 (Tol-C14)	3632954	320
C36	6.484	0.004	1938	618	CREOSOT (C8-C22)	8803455	923
C38	6.916	-0.001	1873	896	HYDRAUL (C24-C38)	297612	33
C40	7.500	0.003	1850	809	BUNKERC (C10-C38)	9056829	2996

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1716083	93.8	208.3
Triacontane	3057	0.2	0.5

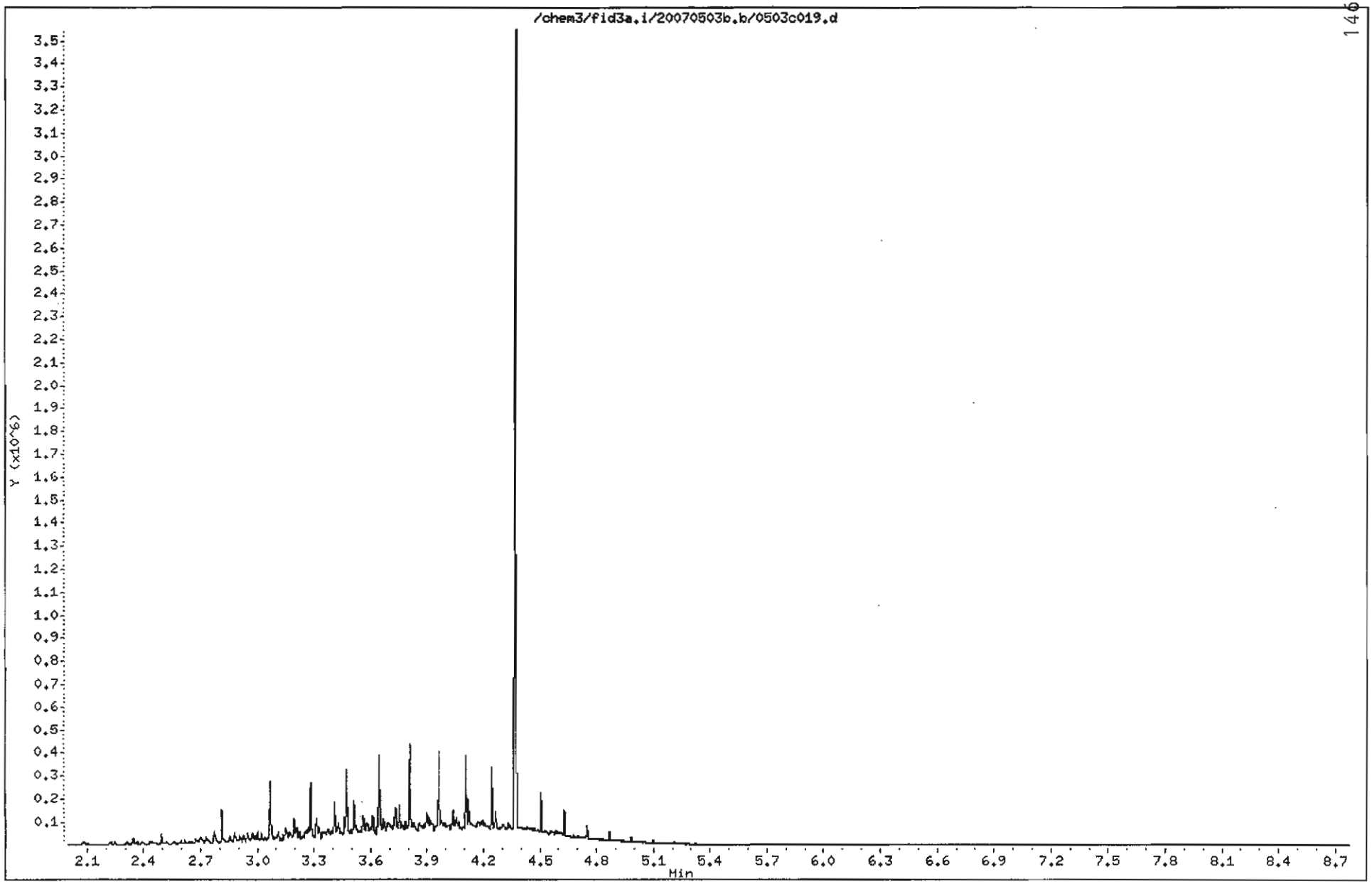
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070503b.b/0503c019.d
Date : 03-MAY-2007 20:54
Client ID:
Sample Info: 500 PPM DIESEL

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c020.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: 1000 PPM DIESEL
Client ID:
Injection: 03-MAY-2007 21:08
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.896	0.006	23906	17616	GAS (Tol-C12)	3467563	241
C8	2.080	-0.004	9331	4416	DIESEL (C12-C24)	14564809	967
C10	2.813	0.001	310909	178495	M.OIL (C24-C38)	427301	45
C12	3.283	0.000	552460	273857	AK-102 (C10-C25)	17413226	965
C14	3.646	-0.001	751719	551499	AK-103 (C25-C36)	366268	52
C16	3.964	0.001	808495	417142			
C18	4.248	0.002	620535	325186			
C20	4.508	0.002	450172	233038	JET-A (C10-C18)	13499331	1073
C22	4.751	0.000	175360	104824	MIN.OIL (C24-C38)	427301	36
C24	4.983	0.000	66767	46130	MSPIRIT (Tol-C12)	3467563	219
C25	5.096	-0.001	39852	38891	TRANOIL (C12-C28)	14826676	973
C26	5.208	0.001	20871	20449	KEROSEN (Tol-C18)	14135305	916
C28	5.428	0.003	5834	7404			
C32	5.862	-0.007	2359	2287	FUEL OIL(C10-C24)	17396399	33
C34	6.136	-0.005	2073	1028			
Filter Peak	7.571	-0.003	1824	1199	JP-4 (Tol-C14)	7115560	626
C36	6.483	0.002	1979	549	CREOSOT (C8-C22)	17460386	1831
C38	6.921	0.004	1859	997	HYDRAUL (C24-C38)	427301	48
C40	7.493	-0.004	1826	836	BUNKERC (C10-C38)	17823699	5896

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3465567	189.3	420.7
Triacontane	5385	0.4	0.8

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

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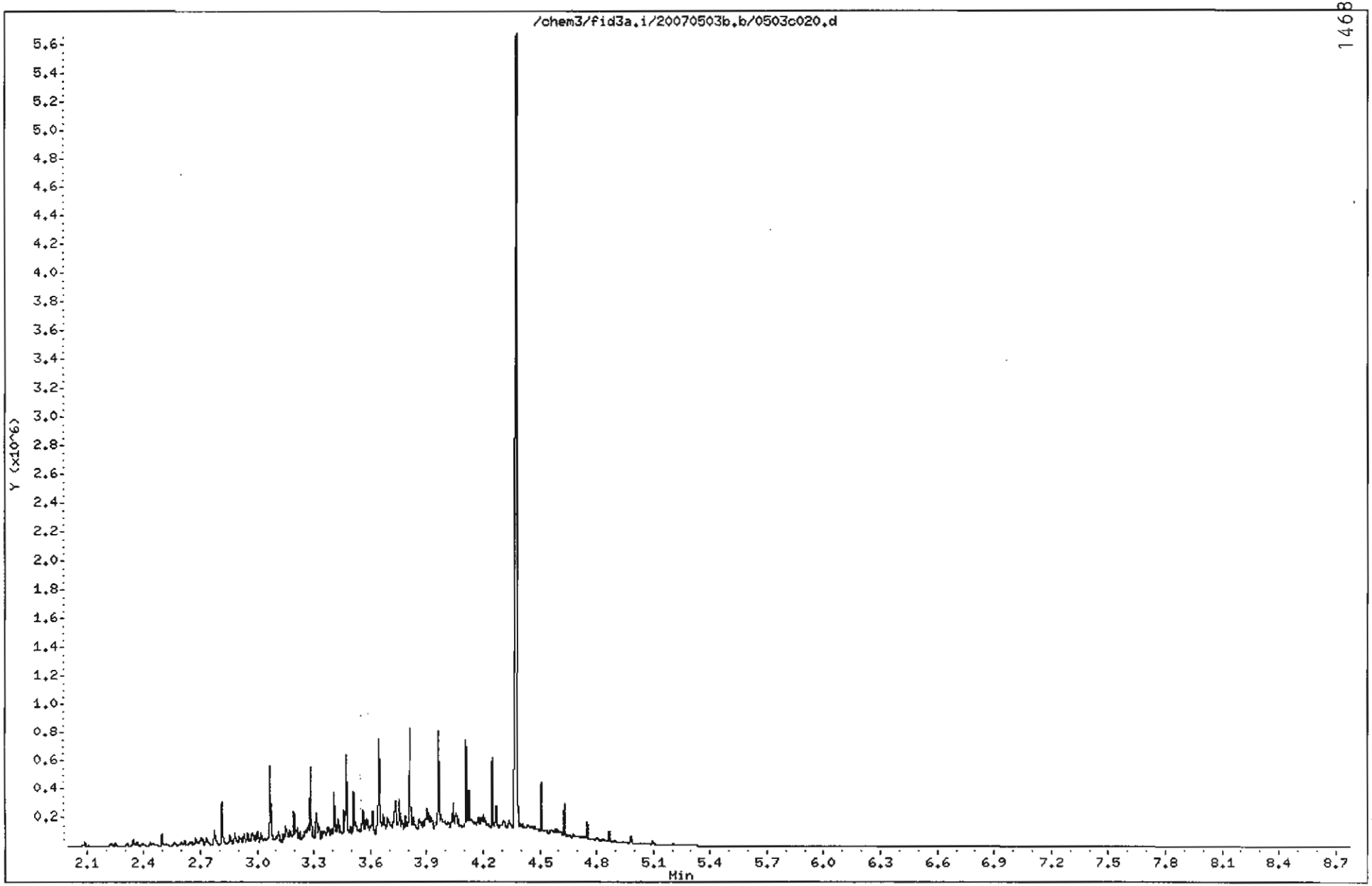
Date : 03-MAY-2007 21:08
Client ID:
Sample Info: 1000 PPM DIESEL

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c021.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: 2500 PPM DIESEL
Client ID:
Injection: 03-MAY-2007 21:22
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.887	-0.003	3502	2000	GAS (Tol-C12)	8722749	606
C8	2.100	0.016	57748	46793	DIESEL (C12-C24)	37331349	2479
C10	2.817	0.005	827751	432485	M.OIL (C24-C38)	827754	87
C12	3.286	0.003	1357274	690643	AK-102 (C10-C25)	44520507	2468
C14	3.650	0.002	1772336	1418060	AK-103 (C25-C36)	784862	111
C16	3.968	0.005	1768297	1125208			
C18	4.254	0.008	1326674	916037			
C20	4.498	-0.008	330488	217093	JET-A (C10-C18)	34110496	2712
C22	4.756	0.005	438704	292394	MIN.OIL (C24-C38)	827754	69
C24	4.987	0.004	181216	122510	MSPIRIT (Tol-C12)	8722749	551
C25	5.101	0.004	102756	97091	TRANOIL (C12-C28)	37936930	2488
C26	5.213	0.005	54352	34765	KEROSEN (Tol-C18)	35644087	2311
C28	5.432	0.007	14230	18211			
C32	5.869	0.000	2977	2156	FUEL OIL(C10-C24)	44520507	84
C34	6.138	-0.003	2375	1232			
Filter Peak	7.579	0.004	1807	1184	JP-4 (Tol-C14)	18077984	1591
C36	6.475	-0.005	2191	3883	CREOSOT (C8-C22)	44673067	4684
C38	6.920	0.003	1907	1201	HYDRAUL (C24-C38)	827754	93
C40	7.497	0.000	1814	434	BUNKERC (C10-C38)	45348261	15001

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	8959587	489.5	1087.8
Triacontane	8419	0.6	1.3

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

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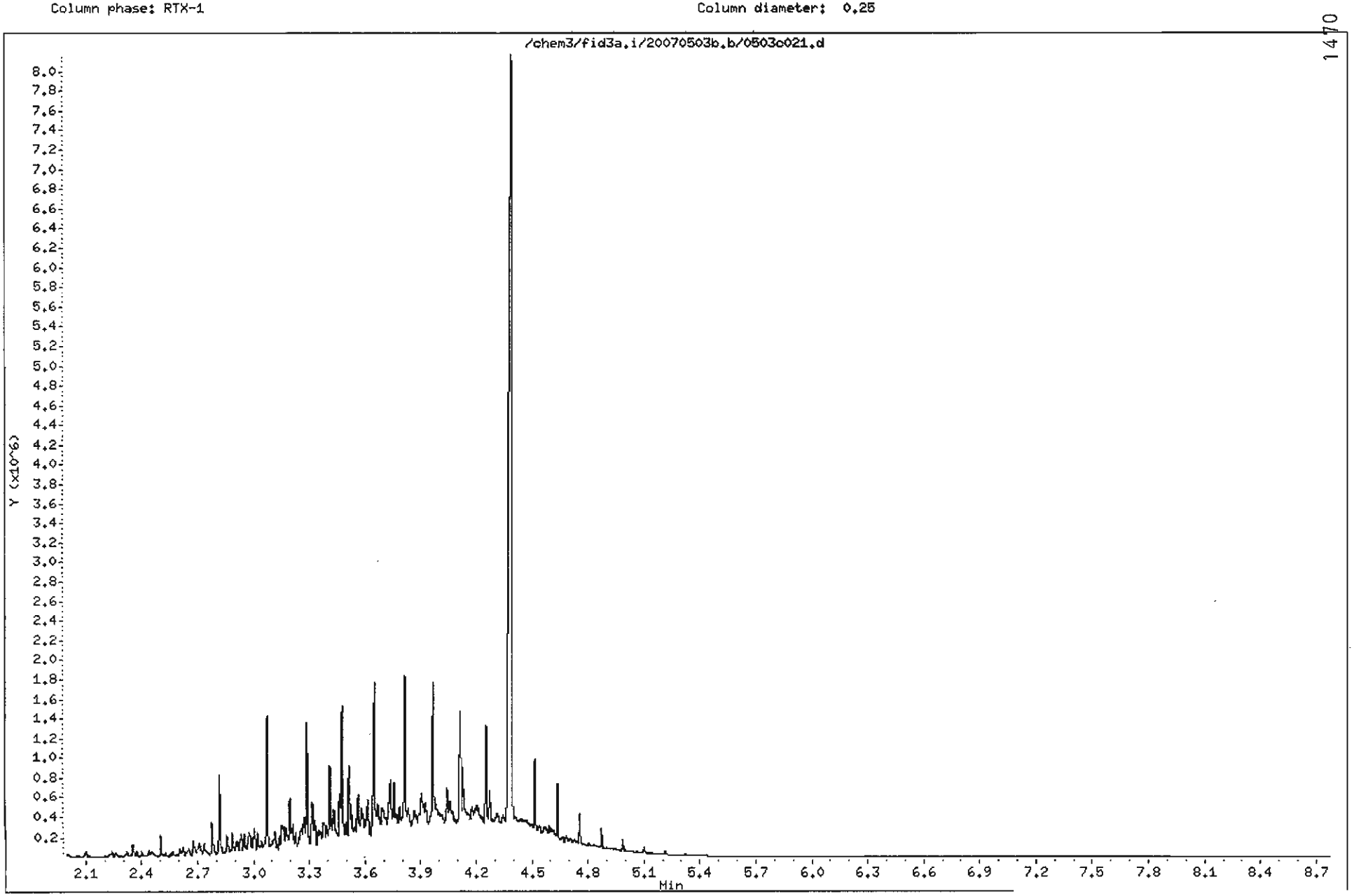
Date : 03-MAY-2007 21:22
Client ID:
Sample Info: 2500 PPM DIESEL

Instrument: fid3a.i
Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c022.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: DIESEL ICV
Client ID:
Injection: 03-MAY-2007 21:37
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.886	-0.004	10830	10980	GAS (Tol-C12)	803099	56
C8	2.081	-0.002	14414	11732	DIESEL (C12-C24)	3175739	211
C10	2.812	0.001	37007	29190	M.OIL (C24-C38)	196440	21
C12	3.283	0.001	83203	49094	AK-102 (C10-C25)	3753746	208
C14	3.648	0.000	138789	114099	AK-103 (C25-C36)	156198	22
C16	3.964	0.001	150012	72131			
C18	4.247	0.001	124136	57677			
C20	4.508	0.002	81406	43659	JET-A (C10-C18)	2872530	228
C22	4.753	0.002	39853	25821	MIN.OIL (C24-C38)	196440	16
C24	4.987	0.004	12323	11557	MSPIRIT (Tol-C12)	803099	51
C25	5.102	0.005	6472	6840	TRANOIL (C12-C28)	3234871	212
C26	5.205	-0.003	2174	728	KEROSEN (Tol-C18)	3100802	201
C28	5.423	-0.002	1471	380			
C32	5.866	-0.003	1865	2561	FUEL OIL(C10-C24)	3750566	7
C34	6.139	-0.002	1892	1319			
Filter Peak	7.581	0.006	1764	1017	JP-4 (Tol-C14)	1535780	135
C36	6.479	-0.002	1889	1453	CREOSOT (C8-C22)	3839102	403
C38	6.924	0.007	1782	1233	HYDRAUL (C24-C38)	196440	22
C40	7.497	0.000	1771	774	BUNKERC (C10-C38)	3947006	1306

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	740655	40.5	89.9
Triacontane	292	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

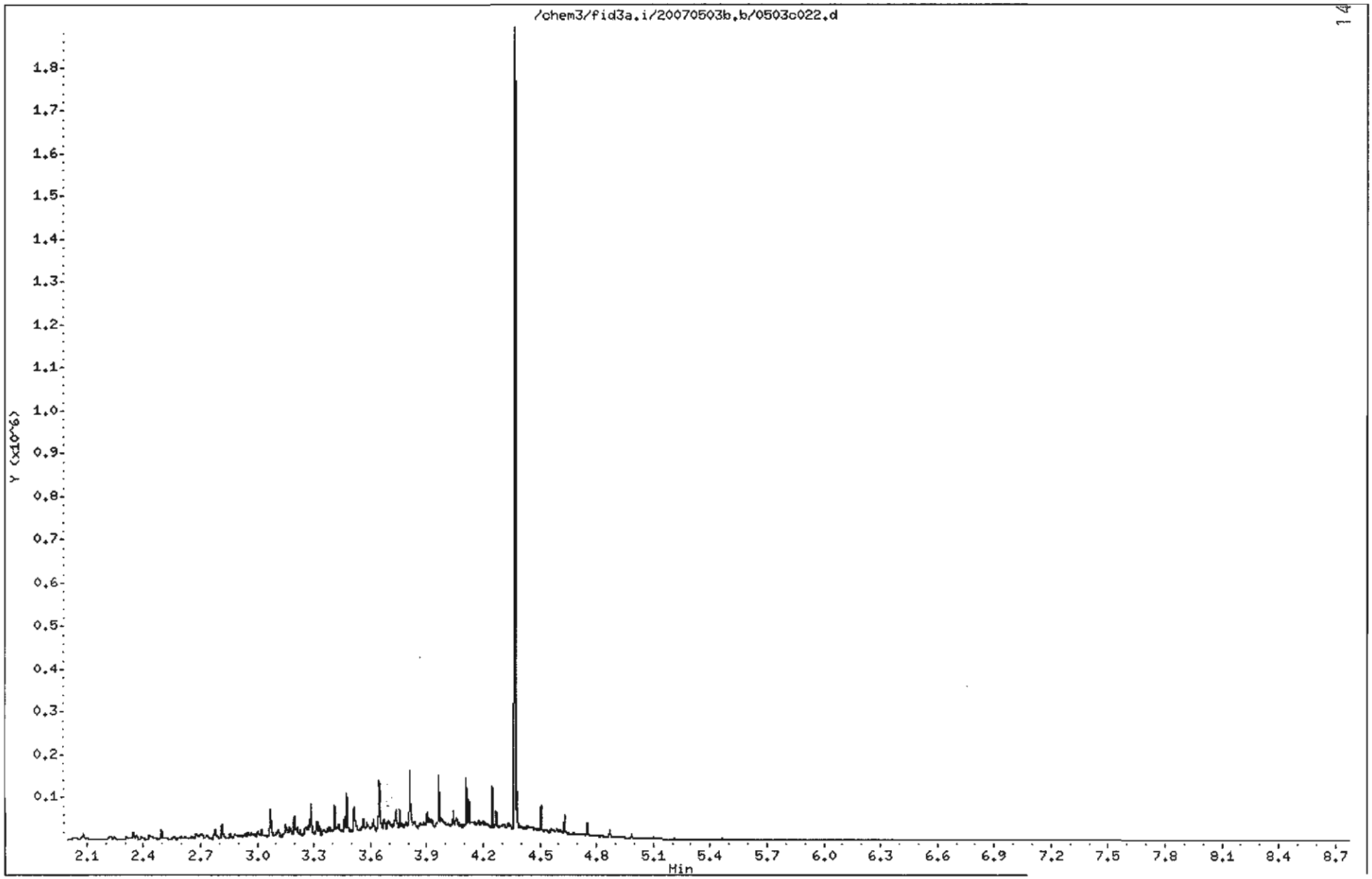
Data File: /chem3/fid3a.i/20070503b.b/0503c022.d
Date : 03-MAY-2007 21:37
Client ID:
Sample Info: DIESEL ICV

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1472



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c023.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: DIESEL CVS
Client ID:
Injection: 03-MAY-2007 21:51
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.890	0.000	7027	6957	GAS (Tol-C12)	914178	64
C8	2.083	0.000	6886	5149	DIESEL (C12-C24)	3542002	235
C10	2.813	0.001	68076	46067	M.OIL (C24-C38)	219470	23
C12	3.283	0.001	127407	70494	AK-102 (C10-C25)	4260226	236
C14	3.647	-0.001	180700	137223	AK-103 (C25-C36)	173255	25
C16	3.964	0.001	196288	90967			
C18	4.247	0.001	163144	76031			
C20	4.507	0.001	105793	57244	JET-A (C10-C18)	3318530	264
C22	4.752	0.001	41423	33028	MIN.OIL (C24-C38)	219470	18
C24	4.985	0.001	15935	11581	MSPIRIT (Tol-C12)	914178	58
C25	5.099	0.002	9175	9249	TRANOIL (C12-C28)	3616541	237
C26	5.212	0.004	4974	6078	KEROSEN (Tol-C18)	3517459	228
C28	5.424	-0.002	1838	581			
C32	5.874	0.005	1802	323	FUEL OIL(C10-C24)	4257252	8
C34	6.141	0.000	1907	1179			
Filter Peak	7.571	-0.004	1784	1622	JP-4 (Tol-C14)	1763077	155
C36	6.482	0.001	1871	1077	CREOSOT (C8-C22)	4316451	453
C38	6.923	0.006	1784	1098	HYDRAUL (C24-C38)	219470	25
C40	7.495	-0.002	1782	1345	BUNKERC (C10-C38)	4476722	1481

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	830036	45.3	100.8
Triacontane	616	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

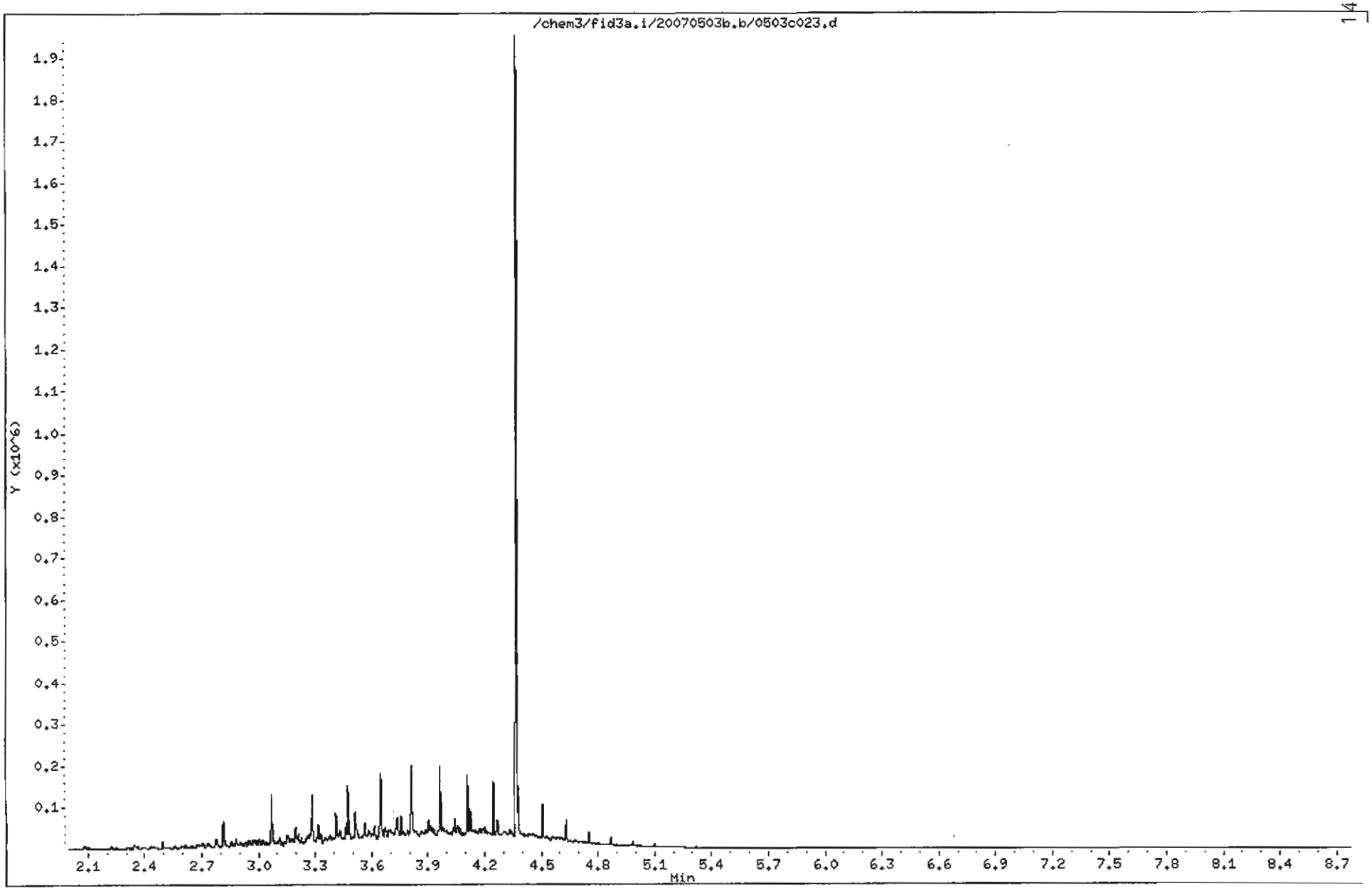
Data File: /chem3/fid3a.i/20070503b.b/0503c023.d
Date : 03-MAY-2007 21:51
Client ID:
Sample Info: DIESEL CVS

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1474



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070503b.b/0503c024.d
Method: /chem3/fid3a.i/20070503b.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/04/2007
Macro: FID:3A050307

ARI ID: OLD DIESEL MIX
Client ID:
Injection: 03-MAY-2007 22:05
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.887	-0.003	6529	6598	GAS (Tol-C12)	849044	59
C8	2.081	-0.003	6350	4792	DIESEL (C12-C24)	3341545	222
C10	2.812	0.001	63410	42831	M.OIL (C24-C38)	223385	24
C12	3.283	0.001	115942	66087	AK-102 (C10-C25)	4012999	222
C14	3.648	0.000	168294	129055	AK-103 (C25-C36)	176101	25
C16	3.964	0.001	180475	83280			
C18	4.246	0.000	150476	70745			
C20	4.506	0.000	103181	52048	JET-A (C10-C18)	3119554	248
C22	4.750	-0.001	39194	23216	MIN.OIL (C24-C38)	223385	19
C24	4.982	-0.001	14952	14942	MSPIRIT (Tol-C12)	849044	54
C25	5.096	-0.001	8835	9484	TRANOIL (C12-C28)	3419245	224
C26	5.209	0.001	4911	6092	KEROSEN (Tol-C18)	3302044	214
C28	5.427	0.001	2042	3247			
C32	5.870	0.001	1843	690	FUEL OIL(C10-C24)	4008099	8
C34	6.133	-0.007	1905	1440			
Filter Peak	7.568	-0.006	1720	1610	JP-4 (Tol-C14)	1662740	146
C36	6.483	0.002	1863	849	CREOSOT (C8-C22)	4044779	424
C38	6.919	0.002	1742	762	HYDRAUL (C24-C38)	223385	25
C40	7.504	0.007	1733	1342	BUNKERC (C10-C38)	4231484	1400

Range Times: NW Diesel(3.332 - 5.033) NW Gas(1.840 - 3.332) NW M.Oil(5.033 - 6.967)
AK102(2.762 - 5.047) AK103(5.047 - 6.531) Jet A(2.762 - 4.296)

Surrogate	Area	Amount	%Rec
o-Terphenyl	863544	47.2	104.8
Triacontane	2970	0.2	0.5

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	11957.0	12-JUL-2004
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

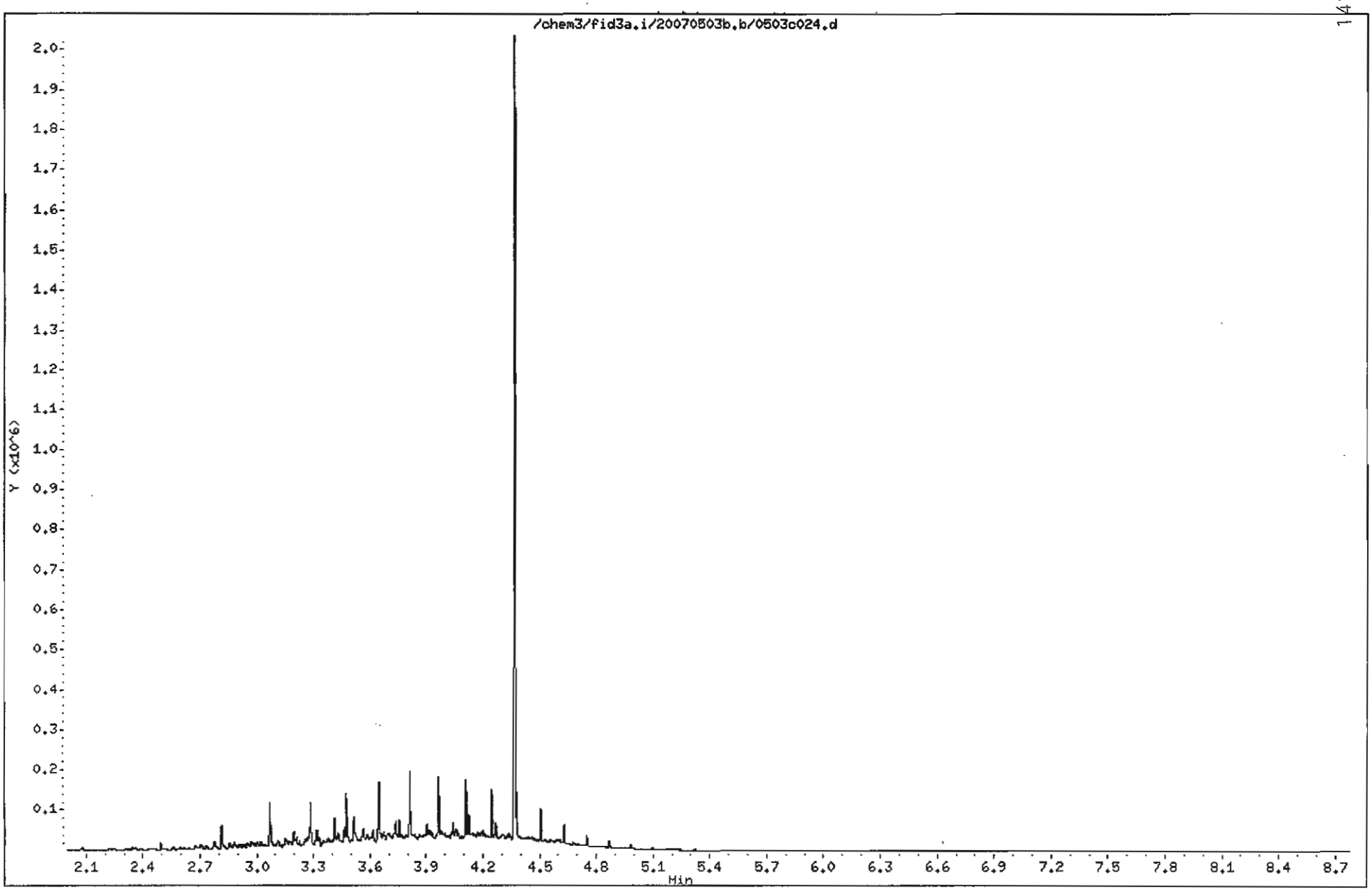
Data File: /chem3/fid3a.i/20070503b.b/0503c024.d
Date : 03-MAY-2007 22:05
Client ID:
Sample Info: OLD DIESEL MIX

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1476



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a005.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: RT
Client ID:
Injection: 22-MAY-2007 08:14
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.860	0.000	466543	351296	GAS (Tol-C12)	1116147	78
C8	2.059	0.000	303687	183336	DIESEL (C12-C24)	1579207	105
C10	2.808	0.000	558596	232787	M.OIL (C24-C38)	2327625	245
C12	3.279	0.000	552617	205730	AK-102 (C10-C25)	2074854	115
C14	3.642	0.000	506094	237554	AK-103 (C25-C36)	1979091	280
C16	3.955	0.000	610732	240892			
C18	4.236	0.000	671985	238919			
C20	4.497	0.000	647475	241261	JET-A (C10-C18)	1261786	100
C22	4.741	0.000	639901	244294	MIN.OIL (C24-C38)	2327625	186
C24	4.973	0.000	618916	245786	MSPIRIT (Tol-C12)	1116147	71
C25	5.087	0.000	845942	344447	TRANOIL (C12-C28)	2489059	163
C26	5.197	0.000	615045	244721	KEROSEN (Tol-C18)	1884336	122
C28	5.413	0.000	582846	246421			
C32	5.856	0.000	459625	261463	FUEL OIL(C10-C24)	2072804	4
C34	6.130	0.000	379119	267608			
Filter Peak	7.700	0.000	4228	1518	JP-4 (Tol-C14)	1368073	120
C36	6.471	0.000	293894	278251	CREOSOT (C8-C22)	2025727	212
C38	6.911	0.000	205667	263338	HYDRAUL (C24-C38)	2327625	262
C40	7.498	0.000	149154	249725	BUNKERC (C10-C38)	4400429	1456

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

JR 05/24/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	808313	44.2	98.1
Triacontane	733017	51.4	114.3

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

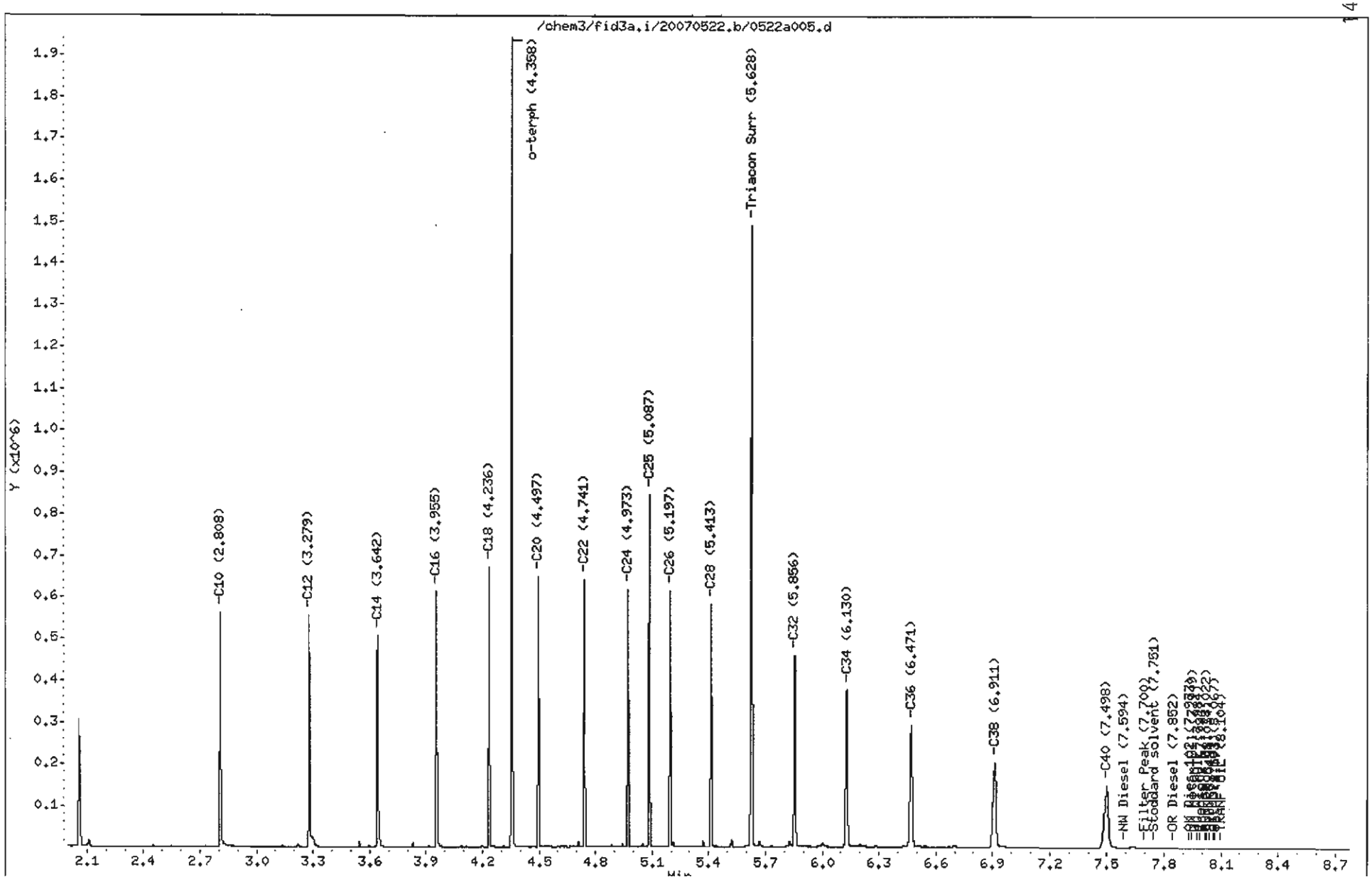
Data File: /chem3/fid3a.i/20070522.b/0522a005.d
Date : 22-MAY-2007 08:14
Client ID:
Sample Info: RT

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

1478



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a006.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: IB
Client ID:
Injection: 22-MAY-2007 08:28
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.859	-0.001	42115	8327	GAS (Tol-C12)	246756	17
C8	2.065	0.006	1057	1339	DIESEL (C12-C24)	128884	9
C10	2.803	-0.005	675	547	M.OIL (C24-C38)	389735	41
C12	3.281	0.002	724	578	AK-102 (C10-C25)	151181	8
C14	3.627	-0.016	1997	3396	AK-103 (C25-C36)	297826	42
C16	3.949	-0.006	1527	1505			
C18	4.240	0.004	2317	2087			
C20	4.503	0.006	2478	2521	JET-A (C10-C18)	92983	7
C22	4.740	-0.001	2801	3261	MIN.OIL (C24-C38)	389735	31
C24	4.964	-0.010	3441	3869	MSPIRIT (Tol-C12)	246756	16
C25	5.096	0.009	1659	297	TRANOIL (C12-C28)	187824	12
C26	5.198	0.002	3419	3142	KEROSEN (Tol-C18)	320362	21
C28	5.416	0.003	5178	5090			
C32	5.856	0.000	4253	1444	FUEL OIL(C10-C24)	148261	0
C34	6.125	-0.005	4081	2344			
Filter Peak	7.702	0.003	3698	1919	JP-4 (Tol-C14)	270293	24
C36	6.472	0.000	3883	2555	CREOSOT (C8-C22)	148240	16
C38	6.917	0.006	3935	2588	HYDRAUL (C24-C38)	389735	44
C40	7.514	0.016	3851	2373	BUNKERC (C10-C38)	537996	178

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	848714	46.4	103.0
Triacontane	745518	52.3	116.3

JK 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070522.b/0522a006.d
Date : 22-MAY-2007 08:28
Client ID:
Sample Info: IB

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

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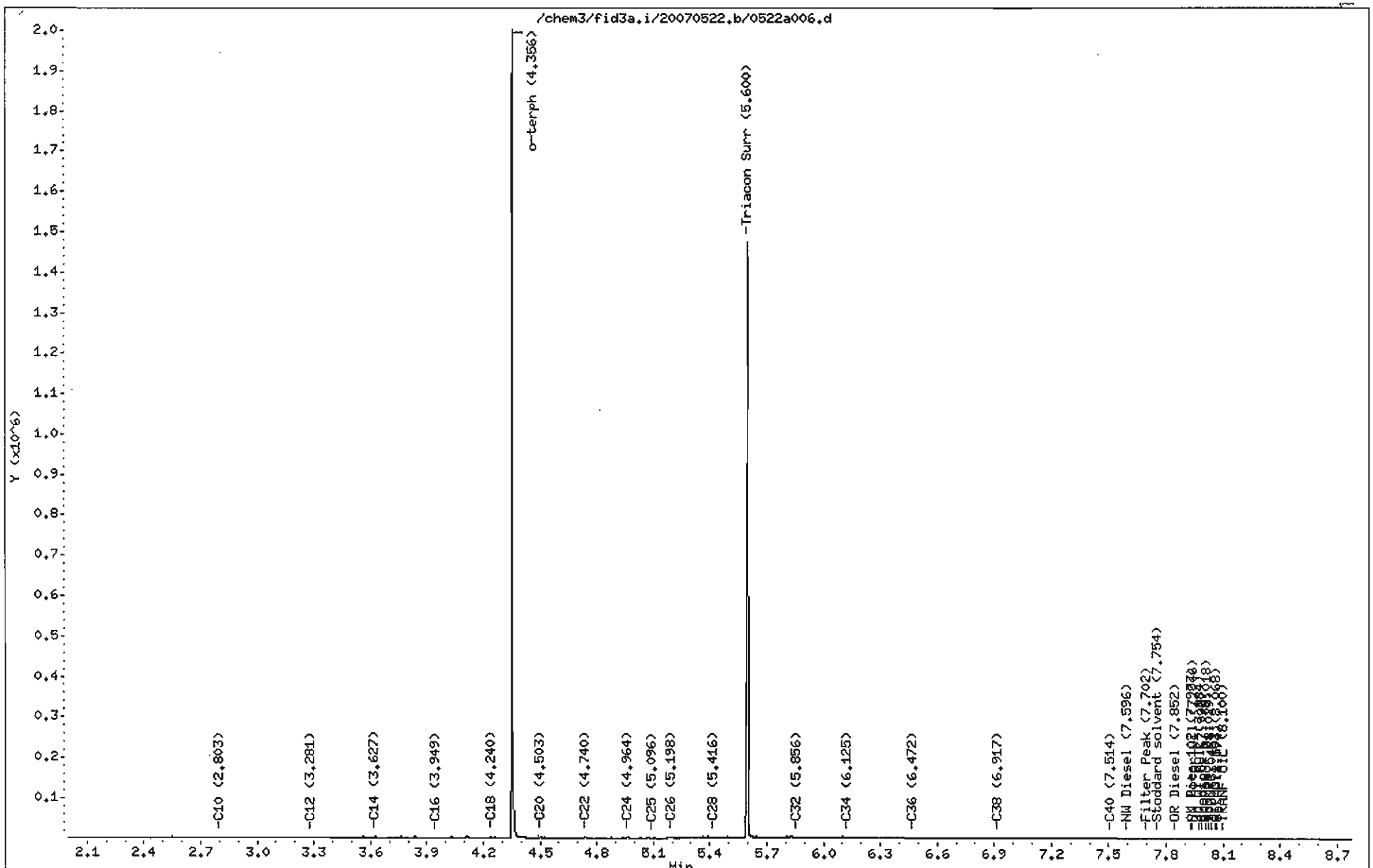


7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: TETRA TECH

ICal Date: 03-MAY-2007
Project: THEA FOSS OMMP

CCal Date: 22-MAY-2007
SDG No.: KZ56

Analysis Time: 15:40
Lab ID: DIESEL#3

Instrument: FID3A.I
Lab File Name: 0522a036.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3836870	254.8	250	1.9
AK102 (C10-C25)	4549017	252.1	250	0.9
Terphenyl	809256	44.2	45	-1.7

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a036.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: DIESEL#3
Client ID:
Injection: 22-MAY-2007 15:40
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.862	0.002	5593	5011	GAS (Tol-C12)	884071	61
C8	2.062	0.003	5470	3893	DIESEL (C12-C24)	3836870	255
C10	2.812	0.004	71073	43877	M.OIL (C24-C38)	756531	80
C12	3.283	0.003	132712	69111	AK-102 (C10-C25)	4549017	252
C14	3.644	0.002	187626	140154	AK-103 (C25-C36)	590989	84
C16	3.957	0.002	200845	94029			
C18	4.239	0.003	163472	78182			
C20	4.499	0.002	112025	66371	JET-A (C10-C18)	3443756	274
C22	4.742	0.001	43814	28451	MIN.OIL (C24-C38)	756531	61
C24	4.975	0.002	18274	18915	MSPIRIT (Tol-C12)	884071	56
C25	5.088	0.001	11826	12132	TRANOIL (C12-C28)	3997738	262
C26	5.199	0.003	8292	7167	KEROSEN (Tol-C18)	3619901	235
C28	5.417	0.003	6112	6918			
C32	5.854	-0.001	7094	3652	FUEL OIL(C10-C24)	4544795	9
C34	6.131	0.001	8005	10164			
Filter Peak	7.691	-0.008	4989	5255	JP-4 (Tol-C14)	1782450	157
C36	6.469	-0.003	6865	4359	CREOSOT (C8-C22)	4539606	476
C38	6.910	-0.001	5906	2468	HYDRAUL (C24-C38)	756531	85
C40	7.497	-0.001	5328	2964	BUNKERC (C10-C38)	5301325	1754

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	809256	44.2	98.3
Triacontane	27204	1.9	4.2

JR 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

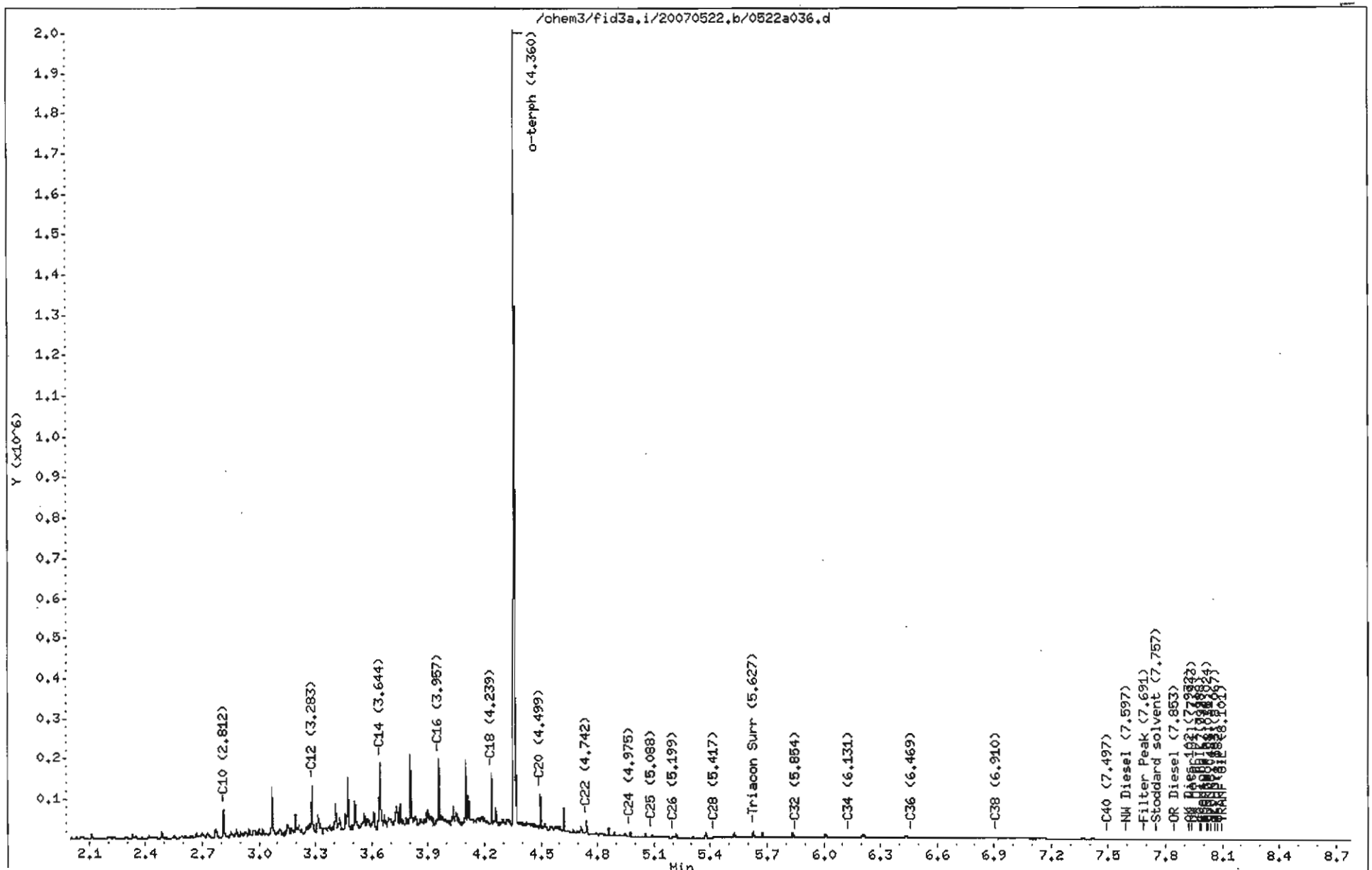
Data File: /chem3/fid3a.i/20070522.b/0522a036.d
Date : 22-MAY-2007 15:40
Client ID:
Sample Info: DIESEL#3

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1483



7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 31-JAN-2007 Project: THEA FOSS OMMP

CCal Date: 22-MAY-2007 SDG No.: KZ56

Analysis Time: 15:54 Lab ID: MOIL#3

Instrument: FID3A.I Lab File Name: 0522a037.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4976038	524.3	500	4.9
AK103 (C25-C36)	4150775	587.2	500	17.4
n-Triacontane	662715	46.5	45	3.3

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a037.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: MOIL#3
Client ID:
Injection: 22-MAY-2007 15:54
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.862	0.002	39717	17746	GAS (Tol-C12)	269248	19
C8	2.047	-0.012	1904	2843	DIESEL (C12-C24)	597541	40
C10	2.805	-0.003	674	555	M.OIL (C24-C38)	4976038	524
C12	3.281	0.002	684	497	AK-102 (C10-C25)	650677	36
C14	3.622	-0.020	1283	2469	AK-103 (C25-C36)	4150775	587
C16	3.952	-0.003	1828	1383			
C18	4.235	-0.002	13463	9162			
C20	4.498	0.001	5604	4706	JET-A (C10-C18)	120873	10
C22	4.739	-0.002	13008	8939	MIN.OIL (C24-C38)	4976038	398
C24	4.971	-0.002	26935	7882	MSPIRIT (Tol-C12)	269248	17
C25	5.084	-0.002	34218	11491	TRANOIL (C12-C28)	1684527	110
C26	5.196	-0.001	39375	14008	KEROSEN (Tol-C18)	365068	24
C28	5.412	-0.002	49287	6866			
C32	5.856	0.001	54471	11818	FUEL OIL(C10-C24)	622595	1
C34	6.129	-0.001	50938	15047			
Filter Peak	7.699	-0.001	14640	2627	JP-4 (Tol-C14)	293465	26
C36	6.475	0.003	39348	19249	CREOSOT (C8-C22)	353300	37
C38	6.909	-0.003	27650	15652	HYDRAUL (C24-C38)	4976038	559
C40	7.496	-0.002	18186	9825	BUNKERC (C10-C38)	5598632	1852

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	11344	0.6	1.4
Triacontane	662715	46.5	103.3

gk 05-24-07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070522.b/0522a037.d
Date : 22-MAY-2007 15:54
Client ID:
Sample Info: MOIL#3

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

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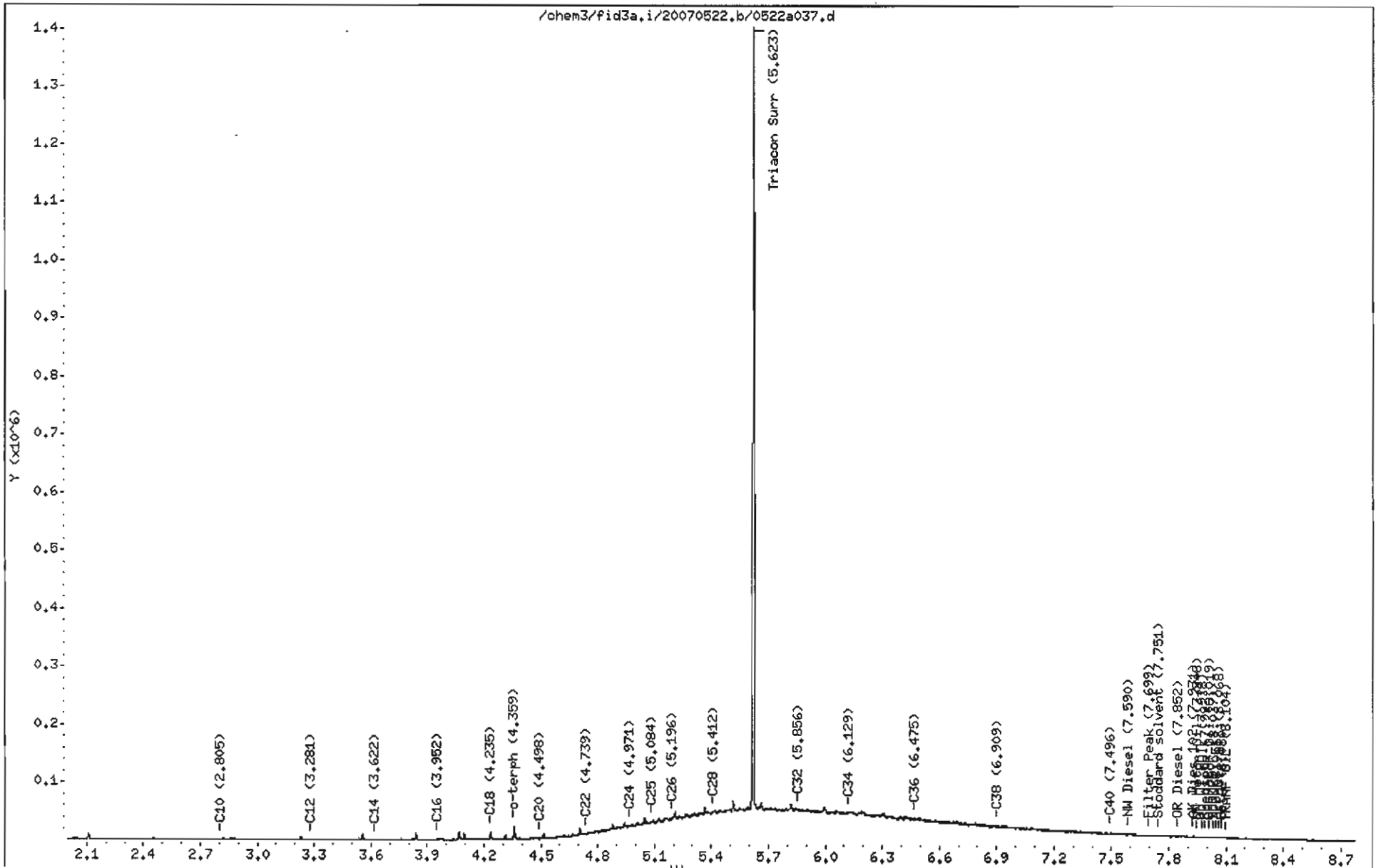

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 03-MAY-2007 Project: THEA FOSS OMMP

CCal Date: 22-MAY-2007 SDG No.: KZ56

Analysis Time: 18:34 Lab ID: DIESEL#4

Instrument: FID3A.I Lab File Name: 0522a048.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3811629	253.1	250	1.3
AK102 (C10-C25)	4518841	250.5	250	0.2
Terphenyl	822579	44.9	45	-0.1

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a048.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: DIESEL#4
Client ID:
Injection: 22-MAY-2007 18:34
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.861	0.002	5397	4883	GAS (Tol-C12)	875958	61
C8	2.062	0.003	5378	3835	DIESEL (C12-C24)	3811629	253
C10	2.811	0.003	70583	43618	M.OIL (C24-C38)	672525	71
C12	3.282	0.003	134684	67406	AK-102 (C10-C25)	4518841	250
C14	3.644	0.002	187058	137887	AK-103 (C25-C36)	537030	76
C16	3.957	0.002	201596	94060			
C18	4.238	0.002	166746	78592			
C20	4.495	-0.002	116487	58060	JET-A (C10-C18)	3413914	271
C22	4.735	-0.006	45157	29999	MIN.OIL (C24-C38)	672525	54
C24	4.962	-0.011	18674	17096	MSPIRIT (Tol-C12)	875958	55
C25	5.072	-0.014	11739	13925	TRANOIL (C12-C28)	3962891	260
C26	5.198	0.002	14762	10157	KEROSEN (Tol-C18)	3585182	232
C28	5.417	0.004	5152	6554			
C32	5.856	0.001	6040	2885	FUEL OIL(C10-C24)	4516319	9
C34	6.125	-0.004	6108	5644			
Filter Peak	7.702	0.003	3743	968	JP-4 (Tol-C14)	1763950	155
C36	6.466	-0.005	5429	3029	CREOSOT (C8-C22)	4527339	475
C38	6.913	0.002	4925	2736	HYDRAUL (C24-C38)	672525	76
C40	7.498	0.001	3970	1106	BUNKERC (C10-C38)	5188844	1716

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	822579	44.9	99.9
Triacontane	3424	0.2	0.5

JR 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070522.b/0522a048.d

Date : 22-MAY-2007 18:34

Client ID:

Sample Info: DIESEL#4

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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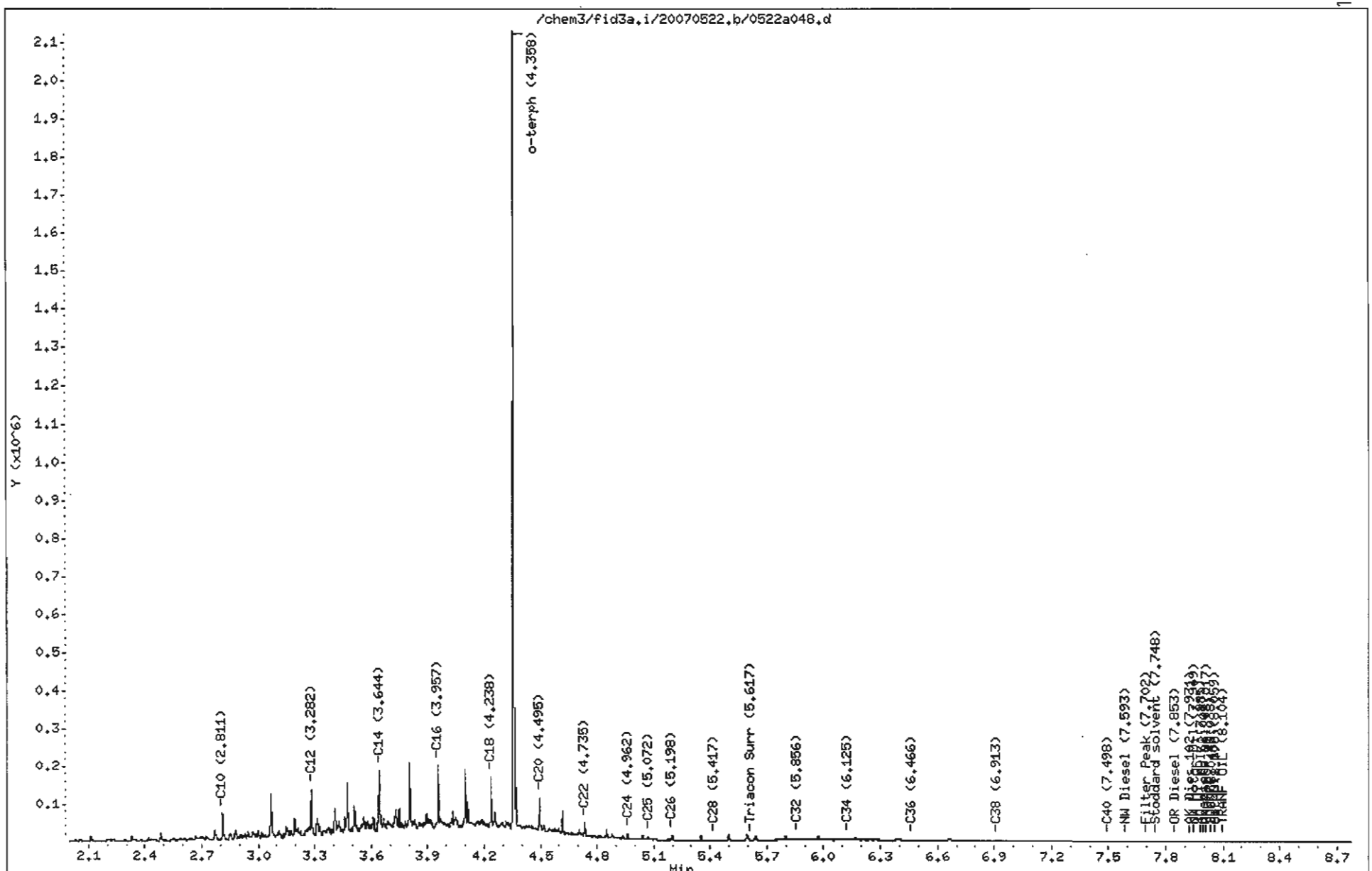

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: TETRA TECH

ICal Date: 31-JAN-2007
Project: THEA FOSS OMMP

CCal Date: 22-MAY-2007
SDG No.: KZ56

Analysis Time: 18:49
Lab ID: MOIL#4

Instrument: FID3A.I
Lab File Name: 0522a049.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4965927	523.2	500	4.6
AK103 (C25-C36)	4187747	592.4	500	18.5
n-Triacontane	674744	47.4	45	5.2

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

FORM VII-Diesel

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a049.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: MOIL#4
Client ID:
Injection: 22-MAY-2007 18:49
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.860	0.001	39860	18893	GAS (Tol-C12)	251189	17
C8	2.049	-0.010	1707	2367	DIESEL (C12-C24)	614606	41
C10	2.805	-0.003	605	427	M.OIL (C24-C38)	4965927	523
C12	3.280	0.001	602	353	AK-102 (C10-C25)	651708	36
C14	3.623	-0.019	1316	1958	AK-103 (C25-C36)	4187747	592
C16	3.953	-0.002	1731	1264			
C18	4.235	-0.001	13662	8631			
C20	4.497	0.001	5392	4158	JET-A (C10-C18)	114101	9
C22	4.742	0.001	12864	2302	MIN.OIL (C24-C38)	4965927	397
C24	4.975	0.002	28599	20512	MSPIRIT (Tol-C12)	251189	16
C25	5.083	-0.003	35698	22431	TRANOIL (C12-C28)	1722088	113
C26	5.197	0.001	50026	52327	KEROSEN (Tol-C18)	342834	22
C28	5.411	-0.002	49158	11711			
C32	5.856	0.000	53540	18130	FUEL OIL(C10-C24)	637062	1
C34	6.131	0.001	46921	7438			
Filter Peak	7.704	0.004	12255	7666	JP-4 (Tol-C14)	272515	24
C36	6.469	-0.002	38385	14133	CREOSOT (C8-C22)	342257	36
C38	6.912	0.000	25555	8082	HYDRAUL (C24-C38)	4965927	558
C40	7.498	0.000	14876	9105	BUNKERC (C10-C38)	5602989	1853

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	14927	0.8	1.8
Triacontane	674744	47.4	105.2

JK 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070522.b/0522a049.d
Date : 22-MAY-2007 18:49
Client ID:
Sample Info: MOIL#4

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

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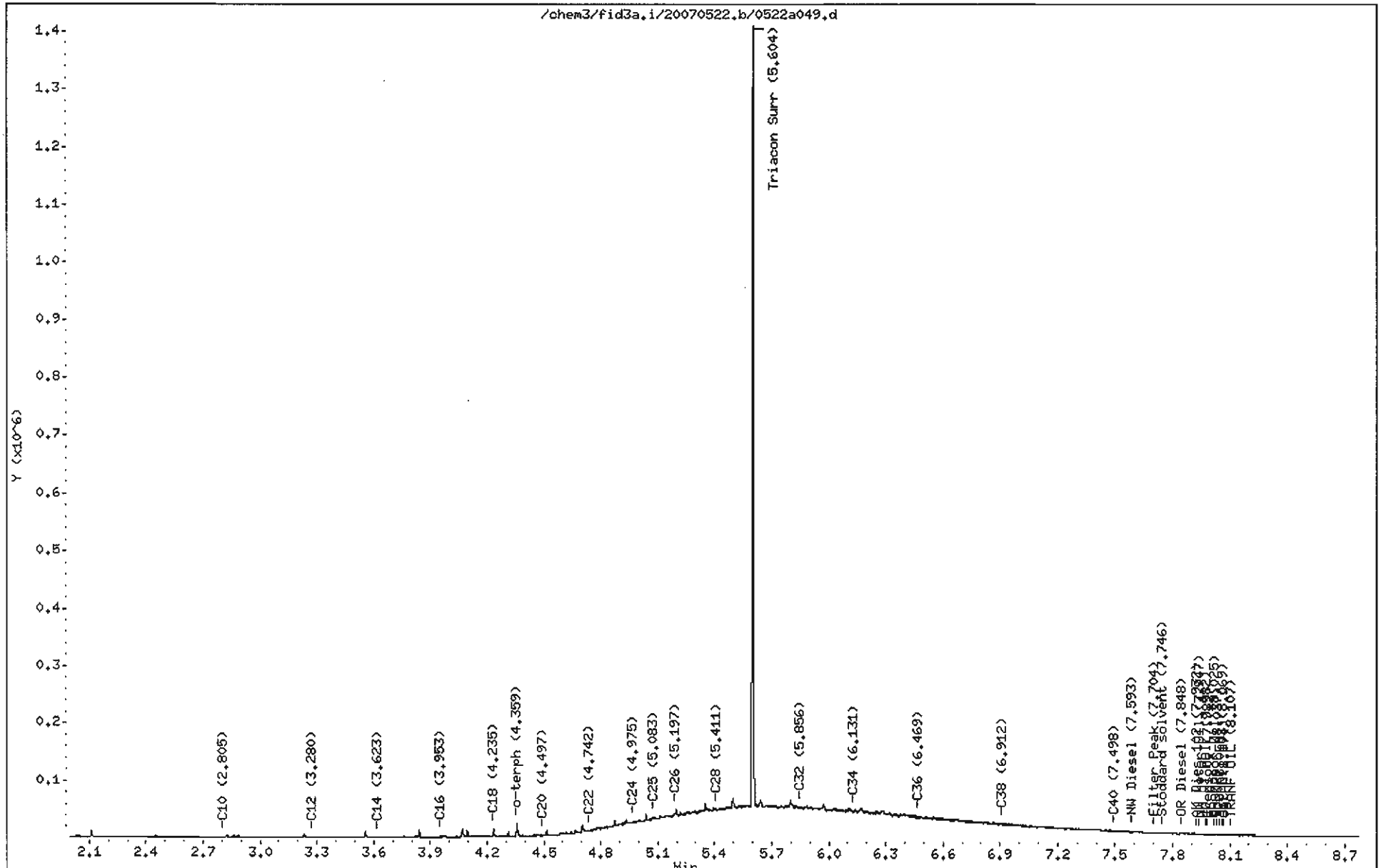


7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 03-MAY-2007 Project: THEA FOSS OMMP

CCal Date: 22-MAY-2007 SDG No.: KZ56

Analysis Time: 21:29 Lab ID: DIESEL#5

Instrument: FID3A.I Lab File Name: 0522a060.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3910597	259.7	250	3.9
AK102 (C10-C25)	4633489	256.8	250	2.7
Terphenyl	832148	45.5	45	1.0

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a060.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: DIESEL#5
Client ID:
Injection: 22-MAY-2007 21:29
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.863	0.004	5477	5179	GAS (Tol-C12)	894267	62
C8	2.064	0.005	5555	3859	DIESEL (C12-C24)	3910597	260
C10	2.811	0.003	72830	43845	M.OIL (C24-C38)	789423	83
C12	3.281	0.002	133688	69554	AK-102 (C10-C25)	4633489	257
C14	3.643	0.001	190236	141669	AK-103 (C25-C36)	624409	88
C16	3.956	0.001	204755	96717			
C18	4.237	0.001	171820	83211			
C20	4.495	-0.002	118400	61667	JET-A (C10-C18)	3493905	278
C22	4.736	-0.005	45835	28872	MIN.OIL (C24-C38)	789423	63
C24	4.977	0.004	9106	6283	MSPIRIT (Tol-C12)	894267	57
C25	5.075	-0.012	12740	14624	TRANOIL (C12-C28)	4073983	267
C26	5.202	0.006	15475	11822	KEROSEN (Tol-C18)	3670066	238
C28	5.415	0.002	5448	2071			
C32	5.859	0.004	7149	2558	FUEL OIL(C10-C24)	4628703	9
C34	6.134	0.004	7019	3333			
Filter Peak	7.700	0.001	4663	743	JP-4 (Tol-C14)	1797838	158
C36	6.473	0.002	6423	3704	CREOSOT (C8-C22)	4632642	486
C38	6.915	0.004	5701	2038	HYDRAUL (C24-C38)	789423	89
C40	7.494	-0.003	4848	3566	BUNKERC (C10-C38)	5418126	1792

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	832148	45.5	101.0
Triacontane	1612	0.1	0.3

JR 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

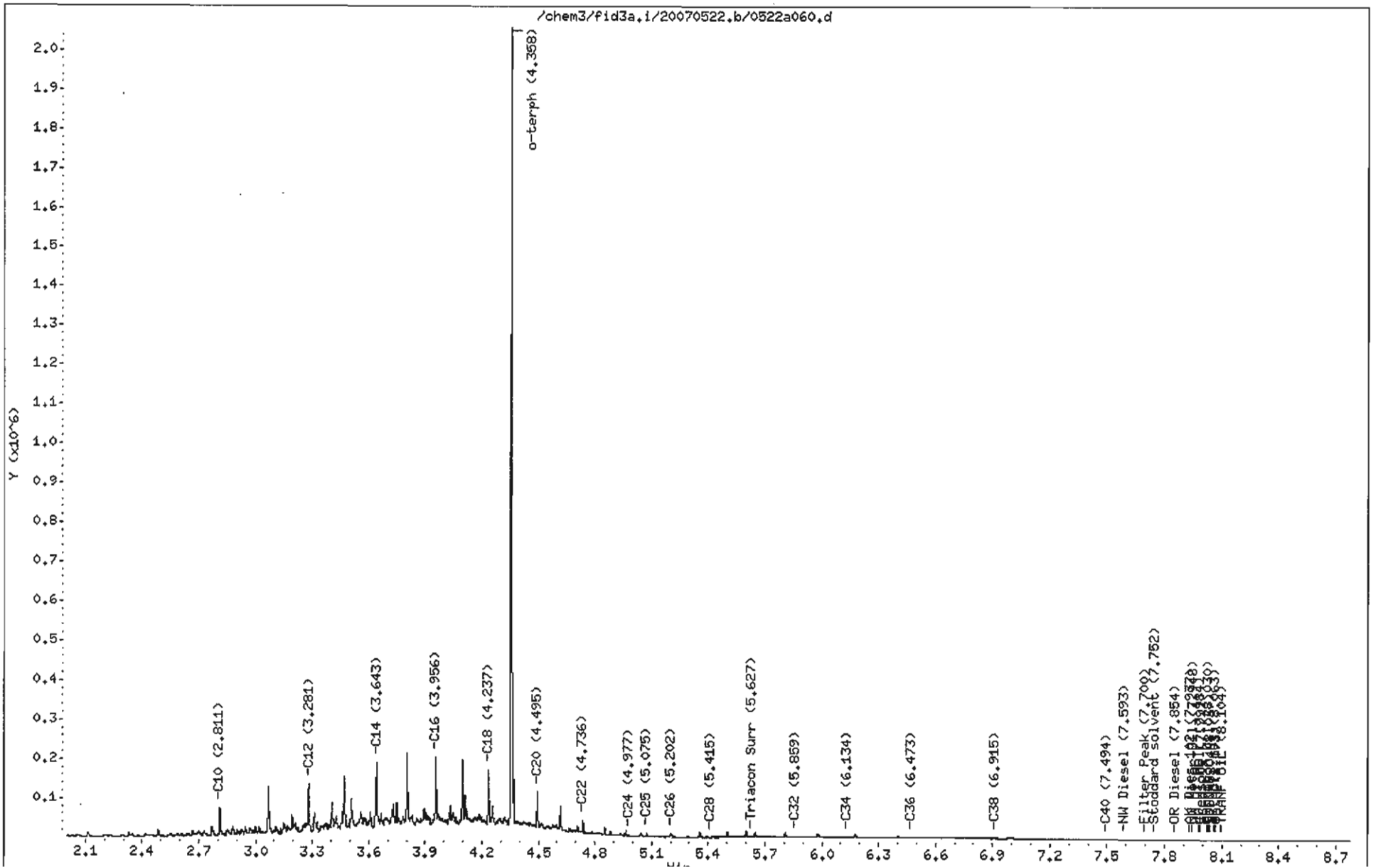
Data File: /chem3/fid3a.i/20070522.b/0522a060.d
Date : 22-MAY-2007 21:29
Client ID:
Sample Info: DIESEL#5

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1495



7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 31-JAN-2007 Project: THEA FOSS OMMP

CCal Date: 22-MAY-2007 SDG No.: KZ56

Analysis Time: 21:43 Lab ID: MOIL#5

Instrument: FID3A.I Lab File Name: 0522a061.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	5182430	546.0	500	9.2
AK103 (C25-C36)	4351354	615.6	500	23.1
n-Triacontane	685897	48.1	45	7.0

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a061.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: MOIL#5
Client ID:
Injection: 22-MAY-2007 21:43
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.860	0.000	40542	25184	GAS (Tol-C12)	231310	16
C8	2.050	-0.009	1879	2644	DIESEL (C12-C24)	646578	43
C10	2.805	-0.003	608	496	M.OIL (C24-C38)	5182430	546
C12	3.283	0.003	646	484	AK-102 (C10-C25)	670207	37
C14	3.623	-0.019	1406	2649	AK-103 (C25-C36)	4351354	616
C16	3.952	-0.003	2091	1634			
C18	4.235	-0.001	14825	9948			
C20	4.497	0.000	6189	5041	JET-A (C10-C18)	130528	10
C22	4.735	-0.006	13662	8010	MIN.OIL (C24-C38)	5182430	415
C24	4.978	0.004	29709	32914	MSPIRIT (Tol-C12)	231310	15
C25	5.088	0.002	36432	21143	TRANOIL (C12-C28)	1771630	116
C26	5.200	0.003	50517	59197	KEROSEN (Tol-C18)	338208	22
C28	5.414	0.001	50646	14031			
C32	5.856	0.000	54495	15135	FUEL OIL(C10-C24)	670207	1
C34	6.128	-0.002	49809	13792			
Filter Peak	7.702	0.002	14727	15882	JP-4 (Tol-C14)	253379	22
C36	6.470	-0.002	39289	10122	CREOSOT (C8-C22)	375605	39
C38	6.906	-0.005	27757	23906	HYDRAUL (C24-C38)	5182430	582
C40	7.497	-0.001	16559	6892	BUNKERC (C10-C38)	5852638	1936

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	13298	0.7	1.6
Triacontane	685897	48.1	107.0

jk 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

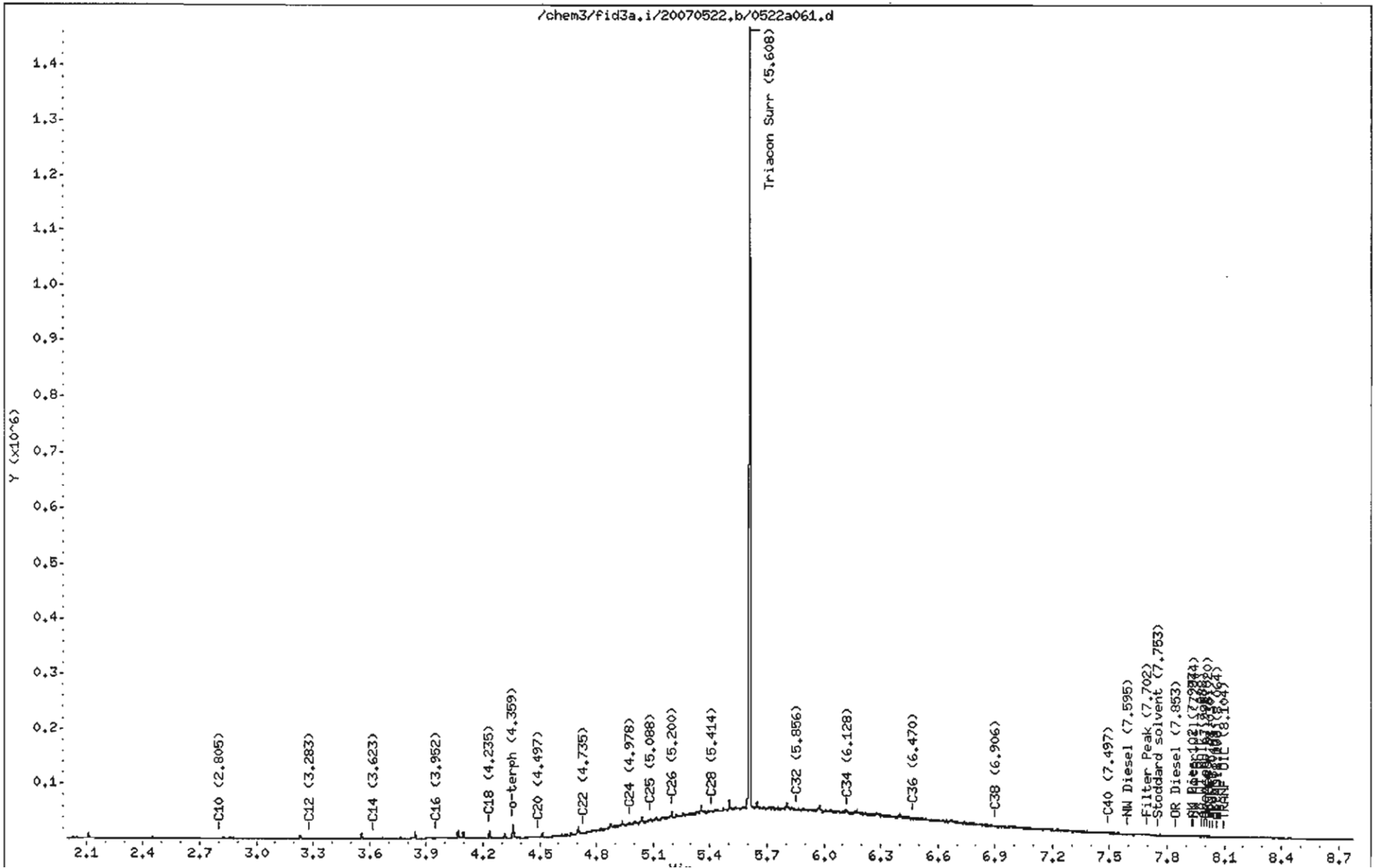
Data File: /chem3/fid3a.i/20070522.b/0522a061.d
Date : 22-MAY-2007 21:43
Client ID:
Sample Info: MOIL#5

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1498



7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 03-MAY-2007 Project: THEA FOSS OMMP

CCal Date: 23-MAY-2007 SDG No.: KZ56

Analysis Time: 00:07 Lab ID: DIESEL#6

Instrument: FID3A.I Lab File Name: 0522a071.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3931850	261.1	250	4.5
AK102 (C10-C25)	4674027	259.1	250	3.6
Terphenyl	841524	46.0	45	2.2

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a071.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: DIESEL#6
Client ID:
Injection: 23-MAY-2007 00:07
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.866	0.006	5574	5310	GAS (Tol-C12)	904648	63
C8	2.053	-0.005	2852	1504	DIESEL (C12-C24)	3931850	261
C10	2.811	0.003	72284	44894	M.OIL (C24-C38)	712119	75
C12	3.281	0.002	135321	70312	AK-102 (C10-C25)	4674027	259
C14	3.643	0.001	193362	141770	AK-103 (C25-C36)	555066	79
C16	3.956	0.001	209193	97676			
C18	4.237	0.001	171989	83202			
C20	4.494	-0.003	118202	69395	JET-A (C10-C18)	3526479	280
C22	4.747	0.007	15620	5871	MIN.OIL (C24-C38)	712119	57
C24	4.968	-0.005	8977	7297	MSPIRIT (Tol-C12)	904648	57
C25	5.095	0.009	7015	7975	TRANOIL (C12-C28)	4093203	268
C26	5.190	-0.007	15253	11494	KEROSEN (Tol-C18)	3706403	240
C28	5.421	0.008	5244	1972			
C32	5.860	0.005	7000	8698	FUEL OIL(C10-C24)	4656574	9
C34	6.126	-0.004	6421	3060			
Filter Peak	7.695	-0.005	4308	2141	JP-4 (Tol-C14)	1822279	160
C36	6.470	-0.001	5878	2326	CREOSOT (C8-C22)	4667900	489
C38	6.905	-0.006	5160	2775	HYDRAUL (C24-C38)	712119	80
C40	7.499	0.002	4469	1872	BUNKERC (C10-C38)	5368693	1776

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	841524	46.0	102.2
Triacontane	17218	1.2	2.7

JK 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070522.b/0522a071.d

Date : 23-MAY-2007 00:07

Client ID:

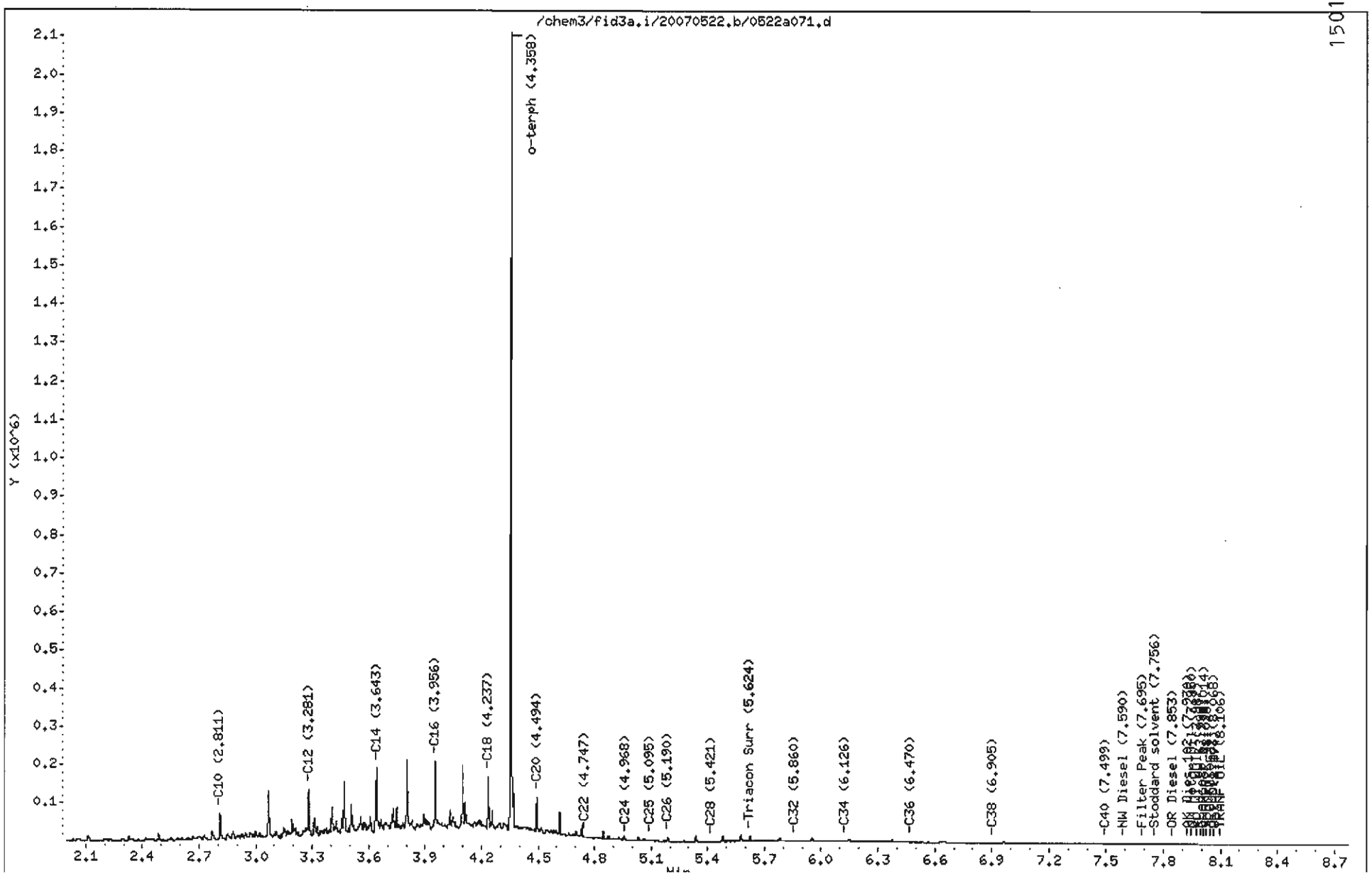
Sample Info: DIESEL#6

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25



7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 31-JAN-2007 Project: THEA FOSS OMMP

CCal Date: 23-MAY-2007 SDG No.: KZ56

Analysis Time: 00:21 Lab ID: MOIL#6

Instrument: FID3A.I Lab File Name: 0522a072.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	5180496	545.8	500	9.2
AK103 (C25-C36)	4337003	613.5	500	22.7
n-Triacontane	690350	48.4	45	7.7

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a072.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: MOIL#6
Client ID:
Injection: 23-MAY-2007 00:21
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.863	0.003	39318	10770	GAS (Tol-C12)	262730	18
C8	2.053	-0.006	1634	2171	DIESEL (C12-C24)	655413	44
C10	2.805	-0.003	612	475	M.OIL (C24-C38)	5180496	546
C12	3.279	0.000	640	406	AK-102 (C10-C25)	720385	40
C14	3.624	-0.018	1302	2285	AK-103 (C25-C36)	4337003	614
C16	3.951	-0.004	1985	1551			
C18	4.234	-0.002	14125	9751			
C20	4.495	-0.002	5901	4950	JET-A (C10-C18)	126252	10
C22	4.744	0.003	15068	10924	MIN.OIL (C24-C38)	5180496	415
C24	4.979	0.006	29810	13286	MSPIRIT (Tol-C12)	262730	17
C25	5.082	-0.004	35263	7654	TRANOIL (C12-C28)	1818433	119
C26	5.201	0.004	45584	28030	KEROSEN (Tol-C18)	365342	24
C28	5.414	0.000	55358	17442			
C32	5.857	0.001	56199	12251	FUEL OIL(C10-C24)	679053	1
C34	6.133	0.003	55753	57492			
Filter Peak	7.703	0.003	14285	14538	JP-4 (Tol-C14)	285287	25
C36	6.470	-0.001	39055	22319	CREOSOT (C8-C22)	380659	40
C38	6.914	0.003	26237	4661	HYDRAUL (C24-C38)	5180496	582
C40	7.502	0.004	16128	5134	BUNKERC (C10-C38)	5859548	1938

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	13482	0.7	1.6
Triacontane	690350	48.4	107.7

JR 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070522.b/0522a072.d

Date : 23-MAY-2007 00:21

Client ID:

Sample Info: MOIL#6

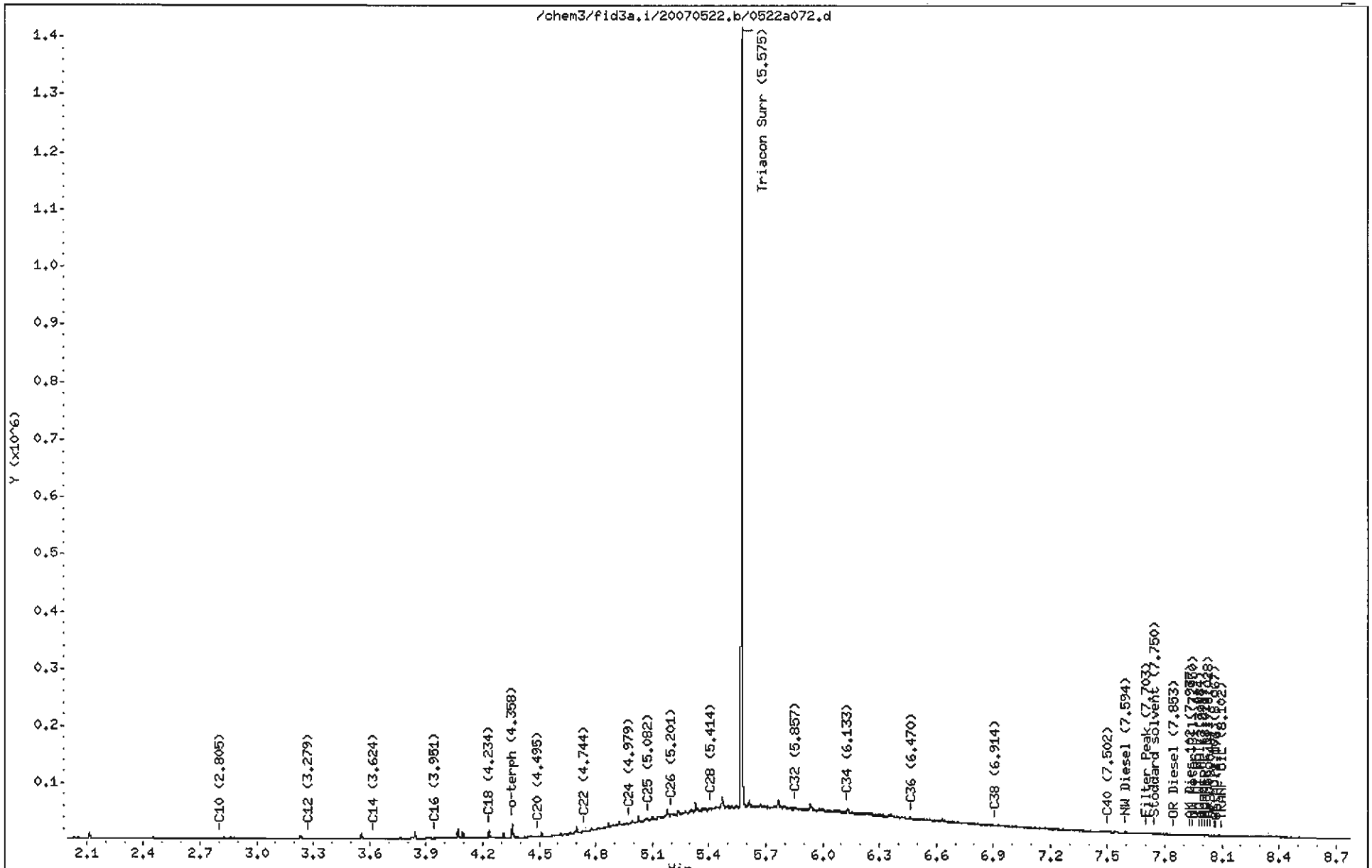
Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

1504



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070523.b/0523a005.d
Method: /chem3/fid3a.i/20070523.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: RT
Client ID:
Injection: 23-MAY-2007 05:11
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.861	0.000	433813	333755	GAS (Tol-C12)	1087450	76
C8	2.062	0.000	271396	174904	DIESEL (C12-C24)	1570381	104
C10	2.809	0.000	536382	227327	M.OIL (C24-C38)	2221452	234
C12	3.280	0.000	538060	214602	AK-102 (C10-C25)	2054331	114
C14	3.643	0.000	485121	233684	AK-103 (C25-C36)	1901920	269
C16	3.956	0.000	590521	237580			
C18	4.236	0.000	649623	236444			
C20	4.494	0.000	641685	238277	JET-A (C10-C18)	1249646	99
C22	4.734	0.000	633593	241235	MIN.OIL (C24-C38)	2221452	178
C24	4.962	0.000	637314	243454	MSPIRIT (Tol-C12)	1087450	69
C25	5.072	0.000	880308	338650	TRANOIL (C12-C28)	2459209	161
C26	5.180	0.000	602077	240461	KEROSEN (Tol-C18)	1854907	120
C28	5.390	0.000	590943	241399			
C32	5.826	0.000	458237	255117	FUEL OIL(C10-C24)	2052570	4
C34	6.098	0.000	364339	253980			
Filter Peak	7.699	0.000	3542	1624	JP-4 (Tol-C14)	1339050	118
C36	6.438	0.000	293560	266305	CREOSOT (C8-C22)	2001729	210
C38	6.876	0.000	198762	238845	HYDRAUL (C24-C38)	2221452	250
C40	7.459	0.000	122172	209172	BUNKERC (C10-C38)	4274022	1414

Range Times: NW Diesel(3.330 - 5.012) NW Gas(1.811 - 3.330) NW M.Oil(5.012 - 6.926)
AK102(2.759 - 5.022) AK103(5.022 - 6.488) Jet A(2.759 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	800562	43.7	97.2
Triacontane	717098	50.3	111.8

pr 05/24/07
pr 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070523.b/0523a005.d

Date : 23-MAY-2007 05:11

Client ID:

Sample Info: RT

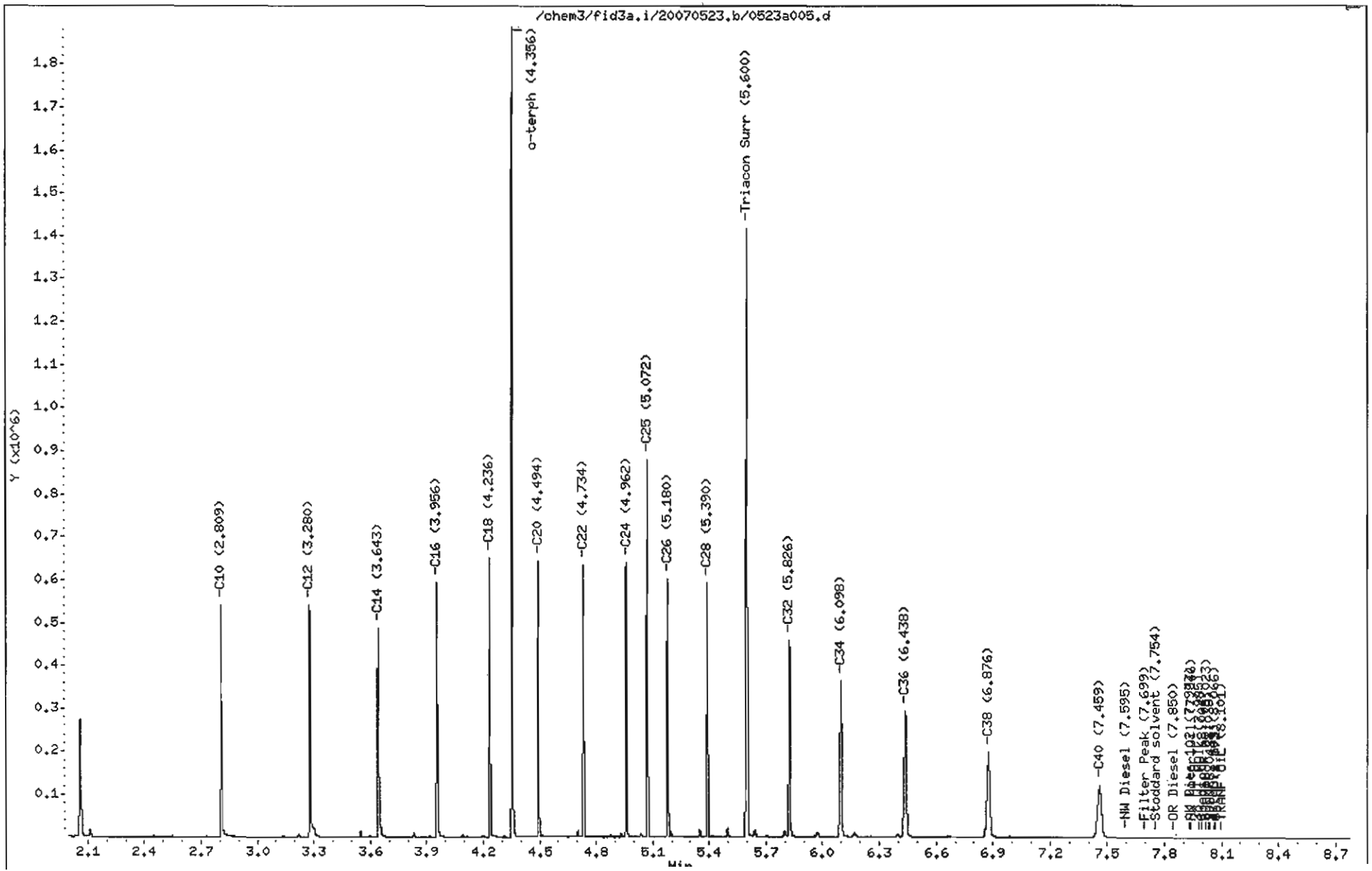
Instrument: fid3a.i

Operator: JR

Column phase: RTX-1

Column diameter: 0.25

1506



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070523.b/0523a006.d
Method: /chem3/fid3a.i/20070523.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: IB
Client ID:
Injection: 23-MAY-2007 05:25
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.865	0.003	45276	23982	GAS (Tol-C12)	218492	15
C8	2.058	-0.003	452	133	DIESEL (C12-C24)	45077	3
C10	2.802	-0.007	534	681	M.OIL (C24-C38)	276684	29
C12	3.282	0.002	295	203	AK-102 (C10-C25)	56264	3
C14	3.640	-0.003	349	249	AK-103 (C25-C36)	205678	29
C16	3.950	-0.005	447	548			
C18	4.239	0.002	491	406			
C20	4.491	-0.003	871	577	JET-A (C10-C18)	29462	2
C22	4.737	0.003	792	609	MIN.OIL (C24-C38)	276684	22
C24	4.973	0.011	917	564	MSPIRIT (Tol-C12)	218492	14
C25	5.082	0.010	1096	497	TRANOIL (C12-C28)	82217	5
C26	5.176	-0.004	1218	362	KEROSEN (Tol-C18)	237313	15
C28	5.390	0.000	2496	2248			
C32	5.834	0.008	4695	10021	FUEL OIL(C10-C24)	55718	0
C34	6.090	-0.007	3312	989			
Filter Peak	7.696	-0.003	3167	884	JP-4 (Tol-C14)	224383	20
C36	6.442	0.004	3313	2883	CREOSOT (C8-C22)	62086	7
C38	6.914	0.038	3203	956	HYDRAUL (C24-C38)	276684	31
C40	7.495	0.035	3208	831	BUNKERC (C10-C38)	332402	110

Range Times: NW Diesel(3.330 - 5.012) NW Gas(1.811 - 3.330) NW M.Oil(5.012 - 6.926)
AK102(2.759 - 5.022) AK103(5.022 - 6.488) Jet A(2.759 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	842352	46.0	102.3
Triacontane	736734	51.7	114.9

JR 05/25/07
JR 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070523.b/0523a006.d
Date : 23-MAY-2007 05:25
Client ID:
Sample Info: IB

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

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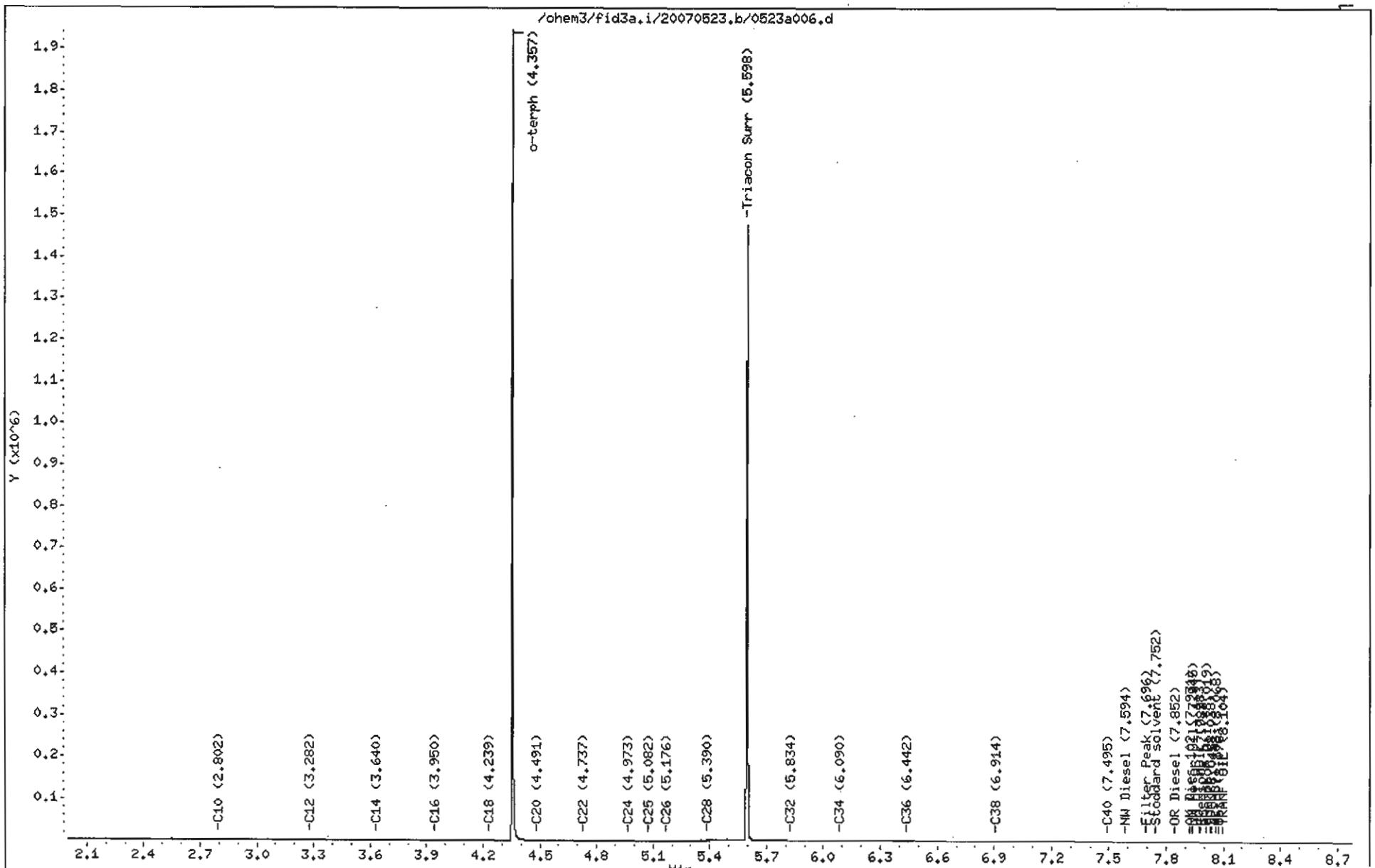


7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: ENTRIX INC

ICal Date: 03-MAY-2007
Project: WFF

CCal Date: 23-MAY-2007
SDG No.: KZ56

Analysis Time: 05:39
Lab ID: DIESEL#1

Instrument: FID3A.I
Lab File Name: 0523a007.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3583735	238.0	250	-4.8
AK102 (C10-C25)	4249096	235.5	250	-5.8
Terphenyl	766509	41.9	45	-6.9

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070523.b/0523a007.d
Method: /chem3/fid3a.i/20070523.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: DIESEL#1
Client ID:
Injection: 23-MAY-2007 05:39
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.865	0.003	5137	5678	GAS (Tol-C12)	830340	58
C8	2.064	0.002	5094	3661	DIESEL (C12-C24)	3583735	238
C10	2.810	0.001	65887	40729	M.OIL (C24-C38)	625795	66
C12	3.280	0.000	121433	64539	AK-102 (C10-C25)	4249096	236
C14	3.642	-0.001	175751	130088	AK-103 (C25-C36)	501543	71
C16	3.955	-0.001	188050	85932			
C18	4.236	-0.001	156627	73463			
C20	4.493	-0.002	107911	56550	JET-A (C10-C18)	3208457	255
C22	4.732	-0.003	41746	32909	MIN.OIL (C24-C38)	625795	50
C24	4.969	0.007	8036	5084	MSPIRIT (Tol-C12)	830340	52
C25	5.097	0.024	6033	6814	TRANOIL (C12-C28)	3718528	244
C26	5.171	-0.009	7231	5296	KEROSEN (Tol-C18)	3373436	219
C28	5.403	0.012	4847	5043			
C32	5.828	0.002	5586	2440	FUEL OIL(C10-C24)	4249096	8
C34	6.102	0.004	5637	3463			
Filter Peak	7.696	-0.003	3756	1630	JP-4 (Tol-C14)	1660253	146
C36	6.439	0.000	5142	1428	CREOSOT (C8-C22)	4258270	446
C38	6.917	0.041	4429	2277	HYDRAUL (C24-C38)	625795	70
C40	7.506	0.046	3824	2729	BUNKERC (C10-C38)	4874891	1613

Range Times: NW Diesel(3.330 - 5.012) NW Gas(1.811 - 3.330) NW M.Oil(5.012 - 6.926)
AK102(2.759 - 5.022) AK103(5.022 - 6.488) Jet A(2.759 - 4.286)

JK 05/24/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	766509	41.9	93.1
Triacontane	2241	0.2	0.3

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070523.b/0523a007.d

Date : 23-MAY-2007 05:39

Client ID:

Sample Info: DIESEL#1

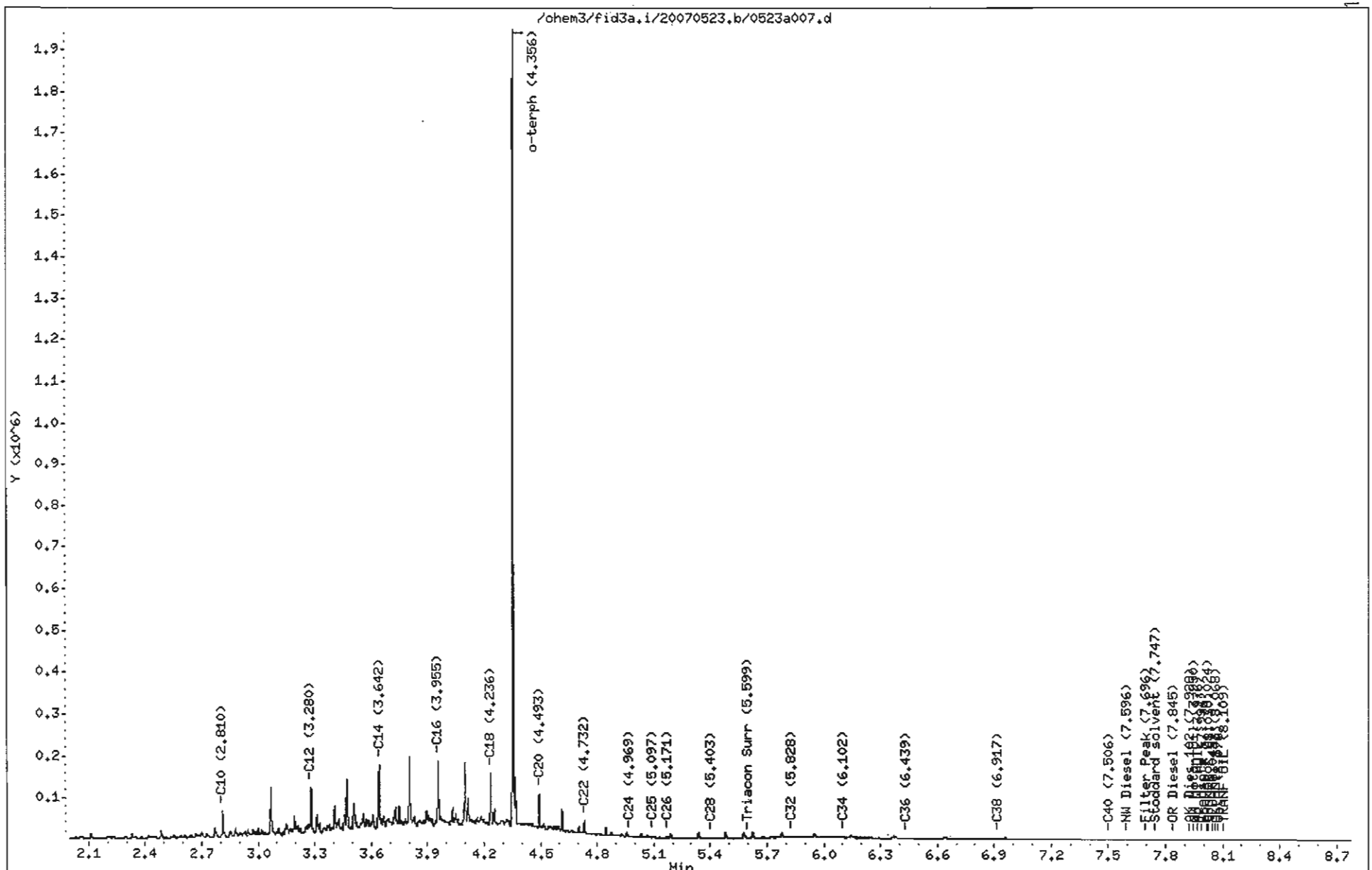
Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

1511



7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ENTRIX INC

ICal Date: 31-JAN-2007 Project: WFF

CCal Date: 23-MAY-2007 SDG No.: KZ56

Analysis Time: 05:54 Lab ID: MOIL#1

Instrument: FID3A.I Lab File Name: 0523a008.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4745067	499.9	500	0.0
AK103 (C25-C36)	3982555	563.4	500	12.7
n-Triacontane	628984	44.1	45	-1.9

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070523.b/0523a008.d
Method: /chem3/fid3a.i/20070523.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: MOIL#1
Client ID:
Injection: 23-MAY-2007 05:54
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.860	-0.002	35267	18628	GAS (Tol-C12)	196226	14
C8	2.050	-0.012	1689	2194	DIESEL (C12-C24)	579916	39
C10	2.803	-0.006	665	439	M.OIL (C24-C38)	4745067	500
C12	3.281	0.001	599	407	AK-102 (C10-C25)	613054	34
C14	3.624	-0.019	1104	1254	AK-103 (C25-C36)	3982555	563
C16	3.951	-0.004	1670	1505			
C18	4.234	-0.002	12724	8370			
C20	4.495	0.001	5104	4471	JET-A (C10-C18)	110429	9
C22	4.737	0.003	12330	3437	MIN.OIL (C24-C38)	4745067	380
C24	4.968	0.006	27175	22453	MSPIRIT (Tol-C12)	196226	12
C25	5.087	0.014	31242	5594	TRANOIL (C12-C28)	1611224	106
C26	5.175	-0.005	38336	14457	KEROSEN (Tol-C18)	283755	18
C28	5.395	0.005	47093	14998			
C32	5.825	-0.001	51800	27250	FUEL OIL(C10-C24)	602817	1
C34	6.096	-0.002	48455	34362			
Filter Peak	7.701	0.002	12789	3803	JP-4 (Tol-C14)	215532	19
C36	6.437	-0.001	37866	19903	CREOSOT (C8-C22)	326800	34
C38	6.911	0.035	24472	4342	HYDRAUL (C24-C38)	4745067	533
C40	7.498	0.038	15482	8430	BUNKERC (C10-C38)	5347884	1769

Range Times: NW Diesel(3.330 - 5.012) NW Gas(1.811 - 3.330) NW M.Oil(5.012 - 6.926)
AK102(2.759 - 5.022) AK103(5.022 - 6.488) Jet A(2.759 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	11594	0.6	1.4
Triacontane	628984	44.1	98.1

JR 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070523.b/0523a008.d

Date : 23-MAY-2007 05:54

Client ID:

Sample Info: MOIL#1

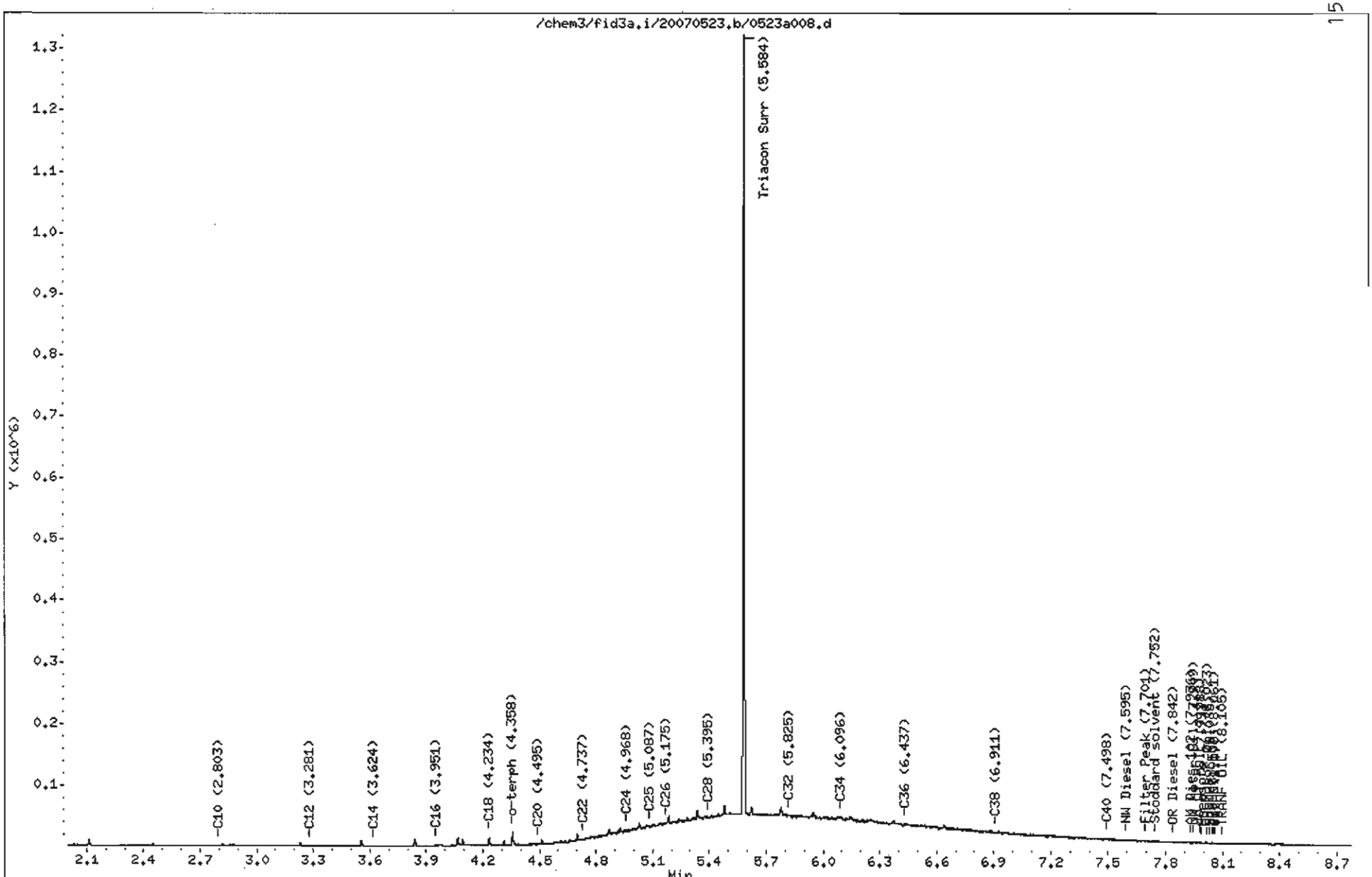
Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

1514



7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: ENTRIX INC

ICal Date: 03-MAY-2007
Project: WFF

CCal Date: 23-MAY-2007
SDG No.: KZ56

Analysis Time: 08:31
Lab ID: DIESEL#2

Instrument: FID3A.I
Lab File Name: 0523a019.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3566590	236.9	250	-5.3
AK102 (C10-C25)	4227621	234.3	250	-6.3
Terphenyl	739345	40.4	45	-10.2

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

FORM VII-Diesel

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070523.b/0523a019.d
Method: /chem3/fid3a.i/20070523.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: DIESEL#2
Client ID:
Injection: 23-MAY-2007 08:31
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.862	0.001	4981	4612	GAS (Tol-C12)	825308	57
C8	2.062	0.000	4992	3713	DIESEL (C12-C24)	3566590	237
C10	2.810	0.001	65411	41230	M.OIL (C24-C38)	688090	72
C12	3.281	0.002	120317	63632	AK-102 (C10-C25)	4227621	234
C14	3.643	0.000	171049	129983	AK-103 (C25-C36)	552241	78
C16	3.956	0.000	188072	86869			
C18	4.237	0.000	156668	74894			
C20	4.494	-0.001	108721	63363	JET-A (C10-C18)	3158345	251
C22	4.732	-0.002	42288	32693	MIN.OIL (C24-C38)	688090	55
C24	4.983	0.021	7598	2227	MSPIRIT (Tol-C12)	825308	52
C25	5.095	0.022	6785	7901	TRANOIL (C12-C28)	3714598	244
C26	5.187	0.007	14558	12517	KEROSEN (Tol-C18)	3322622	215
C28	5.402	0.011	5935	5176			
C32	5.828	0.002	6148	2683	FUEL OIL(C10-C24)	4227621	8
C34	6.094	-0.004	5954	1886			
Filter Peak	7.696	-0.003	3566	1775	JP-4 (Tol-C14)	1635050	144
C36	6.441	0.003	5542	2087	CREOSOT (C8-C22)	4242756	445
C38	6.914	0.038	4712	1407	HYDRAUL (C24-C38)	688090	77
C40	7.492	0.032	4011	4091	BUNKERC (C10-C38)	4915711	1626

Range Times: NW Diesel(3.330 - 5.012) NW Gas(1.811 - 3.330) NW M.Oil(5.012 - 6.926)
AK102(2.759 - 5.022) AK103(5.022 - 6.488) Jet A(2.759 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	739345	40.4	89.8
Triacontane	3382	0.2	0.5

JL 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070523.b/0523a019.d

Date : 23-MAY-2007 08:31

Client ID:

Sample Info: DIESEL#2

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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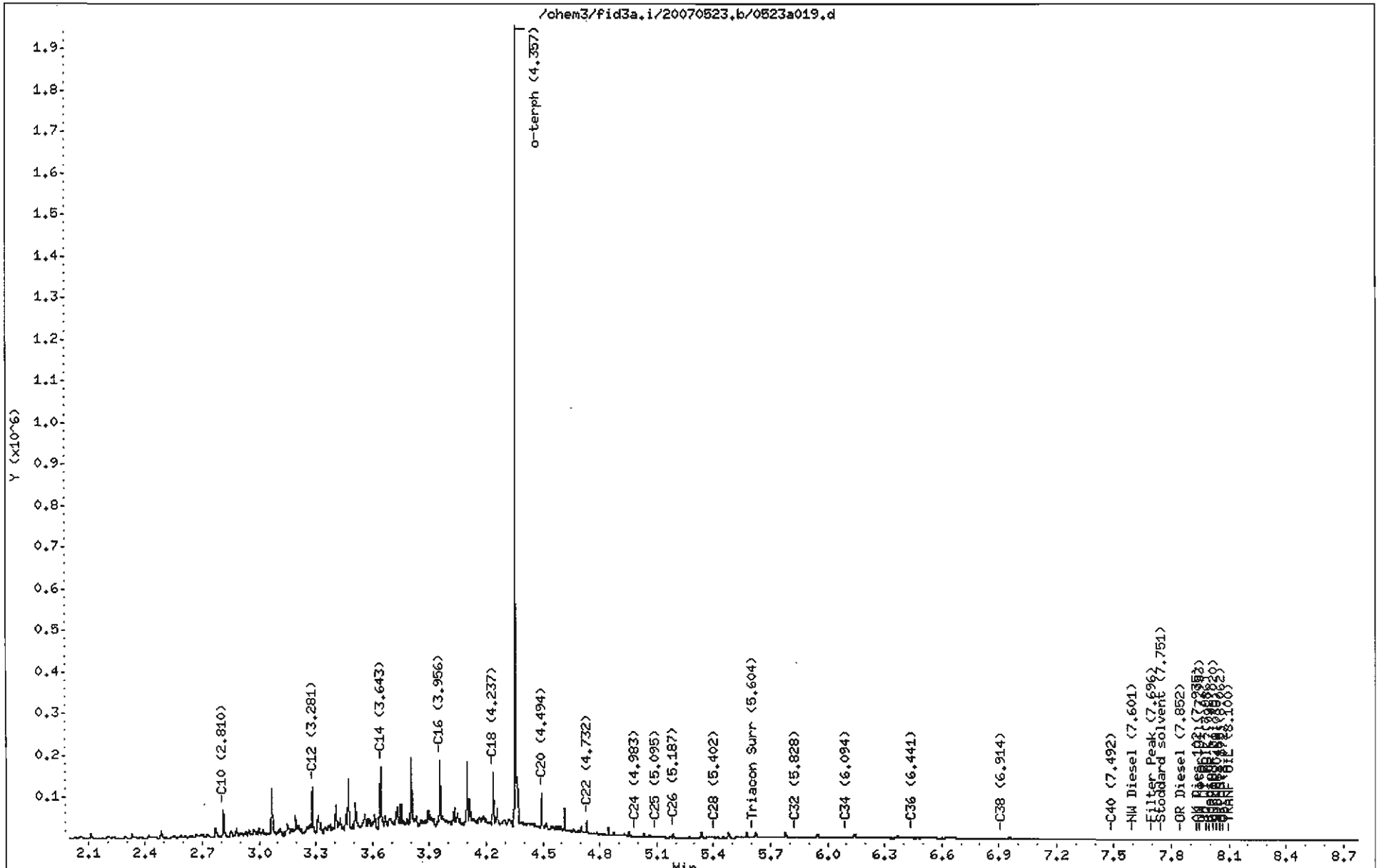


7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ENTRIX INC

ICal Date: 31-JAN-2007 Project: WFF

CCal Date: 23-MAY-2007 SDG No.: KZ56

Analysis Time: 08:45 Lab ID: MOIL#2

Instrument: FID3A.I Lab File Name: 0523a020.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4741760	499.6	500	-0.1
AK103 (C25-C36)	3915136	553.9	500	10.8
n-Triacontane	640462	44.9	45	-0.1

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070523.b/0523a020.d
Method: /chem3/fid3a.i/20070523.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: MOIL#2
Client ID:
Injection: 23-MAY-2007 08:45
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.859	-0.003	34478	6830	GAS (Tol-C12)	222861	15
C8	2.049	-0.012	1520	2557	DIESEL (C12-C24)	548777	36
C10	2.804	-0.005	657	565	M.OIL (C24-C38)	4741760	500
C12	3.287	0.008	593	139	AK-102 (C10-C25)	597529	33
C14	3.623	-0.020	1103	2026	AK-103 (C25-C36)	3915136	554
C16	3.952	-0.004	1670	1325			
C18	4.235	-0.001	12825	8028			
C20	4.500	0.005	5120	4177	JET-A (C10-C18)	111450	9
C22	4.743	0.009	12405	8282	MIN.OIL (C24-C38)	4741760	380
C24	4.971	0.009	25536	22787	MSPIRIT (Tol-C12)	222861	14
C25	5.087	0.014	32578	27752	TRANOIL (C12-C28)	1515159	99
C26	5.184	0.004	35129	15193	KEROSEN (Tol-C18)	311065	20
C28	5.394	0.004	44906	8062			
C32	5.831	0.005	62664	89332	FUEL OIL(C10-C24)	572024	1
C34	6.096	-0.002	46701	18406			
Filter Peak	7.702	0.003	12571	5465	JP-4 (Tol-C14)	243179	21
C36	6.439	0.001	40822	17445	CREOSOT (C8-C22)	315692	33
C38	6.914	0.038	25327	13975	HYDRAUL (C24-C38)	4741760	533
C40	7.495	0.036	15234	4757	BUNKERC (C10-C38)	5313784	1758

Range Times: NW Diesel(3.330 - 5.012) NW Gas(1.811 - 3.330) NW M.Oil(5.012 - 6.926)
AK102(2.759 - 5.022) AK103(5.022 - 6.488) Jet A(2.759 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	14158	0.8	1.7
Triacontane	640462	44.9	99.9

JK 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070523.b/0523a020.d

Date : 23-MAY-2007 08:45

Client ID:

Sample Info: MOIL#2

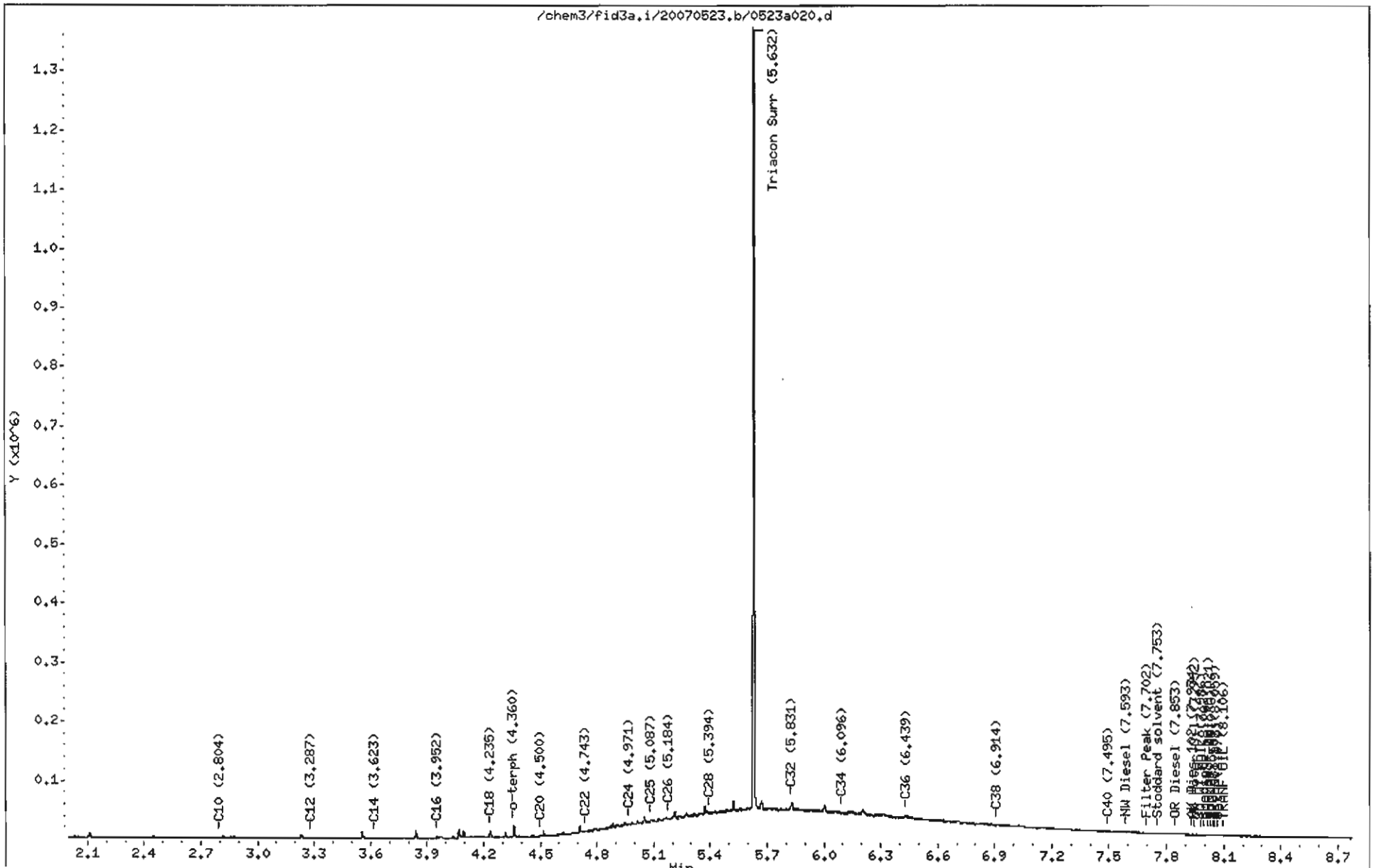
Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

1520



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a004.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: RT
Client ID:
Injection: 25-MAY-2007 06:58
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.855	0.000	529229	404999	GAS (Tol-C12)	1270891	70
C8	2.056	0.000	389797	247032	DIESEL (C12-C24)	1567130	104
C10	2.807	0.000	603270	249978	M.OIL (C24-C38)	2043313	215
C12	3.278	0.000	542772	229988	AK-102 (C10-C25)	2078150	115
C14	3.641	0.000	564266	245866	AK-103 (C25-C36)	1760543	249
C16	3.954	0.000	644958	246904			
C18	4.235	0.000	691613	247908			
C20	4.493	0.000	685758	246900	JET-A (C10-C18)	1280929	102
C22	4.734	0.000	669299	248059	MIN.OIL (C24-C38)	2043313	164
C24	4.962	0.000	648361	251037	MSPIRIT (Tol-C12)	1270891	80
C25	5.073	0.000	880155	348239	TRANOIL (C12-C28)	2444543	160
C26	5.181	0.000	614264	252684	KEROSEN (Tol-C18)	2040800	132
C28	5.393	0.000	589333	245542			
C32	5.830	0.000	447719	253416	FUEL OIL(C10-C24)	2078150	4
C34	6.102	0.000	360172	254952			
Filter Peak	7.700	0.000	2588	1447	JP-4 (Tol-C14)	1528145	134
C36	6.443	0.000	287481	263200	CREOSOT (C8-C22)	2107404	221
C38	6.884	0.000	200649	242578	HYDRAUL (C24-C38)	2043313	230
C40	7.466	0.000	150693	236747	BUNKERC (C10-C38)	4121463	1363

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	829731	45.3	100.7
Triacontane	738161	51.8	115.1

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

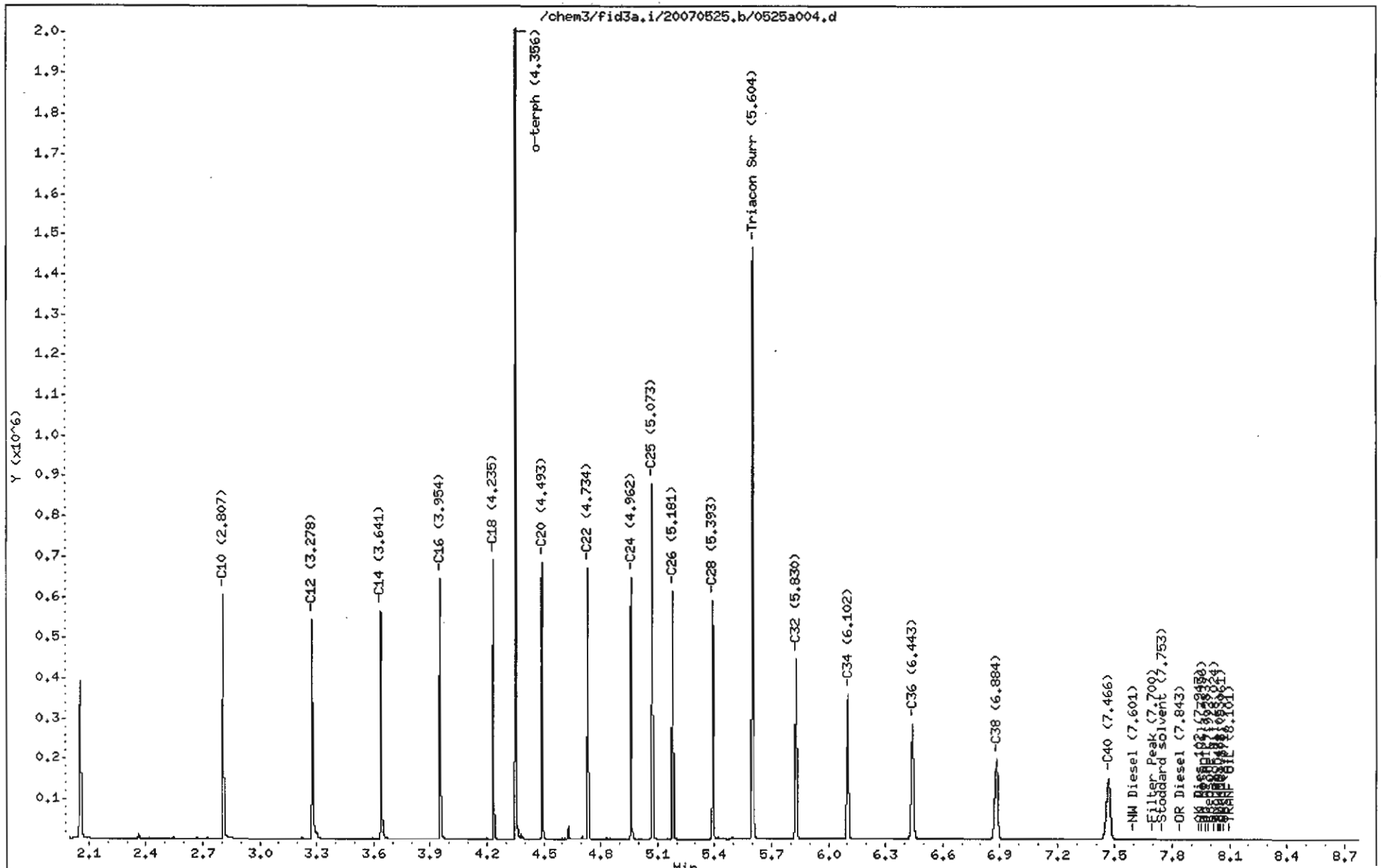
Data File: /chem3/fid3a.i/20070525.b/0525a004.d
Date : 25-MAY-2007 06:58
Client ID:
Sample Info: RT

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1522



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a005.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: IB
Client ID:
Injection: 25-MAY-2007 07:13
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.856	0.002	42018	5852	GAS (Tol-C12)	249337	14
C8	2.058	0.002	630	305	DIESEL (C12-C24)	44804	3
C10	2.800	-0.007	608	504	M.OIL (C24-C38)	215325	23
C12	3.281	0.003	372	234	AK-102 (C10-C25)	59491	3
C14	3.636	-0.005	383	577	AK-103 (C25-C36)	158966	22
C16	3.956	0.003	383	376			
C18	4.238	0.003	450	580			
C20	4.498	0.005	762	446	JET-A (C10-C18)	33049	3
C22	4.737	0.003	738	885	MIN.OIL (C24-C38)	215325	17
C24	4.964	0.001	1035	1122	MSPIRIT (Tol-C12)	249337	16
C25	5.074	0.001	1183	1638	TRANOIL (C12-C28)	80354	5
C26	5.180	-0.001	1315	1471	KEROSEN (Tol-C18)	268002	17
C28	5.388	-0.005	2412	3062			
C32	5.826	-0.004	4069	7550	FUEL OIL(C10-C24)	59188	0
C34	6.104	0.002	2505	1341			
Filter Peak	7.701	0.002	2276	1179	JP-4 (Tol-C14)	256131	23
C36	6.438	-0.005	2392	1702	CREOSOT (C8-C22)	76133	8
C38	6.892	0.007	2283	1904	HYDRAUL (C24-C38)	215325	24
C40	7.465	-0.001	2294	1554	BUNKERC (C10-C38)	274513	91

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	838350	45.8	101.8
Triacontane	722616	50.7	112.7

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a005.d

Date : 25-MAY-2007 07:13

Client ID:

Sample Info: IB

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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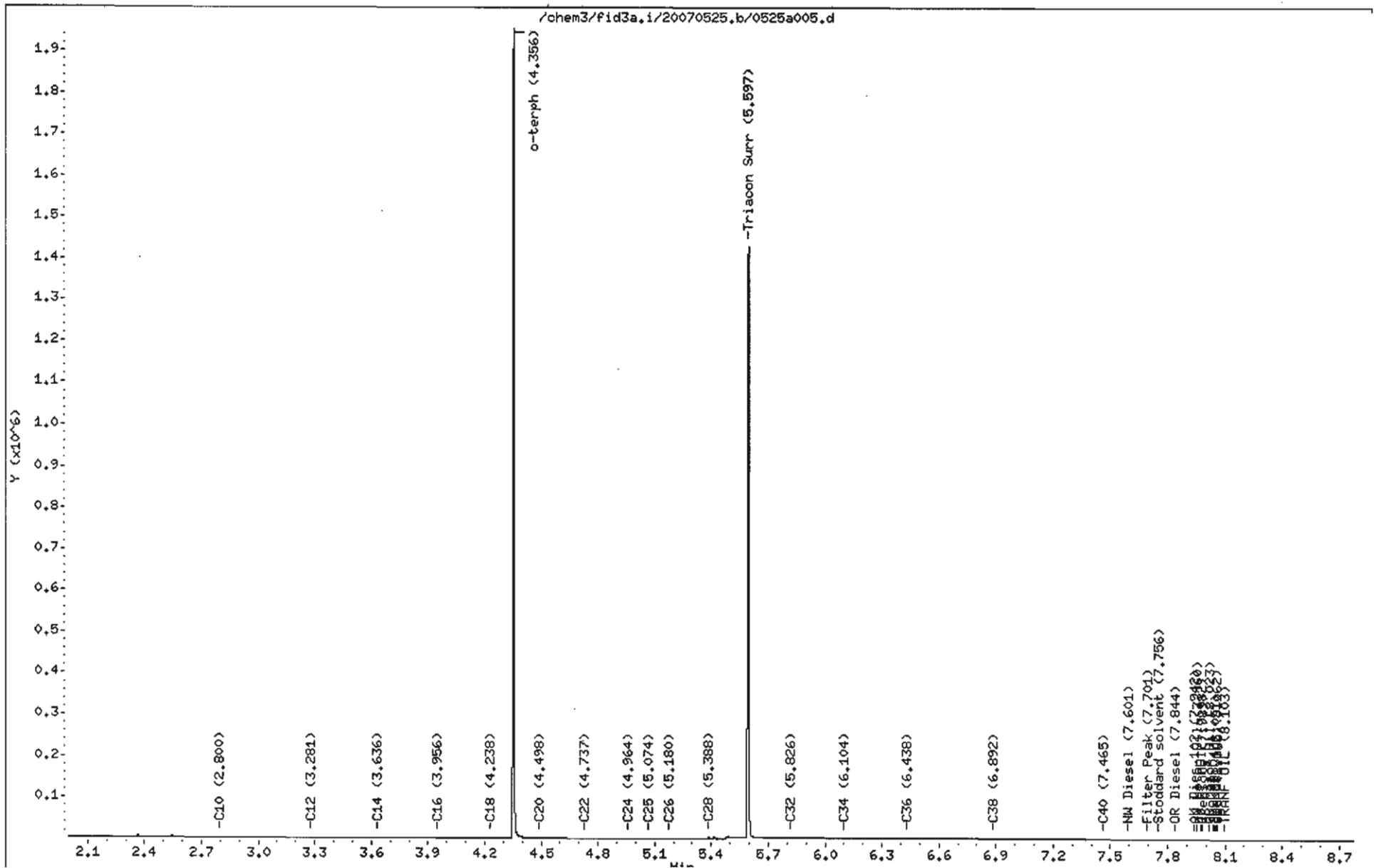

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: TETRA TECH

ICal Date: 03-MAY-2007
Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007
SDG No.: KZ56

Analysis Time: 07:27
Lab ID: DIESEL#1

Instrument: FID3A.I
Lab File Name: 0525a006.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3764532	250.0	250	0.0
AK102 (C10-C25)	4479400	248.3	250	-0.7
Terphenyl	820348	44.8	45	-0.4

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a006.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: DIESEL#1
Client ID:
Injection: 25-MAY-2007 07:27
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.858	0.003	6250	6497	GAS (Tol-C12)	895819	49
C8	2.059	0.003	6423	4612	DIESEL (C12-C24)	3764532	250
C10	2.808	0.001	72472	44307	M.OIL (C24-C38)	291150	31
C12	3.279	0.001	128236	68540	AK-102 (C10-C25)	4479400	248
C14	3.641	0.000	190367	139968	AK-103 (C25-C36)	231748	33
C16	3.954	0.000	203369	94863			
C18	4.235	0.000	170523	78014			
C20	4.493	-0.001	115636	57826	JET-A (C10-C18)	3411048	271
C22	4.733	-0.001	43964	30065	MIN.OIL (C24-C38)	291150	23
C24	4.961	-0.002	17788	13391	MSPIRIT (Tol-C12)	895819	57
C25	5.072	-0.002	10803	10327	TRANOIL (C12-C28)	3857636	253
C26	5.180	-0.001	6292	7295	KEROSEN (Tol-C18)	3593891	233
C28	5.393	0.000	2959	4951			
C32	5.831	0.001	2455	780	FUEL OIL(C10-C24)	4477508	8
C34	6.105	0.003	2473	1726			
Filter Peak	7.701	0.001	2206	571	JP-4 (Tol-C14)	1784658	157
C36	6.447	0.003	2295	1414	CREOSOT (C8-C22)	4511504	473
C38	6.884	0.000	2252	853	HYDRAUL (C24-C38)	291150	33
C40	7.469	0.002	2198	438	BUNKERC (C10-C38)	4768658	1577

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	820348	44.8	99.6
Triacontane	4985	0.3	0.8

JF 05/26/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a006.d
Date : 25-MAY-2007 07:27
Client ID:
Sample Info: DIESEL#1

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

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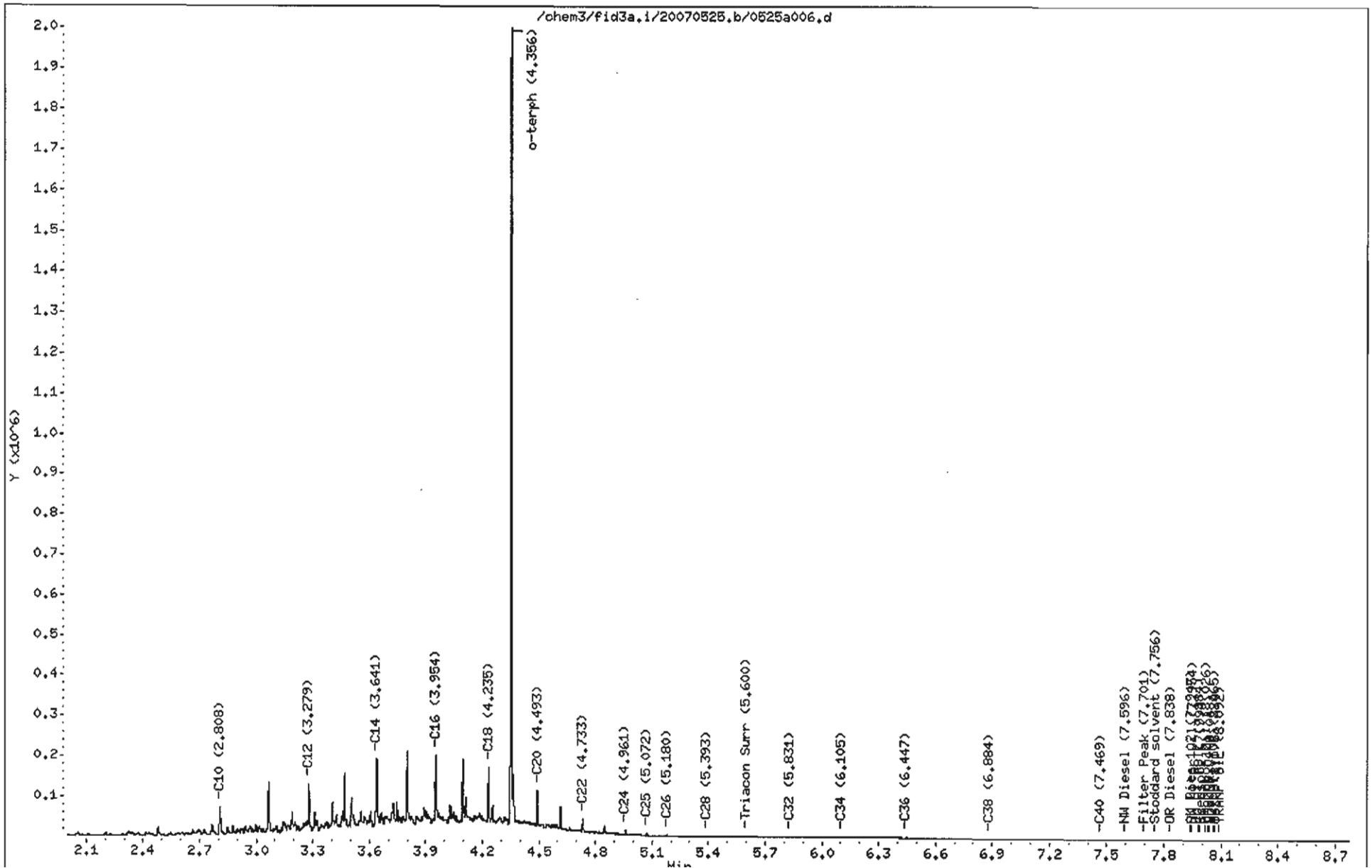

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: TETRA TECH

ICal Date: 31-JAN-2007
Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007
SDG No.: KZ56

Analysis Time: 07:41
Lab ID: MOIL#1

Instrument: FID3A.I
Lab File Name: 0525a007.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4844822	510.4	500	2.1
AK103 (C25-C36)	4024671	569.4	500	13.9
n-Triacontane	678706	47.6	45	5.8

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

FORM VII-Diesel

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a007.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: MOIL#1
Client ID:
Injection: 25-MAY-2007 07:41
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.854	-0.001	52349	16553	GAS (Tol-C12)	309568	17
C8	2.056	0.000	706	483	DIESEL (C12-C24)	526015	35
C10	2.801	-0.006	641	488	M.OIL (C24-C38)	4844822	510
C12	3.278	0.000	443	149	AK-102 (C10-C25)	566736	31
C14	3.648	0.007	457	125	AK-103 (C25-C36)	4024671	569
C16	3.955	0.002	603	370			
C18	4.233	-0.002	13198	7115			
C20	4.496	0.003	4028	3068	JET-A (C10-C18)	62465	5
C22	4.740	0.006	12711	12190	MIN.OIL (C24-C38)	4844822	388
C24	4.965	0.003	27922	22204	MSPIRIT (Tol-C12)	309568	20
C25	5.076	0.003	35883	33441	TRANOIL (C12-C28)	1570953	103
C26	5.180	-0.001	38464	15096	KEROSEN (Tol-C18)	355201	23
C28	5.394	0.001	48552	10544			
C32	5.831	0.001	54304	9745	FUEL OIL(C10-C24)	542847	1
C34	6.106	0.004	48498	28275			
Filter Peak	7.697	-0.003	15305	3613	JP-4 (Tol-C14)	319219	28
C36	6.443	0.000	38801	17312	CREOSOT (C8-C22)	249055	26
C38	6.883	-0.002	26982	11209	HYDRAUL (C24-C38)	4844822	544
C40	7.466	-0.001	17429	7212	BUNKERC (C10-C38)	5387669	1782

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	3731	0.2	0.5
Triacontane	678706	47.6	105.8

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a007.d

Date : 25-MAY-2007 07:41

Client ID:

Sample Info: MOIL#1

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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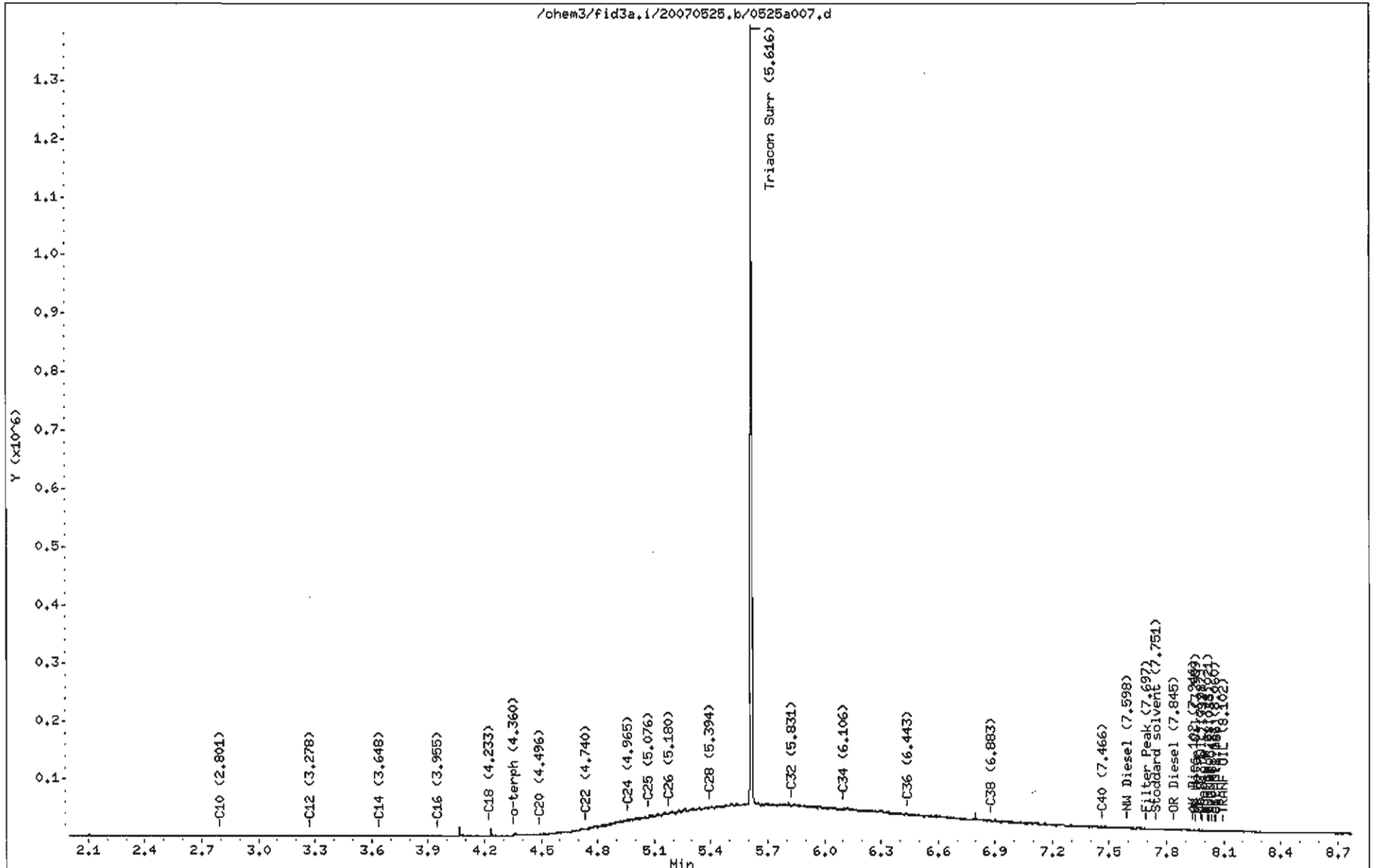

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 03-MAY-2007 Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007 SDG No.: KZ56

Analysis Time: 10:21 Lab ID: DIESEL#2

Instrument: FID3A.I Lab File Name: 0525a018.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3664865	243.4	250	-2.6
AK102 (C10-C25)	4369088	242.2	250	-3.1
Terphenyl	810470	44.3	45	-1.6

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a018.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: DIESEL#2
Client ID:
Injection: 25-MAY-2007 10:21
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.853	-0.002	6230	5270	GAS (Tol-C12)	862871	48
C8	2.055	-0.001	6241	4317	DIESEL (C12-C24)	3664865	243
C10	2.809	0.002	71640	42926	M.OIL (C24-C38)	291378	31
C12	3.280	0.002	130957	67761	AK-102 (C10-C25)	4369088	242
C14	3.642	0.001	184892	138677	AK-103 (C25-C36)	239690	34
C16	3.954	0.000	196962	92504			
C18	4.235	0.000	168245	78035			
C20	4.496	0.002	112623	65238	JET-A (C10-C18)	3315645	264
C22	4.740	0.006	43184	26123	MIN.OIL (C24-C38)	291378	23
C24	4.954	-0.008	7661	4949	MSPIRIT (Tol-C12)	862871	55
C25	5.067	-0.006	5273	3233	TRANOIL (C12-C28)	3766842	247
C26	5.181	-0.001	3810	1212	KEROSEN (Tol-C18)	3479390	226
C28	5.389	-0.004	2588	1282			
C32	5.831	0.001	2836	4167	FUEL OIL(C10-C24)	4363990	8
C34	6.105	0.004	2477	1033			
Filter Peak	7.702	0.002	1828	915	JP-4 (Tol-C14)	1734360	153
C36	6.444	0.000	2235	1292	CREOSOT (C8-C22)	4368541	458
C38	6.884	-0.001	2009	879	HYDRAUL (C24-C38)	291378	33
C40	7.465	-0.001	1956	1324	BUNKERC (C10-C38)	4655368	1540

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	810470	44.3	98.4
Triacontane	1892	0.1	0.3

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a018.d
Date : 25-MAY-2007 10:21
Client ID:
Sample Info: DIESEL#2

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

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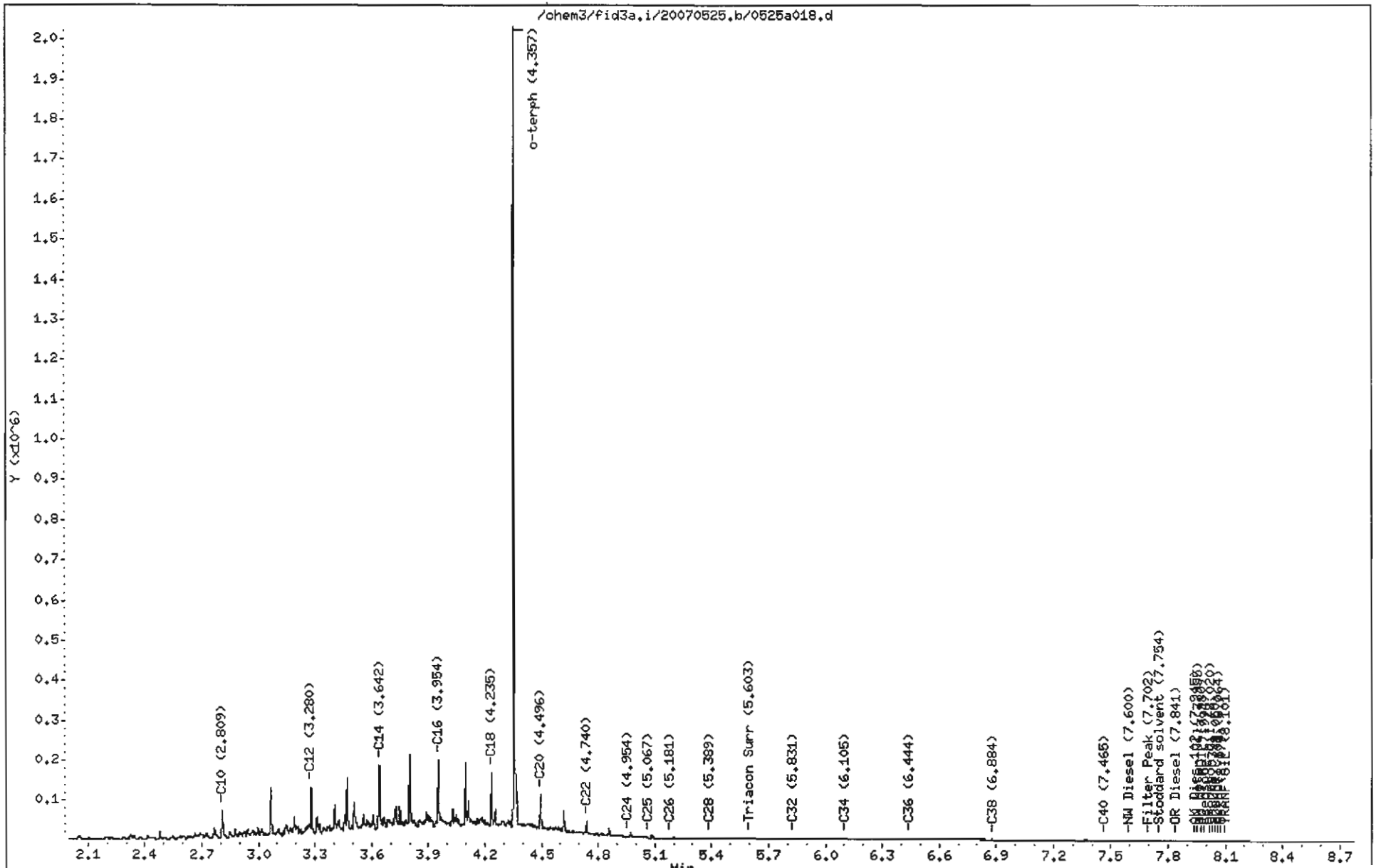


7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 31-JAN-2007 Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007 SDG No.: KZ56

Analysis Time: 10:35 Lab ID: MOIL#2

Instrument: FID3A.I Lab File Name: 0525a019.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4932850	519.7	500	3.9
AK103 (C25-C36)	4076127	576.6	500	15.3
n-Triacontane	694840	48.8	45	8.4

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a019.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: MOIL#2
Client ID:
Injection: 25-MAY-2007 10:35
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.858	0.003	51718	26228	GAS (Tol-C12)	281937	16
C8	2.055	-0.001	815	929	DIESEL (C12-C24)	520529	35
C10	2.802	-0.005	637	285	M.OIL (C24-C38)	4932850	520
C12	3.279	0.001	462	63	AK-102 (C10-C25)	561186	31
C14	3.648	0.007	485	115	AK-103 (C25-C36)	4076127	577
C16	3.948	-0.005	586	398			
C18	4.235	0.000	13946	7578			
C20	4.500	0.007	4498	4499	JET-A (C10-C18)	64355	5
C22	4.741	0.007	12759	6159	MIN.OIL (C24-C38)	4932850	395
C24	4.962	0.000	26373	6288	MSPIRIT (Tol-C12)	281937	18
C25	5.074	0.000	32557	19449	TRANOIL (C12-C28)	1518304	100
C26	5.183	0.001	37333	7379	KEROSEN (Tol-C18)	328657	21
C28	5.389	-0.004	50631	41211			
C32	5.832	0.002	56739	14505	FUEL OIL(C10-C24)	538163	1
C34	6.104	0.002	48798	9582			
Filter Peak	7.694	-0.006	15735	9225	JP-4 (Tol-C14)	291845	26
C36	6.443	0.000	39527	8644	CREOSOT (C8-C22)	257044	27
C38	6.884	0.000	28731	14446	HYDRAUL (C24-C38)	4932850	554
C40	7.461	-0.006	18934	14800	BUNKERC (C10-C38)	5471014	1810

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JK 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	3914	0.2	0.5
Triacontane	694840	48.8	108.4

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

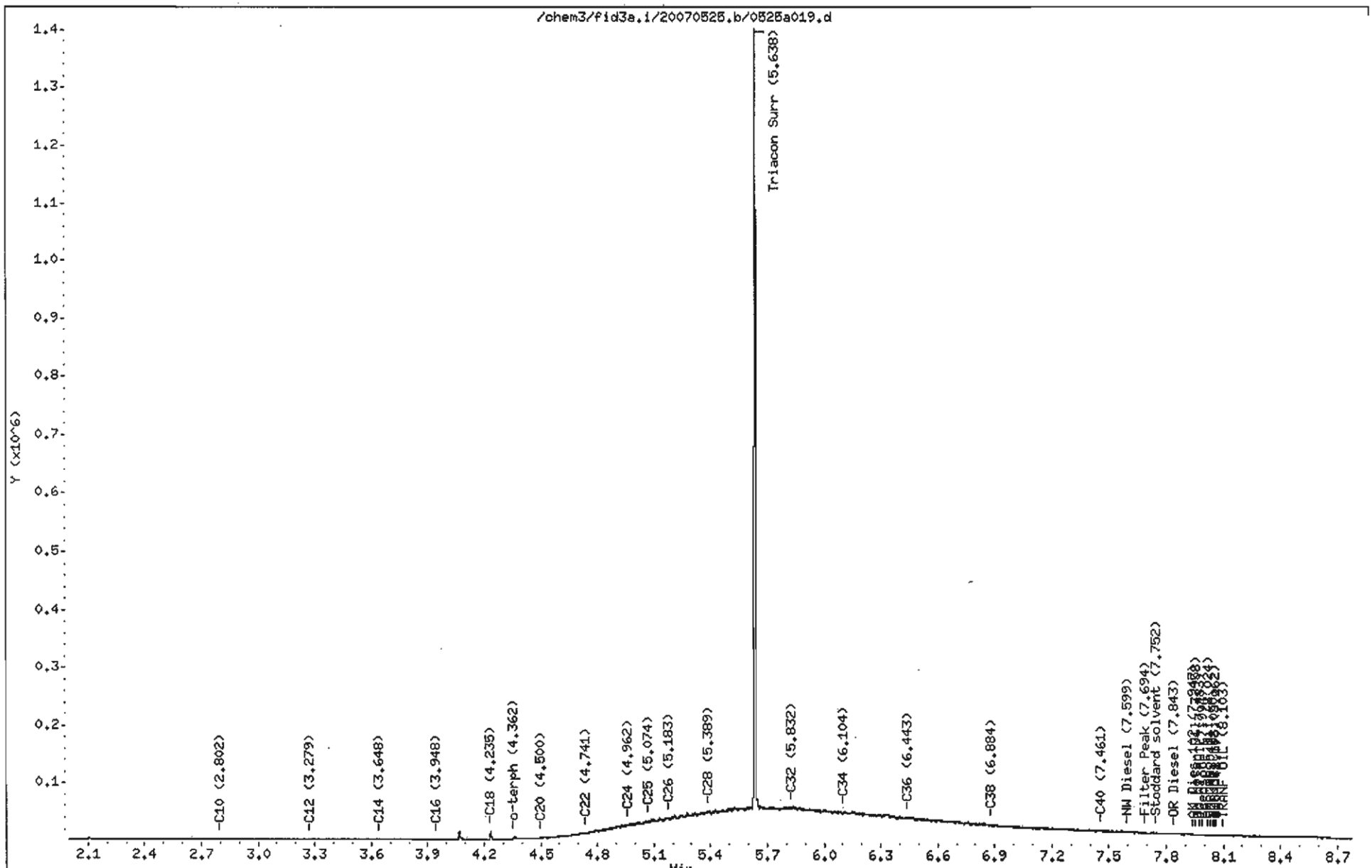
Data File: /chem3/fid3a.i/20070525.b/0525a019.d
Date : 25-MAY-2007 10:35
Client ID:
Sample Info: MOIL#2

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1536



7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: TETRA TECH

ICal Date: 03-MAY-2007
Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007
SDG No.: KZ56

Analysis Time: 13:16
Lab ID: DIESEL#3

Instrument: FID3A.I
Lab File Name: 0525a030.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3677073	244.2	250	-2.3
AK102 (C10-C25)	4392498	243.5	250	-2.6
Terphenyl	809925	44.2	45	-1.7

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a030.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: DIESEL#3
Client ID:
Injection: 25-MAY-2007 13:16
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.853	-0.001	6723	6424	GAS (Tol-C12)	894048	49
C8	2.055	-0.001	6693	4636	DIESEL (C12-C24)	3677073	244
C10	2.810	0.003	73433	44405	M.OIL (C24-C38)	227342	24
C12	3.281	0.003	127663	69151	AK-102 (C10-C25)	4392498	243
C14	3.643	0.002	186403	139928	AK-103 (C25-C36)	187672	27
C16	3.955	0.001	196738	92920			
C18	4.236	0.001	168354	78317			
C20	4.494	0.001	112508	63012	JET-A (C10-C18)	3354846	267
C22	4.735	0.001	43281	34700	MIN.OIL (C24-C38)	227342	18
C24	4.962	0.000	16991	14631	MSPIRIT (Tol-C12)	894048	56
C25	5.073	-0.001	9860	10982	TRANOIL (C12-C28)	3761891	247
C26	5.181	0.000	5628	8312	KEROSEN (Tol-C18)	3537230	229
C28	5.393	0.000	2448	3238			
C32	5.830	0.000	1984	1099	FUEL OIL(C10-C24)	4388737	8
C34	6.100	-0.002	1875	1045			
Filter Peak	7.700	0.000	1516	724	JP-4 (Tol-C14)	1756425	155
C36	6.445	0.002	1723	1333	CREOSOT (C8-C22)	4413421	463
C38	6.881	-0.004	1587	631	HYDRAUL (C24-C38)	227342	26
C40	7.463	-0.003	1550	1470	BUNKERC (C10-C38)	4616079	1527

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	809925	44.2	98.3
Triacontane	4188	0.3	0.7

JL 05/26/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

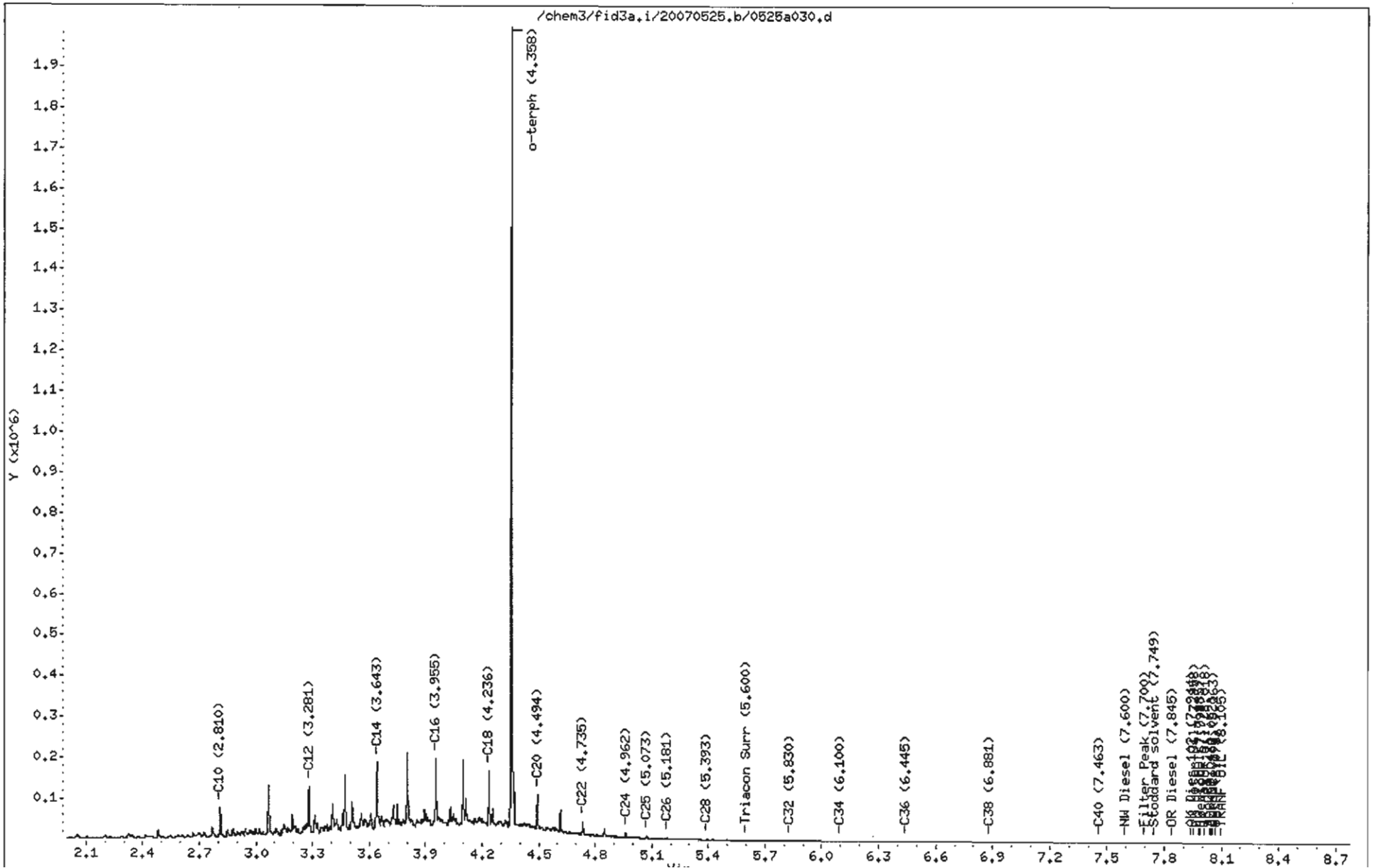
Data File: /chem3/fid3a.i/20070525.b/0525a030.d
Date : 25-MAY-2007 13:16
Client ID:
Sample Info: DIESEL#3

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1539



7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 31-JAN-2007 Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007 SDG No.: KZ56

Analysis Time: 13:31 Lab ID: MOIL#3

Instrument: FID3A.I Lab File Name: 0525a031.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4876682	513.8	500	2.8
AK103 (C25-C36)	4049136	572.8	500	14.6
n-Triacontane	693472	48.7	45	8.1

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a031.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: MOIL#3
Client ID:
Injection: 25-MAY-2007 13:31
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.852	-0.003	50598	16958	GAS (Tol-C12)	305684	17
C8	2.056	0.000	858	911	DIESEL (C12-C24)	503797	33
C10	2.805	-0.002	639	362	M.OIL (C24-C38)	4876682	514
C12	3.281	0.003	448	132	AK-102 (C10-C25)	539006	30
C14	3.654	0.013	419	82	AK-103 (C25-C36)	4049136	573
C16	3.952	-0.002	520	320			
C18	4.235	0.000	12659	6977			
C20	4.499	0.006	4137	4214	JET-A (C10-C18)	61135	5
C22	4.741	0.007	12895	8007	MIN.OIL (C24-C38)	4876682	390
C24	4.964	0.001	28054	21247	MSPIRIT (Tol-C12)	305684	19
C25	5.079	0.005	35097	30136	TRANOIL (C12-C28)	1561957	102
C26	5.180	-0.001	38344	7557	KEROSEN (Tol-C18)	348736	23
C28	5.393	0.000	48046	9525			
C32	5.836	0.006	54703	28112	FUEL OIL(C10-C24)	521880	1
C34	6.107	0.005	47573	33668			
Filter Peak	7.699	-0.001	14649	5758	JP-4 (Tol-C14)	314407	28
C36	6.446	0.002	39923	39540	CREOSOT (C8-C22)	248816	26
C38	6.890	0.005	27884	8770	HYDRAUL (C24-C38)	4876682	548
C40	7.471	0.004	17399	13828	BUNKERC (C10-C38)	5398562	1786

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	5157	0.3	0.6
Triacontane	693472	48.7	108.1

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

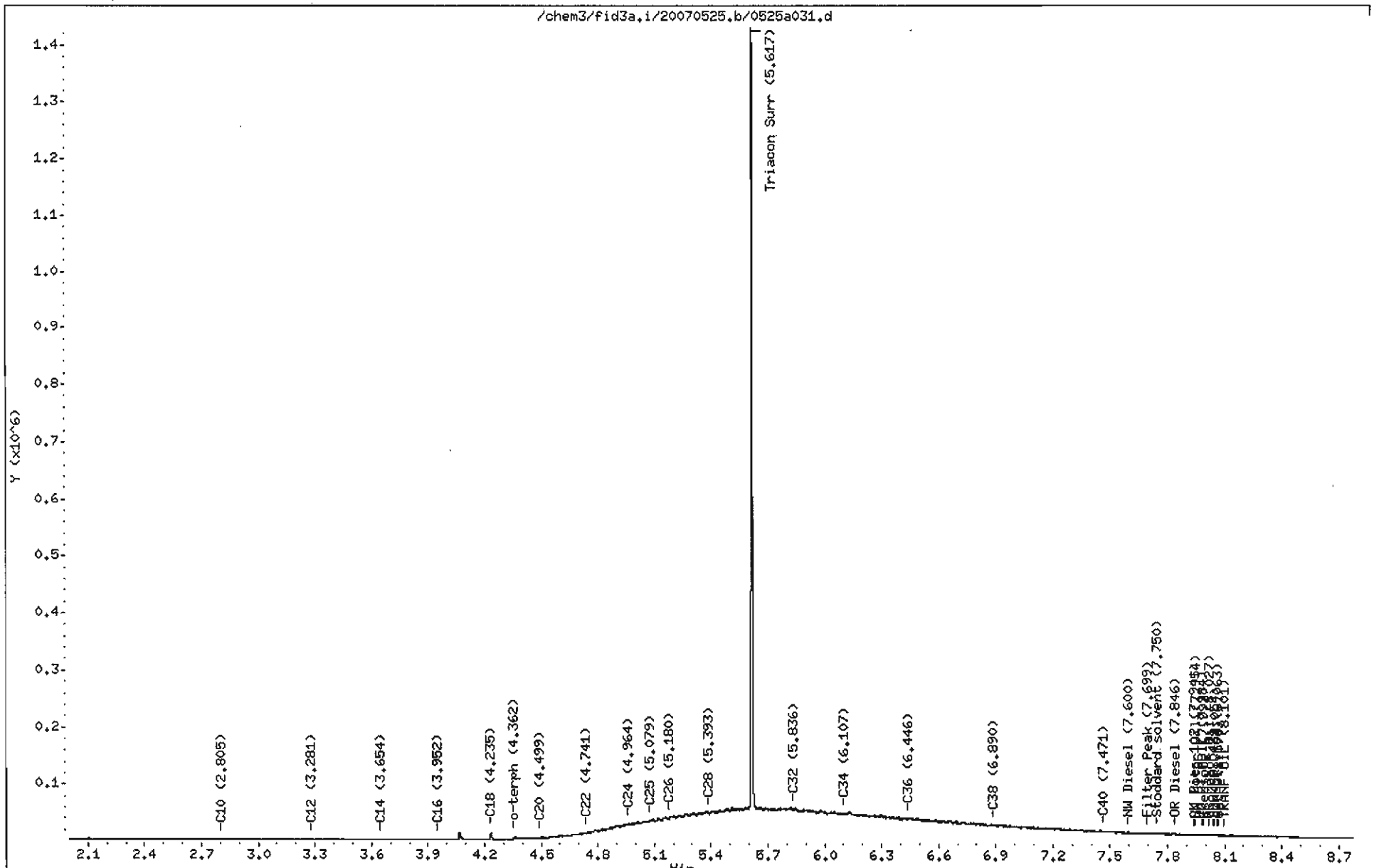
Data File: /chem3/fid3a.i/20070525.b/0525a031.d
Date : 25-MAY-2007 13:31
Client ID:
Sample Info: MOIL#3

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1542



7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 03-MAY-2007 Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007 SDG No.: KZ56

Analysis Time: 16:12 Lab ID: DIESEL#4

Instrument: FID3A.I Lab File Name: 0525a042.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3829030	254.3	250	1.7
AK102 (C10-C25)	4560288	252.8	250	1.1
Terphenyl	846890	46.3	45	2.8

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a042.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: DIESEL#4
Client ID:
Injection: 25-MAY-2007 16:12
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.857	0.002	6618	6978	GAS (Tol-C12)	914482	50
C8	2.059	0.003	6659	4733	DIESEL (C12-C24)	3829030	254
C10	2.811	0.004	76814	45748	M.OIL (C24-C38)	282509	30
C12	3.282	0.004	134471	71768	AK-102 (C10-C25)	4560288	253
C14	3.643	0.002	193049	144491	AK-103 (C25-C36)	233009	33
C16	3.956	0.003	204481	95729			
C18	4.238	0.003	175178	81940			
C20	4.497	0.003	117494	62385	JET-A (C10-C18)	3473632	276
C22	4.739	0.005	44594	30513	MIN.OIL (C24-C38)	282509	23
C24	4.970	0.008	17874	17996	MSPIRIT (Tol-C12)	914482	58
C25	5.068	-0.005	5390	2949	TRANOIL (C12-C28)	3926076	258
C26	5.181	0.000	3816	832	KEROSEN (Tol-C18)	3656857	237
C28	5.382	-0.011	2607	2393			
C32	5.837	0.006	2484	740	FUEL OIL(C10-C24)	4560288	9
C34	6.100	-0.002	2385	426			
Filter Peak	7.699	0.000	2036	1409	JP-4 (Tol-C14)	1828084	161
C36	6.446	0.003	2202	570	CREOSOT (C8-C22)	4570602	479
C38	6.885	0.000	2135	805	HYDRAUL (C24-C38)	282509	32
C40	7.465	-0.001	2069	494	BUNKERC (C10-C38)	4842797	1602

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	846890	46.3	102.8
Triacontane	658	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

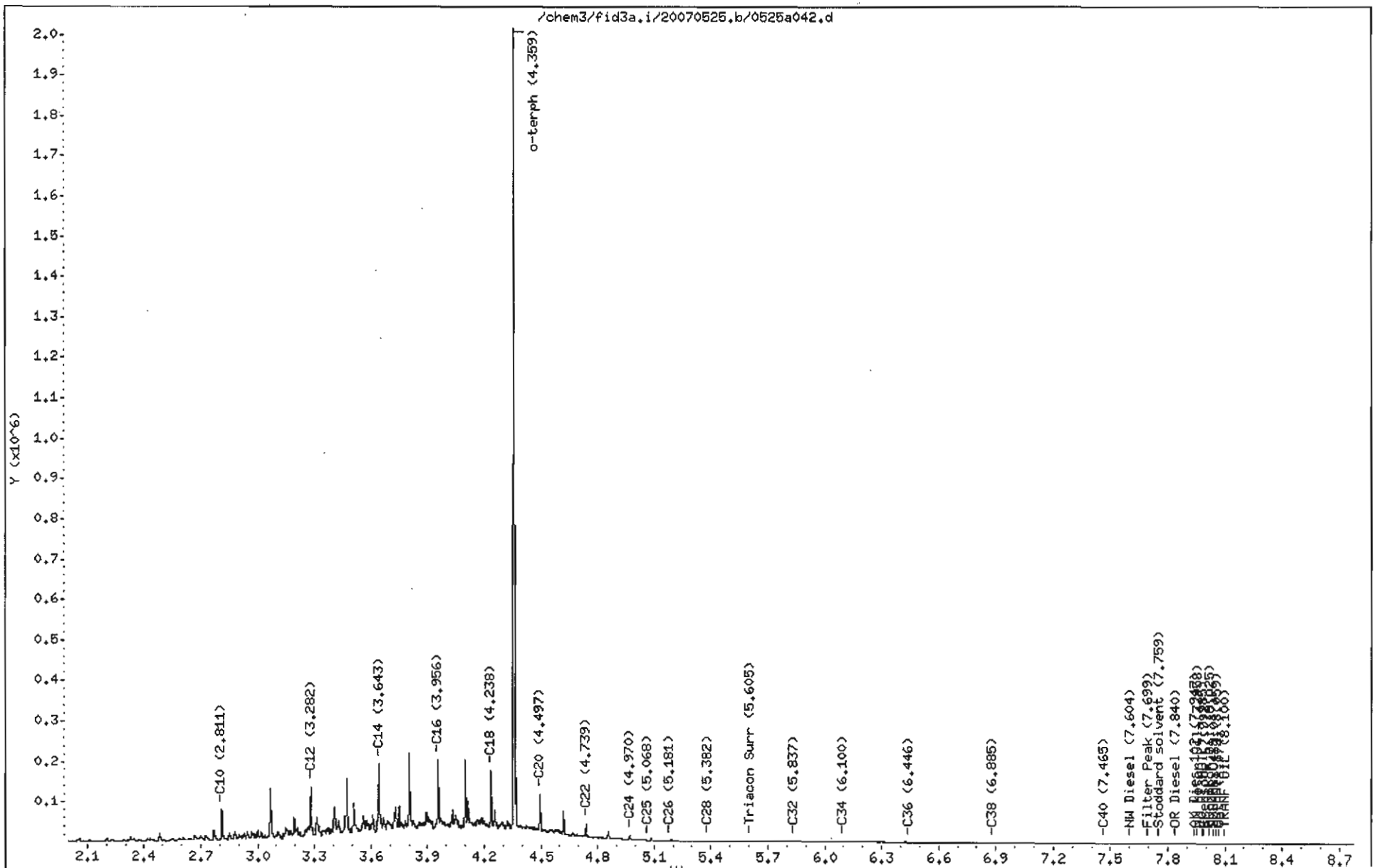
1545

Data File: /chem3/fid3a.i/20070525.b/0525a042.d
Date : 25-MAY-2007 16:12
Client ID:
Sample Info: DIESEL#4

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 31-JAN-2007 Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007 SDG No.: KZ56

Analysis Time: 16:26 Lab ID: MOIL#4

Instrument: FID3A.I Lab File Name: 0525a043.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4989215	525.6	500	5.1
AK103 (C25-C36)	4130877	584.4	500	16.9
n-Triacontane	716791	50.3	45	11.8

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a043.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: MOIL#4
Client ID:
Injection: 25-MAY-2007 16:26
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.851	-0.003	52514	26707	GAS (Tol-C12)	294623	16
C8	2.053	-0.003	604	461	DIESEL (C12-C24)	487393	32
C10	2.804	-0.003	466	213	M.OIL (C24-C38)	4989215	526
C12	3.280	0.002	275	182	AK-102 (C10-C25)	499855	28
C14	3.638	-0.003	296	220	AK-103 (C25-C36)	4130877	584
C16	3.951	-0.003	403	252			
C18	4.236	0.001	12959	7130			
C20	4.491	-0.002	3108	1168	JET-A (C10-C18)	48999	4
C22	4.731	-0.003	12490	7993	MIN.OIL (C24-C38)	4989215	399
C24	4.964	0.001	26577	12062	MSPIRIT (Tol-C12)	294623	19
C25	5.071	-0.003	31891	7552	TRANOIL (C12-C28)	1504344	99
C26	5.181	0.000	39635	25920	KEROSEN (Tol-C18)	331161	21
C28	5.396	0.003	50836	41498			
C32	5.827	-0.003	57299	11276	FUEL OIL(C10-C24)	499855	1
C34	6.105	0.003	49982	27265			
Filter Peak	7.702	0.003	14135	8054	JP-4 (Tol-C14)	301212	27
C36	6.444	0.001	41331	24044	CREOSOT (C8-C22)	227186	24
C38	6.887	0.002	27978	4458	HYDRAUL (C24-C38)	4989215	561
C40	7.468	0.001	17368	6167	BUNKERC (C10-C38)	5489070	1816

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JL 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	269	0.0	0.0
Triacontane	716791	50.3	111.8

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

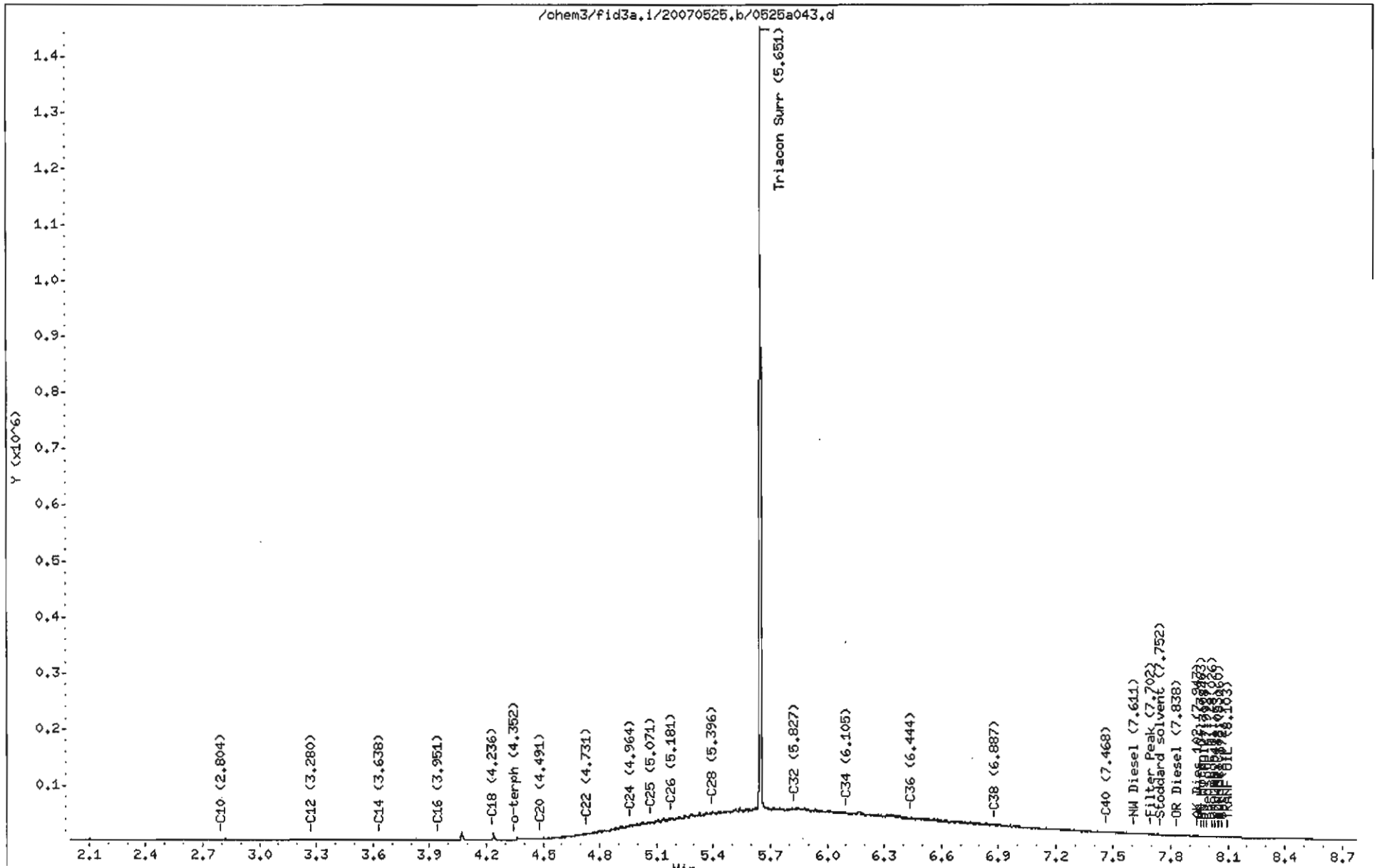
Data File: /chem3/fid3a.i/20070525.b/0525a043.d
Date : 25-MAY-2007 16:26
Client ID:
Sample Info: MOIL#4

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1548



7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: TETRA TECH

ICal Date: 03-MAY-2007
Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007
SDG No.: KZ56

Analysis Time: 18:08
Lab ID: DIESEL#5

Instrument: FID3A.I
Lab File Name: 0525a050.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3758141	249.6	250	-0.2
AK102 (C10-C25)	4479206	248.3	250	-0.7
Terphenyl	827312	45.2	45	0.4

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

FORM VII-Diesel

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a050.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: DIESEL#5
Client ID:
Injection: 25-MAY-2007 18:08
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.853	-0.001	6401	5732	GAS (Tol-C12)	886324	49
C8	2.056	0.000	6511	4402	DIESEL (C12-C24)	3758141	250
C10	2.810	0.003	76988	45055	M.OIL (C24-C38)	266573	28
C12	3.281	0.003	134170	70092	AK-102 (C10-C25)	4479206	248
C14	3.643	0.002	190219	141242	AK-103 (C25-C36)	214323	30
C16	3.955	0.002	202751	95351			
C18	4.236	0.001	168401	80819			
C20	4.496	0.002	116151	61898	JET-A (C10-C18)	3422510	272
C22	4.739	0.005	43448	29517	MIN.OIL (C24-C38)	266573	21
C24	4.953	-0.009	7559	5231	MSPIRIT (Tol-C12)	886324	56
C25	5.071	-0.003	5077	2849	TRANOIL (C12-C28)	3854339	253
C26	5.180	-0.001	3514	630	KEROSEN (Tol-C18)	3592557	233
C28	5.393	0.000	2380	1171			
C32	5.831	0.001	2533	2650	FUEL OIL(C10-C24)	4474417	8
C34	6.098	-0.004	2264	767			
Filter Peak	7.700	0.001	1814	756	JP-4 (Tol-C14)	1775516	156
C36	6.449	0.005	2134	1061	CREOSOT (C8-C22)	4488228	471
C38	6.883	-0.001	1974	393	HYDRAUL (C24-C38)	266573	30
C40	7.464	-0.002	1912	1063	BUNKERC (C10-C38)	4740990	1568

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JL 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	827312	45.2	100.4
Triacontane	1476	0.1	0.2

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a050.d

Date : 25-MAY-2007 18:08

Client ID:

Sample Info: DIESEL#5

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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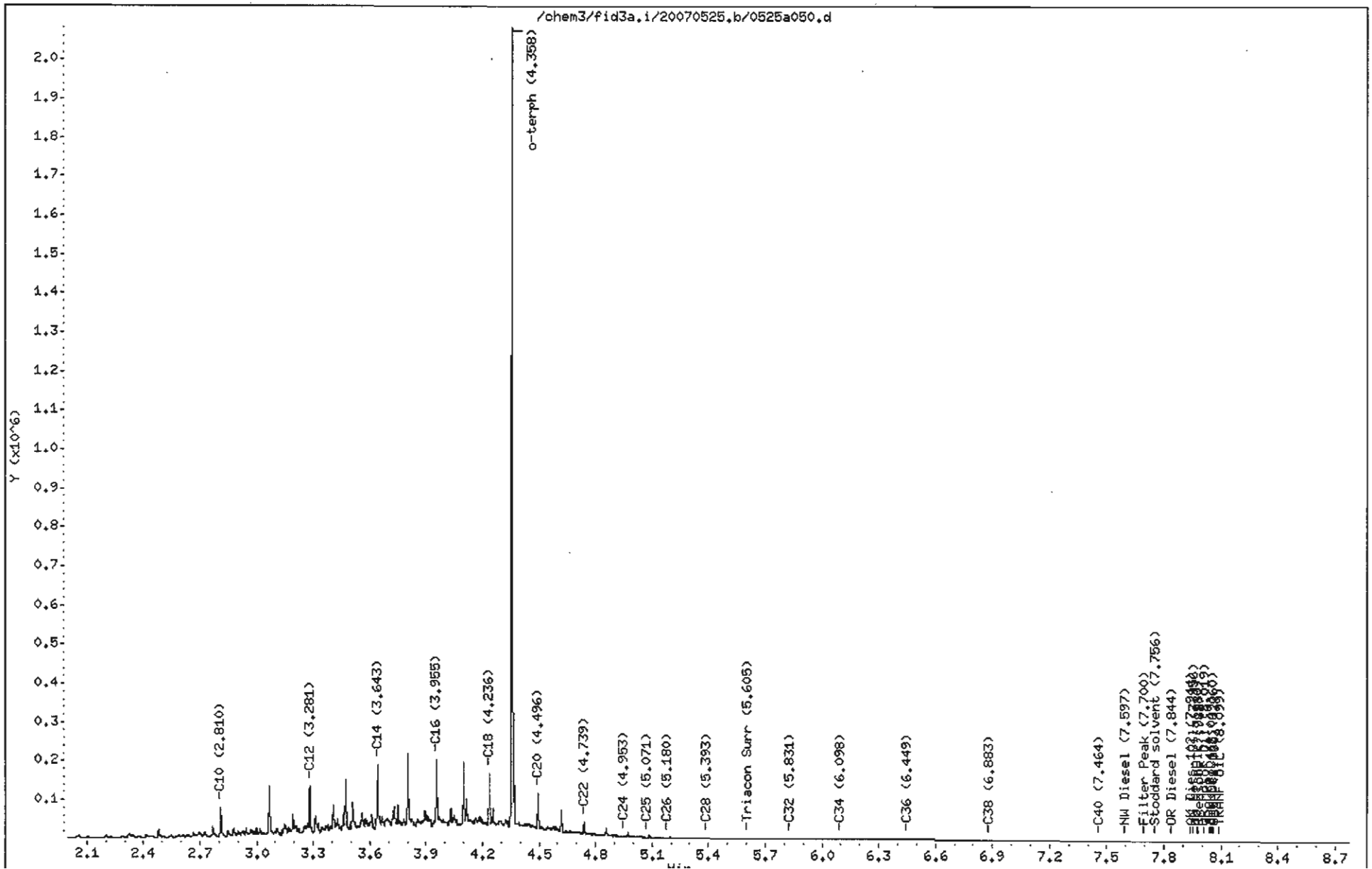


7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: TETRA TECH

ICal Date: 31-JAN-2007 Project: THEA FOSS OMMP

CCal Date: 25-MAY-2007 SDG No.: KZ56

Analysis Time: 18:23 Lab ID: MOIL#5

Instrument: FID3A.I Lab File Name: 0525a051.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D	
WAMoil(C24-C38)	5173156	545.0	500	9.0	
AK103 (C25-C36)	4301807	608.6	500	21.7	
n-Triacontane	738447	51.8	45	15.2	<-

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a051.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: MOIL#5
Client ID:
Injection: 25-MAY-2007 18:23
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.859	0.005	53242	18835	GAS (Tol-C12)	301063	17
C8	2.056	0.000	880	1097	DIESEL (C12-C24)	568474	38
C10	2.805	-0.002	699	493	M.OIL (C24-C38)	5173156	545
C12	3.279	0.001	501	137	AK-102 (C10-C25)	604403	34
C14	3.625	-0.015	605	613	AK-103 (C25-C36)	4301807	609
C16	3.949	-0.004	625	454			
C18	4.234	-0.001	13743	7508			
C20	4.497	0.004	4512	3889	JET-A (C10-C18)	71323	6
C22	4.736	0.002	12964	4544	MIN.OIL (C24-C38)	5173156	414
C24	4.965	0.003	29124	36629	MSPIRIT (Tol-C12)	301063	19
C25	5.066	-0.007	34338	24007	TRANOIL (C12-C28)	1655346	109
C26	5.180	-0.001	40408	14399	KEROSEN (Tol-C18)	351777	23
C28	5.396	0.003	50743	12125			
C32	5.836	0.006	59204	34855	FUEL OIL(C10-C24)	589083	1
C34	6.101	-0.001	49681	14842			
Filter Peak	7.702	0.002	12018	2863	JP-4 (Tol-C14)	312615	28
C36	6.440	-0.003	40736	10383	CREOSOT (C8-C22)	273787	29
C38	6.886	0.002	27934	10305	HYDRAUL (C24-C38)	5173156	581
C40	7.468	0.002	15466	2768	BUNKERC (C10-C38)	5762239	1906

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	3959	0.2	0.5
Triacontane	738447	51.8	115.2

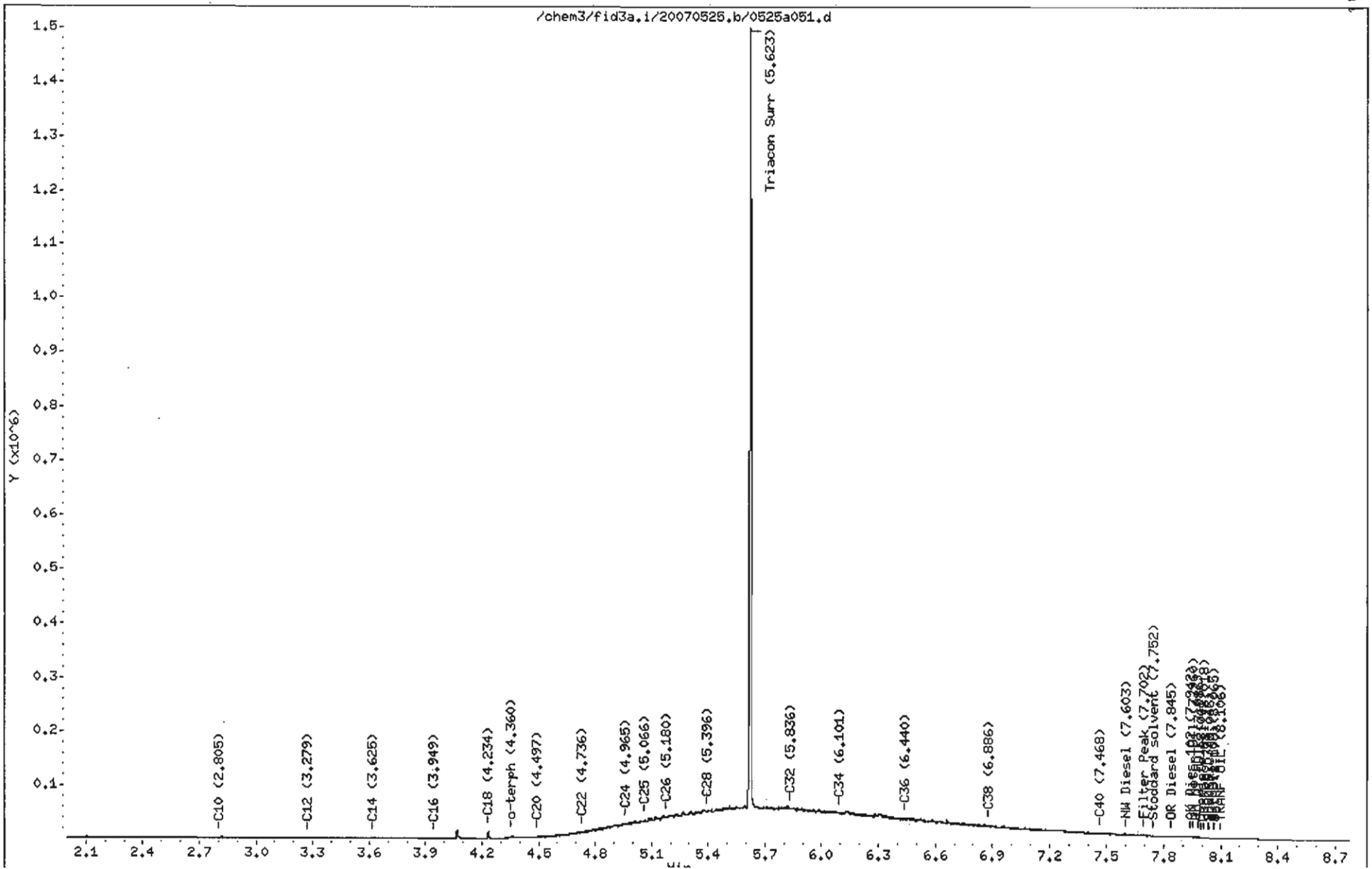
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a051.d
Date : 25-MAY-2007 18:23
Client ID:
Sample Info: MOIL#5

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



NWTPH-Dx Analysis
QC Raw Data

prepared
for

TETRA TECH

PROJECT: THEA FOSS OMMP YEAR 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070523.b/0523a009.d
Method: /chem3/fid3a.i/20070523.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: KZ03MBW1
Client ID:
Injection: 23-MAY-2007 06:08
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.865	0.003	45224	27438	GAS (Tol-C12)	232707	16
C8	2.055	-0.007	453	201	DIESEL (C12-C24)	70218	5
C10	2.805	-0.004	484	466	M.OIL (C24-C38)	420814	44
C12	3.277	-0.003	273	117	AK-102 (C10-C25)	80792	4
C14	3.640	-0.004	340	66	AK-103 (C25-C36)	326604	46
C16	3.952	-0.004	469	525			
C18	4.238	0.001	858	937			
C20	4.488	-0.007	1464	1448	JET-A (C10-C18)	36366	3
C22	4.750	0.016	1087	1336	MIN.OIL (C24-C38)	420814	34
C24	4.972	0.010	2004	2698	MSPIRIT (Tol-C12)	232707	15
C25	5.089	0.017	1982	774	TRANOIL (C12-C28)	137315	9
C26	5.174	-0.006	2465	1206	KEROSEN (Tol-C18)	259591	17
C28	5.393	0.002	4472	4289			
C32	5.821	-0.005	5688	2909	FUEL OIL(C10-C24)	79701	0
C34	6.096	-0.002	4179	3711			
Filter Peak	7.700	0.000	3233	2129	JP-4 (Tol-C14)	238663	21
C36	6.441	0.003	3813	1502	CREOSOT (C8-C22)	73630	8
C38	6.912	0.035	3337	798	HYDRAUL (C24-C38)	420814	47
C40	7.495	0.035	3405	1558	BUNKERC (C10-C38)	500514	166

Range Times: NW Diesel(3.330 - 5.012) NW Gas(1.811 - 3.330) NW M.Oil(5.012 - 6.926)
AK102(2.759 - 5.022) AK103(5.022 - 6.488) Jet A(2.759 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	860862	47.0	104.5
Triacontane	765028	53.7	119.3

JR 05/24/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070523.b/0523a009.d

Date : 23-MAY-2007 06:08

Client ID:

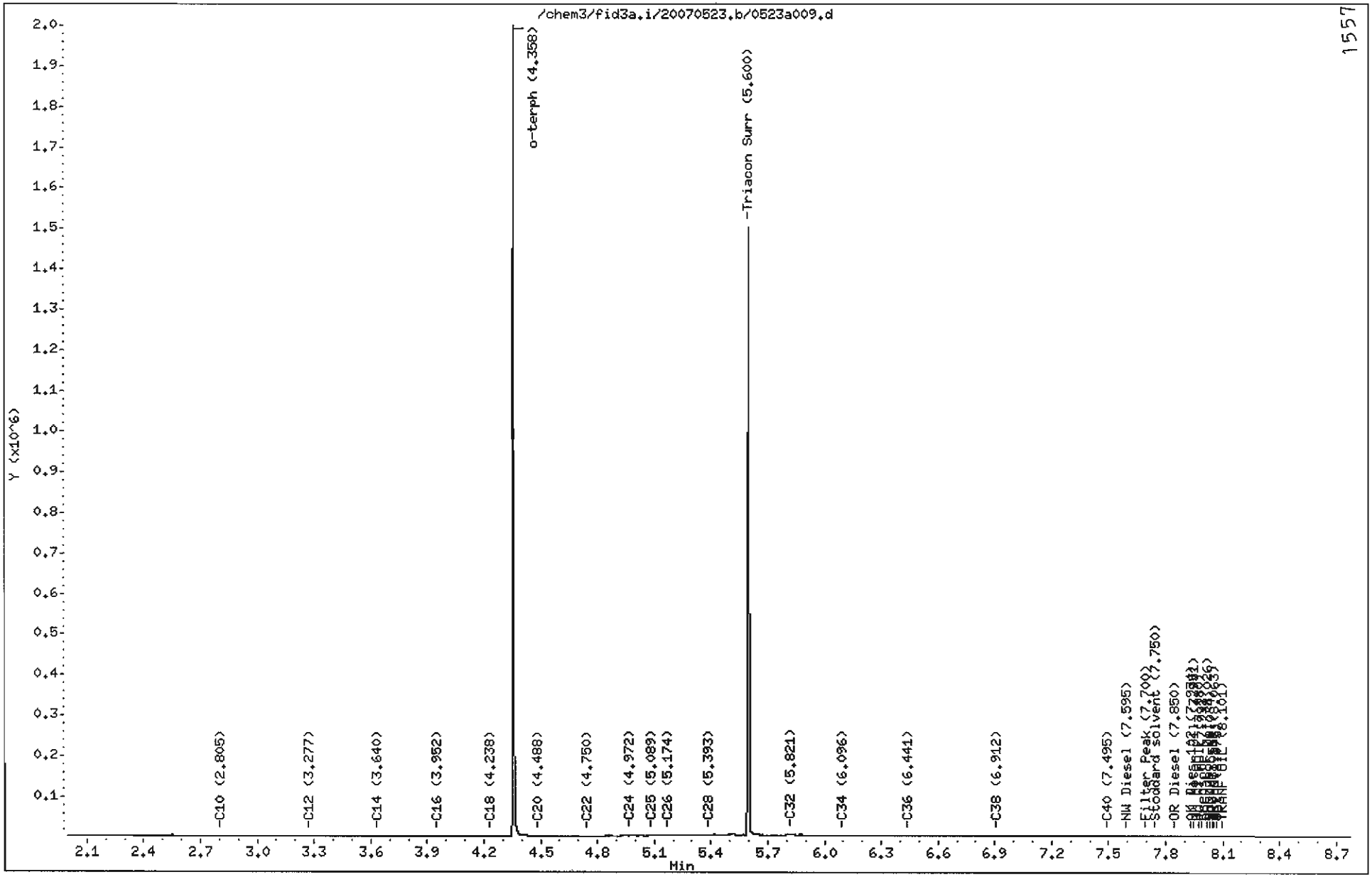
Sample Info: KZ03MBW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a046.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: KZ03LCSW1
Client ID:
Injection: 22-MAY-2007 18:05
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.860	0.001	27836	26828	GAS (Tol-C12)	3531740	245
C8	2.061	0.002	14651	9888	DIESEL (C12-C24)	18873760	1253
C10	2.811	0.003	291732	167644	M.OIL (C24-C38)	737204	78
C12	3.283	0.004	627139	299351	AK-102 (C10-C25)	21863419	1212
C14	3.644	0.002	942579	680427	AK-103 (C25-C36)	618640	88
C16	3.958	0.003	1072678	553696			
C18	4.240	0.004	863389	435346			
C20	4.497	0.000	607930	344038	JET-A (C10-C18)	16413394	1305
C22	4.736	-0.004	243183	132021	MIN.OIL (C24-C38)	737204	59
C24	4.978	0.005	35394	25699	MSPIRIT (Tol-C12)	3531740	223
C25	5.075	-0.011	56631	51686	TRANOIL (C12-C28)	19246779	1262
C26	5.184	-0.012	31561	37361	KEROSEN (Tol-C18)	16980557	1101
C28	5.409	-0.004	7255	3411			
C32	5.870	0.015	4715	3311	FUEL OIL(C10-C24)	21838336	41
C34	6.138	0.008	4289	4809			
Filter Peak	7.701	0.002	3766	2241	JP-4 (Tol-C14)	7907017	696
C36	6.475	0.004	4160	2241	CREOSOT (C8-C22)	21703967	2276
C38	6.906	-0.005	4065	2186	HYDRAUL (C24-C38)	737204	83
C40	7.498	0.001	3871	3742	BUNKERC (C10-C38)	22575540	7468

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	798125	43.6	96.9
Triacontane	657184	46.1	102.5

JK 05/24/07

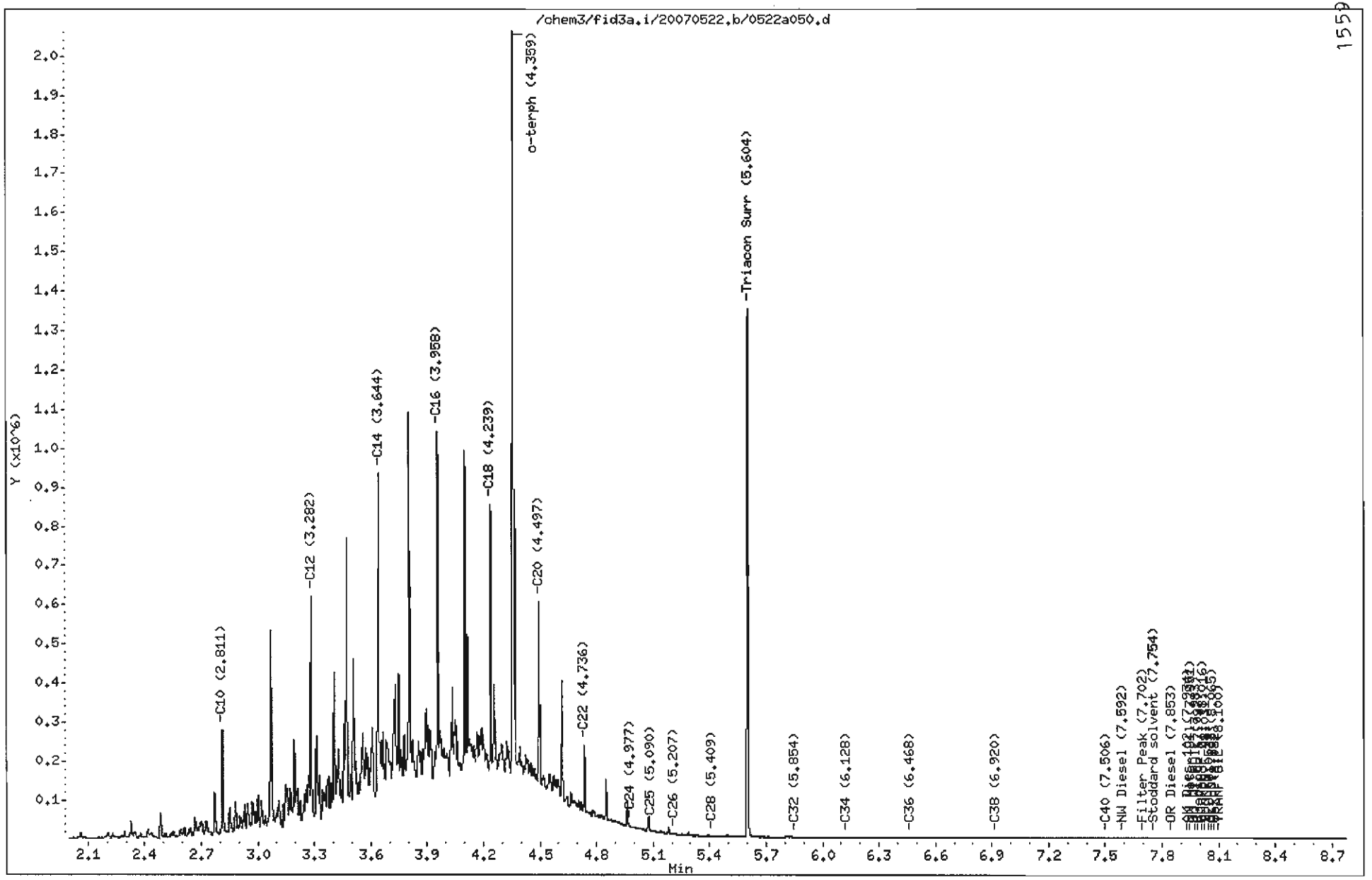
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070522.b/0522a050.d
Date : 22-MAY-2007 19:04
Client ID:
Sample Info: KZ03LCSDW1

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070522.b/0522a050.d
Method: /chem3/fid3a.i/20070522.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/24/2007
Macro: FID:3A050907

ARI ID: KZ03LCSDW1
Client ID:
Injection: 22-MAY-2007 19:04
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.860	0.000	23984	23457	GAS (Tol-C12)	3418641	238
C8	2.061	0.002	12982	9071	DIESEL (C12-C24)	18459440	1226
C10	2.811	0.003	278831	163264	M.OIL (C24-C38)	794383	84
C12	3.282	0.003	620852	292266	AK-102 (C10-C25)	21371209	1185
C14	3.644	0.001	933874	669597	AK-103 (C25-C36)	668337	95
C16	3.958	0.003	1043528	493414			
C18	4.239	0.003	854251	427813			
C20	4.497	0.000	604735	349327	JET-A (C10-C18)	16070257	1278
C22	4.736	-0.005	240982	131068	MIN.OIL (C24-C38)	794383	64
C24	4.977	0.003	36673	29261	MSPIRIT (Tol-C12)	3418641	216
C25	5.090	0.003	22779	9538	TRANOIL (C12-C28)	18854987	1237
C26	5.207	0.011	13485	5870	KEROSEN (Tol-C18)	16607047	1077
C28	5.409	-0.004	8812	2932			
C32	5.854	-0.001	5034	1202	FUEL OIL(C10-C24)	21341290	40
C34	6.128	-0.002	4434	4527			
Filter Peak	7.702	0.002	3402	1018	JP-4 (Tol-C14)	7623261	671
C36	6.468	-0.003	4007	1753	CREOSOT (C8-C22)	21175221	2220
C38	6.920	0.009	3668	1527	HYDRAUL (C24-C38)	794383	89
C40	7.506	0.008	3504	3659	BUNKERC (C10-C38)	22135672	7322

Range Times: NW Diesel(3.329 - 5.023) NW Gas(1.810 - 3.329) NW M.Oil(5.023 - 6.961)
AK102(2.758 - 5.037) AK103(5.037 - 6.521) Jet A(2.758 - 4.286)

Surrogate	Area	Amount	%Rec
o-Terphenyl	803320	43.9	97.5
Triacontane	664088	46.6	103.6

JR 05/24/07

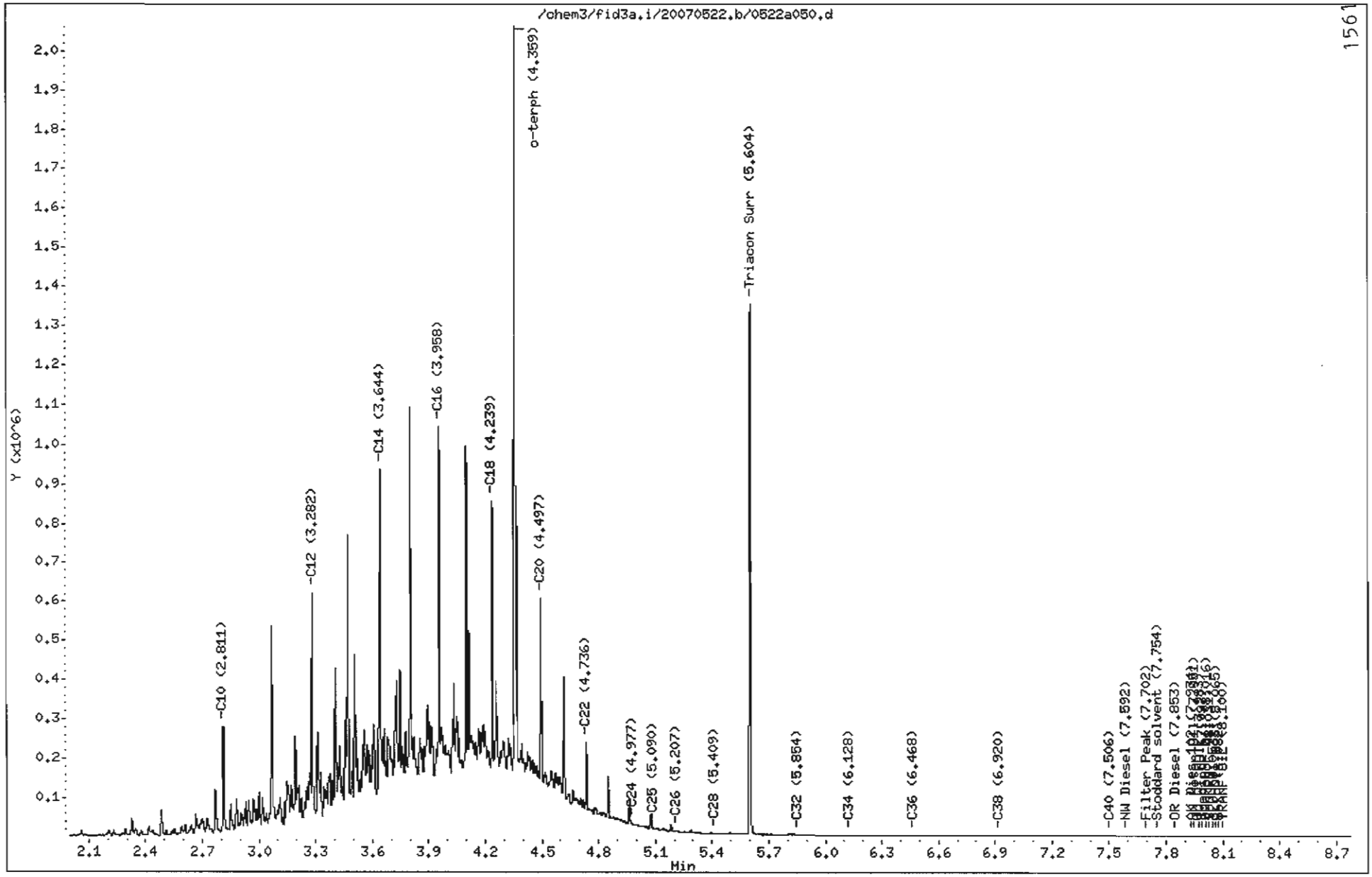
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	14387.6	14-MAR-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070522.b/0522a050.d
Date : 22-MAY-2007 19:04
Client ID:
Sample Info: KZ03LCSDW1

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a008.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56MBS1
Client ID:
Injection: 25-MAY-2007 07:56
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.852	-0.003	8414	7828	GAS (Tol-C12)	139133	8
C8	2.065	0.009	2066	2367	DIESEL (C12-C24)	169733	11
C10	2.802	-0.005	1365	1079	M.OIL (C24-C38)	570192	60
C12	3.284	0.006	693	539	AK-102 (C10-C25)	201497	11
C14	3.626	-0.015	1620	1879	AK-103 (C25-C36)	452977	64
C16	3.949	-0.004	2007	1584			
C18	4.236	0.002	2153	1852			
C20	4.499	0.006	2751	2004	JET-A (C10-C18)	110943	9
C22	4.740	0.006	2014	2469	MIN.OIL (C24-C38)	570192	46
C24	4.977	0.015	2991	4714	MSPIRIT (Tol-C12)	139133	9
C25	5.078	0.005	2861	1072	TRANOIL (C12-C28)	278013	18
C26	5.180	-0.001	3722	2147	KEROSEN (Tol-C18)	220801	14
C28	5.393	0.000	4427	3052			
C32	5.831	0.001	8314	6198	FUEL OIL(C10-C24)	199008	0
C34	6.101	0.000	5256	5643			
Filter Peak	7.703	0.003	3316	2156	JP-4 (Tol-C14)	157575	14
C36	6.447	0.003	4557	2855	CREOSOT (C8-C22)	235666	25
C38	6.879	-0.005	3888	3762	HYDRAUL (C24-C38)	570192	64
C40	7.469	0.003	3774	2154	BUNKERC (C10-C38)	769201	254

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JK 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	801175	43.8	97.3
Triacontane	666158	46.7	103.9

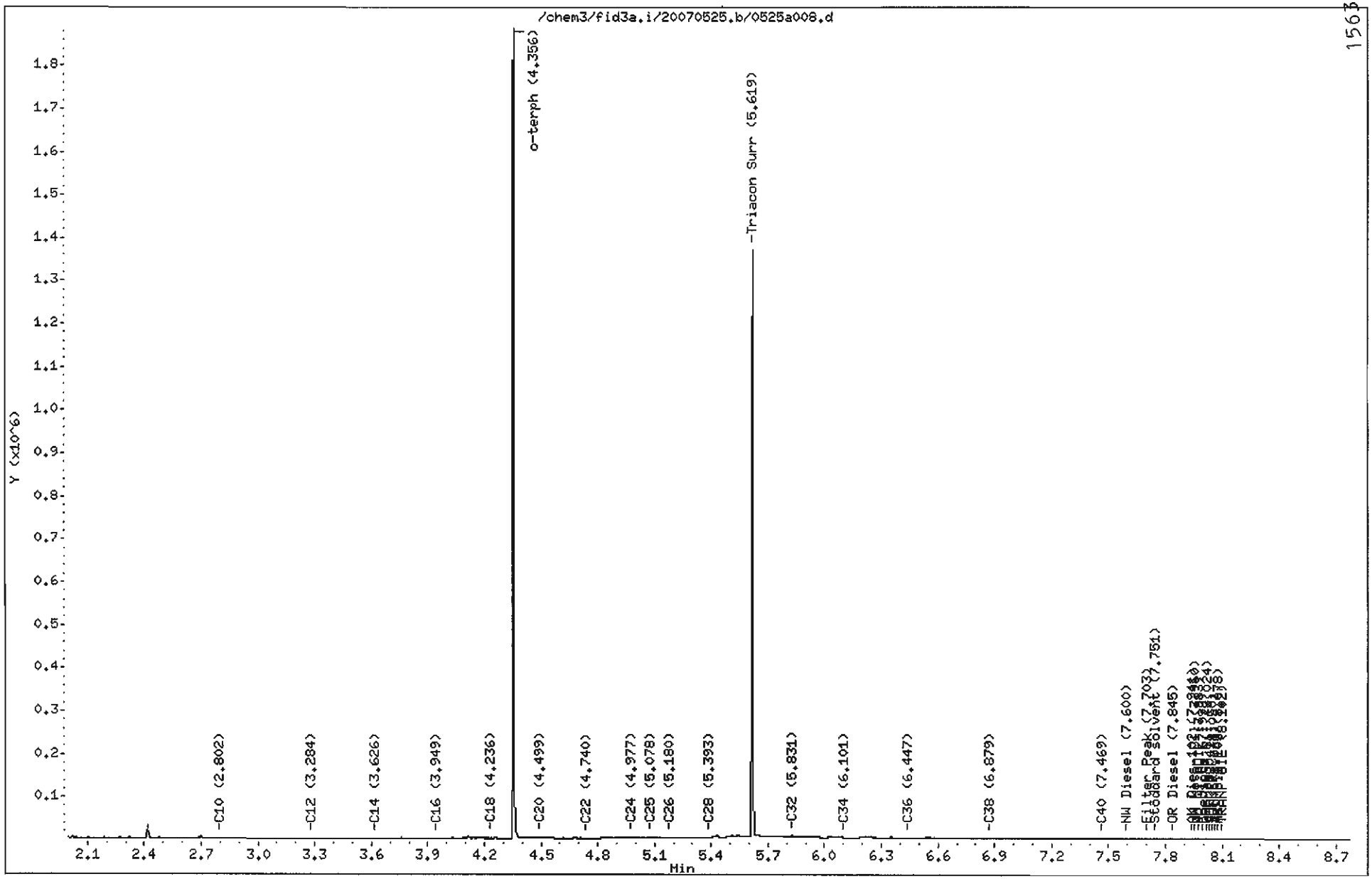
Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a008.d
Date : 25-MAY-2007 07:56
Client ID:
Sample Info: KZ56MBS1

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a009.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56LCSS1
Client ID:
Injection: 25-MAY-2007 08:10
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.859	0.005	31617	38829	GAS (Tol-C12)	3993691	220
C8	2.060	0.004	19451	12705	DIESEL (C12-C24)	18618039	1237
C10	2.808	0.001	357341	196584	M.OIL (C24-C38)	561322	59
C12	3.279	0.001	661554	319767	AK-102 (C10-C25)	21918660	1215
C14	3.640	0.000	932905	596453	AK-103 (C25-C36)	493020	70
C16	3.955	0.002	1003570	539566			
C18	4.238	0.003	742680	457498			
C20	4.497	0.003	557683	339963	JET-A (C10-C18)	16549986	1316
C22	4.737	0.003	228333	133091	MIN.OIL (C24-C38)	561322	45
C24	4.965	0.003	93428	61597	MSPIRIT (Tol-C12)	3993691	252
C25	5.077	0.003	53387	49908	TRANOIL (C12-C28)	18976100	1245
C26	5.186	0.005	28919	30947	KEROSEN (Tol-C18)	17261425	1119
C28	5.400	0.007	9391	10621			
C32	5.819	-0.012	3638	4169	FUEL OIL(C10-C24)	21900291	41
C34	6.103	0.001	2774	1496			
Filter Peak	7.702	0.002	1998	318	JP-4 (Tol-C14)	8389730	738
C36	6.441	-0.003	2402	335	CREOSOT (C8-C22)	21845192	2290
C38	6.885	0.001	2046	895	HYDRAUL (C24-C38)	561322	63
C40	7.463	-0.003	2023	1248	BUNKERC (C10-C38)	22461613	7430

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

JR 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	793352	43.3	96.3
Triacontane	642283	45.1	100.2

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

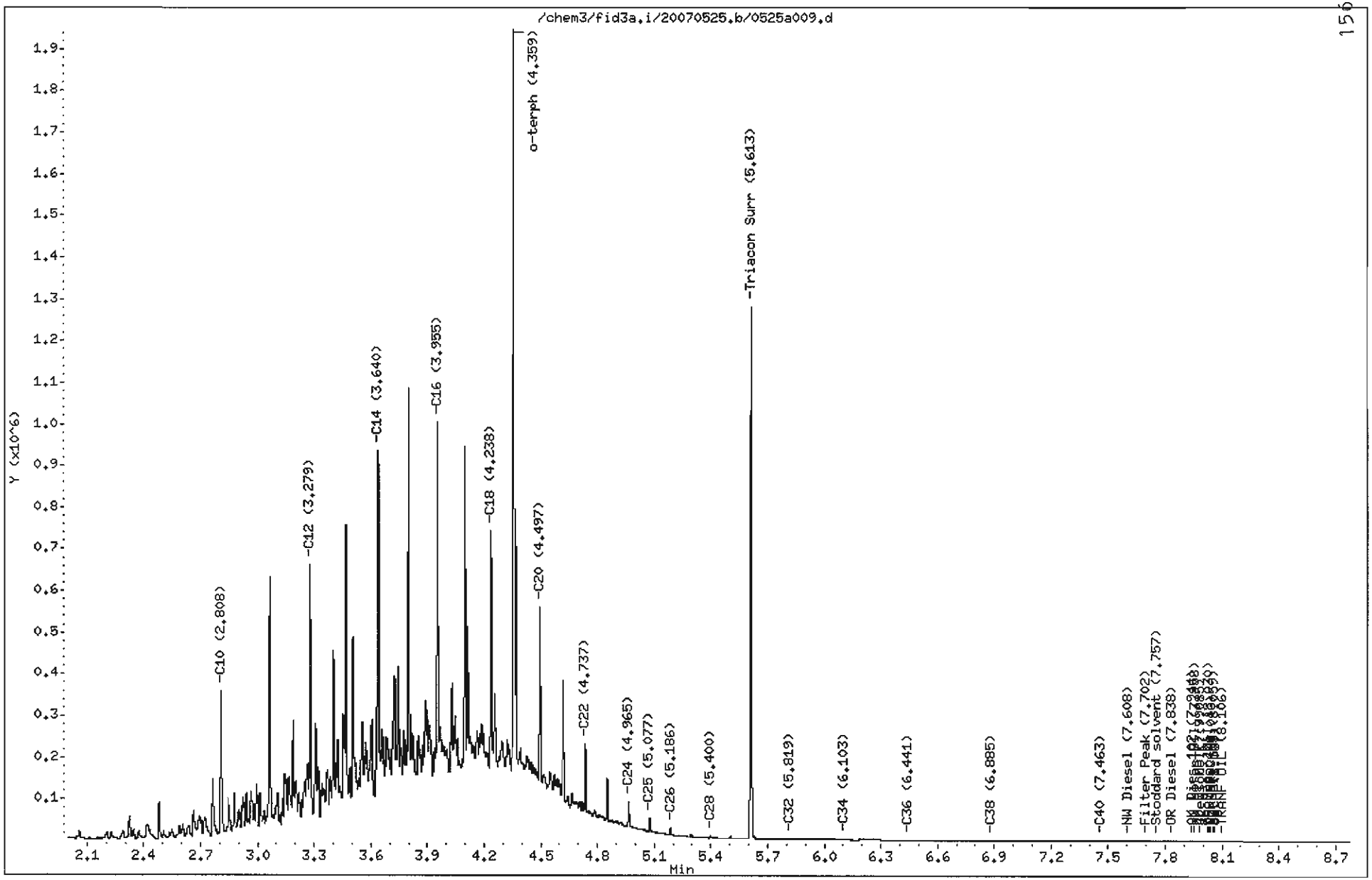
Data File: /chem3/fid3a.i/20070525.b/0525a009.d
Date : 25-MAY-2007 08:10
Client ID:
Sample Info: KZ56LCSS1

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

1565



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a010.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56LCSDS1
Client ID:
Injection: 25-MAY-2007 08:25
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.857	0.002	27102	32228	GAS (Tol-C12)	4166051	230
C8	2.058	0.002	17242	12478	DIESEL (C12-C24)	20171088	1340
C10	2.807	0.000	368093	200444	M.OIL (C24-C38)	563330	59
C12	3.279	0.001	708489	339623	AK-102 (C10-C25)	23621235	1309
C14	3.641	0.000	1006559	724051	AK-103 (C25-C36)	515716	73
C16	3.955	0.002	1095468	579772			
C18	4.239	0.004	769503	488892			
C20	4.498	0.005	583373	377023	JET-A (C10-C18)	17877686	1421
C22	4.740	0.006	244787	143182	MIN.OIL (C24-C38)	563330	45
C24	4.969	0.006	100672	62516	MSPIRIT (Tol-C12)	4166051	263
C25	5.066	-0.008	24469	15429	TRANOIL (C12-C28)	20529579	1347
C26	5.181	0.000	15506	5996	KEROSEN (Tol-C18)	18593590	1205
C28	5.393	0.000	6098	1091			
C32	5.825	-0.005	3408	5086	FUEL OIL(C10-C24)	23621235	45
C34	6.101	0.000	2442	1258			
Filter Peak	7.697	-0.003	1907	950	JP-4 (Tol-C14)	8824513	777
C36	6.445	0.002	2183	1560	CREOSOT (C8-C22)	23499239	2464
C38	6.887	0.002	1976	783	HYDRAUL (C24-C38)	563330	63
C40	7.470	0.004	1948	968	BUNKERC (C10-C38)	24184565	8000

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

jr 05/26/07

Surrogate	Area	Amount	%Rec
o-Terphenyl	848869	46.4	103.1
Triacontane	684034	48.0	106.7

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a010.d

Date : 25-MAY-2007 08:25

Client ID:

Sample Info: KZ56LCSDS1

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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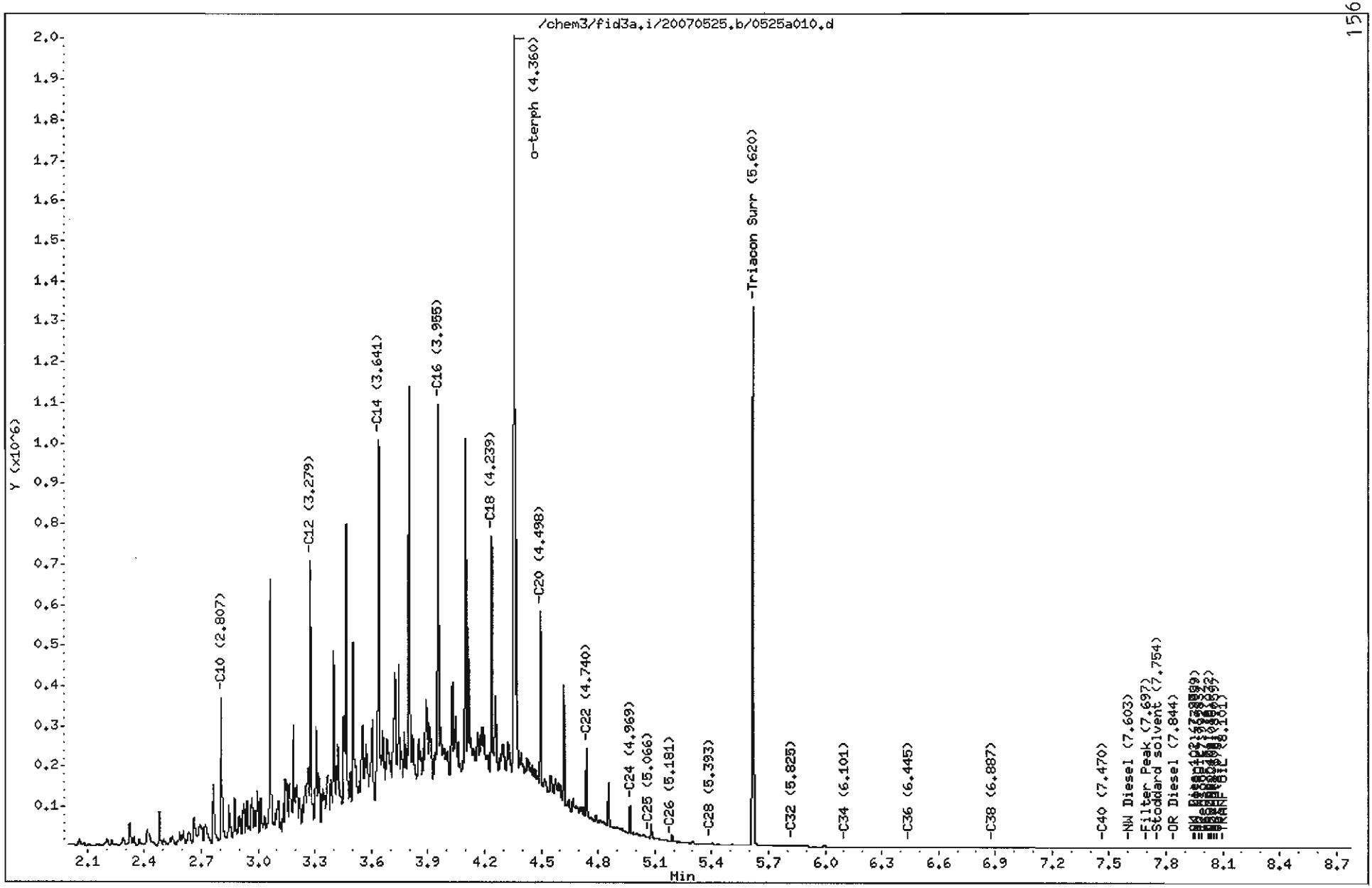

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a016.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56BMS
Client ID:
Injection: 25-MAY-2007 09:52
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.851	-0.003	3672	4497	GAS (Tol-C12)	350460	19
C8	2.055	-0.001	1574	2067	DIESEL (C12-C24)	2611169	173
C10	2.808	0.001	11428	8568	M.OIL (C24-C38)	7033003	741
C12	3.280	0.003	20937	16105	AK-102 (C10-C25)	2900479	161
C14	3.643	0.002	39964	38502	AK-103 (C25-C36)	6161873	872
C16	3.954	0.001	49802	28459			
C18	4.235	0.000	47600	35071			
C20	4.494	0.001	44906	26755	JET-A (C10-C18)	1157208	92
C22	4.737	0.003	45944	37204	MIN.OIL (C24-C38)	7033003	563
C24	4.969	0.007	76146	80307	MSPIRIT (Tol-C12)	350460	22
C25	5.066	-0.007	108409	100570	TRANOIL (C12-C28)	4644469	305
C26	5.181	0.000	69346	40658	KEROSEN (Tol-C18)	1283639	83
C28	5.394	0.001	72850	27530			
C32	5.836	0.006	74207	54123	FUEL OIL(C10-C24)	2835198	5
C34	6.095	-0.007	59080	21953			
Filter Peak	7.701	0.001	14149	1976	JP-4 (Tol-C14)	590642	52
C36	6.442	-0.001	39791	14118	CREOSOT (C8-C22)	2212286	232
C38	6.878	-0.006	26359	16236	HYDRAUL (C24-C38)	7033003	790
C40	7.467	0.001	15951	4131	BUNKERC (C10-C38)	9868201	3264

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0 D
Triacontane	0	0.0	0.0

JR 05/26/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a016.d

Date : 25-MAY-2007 09:52

Client ID:

Sample Info: KZ56BMS,20

Column phase: RTX-1

Instrument: fid3a.i

Operator: JR

Column diameter: 0.25

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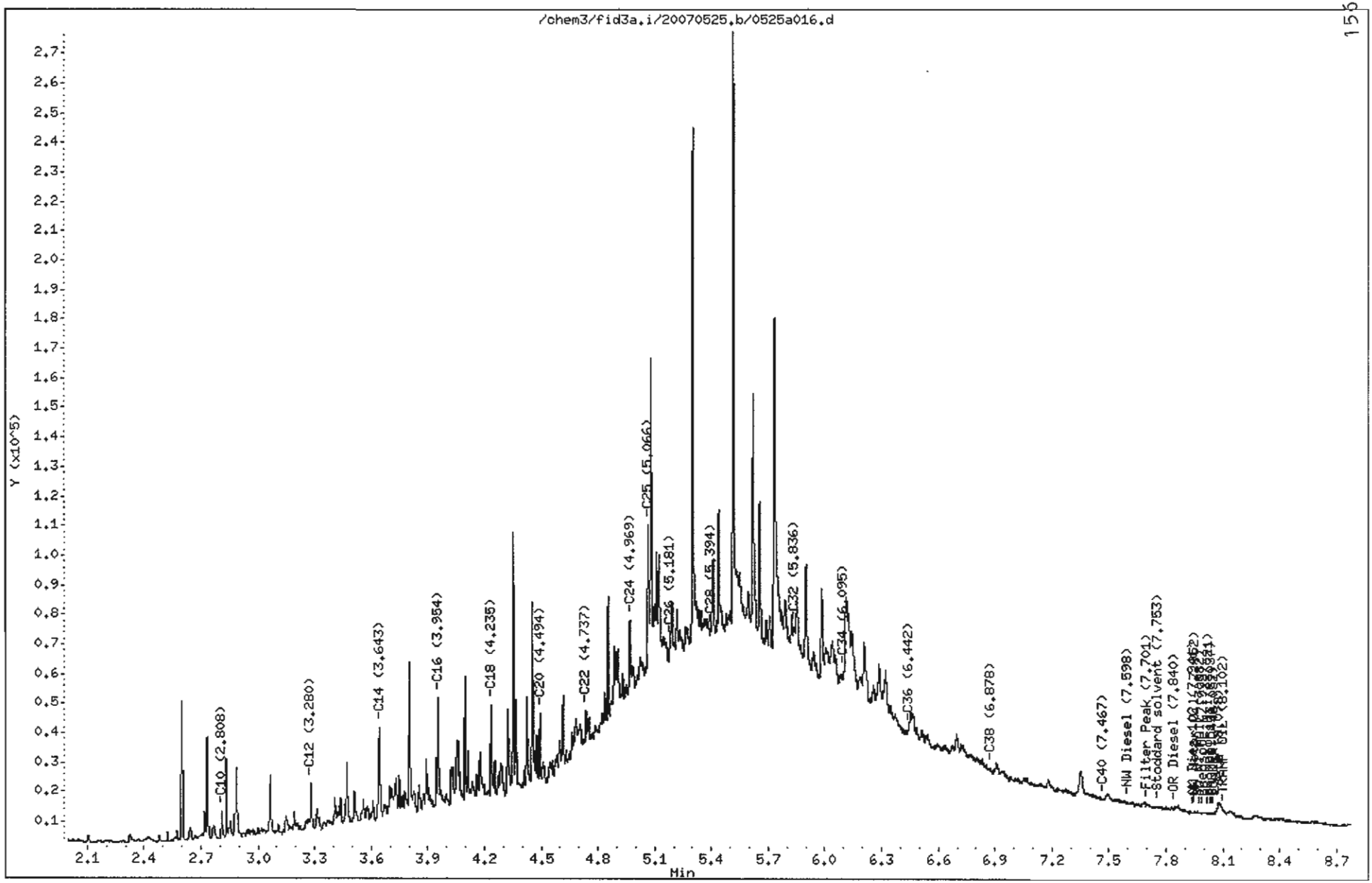

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20070525.b/0525a033.d
Method: /chem3/fid3a.i/20070525.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 05/26/2007
Macro: FID:3A052307

ARI ID: KZ56BMSD
Client ID:
Injection: 25-MAY-2007 14:00
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.852	-0.002	4927	5560	GAS (Tol-C12)	310769	17
C8	2.055	-0.001	1789	1642	DIESEL (C12-C24)	2557578	170
C10	2.811	0.004	11835	8471	M.OIL (C24-C38)	8741112	921
C12	3.275	-0.003	8271	3915	AK-102 (C10-C25)	2827559	157
C14	3.646	0.005	41503	37698	AK-103 (C25-C36)	7511235	1063
C16	3.957	0.003	51376	27061			
C18	4.239	0.004	49545	40579			
C20	4.499	0.006	46329	28640	JET-A (C10-C18)	1072962	85
C22	4.730	-0.004	38108	26013	MIN.OIL (C24-C38)	8741112	700
C24	4.966	0.004	54453	8690	MSPIRIT (Tol-C12)	310769	20
C25	5.069	-0.005	66226	46482	TRANOIL (C12-C28)	4648550	305
C26	5.180	-0.001	73391	44985	KEROSEN (Tol-C18)	1187144	77
C28	5.393	0.000	93037	78560			
C32	5.836	0.006	89327	57416	FUEL OIL(C10-C24)	2754166	5
C34	6.099	-0.003	76268	40195			
Filter Peak	7.697	-0.003	19958	13040	JP-4 (Tol-C14)	535836	47
C36	6.446	0.003	53953	10701	CREOSOT (C8-C22)	2090380	219
C38	6.883	-0.001	38335	17482	HYDRAUL (C24-C38)	8741112	982
C40	7.467	0.000	23871	9397	BUNKERC (C10-C38)	11495278	3803

Range Times: NW Diesel(3.328 - 5.012) NW Gas(1.805 - 3.328) NW M.Oil(5.012 - 6.934)
AK102(2.757 - 5.023) AK103(5.023 - 6.493) Jet A(2.757 - 4.285)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0 D
Triacontane	0	0.0	0.0

JR 05/26/07

Analyte	RF	Curve Date
o-Terph Surr	18303.7	03-MAY-2007
Triacon Surr	14249.8	31-JAN-2007
Gas	18147.2	23-MAY-2007
Diesel	15057.0	03-MAY-2007
Motor Oil	9491.7	31-JAN-2007
AK102	18041.3	03-MAY-2007
AK103	7068.7	03-MAR-2007
JP4	11362.0	05-FEB-2007
JP5	8746364.4	10-FEB-1999
JetA	12577.2	22-FEB-2007
Min Oil	12493.4	09-MAY-2007
Min Spirit	15825.3	15-APR-2005
Tran Oil	15245.5	24-FEB-2007
Kerosene	15426.1	09-NOV-2004
Bunker C	3023.0	29-JUL-2005
Creosote	9538.0	03-MAR-2007
Hydraulic	8899.0	12-JUL-2004
Diesel 1	100000.0	20-JUN-2001
Fuel Oil	530568.2	13-AUG-2002

Data File: /chem3/fid3a.i/20070525.b/0525a033.d
Date : 25-MAY-2007 14:00
Client ID:
Sample Info: KZ56BMSD,20

Instrument: fid3a.i

Operator: JR
Column diameter: 0.25

Column phase: RTX-1

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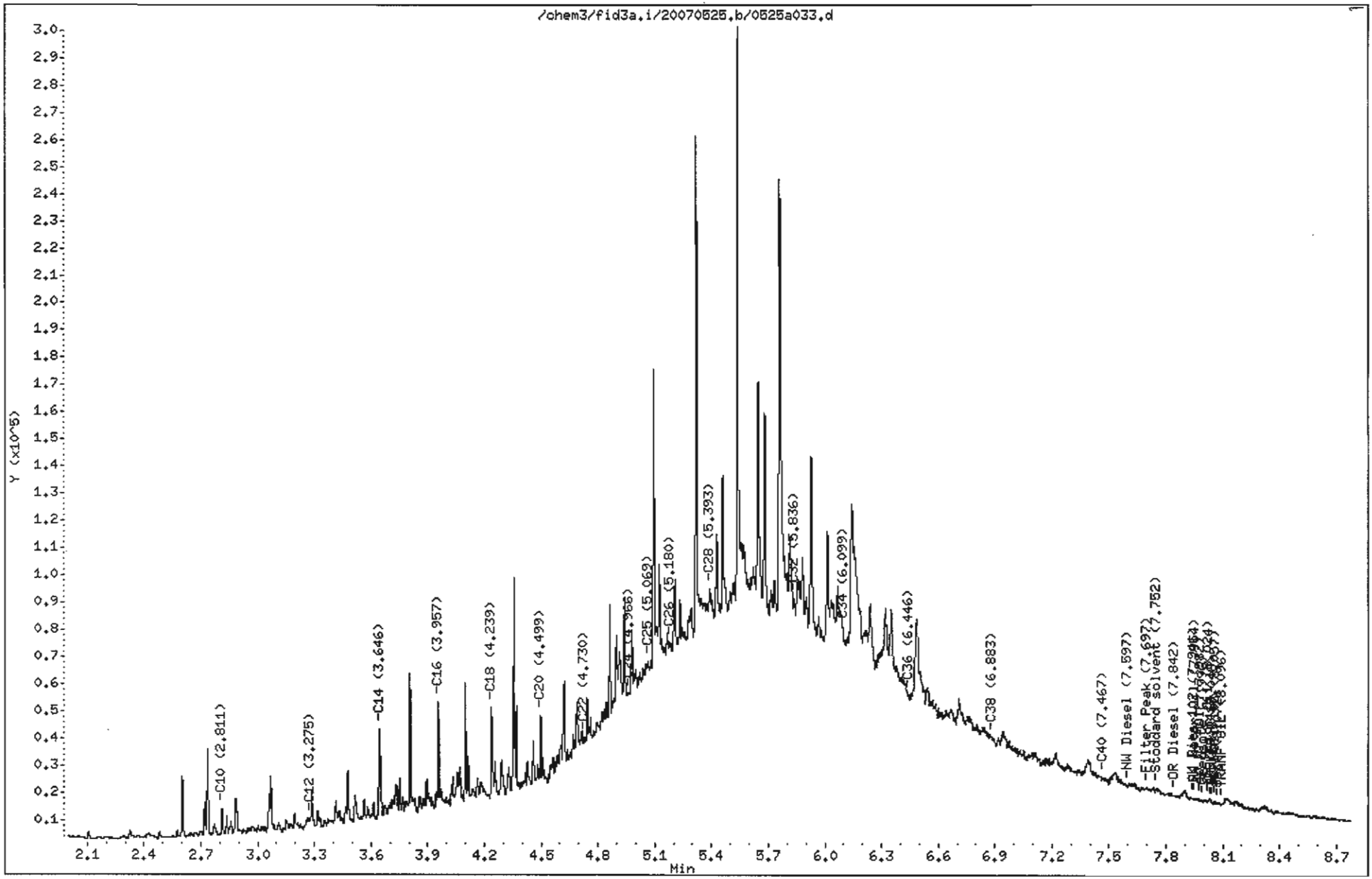

NWTPH-Dx Analysis
Extraction Bench Sheets and Run Logs

prepared
for

TETRA TECH

PROJECT: THEA FOSS OMMP YEAR 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

NWTPHDAK102/ 103/ NWHCID - Water

In-House ✓

QA LIMs #
EXT LIMs #
Bid # TD0519A-01
ARI Job No(s) KZ03, KZ34, KZ56

Sep Funnel ✓
TurboVap ✓
Acid/Silica Clean

Client Name / Project ID
Entrix Inc
Conestoga Rovers & Assoc.
Tetra Tech

Extraction Requirements	Verify Client ID	Volume Extracted	Transfer to Turbo Tubes	Acid/Silca Cleaned Y/N	Final Effective Volume	Volume to Lab	Comments
MB: 19 05/18/07 KZ03 mbw	05/19/07	500 mL's			1mL	1mL	
SB: sbw	05/19/07	↓			↓	↓	
sbwd		↓					
A	checked	470mL					
B		470mL					
C		500mL					
d		475mL					
E		500mL					See Notes →
F		485mL			1mL	1mL	
G		500mL			↓	↓	
KZ34 A		↓					
B							
C							
d							
E							
KZ56 ○	↓	↓	↓		↓	↓	
Analyst/Date: 05/19/07 JA			05-21-07		SP 5/22/07		

Spike	Spike ID	Volume	Conc	Analyst	Witness	Solvent / Reagent	ID
Surrogate	1441-3B	100 µL	450 µg/mL		AR	(DCM) CH_2Cl_2 ID:	I3755
LCS	1451-4	100 µL	15000 µg/mL		AR	1:1 H_2SO_4:	F699
LCS(extra)		µL	µg/mL			Na_2SO_4 ID:	5/3/07 HS
		µL	µg/mL			Conc. Sulfuric Acid:	—
MS/MSD		µL	µg/mL			0% Silica Gel:	—
Extraction Time:						1573	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet
NWTPHD/ AK102/ 103/ NWHCID – Soil/ Sediment

In-House [X]
QA LIMs #
EXT LIMs #
Bid # TD05198.01
ARI Job No(s) KZ556

Macrotip [X]
HCID Med. Level [ ]
TurboVap [X]
Acid/Silica Clean [ ]
KD [ ]

Client Name / Project ID: Tetra Tech

Extraction Requirements	Verify Client ID	Volume Extracted	HCID Volume of Solvent Added	Transfer to Turbo Tubes	Acid/Silca Cleaned Y/N	Final Effective Volume	Volume to Lab	Comments
MB KZ556MBS	5/21/07	10.00	→		—	1mL	1mL	see
SB SBS		10.00				↓	↓	notes
SBDUP	↓	10.00						
A	Checked	10.04						
B		10.02						
BMS		10.04						
BMSD		10.02						
C		10.04						
D		10.04						
E		10.04						
F		10.00						
G		10.04						
H		10.04						
I		10.04						
J		10.04						
K		10.04						
L		10.02						
M		10.02						
N		10.02						
P	↓	10.04				↓	↓	
Analyst/Date: Sonic/WW 5/21						PC 5/22 →		

Spike	Spike ID	Volume	Conc	Analyst	Witness	Solvent / Reagent	ID
Surrogate	1441.3B	100 µL	450 µg/mL		SP	(DCM) CH_2Cl_2 ID:	I3755
LCS	1451.4	100 µL	15000 µg/mL		SP	Neutral Glasswool:	9/10 #7
LCS(extra)		µL	µg/mL			Na_2SO_4 ID:	5/7 #4
		µL	µg/mL			Conc. Sulfuric Acid:	
MS/MSD		µL	µg/mL			0% Silica Gel:	
Extraction Time: 9:45							

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: 30 wt. motor oil curve (A.oil) Client ID: A.R.I

ARI SOP: **403S**(PCB) **405S**(Herbicides) **407S**(TPH-D) **409S**(HCID) **423S**(Pesticides) **Other**

Parameter(s): mo.l, n-triacontane

Instrument: FID: 3A ECD: N/A

Dates: Curve: A.oil 01/31/07 mo.l 01/31/07 Analysis Start: 01/31/07

Endrin/DDT Breakdown <15%?	YES / NO / (NA)	LCS/LCSD Recovery in Control?	YES / NO (NA)
ICal Meets RF & %RSD Criteria?	(YES) / NO	MS/MSD Recovery in Control?	YES / NO
CCal Meets RF & %RSD Criteria	(YES) / NO	Surrogate Recovery in Control?	YES / NO
Internal Standard Meets Criteria?	YES / NO (NA)	Special Analysis Criteria Met?	YES / NO (NA)
Method Blank in Control?	YES / NO		

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary): mo.l ICV fails high 1% @ 116% rec.

JR 02/01/07

Additional Details on Reverse: Yes / (No)

Analyst Signature: JR **Date:** 02/01/07

Reviewer's Signature: [signature] **Date:** 2/1/07

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: Diesel, AK102, o-terph Client ID: A.R.I.

ARI SOP: 403S(PCB) 405S(Herbicides) ~~407S~~(TPH-D) 409S(HCID) 423S(Pesticides) Other

(curves)

Parameter(s): Diesel, AK102, o-terph.

Instrument: FID: 3A ECD: N/A

Dates: Curve: Diesel AK102 05/03/07 Analysis Start: 05/03/07

Endrin/DDT Breakdown <15%?	YES / NO / (NA)	LCS/LCSD Recovery in Control?	YES / NO / (NA)
ICal Meets RF & %RSD Criteria?	(YES) / NO	MS/MSD Recovery in Control?	YES / NO
CCal Meets RF & %RSD Criteria	(YES) / NO	Surrogate Recovery in Control?	YES / NO
Internal Standard Meets Criteria?	YES / NO (NA)	Special Analysis Criteria Met?	YES / NO / (NA)
Method Blank in Control?	YES / NO		

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / (No)

Analyst Signature: JM **Date:** 05/04/07

Reviewer's Signature: [signature] **Date:** 5.5.2007

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: KZ56 Client ID: Tetra Tech

Parameter: TPHD Client Project: Thea Foss OMMP year 3

SOP Number(s): 3085 **No Anomalies:**

List problems, concerns, corrective actions and any other pertinent information

Analyst Initials:		**Date:**	

3056F

Revision 006
1/12/07

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: KZ56 Client ID: Thea Foss ommp year 3

ARI SOP: 403S(PCB) 405S(Herbicides) 407S(TPH-D) 409S(HCID) 423S(Pesticides) Other

Parameter(s): Diesel, moil, o-terph

Instrument: FID: 3A ECD: N/A

Dates: Curve: Diesel 05/03/07 moil 01/31/07 Analysis Start: 05/22/07

Endrin/DDT Breakdown <15%? YES / NO / NA LCS/LCSD Recovery in Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO MS/MSD Recovery in Control? YES / NO NA

CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery in Control? YES / NO

Internal Standard Meets Criteria? YES / NO NA Special Analysis Criteria Met? YES / NO / NA

Method Blank in Control? YES / NO

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst Signature: [signature] **Date:** 05/30/07

Reviewer's Signature: [signature] **Date:** 5/30/07

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: KZ56 Client ID: Tetra Tech

Parameter: TPH-D Client Project: Thea Foss OMMP Year 3

SOP Number(s): 304S **No Anomalies:**

List problems, concerns, corrective actions and any other pertinent information
Nasty matrix - all samples filtered at vialing...
sample B: all sludge, filtered @ ~ 5 mL, conc. to 1 mL
C: bloched 0.45 µm, didn't drain out of GDX - RC 5/22/07

Analyst Initials:		Date:	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: K756 Client ID: Thea foss Omnp Year 3

ARI SOP: 403S(PCB) 405S(Herbicides) (407S(TPH-D)) 409S(HCID) 423S(Pesticides) Other

Parameter(s): Diesel, moil, o-terph

Instrument: FID: 3A ECD: N/A

Dates: Curve: Diesel 05/ Moil Analysis Start: 05-/25/07

Endrin/DDT Breakdown <15%? YES / NO / (NA) LCS/LCSD Recovery in Control? (YES) / NO

ICal Meets RF & %RSD Criteria? (YES) / NO MS/MSD Recovery in Control? YES / NO

CCal Meets RF & %RSD Criteria (YES) / NO Surrogate Recovery in Control? (YES) / NO

Internal Standard Meets Criteria? YES / NO (NA) Special Analysis Criteria Met? YES / NO / (NA)

Method Blank in Control? (YES) / NO

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary): samples diluted (20X) due to color / visc. and to spare instrument
— Overextracted at 10 grams wet —

ms/msd rec. high, msd rec. @ 125.3% ms rec @ 129.3%
high limit is 99%. (Advisory)

RPd due to homogeneity

Additional Details on Reverse: Yes / (No)

Analyst Signature: JR **Date:** 05/30/07

Reviewer's Signature: CB **Date:** 5/30/07

Pg...

Analytical Resources Inc.: Organics Instrument Log

FID-3A Serial No.: US00003232

Date: 01/31/07 Analysis: TPHd Analyst: JR

GC Program: TPH Column No: _____ Column Type: RTX-1

Instrument Tune (.U or .CT.): N/A EM Voltage: N/A

Calibration File: N/A Curve Date: Diesel/moil ~~07/0~~ JR 02/02/07 01/31/07

IS/SS	Ical/Ccal	LCS/ICV
N/A	RT 1421-1 IB 1420-2 Diesel 1420-3 moil 1426-4	N/A

	Time	Filename	LabID	ClientId	DF
1	1429	0131a001.d	RINSE		1
2	1444	0131a002.d	RINSE		1
3	1459	0131a003.d	RINSE		1
4	1514	0131a004.d	RINSE		1
5	1529	0131a005.d	RINSE		1
6	1544	0131a006.d	RT		1
7	1559	0131a007.d	IB		1
8	1614	0131a008.d	G/D HCID S		1
9	1629	0131a009.d	100 PPM MOIL		
10	1645	0131a010.d	250 PPM MOIL		
11	1700	0131a011.d	500 PPM MOIL		
12	1715	0131a012.d	1000 PPM MOIL		
13	1730	0131a013.d	2500 PPM MOIL		
14	1745	0131a014.d	5000 PPM MOIL		
15	1800	0131a015.d	MOIL ICV		1
16	1815	0131a016.d	MOIL CVS		1
17	1830	0131a017.d	50 PPM DIESEL		
18	1845	0131a018.d	100 PPM DIESEL		
19	1900	0131a019.d	250 PPM DIESEL		
20	1915	0131a020.d	500 PPM DIESEL		
21	1931	0131a021.d	1000 PPM DIESEL		
22	1946	0131a022.d	2500 PPM DIESEL		

	Time	Filename	LabID	ClientId	DF
23	2000	0131a023.d	DIESEL ICV		1
24	2015	0131a024.d	DIESEL CVS		1

JR JR JR 02/02/07

Maintenance / Comments

new column installed, n-triac. shift in moil ccal

curves pass

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC pe

Analytical Resources Inc.: Organics Instrument Log

FID-3A Serial No.: US00003232

Date: 5/8/07 Analysis: TPHd Analyst: JK

GC Program: TPH Column No: 728595 Column Type: RTX-1

Instrument Tune (.U or .CT.): N/A EM Voltage: N/A

Calibration File: N/A Curve Date: Dsel 05/03/07 moil 01/31/07

IS/SS	Ical/Ccal	LCS/ICV
N/A	RT 1420-1 IB 1421-2 Diesel M54-5 moil 1426-4	N/A

	Time	Filename	LabID	ClientId	D
1	1635	0503c001.d	RINSE		
2	1649	0503c002.d	RINSE		
3	1704	0503c003.d	RINSE		
4	1718	0503c004.d	RINSE		
5	1732	0503c005.d	RINSE		
6	1747	0503c006.d	RINSE		
7	1801	0503c007.d	RINSE		
8	1816	0503c008.d	RINSE		
9	1830	0503c009.d	RINSE		
10	1845	0503c010.d	RINSE		
11	1859	0503c011.d	RINSE		
12	1913	0503c012.d	RINSE		
13	1928	0503c013.d	RINSE		
14	1942	0503c014.d	RT		
15	1956	0503c015.d	IB		
16	2011	0503c016.d	50 PPM DIESEL		
17	2025	0503c017.d	100 PPM DIESEL		
18	2039	0503c018.d	250 PPM DIESEL		
19	2054	0503c019.d	500 PPM DIESEL		
20	2108	0503c020.d	1000 PPM DIESEL		
21	2122	0503c021.d	2500 PPM DIESEL		
22	2137	0503c022.d	DIESEL ICV		
23	2151	0503c023.d	DIESEL CVS		
24	2205	0503c024.d	OLD DIESEL MIX		
25	2219	0503c025.d	RINSE		
26	2234	0503c026.d	DIESEL#1		
27	2248	0503c027.d	MOIL#1		
28	2302	0503c028.d	KW14MBW1	KW14MBW1	
29	2316	0503c029.d	KW14LCSW1	KW14LCSW1	
30	2330	0503c030.d	KW14LCSDW1	KW14LCSDW1	
31	2344	0503c031.d	KW14A	EPP-TK-01	
32	2359	0503c032.d	KW14B	EPP-TK-02	
33	0013	0503c033.d	KW14C	EPP-TK-03	
34	0027	0503c034.d	KW14D	EPP-LN-01	
35	0041	0503c035.d	KW14E	EPP-LN-02	
36	0055	0503c036.d	KW14F	EPP-LN-03	
37	0109	0503c037.d	RINSE		
38	0123	0503c038.d	DIESEL#2		
39	0138	0503c039.d	MOIL#2		
40	0152	0503c040.d	KW14G	EPP-LN-04	
41	0206	0503c041.d	KW14H	EPP-LN-05	
42	0220	0503c042.d	KX03MBW1	KX03MBW1	
43	0234	0503c043.d	KX03LCSW1	KX03LCSW1	
44	0248	0503c044.d	KX03A	E-4	
45	0303	0503c045.d	KX03B	D7A-2	
46	0316	0503c046.d	KX03C	D7A-70	1
47	0331	0503c047.d	KX03D	D7A-6	1
48	0345	0503c048.d	KX03E	P-25	1
49	0359	0503c049.d	RINSE		1
50	0413	0503c050.d	DIESEL#3		1
51	0427	0503c051.d	MOIL#3		1
52	0441	0503c052.d	KW21A	D7A-8	1
53	0456	0503c053.d	KW21B	D7A-10	1
54	0510	0503c054.d	KW21C	D7-3	1
55	0524	0503c055.d	KW21CMS	D7-3 MS	1
56	0538	0503c056.d	KW21CMSD	D7-3 MSD	1
57	0552	0503c057.d	KW21D	D7-4	1
58	0607	0503c058.d	KX27MBS1		1
59	0621	0503c059.d	KX27LCSS1		1
60	0635	0503c060.d	KX27A		1
61	0649	0503c061.d	RINSE		1
62	0703	0503c062.d	DIESEL#4		1
63	0718	0503c063.d	MOIL#4		1

JK 05/11/07

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources Inc.: Organics Instrument Log

FID-3A Serial No.: US00003232

Date: 05/22/07 Analysis: TPHd Analyst: JR

GC Program: TPH Column No: 723595 Column Type: RTX-1

Instrument Tune (.U or .CT.): N/A EM Voltage: N/A

Calibration File: N/A Curve Date: Ical 05/23/07 mod 01/31/07

IS/SS	Ical/Ccal	LCS/ICV
N/A	RT 1420-1 IB 1421-2 Diesel 1454-5 moil 1426-4	N/A

	Time	Filename	LabID	ClientId	DF
1	0717	0522a001.d	ACETO RINSE		1
2	0731	0522a002.d	ACETO RINSE		1
3	0745	0522a003.d	RINSE		1
4	0759	0522a004.d	RINSE		1
5	0814	0522a005.d	RT	RT	1
6	0828	0522a006.d	IB	IB	1
7	0843	0522a007.d	G/D HCID S		1
8	0857	0522a008.d	M HCID S		1
9	0911	0522a009.d	KZ88MBW1		1
10	0926	0522a010.d	KZ88A		5
11	0940	0522a011.d	KZ88B		5
12	0954	0522a012.d	RINSE		1
13	1009	0522a013.d	DIESEL#1	DARIGOLD	1
14	1023	0522a014.d	MOIL#1	DARIGOLD	1
15	1037	0522a015.d	KZ20A	MW-4	
16	1052	0522a016.d	KZ20B	MW-5	
17	1106	0522a017.d	KZ20C	B6-D	
18	1120	0522a018.d	KZ20D	MW-6	
19	1135	0522a019.d	KZ20E	MW-3	
20	1149	0522a020.d	KZ20F	B6-S	
21	1203	0522a021.d	KZ12A		
22	1218	0522a022.d	KZ12B		
23	1232	0522a023.d	RINSE		1
24	1246	0522a024.d	DIESEL#2	DARIGOLD	1
25	1301	0522a025.d	MOIL#2	DARIGOLD	1
26	1315	0522a026.d	KZ82MBS1		1
27	1330	0522a027.d	KZ82LCSS1		1
28	1344	0522a028.d	KZ82A		1
29	1359	0522a029.d	KZ82B		1
30	1413	0522a030.d	KZ82C		1
31	1428	0522a031.d	KZ82D		1
32	1442	0522a032.d	KZ82E		1
33	1456	0522a033.d	KZ82F		1
34	1511	0522a034.d	KZ82FMS		1
35	1525	0522a035.d	RINSE		1
36	1540	0522a036.d	DIESEL#3	THEA FOSS OMMP	1
37	1554	0522a037.d	MOIL#3	THEA FOSS OMMP	1
38	1609	0522a038.d	KZ82FMSD		1
39	1623	0522a039.d	KZ82G		1
40	1638	0522a040.d	KZ82H		1
41	1652	0522a041.d	KZ82I		1
42	1707	0522a042.d	KZ82J		1
43	1722	0522a043.d	KZ82K		1
44	1736	0522a044.d	KZ82L		1
45	1751	0522a045.d	KZ03MBW1		1
46	1805	0522a046.d	KZ03LCSW1	KZ03LCSW1	1
47	1820	0522a047.d	RINSE		1
48	1834	0522a048.d	DIESEL#4	THEA FOSS OMMP	1
49	1849	0522a049.d	MOIL#4	THEA FOSS OMMP	1
50	1904	0522a050.d	KZ03LCSDW1	KZ03LCSDW1	1
51	1918	0522a051.d	KZ03A	B-2	1
52	1933	0522a052.d	KZ03B	MW-8	1
53	1947	0522a053.d	KZ03C	MW-9	1
54	2002	0522a054.d	KZ03D	MW-7	1
55	2016	0522a055.d	KZ03F	MW-1	1
56	2031	0522a056.d	KZ03G	B-4	1
57	2045	0522a057.d	KZ34A		1
58	2100	0522a058.d	KZ34B		1
59	2114	0522a059.d	RINSE		1
60	2129	0522a060.d	DIESEL#5	THEA FOSS OMMP	
61	2143	0522a061.d	MOIL#5	THEA FOSS OMMP	
62	2158	0522a062.d	KZ34C		1
63	2212	0522a063.d	KZ34D		1
64	2227	0522a064.d	KZ34E		1
65	2241	0522a065.d	KZ560	Y3-RB-01	1
66	2255	0522a066.d	KZ98MBW1		1
67	2310	0522a067.d	KZ98LCSW1		1
68	2324	0522a068.d	KZ98A		1
69	2338	0522a069.d	KZ98B		
70	2353	0522a070.d	RINSE		
71	0007	0522a071.d	DIESEL#6		
72	0021	0522a072.d	MOIL#6		

JR JR JR JR

JR 05/24/07

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources Inc.: Organics Instrument Log

FID-3A Serial No.: US00003232

Date: 05/23/07 Analysis: TPHd Analyst: JK

GC Program: TPH Column No: 723595 Column Type: RTX-1

Instrument Tune (.U or .CT.): N/A EM Voltage: N/A

Calibration File: N/A Curve Date: Diesel 05/03/07 moil 01/31/07

IS/SS

N/A

Ical/Ccal

RT 1420-1

IB 1421-2

Diesel ~~1454-5~~ 1454-5 1454-5

Moil 1426-4

LCS/ICV

N/A

	Time	Filename	LabID	ClientId	DF
1	0414	0523a001.d	ACETO RINSE		1
2	0428	0523a002.d	ACETO RINSE		1
3	0442	0523a003.d	RINSE		1
4	0457	0523a004.d	RINSE		1
5	0511	0523a005.d	RT	RT	1
6	0525	0523a006.d	IB	IB	1
7	0539	0523a007.d	DIESEL#1		1
8	0554	0523a008.d	MOIL#1		1
9	0608	0523a009.d	KZ03MBW1		1
10	0622	0523a010.d	KZ03LCSW1		1
11	0636	0523a011.d	KZ82C		1
12	0651	0523a012.d	KZ82E		1
13	0705	0523a013.d	KZ83MBS1		1
14	0719	0523a014.d	KZ83LCSS1		1
15	0734	0523a015.d	KZ83A		1
16	0748	0523a016.d	KZ83B		1
17	0802	0523a017.d	KZ83C		1
18	0817	0523a018.d	RINSE		1
19	0831	0523a019.d	DIESEL#2		1
20	0845	0523a020.d	MOIL#2		1
21	0900	0523a021.d	KZ83D		1
22	0914	0523a022.d	KZ83E		1

	Time	Filename	LabID	ClientId	DF
23	0928	0523a023.d	KZ93F		1
24	0943	0523a024.d	KZ83FMS		1
25	0957	0523a025.d	KZ83FMSD		1
26	1012	0523a026.d	KZ83G		1
27	1026	0523a027.d	KZ83H		1
28	1040	0523a028.d	KZ83I		1
29	1055	0523a029.d	KZ83J		1
30	1109	0523a030.d	RINSE		1
31	1124	0523a031.d	DIESEL#3		1
32	1138	0523a032.d	MOIL#3		1
33	1153	0523a033.d	KZ83K		1
34	1207	0523a034.d	KZ83L		1
35	1222	0523a035.d	KZ82A		1
36	1236	0523a036.d	KZ82B		10
37	1251	0523a037.d	KZ82D		10
38	1305	0523a038.d	KZ82F		100
39	1320	0523a039.d	KZ82FMS		100
40	1335	0523a040.d	KZ82FMSD		100
41	1349	0523a041.d	KZ82G		10
42	1404	0523a042.d	RINSE		1
43	1418	0523a043.d	DIESEL#4		1
44	1433	0523a044.d	MOIL#4		1
45	1448	0523a045.d	KZ82H		100

	Time	Filename	LabID	ClientId	DF
46	1502	0523a046.d	KZ82I		10
47	1517	0523a047.d	KZ82J		20
48	1531	0523a048.d	KZ82K		1
49	1546	0523a049.d	KZ82L		20
50	1600	0523a050.d	KZ03MBW1		1
51	1615	0523a051.d	KZ03LCSW1		1
52	1630	0523a052.d	KZ03E		1
53	1644	0523a053.d	LA16MBW1	LA16MBW1	1
54	1659	0523a054.d	RINSE		1
55	1713	0523a055.d	DIESEL#5	DIESEL#5	1
56	1728	0523a056.d	MOIL#5	MOIL#5	1
57	1743	0523a057.d	LA16LCSW1	LA16LCSW1	1
58	1757	0523a058.d	LA16A	PAdw4786L-072305	
59	1812	0523a059.d	LA16B	265295-072305	1
60	1827	0523a060.d	LA16C	254252-072305	1
61	1841	0523a061.d	LA10MBS1	LA10MBS1	1
62	1856	0523a062.d	LA10LCSS1	LA10LCSS1	1
63	1910	0523a063.d	LA10LCSDS1	LA10LCSDS1	1
64	1925	0523a064.d	LA10A	PL2CS-2-64-08-0060	
65	1940	0523a065.d	LA10AMS	PL2CS-2-64-08-0 MS	
66	1954	0523a066.d	RINSE		1
67	2009	0523a067.d	DIESEL#6	DIESEL#6	1
68	2023	0523a068.d	MOIL#6	MOIL#6	1

JK JK JK 05/24/07

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources Inc.: Organics Instrument Log

FID-3A Serial No.: US00003232

Date:_____ Analysis: _____ Analyst: _____

GC Program: _____ Column No: _____ Column Type:_____

Instrument Tune (.U or .CT.):_____ EM Voltage: _____

Calibration File:_____ Curve Date: _____

IS/SS	Ical/Ccal	LCS/ICV

05/24/07 cont.

	Time	Filename	LabID	ClientId	DF	
69	2038	0523a069.d	LA10AMSD	PL2CS-2-64-08-0 MS		
70	2053	0523a070.d	RINSE		1	
71	2107	0523a071.d	DIESEL#7	DIESEL#7	1	
72	2122	0523a072.d	MOIL#7	MOIL#7	1	
73	2136	0523a073.d	G/D HCID S		1	
74	2151	0523a074.d	M HCID S		1	
75	2205	0523a075.d	LA18MBSI		1	
76	2220	0523a076.d	LA18A		1	
77	2234	0523a077.d	LA18B		1	
78	2249	0523a078.d	LA18C		1	
79	2303	0523a079.d	LA18D		1	

Maintenance / Comments JR 05/24/07

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources Inc.: Organics Instrument Log

FID-3A Serial No.: US00003232

Date: 05/25/07 Analysis: TPHd Analyst: JC

GC Program: TPH Column No: 7295595 Column Type: RTX-1

Instrument Tune (.U or .CT.): N/A EM Voltage: N/A

Calibration File: N/A Curve Date: Diesel 05/03/07 mod 01/31/07

IS/SS

N/A

Ical/Ccal

RT 1420-1
IB 1421-2
Diesel 1454-5
Inc 14 1426-4

LCS/ICV

N/A

	Time	Filename	LabID	ClientId	DF
1	0616	0525a001.d	RINSE		1
2	0630	0525a002.d	RINSE		1
3	0644	0525a003.d	RINSE		1
4	0658	0525a004.d	RT	RT	1
5	0713	0525a005.d	IB	IB	1
6	0727	0525a006.d	DIESEL#1	THEA FOSS OMMP	
7	0741	0525a007.d	MOIL#1	THEA FOSS OMMP	
8	0756	0525a008.d	KZ56MBS1	KZ56MBS1	1
9	0810	0525a009.d	KZ56LCSS1	KZ56LCSS1	1
10	0825	0525a010.d	KZ56LCSDS1	KZ56LCSDS1	1
11	0839	0525a011.d	LA48A		100
12	0853	0525a012.d	LA48B		100
13	0908	0525a013.d	LA48C		100
14	0922	0525a014.d	KZ56A	Y3-RC11-S	20
15	0937	0525a015.d	KZ56B	Y3-RC01-S	20
16	0952	0525a016.d	KZ56BMS	Y3-RC01-S MS	20
17	1006	0525a017.d	RINSE		1
18	1021	0525a018.d	DIESEL#2	THEA FOSS OMMP	
19	1035	0525a019.d	MOIL#2	THEA FOSS OMMP	
20	1050	0525a020.d	KZ56P	Y3-RC03-S	20
21	1105	0525a021.d	LA63MBS1	LA63MBS1	1
22	1119	0525a022.d	LA63LCSS1	LA63LCSS1	1
23	1134	0525a023.d	LA63A	BTS 16	1
24	1148	0525a024.d	LA63B	BTS 17	1
25	1203	0525a025.d	LA63C	BTS 18	1
26	1218	0525a026.d	RINSE		1
27	1232	0525a027.d	DIESEL#3		1
28	1247	0525a028.d	LA63D	BTS 19	1
29	1301	0525a029.d	RINSE		1
30	1316	0525a030.d	DIESEL#3	THEA FOSS OMMP	
31	1331	0525a031.d	MOIL#3	THEA FOSS OMMP	
32	1345	0525a032.d	SURR VER		10
33	1400	0525a033.d	KZ56BMSD	Y3-RC01-S MSD	2
34	1414	0525a034.d	KZ56C	Y3-RC13-S	20
35	1429	0525a035.d	KZ56D	Y3-RC14-S	20
36	1444	0525a036.d	KZ56E	Y3-RC10-S	20
37	1458	0525a037.d	KZ56F	Y3-RC05-S	20
38	1513	0525a038.d	KZ56G	Y3-RC07-S	20
39	1528	0525a039.d	KZ56H	Y3-RC08-S	20
40	1542	0525a040.d	KZ56I	Y3-RC15-S	20
41	1557	0525a041.d	RINSE		1
42	1612	0525a042.d	DIESEL#4	THEA FOSS OMMP	
43	1626	0525a043.d	MOIL#4	THEA FOSS OMMP	
44	1641	0525a044.d	KZ56J	Y3-RC09-S	20
45	1656	0525a045.d	KZ56K	Y3-RC02-S	20
46	1710	0525a046.d	KZ56L	Y3-RC12-S	20
47	1725	0525a047.d	KZ56M	Y3-RC06-S	20
48	1739	0525a048.d	KZ56N	Y3-RC04-S	20
49	1754	0525a049.d	RINSE		1
50	1808	0525a050.d	DIESEL#5	THEA FOSS OMMP	
51	1823	0525a051.d	MOIL#5	THEA FOSS OMMP	
52	1838	0525a052.d	G/D HCID S		1
53	1852	0525a053.d	M HCID S		1
54	1907	0525a054.d	LA67MBS1		1
55	1921	0525a055.d	LA67A		1
56	1936	0525a056.d	LA67B		1
57	1951	0525a057.d	LA78A		1
58	2005	0525a058.d	LA78B		1
59	2020	0525a059.d	LA78C		1
60	2034	0525a060.d	RINSE		1
61	2049	0525a061.d	DIESEL#6		1
62	2103	0525a062.d	MOIL#6		1
63	2118	0525a063.d	KY79MBS1	KY79MBS1	1
64	2133	0525a064.d	KY79LCSS1	KY79LCSS1	1
65	2147	0525a065.d	KY79LCSSD1		1
66	2202	0525a066.d	KY79A	SL4-T5A MH178	5
67	2217	0525a067.d	KY79B	SL4-T5 MH163	1
68	2231	0525a068.d	KY79C	SL4-T1 MH422	1

Maintenance / Comments N — N — N 5/26/07

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources Inc.: Organics Instrument Log

FID-3A Serial No.: US00003232

Date:_____ Analysis: _____ Analyst: _____

GC Program: _____ Column No: _____ Column Type:_____

Instrument Tune (.U or .CT.):_____ EM Voltage: _____

Calibration File:_____ Curve Date: _____

IS/SS	Ical/Ccal	LCS/ICV

	Time	Filename	LabID	ClientId	DF
69	2246	0525a069.d	LA19B	DG-78-8	50
70	2300	0525a070.d	LA19C	DG-81-3.5	1
71	2315	0525a071.d	LA19D	DG-81-7.5	1
72	2329	0525a072.d	RINSE		1
73	2344	0525a073.d	DIESEL#7		1
74	2359	0525a074.d	MOIL#7		1
75	0013	0525a075.d	LA19E	DG-76-3.5	1
76	0028	0525a076.d	LA19F	DG-76-8	1
77	0042	0525a077.d	LA19G	DG-73-3.5	1
78	0057	0525a078.d	LA19H	DG-73-9.5	1
79	0111	0525a079.d	LA19I	DG-72-3.5	50
80	0126	0525a080.d	LA19J	DG-72-9.5	1
81	0140	0525a081.d	LA19K	DG-77-3	1
82	0155	0525a082.d	LA19L	DG-77-6	1
83	0209	0525a083.d	LA19N	DG-71-3	50
84	0224	0525a084.d	RINSE		1
85	0239	0525a085.d	DIESEL#8		1
86	0253	0525a086.d	MOIL#8		1
87	0308	0525a087.d	LA19O	DG-71-5.5	1
88	0322	0525a088.d	LA19P	DG-74-2.5	1
89	0337	0525a089.d	LA19Q	DG-74-6	50
90	0351	0525a090.d	LA19S	DG-78-3	50
91	0406	0525a091.d	XY79A	SL4-TSA MH178	
92	0420	0525a092.d	RINSE		1
93	0434	0525a093.d	DIESSL#9		1
94	0449	0525a094.d	MOIL#9		1

Maintenance / Comments

10/04/07

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Metals Analysis
QC Summary Data

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
Y3-RC11-S	KZ56A	07-9547	
Y3-RC11-SD	KZ56ADUP	07-9547	
Y3-RC11-SS	KZ56ASPK	07-9547	
Y3-RC01-S	KZ56B	07-9548	
PBS	KZ56MB1	07-9548	
LCSS	KZ56MB1SPK	07-9548	
Y3-RC13-S	KZ56C	07-9549	
Y3-RC14-S	KZ56D	07-9550	
Y3-RC10-S	KZ56E	07-9551	
Y3-RC05-S	KZ56F	07-9552	
Y3-RC07-S	KZ56G	07-9553	
Y3-RC08-S	KZ56H	07-9554	
Y3-RC15-S	KZ56I	07-9555	
Y3-RC09-S	KZ56J	07-9556	
Y3-RC02-S	KZ56K	07-9557	
Y3-RC12-S	KZ56L	07-9558	
Y3-RC06-S	KZ56M	07-9559	
Y3-RC04-S	KZ56N	07-9560	
PBW	KZ56MB2	07-9561	
LCSW	KZ56MB2SPK	07-9561	
Y3-RB-01	KZ56O	07-9561	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jenifer Bouldron

Date: 8/29/07 Title: Metals Supervisor

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
Y3-RC03-S	KZ56P	07-9562	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jenifer Bouldron

Date: _____ Title: Metals Supervisor

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC11-S
DUPLICATE

Lab Sample ID: KZ56A
LIMS ID: 07-9547
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Lead	6010B	73	76	4.0%	+/- 20%	
Mercury	7471A	0.19	0.20	5.1%	+/- 0.09	L
Zinc	6010B	195	209	6.9%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC11-S
MATRIX SPIKE

Lab Sample ID: KZ56A
LIMS ID: 07-9547
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Lead	6010B	73	481	433	94.2%	
Mercury	7471A	0.19	1.06	0.921	94.5%	
Zinc	6010B	195	305	108	102%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: KZ56MB
LIMS ID: 07-9548
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	2	2	U
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.05	0.05	U
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: KZ56LCS
LIMS ID: 07-9548
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Lead	6010B	205	200	102%	
Mercury	7471A	1.12	1.00	112%	
Zinc	6010B	51	50	102%	

Reported in mg/kg-dry

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: KZ56MB
LIMS ID: 07-9561
Matrix: Water
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	05/21/07	6010B	05/23/07	7439-92-1	Lead	0.02	0.02	U
7470A	05/21/07	7470A	05/24/07	7439-97-6	Mercury	0.0001	0.0001	U
3010A	05/21/07	6010B	05/23/07	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: KZ56LCS
LIMS ID: 07-9561
Matrix: Water
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Lead	6010B	2.06	2.00	103%	
Mercury	7470A	0.0022	0.0020	110%	
Zinc	6010B	0.50	0.50	100%	

Reported in mg/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Lead	PB	ICP	IP052321	2000.0	2046.46	102.3	2000.0	2063.69	103.2	2078.96	103.9	2070.19	103.5	2118.86	105.9	1971.76	98.6
Mercury	HG	CVA	HG052401	8.0	8.72	109.0	4.0	3.99	99.8	4.03	100.8	4.31	107.8	4.33	108.3	4.40	110.0
Zinc	ZN	ICP	IP052321	1000.0	1011.22	101.1	1000.0	1036.51	103.7	1037.59	103.8	1050.35	105.0	1043.46	104.3	1001.12	100.1

1597

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Lead	PB	ICP	IP052321	2000.0	2018.36	100.9	1999.32	100.0	2018.44	100.9	1997.56	99.9				
Mercury	HG	CVA	HG052401	4.0	4.07	101.8	4.27	106.8	4.45	111.3	4.50	112.5				
Zinc	ZN	ICP	IP052321	1000.0	1033.23	103.3	1025.99	102.6	1041.95	104.2	1031.52	103.2				

1598

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVA	HG052402	8.0	8.67	108.4	4.0	4.23	105.8	4.27	106.8						

1599

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Lead	PB	ICP	IP052321	20.0	20.22	101.1	20.83	104.2								
Mercury	HG	CVA	HG052401	0.1	0.11	110.0										
Zinc	ZN	ICP	IP052321	10.0	10.54	105.4	10.30	103.0								

1600

Control Limits: no control limits have been established by the EPA at this time.

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVA	HG052402		0.1	0.11	110.0										

1601

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Lead	PB	ICP	IP052321	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U
Mercury	HG	CVA	HG052401	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Zinc	ZN	ICP	IP052321	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

1602

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Lead	PB	ICP	IP052321	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U				
Mercury	HG	CVA	HG052401	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Zinc	ZN	ICP	IP052321	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U				

1603

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVA	HG052402	0.2	0.1	0.1	U	0.1	U	0.1	U						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

ICS SOURCE: I.V.

RUNID: IP052321

INSTRUMENT ID: OPTIMA ICP 1

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	202202.6	202140.0	101.1	202502.8	202555.7	101.3			
Antimony		1000	-7.4	1053.4	105.3	-8.6	1061.8	106.2			
Arsenic		1000	-5.7	1042.5	104.3	-6.6	1046.7	104.7			
Barium		1000	1.2	992.4	99.2	1.1	1010.3	101.0			
Beryllium		1000	0.1	1030.7	103.1	0.0	1057.4	105.7			
Boron			0.0	10.2		5.6	8.5				
Cadmium		1000	0.4	1030.9	103.1	0.5	1042.9	104.3			
Calcium	100000	100000	100242.5	99291.7	99.3	101237.9	100929.3	100.9			
Chromium		1000	5.5	983.9	98.4	5.6	1001.4	100.1			
Cobalt		1000	-2.0	955.4	95.5	-2.0	962.3	96.2			
Copper		1000	-1.5	1078.2	107.8	-1.1	1087.7	108.8			
Iron	200000	200000	198776.8	196430.9	98.2	200603.7	200378.2	100.2			
Lead		1000	-9.5	1001.1	100.1	-10.4	1006.1	100.6			
Magnesium	100000	100000	101817.6	101198.4	101.2	102319.3	102950.9	103.0			
Manganese		1000	-0.8	977.5	97.8	-0.7	993.2	99.3			
Molybdenum			5.0	4.9		5.5	4.9				
Nickel		1000	-4.6	980.2	98.0	-3.9	999.2	99.9			
Potassium			41.8	149.8		50.0	145.7				
Selenium		1000	-32.0	1016.9	101.7	-37.9	1017.8	101.8			
Silicon			-21.1	-3.3		15.1	-3.0				
Silver		1000	2.9	1048.3	104.8	3.1	1059.5	106.0			
Sodium			24.8	34.6		36.6	24.5				
Strontium			1.4	1.7		1.5	1.8				
Thallium		1000	-24.7	976.3	97.6	-28.7	985.6	98.6			
Tin			-10.6	-10.0		-10.3	-11.6				
Titanium			7.8	8.7		9.5	8.3				
Vanadium		1000	-1.8	1025.8	102.6	-1.9	1035.7	103.6			
Zinc		1000	-5.4	969.7	97.0	-4.2	1001.9	100.2			

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

IDL DATE: 3/4/2007

PROJECT: THEA FOSS OMMP YEAR

ICP LR DATE: 11/10/2006

SDG: KZ56

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	ICP LINEAR RANGE (ug/L)
Lead	PB	ICP	OPTIMA ICP 1	220.35		3	20.0	300000.0
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	
Zinc	ZN	ICP	OPTIMA ICP 1	206.20		20	10.0	100000.0

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

IEC DATE: 4/19/2007

SDG: KZ56

INSTRUMENT ID: OPTIMA ICP 1

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	-0.1758090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	20.9743000	0.0000000	0.0000000
Arsenic	188.98	0.0818334	0.0000000	0.0000000	0.0000000	0.0237305	0.0000000	0.0000000	0.3414030	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1669280	0.0000000	0.0000000	0.0402444
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	5.8427900	0.0000000	0.0000000	0.0000000	0.0000000	0.0916871	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.6131270	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0251596
Cobalt	228.62	0.0000000	0.0000000	0.1149300	0.0000000	0.0000000	0.0000000	0.0000000	0.0537718	0.0000000	0.0151460
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0041916	0.0000000	-0.3112390	-0.0395406	0.0000000	-0.0916528
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	-0.3930700	0.0000000	0.0000000	0.0000000	-0.0206945	0.0000000	0.0000000	-1.5051400	0.8275050	0.0409650
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.6373900	-1.0664500	0.0000000	0.4242520
Manganese	257.61	0.0103650	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0044110
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0283136	0.0000000	0.0000000	0.0607998	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	-0.1475100	0.0000000	0.0000000	0.0000000	-0.1323270	0.0000000	0.6172500	0.0000000	0.0000000	-0.1489190
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1442840
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	8.5353500	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.6295700	0.3492580	0.0000000	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2848860	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5394910	0.0000000	-5.8663800	0.0000000	0.0778178
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	-0.0425633	0.0000000	0.0000000	0.7239610	0.0000000	0.0000000

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ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

IEC DATE: 4/19/2007

SDG: KZ56

INSTRUMENT ID: OPTIMA ICP 1

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	19.6781000	0.0000000	0.0000000	0.0000000	2.3315700	0.0000000	12.2383000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.3372400	0.0000000	-4.9326300	0.0000000
Arsenic	188.98	0.0231492	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.5109500	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	-0.4234930	0.1227510	0.0000000	0.0000000	0.0000000	0.0000000	0.4823820	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0249999	0.0000000	2.6027500	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.2309450	0.0000000	0.0000000	0.0000000	0.0000000	0.0849198	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0124216	0.2775410	0.1362670	0.0000000	0.0000000	0.0000000	0.0445312	0.0000000	0.2777900	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.8575300	0.0000000	0.0000000	0.0000000	1.9215000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0053017	0.0000000	0.3103530	0.0000000	0.0000000	0.0000000	0.1896030	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.1437740	0.0000000	0.0000000	0.0000000	0.0000000	1.5929500	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-2.5563000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0200396	0.0000000	0.0000000	0.0000000	-0.4328389	0.0000000	0.0000000	0.0000000	-0.0369053	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.9857930	0.0000000	0.4070980	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.9746990	0.0000000	0.9069820	0.0000000	0.0000000	0.0000000	0.0000000	0.8100470	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.1730420	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1600600	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	37.9490000	0.0000000	0.0000000	177.5400000
Thallium	190.80	0.0000000	1.1828300	-2.9939700	0.0000000	0.0000000	0.0000000	0.6224040	0.0000000	3.4985900	0.0000000
Tin	189.93	-0.0348002	0.0000000	0.0000000	0.0000000	0.0000000	-0.6334970	0.4715870	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.7415390	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1273250	-6.6865400	0.0000000	0.0000000	0.0000000	0.6913550	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2899410	0.0000000	-0.1048080	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 5/21/2007

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
Y3-RC11-S	KZ56A	1.028	0.0	50.0
Y3-RC11-SD	KZ56ADUP	1.031	0.0	50.0
Y3-RC11-SS	KZ56ASPK	1.033	0.0	50.0
Y3-RC01-S	KZ56B	1.033	0.0	50.0
Y3-RC13-S	KZ56C	1.009	0.0	50.0
Y3-RC14-S	KZ56D	1.018	0.0	50.0
Y3-RC10-S	KZ56E	1.014	0.0	50.0
Y3-RC05-S	KZ56F	1.046	0.0	50.0
Y3-RC07-S	KZ56G	1.036	0.0	50.0
Y3-RC08-S	KZ56H	1.001	0.0	50.0
Y3-RC15-S	KZ56I	1.013	0.0	50.0
Y3-RC09-S	KZ56J	1.028	0.0	50.0
Y3-RC02-S	KZ56K	1.066	0.0	50.0
Y3-RC12-S	KZ56L	1.060	0.0	50.0
Y3-RC06-S	KZ56M	1.050	0.0	50.0
PBS	KZ56MB1	1.000	0.0	50.0
LCSS	KZ56MB1SPK	1.000	0.0	50.0
Y3-RC04-S	KZ56N	1.080	0.0	50.0
Y3-RC03-S	KZ56P	1.079	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

ANALYSIS METHOD: ICP

ARI PREP CODE: TWC

PREPDATE: 5/21/2007

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
PBW	KZ56MB2	0.000	50.0	50.0
LCSW	KZ56MB2SPK	0.000	50.0	50.0
Y3-RB-01	KZ56O	0.000	50.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 5/21/2007

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
Y3-RC11-S	KZ56A	0.239	0.0	100.0
Y3-RC11-SD	KZ56ADUP	0.241	0.0	100.0
Y3-RC11-SS	KZ56ASPK	0.243	0.0	100.0
Y3-RC01-S	KZ56B	0.275	0.0	100.0
Y3-RC13-S	KZ56C	0.243	0.0	100.0
Y3-RC14-S	KZ56D	0.286	0.0	100.0
Y3-RC10-S	KZ56E	0.251	0.0	100.0
Y3-RC05-S	KZ56F	0.218	0.0	100.0
Y3-RC07-S	KZ56G	0.206	0.0	100.0
Y3-RC08-S	KZ56H	0.229	0.0	100.0
Y3-RC15-S	KZ56I	0.207	0.0	100.0
Y3-RC09-S	KZ56J	0.221	0.0	100.0
Y3-RC02-S	KZ56K	0.259	0.0	100.0
Y3-RC12-S	KZ56L	0.243	0.0	100.0
Y3-RC06-S	KZ56M	0.268	0.0	100.0
PBS	KZ56MB1	0.200	0.0	100.0
LCSW	KZ56MB1SPK	0.200	0.0	100.0
Y3-RC04-S	KZ56N	0.254	0.0	100.0
Y3-RC03-S	KZ56P	0.269	0.0	100.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR

SDG: KZ56

ANALYSIS METHOD: CVA

ARI PREP CODE: TWM

PREPDATE: 5/21/2007

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
PBW	KZ56MB2	0.000	20.0	20.0
LCSW	KZ56MB2SPK	0.000	20.0	20.0
Y3-RB-01	KZ56O	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/23/2007

SDG: KZ56 | RUNID: IP052321 | METHOD: ICP | END DATE: 5/23/2007

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	ZZZZZZ	1.00	08280																														
S0	S0	1.00	08411																					X									X
S2	S2	1.00	08474																														
S3	S3	1.00	08520																					X									X
S4	S4	1.00	08565																														
S5	S5	1.00	09014																														
ICV	ICV	1.00	09250																					X									X
ICB	ICB	1.00	09313																					X									X
ZZZZZZ	ZZZZZZ	1.00	09380																														
CRI	CRII	1.00	09465																					X									X
ICSA	ICSAI	1.00	09532																					X									X
ICSAB	ICSABI	1.00	10000																					X									X
CCV	CCV1	1.00	10062																					X									X
CCB	CCB1	1.00	10130																					X									X
ZZZZZZ	KZ93MB1	2.00	10202																														
ZZZZZZ	KZ93A-L	10.00	10265																														
ZZZZZZ	KZ93A	2.00	10333																														
ZZZZZZ	KZ93ADUP	2.00	10395																														
ZZZZZZ	KZ93ASPK	2.00	10461																														
ZZZZZZ	KZ93APOST	2.00	10524																														
ZZZZZZ	KZ93B	2.00	10590																														
ZZZZZZ	KZ93C	2.00	11052																														
ZZZZZZ	KZ93MB1SPK	2.00	11114																														
CCV	CCV2	1.00	11182																					X									X
CCB	CCB2	1.00	11245																					X									X
CRI	CRIF	1.00	11313																					X									X
ICSA	ICSAF	1.00	11380																					X									X
ICSAB	ICSABF	1.00	11452																					X									X
CCV	CCV3	1.00	11524																					X									X
CCB	CCB3	1.00	12000																					X									X
ZZZZZZ	KZ34MB1	1.00	12075																														
ZZZZZZ	AlNEW	1.00	12143																														
ZZZZZZ	FeNEW	1.00	12215																														
ZZZZZZ	NiNEW	1.00	12292																														
ZZZZZZ	DILUENT	1.00	12364																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/23/2007

SDG: KZ56 | RUNID: IP052321 | METHOD: ICP | END DATE: 5/23/2007

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	KZ34B	1.00	12440																														
ZZZZZZ	KZ34ADUP	1.00	12505																														
ZZZZZZ	KZ34A	1.00	12574																														
ZZZZZZ	KZ34ASPK	1.00	13044																														
ZZZZZZ	KZ34MB1SPK	1.00	13110																														
CCV	CCV4	1.00	13174																					X									X
CCB	CCB4	1.00	13241																					X									X
ZZZZZZ	KZ34ASPK	1.00	13293																														
PBW	KZ56MB2	1.00	13355																					X									X
Y3-RB-01	KZ56O	1.00	13423																					X									X
Y3-RC01-S	KZ56B	2.00	13490																					X									X
Y3-RC13-S	KZ56C	2.00	13554																														
Y3-RC14-S	KZ56D	2.00	14021																														
Y3-RC11-SD	KZ56ADUP	2.00	14182																														
Y3-RC11-S	KZ56A	2.00	14562																														
Y3-RC11-SS	KZ56ASPK	2.00	15030																					X									X
LCSW	KZ56MB2SPK	1.00	15092																					X									X
CCV	CCV5	1.00	15155																					X									X
CCB	CCB5	1.00	15223																					X									X
PBS	KZ56MB1	2.00	15290																					X									X
Y3-RC11-SD	KZ56ADUP	2.00	15354																														
Y3-RC11-S	KZ56A	2.00	15421																					X									X
Y3-RC10-S	KZ56E	2.00	15504																														
Y3-RC05-S	KZ56F	2.00	15591																					X									X
Y3-RC07-S	KZ56G	2.00	16055																					X									X
Y3-RC08-S	KZ56H	2.00	16121																					X									X
Y3-RC15-S	KZ56I	2.00	16185																					X									X
ZZZZZZ	AIR	2.00	16253																														
LCSS	KZ56MB1SPK	2.00	16320																					X									X
CCV	CCV6	1.00	16480																					X									X
CCB	CCB6	1.00	16543																					X									X
Y3-RC09-S	KZ56J	2.00	17011																					X									X
CCV	CCV7	1.00	17074																					X									X
CCB	CCB7	1.00	17142																					X									X
ZZZZZZ	KZ60MB2	1.00	17205																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/23/2007

SDG: KZ56 | RUNID: IP052321 | METHOD: ICP | END DATE: 5/23/2007

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
Y3-RC12-S	KZ56L	2.00	17273																					X									X
Y3-RC13-S	KZ56C	2.00	17335																					X									X
Y3-RC14-S	KZ56D	2.00	17403																					X									X
Y3-RC06-S	KZ56M	2.00	17470																					X									X
Y3-RC04-S	KZ56N	2.00	17534																					X									X
Y3-RC03-S	KZ56P	2.00	18002																					X									X
Y3-RC02-S	KZ56K	2.00	18065																					X									X
ZZZZZZ	KZ60T	1.00	18133																														
ZZZZZZ	KZ60MB2SPK	1.00	18200																														
CCV	CCV8	1.00	18264																					X									X
CCB	CCB8	1.00	18331																					X									X
Y3-RC11-SD	KZ56ADUP	2.00	18394																					X									X
Y3-RC10-S	KZ56E	2.00	18462																					X									X
CCV	CCV9	1.00	18535																					X									X
CCB	CCB9	1.00	19011																					X									X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR | INSTRUMENT ID: CETAC MERCURY | START DATE: 5/24/2007

SDG: KZ56 | RUNID: HG052401 METHOD: CVA | END DATE: 5/24/2007

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09441														X																
S0.1	S0.1	1.00	09454														X																
S0.5	S0.5	1.00	09472														X																
S1	S1	1.00	09490														X																
S2	S2	1.00	09504														X																
S5	S5	1.00	09521														X																
S10	S10	1.00	09535														X																
ICV	AICV	1.00	09575														X																
ICB	ICB	1.00	09593														X																
CCV	ACCV1	1.00	10011														X																
CCB	CCB1	1.00	10025														X																
CRA	CRA	1.00	10043														X																
ZZZZZZ	KY79MB1	1.00	10060																														
ZZZZZZ	KY79MB1SPK	1.00	10074																														
ZZZZZZ	KY79A	1.00	10091																														
ZZZZZZ	KY79ADUP	1.00	10105																														
ZZZZZZ	KY79ASPK	1.00	10123																														
ZZZZZZ	KY79B	1.00	10140																														
ZZZZZZ	KY79C	1.00	10154																														
ZZZZZZ	LA10MB1	1.00	10172																														
ZZZZZZ	LA10MB1SPK	1.00	10190																														
CCV	ACCV2	1.00	10203														X																
CCB	CCB2	1.00	10222														X																
ZZZZZZ	LA10A	1.00	10235																														
ZZZZZZ	LA10ADUP	1.00	10253																														
ZZZZZZ	LA10ASPK	1.00	10270																														
ZZZZZZ	LA11MB1	1.00	10284																														
ZZZZZZ	LA11MB1SPK	1.00	10302																														
ZZZZZZ	LA11A	1.00	10315																														
ZZZZZZ	LA11ADUP	1.00	10333																														
ZZZZZZ	LA11ASPK	1.00	10351																														
ZZZZZZ	KZ75MB1	1.00	10364																														
ZZZZZZ	KZ75MB1SPK	1.00	10382																														
CCV	ACCV3	1.00	10400														X																
CCB	CCB3	1.00	10414														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR | INSTRUMENT ID: CETAC MERCURY | START DATE: 5/24/2007

SDG: KZ56 | RUNID: HG052401 METHOD: CVA | END DATE: 5/24/2007

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	KZ75REF1	2.00	10432																														
ZZZZZZ	KZ75A	1.00	10450																														
ZZZZZZ	KZ75ADUP	1.00	10464																														
ZZZZZZ	KZ75ASPK	1.00	10481																														
ZZZZZZ	KZ84MB1	1.00	10495																														
ZZZZZZ	KZ84MB1SPK	1.00	10512																														
ZZZZZZ	KZ84A	1.00	10530																														
ZZZZZZ	KZ84B	1.00	10544																														
ZZZZZZ	KZ93MB1	1.00	10561																														
ZZZZZZ	KZ93MB1SPK	1.00	10575																														
CCV	ACCV4	1.00	10593														X																
CCB	CCB4	1.00	11011														X																
ZZZZZZ	KZ93A	1.00	11025																														
ZZZZZZ	KZ93ADUP	1.00	11043																														
ZZZZZZ	KZ93ASPK	1.00	11061																														
ZZZZZZ	KZ93B	1.00	11074																														
ZZZZZZ	KZ93C	1.00	11092																														
ZZZZZZ	KZ60MB1	1.00	11110																														
ZZZZZZ	KZ60MB1SPK	1.00	11123																														
ZZZZZZ	KZ60A	1.00	11141																														
ZZZZZZ	KZ60B	1.00	11155																														
ZZZZZZ	KZ60C	1.00	11172																														
CCV	ACCV5	1.00	11190														X																
CCB	CCB5	1.00	11204														X																
ZZZZZZ	KZ60D	1.00	11222																														
ZZZZZZ	KZ60E	1.00	11240																														
ZZZZZZ	KZ60F	1.00	11254																														
ZZZZZZ	KZ60FDUP	1.00	11272																														
ZZZZZZ	KZ60FSPK	1.00	11290																														
ZZZZZZ	KZ60G	1.00	11303																														
ZZZZZZ	KZ60H	1.00	11321																														
CCV	ACCV6	1.00	11335														X																
CCB	CCB6	1.00	11353														X																
ZZZZZZ	LA39MB1	1.00	11374																														
ZZZZZZ	LA39MB1SPK	1.00	11392																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR | INSTRUMENT ID: CETAC MERCURY | START DATE: 5/24/2007

SDG: KZ56 | RUNID: HG052401 | METHOD: CVA | END DATE: 5/24/2007

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	LA39B	1.00	11405																													
ZZZZZZ	LA39BDUP	1.00	11423																													
ZZZZZZ	LA39BSPK	1.00	11440																													
ZZZZZZ	LA39C	1.00	11454																													
ZZZZZZ	LA39D	1.00	11472																													
ZZZZZZ	LA39E	1.00	11485																													
ZZZZZZ	LA39F	1.00	11503																													
ZZZZZZ	LA39G	1.00	11521																													
CCV	ACCV7	1.00	11535														X															
CCB	CCB7	1.00	11553														X															
PBW	KZ56MB1	1.00	11571														X															
LCSW	KZ56MB1SPK	1.00	11584														X															
Y3-RC11-S	KZ56A	1.00	12002														X															
Y3-RC11-SD	KZ56ADUP	1.00	12015														X															
Y3-RC11-SS	KZ56ASPK	1.00	12033														X															
Y3-RC01-S	KZ56B	1.00	12051														X															
Y3-RC13-S	KZ56C	1.00	12064														X															
Y3-RC14-S	KZ56D	1.00	12082														X															
Y3-RC10-S	KZ56E	1.00	12100														X															
Y3-RC05-S	KZ56F	1.00	12113														X															
CCV	ACCV8	1.00	12131														X															
CCB	CCB8	1.00	12145														X															
Y3-RC07-S	KZ56G	1.00	12163														X															
Y3-RC08-S	KZ56H	1.00	12181														X															
Y3-RC15-S	KZ56I	1.00	12195														X															
Y3-RC09-S	KZ56J	1.00	12213														X															
Y3-RC02-S	KZ56K	1.00	12230														X															
Y3-RC12-S	KZ56L	1.00	12244														X															
Y3-RC06-S	KZ56M	1.00	12262														X															
Y3-RC04-S	KZ56N	1.00	12275														X															
Y3-RC03-S	KZ56P	1.00	12293														X															
ZZZZZZ	LA04MB1	1.00	12310																													
CCV	ACCV9	1.00	12324														X															
CCB	CCB9	1.00	12342														X															

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Tetra Tech

PROJECT: THEA FOSS OMMP YEAR | INSTRUMENT ID: CETAC MERCURY | START DATE: 5/24/2007

SDG: KZ56 | RUNID: HG052402 | METHOD: CVA | END DATE: 5/24/2007

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	13311														X																
S0.1	S0.1	1.00	13325														X																
S0.5	S0.5	1.00	13343														X																
S1	S1	1.00	13360														X																
S2	S2	1.00	13374														X																
S5	S5	1.00	13392														X																
S10	S10	1.00	13410														X																
ICV	AICV	1.00	13441														X																
ICB	ICB	1.00	13454														X																
CCV	ACCV1	1.00	13472														X																
CCB	CCB1	1.00	13490														X																
CRA	CRA	1.00	13504														X																
ZZZZZZ	KZ60MB2	1.00	13521																														
ZZZZZZ	KZ60MB2SPK	1.00	13535																														
ZZZZZZ	KZ60T	1.00	13552																														
ZZZZZZ	LA04MB2	1.00	13570																														
ZZZZZZ	LA04MB2SPK	1.00	13584																														
ZZZZZZ	LA04G	1.00	14001																														
PBW	KZ56MB2	1.00	14015														X																
LCSW	KZ56MB2SPK	1.00	14033														X																
Y3-RB-01	KZ56O	1.00	14051														X																
CCV	ACCV2	1.00	14065														X																
CCB	CCB2	1.00	14083														X																

1619

Metals Analysis
Sample Data

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Y3-RC11-S
SAMPLE

Lab Sample ID: KZ56A
LIMS ID: 07-9547
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 44.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	4	73	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.09	0.19	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	195	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Y3-RC01-S
SAMPLE

Lab Sample ID: KZ56B
LIMS ID: 07-9548
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 25.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	8	111	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.1	0.3	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	4	380	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC13-S
SAMPLE

Lab Sample ID: KZ56C
LIMS ID: 07-9549
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 36.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	5	113	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.1	0.2	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	3	256	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Y3-RC14-S
SAMPLE

Lab Sample ID: KZ56D
LIMS ID: 07-9550
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 52.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	4	70	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.07	0.10	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	209	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Y3-RC10-S
SAMPLE

Lab Sample ID: KZ56E
LIMS ID: 07-9551
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 66.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	3	33	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.06	0.08	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	1	102	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Y3-RC05-S
SAMPLE

Lab Sample ID: KZ56F
LIMS ID: 07-9552
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 45.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	4	78	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.1	0.2	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	220	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Y3-RC07-S
SAMPLE

Lab Sample ID: KZ56G
LIMS ID: 07-9553
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 51.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	4	64	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.09	0.15	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	173	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC08-S
SAMPLE

Lab Sample ID: KZ56H
LIMS ID: 07-9554
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 48.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	4	70	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.09	0.18	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	184	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC15-S
SAMPLE

Lab Sample ID: KZ56I
LIMS ID: 07-9555
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 47.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	4	76	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.1	0.2	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	194	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Y3-RC09-S
SAMPLE

Lab Sample ID: KZ56J
LIMS ID: 07-9556
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 42.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	5	86	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.1	0.2	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	221	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC02-S
SAMPLE

Lab Sample ID: KZ56K
LIMS ID: 07-9557
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Percent Total Solids: 33.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	6	114	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.1	0.2	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	3	539	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC12-S
SAMPLE

Lab Sample ID: KZ56L
LIMS ID: 07-9558
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Percent Total Solids: 60.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	3	39	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.07	0.14	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	109	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC06-S
SAMPLE

Lab Sample ID: KZ56M
LIMS ID: 07-9559
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Percent Total Solids: 47.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	4	86	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.08	0.18	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	227	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC04-S
SAMPLE

Lab Sample ID: KZ56N
LIMS ID: 07-9560
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Percent Total Solids: 43.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	4	77	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.09	0.32	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	227	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RB-01
SAMPLE

Lab Sample ID: KZ560
LIMS ID: 07-9561
Matrix: Water
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	05/21/07	6010B	05/23/07	7439-92-1	Lead	0.02	0.02	U
7470A	05/21/07	7470A	05/24/07	7439-97-6	Mercury	0.0001	0.0001	U
3010A	05/21/07	6010B	05/23/07	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: Y3-RC03-S
SAMPLE

Lab Sample ID: KZ56P
LIMS ID: 07-9562
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/07

QC Report No: KZ56-Tetra Tech, Inc.
Project: THEA FOSS OMMP YEAR 3
3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Percent Total Solids: 54.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/21/07	6010B	05/23/07	7439-92-1	Lead	3	36	
CLP	05/21/07	7471A	05/24/07	7439-97-6	Mercury	0.07	0.10	
3050B	05/21/07	6010B	05/23/07	7440-66-6	Zinc	2	113	

U-Analyte undetected at given RL
RL-Reporting Limit

Metals Analysis
Instrument Raw Data

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

OPTIMA ICP SAMPLE RUN LOG

IEC Date: 4.19.07 Analysis Date: 5.23.07 Analyst: JWB

LR Date: 11.10.06 Page: 1 of 5

All corrections made by analyst unless otherwise noted. 5.23.07 JWB

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
Z		~~STD 0~~ ZZZZZZ			2366-1
		STD 0			↓
		2			2366-2
		3			-3
		4			-4
		5			-5
		ICV			2360-12
		ICB			
Z		~~CRA~~ ZZZZZZ			
CRA		~~ICSA~~ CRA			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		KZ93 MB1	SWC	2 ✓	
		A-L		10 ✓	serial dilution
		A		2	
		ADUP			Ca 27%, Cd >1RL CAF
		ASPK			Al, Ca, Fe STL, Mn 65%, Sb 37% CAF
		APOST			✓ .016ml 1000ml/sb / 0.08ml ICPSPK / 8ml Mn, Sb
		B			
		C			
		MB1SPK		✓	
		CCV2			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

OPTIMA ICP SAMPLE RUN LOG

IEC Date: — Analysis Date: 5.23.07 Analyst: JLB

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted. 5.23.07 JLB

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCB2			
		CRI			
		ICSA			
		ICSAB			
		CCV3			
		CCB3			
		KZ34 MB1	WMN	✓	Also KZ30 MB
		Al New		✓	CK 10 ppm
		Fe New		✓	↓
		Ni New		✓	↓
		DILUENT			
		KZ34 B	WMN		
		ADUP	↓	✓	
		A	↓		
	✓	ASPK	↓		Rerun Anlow 0.08 ml ICP spk / 8 mls
		MB1SPK	↓	✓	↓ ↓
		CCV4			
		CCB4			
		KZ34 ASPK	WMN	✓	0.08 ml ICP spk / 8 mls Fe SPK
		KZ66 MB2	TWC	✓	
	[illegible]	O	↓		
		B	SWC	2	~~Sc Alow Sc disconnect~~
	✓	C	↓	↓	Sc low Sc disconnect
	✓	D	↓	↓	↓ ↓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

OPTIMA ICP SAMPLE RUN LOG

IEC Date: — Analysis Date: 5.23.07 Analyst: JLB

LR Date: — Page: 3 of 5

All corrections made by analyst unless otherwise noted. 5.23.07 JLB

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	KZ56 ADUP	SWC	2	Sc flow - disconnect
	✓	A			Sc noisy rerun
		A SPK		✓	
		MB2SPK	TWC	✓	
		CCV5			
		CCB5			
		KZ56 MB1	SWC	2 ✓	
	✓	ADUP		✓	rerun noisy
		A			
	✓	E			noisy rerun
		F			
		G			
		H			
		I			
Air		~~J Air~~			missed tube
		MB1SPK		✓	
		CCV6			
		CCB6			
		KZ56 J	SWC	2	
		CCV7			
		CCB7			
		KZ60 MB2	TWC	✓	
		KZ56 L	SWC	2	
		C			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

OPTIMA ICP SAMPLE RUN LOG

IEC Date: — Analysis Date: 5.23.07 Analyst: [illegible]

LR Date: — Page: 4 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		KZ56 D	SWC	2	
		↓ M	↓	↓	
		N			
		P			
		↓ K	↓	↓	
		KZ60 T	TWC	✓	
		↓ MBZSPK	↓	✓	
		CCV8			
		CCB8			
		KZ56 AEVP	SWC	2	
		↓ E	↓	↓	
		CCV9			
		CCB9			end pkg
		GFASPK0D			STDS CK - (filter/other STD ckts)
		↓ New			
		GFASTK0D			
		↓ New			
		ICSABSTK 0			
		↓ N			
		SB100 0			
		↓ N			
		Sb 1000 0			(2000)
		↓ N			↓
		B500 0			[illegible]

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	150.0 kPa	0.50 L/min

5/23/2007 8:24:35 AM Hg ReAlign... Actual peak offset (nm): -0.001
Drift (nm): -0.000 Slit adjustment: 0

Analysis Begun

Start Time: 5/23/2007 8:28:00 AM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\CRISET.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Method Loaded
Method Name: ARIIEC6
IEC File: IEC32MD.iec
Method Description: 12Axial Elements
Method Last Saved: 4/19/2007 11:35:05 AM
MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1
Sample ID: ~~Calib Blank 1~~ ZZZZZZ
Analyst:
Initial Sample Wt:
Dilution:
5/23.7 JR
Autosampler Location: 1
Date Collected: 5/23/2007 8:28:01 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	62450.9	49.28	0.08%	100.0	%
ScR 361.383	-6.5	27.90	429.85%	100.0	%
Ag 328.068†	1141.0	34.31	3.01%	[0.00]	mg/L
Al 308.215†	-45.3	107.87	238.18%	[0.00]	mg/L
As 188.979†	29.1	4.55	15.64%	[0.00]	mg/L
B 249.677†	-0.5	2.10	422.45%	[0.00]	mg/L
Ba 233.527†	4.1	11.03	271.17%	[0.00]	mg/L
Be 313.042†	122.6	339.97	277.37%	[0.00]	mg/L
Ca 317.933†	18.0	53.96	299.54%	[0.00]	mg/L
Cd 228.802†	-68.7	1.32	1.92%	[0.00]	mg/L
Co 228.616†	386.6	6.83	1.77%	[0.00]	mg/L
Cr 267.716†	-2.9	8.79	299.76%	[0.00]	mg/L
Cu 324.752†	1646.6	24.08	1.46%	[0.00]	mg/L
Fe 273.955†	-10.9	30.88	283.86%	[0.00]	mg/L
K 766.490†	240.8	678.32	279.41%	[0.00]	mg/L
Mg 279.077†	5.6	14.95	955.32%	[0.00]	mg/L
Mn 257.610†	200.6	0.51	79.37%	[0.00]	mg/L
Mo 202.031†	48.7	6.05	12.42%	[0.00]	mg/L
Na 589.592†	9.7	28.16	290.79%	[0.00]	mg/L
Na 330.237†	-17.9	49.53	276.29%	[0.00]	mg/L
Ni 231.604†	0.0	1.18	>999.9%	[0.00]	mg/L
Pb 220.353†	37.9	8.02	21.17%	[0.00]	mg/L
Sb 206.836†	-112.5	2.85	2.54%	[0.00]	mg/L
Se 196.026†	-103.1	4.03	3.90%	[0.00]	mg/L
Si 288.158†	2.7	6.57	241.74%	[0.00]	mg/L
Sn 189.927†	9.0	3.13	34.98%	[0.00]	mg/L
Sr 421.552†	-634.9	1761.86	277.48%	[0.00]	mg/L
Ti 334.903†	-21.3	50.27	236.28%	[0.00]	mg/L
Tl 190.801†	-65.2	4.50	6.91%	[0.00]	mg/L
V 292.402†	217.8	5.83	2.67%	[0.00]	mg/L
Zn 206.200†	-2.1	7.33	347.57%	[0.00]	mg/L

Analysis Begun

Start Time: 5/23/2007 8:41:09 AM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\CRISET.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 5/23/2007 8:41:10 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1913094.1	5029.39	0.26%	100.0	%
ScR 361.383	161081.2	951.58	0.59%	100.0	%
Ag 328.068†	1185.0	37.35	3.15%	[0.00]	mg/L
Al 308.215†	-335.7	3.85	1.15%	[0.00]	mg/L
As 188.979†	31.4	4.56	14.51%	[0.00]	mg/L
B 249.677†	5.5	6.90	125.66%	[0.00]	mg/L
Ba 233.527†	27.6	5.52	19.98%	[0.00]	mg/L
Be 313.042†	1001.0	5.43	0.54%	[0.00]	mg/L
Ca 317.933†	142.4	26.79	18.82%	[0.00]	mg/L
Cd 228.802†	132.5	2.08	1.57%	[0.00]	mg/L
Co 228.616†	407.4	5.93	1.46%	[0.00]	mg/L
Cr 267.716†	-32.2	4.85	15.06%	[0.00]	mg/L
Cu 324.752†	1689.1	15.30	0.91%	[0.00]	mg/L
Fe 273.955†	-90.7	2.48	2.73%	[0.00]	mg/L
K 766.490†	1912.8	38.75	2.03%	[0.00]	mg/L
Mg 279.077†	-44.3	12.53	28.29%	[0.00]	mg/L
Mn 257.610†	1.0	6.09	605.67%	[0.00]	mg/L
Mo 202.031†	-55.2	2.33	4.21%	[0.00]	mg/L
Na 589.592†	73.7	17.62	23.92%	[0.00]	mg/L
Na 330.237†	-150.5	14.63	9.72%	[0.00]	mg/L
Ni 231.604†	4.0	1.92	47.90%	[0.00]	mg/L
Pb 220.353†	43.8	6.24	14.24%	[0.00]	mg/L
Sb 206.836†	-118.1	3.62	3.06%	[0.00]	mg/L
Se 196.026†	-102.5	4.44	4.34%	[0.00]	mg/L
Si 288.158†	23.7	3.60	15.19%	[0.00]	mg/L
Sn 189.927†	8.5	5.06	59.55%	[0.00]	mg/L
Sr 421.552†	-5235.7	49.90	0.95%	[0.00]	mg/L
Ti 334.903†	-178.1	16.01	8.99%	[0.00]	mg/L
Tl 190.801†	-67.1	5.84	8.71%	[0.00]	mg/L
V 292.402†	217.2	38.68	17.81%	[0.00]	mg/L
Zn 206.200†	-21.6	0.94	4.34%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 5/23/2007 8:47:41 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	150.0 kPa	0.50 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1905646.1	11745.98	0.62%	99.61	%
ScR 361.383	159895.1	1617.37	1.01%	99.26	%
Ba 233.527†	84516.5	239.96	0.28%	[10]	mg/L
Cd 228.802†	432588.5	1566.40	0.36%	[10]	mg/L
Co 228.616†	615219.3	576.32	0.09%	[10]	mg/L
Cr 267.716†	47990.7	201.28	0.42%	[10]	mg/L
Cu 324.752†	2376595.9	403.41	0.02%	[10]	mg/L
Mn 257.610†	358458.6	1406.98	0.39%	[10]	mg/L
V 292.402†	1232021.1	2105.97	0.17%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 5/23/2007 8:52:04 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	150.0 kPa	0.50 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1883855.7	11415.55	0.61%	98.47	%
ScR 361.383	160394.5	1634.98	1.02%	99.57	%
Ag 328.068†	178025.1	520.75	0.29%	[1.0]	mg/L
As 188.979†	14313.3	98.07	0.69%	[10]	mg/L
B 249.677†	21936.9	157.89	0.72%	[10]	mg/L
Be 313.042†	1233162.0	1799.65	0.15%	[5.0]	mg/L
Na 589.592†	112867.3	760.13	0.67%	[50]	mg/L
Ni 231.604†	17263.4	141.26	0.82%	[10]	mg/L
Pb 220.353†	71904.3	333.91	0.46%	[10]	mg/L
Se 196.026†	12194.8	26.68	0.22%	[10]	mg/L
Sr 421.552†	1600006.0	4220.28	0.26%	[5]	mg/L
Tl 190.801†	23458.5	114.98	0.49%	[10]	mg/L
Zn 206.200†	19749.3	164.36	0.83%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 5/23/2007 8:56:58 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1910344.2	3906.04	0.20%	99.86	%
ScR 361.383	160102.0	767.66	0.48%	99.39	%
Mo 202.031†	87392.0	168.43	0.19%	[10]	mg/L
Sb 206.836†	21954.2	33.76	0.15%	[10]	mg/L
Si 288.158†	19296.9	77.79	0.40%	[10]	mg/L
Sn 189.927†	35680.3	114.07	0.32%	[10]	mg/L
Ti 334.903†	213051.0	985.58	0.46%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 5/23/2007 9:01:45 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1815528.5	4441.40	0.24%	94.90	%
ScR 361.383	155438.5	718.57	0.46%	96.50	%
Al 308.215†	52542.6	324.93	0.62%	[30]	mg/L
Ca 317.933†	299348.8	1496.10	0.50%	[30]	mg/L
Fe 273.955†	137527.2	61.00	0.04%	[100]	mg/L
K 766.490†	144251.5	673.27	0.47%	[100]	mg/L
Mg 279.077†	38689.0	237.94	0.62%	[30]	mg/L
Na 330.237†	2342.4	4.23	0.18%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	178000	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1751	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1431	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	2194	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	8452	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	246600	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	9978	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	43260	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	61520	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	4799	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	237700	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1375	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1443	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1290	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	35850	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	8739	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	2257	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	23.42	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	1726	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7190	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2195	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1219	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1930	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3568	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	320000	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	21310	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2346	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	123200	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	1975	0.00000	1.000000	

Analysis Begun

Start Time: 5/23/2007 9:25:00 AM
Plasma On Time: 5/23/2007 7:36:11 AM
Logged In Analyst: metals
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N0060101Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\CRISET.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Sample ID: CV
Analyst:
Initial Sample Wt:
Dilution: 1X
Autosampler Location: 7
Date Collected: 5/23/2007 9:25:01 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1868892.3	97.69	%	0.158				0.16%
ScR 361.383	160291.8	99.51	%	0.204				0.20%
Ag 328.068†	172615.2	0.9701	mg/L	0.01022	0.9701	mg/L	0.01022	1.05%
Al 308.215†	3549.9	1.993	mg/L	0.0045	1.993	mg/L	0.0045	0.22%
As 188.979†	2868.8	2.002	mg/L	0.0081	2.002	mg/L	0.0081	0.41%
B 249.677†	2185.5	0.9997	mg/L	0.00177	0.9997	mg/L	0.00177	0.18%
Ba 233.527†	8189.8	0.9689	mg/L	0.00269	0.9689	mg/L	0.00269	0.28%
Be 313.042†	243514.1	0.9848	mg/L	0.00765	0.9848	mg/L	0.00765	0.78%
Ca 317.933†	19828.3	1.987	mg/L	0.0061	1.987	mg/L	0.0061	0.31%
Cd 228.802†	44123.7	1.008	mg/L	0.0095	1.008	mg/L	0.0095	0.94%
Co 228.616†	59641.4	0.9682	mg/L	0.01073	0.9682	mg/L	0.01073	1.11%
Cr 267.716†	4601.5	0.9581	mg/L	0.00249	0.9581	mg/L	0.00249	0.26%
Cu 324.752†	245925.2	1.035	mg/L	0.0099	1.035	mg/L	0.0099	0.96%
Fe 273.955†	2763.1	2.008	mg/L	0.0044	2.008	mg/L	0.0044	0.22%
K 766.490†	28927.9	20.05	mg/L	0.104	20.05	mg/L	0.104	0.52%
Mg 279.077†	2609.3	2.028	mg/L	0.0020	2.028	mg/L	0.0020	0.10%
Mn 257.610†	34557.5	0.9649	mg/L	0.00221	0.9649	mg/L	0.00221	0.23%
Mo 202.031†	8601.2	0.9841	mg/L	0.00407	0.9841	mg/L	0.00407	0.41%
Na 589.592†	113829.1	50.43	mg/L	0.041	50.43	mg/L	0.041	0.08%
Na 330.237†	1186.5	50.29	mg/L	0.171	50.29	mg/L	0.171	0.34%
Ni 231.604†	1725.0	1.000	mg/L	0.0048	1.000	mg/L	0.0048	0.48%
Pb 220.353†	14706.3	2.046	mg/L	0.0299	2.046	mg/L	0.0299	1.46%
Sb 206.836†	4609.6	2.095	mg/L	0.0073	2.095	mg/L	0.0073	0.35%
Se 196.026†	2466.7	2.020	mg/L	0.0053	2.020	mg/L	0.0053	0.26%
Si 288.158†	3992.3	2.069	mg/L	0.0125	2.069	mg/L	0.0125	0.60%
Sn 189.927†	3335.3	0.9357	mg/L	0.00273	0.9357	mg/L	0.00273	0.29%
Sr 421.552†	319473.5	0.9981	mg/L	0.00635	0.9981	mg/L	0.00635	0.64%
Ti 334.903†	21146.8	0.9916	mg/L	0.00554	0.9916	mg/L	0.00554	0.56%
Tl 190.801†	4720.9	2.010	mg/L	0.0100	2.010	mg/L	0.0100	0.50%
V 292.402†	120371.1	0.9885	mg/L	0.01186	0.9885	mg/L	0.01186	1.20%
Zn 206.200†	1998.4	1.011	mg/L	0.0025	1.011	mg/L	0.0025	0.25%

Sequence No.: 2
Sample ID: CB
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 9:31:35 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1895139.7	99.06	%	0.309				0.31%
ScR 361.383	161787.8	100.4	%	0.64				0.64%
Ag 328.068†	-2.8	-0.00002	mg/L	0.000467	-0.00002	mg/L	0.000467	>999.9%
Al 308.215†	25.8	0.01471	mg/L	0.005364	0.01471	mg/L	0.005364	36.46%
As 188.979†	-0.1	-0.00007	mg/L	0.002989	-0.00007	mg/L	0.002989	>999.9%
B 249.677†	17.0	0.00776	mg/L	0.001581	0.00776	mg/L	0.001581	20.37%
Ba 233.527†	5.0	0.00059	mg/L	0.000598	0.00059	mg/L	0.000598	101.50%
Be 313.042†	53.7	0.00022	mg/L	0.000045	0.00022	mg/L	0.000045	20.58%
Ca 317.933†	10.4	0.00104	mg/L	0.001390	0.00104	mg/L	0.001390	133.33%
Cd 228.802†	3.1	0.00007	mg/L	0.000128	0.00007	mg/L	0.000128	181.52%
Co 228.616†	-4.7	-0.00008	mg/L	0.000127	-0.00008	mg/L	0.000127	168.01%
Cr 267.716†	3.4	0.00072	mg/L	0.000415	0.00072	mg/L	0.000415	57.77%
Cu 324.752†	41.4	0.00017	mg/L	0.000204	0.00017	mg/L	0.000204	117.21%
Fe 273.955†	1.1	0.00079	mg/L	0.001035	0.00079	mg/L	0.001035	131.35%
K 766.490†	-40.7	-0.02824	mg/L	0.027580	-0.02824	mg/L	0.027580	97.68%
Mg 279.077†	-13.2	-0.01024	mg/L	0.010493	-0.01024	mg/L	0.010493	102.47%
Mn 257.610†	17.1	0.00048	mg/L	0.000065	0.00048	mg/L	0.000065	13.66%
Mo 202.031†	4.3	0.00050	mg/L	0.000323	0.00050	mg/L	0.000323	65.25%
Na 589.592†	23.5	0.01040	mg/L	0.006734	0.01040	mg/L	0.006734	64.76%
Na 330.237†	25.7	1.095	mg/L	0.5252	1.095	mg/L	0.5252	47.95%
Ni 231.604†	-4.8	-0.00280	mg/L	0.001179	-0.00280	mg/L	0.001179	42.09%
Pb 220.353†	-0.5	-0.00006	mg/L	0.001447	-0.00006	mg/L	0.001447	>999.9%
Sb 206.836†	2.2	0.00100	mg/L	0.000973	0.00100	mg/L	0.000973	97.67%
Se 196.026†	3.1	0.00255	mg/L	0.001341	0.00255	mg/L	0.001341	52.58%
Si 288.158†	-2.2	-0.00112	mg/L	0.007650	-0.00112	mg/L	0.007650	685.59%
Sn 189.927†	5.9	0.00166	mg/L	0.001320	0.00166	mg/L	0.001320	79.31%
Sr 421.552†	38.8	0.00012	mg/L	0.000126	0.00012	mg/L	0.000126	103.83%
Ti 334.903†	-6.6	-0.00031	mg/L	0.000370	-0.00031	mg/L	0.000370	119.29%
Tl 190.801†	0.3	0.00013	mg/L	0.001093	0.00013	mg/L	0.001093	843.21%
V 292.402†	0.3	0.00001	mg/L	0.000144	0.00001	mg/L	0.000144	>999.9%
Zn 206.200†	1.7	0.00084	mg/L	0.000872	0.00084	mg/L	0.000872	103.79%

Sequence No.: 3
Sample ID: ~~CRI~~ 222222
Analyst:
Initial Sample Wt: 5.23.7 lw
Dilution: 1X

Autosampler Location: 8
Date Collected: 5/23/2007 9:38:07 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1906582.2	99.66	%	0.464				0.47%
ScR 361.383	159925.3	99.28	%	0.942				0.95%
Ag 328.068†	507.6	0.00286	mg/L	0.000184	0.00286	mg/L	0.000184	6.45%
Al 308.215†	107.3	0.06109	mg/L	0.010931	0.06109	mg/L	0.010931	17.89%
As 188.979†	74.6	0.05210	mg/L	0.001012	0.05210	mg/L	0.001012	1.94%
B 249.677†	47.9	0.02189	mg/L	0.001684	0.02189	mg/L	0.001684	7.69%
Ba 233.527†	26.3	0.00311	mg/L	0.000024	0.00311	mg/L	0.000024	0.78%
Be 313.042†	262.7	0.00106	mg/L	0.000061	0.00106	mg/L	0.000061	5.79%
Ca 317.933†	522.5	0.05236	mg/L	0.002203	0.05236	mg/L	0.002203	4.21%
Cd 228.802†	104.3	0.00211	mg/L	0.000201	0.00211	mg/L	0.000201	9.52%
Co 228.616†	179.2	0.00291	mg/L	0.000152	0.00291	mg/L	0.000152	5.22%
Cr 267.716†	32.9	0.00686	mg/L	0.001660	0.00686	mg/L	0.001660	24.19%
Cu 324.752†	411.1	0.00173	mg/L	0.000085	0.00173	mg/L	0.000085	4.92%
Fe 273.955†	73.5	0.05346	mg/L	0.002158	0.05346	mg/L	0.002158	4.04%
K 766.490†	692.0	0.4797	mg/L	0.02371	0.4797	mg/L	0.02371	4.94%
Mg 279.077†	62.6	0.04856	mg/L	0.020266	0.04856	mg/L	0.020266	41.73%
Mn 257.610†	52.9	0.00148	mg/L	0.000145	0.00148	mg/L	0.000145	9.77%
Mo 202.031†	45.2	0.00518	mg/L	0.000619	0.00518	mg/L	0.000619	11.97%
Na 589.592†	1247.5	0.5526	mg/L	0.00724	0.5526	mg/L	0.00724	1.31%
Na 330.237†	18.9	0.8037	mg/L	0.10821	0.8037	mg/L	0.10821	13.46%
Ni 231.604†	13.2	0.00766	mg/L	0.004076	0.00766	mg/L	0.004076	53.20%
Pb 220.353†	152.4	0.02122	mg/L	0.000345	0.02122	mg/L	0.000345	1.63%
Sb 206.836†	111.3	0.05066	mg/L	0.001996	0.05066	mg/L	0.001996	3.94%
Se 196.026†	61.0	0.05005	mg/L	0.003711	0.05005	mg/L	0.003711	7.42%
Si 288.158†	114.8	0.05948	mg/L	0.004240	0.05948	mg/L	0.004240	7.13%
Sn 189.927†	36.3	0.01022	mg/L	0.001021	0.01022	mg/L	0.001021	10.00%
Sr 421.552†	300.4	0.00094	mg/L	0.000039	0.00094	mg/L	0.000039	4.16%
Ti 334.903†	111.4	0.00522	mg/L	0.001237	0.00522	mg/L	0.001237	23.69%
Tl 190.801†	125.8	0.05363	mg/L	0.001276	0.05363	mg/L	0.001276	2.38%
V 292.402†	362.1	0.00301	mg/L	0.000201	0.00301	mg/L	0.000201	6.70%
Zn 206.200†	20.3	0.01028	mg/L	0.001652	0.01028	mg/L	0.001652	16.07%

User canceled analysis.

5/23/7AM

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Analysis Begun

Start Time: 5/23/2007 9:46:56 AM
Plasma On Time: 5/23/2007 7:36:11 AM
Logged In Analyst: metals
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N0060101Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

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Sequence No.: 3
Autosampler Location: 8
Sample ID: CRI
Date Collected: 5/23/2007 9:46:56 AM
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution: 1X
Sample Prep Vol:

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1882861.0	98.42	%	0.430				0.44%
ScR 361.383	160280.9	99.50	%	0.953				0.96%
Ag 328.068†	525.7	0.00296	mg/L	0.000252	0.00296	mg/L	0.000252	8.51%
Al 308.215†	99.9	0.05686	mg/L	0.025412	0.05686	mg/L	0.025412	44.69%
As 188.979†	77.2	0.05392	mg/L	0.003674	0.05392	mg/L	0.003674	6.81%
B 249.677†	45.2	0.02062	mg/L	0.002231	0.02062	mg/L	0.002231	10.82%
Ba 233.527†	25.7	0.00304	mg/L	0.000142	0.00304	mg/L	0.000142	4.69%
Be 313.042†	285.2	0.00115	mg/L	0.000061	0.00115	mg/L	0.000061	5.33%
Ca 317.933†	527.3	0.05285	mg/L	0.001899	0.05285	mg/L	0.001899	3.59%
Cd 228.802†	96.7	0.00192	mg/L	0.000090	0.00192	mg/L	0.000090	4.68%
Co 228.616†	174.6	0.00283	mg/L	0.000164	0.00283	mg/L	0.000164	5.80%
Cr 267.716†	33.1	0.00690	mg/L	0.001339	0.00690	mg/L	0.001339	19.42%
Cu 324.752†	443.8	0.00187	mg/L	0.000053	0.00187	mg/L	0.000053	2.84%
Fe 273.955†	71.8	0.05223	mg/L	0.000326	0.05223	mg/L	0.000326	0.62%
K 766.490†	723.2	0.5013	mg/L	0.05187	0.5013	mg/L	0.05187	10.35%
Mg 279.077†	60.3	0.04677	mg/L	0.004636	0.04677	mg/L	0.004636	9.91%
Mn 257.610†	45.7	0.00128	mg/L	0.000070	0.00128	mg/L	0.000070	5.43%
Mo 202.031†	46.9	0.00536	mg/L	0.000454	0.00536	mg/L	0.000454	8.46%
Na 589.592†	1207.6	0.5350	mg/L	0.00544	0.5350	mg/L	0.00544	1.02%
Na 330.237†	23.9	1.014	mg/L	0.7489	1.014	mg/L	0.7489	73.84%
Ni 231.604†	18.9	0.01096	mg/L	0.001266	0.01096	mg/L	0.001266	11.55%
Pb 220.353†	145.2	0.02022	mg/L	0.001969	0.02022	mg/L	0.001969	9.74%
Sb 206.836†	117.5	0.05349	mg/L	0.003623	0.05349	mg/L	0.003623	6.77%
Se 196.026†	70.4	0.05774	mg/L	0.004887	0.05774	mg/L	0.004887	8.46%
Si 288.158†	119.4	0.06190	mg/L	0.005272	0.06190	mg/L	0.005272	8.52%
Sn 189.927†	37.4	0.01052	mg/L	0.000508	0.01052	mg/L	0.000508	4.83%
Sr 421.552†	253.6	0.00079	mg/L	0.000203	0.00079	mg/L	0.000203	25.63%
Ti 334.903†	118.2	0.00554	mg/L	0.000115	0.00554	mg/L	0.000115	2.08%
Tl 190.801†	125.8	0.05361	mg/L	0.001285	0.05361	mg/L	0.001285	2.40%
V 292.402†	378.8	0.00314	mg/L	0.000289	0.00314	mg/L	0.000289	9.20%
Zn 206.200†	20.8	0.01054	mg/L	0.000850	0.01054	mg/L	0.000850	8.06%

Sequence No.: 4
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 9
Date Collected: 5/23/2007 9:53:28 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1803313.3	94.26	%	0.713				0.76%
ScR 361.383	157649.4	97.87	%	0.947				0.97%
Ag 328.068†	-4583.6	0.00294	mg/L	0.000335	0.00294	mg/L	0.000335	11.40%
Al 308.215†	354142.2	202.2	mg/L	0.82	202.2	mg/L	0.82	0.40%
As 188.979†	22.4	-0.00565	mg/L	0.003787	-0.00565	mg/L	0.003787	66.99%
B 249.677†	-38.4	-0.00002	mg/L	0.001617	-0.00002	mg/L	0.001617	>999.9%
Ba 233.527†	77.7	0.00119	mg/L	0.000714	0.00119	mg/L	0.000714	59.99%
Be 313.042†	21.1	0.00005	mg/L	0.000093	0.00005	mg/L	0.000093	185.02%
Ca 317.933†	1000249.4	100.2	mg/L	0.27	100.2	mg/L	0.27	0.27%
Cd 228.802†	21.5	0.00040	mg/L	0.000123	0.00040	mg/L	0.000123	30.36%
Co 228.616†	61.7	-0.00202	mg/L	0.000188	-0.00202	mg/L	0.000188	9.30%
Cr 267.716†	8.4	0.00549	mg/L	0.000547	0.00549	mg/L	0.000547	9.96%
Cu 324.752†	-4463.6	-0.00153	mg/L	0.000254	-0.00153	mg/L	0.000254	16.66%
Fe 273.955†	273372.1	198.8	mg/L	0.28	198.8	mg/L	0.28	0.14%
K 766.490†	60.3	0.04181	mg/L	0.017953	0.04181	mg/L	0.017953	42.94%
Mg 279.077†	131416.2	101.8	mg/L	0.91	101.8	mg/L	0.91	0.90%
Mn 257.610†	120.5	-0.00081	mg/L	0.000438	-0.00081	mg/L	0.000438	54.02%
Mo 202.031†	68.4	0.00499	mg/L	0.000165	0.00499	mg/L	0.000165	3.31%
Na 589.592†	56.0	0.02482	mg/L	0.012409	0.02482	mg/L	0.012409	50.00%
Na 330.237†	31.1	0.4778	mg/L	0.20029	0.4778	mg/L	0.20029	41.92%
Ni 231.604†	-7.9	-0.00463	mg/L	0.000303	-0.00463	mg/L	0.000303	6.55%
Pb 220.353†	-596.4	-0.00951	mg/L	0.000479	-0.00951	mg/L	0.000479	5.04%
Sb 206.836†	-94.2	-0.00743	mg/L	0.003436	-0.00743	mg/L	0.003436	46.26%
Se 196.026†	-127.7	-0.03200	mg/L	0.006477	-0.03200	mg/L	0.006477	20.24%
Si 288.158†	-40.7	-0.02109	mg/L	0.001660	-0.02109	mg/L	0.001660	7.87%
Sn 189.927†	-50.5	-0.01063	mg/L	0.000883	-0.01063	mg/L	0.000883	8.31%
Sr 421.552†	449.9	0.00141	mg/L	0.000224	0.00141	mg/L	0.000224	15.91%
Ti 334.903†	165.9	0.00778	mg/L	0.002322	0.00778	mg/L	0.002322	29.84%
Tl 190.801†	-57.9	-0.02473	mg/L	0.001629	-0.02473	mg/L	0.001629	6.59%
V 292.402†	1677.5	-0.00179	mg/L	0.000219	-0.00179	mg/L	0.000219	12.20%
Zn 206.200†	-19.0	-0.00536	mg/L	0.000565	-0.00536	mg/L	0.000565	10.54%

Sequence No.: 5
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 10
Date Collected: 5/23/2007 10:00:04 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1816672.3	94.96	%	0.561				0.59%
ScR 361.383	154334.9	95.81	%	0.458				0.48%
Ag 328.068†	181551.5	1.048	mg/L	0.0027	1.048	mg/L	0.0027	0.26%
Al 308.215†	354054.5	202.1	mg/L	1.07	202.1	mg/L	1.07	0.53%
As 188.979†	1523.1	1.043	mg/L	0.0031	1.043	mg/L	0.0031	0.30%
B 249.677†	-20.5	0.01018	mg/L	0.002096	0.01018	mg/L	0.002096	20.60%
Ba 233.527†	8457.7	0.9924	mg/L	0.00585	0.9924	mg/L	0.00585	0.59%
Be 313.042†	254869.9	1.031	mg/L	0.0071	1.031	mg/L	0.0071	0.69%
Ca 317.933†	990767.8	99.29	mg/L	0.640	99.29	mg/L	0.640	0.64%
Cd 228.802†	44862.4	1.031	mg/L	0.0039	1.031	mg/L	0.0039	0.38%
Co 228.616†	58973.9	0.9554	mg/L	0.00187	0.9554	mg/L	0.00187	0.20%
Cr 267.716†	4706.8	0.9839	mg/L	0.00647	0.9839	mg/L	0.00647	0.66%
Cu 324.752†	252101.5	1.078	mg/L	0.0007	1.078	mg/L	0.0007	0.06%
Fe 273.955†	270148.1	196.4	mg/L	1.14	196.4	mg/L	1.14	0.58%
K 766.490†	216.1	0.1498	mg/L	0.03030	0.1498	mg/L	0.03030	20.23%
Mg 279.077†	130613.1	101.2	mg/L	0.51	101.2	mg/L	0.51	0.51%
Mn 257.610†	35170.8	0.9775	mg/L	0.00743	0.9775	mg/L	0.00743	0.76%
Mo 202.031†	67.7	0.00488	mg/L	0.000420	0.00488	mg/L	0.000420	8.61%
Na 589.592†	78.0	0.03456	mg/L	0.013409	0.03456	mg/L	0.013409	38.80%
Na 330.237†	45.4	0.6313	mg/L	0.34093	0.6313	mg/L	0.34093	54.00%
Ni 231.604†	1691.1	0.9802	mg/L	0.00572	0.9802	mg/L	0.00572	0.58%
Pb 220.353†	6666.9	1.001	mg/L	0.0029	1.001	mg/L	0.0029	0.29%
Sb 206.836†	2268.9	1.053	mg/L	0.0021	1.053	mg/L	0.0021	0.20%
Se 196.026†	1156.1	1.017	mg/L	0.0034	1.017	mg/L	0.0034	0.34%
Si 288.158†	-6.4	-0.00333	mg/L	0.004265	-0.00333	mg/L	0.004265	128.08%
Sn 189.927†	-50.7	-0.01004	mg/L	0.001598	-0.01004	mg/L	0.001598	15.91%
Sr 421.552†	623.0	0.00169	mg/L	0.000107	0.00169	mg/L	0.000107	6.33%
Ti 334.903†	191.7	0.00871	mg/L	0.000900	0.00871	mg/L	0.000900	10.33%
Tl 190.801†	2302.3	0.9763	mg/L	0.00253	0.9763	mg/L	0.00253	0.26%
V 292.402†	127529.5	1.026	mg/L	0.0025	1.026	mg/L	0.0025	0.25%
Zn 206.200†	1908.0	0.9697	mg/L	0.00703	0.9697	mg/L	0.00703	0.73%

Sequence No.: 6
Sample ID: CV
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/23/2007 10:06:28 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1862185.9	97.34	%	0.291				0.30%
ScR 361.383	159923.5	99.28	%	0.362				0.36%
Ag 328.068†	173464.8	0.9748	mg/L	0.00657	0.9748	mg/L	0.00657	0.67%
Al 308.215†	3602.6	2.023	mg/L	0.0032	2.023	mg/L	0.0032	0.16%
As 188.979†	2887.6	2.015	mg/L	0.0129	2.015	mg/L	0.0129	0.64%
B 249.677†	2206.1	1.009	mg/L	0.0056	1.009	mg/L	0.0056	0.55%
Ba 233.527†	8308.8	0.9830	mg/L	0.00365	0.9830	mg/L	0.00365	0.37%
Be 313.042†	247923.1	1.003	mg/L	0.0024	1.003	mg/L	0.0024	0.24%
Ca 317.933†	20366.8	2.041	mg/L	0.0049	2.041	mg/L	0.0049	0.24%
Cd 228.802†	44509.8	1.017	mg/L	0.0024	1.017	mg/L	0.0024	0.24%
Co 228.616†	60029.6	0.9745	mg/L	0.00545	0.9745	mg/L	0.00545	0.56%
Cr 267.716†	4670.0	0.9724	mg/L	0.00258	0.9724	mg/L	0.00258	0.27%
Cu 324.752†	246349.8	1.037	mg/L	0.0054	1.037	mg/L	0.0054	0.53%
Fe 273.955†	2834.4	2.059	mg/L	0.0067	2.059	mg/L	0.0067	0.32%
K 766.490†	29047.8	20.14	mg/L	0.032	20.14	mg/L	0.032	0.16%
Mg 279.077†	2668.1	2.073	mg/L	0.0079	2.073	mg/L	0.0079	0.38%
Mn 257.610†	34822.3	0.9723	mg/L	0.00098	0.9723	mg/L	0.00098	0.10%
Mo 202.031†	8641.5	0.9887	mg/L	0.00508	0.9887	mg/L	0.00508	0.51%
Na 589.592†	113313.1	50.20	mg/L	0.174	50.20	mg/L	0.174	0.35%
Na 330.237†	1184.9	50.21	mg/L	0.690	50.21	mg/L	0.690	1.37%
Ni 231.604†	1756.7	1.019	mg/L	0.0025	1.019	mg/L	0.0025	0.24%
Pb 220.353†	14830.0	2.064	mg/L	0.0100	2.064	mg/L	0.0100	0.48%
Sb 206.836†	4626.0	2.102	mg/L	0.0113	2.102	mg/L	0.0113	0.54%
Se 196.026†	2485.1	2.035	mg/L	0.0058	2.035	mg/L	0.0058	0.29%
Si 288.158†	4011.6	2.079	mg/L	0.0096	2.079	mg/L	0.0096	0.46%
Sn 189.927†	3364.9	0.9440	mg/L	0.00627	0.9440	mg/L	0.00627	0.66%
Sr 421.552†	321760.5	1.005	mg/L	0.0041	1.005	mg/L	0.0041	0.41%
Ti 334.903†	21354.4	1.001	mg/L	0.0010	1.001	mg/L	0.0010	0.10%
Tl 190.801†	4743.5	2.020	mg/L	0.0186	2.020	mg/L	0.0186	0.92%
V 292.402†	121036.3	0.9940	mg/L	0.00594	0.9940	mg/L	0.00594	0.60%
Zn 206.200†	2048.4	1.037	mg/L	0.0011	1.037	mg/L	0.0011	0.11%

Sequence No.: 7
Sample ID: CB
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 10:13:03 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1894335.6	99.02	%	0.503				0.51%
ScR 361.383	159540.4	99.04	%	0.338				0.34%
Ag 328.068†	2.3	0.00001	mg/L	0.000339	0.00001	mg/L	0.000339	>999.9%
Al 308.215†	22.9	0.01308	mg/L	0.003696	0.01308	mg/L	0.003696	28.26%
As 188.979†	4.0	0.00277	mg/L	0.000671	0.00277	mg/L	0.000671	24.20%
B 249.677†	17.1	0.00781	mg/L	0.000730	0.00781	mg/L	0.000730	9.34%
Ba 233.527†	0.5	0.00006	mg/L	0.000260	0.00006	mg/L	0.000260	452.05%
Be 313.042†	26.1	0.00011	mg/L	0.000068	0.00011	mg/L	0.000068	64.86%
Ca 317.933†	61.1	0.00613	mg/L	0.001106	0.00613	mg/L	0.001106	18.05%
Cd 228.802†	-1.4	-0.00005	mg/L	0.000056	-0.00005	mg/L	0.000056	113.42%
Co 228.616†	9.9	0.00016	mg/L	0.000095	0.00016	mg/L	0.000095	59.42%
Cr 267.716†	3.9	0.00081	mg/L	0.000866	0.00081	mg/L	0.000866	106.58%
Cu 324.752†	-54.7	-0.00023	mg/L	0.000076	-0.00023	mg/L	0.000076	33.19%
Fe 273.955†	10.4	0.00755	mg/L	0.000998	0.00755	mg/L	0.000998	13.22%
K 766.490†	-16.8	-0.01166	mg/L	0.045113	-0.01166	mg/L	0.045113	386.88%
Mg 279.077†	-2.5	-0.00191	mg/L	0.009994	-0.00191	mg/L	0.009994	523.05%
Mn 257.610†	19.4	0.00054	mg/L	0.000124	0.00054	mg/L	0.000124	22.93%
Mo 202.031†	1.0	0.00011	mg/L	0.000194	0.00011	mg/L	0.000194	175.88%
Na 589.592†	33.1	0.01465	mg/L	0.001336	0.01465	mg/L	0.001336	9.12%
Na 330.237†	10.9	0.4668	mg/L	0.76065	0.4668	mg/L	0.76065	162.96%
Ni 231.604†	-2.1	-0.00122	mg/L	0.002250	-0.00122	mg/L	0.002250	184.47%
Pb 220.353†	1.5	0.00022	mg/L	0.000950	0.00022	mg/L	0.000950	434.46%
Sb 206.836†	4.6	0.00212	mg/L	0.003430	0.00212	mg/L	0.003430	162.15%
Se 196.026†	1.8	0.00149	mg/L	0.002144	0.00149	mg/L	0.002144	143.74%
Si 288.158†	-0.6	-0.00031	mg/L	0.001253	-0.00031	mg/L	0.001253	407.27%
Sn 189.927†	4.6	0.00129	mg/L	0.000525	0.00129	mg/L	0.000525	40.75%
Sr 421.552†	-98.9	-0.00031	mg/L	0.000110	-0.00031	mg/L	0.000110	35.64%
Ti 334.903†	4.5	0.00021	mg/L	0.000846	0.00021	mg/L	0.000846	396.78%
Tl 190.801†	6.3	0.00267	mg/L	0.001233	0.00267	mg/L	0.001233	46.14%
V 292.402†	11.5	0.00010	mg/L	0.000052	0.00010	mg/L	0.000052	53.04%
Zn 206.200†	-0.3	-0.00016	mg/L	0.001164	-0.00016	mg/L	0.001164	732.28%

Analysis Begun

Start Time: 5/23/2007 10:20:24 AM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523A.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Sample ID: KZ93 MB1 SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 1X
Autosampler Location: 21
Date Collected: 5/23/2007 10:20:24 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ93 MB1 SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 MB1 SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1916766.8	100.2	%	0.94				0.94%
ScR 361.383	161784.3	100.4	%	1.21				1.20%
[illegible] 328.068†	-7.2	[illegible]	mg/L	0.000128	-0.00008	mg/L	0.000256	337.20%
Al 308.215†	33.8	[illegible]	mg/L	0.013350	0.03855	mg/L	0.026701	69.26%
As 188.979†	2.3	[illegible]	mg/L	0.003069	0.00324	mg/L	0.006137	189.52%
B 249.677†	7.3	0.00332	mg/L	0.001646	0.00664	mg/L	0.003293	49.61%
[illegible] 233.527†	2.8	[illegible]	mg/L	0.000429	0.00066	mg/L	0.000857	129.43%
[illegible] 313.042†	58.0	[illegible]	mg/L	0.000079	0.00047	mg/L	0.000159	33.77%
[illegible] 317.933†	196.3	[illegible]	mg/L	0.000995	0.03933	mg/L	0.001990	5.06%
[illegible] 228.802†	-5.0	[illegible]	mg/L	0.000136	-0.00025	mg/L	0.000271	108.25%
[illegible] 228.616†	15.7	[illegible]	mg/L	0.000180	0.00050	mg/L	0.000360	71.51%
[illegible] 267.716†	5.2	[illegible]	mg/L	0.000295	0.00219	mg/L	0.000590	26.96%
[illegible] 324.752†	-53.5	[illegible]	mg/L	0.000157	-0.00045	mg/L	0.000315	70.37%
[illegible] 273.955†	26.0	[illegible]	mg/L	0.002467	0.03781	mg/L	0.004934	13.05%
K 766.490†	-14.1	-0.00980	mg/L	0.011369	-0.01959	mg/L	0.022739	116.06%
[illegible] 279.077†	4.8	[illegible]	mg/L	0.003440	0.00743	mg/L	0.006881	92.57%
[illegible] 257.610†	19.1	[illegible]	mg/L	0.000061	0.00107	mg/L	0.000122	11.39%
Mo 202.031†	-0.5	-0.00006	mg/L	0.000360	-0.00012	mg/L	0.000720	598.17%
Na 589.592†	32.0	0.01418	mg/L	0.005983	0.02837	mg/L	0.011967	42.19%
Na 330.237†	-6.9	-0.2938	mg/L	0.59798	-0.5876	mg/L	1.19596	203.52%
[illegible] 231.604†	-3.9	[illegible]	mg/L	0.001352	-0.00456	mg/L	0.002704	59.29%
[illegible] 220.353†	2.7	[illegible]	mg/L	0.000563	0.00076	mg/L	0.001127	147.88%
[illegible] 206.836†	-7.7	[illegible]	mg/L	0.002499	-0.00705	mg/L	0.004998	70.91%
[illegible] 196.026†	7.4	[illegible]	mg/L	0.003026	0.01224	mg/L	0.006052	49.46%
Si 288.158†	-2.4	-0.00125	mg/L	0.004069	-0.00251	mg/L	0.008137	324.48%
Sn 189.927†	5.2	0.00146	mg/L	0.001571	0.00291	mg/L	0.003141	107.86%
Sr 421.552†	-88.5	-0.00028	mg/L	0.000172	-0.00055	mg/L	0.000344	62.17%
Ti 334.903†	25.0	0.00117	mg/L	0.000507	0.00235	mg/L	0.001014	43.24%
Tl 190.801†	2.1	0.00088	mg/L	0.002448	0.00176	mg/L	0.004897	278.30%
[illegible] 292.402†	15.3	[illegible]	mg/L	0.000166	0.00026	mg/L	0.000332	130.04%
[illegible] 206.200†	3.4	[illegible]	mg/L	0.000471	0.00346	mg/L	0.000942	27.22%

Sequence No.: 2
Sample ID: KZ93 A-L SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 10X

Autosampler Location: 22
Date Collected: 5/23/2007 10:26:58 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

serial dilution

Nebulizer Parameters: KZ93 A-L SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 A-L SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1920006.2	100.4	%	0.41				0.40%
ScR 361.383	162931.3	101.1	%	0.63				0.63%
Ag 328.068†	-556.5	-0.00054	mg/L	0.000350	0.00537	mg/L	0.003499	65.16%
Al 308.215†	41094.3	23.26	mg/L	0.076	234.6	mg/L	0.76	0.32%
As 188.979†	17.4	0.00795	mg/L	0.002389	0.07988	mg/L	0.023891	29.91%
B 249.677†	6.0	0.00505	mg/L	0.001670	0.05048	mg/L	0.016703	33.09%
Ba 233.527†	883.1	0.1034	mg/L	0.00110	1.034	mg/L	0.0110	1.07%
Be 313.042†	147.1	0.00037	mg/L	0.000024	0.00372	mg/L	0.000243	6.53%
Ca 317.933†	149714.6	15.00	mg/L	0.044	150.0	mg/L	0.44	0.29%
Cd 228.802†	25.5	0.00051	mg/L	0.000180	0.00514	mg/L	0.001801	35.01%
Co 228.616†	657.4	0.00807	mg/L	0.000087	0.08070	mg/L	0.000867	1.07%
Cr 267.716†	118.0	0.02498	mg/L	0.000723	0.2498	mg/L	0.00723	2.89%
Cu 324.752†	8316.1	0.03701	mg/L	0.000288	0.3701	mg/L	0.00288	0.78%
Fe 273.955†	34798.8	25.50	mg/L	0.069	253.0	mg/L	0.69	0.27%
K 766.490†	2202.6	1.527	mg/L	0.0174	15.27	mg/L	0.174	1.14%
Mg 279.077†	6067.7	4.694	mg/L	0.0160	46.94	mg/L	0.160	0.34%
Mn 257.610†	15224.4	0.4244	mg/L	0.00141	4.244	mg/L	0.0141	0.33%
Mo 202.031†	30.3	0.00304	mg/L	0.000751	0.03043	mg/L	0.007512	24.69%
Na 589.592†	3835.7	1.699	mg/L	0.0032	16.99	mg/L	0.032	0.19%
Na 330.237†	50.2	2.120	mg/L	0.2216	21.20	mg/L	2.216	10.45%
Ni 231.604†	27.1	0.001570	mg/L	0.004030	0.1570	mg/L	0.04030	25.66%
Pb 220.353†	149.4	0.02928	mg/L	0.000726	0.2928	mg/L	0.00726	2.48%
Sb 206.836†	-14.4	-0.00100	mg/L	0.000657	-0.01005	mg/L	0.006572	65.38%
Se 196.026†	-22.7	-0.00993	mg/L	0.001311	-0.09929	mg/L	0.013114	13.21%
Si 288.158†	1305.3	0.6764	mg/L	0.00751	6.764	mg/L	0.0751	1.11%
Sn 189.927†	10.4	0.00253	mg/L	0.000568	0.02529	mg/L	0.005676	22.44%
Sr 421.552†	40915.8	0.1278	mg/L	0.00021	1.278	mg/L	0.0021	0.17%
Ti 334.903†	24630.6	1.156	mg/L	0.0015	11.56	mg/L	0.015	0.13%
Tl 190.801†	-0.9	-0.00188	mg/L	0.003026	-0.01882	mg/L	0.030262	160.77%
V 292.402†	9277.7	0.07276	mg/L	0.000715	0.7276	mg/L	0.00715	0.98%
Zn 206.200†	216.0	0.01100	mg/L	0.00027	1.100	mg/L	0.0027	0.25%

Sequence No.: 3
Sample ID: KZ93 A SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 23
Date Collected: 5/23/2007 10:33:32 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ93 A SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 A SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1932438.0	101.0	%	0.59				0.59%
ScR 361.383	167304.4	103.9	%	0.61				0.58%
[illegible] 328.068†	-2678.7	[illegible]	mg/L	0.000376	0.00421	mg/L	0.000752	17.88%
Al 308.215†	194077.8	[illegible]	mg/L	0.23	221.6	mg/L	0.45	0.20%
As 188.979†	84.0	[illegible]	mg/L	0.002466	0.07823	mg/L	0.004931	6.30%
B 249.677†	31.3	0.02508	mg/L	0.002690	0.05016	mg/L	0.005379	10.72%
Ba 233.527†	4085.8	[illegible]	mg/L	0.00268	0.9570	mg/L	0.00537	0.56%
Be 313.042†	543.7	[illegible]	mg/L	0.000015	0.00224	mg/L	0.000030	1.36%
Ca 317.933†	702712.7	[illegible]	mg/L	0.151	140.8	mg/L	0.30	0.21%
Cd 228.802†	130.6	[illegible]	mg/L	0.000203	0.00532	mg/L	0.000405	7.62%
Co 228.616†	3128.9	[illegible]	mg/L	0.000174	0.07694	mg/L	0.000349	0.45%
Cr 267.716†	516.9	[illegible]	mg/L	0.00076	0.2190	mg/L	0.00153	0.70%
Cu 324.752†	40939.9	[illegible]	mg/L	0.00024	0.3634	mg/L	0.00047	0.13%
Fe 273.955†	162910.9	[illegible]	mg/L	0.08	236.9	mg/L	0.15	0.06%
K 766.490†	10766.0	7.463	mg/L	0.0442	14.93	mg/L	0.088	0.59%
Mg 279.077†	28370.8	[illegible]	mg/L	0.046	43.90	mg/L	0.092	0.21%
Mn 257.610†	70867.3	[illegible]	mg/L	0.0062	3.951	mg/L	0.0124	0.31%
Mo 202.031†	102.7	0.00975	mg/L	0.000992	0.01950	mg/L	0.001984	10.17%
Na 589.592†	17857.2	7.911	mg/L	0.0240	15.82	mg/L	0.048	0.30%
Na 330.237†	201.2	8.506	mg/L	0.3009	17.01	mg/L	0.602	3.54%
Ni 231.604†	145.8	[illegible]	mg/L	0.001902	0.1688	mg/L	0.00380	2.25%
Pb 220.353†	706.1	[illegible]	mg/L	0.00186	0.2767	mg/L	0.00372	1.35%
Sb 206.836†	-70.6	[illegible]	mg/L	0.003370	-0.01129	mg/L	0.006739	59.68%
Se 196.026†	-82.3	-0.02655	mg/L	0.007410	-0.05310	mg/L	0.014820	27.91%
Si 288.158†	6446.1	3.340	mg/L	0.0216	6.681	mg/L	0.0431	0.65%
Sn 189.927†	68.6	0.01738	mg/L	0.001092	0.03477	mg/L	0.002184	6.28%
Sr 421.552†	194192.7	0.6067	mg/L	0.00116	1.213	mg/L	0.0023	0.19%
Ti 334.903†	116883.1	5.486	mg/L	0.0161	10.97	mg/L	0.032	0.29%
Tl 190.801†	-15.5	-0.01362	mg/L	0.000808	-0.02724	mg/L	0.001616	5.93%
V 292.402†	44730.5	[illegible]	mg/L	0.00168	0.7020	mg/L	0.00336	0.48%
Zn 206.200†	990.6	[illegible]	mg/L	0.00572	1.009	mg/L	0.0114	1.13%

Sequence No.: 4
Sample ID: KZ93 ADUP SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 24
Date Collected: 5/23/2007 10:39:55 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ93 ADUP SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 ADUP SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1918398.0	100.3	%	0.62				0.62%
ScR 361.383	165951.8	103.0	%	1.39				1.35%
Ag 328.068†	-2604.7	[illegible]	mg/L	0.000191	0.00423	mg/L	0.000382	9.04%
Al 308.215†	179659.8	[illegible]	mg/L	0.33	205.1	mg/L	0.66	0.32%
As 188.979†	79.5	[illegible]	mg/L	0.001548	0.07321	mg/L	0.003095	4.23%
B 249.677†	22.9	0.02101	mg/L	0.001499	0.04203	mg/L	0.002999	7.13%
Ba 233.527†	3951.5	[illegible]	mg/L	0.00467	0.9254	mg/L	0.00934	1.01%
Be 313.042†	521.3	[illegible]	mg/L	0.000131	0.00210	mg/L	0.000263	12.48%
Ca 317.933†	538534.6	[illegible]	mg/L	0.196	107.9	mg/L	0.39	0.36%
Cd 228.802†	95.8	[illegible]	mg/L	0.000105	0.00375	mg/L	0.000210	5.59%
Co 228.616†	3092.4	[illegible]	mg/L	0.000419	0.07480	mg/L	0.000838	1.12%
Cr 267.716†	493.6	[illegible]	mg/L	0.00095	0.2093	mg/L	0.00189	0.90%
Cu 324.752†	40197.5	[illegible]	mg/L	0.00015	0.3567	mg/L	0.00031	0.09%
Fe 273.955†	159063.9	[illegible]	mg/L	0.17	231.3	mg/L	0.34	0.15%
K 766.490†	10112.6	7.010	mg/L	0.0393	14.02	mg/L	0.079	0.56%
Mg 279.077†	27530.5	[illegible]	mg/L	0.050	42.60	mg/L	0.099	0.23%
Mn 257.610†	61685.0	[illegible]	mg/L	0.0021	3.439	mg/L	0.0043	0.12%
Mo 202.031†	84.4	0.00813	mg/L	0.000569	0.01626	mg/L	0.001139	7.00%
Na 589.592†	15818.9	7.008	mg/L	0.0194	14.02	mg/L	0.039	0.28%
Na 330.237†	172.7	7.488	mg/L	0.4234	14.98	mg/L	0.847	5.65%
Ni 231.604†	144.9	[illegible]	mg/L	0.003584	0.1678	mg/L	0.00717	4.27%
Pb 220.353†	713.2	[illegible]	mg/L	0.00048	0.2718	mg/L	0.00096	0.35%
Sb 206.836†	-71.3	[illegible]	mg/L	0.002636	-0.01390	mg/L	0.005271	37.93%
Se 196.026†	-69.5	[illegible]	mg/L	0.001742	-0.03918	mg/L	0.003484	8.89%
Si 288.158†	6825.2	3.537	mg/L	0.0597	7.074	mg/L	0.1193	1.69%
Sn 189.927†	80.0	0.02044	mg/L	0.001661	0.04088	mg/L	0.003322	8.13%
Sr 421.552†	178955.4	0.5591	mg/L	0.00310	1.118	mg/L	0.0062	0.55%
Ti 334.903†	122658.3	5.757	mg/L	0.0057	11.51	mg/L	0.011	0.10%
Tl 190.801†	-8.3	-0.01041	mg/L	0.002782	-0.02082	mg/L	0.005564	26.72%
V 292.402†	43461.7	[illegible]	mg/L	0.00062	0.6813	mg/L	0.00124	0.18%
Zn 206.200†	907.3	[illegible]	mg/L	0.00364	0.9232	mg/L	0.00728	0.79%

27% >IRL

Sequence No.: 5
Sample ID: KZ93 ASPK SWC
Analyst: SUB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 25
Date Collected: 5/23/2007 10:46:16 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ93 ASPK SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 ASPK SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1894898.5	99.05	%	0.200				0.20%
ScR 361.383	162425.4	100.8	%	0.29				0.29%
Ag 328.068†	84737.2	[illegible]	mg/L	0.00121	0.9848	mg/L	0.00241	0.25%
Al 308.215†	199731.8	[illegible]	mg/L	0.23	228.0	mg/L	0.46	0.20%
As 188.979†	2967.9	[illegible]	mg/L	0.0176	4.108	mg/L	0.0352	0.86%
B 249.677†	24.4	0.02254	mg/L	0.001335	0.04508	mg/L	0.002669	5.92%
Ba 233.527†	20037.7	[illegible]	mg/L	0.0167	4.732	mg/L	0.0334	0.71%
Be 313.042†	123018.1	[illegible]	mg/L	0.00337	0.9931	mg/L	0.00674	0.68%
Ca 317.933†	682446.3	[illegible]	mg/L	0.373	136.8	mg/L	0.75	0.55%
Cd 228.802†	23124.3	[illegible]	mg/L	0.00095	1.045	mg/L	0.0019	0.18%
Co 228.616†	31989.0	[illegible]	mg/L	0.00038	1.016	mg/L	0.0008	0.07%
Cr 267.716†	2777.4	[illegible]	mg/L	0.00451	1.160	mg/L	0.0090	0.78%
Cu 324.752†	162905.9	[illegible]	mg/L	0.00100	1.389	mg/L	0.0020	0.14%
Fe 273.955†	155383.6	[illegible]	mg/L	0.38	226.0	mg/L	0.77	0.34%
K 766.490†	24647.5	17.09	mg/L	0.059	34.17	mg/L	0.119	0.35%
Mg 279.077†	40463.0	[illegible]	mg/L	0.122	62.66	mg/L	0.245	0.39%
Mn 257.610†	82763.3	[illegible]	mg/L	0.0007	4.616	mg/L	0.0014	0.03%
Mo 202.031†	98.1	0.00925	mg/L	0.000942	0.01850	mg/L	0.001883	10.18%
Na 589.592†	42138.2	18.67	mg/L	0.009	37.33	mg/L	0.018	0.05%
Na 330.237†	450.8	18.90	mg/L	0.080	37.80	mg/L	0.161	0.43%
Ni 231.604†	987.9	[illegible]	mg/L	0.00204	1.144	mg/L	0.0041	0.36%
Pb 220.353†	15080.4	[illegible]	mg/L	0.0112	4.278	mg/L	0.0224	0.52%
Sb 206.836†	1590.4	[illegible]	mg/L	0.00538	1.487	mg/L	0.0108	0.72%
Se 196.026†	2445.7	[illegible]	mg/L	0.0160	4.089	mg/L	0.0321	0.78%
Si 288.158†	5424.0	2.811	mg/L	0.0215	5.622	mg/L	0.0430	0.77%
Sn 189.927†	58.0	0.01539	mg/L	0.001132	0.03078	mg/L	0.002264	7.36%
Sr 421.552†	353215.2	1.103	mg/L	0.0024	2.206	mg/L	0.0048	0.22%
Ti 334.903†	108978.1	5.115	mg/L	0.0170	10.23	mg/L	0.034	0.33%
Tl 190.801†	4608.6	1.956	mg/L	0.0127	3.911	mg/L	0.0255	0.65%
V 292.402†	101196.6	[illegible]	mg/L	0.00189	1.626	mg/L	0.0038	0.23%
Zn 206.200†	1933.3	[illegible]	mg/L	0.00947	1.963	mg/L	0.0189	0.96%

Sequence No.: 6
Sample ID: KZ93 APOST SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 26
Date Collected: 5/23/2007 10:52:41 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mn, Sb

Nebulizer Parameters: KZ93 APOST SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 APOST SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1908874.1	99.78	%	0.032				0.03%
ScR 361.383	165470.1	102.7	%	0.66				0.65%
Ag 328.068†	86982.3	0.5060	mg/L	0.00159	1.012	mg/L	0.0032	0.31%
Al 308.215†	196739.4	112.3	mg/L	0.29	224.6	mg/L	0.58	0.26%
As 188.979†	3021.9	2.091	mg/L	0.0194	4.182	mg/L	0.0388	0.93%
B 249.677†	27.6	0.02461	mg/L	0.001485	0.04921	mg/L	0.002970	6.04%
Ba 233.527†	20567.8	2.428	mg/L	0.0152	4.857	mg/L	0.0304	0.63%
Be 313.042†	130337.2	0.5261	mg/L	0.00208	1.052	mg/L	0.0042	0.40%
Ca 317.933†	797042.9	79.88	mg/L	0.333	159.8	mg/L	0.67	0.42%
Cd 228.802†	23172.2	0.5233	mg/L	0.00202	1.047	mg/L	0.0040	0.39%
Co 228.616†	33527.2	0.5323	mg/L	0.00080	1.065	mg/L	0.0016	0.15%
Cr 267.716†	2885.2	0.6026	mg/L	0.00157	1.205	mg/L	0.0031	0.26%
Cu 324.752†	169506.2	0.7228	mg/L	0.00055	1.446	mg/L	0.0011	0.08%
Fe 273.955†	164404.8	119.5	mg/L	0.21	239.1	mg/L	0.41	0.17%
K 766.490†	25461.9	17.65	mg/L	0.018	35.30	mg/L	0.037	0.10%
Mg 279.077†	41488.3	32.12	mg/L	0.112	64.24	mg/L	0.223	0.35%
Mn 257.610†	88149.2	2.458	mg/L	0.0091	4.916	mg/L	0.0183	0.37%
Mo 202.031†	108.9	0.01016	mg/L	0.000596	0.02033	mg/L	0.001191	5.86%
Na 589.592†	40798.0	18.07	mg/L	0.095	36.15	mg/L	0.190	0.52%
Na 330.237†	442.6	18.49	mg/L	0.171	36.98	mg/L	0.342	0.92%
Ni 231.604†	1021.0	0.5925	mg/L	0.00579	1.185	mg/L	0.0116	0.98%
Pb 220.353†	15218.2	2.158	mg/L	0.0139	4.315	mg/L	0.0279	0.65%
Pb 206.836†	4324.0	1.988	mg/L	0.0133	3.977	mg/L	0.0266	0.67%
Se 196.026†	2479.8	2.074	mg/L	0.0087	4.149	mg/L	0.0173	0.42%
Si 288.158†	7189.4	3.726	mg/L	0.0359	7.451	mg/L	0.0718	0.96%
Sn 189.927†	52.5	0.01449	mg/L	0.001133	0.02899	mg/L	0.002266	7.82%
Sr 421.552†	357339.0	1.116	mg/L	0.0053	2.232	mg/L	0.0107	0.48%
Ti 334.903†	116918.8	5.488	mg/L	0.0185	10.98	mg/L	0.037	0.34%
Tl 190.801†	4735.0	2.009	mg/L	0.0176	4.018	mg/L	0.0352	0.88%
V 292.402†	107325.6	0.8620	mg/L	0.00194	1.724	mg/L	0.0039	0.23%
Zn 206.200†	1988.8	1.010	mg/L	0.0093	2.020	mg/L	0.0186	0.92%

96.0%

99.4%

Sequence No.: 7
Sample ID: KZ93 B SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 27
Date Collected: 5/23/2007 10:59:06 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ93 B SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 B SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1929054.9	100.8	%	0.15				0.15%
ScR 361.383	166931.8	103.6	%	0.07				0.07%
Ag 328.068†	-2569.4	-0.00128	mg/L	0.000202	0.00355	mg/L	0.000405	11.38%
Al 308.215†	228664.9	130.5	mg/L	0.29	261.1	mg/L	0.58	0.22%
As 188.979†	91.5	0.04170	mg/L	0.000681	0.08340	mg/L	0.001362	1.63%
B 249.677†	20.3	0.01951	mg/L	0.002140	0.03902	mg/L	0.004280	10.97%
Ba 233.527†	3346.3	0.3913	mg/L	0.00073	0.7825	mg/L	0.00146	0.19%
Be 313.042†	542.3	0.00108	mg/L	0.000081	0.00215	mg/L	0.000163	7.58%
Ca 317.933†	513798.4	51.49	mg/L	0.256	103.0	mg/L	0.51	0.50%
Cd 228.802†	66.9	0.00115	mg/L	0.000087	0.00231	mg/L	0.000174	7.56%
Co 228.616†	2770.6	0.03084	mg/L	0.000434	0.06168	mg/L	0.000868	1.41%
Cr 267.716†	508.7	0.1078	mg/L	0.00026	0.2157	mg/L	0.00052	0.24%
Cu 324.752†	40543.6	0.1798	mg/L	0.00030	0.3586	mg/L	0.00059	0.16%
Fe 273.955†	153943.7	111.92	mg/L	0.23	223.9	mg/L	0.46	0.20%
K 766.490†	10569.9	7.327	mg/L	0.0469	14.65	mg/L	0.094	0.64%
Mg 279.077†	26224.8	20.29	mg/L	0.107	40.58	mg/L	0.213	0.53%
Mn 257.610†	42246.1	1.177	mg/L	0.0070	2.354	mg/L	0.0140	0.60%
Mo 202.031†	110.7	0.01121	mg/L	0.000561	0.02241	mg/L	0.001122	5.00%
Na 589.592†	19884.7	8.809	mg/L	0.0362	17.62	mg/L	0.072	0.41%
Na 330.237†	206.4	9.099	mg/L	0.2234	18.20	mg/L	0.447	2.46%
Ni 231.604†	126.7	0.07335	mg/L	0.001216	0.1467	mg/L	0.00243	1.66%
Pb 220.353†	1076.4	0.1975	mg/L	0.00038	0.3950	mg/L	0.00076	0.19%
Sb 206.836†	-84.9	-0.00745	mg/L	0.000409	-0.01490	mg/L	0.000817	5.49%
Se 196.026†	-72.8	-0.01851	mg/L	0.006300	-0.03701	mg/L	0.012601	34.04%
Si 288.158†	6632.1	3.437	mg/L	0.0138	6.874	mg/L	0.0275	0.40%
Sn 189.927†	-5.9	-0.00403	mg/L	0.001613	-0.00807	mg/L	0.003225	39.98%
Sr 421.552†	186109.0	0.5815	mg/L	0.00038	1.163	mg/L	0.0008	0.07%
Ti 334.903†	138136.2	6.484	mg/L	0.0260	12.97	mg/L	0.052	0.40%
Tl 190.801†	-6.9	-0.00967	mg/L	0.001406	-0.01934	mg/L	0.002812	14.54%
V 292.402†	45502.5	0.3570	mg/L	0.00090	0.7140	mg/L	0.00179	0.25%
Zn 206.200†	697.5	0.3553	mg/L	0.00330	0.7107	mg/L	0.00661	0.93%

Sequence No.: 8
Sample ID: KZ93 C SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 28
Date Collected: 5/23/2007 11:05:27 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ93 C SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 C SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1929914.3	100.9	%	0.28				0.28%
ScR 361.383	165745.2	102.9	%	0.37				0.35%
Ag 328.068†	-2559.0	[illegible]	mg/L	0.000153	0.00344	mg/L	0.000306	8.91%
Al 308.215†	224783.9	[illegible]	mg/L	0.44	256.6	mg/L	0.87	0.34%
As 188.979†	88.1	[illegible]	mg/L	0.001486	0.07874	mg/L	0.002972	3.78%
B 249.677†	19.8	0.01927	mg/L	0.001448	0.03853	mg/L	0.002896	7.52%
Ba 233.527†	3320.0	[illegible]	mg/L	0.00119	0.7763	mg/L	0.00237	0.31%
Be 313.042†	512.5	[illegible]	mg/L	0.000023	0.00189	mg/L	0.000046	2.45%
Ca 317.933†	504839.6	[illegible]	mg/L	0.203	101.2	mg/L	0.41	0.40%
Cd 228.802†	55.9	[illegible]	mg/L	0.000048	0.00183	mg/L	0.000097	5.29%
Co 228.616†	2705.6	[illegible]	mg/L	0.000239	0.05917	mg/L	0.000478	0.81%
Cr 267.716†	539.4	[illegible]	mg/L	0.00029	0.2285	mg/L	0.00059	0.26%
Cu 324.752†	38347.9	[illegible]	mg/L	0.00020	0.3400	mg/L	0.00039	0.11%
Fe 273.955†	152833.0	[illegible]	mg/L	0.56	222.3	mg/L	1.12	0.51%
K 766.490†	10316.4	7.152	mg/L	0.0391	14.30	mg/L	0.078	0.55%
Mg 279.077†	26952.6	[illegible]	mg/L	0.075	41.70	mg/L	0.149	0.36%
Mn 257.610†	39899.9	[illegible]	mg/L	0.0032	2.223	mg/L	0.0063	0.29%
Mo 202.031†	105.7	0.01066	mg/L	0.001265	0.02132	mg/L	0.002531	11.87%
Na 589.592†	18900.2	8.373	mg/L	0.0092	16.75	mg/L	0.018	0.11%
Na 330.237†	199.5	8.820	mg/L	0.0550	17.64	mg/L	0.110	0.62%
Ni 231.604†	127.9	[illegible]	mg/L	0.003018	0.1481	mg/L	0.00604	4.07%
Pb 220.353†	851.1	[illegible]	mg/L	0.00099	0.3307	mg/L	0.00198	0.60%
Sb 206.836†	-85.5	[illegible]	mg/L	0.001667	-0.01622	mg/L	0.003335	20.57%
Se 196.026†	-71.3	[illegible]	mg/L	0.006109	-0.03562	mg/L	0.012218	34.30%
Si 288.158†	6661.1	3.452	mg/L	0.0677	6.904	mg/L	0.1354	1.96%
Sn 189.927†	-11.3	-0.00558	mg/L	0.000940	-0.01116	mg/L	0.001881	16.85%
Sr 421.552†	182302.5	0.5696	mg/L	0.00257	1.139	mg/L	0.0051	0.45%
Ti 334.903†	140483.8	6.594	mg/L	0.0319	13.19	mg/L	0.064	0.48%
Tl 190.801†	-11.9	-0.01181	mg/L	0.003332	-0.02362	mg/L	0.006664	28.21%
W 292.402†	45856.6	[illegible]	mg/L	0.00023	0.7198	mg/L	0.00047	0.06%
Zn 206.200†	723.5	[illegible]	mg/L	0.00263	0.7369	mg/L	0.00526	0.71%

Sequence No.: 9
Sample ID: KZ93 MB1SPK SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 29
Date Collected: 5/23/2007 11:11:49 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ93 MB1SPK SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ93 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1876518.5	98.09	%	0.213				0.22%
ScR 361.383	157028.0	97.48	%	0.347				0.36%
Ag 328.068†	91772.8	[illegible]	mg/L	0.00193	1.032	mg/L	0.0039	0.37%
Al 308.215†	3689.4	[illegible]	mg/L	0.0050	4.200	mg/L	0.0101	0.24%
As 188.979†	3027.9	[illegible]	mg/L	0.0279	4.229	mg/L	0.0558	1.32%
B 249.677†	2.6	0.00248	mg/L	0.003098	0.00496	mg/L	0.006197	124.90%
Ba 233.527†	16990.4	[illegible]	mg/L	0.0072	4.020	mg/L	0.0144	0.36%
Be 313.042†	126156.0	[illegible]	mg/L	0.00075	1.020	mg/L	0.0015	0.15%
Ca 317.933†	103322.9	[illegible]	mg/L	0.010	20.71	mg/L	0.021	0.10%
Cd 228.802†	23748.4	[illegible]	mg/L	0.00256	1.073	mg/L	0.0051	0.48%
Co 228.616†	30753.7	[illegible]	mg/L	0.00171	0.9992	mg/L	0.00342	0.34%
Cr 267.716†	2400.3	[illegible]	mg/L	0.00336	0.9996	mg/L	0.00672	0.67%
Cu 324.752†	122778.8	[illegible]	mg/L	0.00160	1.034	mg/L	0.0032	0.31%
Fe 273.955†	2876.2	[illegible]	mg/L	0.0161	4.181	mg/L	0.0322	0.77%
K 766.490†	15513.5	10.75	mg/L	0.040	21.51	mg/L	0.081	0.38%
Mg 279.077†	13586.3	[illegible]	mg/L	0.015	21.07	mg/L	0.030	0.14%
Mn 257.610†	17861.8	[illegible]	mg/L	0.00202	0.9980	mg/L	0.00404	0.40%
Mo 202.031†	24.5	0.00248	mg/L	0.000741	0.00496	mg/L	0.001483	29.92%
Na 589.592†	24255.8	10.75	mg/L	0.038	21.49	mg/L	0.076	0.35%
Na 330.237†	271.0	11.24	mg/L	0.204	22.49	mg/L	0.408	1.81%
Ni 231.604†	873.9	[illegible]	mg/L	0.00423	1.015	mg/L	0.0085	0.83%
Pb 220.353†	15562.5	[illegible]	mg/L	0.0062	4.331	mg/L	0.0124	0.29%
Sb 206.836†	4726.5	[illegible]	mg/L	0.0157	4.291	mg/L	0.0314	0.73%
Se 196.026†	2632.3	[illegible]	mg/L	0.0131	4.318	mg/L	0.0263	0.61%
Si 288.158†	13.9	0.00720	mg/L	0.002451	0.01440	mg/L	0.004903	34.04%
Sn 189.927†	-14.2	-0.00225	mg/L	0.001074	-0.00449	mg/L	0.002147	47.78%
Sr 421.552†	164410.7	0.5133	mg/L	0.00170	1.027	mg/L	0.0034	0.33%
Ti 334.903†	63.4	0.00283	mg/L	0.000438	0.00566	mg/L	0.000877	15.48%
Tl 190.801†	4968.1	2.115	mg/L	0.0142	4.231	mg/L	0.0285	0.67%
W 292.402†	63923.3	[illegible]	mg/L	0.00232	1.043	mg/L	0.0046	0.44%
Zn 206.200†	985.2	[illegible]	mg/L	0.00482	0.9984	mg/L	0.00965	0.97%

Sequence No.: 10
Sample ID: CV2
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/23/2007 11:18:24 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1857120.4	97.07	%	0.651				0.67%
ScR 361.383	160449.0	99.61	%	1.209				1.21%
Ag 328.068†	173976.0	0.9777	mg/L	0.01121	0.9777	mg/L	0.01121	1.15%
Al 308.215†	3560.9	1.999	mg/L	0.0147	1.999	mg/L	0.0147	0.73%
As 188.979†	2879.3	2.009	mg/L	0.0169	2.009	mg/L	0.0169	0.84%
B 249.677†	2200.5	1.007	mg/L	0.0082	1.007	mg/L	0.0082	0.81%
Ba 233.527†	8294.7	0.9813	mg/L	0.01230	0.9813	mg/L	0.01230	1.25%
Be 313.042†	248739.7	1.006	mg/L	0.0030	1.006	mg/L	0.0030	0.30%
Ca 317.933†	20227.2	2.027	mg/L	0.0282	2.027	mg/L	0.0282	1.39%
Cd 228.802†	44949.1	1.027	mg/L	0.0173	1.027	mg/L	0.0173	1.69%
Co 228.616†	60561.1	0.9831	mg/L	0.00819	0.9831	mg/L	0.00819	0.83%
Cr 267.716†	4656.3	0.9695	mg/L	0.01400	0.9695	mg/L	0.01400	1.44%
Cu 324.752†	248177.4	1.044	mg/L	0.0107	1.044	mg/L	0.0107	1.03%
Fe 273.955†	2812.3	2.043	mg/L	0.0277	2.043	mg/L	0.0277	1.35%
K 766.490†	29054.6	20.14	mg/L	0.065	20.14	mg/L	0.065	0.32%
Mg 279.077†	2645.4	2.056	mg/L	0.0302	2.056	mg/L	0.0302	1.47%
Mn 257.610†	34890.3	0.9742	mg/L	0.00085	0.9742	mg/L	0.00085	0.09%
Mo 202.031†	8663.8	0.9913	mg/L	0.00733	0.9913	mg/L	0.00733	0.74%
Na 589.592†	113404.0	50.24	mg/L	0.301	50.24	mg/L	0.301	0.60%
Na 330.237†	1184.0	50.17	mg/L	0.790	50.17	mg/L	0.790	1.58%
Ni 231.604†	1757.0	1.019	mg/L	0.0134	1.019	mg/L	0.0134	1.31%
Pb 220.353†	14940.0	2.079	mg/L	0.0174	2.079	mg/L	0.0174	0.84%
Sb 206.836†	4659.0	2.117	mg/L	0.0149	2.117	mg/L	0.0149	0.71%
Se 196.026†	2505.8	2.052	mg/L	0.0158	2.052	mg/L	0.0158	0.77%
Si 288.158†	3998.8	2.072	mg/L	0.0235	2.072	mg/L	0.0235	1.13%
Sn 189.927†	3408.3	0.9562	mg/L	0.00809	0.9562	mg/L	0.00809	0.85%
Sr 421.552†	321393.9	1.004	mg/L	0.0047	1.004	mg/L	0.0047	0.47%
Ti 334.903†	21438.5	1.005	mg/L	0.0064	1.005	mg/L	0.0064	0.63%
Tl 190.801†	4754.1	2.024	mg/L	0.0193	2.024	mg/L	0.0193	0.95%
V 292.402†	121640.9	0.9989	mg/L	0.00976	0.9989	mg/L	0.00976	0.98%
Zn 206.200†	2050.5	1.038	mg/L	0.0119	1.038	mg/L	0.0119	1.15%

Sequence No.: 11
Sample ID: CB 2
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 11:24:59 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1902934.3	99.47	%	0.369				0.37%
ScR 361.383	160561.8	99.68	%	0.194				0.19%
Ag 328.068†	-1.0	0.00000	mg/L	0.000235	0.00000	mg/L	0.000235	>999.9%
Al 308.215†	22.1	0.01263	mg/L	0.007963	0.01263	mg/L	0.007963	63.04%
As 188.979†	-0.6	-0.00040	mg/L	0.005032	-0.00040	mg/L	0.005032	>999.9%
B 249.677†	16.1	0.00734	mg/L	0.002634	0.00734	mg/L	0.002634	35.87%
Ba 233.527†	2.7	0.00032	mg/L	0.000519	0.00032	mg/L	0.000519	161.62%
Be 313.042†	80.0	0.00032	mg/L	0.000061	0.00032	mg/L	0.000061	18.76%
Ca 317.933†	31.3	0.00314	mg/L	0.000963	0.00314	mg/L	0.000963	30.70%
Cd 228.802†	-0.8	-0.00002	mg/L	0.000130	-0.00002	mg/L	0.000130	826.65%
Co 228.616†	-2.5	-0.00004	mg/L	0.000045	-0.00004	mg/L	0.000045	107.46%
Cr 267.716†	11.7	0.00245	mg/L	0.000653	0.00245	mg/L	0.000653	26.69%
Cu 324.752†	-66.5	-0.00028	mg/L	0.000185	-0.00028	mg/L	0.000185	66.22%
Fe 273.955†	10.7	0.00779	mg/L	0.001428	0.00779	mg/L	0.001428	18.33%
K 766.490†	-38.2	-0.02649	mg/L	0.031943	-0.02649	mg/L	0.031943	120.58%
Mg 279.077†	0.7	0.00052	mg/L	0.010022	0.00052	mg/L	0.010022	>999.9%
Mn 257.610†	18.4	0.00051	mg/L	0.000188	0.00051	mg/L	0.000188	36.70%
Mo 202.031†	3.6	0.00041	mg/L	0.000267	0.00041	mg/L	0.000267	65.66%
Na 589.592†	47.4	0.02099	mg/L	0.007863	0.02099	mg/L	0.007863	37.46%
Na 330.237†	15.1	0.6459	mg/L	0.34565	0.6459	mg/L	0.34565	53.51%
Ni 231.604†	-3.7	-0.00212	mg/L	0.001292	-0.00212	mg/L	0.001292	61.00%
Pb 220.353†	12.5	0.00175	mg/L	0.000847	0.00175	mg/L	0.000847	48.52%
Sb 206.836†	4.0	0.00177	mg/L	0.004297	0.00177	mg/L	0.004297	243.31%
Se 196.026†	7.7	0.00633	mg/L	0.001251	0.00633	mg/L	0.001251	19.77%
Si 288.158†	-3.4	-0.00176	mg/L	0.011831	-0.00176	mg/L	0.011831	672.85%
Sn 189.927†	3.6	0.00101	mg/L	0.000303	0.00101	mg/L	0.000303	30.10%
Sr 421.552†	-27.0	-0.00008	mg/L	0.000059	-0.00008	mg/L	0.000059	69.58%
Ti 334.903†	12.9	0.00061	mg/L	0.000918	0.00061	mg/L	0.000918	151.72%
Tl 190.801†	10.0	0.00428	mg/L	0.000651	0.00428	mg/L	0.000651	15.21%
V 292.402†	-16.1	-0.00011	mg/L	0.000381	-0.00011	mg/L	0.000381	332.16%
Zn 206.200†	0.3	0.00017	mg/L	0.000625	0.00017	mg/L	0.000625	359.04%

Sequence No.: 12
Sample ID: CRI
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 8
Date Collected: 5/23/2007 11:31:31 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1891008.7	98.85	%	0.740				0.75%
ScR 361.383	155568.2	96.58	%	0.664				0.69%
Ag 328.068†	518.7	0.00292	mg/L	0.000387	0.00292	mg/L	0.000387	13.23%
Al 308.215†	131.4	0.07487	mg/L	0.008387	0.07487	mg/L	0.008387	11.20%
As 188.979†	73.3	0.05119	mg/L	0.002471	0.05119	mg/L	0.002471	4.83%
B 249.677†	50.6	0.02309	mg/L	0.002659	0.02309	mg/L	0.002659	11.52%
Ba 233.527†	26.0	0.00307	mg/L	0.000306	0.00307	mg/L	0.000306	9.96%
Be 313.042†	304.4	0.00123	mg/L	0.000032	0.00123	mg/L	0.000032	2.59%
Ca 317.933†	535.4	0.05365	mg/L	0.002380	0.05365	mg/L	0.002380	4.44%
Cd 228.802†	96.4	0.00193	mg/L	0.000161	0.00193	mg/L	0.000161	8.33%
Co 228.616†	195.0	0.00316	mg/L	0.000109	0.00316	mg/L	0.000109	3.45%
Cr 267.716†	27.4	0.00571	mg/L	0.000399	0.00571	mg/L	0.000399	6.99%
Cu 324.752†	445.3	0.00188	mg/L	0.000096	0.00188	mg/L	0.000096	5.09%
Fe 273.955†	72.6	0.05279	mg/L	0.004054	0.05279	mg/L	0.004054	7.68%
K 766.490†	805.6	0.5585	mg/L	0.01236	0.5585	mg/L	0.01236	2.21%
Mg 279.077†	56.2	0.04355	mg/L	0.015354	0.04355	mg/L	0.015354	35.25%
Mn 257.610†	49.2	0.00138	mg/L	0.000062	0.00138	mg/L	0.000062	4.51%
Mo 202.031†	45.0	0.00515	mg/L	0.000324	0.00515	mg/L	0.000324	6.30%
Na 589.592†	1259.8	0.5581	mg/L	0.00286	0.5581	mg/L	0.00286	0.51%
Na 330.237†	34.6	1.474	mg/L	0.3521	1.474	mg/L	0.3521	23.89%
Ni 231.604†	13.3	0.00775	mg/L	0.002313	0.00775	mg/L	0.002313	29.84%
Pb 220.353†	149.6	0.02083	mg/L	0.000816	0.02083	mg/L	0.000816	3.92%
Sb 206.836†	122.1	0.05564	mg/L	0.000859	0.05564	mg/L	0.000859	1.54%
Se 196.026†	63.5	0.05208	mg/L	0.002238	0.05208	mg/L	0.002238	4.30%
Si 288.158†	115.4	0.05982	mg/L	0.008538	0.05982	mg/L	0.008538	14.27%
Sn 189.927†	39.9	0.01121	mg/L	0.000493	0.01121	mg/L	0.000493	4.40%
Sr 421.552†	225.9	0.00070	mg/L	0.000291	0.00070	mg/L	0.000291	41.24%
Ti 334.903†	111.3	0.00522	mg/L	0.002406	0.00522	mg/L	0.002406	46.12%
Tl 190.801†	128.1	0.05462	mg/L	0.002217	0.05462	mg/L	0.002217	4.06%
V 292.402†	364.4	0.00302	mg/L	0.000143	0.00302	mg/L	0.000143	4.75%
Zn 206.200†	20.3	0.01030	mg/L	0.001461	0.01030	mg/L	0.001461	14.18%

Sequence No.: 13
Sample ID: ICSA
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 9
Date Collected: 5/23/2007 11:38:03 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1797692.9	93.97	%	0.372				0.40%
ScR 361.383	158762.4	98.56	%	0.457				0.46%
Ag 328.068†	-4593.1	0.00315	mg/L	0.000139	0.00315	mg/L	0.000139	4.43%
Al 308.215†	354667.9	202.5	mg/L	0.08	202.5	mg/L	0.08	0.04%
As 188.979†	21.2	-0.00656	mg/L	0.003332	-0.00656	mg/L	0.003332	50.77%
B 249.677†	-26.6	0.00555	mg/L	0.001337	0.00555	mg/L	0.001337	24.08%
Ba 233.527†	77.2	0.00105	mg/L	0.000346	0.00105	mg/L	0.000346	32.78%
Be 313.042†	17.0	0.00003	mg/L	0.000104	0.00003	mg/L	0.000104	312.30%
Ca 317.933†	1010181.6	101.2	mg/L	0.25	101.2	mg/L	0.25	0.25%
Cd 228.802†	24.7	0.00048	mg/L	0.000174	0.00048	mg/L	0.000174	36.14%
Co 228.616†	63.1	-0.00202	mg/L	0.000211	-0.00202	mg/L	0.000211	10.42%
Cr 267.716†	8.7	0.00559	mg/L	0.000984	0.00559	mg/L	0.000984	17.60%
Cu 324.752†	-4399.4	-0.00110	mg/L	0.000222	-0.00110	mg/L	0.000222	20.23%
Fe 273.955†	275884.6	200.6	mg/L	0.25	200.6	mg/L	0.25	0.13%
K 766.490†	72.1	0.05001	mg/L	0.011350	0.05001	mg/L	0.011350	22.69%
Mg 279.077†	132064.2	102.3	mg/L	0.78	102.3	mg/L	0.78	0.76%
Mn 257.610†	124.3	-0.00072	mg/L	0.000480	-0.00072	mg/L	0.000480	66.77%
Mo 202.031†	72.7	0.00546	mg/L	0.001228	0.00546	mg/L	0.001228	22.50%
Na 589.592†	82.7	0.03662	mg/L	0.011740	0.03662	mg/L	0.011740	32.06%
Na 330.237†	27.4	0.3109	mg/L	0.01263	0.3109	mg/L	0.01263	4.06%
Ni 231.604†	-6.6	-0.00388	mg/L	0.001680	-0.00388	mg/L	0.001680	43.32%
Pb 220.353†	-602.9	-0.01036	mg/L	0.000334	-0.01036	mg/L	0.000334	3.22%
Sb 206.836†	-97.0	-0.00864	mg/L	0.002576	-0.00864	mg/L	0.002576	29.81%
Se 196.026†	-135.4	-0.03791	mg/L	0.005497	-0.03791	mg/L	0.005497	14.50%
Si 288.158†	29.1	0.01508	mg/L	0.004285	0.01508	mg/L	0.004285	28.42%
Sn 189.927†	-49.4	-0.01031	mg/L	0.001872	-0.01031	mg/L	0.001872	18.16%
Sr 421.552†	479.3	0.00150	mg/L	0.000187	0.00150	mg/L	0.000187	12.47%
Ti 334.903†	203.1	0.00953	mg/L	0.000810	0.00953	mg/L	0.000810	8.50%
Tl 190.801†	-67.1	-0.02865	mg/L	0.002223	-0.02865	mg/L	0.002223	7.76%
V 292.402†	1682.9	-0.00189	mg/L	0.000301	-0.00189	mg/L	0.000301	15.91%
Zn 206.200†	-16.8	-0.00421	mg/L	0.001315	-0.00421	mg/L	0.001315	31.23%

Sequence No.: 14
Sample ID: ICSAB
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 10
Date Collected: 5/23/2007 11:45:29 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1810729.7	94.65	%	0.664				0.70%
ScR 361.383	157427.0	97.73	%	0.149				0.15%
Ag 328.068†	183445.3	1.060	mg/L	0.0015	1.060	mg/L	0.0015	0.15%
Al 308.215†	354782.8	202.6	mg/L	0.44	202.6	mg/L	0.44	0.21%
As 188.979†	1529.3	1.047	mg/L	0.0013	1.047	mg/L	0.0013	0.12%
B 249.677†	-25.2	0.00846	mg/L	0.002639	0.00846	mg/L	0.002639	31.20%
Ba 233.527†	8610.7	1.010	mg/L	0.0042	1.010	mg/L	0.0042	0.42%
Be 313.042†	261471.5	1.057	mg/L	0.0039	1.057	mg/L	0.0039	0.37%
Ca 317.933†	1007107.9	100.9	mg/L	0.33	100.9	mg/L	0.33	0.32%
Cd 228.802†	45382.4	1.043	mg/L	0.0046	1.043	mg/L	0.0046	0.44%
Co 228.616†	59399.3	0.9623	mg/L	0.00373	0.9623	mg/L	0.00373	0.39%
Cr 267.716†	4790.3	1.001	mg/L	0.0073	1.001	mg/L	0.0073	0.73%
Cu 324.752†	254293.3	1.088	mg/L	0.0004	1.088	mg/L	0.0004	0.04%
Fe 273.955†	275576.7	200.4	mg/L	0.21	200.4	mg/L	0.21	0.10%
K 766.490†	210.2	0.1457	mg/L	0.07184	0.1457	mg/L	0.07184	49.31%
Mg 279.077†	132875.2	103.0	mg/L	0.31	103.0	mg/L	0.31	0.30%
Mn 257.610†	35737.3	0.9932	mg/L	0.00327	0.9932	mg/L	0.00327	0.33%
Mo 202.031†	68.3	0.00489	mg/L	0.000477	0.00489	mg/L	0.000477	9.75%
Na 589.592†	55.3	0.02449	mg/L	0.010875	0.02449	mg/L	0.010875	44.40%
Na 330.237†	48.0	0.7134	mg/L	0.24324	0.7134	mg/L	0.24324	34.10%
Ni 231.604†	1723.8	0.9992	mg/L	0.00365	0.9992	mg/L	0.00365	0.37%
Pb 220.353†	6702.5	1.006	mg/L	0.0064	1.006	mg/L	0.0064	0.63%
Sb 206.836†	2287.8	1.062	mg/L	0.0061	1.062	mg/L	0.0061	0.58%
Se 196.026†	1156.1	1.018	mg/L	0.0068	1.018	mg/L	0.0068	0.67%
Si 288.158†	-5.7	-0.00296	mg/L	0.003781	-0.00296	mg/L	0.003781	127.81%
Sn 189.927†	-56.7	-0.01164	mg/L	0.000868	-0.01164	mg/L	0.000868	7.46%
Sr 421.552†	662.6	0.00181	mg/L	0.000024	0.00181	mg/L	0.000024	1.32%
Ti 334.903†	183.9	0.00834	mg/L	0.000501	0.00834	mg/L	0.000501	6.00%
Tl 190.801†	2324.1	0.9856	mg/L	0.00736	0.9856	mg/L	0.00736	0.75%
V 292.402†	128775.9	1.036	mg/L	0.0022	1.036	mg/L	0.0022	0.21%
Zn 206.200†	1971.4	1.002	mg/L	0.0056	1.002	mg/L	0.0056	0.56%

Sequence No.: 15
Sample ID: CV 3
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/23/2007 11:52:43 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1859035.2	97.17	%	0.934				0.96%
ScR 361.383	160512.2	99.65	%	0.247				0.25%
Ag 328.068†	173186.9	0.9733	mg/L	0.00869	0.9733	mg/L	0.00869	0.89%
Al 308.215†	3595.0	2.019	mg/L	0.0055	2.019	mg/L	0.0055	0.27%
As 188.979†	2889.0	2.016	mg/L	0.0318	2.016	mg/L	0.0318	1.58%
B 249.677†	2219.8	1.015	mg/L	0.0020	1.015	mg/L	0.0020	0.20%
Ba 233.527†	8368.9	0.9901	mg/L	0.00449	0.9901	mg/L	0.00449	0.45%
Be 313.042†	247751.8	1.002	mg/L	0.0064	1.002	mg/L	0.0064	0.63%
Ca 317.933†	20437.5	2.048	mg/L	0.0036	2.048	mg/L	0.0036	0.18%
Cd 228.802†	44982.9	1.028	mg/L	0.0078	1.028	mg/L	0.0078	0.76%
Co 228.616†	60297.1	0.9788	mg/L	0.00771	0.9788	mg/L	0.00771	0.79%
Cr 267.716†	4697.7	0.9782	mg/L	0.00186	0.9782	mg/L	0.00186	0.19%
Cu 324.752†	246798.9	1.038	mg/L	0.0087	1.038	mg/L	0.0087	0.83%
Fe 273.955†	2838.3	2.062	mg/L	0.0088	2.062	mg/L	0.0088	0.43%
K 766.490†	29051.5	20.14	mg/L	0.038	20.14	mg/L	0.038	0.19%
Mg 279.077†	2675.6	2.079	mg/L	0.0150	2.079	mg/L	0.0150	0.72%
Mn 257.610†	34968.8	0.9764	mg/L	0.00226	0.9764	mg/L	0.00226	0.23%
Mo 202.031†	8710.4	0.9966	mg/L	0.01446	0.9966	mg/L	0.01446	1.45%
Na 589.592†	113532.7	50.29	mg/L	0.422	50.29	mg/L	0.422	0.84%
Na 330.237†	1190.8	50.45	mg/L	0.225	50.45	mg/L	0.225	0.45%
Ni 231.604†	1772.9	1.028	mg/L	0.0031	1.028	mg/L	0.0031	0.31%
Pb 220.353†	14876.7	2.070	mg/L	0.0142	2.070	mg/L	0.0142	0.69%
Sb 206.836†	4670.6	2.122	mg/L	0.0338	2.122	mg/L	0.0338	1.59%
Se 196.026†	2504.8	2.052	mg/L	0.0309	2.052	mg/L	0.0309	1.50%
Si 288.158†	4018.1	2.082	mg/L	0.0072	2.082	mg/L	0.0072	0.35%
Sn 189.927†	3417.9	0.9589	mg/L	0.01728	0.9589	mg/L	0.01728	1.80%
Sr 421.552†	321360.2	1.004	mg/L	0.0038	1.004	mg/L	0.0038	0.38%
Ti 334.903†	21339.2	1.001	mg/L	0.0079	1.001	mg/L	0.0079	0.79%
Tl 190.801†	4774.2	2.033	mg/L	0.0299	2.033	mg/L	0.0299	1.47%
V 292.402†	121264.3	0.9959	mg/L	0.00880	0.9959	mg/L	0.00880	0.88%
Zn 206.200†	2075.7	1.050	mg/L	0.0036	1.050	mg/L	0.0036	0.34%

Sequence No.: 16
Sample ID: CB3
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 12:00:08 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1882246.3	98.39	%	0.154				0.16%
ScR 361.383	159013.1	98.72	%	0.080				0.08%
Ag 328.068†	-9.5	-0.00005	mg/L	0.000133	-0.00005	mg/L	0.000133	250.30%
Al 308.215†	18.6	0.01060	mg/L	0.006245	0.01060	mg/L	0.006245	58.90%
As 188.979†	0.2	0.00017	mg/L	0.003500	0.00017	mg/L	0.003500	>999.9%
B 249.677†	14.7	0.00671	mg/L	0.000575	0.00671	mg/L	0.000575	8.57%
Ba 233.527†	0.4	0.00005	mg/L	0.000716	0.00005	mg/L	0.000716	>999.9%
Be 313.042†	51.6	0.00021	mg/L	0.000040	0.00021	mg/L	0.000040	19.04%
Ca 317.933†	10.8	0.00108	mg/L	0.004534	0.00108	mg/L	0.004534	418.72%
Cd 228.802†	-4.9	-0.00011	mg/L	0.000128	-0.00011	mg/L	0.000128	112.57%
Co 228.616†	2.1	0.00003	mg/L	0.000165	0.00003	mg/L	0.000165	492.23%
Cr 267.716†	-0.5	-0.00011	mg/L	0.001531	-0.00011	mg/L	0.001531	>999.9%
Cu 324.752†	-68.3	-0.00029	mg/L	0.000182	-0.00029	mg/L	0.000182	63.44%
Fe 273.955†	4.3	0.00314	mg/L	0.000475	0.00314	mg/L	0.000475	15.15%
K 766.490†	28.6	0.01985	mg/L	0.014601	0.01985	mg/L	0.014601	73.57%
Mg 279.077†	-9.9	-0.00765	mg/L	0.010286	-0.00765	mg/L	0.010286	134.39%
Mn 257.610†	7.6	0.00021	mg/L	0.000085	0.00021	mg/L	0.000085	39.81%
Mo 202.031†	0.8	0.00009	mg/L	0.000227	0.00009	mg/L	0.000227	263.85%
Na 589.592†	38.1	0.01687	mg/L	0.009971	0.01687	mg/L	0.009971	59.11%
Na 330.237†	-0.4	-0.01612	mg/L	0.654851	-0.01612	mg/L	0.654851	>999.9%
Ni 231.604†	0.5	0.00027	mg/L	0.000885	0.00027	mg/L	0.000885	323.84%
Pb 220.353†	5.6	0.00078	mg/L	0.000552	0.00078	mg/L	0.000552	70.95%
Sb 206.836†	2.3	0.00107	mg/L	0.002062	0.00107	mg/L	0.002062	192.19%
Se 196.026†	1.0	0.00078	mg/L	0.004001	0.00078	mg/L	0.004001	509.81%
Si 288.158†	-2.5	-0.00130	mg/L	0.009187	-0.00130	mg/L	0.009187	704.64%
Sn 189.927†	5.3	0.00148	mg/L	0.000516	0.00148	mg/L	0.000516	34.84%
Sr 421.552†	-94.8	-0.00030	mg/L	0.000073	-0.00030	mg/L	0.000073	24.72%
Ti 334.903†	-1.5	-0.00007	mg/L	0.000787	-0.00007	mg/L	0.000787	>999.9%
Tl 190.801†	3.7	0.00159	mg/L	0.003025	0.00159	mg/L	0.003025	189.97%
V 292.402†	8.1	0.00007	mg/L	0.000080	0.00007	mg/L	0.000080	122.36%
Zn 206.200†	-0.4	-0.00018	mg/L	0.001113	-0.00018	mg/L	0.001113	607.08%

Analysis Begun

Start Time: 5/23/2007 12:07:58 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Sample ID: KZ34 MB1 WMN
Analyst: JLB
Initial Sample Wt:
Dilution: 1X
Autosampler Location: 21
Date Collected: 5/23/2007 12:07:58 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ34 MB1 WMN

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ34 MB1 WMN

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1963993.4	102.7	%	0.44				0.43%
ScR 361.383	165117.1	102.5	%	0.50				0.49%
[illegible]328.068†	-78.1	[illegible]	mg/L	0.000106	-0.00044	mg/L	0.000106	24.15%
Al 308.215†	12.0	0.00683	mg/L	0.010942	0.00683	mg/L	0.010942	160.17%
As 188.979†	4.3	0.00302	mg/L	0.003214	0.00302	mg/L	0.003214	106.56%
B 249.677†	-3.9	-0.00175	mg/L	0.001886	-0.00175	mg/L	0.001886	108.07%
[illegible]233.527†	0.4	[illegible]	mg/L	0.000276	0.00005	mg/L	0.000276	533.16%
Be 313.042†	33.0	0.00013	mg/L	0.000074	0.00013	mg/L	0.000074	55.46%
Ca 317.933†	54.6	0.00548	mg/L	0.005107	0.00548	mg/L	0.005107	93.27%
[illegible]228.802†	1.1	[illegible]	mg/L	0.000010	0.00001	mg/L	0.000010	141.73%
Co 228.616†	-1.0	-0.00002	mg/L	0.000048	-0.00002	mg/L	0.000048	255.46%
[illegible]267.716†	11.1	[illegible]	mg/L	0.001058	0.00230	mg/L	0.001058	45.90%
[illegible]324.752†	-130.7	[illegible]	mg/L	0.000225	-0.00055	mg/L	0.000225	41.03%
[illegible]273.955†	12.5	[illegible]	mg/L	0.002349	0.00907	mg/L	0.002349	25.91%
K 766.490†	-104.8	-0.07263	mg/L	0.001826	-0.07263	mg/L	0.001826	2.51%
Mg 279.077†	-8.6	-0.00668	mg/L	0.008262	-0.00668	mg/L	0.008262	123.62%
[illegible]257.610†	5.5	[illegible]	mg/L	0.000058	0.00015	mg/L	0.000058	38.35%
Mo 202.031†	1.6	0.00018	mg/L	0.000441	0.00018	mg/L	0.000441	240.63%
Na 589.592†	43.1	0.01907	mg/L	0.015013	0.01907	mg/L	0.015013	78.72%
Na 330.237†	-3.2	-0.1389	mg/L	0.58119	-0.1389	mg/L	0.58119	418.50%
Ni 231.604†	-3.7	-0.00215	mg/L	0.001530	-0.00215	mg/L	0.001530	71.23%
Pb 220.353†	-15.2	-0.00211	mg/L	0.001138	-0.00211	mg/L	0.001138	54.03%
Sb 206.836†	1.9	0.00082	mg/L	0.002883	0.00082	mg/L	0.002883	352.50%
Se 196.026†	10.5	0.00860	mg/L	0.000855	0.00860	mg/L	0.000855	9.94%
Si 288.158†	-9.0	-0.00469	mg/L	0.002376	-0.00469	mg/L	0.002376	50.70%
Sn 189.927†	-0.7	-0.00019	mg/L	0.000706	-0.00019	mg/L	0.000706	362.85%
Sr 421.552†	75.7	0.00024	mg/L	0.000171	0.00024	mg/L	0.000171	72.24%
Ti 334.903†	21.0	0.00098	mg/L	0.001003	0.00098	mg/L	0.001003	101.96%
Tl 190.801†	7.2	0.00306	mg/L	0.000349	0.00306	mg/L	0.000349	11.38%
V 292.402†	-6.6	-0.00004	mg/L	0.000131	-0.00004	mg/L	0.000131	324.24%
[illegible]206.200†	3.7	[illegible]	mg/L	0.000564	0.00188	mg/L	0.000564	30.06%

Sequence No.: 2
Sample ID: Al NEW
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 22
Date Collected: 5/23/2007 12:14:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Al NEW

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: Al NEW

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1905355.0	99.60	%	0.350				0.35%
ScR 361.383	157391.6	97.71	%	0.435				0.45%
Ag 328.068†	2.3	0.00002	mg/L	0.000161	0.00002	mg/L	0.000161	884.26%
Al 308.215†	18129.3	10.35	mg/L	0.063	10.35	mg/L	0.063	0.61%
As 188.979†	-2.1	-0.00235	mg/L	0.001661	-0.00235	mg/L	0.001661	70.80%
B 249.677†	1.7	0.00080	mg/L	0.001296	0.00080	mg/L	0.001296	161.14%
Ba 233.527†	2.4	0.00028	mg/L	0.000257	0.00028	mg/L	0.000257	90.98%
Be 313.042†	35.1	0.00014	mg/L	0.000077	0.00014	mg/L	0.000077	54.20%
Ca 317.933†	37.7	0.00378	mg/L	0.001360	0.00378	mg/L	0.001360	36.02%
Cd 228.802†	-4.5	-0.00010	mg/L	0.000121	-0.00010	mg/L	0.000121	126.44%
Co 228.616†	-5.1	-0.00008	mg/L	0.000048	-0.00008	mg/L	0.000048	57.28%
Cr 267.716†	10.0	0.00209	mg/L	0.000348	0.00209	mg/L	0.000348	16.63%
Cu 324.752†	127.8	0.00054	mg/L	0.000161	0.00054	mg/L	0.000161	29.75%
Fe 273.955†	52.2	0.03798	mg/L	0.002689	0.03798	mg/L	0.002689	7.08%
K 766.490†	-1.8	-0.00127	mg/L	0.023607	-0.00127	mg/L	0.023607	>999.9%
Mg 279.077†	-15.8	-0.01227	mg/L	0.018959	-0.01227	mg/L	0.018959	154.57%
Mn 257.610†	16.4	0.00035	mg/L	0.000062	0.00035	mg/L	0.000062	17.64%
Mo 202.031†	-2.9	-0.00033	mg/L	0.000178	-0.00033	mg/L	0.000178	53.38%
Na 589.592†	22.1	0.00981	mg/L	0.007361	0.00981	mg/L	0.007361	75.03%
Na 330.237†	4.5	0.1942	mg/L	0.44345	0.1942	mg/L	0.44345	228.32%
Ni 231.604†	-2.9	-0.00166	mg/L	0.003247	-0.00166	mg/L	0.003247	195.70%
Pb 220.353†	-25.0	0.00059	mg/L	0.000121	0.00059	mg/L	0.000121	20.53%
Sb 206.836†	-6.4	-0.00112	mg/L	0.002874	-0.00112	mg/L	0.002874	256.64%
Se 196.026†	-4.7	-0.00232	mg/L	0.002553	-0.00232	mg/L	0.002553	110.13%
Si 288.158†	0.9	0.00045	mg/L	0.005351	0.00045	mg/L	0.005351	>999.9%
Sn 189.927†	5.1	0.00142	mg/L	0.000347	0.00142	mg/L	0.000347	24.46%
Sr 421.552†	-87.3	-0.00027	mg/L	0.000183	-0.00027	mg/L	0.000183	67.13%
Ti 334.903†	-0.1	0.00000	mg/L	0.001098	0.00000	mg/L	0.001098	>999.9%
Tl 190.801†	5.7	0.00241	mg/L	0.001757	0.00241	mg/L	0.001757	72.76%
V 292.402†	-15.4	-0.00012	mg/L	0.000202	-0.00012	mg/L	0.000202	171.76%
Zn 206.200†	-0.1	-0.00003	mg/L	0.000815	-0.00003	mg/L	0.000815	>999.9%

Sequence No.: 3
Sample ID: FeNEW
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 23
Date Collected: 5/23/2007 12:21:56 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: FeNEW

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: FeNEW

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1884249.6	98.49	%	0.683				0.69%
ScR 361.383	158324.1	98.29	%	1.006				1.02%
Ag 328.068†	-191.6	0.00046	mg/L	0.000198	0.00046	mg/L	0.000198	43.48%
Al 308.215†	0.3	0.00019	mg/L	0.004067	0.00019	mg/L	0.004067	>999.9%
As 188.979†	0.8	0.00056	mg/L	0.001548	0.00056	mg/L	0.001548	276.31%
B 249.677†	1.2	0.00148	mg/L	0.000946	0.00148	mg/L	0.000946	64.13%
Ba 233.527†	8.8	0.00062	mg/L	0.000560	0.00062	mg/L	0.000560	90.70%
Be 313.042†	36.3	0.00015	mg/L	0.000042	0.00015	mg/L	0.000042	28.50%
Ca 317.933†	38.5	0.00386	mg/L	0.001810	0.00386	mg/L	0.001810	46.90%
Cd 228.802†	-5.5	-0.00013	mg/L	0.000061	-0.00013	mg/L	0.000061	46.48%
Co 228.616†	8.1	-0.00003	mg/L	0.000218	-0.00003	mg/L	0.000218	731.12%
Cr 267.716†	3.4	0.00098	mg/L	0.000873	0.00098	mg/L	0.000873	89.54%
Cu 324.752†	-252.4	-0.00009	mg/L	0.000075	-0.00009	mg/L	0.000075	84.77%
Fe 273.955†	14606.5	10.62	mg/L	0.062	10.62	mg/L	0.062	0.58%
K 766.490†	-26.6	-0.01846	mg/L	0.044221	-0.01846	mg/L	0.044221	239.50%
Mg 279.077†	-22.6	-0.02200	mg/L	0.006946	-0.02200	mg/L	0.006946	31.57%
Mn 257.610†	-0.8	-0.00002	mg/L	0.000180	-0.00002	mg/L	0.000180	792.24%
Mo 202.031†	0.5	0.00006	mg/L	0.000285	0.00006	mg/L	0.000285	505.62%
Na 589.592†	14.7	0.00649	mg/L	0.013443	0.00649	mg/L	0.013443	207.06%
Na 330.237†	10.3	0.4397	mg/L	0.21513	0.4397	mg/L	0.21513	48.92%
Ni 231.604†	-2.3	-0.00134	mg/L	0.001785	-0.00134	mg/L	0.001785	132.73%
Pb 220.353†	-6.7	-0.00137	mg/L	0.001331	-0.00137	mg/L	0.001331	97.29%
Sb 206.836†	-5.2	-0.00238	mg/L	0.002063	-0.00238	mg/L	0.002063	86.57%
Se 196.026†	-5.4	-0.00287	mg/L	0.006556	-0.00287	mg/L	0.006556	228.64%
Si 288.158†	-1.0	-0.00054	mg/L	0.002467	-0.00054	mg/L	0.002467	459.60%
Sn 189.927†	4.9	0.00137	mg/L	0.000567	0.00137	mg/L	0.000567	41.30%
Sr 421.552†	-193.6	-0.00061	mg/L	0.000221	-0.00061	mg/L	0.000221	36.52%
Ti 334.903†	5.6	0.00026	mg/L	0.001436	0.00026	mg/L	0.001436	543.17%
Tl 190.801†	3.2	0.00137	mg/L	0.001603	0.00137	mg/L	0.001603	117.02%
V 292.402†	46.8	-0.00044	mg/L	0.000249	-0.00044	mg/L	0.000249	56.38%
Zn 206.200†	1.6	0.00081	mg/L	0.001260	0.00081	mg/L	0.001260	154.75%

Sequence No.: 4
Sample ID: NiNEW
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 24
Date Collected: 5/23/2007 12:29:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: NiNEW

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: NiNEW

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1878366.1	98.18	%	0.804				0.82%
ScR 361.383	158552.6	98.43	%	0.827				0.84%
Ag 328.068†	-5.7	-0.00003	mg/L	0.000251	-0.00003	mg/L	0.000251	802.23%
Al 308.215†	5.7	0.00323	mg/L	0.006229	0.00323	mg/L	0.006229	192.79%
As 188.979†	1.0	0.00071	mg/L	0.001383	0.00071	mg/L	0.001383	194.92%
B 249.677†	-1.8	-0.00080	mg/L	0.001443	-0.00080	mg/L	0.001443	180.10%
Ba 233.527†	11.3	0.00002	mg/L	0.000356	0.00002	mg/L	0.000356	>999.9%
Be 313.042†	42.6	0.00017	mg/L	0.000070	0.00017	mg/L	0.000070	40.26%
Ca 317.933†	26.8	0.00268	mg/L	0.002406	0.00268	mg/L	0.002406	89.73%
Cd 228.802†	-125.8	-0.00044	mg/L	0.000077	-0.00044	mg/L	0.000077	17.47%
Co 228.616†	33.4	0.00054	mg/L	0.000034	0.00054	mg/L	0.000034	6.23%
Cr 267.716†	4.5	0.00093	mg/L	0.000904	0.00093	mg/L	0.000904	97.19%
Cu 324.752†	-77.8	-0.00033	mg/L	0.000058	-0.00033	mg/L	0.000058	17.76%
Fe 273.955†	7.0	0.00508	mg/L	0.001256	0.00508	mg/L	0.001256	24.73%
K 766.490†	8.4	0.00581	mg/L	0.026043	0.00581	mg/L	0.026043	447.86%
Mg 279.077†	3.2	0.00248	mg/L	0.011174	0.00248	mg/L	0.011174	449.75%
Mn 257.610†	11.8	0.00033	mg/L	0.000218	0.00033	mg/L	0.000218	65.87%
Mo 202.031†	6.3	0.00072	mg/L	0.000236	0.00072	mg/L	0.000236	32.60%
Na 589.592†	9.5	0.00419	mg/L	0.009108	0.00419	mg/L	0.009108	217.47%
Na 330.237†	3.7	0.1585	mg/L	0.18148	0.1585	mg/L	0.18148	114.52%
Ni 231.604†	18495.7	10.71	mg/L	0.032	10.71	mg/L	0.032	0.30%
Pb 220.353†	1.8	-0.00128	mg/L	0.000591	-0.00128	mg/L	0.000591	46.07%
Sb 206.836†	-13.6	-0.00622	mg/L	0.004914	-0.00622	mg/L	0.004914	78.98%
Se 196.026†	13.7	0.00155	mg/L	0.006648	0.00155	mg/L	0.006648	427.87%
Si 288.158†	5.9	0.00305	mg/L	0.006530	0.00305	mg/L	0.006530	214.28%
Sn 189.927†	0.8	0.00023	mg/L	0.000990	0.00023	mg/L	0.000990	422.98%
Sr 421.552†	-202.6	-0.00063	mg/L	0.000183	-0.00063	mg/L	0.000183	28.81%
Ti 334.903†	0.6	0.00003	mg/L	0.001759	0.00003	mg/L	0.001759	>999.9%
Tl 190.801†	-1.1	-0.00045	mg/L	0.001476	-0.00045	mg/L	0.001476	328.96%
V 292.402†	-20.4	-0.00016	mg/L	0.000429	-0.00016	mg/L	0.000429	274.91%
Zn 206.200†	1.4	0.00072	mg/L ✓	0.001238	0.00072	mg/L	0.001238	171.29%

Sequence No.: 5
Sample ID: DILUENT
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 25
Date Collected: 5/23/2007 12:36:44 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: DILUENT

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: DILUENT

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1879055.1	98.22	%	0.371				0.38%
ScR 361.383	158441.7	98.36	%	0.937				0.95%
Ag 328.068†	2.0	0.00001	mg/L	0.000220	0.00001	mg/L	0.000220	>999.9%
Al 308.215†	-15.0	-0.00855	mg/L	0.017253	-0.00855	mg/L	0.017253	201.78%
As 188.979†	3.9	0.00274	mg/L	0.002553	0.00274	mg/L	0.002553	93.12%
B 249.677†	-3.3	-0.00151	mg/L	0.002445	-0.00151	mg/L	0.002445	161.65%
Ba 233.527†	3.6	0.00043	mg/L	0.000715	0.00043	mg/L	0.000715	168.19%
Be 313.042†	26.2	0.00011	mg/L	0.000127	0.00011	mg/L	0.000127	119.19%
Ca 317.933†	28.8	0.00288	mg/L	0.003836	0.00288	mg/L	0.003836	133.07%
Cd 228.802†	-9.5	-0.00024	mg/L	0.000186	-0.00024	mg/L	0.000186	78.78%
Co 228.616†	4.1	0.00007	mg/L	0.000159	0.00007	mg/L	0.000159	230.25%
Cr 267.716†	4.5	0.00093	mg/L	0.001027	0.00093	mg/L	0.001027	110.61%
Cu 324.752†	-52.5	-0.00022	mg/L	0.000289	-0.00022	mg/L	0.000289	131.20%
Fe 273.955†	-0.9	-0.00066	mg/L	0.001017	-0.00066	mg/L	0.001017	154.05%
K 766.490†	19.2	0.01332	mg/L	0.020388	0.01332	mg/L	0.020388	153.03%
Mg 279.077†	-15.8	-0.01227	mg/L	0.009097	-0.01227	mg/L	0.009097	74.12%
Mn 257.610†	12.4	0.00034	mg/L	0.000274	0.00034	mg/L	0.000274	79.58%
Mo 202.031†	-0.3	-0.00003	mg/L	0.000314	-0.00003	mg/L	0.000314	906.28%
Na 589.592†	10.8	0.00480	mg/L	0.011565	0.00480	mg/L	0.011565	241.12%
Na 330.237†	1.7	0.07250	mg/L	0.983588	0.07250	mg/L	0.983588	>999.9%
Ni 231.604†	-2.0	-0.00117	mg/L	0.004018	-0.00117	mg/L	0.004018	343.02%
Pb 220.353†	-9.0	-0.00125	mg/L	0.000208	-0.00125	mg/L	0.000208	16.69%
Sb 206.836†	-7.3	-0.00335	mg/L	0.002408	-0.00335	mg/L	0.002408	71.90%
Se 196.026†	2.4	0.00198	mg/L	0.007885	0.00198	mg/L	0.007885	398.19%
Si 288.158†	3.6	0.00187	mg/L	0.013923	0.00187	mg/L	0.013923	745.26%
Sn 189.927†	0.9	0.00024	mg/L	0.000783	0.00024	mg/L	0.000783	320.29%
Sr 421.552†	-196.5	-0.00061	mg/L	0.000176	-0.00061	mg/L	0.000176	28.64%
Ti 334.903†	-28.7	-0.00135	mg/L	0.001068	-0.00135	mg/L	0.001068	79.28%
Tl 190.801†	4.4	0.00186	mg/L	0.000306	0.00186	mg/L	0.000306	16.41%
V 292.402†	-8.3	-0.00006	mg/L	0.000118	-0.00006	mg/L	0.000118	192.49%
Zn 206.200†	2.0	0.00099	mg/L	0.000256	0.00099	mg/L	0.000256	25.85%

Sequence No.: 6
Sample ID: KZ34 B WMN
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 26
Date Collected: 5/23/2007 12:44:08 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ34 B WMN

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ34 B WMN

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1920174.4	100.4	%	0.74				0.73%
ScR 361.383	164048.7	101.8	%	0.68				0.66%
Ag 328.068†	-694.6	[illegible]	mg/L	0.000148	0.00004	mg/L	0.000148	360.04%
Al 308.215†	66.7	0.03783	mg/L	0.009749	0.03783	mg/L	0.009749	25.77%
As 188.979†	-16.9	-0.01496	mg/L	0.001112	-0.01496	mg/L	0.001112	7.43%
B 249.677†	149.5	0.07053	mg/L	0.000879	0.07053	mg/L	0.000879	1.25%
Ba 233.527†	274.2	[illegible]	mg/L	0.000309	0.03134	mg/L	0.000309	0.98%
Be 313.042†	32.5	0.00013	mg/L	0.000061	0.00013	mg/L	0.000061	48.67%
Ca 317.933†	978873.9	98.10	mg/L	0.035	98.10	mg/L	0.035	0.04%
Cd 228.802†	-12.4	[illegible]	mg/L	0.000110	-0.00021	mg/L	0.000110	52.72%
Co 228.616†	797.6	0.01254	mg/L	0.000288	0.01254	mg/L	0.000288	2.30%
Cr 267.716†	19.5	[illegible]	mg/L	0.001338	0.00383	mg/L	0.001338	34.90%
Cu 324.752†	-625.9	[illegible]	mg/L	0.000270	-0.00073	mg/L	0.000270	36.95%
Fe 273.955†	37578.0	[illegible]	mg/L	0.090	27.32	mg/L	0.090	0.33%
K 766.490†	18781.0	13.02	mg/L	0.165	13.02	mg/L	0.165	1.27%
Mg 279.077†	46043.7	35.69	mg/L	0.198	35.69	mg/L	0.198	0.55%
Mn 257.610†	61420.3	[illegible]	mg/L	0.0065	1.713	mg/L	0.0065	0.38%
Mo 202.031†	102.9	0.00899	mg/L	0.000647	0.00899	mg/L	0.000647	7.19%
Na 589.592†	66691.0	29.54	mg/L	0.338	29.54	mg/L	0.338	1.14%
Na 330.237†	729.0	30.29	mg/L	0.441	30.29	mg/L	0.441	1.46%
Ni 231.604†	72.0	0.04169	mg/L	0.002496	0.04169	mg/L	0.002496	5.99%
Pb 220.353†	-36.0	-0.00408	mg/L	0.000463	-0.00408	mg/L	0.000463	11.33%
Sb 206.836†	-14.3	-0.00672	mg/L	0.002166	-0.00672	mg/L	0.002166	32.23%
Se 196.026†	-39.5	-0.01707	mg/L	0.003765	-0.01707	mg/L	0.003765	22.06%
Si 288.158†	55694.1	28.86	mg/L	0.177	28.86	mg/L	0.177	0.61%
Sn 189.927†	-52.2	-0.01341	mg/L	0.000554	-0.01341	mg/L	0.000554	4.13%
Sr 421.552†	170673.7	0.5333	mg/L	0.00082	0.5333	mg/L	0.00082	0.15%
Ti 334.903†	155.9	0.00731	mg/L	0.001287	0.00731	mg/L	0.001287	17.61%
Tl 190.801†	0.6	-0.00176	mg/L	0.000893	-0.00176	mg/L	0.000893	50.83%
V 292.402†	277.5	0.00044	mg/L	0.000179	0.00044	mg/L	0.000179	40.44%
Zn 206.200†	-15.9	[illegible]	mg/L	0.001438	-0.00388	mg/L	0.001438	37.08%

Sequence No.: 7
Sample ID: KZ34 ADUP WMN
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 27
Date Collected: 5/23/2007 12:50:58 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ34 ADUP WMN

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: KZ34 ADUP WMN

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1900562.6	99.34	%	0.651				0.66%
ScR 361.383	164139.6	101.9	%	0.12				0.12%
Ag 328.068†	-1145.3	-0.00032	mg/L	0.000104	0.00032	mg/L	0.000104	31.93%
Al 308.215†	32.9	0.01851	mg/L	0.018516	0.01851	mg/L	0.018516	100.01%
As 188.979†	-16.5	-0.01499	mg/L	0.001612	-0.01499	mg/L	0.001612	10.75%
B 249.677†	190.0	0.09074	mg/L	0.000126	0.09074	mg/L	0.000126	0.14%
Ba 233.527†	276.7	0.03086	mg/L	0.000268	0.03086	mg/L	0.000268	0.87%
Be 313.042†	33.0	0.00012	mg/L	0.000046	0.00012	mg/L	0.000046	36.90%
Ca 317.933†	1057056.4	105.9	mg/L	0.41	105.9	mg/L	0.41	0.39%
Cd 228.802†	-16.6	-0.00032	mg/L	0.000045	-0.00032	mg/L	0.000045	14.13%
Co 228.616†	148.1	0.00169	mg/L	0.000074	0.00169	mg/L	0.000074	4.35%
Cr 267.716†	11.0	0.00235	mg/L	0.001250	0.00235	mg/L	0.001250	53.22%
Cu 324.752†	-1077.9	-0.00091	mg/L	0.000174	-0.00091	mg/L	0.000174	19.01%
Fe 273.955†	64406.7	46.83	mg/L	0.547	46.83	mg/L	0.547	1.17%
K 766.490†	22466.3	15.57	mg/L	0.213	15.57	mg/L	0.213	1.37%
Mg 279.077†	54205.9	42.01	mg/L	0.490	42.01	mg/L	0.490	1.17%
Mn 257.610†	77299.5	2.156	mg/L	0.0280	2.156	mg/L	0.0280	1.30%
Mo 202.031†	102.8	0.00876	mg/L	0.000764	0.00876	mg/L	0.000764	8.73%
Na 589.592†	113701.7	50.37	mg/L	0.252	50.37	mg/L	0.252	0.50%
Na 330.237†	1224.8	51.39	mg/L	0.610	51.39	mg/L	0.610	1.19%
Ni 231.604†	5.0	0.00289	mg/L	0.000916	0.00289	mg/L	0.000916	31.67%
Pb 220.353†	-35.4	-0.00463	mg/L	0.000843	-0.00463	mg/L	0.000843	18.21%
Sb 206.836†	-9.2	-0.00432	mg/L	0.003298	-0.00432	mg/L	0.003298	76.32%
Se 196.026†	-43.1	-0.01643	mg/L	0.004372	-0.01643	mg/L	0.004372	26.61%
Si 288.158†	53658.9	27.81	mg/L	0.222	27.81	mg/L	0.222	0.80%
Sn 189.927†	-47.4	-0.01183	mg/L	0.000764	-0.01183	mg/L	0.000764	6.46%
Sr 421.552†	212293.5	0.6634	mg/L	0.00432	0.6634	mg/L	0.00432	0.65%
Ti 334.903†	126.6	0.00593	mg/L	0.000949	0.00593	mg/L	0.000949	15.99%
Tl 190.801†	0.1	-0.00251	mg/L	0.002251	-0.00251	mg/L	0.002251	89.75%
V 292.402†	461.5	0.00046	mg/L	0.000458	0.00046	mg/L	0.000458	98.64%
Zn 206.200†	-18.9	-0.00505	mg/L	0.000631	-0.00505	mg/L	0.000631	12.49%

Sequence No.: 8
Sample ID: KZ34 A WMN
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 28
Date Collected: 5/23/2007 12:57:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ34 A WMN

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: KZ34 A WMN

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1911921.4	99.94	%	0.468				0.47%
ScR 361.383	166522.4	103.4	%	0.57				0.55%
Ag 328.068†	-1169.7	0.00007	mg/L	0.000327	0.00007	mg/L	0.000327	439.99%
Al 308.215†	15.6	0.00861	mg/L	0.008714	0.00861	mg/L	0.008714	101.18%
As 188.979†	-14.9	-0.01389	mg/L	0.005499	-0.01389	mg/L	0.005499	39.59%
B 249.677†	193.2	0.09215	mg/L	0.003023	0.09215	mg/L	0.003023	3.28%
Ba 233.527†	274.7	0.03066	mg/L	0.000685	0.03066	mg/L	0.000685	2.23%
Be 313.042†	10.6	0.00003	mg/L	0.000012	0.00003	mg/L	0.000012	34.54%
Ca 317.933†	1053255.9	105.6	mg/L	0.20	105.6	mg/L	0.20	0.19%
Cd 228.802†	-9.9	-0.00017	mg/L	0.000060	-0.00017	mg/L	0.000060	35.69%
Co 228.616†	163.7	0.00196	mg/L	0.000024	0.00196	mg/L	0.000024	1.21%
Cr 267.716†	10.5	0.00022	mg/L	0.000636	0.00224	mg/L	0.000636	28.36%
Cu 324.752†	-1012.2	-0.00070	mg/L	0.000167	-0.00070	mg/L	0.000167	23.70%
Fe 273.955†	63333.0	46.05	mg/L	0.449	46.05	mg/L	0.449	0.97%
K 766.490†	22025.5	15.27	mg/L	0.118	15.27	mg/L	0.118	0.77%
Mg 279.077†	53265.4	41.28	mg/L	0.380	41.28	mg/L	0.380	0.92%
Mn 257.610†	76287.3	2.127	mg/L	0.0228	2.127	mg/L	0.0228	1.07%
Mo 202.031†	107.6	0.00932	mg/L	0.000062	0.00932	mg/L	0.000062	0.66%
Na 589.592†	112769.9	49.96	mg/L	0.440	49.96	mg/L	0.440	0.88%
Na 330.237†	1202.5	50.44	mg/L	0.379	50.44	mg/L	0.379	0.75%
Ni 231.604†	5.3	0.00309	mg/L	0.000918	0.00309	mg/L	0.000918	29.68%
Pb 220.353†	-37.9	-0.00496	mg/L	0.001198	-0.00496	mg/L	0.001198	24.17%
Sb 206.836†	-5.7	-0.00272	mg/L	0.002521	-0.00272	mg/L	0.002521	92.60%
Se 196.026†	-48.0	-0.02064	mg/L	0.005407	-0.02064	mg/L	0.005407	26.19%
Si 288.158†	52768.9	27.35	mg/L	0.309	27.35	mg/L	0.309	1.13%
Sn 189.927†	-49.7	-0.01250	mg/L	0.000223	-0.01250	mg/L	0.000223	1.78%
Sr 421.552†	212335.8	0.6635	mg/L	0.00382	0.6635	mg/L	0.00382	0.58%
Ti 334.903†	146.2	0.00685	mg/L	0.001086	0.00685	mg/L	0.001086	15.84%
Tl 190.801†	-7.2	-0.00555	mg/L	0.002815	-0.00555	mg/L	0.002815	50.76%
V 292.402†	434.8	0.00031	mg/L	0.000380	0.00031	mg/L	0.000380	123.87%
Zn 206.200†	-18.1	-0.00470	mg/L	0.001100	-0.00470	mg/L	0.001100	23.41%

Sequence No.: 9
Sample ID: KZ34 ASPK WMN
Analyst: JEB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 29
Date Collected: 5/23/2007 1:04:41 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ34 ASPK WMN

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ34 ASPK WMN

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1917627.5	100.2	%	0.16				0.16%
ScR 361.383	165135.6	102.5	%	0.94				0.92%
Ag 328.068†	62992.2	[illegible]	mg/L	0.01071	0.3609	mg/L	0.01071	2.97%
Al 308.215†	3714.9	2.114	mg/L	0.0048	2.114	mg/L	0.0048	0.23%
As 188.979†	3200.0	2.231	mg/L	0.0107	2.231	mg/L	0.0107	0.48%
B 249.677†	199.2	0.09623	mg/L	0.002671	0.09623	mg/L	0.002671	2.78%
Ba 233.527†	17495.9	[illegible]	mg/L	0.0050	2.068	mg/L	0.0050	0.24%
Be 313.042†	135026.1	0.5461	mg/L	0.00212	0.5461	mg/L	0.00212	0.39%
Ca 317.933†	1147074.9	115.0	mg/L	0.18	115.0	mg/L	0.18	0.15%
Cd 228.802†	24493.6	[illegible]	mg/L	0.00679	0.5532	mg/L	0.00679	1.23%
Co 228.616†	30604.7	0.4965	mg/L	0.00146	0.4965	mg/L	0.00146	0.29%
Cr 267.716†	2426.1	[illegible]	mg/L	0.00266	0.5052	mg/L	0.00266	0.53%
Cu 324.752†	122449.5	[illegible]	mg/L	0.00179	0.5191	mg/L	0.00179	0.34%
Fe 273.955†	66898.8	[illegible]	mg/L	0.070	48.64	mg/L	0.070	0.14%
K 766.490†	37304.2	25.86	mg/L	0.208	25.86	mg/L	0.208	0.80%
Mg 279.077†	67369.4	52.22	mg/L	0.088	52.22	mg/L	0.088	0.17%
Mn 257.610†	95273.8	[illegible]	mg/L	0.0087	2.658	mg/L	0.0087	0.33%
Mo 202.031†	108.1	0.00908	mg/L	0.000504	0.00908	mg/L	0.000504	5.55%
Na 589.592†	134185.8	59.44	mg/L	0.424	59.44	mg/L	0.424	0.71%
Na 330.237†	1450.0	60.67	mg/L	0.489	60.67	mg/L	0.489	0.81%
Ni 231.604†	904.2	0.5229	mg/L	0.00603	0.5229	mg/L	0.00603	1.15%
Pb 220.353†	14867.6	2.069	mg/L	0.0055	2.069	mg/L	0.0055	0.27%
Sb 206.836†	0.1	-0.00765	mg/L	0.003753	-0.00765	mg/L	0.003753	49.08%
Se 196.026†	2891.0	2.390	mg/L	0.0129	2.390	mg/L	0.0129	0.54%
Si 288.158†	53270.9	27.61	mg/L	0.125	27.61	mg/L	0.125	0.45%
Sn 189.927†	-57.3	-0.01423	mg/L	0.000594	-0.01423	mg/L	0.000594	4.17%
Sr 421.552†	377243.9	1.178	mg/L	0.0082	1.178	mg/L	0.0082	0.70%
Ti 334.903†	163.6	0.00752	mg/L	0.000810	0.00752	mg/L	0.000810	10.76%
Tl 190.801†	4908.6	2.087	mg/L	0.0116	2.087	mg/L	0.0116	0.55%
V 292.402†	66531.2	0.5396	mg/L	0.00211	0.5396	mg/L	0.00211	0.39%
Zn 206.200†	1038.7	[illegible]	mg/L	0.00409	0.5307	mg/L	0.00409	0.77%

Sequence No.: 10
Sample ID: KZ34 MB1SPK WMN
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 30
Date Collected: 5/23/2007 1:11:07 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ34 MB1SPK WMN

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ34 MB1SPK WMN

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1948107.8	101.8	%	0.26				0.26%
ScR 361.383	166013.5	103.1	%	1.54				1.50%
[illegible] 328.068†	72856.0	[illegible]	mg/L	0.02766	0.4096	mg/L	0.02766	6.75%
Al 308.215†	3707.1	2.110	mg/L	0.0264	2.110	mg/L	0.0264	1.25%
As 188.979†	3072.2	2.146	mg/L	0.0050	2.146	mg/L	0.0050	0.23%
B 249.677†	4.3	0.00332	mg/L	0.002524	0.00332	mg/L	0.002524	76.13%
Ba 233.527†	17327.1	[illegible]	mg/L	0.0199	2.050	mg/L	0.0199	0.97%
Be 313.042†	133752.4	0.5410	mg/L	0.00516	0.5410	mg/L	0.00516	0.95%
Ca 317.933†	105974.2	10.62	mg/L	0.084	10.62	mg/L	0.084	0.79%
[illegible] 228.802†	24473.9	[illegible]	mg/L	0.00309	0.5532	mg/L	0.00309	0.56%
Co 228.616†	31429.8	0.5106	mg/L	0.00172	0.5106	mg/L	0.00172	0.34%
Cr 267.716†	2470.4	[illegible]	mg/L	0.00637	0.5144	mg/L	0.00637	1.24%
Cu 324.752†	118745.8	[illegible]	mg/L	0.00124	0.4999	mg/L	0.00124	0.25%
Fe 273.955†	2909.0	[illegible]	mg/L	0.0240	2.114	mg/L	0.0240	1.13%
K 766.490†	15423.5	10.69	mg/L	0.067	10.69	mg/L	0.067	0.62%
Mg 279.077†	13890.6	10.77	mg/L	0.114	10.77	mg/L	0.114	1.06%
Mn 257.610†	18498.0	[illegible]	mg/L	0.00523	0.5168	mg/L	0.00523	1.01%
Mo 202.031†	23.4	[illegible]	mg/L	0.000705	0.00234	mg/L	0.000705	30.09%
Na 589.592†	24121.7	10.69	mg/L	0.104	10.69	mg/L	0.104	0.97%
Na 330.237†	265.5	10.98	mg/L	0.472	10.98	mg/L	0.472	4.30%
Ni 231.604†	915.2	0.5293	mg/L	0.00585	0.5293	mg/L	0.00585	1.11%
Pb 220.353†	15609.2	2.172	mg/L	0.0155	2.172	mg/L	0.0155	0.72%
Sb 206.836†	3.4	-0.00635	mg/L	0.001345	-0.00635	mg/L	0.001345	21.18%
Se 196.026†	2948.3	2.418	mg/L	0.0041	2.418	mg/L	0.0041	0.17%
Si 288.158†	-9.9	-0.00515	mg/L	0.000530	-0.00515	mg/L	0.000530	10.28%
Sn 189.927†	-18.2	-0.00471	mg/L	0.000684	-0.00471	mg/L	0.000684	14.51%
Sr 421.552†	169346.5	0.5287	mg/L	0.00560	0.5287	mg/L	0.00560	1.06%
Ti 334.903†	43.3	0.00189	mg/L	0.000283	0.00189	mg/L	0.000283	15.04%
Tl 190.801†	5114.9	2.178	mg/L	0.0061	2.178	mg/L	0.0061	0.28%
V 292.402†	63995.0	0.5224	mg/L	0.00332	0.5224	mg/L	0.00332	0.64%
[illegible] 206.200†	1081.8	[illegible]	mg/L	0.00333	0.5481	mg/L	0.00333	0.61%

MO WR 5-23-7 JW

Sequence No.: 11
Sample ID: CV 4
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/23/2007 1:17:42 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1851026.9	96.76	%	0.605				0.62%
ScR 361.383	156335.9	97.05	%	0.347				0.36%
Ag 328.068†	175218.9	0.9847	mg/L	0.00526	0.9847	mg/L	0.00526	0.53%
Al 308.215†	3582.0	2.011	mg/L	0.0123	2.011	mg/L	0.0123	0.61%
As 188.979†	2907.5	2.029	mg/L	0.0057	2.029	mg/L	0.0057	0.28%
B 249.677†	2219.9	1.015	mg/L	0.0037	1.015	mg/L	0.0037	0.37%
Ba 233.527†	8391.4	0.9928	mg/L	0.00471	0.9928	mg/L	0.00471	0.47%
Be 313.042†	246620.7	0.9973	mg/L	0.00400	0.9973	mg/L	0.00400	0.40%
Ca 317.933†	20350.3	2.039	mg/L	0.0121	2.039	mg/L	0.0121	0.60%
Cd 228.802†	45780.2	1.046	mg/L	0.0064	1.046	mg/L	0.0064	0.62%
Co 228.616†	61535.0	0.9989	mg/L	0.00489	0.9989	mg/L	0.00489	0.49%
Cr 267.716†	4679.3	0.9743	mg/L	0.00325	0.9743	mg/L	0.00325	0.33%
Cu 324.752†	249709.5	1.051	mg/L	0.0058	1.051	mg/L	0.0058	0.55%
Fe 273.955†	2808.1	2.040	mg/L	0.0097	2.040	mg/L	0.0097	0.48%
K 766.490†	29836.5	20.68	mg/L	0.063	20.68	mg/L	0.063	0.30%
Mg 279.077†	2653.0	2.061	mg/L	0.0017	2.061	mg/L	0.0017	0.08%
Mn 257.610†	34935.8	0.9755	mg/L	0.00337	0.9755	mg/L	0.00337	0.35%
Mo 202.031†	8723.3	0.9981	mg/L	0.00092	0.9981	mg/L	0.00092	0.09%
Na 589.592†	115176.8	51.02	mg/L	0.177	51.02	mg/L	0.177	0.35%
Na 330.237†	1202.7	50.97	mg/L	0.521	50.97	mg/L	0.521	1.02%
Ni 231.604†	1767.1	1.025	mg/L	0.0052	1.025	mg/L	0.0052	0.50%
Pb 220.353†	15226.8	2.119	mg/L	0.0130	2.119	mg/L	0.0130	0.61%
Sb 206.836†	4688.2	2.130	mg/L	0.0056	2.130	mg/L	0.0056	0.26%
Se 196.026†	2550.0	2.089	mg/L	0.0035	2.089	mg/L	0.0035	0.17%
Si 288.158†	4047.5	2.097	mg/L	0.0092	2.097	mg/L	0.0092	0.44%
Sn 189.927†	3442.1	0.9657	mg/L	0.00096	0.9657	mg/L	0.00096	0.10%
Sr 421.552†	326337.1	1.020	mg/L	0.0013	1.020	mg/L	0.0013	0.13%
Ti 334.903†	21464.3	1.006	mg/L	0.0022	1.006	mg/L	0.0022	0.22%
Tl 190.801†	4789.1	2.039	mg/L	0.0022	2.039	mg/L	0.0022	0.11%
V 292.402†	122595.2	1.007	mg/L	0.0069	1.007	mg/L	0.0069	0.68%
Zn 206.200†	2062.1	1.043	mg/L	0.0062	1.043	mg/L	0.0062	0.59%

Sequence No.: 12
Sample ID: CB
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 1:24:17 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1876842.2	98.11	%	0.631				0.64%
ScR 361.383	159947.3	99.30	%	0.365				0.37%
Ag 328.068†	79.6	0.00045	mg/L	0.000072	0.00045	mg/L	0.000072	16.00%
Al 308.215†	-4.9	-0.00283	mg/L	0.006375	-0.00283	mg/L	0.006375	225.24%
As 188.979†	0.7	0.00046	mg/L	0.001635	0.00046	mg/L	0.001635	356.52%
B 249.677†	13.2	0.00602	mg/L	0.000920	0.00602	mg/L	0.000920	15.28%
Ba 233.527†	2.9	0.00034	mg/L	0.000322	0.00034	mg/L	0.000322	93.26%
Be 313.042†	48.0	0.00019	mg/L	0.000051	0.00019	mg/L	0.000051	26.20%
Ca 317.933†	55.7	0.00558	mg/L	0.002626	0.00558	mg/L	0.002626	47.02%
Cd 228.802†	-3.6	-0.00009	mg/L	0.000090	-0.00009	mg/L	0.000090	105.65%
Co 228.616†	15.4	0.00025	mg/L	0.000056	0.00025	mg/L	0.000056	22.35%
Cr 267.716†	2.3	0.00048	mg/L	0.000811	0.00048	mg/L	0.000811	168.62%
Cu 324.752†	-61.6	-0.00026	mg/L	0.000069	-0.00026	mg/L	0.000069	26.65%
Fe 273.955†	1.1	0.00081	mg/L	0.002245	0.00081	mg/L	0.002245	277.86%
K 766.490†	-4.9	-0.00337	mg/L	0.015868	-0.00337	mg/L	0.015868	471.42%
Mg 279.077†	-10.5	-0.00812	mg/L	0.010776	-0.00812	mg/L	0.010776	132.69%
Mn 257.610†	9.2	0.00026	mg/L	0.000111	0.00026	mg/L	0.000111	43.20%
Mo 202.031†	2.5	0.00029	mg/L	0.000306	0.00029	mg/L	0.000306	107.01%
Na 589.592†	71.4	0.03162	mg/L	0.007868	0.03162	mg/L	0.007868	24.89%
Na 330.237†	7.2	0.3064	mg/L	0.38579	0.3064	mg/L	0.38579	125.89%
Ni 231.604†	-4.1	-0.00235	mg/L	0.003412	-0.00235	mg/L	0.003412	145.08%
Pb 220.353†	9.8	0.00136	mg/L	0.000684	0.00136	mg/L	0.000684	50.15%
Sb 206.836†	-7.4	-0.00338	mg/L	0.001000	-0.00338	mg/L	0.001000	29.57%
Se 196.026†	2.7	0.00224	mg/L	0.002568	0.00224	mg/L	0.002568	114.89%
Si 288.158†	-3.7	-0.00191	mg/L	0.004539	-0.00191	mg/L	0.004539	238.01%
Sn 189.927†	4.0	0.00113	mg/L	0.001876	0.00113	mg/L	0.001876	166.36%
Sr 421.552†	-146.3	-0.00046	mg/L	0.000082	-0.00046	mg/L	0.000082	17.86%
Ti 334.903†	6.7	0.00031	mg/L	0.000986	0.00031	mg/L	0.000986	315.85%
Tl 190.801†	8.3	0.00355	mg/L	0.000923	0.00355	mg/L	0.000923	25.98%
V 292.402†	1.0	0.00001	mg/L	0.000293	0.00001	mg/L	0.000293	>999.9%
Zn 206.200†	0.0	0.00000	mg/L	0.000400	0.00000	mg/L	0.000400	>999.9%

Analysis Begun

Start Time: 5/23/2007 1:29:32 PM
Plasma On Time: 5/23/2007 7:36:11 AM
Logged In Analyst: metals
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N0060101Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523A.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Sample ID: KZ34 ASPK WMN
Analyst: JLB
Initial Sample Wt:
Dilution: 1X
Autosampler Location: 31
Date Collected: 5/23/2007 1:29:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ34 ASPK WMN

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ34 ASPK WMN

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1865781.4	97.53	%	0.075				0.08%
ScR 361.383	164144.4	101.9	%	0.85				0.83%
[illegible] 328.068†	75282.8	[illegible]	mg/L	0.01362	0.4300	mg/L	0.01362	3.17%
Al 308.215†	3738.8	2.128	mg/L	0.0200	2.128	mg/L	0.0200	0.94%
As 188.979†	3241.6	2.260	mg/L	0.0100	2.260	mg/L	0.0100	0.44%
B 249.677†	202.1	0.09753	mg/L	0.000531	0.09753	mg/L	0.000531	0.54%
[illegible] 233.527†	17629.6	[illegible]	mg/L	0.0133	2.084	mg/L	0.0133	0.64%
Be 313.042†	135831.6	0.5493	mg/L	0.00177	0.5493	mg/L	0.00177	0.32%
Ca 317.933†	1144172.6	114.7	mg/L	0.31	114.7	mg/L	0.31	0.27%
[illegible] 228.802†	24590.6	[illegible]	mg/L	0.00401	0.5552	mg/L	0.00401	0.72%
Co 228.616†	31032.1	0.5034	mg/L	0.00167	0.5034	mg/L	0.00167	0.33%
[illegible] 267.716†	2438.4	[illegible]	mg/L	0.00585	0.5078	mg/L	0.00585	1.15%
[illegible] 324.752†	123432.4	[illegible]	mg/L	0.00111	0.5232	mg/L	0.00111	0.21%
[illegible] 273.955†	66653.6	[illegible]	mg/L	0.238	48.46	mg/L	0.238	0.49%
K 766.490†	37545.5	26.03	mg/L	0.281	26.03	mg/L	0.281	1.08%
Mg 279.077†	67270.6	52.14	mg/L	0.247	52.14	mg/L	0.247	0.47%
[illegible] 257.610†	94934.0	[illegible]	mg/L	0.0261	2.648	mg/L	0.0261	0.99%
Mo 202.031†	116.3	0.01003	mg/L	0.001303	0.01003	mg/L	0.001303	12.99%
Na 589.592†	134767.7	59.70	mg/L	0.610	59.70	mg/L	0.610	1.02%
Na 330.237†	1454.4	60.86	mg/L	0.650	60.86	mg/L	0.650	1.07%
Ni 231.604†	906.6	0.5243	mg/L	0.00599	0.5243	mg/L	0.00599	1.14%
Pb 220.353†	15087.8	2.100	mg/L	0.0068	2.100	mg/L	0.0068	0.33%
Sb 206.836†	1.5	-0.00705	mg/L	0.000938	-0.00705	mg/L	0.000938	13.31%
Se 196.026†	2931.0	2.422	mg/L	0.0069	2.422	mg/L	0.0069	0.29%
Si 288.158†	53212.7	27.58	mg/L	0.229	27.58	mg/L	0.229	0.83%
Sn 189.927†	-57.8	-0.01439	mg/L	0.000584	-0.01439	mg/L	0.000584	4.06%
Sr 421.552†	381732.3	1.192	mg/L	0.0110	1.192	mg/L	0.0110	0.92%
Ti 334.903†	163.2	0.00750	mg/L	0.000290	0.00750	mg/L	0.000290	3.87%
Tl 190.801†	4985.0	2.120	mg/L	0.0082	2.120	mg/L	0.0082	0.39%
V 292.402†	66695.4	0.5410	mg/L	0.00203	0.5410	mg/L	0.00203	0.38%
[illegible] 206.200†	1038.2	[illegible]	mg/L	0.00489	0.5304	mg/L	0.00489	0.92%

Sequence No.: 2
Sample ID: KZ56 MB2 TWC
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 32
Date Collected: 5/23/2007 1:35:57 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 MB2 TWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 MB2 TWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1875275.8	98.02	%	0.348				0.36%
ScR 361.383	154237.3	95.75	%	0.314				0.33%
Ag 328.068†	77.6	0.00044	mg/L	0.000090	0.00044	mg/L	0.000090	20.58%
Al 308.215†	1.0	0.00057	mg/L	0.009313	0.00057	mg/L	0.009313	>999.9%
As 188.979†	-1.1	-0.00078	mg/L	0.004035	-0.00078	mg/L	0.004035	517.48%
B 249.677†	10.1	0.00461	mg/L	0.001464	0.00461	mg/L	0.001464	31.75%
Ba 233.527†	6.2	0.00074	mg/L	0.000900	0.00074	mg/L	0.000900	122.38%
Be 313.042†	70.0	0.00028	mg/L	0.000107	0.00028	mg/L	0.000107	37.78%
Ca 317.933†	138.0	0.01383	mg/L	0.000738	0.01383	mg/L	0.000738	5.34%
Cd 228.802†	-5.1	-0.00011	mg/L	0.000053	-0.00011	mg/L	0.000053	47.05%
Co 228.616†	16.9	0.00027	mg/L	0.000097	0.00027	mg/L	0.000097	35.58%
Cr 267.716†	6.5	0.00135	mg/L	0.000482	0.00135	mg/L	0.000482	35.76%
Cu 324.752†	15.7	0.00007	mg/L	0.000340	0.00007	mg/L	0.000340	512.65%
Fe 273.955†	6.8	0.00493	mg/L	0.000703	0.00493	mg/L	0.000703	14.26%
K 766.490†	34.6	0.02400	mg/L	0.011494	0.02400	mg/L	0.011494	47.89%
Mg 279.077†	0.1	0.00006	mg/L	0.013901	0.00006	mg/L	0.013901	>999.9%
Mn 257.610†	18.1	0.00051	mg/L	0.000129	0.00051	mg/L	0.000129	25.60%
Mo 202.031†	-0.7	-0.00008	mg/L	0.000304	-0.00008	mg/L	0.000304	399.28%
Na 589.592†	78.7	0.03485	mg/L	0.007363	0.03485	mg/L	0.007363	21.13%
Na 330.237†	6.5	0.2754	mg/L	0.64666	0.2754	mg/L	0.64666	234.76%
Ni 231.604†	-0.9	-0.00054	mg/L	0.002501	-0.00054	mg/L	0.002501	467.32%
Pb 220.353†	23.1	[illegible]	mg/L	0.000360	0.00321	mg/L	0.000360	11.21%
Sb 206.836†	-6.1	-0.00280	mg/L	0.002828	-0.00280	mg/L	0.002828	100.98%
Se 196.026†	-0.8	-0.00067	mg/L	0.000967	-0.00067	mg/L	0.000967	144.11%
Si 288.158†	27.7	0.01437	mg/L	0.005618	0.01437	mg/L	0.005618	39.09%
Sn 189.927†	0.4	0.00011	mg/L	0.000128	0.00011	mg/L	0.000128	112.25%
Sr 421.552†	-202.0	-0.00063	mg/L	0.000088	-0.00063	mg/L	0.000088	13.92%
Ti 334.903†	4.0	0.00019	mg/L	0.000992	0.00019	mg/L	0.000992	532.72%
Tl 190.801†	2.8	0.00121	mg/L	0.002208	0.00121	mg/L	0.002208	182.54%
V 292.402†	-11.5	-0.00009	mg/L	0.000278	-0.00009	mg/L	0.000278	321.75%
Zn 206.200†	2.4	[illegible]	mg/L	0.000514	0.00120	mg/L	0.000514	42.96%

Sequence No.: 3
Sample ID: KZ56 O TWC
Analyst: [redacted]
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 33
Date Collected: 5/23/2007 1:42:31 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 O TWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 O TWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1876583.5	98.09	%	0.295				0.30%
ScR 361.383	157855.8	98.00	%	0.814				0.83%
Ag 328.068†	47.4	0.00027	mg/L	0.000165	0.00027	mg/L	0.000165	61.41%
Al 308.215†	68.9	0.03932	mg/L	0.004265	0.03932	mg/L	0.004265	10.85%
As 188.979†	1.9	0.00132	mg/L	0.002346	0.00132	mg/L	0.002346	177.66%
B 249.677†	8.5	0.00391	mg/L	0.004722	0.00391	mg/L	0.004722	120.80%
Ba 233.527†	7.9	0.00093	mg/L	0.000200	0.00093	mg/L	0.000200	21.47%
Be 313.042†	50.0	0.00020	mg/L	0.000093	0.00020	mg/L	0.000093	45.99%
Ca 317.933†	2272.6	0.2277	mg/L	0.00221	0.2277	mg/L	0.00221	0.97%
Cd 228.802†	-3.9	-0.00010	mg/L	0.000132	-0.00010	mg/L	0.000132	135.62%
Co 228.616†	18.2	0.00029	mg/L	0.000070	0.00029	mg/L	0.000070	23.73%
Cr 267.716†	11.2	0.00233	mg/L	0.000964	0.00233	mg/L	0.000964	41.37%
Cu 324.752†	75.4	0.00031	mg/L	0.000079	0.00031	mg/L	0.000079	25.02%
Fe 273.955†	20.8	0.01511	mg/L	0.003255	0.01511	mg/L	0.003255	21.54%
K 766.490†	270.6	0.1876	mg/L	0.03138	0.1876	mg/L	0.03138	16.73%
Mg 279.077†	745.4	0.5780	mg/L	0.00610	0.5780	mg/L	0.00610	1.06%
Mn 257.610†	87.0	0.00242	mg/L	0.000128	0.00242	mg/L	0.000128	5.31%
Mo 202.031†	1.1	0.00011	mg/L	0.000443	0.00011	mg/L	0.000443	389.31%
Na 589.592†	10824.4	4.795	mg/L	0.0071	4.795	mg/L	0.0071	0.15%
Na 330.237†	114.5	4.885	mg/L	0.6563	4.885	mg/L	0.6563	13.44%
Ni 231.604†	3.1	0.00178	mg/L	0.001441	0.00178	mg/L	0.001441	80.88%
[redacted]20.353†	9.5	0.00135	mg/L	0.000145	0.00135	mg/L	0.000145	10.73%
Sb 206.836†	-6.3	-0.00290	mg/L	0.001435	-0.00290	mg/L	0.001435	49.52%
Se 196.026†	6.6	0.00546	mg/L	0.003037	0.00546	mg/L	0.003037	55.58%
Si 288.158†	35.6	0.01847	mg/L	0.009949	0.01847	mg/L	0.009949	53.87%
Sn 189.927†	-1.9	-0.00051	mg/L	0.000956	-0.00051	mg/L	0.000956	189.05%
Sr 421.552†	950.5	0.00297	mg/L	0.000183	0.00297	mg/L	0.000183	6.16%
Ti 334.903†	11.1	0.00052	mg/L	0.000598	0.00052	mg/L	0.000598	115.25%
Tl 190.801†	5.4	0.00230	mg/L	0.001192	0.00230	mg/L	0.001192	51.71%
V 292.402†	-25.4	-0.00019	mg/L	0.000300	-0.00019	mg/L	0.000300	155.75%
[redacted]6.200†	6.1	0.00310	mg/L	0.000919	0.00310	mg/L	0.000919	29.68%

Sequence No.: 4
Sample ID: KZ56 B SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 34
Date Collected: 5/23/2007 1:49:07 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 B SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 B SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1846609.8	96.52	%	0.166				0.17%
ScR 361.383	157438.6	97.74	%	1.201				1.23%
Ag 328.068†	-1195.6	0.00178	mg/L	0.000155	0.00357	mg/L	0.000310	8.69%
Al 308.215†	65708.3	37.51	mg/L	0.208	75.02	mg/L	0.416	0.55%
As 188.979†	45.0	0.02343	mg/L	0.002461	0.04686	mg/L	0.004923	10.51%
B 249.677†	314.0	0.1488	mg/L	0.00317	0.2976	mg/L	0.00633	2.13%
Ba 233.527†	1488.5	0.1737	mg/L	0.00211	0.3474	mg/L	0.00422	1.21%
Be 313.042†	227.7	0.00049	mg/L	0.000007	0.00097	mg/L	0.000013	1.34%
Ca 317.933†	261280.1	26.18	mg/L	0.095	52.37	mg/L	0.190	0.36%
Cd 228.802†	104.4	0.00224	mg/L	0.000104	0.00447	mg/L	0.000208	4.65%
Co 228.616†	1378.7	0.01665	mg/L	0.000048	0.03330	mg/L	0.000096	0.29%
Cr 267.716†	534.8	0.1123	mg/L	0.00260	0.2247	mg/L	0.00520	2.31%
Cu 324.752†	54994.2	0.2361	mg/L	0.00126	0.4722	mg/L	0.00252	0.53%
Fe 273.955†	80791.2	58.75	mg/L	0.144	117.5	mg/L	0.29	0.24%
K 766.490†	7897.3	5.475	mg/L	0.0416	10.95	mg/L	0.083	0.76%
Mg 279.077†	25160.3	19.48	mg/L	0.054	38.97	mg/L	0.108	0.28%
Mn 257.610†	23725.1	0.6612	mg/L	0.00347	1.322	mg/L	0.0069	0.53%
Mo 202.031†	167.1	0.01837	mg/L	0.000545	0.03673	mg/L	0.001091	2.97%
Na 589.592†	79349.2	35.15	mg/L	0.154	70.30	mg/L	0.308	0.44%
Na 330.237†	848.0	35.85	mg/L	0.575	71.69	mg/L	1.150	1.60%
Ni 231.604†	160.7	0.09306	mg/L	0.001021	0.1861	mg/L	0.00204	1.10%
[illegible]220.353†	2022.3	[illegible]	mg/L	0.00118	0.5882	mg/L	0.00236	0.40%
Sb 206.836†	-30.9	-0.00567	mg/L	0.001088	-0.01134	mg/L	0.002176	19.19%
Se 196.026†	-36.5	-0.01304	mg/L	0.003387	-0.02609	mg/L	0.006774	25.97%
Si 288.158†	10447.7	5.414	mg/L	0.1001	10.83	mg/L	0.200	1.85%
Sn 189.927†	29.3	0.00770	mg/L	0.000329	0.01540	mg/L	0.000658	4.27%
Sr 421.552†	81772.5	0.2555	mg/L	0.00049	0.5110	mg/L	0.00098	0.19%
Ti 334.903†	53881.8	2.529	mg/L	0.0059	5.058	mg/L	0.0118	0.23%
Tl 190.801†	-11.2	-0.00760	mg/L	0.001765	-0.01521	mg/L	0.003529	23.21%
V 292.402†	17638.6	0.1377	mg/L	0.00063	0.2754	mg/L	0.00125	0.45%
[illegible]206.200†	1985.8	[illegible]	g/L	0.0134	2.013	mg/L	0.0267	1.33%

Sequence No.: 5
Sample ID: KZ56 C SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 35
Date Collected: 5/23/2007 1:55:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 C SWC

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: KZ56 C SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	859900.3	44.95	%	47.573				105.84%
ScR 361.383	159324.7	98.91	%	0.751				0.76%
Ag 328.068†	2178.7	0.02228	mg/L	0.038087	0.04456	mg/L	0.076175	170.93%
Al 308.215†	82915.1	47.33	mg/L	0.182	94.66	mg/L	0.364	0.38%
As 188.979†	175.5	0.1128	mg/L	0.08818	0.2256	mg/L	0.17637	78.18%
B 249.677†	243.2	0.1178	mg/L	0.00150	0.2355	mg/L	0.00300	1.27%
Ba 233.527†	1570.6	0.1829	mg/L	0.00099	0.3658	mg/L	0.00198	0.54%
Be 313.042†	263.2	0.00030	mg/L	0.000615	0.00061	mg/L	0.001230	202.66%
Ca 317.933†	267725.8	26.83	mg/L	0.095	53.66	mg/L	0.190	0.35%
Cd 228.802†	-322.0	-0.00816	mg/L	0.016278	-0.01631	mg/L	0.032555	199.59%
Co 228.616†	3020.2	0.04205	mg/L	0.019383	0.08409	mg/L	0.038766	46.10%
Cr 267.716†	890.0	0.1865	mg/L	0.00027	0.3730	mg/L	0.00054	0.14%
Cu 324.752†	94321.5	0.4024	mg/L	0.28373	0.8048	mg/L	0.56745	70.51%
Fe 273.955†	95331.7	69.32	mg/L	0.199	138.6	mg/L	0.40	0.29%
K 766.490†	9481.6	6.573	mg/L	0.0632	13.15	mg/L	0.126	0.96%
Mg 279.077†	31235.4	24.19	mg/L	0.066	48.38	mg/L	0.133	0.27%
Mn 257.610†	22669.3	0.6316	mg/L	0.00215	1.263	mg/L	0.0043	0.34%
Mo 202.031†	83.3	0.00876	mg/L	0.039407	0.01752	mg/L	0.078815	449.81%
Na 589.592†	118647.7	52.56	mg/L	0.386	105.1	mg/L	0.77	0.73%
Na 330.237†	1255.7	53.36	mg/L	0.149	106.7	mg/L	0.30	0.28%
Ni 231.604†	225.1	0.1302	mg/L	0.00196	0.2605	mg/L	0.00392	1.51%
Pb 220.353†	3201.0	0.4614	mg/L	0.35320	0.9229	mg/L	0.70640	76.54%
Sb 206.836†	-438.7	-0.1898	mg/L	0.26941	-0.3795	mg/L	0.53881	141.97%
Se 196.026†	-414.5	-0.3200	mg/L	0.42932	-0.6400	mg/L	0.85864	134.16%
Si 288.158†	8916.2	4.621	mg/L	0.0088	9.241	mg/L	0.0175	0.19%
Sn 189.927†	67.1	0.01806	mg/L	0.032557	0.03612	mg/L	0.065114	180.28%
Sr 421.552†	77205.7	0.2412	mg/L	0.00096	0.4824	mg/L	0.00191	0.40%
Ti 334.903†	66205.6	3.107	mg/L	0.0160	6.215	mg/L	0.0321	0.52%
Tl 190.801†	-329.6	-0.1441	mg/L	0.20251	-0.2882	mg/L	0.40503	140.51%
V 292.402†	32462.7	0.2572	mg/L	0.23919	0.5144	mg/L	0.47838	93.01%
Zn 206.200†	1848.9	0.9372	mg/L	0.00559	1.874	mg/L	0.0112	0.60%

Sequence No.: 6
Sample ID: KZ56 D SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 36
Date Collected: 5/23/2007 2:02:19 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 D SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

Mean Data: KZ56 D SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	29355.4	1.534	%	0.0186				1.21%
ScR 361.383	-22.0	-0.01363	%	0.003503				25.70%
Ag 328.068†	6802.3	0.05773	mg/L	0.011865	0.1155	mg/L	0.02373	20.55%
Al 308.215†	1160492.0	662.6	mg/L	168.83	1325	mg/L	337.7	25.48%
As 188.979†	378.7	0.1787	mg/L	0.11536	0.3574	mg/L	0.23072	64.55%
B 249.677†	-35617.1	-16.17	mg/L	6.147	-32.34	mg/L	12.294	38.01%
Ba 233.527†	-74700.2	-8.843	mg/L	3.2333	-17.69	mg/L	6.467	36.56%
Be 313.042†	-3973858.5	-16.11	mg/L	4.275	-32.23	mg/L	8.550	26.53%
Ca 317.933†	-345776.2	-34.66	mg/L	7.915	-69.32	mg/L	15.830	22.84%
Cd 228.802†	-1168.2	-0.03110	mg/L	0.001608	-0.06221	mg/L	0.003217	5.17%
Co 228.616†	3295.9	0.01723	mg/L	0.003413	0.03446	mg/L	0.006826	19.81%
Cr 267.716†	51130.1	10.66	mg/L	9.188	21.31	mg/L	18.376	86.22%
Cu 324.752†	37916.4	0.1688	mg/L	0.00741	0.3375	mg/L	0.01482	4.39%
Fe 273.955†	186044.9	135.3	mg/L	26.12	270.6	mg/L	52.24	19.31%
K 766.490†	-7515088.7	-5210	mg/L	1387.4	-10420	mg/L	2774.9	26.63%
Mg 279.077†	85146.8	65.98	mg/L	24.865	132.0	mg/L	49.73	37.69%
Mn 257.610†	-35575.1	-1.001	mg/L	0.3847	-2.001	mg/L	0.7694	38.45%
Mo 202.031†	-412.4	-0.04685	mg/L	0.006993	-0.09371	mg/L	0.013986	14.93%
Na 589.592†	-770960.7	-341.5	mg/L	111.35	-683.1	mg/L	222.69	32.60%
Na 330.237†	221611.0	9456	mg/L	1999.6	18910	mg/L	3999.3	21.15%
Ni 231.604†	-19029.2	-11.02	mg/L	6.682	-22.05	mg/L	13.363	60.61%
Pb 220.353†	802.3	0.3833	mg/L	0.06595	0.7665	mg/L	0.13191	17.21%
Sb 206.836†	-840.8	-0.4653	mg/L	0.21812	-0.9306	mg/L	0.43624	46.88%
Se 196.026†	-898.1	-0.6123	mg/L	0.16263	-1.225	mg/L	0.3253	26.56%
Si 288.158†	-103311.1	-53.54	mg/L	12.885	-107.1	mg/L	25.77	24.07%
Sn 189.927†	133.6	0.03098	mg/L	0.003754	0.06196	mg/L	0.007509	12.12%
Sr 421.552†	14245243.3	44.52	mg/L	12.153	89.04	mg/L	24.307	27.30%
Ti 334.903†	384713.4	18.05	mg/L	1.595	36.11	mg/L	3.191	8.84%
Tl 190.801†	-1065.0	-0.4680	mg/L	0.04124	-0.9360	mg/L	0.08248	8.81%
V 292.402†	3402.8	0.06667	mg/L	0.053101	0.1333	mg/L	0.10620	79.65%
Zn 206.200†	30465.0	15.42	mg/L	6.624	30.83	mg/L	13.248	42.97%

Sequence No.: 7
Sample ID: KZ56 ADUP SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 37
Date Collected: 5/23/2007 2:09:25 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 ADUP SWC

Analyte	Back Pressure	Flow
All	151.0 kPa	0.50 L/min

User canceled analysis.

Analysis Begun

Start Time: 5/23/2007 2:18:23 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101

Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523A.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 7
Sample ID: KZ56 ADUP SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

DEL

Autosampler Location: 37
Date Collected: 5/23/2007 2:18:24 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 ADUP SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 ADUP SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	635873.3	33.24	%	53.806				161.88%
ScR 361.383	157193.2	97.59	%	1.764				1.81%
Ag 328.068†	5445.2	0.04686	mg/L	0.038261	0.09371	mg/L	0.076523	81.66%
Al 308.215†	151801.5	86.66	mg/L	0.899	173.3	mg/L	1.80	1.04%
As 188.979†	363.2	0.2371	mg/L	0.19078	0.4743	mg/L	0.38157	80.45%
B 249.677†	248.6	0.1239	mg/L	0.00199	0.2479	mg/L	0.00399	1.61%
Ba 233.527†	2375.2	0.2764	mg/L	0.00703	0.5528	mg/L	0.01407	2.54%
Be 313.042†	446.2	0.00127	mg/L	0.000334	0.00254	mg/L	0.000667	26.28%
Ca 317.933†	331590.2	33.23	mg/L	0.242	66.46	mg/L	0.483	0.73%
Cd 228.802†	-715.2	-0.01800	mg/L	0.015339	-0.03599	mg/L	0.030678	85.23%
Co 228.616†	3366.6	0.04314	mg/L	0.015790	0.08627	mg/L	0.031579	36.60%
Cr 267.716†	893.5	0.1879	mg/L	0.00368	0.3759	mg/L	0.00735	1.96%
Cu 324.752†	66240.8	0.2877	mg/L	0.10138	0.5755	mg/L	0.20276	35.23%
Fe 273.955†	154839.6	112.6	mg/L	1.13	225.2	mg/L	2.26	1.01%
K 766.490†	15421.2	10.69	mg/L	0.147	21.38	mg/L	0.294	1.38%
Mg 279.077†	53445.0	41.39	mg/L	0.322	82.79	mg/L	0.644	0.78%
Mn 257.610†	37123.1	1.034	mg/L	0.0145	2.068	mg/L	0.0289	1.40%
Mo 202.031†	-261.3	-0.03085	mg/L	0.043906	-0.06169	mg/L	0.087813	142.34%
Na 589.592†	145488.4	64.45	mg/L	0.746	128.9	mg/L	1.49	1.16%
Na 330.237†	1544.2	65.88	mg/L	1.301	131.8	mg/L	2.60	1.98%
Ni 231.604†	278.4	0.1611	mg/L	0.00400	0.3222	mg/L	0.00800	2.48%
Pb 220.353†	1388.6	0.2233	mg/L	0.07580	0.4466	mg/L	0.15160	33.95%
Sb 206.836†	-664.1	-0.2835	mg/L	0.26512	-0.5669	mg/L	0.53024	93.53%
Se 196.026†	-714.4	-0.5532	mg/L	0.51265	-1.106	mg/L	1.0253	92.67%
Si 288.158†	9727.9	5.041	mg/L	0.0708	10.08	mg/L	0.142	1.40%
Sn 189.927†	36.8	0.00916	mg/L	0.009653	0.01831	mg/L	0.019306	105.43%
Sr 421.552†	99905.6	0.3121	mg/L	0.00220	0.6243	mg/L	0.00439	0.70%
Ti 334.903†	108796.4	5.107	mg/L	0.0527	10.21	mg/L	0.105	1.03%
Tl 190.801†	-717.0	-0.3107	mg/L	0.26429	-0.6215	mg/L	0.52857	85.05%
V 292.402†	19495.6	0.1470	mg/L	0.12624	0.2939	mg/L	0.25249	85.90%

Zn 206.200†	1926.9	0.9770 mg/L	0.02354	1.954 mg/L	0.0471	2.41%

User canceled analysis.

Analysis Begun

Start Time: 5/23/2007 2:27:10 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523A.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 8
Sample ID: KZ56 A SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X
User canceled analysis.
Autosampler Location: 38
Date Collected: 5/23/2007 2:27:10 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

JLB 5.23.7 I.S. tubing problem

Analysis Begun

Start Time: 5/23/2007 2:41:01 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523A.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 8
Sample ID: KZ56 A SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X
User canceled analysis.
Autosampler Location: 38
Date Collected: 5/23/2007 2:41:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Analysis Begun

Start Time: 5/23/2007 2:56:27 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523A.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 8
Sample ID: KZ56 A SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X
Autosampler Location: 38
Date Collected: 5/23/2007 2:56:27 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Sc drift rerun

Nebulizer Parameters: KZ56 A SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 A SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2070555.1	108.2	%	10.34				9.55%
ScR 361.383	161632.4	100.3	%	3.95				3.94%

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Ag 328.068†	-2027.1	0.00341	mg/L	0.000572	0.00681	mg/L	0.001144	16.79%
Al 308.215†	144291.7	82.37	mg/L	2.564	164.7	mg/L	5.13	3.11%
As 188.979†	72.9	0.03555	mg/L	0.005690	0.07110	mg/L	0.011380	16.00%
B 249.677†	246.9	0.1222	mg/L	0.00745	0.2444	mg/L	0.01491	6.10%
Ba 233.527†	2878.0	0.3363	mg/L	0.02020	0.6726	mg/L	0.04039	6.01%
Be 313.042†	383.6	0.00081	mg/L	0.000321	0.00162	mg/L	0.000642	39.71%
Ca 317.933†	325393.8	32.61	mg/L	0.869	65.22	mg/L	1.737	2.66%
Cd 228.802†	144.0	0.00304	mg/L	0.000570	0.00608	mg/L	0.001140	18.75%
Co 228.616†	2236.5	0.02590	mg/L	0.003878	0.05179	mg/L	0.007757	14.98%
Cr 267.716†	731.4	0.1540	mg/L	0.00766	0.3081	mg/L	0.01532	4.97%
Cu 324.752†	75057.9	0.3240	mg/L	0.03035	0.6480	mg/L	0.06071	9.37%
Fe 273.955†	140635.3	102.3	mg/L	2.82	204.5	mg/L	5.63	2.75%
K 766.490†	15960.6	11.06	mg/L	0.392	22.13	mg/L	0.784	3.54%
Mg 279.077†	44846.9	34.73	mg/L	0.946	69.46	mg/L	1.893	2.72%
Mn 257.610†	31084.5	0.8658	mg/L	0.02135	1.732	mg/L	0.0427	2.47%
Mo 202.031†	169.8	0.01849	mg/L	0.001751	0.03699	mg/L	0.003503	9.47%
Na 589.592†	150456.6	66.65	mg/L	2.015	133.3	mg/L	4.03	3.02%
Na 330.237†	1601.5	68.29	mg/L	3.537	136.6	mg/L	7.07	5.18%
Ni 231.604†	237.1	0.1373	mg/L	0.00892	0.2746	mg/L	0.01783	6.49%
Pb 220.353†	2087.7	0.3192	mg/L	0.02682	0.6383	mg/L	0.05363	8.40%
Sb 206.836†	-39.9	0.00059	mg/L	0.008358	0.00118	mg/L	0.016715	>999.9%
Se 196.026†	-46.9	-0.00795	mg/L	0.006698	-0.01590	mg/L	0.013395	84.23%
Si 288.158†	10029.5	5.197	mg/L	0.1912	10.39	mg/L	0.382	3.68%
Sn 189.927†	46.3	0.01199	mg/L	0.001498	0.02398	mg/L	0.002995	12.49%
Sr 421.552†	139500.4	0.4358	mg/L	0.01403	0.8717	mg/L	0.02806	3.22%
Ti 334.903†	98433.4	4.620	mg/L	0.1348	9.240	mg/L	0.2695	2.92%
Tl 190.801†	-9.4	-0.00874	mg/L	0.003355	-0.01748	mg/L	0.006709	38.38%
V 292.402†	29867.8	0.2324	mg/L	0.02252	0.4648	mg/L	0.04504	9.69%
Zn 206.200†	1825.1	0.9254	mg/L	0.05525	1.851	mg/L	0.1105	5.97%

Sequence No.: 9
Sample ID: KZ56 ASPK SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 39
Date Collected: 5/23/2007 3:03:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 ASPK SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 ASPK SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1905621.8	99.61	%	0.549				0.55%
ScR 361.383	163535.5	101.5	%	0.77				0.76%
Ag 328.068†	81114.8	0.4704	mg/L	0.00147	0.9408	mg/L	0.00293	0.31%
Al 308.215†	138749.3	79.20	mg/L	0.073	158.4	mg/L	0.15	0.09%
As 188.979†	2856.5	1.980	mg/L	0.0153	3.961	mg/L	0.0306	0.77%
B 249.677†	245.0	0.1224	mg/L	0.00128	0.2447	mg/L	0.00257	1.05%
Ba 233.527†	17851.1	2.108	mg/L	0.0184	4.215	mg/L	0.0368	0.87%
Be 313.042†	121062.5	0.4889	mg/L	0.00051	0.9778	mg/L	0.00102	0.10%
Ca 317.933†	394719.2	39.56	mg/L	0.042	79.11	mg/L	0.083	0.11%
Cd 228.802†	22273.0	0.5033	mg/L	0.00097	1.007	mg/L	0.0019	0.19%
Co 228.616†	29838.1	0.4747	mg/L	0.00384	0.9495	mg/L	0.00769	0.81%
Cr 267.716†	2954.4	0.6169	mg/L	0.00530	1.234	mg/L	0.0106	0.86%
Cu 324.752†	195582.4	0.8312	mg/L	0.00003	1.662	mg/L	0.0001	0.00%
Fe 273.955†	139517.3	101.4	mg/L	0.12	202.9	mg/L	0.23	0.11%
K 766.490†	27644.1	19.16	mg/L	0.109	38.33	mg/L	0.217	0.57%
Mg 279.077†	55312.9	42.85	mg/L	0.022	85.70	mg/L	0.044	0.05%
Mn 257.610†	47425.1	1.322	mg/L	0.0033	2.645	mg/L	0.0065	0.25%
Mo 202.031†	190.3	0.02062	mg/L	0.000895	0.04125	mg/L	0.001789	4.34%
Na 589.592†	159374.8	70.60	mg/L	0.409	141.2	mg/L	0.82	0.58%
Na 330.237†	1684.1	71.49	mg/L	0.667	143.0	mg/L	1.33	0.93%
Ni 231.604†	1055.5	0.6106	mg/L	0.00323	1.221	mg/L	0.0065	0.53%
[illegible] 220.353†	15778.1	[illegible]	mg/L	0.0183	4.445	mg/L	0.0365	0.82%
Sb 206.836†	-36.6	-0.00616	mg/L	0.004780	-0.01231	mg/L	0.009561	77.65%
Se 196.026†	2392.2	1.991	mg/L	0.0091	3.982	mg/L	0.0182	0.46%
Si 288.158†	7548.7	3.912	mg/L	0.0532	7.824	mg/L	0.1065	1.36%
Sn 189.927†	37.7	0.00998	mg/L	0.002385	0.01996	mg/L	0.004770	23.90%
Sr 421.552†	255334.9	0.7974	mg/L	0.00246	1.595	mg/L	0.0049	0.31%
Ti 334.903†	93843.0	4.405	mg/L	0.0027	8.809	mg/L	0.0054	0.06%
Tl 190.801†	4341.3	1.844	mg/L	0.0141	3.687	mg/L	0.0282	0.77%
V 292.402†	87882.2	0.7063	mg/L	0.00136	1.413	mg/L	0.0027	0.19%
[illegible] 206.200†	2773.6	[illegible]	mg/L	0.0119	2.812	mg/L	0.0237	0.84%

Sequence No.: 10
Sample ID: KZ56 MB2SPK TWC
Analyst: JEB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 40
Date Collected: 5/23/2007 3:09:24 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 MB2SPK TWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 MB2SPK TWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1922214.9	100.5	%	0.27				0.27%
ScR 361.383	163904.9	101.8	%	0.72				0.71%
Ag 328.068†	86792.1	0.4879	mg/L	0.00453	0.4879	mg/L	0.00453	0.93%
Al 308.215†	3619.9	2.061	mg/L	0.0197	2.061	mg/L	0.0197	0.96%
As 188.979†	2887.0	2.016	mg/L	0.0103	2.016	mg/L	0.0103	0.51%
B 249.677†	6.1	0.00409	mg/L	0.002975	0.00409	mg/L	0.002975	72.66%
Ba 233.527†	16783.7	1.986	mg/L	0.0054	1.986	mg/L	0.0054	0.27%
Be 313.042†	128036.6	0.5178	mg/L	0.00033	0.5178	mg/L	0.00033	0.06%
Ca 317.933†	103369.5	10.36	mg/L	0.003	10.36	mg/L	0.003	0.03%
Cd 228.802†	23256.9	0.5259	mg/L	0.00399	0.5259	mg/L	0.00399	0.76%
Co 228.616†	29810.1	0.4843	mg/L	0.00338	0.4843	mg/L	0.00338	0.70%
Cr 267.716†	2382.9	0.4962	mg/L	0.00432	0.4962	mg/L	0.00432	0.87%
Cu 324.752†	117702.2	0.4955	mg/L	0.00349	0.4955	mg/L	0.00349	0.70%
Fe 273.955†	2864.2	2.082	mg/L	0.0166	2.082	mg/L	0.0166	0.80%
K 766.490†	15032.2	10.42	mg/L	0.088	10.42	mg/L	0.088	0.84%
Mg 279.077†	13586.1	10.54	mg/L	0.011	10.54	mg/L	0.011	0.10%
Mn 257.610†	17480.8	0.4883	mg/L	0.00167	0.4883	mg/L	0.00167	0.34%
Mo 202.031†	30.4	0.00315	mg/L	0.000169	0.00315	mg/L	0.000169	5.35%
Na 589.592†	23450.7	10.39	mg/L	0.044	10.39	mg/L	0.044	0.43%
Na 330.237†	264.5	10.96	mg/L	0.171	10.96	mg/L	0.171	1.56%
Ni 231.604†	877.4	0.5074	mg/L	0.00521	0.5074	mg/L	0.00521	1.03%
Pb 220.353†	14807.5	[illegible]	mg/L	0.0127	2.061	mg/L	0.0127	0.62%
Sb 206.836†	8.4	-0.00381	mg/L	0.001202	-0.00381	mg/L	0.001202	31.57%
Se 196.026†	2579.0	2.115	mg/L	0.0053	2.115	mg/L	0.0053	0.25%
Si 288.158†	13.5	0.00701	mg/L	0.003314	0.00701	mg/L	0.003314	47.27%
Sn 189.927†	-14.4	-0.00366	mg/L	0.000466	-0.00366	mg/L	0.000466	12.73%
Sr 421.552†	162992.3	0.5088	mg/L	0.00508	0.5088	mg/L	0.00508	1.00%
Ti 334.903†	38.1	0.00165	mg/L	0.000281	0.00165	mg/L	0.000281	17.09%
Tl 190.801†	4759.8	2.027	mg/L	0.0039	2.027	mg/L	0.0039	0.19%
V 292.402†	61109.3	0.4988	mg/L	0.00447	0.4988	mg/L	0.00447	0.90%
Zn 206.200†	994.4	[illegible]	mg/L	0.00354	0.5038	mg/L	0.00354	0.70%

Sequence No.: 11
Sample ID: CV 6
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/23/2007 3:15:59 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1876930.5	98.11	%	0.587				0.60%
ScR 361.383	159482.5	99.01	%	0.594				0.60%
Ag 328.068†	164621.0	0.9251	mg/L	0.00257	0.9251	mg/L	0.00257	0.28%
Al 308.215†	3497.5	1.965	mg/L	0.0174	1.965	mg/L	0.0174	0.89%
As 188.979†	2700.4	1.885	mg/L	0.0058	1.885	mg/L	0.0058	0.31%
B 249.677†	2143.9	0.9808	mg/L	0.00910	0.9808	mg/L	0.00910	0.93%
Ba 233.527†	8119.0	0.9605	mg/L	0.00867	0.9605	mg/L	0.00867	0.90%
Be 313.042†	241034.2	0.9748	mg/L	0.00362	0.9748	mg/L	0.00362	0.37%
Ca 317.933†	19679.5	1.972	mg/L	0.0187	1.972	mg/L	0.0187	0.95%
Cd 228.802†	43967.0	1.005	mg/L	0.0083	1.005	mg/L	0.0083	0.82%
Co 228.616†	57932.7	0.9404	mg/L	0.00266	0.9404	mg/L	0.00266	0.28%
Cr 267.716†	4519.0	0.9410	mg/L	0.00752	0.9410	mg/L	0.00752	0.80%
Cu 324.752†	236417.3	0.9948	mg/L	0.00242	0.9948	mg/L	0.00242	0.24%
Fe 273.955†	2725.9	1.981	mg/L	0.0185	1.981	mg/L	0.0185	0.93%
K 766.490†	28736.1	19.92	mg/L	0.128	19.92	mg/L	0.128	0.64%
Mg 279.077†	2576.7	2.002	mg/L	0.0169	2.002	mg/L	0.0169	0.85%
Mn 257.610†	33359.9	0.9315	mg/L	0.00175	0.9315	mg/L	0.00175	0.19%
Mo 202.031†	8271.9	0.9464	mg/L	0.00252	0.9464	mg/L	0.00252	0.27%
Na 589.592†	111135.4	49.23	mg/L	0.386	49.23	mg/L	0.386	0.78%
Na 330.237†	1186.9	50.31	mg/L	0.679	50.31	mg/L	0.679	1.35%
Ni 231.604†	1708.9	0.9911	mg/L	0.00718	0.9911	mg/L	0.00718	0.72%
Pb 220.353†	14169.2	1.972	mg/L	0.0068	1.972	mg/L	0.0068	0.35%
Sb 206.836†	4450.5	2.022	mg/L	0.0033	2.022	mg/L	0.0033	0.17%
Se 196.026†	2400.1	1.966	mg/L	0.0023	1.966	mg/L	0.0023	0.12%
Si 288.158†	3890.1	2.016	mg/L	0.0209	2.016	mg/L	0.0209	1.04%
Sn 189.927†	3261.0	0.9148	mg/L	0.00182	0.9148	mg/L	0.00182	0.20%
Sr 421.552†	317810.2	0.9929	mg/L	0.00359	0.9929	mg/L	0.00359	0.36%
Ti 334.903†	20918.6	0.9809	mg/L	0.00292	0.9809	mg/L	0.00292	0.30%
Tl 190.801†	4566.3	1.944	mg/L	0.0048	1.944	mg/L	0.0048	0.25%
V 292.402†	114901.2	0.9438	mg/L	0.00254	0.9438	mg/L	0.00254	0.27%
Zn 206.200†	1978.5	1.001	mg/L	0.0102	1.001	mg/L	0.0102	1.02%

Sequence No.: 12
Sample ID: CB
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 3:22:34 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1910282.0	99.85	%	0.443				0.44%
ScR 361.383	157703.2	97.90	%	0.712				0.73%
Ag 328.068†	-24.1	-0.00013	mg/L	0.000199	-0.00013	mg/L	0.000199	147.50%
Al 308.215†	2.9	0.00162	mg/L	0.012947	0.00162	mg/L	0.012947	797.34%
As 188.979†	0.6	0.00041	mg/L	0.004111	0.00041	mg/L	0.004111	>999.9%
B 249.677†	16.0	0.00730	mg/L	0.002363	0.00730	mg/L	0.002363	32.38%
Ba 233.527†	2.4	0.00029	mg/L	0.000152	0.00029	mg/L	0.000152	52.68%
Be 313.042†	34.3	0.00014	mg/L	0.000093	0.00014	mg/L	0.000093	66.94%
Ca 317.933†	10.6	0.00106	mg/L	0.001788	0.00106	mg/L	0.001788	168.79%
Cd 228.802†	-8.8	-0.00021	mg/L	0.000089	-0.00021	mg/L	0.000089	43.14%
Co 228.616†	1.9	0.00003	mg/L	0.000097	0.00003	mg/L	0.000097	321.73%
Cr 267.716†	11.0	0.00229	mg/L	0.001392	0.00229	mg/L	0.001392	60.88%
Cu 324.752†	-235.3	-0.00099	mg/L	0.000223	-0.00099	mg/L	0.000223	22.51%
Fe 273.955†	4.3	0.00312	mg/L	0.000449	0.00312	mg/L	0.000449	14.40%
K 766.490†	-26.2	-0.01817	mg/L	0.022641	-0.01817	mg/L	0.022641	124.60%
Mg 279.077†	-3.6	-0.00282	mg/L	0.006519	-0.00282	mg/L	0.006519	231.08%
Mn 257.610†	11.8	0.00033	mg/L	0.000045	0.00033	mg/L	0.000045	13.77%
Mo 202.031†	3.0	0.00035	mg/L	0.000670	0.00035	mg/L	0.000670	192.92%
Na 589.592†	42.6	0.01889	mg/L	0.005567	0.01889	mg/L	0.005567	29.46%
Na 330.237†	4.8	0.2049	mg/L	0.34306	0.2049	mg/L	0.34306	167.42%
Ni 231.604†	-2.2	-0.00126	mg/L	0.003091	-0.00126	mg/L	0.003091	246.11%
Pb 220.353†	13.1	0.00182	mg/L	0.001760	0.00182	mg/L	0.001760	96.47%
Sb 206.836†	0.7	0.00029	mg/L	0.001785	0.00029	mg/L	0.001785	626.22%
Se 196.026†	4.3	0.00353	mg/L	0.003903	0.00353	mg/L	0.003903	110.70%
Si 288.158†	-4.8	-0.00250	mg/L	0.004273	-0.00250	mg/L	0.004273	171.16%
Sn 189.927†	5.5	0.00154	mg/L	0.000224	0.00154	mg/L	0.000224	14.56%
Sr 421.552†	-22.9	-0.00007	mg/L	0.000087	-0.00007	mg/L	0.000087	120.93%
Ti 334.903†	15.0	0.00071	mg/L	0.002836	0.00071	mg/L	0.002836	402.20%
Tl 190.801†	16.9	0.00721	mg/L	0.000838	0.00721	mg/L	0.000838	11.62%
V 292.402†	-12.0	-0.00008	mg/L	0.000223	-0.00008	mg/L	0.000223	270.17%
Zn 206.200†	4.0	0.00200	mg/L	0.000261	0.00200	mg/L	0.000261	13.04%

Sequence No.: 13
Sample ID: KZ56 MB1 SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 41
Date Collected: 5/23/2007 3:29:06 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 MB1 SWC

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: KZ56 MB1 SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1934553.5	101.1	%	0.09				0.09%
ScR 361.383	162025.9	100.6	%	0.21				0.21%
Ag 328.068†	-67.6	-0.00038	mg/L	0.000268	-0.00076	mg/L	0.000536	70.84%
Al 308.215†	22.6	0.01292	mg/L	0.005655	0.02584	mg/L	0.011310	43.76%
As 188.979†	3.5	0.00242	mg/L	0.002832	0.00484	mg/L	0.005665	117.04%
B 249.677†	8.8	0.00404	mg/L	0.000837	0.00809	mg/L	0.001673	20.69%
Ba 233.527†	2.7	0.00032	mg/L	0.000115	0.00064	mg/L	0.000230	35.84%
Be 313.042†	7.5	0.00003	mg/L	0.000028	0.00006	mg/L	0.000055	91.52%
Ca 317.933†	85.7	0.00859	mg/L	0.000888	0.01718	mg/L	0.001777	10.34%
Cd 228.802†	-3.9	-0.00011	mg/L	0.000087	-0.00021	mg/L	0.000174	82.49%
Co 228.616†	-3.1	-0.00005	mg/L	0.000074	-0.00010	mg/L	0.000148	145.29%
Cr 267.716†	8.9	0.00185	mg/L	0.000263	0.00370	mg/L	0.000525	14.18%
Cu 324.752†	-224.8	-0.00095	mg/L	0.000152	-0.00189	mg/L	0.000304	16.07%
Fe 273.955†	15.2	0.01103	mg/L	0.001505	0.02205	mg/L	0.003009	13.65%
K 766.490†	-67.1	-0.04654	mg/L	0.008721	-0.09308	mg/L	0.017441	18.74%
Mg 279.077†	-2.3	-0.00178	mg/L	0.004559	-0.00356	mg/L	0.009119	256.29%
Mn 257.610†	11.9	0.00033	mg/L	0.000148	0.00066	mg/L	0.000296	44.65%
Mo 202.031†	2.3	0.00026	mg/L	0.000125	0.00052	mg/L	0.000249	48.23%
Na 589.592†	72.2	0.03198	mg/L	0.002390	0.06397	mg/L	0.004780	7.47%
Na 330.237†	10.7	0.4558	mg/L	0.66968	0.9116	mg/L	1.33936	146.93%
Ni 231.604†	-5.8	-0.00337	mg/L	0.001104	-0.00674	mg/L	0.002208	32.74%
[illegible] 220.353†	1.7	[illegible]	mg/L	0.000796	0.00050	mg/L	0.001592	320.90%
Sb 206.836†	-3.4	-0.00157	mg/L	0.003931	-0.00314	mg/L	0.007861	250.08%
Se 196.026†	4.6	0.00377	mg/L	0.008014	0.00755	mg/L	0.016029	212.35%
Si 288.158†	2.9	0.00148	mg/L	0.001229	0.00296	mg/L	0.002459	83.09%
Sn 189.927†	2.3	0.00064	mg/L	0.000304	0.00128	mg/L	0.000608	47.36%
Sr 421.552†	6.7	0.00002	mg/L	0.000046	0.00004	mg/L	0.000091	218.17%
Ti 334.903†	7.7	0.00036	mg/L	0.000296	0.00072	mg/L	0.000592	81.90%
Tl 190.801†	3.3	0.00140	mg/L	0.000265	0.00280	mg/L	0.000530	18.92%
V 292.402†	6.6	0.00007	mg/L	0.000100	0.00013	mg/L	0.000201	153.66%
[illegible] 206.200†	2.4	[illegible]	mg/L	0.000412	0.00243	mg/L	0.000824	33.96%

Sequence No.: 14
Sample ID: KZ56 ADUP SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 42
Date Collected: 5/23/2007 3:35:40 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 ADUP SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 ADUP SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1870835.3	97.79	%	4.053				4.14%
ScR 361.383	166788.3	103.5	%	4.82				4.65%
Ag 328.068†	-2357.7	0.00230	mg/L	0.000627	0.00460	mg/L	0.001255	27.27%
Al 308.215†	144592.6	82.54	mg/L	3.598	165.1	mg/L	7.20	4.36%
As 188.979†	82.9	0.04197	mg/L	0.005803	0.08394	mg/L	0.011606	13.83%
B 249.677†	241.7	0.1204	mg/L	0.00587	0.2408	mg/L	0.01174	4.88%
Ba 233.527†	2280.6	0.2654	mg/L	0.01299	0.5308	mg/L	0.02598	4.89%
Be 313.042†	382.7	0.00068	mg/L	0.000259	0.00136	mg/L	0.000518	38.01%
Ca 317.933†	317407.0	31.81	mg/L	1.339	63.62	mg/L	2.679	4.21%
Cd 228.802†	180.0	0.00383	mg/L	0.000390	0.00766	mg/L	0.000780	10.18%
Co 228.616†	2746.3	0.03350	mg/L	0.002493	0.06700	mg/L	0.004986	7.44%
Cr 267.716†	858.1	0.1804	mg/L	0.00920	0.3609	mg/L	0.01840	5.10%
Cu 324.752†	82751.5	0.3568	mg/L	0.01464	0.7135	mg/L	0.02927	4.10%
Fe 273.955†	147727.9	107.4	mg/L	4.39	214.8	mg/L	8.79	4.09%
K 766.490†	14490.3	10.05	mg/L	0.542	20.09	mg/L	1.084	5.40%
Mg 279.077†	51031.7	39.53	mg/L	1.695	79.05	mg/L	3.390	4.29%
Mn 257.610†	34958.7	0.9738	mg/L	0.03781	1.948	mg/L	0.0756	3.88%
Mo 202.031†	181.3	0.01983	mg/L	0.001210	0.03966	mg/L	0.002421	6.10%
Na 589.592†	137340.0	60.84	mg/L	2.694	121.7	mg/L	5.39	4.43%
Na 330.237†	1497.2	63.88	mg/L	3.244	127.8	mg/L	6.49	5.08%
Ni 231.604†	273.1	0.1582	mg/L	0.00831	0.3164	mg/L	0.01661	5.25%
Pb 220.353†	2344.7	0.3548	mg/L	0.01509	0.7095	mg/L	0.03017	4.25%
Sb 206.836†	-61.6	-0.00914	mg/L	0.005472	-0.01828	mg/L	0.010943	59.86%
Se 196.026†	-62.2	-0.01994	mg/L	0.011232	-0.03987	mg/L	0.022464	56.34%
Si 288.158†	10920.0	5.659	mg/L	0.2896	11.32	mg/L	0.579	5.12%
Sn 189.927†	51.8	0.01356	mg/L	0.000856	0.02712	mg/L	0.001712	6.31%
Sr 421.552†	96006.8	0.2999	mg/L	0.01337	0.5999	mg/L	0.02674	4.46%
Ti 334.903†	105206.8	4.938	mg/L	0.2216	9.876	mg/L	0.4432	4.49%
Tl 190.801†	-9.2	-0.00916	mg/L	0.002172	-0.01831	mg/L	0.004345	23.73%
V 292.402†	35335.2	0.2763	mg/L	0.01225	0.5527	mg/L	0.02450	4.43%
Zn 206.200†	1854.8	0.9404	mg/L	0.04749	1.881	mg/L	0.0950	5.05%

Sequence No.: 15
Sample ID: [redacted]
Analyst: JLB
Initial Sample Wt:
Dilution: [redacted]

Autosampler Location: 43
Date Collected: 5/23/2007 3:42:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 A SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 A SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1923335.3	100.5	%	1.59				1.59%
ScR 361.383	167402.4	103.9	%	0.53				0.51%
Ag 328.068†	-2046.2	0.00292	mg/L	0.000384	0.00583	mg/L	0.000769	13.18%
Al 308.215†	139470.2	79.62	mg/L	0.473	159.2	mg/L	0.95	0.59%
As 188.979†	74.0	0.03681	mg/L	0.002975	0.07363	mg/L	0.005950	8.08%
B 249.677†	231.6	0.1150	mg/L	0.00084	0.2300	mg/L	0.00168	0.73%
Ba 233.527†	2772.3	0.3239	mg/L	0.00364	0.6478	mg/L	0.00728	1.12%
Be 313.042†	349.8	0.00064	mg/L	0.000054	0.00128	mg/L	0.000107	8.40%
Ca 317.933†	316509.3	31.72	mg/L	0.275	63.44	mg/L	0.550	0.87%
Cd 228.802†	163.8	0.00349	mg/L	0.000240	0.00698	mg/L	0.000480	6.88%
Co 228.616†	2406.6	0.02896	mg/L	0.000684	0.05792	mg/L	0.001368	2.36%
Cr 267.716†	711.4	0.1498	mg/L	0.00203	0.2996	mg/L	0.00406	1.35%
Cu 324.752†	79142.8	0.3410	mg/L	0.00533	0.6820	mg/L	0.01065	1.56%
Fe 273.955†	136962.6	99.59	mg/L	0.517	199.2	mg/L	1.03	0.52%
K 766.490†	15310.3	10.61	mg/L	0.128	21.23	mg/L	0.256	1.21%
Mg 279.077†	43642.9	33.80	mg/L	0.266	67.60	mg/L	0.532	0.79%
Mn 257.610†	30147.9	0.8397	mg/L	0.00462	1.679	mg/L	0.0092	0.55%
Mo 202.031†	174.0	0.01900	mg/L	0.001359	0.03800	mg/L	0.002717	7.15%
Na 589.592†	144575.9	64.05	mg/L	0.327	128.1	mg/L	0.65	0.51%
Na 330.237†	1552.3	66.19	mg/L	0.249	132.4	mg/L	0.50	0.38%
Ni 231.604†	228.1	0.1321	mg/L	0.00083	0.2642	mg/L	0.00166	0.63%
[redacted]	2220.0	[redacted]	mg/L	0.00477	0.6731	mg/L	0.00954	1.42%
Sb 206.836†	-46.8	-0.00302	mg/L	0.000869	-0.00605	mg/L	0.001737	28.72%
Se 196.026†	-58.6	-0.01848	mg/L	0.006132	-0.03695	mg/L	0.012265	33.19%
Si 288.158†	9869.2	5.114	mg/L	0.0603	10.23	mg/L	0.121	1.18%
Sn 189.927†	53.4	0.01402	mg/L	0.002075	0.02803	mg/L	0.004150	14.80%
Sr 421.552†	135456.7	0.4232	mg/L	0.00224	0.8464	mg/L	0.00449	0.53%
Ti 334.903†	95573.7	4.486	mg/L	0.0349	8.972	mg/L	0.0697	0.78%
Tl 190.801†	-8.6	-0.00835	mg/L	0.001118	-0.01670	mg/L	0.002235	13.39%
V 292.402†	31571.8	0.2465	mg/L	0.00386	0.4930	mg/L	0.00772	1.57%
[redacted] 206.200†	1768.5	[redacted]	mg/L	0.00875	1.794	mg/L	0.0175	0.98%

User canceled analysis.

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Analysis Begun

Start Time: 5/23/2007 3:50:49 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523A.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

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Sequence No.: 16
Sample ID: KZ56 E SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X
Autosampler Location: 44
Date Collected: 5/23/2007 3:50:49 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 E SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 E SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1909239.2	99.80	%	0.204				0.20%
ScR 361.383	158686.6	98.51	%	4.608				4.68%
Ag 328.068†	-2593.8	0.00289	mg/L	0.000403	0.00577	mg/L	0.000806	13.96%
Al 308.215†	155903.7	89.00	mg/L	2.152	178.0	mg/L	4.30	2.42%
As 188.979†	62.8	0.02536	mg/L	0.004082	0.05072	mg/L	0.008164	16.10%
B 249.677†	181.6	0.09421	mg/L	0.004227	0.1884	mg/L	0.00845	4.49%
Ba 233.527†	2306.7	0.2679	mg/L	0.01615	0.5358	mg/L	0.03230	6.03%
Be 313.042†	498.5	0.00105	mg/L	0.000257	0.00210	mg/L	0.000515	24.45%
Ca 317.933†	413698.9	41.46	mg/L	0.695	82.92	mg/L	1.390	1.68%
Cd 228.802†	99.1	0.00204	mg/L	0.000213	0.00409	mg/L	0.000425	10.41%
Co 228.616†	2965.0	0.03454	mg/L	0.000015	0.06907	mg/L	0.000029	0.04%
Cr 267.716†	885.8	0.1864	mg/L	0.00893	0.3728	mg/L	0.01786	4.79%
Cu 324.752†	58201.7	0.2544	mg/L	0.00121	0.5088	mg/L	0.00242	0.47%
Fe 273.955†	165907.1	120.6	mg/L	2.13	241.3	mg/L	4.25	1.76%
K 766.490†	13380.1	9.276	mg/L	0.2889	18.55	mg/L	0.578	3.11%
Mg 279.077†	50629.5	39.21	mg/L	0.723	78.42	mg/L	1.446	1.84%
Mn 257.610†	46947.8	1.308	mg/L	0.0210	2.616	mg/L	0.0421	1.61%
Mo 202.031†	146.2	0.01555	mg/L	0.000651	0.03110	mg/L	0.001302	4.19%
Na 589.592†	94242.0	41.75	mg/L	1.174	83.50	mg/L	2.349	2.81%
Na 330.237†	1010.1	43.28	mg/L	2.147	86.55	mg/L	4.294	4.96%
Ni 231.604†	296.0	0.1714	mg/L	0.01084	0.3428	mg/L	0.02167	6.32%
[illegible]20.353†	1405.4	[illegible]	mg/L	0.00174	0.4528	mg/L	0.00348	0.77%
Sb 206.836†	-67.0	-0.00895	mg/L	0.001782	-0.01789	mg/L	0.003564	19.92%
Se 196.026†	-62.6	-0.01645	mg/L	0.005077	-0.03289	mg/L	0.010154	30.87%
Si 288.158†	6543.0	3.391	mg/L	0.2137	6.781	mg/L	0.4275	6.30%
Sn 189.927†	21.1	0.00438	mg/L	0.000311	0.00875	mg/L	0.000623	7.12%
Sr 421.552†	91631.0	0.2863	mg/L	0.00587	0.5726	mg/L	0.01174	2.05%
Ti 334.903†	130869.3	6.143	mg/L	0.1288	12.29	mg/L	0.258	2.10%
Tl 190.801†	-12.1	-0.01164	mg/L	0.001565	-0.02327	mg/L	0.003130	13.45%
V 292.402†	38582.9	0.3009	mg/L	0.00281	0.6018	mg/L	0.00561	0.93%
[illegible]06.200†	1396.4	[illegible]	mg/L	0.04518	1.417	mg/L	0.0904	6.38%

User canceled analysis.

Analysis Begun

Start Time: 5/23/2007 3:59:19 PM
Plasma On Time: 5/23/2007 7:36:11 AM
Logged In Analyst: metals
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N0060101Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\0523A.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 17
Sample ID: KZ56 F SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X
Autosampler Location: 45
Date Collected: 5/23/2007 3:59:19 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 F SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 F SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1908408.9	99.76	%	0.419				0.42%
ScR 361.383	163236.8	101.3	%	0.66				0.65%
Ag 328.068†	-2142.8	0.00290	mg/L	0.000175	0.00581	mg/L	0.000349	6.02%
Al 308.215†	139622.2	79.70	mg/L	0.304	159.4	mg/L	0.61	0.38%
As 188.979†	81.4	0.03985	mg/L	0.002551	0.07971	mg/L	0.005103	6.40%
B 249.677†	297.2	0.1453	mg/L	0.00135	0.2906	mg/L	0.00269	0.93%
Ba 233.527†	1906.0	0.2212	mg/L	0.00209	0.4425	mg/L	0.00419	0.95%
Be 313.042†	388.1	0.00066	mg/L	0.000037	0.00132	mg/L	0.000074	5.59%
Ca 317.933†	368113.5	36.89	mg/L	0.099	73.78	mg/L	0.198	0.27%
Cd 228.802†	215.3	0.00465	mg/L	0.000059	0.00930	mg/L	0.000118	1.27%
Co 228.616†	3183.7	0.03915	mg/L	0.000395	0.07830	mg/L	0.000789	1.01%
Cr 267.716†	828.2	0.1741	mg/L	0.00001	0.3481	mg/L	0.00001	0.00%
Cu 324.752†	92733.7	0.3982	mg/L	0.00206	0.7964	mg/L	0.00412	0.52%
Fe 273.955†	141953.5	103.2	mg/L	0.19	206.4	mg/L	0.38	0.18%
K 766.490†	13124.5	9.098	mg/L	0.0786	18.20	mg/L	0.157	0.86%
Mg 279.077†	50099.2	38.80	mg/L	0.133	77.61	mg/L	0.267	0.34%
Mn 257.610†	36895.6	1.028	mg/L	0.0043	2.056	mg/L	0.0086	0.42%
Mo 202.031†	208.3	0.02278	mg/L	0.000277	0.04556	mg/L	0.000554	1.22%
Na 589.592†	141318.3	62.60	mg/L	0.326	125.2	mg/L	0.65	0.52%
Na 330.237†	1513.8	64.61	mg/L	0.752	129.2	mg/L	1.50	1.16%
Ni 231.604†	260.5	0.1509	mg/L	0.00130	0.3018	mg/L	0.00261	0.86%
[illegible] 220.353†	2431.8	[illegible]	mg/L	0.00300	0.7320	mg/L	0.00601	0.82%
Sb 206.836†	-60.7	-0.00803	mg/L	0.002419	-0.01606	mg/L	0.004837	30.11%
Se 196.026†	-58.2	-0.01710	mg/L	0.002253	-0.03419	mg/L	0.004505	13.18%
Si 288.158†	6917.1	3.585	mg/L	0.0517	7.169	mg/L	0.1033	1.44%
Sn 189.927†	41.7	0.01032	mg/L	0.001611	0.02065	mg/L	0.003222	15.60%
Sr 421.552†	97052.7	0.3032	mg/L	0.00123	0.6065	mg/L	0.00247	0.41%
Ti 334.903†	122188.6	5.735	mg/L	0.0218	11.47	mg/L	0.044	0.38%
Tl 190.801†	-6.4	-0.00856	mg/L	0.002610	-0.01712	mg/L	0.005219	30.49%
V 292.402†	36538.4	0.2859	mg/L	0.00139	0.5718	mg/L	0.00277	0.48%
[illegible] 206.200†	2042.3	[illegible]	mg/L	0.0024	2.071	mg/L	0.0047	0.23%

Sequence No.: 18
Sample ID: KZ56 G SWC
Analyst: JLB
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 5/23/2007 4:05:54 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 G SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 G SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1907980.2	99.73	%	0.214				0.21%
ScR 361.383	161614.5	100.3	%	0.28				0.28%
Ag 328.068†	-2582.1	0.00278	mg/L	0.000185	0.00556	mg/L	0.000370	6.65%
Al 308.215†	155644.4	88.85	mg/L	0.561	177.7	mg/L	1.12	0.63%
As 188.979†	67.9	0.02742	mg/L	0.003661	0.05484	mg/L	0.007322	13.35%
B 249.677†	241.5	0.1214	mg/L	0.00199	0.2428	mg/L	0.00398	1.64%
Ba 233.527†	1972.0	0.2284	mg/L	0.00033	0.4567	mg/L	0.00066	0.14%
Be 313.042†	421.0	0.00064	mg/L	0.000043	0.00128	mg/L	0.000087	6.77%
Ca 317.933†	477992.9	47.90	mg/L	0.418	95.81	mg/L	0.835	0.87%
Cd 228.802†	193.5	0.00419	mg/L	0.000108	0.00839	mg/L	0.000216	2.57%
Co 228.616†	3496.6	0.04162	mg/L	0.000079	0.08324	mg/L	0.000158	0.19%
Cr 267.716†	898.8	0.1890	mg/L	0.00106	0.3780	mg/L	0.00212	0.56%
Cu 324.752†	89521.9	0.3859	mg/L	0.00088	0.7718	mg/L	0.00176	0.23%
Fe 273.955†	164209.1	119.4	mg/L	0.62	238.8	mg/L	1.23	0.52%
K 766.490†	12239.4	8.485	mg/L	0.0878	16.97	mg/L	0.176	1.04%
Mg 279.077†	56637.6	43.87	mg/L	0.329	87.73	mg/L	0.659	0.75%
Mn 257.610†	45997.5	1.282	mg/L	0.0056	2.563	mg/L	0.0112	0.44%
Mo 202.031†	164.0	0.01740	mg/L	0.000177	0.03479	mg/L	0.000353	1.01%
Na 589.592†	124514.6	55.16	mg/L	0.292	110.3	mg/L	0.58	0.53%
Na 330.237†	1331.2	56.94	mg/L	0.256	113.9	mg/L	0.51	0.45%
Ni 231.604†	255.9	0.1482	mg/L	0.00206	0.2964	mg/L	0.00412	1.39%
Pb 220.353†	2236.7	[illegible]	mg/L	0.00229	0.6841	mg/L	0.00457	0.67%
Sb 206.836†	-73.4	-0.01065	mg/L	0.003023	-0.02129	mg/L	0.006047	28.40%
Se 196.026†	-73.4	-0.02469	mg/L	0.003755	-0.04938	mg/L	0.007509	15.21%
Si 288.158†	7169.9	3.716	mg/L	0.0249	7.431	mg/L	0.0497	0.67%
Sn 189.927†	29.1	0.00637	mg/L	0.000798	0.01274	mg/L	0.001596	12.53%
Sr 421.552†	98104.9	0.3065	mg/L	0.00314	0.6130	mg/L	0.00628	1.02%
Ti 334.903†	148391.1	6.965	mg/L	0.0586	13.93	mg/L	0.117	0.84%
Tl 190.801†	-6.3	-0.00977	mg/L	0.002431	-0.01953	mg/L	0.004862	24.89%
V 292.402†	42254.7	0.3303	mg/L	0.00210	0.6605	mg/L	0.00420	0.64%
[illegible] 206.200†	1825.8	[illegible]	mg/L	0.00145	1.853	mg/L	0.0029	0.16%

Sequence No.: 19
Sample ID: KZ56 H SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 47
Date Collected: 5/23/2007 4:12:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 H SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 H SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1891654.8	98.88	%	0.245				0.25%
ScR 361.383	156574.6	97.20	%	0.427				0.44%
Ag 328.068†	-2097.0	0.00335	mg/L	0.000049	0.00670	mg/L	0.000098	1.46%
Al 308.215†	145663.2	83.15	mg/L	0.208	166.3	mg/L	0.42	0.25%
As 188.979†	76.5	0.03592	mg/L	0.001131	0.07183	mg/L	0.002263	3.15%
B 249.677†	249.9	0.1239	mg/L	0.00493	0.2477	mg/L	0.00985	3.98%
Ba 233.527†	1937.7	0.2249	mg/L	0.00140	0.4498	mg/L	0.00280	0.62%
Be 313.042†	396.0	0.00069	mg/L	0.000015	0.00137	mg/L	0.000030	2.18%
Ca 317.933†	409172.2	41.01	mg/L	0.167	82.01	mg/L	0.335	0.41%
Cd 228.802†	178.4	0.00381	mg/L	0.000098	0.00763	mg/L	0.000197	2.58%
Co 228.616†	2977.9	0.03559	mg/L	0.000170	0.07118	mg/L	0.000339	0.48%
Cr 267.716†	835.1	0.1755	mg/L	0.00047	0.3511	mg/L	0.00094	0.27%
Cu 324.752†	82584.5	0.3556	mg/L	0.00172	0.7112	mg/L	0.00345	0.48%
Fe 273.955†	143764.7	104.5	mg/L	0.18	209.1	mg/L	0.36	0.17%
K 766.490†	12863.8	8.918	mg/L	0.0169	17.84	mg/L	0.034	0.19%
Mg 279.077†	49226.3	38.13	mg/L	0.108	76.25	mg/L	0.217	0.28%
Mn 257.610†	37734.1	1.051	mg/L	0.0062	2.102	mg/L	0.0125	0.59%
Mo 202.031†	172.3	0.01854	mg/L	0.000347	0.03709	mg/L	0.000694	1.87%
Na 589.592†	134177.5	59.44	mg/L	0.215	118.9	mg/L	0.43	0.36%
Na 330.237†	1420.0	60.65	mg/L	0.169	121.3	mg/L	0.34	0.28%
Ni 231.604†	241.6	0.1399	mg/L	0.00507	0.2798	mg/L	0.01015	3.63%
[illegible]220.353†	2256.6	[illegible]	mg/L	0.00068	0.6861	mg/L	0.00135	0.20%
Sb 206.836†	-62.2	-0.00798	mg/L	0.003734	-0.01596	mg/L	0.007468	46.80%
Se 196.026†	-56.7	-0.01468	mg/L	0.003611	-0.02937	mg/L	0.007221	24.59%
Si 288.158†	6178.0	3.202	mg/L	0.0278	6.403	mg/L	0.0555	0.87%
Sn 189.927†	38.5	0.00936	mg/L	0.000589	0.01872	mg/L	0.001178	6.29%
Sr 421.552†	97161.0	0.3036	mg/L	0.00161	0.6071	mg/L	0.00323	0.53%
Ti 334.903†	124325.4	5.835	mg/L	0.0239	11.67	mg/L	0.048	0.41%
Tl 190.801†	-2.3	-0.00690	mg/L	0.002339	-0.01380	mg/L	0.004678	33.90%
V 292.402†	36575.3	0.2960	mg/L	0.00114	0.5720	mg/L	0.00229	0.40%
[illegible]206.200†	1768.6	[illegible]	mg/L	0.00515	1.794	mg/L	0.0103	0.57%

Sequence No.: 20
Sample ID: KZ56 I SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 1.27

Autosampler Location: 48
Date Collected: 5/23/2007 4:18:53 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 I SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 I SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1891911.0	98.89	%	0.201				0.20%
ScR 361.383	160626.9	99.72	%	0.098				0.10%
Ag 328.068†	-2203.4	0.00332	mg/L	0.000217	0.00665	mg/L	0.000434	6.54%
Al 308.215†	138917.1	79.30	mg/L	0.140	158.6	mg/L	0.28	0.18%
As 188.979†	74.3	0.03398	mg/L	0.006189	0.06795	mg/L	0.012379	18.22%
B 249.677†	250.9	0.1247	mg/L	0.00140	0.2493	mg/L	0.00280	1.12%
Ba 233.527†	1852.4	0.2147	mg/L	0.00120	0.4293	mg/L	0.00239	0.56%
Be 313.042†	385.1	0.00062	mg/L	0.000044	0.00125	mg/L	0.000087	7.01%
Ca 317.933†	382085.7	38.29	mg/L	0.095	76.58	mg/L	0.191	0.25%
Cd 228.802†	185.7	0.00399	mg/L	0.000087	0.00799	mg/L	0.000174	2.18%
Co 228.616†	3053.2	0.03582	mg/L	0.000315	0.07164	mg/L	0.000630	0.88%
Cr 267.716†	835.5	0.1757	mg/L	0.00093	0.3514	mg/L	0.00186	0.53%
Cu 324.752†	84289.6	0.3631	mg/L	0.00140	0.7261	mg/L	0.00280	0.39%
Fe 273.955†	149200.6	108.5	mg/L	0.18	217.0	mg/L	0.37	0.17%
K 766.490†	12464.8	8.641	mg/L	0.0278	17.28	mg/L	0.056	0.32%
Mg 279.077†	49440.0	38.29	mg/L	0.076	76.58	mg/L	0.152	0.20%
Mn 257.610†	37249.8	1.038	mg/L	0.0027	2.075	mg/L	0.0055	0.26%
Mo 202.031†	185.7	0.02015	mg/L	0.000014	0.04030	mg/L	0.000029	0.07%
Na 589.592†	134326.4	59.51	mg/L	0.273	119.0	mg/L	0.55	0.46%
Na 330.237†	1434.4	61.34	mg/L	0.478	122.7	mg/L	0.96	0.78%
Ni 231.604†	245.9	0.1424	mg/L	0.00223	0.2848	mg/L	0.00445	1.56%
[illegible]220.353†	2420.7	[illegible]	mg/L	0.00217	0.7283	mg/L	0.00433	0.60%
Sb 206.836†	-58.5	-0.00630	mg/L	0.002887	-0.01260	mg/L	0.005774	45.83%
Se 196.026†	-62.9	-0.02010	mg/L	0.005150	-0.04021	mg/L	0.010300	25.62%
Si 288.158†	5901.2	3.058	mg/L	0.0156	6.116	mg/L	0.0311	0.51%
Sn 189.927†	43.6	0.01055	mg/L	0.000229	0.02111	mg/L	0.000458	2.17%
Sr 421.552†	92113.3	0.2878	mg/L	0.00177	0.5756	mg/L	0.00353	0.61%
Ti 334.903†	134718.3	6.323	mg/L	0.0115	12.65	mg/L	0.023	0.18%
Tl 190.801†	-8.6	-0.00987	mg/L	0.001041	-0.01974	mg/L	0.002083	10.55%
V 292.402†	36914.1	0.2881	mg/L	0.00231	0.5762	mg/L	0.00463	0.80%
[illegible]206.200†	1837.5	[illegible]	mg/L	0.00608	1.864	mg/L	0.0122	0.65%

Sequence No.: 21
Sample ID: KZ56 J SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 49
Date Collected: 5/23/2007 4:25:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

5.23.7 JLB

Nebulizer Parameters: KZ56 J SWC

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: KZ56 J SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	Sample RSD
ScA 357.253	3119505.7	163.1	%	26.27				16.11%
ScR 361.383	246059.3	152.8	%	13.61				8.91%
Ag 328.068†	-977.4	-0.00548	mg/L	0.000319	-0.01097	mg/L	0.000638	5.82%
Al 308.215†	217.5	0.1241	mg/L	0.00963	0.2482	mg/L	0.01926	7.76%
As 188.979†	-24.9	-0.01742	mg/L	0.000693	-0.03485	mg/L	0.001387	3.98%
B 249.677†	-1.2	-0.00051	mg/L	0.001868	-0.00102	mg/L	0.003737	368.05%
Ba 233.527†	-18.4	-0.00218	mg/L	0.000336	-0.00436	mg/L	0.000673	15.42%
Be 313.042†	-599.0	-0.00243	mg/L	0.000113	-0.00485	mg/L	0.000226	4.65%
Ca 317.933†	-106.5	-0.01068	mg/L	0.000680	-0.02136	mg/L	0.001361	6.37%
Cd 228.802†	26.4	0.00071	mg/L	0.000863	0.00142	mg/L	0.001725	121.09%
Co 228.616†	-342.7	-0.00558	mg/L	0.000204	-0.01116	mg/L	0.000407	3.65%
Cr 267.716†	21.4	0.00446	mg/L	0.000556	0.00891	mg/L	0.001112	12.47%
Cu 324.752†	-1287.5	-0.00542	mg/L	0.000345	-0.01083	mg/L	0.000690	6.37%
Fe 273.955†	64.7	0.04703	mg/L	0.002903	0.09405	mg/L	0.005807	6.17%
K 766.490†	-1142.3	-0.7919	mg/L	0.06353	-1.584	mg/L	0.1271	8.02%
Mg 279.077†	30.7	0.02379	mg/L	0.004639	0.04759	mg/L	0.009277	19.49%
Mn 257.610†	1.7	0.00004	mg/L	0.000092	0.00009	mg/L	0.000184	212.80%
Mo 202.031†	46.6	0.00533	mg/L	0.000286	0.01066	mg/L	0.000571	5.36%
Na 589.592†	-2.4	-0.00107	mg/L	0.005172	-0.00213	mg/L	0.010344	484.68%
Na 330.237†	126.8	5.411	mg/L	0.4651	10.82	mg/L	0.930	8.60%
Ni 231.604†	-5.3	-0.00302	mg/L	0.000637	-0.00604	mg/L	0.001273	21.07%
Pb 220.353†	-22.3	-0.00305	mg/L	0.000349	-0.00610	mg/L	0.000698	11.45%
Sb 206.836†	99.9	0.04542	mg/L	0.001148	0.09084	mg/L	0.002296	2.53%
Se 196.026†	73.7	0.06048	mg/L	0.006664	0.1210	mg/L	0.01333	11.02%
Si 288.158†	-22.9	-0.01187	mg/L	0.000958	-0.02373	mg/L	0.001916	8.08%
Sn 189.927†	-7.6	-0.00209	mg/L	0.000607	-0.00419	mg/L	0.001213	28.98%
Sr 421.552†	3448.5	0.01078	mg/L	0.000503	0.02155	mg/L	0.001007	4.67%
Ti 334.903†	131.7	0.00618	mg/L	0.000906	0.01235	mg/L	0.001813	14.68%
Tl 190.801†	44.5	0.01897	mg/L	0.001212	0.03793	mg/L	0.002424	6.39%
V 292.402†	-161.5	-0.00126	mg/L	0.000134	-0.00251	mg/L	0.000268	10.66%
Zn 206.200†	14.6	0.00737	mg/L	0.000790	0.01474	mg/L	0.001579	10.72%

Sequence No.: 22
Sample ID: KZ56 MB1SPK SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 50
Date Collected: 5/23/2007 4:32:06 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 MB1SPK SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1884192.6	98.49	%	0.331				0.34%
ScR 361.383	159152.8	98.80	%	0.725				0.73%
Ag 328.068†	86434.7	0.4859	mg/L	0.00230	0.9718	mg/L	0.00461	0.47%
Al 308.215†	3631.6	2.067	mg/L	0.0214	4.135	mg/L	0.0429	1.04%
As 188.979†	2871.4	2.005	mg/L	0.0061	4.011	mg/L	0.0121	0.30%
B 249.677†	3.3	0.00286	mg/L	0.002296	0.00571	mg/L	0.004591	80.39%
Ba 233.527†	17083.4	2.021	mg/L	0.0059	4.042	mg/L	0.0118	0.29%
Be 313.042†	128738.9	0.5207	mg/L	0.00107	1.041	mg/L	0.0021	0.20%
Ca 317.933†	103986.0	10.42	mg/L	0.025	20.84	mg/L	0.050	0.24%
Cd 228.802†	23321.7	0.5274	mg/L	0.00244	1.055	mg/L	0.0049	0.46%
Co 228.616†	29358.5	0.4769	mg/L	0.00327	0.9538	mg/L	0.00654	0.69%
Cr 267.716†	2393.3	0.4983	mg/L	0.00264	0.9967	mg/L	0.00527	0.53%
Cu 324.752†	115751.7	0.4873	mg/L	0.00196	0.9746	mg/L	0.00391	0.40%
Fe 273.955†	2883.3	2.096	mg/L	0.0123	4.192	mg/L	0.0247	0.59%
K 766.490†	15368.9	10.65	mg/L	0.062	21.31	mg/L	0.124	0.58%
Mg 279.077†	13704.7	10.63	mg/L	0.028	21.25	mg/L	0.057	0.27%
Mn 257.610†	17565.6	0.4907	mg/L	0.00110	0.9814	mg/L	0.00219	0.22%
Mo 202.031†	27.9	0.00287	mg/L	0.000531	0.00574	mg/L	0.001062	18.51%
Na 589.592†	23726.8	10.51	mg/L	0.047	21.02	mg/L	0.093	0.44%
Na 330.237†	268.3	11.12	mg/L	0.188	22.24	mg/L	0.377	1.69%
Ni 231.604†	873.9	0.5054	mg/L	0.00687	1.011	mg/L	0.0137	1.36%
Pb 220.353†	14731.0	[illegible]	mg/L	0.0120	4.100	mg/L	0.0240	0.58%
Sb 206.836†	7.2	-0.00445	mg/L	0.001021	-0.00889	mg/L	0.002043	22.98%
Se 196.026†	2573.7	2.111	mg/L	0.0068	4.222	mg/L	0.0136	0.32%
Si 288.158†	8.4	0.00437	mg/L	0.000614	0.00873	mg/L	0.001228	14.06%
Sn 189.927†	-15.0	-0.00384	mg/L	0.000868	-0.00768	mg/L	0.001737	22.61%
Sr 421.552†	164920.4	0.5148	mg/L	0.00309	1.030	mg/L	0.0062	0.60%
Ti 334.903†	49.0	0.00215	mg/L	0.000193	0.00431	mg/L	0.000386	8.97%
Tl 190.801†	4788.8	2.039	mg/L	0.0017	4.078	mg/L	0.0034	0.08%
V 292.402†	60281.5	0.4921	mg/L	0.00213	0.9843	mg/L	0.00427	0.43%
[illegible] 206.200†	1007.4	[illegible]	mg/L	0.00351	1.021	mg/L	0.0070	0.69%

Analysis Begun

Start Time: 5/23/2007 4:48:02 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/23/2007 7:36:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\NEW.sif
Batch ID:
Results Data Set: PE070523
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Sample ID: CV
Analyst: JLB
Initial Sample Wt:
Dilution: 1X
Autosampler Location: 7
Date Collected: 5/23/2007 4:48:02 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1826695.3	95.48	%	0.413				0.43%
ScR 361.383	155139.1	96.31	%	0.567				0.59%
Ag 328.068†	167789.8	0.9430	mg/L	0.00802	0.9430	mg/L	0.00802	0.85%
Al 308.215†	3551.7	1.995	mg/L	0.0107	1.995	mg/L	0.0107	0.54%
As 188.979†	2782.0	1.942	mg/L	0.0128	1.942	mg/L	0.0128	0.66%
B 249.677†	2195.3	1.004	mg/L	0.0102	1.004	mg/L	0.0102	1.01%
Ba 233.527†	8358.6	0.9889	mg/L	0.00670	0.9889	mg/L	0.00670	0.68%
Be 313.042†	246462.0	0.9968	mg/L	0.00490	0.9968	mg/L	0.00490	0.49%
Ca 317.933†	20114.8	2.015	mg/L	0.0155	2.015	mg/L	0.0155	0.77%
Cd 228.802†	45429.8	1.039	mg/L	0.0108	1.039	mg/L	0.0108	1.04%
Co 228.616†	59281.2	0.9623	mg/L	0.01129	0.9623	mg/L	0.01129	1.17%
Cr 267.716†	4620.8	0.9622	mg/L	0.00807	0.9622	mg/L	0.00807	0.84%
Cu 324.752†	241112.5	1.015	mg/L	0.0090	1.015	mg/L	0.0090	0.89%
Fe 273.955†	2784.8	2.023	mg/L	0.0165	2.023	mg/L	0.0165	0.81%
K 766.490†	29573.5	20.50	mg/L	0.169	20.50	mg/L	0.169	0.82%
Mg 279.077†	2638.2	2.050	mg/L	0.0181	2.050	mg/L	0.0181	0.88%
Mn 257.610†	33979.6	0.9488	mg/L	0.00203	0.9488	mg/L	0.00203	0.21%
Mo 202.031†	8507.0	0.9733	mg/L	0.00576	0.9733	mg/L	0.00576	0.59%
Na 589.592†	113675.2	50.36	mg/L	0.382	50.36	mg/L	0.382	0.76%
Na 330.237†	1199.7	50.84	mg/L	0.494	50.84	mg/L	0.494	0.97%
Ni 231.604†	1761.4	1.022	mg/L	0.0066	1.022	mg/L	0.0066	0.64%
Pb 220.353†	14504.1	2.018	mg/L	0.0186	2.018	mg/L	0.0186	0.92%
Sb 206.836†	4571.4	2.077	mg/L	0.0105	2.077	mg/L	0.0105	0.51%
Se 196.026†	2482.3	2.033	mg/L	0.0103	2.033	mg/L	0.0103	0.51%
Si 288.158†	3963.9	2.054	mg/L	0.0205	2.054	mg/L	0.0205	1.00%
Sn 189.927†	3366.3	0.9444	mg/L	0.00491	0.9444	mg/L	0.00491	0.52%
Sr 421.552†	328118.3	1.025	mg/L	0.0083	1.025	mg/L	0.0083	0.81%
Ti 334.903†	21408.3	1.004	mg/L	0.0040	1.004	mg/L	0.0040	0.40%
Tl 190.801†	4683.1	1.994	mg/L	0.0091	1.994	mg/L	0.0091	0.45%
Y 292.402†	117396.2	0.9643	mg/L	0.00826	0.9643	mg/L	0.00826	0.86%
Zn 206.200†	2041.9	1.033	mg/L	0.0084	1.033	mg/L	0.0084	0.81%

Sequence No.: 2
Sample ID: CB
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 4:54:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc	Units	Std.Dev.	Sample Conc	Units	Std.Dev.	RSD
ScA 357.253	1858403.5	97.14	%	0.352				0.36%
ScR 361.383	155713.5	96.67	%	0.383				0.40%
Ag 328.068†	11.0	0.00006	mg/L	0.000150	0.00006	mg/L	0.000150	243.76%
Al 308.215†	-4.3	-0.00248	mg/L	0.006094	-0.00248	mg/L	0.006094	245.99%
As 188.979†	-0.2	-0.00013	mg/L	0.002208	-0.00013	mg/L	0.002208	>999.9%
B 249.677†	12.5	0.00570	mg/L	0.000557	0.00570	mg/L	0.000557	9.76%
Ba 233.527†	5.5	0.00065	mg/L	0.000085	0.00065	mg/L	0.000085	13.21%
Be 313.042†	43.8	0.00018	mg/L	0.000058	0.00018	mg/L	0.000058	32.59%
Ca 317.933†	4.5	0.00045	mg/L	0.001717	0.00045	mg/L	0.001717	380.87%
Cd 228.802†	-11.9	-0.00027	mg/L	0.000060	-0.00027	mg/L	0.000060	21.82%
Co 228.616†	5.2	0.00008	mg/L	0.000169	0.00008	mg/L	0.000169	205.74%
Cr 267.716†	12.9	0.00268	mg/L	0.000564	0.00268	mg/L	0.000564	21.05%
Cu 324.752†	-245.2	-0.00103	mg/L	0.000146	-0.00103	mg/L	0.000146	14.13%
Fe 273.955†	0.4	0.00029	mg/L	0.001579	0.00029	mg/L	0.001579	552.55%
K 766.490†	18.7	0.01297	mg/L	0.049479	0.01297	mg/L	0.049479	381.56%
Mg 279.077†	-5.4	-0.00418	mg/L	0.018079	-0.00418	mg/L	0.018079	432.02%
Mn 257.610†	5.6	0.00016	mg/L	0.000069	0.00016	mg/L	0.000069	43.37%
Mo 202.031†	2.9	0.00033	mg/L	0.000627	0.00033	mg/L	0.000627	189.44%
Na 589.592†	72.2	0.03201	mg/L	0.016275	0.03201	mg/L	0.016275	50.85%
Na 330.237†	14.1	0.6010	mg/L	0.80565	0.6010	mg/L	0.80565	134.06%
Ni 231.604†	-0.8	-0.00047	mg/L	0.001154	-0.00047	mg/L	0.001154	245.72%
Pb 220.353†	8.5	0.00118	mg/L	0.000543	0.00118	mg/L	0.000543	46.04%
Sb 206.836†	-4.2	-0.00194	mg/L	0.000593	-0.00194	mg/L	0.000593	30.54%
Se 196.026†	4.0	0.00325	mg/L	0.004674	0.00325	mg/L	0.004674	143.92%
Si 288.158†	6.1	0.00317	mg/L	0.002320	0.00317	mg/L	0.002320	73.23%
Sn 189.927†	7.5	0.00209	mg/L	0.000125	0.00209	mg/L	0.000125	5.98%
Sr 421.552†	-153.6	-0.00048	mg/L	0.000064	-0.00048	mg/L	0.000064	13.37%
Ti 334.903†	27.8	0.00131	mg/L	0.000774	0.00131	mg/L	0.000774	59.31%
Tl 190.801†	9.3	0.00397	mg/L	0.001991	0.00397	mg/L	0.001991	50.14%
V 292.402†	-9.6	-0.00006	mg/L	0.000217	-0.00006	mg/L	0.000217	357.31%
Zn 206.200†	-2.2	-0.00110	mg/L	0.001168	-0.00110	mg/L	0.001168	106.67%

Sequence No.: 3
Sample ID: KZ56 J SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 49
Date Collected: 5/23/2007 5:01:10 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 J SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 J SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1860124.0	97.23	%	0.410				0.42%
ScR 361.383	152537.6	94.70	%	0.660				0.70%
Ag 328.068†	-2167.4	0.00254	mg/L	0.000368	0.00508	mg/L	0.000736	14.50%
Al 308.215†	139910.4	79.87	mg/L	0.240	159.7	mg/L	0.48	0.30%
As 188.979†	78.5	0.03814	mg/L	0.000386	0.07629	mg/L	0.000772	1.01%
B 249.677†	260.1	0.1283	mg/L	0.00109	0.2566	mg/L	0.00219	0.85%
Ba 233.527†	2069.3	0.2406	mg/L	0.00174	0.4812	mg/L	0.00348	0.72%
Be 313.042†	412.2	0.00079	mg/L	0.000048	0.00157	mg/L	0.000097	6.16%
Ca 317.933†	355226.7	35.60	mg/L	0.206	71.20	mg/L	0.413	0.58%
Cd 228.802†	189.3	0.00406	mg/L	0.000204	0.00812	mg/L	0.000408	5.02%
Co 228.616†	2833.3	0.03383	mg/L	0.000310	0.06766	mg/L	0.000621	0.92%
Cr 267.716†	868.2	0.1824	mg/L	0.00037	0.3648	mg/L	0.00075	0.20%
Cu 324.752†	83767.2	0.3604	mg/L	0.00236	0.7208	mg/L	0.00473	0.66%
Fe 273.955†	139806.6	101.7	mg/L	0.16	203.3	mg/L	0.31	0.15%
K 766.490†	13550.2	9.393	mg/L	0.0606	18.79	mg/L	0.121	0.64%
Mg 279.077†	47012.8	36.41	mg/L	0.083	72.82	mg/L	0.165	0.23%
Mn 257.610†	34398.0	0.9582	mg/L	0.00205	1.916	mg/L	0.0041	0.21%
Mo 202.031†	192.1	0.02097	mg/L	0.000723	0.04193	mg/L	0.001446	3.45%
Na 589.592†	149165.0	66.08	mg/L	0.144	132.2	mg/L	0.29	0.22%
Na 330.237†	1571.8	67.11	mg/L	0.297	134.2	mg/L	0.59	0.44%
Ni 231.604†	247.4	0.1433	mg/L	0.00156	0.2865	mg/L	0.00313	1.09%
[redacted] 220.353†	2476.5	[redacted]	mg/L	0.00354	0.7447	mg/L	0.00709	0.95%
Sb 206.836†	-56.3	-0.00645	mg/L	0.001691	-0.01290	mg/L	0.003381	26.21%
Se 196.026†	-58.2	-0.01742	mg/L	0.004144	-0.03483	mg/L	0.008289	23.80%
Si 288.158†	6850.4	3.550	mg/L	0.0159	7.100	mg/L	0.0318	0.45%
Sn 189.927†	39.9	0.00981	mg/L	0.003118	0.01961	mg/L	0.006235	31.79%
Sr 421.552†	96527.8	0.3016	mg/L	0.00048	0.6032	mg/L	0.00095	0.16%
Ti 334.903†	118233.7	5.549	mg/L	0.0149	11.10	mg/L	0.030	0.27%
Tl 190.801†	-8.2	-0.00909	mg/L	0.000711	-0.01817	mg/L	0.001423	7.83%
V 292.402†	35326.6	0.2763	mg/L	0.00188	0.5526	mg/L	0.00375	0.68%
[redacted] 206.200†	1885.1	[redacted]	mg/L	0.00688	1.912	mg/L	0.0138	0.72%

Sequence No.: 4
Sample ID: CV 7
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/23/2007 5:07:47 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1825995.6	95.45	%	0.813				0.85%
ScR 361.383	155250.6	96.38	%	1.146				1.19%
Ag 328.068†	166430.3	0.9353	mg/L	0.00771	0.9353	mg/L	0.00771	0.82%
Al 308.215†	3548.7	1.993	mg/L	0.0286	1.993	mg/L	0.0286	1.44%
As 188.979†	2738.1	1.911	mg/L	0.0143	1.911	mg/L	0.0143	0.75%
B 249.677†	2187.8	1.001	mg/L	0.0139	1.001	mg/L	0.0139	1.39%
Ba 233.527†	8291.0	0.9809	mg/L	0.01635	0.9809	mg/L	0.01635	1.67%
Be 313.042†	247330.8	1.000	mg/L	0.0021	1.000	mg/L	0.0021	0.21%
Ca 317.933†	19978.7	2.002	mg/L	0.0266	2.002	mg/L	0.0266	1.33%
Cd 228.802†	45189.2	1.034	mg/L	0.0087	1.034	mg/L	0.0087	0.84%
Co 228.616†	58884.1	0.9558	mg/L	0.00850	0.9558	mg/L	0.00850	0.89%
Cr 267.716†	4594.7	0.9567	mg/L	0.01277	0.9567	mg/L	0.01277	1.33%
Cu 324.752†	239902.5	1.009	mg/L	0.0100	1.009	mg/L	0.0100	0.99%
Fe 273.955†	2773.2	2.015	mg/L	0.0280	2.015	mg/L	0.0280	1.39%
K 766.490†	29348.6	20.35	mg/L	0.102	20.35	mg/L	0.102	0.50%
Mg 279.077†	2618.7	2.035	mg/L	0.0274	2.035	mg/L	0.0274	1.35%
Mn 257.610†	33995.9	0.9492	mg/L	0.00222	0.9492	mg/L	0.00222	0.23%
Mo 202.031†	8442.1	0.9659	mg/L	0.00709	0.9659	mg/L	0.00709	0.73%
Na 589.592†	113696.6	50.37	mg/L	0.248	50.37	mg/L	0.248	0.49%
Na 330.237†	1199.4	50.84	mg/L	0.829	50.84	mg/L	0.829	1.63%
Ni 231.604†	1738.0	1.008	mg/L	0.0177	1.008	mg/L	0.0177	1.76%
Pb 220.353†	14367.2	1.999	mg/L	0.0174	1.999	mg/L	0.0174	0.87%
Sb 206.836†	4540.3	2.063	mg/L	0.0161	2.063	mg/L	0.0161	0.78%
Se 196.026†	2456.3	2.012	mg/L	0.0152	2.012	mg/L	0.0152	0.75%
Si 288.158†	3937.8	2.041	mg/L	0.0305	2.041	mg/L	0.0305	1.50%
Sn 189.927†	3337.4	0.9363	mg/L	0.00803	0.9363	mg/L	0.00803	0.86%
Sr 421.552†	325694.1	1.018	mg/L	0.0043	1.018	mg/L	0.0043	0.42%
Ti 334.903†	21387.5	1.003	mg/L	0.0025	1.003	mg/L	0.0025	0.25%
Tl 190.801†	4634.0	1.973	mg/L	0.0129	1.973	mg/L	0.0129	0.65%
V 292.402†	116487.5	0.9568	mg/L	0.00735	0.9568	mg/L	0.00735	0.77%
Zn 206.200†	2027.6	1.026	mg/L	0.0159	1.026	mg/L	0.0159	1.55%

Sequence No.: 5
Sample ID: CB 7
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 5:14:22 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1840635.5	96.21	%	0.219				0.23%
ScR 361.383	154507.7	95.92	%	0.494				0.51%
Ag 328.068†	21.1	0.00012	mg/L	0.000306	0.00012	mg/L	0.000306	259.23%
Al 308.215†	-17.6	-0.01007	mg/L	0.001435	-0.01007	mg/L	0.001435	14.24%
As 188.979†	-0.2	-0.00014	mg/L	0.001965	-0.00014	mg/L	0.001965	>999.9%
B 249.677†	20.2	0.00921	mg/L	0.001536	0.00921	mg/L	0.001536	16.69%
Ba 233.527†	4.2	0.00050	mg/L	0.000342	0.00050	mg/L	0.000342	69.12%
Be 313.042†	65.1	0.00026	mg/L	0.000066	0.00026	mg/L	0.000066	24.96%
Ca 317.933†	65.6	0.00657	mg/L	0.001088	0.00657	mg/L	0.001088	16.55%
Cd 228.802†	-4.4	-0.00010	mg/L	0.000135	-0.00010	mg/L	0.000135	132.62%
Co 228.616†	13.1	0.00021	mg/L	0.000081	0.00021	mg/L	0.000081	38.02%
Cr 267.716†	10.4	0.00217	mg/L	0.001616	0.00217	mg/L	0.001616	74.49%
Cu 324.752†	-272.0	-0.00114	mg/L	0.000077	-0.00114	mg/L	0.000077	6.71%
Fe 273.955†	-2.3	-0.00164	mg/L	0.001799	-0.00164	mg/L	0.001799	109.42%
K 766.490†	7.1	0.00492	mg/L	0.014111	0.00492	mg/L	0.014111	286.64%
Mg 279.077†	-20.0	-0.01552	mg/L	0.004140	-0.01552	mg/L	0.004140	26.67%
Mn 257.610†	15.6	0.00044	mg/L	0.000069	0.00044	mg/L	0.000069	15.92%
Mo 202.031†	1.2	0.00014	mg/L	0.000423	0.00014	mg/L	0.000423	304.10%
Na 589.592†	63.1	0.02797	mg/L	0.005009	0.02797	mg/L	0.005009	17.91%
Na 330.237†	-5.7	-0.2445	mg/L	0.20935	-0.2445	mg/L	0.20935	85.61%
Ni 231.604†	-1.1	-0.00066	mg/L	0.003702	-0.00066	mg/L	0.003702	559.26%
Pb 220.353†	3.7	0.00052	mg/L	0.000650	0.00052	mg/L	0.000650	125.97%
Sb 206.836†	-2.9	-0.00137	mg/L	0.002087	-0.00137	mg/L	0.002087	152.26%
Se 196.026†	4.0	0.00326	mg/L	0.004957	0.00326	mg/L	0.004957	152.20%
Si 288.158†	-14.1	-0.00731	mg/L	0.012407	-0.00731	mg/L	0.012407	169.81%
Sn 189.927†	6.3	0.00176	mg/L	0.000698	0.00176	mg/L	0.000698	39.62%
Sr 421.552†	-214.0	-0.00067	mg/L	0.000090	-0.00067	mg/L	0.000090	13.49%
Ti 334.903†	-3.5	-0.00017	mg/L	0.000620	-0.00017	mg/L	0.000620	370.95%
Tl 190.801†	5.3	0.00225	mg/L	0.001155	0.00225	mg/L	0.001155	51.29%
V 292.402†	8.4	0.00008	mg/L	0.000263	0.00008	mg/L	0.000263	319.30%
Zn 206.200†	-1.0	-0.00049	mg/L	0.000411	-0.00049	mg/L	0.000411	83.59%

Sequence No.: 6
Sample ID: KZ60 MB2 TWC
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 51
Date Collected: 5/23/2007 5:20:54 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ60 MB2 TWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ60 MB2 TWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1891326.4	98.86	%	0.782				0.79%
ScR 361.383	159273.2	98.88	%	0.554				0.56%
Ag 328.068†	-39.7	-0.00022	mg/L	0.000264	-0.00022	mg/L	0.000264	118.59%
Al 308.215†	-15.0	-0.00856	mg/L	0.010603	-0.00856	mg/L	0.010603	123.85%
As 188.979†	0.9	0.00061	mg/L	0.000941	0.00061	mg/L	0.000941	154.84%
B 249.677†	8.9	0.00407	mg/L	0.000291	0.00407	mg/L	0.000291	7.14%
Ba 233.527†	-2.7	-0.00032	mg/L	0.000526	-0.00032	mg/L	0.000526	166.71%
Be 313.042†	23.3	0.00009	mg/L	0.000070	0.00009	mg/L	0.000070	73.88%
Ca 317.933†	146.5	0.01468	mg/L	0.002276	0.01468	mg/L	0.002276	15.51%
Cd 228.802†	-9.5	-0.00022	mg/L	0.000109	-0.00022	mg/L	0.000109	48.91%
Co 228.616†	-1.0	-0.00002	mg/L	0.000104	-0.00002	mg/L	0.000104	561.68%
Cr 267.716†	7.7	0.00160	mg/L	0.001865	0.00160	mg/L	0.001865	116.40%
Cu 324.752†	-250.6	-0.00105	mg/L	0.000176	-0.00105	mg/L	0.000176	16.71%
Fe 273.955†	6.6	0.00480	mg/L	0.002620	0.00480	mg/L	0.002620	54.55%
K 766.490†	-31.7	-0.02194	mg/L	0.043351	-0.02194	mg/L	0.043351	197.56%
Mg 279.077†	-17.8	-0.01383	mg/L	0.007763	-0.01383	mg/L	0.007763	56.15%
Mn 257.610†	10.6	0.00029	mg/L	0.000167	0.00029	mg/L	0.000167	56.67%
Mo 202.031†	3.4	0.00039	mg/L	0.000497	0.00039	mg/L	0.000497	129.19%
Na 589.592†	64.0	0.02833	mg/L	0.008038	0.02833	mg/L	0.008038	28.37%
Na 330.237†	5.9	0.2529	mg/L	0.45654	0.2529	mg/L	0.45654	180.56%
Ni 231.604†	-0.8	-0.00045	mg/L	0.000598	-0.00045	mg/L	0.000598	131.53%
[illegible]220.353†	1.4	[illegible]	mg/L	0.000495	0.00019	mg/L	0.000495	260.43%
Sb 206.836†	-3.9	-0.00182	mg/L	0.002866	-0.00182	mg/L	0.002866	157.42%
Se 196.026†	3.8	0.00314	mg/L	0.002529	0.00314	mg/L	0.002529	80.62%
Si 288.158†	19.3	0.01003	mg/L	0.004779	0.01003	mg/L	0.004779	47.66%
Sn 189.927†	2.2	0.00062	mg/L	0.000729	0.00062	mg/L	0.000729	117.06%
Sr 421.552†	-71.0	-0.00022	mg/L	0.000115	-0.00022	mg/L	0.000115	52.01%
Ti 334.903†	24.9	0.00117	mg/L	0.001202	0.00117	mg/L	0.001202	102.85%
Tl 190.801†	3.7	0.00156	mg/L	0.000529	0.00156	mg/L	0.000529	33.89%
V 292.402†	9.0	0.00008	mg/L	0.000400	0.00008	mg/L	0.000400	479.39%
[illegible]206.200†	2.6	[illegible]	mg/L	0.001269	0.00131	mg/L	0.001269	96.76%

Sequence No.: 7
Sample ID: KZ56 L SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 52
Date Collected: 5/23/2007 5:27:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 L SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 L SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1864446.1	97.46	%	0.657				0.67%
ScR 361.383	158370.5	98.32	%	0.947				0.96%
Ag 328.068†	-2788.2	0.00306	mg/L	0.000381	0.00612	mg/L	0.000762	12.46%
Al 308.215†	170678.5	97.43	mg/L	0.414	194.9	mg/L	0.83	0.43%
As 188.979†	80.9	0.03632	mg/L	0.002922	0.07265	mg/L	0.005845	8.05%
B 249.677†	183.6	0.09580	mg/L	0.001332	0.1916	mg/L	0.00266	1.39%
Ba 233.527†	2268.8	0.2631	mg/L	0.00129	0.5261	mg/L	0.00259	0.49%
Be 313.042†	472.2	0.00087	mg/L	0.000056	0.00175	mg/L	0.000113	6.45%
Ca 317.933†	507912.9	50.90	mg/L	0.330	101.8	mg/L	0.66	0.65%
Cd 228.802†	131.3	0.00271	mg/L	0.000137	0.00541	mg/L	0.000275	5.08%
Co 228.616†	3380.3	0.04034	mg/L	0.000495	0.08069	mg/L	0.000989	1.23%
Cr 267.716†	820.5	0.1729	mg/L	0.00180	0.3458	mg/L	0.00359	1.04%
Cu 324.752†	72706.7	0.3161	mg/L	0.00035	0.6322	mg/L	0.00071	0.11%
Fe 273.955†	177929.2	129.4	mg/L	0.08	258.8	mg/L	0.17	0.06%
K 766.490†	16179.6	11.22	mg/L	0.052	22.43	mg/L	0.104	0.47%
Mg 279.077†	57313.3	44.39	mg/L	0.210	88.77	mg/L	0.420	0.47%
Mn 257.610†	47793.0	1.331	mg/L	0.0069	2.663	mg/L	0.0138	0.52%
Mo 202.031†	161.4	0.01702	mg/L	0.000397	0.03404	mg/L	0.000794	2.33%
Na 589.592†	112378.4	49.78	mg/L	0.313	99.57	mg/L	0.626	0.63%
Na 330.237†	1209.5	51.77	mg/L	0.540	103.5	mg/L	1.08	1.04%
Ni 231.604†	267.3	0.1548	mg/L	0.00341	0.3096	mg/L	0.00681	2.20%
[redacted] 220.353†	1574.8	[redacted]	mg/L	0.00176	0.5061	mg/L	0.00353	0.70%
Sb 206.836†	-73.6	-0.00947	mg/L	0.002884	-0.01894	mg/L	0.005767	30.45%
Se 196.026†	-76.0	-0.02372	mg/L	0.006501	-0.04743	mg/L	0.013002	27.41%
Si 288.158†	5757.6	2.984	mg/L	0.0335	5.967	mg/L	0.0670	1.12%
Sn 189.927†	21.1	0.00435	mg/L	0.000831	0.00870	mg/L	0.001663	19.12%
Sr 421.552†	98495.7	0.3077	mg/L	0.00180	0.6155	mg/L	0.00361	0.59%
Ti 334.903†	139911.0	6.567	mg/L	0.0340	13.13	mg/L	0.068	0.52%
Tl 190.801†	-11.2	-0.01164	mg/L	0.002817	-0.02328	mg/L	0.005635	24.20%
V 292.402†	41548.3	0.3239	mg/L	0.00040	0.6478	mg/L	0.00079	0.12%
[redacted] 206.200†	1385.2	[redacted]	mg/L	0.00340	1.407	mg/L	0.0068	0.48%

Sequence No.: 8
Sample ID: KZ56 C SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 53
Date Collected: 5/23/2007 5:33:55 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 C SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 C SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1885227.3	98.54	%	0.682				0.69%
ScR 361.383	158077.8	98.14	%	0.071				0.07%
Ag 328.068†	-1453.4	0.00178	mg/L	0.000200	0.00356	mg/L	0.000400	11.21%
Al 308.215†	82316.8	46.99	mg/L	0.130	93.98	mg/L	0.259	0.28%
As 188.979†	56.8	0.02997	mg/L	0.003426	0.05993	mg/L	0.006853	11.43%
B 249.677†	243.7	0.1180	mg/L	0.00246	0.2360	mg/L	0.00491	2.08%
Ba 233.527†	1568.8	0.1828	mg/L	0.00068	0.3655	mg/L	0.00135	0.37%
Be 313.042†	256.0	0.00048	mg/L	0.000017	0.00096	mg/L	0.000034	3.52%
Ca 317.933†	263158.2	26.37	mg/L	0.125	52.75	mg/L	0.250	0.47%
Cd 228.802†	95.6	0.00199	mg/L	0.000048	0.00398	mg/L	0.000096	2.42%
Co 228.616†	1618.9	0.01935	mg/L	0.000411	0.03870	mg/L	0.000823	2.13%
Cr 267.716†	881.1	0.1847	mg/L	0.00066	0.3693	mg/L	0.00132	0.36%
Cu 324.752†	59878.6	0.2574	mg/L	0.00146	0.5149	mg/L	0.00291	0.57%
Fe 273.955†	94511.6	68.72	mg/L	0.241	137.4	mg/L	0.48	0.35%
K 766.490†	9462.5	6.560	mg/L	0.0118	13.12	mg/L	0.024	0.18%
Mg 279.077†	30667.8	23.75	mg/L	0.057	47.50	mg/L	0.114	0.24%
Mn 257.610†	21996.6	0.6129	mg/L	0.00098	1.226	mg/L	0.0020	0.16%
Mo 202.031†	203.8	0.02257	mg/L	0.000438	0.04513	mg/L	0.000876	1.94%
Na 589.592†	117709.3	52.14	mg/L	0.233	104.3	mg/L	0.47	0.45%
Na 330.237†	1271.3	54.03	mg/L	0.275	108.1	mg/L	0.55	0.51%
Ni 231.604†	220.8	0.1279	mg/L	0.00075	0.2558	mg/L	0.00149	0.58%
[illegible]20.353†	2856.5	[illegible]	mg/L	0.00445	0.8270	mg/L	0.00890	1.08%
Sb 206.836†	-30.1	-0.00404	mg/L	0.002788	-0.00809	mg/L	0.005577	68.94%
Se 196.026†	-39.3	-0.01244	mg/L	0.003466	-0.02488	mg/L	0.006931	27.86%
Si 288.158†	9520.3	4.934	mg/L	0.0722	9.867	mg/L	0.1443	1.46%
Sn 189.927†	89.5	0.02444	mg/L	0.000704	0.04889	mg/L	0.001408	2.88%
Sr 421.552†	77302.9	0.2415	mg/L	0.00153	0.4830	mg/L	0.00306	0.63%
Ti 334.903†	65578.3	3.078	mg/L	0.0098	6.156	mg/L	0.0197	0.32%
Tl 190.801†	-6.4	-0.00600	mg/L	0.000518	-0.01199	mg/L	0.001036	8.64%
V 292.402†	22864.4	0.1794	mg/L	0.00179	0.3588	mg/L	0.00357	1.00%
[illegible]206.200†	1848.4	[illegible]	mg/L	0.00269	1.874	mg/L	0.0054	0.29%

Sequence No.: 9
Sample ID: KZ56 D SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 21.

Autosampler Location: 54
Date Collected: 5/23/2007 5:40:33 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 D SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 D SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1863710.9	97.42	%	0.746				0.77%
ScR 361.383	159410.5	98.96	%	0.667				0.67%
Ag 328.068†	-2232.5	0.00227	mg/L	0.000140	0.00453	mg/L	0.000280	6.18%
Al 308.215†	126981.4	72.49	mg/L	0.269	145.0	mg/L	0.54	0.37%
As 188.979†	126.4	0.07346	mg/L	0.002451	0.1469	mg/L	0.00490	3.34%
B 249.677†	218.6	0.1098	mg/L	0.00404	0.2197	mg/L	0.00807	3.67%
Ba 233.527†	2482.9	0.2895	mg/L	0.00310	0.5790	mg/L	0.00620	1.07%
Be 313.042†	394.0	0.00076	mg/L	0.000048	0.00152	mg/L	0.000097	6.36%
Ca 317.933†	359270.3	36.01	mg/L	0.118	72.01	mg/L	0.235	0.33%
Cd 228.802†	139.8	0.00272	mg/L	0.000224	0.00545	mg/L	0.000447	8.21%
Co 228.616†	2431.8	0.02885	mg/L	0.000248	0.05770	mg/L	0.000496	0.86%
Cr 267.716†	1235.7	0.2591	mg/L	0.00221	0.5181	mg/L	0.00443	0.85%
Cu 324.752†	73727.1	0.3184	mg/L	0.00222	0.6368	mg/L	0.00445	0.70%
Fe 273.955†	140703.6	102.3	mg/L	0.19	204.6	mg/L	0.38	0.19%
K 766.490†	11435.8	7.928	mg/L	0.0393	15.86	mg/L	0.079	0.50%
Mg 279.077†	43547.7	33.72	mg/L	0.127	67.45	mg/L	0.254	0.38%
Mn 257.610†	38871.2	1.083	mg/L	0.0029	2.166	mg/L	0.0057	0.26%
Mo 202.031†	184.3	0.02006	mg/L	0.000698	0.04011	mg/L	0.001396	3.48%
Na 589.592†	113647.7	50.35	mg/L	0.325	100.7	mg/L	0.65	0.65%
Na 330.237†	1231.7	52.39	mg/L	0.621	104.8	mg/L	1.24	1.19%
Ni 231.604†	259.7	0.1504	mg/L	0.00581	0.3008	mg/L	0.01161	3.86%
[illegible] 220.353†	2513.3	[illegible]	mg/L	0.00285	0.7494	mg/L	0.00570	0.76%
Sb 206.836†	-39.2	-0.00271	mg/L	0.001623	-0.00542	mg/L	0.003247	59.86%
Se 196.026†	-57.4	-0.01778	mg/L	0.006206	-0.03557	mg/L	0.012412	34.90%
Si 288.158†	6547.3	3.393	mg/L	0.0372	6.786	mg/L	0.0743	1.10%
Sn 189.927†	36.3	0.00911	mg/L	0.000874	0.01821	mg/L	0.001749	9.60%
Sr 421.552†	90761.3	0.2836	mg/L	0.00052	0.5671	mg/L	0.00103	0.18%
Ti 334.903†	100863.7	4.734	mg/L	0.0204	9.468	mg/L	0.0407	0.43%
Tl 190.801†	-6.2	-0.00788	mg/L	0.002668	-0.01576	mg/L	0.005336	33.86%
V 292.402†	34051.0	0.2669	mg/L	0.00241	0.5339	mg/L	0.00482	0.90%
[illegible] 6.200†	2216.6	[illegible]	mg/L	0.0137	2.247	mg/L	0.0274	1.22%

Sequence No.: 10
Sample ID: KZ56 M SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 55
Date Collected: 5/23/2007 5:47:08 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 M SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 M SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1857257.0	97.08	%	0.217				0.22%
ScR 361.383	159258.4	98.87	%	0.445				0.45%
Ag 328.068†	-2455.9	0.00264	mg/L	0.000419	0.00527	mg/L	0.000839	15.90%
Al 308.215†	155005.2	88.48	mg/L	0.386	177.0	mg/L	0.77	0.44%
As 188.979†	78.4	0.03566	mg/L	0.004048	0.07132	mg/L	0.008095	11.35%
B 249.677†	283.7	0.1402	mg/L	0.00228	0.2804	mg/L	0.00457	1.63%
Ba 233.527†	2203.6	0.2560	mg/L	0.00146	0.5120	mg/L	0.00293	0.57%
Be 313.042†	434.0	0.00073	mg/L	0.000049	0.00147	mg/L	0.000098	6.68%
Ca 317.933†	451515.4	45.25	mg/L	0.205	90.50	mg/L	0.409	0.45%
Cd 228.802†	202.3	0.00436	mg/L	0.000143	0.00872	mg/L	0.000286	3.28%
Co 228.616†	3213.7	0.03803	mg/L	0.000234	0.07607	mg/L	0.000469	0.62%
Cr 267.716†	972.8	0.2044	mg/L	0.00194	0.4087	mg/L	0.00388	0.95%
Cu 324.752†	96656.5	0.4155	mg/L	0.00303	0.8310	mg/L	0.00605	0.73%
Fe 273.955†	156123.3	113.5	mg/L	0.32	227.0	mg/L	0.65	0.29%
K 766.490†	13382.2	9.277	mg/L	0.1213	18.55	mg/L	0.243	1.31%
Mg 279.077†	53377.5	41.34	mg/L	0.101	82.68	mg/L	0.202	0.24%
Mn 257.610†	40751.5	1.135	mg/L	0.0036	2.271	mg/L	0.0071	0.31%
Mo 202.031†	191.7	0.02064	mg/L	0.000390	0.04128	mg/L	0.000779	1.89%
Na 589.592†	134374.2	59.53	mg/L	0.358	119.1	mg/L	0.72	0.60%
Na 330.237†	1449.9	61.86	mg/L	0.230	123.7	mg/L	0.46	0.37%
Ni 231.604†	276.0	0.1599	mg/L	0.00268	0.3197	mg/L	0.00536	1.68%
[illegible] 220.353†	2850.6	[illegible]	mg/L	0.00125	0.8549	mg/L	0.00249	0.29%
Sb 206.836†	-64.3	-0.00752	mg/L	0.004354	-0.01504	mg/L	0.008707	57.90%
Se 196.026†	-66.9	-0.02049	mg/L	0.002016	-0.04098	mg/L	0.004032	9.84%
Si 288.158†	5953.3	3.085	mg/L	0.0088	6.170	mg/L	0.0176	0.29%
Sn 189.927†	50.0	0.01239	mg/L	0.001009	0.02477	mg/L	0.002019	8.15%
Sr 421.552†	103618.9	0.3237	mg/L	0.00310	0.6475	mg/L	0.00620	0.96%
Ti 334.903†	138173.4	6.485	mg/L	0.0256	12.97	mg/L	0.051	0.39%
Tl 190.801†	-12.1	-0.01170	mg/L	0.002698	-0.02340	mg/L	0.005396	23.06%
V 292.402†	40940.4	0.3205	mg/L	0.00252	0.6409	mg/L	0.00504	0.79%
[illegible] 206.200†	2233.9	[illegible]	mg/L	0.0004	2.266	mg/L	0.0008	0.03%

Sequence No.: 11
Sample ID: KZ56 N SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 56
Date Collected: 5/23/2007 5:53:44 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 N SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 N SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1867256.8	97.60	%	0.423				0.43%
ScR 361.383	159384.4	98.95	%	0.351				0.35%
Ag 328.068†	-2215.4	0.00302	mg/L	0.000459	0.00604	mg/L	0.000919	15.20%
Al 308.215†	146971.4	83.90	mg/L	0.213	167.8	mg/L	0.43	0.25%
As 188.979†	77.5	0.03648	mg/L	0.003896	0.07296	mg/L	0.007793	10.68%
B 249.677†	341.7	0.1660	mg/L	0.00063	0.3320	mg/L	0.00125	0.38%
Ba 233.527†	2099.4	0.2440	mg/L	0.00055	0.4879	mg/L	0.00109	0.22%
Be 313.042†	416.5	0.00075	mg/L	0.000049	0.00149	mg/L	0.000098	6.54%
Ca 317.933†	371150.9	37.20	mg/L	0.085	74.39	mg/L	0.170	0.23%
Cd 228.802†	215.0	0.00466	mg/L	0.000102	0.00932	mg/L	0.000204	2.19%
Co 228.616†	3294.8	0.04063	mg/L	0.000316	0.08126	mg/L	0.000632	0.78%
Cr 267.716†	902.0	0.1895	mg/L	0.00099	0.3790	mg/L	0.00198	0.52%
Cu 324.752†	94331.4	0.4052	mg/L	0.00234	0.8105	mg/L	0.00469	0.58%
Fe 273.955†	146954.5	106.9	mg/L	0.13	213.7	mg/L	0.25	0.12%
K 766.490†	13783.0	9.555	mg/L	0.0716	19.11	mg/L	0.143	0.75%
Mg 279.077†	52523.9	40.68	mg/L	0.100	81.37	mg/L	0.199	0.24%
Mn 257.610†	38554.6	1.074	mg/L	0.0024	2.148	mg/L	0.0048	0.22%
Mo 202.031†	187.6	0.02041	mg/L	0.000690	0.04081	mg/L	0.001380	3.38%
Na 589.592†	142652.8	63.19	mg/L	0.180	126.4	mg/L	0.36	0.28%
Na 330.237†	1533.0	65.42	mg/L	0.210	130.8	mg/L	0.42	0.32%
Ni 231.604†	269.3	0.1560	mg/L	0.00148	0.3120	mg/L	0.00296	0.95%
[illegible] 220.353†	2424.6	[illegible]	mg/L	0.00040	0.7330	mg/L	0.00080	0.11%
Sb 206.836†	-55.7	-0.00506	mg/L	0.002624	-0.01011	mg/L	0.005247	51.88%
Se 196.026†	-65.6	-0.02208	mg/L	0.004906	-0.04416	mg/L	0.009812	22.22%
Si 288.158†	6039.8	3.130	mg/L	0.0087	6.260	mg/L	0.0175	0.28%
Sn 189.927†	50.3	0.01273	mg/L	0.001362	0.02546	mg/L	0.002724	10.70%
Sr 421.552†	97383.9	0.3043	mg/L	0.00100	0.6085	mg/L	0.00199	0.33%
Ti 334.903†	125143.4	5.874	mg/L	0.0183	11.75	mg/L	0.037	0.31%
Tl 190.801†	-5.4	-0.00831	mg/L	0.005031	-0.01663	mg/L	0.010063	60.51%
V 292.402†	37660.9	0.2947	mg/L	0.00250	0.5894	mg/L	0.00500	0.85%
[illegible] 206.200†	2128.3	[illegible]	mg/L	0.0017	2.158	mg/L	0.0035	0.16%

Sequence No.: 12
Sample ID: KZ56 P SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 57
Date Collected: 5/23/2007 6:00:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 P SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 P SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1874977.8	98.01	%	0.611				0.62%
ScR 361.383	160321.7	99.53	%	0.585				0.59%
Ag 328.068†	-2658.5	0.00278	mg/L	0.000197	0.00556	mg/L	0.000393	7.07%
Al 308.215†	153342.3	87.53	mg/L	0.419	175.1	mg/L	0.84	0.48%
As 188.979†	71.1	0.02893	mg/L	0.004187	0.05787	mg/L	0.008374	14.47%
B 249.677†	252.3	0.1264	mg/L	0.00088	0.2529	mg/L	0.00176	0.69%
Ba 233.527†	1748.9	0.2018	mg/L	0.00229	0.4037	mg/L	0.00457	1.13%
Be 313.042†	459.3	0.00078	mg/L	0.000063	0.00155	mg/L	0.000126	8.11%
Ca 317.933†	457912.8	45.89	mg/L	0.332	91.78	mg/L	0.664	0.72%
Cd 228.802†	118.4	0.00244	mg/L	0.000194	0.00488	mg/L	0.000389	7.96%
Co 228.616†	3745.1	0.04454	mg/L	0.000721	0.08908	mg/L	0.001442	1.62%
Cr 267.716†	805.0	0.1694	mg/L	0.00232	0.3389	mg/L	0.00464	1.37%
Cu 324.752†	72576.8	0.3148	mg/L	0.00199	0.6295	mg/L	0.00399	0.63%
Fe 273.955†	168322.8	122.4	mg/L	0.27	244.8	mg/L	0.53	0.22%
K 766.490†	11752.1	8.147	mg/L	0.0566	16.29	mg/L	0.113	0.69%
Mg 279.077†	57816.5	44.78	mg/L	0.211	89.56	mg/L	0.422	0.47%
Mn 257.610†	48635.4	1.355	mg/L	0.0022	2.710	mg/L	0.0045	0.17%
Mo 202.031†	130.6	0.01363	mg/L	0.000665	0.02727	mg/L	0.001330	4.88%
Na 589.592†	119625.3	52.99	mg/L	0.449	106.0	mg/L	0.90	0.85%
Na 330.237†	1276.6	54.83	mg/L	0.545	109.7	mg/L	1.09	0.99%
Ni 231.604†	231.9	0.1343	mg/L	0.00028	0.2687	mg/L	0.00055	0.21%
[illegible] 220.353†	1304.5	[illegible]	mg/L	0.00329	0.4235	mg/L	0.00658	1.55%
Sb 206.836†	-71.8	-0.00904	mg/L	0.000856	-0.01808	mg/L	0.001713	9.47%
Se 196.026†	-69.8	-0.02178	mg/L	0.003492	-0.04356	mg/L	0.006983	16.03%
Si 288.158†	7012.3	3.634	mg/L	0.0364	7.268	mg/L	0.0729	1.00%
Sn 189.927†	8.0	0.00023	mg/L	0.000602	0.00045	mg/L	0.001204	266.53%
Sr 421.552†	89670.1	0.2802	mg/L	0.00141	0.5603	mg/L	0.00282	0.50%
Ti 334.903†	160312.8	7.525	mg/L	0.0484	15.05	mg/L	0.097	0.64%
Tl 190.801†	-9.4	-0.01152	mg/L	0.002748	-0.02305	mg/L	0.005496	23.84%
V 292.402†	42480.5	0.3313	mg/L	0.00161	0.6627	mg/L	0.00323	0.49%
[illegible] .200†	1312.9	[illegible]	mg/L	0.00716	1.333	mg/L	0.0143	1.07%

Sequence No.: 13
Sample ID: KZ56 K SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 58
Date Collected: 5/23/2007 6:06:56 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 K SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 K SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1858586.2	97.15	%	0.039				0.04%
ScR 361.383	157434.6	97.74	%	0.588				0.60%
Ag 328.068†	-1536.1	0.00230	mg/L	0.000054	0.00459	mg/L	0.000108	2.36%
Al 308.215†	96372.5	55.01	mg/L	0.136	110.0	mg/L	0.27	0.25%
As 188.979†	57.4	0.02841	mg/L	0.005652	0.05683	mg/L	0.011304	19.89%
B 249.677†	500.5	0.2356	mg/L	0.00252	0.4711	mg/L	0.00505	1.07%
Ba 233.527†	1925.1	0.2246	mg/L	0.00073	0.4493	mg/L	0.00146	0.33%
Be 313.042†	294.8	0.00054	mg/L	0.000026	0.00108	mg/L	0.000052	4.82%
Ca 317.933†	254023.1	25.46	mg/L	0.086	50.91	mg/L	0.171	0.34%
Cd 228.802†	198.8	0.00437	mg/L	0.000075	0.00874	mg/L	0.000150	1.71%
Co 228.616†	2125.2	0.02598	mg/L	0.000115	0.05196	mg/L	0.000230	0.44%
Cr 267.716†	793.3	0.1664	mg/L	0.00180	0.3329	mg/L	0.00359	1.08%
Cu 324.752†	75959.0	0.3255	mg/L	0.00131	0.6511	mg/L	0.00262	0.40%
Fe 273.955†	103800.8	75.48	mg/L	0.138	151.0	mg/L	0.28	0.18%
K 766.490†	11193.0	7.759	mg/L	0.0757	15.52	mg/L	0.151	0.98%
Mg 279.077†	37425.9	28.99	mg/L	0.055	57.98	mg/L	0.110	0.19%
Mn 257.610†	22768.9	0.6342	mg/L	0.00160	1.268	mg/L	0.0032	0.25%
Mo 202.031†	357.8	0.04021	mg/L	0.000905	0.08042	mg/L	0.001809	2.25%
Na 589.592†	157481.1	69.76	mg/L	0.189	139.5	mg/L	0.38	0.27%
Na 330.237†	1710.4	72.43	mg/L	0.396	144.9	mg/L	0.79	0.55%
Ni 231.604†	245.9	0.1424	mg/L	0.00293	0.2849	mg/L	0.00586	2.06%
P 213.618†	2743.8	[illegible]	mg/L	0.00193	0.8012	mg/L	0.00386	0.48%
Sb 206.836†	-33.3	-0.00264	mg/L	0.001575	-0.00527	mg/L	0.003149	59.73%
Se 196.026†	-42.3	-0.01290	mg/L	0.005915	-0.02581	mg/L	0.011831	45.84%
Si 288.158†	5920.8	3.068	mg/L	0.0090	6.137	mg/L	0.0181	0.29%
Sn 189.927†	45.8	0.01200	mg/L	0.000830	0.02401	mg/L	0.001660	6.91%
Sr 421.552†	87186.9	0.2724	mg/L	0.00076	0.5448	mg/L	0.00152	0.28%
Ti 334.903†	82303.6	3.863	mg/L	0.0191	7.726	mg/L	0.0382	0.49%
Tl 190.801†	-6.8	-0.00676	mg/L	0.003142	-0.01351	mg/L	0.006284	46.51%
V 292.402†	26420.6	0.2072	mg/L	0.00058	0.4145	mg/L	0.00117	0.28%
[illegible] 206.200†	3743.2	[illegible]	mg/L	0.0044	3.793	mg/L	0.0089	0.23%

Sequence No.: 14
Sample ID: KZ60 T TWC
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 59
Date Collected: 5/23/2007 6:13:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ60 T TWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ60 T TWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1872330.5	97.87	%	0.540				0.55%
ScR 361.383	156024.2	96.86	%	0.600				0.62%
Ag 328.068†	-34.6	-0.00019	mg/L	0.000131	-0.00019	mg/L	0.000131	67.32%
Al 308.215†	16.0	0.00914	mg/L	0.020486	0.00914	mg/L	0.020486	224.02%
As 188.979†	-0.4	-0.00030	mg/L	0.004898	-0.00030	mg/L	0.004898	>999.9%
B 249.677†	4.4	0.00203	mg/L	0.001923	0.00203	mg/L	0.001923	94.96%
Ba 233.527†	2.8	0.00033	mg/L	0.000271	0.00033	mg/L	0.000271	82.86%
Be 313.042†	42.7	0.00017	mg/L	0.000025	0.00017	mg/L	0.000025	14.30%
Ca 317.933†	304.7	0.03054	mg/L	0.001473	0.03054	mg/L	0.001473	4.82%
Cd 228.802†	-6.3	-0.00015	mg/L	0.000109	-0.00015	mg/L	0.000109	75.05%
Co 228.616†	-2.0	-0.00003	mg/L	0.000169	-0.00003	mg/L	0.000169	494.67%
Cr 267.716†	7.5	0.00157	mg/L	0.001048	0.00157	mg/L	0.001048	66.78%
Cu 324.752†	-45.2	-0.00019	mg/L	0.000032	-0.00019	mg/L	0.000032	16.59%
Fe 273.955†	3.0	0.00217	mg/L	0.001996	0.00217	mg/L	0.001996	92.18%
K 766.490†	-20.2	-0.01401	mg/L	0.022206	-0.01401	mg/L	0.022206	158.55%
Mg 279.077†	-3.1	-0.00243	mg/L	0.010506	-0.00243	mg/L	0.010506	431.92%
Mn 257.610†	8.0	0.00022	mg/L	0.000158	0.00022	mg/L	0.000158	70.76%
Mo 202.031†	2.0	0.00023	mg/L	0.000079	0.00023	mg/L	0.000079	35.10%
Na 589.592†	214.8	0.09517	mg/L	0.007284	0.09517	mg/L	0.007284	7.65%
Na 330.237†	16.0	0.6809	mg/L	0.60723	0.6809	mg/L	0.60723	89.18%
Ni 231.604†	-4.3	-0.00252	mg/L	0.000822	-0.00252	mg/L	0.000822	32.65%
Pb 220.353†	-7.9	-0.00109	mg/L	0.001383	-0.00109	mg/L	0.001383	126.76%
Sb 206.836†	-3.3	-0.00154	mg/L	0.001212	-0.00154	mg/L	0.001212	78.63%
Se 196.026†	3.2	0.00261	mg/L	0.001134	0.00261	mg/L	0.001134	43.37%
Si 288.158†	7.3	0.00376	mg/L	0.008023	0.00376	mg/L	0.008023	213.45%
Sn 189.927†	-1.3	-0.00038	mg/L	0.000559	-0.00038	mg/L	0.000559	148.76%
Sr 421.552†	-92.6	-0.00029	mg/L	0.000063	-0.00029	mg/L	0.000063	21.60%
Ti 334.903†	19.6	0.00092	mg/L	0.000312	0.00092	mg/L	0.000312	33.93%
Tl 190.801†	4.3	0.00181	mg/L	0.002740	0.00181	mg/L	0.002740	151.07%
V 292.402†	8.4	0.00008	mg/L	0.000183	0.00008	mg/L	0.000183	235.58%
Zn 206.200†	8.5	0.00431	mg/L	0.000247	0.00431	mg/L	0.000247	5.73%

Sequence No.: 15
Sample ID: KZ60 MB2SPK TWC
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 60
Date Collected: 5/23/2007 6:20:06 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ60 MB2SPK TWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ60 MB2SPK TWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1860943.9	97.27	%	1.054				1.08%
ScR 361.383	158926.6	98.66	%	0.531				0.54%
Ag 328.068†	88316.8	0.4965	mg/L	0.01003	0.4965	mg/L	0.01003	2.02%
Al 308.215†	3659.5	2.083	mg/L	0.0140	2.083	mg/L	0.0140	0.67%
As 188.979†	2922.2	2.041	mg/L	0.0230	2.041	mg/L	0.0230	1.13%
B 249.677†	11.3	0.00650	mg/L	0.002063	0.00650	mg/L	0.002063	31.71%
Ba 233.527†	17154.0	2.029	mg/L	0.0058	2.029	mg/L	0.0058	0.29%
Be 313.042†	129661.3	0.5244	mg/L	0.00370	0.5244	mg/L	0.00370	0.71%
Ca 317.933†	104181.1	10.44	mg/L	0.071	10.44	mg/L	0.071	0.68%
Cd 228.802†	23970.1	0.5422	mg/L	0.01052	0.5422	mg/L	0.01052	1.94%
Co 228.616†	30078.2	0.4886	mg/L	0.00888	0.4886	mg/L	0.00888	1.82%
Cr 267.716†	2400.9	0.4999	mg/L	0.00235	0.4999	mg/L	0.00235	0.47%
Cu 324.752†	118675.2	0.4996	mg/L	0.00956	0.4996	mg/L	0.00956	1.91%
Fe 273.955†	2894.9	2.104	mg/L	0.0078	2.104	mg/L	0.0078	0.37%
K 766.490†	15463.1	10.72	mg/L	0.113	10.72	mg/L	0.113	1.06%
Mg 279.077†	13724.2	10.64	mg/L	0.042	10.64	mg/L	0.042	0.40%
Mn 257.610†	17627.4	0.4924	mg/L	0.00059	0.4924	mg/L	0.00059	0.12%
Mo 202.031†	25.5	0.00259	mg/L	0.000177	0.00259	mg/L	0.000177	6.84%
Na 589.592†	23858.4	10.57	mg/L	0.078	10.57	mg/L	0.078	0.74%
Na 330.237†	263.6	10.92	mg/L	0.273	10.92	mg/L	0.273	2.50%
Ni 231.604†	889.6	0.5144	mg/L	0.00501	0.5144	mg/L	0.00501	0.97%
[illegible] 220.353†	15007.9	[illegible]	mg/L	0.0453	2.088	mg/L	0.0453	2.17%
Sb 206.836†	4.5	-0.00563	mg/L	0.000627	-0.00563	mg/L	0.000627	11.14%
Se 196.026†	2646.1	2.170	mg/L	0.0245	2.170	mg/L	0.0245	1.13%
Si 288.158†	18.2	0.00944	mg/L	0.004148	0.00944	mg/L	0.004148	43.95%
Sn 189.927†	-16.5	-0.00425	mg/L	0.000846	-0.00425	mg/L	0.000846	19.89%
Sr 421.552†	165982.8	0.5182	mg/L	0.00180	0.5182	mg/L	0.00180	0.35%
Ti 334.903†	47.1	0.00207	mg/L	0.000880	0.00207	mg/L	0.000880	42.57%
Tl 190.801†	4886.9	2.081	mg/L	0.0248	2.081	mg/L	0.0248	1.19%
V 292.402†	61621.9	0.5030	mg/L	0.01009	0.5030	mg/L	0.01009	2.01%
[illegible] 206.200†	1011.8	[illegible]	mg/L	0.00175	0.5126	mg/L	0.00175	0.34%

Sequence No.: 16
Sample ID: CV 8
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/23/2007 6:26:42 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1824037.0	95.34	%	0.480				0.50%
ScR 361.383	155717.9	96.67	%	0.330				0.34%
Ag 328.068†	167859.0	0.9433	mg/L	0.00706	0.9433	mg/L	0.00706	0.75%
Al 308.215†	3551.3	1.995	mg/L	0.0046	1.995	mg/L	0.0046	0.23%
As 188.979†	2736.8	1.910	mg/L	0.0114	1.910	mg/L	0.0114	0.60%
B 249.677†	2208.6	1.010	mg/L	0.0030	1.010	mg/L	0.0030	0.29%
Ba 233.527†	8360.6	0.9891	mg/L	0.00401	0.9891	mg/L	0.00401	0.41%
Be 313.042†	248554.1	1.005	mg/L	0.0033	1.005	mg/L	0.0033	0.33%
Ca 317.933†	20164.1	2.020	mg/L	0.0048	2.020	mg/L	0.0048	0.24%
Cd 228.802†	45659.5	1.044	mg/L	0.0076	1.044	mg/L	0.0076	0.72%
Co 228.616†	59371.4	0.9637	mg/L	0.00823	0.9637	mg/L	0.00823	0.85%
Cr 267.716†	4630.2	0.9641	mg/L	0.00287	0.9641	mg/L	0.00287	0.30%
Cu 324.752†	242179.8	1.019	mg/L	0.0076	1.019	mg/L	0.0076	0.74%
Fe 273.955†	2789.5	2.027	mg/L	0.0086	2.027	mg/L	0.0086	0.42%
K 766.490†	29693.7	20.58	mg/L	0.072	20.58	mg/L	0.072	0.35%
Mg 279.077†	2653.9	2.062	mg/L	0.0087	2.062	mg/L	0.0087	0.42%
Mn 257.610†	34254.6	0.9564	mg/L	0.00241	0.9564	mg/L	0.00241	0.25%
Mo 202.031†	8406.6	0.9618	mg/L	0.00703	0.9618	mg/L	0.00703	0.73%
Na 589.592†	113728.0	50.38	mg/L	0.162	50.38	mg/L	0.162	0.32%
Na 330.237†	1203.3	50.99	mg/L	0.184	50.99	mg/L	0.184	0.36%
Ni 231.604†	1755.3	1.018	mg/L	0.0011	1.018	mg/L	0.0011	0.10%
Pb 220.353†	14504.7	2.018	mg/L	0.0139	2.018	mg/L	0.0139	0.69%
Sb 206.836†	4533.8	2.060	mg/L	0.0123	2.060	mg/L	0.0123	0.60%
Se 196.026†	2443.6	2.001	mg/L	0.0102	2.001	mg/L	0.0102	0.51%
Si 288.158†	3956.2	2.050	mg/L	0.0102	2.050	mg/L	0.0102	0.50%
Sn 189.927†	3331.9	0.9347	mg/L	0.00727	0.9347	mg/L	0.00727	0.78%
Sr 421.552†	325855.9	1.018	mg/L	0.0037	1.018	mg/L	0.0037	0.36%
Ti 334.903†	21473.3	1.007	mg/L	0.0049	1.007	mg/L	0.0049	0.48%
Tl 190.801†	4635.5	1.974	mg/L	0.0159	1.974	mg/L	0.0159	0.80%
V 292.402†	117429.7	0.9645	mg/L	0.00750	0.9645	mg/L	0.00750	0.78%
Zn 206.200†	2059.1	1.042	mg/L	0.0026	1.042	mg/L	0.0026	0.25%

Sequence No.: 17
Sample ID: CB 8
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 6:33:17 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1846648.7	96.53	%	0.634				0.66%
ScR 361.383	155657.6	96.63	%	0.194				0.20%
Ag 328.068†	8.9	0.00005	mg/L	0.000221	0.00005	mg/L	0.000221	443.17%
Al 308.215†	-10.5	-0.00600	mg/L	0.014118	-0.00600	mg/L	0.014118	235.44%
As 188.979†	1.5	0.00105	mg/L	0.002954	0.00105	mg/L	0.002954	281.07%
B 249.677†	15.3	0.00696	mg/L	0.002991	0.00696	mg/L	0.002991	42.96%
Ba 233.527†	0.1	0.00001	mg/L	0.000413	0.00001	mg/L	0.000413	>999.9%
Be 313.042†	52.8	0.00021	mg/L	0.000052	0.00021	mg/L	0.000052	24.49%
Ca 317.933†	51.5	0.00516	mg/L	0.003565	0.00516	mg/L	0.003565	69.13%
Cd 228.802†	-3.0	-0.00008	mg/L	0.000172	-0.00008	mg/L	0.000172	229.29%
Co 228.616†	3.9	0.00006	mg/L	0.000157	0.00006	mg/L	0.000157	242.55%
Cr 267.716†	6.3	0.00131	mg/L	0.000909	0.00131	mg/L	0.000909	69.28%
Cu 324.752†	-213.5	-0.00090	mg/L	0.000347	-0.00090	mg/L	0.000347	38.58%
Fe 273.955†	-3.2	-0.00234	mg/L	0.002368	-0.00234	mg/L	0.002368	101.35%
K 766.490†	-31.6	-0.02189	mg/L	0.009921	-0.02189	mg/L	0.009921	45.32%
Mg 279.077†	-13.6	-0.01058	mg/L	0.003887	-0.01058	mg/L	0.003887	36.75%
Mn 257.610†	6.6	0.00018	mg/L	0.000131	0.00018	mg/L	0.000131	71.10%
Mo 202.031†	4.6	0.00052	mg/L	0.000242	0.00052	mg/L	0.000242	46.39%
Na 589.592†	69.4	0.03075	mg/L	0.004091	0.03075	mg/L	0.004091	13.30%
Na 330.237†	-3.5	-0.1490	mg/L	0.19337	-0.1490	mg/L	0.19337	129.79%
Ni 231.604†	2.5	0.00147	mg/L	0.003471	0.00147	mg/L	0.003471	235.65%
Pb 220.353†	13.5	0.00188	mg/L	0.001483	0.00188	mg/L	0.001483	78.76%
Sb 206.836†	-4.5	-0.00206	mg/L	0.001702	-0.00206	mg/L	0.001702	82.52%
Se 196.026†	2.5	0.00207	mg/L	0.009604	0.00207	mg/L	0.009604	464.51%
Si 288.158†	-4.2	-0.00216	mg/L	0.003298	-0.00216	mg/L	0.003298	152.41%
Sn 189.927†	9.4	0.00263	mg/L	0.001001	0.00263	mg/L	0.001001	38.09%
Sr 421.552†	-145.1	-0.00045	mg/L	0.000092	-0.00045	mg/L	0.000092	20.27%
Ti 334.903†	-20.1	-0.00094	mg/L	0.000907	-0.00094	mg/L	0.000907	95.98%
Tl 190.801†	6.4	0.00273	mg/L	0.001770	0.00273	mg/L	0.001770	64.84%
V 292.402†	0.2	0.00001	mg/L	0.000054	0.00001	mg/L	0.000054	400.91%
Zn 206.200†	0.2	0.00011	mg/L	0.000605	0.00011	mg/L	0.000605	553.83%

Sequence No.: 18
Sample ID: KZ56 ADUP SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 61
Date Collected: 5/23/2007 6:39:49 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 ADUP SWC

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: KZ56 ADUP SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1862411.0	97.35	%	0.587				0.60%
ScR 361.383	157802.2	97.96	%	0.295				0.30%
Ag 328.068†	-2316.0	0.00297	mg/L	0.000554	0.00593	mg/L	0.001108	18.68%
Al 308.215†	149789.7	85.51	mg/L	0.375	171.0	mg/L	0.75	0.44%
As 188.979†	85.9	0.04359	mg/L	0.003604	0.08718	mg/L	0.007208	8.27%
B 249.677†	242.9	0.1213	mg/L	0.00353	0.2425	mg/L	0.00706	2.91%
Ba 233.527†	2354.3	0.2740	mg/L	0.00251	0.5480	mg/L	0.00503	0.92%
Be 313.042†	416.1	0.00082	mg/L	0.000029	0.00165	mg/L	0.000058	3.51%
Ca 317.933†	322554.5	32.33	mg/L	0.139	64.65	mg/L	0.279	0.43%
Cd 228.802†	174.3	0.00369	mg/L	0.000109	0.00737	mg/L	0.000218	2.96%
Co 228.616†	2688.0	0.03224	mg/L	0.000443	0.06448	mg/L	0.000887	1.38%
Cr 267.716†	875.5	0.1841	mg/L	0.00265	0.3682	mg/L	0.00531	1.44%
Cu 324.752†	82013.4	0.3539	mg/L	0.00216	0.7078	mg/L	0.00432	0.61%
Fe 273.955†	151838.8	110.4	mg/L	0.56	220.8	mg/L	1.11	0.50%
K 766.490†	15144.6	10.50	mg/L	0.088	21.00	mg/L	0.176	0.84%
Mg 279.077†	52226.4	40.45	mg/L	0.174	80.90	mg/L	0.349	0.43%
Mn 257.610†	36142.8	1.007	mg/L	0.0014	2.013	mg/L	0.0029	0.14%
Mo 202.031†	172.2	0.01878	mg/L	0.000248	0.03757	mg/L	0.000495	1.32%
Na 589.592†	143118.8	63.40	mg/L	0.112	126.8	mg/L	0.22	0.18%
Na 330.237†	1534.6	65.48	mg/L	0.468	131.0	mg/L	0.94	0.72%
Ni 231.604†	275.0	0.1593	mg/L	0.00285	0.3185	mg/L	0.00570	1.79%
Pb 220.353†	2298.6	[illegible]	mg/L	0.00293	0.6988	mg/L	0.00585	0.84%
Sb 206.836†	-56.4	-0.00617	mg/L	0.002207	-0.01234	mg/L	0.004414	35.77%
Se 196.026†	-55.9	-0.01390	mg/L	0.004789	-0.02779	mg/L	0.009577	34.46%
Si 288.158†	13456.6	6.973	mg/L	0.1236	13.95	mg/L	0.247	1.77%
Sn 189.927†	51.2	0.01336	mg/L	0.000994	0.02672	mg/L	0.001988	7.44%
Sr 421.552†	99259.6	0.3101	mg/L	0.00258	0.6202	mg/L	0.00517	0.83%
Ti 334.903†	108162.8	5.077	mg/L	0.0249	10.15	mg/L	0.050	0.49%
Tl 190.801†	-13.9	-0.01127	mg/L	0.003057	-0.02254	mg/L	0.006114	27.13%
V 292.402†	34848.0	0.2721	mg/L	0.00167	0.5442	mg/L	0.00334	0.61%
Zn 206.200†	1897.3	[illegible]	mg/L	0.00256	1.924	mg/L	0.0051	0.27%

Sequence No.: 19
Sample ID: KZ56 E SWC
Analyst: JLB
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 62
Date Collected: 5/23/2007 6:46:25 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: KZ56 E SWC

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: KZ56 E SWC

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1876163.0	98.07	%	0.605				0.62%
ScR 361.383	159423.4	98.97	%	1.132				1.14%
Ag 328.068†	-2726.6	0.00187	mg/L	0.000209	0.00373	mg/L	0.000418	11.20%
Al 308.215†	154068.5	87.95	mg/L	0.366	175.9	mg/L	0.73	0.42%
As 188.979†	62.8	0.02567	mg/L	0.000758	0.05134	mg/L	0.001517	2.95%
B 249.677†	189.5	0.09762	mg/L	0.003697	0.1952	mg/L	0.00739	3.79%
Ba 233.527†	2253.8	0.2617	mg/L	0.00382	0.5235	mg/L	0.00764	1.46%
Be 313.042†	457.6	0.00090	mg/L	0.000112	0.00179	mg/L	0.000224	12.49%
Ca 317.933†	405147.9	40.60	mg/L	0.054	81.21	mg/L	0.108	0.13%
Cd 228.802†	96.5	0.00198	mg/L	0.000049	0.00396	mg/L	0.000098	2.47%
Co 228.616†	2957.2	0.03465	mg/L	0.000293	0.06929	mg/L	0.000586	0.85%
Cr 267.716†	859.7	0.1809	mg/L	0.00202	0.3618	mg/L	0.00404	1.12%
Cu 324.752†	58002.5	0.2534	mg/L	0.00179	0.5069	mg/L	0.00358	0.71%
Fe 273.955†	163302.9	118.7	mg/L	0.20	237.5	mg/L	0.40	0.17%
K 766.490†	13237.8	9.177	mg/L	0.0853	18.35	mg/L	0.171	0.93%
Mg 279.077†	49810.2	38.57	mg/L	0.112	77.15	mg/L	0.224	0.29%
Mn 257.610†	46206.2	1.287	mg/L	0.0029	2.575	mg/L	0.0057	0.22%
Mo 202.031†	144.7	0.01540	mg/L	0.000379	0.03080	mg/L	0.000757	2.46%
Na 589.592†	93480.4	41.41	mg/L	0.306	82.82	mg/L	0.612	0.74%
Na 330.237†	995.4	42.65	mg/L	0.454	85.30	mg/L	0.907	1.06%
Ni 231.604†	290.7	0.1683	mg/L	0.00066	0.3367	mg/L	0.00132	0.39%
Pb 220.353†	1397.5	0.2250	mg/L	0.00278	0.4499	mg/L	0.00557	1.24%
Sb 206.836†	-58.4	-0.00522	mg/L	0.000926	-0.01044	mg/L	0.001852	17.73%
Se 196.026†	-60.1	-0.01493	mg/L	0.006687	-0.02985	mg/L	0.013373	44.80%
Si 288.158†	6079.0	3.150	mg/L	0.0480	6.300	mg/L	0.0961	1.52%
Sn 189.927†	18.6	0.00369	mg/L	0.000769	0.00738	mg/L	0.001537	20.83%
Sr 421.552†	90681.4	0.2833	mg/L	0.00137	0.5666	mg/L	0.00275	0.49%
Ti 334.903†	128586.8	6.035	mg/L	0.0266	12.07	mg/L	0.053	0.44%
Tl 190.801†	-9.9	-0.01059	mg/L	0.001030	-0.02118	mg/L	0.002060	9.73%
V 292.402†	38284.4	0.2987	mg/L	0.00219	0.5973	mg/L	0.00438	0.73%
Zn 206.200†	1359.0	0.6897	mg/L	0.00869	1.379	mg/L	0.0174	1.26%

Sequence No.: 20
Sample ID: CV 9
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/23/2007 6:53:52 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1822845.8	95.28	%	0.219				0.23%
ScR 361.383	155228.0	96.37	%	0.821				0.85%
Ag 328.068†	166945.5	0.9382	mg/L	0.00374	0.9382	mg/L	0.00374	0.40%
Al 308.215†	3537.3	1.987	mg/L	0.0089	1.987	mg/L	0.0089	0.45%
As 188.979†	2723.0	1.900	mg/L	0.0152	1.900	mg/L	0.0152	0.80%
B 249.677†	2194.7	1.004	mg/L	0.0112	1.004	mg/L	0.0112	1.11%
Ba 233.527†	8301.6	0.9822	mg/L	0.00590	0.9822	mg/L	0.00590	0.60%
Be 313.042†	246235.2	0.9959	mg/L	0.00556	0.9959	mg/L	0.00556	0.56%
Ca 317.933†	19994.9	2.003	mg/L	0.0107	2.003	mg/L	0.0107	0.54%
Cd 228.802†	45090.1	1.031	mg/L	0.0023	1.031	mg/L	0.0023	0.22%
Co 228.616†	58873.6	0.9557	mg/L	0.00520	0.9557	mg/L	0.00520	0.54%
Cr 267.716†	4591.1	0.9560	mg/L	0.00650	0.9560	mg/L	0.00650	0.68%
Cu 324.752†	240550.6	1.012	mg/L	0.0045	1.012	mg/L	0.0045	0.45%
Fe 273.955†	2778.1	2.019	mg/L	0.0107	2.019	mg/L	0.0107	0.53%
K 766.490†	29514.4	20.46	mg/L	0.164	20.46	mg/L	0.164	0.80%
Mg 279.077†	2628.3	2.042	mg/L	0.0127	2.042	mg/L	0.0127	0.62%
Mn 257.610†	34092.1	0.9519	mg/L	0.00453	0.9519	mg/L	0.00453	0.48%
Mo 202.031†	8402.2	0.9613	mg/L	0.00567	0.9613	mg/L	0.00567	0.59%
Na 589.592†	113925.0	50.47	mg/L	0.272	50.47	mg/L	0.272	0.54%
Na 330.237†	1199.0	50.81	mg/L	0.728	50.81	mg/L	0.728	1.43%
Ni 231.604†	1743.5	1.011	mg/L	0.0035	1.011	mg/L	0.0035	0.34%
Pb 220.353†	14354.7	1.998	mg/L	0.0082	1.998	mg/L	0.0082	0.41%
Sb 206.836†	4520.8	2.054	mg/L	0.0097	2.054	mg/L	0.0097	0.47%
Se 196.026†	2442.1	2.000	mg/L	0.0180	2.000	mg/L	0.0180	0.90%
Si 288.158†	3950.2	2.047	mg/L	0.0161	2.047	mg/L	0.0161	0.79%
Sn 189.927†	3321.4	0.9318	mg/L	0.00438	0.9318	mg/L	0.00438	0.47%
Sr 421.552†	327089.8	1.022	mg/L	0.0074	1.022	mg/L	0.0074	0.72%
Ti 334.903†	21357.7	1.001	mg/L	0.0030	1.001	mg/L	0.0030	0.30%
Tl 190.801†	4618.5	1.966	mg/L	0.0087	1.966	mg/L	0.0087	0.44%
V 292.402†	116500.9	0.9569	mg/L	0.00174	0.9569	mg/L	0.00174	0.18%
Zn 206.200†	2038.5	1.032	mg/L	0.0080	1.032	mg/L	0.0080	0.78%

Sequence No.: 21
Sample ID: CB 9
Analyst: JLB
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/23/2007 7:01:17 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1863658.4	97.42	%	0.163				0.17%
ScR 361.383	154735.3	96.06	%	0.878				0.91%
Ag 328.068†	7.2	0.00004	mg/L	0.000585	0.00004	mg/L	0.000585	>999.9%
Al 308.215†	-8.7	-0.00500	mg/L	0.009516	-0.00500	mg/L	0.009516	190.30%
As 188.979†	1.8	0.00126	mg/L	0.002233	0.00126	mg/L	0.002233	177.40%
B 249.677†	23.3	0.01061	mg/L	0.001637	0.01061	mg/L	0.001637	15.43%
Ba 233.527†	1.1	0.00013	mg/L	0.000356	0.00013	mg/L	0.000356	275.03%
Be 313.042†	52.0	0.00021	mg/L	0.000046	0.00021	mg/L	0.000046	21.63%
Ca 317.933†	47.3	0.00474	mg/L	0.003588	0.00474	mg/L	0.003588	75.72%
Cd 228.802†	-4.3	-0.00011	mg/L	0.000057	-0.00011	mg/L	0.000057	54.15%
Co 228.616†	0.7	0.00001	mg/L	0.000049	0.00001	mg/L	0.000049	475.58%
Cr 267.716†	4.5	0.00094	mg/L	0.000487	0.00094	mg/L	0.000487	51.76%
Cu 324.752†	-234.6	-0.00099	mg/L	0.000086	-0.00099	mg/L	0.000086	8.67%
Fe 273.955†	-1.9	-0.00140	mg/L	0.001294	-0.00140	mg/L	0.001294	92.63%
K 766.490†	2.2	0.00152	mg/L	0.046273	0.00152	mg/L	0.046273	>999.9%
Mg 279.077†	-17.1	-0.01327	mg/L	0.007766	-0.01327	mg/L	0.007766	58.52%
Mn 257.610†	12.1	0.00034	mg/L	0.000122	0.00034	mg/L	0.000122	36.07%
Mo 202.031†	3.9	0.00044	mg/L	0.000368	0.00044	mg/L	0.000368	82.86%
Na 589.592†	71.0	0.03145	mg/L	0.021951	0.03145	mg/L	0.021951	69.81%
Na 330.237†	-2.9	-0.1223	mg/L	0.42962	-0.1223	mg/L	0.42962	351.25%
Ni 231.604†	3.1	0.00179	mg/L	0.003000	0.00179	mg/L	0.003000	167.19%
Pb 220.353†	8.1	0.00112	mg/L	0.001273	0.00112	mg/L	0.001273	113.30%
Sb 206.836†	-2.0	-0.00094	mg/L	0.002630	-0.00094	mg/L	0.002630	279.61%
Se 196.026†	4.2	0.00347	mg/L	0.007946	0.00347	mg/L	0.007946	229.00%
Si 288.158†	-2.1	-0.00108	mg/L	0.003166	-0.00108	mg/L	0.003166	293.65%
Sn 189.927†	1.7	0.00048	mg/L	0.000262	0.00048	mg/L	0.000262	54.36%
Sr 421.552†	-123.6	-0.00039	mg/L	0.000147	-0.00039	mg/L	0.000147	38.07%
Ti 334.903†	10.9	0.00051	mg/L	0.000979	0.00051	mg/L	0.000979	191.24%
Tl 190.801†	5.8	0.00246	mg/L	0.001402	0.00246	mg/L	0.001402	56.97%
V 292.402†	25.5	0.00022	mg/L	0.000122	0.00022	mg/L	0.000122	56.69%
Zn 206.200†	-0.9	-0.00047	mg/L	0.001090	-0.00047	mg/L	0.001090	233.30%

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 5.24.07

Page: 1 of 7

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments
STD	0.0	5mm	1X		
"	0.1				
"	0.5				
"	1.0				
"	2.0				
"	5.0				
"	100				
ICV				8.72	Begin CLP %R=109 ✓
ICB				0.00	✓
CCV1				3.99	%R=100 ✓
CCB1				-0.00	✓
CRA				0.11	✓
MY79	MB1			0.01	✓
"	MB1SPK			2.28	%R=114 ✓
"	A			0.45	
"	ADUP			0.39	✓
"	ASPK			1.39	%R=94 ✓
"	B				
"	C				
LA10	MB1			-0.01	✓
"	MB1SPK			2.24	%R=112 ✓
CCV2				4.03	%R=101 ✓
CCB2				-0.00	✓
LA10	A			0.08	
"	ADUP			0.08	No RPD: Undetected ✓
"	ASPK			1.19	%R=119 ✓
LA11	MB1			0.00	✓
"	MB1SPK			2.24	%R=112 ✓
"	A			0.10	
"	ADUP	↓	↓	0.10	✓

Chemical/Reagent ID:
10% $SnCl_2$: MP1204

14% NH_2OH/NaCl: MP1183

Standard ID:
Standard: 2870-1

ICV/CCV: 43.4

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 5.24.07

Page: 2 of 7

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
LA11 ASPK	5mm	1X	1.24	%R=114 ✓
KZ75 MB1			0.00	✓
" MB1SPK			2.25	%R=113 ✓
CCV3			4.31	%R=108 ✓
CCB3		↓	-0.00	✓
KZ75 REF1		2X	5.68	5.51 mg/kg ✓
" A		1X	0.12	
" ADUP			0.13	✓
" ASPK			1.17	%R=105 ✓
KZ84 MB1			-0.00	✓
" MB1SPK			2.25	%R=113 ✓
" A				
" B				
KZ93 MB1			0.00	✓
" MB1SPK			2.30	%R=115 ✓
CCV4			4.33	%R=108 ✓
CCB4			-0.00	✓
KZ93 A			0.19	
" ADUP			0.17	✓
" ASPK			1.32	%R=113 ✓
" B				
" C				
KZ60 MB1			0.00	✓
" MB1SPK			2.27	%R=114 ✓
" A				
" B				
" C				
CCV5			4.40	%R=110 ✓
CCB5			-0.01	✓
KZ60 D	↓	↓		

Chemical/Reagent ID:
10% $SnCl_2$: MP1204

14% NH_2OH/NaCl: MP1183

Standard ID:
Standard: 2370-1

ICV/CCV: 43-4

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 5.24.07

Page: 3 of 7

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments
KZU0	E	5mm	1X		
"	F			0.08	
"	FDUP			0.08	ND RPD: Undetected ✓
"	FSPK			1.22	%R=122 ✓
"	G				
"	H				
CCV6				4.07	%R=102 ✓
CCB6				0.00	✓
LA39	MB1			-0.00	✓
"	MB1SPK			2.29	%R=115 ✓
"	B			0.12	
"	BDUP			0.13	✓
"	BSPK			1.19	%R=107 ✓
"	C				
"	D				
"	E				
"	F				
"	G				
CCV7				4.27	%R=107 ✓
CCB7				-0.01	✓
KZS6	MB1			0.00	✓
"	MB1SPK			2.24	%R=112 ✓
"	A			0.20	
"	ADUP			0.22	✓
"	ASPK			1.15	%R=95 ✓
"	B				
"	C				
"	D				
"	E				
"	F	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP1204

14% NH_2OH/NaCl: MP1163

Standard ID:

Standard: 2370-1

ICV/CCV: 43-4

Mercury Analysis Log

Analyst: TDM

Instrument: CETAC

Date: 5-24-07

Page: 4 of 7

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
CCV 8	SMM	1X	4.45	%R=111 ✓
CCB 9			-0.01	✓
KH256 G				
" H				
" I				
" J				
" K				
" L				
" M				
" N				
" P				
LA04 MBI			0.01	✓
CCV 9			4.50	%R=113 ✓
CCB 9			0.00	✓
LA04 MBISPK			2.31	%R=116 ✓
" A			7.42	
" ADUP			7.35	RPD=0.95 ✓
" ASPK			22.754	Dm 5/29/07 %R=1532 High Spk'd X
" B				
" C				
" D				
" E				
" F				
LA07 MBI			-0.01	✓
CCV 10			4.43	%R=111 ✓
CCB 10			-0.01	✓
LA07 MBISPK			2.38	%R=119 ✓
" A			0.14	
" ADUP			0.15	✓
" ASPK	↓	↓	1.30	%R=116 ✓

Chemical/Reagent ID:
10% $SnCl_2$: MP1204

14% NH_2OH/NaCl: MP1183

Standard ID:
Standard: 2370-1

ICV/CCV: 43-4

Mercury Analysis Log

Analyst: DM
Instrument: CETAC

Date: 5-24-07
Page: 5 of 7

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
LA07 B	5mm	1X		
" C				
" D				
" E				
LA15 MB			-0.02	✓
" MBSPK			2.27	%R=114 ✓
CCV11			4.43	%R=111 ✓
CCB11			-0.01	✓
LA15 A				
CCV12			4.39	%R=110 ✓
CCB12			-0.02	✓
LA04 A			7.75	
" ADUP			7.59	RPD = 2.09 DBL CONFIRMS ✓ 5/25
" ASPK			22.62	Sat'd x
CCV13			3.80	%R=95 & Hi RSD ✓
CCB13			-0.08	END CAL ✓
STD 0.0	TWM			
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.67	Begin CLP %R=108 ✓
ICB			-0.04	✓
CCV1			4.23	%R=106 ✓
CCB1 DM 5-24-07			-0.02	✓
CRA KZ60			0.11	✓
KZ60 MB2			-0.01	✓
" MB2SPK			2.18	%R=109 ✓

Chemical/Reagent ID:
10% $SnCl_2$: MP1204
14% NH_2OH/NaCl: MP1183

Standard ID:
Standard: 23710-1
ICV/CCV: 43-4

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 5.24.07

Page: 6 of 7

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
KZ60 T	TWM	1X		
LA04 MB2			0.00	✓
" MB2SPK			2.16	%R=108 ✓
" G				
KZ56 MB2			-0.00	✓
" MB2SPK			2.18	%R=109 ✓
" G				
CCV2			4.27	%R=107 ✓
CCB2			-0.00	✓
LA01 MB1	LEM		0.01	✓
" A			0.01	
" ADUP			0.01	NO RPD: Undetected ✓
" ASPK			1.15	%R=115 ✓
" B				
" C				
" D				
" E				
" F				
" G				
CCV3	TWM		4.13	%R=103 ✓
CCB3			0.00	✓
LA01 H	LEM			
LA05 MB			0.01	✓
" E			0.02	
" EDUP			0.02	NO RPD: Undetected ✓
" ESPK			1.22	%R=122 ✓
KZ03 MB	TWM		0.00	✓
" MBSPK			2.20	%R=110 ✓
" B				
" C				

Chemical/Reagent ID:
10% $SnCl_2$: MP1204

14% $NH_2OH/NaCl$: MP1183

Standard ID:
Standard: 2370-1

ICV/CCV: 43-4

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 5·24·07

	Analyst 5-24 DM	Peer 5/25	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:		✓	
ICV/CCV	✓		
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	See Run Log
Internal Standards	–	–	
Carry-over	–	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	–	–	
Post Spikes/Serial Dilutions	–	–	
Analytic Spikes	–	–	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	LA04 ASPK- Sat'd
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	See CAF

CETAC Hg Analysis Report - 07052400.DB - Thursday, May 24, 2007, 3:03:46 PM

✓ 5/25/07 JH

Analyst
Date Started Thursday, May 24, 2007, 09:42:56
Worksheet ARI 10ppb CALIB
Comment

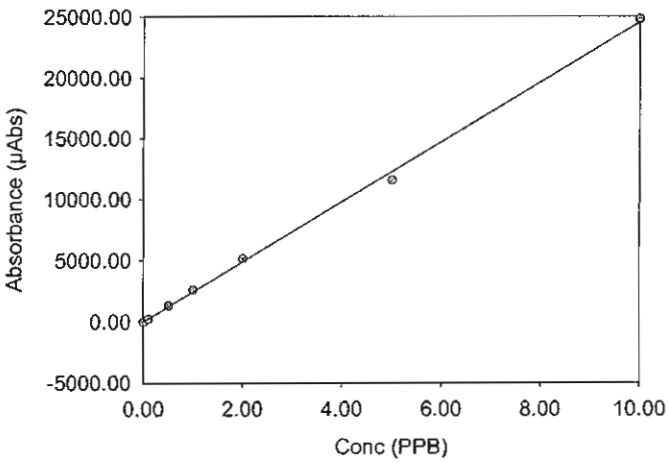
Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	24-May-2007, 09:42	10.00	0.47	23900.00	1.00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	24-May-2007, 09:44	0.00	36.40	-31.40	1.00	
Standard #1	24-May-2007, 09:45	0.10	9.13	245.00	1.00	
Standard #2	24-May-2007, 09:47	0.50	0.77	1310.00	1.00	
Standard #3	24-May-2007, 09:49	1.00	0.60	2620.00	1.00	
Standard #4	24-May-2007, 09:50	2.00	3.02	5160.00	1.00	
Standard #5	24-May-2007, 09:52	5.00	0.65	11600.00	1.00	
Standard #6	24-May-2007, 09:53	10.00	1.75	24800.00	1.00	

5mm

Calibration Data



Int.	0.000
Slope	2455.654
Correlation	0.99932

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	24-May-2007, 09:57	8.72	4.84	21400.00	1.00	
ICB	24-May-2007, 09:59	0.00	164.00	10.30	1.00	

Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 10:01	3.99	2.02	9800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 10:02	-0.00	259.00	-5.08	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	24-May-2007, 10:04	0.11	4.23	277.00	1.00	
KY79 MB1 SMM	24-May-2007, 10:06	0.01	9.92	18.80	1.00	
KY79 MB1SPK SMM	24-May-2007, 10:07	2.28	0.77	5600.00	1.00	
KY79 A SMM	24-May-2007, 10:09	0.45	1.10	1100.00	1.00	
KY79 ADUP SMM	24-May-2007, 10:10	0.39	0.65	948.00	1.00	
KY79 ASPK SMM	24-May-2007, 10:12	1.39	1.32	3420.00	1.00	
KY79 B SMM	24-May-2007, 10:14	1.19	0.32	2920.00	1.00	
KY79 C SMM	24-May-2007, 10:15	3.06	0.71	7510.00	1.00	
LA10 MB1 SMM	24-May-2007, 10:17	-0.01	26.50	-29.40	1.00	
LA10 MB1SPK SMM	24-May-2007, 10:19	2.24	2.97	5500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 10:20	4.03	2.05	9900.00	1.00	

Analyst
Date Started Thursday, May 24, 2007, 10:22:20
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 10:22	-0.00	55.40	-7.16	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
LA10 A SMM	24-May-2007, 10:23	0.08	2.46	202.00	1.00	
LA10 ADUP SMM	24-May-2007, 10:25	0.08	1.03	194.00	1.00	
LA10 ASPK SMM	24-May-2007, 10:27	1.19	1.15	2910.00	1.00	
LA11 MB1 SMM	24-May-2007, 10:28	0.00	49.60	11.60	1.00	
LA11 MB1SPK SMM	24-May-2007, 10:30	2.24	2.02	5510.00	1.00	
LA11 A SMM	24-May-2007, 10:31	0.10	1.59	248.00	1.00	
LA11 ADUP SMM	24-May-2007, 10:33	0.10	1.06	252.00	1.00	
LA11 ASPK SMM	24-May-2007, 10:35	1.24	0.48	3060.00	1.00	
KZ75 MB1 SMM	24-May-2007, 10:36	0.00	21.00	12.10	1.00	
KZ75 MB1SPK SMM	24-May-2007, 10:38	2.25	1.94	5520.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 10:40	4.31	1.04	10600.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 10:41	-0.00	158.00	-4.61	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
KZ75 REF1 SMM	24-May-2007, 10:43	5.68	0.72	13900.00	2.00	
KZ75 A SMM	24-May-2007, 10:45	0.12	2.63	301.00	1.00	
KZ75 ADUP SMM	24-May-2007, 10:46	0.13	1.47	330.00	1.00	
KZ75 ASPK SMM	24-May-2007, 10:48	1.17	4.40	2880.00	1.00	
KZ84 MB1 SMM	24-May-2007, 10:49	-0.00	416.00	-0.89	1.00	
KZ84 MB1SPK SMM	24-May-2007, 10:51	2.25	2.54	5540.00	1.00	
KZ84 A SMM	24-May-2007, 10:53	0.18	2.87	438.00	1.00	
KZ84 B SMM	24-May-2007, 10:54	1.60	0.82	3940.00	1.00	
KZ93 MB1 SMM	24-May-2007, 10:56	0.00	224.00	1.25	1.00	
KZ93 MB1SPK SMM	24-May-2007, 10:57	2.30	0.99	5650.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 10:59	4.33	0.64	10600.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 11:01	-0.00	50.30	-4.49	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
KZ93 A SMM	24-May-2007, 11:02	0.19	0.48	461.00	1.00	
KZ93 ADUP SMM	24-May-2007, 11:04	0.17	0.78	430.00	1.00	
KZ93 ASPK SMM	24-May-2007, 11:06	1.32	0.77	3250.00	1.00	
KZ93 B SMM	24-May-2007, 11:07	0.07	2.21	173.00	1.00	
KZ93 C SMM	24-May-2007, 11:09	0.09	1.61	227.00	1.00	
KZ60 MB1 SMM	24-May-2007, 11:11	0.00	77.90	7.22	1.00	
KZ60 MB1SPK SMM	24-May-2007, 11:12	2.27	1.24	5560.00	1.00	
KZ60 A SMM	24-May-2007, 11:14	0.06	1.18	138.00	1.00	
KZ60 B SMM	24-May-2007, 11:15	0.05	0.92	117.00	1.00	
KZ60 C SMM	24-May-2007, 11:17	0.10	0.77	237.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 11:19	4.40	0.44	10800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 11:20	-0.01	9.87	-29.00	1.00	

Analyst
Date Started Thursday, May 24, 2007, 11:22:27
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
KZ60 D SMM	24-May-2007, 11:22	0.07	2.76	166.00	1.00	
KZ60 E SMM	24-May-2007, 11:24	0.07	1.18	164.00	1.00	
KZ60 F SMM	24-May-2007, 11:25	0.08	2.87	191.00	1.00	
KZ60 FDUP SMM	24-May-2007, 11:27	0.08	0.56	202.00	1.00	
KZ60 FSPK SMM	24-May-2007, 11:29	1.22	0.88	3000.00	1.00	
KZ60 G SMM	24-May-2007, 11:30	0.09	0.77	215.00	1.00	
KZ60 H SMM	24-May-2007, 11:32	0.10	1.79	241.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 11:33	4.07	0.87	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 11:35	0.00	53.20	7.65	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
LA39 MB1 SMM	24-May-2007, 11:37	-0.00	78.40	-2.56	1.00	
LA39 MB1SPK SMM	24-May-2007, 11:39	2.29	0.31	5630.00	1.00	
LA39 B SMM	24-May-2007, 11:40	0.12	5.09	295.00	1.00	
LA39 BDUP SMM	24-May-2007, 11:42	0.13	1.28	322.00	1.00	
LA39 BSPK SMM	24-May-2007, 11:44	1.19	0.81	2930.00	1.00	
LA39 C SMM	24-May-2007, 11:45	0.11	0.81	266.00	1.00	
LA39 D SMM	24-May-2007, 11:47	0.06	2.41	157.00	1.00	
LA39 E SMM	24-May-2007, 11:48	0.06	6.91	143.00	1.00	
LA39 F SMM	24-May-2007, 11:50	0.06	1.07	154.00	1.00	
LA39 G SMM	24-May-2007, 11:52	0.05	1.24	128.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 11:53	4.27	1.61	10500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 11:55	-0.01	12.20	-27.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
KZ56 MB1 SMM	24-May-2007, 11:57	0.00	63.40	5.55	1.00	
KZ56 MB1SPK SMM	24-May-2007, 11:58	2.24	1.02	5490.00	1.00	
KZ56 A SMM	24-May-2007, 12:00	0.20	0.39	491.00	1.00	
KZ56 ADUP SMM	24-May-2007, 12:01	0.22	0.87	535.00	1.00	
KZ56 ASPK SMM	24-May-2007, 12:03	1.15	4.54	2820.00	1.00	
KZ56 B SMM	24-May-2007, 12:05	0.18	0.23	452.00	1.00	
KZ56 C SMM	24-May-2007, 12:06	0.14	0.98	344.00	1.00	
KZ56 D SMM	24-May-2007, 12:08	0.15	1.14	379.00	1.00	
KZ56 E SMM	24-May-2007, 12:10	0.13	2.17	317.00	1.00	
KZ56 F SMM	24-May-2007, 12:11	0.23	0.67	568.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 12:13	4.45	0.80	10900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 12:14	-0.01	16.00	-18.50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
KZ56 G SMM	24-May-2007, 12:16	0.16	0.98	390.00	1.00	
KZ56 H SMM	24-May-2007, 12:18	0.20	0.85	490.00	1.00	
KZ56 I SMM	24-May-2007, 12:19	0.19	0.76	468.00	1.00	
KZ56 J SMM	24-May-2007, 12:21	0.22	1.21	538.00	1.00	
KZ56 K SMM	24-May-2007, 12:23	0.13	1.89	330.00	1.00	
KZ56 L SMM	24-May-2007, 12:24	0.21	2.05	528.00	1.00	
KZ56 M SMM	24-May-2007, 12:26	0.23	0.92	565.00	1.00	
KZ56 N SMM	24-May-2007, 12:27	0.36	1.74	875.00	1.00	
KZ56 P SMM	24-May-2007, 12:29	0.14	2.49	356.00	1.00	
LA04 MB1 SMM	24-May-2007, 12:31	0.01	10.40	12.60	1.00	

Analyst
Date Started Thursday, May 24, 2007, 12:32:48
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 12:32	4.50	0.81	11000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 12:34	0.00	73.30	8.67	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
LA04 MB1SPK SMM	24-May-2007, 12:36	2.31	1.30	5680.00	1.00	
LA04 A SMM	24-May-2007, 12:37	7.42	0.61	18200.00	1.00	
LA04 ADUP SMM	24-May-2007, 12:39	7.35	2.44	18000.00	1.00	
LA04 ASPK SMM	24-May-2007, 12:41	Sat'd.	0.00	55800.00	1.00	SO - High
LA04 B SMM	24-May-2007, 12:43	0.43	3.85	1060.00	1.00	
LA04 C SMM	24-May-2007, 12:45	0.31	17.50	772.00	1.00	
LA04 D SMM	24-May-2007, 12:46	0.31	9.08	773.00	1.00	
LA04 E SMM	24-May-2007, 12:48	0.32	1.69	774.00	1.00	
LA04 F SMM	24-May-2007, 12:49	0.16	1.64	389.00	1.00	
LA07 MB1 SMM	24-May-2007, 12:51	-0.01	22.90	-12.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 12:53	4.43	0.59	10900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 12:54	-0.01	50.00	-31.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
LA07 MB1SPK SMM	24-May-2007, 12:56	2.38	1.75	5830.00	1.00	
LA07 A SMM	24-May-2007, 12:58	0.14	1.24	342.00	1.00	
LA07 ADUP SMM	24-May-2007, 12:59	0.15	0.93	380.00	1.00	
LA07 ASPK SMM	24-May-2007, 13:01	1.30	0.99	3190.00	1.00	
LA07 B SMM	24-May-2007, 13:03	0.15	1.21	365.00	1.00	
LA07 C SMM	24-May-2007, 13:04	1.21	3.42	2960.00	1.00	
LA07 D SMM	24-May-2007, 13:06	0.15	0.63	367.00	1.00	
LA07 E SMM	24-May-2007, 13:07	0.23	0.83	553.00	1.00	
LA15 MB SMM	24-May-2007, 13:09	-0.02	3.17	-43.40	1.00	
LA15 MBSPK SMM	24-May-2007, 13:11	2.27	0.64	5570.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 13:12	4.43	0.78	10900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 13:14	-0.01	29.30	-26.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
LA15 A SMM	24-May-2007, 13:16	0.02	14.90	49.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 13:17	4.39	0.52	10800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 13:19	-0.02	29.50	-38.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
LA04 A SMM	24-May-2007, 13:21	7.75	0.90	19000.00	1.00	
LA04 ADUP SMM	24-May-2007, 13:23	7.59	0.87	18600.00	1.00	
LA04 ASPK SMM	24-May-2007, 13:24	Sat'd.	0.00	55500.00	1.00	SO - High

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Analyst
Date Started Thursday, May 24, 2007, 13:27:43
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 13:27	3.80	6.74	9330.00	1.00	Q

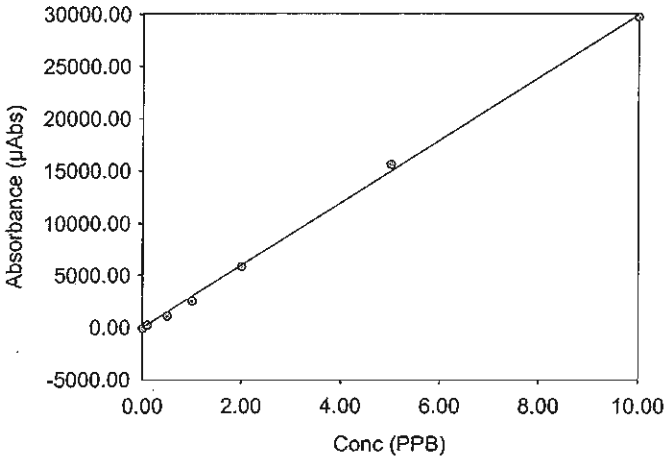
Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 13:29	-0.08	10.80	-191.00	1.00	

END CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	24-May-2007, 13:31	0.00	5.17	-96.30	1.00	
Standard #1	24-May-2007, 13:32	0.10	0.49	236.00	1.00	
Standard #2	24-May-2007, 13:34	0.50	0.85	1100.00	1.00	
Standard #3	24-May-2007, 13:36	1.00	0.66	2530.00	1.00	
Standard #4	24-May-2007, 13:37	2.00	1.98	5830.00	1.00	
Standard #5	24-May-2007, 13:39	5.00	0.40	15600.00	1.00	
Standard #6	24-May-2007, 13:41	10.00	0.80	29700.00	1.00	

TWM

Calibration Data



Int.	0.000
Slope	2994.726
Correlation	0.99940

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	24-May-2007, 13:44	8.67	0.23	26000.00	1.00	
ICB	24-May-2007, 13:45	-0.04	3.46	-112.00	1.00	

Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 13:47	4.23	0.70	12700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 13:49	-0.02	3.11	-62.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	24-May-2007, 13:50	0.11	0.64	325.00	1.00	
KZ60 MB2 TWM	24-May-2007, 13:52	-0.01	4.58	-27.50	1.00	
KZ60 MB2SPK TWM	24-May-2007, 13:53	2.18	1.40	6540.00	1.00	
KZ60 T TWM	24-May-2007, 13:55	-0.01	6.87	-39.30	1.00	
LA04 MB2 TWM	24-May-2007, 13:57	0.00	88.90	2.48	1.00	
LA04 MB2SPK TWM	24-May-2007, 13:58	2.16	0.50	6450.00	1.00	
LA04 G TWM	24-May-2007, 14:00	-0.01	5.31	-28.30	1.00	
KZ56 MB2 TWM	24-May-2007, 14:01	-0.00	19.30	-10.20	1.00	
KZ56 MB2SPK TWM	24-May-2007, 14:03	2.18	1.23	6520.00	1.00	
KZ56 O TWM	24-May-2007, 14:05	-0.00	321.00	-1.52	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 14:06	4.27	0.58	12800.00	1.00	

Analyst
Date Started Thursday, May 24, 2007, 14:08:35
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 14:08	-0.00	7.06	-12.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
LA01 MB1 LEM	24-May-2007, 14:10	0.01	1.09	16.60	1.00	
LA01 A LEM	24-May-2007, 14:11	0.01	10.50	20.50	1.00	
LA01 ADUP LEM	24-May-2007, 14:13	0.01	19.50	27.20	1.00	
LA01 ASPK LEM	24-May-2007, 14:15	1.15	0.42	3440.00	1.00	
LA01 B LEM	24-May-2007, 14:16	0.00	53.70	7.36	1.00	
LA01 C LEM	24-May-2007, 14:18	0.01	3.64	29.60	1.00	
LA01 D LEM	24-May-2007, 14:19	0.01	5.45	35.80	1.00	
LA01 E LEM	24-May-2007, 14:21	0.01	7.41	33.40	1.00	
LA01 F LEM	24-May-2007, 14:23	0.01	16.20	30.60	1.00	
LA01 G LEM	24-May-2007, 14:24	0.01	5.62	21.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 14:26	4.13	2.58	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 14:28	0.00	633.00	0.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
LA01 H LEM	24-May-2007, 14:29	0.01	2.30	37.10	1.00	
LA25 MB LEM	24-May-2007, 14:31	0.01	5.93	35.00	1.00	
LA25 E LEM	24-May-2007, 14:32	0.02	3.19	47.60	1.00	
LA25 EDUP LEM	24-May-2007, 14:34	0.02	2.09	51.30	1.00	
LA25 ESPK LEM	24-May-2007, 14:36	1.22	2.07	3650.00	1.00	
KZ63 MB TWM	24-May-2007, 14:37	0.00	20.90	14.20	1.00	
KZ63 MBSPK TWM	24-May-2007, 14:39	2.20	0.74	6590.00	1.00	
KZ63 B TWM	24-May-2007, 14:40	0.35	0.82	1050.00	1.00	
KZ63 C TWM	24-May-2007, 14:42	0.07	2.68	223.00	1.00	
KZ63 D TWM	24-May-2007, 14:44	0.05	6.82	137.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 14:45	4.14	1.84	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 14:47	0.00	1580.00	0.37	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
KZ63 E TWM	24-May-2007, 14:49	0.02	5.08	56.30	1.00	
KZ68 MB TWM	24-May-2007, 14:50	0.01	12.70	18.60	1.00	
KZ68 MBSPK TWM	24-May-2007, 14:52	2.15	0.70	6440.00	1.00	
KZ68 A TWM	24-May-2007, 14:54	0.01	11.50	18.30	1.00	
KZ94 MB TWM	24-May-2007, 14:55	0.01	7.03	23.50	1.00	
KZ94 MBSPK TWM	24-May-2007, 14:57	2.21	0.42	6620.00	1.00	
KZ94 A TWM	24-May-2007, 14:58	0.05	1.50	156.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	24-May-2007, 15:00	4.28	0.63	12800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	24-May-2007, 15:02	-0.01	15.10	-17.80	1.00	

END CLP

1742

Mercury Standard Prep Log
Digested 20.0mL

Prep Code: TWM
Analyst: EJR
Bath Temp: 95°C
Start Time: 1225
Instrument: Cetac
Date: 05-22-07
End Time: 1425

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	23701	0.01	↑	0.1	1
STD2	↓	0.05	↑	0.5	1
STD3	↓	0.10	↑	1.0	1
STD4	↓	0.20	↑	2.0	1
STD5	↓	0.50	↑	5.0	1
STD6	↓	1.00	↑	10.0	1
CRA	↓	0.01	↑	0.1	1
ICB/CCB	—	0.00	↑	0.0	1
ICV/LCS	43-4	0.16	↓	8.0	1
CCV	43-4	0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO_3: I3359 H_2SO_4: I3322 HCl: —

5% $K_2S_2O_8$: MP1198 5% $KMnO_4$: MP1199

Prep Code: _____ Instrument: _____

Analyst: _____ Date: _____

Bath Temp: _____ Start Time: _____ End Time: _____

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3: _____ H_2SO_4: _____ HCl: _____

5% $K_2S_2O_8$: _____ 5% $KMnO_4$: _____

Mercury Standard Prep Log
Digested 20.0mL

Prep Code: TWM
Analyst: EJR
Bath Temp: 95°C
Start Time: 1225
Instrument: Cetac
Date: 05-22-07
End Time: 1425

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2370-1	0.01	↑	0.1	1
STD2	↓	0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA	↓	0.01		0.1	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	43-4	0.16	↓	8.0	1
CCV	43-4	0.08	100.0	4.0	1

Chemical/Reagent ID:
HNO_3: I3359 H_2SO_4: I3322 HCl: —
5% $K_2S_2O_8$: MP1198 5% $KMnO_4$: MP1199

Prep Code: SMM
Analyst: EJR
Bath Temp: 90°C
Start Time: 1230
Instrument: Cetac
Date: 05-22-07
End Time: 1300

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	2
STD1	2370-1	0.01	↑	0.1	2
STD2	↓	0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA	↓	0.01		0.1	1
ICB/CCB	—	0.00		0.0	2
ICV/LCS	43-4	0.16	↓	8.0	2
CCV	43-4	0.08	100.0	4.0	2

Chemical/Reagent ID:
HNO_3: I3359 H_2SO_4: I3322 HCl: —
5% $K_2S_2O_8$: MP1198 5% $KMnO_4$: MP1199

Mercury Digestion Log

Prep Code: TWM Matrix: Water
Analyst: EJR Date: 05-21-07
Bath Temp: 94°C Start Time: 0815 End Time: 1015

ARI Sample ID	Sample Bottle #	BOD Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CL P	Comments
KZ63B	5	—	✓	20.0	20.0	1 5/29	NO	
C	7	—	✓	↑	↑	1	↑	
D	7	—	✓			1		
E	7	—	—			1		Preserved in Lab
mB	—	—	✓			1	↓	
mBSPK	—	—	✓			1	NO	
KZ560	7	—	✓			1 5/28	Yes	
mB2	—	—	✓			1	Yes	
mB2SPK	—	—	✓			1	Yes	
KZ68Q	1	—	✓			1 5/29	NO	
mB	—	—	✓	↓	↓	1	NO	
mBSPK	—	—	✓	20.0	20.0	1	NO	

EJR 05-21-07

Chemical/Reagent ID:
HNO_3: I3359 H_2SO_4: I3322 HCl: —
5% $K_2S_2O_8$: MP1175 5% $KMnO_4$: MP1199

Mercury Digestion Log

Prep Code: Smm | Matrix: Soil

Analyst: DM | Date: 5-21-07

Bath Temp: 95°C | Start Time: 1150 | End Time: 1220

ARI Sample ID	Sample Bottle #	BOD Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CL P	Comments
KZ56 A	1	V1	—	0.239	100.0	5[28] 1	(4)	
" AOUP	1	E14	—	0.241		1		
" ASPK	1	P3	—	0.243		1		
" B	1	L15	—	0.275		1		
" C	1	H4	—	0.243		1		
" D	1	L19	—	0.286		1		
" E	1	T14	—	0.251		1		
" F	1	V7	—	0.218		1		
" G	1	T8	—	0.206		1		
" H	1	F8	—	0.229		1		
" I	1	E7	—	0.207		1		
" J	1	H19	—	0.221		1		
" K	1	X20	—	0.259		1		
" L	1	T11	—	0.243		1		
" M	1	X1	—	0.268		1		
" N	1	H12	—	0.254		1		
" P	1	H2	—	0.269		1		
" MB1	-	L3	—	—	↓	1	↓	
" MB1SPK	—	T3	—	—	100.0	1	(4)	
				5-21-07 DM				

Chemical/Reagent ID:

HNO_3: I3359 | H_2SO_4: I3322 | HCl: —

5% $K_2S_2O_8$: MP1175 | 5% $KMnO_4$: MP1199

8726

Metals Prep Logs

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Metals Total Solids

Oven in:
Analyst: DM Date: 5-21-07 Time: 1115 Temp: 102°C

Oven out:
Analyst: DM Date: 5-22-07 Time: 0605 Temp: 102°C

ARI Sample ID		Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Comments
KZ56	A	1.017	10.662	5.327	
"	B	1.021	10.456	3.442	
"	C	1.022	10.595	4.492	
"	D	1.000	10.406	5.978	
"	E	1.028	10.606	7.424	
"	F	1.016	10.251	5.169	
"	G	1.037	10.317	5.829	
"	H	1.031	10.285	5.548	
"	I	1.034	10.911	5.722	
"	J	1.032	10.830	5.160	
"	K	1.020	10.887	4.276	
"	L	1.019	10.387	6.707	
"	M	1.038	10.658	5.602	
"	N	0.992	10.618	5.221	
"	P	0.994	10.479	6.163	
KZ60	A	1.002	10.565	9.223	
"	B	1.026	10.202	8.855	
"	C	1.023	10.357	8.544	
"	D	0.992	10.382	9.262	
"	E	0.988	10.113	8.803	
"	F	0.983	10.430	8.701	
"	G	1.029	10.170	9.019	
"	H	1.015	10.136	8.447	
			5-21-07 DM		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: ESR
Date: 05-21-07

Final Volume 50.0
Final Volume (Hg): 20.0

Sample ID KZS6MB2SK

		Prepcode:	TWC	TWC	
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2361-11	2262-1	
		Vol Added (mL):	0.5	0.5	
	Ag		50		2.0
S	Al		200	200	
T	As		200		10
O	Ba		200	200	
C	Be		50	50	
K	Ca		1000	1000	
	Cd		50		2.0
	Co		50	50	
C	Cr		50	50	
O	Cu		50	50	
N	Fe		200	200	
C	K		1000	1000	
E	Mg		1000	1000	
N	Mn		50	50	
T	Na		1000	1000	
R	Ni		50	50	
A	Pb		200 ✓		10
T	Se		200		10
I	Sr		50	50	
O	Tl		200		10
N	V		50	50	
	Zn		50	50 ✓	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Th	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK	TWM	CVA	1.0	0.04	2344-4
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

1749

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 5.21.07

Final Volume 50

Final Volume (Hg): 100

Sample ID: [redacted]

K2C0 FSPK, MBISPK

	Prepcode:	SMC	SMC	
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:	2361-11	2262-1	
	Vol Added (mL):	1.0	1.0	
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200 ✓		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50 ✓	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Th	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.1	2344-4
Hg MBSPK	↓	CVA	1.0	0.2	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

1750

Mercury Digestion Log

Prep Code: IWM Matrix: Water
Analyst: ESR Date: 05-21-07
Bath Temp: 94°C Start Time: 0815 End Time: 1015

ARI Sample ID	Sample Bottle #	BOD Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CL P	Comments
KZ63B	5	—	✓	20.0	20.0	1 5/29	NO	
C	7	—	✓	↑	↑	1	↑	
D	7	—	✓			1		
E	7	—	—			1		Preserved in Lab
mB	—	—	✓			1	↓	
mBSPK	—	—	✓			1	NO	
KZ560	7	—	✓			1 5/28	Yes	
mB2	—	—	✓			1	Yes	
mB2SPK	—	—	✓			1	Yes	
KZ68A	1	—	✓			1 5/29	NO	
mB	—	—	✓	↓	↓	1	NO	
mBSPK	—	—	✓	20.0	20.0	1	NO	

ESR
05-21-07

Chemical/Reagent ID:
HNO_3: I3359 H_2SO_4: I3322 HCl: ~~—~~
5% $K_2S_2O_8$: MP1175 5% $KMnO_4$: MP1199

Mercury Digestion Log

Prep Code: 5mm | Matrix: Soil
Analyst: DM | Date: 5-21-07
Bath Temp: 95°C | Start Time: 1150 | End Time: 1220

ARI Sample ID	Sample Bottle #	BOD Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CL P	Comments
KZ56 A	1	V1	—	0.239	100.0	5|28 1	(4)	
" AOVP	1	E14	—	0.241		1		
" ASPK	1	P3	—	0.243		1		
" B	1	L15	—	0.275		1		
" C	1	H4	—	0.243		1		
" D	1	L19	—	0.286		1		
" E	1	T14	—	0.251		1		
" F	1	V7	—	0.218		1		
" G	1	T8	—	0.206		1		
" H	1	F8	—	0.229		1		
" I	1	E7	—	0.207		1		
" J	1	H19	—	0.221		1		
" K	1	X20	—	0.259		1		
" L	1	T11	—	0.243		1		
" M	1	X1	—	0.268		1		
" N	1	H12	—	0.254		1		
" P	1	H2	—	0.269		1		
" MB1	-	L3	—	—	↓	1	↓	
" MB1SPK	—	T3	—	—	100.0	1	(4)	
				5-21-07 DM				

Chemical/Reagent ID:

HNO_3: I3359 | H_2SO_4: I3322 | HCl: —

5% $K_2S_2O_8$: MP1175 | 5% $KMnO_4$: MP1199

8726

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 5-21-07

Matrix: Soil Block Temp: 90°C

ARI Sample ID	Btl #	pH<2	Prep Code: SW		Prep Code:		Comments
			Initial Wt (g) ~~Vol (mL)~~	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
KZ56 A	1	—	1.028	50.0			
" AOVP	1	—	1.031				
" AOVPSPK	1	—	1.035				
" B	1	—	1.033				
" C	1	—	1.009				
" D	1	—	1.018				
" E	1	—	1.014				
" F	1	—	1.046				
" G	1	—	1.036				
" H	1	—	1.001				
" I	1	—	1.013				
" J	1	—	1.028				
" K	1	—	1.066				
" L	1	—	1.060				
" M	1	—	1.050				
" N	1	—	1.080				
" P	1	—	1.079				
" MB1	—	—	—				
" MB1SPK	—	—	—	50.0			

5-21-07 DM

Chemical/Reagent ID:

HNO_3: MP195 | I3359 HCl: I2854 H_2O_2: I3647

Digestion Log

Analyst: ESR

Matrix: Water

Date: 05-21-07

Block Temp: 112°C

ARI Sample ID	Btl #	pH<2	Prep Code: TWC Initial ~~Wt (g)~~ Vol (mL)	Prep Code: TWC Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
KZ63B	5	✓	50.0	50.0			
C	7	✓	↑	↑			
D	7	✓					
E	7	—					Preserved in Lab
mB	—	✓					
mBSPK	—	✓					
KZ560	7	✓					
mB2	—	✓					
mB2SPK	—	✓					
KZ68a	1	✓					
mB	—	✓	↓	↓			
mBSPK	—	✓	50.0	50.0			

ESR 05-21-07

Chemical/Reagent ID:

HNO_3: I3354 HCl: MP1203 H_2O_2: _____

General Chemistry Analysis
QC Summary Data

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

METHOD BLANK RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	05/24/07	Percent	< 0.01 U
	05/24/07		< 0.01 U
	05/24/07		< 0.01 U
Total Organic Carbon	05/28/07	Percent	< 0.020 U

LAB CONTROL RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon	05/28/07	Percent	0.506	0.500	101.2%

STANDARD REFERENCE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST #8704	05/28/07	Percent	3.53	3.35	105.4%

REPLICATE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: KZ56H Client ID: Y3-RC08-S					
Total Solids	05/24/07	Percent	47.80	48.20 48.50	0.7%
Total Organic Carbon	05/28/07	Percent	3.36	4.08 4.08	10.8%

MS/MSD RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: KZ56H Client ID: Y3-RC08-S						
Total Organic Carbon	05/28/07	Percent	3.36	6.29	3.27	89.6%

General Chemistry Analysis
Sample Data

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC11-S
ARI ID: 07-9547 KZ56A

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	48.00
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	6.08

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC01-S
ARI ID: 07-9548 KZ56B

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	26.50
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	11.8

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC13-S
ARI ID: 07-9549 KZ56C

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	39.80
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	5.47

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC14-S
ARI ID: 07-9550 KZ56D

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	52.40
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	7.33

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC10-S
ARI ID: 07-9551 KZ56E

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	68.40
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	5.27

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC05-S
ARI ID: 07-9552 KZ56F

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	44.00
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	5.89

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC07-S
ARI ID: 07-9553 KZ56G

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	52.90
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	5.44

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC08-S
ARI ID: 07-9554 KZ56H

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	47.80
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	3.36

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC15-S
ARI ID: 07-9555 KZ56I

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	47.20
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	5.45

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC09-S
ARI ID: 07-9556 KZ56J

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	42.90
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	3.13

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/16/07
Date Received: 05/17/07

Client ID: Y3-RC02-S
ARI ID: 07-9557 KZ56K

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	33.40
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	7.02

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Client ID: Y3-RC12-S
ARI ID: 07-9558 KZ56L

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	61.40
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	4.91

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Client ID: Y3-RC06-S
ARI ID: 07-9559 KZ56M

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	48.20
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	3.73

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Client ID: Y3-RC04-S
ARI ID: 07-9560 KZ56N

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#4	EPA 160.3	Percent	0.01	45.50
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	7.21

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KZ56-Tetra Tech, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/04/07

Project: THEA FOSS OMMP YEAR 3
Event: 3306
Date Sampled: 05/17/07
Date Received: 05/17/07

Client ID: Y3-RC03-S
ARI ID: 07-9562 KZ56P

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/24/07 052407#6	EPA 160.3	Percent	0.01	55.10
Total Organic Carbon	05/28/07 052807#1	Plumb,1981	Percent	0.020	5.13

RL Analytical reporting limit
U Undetected at reported detection limit

General Chemistry Analysis
Instrument Raw Data

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

KZ56

5-29-07

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5/24/2007

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: KE (B)

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
5/24/2007 21:02	time in oven	KE	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
5/25/2007 13:04	time out	KE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	16.0			*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Cal Date -->		5/24/2007	5/24/2007	5/25/2007										
Time & Initials -->		18:54 KE	15:20 KE	13:21 KE										
Cal Wt (g) 10.0000		9.9993	9.9993	9.9995										
record weights to 4 places		*Cal OK!*	*Cal OK!*	*Cal OK!*										
Blank			0.9912	0.9909			0.00							
KZ44 A1		6.1486	1.0162	5.4413			4.43	86.2%						
KZ44 A1 dup		6.5044	1.0089	5.6981			4.69	85.3%						
							RPD =	1.04%				RPD =	NA	
KZ44 A1 trp		6.3733	0.9850	5.6501			4.67	86.6%						
							RSD =	0.75%				RSD =	NA	
KZ44 B1		6.9266	1.0299	5.8392			4.81	81.6%						
KZ44 C1		6.6005	1.0131	5.1531			4.14	74.1%						
KZ44 D1		6.5491	0.9882	5.2499			4.26	76.6%						
KZ56 A2		6.1138	1.0463	3.4767			2.43	48.0%						
KZ56 B2		6.4814	1.0185	2.4643			1.45	26.5%						
KZ56 C2		6.7609	1.0367	3.3129			2.28	39.8%						
KZ56 D2		6.9960	1.0330	4.1604			3.13	52.4%						
KZ56 E2		6.7815	1.0207	4.9634			3.94	68.4%						
KZ56 F2		6.4266	1.0127	3.3955			2.38	44.0%						
KZ56 G2		6.2285	1.0141	3.7734			2.76	52.9%						
KZ56 H3		6.7206	0.9871	3.7285			2.74	47.8%						
KZ56 H3 dup		6.4922	1.0132	3.6532			2.64	48.2%						
							RPD =	0.77%				RPD =	NA	
KZ56 H3 trp		6.8341	1.0319	3.8448			2.81	48.5%						
							RSD =	0.69%				RSD =	NA	
KZ56 I 2		6.6613	1.0223	3.6821			2.66	47.2%						
KZ56 J 2		6.7585	0.9970	3.4698			2.47	42.9%						

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TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5/24/2007

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: KE (B)

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
5/24/2007 21:02	time in oven	KE	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
5/25/2007 13:04	time out	KE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	16.0			*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
KZ56 K2		6.1031	0.9935	2.6982			1.70	33.4%						
KZ56 L2		6.4977	1.0113	4.3823			3.37	61.4%						
KZ56 M2		6.5202	0.9981	3.6586			2.66	48.2%						
KZ56 N2		6.6173	1.0118	3.5612			2.55	45.5%						
KZ60 A1		6.8867	1.0349	6.1011			5.07	86.6%						
KZ60 B1		6.2060	1.0248	5.5354			4.51	87.1%						
KZ60 C1		6.1090	1.0135	4.9437			3.93	77.1%						
KZ60 D1		6.6620	0.9874	5.8653			4.88	86.0%						
KZ60 E1		6.2692	1.0109	5.5244			4.51	85.8%						
KZ60 F1		6.3982	0.9963	5.4016			4.41	81.6%						
KZ60 F1 dup		6.1057	0.9976	5.1719			4.17	81.7%						
							RPD =	0.21%				RPD =	NA	
KZ60 F1 trp		6.7171	0.9928	5.5832			4.59	80.2%						
							RSD =	1.03%				RSD =	NA	
KZ60 G1		6.2531	1.0002	5.6428			4.64	88.4%						
Blank			1.0128	1.0126			0.00							
KZ60 H1		6.1992	1.0147	5.4356			4.42	85.3%						
KZ60 I 1		6.4959	1.0408	4.3576			3.32	60.8%						
KZ60 J 1		6.5915	1.0115	2.9955			1.98	35.6%						
KZ60 K1		6.5250	0.9967	4.3347			3.34	60.4%						
KZ60 L1		6.2696	0.9935	3.9550			2.96	56.1%						
KZ60 M1		6.3732	1.0107	3.8199			2.81	52.4%						
KZ60 N1		6.8782	0.9886	4.3414			3.35	56.9%						
KZ60 O1		6.6272	0.9989	4.2650			3.27	58.0%						
KZ60 P1		6.8710	0.9705	4.2498			3.28	55.6%						
KZ60 Q1		6.6012	0.9996	4.0786			3.08	55.0%						
KZ60 R1		6.0914	0.9980	3.8220			2.82	55.4%						

1779

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5/24/2007

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: KE (B)

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
5/24/2007 21:02	time in oven	KE	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
5/25/2007 13:04	time out	KE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	16.0			*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
KZ60 S1		6.7738	1.0059	4.2978			3.29	**57.1%**						
KY79 A2		6.8013	1.0206	3.6469			2.63	**45.4%**						
KY79 A2 dup		6.6608	1.0149	3.5452			2.53	**44.8%**						
							RPD =	1.36%				RPD =	NA	
KY79 A2 trp		6.6045	1.0127	3.5467			2.53	**45.3%**						
							RSD =	0.72%				RSD =	NA	
KY79 B2		6.4132	1.0113	2.4775			1.47	**27.1%**						
LA59 A1		6.4453	1.0067	5.9514			4.94	**90.9%**						
LA59 A1 dup		6.5955	1.0127	6.0989			5.09	**91.1%**						
							RPD =	0.20%				RPD =	NA	
LA59 A1 trp		6.6025	1.0308	6.1025			5.07	**91.0%**						
							RSD =	0.10%				RSD =	NA	
LA59 B1		6.4270	1.0053	5.5109			4.51	**83.1%**						
LA59 C1		6.2425	1.0173	5.0886			4.07	**77.9%**						
LA59 D1		6.7829	1.0239	5.8726			4.85	**84.2%**						
Blank			1.0070	1.0071			0.00							
KZ56 P1		6.4581	1.0425	4.0260			2.98	**55.1%**						

1780

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5-24-07

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: (W) (B)

Batch drying time

record times as mm/dd/yy hh:mm

5-24-07 (B) time in oven 21:02

5-25-07 (W) time out 13:04

elapsed hrs = 0.0 *< 12 hr*

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2	3	Ash Wt (g)	TVS (mg/kg)	(%)
Cal Date -->		5-24-07	5-24-07	5-25-07										
Time & Initials -->		18:54 (W)	15:20 (W)	13:21 (W)										
Cal Wt (g) 10.0000		9.9993	9.9993	9.9995										
record weights to 4 places														
Blank	1	8	0.9912	0.9909										
K244 A1	2	6.1486	1.0062	5.4413										
ΔA1	3	6.5044	1.0089	5.6981										
ΔΔA1	4	6.3733	0.9850	5.6501										
B1	5	6.9266	1.0299	5.8392										
C1	6	6.6005	1.0131	5.1531										
D1	7	6.5491	0.9882	5.2499										
K250 A2	8	6.1138	1.0463	3.4767										
B2	9	6.4814	1.0185	2.4643										
C2	10	6.7609	1.0367	3.3129										
D2	11	6.9960	1.0330	4.1504										
E2	12	6.7815	1.0207	4.9634										
F2	13	6.4266	1.0127	3.3955										
G2	14	6.2285	1.0141	3.7734										
H3	15	6.7206	0.9871	3.7285										
ΔH3	16	6.4922	1.0132	3.6532										
ΔΔH3	17	6.8341	1.0319	3.8448										
I2	18	6.6613	1.0223	3.6821										
J2	19	6.7585	0.9970	3.4698										
K2	20	6.1031	0.9935	2.6982										
L2	21	6.4977	1.0113	4.3823										
M2	22	6.5202	0.9981	3.6586										
N2	23	6.6173	1.0118	3.5612										

1781

(2) 6.5915 (K) 5-24-07

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5-24-07

ANALYST: (W) (B)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

Batch drying time	TS (%) calculated as:	TVS (mg/kg dry wt) calculated as:
record times as mm/dd/yy hh:mm	Final dry wt (g) = (Dry Wt - Tare Wt)	Final ash wt (g) = (min ash wt - tare wt)
5-24-07 (W) time in oven 21:02	TS = (Final Dry Wt)/ (grams Sample-Tare)	TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000
5-25-07 (W) time out 13:04		if ash wt > dry wt, "Chk for Err"
elapsed hrs 0.0 < 12 hr		if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2	3	Ash Wt (g)	TVS (mg/kg)	TVS (%)
Cal Date -->		5-24-07	5-24-07	5-25-07										
Time & Initials -->		1854 (K)	15:20 (W)	1321 (W)										
Cal Wt (g) 10.0000		9.9993	9.9993	9.9995										
record weights to 4 places														
K260 ~~Blank~~ A	24	6.8867	1.0349	6.1011										
B	25	6.2060	1.0248	5.5354										
C	26	6.1090	1.0135	4.9437										
D	27	6.6020	0.9874	5.8653										
E	28	6.2692	1.0109	5.5244										
F	29	6.3982	0.9963	5.4016										
dup F	30	6.1057	0.9976	5.1719										
dup F	31	6.7171	0.9928	5.5832										
G	32	6.2531	1.0002	5.6428										
BLANK	33	Ø	1.0128	1.0126										
K260 H	34	6.1992	1.0147	5.4356										
I	35	6.4959	1.0408	4.3576										
J	36 (2)	~~6.4380~~	1.0115	2.9955										
K	37	6.5250	0.9967	4.3347										
L	38	6.2696	0.9935	3.9550										
M	39	6.3732	1.0107	3.8199										
N	40	6.8782	0.9886	4.3414										
O	41	6.6272	0.9989	4.2650										
P	42	6.8710	0.9705	4.2498										
Q	43	6.6012	0.9996	4.0786										
R	44	6.0914	0.9980	3.8220										
S	45	6.7738	1.0059	4.2978										
K279 A2	46	6.8013	1.0206	3.6469										

1782

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5-24-07

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: (W) (B)

Batch drying time	TS (%) calculated as:	TVS (mg/kg dry wt) calculated as:
record times as mm/dd/yy hh:mm	Final dry wt (g) = (Dry Wt - Tare Wt)	Final ash wt (g) = (min ash wt - tare wt)
5-24-07 (W) time in oven 21:02	TS = (Final Dry Wt)/ (grams Sample-Tare)	TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000
5-25-07 (W) time out 13:04		if ash wt > dry wt, "Chk for Err"
elapsed hrs = 0.0 < 12 hr		if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2	3	Ash Wt (g)	TVS (mg/kg)	(%)
Cal Date -->		5-24-07	5-24-07	5-25-07										
Time & Initials -->		1654 (W)	1720 (W)	13:21 (W)										
Cal Wt (g)	10.0000	9.9993	9.9993	9.9995										
record weights to 4 places														
K479 ~~Blank~~														
OA2	47	6.6608	1.0149	3.5452										
HPA2	48	6.6045	1.0127	3.5467										
B2	49	6.4132	1.0113	2.4775										
LA51 A1	50	6.4453	1.0067	5.9514										
DA1	51	6.5955	1.0127	6.0989										
~~HPA~~ A1	52	6.6025	1.0308	6.1025										
B1	53	6.4270	1.0053	5.5109										
S1	54	6.2425	1.0173	5.0886										
D1	55	6.7629	1.0239	5.8726										
BLANK	56	0	1.0070	1.0071										
K256 P1	57	6.4581	1.0425	4.0260										

5-24-07 (W)

1783

KZ56

ω

6-1-07

TOC Solids Prep Log

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

DATE:	5/24/2007
ANALYST:	KE 21:32 (B)

make no entry to shaded cells, they are calculated

Sample ID ARI #	Sample ID Client	IC Test + / -	Gravimetric Data (grams) Tare Wt.	Wet wt.	70°C dry wt	% Solids	Sample description & notes (homogeneity and exclusions)
Blank			13.1550		13.1552	0.2 mg	
KZ44 A1		++-	13.0056	18.1397	17.5683	88.87%	
KZ44 A1 DUP		++-	12.8665	18.8295	18.1001	87.77%	
KZ44 A1 TRIP		++-	12.9883	18.7219	17.8904	85.50%	
KZ44 B1		-	12.9866	18.5170	17.4571	80.84%	
KZ44 C1		++-	12.9520	18.4364	17.7846	88.12%	
KZ44 D1		++-	12.9375	18.7673	18.0527	87.74%	
KZ56 A2		-	13.0104	18.5683	15.7621	49.51%	
KZ65 B2		-	13.0343	18.7697	14.7649	30.17%	
KZ56 C2		-	13.1281	18.3959	15.2536	40.35%	
KZ56 D2		-	13.0368	18.5818	16.0259	53.91%	
KZ56 E2		-	12.9282	18.7259	17.0618	71.30%	
KZ56 F2		-	12.9063	18.7861	15.5880	45.61%	
KZ56 G2		-	13.1291	18.8859	16.2714	54.58%	
KZ56 H3		-	13.0619	18.8337	15.9926	50.78%	
KZ56 H3 DUP		-	12.9433	18.1398	15.5486	50.14%	
KZ56 H3 TRIP		-	12.8904	18.3824	15.6257	49.81%	
KZ56 I 2		-	13.0743	18.7684	15.9430	50.38%	
KZ56 J 2		-	13.1301	18.6993	15.6074	44.48%	
KZ56 K2		-	12.9052	18.2129	14.8987	37.56%	
KZ56 L2		-	13.0210	18.2513	16.3767	64.16%	
KZ56 M2		-	12.9618	18.0846	15.4996	49.54%	
KZ56 N2		-	13.0126	18.8895	15.8365	48.05%	
KZ60 A1		-	13.0628	18.0878	17.6531	91.35%	
KZ60 B1		-	12.9105	18.6605	18.0465	89.32%	
KZ60 C1		-	12.9206	18.6773	17.7004	83.03%	
KZ60 D1		-	12.9425	18.5313	17.8791	88.33%	
KZ60 E1		-	13.0249	18.1447	17.4909	87.23%	
KZ60 F1		-	12.9574	18.4429	17.4855	82.55%	
KZ60 F1 DUP		-	13.0762	18.6214	17.6688	82.82%	
KZ60 F1 TRIP		-	12.9393	18.2519	17.3623	83.25%	
KZ60 G1		-	13.1493	18.0881	17.7376	92.90%	
Blank			13.0683		13.0677	-0.6 mg	
KZ60 H1		-	13.0147	18.6337	17.9159	87.23%	

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
KZ60 I 1		+-	12.9035	18.4062	16.5119	65.58%	
KZ60 J 1		-	12.9159	18.3226	14.9777	38.13%	
KZ60 K1		-	12.9274	18.7231	16.5497	62.50%	
KZ60 L1		-	12.9963	18.8668	16.5244	60.10%	
KZ60 M1		-	13.1613	18.8363	16.2437	54.32%	
KZ60 N1		-	12.9261	18.3048	16.0526	58.13%	
KZ60 O1		-	12.9317	18.2447	16.1696	60.94%	
KZ60 P1		-	13.0179	18.5446	16.1661	56.96%	
KZ60 Q1		-	12.9648	18.9574	16.3943	57.23%	
KZ60 R1		-	13.0148	18.5892	16.2335	57.74%	
KZ60 S1		-	12.9785	18.5166	16.3060	60.08%	
KY79 A2		-	13.0459	18.7457	15.7214	46.94%	
KY79 A2 DUP		-	12.9907	18.9988	15.8419	47.46%	
KY79 A2 TRIP		-	13.1407	18.5380	15.6385	46.28%	
KZ79 B2		+-	13.0538	18.4225	14.7908	32.35%	
LA59 A1		++-	13.0637	18.4749	18.7953	105.92%	
LA59 A1 DUP		++-	12.9881	18.4139	18.7294	105.81%	
LA59 A1 TRIP		++-	13.0056	18.5714	18.9042	105.98%	
LA59 B1		+-	13.0911	18.2703	17.5632	86.35%	
LA59 C1		-	13.1016	18.1518	17.2247	81.64%	
LA59 D1		-	13.1104	18.9720	18.1608	86.16%	
Blank			13.1300		13.1298	-0.2 mg	
KZ56 P1		-	13.1771	18.8570	16.4286	57.25%	

(1)(W) 5-24-07

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst (W) 21:32 Date 5-24-07 (B) Page 1 of 2

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
BLANK			13.1550	~~X~~ (1)	13.1552		
K244 A1		++-	13.0056	~~18.0864~~	18.1397	17.5683	Wet Sand & Debris shells
DP A1		++-	12.8665	~~18.8172~~ (1)	18.8295	18.1001	+ Wet Sand
DP A1		++-	12.9883	~~18~~ (1)	18.7219	17.8904	
B1		-	12.9866	18.5170	17.4571		
C1		++-	12.9520	18.4364	17.7846		Lots of shells
D1		++-	12.9375	18.7673	18.0527		" Rocks
K256 A2		-	13.0104	18.5683	15.7621		Black + Oily SeO
B2		-	13.0343	18.7697	14.7649		" " / Debris sand
C2		-	13.1281	18.3959	15.2536		
D2		-	13.0368	18.5818	16.0259		Seal/Rebar - small
E2		-	12.9282	18.7259	17.0618		
F2		-	12.9063	18.7861	15.5880		oily
G2		-	13.1291	18.8859	16.2714		
H3		-	13.0619	18.8337	~~15.9926~~ (1)	15.9926	
DP H3		-	12.9433	18.1398	15.5486		
DP H3		-	12.8904	18.3824	15.6257		
I2		-	13.0743	18.7684	15.9430		
J2		-	13.1301	18.6993	15.6074		
K2		-	12.9052	18.2129	14.8987		Oily - clumpy
L2		-	13.0210	18.2513	16.3767		
M2		-	12.9618	18.0846	15.4996		
N2		-	13.0126	18.8895	15.8365		
K260 A1		-	13.0628	18.0878	17.6531		Rocks + Sand
B1		-	12.9105	18.6605	18.0465		" " Smelly Black
C1		-	12.9206	18.6773	17.7004		
D1		-	12.9425	18.5313	17.8791		
E1		-	13.0249	18.1447	17.4909		
F1		-	12.9574	18.4429	17.4855		
DP F1		-	13.0762	18.6214	17.6688		

① 5-24-07 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst (W) 21:32 Date 5-24-07 (B) Page 2 of 2

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
K260 +pF'		–	129393	18.2519	17.3623		Rocks + some Sand
↓ G'		–	13.1493	18.0881	17.7376		
BLANK		–	13.0683	Ø	13.0677		
H260 H'		–	13.0147	18.6337	17.9159		
I'		+–	12.9035	18.4062	16.5119		Sed + Debri
J'		–	12.9159	18.3226	14.9777		Dedri + Smelly
K'		–	12.9274	18.7231	16.5497		Sed + Debri
L'		–	12.9963	18.8668	16.5244		
M'		–	13.1613	18.8363	16.2437		
N'		–	12.9261	18.3048	16.0526		
O'		–	12.9317	18.2447	16.1696		
P'		–	13.0179	18.5446	16.1661		
Q'		–	12.9648	18.9574	16.3943		
R'		–	13.0148	18.5892	16.3225		
S'		–	12.9785	18.5166	~~16.3068~~ ①	16.3060	
K479 A²		–	13.0459	18.7457	15.7214		Sediment
nPA²		–	12.9907	18.9988	15.8419		
+PA²		–	13.1407	18.5380	15.6385		
B²		+–	13.0538	~~18.6536~~ ①	18.4225	14.7908	
① ~~K~~LAS9 A'		+'–	13.0637	18.4749	~~18.8307~~ ①	18.7953	Soil
nP A'		++–	12.9881	18.4139	~~18.7746~~ ①	18.7294	
+P A'		++–	13.0056	18.5714	~~18.9602~~ ①	18.9042	
B'		+–	13.0911	18.2703	17.5632		Sand
C'		–	13.1016	18.1518	17.2247		Sandy Sediment
D'		–	13.1104	18.9720	18.1608		Sand
BLANK			13.1300	Ø	13.1298		
K256P		–	13.1771	18.8570	16.4286		
			5-24-07 (W)				

KZ56

iw
6-1-07

TOC, Solids Data Analysis

Mode: NPOC *Inlet:* Boat

Spike Std = 2,000 *ppm C*

DATE:	5/28/2007
ANALYST:	KE 10:10

Calibration Data									
Calibration Standard			Source:	ARI # 0072-4			Conc:	2,000	ppm
	Observed Values (µg/g)					mean	*Cal Factor*		
	1,642	1,641	1,630			1,638	*1.221*		
Verification Standard			Source:	SPEX 1-86 JB			Conc:	5,000	ppm
	ICV	CCV	CCV	CCV	CCV	*mean*	*% Rec*		
	5,058	5,425	5,136			*5,206*	*104.1%*		
Standard Reference Material			Source:	***NIST 8704***			Conc:	**33,510**	ppm

Blank Data								*Historical Blank Limits*	
System Blanks (enter "observed C")								*mean*	*stdev*
	Replicate determinations					Mean	condition	17.8	7.23
	19.34	30.92	17.12			22.46	OK !	*updated*	*9/27/2005*
Silica Blanks (enter "corrected C" at end of run)								*LBL*	-3.9
	Replicate determinations					Mean	condition	*UBL*	39.5

Sample Data *(Entered data must match the Dohrmann output report !)*

"Corrected C" (no dilution) = "Observed C" - Mean Blank

*"Corrected C" (with dilution) = ("Observed C" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	Observed C (ppm C)	Corrected C (ppm C)	
ICV				1.00		10.0	5080	5,058	*101.15%*
~~Blank~~			-	~~1.00~~		~~10.0~~	~~111.8~~	-	~~*Check Blank*~~
Blank				1.00		10.0	19.34		*Blank OK*
NIST 8704				1.00		4.4	35350	35,328	*105.42%*
KZ56 A2				1.00		1.4	58980	58,958	*Range OK!*
KZ56 B2				1.00		1.1	103600	103,578	*Range OK!*
KZ56 C2				1.00		1.0	53960	53,938	*Range OK!*
KZ56 D2				1.00		0.9	71280	71,258	*Range OK!*
KZ56 E2				1.00		0.9	50620	50,598	*Range OK!*
KZ56 F2				1.00		0.9	56800	56,778	*Range OK!*
KZ56 G2				1.00		1.0	52760	52,738	*Range OK!*
KZ56 I 2				1.00		1.0	51120	51,098	*Range OK!*
KZ56 J2				1.00		1.1	30220	30,198	*Range OK!*
CCV				1.00		10.0	5447	5,425	*108.49%*
Blank				1.00		10.0	30.92		*Blank OK*
KZ56 H3				1.00		1.3	31670	31,648	*Range OK!*
KZ56 H3 dup				1.00		1.4	38410	38,388	*RPD=19.2%*
KZ56 H3 trp				1.00		1.3	38470	38,448	*RSD=10.8%*
KZ56 H3 ms				1.00	20	1.3	59250	59,228	*Range OK!*
Spike =	*0.04*	*mg C to*	*1.3*	*mg samp=*	*30,769*	*ppm*		*90%*	
KZ56 K2				1.00		1.3	62490	62,468	*Range OK!*
KZ56 L2				1.00		0.9	47040	47,018	*Range OK!*
KZ56 M2				1.00		1.4	36330	36,308	*Range OK!*
KZ56 N2				1.00		1.2	68310	68,288	*Range OK!*
KZ56 P2				1.00		1.0	49360	49,338	*Range OK!*
~~NIST 8704~~			-	~~1.00~~		~~3.7~~	~~24720~~	~~24,698~~	~~*73.70%*~~
NIST 8704				1.00		4.2	28330	28,308	*84.47%*
CCV				1.00		10.0	5158	5,136	*102.71%*
Blank				1.00		10.0	17.12		*Blank OK*

Analytical Resources, Incorporated
Analytical Chemists and Consultants

5-28-07 (W)

Page 1 of ___

TOC Solids Sample Run Log

Set-Up Parameters MODE: NPOC			INLET: BOAT
Standards:	Source		Conc (ppm)
Calibration:	ARI	0072-4	2000
Verification:	SPEX	1-86JB	5000
SRM:	NBS	8704	33510

10.10

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
cal @ 2000			25			
TCV			10			
ICB			10			
ICB			10			
NBS 8704			4.4			
K256 A2			1.4			
B2			1.1			
C2			1.0			
D2			0.9			
E2			0.9			
F2			0.9			
G2			1.0			
I2			1.0			
J2			1.1			
CCV			10			
CCB			10			
K256 H3			1.3			
DP H3			1.4			
RP H3			1.3			
MS H3			1.3	2000	20	
K2			1.3			
L2			0.9			
M2			1.4			
N2			1.2			
P2			1.0			
NBS 8704			3.7			
NBS 8704			4.2			
CCV			10			
CCB			10			
			5-28-07 (W)			

5-28-07(a)

Operating Parameters

Analysis set-up 1
NPOC Analysis
Boat mode
Sample size 25.
Calibration factor 1.
System blank 0.
Std. concentration =2000.

Operating Parameters

Analysis set-up 1
NPOC Analysis
Boat mode
Sample size 25.
Calibration factor 1.
System blank 0.
Std. concentration =2000.
Sample mass (mg) = 25.
1. NPOC = 1613. ug/g
Sample mass (mg) = 25.
2. NPOC = 1621. ug/g
Sample mass (mg) = 25.
3. NPOC = 1642. ug/g
Sample mass (mg) = 25.
4. NPOC = 1641. ug/g
Sample mass (mg) = 25.
5. NPOC = 1630. ug/g
AVG NPOC = 1629. +/- 12.52 % std dev: 0.768
12:39:06 Tue May 29, 2007
Repeat number 1 omitted:
Repeat number 2 omitted:

AVG NPOC = 1638. +/- 6.576 % std dev: 0.402
Calibration update:
Calibration factor 1.221
System blank 0.
Sample mass (mg) = 10.
1. NPOC = 5080. ug/g
13:09:38 Tue May 29, 2007
Sample mass (mg) = 10.
1. NPOC = 111.8 ug/g
13:32:52 Tue May 29, 2007
Sample mass (mg) = 10.
1. NPOC = 19.34 ug/g
13:42:00 Tue May 29, 2007
Sample mass (mg) = 4.4
1. NPOC = 35350. ug/g
14:43:02 Tue May 29, 2007
Sample mass (mg) = 1.4
1. NPOC = 58980. ug/g
14:56:11 Tue May 29, 2007
Sample mass (mg) = 1.1
1. NPOC = 103600. ug/g
15:17:25 Tue May 29, 2007
Sample mass (mg) = 1.
1. NPOC = 53960. ug/g
15:27:20 Tue May 29, 2007
Sample mass (mg) = 0.9
1. NPOC = 71280. ug/g
16:07:56 Tue May 29, 2007
Sample mass (mg) = 0.9

1. NPOC = 56800. ug/g
16:22:23 Tue May 29, 2007
Sample mass (mg) = 0.9
1. NPOC = 56800. ug/g
16:36:26 Tue May 29, 2007
Sample mass (mg) = 1.
1. NPOC = 52760. ug/g
16:49:23 Tue May 29, 2007
Sample mass (mg) = 1.
1. NPOC = 51120. ug/g
17:12:10 Tue May 29, 2007
Sample mass (mg) = 1.1
1. NPOC = 30220. ug/g
17:37:38 Tue May 29, 2007
Sample mass (mg) = 10.
1. NPOC = 5447. ug/g

18:11:07 Tue May 29, 2007
Sample mass (mg) = 10.
1. NPOC = 30.92 ug/g
18:43:02 Tue May 29, 2007
Sample mass (mg) = 1.3
1. NPOC = 31670. ug/g
18:52:48 Tue May 29, 2007
Sample mass (mg) = 1.4
1. NPOC = 38410. ug/g
19:01:26 Tue May 29, 2007
Sample mass (mg) = 1.3
1. NPOC = 38470. ug/g
19:13:13 Tue May 29, 2007
Sample mass (mg) = 1.3
1. NPOC = 59250. ug/g
19:28:34 Tue May 29, 2007
Sample mass (mg) = 1.3
1. NPOC = 62490. ug/g
19:37:03 Tue May 29, 2007
Sample mass (mg) = 0.9
1. NPOC = 47040. ug/g
19:49:12 Tue May 29, 2007
Sample mass (mg) = 1.4
1. NPOC = 36330. ug/g
20:02:03 Tue May 29, 2007
Sample mass (mg) = 1.2
1. NPOC = 68310. ug/g
20:17:05 Tue May 29, 2007
Sample mass (mg) = 1.
1. NPOC = 49360. ug/g
20:36:46 Tue May 29, 2007
Sample mass (mg) = 3.7
1. NPOC = 24720. ug/g
20:56:03 Tue May 29, 2007
Sample mass (mg) = 4.2
1. NPOC = 28330. ug/g
21:05:10 Tue May 29, 2007
Sample mass (mg) = 10.
1. NPOC = 5158. ug/g
21:20:05 Tue May 29, 2007
Sample mass (mg) = 10.
1. NPOC = 17.12 ug/g
21:22:31 Tue May 29, 2007

Geotech Analysis

prepared
for

TETRA TECH

Project: Thea Foss OMMP Year 3

ARI JOB NO: KZ56

prepared
by

Analytical Resources, Inc.

Tetra Tech
THEA FOSS OMMP YEAR 3: 3306

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (62)	31.00	15.60	7.80	3.90	2.00	1.00
Y3-RC08-S	100.0	99.9	99.2	97.9	89.5	68.3	50.4	41.4	35.4	26.4	17.4	12.0	8.3	5.5
Y3-RC08-S	100.0	99.9	99.7	98.3	90.4	69.4	51.7	42.7	39.4	26.6	17.3	12.0	8.1	5.7
Y3-RC08-S	100.0	98.4	96.6	93.5	86.7	67.2	50.3	42.0	36.3	27.1	18.4	12.6	8.4	5.8
Y3-RC11-S	100.0	100.0	90.3	83.8	71.2	59.0	53.8	49.6	45.3	30.2	18.9	13.9	9.6	6.4
Y3-RC01-S	100.0	81.8	68.3	52.4	42.2	34.9	29.4	24.2	22.3	17.0	13.1	10.0	7.3	5.3
Y3-RC13-S	100.0	98.1	95.4	89.1	81.4	71.2	54.1	40.4	32.4	23.5	17.4	13.2	10.3	6.6
Y3-RC14-S	100.0	95.1	86.4	79.4	68.2	54.7	38.3	23.4	19.4	14.2	10.3	7.7	5.5	4.1
Y3-RC10-S	100.0	96.7	79.8	68.6	52.6	31.7	22.2	18.5	15.4	11.9	8.5	5.9	3.9	2.6
Y3-RC05-S	100.0	100.0	99.3	96.2	91.0	78.5	62.8	51.0	43.7	34.1	24.0	16.6	11.1	7.2
Y3-RC07-S	100.0	96.7	96.3	93.8	84.2	58.2	40.3	33.5	30.1	22.8	15.9	10.8	7.3	4.7
Y3-RC15-S	100.0	99.8	99.2	97.8	89.7	68.5	50.8	41.9	36.2	26.8	18.6	12.4	8.2	5.5
Y3-RC09-S	100.0	100.0	99.4	98.1	91.5	73.9	57.6	49.2	42.2	31.8	21.4	14.5	9.8	6.7
Y3-RC02-S	100.0	99.4	97.6	92.2	82.9	68.4	48.7	36.3	29.5	21.2	14.4	10.6	8.0	6.3
Y3-RC12-S	100.0	95.3	70.4	59.3	46.0	32.6	27.6	24.7	20.6	15.9	11.2	7.5	5.1	3.4
Y3-RC06-S	100.0	97.9	95.4	92.9	87.4	69.6	53.8	45.0	39.0	30.1	13.7	9.3	7.7	5.9
Y3-RC04-S	100.0	100.0	99.3	98.5	93.2	79.6	64.1	52.9	46.0	35.9	26.3	17.1	11.7	7.7
Y3-RC03-S	100.0	100.0	99.9	96.7	88.4	67.6	44.2	31.7	25.3	19.7	14.0	9.7	6.9	4.6

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

KZ56

1793

Tetra Tech
THEA FOSS OMMP YEAR 3: 3306

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
Y3-RC08-S	0.8	1.3	8.4	21.2	17.9	9.0	6.0	9.0	9.0	5.4	3.7	2.8	5.5	41.4
Y3-RC08-S	0.3	1.3	8.0	21.0	17.7	9.0	3.3	12.7	9.3	5.3	3.9	2.4	5.7	42.7
Y3-RC08-S	3.4	3.1	6.8	19.5	16.9	8.3	5.7	9.2	8.8	5.8	4.2	2.7	5.8	42.0
Y3-RC11-S	9.7	6.5	12.6	12.2	5.2	4.2	4.4	15.1	11.2	5.0	4.3	3.2	6.4	49.6
Y3-RC01-S	31.7	16.0	10.1	7.3	5.5	5.1	1.9	5.3	3.9	3.1	2.7	2.0	5.3	24.2
Y3-RC13-S	4.6	6.3	7.7	10.2	17.1	13.6	8.1	8.8	6.1	4.2	2.9	3.7	6.6	40.4
Y3-RC14-S	13.6	7.0	11.2	13.5	16.4	14.9	4.0	5.2	3.9	2.6	2.2	1.5	4.1	23.4
Y3-RC10-S	20.2	11.1	16.1	20.9	9.4	3.7	3.1	3.5	3.4	2.6	2.0	1.3	2.6	18.5
Y3-RC05-S	0.7	3.1	5.3	12.4	15.7	11.8	7.2	9.6	10.1	7.4	5.6	3.9	7.2	51.0
Y3-RC07-S	3.7	2.6	9.6	26.0	17.9	6.8	3.4	7.4	6.8	5.2	3.5	2.6	4.7	33.5
Y3-RC15-S	0.8	1.5	8.0	21.2	17.7	8.9	5.7	9.4	8.3	6.2	4.2	2.7	5.5	41.9
Y3-RC09-S	0.6	1.3	6.6	17.6	16.4	8.3	7.0	10.4	10.4	6.8	4.7	3.1	6.7	49.2
Y3-RC02-S	2.4	5.4	9.3	14.5	19.7	12.5	6.8	8.3	6.8	3.9	2.6	1.7	6.3	36.3
Y3-RC12-S	29.6	11.2	13.3	13.4	5.0	3.0	4.1	4.7	4.7	3.7	2.4	1.7	3.4	24.7
Y3-RC06-S	4.6	2.5	5.5	17.7	15.8	8.8	6.1	8.9	16.4	4.4	1.6	1.8	5.9	45.0
Y3-RC04-S	0.7	0.8	5.3	13.6	15.5	11.2	6.9	10.1	9.6	9.2	5.4	4.0	7.7	52.9
Y3-RC03-S	0.1	3.2	8.4	20.8	23.4	12.5	6.4	5.6	5.7	4.3	2.8	2.3	4.6	31.7

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

KZ56

QA SUMMARY

PROJECT:	Tetra Tech	Project No.:	THEA FOSS OMMP YEAR 3: 3306
ARI Triplicate Sample ID:	KZ56 H	Batch No.:	KZ56 -1
Client Triplicate Sample ID:	Y3-RC08-S	Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Y3-RC08-S	100.0	99.9	99.2	97.9	89.5	68.3	50.4	41.4	35.4	26.4	17.4	12.0	8.3	5.5
Y3-RC08-S	100.0	99.9	99.7	98.3	90.4	69.4	51.7	42.7	39.4	26.6	17.3	12.0	8.1	5.7
Y3-RC08-S	100.0	98.4	96.6	93.5	86.7	67.2	50.3	42.0	36.3	27.1	18.4	12.6	8.4	5.8
AVE	NA	99.40	98.49	96.58	88.86	68.29	50.81	42.02	37.04	26.72	17.68	12.21	8.28	5.66
STDEV	NA	0.83	1.66	2.67	1.94	1.10	0.76	0.64	2.07	0.37	0.60	0.34	0.14	0.15
%RSD	NA	0.84	1.68	2.76	2.18	1.61	1.49	1.52	5.59	1.38	3.37	2.79	1.65	2.67

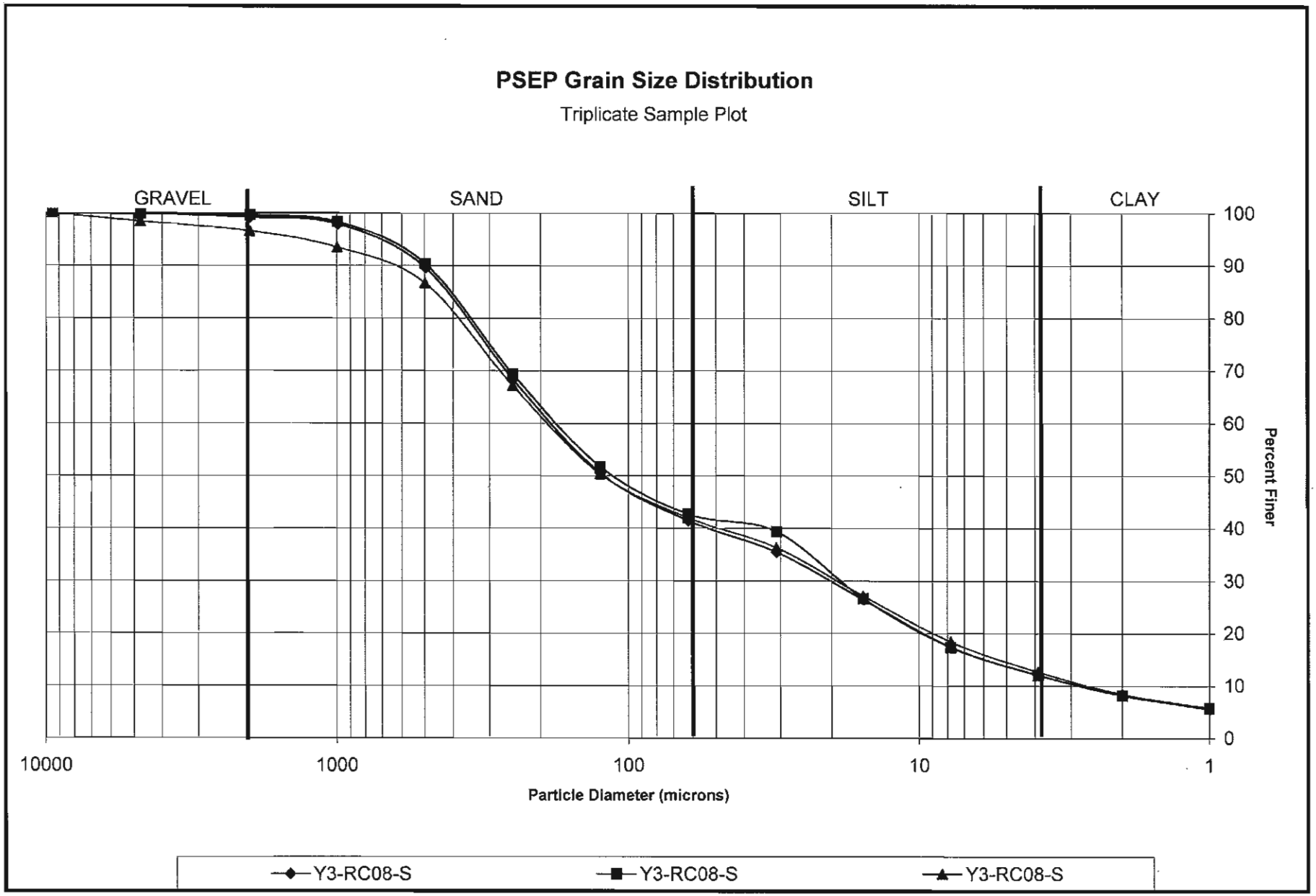
The Triplicate Applies To The Following Samples

Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
Y3-RC08-S	5/16/2007	5/21/2007	5/25/2007	99.6		10.0
Y3-RC08-S	5/16/2007	5/21/2007	5/25/2007	100.6		10.3
Y3-RC08-S	5/16/2007	5/21/2007	5/25/2007	100.6		9.8
Y3-RC11-S	5/16/2007	5/21/2007	5/25/2007	101.0		11.1
Y3-RC01-S	5/16/2007	5/21/2007	5/30/2007	98.3		5.8
Y3-RC13-S	5/16/2007	5/21/2007	5/25/2007	99.7		9.1
Y3-RC14-S	5/16/2007	5/21/2007	5/25/2007	97.9		7.3
Y3-RC10-S	5/16/2007	5/21/2007	5/25/2007	100.1		7.9
Y3-RC05-S	5/16/2007	5/21/2007	5/25/2007	102.5		10.2
Y3-RC07-S	5/16/2007	5/21/2007	5/25/2007	99.0		8.3
Y3-RC15-S	5/16/2007	5/21/2007	5/25/2007	99.9		8.9
Y3-RC09-S	5/16/2007	5/21/2007	5/25/2007	101.6		9.6
Y3-RC02-S	5/16/2007	5/21/2007	5/25/2007	99.5		9.0
Y3-RC12-S	5/17/2007	5/21/2007	5/25/2007	100.8		8.4
Y3-RC06-S	5/17/2007	5/21/2007	5/25/2007	99.2		10.3
Y3-RC04-S	5/17/2007	5/21/2007	5/25/2007	100.1		11.0
Y3-RC03-S	5/17/2007	5/21/2007	5/25/2007	100.2		9.3

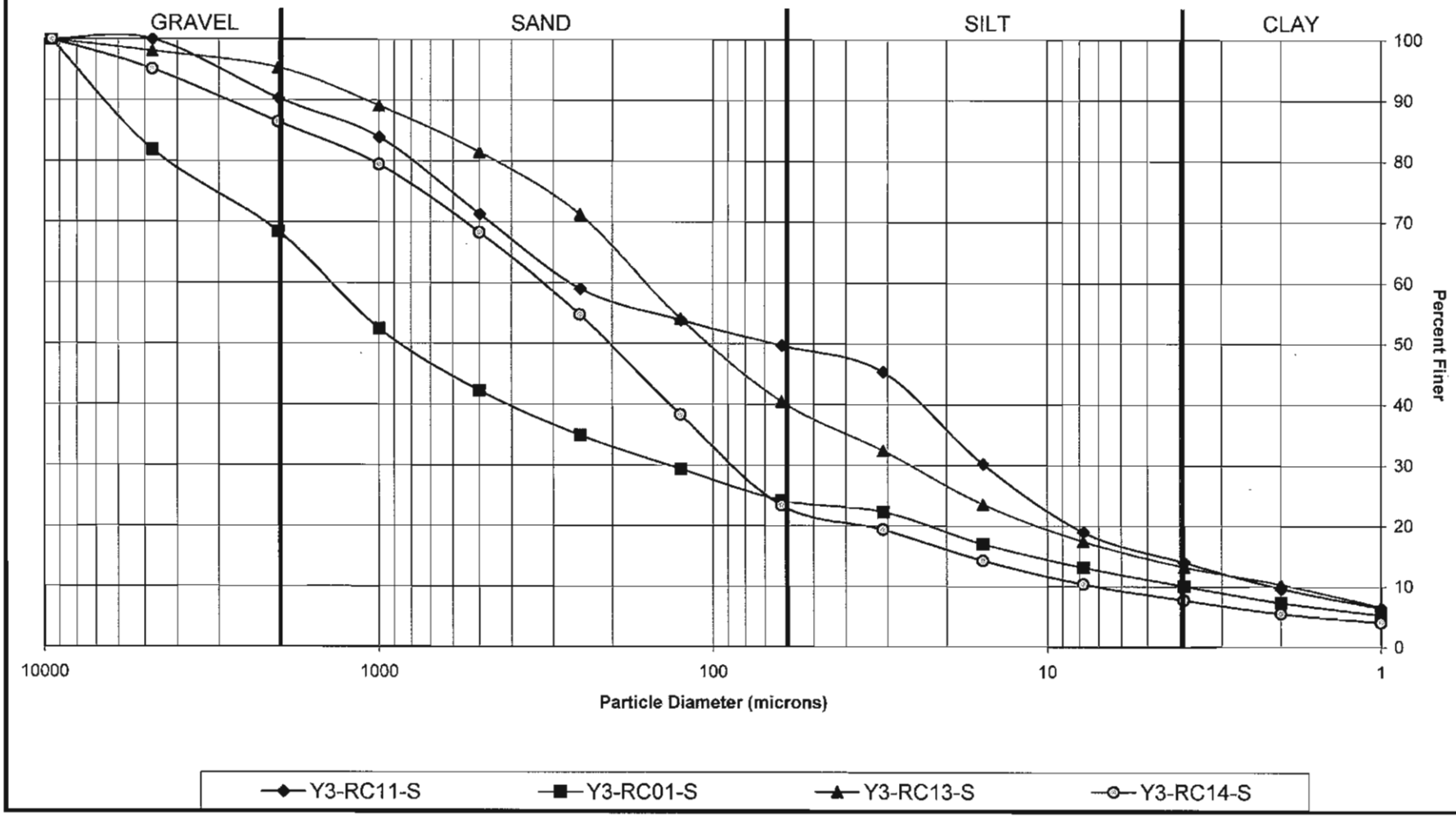
* ARI Internal QA limits = 95-105%

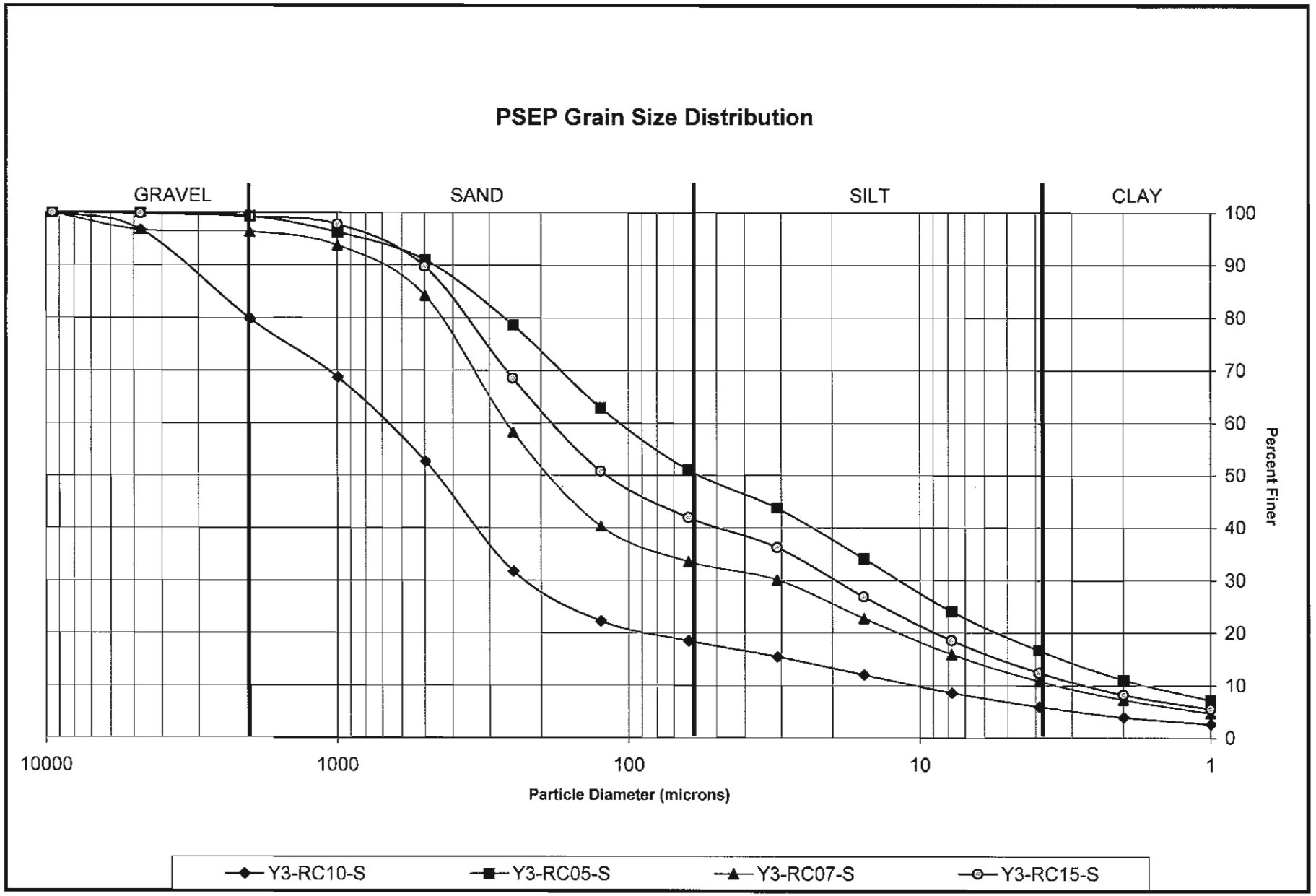
Notes to the Testing:

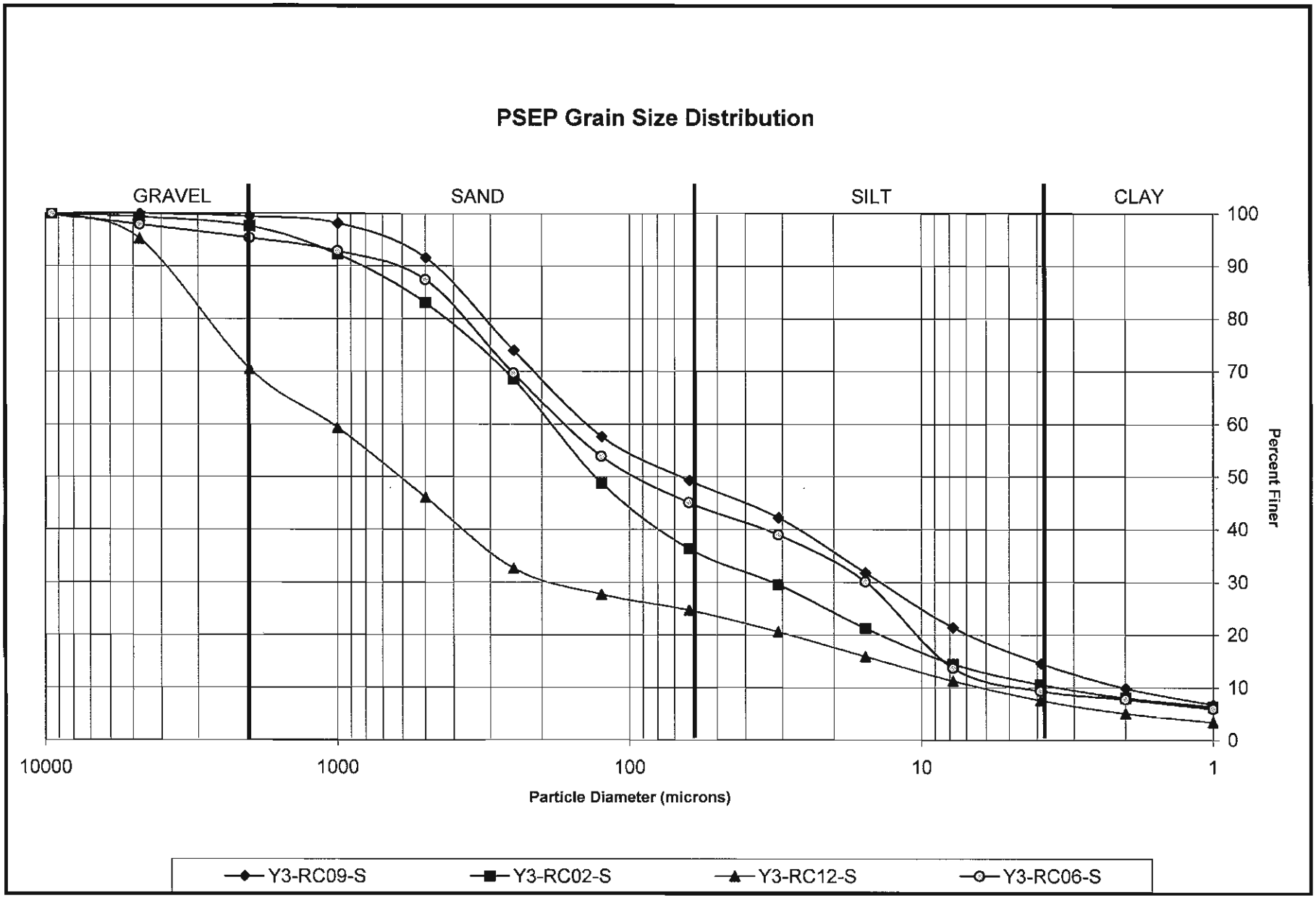
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

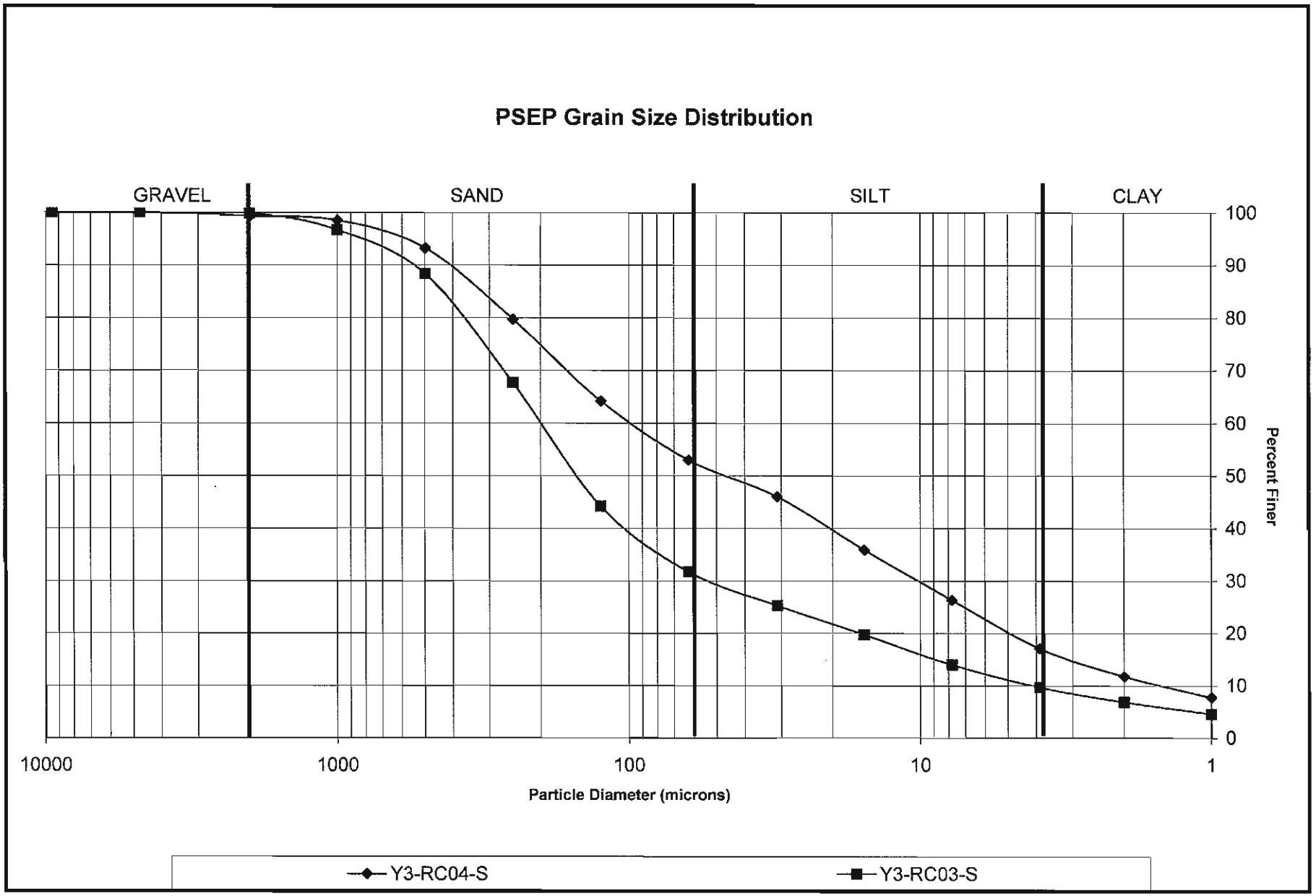

PSEP Grain Size Distribution
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
Y3-RC08-S
Y3-RC08-S
Y3-RC08-S

PSEP Grain Size Distribution




PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
Y3-RC10-S
Y3-RC05-S
Y3-RC07-S
Y3-RC15-S


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
Y3-RC09-S
Y3-RC02-S
Y3-RC12-S
Y3-RC06-S


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
Y3-RC04-S
Y3-RC03-S

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ516 ARI Sample No. H-1 Client Sample No. Y3-RC08-S

Set-up Date: 5/21/07 Sample Description: Silty Sand, Fine Organics

Calgon Batch # 53 Sieve Set # 1 Date Sieved: 5/22/07

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	183
Tare Weight	1.5276
Wet Weight + Tare	44.7029
Dry Weight + Tare	21.8267

Test Sample	Initials GS
Container No.	183
Tare Weight	50.2259
Wet Weight + Tare	101.6976
Dry Weight + Tare	65.5571

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	50.2508
4	50.2745
10	50.4414
18	50.7637
35	52.7862
60	57.9123
120	62.2466
230	64.4302
PAN	1.1628

Salt Correction

5/24/2007	Wt.	
	+ Dry Sample	
Temp:23	Correction (x 50)	

PIPETTE ANALYSIS
Initials GS

Tare ID	Tare Wt	Dry Wt & Tare	TIME
H-1-1	1.5110	1.7221	9:30:00
H-1-2	1.5222	1.7032	9:31:46
H-1-3	1.5183	1.6554	9:37:05
H-1-4	1.5280	1.6212	9:58:18
H-1-5	1.5152	1.5823	11:23:00
H-1-6	1.5282	1.5773	14:56:00
H-1-7	1.5881	1.6236	8:06:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ56 ARI Sample No. H-2 Client Sample No. _____

Set-up Date: _____ Sample Description: _____

Calgon Batch # 153 Sieve Set # 2 Date Sieved: 5/22/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	173
Tare Weight	1.5215
Wet Weight + Tare	10.5506
Dry Weight + Tare	9.8934

Test Sample	Initials gs
Container No.	173
Tare Weight	50.1557
Wet Weight + Tare	101.5139
Dry Weight + Tare	65.0866

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	50.1920
4	50.2265
10	50.2725
18	50.5926
35	52.5185
60	57.5984
120	61.8730
230	64.0469
PAN	1.0381

Salt Correction

/t.	
Dry Sample	
rrection (x 50)	

5/24/2007

Temp:23

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
H-2-1	1.5281	1.7405	9:33:00
H-2-2	1.5237	1.7218	9:33:20
H-2-3	1.5196	1.6565	9:34:46
H-2-4	1.5221	1.6142	9:40:05
H-2-5	1.5151	1.5818	10:01:18
H-2-6	1.5808	1.6288	11:26:00
H-2-7	1.5919	1.6283	14:59:00 / 8:09:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ576 ARI Sample No. H-3 Client Sample No. _____

Set-up Date: 5/21/07 Sample Description: _____

Calgon Batch # 153 Sieve Set # 1 Date Sieved: 5/22/07

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	108
Tare Weight	1.5161
Wet Weight + Tare	34.7198
Dry Weight + Tare	17.0479

Test Sample	Initials GS
Container No.	108
Tare Weight	50.8371
Wet Weight + Tare	100.9689
Dry Weight + Tare	65.4093

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	50.8738
4	51 2398 *
10	516716
18	52.3959
35	53.9991
60	58.5746
120	62.5255
230	64.4809
PAN	0.9410

Salt Correction

Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials GS

5/24/2007
Temp:23

Tare ID	Tare Wt	Dry Wt & Tare	TIME
H-3-1	1.5159	1.7188	9:36:00
H-3-2	1.5198	1.6979	9:36:20
H-3-3	1.5240	1.6593	9:37:46
H-3-4	1.5320	1.602605	9:43:05
H-3-5	1.5304	1.5980	10:04:18
H-3-6	1.5257	1.5738	11:29:00
H-3-7	1.5263	1.5620	15:02:00
			8:12:00

* - wood chip

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ56 ARI Sample No. A Client Sample No. _____

Set-up Date: 5/21/07 Sample Description: Silty Sand, Fine Organics

Calgon Batch # 153 Sieve Set # 2 Date Sieved: 5/22/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	201
Tare Weight	1.5285
Wet Weight + Tare	20.2110
Dry Weight + Tare	19.5165

Test Sample	Initials gs
Container No.	201
Tare Weight	50.1887
Wet Weight + Tare	98.5215
Dry Weight + Tare	62.2773

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	50.2201
4	50.2201
10	52.4056
18	53.8662
35	56.6907
60	59.4436
120	60.6088
230	61.5417
PAN	0.7387

Salt Correction

	Vt.	
5/24/2007	Dry Sample	
Temp:23	orrection (x 50)	

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
A-1	1.5140	1.7413	9:39:00
A-2	1.5247	1.7349	9:39:20
A-3	1.5325	1.6755	9:40:46
A-4	1.5172	1.6102	9:46:05
A-5	1.5392	1.6099	10:07:18
A-6	1.5356	1.5873	11:32:00
A-7	1.5389	1.5763	15:05:00
			8:15:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ56 ARI Sample No. B Client Sample No. Y3-RC01-S

Set-up Date: 5/21/07 Sample Description: Silty Organics, Sticks, Pine Needles, Wood Chun Gravel

Calgon Batch # 153 Sieve Set # 1 Date Sieved: 5/22/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	189
Tare Weight	1.5218
Wet Weight + Tare	31.7534
Dry Weight + Tare	9.8365

Test Sample	Initials gs
Container No.	189
Tare Weight	49.9008
Wet Weight + Tare	125.5708
Dry Weight + Tare	68.9256

SIEVE ANALYSIS
Initials TM

Sieve Size	Weight Retained
Tare	50.0356
4	54.4520
10	57.7299
18	61.6153
35	64.0809
60	65.8644
120	67.2063
230	68.4550
PAN	0.6060

5.75

Salt Correction

Vt.	
Dry Sample	
orrection (x 50)	

5/29/2007
Temp:23

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
B-1	1.5282	1.6630	11:06:00
B-2	1.5887	1.7078	11:06:20
B-3	1.5925	1.6854	11:07:46
B-4	1.5893	1.6630	11:13:05
B-5	1.5957	1.6541	11:34:18
B-6	1.5949	1.6400	12:59:00
B-7	1.5851	1.6202	16:32:00
			9:42:00

KZ56B
1.4717
36.9322
12.8719

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ556 ARI Sample No. C Client Sample No. Y3-RC13-S

Set-up Date: 5/21/07 Sample Description: Silty Sand, Coarse Organics

Calgon Batch # 153 Sieve Set # 1 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	B-3
Tare Weight	1.5227
Wet Weight + Tare	43.5005
Dry Weight + Tare	17.9397

Test Sample	Initials gs
Container No.	B-3
Tare Weight	52.7747
Wet Weight + Tare	110.5049
Dry Weight + Tare	67.4089

SIEVE ANALYSIS
Initials TM

Sieve Size	Weight Retained
Tare	52.8368
4	53.2758 (TM)
10	53.8853
18	55.3066
35	57.0354
60	59.3481
120	63.2101
230	66.2861
PAN	1.1523

Salt Correction

5/24/2007	Wt.	
	+ Dry Sample	
Temp:23	Correction (x 50)	

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
C-1	1.5280	1.7210	9:42:00
C-2	1.5365	1.6920	9:42:20
C-3	1.5232	1.6386	9:43:46
C-4	1.5305	1.6183	9:49:05
C-5	1.5192	1.5879	10:10:18
C-6	1.5086	~~1.5463~~ 1.5643 (TM)	11:35:00
C-7	1.5300	1.5689	15:08:00
			8:18:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ576 ARI Sample No. D Client Sample No. _____

Set-up Date: 5/21/07 Sample Description: Clayey Silt, Coarse Organics

Calgon Batch # 153 Sieve Set # 2 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	115
Tare Weight	1.5236
Wet Weight + Tare	35.2826
Dry Weight + Tare	19.4758

Test Sample	Initials gs
Container No.	115
Tare Weight	51.3775
Wet Weight + Tare	110.3002
Dry Weight + Tare	76.7609

SIEVE ANALYSIS
Initials TM

Sieve Size	Weight Retained
Tare	51.4163
4	52.9562
10	55.6882
18	57.8772
35	61.3752
60	65.6077
120	70.7512
230	75.4290
PAN	1.3902

Salt Correction

	Wt.
5/24/2007	Dry Sample
Temp:23	orrection (x 50)

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
D-1	1.5334	1.7022	9:45:00
D-2	1.5605	1.6933	9:45:20
D-3	1.5425	1.6423	9:46:46
D-4	1.5425	1.6175	9:52:05
D-5	1.5454	1.6036	10:13:18
D-6	1.5571	1.6014	11:38:00
D-7	1.5567	(gs) 1.5926	15:11:00
			8:21:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ56 ARI Sample No. E Client Sample No. Y3-RC10-S

Set-up Date: 5/21/07 Sample Description: Silty Sand, Gravel

Calgon Batch # 153 Sieve Set # 1 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	160
Tare Weight	1.5221
Wet Weight + Tare	49.9920
Dry Weight + Tare	36.0278

Test Sample	Initials gs
Container No.	160
Tare Weight	50.7076
Wet Weight + Tare	110.63666
Dry Weight + Tare	86.7445

SIEVE ANALYSIS
Initials TM

Sieve Size	Weight Retained
Tare	50.7241
4	52.1393
10	59.3617
18	64.1057
35	70.9542
60	79.8833
120	83.9118
230	85.5000
PAN	0.9345

Salt Correction

/t.	
Dry Sample	
rrection (x 50)	

5/24/2007

Temp:23

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
E-1	1.5467	1.7122	9:48:00
E-2	1.5382	gs 1.6384	9:48:20
E-3	1.5134	1.6240	9:49:46
E-4	1.5176	1.5990	9:55:05
E-5	1.5358	1.5951	10:16:18
E-6	1.5342	1.5765	11:41:00
E-7	1.5293	1.5601	15:14:00
			8:24:00

1.6784

PIPETTE GRAIN SIZE ANALYSIS

Job No. K7506 ARI Sample No. F Client Sample No. Y3-RC05-S

Set-up Date: 5/21/07 Sample Description: Sandy Silt, Fine Organics

Calgon Batch # 153 Sieve Set # 2 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	103
Tare Weight	1.5257
Wet Weight + Tare	47.9079
Dry Weight + Tare	22.1427

Test Sample	Initials gs
Container No.	103
Tare Weight	51.3361
Wet Weight + Tare	96.6280
Dry Weight + Tare	62.5127

SIEVE ANALYSIS
Initials TM

Sieve Size	Weight Retained
Tare	51.3799
4	51.3799
10	51.5236
18	52.1396
35	53.2007
60	55.7003
120	58.8681
230	61.2512
PAN	1.2347

Salt Correction

Wt.	
+ Dry Sample	
Correction (x 50)	

5/24/2007

Temp:23

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
F-1	1.5310	1.7354	9:51:00
F-2	1.5240	1.7047	9:51:20
F-3	1.5231	1.6059	9:52:46
F-4	1.5235	1.6268	9:58:05
F-5	1.5279	1.6021	10:19:18
F-6	1.5585	~~1.5898~~ 1.6108 (HB)	11:44:00
F-7	1.5462	1.5833	15:17:00
			8:27:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ56 ARI Sample No. G Client Sample No. Y3-RC07-S

Set-up Date: 5/21/07 Sample Description: Silty Sand

Calgon Batch # 153 Sieve Set # 1 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	165
Tare Weight	1.5183
Wet Weight + Tare	37.5809
Dry Weight + Tare	20.2220

Test Sample	Initials gs
Container No.	165
Tare Weight	50.8998
Wet Weight + Tare	98.5322
Dry Weight + Tare	68.1842

SIEVE ANALYSIS
Initials TM

Sieve Size	Weight Retained
Tare	50.9214
4	51.7305
10	51.8278
18	52.4629
35	54.8276
60	61.2425
120	65.6709
230	67.3419
PAN	0.7918

Salt Correction

Wt.	
Dry Sample	
orrection (x 50)	

5/24/2007

Temp:23

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
G-1	1.5427	1.7220	9:54:00
G-2	1.5319	1.6910	9:54:20
G-3	1.5312	1.6536	9:55:46
G-4	1.5403	1.6286	10:01:05
G-5	1.5273	1.5898	10:22:18
G-6	1.5306	1.5757	11:47:00
G-7	1.5346	1.5669	15:20:00
			8:30:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KE516 ARI Sample No. I Client Sample No. Y3-BC15-5

Set-up Date: 5/21/07 Sample Description: Silty Sand, Fine Organics

Calgon Batch # 153 Sieve Set # 2 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials JS
Container No.	187
Tare Weight	1.5175
Wet Weight + Tare	39.0875
Dry Weight + Tare	19.1355

Test Sample	Initials JS
Container No.	187
Tare Weight	51.7306
Wet Weight + Tare	97.2091
Dry Weight + Tare	65.1514

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	51.7557
4	51.7936
10	51.9160
18	52.2342
35	53.9468
60	58.4751
120	62.2467
230	634.1383 (HB)
PAN	0.9166

Salt Correction

/t.	
Dry Sample	
rrection (x 50)	

5/24/2007

Temp:23

PIPETTE ANALYSIS
Initials JS

Tare ID	Tare Wt	Dry Wt & Tare	TIME
I-1	1.5375	1.7257	9:57:00
I-2	1.5213	1.6849	9:57:20
I-3	1.5421	1.6656	9:58:46
I-4	1.5349	1.6730	10:04:05
I-5	1.5402	1.6020	10:25:18
I-6	1.5369	1.5809	11:50:00
I-7	1.5338	1.5663	15:23:00 8:33:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. K7520 ARI Sample No. J Client Sample No. Y3-RC09-S

Set-up Date: 5/21/07 Sample Description: Silty Sand, Fine Organics

Calgon Batch # 153 Sieve Set # | Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	174
Tare Weight	1.5120
Wet Weight + Tare	35.6645
Dry Weight + Tare	16.4193

Test Sample	Initials GS
Container No.	174
Tare Weight	49.4416
Wet Weight + Tare	94.2818
Dry Weight + Tare	60.2270

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	49.4691
4	-
10	49.5779
18	49.8414
35	51.1327
60	54.5691
120	57.7770
230	59.4069
PAN	0.7972

Salt Correction

Wt.	
+ Dry Sample	
Correction (x 50)	

5/24/2007

Temp:23

PIPETTE ANALYSIS
Initials GS

Tare ID	Tare Wt	Dry Wt & Tare	TIME
J-1	1.5497	1.7449	10:00:00
J-2	1.5451	1.7164	10:00:20
J-3	1.5402	1.6714	10:01:46
J-4	1.5473	1.6384	10:07:05
J-5	1.5420	1.6068	10:28:18
J-6	1.5473	1.5940	11:53:00
J-7	1.5638	1.5984	15:26:00
			8:36:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ56 ARI Sample No. K Client Sample No. Y3-RC02-S

Set-up Date: 5/21/07 Sample Description: Silty Sandy Organics - Twigs, Needles

Calgon Batch # 153 Sieve Set # 2 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	181
Tare Weight	1.5243
Wet Weight + Tare	33.5468
Dry Weight + Tare	12.7789

Test Sample	Initials GS
Container No.	181
Tare Weight	50.6527
Wet Weight + Tare	121.5557
Dry Weight + Tare	68.0281

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	50.7316
4	50.8931
10	51.3194
18	52.6754
35	54.9855
60	58.5946
120	63.5078
230	66.6144
PAN	1.4784

Salt Correction

Wt.	
+ Dry Sample	
Correction (x 50)	

5/24/2007
Temp:23

PIPETTE ANALYSIS
Initials GS

Tare ID	Tare Wt	Dry Wt & Tare	TIME
K-1	1.5436	1.7359	10:03:00
K-2	1.5437	1.7004	10:03:20
K-3	1.5532	1.6684	10:04:46
K-4	1.5458	1.6269	10:10:05
K-5	1.5540	1.6158	10:31:18
K-6	1.5556	1.6045	11:56:00
K-7	1.5346	1.5752	15:29:00
			8:39:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. K756 ARI Sample No. L Client Sample No. Y3-BC12-S

Set-up Date: 5/21/07 Sample Description: Silty Sand, Gravel, Fine Organics

Calgon Batch # 153 Sieve Set # 1 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials JS
Container No.	127
Tare Weight	1.5200
Wet Weight + Tare	35.3178
Dry Weight + Tare	22.8744

Test Sample	Initials JS
Container No.	127
Tare Weight	50.0752
Wet Weight + Tare	103.9886
Dry Weight + Tare	76.6392

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	50.1012
4	51.7126
10	60.1716
18	63.9745
35	68.4999
60	~~71.0565~~ 73.0612
120	(JS) ~~73.0612~~ ~~74~~.7477
230	75.7610
PAN	0.8703

Salt Correction

Wt.	
Dry Sample	
orrection (x 50)	

5/24/2007

Temp:23

PIPETTE ANALYSIS
Initials JS

Tare ID	Tare Wt	Dry Wt & Tare	TIME
L-1	1.5287	1.7005	10:06:00
L-2	1.5294	1.6773	10:06:20
L-3	1.5282 (JS)	1.6444	10:07:46
L-4	1.5258	1.6104	10:13:05
L-5	1.5292	1.5888	10:34:18
L-6	1.5277	1.5708	11:59:00
L-7	1.5605	1.5923	15:32:00
			8:42:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ56 ARI Sample No. M Client Sample No. Y3-RC06-S

Set-up Date: 5/21/07 Sample Description: Silty Sand

Calgon Batch # 153 Sieve Set # 2 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	159
Tare Weight	1.5268
Wet Weight + Tare	29.8644
Dry Weight + Tare	15.2259

Test Sample	Initials gs
Container No.	159
Tare Weight	49.5265
Wet Weight + Tare	96.9604
Dry Weight + Tare	63.0357

SIEVE ANALYSIS
Initials HB

Sieve Size	Weight Retained
Tare	49.5594
4	50.0374
10	50.6219
18	51.1933
35	52.4578
60	56.5260
120	60.1501
230	62.1652
PAN	0.8912

Salt Correction

Vt.	
Dry Sample	
orrection (x 50)	

5/24/2007

Temp:23

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
M-1	1.5297	1.7486	10:09:00
M-2	1.5318	1.7208	10:09:20
M-3	1.5160	1.6639	10:10:46
M-4	1.5274	1.5995	10:16:05
M-5	1.5257	1.5776	10:37:18
M-6	1.5255	1.5701	12:02:00
M-7	1.5295	1.5658	15:35:00
			8:45:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ516 ARI Sample No. N Client Sample No. Y3-RC04-S

Set-up Date: 5/21/07 Sample Description: Sand Silt, Fine Organics

Calgon Batch # 153 Sieve Set # 2 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	141
Tare Weight	1.5271
Wet Weight + Tare	35.4984
Dry Weight + Tare	16.7605

Test Sample	Initials GS
Container No.	141
Tare Weight	51.3897
Wet Weight + Tare	98.0316
Dry Weight + Tare	62.3225

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	51.4280
4	
10	51.5721e
18	51.7367
35	52.8458
60	55.6891
120	58.9307
230	61.2781
PAN	1.0371e

Salt Correction

Wt.	
Dry Sample	
orrection (x 50)	

5/24/2007
Temp:23

PIPETTE ANALYSIS
Initials GS

Tare ID	Tare Wt	Dry Wt & Tare	TIME
N-1	1.5384	1.7683	10:12:00
N-2	1.5134	1.7145	10:12:20
N-3	1.5225	1.6814	10:13:46
N-4	1.5093	1.6281	10:19:05
N-5	1.5255	1.6057	10:40:18
N-6	1.5373	1.5950	12:05:00
N-7	1.5270	1.5681	15:38:00
			8:48:00

PIPETTE GRAIN SIZE ANALYSIS

Job No. KZ56 ARI Sample No. P Client Sample No. Y3-RC03-S

Set-up Date: 5/21/07 Sample Description: Silty Sand, Fine Organics

Calgon Batch # 153 Sieve Set # 1 Date Sieved: 5/23/07

SOLIDS CONTENT

Moisture Content	Initials gs
Container No.	109
Tare Weight	1.5199
Wet Weight + Tare	44.6136
Dry Weight + Tare	25.4419

Test Sample	Initials gs
Container No.	109
Tare Weight	51.2643
Wet Weight + Tare	104.0499
Dry Weight + Tare	72.5976

SIEVE ANALYSIS
Initials gs

Sieve Size	Weight Retained
Tare	51.2901
4	51.2951
10	51.3257
18	52.2509
35	54.1996
60	60.7799
120	67.6506
230	71.3020
PAN	1.2795

Salt Correction

Wt.	
Dry Sample	
orrection (x 50)	

5/24/2007
Temp:23

PIPETTE ANALYSIS
Initials gs

Tare ID	Tare Wt	Dry Wt & Tare	TIME
P-1	1.5274	1.7211	10:15:00
P-2	1.5310	1.6878	10:15:20
P-3	1.5248	1.6489	10:16:46
P-4	1.5331	1.6236	10:22:05
P-5	1.5150	1.5804	10:43:18
P-6	1.5223	1.5714	12:08:00
P-7	1.5099	1.5456	15:41:00
			8:51:00