

The Tulalip Tribes and City of Everett
Joint Board for Managing the
Construction of the Everett to Tulalip Waterline

TRANSMITTAL

Date: August 11, 2011

To: Department of Ecology
Attn: Mr. David South

From: Mr. Clair Olivers
Project Administrator
Joint Water Pipeline Board

Project: Tulalip Water Pipeline (TWP)

The following items are:

- Requested Enclosed Sent via Hand Delivery
- Report Specification Cost Estimate Shop Drawings
- Test Result Prints Test Sample Other

No. of Copies	Description
1	Hard Copy of the TWP Sampling Summary Technical Memorandum including text, tables, figures, and attachments.

This data is submitted:

- At your request For your action
- For your approval For your files
- For your review For your information

General Remarks:

As discussed via email on August 10, 2011, attached for your review is the hard copy version of the TWP Sampling Technical Memorandum which includes all tables, text, figures, and attachments. Per your request, the data will be uploaded to Ecology's EIM database, but has also been provided on DVD for your records in Attachment C.

The sampling program consisted of the following:

- Advancement of three soil borings to up to 22 feet below ground surface (ft-bgs);
- Collection of soil samples from three soil boring locations (SB-01, SB-02a, SB-02b);
- Collection of groundwater samples from three soil boring locations (SB-01, SB-02a, SB-02b);
- Quality assurance (QA) and quality control (QC) samples including:
 - One duplicate water sample (SB-02b-DUP)
 - One duplicate soil sample (SB-02b-DUP)

Locations identified for sample collection are shown on Figure 3 and logged with Global Positioning System (GPS) equipment. Sample handling and designation procedures were conducted to meet project-specific QA/QC requirements and procedures such as sample container requirements and preservation, sample documentation and handling, and chain-of-custody (COC) documentation along with sampling procedures and quality assurance were provided in the City-approved SAP (provided as Attachment A).

A total of 21 soil samples were collected in laboratory-supplied containers, and then placed into a cooler containing bagged, wet ice. Samples were submitted to a contract laboratory in accordance with chain-of-custody procedures for analysis of the following potential COCs:

- Total Arsenic, Cadmium and Lead by USEPA Method 6010/6020
- Polychlorinated Biphenyls (PCBs) by USEPA Method 8082
- Pentachlorophenol (PCP) by USEPA Method 8041 (Modified)
- Total Petroleum Hydrocarbons-Gas Range by NWTPH-Gx
- Total Petroleum Hydrocarbons-Diesel Range by NWTPH-Dx/AK 102/AK 103

The soil borings were backfilled in general accordance with Washington State ECOLOGY requirements.

Following soil sample collection, MWH collected discrete groundwater samples from each soil boring (SB-01, SB-02a, SB-02b) utilizing a peristaltic pump when available. Geochemical parameter data including pH, temperature, turbidity, specific conductivity, and DO were collected and is provided in Appendix C.

Four primary and one duplicate groundwater sample was collected in laboratory-supplied containers, and then placed into a cooler containing bagged, wet ice. Samples were submitted to a contract laboratory in accordance with chain-of-custody procedures for analysis of the following potential COCs:

- Dissolved Arsenic, Cadmium and Lead by USEPA Method 6010/6020
- Polychlorinated Biphenyls (PCBs) by USEPA Method 8082
- Pentachlorophenol (PCP) by USEPA Method 8041 (Modified)
- Total Petroleum Hydrocarbons- Gas Range by NWTPH-Gx/EPA Method 5035
- Total Petroleum Hydrocarbons-Diesel Range by NWTPH-Dx/AK 102/AK 103

SAMPLING AND ANALYSIS RESULTS

Analytical Data Summary Tables are provided in Attachment B. Analytical reports are provided in Attachment D.

Soil Sample Results

In general, elevated metal concentrations in soil were detected from 0 through 8 feet below the surface at SB-01 and SB-02B.

- Arsenic (2007 Method A Industrial Clean Up Level [CUL]=20 ppm; Remedial Action Level per ECOLOGY= 88 ppm)
 - Two highest detections found in SB-02B with concentrations up to 590 ppm (2'bgs) and 160 ppm (6'bgs).
 - Detections in SB-01 ranged from 5.1 ppm (20'bgs) to 63 ppm (4' bgs)
 - Detections in SB-02a ranged from 3.7 ppm (4'bgs) to 19 ppm (10'bgs).
- Lead (1991 MTCA Method A Industrial CUL=1000 ppm)
 - Two highest detections found in SB-02B with concentrations up to 380 ppm (2'bgs) and 94 ppm (6'bgs).
 - Detections in SB-01 ranged from 3.6 ppm (6'bgs) to 36 ppm (2' bgs).
 - Detections in SB-02a ranged from 6.5 ppm (8'bgs) to 23 ppm (2'bgs).
- Cadmium (MTCA Method A Industrial CUL=2 ppm)
 - Two highest detections, both exceeding the MTCA Method A Industrial CUL of 2ppm were located in SB-02B with a concentration of 7.9 ppm (2'bgs) and 2.8 ppm (6'bgs).
 - All other samples were below reporting limits except SB-02a with a concentration of 0.71 ppm (2'bgs)
- PCP
 - Detections in SB-02A ranged from 10 ppb (2' bgs) to 14 ppb (6' bgs).
 - One detection in SB-02B with a concentration of 12 ppb (6' bgs) .
 - All other samples were lab qualified with a "U" noting the target analyte was not detected at the reported concentration.
- PCBs (MTCA Method A Industrial CULfor PCB Mixtures=10 mg/kg)
 - PCB concentrations were all below detection limits with the exception of PCB 1254 detected in SB-01 at 0.31 ppm (2' bgs) and SB-01 at 0.012 ppm (22' bgs).
- TPHs
 - Gasoline was detected only at SB-01 at 2' bgs with a concentration of 1.7 ppm.
 - Diesel was detected at SB-01 at 210 ppm (2'bgs) and at SB-02A at 22 ppm (2'bgs).
 - Motor Oil was detected at several locations with the highest concentration at SB-02 of 2400 ppm (2'bgs) and at SB-02A with a concentration of 440 ppm (2'bgs).

Groundwater Sample Results

Elevated arsenic concentrations were detected in all water samples collected. Lead and Cadmium were below acceptable CULs. All deep groundwater analytical results were below CULs.

- Arsenic
 - The highest concentration of arsenic in SB-01 was detected at 4'bgs (54 ppb). Deeper groundwater in SB-01 had a concentration of 6.5 ppb at 22' bgs.
 - The highest concentration of arsenic in SB-02a was detected at 6'bgs (7.10 ppb)
 - The highest concentration of arsenic in SB-02b was detected at 6'bgs (57 ppb)

- PCP
 - For all samples, PCP was measured at 0.25 ppb and flagged with a U.
- PCBs
 - No PCBs were detected in the groundwater samples, all concentrations were below the lab detection limits.
- TPH
 - No gasoline was detected in groundwater samples, all concentrations were below the lab detection limits.
 - Diesel and motor oil were detected in very low concentrations, the highest levels being 0.48 ppb in SB-01 at 22' bgs.

REQUIRED PROCEDURES

As a result of the arsenic concentrations detected in SB-02b, the following procedures will be required by workers participating in construction activities at the Site during the installation of the Segment 2 and 3 connection:

Health and Safety:

- It will be required that all contractors working at the Site maintain current HAZWOPER certification.
- Proper personal protective equipment (PPE), including the use of nitrile gloves when handling the soil or groundwater at the Site, will be required.
- In addition, safety glasses with splash guards will be required to minimize the exposure risk when handling groundwater at the Site.

Soils Handling:

Excavated soil will be handled consistent with the recommended procedures contained in the recent Landau Associates fill thickness evaluation technical memorandum prepared for the Riverside Business Park. An arsenic screening level of 88 mg/kg, the Model Toxics Control Act (MTCA) industrial soil cleanup level for arsenic based on direct contact, will be applied to the upper foot of soil. An arsenic soil screening level of 150 mg/kg average and 500 mg/kg maximum will be applied to all soil deeper than 1 ft BGS. With that in mind, the following soils handling procedures are required:

- Sampling locations SB-01 and SB-02A fall below the 88 ppm CUL for arsenic. If deemed suitable for construction, soils are to be placed back into the excavation.
- The SB-02B location from ground surface to 3' bgs will require special handling and disposal to an approved solid waste landfill. All soils from 0-3' bgs within 25 feet (median distance between SB-02A and SB-02B) of the SB-02B location will require segregation on a bermed plastic area, with a plastic cover during construction and until disposal.
- The SB-02B location from 3' to 6' bgs has a soil screening level less than 150 ppm average for arsenic and if deemed suitable material for construction, shall be placed back into the excavation.
- It is recommended (if possible) to dispose of the top 3' of soils in the vicinity of SB-02b directly into a railcar for disposal.
- It will be required that any soils excavated from above the native mudflat not be replaced below the mudflat elevation.

Groundwater Handling:

As all groundwater samples exceeded the MTCA CUL of 5 ppb for arsenic, dewatering discharge may not be discharged to a water body such as the river. Therefore, the following requirements are to be followed with regards to groundwater handling:

- Groundwater encountered during construction at the 3 locations above may be discharged into the sanitary sewer system under the City of Everett’s Industrial Wastewater Permit as detected concentrations are below the discharge limits of 0.5 mg/L or (500 ug/L, or 500 ppb).
- In the event dewatering discharge exceeds the capacity limits, groundwater is to be containerized via Baker Tank, or similar, until capacity is available.
- For easier handling in areas where access to the sanitary sewer is limited (i.e. on the west side of the railroad tracks), a Baker Tank, or similar containment should be made available.
- In the event discharge to the City of Everett sanitary sewer is unavailable, treatment of arsenic-impacted water may be permissible if the required permits are obtained.
- At the SB-01 location, Contractors are required to maintain a seal between the upper and lower aquifers through the use of a control density fill (CDF), bentonite chips, or other suitable material.

The above procedural requirements have been written into contractual documents provided to each Subcontractor prior to the award and commencement of work. It is explicit and expected that each Subcontractor onsite abide by their contractual obligations and comply the above requirements as described in this Technical Memorandum.

FIGURES

Figure 1 - Tulalip Water Pipeline Route Map

Figure 2 - Map of Property Boundaries and Tulalip Water Pipeline Segment 2 connection to the south end of Segment 3.

Figure 3 - Sample Location Map

TABLES

Table 1- Metals Results in Soil

Table 2- Metals Results in Water

Table 3-PCP Results in Soil

Table 4-PCP Results in Water

Table 5-PCB Results in Soil

Table 6-PCB Results in Water

Table 7-TPH Results in Soil

Table 8-TPH Results in Water

ATTACHMENTS

Attachment A – Sampling and Analysis Plan (SAP)

Attachment B – Field Forms

Attachment C- Analytical Data Reports (provided on DVD)

Attachment D- Final Technical Memo DVD



FIGURES



Parametrix







TULALIP-EVERETT
JOINT WATER PIPELINE BOARD

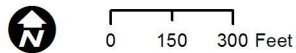


TULALIP WATER PIPELINE
PIPELINE ROUTE

FIGURE 1



-  Proposed Pipeline
-  Areas of Soil Storage and Capping
-  Areas of Soil Removal
-  Historic Lowland Parcels



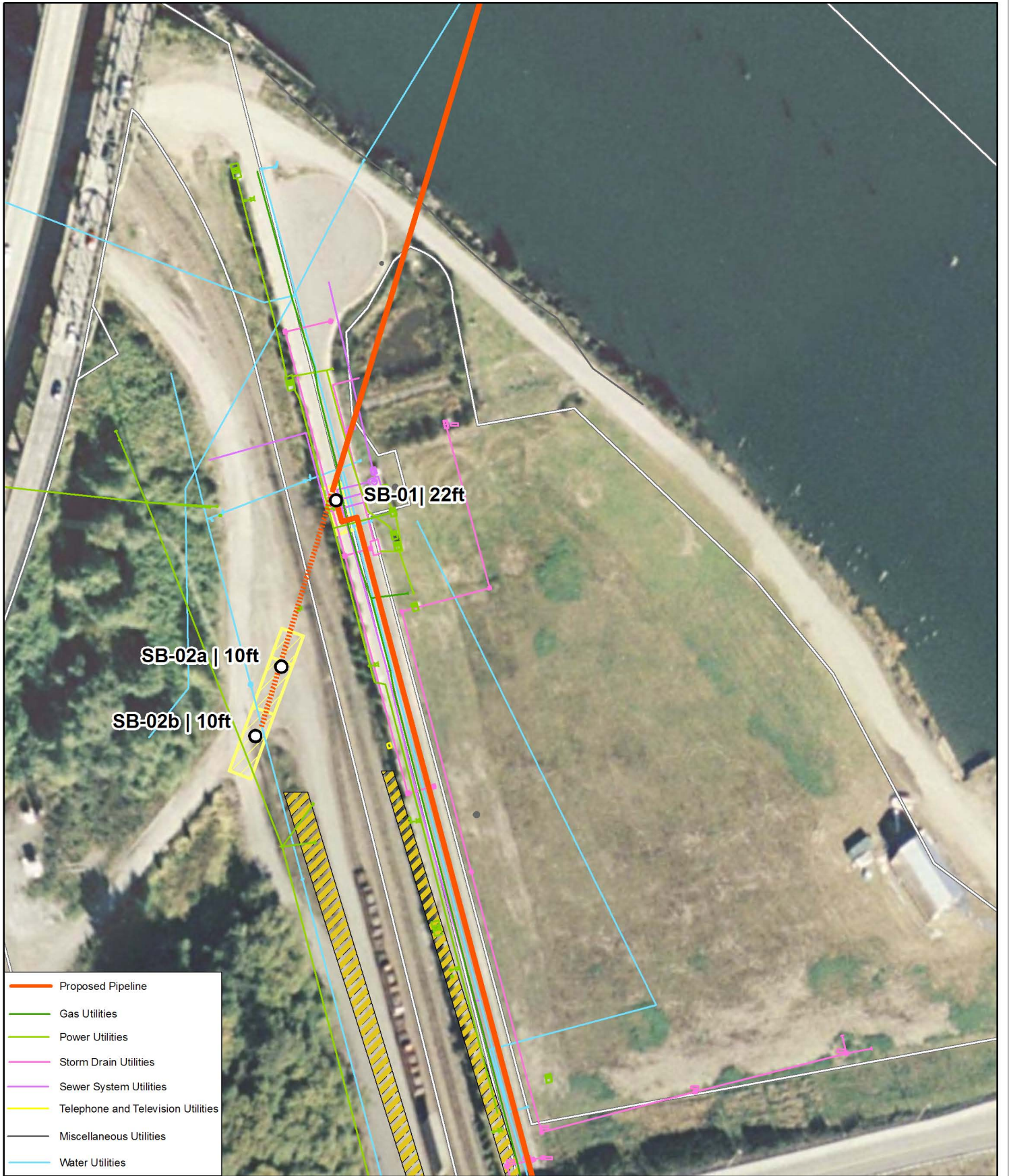
Path: \\uspas1netapp1\munipublic\people (R-Z)\Silber, Jackie\Everett\GIS_MXD\Historical.mxd

Date: 5/20/2011

**View of Segment 2
and Segment 3 South
Including Property Boundaries**

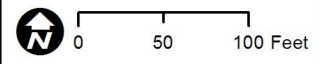
Figure 2





- Proposed Pipeline
- Gas Utilities
- Power Utilities
- Storm Drain Utilities
- Sewer System Utilities
- Telephone and Television Utilities
- Miscellaneous Utilities
- Water Utilities

- Proposed Sample Locations
Name | Depth in feet
- Proposed Excavation Areas
- Areas of Soil Removal
- Lowland Area Outline



Path: \\uspas1netapp1\munipublic\people (R-Z)\Silber, Jackie\GIS\MXD\Excavation.mxd

Date: 5/20/2011

Excavation/Sampling Analysis Plan

Figure 3





TABLES

Table 1. Metals Results in Soil

Sample ID	Depth	Arsenic (mg/kg)	Lead (mg/kg)	Cadmium (mg/kg)
<i>2007 MTCA Industrial CUL</i>		20	250	2
SB-01	2'	27	36	< 0.21
SB-01	4'	63	7.1	< 0.22
SB-01	6'	11	3.6	< 0.21
SB-01	8'	23	17	< 0.24
SB-01	10'	14	7.9	< 0.30
SB-01	12'	10	5.2	< 0.25
SB-01	14'	9.1	6.4	< 0.28
SB-01	16'	8.5	6.1	< 0.24
SB-01	18'	7.8	4.5	< 0.23
SB-01	20'	5.1	3.9	< 0.20
SB-01	22'	7.6	4.9	< 0.23
SB-02A	2'	6.4	23	0.71
SB-02A	4'	3.7	6.7	< 0.20
SB-02A	6'	4.0	8.7	< 0.20
SB-02A	8'	7.2	6.5	< 0.19
SB-02A	10'	19	16	< 0.31
SB-02B	2'	590	380	7.9
SB-02B	4'	53	8.7	< 0.19
SB-02B	6'	160	94	2.8
SB-02B	8'	6.2	5.2	< 0.22
SB-02B	10'	7.9	6.4	< 0.23
SB-02B-DUP	10'	7.0	5.6	< 0.19

Notes:

1 ppm = 1 mg/kg

" < " = not detected concentrations are reported as less than the laboratory detection limit.

Orange fill indicates those locations where concentrations exceeded the 2001 Arsenic MTCA CUL of 200 ppm, or the Cadmium MTCA CUL of 2 ppm.

Bold text indicates those locations where concentrations exceeded the current Remedial Action Soil CUL for arsenic (88 ppm)

Table 2. Metals Results in Water

Sample ID	Depth	Arsenic (ug/L)	Lead (ug/L)	Cadmium (ug/L)
MTCA Method A GW CULs		5	15	5
SB-01	4'	54.0	< 1.7	< 0.14
SB-01	22'	6.50	2.90	< 0.14
SB-02A	6'	7.10	< 1.7	< 0.14
SB-02B	6'	57.0	< 1.7	< 0.14
SB-02B-DUP	6'	66.0	< 1.7	< 0.14

Notes:

1 ppb = 1 ug/L

All detected concentrations of arsenic are below acceptable discharge limits per City of Everett's Industrial Wastewater Discharge permit for arsenic of 0.5 mg/L or 500 ug/L (500 ppb).

" < " = not detected concentrations are reported as less than the laboratory detection limit.

Table 3: PCP Results in soils

Client ID	Depth	Pentachlorophenol	
		(µg/kg)	Qualifier
SB-01	2'	190	U
SB-01	4'	6.8	U
SB-01	6'	6.7	U
SB-01	8'	9.9	U
SB-01	10'	11	U
SB-01	12'	9.0	U
SB-01	14'	9.0	U
SB-01	16'	8.2	U
SB-01	18'	7.0	U
SB-01	20'	7.3	U
SB-01	22'	8.1	U
SB-02A	2'	10	
SB-02A	4'	6.7	U
SB-02A	6'	14	
SB-02A	8'	13	
SB-02A	10'	9.2	U
SB-02A-DUP	10'	7.5	U
SB-02B	2'	7.2	U
SB-02B	4'	6.6	U
SB-02B	6'	12	
SB-02B	8'	7.5	U
SB-02B	10'	7.6	U

Notes:

1 ppb = 1 ug/L

"U" qualifier indicates that the target analyte was not detected at the reported concentration.

Table 4: PCP results in water

Client ID	Depth	Pentachlorophenol	
		µg/L	Qualifier
SB-01	4'	0.25	U
SB-01	22'	0.25	U
SB-02A	6'	0.25	U
SB-02B	6'	0.25	U
SB-02B-Dup	6'	0.25	U

Notes:

1 ppb = 1 ug/L

"U" qualifier indicates that the target analyte was not detected at the reported concentration.

Table 5: PCB results in soils

Sample ID	Depth	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
		mg/Kg						
SB-01	2'	< 0.0033	< 0.0082	< 0.0071	< 0.0021	< 0.0031	0.31	< 0.0031
SB-01	4'	< 0.0034	< 0.0086	< 0.0075	< 0.0022	< 0.0032	< 0.0022	< 0.0032
SB-01	6'	< 0.0036	< 0.0091	< 0.0079	< 0.0024	< 0.0034	< 0.0024	< 0.0034
SB-01	8'	< 0.0049	< 0.012	< 0.011	< 0.0032	< 0.0046	< 0.0032	< 0.0046
SB-01	10'	< 0.0055	< 0.014	< 0.012	< 0.0036	< 0.0051	< 0.0036	< 0.0051
SB-01	12'	< 0.0042	< 0.011	< 0.0092	< 0.0028	< 0.0040	< 0.0028	< 0.0040
SB-01	14'	< 0.0044	< 0.011	< 0.0095	< 0.0029	< 0.0041	< 0.0029	< 0.0041
SB-01	16'	< 0.0043	< 0.011	< 0.0094	< 0.0028	< 0.0040	< 0.0028	< 0.0040
SB-01	18'	< 0.0038	< 0.0096	< 0.0084	< 0.0025	< 0.0036	< 0.0025	< 0.0036
SB-01	20'	< 0.0038	< 0.0096	< 0.0084	< 0.0025	< 0.0036	< 0.0025	< 0.0036
SB-01	22'	< 0.0042	< 0.010	< 0.0091	< 0.0027	< 0.0039	< 0.0027	< 0.0039
SB-02A	2'	< 0.0032	< 0.0079	< 0.0069	< 0.0021	< 0.0030	0.012	< 0.0030
SB-02A	4'	< 0.0032	< 0.0080	< 0.0070	< 0.0021	< 0.0030	< 0.0021	< 0.0030
SB-02A	6'	< 0.0032	< 0.0079	< 0.0069	< 0.0021	< 0.0030	< 0.0021	< 0.0030
SB-02A	8'	< 0.0035	< 0.0087	< 0.0076	< 0.0023	< 0.0032	< 0.0023	< 0.0032
SB-02A	10'	< 0.0048	< 0.012	< 0.011	< 0.0032	< 0.0045	< 0.0032	< 0.0045
SB-02A-DUP	10'	< 0.0037	< 0.0092	< 0.0080	< 0.0024	< 0.0034	< 0.0024	< 0.0034
SB-02B	2'	< 0.0035	< 0.0087	< 0.0076	< 0.0023	< 0.0032	< 0.0023	< 0.0032
SB-02B	4'	< 0.0033	< 0.0082	< 0.0072	< 0.0022	< 0.0031	< 0.0022	< 0.0031
SB-02B	6'	< 0.0037	< 0.0093	< 0.0081	< 0.0024	< 0.0035	< 0.0024	< 0.0035
SB-02B	8'	< 0.0037	< 0.0093	< 0.0081	< 0.0024	< 0.0035	< 0.0024	< 0.0035
SB-02B	10'	< 0.0039	< 0.0097	< 0.0085	< 0.0025	< 0.0036	< 0.0025	< 0.0036

Notes:

1 ppm = 1 mg/kg

" < " = not detected concentrations are reported as less than the laboratory detection limit.

Table 6: PCB results in water

Client ID	Depth	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
		(ug/L)						
SB-01	4'	< 0.042	< 0.058	< 0.039	< 0.039	< 0.067	< 0.042	< 0.037
SB-01	22'	< 0.071	< 0.098	< 0.065	< 0.065	< 0.11	< 0.070	< 0.062
SB-02A	6'	< 0.042	< 0.058	< 0.039	< 0.039	< 0.067	< 0.042	< 0.037
SB-02B	6'	< 0.042	< 0.058	< 0.039	< 0.039	< 0.067	< 0.042	< 0.037
SB-02B-Dup	6'	< 0.042	< 0.058	< 0.039	< 0.039	< 0.067	< 0.042	< 0.037

Notes:

1 ppb = 1 ug/L

" < " = not detected concentrations are reported as less than the laboratory detection limit.

Table 7: TPH results in soils

Sample ID	Depth	Gasoline	#2 Diesel (C10-C24)	Motor Oil (>C24-C36)
		mg/Kg	mg/Kg	mg/Kg
SB-01	2'	1.7	210	2400
SB-01	4'	< 0.17	< 6.0	< 9.5
SB-01	6'	< 0.18	< 6.4	70
SB-01	8'	< 0.31	< 8.6	93
SB-01	10'	< 0.28	< 9.8	120
SB-01	12'	< 0.22	< 7.3	< 12
SB-01	14'	< 0.23	< 7.8	< 13
SB-01	16'	< 0.21	< 7.3	< 12
SB-01	18'	< 0.19	< 6.9	< 11
SB-01	20'	< 0.17	< 6.5	< 10
SB-01	22'	< 0.19	< 7.4	< 12
SB-02A	2'	< 0.31	33	440
SB-02A	4'	< 0.22	< 5.8	130
SB-02A	6'	< 0.30	< 5.8	86
SB-02A	8'	< 0.18	< 6.2	< 9.8
SB-02A	10'	< 0.78	< 8.6	< 14
SB-02A-DUP	10'	< 0.30	< 6.6	< 10
SB-02B	2'	< 0.21	< 6.4	< 10
SB-02B	4'	< 0.19	< 6.0	< 9.6
SB-02B	6'	< 0.23	< 6.4	< 10
SB-02B	8'	< 0.20	< 6.6	< 11
SB-02B	10'	< 0.22	< 7.1	< 11

Notes:

1 ppm = 1 mg/kg

" < " = not detected concentrations are reported as less than the laboratory detection limit.

Table 8: TPH results in water

Client ID	Depth	Gasoline	#2 Diesel (C10-C24)	Motor Oil (>C24-C36)
		(mg/L)	(mg/L)	(mg/L)
SB-01	4'	< 0.010	0.22	0.37
SB-01	22'	< 0.010	0.48	0.48
SB-02A	6'	< 0.010	0.16	0.32
SB-02B	6'	< 0.010	0.29	0.41
SB-02B-Dup	6'	< 0.010	0.28	0.42

Notes:

1 ppb = 1 ug/L

" < " = not detected concentrations are reported as less than the laboratory detection limit.



ATTACHMENTS



ATTACHMENT A:
Sampling and Analysis Plan (SAP)

- Advancement of three soil borings to up to 22 feet below ground surface (ft-bgs);
- Collection of soil samples from three soil boring locations (SB-01, SB-02a, SB-02b);
- Collection of groundwater samples from three soil boring locations (SB-01, SB-02a, SB-02b);
- Collection of geochemical water field parameter data (i.e., pH, temperature, turbidity, specific conductivity, and dissolved oxygen [DO]) from each borehole;
- Samples will be analyzed for total and dissolved (water only) arsenic, cadmium, and lead; pentachlorophenol (PCP); total petroleum hydrocarbons (gas and diesel range); and polychlorinated biphenyls (PCBs); and
- Preparation of a brief summary report detailing the results.

Details of the scope of work and schedule are presented in the following sections.

FIELD PROGRAM

Soil Sampling and Analysis

MWH will subcontract a local Washington-licensed drilling company to advance three soil borings at the Site using direct push technology. Sample depth will range from the surface to 22 feet below ground surface in SB-01, and from the surface to 10 feet below ground surface in SB-02a and SB-02b. A sample will be collected from each 2 foot interval from surface to the bottom of the borehole following the sampling program below:

Sample ID	Depth	Media	As, Cd, Pb (Total)	PCBs	PCP	TPH-G	TPH-D
SB-01	2'	Soil	x	x	x	x	x
	4'	Soil	x	x	x	x	x
	6'	Soil	x	x	x	x	x
	8'	Soil	x	x	x	x	x
	10'	Soil	x	x	x	x	x
	12'	Soil	x	x	x	x	x
	14'	Soil	x	x	x	x	x
	16'	Soil	x	x	x	x	x
	18'	Soil	x	x	x	x	x
	20'	Soil	x	x	x	x	x
22'	Soil	x	x	x	x	x	
SB-02a	2'	Soil	x	x	x	x	x
	4'	Soil	x	x	x	x	x
	6'	Soil	x	x	x	x	x
	8'	Soil	x	x	x	x	x
	10'	Soil	x	x	x	x	x

SB-02b	2'	Soil	x	x	x	x	x
	4'	Soil	x	x	x	x	x
	6'	Soil	x	x	x	x	x
	8'	Soil	x	x	x	x	x
	10'	Soil	x	x	x	x	x

A total of 21 soil samples will be collected in laboratory-supplied containers, and then placed into a cooler containing bagged, wet ice. Samples will be submitted to a contract laboratory in accordance with chain-of-custody procedures for analysis of the following potential COCs:

- Total Arsenic, Cadmium and Lead by USEPA Method 6010/6020
- Polychlorinated Biphenyls (PCBs) by USEPA Method 8082
- Pentachlorophenol (PCP) by USEPA Method 8041(Modified)
- Total Petroleum Hydrocarbons-Gas Range by NWTPH-Gx
- Total Petroleum Hydrocarbons-Diesel Range by NWTPH-Dx/AK 102/AK 103

The soil borings will be backfilled in general accordance with Washington State DOE requirements.

Groundwater Sampling and Analysis

Following soil sample collection, MWH will collect up to two discrete groundwater samples from each soil boring (SB-01, SB-02a, SB-02b) utilizing a peristaltic pump. Geochemical parameter data will be recorded (pH, temperature, turbidity, specific conductivity, and DO) and samples will be collected following the sample program below:

Sample ID	Depth	Media	As, Cd, Pb (Dissolved)	PCBs	PCP	TPH-G	TPH-D
SB-01	Shallow unit	Water	x	x	x	x	x
SB-01	Deep unit	Water	x	x	x	x	x
SB-02	Shallow unit	Water	X	x	x	x	x
SB-02	Deep unit	Water	X	x	x	x	x
SB-03	Shallow unit	Water	X	x	x	x	x
SB-03	Deep unit	Water	X	x	x	x	x

Up to six groundwater samples will be collected in laboratory-supplied containers, and then placed into a cooler containing bagged, wet ice. Samples will be submitted to a contract laboratory in accordance with chain-of-custody procedures for analysis of the following potential COCs:

- Dissolved Arsenic, Cadmium and Lead by USEPA Method 6010/6020
- Polychlorinated Biphenyls (PCBs) by USEPA Method 8082
- Pentachlorophenol (PCP) by USEPA Method 8041(Modified)
- Total Petroleum Hydrocarbons- Gas Range by NWTPH-Gx/EPA Method 5035
- Total Petroleum Hydrocarbons-Diesel Range by NWTPH-Dx/AK 102/AK 103

Pending field turbidity results, groundwater samples analyzed for metals and PCBs may be field filtered or centrifuged by EPA Method 823-B-01-002 (Modified) for separation of solids. Depth to groundwater will be recorded from all site monitoring wells before and after sampling activities.

QUALITY CONTROL SAMPLES

Two soil and one groundwater field duplicate sample will be collected and analyzed for the parameters listed above.

INVESTIGATION-DERIVED WASTE (IDW)

IDW generated during performance of the field work described in this Work Plan may include decontamination liquids, borehole cuttings, personal protective equipment (PPE), disposable sampling equipment, and other miscellaneous solid waste. All waste will be temporarily stored at the Site, and characterized and properly managed for off-site disposal in accordance with project requirements and applicable laws and regulations. MWH will not be responsible for characterization and disposal of the IDW.

REPORTING

A brief summary report documenting results of the field activities described above will be submitted. This report will include the following information:

- A narrative description of pertinent field activities and associated documentation;
- Depth to groundwater readings, geochemical groundwater parameter data, and chemical groundwater analysis data;
- Soil boring logs and chemical soil analysis data;
- Cross section map; and
- Summary of results.

ATTACHMENTS

Figure 1 - Tulalip Water Pipeline Route Map

Figure 2 - Map of Property Boundaries and Tulalip Water Pipeline Segment 2 connection to the south end of Segment 3.

Figure 3 - Proposed Sample location Map



Parametrix







TULALIP-EVERETT
JOINT WATER PIPELINE BOARD

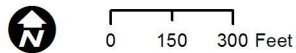


TULALIP WATER PIPELINE
PIPELINE ROUTE

FIGURE 1



-  Proposed Pipeline
-  Areas of Soil Storage and Capping
-  Areas of Soil Removal
-  Historic Lowland Parcels



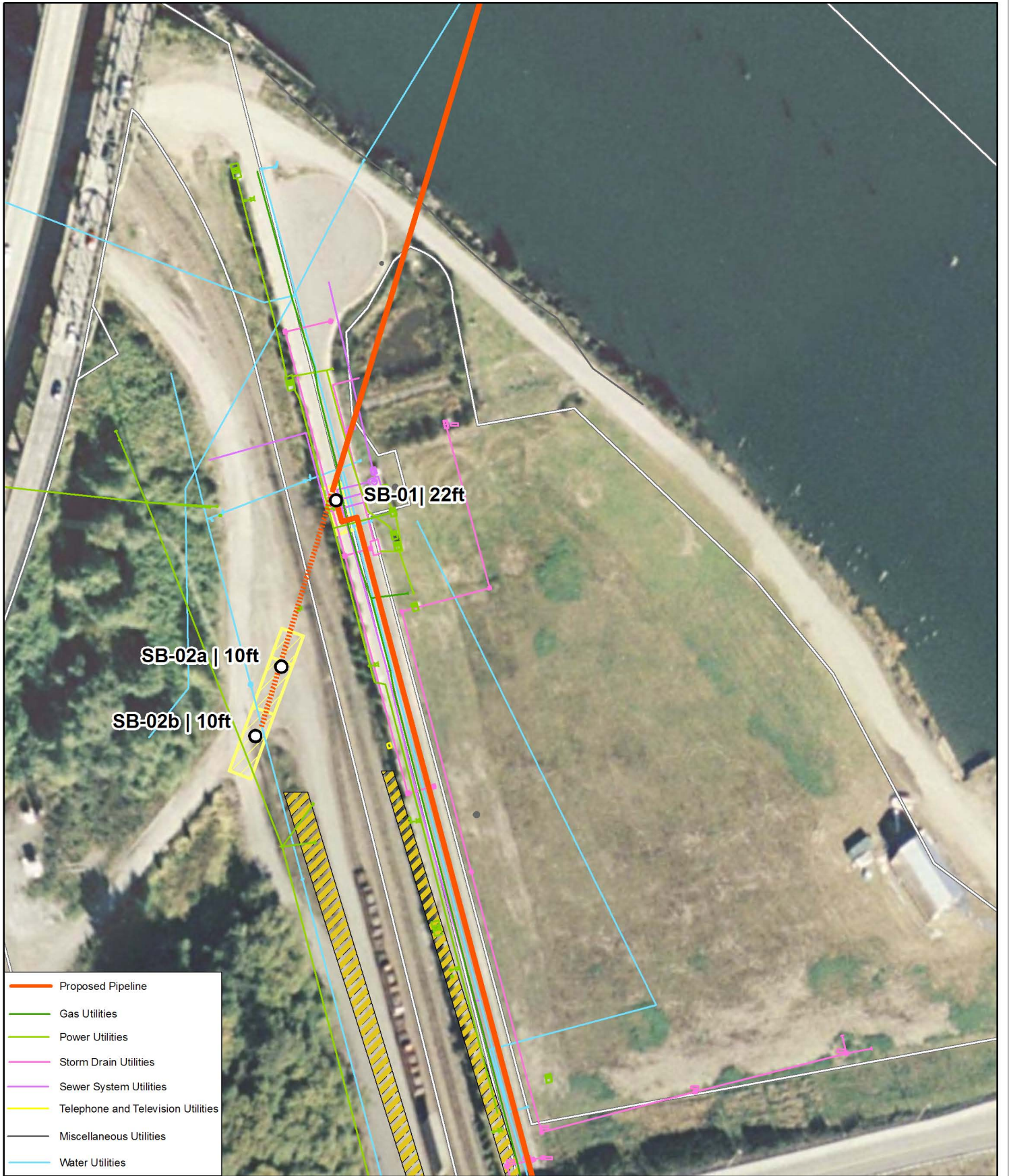
Path: \\uspas1netapp1\munipublic\People (R-Z)\Silber, Jackie\Everett\GIS_MXD\Historical.mxd

Date: 5/20/2011

**View of Segment 2
and Segment 3 South
Including Property Boundaries**

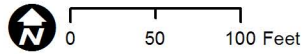
Figure 2





- Proposed Pipeline
- Gas Utilities
- Power Utilities
- Storm Drain Utilities
- Sewer System Utilities
- Telephone and Television Utilities
- Miscellaneous Utilities
- Water Utilities

- Proposed Sample Locations
Name | Depth in feet
- Proposed Excavation Areas
- Areas of Soil Removal
- Lowland Area Outline



Path: \\uspas1netapp1\munipublic\people
(R-Z)\Silber, Jackie\GIS\MXD\Excavation.mxd

Date: 5/20/2011

Excavation/Sampling Analysis Plan

Figure 3





ATTACHMENT B:

Field Forms

TAILGATE SAFETY MEETING FORM

Date: 06/22/11 Time: 0747 Job Number: 1006292.0214051

Client: Joint Board (City of Everett and Tulalip Tribe)

Site Specific Location: Everett, WA

Safety Topics Presented

Protective Clothing/Equipment: Orange Reflective vest, steel toes, earplugs (when required), nitrile gloves. Traffic Cones and/or barricades are required for delineation.

Chemical Hazards: potential exposure to arsenic in soil and groundwater.

Physical Hazards: High traffic area, rail road right-of-way, slip/trip/fall, overhead obstructions

Special Equipment: None

Other (IIPP):

Emergency Procedures: Assess situation, Notify supervisor & MWH, call 911 or transport

Hospital: Providence Regional MedCtr. Phone: 911 / 425.261.2000

Hospital Address and Route: 1321 Colby Avenue Everett, WA 98201

ATTENDEES Over Weyerhaeuser Bridge, Rt. Manne Dr, L Broadway, Rt. 13th Street. Left onto Rockefeller Ave, Hospital on right.

NAMES PRINTED

SIGNATURE

Elgin Floyd

Meeting Conducted By: C Nancarrow Name Printed

C Nancarrow Signature

Project Safety Officer: C Nancarrow

Project Manager: Greg Harris



MONITORING WELL PURGING AND SAMPLING LOG

BUILDING A BETTER WORLD

Well ID: SB-01-062211-04
 Project: TWP As Waste Management Study
 Project No: 1006292
 Location: Everett, WA
 Task No: 0.0214052

Date: 6/22/2011
 Team: C. Nancarrow
 Contractor: Cascade Drilling (Eli Floyd)
 Weather: Cloudy
 Temperature: 70°

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solonist Interface Probe (Model/ID): NA
 Water Quality Meter (Model/ID): Horiba U-50 Decontamination Method: Alconox, Triple Rinse
 Purging Method: PVC Bailer Vacuum Truck Submersible Pump Peristaltic Pump Other: _____
 3 Well Volumes: Low Flow Micro Purge Intake Depth (feet below TOC) approx 5.5' bgs
 Sampling Method: Teflon Bailer Disposable Bailer Dedicated Tubing Other: tubing (disposable)

Casing Volume Information

Casing Diameter (Circle): 2 4" 6" Other _____
 Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47

Purging Calculations

Casing Volumes (CV) _____
 $WC \sim 1.5 \times CM \ 0.14 = 0.24 \text{ CV(gal)} \times 3.0 \text{ CV(gal)} = 0.72 \text{ PV}$

Monitoring Measurements

Depth to LNAPL (feet): NA Total Well Depth BTOC(feet): NA
 Depth to Water (DTW)(feet): ~4' bgs Water Column (WC)(feet): ~4"
 LNAPL Thickness (ft): NA Purging Start Time: 0911

Well Recovery Data

Maximum Drawdown (DTWm)(feet): NA - 0 Approximate Flow Rate (LPM): 600 rpm
 Recovery Type: Fast Slow % Recovery = 100%
 Purge Water Disposition (Attach Drum Inventory Log - FLD 108): MWH-1

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Liters)	Temp (°C) (± 1°)	Conductivity (uS/cm) (± 3%)	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1%)	ORP (± 10mV)	Turbidity NTU (± 3%)
0911	Begin purging							
0922	~4'	2L	16.87	0.739	10.49	6.40	-74	>1000
0927	~4'	6L	16.69	0.737	0.69	6.42	-80	11.57
0932	~4'	8.5L	16.51	0.732	0.44	6.42	-81	3.95
0941	~4'	12L	16.51	0.721	0.00	6.42	-82	2.01
0947	~4'	14L	16.49	0.720	0.07	6.38	-83	1.06
0953	~4'	16.5L	16.56	0.712	0.00	6.38	-83	1.00
0958	Sample collected							
1013	Sample collection complete							

Sample Data

Sample ID SB-01-062211-04 Time of Sample 0958

Container Types & Vol	Quantities	Preserve	Analytical Parameters	Lab
Amber Glass- 500mL	2	N/A	PCP	ARI
Plastic- 250mL	1	Nitric	Metals	Test America
VOA Vial- 40mL	3	HCl	NWTPH-Gx	Test America
Amber Glass- 1 L	1	HCl	NWTPH-Dx	Test America
Amber Glass- 1 L	1	N/A	PCBs	Test America

Comments

Metals Filtered (Yes/No)		QA Sample ID	<u>NA</u>
Foaming (Yes/No)			
PID Reading	<u>NA</u>		
Hydrometer Reading	<u>NA</u>	Temperature with Hydrometer:	<u>NA</u>



BUILDING A BETTER WORLD

MONITORING WELL PURGING AND SAMPLING LOG

Well ID: SB-01-062211-22
 Project: TWP As Waste Management Study
 Project No: 1006292
 Location: Everett, WA
 Task No: 0.0214052

Date: 6/22/2011
 Team: C. Nancarrow
 Contractor: Cascade Drilling (Eli Floyd)
 Weather: Cloudy
 Temperature: 57.0°

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solonist Interface Probe (Model/ID): NA
 Water Quality Meter (Model/ID): Horiba U-50 Decontamination Method: Alconox, Triple Rinse
 Purging Method: PVC Bailer Vacuum Truck Submersible Pump Peristaltic Pump Other: _____
 3 Well Volumes: Low Flow Micro Purge Intake Depth (feet below TOC) 18-22' bags
 Sampling Method: Teflon Bailer Disposable Bailer Dedicated Tubing Other: disposable tubing

Casing Volume Information

Casing Diameter (Circle): 4" 4" 6" Other _____
 Casing Multiplier (CM)(gallons/foot): 0.18 0.65 1.47

Purging Calculations

Casing Volumes (CV) _____
 WC _____ x CM _____ = _____ CV(gal) x 3.0 CV(gal) = _____ PV

Monitoring Measurements

Depth to LNAPL (feet): NA Total Well Depth BTOC(feet): NA
 Depth to Water (DTW)(feet): in boring 4' bags Water Column (WC)(feet): NA
 LNAPL Thickness (ft): NA Purging Start Time: 1131

Well Recovery Data

Maximum Drawdown (DTWm)(feet): _____ Approximate Flow Rate (LPM): <0.1 LPM
 Recovery Type: Fast Slow % Recovery = _____
 Purge Water Disposition (Attach Drum Inventory Log - FLD 108): MWH-1

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Liters)	Temp (°C)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	pH	ORP	Turbidity NTU
1131	Screen 18-22' bags		(± 1°)	(± 3%)	(± 10%)	(± 0.1%)	(± 10mV)	(± 3%)
1147	NA	0.5L	25.19	0.853	4.68	7.53	67	200
1213	NA	1.0L	25.09	0.848	4.54	7.51	66	137
1218	NA	1.05L	23.97	0.846	4.52	7.49	63	4.7
1218	Sample collected - extremely low recharge. Called lab to confirm minimal amt. reqd.							
1457	Sample collection completed							

Sample Data

Sample ID SB-01-062211-22 Time of Sample 1218-1457

Container Types & Vol	Quantities	Preserve	Analytical Parameters	Lab
Amber Glass- 500mL	half full 2	N/A	PCP	ARI
Plastic- 250mL	1	Nitric	Metals	Test America
VOA Vial- 40mL	2 filled 3	HCl	NWTPH-Gx	Test America
Amber Glass- 1 L	half full 1	HCl	NWTPH-Dx	Test America
Amber Glass- 1 L	half full 1	N/A	PCBs	Test America

Comments

Metals Filtered (Yes) No) QA Sample ID NA - too low of volume for a duplicate
 Foaming (Yes / No)
 PID Reading NA
 Hydrometer Reading NA Temperature with Hydrometer: NA



MWH

BUILDING A BETTER WORLD

MONITORING WELL PURGING AND SAMPLING LOG

Well ID: SB-02A-062211-06
 Project: TWP As Waste Management Study
 Project No: 1006292
 Location: Everett, WA
 Task No: 0.0214052

Date: 6/22/2011
 Team: C. Nancarrow
 Contractor: Cascade Drilling (Eli Floyd)
 Weather: _____
 Temperature: _____

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solonist Interface Probe (Model/ID): NA
 Water Quality Meter (Model/ID): Horiba U-50 Decontamination Method: Alconox, Triple Rinse
 Purging Method: PVC Bailer Vacuum Truck Submersible Pump Peristaltic Pump Other: _____
 3 Well Volumes: Low Flow Micro Purge Intake Depth (feet below TOC) 10' bgs
 Sampling Method: Teflon Bailer Disposable Bailer Dedicated Tubing Other: tubing-disposable

Casing Volume Information

Casing Diameter (Circle): 2" 4" 6" Other _____
 Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47

Purging Calculations

Casing Volumes (CV) _____
 WC _____ x CM _____ = _____ CV(gal) x 3.0 CV(gal) = _____ PV

Monitoring Measurements

Depth to LNAPL (feet): NA Total Well Depth BTOC(feet): NA
 Depth to Water (DTW)(feet): 6' bgs Water Column (WC)(feet): 4'
 LNAPL Thickness (ft): NA Purging Start Time: 1647

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 4 Approximate Flow Rate (LPM): _____
 Recovery Type: Fast Slow % Recovery = 100
 Purge Water Disposition (Attach Drum Inventory Log - FLD 108): MWH-01

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Liters)	Temp (°C) (± 1°)	Conductivity (uS/cm) (± 3%)	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1%)	ORP (± 10mV)	Turbidity NTU (± 3%)
1647	Begin purging							
1704	6'	10L	14.73	0.404	0.00	6.78	-113	0.00
1707	6'	13L	14.67	0.603	0.00	6.78	-115	0.00
1714	6'	20L	14.59	0.599	0.00	6.77	-119	0.00
1715	Sample collected							
1732	Sample collection completed							

Sample Data

Sample ID SB-02-062211-06 Time of Sample 1715

Container Types & Vol	Quantities	Preserve	Analytical Parameters	Lab
Amber Glass- 500mL	2	N/A	PCP	ARI
Plastic- 250mL	1	Nitric	Metals	Test America
VOA Vial- 40mL	3	HCl	NWTPH-Gx	Test America
Amber Glass- 1 L	1	HCl	NWTPH-Dx	Test America
Amber Glass- 1 L	1	N/A	PCBs	Test America

Comments

Metals Filtered (Yes / No)	<input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No	QA Sample ID	<u>NA</u>
Foaming (Yes / No)	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No		
PID Reading	<u>NA</u>		
Hydrometer Reading	<u>NA</u>	Temperature with Hydrometer:	<u>NA</u>



BUILDING A BETTER WORLD

MONITORING WELL PURGING AND SAMPLING LOG

Well ID: SB-02B-062211-06
 Project: TWP As Waste Management Study
 Project No: 1006292
 Location: Everett, WA
 Task No: 0.0214052

Date: 6/22/2011
 Team: C. Nancarrow
 Contractor: Cascade Drilling (Eli Floyd)
 Weather: cloudy
 Temperature: 67°

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solonist Interface Probe (Model/ID): NA
 Water Quality Meter (Model/ID): Horiba U-50 Decontamination Method: Alconox, Triple Rinse
 Purging Method: PVC Bailer Vacuum Truck Submersible Pump Peristaltic Pump Other: _____
 3 Well Volumes: Low Flow Micro Purge Intake Depth (feet below TOC) 9' bgs
 Sampling Method: Teflon Bailer Disposable Bailer Dedicated Tubing Other: _____

Casing Volume Information

Casing Diameter (Circle): 2" 4" 6" Other
 Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47

Purging Calculations

Casing Volumes (CV) _____
 WC x CM = CV(gal) x 3.0 CV(gal) = PV

Monitoring Measurements

Depth to LNAPL (feet): NA Total Well Depth BTOC(feet): NA
 Depth to Water (DTW)(feet): 6' bgs Water Column (WC)(feet): 4' bgs
 LNAPL Thickness (ft): NA Purging Start Time: 1527/1519

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 0 Approximate Flow Rate (LPM): ~1.1 LPM
 Recovery Type: Fast Slow % Recovery = 100%
 Purge Water Disposition (Attach Drum Inventory Log - FLD 108): MWH-01

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Liters)	Temp (°C)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	pH	ORP	Turbidity NTU
1519	Purging begins		(± 1°)	(± 3%)	(± 10%)	(± 0.1%)	(± 10mV)	(± 3%)
1530	6'	4L	15.10	1.26	0.0	6.09	-106	68
1541	6'	11L	14.69	1.27	0.0	6.90	-114	16.2
1548	6'	16L	14.03	1.26	0.0	6.89	-116	3.92
1559	6'	24L	14.49	1.27	0.0	6.88	-117	3.44
1608	6'	32L	14.44	1.26	0.0	6.87	-120	0.19
1613	Sample Collected							
1628	Sample Collection Completed							

Sample Data

Sample ID: SB-02b-062211-06 Time of Sample: 1613

Container Types & Vol	Quantities	Preserve	Analytical Parameters	Lab
Amber Glass- 500mL	2	N/A	PCP	ARI
Plastic- 250mL	1	Nitric	Metals	Test America
VOA Vial- 40mL	3	HCl	NWTPH-Gx	Test America
Amber Glass- 1 L	1	HCl	NWTPH-Dx	Test America
Amber Glass- 1 L	1	N/A	PCBs	Test America

Comments

Metals Filtered (Yes / No)		QA Sample ID	<u>DUP-01 - 062211</u>
Foaming (Yes / No)			
PID Reading	<u>NA</u>		
Hydrometer Reading	<u>NA</u>	Temperature with Hydrometer:	<u>NA</u>



Project Tulalip Water Pipeline - Arsenic Management Study Client TWP Joint Board
 Location Everett, WA Project Number 1006292.02140502
 Surface Elev. NA North 48.01 East 122.19
 Top of Casing NA Water Level Initial 4.0 ft 06/22/11 10:43 Static NA
 Hole Depth 22.0 ft Screen: Diameter NA Length NA Type/Size NA
 Hole Diameter 2.0 in Casing: Diameter NA Length NA Type NA
 Drill Co. Cascade Drilling Drilling Method Geoprobe
 Driller Eli Floyd Driller Reg. # _____ Log By C. Nancarrow
 Start Date 6/2/2011 Completion Date 6/22/2011 Checked By N. Day

COMMENTS

Bentonite Grout
 Bentonite Granules
 Grout
 Portland Cement
 Sand Pack
 Sand Pack

Depth (ft)	PID (ppm)	% Recovery	Blow Count Recovery	Graphic Log	USCS	Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS.
0						Asphalt.
0						Aggregate base.
2		100%			SW	Silty SAND, (10YR 3/2), moist, non-plastic, well graded sand, w/gravel up to 1", subrounded to subangular.
3					SP	SAND w/gravel, (10YR 2/1), moist, non-plastic, poorly graded, medium grained.
4		100%			SW	SAND, (10YR 4/6), well graded, fine grained.
5					SP	SAND, (10YR 3/2), moist, fine to medium grained, well graded, non-plastic, staining.
6		100%			MH	SILT w/very fine sand, wet. Confining layer.
6					GP	Sandy silty GRAVEL, (10YR 3/1), wet, non-plastic, very fine to medium sand, grades into medium to coarse sand. Bottom of layer has wood chips.
8		100%			OH	CLAY w/wood chips. CLAY and SILT, (10YR 3/1), highly plastic.
10		100%			SP	At 10', wood chips. SAND, (10YR 3/2), moist, fine to medium grained, well graded, non-plastic, staining. CLAY and SILT, (10YR 3/1), highly plastic.
12					OH	
16					CL ML	Silty CLAY/ clayey SILT, (10YR 2/1), wet, plastic.
18					SP	SAND, fine to medium grained, subangular, non-plastic.
18					CL ML	Silty CLAY/ clayey SILT, (10YR 2/1), wet, plastic.
18					SP	SAND, fine to medium grained, subangular, non-plastic.
20					CL ML	Silty CLAY/ clayey SILT, (10YR 2/1), wet, plastic. At 19', tree root.
20					SW	SAND, (10YR 3/1), moist, well graded, fine to medium grained, non-plastic.
22					ML	SILT w/clay, (10YR 2/1), moist, medium plasticity.
22						End of boring = 22'.

BL-9112 TULALIP.GPJ MWH IA.GDT 8/11/11



MWH

Drilling Log

Soil Boring **SB-02a**

Page: 1 of 1

Project Tulalip Water Pipeline - Arsenic Management Study Client TWP Joint Board
 Location Everett, WA Project Number 1006292.02140502
 Surface Elev. NA North 48.01 East 122.19
 Top of Casing NA Water Level Initial 6.0 ft 06/22/11 00:00 Static NA
 Hole Depth 10.0 ft Screen: Diameter NA Length NA Type/Size NA
 Hole Diameter 2.0 in Casing: Diameter NA Length NA Type NA
 Drill Co. Cascade Drilling Drilling Method Geoprobe
 Driller Eli Floyd Driller Reg. # _____ Log By C. Nancarrow
 Start Date 6/22/2011 Completion Date 6/22/2011 Checked By N. Day

COMMENTS

Bentonite Grout
 Bentonite Granules
 Grout
 Portland Cement
 Sand Pack
 Sand Pack

Depth (ft)	PID (ppm)	% Recovery	Blow Count Recovery	Graphic Log	USCS	Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS.
0						Road base aggregate w/well graded sand.
0 - 2					SW	Well graded SAND w/gravel, (10YR 3/4), dry, (30%G, 40%Sa, 30%Si), angular to subangular gravel, non-plastic.
2 - 4		100%			SW GW	Well graded SAND and GRAVEL, (10YR 3/3), (20%G, 50%Sa, 25%Si), dry, angular, non-plastic.
4 - 6		100%			SW	Well graded SAND, (10YR 3/3), dry, angular, non-plastic.
6					SP	At 4.6', 2" lense of black silty fine-grained sand, no odor. SAND, w/trace clay, (10YR 2/1), low to medium plasticity.
6		100%			SW	At 6', water table. Well graded SAND w/gravel, (10YR 3/3). At 7', color change to (10YR 3/3).
8 - 10		100%			SP	SAND w/trace gravel, (10YR 2/1), wet, fine to medium grained, non-plastic.
10		100%			CH	CLAY, (10YR 2/1), wet, w/silt, high plasticity.
10						End of boring = 10'.
12						
14						
16						
18						
20						
22						

BL-9112 TULALIP.GPJ MWH-IA.GDT 8/11/11



Project Tulalip Water Pipeline - Arsenic Management Study Client TWP Joint Board
 Location Everett, WA Project Number 1006292.02140502
 Surface Elev. NA North 48.01 East 122.19
 Top of Casing NA Water Level Initial 6.0 ft 06/22/11 00:00 Static NA
 Hole Depth 10.0 ft Screen: Diameter NA Length NA Type/Size NA
 Hole Diameter 2.0 in Casing: Diameter NA Length NA Type NA
 Drill Co. Cascade Drilling Drilling Method Geoprobe
 Driller Eli Floyd Driller Reg. # _____ Log By C. Nancarrow
 Start Date 6/22/2011 Completion Date 6/22/2011 Checked By N. Day

COMMENTS

Bentonite Grout
 Bentonite Granules
 Grout
 Portland Cement
 Sand Pack
 Sand Pack

Depth (ft)	PID (ppm)	% Recovery	Blow Count Recovery	Graphic Log	USCS	Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS.
0						Road aggregate w/well graded sand.
2		100%			SP GP	SAND w/silt and gravel, (10YR 3/4), (30% G, 40%Sa, 30%Si), dry, fine to coarse sand, angular to subangular gravel, non-plastic.
4		100%			SP	At 2.5', color change to Black (10YR 2/1), no odor. SAND, (10YR 2/1), moist, non-plastic.
6		100%			SP	SAND, (10YR 2/1), wet, fine to medium grained sand, trace gravel and wood up to 1". At 6', water table.
8		100%			SP	
10		100%				End of boring = 10'.
12						
14						
16						
18						
20						
22						



ATTACHMENT C:

Analytical Data Reports

(provided on DVD in hard copy)

Table of Contents: ARI Job TB85, TB86

Client: MWH Americas

Project: TWP

	Page From:	Page To:
Inventory Sheet		
Cover Letter	<u>1</u>	<u>1</u>
Chain of Custody Documentation	<u>2</u>	<u>7</u>
Case Narrative, Data Qualifiers, Control Limits	<u>8</u>	<u>18</u>
PCP/Chlorophenols Analysis		
Report and Summary QC Forms	<u>19</u>	<u>94</u>
Total Solids		
Report and Summary QC Forms	<u>95</u>	<u>99</u>
PCP/Chlorophenols Raw Data		
Extractions Bench Sheets and Notes	<u>100</u>	<u>107</u>
Initial Calibration	<u>108</u>	<u>156</u>
Run Logs, Continuing Calibrations, and Raw Data	<u>157</u>	<u>392</u>

Signature

July-01-2011
Date



Analytical Resources, Incorporated
Analytical Chemists and Consultants

5 July 2011

Christine Nancarrow
MWH Americas
2353 130th Ave NE, Suite 200
Bellevue, WA 98005

RE: Client Project: TWP – Waste Management
ARI Job Nos: TB85, TB86

Dear Christine:

Please find enclosed the original Chain-of-Custody records (COC) and the final data package for the samples from the project referenced above. Twenty-two soil samples and five water samples were received on June 23, 2011. The samples were received in good condition. The samples were analyzed for pentachlorophenol as requested.

Problems associated with this analysis are discussed in the case narrative.

A copy of these reports and all associated raw data will be kept on file with ARI. Should you have any questions regarding these results, please feel free to call me at any time.

Sincerely,

ANALYTICAL RESOURCES, INC.


Mark Harris
Project Manager
206/695-6210
<markh@arilabs.com>

Enclosures

files TB85, TB86

MDH/bc

Chain of Custody Documentation

ARI Job ID: TB85, TB86

Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number: **TB85** Turn-around Requested: **Standard TAT** Page: **1** of **3**

ARI Client Company: **MWH-Bellevue** Phone: **480 773.0744** Date: **6/22/11** Ice Present? **Yes**

Client Contact: **Christine Nancarrow** Cooler Temps: **2.3**

No. of Coolers: **1**

Client Project Name: **TNP - Waste Management**

Client Project #: **C Nancarrow**

Samplers: **C Nancarrow**

Sample ID	Date	Time	Matrix	No Containers
SB-01-062211-02	6.22.11	09107	SOIL	1
SB-01-062211-04		0909	SOIL	1
SB-01-062211-04		0958	Water	2
SB-01-062211-06		1051	SOIL	1
SB-01-062211-08		1056	SOIL	1
SB-01-062211-10		1103	SOIL	1
SB-01-062211-12		1107	SOIL	1
SB-01-062211-14		1113	SOIL	1
SB-01-062211-16		1121	SOIL	1
SB-01-062211-18		1132	SOIL	1

Analysis Requested	Notes/Comments
EPA8201 Mod	
PCD	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	

Comments/Special Instructions

Relinquished by (Signature) C Nancarrow	Received by (Signature) Staheli Burtley
Printed Name C Nancarrow	Printed Name Staheli Burtley
Company MWH	Company ARI
Date & Time 6-23-11 @ 1047	Date & Time 6/23/2011 12:47

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: TP886
 Turn-around Requested: Standard/TAT
 ARI Client Company: MWH Bellevue
 Phone: 480-773-0744
 Client Contact: C. Nancarrow
 Client Project Name: TWP
 Client Project #: CNancarrow
 Samplers: CNancarrow

Page: 2 of 3
 Date: 6.22.11
 No. of Coolers: 1
 Ice Present? Yes
 Cooler Temps: 2.3



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	Analysis Requested				Notes/Comments
					✓	✓	✓	✓	
SB-01-062211-20	6.22.11	1143	SOIL	1	✓				
SB-01-062211-22		1151	SOIL	1	✓				
SB-01-062211-22		1218	Water	2	✓				
SB-02B-062211-02		1509 1507	SOIL	1	✓				
SB-02B-062211-04		1542	SOIL	1	✓				
SB-02B-062211-06		1532	SOIL	1	✓				
SB-02B-062211-08		1537	SOIL	1	✓				
SB-02B-062211-10		1550	SOIL	1	✓				
SB-02A-062211-02		1810	SOIL	1	✓				
SB-02A-062211-04		1816	SOIL	1	✓				
Comments/Special Instructions									
Reinquired by (Signature): <u>CNancarrow</u>					Received by (Signature): <u>Mehmet Bayraktar</u>				
Printed Name: <u>CNancarrow</u>					Printed Name: <u>Mehmet Bayraktar</u>				
Company: <u>MWH</u>					Company: <u>ARI</u>				
Date & Time: <u>6.23.11 @ 1247</u>					Date & Time: <u>6/23/11 12.47</u>				

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

1585:00001

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: TB86 Turn-around Requested: Standard TAT Page: 3 of 3

ARI Client Company: MWH Bellevue Phone: 480-773-0744 Date: 6.22.11 Ice Present? Yes

Client Contact: C Nancarrow No. of Coolers: 1 Cooler Temps: 2.3

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)



Client Project Name: <u>TWP</u>		Analysis Requested				Notes/Comments	
Sample ID	Date	Time	Matrix	No. Containers	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
SB-02A-062211-06	6.22.11	1821	SOIL	1	<u>C Nancarrow</u>	<u>C Nancarrow</u>	
SB-02A-062211-08	↓	1826	SOIL	1			
SB-02A-062211-10	↓	1841	SOIL	1			
DUP-01-062211	6.22.11	NA	Water	2			
SB-02A-062211-06	6.22.11	1715	Water	2			
SB-02B-062211-06	6.22.11	1613	Water	2			
TB-01-062211	6.22.11	1500	SOIL	2			
DUP-02-062211	6.22.11	NA	SOIL	1			
			<u>SOIL</u>				
Comments/Special Instructions	Relinquished by (Signature) <u>C Nancarrow</u>	Received by (Signature) <u>MWH Bellevue</u>	Relinquished by (Signature) <u>MWH Bellevue</u>	Received by (Signature) <u>MWH Bellevue</u>	Printed Name: <u>C Nancarrow</u>	Printed Name: <u>MWH Bellevue</u>	Printed Name: <u>MWH Bellevue</u>
	Company: <u>MWH</u>	Company: <u>ARI</u>	Company: <u>ARI</u>	Company: <u>ARI</u>	Company: <u>ARI</u>	Company: <u>ARI</u>	Company: <u>ARI</u>
	Date & Time: <u>6.23.11 @ 1247</u>	Date & Time: <u>6/23/11 1247</u>	Date & Time: <u>6/23/11 1247</u>	Date & Time: <u>6/23/11 1247</u>			

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

TB85:00005



Cooler Receipt Form

ARI Client: MWIT

Project Name TWP

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: TB85

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry). 2.3

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941619

Cooler Accepted by: Michelle Beckley Date: 6/23/11 Time: 1247

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

Were all bottles sealed in individual plastic bags? YES NO

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI..... NA

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JIN Date: 6/23/11 Time: 1455

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



Cooler Receipt Form

ARI Client: MWIT
COC No(s): _____ NA
Assigned ARI Job No: TB86

Project Name: TWP
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO
Were custody papers included with the cooler? YES NO
Were custody papers properly filled out (ink, signed, etc.) YES NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 2.3
If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941619
Cooler Accepted by: Michael Bradley Date 6/23/11 Time: 1247

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
Was sufficient ice used (if appropriate)? NA YES NO
Were all bottles sealed in individual plastic bags? YES NO
Did all bottles arrive in good condition (unbroken)? YES NO
Were all bottle labels complete and legible? YES NO
Did the number of containers listed on COC match with the number of containers received? YES NO
Did all bottle labels and tags agree with custody papers? YES NO
Were all bottles used correct for the requested analyses? YES NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO
Were all VOC vials free of air bubbles? NA YES NO
Was sufficient amount of sample sent in each bottle? YES NO
Date VOC Trip Blank was made at ARI... NA
Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 6/23/11 Time: 1539

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
<u>SP-02b-062011-02</u>	<u>SB-02B-062011-02</u>		
<u>J J J -04</u>	<u>J -04</u>		
<u>J J J -06</u>	<u>J -06</u>		
<u>J J J -08</u>	<u>J -08</u>		

Additional Notes, Discrepancies, & Resolutions:

By: JM Date: 6/23/11

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: TB85, TB86

Sample ID Cross Reference Report



ARI Job No: TB85
Client: MWH Americas
Project Event: N/A
Project Name: TWP - Waste Management

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SB-01-062211-02	TB85A	11-13784	Soil	06/22/11 09:07	06/23/11 12:47
2. SB-01-062211-04	TB85B	11-13785	Soil	06/22/11 09:09	06/23/11 12:47
3. SB-01-062211-04	TB85C	11-13786	Water	06/22/11 09:58	06/23/11 12:47
4. SB-01-062211-06	TB85D	11-13787	Soil	06/22/11 10:51	06/23/11 12:47
5. SB-01-062211-08	TB85E	11-13788	Soil	06/22/11 10:56	06/23/11 12:47
6. SB-01-062211-10	TB85F	11-13789	Soil	06/22/11 11:03	06/23/11 12:47
7. SB-01-062211-12	TB85G	11-13790	Soil	06/22/11 11:07	06/23/11 12:47
8. SB-01-062211-14	TB85H	11-13791	Soil	06/22/11 11:13	06/23/11 12:47
9. SB-01-062211-16	TB85I	11-13792	Soil	06/22/11 11:21	06/23/11 12:47
10. SB-01-062211-18	TB85J	11-13793	Soil	06/22/11 11:32	06/23/11 12:47

Printed 06/23/11

Sample ID Cross Reference Report



ARI Job No: TB86
Client: MWH Americas
Project Event: N/A
Project Name: TWP

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SB-01-062211-20	TB86A	11-13800	Soil	06/22/11 11:43	06/23/11 12:47
2. SB-01-062211-22	TB86B	11-13801	Soil	06/22/11 11:51	06/23/11 12:47
3. SB-01-062211-22	TB86C	11-13802	Water	06/22/11 12:18	06/23/11 12:47
4. SB-02B-062211-02	TB86D	11-13803	Soil	06/22/11 15:09	06/23/11 12:47
5. SB-02B-062211-04	TB86E	11-13804	Soil	06/22/11 15:42	06/23/11 12:47
6. SB-02B-062211-06	TB86F	11-13805	Soil	06/22/11 15:32	06/23/11 12:47
7. SB-02B-062211-08	TB86G	11-13806	Soil	06/22/11 15:37	06/23/11 12:47
8. SB-02B-062211-10	TB86H	11-13807	Soil	06/22/11 15:50	06/23/11 12:47
9. SB-02A-062211-02	TB86I	11-13808	Soil	06/22/11 18:10	06/23/11 12:47
10. SB-02A-062211-04	TB86J	11-13809	Soil	06/22/11 18:16	06/23/11 12:47
11. SB-02A-062211-06	TB86K	11-13810	Soil	06/22/11 18:21	06/23/11 12:47
12. SB-02A-062211-08	TB86L	11-13811	Soil	06/22/11 18:26	06/23/11 12:47
13. SB-02A-062211-10	TB86M	11-13812	Soil	06/22/11 18:41	06/23/11 12:47
14. DUP-01-062211	TB86N	11-13813	Water	06/22/11	06/23/11 12:47
15. SB-02A-062211-06	TB86O	11-13814	Water	06/22/11 17:15	06/23/11 12:47
16. SB-02B-062211-06	TB86P	11-13815	Water	06/22/11 16:13	06/23/11 12:47
17. DUP-02-062211	TB86Q	11-13816	Soil	06/22/11	06/23/11 12:47

Printed 06/23/11



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Case Narrative

Client: MWH Americas

Project: TWP – Waste Management

ARI Job Numbers: TB85, TB86

Matrix: Soil (22 Samples), Water (5 Samples)

Date: 5 July 2011

Pentachlorophenol Analysis

This analysis proceeded without incident of note.



Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but \geq the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ($< 20\%$ RSD, $< 20\%$ Drift or minimum RRF).



- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria"
(Dioxin/Furan analysis only)
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference
- X Analyte signal includes interference from polychlorinated diphenyl ethers.
(Dioxin/Furan analysis only)
- Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**



Geotechnical Data

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting

SURRE SOLUTIONS

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1851-4	ABN	100/150	MEOH	07/22/11
B	1834-6	SIM PNA	15/75	ACETONE	10/05/11
C	1848-4	SIM ABN	25/37.5	MEOH	07/22/11
D	1795-4	LOW PCB	0.2	ACETONE	12/16/11
E	1771-3	HERB	62.5	MEOH	10/06/11
F	1791-3	PCP	12.5	ACETONE	12/09/11
G	1863-2	d8-DIOXANE	100	MEOH	11/19/11
H	1847-2	OP-PEST	25	ACETONE	03/23/12
I	1868-3	LOW S. PNA	1.5	ACETONE	10/05/11
J	1787-2	TBT-PORE	0.125	MECL2	11/27/11
K	1795-2	MED PCB	20	ACETONE	12/16/11
L	1862-3	TBT	2.5	MECL2	11/27/11
M	1868-2	EPH	1500	MECL2	09/02/11
N	1795-3	PCB	2	ACETONE	12/16/11
O	1864-2	TPH	450	MECL2	02/04/12
P	1868-1	HCID	2250	MECL2	02/04/12
Q	NA	EDB	1	MEOH	NA
R	1757-3	RESIN ACID	250	ACETONE	08/14/11
S	1864-1	PBDE	.5	MEOH	05/21/12
T	1768-2	ALKYL PNA	10	MEOH	07/22/11
U	NA	CONGENER	2.5	ACETONE	NA
V	1791-4	LOW PCP	1.25	ACETONE	12/09/11

LCS SOLUTIONS

30	NA	EDB/DBCP	0.2	MEOH	NA
31	1835-2	TERPINEOL	100	MEOH	09/02/11
32	NA	GUAIACOL	50-200	ACETONE	NA
33	NA	RETENE	100	MEOH	NA
34	1867-3	CONGENERS	0.5	ACETONE	03/14/12
35	NA	ALKYL PNA A	10	MEOH	NA
36	NA	ALKYL PNA B	10	MEOH	NA
37	1773-1	CAR/PERY	100	ACETONE	10/14/11
38	1861-2	ABN ACID	200-450	MEOH	11/13/11
39	1853-4	BENZIDINE	500	MEOH	04/30/12
40	1851-3	PBDE	0.5	MEOH	04/22/12
50	1757-4	FULL RESIN	250	ACETONE	08/14/11
51	1772-1	DDTS	0.01	ACETONE	04/24/11
52	NA	1232 PCB	20	ACETONE	NA
53	1852-2	DALAPON	50	MEOH	12/03/11
54	1753-1	T-CHLORDANE	10	ACETONE	07/21/11
55	1753-2	TOXAPHENE	50	ACETONE	07/21/11
56	1863-3	ABN BASE	50-200	MEOH	11/19/11
		#=PROJECT SPECIFIC SOLUTION			
		*=REVERIFIED SOLUTION			

LCS SOLUTIONS

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1849-2	PCB 1660	20	ACETONE	04/14/12
2#	NA	BCOC PEST	10	ACETONE	NA
3	1793-3	PEST	01/02/10	ACETONE	12/15/11
4	1806-2	LOW PEST	.1/2/1	ACETONE	12/15/11
5	1779-1	EPH	1500	MECL2	11/11/11
6	1791-5	PCP	12.5/125	ACETONE	12/10/11
7	1853-5	ABN	100	MEOH	11/01/11
8	1785-3	TBT	2.5	MECL2	11/27/11
9	1786-3	PORE TBT	.125/.25	MECL2	11/27/11
10					
11	1860-4	TPHD	15000	ACETONE	05/12/12
12					
13	1838-4	LOW PCB	2	ACETONE	01/31/12
14					
15	1814-2	SIM PNA	15/75	MEOH	01/04/12
16	1834-5	1,4-DIOXANE	100	MEOH	08/25/11
17	1772-3	1248 PCB	20	ACETONE	05/01/11
18	1814-3	LOW SIM PNA	1.5	ACETONE	01/04/12
19	1815-2	AK103	7500	ACETONE	06/02/11
20	1843-3	PNA	100	ACETONE	08/14/11
21	1844-3	SKY/BHT	100	MEOH	09/24/11
22	1864-3	HERB	02 to 2500	MEOH	12/03/11
23					
24					
25#	NA	DIPHENYL	100	MEOH	NA
26	1823-1	OP-PEST	25	MEOH	07/01/11
27	NA	STEROLS	200	MEOH	NA
28#	1807-1	ADD. PEST	2	ACETONE	08/31/11
29#	NA	DECANES	100	MEOH	NA



Spike Recovery Control Limits for Chlorinated Phenols
EPA Method SW-846-8041^(1,2)
Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

	ARI's Calculated Control Limits	
Sample Matrix:	Water	Soil / Sediment
Sample Amount / Final Volume:	500 / 50 mL	10 g / 25 mL
LCS Spike Recovery⁽³⁾		
Pentachlorophenol	27 - 115	10 - 162
Method Blank/LCS Surrogate Recovery		
2,4,6-Tribromophenol	40 - 130	50 - 115
Sample Surrogate Recovery		
2,4,6-Tribromophenol	11 - 156	10 - 146

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 through 12/1/08.

(2) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10.

(3) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.

PCP/Chlorophenols Analysis
Report and Summary QC Forms

ARI Job ID: TB85, TB86

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: SB-01-062211-04

SAMPLE

Lab Sample ID: TB85C

LIMS ID: 11-13786

Matrix: Water

Data Release Authorized: *MW*

Reported: 06/30/11

QC Report No: TB85-MWH Americas

Project: TWP - Waste Management

Date Sampled: 06/22/11

Date Received: 06/23/11

Date Extracted: 06/24/11

Date Analyzed: 06/29/11 16:06

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	81.2%
----------------------	-------

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: TB85-MWH Americas
Project: TWP - Waste Management

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
MB-062411	78.0%	0
LCS-062411	78.4%	0
LCSD-062411	79.0%	0
SB-01-062211-04	81.2%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol (40-130) (11-156)

Prep Method: SW3510C
Log Number Range: 11-13786 to 11-13786

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: SB-01-062211-22

SAMPLE

Lab Sample ID: TB86C

LIMS ID: 11-13802

Matrix: Water

Data Release Authorized: *TW*

Reported: 06/30/11

QC Report No: TB86-MWH Americas

Project: TWP

Date Sampled: 06/22/11

Date Received: 06/23/11

Date Extracted: 06/24/11

Date Analyzed: 06/29/11 16:42

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	76.8%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: DUP-01-062211
SAMPLE

Lab Sample ID: TB86N
 LIMS ID: 11-13813
 Matrix: Water
 Data Release Authorized: *YWW*
 Reported: 06/30/11

QC Report No: TB86-MWH Americas
 Project: TWP
 Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/24/11
 Date Analyzed: 06/29/11 17:19
 Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
 Final Extract Volume: 50 mL
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U
Reported in µg/L (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	81.6%	

Sample ID: SB-02A-062211-06
SAMPLE

Lab Sample ID: TB860
LIMS ID: 11-13814
Matrix: Water
Data Release Authorized: *MM*
Reported: 06/30/11

QC Report No: TB86-MWH Americas
Project: TWP

Date Sampled: 06/22/11
Date Received: 06/23/11

Date Extracted: 06/24/11
Date Analyzed: 06/29/11 17:55
Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL
Final Extract Volume: 50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	84.8%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: SB-02B-062211-06

SAMPLE

Lab Sample ID: TB86P

QC Report No: TB86-MWH Americas

LIMS ID: 11-13815

Project: TWP

Matrix: Water

Data Release Authorized: *YMW*

Date Sampled: 06/22/11

Reported: 06/30/11

Date Received: 06/23/11

Date Extracted: 06/24/11

Sample Amount: 500 mL

Date Analyzed: 06/29/11 18:32

Final Extract Volume: 50 mL

Instrument/Analyst: ECD1/AAR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	83.6%
----------------------	-------

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: TB86-MWH Americas
Project: TWP

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
MB-062411	78.0%	0
LCS-062411	78.4%	0
LCSD-062411	79.0%	0
SB-01-062211-22	76.8%	0
DUP-01-062211	81.6%	0
SB-02A-062211-06	84.8%	0
SB-02B-062211-06	83.6%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol

(40-130)

(11-156)

Prep Method: SW3510C
Log Number Range: 11-13802 to 11-13815

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: LCS-062411

LCS/LCSD

Lab Sample ID: LCS-062411

LIMS ID: 11-13786

Matrix: Water

Data Release Authorized: *MM*

Reported: 06/30/11

QC Report No: TB85-MWH Americas

Project: TWP - Waste Management

Date Sampled: 06/22/11

Date Received: 06/23/11

Date Extracted LCS/LCSD: 06/24/11

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 06/29/11 14:17

Final Extract Volume LCS: 50 mL

LCSD: 06/29/11 14:53

LCSD: 50 mL

Instrument/Analyst LCS: ECD1/AAR

Dilution Factor LCS: 1.00

LCSD: ECD1/AAR

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Pentachlorophenol	2.02	2.50	80.8%	2.05	2.50	82.0%	1.5%

Chlorophenols Surrogate Recovery

	LCS	LCSD
2,4,6-Tribromophenol	78.4%	79.0%

Results reported in µg/L

RPD calculated using sample concentrations per SW846.

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

TB85MBW1

Lab Name: ANALYTICAL RESOURCES INC	Client: MWH AMERICAS
ARI Job No.: TB86	Project: TWP
Lab Sample ID: TB85MBW1	Lab File ID: 0629A006
Matrix (soil/water) LIQUID	Extraction: (SepF/Cont/Sonc) SW3510C
Sulfur Cleanup (Y/N) Y	Date Extracted: 06/24/11
Date Analyzed (1): 06/29/11	Date Analyzed (2): 06/29/11
Time Analyzed (1): 1341	Time Analyzed (2): 1341
Instrument ID (1): ECD1	Instrument ID (2): ECD1
GC Column (1): STX CLP1 ID: 0.53 (mm)	GC Column (2): STX CLP2 ID: 0.53 (mm)

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
=====				
01	TB85LCSW1	TB85LCSW1	06/29/11	06/29/11
02	TB85LCSDW1	TB85LCSDW1	06/29/11	06/29/11
03	SB-01-062211	TB86C	06/29/11	06/29/11
04	DUP-01-06221	TB86N	06/29/11	06/29/11
05	SB-02A-06221	TB86O	06/29/11	06/29/11
06	SB-02B-06221	TB86P	06/29/11	06/29/11

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: MB-062411

METHOD BLANK

Lab Sample ID: MB-062411

LIMS ID: 11-13786

Matrix: Water

Data Release Authorized: *MMW*

Reported: 06/30/11

QC Report No: TB85-MWH Americas

Project: TWP - Waste Management

Date Sampled: NA

Date Received: NA

Date Extracted: 06/24/11

Date Analyzed: 06/29/11 13:41

Instrument/Analyst: ECD1/AAR

Sample Amount: 500 mL

Final Extract Volume: 50 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	0.25	< 0.25 U

Reported in µg/L (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	78.0%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: SB-01-062211-02
SAMPLE

Lab Sample ID: TB85A
LIMS ID: 11-13784
Matrix: Soil
Data Release Authorized: *MW*
Reported: 07/01/11

QC Report No: TB85-MWH Americas
Project: TWP - Waste Management

Date Sampled: 06/22/11
Date Received: 06/23/11

Date Extracted: 06/27/11
Date Analyzed: 06/30/11 03:00
Instrument/Analyst: ECD1/AAR

Sample Amount: 9.36 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 10.0
Percent Moisture: 7.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	67	190
Reported in µg/kg (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	67.6%	

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-04
SAMPLE

Lab Sample ID: TB85B
 LIMS ID: 11-13785
 Matrix: Soil
 Data Release Authorized: *MW*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management
 Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 03:37
 Instrument/Analyst: ECD1/AAR

Sample Amount: 9.13 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 10.0%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.8	< 6.8 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	83.6%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-06
SAMPLE

Lab Sample ID: TB85D
 LIMS ID: 11-13787
 Matrix: Soil
 Data Release Authorized: *MW*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management
 Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 15:43
 Instrument/Analyst: ECD1/AAR

Sample Amount: 9.32 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 14.6%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.7	< 6.7 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	70.0%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-06
DILUTION

Lab Sample ID: TB85D
 LIMS ID: 11-13787
 Matrix: Soil
 Data Release Authorized: *MW*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 04:13
 Instrument/Analyst: ECD1/AAR

Sample Amount: 9.32 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 10.0
 Percent Moisture: 14.6%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	67	< 67 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	110%
----------------------	------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-08
SAMPLE

Lab Sample ID: TB85E

QC Report No: TB85-MWH Americas

LIMS ID: 11-13788

Project: TWP - Waste Management

Matrix: Soil

Data Release Authorized: *YWW*

Date Sampled: 06/22/11

Reported: 07/01/11

Date Received: 06/23/11

Date Extracted: 06/27/11

Sample Amount: 6.32 g-dry-wt

Date Analyzed: 06/30/11 06:02

Final Extract Volume: 25 mL

Instrument/Analyst: ECD1/AAR

Dilution Factor: 1.00

Percent Moisture: 36.9%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	9.9	< 9.9 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	82.4%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-10
SAMPLE

Lab Sample ID: TB85F
 LIMS ID: 11-13789
 Matrix: Soil
 Data Release Authorized: *MM*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 06:38
 Instrument/Analyst: ECD1/AAR

Sample Amount: 5.47 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 45.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	11	< 11 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	82.8%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-12
SAMPLE

Lab Sample ID: TB85G
 LIMS ID: 11-13790
 Matrix: Soil
 Data Release Authorized: *mmw*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management
 Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 08:27
 Instrument/Analyst: ECD1/AAR

Sample Amount: 6.97 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 30.3%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	9.0	< 9.0 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	79.2%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-14
SAMPLE

Lab Sample ID: TB85H
 LIMS ID: 11-13791
 Matrix: Soil
 Data Release Authorized: *mw*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management
 Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 09:04
 Instrument/Analyst: ECD1/AAR

Sample Amount: 6.91 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 30.9%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	9.0	< 9.0 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	79.2%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-16
SAMPLE

Lab Sample ID: TB85I
 LIMS ID: 11-13792
 Matrix: Soil
 Data Release Authorized: *MW*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 09:40
 Instrument/Analyst: ECD1/AAR

Sample Amount: 7.63 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 25.5%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	8.2	< 8.2 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	82.8%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-18
SAMPLE

Lab Sample ID: TB85J

QC Report No: TB85-MWH Americas

LIMS ID: 11-13793

Project: TWP - Waste Management

Matrix: Soil

Data Release Authorized: *MW*

Date Sampled: 06/22/11

Reported: 07/01/11

Date Received: 06/23/11

Date Extracted: 06/27/11

Sample Amount: 8.94 g-dry-wt

Date Analyzed: 06/30/11 10:16

Final Extract Volume: 25 mL

Instrument/Analyst: ECD1/AAR

Dilution Factor: 1.00

Percent Moisture: 15.8%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.0	< 7.0 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	84.8%
----------------------	-------

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: TB85-MWH Americas
Project: TWP - Waste Management

<u>Client ID</u>	<u>TBP</u>	<u>TOT OUT</u>
SB-01-062211-02	67.6%	0
SB-01-062211-04	83.6%	0
MB-062711	64.4%	0
LCS-062711	70.6%	0
SB-01-062211-06	70.0%	0
SB-01-062211-06 DL	110%	0
SB-01-062211-06 MS	107%	0
SB-01-062211-06 MSD	100%	0
SB-01-062211-08	82.4%	0
SB-01-062211-10	82.8%	0
SB-01-062211-12	79.2%	0
SB-01-062211-14	79.2%	0
SB-01-062211-16	82.8%	0
SB-01-062211-18	84.8%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol

(50-115)

(10-146)

Prep Method: SW3550B
Log Number Range: 11-13784 to 11-13793

Sample ID: SB-01-062211-20
SAMPLE

Lab Sample ID: TB86A
LIMS ID: 11-13800
Matrix: Soil
Data Release Authorized: *AS*
Reported: 07/01/11

QC Report No: TB86-MWH Americas
Project: TWP
Date Sampled: 06/22/11
Date Received: 06/23/11

Date Extracted: 06/27/11
Date Analyzed: 06/30/11 12:42
Instrument/Analyst: ECD1/AAR

Sample Amount: 8.52 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 15.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.3	< 7.3 U


Reported in $\mu\text{g}/\text{kg}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	86.0%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-22
SAMPLE

Lab Sample ID: TB86B
 LIMS ID: 11-13801
 Matrix: Soil
 Data Release Authorized: 
 Reported: 07/01/11

QC Report No: TB86-MWH Americas
 Project: TWP
 Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 13:18
 Instrument/Analyst: ECD1/AAR

Sample Amount: 7.70 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 25.2%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	8.1	< 8.1 U


Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	83.6%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-02B-062211-02
SAMPLE

Lab Sample ID: TB86D
 LIMS ID: 11-13803
 Matrix: Soil
 Data Release Authorized: 
 Reported: 07/01/11

QC Report No: TB86-MWH Americas
 Project: TWP

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 13:54
 Instrument/Analyst: ECD1/AAR

Sample Amount: 8.65 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 13.5%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.2	< 7.2 U

Reported in $\mu\text{g}/\text{kg}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	63.2%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: SB-02B-062211-04

SAMPLE

Lab Sample ID: TB86E

LIMS ID: 11-13804

Matrix: Soil

Data Release Authorized: 

Reported: 07/01/11

QC Report No: TB86-MWH Americas

Project: TWP

Date Sampled: 06/22/11

Date Received: 06/23/11

Date Extracted: 06/27/11

Date Analyzed: 06/30/11 17:32

Instrument/Analyst: ECD1/MS

Sample Amount: 9.42 g-dry-wt

Final Extract Volume: 25 mL

Dilution Factor: 1.00

Percent Moisture: 7.4%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.6	< 6.6 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	73.6%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: SB-02B-062211-06
SAMPLE

Lab Sample ID: TB86F
LIMS ID: 11-13805
Matrix: Soil
Data Release Authorized: *B*
Reported: 07/01/11

QC Report No: TB86-MWH Americas
Project: TWP
Date Sampled: 06/22/11
Date Received: 06/23/11

Date Extracted: 06/27/11
Date Analyzed: 06/30/11 18:08
Instrument/Analyst: ECD1/MS

Sample Amount: 8.54 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 16.8%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.3	12

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	78.8%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1


Sample ID: SB-02B-062211-08

SAMPLE

Lab Sample ID: TB86G

LIMS ID: 11-13806

Matrix: Soil

Data Release Authorized: 

Reported: 07/01/11

QC Report No: TB86-MWH Americas

Project: TWP

Date Sampled: 06/22/11

Date Received: 06/23/11

Date Extracted: 06/27/11

Date Analyzed: 06/30/11 18:45

Instrument/Analyst: ECD1/MS

Sample Amount: 8.36 g-dry-wt

Final Extract Volume: 25 mL

Dilution Factor: 1.00

Percent Moisture: 18.0%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.5	< 7.5 U


Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	78.0%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-02B-062211-10
SAMPLE

Lab Sample ID: TB86H
 LIMS ID: 11-13807
 Matrix: Soil
 Data Release Authorized: 
 Reported: 07/01/11

QC Report No: TB86-MWH Americas
 Project: TWP

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 19:21
 Instrument/Analyst: ECD1/MS

Sample Amount: 8.26 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 18.1%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.6	< 7.6 U

Reported in $\mu\text{g}/\text{kg}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	84.8%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: SB-02A-062211-02

SAMPLE

Lab Sample ID: TB86I

LIMS ID: 11-13808

Matrix: Soil

Data Release Authorized: *AS*

Reported: 07/01/11

QC Report No: TB86-MWH Americas

Project: TWP

Date Sampled: 06/22/11

Date Received: 06/23/11

Date Extracted: 06/27/11

Date Analyzed: 06/30/11 19:57

Instrument/Analyst: ECD1/MS

Sample Amount: 9.68 g-dry-wt

Final Extract Volume: 25 mL

Dilution Factor: 1.00

Percent Moisture: 6.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.5	10

Reported in $\mu\text{g}/\text{kg}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	51.6%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-02A-062211-04
SAMPLE

Lab Sample ID: TB86J
 LIMS ID: 11-13809
 Matrix: Soil
 Data Release Authorized: *[Signature]*
 Reported: 07/01/11

QC Report No: TB86-MWH Americas
 Project: TWP
 Date Sampled: 06/22/11
 Date Received: 06/23/11


Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 20:34
 Instrument/Analyst: ECD1/MS

Sample Amount: 9.37 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 6.8%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.7	< 6.7 U
Reported in µg/kg (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	64.8%	

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: SB-02A-062211-06
SAMPLE

Lab Sample ID: TB86K
LIMS ID: 11-13810
Matrix: Soil
Data Release Authorized: 
Reported: 07/01/11

QC Report No: TB86-MWH Americas
Project: TWP
Date Sampled: 06/22/11
Date Received: 06/23/11

Date Extracted: 06/27/11
Date Analyzed: 06/30/11 21:10
Instrument/Analyst: ECD1/MS

Sample Amount: 9.66 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 5.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.5	14

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	70.4%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1



Sample ID: SB-02A-062211-08
SAMPLE

Lab Sample ID: TB86L
LIMS ID: 11-13811
Matrix: Soil
Data Release Authorized: *AB*
Reported: 07/01/11

QC Report No: TB86-MWH Americas
Project: TWP

Date Sampled: 06/22/11
Date Received: 06/23/11

Date Extracted: 06/27/11
Date Analyzed: 06/30/11 21:46
Instrument/Analyst: ECD1/MS

Sample Amount: 8.92 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 11.9%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.0	13


Reported in $\mu\text{g}/\text{kg}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol 80.4%

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-02A-062211-10
SAMPLE

Lab Sample ID: TB86M
 LIMS ID: 11-13812
 Matrix: Soil
 Data Release Authorized: 
 Reported: 07/01/11

QC Report No: TB86-MWH Americas
 Project: TWP

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 07/01/11 00:48
 Instrument/Analyst: ECD1/MS

Sample Amount: 6.82 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00
 Percent Moisture: 33.2%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	9.2	< 9.2 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	75.2%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: DUP-02-062211

SAMPLE

Lab Sample ID: TB86Q

QC Report No: TB86-MWH Americas

LIMS ID: 11-13816

Project: TWP

Matrix: Soil

Data Release Authorized: *[Signature]*

Date Sampled: 06/22/11

Reported: 07/01/11

Date Received: 06/23/11

Date Extracted: 06/27/11

Sample Amount: 8.32 g-dry-wt

Date Analyzed: 07/01/11 01:24

Final Extract Volume: 25 mL

Instrument/Analyst: ECD1/MS

Dilution Factor: 1.00

Percent Moisture: 17.5%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.5	< 7.5 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	82.4%
----------------------	-------

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: TB86-MWH Americas
Project: TWP

Client ID	TBP	TOT OUT
SB-01-062211-20	86.0%	0
SB-01-062211-22	83.6%	0
SB-02B-062211-02	63.2%	0
SB-02B-062211-04	73.6%	0
SB-02B-062211-06	78.8%	0
SB-02B-062211-08	78.0%	0
SB-02B-062211-10	84.8%	0
SB-02A-062211-02	51.6%	0
SB-02A-062211-04	64.8%	0
SB-02A-062211-06	70.4%	0
MB-062711	76.4%	0
LCS-062711	77.6%	0
SB-02A-062211-08	80.4%	0
SB-02A-062211-08 MS	77.2%	0
SB-02A-062211-08 MSD	74.6%	0
SB-02A-062211-10	75.2%	0
DUP-02-062211	82.4%	0

LCS/MB LIMITS QC LIMITS

(TBP) = 2,4,6-Tribromophenol

(50-115)

(10-146)

Prep Method: SW3550B

Log Number Range: 11-13800 to 11-13816

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-06
MS/MSD

Lab Sample ID: TB85D
 LIMS ID: 11-13787
 Matrix: Soil
 Data Release Authorized: *MW*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted MS/MSD: 06/27/11

Sample Amount MS: 8.74 g-dry-wt
 MSD: 8.60 g-dry-wt

Date Analyzed MS: 06/30/11 04:49
 MSD: 06/30/11 05:26

Final Extract Volume MS: 25 mL
 MSD: 25 mL

Instrument/Analyst MS: ECD1/AAR
 MSD: ECD1/AAR

Dilution Factor MS: 10.0
 MSD: 10.0

Percent Moisture: 14.6%

Analyte	Sample	MS	Spike		MSD	Spike		RPD
			Added-MS	MS Recovery		Added-MSD	MSD Recovery	
Pentachlorophenol	< 6.71	83.6	71.5	117%	76.9	72.7	106%	8.3%

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

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-06
MATRIX SPIKE

Lab Sample ID: TB85D
 LIMS ID: 11-13787
 Matrix: Soil
 Data Release Authorized: *MW*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management
 Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 04:49
 Instrument/Analyst: ECD1/AAR

Sample Amount: 8.74 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 10.0
 Percent Moisture: 14.6%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	72	---
Reported in µg/kg (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	107%	

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-01-062211-06
MATRIX SPIKE DUP

Lab Sample ID: TB85D
 LIMS ID: 11-13787
 Matrix: Soil
 Data Release Authorized: *MW*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 05:26
 Instrument/Analyst: ECD1/AAR

Sample Amount: 8.60 g-dry-wt
 Final Extract Volume: 25 mL
 Dilution Factor: 10.0
 Percent Moisture: 14.6%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	73	---
Reported in µg/kg (ppb)			
Chlorophenol Surrogate Recovery			
	2,4,6-Tribromophenol	100%	

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: SB-02A-062211-08
MS/MSD

Lab Sample ID: TB86L
 LIMS ID: 11-13811
 Matrix: Soil
 Data Release Authorized: *JB*
 Reported: 07/01/11

QC Report No: TB86-MWH Americas
 Project: TWP
 Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted MS/MSD: 06/27/11

Sample Amount MS: 8.95 g-dry-wt
 MSD: 8.96 g-dry-wt

Date Analyzed MS: 06/30/11 22:23
 MSD: 06/30/11 22:59

Final Extract Volume MS: 25 mL
 MSD: 25 mL

Instrument/Analyst MS: ECD1/MS
 MSD: ECD1/MS

Dilution Factor MS: 1.00
 MSD: 1.00

Percent Moisture: 11.9%


Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Pentachlorophenol	12.9	66.9	69.8	77.4%	66.7	69.8	77.1%	0.3%

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

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1



Sample ID: SB-02A-062211-08
MATRIX SPIKE

Lab Sample ID: TB86L
LIMS ID: 11-13811
Matrix: Soil
Data Release Authorized: 
Reported: 07/01/11

QC Report No: TB86-MWH Americas
Project: TWP

Date Sampled: 06/22/11
Date Received: 06/23/11

Date Extracted: 06/27/11
Date Analyzed: 06/30/11 22:23
Instrument/Analyst: ECD1/MS

Sample Amount: 8.95 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 11.9%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.0	---

Reported in $\mu\text{g}/\text{kg}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	77.2%
----------------------	-------

Sample ID: SB-02A-062211-08
MATRIX SPIKE DUP

Lab Sample ID: TB86L
LIMS ID: 11-13811
Matrix: Soil
Data Release Authorized: *[Signature]*
Reported: 07/01/11

QC Report No: TB86-MWH Americas
Project: TWP

Date Sampled: 06/22/11
Date Received: 06/23/11

Date Extracted: 06/27/11
Date Analyzed: 06/30/11 22:59
Instrument/Analyst: ECD1/MS

Sample Amount: 8.96 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 11.9%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	7.0	---

Reported in $\mu\text{g}/\text{kg}$ (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	74.6%
----------------------	-------

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
 Page 1 of 1

Sample ID: LCS-062711
LAB CONTROL

Lab Sample ID: LCS-062711
 LIMS ID: 11-13787
 Matrix: Soil
 Data Release Authorized: *mm*
 Reported: 07/01/11

QC Report No: TB85-MWH Americas
 Project: TWP - Waste Management

Date Sampled: 06/22/11
 Date Received: 06/23/11

Date Extracted: 06/27/11
 Date Analyzed: 06/30/11 01:48
 Instrument/Analyst: ECD1/AAR

Sample Amount: 10.0 g
 Final Extract Volume: 25 mL
 Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	55.4	62.5	88.6%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol 70.6%

Results reported in µg/kg

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: LCS-062711

LAB CONTROL

Lab Sample ID: LCS-062711

LIMS ID: 11-13811

Matrix: Soil

Data Release Authorized: *AS*

Reported: 07/01/11

QC Report No: TB86-MWH Americas

Project: TWP

Date Sampled: 06/22/11

Date Received: 06/23/11

Date Extracted: 06/27/11

Date Analyzed: 06/30/11 11:29

Instrument/Analyst: ECD1/AAR

Sample Amount: 10.0 g

Final Extract Volume: 25 mL

Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	50.4	62.5	80.6%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol 77.6%

Results reported in µg/kg

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

TB85MBS1

Lab Name: ANALYTICAL RESOURCES INC	Client: MWH AMERICAS
ARI Job No.: TB85	Project: TWP - WASTE MANAGEMENT
Lab Sample ID: TB85MBS1	Lab File ID: 0629A025
Matrix (soil/water) SOLID	Extraction: (SepF/Cont/Sonc) SW3550C
Sulfur Cleanup (Y/N) Y	Date Extracted: 06/27/11
Date Analyzed (1): 06/30/11	Date Analyzed (2): 06/30/11
Time Analyzed (1): 0111	Time Analyzed (2): 0111
Instrument ID (1): ECD1	Instrument ID (2): ECD1
GC Column (1): STX CLP1 ID: 0.53 (mm)	GC Column (2): STX CLP2 ID: 0.53 (mm)

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
=====				
01	TB85LCSS1	TB85LCSS1	06/30/11	06/30/11
02	SB-01-062211	TB85A	06/30/11	06/30/11
03	SB-01-062211	TB85B	06/30/11	06/30/11
04	SB-01-062211	TB85D	06/30/11	06/30/11
05	SB-01-062211	TB85DMS	06/30/11	06/30/11
06	SB-01-062211	TB85DMSD	06/30/11	06/30/11
07	SB-01-062211	TB85E	06/30/11	06/30/11
08	SB-01-062211	TB85F	06/30/11	06/30/11
09	SB-01-062211	TB85G	06/30/11	06/30/11
10	SB-01-062211	TB85H	06/30/11	06/30/11
11	SB-01-062211	TB85I	06/30/11	06/30/11
12	SB-01-062211	TB85J	06/30/11	06/30/11
13	SB-01-062211	TB85D	06/30/11	06/30/11

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: MB-062711

METHOD BLANK

Lab Sample ID: MB-062711

LIMS ID: 11-13787

Matrix: Soil

Data Release Authorized: *MW*

Reported: 07/01/11

QC Report No: TB85-MWH Americas

Project: TWP - Waste Management

Date Sampled: NA

Date Received: NA

Date Extracted: 06/27/11

Date Analyzed: 06/30/11 01:11

Instrument/Analyst: ECD1/AAR

Sample Amount: 10.0 g

Final Extract Volume: 25 mL

Dilution Factor: 1.00

Percent Moisture: NA

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.2	< 6.2 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	64.4%
----------------------	-------

4
CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

TB86MBS1

Lab Name: ANALYTICAL RESOURCES INC	Client: MWH AMERICAS
ARI Job No.: TB86	Project: TWP
Lab Sample ID: TB86MBS1	Lab File ID: 0629A041
Matrix (soil/water) SOLID	Extraction: (SepF/Cont/Sonc) SW3550C
Sulfur Cleanup (Y/N) Y	Date Extracted: 06/27/11
Date Analyzed (1): 06/30/11	Date Analyzed (2): 06/30/11
Time Analyzed (1): 1053	Time Analyzed (2): 1053
Instrument ID (1): ECD1	Instrument ID (2): ECD1
GC Column (1): STX CLP1 ID: 0.53 (mm)	GC Column (2): STX CLP2 ID: 0.53 (mm)

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	TB86LCSS1	TB86LCSS1	06/30/11	06/30/11
02	SB-01-062211	TB86A	06/30/11	06/30/11
03	SB-01-062211	TB86B	06/30/11	06/30/11
04	SB-02B-06221	TB86D	06/30/11	06/30/11
05	SB-01-062211	TB85D	06/30/11	06/30/11
06	SB-02B-06221	TB86E	06/30/11	06/30/11
07	SB-02B-06221	TB86F	06/30/11	06/30/11
08	SB-02B-06221	TB86G	06/30/11	06/30/11
09	SB-02B-06221	TB86H	06/30/11	06/30/11
10	SB-02A-06221	TB86I	06/30/11	06/30/11
11	SB-02A-06221	TB86J	06/30/11	06/30/11
12	SB-02A-06221	TB86K	06/30/11	06/30/11
13	SB-02A-06221	TB86L	06/30/11	06/30/11
14	SB-02A-06221	TB86LMS	06/30/11	06/30/11
15	SB-02A-06221	TB86LMSD	06/30/11	06/30/11
16	SB-02A-06221	TB86M	07/01/11	07/01/11
17	DUP-02-06221	TB86Q	07/01/11	07/01/11

ORGANICS ANALYSIS DATA SHEET

PCP by GC/ECD Method SW8041

Page 1 of 1

Sample ID: MB-062711

METHOD BLANK


Lab Sample ID: MB-062711

QC Report No: TB86-MWH Americas

LIMS ID: 11-13811

Project: TWP

Matrix: Soil

Data Release Authorized: 

Date Sampled: NA

Reported: 07/01/11

Date Received: NA

Date Extracted: 06/27/11

Sample Amount: 10.0 g

Date Analyzed: 06/30/11 10:53

Final Extract Volume: 25 mL

Instrument/Analyst: ECD1/AAR

Dilution Factor: 1.00

Percent Moisture: NA

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.2	< 6.2 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	76.4%
----------------------	-------

6D
 CHLOROPHENOL INITIAL CALIBRATION
 RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP1 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 06/15/11

COMPOUND	RT OF STANDARDS						MEAN	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT	FROM	TO
Pentachlorophenol	20.98	20.98	20.98	20.98	20.97	20.97	20.98	20.91	21.05
2,4,6-Trichloropheno	13.08	13.08	13.08	13.08	13.08	13.08	13.08	13.01	13.15
2,3,6-Trichloropheno	14.08	14.07	14.07	14.07	14.07	14.07	14.07	14.00	14.14
2,4,5-Trichloropheno	15.83	15.82	15.82	15.82	15.82	15.82	15.82	15.75	15.89
2,3,4-Trichloropheno	17.33	17.33	17.33	17.33	17.33	17.33	17.33	17.26	17.40
2,3,5,6-Tetrachlorop	17.13	17.13	17.13	17.13	17.13	17.13	17.13	17.06	17.20
2,3,4,5-Tetrachlorop	20.14	20.14	20.13	20.13	20.13	20.13	20.13	20.06	20.20
2,4-Dichlorophenol	12.54	12.53	12.53	12.53	12.53	12.53	12.53	12.46	12.60
2,4,6-Tribromophenol	18.58	18.57	18.57	18.57	18.57	18.57	18.57	18.50	18.64

6D
 CHLOROPHENOL INITIAL CALIBRATION
 RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP2 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 06/15/11

COMPOUND	RT OF STANDARDS						MEAN RT	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		FROM	TO
Pentachlorophenol	22.96	22.95	22.95	22.95	22.95	22.95	22.95	22.88	23.02
2,4,6-Trichloropheno	14.30	14.30	14.29	14.30	14.29	14.29	14.30	14.23	14.37
2,3,6-Trichloropheno	15.54	15.54	15.54	15.54	15.54	15.54	15.54	15.47	15.61
2,4,5-Trichloropheno	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.39	17.53
2,3,4-Trichloropheno	19.01	19.01	19.01	19.01	19.01	19.01	19.01	18.94	19.08
2,3,5,6-Tetrachlorop	18.80	18.80	18.80	18.80	18.80	18.80	18.80	18.73	18.87
2,3,4,5-Tetrachlorop	22.07	22.07	22.07	22.07	22.06	22.06	22.07	22.00	22.14
2,4-Dichlorophenol	13.81	13.81	13.81	13.81	13.80	13.80	13.80	13.74	13.88
2,4,6-Tribromophenol	20.92	20.92	20.92	20.92	20.92	20.92	20.92	20.85	20.99

6E
 CHLOROPHENOL INITIAL CALIBRATION
 CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP1 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 06/15/11

COMPOUND	CALIBRATION FACTORS						R ² / %RSD	CT
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		
Pentachlorophenol	27466	26894	24153	22504	21102	19181	13.8	A
2,4,6-Trichlorophenol	16786	16662	14578	13093	12272	11098	16.6	A
2,3,6-Trichlorophenol	15568	15042	13310	12272	11632	10547	15.0	A
2,4,5-Trichlorophenol	9778	9524	8121	7301	6984	6011	18.6	A
2,3,4-Trichlorophenol	11460	11372	9885	8898	8584	7535	16.4	A
2,3,5,6-Tetrachloroph	22383	22212	19882	18550	18023	16311	12.3	A
2,3,4,5-Tetrachloroph	18122	17195	14860	13691	13096	11655	16.8	A
2,4-Dichlorophenol	1097	1054	883	740	641	548	0.9994	Q
2,4,6-Tribromophenol	20786	20913	18315	17203	17401	15989	10.9	A
AVE RSD							16.4	

CT stands for Curve Types:

- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

- LVL 1: /chem2/ecd1.i/PCP20110615.b/ical-1.b/0615A006.d
- LVL 2: /chem2/ecd1.i/PCP20110615.b/ical-1.b/0615A007.d
- LVL 3: /chem2/ecd1.i/PCP20110615.b/ical-1.b/0615A008.d
- LVL 4: /chem2/ecd1.i/PCP20110615.b/ical-1.b/0615A005.d
- LVL 5: /chem2/ecd1.i/PCP20110615.b/ical-1.b/0615A009.d
- LVL 6: /chem2/ecd1.i/PCP20110615.b/ical-1.b/0615A010.d

6E
 CHLOROPHENOL INITIAL CALIBRATION
 CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP2 ID: 0.53 (mm)

Instrument ID: ECD1

Calibration Date: 06/15/11

COMPOUND	CALIBRATION FACTORS						R ² / %RSD	CT
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6		
Pentachlorophenol	34548	35098	30522	28784	26836	24504	14.0	A
2,4,6-Trichlorophenol	17619	16950	15668	14017	12945	11618	15.8	A
2,3,6-Trichlorophenol	18137	17532	15208	14117	12934	11398	17.6	A
2,4,5-Trichlorophenol	10464	10200	8470	8298	7326	6299	19.0	A
2,3,4-Trichlorophenol	11874	12343	10710	9672	8674	7607	18.2	A
2,3,5,6-Tetrachloroph	26302	26028	22938	21396	20060	18287	14.3	A
2,3,4,5-Tetrachloroph	20193	20031	17551	16199	14716	13094	16.8	A
2,4-Dichlorophenol	1091	994	848	722	623	528	0.9996	Q
2,4,6-Tribromophenol	24519	23872	21879	20464	19790	18252	11.3	A
AVE RSD							17.1	

CT stands for Curve Types:

- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

LVL 1: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A006.d
 LVL 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A007.d
 LVL 3: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A008.d
 LVL 4: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A005.d
 LVL 5: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A009.d
 LVL 6: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A010.d

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP1 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/29/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :1304

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
===== Pentachlorophenol	20.98	20.91	21.05	24.3	25.0	-2.8
2,4,6-Trichlorophenol	13.08	13.01	13.15	23.7	25.0	-5.2
2,3,6-Trichlorophenol	14.07	14.00	14.14	24.1	25.0	-3.6
2,4,5-Trichlorophenol	15.82	15.75	15.89	23.9	25.0	-4.4
2,3,4-Trichlorophenol	17.33	17.26	17.40	24.3	25.0	-2.8
2,3,5,6-Tetrachlorophenol	17.13	17.06	17.20	24.6	25.0	-1.6
2,3,4,5-Tetrachlorophenol	20.14	20.06	20.20	23.8	25.0	-4.8
2,4-Dichlorophenol	12.53	12.46	12.60	255	250	2.0
2,4,6-Tribromophenol (surr	18.57	18.50	18.64	25.2	25.0	0.8
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

AVERAGE %D = 3.1

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP2 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/29/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :1304

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	=====	=====	=====	=====	=====
Pentachlorophenol	22.95	22.88	23.02	24.9	25.0	-0.4
2,4,6-Trichlorophenol	14.30	14.23	14.37	23.7	25.0	-5.2
2,3,6-Trichlorophenol	15.54	15.47	15.61	24.2	25.0	-3.2
2,4,5-Trichlorophenol	17.46	17.39	17.53	24.1	25.0	-3.6
2,3,4-Trichlorophenol	19.01	18.94	19.08	24.3	25.0	-2.8
2,3,5,6-Tetrachlorophenol	18.80	18.73	18.87	23.7	25.0	-5.2
2,3,4,5-Tetrachlorophenol	22.07	22.00	22.14	22.6	25.0	-9.6
2,4-Dichlorophenol	13.81	13.74	13.88	248	250	-0.8
2,4,6-Tribromophenol (surr	20.92	20.85	20.99	23.9	25.0	-4.4

AVERAGE %D = 3.9

7E
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP1 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/29/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :2021

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	20.97	20.91	21.05	24.3	25.0	-2.8
2,4,6-Trichlorophenol	13.07	13.01	13.15	24.7	25.0	-1.2
2,3,6-Trichlorophenol	14.07	14.00	14.14	24.7	25.0	-1.2
2,4,5-Trichlorophenol	15.82	15.75	15.89	25.2	25.0	0.8
2,3,4-Trichlorophenol	17.32	17.26	17.40	24.8	25.0	-0.8
2,3,5,6-Tetrachlorophenol	17.12	17.06	17.20	25.1	25.0	0.4
2,3,4,5-Tetrachlorophenol	20.13	20.06	20.20	23.7	25.0	-5.2
2,4-Dichlorophenol	12.53	12.46	12.60	276	250	10.4
2,4,6-Tribromophenol (surr	18.57	18.50	18.64	25.4	25.0	1.6

AVERAGE %D = 2.7

7E
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP2 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/29/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :2021

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
===== Pentachlorophenol	22.95	22.88	23.02	23.4	25.0	-6.4
2,4,6-Trichlorophenol	14.29	14.23	14.37	23.9	25.0	-4.4
2,3,6-Trichlorophenol	15.54	15.47	15.61	23.4	25.0	-6.4
2,4,5-Trichlorophenol	17.46	17.39	17.53	24.0	25.0	-4.0
2,3,4-Trichlorophenol	19.01	18.94	19.08	24.6	25.0	-1.6
2,3,5,6-Tetrachlorophenol	18.79	18.73	18.87	24.4	25.0	-2.4
2,3,4,5-Tetrachlorophenol	22.06	22.00	22.14	24.0	25.0	-4.0
2,4-Dichlorophenol	13.80	13.74	13.88	249	250	-0.4
2,4,6-Tribromophenol (surr	20.92	20.85	20.99	24.4	25.0	-2.4
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

AVERAGE %D = 3.6

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP1 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/30/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :0035

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	20.97	20.91	21.05	24.7	25.0	-1.2
2,4,6-Trichlorophenol	13.08	13.01	13.15	24.6	25.0	-1.6
2,3,6-Trichlorophenol	14.07	14.00	14.14	24.6	25.0	-1.6
2,4,5-Trichlorophenol	15.82	15.75	15.89	24.5	25.0	-2.0
2,3,4-Trichlorophenol	17.33	17.26	17.40	24.4	25.0	-2.4
2,3,5,6-Tetrachlorophenol	17.13	17.06	17.20	25.0	25.0	0.0
2,3,4,5-Tetrachlorophenol	20.13	20.06	20.20	24.8	25.0	-0.8
2,4-Dichlorophenol	12.53	12.46	12.60	275	250	10.0
2,4,6-Tribromophenol (surr	18.57	18.50	18.64	25.5	25.0	2.0

AVERAGE %D = 2.4

7E
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP2 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/30/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :0035

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	22.95	22.88	23.02	24.6	25.0	-1.6
2,4,6-Trichlorophenol	14.29	14.23	14.37	24.4	25.0	-2.4
2,3,6-Trichlorophenol	15.54	15.47	15.61	23.6	25.0	-5.6
2,4,5-Trichlorophenol	17.46	17.39	17.53	24.3	25.0	-2.8
2,3,4-Trichlorophenol	19.01	18.94	19.08	24.8	25.0	-0.8
2,3,5,6-Tetrachlorophenol	18.80	18.73	18.87	24.6	25.0	-1.6
2,3,4,5-Tetrachlorophenol	22.06	22.00	22.14	24.7	25.0	-1.2
2,4-Dichlorophenol	13.80	13.74	13.88	253	250	1.2
2,4,6-Tribromophenol (surr	20.92	20.85	20.99	24.9	25.0	-0.4

AVERAGE %D = 2.0

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP1 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/30/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :0751

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	FROM	TO	=====	=====	=====
Pentachlorophenol	20.97	20.91	21.05	25.4	25.0	1.6
2,4,6-Trichlorophenol	13.08	13.01	13.15	25.5	25.0	2.0
2,3,6-Trichlorophenol	14.07	14.00	14.14	25.6	25.0	2.4
2,4,5-Trichlorophenol	15.82	15.75	15.89	25.3	25.0	1.2
2,3,4-Trichlorophenol	17.33	17.26	17.40	25.2	25.0	0.8
2,3,5,6-Tetrachlorophenol	17.13	17.06	17.20	25.8	25.0	3.2
2,3,4,5-Tetrachlorophenol	20.13	20.06	20.20	25.4	25.0	1.6
2,4-Dichlorophenol	12.53	12.46	12.60	289	250	15.6
2,4,6-Tribromophenol (surr	18.57	18.50	18.64	26.3	25.0	5.2

AVERAGE %D = 3.7

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP2 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No.(PCP):

Date Analyzed :06/30/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :0751

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	22.95	22.88	23.02	25.8	25.0	3.2
2,4,6-Trichlorophenol	14.29	14.23	14.37	25.0	25.0	0.0
2,3,6-Trichlorophenol	15.54	15.47	15.61	24.3	25.0	-2.8
2,4,5-Trichlorophenol	17.46	17.39	17.53	25.0	25.0	0.0
2,3,4-Trichlorophenol	19.01	18.94	19.08	25.4	25.0	1.6
2,3,5,6-Tetrachlorophenol	18.80	18.73	18.87	25.5	25.0	2.0
2,3,4,5-Tetrachlorophenol	22.07	22.00	22.14	25.2	25.0	0.8
2,4-Dichlorophenol	13.80	13.74	13.88	263	250	5.2
2,4,6-Tribromophenol (surr	20.92	20.85	20.99	25.7	25.0	2.8

AVERAGE %D = 2.0

7E
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP1 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No.(PCP):

Date Analyzed :06/30/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :1507

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	20.97	20.91	21.05	26.1	25.0	4.4
2,4,6-Trichlorophenol	13.08	13.01	13.15	26.0	25.0	4.0
2,3,6-Trichlorophenol	14.07	14.00	14.14	26.0	25.0	4.0
2,4,5-Trichlorophenol	15.82	15.75	15.89	26.9	25.0	7.6
2,3,4-Trichlorophenol	17.33	17.26	17.40	26.3	25.0	5.2
2,3,5,6-Tetrachlorophenol	17.13	17.06	17.20	27.0	25.0	8.0
2,3,4,5-Tetrachlorophenol	20.13	20.06	20.20	26.4	25.0	5.6
2,4-Dichlorophenol	12.53	12.46	12.60	302	250	20.8
2,4,6-Tribromophenol (surr	18.57	18.50	18.64	26.9	25.0	7.6

AVERAGE %D = 7.5

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP2 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No.(PCP):

Date Analyzed :06/30/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :1507

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	22.95	22.88	23.02	26.1	25.0	4.4
2,4,6-Trichlorophenol	14.29	14.23	14.37	25.3	25.0	1.2
2,3,6-Trichlorophenol	15.54	15.47	15.61	24.7	25.0	-1.2
2,4,5-Trichlorophenol	17.46	17.39	17.53	26.4	25.0	5.6
2,3,4-Trichlorophenol	19.01	18.94	19.08	26.2	25.0	4.8
2,3,5,6-Tetrachlorophenol	18.80	18.73	18.87	26.3	25.0	5.2
2,3,4,5-Tetrachlorophenol	22.07	22.00	22.14	25.7	25.0	2.8
2,4-Dichlorophenol	13.80	13.74	13.88	266	250	6.4
2,4,6-Tribromophenol (surr	20.92	20.85	20.99	26.4	25.0	5.6

AVERAGE %D = 4.1

7E
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP1 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/30/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :1656

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	=====	=====	=====	=====	=====
Pentachlorophenol	20.97	20.91	21.05	26.5	25.0	6.0
2,4,6-Trichlorophenol	13.08	13.01	13.15	26.5	25.0	6.0
2,3,6-Trichlorophenol	14.07	14.00	14.14	26.5	25.0	6.0
2,4,5-Trichlorophenol	15.82	15.75	15.89	27.5	25.0	10.0
2,3,4-Trichlorophenol	17.33	17.26	17.40	26.7	25.0	6.8
2,3,5,6-Tetrachlorophenol	17.13	17.06	17.20	26.7	25.0	6.8
2,3,4,5-Tetrachlorophenol	20.13	20.06	20.20	26.4	25.0	5.6
2,4-Dichlorophenol	12.54	12.46	12.60	310	250	24.0
2,4,6-Tribromophenol (surr	18.57	18.50	18.64	27.3	25.0	9.2

AVERAGE %D = 8.9

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP2 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :06/30/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :1656

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	22.95	22.88	23.02	26.3	25.0	5.2
2,4,6-Trichlorophenol	14.29	14.23	14.37	26.0	25.0	4.0
2,3,6-Trichlorophenol	15.54	15.47	15.61	25.0	25.0	0.0
2,4,5-Trichlorophenol	17.46	17.39	17.53	26.7	25.0	6.8
2,3,4-Trichlorophenol	19.01	18.94	19.08	26.4	25.0	5.6
2,3,5,6-Tetrachlorophenol	18.80	18.73	18.87	26.5	25.0	6.0
2,3,4,5-Tetrachlorophenol	22.07	22.00	22.14	26.0	25.0	4.0
2,4-Dichlorophenol	13.80	13.74	13.88	270	250	8.0
2,4,6-Tribromophenol (surr	20.92	20.85	20.99	26.8	25.0	7.2

AVERAGE %D = 5.2

7E
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP1 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :07/01/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :0012

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
Pentachlorophenol	20.98	20.91	21.05	23.7	25.0	-5.2
2,4,6-Trichlorophenol	13.08	13.01	13.15	23.6	25.0	-5.6
2,3,6-Trichlorophenol	14.07	14.00	14.14	23.6	25.0	-5.6
2,4,5-Trichlorophenol	15.82	15.75	15.89	24.1	25.0	-3.6
2,3,4-Trichlorophenol	17.33	17.26	17.40	23.6	25.0	-5.6
2,3,5,6-Tetrachlorophenol	17.13	17.06	17.20	24.1	25.0	-3.6
2,3,4,5-Tetrachlorophenol	20.13	20.06	20.20	23.7	25.0	-5.2
2,4-Dichlorophenol	12.54	12.46	12.60	275	250	10.0
2,4,6-Tribromophenol (surr	18.57	18.50	18.64	24.2	25.0	-3.2

AVERAGE %D = 5.3

7E
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP2 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No. (PCP):

Date Analyzed :07/01/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :0012

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
		FROM	TO			
=====	=====	=====	=====	=====	=====	=====
Pentachlorophenol	22.95	22.88	23.02	23.1	25.0	-7.6
2,4,6-Trichlorophenol	14.29	14.23	14.37	23.1	25.0	-7.6
2,3,6-Trichlorophenol	15.54	15.47	15.61	22.6	25.0	-9.6
2,4,5-Trichlorophenol	17.46	17.39	17.53	24.2	25.0	-3.2
2,3,4-Trichlorophenol	19.01	18.94	19.08	23.9	25.0	-4.4
2,3,5,6-Tetrachlorophenol	18.80	18.73	18.87	23.8	25.0	-4.8
2,3,4,5-Tetrachlorophenol	22.07	22.00	22.14	23.0	25.0	-8.0
2,4-Dichlorophenol	13.81	13.74	13.88	242	250	-3.2
2,4,6-Tribromophenol (surr	20.92	20.85	20.99	23.5	25.0	-6.0

AVERAGE %D = 6.0

7E
CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP1 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No.(PCP):

Date Analyzed :07/01/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :0237

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	=====	=====	=====	=====	=====
Pentachlorophenol	20.97	20.91	21.05	23.7	25.0	-5.2
2,4,6-Trichlorophenol	13.08	13.01	13.15	23.7	25.0	-5.2
2,3,6-Trichlorophenol	14.07	14.00	14.14	23.7	25.0	-5.2
2,4,5-Trichlorophenol	15.82	15.75	15.89	24.3	25.0	-2.8
2,3,4-Trichlorophenol	17.33	17.26	17.40	23.9	25.0	-4.4
2,3,5,6-Tetrachlorophenol	17.13	17.06	17.20	24.0	25.0	-4.0
2,3,4,5-Tetrachlorophenol	20.13	20.06	20.20	23.2	25.0	-7.2
2,4-Dichlorophenol	12.54	12.46	12.60	275	250	10.0
2,4,6-Tribromophenol (surr	18.57	18.50	18.64	24.4	25.0	-2.4

AVERAGE %D = 5.2

7E
 CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB86

Project: TWP

GC Column: STX CLP2 ID: 0.53 (mm)

Init. Calib. Date(s): 06/15/11 06/15/11

Client Sample No.(PCP):

Date Analyzed :07/01/11

Lab Sample ID (PCP): PCP CCAL

Time Analyzed :0237

PCP MIX COMPOUND	RT	RT WINDOW		CALC AMOUNT	NOM AMOUNT	%D
=====	=====	=====	=====	=====	=====	=====
Pentachlorophenol	22.95	22.88	23.02	23.7	25.0	-5.2
2,4,6-Trichlorophenol	14.29	14.23	14.37	23.2	25.0	-7.2
2,3,6-Trichlorophenol	15.54	15.47	15.61	22.8	25.0	-8.8
2,4,5-Trichlorophenol	17.46	17.39	17.53	24.1	25.0	-3.6
2,3,4-Trichlorophenol	19.01	18.94	19.08	23.3	25.0	-6.8
2,3,5,6-Tetrachlorophenol	18.80	18.73	18.87	23.8	25.0	-4.8
2,3,4,5-Tetrachlorophenol	22.07	22.00	22.14	23.2	25.0	-7.2
2,4-Dichlorophenol	13.80	13.74	13.88	242	250	-3.2
2,4,6-Tribromophenol (surr	20.92	20.85	20.99	23.8	25.0	-4.8

AVERAGE %D = 5.7

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP1 ID: 0.53 (mm)

Instrument ID: ECD1

Init. Calib. Date(s): 06/15/11 06/15/11

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION				
S1 : 18.57				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
=====	=====	=====	=====	=====
01	PCP D	06/15/11	1817	18.57
02	PCP A	06/15/11	1853	18.58
03	PCP B	06/15/11	1930	18.57
04	PCP C	06/15/11	2006	18.57
05	PCP E	06/15/11	2042	18.57
06	PCP F	06/15/11	2119	18.57
07	ZZZZZ	06/15/11	2155	18.58
08	PCP CCAL	06/29/11	1304	18.57
09	TB85MBW1	06/29/11	1341	18.57
10	TB85LCSW1	06/29/11	1417	18.57
11	TB85LCSDW1	06/29/11	1453	18.57
12	SB-01-062211	06/29/11	1606	18.57
13	PCP CCAL	06/29/11	2021	18.57

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP2 ID: 0.53 (mm)

Instrument ID: ECD1

Init. Calib. Date(s): 06/15/11 06/15/11

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION				
S1 : 20.92				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
=====	=====	=====	=====	=====
01	PCP D	06/15/11	1817	20.92
02	PCP A	06/15/11	1853	20.92
03	PCP B	06/15/11	1930	20.92
04	PCP C	06/15/11	2006	20.92
05	PCP E	06/15/11	2042	20.92
06	PCP F	06/15/11	2119	20.92
07	ZZZZZ	06/15/11	2155	20.92
08	PCP CCAL	06/29/11	1304	20.92
09	TB85MBW1	06/29/11	1341	20.92
10	TB85LCSW1	06/29/11	1417	20.92
11	TB85LCSDW1	06/29/11	1453	20.92
12	SB-01-062211	06/29/11	1606	20.92
13	PCP CCAL	06/29/11	2021	20.92

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: MWH AMERICAS
 ARI Job No.: TB86 Project: TWP
 GC Column: STX CLP1 ID: 0.53 (mm) Instrument ID: ECD1
 Init. Calib. Date(s): 06/15/11 06/15/11

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION				
S1 : 18.57				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
=====	=====	=====	=====	=====
01	PCP D	06/15/11	1817	18.57
02	PCP A	06/15/11	1853	18.58
03	PCP B	06/15/11	1930	18.57
04	PCP C	06/15/11	2006	18.57
05	PCP E	06/15/11	2042	18.57
06	PCP F	06/15/11	2119	18.57
07	ZZZZZ	06/15/11	2155	18.58
08	PCP CCAL	06/29/11	1304	18.57
09	TB85MBW1	06/29/11	1341	18.57
10	TB85LCSW1	06/29/11	1417	18.57
11	TB85LCSDW1	06/29/11	1453	18.57
12	SB-01-062211	06/29/11	1642	18.57
13	DUP-01-06221	06/29/11	1719	18.57
14	SB-02A-06221	06/29/11	1755	18.57
15	SB-02B-06221	06/29/11	1832	18.57
16	PCP CCAL	06/29/11	2021	18.57

QC LIMITS
 S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: MWH AMERICAS
 ARI Job No.: TB86 Project: TWP
 GC Column: STX CLP2 ID: 0.53 (mm) Instrument ID: ECD1
 Init. Calib. Date(s): 06/15/11 06/15/11

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION				
S1 : 20.92				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
=====	=====	=====	=====	=====
01	PCP D	06/15/11	1817	20.92
02	PCP A	06/15/11	1853	20.92
03	PCP B	06/15/11	1930	20.92
04	PCP C	06/15/11	2006	20.92
05	PCP E	06/15/11	2042	20.92
06	PCP F	06/15/11	2119	20.92
07	ZZZZZ	06/15/11	2155	20.92
08	PCP CCAL	06/29/11	1304	20.92
09	TB85MBW1	06/29/11	1341	20.92
10	TB85LCSW1	06/29/11	1417	20.92
11	TB85LCSDW1	06/29/11	1453	20.92
12	SB-01-062211	06/29/11	1642	20.92
13	DUP-01-06221	06/29/11	1719	20.92
14	SB-02A-06221	06/29/11	1755	20.92
15	SB-02B-06221	06/29/11	1832	20.92
16	PCP CCAL	06/29/11	2021	20.92

QC LIMITS
 S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP1 ID: 0.53 (mm)

Instrument ID: ECD1

Init. Calib. Date(s): 06/15/11 06/15/11

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION				
S1 : 18.57				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
=====	=====	=====	=====	=====
01	PCP D	06/15/11	1817	18.57
02	PCP A	06/15/11	1853	18.58
03	PCP B	06/15/11	1930	18.57
04	PCP C	06/15/11	2006	18.57
05	PCP E	06/15/11	2042	18.57
06	PCP F	06/15/11	2119	18.57
07	ZZZZZ	06/15/11	2155	18.58
08	PCP CCAL	06/30/11	0035	18.57
09	TB85MBS1	06/30/11	0111	18.57
10	TB85LCSS1	06/30/11	0148	18.57
11	ZZZZZ	06/30/11	0224	18.57
12	SB-01-062211	06/30/11	0300	18.57
13	SB-01-062211	06/30/11	0337	18.57
14	SB-01-062211	06/30/11	0413	18.57
15	SB-01-062211	06/30/11	0449	18.57
16	SB-01-062211	06/30/11	0526	18.57
17	SB-01-062211	06/30/11	0602	18.57
18	SB-01-062211	06/30/11	0638	18.57
19	ZZZZZ	06/30/11	0715	18.57
20	PCP CCAL	06/30/11	0751	18.57
21	SB-01-062211	06/30/11	0827	18.57
22	SB-01-062211	06/30/11	0904	18.57
23	SB-01-062211	06/30/11	0940	18.57
24	SB-01-062211	06/30/11	1016	18.57
25	PCP CCAL	06/30/11	1507	18.57
26	SB-01-062211	06/30/11	1543	18.57
27	PCP CCAL	06/30/11	1656	18.57

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC

Client: MWH AMERICAS

ARI Job No.: TB85

Project: TWP - WASTE MANAGEMENT

GC Column: STX CLP2 ID: 0.53 (mm)

Instrument ID: ECD1

Init. Calib. Date(s): 06/15/11 06/15/11

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION				
S1 : 20.92				
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
=====	=====	=====	=====	=====
01	PCP D	06/15/11	1817	20.92
02	PCP A	06/15/11	1853	20.92
03	PCP B	06/15/11	1930	20.92
04	PCP C	06/15/11	2006	20.92
05	PCP E	06/15/11	2042	20.92
06	PCP F	06/15/11	2119	20.92
07	ZZZZZ	06/15/11	2155	20.92
08	PCP CCAL	06/30/11	0035	20.92
09	TB85MBS1	06/30/11	0111	20.92
10	TB85LCSS1	06/30/11	0148	20.92
11	ZZZZZ	06/30/11	0224	20.92
12	SB-01-062211	06/30/11	0300	20.92
13	SB-01-062211	06/30/11	0337	20.92
14	SB-01-062211	06/30/11	0413	20.92
15	SB-01-062211	06/30/11	0449	20.92
16	SB-01-062211	06/30/11	0526	20.92
17	SB-01-062211	06/30/11	0602	20.92
18	SB-01-062211	06/30/11	0638	20.92
19	ZZZZZ	06/30/11	0715	20.92
20	PCP CCAL	06/30/11	0751	20.92
21	SB-01-062211	06/30/11	0827	20.92
22	SB-01-062211	06/30/11	0904	20.92
23	SB-01-062211	06/30/11	0940	20.92
24	SB-01-062211	06/30/11	1016	20.92
25	PCP CCAL	06/30/11	1507	20.92
26	SB-01-062211	06/30/11	1543	20.92
27	PCP CCAL	06/30/11	1656	20.92

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: MWH AMERICAS
 ARI Job No.: TB86 Project: TWP
 GC Column: STX CLP1 ID: 0.53 (mm) Instrument ID: ECD1
 Init. Calib. Date(s): 06/15/11 06/15/11

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 18.57					
CLIENT	LAB	DATE	TIME	S1	
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT	#
=====	=====	=====	=====	=====	=====
01	PCP D	06/15/11	1817	18.57	
02	PCP A	06/15/11	1853	18.58	
03	PCP B	06/15/11	1930	18.57	
04	PCP C	06/15/11	2006	18.57	
05	PCP E	06/15/11	2042	18.57	
06	PCP F	06/15/11	2119	18.57	
07	ZZZZZ	06/15/11	2155	18.58	
08	PCP CCAL	06/30/11	0751	18.57	
09	TB86MBS1	06/30/11	1053	18.57	
10	TB86LCSS1	06/30/11	1129	18.57	
11	ZZZZZ	06/30/11	1205	18.57	
12	SB-01-062211	06/30/11	1242	18.57	
13	SB-01-062211	06/30/11	1318	18.57	
14	SB-02B-06221	06/30/11	1354	18.57	
15	PCP CCAL	06/30/11	1507	18.57	
16	ZZZZZ	06/30/11	1543	18.57	
17	ZZZZZ	06/30/11	1620	18.57	
18	PCP CCAL	06/30/11	1656	18.57	
19	SB-02B-06221	06/30/11	1732	18.57	
20	SB-02B-06221	06/30/11	1808	18.57	
21	SB-02B-06221	06/30/11	1845	18.57	
22	SB-02B-06221	06/30/11	1921	18.57	
23	SB-02A-06221	06/30/11	1957	18.57	
24	SB-02A-06221	06/30/11	2034	18.57	
25	SB-02A-06221	06/30/11	2110	18.57	
26	SB-02A-06221	06/30/11	2146	18.57	
27	SB-02A-06221	06/30/11	2223	18.57	
28	SB-02A-06221	06/30/11	2259	18.57	
29	PCP CCAL	07/01/11	0012	18.57	
30	SB-02A-06221	07/01/11	0048	18.57	
31	DUP-02-06221	07/01/11	0124	18.57	
32	PCP CCAL	07/01/11	0237	18.57	

QC LIMITS
 S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

8
CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: MWH AMERICAS
 ARI Job No.: TB86 Project: TWP
 GC Column: STX CLP2 ID: 0.53 (mm) Instrument ID: ECD1
 Init. Calib. Date(s): 06/15/11 06/15/11

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 20.92					
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
	=====	=====	=====	=====	=====
01		PCP D	06/15/11	1817	20.92
02		PCP A	06/15/11	1853	20.92
03		PCP B	06/15/11	1930	20.92
04		PCP C	06/15/11	2006	20.92
05		PCP E	06/15/11	2042	20.92
06		PCP F	06/15/11	2119	20.92
07	ZZZZZ	ZZZZZ	06/15/11	2155	20.92
08		PCP CCAL	06/30/11	0751	20.92
09	TB86MBS1	TB86MBS1	06/30/11	1053	20.92
10	TB86LCSS1	TB86LCSS1	06/30/11	1129	20.92
11	ZZZZZ	ZZZZZ	06/30/11	1205	20.92
12	SB-01-062211	TB86A	06/30/11	1242	20.92
13	SB-01-062211	TB86B	06/30/11	1318	20.92
14	SB-02B-06221	TB86D	06/30/11	1354	20.92
15		PCP CCAL	06/30/11	1507	20.92
16	ZZZZZ	ZZZZZ	06/30/11	1543	20.92
17	ZZZZZ	ZZZZZ	06/30/11	1620	20.92
18		PCP CCAL	06/30/11	1656	20.92
19	SB-02B-06221	TB86E	06/30/11	1732	20.92
20	SB-02B-06221	TB86F	06/30/11	1808	20.92
21	SB-02B-06221	TB86G	06/30/11	1845	20.92
22	SB-02B-06221	TB86H	06/30/11	1921	20.92
23	SB-02A-06221	TB86I	06/30/11	1957	20.92
24	SB-02A-06221	TB86J	06/30/11	2034	20.92
25	SB-02A-06221	TB86K	06/30/11	2110	20.92
26	SB-02A-06221	TB86L	06/30/11	2146	20.92
27	SB-02A-06221	TB86LMS	06/30/11	2223	20.92
28	SB-02A-06221	TB86LMSD	06/30/11	2259	20.92
29		PCP CCAL	07/01/11	0012	20.92
30	SB-02A-06221	TB86M	07/01/11	0048	20.92
31	DUP-02-06221	TB86Q	07/01/11	0124	20.92
32		PCP CCAL	07/01/11	0237	20.92

QC LIMITS
 S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

Total Solids

ARI Job ID: TB85, TB86

Extractions Total Solids-exttts
Data By: Woo suk Chang
Created: 6/27/11

Worklist: 492
Analyst: RVR
Comments:

Oven ID: _____

Balance ID: _____

Samples In: Date: _____ Time: _____ Temp: _____ Analyst: _____

Samples Out: Date: _____ Time: _____ Temp: _____ Analyst: _____

ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1. TB85A 11-13784 SB-01-062211-02	1.16	12.23	11.38	92.3	NR
2. TB85B 11-13785 SB-01-062211-04	1.16	12.55	11.41	90.0	NR
3. TB85D 11-13787 SB-01-062211-06	1.17	11.38	9.89	85.4	NR
4. TB85E 11-13788 SB-01-062211-08	1.16	11.41	7.63	63.1	NR
5. TB85F 11-13789 SB-01-062211-10	1.17	11.41	6.77	54.7	NR
6. TB85G 11-13790 SB-01-062211-12	1.17	13.46	9.73	69.7	NR
7. TB85H 11-13791 SB-01-062211-14	1.15	11.76	8.48	69.1	NR
8. TB85I 11-13792 SB-01-062211-16	1.16	13.90	10.65	74.5	NR
9. TB85J 11-13793 SB-01-062211-18	1.16	11.42	9.80	84.2	NR

Extractions Total Solids-extts
Data By: Woo suk Chang
Created: 6/27/11

Worklist: 492
Analyst: WC
Comments:

Oven ID: 015

Balance ID: 21754520

Samples In: Date: 6/27/11 Time: 14:20 Temp: 105°C Analyst: WC

Samples Out: Date: 6/28/11 Time: 05:45 Temp: 102°C Analyst: RR

ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1. TB85A 11-13784 SB-01-062211-02	1.16g	12.23g	11.38		NR
2. TB85B 11-13785 SB-01-062211-04	1.16g	12.55g	11.41		NR
3. TB85D 11-13787 SB-01-062211-06	1.17g	11.38g	9.89		NR
4. TB85E 11-13788 SB-01-062211-08	1.16g	11.41g	7.63		NR
5. TB85F 11-13789 SB-01-062211-10	1.17g	11.41g	11.38 6.77		NR
6. TB85G 11-13790 SB-01-062211-12	1.17g	13.46g	9.73		NR
7. TB85H 11-13791 SB-01-062211-14	1.15g	11.76g	8.48		NR
8. TB85I 11-13792 SB-01-062211-16	1.16g	13.90g	10.65		NR
9. TB85J 11-13793 SB-01-062211-18	1.16g	11.42g	9.80		NR

Extractions Total Solids-exttts
Data By: Woo suk Chang
Created: 6/27/11

Worklist: 647
Analyst: RVR
Comments:

Oven ID: _____

Balance ID: _____

Samples In: Date: _____ Time: _____ Temp: _____ Analyst: _____

Samples Out: Date: _____ Time: _____ Temp: _____ Analyst: _____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	TB86A 11-13800 SB-01-062211-20	1.17	12.02	10.32	84.3	NR
2.	TB86B 11-13801 SB-01-062211-22	1.17	11.74	9.08	74.8	NR
3.	TB86D 11-13803 SB-02B-062211-02	1.17	11.70	10.28	86.5	NR
4.	TB86E 11-13804 SB-02B-062211-04	1.16	11.48	10.72	92.6	NR
5.	TB86F 11-13805 SB-02B-062211-06	1.16	12.65	10.72	83.2	NR
6.	TB86G 11-13806 SB-02B-062211-08	1.17	11.48	9.62	82.0	NR
7.	TB86H 11-13807 SB-02B-062211-10	1.18	12.31	10.29	81.9	NR
8.	TB86I 11-13808 SB-02A-062211-02	1.17	11.24	10.57	93.3	NR
9.	TB86J 11-13809 SB-02A-062211-04	1.17	12.14	11.39	93.2	NR
10.	TB86K 11-13810 SB-02A-062211-06	1.17	11.39	10.81	94.3	NR
11.	TB86L 11-13811 SB-02A-062211-08	1.17	11.88	10.61	88.1	NR
12.	TB86M 11-13812 SB-02A-062211-10	1.16	12.11	8.48	66.8	NR
13.	TB86Q 11-13816 DUP-02-062211	1.16	11.37	9.58	82.5	NR

Extractions Total Solids-exttts
Data By: Woo suk Chang
Created: 6/27/11

Worklist: 647
Analyst: WC
Comments:

Oven ID: 015

Balance ID: 21754520

Samples In: Date: 6/27/11 Time: 19:25 Temp: 101 Analyst: YL

Samples Out: Date: 6/28/11 Time: 08:00 Temp: 107° Analyst: RP

ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1. TB86A 11-13800 SB-01-062211-20	<u>1.17</u>	<u>12.02</u>	<u>10.32</u>		NR
2. TB86B 11-13801 SB-01-062211-22	<u>1.17</u>	<u>11.74</u>	<u>9.08</u>		NR
3. TB86D 11-13803 SB-02B-062211-02	<u>1.17</u>	<u>11.70</u>	<u>10.28</u>		NR
4. TB86E 11-13804 SB-02B-062211-04	<u>1.16</u>	<u>11.48</u>	<u>10.72</u>		NR
5. TB86F 11-13805 SB-02B-062211-06	<u>1.16</u>	<u>12.65</u>	<u>10.72</u>		NR
6. TB86G 11-13806 SB-02B-062211-08	<u>1.17</u>	<u>11.48</u>	<u>9.62</u>		NR
7. TB86H 11-13807 SB-02B-062211-10	<u>1.18</u>	<u>12.31</u>	<u>10.29</u>		NR
8. TB86I 11-13808 SB-02A-062211-02	<u>1.17</u>	<u>11.24</u>	<u>10.57</u>		NR
9. TB86J 11-13809 SB-02A-062211-04	<u>1.17</u>	<u>12.14</u>	<u>11.39</u>		NR
10. TB86K 11-13810 SB-02A-062211-06	<u>1.17</u>	<u>11.39</u>	<u>10.81</u>		NR
11. TB86L 11-13811 SB-02A-062211-08	<u>1.17</u>	<u>11.88</u>	<u>10.61</u>		NR
12. TB86M 11-13812 SB-02A-062211-10	<u>1.16</u>	<u>12.11</u>	<u>8.48</u>		NR
13. TB86Q 11-13816 DUP-02-062211	<u>1.16</u>	<u>11.37</u>	<u>9.58</u>		NR

PCP/Chlorophenols Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: TB85, TB86



Preparation Test PCP # 1

ARI Job No(s) TB85, TB86, TB89

In-House (0.25ppb)
Batch set up by: SP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange To Hexane (X 2)	Turbo Vap (1)(2)(3)	Volume to Lab	Derivitizate	Final Effective Volume	Comments
	TB85 MBW	Date 06/24/11	500mL			10mL		50mL	
	SBW	↓	↓			↓		↓	
	SBWDup.	↓	↓			↓		↓	
	QLS	↓	↓			↓		↓	
2	✓ C	checked	500mL						
1	TB86 C								
1	N								
2	C								
1	P								
4	TB89 A								
2	B								
1	C								
1	D								
2	E								
1	✓ G	✓	✓	✓	✓	✓		✓	
Analyst/Date: <u>AR 06/24/11</u>					<u>TS 06/28/11</u>		<u>TS 06/28/11</u>		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1791-3	100µL 12.5	12/9/11	AR	SP
Spike	6 1791-5	100µL 12.5	12/10/11	AR	SP
QLS Spike	16	50µL	12/10/11	AR	SP
Extraction Time: <u>1215</u>			Derivitized by:	Diazald ID:	

- SPECIAL INSTRUCTIONS: 1. Add surr/spike. 2. Acidify all with 1:1 Sulfuric Acid 3. Extract 3X with 30mL DCM.
4. KD (NO Drying Column) at 80° to 5mL. 5. Exchange (2 X with 20mL) Hexane at 100°. 6. Turbo Vap.
7. Vial at 10mL into Herb tubes using Hexane. 8. GC Analyst to Derivitizate.

A. Archive YIN

QA #1402



Preparation Test PCP # 3

ARI Job No(s) TB85

In-House (6.25ppb)
Batch set up by: SP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted (wet wt)	Sonic Horn ID + Check	KD Exchange To Hexane (X 2)	Turbo Vap 1(2)3	Volume to Lab	Derivitize	Final Effective Volume	Comments
	TB85 MBS	Date 6/27/11	10.00g	10	↓	↓	10mL		25mL	
	↓ SBS	↓	↓	9	↓	↓	↓		↓	
	SBSdup		↓				↓		↓	
	TB85 QLS	↓	↓	8			↓		↓	
	A	deckard	10.14	7						
	B		10.14	6						
	D		10.91	5						
	DMS		10.23	4						
	DMSD		10.07	3						
	E		10.02	2						
	F		10.00	1						
	G		10.00	10						
	H		10.00	9						
	I		10.24	8						
	J		10.62	7						
Analyst/Date		WC 6/27/11			YL/CR					

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1791-3	50µL 12.5	12/9/11	WC	WW
Spike	6 1791-5	50µL 12.5/12.5	12/10/11	WC	WW
QLS Spike	16	25µL	12/10/11	WC	WW

Extraction Time: 14:45 Balance ID: 21754570 Derivitized by: Diazald ID:

- SPECIAL INSTRUCTIONS: 1. Weigh into ~~400mL~~ ^{150-250mL} beakers. 2. Use neutral sulfate to dry samples.
3. Acidify all with ¼ pipet conc. Sulfuric Acid. 4. Add surr/spike. 5. Leave in DCM overnight. 6. Extract 3X DCM.
7. Pour directly into KD (NO Glasswool). 8. KD to 5mL at 80°. 9. Exchange (2 X with 20mL) Hexane at 100°.
10. *Note: Do not filter extracts: Centrifuge and leave particulates behind-Note on Analyst Notes.
11. Turbo Vap 12. Vial at 10mL into Herb Tubes using Hexane. 13. GC Analyst to Derivitize.

A. Need Total Solids N

B. Archive Freeze N



Preparation Test PCP # 3

ARI Job No(s) TB86

In-House (6.25ppb)
Batch set up by: JP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted (wet wt)	Sonic Horn ID + Check	KD Exchange To Hexane (X 2)	Turbo Vap 123	Volume to Lab	Derivitize	Final Effective Volume	Comments
	TB86 MBS	Date 6/27/11	10.00g	1	↓		10mL		25mL	
	↓ SBS	1	↓	2	↓		↓		↓	
	SBSdup		↓				↓		↓	
	QC 6/27/11 TB86 QLS	↓	↓	3			↓		↓	
1	A	checked	10.11	4						
	B		10.29	5						
	D		10.08	6						
	E		10.17	7						
	F		10.27	8						
	G		10.19	9						
	H		10.09	10						
	I		10.38	1						
	J		10.05	2						
	K		10.24	3						
	L		10.12	4						
	LMS		10.16	5						
	LMSD		10.17	6						
	M		10.21	7						
	Q		10.08	8						
Analyst/Date		WC 6/27/11		WC 6/28/11	6/28/11	NO 6/29/11	NO 6/29/11			

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1791-3	50µL 12.5	12/9/11	WC	WW
Spike	6 1791-5	50µL 12.5/12.5	12/10/11	WC	WW
QLS Spike	16	25µL	12/10/11	WC	

Extraction Time: 20:20 Balance ID: 21754520 Derivitized by: Diazald ID:

- SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers. 2. Use neutral sulfate to dry samples. 3. Acidify all with ¼ pipet conc. Sulfuric Acid. 4. Add surr/spike. 5. Leave in DCM overnight. 6. Extract 3X DCM. 7. Pour directly into KD (NO Glasswool). 8. KD to 5mL at 80°. 9. Exchange (2 X with 20mL) Hexane at 100°. 10. *Note: Do not filter extracts: Centrifuge and leave particulates behind-Note on Analyst Notes. 11. Turbo Vap 12. Vial at 10mL into Herb Tubes using Hexane. 13. GC Analyst to Derivitize.

A. Need Total Solids (Y) N B. Archive / Freeze (Y) N



ARI Job No.: TB86

Client ID: MWH Americas

Parameter: PCP

Client Project: TWP

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
<input checked="" type="checkbox"/> No Anomalies (standard soil/sediment) <u>A, B, D, E, F, G, H, I, J, K, L, M, O</u>	YC 6/27/11
<input checked="" type="checkbox"/> Wet sediment/sludge = <u>A, B, E, G, H, L, M, O</u>	
<input checked="" type="checkbox"/> Standing Water Decanted = <u>A</u>	
<input type="checkbox"/> Standing Water Homogenized (Shared samples) =	
<input type="checkbox"/> Clay (Difficult to homogenize/Mixed with Kitchen Aid) =	
<input checked="" type="checkbox"/> Rocks/Organics = <u>D, I</u>	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors =	
<input type="checkbox"/> Other (Details) =	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color =	
<input type="checkbox"/> Particulates =	
<input type="checkbox"/> Emulsions =	
<input type="checkbox"/> Other (Details) =	
<input type="checkbox"/> Other Notes/Comments =	

**PCP/Chlorophenols Raw Data
Initial Calibration**

ARI Job ID: TB85, TB86



GC Analyst Notes / Corrective Action Log

ARI Project ID: Cl. Phends Curve Client ID: ARI

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): NA

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 **ECD-1** ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 6/15/2011 Analysis Start: 6/15/2011

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	YES / NO / NA
ICal Meets RF & %RSD Criteria?	YES / NO	LCS/LCSD Recovery In Control?	YES / NO / NA
CCal Meets RF & %RSD Criteria?	YES / NO	Surrogate Recovery In Control?	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Special Analysis Criteria Met?	YES / NO / NA

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

+ Col 2 2,4-DXP quadratic - forced
- Col 1 2,4-DXP quadratic - forced

Additional Details on Reverse: Yes / **No**

Analyst: [Signature] Date: 6/17/2011

Reviewer: [Signature] Date: 6/17/11

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecdl.i/PCP20110615.b/PCPB.m
Batch File: /chem2/ecdl.i/PCP20110615.b/ical-2.b
Inst ID: ecd1.i

ID	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
FILENAME:	0615A005	0615A006	0615A007	0615A008	0615A009	0615A010	0615A011				
INJ. DATE:	15-JUN-2011	15-JUN-2011	15-JUN-2011	15-JUN-2011	15-JUN-2011	15-JUN-2011	15-JUN-2011				
INJ. TIME:	18:17	18:53	19:30	20:06	20:42	21:19	21:55				
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 2,4-Dichlorophenol	13.806	13.808	13.806	13.806	13.803	13.803	13.806	13.806	13.736-13.876	13.805	0.002
2 2,4,6-Trichlorophenol	14.296	14.297	14.295	14.295	14.293	14.293	14.295	14.296	14.226-14.366	14.295	0.001
3 2,3,6-Trichlorophenol	15.542	15.543	15.542	15.542	15.540	15.540	15.543	15.542	15.472-15.612	15.542	0.001
4 2,4,5-Trichlorophenol	17.460	17.463	17.461	17.460	17.458	17.457	17.462	17.460	17.390-17.530	17.460	0.002
5 2,3,5,6-Tetrachlorophe	18.799	18.800	18.800	18.799	18.797	18.796	18.801	18.799	18.729-18.869	18.799	0.002
6 2,3,4-Trichlorophenol	19.010	19.013	19.011	19.010	19.007	19.006	19.012	19.010	18.940-19.080	19.010	0.002
7 2,4,6-Tribromophenol (20.922	20.924	20.922	20.922	20.920	20.920	20.924	20.922	20.852-20.992	20.922	0.002
8 2,3,4,5-Tetrachlorophe	22.067	22.070	22.069	22.068	22.065	22.064	22.070	22.067	21.997-22.137	22.068	0.002
9 Pentachlorophenol	22.953	22.956	22.954	22.953	22.951	22.951	22.956	22.953	22.883-23.023	22.953	0.002

Reviewer 1
Reviewer 2

AF Date: 6/17/2011
Date: 6/17/11

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecdl.i/PCP20110615.b/ical-2.b

ARI Job No.: PCP Method: PCPB.m Instrument: ecd1.i Date: 15-JUN-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1817	0615A005.d	PCP D		1	NO MANUAL INTEGRATION
1853	0615A006.d	PCP A		1	2,3,5,6-Tetrachlorophenol, 2,3,4,5-Tetrachlorophenol,
1930	0615A007.d	PCP B		1	NO MANUAL INTEGRATION
2006	0615A008.d	PCP C		1	NO MANUAL INTEGRATION
2042	0615A009.d	PCP E		1	NO MANUAL INTEGRATION
2119	0615A010.d	PCP F		1	NO MANUAL INTEGRATION
2155	0615A011.d	PCP ICV		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 15-JUN-2011 18:17
 End Cal Date : 15-JUN-2011 21:19
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl.i/PCP20110615.b/PCPB.m
 Cal Date : 17-Jun-2011 11:48 aron
 Curve Type : Average

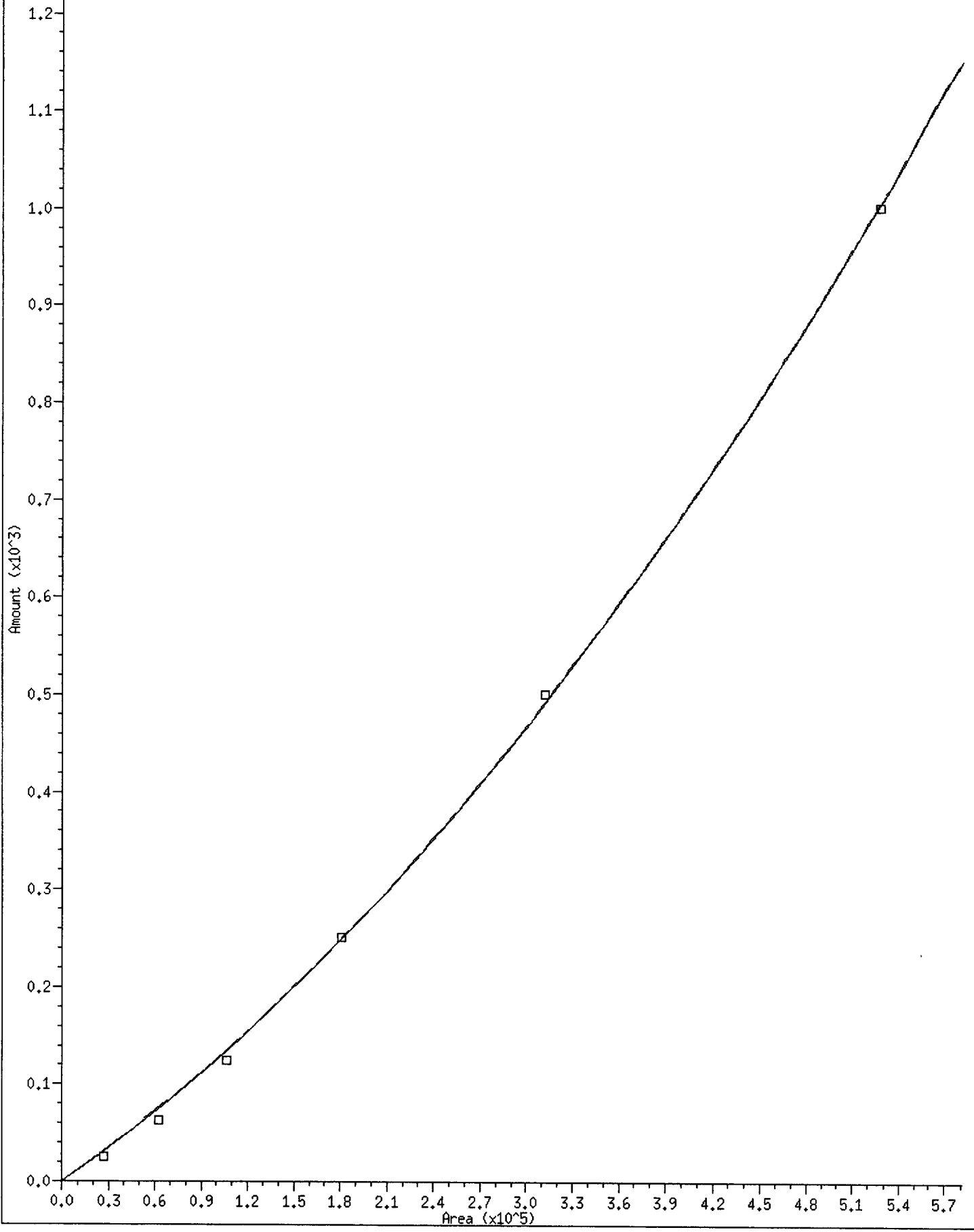
Calibration File Names:

Level 1: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A006.d
 Level 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A007.d
 Level 3: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A008.d
 Level 4: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A005.d
 Level 5: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A009.d
 Level 6: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A010.d

Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
1 2,4-Dichlorophenol	1091	994	848	722	623	528	801	27.131
2 2,4,6-Trichlorophenol	17619	16951	15668	14017	12945	11618	14803	15.844
3 2,3,6-Trichlorophenol	18137	17532	15208	14117	12934	11398	14888	17.579
4 2,4,5-Trichlorophenol	10464	10200	8470	8298	7326	6299	8509	18.953
5 2,3,5,6-Tetrachlorophenol	26302	26028	22939	21396	20061	18287	22502	14.332
6 2,3,4-Trichlorophenol	11874	12343	10710	9673	8674	7607	10147	18.156
8 2,3,4,5-Tetrachlorophenol	20193	20031	17551	16199	14716	13094	16964	16.837
9 Pentachlorophenol	34548	35098	30522	28784	26836	24504	30049	14.011
\$ 7 2,4,6-Tribromophenol (surr)	24519	23872	21879	20464	19790	18252	21463	11.303

1 2,4-Dichlorophenol

Curve Type: Quadratic By-Response
Amt = 0 + 0.001101548*Rsp + 1.51327e-09*Rsp^2
R^2: 0.9996058



Analytical Resources, Inc.
INITIAL CALIBRATION DATA

Start Cal Date : 15-JUN-2011 18:17
 End Cal Date : 15-JUN-2011 21:19
 Quant Method : ESTD
 Origin : Force
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecd1.i/PCP20110615.b/PCPB.m
 Cal Date : 17-Jun-2011 11:48 aron

Calibration File Names:

Level 1: /chem2/ecd1.i/PCP20110615.b/ical-2.b/0615A006.d
 Level 2: /chem2/ecd1.i/PCP20110615.b/ical-2.b/0615A007.d
 Level 3: /chem2/ecd1.i/PCP20110615.b/ical-2.b/0615A008.d
 Level 4: /chem2/ecd1.i/PCP20110615.b/ical-2.b/0615A005.d
 Level 5: /chem2/ecd1.i/PCP20110615.b/ical-2.b/0615A009.d
 Level 6: /chem2/ecd1.i/PCP20110615.b/ical-2.b/0615A010.d

Compound	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Coefficients		%RSD or R ²
	2	6	12	25	50	100	Curve	b	m1	m2					
1 2,4-Dichlorophenol	27267	62137	106004	180468	311349	527924	QUAD	0.000e+00	0.00110	1.513e-09	0.99961				
2 2,4,6-Trichlorophenol	17619	16951	15668	14017	12945	11618	AVRG	14803	14888	15.84413					
3 2,3,6-Trichlorophenol	18137	17532	15208	14117	12934	11398	AVRG	14888	8509	17.57896					
4 2,4,5-Trichlorophenol	10464	10200	8470	8298	7326	6299	AVRG	22502	10147	18.95332					
5 2,3,5,6-Tetrachlorophenol	26302	26028	22939	21396	20061	18287	AVRG	16964	30049	14.33248					
6 2,3,4-Trichlorophenol	11874	12343	10710	9673	8674	7607	AVRG	16964	21463	18.15622					
8 2,3,4,5-Tetrachlorophenol	20193	20031	17551	16199	14716	13094	AVRG	16964	30049	16.83698					
9 Pentachlorophenol	34548	35098	30522	28784	26836	24504	AVRG	21463	21463	14.01091					
7 2,4,6-Tribromophenol (surr)	24519	23872	21879	20464	19790	18252	AVRG	21463	21463	11.30330					

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecdl.i/PCP20110615.b/PCP.m
Batch File: /chem2/ecdl.i/PCP20110615.b/ical-1.b
Inst ID: ecd1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
FILENAME:	0615A005	0615A006	0615A007	0615A008	0615A009	0615A010	0615A011				
INJ.DATE:	15-JUN-2011	15-JUN-2011	15-JUN-2011	15-JUN-2011	15-JUN-2011	15-JUN-2011	15-JUN-2011				
INJ.TIME:	18:17	18:53	19:30	20:06	20:42	21:19	21:55				
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 2,4-Dichlorophenol	12.534	12.537	12.534	12.534	12.532	12.531	12.533	12.534	12.464-12.604	12.534	0.002
2 2,4,6-Trichlorophenol	13.079	13.080	13.079	13.078	13.077	13.077	13.079	13.079	13.009-13.149	13.078	0.001
3 2,3,6-Trichlorophenol	14.075	14.075	14.074	14.074	14.072	14.072	14.074	14.075	14.005-14.145	14.074	0.001
4 2,4,5-Trichlorophenol	15.824	15.827	15.825	15.823	15.821	15.820	15.825	15.824	15.754-15.894	15.824	0.002
5 2,3,4-Trichlorophenol	17.330	17.335	17.332	17.330	17.327	17.327	17.332	17.330	17.260-17.400	17.331	0.003
6 2,3,5,6-Tetrachlorophe	17.131	17.132	17.131	17.130	17.128	17.128	17.132	17.131	17.061-17.201	17.130	0.002
7 2,4,6-Tribromophenol	18.574	18.577	18.575	18.573	18.572	18.571	18.576	18.574	18.504-18.644	18.574	0.002
8 2,3,4,5-Tetrachlorophe	20.134	20.140	20.136	20.134	20.131	20.130	20.137	20.134	20.064-20.204	20.135	0.003
9 Pentachlorophenol	20.976	20.978	20.976	20.975	20.973	20.973	20.978	20.976	20.906-21.046	20.976	0.002

Reviewer 1 AL Date: 6/17/2011
Reviewer 2 AS Date: 6/17/11

MANUAL INTEGRATION SUMMARY FOR DATABASE - /chem2/ecd1.i/PCP20110615.b/ical-1.b

ARI Job No.: PCP Method: PCP.m Instrument: ecd1.i Date: 15-JUN-2011

Time	Filename	LabID	ClientID	DF	Manually Integrated Compounds
1817	0615A005.d	PCP D		1	NO MANUAL INTEGRATION
1853	0615A006.d	PCP A		1	2,3,4,5-Tetrachlorophenol, 2,4-Dichlorophenol,
1930	0615A007.d	PCP B		1	NO MANUAL INTEGRATION
2006	0615A008.d	PCP C		1	NO MANUAL INTEGRATION
2042	0615A009.d	PCP E		1	NO MANUAL INTEGRATION
2119	0615A010.d	PCP F		1	NO MANUAL INTEGRATION
2155	0615A011.d	PCP ICV		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 15-JUN-2011 18:17
 End Cal Date : 15-JUN-2011 21:19
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl.i/PCP20110615.b/PCP.m
 Cal Date : 17-Jun-2011 12:07 aron
 Curve Type : Average

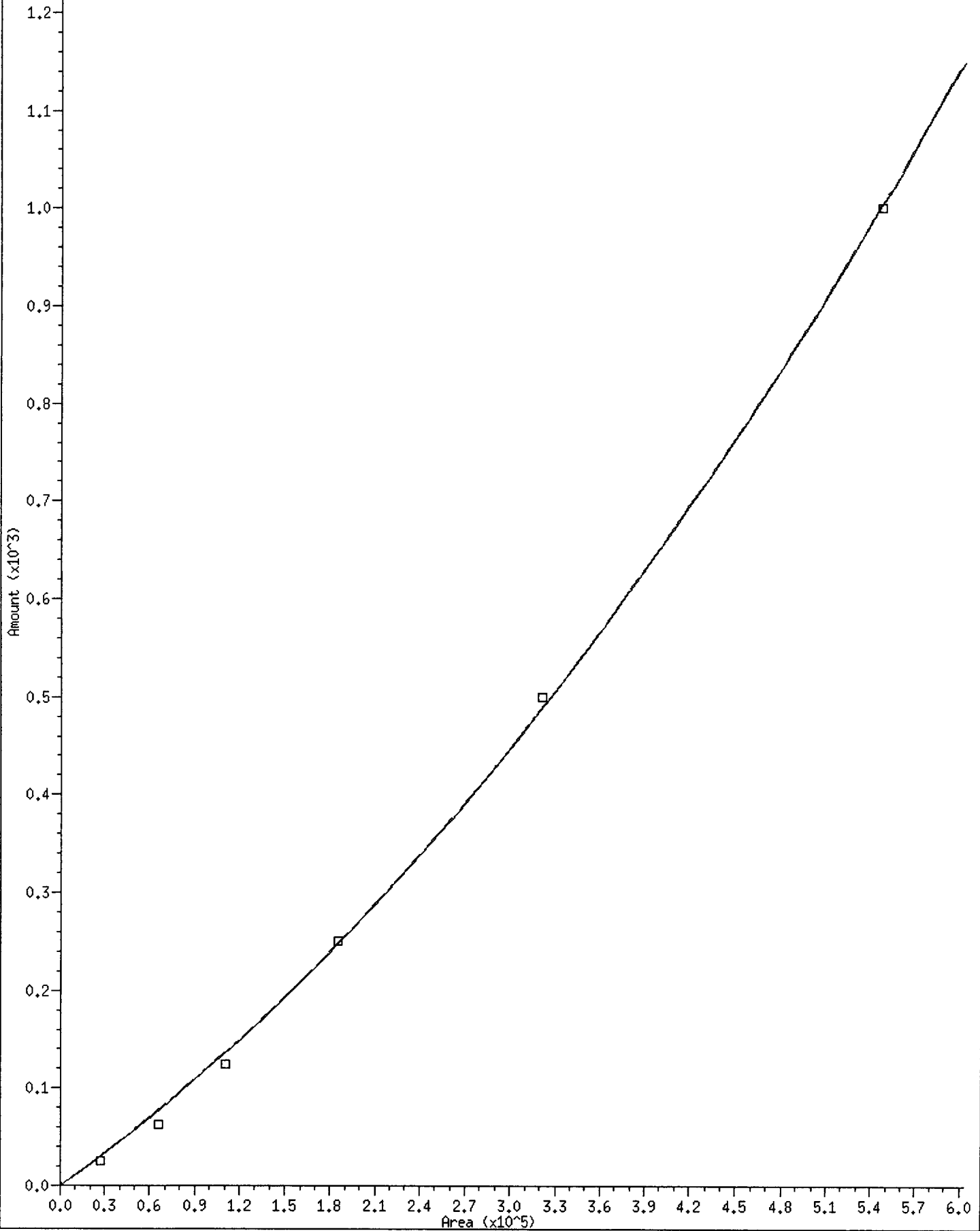
Calibration File Names:

Level 1: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A006.d
 Level 2: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A007.d
 Level 3: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A008.d
 Level 4: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A005.d
 Level 5: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A009.d
 Level 6: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A010.d

Compound	2 500	6.250	12 500	25.000	50.000	100.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
1 2,4-Dichlorophenol	1097	1054	883	740	641	548	827	26.903
2 2,4,6-Trichlorophenol	16786	16662	14578	13093	12272	11098	14082	16.616
3 2,3,6-Trichlorophenol	15568	15042	13310	12272	11632	10547	13062	15.024
4 2,4,5-Trichlorophenol	9778	9524	8121	7301	6984	6011	7953	18.617
5 2,3,4-Trichlorophenol	11460	11372	9885	8899	8584	7535	9622	16.411
6 2,3,5,6-Tetrachlorophenol	22383	22212	19882	18550	18023	16311	19560	12.321
8 2,3,4,5-Tetrachlorophenol	18122	17195	14860	13691	13097	11655	14770	16.802
9 Pentachlorophenol	27466	26894	24153	22504	21102	19181	23550	13.832
\$ 7 2,4,6-Tribromophenol (surr)	20786	20913	18315	17203	17401	15989	18435	10.919

1 2,4-Dichlorophenol

Curve Type: Quadratic By-Response
Amt = 0 + 0.001083425*Rsp + 1.364281e-09*Rsp^2
R^2: 0.9994024



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 15-JUN-2011 18:17
 End Cal Date : 15-JUN-2011 21:19
 Quant Method : ESTD
 Origin : Force
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl1.i/PCP20110615.b/PCP.m
 Cal Date : 17-Jun-2011 12:07 aron

Calibration File Names:

- Level 1: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A006.d
- Level 2: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A007.d
- Level 3: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A008.d
- Level 4: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A005.d
- Level 5: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A009.d
- Level 6: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A010.d

Compound	Level						Coefficients			%RSD or R^2	
	2 Level 1	6 Level 2	12 Level 3	25 Level 4	50 Level 5	100 Level 6	Curve	b	m1 m2		
1 2,4-Dichlorophenol	27432	65897	110335	184880	320745	548159	QUAD	0.000e+00	0.00108	1.364e-09	0.99940
2 2,4,6-Trichlorophenol	16786	16662	14578	13093	12272	11098	AVRG		14082		16.61589
3 2,3,6-Trichlorophenol	15568	15042	13310	12272	11632	10547	AVRG		13062		15.02421
4 2,4,5-Trichlorophenol	9778	9524	8121	7301	6984	6011	AVRG		7953		18.61699
5 2,3,4-Trichlorophenol	11460	11372	9885	8899	8584	7535	AVRG		9622		16.41091
6 2,3,5,6-Tetrachlorophenol	22383	22212	19882	18550	18023	16311	AVRG		19560		12.32127
8 2,3,4,5-Tetrachlorophenol	18122	17195	14860	13691	13097	11655	AVRG		14770		16.80194
9 Pentachlorophenol	27466	26894	24153	22504	21102	19181	AVRG		23550		13.83158
7 2,4,6-Tribromophenol (surr)	20786	20913	18315	17203	17401	15989	AVRG		18435		10.91864

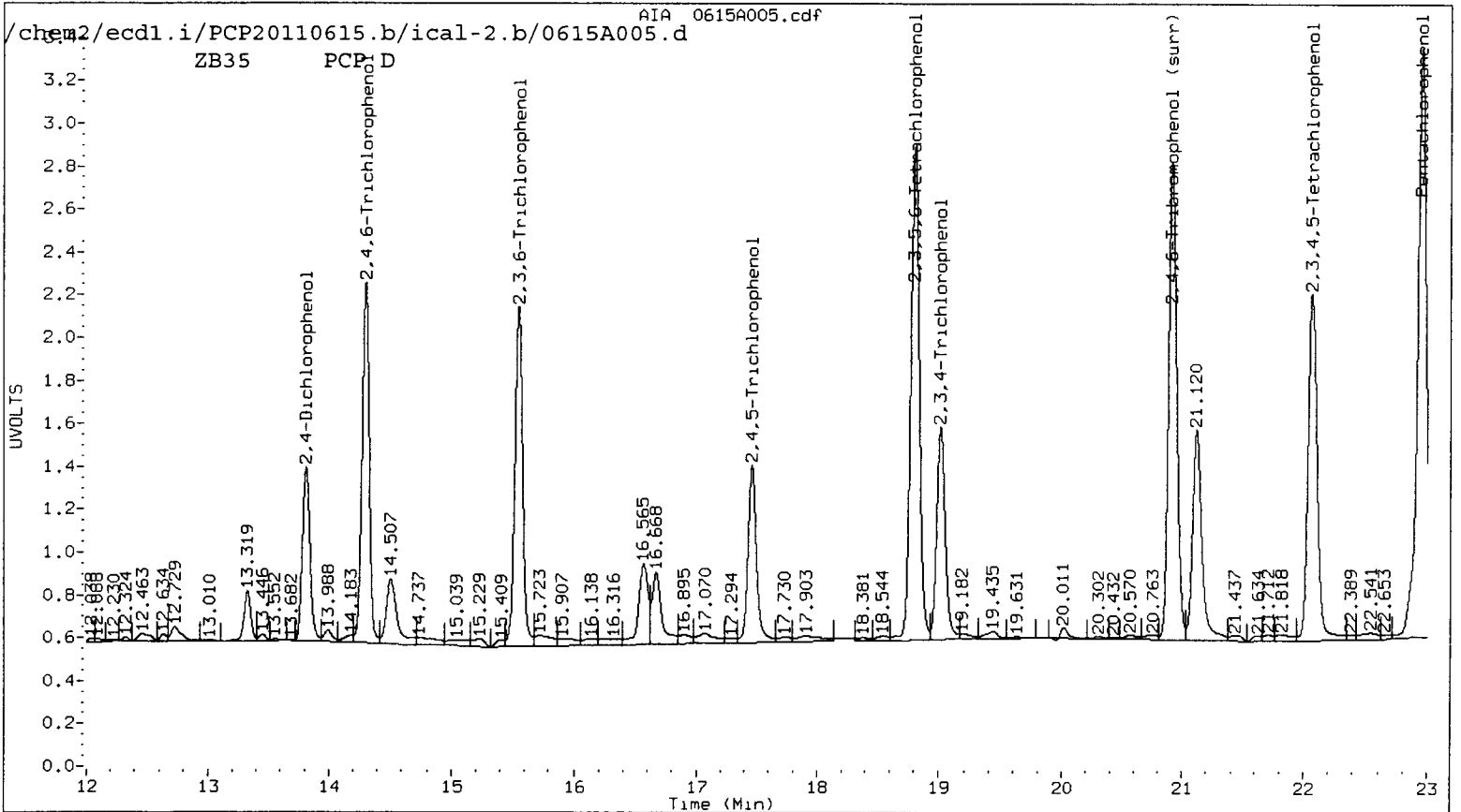
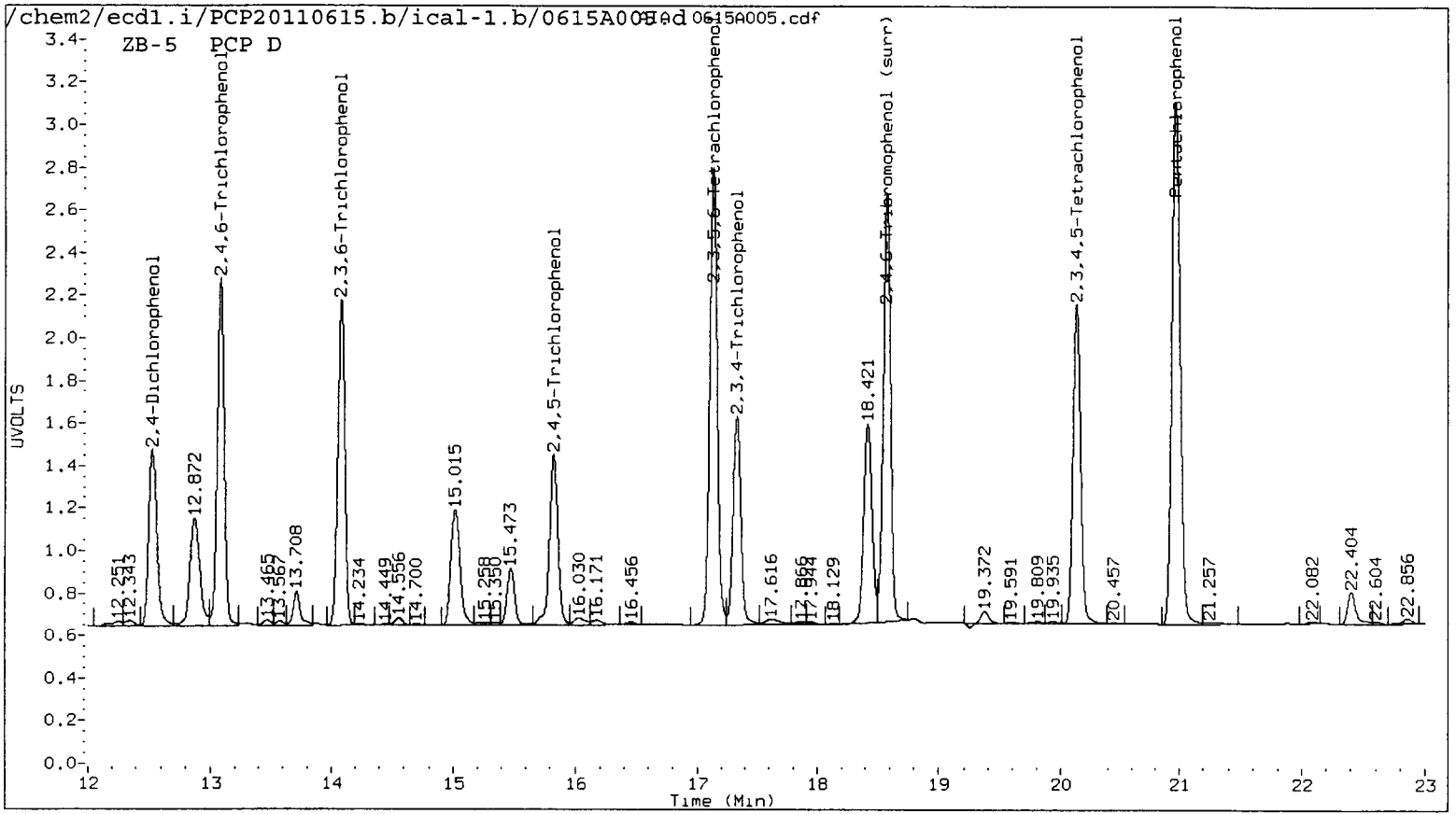
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

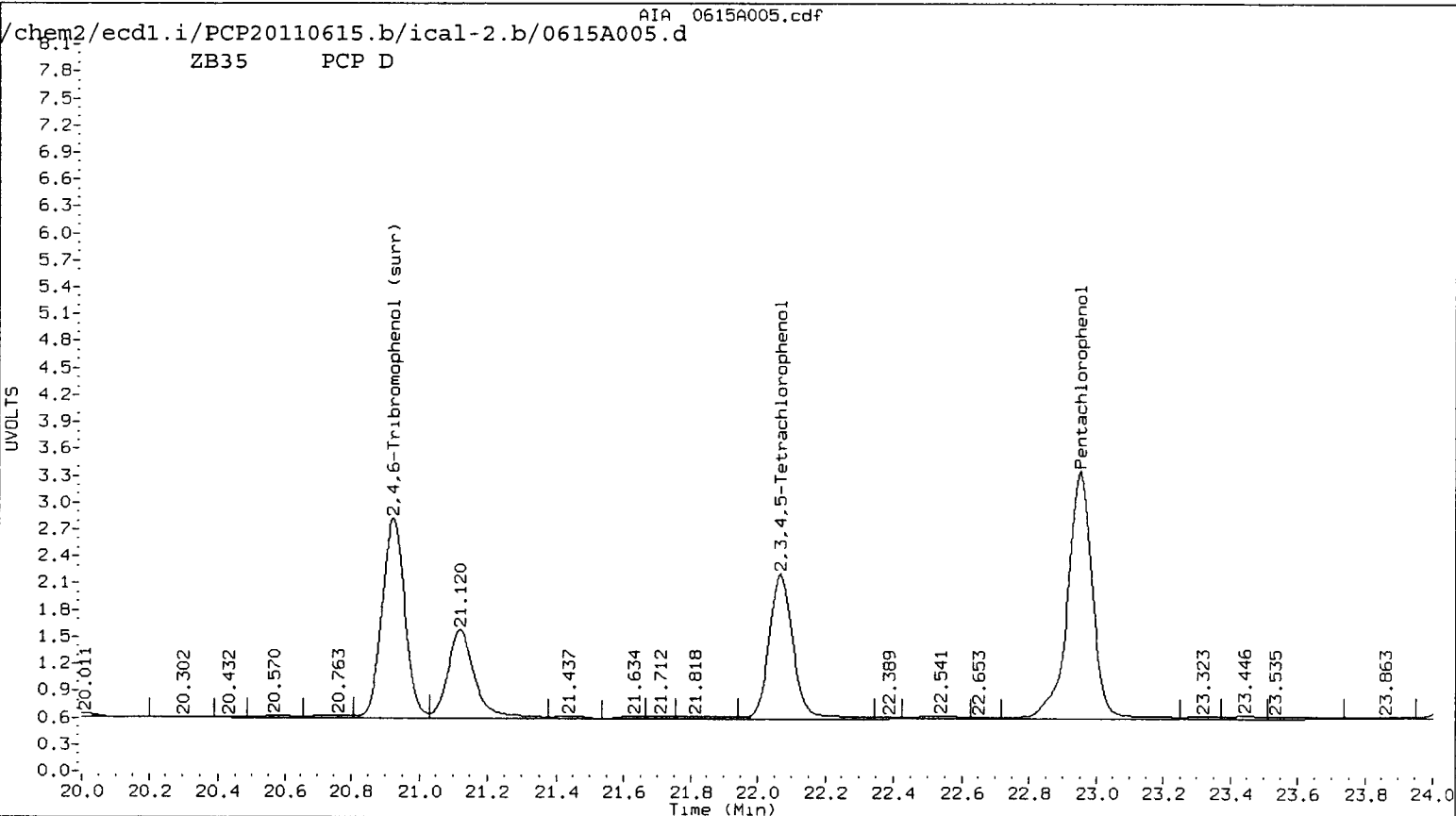
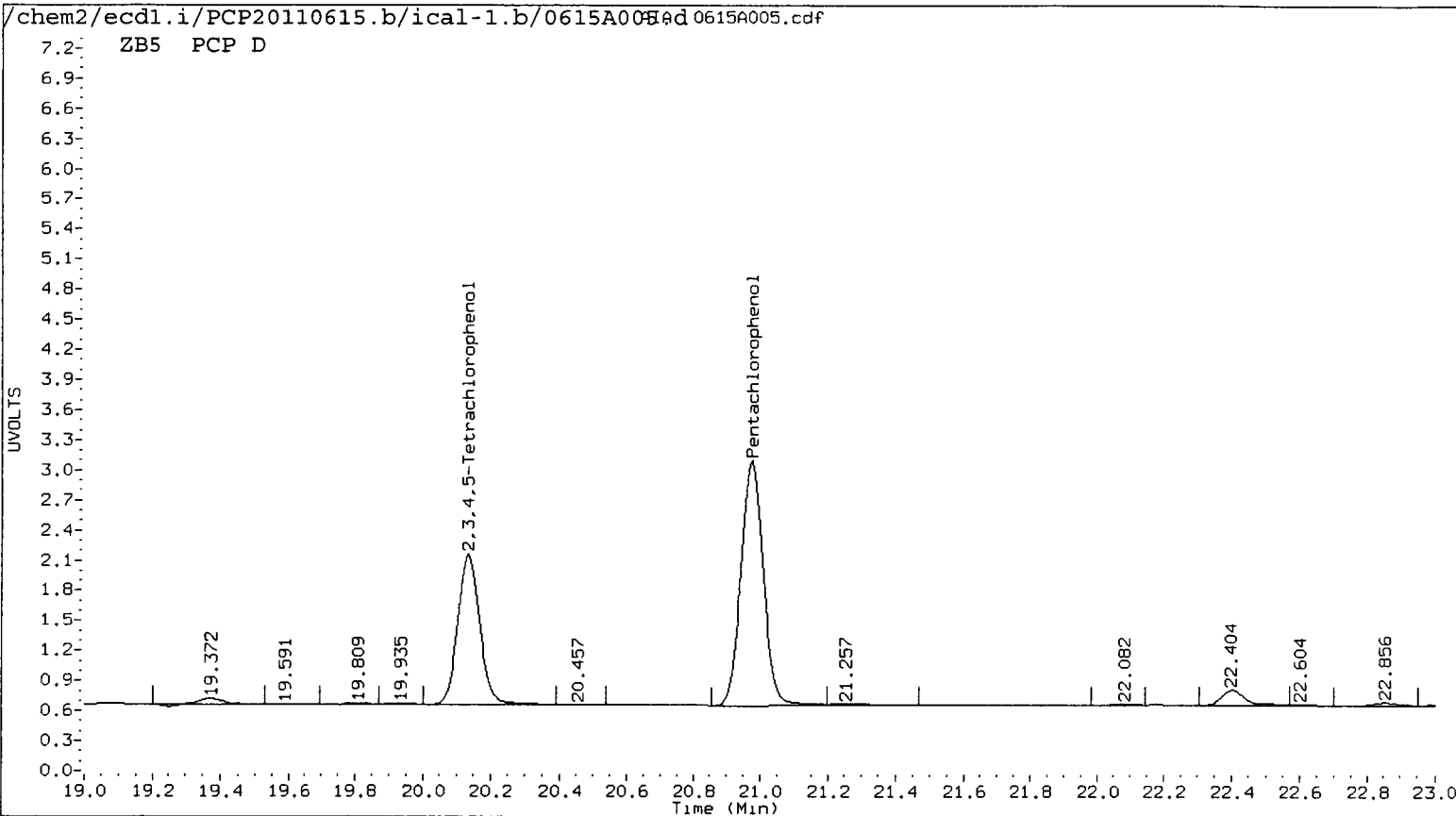
Data file 1: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A005.d ARI ID: PCP D
 Data file 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A005.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 15-JUN-2011 18:17
 Compound Sublist: all Report Date: 06/17/2011 12:09
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.000	562607	22.953	0.000	719603	23.8897	23.9479	0.2	Pentachlorophenol
13.079	0.000	327333	14.296	0.000	350431	23.2456	23.6732	1.8	2,4,6-Trichlorophenol
14.075	0.000	306797	15.542	0.000	352919	23.4880	23.7053	0.9	2,3,6-Trichlorophenol
15.824	0.000	182537	17.460	0.000	207462	22.9509	24.3801	6.0	2,4,5-Trichlorophenol
17.330	0.000	222463	19.010	0.000	241814	23.1193	23.8318	3.0	2,3,4-Trichlorophenol
17.131	0.000	463742	18.799	0.000	534903	23.7086	23.7713	0.3	2,3,5,6-Tetrachlorophenol
20.134	0.000	342280	22.067	0.000	404986	23.1740	23.8730	3.0	2,3,4,5-Tetrachlorophenol
12.534	0.000	184880	13.806	0.000	180468	246.9356	248.0794	0.5	2,4-Dichlorophenol
18.574	0.000	430074	20.922	0.000	511592	23.3	23.8	2.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	93.3	95.3





Data File: /chem2/ecdd1.1/PCP20110615.b/1cal-1.b/0615A005.d

Date : 15-JUN-2011 18:17

Client ID:

Sample Info: PCP D

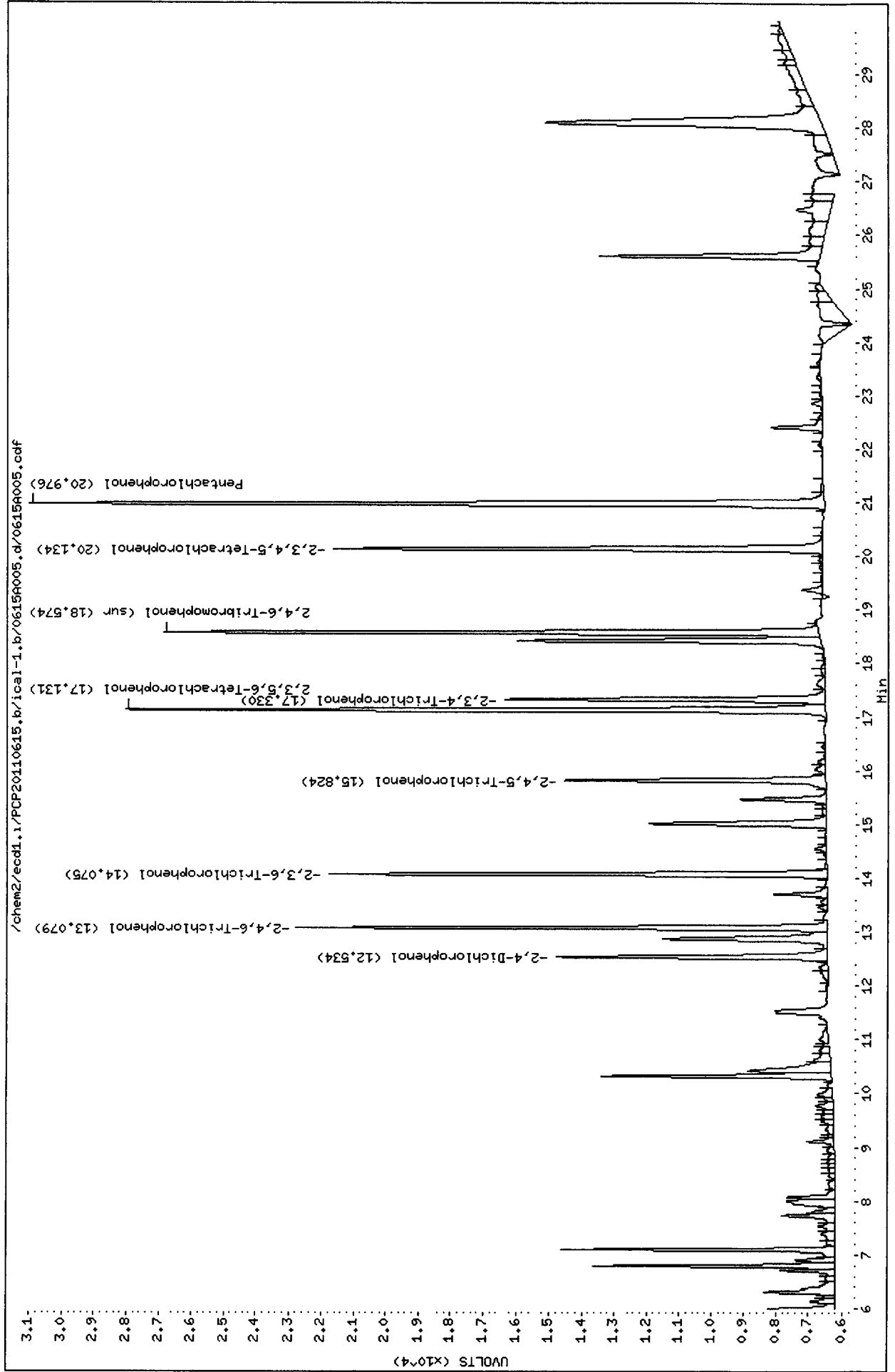
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: ecdd1.i

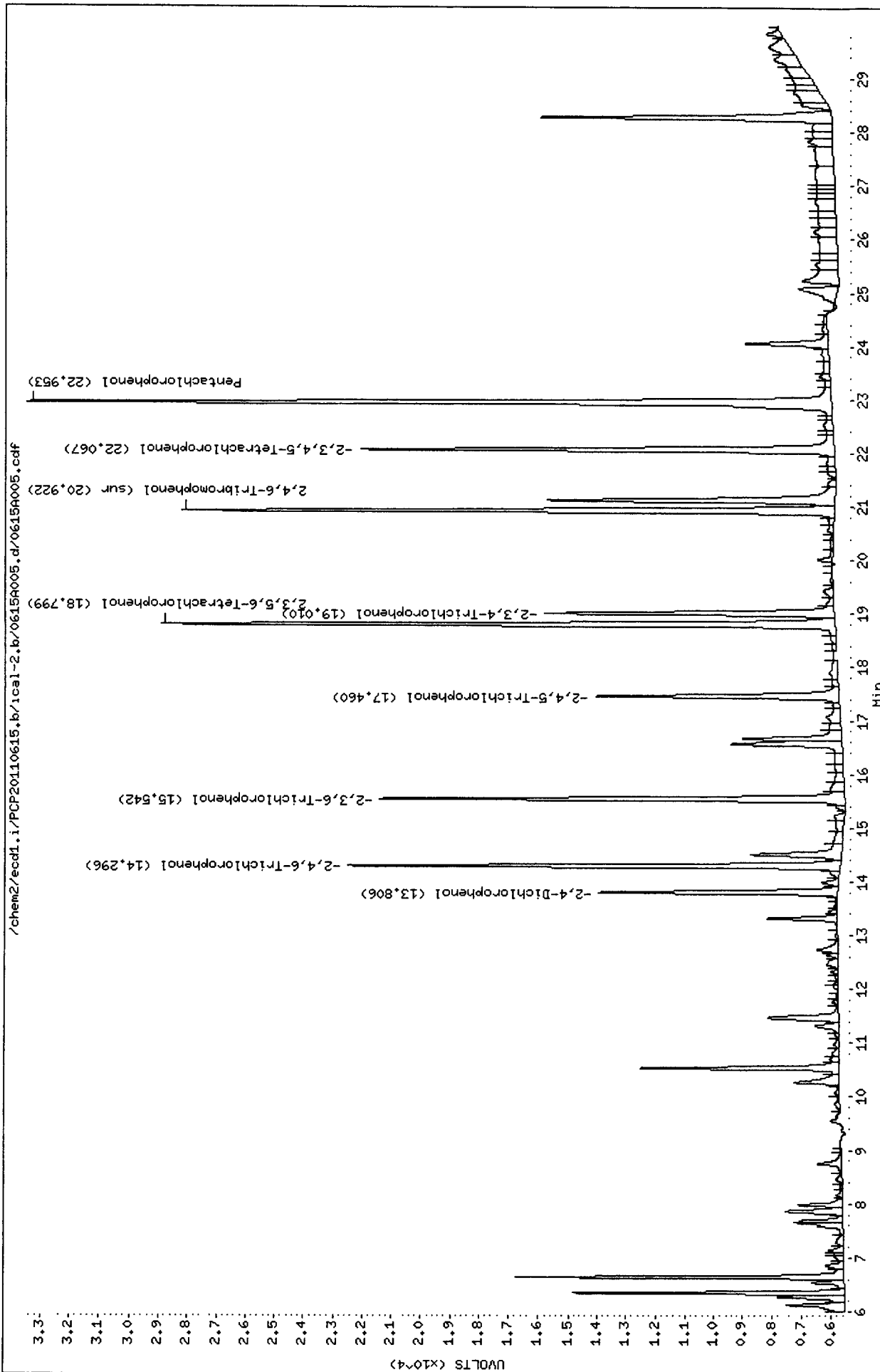
Operator: ar

Column diameter: 0.53



Data File: /chem2/ecd1.i/PCP20110615.b/ical-2.b/0615A005.d
Date : 15-JUN-2011 18:17
Client ID:
Sample Info: PCP D
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



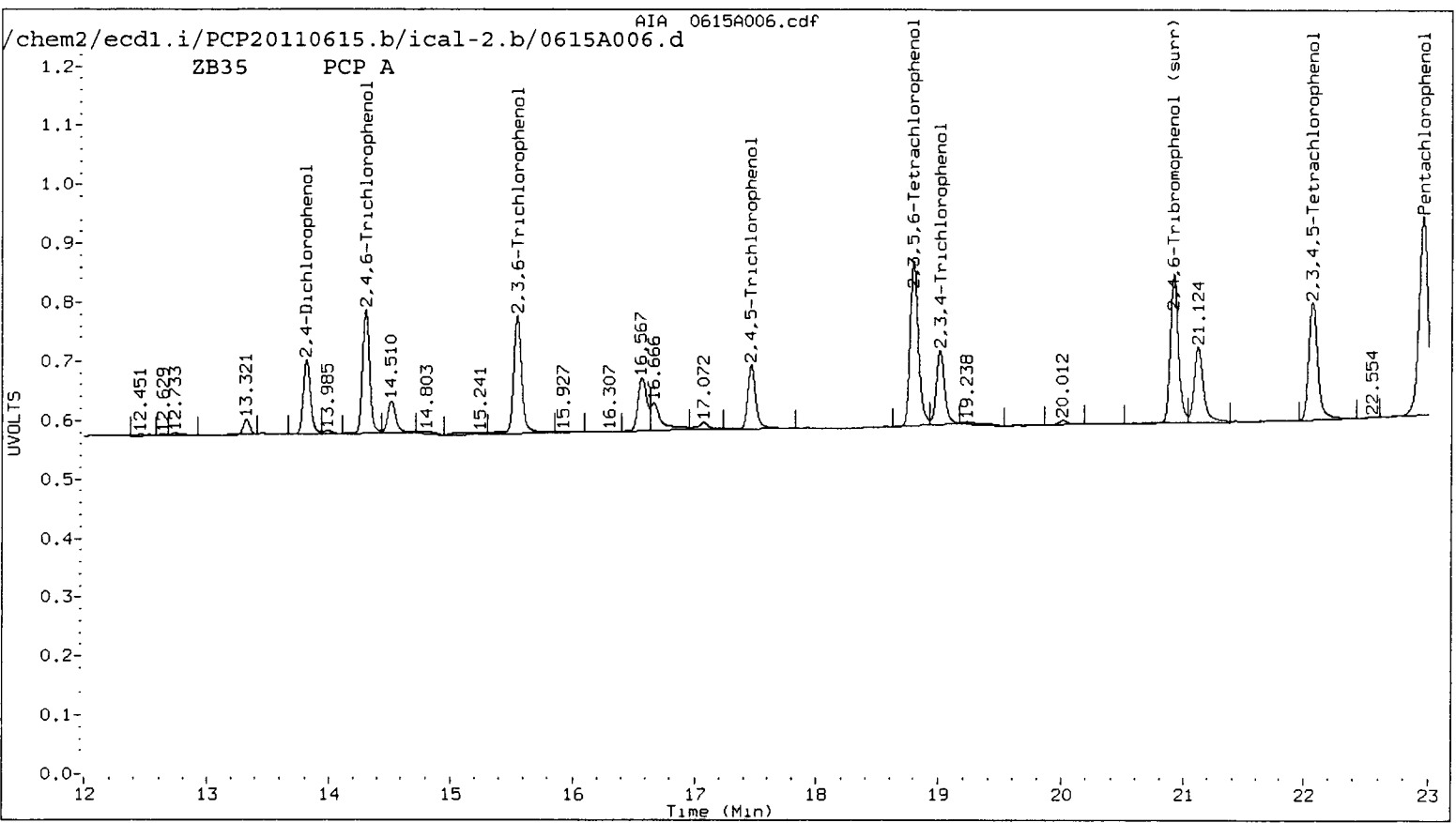
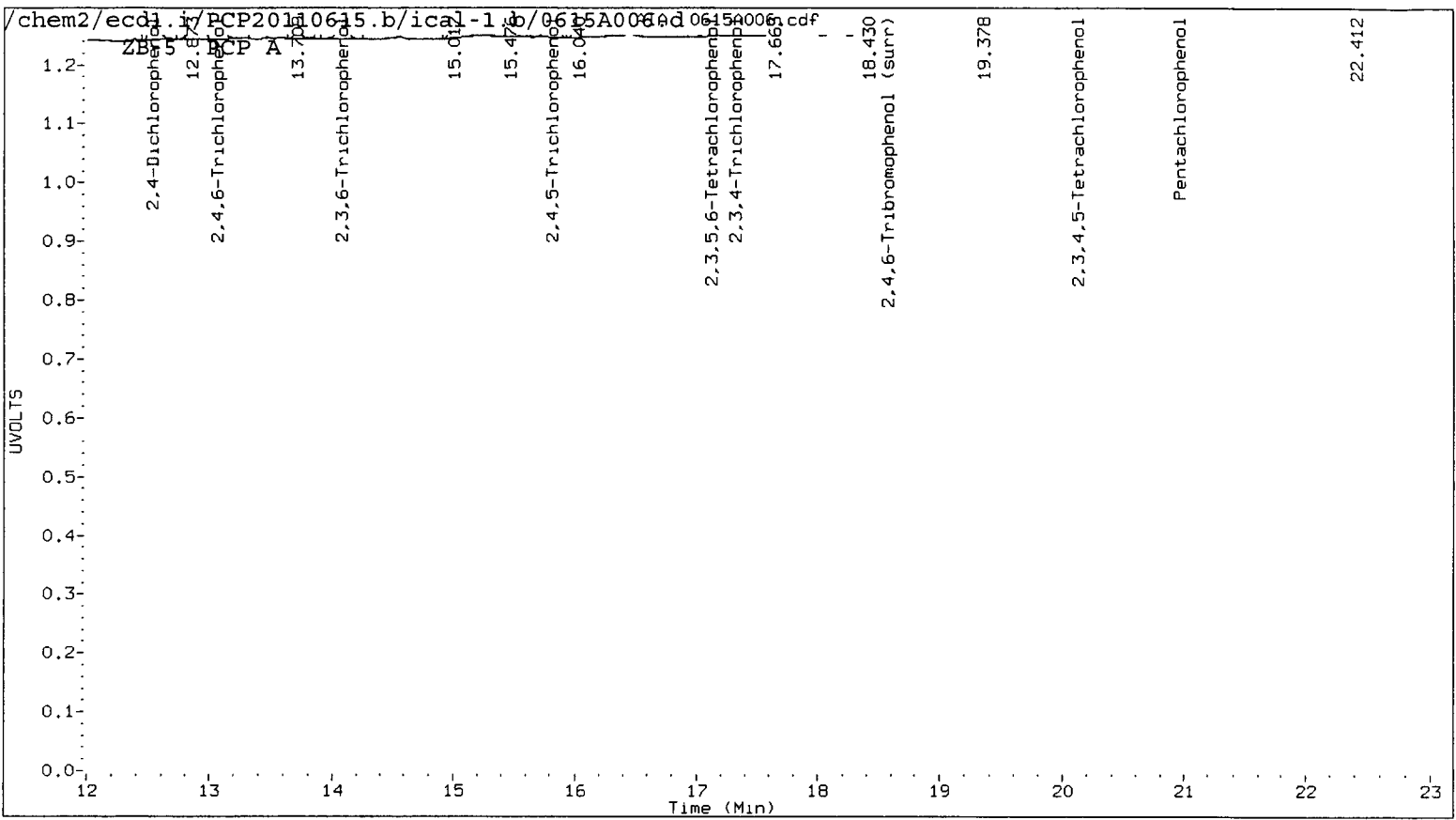
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

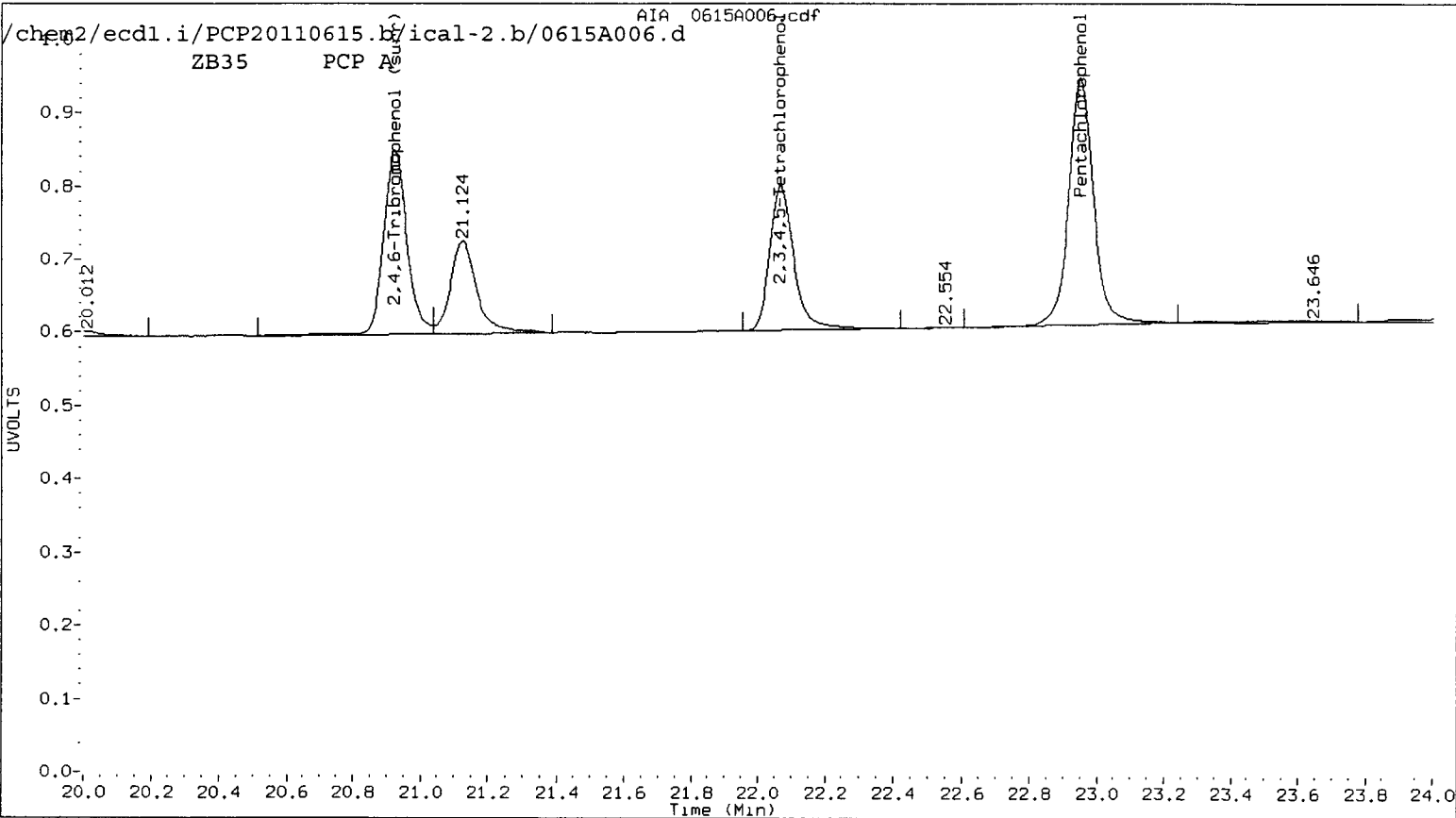
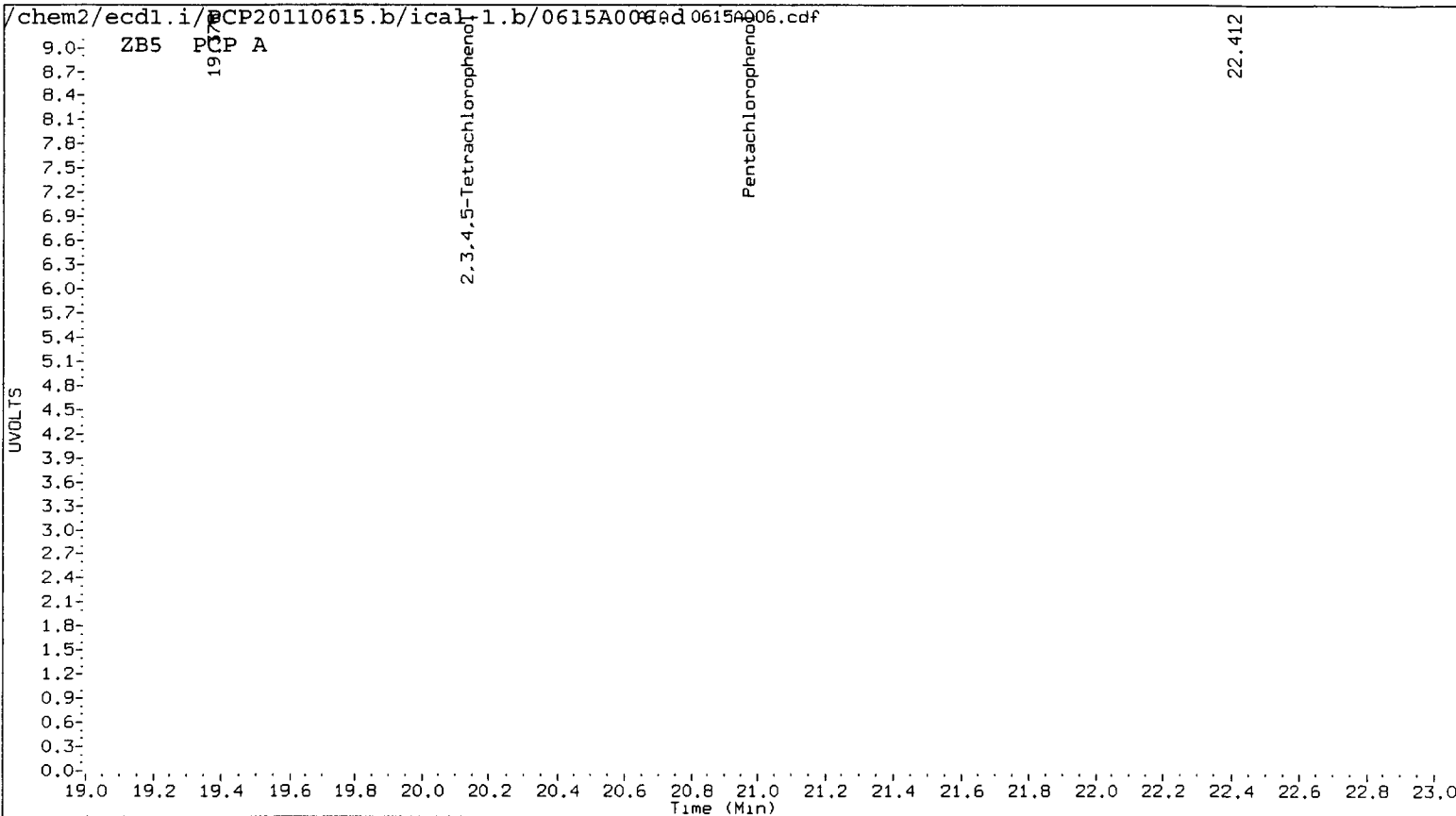
Data file 1: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A006.d ARI ID: PCP A
 Data file 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A006.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 15-JUN-2011 18:53
 Compound Sublist: all Report Date: 06/17/2011 12:09
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.978	0.002	68664	22.956	0.003	86370	2.9156	2.8743	1.4	Pentachlorophenol
13.080	0.001	41965	14.297	0.001	44047	2.9801	2.9756	0.2	2,4,6-Trichlorophenol
14.075	0.001	38919	15.543	0.001	45343	2.9796	3.0457	2.2	2,3,6-Trichlorophenol
15.827	0.002	24445	17.463	0.002	26159	3.0735	3.0741	0.0	2,4,5-Trichlorophenol
17.335	0.004	28651	19.013	0.003	29684	2.9775	2.9255	1.8	2,3,4-Trichlorophenol
17.132	0.001	55958	18.800	0.001	65755	2.8608	2.9222	2.1	2,3,5,6-Tetrachlorophenol
20.140	0.006	45305	22.070	0.003	50482	3.0674	2.9758	3.0	2,3,4,5-Tetrachlorophenol
12.537	0.003	27432	13.808	0.002	27267	30.7472	31.1610	1.3	2,4-Dichlorophenol
18.577	0.002	51966	20.924	0.001	61298	2.8	2.9	1.3	2,4,6-Tribromophenol (surr)

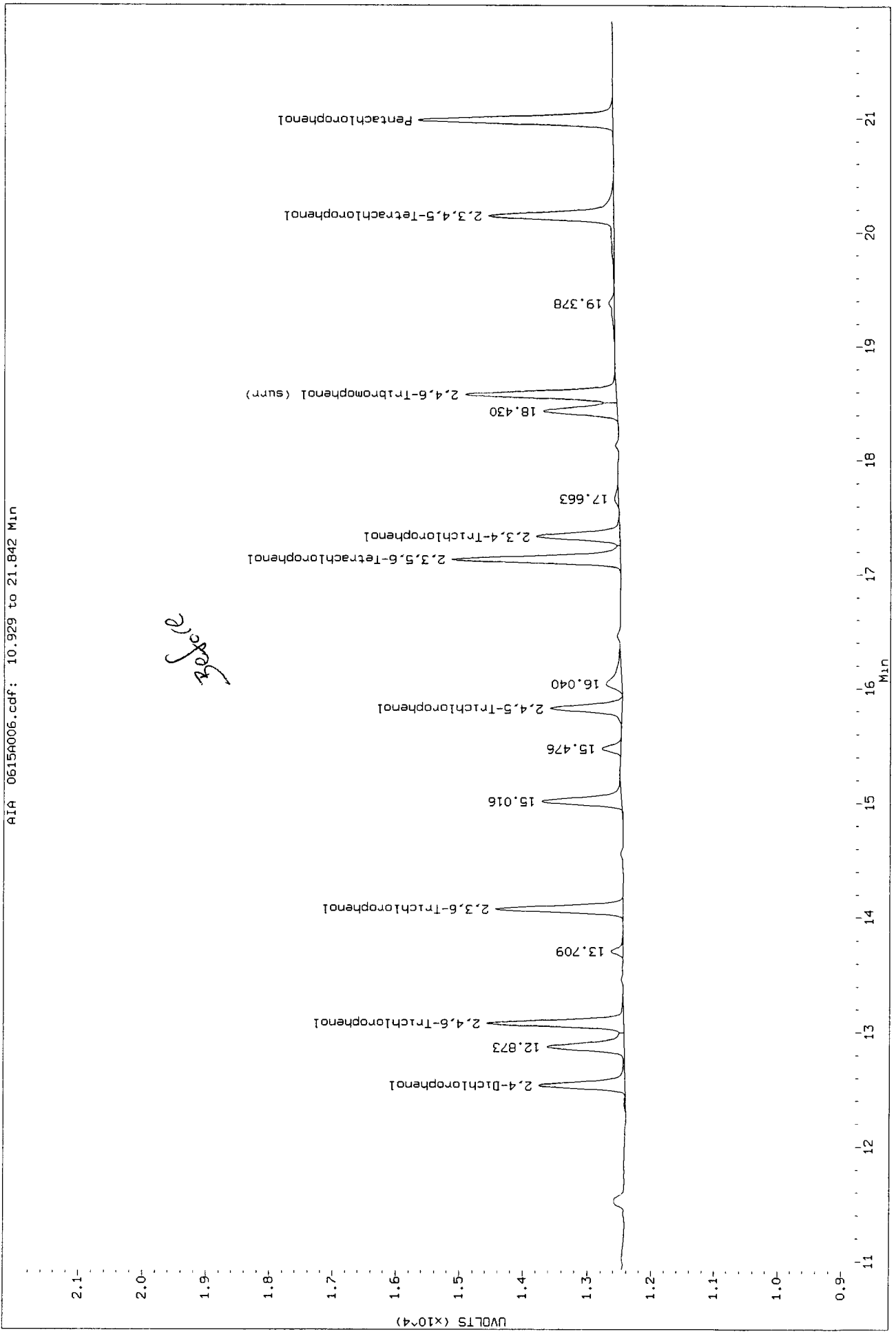
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	11.3	11.4





Data File: /chem2/ecdl1/PCP20110615.b/ical-1.b/0615A006.d/0615A006.cdf
Injection Date: 15-JUN-2011 16:53
Instrument: ecdl1
Client Sample ID:



TB85 : 00128

Data File: /chem2/ecd1.i/PCP20110615.b/ical-1.b/0615A006.d

Date : 15-JUN-2011 18:53

Client ID:

Instrument: ecd1.i

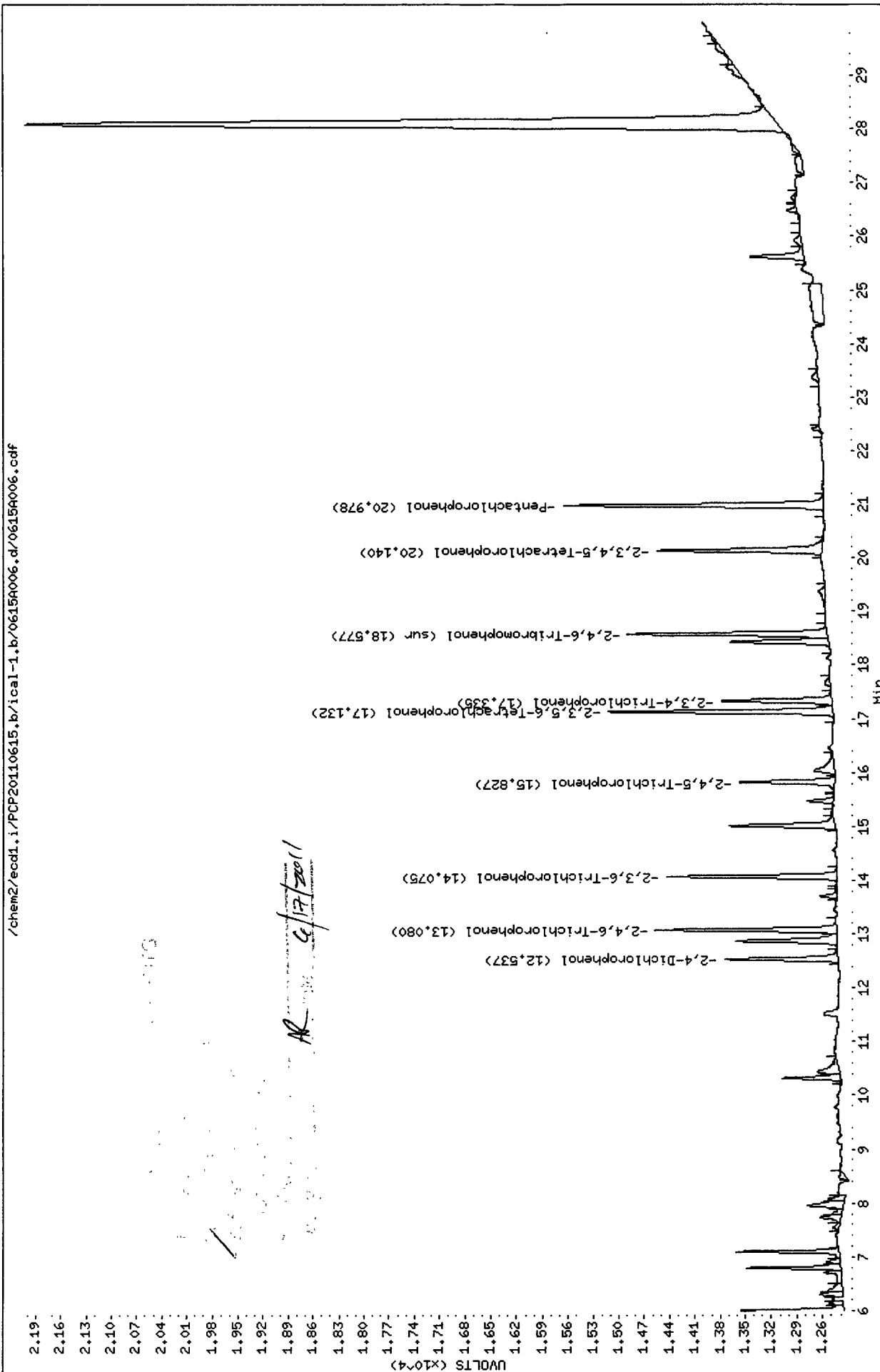
Sample Info: PCP A

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP1

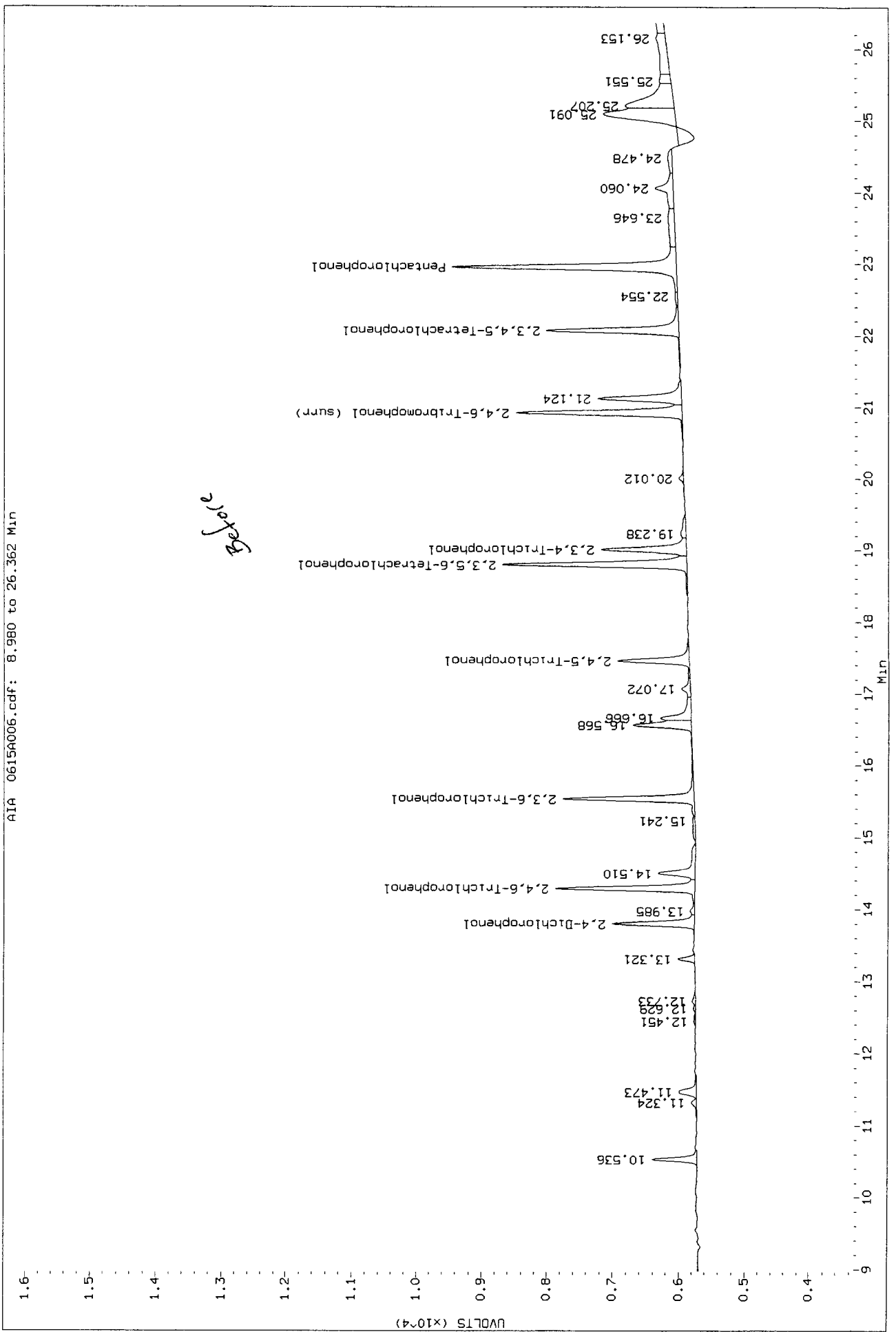
Column diameter: 0.53



/chem2/ecd1.i/PCP20110615.b/ical-1.b/0615A006.d/0615A006.cdf

15 JUN 2011 18:53
 PCP A
 STX CLP1
 AR
 6/17/2011

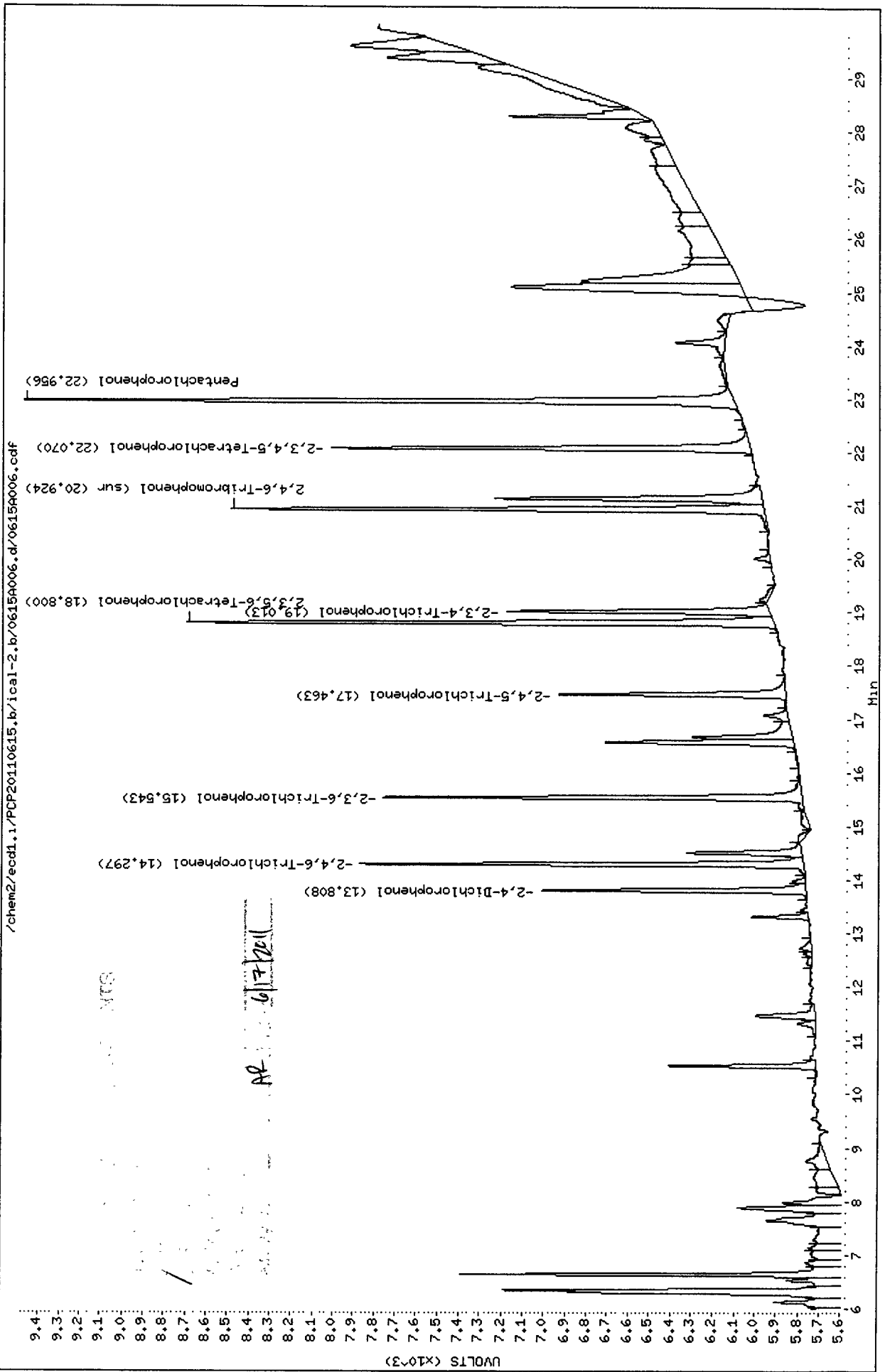
Data File: /chem2/ecdi.1/PCP20110615.b/1cal-2.b/0615A0006.d/0615A0006.cdf
Injection Date: 15-JUN-2011 18:53
Instrument: ecdi.1
Client Sample ID:



TB85 : 00130

Data File: /chem2/ecd1.i/PCP20110615.b/ical-2.b/0615A006.d
Date : 15-JUN-2011 18:53

Client ID: Instrument: ecd1.1
Sample Info: PCP A Operator: ar
Purge Volume: 500.0 Column diameter: 0.53
Column phase: STX CLP2



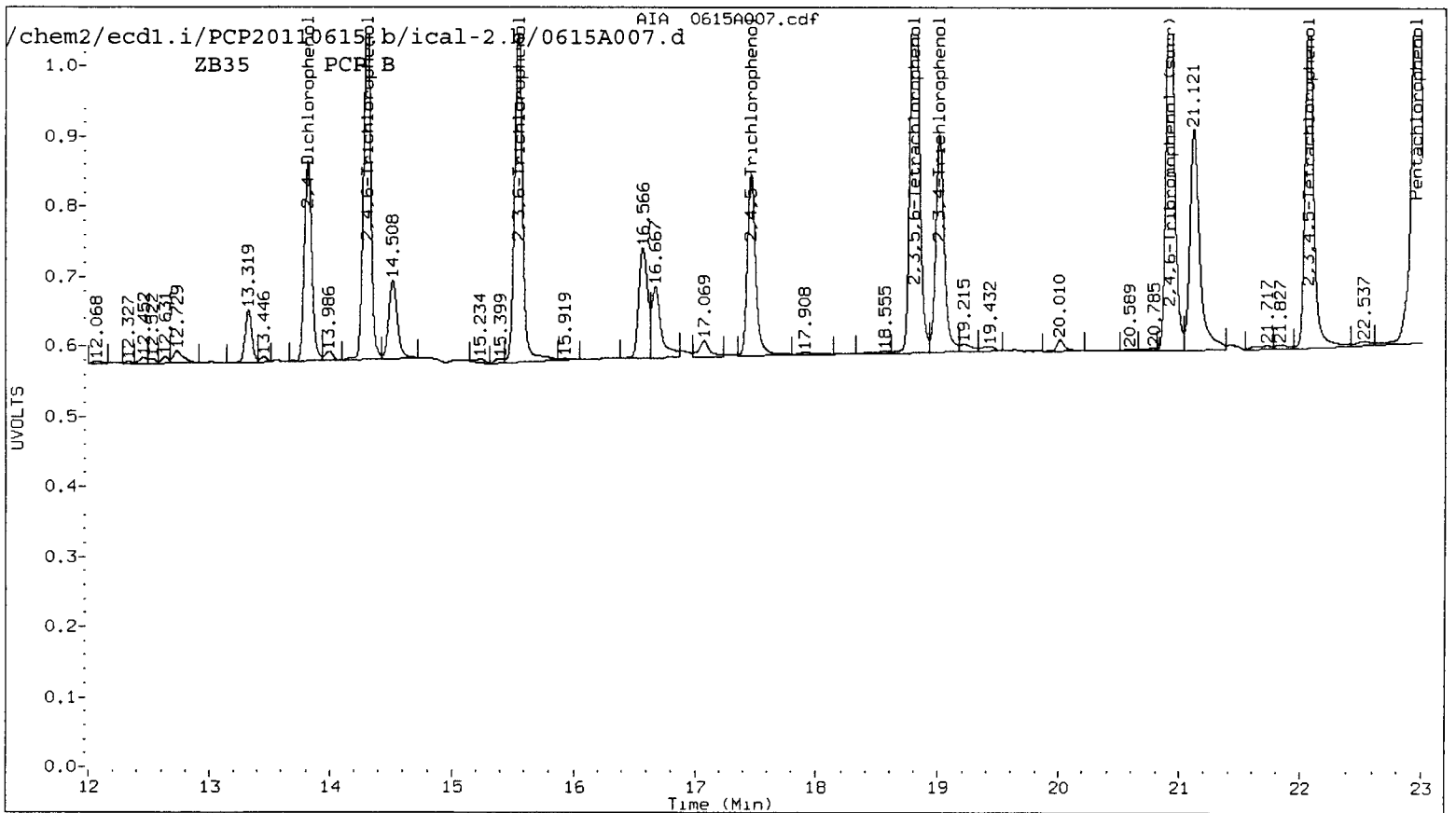
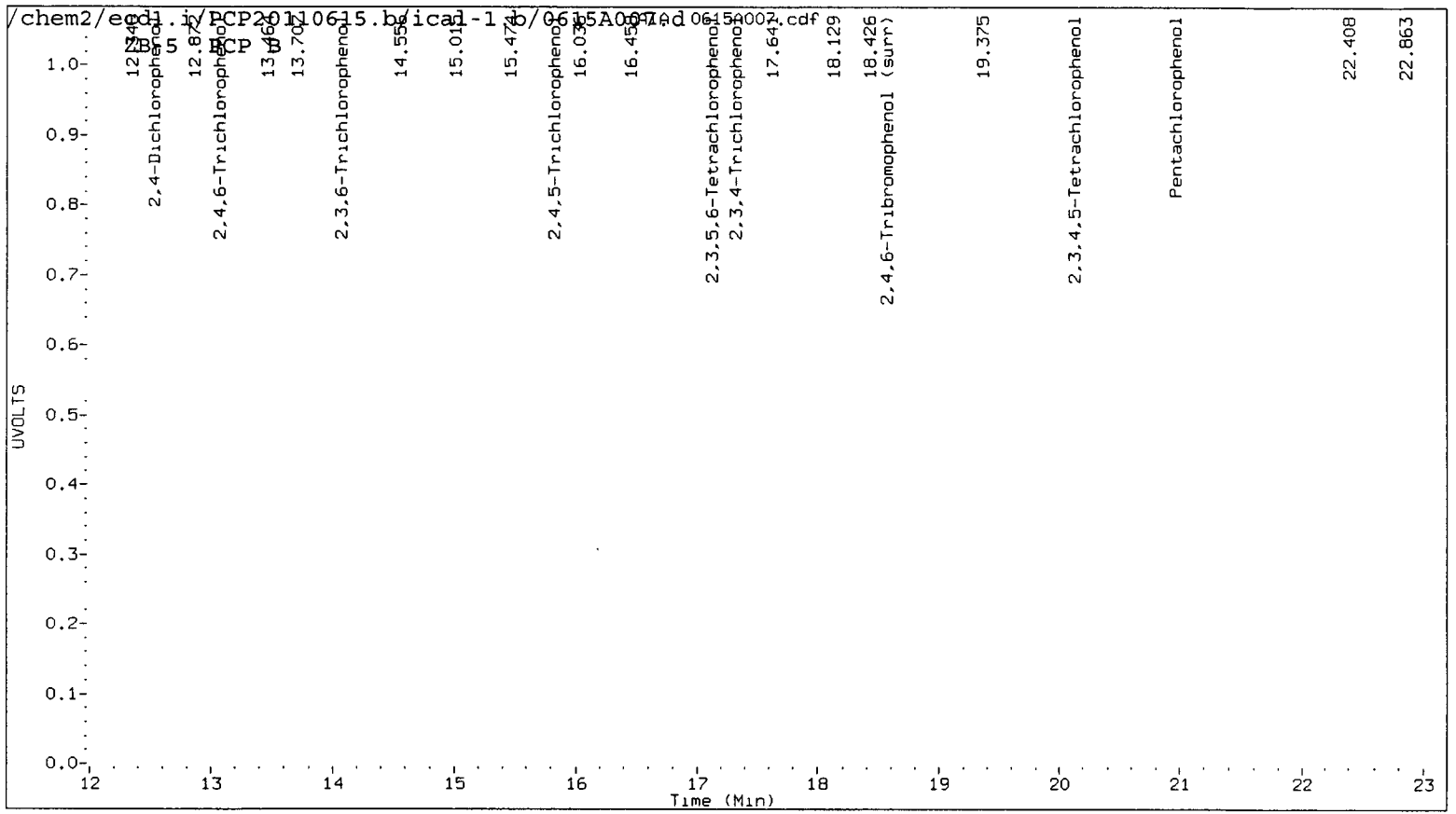
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

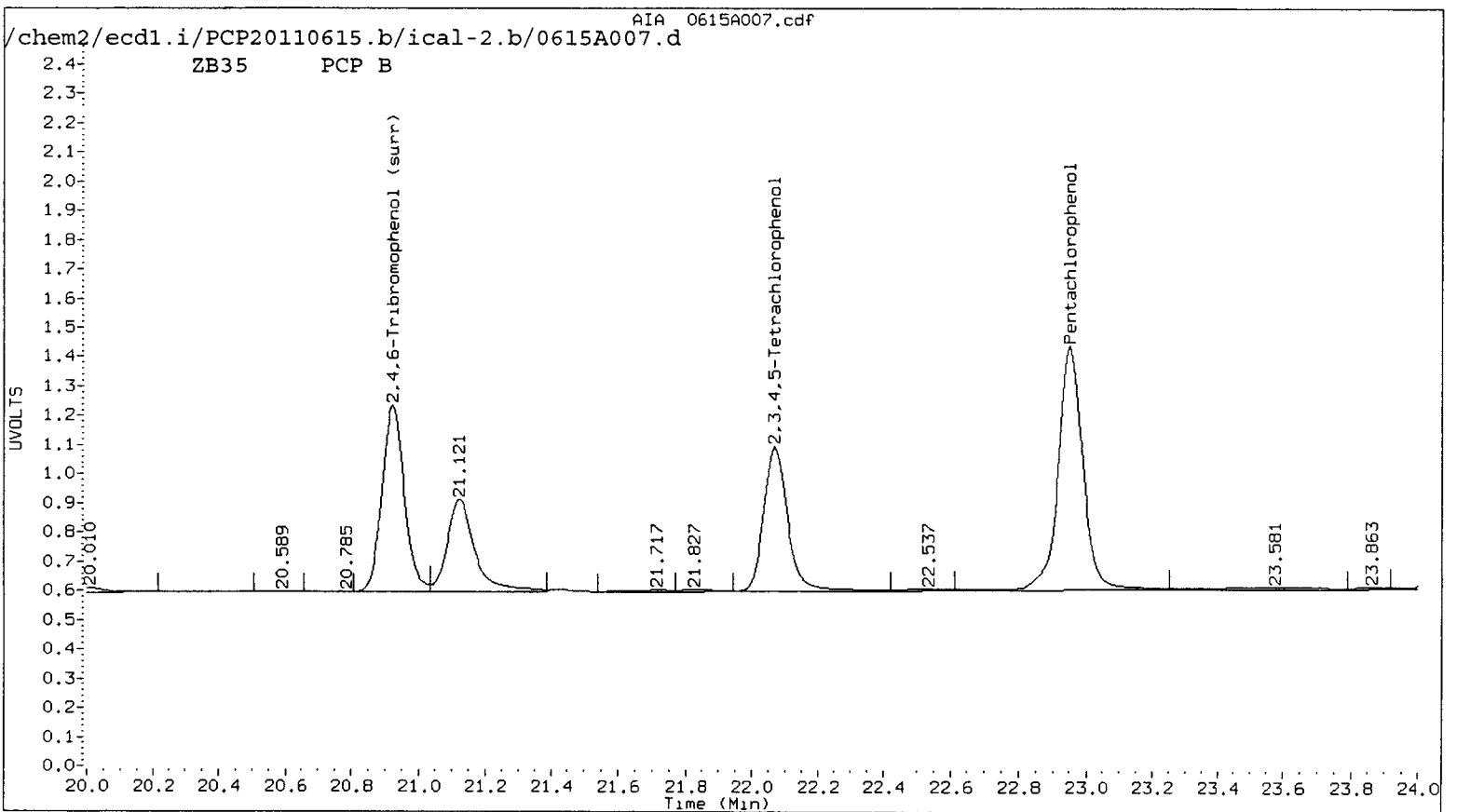
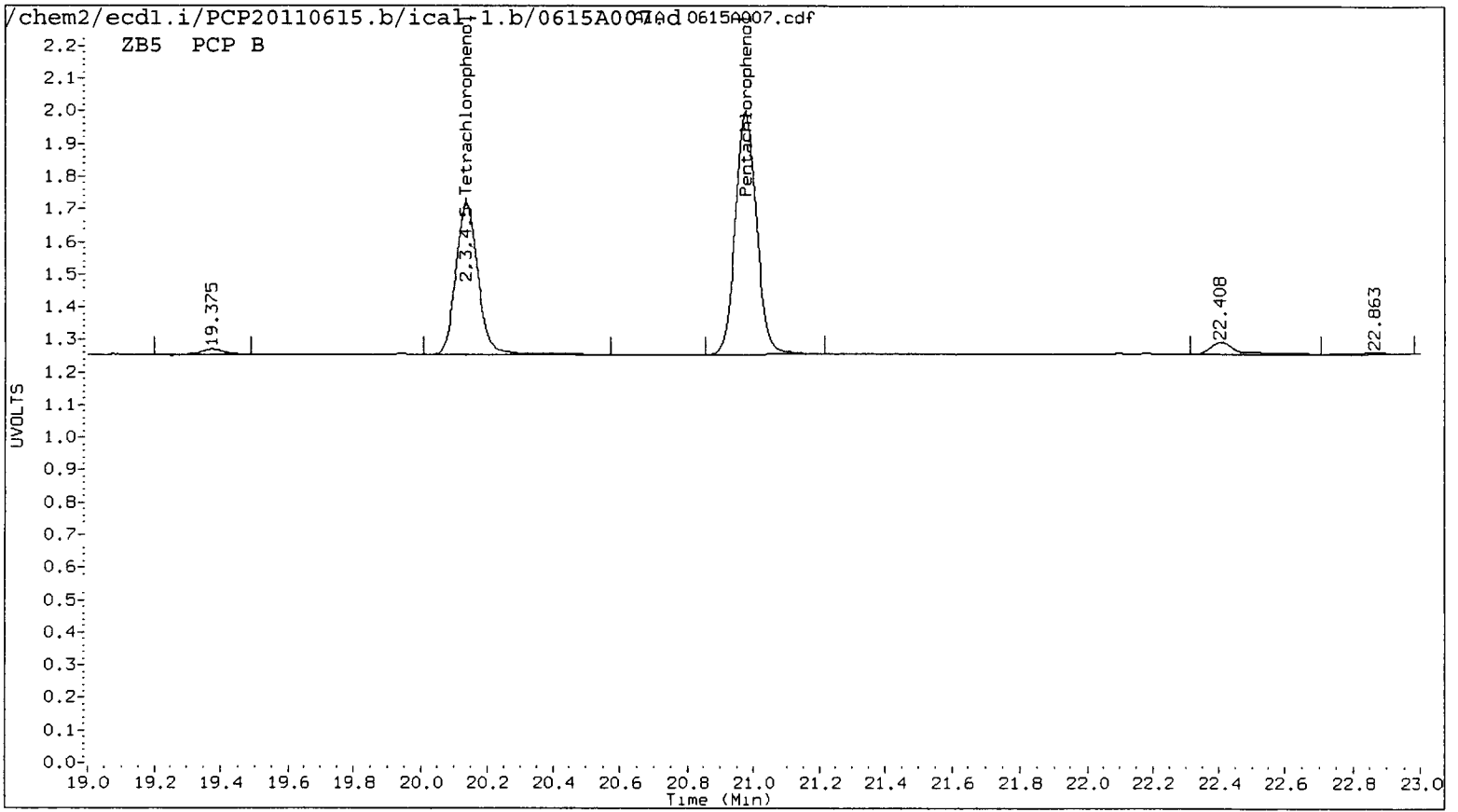
Data file 1: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A007.d ARI ID: PCP B
 Data file 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A007.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 15-JUN-2011 19:30
 Compound Sublist: all Report Date: 06/17/2011 12:09
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.001	168090	22.954	0.001	219362	7.1375	7.3002	2.3	Pentachlorophenol
13.079	-0.001	104137	14.295	-0.001	105941	7.3953	7.1568	3.3	2,4,6-Trichlorophenol
14.074	-0.001	94015	15.542	0.000	109577	7.1977	7.3602	2.2	2,3,6-Trichlorophenol
15.825	0.001	59528	17.461	0.000	63747	7.4846	7.4913	0.1	2,4,5-Trichlorophenol
17.332	0.002	71074	19.011	0.001	77145	7.3863	7.6030	2.9	2,3,4-Trichlorophenol
17.131	0.000	138823	18.800	0.001	162672	7.0973	7.2292	1.8	2,3,5,6-Tetrachlorophenol
20.136	0.002	107469	22.069	0.002	125194	7.2762	7.3799	1.4	2,3,4,5-Tetrachlorophenol
12.534	0.000	65897	13.806	0.000	62137	77.3187	74.2896	4.0	2,4-Dichlorophenol
18.575	0.001	130709	20.922	0.000	149203	7.1	7.0	2.0	2,4,6-Tribromophenol (surr)

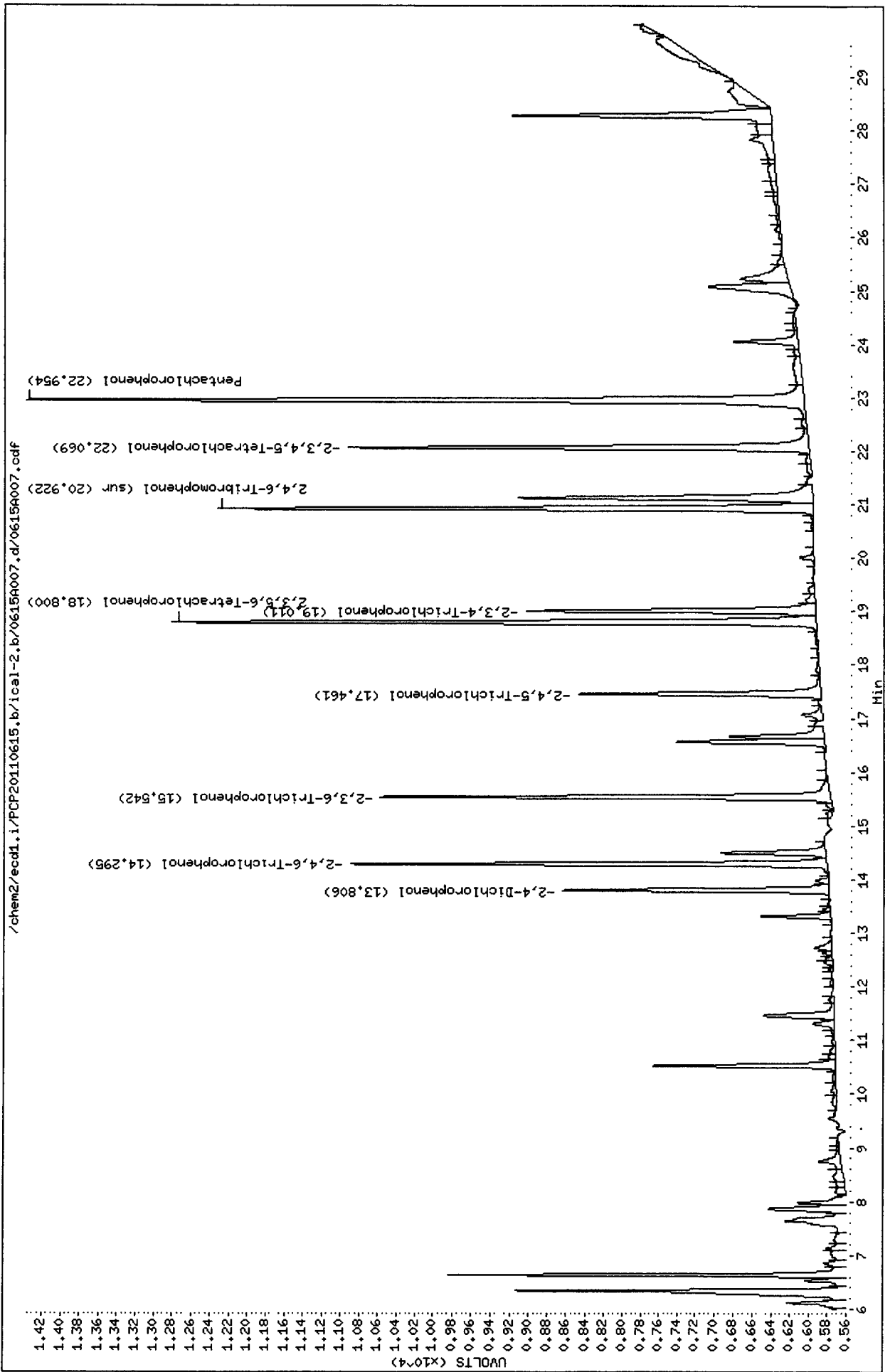
PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	28.4	27.8





Data File: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A007.d
Date : 15-JUN-2011 19:30
Client ID:
Sample Info: PCP B
Purge Volume: 500.0
Column phase: STX CLP2
Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A007.d

Date: 15-JUN-2011 19:30

Client ID:

Sample Info: PCP B

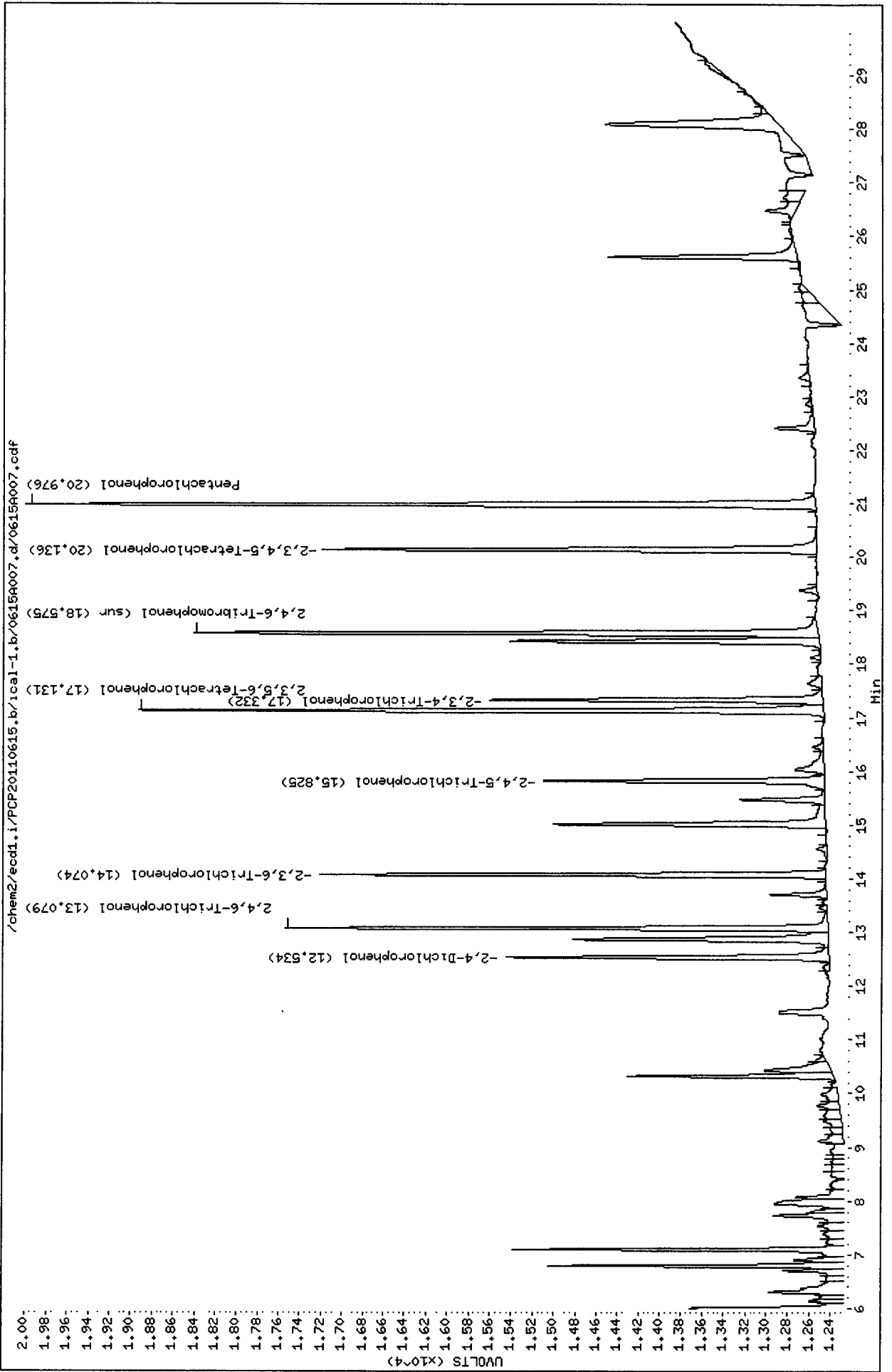
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53



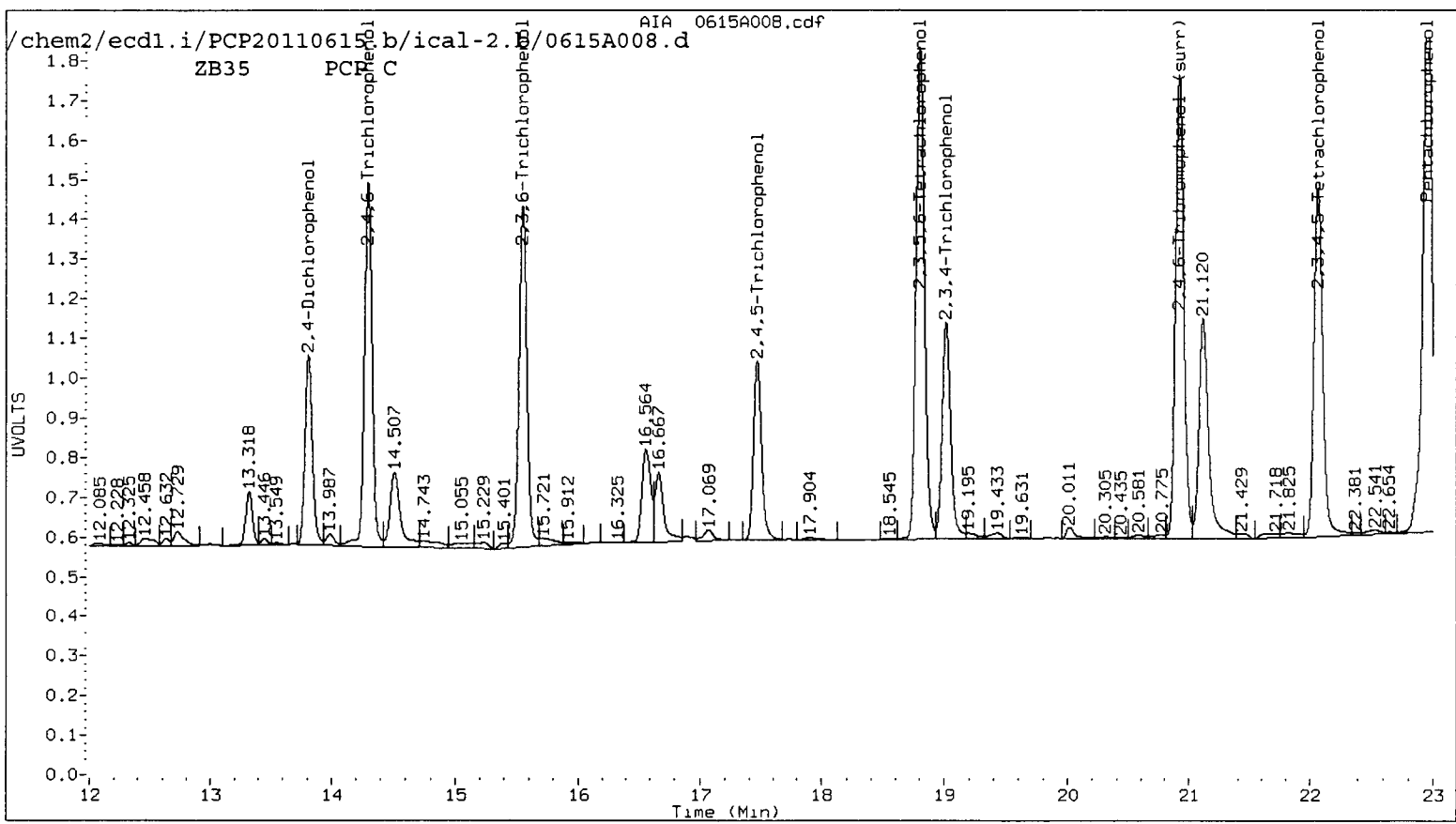
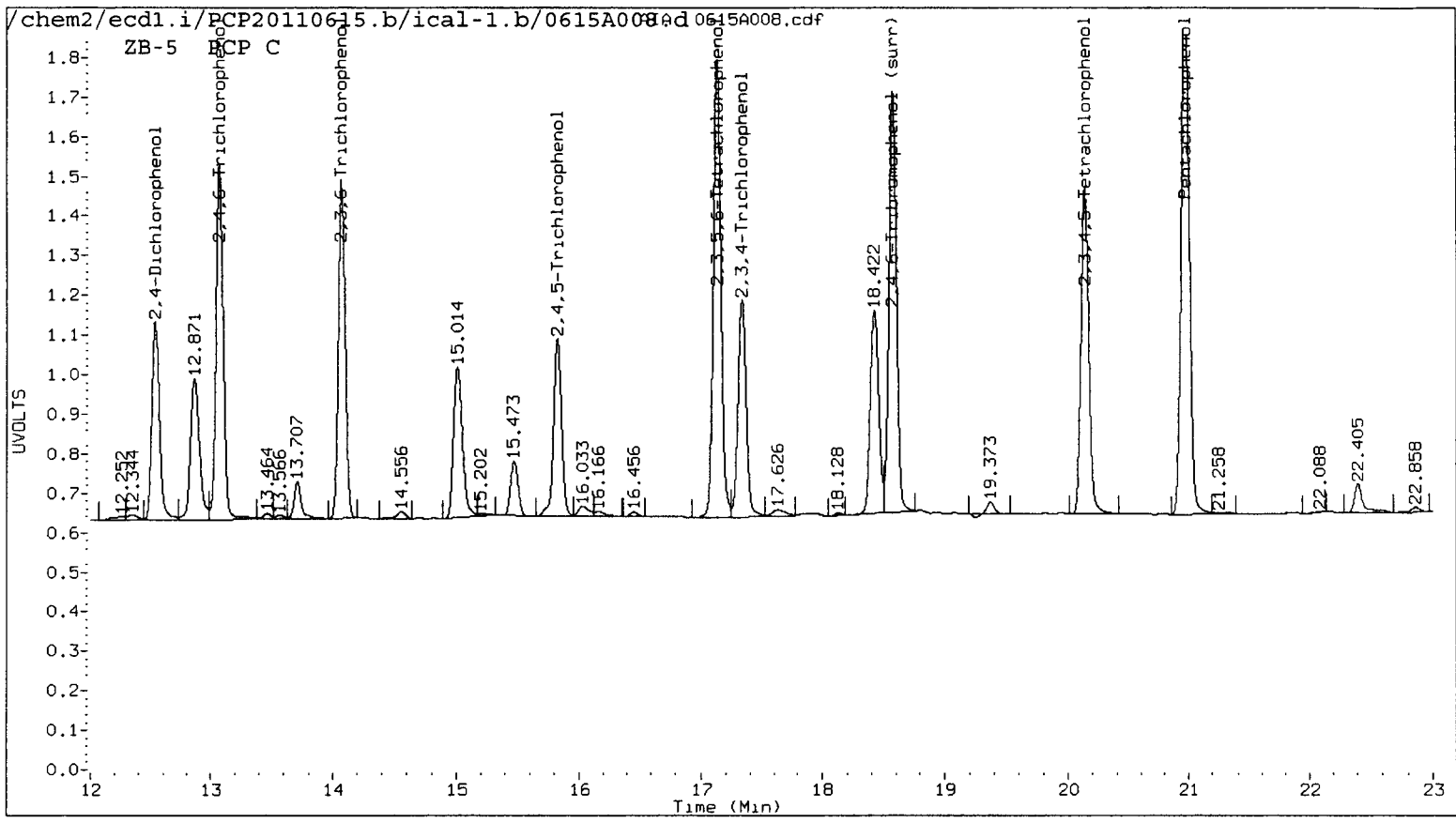
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

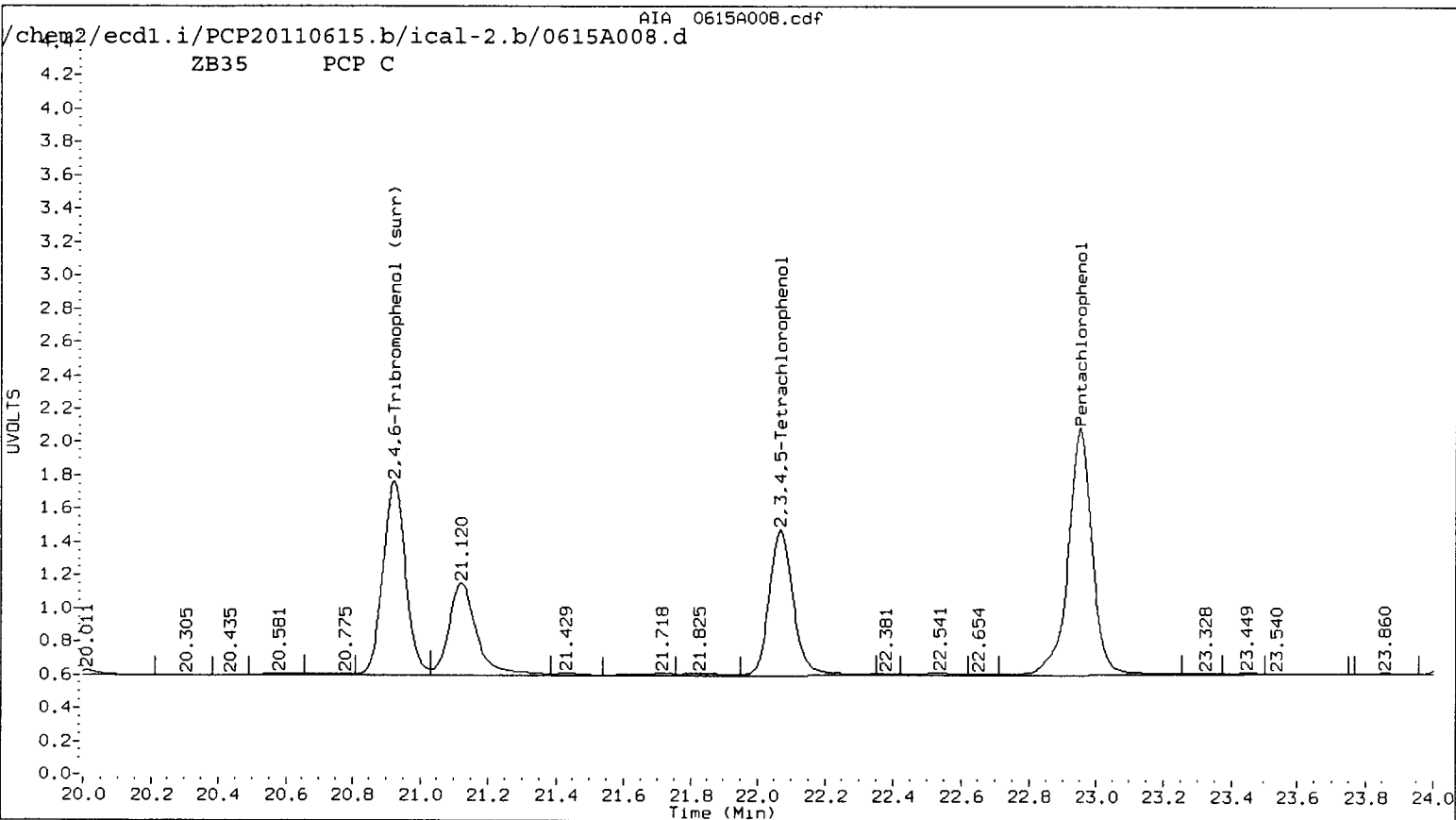
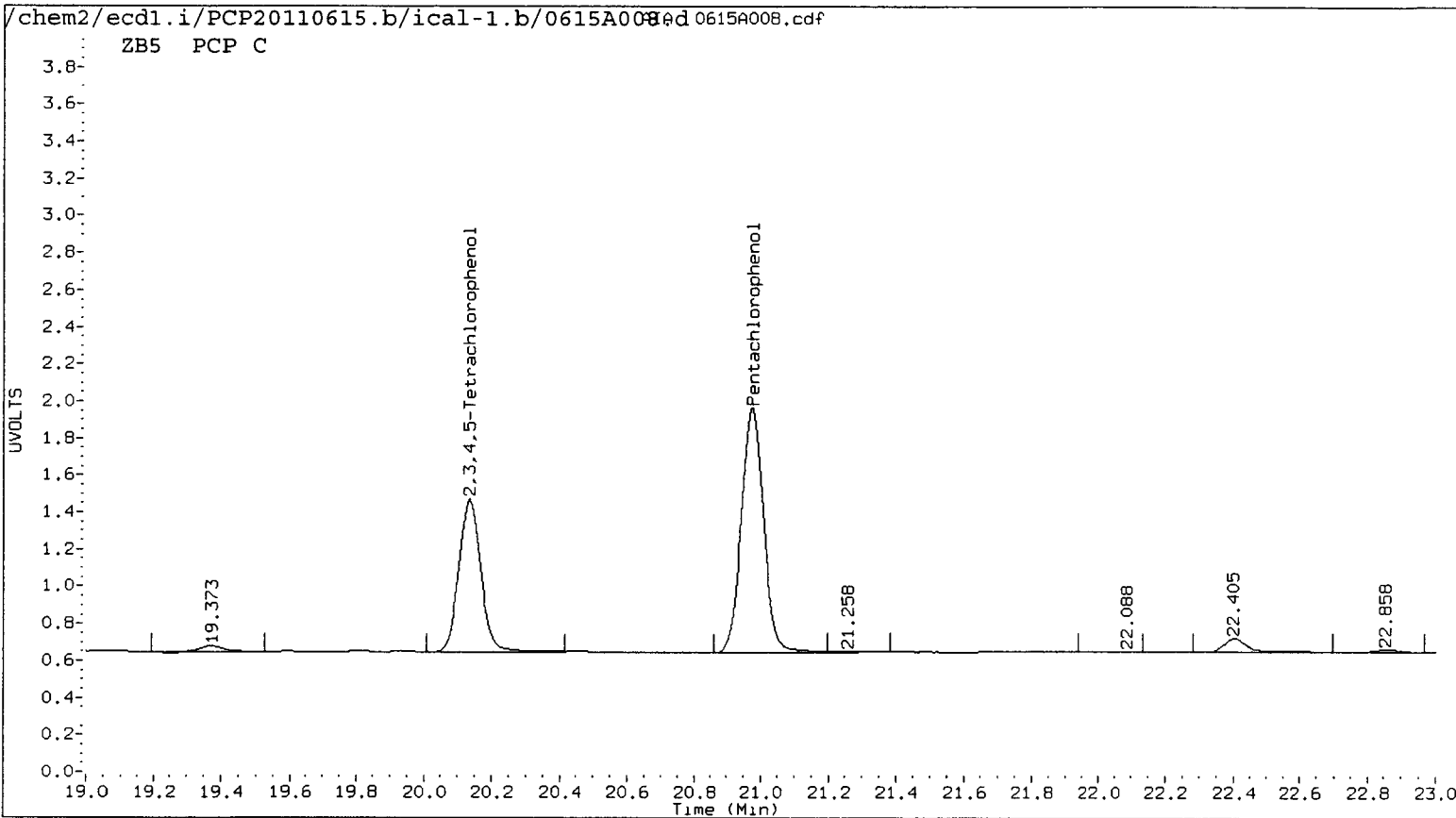
Data file 1: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A008.d ARI ID: PCP C
 Data file 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A008.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 15-JUN-2011 20:06
 Compound Sublist: all Report Date: 06/17/2011 12:09
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.975	-0.001 301917	22.953 0.000 381521	12.8202	12.6968	1.0	Pentachlorophenol
13.078	-0.001 182224	14.295 -0.001 195849	12.9407	13.2305	2.2	2,4,6-Trichlorophenol
14.074	-0.001 166376	15.542 -0.001 190106	12.7375	12.7693	0.2	2,3,6-Trichlorophenol
15.823	-0.001 101513	17.460 0.000 105874	12.7635	12.4419	2.6	2,4,5-Trichlorophenol
17.330	0.000 123559	19.010 0.000 133877	12.8408	13.1942	2.7	2,3,4-Trichlorophenol
17.130	-0.001 248519	18.799 0.000 286732	12.7054	12.7425	0.3	2,3,5,6-Tetrachlorophenol
20.134	0.000 185752	22.068 0.001 219392	12.5763	12.9327	2.8	2,3,4,5-Tetrachlorophenol
12.534	0.000 110335	13.806 0.000 106004	136.1482	133.7729	1.8	2,4-Dichlorophenol
18.573	-0.001 228943	20.922 -0.001 273493	12.4	12.7	2.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	49.7	51.0

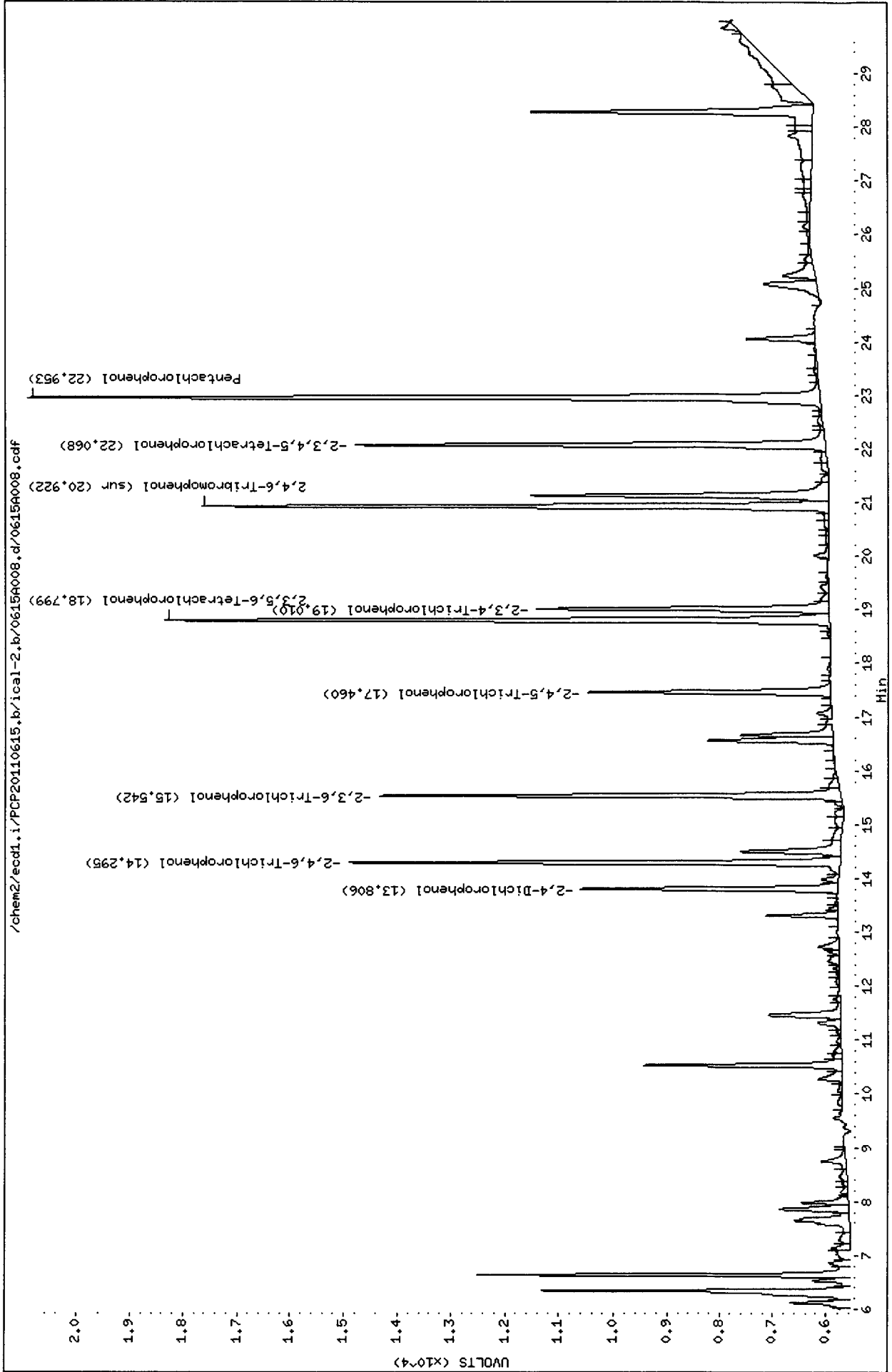




Data File: /chem2/ecdl1.i/PCP20110615.b/1cal-2.b/0615A008.d
Date : 15-JUN-2011 20:06
Client ID:
Sample Info: PCP C
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecdl1.i

Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdd1.i/PCP20110615.b/ical-1.b/0615A008.d

Date : 15-JUN-2011 20:06

Client ID:

Sample Info: PCP C

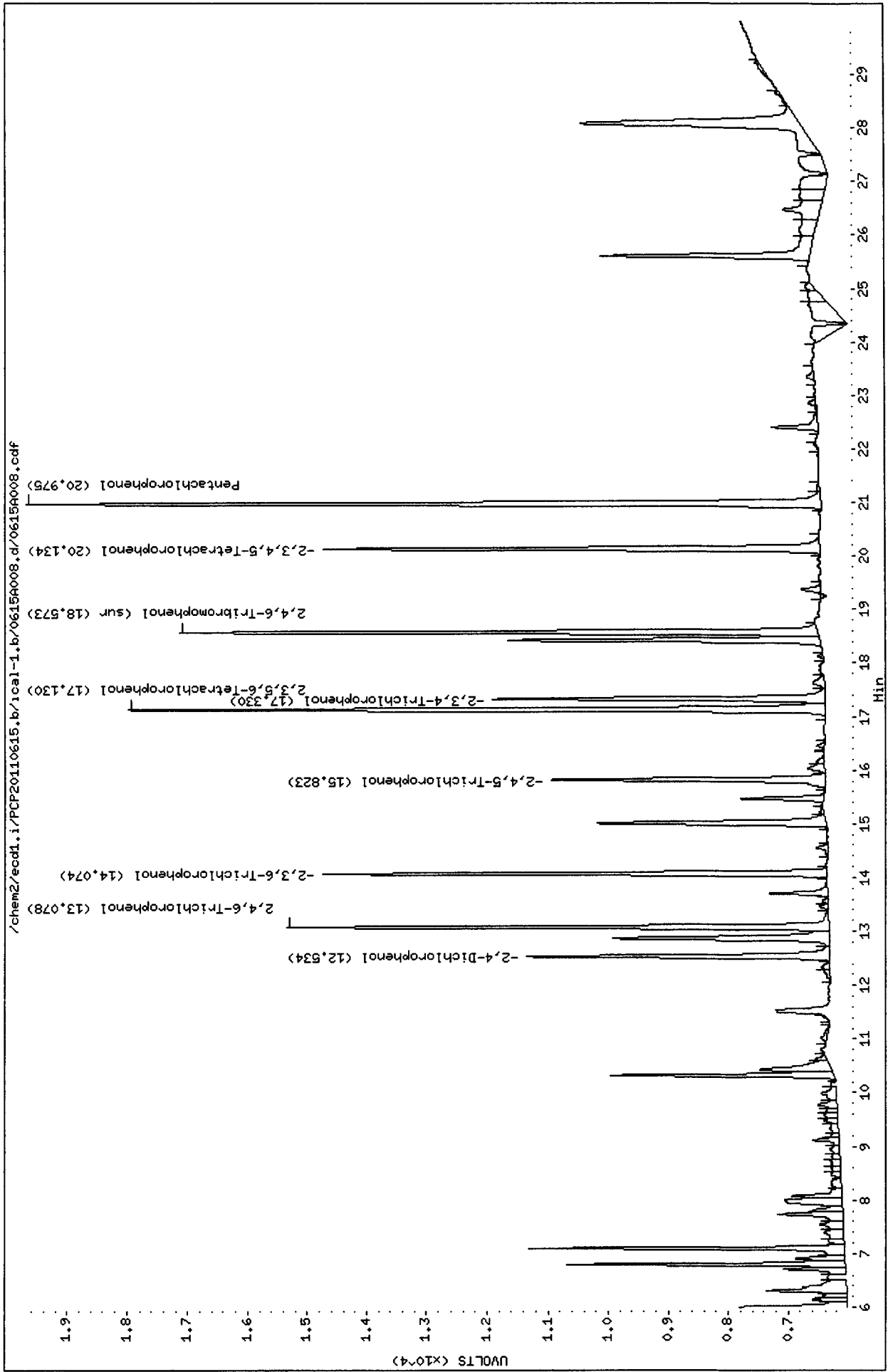
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: ecd1.1

Operator: ar

Column diameter: 0.53



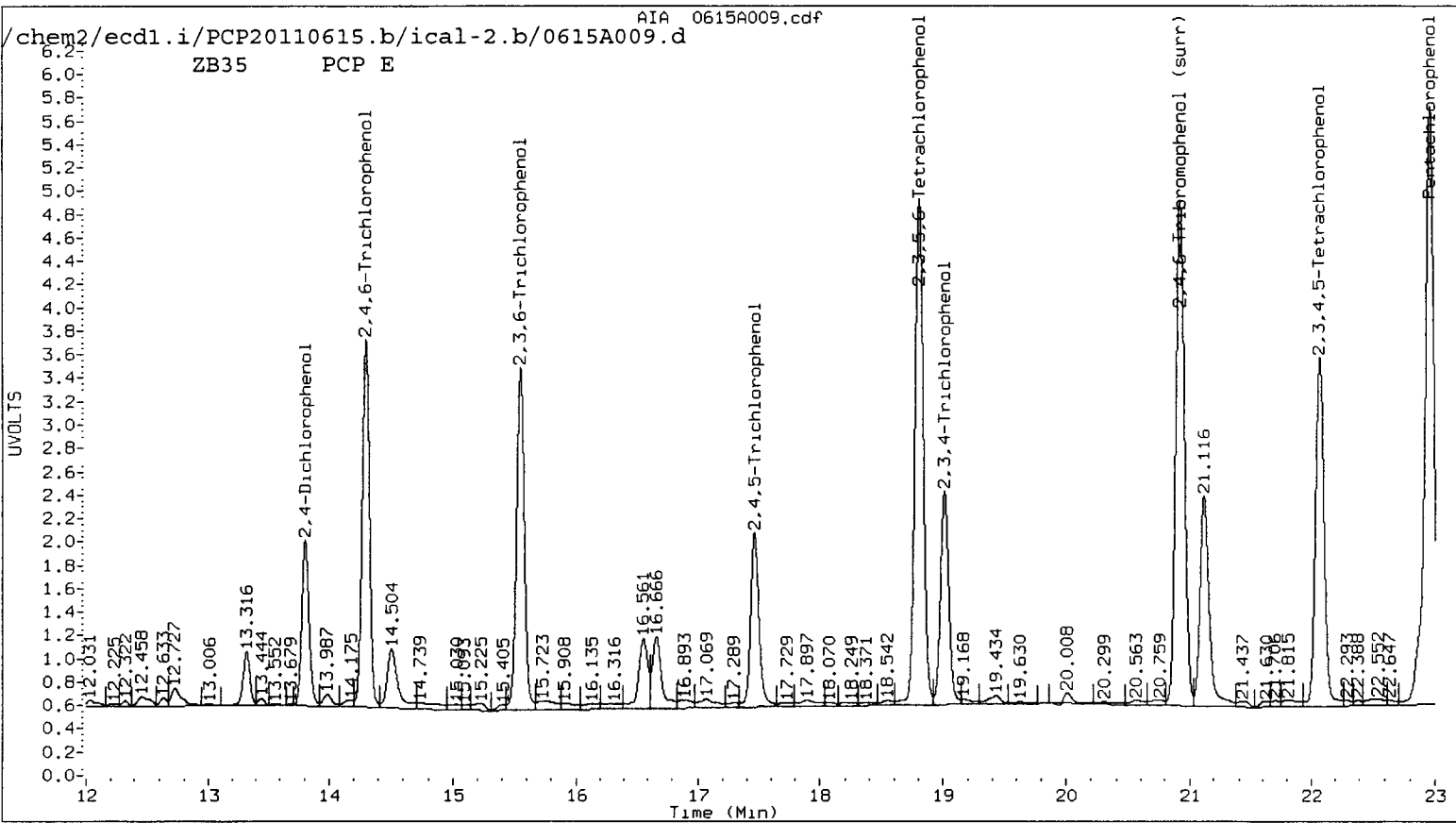
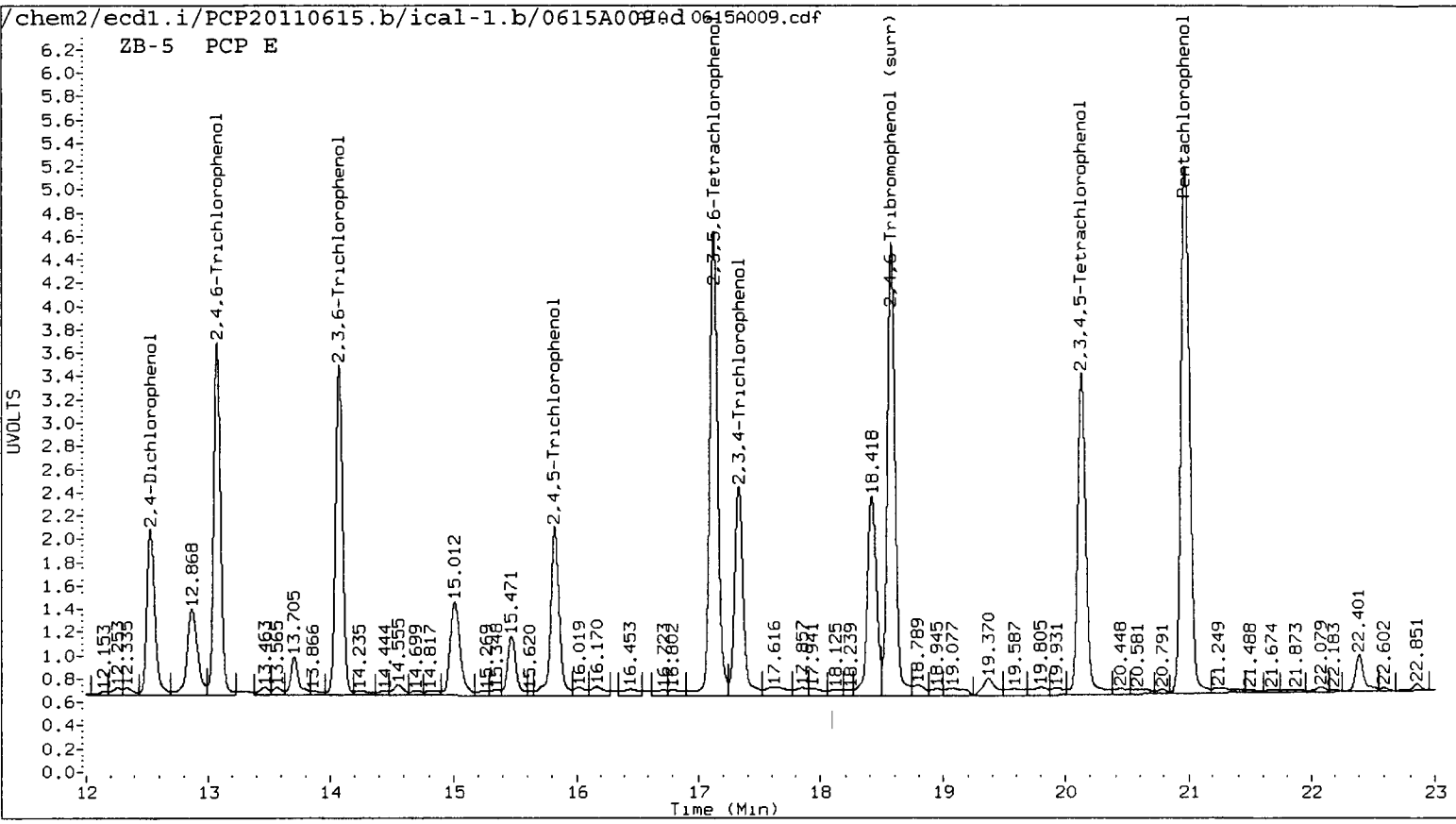
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

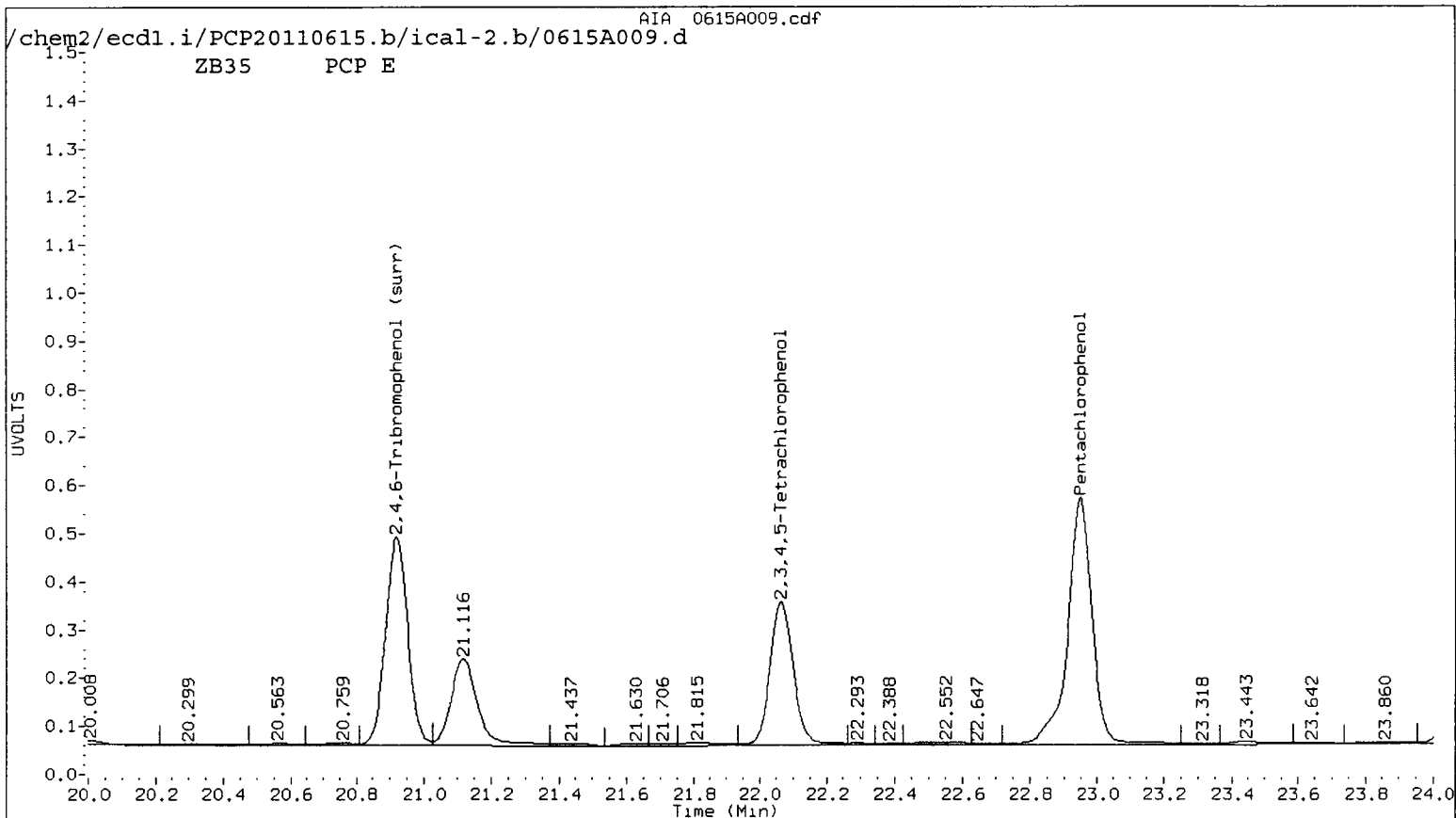
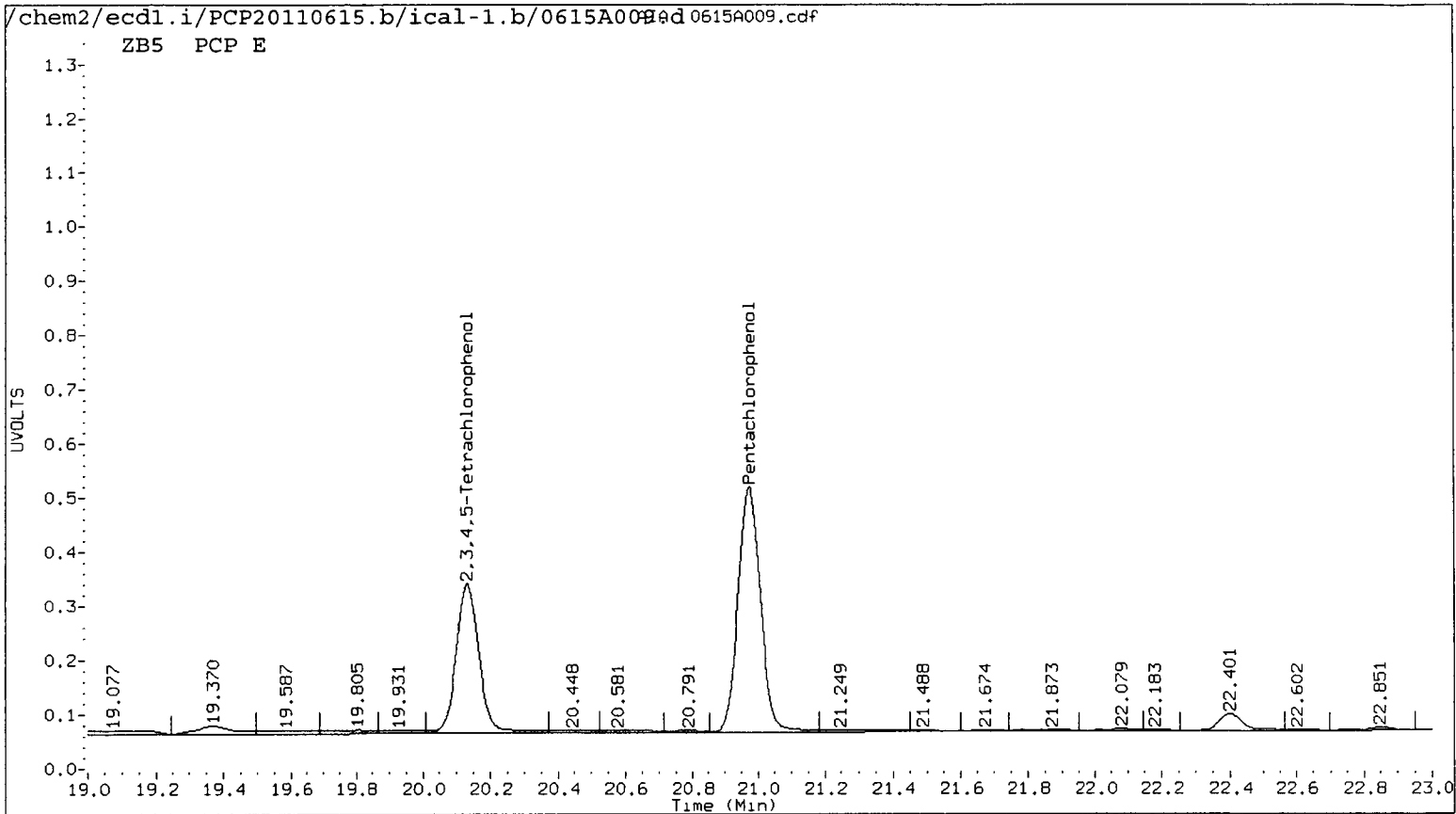
Data file 1: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A009.d ARI ID: PCP E
 Data file 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A009.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 15-JUN-2011 20:42
 Compound Sublist: all Report Date: 06/17/2011 12:09
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.973	-0.002	1055102	22.951	-0.002	1341794	44.8023	44.6541	0.3	Pentachlorophenol
13.077	-0.003	613618	14.293	-0.003	647248	43.5761	43.7245	0.3	2,4,6-Trichlorophenol
14.072	-0.002	581616	15.540	-0.002	646680	44.5278	43.4371	2.5	2,3,6-Trichlorophenol
15.821	-0.003	349185	17.458	-0.002	366303	43.9041	43.0464	2.0	2,4,5-Trichlorophenol
17.327	-0.003	429207	19.007	-0.003	433686	44.6051	42.7416	4.3	2,3,4-Trichlorophenol
17.128	-0.002	901146	18.797	-0.002	1003028	46.0707	44.5750	3.3	2,3,5,6-Tetrachlorophenol
20.131	-0.003	654829	22.065	-0.002	735816	44.3351	43.3748	2.2	2,3,4,5-Tetrachlorophenol
12.532	-0.002	320745	13.803	-0.003	311349	487.8568	489.6595	0.4	2,4-Dichlorophenol
18.572	-0.002	870068	20.920	-0.002	989485	47.2	46.1	2.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	188.8	184.4





Data File: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A009.d

Date : 15-JUN-2011 20:42

Client ID:

Sample Info: PCP E

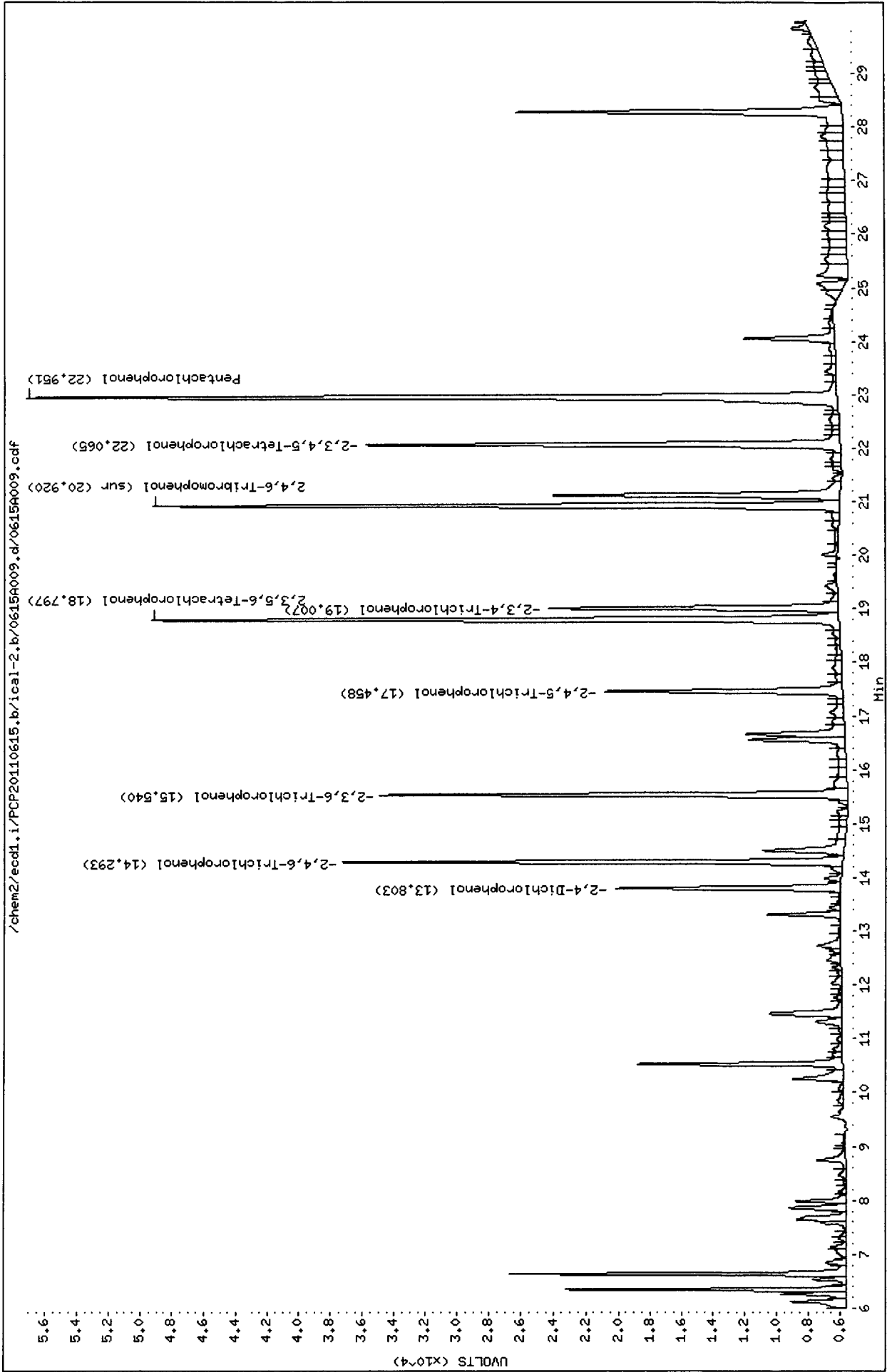
Purge volume: 500.0

Column phase: STX CLP2

Instrument: eccl1.1

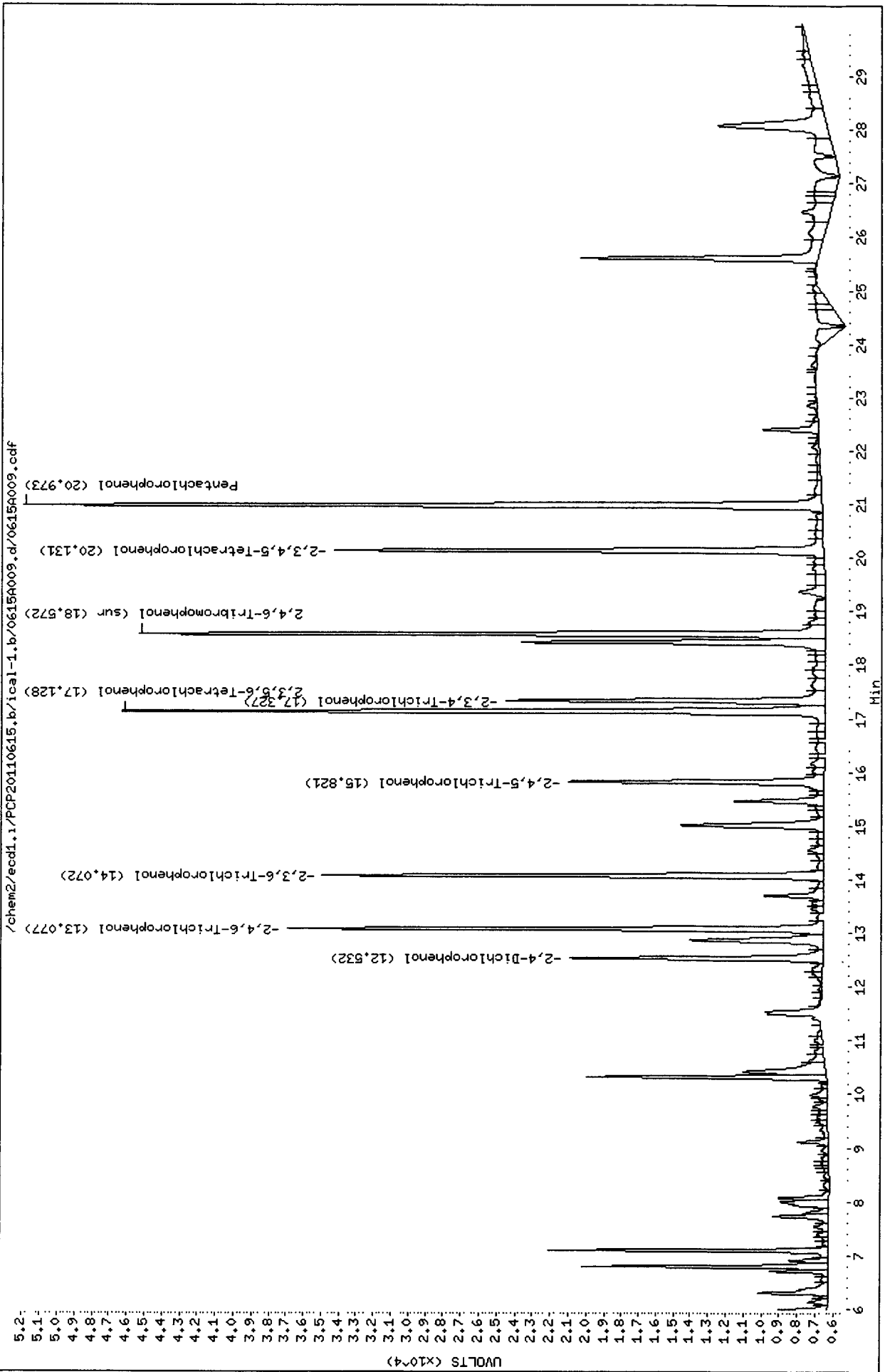
Operator: ar

Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A009.d
Date : 15-JUN-2011 20:42
Client ID:
Sample Info: PCP E
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.1
Operator: ar
Column diameter: 0.53



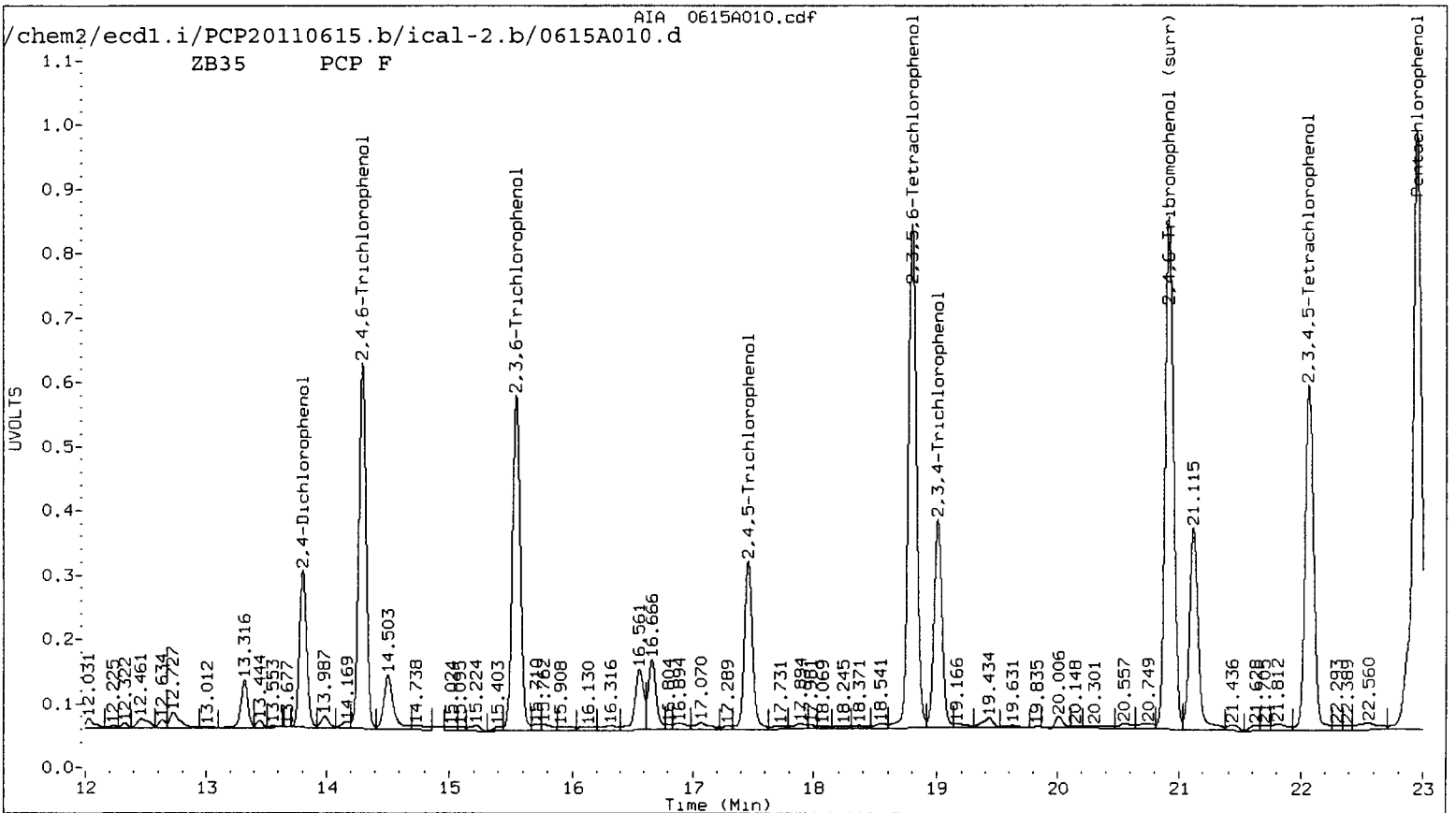
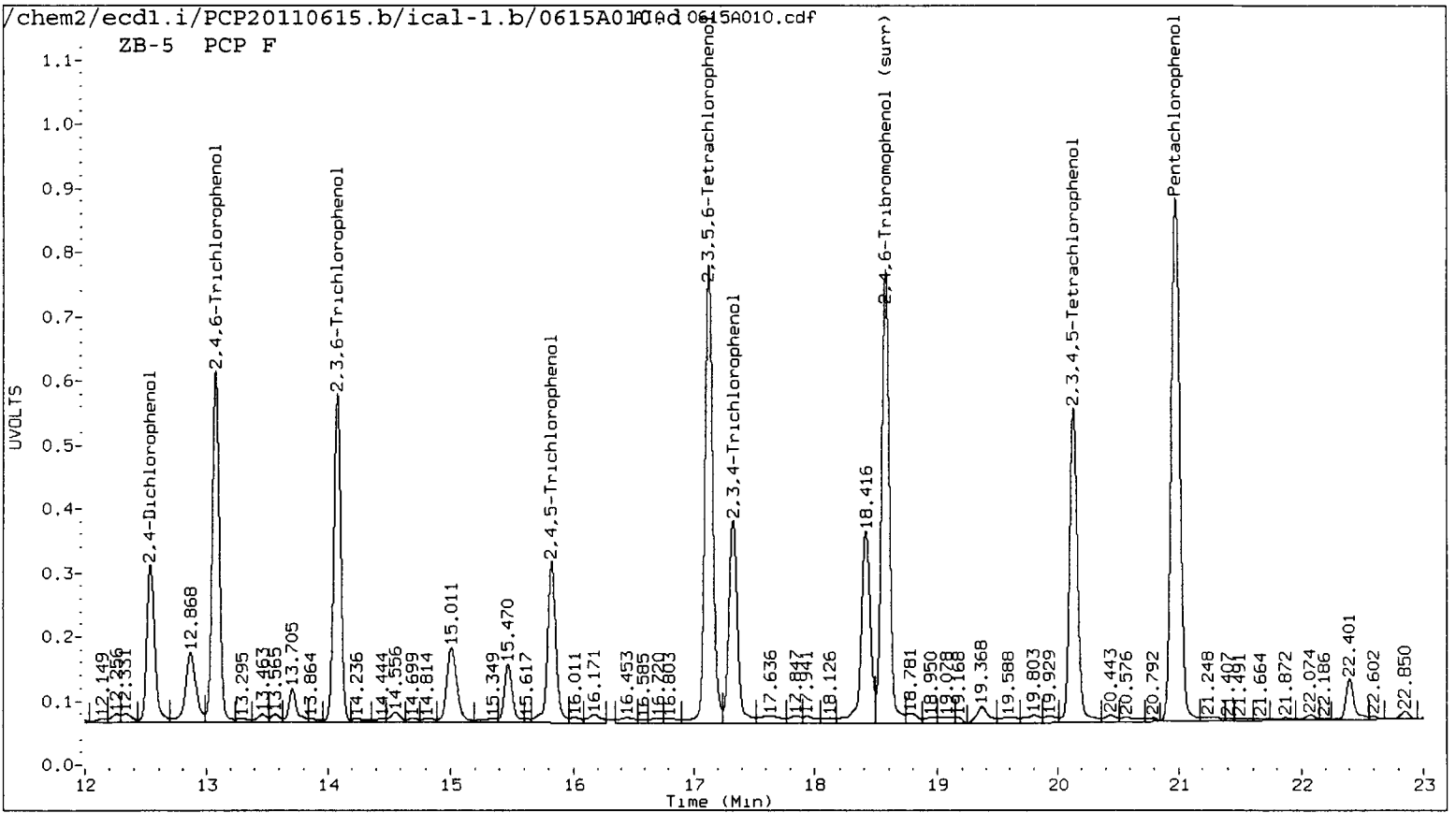
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

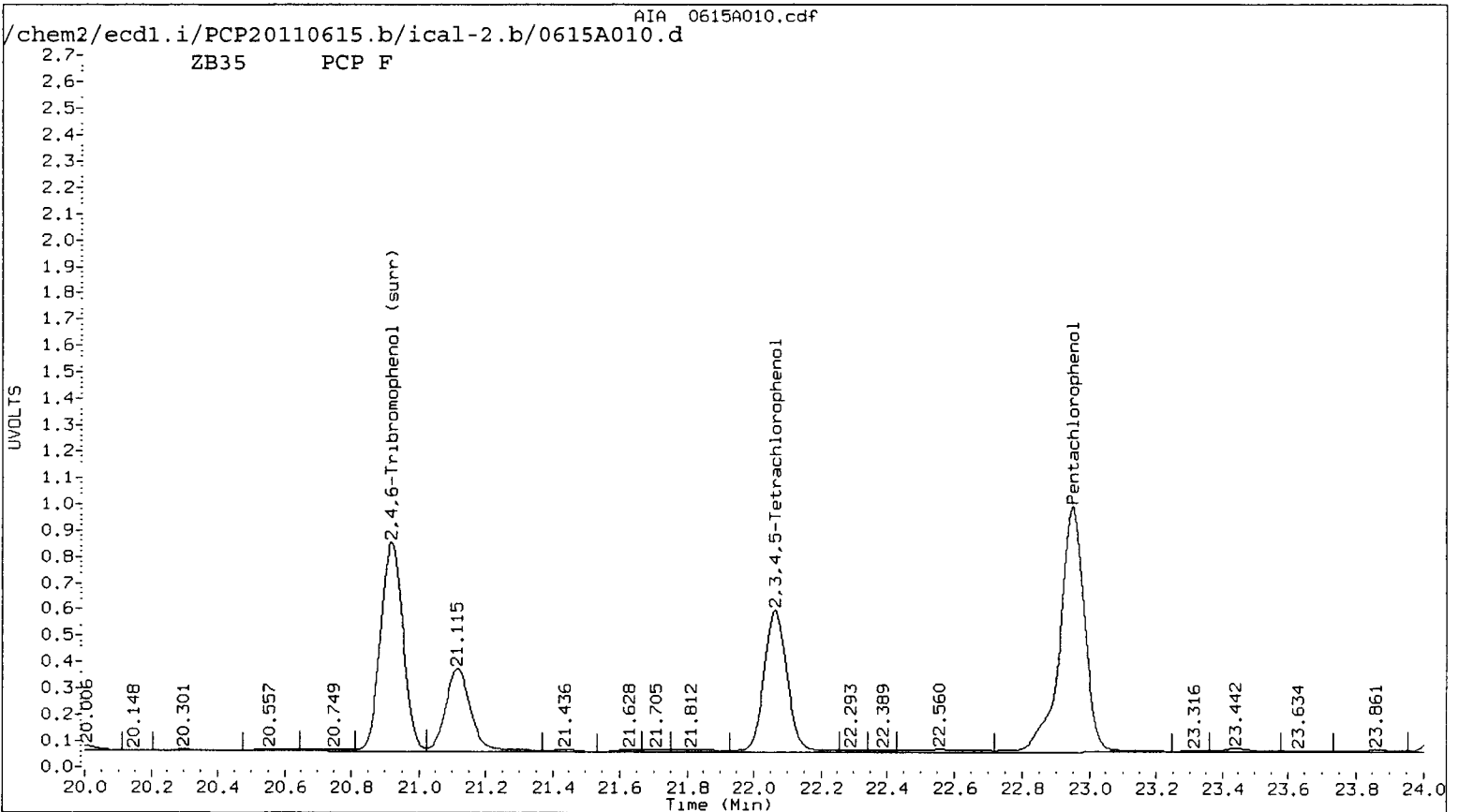
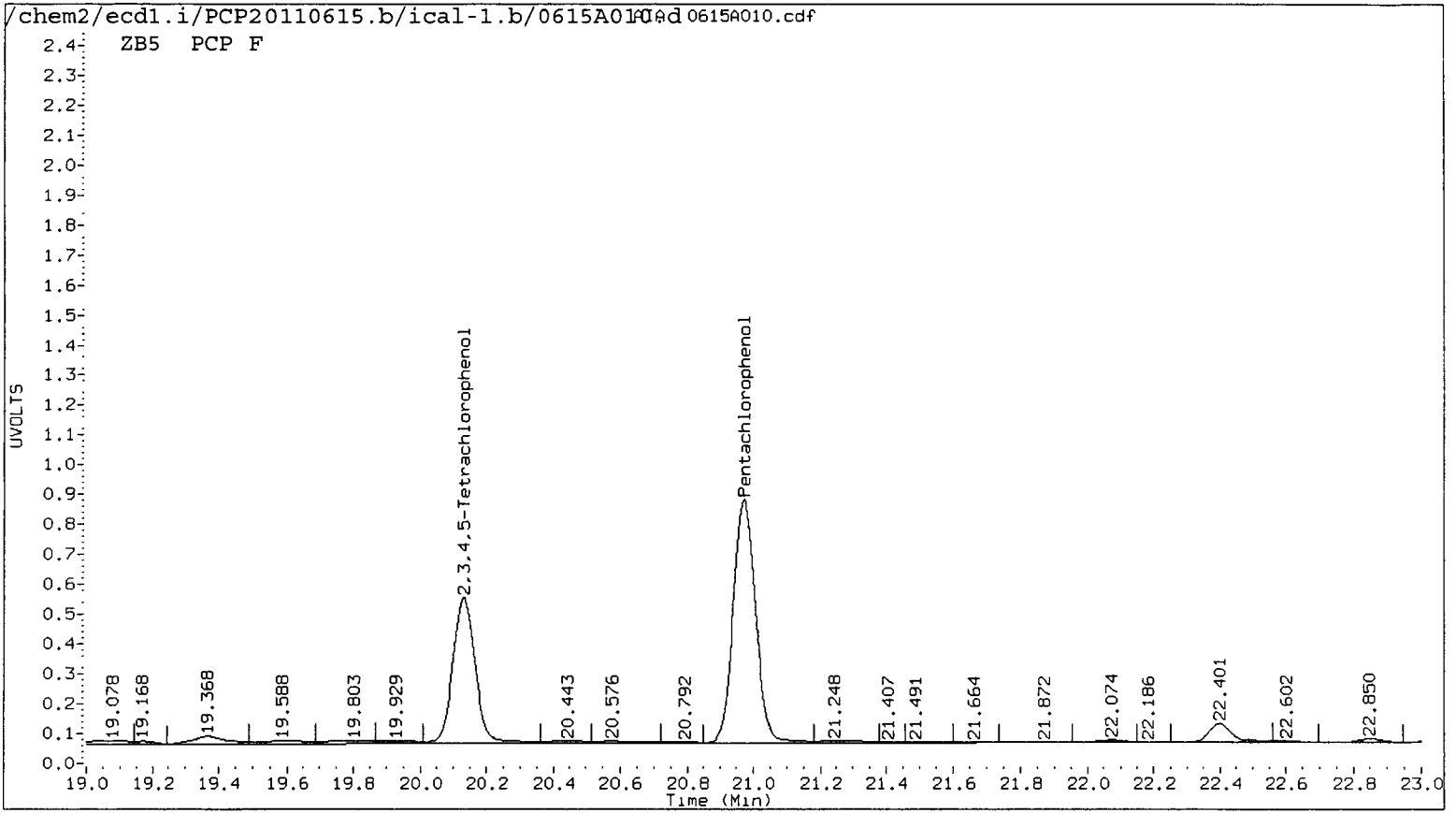
Data file 1: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A010.d ARI ID: PCP F
 Data file 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A010.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 15-JUN-2011 21:19
 Compound Sublist: all Report Date: 06/17/2011 12:09
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.973	-0.003 1918136	22.951 -0.002 2450426	81.4489	81.5486	0.1	Pentachlorophenol
13.077	-0.002 1109758	14.293 -0.003 1161778	78.8096	78.4833	0.4	2,4,6-Trichlorophenol
14.072	-0.003 1054684	15.540 -0.003 1139810	80.7454	76.5603	5.3	2,3,6-Trichlorophenol
15.820	-0.004 601146	17.457 -0.003 629934	75.5839	74.0273	2.1	2,4,5-Trichlorophenol
17.327	-0.004 753469	19.006 -0.004 760687	78.3038	74.9690	4.4	2,3,4-Trichlorophenol
17.128	-0.003 1631145	18.796 -0.003 1828740	83.3916	81.2700	2.6	2,3,5,6-Tetrachloropheno
20.130	-0.004 1165491	22.064 -0.003 1309394	78.9094	77.1859	2.2	2,3,4,5-Tetrachloropheno
12.531	-0.003 548159	13.803 -0.003 527924	1003.8260	1003.2876	0.1	2,4-Dichlorophenol
18.571	-0.003 1598861	20.920 -0.003 1825216	86.7	85.0	2.0	2,4,6-Tribromophenol (sur

PERCENT RECOVERY

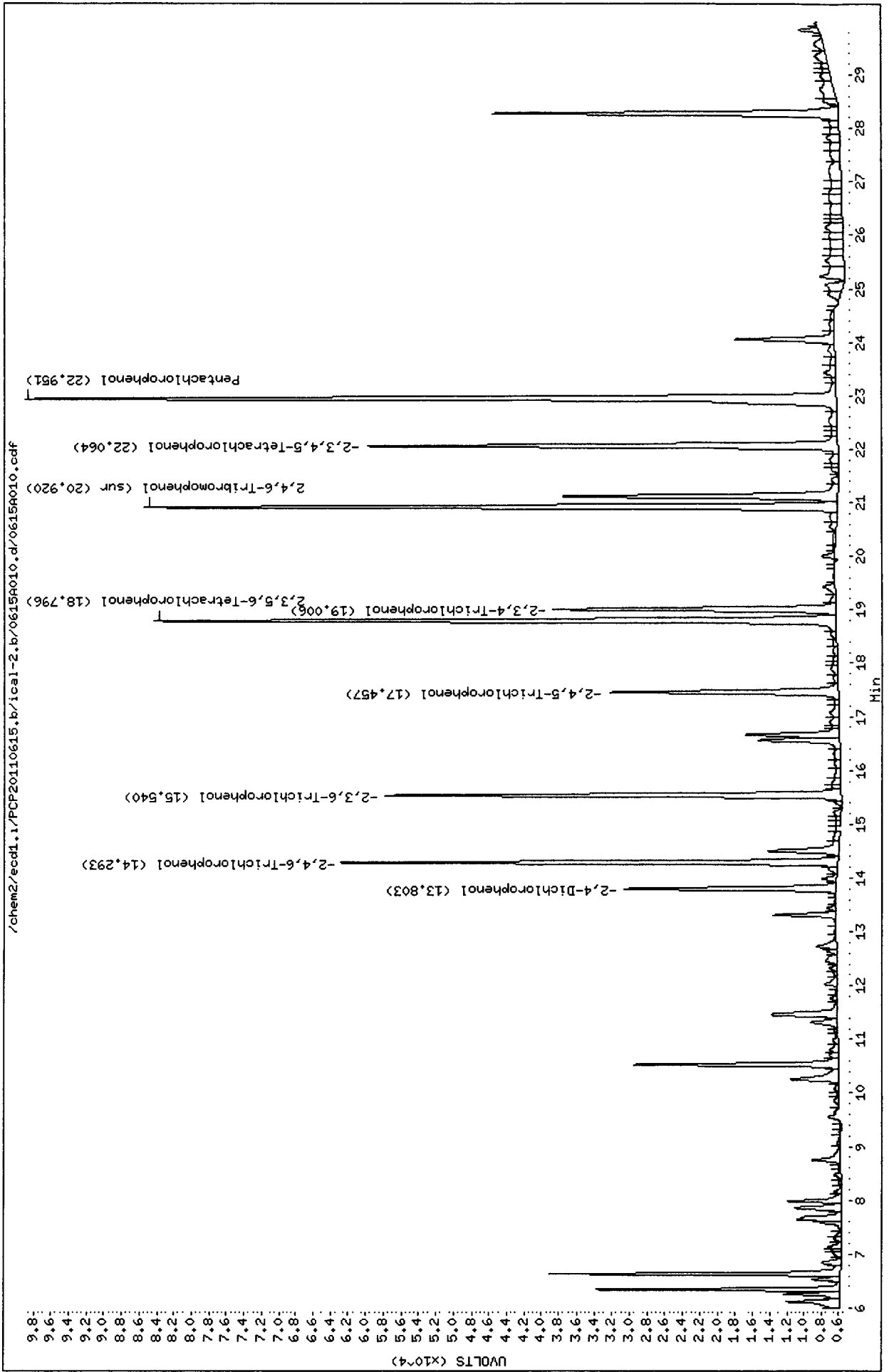
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	346.9	340.2





Data File: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A010.d
Date : 15-JUN-2011 21:19
Client ID:
Sample Info: PCP F
Purge Volume: 500.0
Column phase: STX CLP2

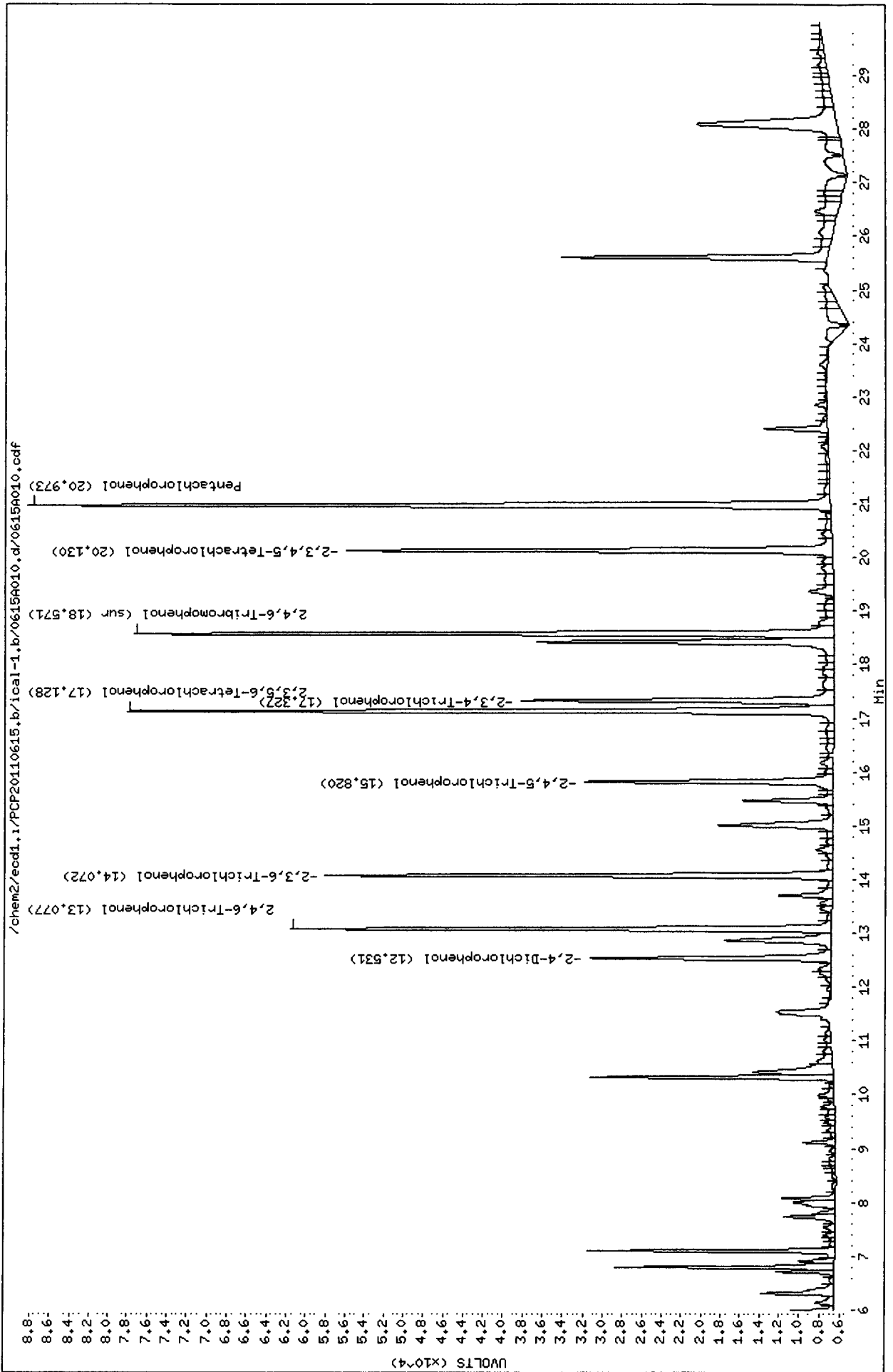
Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110615.b/1cal-1.b/0615A010.d
Date : 15-JUN-2011 21:19
Client ID:
Sample Info: PCP F
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

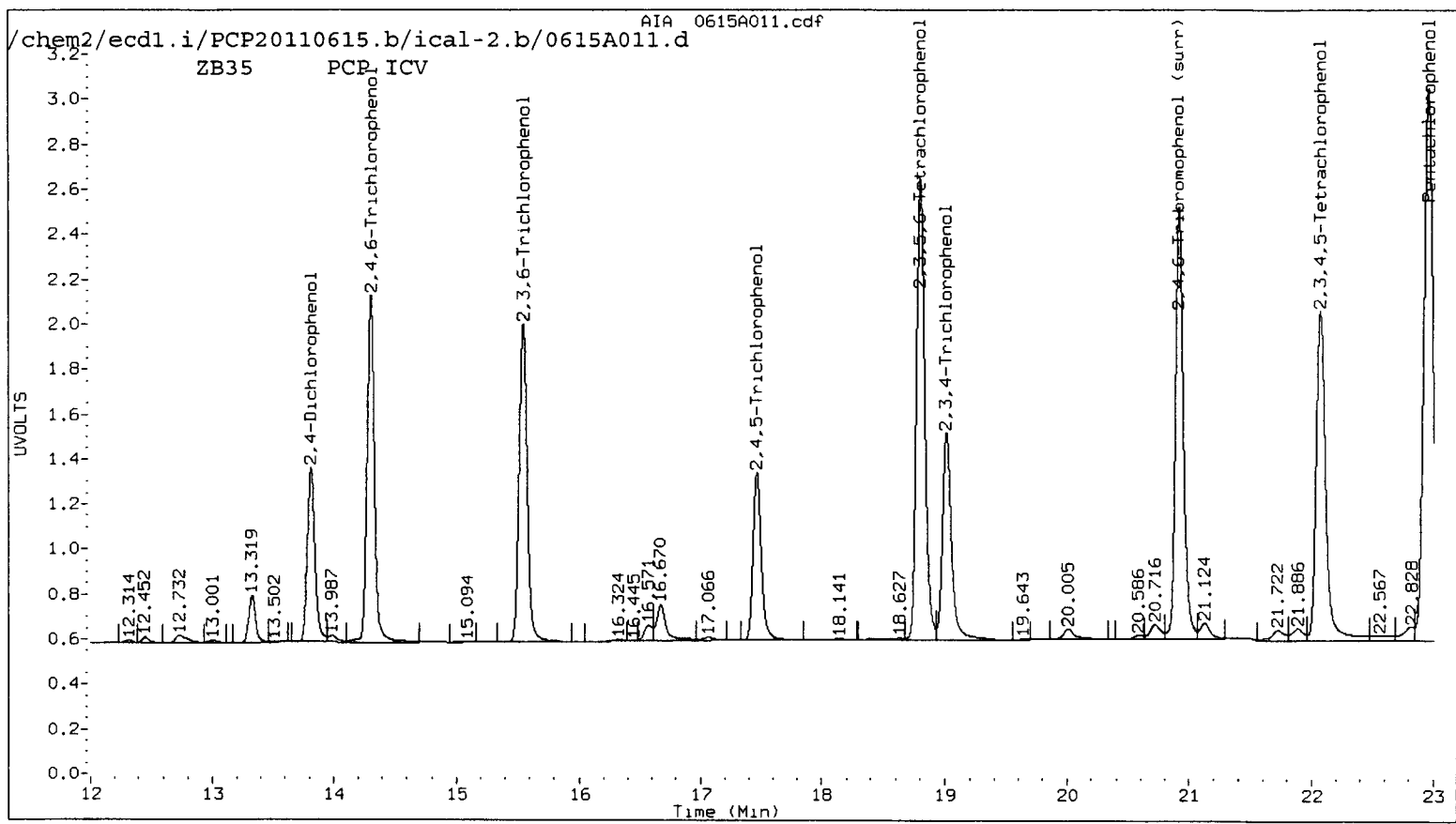
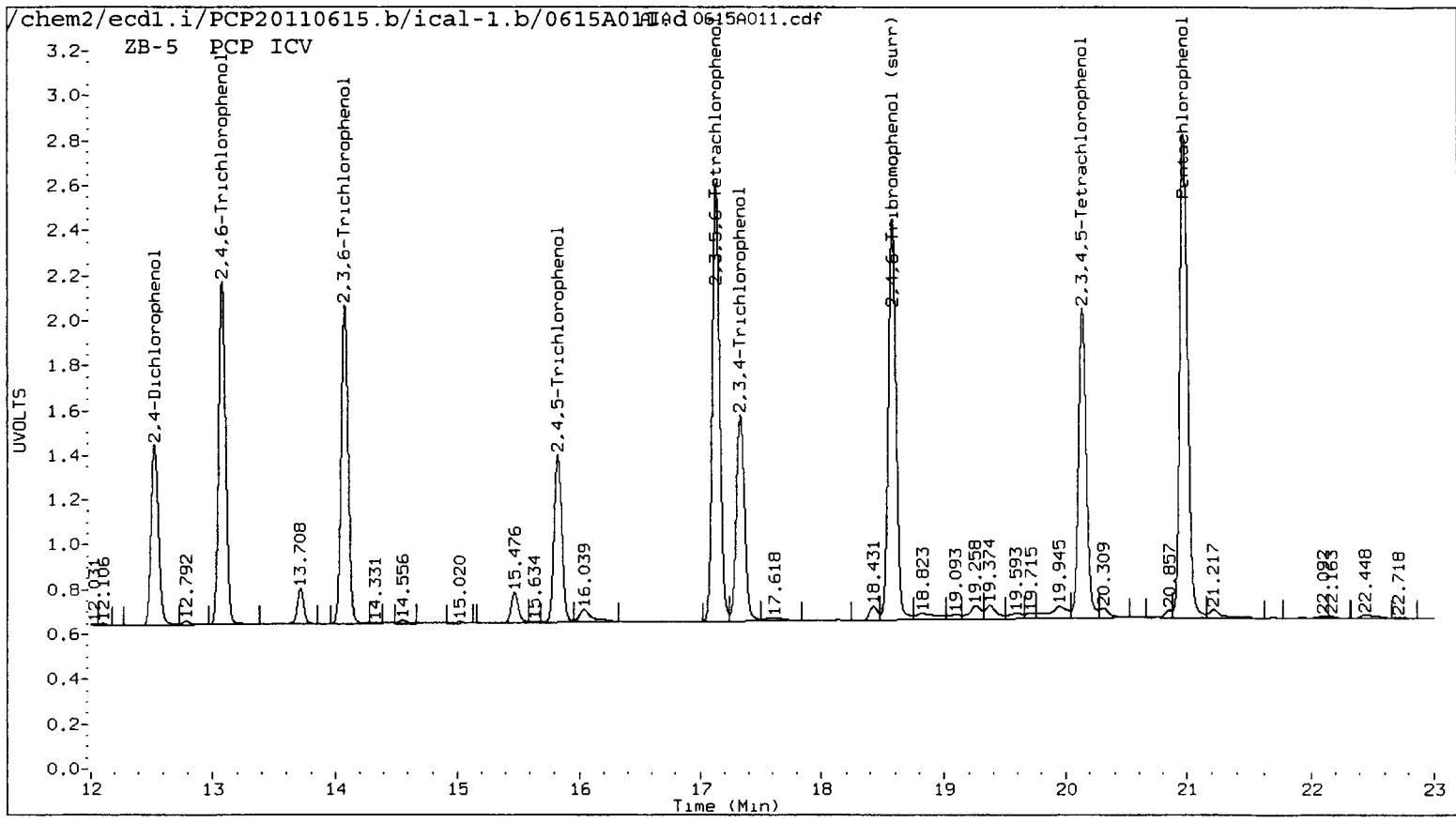
AR 6/17/2011

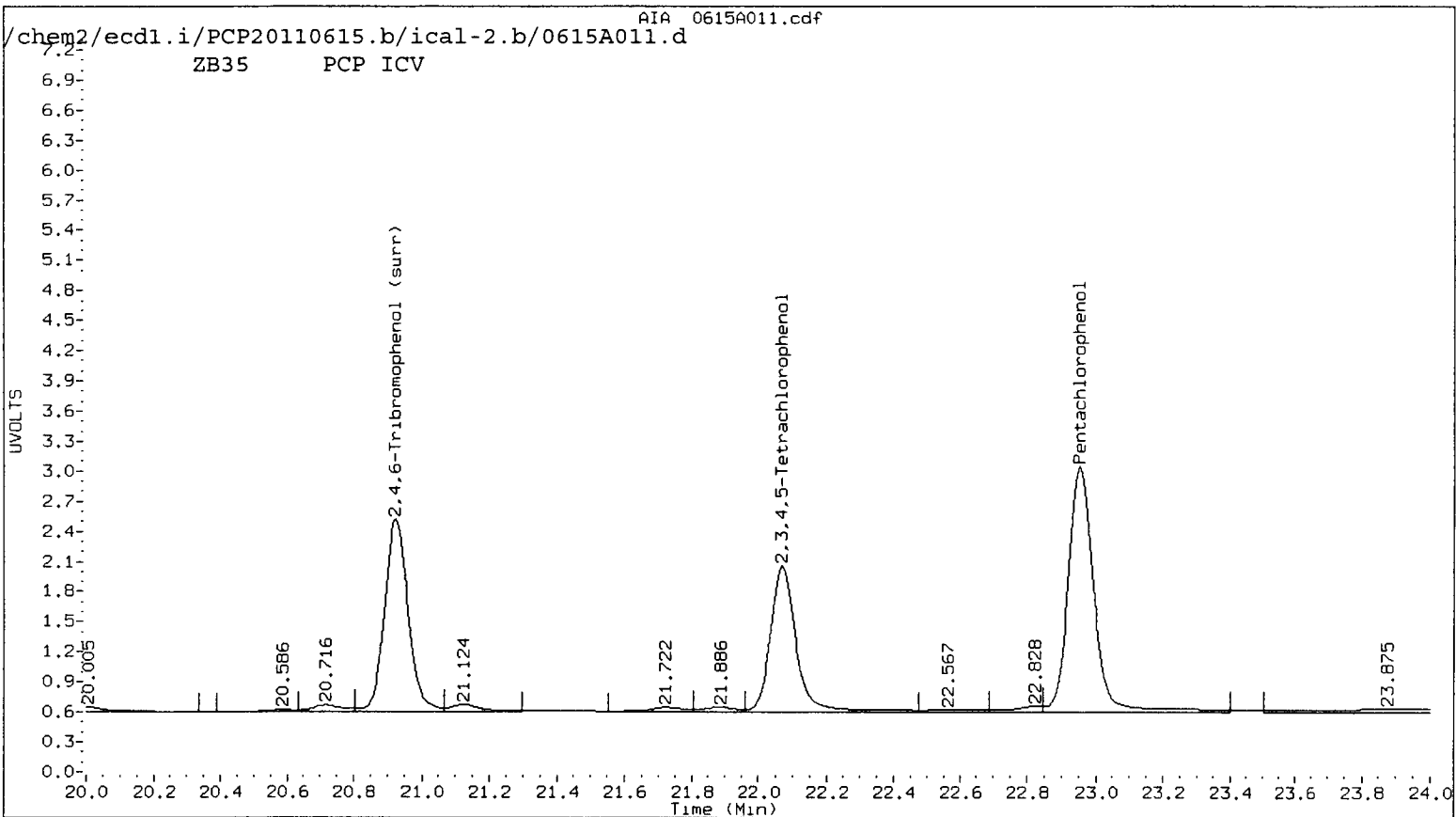
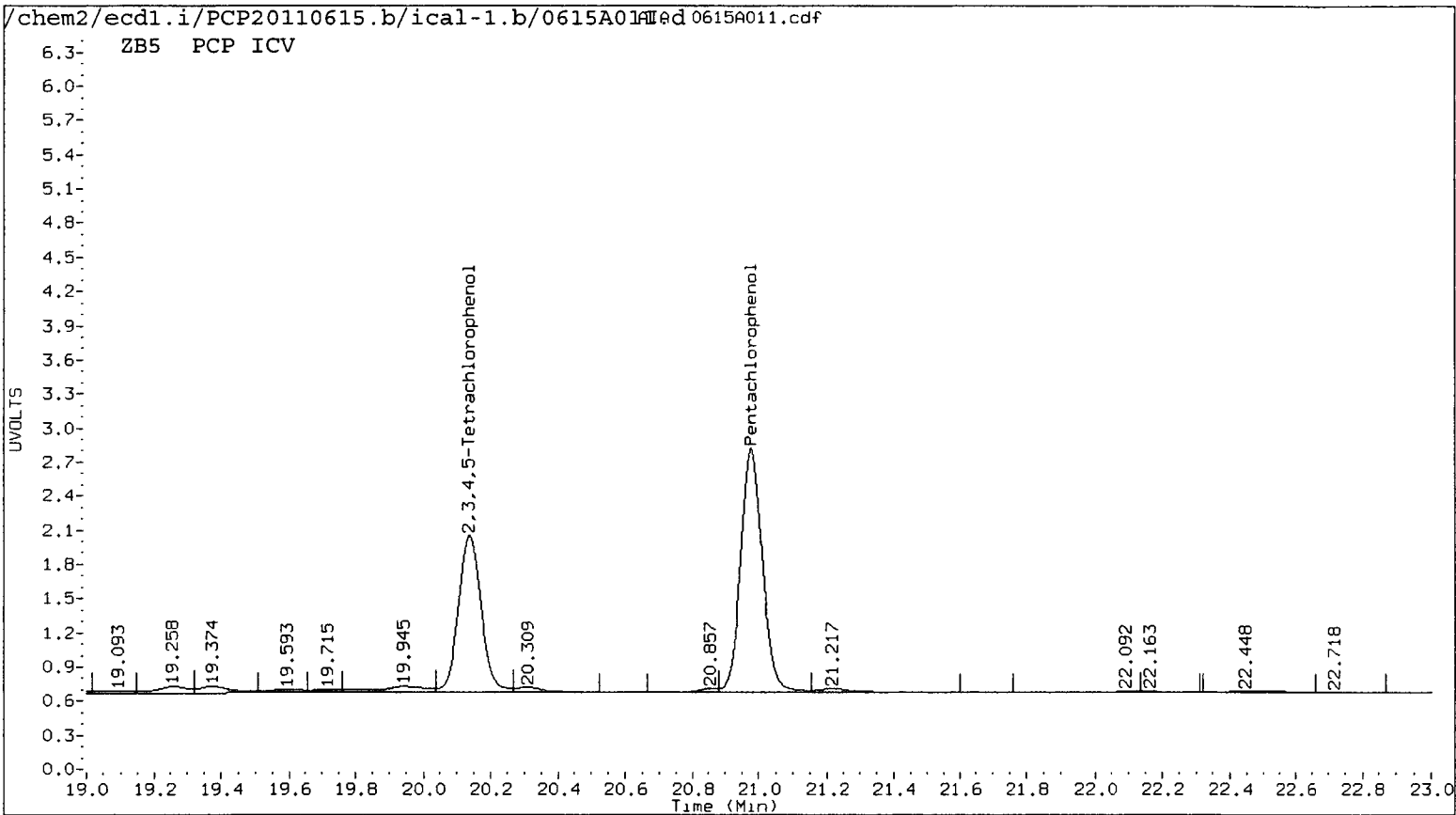
Data file 1: /chem2/ecdl.i/PCP20110615.b/ical-1.b/0615A011.d ARI ID: PCP ICV
 Data file 2: /chem2/ecdl.i/PCP20110615.b/ical-2.b/0615A011.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 15-JUN-2011 21:55
 Compound Sublist: all Report Date: 06/17/2011 12:09
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.978	0.002	486023	22.956	0.003	646670	20.6378	21.5208	4.2	Pentachlorophenol
13.079	-0.001	299776	14.295	0.000	337224	21.2886	22.7810	6.8	2,4,6-Trichlorophenol
14.074	0.000	286486	15.543	0.001	315816	21.9330	21.2132	3.3	2,3,6-Trichlorophenol
15.825	0.001	160536	17.462	0.001	178361	20.1847	20.9603	3.8	2,4,5-Trichlorophenol
17.332	0.002	208242	19.012	0.002	239750	21.6414	23.6284	8.8	2,3,4-Trichlorophenol
17.132	0.001	413442	18.801	0.002	478508	21.1370	21.2651	0.6	2,3,5,6-Tetrachlorophenol
20.137	0.003	322120	22.070	0.002	389414	21.8091	22.9551	5.1	2,3,4,5-Tetrachlorophenol
12.533	-0.001	171467	13.806	0.000	176547	225.8828	241.6418	6.7	2,4-Dichlorophenol
18.576	0.002	387118	20.924	0.002	458253	21.0	21.4	1.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	82.6	86.1
2,4,6-Trichlorophenol	85.2	91.1
2,3,6-Trichlorophenol	87.7	84.9
2,4,5-Trichlorophenol	80.7	83.8
2,3,4-Trichlorophenol	86.6	94.5
2,3,5,6-Tetrachlorophenol	84.5	85.1
2,3,4,5-Tetrachlorophenol	87.2	91.8
2,4-Dichlorophenol	90.4	96.7
2,4,6-TBP (surr)	42.0 84.0	42.7 85.4

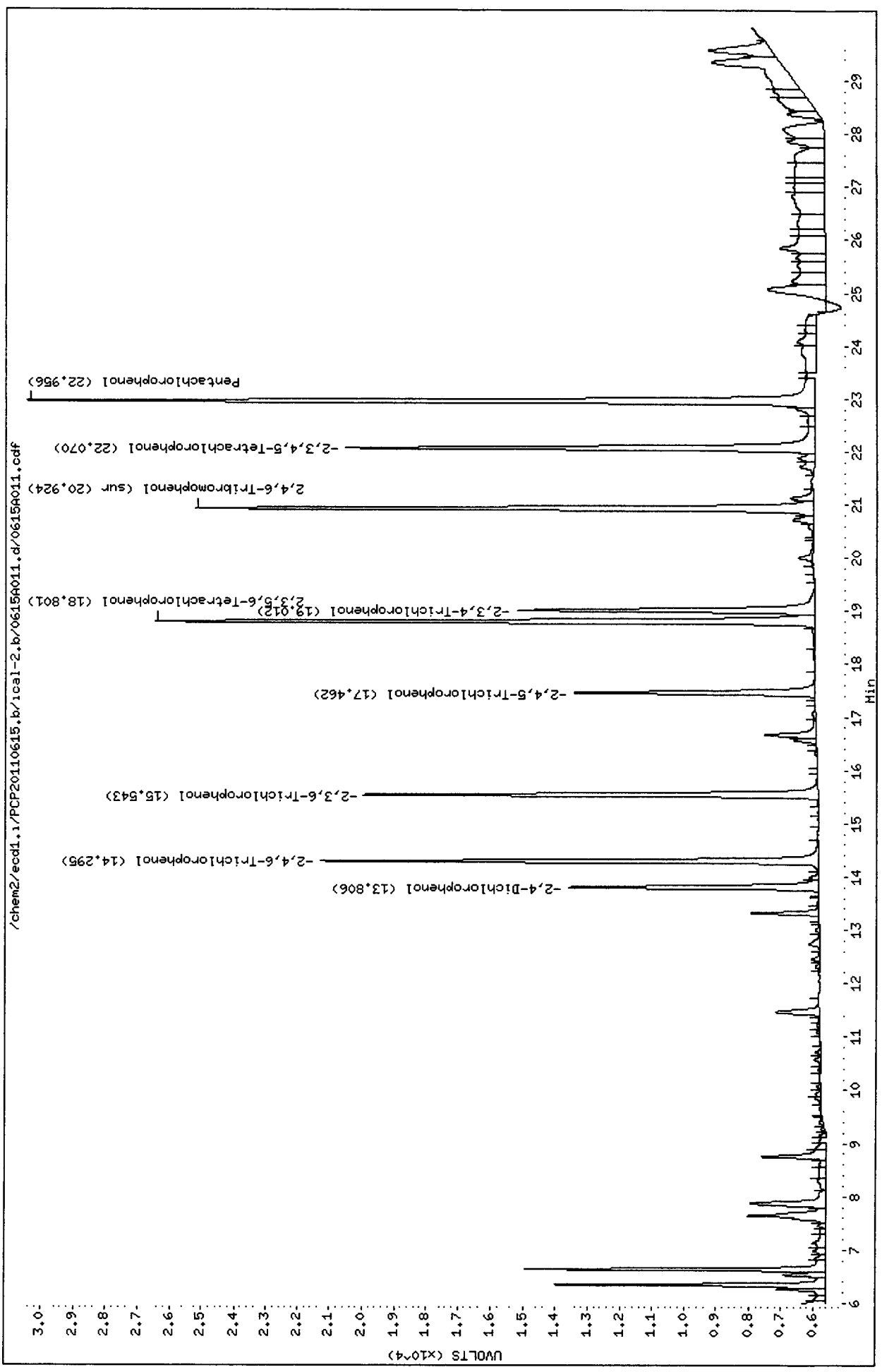




TB85: 00154

Data File: /chem2/ecd1.1/PCP20110615.b/ical-2.b/0615A011.d
Date : 15-JUN-2011 21:55
Client ID:
Sample Info: PCP ICV
Purge Volume: 500.0
Column phase: STX CLP2

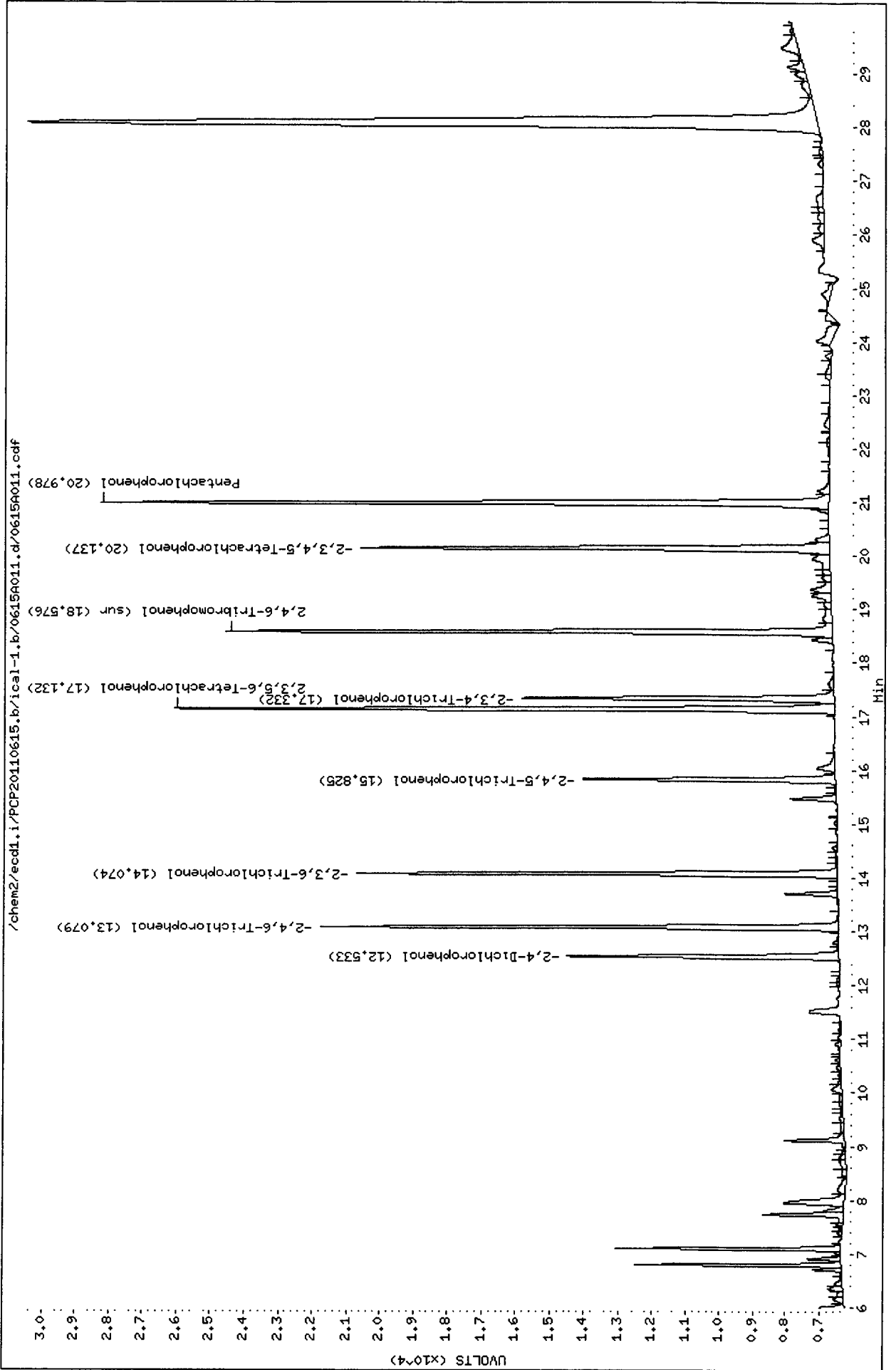
Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110615.b/ical-1.b/0615A011.d
Date : 15-JUN-2011 21:55
Client ID:
Sample Info: PCP ICV
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecdl1.1

Operator: ar
Column diameter: 0.53



PCP/Chlorophenols Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: TB85, TB86

GC Analyst Notes / Corrective Action Log

ARI Project ID: TB 85 Client ID: MWH Americas

ARI SOP: 403S(PCB) 405S(Herb) 407S(TPH-D) 409S(HCID) 412S(PCP) 423S(Pest)
427S(Dir Inj) 428S(EPH) 432S(EDB) Other

Parameter(s): 10g/25mL FV

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
 FID-9 ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 6/15/2011 Analysis Start: ^{AR} ~~6/29/2011~~ 6/29/2011

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO
 ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO
 CCal Meets RF & %RSD Criteria? YES / NO Surrogate Recovery In Control? YES / NO
 Manual Integrations for ICal? YES / NO Manual Integrations for Samples? YES / NO
 Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

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

① Sampled (DMS/DMS) diluted due to color, dilutions reported and only sample re-run at 1x to meet RL
 - No y flags assigned

Additional Details on Reverse: Yes / No

Analyst: [Signature] Date: 6/30/2011

Reviewer: [Signature] Date: 6/30/11

GC Analyst Notes / Corrective Action Log

ARI Project ID: TB86 Client ID: MWH Americas

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): 10g / 25 mL FV

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 **ECD-1** ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 6/15/2011 Analysis Start: 6/29/2011

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	LCS/LCSD Recovery In Control?	YES / NO
CCal Meets RF & %RSD Criteria?	YES / NO	Surrogate Recovery In Control?	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Special Analysis Criteria Met?	YES / NO / NA

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

Additional Details on Reverse: Yes / No **NO**

Analyst: [Signature] Date: 6/29/2011 ^{AR}

Reviewer: [Signature] Date: 7/1/11

GC Analyst Notes / Corrective Action Log

ARI Project ID: TB86 Client ID: MWH Americas

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) Other

Parameter(s): 500 mL / 50 mL FV

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 **ECD-1** ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 6/15/2011 Analysis Start: 6/29/2011

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	LCS/LCSD Recovery In Control?	YES / NO
CCal Meets RF & %RSD Criteria?	YES / NO	Surrogate Recovery In Control?	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Special Analysis Criteria Met?	YES / NO / NA

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

No y - flags assigned

Additional Details on Reverse: Yes / **No**

Analyst: [Signature] Date: 6/30/2011

Reviewer: [Signature] Date: 6/30/11

Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 6/29/2011 Analysis: Cl. Phenols Analyst: AR
 GC Program: HERB.M Column No: 922985/801692 Column Type: STX CLP1/2
 Calibration File: PCP20110615.B Curve Date: 6/15/2011 Injection Vol.: 2µL

IS/SS	Ical/Ccal	LCS/ICV
	1791-6 Cl. Phenols	1820-4 Cl. Phenols
	1794-1 Herbicides	

Document All Maintenance Tasks In StarLIMS

3C LOG SUMMARY FOR DATABATCH - /chem2/ecdl.i/PCP20110615.b/0629-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	29-JUN-2011 12:28	0629A004.d	1	PCP	
2	29-JUN-2011 13:04	0629A005.d	1	PCP CCAL	
3	29-JUN-2011 13:41	0629A006.d	1	TB85MBW1	TB85MBW1
4	29-JUN-2011 14:17	0629A007.d	1	TB85LCSW1	TB85LCSW1
5	29-JUN-2011 14:53	0629A008.d	1	TB85LCSW1	TB85LCSW1
6	29-JUN-2011 15:30	0629A009.d	1	TB85LCSW1	TB85LCSW1
7	29-JUN-2011 16:06	0629A010.d	1	TB85QLS	
8	29-JUN-2011 16:42	0629A011.d	1	TB85C	SB-01-062211-04
9	29-JUN-2011 17:19	0629A012.d	1	TB86C	SB-01-062211-22
10	29-JUN-2011 17:55	0629A013.d	1	TB86N	DUP-01-062211
11	29-JUN-2011 18:32	0629A014.d	1	TB86O	SB-02A-062211-06
12	29-JUN-2011 19:08	0629A015.d	1	TB86P	SB-02B-062211-06
13	29-JUN-2011 19:44	0629A016.d	1	TB89A	SP-2
14	29-JUN-2011 20:21	0629A017.d	1	PCP	
15	29-JUN-2011 20:57	0629A018.d	1	PCP CCAL	
16	29-JUN-2011 21:33	0629A019.d	1	TB89B	BE-2
17	29-JUN-2011 22:10	0629A020.d	1	TB89C	BE-3
18	29-JUN-2011 22:46	0629A021.d	1	TB89D	BE-4
19	29-JUN-2011 23:22	0629A022.d	1	TB89E	BE-5
20	29-JUN-2011 23:59	0629A023.d	1	TB89G	GM-4
21	30-JUN-2011 00:35	0629A024.d	1	PCP	
22	30-JUN-2011 01:11	0629A025.d	1	PCP CCAL	
23	30-JUN-2011 01:48	0629A026.d	1	TB85MBS1	TB85MBS1
24	30-JUN-2011 02:24	0629A027.d	1	TB85LCSW1	TB85LCSW1
25	30-JUN-2011 03:00	0629A028.d	1	TB85QLS	
26	30-JUN-2011 03:37	0629A029.d	10	TB85A	SB-01-062211-02
27	30-JUN-2011 04:13	0629A030.d	1	TB85B	SB-01-062211-04
28	30-JUN-2011 04:49	0629A031.d	10	TB85D	SB-01-062211-06
29	30-JUN-2011 05:26	0629A032.d	10	TB85DMS	SB-01-062211-06 MS
30	30-JUN-2011 06:02	0629A033.d	1	TB85E	SB-01-062211-06 MSD
31	30-JUN-2011 06:38	0629A034.d	1	TB85F	SB-01-062211-08
32	30-JUN-2011 07:15	0629A035.d	1	PCP	SB-01-062211-10
33	30-JUN-2011 07:51	0629A036.d	1	PCP CCAL	
34	30-JUN-2011 08:27	0629A037.d	1	TB85G	SB-01-062211-12
35	30-JUN-2011 09:04	0629A038.d	1	TB85H	SB-01-062211-14
36	30-JUN-2011 09:40	0629A039.d	1	TB85I	SB-01-062211-16
37	30-JUN-2011 10:16	0629A040.d	1	TB85J	SB-01-062211-18
38	30-JUN-2011 10:53	0629A041.d	1	TB86MBS1	TB86MBS1
39	30-JUN-2011 11:29	0629A042.d	1	TB86LCSW1	TB86LCSW1
40	30-JUN-2011 12:05	0629A043.d	1	TB86QLS	
41	30-JUN-2011 12:42	0629A044.d	1	TB86A	SB-01-062211-20
42	30-JUN-2011 13:18	0629A045.d	1	TB86B	SB-01-062211-22
43	30-JUN-2011 13:54	0629A046.d	1	TB86D	SB-02B-062211-02
44	30-JUN-2011 14:31	0629A047.d	1	PCP	
45	30-JUN-2011 15:07	0629A048.d	1	PCP CCAL	
46	30-JUN-2011 15:43	0629A049.d	1	TB85D	SB-01-062211-06
47	30-JUN-2011 16:20	0629A050.d	10	TB89G	GM-4
48	30-JUN-2011 16:56	0629A051.d	1	PCP CCAL	

See continue →

Every line must contain information or be lined out. Make all entries legible.
 Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 6/30/2011

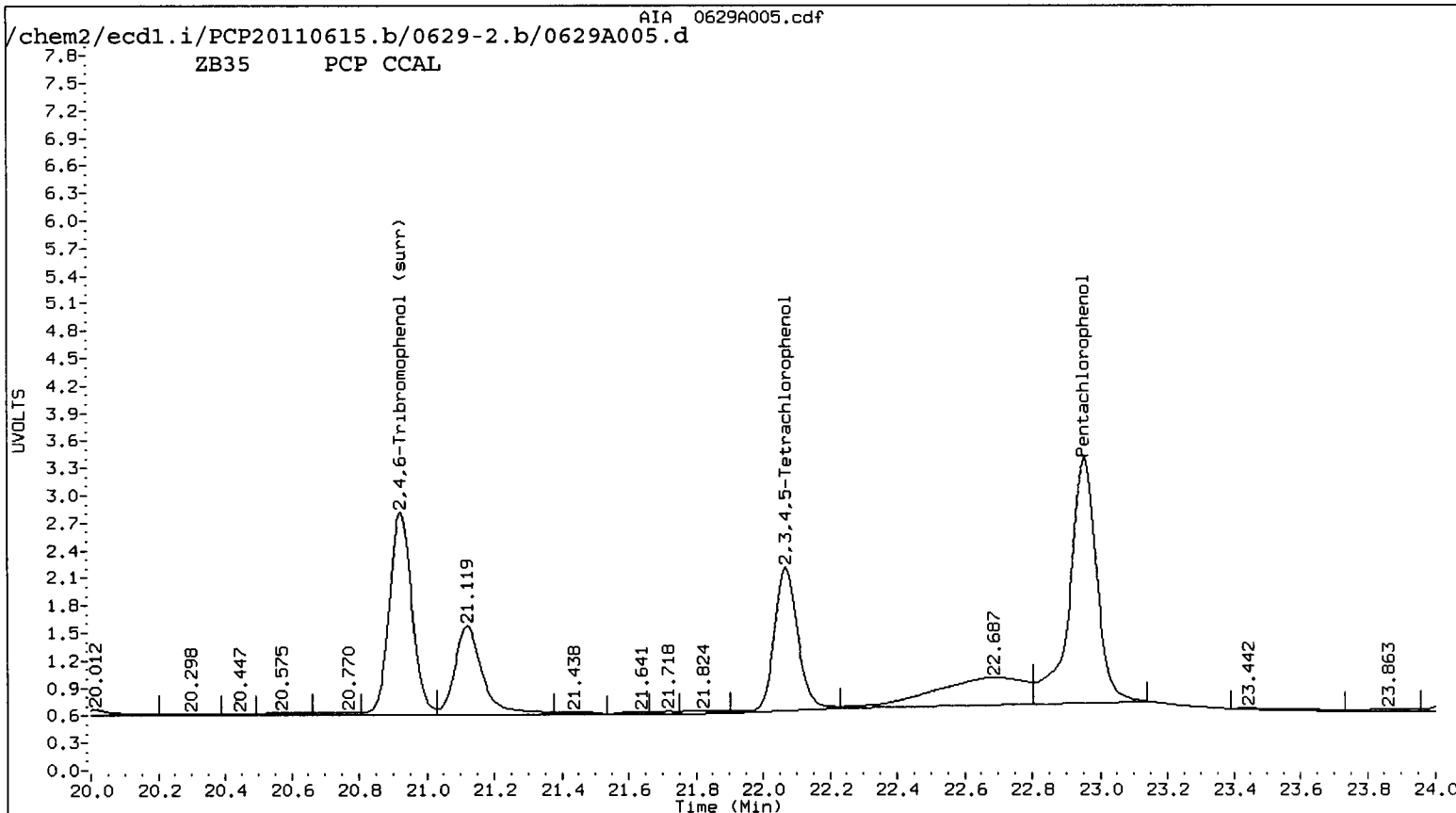
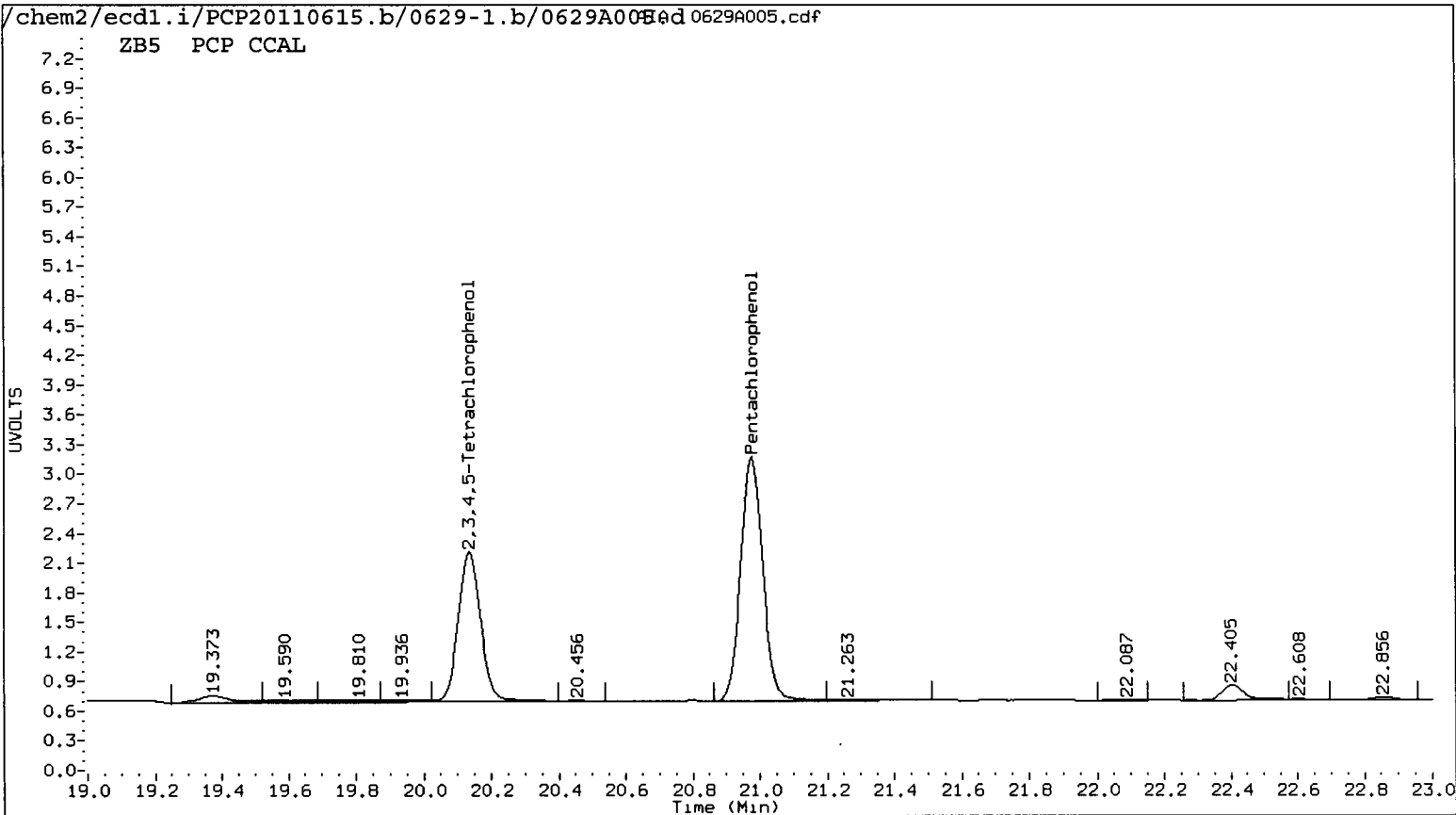
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A005.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A005.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 13:04
 Compound Sublist: all Report Date: 06/30/2011 14:49
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.001	571520	22.953	0.000	747271	24.2682	24.8687	2.4	Pentachlorophenol
13.079	0.000	333653	14.296	0.000	351131	23.6944	23.7205	0.1	2,4,6-Trichlorophenol
14.075	0.000	314858	15.543	0.000	359814	24.1052	24.1685	0.3	2,3,6-Trichlorophenol
15.824	0.000	189876	17.461	0.000	205469	23.8737	24.1460	1.1	2,4,5-Trichlorophenol
17.331	0.000	233574	19.010	0.001	246221	24.2741	24.2662	0.0	2,3,4-Trichlorophenol
17.131	0.000	480280	18.800	0.001	534383	24.5541	23.7483	3.3	2,3,5,6-Tetrachlorophenol
20.135	0.001	351883	22.068	0.001	382823	23.8242	22.5666	5.4	2,3,4,5-Tetrachlorophenol
12.535	0.001	189702	13.806	0.000	180223	254.6249	247.6759	2.8	2,4-Dichlorophenol
18.575	0.001	464861	20.923	0.001	512143	25.2	23.9	5.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	97.1	99.5
2,4,6-Trichlorophenol	94.8	94.9
2,3,6-Trichlorophenol	96.4	96.7
2,4,5-Trichlorophenol	95.5	96.6
2,3,4-Trichlorophenol	97.1	97.1
2,3,5,6-Tetrachlorophenol	98.2	95.0
2,3,4,5-Tetrachlorophenol	95.3	90.3
2,4-Dichlorophenol	101.8	99.1
2,4,6-TBP (surr)	100.9	95.4

TB85: 00164



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

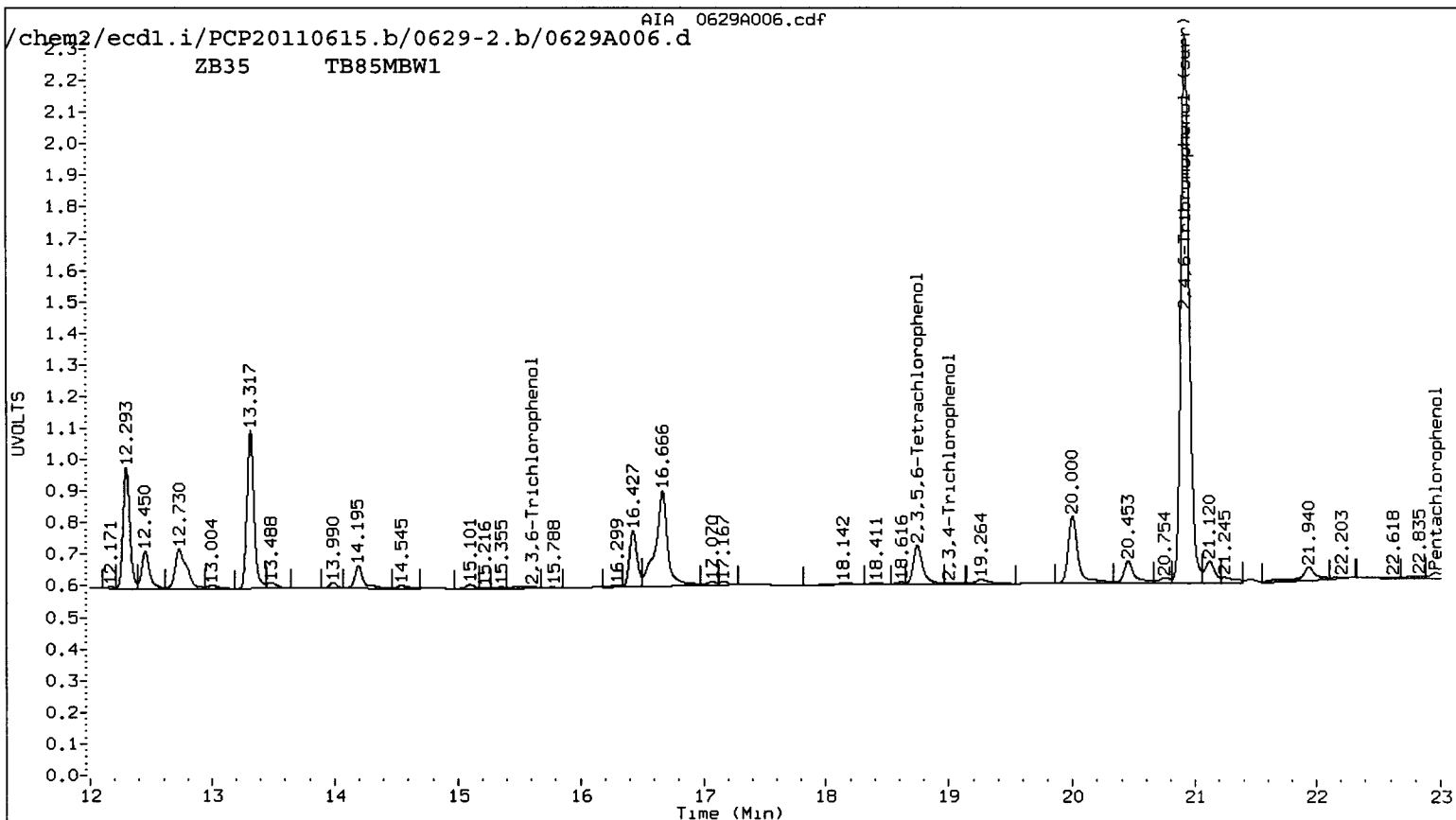
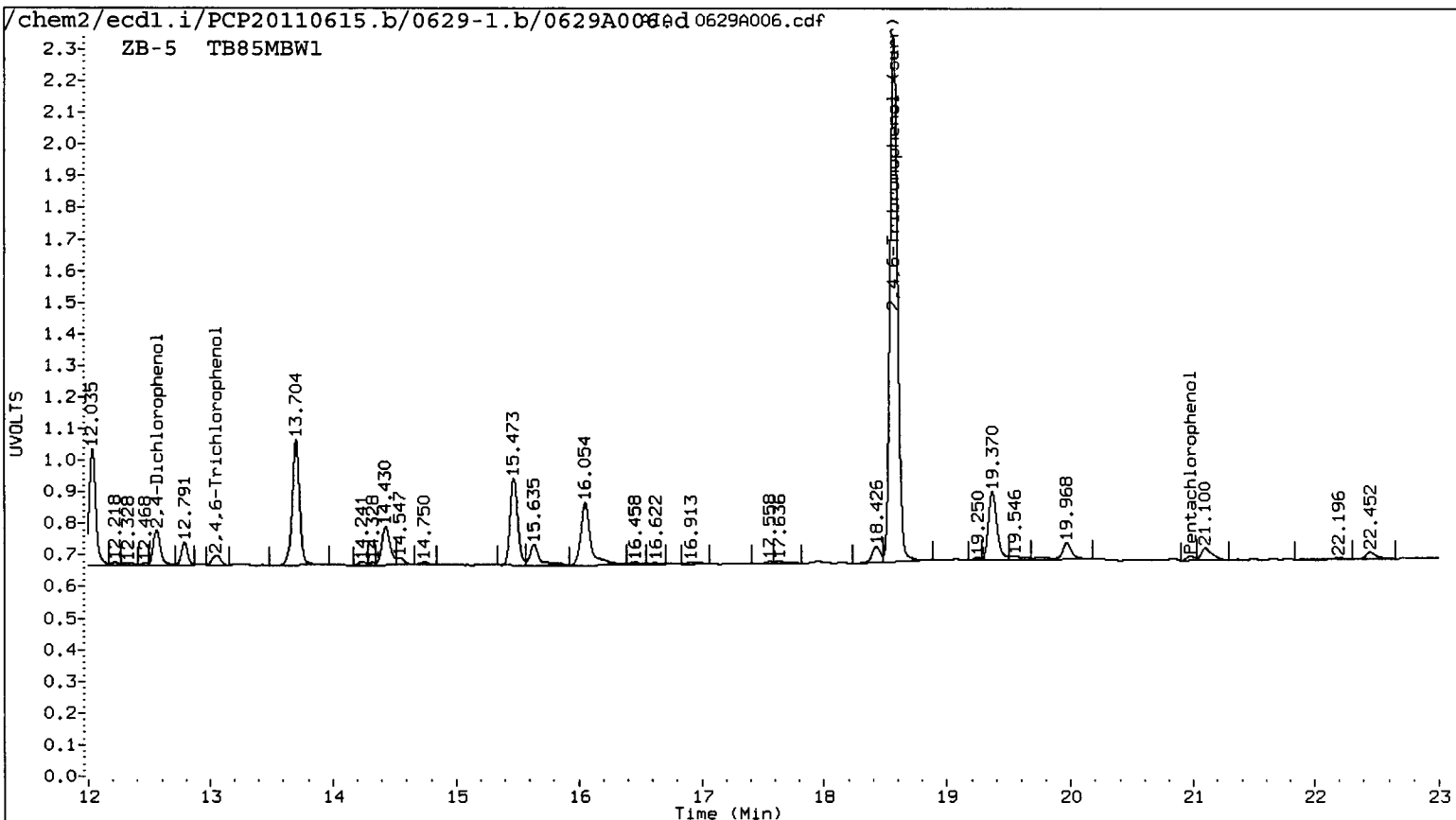
AR 6/30/2011

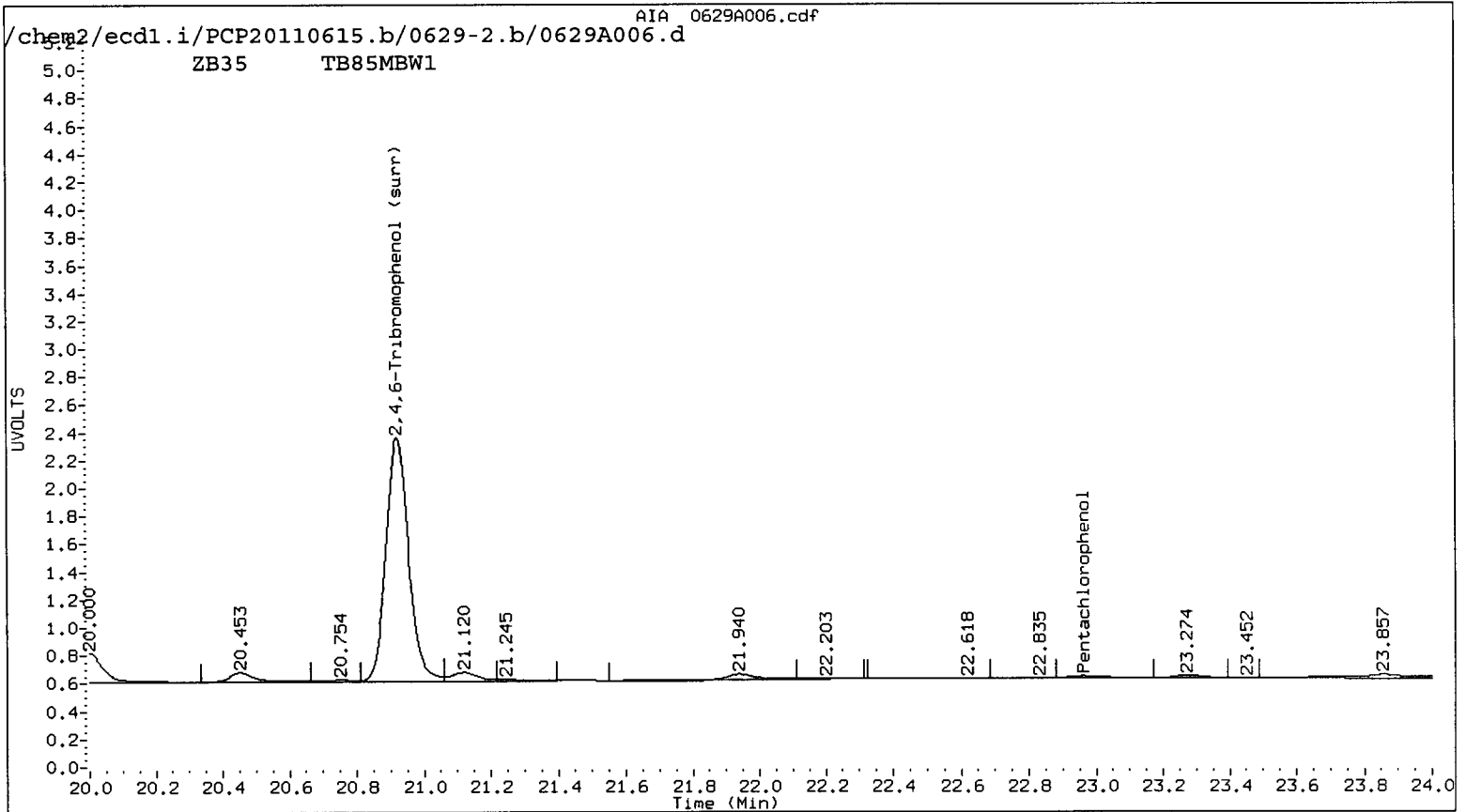
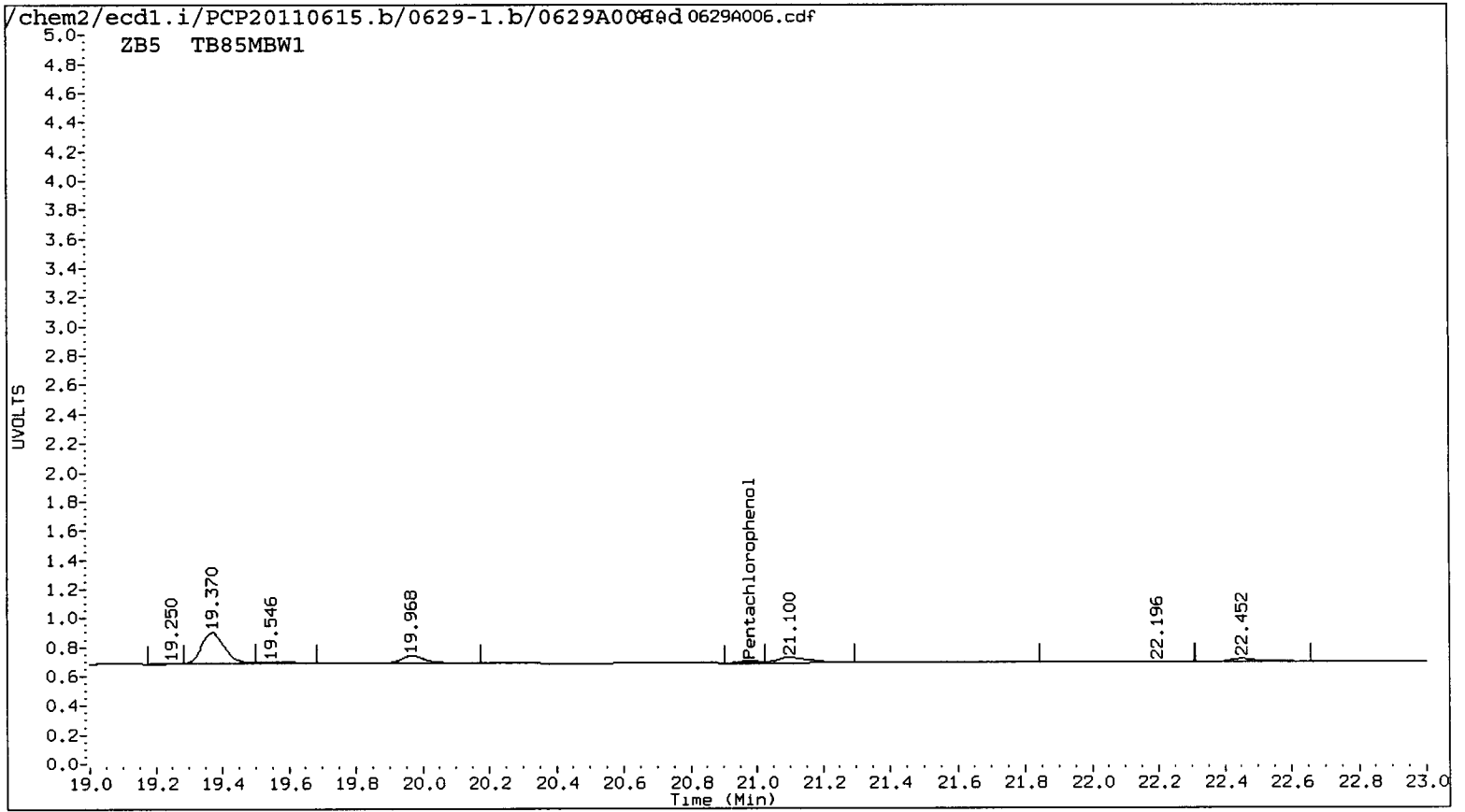
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A006.d ARI ID: TB85MBW1
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A006.d Client ID: TB85MBW1
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 13:41
 Compound Sublist: all Report Date: 06/30/2011 12:52
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.978	0.003	2986	22.963	0.010	7306	0.1268	0.2432 ¹²	62.9*	Pentachlorophenol
13.054	-0.026	7763	----			0.5513	0.0000 ¹²	---	2,4,6-Trichlorophenol
----			15.608	0.066	2738	0.0000	0.1840	---	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			19.009	0.000	684	0.0000	0.0675	---	2,3,4-Trichlorophenol
----			18.749	-0.050	32327	0.0000	1.4366	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.561	0.027	22522	----			25.0936	0.0000	---	2,4-Dichlorophenol
18.573	-0.002	359908	20.920	-0.002	413505	19.5	19.3	1.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	78.1	77.1





Data File: /chem2/ecod1.i/PCP20110615.b/0629-1.b/0629A006.d

Date : 29-JUN-2011 13:41

Client ID: TB85HBM1

Sample Info: TB85HBM1

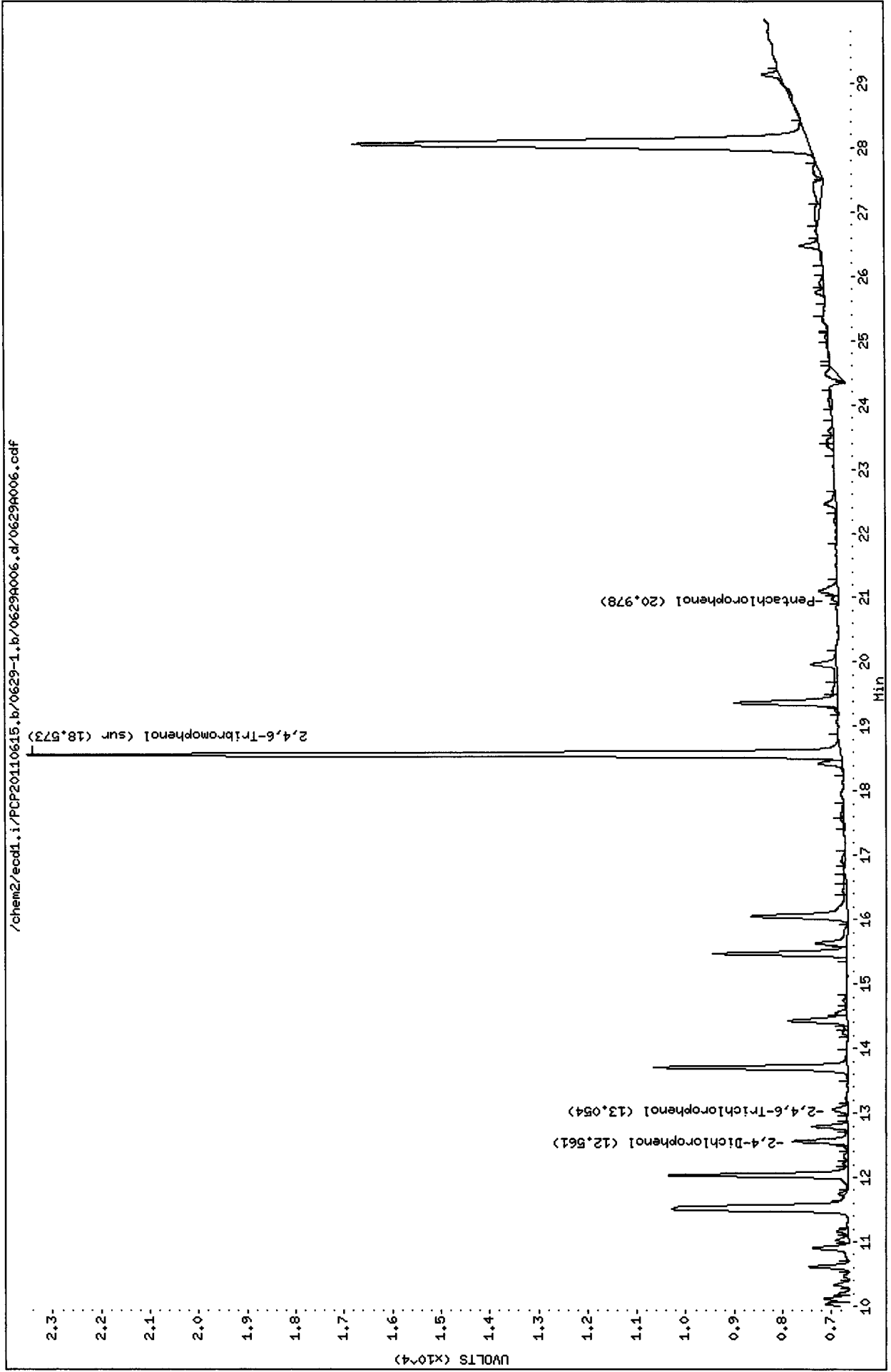
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: ecod1.i

Operator: ar

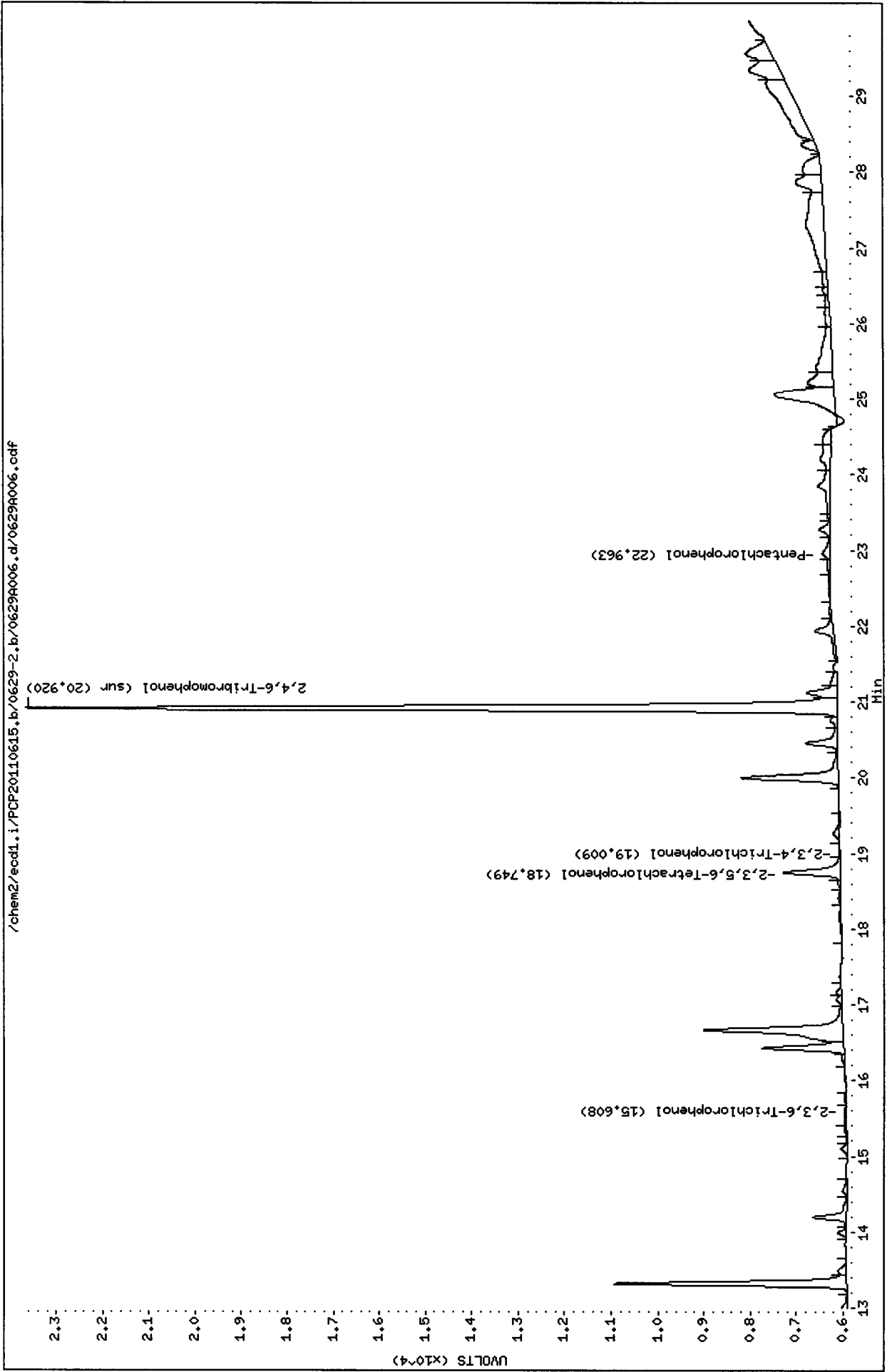
Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A006.d
Date : 29-JUN-2011 13:41
Client ID: TB85HBM1
Sample Info: TB85HBM1
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: eccl1.i

Operator: ar
Column diameter: 0.53



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

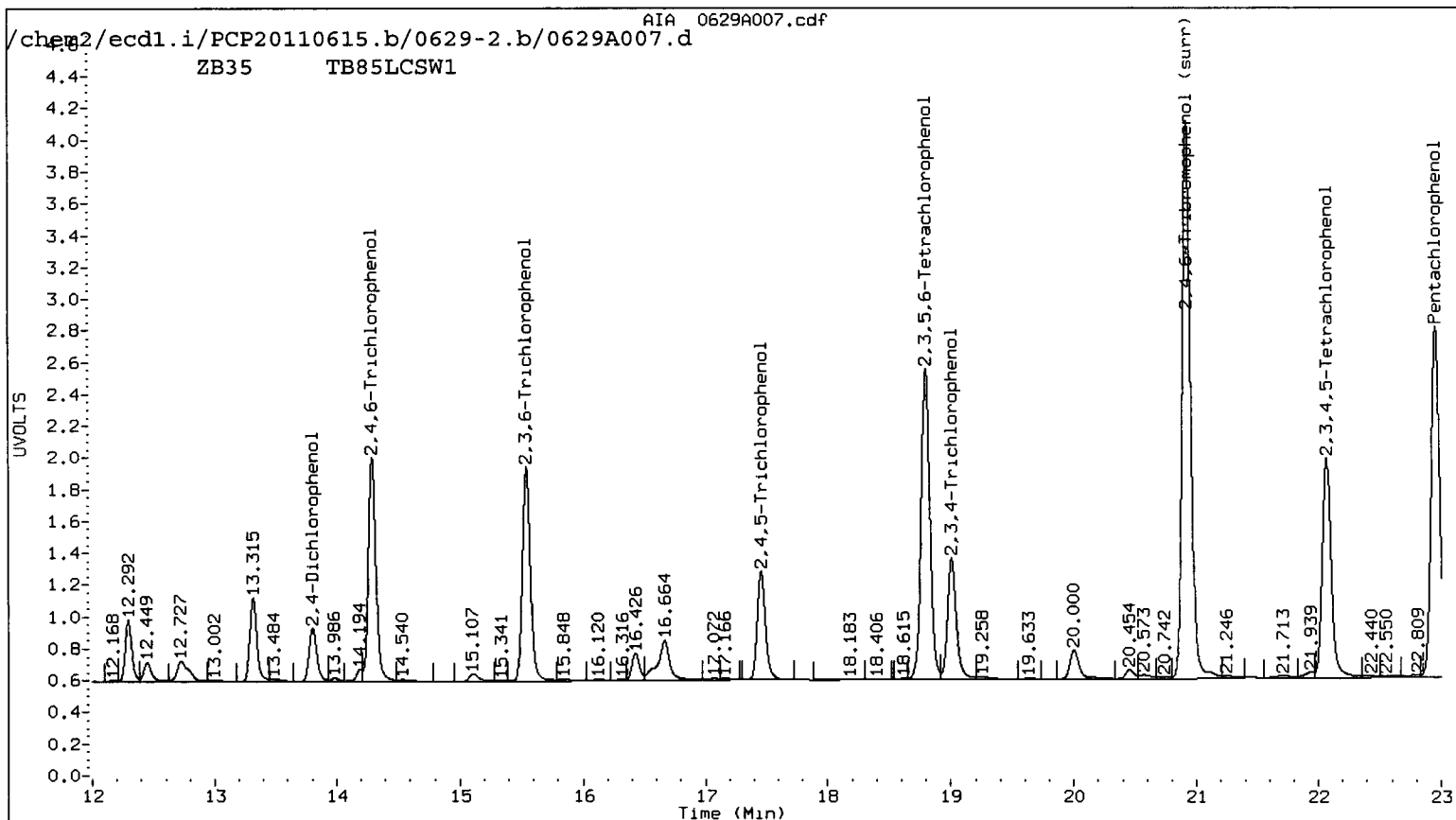
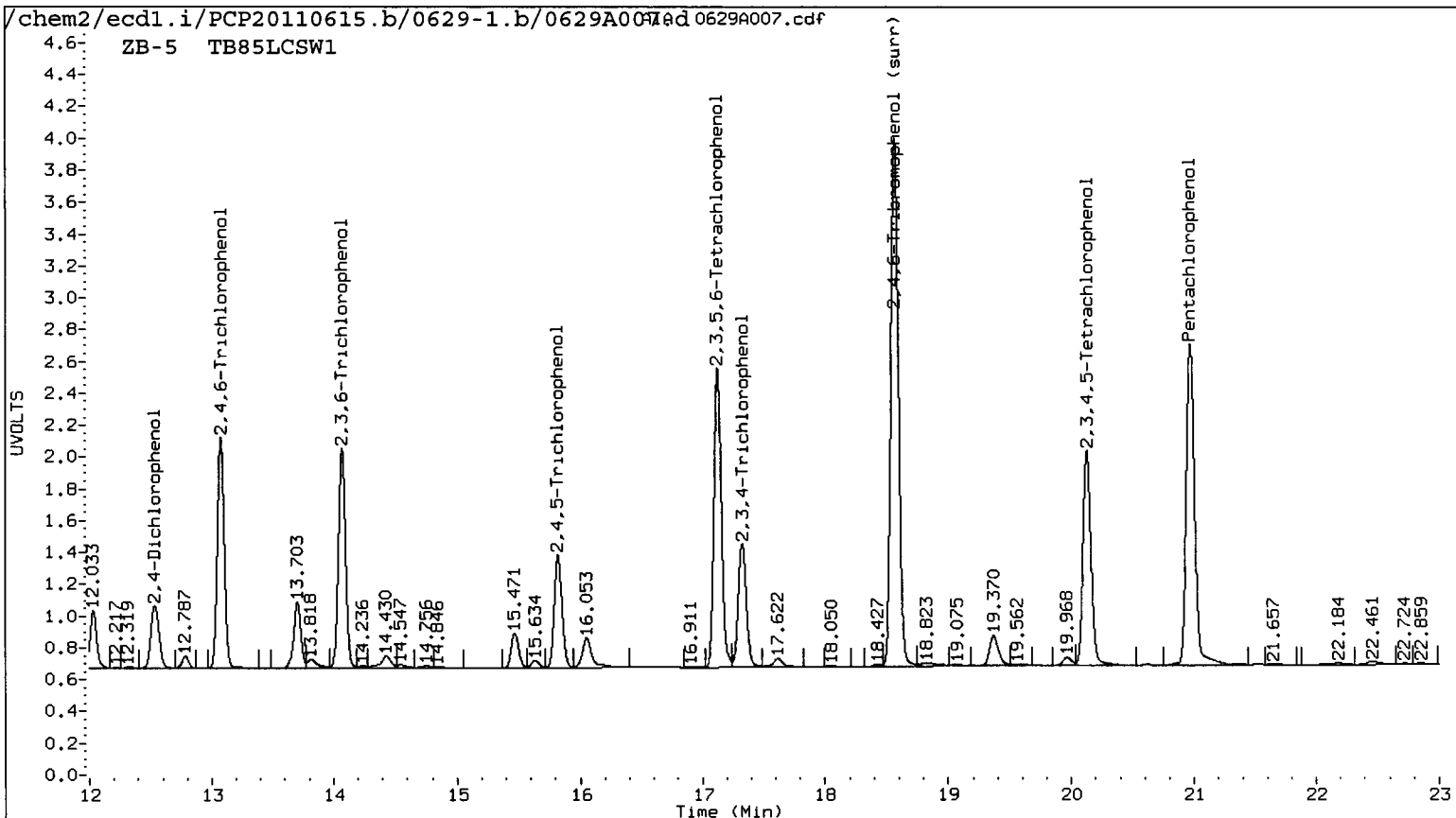
AR 6/30/201

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A007.d ARI ID: TB85LCSW1
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A007.d Client ID: TB85LCSW1
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 14:17
 Compound Sublist: all Report Date: 06/30/2011 12:52
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

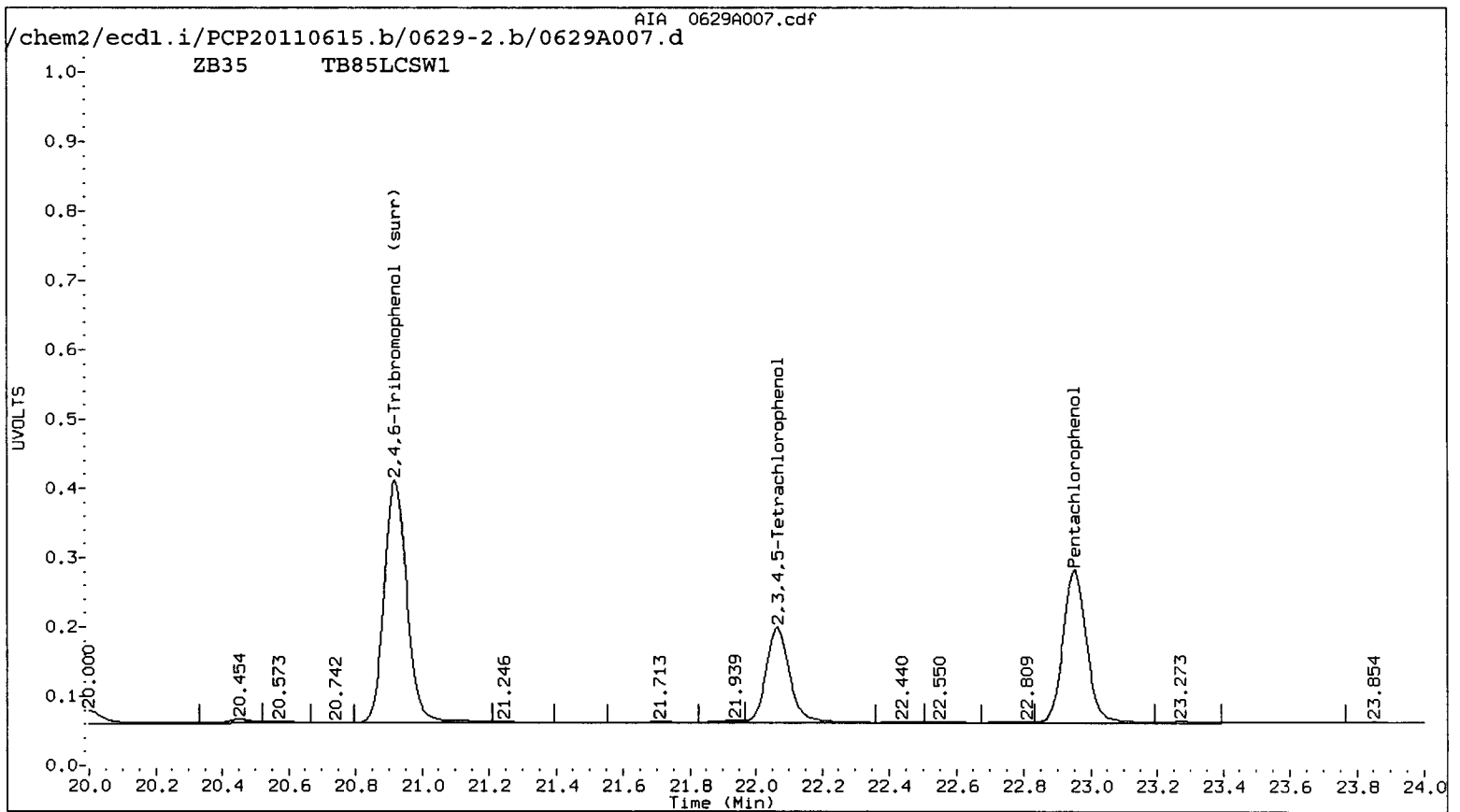
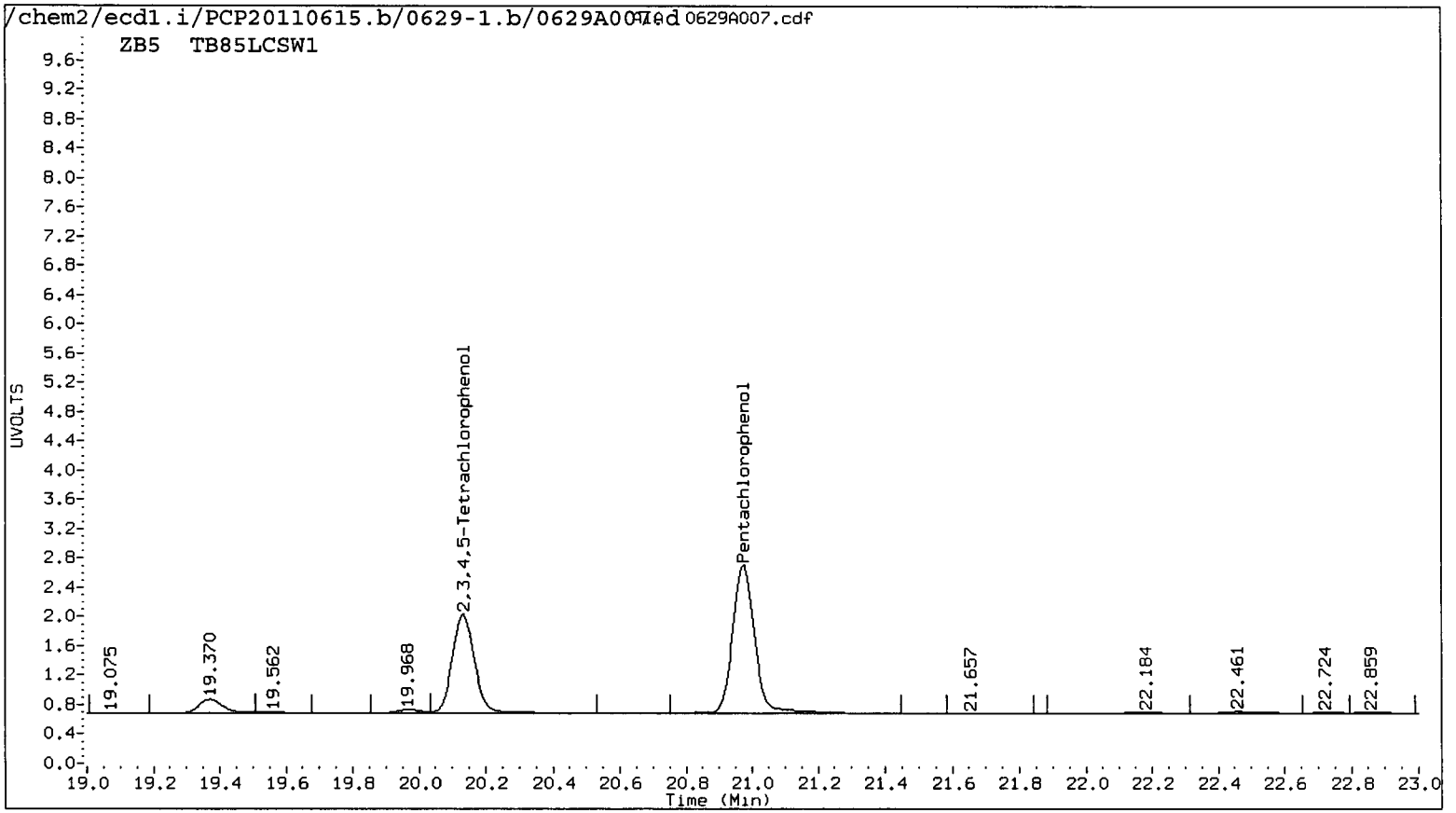
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.974	-0.002	475711	22.951	-0.002	542422	20.1999	18.0515	11.2	Pentachlorophenol
13.075	-0.004	291801	14.292	-0.003	306793	20.7223	20.7253	0.0	2,4,6-Trichlorophenol
14.071	-0.004	283035	15.539	-0.003	302714	21.6689	20.3331	6.4	2,3,6-Trichlorophenol
15.821	-0.003	152440	17.457	-0.003	160001	19.1669	18.8027	1.9	2,4,5-Trichlorophenol
17.328	-0.003	176229	19.007	-0.003	188047	18.3146	18.5329	1.2	2,3,4-Trichlorophenol
17.127	-0.003	402253	18.796	-0.003	467839	20.5650	20.7910	1.1	2,3,5,6-Tetrachlorophenol
20.132	-0.002	312331	22.065	-0.002	351479	21.1464	20.7189	2.0	2,3,4,5-Tetrachlorophenol
12.536	0.002	92267	13.803	-0.003	74715	111.5788	90.7505	20.6	2,4-Dichlorophenol
18.571	-0.003	719651	20.919	-0.003	841872	39.0	39.2	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	80.8	72.2
2,4,6-Trichlorophenol	82.9	82.9
2,3,6-Trichlorophenol	86.7	81.3
2,4,5-Trichlorophenol	76.7	75.2
2,3,4-Trichlorophenol	73.3	74.1
2,3,5,6-Tetrachlorophenol	82.3	83.2
2,3,4,5-Tetrachlorophenol	84.6	82.9
2,4-Dichlorophenol	44.6	36.3
2,4,6-TBP (surr)	78.1	78.4



TB85:00173

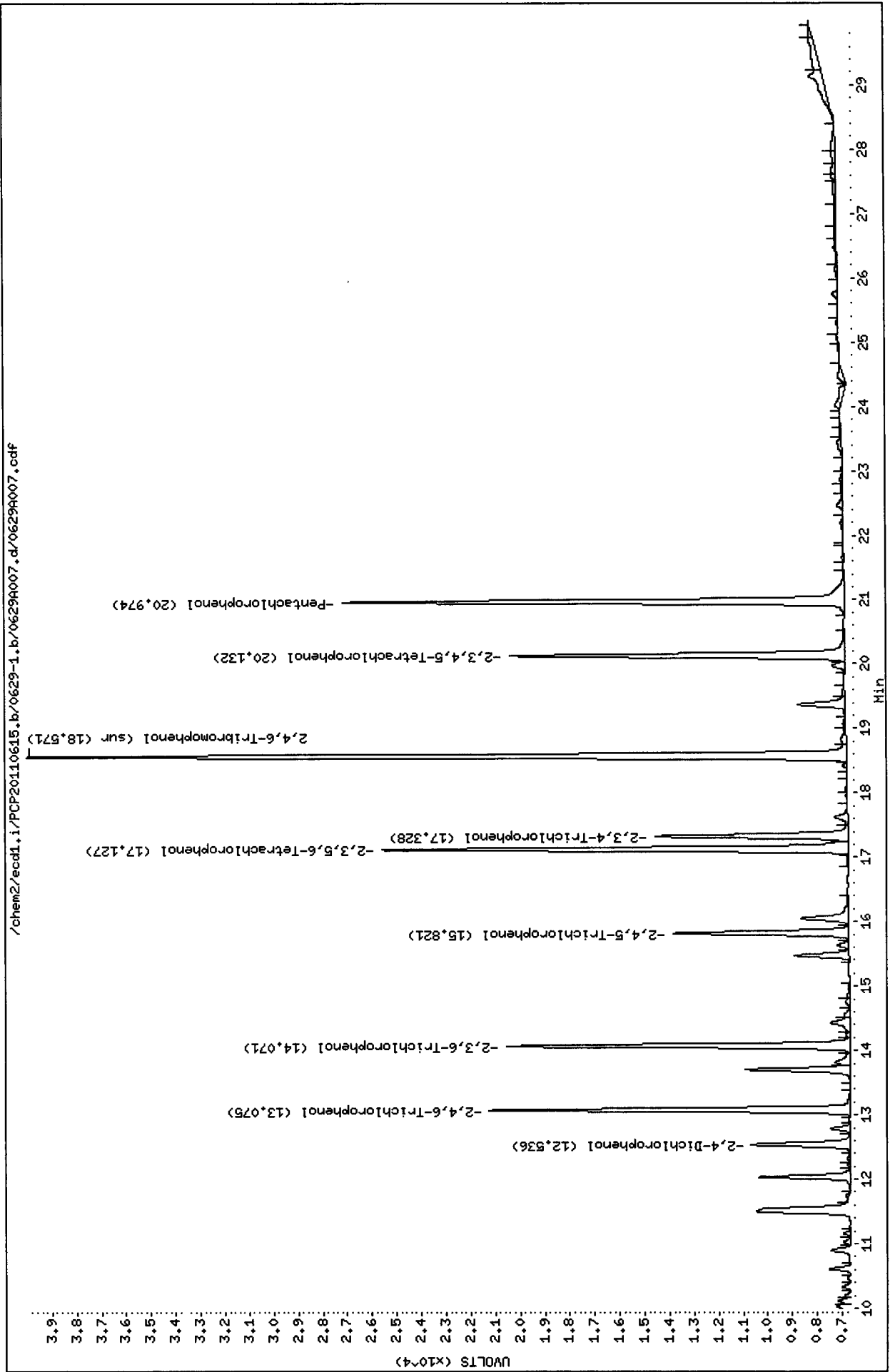


TB85 : 00174

Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A007.d
Date : 29-JUN-2011 14:17
Client ID: TB85LCSM1
Sample Info: TB85LCSM1
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecdl1.i

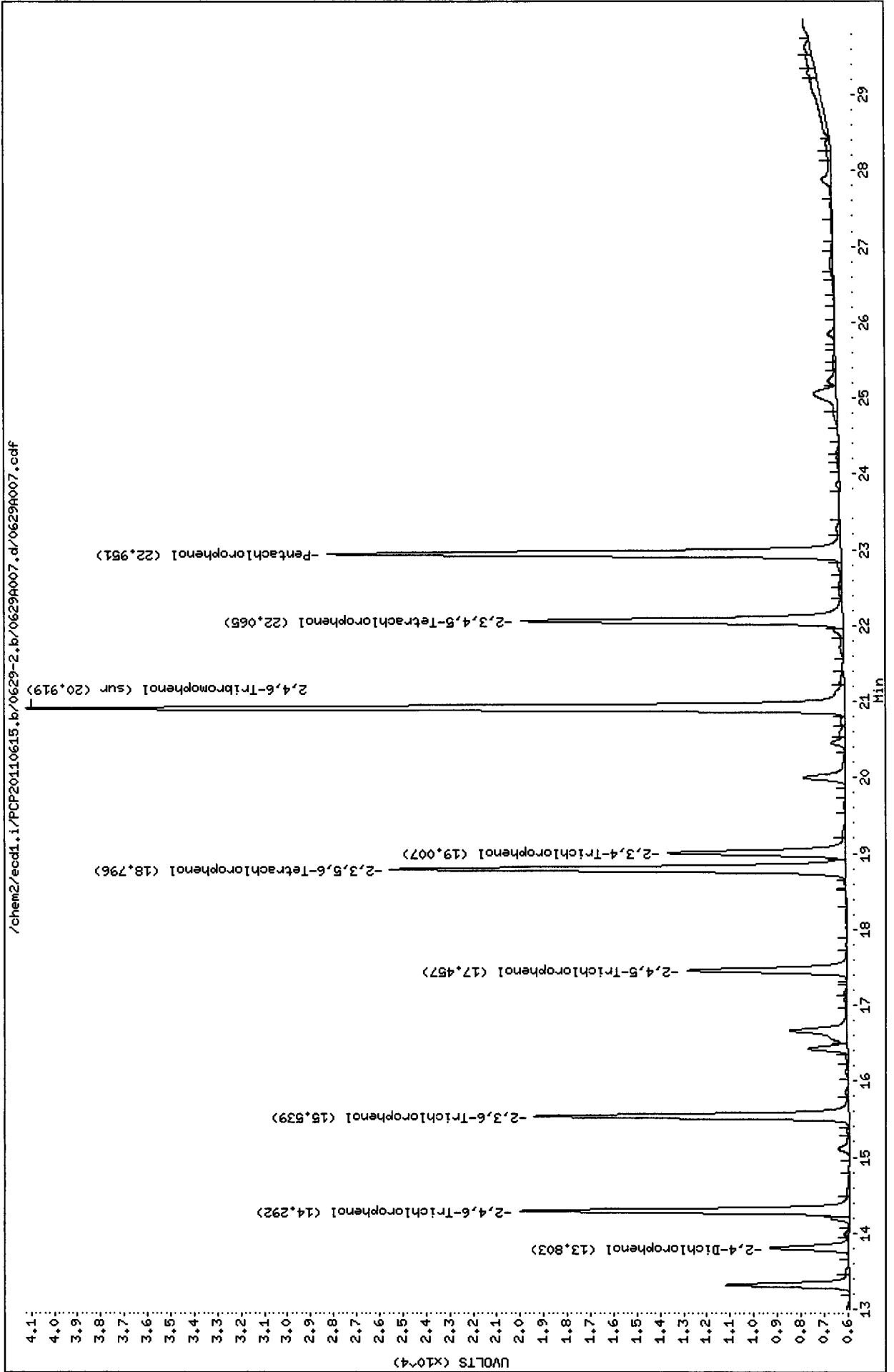
Operator: ar
Column diameter: 0.53



Data File: /chem2/ecd1.1/PCP20110615.b/0629-2.b/0629A007.d
Date : 29-JUN-2011 14:17
Client ID: TB85LCSM1
Sample Info: TB85LCSM1
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecd1.1

Operator: ar
Column diameter: 0.53



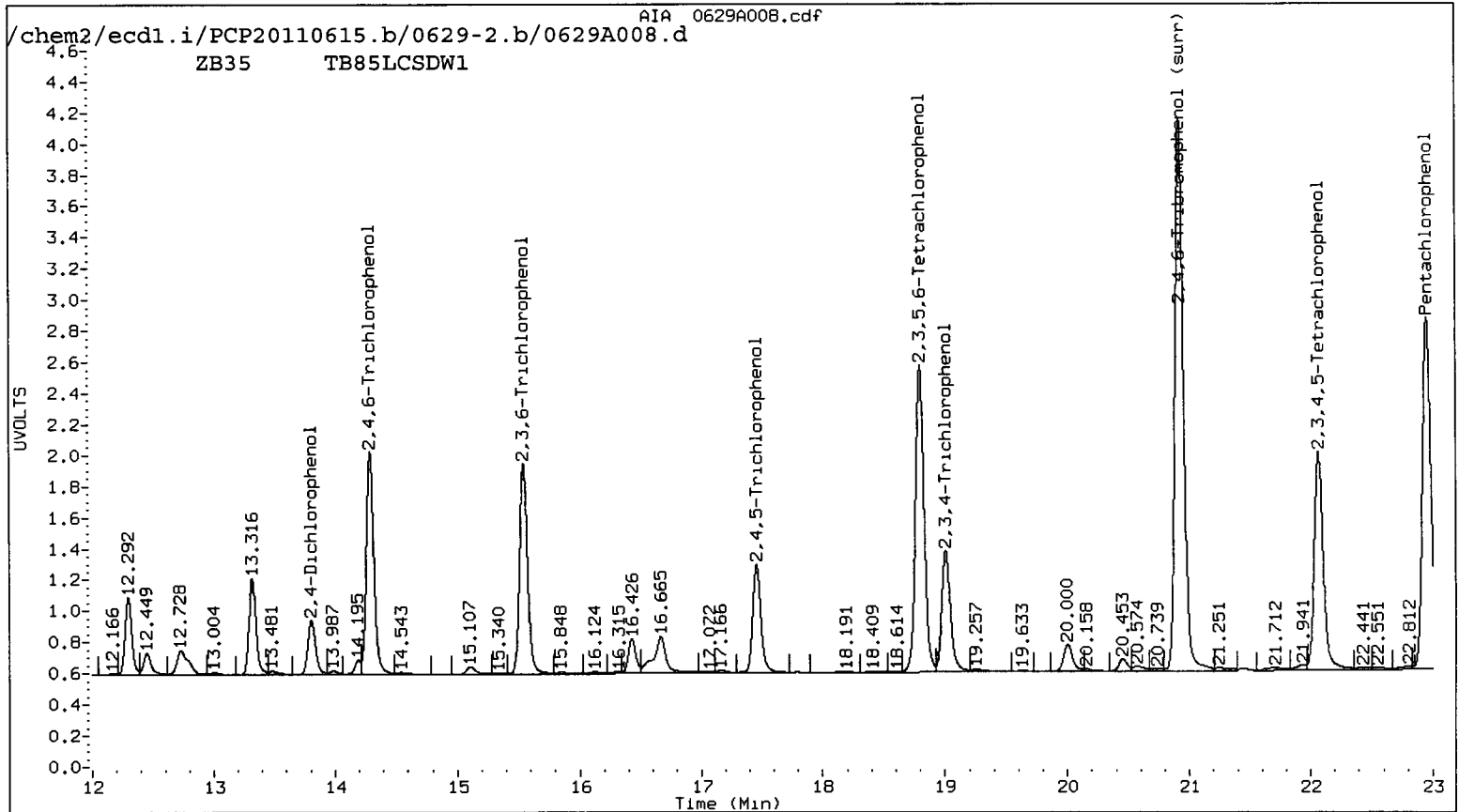
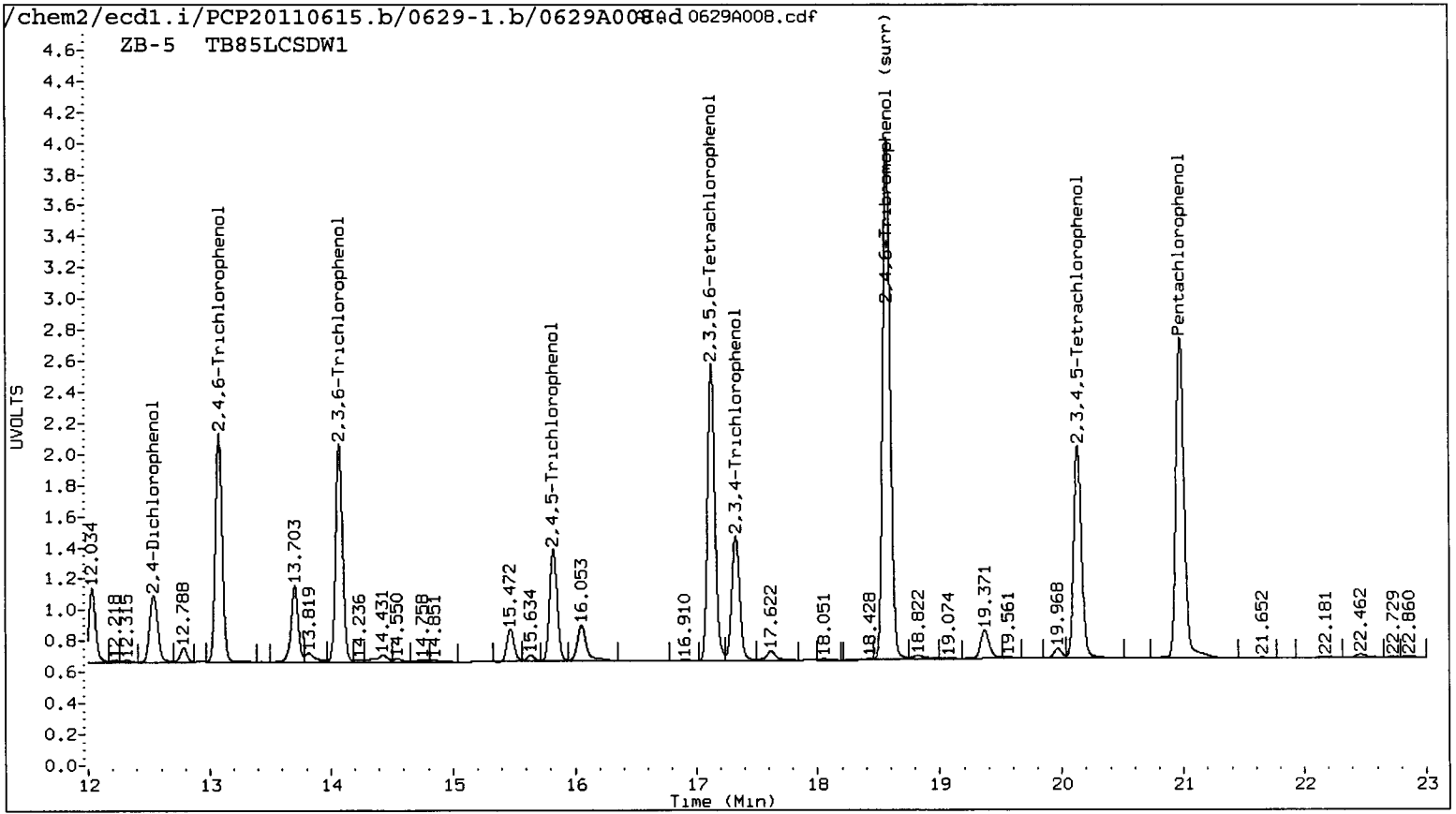
Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report *AR 6/30/2011*

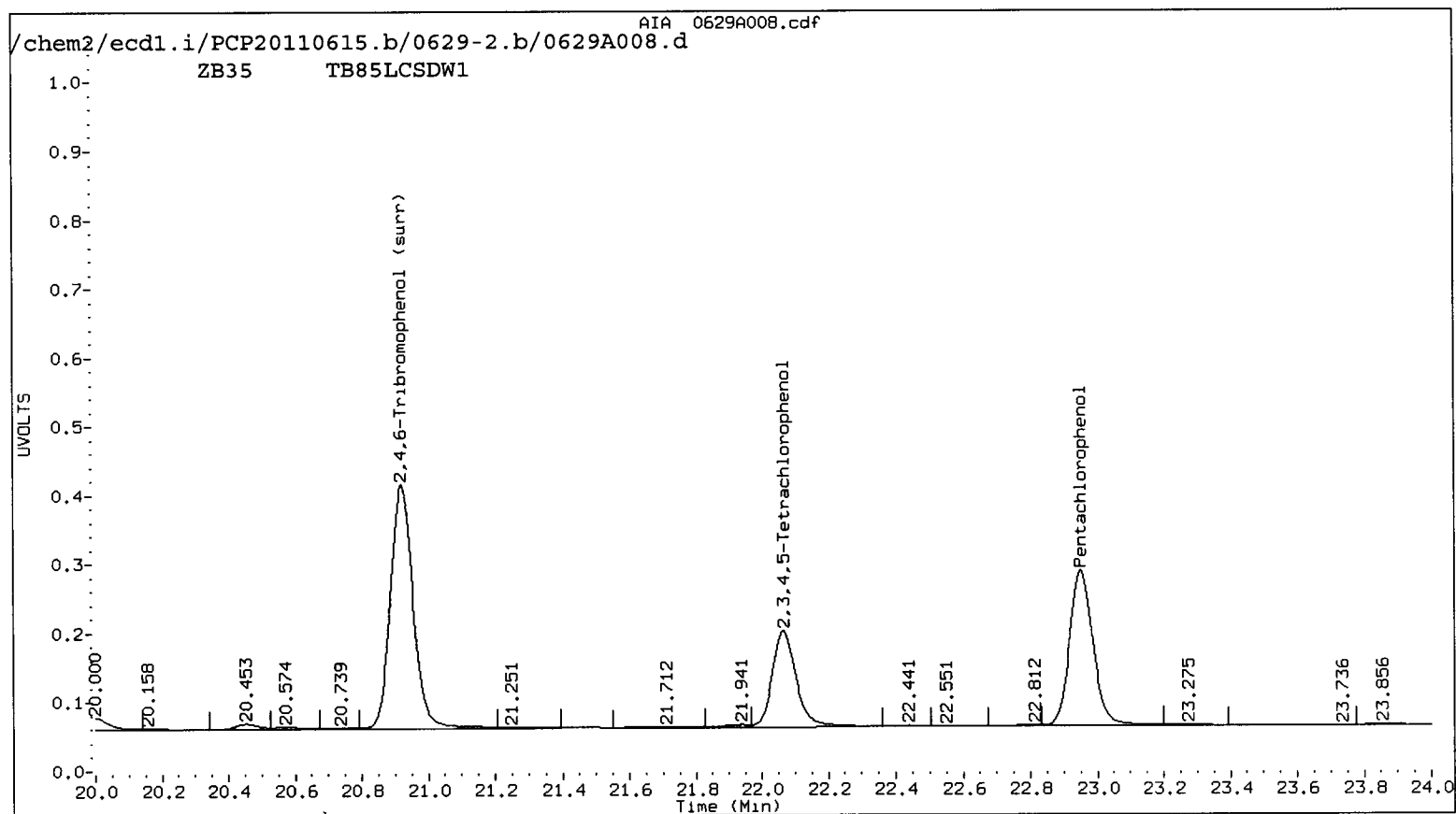
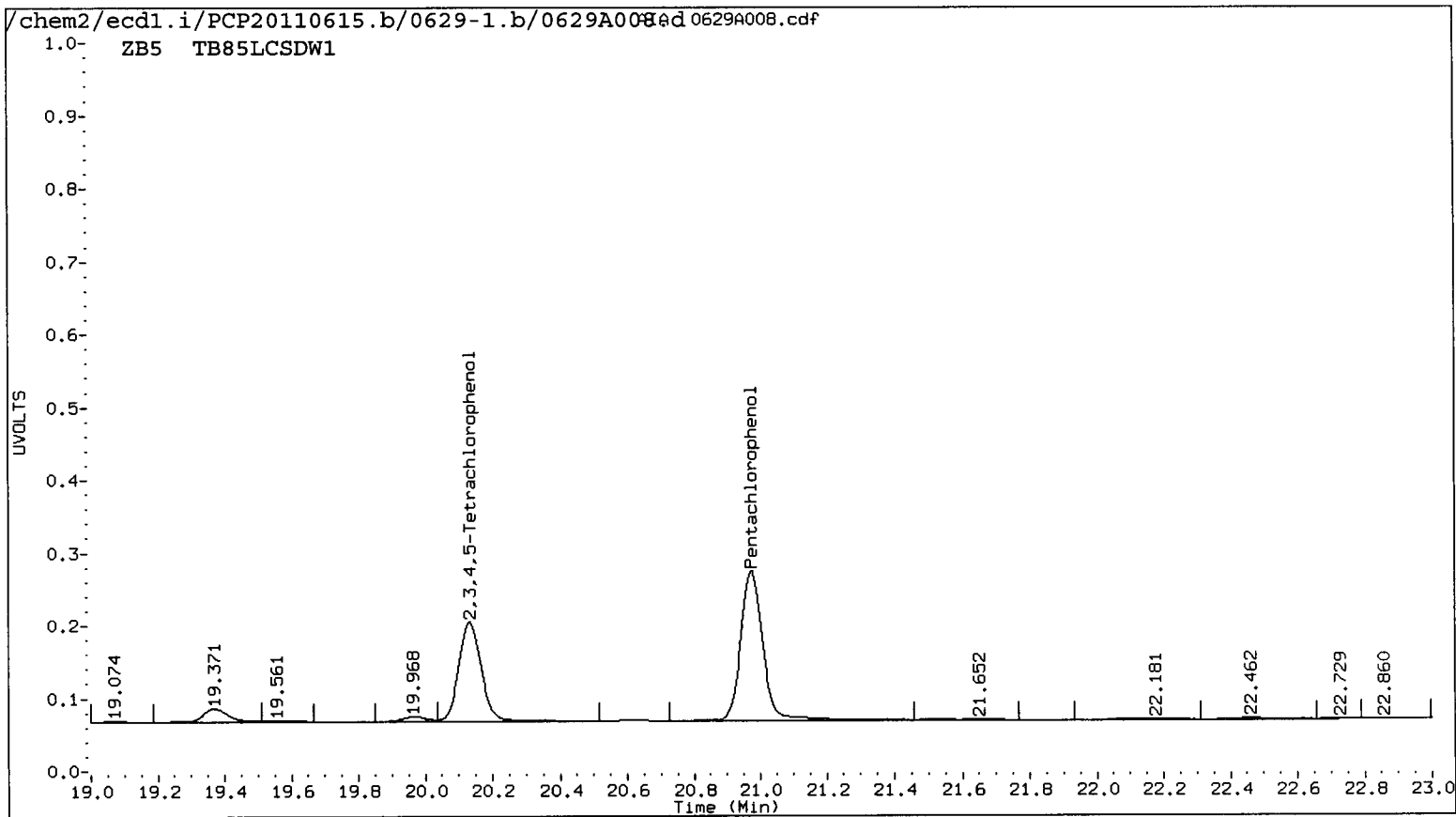
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A008.d ARI ID: TB85LCSDW1
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A008.d Client ID: TB85LCSDW1
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 14:53
 Compound Sublist: all Report Date: 06/30/2011 12:52
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.974	-0.002	483804	22.951	-0.002	554862	20.5436	18.4655	10.7	Pentachlorophenol
13.076	-0.003	295831	14.293	-0.003	308121	21.0085	20.8150	0.9	2,4,6-Trichlorophenol
14.071	-0.003	285331	15.540	-0.002	304863	21.8446	20.4775	6.5	2,3,6-Trichlorophenol
15.821	-0.003	153657	17.458	-0.003	163862	19.3198	19.2564	0.3	2,4,5-Trichlorophenol
17.328	-0.002	179994	19.007	-0.002	193394	18.7058	19.0599	1.9	2,3,4-Trichlorophenol
17.128	-0.003	407361	18.797	-0.002	469626	20.8261	20.8704	0.2	2,3,5,6-Tetrachlorophenol
20.133	-0.001	314626	22.066	-0.001	355485	21.3018	20.9551	1.6	2,3,4,5-Tetrachlorophenol
12.537	0.003	100073	13.804	-0.002	77727	122.0851	94.7637	25.2	2,4-Dichlorophenol
18.572	-0.003	723907	20.920	-0.002	848529	39.3	39.5	0.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	82.2	73.9
2,4,6-Trichlorophenol	84.0	83.3
2,3,6-Trichlorophenol	87.4	81.9
2,4,5-Trichlorophenol	77.3	77.0
2,3,4-Trichlorophenol	74.8	76.2
2,3,5,6-Tetrachlorophenol	83.3	83.5
2,3,4,5-Tetrachlorophenol	85.2	83.8
2,4-Dichlorophenol	48.8	37.9
2,4,6-TBP (surr)	78.5	79.1



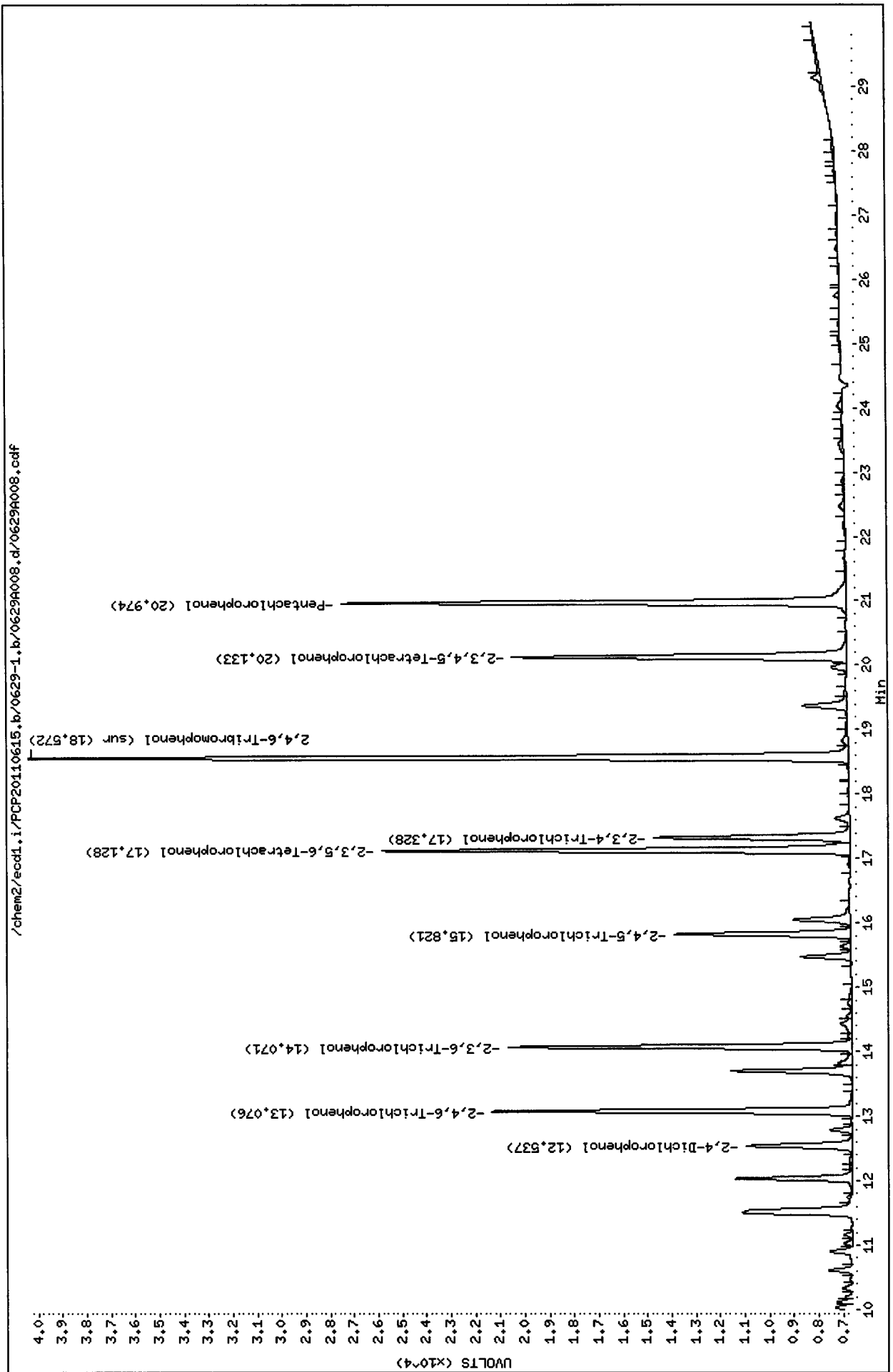


TB85: 00179

Data File: /chem2/ecd1.i/PCP20110615.b/0629-1.b/0629A008.d
Date : 29-JUN-2011 14:53
Client ID: TB85LCSDM1
Sample Info: TB85LCSDM1
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

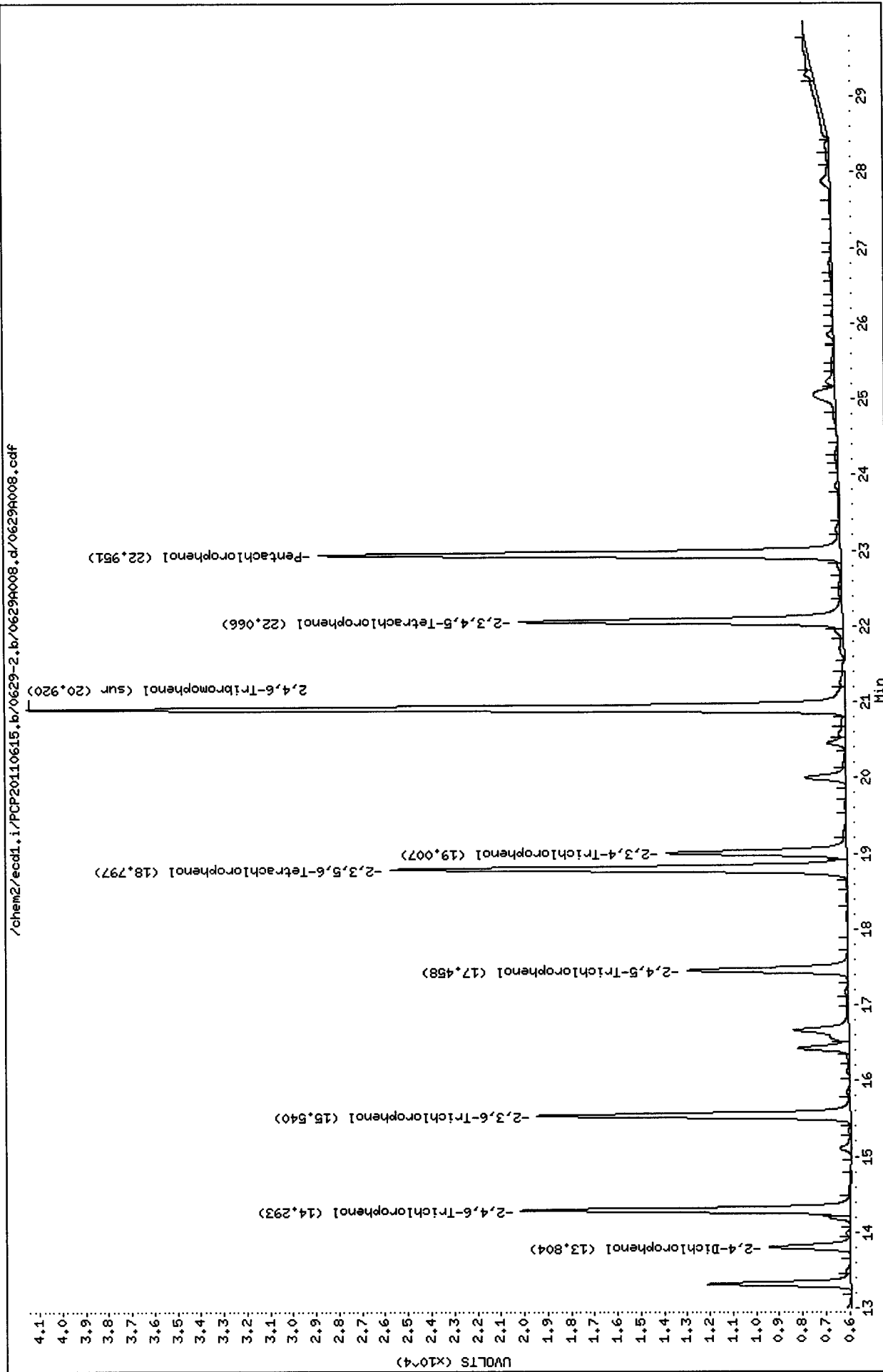


Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A008.d
Date : 29-JUN-2011 14:53
Client ID: TB85LCSDM1
Sample Info: TB85LCSDM1
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53



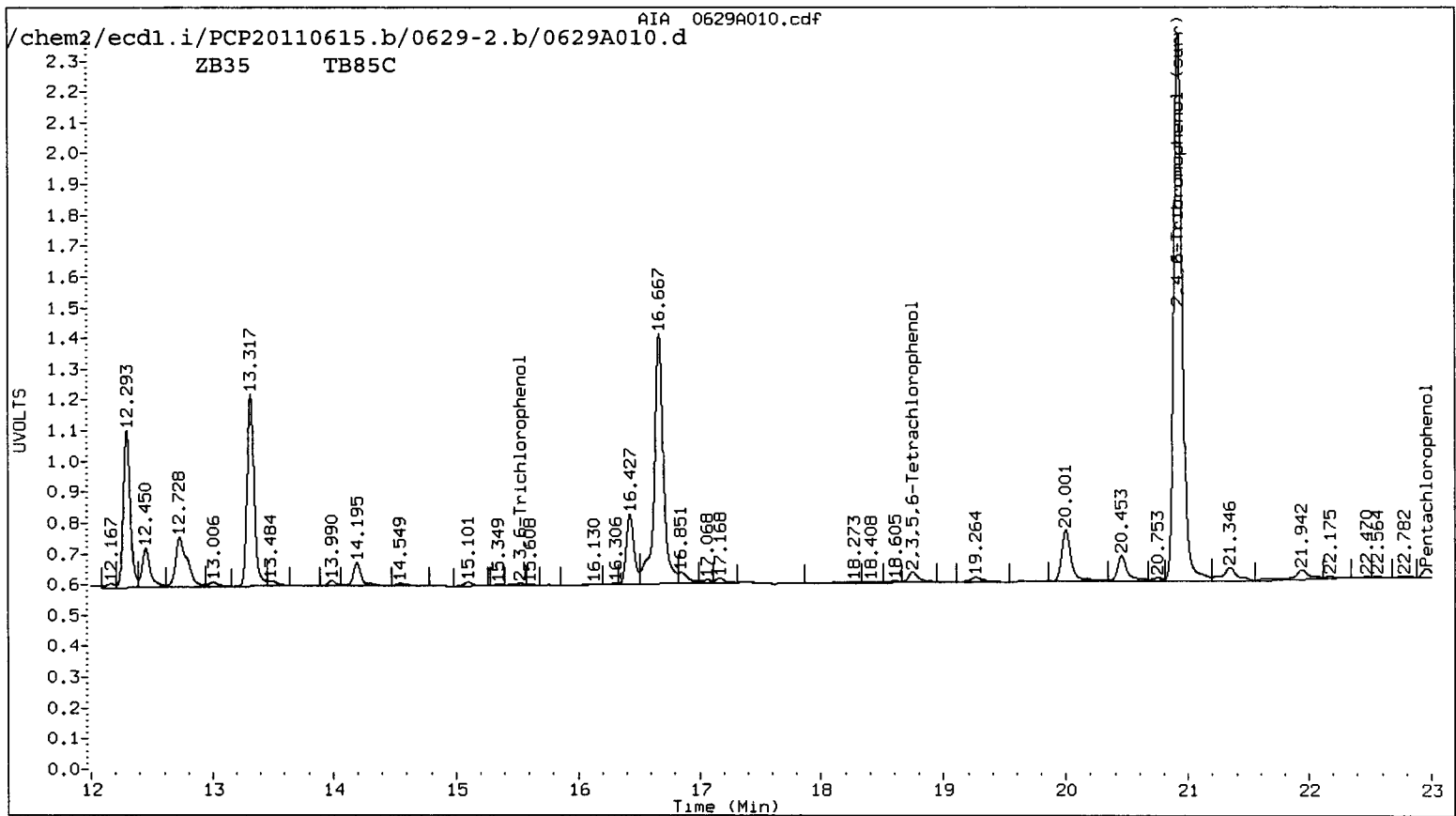
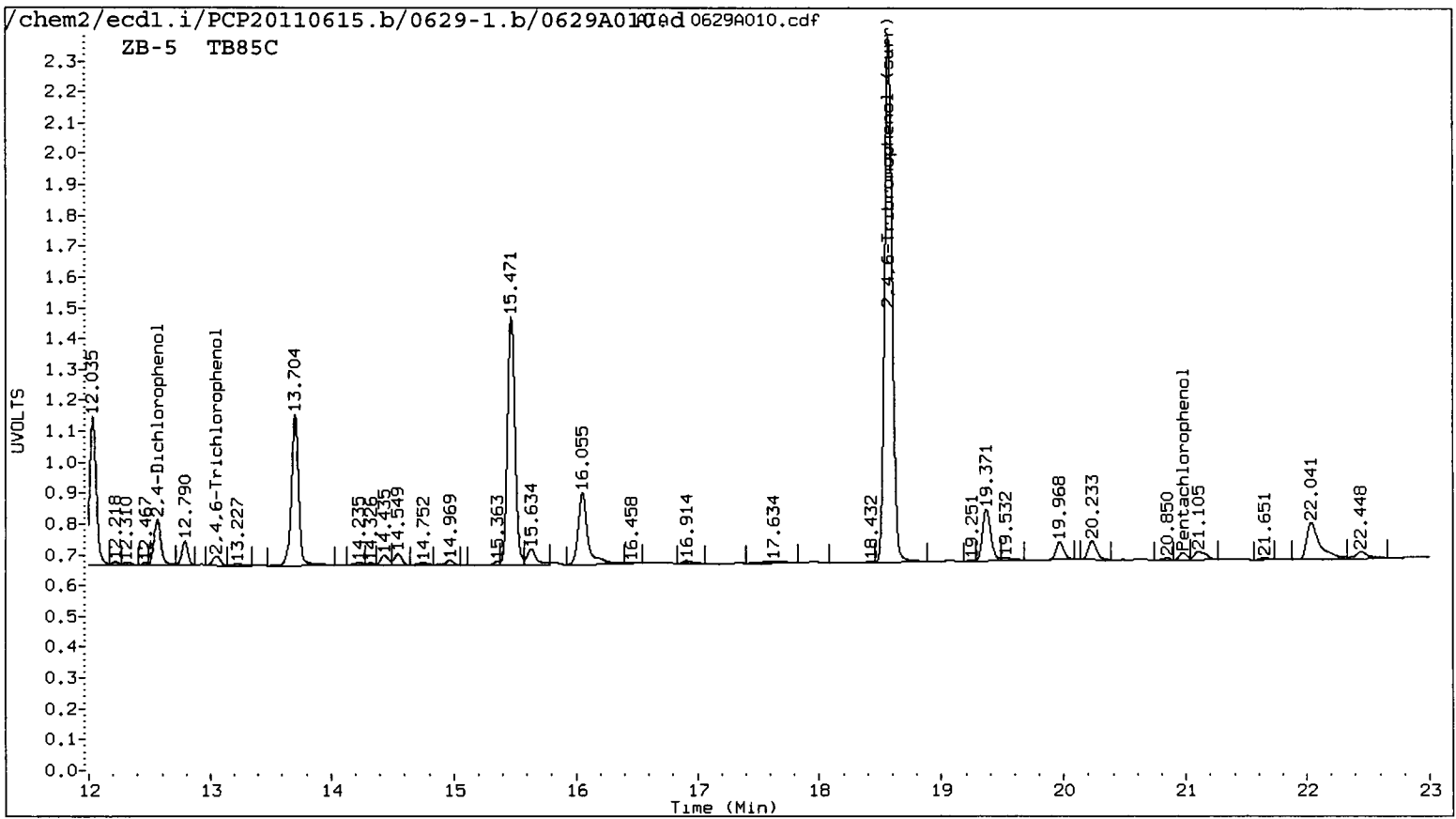
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

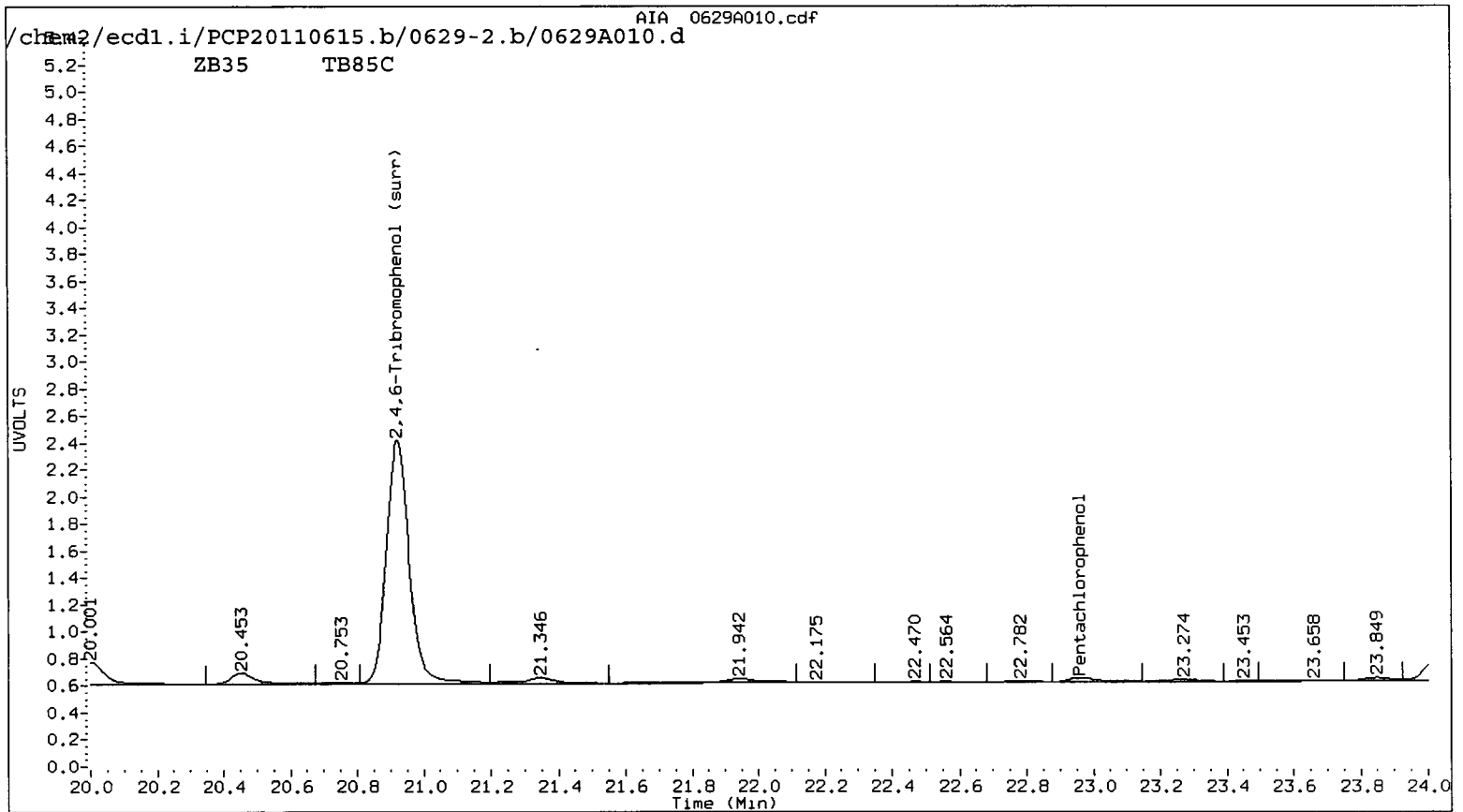
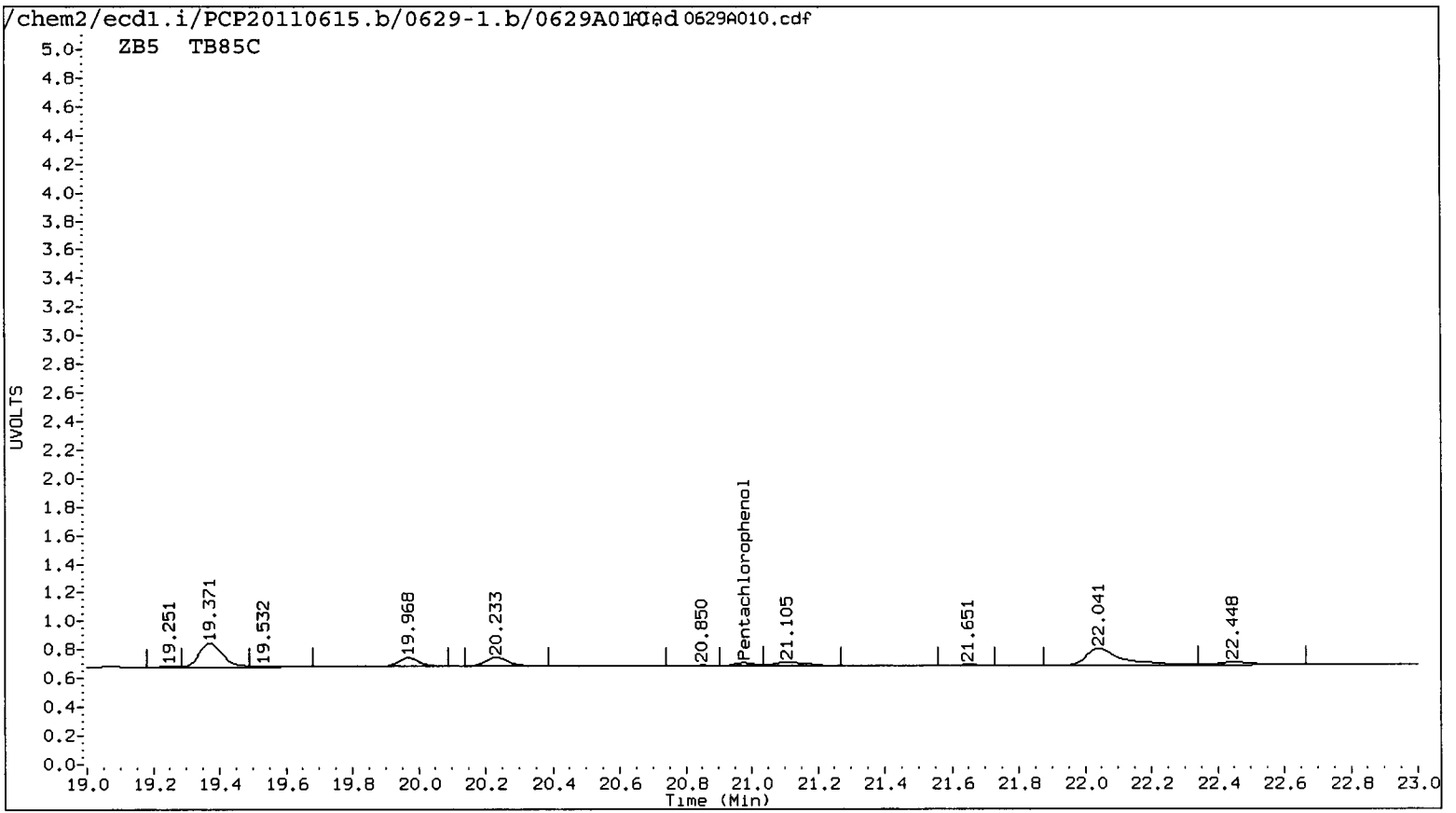
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A010.d ARI ID: TB85C
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A010.d Client ID: SB-01-062211-04
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 16:06
 Compound Sublist: all Report Date: 06/30/2011 12:52
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.977	0.002	5376	22.959	0.006	9011	0.2283	0.2999	27.1	Pentachlorophenol
13.051	-0.029	7262	----			0.5157	0.0000	---	2,4,6-Trichlorophenol
----			15.525	-0.017	2100	0.0000	0.1411	---	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			18.750	-0.049	10055	0.0000	0.4469	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.560	0.026	30284	----			34.0624	0.0000	---	2,4-Dichlorophenol
18.573	-0.001	365983	20.921	-0.001	436180	19.9	20.3	2.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	79.4	81.3





Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629a010.d

Date : 29-JUN-2011 16:06

Client ID: SB-01-062211-04

Sample Info: TB85C

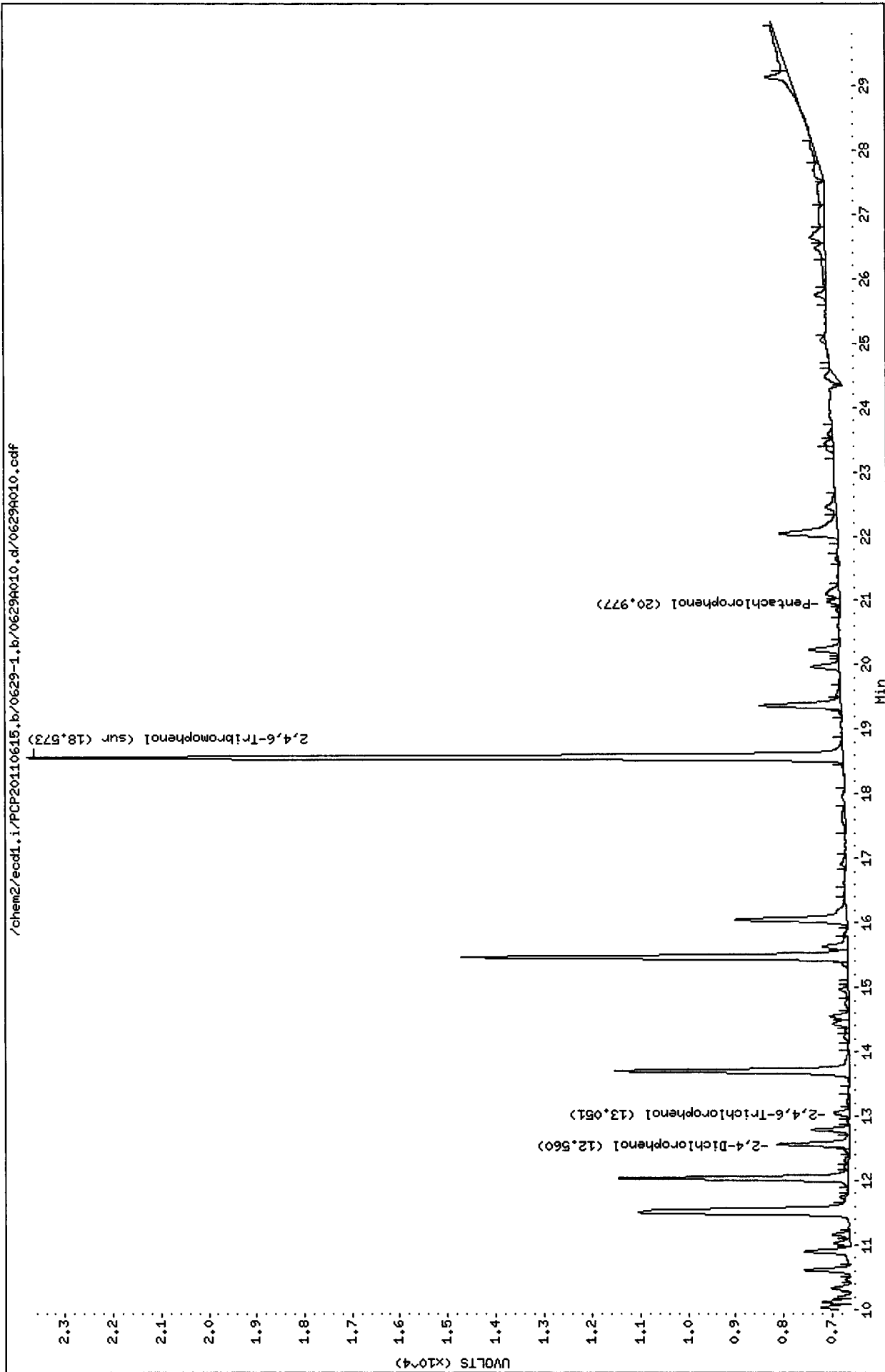
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: eod1.i

Operator: ar

Column diameter: 0.53



Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629p010.d

Date: 29-JUN-2011 16:06

Client ID: SB-01-062211-04

Sample Info: TB85C

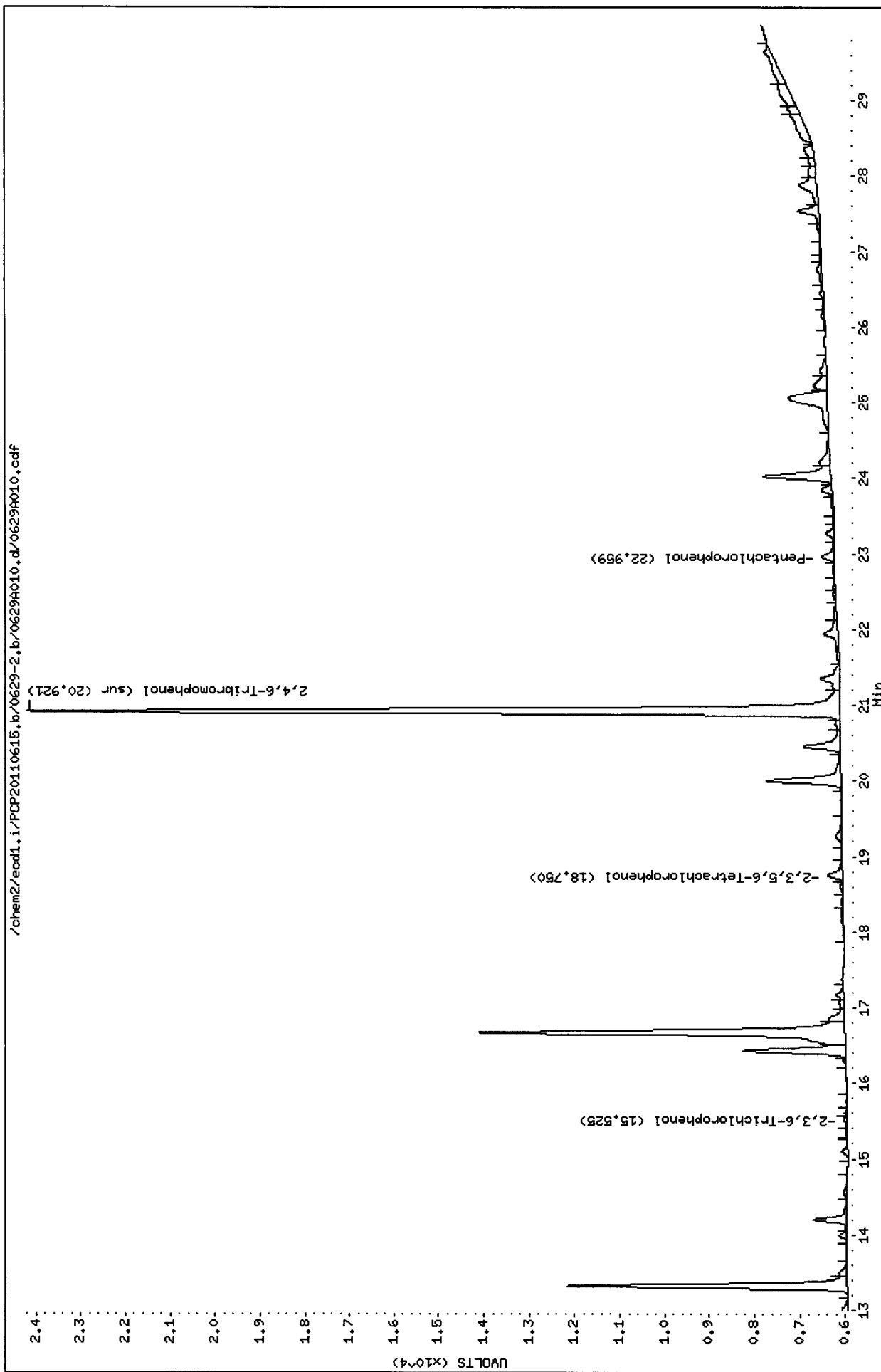
Purge Volume: 500.0

Column phase: STX CLP2

Instrument: eod1.i

Operator: ar

Column diameter: 0.53



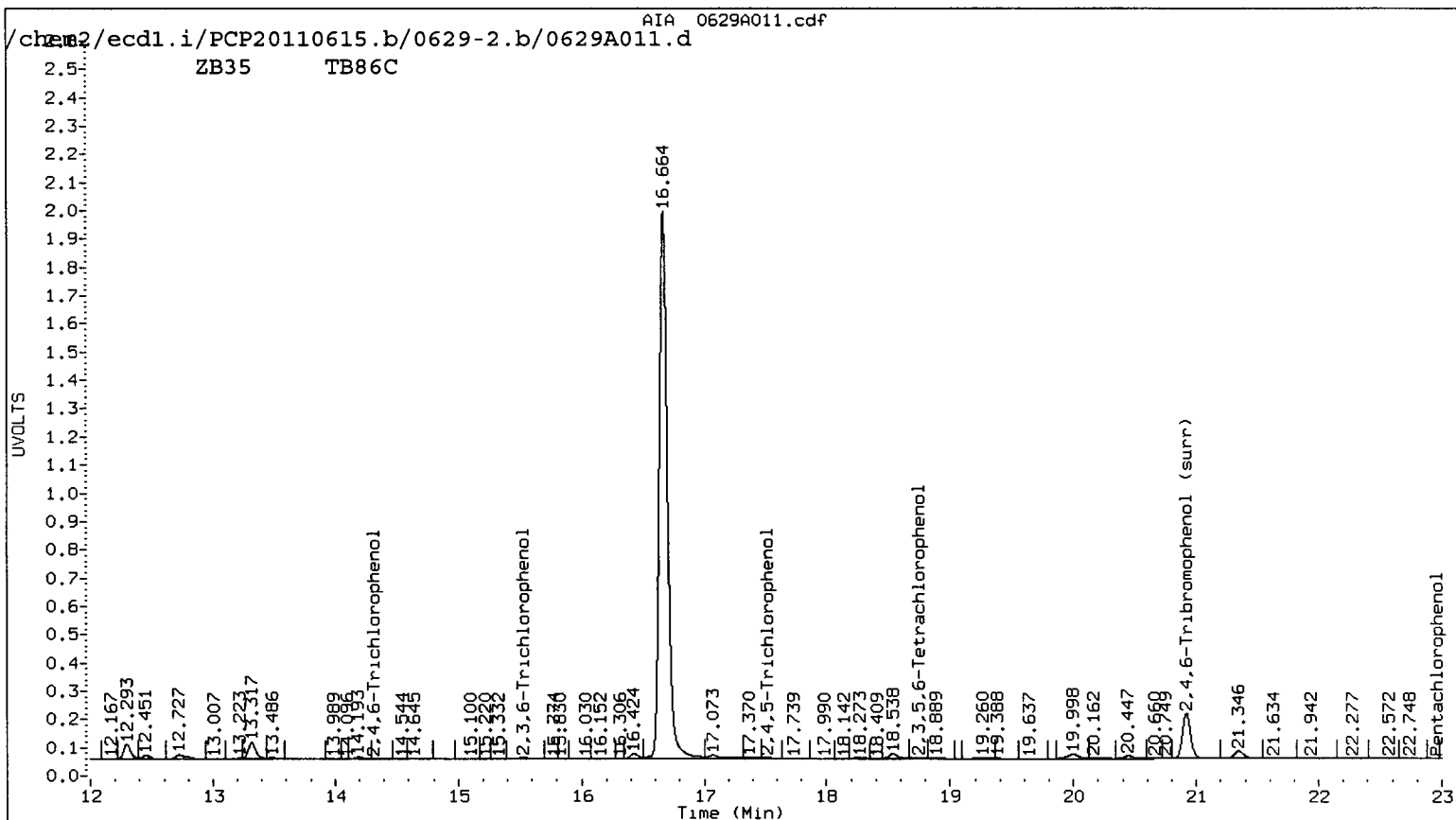
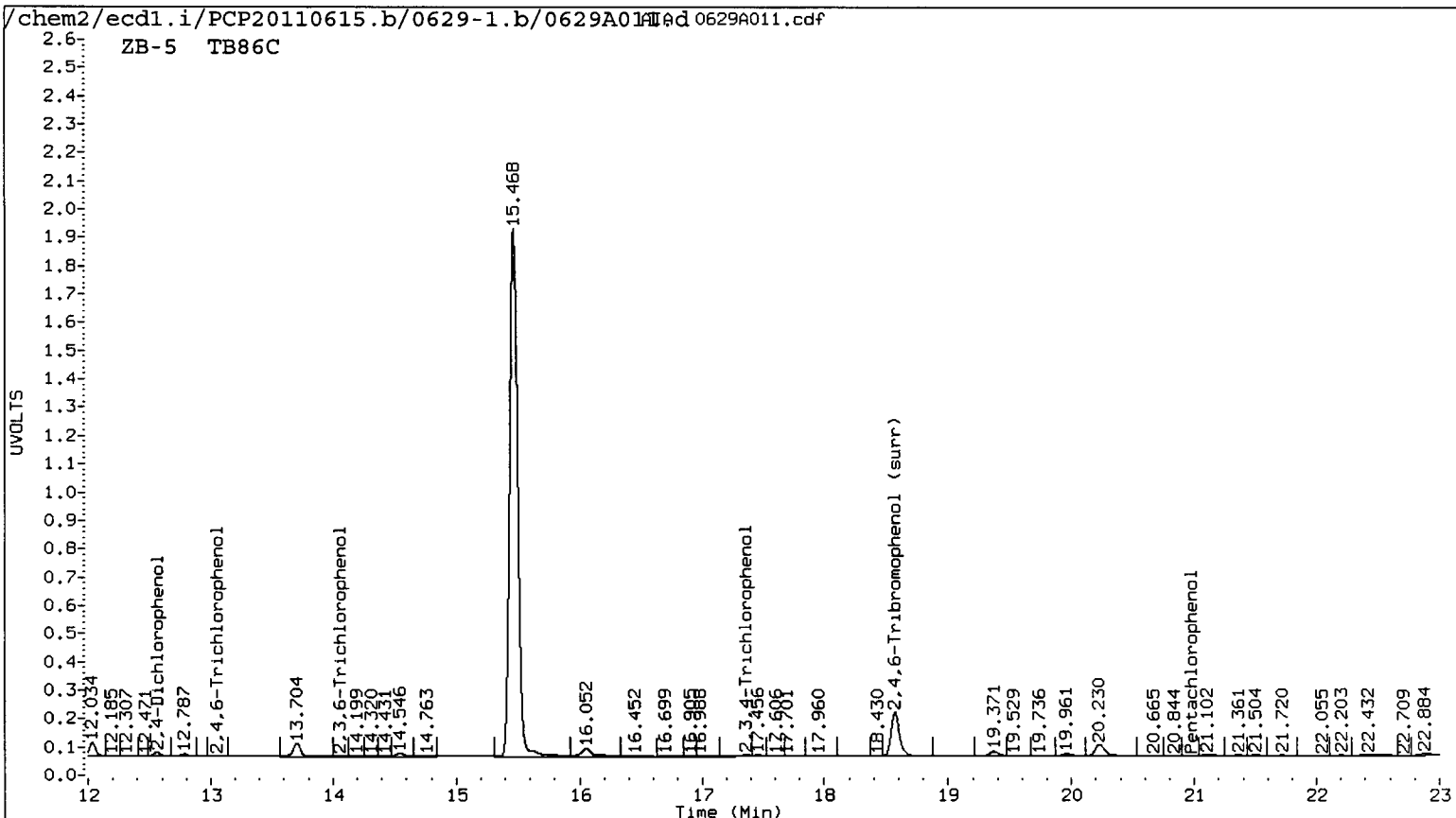
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

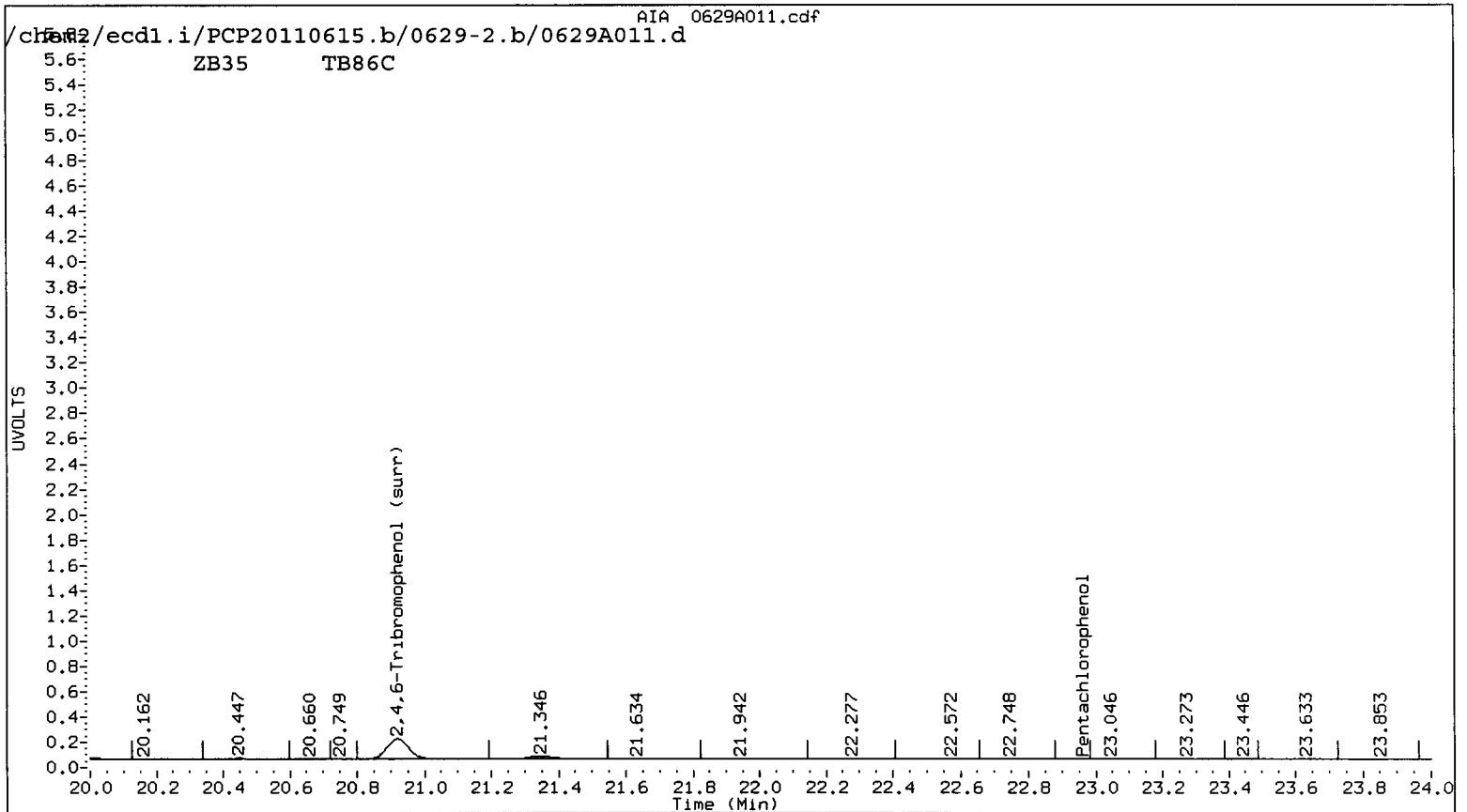
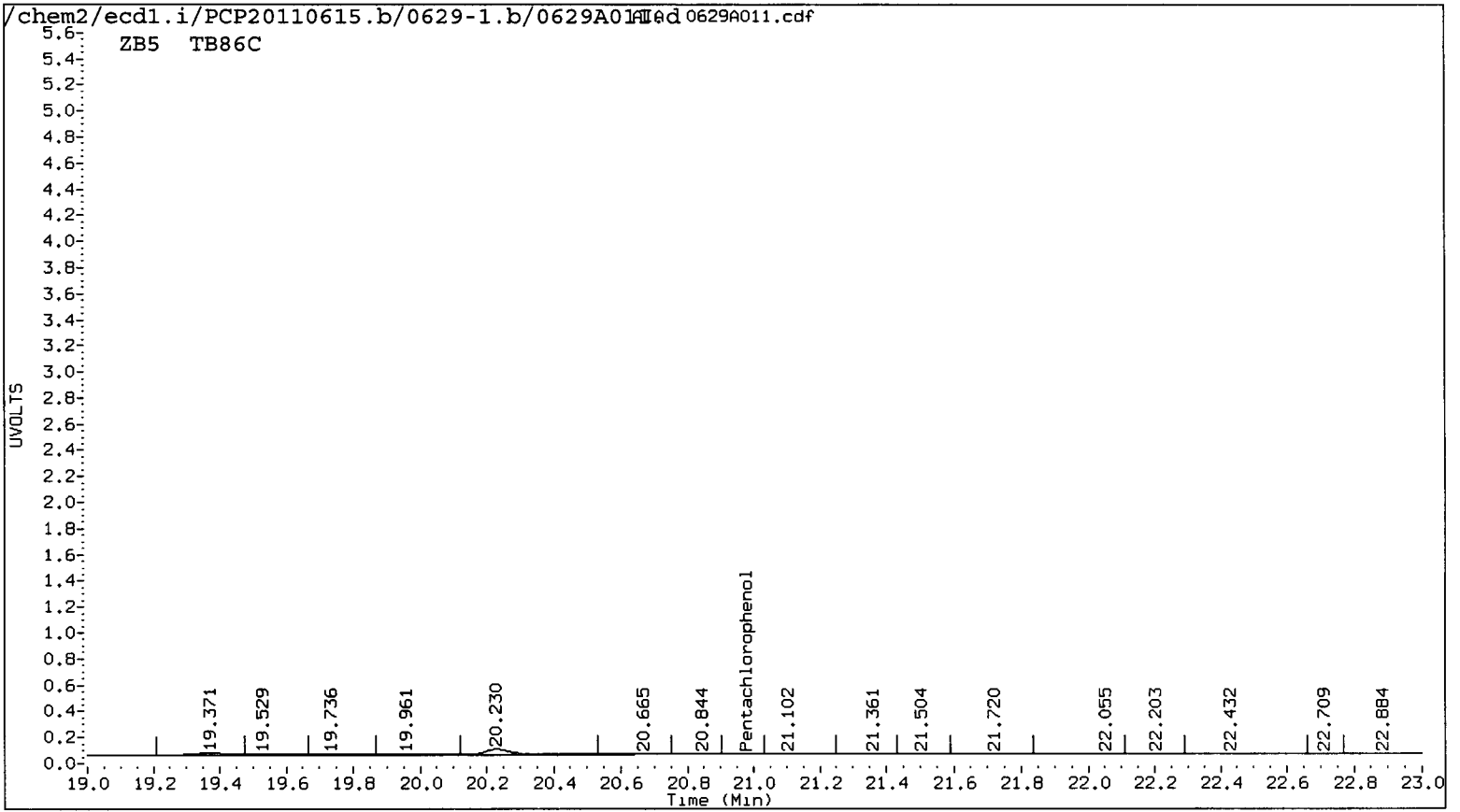
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A011.d ARI ID: TB86C
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A011.d Client ID: SB-01-062211-22
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 16:42
 Compound Sublist: all Report Date: 06/30/2011 12:52
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.978	0.002	3869	22.963	0.010	4276	0.1643	0.1423	14.3	Pentachlorophenol
13.051	-0.028	7447	14.317	0.021	1718	0.5289	0.1161	128.0*	2,4,6-Trichlorophenol
14.059	-0.015	3502	15.525	-0.017	11238	0.2681	0.7549	95.2*	2,3,6-Trichlorophenol
----			17.521	0.060	4931	0.0000	0.5795	---	2,4,5-Trichlorophenol
17.364	0.034	21393	----			2.2233	0.0000	---	2,3,4-Trichlorophenol
----			18.747	-0.052	7703	0.0000	0.3424	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.559	0.025	30407	----			34.2062	0.0000	---	2,4-Dichlorophenol
18.572	-0.002	354505	20.920	-0.002	381265	19.2	17.8	7.9	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

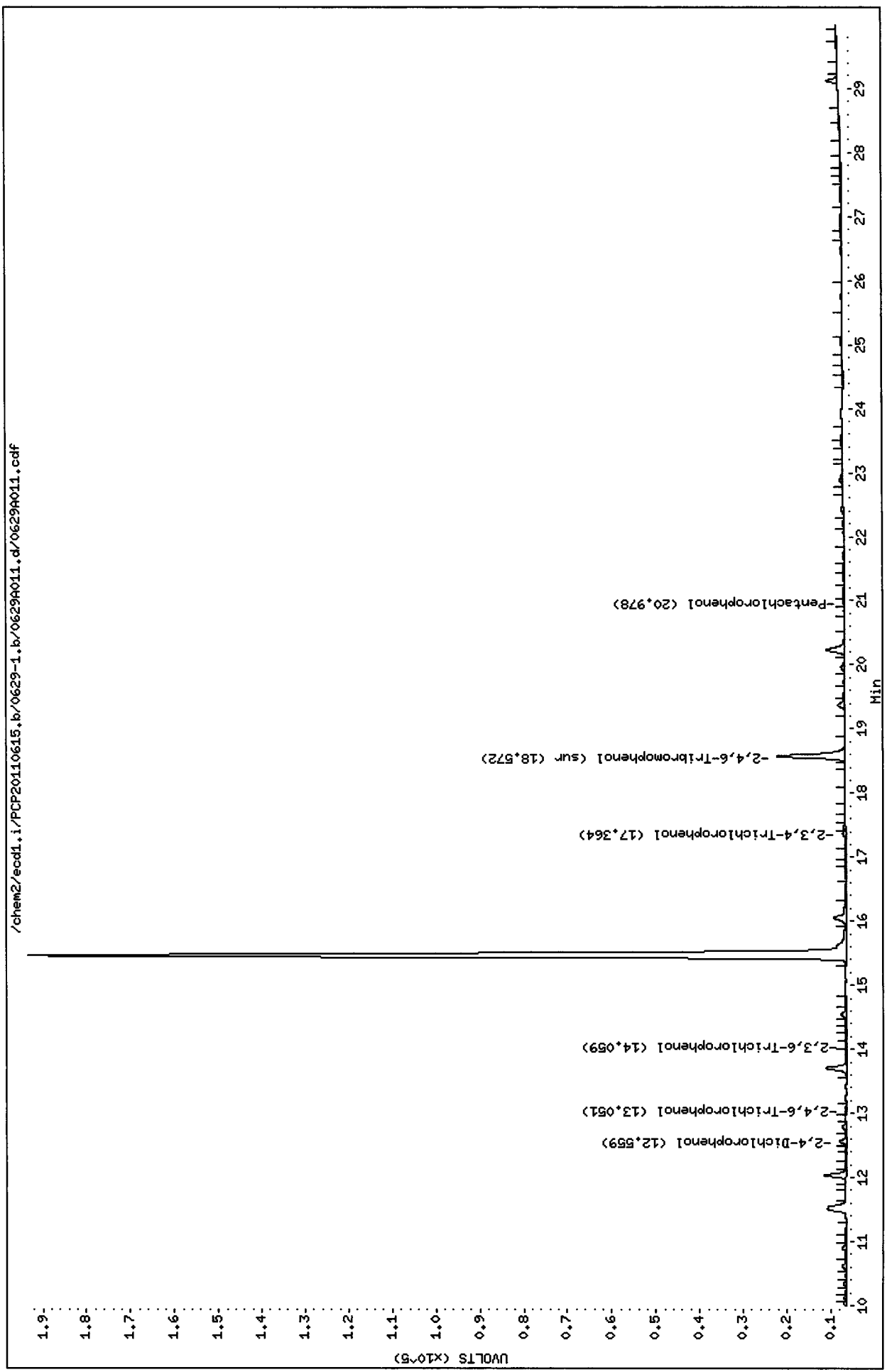
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	76.9	71.1





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629a011.d
Date : 29-JUN-2011 16:42
Client ID: SB-01-062211-22
Sample Info: TB86C
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: eccl1.i
Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629a011.d

Date : 29-JUN-2011 16:42

Client ID: SB-01-062211-22

Sample Info: TB86C

Purge Volume: 500.0

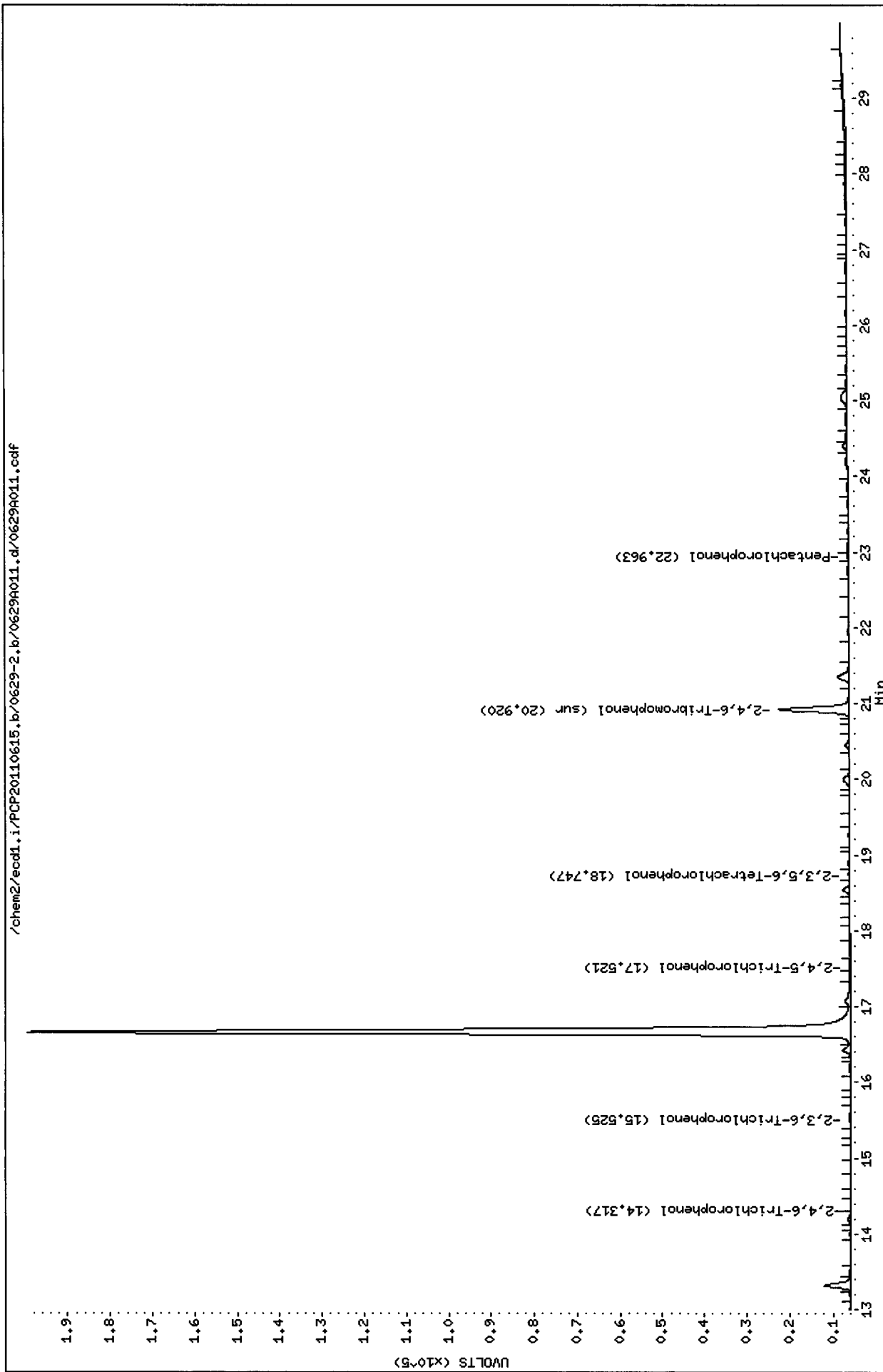
Column phase: STX CLP2

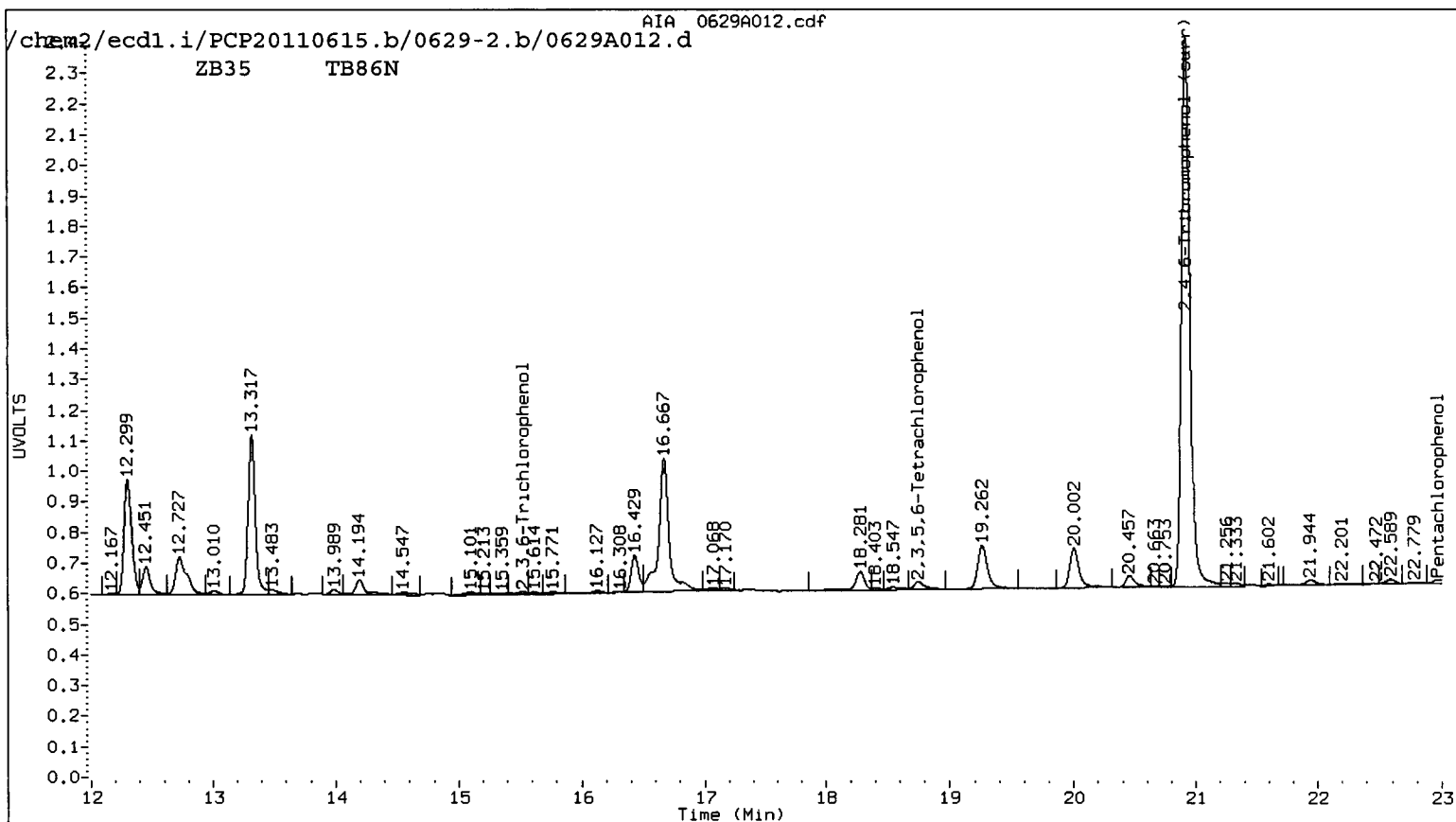
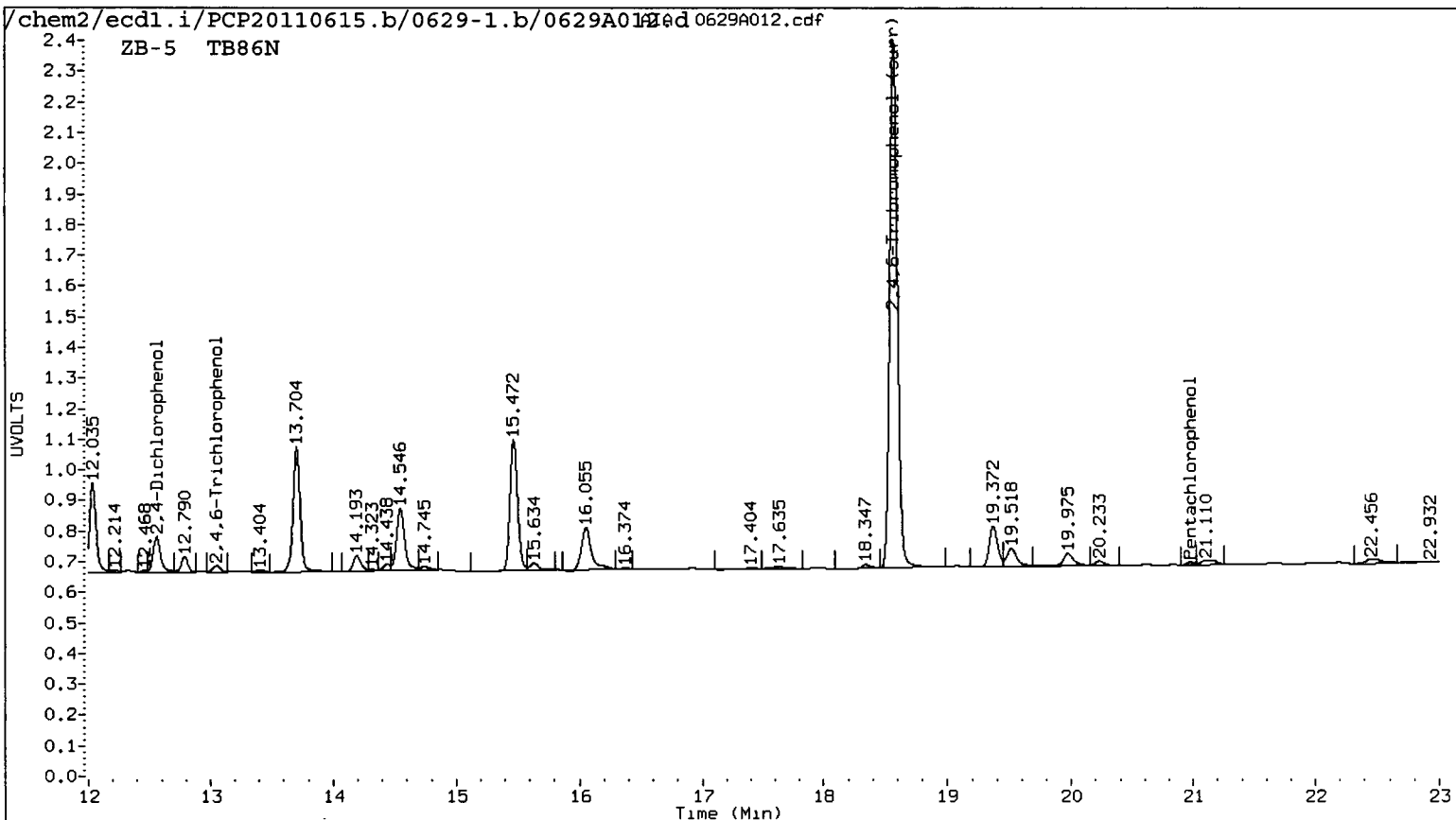
Instrument: ecd1.i

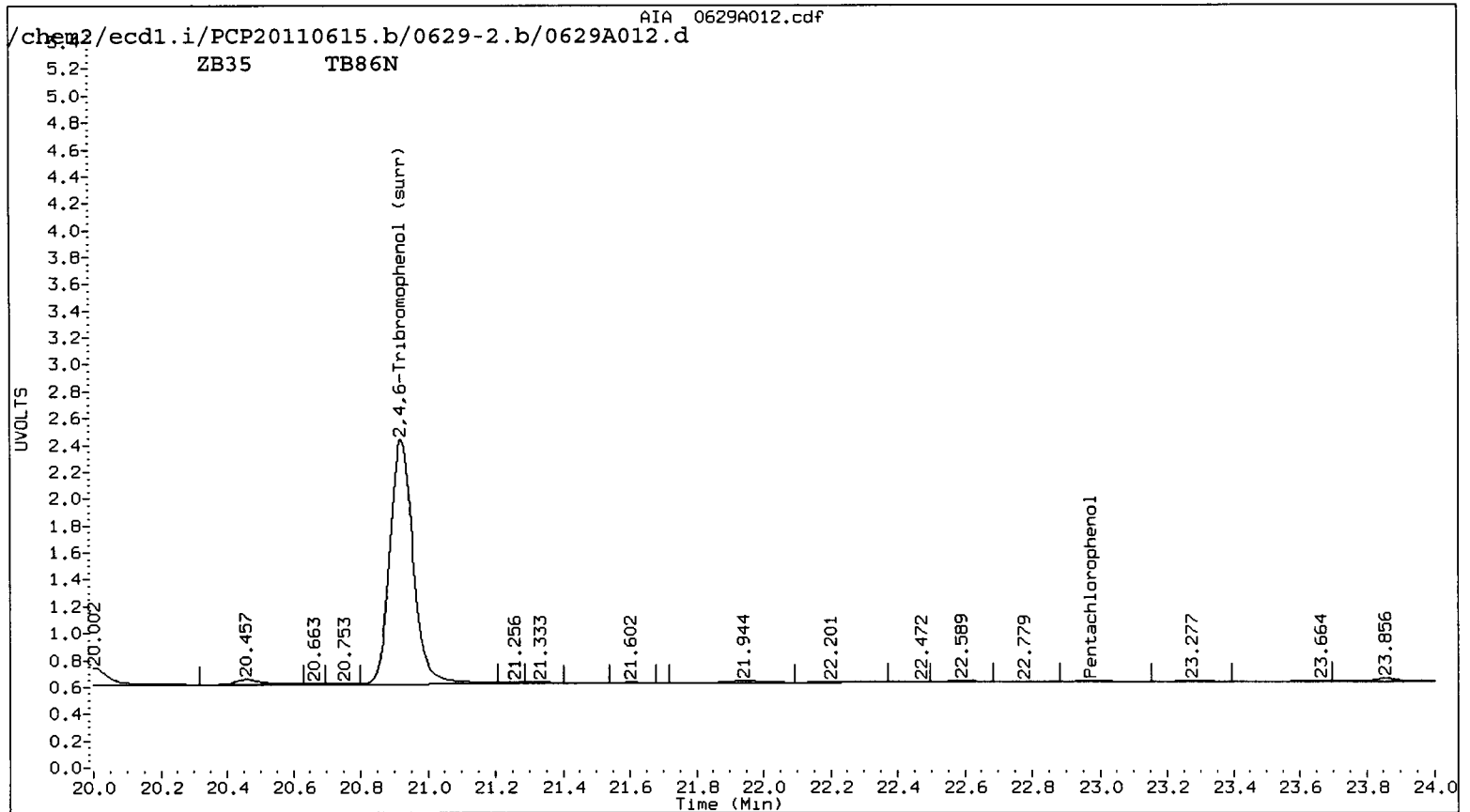
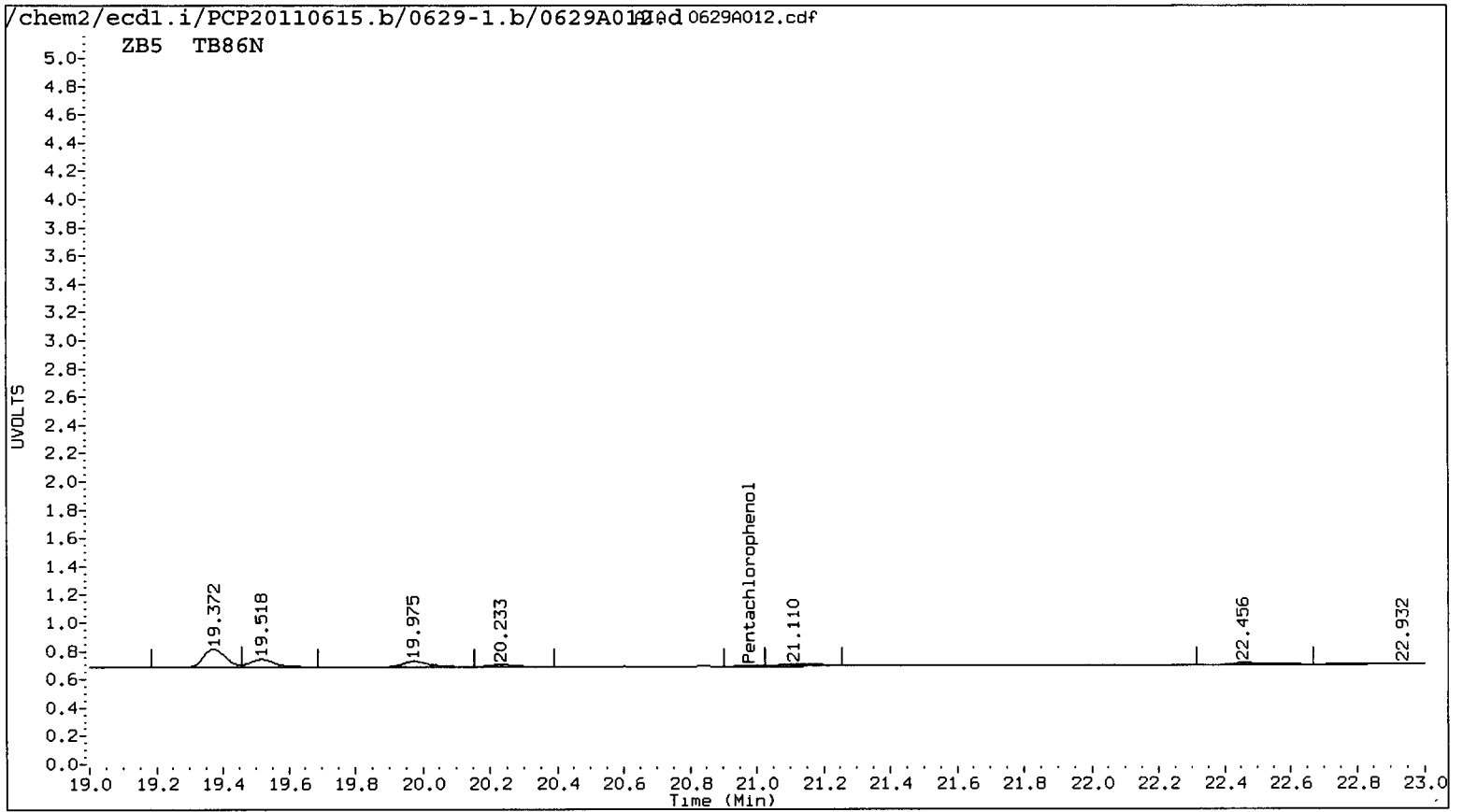
Operator: ar

Column diameter: 0.53

/chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629a011.d/0629a011.cdf







Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A012.d

Date : 29-JUN-2011 17:19

Client ID: DUP-01-062211

Sample Info: TB86N

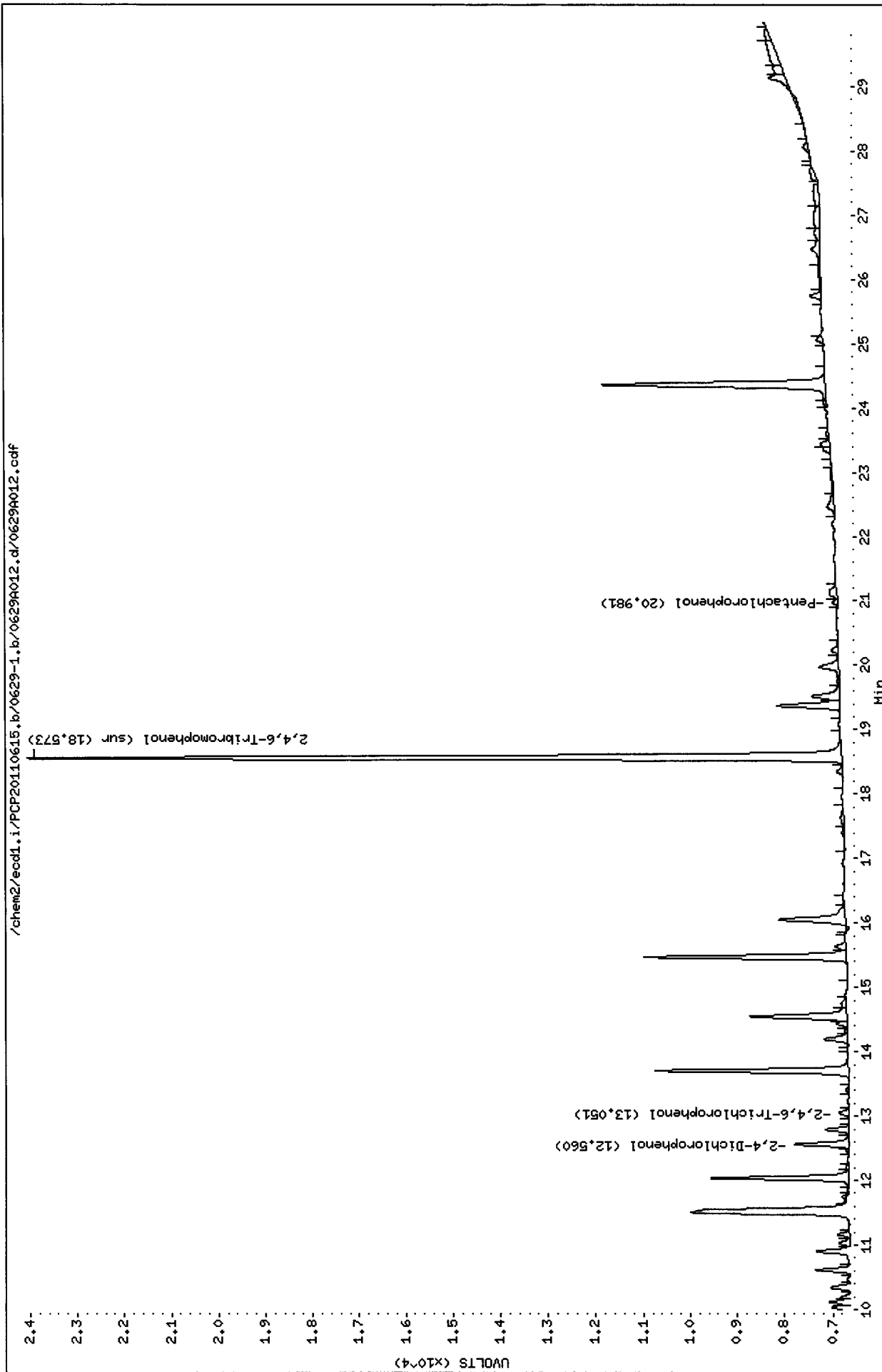
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: eod1.i

Operator: ar

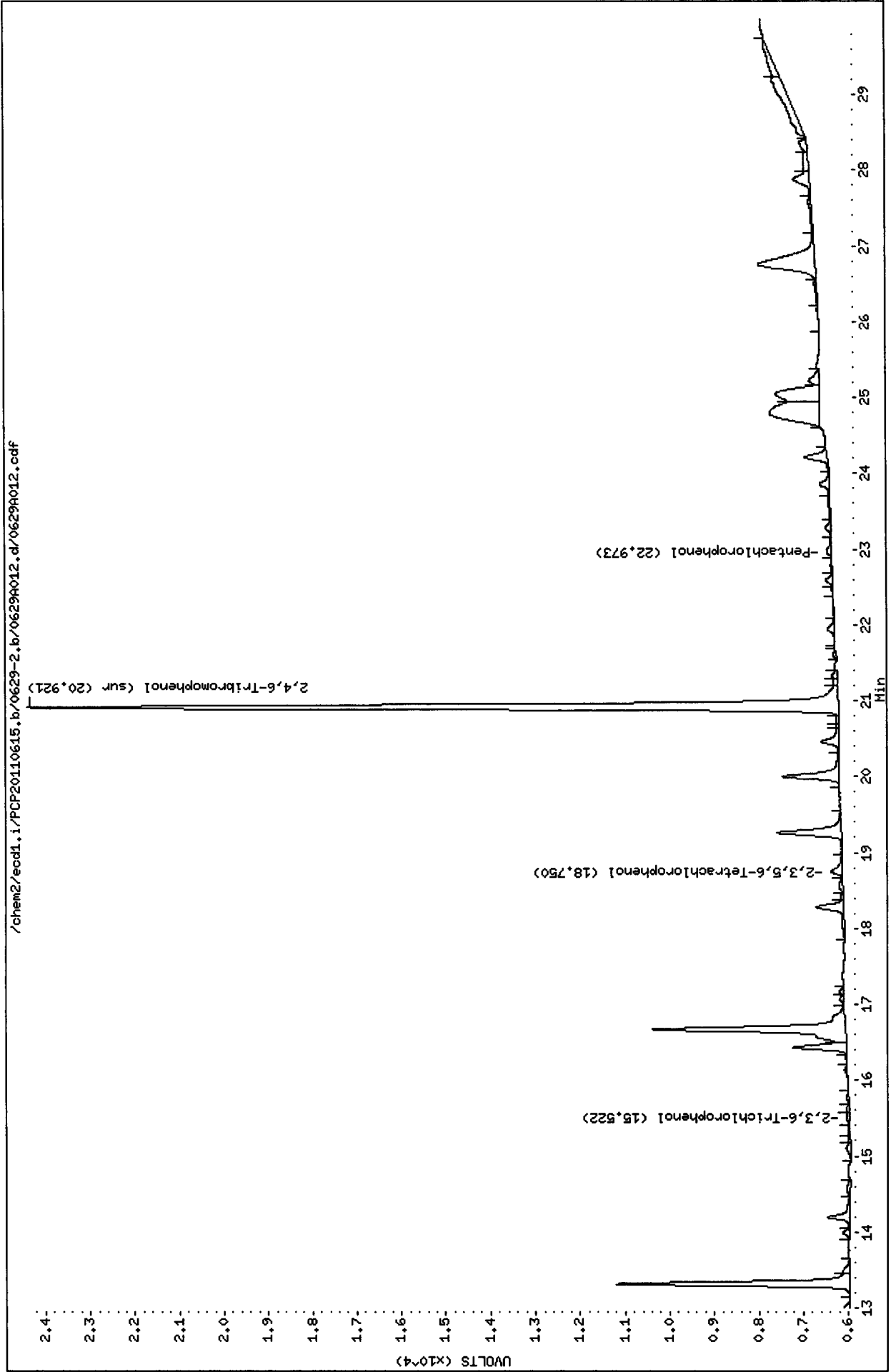
Column diameter: 0.53



Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629A012.d
Date : 29-JUN-2011 17:19
Client ID: DUP-01-062211
Sample Info: TB86N
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: eod1.i

Operator: ar
Column diameter: 0.53



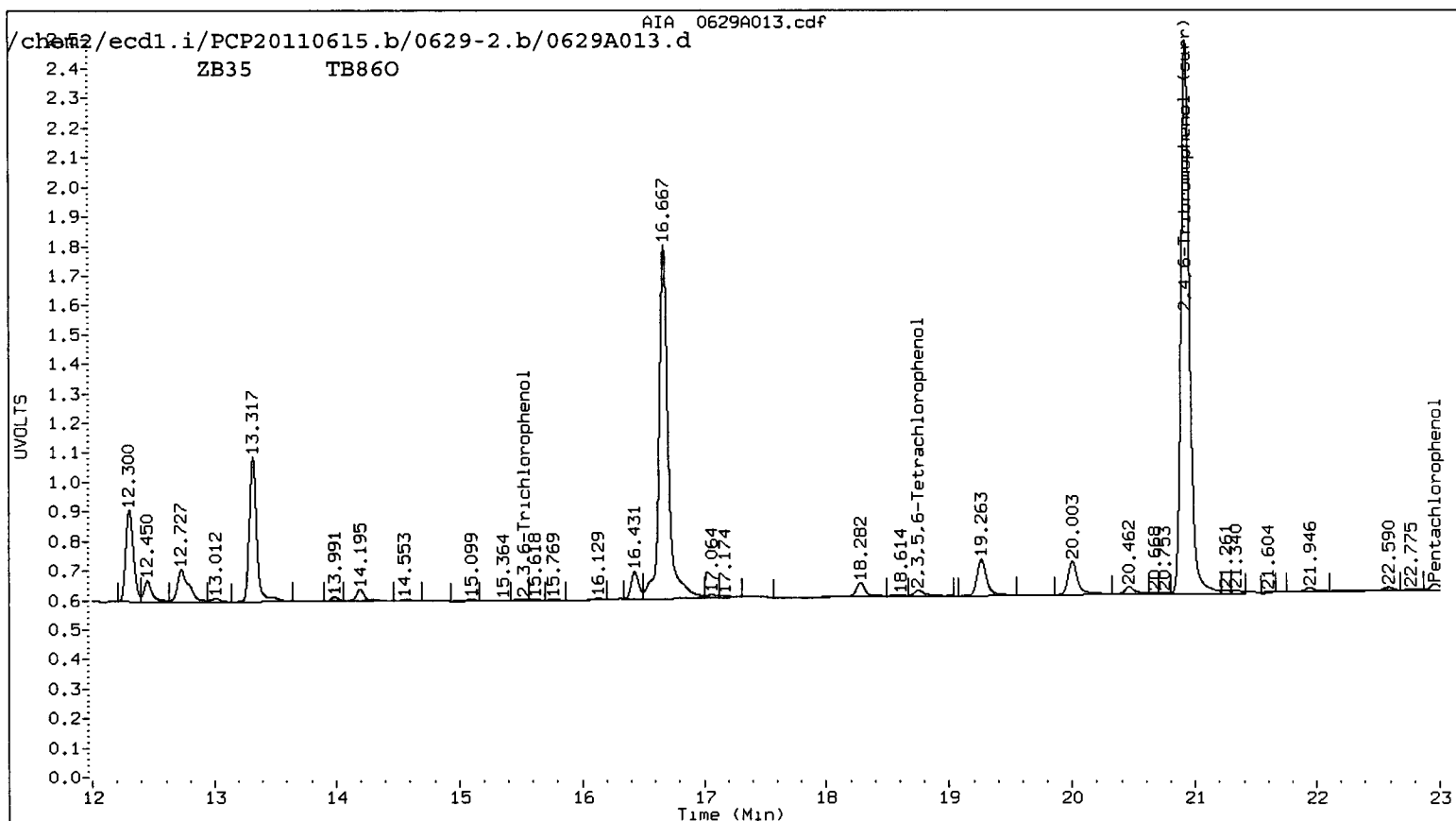
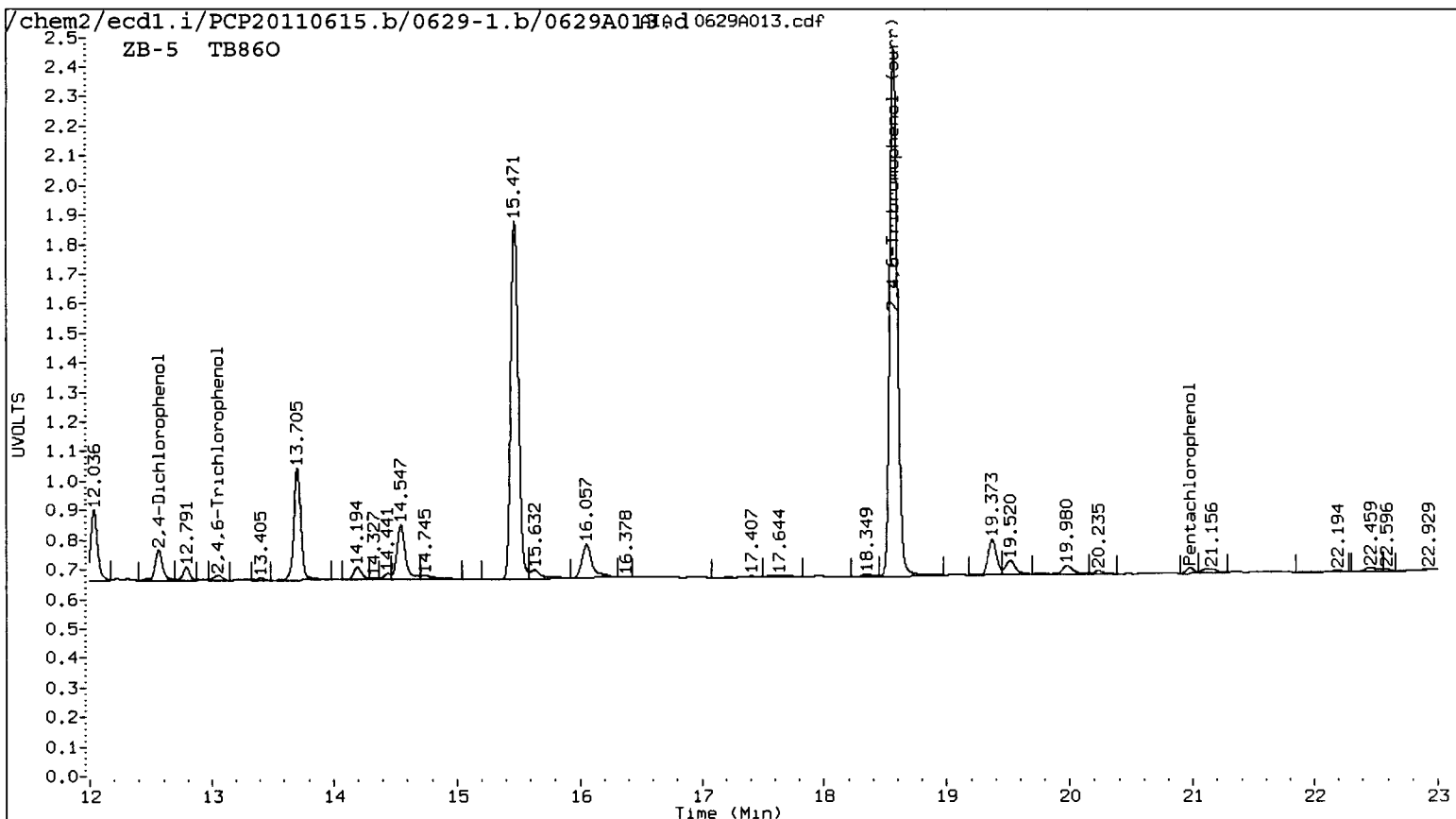
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

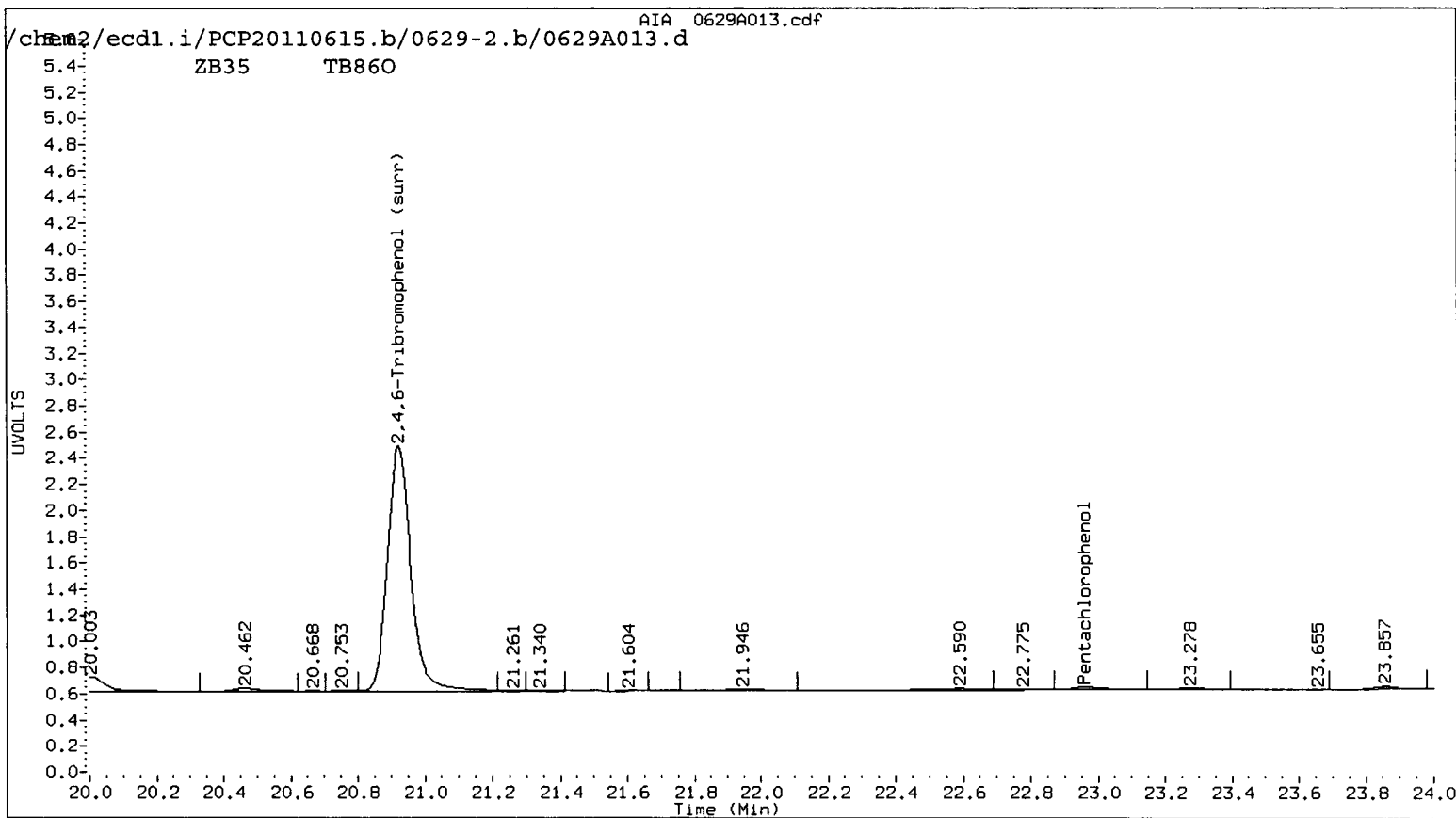
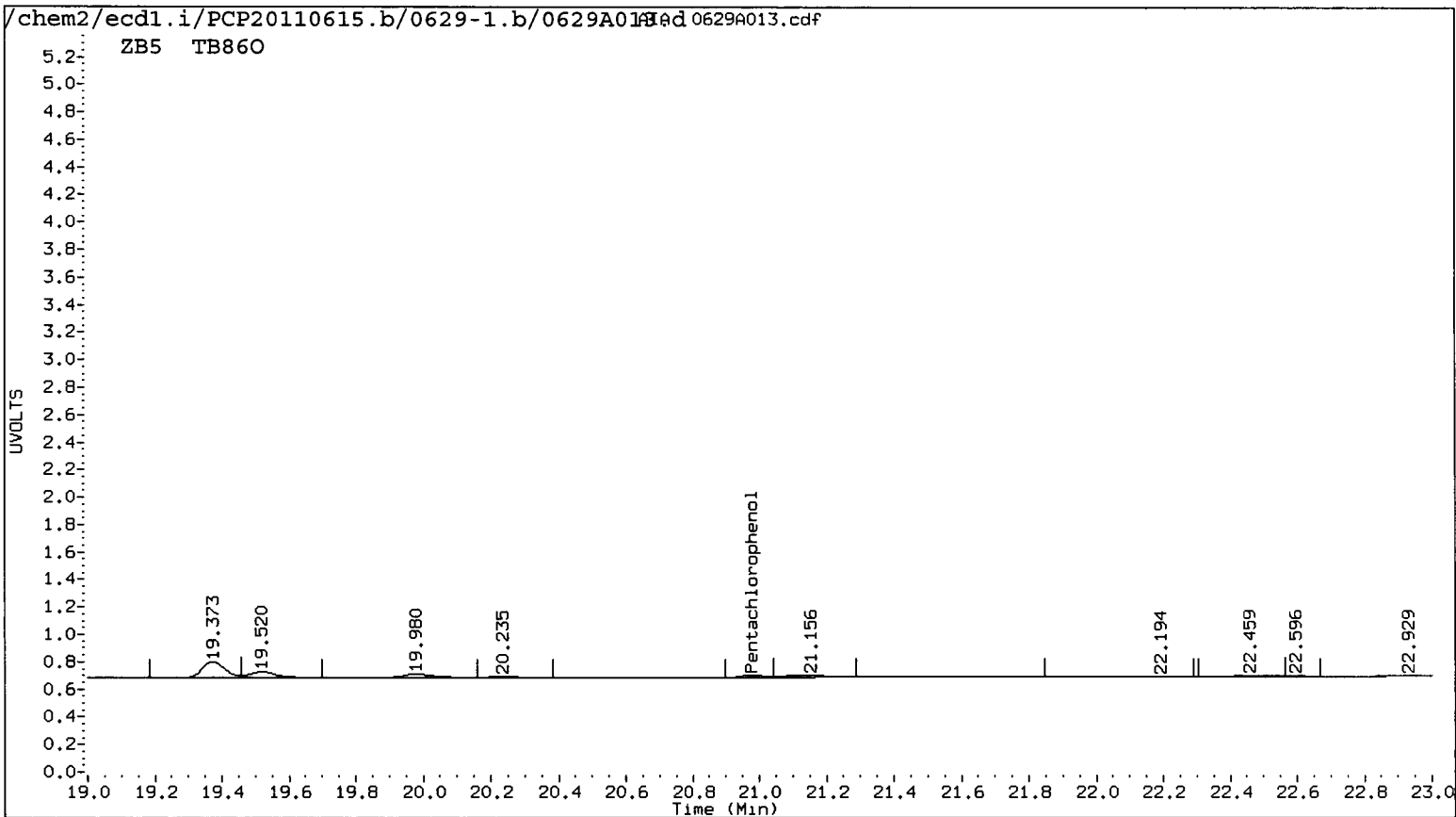
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A013.d ARI ID: TB860
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A013.d Client ID: SB-02A-062211-06
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 17:55
 Compound Sublist: all Report Date: 06/30/2011 12:52
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.980	0.004 4249	22.960 0.007 7462	0.1805	0.2483	31.7	Pentachlorophenol
13.051	-0.028 3924	----	0.2787	0.0000	---	2,4,6-Trichlorophenol
----		15.524 -0.018 1554	0.0000	0.1044	---	2,3,6-Trichlorophenol
----		----	0.0000	0.0000	---	2,4,5-Trichlorophenol
----		----	0.0000	0.0000	---	2,3,4-Trichlorophenol
----		18.753 -0.046 6654	0.0000	0.2957	---	2,3,5,6-Tetrachlorophenol
----		----	0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.561	0.027 21957	----	24.4476	0.0000	---	2,4-Dichlorophenol
18.573	-0.001 386166	20.922 0.000 454709	20.9	21.2	1.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	83.8	84.7





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629a013.d

Date : 29-JUN-2011 17:55

Client ID: SB-02A-062211-06

Sample Info: TB860

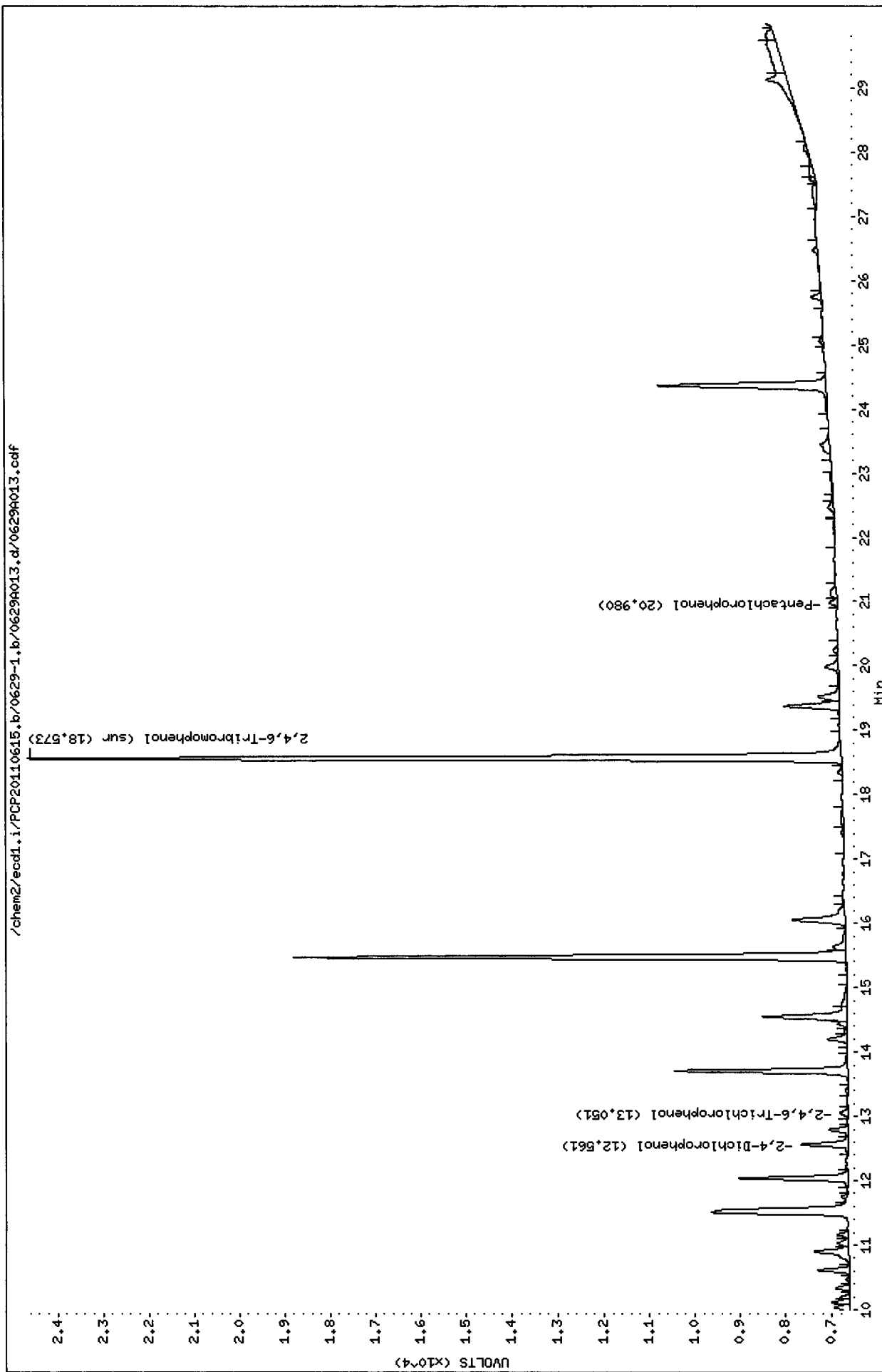
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A013.d

Date : 29-JUN-2011 17:55

Client ID: SB-02A-062211-06

Sample Info: TB860

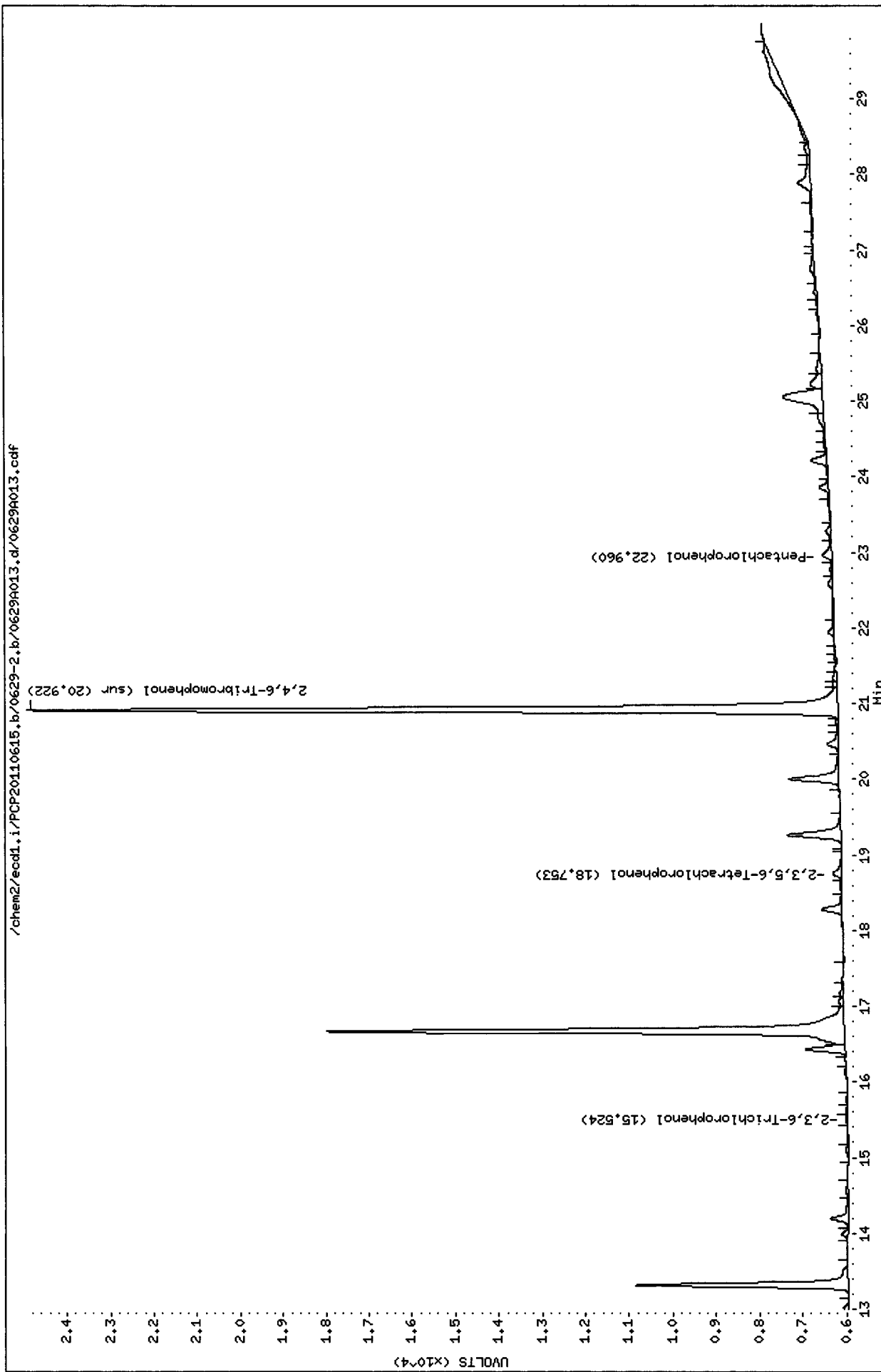
Purge Volume: 500.0

Column phase: STX CLP2

Instrument: eccl1.i

Operator: ar

Column diameter: 0.53



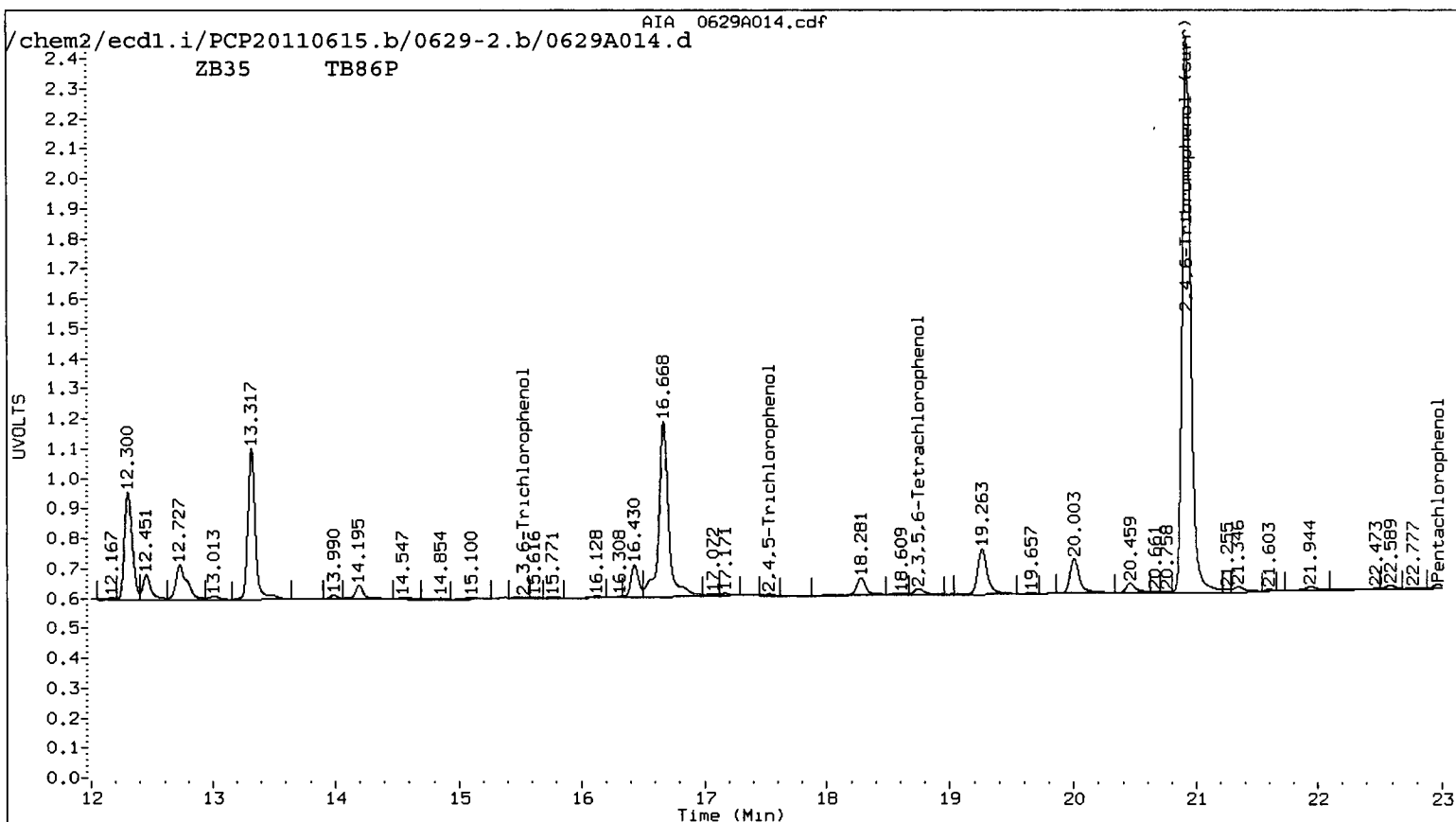
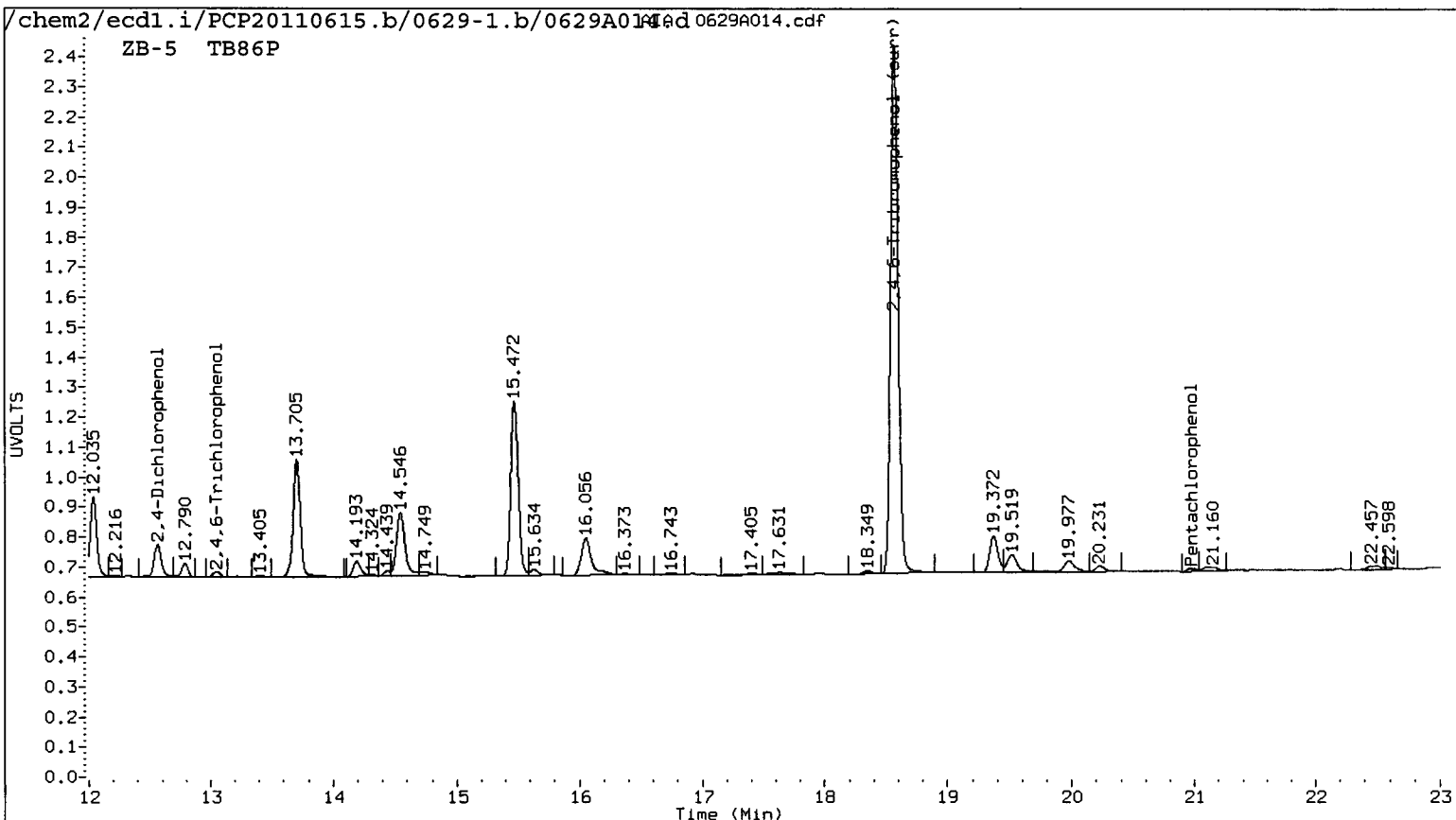
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

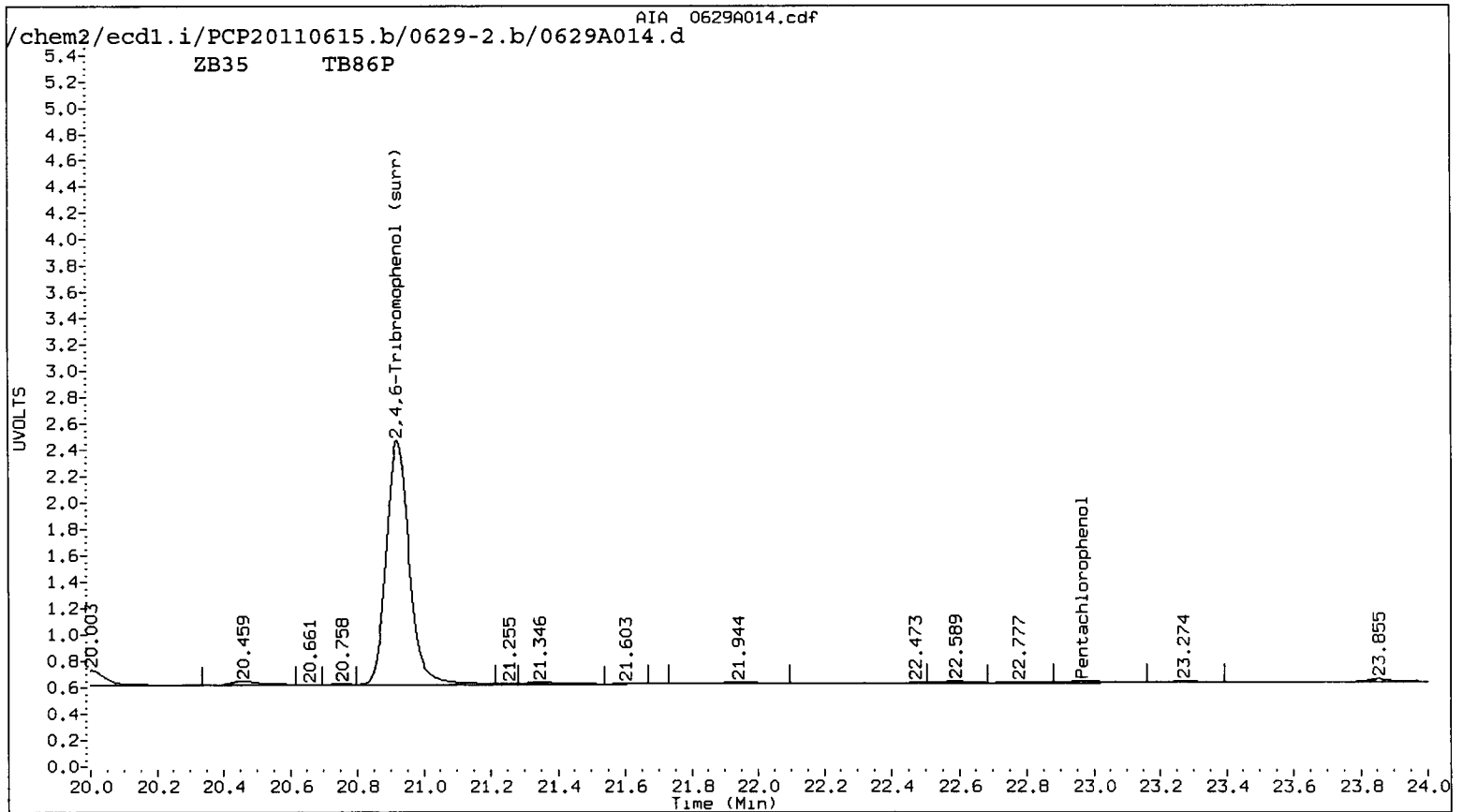
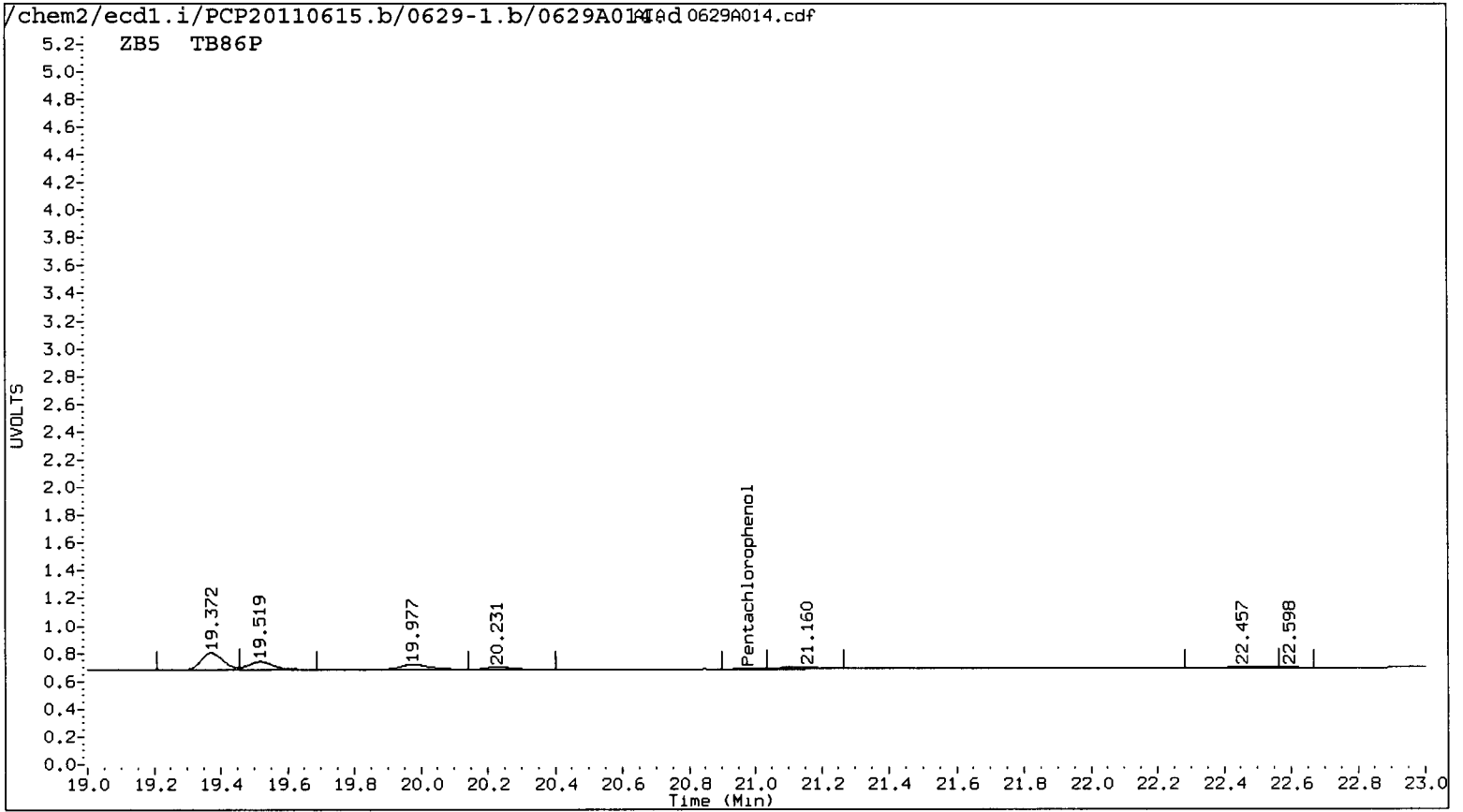
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A014.d ARI ID: TB86P
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A014.d Client ID: SB-02B-062211-06
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 18:32
 Compound Sublist: all Report Date: 06/30/2011 12:52
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.979	0.004	2765	22.968	0.015	5627	0.1174	0.1873	45.8*	Pentachlorophenol
13.052	-0.028	4151	----			0.2949	0.0000	---	2,4,6-Trichlorophenol
----			15.528	-0.014	1279	0.0000	0.0859	---	2,3,6-Trichlorophenol
----			17.530	0.070	1523	0.0000	0.1790	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			18.750	-0.049	6062	0.0000	0.2694	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.561	0.027	23735	----			26.4847	0.0000	---	2,4-Dichlorophenol
18.573	-0.001	378779	20.921	-0.001	447899	20.5	20.9	1.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	82.2	83.5



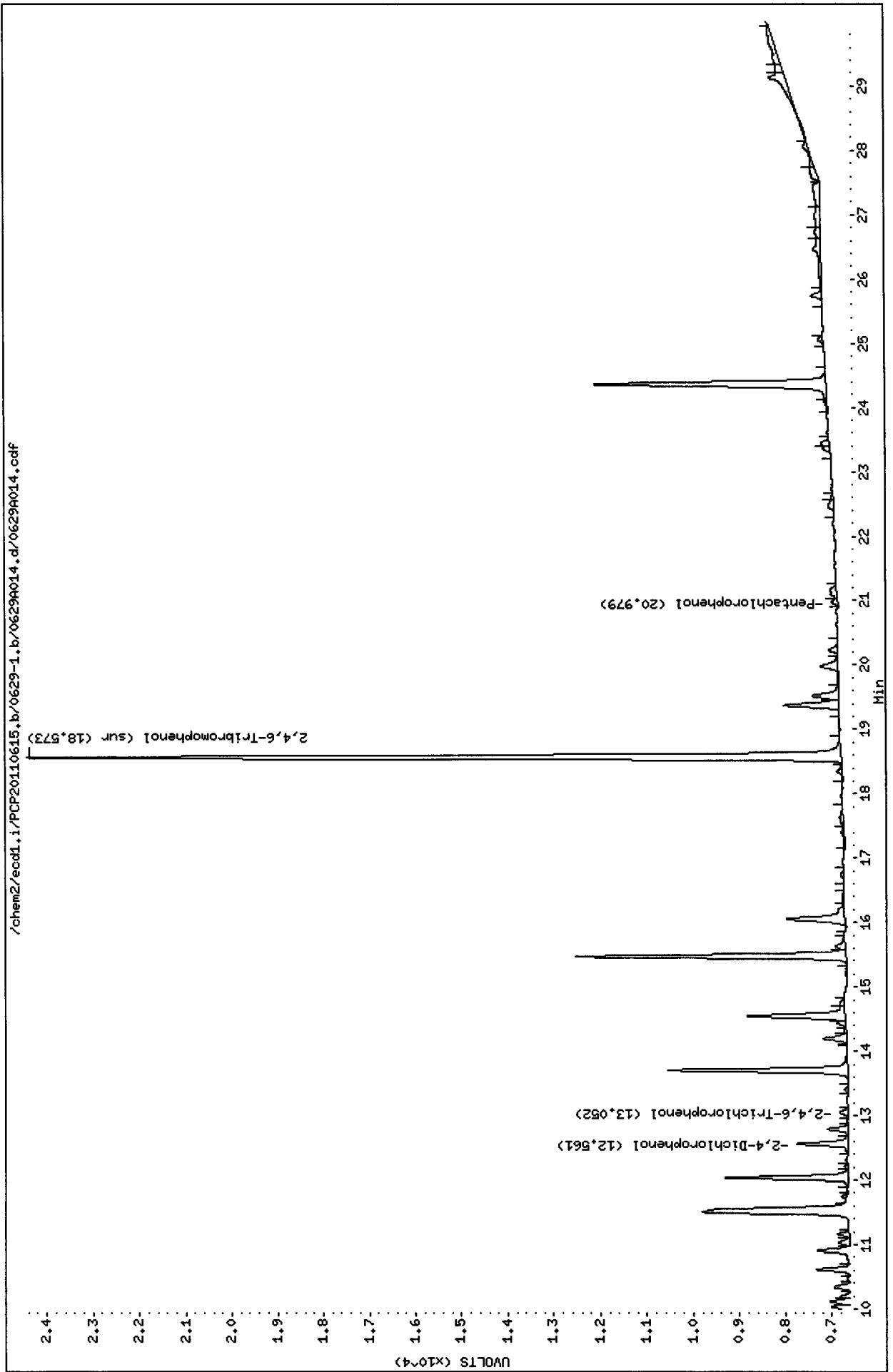


TB85 : 00204

Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629a014.d
Date : 29-JUN-2011 18:32
Client ID: SB-02B-062211-06
Sample Info: TB86P
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecdl1.i

Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A014.d

Date : 29-JUN-2011 18:32

Client ID: SB-02B-062211-06

Sample Info: TB86P

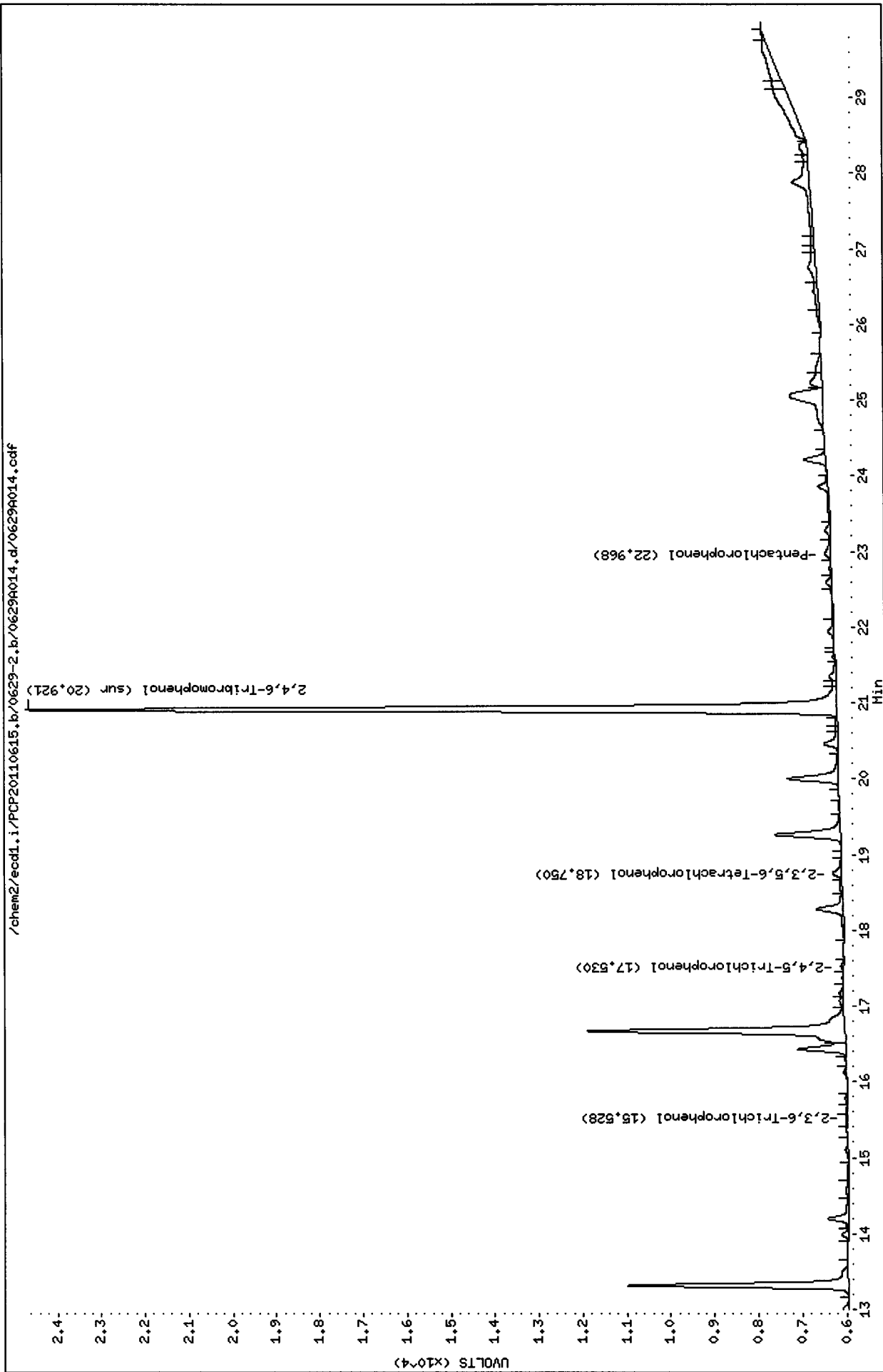
Purge Volume: 500.0

Column phase: STX CLP2

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53



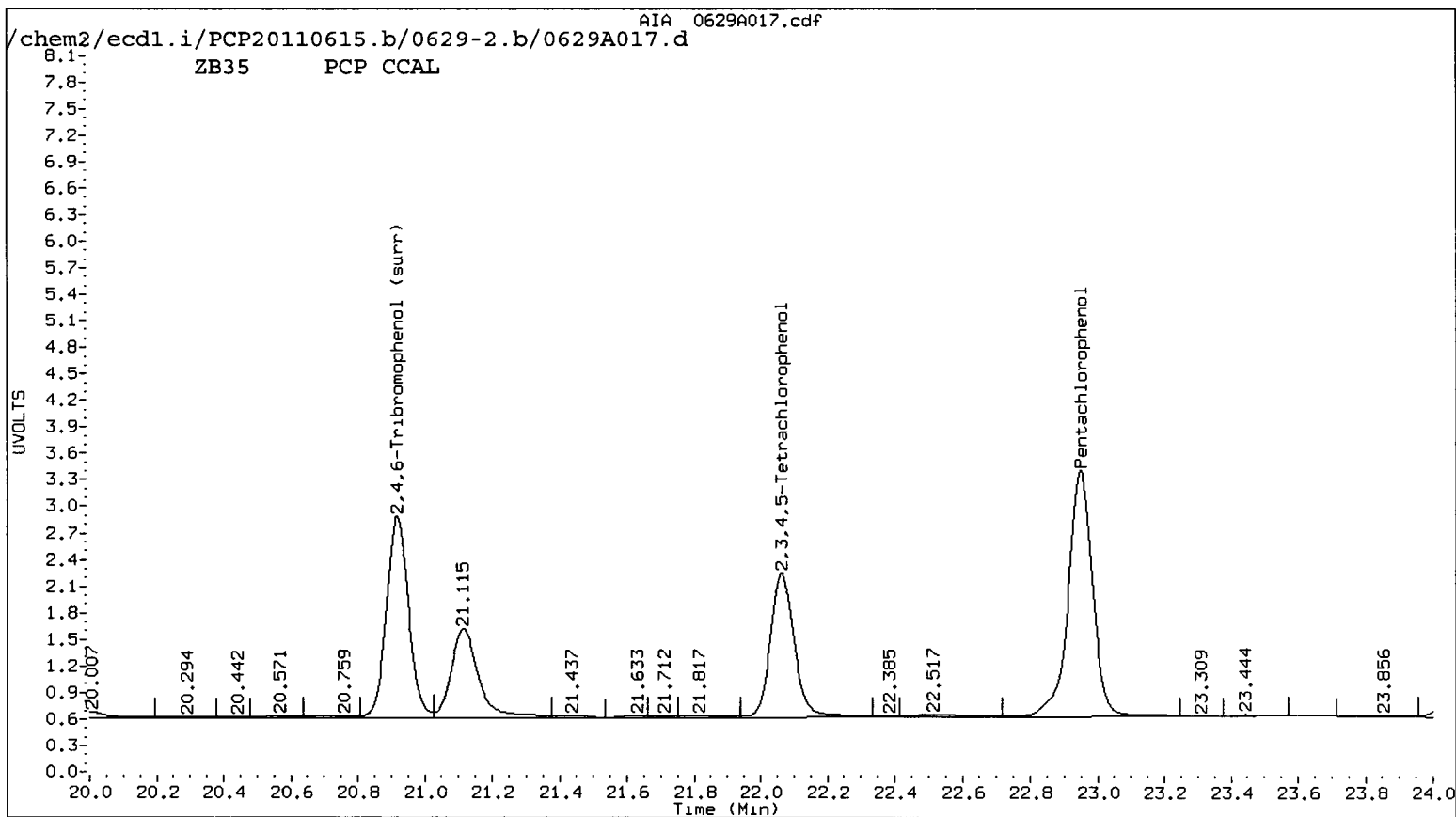
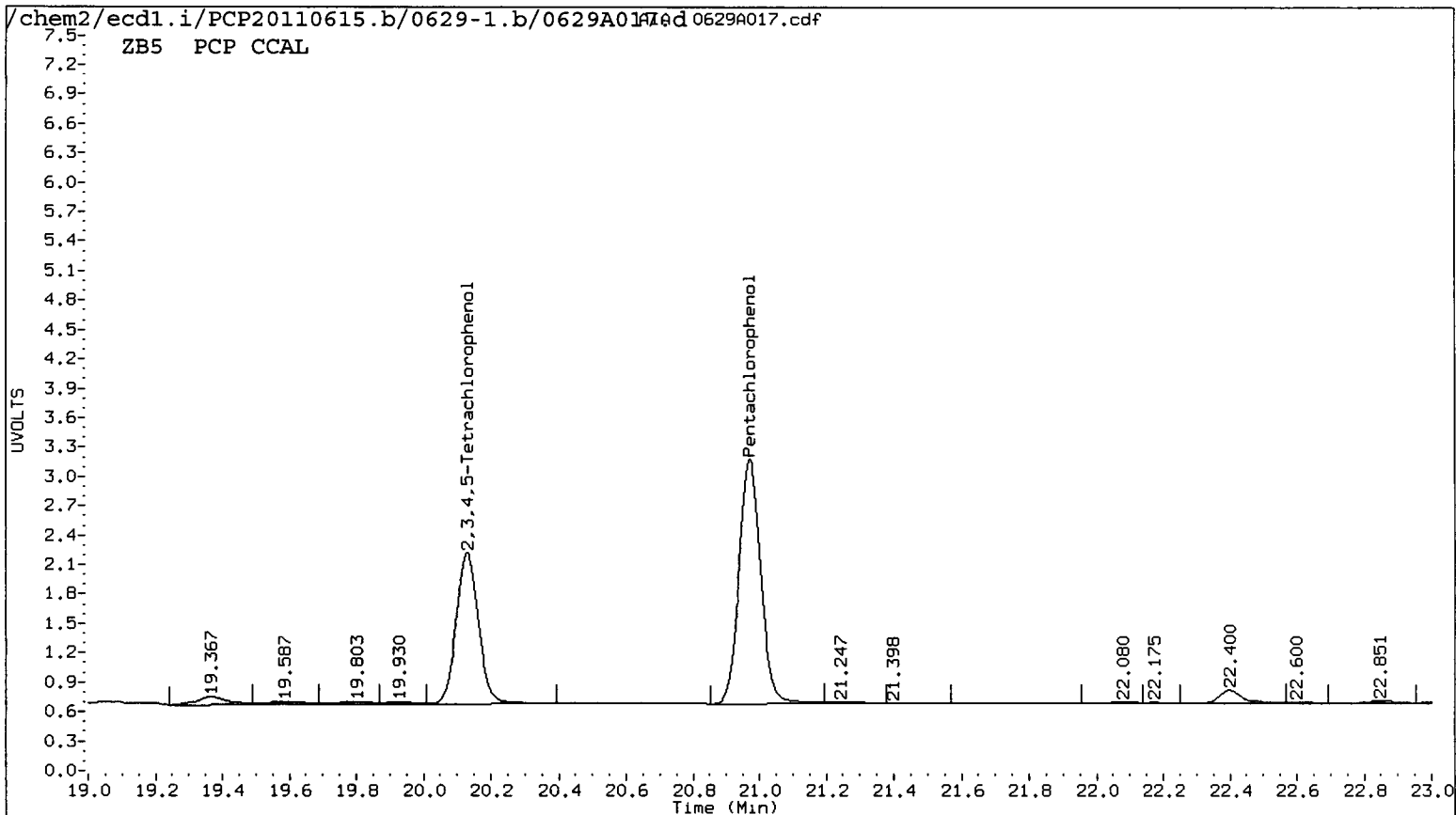
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A017.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A017.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 29-JUN-2011 20:21
 Compound Sublist: all Report Date: 06/30/2011 12:51
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.971	-0.005	571956	22.949	-0.004	703508	24.2867	23.4123	3.7	Pentachlorophenol
13.073	-0.006	348120	14.291	-0.005	353526	24.7218	23.8823	3.5	2,4,6-Trichlorophenol
14.068	-0.006	323007	15.537	-0.005	348115	24.7291	23.3827	5.6	2,3,6-Trichlorophenol
15.818	-0.006	200825	17.456	-0.005	203974	25.2504	23.9703	5.2	2,4,5-Trichlorophenol
17.325	-0.006	238891	19.006	-0.004	249205	24.8266	24.5603	1.1	2,3,4-Trichlorophenol
17.125	-0.006	490638	18.795	-0.004	549204	25.0837	24.4069	2.7	2,3,5,6-Tetrachlorophenol
20.129	-0.005	349812	22.064	-0.003	407592	23.6840	24.0267	1.4	2,3,4,5-Tetrachlorophenol
12.529	-0.005	203013	13.801	-0.005	181066	276.1780	249.0668	10.3	2,4-Dichlorophenol
18.569	-0.006	468440	20.918	-0.004	524183	25.4	24.4	4.0	2,4,6-Tribromophenol (surr)

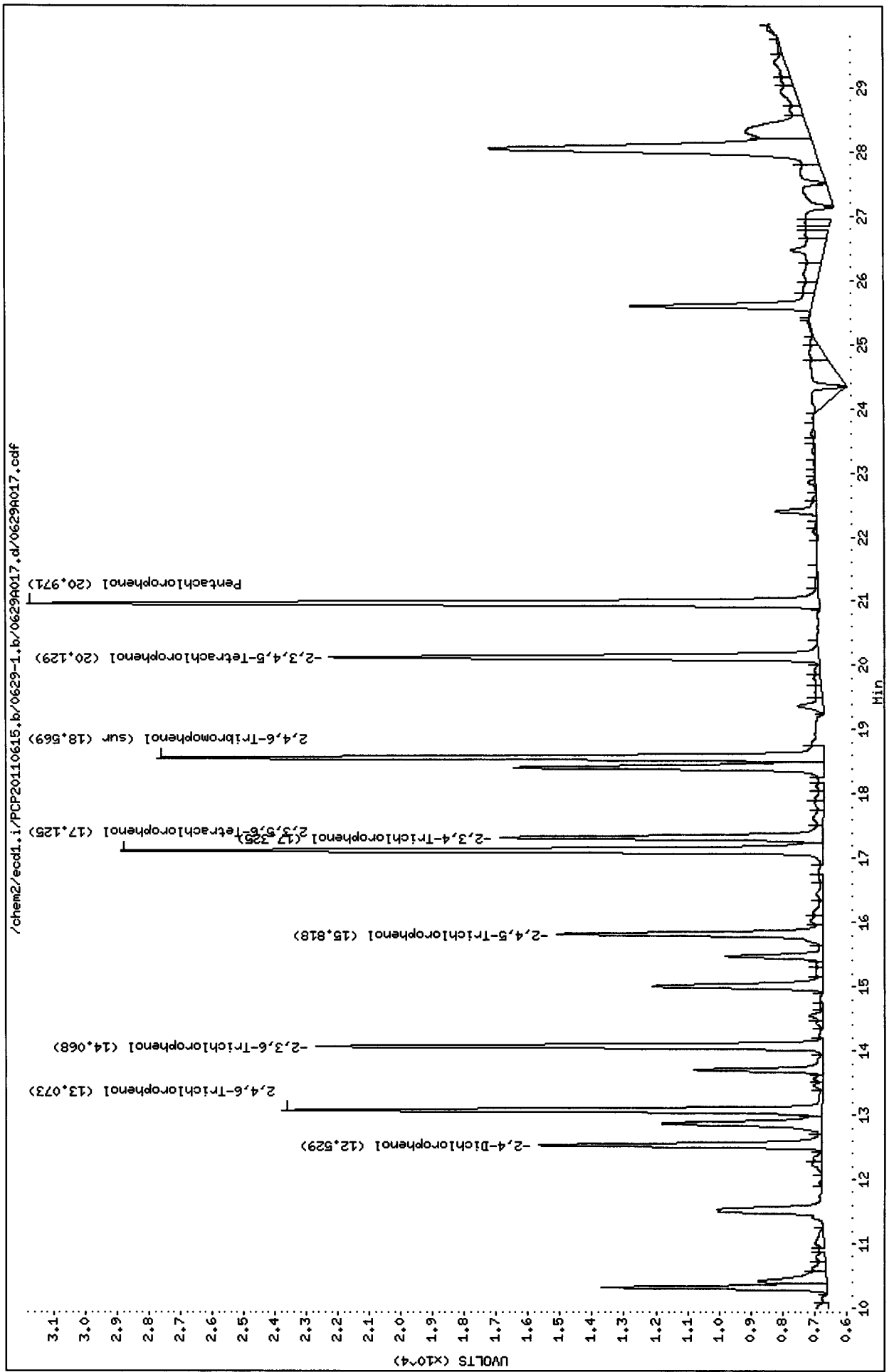
PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	97.1	93.6
2,4,6-Trichlorophenol	98.9	95.5
2,3,6-Trichlorophenol	98.9	93.5
2,4,5-Trichlorophenol	101.0	95.9
2,3,4-Trichlorophenol	99.3	98.2
2,3,5,6-Tetrachlorophenol	100.3	97.6
2,3,4,5-Tetrachlorophenol	94.7	96.1
2,4-Dichlorophenol	110.5	99.6
2,4,6-TBP (surr)	101.6	97.7



Data File: /chem2/ecd1.i/PCP20110615.b/0629-1.b/0629A017.d
Date : 29-JUN-2011 20:21
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



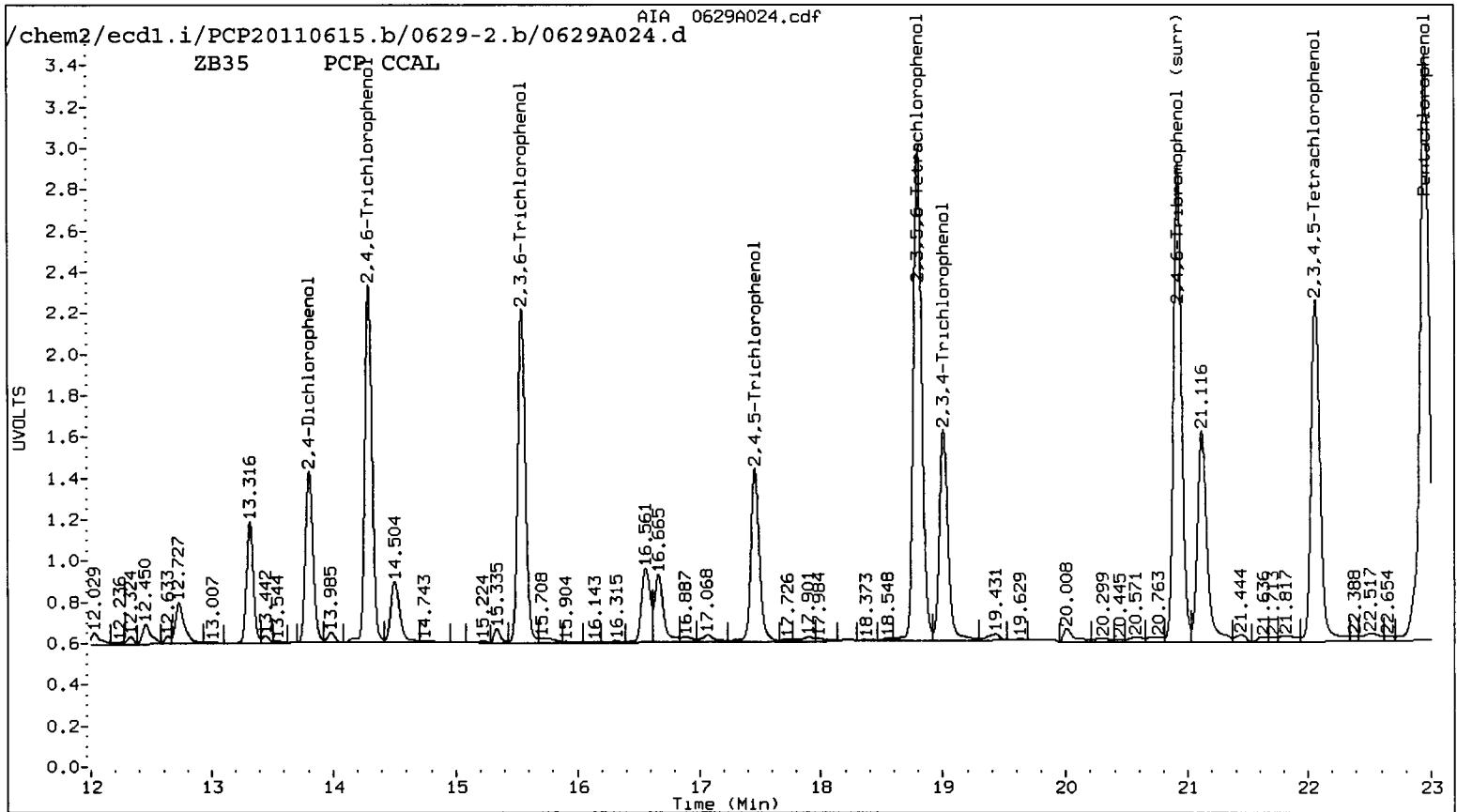
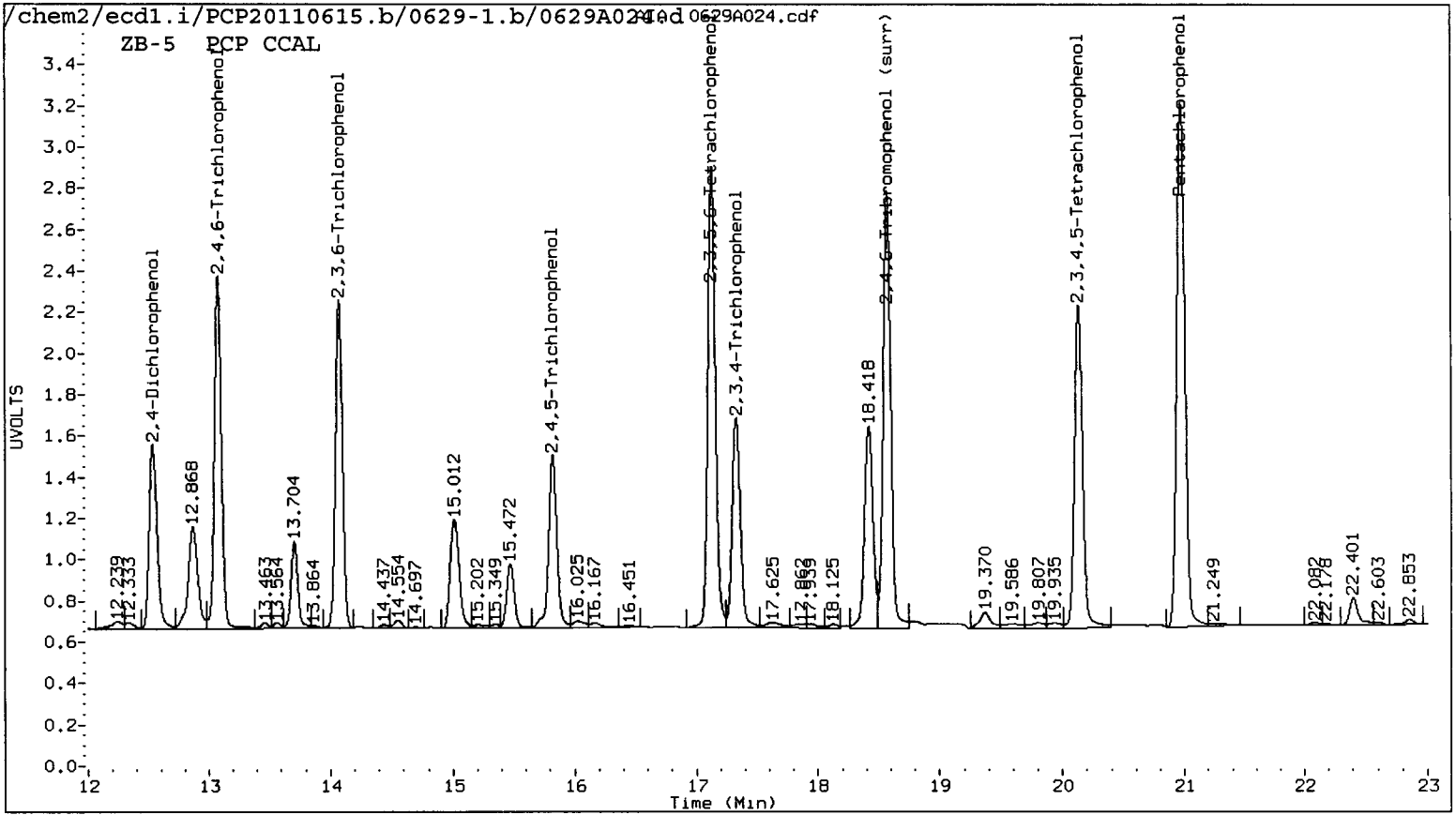
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

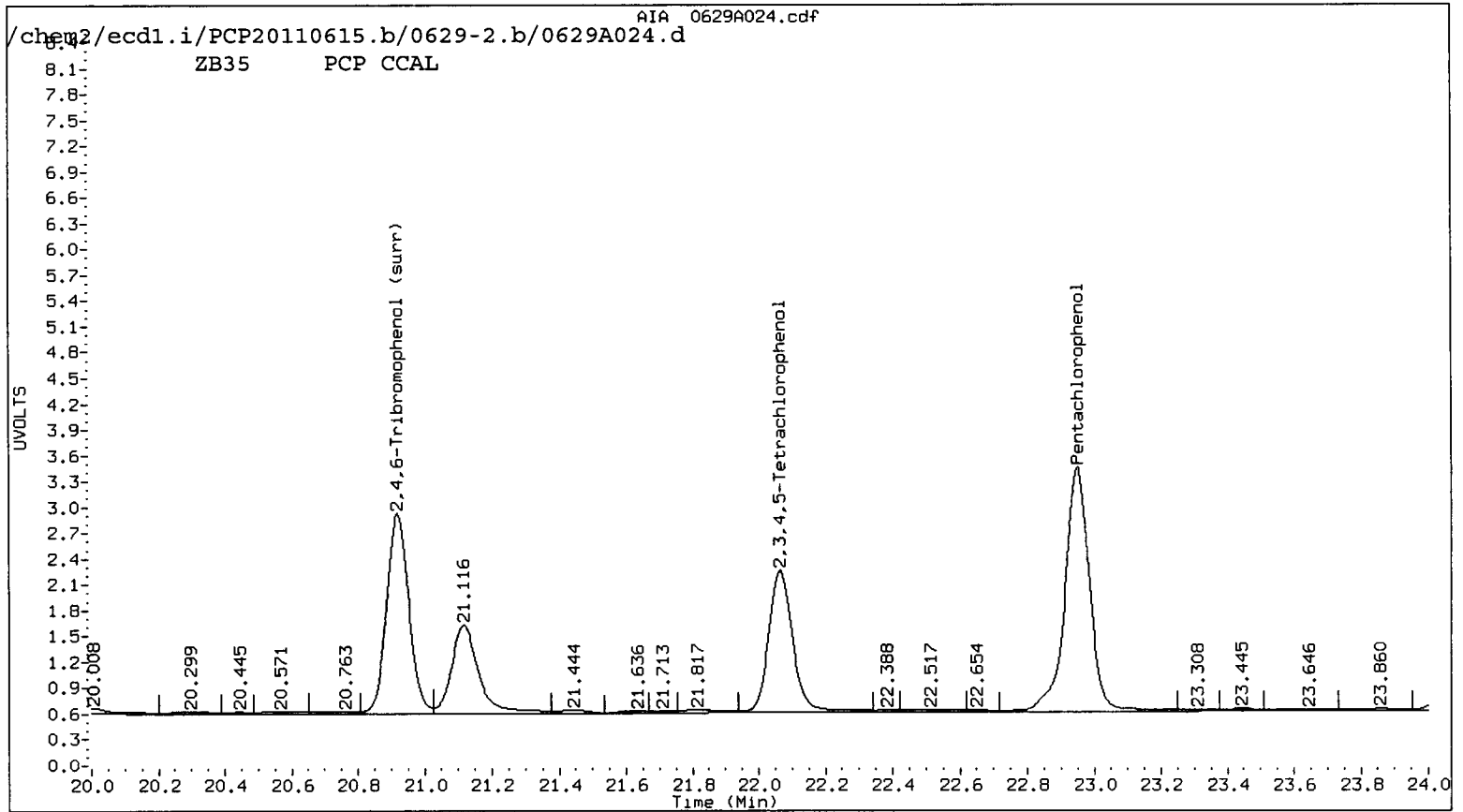
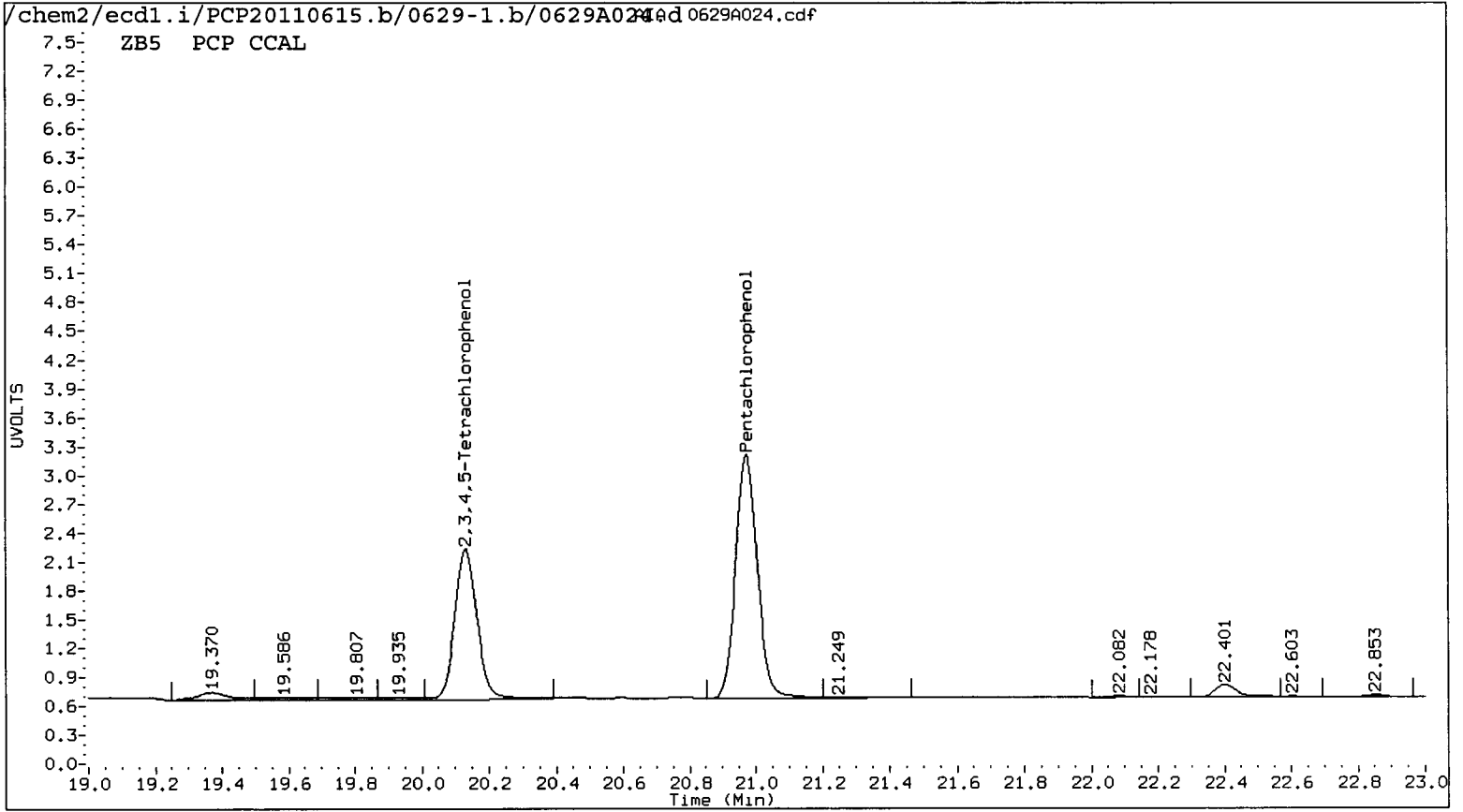
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A024.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A024.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 00:35
 Compound Sublist: all Report Date: 06/30/2011 12:51
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.973	-0.003	582359	22.950	-0.003	738177	24.7285	24.5661	0.7	Pentachlorophenol
13.076	-0.003	346902	14.293	-0.003	360548	24.6353	24.3566	1.1	2,4,6-Trichlorophenol
14.071	-0.003	321891	15.539	-0.003	352062	24.6436	23.6478	4.1	2,3,6-Trichlorophenol
15.821	-0.003	194760	17.458	-0.003	206611	24.4878	24.2802	0.9	2,4,5-Trichlorophenol
17.328	-0.003	234990	19.007	-0.003	251945	24.4212	24.8303	1.7	2,3,4-Trichlorophenol
17.128	-0.003	488299	18.797	-0.002	554224	24.9641	24.6300	1.3	2,3,5,6-Tetrachlorophenol
20.131	-0.003	366762	22.065	-0.002	419840	24.8316	24.7487	0.3	2,3,4,5-Tetrachlorophenol
12.533	-0.001	202297	13.803	-0.003	183330	275.0066	252.8089	8.4	2,4-Dichlorophenol
18.571	-0.003	470840	20.919	-0.003	535385	25.5	24.9	2.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	98.9	98.3
2,4,6-Trichlorophenol	98.5	97.4
2,3,6-Trichlorophenol	98.6	94.6
2,4,5-Trichlorophenol	98.0	97.1
2,3,4-Trichlorophenol	97.7	99.3
2,3,5,6-Tetrachlorophenol	99.9	98.5
2,3,4,5-Tetrachlorophenol	99.3	99.0
2,4-Dichlorophenol	110.0	101.1
2,4,6-TBP (surr)	102.2	99.8





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A024.d

Date : 30-JUN-2011 00:35

Client ID:

Sample Info: PCP CCAL

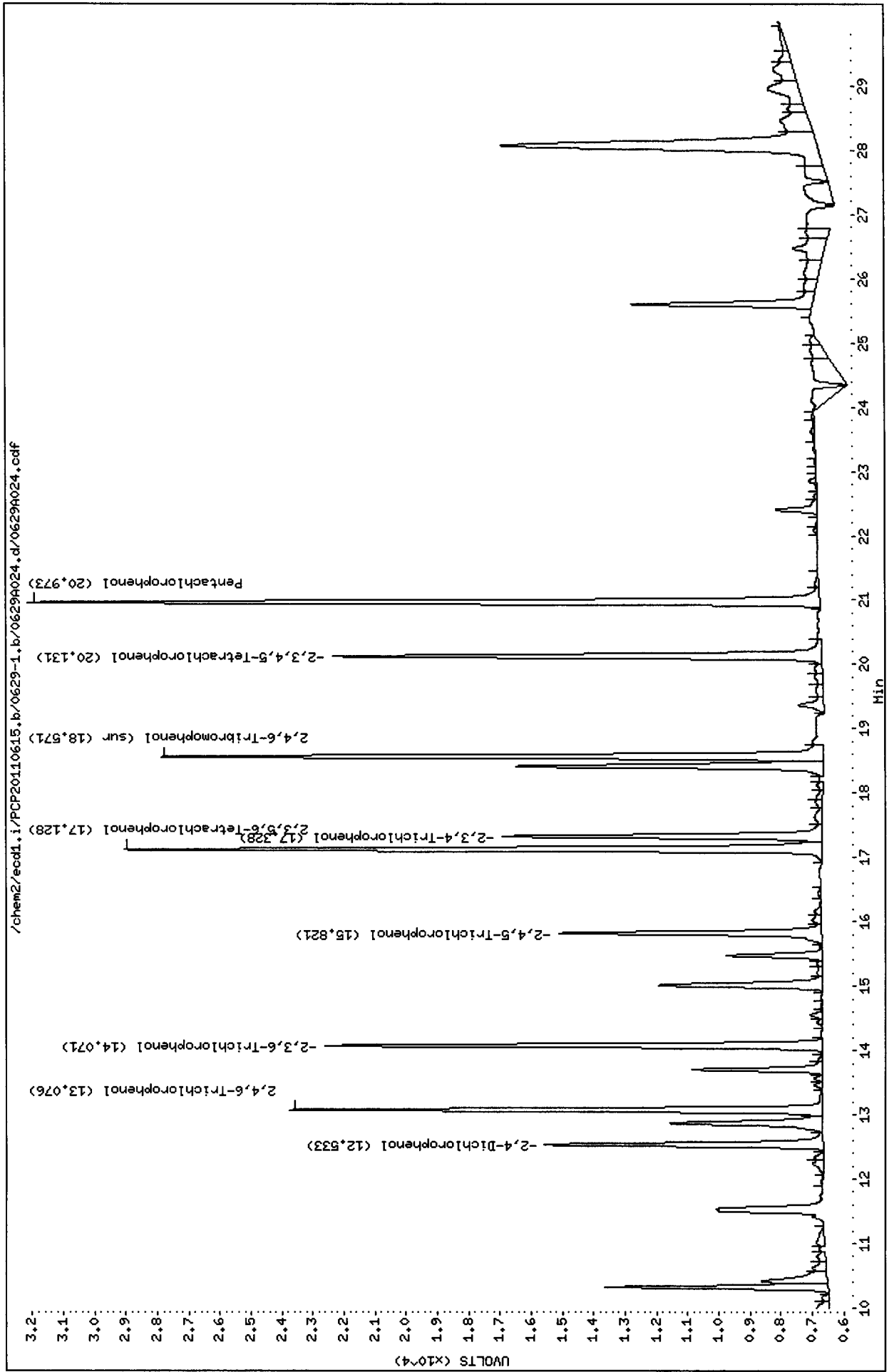
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: eccl1.i

Operator: ar

Column diameter: 0.53



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

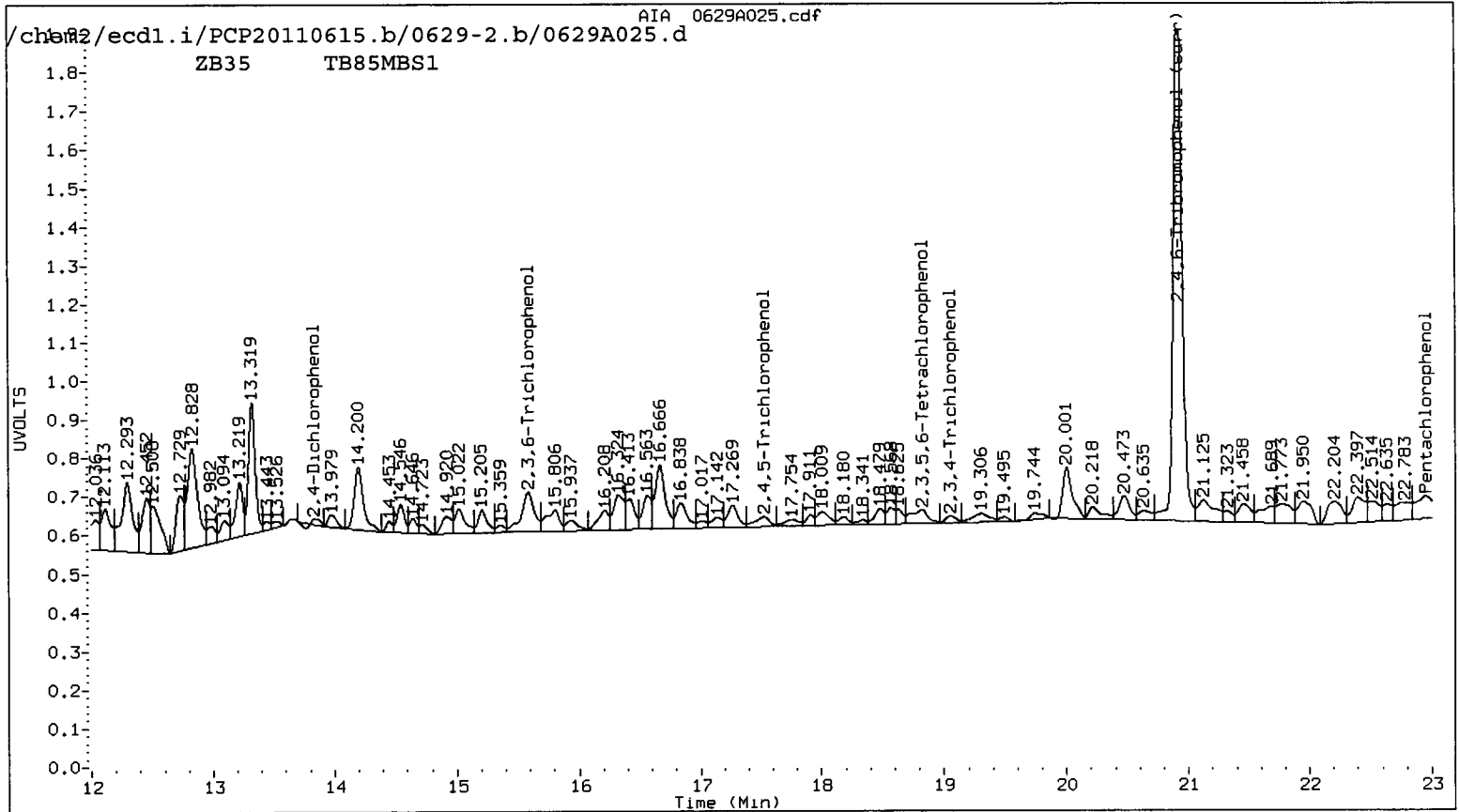
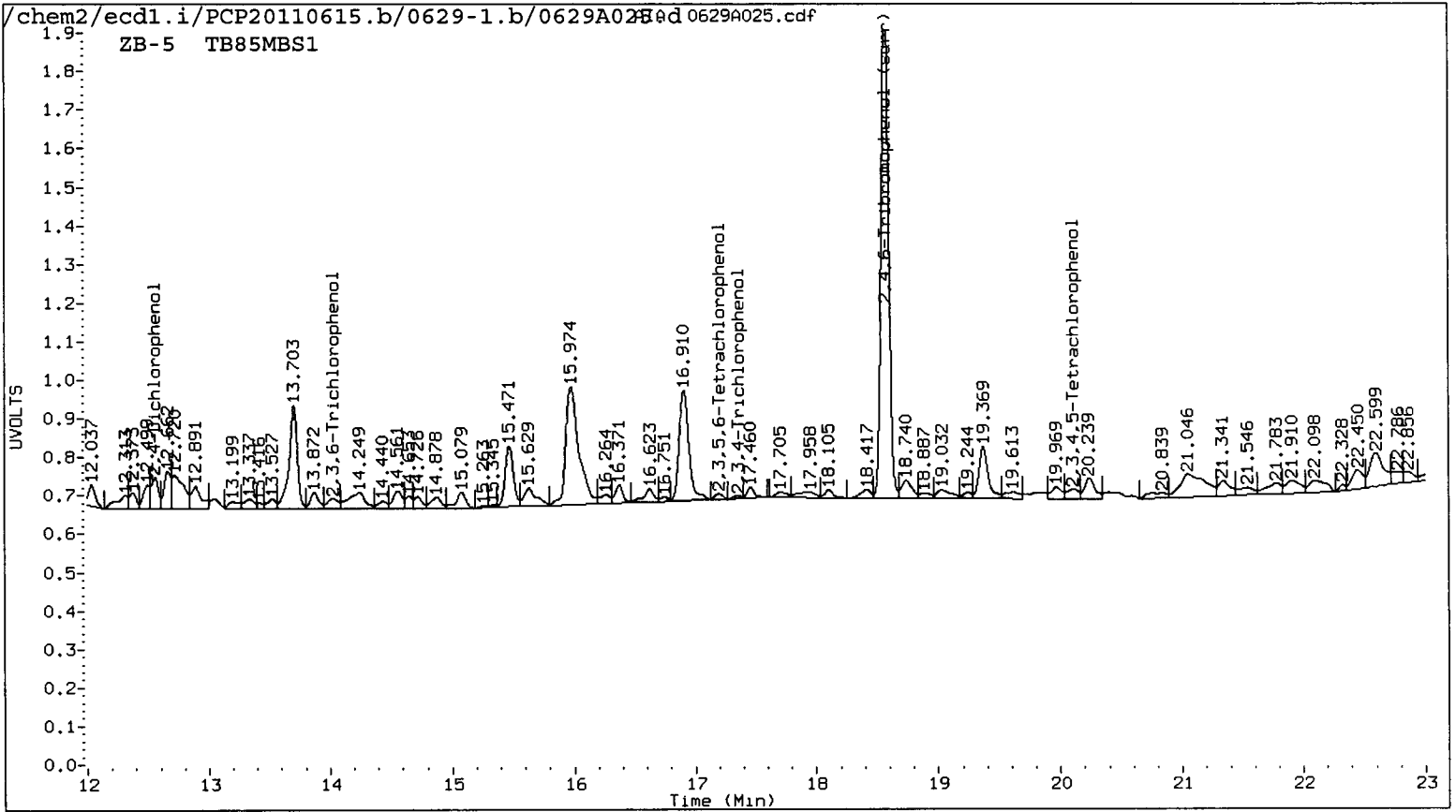
AR 6/30/2011

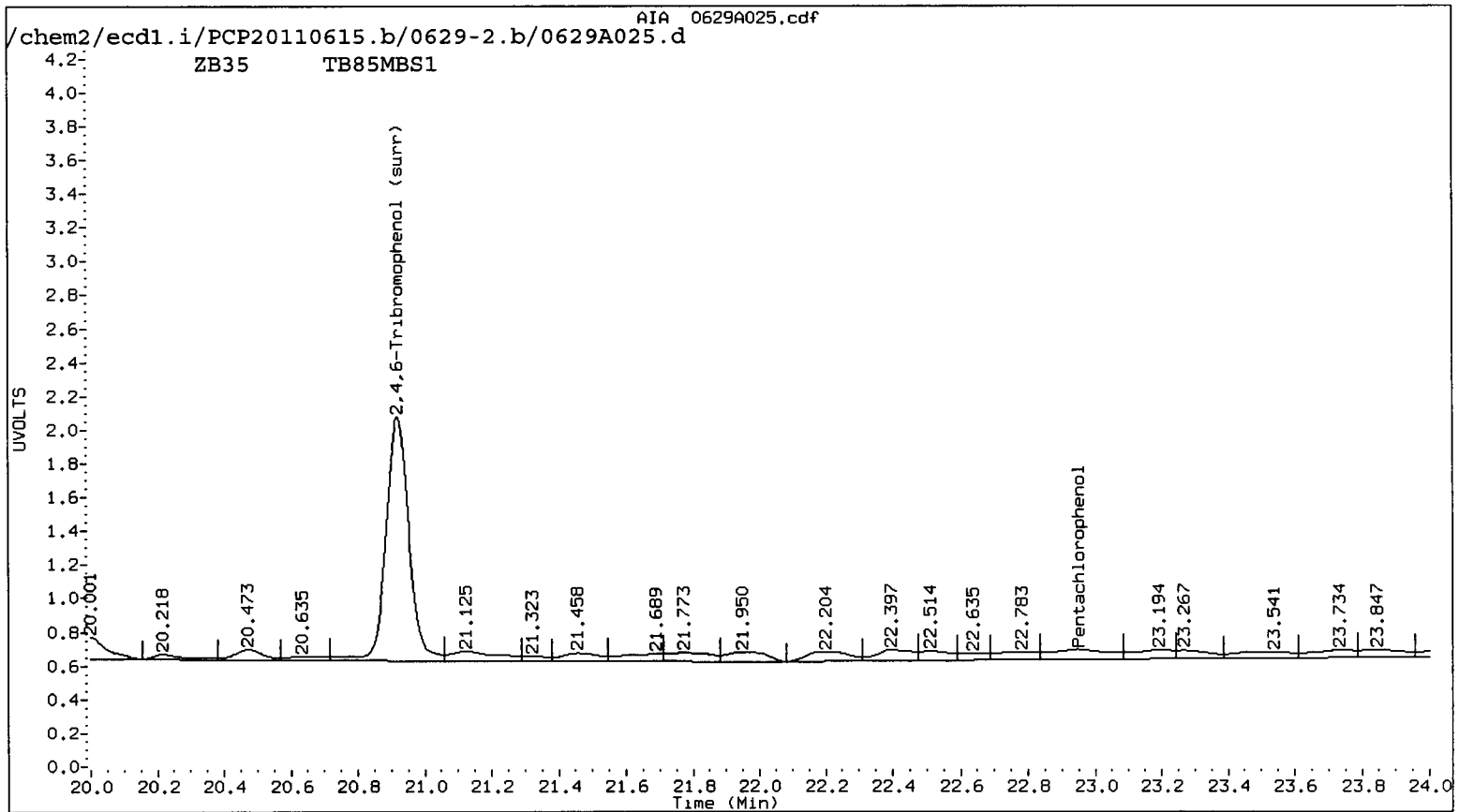
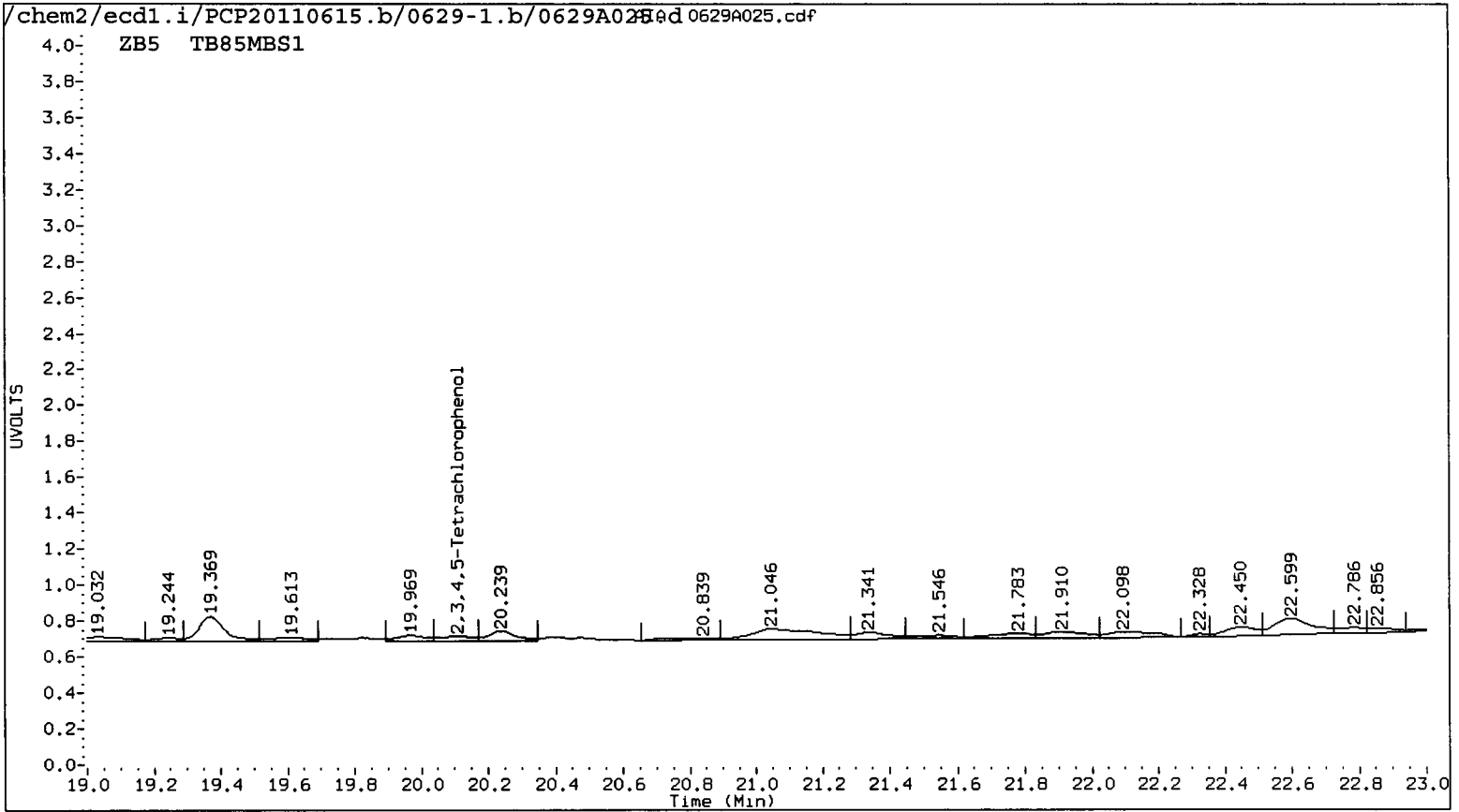
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A025.d ARI ID: TB85MBS1
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A025.d Client ID: TB85MBS1
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 01:11
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
----		22.949 -0.004 34963	0.0000	1.1636 <i>ur</i>	---	Pentachlorophenol
----		----	0.0000	0.0000	---	2,4,6-Trichlorophenol
14.027	-0.048 7307	15.585 0.043 37837	0.5594	2.5415	127.8*	2,3,6-Trichlorophenol
----		17.526 0.066 10736	0.0000	1.2617	---	2,4,5-Trichlorophenol
17.358	0.027 1817	19.057 0.047 5287	0.1889	0.5211	93.6*	2,3,4-Trichlorophenol
17.200	0.070 3625	18.822 0.023 16946	0.1854	0.7531	121.0*	2,3,5,6-Tetrachlorophenol
20.109	-0.025 7952	----	0.5384	0.0000	---	2,3,4,5-Tetrachlorophenol
12.557	0.023 / 15484	13.837 0.031 / 1253	17.1029	1.3829 /	170.1*	2,4-Dichlorophenol
18.570	-0.004 / 286053	20.919 -0.003 / 344938	15.5	16.1 /	3.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	62.1	64.3 /





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A025.d

Date: 30-JUN-2011 01:11

Client ID: TB85MBS1

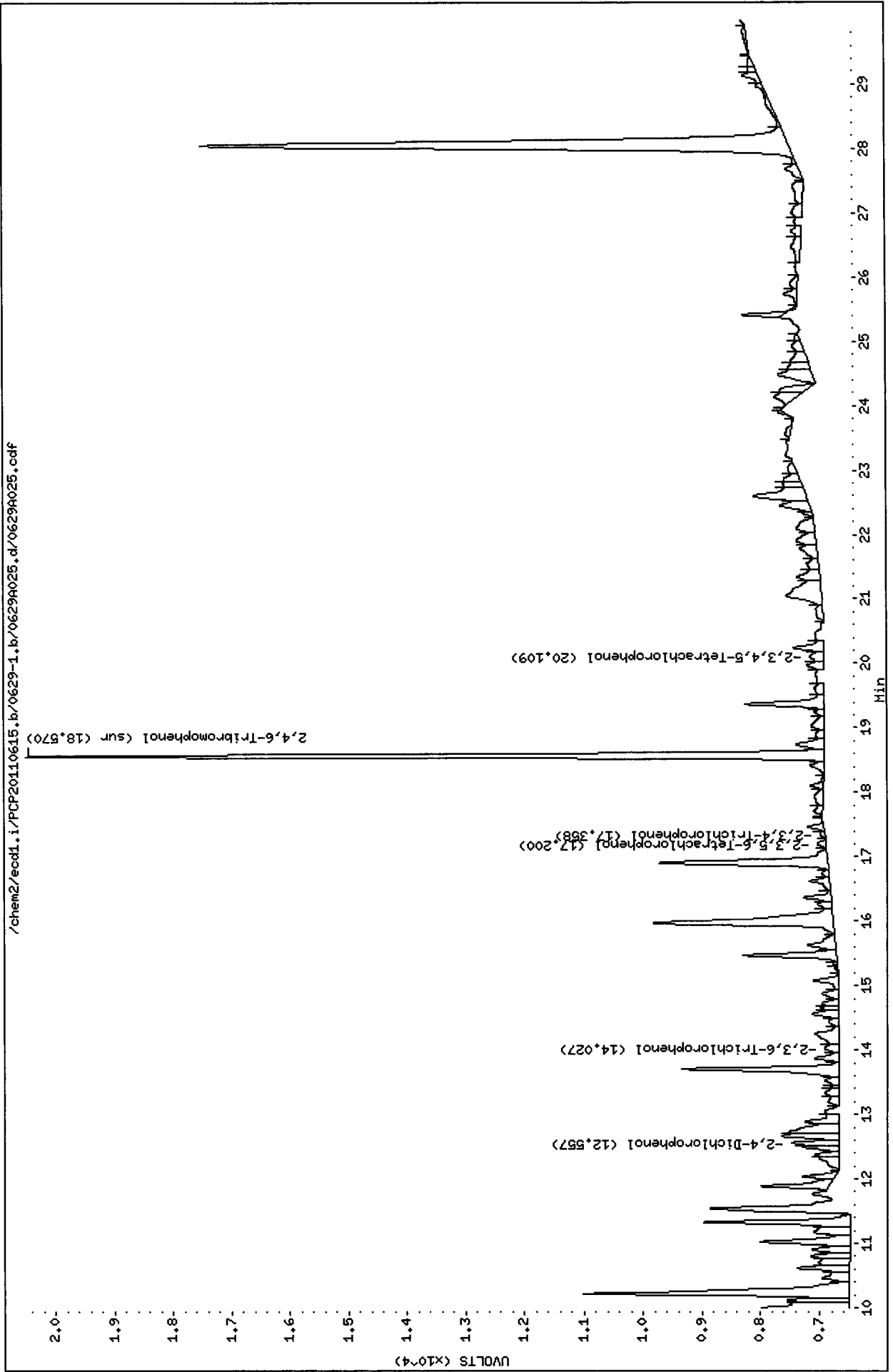
Sample Info: TB85MBS1

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A025.d

Date : 30-JUN-2011 01:11

Client ID: TB85MBS1

Sample Info: TB85MBS1

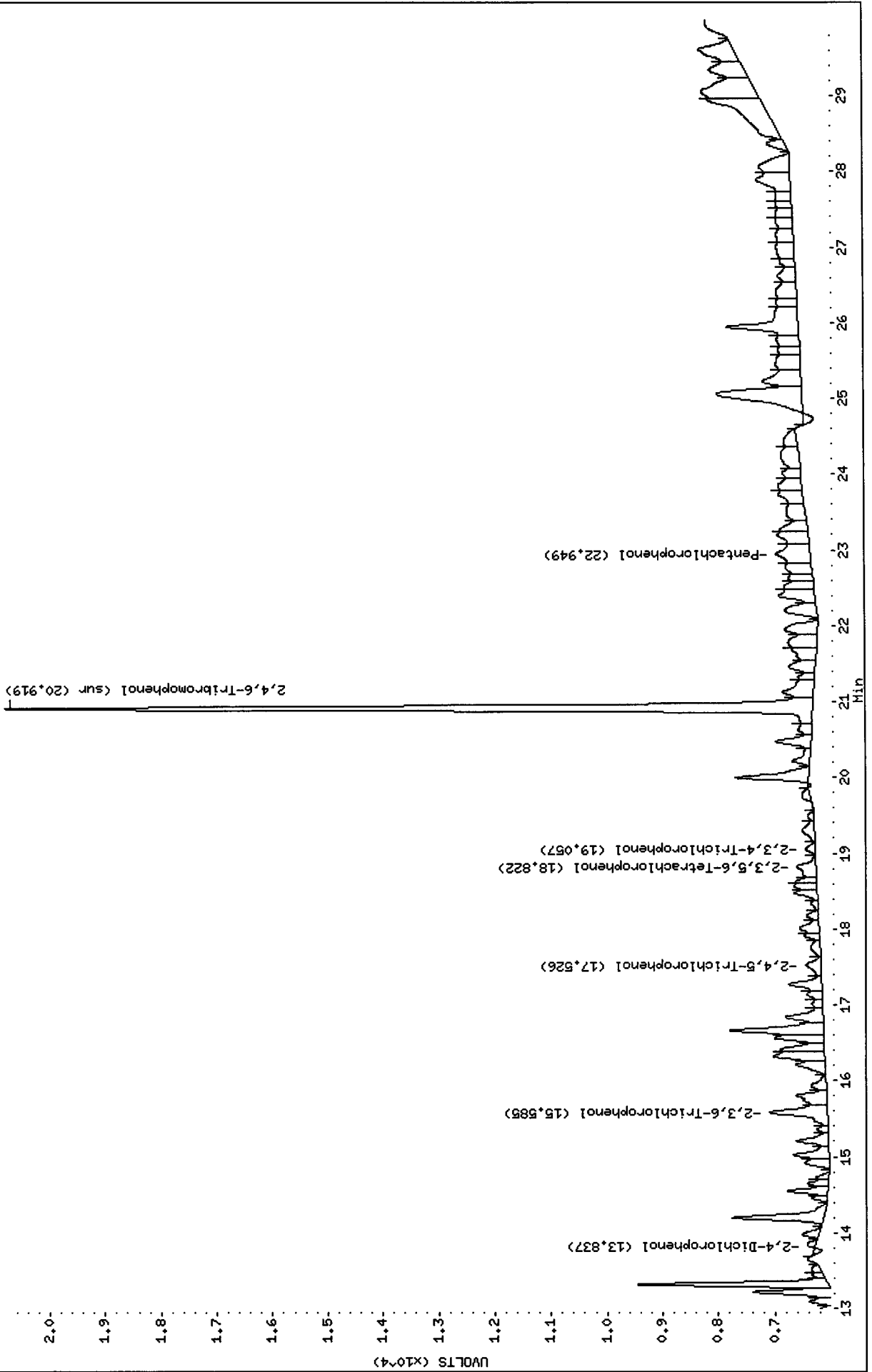
Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A025.d/0629A025.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

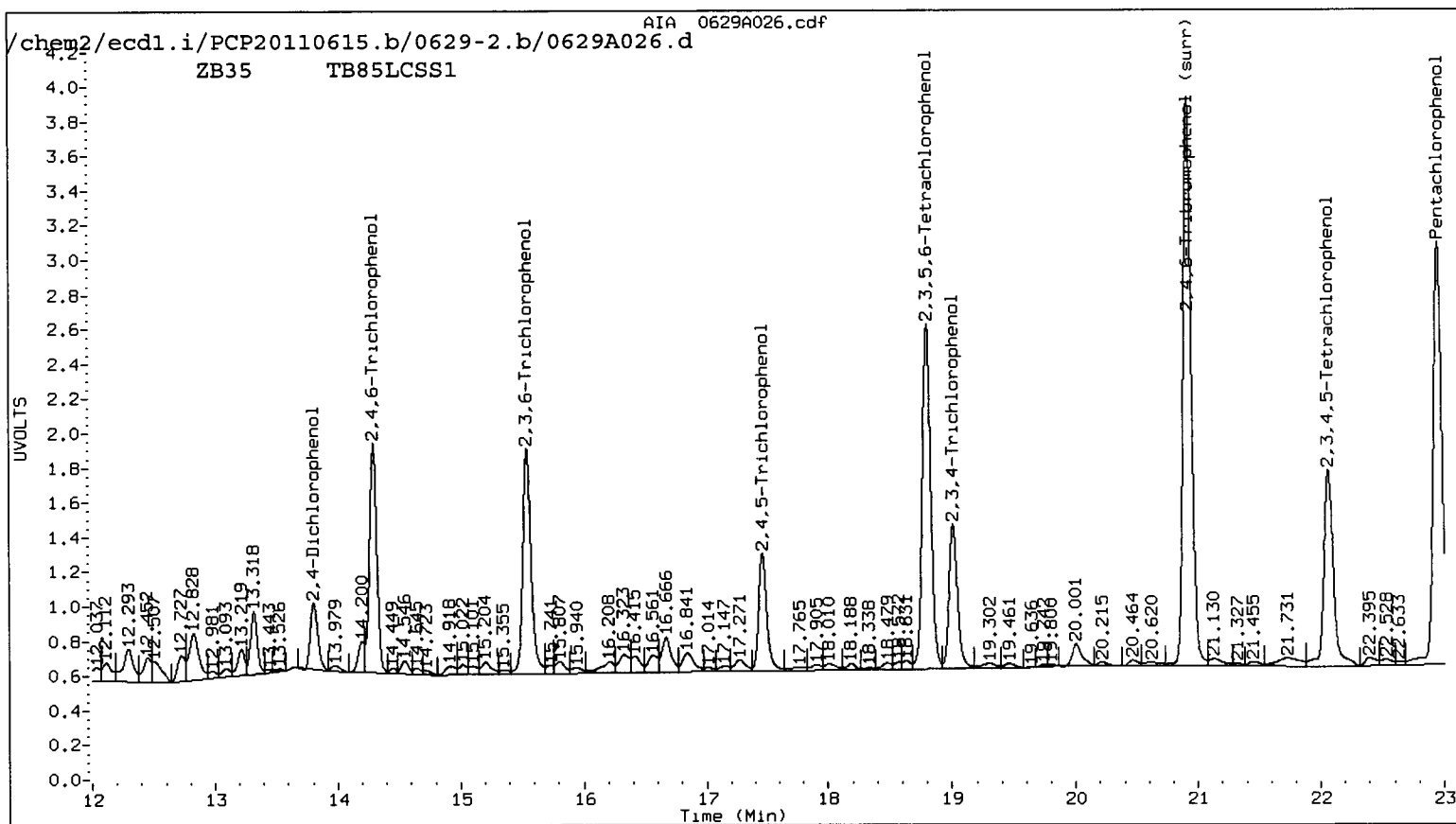
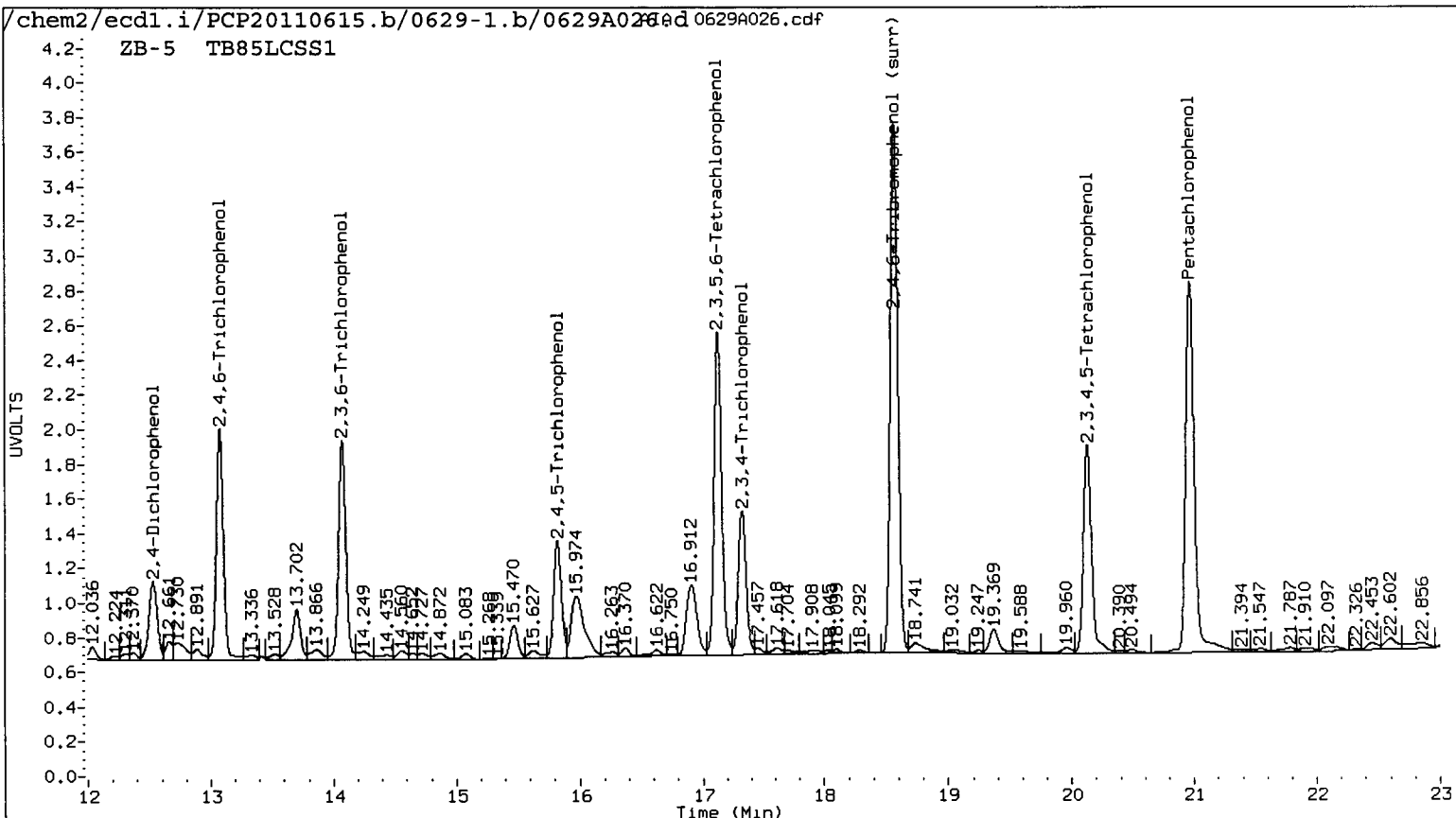
AR 06/30/2011

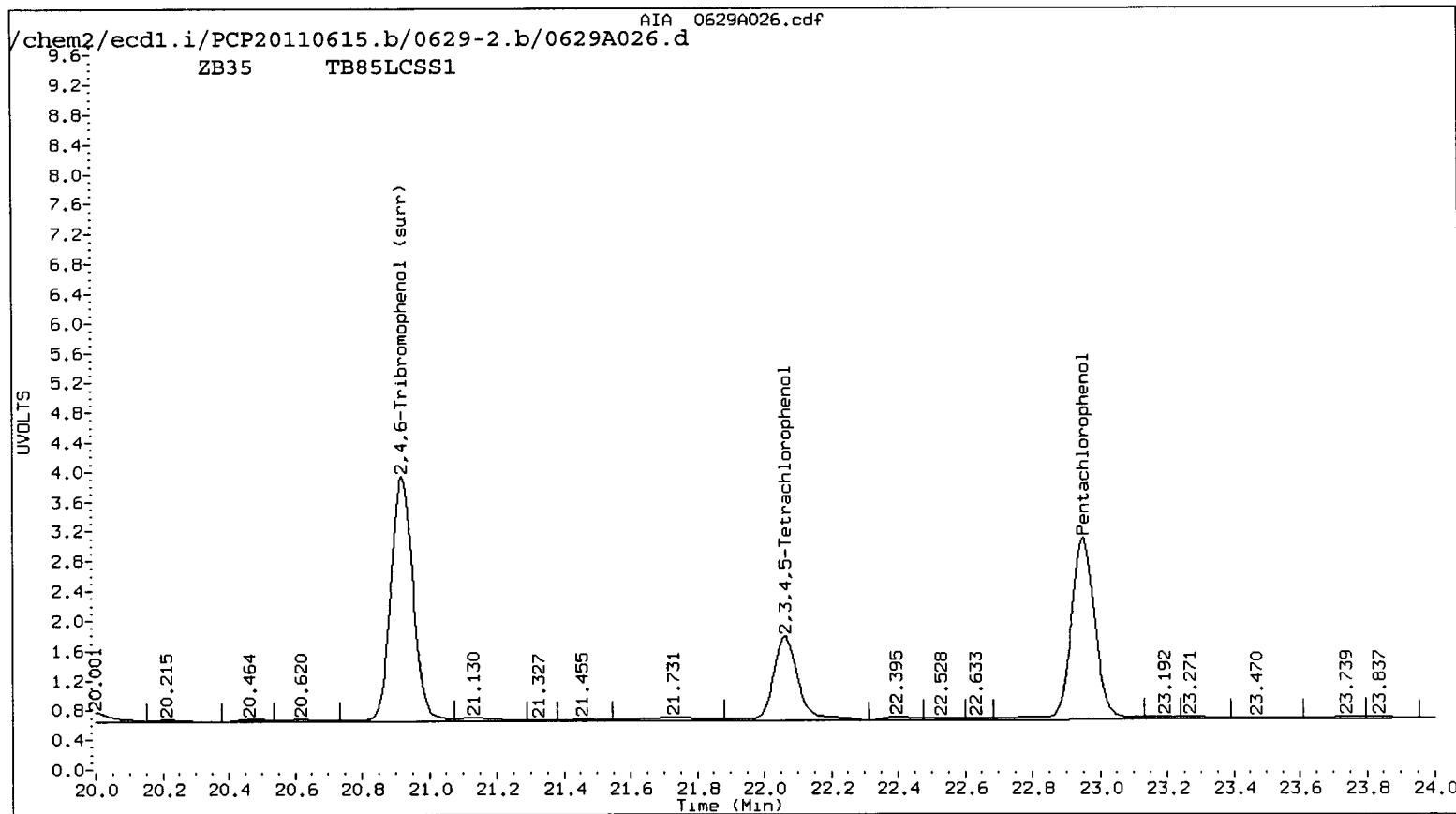
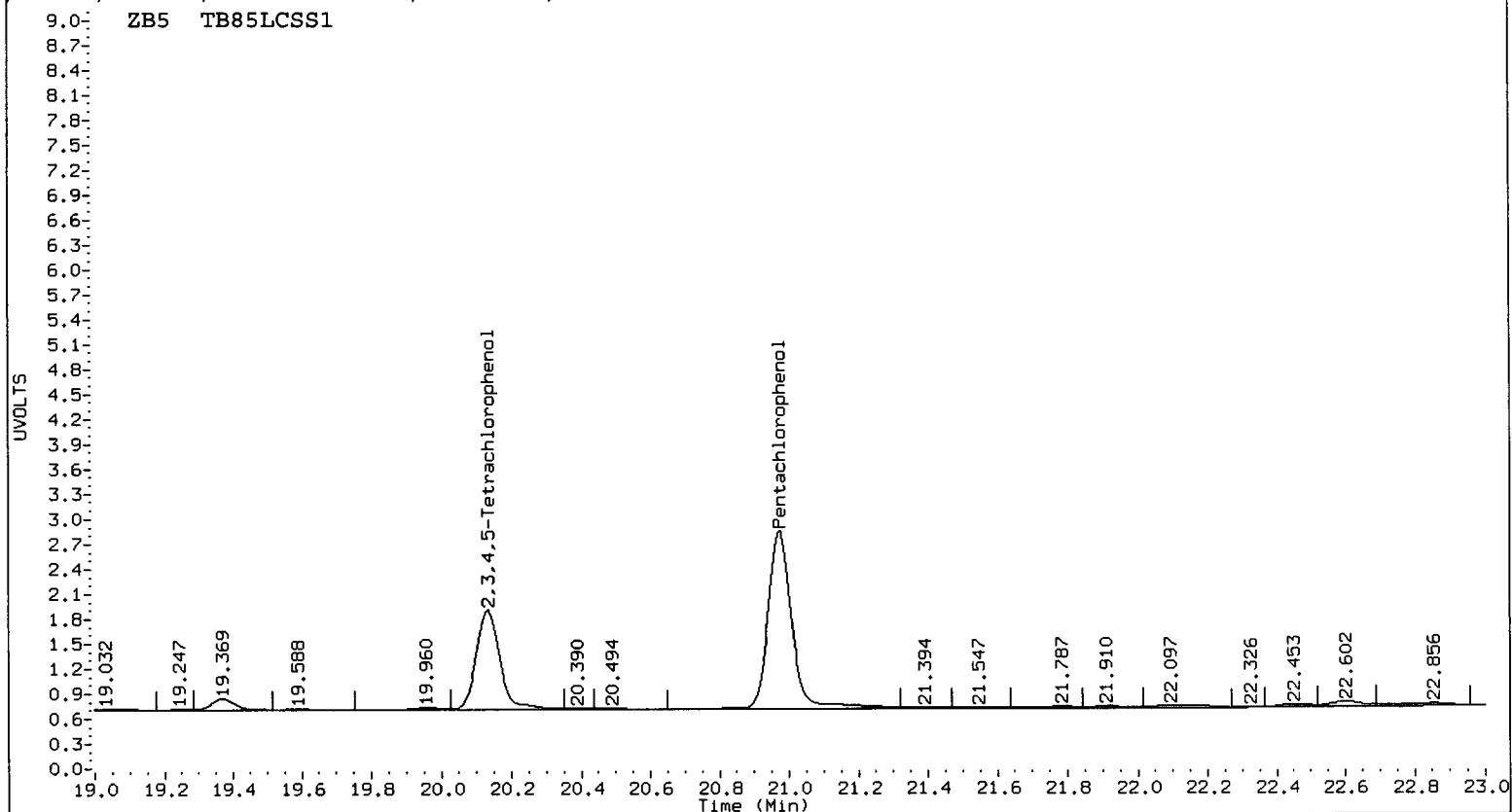
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A026.d ARI ID: TB85LCSS1
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A026.d Client ID: TB85LCSS1
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 01:48
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col		ZB35 Col		ZB-5	ZB35	RPD	Compound
RT	Shift Response	RT	Shift Response	on col	on col		
20.973	-0.003 522428	22.950	-0.003 601514	22.1836	20.0180	10.3	Pentachlorophenol
13.077	-0.003 272271	14.293	-0.003 279406	19.3354	18.8752	2.4	2,4,6-Trichlorophenol
14.072	-0.003 265276	15.540	-0.002 304290	20.3093	20.4390	0.6	2,3,6-Trichlorophenol
15.822	-0.002 145462	17.458	-0.002 163335	18.2894	19.1945	4.8	2,4,5-Trichlorophenol
17.328	-0.003 185350	19.008	-0.002 201040	19.2625	19.8134	2.8	2,3,4-Trichlorophenol
17.128	-0.003 404872	18.797	-0.003 459705	20.6989	20.4295	1.3	2,3,5,6-Tetrachlorophenol
20.132	-0.003 285206	22.063	-0.004 296104	19.3098	17.4547	10.1	2,3,4,5-Tetrachlorophenol
12.533	-0.001 108080	13.805	-0.001 80994	133.0336	99.1468	29.2	2,4-Dichlorophenol
18.571	-0.004 645990	20.920	-0.003 757410	35.0	35.3	0.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	88.7	80.1
2,4,6-Trichlorophenol	77.3	75.5
2,3,6-Trichlorophenol	81.2	81.8
2,4,5-Trichlorophenol	73.2	76.8
2,3,4-Trichlorophenol	77.0	79.3
2,3,5,6-Tetrachlorophenol	82.8	81.7
2,3,4,5-Tetrachlorophenol	77.2	69.8
2,4-Dichlorophenol	53.2	39.7
2,4,6-TBP (surr)	70.1	70.6





Data File: /chem2/ecd1.i/PCP20110615.b/0629-1.b/0629A026.d

Date : 30-JUN-2011 01:48

Client ID: TB85LCSS1

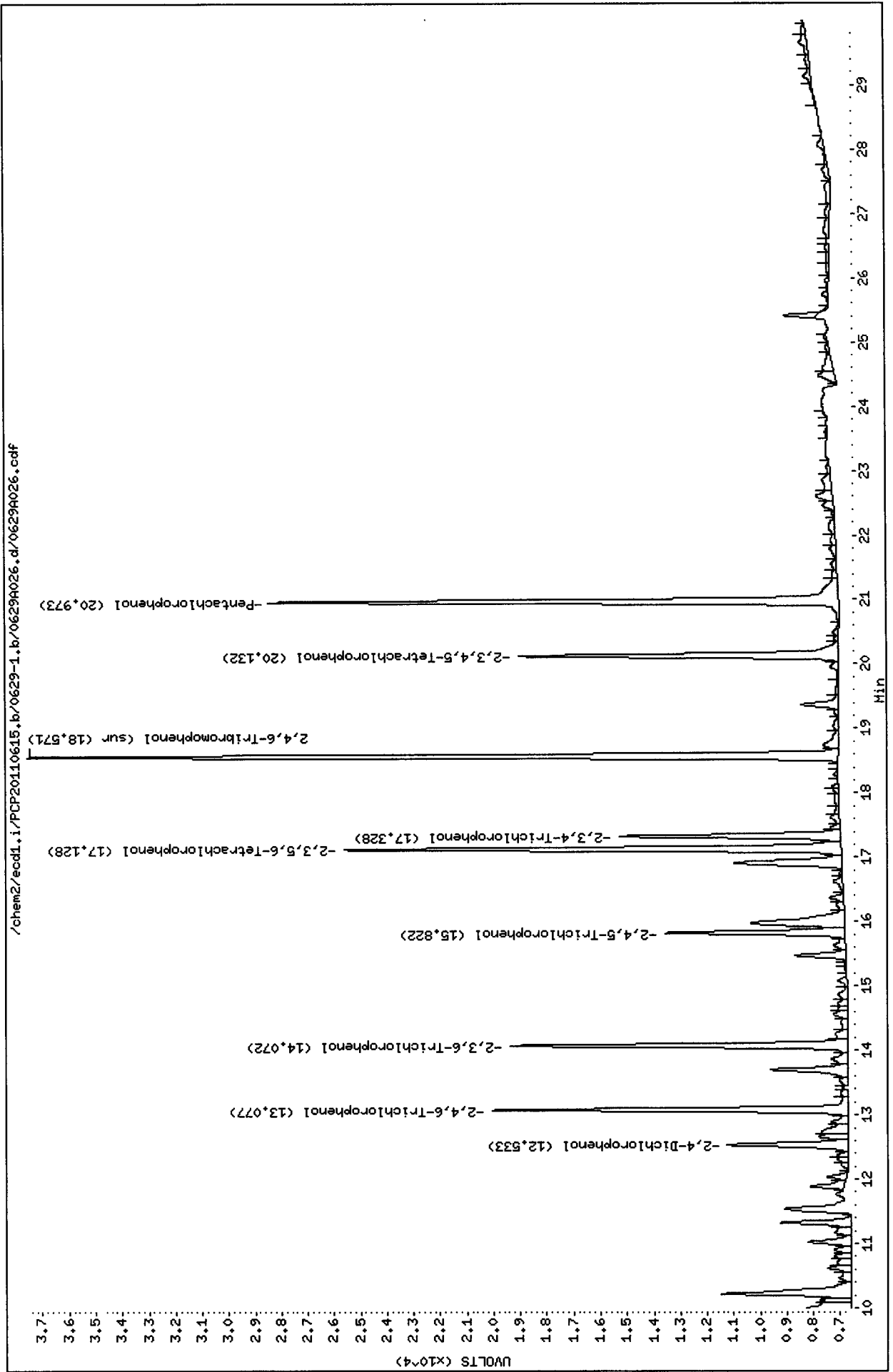
Sample Info: TB85LCSS1

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

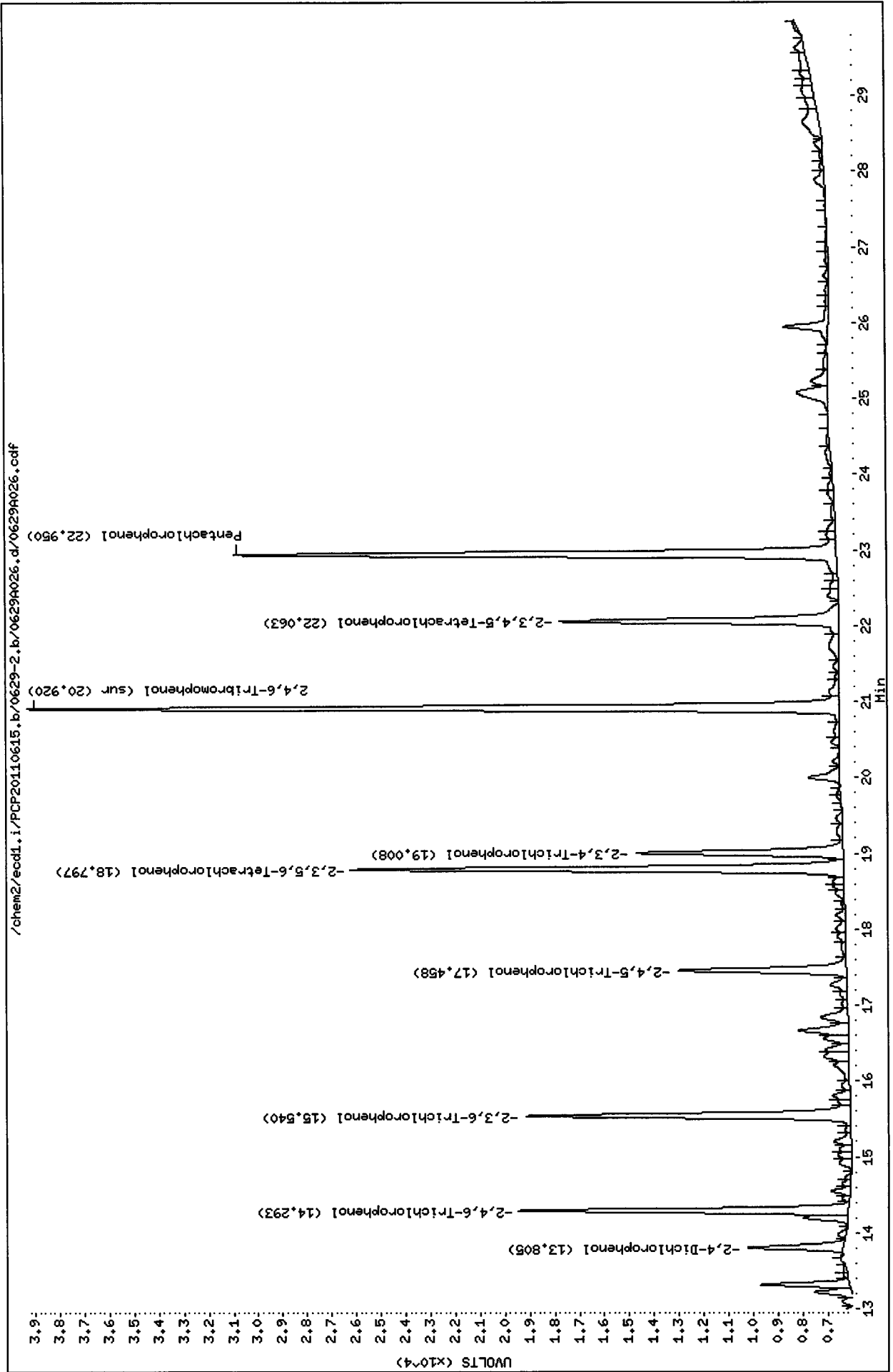


Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A026.d
Date : 30-JUN-2011 01:48
Client ID: TB85LCSS1
Sample Info: TB85LCSS1

Instrument: ecdl1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

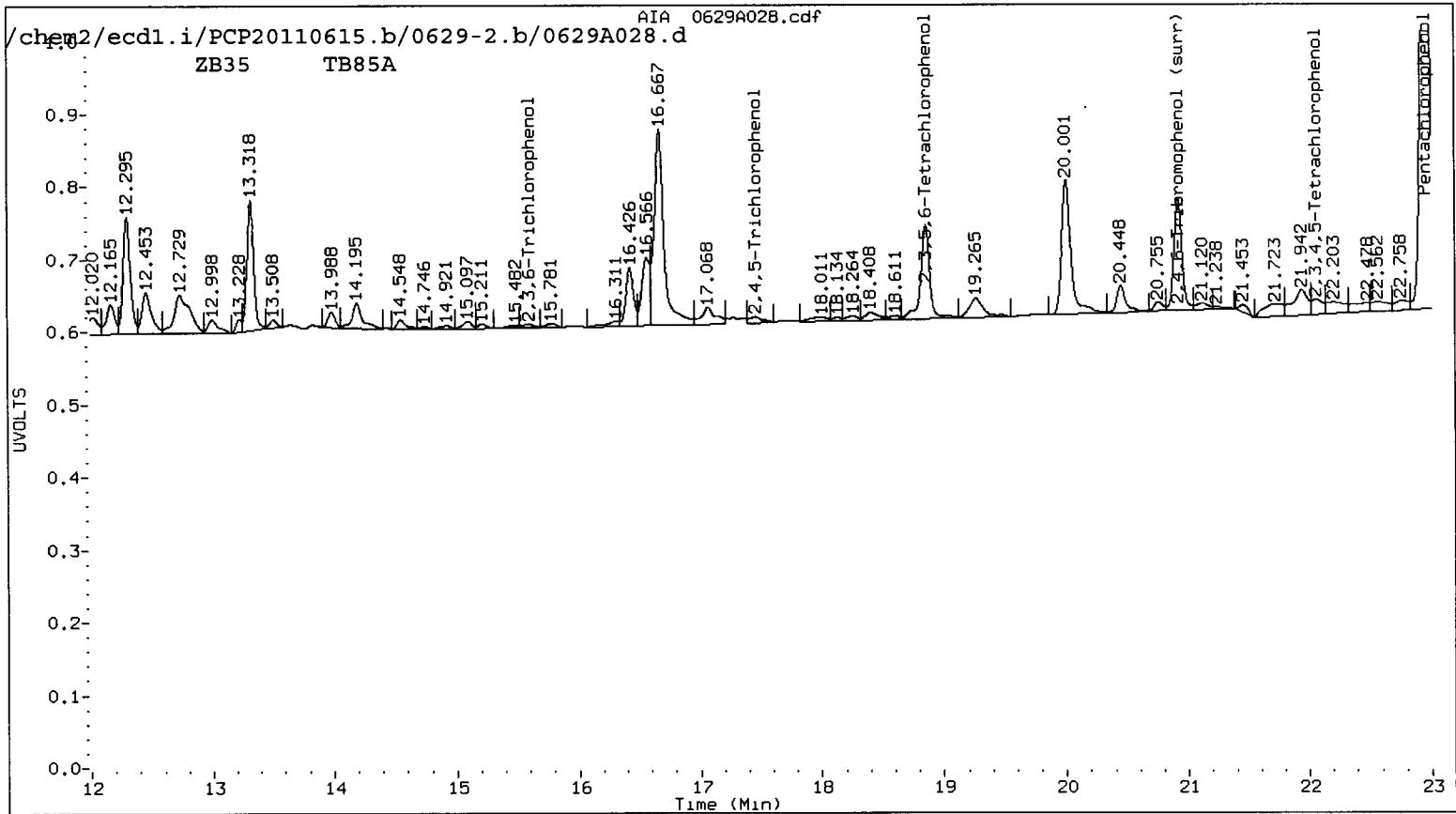
AR 6(30)2011

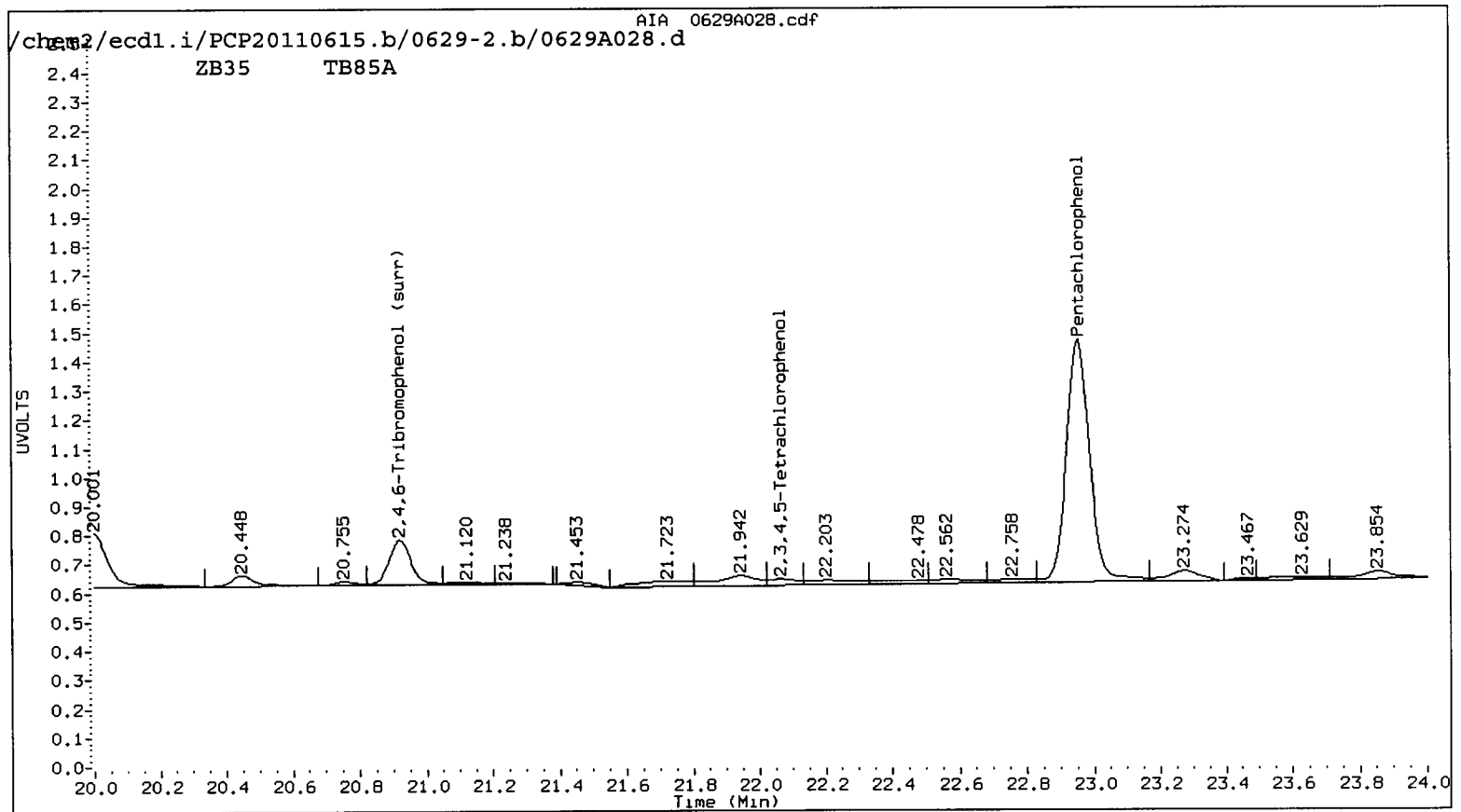
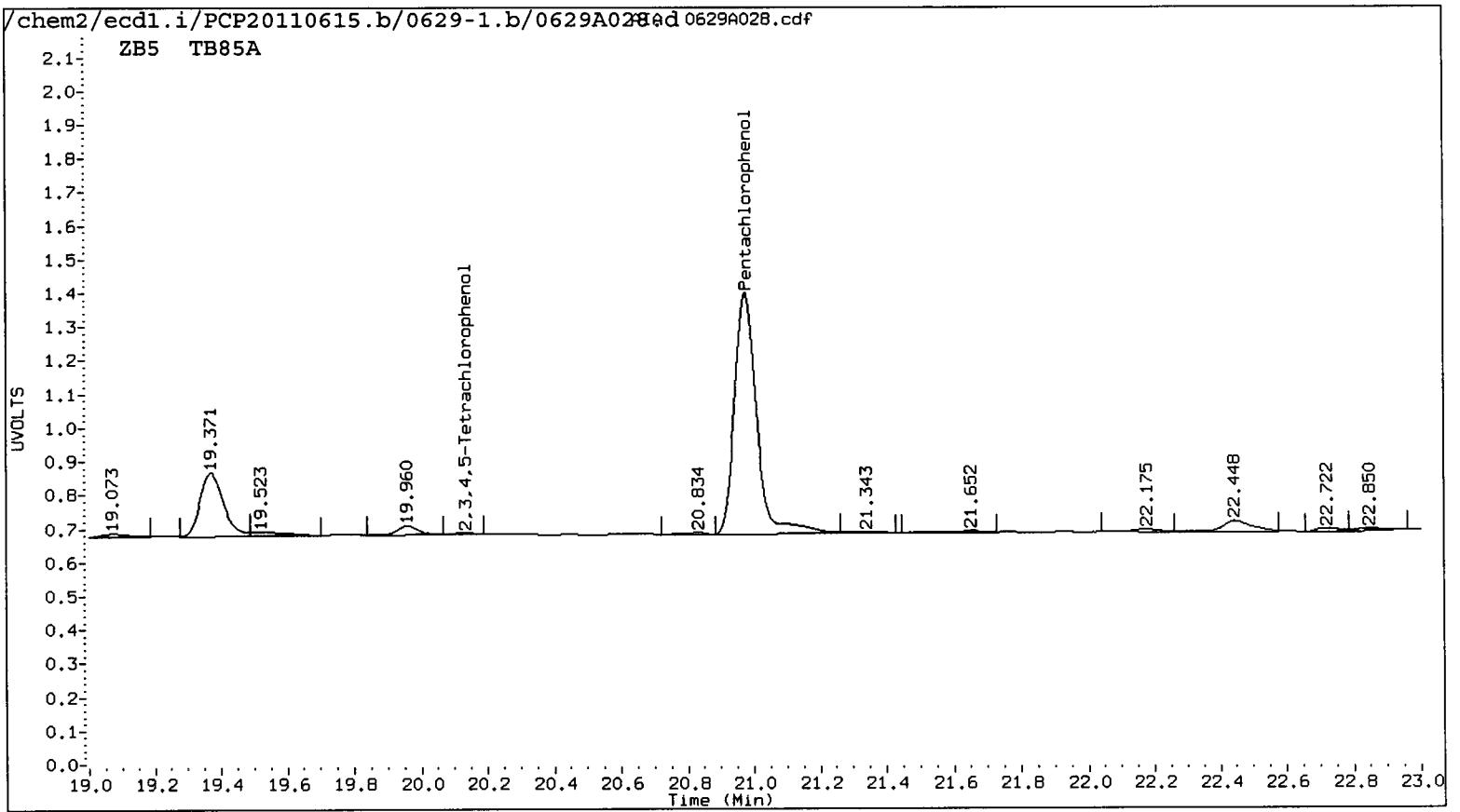
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A028.d ARI ID: TB85A
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A028.d Client ID: SB-01-062211-02
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 03:00
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 10.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.000	170101	22.953	0.000	203200	7.2229	6.7624	6.6	Pentachlorophenol
13.060	-0.019	2105	----	----	----	0.1495	0.0000	---	2,4,6-Trichlorophenol
----	----	----	15.593	0.051	1802	0.0000	0.1211	---	2,3,6-Trichlorophenol
15.818	-0.006	1141	17.456	-0.004	3070	0.1435	0.3609	86.2*	2,4,5-Trichlorophenol
----	----	----	----	----	----	0.0000	0.0000	---	2,3,4-Trichlorophenol
----	----	----	18.856	0.057	34497	0.0000	1.5331	---	2,3,5,6-Tetrachlorophenol
20.134	-0.001	1027	22.065	-0.002	6402	0.0696	0.3774	137.7*	2,3,4,5-Tetrachlorophenol
12.559	0.025	8735	----	----	----	9.5681	0.0000	---	2,4-Dichlorophenol
18.574	-0.001	30885	20.921	-0.002	36376	1.7	1.7	1.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	67.0	67.8





Data File: /chem2/ecd1.i/PCP20110615.b/0629-1.b/0629A028.d

Date : 30-JUN-2011 03:00

Client ID: SB-01-062211-02

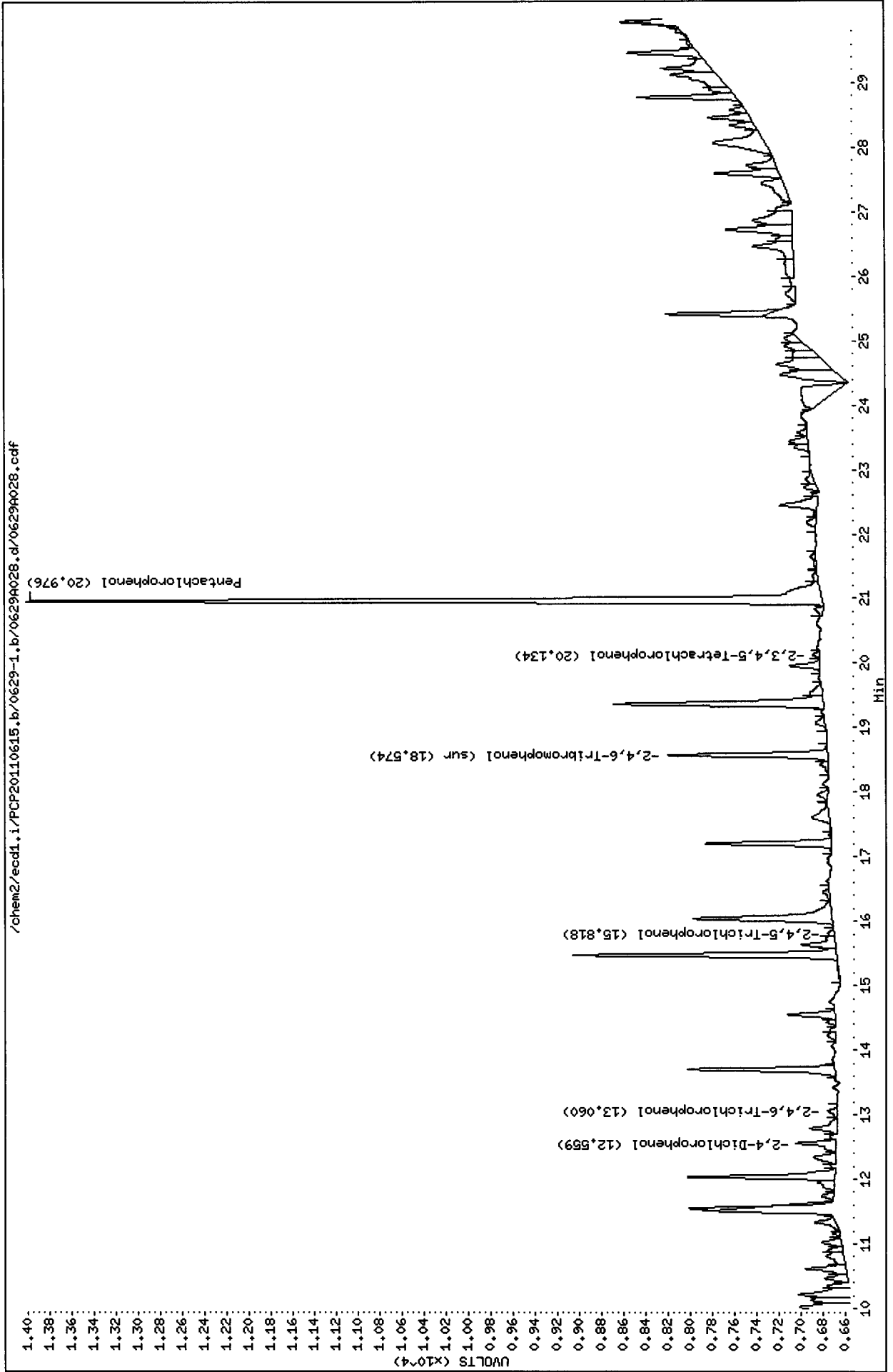
Sample Info: TB85A,,,10

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A028.d

Date : 30-JUN-2011 03:00

Client ID: SB-01-062211-02

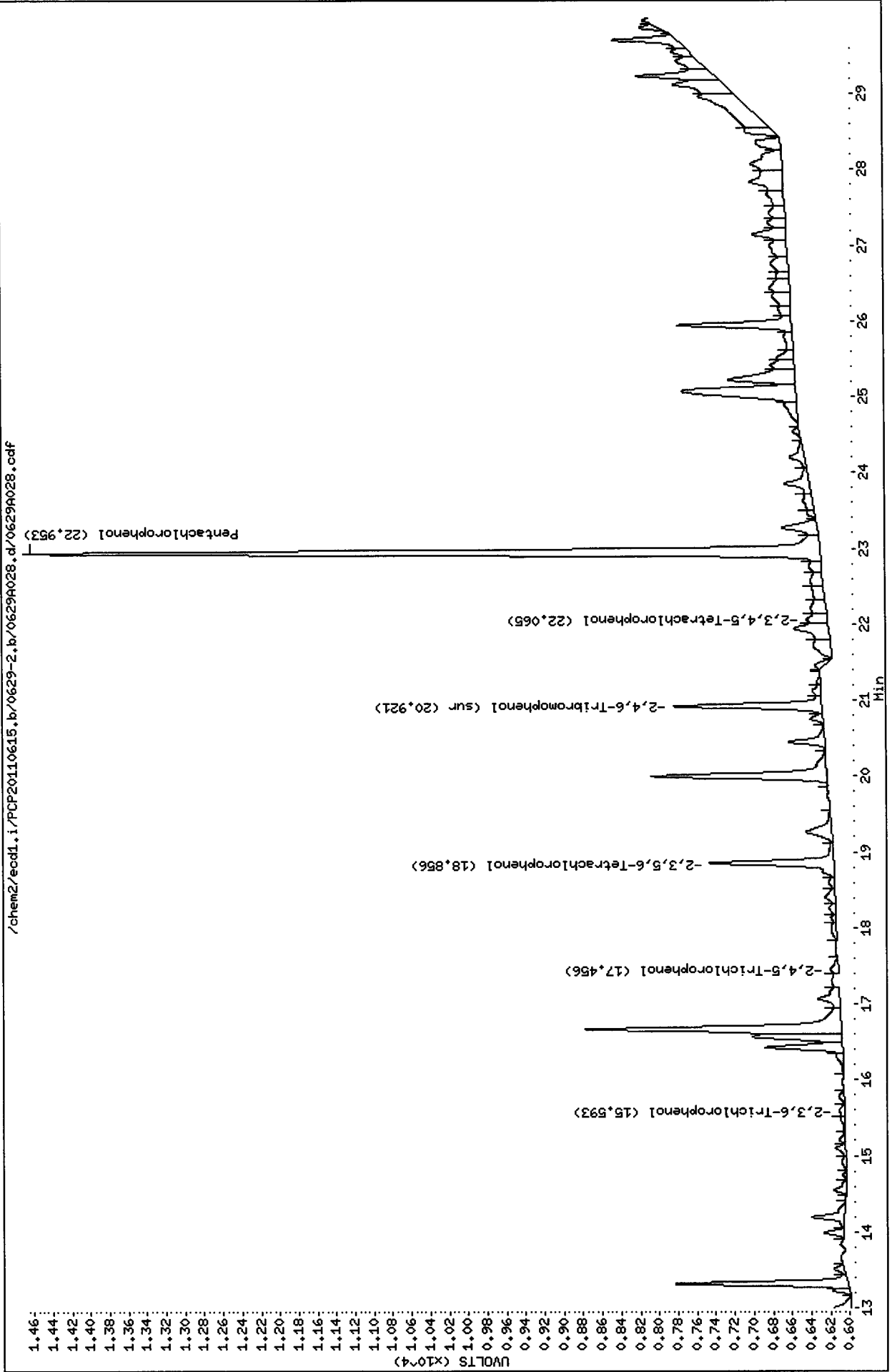
Sample Info: TB85A,,,10

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



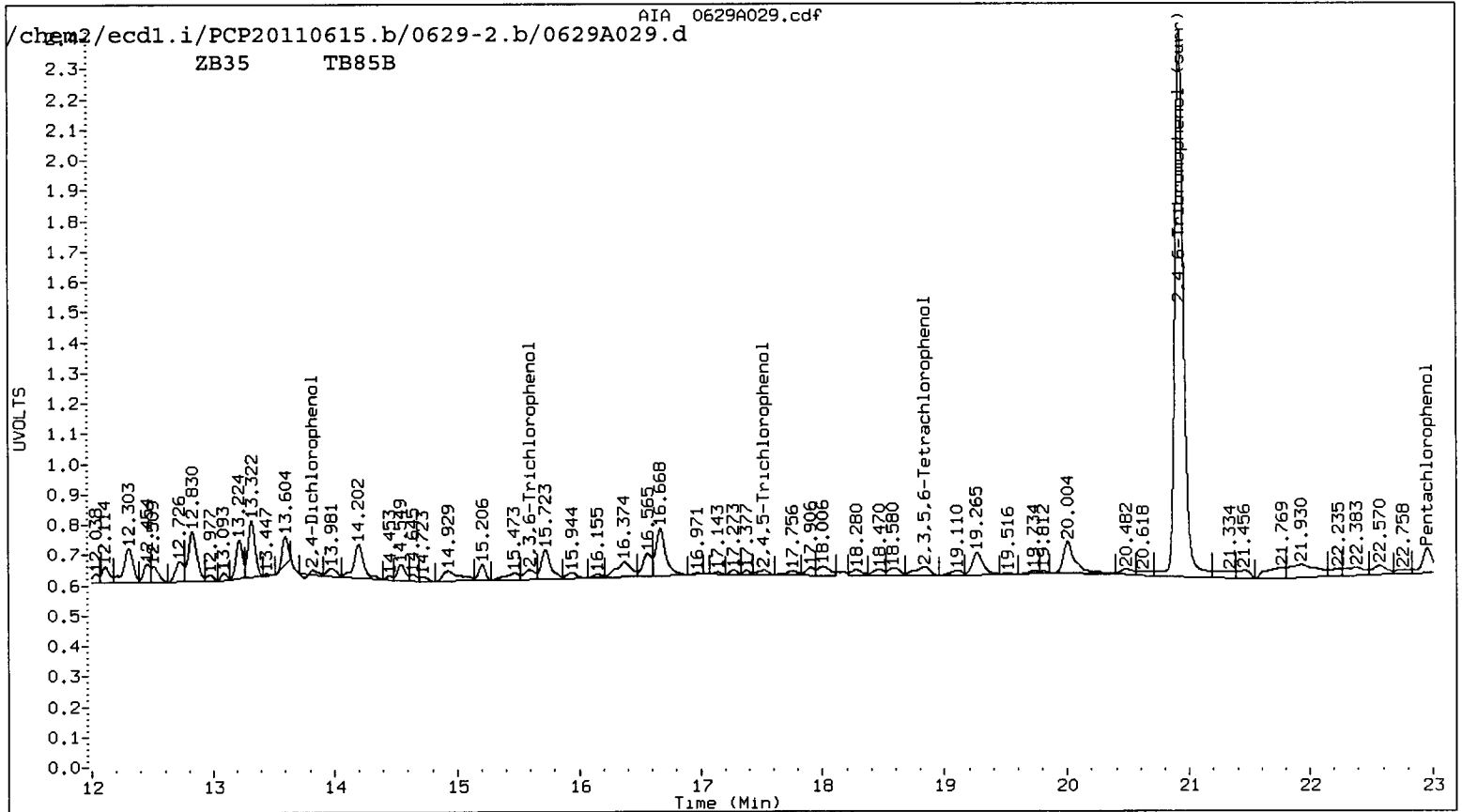
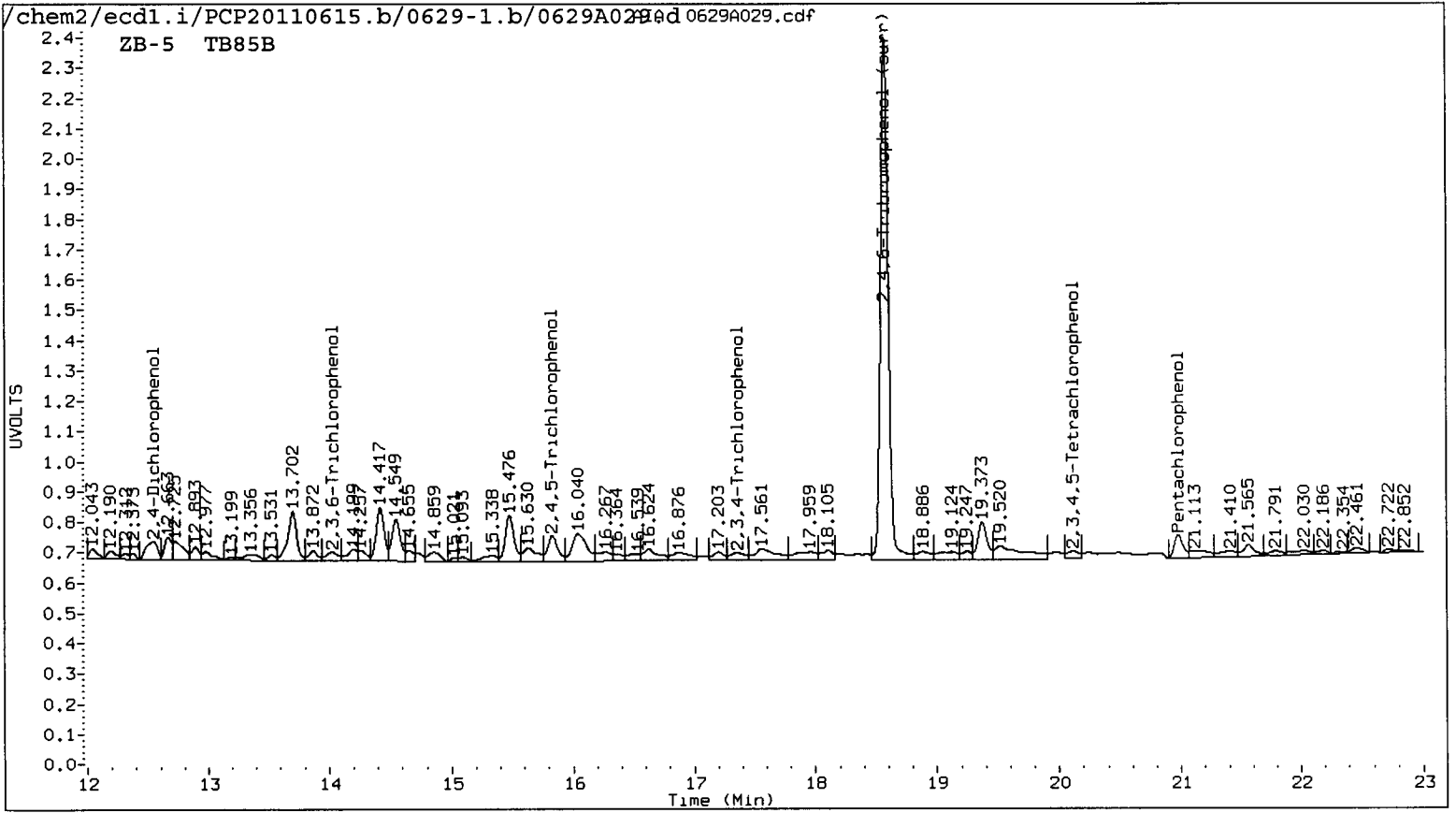
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

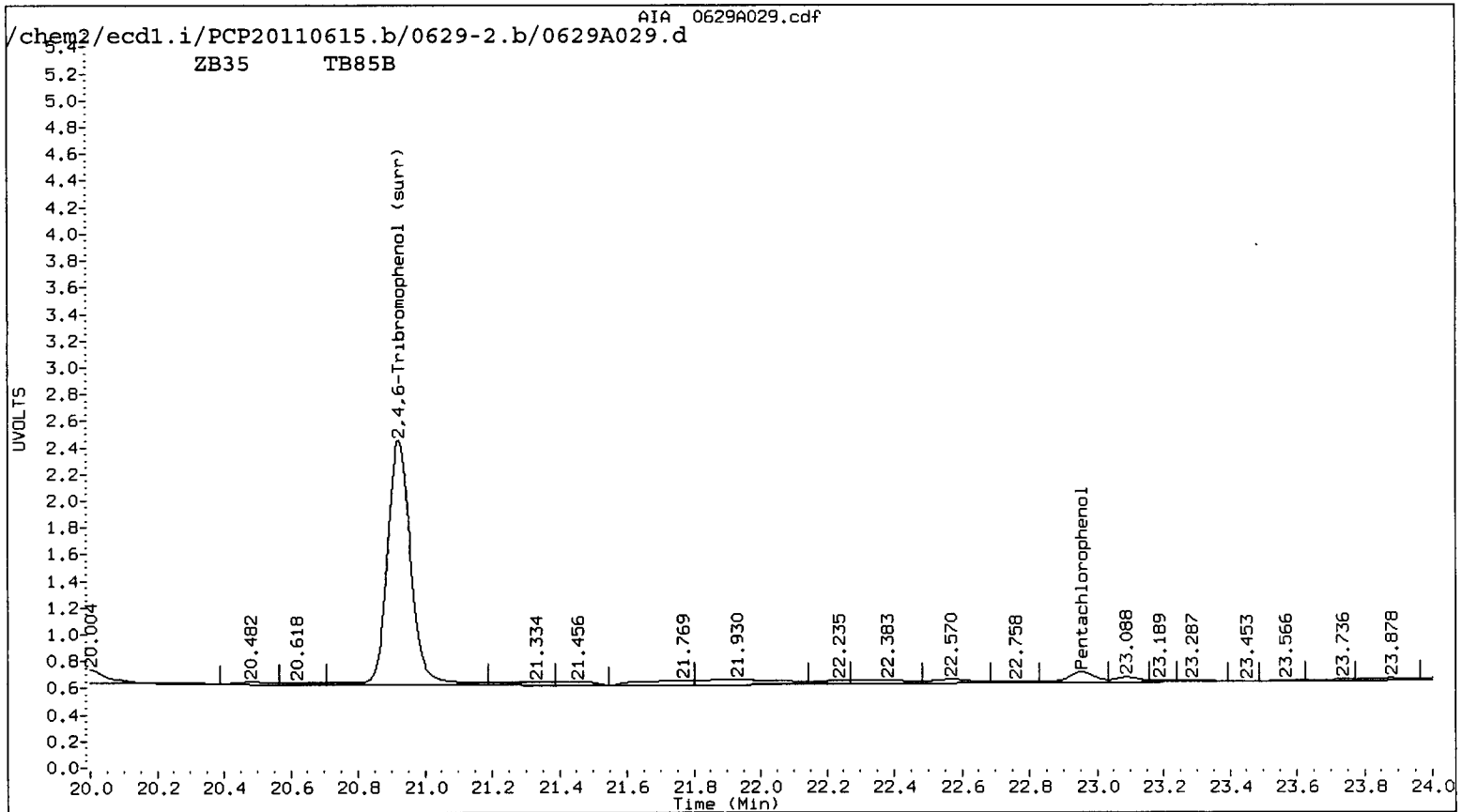
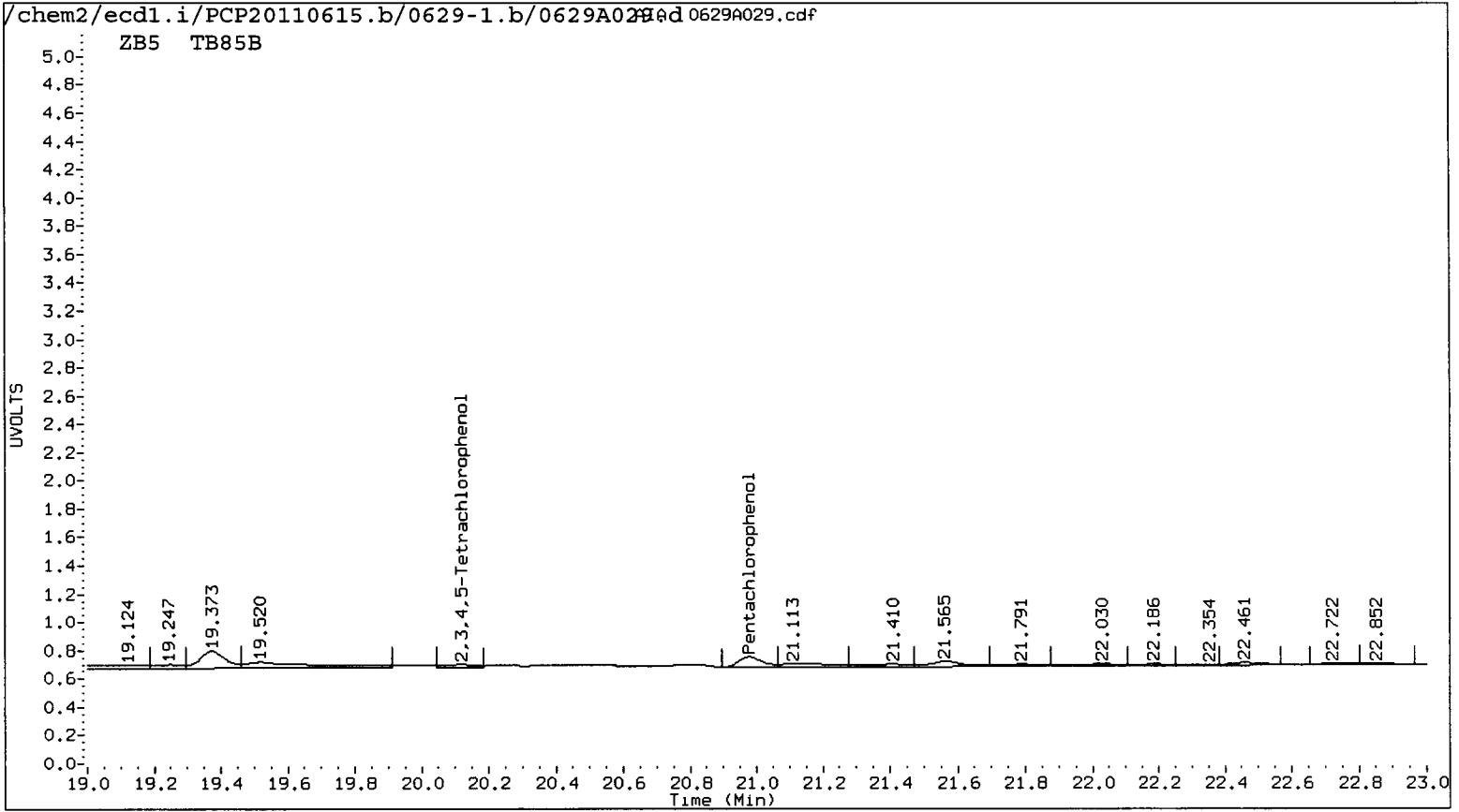
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A029.d ARI ID: TB85B
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A029.d Client ID: SB-01-062211-04
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 03:37
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35			
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound	
20.978	0.003	19278	22.954	0.001	22749	0.8186	0.7571 <i>✓</i>	7.8	Pentachlorophenol	
----			----			0.0000	0.0000	---	2,4,6-Trichlorophenol	
14.026	-0.049	8863	15.594	0.052	9463	0.6786	0.6356	6.5	2,3,6-Trichlorophenol	
15.829	0.005	23203	17.524	0.063	5159	2.9174	0.6063	131.2*	2,4,5-Trichlorophenol	
17.355	0.025	10440	----			1.0850	0.0000	---	2,3,4-Trichlorophenol	
----			18.838	0.039	11845	0.0000	0.5264	---	2,3,5,6-Tetrachlorophenol	
20.119	-0.015	9160	----			0.6202	0.0000	---	2,3,4,5-Tetrachlorophenol	
12.543	0.009	18622	13.827	0.021	1641	20.6491	1.8120	167.7*	2,4-Dichlorophenol	
18.574	0.000	382064	20.922	-0.001	448401	20.7	20.9 <i>✓</i>	0.8	2,4,6-Tribromophenol (surr)	

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	82.9	83.6 <i>✓</i>





TB85 : 00232

Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A029.d

Date : 30-JUN-2011 03:37

Client ID: SB-01-062211-04

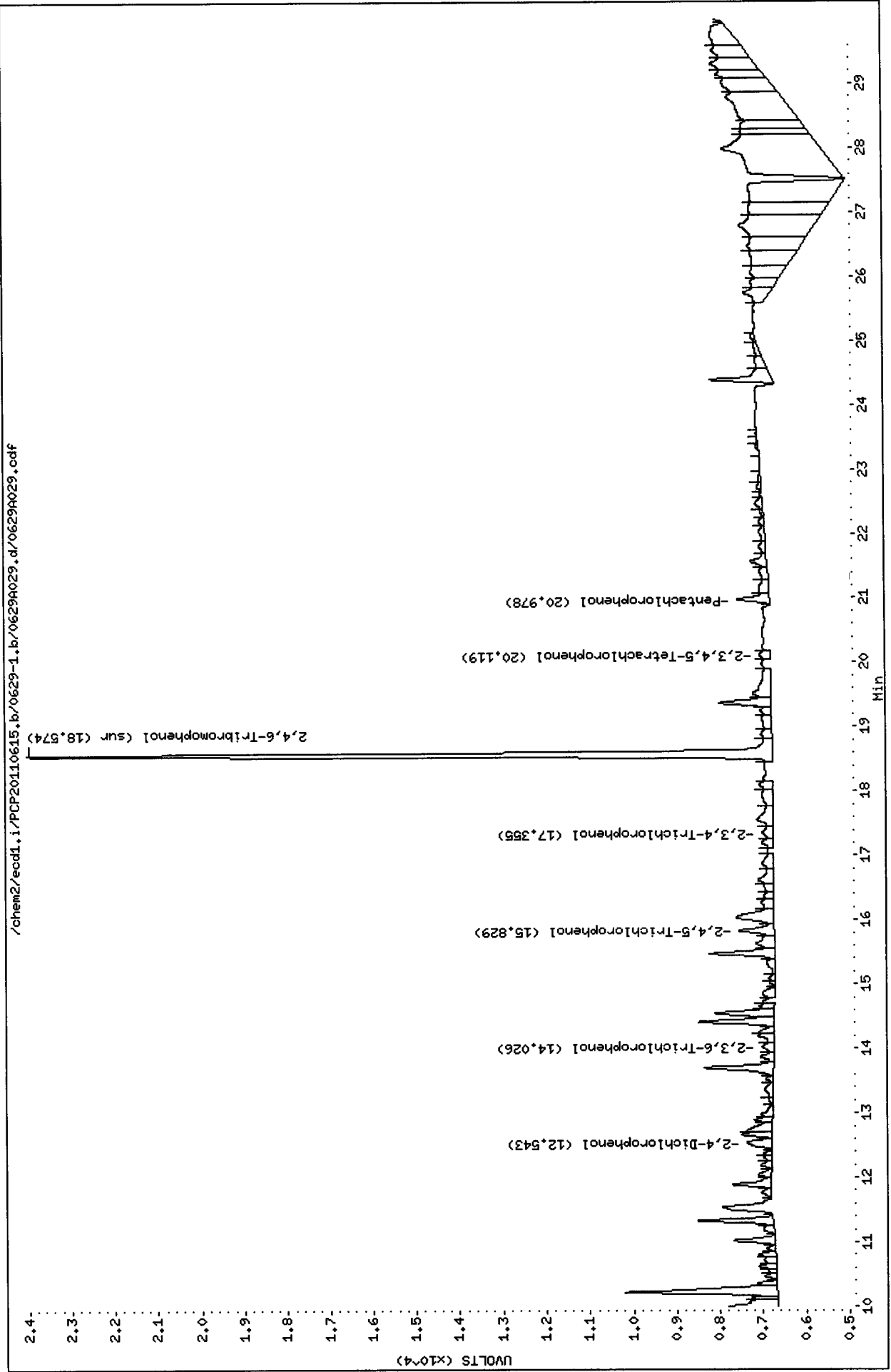
Sample Info: TB85B

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629A029.d

Date : 30-JUN-2011 03:37

Client ID: SB-01-062211-04

Sample Info: TB85B

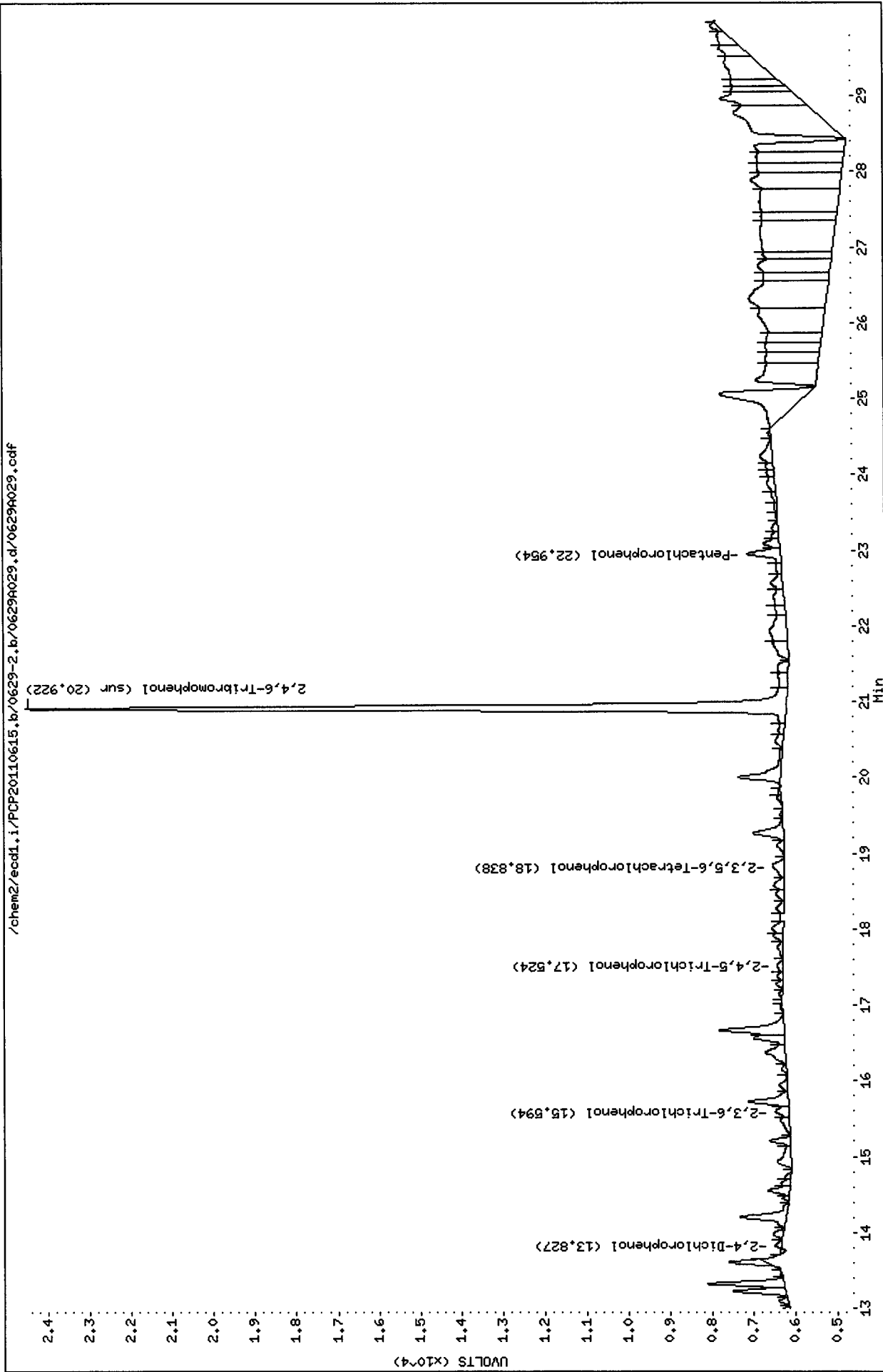
Instrument: eod1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/eod1.i/PCP20110615.b/0629-2.b/0629A029.d/0629A029.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

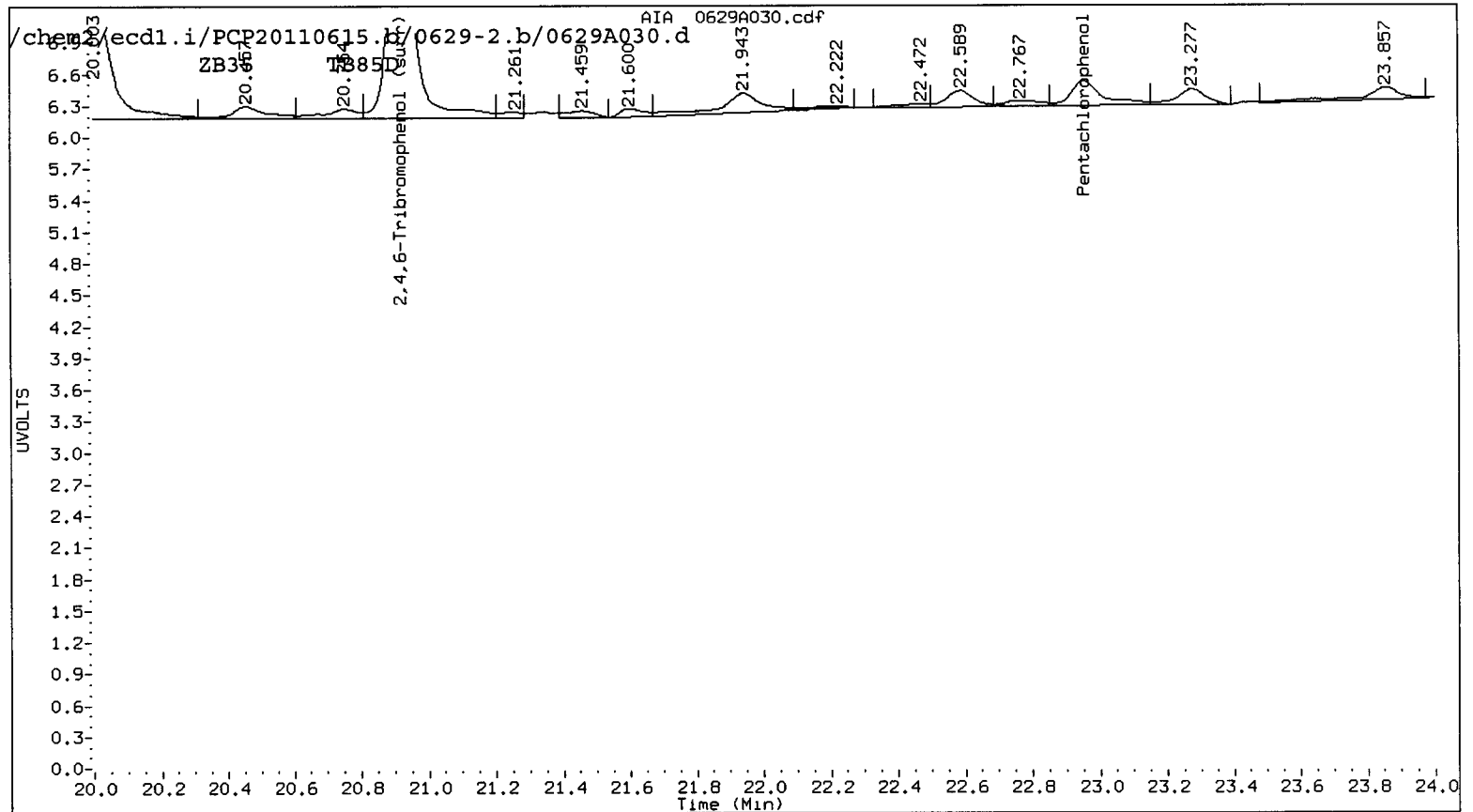
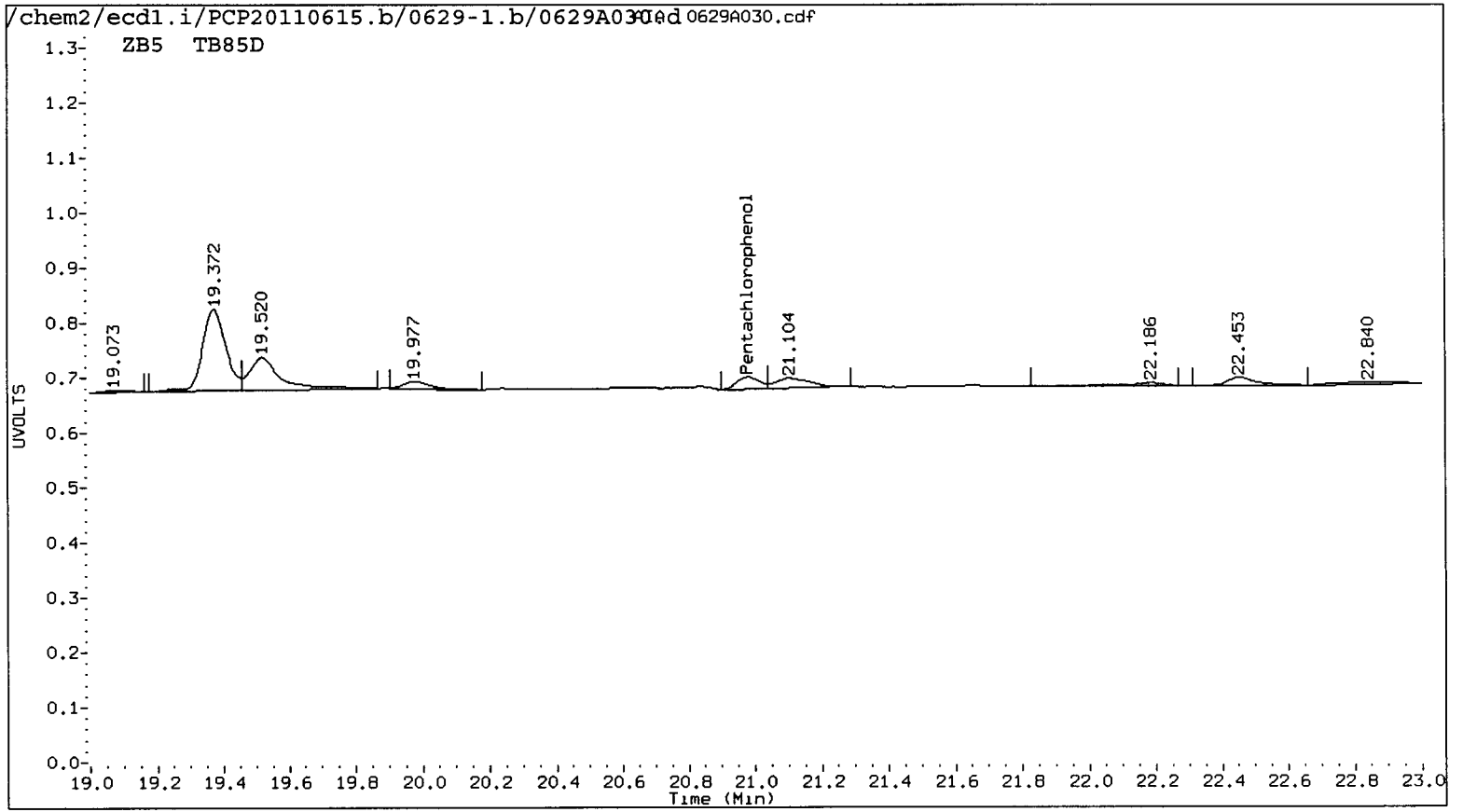
AR 6/30/2011

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A030.d ARI ID: TB85D
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A030.d Client ID: SB-01-062211-06
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 04:13
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 10.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.980	0.004	5233	22.955	0.002	7758	0.2222	0.2582	15.0	Pentachlorophenol
13.048	-0.032	3998	----			0.2840	0.0000	---	2,4,6-Trichlorophenol
----			15.603	0.060	1376	0.0000	0.0925	---	2,3,6-Trichlorophenol
15.833	0.009	1569	----			0.1973	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			18.832	0.033	3168	0.0000	0.1408	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.560	0.026	16449	----			18.1913	0.0000	---	2,4-Dichlorophenol
18.574	-0.001	45957	20.921	-0.001	59239	2.5	2.8	10.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	99.7	110.4



TB85: 00236

Data File: /chem2/ecd1.i/PCP20110615.b/0629-1.b/0629A030.d

Date : 30-JUN-2011 04:13

Client ID: SB-01-062211-06

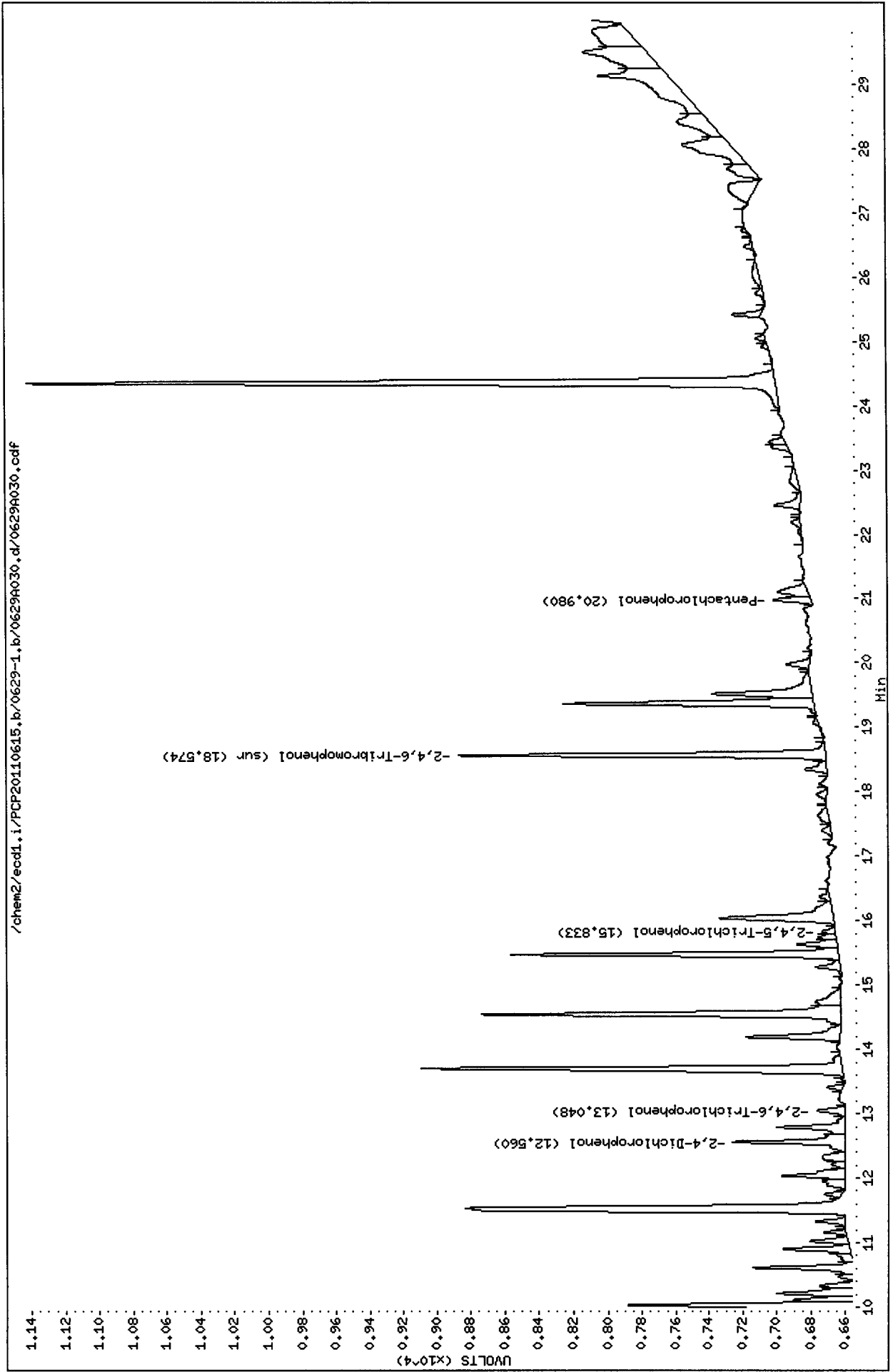
Sample Info: TB85D,,,10

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A030.d

Date : 30-JUN-2011 04:13

Client ID: SB-01-062211-06

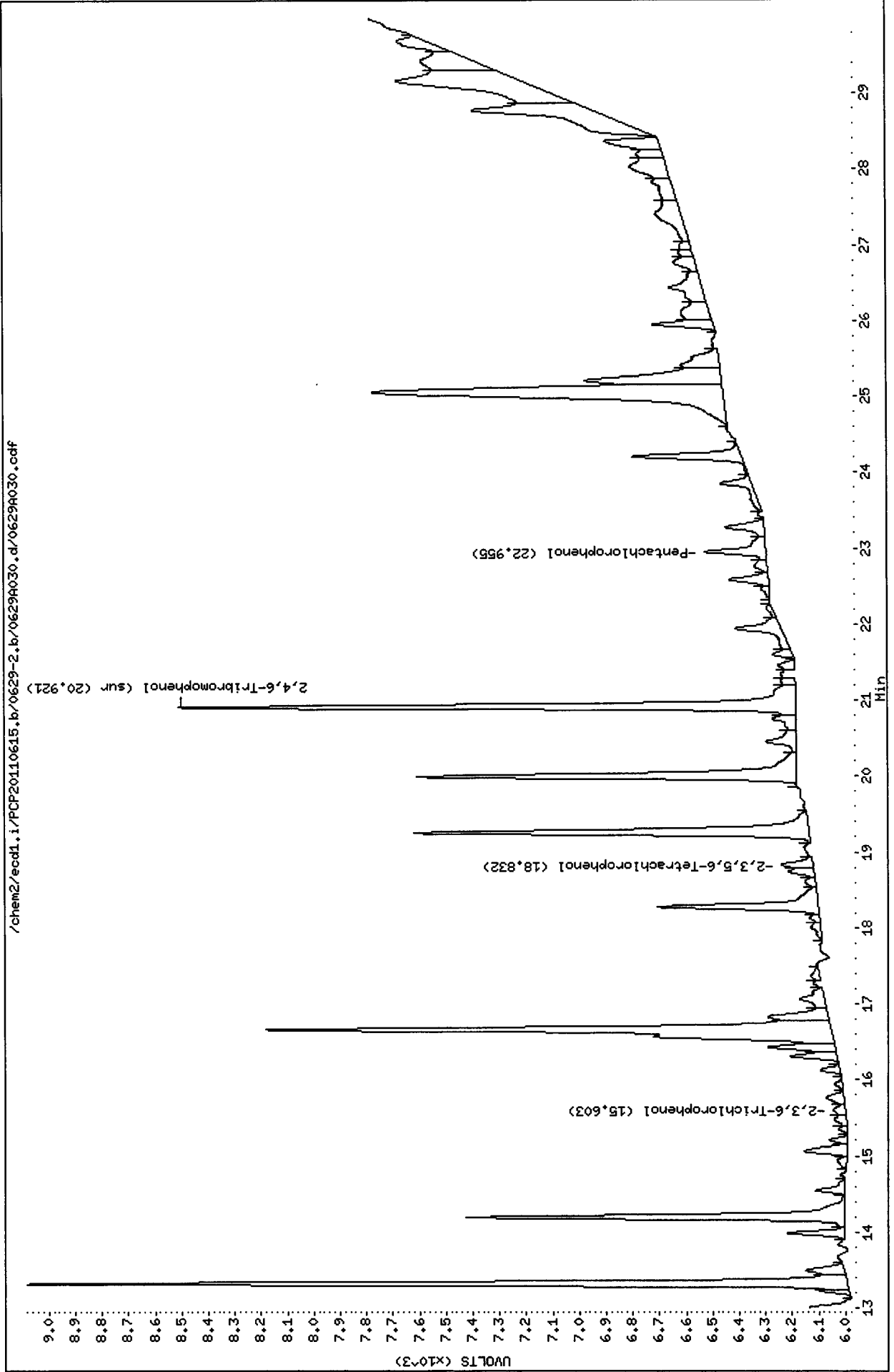
Sample Info: TB85D,,10

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

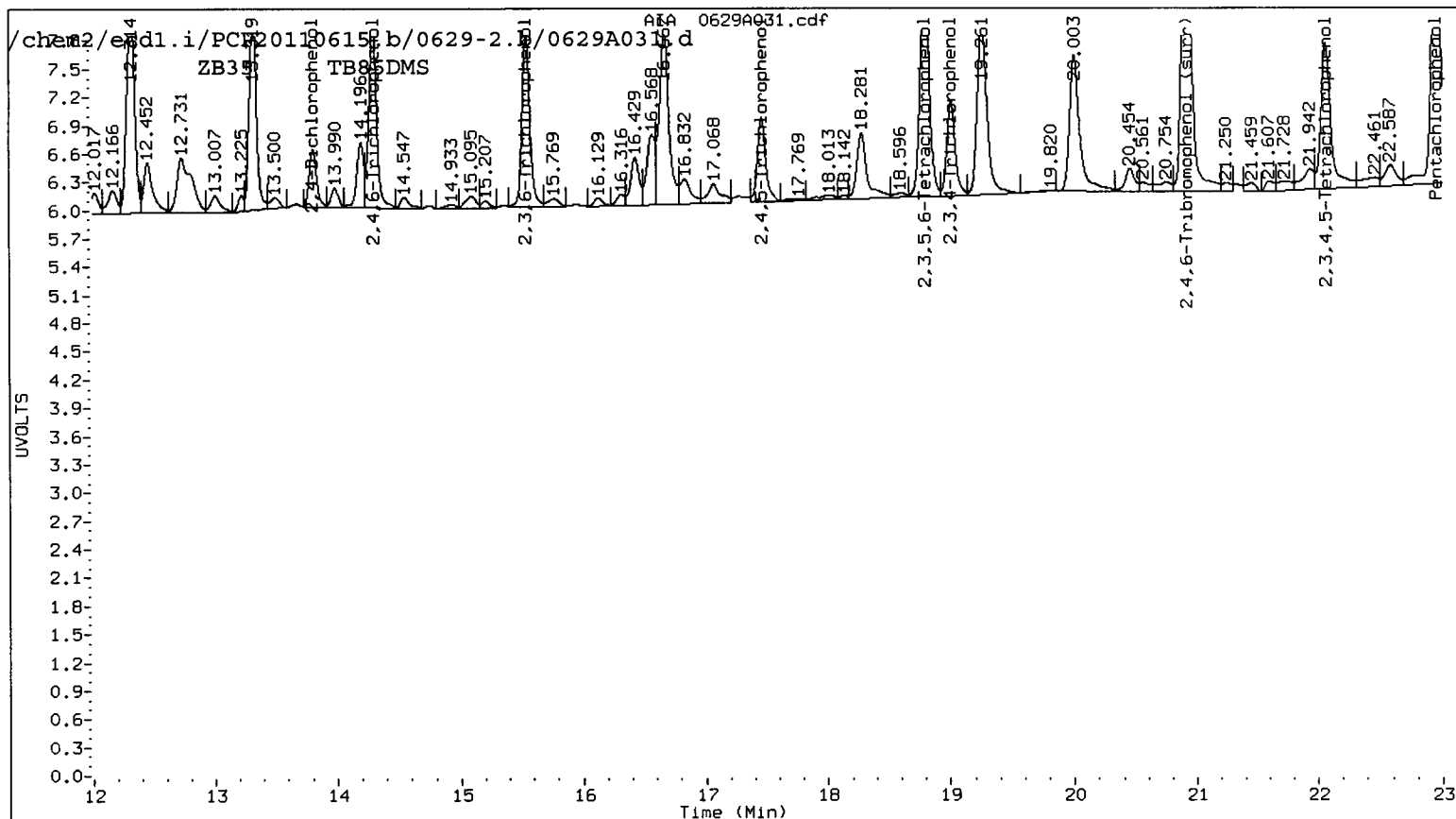
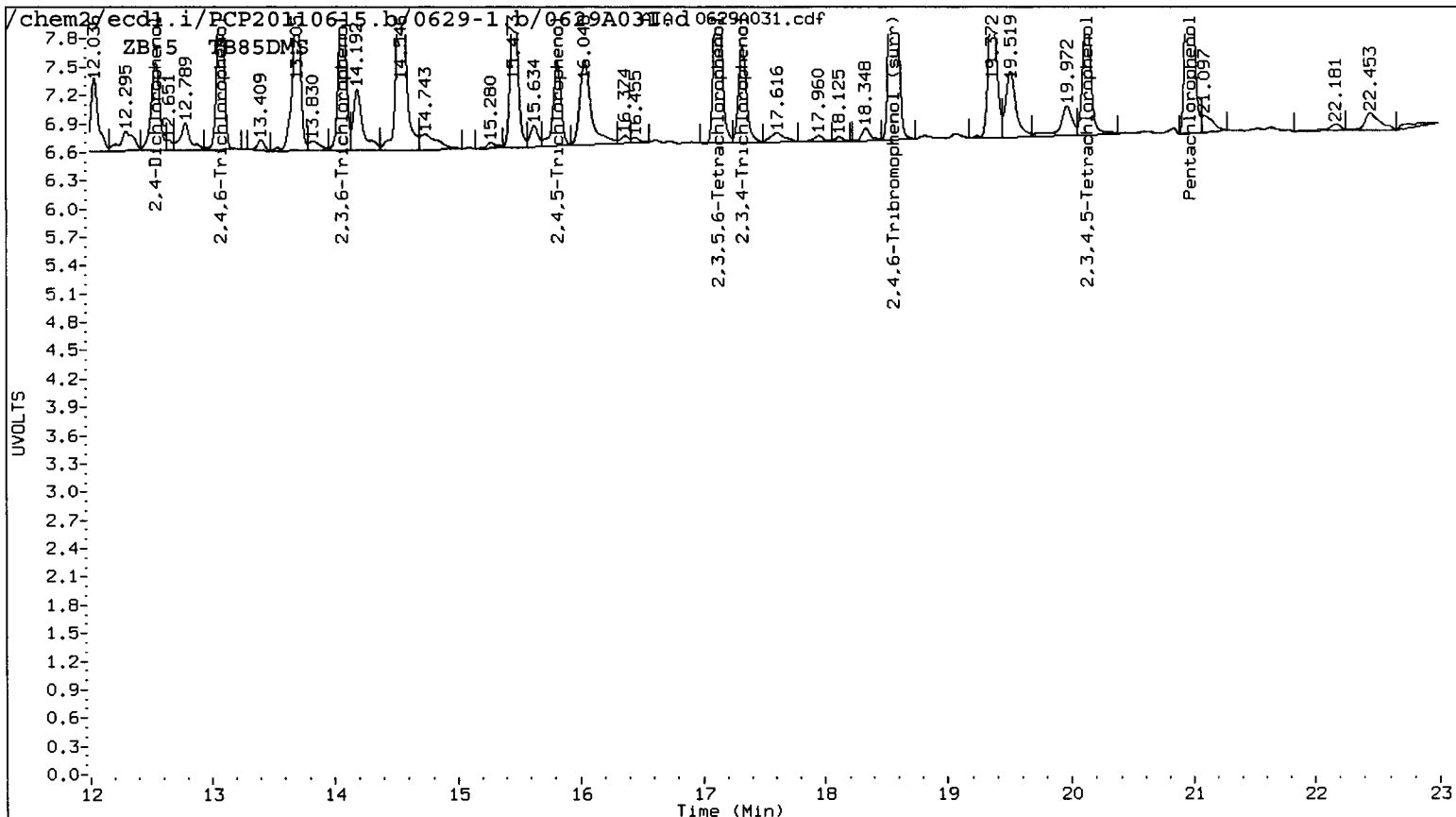
AR 6/30/2011

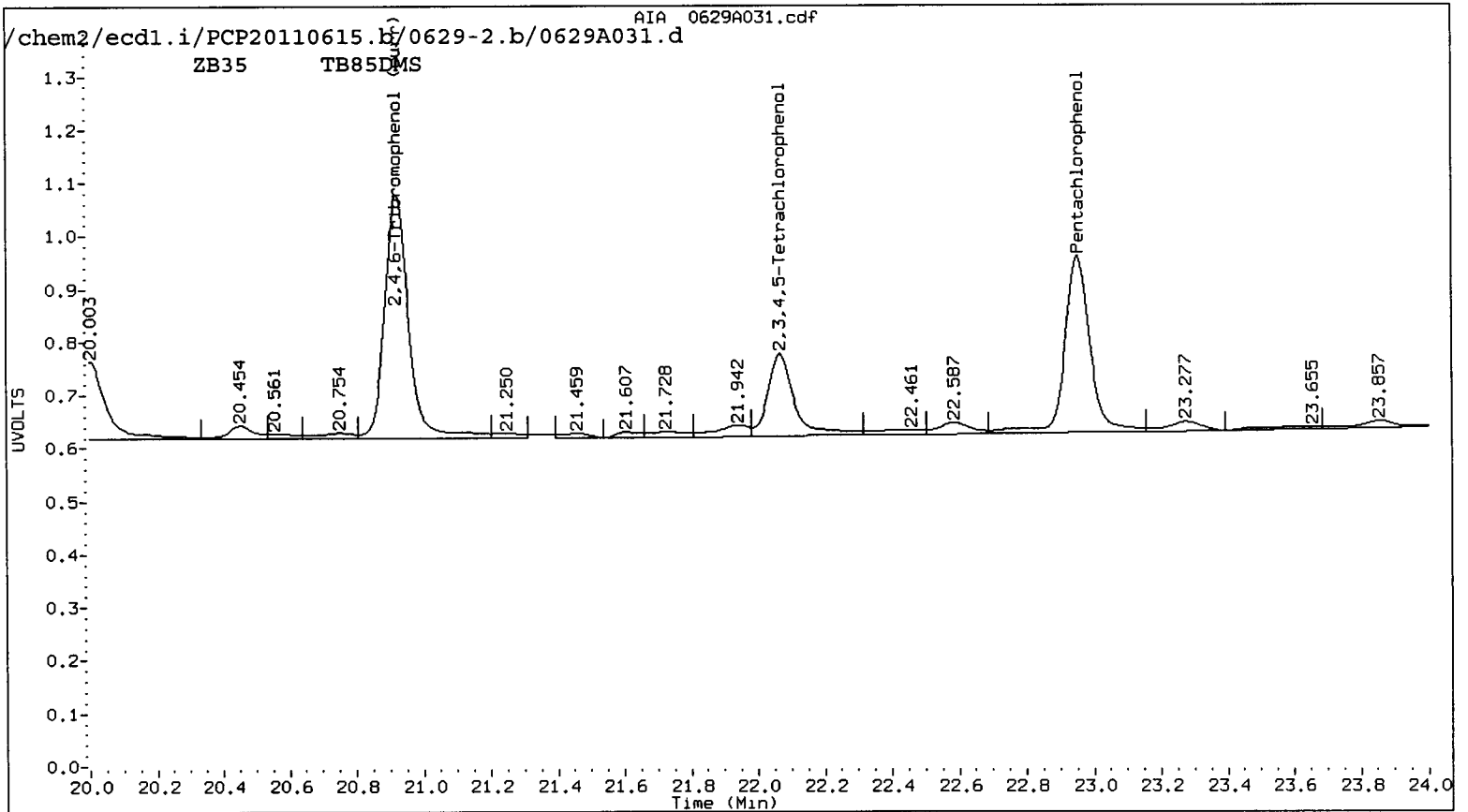
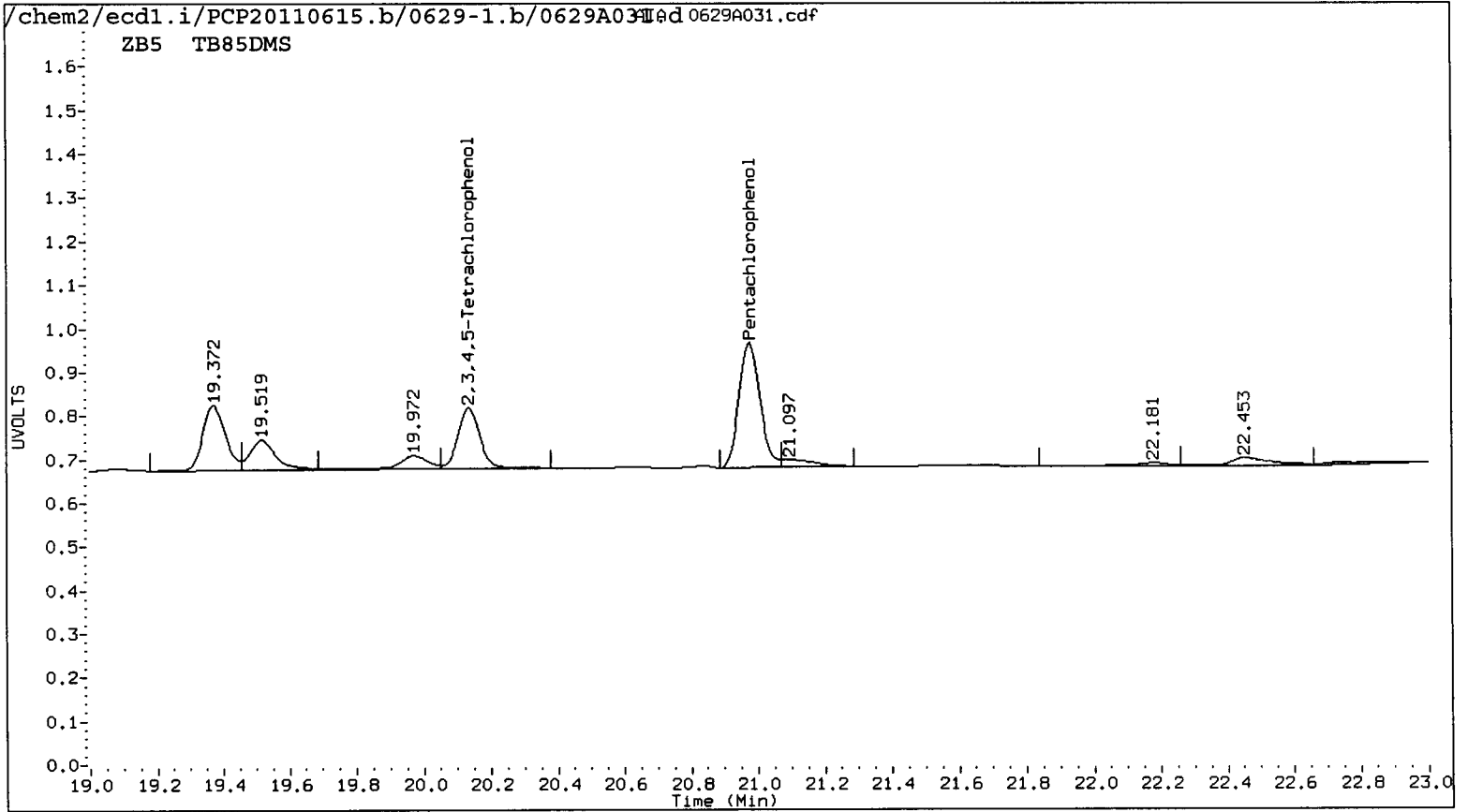
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A031.d ARI ID: TB85DMS
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A031.d Client ID: SB-01-062211-06 MS
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 04:49
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 10.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.000	63437	22.953	0.000	87869	2.6937	2.9242	8.2	Pentachlorophenol
13.078	-0.002	39302	14.295	-0.001	43445	2.7911	2.9350	5.0	2,4,6-Trichlorophenol
14.074	-0.001	38303	15.541	-0.001	41871	2.9325	2.8125	4.2	2,3,6-Trichlorophenol
15.825	0.000	20151	17.461	0.000	21847	2.5337	2.5674	1.3	2,4,5-Trichlorophenol
17.331	0.001	22774	19.011	0.001	24420	2.3668	2.4067	1.7	2,3,4-Trichlorophenol
17.130	-0.001	49586	18.799	0.000	63725	2.5351	2.8320	11.1	2,3,5,6-Tetrachlorophenol
20.136	0.001	32270	22.068	0.001	43394	2.1849	2.5580	15.7	2,3,4,5-Tetrachlorophenol
12.544	0.010	22416	13.808	0.002	13043	24.9723	14.6259	52.3*	2,4-Dichlorophenol
18.573	-0.001	89393	20.921	-0.001	114831	4.8	5.4	9.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	107.7	117.0
2,4,6-Trichlorophenol	111.6	117.4
2,3,6-Trichlorophenol	117.3	112.5
2,4,5-Trichlorophenol	101.3	102.7
2,3,4-Trichlorophenol	94.7	96.3
2,3,5,6-Tetrachlorophenol	101.4	113.3
2,3,4,5-Tetrachlorophenol	87.4	102.3
2,4-Dichlorophenol	99.9	58.5
2,4,6-TBP (surr)	97.0	107.0





TB85 : 00241

Data File: /chem2/ecd1.i/PCP20110615.b/0629-1.b/0629A031.d

Date: 30-JUN-2011 04:49

Client ID: SB-01-062211-06 MS

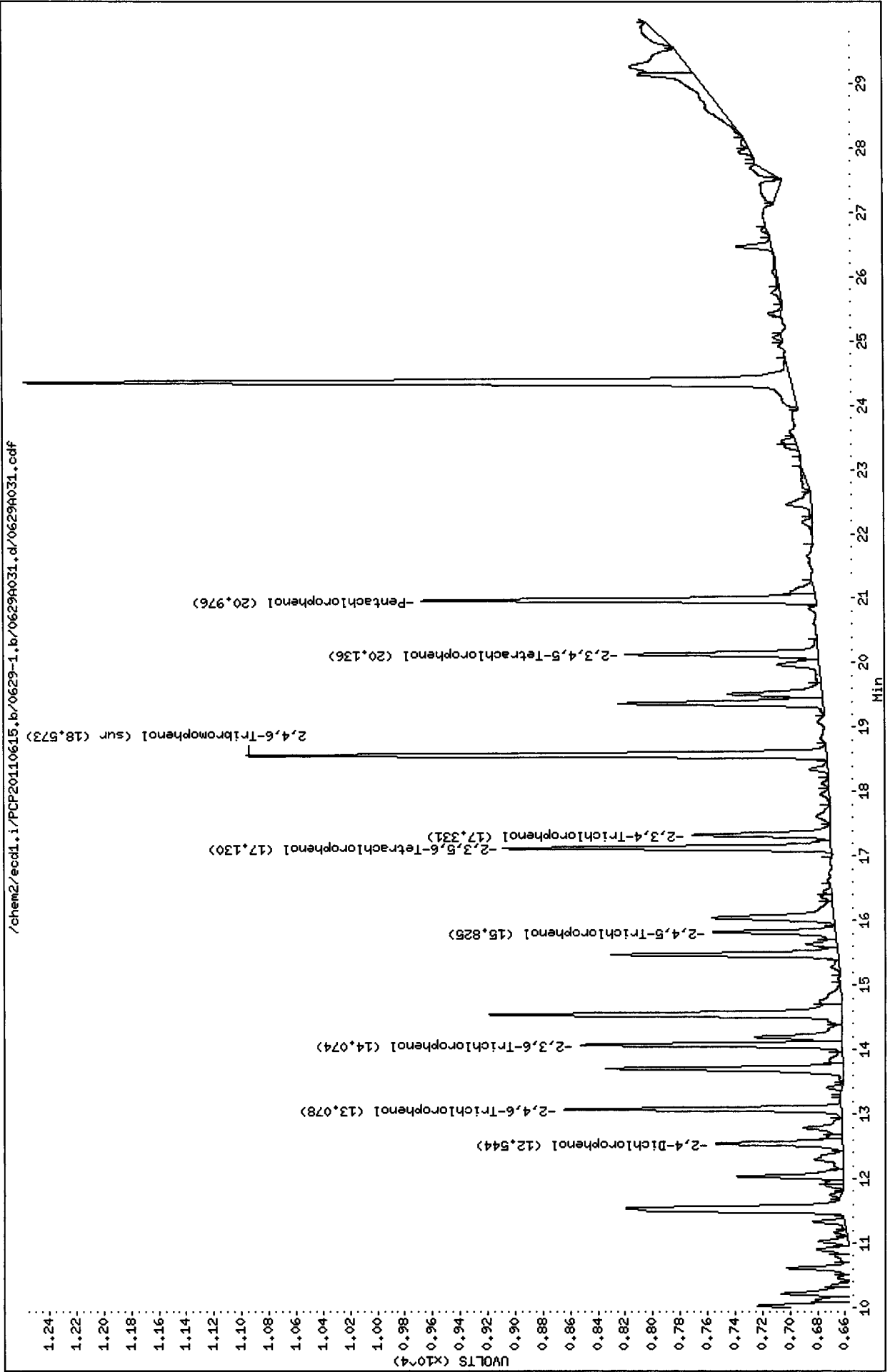
Sample Info: TB85DMS,,,10

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629A031.d

Date : 30-JUN-2011 04:49

Client ID: SB-01-062211-06 MS

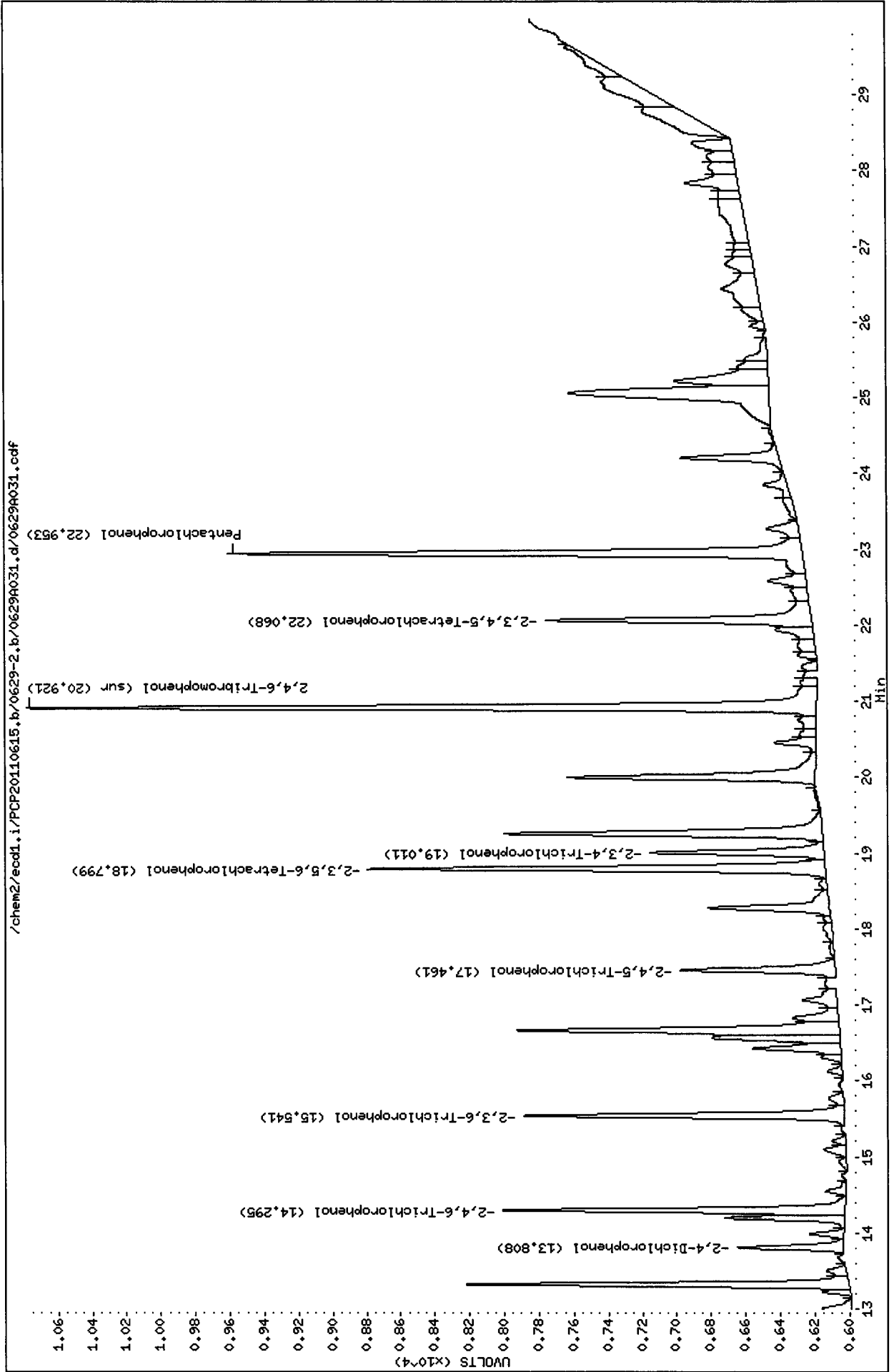
Sample Info: TB85DMS,,,10

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

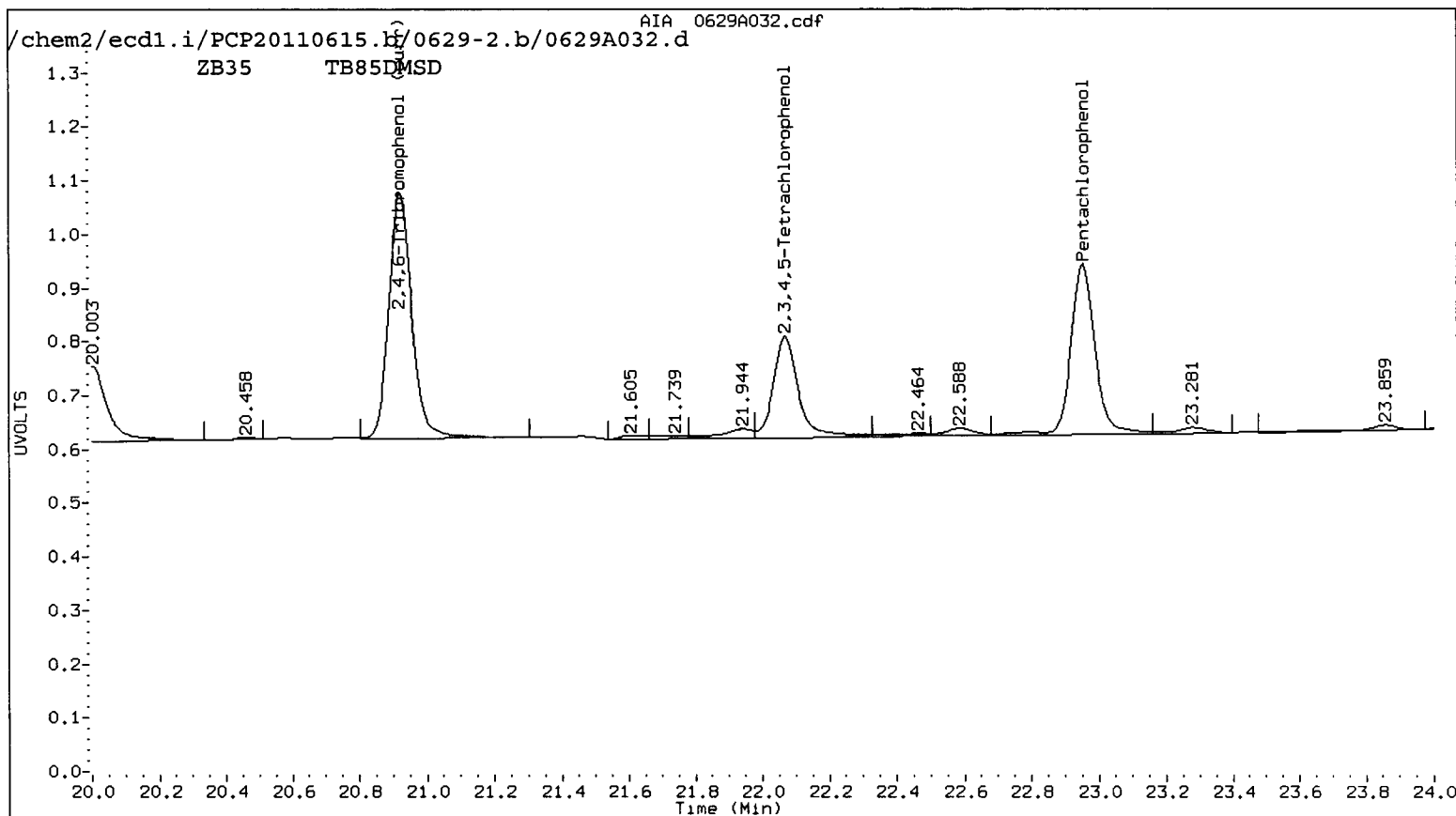
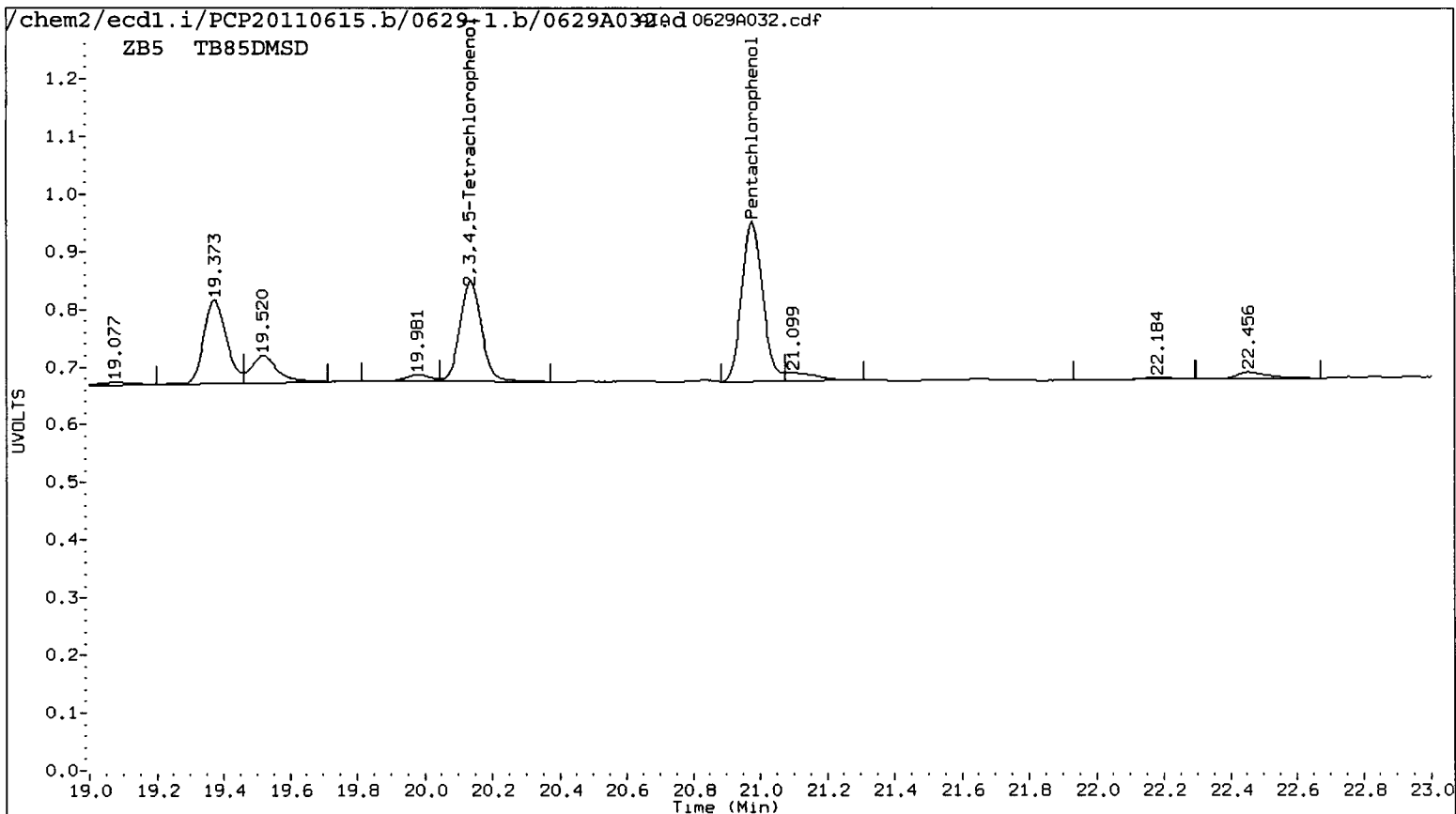
AR 6/30/2011

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A032.d ARI ID: TB85DMSD
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A032.d Client ID: SB-01-062211-06 MSD
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 05:26
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 10.000

RT	ZB-5 Col Shift Response	RT	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.977	0.002 /61031	22.953	0.000 /79537	2.5916	2.6470 /	2.1	Pentachlorophenol
13.080	0.000 39619	14.296	0.001 43826	2.8135	2.9607	5.1	2,4,6-Trichlorophenol
14.075	0.001 38140	15.543	0.001 41907	2.9200	2.8149	3.7	2,3,6-Trichlorophenol
15.826	0.002 23264	17.461	0.001 25238	2.9251	2.9659	1.4	2,4,5-Trichlorophenol
17.333	0.002 26509	19.011	0.001 28756	2.7550	2.8341	2.8	2,3,4-Trichlorophenol
17.131	0.000 49363	18.799	0.000 62471	2.5237	2.7763	9.5	2,3,5,6-Tetrachlorophenol
20.137	0.003 39288	22.069	0.002 49049	2.6600	2.8913	8.3	2,3,4,5-Tetrachlorophenol
12.545	0.011 /24596	13.809	0.003 /14628	27.4738	16.4382 /	50.3*	2,4-Dichlorophenol
18.574	0.000 90248	20.922	-0.001 /107325	4.9	5.0 /	2.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	103.7	105.9 /
2,4,6-Trichlorophenol	112.5	118.4
2,3,6-Trichlorophenol	116.8	112.6
2,4,5-Trichlorophenol	117.0	118.6
2,3,4-Trichlorophenol	110.2	113.4
2,3,5,6-Tetrachlorophenol	100.9	111.1
2,3,4,5-Tetrachlorophenol	106.4	115.7
2,4-Dichlorophenol	109.9	65.8 /
2,4,6-TBP (surr)	97.9	100.0

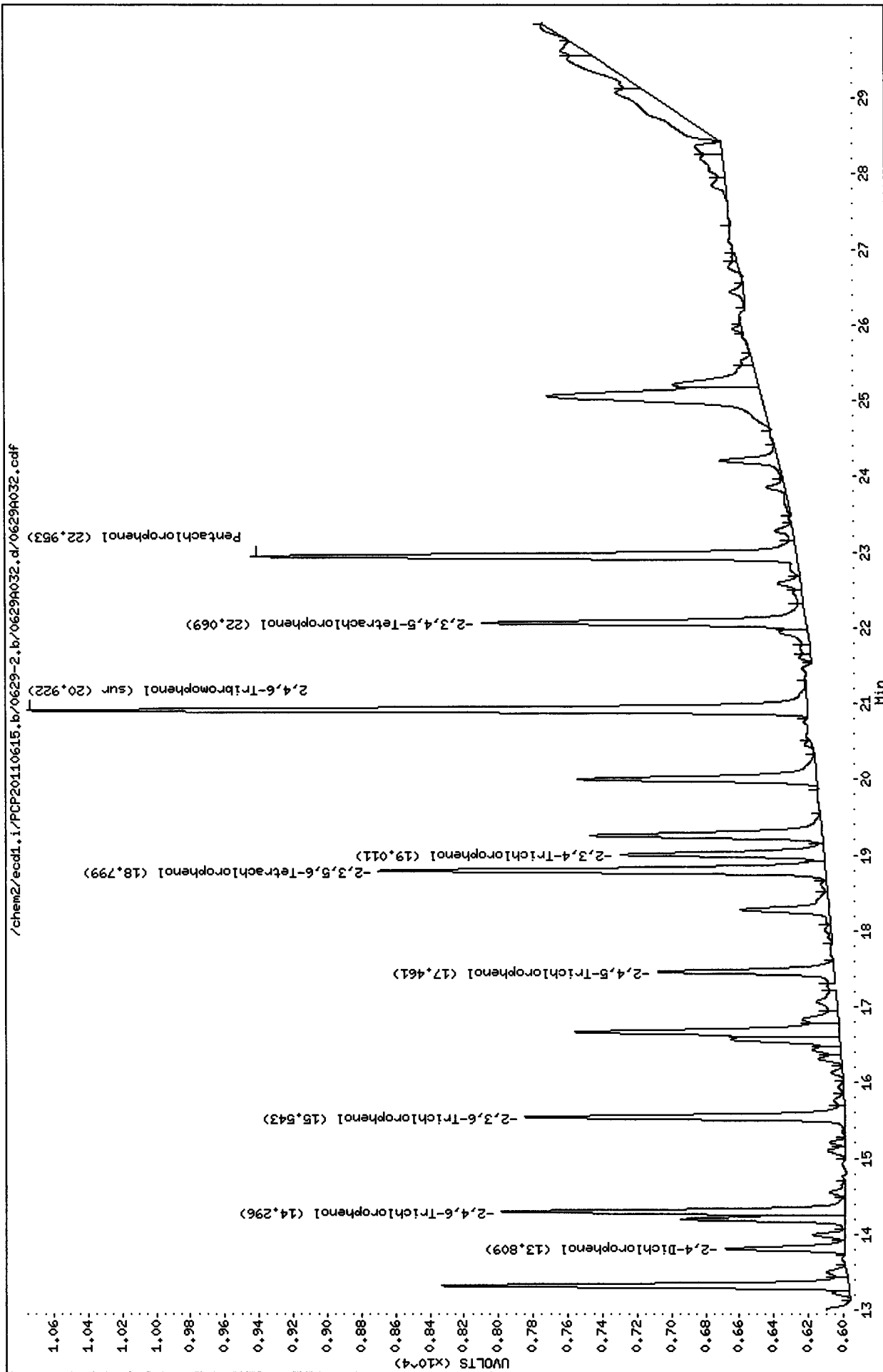


Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A032.d
Date : 30-JUN-2011 05:26
Client ID: SB-01-062211-06 MSD
Sample Info: TB85DMSD,,,10

Instrument: ecdl1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecdl1.i/PCP20110615,b/0629-1.b/0629A032.d

Date : 30-JUN-2011 05:26

Client ID: SB-01-062211-06 MSD

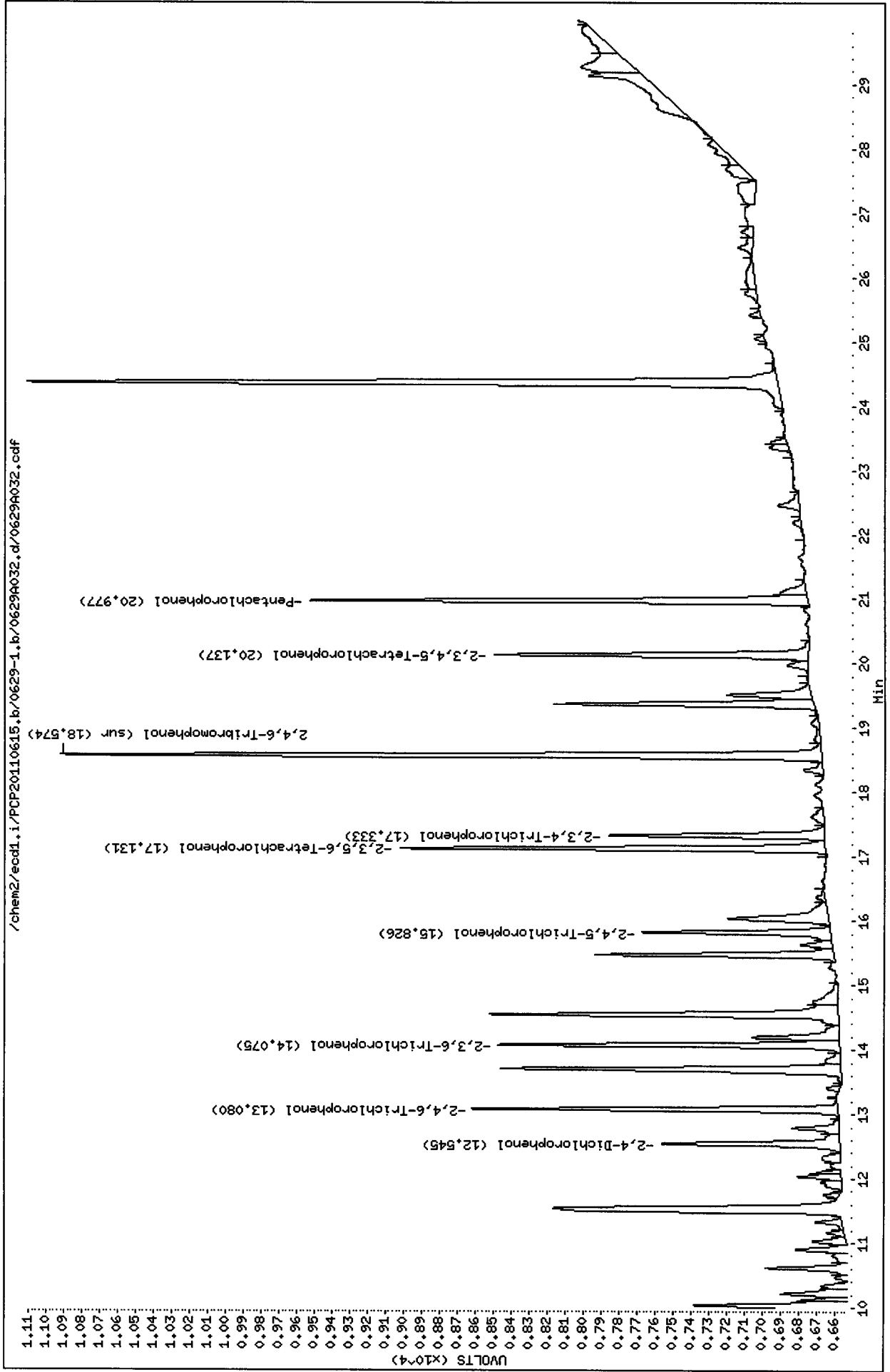
Sample Info: TB85DMSD,,,10

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



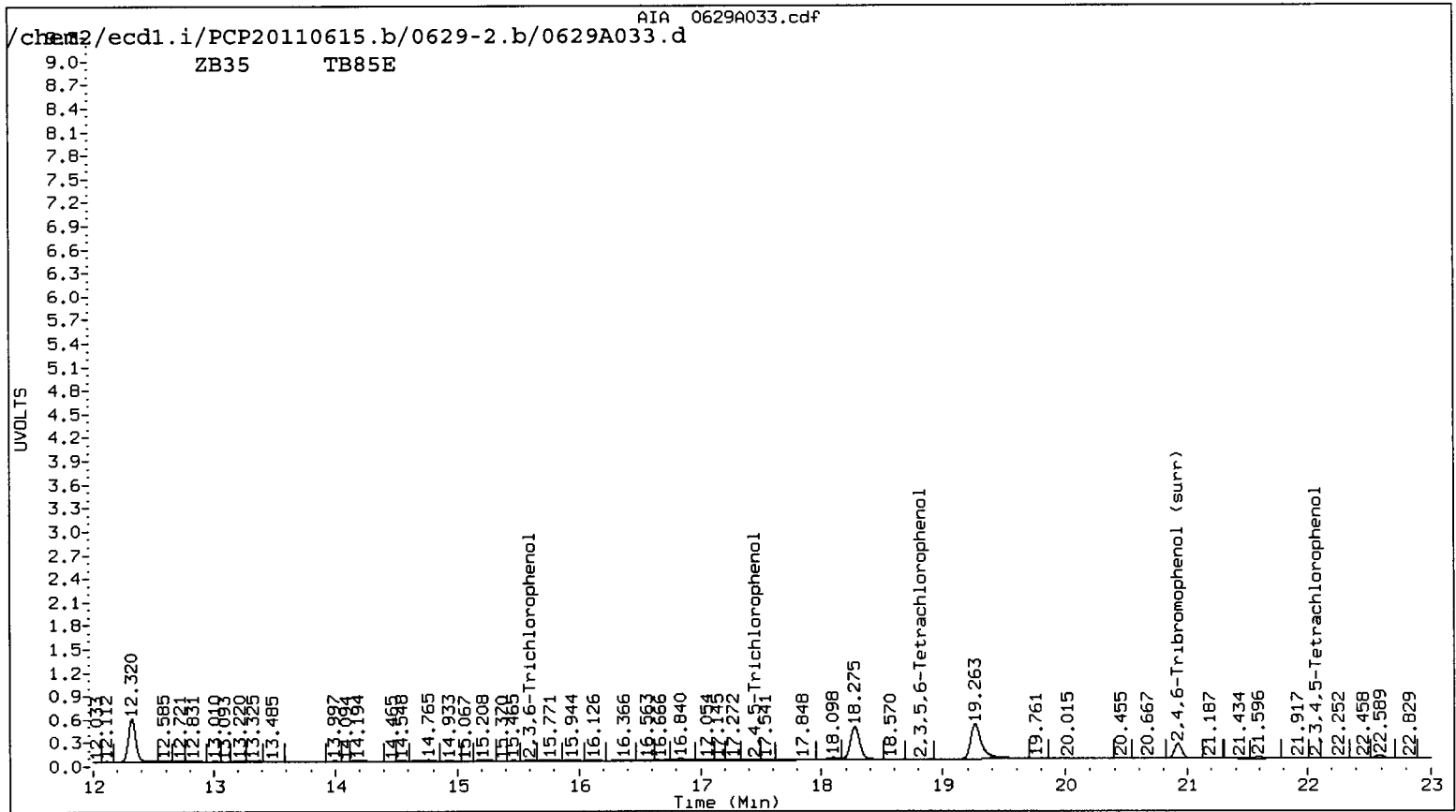
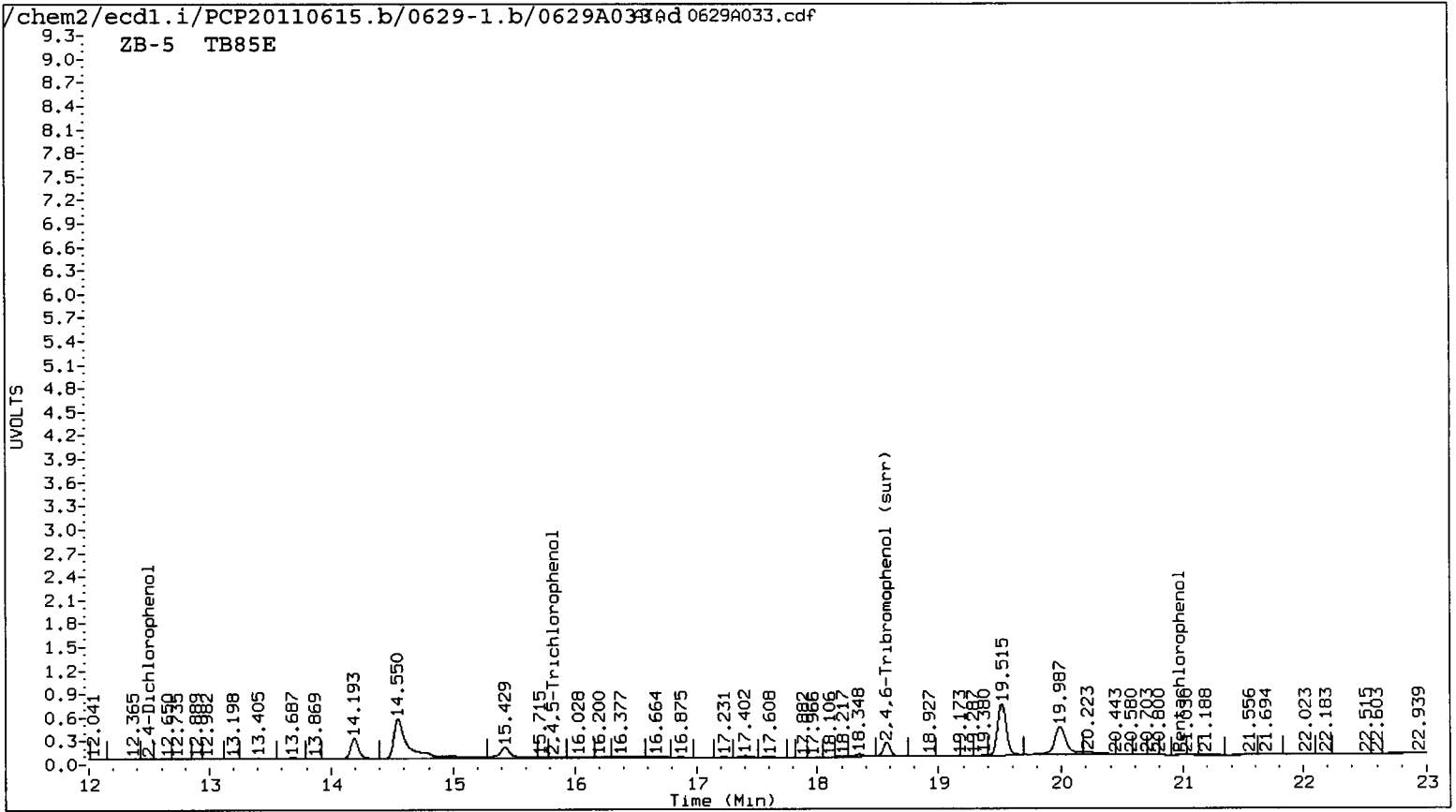
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

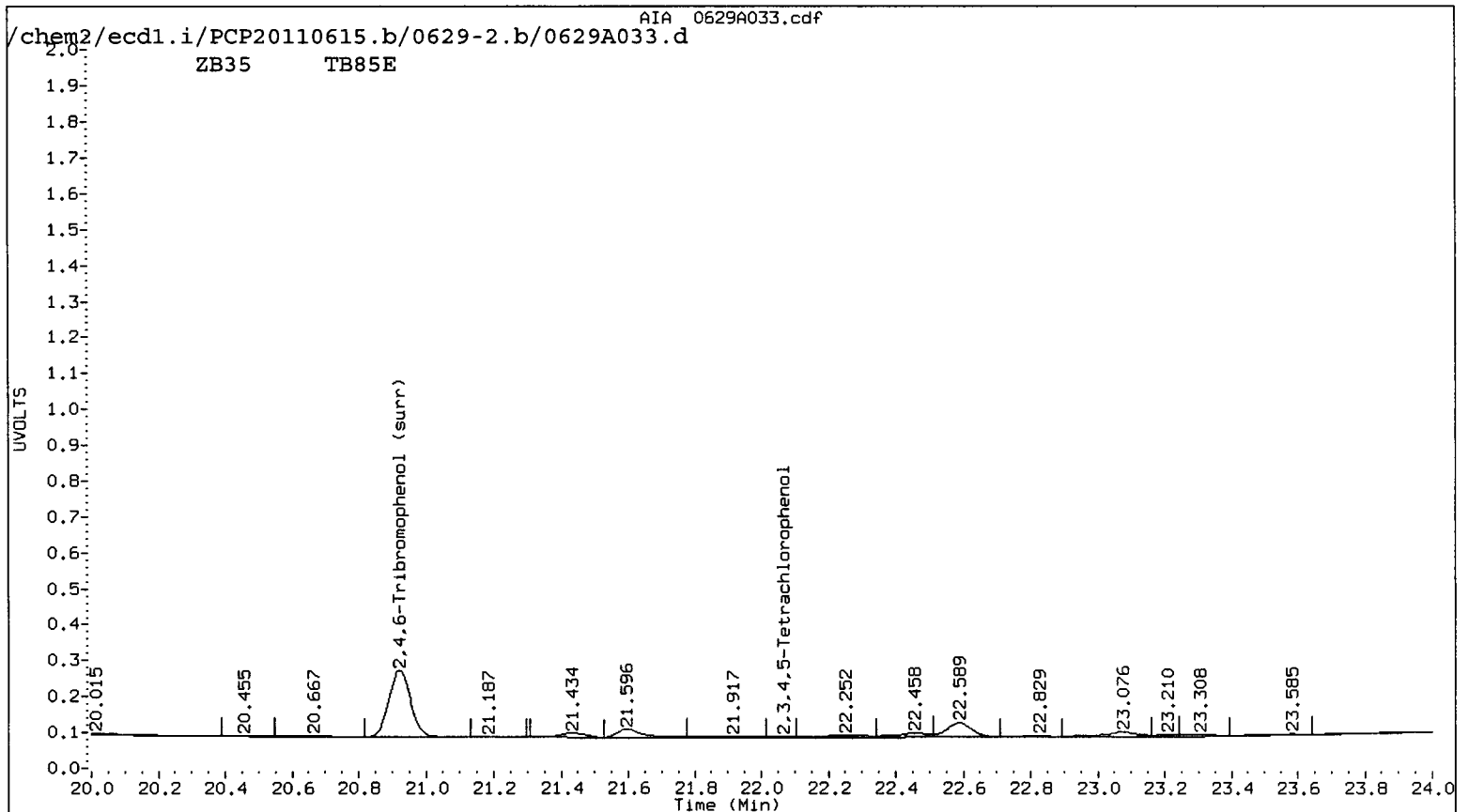
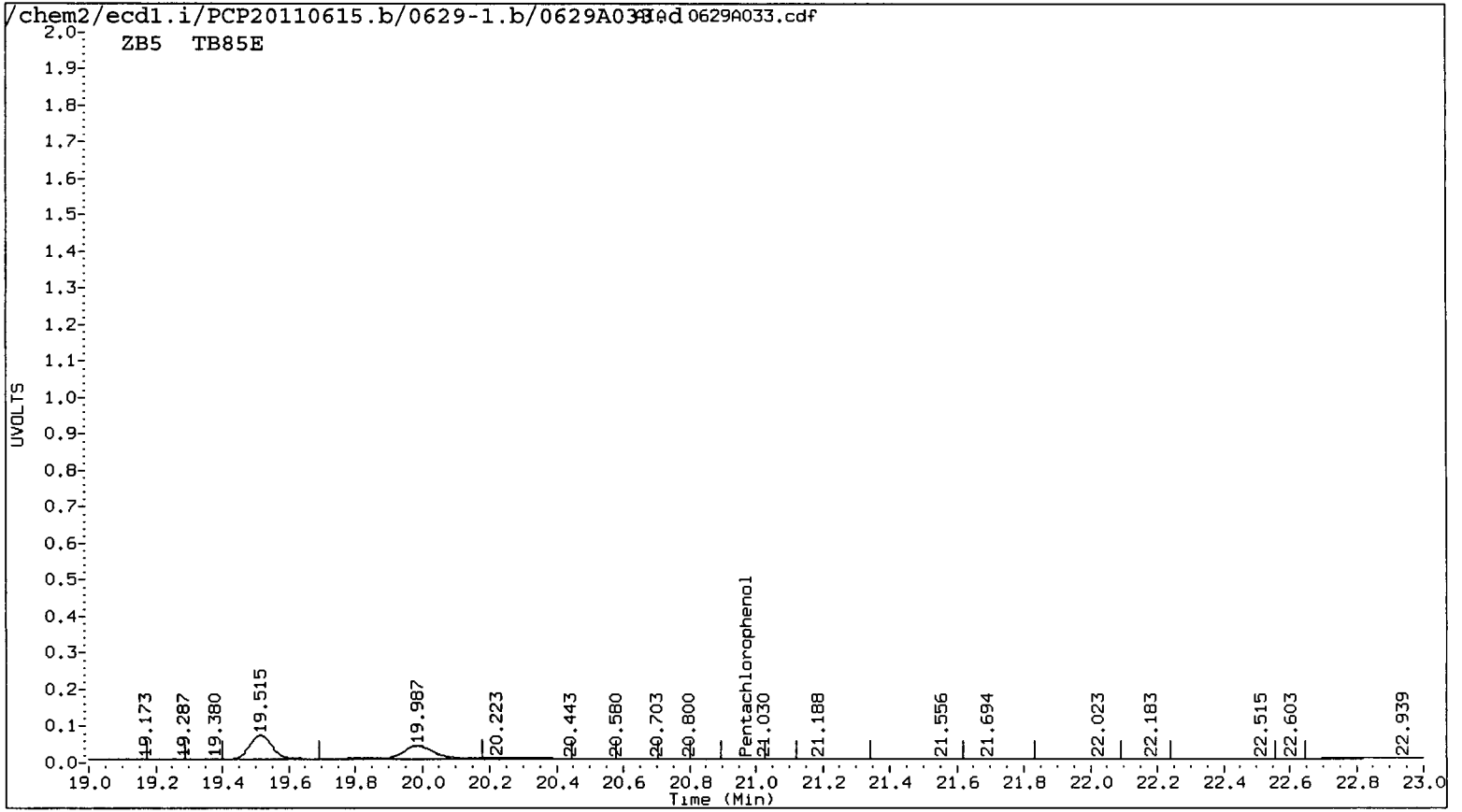
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A033.d ARI ID: TB85E
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A033.d Client ID: SB-01-062211-08
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 06:02
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
20.973	-0.002	12009	----			0.5099	0.0000	---	Pentachlorophenol
----			----			0.0000	0.0000	---	2,4,6-Trichlorophenol
----			15.595	0.053	8201	0.0000	0.5509	---	2,3,6-Trichlorophenol
15.830	0.006	52716	17.449	-0.011	11389	6.6282	1.3385	132.8*	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			18.821	0.022	10436	0.0000	0.4638	---	2,3,5,6-Tetrachlorophenol
----			22.069	0.002	7051	0.0000	0.4157	---	2,3,4,5-Tetrachlorophenol
12.495	-0.039	6474	----			7.0714	0.0000	---	2,4-Dichlorophenol
18.573	-0.001	378875	20.922	0.000	413029	20.6	19.2	6.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	82.2	77.0





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629a033.d

Date : 30-JUN-2011 06:02

Client ID: SB-01-062211-08

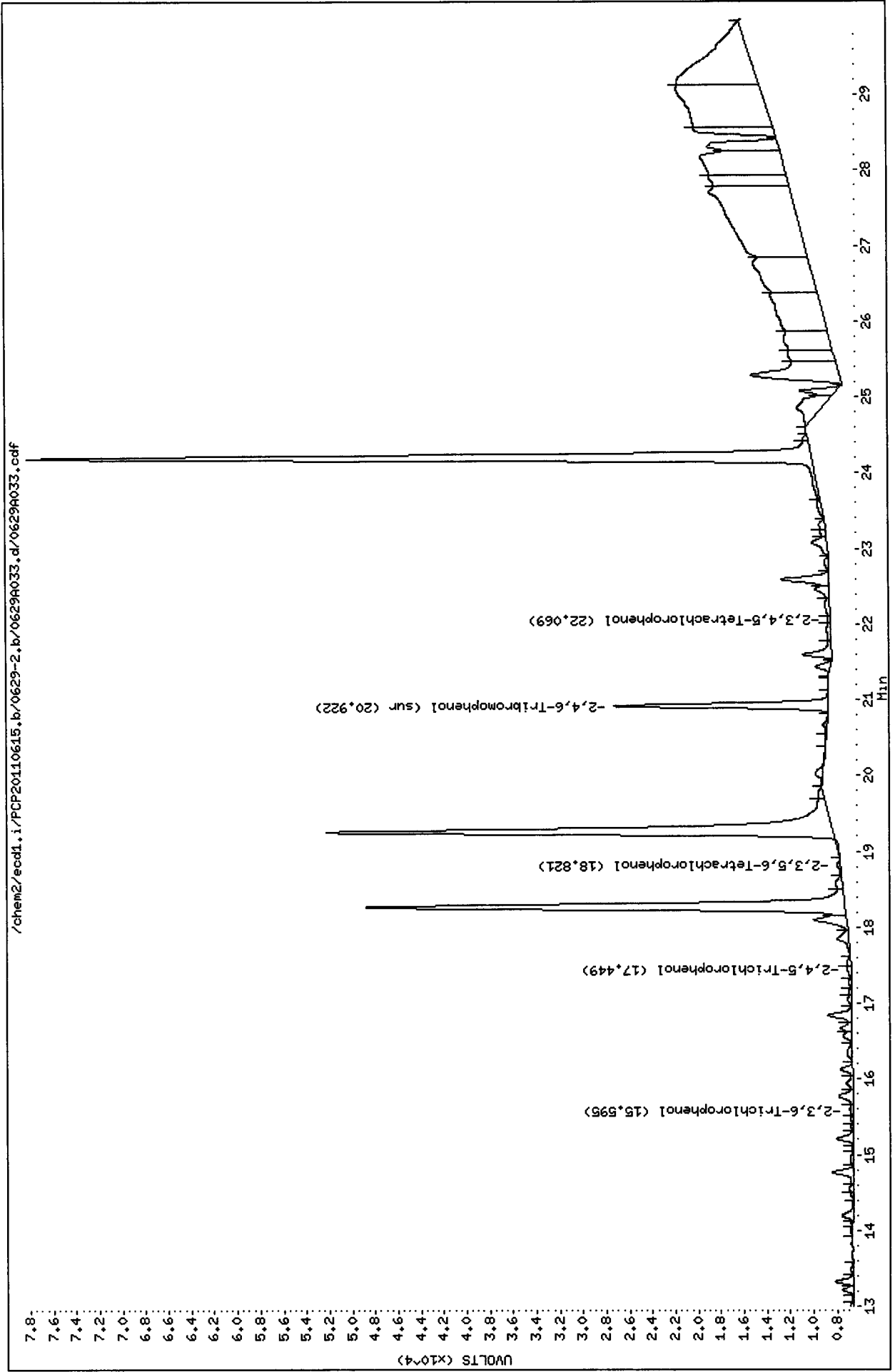
Sample Info: TB85E

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A033.d

Date : 30-JUN-2011 06:02

Client ID: SB-01-062211-08

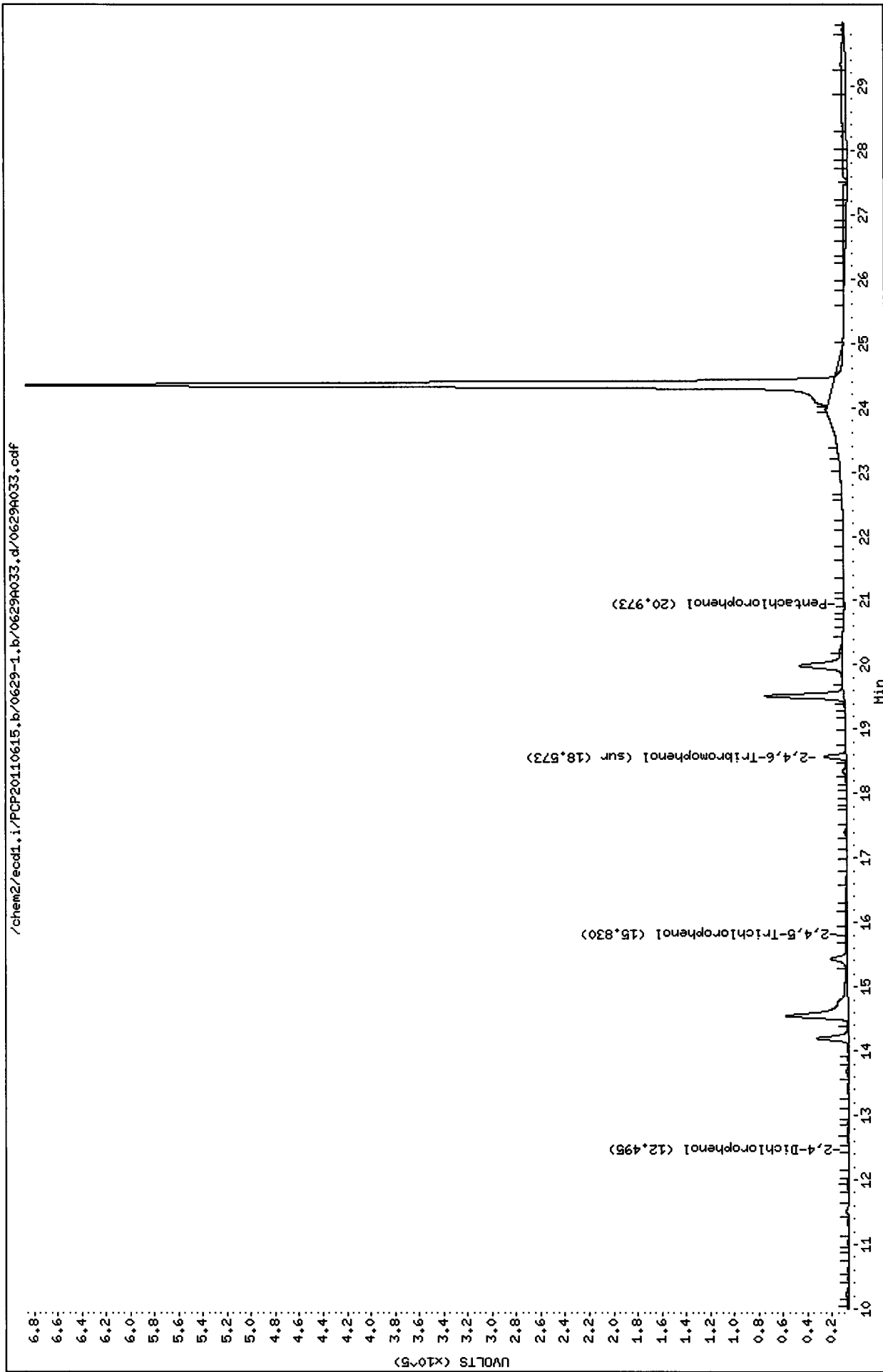
Sample Info: TB85E

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



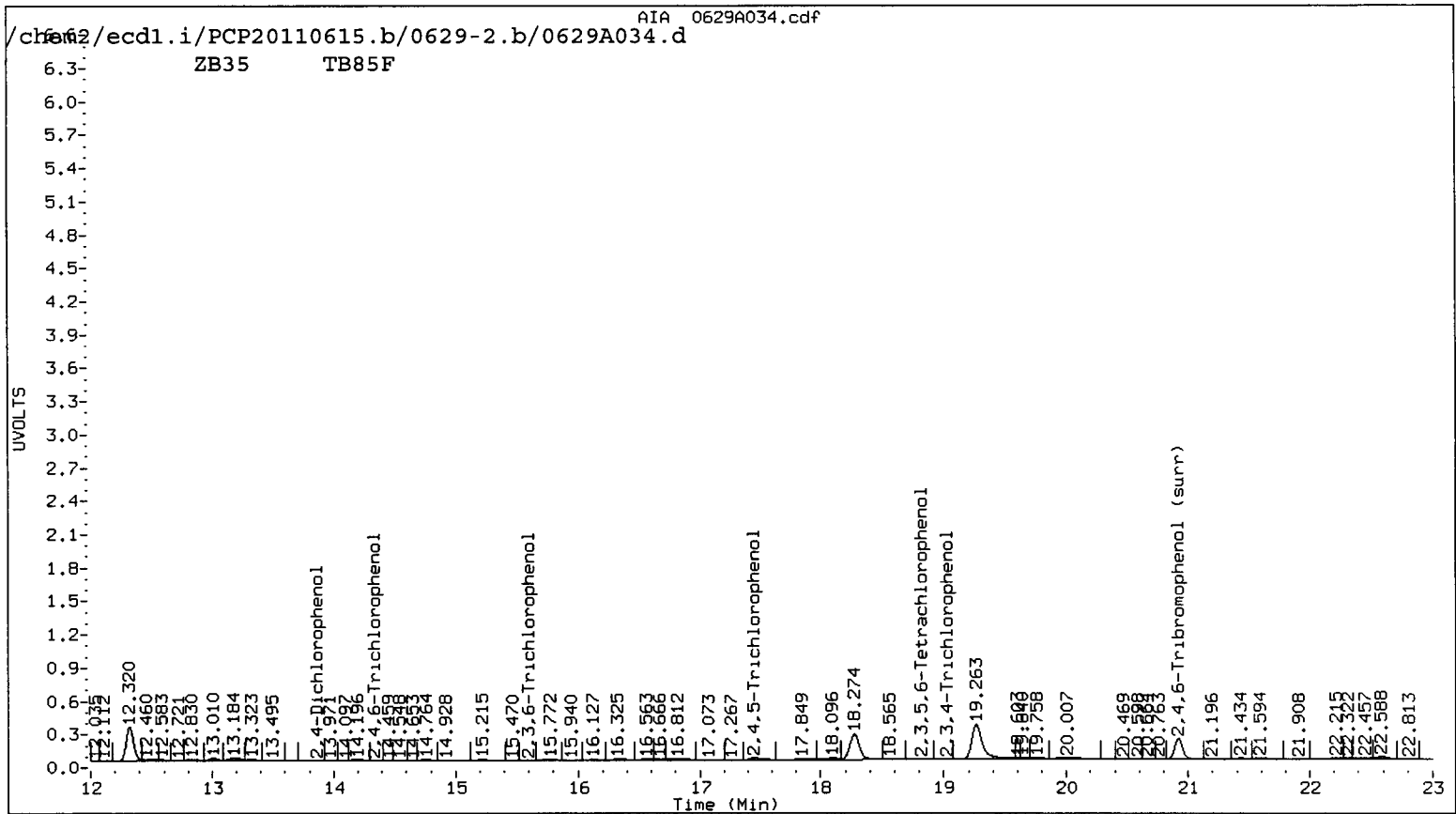
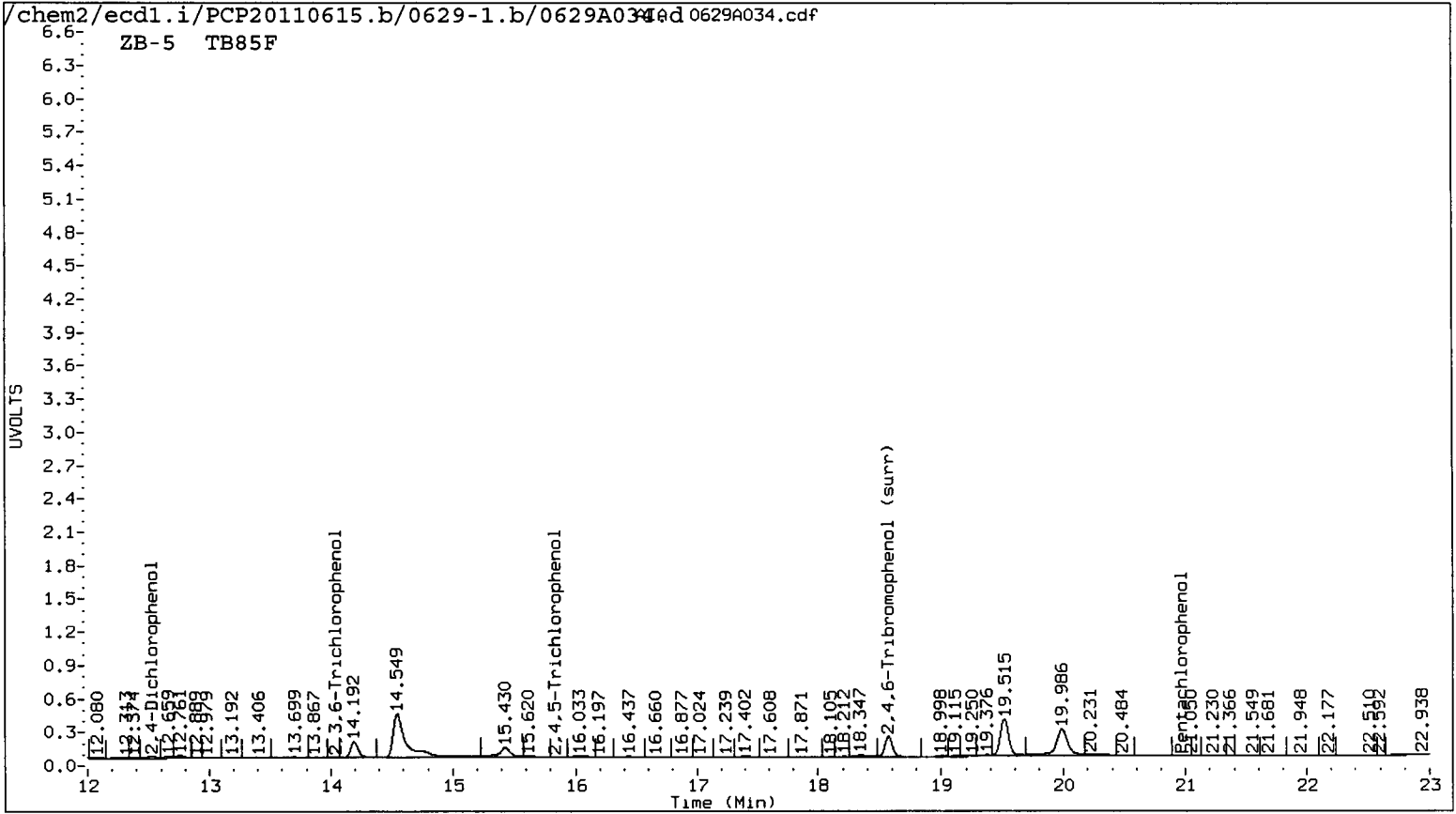
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

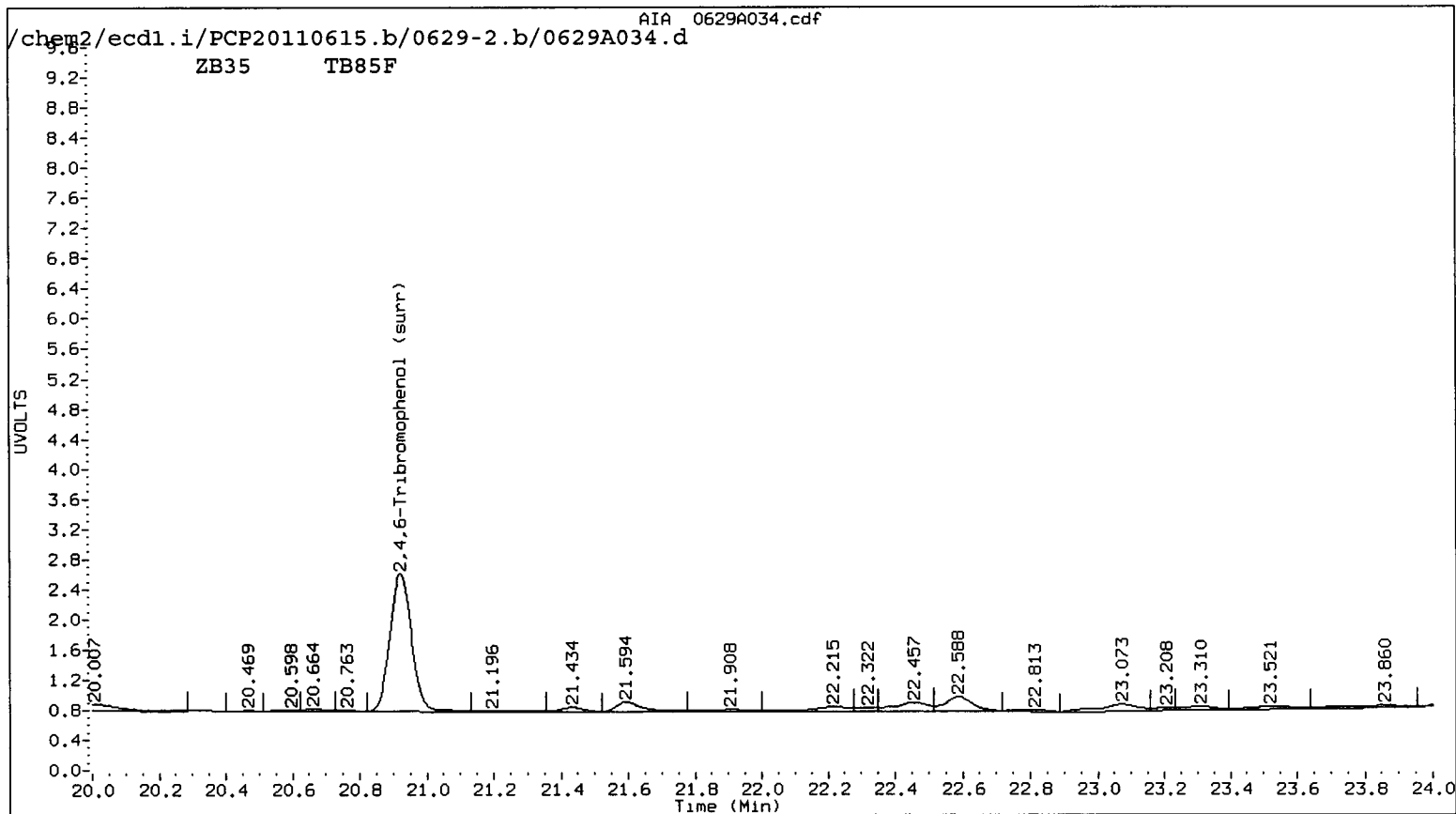
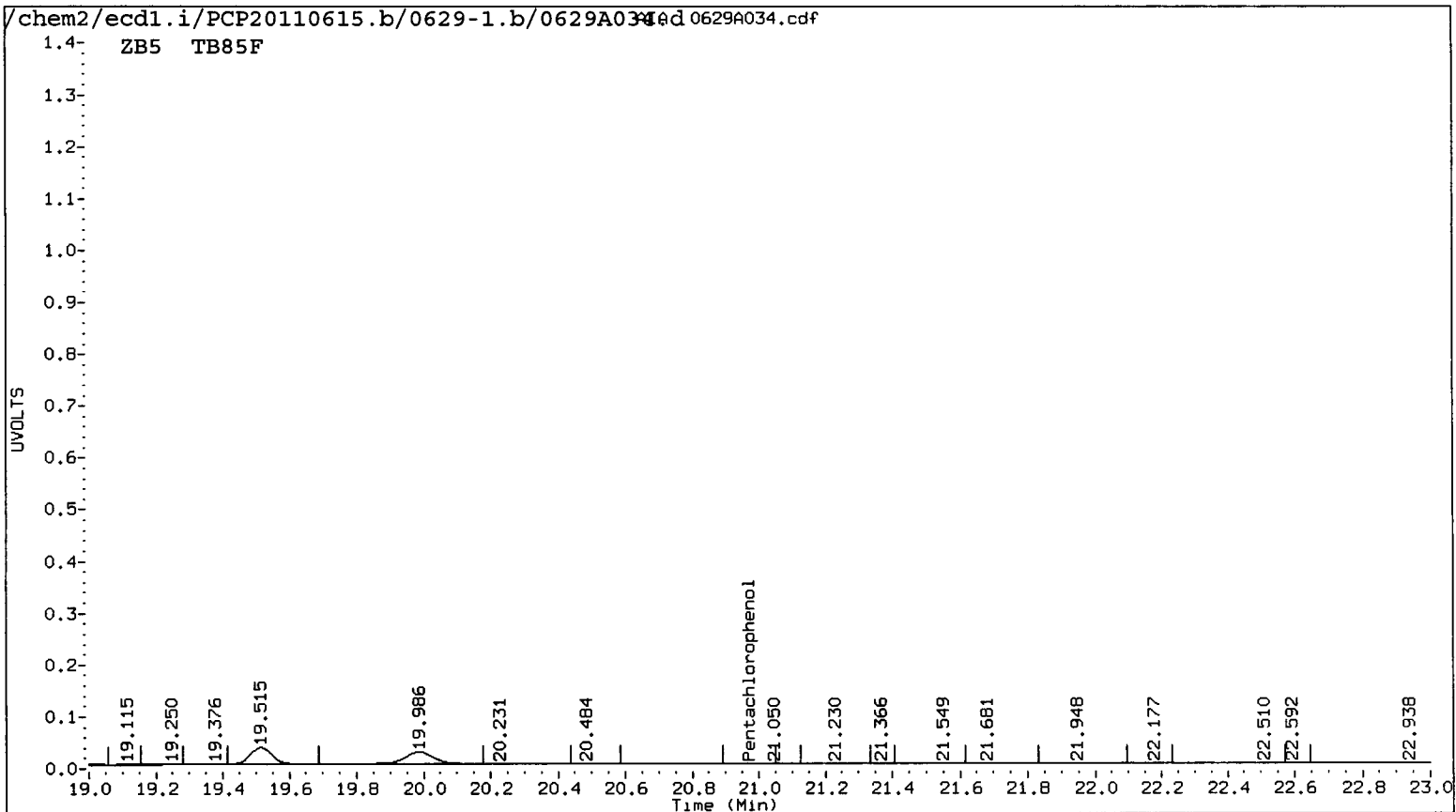
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A034.d ARI ID: TB85F
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A034.d Client ID: SB-01-062211-10
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 06:38
 Compound Sublist: all Report Date: 06/30/2011 14:07
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.973	-0.002	12052	----			0.5118	0.0000	---	Pentachlorophenol
----			14.343	0.047	3033	0.0000	0.2049	---	2,4,6-Trichlorophenol
14.038	-0.037	3337	15.595	0.052	7563	0.2555	0.5080	66.1*	2,3,6-Trichlorophenol
15.838	0.014	21245	17.453	-0.008	58164	2.6713	6.8353	87.6*	2,4,5-Trichlorophenol
----			19.024	0.014	2261	0.0000	0.2228	---	2,3,4-Trichlorophenol
----			18.815	0.016	12022	0.0000	0.5343	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.525	-0.009	38502	13.863	0.057	1927	43.7369	2.1290	181.4*	2,4-Dichlorophenol
18.574	-0.001	381078	20.922	0.000	410168	20.7	19.1	7.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	82.7	76.4





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A034.d

Date : 30-JUN-2011 06:38

Client ID: SB-01-062211-10

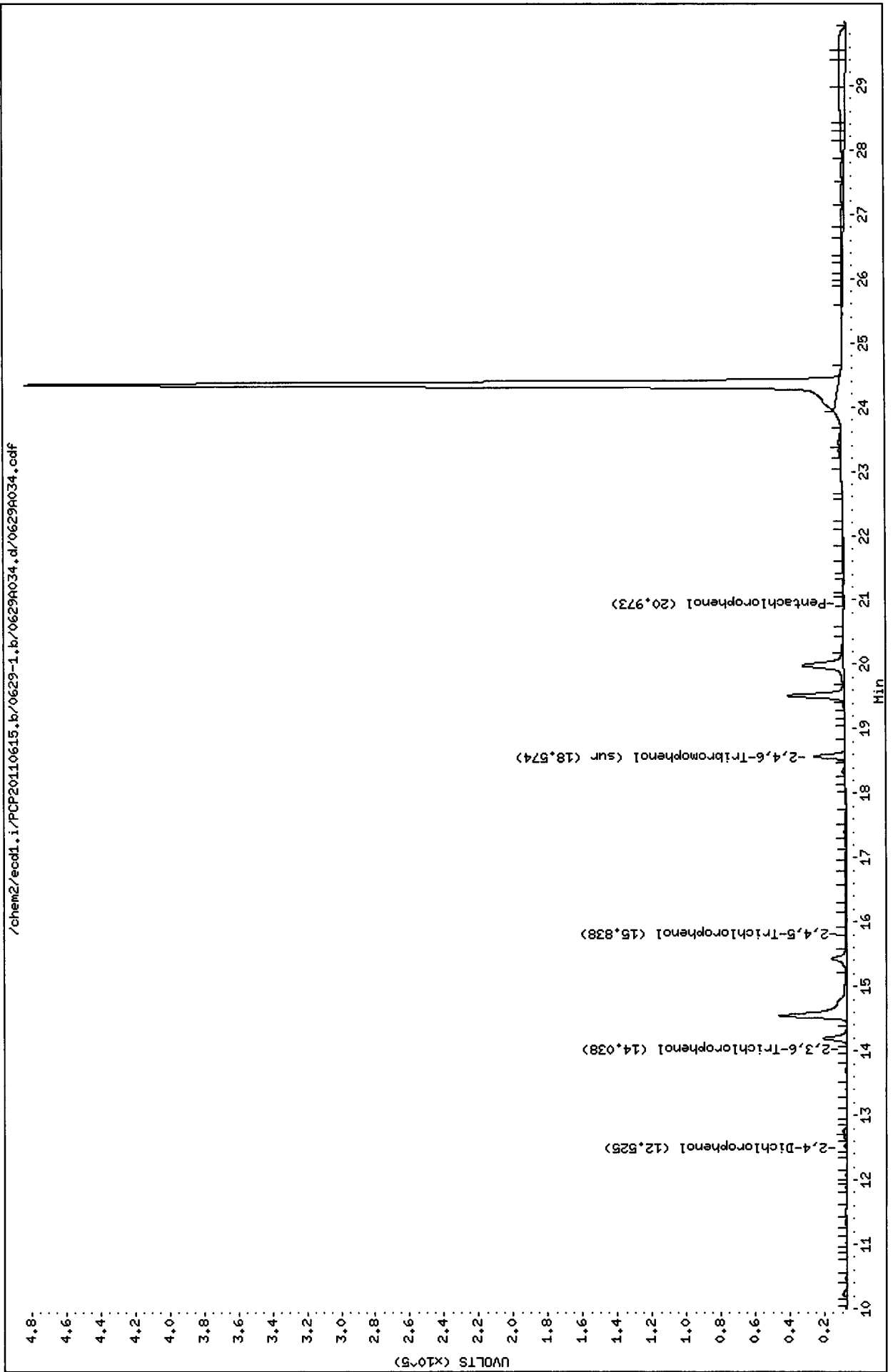
Sample Info: TB85F

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

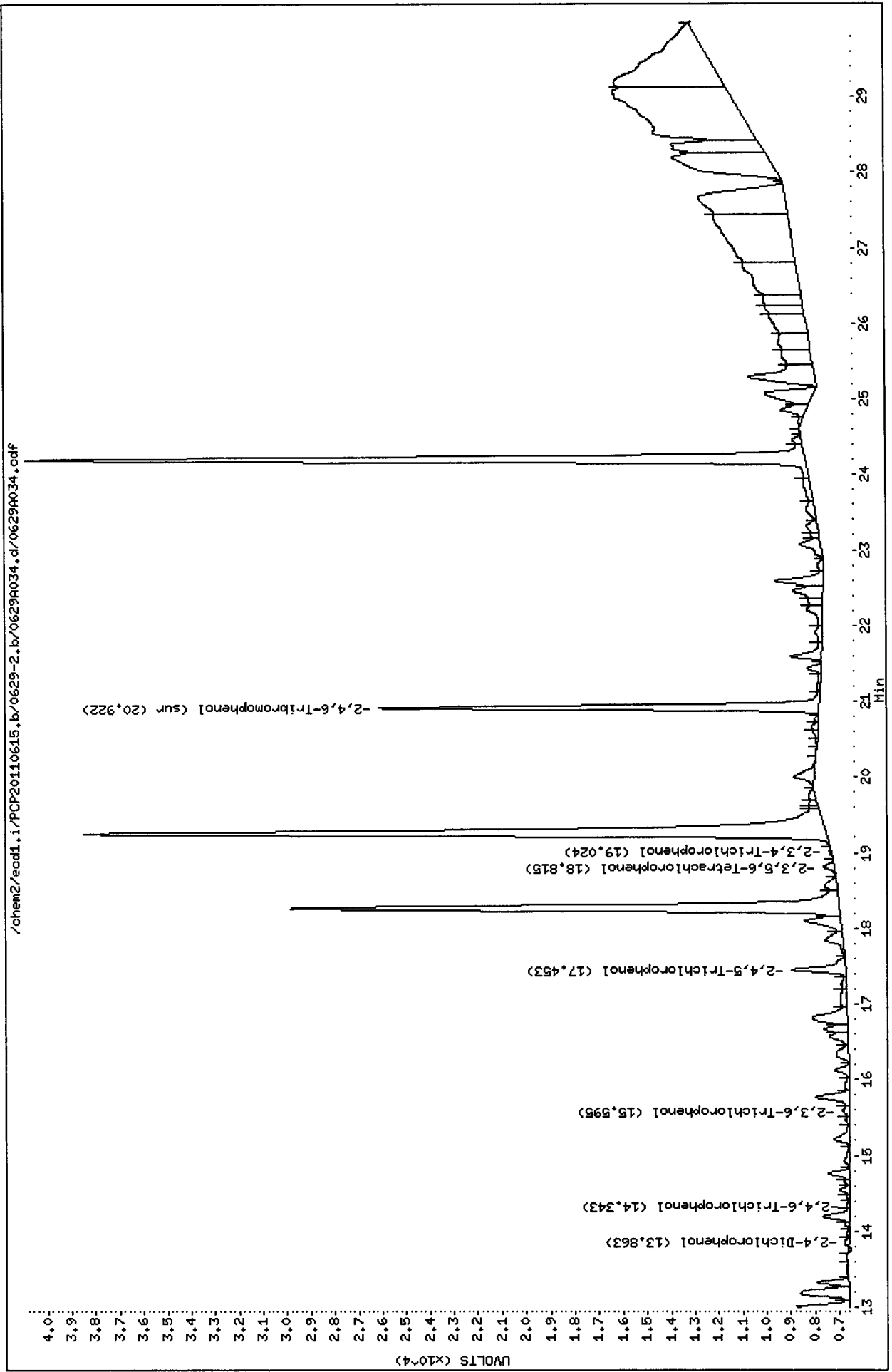


Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A034.d
Date : 30-JUN-2011 06:38
Client ID: SB-01-062211-10
Sample Info: TB85F

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2



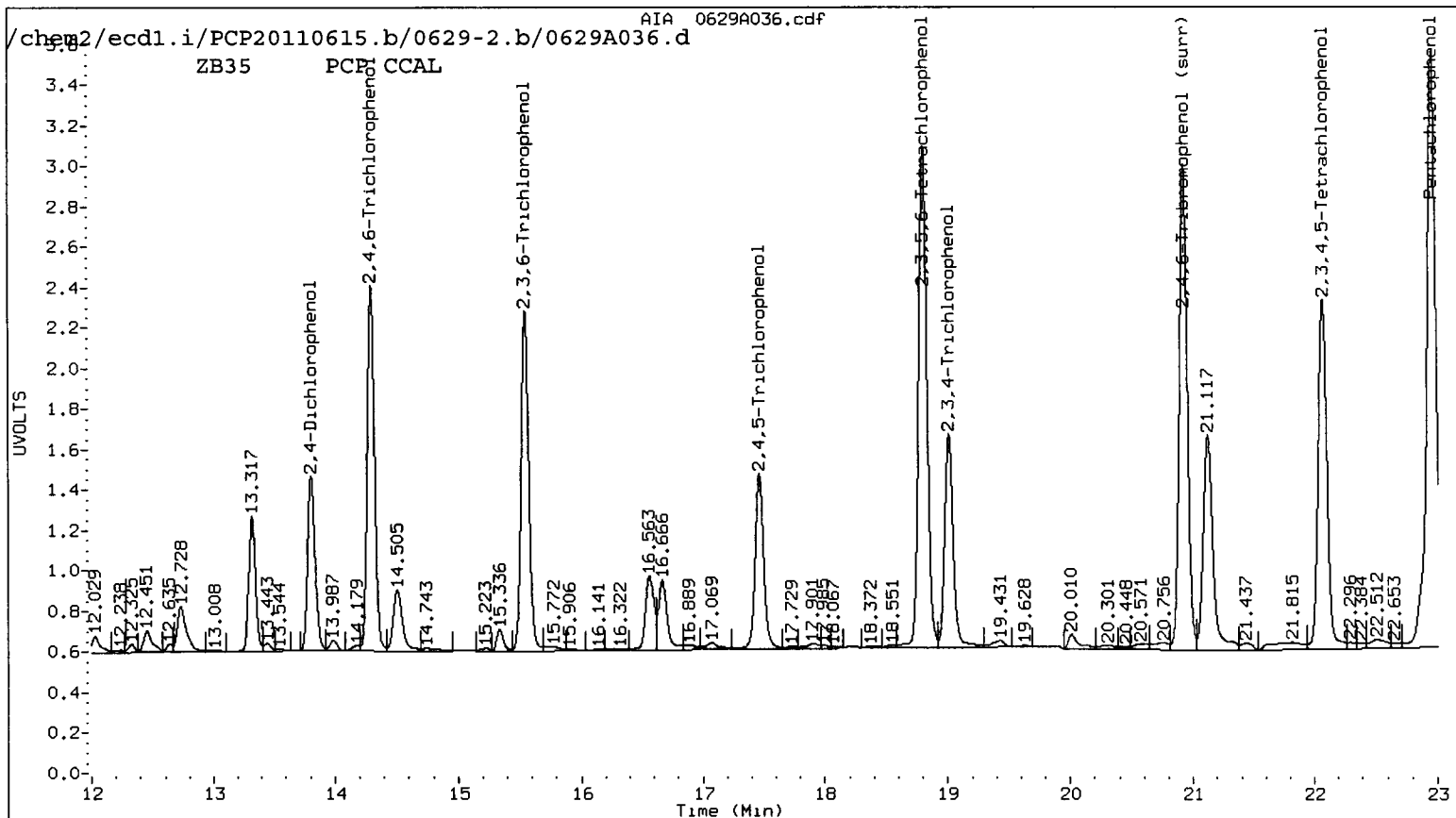
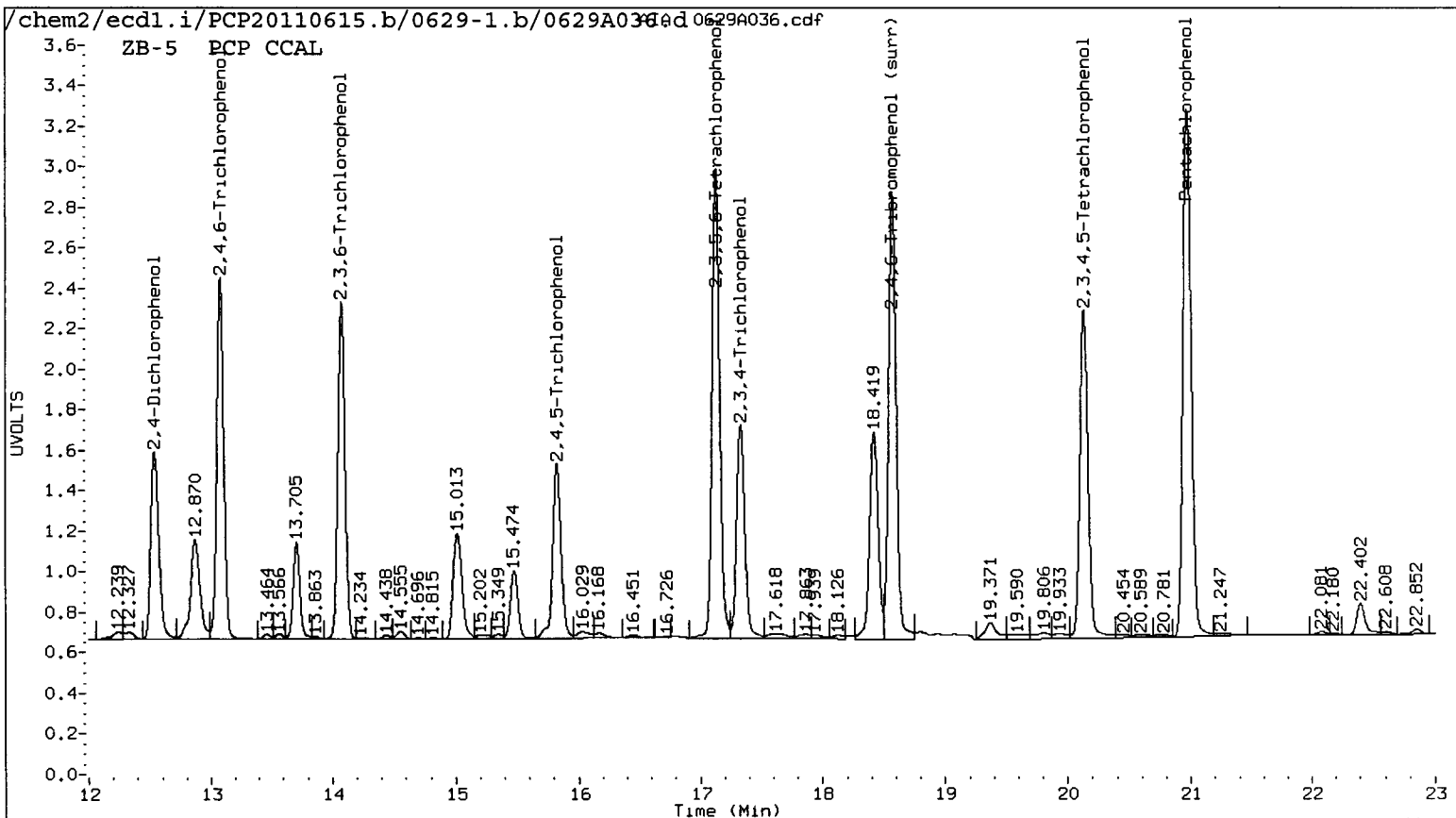
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

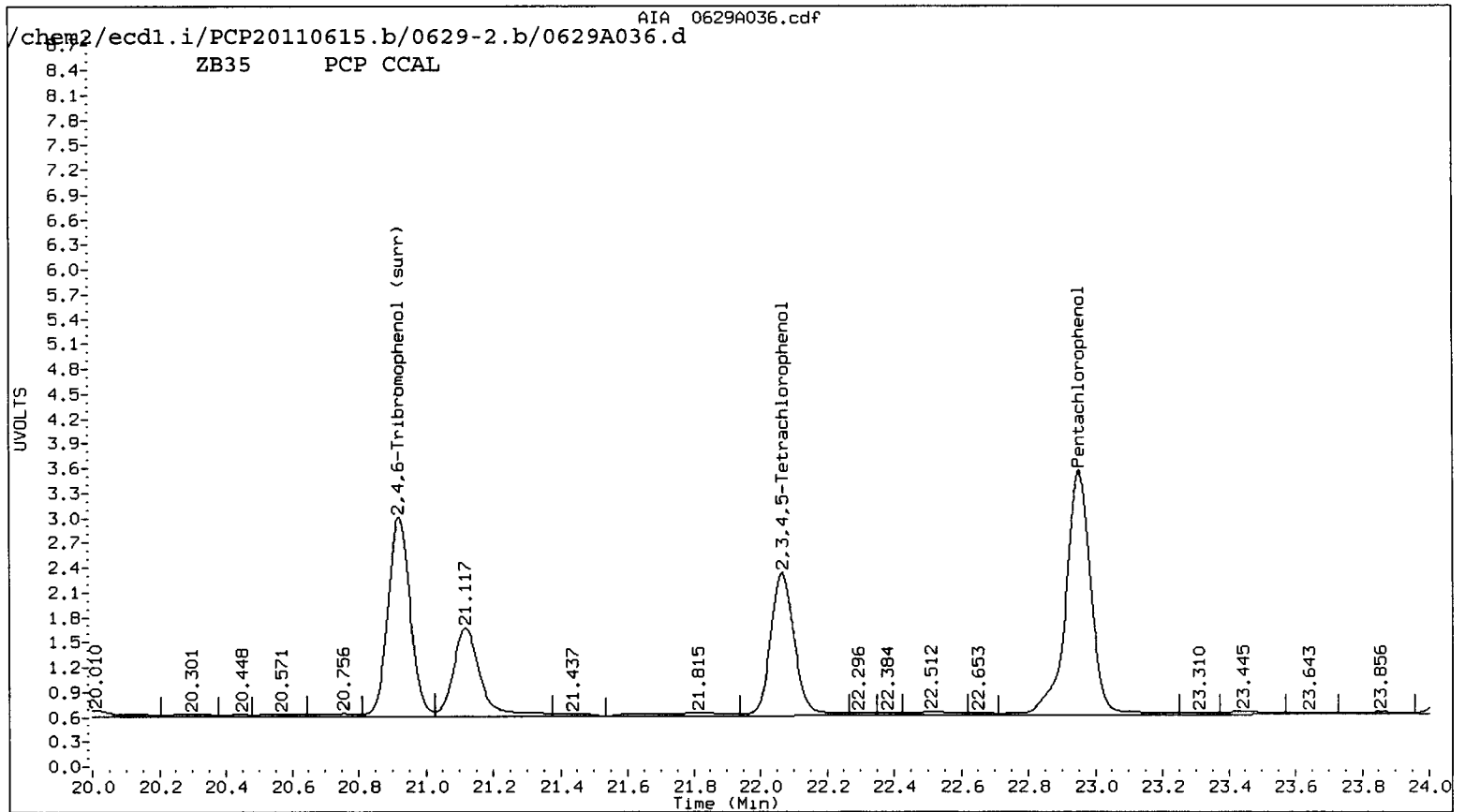
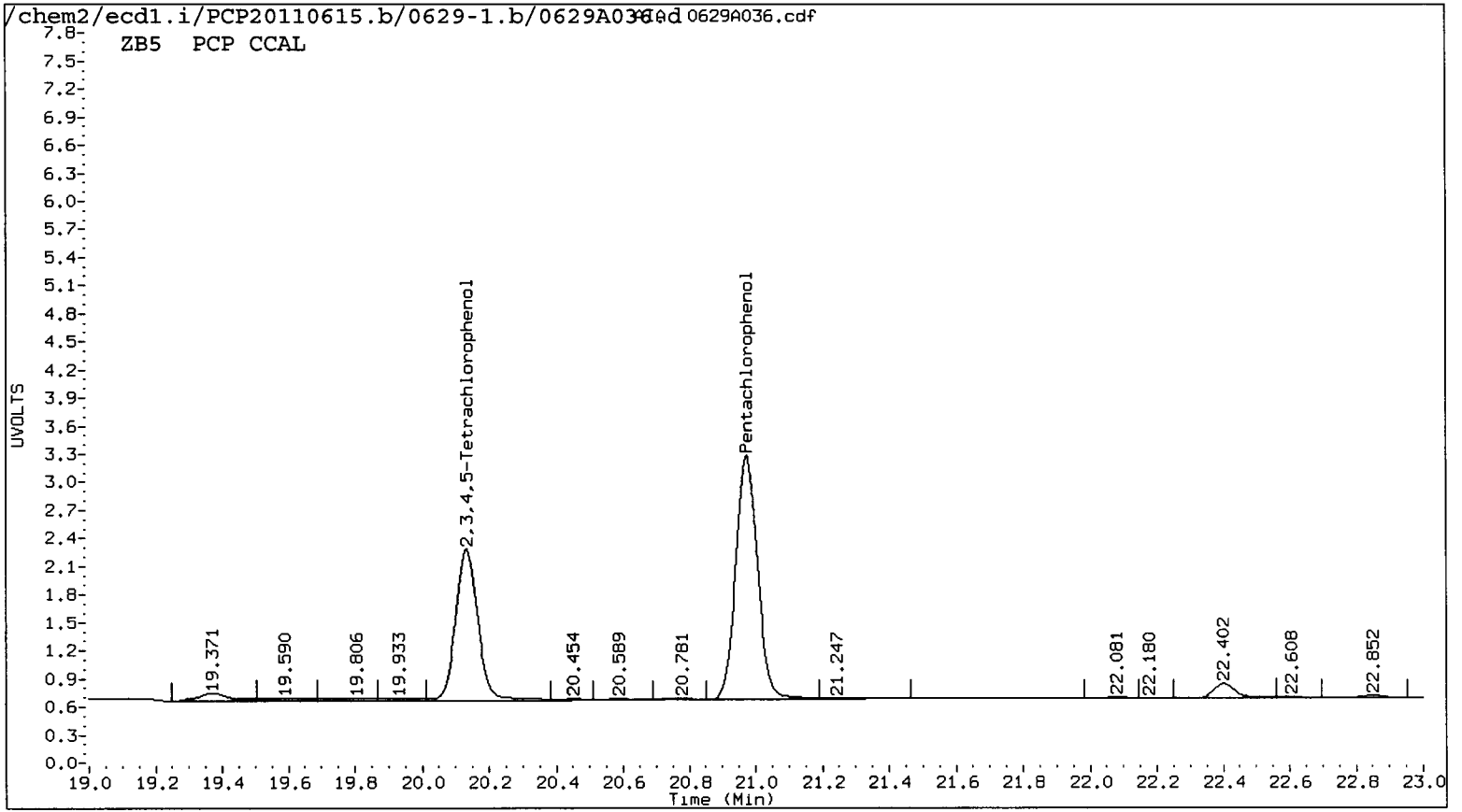
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A036.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A036.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 07:51
 Compound Sublist: all Report Date: 06/30/2011 12:51
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.974	-0.002	599141	22.951	-0.002	773853	25.4411	25.7534	1.2	Pentachlorophenol
13.078	-0.002	359669	14.294	-0.002	370785	25.5420	25.0482	2.0	2,4,6-Trichlorophenol
14.073	-0.002	334277	15.541	-0.002	362265	25.5919	24.3332	5.0	2,3,6-Trichlorophenol
15.822	-0.002	201345	17.459	-0.001	213145	25.3158	25.0480	1.1	2,4,5-Trichlorophenol
17.329	-0.002	242181	19.008	-0.002	257414	25.1685	25.3693	0.8	2,3,4-Trichlorophenol
17.129	-0.002	504657	18.797	-0.002	574266	25.8004	25.5207	1.1	2,3,5,6-Tetrachlorophenol
20.133	-0.002	375338	22.066	-0.001	426799	25.4123	25.1589	1.0	2,3,4,5-Tetrachlorophenol
12.535	0.001	210701	13.804	-0.002	189621	288.8472	263.2894	9.3	2,4-Dichlorophenol
18.573	-0.002	484755	20.921	-0.002	551497	26.3	25.7	2.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

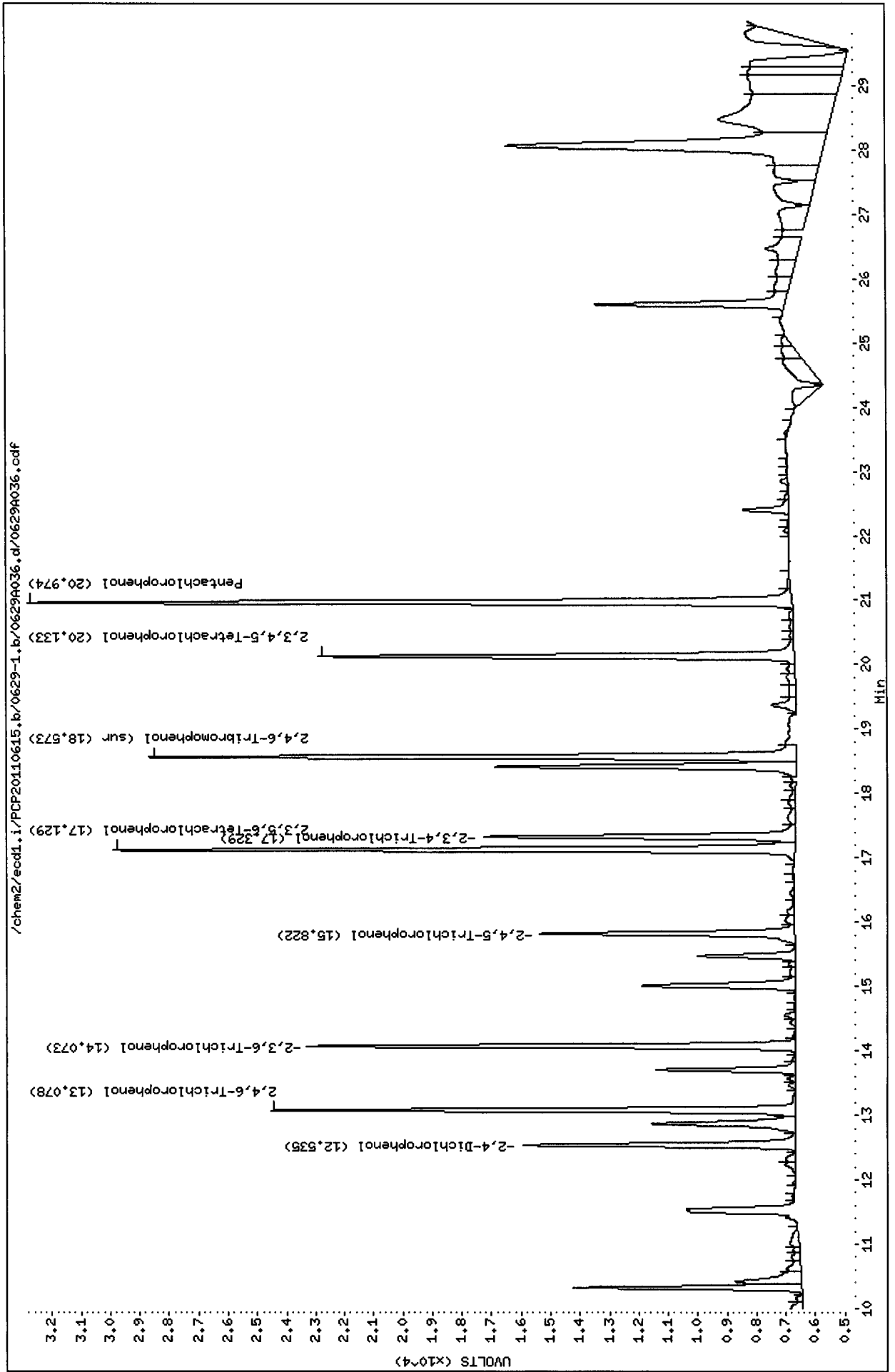
COMPOUND	Col1	Col2
Pentachlorophenol	101.8	103.0
2,4,6-Trichlorophenol	102.2	100.2
2,3,6-Trichlorophenol	102.4	97.3
2,4,5-Trichlorophenol	101.3	100.2
2,3,4-Trichlorophenol	100.7	101.5
2,3,5,6-Tetrachlorophenol	103.2	102.1
2,3,4,5-Tetrachlorophenol	101.6	100.6
2,4-Dichlorophenol	115.5	105.3
2,4,6-TBP (surr)	105.2	102.8





Data File: /chem2/ecdl1.i/PCPD20110615.b/0629-1.b/0629A036.d
Date: 30-JUN-2011 07:51
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: eccl1.i
Operator: ar
Column diameter: 0.53



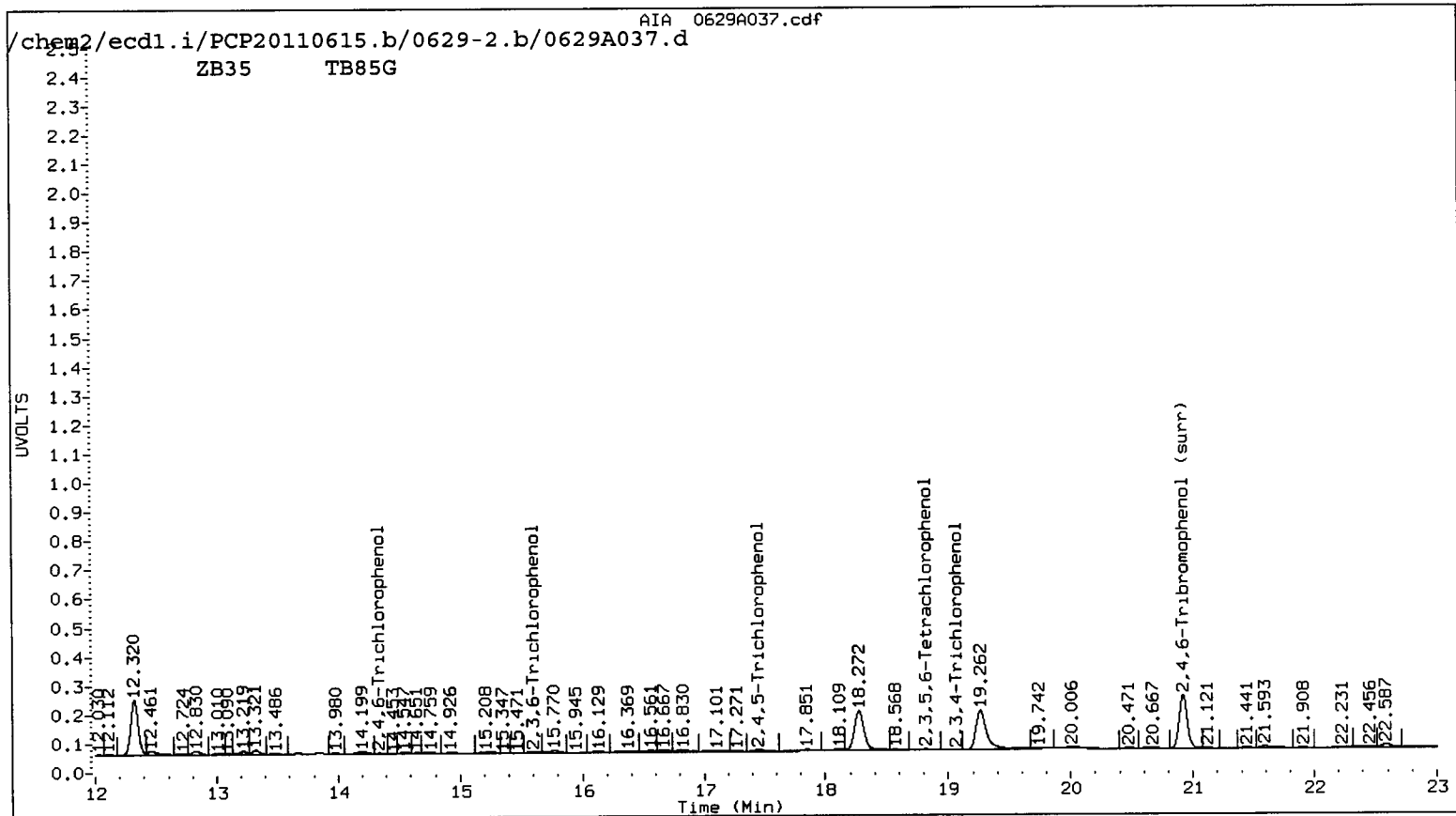
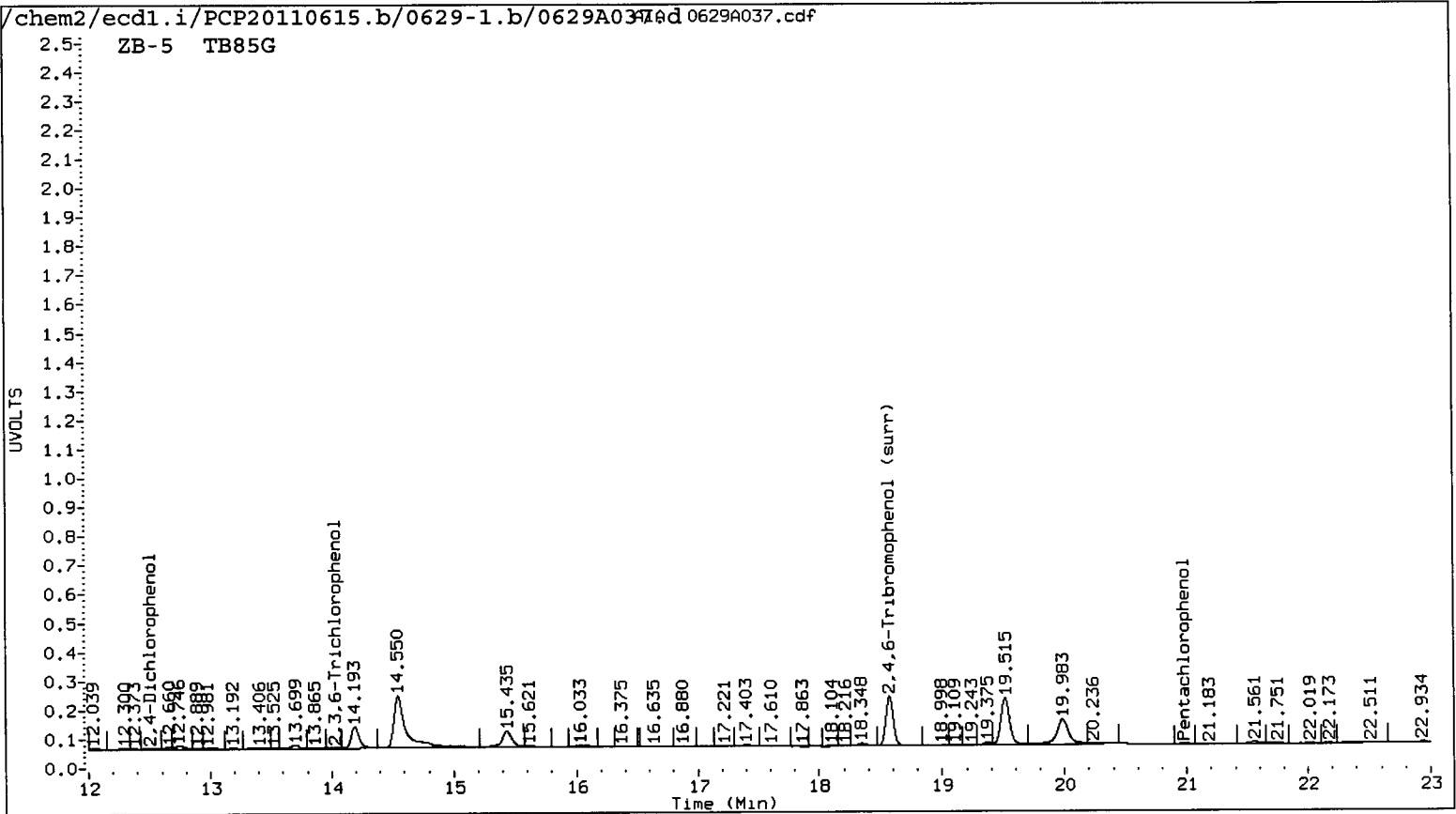
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

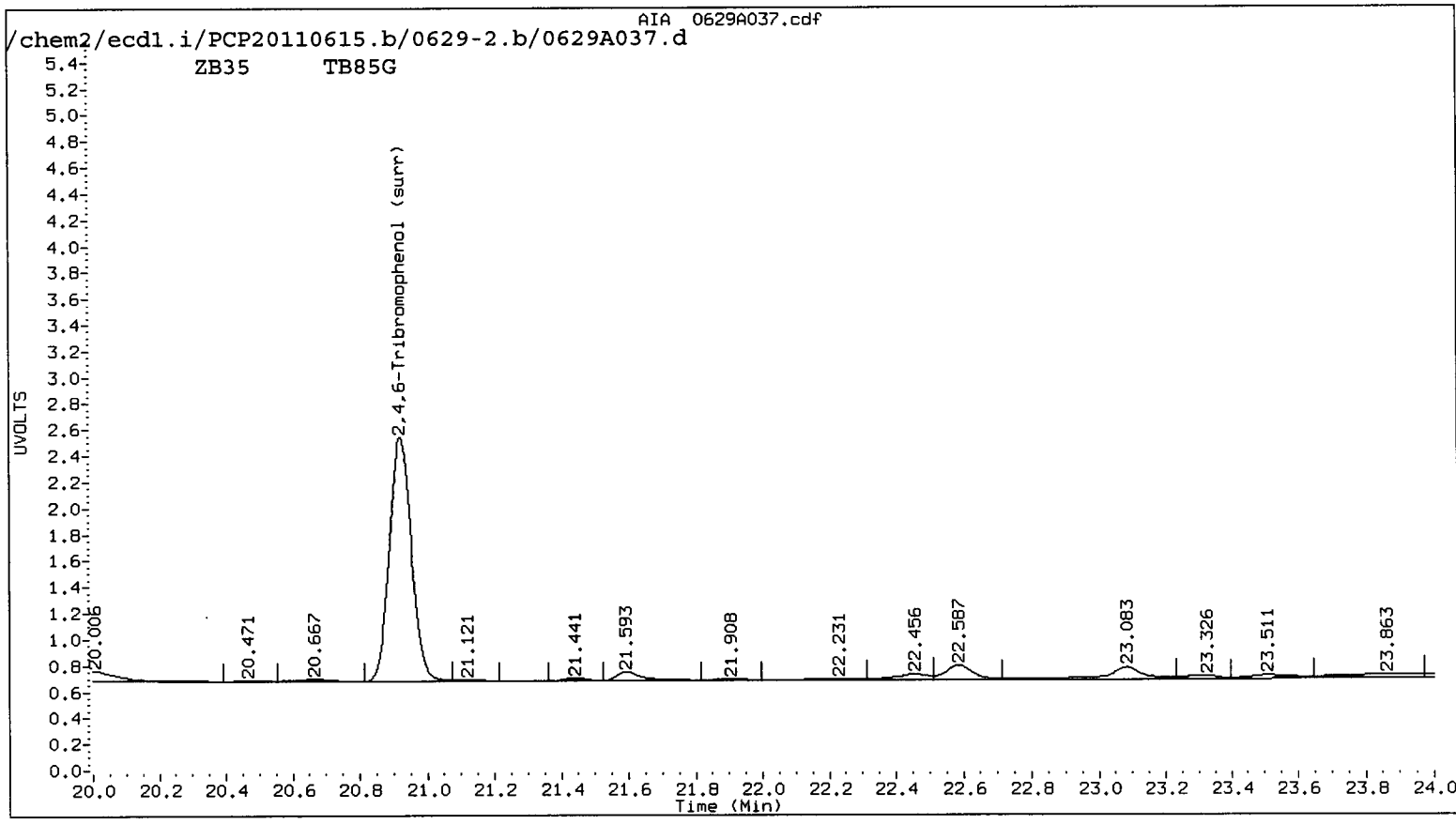
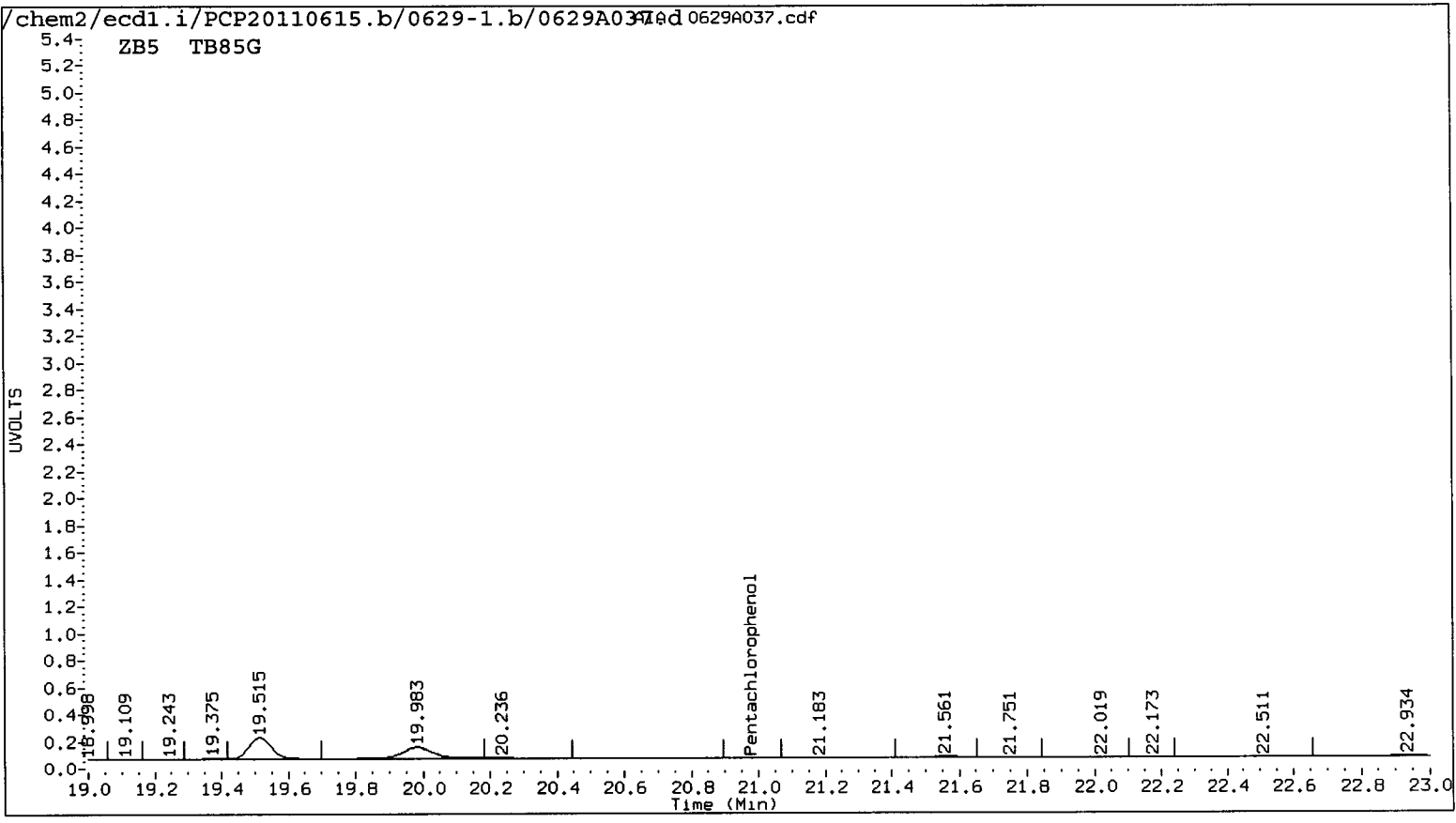
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A037.d ARI ID: TB85G
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A037.d Client ID: SB-01-062211-12
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 08:27
 Compound Sublist: all Report Date: 06/30/2011 15:26
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.981	0.005 9130	----	0.3877	0.0000	---	Pentachlorophenol
----		14.342 0.046 2756	0.0000	0.1862	---	2,4,6-Trichlorophenol
14.027	-0.048 2427	15.594 0.052 7318	0.1858	0.4916	90.3*	2,3,6-Trichlorophenol
----		17.453 -0.008 20234	0.0000	2.3779	---	2,4,5-Trichlorophenol
----		19.065 0.055 1024	0.0000	0.1010	---	2,3,4-Trichlorophenol
----		18.816 0.017 10913	0.0000	0.4850	---	2,3,5,6-Tetrachlorophenol
----		----	0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.509	-0.025 14540	----	16.0421	0.0000	---	2,4-Dichlorophenol
18.573	-0.001 364126	20.921 -0.001 421984	19.8	19.7	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	79.0	78.6



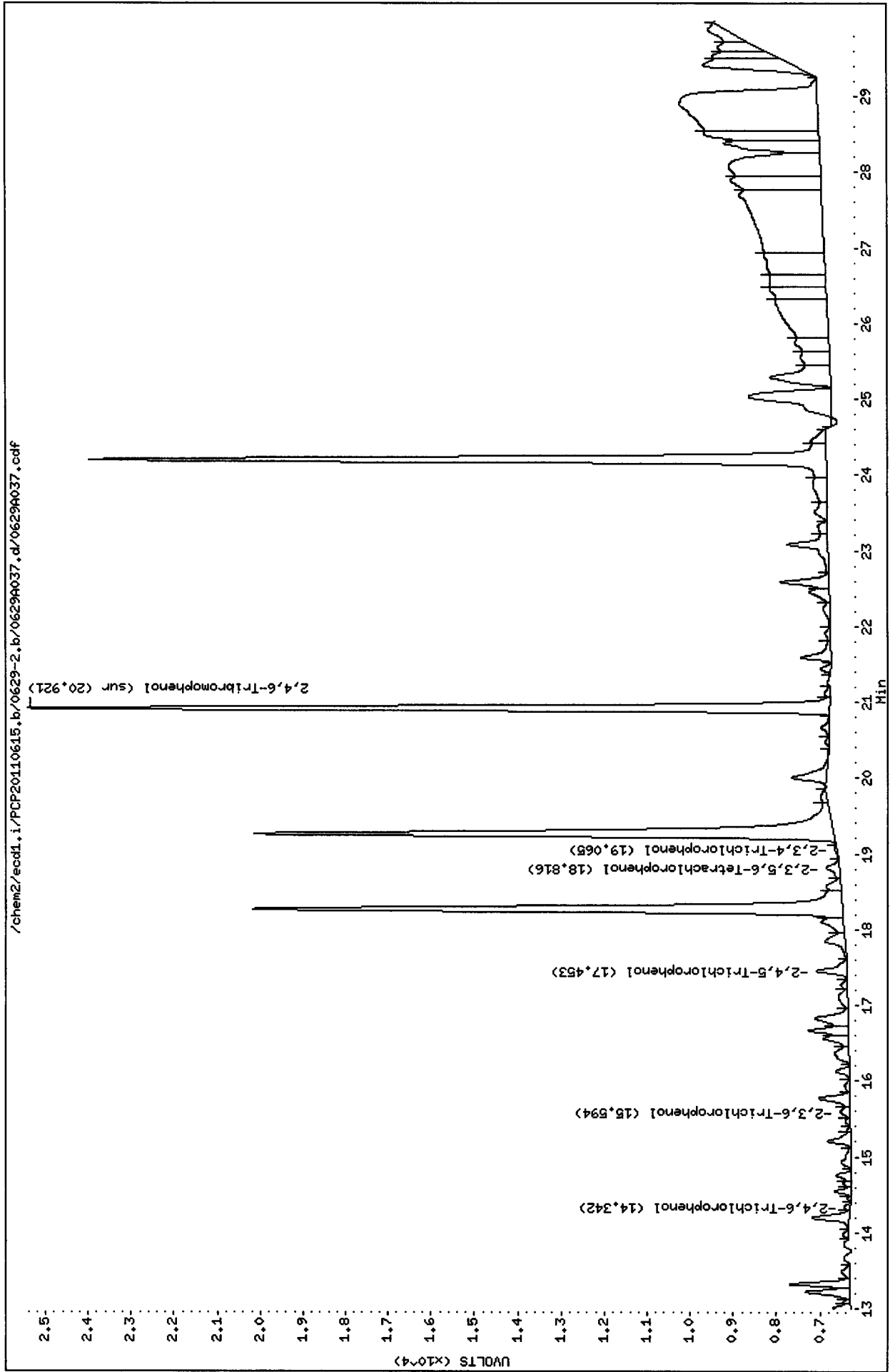


Data File: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A037.d
Date : 30-JUN-2011 08:27
Client ID: SB-01-062211-12
Sample Info: TB85C

Instrument: ecdl.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A037.d

Date : 30-JUN-2011 08:27

Client ID: SB-01-062211-12

Sample Info: TB85G

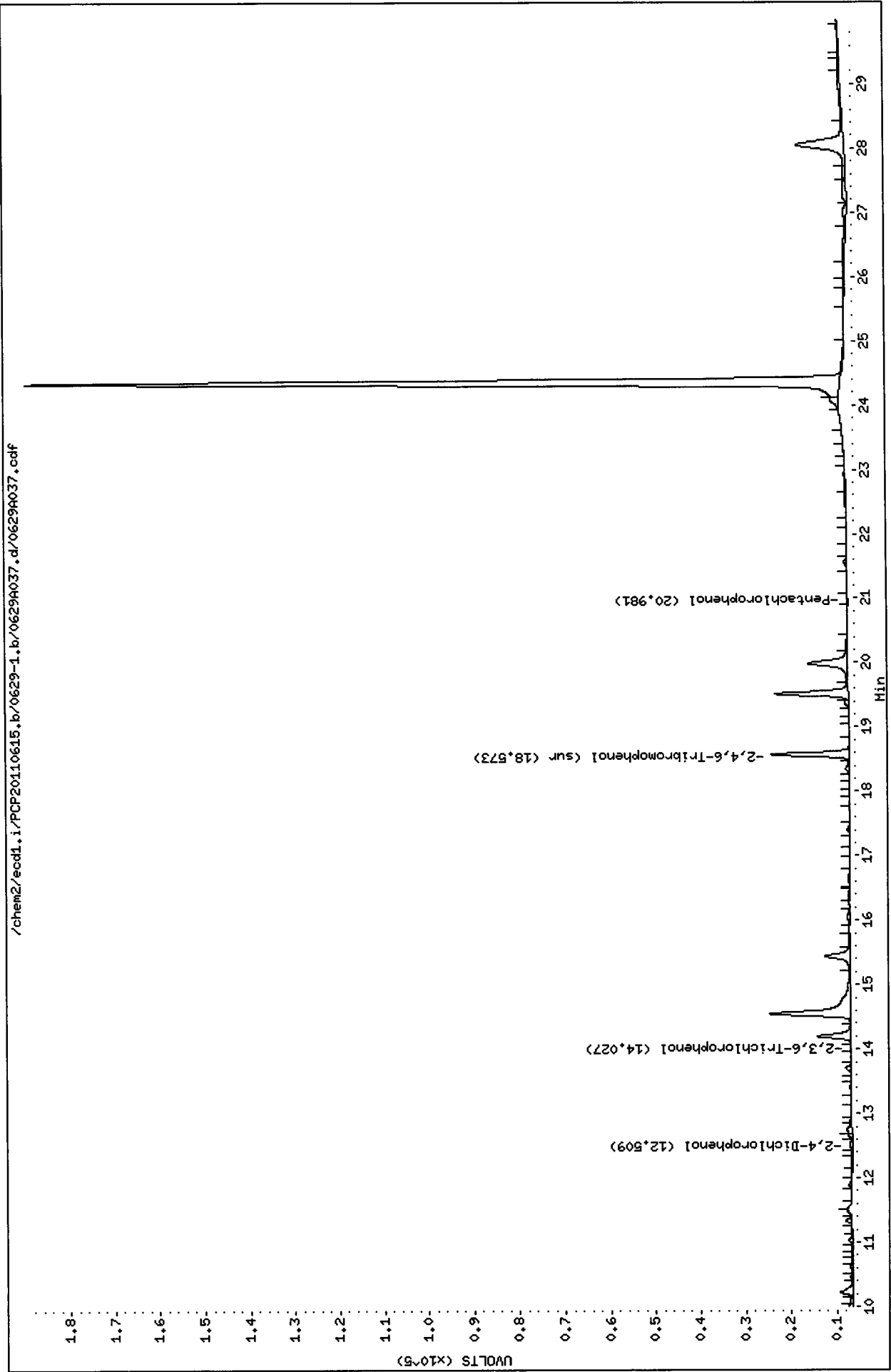
Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

/chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A037.d/0629A037.cdf



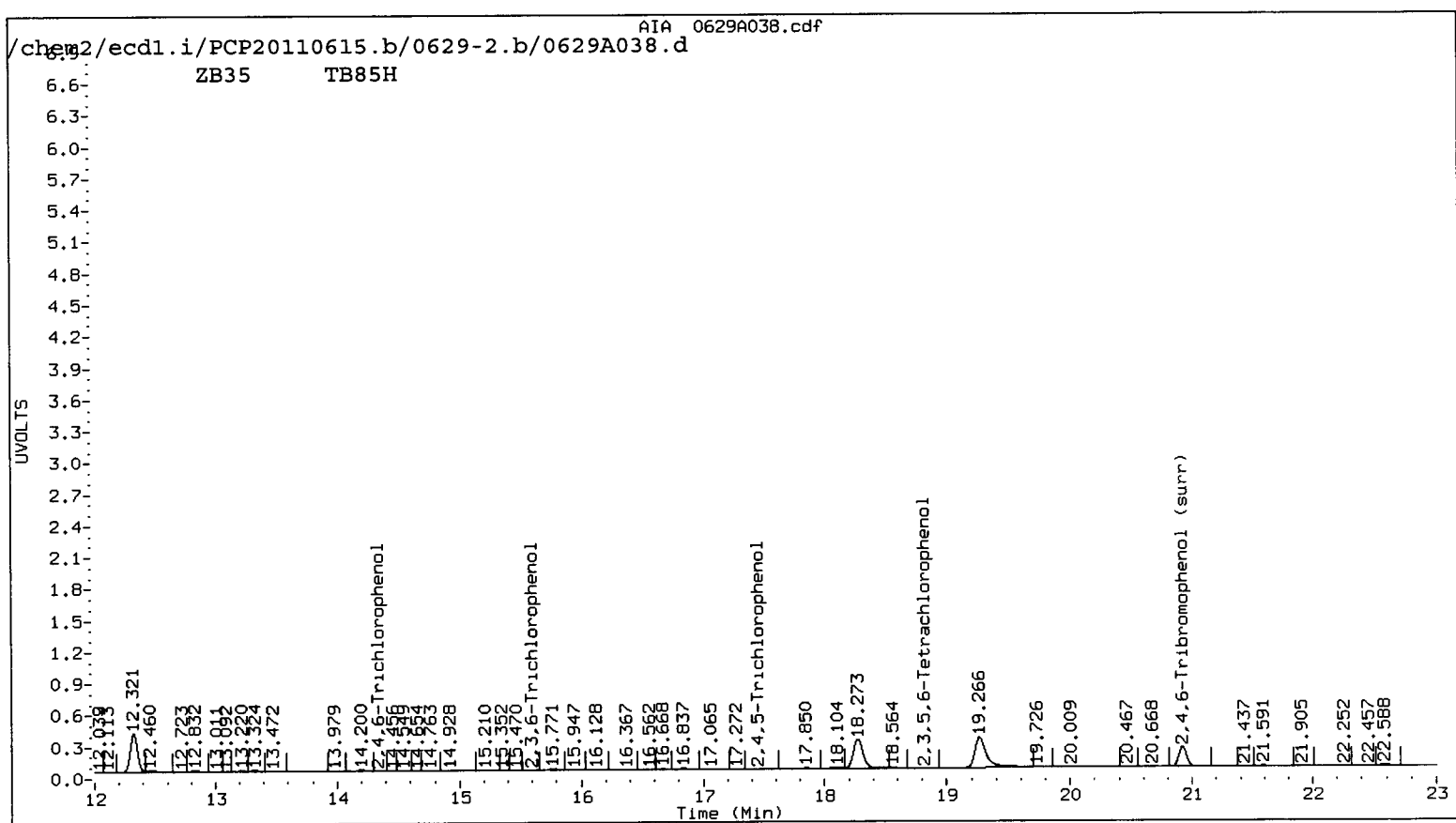
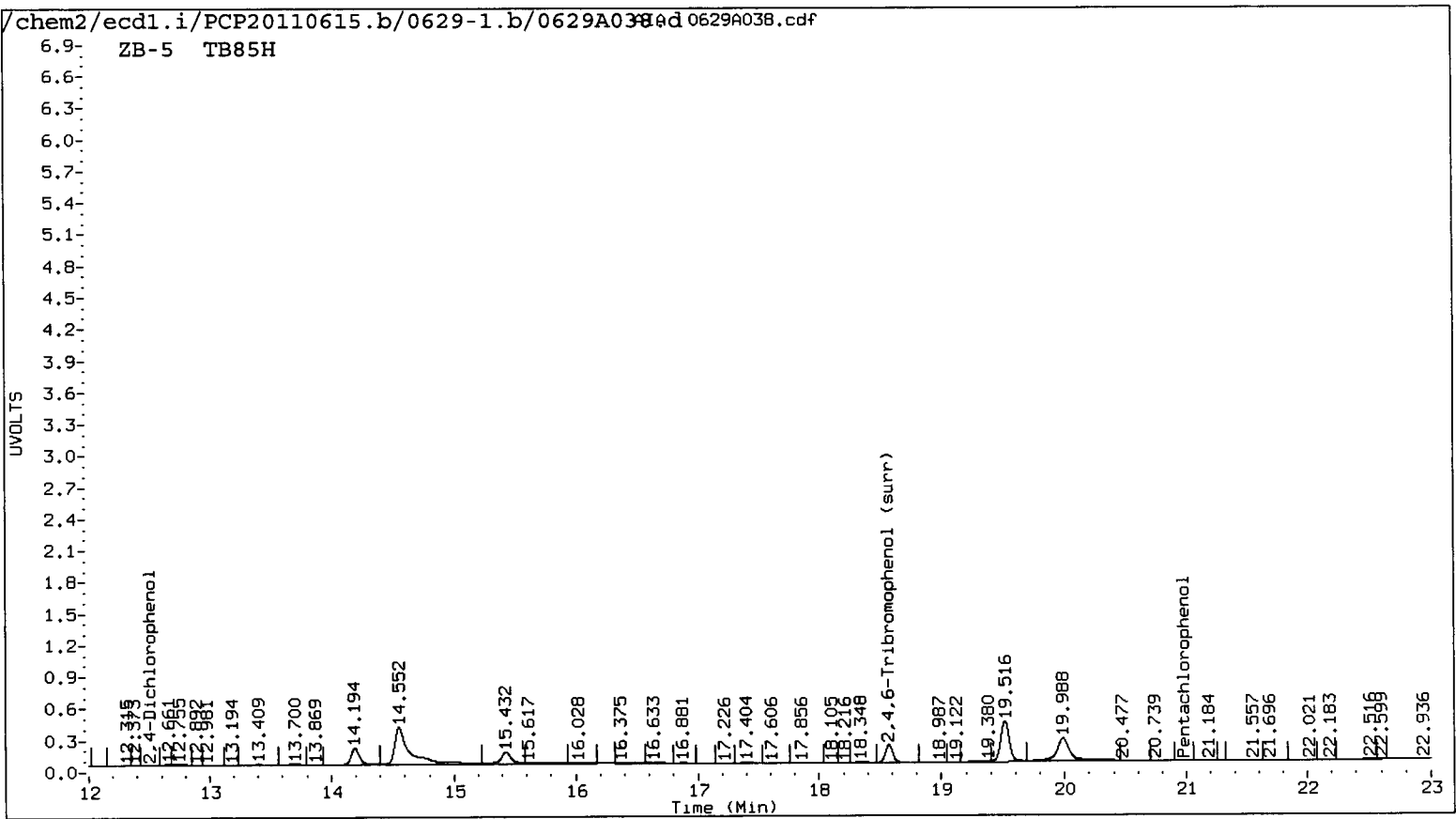
Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

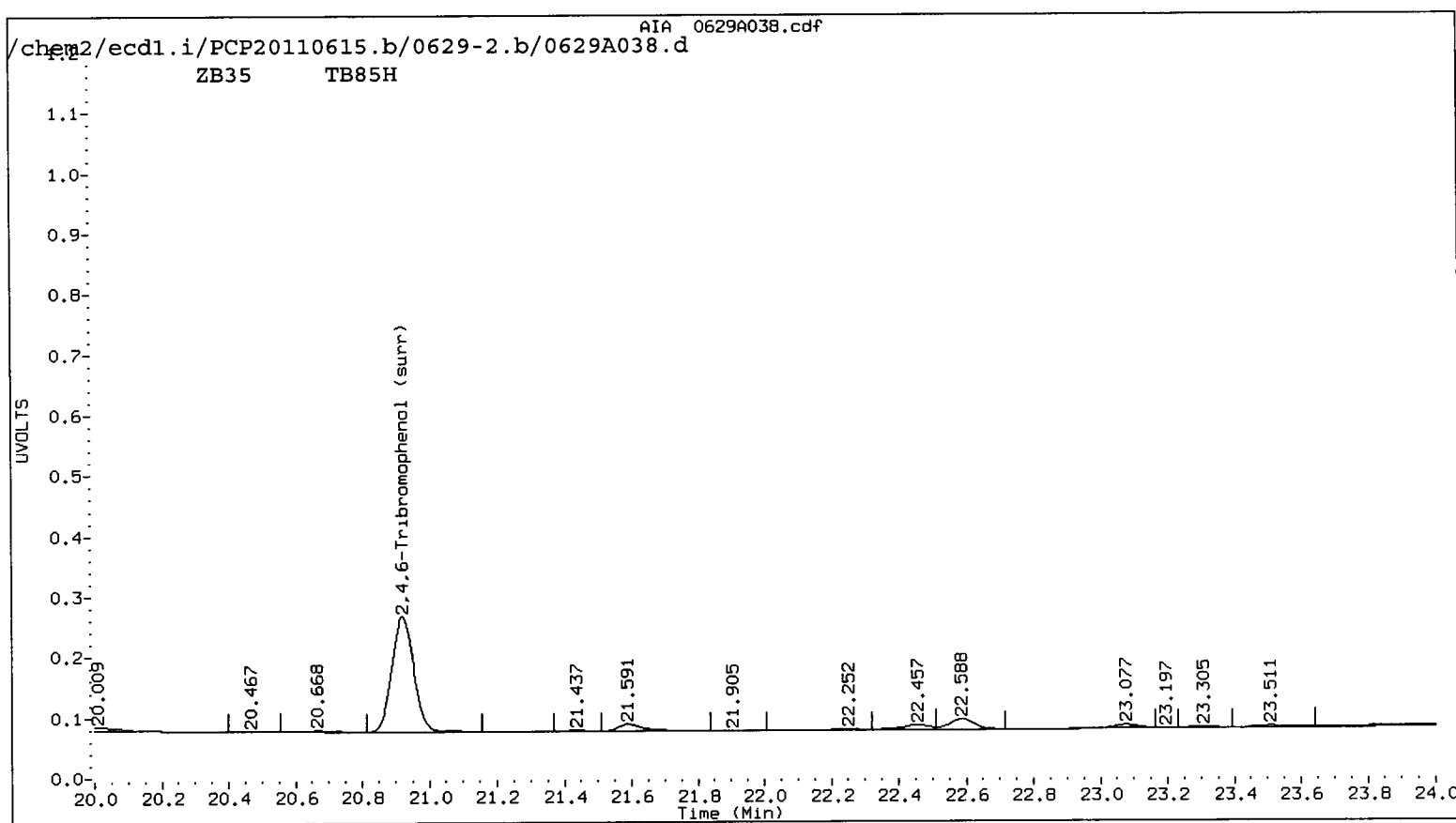
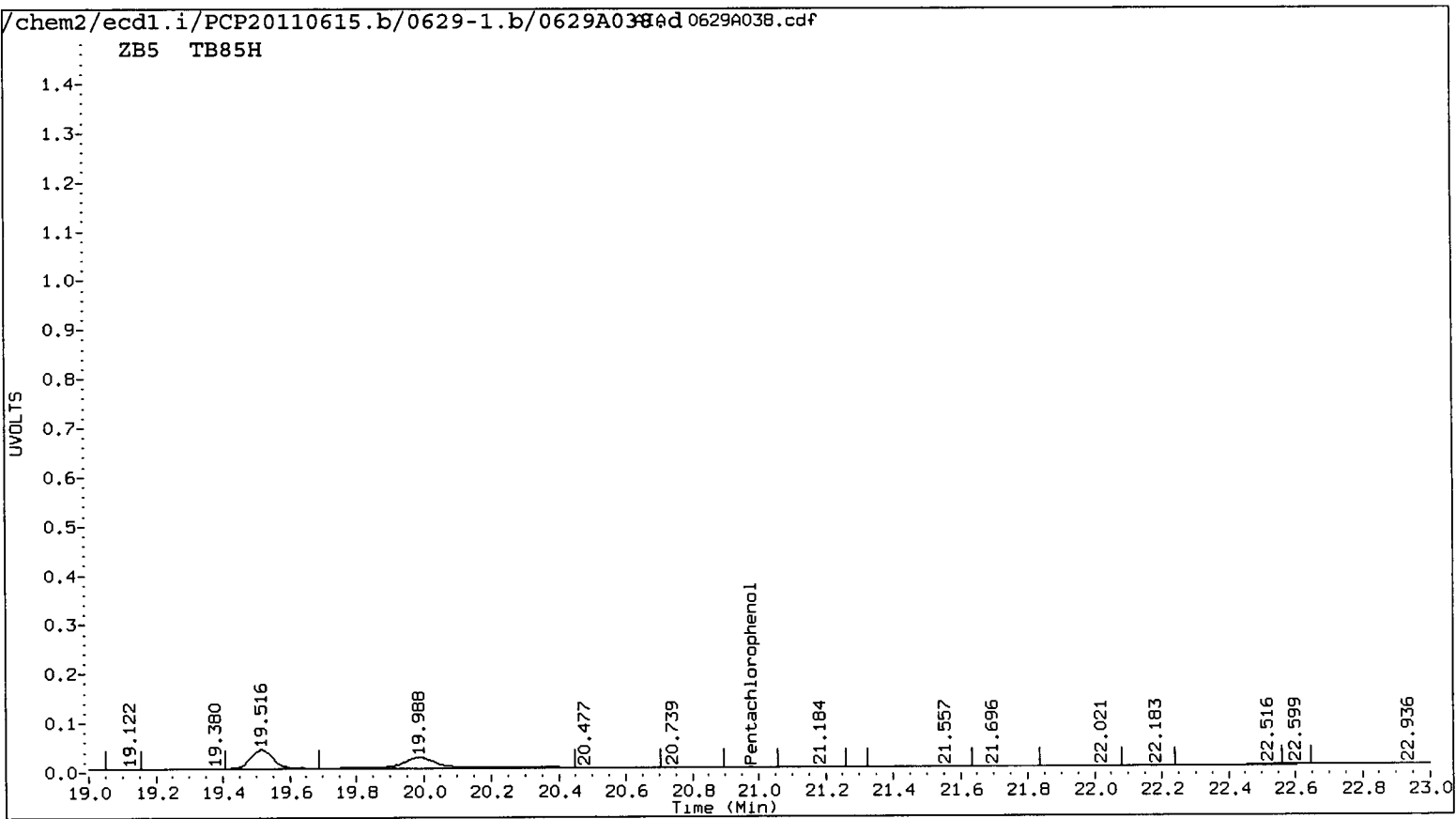
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A038.d ARI ID: TB85H
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A038.d Client ID: SB-01-062211-14
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 09:04
 Compound Sublist: all Report Date: 06/30/2011 15:26
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.979	0.004 9115	----	0.3871	0.0000	---	Pentachlorophenol
----		14.341 0.046 3078	0.0000	0.2080	---	2,4,6-Trichlorophenol
----		15.596 0.054 8975	0.0000	0.6029	---	2,3,6-Trichlorophenol
----		17.455 -0.006 18585	0.0000	2.1841	---	2,4,5-Trichlorophenol
----		----	0.0000	0.0000	---	2,3,4-Trichlorophenol
----		18.820 0.020 12207	0.0000	0.5425	---	2,3,5,6-Tetrachlorophenol
----		----	0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.505	-0.029 / 13716	----	15.1174	0.0000	---	2,4-Dichlorophenol
18.574	0.000 354786	20.922 0.000 425908	19.2	19.8	3.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	77.0	79.4





TB85 : 00270

Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A038.d

Date: 30-JUN-2011 09:04

Client ID: SB-01-062211-14

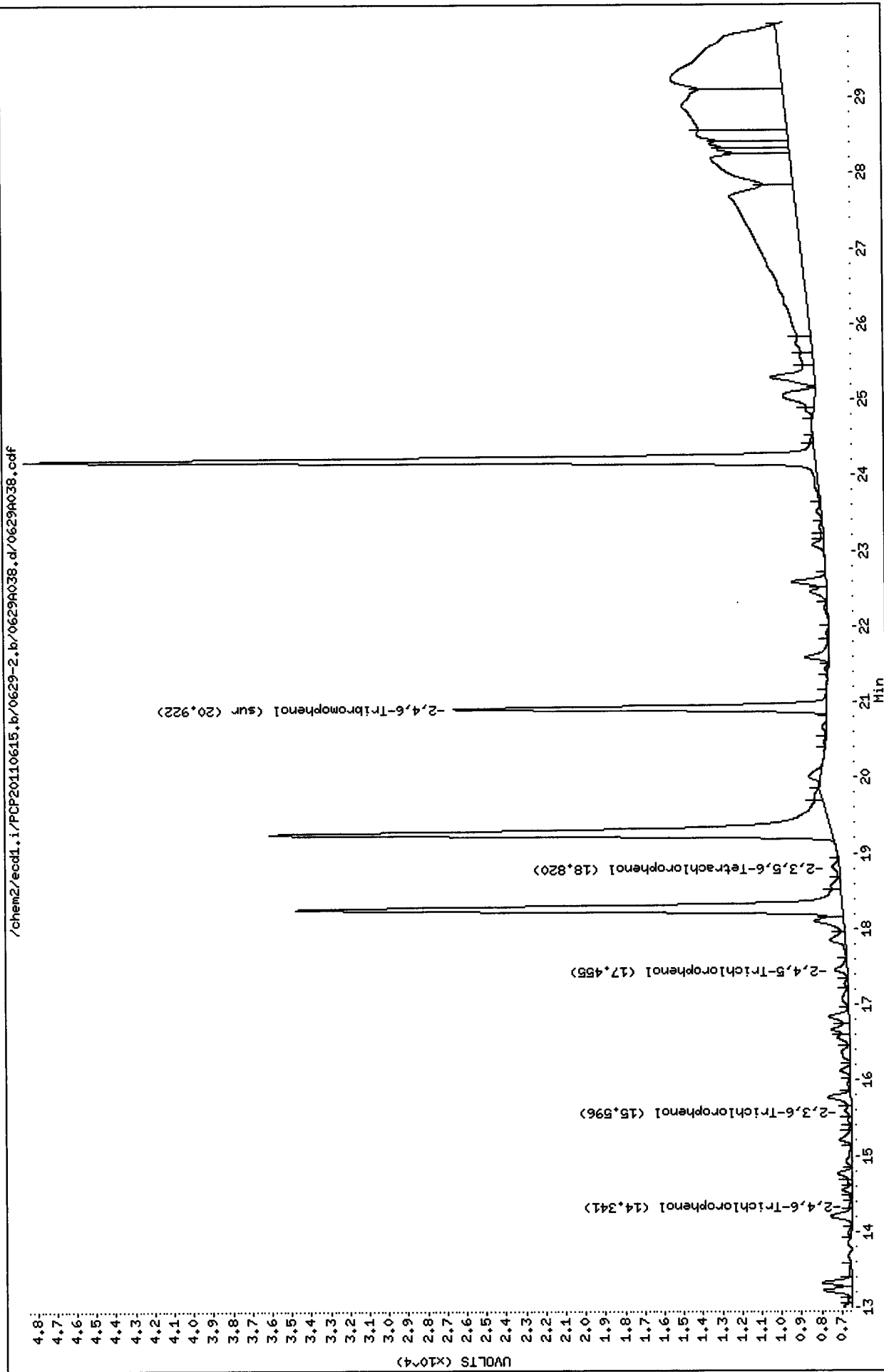
Sample Info: TB85H

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A038.d

Date : 30-JUN-2011 09:04

Client ID: SB-01-062211-14

Sample Info: TB85H

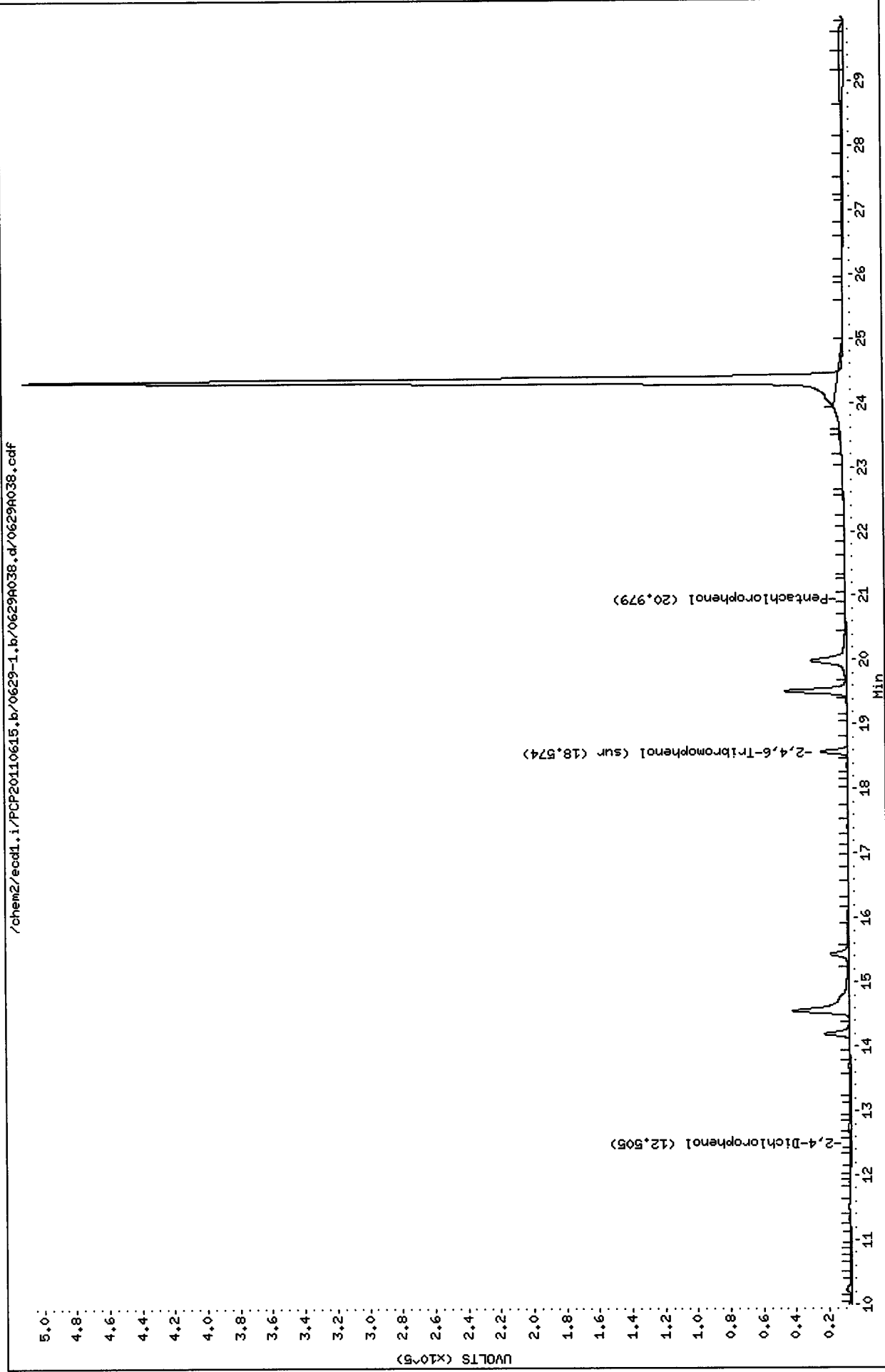
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

/chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A038.d/0629A038.cdf



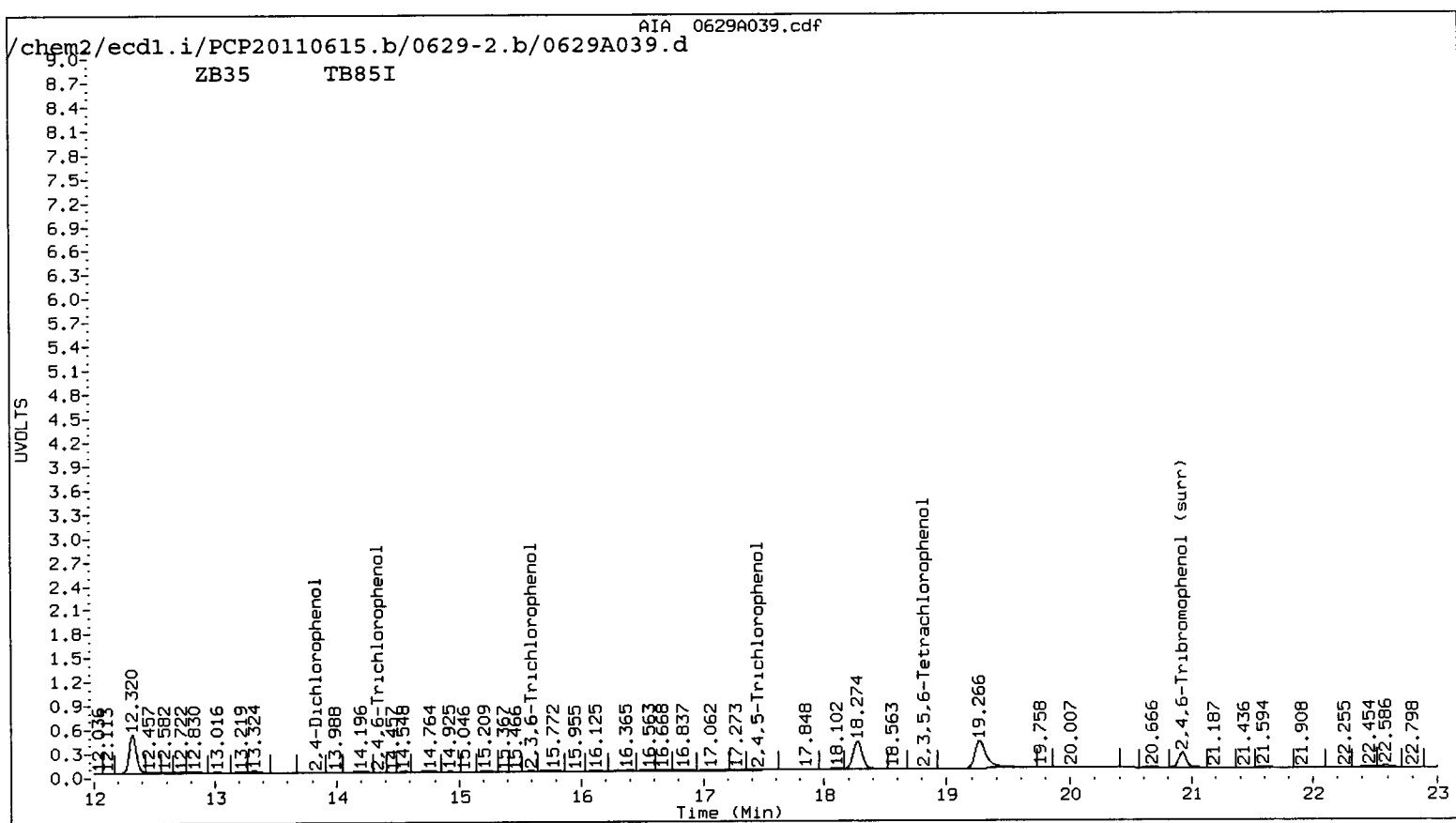
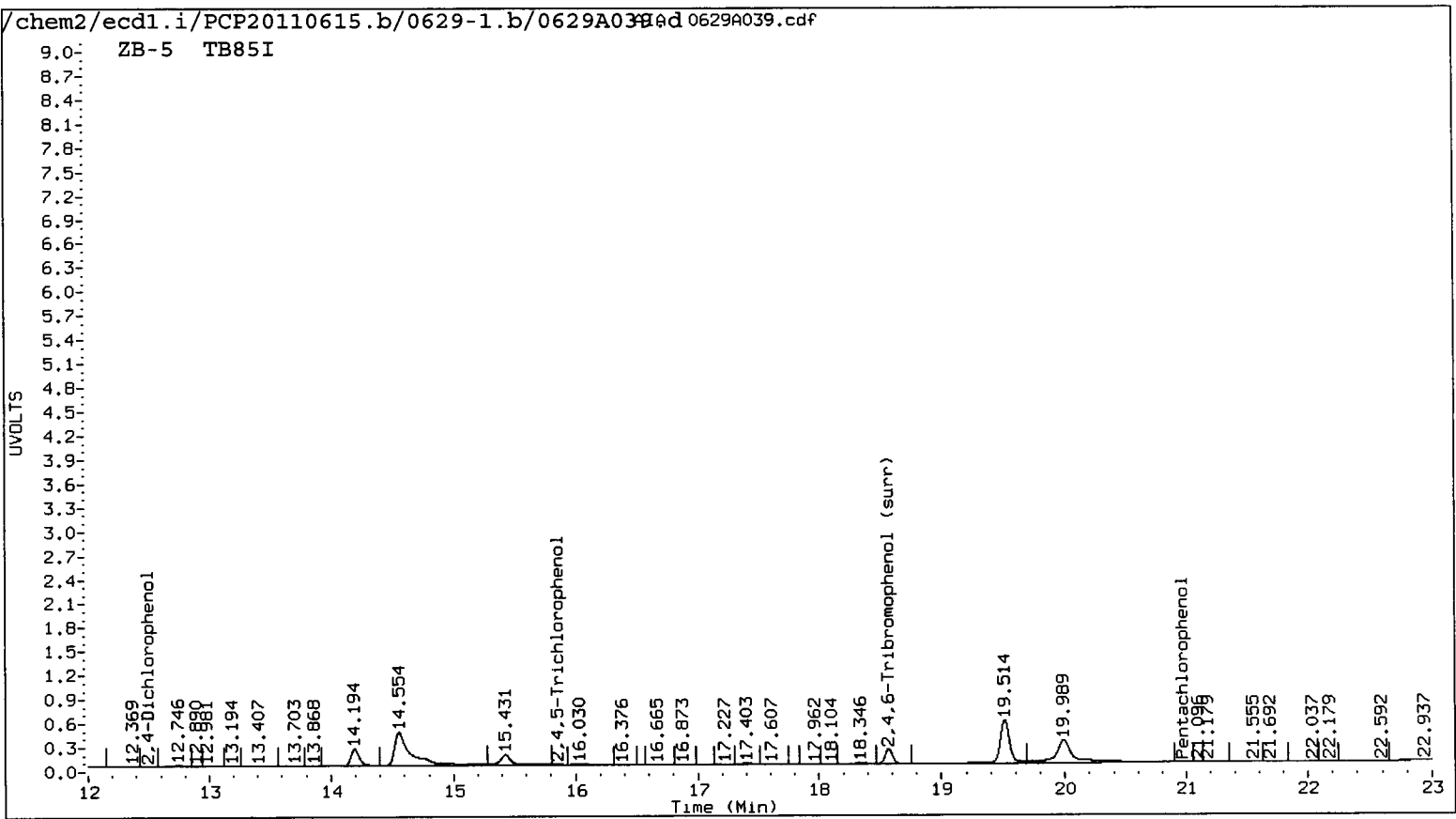
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

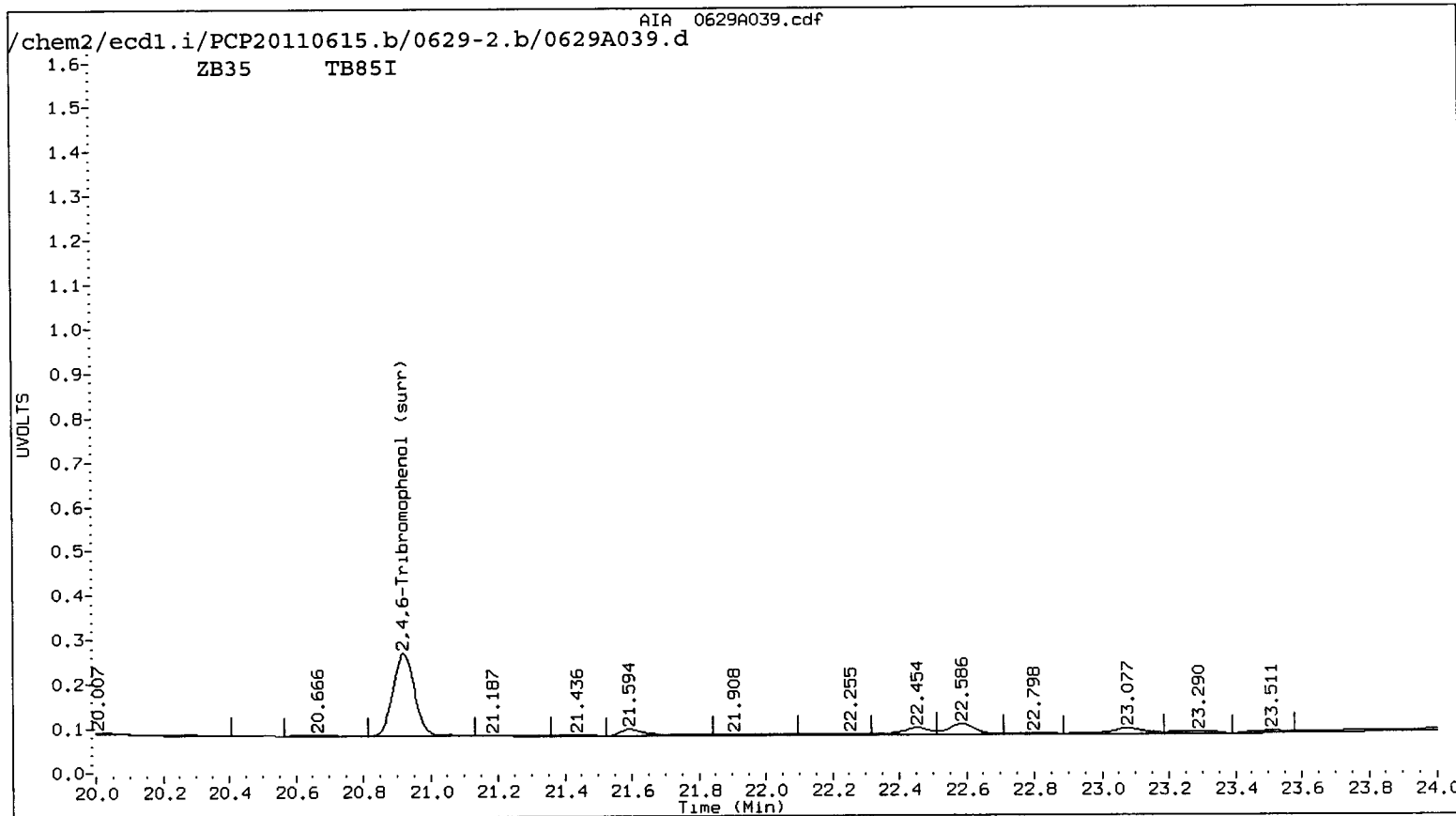
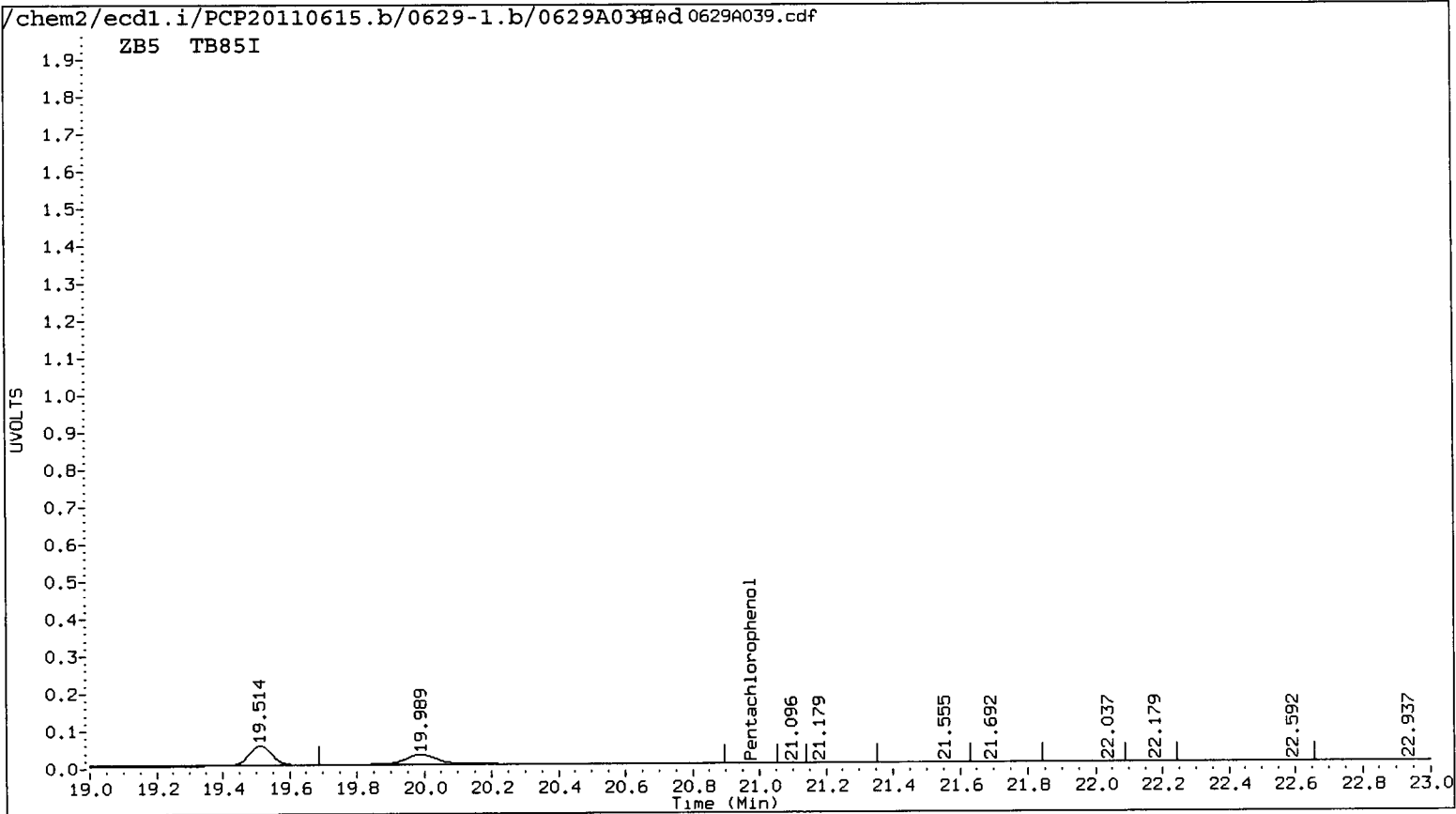
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A039.d ARI ID: TB85I
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A039.d Client ID: SB-01-062211-16
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 09:40
 Compound Sublist: all Report Date: 06/30/2011 15:26
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.975	-0.001 9169	----	0.3893	0.0000	---	Pentachlorophenol
----		14.344 0.048 2462	0.0000	0.1663	---	2,4,6-Trichlorophenol
----		15.592 0.050 6306	0.0000	0.4236	---	2,3,6-Trichlorophenol
15.852	0.028 33883	17.453 -0.007 16512	4.2603	1.9405	74.8*	2,4,5-Trichlorophenol
----		----	0.0000	0.0000	---	2,3,4-Trichlorophenol
----		18.814 0.015 17591	0.0000	0.7818	---	2,3,5,6-Tetrachlorophenol
----		----	0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.499	-0.035 / 10185	13.829 0.023 / 509	11.1773	0.5618 /	180.9*	2,4-Dichlorophenol
18.573	-0.002 381882	20.921 -0.002 422723	20.7	19.7 /	5.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	82.9	78.8





TB85: 00275

Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A039.d

Date : 30-JUN-2011 09:40

Client ID: SB-01-062211-16

Sample Info: TB851

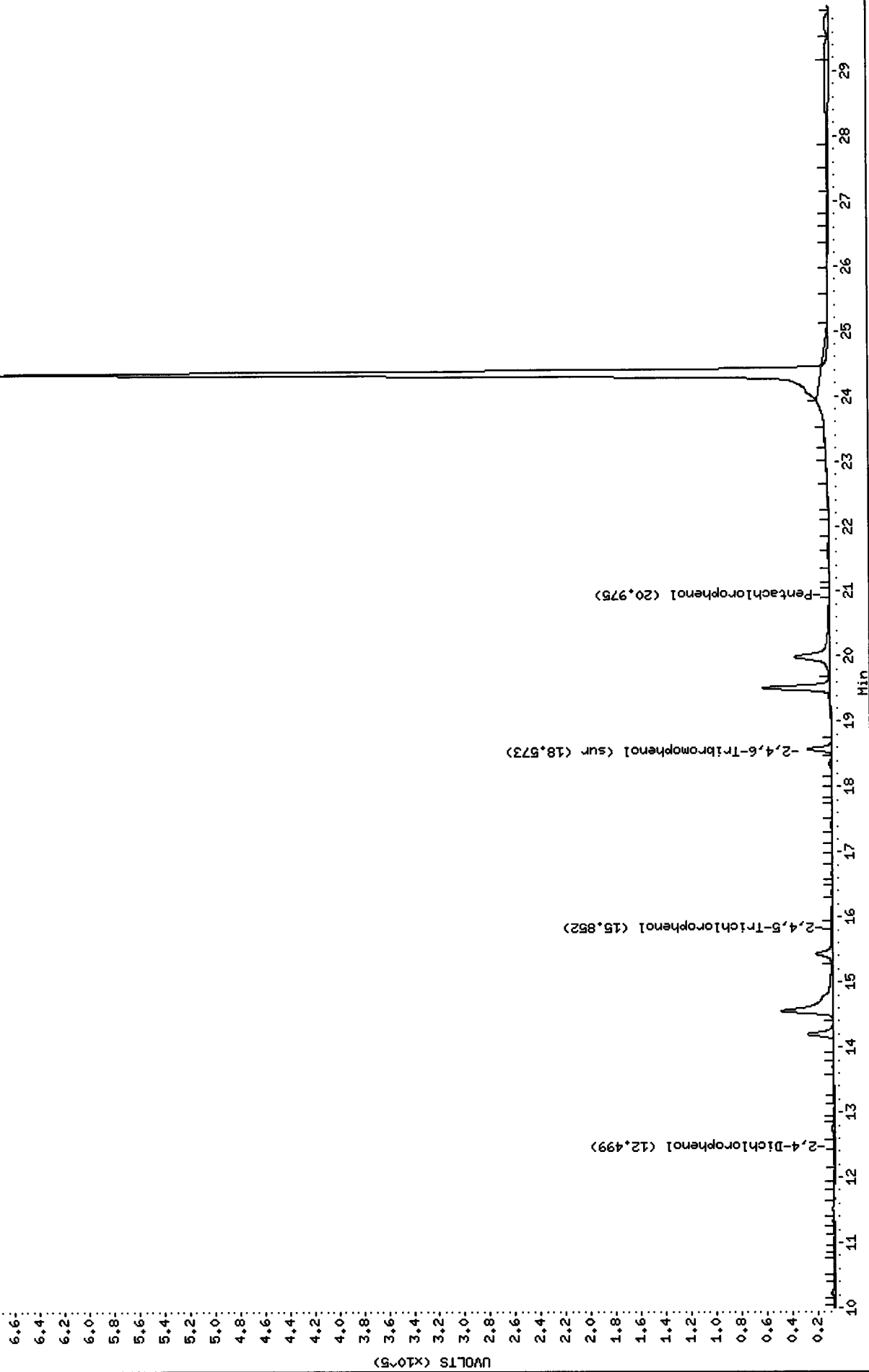
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

/chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A039.d/0629A039.cdf



Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A039.d

Date : 30-JUN-2011 09:40

Client ID: SB-01-062241-16

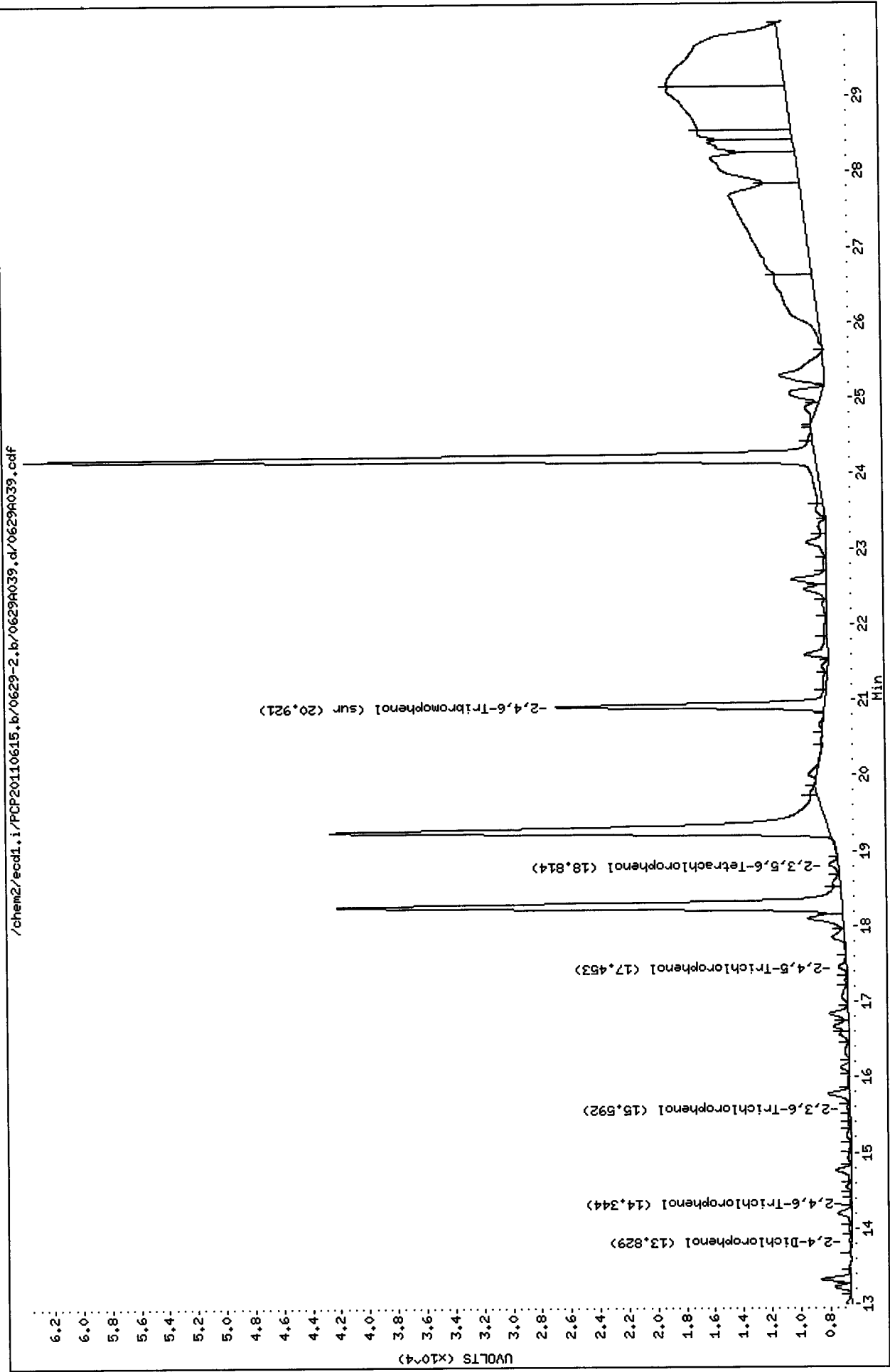
Sample Info: TB851

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



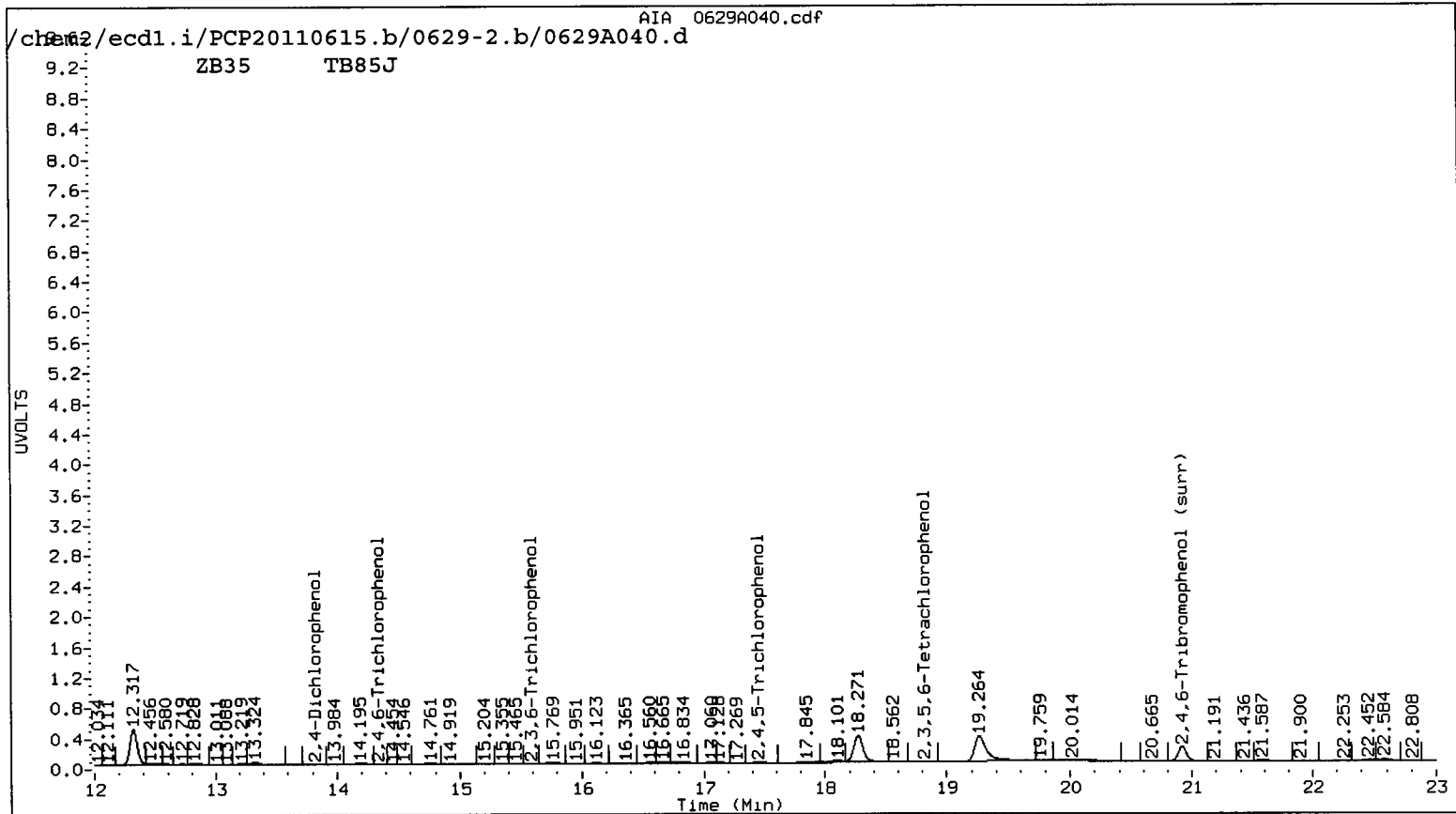
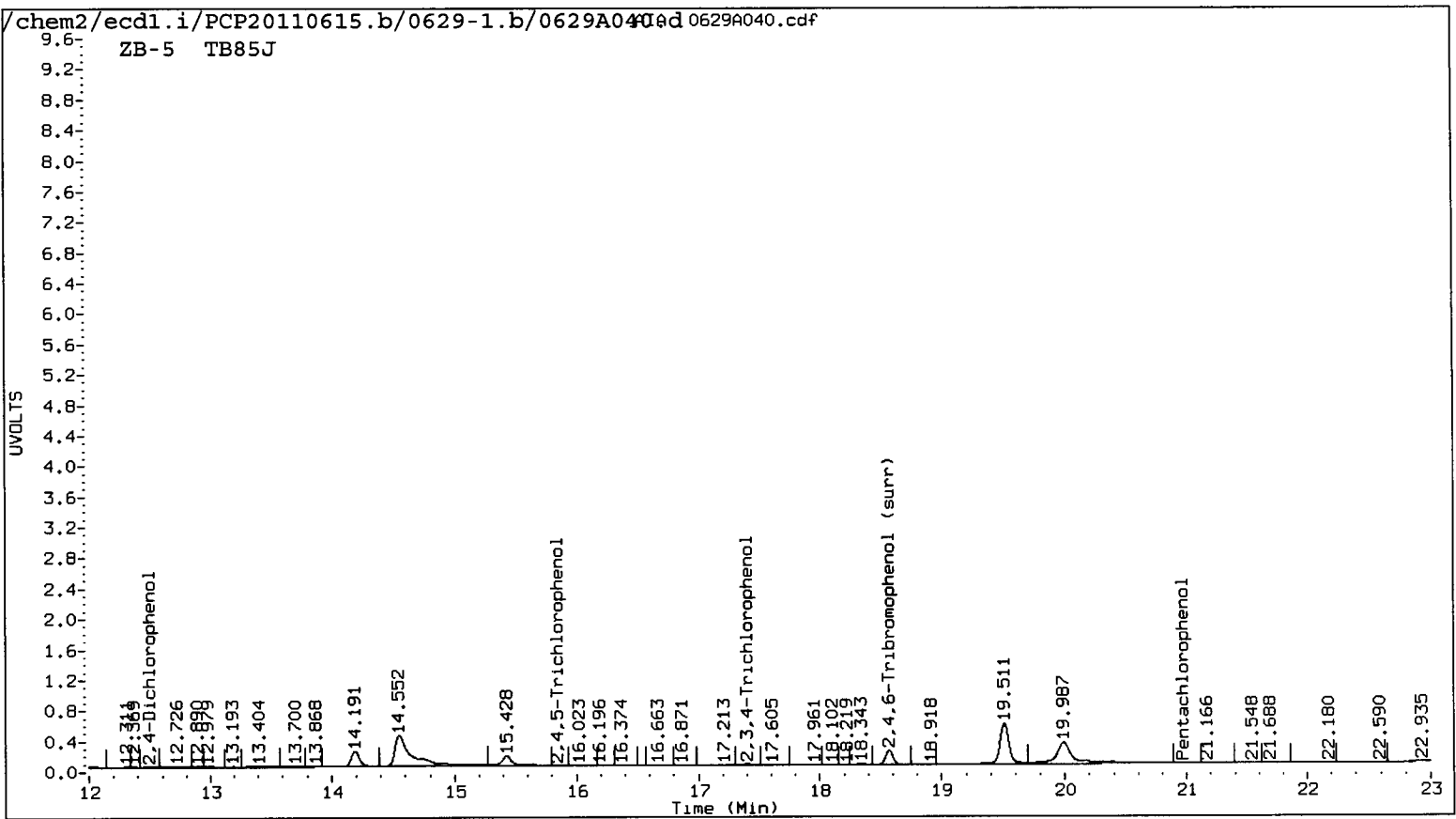
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

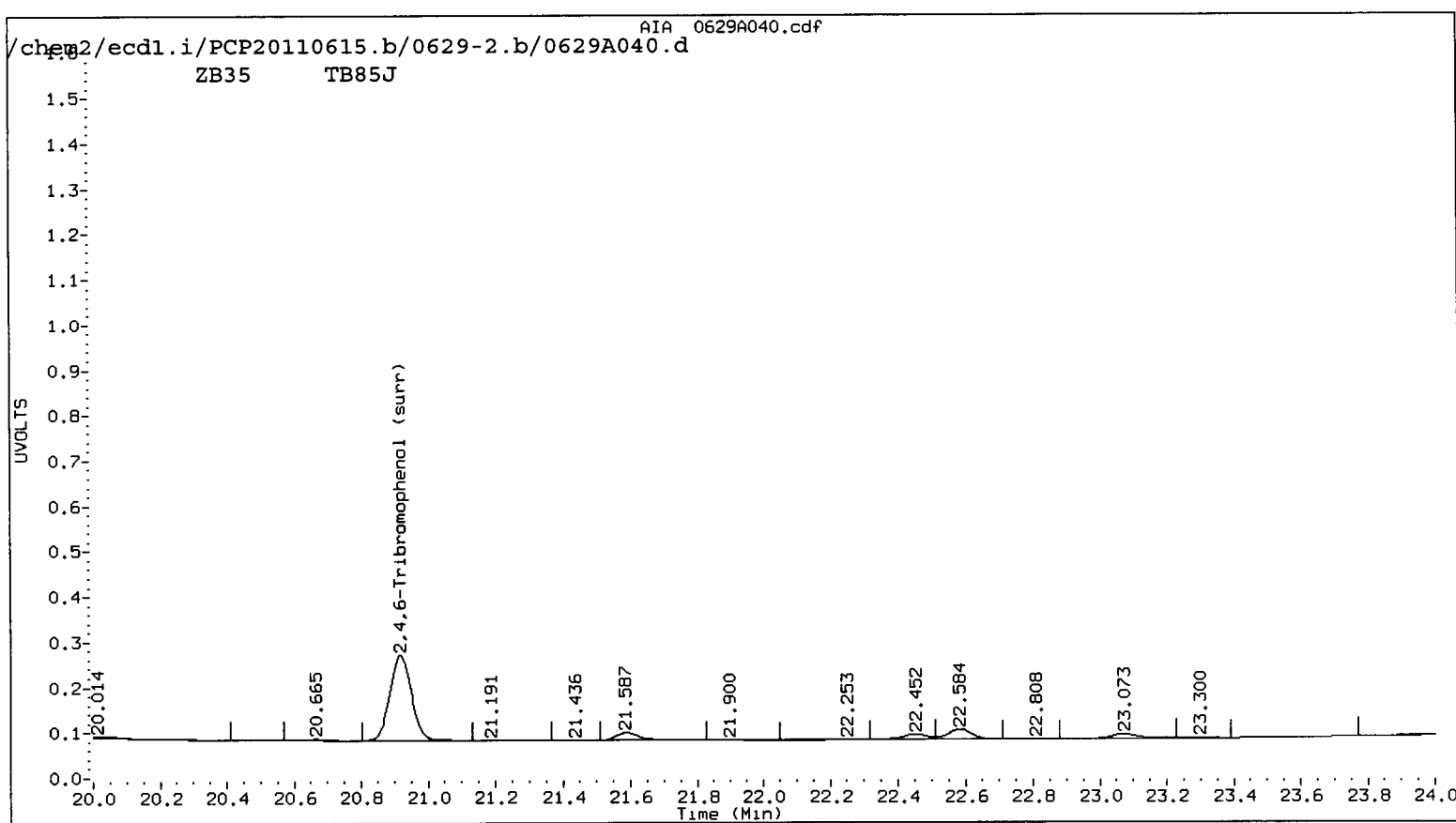
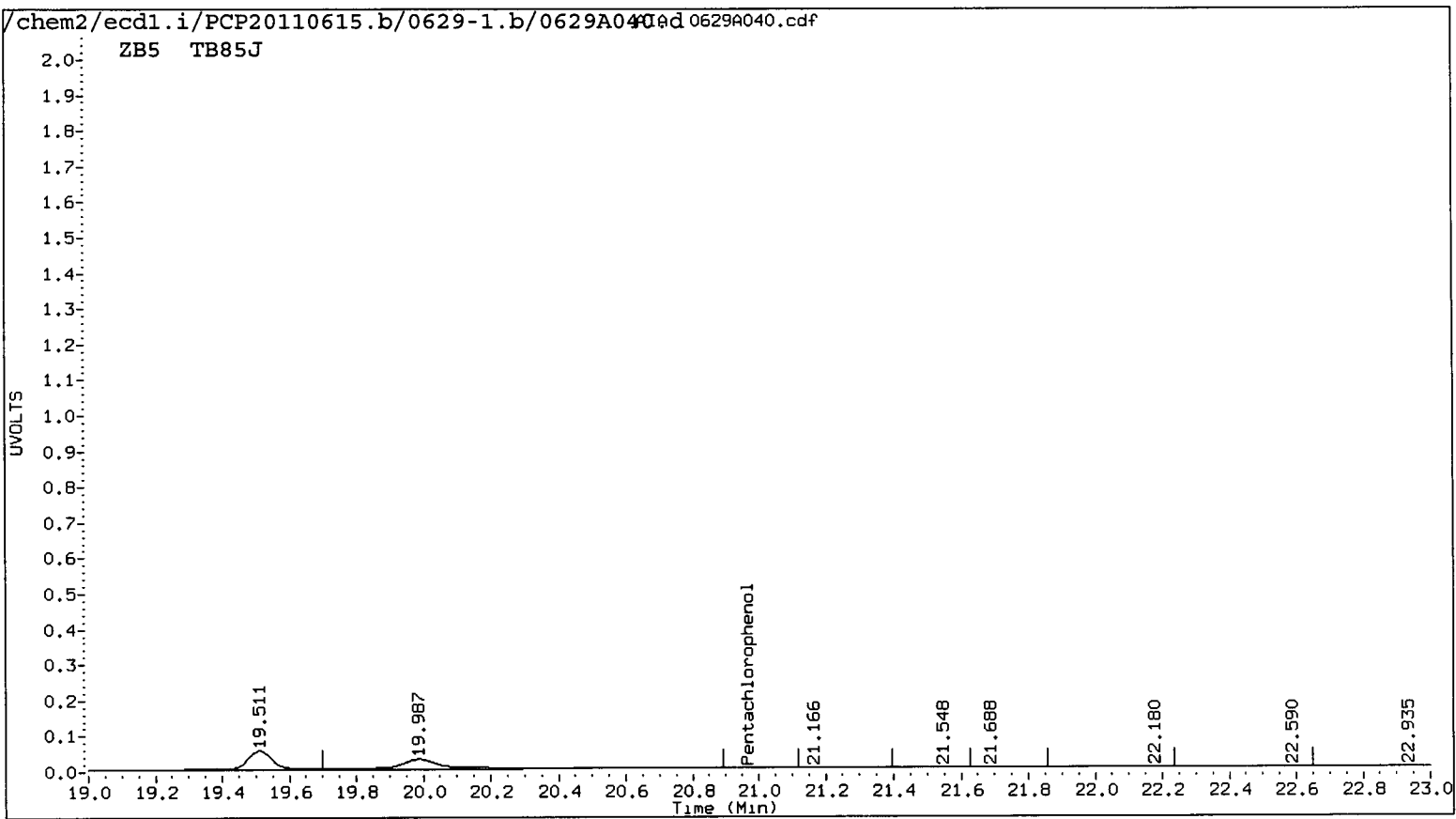
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A040.d ARI ID: TB85J
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A040.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 10:16
 Compound Sublist: all Report Date: 06/30/2011 15:26
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.965	-0.010	24483	----			1.0396	0.0000	---	Pentachlorophenol
----			14.340	0.044	2744	0.0000	0.1854	---	2,4,6-Trichlorophenol
----			15.591	0.049	8174	0.0000	0.5491	---	2,3,6-Trichlorophenol
15.848	0.024	40611	17.451	-0.010	18680	5.1062	2.1952	79.7*	2,4,5-Trichlorophenol
17.400	0.069	32602	----			3.3882	0.0000	---	2,3,4-Trichlorophenol
----			18.812	0.013	25572	0.0000	1.1365	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.495	-0.039	12534	13.827	0.021	2019	13.7947	2.2303	144.3*	2,4-Dichlorophenol
18.570	-0.004	390171	20.918	-0.004	421560	21.2	19.6	7.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

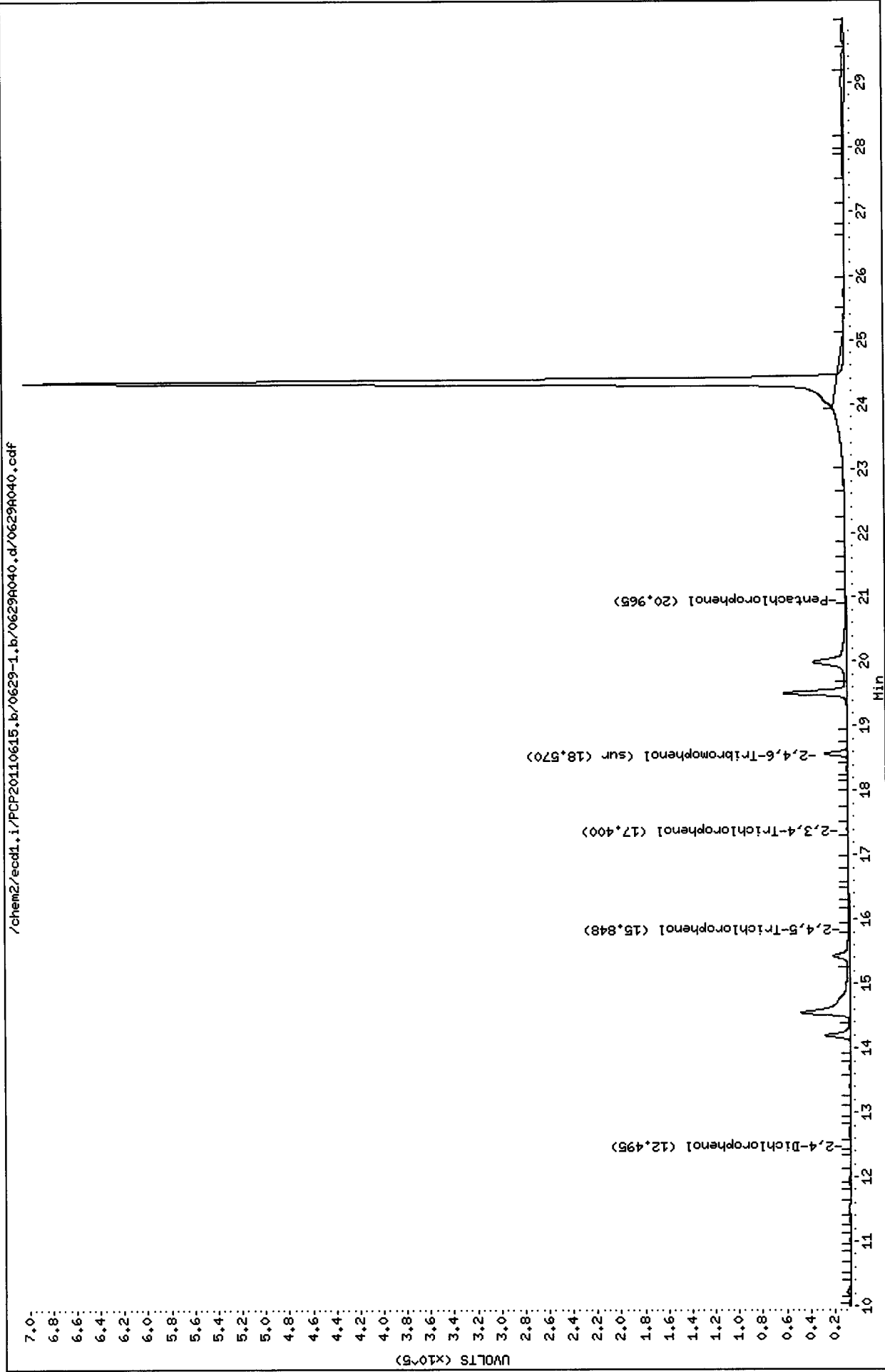
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	84.7	78.6





TB85 : 00280

Data File: /chem2/ecd1.i/PCP20110615.b/0629-1.b/0629A040.d
Date : 30-JUN-2011 10:16
Client ID:
Sample Info: TB85J
Instrument: ecd1.i
Operator: ar
Column diameter: 0.53
Column phase: STX CLP1



Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629A040.d

Date : 30-JUN-2011 10:16

Client ID:

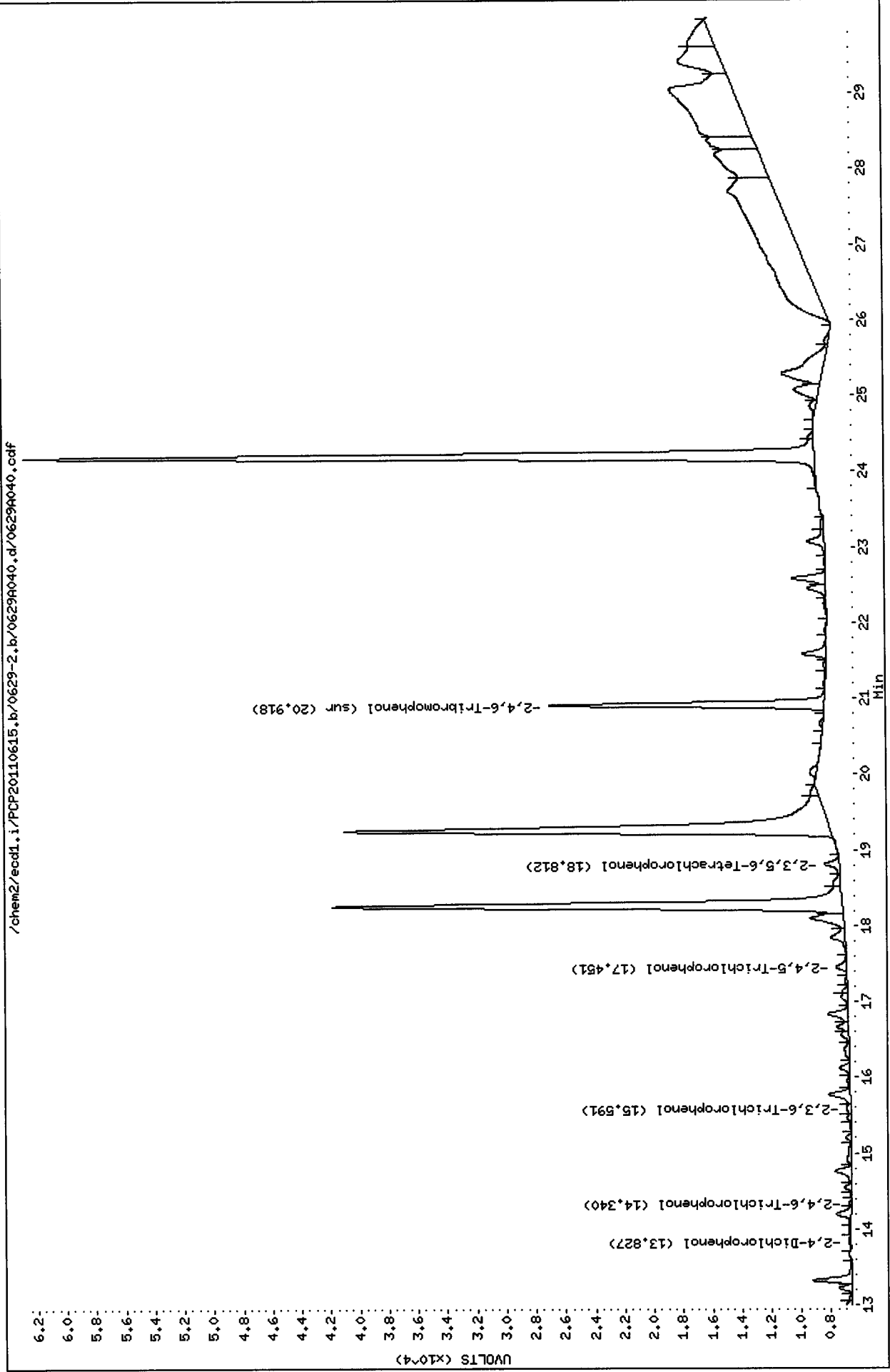
Sample Info: TB85J

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

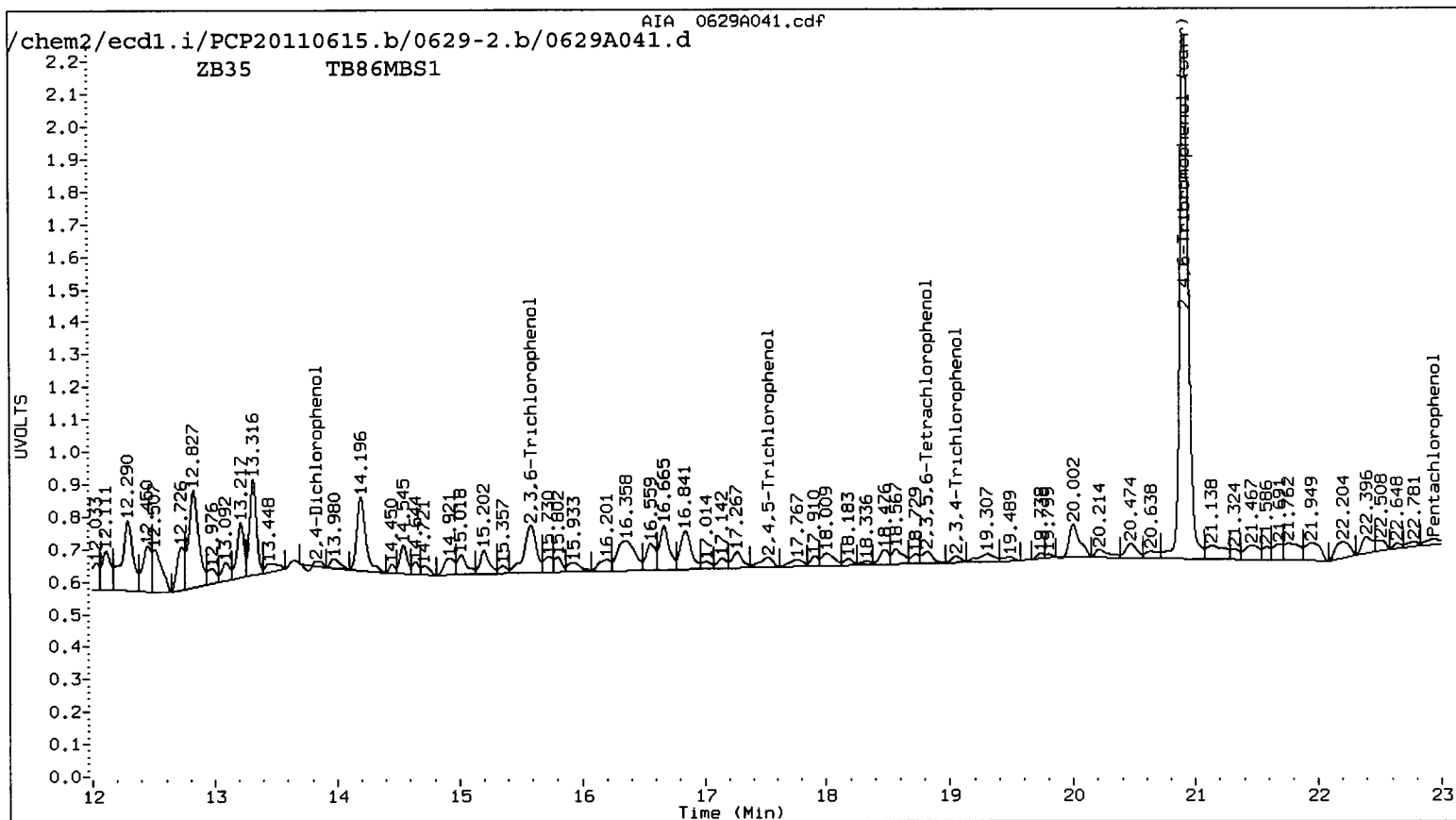
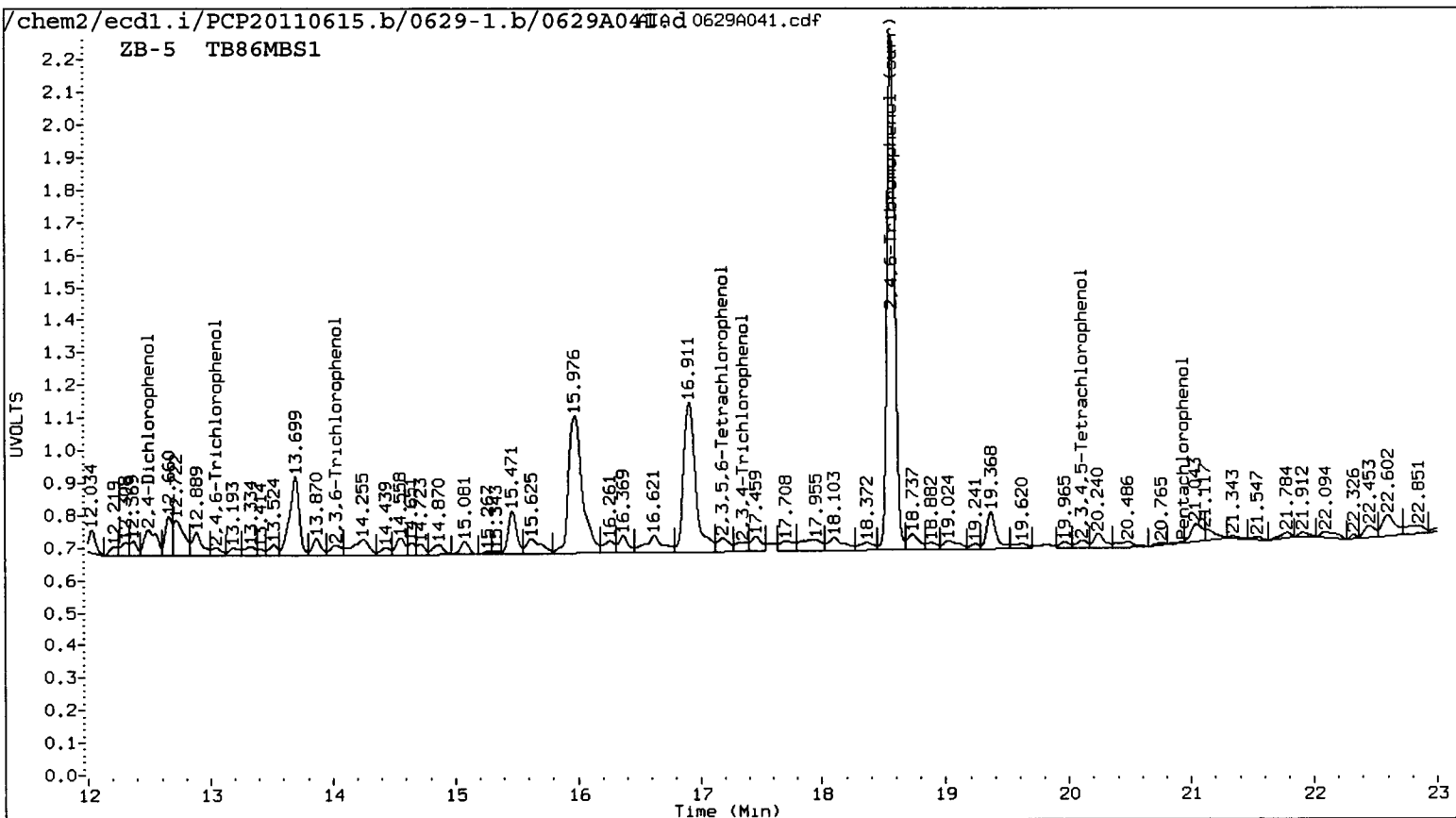
AR 6/30/2011

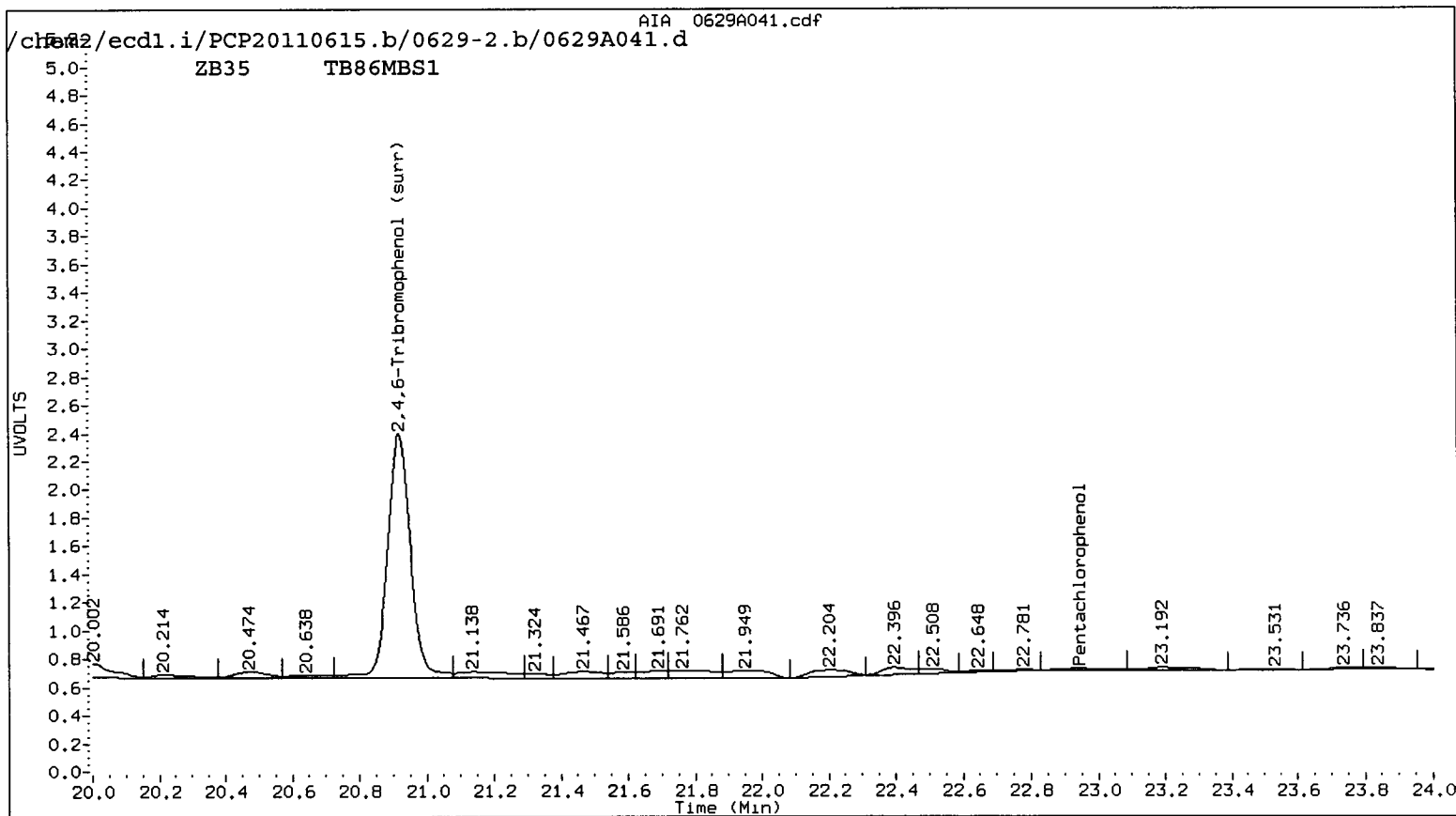
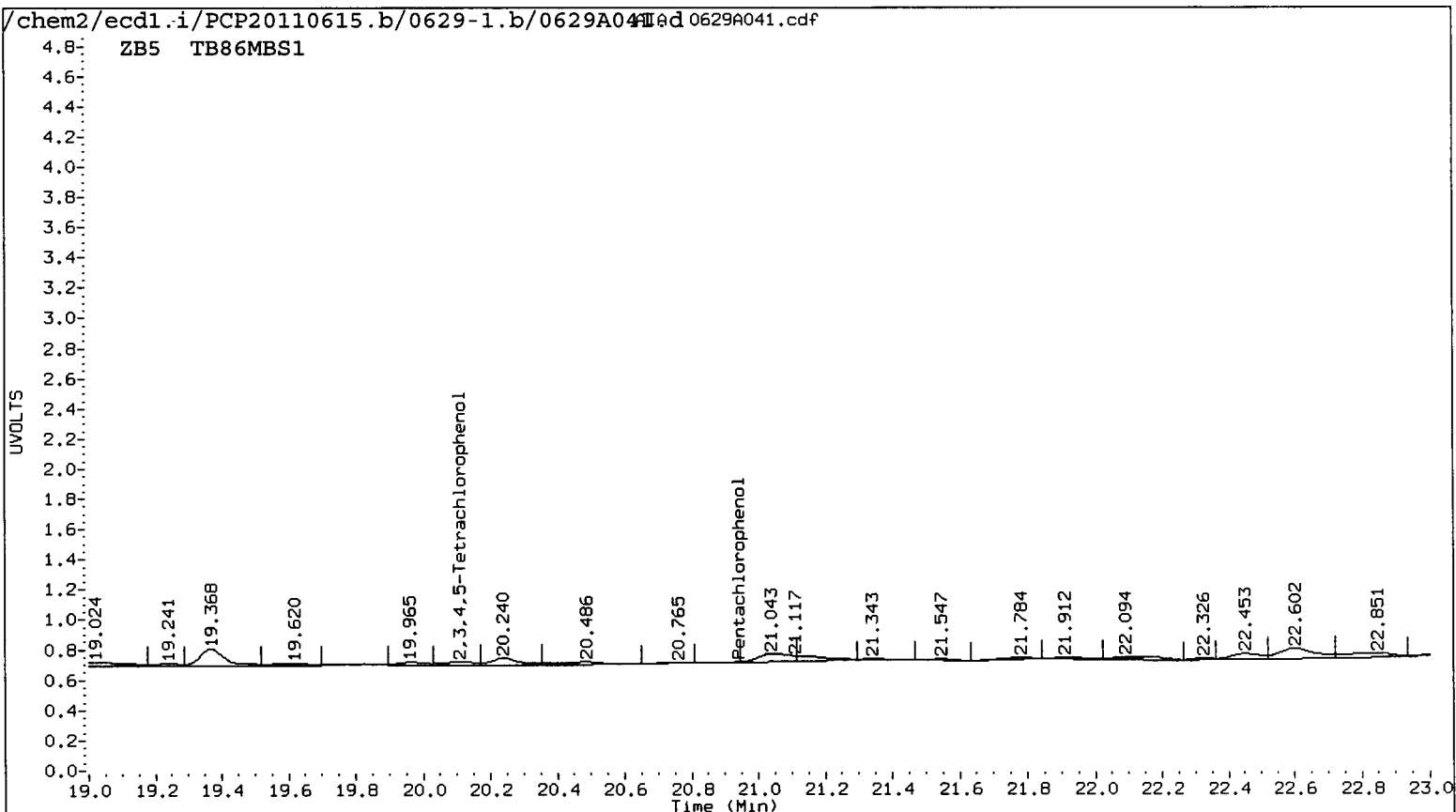
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A041.d ARI ID: TB86MBS1
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A041.d Client ID: TB86MBS1
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 10:53
 Compound Sublist: all Report Date: 06/30/2011 15:48
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.947	-0.029	564	22.942	-0.011	8215	0.0239	0.2734	167.8*	Pentachlorophenol
13.049	-0.031	6569	----			0.4665	0.0000	---	2,4,6-Trichlorophenol
14.028	-0.046	9041	15.584	0.042	51239	0.6922	3.4417	133.0*	2,3,6-Trichlorophenol
----			17.525	0.065	11460	0.0000	1.3467	---	2,4,5-Trichlorophenol
17.354	0.023	10222	19.054	0.044	5297	1.0624	0.5221	68.2*	2,3,4-Trichlorophenol
17.184	0.053	14191	18.821	0.021	10648	0.7255	0.4732	42.1*	2,3,5,6-Tetrachlorophenol
20.111	-0.023	6902	----			0.4673	0.0000	---	2,3,4,5-Tetrachlorophenol
12.494	-0.040	29046	13.833	0.027	1094	32.6212	1.2076	185.7*	2,4-Dichlorophenol
18.569	-0.005	342364	20.918	-0.004	409074	18.6	19.1	2.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	74.3	76.2





Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A041.d

Date : 30-JUN-2011 10:53

Client ID: TB86MBS1

Sample Info: TB86MBS1

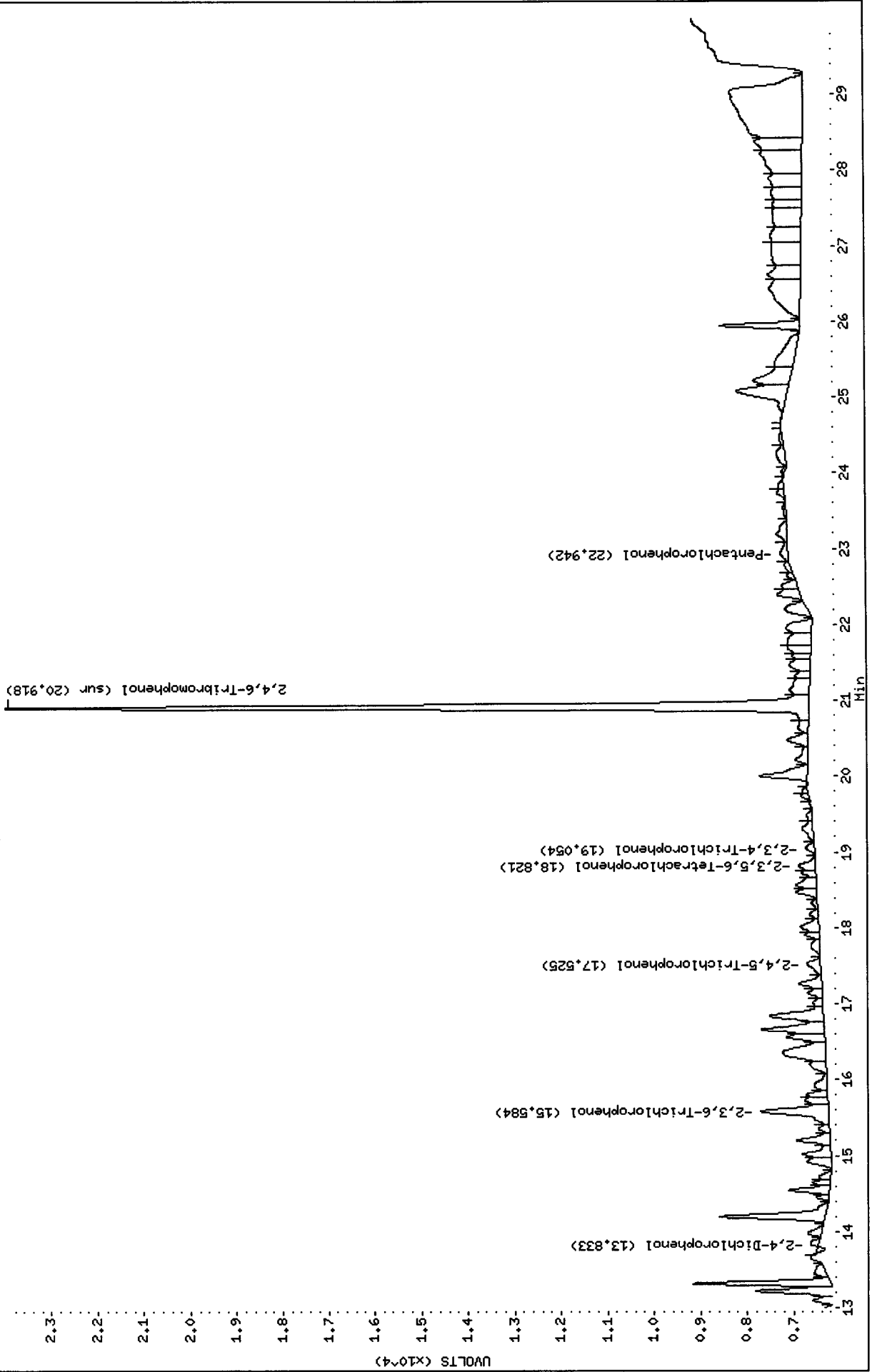
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A041.d/0629A041.cdf



Data File: /chem2/ecd1.i/PCP20110615.b/0629-1.b/06290041.d

Date : 30-JUN-2011 10:53

Client ID: TB86MBS1

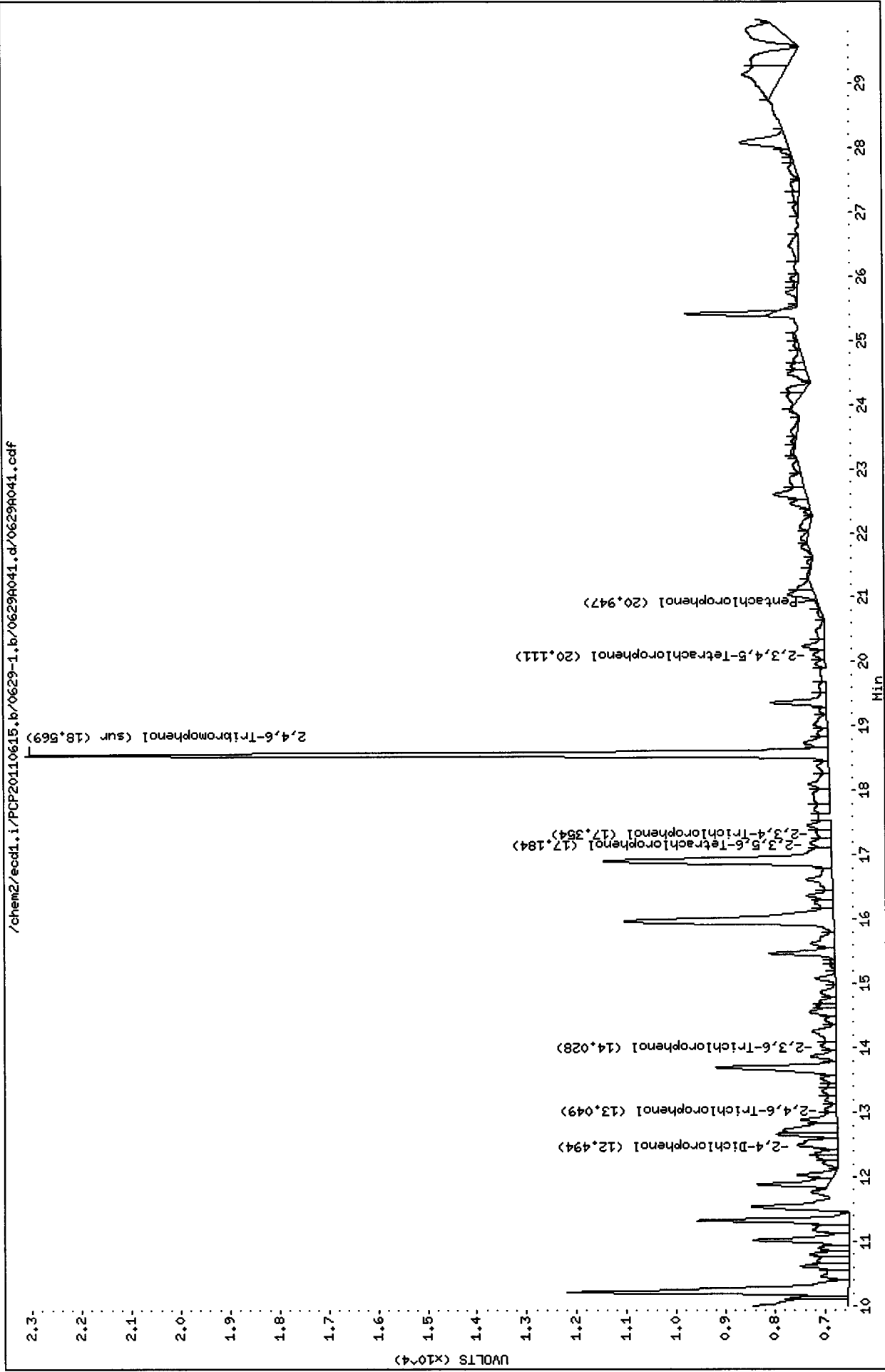
Sample Info: TB86MBS1

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

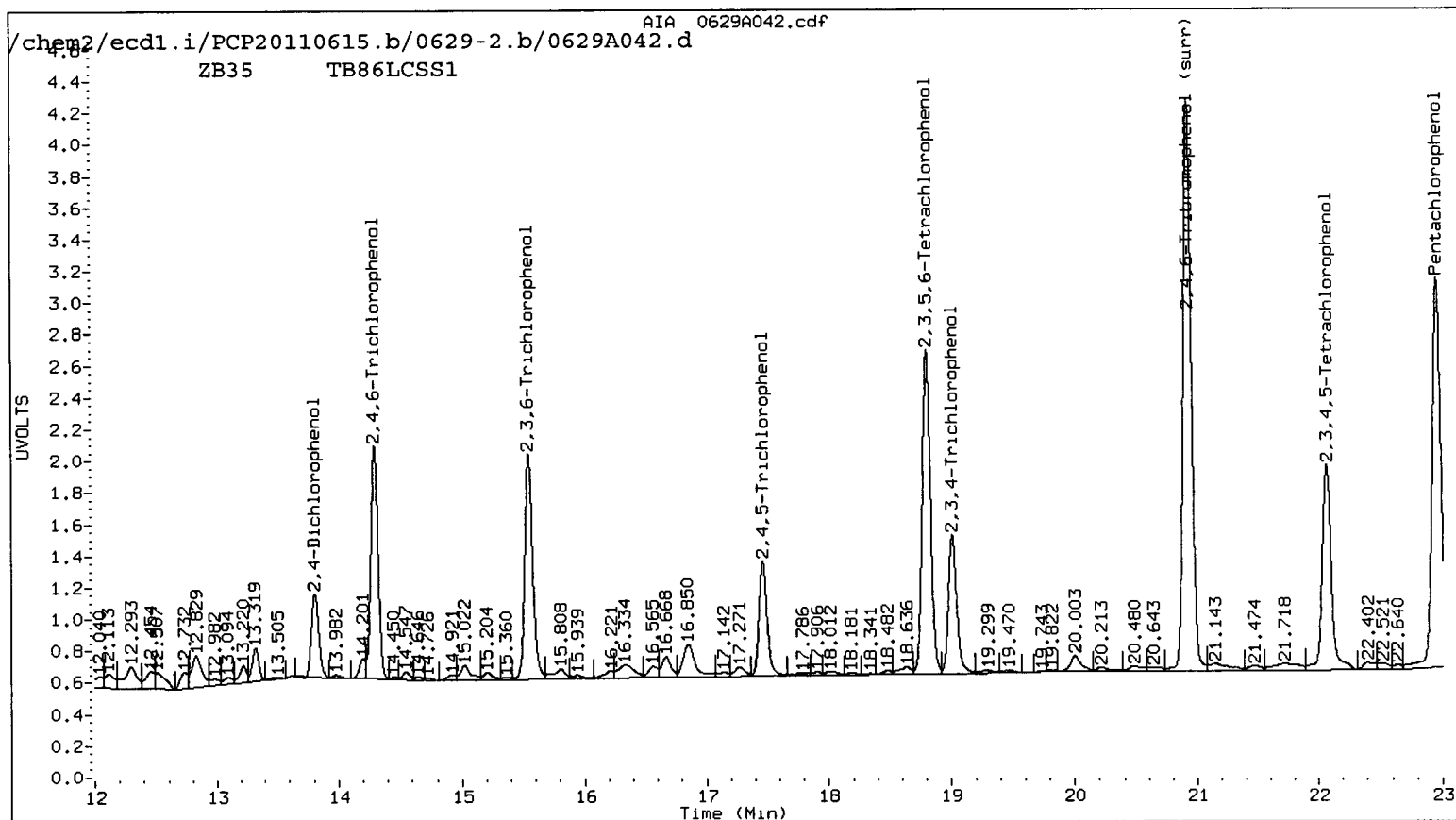
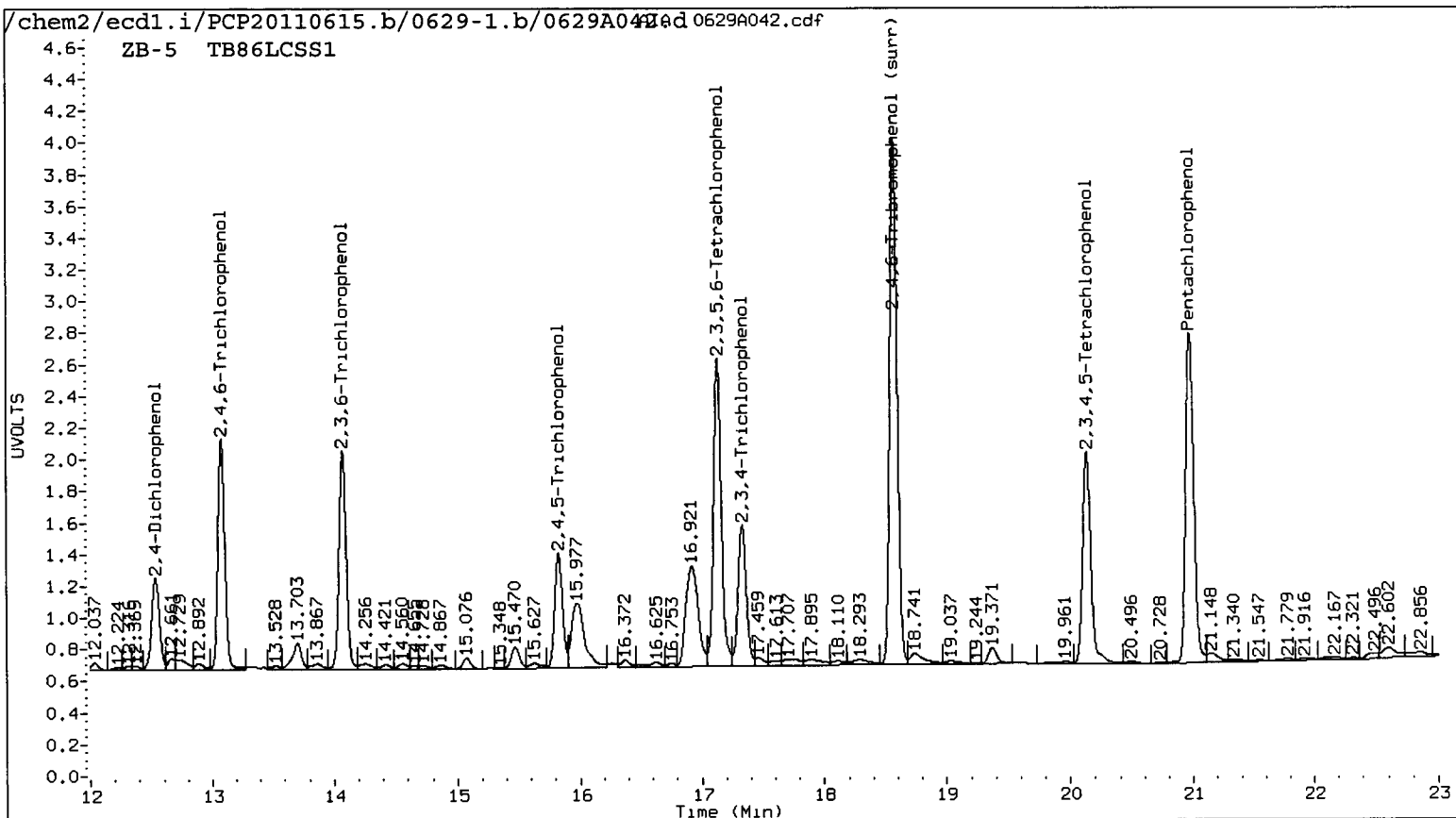
AR 6/30/2011

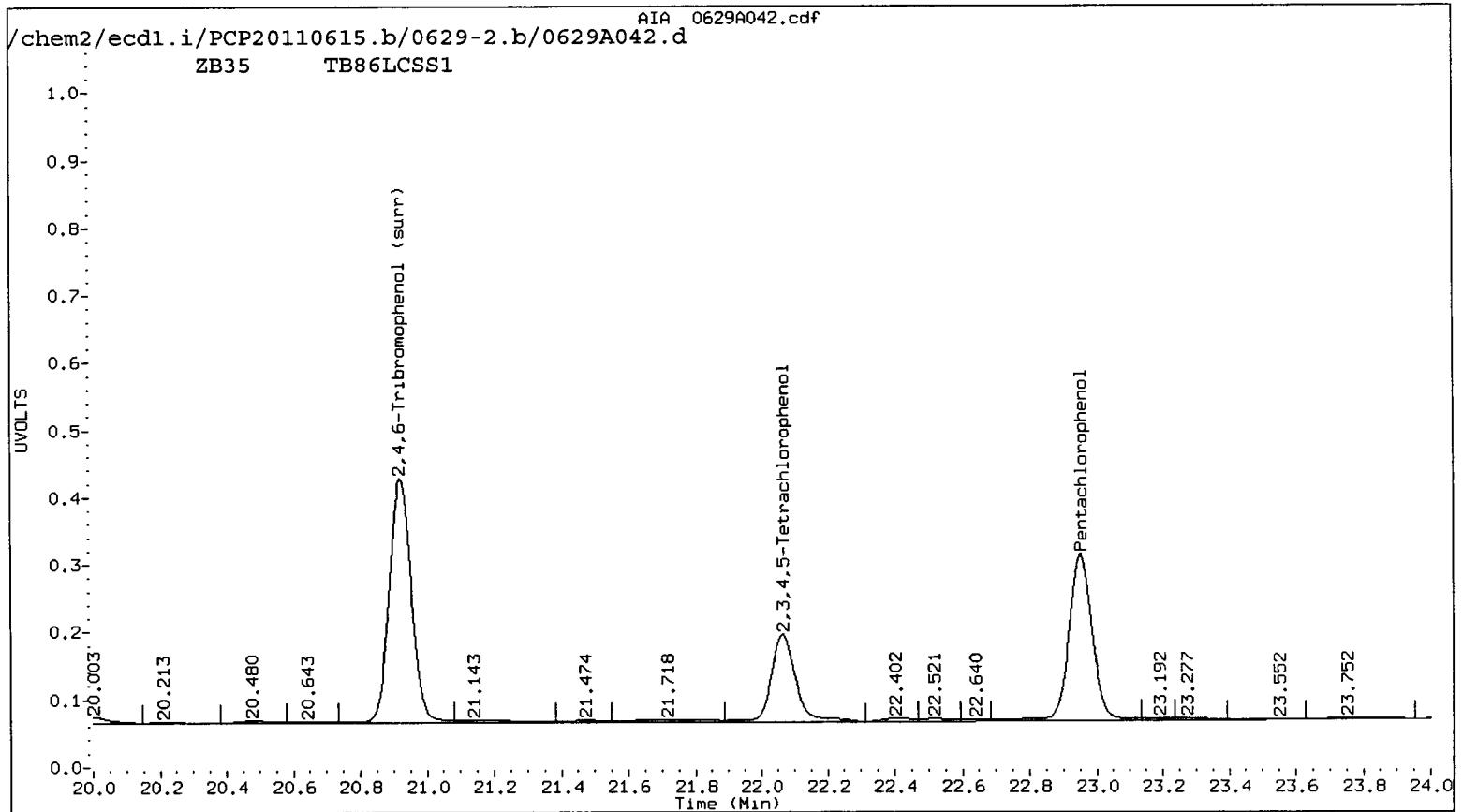
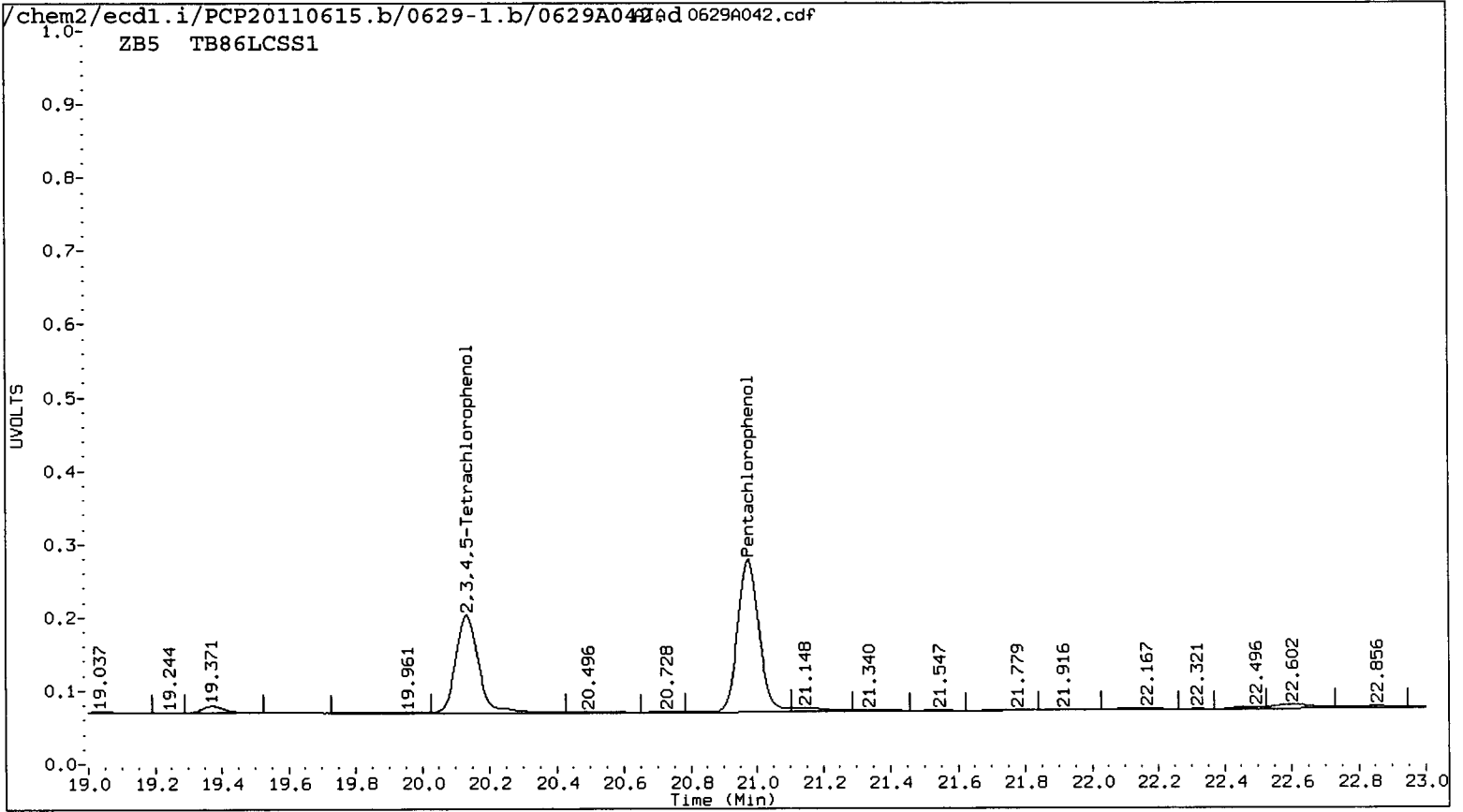
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A042.d ARI ID: TB86LCSS1
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A042.d Client ID: TB86LCSS1
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 11:29
 Compound Sublist: all Report Date: 06/30/2011 15:48
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift	ZB-5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.975	-0.001	474580	22.952	-0.001	603792	20.1519	20.0938	0.3	Pentachlorophenol
13.078	-0.001	295422	14.294	-0.001	304450	20.9795	20.5670	2.0	2,4,6-Trichlorophenol
14.073	-0.002	283713	15.542	-0.001	320684	21.7208	21.5402	0.8	2,3,6-Trichlorophenol
15.824	0.000	159229	17.460	-0.001	171390	20.0204	20.1411	0.6	2,4,5-Trichlorophenol
17.329	-0.002	205762	19.009	-0.001	210218	21.3838	20.7179	3.2	2,3,4-Trichlorophenol
17.130	-0.001	433816	18.798	-0.001	468355	22.1787	20.8139	6.3	2,3,5,6-Tetrachlorophenol
20.133	-0.001	314200	22.065	-0.002	336029	21.2729	19.8082	7.1	2,3,4,5-Tetrachlorophenol
12.532	-0.002	129551	13.805	-0.001	111378	163.2568	141.4610	14.3	2,4-Dichlorophenol
18.572	-0.002	707108	20.921	-0.002	832302	38.4	38.8	1.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	80.6	80.4
2,4,6-Trichlorophenol	83.9	82.3
2,3,6-Trichlorophenol	86.9	86.2
2,4,5-Trichlorophenol	80.1	80.6
2,3,4-Trichlorophenol	85.5	82.9
2,3,5,6-Tetrachlorophenol	88.7	83.3
2,3,4,5-Tetrachlorophenol	85.1	79.2
2,4-Dichlorophenol	65.3	56.6
2,4,6-TBP (surr)	76.7	77.6





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-2.b/0629A042.d

Date : 30-JUN-2011 11:29

Client ID: TB86LCSS1

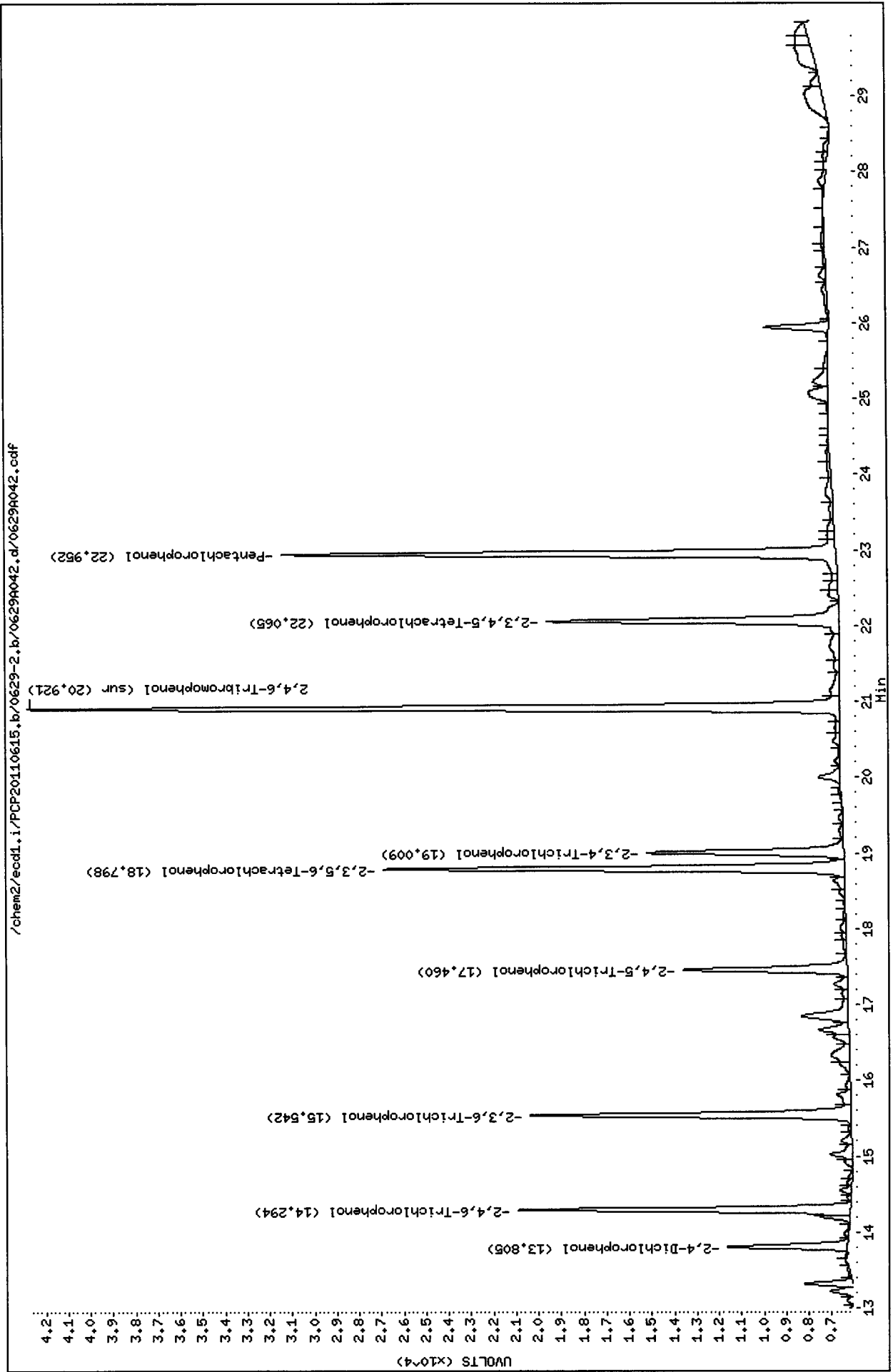
Sample Info: TB86LCSS1

Instrument: ecsl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A042.d

Date : 30-JUN-2011 11:29

Client ID: TB86LCSS1

Sample Info: TB86LCSS1

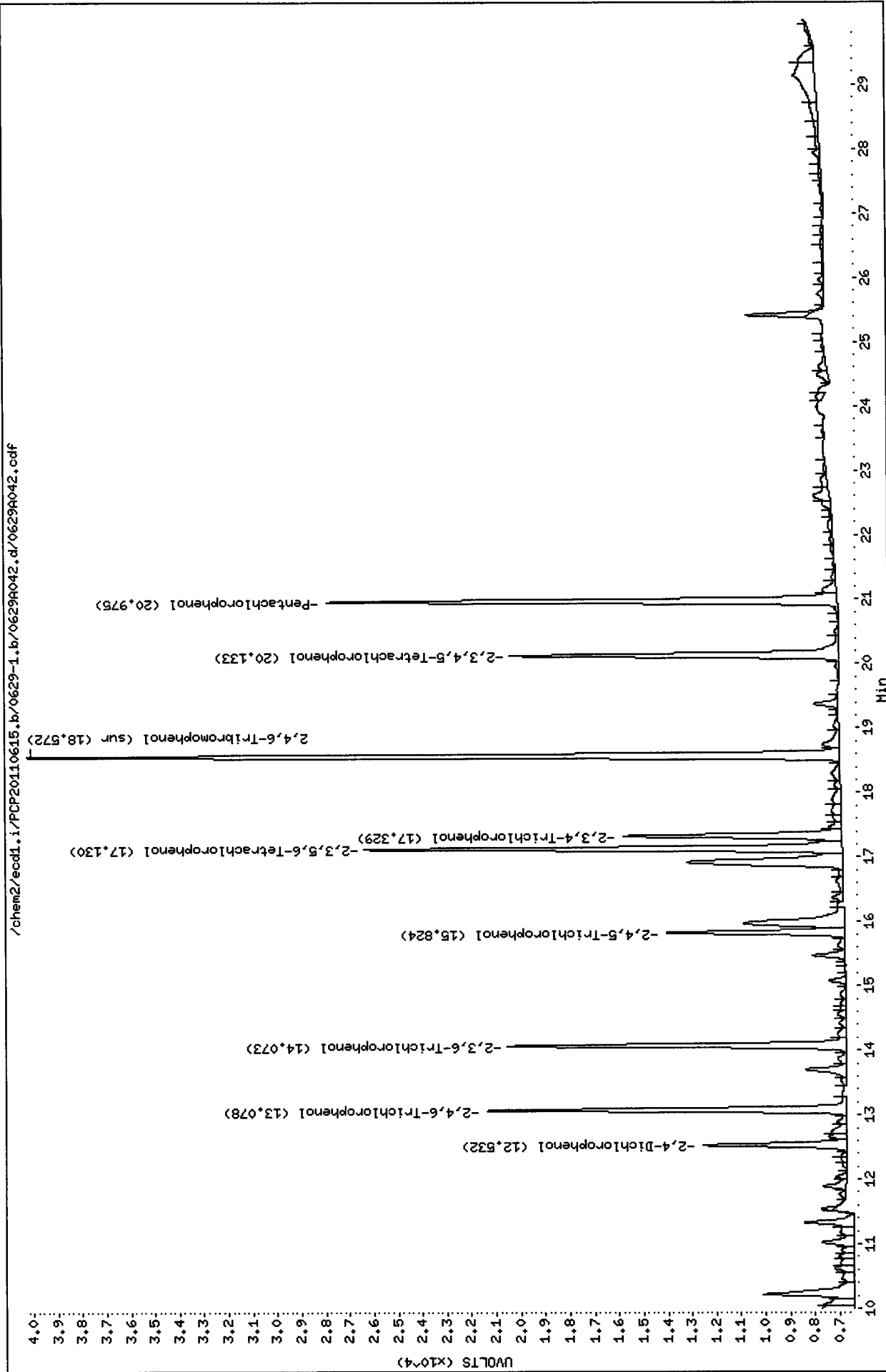
Column phase: STX CLP1

Instrument: eccl.i

Operator: ar

Column diameter: 0.53

/chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A042.d/0629A042.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

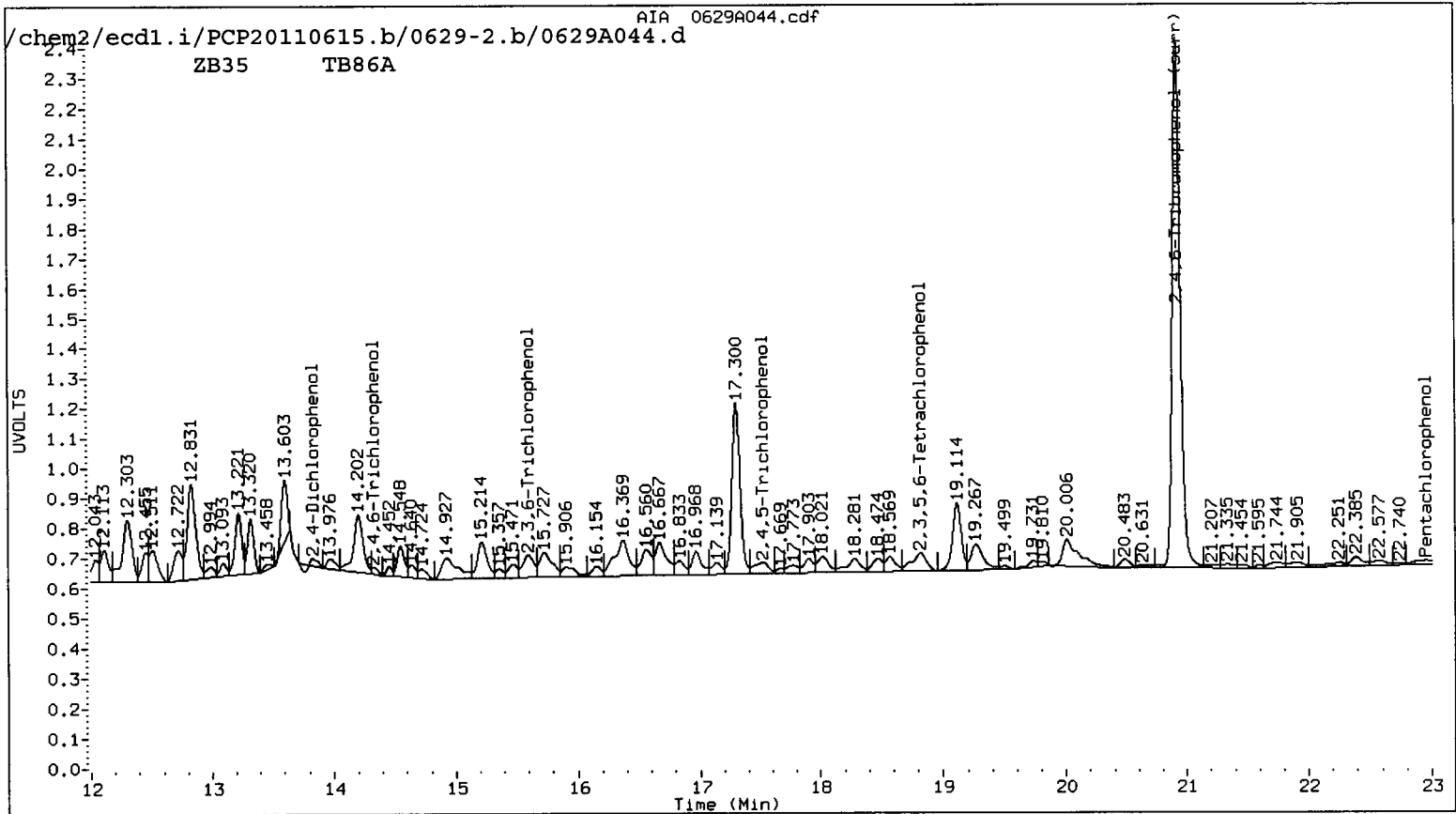
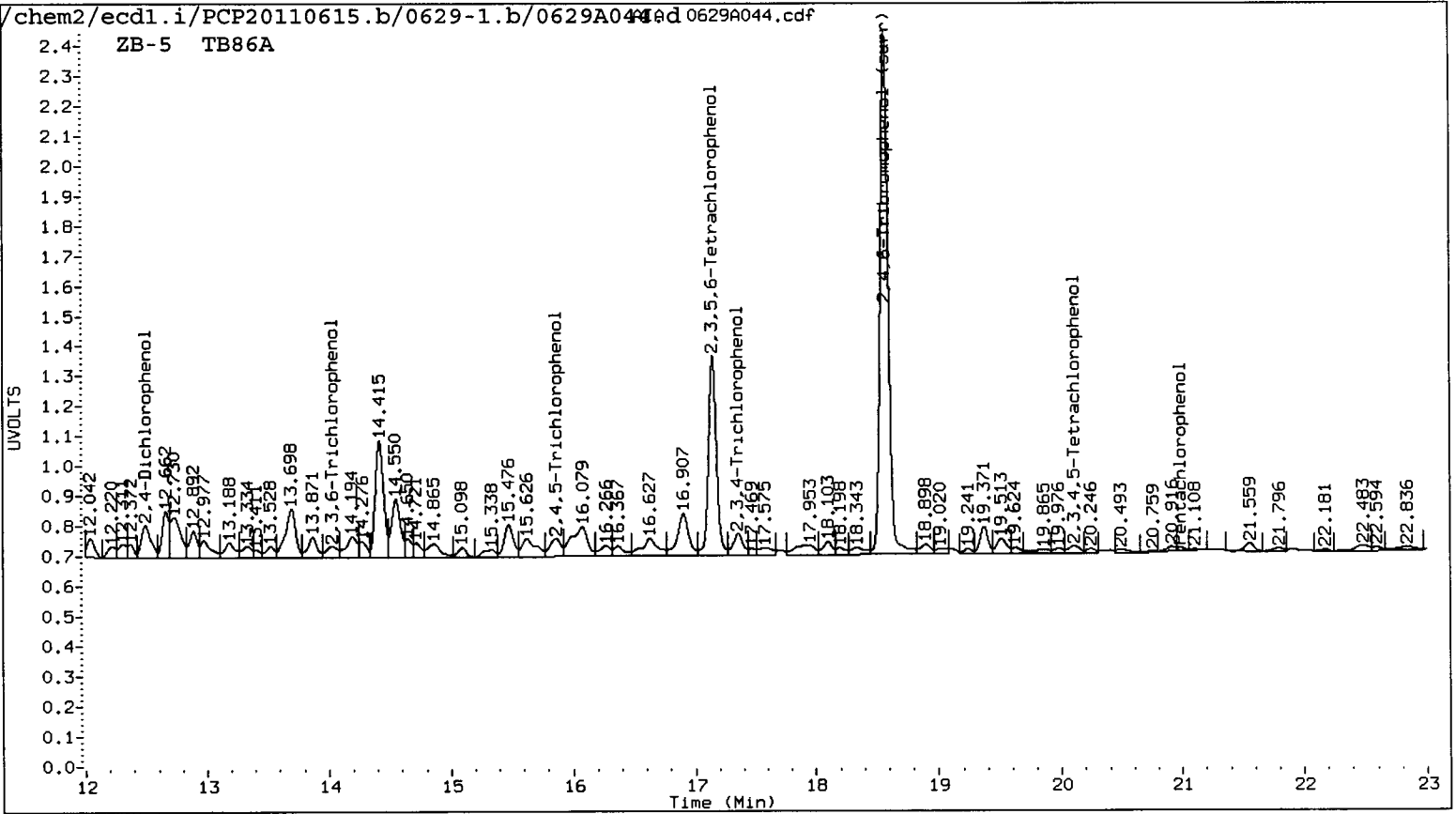
AF 6/30/2011

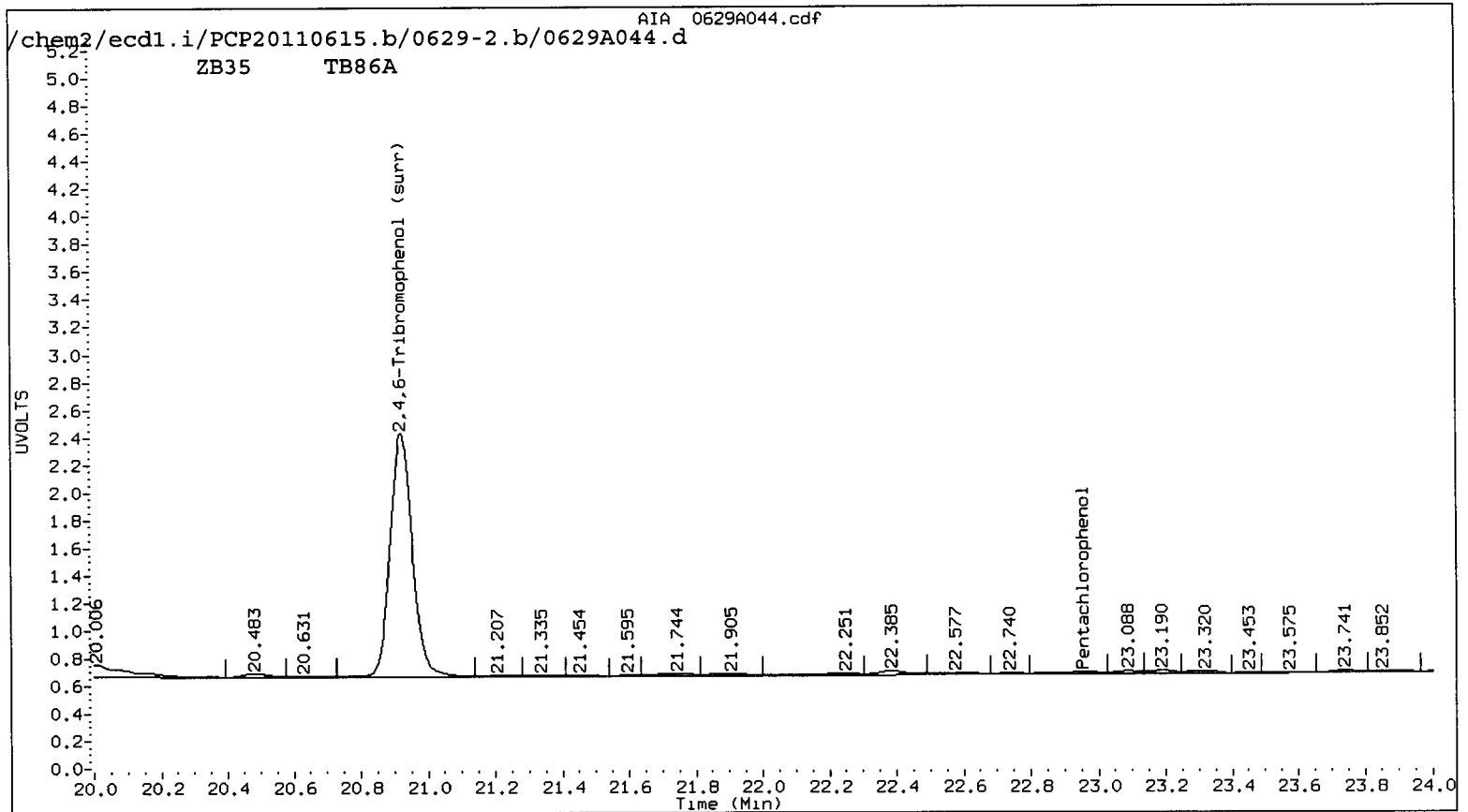
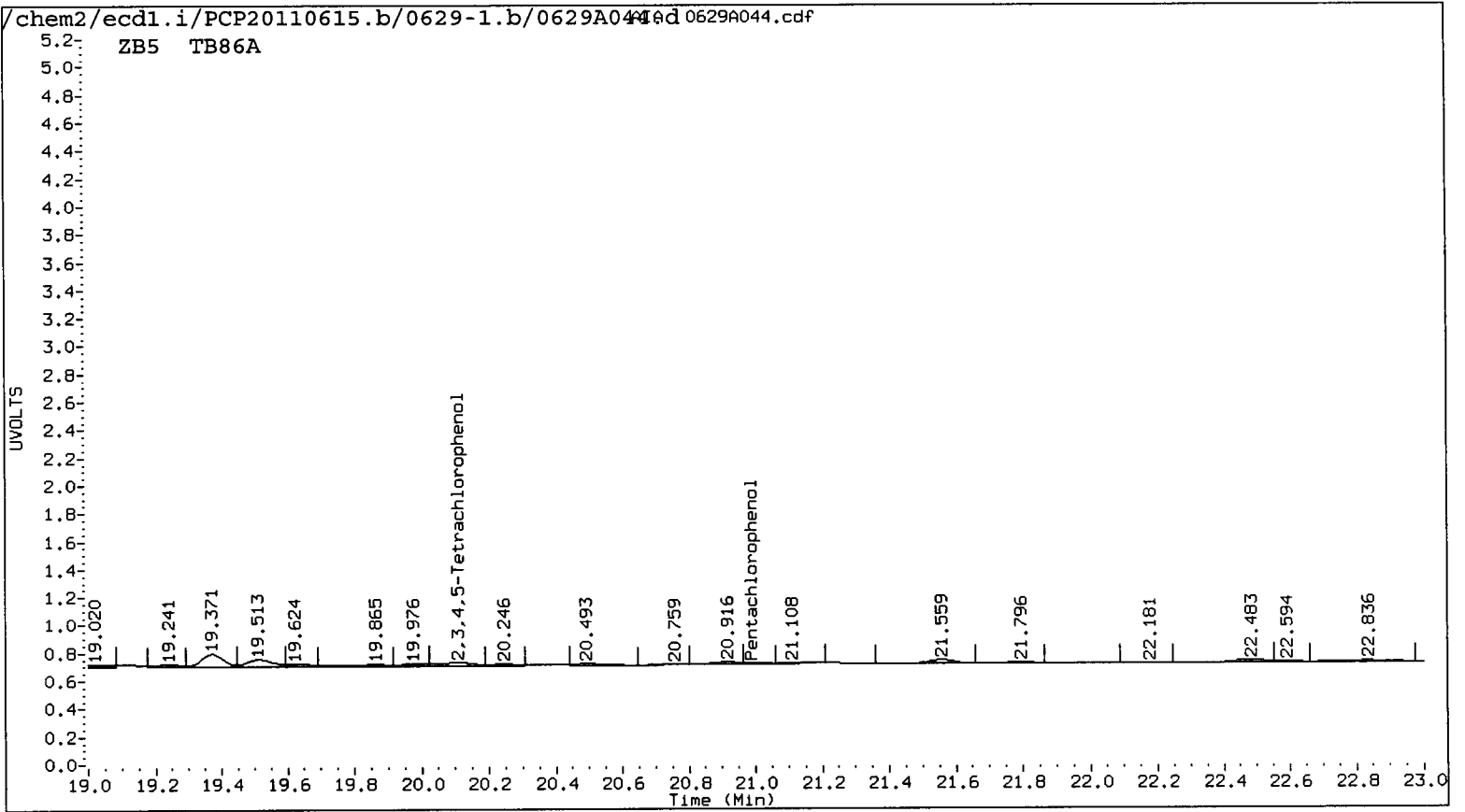
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A044.d ARI ID: TB86A
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A044.d Client ID: SB-01-062211-20
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 12:42
 Compound Sublist: all Report Date: 06/30/2011 15:48
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.991	0.015 2164	22.953 0.000 7839	0.0919	0.2609	95.8*	Pentachlorophenol
----		14.330 0.034 4034	0.0000	0.2725	---	2,4,6-Trichlorophenol
14.028	-0.047 11032	15.595 0.053 23190	0.8446	1.5577	59.4*	2,3,6-Trichlorophenol
15.862	0.038 18060	17.523 0.062 15724	2.2707	1.8479	20.5	2,4,5-Trichlorophenol
17.355	0.024 20331	----	2.1129	0.0000	---	2,3,4-Trichlorophenol
17.147	0.016 153647	18.819 0.020 24394	7.8552	1.0841	151.5*	2,3,5,6-Tetrachlorophenol
20.109	-0.025 7923	----	0.5365	0.0000	---	2,3,4,5-Tetrachlorophenol
12.496	-0.038 29756	13.829 0.023 1743	33.4465	1.9255	178.2*	2,4-Dichlorophenol
18.571	-0.003 396822	20.921 -0.001 410406	21.5	19.1	11.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	86.1	76.5





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629044.d

Date : 30-JUN-2011 12:42

Client ID: SB-01-062211-20

Sample Info: TB86A

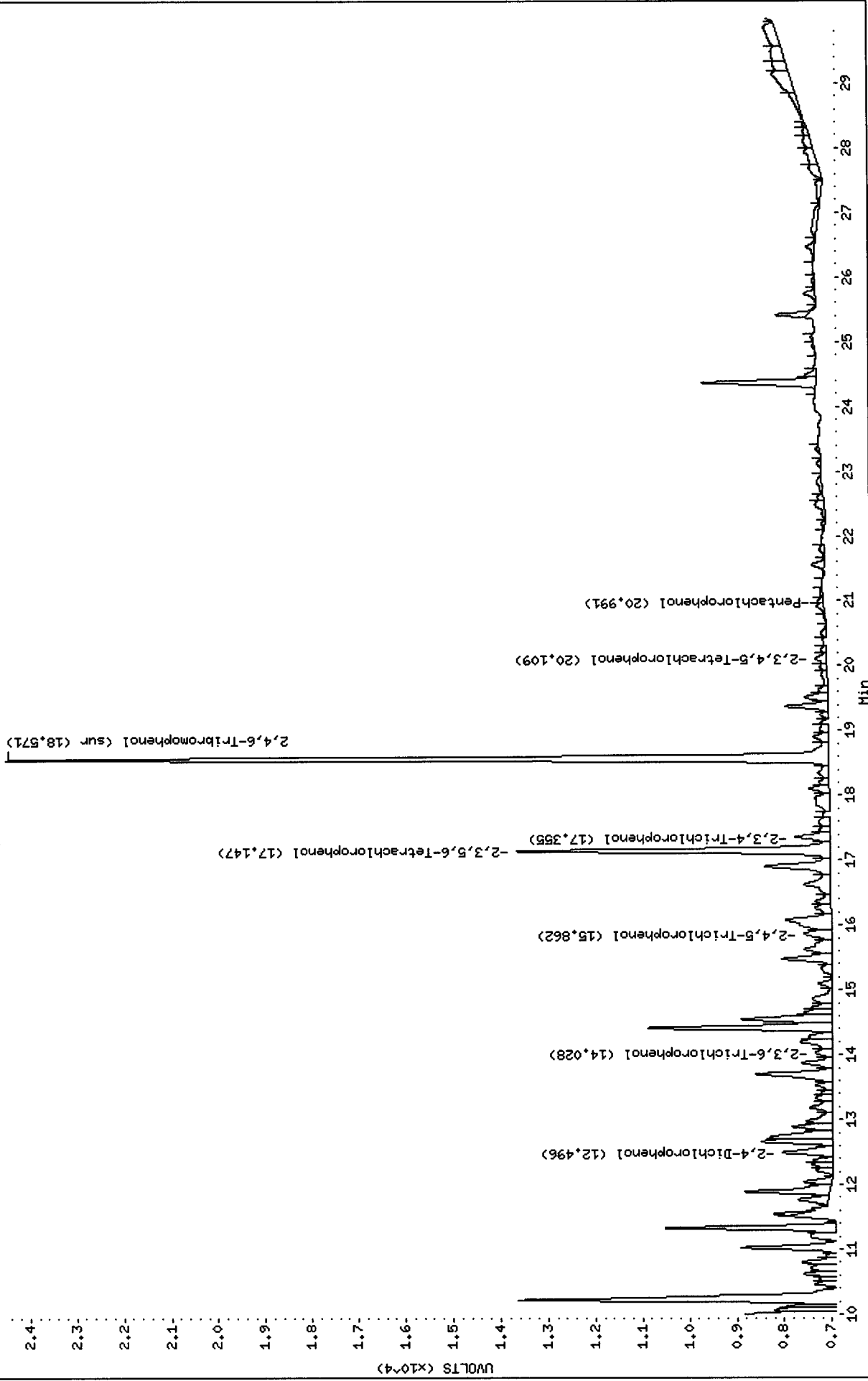
Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

/chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629044.d/0629044.cdf



Data File: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A044.d

Date : 30-JUN-2011 12:42

Client ID: SB-01-062211-20

Sample Info: TB86A

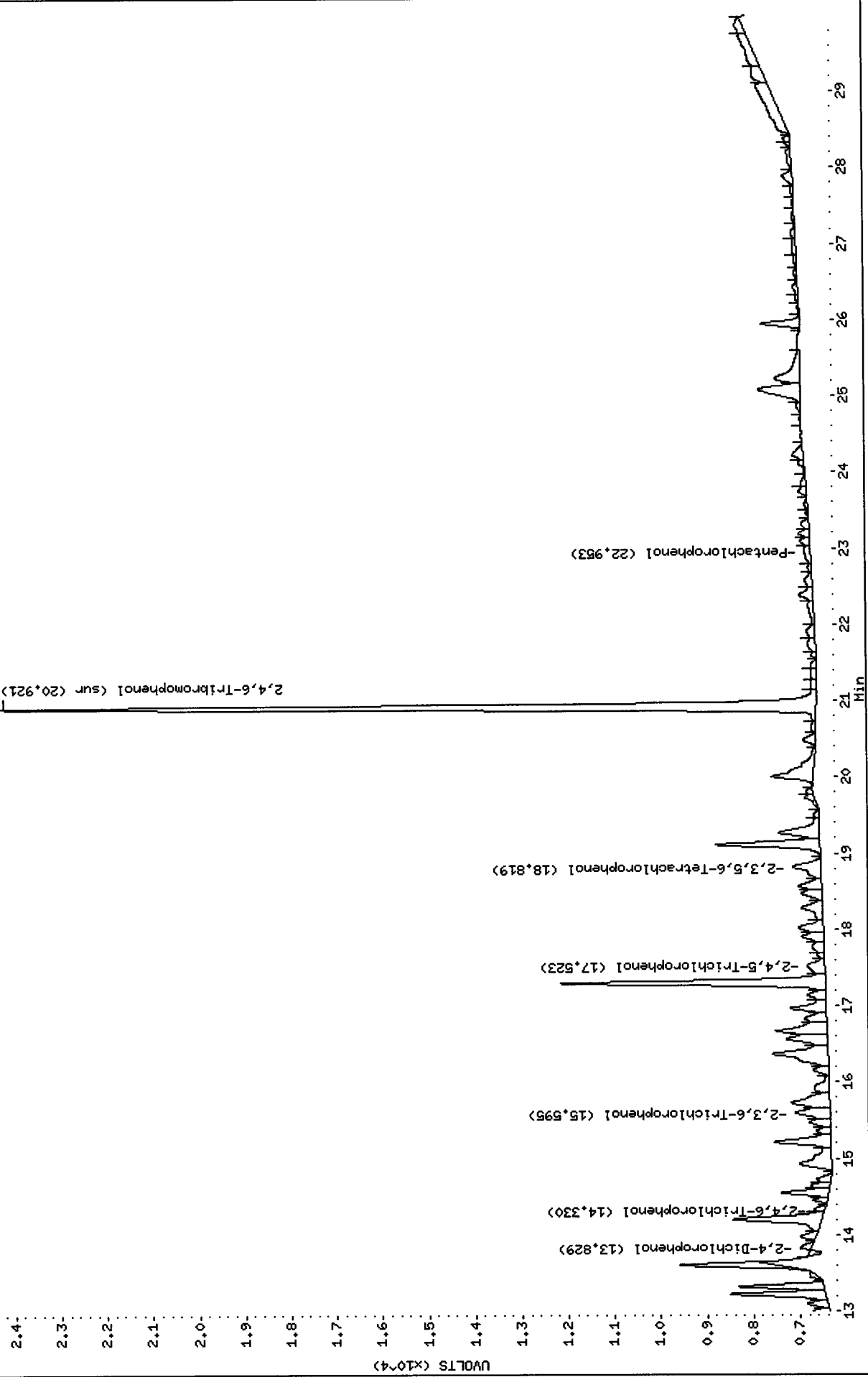
Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A044.d/0629A044.cdf



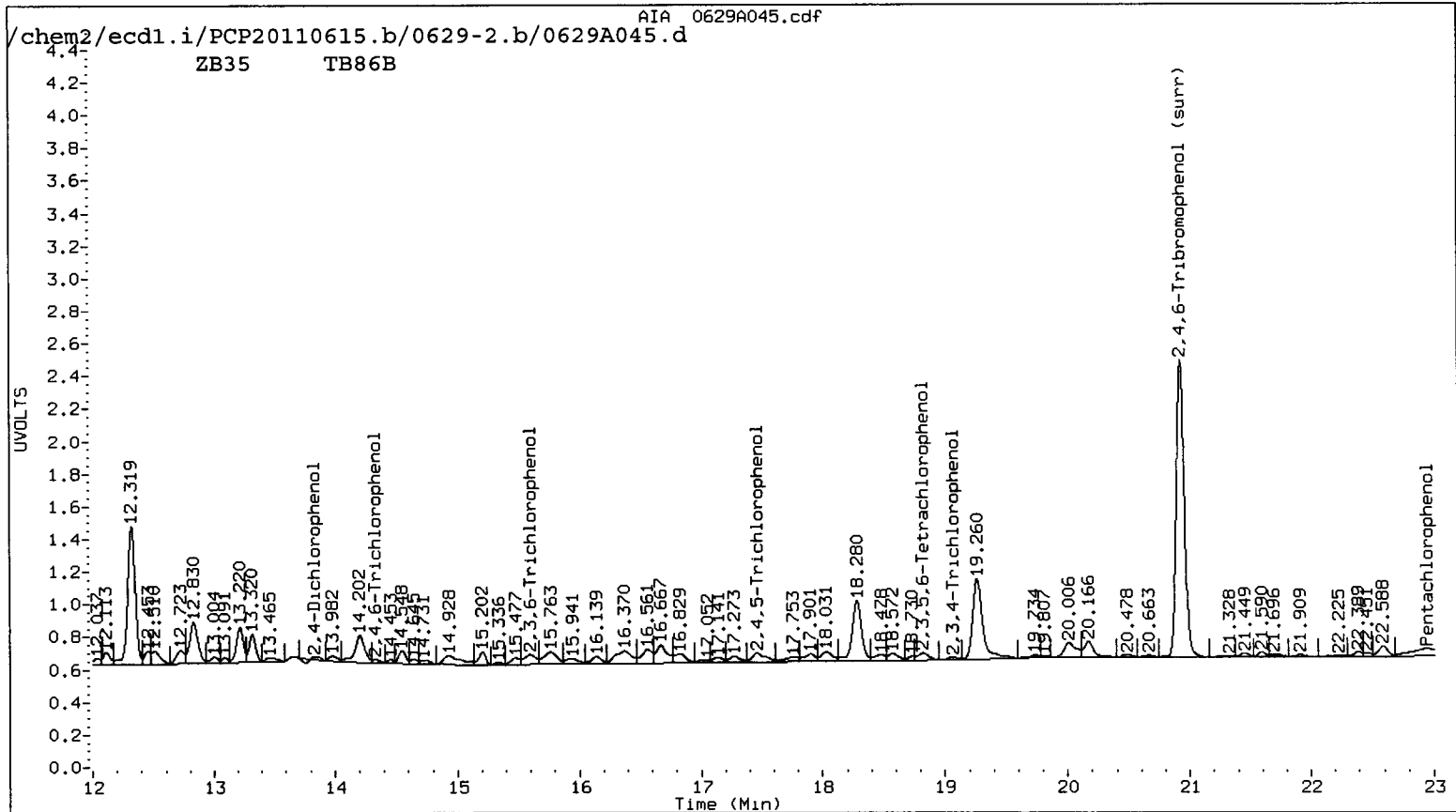
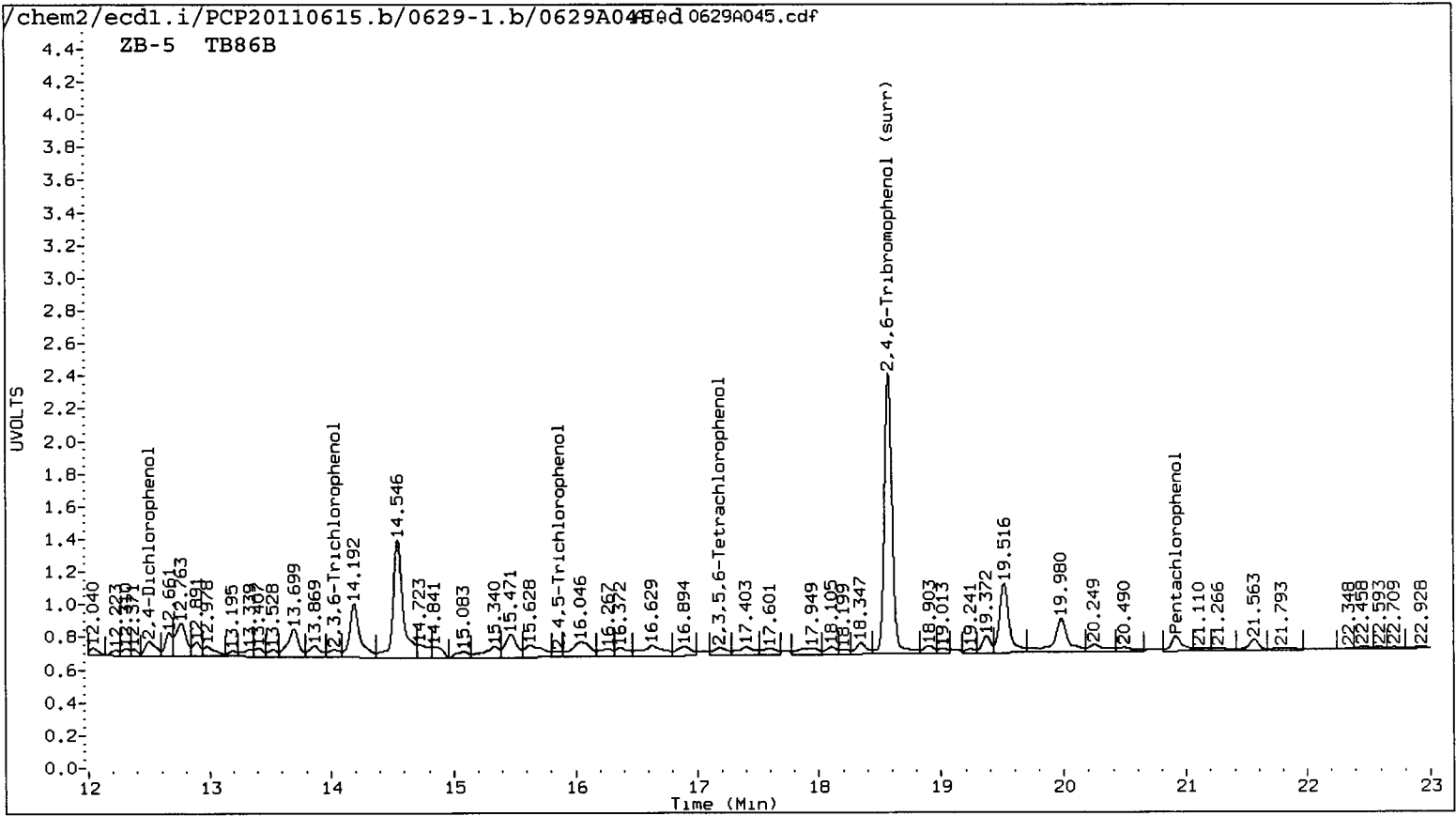
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report AR 6/30/2011

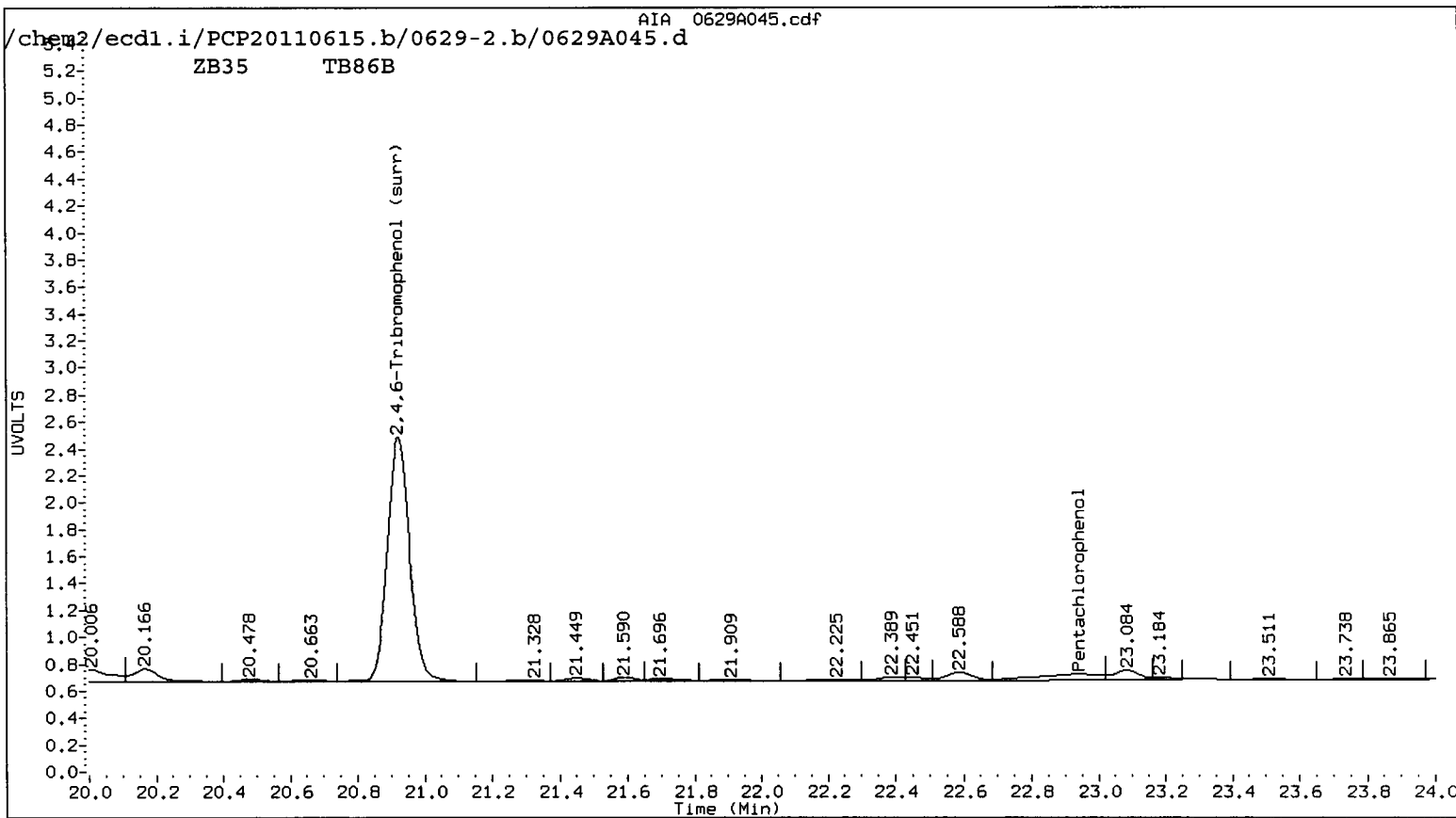
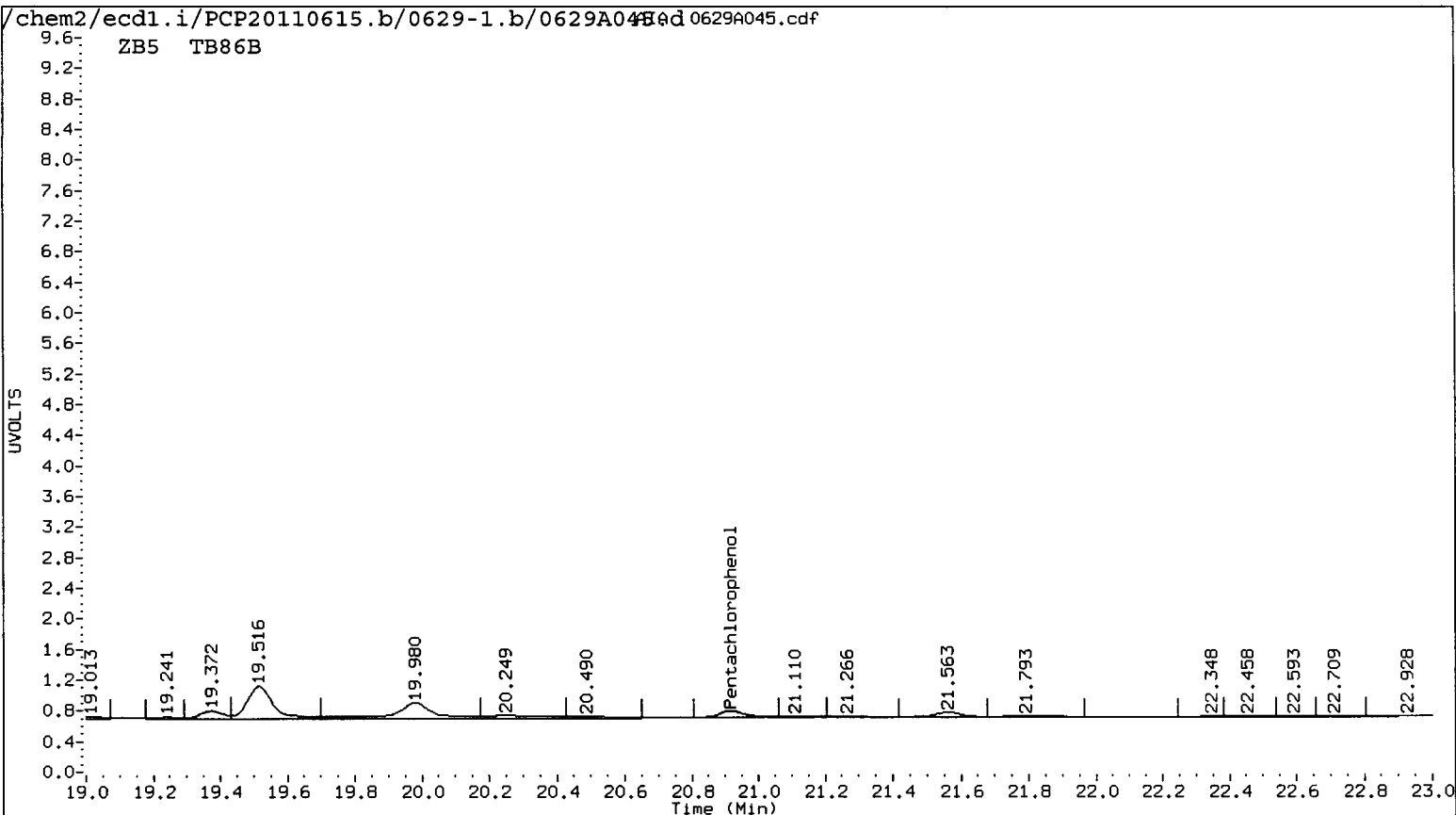
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A045.d ARI ID: TB86B
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A045.d Client ID: SB-01-062211-22
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 13:18
 Compound Sublist: all Report Date: 06/30/2011 15:48
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.917	-0.059	29243	22.940	-0.013	30037	1.2417	0.9996	21.6	Pentachlorophenol
----			14.334	0.038	3724	0.0000	0.2516	---	2,4,6-Trichlorophenol
14.029	-0.046	13790	15.594	0.051	20533	1.0558	1.3792	26.6	2,3,6-Trichlorophenol
15.861	0.037	8485	17.455	-0.005	21146	1.0669	2.4850	79.9*	2,4,5-Trichlorophenol
----			19.062	0.052	4239	0.0000	0.4179	---	2,3,4-Trichlorophenol
17.187	0.056	18432	18.818	0.019	13481	0.9423	0.5991	44.5*	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.500	-0.034	27096	13.834	0.028	1659	30.3591	1.8317	177.2*	2,4-Dichlorophenol
18.573	-0.001	385945	20.922	-0.001	417420	20.9	19.4	7.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	83.7	77.8





TB85: 00300

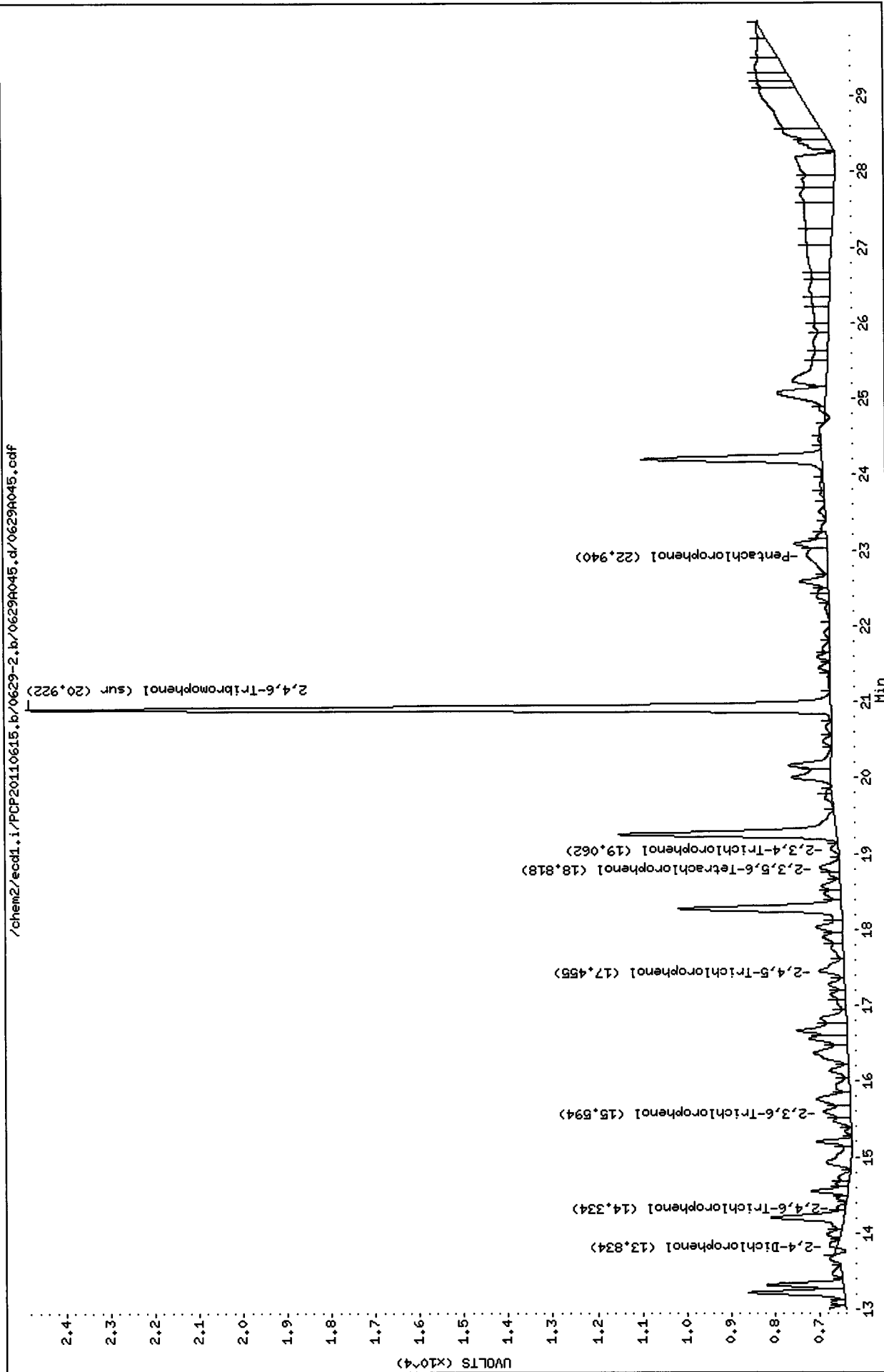
Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629a045.d
Date : 30-JUN-2011 13:18
Client ID: SB-01-062211-22
Sample Info: TB86B

Instrument: eod1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2

/chem2/eod1.i/PCP20110615.b/0629-2.b/0629a045.d/0629a045.cdf



Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629R045.d

Date : 30-JUN-2011 13:18

Client ID: SB-01-062211-22

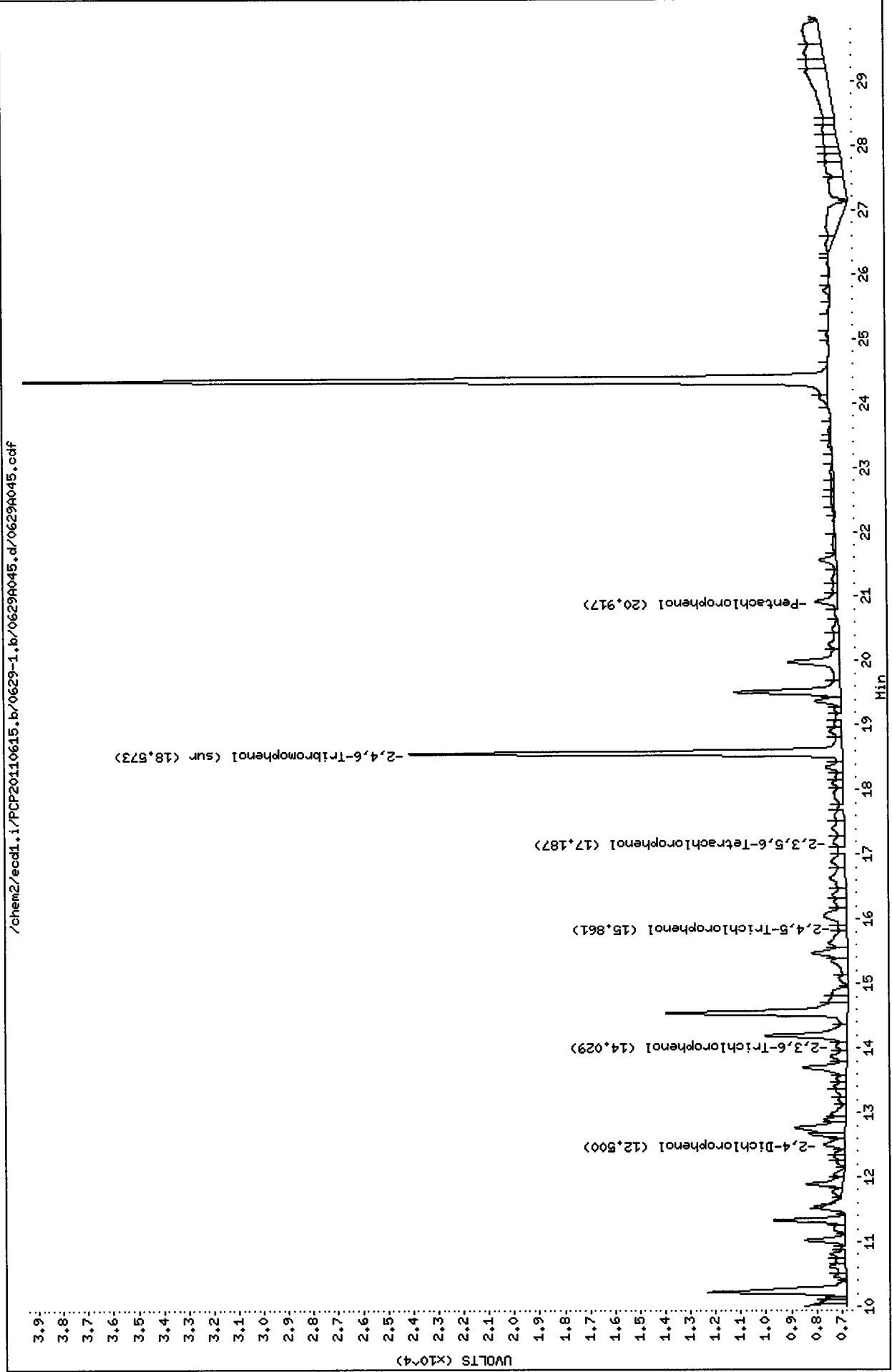
Sample Info: TB86B

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

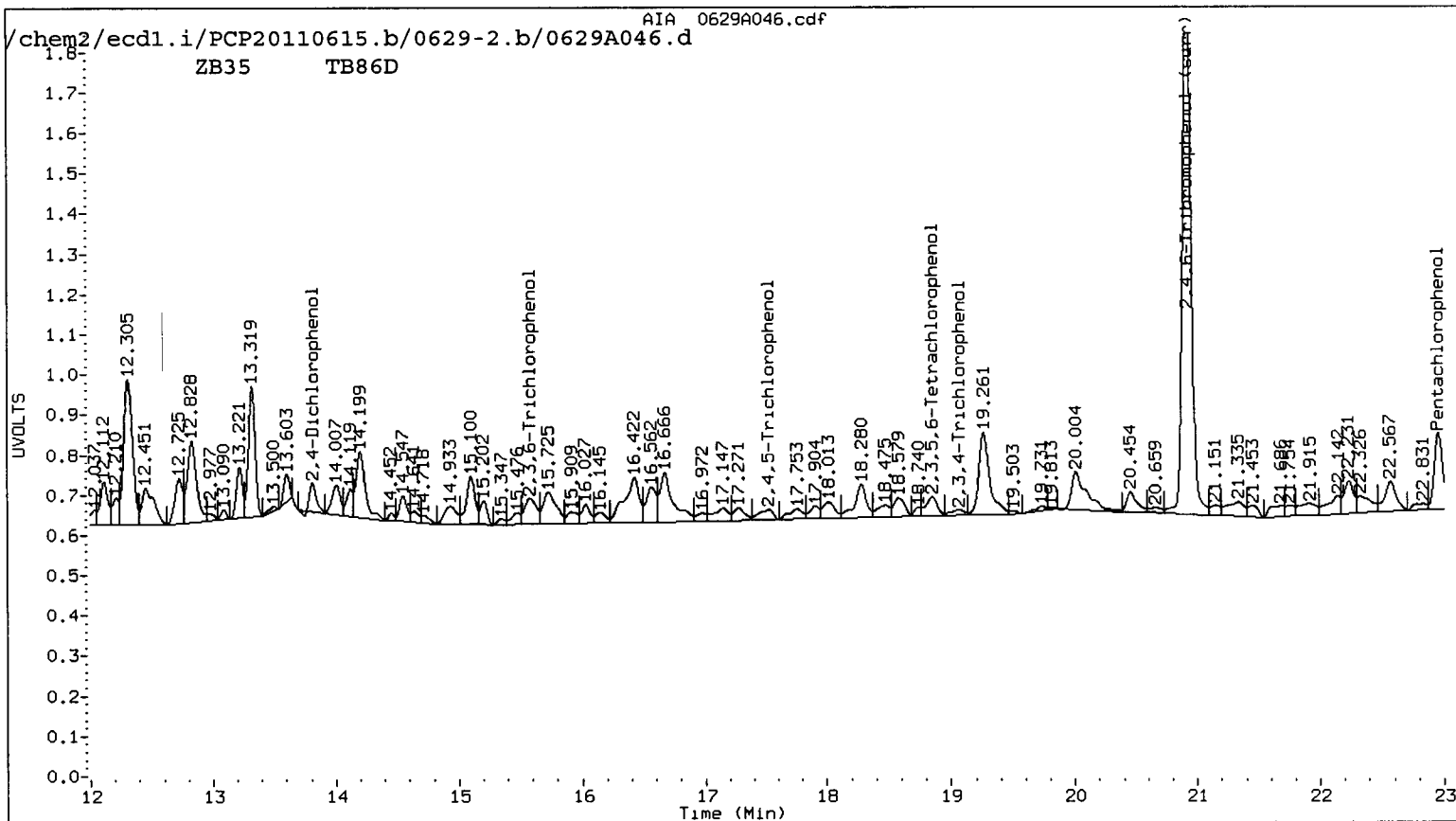
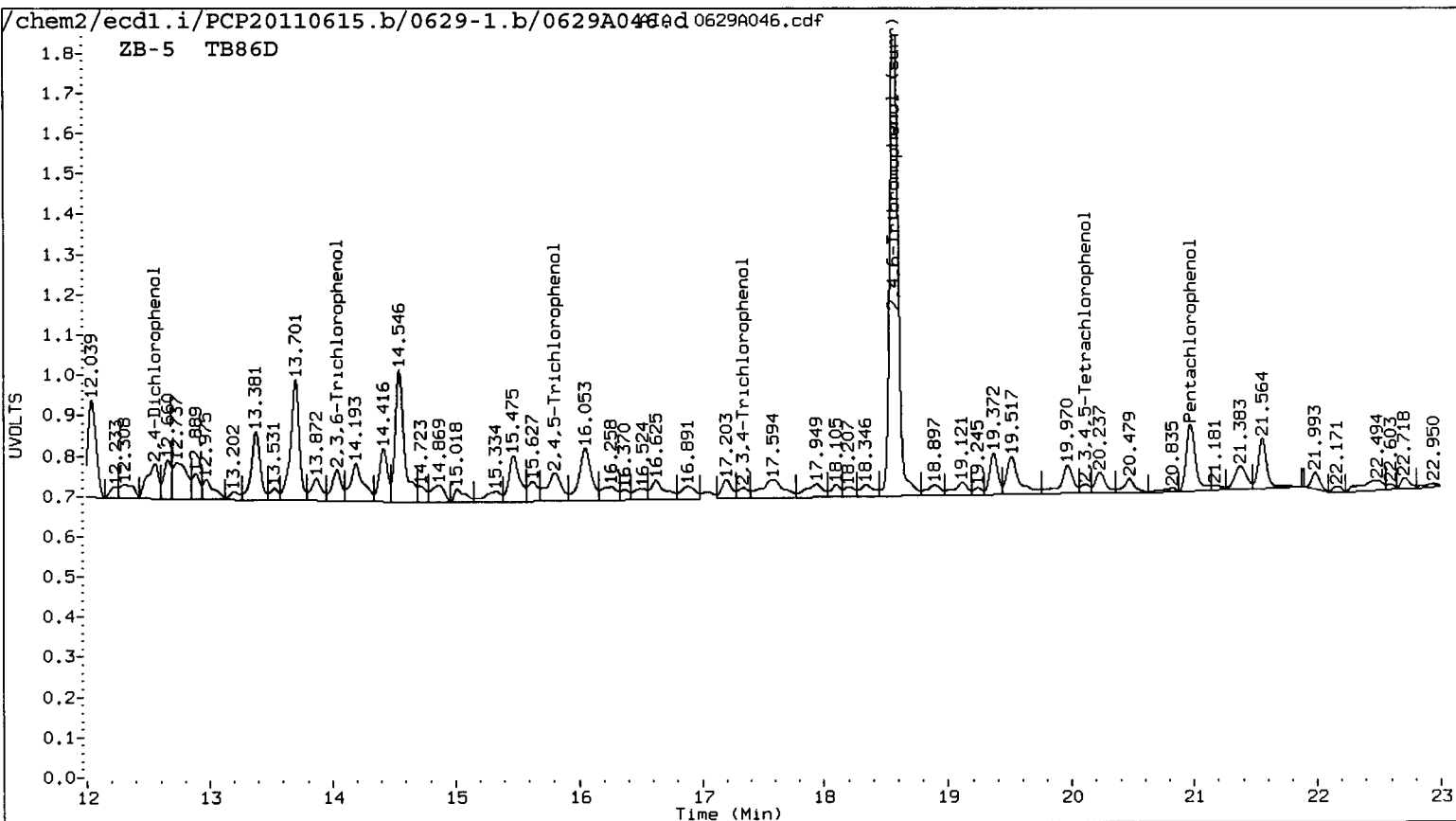
AR 6/30/2011

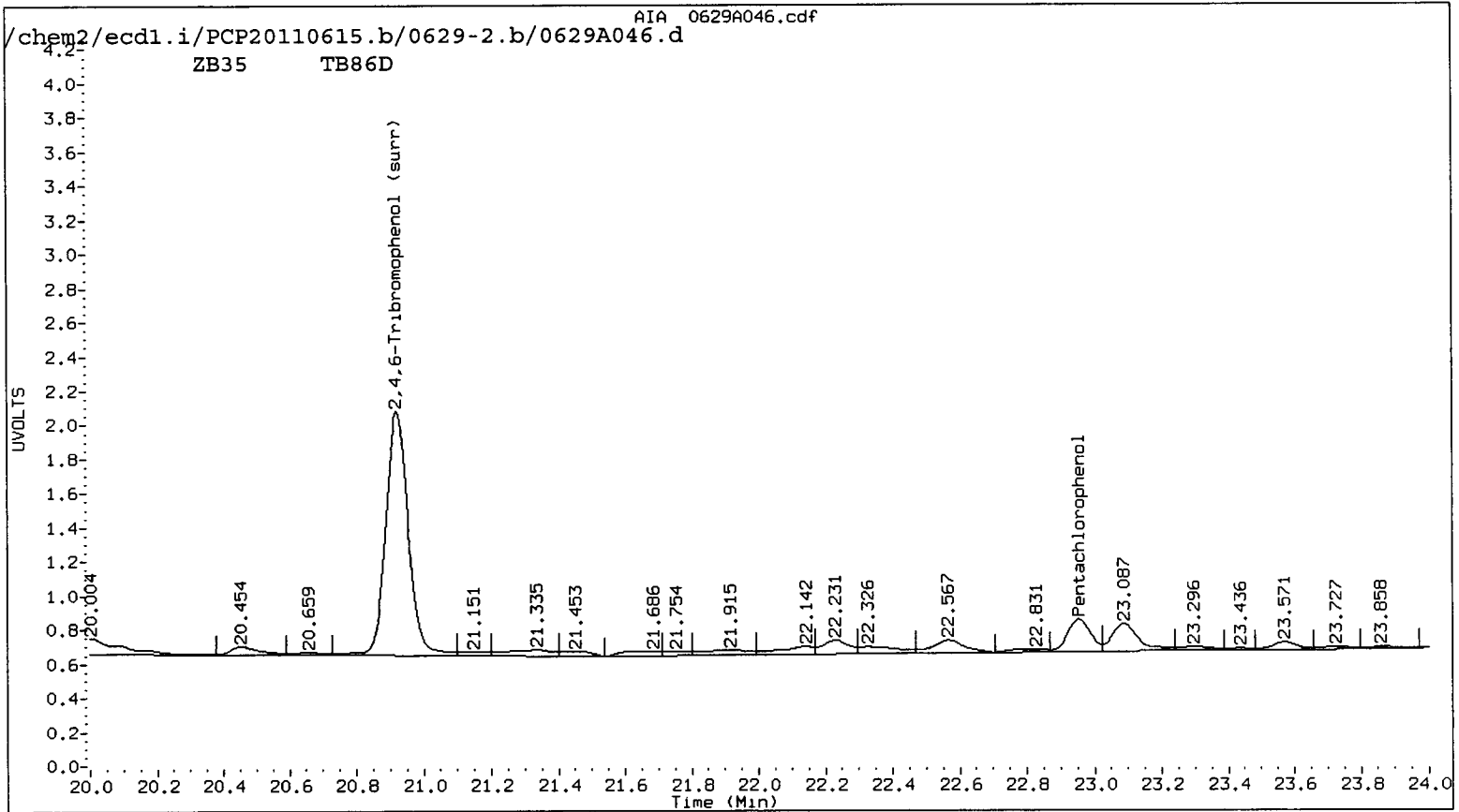
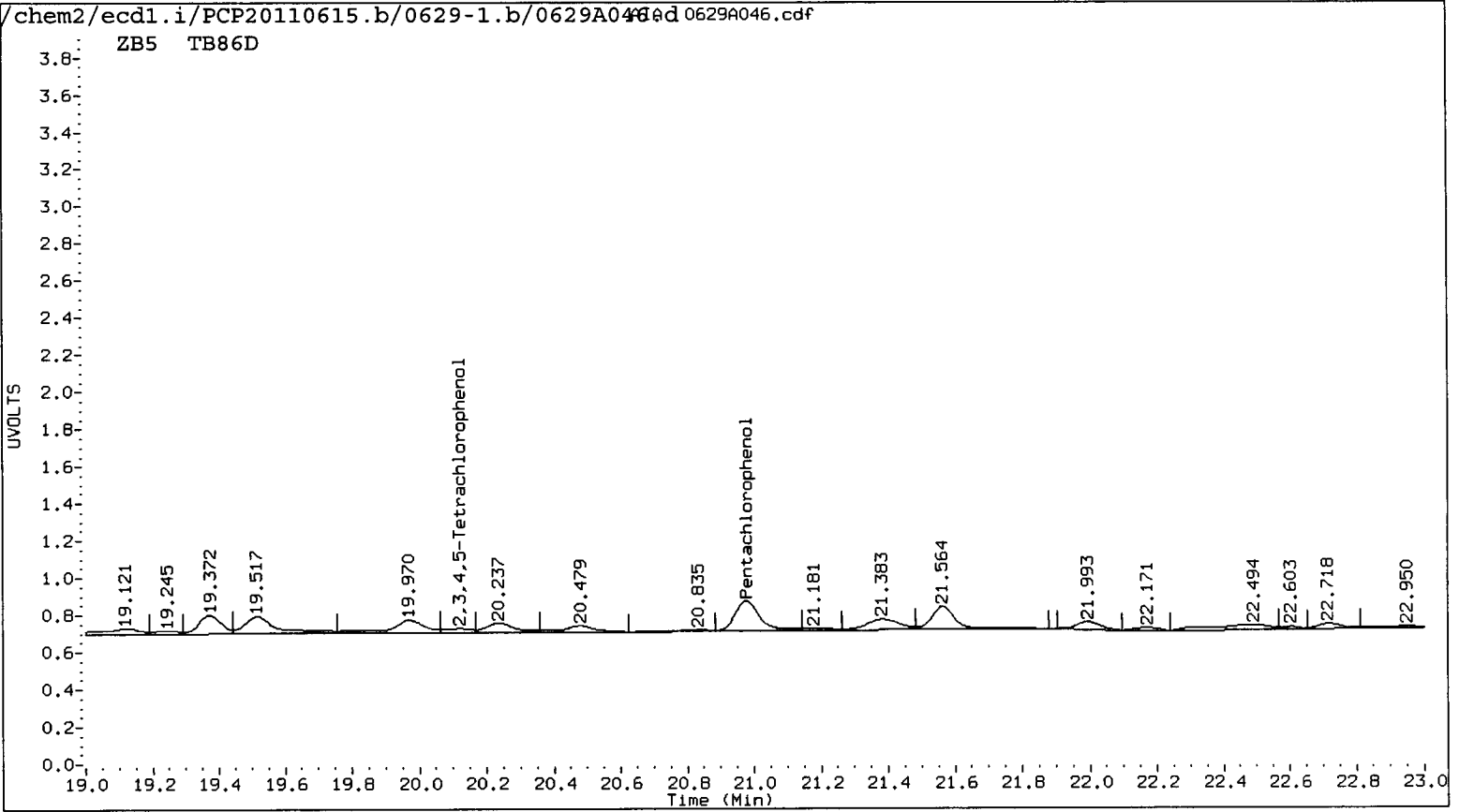
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A046.d ARI ID: TB86D
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A046.d Client ID: SB-02B-062211-02
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 13:54
 Compound Sublist: all Report Date: 06/30/2011 15:48
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.977	0.001	42634	22.954	0.001	44673	1.8104	1.4867	19.6	Pentachlorophenol
----			----			0.0000	0.0000	---	2,4,6-Trichlorophenol
14.038	-0.037	20005	15.577	0.035	21567	1.5316	1.4486	5.6	2,3,6-Trichlorophenol
15.808	-0.016	29393	17.524	0.064	10851	3.6958	1.2752	97.4*	2,4,5-Trichlorophenol
17.343	0.012	7879	19.066	0.056	5400	0.8189	0.5322	42.4*	2,3,4-Trichlorophenol
----			18.847	0.048	15075	0.0000	0.6700	---	2,3,5,6-Tetrachlorophenol
20.120	-0.014	6009	----			0.4068	0.0000	---	2,3,4,5-Tetrachlorophenol
12.556	0.022	28430	13.810	0.004	12653	31.9054	14.1805	76.9*	2,4-Dichlorophenol
18.573	-0.001	291839	20.921	-0.001	335325	15.8	15.6	1.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	63.3	62.5





Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629a046.d

Date : 30-JUN-2011 13:54

Client ID: SB-02B-062211-02

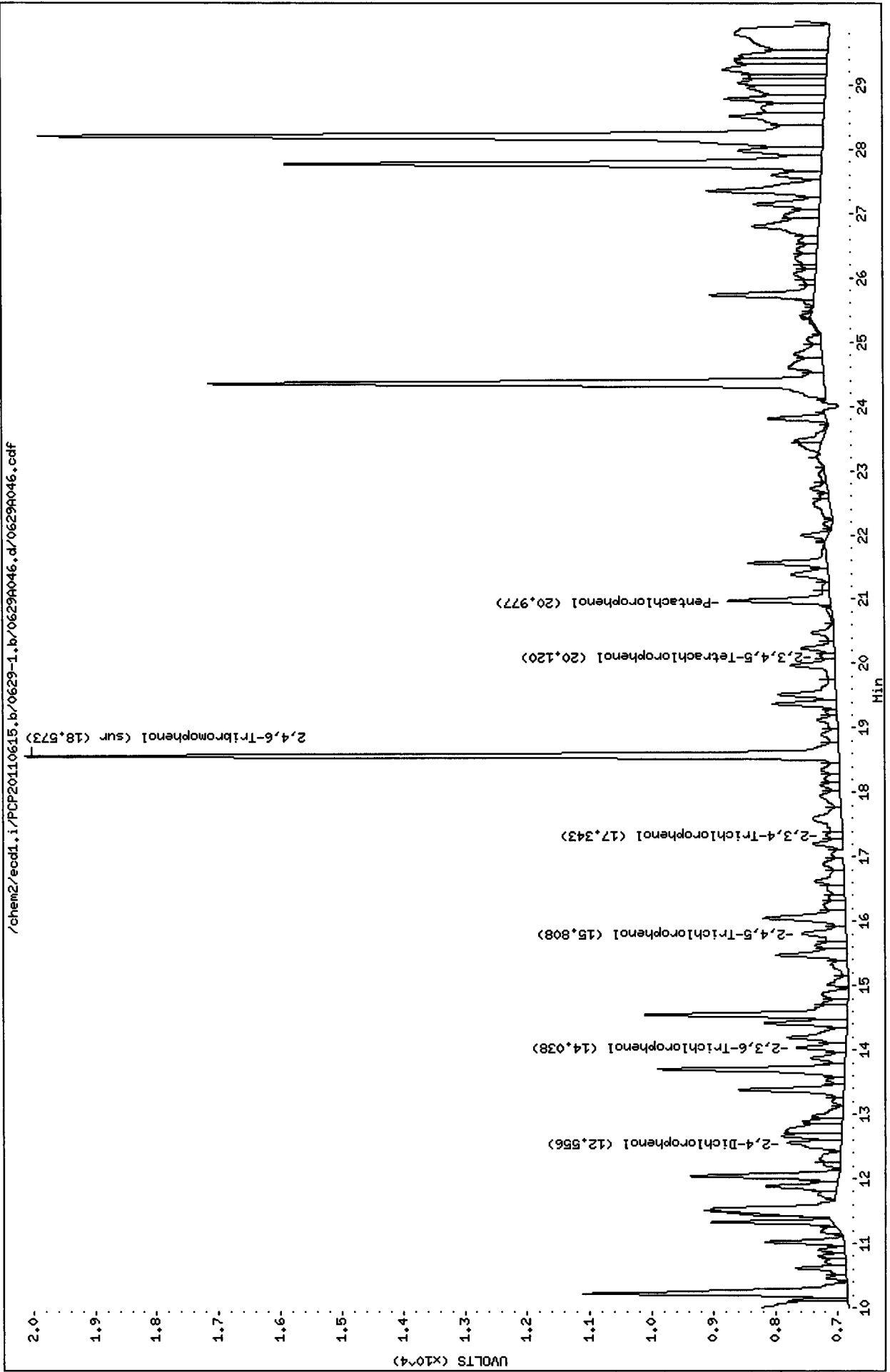
Sample Info: TB86D

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629a046.d

Date : 30-JUN-2011 13:54

Client ID: SB-02B-062211-02

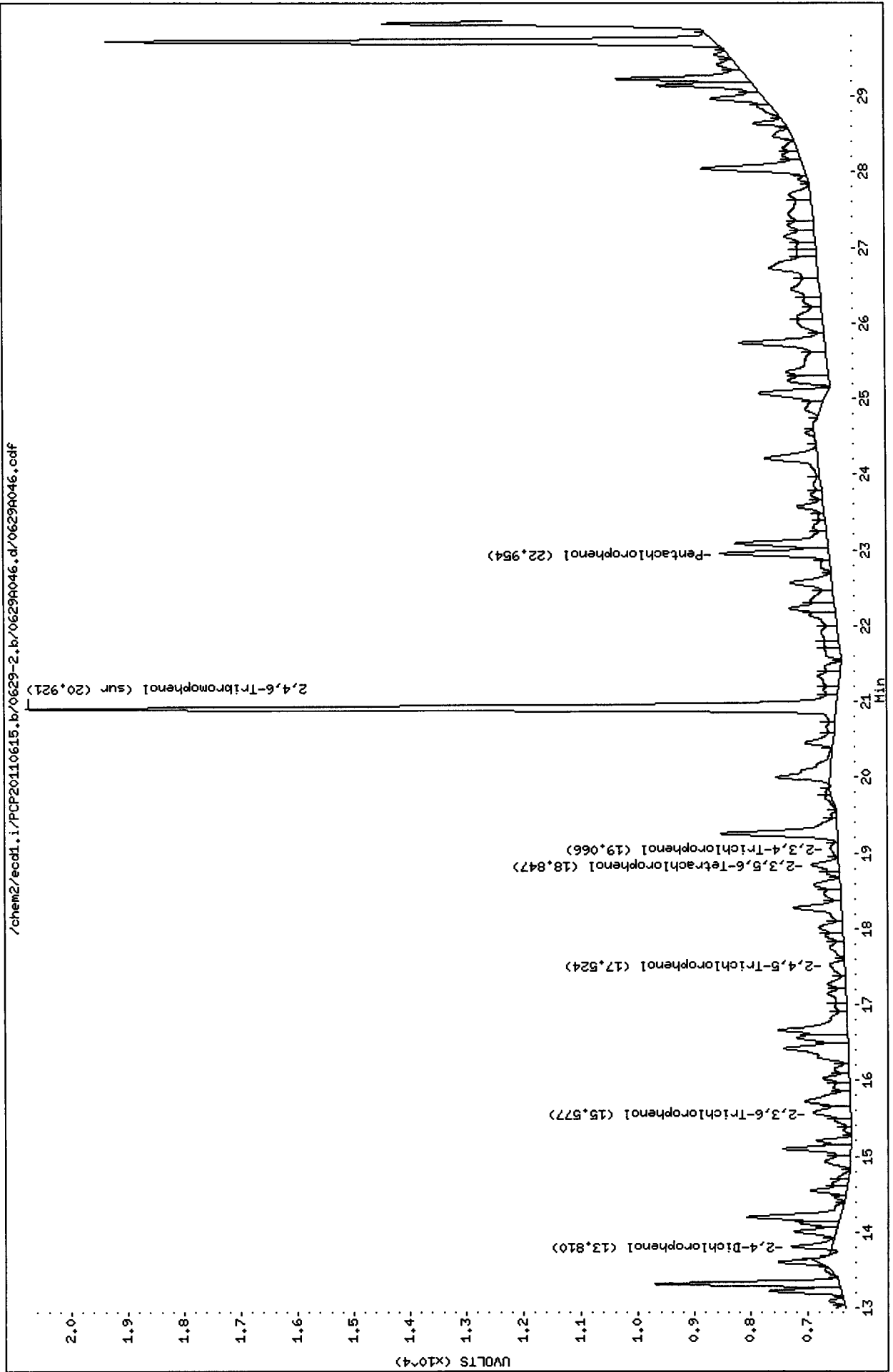
Sample Info: TB86D

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



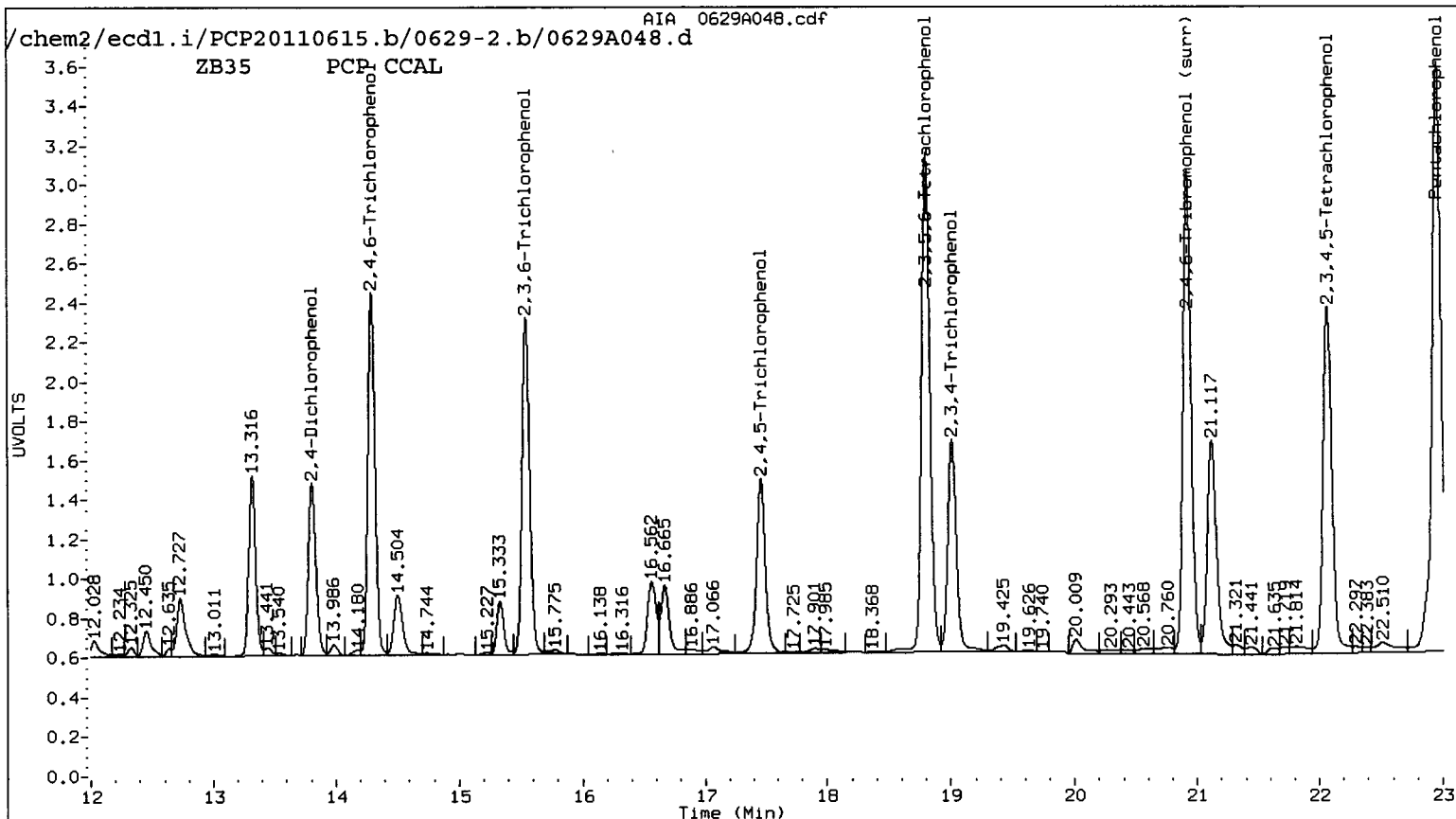
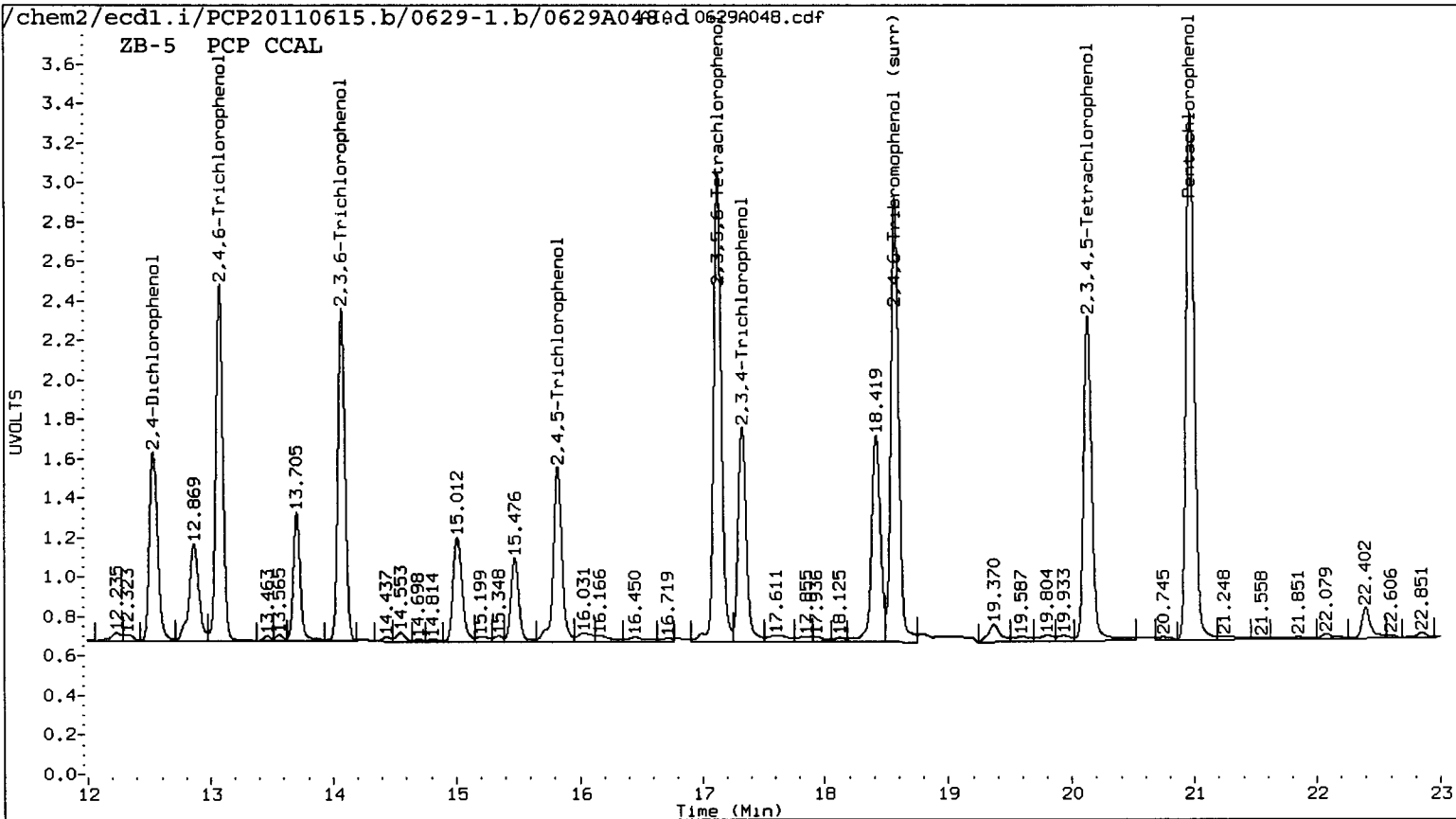
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

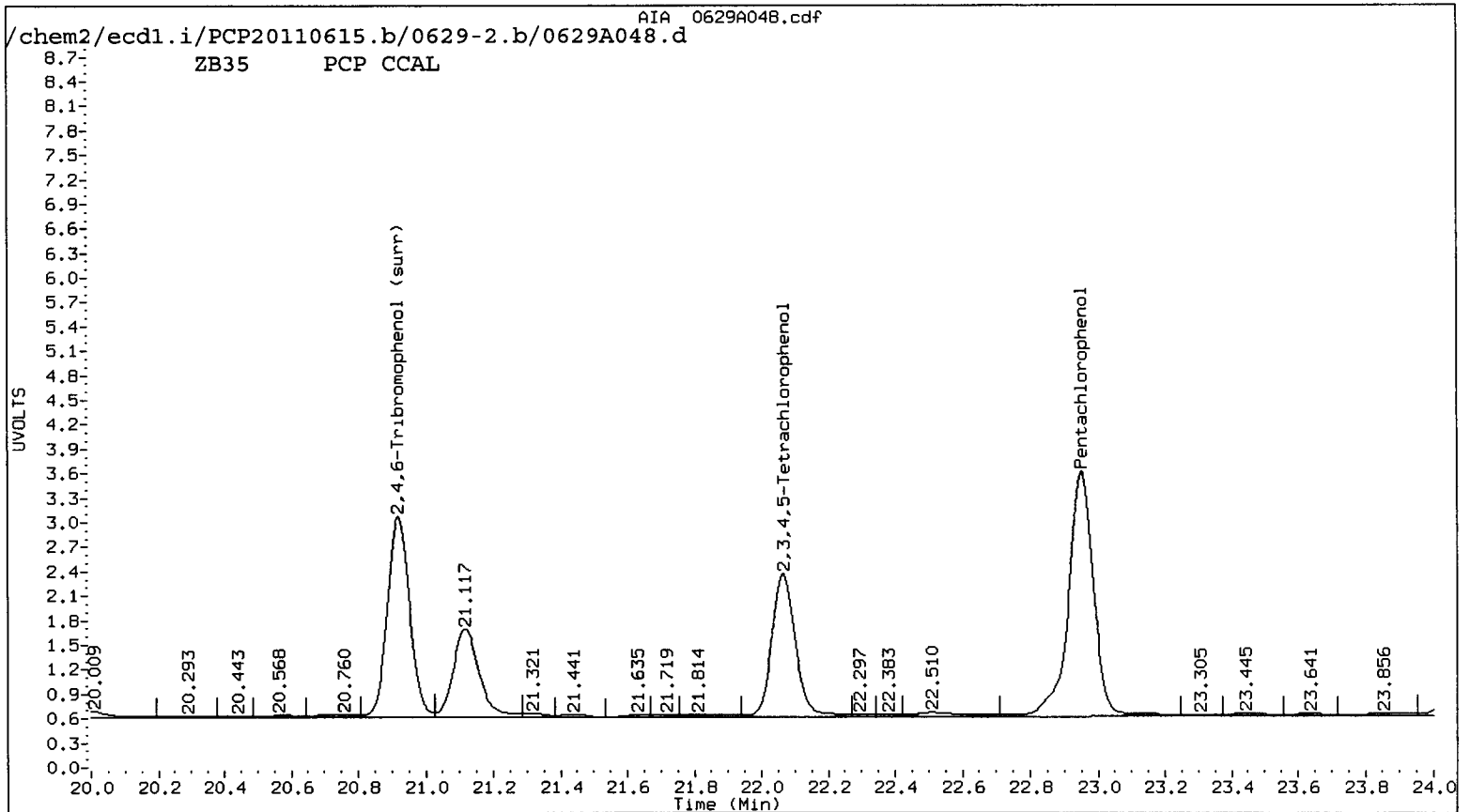
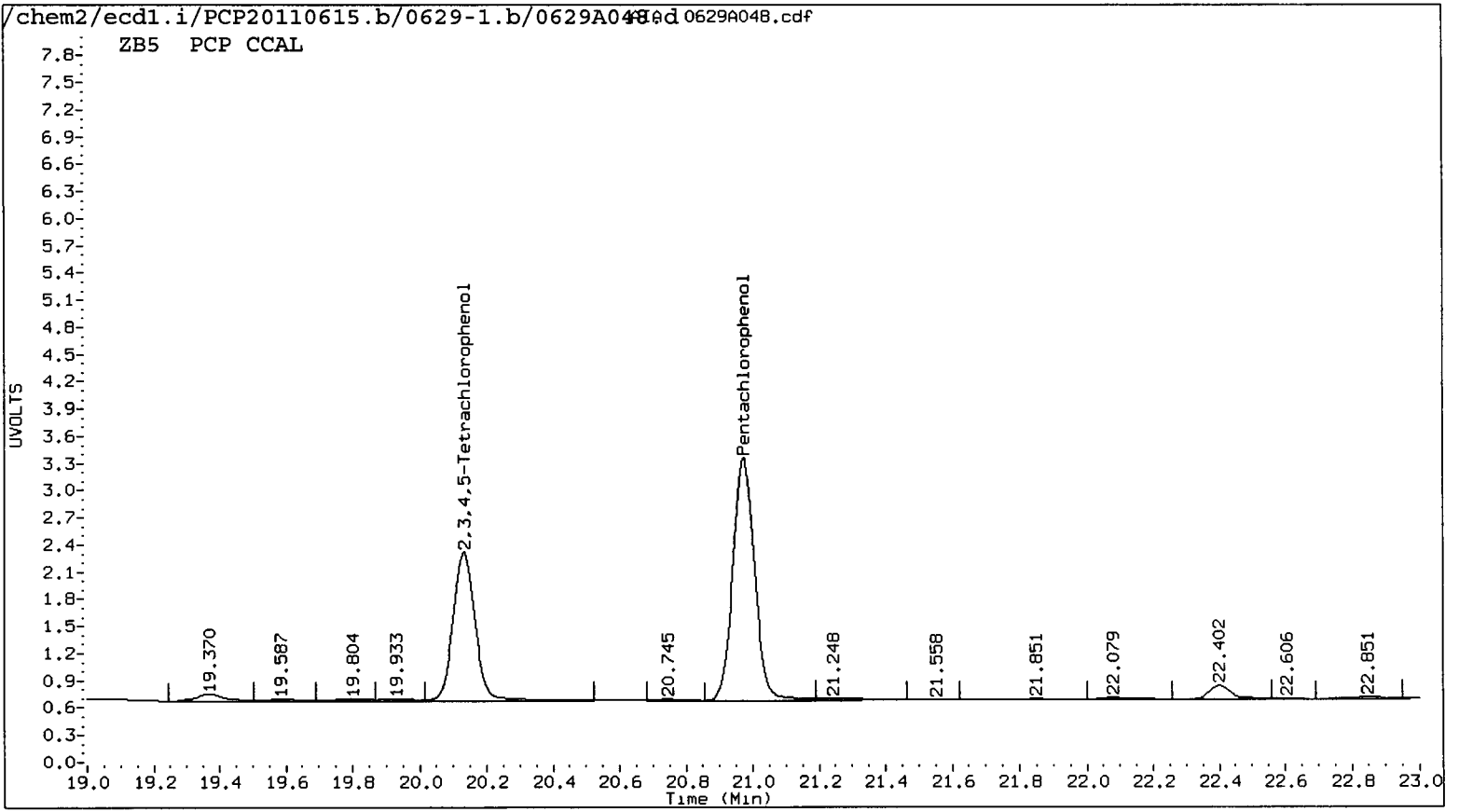
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A048.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A048.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 15:07
 Compound Sublist: all Report Date: 06/30/2011 16:03
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	RT	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.974	-0.002 / 614133	22.951	-0.002 / 785197	26.0777	26.1309 /	0.2	Pentachlorophenol
13.077	-0.002 / 365592	14.293	-0.002 / 374830	25.9626	25.3215 /	2.5	2,4,6-Trichlorophenol
14.072	-0.002 / 340132	15.540	-0.002 / 368329	26.0401	24.7404	5.1	2,3,6-Trichlorophenol
15.822	-0.002 / 213853	17.458	-0.003 / 225129	26.8884	26.4563	1.6	2,4,5-Trichlorophenol
17.328	-0.002 / 252804	19.007	-0.003 / 266335	26.2725	26.2486	0.1	2,3,4-Trichlorophenol
17.129	-0.002 / 527252	18.797	-0.002 / 591435	26.9555	26.2837	2.5	2,3,5,6-Tetrachlorophenol
20.132	-0.002 / 390613	22.065	-0.002 / 436585	26.4465	25.7358	2.7	2,3,4,5-Tetrachlorophenol
12.535	0.001 / 218772	13.804	-0.002 / 191018	302.3194	265.6329	12.9	2,4-Dichlorophenol
18.572	-0.003 / 496598	20.920	-0.003 / 566366	26.9	26.4 /	2.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

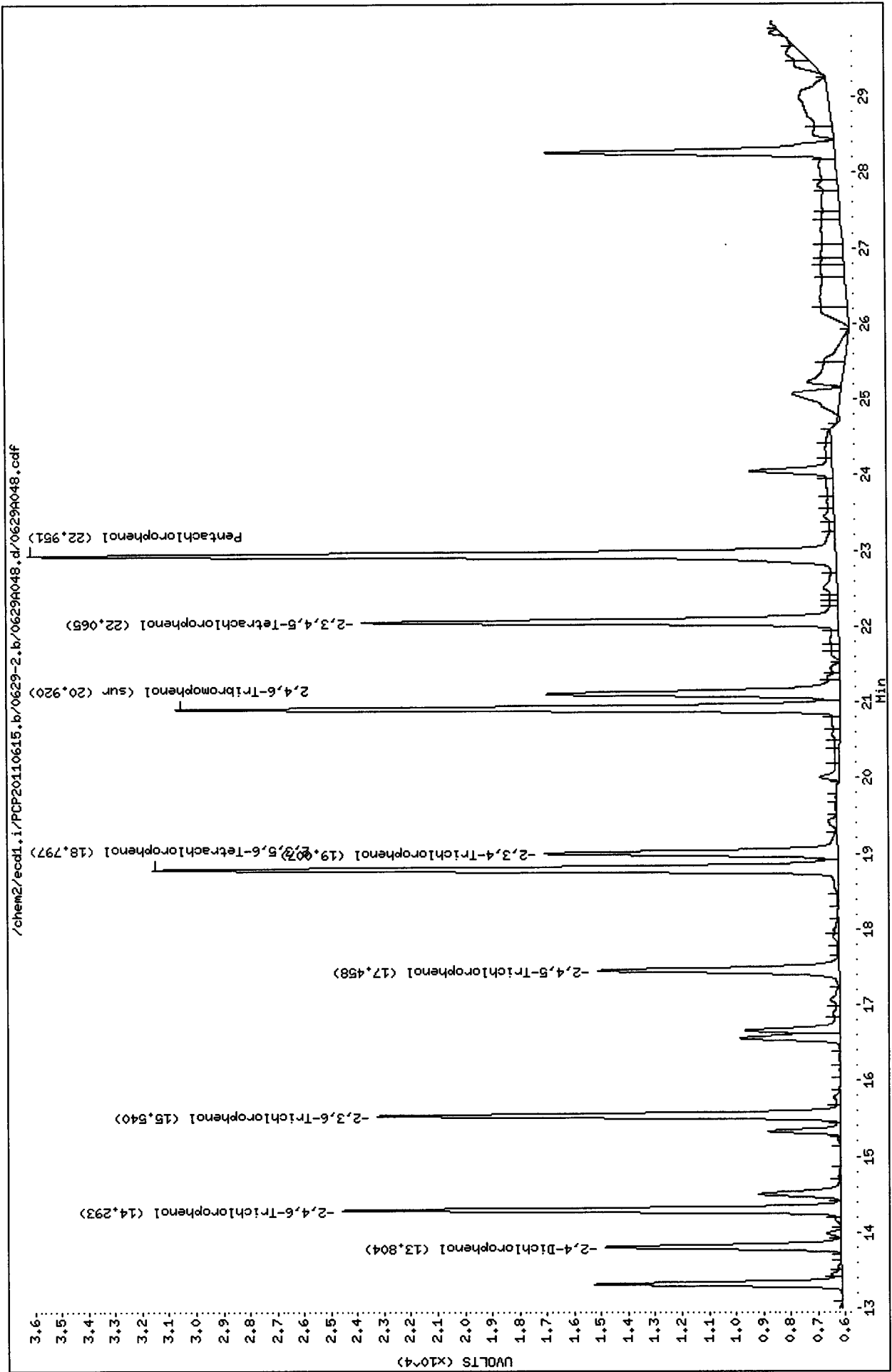
COMPOUND	Col1	Col2
Pentachlorophenol	104.3	104.5 /
2,4,6-Trichlorophenol	103.9	101.3 /
2,3,6-Trichlorophenol	104.2	99.0
2,4,5-Trichlorophenol	107.6	105.8
2,3,4-Trichlorophenol	105.1	105.0
2,3,5,6-Tetrachlorophenol	107.8	105.1
2,3,4,5-Tetrachlorophenol	105.8	102.9
2,4-Dichlorophenol	120.9	106.3
2,4,6-TBP (surr)	107.8	105.6 /





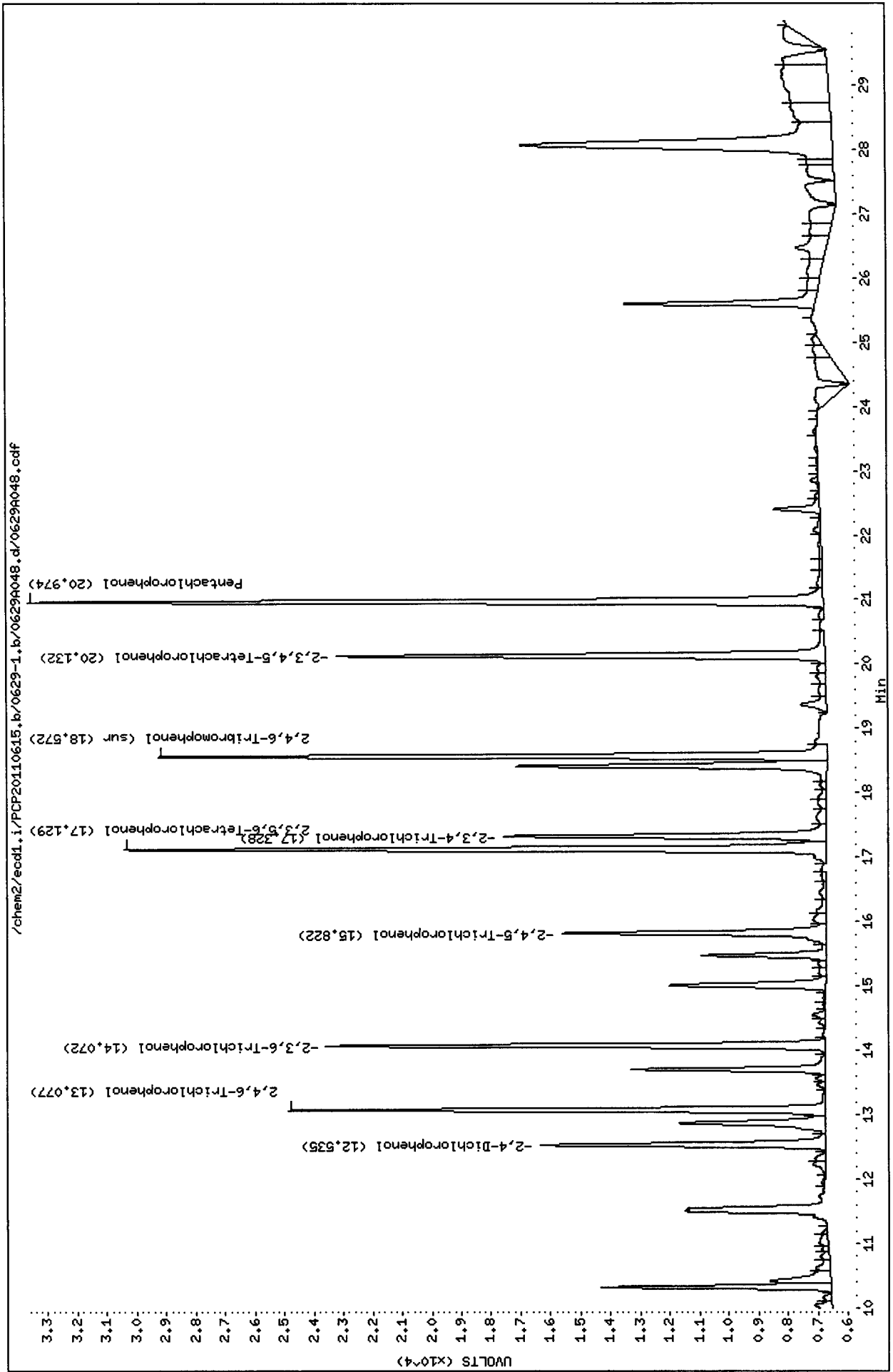
Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A048.d
Date : 30-JUN-2011 15:07
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53
/chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A048.d/0629A048.cdf



Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629a048.d
Date : 30-JUN-2011 15:07
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: eod1.i
Operator: ar
Column diameter: 0.53



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

AR 6/30/2011

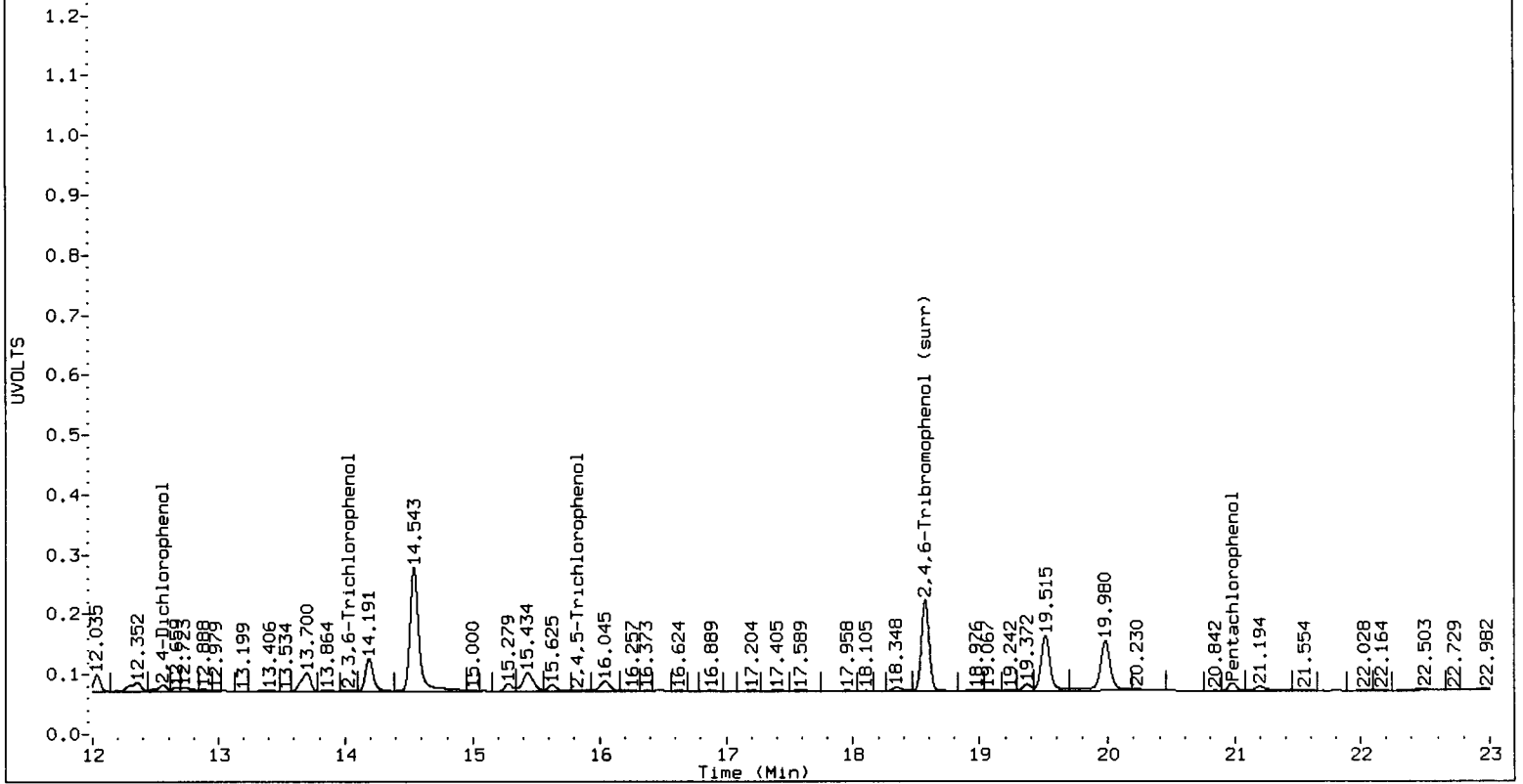
Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A049.d ARI ID: TB85D
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A049.d Client ID: SB-01-062211-06
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 15:43
 Compound Sublist: all Report Date: 06/30/2011 16:39
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.000	28115	22.953	0.000	39103	1.1939	1.3013 <i>UP</i>	8.6	Pentachlorophenol
----			----			0.0000	0.0000	---	2,4,6-Trichlorophenol
14.029	-0.046	8699	----			0.6660	0.0000	---	2,3,6-Trichlorophenol
15.830	0.006	8518	17.458	-0.003	2875	1.0711	0.3380	104.1*	2,4,5-Trichlorophenol
----			19.061	0.051	4059	0.0000	0.4001	---	2,3,4-Trichlorophenol
----			18.847	0.048	12240	0.0000	0.5440	---	2,3,5,6-Tetrachlorophenol
----			22.088	0.021	44858	0.0000	2.6443	---	2,3,4,5-Tetrachlorophenol
12.557	0.023	31856	----			35.8986	0.0000	---	2,4-Dichlorophenol
18.572	-0.002	322909	20.921	-0.002	374083	17.5	17.4 /	0.5	2,4,6-Tribromophenol (surr)

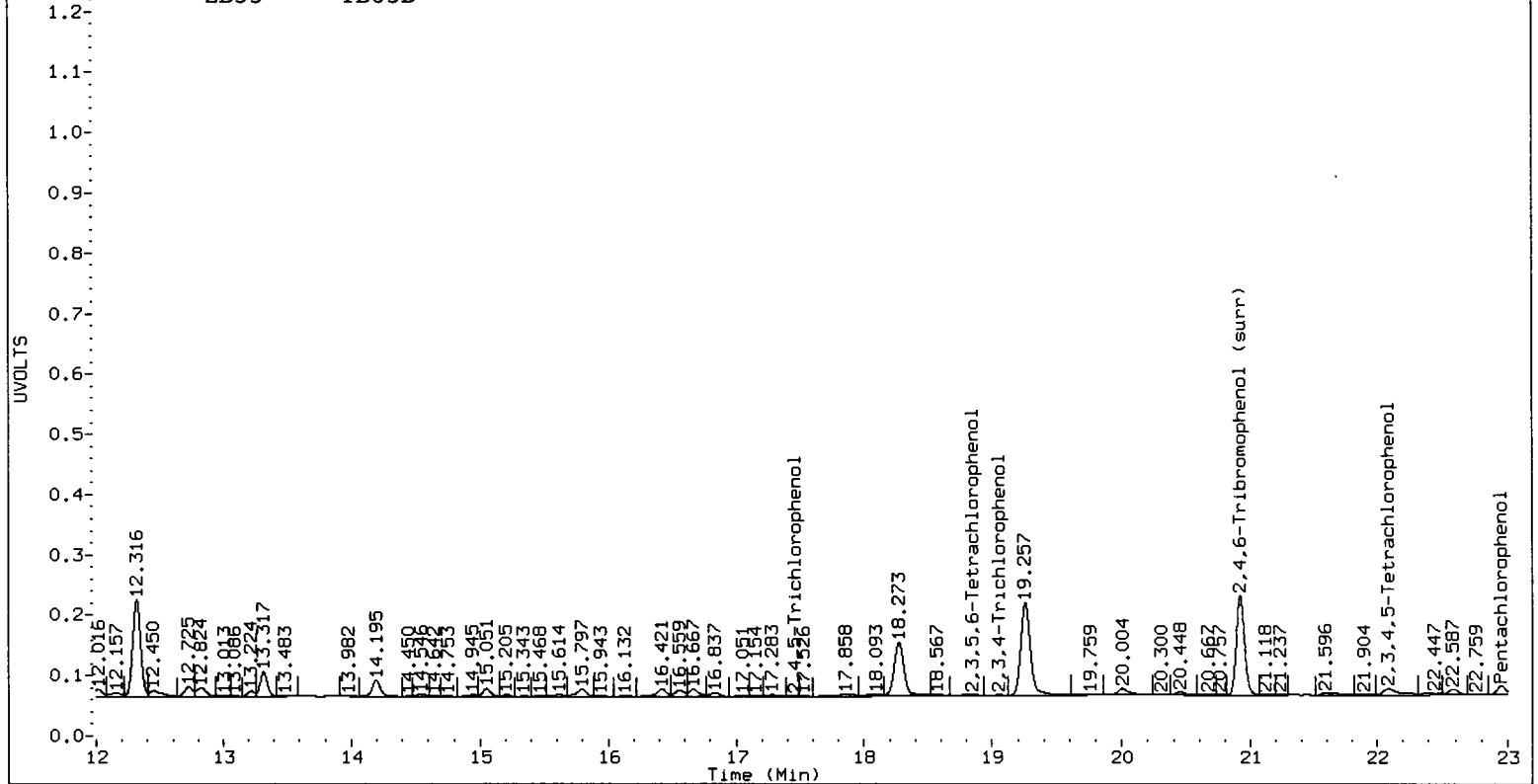
PERCENT RECOVERY

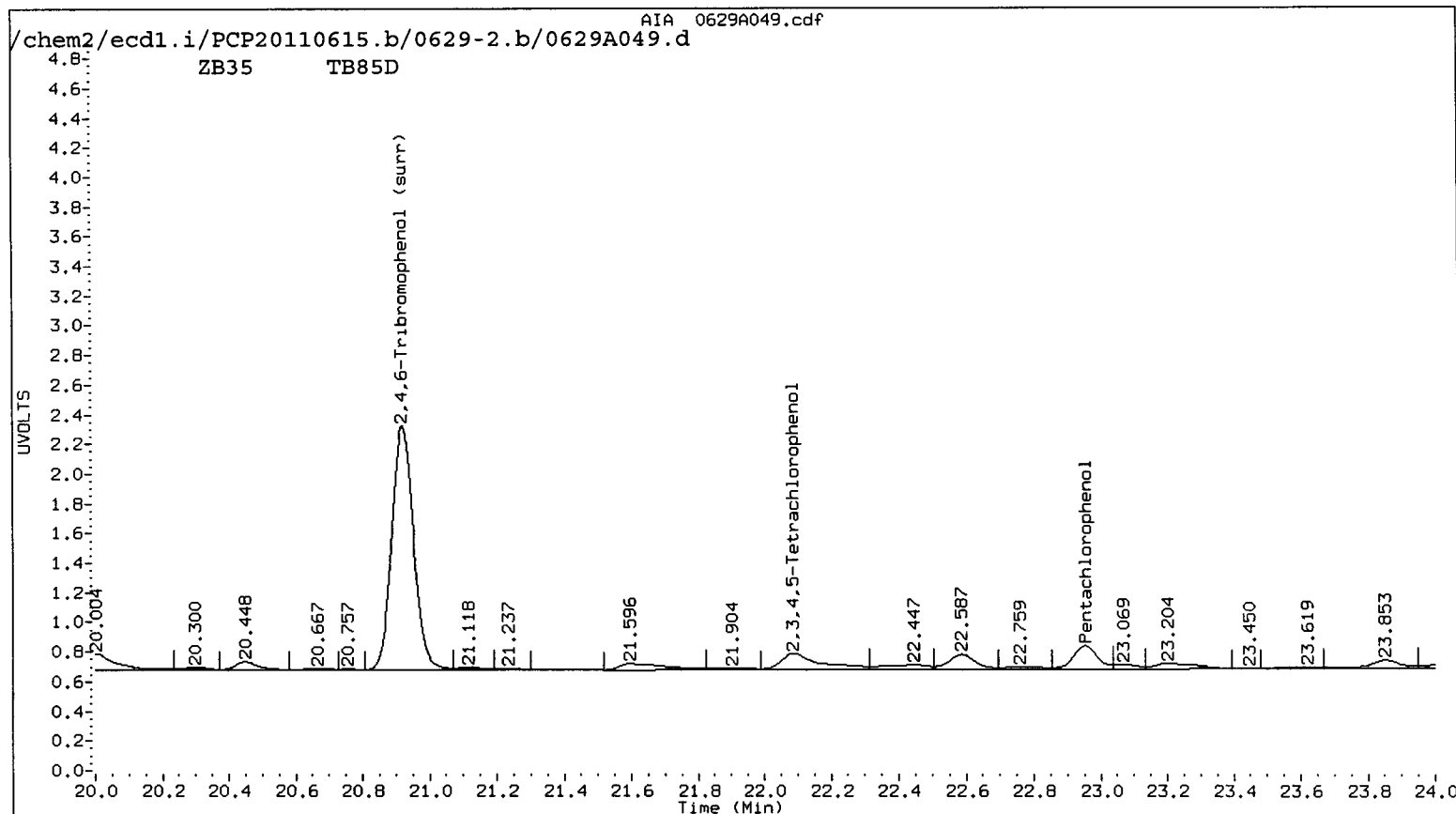
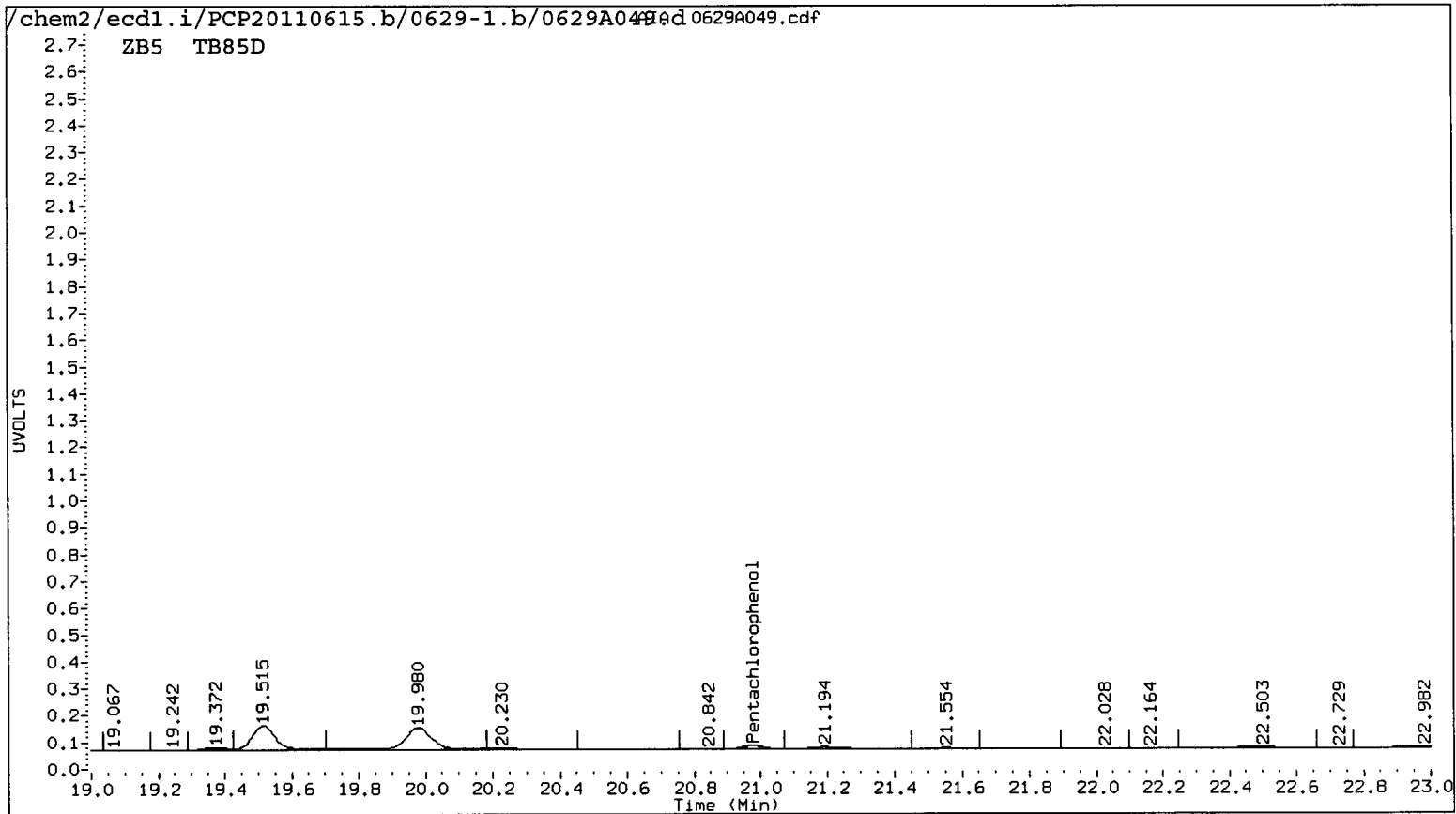
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	70.1	69.7 /

ZB-5 TB85D



ZB35 TB85D





Data File: /chem2/ecd1.i/PCP20110615.b/0629-2.b/0629A049.d

Date : 30-JUN-2011 15:43

Client ID: SB-01-062211-06

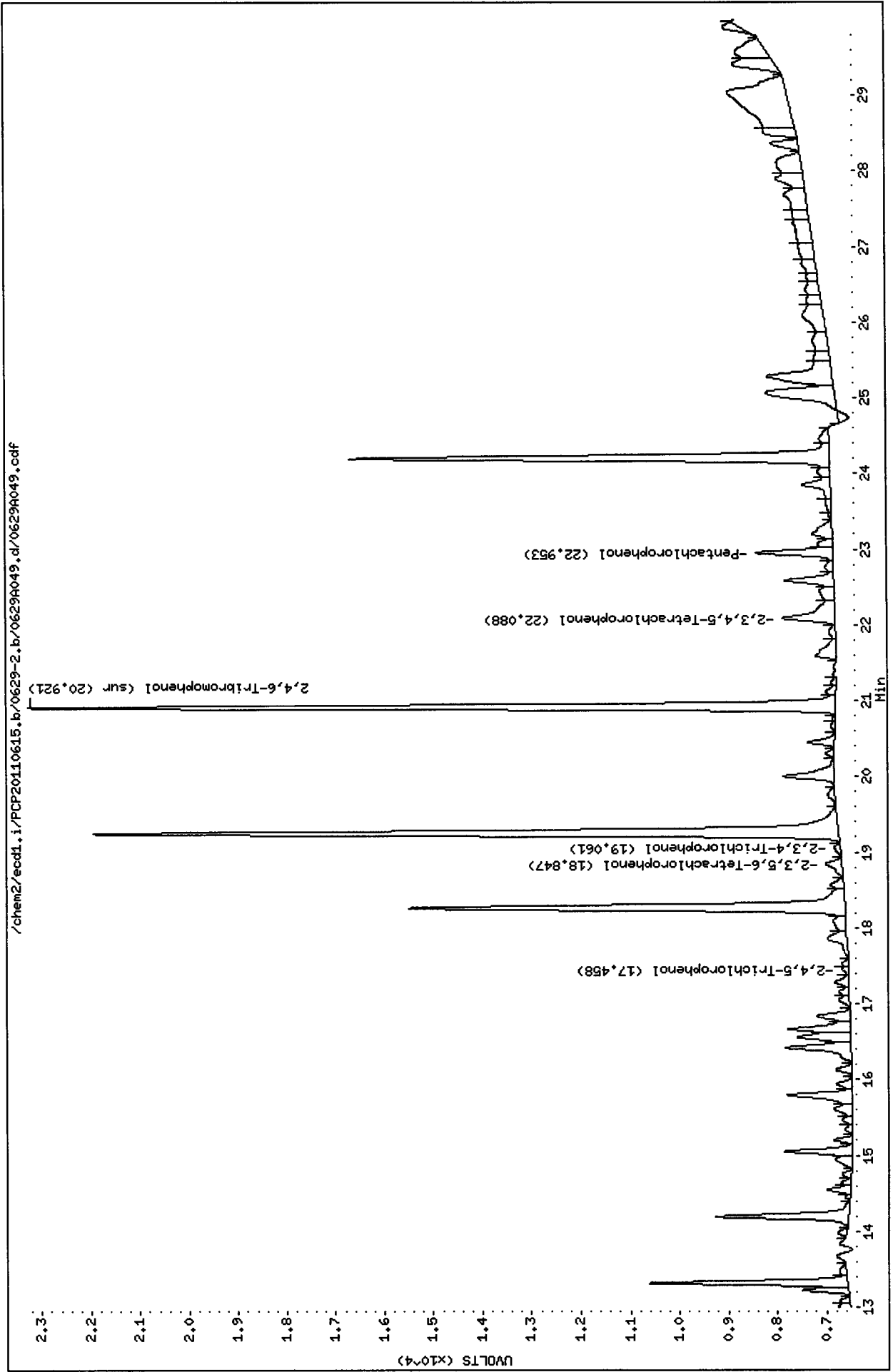
Sample Info: TB85D

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

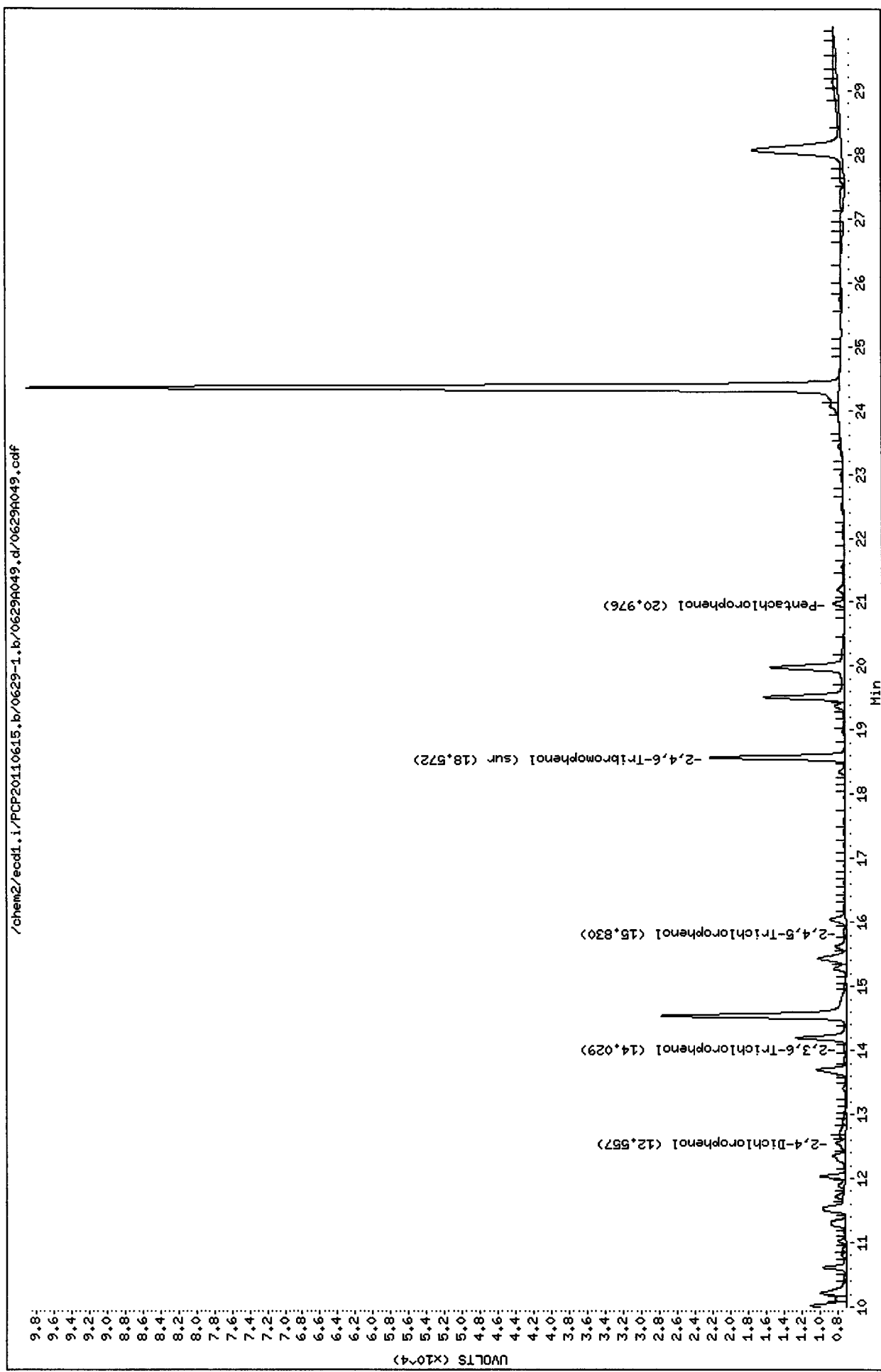
Column phase: STX CLP2



Data File: /chem2/ecdl1.i/PCP20110615.b/0629-1.b/0629A049.d
Date : 30-JUN-2011 15:43
Client ID: SB-01-062211-06
Sample Info: TB85D

Instrument: ecdl1.i
Operator: ar
Column diameter: 0.53

Column phase: STX CLP1



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Ma 7/1/11

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A051.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A051.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 16:56
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.975	-0.001	623647	22.952	-0.001	790135	26.4817	26.2952	0.7	Pentachlorophenol
13.078	-0.002	372677	14.294	-0.002	385086	26.4657	26.0143	1.7	2,4,6-Trichlorophenol
14.073	-0.001	345854	15.541	-0.002	372822	26.4782	25.0422	5.6	2,3,6-Trichlorophenol
15.822	-0.002	218525	17.459	-0.002	227040	27.4759	26.6809	2.9	2,4,5-Trichlorophenol
17.329	-0.001	257229	19.008	-0.002	267382	26.7325	26.3517	1.4	2,3,4-Trichlorophenol
17.129	-0.002	523030	18.798	-0.001	595406	26.7397	26.4601	1.1	2,3,5,6-Tetrachlorophenol
20.133	-0.002	389353	22.066	-0.001	441208	26.3612	26.0083	1.3	2,3,4,5-Tetrachlorophenol
12.535	0.001	223318	13.804	-0.002	193873	309.9868	270.4397	13.6	2,4-Dichlorophenol
18.573	-0.002	502590	20.921	-0.002	575512	27.3	26.8	1.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	105.9	105.2
2,4,6-Trichlorophenol	105.9	104.1
2,3,6-Trichlorophenol	105.9	100.2
2,4,5-Trichlorophenol	109.9	106.7
2,3,4-Trichlorophenol	106.9	105.4
2,3,5,6-Tetrachlorophenol	107.0	105.8
2,3,4,5-Tetrachlorophenol	105.4	104.0
2,4-Dichlorophenol	124.0	108.2
2,4,6-TBP (surr)	109.1	107.3

Data File: /chem2/ecdd1.i/PCP20110615.b/0629-1.b/0629A051.d
Date: 30-JUN-2011 16:56

Client ID:

Sample Info: PCP COAL

Purge Volume: 500.0

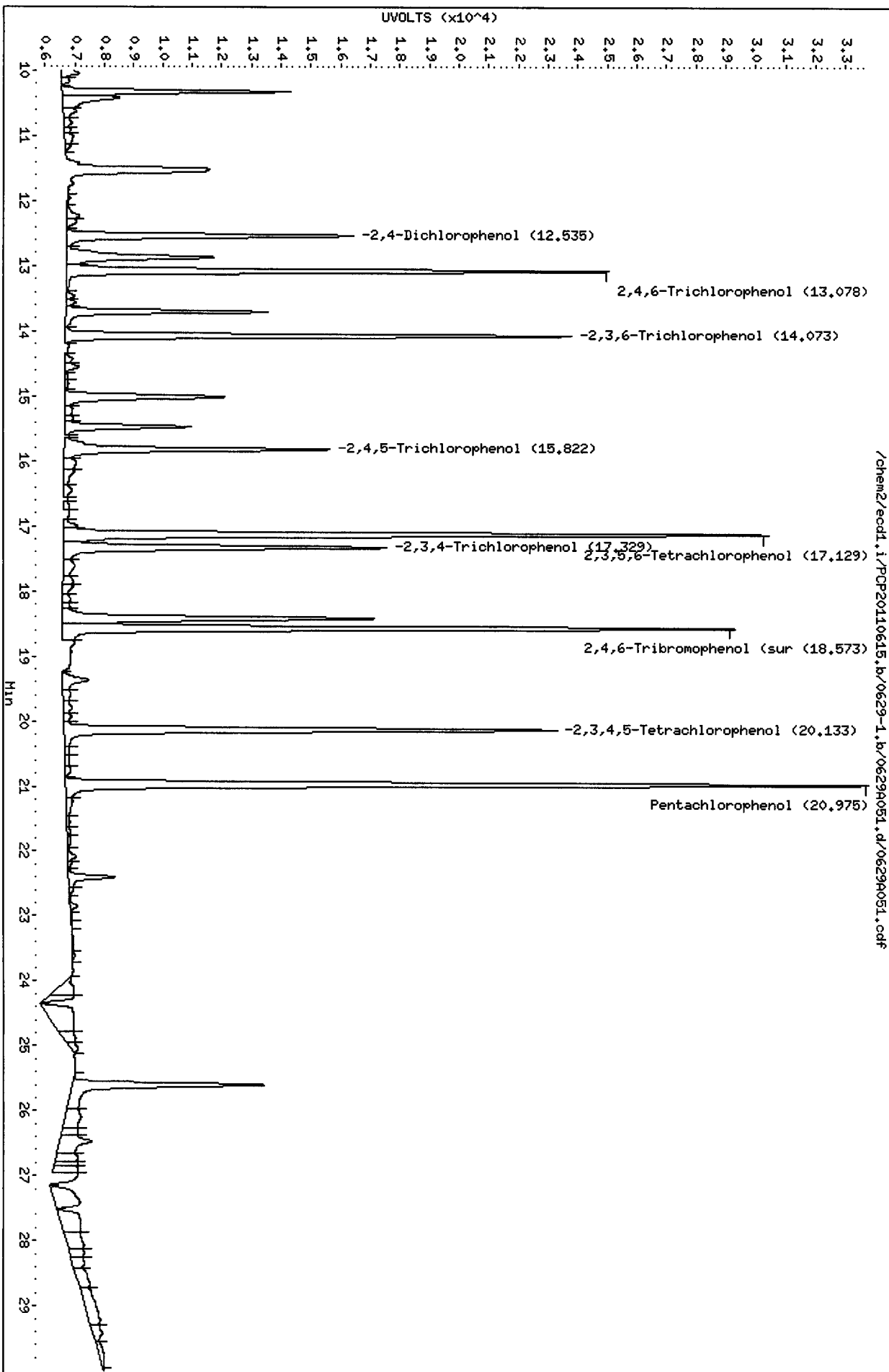
Column phase: STX CLP1

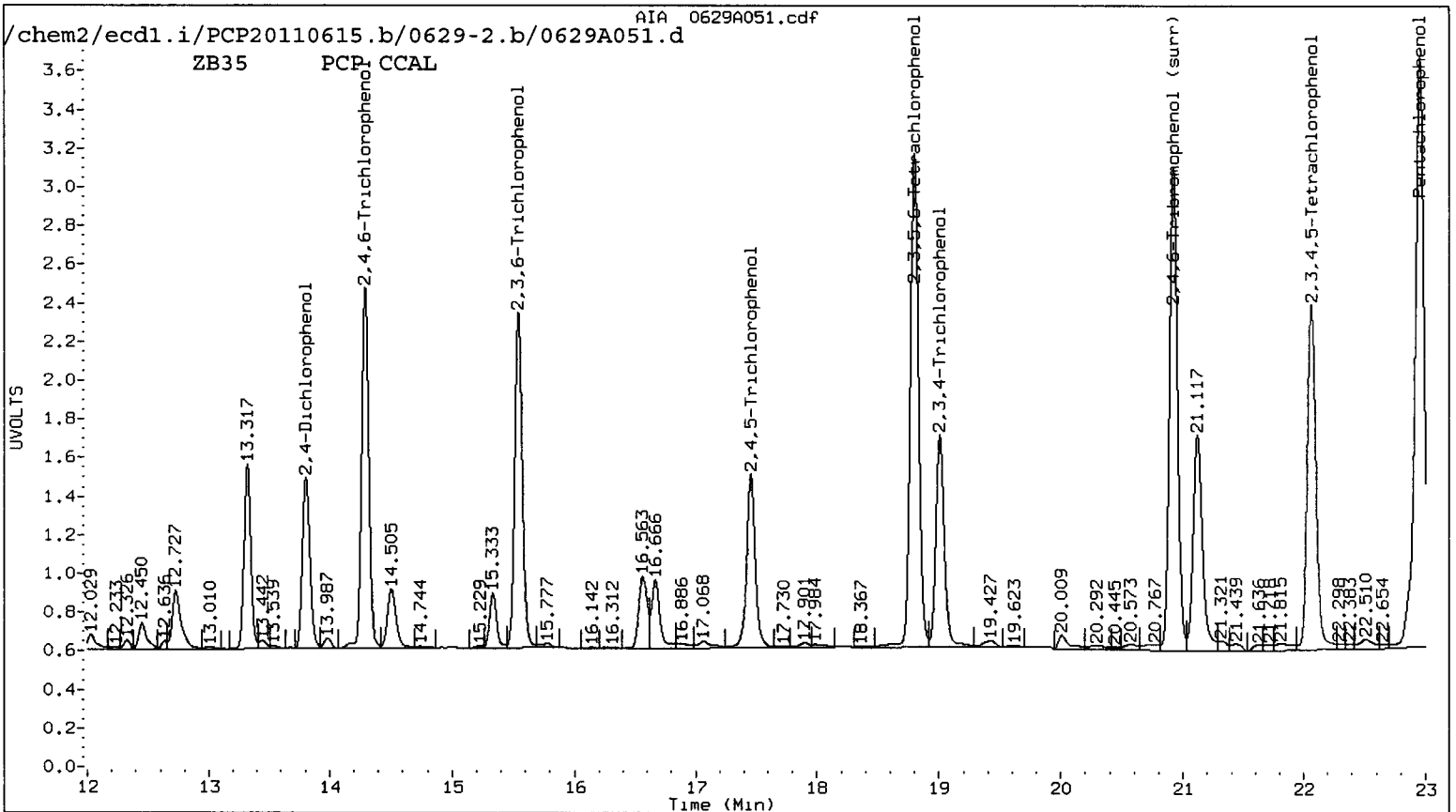
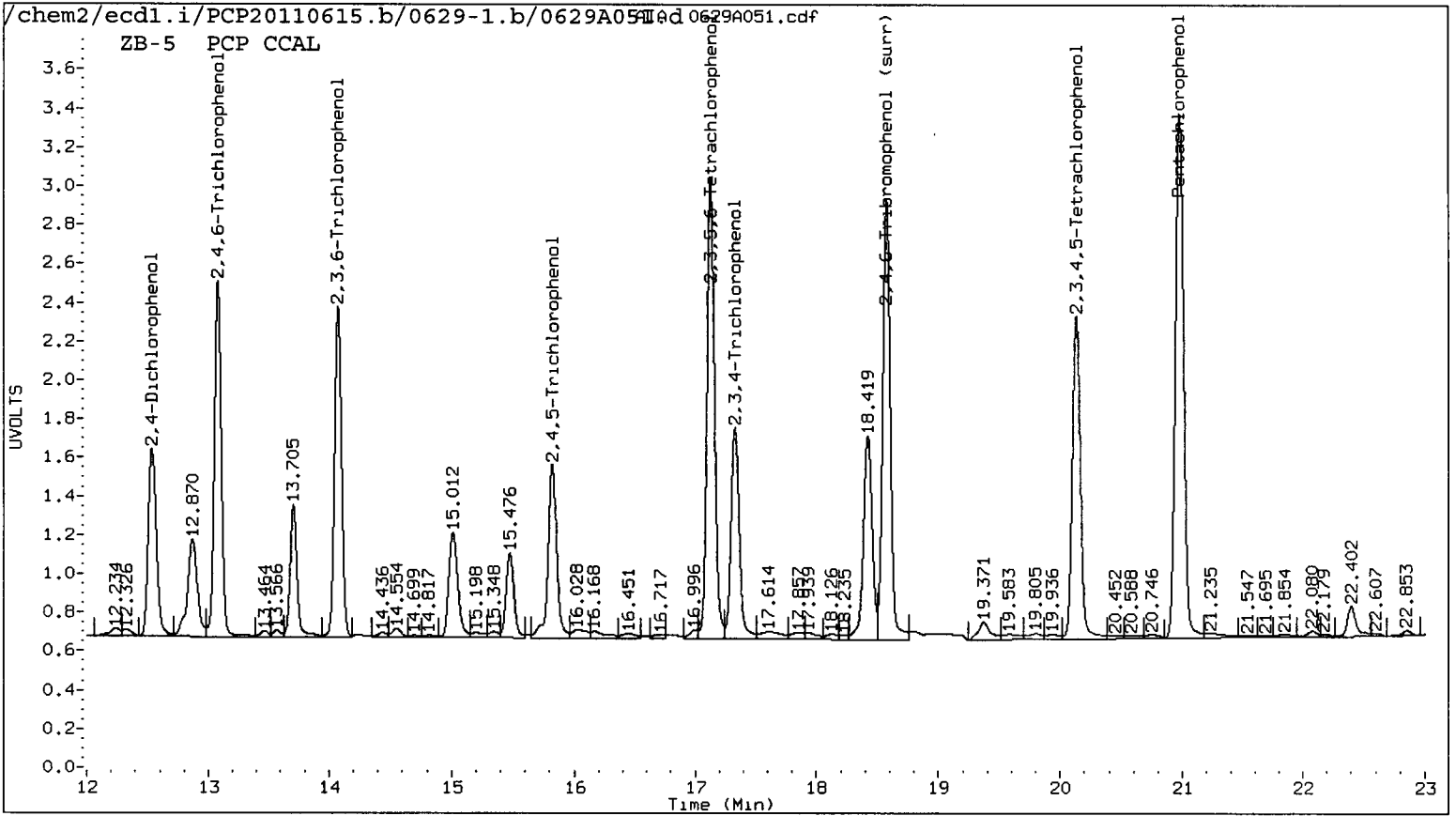
Instrument: ecdd1.i

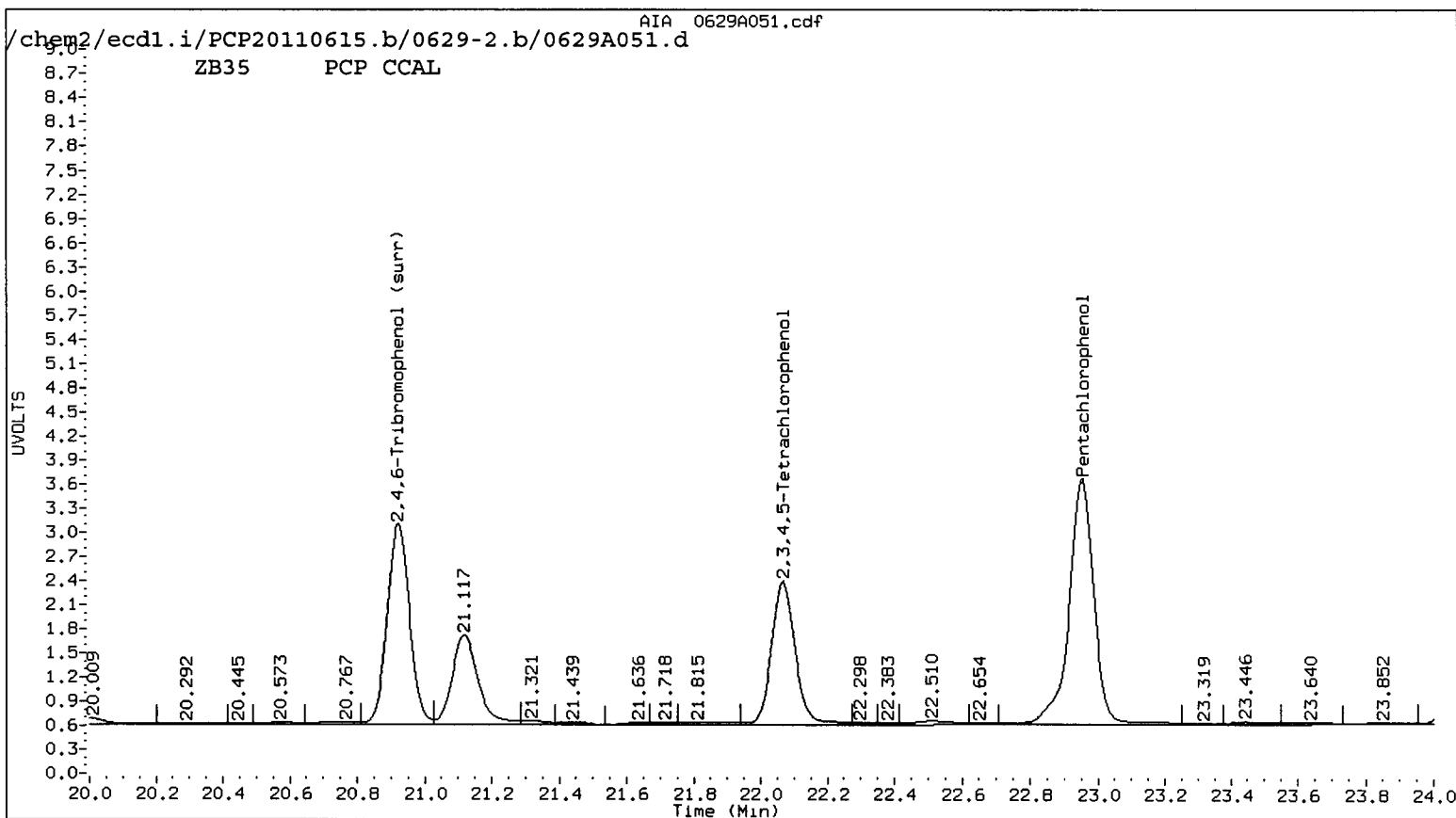
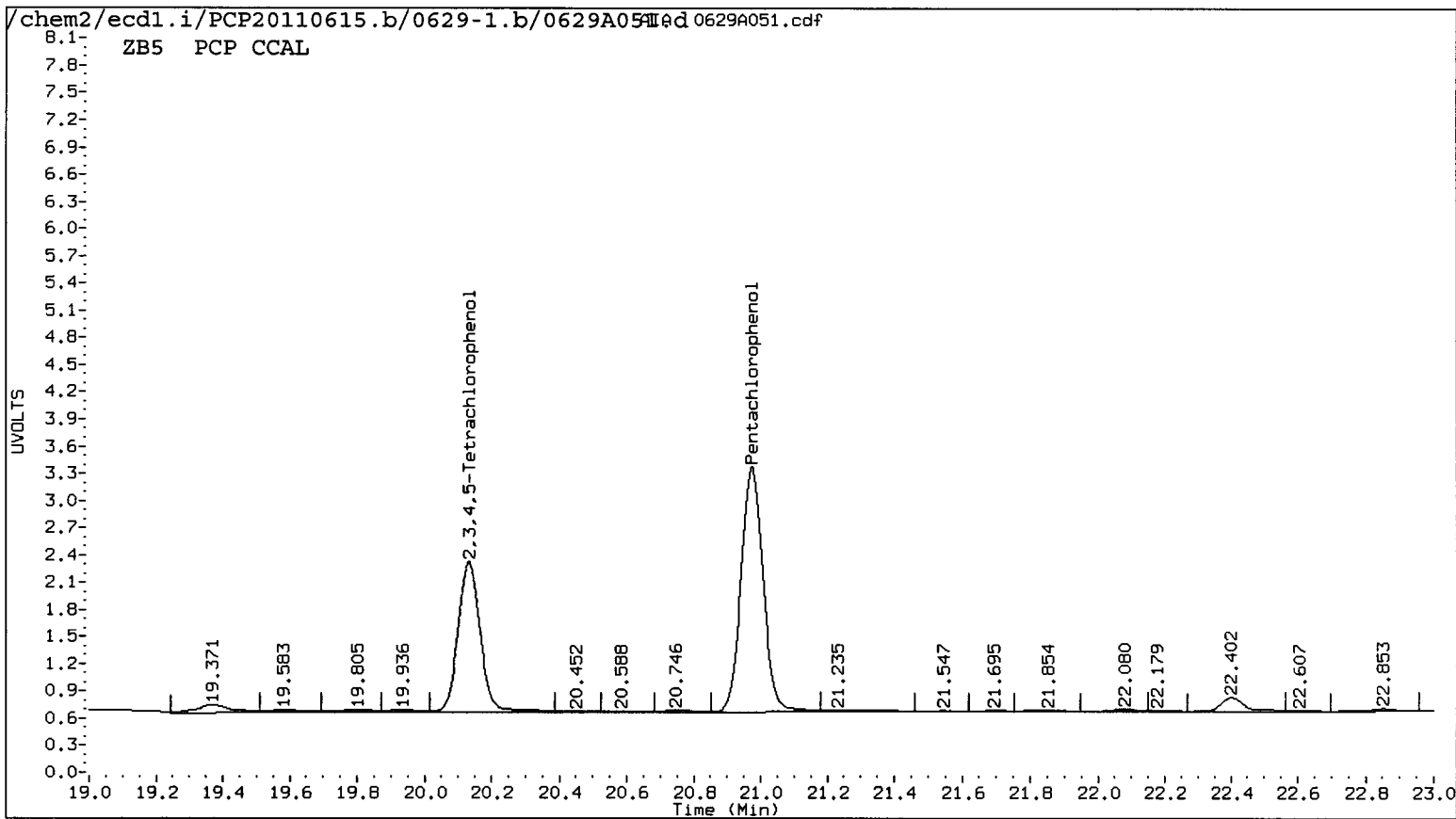
Operator: ar

Column diameter: 0.53

/chem2/ecdd1.i/PCP20110615.b/0629-1.b/0629A051.d/0629A051.cdf







TB85 : 00321

Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/06290051.d
Date: 30-JUN-2011 16:56

Client ID:

Sample Info: PCP CCAL

Purge Volume: 500.0

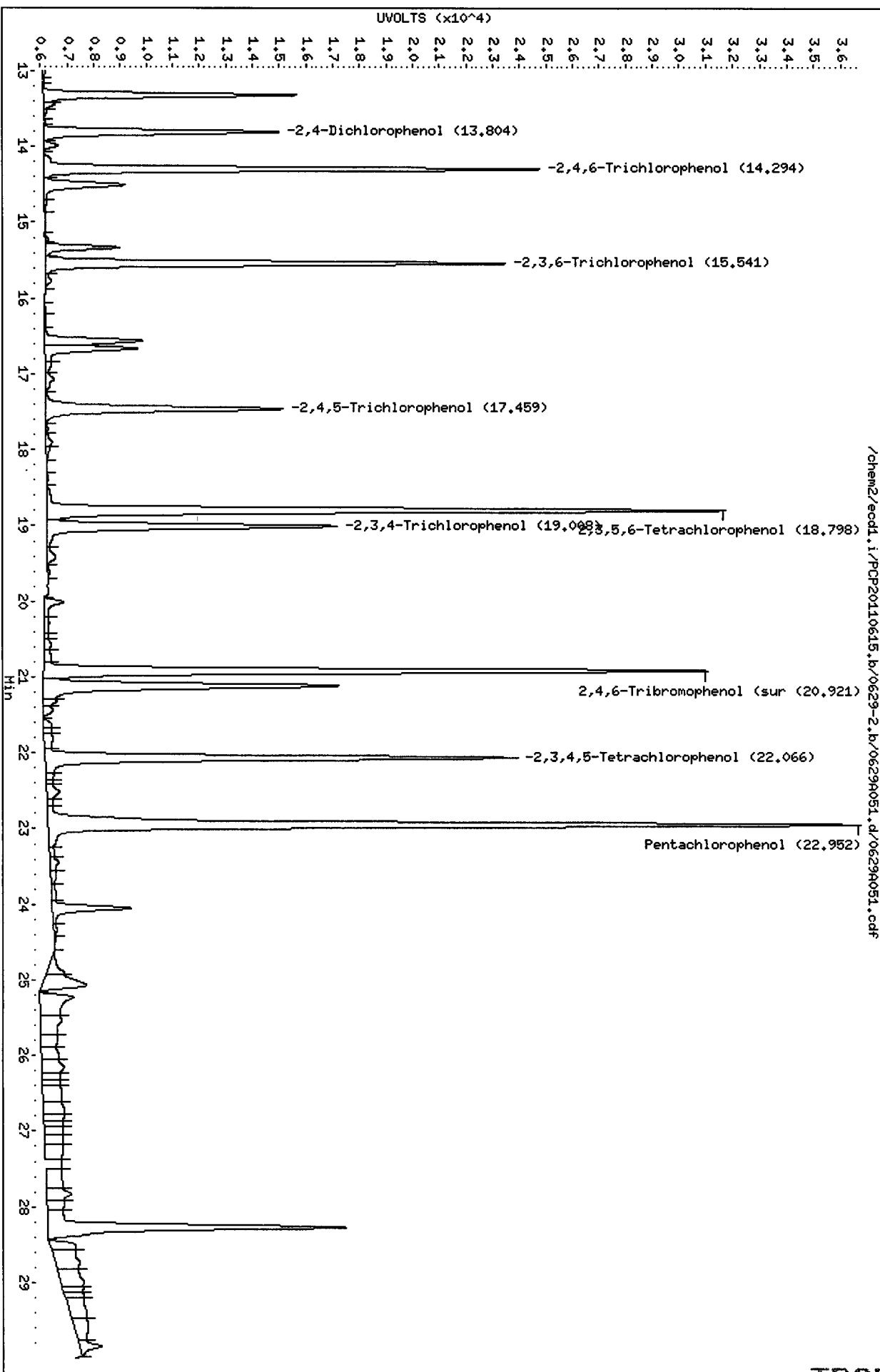
Column phase: STX CLP2

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-2.b/06290051.d/06290051.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A052.d ARI ID: TB86E
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A052.d Client ID: SB-02B-062211-04
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 17:32
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

MJE
7/1/11

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.999	0.023	38903	----			1.6519	0.0000	---	Pentachlorophenol
13.119	0.040	7069	14.326	0.030	3469	0.5021	0.2344	72.7*	2,4,6-Trichlorophenol
14.026	-0.048	11910	15.586	0.044	45357	0.9118	3.0466	107.9*	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			19.076	0.067	7345	0.0000	0.7239	---	2,3,4-Trichlorophenol
17.187	0.057	21859	18.828	0.029	14593	1.1176	0.6485	53.1*	2,3,5,6-Tetrachlorophenol
20.130	-0.005	12745	----			0.8629	0.0000	---	2,3,4,5-Tetrachlorophenol
12.539	0.005	22900	----			25.5261	0.0000	---	2,4-Dichlorophenol
18.572	-0.002	338733	20.921	-0.001	380340	18.4	17.7	3.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	73.5	70.9

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A052.d

Date: 30-JUN-2011 17:32

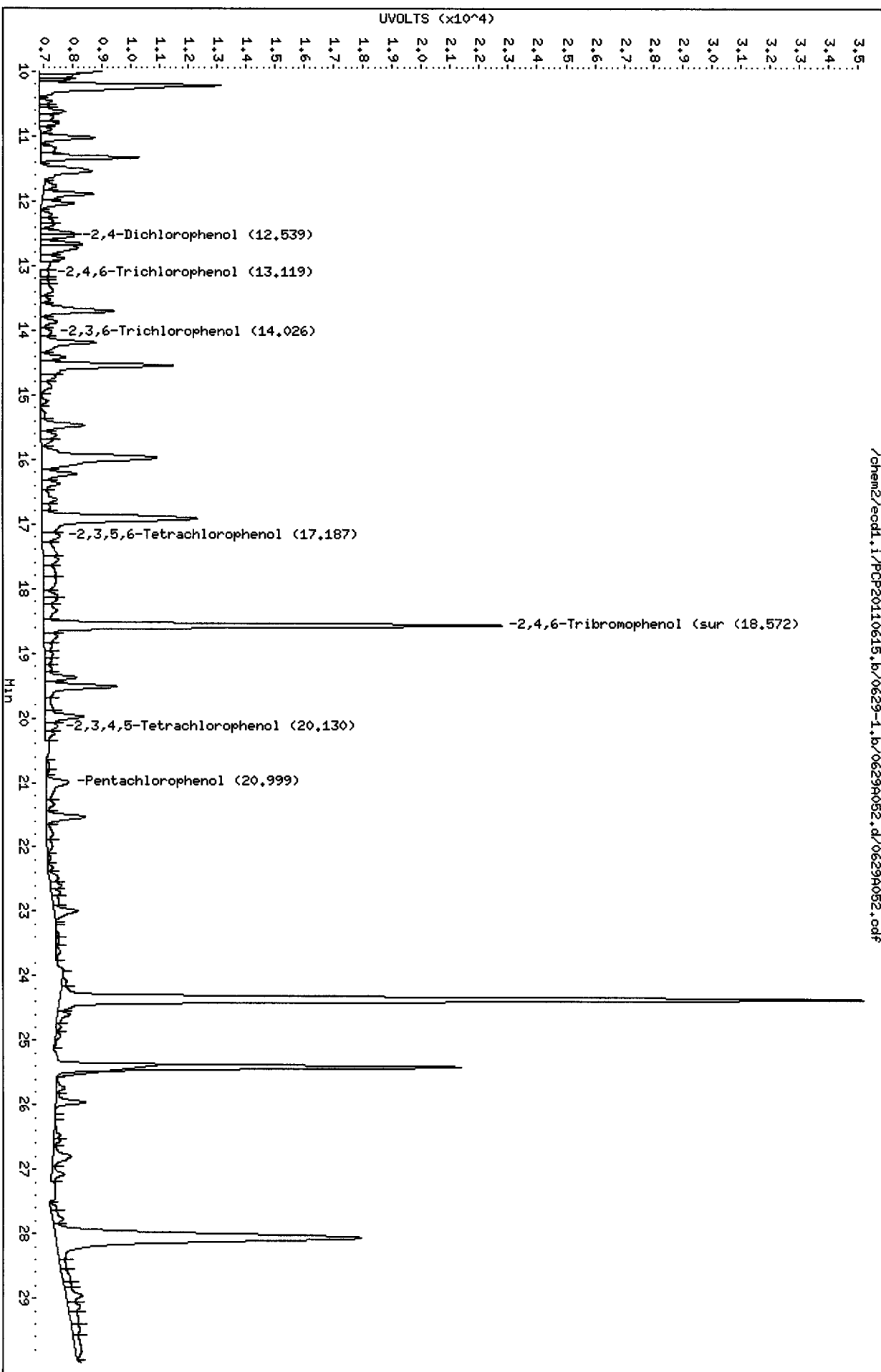
Client ID: SB-028-062211-04

Sample Info: TB86E

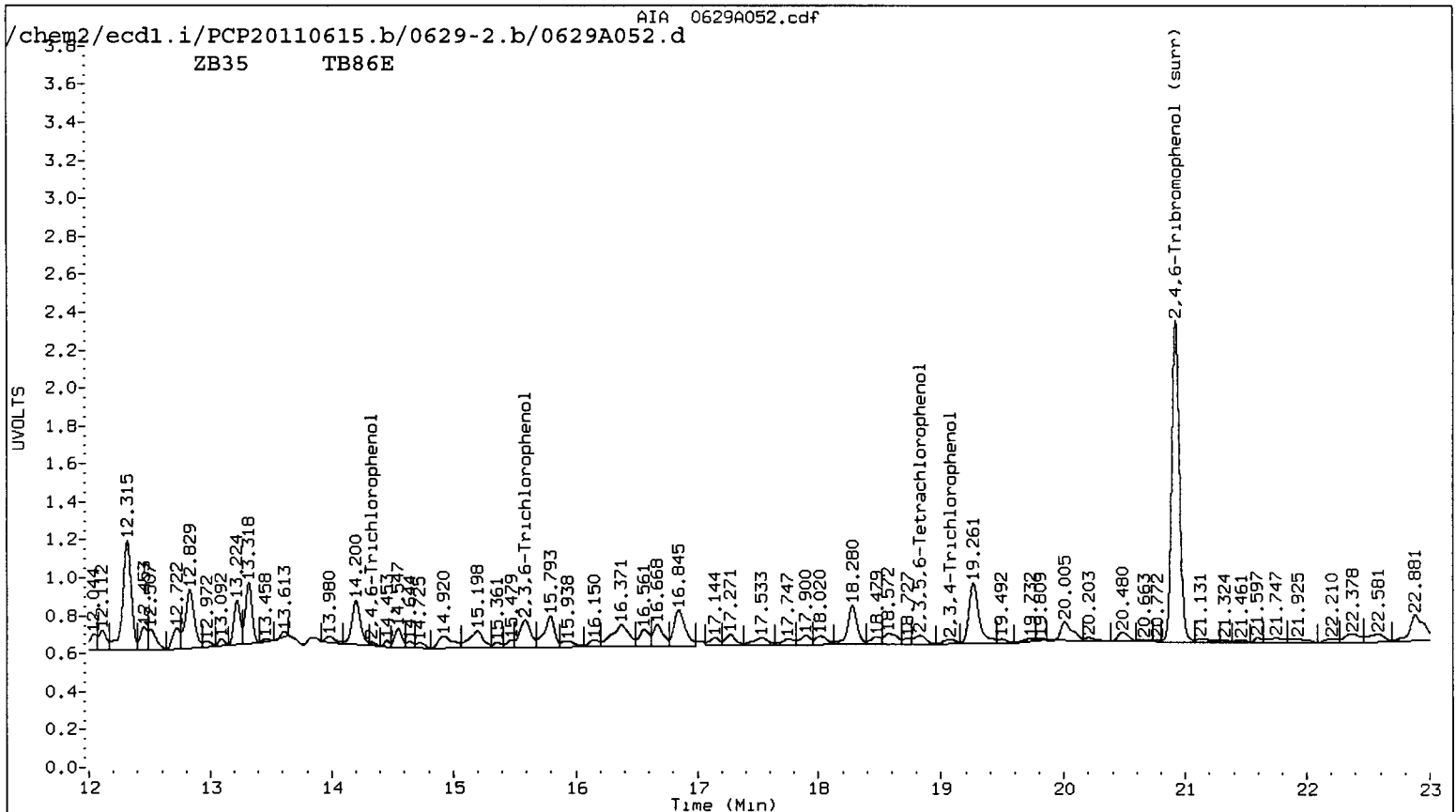
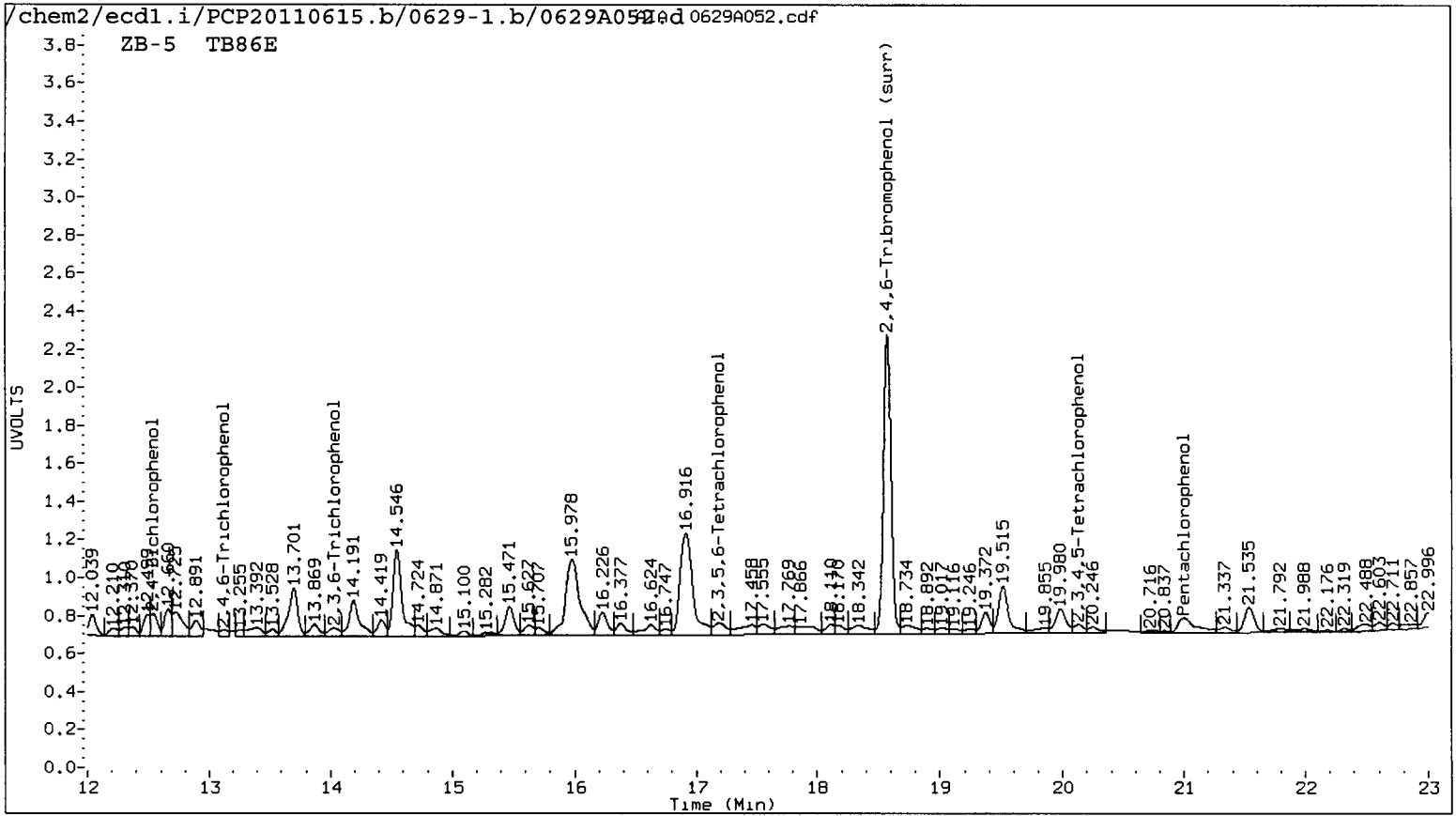
Page 1

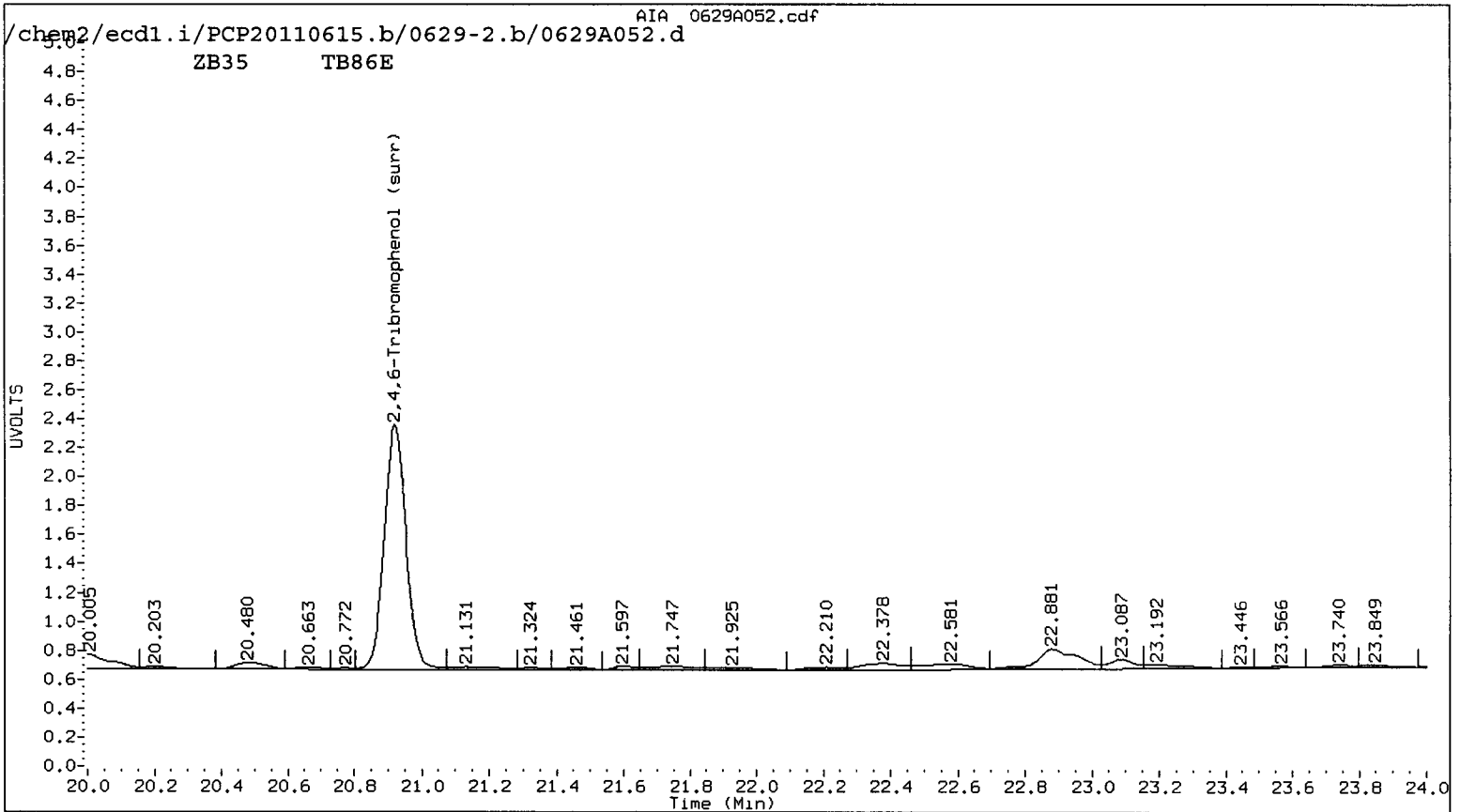
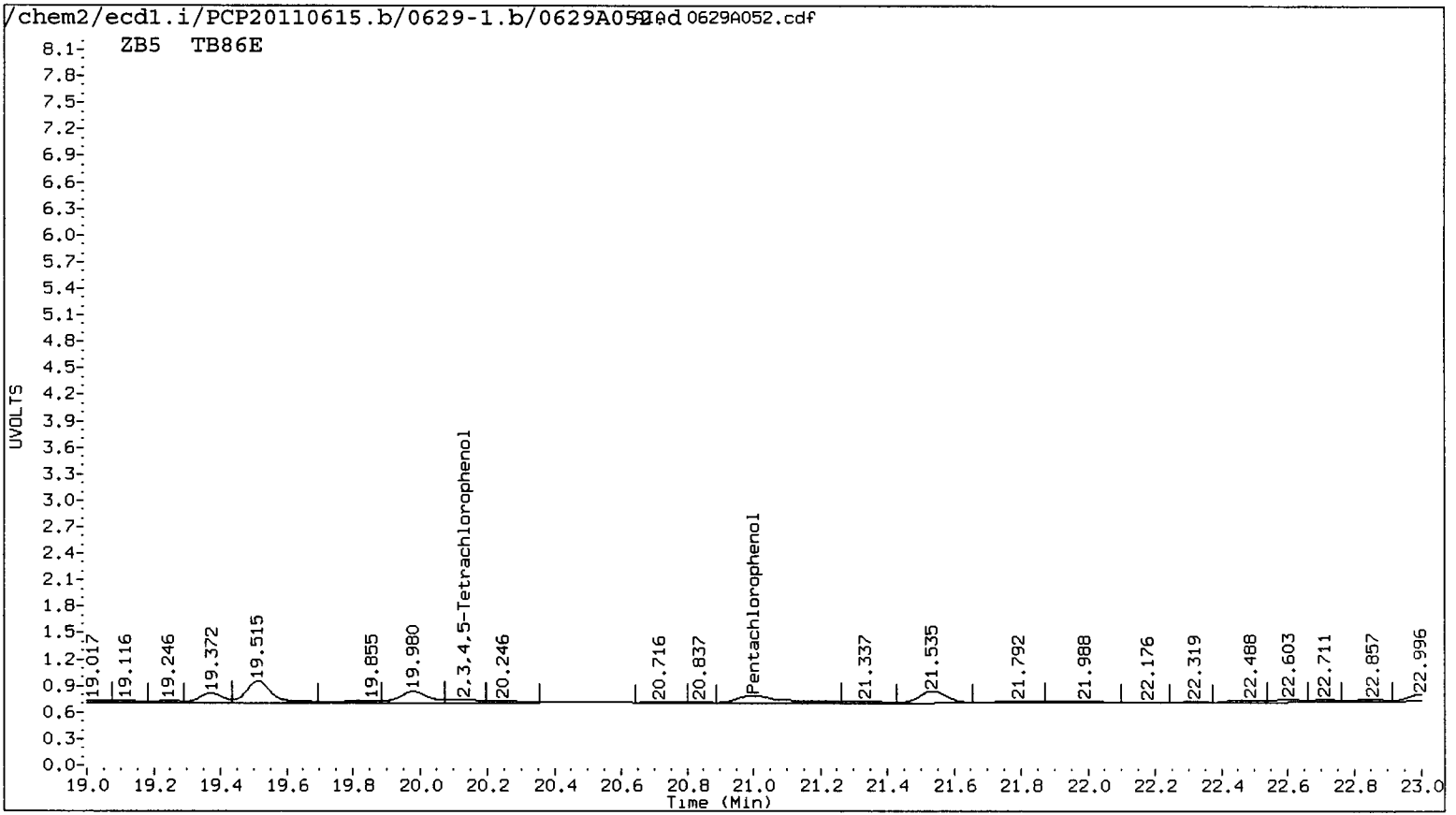
Column phase: STX CLP1

Instrument: eod1.i
Operator: ar
Column diameter: 0.53



TB85 : 00324





Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/06290052.d

Date: 30-JUN-2011 17:32

Client ID: SB-02B-062211-04

Sample Info: TB86E

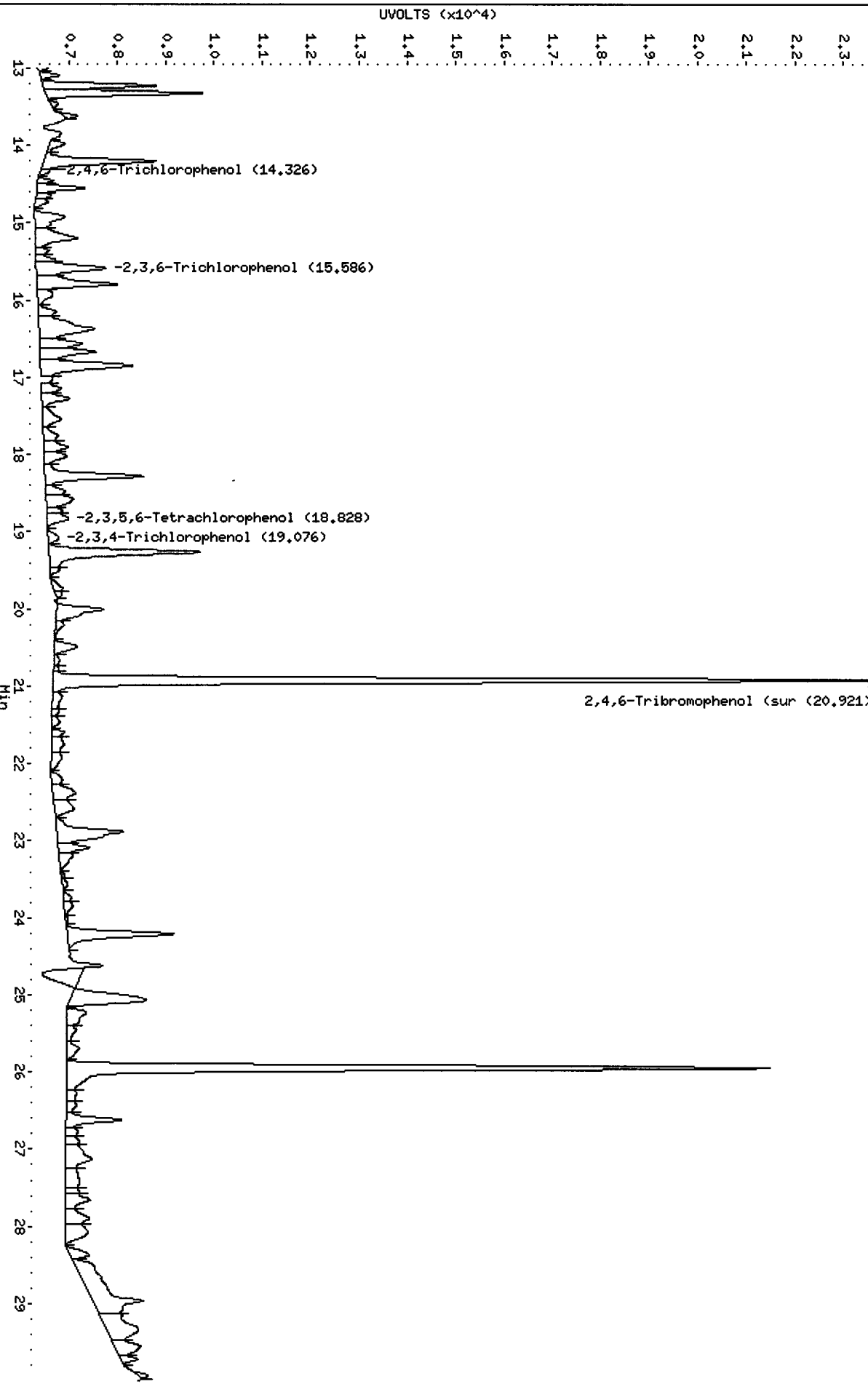
Column phase: STX CLP2

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-2.b/06290052.d/06290052.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A053.d ARI ID: TB86F
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A053.d Client ID: SB-02B-062211-06
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 18:08
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

Handwritten signature
07/11/11

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.001	97989	22.953	0.000	99573	4.1609	3.3137	22.7	Pentachlorophenol
----			14.328	0.032	3823	0.0000	0.2583	---	2,4,6-Trichlorophenol
14.030	-0.045	18240	15.589	0.047	27032	1.3965	1.8158	26.1	2,3,6-Trichlorophenol
15.832	0.008	11152	17.527	0.067	14015	1.4022	1.6471	16.1	2,4,5-Trichlorophenol
17.322	-0.008	5058	19.059	0.049	5000	0.5257	0.4929	6.5	2,3,4-Trichlorophenol
17.192	0.062	14841	18.833	0.034	13040	0.7588	0.5795	26.8	2,3,5,6-Tetrachlorophenol
20.109	-0.025	2964	22.137	0.070	3254	0.2007	0.1918	4.5	2,3,4,5-Tetrachlorophenol
12.494	-0.040	30129	13.829	0.023	1062	33.8814	1.1722	186.6*	2,4-Dichlorophenol
18.573	-0.001	363927	20.921	-0.001	415321	19.7	19.4	2.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	79.0	77.4

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A053.d

Date : 30-JUN-2011 18:08

Client ID: SB-028-062211-06

Sample Info: TB86F

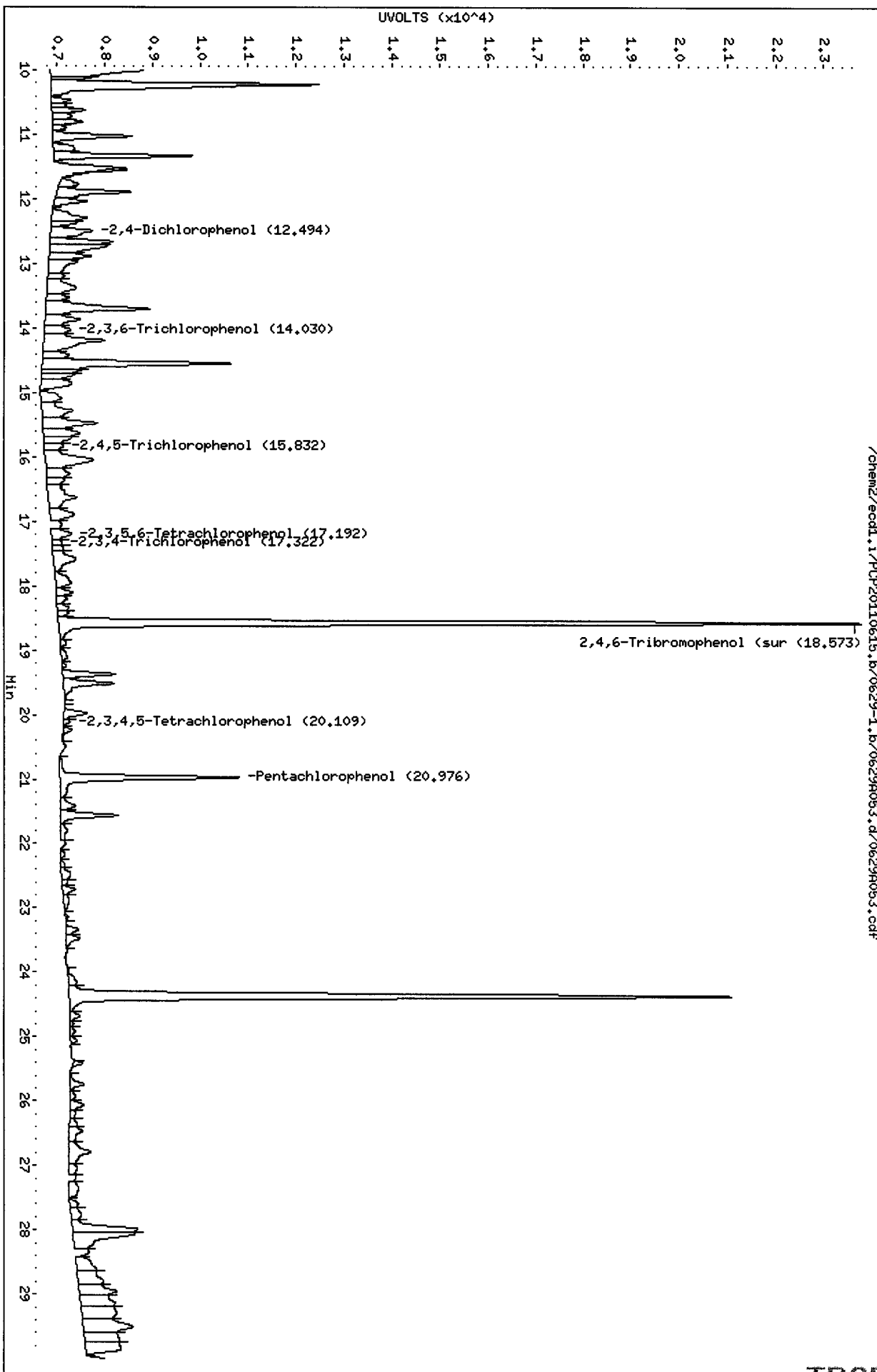
Column phase: STX CLP1

Instrument: eod1.i

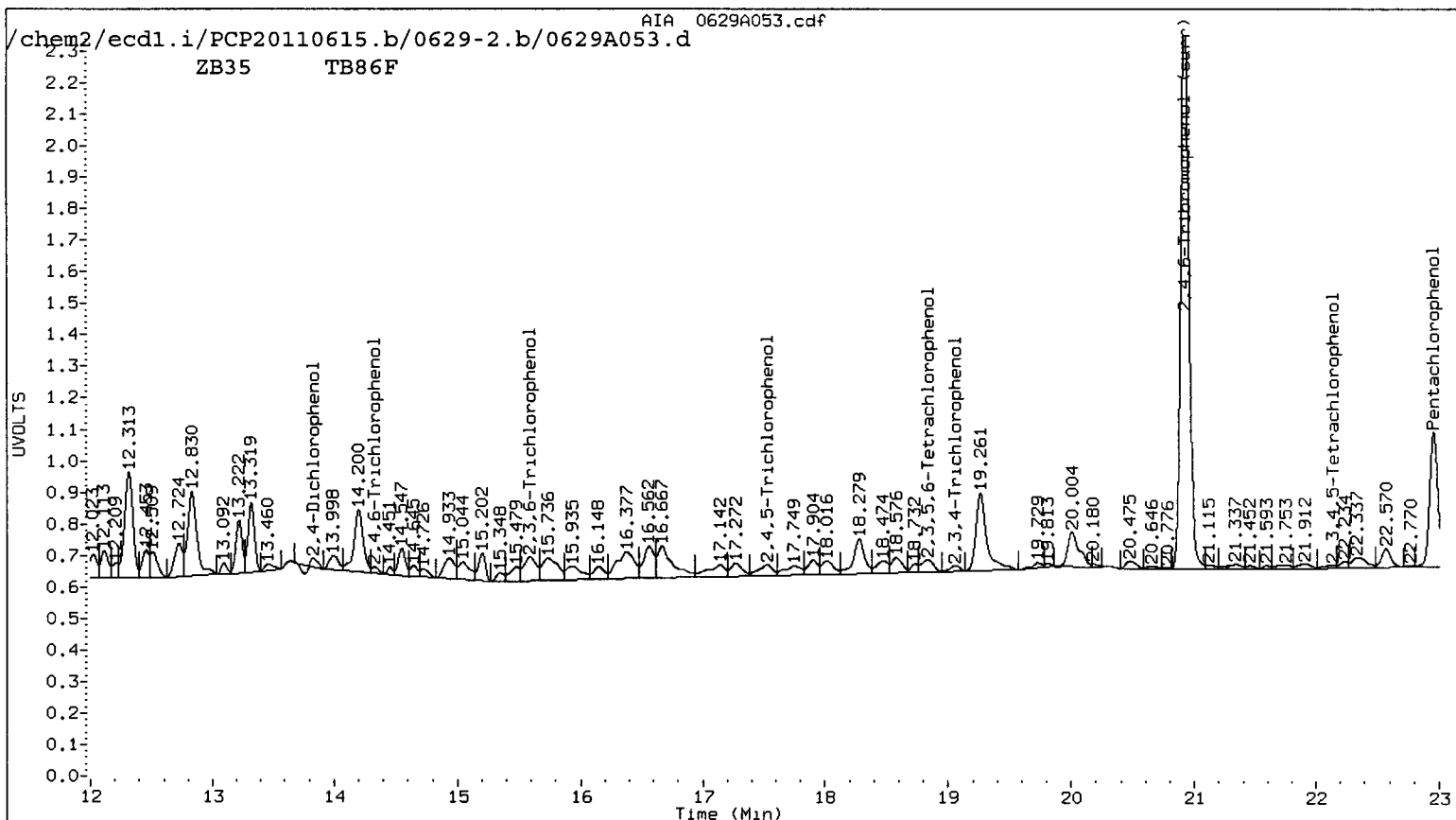
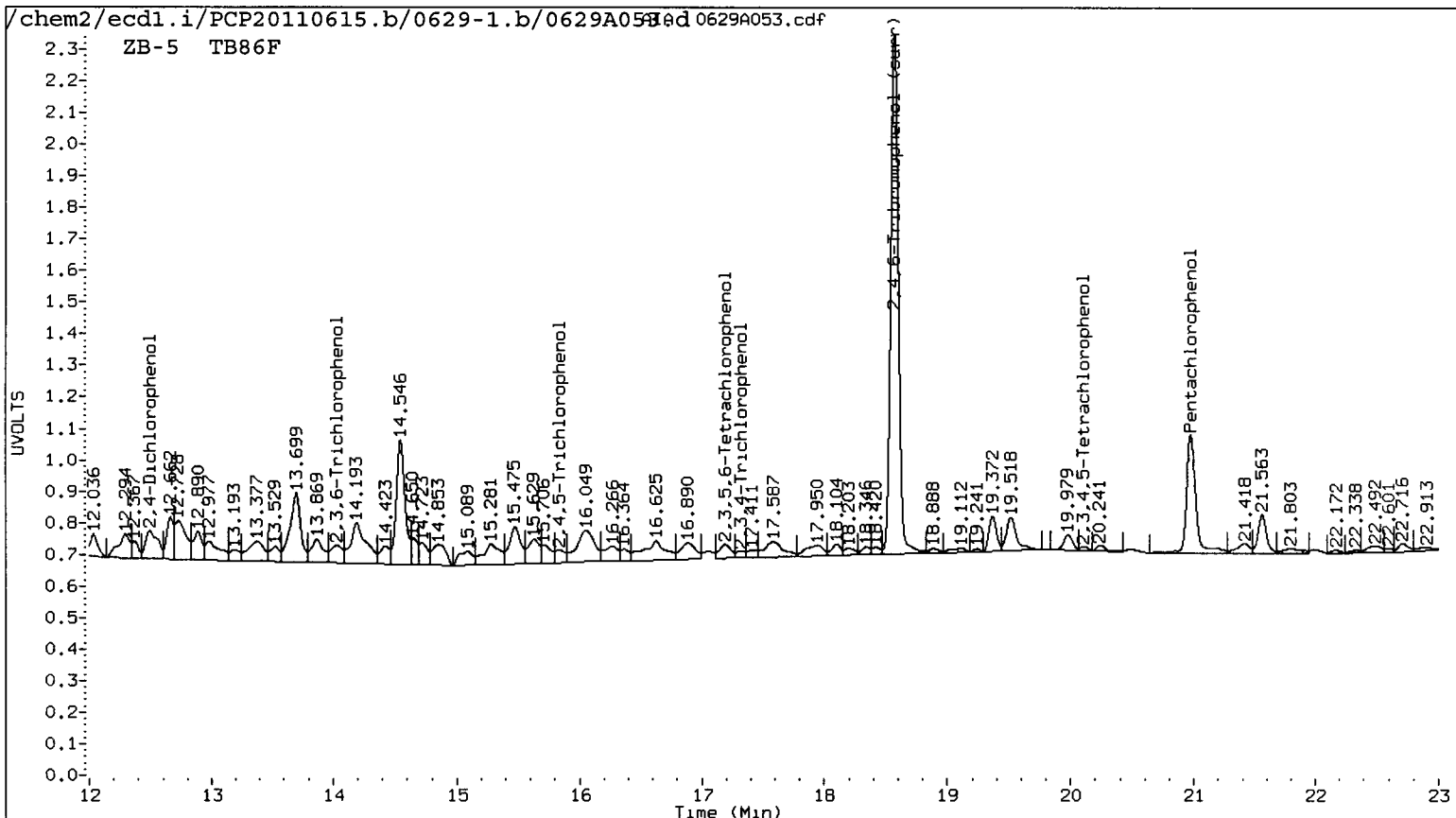
Operator: ar

Column diameter: 0.53

Page 1



TB85 : 00329



Data File: /chem2/ecdl.i/PCP20110615.b/06229-2.b/06229a053.d

Date: 30-JUN-2011 18:08

Client ID: SB-02B-062211-06

Sample Info: TB86F

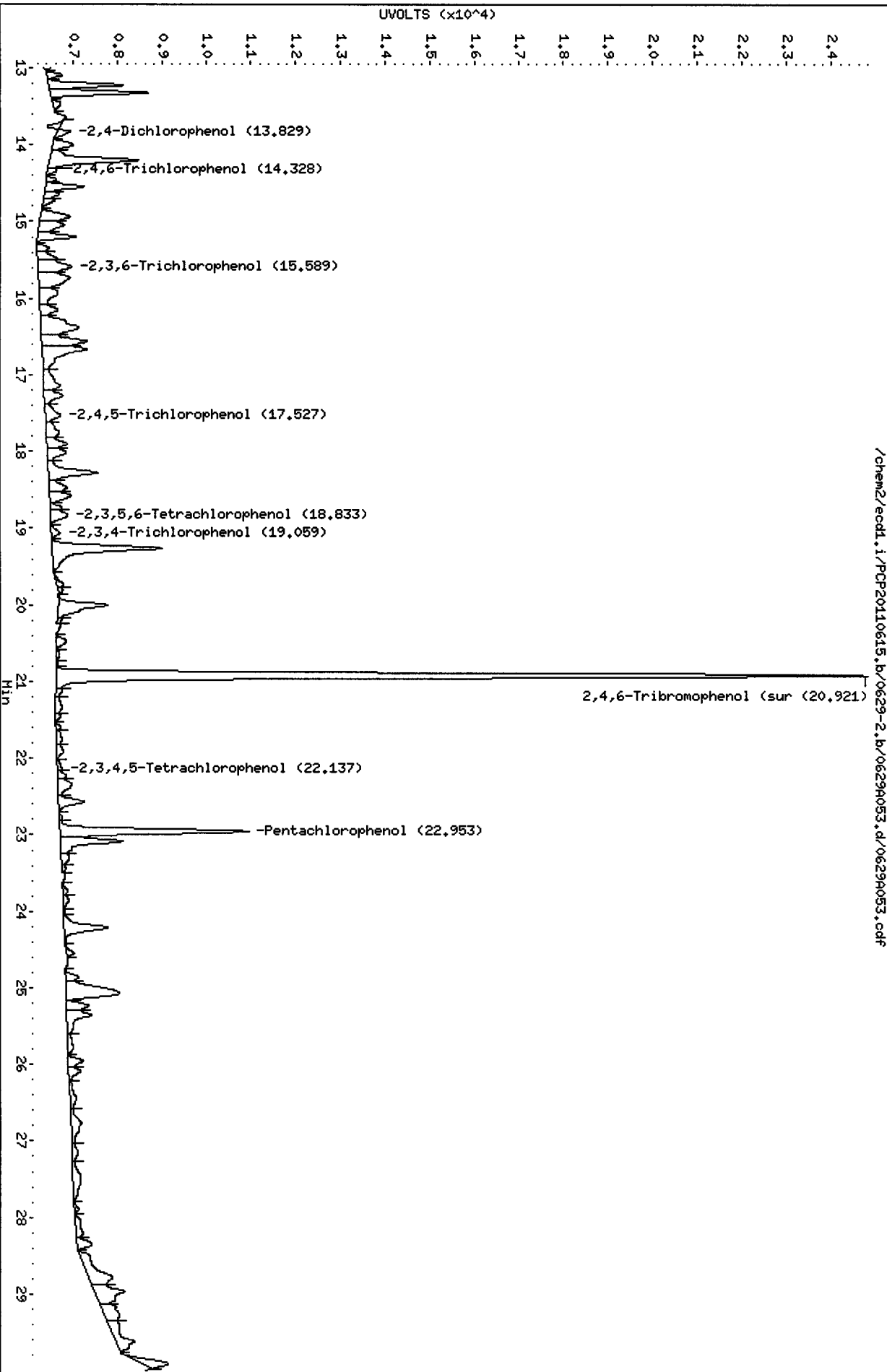
Column phase: STX CLP2

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

/chem2/ecdl.i/PCP20110615.b/06229-2.b/06229a053.d/06229a053.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A054.d ARI ID: TB86G
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A054.d Client ID: SB-02B-062211-08
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 18:45
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.980	0.004	18892	22.962	0.009	6330	0.8022	0.2107	116.8*	Pentachlorophenol
----			14.336	0.041	3603	0.0000	0.2434	---	2,4,6-Trichlorophenol
14.032	-0.042	11661	15.592	0.050	16603	0.8928	1.1153	22.2	2,3,6-Trichlorophenol
15.836	0.012	23938	17.458	-0.002	8711	3.0098	1.0237	98.5*	2,4,5-Trichlorophenol
----			19.059	0.049	2713	0.0000	0.2674	---	2,3,4-Trichlorophenol
17.198	0.068	16208	18.821	0.022	19627	0.8287	0.8723	5.1	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.553	0.019	10651	13.829	0.023	1141	11.6946	1.2592	161.1*	2,4-Dichlorophenol
18.574	0.000	360252	20.922	0.000	394067	19.5	18.4	6.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	78.2	73.4

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A054.d

Date: 30-JUN-2011 18:45

Client ID: SB-02B-062211-08

Sample Info: TB86G

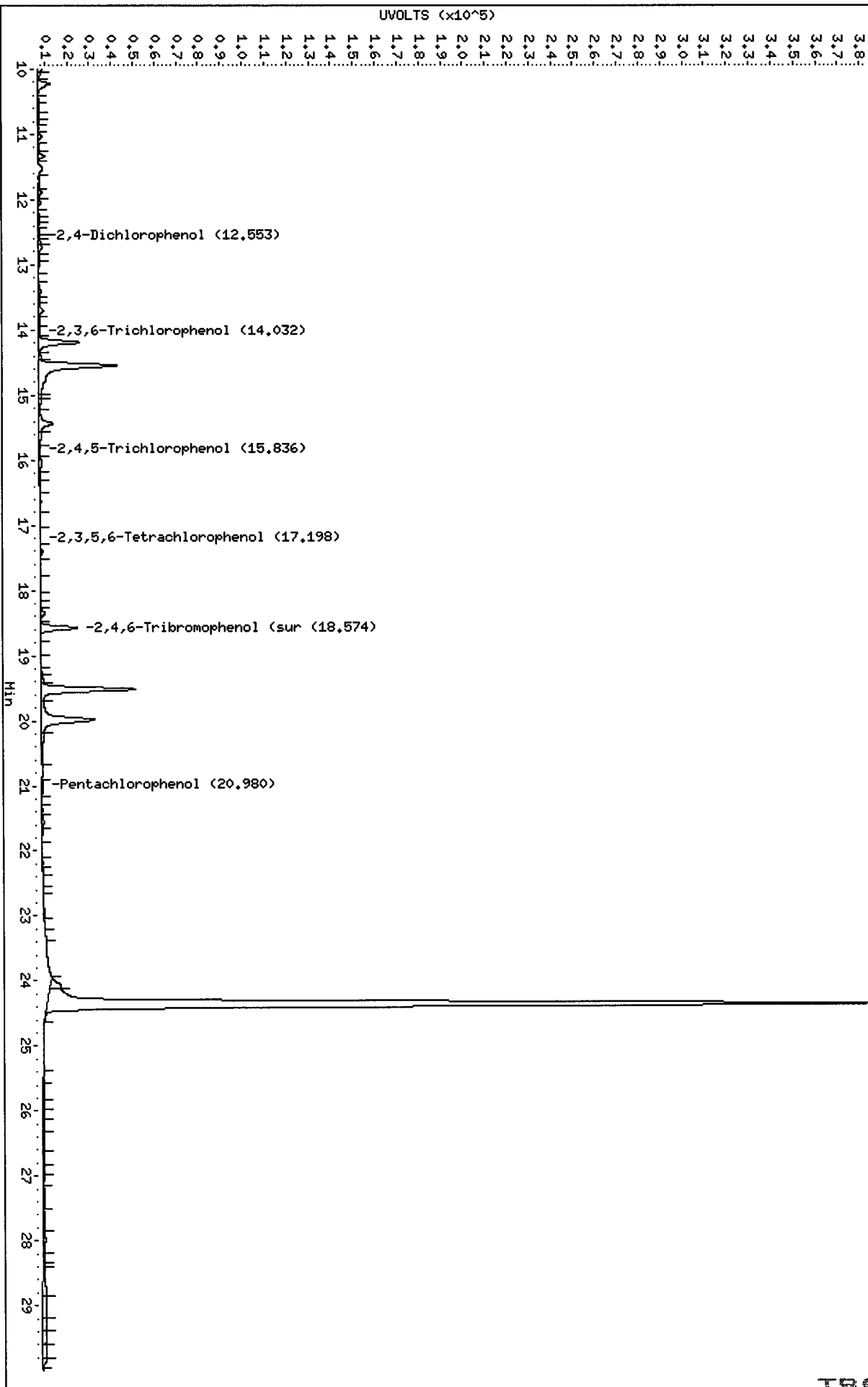
Column phase: STX CLP1

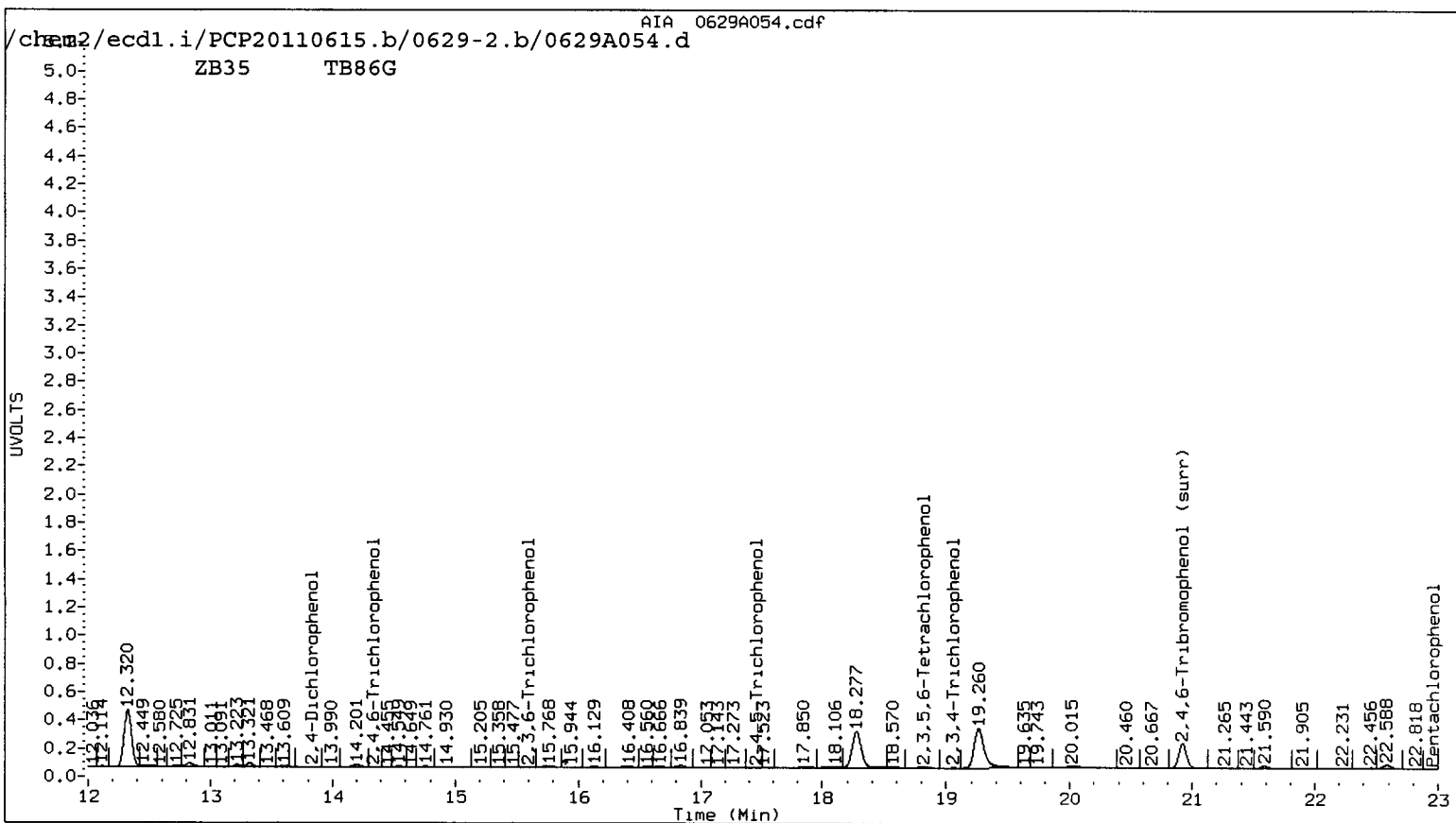
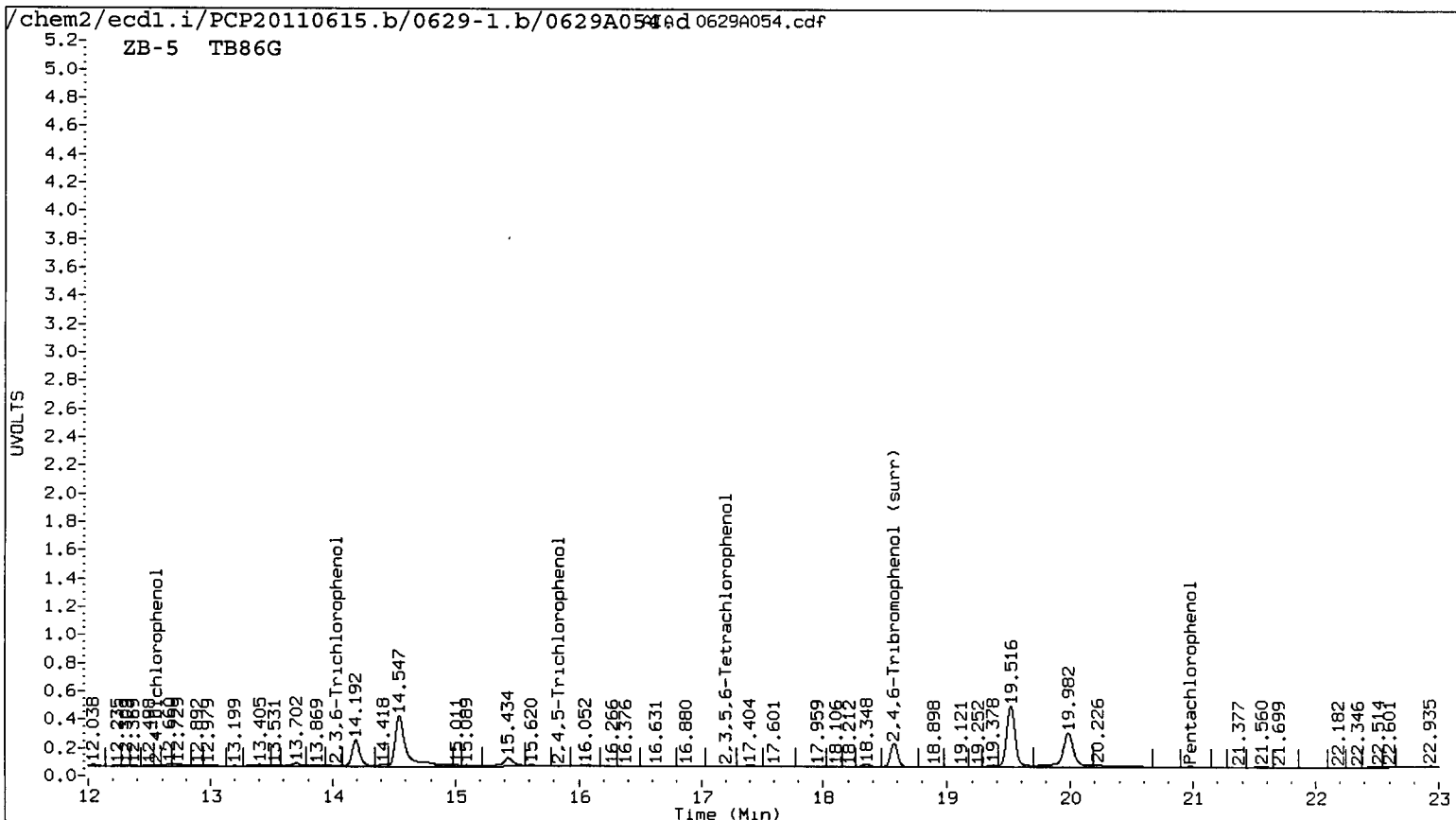
Instrument: eod1.i

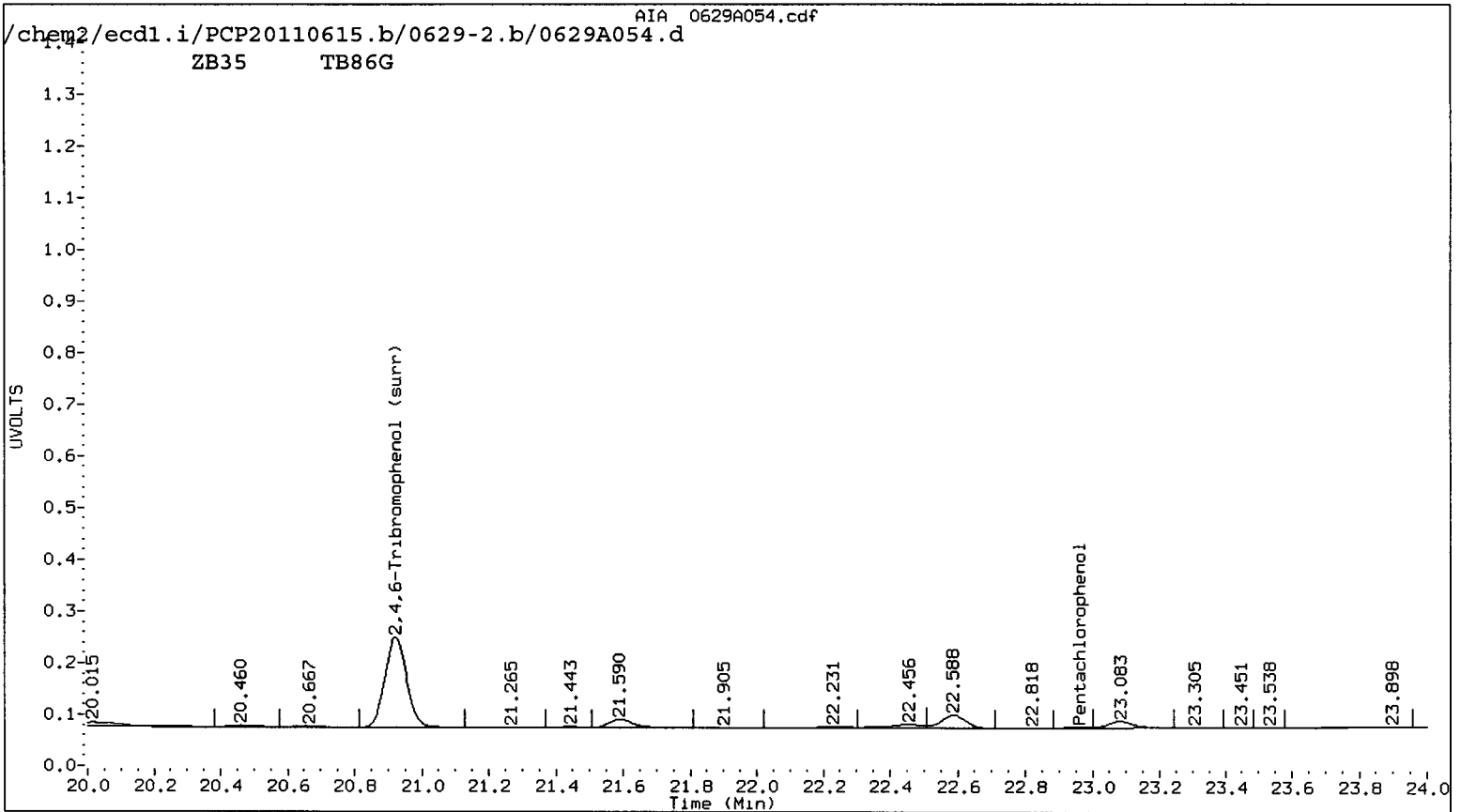
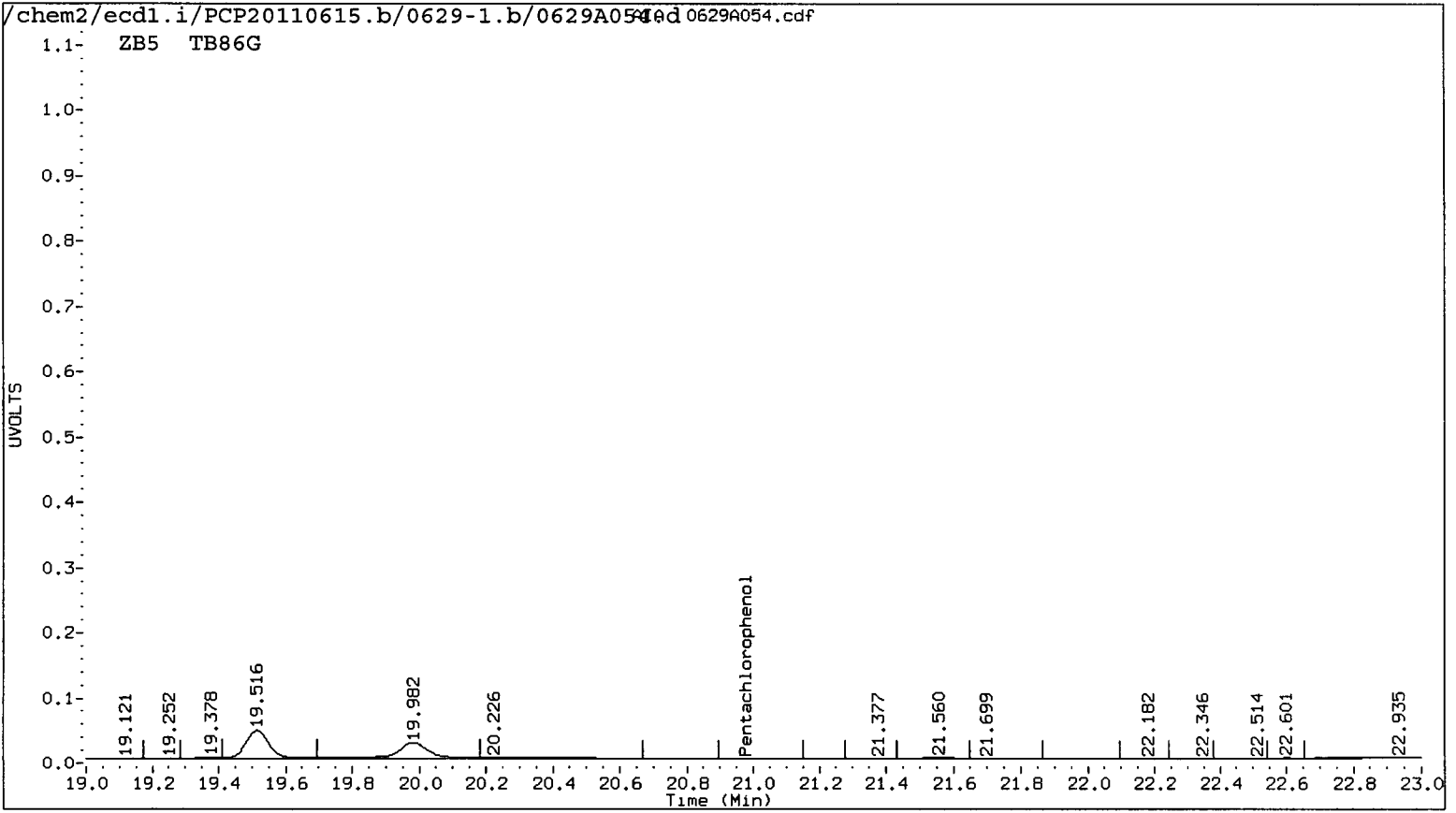
Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-1.b/0629A054.d/0629A054.cdf







Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629A054.d

Date: 30-JUN-2011 18:45

Client ID: SB-028-062211-08

Sample Info: TB86G

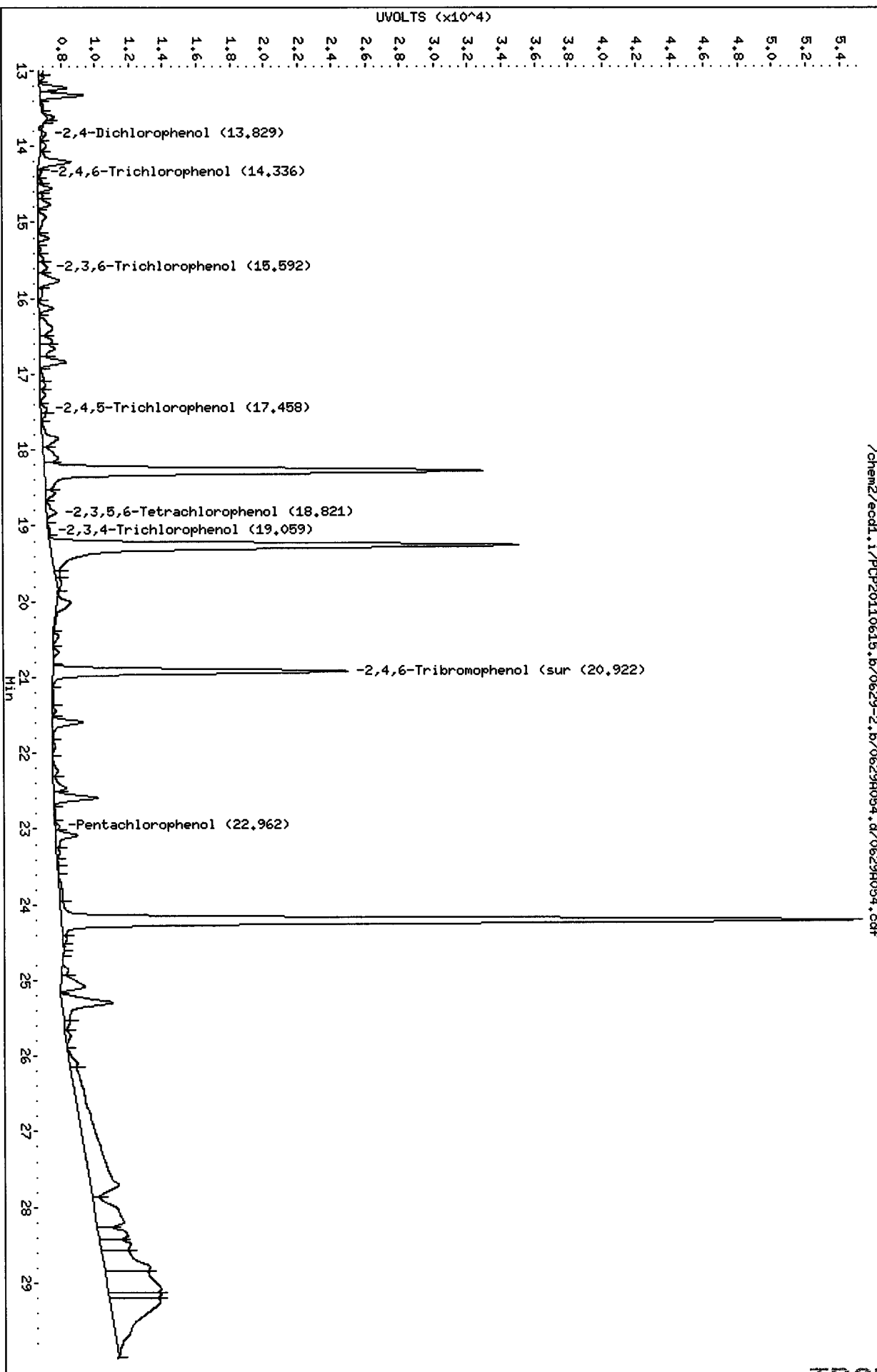
Column phase: STX CLP2

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

Page 1



/chem2/eod1.i/PCP20110615.b/0629-2.b/0629A054.d/0629A054.cdf

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/06290055.d

Date: 30-JUN-2011 19:21

Client ID: SB-02B-062211-10

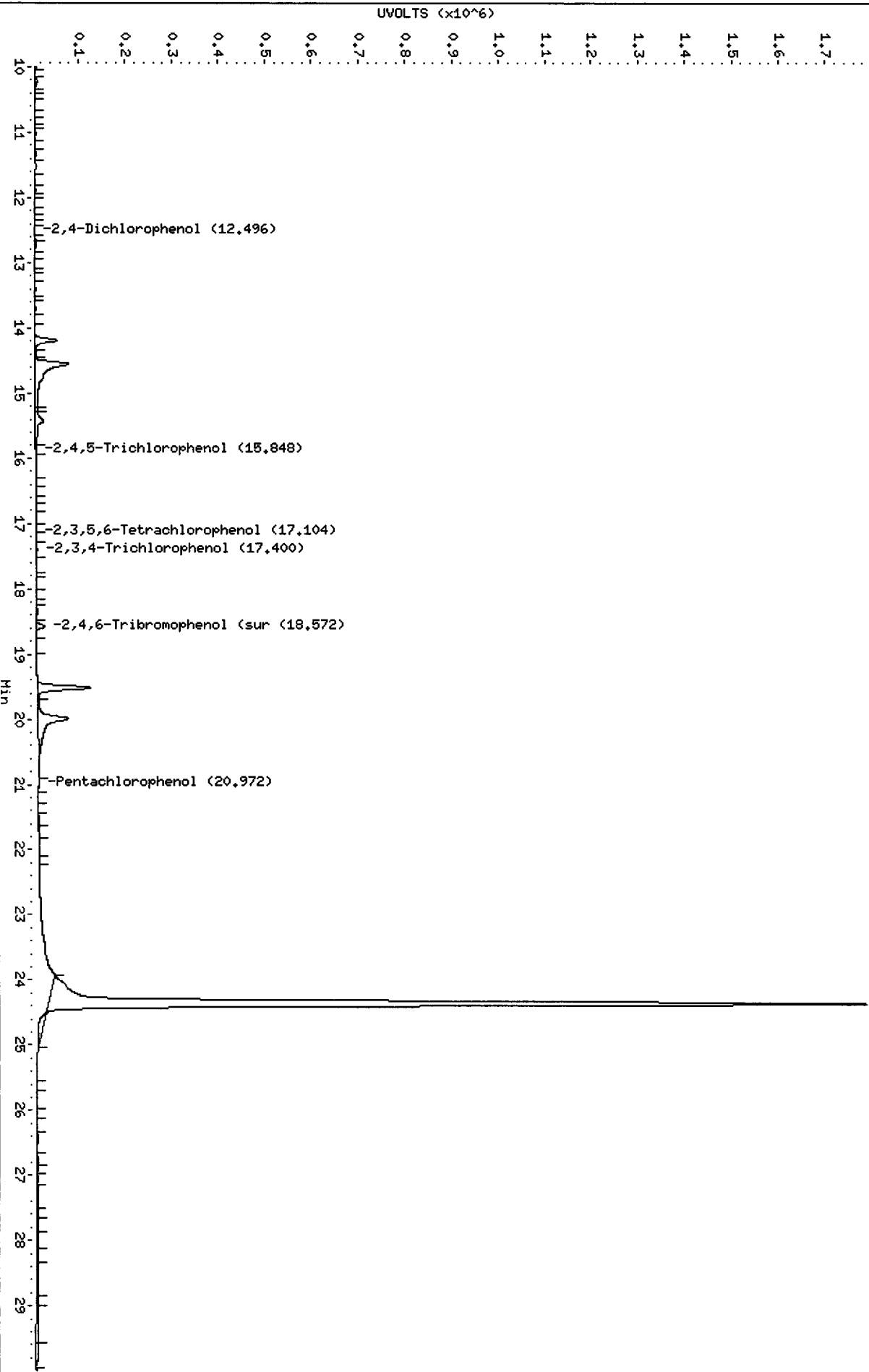
Sample Info: TB86H

Page 1

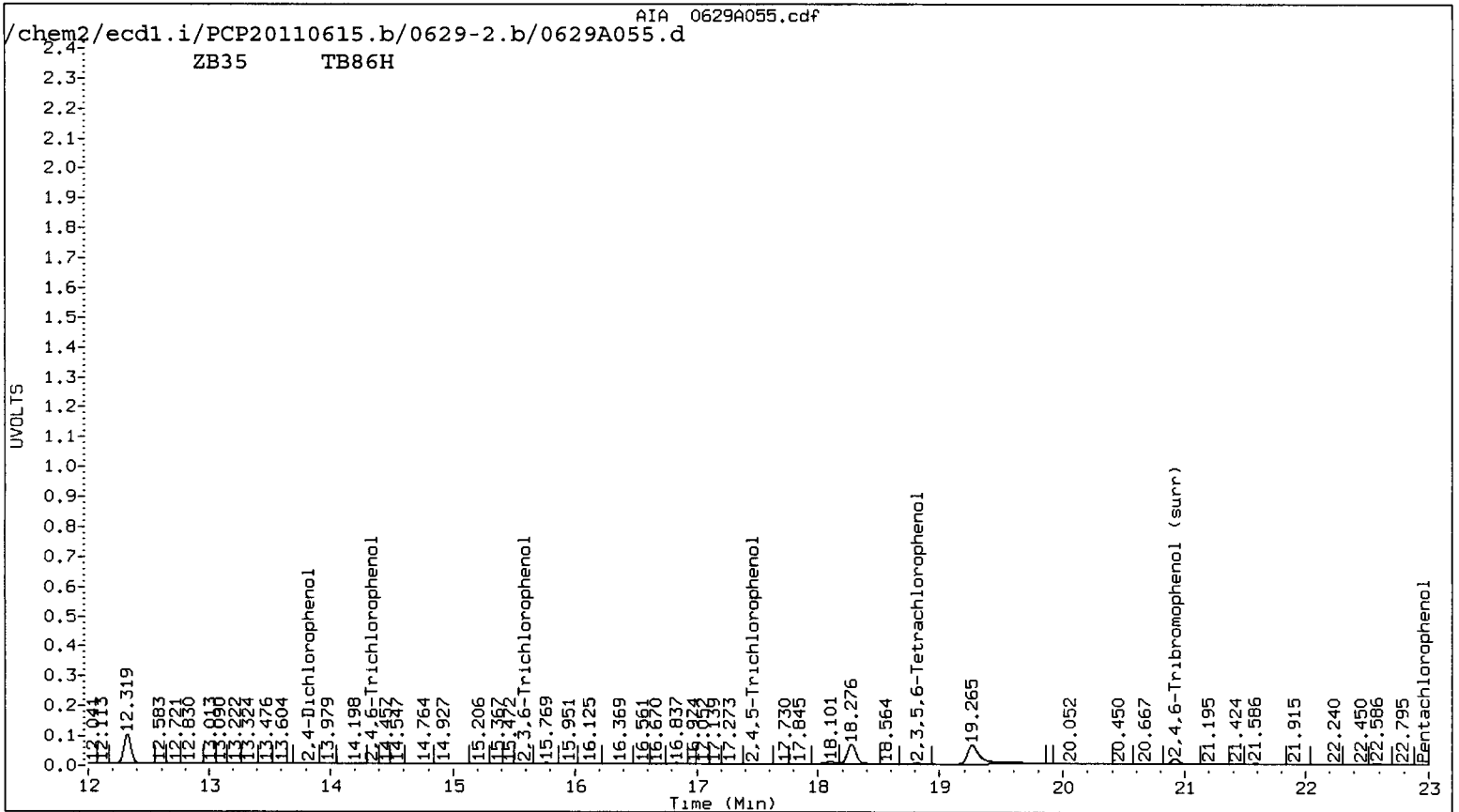
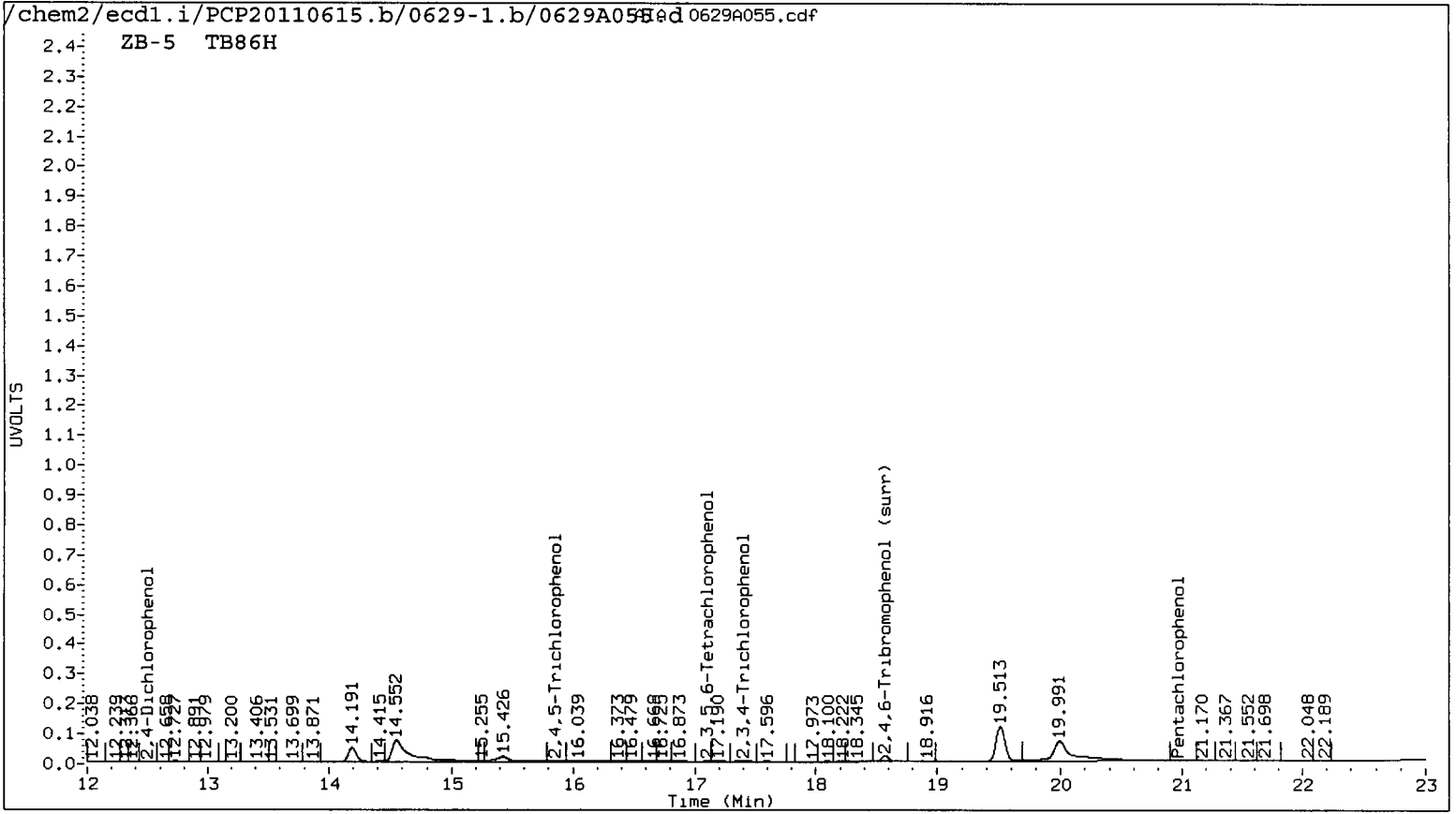
Column phase: STX CLP1

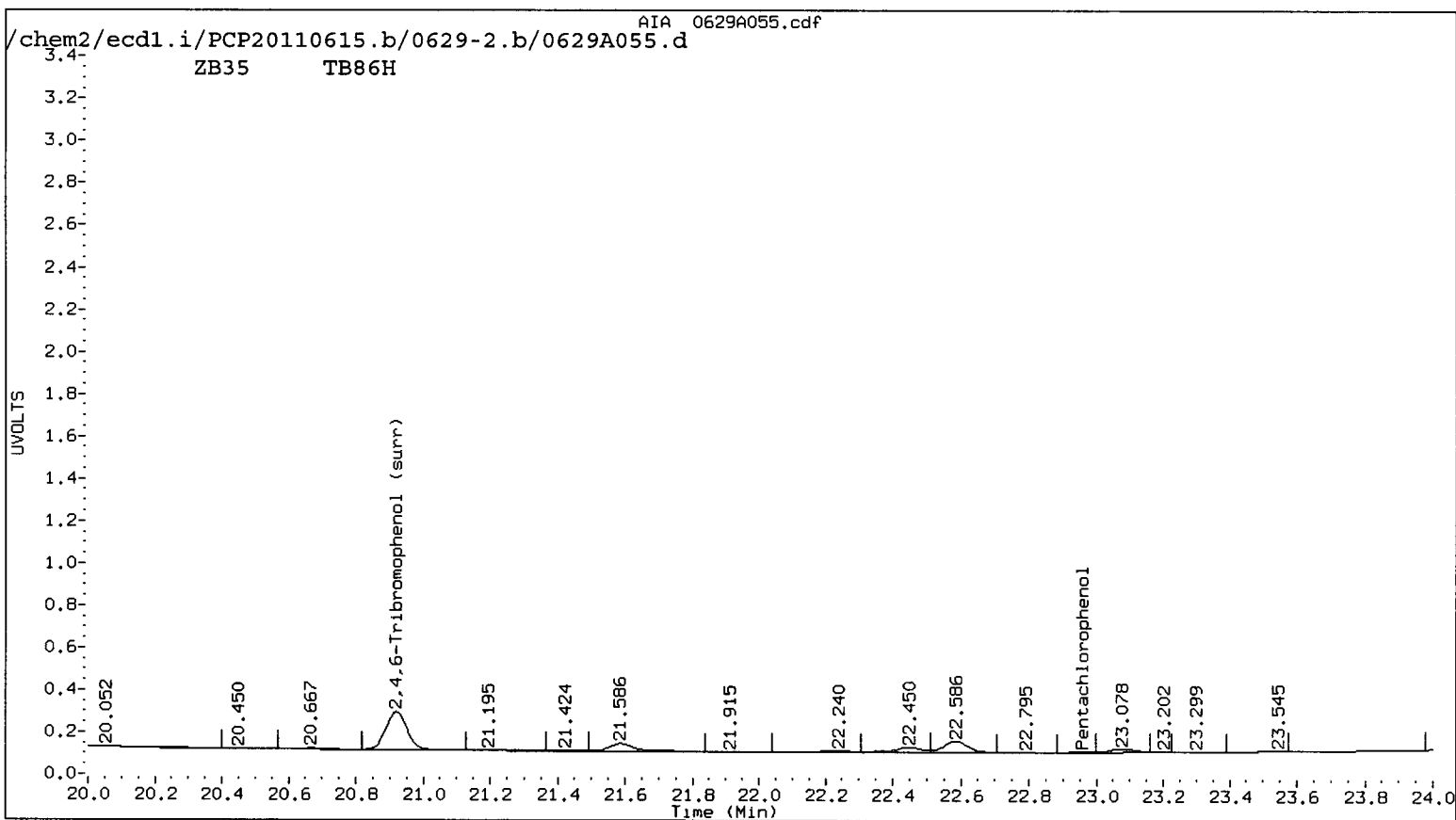
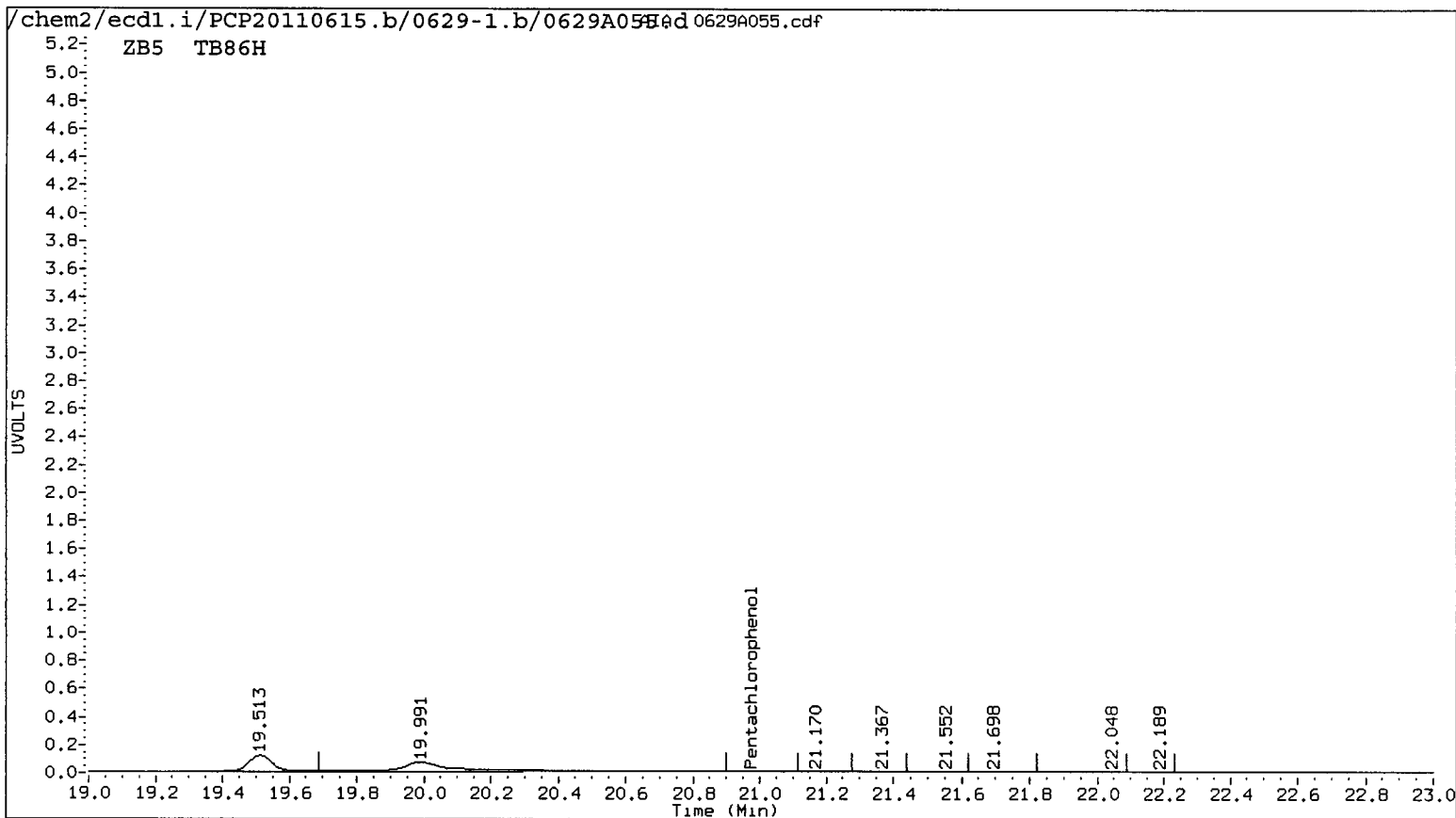
Operator: ar
Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-1.b/06290055.d/06290055.cdf



TB86H : 00330





TB85 : 00341

Data File: /chem2/eodl.i/PCP20110615.b/0629-2.b/0629A055.d

Date: 30-JUN-2011 19:24

Client ID: SB-02B-062211-10

Sample Info: TB86H

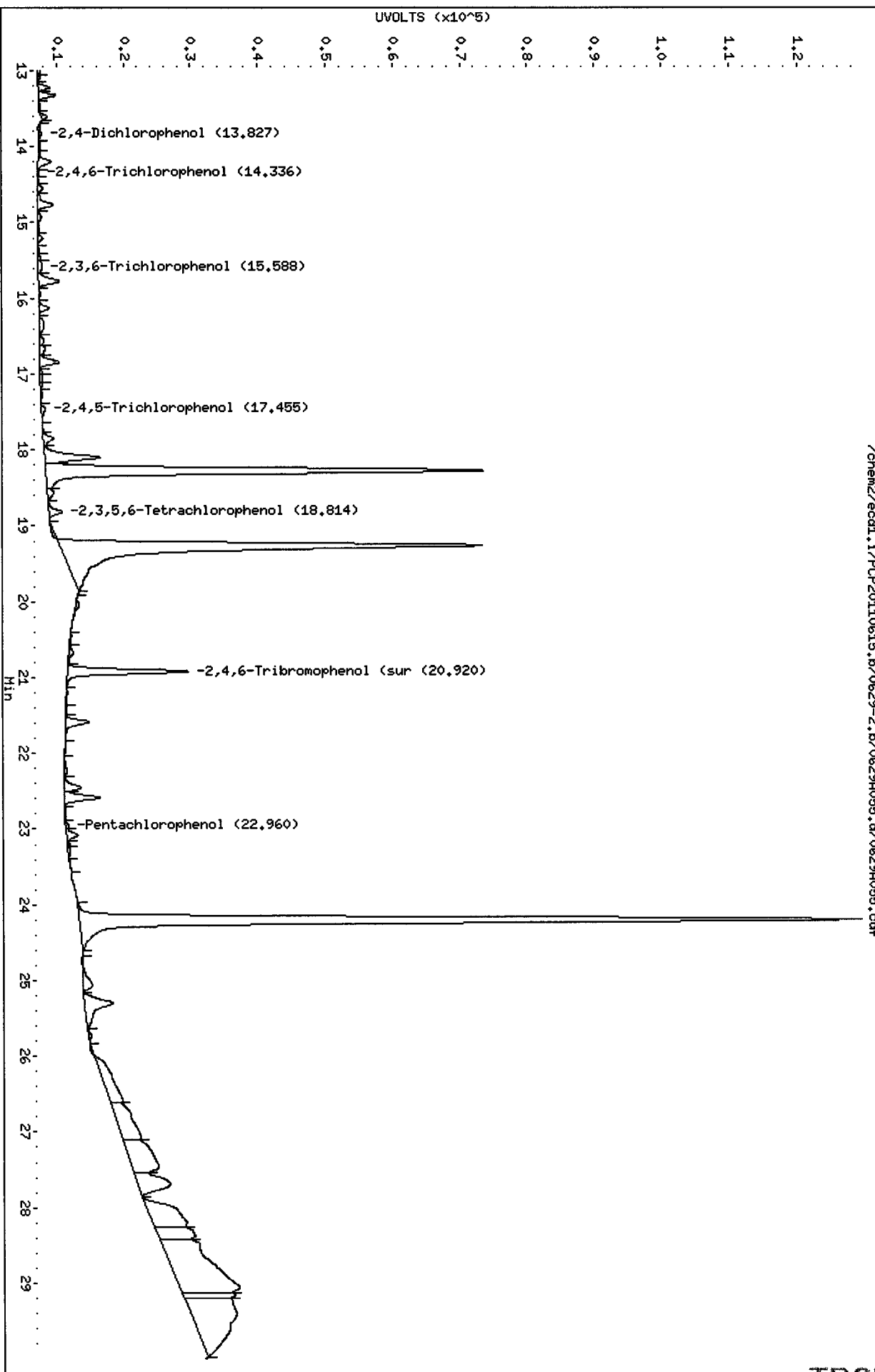
Column phase: STX CLP2

Instrument: eodl.i

Operator: ar

Column diameter: 0.53

/chem2/eodl.i/PCP20110615.b/0629-2.b/0629A055.d/0629A055.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A056.d ARI ID: TB86I
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A056.d Client ID: SB-02A-062211-02
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 19:57
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

u 7/1/11

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.000	94515	22.953	0.000	95678	4.0134	3.1841	23.0	Pentachlorophenol
----			----			0.0000	0.0000	---	2,4,6-Trichlorophenol
14.033	-0.041	5455	15.596	0.054	10110	0.4176	0.6791	47.7*	2,3,6-Trichlorophenol
----			17.525	0.065	5487	0.0000	0.6448	---	2,4,5-Trichlorophenol
----			19.062	0.052	2779	0.0000	0.2739	---	2,3,4-Trichlorophenol
----			18.853	0.054	31403	0.0000	1.3956	---	2,3,5,6-Tetrachlorophenol
20.121	-0.013	2712	22.050	-0.018	2059	0.1837	0.1214	40.8*	2,3,4,5-Tetrachlorophenol
12.557	0.023	12825	13.833	0.027	577	14.1198	0.6367	182.7*	2,4-Dichlorophenol
18.573	-0.002	235500	20.921	-0.001	276492	12.8	12.9	0.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	51.1	51.5

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/06290056.d

Date : 30-JUN-2011 19:57

Client ID: SB-02A-062211-02

Sample Info: TB861

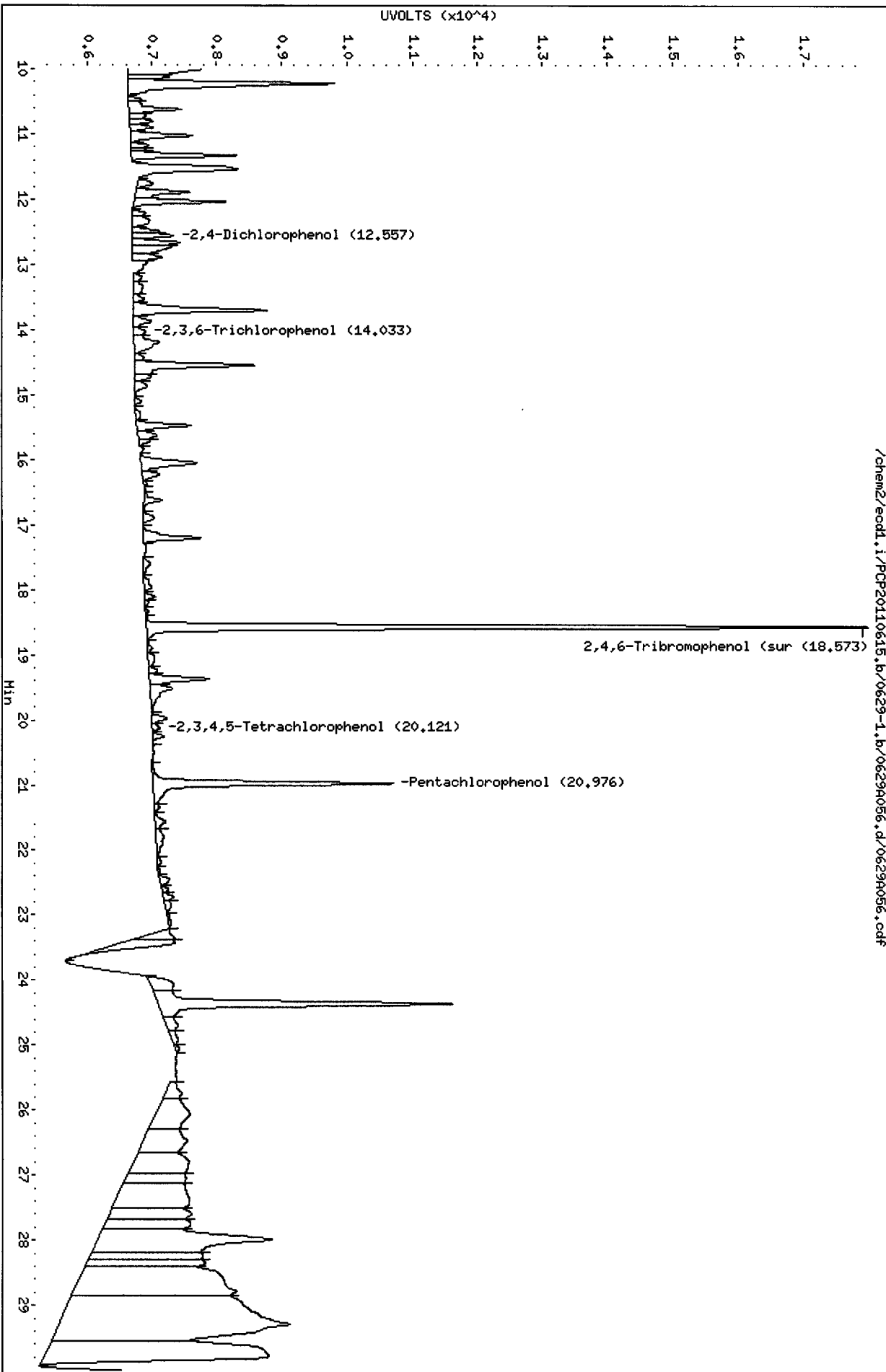
Column phase: STX CLP1

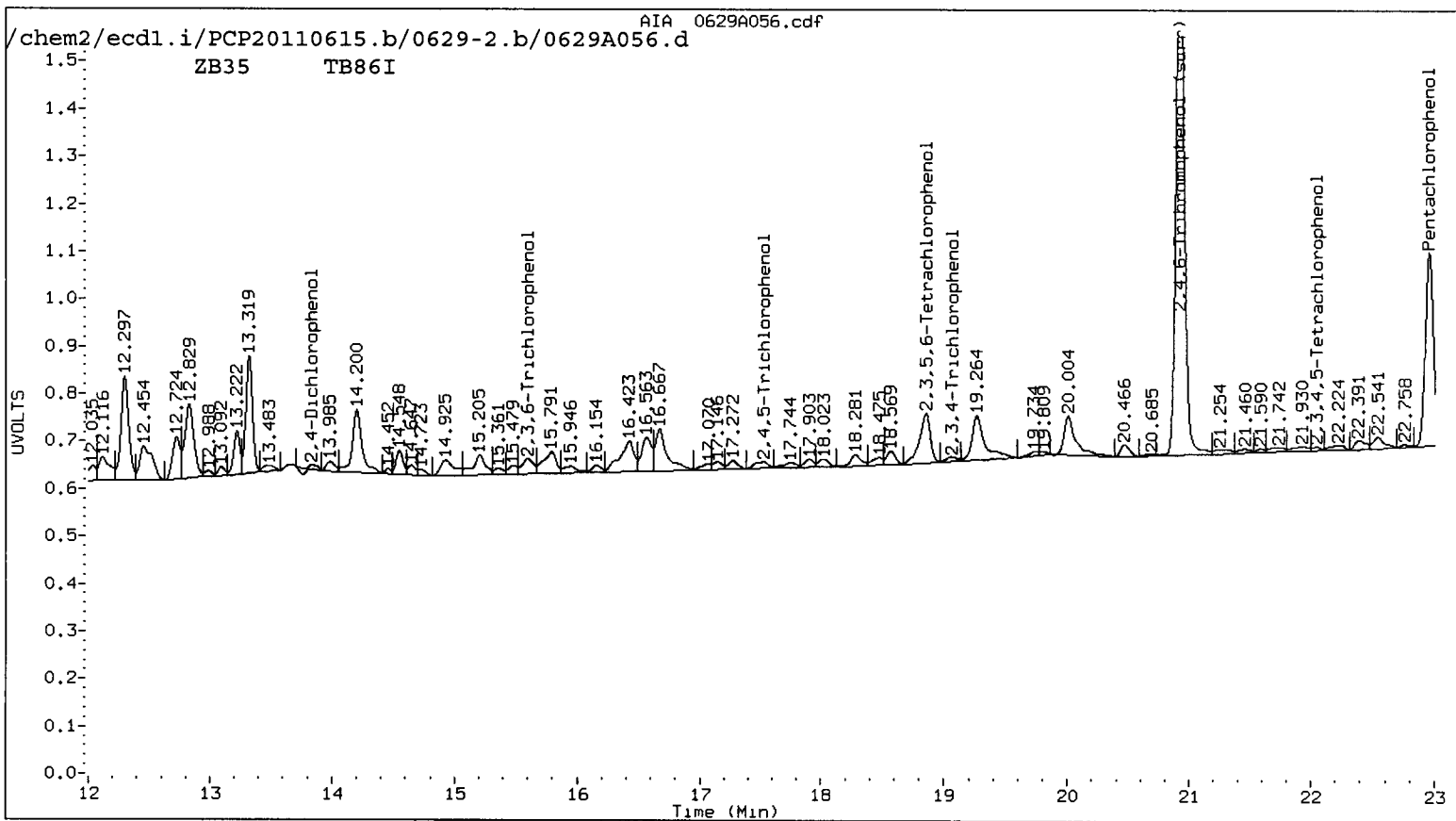
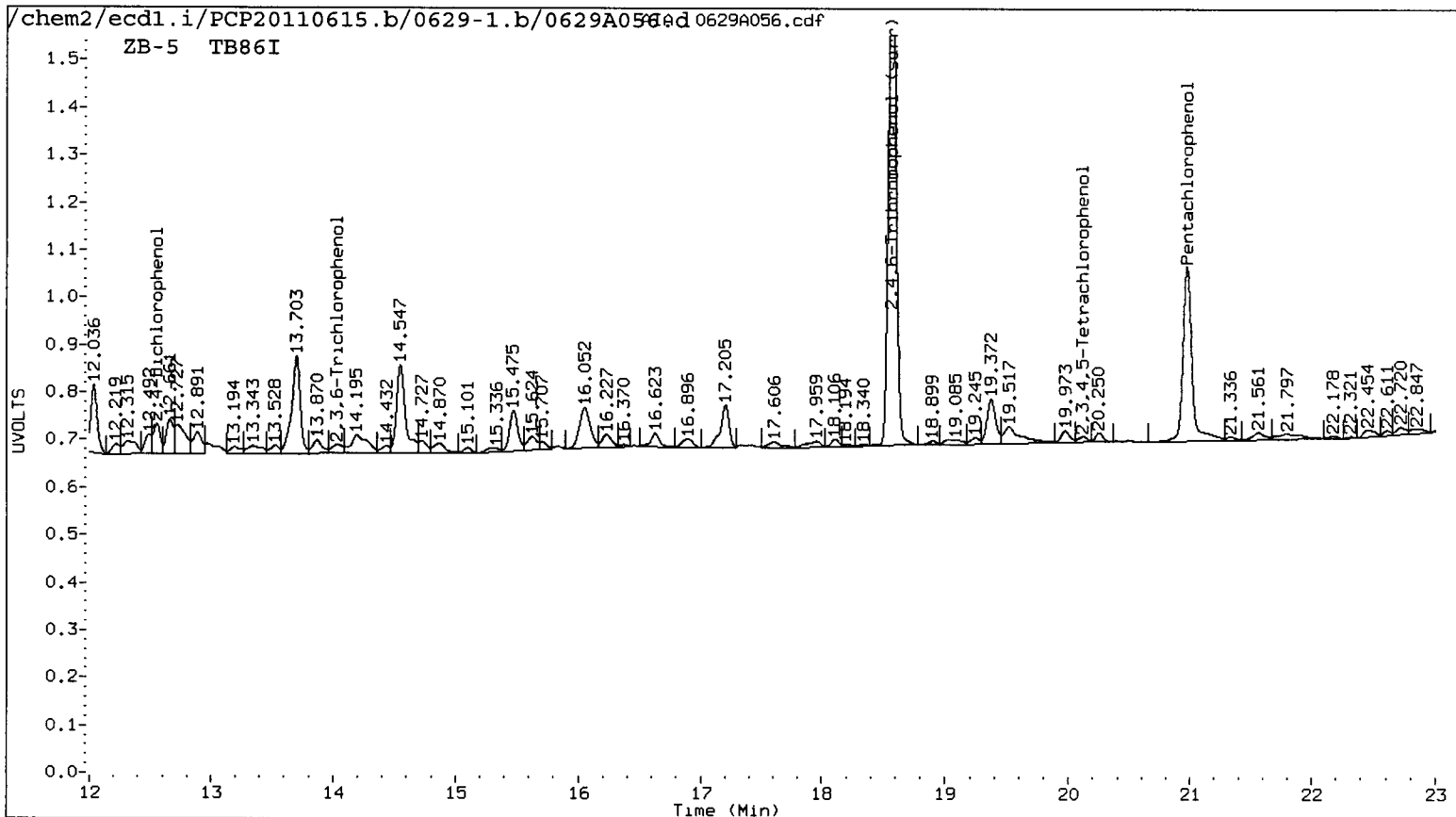
Instrument: eod1.i

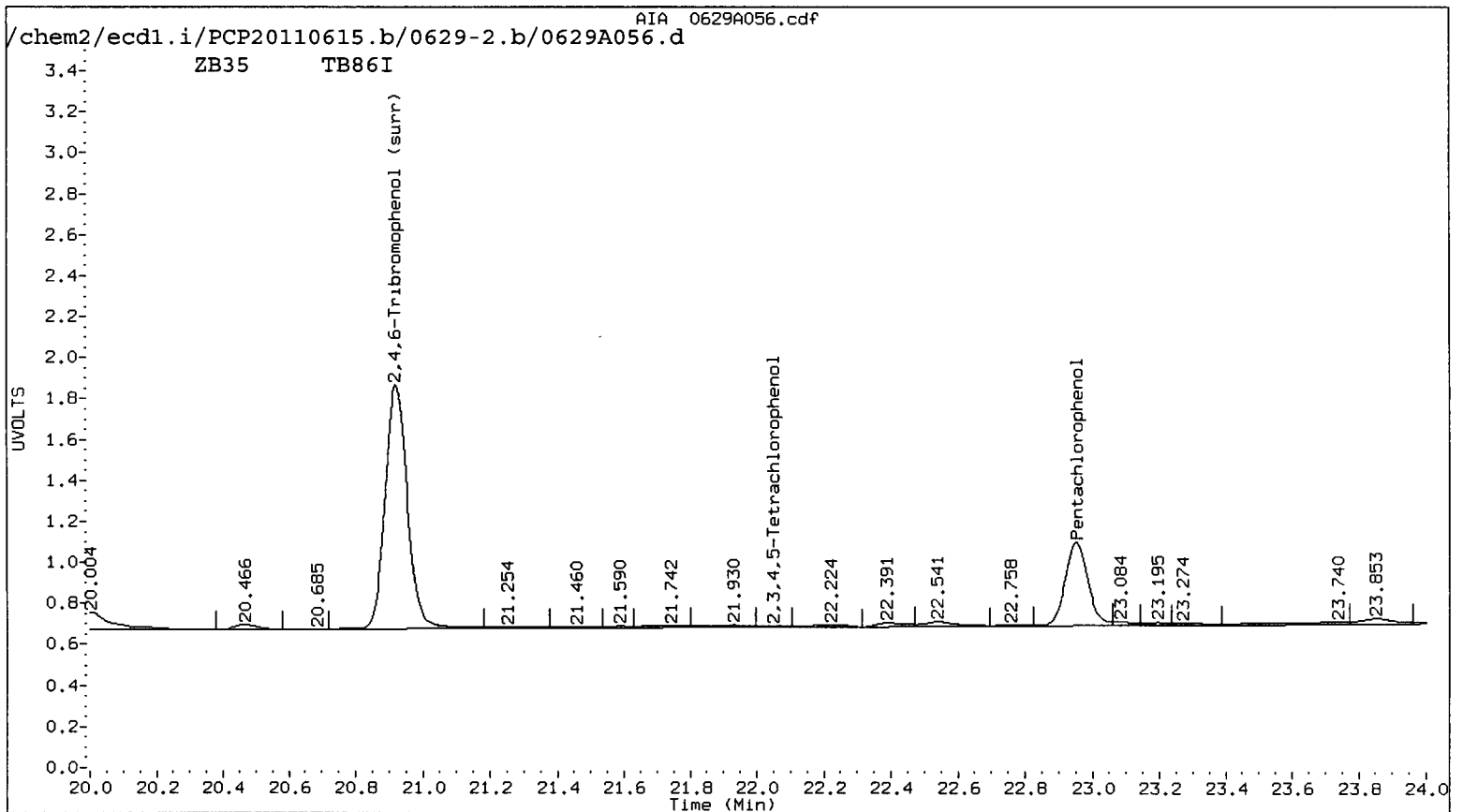
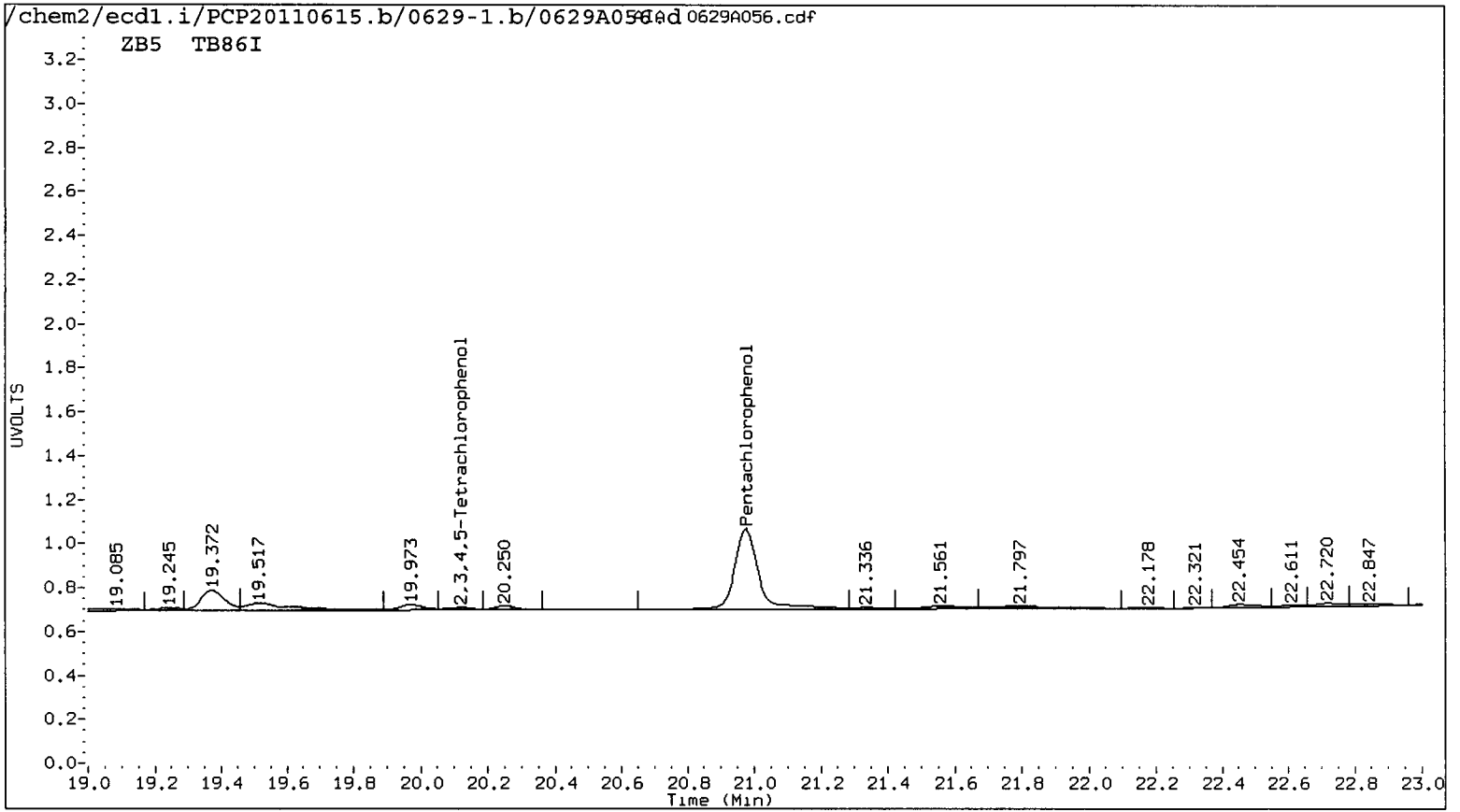
Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-1.b/06290056.d/06290056.cdf







TB85 : 00346

Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629A056.d

Date: 30-JUN-2011 19:57

Client ID: SR-02A-062211-02

Sample Info: TB851

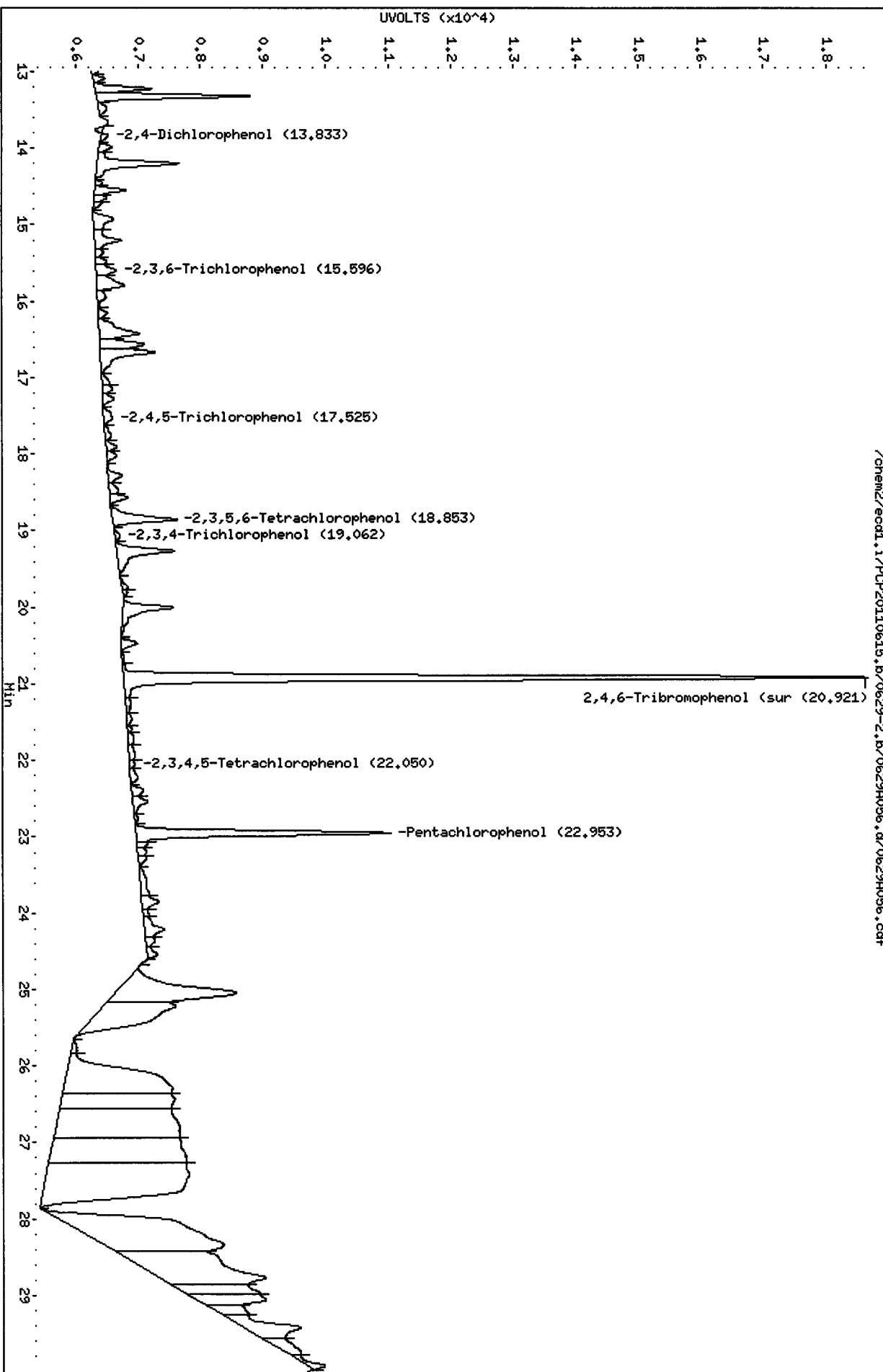
Instrument: eod1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/eod1.i/PCP20110615.b/0629-2.b/0629A056.d/0629A056.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A057.d ARI ID: TB86J
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A057.d Client ID: SB-02A-062211-04
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 20:34
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

Handwritten signature
6/27/11

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.920	-0.055	76267	22.955	0.002	32740	3.2385	1.0896	99.3*	Pentachlorophenol
----	----	----	----	----	----	0.0000	0.0000	---	2,4,6-Trichlorophenol
14.034	-0.040	3992	15.591	0.049	9882	0.3057	0.6638	73.9*	2,3,6-Trichlorophenol
15.835	0.011	3260	17.425	-0.036	6393	0.4100	0.7514	58.8*	2,4,5-Trichlorophenol
----	----	----	19.071	0.061	3783	0.0000	0.3729	---	2,3,4-Trichlorophenol
----	----	----	18.831	0.032	12789	0.0000	0.5684	---	2,3,5,6-Tetrachlorophenol
----	----	----	----	----	----	0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.559	0.025	20587	13.829	0.023	1958	22.8828	2.1637	165.4*	2,4-Dichlorophenol
18.572	-0.002	291607	20.921	-0.001	348312	15.8	16.2	2.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	63.3	64.9

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A057.d

Date: 30-JUN-2011 20:34

Client ID: SB-02A-062211-04

Sample Info: TB86J

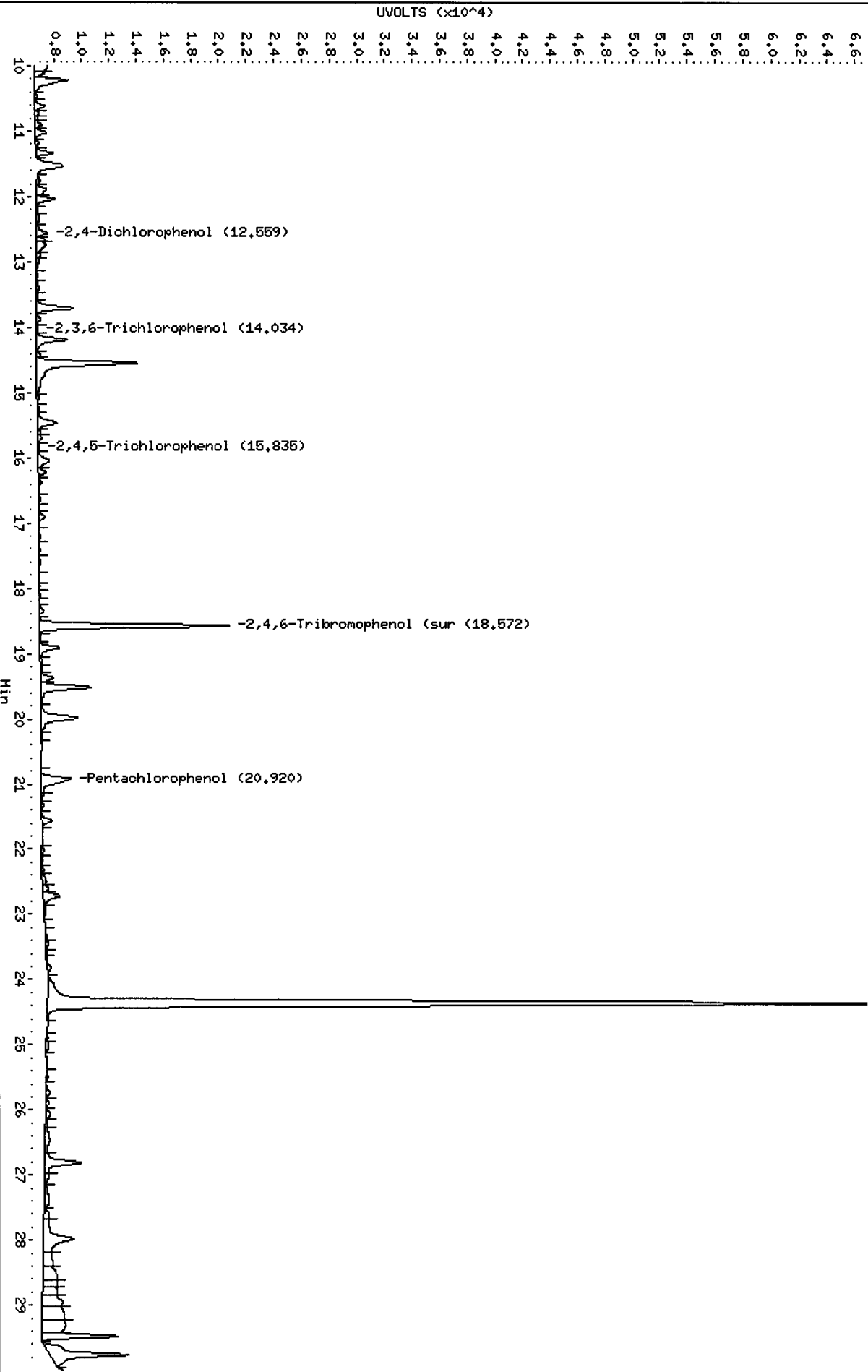
Column phase: STX CLP1

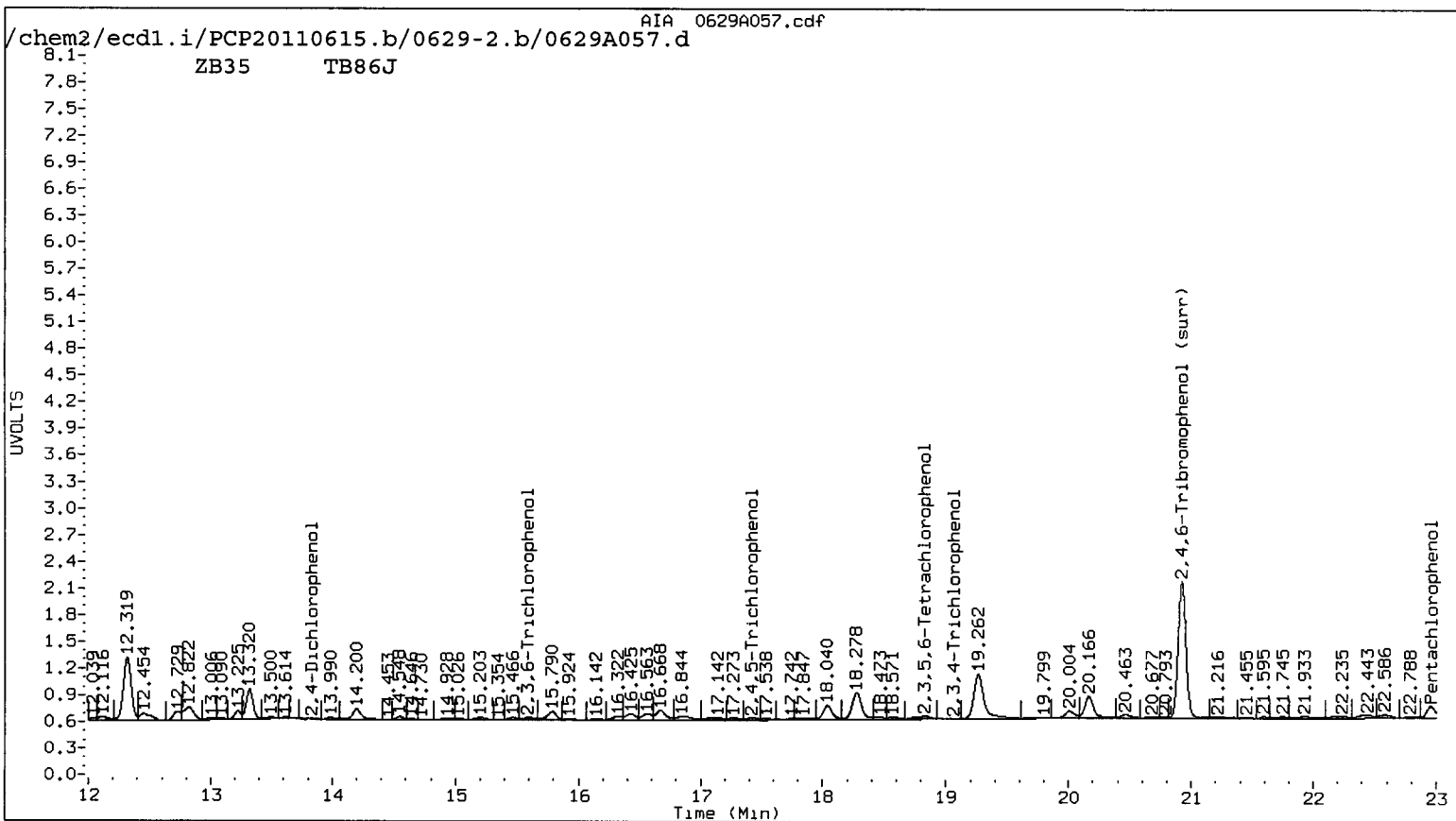
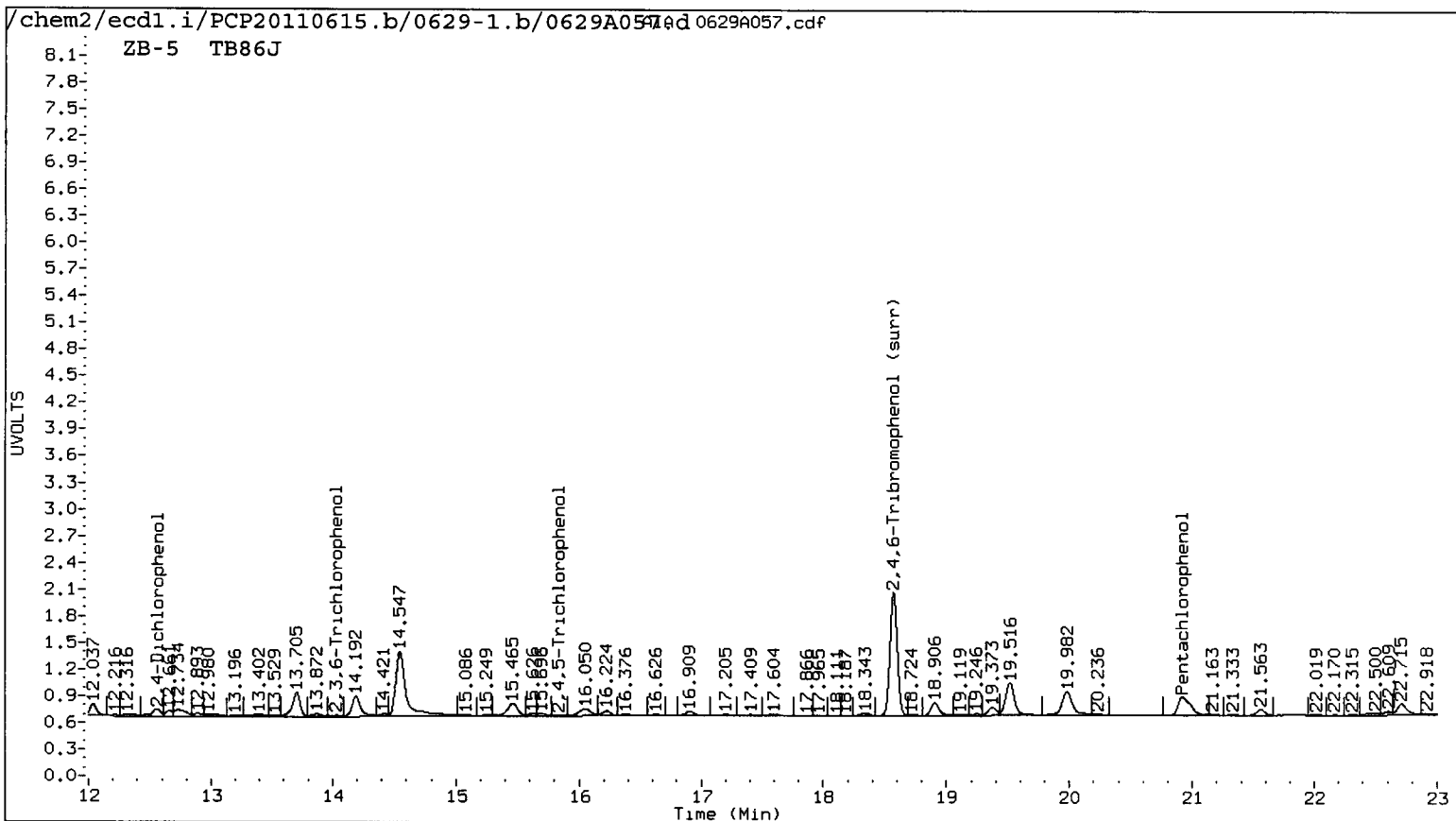
Instrument: eod1.i

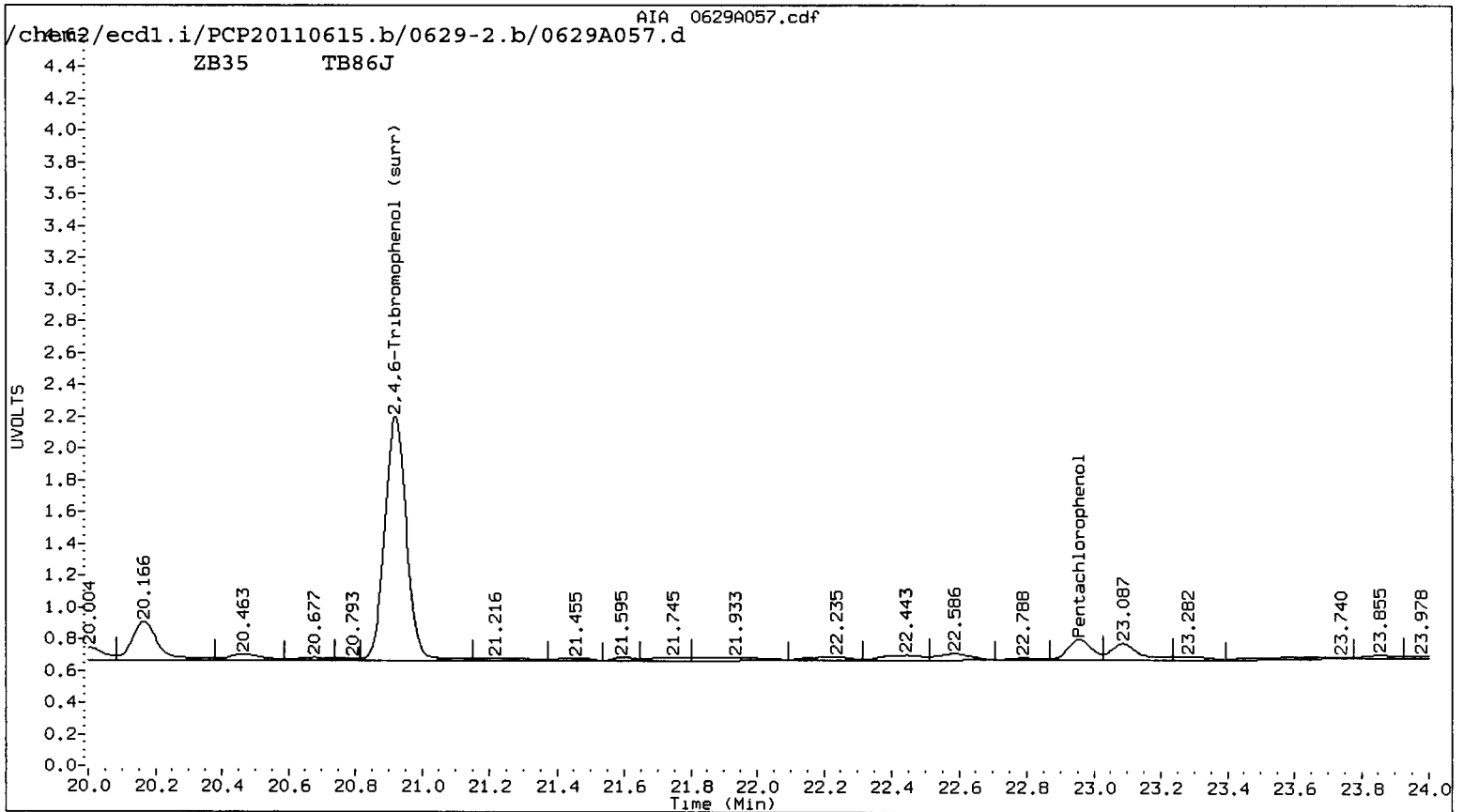
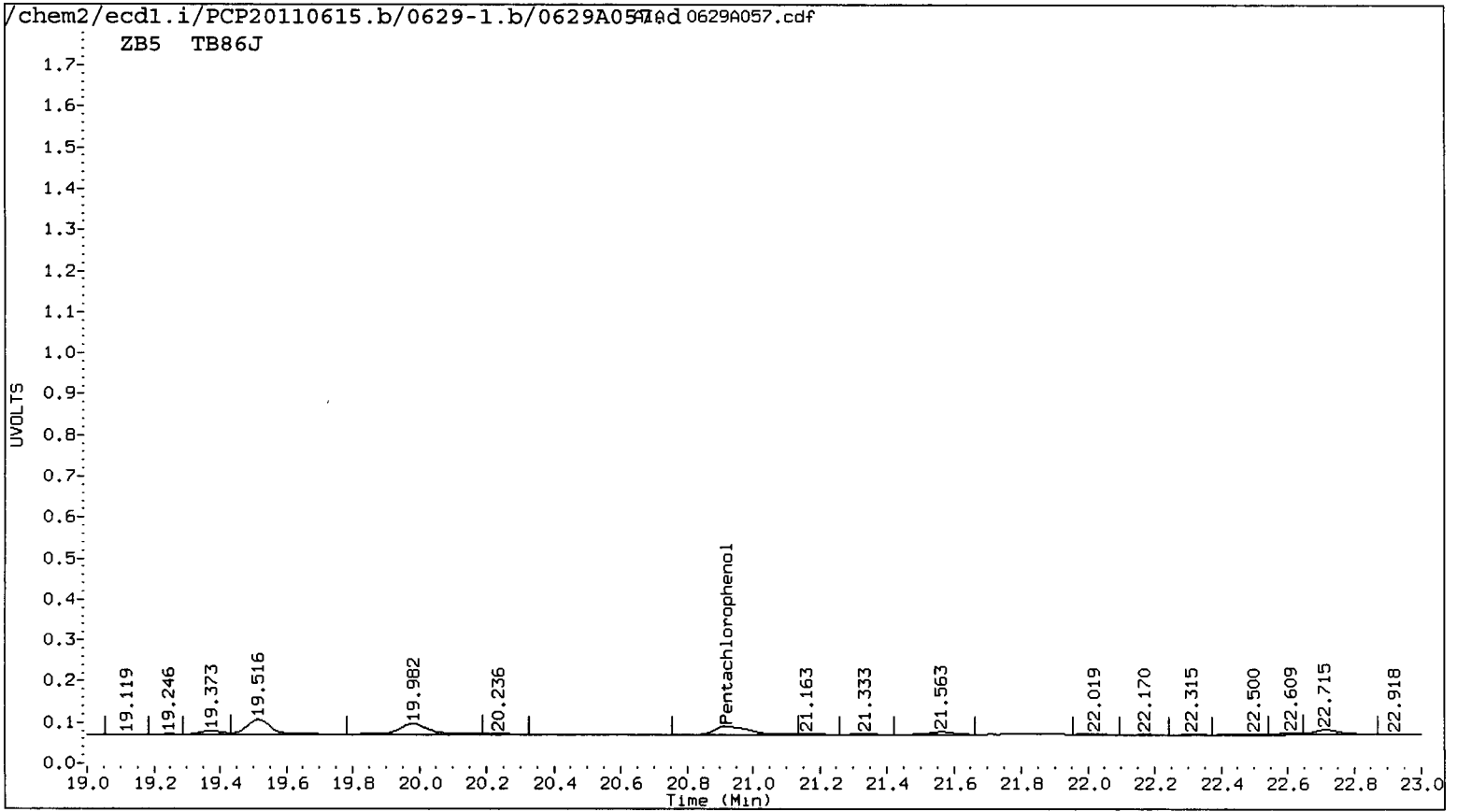
Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-1.b/0629A057.d/0629A057.cdf







Data File: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629q057.d

Date: 30-JUN-2011 20:34

Client ID: SB-02A-062211-04

Sample Info: TB85J

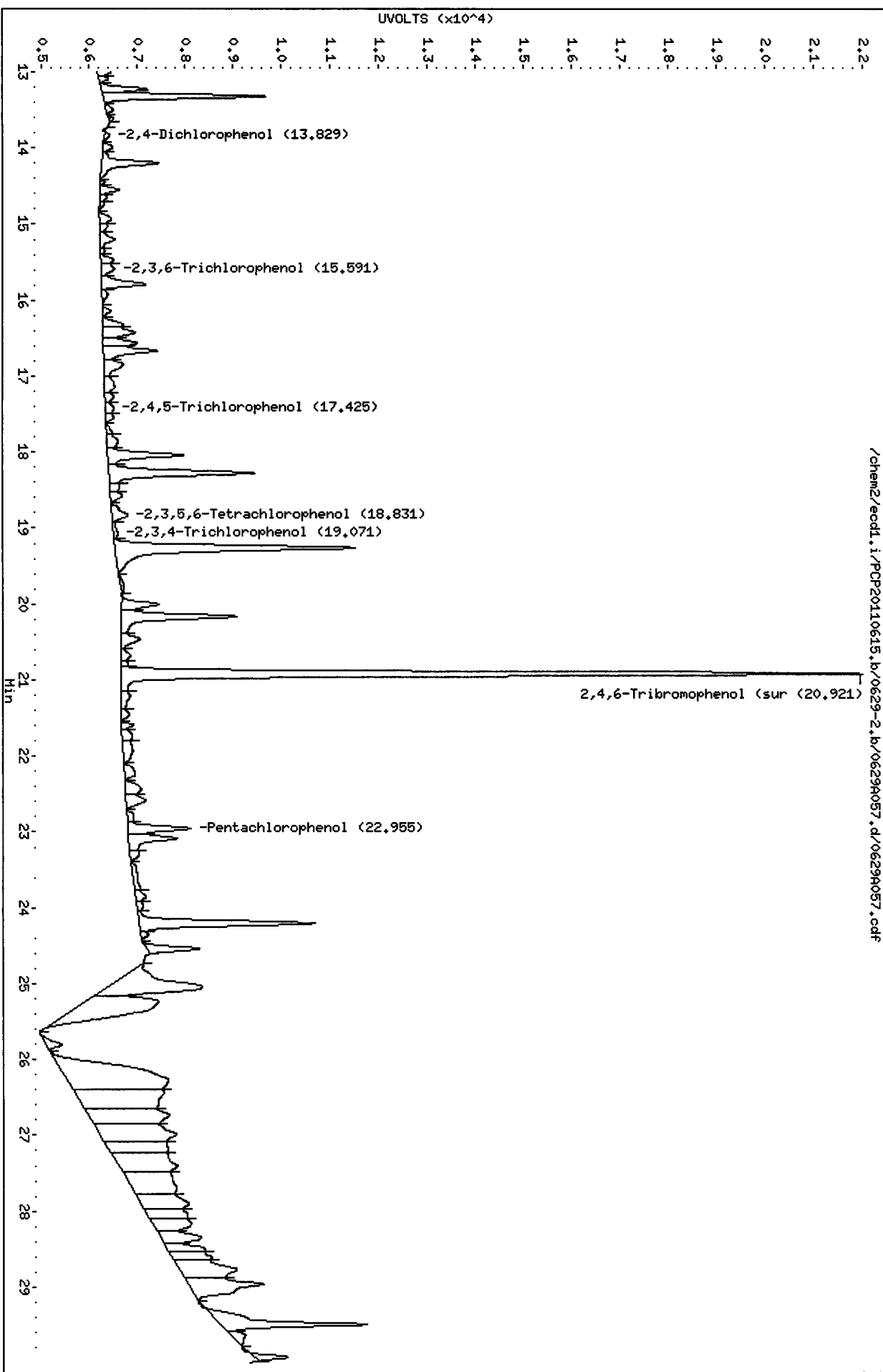
Column phase: STX CLP2

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

/chem2/ecdl.i/PCP20110615.b/0629-2.b/0629q057.d/0629q057.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A058.d ARI ID: TB86K
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A058.d Client ID: SB-02A-062211-06
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 21:10
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

Handwritten signature
7/1/11

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.000	91832	22.954	0.001	166896	3.8994	<u>5.5542</u>	35.0	Pentachlorophenol
----			14.327	0.031	2810	0.0000	0.1898	---	2,4,6-Trichlorophenol
14.033	-0.042	7032	15.592	0.050	14140	0.5384	0.9498	55.3*	2,3,6-Trichlorophenol
15.860	0.036	13716	17.522	0.062	9961	1.7246	1.1706	38.3	2,4,5-Trichlorophenol
17.350	0.019	8767	19.062	0.052	4853	0.9112	0.4783	62.3*	2,3,4-Trichlorophenol
----			18.851	0.052	33666	0.0000	1.4961	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.553	0.019	11294	13.830	0.024	1192	12.4111	1.3155	161.7*	2,4-Dichlorophenol
18.572	-0.002	324488	20.920	-0.002	371249	17.6	17.3	1.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	70.4	69.2

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A058.d

Date: 30-JUN-2011 21:10

Client ID: SB-029-062211-06

Sample Info: TB86K

Page 1

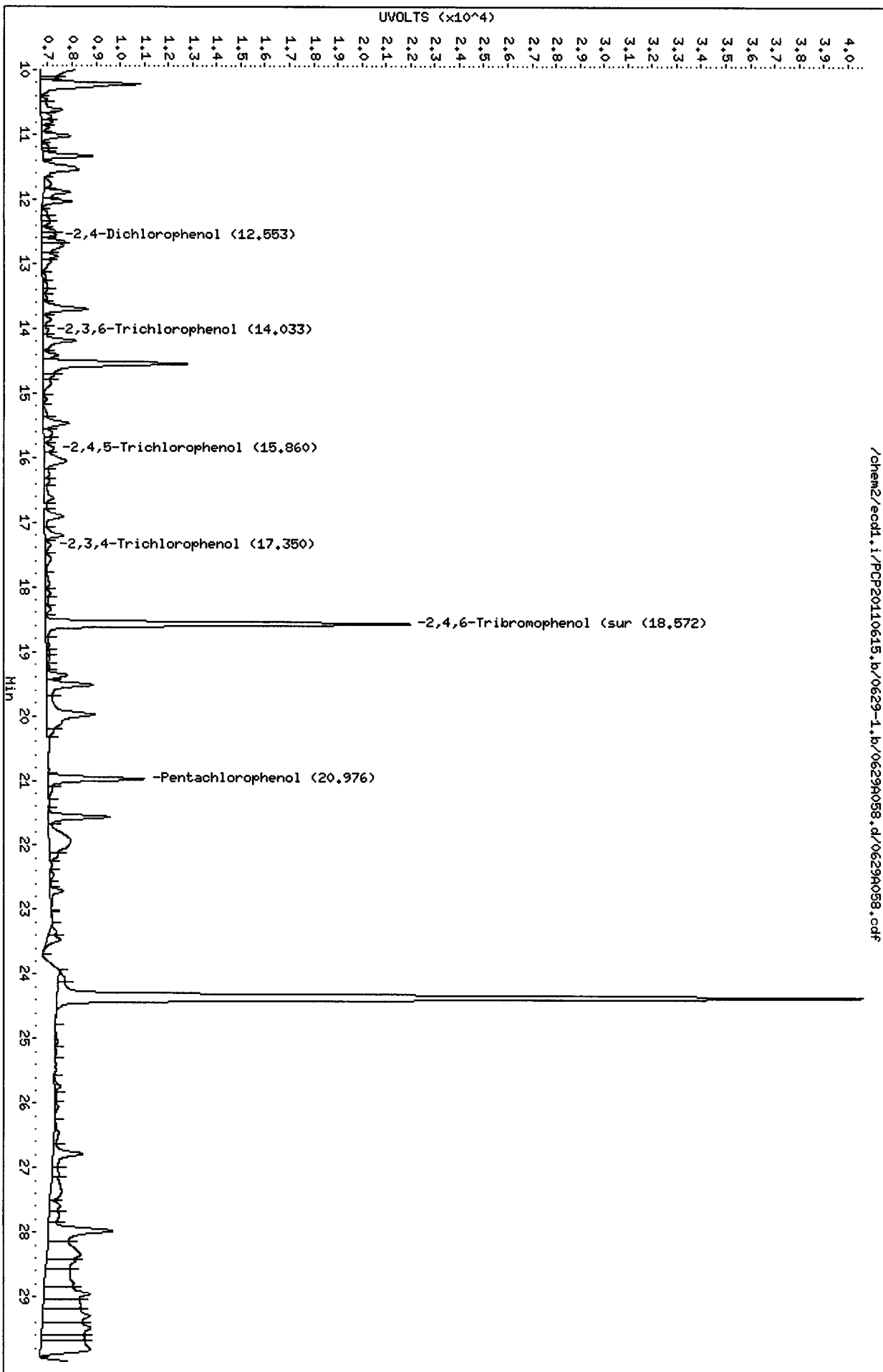
Column phase: STX CLP1

/chem2/eod1.i/PCP20110615.b/0629-1.b/0629A058.d/0629A058.cdf

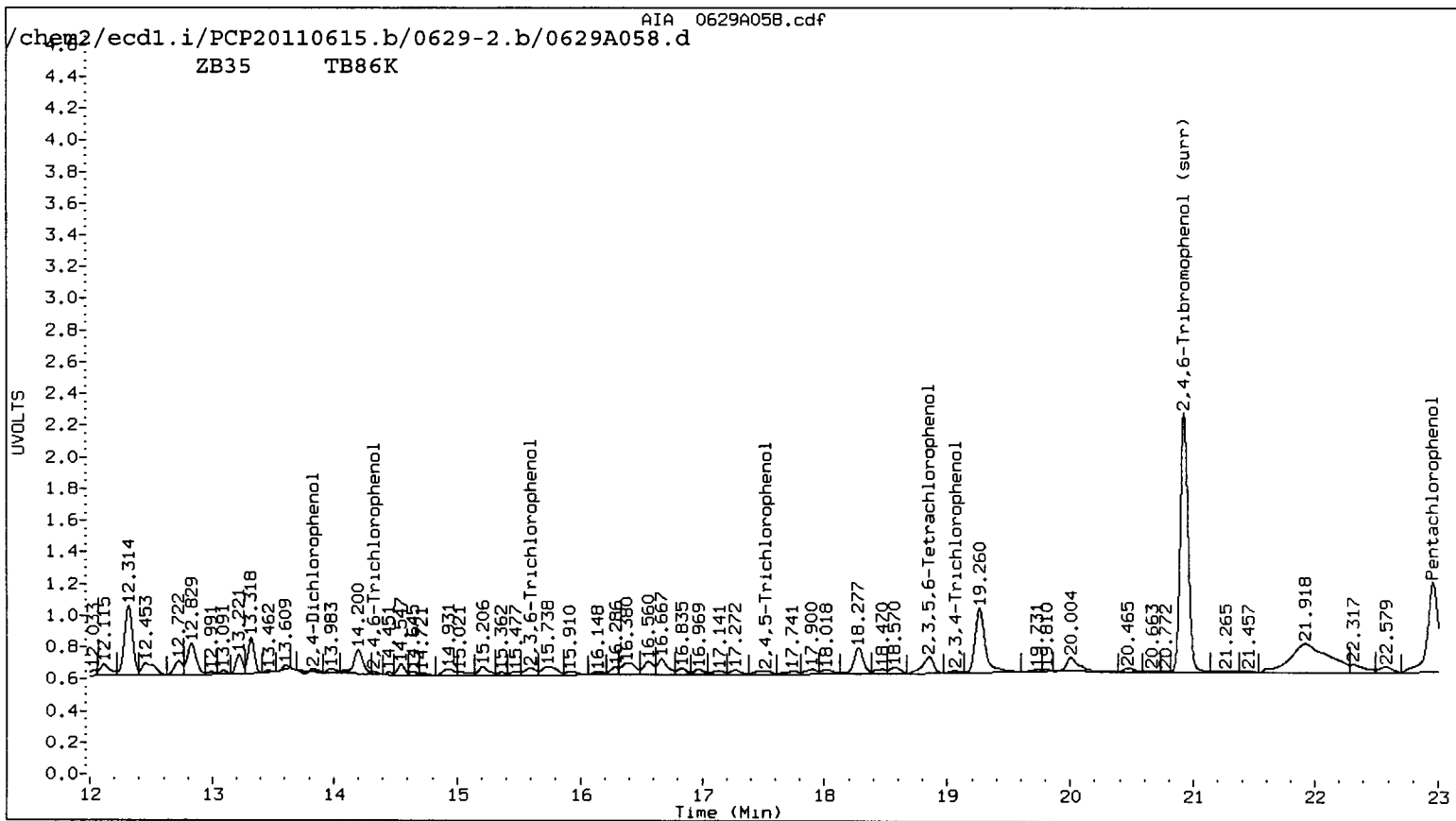
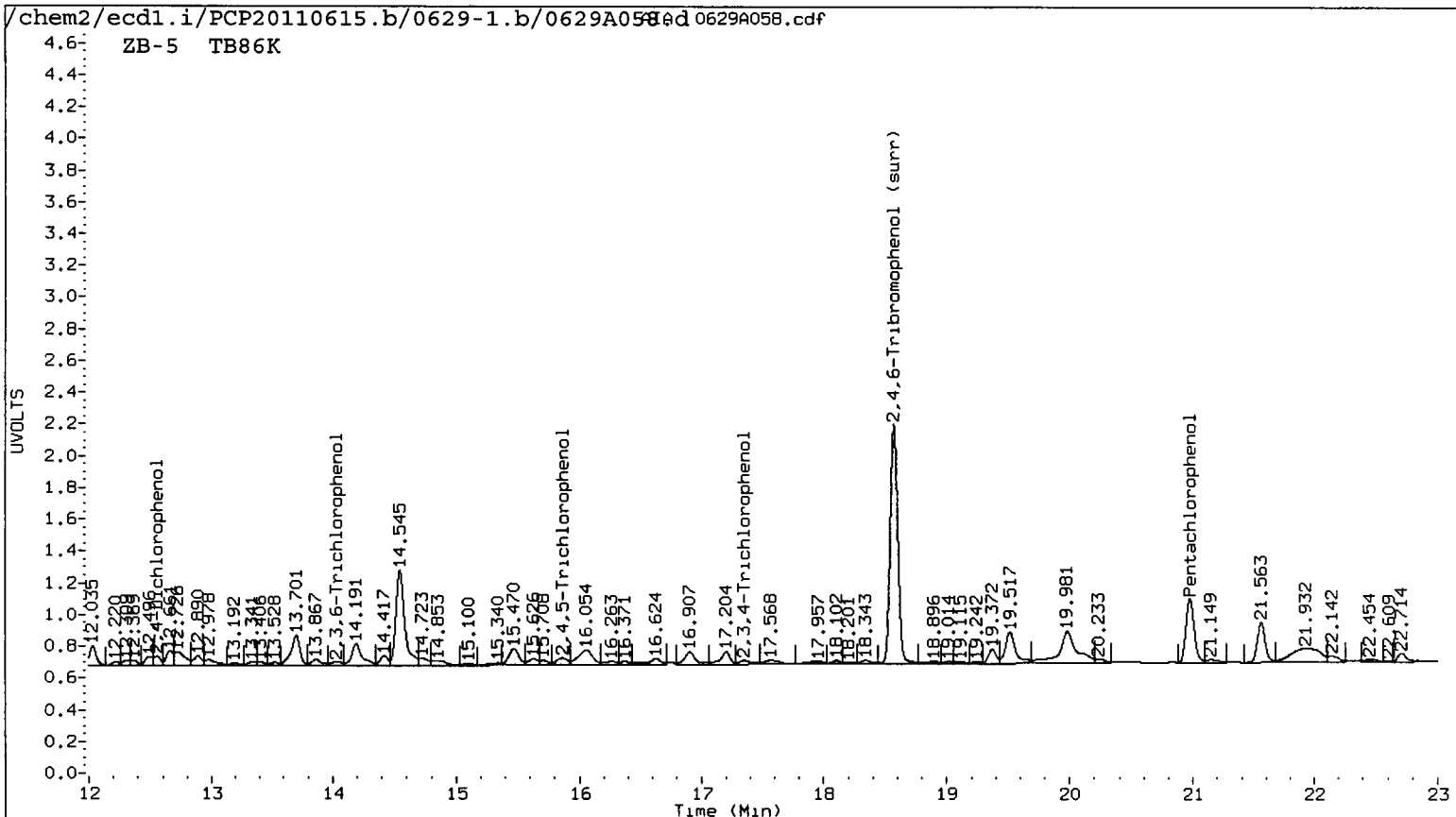
Instrument: eod1.i

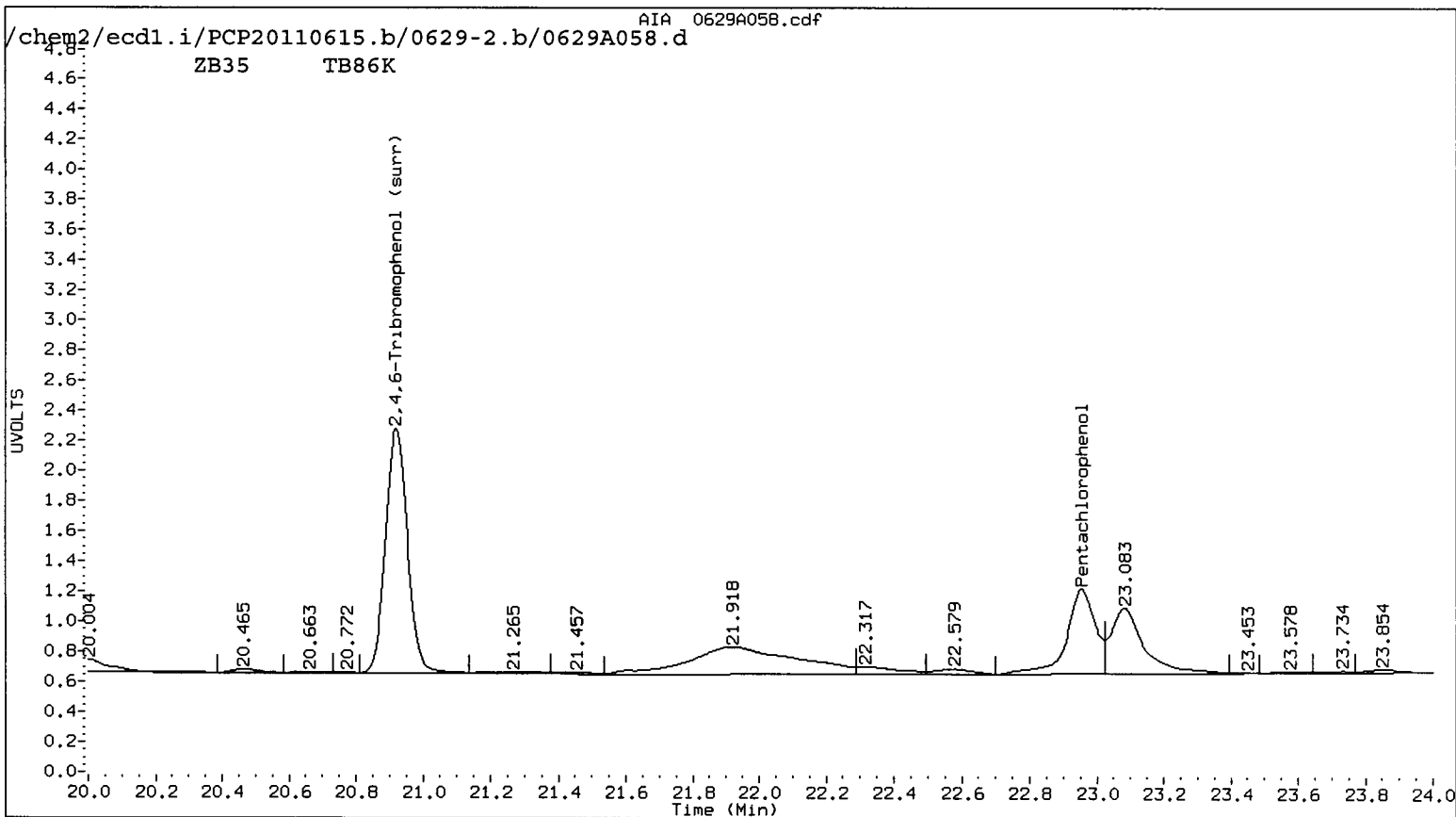
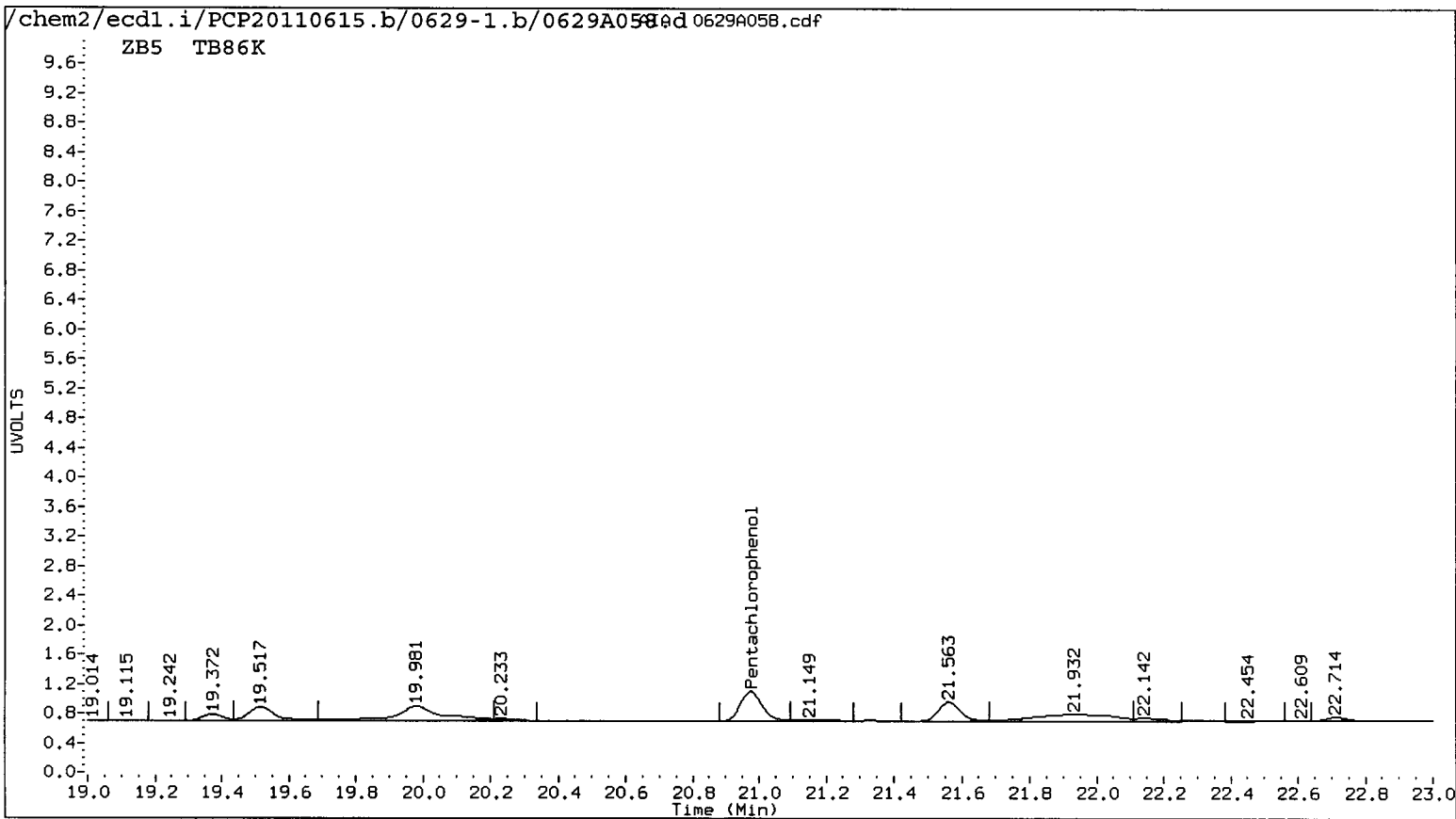
Operator: ar

Column diameter: 0.53



TB85 : 00354





Data File: /chem2/ecdl.i/PCP20110615.b/0629-2.b/06290058.d

Date: 30-JUN-2011 21:10

Client ID: SB-02A-062211-06

Sample Info: TB86K

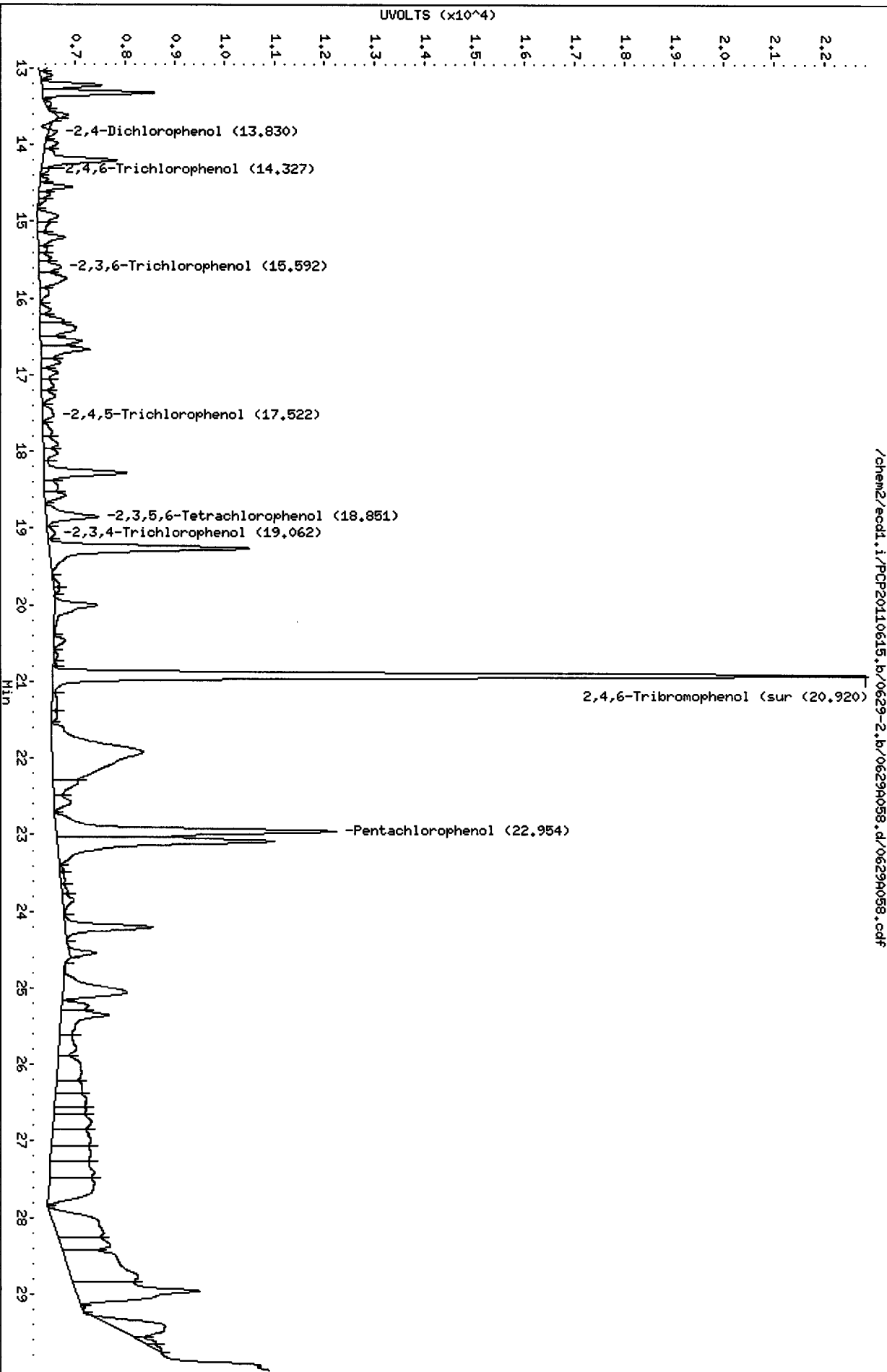
Column phase: STX CLP2

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Page 1



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A059.d ARI ID: TB86L
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A059.d Client ID: SB-02A-062211-08
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 21:46
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

207/1/11

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.001	108604	22.953	0.000	111609	4.6116	3.7143	21.6	Pentachlorophenol
----			----			0.0000	0.0000	---	2,4,6-Trichlorophenol
14.024	-0.050	13538	15.595	0.052	17545	1.0365	1.1785	12.8	2,3,6-Trichlorophenol
15.833	0.008	39114	17.455	-0.006	25774	4.9180	3.0289	47.5*	2,4,5-Trichlorophenol
17.392	0.061	16742	----			1.7399	0.0000	---	2,3,4-Trichlorophenol
----			18.845	0.046	28150	0.0000	1.2510	---	2,3,5,6-Tetrachlorophenol
----			22.069	0.002	10327	0.0000	0.6088	---	2,3,4,5-Tetrachlorophenol
12.505	-0.029	36563	13.836	0.030	4181	41.4375	4.6328	159.8*	2,4-Dichlorophenol
18.573	-0.001	371278	20.922	-0.001	420569	20.1	19.6	2.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	80.6	78.4

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A059.d

Date : 30-JUN-2011 21:46

Client ID: SB-02A-062211-08

Sample Info: TB86L

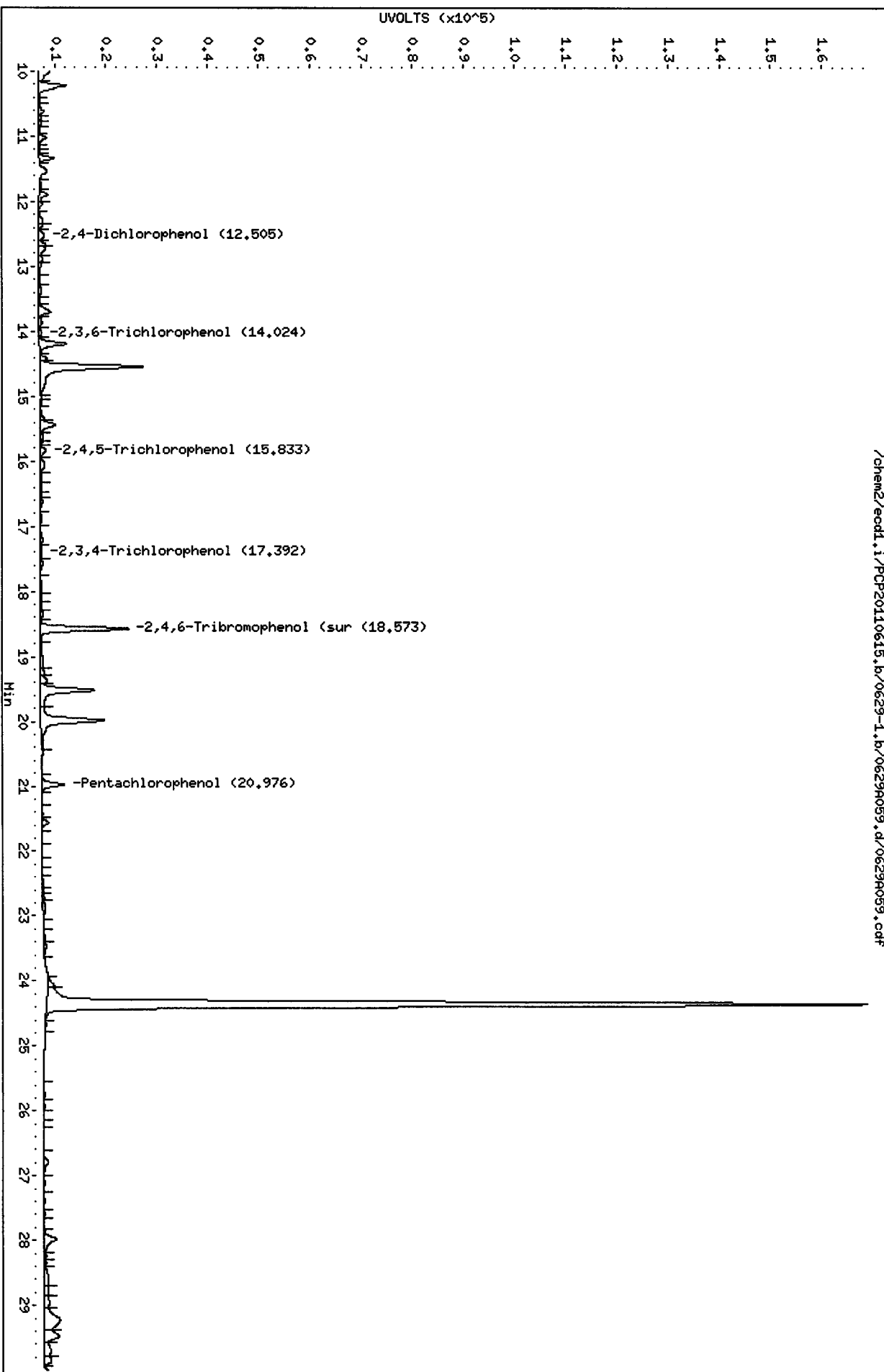
Column phase: STX CLP1

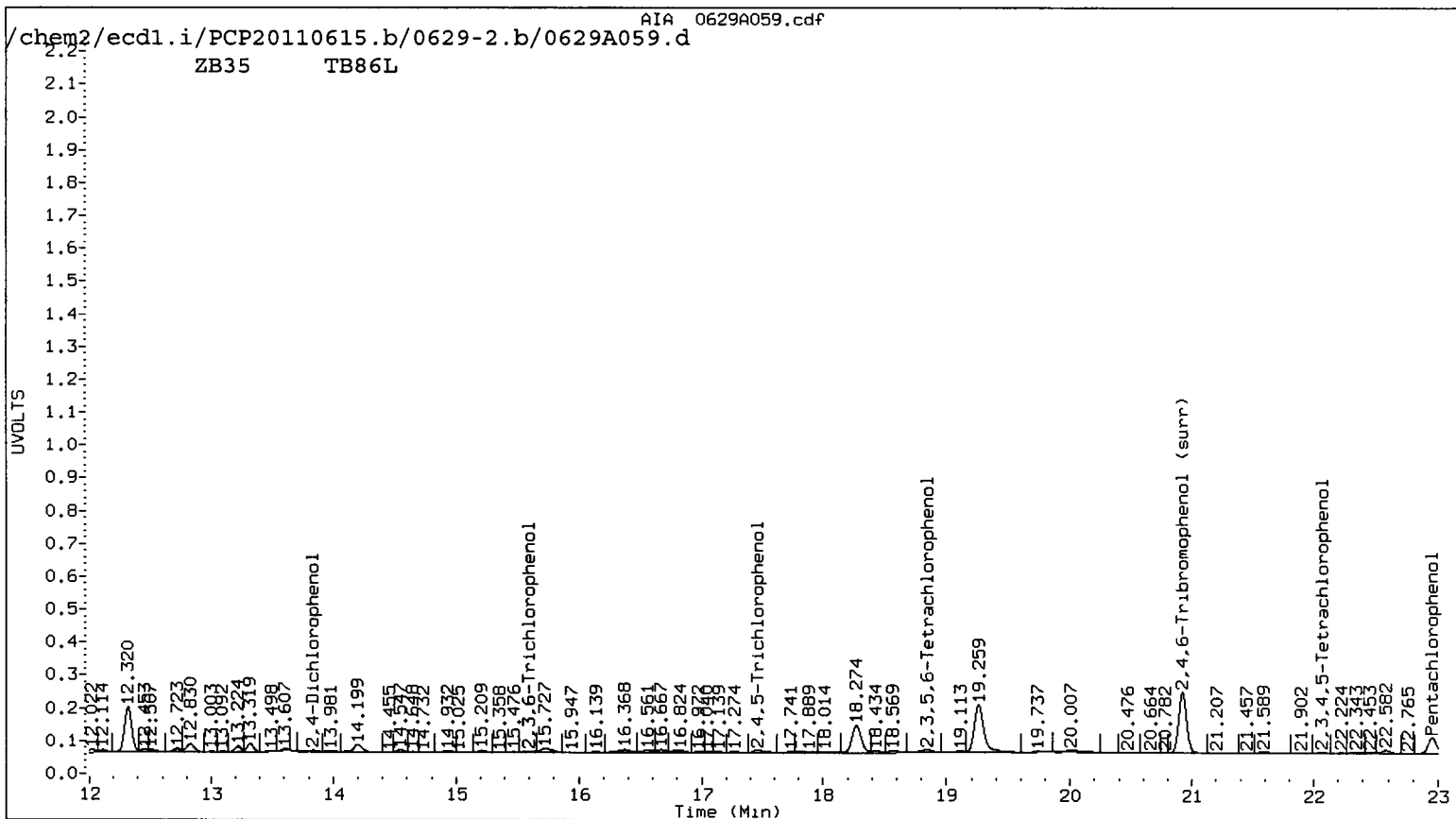
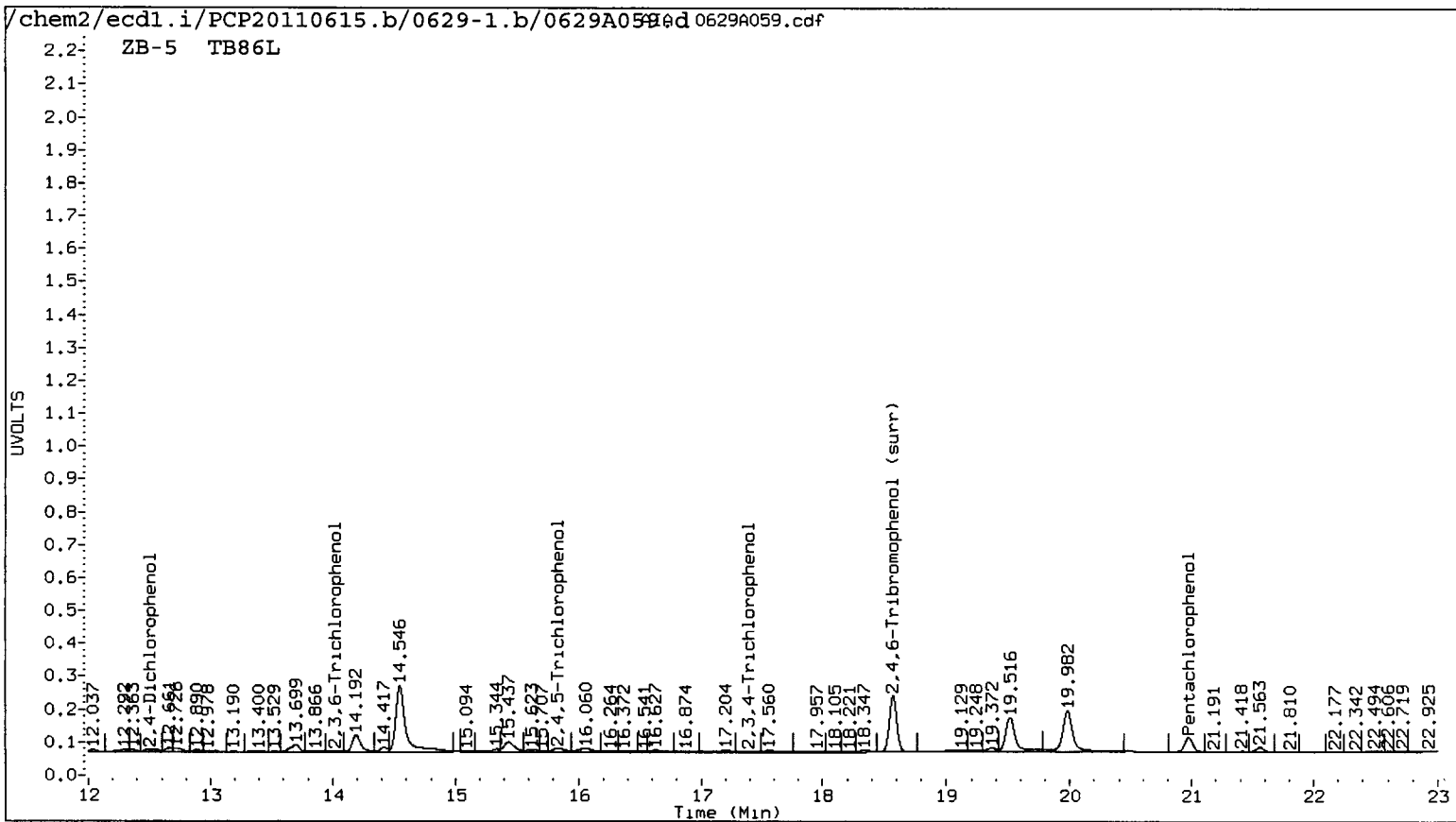
Instrument: eod1.i

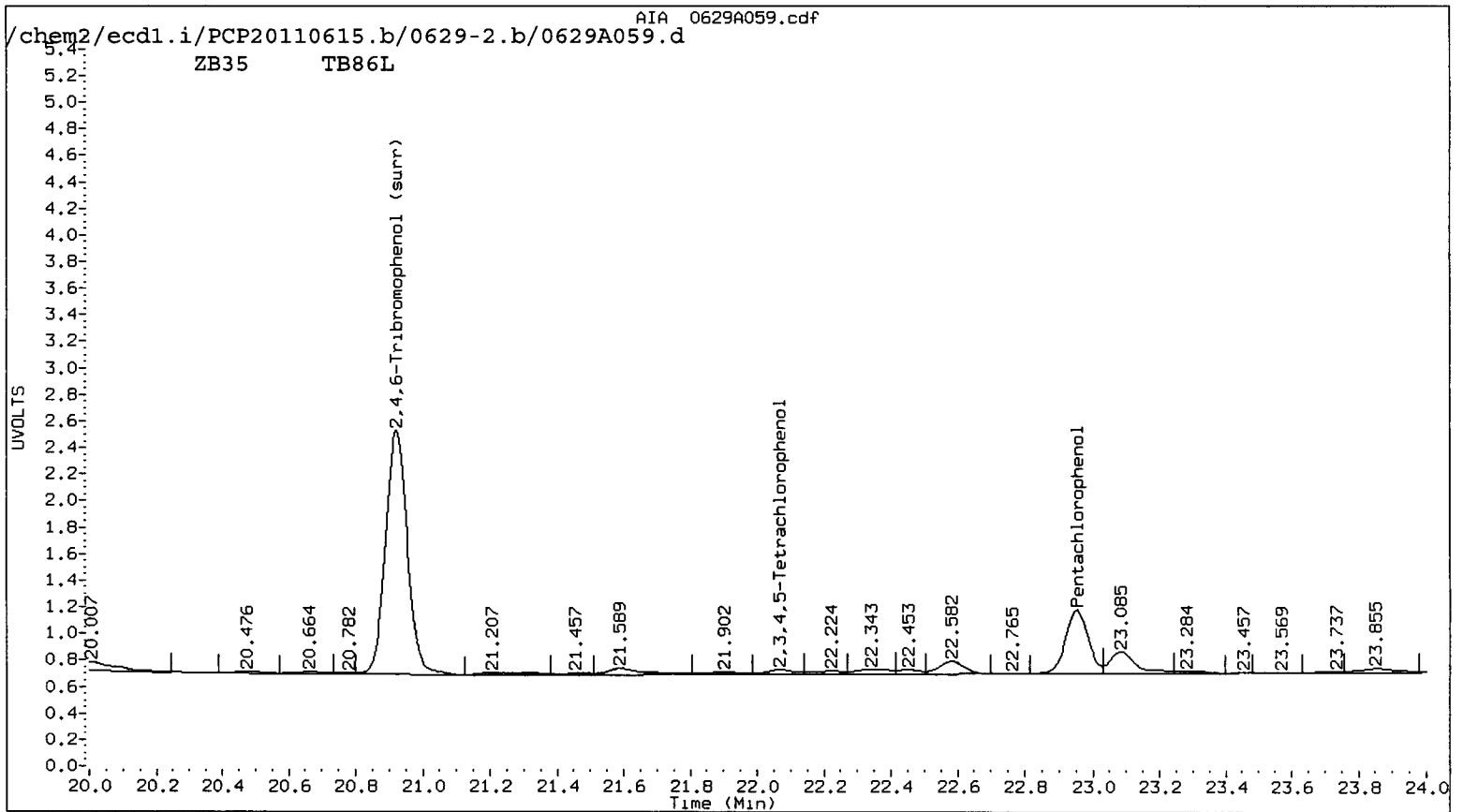
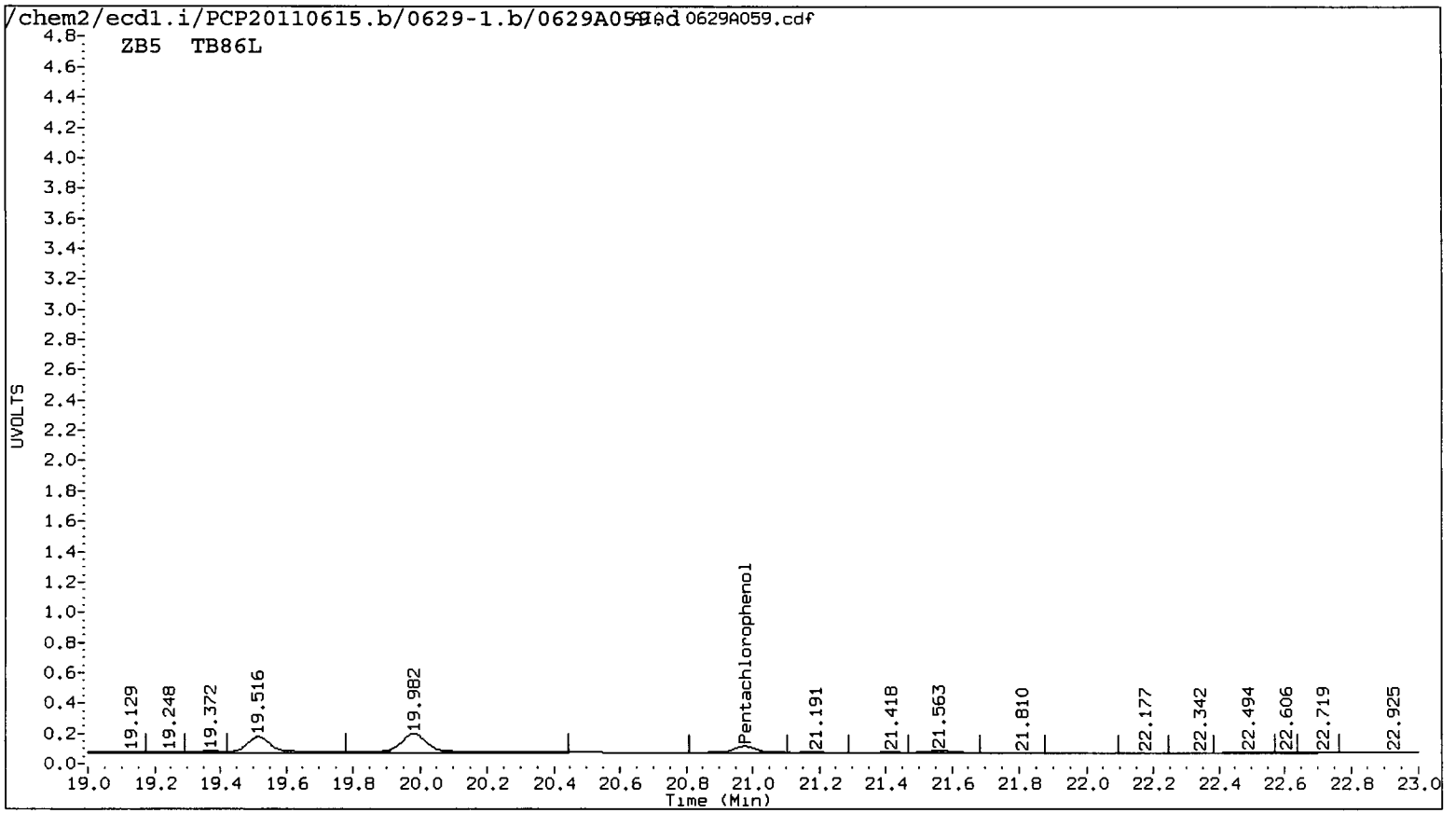
Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-1.b/0629A059.d/0629A059.cdf







TB85 : 00361

Data File: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A059.d

Date : 30-JUN-2011 21:46

Client ID: SR-028-062211-08

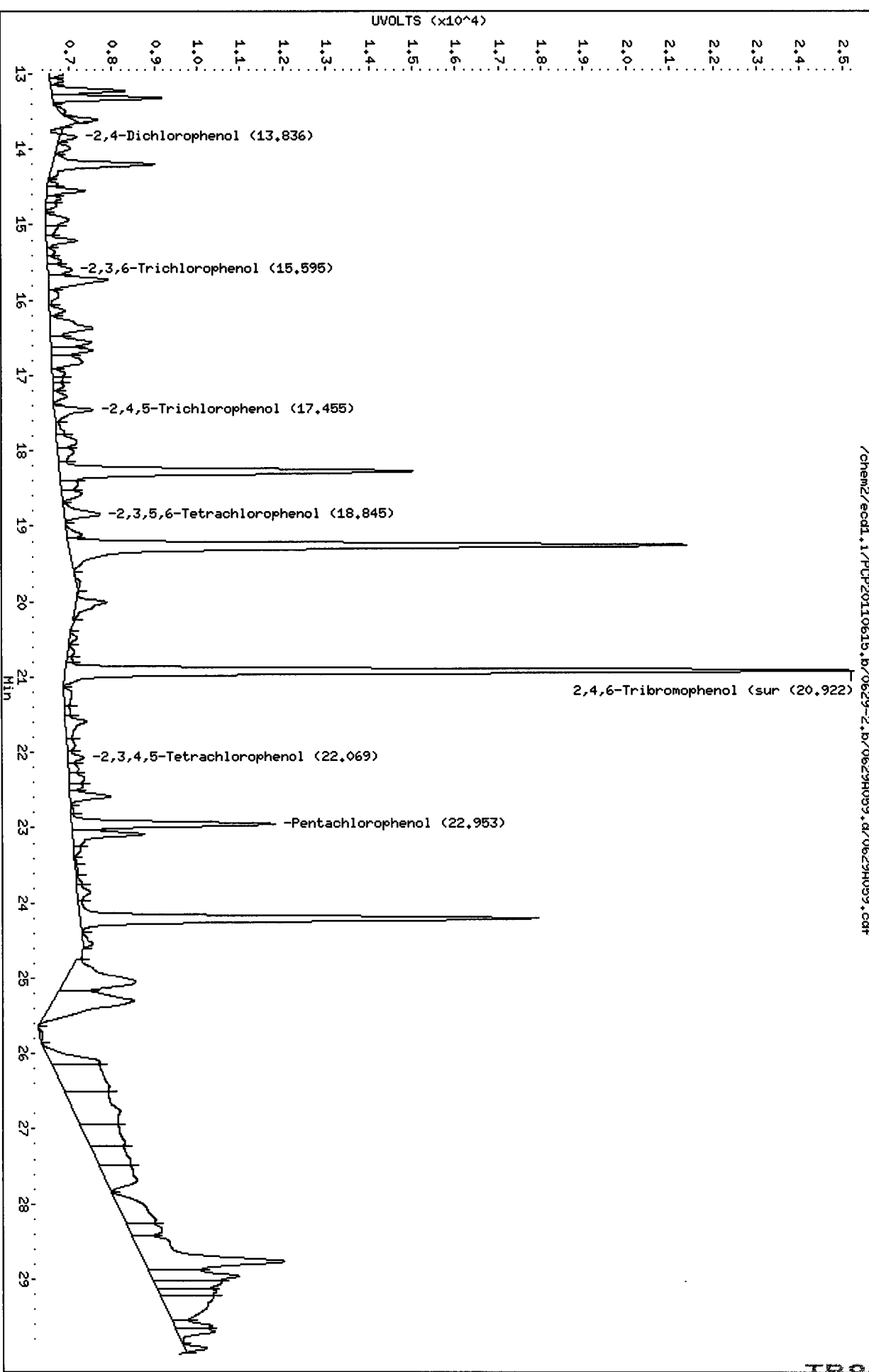
Sample Info: TB86L

Page 1

Column phase: STX CLP2

Operator: ar
Column diameter: 0.53

/chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A059.d/0629A059.cdf



Data File: /chem2/ecdd1.i/PCP20110615.b/0629-1.b/06299060.d

Date: 30-JUN-2011 22:23

Client ID: SB-029-062211-0 MS

Sample Info: TB86LMS

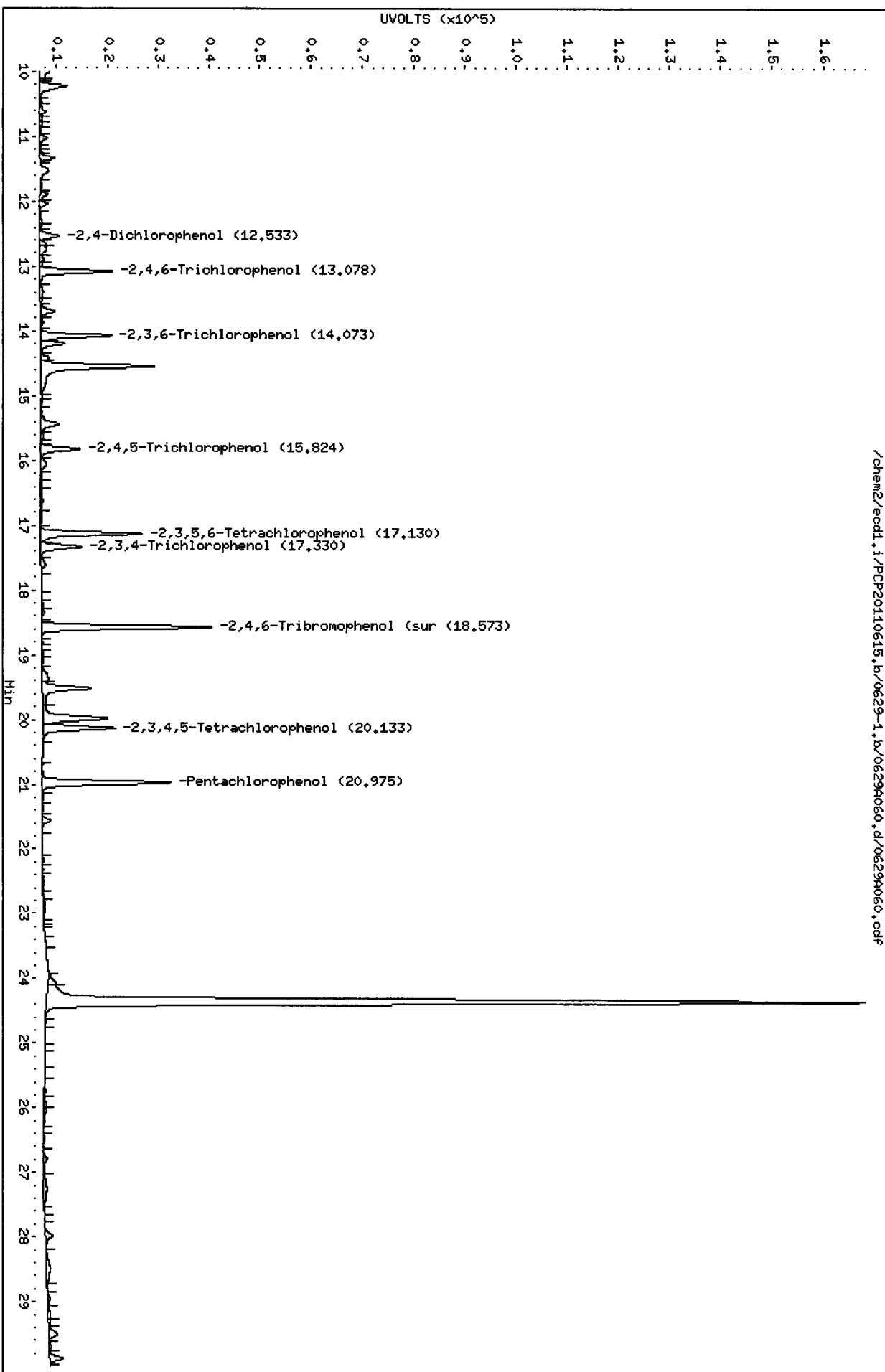
Column phase: STX CLP1

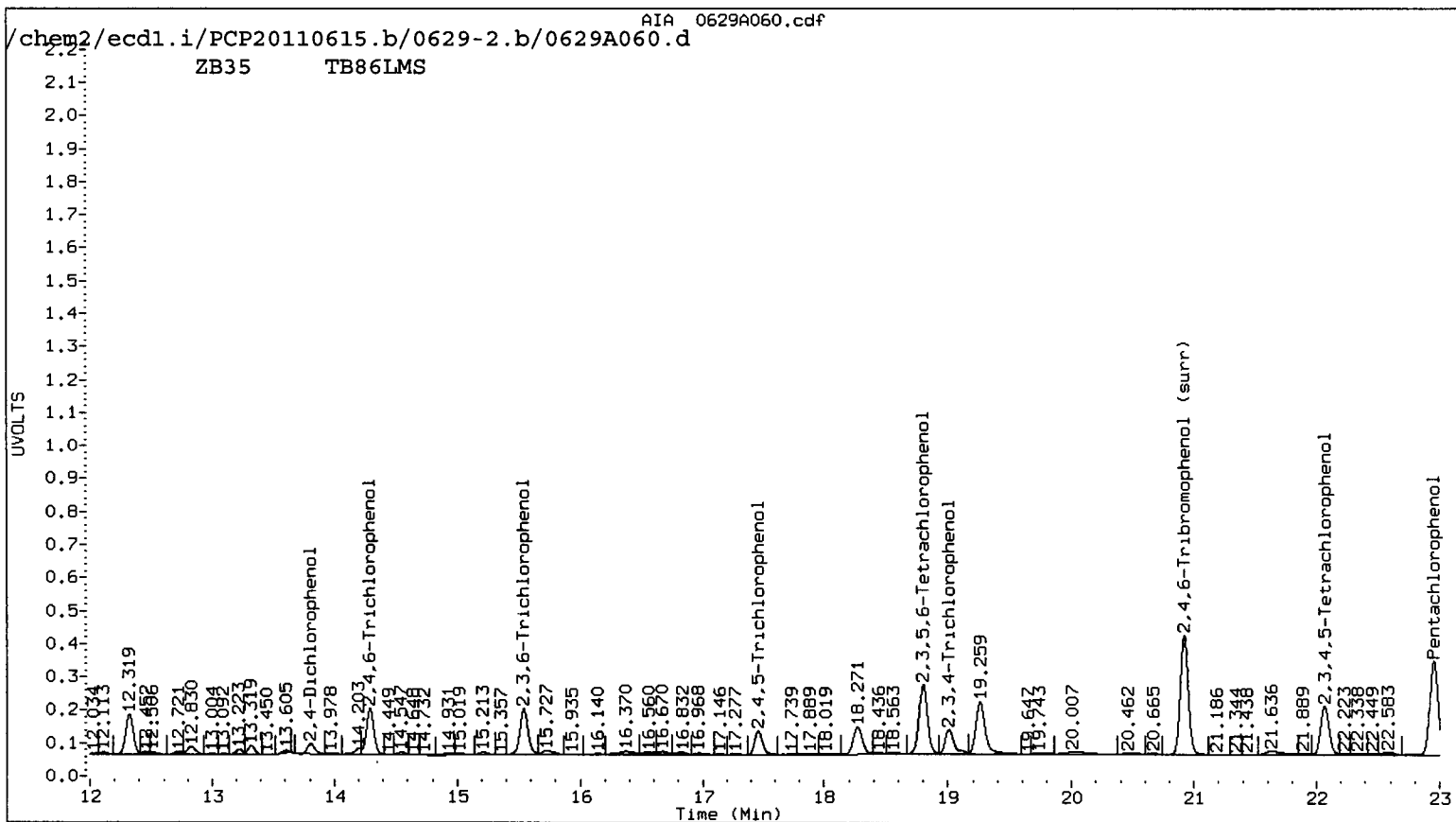
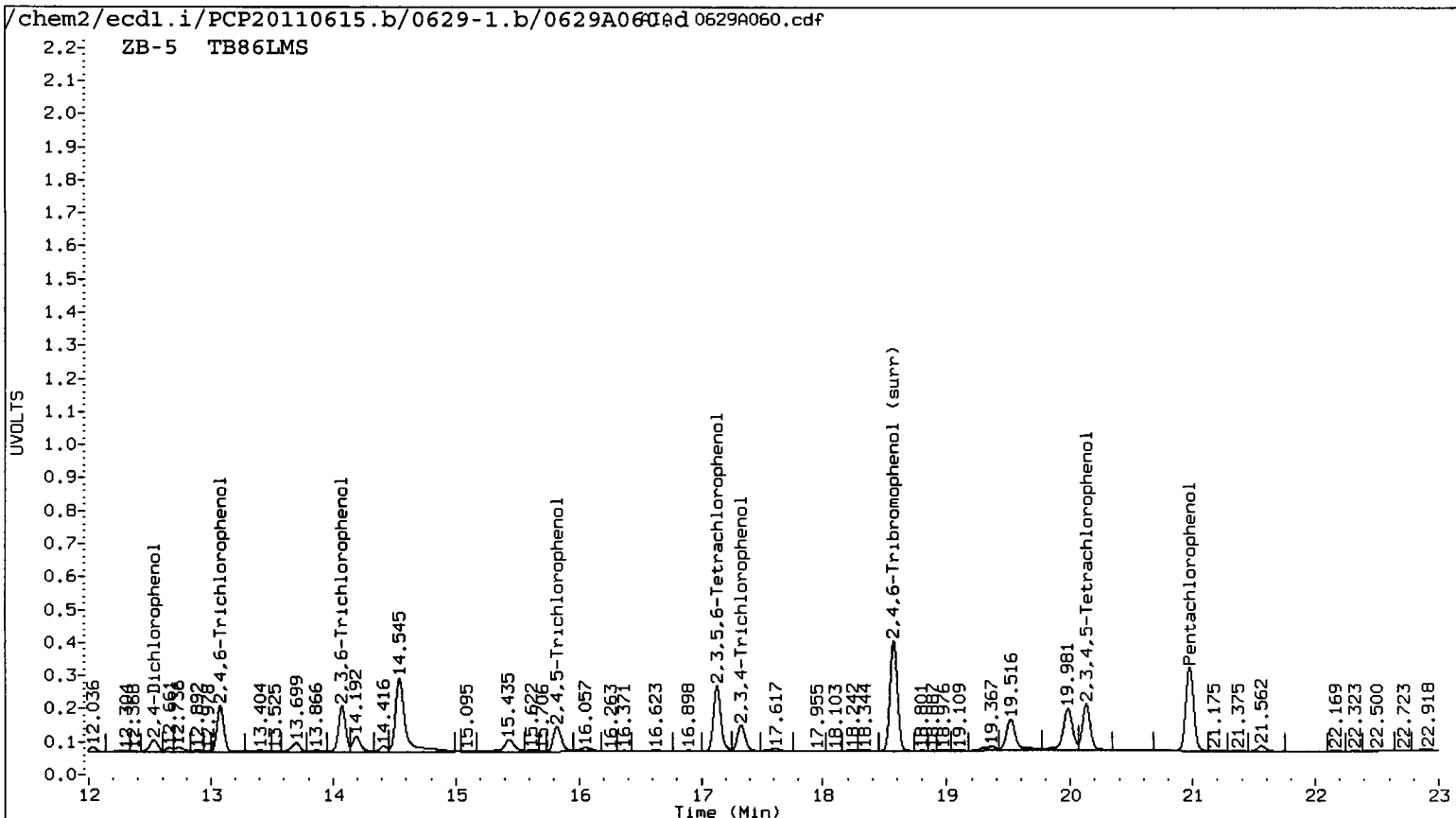
Instrument: ecdd1.i

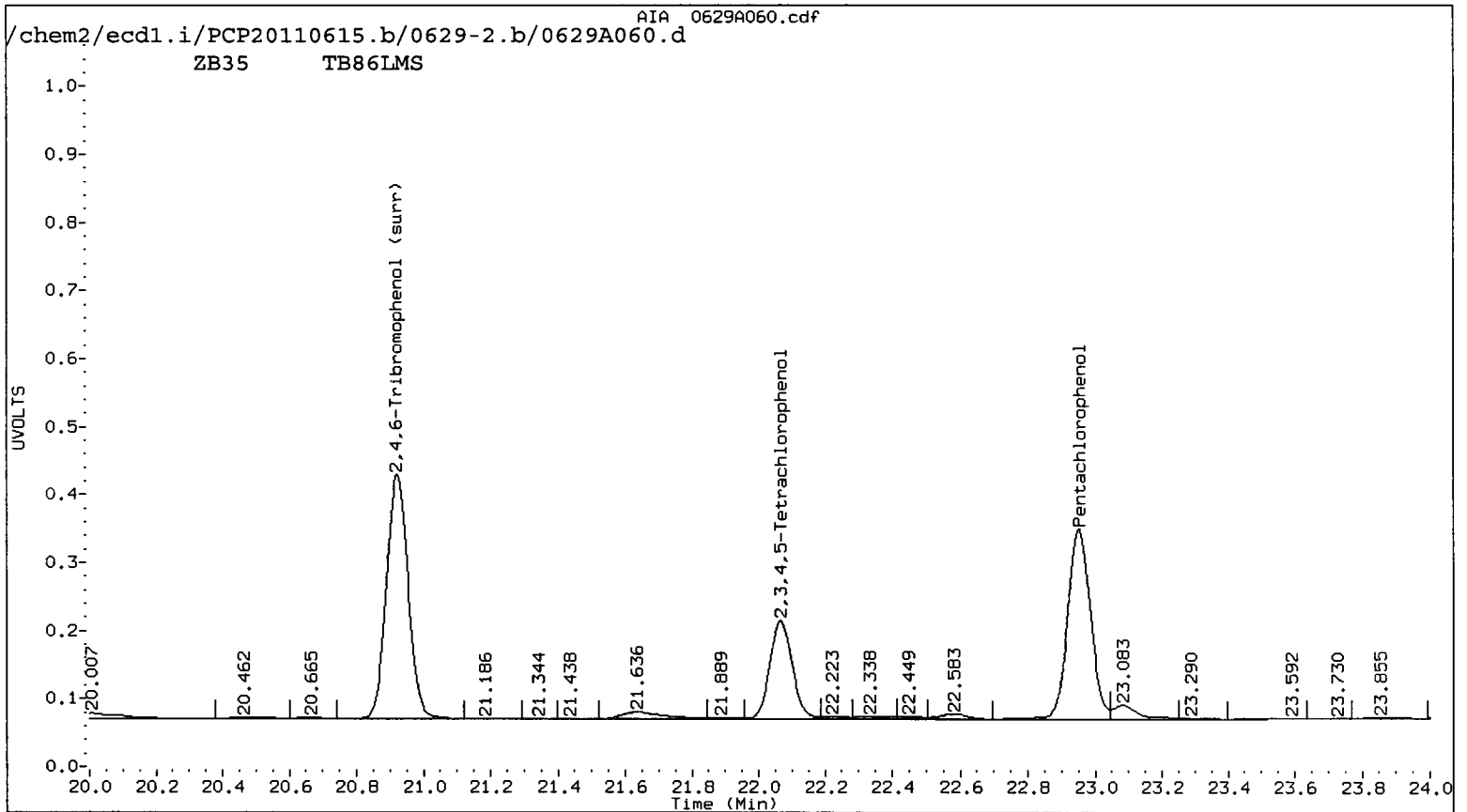
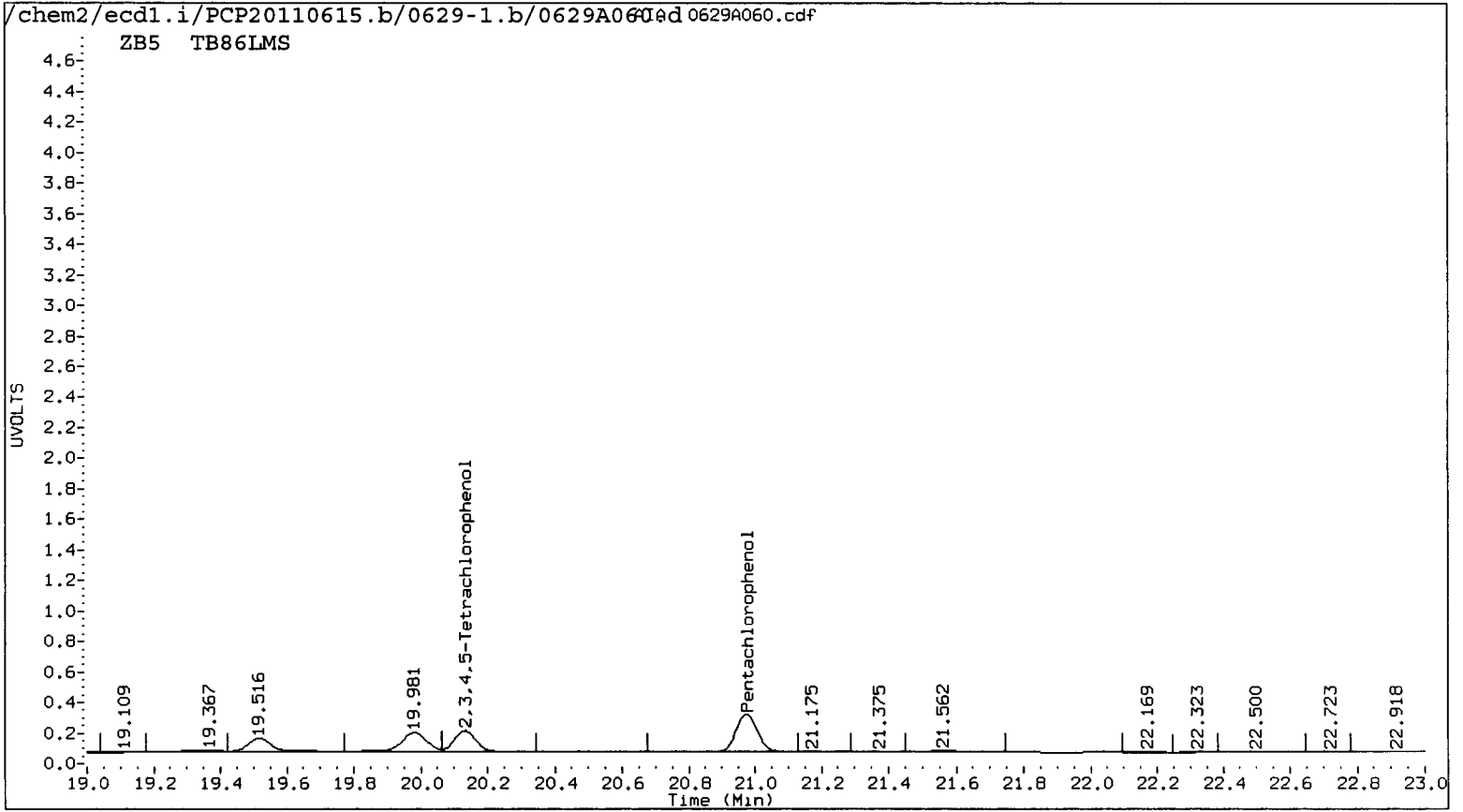
Operator: ar

Column diameter: 0.53

/chem2/ecdd1.i/PCP20110615.b/0629-1.b/06299060.d/06299060.cdf







TB85 : 00366

Data File: /chem2/eecd1.i/PCP20110615.b/0629-2.b/06290060.d

Date: 30-JUN-2011 22:23

Client ID: SB-029-062211-0 MS

Sample Info: TB86LMS

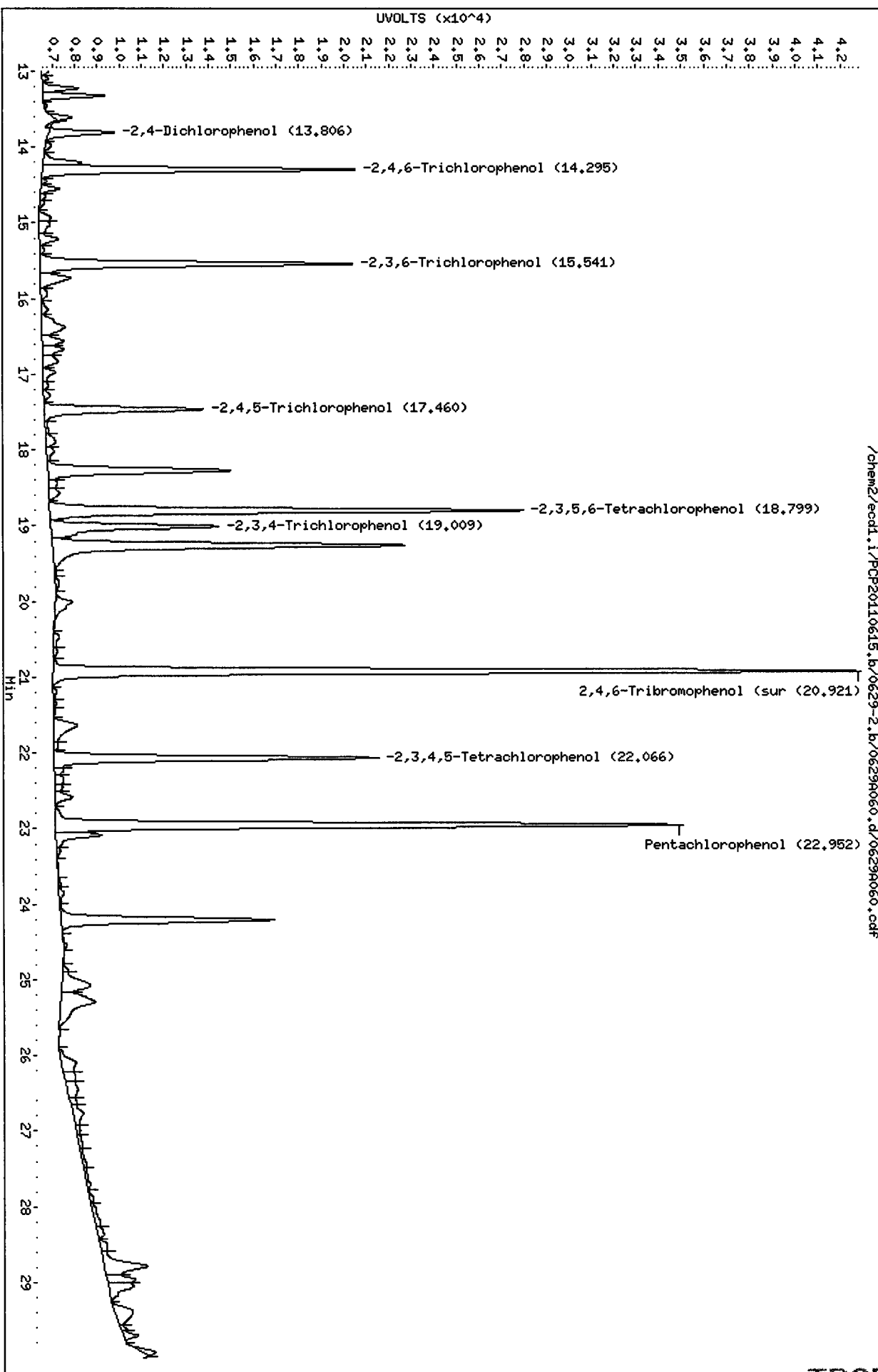
Column phase: STX CLP2

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

/chem2/eecd1.i/PCP20110615.b/0629-2.b/06290060.d/06290060.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A061.d ARI ID: TB86LMSD
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A061.d Client ID: SB-02A-062211-0 MSD
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 30-JUN-2011 22:59
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

20 7/1/11

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.975	-0.001	563165	22.951	-0.002	657720	23.9134	21.8885	8.8	Pentachlorophenol
13.078	-0.002	286802	14.294	-0.001	293369	20.3673	19.8184	2.7	2,4,6-Trichlorophenol
14.073	-0.002	286033	15.541	-0.001	326345	21.8984	21.9204	0.1	2,3,6-Trichlorophenol
15.824	-0.001	168660	17.459	-0.001	168942	21.2061	19.8534	6.6	2,4,5-Trichlorophenol
17.329	-0.001	172038	19.009	0.000	165371	17.8790	16.2981	9.3	2,3,4-Trichlorophenol
17.130	-0.001	425293	18.798	-0.001	485004	21.7429	21.5538	0.9	2,3,5,6-Tetrachlorophenol
20.133	-0.002	362720	22.066	-0.001	340380	24.5580	20.0647	20.1	2,3,4,5-Tetrachlorophenol
12.532	-0.002	80036	13.806	0.000	53555	95.4524	63.3340	40.5*	2,4-Dichlorophenol
18.573	-0.002	687719	20.921	-0.002	790662	37.3	36.8	1.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	95.7	87.6
2,4,6-Trichlorophenol	81.5	79.3
2,3,6-Trichlorophenol	87.6	87.7
2,4,5-Trichlorophenol	84.8	79.4
2,3,4-Trichlorophenol	71.5	65.2
2,3,5,6-Tetrachlorophenol	87.0	86.2
2,3,4,5-Tetrachlorophenol	98.2	80.3
2,4-Dichlorophenol	38.2	25.3
2,4,6-TBP (surr)	74.6	73.7

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A061.d

Date: 30-JUN-2011 22:59

Client ID: SB-02A-062211-0 MSD

Sample Info: TB86LHSD

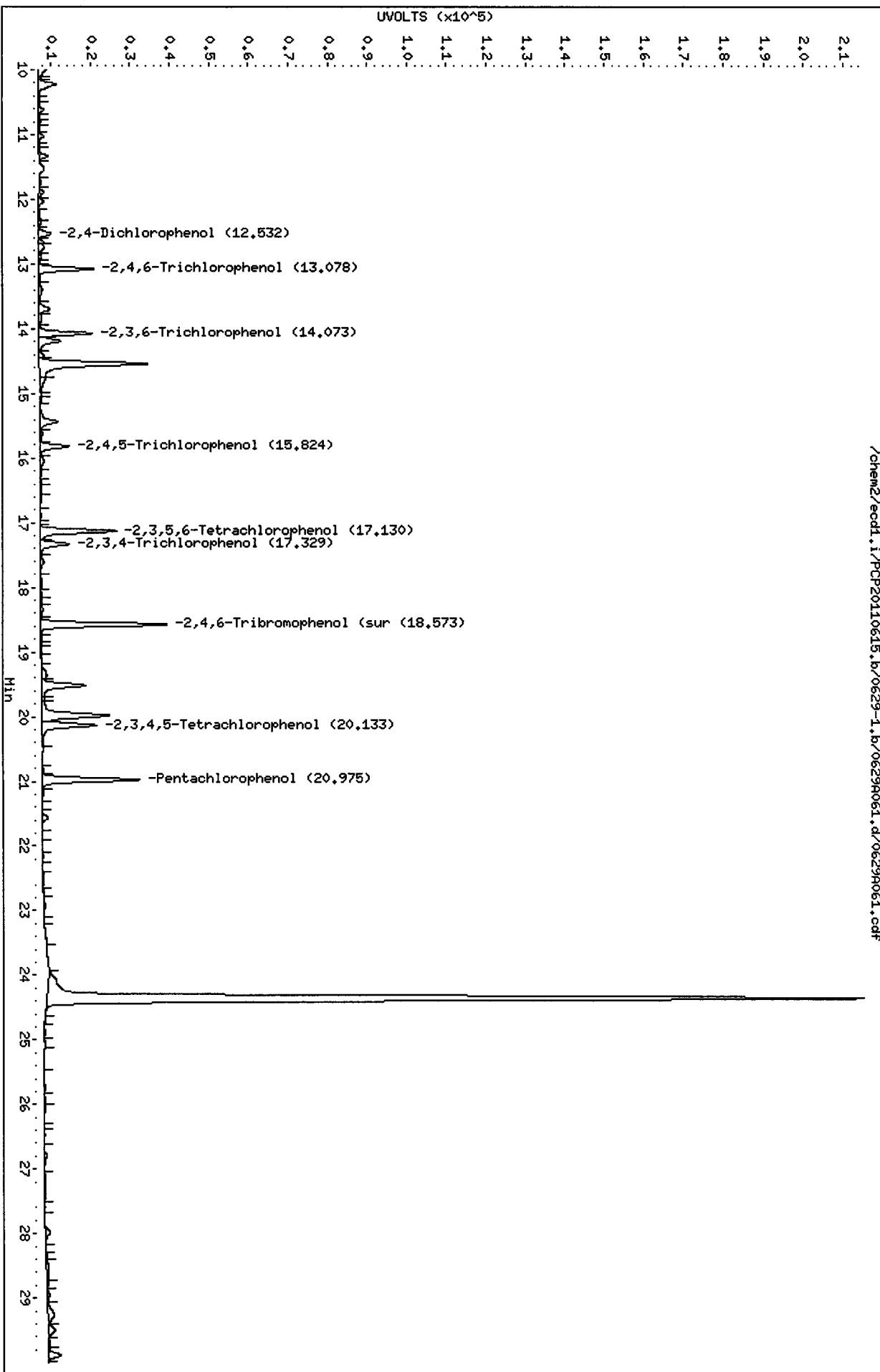
Column phase: STX CLP1

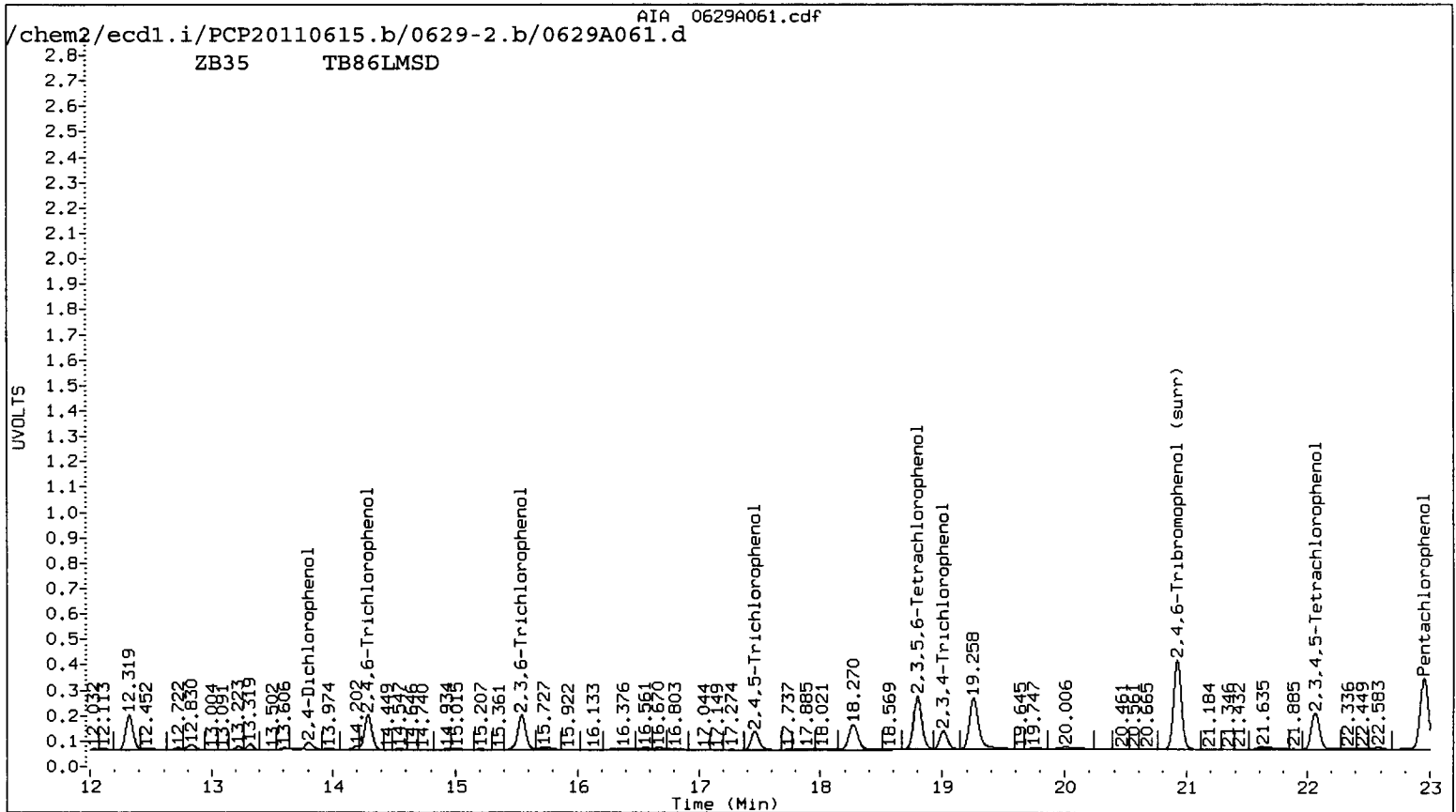
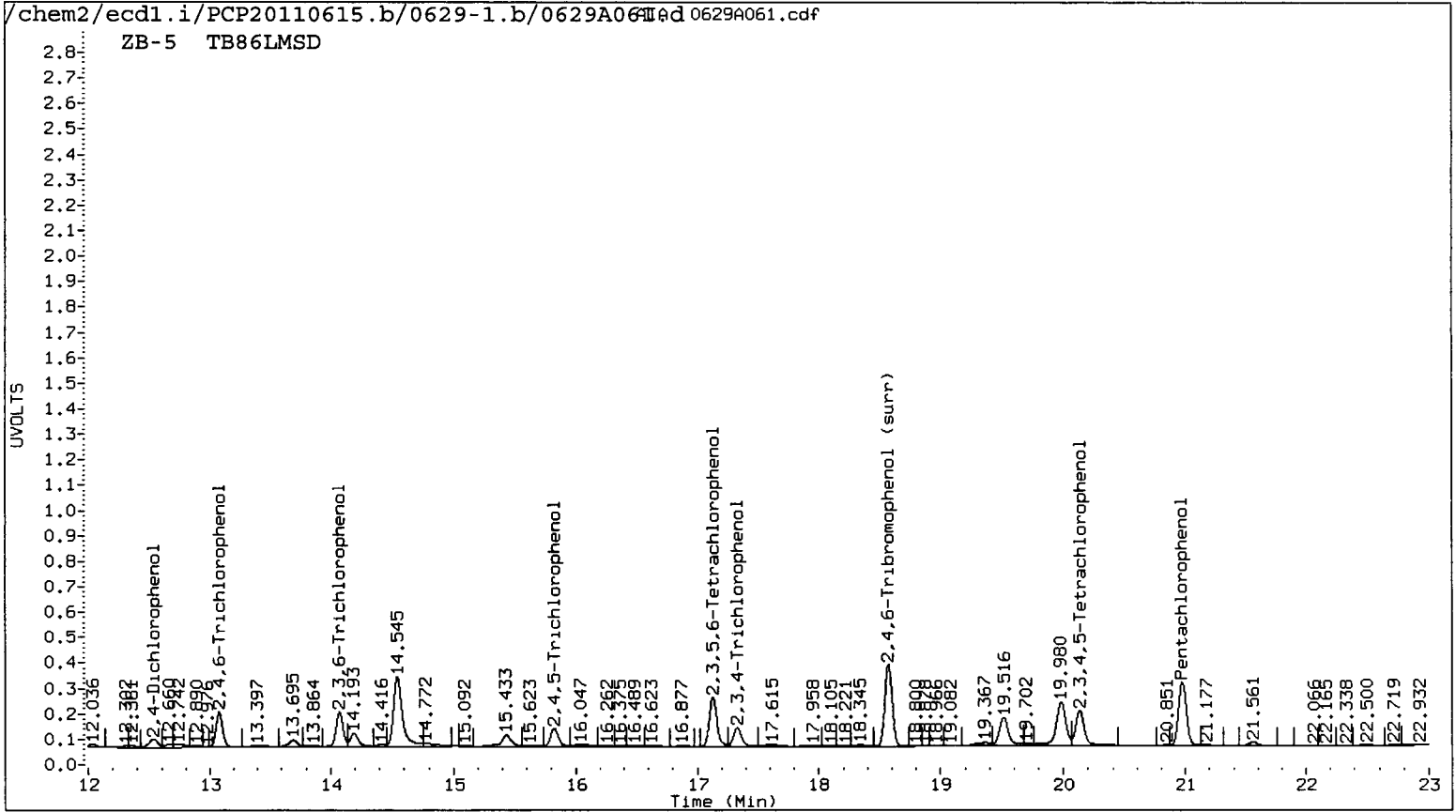
Instrument: eod1.i

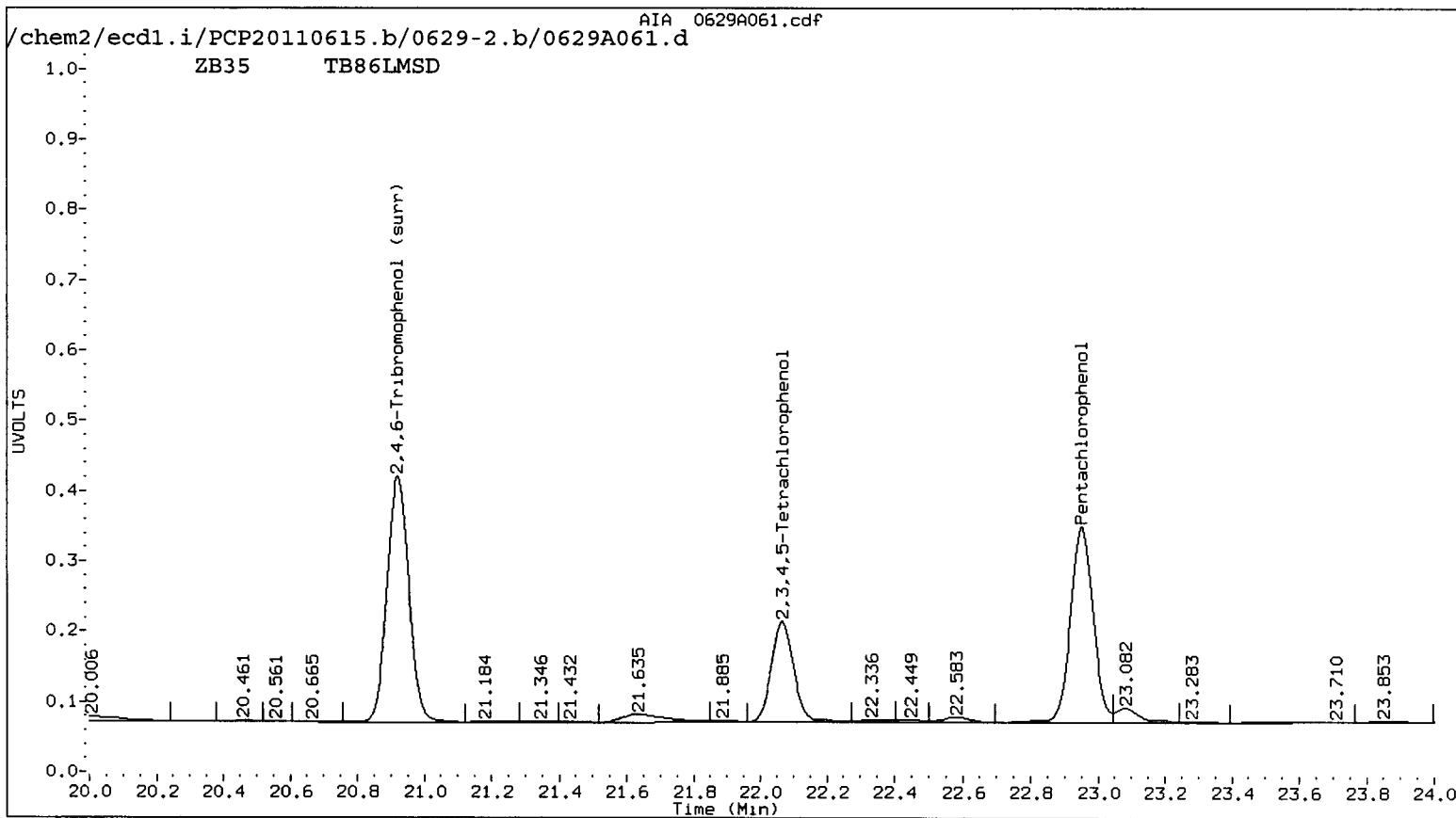
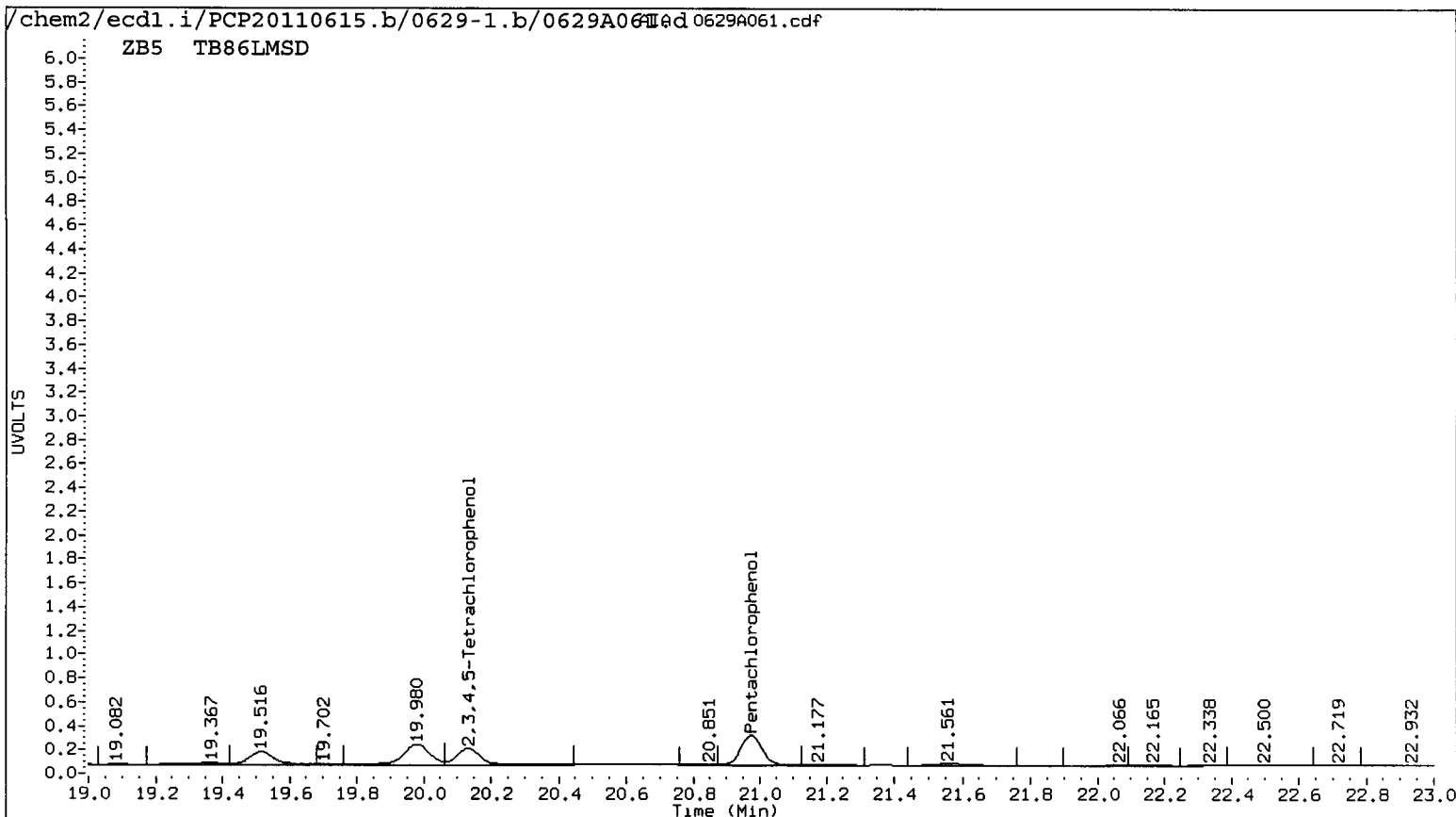
Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-1.b/0629A061.d/0629A061.cdf







Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/0629061.d

Date: 30-JUN-2011 22:59

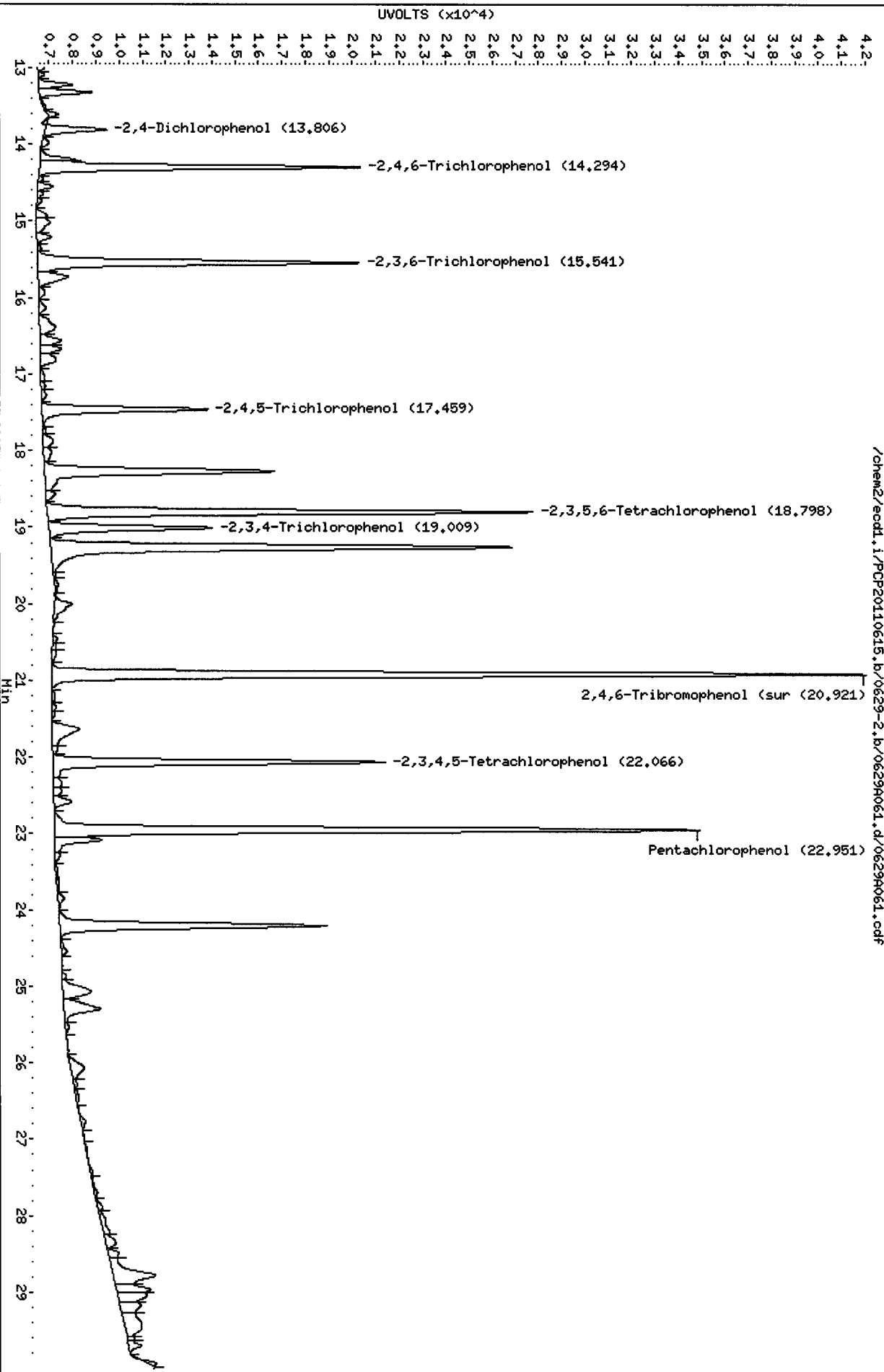
Client ID: SB-02A-062211-0 MSD

Sample Info: TB86LHSD

Page 1

Column phase: STX CLP2

Operator: ar
Column diameter: 0.53



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A063.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A063.d Client ID:
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 01-JUL-2011 00:12
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

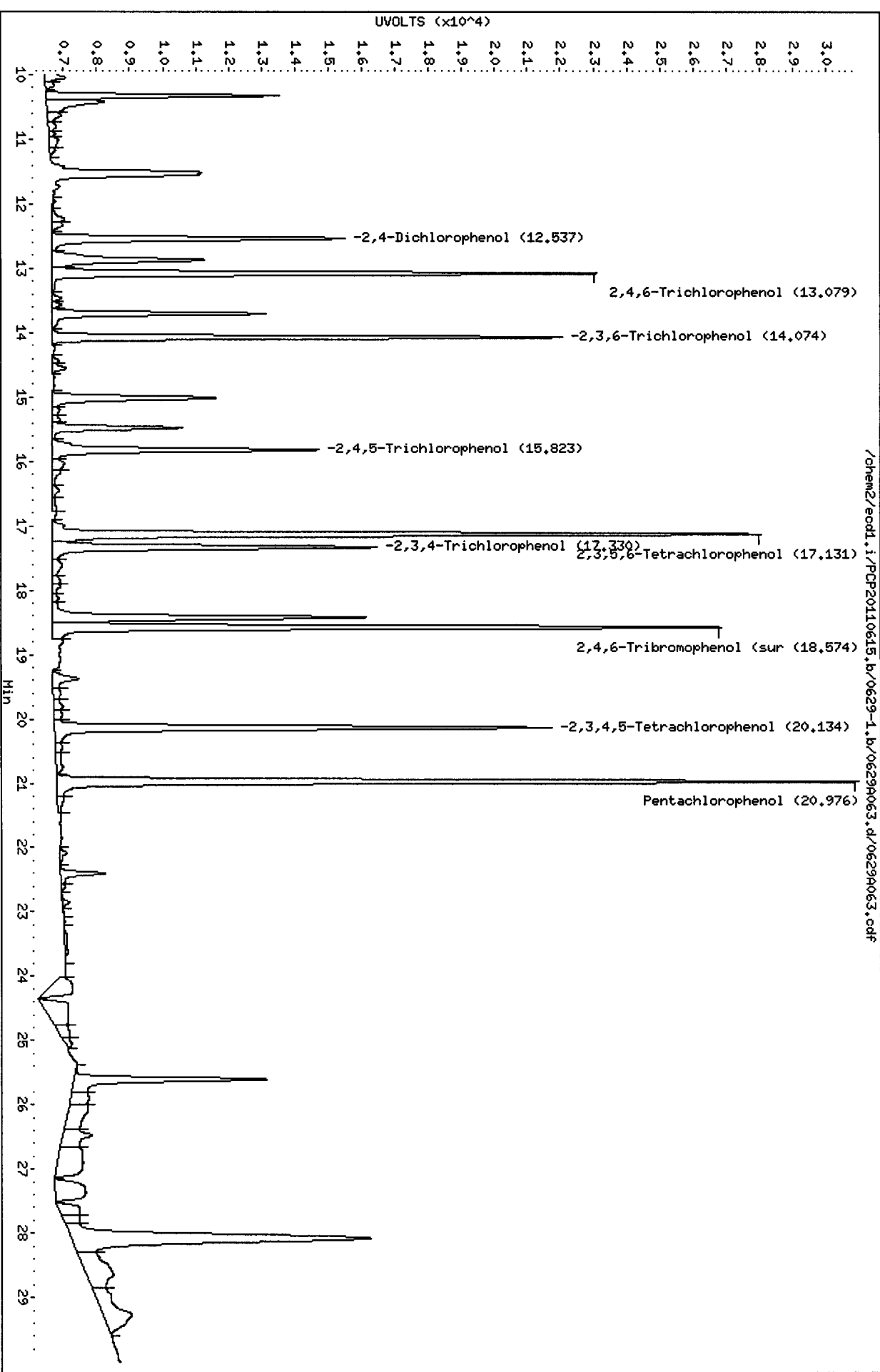
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.976	0.000	557940	22.953	0.000	693060	23.6916	23.0646	2.7	Pentachlorophenol
13.079	-0.001	331838	14.295	-0.001	342392	23.5656	23.1302	1.9	2,4,6-Trichlorophenol
14.074	-0.001	308604	15.541	-0.001	336855	23.6264	22.6263	4.3	2,3,6-Trichlorophenol
15.823	-0.001	191631	17.460	-0.001	206425	24.0944	24.2583	0.7	2,4,5-Trichlorophenol
17.330	0.000	227293	19.009	-0.001	242202	23.6213	23.8702	1.0	2,3,4-Trichlorophenol
17.131	0.000	471949	18.799	0.000	534842	24.1282	23.7686	1.5	2,3,5,6-Tetrachlorophenol
20.134	0.000	350748	22.068	0.001	390157	23.7474	22.9989	3.2	2,3,4,5-Tetrachlorophenol
12.537	0.003	202137	13.805	-0.001	176521	274.7440	241.6006	12.8	2,4-Dichlorophenol
18.574	0.000	445326	20.922	0.000	504326	24.2	23.5	2.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

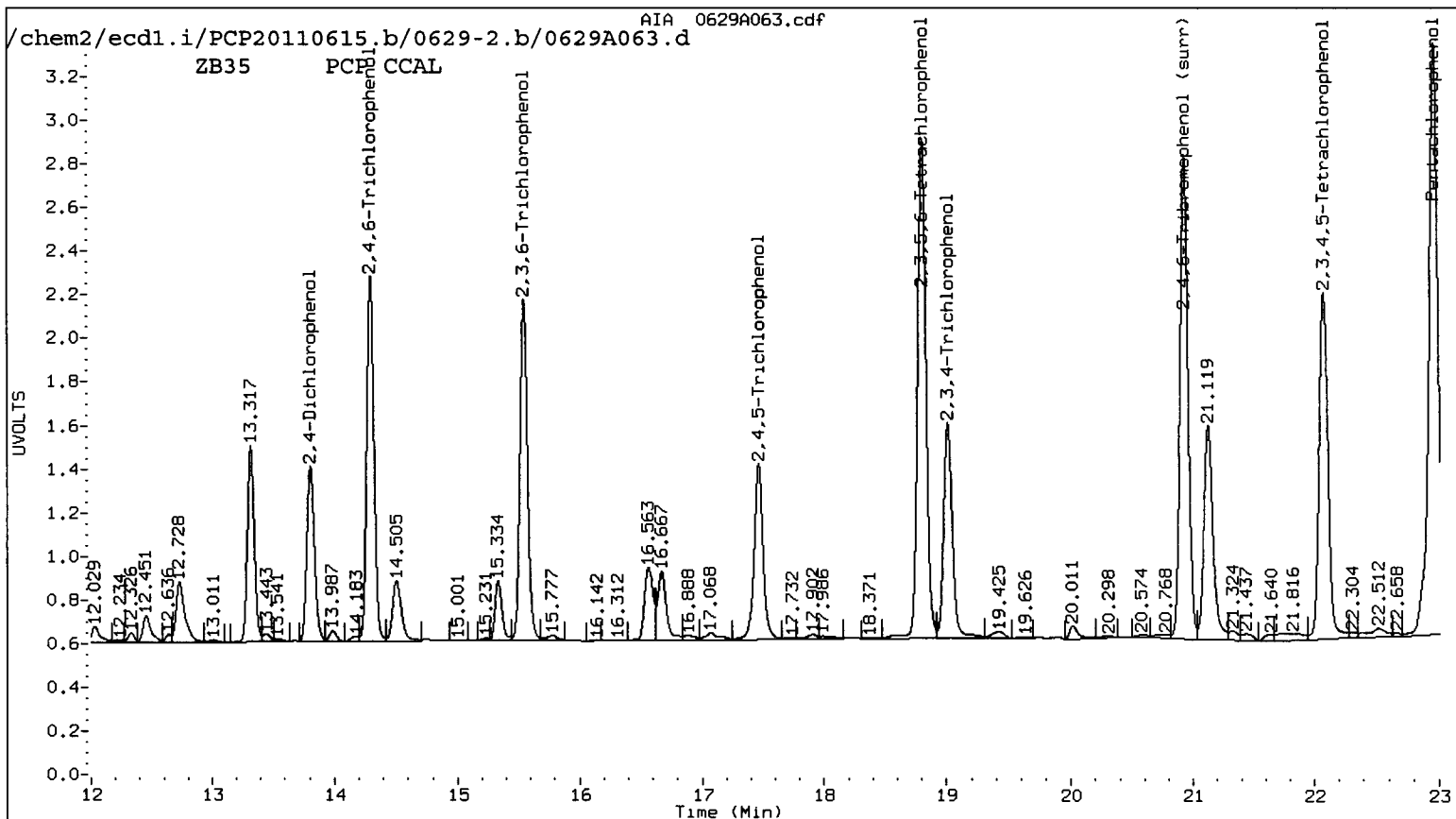
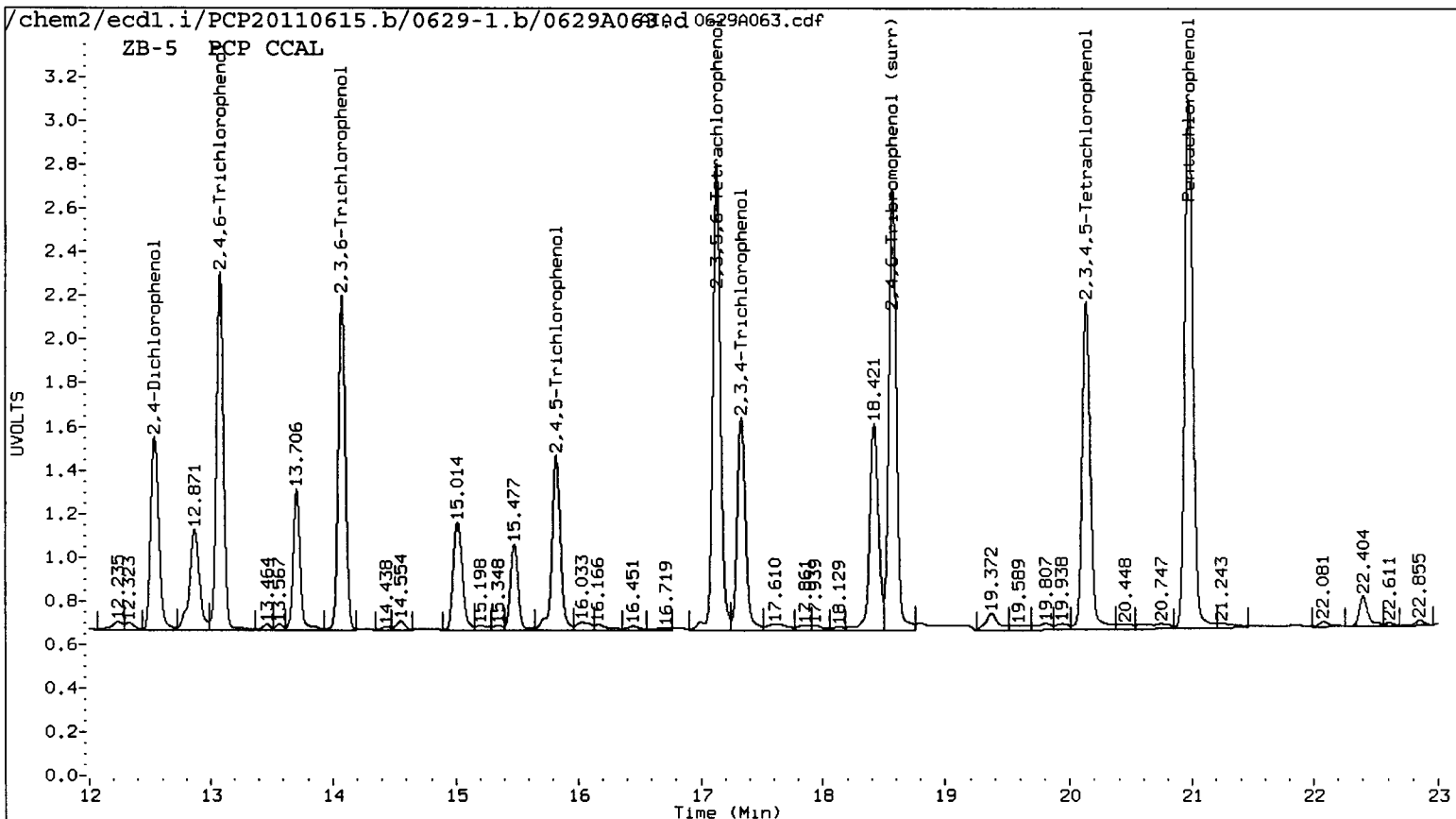
COMPOUND	Col1	Col2
Pentachlorophenol	94.8	92.3
2,4,6-Trichlorophenol	94.3	92.5
2,3,6-Trichlorophenol	94.5	90.5
2,4,5-Trichlorophenol	96.4	97.0
2,3,4-Trichlorophenol	94.5	95.5
2,3,5,6-Tetrachlorophenol	96.5	95.1
2,3,4,5-Tetrachlorophenol	95.0	92.0
2,4-Dichlorophenol	109.9	96.6
2,4,6-TBP (surr)	96.6	94.0

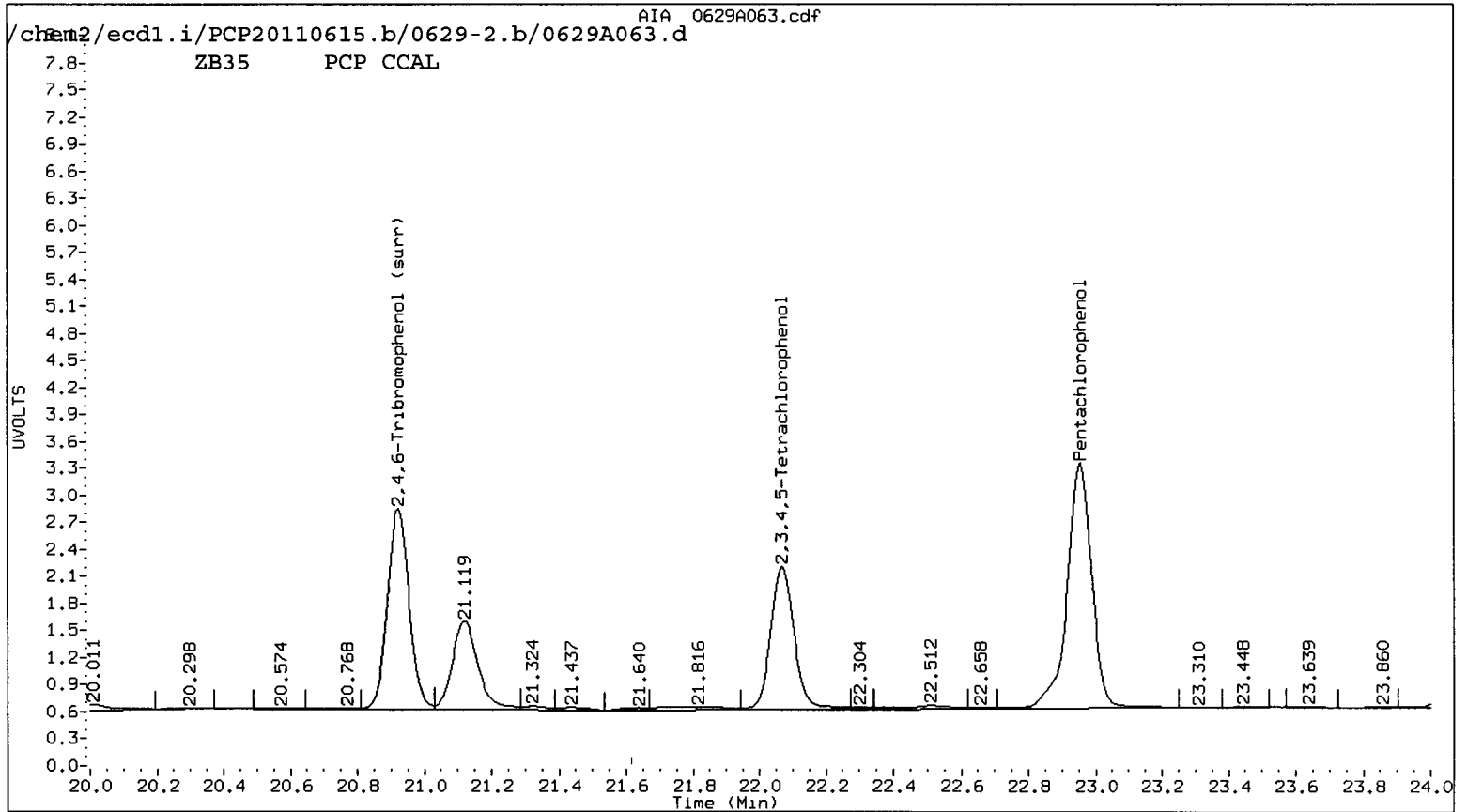
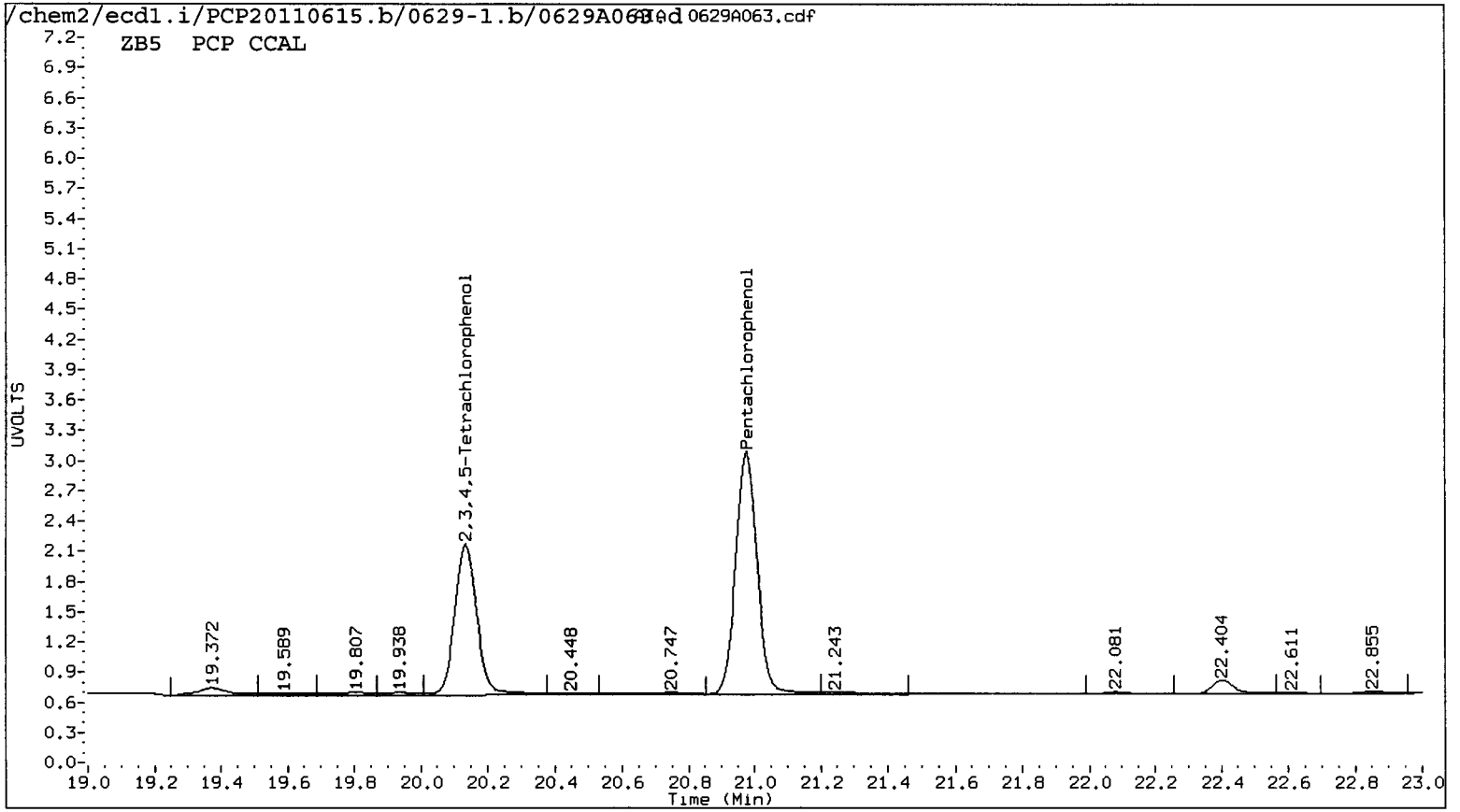
Data File: /chem2/eodl.i/PCP20110615.b/0629-1.b/0629A063.d
Date : 01-JUL-2011 00:12
Client ID:
Sample Info: PCP COAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: eodl.i
Operator: ar
Column diameter: 0.53



/chem2/eodl.i/PCP20110615.b/0629-1.b/0629A063.d/0629A063.cdf





Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/06290063.d
Date: 01-JUL-2011 00:12

Client ID:

Sample Info: PCP CCAL

Purge Volume: 500.0

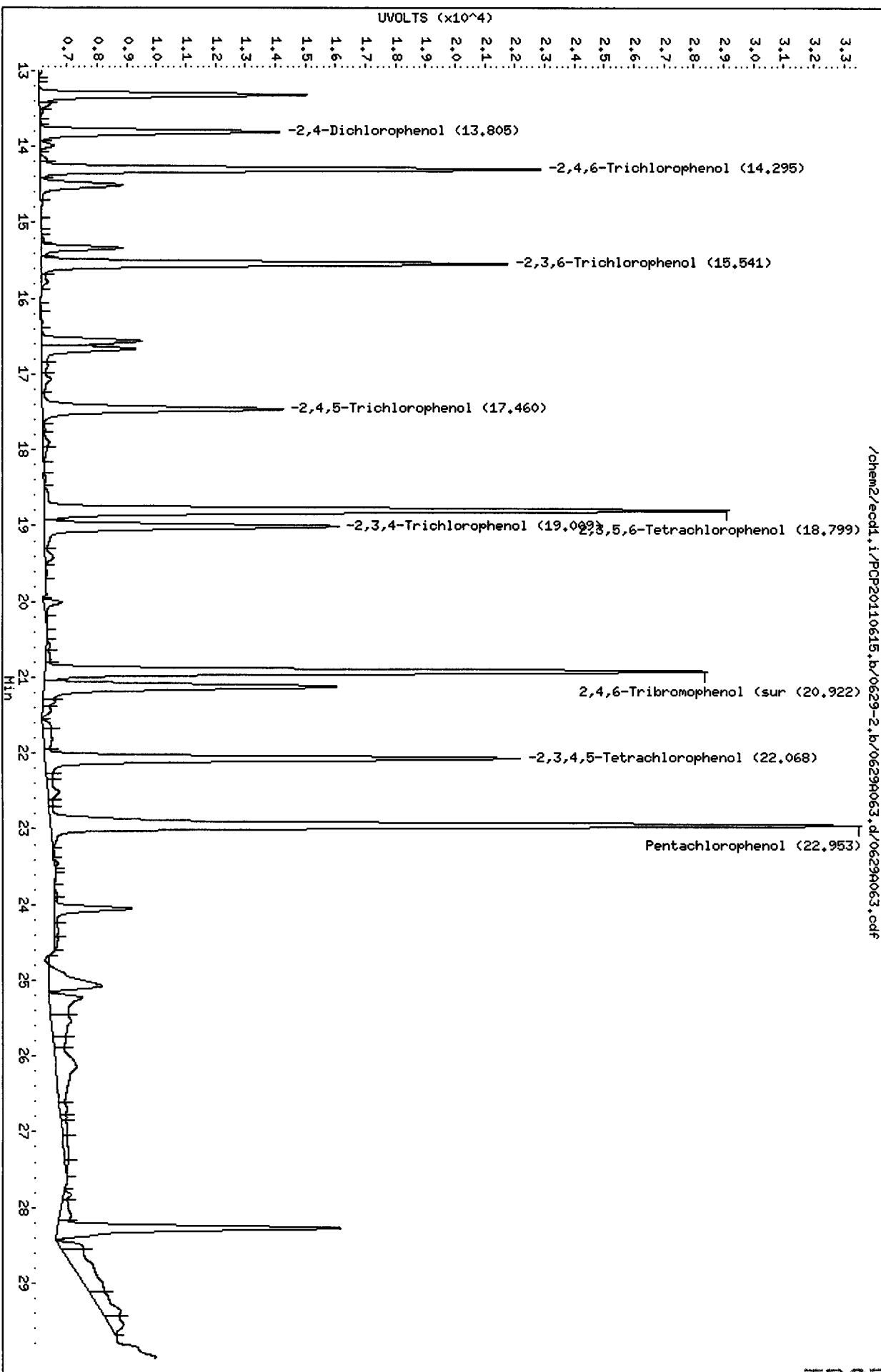
Column phase: STX CLP2

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-2.b/06290063.d/06290063.cdf



Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629064.d

Date: 01-JUL-2011 00:48

Client ID: SB-02A-062211-10

Sample Info: TB86H

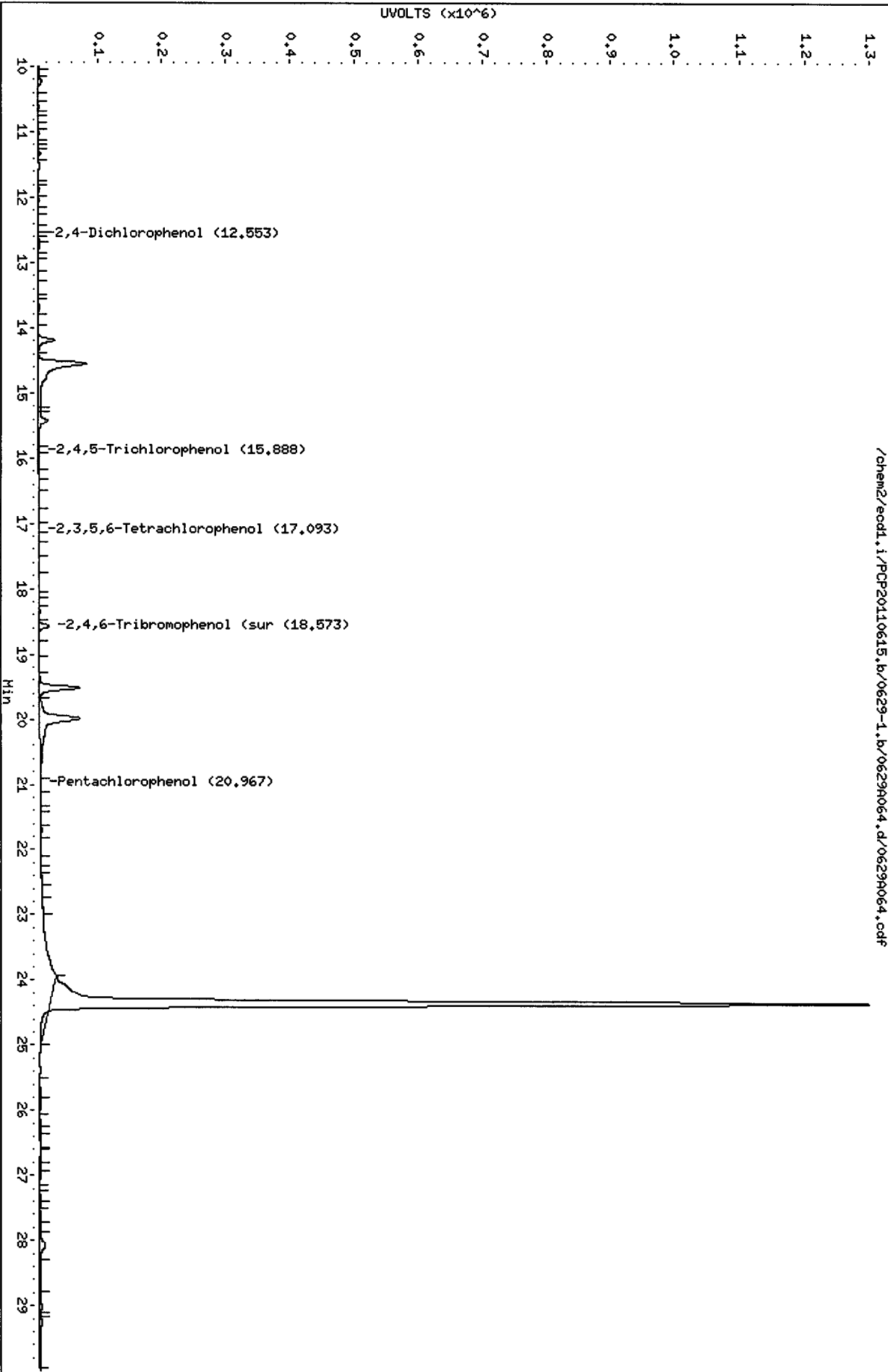
Column phase: STX CLP1

Instrument: eod1.i

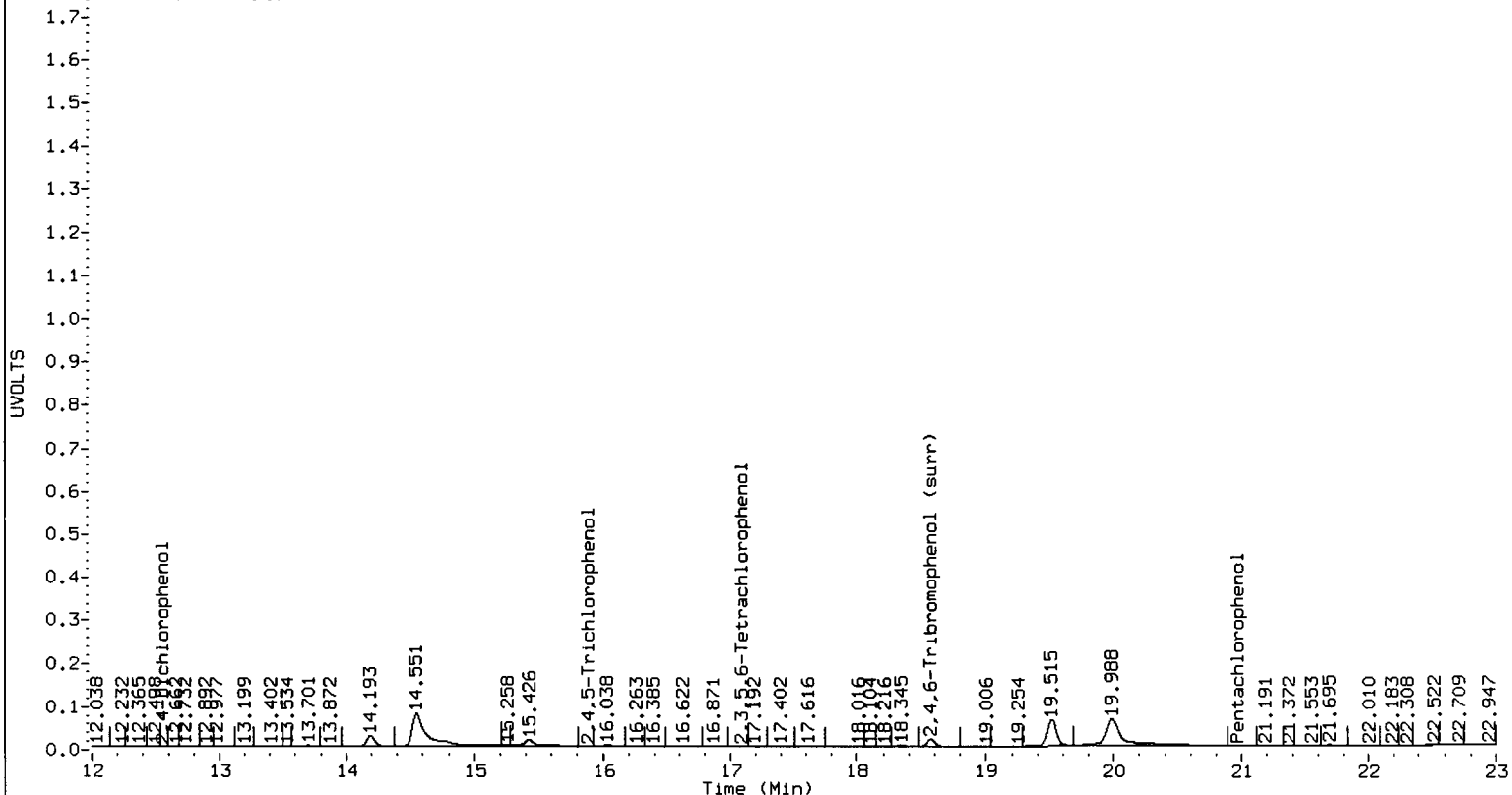
Operator: ar

Column diameter: 0.53

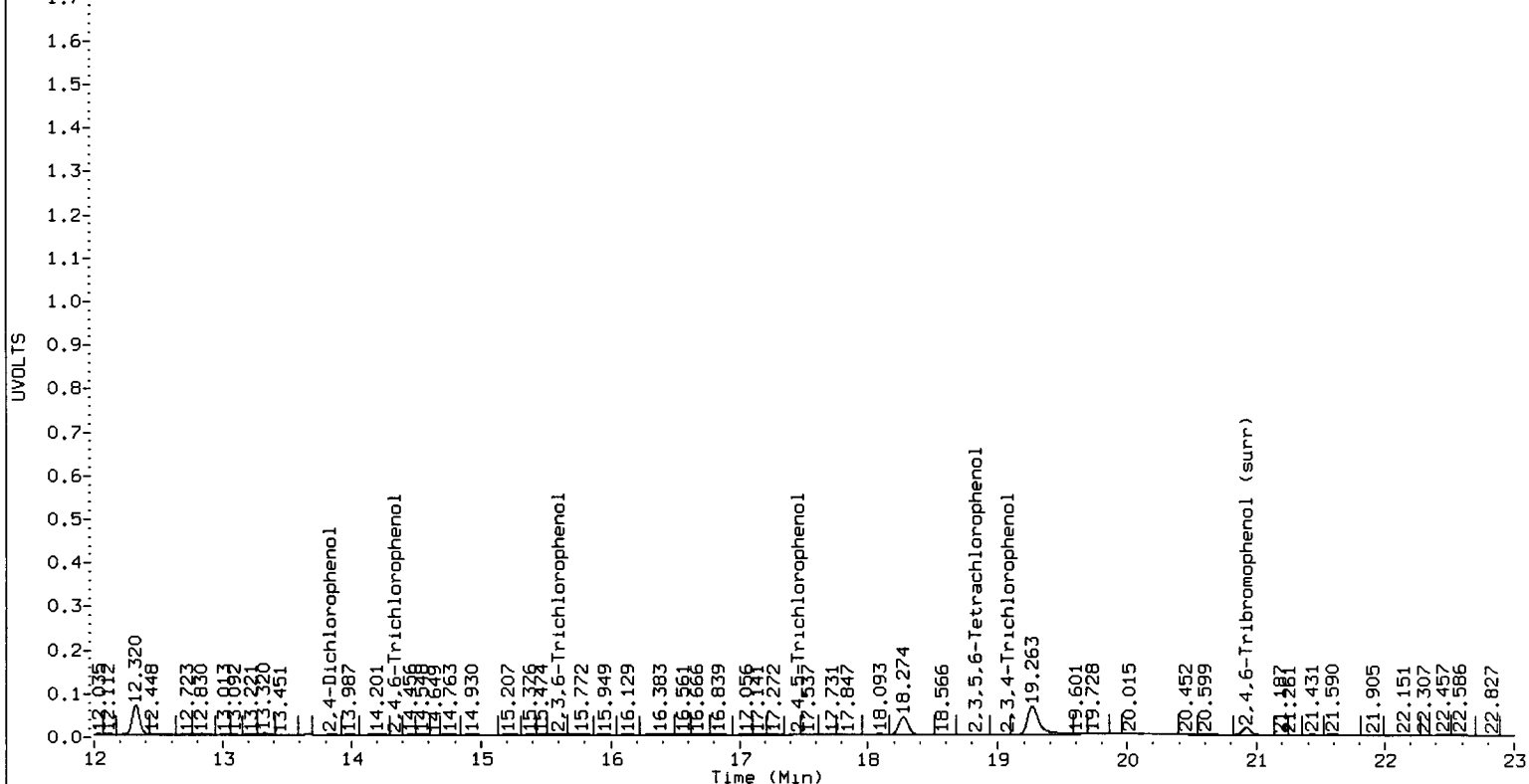
/chem2/eod1.i/PCP20110615.b/0629-1.b/0629064.d/0629064.cdf

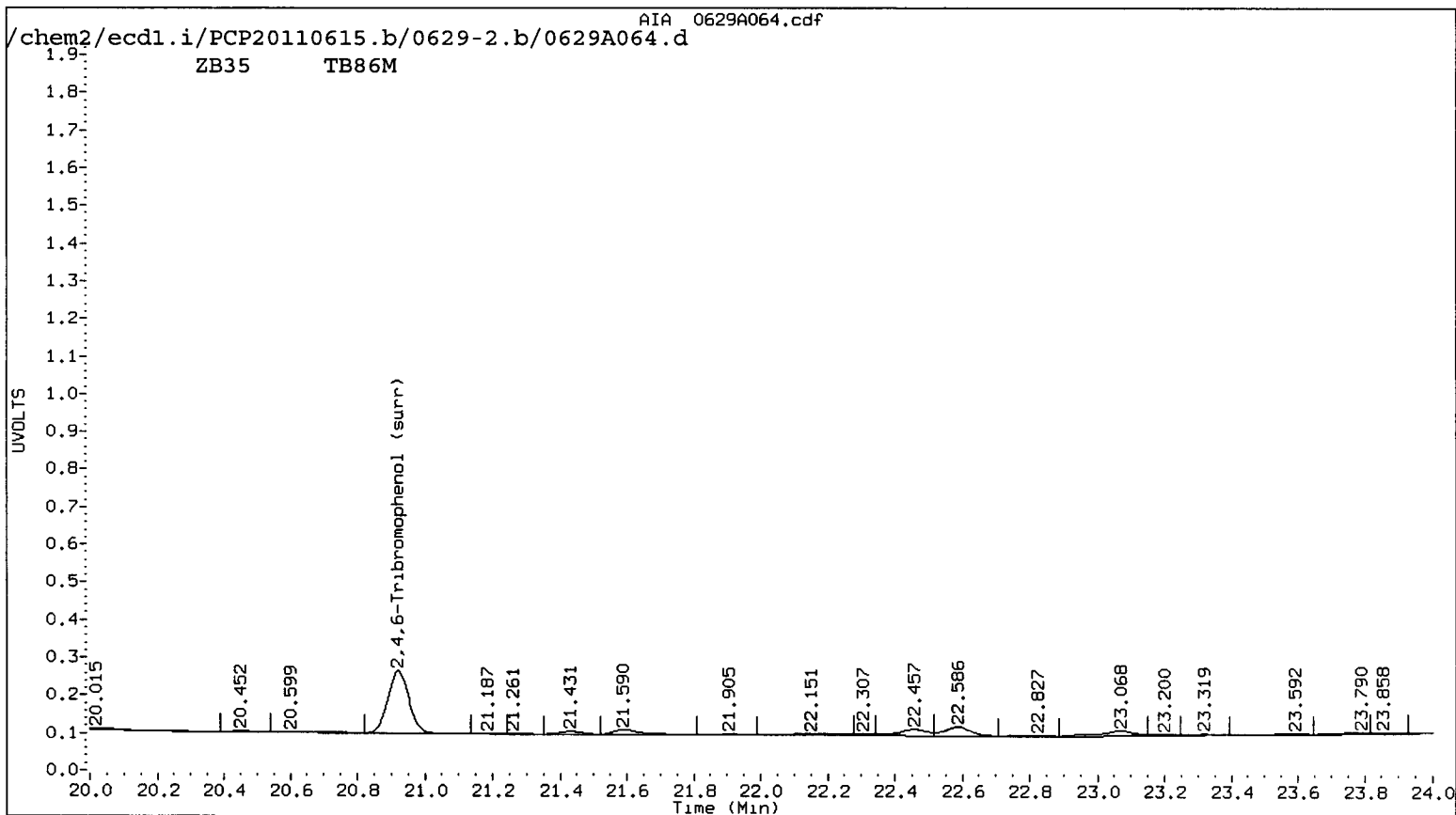
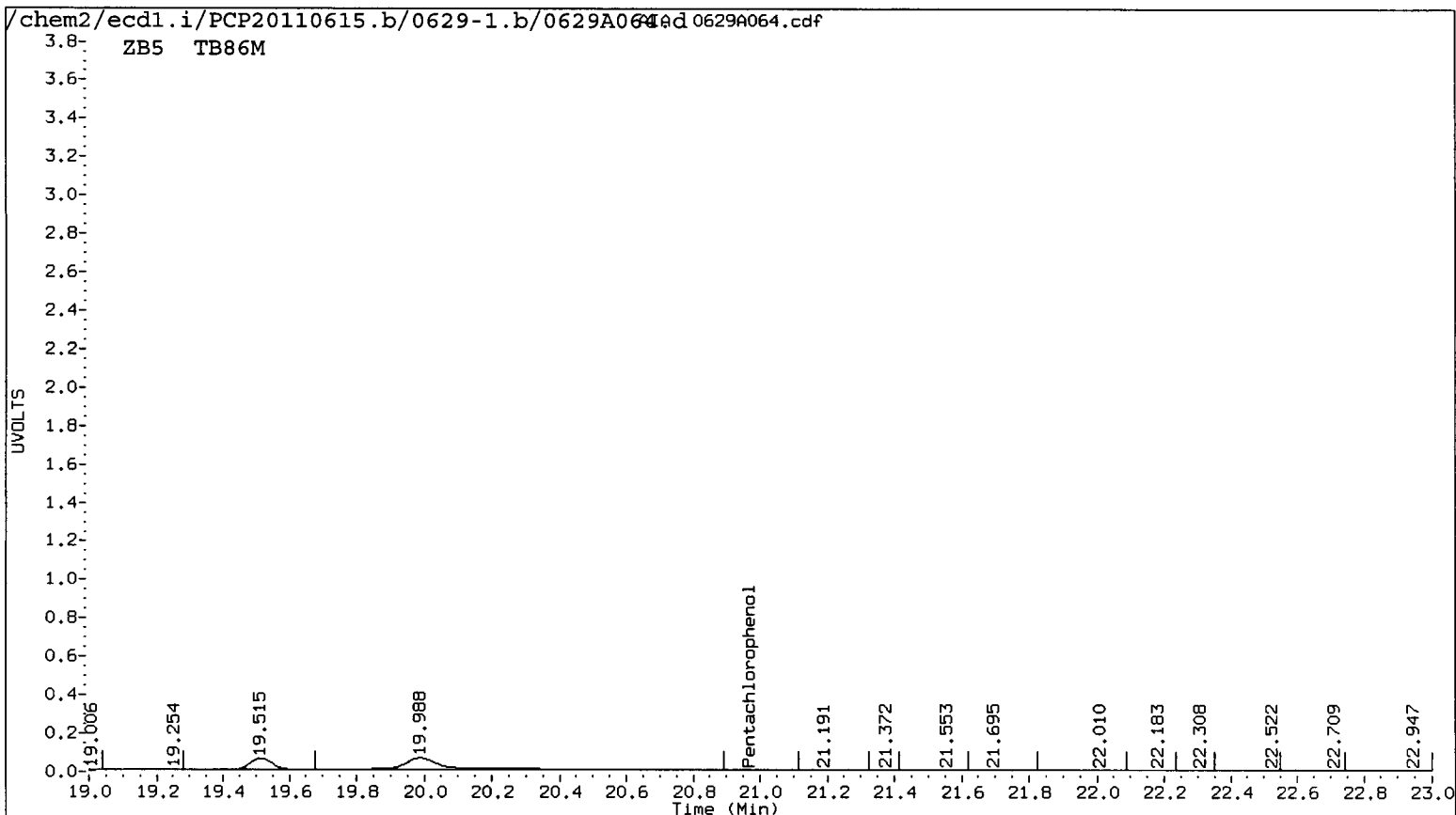


ZB-5 TB86M



ZB35 TB86M





Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/06299064.d

Date: 01-JUL-2011 00:48

Client ID: SB-029-062211-10

Sample Info: TB86H

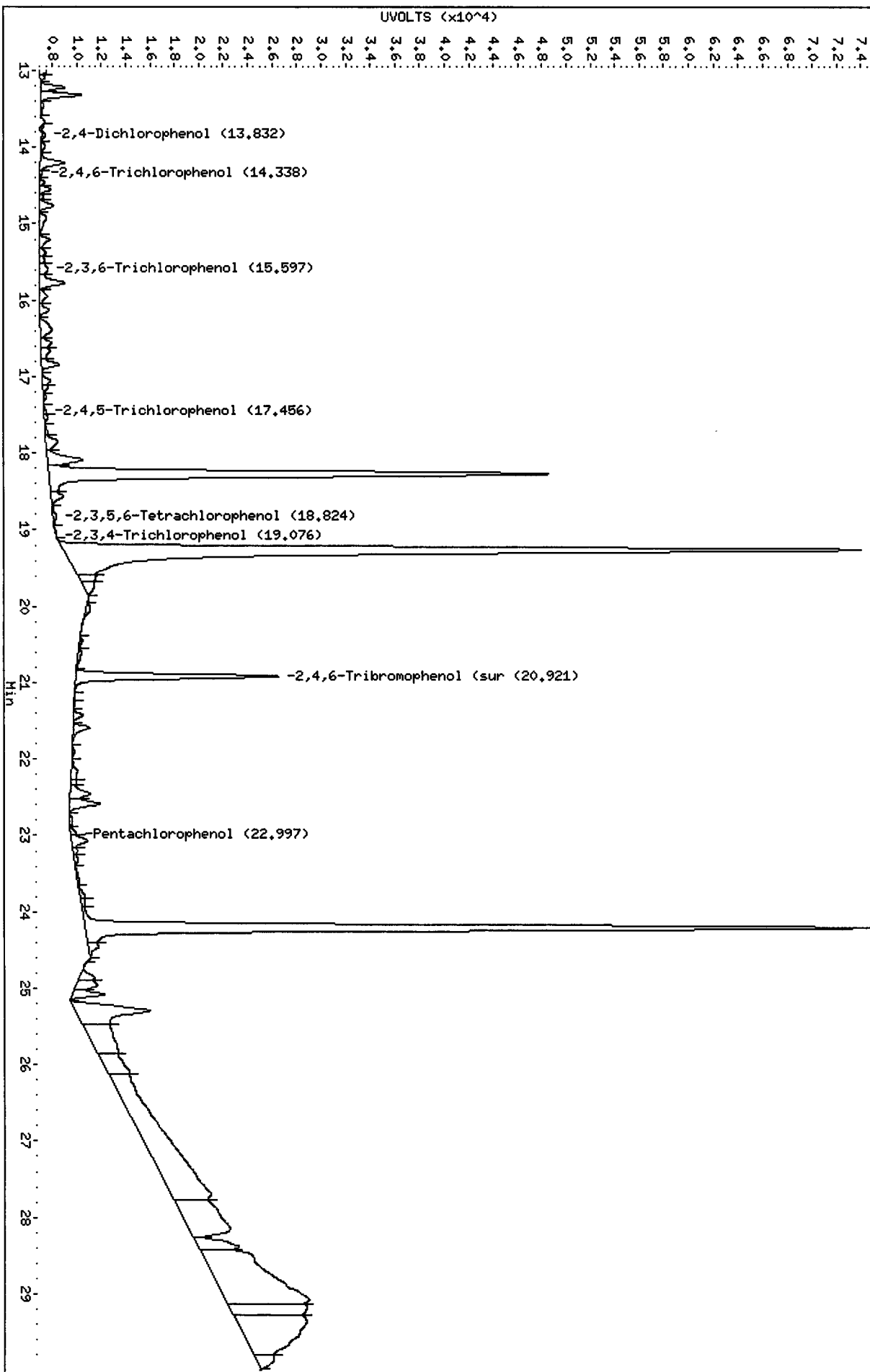
Column phase: STX CLP2

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-2.b/06299064.d/06299064.cdf



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110615.b/0629-1.b/0629A065.d ARI ID: TB86Q
 Data file 2: /chem2/ecdl.i/PCP20110615.b/0629-2.b/0629A065.d Client ID: DUP-02-062211
 Method: /chem2/ecdl.i/PCP20110615.b/PCP.m Injection Date: 01-JUL-2011 01:24
 Compound Sublist: all Report Date: 07/01/2011 12:47
 Instrument: ecd1.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

2 7 11 / 5

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.942	-0.033	6378	22.956	0.003	10467	0.2708	0.3484	25.0	Pentachlorophenol
----			14.335	0.039	4591	0.0000	0.3102	---	2,4,6-Trichlorophenol
----			15.543	0.001	46028	0.0000	3.0917	---	2,3,6-Trichlorophenol
15.881	0.057	153811	17.453	-0.007	15534	19.3392	1.8256	165.5*	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
17.097	-0.034	39192	18.815	0.015	49740	2.0037	2.2105	9.8	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.555	0.021	10173	13.831	0.025	4456	11.1633	4.9396	77.3*	2,4-Dichlorophenol
18.572	-0.002	379822	20.920	-0.002	372532	20.6	17.4	17.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	82.4	69.4

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629065.d

Date: 01-JUL-2011 01:24

Client ID: DUP-02-062214

Sample Info: TB86Q

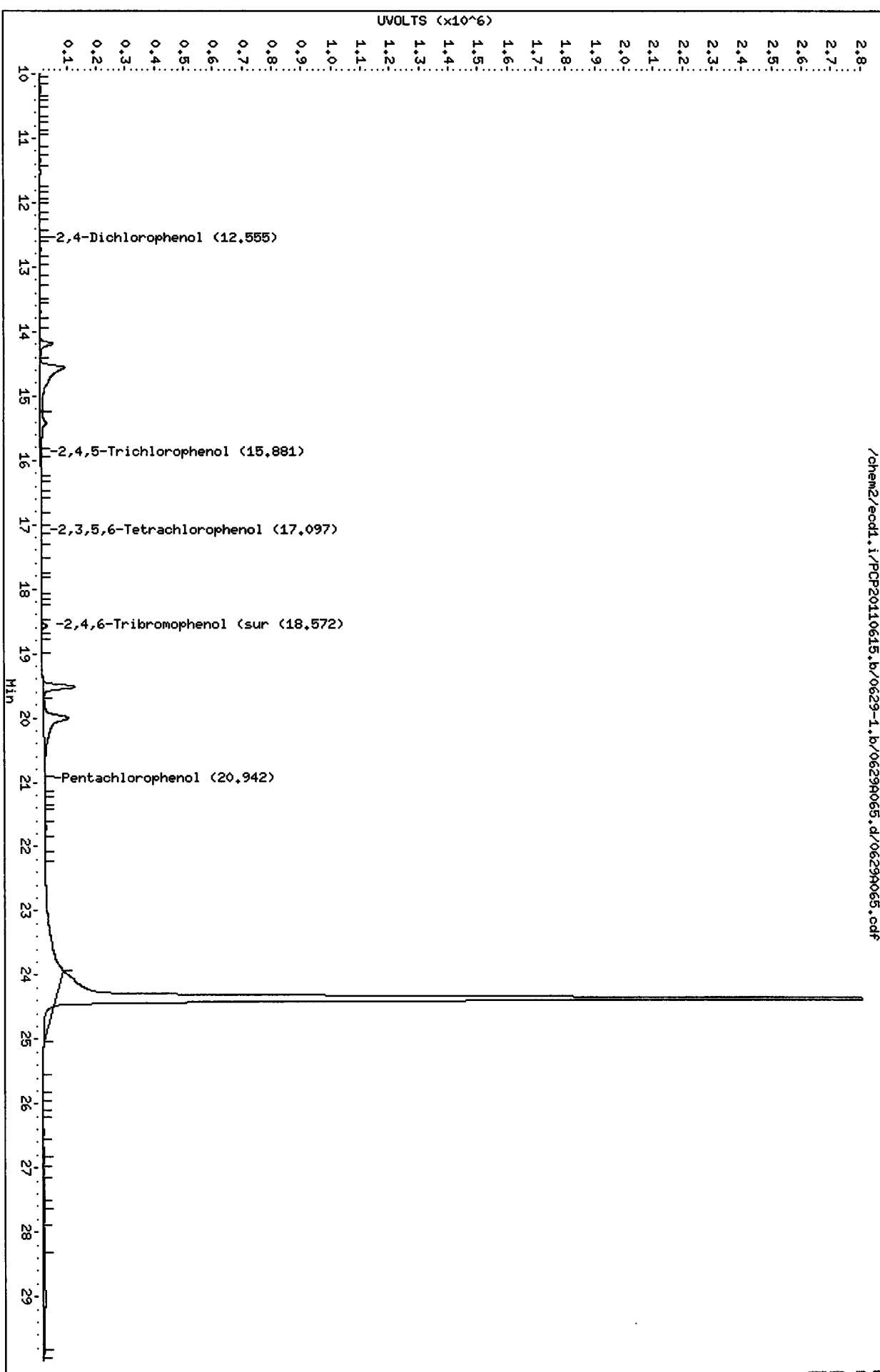
Column phase: STX CLP1

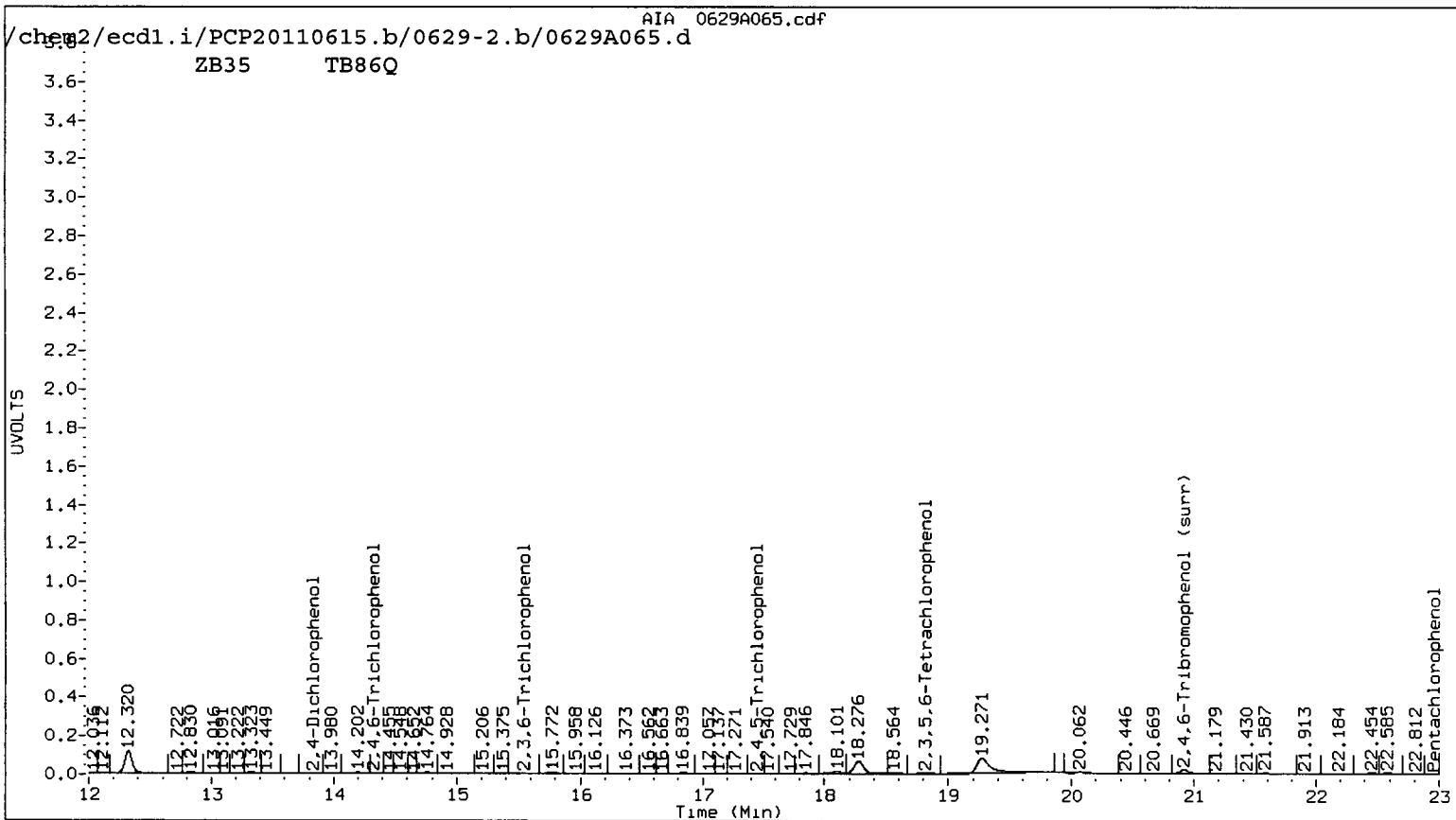
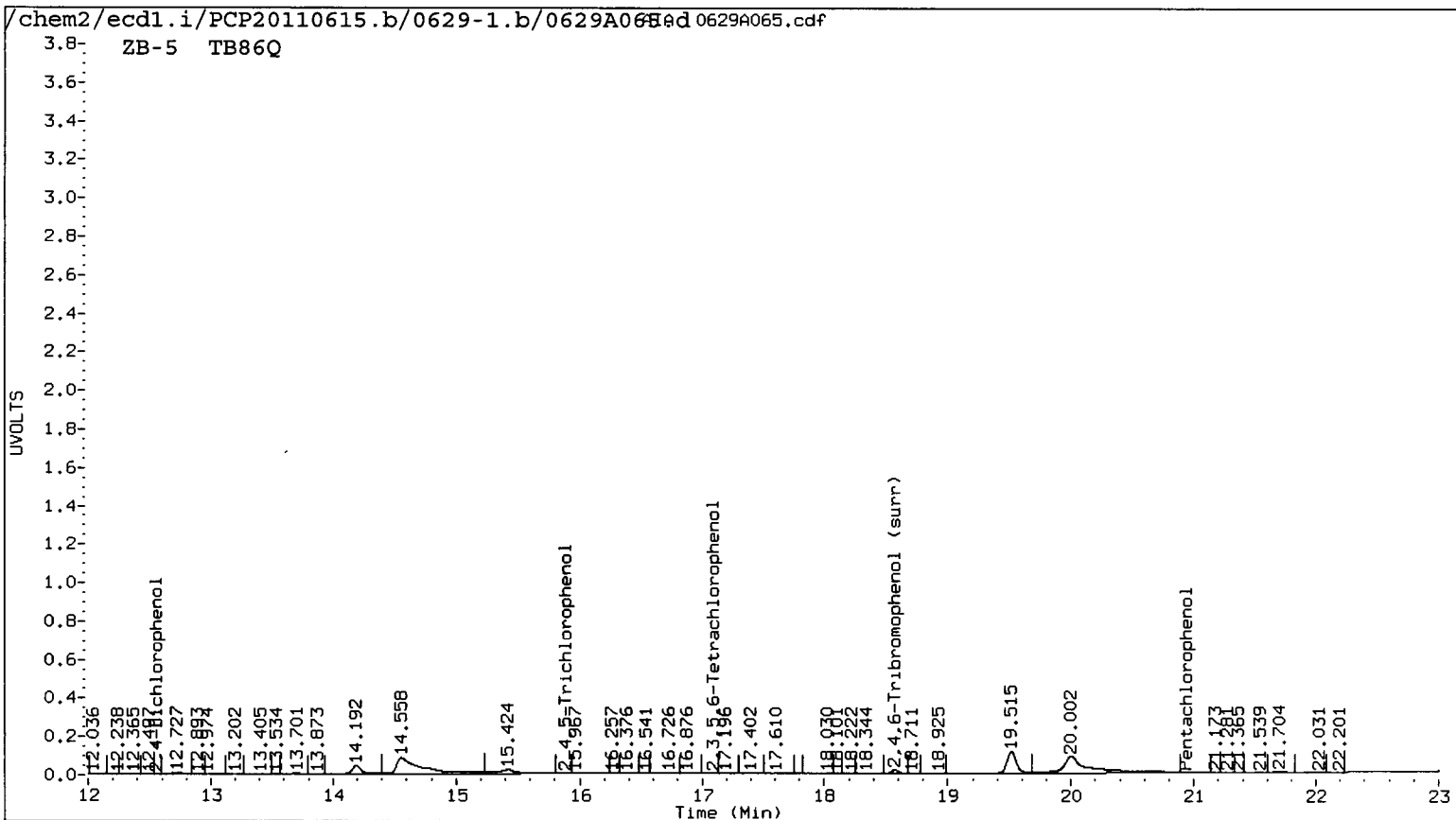
Instrument: eod1.i

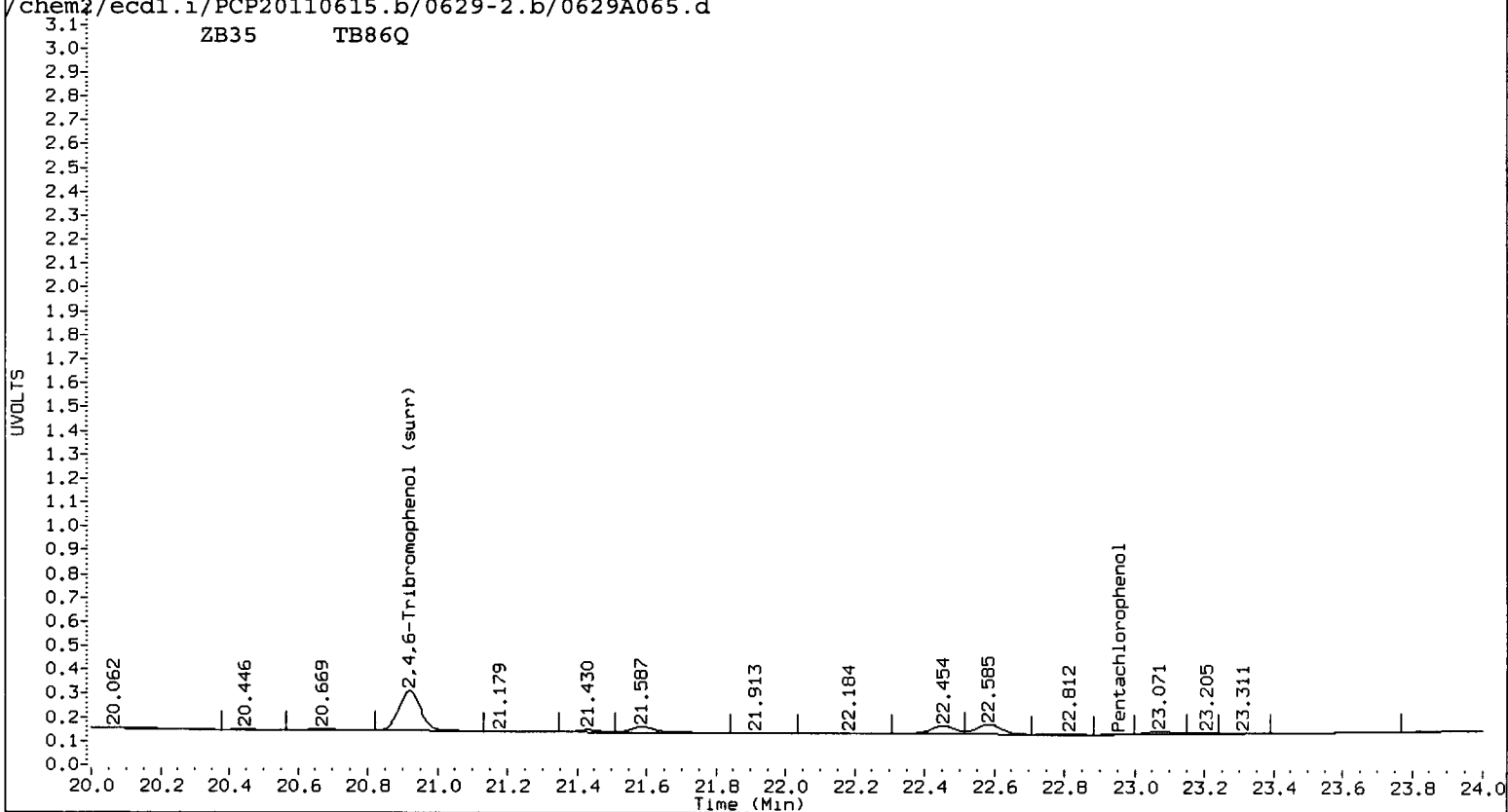
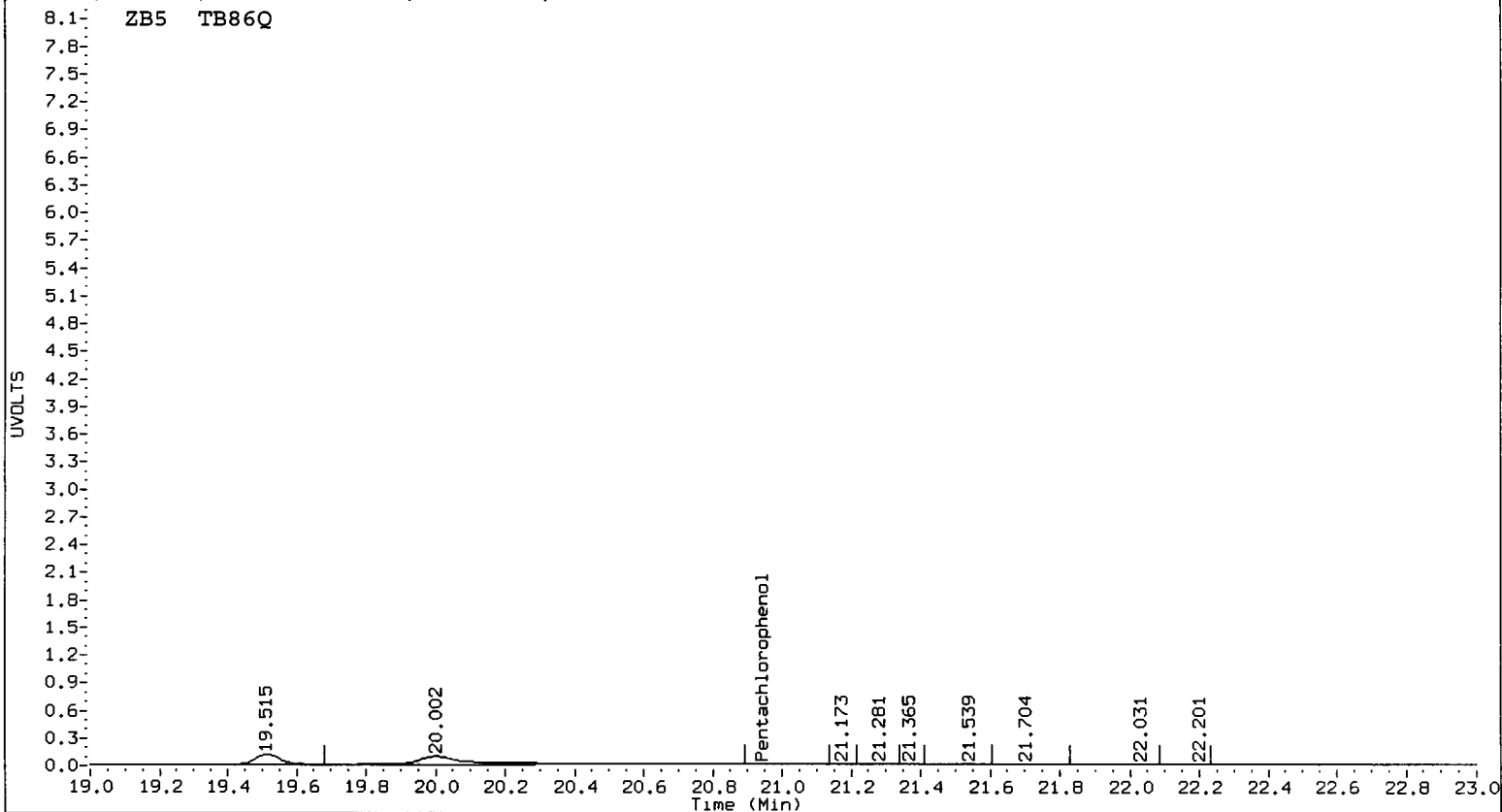
Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-1.b/0629065.d/0629065.cdf







Data File: /chem2/ecdl.i/PCP20110615.b/0629-2.b/06290065.d

Date: 01-JUL-2011 01:24

Client ID: DUP-02-062214

Sample Info: TB86Q

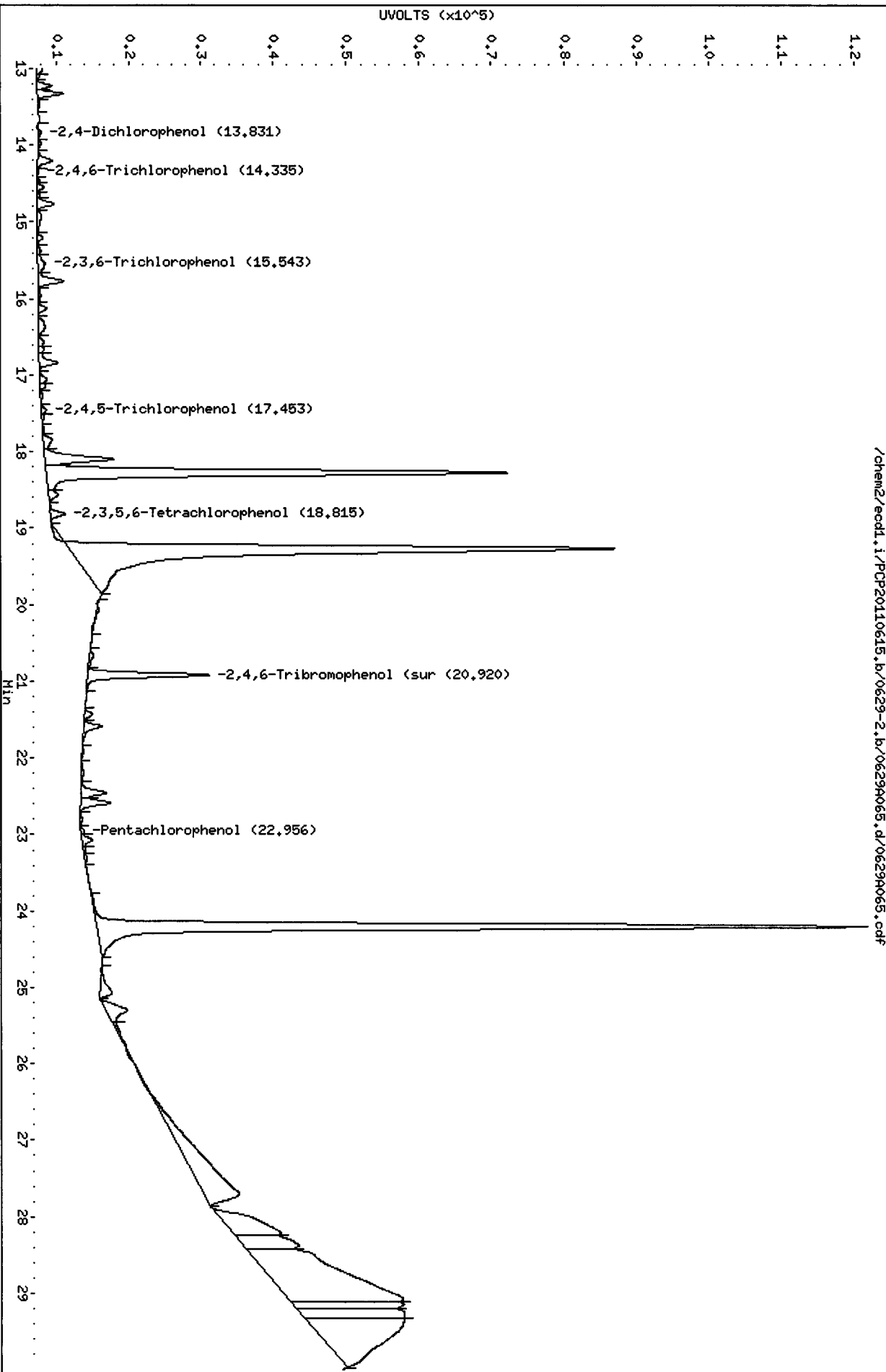
Column phase: STX CLP2

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Page 1



TB865 : 00387

Data File: /chem2/eod1.i/PCP20110615.b/0629-1.b/0629A067.d

Date: 01-JUL-2011 02:37

Client ID:

Sample Info: PCP CCL

Purge Volume: 500.0

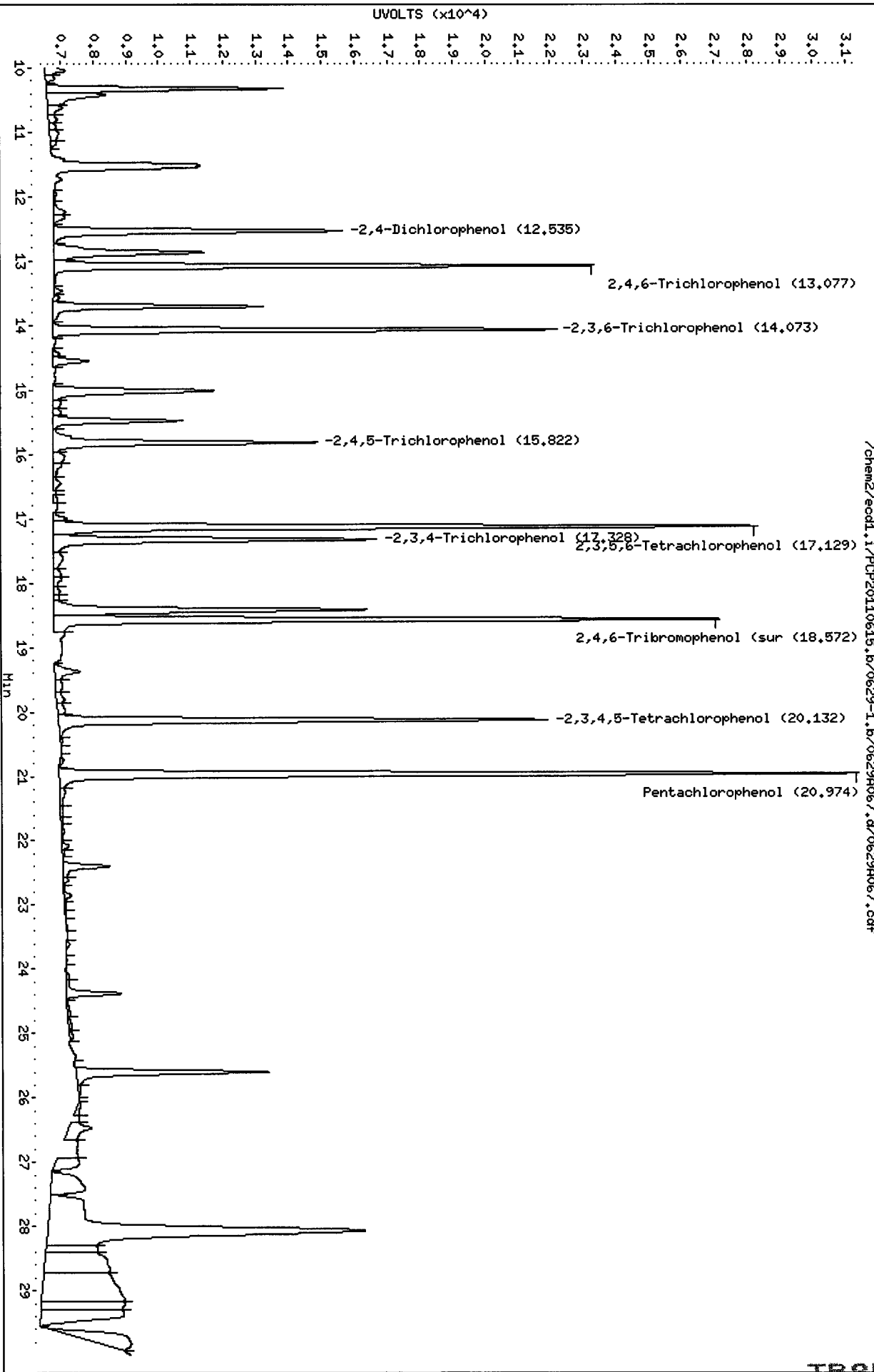
Column phase: STX CLP1

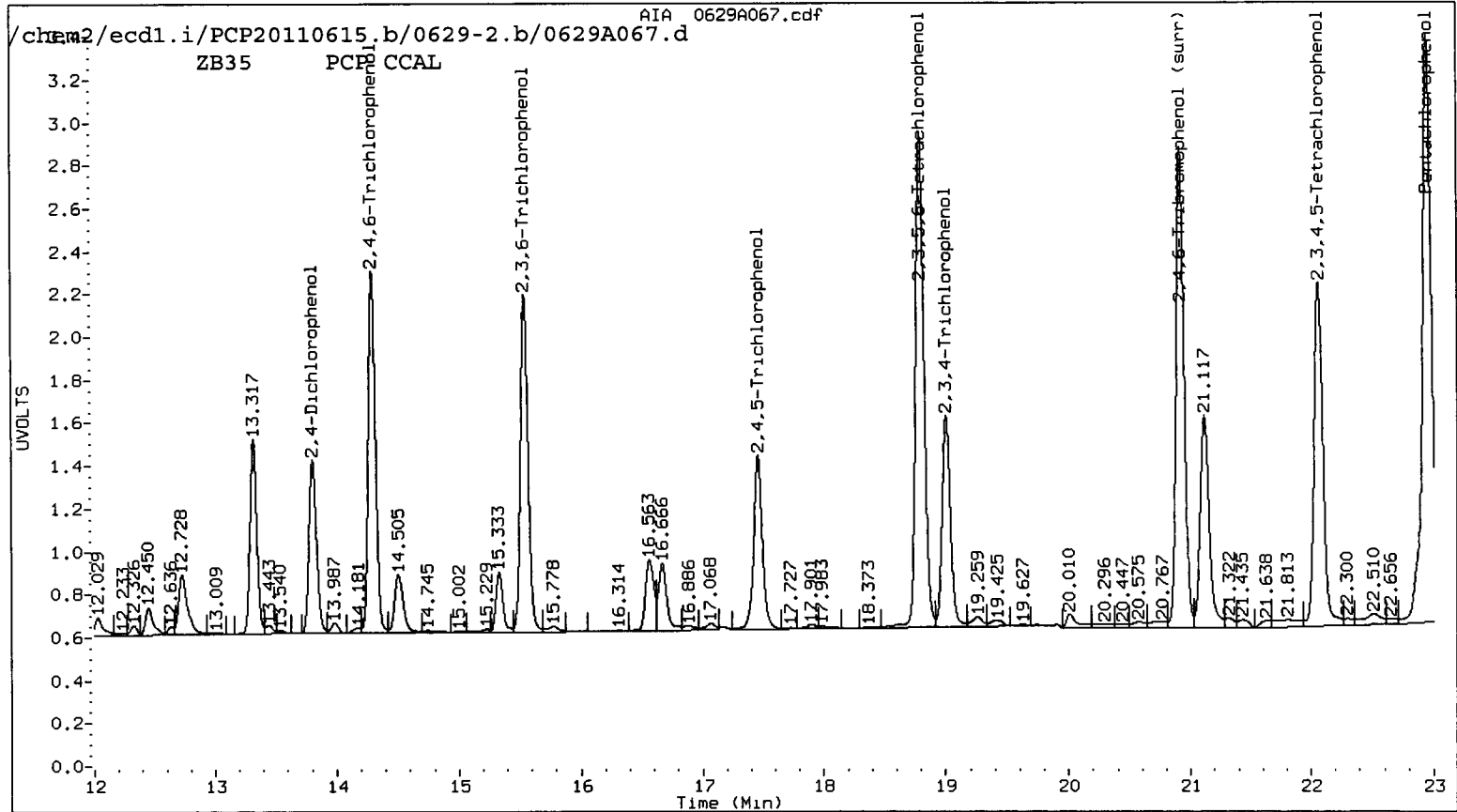
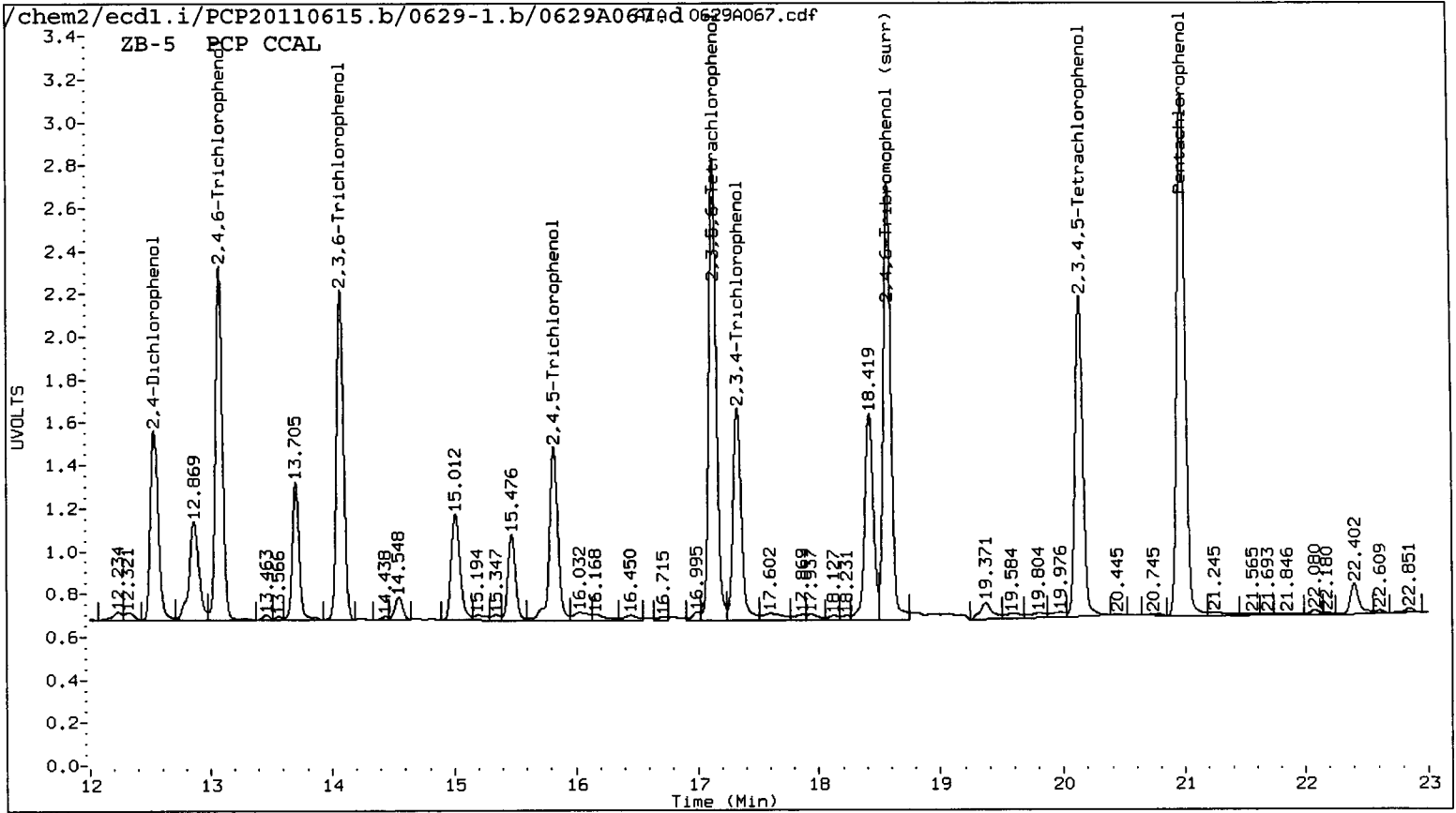
Instrument: eod1.i

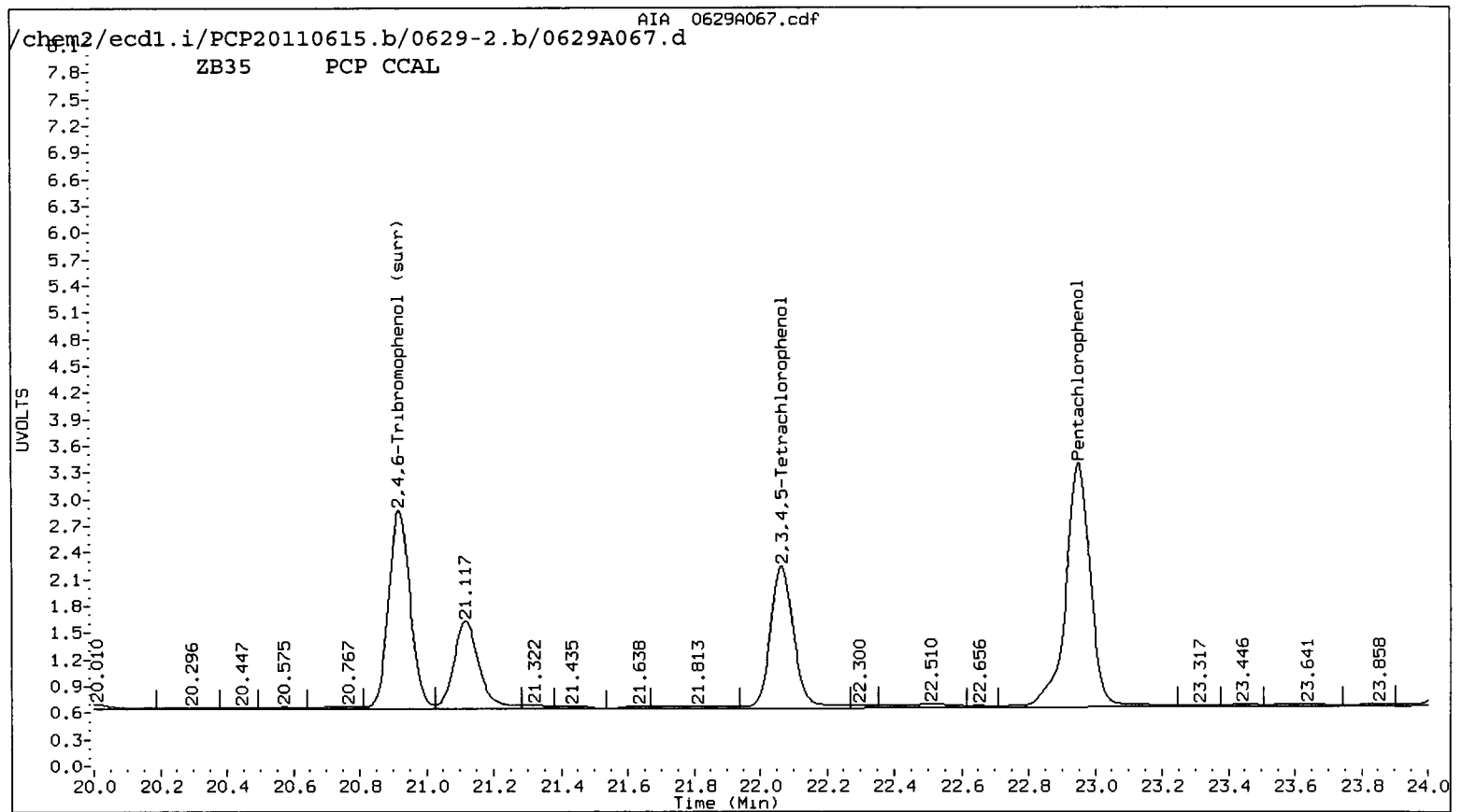
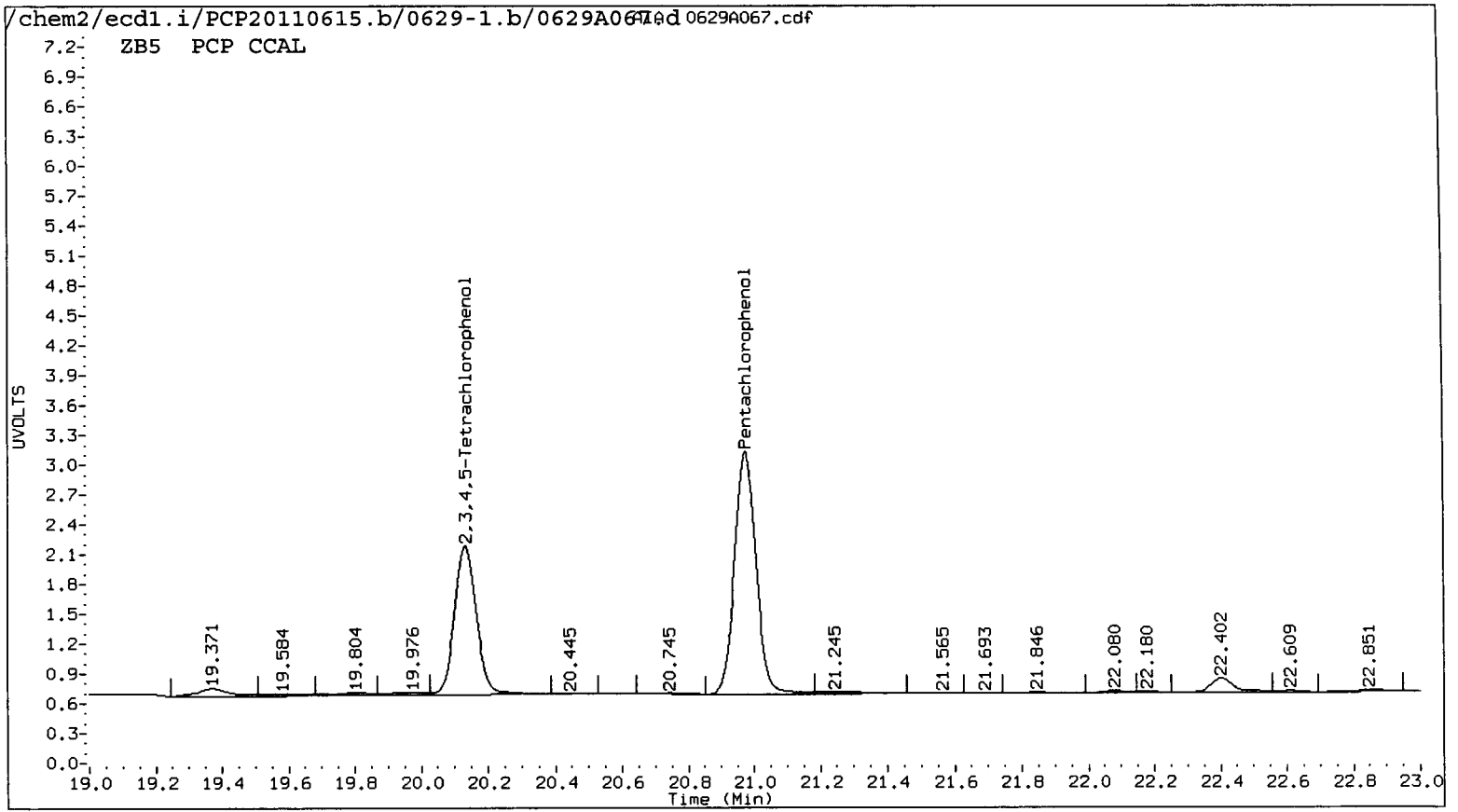
Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-1.b/0629A067.d/0629A067.cdf







TB85:00391

Data File: /chem2/eod1.i/PCP20110615.b/0629-2.b/06299067.d

Date: 01-JUL-2011 02:37

Client ID:

Sample Info: PCP CCAL

Purge Volume: 500.0

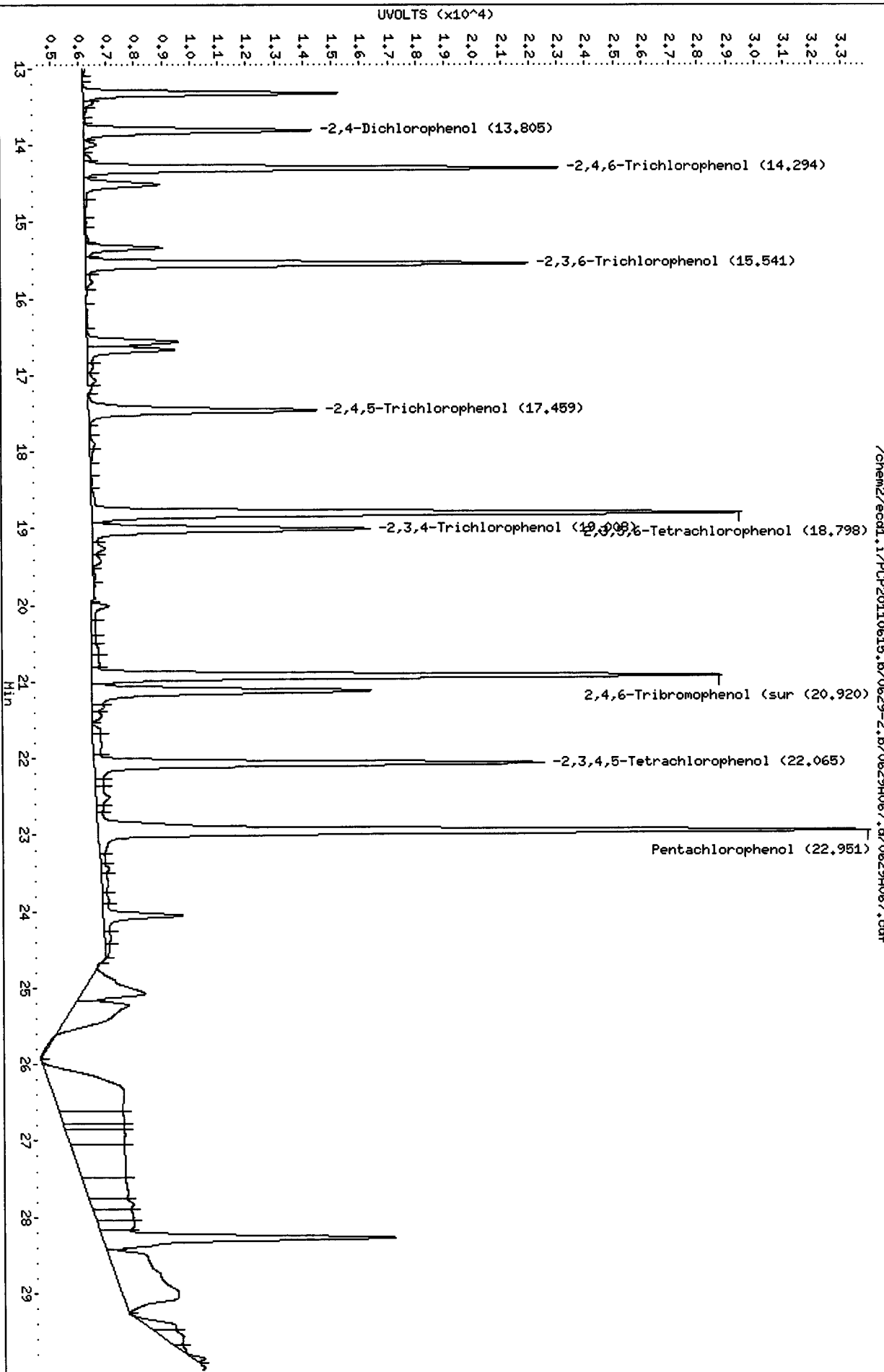
Column phase: STX CLP2

Instrument: eod1.i

Operator: ar

Column diameter: 0.53

/chem2/eod1.i/PCP20110615.b/0629-2.b/06299067.d/06299067.cdf



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

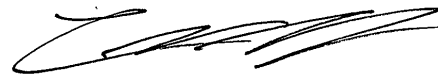
TestAmerica Job ID: 580-27012-1

Client Project/Site: TWP-Waste Management

For:

MWH Americas Inc
2353 - 130th Avenue NE Ste. 200
Bellevue, Washington 98005-1758

Attn: Christine Nancarrow



Authorized for release by:
07/14/2011 09:34:21 AM

Curtis Armstrong
Project Manager I
curtis.armstrong@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.





Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions	5
Client Sample Results	6
QC Sample Results	33
Chronicle	43
Certification Summary	52
Sample Summary	53
Chain of Custody	54
Receipt Checklists	57

Case Narrative

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Job ID: 580-27012-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-27012-1

Comments

No additional comments.

Receipt

The following sample(s) was received at the laboratory outside the required temperature criteria: . All samples received on ice, but outside correct temperature criteria at 9.8c and 9.5c.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): The container labels list the time 18:10. The COC lists 18:40. Client indicated sample time to be 1810.

The container labels of the VOA vials for the following sample did not match the information listed on the Chain-of-Custody (COC): The container labels list the ID SB-02-062211-06 and the sampling time 10:51. The COC lists the ID SB-02A-062211-06 with the sampling time 17:15. All other vials are accounted for so they are presumed to belong to sample -25 (SB-02A-062211-06). Client agrees w/ the presumption.

All other samples were received in good condition within temperature requirements.

GC/MS VOA

Method NWTPH_GX:

The following sample(s) was prepared outside of preparation holding time: 580-27012-23. The field preserved sample originally scheduled for analysis could not be analyzed due to large sample size with no available MeOH for analysis within the vial. The sample was extracted using a bulk soil jar. It was extracted outside the 48 hour holding time for bulk unpreserved samples.

No other analytical or quality issues were noted.

GC Semi VOA

Method(s) 8082:

Surrogate recovery for the following sample(s) was outside control limits:

580-27012-5, 580-27012-6, 580-27012-7, 580-27012-8, 580-27012-9, 580-27012-10, 580-27012-11, 580-27012-12 and 580-27012-17

High percent moisture can cause surrogates to recover below lower control limits.

Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Data qualified and reported.

The following sample(s) required a sulfuric acid clean-up to reduce matrix interferences

580-27012-1, 580-27012-2, 580-27012-4, 580-27012-5, 580-27012-6, 580-27012-7, 580-27012-8, 580-27012-9, 580-27012-10, 580-27012-11, 580-27012-12, 580-27012-14, 580-27012-15, 580-27012-16, 580-27012-17, 580-27012-18, 580-27012-19, 580-27012-3, 580-27012-13, 580-27012-24, 580-27012-25 and 580-27012-26

H2SO4 ID 673783

The following sample(s) required a sulfuric acid clean-up to reduce matrix interferences

580-27012-20, 580-27012-21, 2580-27012-2, 580-27012-23 and 580-27012-27

H2SO4 ID 673783

Surrogate recovery for the following sample(s) was outside control limits:

Case Narrative

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Job ID: 580-27012-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

580-27012-27

High percent moisture can affect surrogate recovery.

Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) NWTPH-Dx:

For sample 580-27012-1, the results in the C10-C24 range are due to overlap from the motor oil range. The affected analyte range has been qualified with the "Y" qualifier and reported.

For samples 580-27012-3, 580-27012-13, 580-27012-24, 580-27012-25, and 580-27012-26, the results in the C10-C24 and motor oil ranges are due to what most closely resembles a mineral/transformer oil range product and/or possibly biogenic interference. The affected analyte ranges have been qualified with the "Y" qualifier and reported.

For sample 580-27012-19, the results in the C10-C24 range are due to overlap from the motor oil range.

The affected analyte range has been qualified with the "Y" qualifier and reported.

No other analytical or quality issues were noted.



Definitions/Glossary

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
H	Sample was prepped or analyzed beyond the specified holding time

GC Semi VOA

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
X	Surrogate is outside control limits
Y	The chromatographic response resembles a typical fuel pattern.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.



Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-02

Lab Sample ID: 580-27012-1

Date Collected: 06/22/11 09:07

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 91.9

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	1.7	^	1.2		mg/Kg	☼	07/01/11 10:09	07/01/11 17:12	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		50 - 150				07/01/11 10:09	07/01/11 17:12	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 12:18	1
PCB-1221	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 12:18	1
PCB-1232	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 12:18	1
PCB-1242	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 12:18	1
PCB-1248	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 12:18	1
PCB-1254	0.31		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 12:18	1
PCB-1260	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 12:18	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96		45 - 155				06/28/11 09:47	07/09/11 12:18	1
DCB Decachlorobiphenyl	94		60 - 125				06/28/11 09:47	07/09/11 12:18	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	210	Y	26		mg/Kg	☼	06/29/11 09:20	06/29/11 21:32	1
Motor Oil (>C24-C36)	2400		52		mg/Kg	☼	06/29/11 09:20	06/29/11 21:32	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				06/29/11 09:20	06/29/11 21:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	27		3.2		mg/Kg	☼	07/01/11 12:26	07/01/11 22:21	1
Lead	36		1.6		mg/Kg	☼	07/01/11 12:26	07/01/11 22:21	1
Cadmium	ND		0.54		mg/Kg	☼	07/01/11 12:26	07/01/11 22:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	92		0.10		%			06/29/11 09:23	1
Percent Moisture	8.1		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-04

Lab Sample ID: 580-27012-2

Date Collected: 06/22/11 09:09

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 90.7

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.4		mg/Kg	☼	07/01/11 10:09	07/01/11 17:36	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		50 - 150				07/01/11 10:09	07/01/11 17:36	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:33	1
PCB-1221	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:33	1
PCB-1232	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:33	1
PCB-1242	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:33	1
PCB-1248	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:33	1
PCB-1254	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:33	1
PCB-1260	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:33	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		45 - 155				06/28/11 09:47	07/09/11 12:33	1
DCB Decachlorobiphenyl	93		60 - 125				06/28/11 09:47	07/09/11 12:33	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/29/11 09:20	06/29/11 22:33	1
Motor Oil (>C24-C36)	ND		52		mg/Kg	☼	06/29/11 09:20	06/29/11 22:33	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				06/29/11 09:20	06/29/11 22:33	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	63		3.3		mg/Kg	☼	07/01/11 12:26	07/01/11 22:27	1
Lead	7.1		1.6		mg/Kg	☼	07/01/11 12:26	07/01/11 22:27	1
Cadmium	ND		0.54		mg/Kg	☼	07/01/11 12:26	07/01/11 22:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91		0.10		%			06/29/11 09:23	1
Percent Moisture	9.3		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-04

Lab Sample ID: 580-27012-3

Date Collected: 06/22/11 09:58

Matrix: Water

Date Received: 06/24/11 11:22

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			06/30/11 01:27	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		50 - 150					06/30/11 01:27	1
Trifluorotoluene (Surr)	109		50 - 150					06/30/11 01:27	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.47		ug/L		06/27/11 15:16	07/09/11 17:45	1
PCB-1221	ND		0.47		ug/L		06/27/11 15:16	07/09/11 17:45	1
PCB-1232	ND		0.47		ug/L		06/27/11 15:16	07/09/11 17:45	1
PCB-1242	ND		0.47		ug/L		06/27/11 15:16	07/09/11 17:45	1
PCB-1248	ND		0.47		ug/L		06/27/11 15:16	07/09/11 17:45	1
PCB-1254	ND		0.47		ug/L		06/27/11 15:16	07/09/11 17:45	1
PCB-1260	ND		0.47		ug/L		06/27/11 15:16	07/09/11 17:45	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		60 - 150				06/27/11 15:16	07/09/11 17:45	1
DCB Decachlorobiphenyl	76		40 - 135				06/27/11 15:16	07/09/11 17:45	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.22	Y	0.12		mg/L		06/29/11 12:57	07/01/11 17:53	1
Motor Oil (>C24-C36)	0.37	Y	0.24		mg/L		06/29/11 12:57	07/01/11 17:53	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150				06/29/11 12:57	07/01/11 17:53	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.054		0.0050		mg/L		07/06/11 09:37	07/06/11 16:04	5
Lead	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:04	5
Cadmium	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:04	5

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-06

Lab Sample ID: 580-27012-4

Date Collected: 06/22/11 10:51

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 84.5

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.4		mg/Kg	☼	07/01/11 10:09	07/01/11 18:00	1
Surrogate									
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		50 - 150				07/01/11 10:09	07/01/11 18:00	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:47	1
PCB-1221	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:47	1
PCB-1232	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:47	1
PCB-1242	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:47	1
PCB-1248	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:47	1
PCB-1254	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:47	1
PCB-1260	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 12:47	1
Surrogate									
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		45 - 155				06/28/11 09:47	07/09/11 12:47	1
DCB Decachlorobiphenyl	80		60 - 125				06/28/11 09:47	07/09/11 12:47	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		28		mg/Kg	☼	06/29/11 09:20	06/29/11 22:53	1
Motor Oil (>C24-C36)	70		56		mg/Kg	☼	06/29/11 09:20	06/29/11 22:53	1
Surrogate									
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				06/29/11 09:20	06/29/11 22:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		3.1		mg/Kg	☼	07/01/11 12:26	07/01/11 22:34	1
Lead	3.6		1.6		mg/Kg	☼	07/01/11 12:26	07/01/11 22:34	1
Cadmium	ND		0.52		mg/Kg	☼	07/01/11 12:26	07/01/11 22:34	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		0.10		%			06/29/11 09:23	1
Percent Moisture	15		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-08

Lab Sample ID: 580-27012-5

Date Collected: 06/22/11 10:56

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 64.9

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		2.5		mg/Kg	☼	07/01/11 10:09	07/01/11 18:23	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		50 - 150				07/01/11 10:09	07/01/11 18:23	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.015		mg/Kg	☼	06/28/11 09:47	07/09/11 13:01	1
PCB-1221	ND		0.015		mg/Kg	☼	06/28/11 09:47	07/09/11 13:01	1
PCB-1232	ND		0.015		mg/Kg	☼	06/28/11 09:47	07/09/11 13:01	1
PCB-1242	ND		0.015		mg/Kg	☼	06/28/11 09:47	07/09/11 13:01	1
PCB-1248	ND		0.015		mg/Kg	☼	06/28/11 09:47	07/09/11 13:01	1
PCB-1254	ND		0.015		mg/Kg	☼	06/28/11 09:47	07/09/11 13:01	1
PCB-1260	ND		0.015		mg/Kg	☼	06/28/11 09:47	07/09/11 13:01	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	43	X	45 - 155				06/28/11 09:47	07/09/11 13:01	1
DCB Decachlorobiphenyl	24	X	60 - 125				06/28/11 09:47	07/09/11 13:01	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		38		mg/Kg	☼	06/29/11 09:20	06/29/11 23:13	1
Motor Oil (>C24-C36)	93		76		mg/Kg	☼	06/29/11 09:20	06/29/11 23:13	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150				06/29/11 09:20	06/29/11 23:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	23		3.5		mg/Kg	☼	07/01/11 12:26	07/01/11 22:55	1
Lead	17		1.8		mg/Kg	☼	07/01/11 12:26	07/01/11 22:55	1
Cadmium	ND		0.59		mg/Kg	☼	07/01/11 12:26	07/01/11 22:55	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	65		0.10		%			06/29/11 09:23	1
Percent Moisture	35		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-10

Lab Sample ID: 580-27012-6

Date Collected: 06/22/11 11:03

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 57.7

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		2.3		mg/Kg	☼	07/01/11 10:09	07/01/11 18:47	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		50 - 150				07/01/11 10:09	07/01/11 18:47	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg	☼	06/28/11 09:47	07/09/11 13:15	1
PCB-1221	ND		0.017		mg/Kg	☼	06/28/11 09:47	07/09/11 13:15	1
PCB-1232	ND		0.017		mg/Kg	☼	06/28/11 09:47	07/09/11 13:15	1
PCB-1242	ND		0.017		mg/Kg	☼	06/28/11 09:47	07/09/11 13:15	1
PCB-1248	ND		0.017		mg/Kg	☼	06/28/11 09:47	07/09/11 13:15	1
PCB-1254	ND		0.017		mg/Kg	☼	06/28/11 09:47	07/09/11 13:15	1
PCB-1260	ND		0.017		mg/Kg	☼	06/28/11 09:47	07/09/11 13:15	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	52		45 - 155				06/28/11 09:47	07/09/11 13:15	1
DCB Decachlorobiphenyl	39	X	60 - 125				06/28/11 09:47	07/09/11 13:15	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		43		mg/Kg	☼	06/29/11 09:20	06/29/11 23:33	1
Motor Oil (>C24-C36)	120		86		mg/Kg	☼	06/29/11 09:20	06/29/11 23:33	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150				06/29/11 09:20	06/29/11 23:33	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		4.5		mg/Kg	☼	07/01/11 12:26	07/01/11 23:01	1
Lead	7.9		2.2		mg/Kg	☼	07/01/11 12:26	07/01/11 23:01	1
Cadmium	ND		0.75		mg/Kg	☼	07/01/11 12:26	07/01/11 23:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	58		0.10		%			06/29/11 09:23	1
Percent Moisture	42		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-12

Lab Sample ID: 580-27012-7

Date Collected: 06/22/11 11:07

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 73.3

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.8		mg/Kg	☼	07/01/11 10:09	07/01/11 19:11	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		50 - 150				07/01/11 10:09	07/01/11 19:11	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:30	1
PCB-1221	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:30	1
PCB-1232	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:30	1
PCB-1242	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:30	1
PCB-1248	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:30	1
PCB-1254	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:30	1
PCB-1260	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:30	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		45 - 155				06/28/11 09:47	07/09/11 13:30	1
DCB Decachlorobiphenyl	43	X	60 - 125				06/28/11 09:47	07/09/11 13:30	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	06/29/11 09:20	06/29/11 23:53	1
Motor Oil (>C24-C36)	ND		64		mg/Kg	☼	06/29/11 09:20	06/29/11 23:53	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	86		50 - 150				06/29/11 09:20	06/29/11 23:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		3.7		mg/Kg	☼	07/01/11 12:26	07/01/11 23:08	1
Lead	5.2		1.9		mg/Kg	☼	07/01/11 12:26	07/01/11 23:08	1
Cadmium	ND		0.62		mg/Kg	☼	07/01/11 12:26	07/01/11 23:08	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	73		0.10		%			06/29/11 09:23	1
Percent Moisture	27		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-14

Lab Sample ID: 580-27012-8

Date Collected: 06/22/11 11:13

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 70.8

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.8		mg/Kg	☼	07/01/11 10:09	07/01/11 19:35	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		50 - 150				07/01/11 10:09	07/01/11 19:35	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.014		mg/Kg	☼	06/28/11 09:47	07/09/11 13:44	1
PCB-1221	ND		0.014		mg/Kg	☼	06/28/11 09:47	07/09/11 13:44	1
PCB-1232	ND		0.014		mg/Kg	☼	06/28/11 09:47	07/09/11 13:44	1
PCB-1242	ND		0.014		mg/Kg	☼	06/28/11 09:47	07/09/11 13:44	1
PCB-1248	ND		0.014		mg/Kg	☼	06/28/11 09:47	07/09/11 13:44	1
PCB-1254	ND		0.014		mg/Kg	☼	06/28/11 09:47	07/09/11 13:44	1
PCB-1260	ND		0.014		mg/Kg	☼	06/28/11 09:47	07/09/11 13:44	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		45 - 155				06/28/11 09:47	07/09/11 13:44	1
DCB Decachlorobiphenyl	50	X	60 - 125				06/28/11 09:47	07/09/11 13:44	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		34		mg/Kg	☼	06/29/11 09:20	06/30/11 00:33	1
Motor Oil (>C24-C36)	ND		69		mg/Kg	☼	06/29/11 09:20	06/30/11 00:33	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	89		50 - 150				06/29/11 09:20	06/30/11 00:33	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.1		4.2		mg/Kg	☼	07/01/11 12:26	07/01/11 23:14	1
Lead	6.4		2.1		mg/Kg	☼	07/01/11 12:26	07/01/11 23:14	1
Cadmium	ND		0.69		mg/Kg	☼	07/01/11 12:26	07/01/11 23:14	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71		0.10		%			06/29/11 09:23	1
Percent Moisture	29		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-16

Lab Sample ID: 580-27012-9

Date Collected: 06/22/11 11:21

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 73.6

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.7		mg/Kg	☼	07/01/11 10:09	07/01/11 20:46	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		50 - 150				07/01/11 10:09	07/01/11 20:46	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:58	1
PCB-1221	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:58	1
PCB-1232	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:58	1
PCB-1242	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:58	1
PCB-1248	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:58	1
PCB-1254	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:58	1
PCB-1260	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 13:58	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	40	X	45 - 155				06/28/11 09:47	07/09/11 13:58	1
DCB Decachlorobiphenyl	32	X	60 - 125				06/28/11 09:47	07/09/11 13:58	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	06/29/11 09:20	06/30/11 00:53	1
Motor Oil (>C24-C36)	ND		64		mg/Kg	☼	06/29/11 09:20	06/30/11 00:53	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				06/29/11 09:20	06/30/11 00:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.5		3.6		mg/Kg	☼	07/01/11 12:26	07/01/11 23:20	1
Lead	6.1		1.8		mg/Kg	☼	07/01/11 12:26	07/01/11 23:20	1
Cadmium	ND		0.59		mg/Kg	☼	07/01/11 12:26	07/01/11 23:20	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	74		0.10		%			06/29/11 09:23	1
Percent Moisture	26		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-18

Lab Sample ID: 580-27012-10

Date Collected: 06/22/11 11:32

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 79.9

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.5		mg/Kg	☼	07/01/11 10:09	07/01/11 21:10	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		50 - 150				07/01/11 10:09	07/01/11 21:10	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:12	1
PCB-1221	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:12	1
PCB-1232	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:12	1
PCB-1242	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:12	1
PCB-1248	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:12	1
PCB-1254	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:12	1
PCB-1260	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:12	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		45 - 155				06/28/11 09:47	07/09/11 14:12	1
DCB Decachlorobiphenyl	57	X	60 - 125				06/28/11 09:47	07/09/11 14:12	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		30		mg/Kg	☼	06/29/11 09:20	06/30/11 01:13	1
Motor Oil (>C24-C36)	ND		61		mg/Kg	☼	06/29/11 09:20	06/30/11 01:13	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150				06/29/11 09:20	06/30/11 01:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.8		3.5		mg/Kg	☼	07/01/11 12:26	07/01/11 23:27	1
Lead	4.5		1.8		mg/Kg	☼	07/01/11 12:26	07/01/11 23:27	1
Cadmium	ND		0.59		mg/Kg	☼	07/01/11 12:26	07/01/11 23:27	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	80		0.10		%			06/29/11 09:23	1
Percent Moisture	20		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-20

Lab Sample ID: 580-27012-11

Date Collected: 06/22/11 11:43

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 82.7

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.4		mg/Kg	☼	07/01/11 10:09	07/01/11 21:33	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		50 - 150				07/01/11 10:09	07/01/11 21:33	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:26	1
PCB-1221	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:26	1
PCB-1232	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:26	1
PCB-1242	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:26	1
PCB-1248	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:26	1
PCB-1254	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:26	1
PCB-1260	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 14:26	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		45 - 155				06/28/11 09:47	07/09/11 14:26	1
DCB Decachlorobiphenyl	45	X	60 - 125				06/28/11 09:47	07/09/11 14:26	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		28		mg/Kg	☼	06/29/11 09:20	06/30/11 01:33	1
Motor Oil (>C24-C36)	ND		57		mg/Kg	☼	06/29/11 09:20	06/30/11 01:33	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				06/29/11 09:20	06/30/11 01:33	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		3.1		mg/Kg	☼	07/01/11 12:26	07/01/11 23:33	1
Lead	3.9		1.5		mg/Kg	☼	07/01/11 12:26	07/01/11 23:33	1
Cadmium	ND		0.51		mg/Kg	☼	07/01/11 12:26	07/01/11 23:33	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	83		0.10		%			06/29/11 09:23	1
Percent Moisture	17		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-22

Lab Sample ID: 580-27012-12

Date Collected: 06/22/11 11:51

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 74.8

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.5		mg/Kg	☼	07/01/11 10:09	07/01/11 21:57	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		50 - 150				07/01/11 10:09	07/01/11 21:57	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 15:38	1
PCB-1221	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 15:38	1
PCB-1232	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 15:38	1
PCB-1242	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 15:38	1
PCB-1248	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 15:38	1
PCB-1254	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 15:38	1
PCB-1260	ND		0.013		mg/Kg	☼	06/28/11 09:47	07/09/11 15:38	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	33	X	45 - 155				06/28/11 09:47	07/09/11 15:38	1
DCB Decachlorobiphenyl	27	X	60 - 125				06/28/11 09:47	07/09/11 15:38	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		32		mg/Kg	☼	06/29/11 09:20	06/30/11 02:32	1
Motor Oil (>C24-C36)	ND		64		mg/Kg	☼	06/29/11 09:20	06/30/11 02:32	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150				06/29/11 09:20	06/30/11 02:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		3.5		mg/Kg	☼	07/06/11 11:34	07/06/11 16:13	1
Lead	4.9		1.7		mg/Kg	☼	07/06/11 11:34	07/06/11 16:13	1
Cadmium	ND		0.58		mg/Kg	☼	07/06/11 11:34	07/06/11 16:13	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			06/29/11 09:23	1
Percent Moisture	25		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Managment

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-22

Lab Sample ID: 580-27012-13

Date Collected: 06/22/11 12:18

Matrix: Water

Date Received: 06/24/11 11:22

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			06/30/11 01:52	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		50 - 150					06/30/11 01:52	1
Trifluorotoluene (Surr)	108		50 - 150					06/30/11 01:52	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.79		ug/L		06/27/11 15:16	07/09/11 18:00	1
PCB-1221	ND		0.79		ug/L		06/27/11 15:16	07/09/11 18:00	1
PCB-1232	ND		0.79		ug/L		06/27/11 15:16	07/09/11 18:00	1
PCB-1242	ND		0.79		ug/L		06/27/11 15:16	07/09/11 18:00	1
PCB-1248	ND		0.79		ug/L		06/27/11 15:16	07/09/11 18:00	1
PCB-1254	ND		0.79		ug/L		06/27/11 15:16	07/09/11 18:00	1
PCB-1260	ND		0.79		ug/L		06/27/11 15:16	07/09/11 18:00	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		60 - 150				06/27/11 15:16	07/09/11 18:00	1
DCB Decachlorobiphenyl	61		40 - 135				06/27/11 15:16	07/09/11 18:00	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.48	Y	0.096		mg/L		06/29/11 12:57	07/01/11 18:13	1
Motor Oil (>C24-C36)	0.48	Y	0.19		mg/L		06/29/11 12:57	07/01/11 18:13	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	94		50 - 150				06/29/11 12:57	07/01/11 18:13	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0065		0.0050		mg/L		07/06/11 09:37	07/06/11 16:15	5
Lead	0.0029		0.0020		mg/L		07/06/11 09:37	07/06/11 16:15	5
Cadmium	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:15	5

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02B-062211-02

Lab Sample ID: 580-27012-14

Date Collected: 06/22/11 15:09

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 87.2

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.7		mg/Kg	☼	07/01/11 10:09	07/01/11 22:21	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		50 - 150				07/01/11 10:09	07/01/11 22:21	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 15:52	1
PCB-1221	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 15:52	1
PCB-1232	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 15:52	1
PCB-1242	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 15:52	1
PCB-1248	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 15:52	1
PCB-1254	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 15:52	1
PCB-1260	ND		0.011		mg/Kg	☼	06/28/11 09:47	07/09/11 15:52	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		45 - 155				06/28/11 09:47	07/09/11 15:52	1
DCB Decachlorobiphenyl	76		60 - 125				06/28/11 09:47	07/09/11 15:52	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		28		mg/Kg	☼	06/29/11 09:20	06/30/11 02:52	1
Motor Oil (>C24-C36)	ND		56		mg/Kg	☼	06/29/11 09:20	06/30/11 02:52	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	92		50 - 150				06/29/11 09:20	06/30/11 02:52	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	590		3.2		mg/Kg	☼	07/06/11 11:34	07/06/11 17:00	1
Lead	380		1.6		mg/Kg	☼	07/06/11 11:34	07/06/11 17:00	1
Cadmium	7.9		0.54		mg/Kg	☼	07/06/11 11:34	07/06/11 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87		0.10		%			06/29/11 09:23	1
Percent Moisture	13		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02B-062211-04

Lab Sample ID: 580-27012-15

Date Collected: 06/22/11 15:42

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 93.1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.6		mg/Kg	☼	07/01/11 10:09	07/01/11 22:44	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		50 - 150				07/01/11 10:09	07/01/11 22:44	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 16:06	1
PCB-1221	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 16:06	1
PCB-1232	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 16:06	1
PCB-1242	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 16:06	1
PCB-1248	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 16:06	1
PCB-1254	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 16:06	1
PCB-1260	ND		0.010		mg/Kg	☼	06/28/11 09:47	07/09/11 16:06	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		45 - 155				06/28/11 09:47	07/09/11 16:06	1
DCB Decachlorobiphenyl	72		60 - 125				06/28/11 09:47	07/09/11 16:06	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		26		mg/Kg	☼	06/29/11 09:20	06/30/11 03:12	1
Motor Oil (>C24-C36)	ND		53		mg/Kg	☼	06/29/11 09:20	06/30/11 03:12	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				06/29/11 09:20	06/30/11 03:12	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	53		2.9		mg/Kg	☼	07/06/11 12:41	07/06/11 22:51	1
Lead	8.7		1.5		mg/Kg	☼	07/06/11 12:41	07/06/11 22:51	1
Cadmium	ND		0.49		mg/Kg	☼	07/06/11 12:41	07/06/11 22:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	93		0.10		%			06/29/11 09:23	1
Percent Moisture	6.9		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02B-062211-06

Lab Sample ID: 580-27012-16

Date Collected: 06/22/11 15:32

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 83.9

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.9		mg/Kg	☼	07/01/11 10:09	07/01/11 23:08	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		50 - 150				07/01/11 10:09	07/01/11 23:08	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:20	1
PCB-1221	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:20	1
PCB-1232	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:20	1
PCB-1242	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:20	1
PCB-1248	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:20	1
PCB-1254	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:20	1
PCB-1260	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:20	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		45 - 155				06/28/11 09:47	07/09/11 16:20	1
DCB Decachlorobiphenyl	82		60 - 125				06/28/11 09:47	07/09/11 16:20	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		28		mg/Kg	☼	06/29/11 09:20	06/30/11 03:31	1
Motor Oil (>C24-C36)	ND		56		mg/Kg	☼	06/29/11 09:20	06/30/11 03:31	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150				06/29/11 09:20	06/30/11 03:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	160		3.0		mg/Kg	☼	07/06/11 12:41	07/06/11 22:58	1
Lead	94		1.5		mg/Kg	☼	07/06/11 12:41	07/06/11 22:58	1
Cadmium	2.8		0.51		mg/Kg	☼	07/06/11 12:41	07/06/11 22:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		0.10		%			06/29/11 09:23	1
Percent Moisture	16		0.10		%			06/29/11 09:23	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02B-062211-08

Lab Sample ID: 580-27012-17

Date Collected: 06/22/11 15:37

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 81.9

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.6		mg/Kg	☼	07/01/11 10:09	07/01/11 23:32	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		50 - 150				07/01/11 10:09	07/01/11 23:32	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:35	1
PCB-1221	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:35	1
PCB-1232	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:35	1
PCB-1242	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:35	1
PCB-1248	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:35	1
PCB-1254	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:35	1
PCB-1260	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:35	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		45 - 155				06/28/11 09:47	07/09/11 16:35	1
DCB Decachlorobiphenyl	44	X	60 - 125				06/28/11 09:47	07/09/11 16:35	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		29		mg/Kg	☼	07/01/11 08:59	07/01/11 16:41	1
Motor Oil (>C24-C36)	ND		58		mg/Kg	☼	07/01/11 08:59	07/01/11 16:41	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150				07/01/11 08:59	07/01/11 16:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2		3.3		mg/Kg	☼	07/06/11 11:34	07/06/11 17:06	1
Lead	5.2		1.6		mg/Kg	☼	07/06/11 11:34	07/06/11 17:06	1
Cadmium	ND		0.55		mg/Kg	☼	07/06/11 11:34	07/06/11 17:06	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82		0.10		%			07/01/11 09:06	1
Percent Moisture	18		0.10		%			07/01/11 09:06	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02B-062211-10

Lab Sample ID: 580-27012-18

Date Collected: 06/22/11 15:50

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 80.7

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.8		mg/Kg	☼	07/01/11 10:09	07/01/11 23:55	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		50 - 150				07/01/11 10:09	07/01/11 23:55	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:49	1
PCB-1221	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:49	1
PCB-1232	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:49	1
PCB-1242	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:49	1
PCB-1248	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:49	1
PCB-1254	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:49	1
PCB-1260	ND		0.012		mg/Kg	☼	06/28/11 09:47	07/09/11 16:49	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96		45 - 155				06/28/11 09:47	07/09/11 16:49	1
DCB Decachlorobiphenyl	93		60 - 125				06/28/11 09:47	07/09/11 16:49	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		31		mg/Kg	☼	07/01/11 08:59	07/01/11 17:37	1
Motor Oil (>C24-C36)	ND		62		mg/Kg	☼	07/01/11 08:59	07/01/11 17:37	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	84		50 - 150				07/01/11 08:59	07/01/11 17:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.9		3.4		mg/Kg	☼	07/06/11 11:34	07/06/11 17:12	1
Lead	6.4		1.7		mg/Kg	☼	07/06/11 11:34	07/06/11 17:12	1
Cadmium	ND		0.56		mg/Kg	☼	07/06/11 11:34	07/06/11 17:12	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	81		0.10		%			07/01/11 09:06	1
Percent Moisture	19		0.10		%			07/01/11 09:06	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-02

Lab Sample ID: 580-27012-19

Date Collected: 06/22/11 18:10

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 93.9

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		2.5		mg/Kg	☼	07/01/11 10:09	07/02/11 00:19	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		50 - 150				07/01/11 10:09	07/02/11 00:19	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0099		mg/Kg	☼	06/28/11 09:47	07/09/11 17:03	1
PCB-1221	ND		0.0099		mg/Kg	☼	06/28/11 09:47	07/09/11 17:03	1
PCB-1232	ND		0.0099		mg/Kg	☼	06/28/11 09:47	07/09/11 17:03	1
PCB-1242	ND		0.0099		mg/Kg	☼	06/28/11 09:47	07/09/11 17:03	1
PCB-1248	ND		0.0099		mg/Kg	☼	06/28/11 09:47	07/09/11 17:03	1
PCB-1254	0.012		0.0099		mg/Kg	☼	06/28/11 09:47	07/09/11 17:03	1
PCB-1260	ND		0.0099		mg/Kg	☼	06/28/11 09:47	07/09/11 17:03	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	99		45 - 155				06/28/11 09:47	07/09/11 17:03	1
DCB Decachlorobiphenyl	98		60 - 125				06/28/11 09:47	07/09/11 17:03	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	33	Y	26		mg/Kg	☼	07/01/11 08:59	07/01/11 18:02	1
Motor Oil (>C24-C36)	440		52		mg/Kg	☼	07/01/11 08:59	07/01/11 18:02	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	59		50 - 150				07/01/11 08:59	07/01/11 18:02	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.4		3.1		mg/Kg	☼	07/06/11 12:41	07/06/11 23:04	1
Lead	23		1.5		mg/Kg	☼	07/06/11 12:41	07/06/11 23:04	1
Cadmium	0.71		0.51		mg/Kg	☼	07/06/11 12:41	07/06/11 23:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10		%			07/01/11 09:06	1
Percent Moisture	6.1		0.10		%			07/01/11 09:06	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-04

Lab Sample ID: 580-27012-20

Date Collected: 06/22/11 18:16

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 95.1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.8		mg/Kg	☼	07/01/11 10:09	07/02/11 01:30	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		50 - 150				07/01/11 10:09	07/02/11 01:30	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/30/11 09:02	07/12/11 14:49	1
PCB-1221	ND		0.010		mg/Kg	☼	06/30/11 09:02	07/12/11 14:49	1
PCB-1232	ND		0.010		mg/Kg	☼	06/30/11 09:02	07/12/11 14:49	1
PCB-1242	ND		0.010		mg/Kg	☼	06/30/11 09:02	07/12/11 14:49	1
PCB-1248	ND		0.010		mg/Kg	☼	06/30/11 09:02	07/12/11 14:49	1
PCB-1254	ND		0.010		mg/Kg	☼	06/30/11 09:02	07/12/11 14:49	1
PCB-1260	ND		0.010		mg/Kg	☼	06/30/11 09:02	07/12/11 14:49	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		45 - 155				06/30/11 09:02	07/12/11 14:49	1
DCB Decachlorobiphenyl	79		60 - 125				06/30/11 09:02	07/12/11 14:49	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	07/01/11 08:59	07/01/11 18:26	1
Motor Oil (>C24-C36)	130		51		mg/Kg	☼	07/01/11 08:59	07/01/11 18:26	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	82		50 - 150				07/01/11 08:59	07/01/11 18:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		3.0		mg/Kg	☼	07/06/11 11:34	07/06/11 17:19	1
Lead	6.7		1.5		mg/Kg	☼	07/06/11 11:34	07/06/11 17:19	1
Cadmium	ND		0.51		mg/Kg	☼	07/06/11 11:34	07/06/11 17:19	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/30/11 10:17	1
Percent Moisture	4.9		0.10		%			06/30/11 10:17	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-06

Lab Sample ID: 580-27012-21

Date Collected: 06/22/11 18:21

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 94.5

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		2.4		mg/Kg	☼	07/01/11 10:09	07/02/11 01:54	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		50 - 150				07/01/11 10:09	07/02/11 01:54	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0099		mg/Kg	☼	06/30/11 09:02	07/12/11 15:03	1
PCB-1221	ND		0.0099		mg/Kg	☼	06/30/11 09:02	07/12/11 15:03	1
PCB-1232	ND		0.0099		mg/Kg	☼	06/30/11 09:02	07/12/11 15:03	1
PCB-1242	ND		0.0099		mg/Kg	☼	06/30/11 09:02	07/12/11 15:03	1
PCB-1248	ND		0.0099		mg/Kg	☼	06/30/11 09:02	07/12/11 15:03	1
PCB-1254	ND		0.0099		mg/Kg	☼	06/30/11 09:02	07/12/11 15:03	1
PCB-1260	ND		0.0099		mg/Kg	☼	06/30/11 09:02	07/12/11 15:03	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		45 - 155				06/30/11 09:02	07/12/11 15:03	1
DCB Decachlorobiphenyl	100		60 - 125				06/30/11 09:02	07/12/11 15:03	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg	☼	07/01/11 08:59	07/01/11 18:49	1
Motor Oil (>C24-C36)	86		51		mg/Kg	☼	07/01/11 08:59	07/01/11 18:49	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150				07/01/11 08:59	07/01/11 18:49	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0		3.0		mg/Kg	☼	07/06/11 11:34	07/06/11 17:25	1
Lead	8.7		1.5		mg/Kg	☼	07/06/11 11:34	07/06/11 17:25	1
Cadmium	ND		0.50		mg/Kg	☼	07/06/11 11:34	07/06/11 17:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10		%			06/30/11 10:17	1
Percent Moisture	5.5		0.10		%			06/30/11 10:17	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-08

Lab Sample ID: 580-27012-22

Date Collected: 06/22/11 18:26

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 88.9

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		1.4		mg/Kg	☼	07/01/11 10:09	07/02/11 02:18	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		50 - 150				07/01/11 10:09	07/02/11 02:18	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:17	1
PCB-1221	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:17	1
PCB-1232	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:17	1
PCB-1242	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:17	1
PCB-1248	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:17	1
PCB-1254	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:17	1
PCB-1260	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:17	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		45 - 155				06/30/11 09:02	07/12/11 15:17	1
DCB Decachlorobiphenyl	103		60 - 125				06/30/11 09:02	07/12/11 15:17	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		27		mg/Kg	☼	07/01/11 08:59	07/01/11 19:13	1
Motor Oil (>C24-C36)	ND		54		mg/Kg	☼	07/01/11 08:59	07/01/11 19:13	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150				07/01/11 08:59	07/01/11 19:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.2		2.9		mg/Kg	☼	07/06/11 11:34	07/06/11 17:32	1
Lead	6.5		1.5		mg/Kg	☼	07/06/11 11:34	07/06/11 17:32	1
Cadmium	ND		0.49		mg/Kg	☼	07/06/11 11:34	07/06/11 17:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89		0.10		%			06/30/11 10:17	1
Percent Moisture	11		0.10		%			06/30/11 10:17	1

Client Sample Results

Client: MWH Americas Inc
 Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-10

Lab Sample ID: 580-27012-23

Date Collected: 06/22/11 18:41

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 62.1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND	H	6.2		mg/Kg	☼	07/05/11 17:23	07/06/11 02:47	1
Surrogate									
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		50 - 150				07/05/11 17:23	07/06/11 02:47	1
Trifluorotoluene (Surr)	96		50 - 150				07/05/11 17:23	07/06/11 02:47	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.015		mg/Kg	☼	06/30/11 09:02	07/12/11 15:31	1
PCB-1221	ND		0.015		mg/Kg	☼	06/30/11 09:02	07/12/11 15:31	1
PCB-1232	ND		0.015		mg/Kg	☼	06/30/11 09:02	07/12/11 15:31	1
PCB-1242	ND		0.015		mg/Kg	☼	06/30/11 09:02	07/12/11 15:31	1
PCB-1248	ND		0.015		mg/Kg	☼	06/30/11 09:02	07/12/11 15:31	1
PCB-1254	ND		0.015		mg/Kg	☼	06/30/11 09:02	07/12/11 15:31	1
PCB-1260	ND		0.015		mg/Kg	☼	06/30/11 09:02	07/12/11 15:31	1
Surrogate									
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		45 - 155				06/30/11 09:02	07/12/11 15:31	1
DCB Decachlorobiphenyl	70		60 - 125				06/30/11 09:02	07/12/11 15:31	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		38		mg/Kg	☼	07/01/11 08:59	07/01/11 19:38	1
Motor Oil (>C24-C36)	ND		75		mg/Kg	☼	07/01/11 08:59	07/01/11 19:38	1
Surrogate									
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	84		50 - 150				07/01/11 08:59	07/01/11 19:38	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	19		4.6		mg/Kg	☼	07/06/11 11:34	07/06/11 17:38	1
Lead	16		2.3		mg/Kg	☼	07/06/11 11:34	07/06/11 17:38	1
Cadmium	ND		0.77		mg/Kg	☼	07/06/11 11:34	07/06/11 17:38	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	62		0.10		%			06/30/11 10:17	1
Percent Moisture	38		0.10		%			06/30/11 10:17	1

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: DUP-01-062211

Lab Sample ID: 580-27012-24

Date Collected: 06/22/11 00:00

Matrix: Water

Date Received: 06/24/11 11:22

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			06/30/11 02:18	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		50 - 150					06/30/11 02:18	1
Trifluorotoluene (Surr)	106		50 - 150					06/30/11 02:18	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:14	1
PCB-1221	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:14	1
PCB-1232	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:14	1
PCB-1242	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:14	1
PCB-1248	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:14	1
PCB-1254	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:14	1
PCB-1260	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:14	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		60 - 150				06/27/11 15:16	07/09/11 18:14	1
DCB Decachlorobiphenyl	67		40 - 135				06/27/11 15:16	07/09/11 18:14	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.28	Y	0.12		mg/L		06/29/11 12:57	07/01/11 18:33	1
Motor Oil (>C24-C36)	0.42	Y	0.24		mg/L		06/29/11 12:57	07/01/11 18:33	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	91		50 - 150				06/29/11 12:57	07/01/11 18:33	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.066		0.0050		mg/L		07/06/11 09:37	07/06/11 16:18	5
Lead	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:18	5
Cadmium	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:18	5

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Managment

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-06

Lab Sample ID: 580-27012-25

Date Collected: 06/22/11 17:15

Matrix: Water

Date Received: 06/24/11 11:22

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			06/30/11 02:43	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		50 - 150					06/30/11 02:43	1
Trifluorotoluene (Surr)	104		50 - 150					06/30/11 02:43	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:28	1
PCB-1221	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:28	1
PCB-1232	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:28	1
PCB-1242	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:28	1
PCB-1248	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:28	1
PCB-1254	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:28	1
PCB-1260	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:28	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		60 - 150				06/27/11 15:16	07/09/11 18:28	1
DCB Decachlorobiphenyl	75		40 - 135				06/27/11 15:16	07/09/11 18:28	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.16	Y	0.12		mg/L		06/29/11 12:57	07/01/11 18:52	1
Motor Oil (>C24-C36)	0.32	Y	0.24		mg/L		06/29/11 12:57	07/01/11 18:52	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	95		50 - 150				06/29/11 12:57	07/01/11 18:52	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0071		0.0050		mg/L		07/06/11 09:37	07/06/11 16:22	5
Lead	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:22	5
Cadmium	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:22	5

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02B-062211-0

Lab Sample ID: 580-27012-26

Date Collected: 06/22/11 16:13

Matrix: Water

Date Received: 06/24/11 11:22

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			06/30/11 03:08	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		50 - 150					06/30/11 03:08	1
Trifluorotoluene (Surr)	105		50 - 150					06/30/11 03:08	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:42	1
PCB-1221	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:42	1
PCB-1232	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:42	1
PCB-1242	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:42	1
PCB-1248	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:42	1
PCB-1254	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:42	1
PCB-1260	ND		0.47		ug/L		06/27/11 15:16	07/09/11 18:42	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		60 - 150				06/27/11 15:16	07/09/11 18:42	1
DCB Decachlorobiphenyl	68		40 - 135				06/27/11 15:16	07/09/11 18:42	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.29	Y	0.12		mg/L		06/29/11 12:57	07/01/11 19:12	1
Motor Oil (>C24-C36)	0.41	Y	0.24		mg/L		06/29/11 12:57	07/01/11 19:12	1
Surrogate									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	94		50 - 150				06/29/11 12:57	07/01/11 19:12	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.057		0.0050		mg/L		07/06/11 09:37	07/06/11 16:26	5
Lead	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:26	5
Cadmium	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 16:26	5

Client Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: DUP-02-062211

Lab Sample ID: 580-27012-27

Date Collected: 06/22/11 00:00

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 82.3

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		2.4		mg/Kg	☼	07/01/11 10:17	07/02/11 14:32	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		50 - 150				07/01/11 10:17	07/02/11 14:32	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:45	1
PCB-1221	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:45	1
PCB-1232	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:45	1
PCB-1242	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:45	1
PCB-1248	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:45	1
PCB-1254	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:45	1
PCB-1260	ND		0.011		mg/Kg	☼	06/30/11 09:02	07/12/11 15:45	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		45 - 155				06/30/11 09:02	07/12/11 15:45	1
DCB Decachlorobiphenyl	54	X	60 - 125				06/30/11 09:02	07/12/11 15:45	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		29		mg/Kg	☼	07/01/11 08:59	07/02/11 06:21	1
Motor Oil (>C24-C36)	ND	^	58		mg/Kg	☼	07/01/11 08:59	07/02/11 06:21	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	86		50 - 150				07/01/11 08:59	07/02/11 06:21	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		2.9		mg/Kg	☼	07/06/11 12:41	07/06/11 23:10	1
Lead	5.6		1.5		mg/Kg	☼	07/06/11 12:41	07/06/11 23:10	1
Cadmium	ND		0.49		mg/Kg	☼	07/06/11 12:41	07/06/11 23:10	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82		0.10		%			06/30/11 10:17	1
Percent Moisture	18		0.10		%			06/30/11 10:17	1

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-89157/6
Matrix: Water
Analysis Batch: 89157

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline	ND		0.050		mg/L			06/29/11 14:27	1
Surrogate	MB MB		Limits				Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	91		50 - 150					06/29/11 14:27	1
Trifluorotoluene (Surr)	111		50 - 150					06/29/11 14:27	1

Lab Sample ID: LCS 580-89157/7
Matrix: Water
Analysis Batch: 89157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits	
		Result	Qualifier				Limits	
Gasoline	1.00	0.871		mg/L		87	79 - 110	
Surrogate	LCS LCS		Limits					
	% Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	92		50 - 150					
Trifluorotoluene (Surr)	98		50 - 150					

Lab Sample ID: LCSD 580-89157/8
Matrix: Water
Analysis Batch: 89157

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	% Rec	% Rec. Limits		RPD Limit	
		Result	Qualifier				Limits		RPD	Limit
Gasoline	1.00	0.876		mg/L		88	79 - 110	1	20	
Surrogate	LCSD LCSD		Limits							
	% Recovery	Qualifier								
4-Bromofluorobenzene (Surr)	92		50 - 150							
Trifluorotoluene (Surr)	96		50 - 150							

Lab Sample ID: MB 580-89392/1-A
Matrix: Solid
Analysis Batch: 89429

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89392

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline	ND		4.0		mg/Kg		07/01/11 10:09	07/01/11 16:01	1
Surrogate	MB MB		Limits				Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	98		50 - 150				07/01/11 10:09	07/01/11 16:01	1
Trifluorotoluene (Surr)	103		50 - 150				07/01/11 10:09	07/01/11 16:01	1

Lab Sample ID: LCS 580-89392/2-A
Matrix: Solid
Analysis Batch: 89429

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89392

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits	
		Result	Qualifier				Limits	
Gasoline	40.0	34.0		mg/Kg		85	68 - 120	
Surrogate	LCS LCS		Limits					
	% Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	97		50 - 150					

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 580-89392/2-A
Matrix: Solid
Analysis Batch: 89429

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89392

Surrogate	LCS		Limits
	% Recovery	Qualifier	
Trifluorotoluene (Surr)	100		50 - 150

Lab Sample ID: LCSD 580-89392/3-A
Matrix: Solid
Analysis Batch: 89429

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 89392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec.		RPD Limit
							Limits	RPD	
Gasoline	40.0	27.8		mg/Kg		70	68 - 120	20	25

Surrogate	LCSD		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	95		50 - 150
Trifluorotoluene (Surr)	101		50 - 150

Lab Sample ID: MB 580-89393/1-A
Matrix: Solid
Analysis Batch: 89432

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89393

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline	ND		4.0		mg/Kg		07/01/11 10:17	07/02/11 04:40	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	95		50 - 150	07/01/11 10:17	07/02/11 04:40	1
Trifluorotoluene (Surr)	100		50 - 150	07/01/11 10:17	07/02/11 04:40	1

Lab Sample ID: LCS 580-89393/2-A
Matrix: Solid
Analysis Batch: 89432

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89393

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	RPD
Gasoline	40.0	33.2		mg/Kg		83	68 - 120	

Surrogate	LCS		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	95		50 - 150
Trifluorotoluene (Surr)	100		50 - 150

Lab Sample ID: LCSD 580-89393/3-A
Matrix: Solid
Analysis Batch: 89432

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 89393

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec.		RPD Limit
							Limits	RPD	
Gasoline	40.0	34.2		mg/Kg		85	68 - 120	3	25

Surrogate	LCSD		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	96		50 - 150
Trifluorotoluene (Surr)	100		50 - 150

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: MB 580-89562/1-A
Matrix: Solid
Analysis Batch: 89603

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89562

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline	ND		4.0		mg/Kg		07/05/11 12:50	07/05/11 19:46	1
Surrogate	% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	102		50 - 150			07/05/11 12:50	07/05/11 19:46	1	
Trifluorotoluene (Surr)	115		50 - 150			07/05/11 12:50	07/05/11 19:46	1	

Lab Sample ID: LCS 580-89562/2-A
Matrix: Solid
Analysis Batch: 89603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89562

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Gasoline	40.0	37.2		mg/Kg		93	68 - 120
Surrogate	% Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	103		50 - 150				
Trifluorotoluene (Surr)	111		50 - 150				

Lab Sample ID: LCSD 580-89562/3-A
Matrix: Solid
Analysis Batch: 89603

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 89562

Analyte	Spike Added	LCSD LCSD		Unit	D	% Rec	% Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
Gasoline	40.0	38.5		mg/Kg		96	68 - 120	4	25
Surrogate	% Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	105		50 - 150						
Trifluorotoluene (Surr)	113		50 - 150						

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-88940/1-A
Matrix: Water
Analysis Batch: 89934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88940

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.50		ug/L		06/27/11 15:16	07/09/11 14:55	1
PCB-1221	ND		0.50		ug/L		06/27/11 15:16	07/09/11 14:55	1
PCB-1232	ND		0.50		ug/L		06/27/11 15:16	07/09/11 14:55	1
PCB-1242	ND		0.50		ug/L		06/27/11 15:16	07/09/11 14:55	1
PCB-1248	ND		0.50		ug/L		06/27/11 15:16	07/09/11 14:55	1
PCB-1254	ND		0.50		ug/L		06/27/11 15:16	07/09/11 14:55	1
PCB-1260	ND		0.50		ug/L		06/27/11 15:16	07/09/11 14:55	1
Surrogate	% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Tetrachloro-m-xylene	91		60 - 150			06/27/11 15:16	07/09/11 14:55	1	
DCB Decachlorobiphenyl	103		40 - 135			06/27/11 15:16	07/09/11 14:55	1	

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 580-88940/4-A
Matrix: Water
Analysis Batch: 89934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88940

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	
PCB-1016	1.00	0.918		ug/L		92	25 - 145	
PCB-1260	1.00	0.995		ug/L		100	30 - 145	

Surrogate	LCS		Limits
	% Recovery	Qualifier	
Tetrachloro-m-xylene	99		60 - 150
DCB Decachlorobiphenyl	102		40 - 135

Lab Sample ID: LCSD 580-88940/5-A
Matrix: Water
Analysis Batch: 89934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88940

Analyte	Spike Added	LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
PCB-1016	1.00	0.928		ug/L		93	25 - 145	1	27	
PCB-1260	1.00	1.04		ug/L		104	30 - 145	5	22	

Surrogate	LCSD		Limits
	% Recovery	Qualifier	
Tetrachloro-m-xylene	96		60 - 150
DCB Decachlorobiphenyl	111		40 - 135

Lab Sample ID: MB 580-88996/1-A
Matrix: Solid
Analysis Batch: 89106

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88996

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.010		mg/Kg		06/28/11 09:47	06/29/11 11:24	1
PCB-1221	ND		0.010		mg/Kg		06/28/11 09:47	06/29/11 11:24	1
PCB-1232	ND		0.010		mg/Kg		06/28/11 09:47	06/29/11 11:24	1
PCB-1242	ND		0.010		mg/Kg		06/28/11 09:47	06/29/11 11:24	1
PCB-1248	ND		0.010		mg/Kg		06/28/11 09:47	06/29/11 11:24	1
PCB-1254	ND		0.010		mg/Kg		06/28/11 09:47	06/29/11 11:24	1
PCB-1260	ND		0.010		mg/Kg		06/28/11 09:47	06/29/11 11:24	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Tetrachloro-m-xylene	101		45 - 155	06/28/11 09:47	06/29/11 11:24	1
DCB Decachlorobiphenyl	120		60 - 125	06/28/11 09:47	06/29/11 11:24	1

Lab Sample ID: LCS 580-88996/2-A
Matrix: Solid
Analysis Batch: 89106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88996

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	
PCB-1016	0.100	0.0904		mg/Kg		90	40 - 140	
PCB-1260	0.100	0.0867		mg/Kg		87	60 - 130	

Surrogate	LCS		Limits
	% Recovery	Qualifier	
Tetrachloro-m-xylene	98		45 - 155
DCB Decachlorobiphenyl	107		60 - 125

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 580-89253/1-A
Matrix: Solid
Analysis Batch: 90087

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89253

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.010		mg/Kg		06/30/11 09:02	07/12/11 20:01	1
PCB-1221	ND		0.010		mg/Kg		06/30/11 09:02	07/12/11 20:01	1
PCB-1232	ND		0.010		mg/Kg		06/30/11 09:02	07/12/11 20:01	1
PCB-1242	ND		0.010		mg/Kg		06/30/11 09:02	07/12/11 20:01	1
PCB-1248	ND		0.010		mg/Kg		06/30/11 09:02	07/12/11 20:01	1
PCB-1254	ND		0.010		mg/Kg		06/30/11 09:02	07/12/11 20:01	1
PCB-1260	ND		0.010		mg/Kg		06/30/11 09:02	07/12/11 20:01	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
	% Recovery	Qualifier							
Tetrachloro-m-xylene	92		45 - 155			06/30/11 09:02	07/12/11 20:01	1	
DCB Decachlorobiphenyl	100		60 - 125			06/30/11 09:02	07/12/11 20:01	1	

Lab Sample ID: LCS 580-89253/2-A
Matrix: Solid
Analysis Batch: 90087

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89253

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits	
		Result	Qualifier					
PCB-1016	0.100	0.0855		mg/Kg		86	40 - 140	
PCB-1260	0.100	0.0976		mg/Kg		98	60 - 130	
Surrogate	LCS LCS		Limits			Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier						
Tetrachloro-m-xylene	95		45 - 155					
DCB Decachlorobiphenyl	106		60 - 125					

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-89122/1-A
Matrix: Solid
Analysis Batch: 89133

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89122

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
#2 Diesel (C10-C24)	ND		25		mg/Kg		06/29/11 09:20	06/29/11 18:32	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		06/29/11 09:20	06/29/11 18:32	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
	% Recovery	Qualifier							
o-Terphenyl	86		50 - 150			06/29/11 09:20	06/29/11 18:32	1	

Lab Sample ID: LCS 580-89122/2-A
Matrix: Solid
Analysis Batch: 89133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89122

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits	
		Result	Qualifier					
#2 Diesel (C10-C24)	500	527		mg/Kg		105	70 - 125	
Motor Oil (>C24-C36)	500	515		mg/Kg		103	64 - 127	
Surrogate	LCS LCS		Limits			Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier						
o-Terphenyl	90		50 - 150					

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-27012-7 DU

Matrix: Solid

Analysis Batch: 89133

Client Sample ID: SB-01-062211-12

Prep Type: Total/NA

Prep Batch: 89122

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
#2 Diesel (C10-C24)	ND		ND		mg/Kg	☼		4	35
Motor Oil (>C24-C36)	ND		ND		mg/Kg	☼		13	35
DU DU									
Surrogate	% Recovery	Qualifier	Limits						
<i>o</i> -Terphenyl	88		50 - 150						

Lab Sample ID: MB 580-89179/1-A

Matrix: Water

Analysis Batch: 89370

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 89179

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
#2 Diesel (C10-C24)	ND		0.13		mg/L		06/29/11 12:57	07/01/11 13:14	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		06/29/11 12:57	07/01/11 13:14	1
MB MB									
Surrogate	% Recovery	Qualifier	Limits		Prepared		Analyzed		Dil Fac
<i>o</i> -Terphenyl	86		50 - 150		06/29/11 12:57		07/01/11 13:14		1

Lab Sample ID: LCS 580-89179/2-A

Matrix: Water

Analysis Batch: 89370

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 89179

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits	
							Limit	Upper
#2 Diesel (C10-C24)	5.00	4.67		mg/L		93	70	140
Motor Oil (>C24-C36)	5.00	4.68		mg/L		94	66	125
LCS LCS								
Surrogate	% Recovery	Qualifier	Limits					
<i>o</i> -Terphenyl	97		50 - 150					

Lab Sample ID: LCSD 580-89179/3-A

Matrix: Water

Analysis Batch: 89370

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 89179

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits		RPD	
							Limit	Upper	RPD	Limit
#2 Diesel (C10-C24)	5.00	4.53		mg/L		91	70	140	3	27
Motor Oil (>C24-C36)	5.00	4.61		mg/L		92	66	125	1	27
LCSD LCSD										
Surrogate	% Recovery	Qualifier	Limits							
<i>o</i> -Terphenyl	117		50 - 150							

Lab Sample ID: MB 580-89378/1-A

Matrix: Solid

Analysis Batch: 89363

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 89378

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
#2 Diesel (C10-C24)	ND		25		mg/Kg		07/01/11 08:59	07/01/11 15:53	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		07/01/11 08:59	07/01/11 15:53	1

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: MB 580-89378/1-A
Matrix: Solid
Analysis Batch: 89363

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89378

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
<i>o</i> -Terphenyl	83		50 - 150	07/01/11 08:59	07/01/11 15:53	1

Lab Sample ID: LCS 580-89378/2-A
Matrix: Solid
Analysis Batch: 89363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89378

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
#2 Diesel (C10-C24)	500	443		mg/Kg		89	70 - 125
Motor Oil (>C24-C36)	500	438		mg/Kg		88	64 - 127

Surrogate	LCS LCS		Limits
	% Recovery	Qualifier	
<i>o</i> -Terphenyl	84		50 - 150

Lab Sample ID: 580-27012-17 DU
Matrix: Solid
Analysis Batch: 89363

Client Sample ID: SB-02B-062211-08
Prep Type: Total/NA
Prep Batch: 89378

Analyte	Sample Sample		DU DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
#2 Diesel (C10-C24)	ND		ND		mg/Kg	✘	NC	35
Motor Oil (>C24-C36)	ND		ND		mg/Kg	✘	2	35

Surrogate	DU DU		Limits
	% Recovery	Qualifier	
<i>o</i> -Terphenyl	83		50 - 150

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 580-89421/22-A
Matrix: Solid
Analysis Batch: 89516

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89421

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		3.0		mg/Kg		07/01/11 12:26	07/01/11 20:25	1
Lead	ND		1.5		mg/Kg		07/01/11 12:26	07/01/11 20:25	1
Cadmium	ND		0.50		mg/Kg		07/01/11 12:26	07/01/11 20:25	1

Lab Sample ID: LCS 580-89421/23-A
Matrix: Solid
Analysis Batch: 89516

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89421

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Arsenic	200	206		mg/Kg		103	80 - 120
Lead	50.0	51.2		mg/Kg		102	80 - 120
Cadmium	5.00	5.07		mg/Kg		101	80 - 120

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 580-89421/24-A
Matrix: Solid
Analysis Batch: 89516

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 89421

Analyte	Spike Added	LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
Arsenic	200	203		mg/Kg		102	80 - 120	1	20	
Lead	50.0	50.6		mg/Kg		101	80 - 120	1	20	
Cadmium	5.00	5.00		mg/Kg		100	80 - 120	1	20	

Lab Sample ID: MB 580-89648/22-A
Matrix: Solid
Analysis Batch: 89727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89648

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		3.0		mg/Kg		07/06/11 11:37	07/06/11 15:48	1
Lead	ND		1.5		mg/Kg		07/06/11 11:37	07/06/11 15:48	1
Cadmium	ND		0.50		mg/Kg		07/06/11 11:37	07/06/11 15:48	1

Lab Sample ID: LCS 580-89648/23-A
Matrix: Solid
Analysis Batch: 89727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89648

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	
Arsenic	200	195		mg/Kg		98	80 - 120	
Lead	50.0	48.1		mg/Kg		96	80 - 120	
Cadmium	5.00	4.80		mg/Kg		96	80 - 120	

Lab Sample ID: LCSD 580-89648/24-A
Matrix: Solid
Analysis Batch: 89727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 89648

Analyte	Spike Added	LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
Arsenic	200	198		mg/Kg		99	80 - 120	2	20	
Lead	50.0	48.7		mg/Kg		97	80 - 120	1	20	
Cadmium	5.00	4.86		mg/Kg		97	80 - 120	1	20	

Lab Sample ID: 580-27012-12 MS
Matrix: Solid
Analysis Batch: 89727

Client Sample ID: SB-01-062211-22
Prep Type: Total/NA
Prep Batch: 89648

Analyte	Sample		Spike Added	MS MS		Unit	D	% Rec	% Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
Arsenic	7.6		248	251		mg/Kg	✱	98	80 - 120	
Lead	4.9		62.0	68.4		mg/Kg	✱	102	80 - 120	
Cadmium	ND		6.20	6.90		mg/Kg	✱	106	80 - 120	

Lab Sample ID: 580-27012-12 MSD
Matrix: Solid
Analysis Batch: 89727

Client Sample ID: SB-01-062211-22
Prep Type: Total/NA
Prep Batch: 89648

Analyte	Sample		Spike Added	MSD MSD		Unit	D	% Rec	% Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Arsenic	7.6		263	270		mg/Kg	✱	100	80 - 120	7	20	
Lead	4.9		65.7	72.3		mg/Kg	✱	103	80 - 120	6	20	
Cadmium	ND		6.57	7.33		mg/Kg	✱	106	80 - 120	6	20	

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 580-27012-12 DU
Matrix: Solid
Analysis Batch: 89727

Client Sample ID: SB-01-062211-22
Prep Type: Total/NA
Prep Batch: 89648

Analyte	Sample		DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Arsenic	7.6		7.56		mg/Kg	☼	0.5	20
Lead	4.9		4.95		mg/Kg	☼	0.4	20
Cadmium	ND		ND		mg/Kg	☼	NC	20

Lab Sample ID: MB 580-89665/21-A
Matrix: Solid
Analysis Batch: 89731

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89665

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		3.0		mg/Kg		07/06/11 13:19	07/06/11 19:56	1
Lead	ND		1.5		mg/Kg		07/06/11 13:19	07/06/11 19:56	1
Cadmium	ND		0.50		mg/Kg		07/06/11 13:19	07/06/11 19:56	1

Lab Sample ID: LCS 580-89665/22-A
Matrix: Solid
Analysis Batch: 89731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89665

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Arsenic	200	188		mg/Kg		94	80 - 120
Lead	50.0	45.9		mg/Kg		92	80 - 120
Cadmium	5.00	4.61		mg/Kg		92	80 - 120

Lab Sample ID: LCSD 580-89665/23-A
Matrix: Solid
Analysis Batch: 89731

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 89665

Analyte	Spike Added	LCSD		Unit	D	% Rec	% Rec. Limits	RPD	Limit
		Result	Qualifier						
Arsenic	200	191		mg/Kg		95	80 - 120	1	20
Lead	50.0	46.8		mg/Kg		94	80 - 120	2	20
Cadmium	5.00	4.69		mg/Kg		94	80 - 120	2	20

Lab Sample ID: LCSSRM 580-89665/24-A
Matrix: Solid
Analysis Batch: 89731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89665

Analyte	Spike Added	LCSSRM		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Arsenic	109	112		mg/Kg		103	71.1 - 128.9
Lead	152	167		mg/Kg		110	75.3 - 125.1
Cadmium	110	117		mg/Kg		107	73.2 - 126.8

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: LCS 580-89633/21-A
Matrix: Water
Analysis Batch: 89722

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 89633

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Arsenic	4.00	4.03		mg/L		101	80 - 120

QC Sample Results

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 580-89633/21-A
Matrix: Water
Analysis Batch: 89722

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 89633

Analyte	Spike Added	LCS	LCS	Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	RPD
Lead	1.00	0.982		mg/L		98	80 - 120	
Cadmium	0.100	0.100		mg/L		100	80 - 120	

Lab Sample ID: LCSD 580-89633/22-A
Matrix: Water
Analysis Batch: 89722

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 89633

Analyte	Spike Added	LCSD	LCSD	Unit	D	% Rec	% Rec.		RPD
		Result	Qualifier				Limits	RPD	Limit
Arsenic	4.00	4.01		mg/L		100	80 - 120	0	20
Lead	1.00	0.980		mg/L		98	80 - 120	0	20
Cadmium	0.100	0.0976		mg/L		98	80 - 120	2	20

Lab Sample ID: MB 580-89396/21-C
Matrix: Water
Analysis Batch: 89722

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 89633

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.0050		mg/L		07/06/11 09:37	07/06/11 14:51	5
Lead	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 14:51	5
Cadmium	ND		0.0020		mg/L		07/06/11 09:37	07/06/11 14:51	5

Method: Moisture - Percent Moisture

Lab Sample ID: 580-27012-20 DU
Matrix: Solid
Analysis Batch: 89257

Client Sample ID: SB-02A-062211-04
Prep Type: Total/NA

Analyte	Sample	Sample	DU DU		Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Percent Solids	95		94		%		1	20
Percent Moisture	4.9		5.9		%		19	20

Lab Sample ID: 580-27012-17 DU
Matrix: Solid
Analysis Batch: 89379

Client Sample ID: SB-02B-062211-08
Prep Type: Total/NA

Analyte	Sample	Sample	DU DU		Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Percent Solids	82		82		%		0.4	20
Percent Moisture	18		18		%		2	20

Lab Chronicle

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-02

Date Collected: 06/22/11 09:07
Date Received: 06/24/11 11:22

Lab Sample ID: 580-27012-1

Matrix: Solid
Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 17:12	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/29/11 21:32	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 12:18	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 22:21	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-04

Date Collected: 06/22/11 09:09
Date Received: 06/24/11 11:22

Lab Sample ID: 580-27012-2

Matrix: Solid
Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 17:36	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/29/11 22:33	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 12:33	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 22:27	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-04

Date Collected: 06/22/11 09:58
Date Received: 06/24/11 11:22

Lab Sample ID: 580-27012-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	89157	06/30/11 01:27	SK	TAL SEA
Total/NA	Prep	3520C			89179	06/29/11 12:57	SP	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89370	07/01/11 17:53	EK	TAL SEA
Total/NA	Prep	3510C			88940	06/27/11 15:16	DB	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 17:45	CM	TAL SEA
Dissolved	Prep	3005A			89633	07/06/11 09:37	ZF	TAL SEA
Dissolved	Analysis	6020		5	89722	07/06/11 16:04	FCW	TAL SEA

Client Sample ID: SB-01-062211-06

Date Collected: 06/22/11 10:51
Date Received: 06/24/11 11:22

Lab Sample ID: 580-27012-4

Matrix: Solid
Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 18:00	JMB	TAL SEA

Lab Chronicle

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-06

Lab Sample ID: 580-27012-4

Date Collected: 06/22/11 10:51

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/29/11 22:53	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 12:47	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 22:34	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-08

Lab Sample ID: 580-27012-5

Date Collected: 06/22/11 10:56

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 64.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 18:23	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/29/11 23:13	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 13:01	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 22:55	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-10

Lab Sample ID: 580-27012-6

Date Collected: 06/22/11 11:03

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 57.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 18:47	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/29/11 23:33	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 13:15	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 23:01	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-12

Lab Sample ID: 580-27012-7

Date Collected: 06/22/11 11:07

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 73.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 19:11	JMB	TAL SEA

Lab Chronicle

Client: MWH Americas Inc
 Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-12

Lab Sample ID: 580-27012-7

Date Collected: 06/22/11 11:07

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 73.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/29/11 23:53	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 13:30	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 23:08	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-14

Lab Sample ID: 580-27012-8

Date Collected: 06/22/11 11:13

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 19:35	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/30/11 00:33	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 13:44	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 23:14	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-16

Lab Sample ID: 580-27012-9

Date Collected: 06/22/11 11:21

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 73.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 20:46	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/30/11 00:53	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 13:58	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 23:20	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-18

Lab Sample ID: 580-27012-10

Date Collected: 06/22/11 11:32

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 21:10	JMB	TAL SEA

Lab Chronicle

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-18

Lab Sample ID: 580-27012-10

Date Collected: 06/22/11 11:32

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/30/11 01:13	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 14:12	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 23:27	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-20

Lab Sample ID: 580-27012-11

Date Collected: 06/22/11 11:43

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 21:33	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/30/11 01:33	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 14:26	CM	TAL SEA
Total/NA	Prep	3050B			89421	07/01/11 12:26	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89516	07/01/11 23:33	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-22

Lab Sample ID: 580-27012-12

Date Collected: 06/22/11 11:51

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 74.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 21:57	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/30/11 02:32	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 15:38	CM	TAL SEA
Total/NA	Prep	3050B			89648	07/06/11 11:34	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89727	07/06/11 16:13	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-01-062211-23

Lab Sample ID: 580-27012-13

Date Collected: 06/22/11 12:18

Matrix: Water

Date Received: 06/24/11 11:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	89157	06/30/11 01:52	SK	TAL SEA

Lab Chronicle

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-01-062211-23

Lab Sample ID: 580-27012-13

Date Collected: 06/22/11 12:18

Matrix: Water

Date Received: 06/24/11 11:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			89179	06/29/11 12:57	SP	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89370	07/01/11 18:13	EK	TAL SEA
Total/NA	Prep	3510C			88940	06/27/11 15:16	DB	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 18:00	CM	TAL SEA
Dissolved	Prep	3005A			89633	07/06/11 09:37	ZF	TAL SEA
Dissolved	Analysis	6020		5	89722	07/06/11 16:15	FCW	TAL SEA

Client Sample ID: SB-02B-062211-02

Lab Sample ID: 580-27012-14

Date Collected: 06/22/11 15:09

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 22:21	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/30/11 02:52	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 15:52	CM	TAL SEA
Total/NA	Prep	3050B			89648	07/06/11 11:34	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89727	07/06/11 17:00	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-02B-062211-04

Lab Sample ID: 580-27012-15

Date Collected: 06/22/11 15:42

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 22:44	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89133	06/30/11 03:12	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 16:06	CM	TAL SEA
Total/NA	Prep	3050B			89665	07/06/11 12:41	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89731	07/06/11 22:51	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-02B-062211-06

Lab Sample ID: 580-27012-16

Date Collected: 06/22/11 15:32

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 23:08	JMB	TAL SEA
Total/NA	Prep	3550B			89122	06/29/11 09:20	KKW	TAL SEA

Lab Chronicle

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02B-062211-06

Lab Sample ID: 580-27012-16

Date Collected: 06/22/11 15:32

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Dx		1	89133	06/30/11 03:31	ES	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 16:20	CM	TAL SEA
Total/NA	Prep	3050B			89665	07/06/11 12:41	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89731	07/06/11 22:58	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89123	06/29/11 09:23	KKW	TAL SEA

Client Sample ID: SB-02B-062211-08

Lab Sample ID: 580-27012-17

Date Collected: 06/22/11 15:37

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 23:32	JMB	TAL SEA
Total/NA	Prep	3550B			89378	07/01/11 08:59	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89363	07/01/11 16:41	EK	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 16:35	CM	TAL SEA
Total/NA	Prep	3050B			89648	07/06/11 11:34	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89727	07/06/11 17:06	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89379	07/01/11 09:06	KKW	TAL SEA

Client Sample ID: SB-02B-062211-10

Lab Sample ID: 580-27012-18

Date Collected: 06/22/11 15:50

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 80.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/01/11 23:55	JMB	TAL SEA
Total/NA	Prep	3550B			89378	07/01/11 08:59	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89363	07/01/11 17:37	EK	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 16:49	CM	TAL SEA
Total/NA	Prep	3050B			89648	07/06/11 11:34	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89727	07/06/11 17:12	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89379	07/01/11 09:06	KKW	TAL SEA

Client Sample ID: SB-02A-062211-02

Lab Sample ID: 580-27012-19

Date Collected: 06/22/11 18:10

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/02/11 00:19	JMB	TAL SEA

Lab Chronicle

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-02

Lab Sample ID: 580-27012-19

Date Collected: 06/22/11 18:10

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			89378	07/01/11 08:59	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89363	07/01/11 18:02	EK	TAL SEA
Total/NA	Prep	3550B			88996	06/28/11 09:47	KKW	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 17:03	CM	TAL SEA
Total/NA	Prep	3050B			89665	07/06/11 12:41	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89731	07/06/11 23:04	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89379	07/01/11 09:06	KKW	TAL SEA

Client Sample ID: SB-02A-062211-04

Lab Sample ID: 580-27012-20

Date Collected: 06/22/11 18:16

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/02/11 01:30	JMB	TAL SEA
Total/NA	Prep	3550B			89378	07/01/11 08:59	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89363	07/01/11 18:26	EK	TAL SEA
Total/NA	Prep	3550B			89253	06/30/11 09:02	KKW	TAL SEA
Total/NA	Analysis	8082		1	90087	07/12/11 14:49	EK	TAL SEA
Total/NA	Prep	3050B			89648	07/06/11 11:34	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89727	07/06/11 17:19	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89257	06/30/11 10:17	KKW	TAL SEA

Client Sample ID: SB-02A-062211-06

Lab Sample ID: 580-27012-21

Date Collected: 06/22/11 18:21

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/02/11 01:54	JMB	TAL SEA
Total/NA	Prep	3550B			89378	07/01/11 08:59	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89363	07/01/11 18:49	EK	TAL SEA
Total/NA	Prep	3550B			89253	06/30/11 09:02	KKW	TAL SEA
Total/NA	Analysis	8082		1	90087	07/12/11 15:03	EK	TAL SEA
Total/NA	Prep	3050B			89648	07/06/11 11:34	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89727	07/06/11 17:25	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89257	06/30/11 10:17	KKW	TAL SEA

Client Sample ID: SB-02A-062211-08

Lab Sample ID: 580-27012-22

Date Collected: 06/22/11 18:26

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89392	07/01/11 10:09	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89429	07/02/11 02:18	JMB	TAL SEA

Lab Chronicle

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-08

Lab Sample ID: 580-27012-22

Date Collected: 06/22/11 18:26

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			89378	07/01/11 08:59	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89363	07/01/11 19:13	EK	TAL SEA
Total/NA	Prep	3550B			89253	06/30/11 09:02	KKW	TAL SEA
Total/NA	Analysis	8082		1	90087	07/12/11 15:17	EK	TAL SEA
Total/NA	Prep	3050B			89648	07/06/11 11:34	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89727	07/06/11 17:32	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89257	06/30/11 10:17	KKW	TAL SEA

Client Sample ID: SB-02A-062211-10

Lab Sample ID: 580-27012-23

Date Collected: 06/22/11 18:41

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 62.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89562	07/05/11 17:23	SK	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89603	07/06/11 02:47	JMB	TAL SEA
Total/NA	Prep	3550B			89378	07/01/11 08:59	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89363	07/01/11 19:38	EK	TAL SEA
Total/NA	Prep	3550B			89253	06/30/11 09:02	KKW	TAL SEA
Total/NA	Analysis	8082		1	90087	07/12/11 15:31	EK	TAL SEA
Total/NA	Prep	3050B			89648	07/06/11 11:34	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89727	07/06/11 17:38	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89257	06/30/11 10:17	KKW	TAL SEA

Client Sample ID: DUP-01-062211

Lab Sample ID: 580-27012-24

Date Collected: 06/22/11 00:00

Matrix: Water

Date Received: 06/24/11 11:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	89157	06/30/11 02:18	SK	TAL SEA
Total/NA	Prep	3520C			89179	06/29/11 12:57	SP	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89370	07/01/11 18:33	EK	TAL SEA
Total/NA	Prep	3510C			88940	06/27/11 15:16	DB	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 18:14	CM	TAL SEA
Dissolved	Prep	3005A			89633	07/06/11 09:37	ZF	TAL SEA
Dissolved	Analysis	6020		5	89722	07/06/11 16:18	FCW	TAL SEA

Client Sample ID: SB-02A-062211-06

Lab Sample ID: 580-27012-25

Date Collected: 06/22/11 17:15

Matrix: Water

Date Received: 06/24/11 11:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	89157	06/30/11 02:43	SK	TAL SEA
Total/NA	Prep	3520C			89179	06/29/11 12:57	SP	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89370	07/01/11 18:52	EK	TAL SEA

Lab Chronicle

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Client Sample ID: SB-02A-062211-06

Lab Sample ID: 580-27012-25

Date Collected: 06/22/11 17:15

Matrix: Water

Date Received: 06/24/11 11:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			88940	06/27/11 15:16	DB	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 18:28	CM	TAL SEA
Dissolved	Prep	3005A			89633	07/06/11 09:37	ZF	TAL SEA
Dissolved	Analysis	6020		5	89722	07/06/11 16:22	FCW	TAL SEA

Client Sample ID: SB-02B-062211-0

Lab Sample ID: 580-27012-26

Date Collected: 06/22/11 16:13

Matrix: Water

Date Received: 06/24/11 11:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	89157	06/30/11 03:08	SK	TAL SEA
Total/NA	Prep	3520C			89179	06/29/11 12:57	SP	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89370	07/01/11 19:12	EK	TAL SEA
Total/NA	Prep	3510C			88940	06/27/11 15:16	DB	TAL SEA
Total/NA	Analysis	8082		1	89934	07/09/11 18:42	CM	TAL SEA
Dissolved	Prep	3005A			89633	07/06/11 09:37	ZF	TAL SEA
Dissolved	Analysis	6020		5	89722	07/06/11 16:26	FCW	TAL SEA

Client Sample ID: DUP-02-062211

Lab Sample ID: 580-27012-27

Date Collected: 06/22/11 00:00

Matrix: Solid

Date Received: 06/24/11 11:22

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			89393	07/01/11 10:17	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	89432	07/02/11 14:32	JMB	TAL SEA
Total/NA	Prep	3550B			89378	07/01/11 08:59	KKW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	89363	07/02/11 06:21	EK	TAL SEA
Total/NA	Prep	3550B			89253	06/30/11 09:02	KKW	TAL SEA
Total/NA	Analysis	8082		1	90087	07/12/11 15:45	EK	TAL SEA
Total/NA	Prep	3050B			89665	07/06/11 12:41	ZF	TAL SEA
Total/NA	Analysis	6010B		1	89731	07/06/11 23:10	SP	TAL SEA
Total/NA	Analysis	Moisture		1	89257	06/30/11 10:17	KKW	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: MWH Americas Inc
Project/Site: TWP-Waste Management

TestAmerica Job ID: 580-27012-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



Sample Summary

Client: MWH Americas Inc
Project/Site: TWP-Waste Managment

TestAmerica Job ID: 580-27012-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-27012-1	SB-01-062211-02	Solid	06/22/11 09:07	06/24/11 11:22
580-27012-2	SB-01-062211-04	Solid	06/22/11 09:09	06/24/11 11:22
580-27012-3	SB-01-062211-04	Water	06/22/11 09:58	06/24/11 11:22
580-27012-4	SB-01-062211-06	Solid	06/22/11 10:51	06/24/11 11:22
580-27012-5	SB-01-062211-08	Solid	06/22/11 10:56	06/24/11 11:22
580-27012-6	SB-01-062211-10	Solid	06/22/11 11:03	06/24/11 11:22
580-27012-7	SB-01-062211-12	Solid	06/22/11 11:07	06/24/11 11:22
580-27012-8	SB-01-062211-14	Solid	06/22/11 11:13	06/24/11 11:22
580-27012-9	SB-01-062211-16	Solid	06/22/11 11:21	06/24/11 11:22
580-27012-10	SB-01-062211-18	Solid	06/22/11 11:32	06/24/11 11:22
580-27012-11	SB-01-062211-20	Solid	06/22/11 11:43	06/24/11 11:22
580-27012-12	SB-01-062211-22	Solid	06/22/11 11:51	06/24/11 11:22
580-27012-13	SB-01-062211-22	Water	06/22/11 12:18	06/24/11 11:22
580-27012-14	SB-02B-062211-02	Solid	06/22/11 15:09	06/24/11 11:22
580-27012-15	SB-02B-062211-04	Solid	06/22/11 15:42	06/24/11 11:22
580-27012-16	SB-02B-062211-06	Solid	06/22/11 15:32	06/24/11 11:22
580-27012-17	SB-02B-062211-08	Solid	06/22/11 15:37	06/24/11 11:22
580-27012-18	SB-02B-062211-10	Solid	06/22/11 15:50	06/24/11 11:22
580-27012-19	SB-02A-062211-02	Solid	06/22/11 18:10	06/24/11 11:22
580-27012-20	SB-02A-062211-04	Solid	06/22/11 18:16	06/24/11 11:22
580-27012-21	SB-02A-062211-06	Solid	06/22/11 18:21	06/24/11 11:22
580-27012-22	SB-02A-062211-08	Solid	06/22/11 18:26	06/24/11 11:22
580-27012-23	SB-02A-062211-10	Solid	06/22/11 18:41	06/24/11 11:22
580-27012-24	DUP-01-062211	Water	06/22/11 00:00	06/24/11 11:22
580-27012-25	SB-02A-062211-06	Water	06/22/11 17:15	06/24/11 11:22
580-27012-26	SB-02B-062211-0	Water	06/22/11 16:13	06/24/11 11:22
580-27012-27	DUP-02-062211	Solid	06/22/11 00:00	06/24/11 11:22

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 580-27012-1


Login Number: 27012

List Source: TestAmerica Seattle

List Number: 1

Creator: Kalicki, Samantha

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	False	both ambers of Sx-13 are 1/2 full
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	False	-30C
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



ATTACHMENT D:
Final Technical Memo DVD
(provided in hard copy)