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Environmental Health



February 22, 2007

The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for  
Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF, LLC  
c/o Ms. Mary Schroeder, McMorgan & Company LLC  
One Bush Street, Suite 800  
San Francisco, California 94104

RE: Subsurface Investigation Report  
300 Hegenberger Road, Oakland, California  
*ACC Project Number 6748-017-01*

Dear Ms. Schroeder:

Please find the enclosed two copies of the Subsurface Investigation Report for 300 Hegenberger Road, Oakland, California. The purpose of this investigation was to characterize the current extent of petroleum hydrocarbon impacts in soil and groundwater in the vicinity of former underground storage tanks removed from the property. Soil and groundwater sample analytical results indicate that residual gasoline constituents still exist in vicinity of the former underground tanks and dispenser islands, but are primarily localized in shallow soil under the dispensers. On your behalf, ACC will send an electronic copy of this Report to Mr. Barney Chan at Alameda County Environmental Health and request expedited review of the report.

If you have any questions regarding the report, please contact me at (510) 638-8400, ext. 109 or at [ddement@accenv.com](mailto:ddement@accenv.com).

Sincerely,

A handwritten signature in black ink that reads 'David DeMent'.

David DeMent, PG, REA II  
Environmental Division Manager

/krb:drd

Enclosures

cc: Mr. Barney Chan, Alameda County Environmental Health

Northern California: 7977 Capwell Drive, Suite 100 • Oakland, CA 94621 • (510) 638-8400 • Fax (510) 638-8404  
Southern California: 1541 Wilshire Blvd., Suite 516, Los Angeles, CA 90017 • (213) 353-1240 • Fax (213) 353-1244



## SUBSURFACE INVESTIGATION REPORT

**300 Hegenberger Road  
Oakland, California**

*ACC Project Number: 6748-017-01*

Prepared for:

The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for  
Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF, LLC  
c/o Ms. Mary Schroeder, McMorgan & Company LLC  
One Bush Street, Suite 800  
San Francisco, California 94104

February 22, 2007

Prepared by:

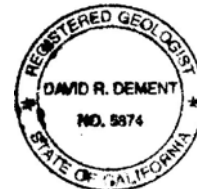
A handwritten signature in black ink, appearing to read 'Ken Blume', written over a horizontal line.

Ken Blume  
Technical Writer

Reviewed by:

A handwritten signature in black ink, appearing to read 'David DeMent', written over a horizontal line.

David DeMent, PG, REA II  
Environmental Division Manager



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# **SUBSURFACE INVESTIGATION REPORT**

**300 Hegenberger Road  
Oakland, California**

## **1.0 INTRODUCTION**

At the request of McMorgan & Company LLC on behalf of The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF (Client), ACC Environmental Consultants Inc., (ACC), has prepared this Subsurface Investigation Report. This report summarizes recent soil and groundwater investigation work performed at 300 Hegenberger Road in Oakland, California (Site) shown on Figure 1. The purpose of this investigation was to characterize suspect petroleum hydrocarbon impacts in soil and groundwater in the vicinity of one former underground storage tank (UST) removed from the Site. The location of the former UST excavation is illustrated on Figure 2.

## **2.0 BACKGROUND**

The Site is located at 300 Hegenberger Road in the southeast corner of the intersection of Hegenberger Road and Hegenberger Loop. The rectangular lot is approximately 250 feet long by 200 feet wide and is approximately 9 feet above mean sea level.

The available data indicate that a series of subsurface investigations have been conducted at the Site since 1997. A site assessment in April 1997 indicated the presence of petroleum hydrocarbons in soils and groundwater beneath the Site but no reportable concentrations of methyl tertiary butyl ether (MTBE). A subsequent investigation conducted in July and October 1997 confirmed previous investigation findings and that no underground storage tanks (USTs) remained at the Site.

Tetra Tech EM Inc. (Tetra Tech) installed five 2-inch-diameter groundwater monitoring wells in November 1998. The five monitoring wells were screened from 5 to 20 feet below ground surface (bgs). Well MW-1 was subsequently destroyed in December 1999 and well MW-6 was installed in the estimated downgradient direction of the former waste oil tank. Well MW-6 was screened from 10 to 20 feet bgs. In December 2000, Tetra Tech installed offsite wells MW-7 and MW-8 estimated to be in the downgradient direction of the Site. Wells MW-7 and MW-8 were screened from 5 to 20 feet bgs. Groundwater monitoring was performed periodically from December 1998 to October 2001 in the existing wells.

Tetra Tech reported the findings of a Sensitive Receptor Survey in its March 8, 2001 *Fourth Quarter Groundwater Monitoring Report, December 2000*. According to the California Department of Water resources, 40 monitoring wells and two irrigation wells were located at 11 sites within the search distance. One irrigation well is reportedly located approximately 500 feet cross gradient from the Site and a second irrigation well is located approximately 2,800 feet crossgradient of the Site.

## 2.1 Initial Site Conceptual Model (SCM)

Previous site investigation has demonstrated that the former USTs were removed. Low permeability soils are present across the Site but periodic groundwater monitoring demonstrates that groundwater has been impacted by TPHg and BTEX, likely from residual soil sources not removed during UST removal. The former gasoline USTs were located in the northwest corner of the property, a waste oil UST was formerly located south of the northeast building foundation, and two dispenser islands are located east of the former USTs. Site features and monitoring well locations are shown on Figure 2.

Based on reported groundwater monitoring results, residual TPHg and BTEX concentrations are suspected in deeper soil in the vicinity of the former USTs and in shallow soil beneath the product dispensers. No primary sources are suspected and secondary sources consist of residual petroleum hydrocarbons in soil. Due to the suspect location of residual petroleum hydrocarbons, the secondary release mechanism is infiltration of residual petroleum hydrocarbons to groundwater and potential volatilization of volatile constituents into soil gas. Complete exposure routes are ingestion of impacted groundwater and inhalation through vapor intrusion (assuming building structures are constructed onsite).

Soil boring logs from wells MW-7 and MW-8, included in Tetra Tech's March 8, 2001 *Fourth Quarter Groundwater Monitoring Report, December 2000*, indicate that clay and silty clay is present from the surface to the minimum depth of 11.5 feet bgs and sandy gravels and sands are present from approximately 12 to 15 feet bgs to 20.0 feet bgs, the total depth of the soil borings. Silty clays logged at 10 to 10.5 feet bgs are described as dry to moist, medium plasticity, and medium stiff. Sandy gravels logged from 15 to 16 feet bgs are described as saturated, coarse to fine grained sand, and fine to medium grained gravel and poorly graded, loose sand (SP) is present at 20 feet bgs. The calculated groundwater flow direction and gradient is generally consistent to the northwest at an average of 0.003 foot per foot. These values are consistent with surface topography.

Perceived data gaps in the initial SCM include: 1) subsurface geological conditions on the Site; 2) current residual TPH concentrations in suspect source areas (the former USTs and product dispensers); 3) soil conditions and estimated permeability in the top 5 feet of soil; 4) should Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) be applied to the Site; and 5) is there sufficient data available to justify closing the Site as a "low risk" groundwater case under a commercial scenario.

## 3.0 FIELD PROCEDURES

Due to the proposed soil borings being advanced, some to a depth of 16 to 20 feet below ground surface (bgs), a permit was required from Alameda County Public Works Agency to perform this work. As required by law, Underground Service Alert was notified 48-hour prior to advancement of soil borings and a Site-Specific Health and Safety Plan was prepared and available onsite during field activities. A copy of the permit is included as Appendix 1.

A total of eleven (11) soil borings were advanced at the Site. ACC's Professional Geologist performed the soil borings and sampling. Soil borings were continuously cored using a combination truck-mounted hydraulic and pneumatic Geoprobe® sampling tool. ACC utilized a four-foot long, stainless steel Geoprobe® macro-core sampling tool equipped with 2-inch inside-diameter clear acetate liners. The sampling probe and rods were pre-cleaned prior to use and between sample drives by washing them with a trisodium phosphate and potable water solution and two potable water rinses. Upon removal from the sampler, each recovered soil core was visually inspected and screened with a ppbRAE® photo-ionization detector (PID). Subsurface materials in the soil borings were identified, classified and logged during drilling operations according to the Unified Soil Classification System (USCS). The sample intervals were primarily logged to determine relative permeability and evaluate mitigation potential at that soil boring location. The lithologic logs are included as Appendix 2.

Select soil sample intervals were obtained for laboratory analysis. Select soil sample intervals were cut from the acetate liners, capped, labeled, and stored in a pre-chilled, insulated container to be transported following chain of custody protocol to Curtis & Tompkins, Inc., a state-certified analytical laboratory. Four grab groundwater samples were collected with the use of disposable polyethylene bailers and temporary 1-inch-diameter PVC casing installed into each respective open soil boring annulus. Upon collection, the groundwater was immediately transferred to laboratory-supplied 40 milliliter glass VOA vials, without headspace, and labeled. The grab groundwater samples were immediately placed in a pre-chilled, insulated container pending transport to the analytical laboratory. Samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8260B. Analytical results and chain of custody are included in Appendix 3.

Following drilling and sample collection, each soil boring location was abandoned with neat cement with the use of a tremie pipe to the surface under observation of a representative of the Alameda County Public Works Agency.

## **4.0 FINDINGS**

### **4.1 Subsurface Conditions**

The surface of the Site in the area of the investigation is covered with three to four inches of asphalt pavement underlain by approximately three inches of baserock. Subsurface soil conditions at the Site were highly consistent. Native soils below pavement baserock are primarily dark brown, medium stiff to soft, moderately plastic silt and silty clay (ML/CL) to approximately 3 feet bgs. This surface horizon is underlain by approximately 16 feet of uniform silty clays and clayey silts (CL). The silty clays were primarily brown to olive, uniform, stiff, slightly plastic, damp to moist, and exhibited low estimated permeability. At approximately 18 to 19 feet bgs, soils rapidly graded into light olive clayey gravel (GC), containing approximately 10 to 20 percent disseminated fines and 20 to 30 percent sand.

Field indications of petroleum hydrocarbon impact were noted during soil sampling activities in the majority of the soil borings. Soil beneath the dispensers generally displayed characteristic olive soil

discoloration and mild to strong petroleum hydrocarbon odor which attenuated with depth. Field indications of TPH impact in soil in the former UST area was intermittent and generally not observed above seven feet bgs.

Groundwater was encountered in soil borings B5 and B10 at approximately 18 feet bgs. First-encountered groundwater was observed in saturated silty gravel, was turbid, and was slightly confined. Water rose approximately 2 to 3 feet in the boring annulus during sampling activities. Additional details are shown on soil boring logs in Appendix 2.

## 4.2 Utility Survey

A Utility Survey was conducted to examine if utility trenches could act as preferential pathways for contaminants to migrate. ACC contacted Underground Service Alert (USA) to identify all buried utilities adjacent to the Site. Parties that answered the USA call were PG&E, City of Oakland-Electrical Division and the East Bay Municipal Utilities District (EBMUD). These parties were contacted to provide additional information on the location and depth of utility trenches. Figure 3 illustrates the location of identified utility trenches along Hegenberger Road and Hegenberger Loop. EBMUD identified one 8-inch asbestos cement pipe water main that runs down the southern end of Hegenberger Loop, onto Hegenberger Road. An 8-inch steel water main is also buried on Hegenberger Road. A PG&E electrical line was identified by City of Oakland-Electrical Division utility drawings, running parallel to Hegenberger Road. City of Oakland-Electrical Division utilities are also buried along Hegenberger Road.

In order for utility trenches to act as a preferential pathway, they must be hydrologically downgradient of the Site and the trench they are buried in must be in hydrogeologic contact with the first-encountered water bearing zone. Based on the most recent gradient and flow direction, monitoring wells MW-3 and MW-4 are downgradient of the Site, and reported elevated levels of TPHg and BTEX. The shallowest depth to groundwater in these wells was 2.20 feet, recorded in December 2, 1998 at MW-4. However, it is ACC's opinion that any depths to groundwater measured in monitoring wells at the site less than 12 feet bgs are the result of confined groundwater conditions. Saturated permeable soils were observed at approximately 16 to 18 feet bgs onsite and saturated soils in offsite soil borings were logged between 12 to 15 feet bgs.

According to the City of Oakland-Electrical Division, its utilities are buried approximately 18 inches below grade. PG&E did not return inquiries for additional information on the depth of their utilities. However, based on a conversation with the City of Oakland-Electrical Division, these trenches are approximately at the same depth as City of Oakland-Electrical Division trenches, as City of Oakland-Electrical Division ties in with PG&E utilities. The standard depth of cover material for EBMUD utilities is between 3 to 4 feet bgs. If water mains are 8 inches, then the maximum depth of EBMUD utility trenches is 4.75 feet. Since low permeability silty clays and clayey silts were logged to the approximate minimum depth of 12 feet bgs, any possible interception or preferential migration along utility trenches is highly unlikely.

### 4.3 Analytical Results

All soil samples reported non-detectable concentrations of MTBE. Detectable concentrations of TPHg in soil were reported in 19 of the 23 samples and ranged between 1.7 mg/kg to 22,000 mg/kg. Detectable concentrations of benzene in soil were reported in 11 of the 23 soil samples and ranged between 0.084 mg/kg to 33 mg/kg. Two of 23 soil samples reported detectable concentrations of toluene at 0.026 mg/kg and 0.080 mg/kg. Ethylbenzene concentrations ranged between 0.015 mg/kg to 430 mg/kg in 17 of 23 soil samples. Six soil samples reported concentrations of total xylenes below laboratory detectable limits.

The four grab groundwater samples reported non-detectable concentrations of MTBE. TPHg concentrations ranged between 720 µg/L to 6,300 µg/L. Concentrations of benzene ranged between 15 µg/L to 540 µg/L, toluene concentrations ranged between 0.66 µg/L and 11 µg/L, ethylbenzene concentrations ranged between 57 µg/L and 420 µg/L, and total xylenes concentrations ranged between 2.61 µg/L and 232 µg/L.

TPHg, BTEX, and MTBE concentrations in soil are summarized below in Table 1. TPHg, BTEX, and MTBE concentrations in groundwater are summarized below in Table 2.

**TABLE 1 – SOIL SAMPLE ANALYTICAL RESULTS**

Sample ID	Sample Depth (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
B1-4.0	4.0	<b>1,700<sup>1</sup></b>	<b>6.9</b>	<2.5	6.2	<2.5	<2.5
B1-8.0	8.0	9.0 <sup>1</sup>	<b>0.89</b>	<0.023	<0.023	<0.023	<0.023
B2-4.0	4.0	<b>22,000<sup>1</sup></b>	<b>33</b>	<20	430	760	<20
B2-8.0	8.0	510 <sup>1</sup>	<b>1.7</b>	<0.63	1.4	<0.63	<0.63
B3-4.0	4.0	<0.96	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048
B3-8.0	8.0	<b>880<sup>1</sup></b>	<b>5.5</b>	<2.5	25	3.7	<2.5
B4-4.0	4.0	470 <sup>1</sup>	<0.63	<0.063	1.4	<.063	<0.063
B4-8.0	8.0	250 <sup>1</sup>	<b>0.86</b>	<0.5	6.0	1.6	<0.5
B5-8.0	8.0	<b>1,400<sup>1</sup></b>	<0.25	<0.25	24	41.5	<0.25
B5-12.0	12.0	2.1 <sup>2</sup>	<0.005	<0.005	0.022	<0.005	<0.005
B6-8.0	8.0	<b>610<sup>1</sup></b>	<1.0	<1.0	<1.0	<1.0	<1.0
B6-12.0	12.0	390 <sup>1</sup>	<0.83	<0.83	12	<0.83	<0.83
B7-12.0	12.0	4.5 <sup>1</sup>	<0.005	0.080	8.4	<0.005	<0.005
B8-8.0	8.0	<b>870<sup>1</sup></b>	<b>3.2</b>	<1.3	2.5	<1.3	<1.3
B8-12.0	12.0	1.7 <sup>2</sup>	0.084	<0.0048	0.015	<0.0048	<0.0048



Sample ID	Sample Depth (ft)	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
B9-8.0	8.0	<b>650<sup>1</sup></b>	<b>2.7</b>	<1.0	8.8	<1.0	<1.0
B9-12.0	12.0	<0.96	<0.0048	<0.0048	0.0057	<0.0048	<0.0048
B9-16.0	16.0	<0.91	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045
B10-4.0	4.0	<b>2,000<sup>1</sup></b>	<b>5.7</b>	<3.1	3.7	<3.1	<3.1
B10-8.0	8.0	370 <sup>1</sup>	<b>1.1</b>	<0.5	6.2	6.6	<0.5
B11-4.0	4.0	4.1 <sup>1</sup>	<0.0049	0.026	0.062	0.48	<0.0049
B11-8.0	8.0	16 <sup>1</sup>	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
B11-12.0	12.0	<0.93	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046
<b>Residential ESL<sup>3</sup></b>		<b>100</b>	<b>0.18</b>	<b>9.3</b>	<b>32.0</b>	<b>11.0</b>	<b>2.0</b>
<b>Commercial ESL<sup>3</sup></b>		<b>400</b>	<b>0.38</b>	<b>9.3</b>	<b>32.0</b>	<b>11.0</b>	<b>5.6</b>

Notes: All soil results reported in micrograms per kilogram (mg/kg), **bolded** values exceed ESL  
 < Sample result less than the laboratory minimum detection limit indicated  
<sup>1</sup> Analytical result flagged by laboratory that heavier hydrocarbons contributed to the quantitation  
<sup>2</sup> Analytical result flagged by laboratory that lighter hydrocarbons contributed to the Quantitation  
<sup>3</sup> SF Bay RWQCB, February 2005 ESLs are for Shallow Soils (Table B)

**TABLE 2 – GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS**

Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
B5-W	<b>3,900</b>	<b>160</b>	11	<b>420</b>	<b>232</b>	<0.71
B6-W	<b>720</b>	15	0.66	57	2.61	<0.71
B9-W	<b>6,300</b>	<b>540</b>	11	140	24.0	<0.71
B10-W	<b>2,100</b>	<b>68</b>	4.5	81	74.6	<0.71
<b>Groundwater ESL<sup>2</sup></b>	<b>500</b>	<b>46</b>	<b>130</b>	<b>290</b>	<b>100</b>	<b>1,800</b>

Notes: All water results reported in micrograms per Liter (µg/L)  
 < Sample result less than the laboratory minimum detection limit indicated  
<sup>1</sup> Groundwater sample analytical results from 8/17/06, Third Quarter 2006 Monitoring Report  
<sup>2</sup> SF Bay RWCQB, February 2005 ESLs for groundwater (Table B), not to be used to assess health risk

## 5.0 DISCUSSION

The general goals of this investigation were to further investigate current subsurface conditions, characterize soil and groundwater for suspect residual petroleum hydrocarbon impacts associated with former site use, and obtain additional information to fill data gaps in the SCM and to help ultimately to justify regulatory closure. ACC advanced its exploratory soil borings in select locations relative to probable sources, such as the former UST locations and the product dispenser islands, and in representative locations between existing groundwater monitoring wells. Final soil boring locations

were at or adjacent to the soil boring locations approved by the Alameda County Environmental Health. Soil borings B1, B2, B3, B4, and B10 were advanced adjacent to the former product dispensers. Soil boring B-6 was advanced adjacent to the former waste oil UST. Soil borings B5, B7, B8, B9, and B11 were advanced in select locations in the area of the former USTs. Due to the depth to groundwater, ACC had to revise select soil boring depths upward to achieve the intended scope of work in one business day and avoid excessive remobilization costs. In addition, due to field indications of petroleum hydrocarbon impact in soil borings B1 through B4, ACC advanced soil boring B10 at the midpoint between soil borings B1 and B3 to further characterize suspect TPH impacts in shallow soil between the two product dispensers.

Logging continuously-cored soil borings confirmed that low permeability silts and clays are the predominant soil type to approximately 18 feet bgs and the first encountered water bearing zone is a clayey/silty gravel at approximately 18 feet bgs. TPHg-impacted soil was primarily encountered at shallow depths (4 to 6 feet bgs) beneath the former product dispensers and to a much less degree in soil at deeper depths (8 to 12 feet bgs) beneath and adjacent to the former USTs. TPHg-impacted soil generally attenuated with vertical distance and little or no impacts were noted in the soil boring deeper than 12 feet, as evidenced by the general lack of soil discoloration, odor, PID reading, or elevated soil sample analytical result below 12 feet bgs. Significant TPHg/BTEX attenuation was noted in soil samples collected in boring B1 from 4.0 to 8.0 feet, B2 from 4.0 to 8.0 feet, B5 from 8.0 to 12.0 feet, B8 from 8.0 to 12.0 feet, B9 from 8.0 to 12.0 feet, and B10 from 4.0 to 8.0 feet.

Soil samples were logged and screened with a PID and representative samples were submitted for analysis. Soil sample analytical results were consistent with field indications of TPHg and BTEX impacts and verified that petroleum hydrocarbon impacts were generally localized in the fine-grained clayey soils. Soil samples reporting elevated TPHg tended to report much lesser associated BTEX concentrations indicating some degree of preferential natural attenuation and degradation has occurred. Grab groundwater sample analytical results suggest that sources of TPHg/BTEX impact are likely residual leaching from impacted soil and also indicate preferential degradation of the more volatile BTEX constituents.

## 5.1 Risk Evaluation

ACC compared reported TPHg and BTEX concentrations in soil and groundwater to their respective established environmental screening levels (ESLs) as summarized in the San Francisco Bay Regional Water Quality Control Board's (RWQCB) *Screening for Environmental Concerns At Sites With Contaminated Soil and Groundwater*, Table B. Due to the lack of mitigating factors and the likely scenario of long-term commercial site use, ESLs appear appropriate for a Tier 1 risk evaluation. With the exception of soil sample B2-4.0, soil sample B5-8.0 exceeding the xylenes ESL, and grab groundwater sample B5-W, 9 of the 23 soil and each of the four grab groundwater samples reported reportable TPHg and benzene above their respective ESLs.

ACC compared the reported "worst case" benzene concentration in grab groundwater samples of 540  $\mu\text{g/L}$  to its groundwater screening level for evaluation of potential vapor intrusion concerns, as summarized in RWQCB Table E-1a. The residential benzene screening level for low to moderate

soils is 1,900  $\mu\text{g/L}$  and the commercial benzene screening level is 6,400  $\mu\text{g/L}$ . Since the high benzene concentration reported in grab groundwater samples is 540  $\mu\text{g/L}$  and the high benzene concentration reported in the onsite monitoring wells is 480  $\mu\text{g/L}$ , benzene in groundwater does not pose an unacceptable risk for potential vapor intrusion in both residential and commercial settings.

Based on the location of residual benzene in soil, selective soil source removal is indicated to achieve established human health risk goals. Shallow soil in the vicinity of soil borings B1, B2, B3, and B10 warrant removal due to elevated TPHg and benzene concentrations above the commercial ESLs and because they represent a realistic human health risk to potential dermal absorption and inhalation hazards.

Based on the relatively low benzene concentrations in groundwater, an approximate depth of 18 feet to groundwater, and non-beneficial uses of groundwater at or downgradient of the Site, groundwater source removal is not necessary to achieve established human health risk goals. Groundwater is not used for beneficial uses in the vicinity of the Site as quality water is supplied by the East Bay Municipal Utility District (EBMUD). San Leandro Creek, located approximately 200 feet west and northwest of the Site, is sufficiently close that tidal fluctuations are apparent in the groundwater monitoring wells and groundwater quality is likely diminished by increased total dissolved solids associated with brackish water from San Francisco Bay.

## **5.2 Revised Site Conceptual Model (SCM)**

Additional logged soil borings confirmed that low permeability, fine grain soils are present across the Site to an approximate depth of 18 feet bgs. In onsite soil borings, first encountered groundwater was observed at approximately 18 feet bgs, which is approximately 4 to 6 feet deeper than observed during the installation of offsite monitoring wells MW-7 and MW-8. These fine grain soils restrict or prevent significant migration of petroleum hydrocarbons in the subsurface and impacted soil appears to be localized in the immediate source areas. As is typical in most service station scenarios, investigation findings indicate that residual TPHg and BTEX concentrations are present in deeper soils in the vicinity of the former USTs and in shallow soil beneath the former product dispensers.

Additional site investigation obtained data that significantly improves the quality and completeness of the initial SCM. Subsurface geological conditions on the Site have been logged with a high degree of confidence and the approximate depth and horizontal extent of residual TPH concentrations in soil can be estimated around known sources such as the former USTs and product dispensers. Due to a relatively simple gasoline release scenario and relatively consistent geological conditions across the Site, RWQCB ESLs are appropriate for use at the Site to evaluate Tier 1 human health risk and assess the need for remedial soil removal to achieve applicable health risk goals. Finally, sufficient Site investigation and periodic groundwater monitoring has been performed to date to evaluate the Site as a "low risk" groundwater case under a commercial scenario and approve full regulatory case closure. Groundwater quality trends indicate a relatively minor residual source of petroleum hydrocarbon impact in first-encountered groundwater and no significant downgradient migration. However, Site investigation findings suggest that limited remedial soil excavation is necessary to achieve human

health risk goals and prevent a potential indoor inhalation hazard through vapor intrusion following Site development.

## 6.0 CONCLUSIONS

Based on available groundwater monitoring results and site history, soil and grab groundwater sample analytical results, and field observations, ACC has concluded that:

- Reported TPHg and BTEX concentrations in soil are indicative of a typical service station release scenario with impacts in soil beneath the product dispensers and under one or more USTs;
- Soils at the Site are primarily fine-grained silts and clays with low estimated permeability which limit or prevent potential vertical, downward migration of dissolved-phase petroleum hydrocarbons into groundwater, and also minimize potential vertical, upward migration of vapor-phase petroleum hydrocarbons in soil gas;
- Elevated concentrations of TPHg/BTEX were reported in shallow soil samples collected beneath the dispenser islands (B1, B2, B3, B4, and B10) and to a lesser degree in soil from approximately 8 to 12 feet in the area of the former USTs (B5, B7, B8, B9, and B11);
- Analytical results indicate concentrations of TPHg and/or benzene reported in soil samples B1, B2, B3, and B10 at 4.0 feet bgs are generally above their respective ESLs and warrant removal;
- Analytical results indicate some concentrations of TPHg or benzene reported in soil samples B4, B5, B6, B8, and B9 at 8.0 feet bgs are also above their respective ESLs but do not warrant removal;
- Concentrations of TPHg and BTEX were reported in grab groundwater samples collected downgradient of the dispenser islands and in the vicinity of the former USTs; however, these reported concentrations do not indicate any significant source(s) of gasoline is impacting groundwater and the dissolved TPH concentrations are indicative of residual soil sources only;
- Available utility survey information further demonstrates that preferential migration and/or interception of impacted groundwater cannot occur, and the lack of significant concentrations of constituents of concern in monitoring wells MW-7 and MW-8 confirms that offsite migration in groundwater is minimal and likely attenuating before any appreciable migration can occur;
- Toluene, ethylbenzene, total xylenes, and MTBE concentrations in both soil and grab groundwater samples are generally well below their respective ESLs;
- As summarized in RWQCB Table E-1a, benzene concentrations in grab groundwater samples and onsite monitoring wells are generally well below their respective groundwater ESL for evaluation of potential vapor intrusion concerns, and do not represent a significant human health risk;

- The revised SCM is more accurate, reflects current subsurface conditions at the Site, no significant data gaps are apparent, and support performing remedial soil removal to achieve human health risk goals under a commercial closure scenario; and
- Additional subsurface investigation is not required to significantly improve our understanding of subsurface conditions or to perform recommended soil source removal.

## **7.0 RECOMMENDATIONS**

Based on the conclusions summarized in this report and periodic groundwater monitoring results obtained from February 2005 to the present, ACC recommends:

- Immediately submitting this report to the Alameda County Health Care Services Agency (ACHCSA) electronically and request expedited review by Barney Chan;
- Preparing and submitting a Remedial Action Plan (RAP) to ACHCSA that summarizes recommended remedial soil excavation and confirmation soil sampling in the vicinity of the two former dispenser islands to achieve commercial ESLs in shallow soil, decrease the potential human health risk associated with TPHg and benzene in shallow soil, and help eliminate potential ongoing impacts to groundwater;
- Requesting temporarily ceasing groundwater monitoring and sampling pending review of this report and completion of any recommended remedial action; and
- Request evaluating the Site for full regulatory closure as a “low risk fuel case” following successful completion of the recommended remedial action, revising the SCM accordingly, and obtaining acceptable confirmation sidewall/bottom soil sample analytical results.

### **7.1 Recommended Remedial Action**

1. Excavate approximately 200 to 300 cubic yards of TPH-impacted soil in the vicinity of the two product dispenser islands to an approximate depth of 5 feet;
2. Screen soil at the limit of excavation with a PID and collect six to eight confirmation soil samples from the excavation bottom and sidewalls to evaluate the effectiveness of remedial soil excavation;
3. Replace removed soil with similar clean fill soil and properly compact to restore the Site to its previous condition; and
4. Perform any additional risk evaluation as necessary to provide justify regulatory closure.

## **8.0 LIMITATIONS**

The service performed by ACC has been conducted in a manner consistent with the levels of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

The conclusions presented in this report are professional opinions based on the indicated data described in this report and applicable regulations and guidelines currently in place. They are intended only for the purpose, site, and project indicated. Opinions and recommendations presented herein apply to site conditions existing at the time of our study.

ACC has included analytical results from a state-certified laboratory, which performs analyses according to procedures suggested by the U.S. Environmental Protection Agency and the State of California. ACC is not responsible for laboratory errors in procedure or result reporting.

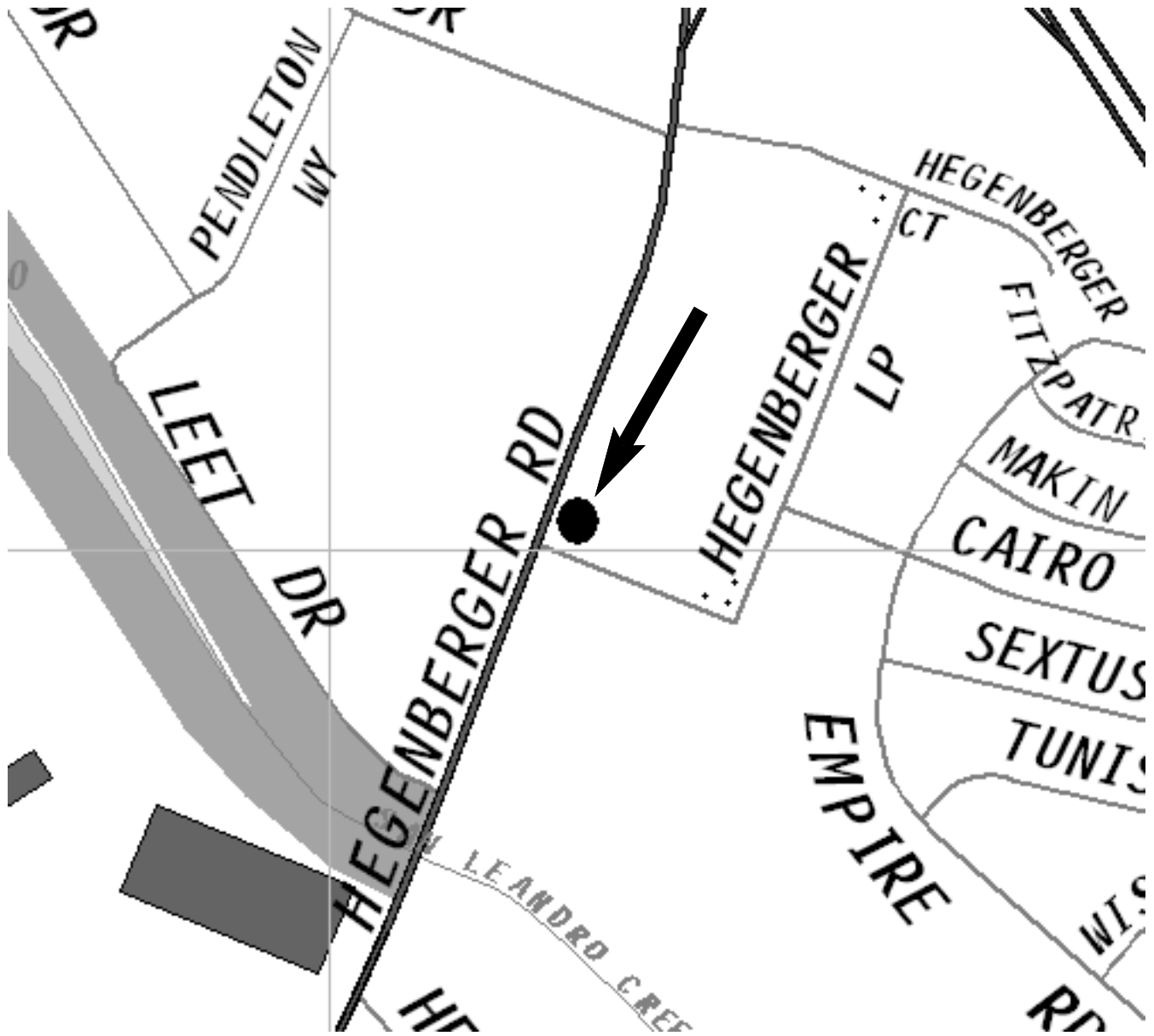
## **9.0 REFERENCES**

California Regional Water Quality Control Board, San Francisco Bay Region, *Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater*, Volumes 1 and 2, Interim Final – February 2005.

## FIGURES

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Source: The Thomas Guide, Bay Area, 2004

Title: **Location Map**  
**300 Hegenberger Road**  
**Oakland, California**

Figure Number: 1

Scale: None

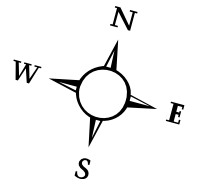
Project Number: 6748-017.01

Drawn By: KRB

Date: 02/22/07



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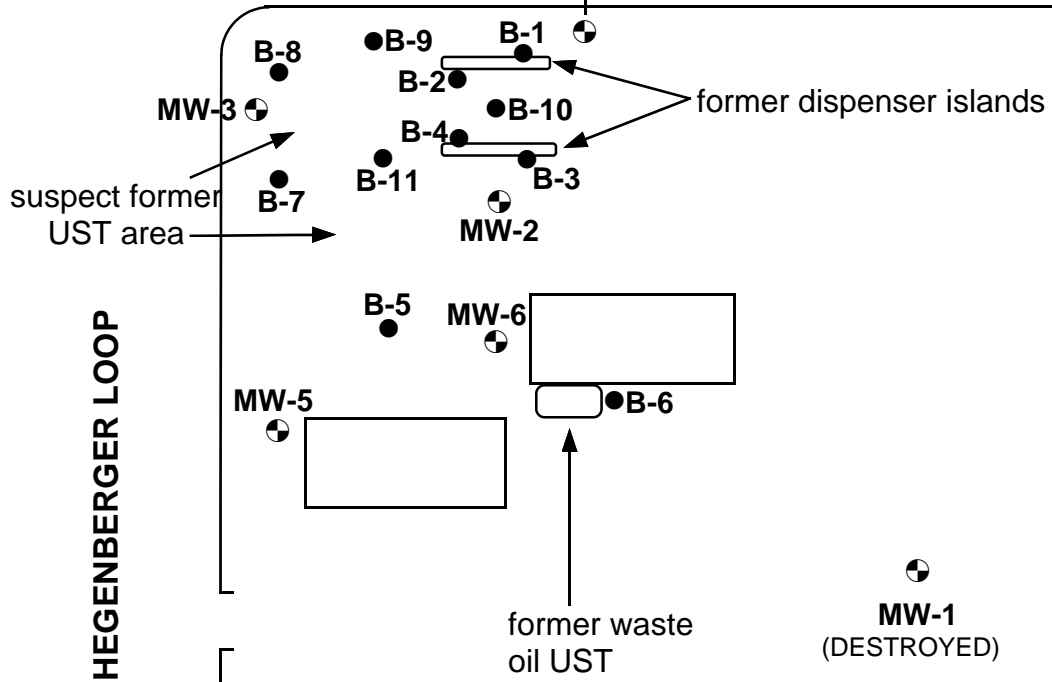


MW-8  
(DESTROYED)

HEGENBERGER ROAD



MW-7

MW-4



MW-1  
(DESTROYED)

Legend

-  Groundwater Monitoring Well Location
-  Soil Boring Location

B-8

Map Source: Northwest Envirocon, Inc.  
Plate 2, December 1997

Title: **Soil Boring Locations**  
**300 Hegenberger Road**  
**Oakland, California**

Figure Number: 2

Scale: 1" = 60'

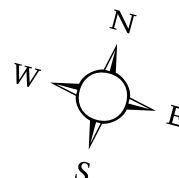
Project Number: 6748-017-01

Drawn By: KRB



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Date: 1/26/07



MW-8

EBMUD - 8" Steel Main

City of Oakland - Electrical Division

HEGENBERGER ROAD

EBMUD - 8" Asbestos Cement Pipe

PG&E

MW-7

MW-4

MW-3

former dispenser islands

MW-2

suspect former UST area

MW-6

HEGENBERGER LOOP

MW-5

former waste oil UST

MW-1  
(DESTROYED)

### Legend



Groundwater Monitoring Well Location

Title: **Utility Survey**  
**300 Hegenberger Road**  
**Oakland, California**

Figure Number: 3

Scale: 1" = 60'

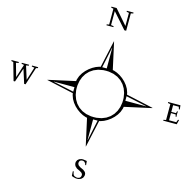
Project Number: 6748-017-01

Drawn By: KRB

Date: 10/2/06



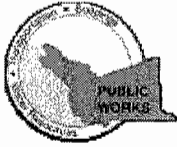
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Oakland, California 94621  
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APPENDIX 1

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# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 09/12/2006 By jamesy**

**Permit Numbers: W2006-0786**  
**Permits Valid from 09/18/2006 to 10/01/2006**

**Application Id:** 1158085822257  
**Site Location:** 300 Hegenberger Rd, Oakland, CA  
**Project Start Date:** 09/18/2006

**City of Project Site:** Oakland  
**Completion Date:** 10/01/2006

**Applicant:** ACC Environmental Consultants - Ken Blume  
7977 Capwell Dr. #100, Oakland, CA 94621  
**Property Owner:** Carpenters Pension Trust Fund c/o McMorgan &  
Co. LLC, Ms. Mary Schroeder  
1 Bush St. #800, San Francisco, CA 94104  
**Client:** \*\* same as Property Owner \*\*

**Phone:** 510-638-8400  
**Phone:** 415-616-9361

	<b>Total Due:</b>	\$200.00
<b>Receipt Number: WR2006-0415</b>	<b>Total Amount Paid:</b>	\$200.00
<b>Payer Name : ACC Environmental</b>	<b>Paid By: CHECK</b>	<b>PAID IN FULL</b>

**Consultants**

**Works Requesting Permits:**

Borehole(s) for Investigation-Geotechnical Study/CPT's - 12 Boreholes  
Driller: Environmental Control Associates - Lic #: 695970 - Method: other

**Work Total: \$200.00**

**Specifications**

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2006-0786	09/12/2006	12/17/2006	12	2.00 in.	24.00 ft

**Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

## Alameda County Public Works Agency - Water Resources Well Permit

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

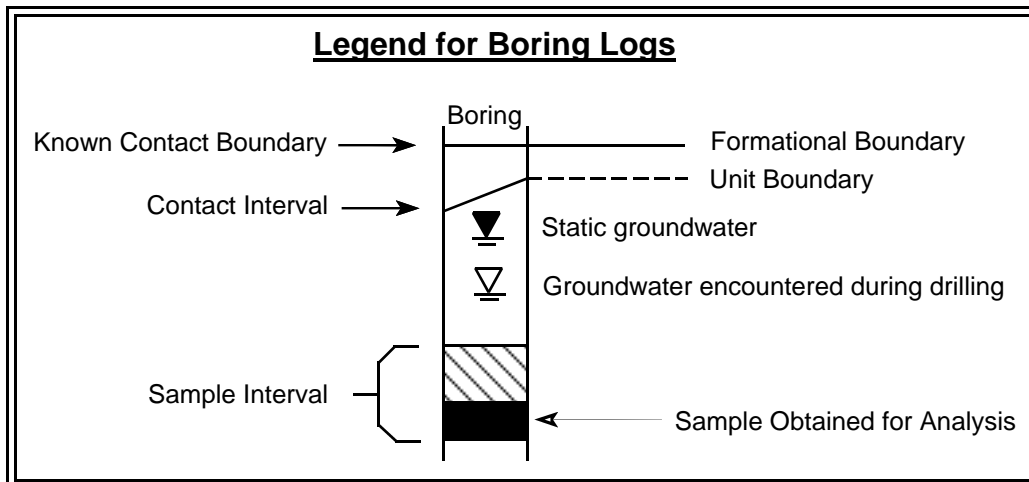
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## APPENDIX 2

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## UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		TYPICAL NAMES			
COARSE GRAINED SOILS	<b>GRAVELS</b> more than half coarse fraction is larger than Number 4 sieve	CLEAN GRAVELS WITH LITTLE OR NO FINES	<b>GW</b>	well graded gravels, gravel-sand mixtures	
			<b>GP</b>	poorly graded gravels, gravel-sand mixtures	
		GRAVELS WITH OVER 12% FINES	<b>GM</b>	silty gravels, poorly graded gravel-sand silt mixtures	
			<b>GC</b>	clayey gravels, poorly graded gravel-sand clay mixtures	
	<b>SANDS</b> more than half coarse fraction is smaller than Number 4 sieve	CLEAN SANDS WITH LITTLE OR NO FINES	<b>SW</b>	well graded sands, gravelly sands	
			<b>SP</b>	poorly graded sands, gravelly sands	
		SANDS WITH OVER 12% FINES	<b>SM</b>	silty sands, poorly graded sand-silt mixtures	
			<b>SC</b>	clayey sands, poorly graded sand-clay mixtures	
			<b>SILTS AND CLAYS</b> liquid limit less than 50	<b>ML</b>	inorg. silts and very fine sands, rock flour silty or clayey sands, or clayey silts w/ sl. plasticity
				<b>CL</b>	inorg. clays of low-med plasticity, gravelly clays, sandy clays, silty clays, lean clays
<b>SILTS AND CLAYS</b> liquid limit greater than 50	<b>OL</b>	organic clays and organic silty clays of low plasticity			
	<b>MH</b>	inorganic silty, micaceous or diatomaceous fine sandy or silty soils, elastic silts			
	<b>CH</b>	inorganic clays of high plasticity, fat clays			
	<b>OH</b>	organic clays of medium to high plasticity organic silts			
<b>HIGHLY ORGANIC SOILS</b>		<b>PT</b>	peat and other highly organic soils		



**ACC Environmental Consultants, Inc.**  
 7977 Capwell Drive, Suite 100  
 Oakland, California 94621  
 (510) 638-8400 Fax: (510) 638-8404

Site: **SUBJECT SITE**  
**300 Hegenberger Road**  
**Oakland, California**  
 Project Number: **6748-017.01**

Soil Color <u>Color Code</u> (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	EQUIPMENT: Geoprobe Hydraulic Sampling Device OPERATED BY: Environmental Control Associates LOGGED BY: David DeMent, PG LOCATION: 300 Hegenberger Road, Oakland, CA WORK DATE: 09/25/06 BORING: B1
5Y-4/3	200	B1-4.0	0-4	0 2 4	Concrete and gravel baserock Silty Clay (CL), olive with some black-dark brown, moderate to high plasticity, medium stiff, uniform, strong petroleum hydrocarbon odor, traces of FP in soil fractures, damp
5Y-3/2	28	B1-8.0	4-8	4 6 8 10 12 14 16 18 20 22 24 26 28	Silty Clay (CL), as above, dark olive green, slight petroleum hydrocarbon odor, soft 7-8 feet bgs, some thin very fine to fine grain sand stringers noted 6-7 feet bgs <b>TOTAL DEPTH OF BORING: 8 feet bgs</b>

<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>  Date: <b>09/25/06</b>	Title: <b>LOG OF BORING B1</b>  300 Hegenberger Road Oakland, California
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Soil Color Color Code (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	EQUIPMENT: Geoprobe Hydraulic Sampling Device OPERATED BY: Environmental Control Associates LOGGED BY: David DeMent, PG LOCATION: 300 Hegenberger Road, Oakland, CA WORK DATE: 09/25/06 BORING: B2
5Y-4/3	200	B2-4.0	0-4	0 2 4	Concrete and gravel baserock Silty Clay (CL), olive with some black-dark brown, moderate to high plasticity, medium stiff, uniform, strong petroleum hydrocarbon odor, damp
5Y-3/2	148	B2-8.0	4-8	4 6 8 10 12 14 16 18 20 22 24 26 28	Silty Clay (CL), as above, dark olive green, slight petroleum hydrocarbon odor, soft 7-8 feet bgs <b>TOTAL DEPTH OF BORING: 8 feet bgs</b>

<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B2</b> 300 Hegenberger Road Oakland, California
<b>Date: 09/25/06</b>		

Soil Color Color Code (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	EQUIPMENT: Geoprobe Hydraulic Sampling Device OPERATED BY: Environmental Control Associates LOGGED BY: David DeMent, PG LOCATION: 300 Hegenberger Road, Oakland, CA WORK DATE: 09/25/06 BORING: B3
				0	Concrete and gravel baserock
5Y-4/3		B3-4.0		2	Silty Clay (CL), olive with some black-dark brown, moderate to high plasticity, medium stiff, uniform, slight petroleum hydrocarbon odor, damp
	30			4	
5Y-3/2		B3-8.0		6	Silty Clay (CL), as above, dark olive green, strong petroleum hydrocarbon odor, soft 6.5-8 feet bgs
	200			8	
					<b>TOTAL DEPTH OF BORING: 8 feet bgs</b>
					10
					12
					14
					16
					18
					20
					22
					24
					26
					28

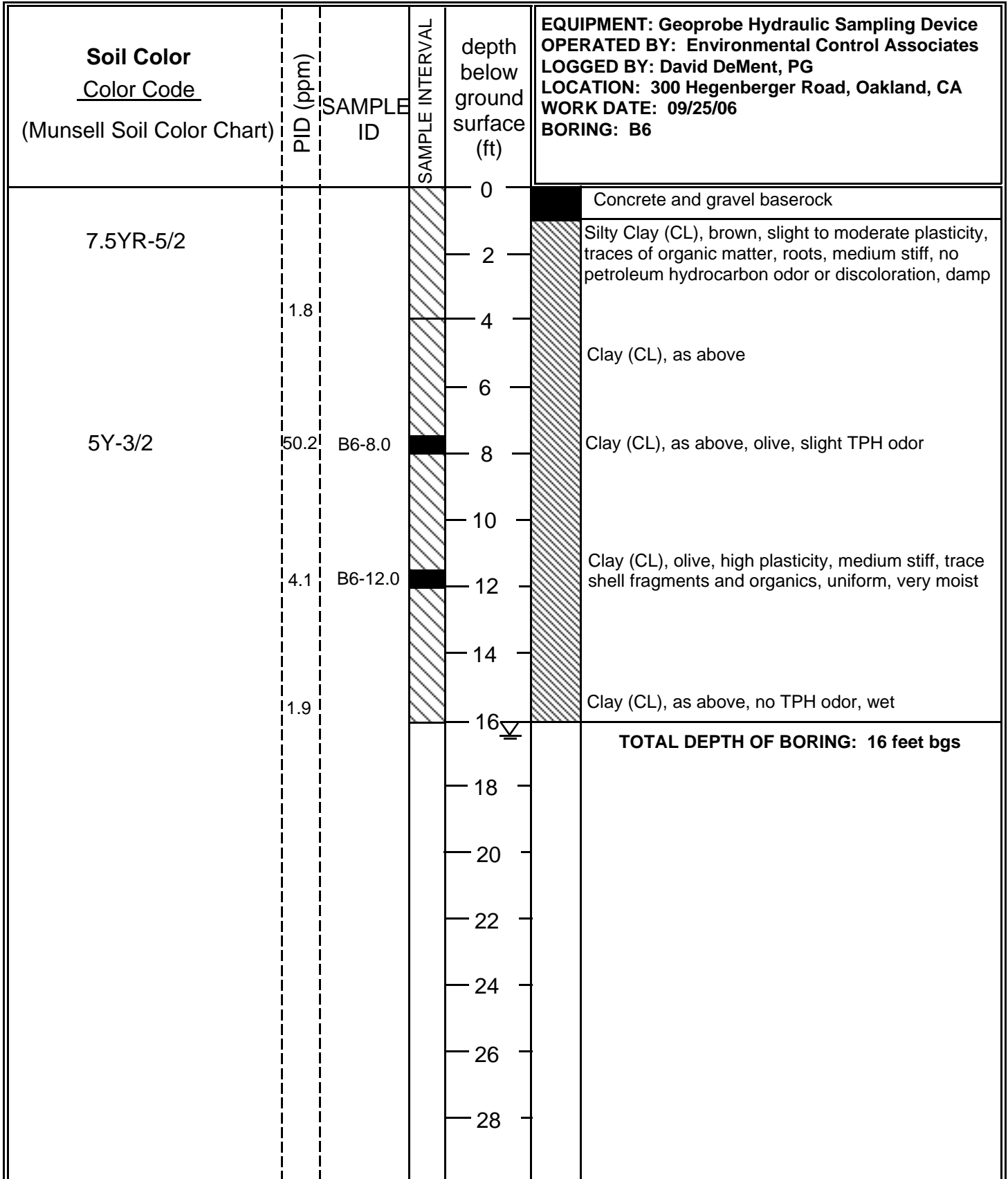
<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B3</b> 300 Hegenberger Road Oakland, California
	<b>Date: 09/25/06</b>	

Soil Color Color Code (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	<b>EQUIPMENT: Geoprobe Hydraulic Sampling Device</b> <b>OPERATED BY: Environmental Control Associates</b> <b>LOGGED BY: David DeMent, PG</b> <b>LOCATION: 300 Hegenberger Road, Oakland, CA</b> <b>WORK DATE: 09/25/06</b> <b>BORING: B4</b>
				0	Concrete and gravel baserock
5Y-4/3		B4-4.0		2	Silty Clay (CL), olive with some black, moderate to high plasticity, medium stiff, uniform, slight petroleum hydrocarbon odor, damp
	68			4	
5Y-3/2		B4-8.0		6	Silty Clay (CL), as above, dark olive green, mod. petroleum hydrocarbon odor, soft 6.5-8 feet bgs
	76			8	
					<b>TOTAL DEPTH OF BORING: 8 feet bgs</b>
					10
					12
					14
					16
					18
					20
					22
					24
					26
					28

<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B4</b> 300 Hegenberger Road Oakland, California
<b>Date: 09/25/06</b>		

Soil Color Color Code (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	<b>EQUIPMENT: Geoprobe Hydraulic Sampling Device</b> <b>OPERATED BY: Environmental Control Associates</b> <b>LOGGED BY: David DeMent, PG</b> <b>LOCATION: 300 Hegenberger Road, Oakland, CA</b> <b>WORK DATE: 09/25/06</b> <b>BORING: B5</b>
				0	Concrete and gravel baserock
				2	FILL, gravel, silt, and sand fill materials
7.5YR-5/2				4	Silty Clay (CL), brown, some yellow brown, some olive brown, slight to moderate plasticity, medium stiff, uniform, no petroleum hydrocarbon odor or discoloration, damp
				6	
5Y-3/2	200	B5-8.0		8	Clay (CL), as above, olive, strong TPH odor
				10	Clay (CL), olive, high plasticity, medium stiff, uniform, slight petroleum hydrocarbon odor, damp
	2.5	B5-12.0		12	
				14	
	1.6			16	Clay (CL), as above, no TPH odor
10YR-5/6				18	Silty Gravel (GM), yellow brown, 5-15% fines, 5-10% fine grain sand, fine to medium grain gravel, no TPH odor, saturated
				20	<b>TOTAL DEPTH OF BORING: 20 feet bgs</b>
				22	
				24	
				26	
				28	



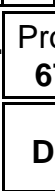
<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B5</b> 300 Hegenberger Road Oakland, California
	<b>Date: 09/25/06</b>	



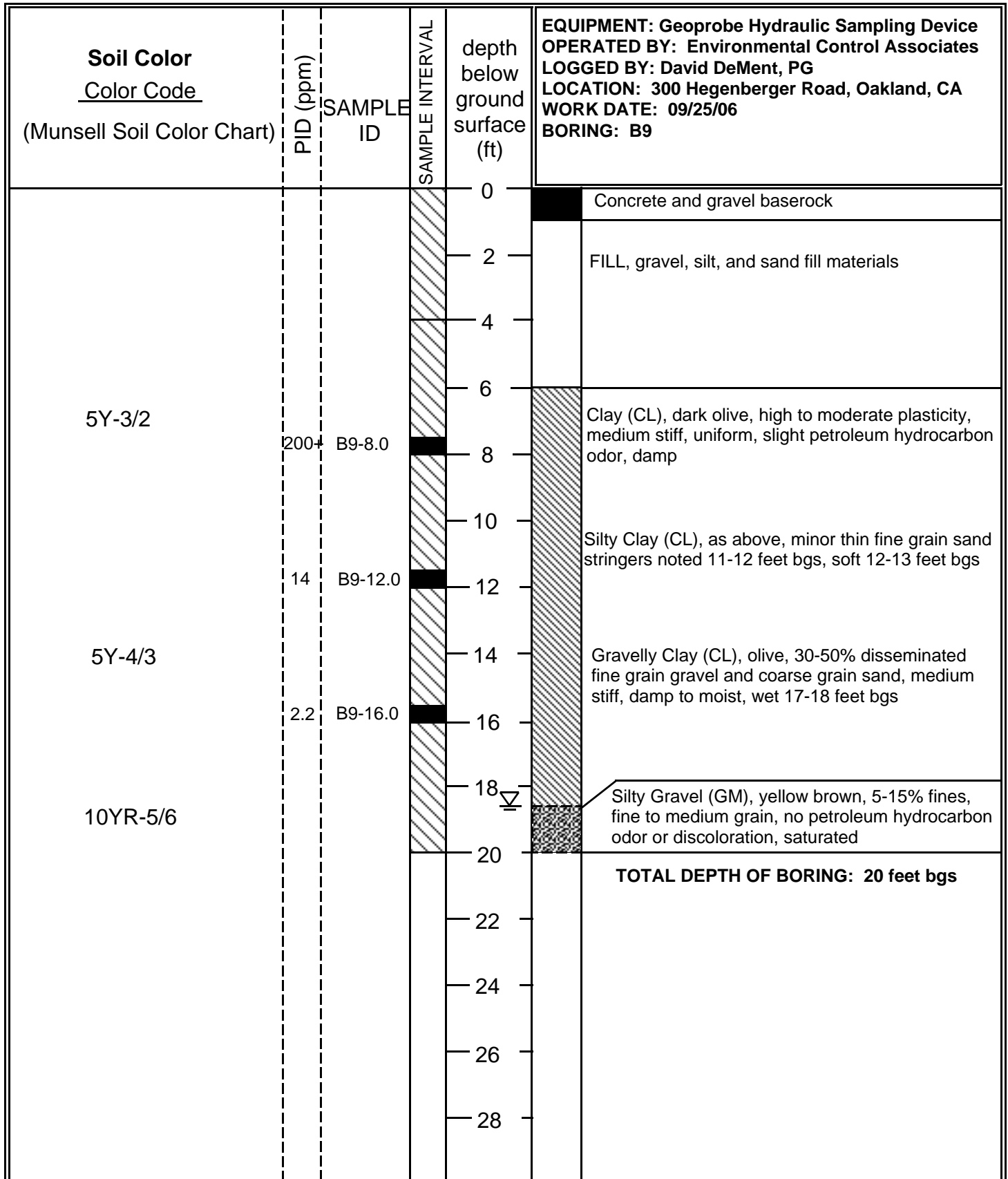
<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	<b>Project Number</b> <b>6748-017.01</b>  <b>Date: 09/25/06</b>	<b>Title: LOG OF BORING B6</b>  300 Hegenberger Road Oakland, California
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Soil Color Color Code (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	EQUIPMENT: Geoprobe Hydraulic Sampling Device OPERATED BY: Environmental Control Associates LOGGED BY: David DeMent, PG LOCATION: 300 Hegenberger Road, Oakland, CA WORK DATE: 09/25/06 BORING: B7
5Y-3/2	34	B7-12.0	[Hatched pattern]	0	Concrete and gravel baserock
				2	FILL, gravel, silt, and sand fill materials
				4	
				6	Clay (CL), olive with some black, moderate to high plasticity, medium stiff, uniform, slight petroleum hydrocarbon odor, moist (poor sample core recovery, rock blocked Geoprobe shoe)
				8	
				10	Silty Clay (CL), as above
				12	<b>TOTAL DEPTH OF BORING: 12 feet bgs</b>
				14	
				16	
				18	
				20	
				22	
24					
26					
28					

<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B7</b> 300 Hegenberger Road Oakland, California
	Date: <b>09/25/06</b>	

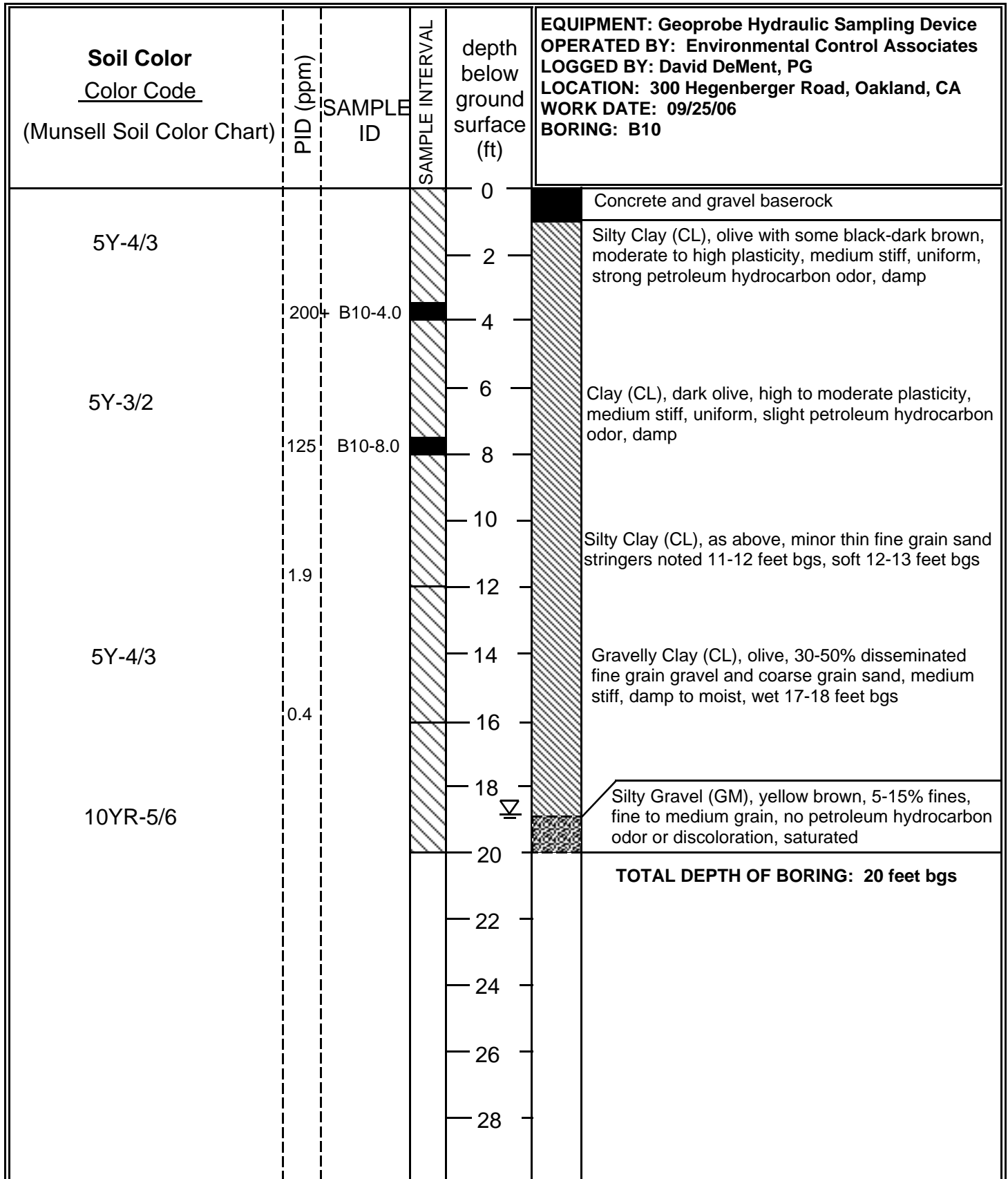
<b>Soil Color</b> <u>Color Code</u> (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	<b>EQUIPMENT:</b> Geoprobe Hydraulic Sampling Device <b>OPERATED BY:</b> Environmental Control Associates <b>LOGGED BY:</b> David DeMent, PG <b>LOCATION:</b> 300 Hegenberger Road, Oakland, CA <b>WORK DATE:</b> 09/25/06 <b>BORING:</b> B8
5Y-3/2	160	B8-8.0		0	 Concrete and gravel baserock
				2 4 6 8 10 12	FILL, gravel, silt, and sand fill materials  Clay (CL), olive, moderate to high plasticity, medium stiff, uniform, slight petroleum hydrocarbon odor, moist  Silty Clay (CL), as above, minor thin fine grain sand stringers noted 11-12 feet bgs, soft 12-13 feet bgs
	6.8	B8-12.0		12 14 16 18 20 22 24 26 28	<b>TOTAL DEPTH OF BORING: 12 feet bgs</b>

<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B8</b> 300 Hegenberger Road Oakland, California
	<b>Date: 09/25/06</b>	










<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B9</b> 300 Hegenberger Road Oakland, California
<b>Date: 09/25/06</b>		





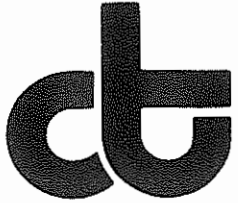
<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B10</b> 300 Hegenberger Road Oakland, California
<b>Date: 09/25/06</b>		

<b>Soil Color</b> <u>Color Code</u> (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	<b>EQUIPMENT:</b> Geoprobe Hydraulic Sampling Device <b>OPERATED BY:</b> Environmental Control Associates <b>LOGGED BY:</b> David DeMent, PG <b>LOCATION:</b> 300 Hegenberger Road, Oakland, CA <b>WORK DATE:</b> 09/25/06 <b>BORING:</b> B11
5Y-3/2				0	 Concrete and gravel baserock
				2	FILL, gravel, silt, and sand fill materials
	4.3	B11-4.0		4	
	7.4	B11-8.0		8	 Clay (CL), olive, moderate to high plasticity, medium stiff, uniform, slight petroleum hydrocarbon odor, moist
	6.8	B11-12.0		12	 Silty Clay (CL), as above
				14	<b>TOTAL DEPTH OF BORING: 12 feet bgs</b>
				16	
				18	
				20	
				22	
				24	
				26	
				28	

<b>ACC Environmental Consultants, Inc.</b> 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number <b>6748-017.01</b>	Title: <b>LOG OF BORING B11</b> 300 Hegenberger Road Oakland, California
	<b>Date: 09/25/06</b>	

APPENDIX 3

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Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L   R E P O R T


Prepared for:

ACC Environmental Consultants  
7977 Capwell Drive  
Suite 100  
Oakland, CA 94621

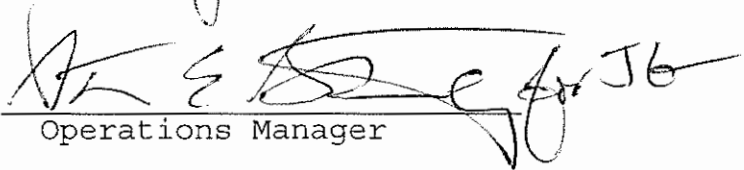
Date: 10-OCT-06  
Lab Job Number: 189667  
Project ID: STANDARD  
Location: 300 Hegenberger

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

  
Project Manager

Reviewed by:

  
Operations Manager

This package may be reproduced only in its entirety.

### CASE NARRATIVE

Laboratory number: 189667  
Client: ACC Environmental Consultants  
Location: 300 Hegenberger  
Request Date: 09/26/06  
Samples Received: 09/26/06

This hardcopy data package contains sample and QC results for twenty three soil samples and four water samples, requested for the above referenced project on 09/26/06. The samples were received cold and intact.

**Volatile Organics by GC/MS (EPA 8260B) Water:**

No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B) Soil:**

Low recovery was observed for MTBE in the MS for batch 118022; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. High recoveries were observed for a number of analytes in the MS/MSD for batch 118161; the parent sample was not a project sample, the LCS was within limits, and the associated RPDs were within limits. No other analytical problems were encountered.

## Gasoline by GC/MS

Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	09/25/06
Units:	ug/L	Received:	09/26/06

 Field ID: B5-W  
 Type: SAMPLE

Lab ID: 189667-025

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	3,900	71	1.429	118148	10/05/06
MTBE	ND	0.71	1.429	118148	10/05/06
Benzene	160	2.5	5.000	118245	10/09/06
Toluene	11	0.71	1.429	118148	10/05/06
Ethylbenzene	420	2.5	5.000	118245	10/09/06
m,p-Xylenes	190	0.71	1.429	118148	10/05/06
o-Xylene	42	0.71	1.429	118148	10/05/06

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	90	80-120	1.429	118148	10/05/06
1,2-Dichloroethane-d4	87	80-130	1.429	118148	10/05/06
Toluene-d8	94	80-120	1.429	118148	10/05/06
Bromofluorobenzene	100	80-122	1.429	118148	10/05/06

 Field ID: B6-W  
 Type: SAMPLE  
 Lab ID: 189667-026

 Diln Fac: 1.000  
 Batch#: 118148  
 Analyzed: 10/05/06

Analyte	Result	RL
Gasoline C7-C12	720	50
MTBE	ND	0.50
Benzene	15	0.50
Toluene	0.66	0.50
Ethylbenzene	57	0.50
m,p-Xylenes	2.0	0.50
o-Xylene	0.61	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-120
1,2-Dichloroethane-d4	90	80-130
Toluene-d8	92	80-120
Bromofluorobenzene	99	80-122

 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

**Gasoline by GC/MS**

Lab #: 189667	Location: 300 Hegenberger
Client: ACC Environmental Consultants	Prep: EPA 5030B
Project#: STANDARD	Analysis: EPA 8260B
Matrix: Water	Sampled: 09/25/06
Units: ug/L	Received: 09/26/06

Field ID: B9-W Diln Fac: 7.143  
 Type: SAMPLE Batch#: 118188  
 Lab ID: 189667-027 Analyzed: 10/06/06

Analyte	Result	RL
Gasoline C7-C12	6,300	360
MTBE	ND	3.6
Benzene	540	3.6
Toluene	11	3.6
Ethylbenzene	140	3.6
m,p-Xylenes	24	3.6
o-Xylene	ND	3.6

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-120
1,2-Dichloroethane-d4	85	80-130
Toluene-d8	94	80-120
Bromofluorobenzene	105	80-122

Field ID: B10-W Diln Fac: 1.000  
 Type: SAMPLE Batch#: 118188  
 Lab ID: 189667-028 Analyzed: 10/06/06

Analyte	Result	RL
Gasoline C7-C12	2,100	50
MTBE	ND	0.50
Benzene	68	0.50
Toluene	4.5	0.50
Ethylbenzene	81	0.50
m,p-Xylenes	72	0.50
o-Xylene	2.6	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-120
1,2-Dichloroethane-d4	90	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	103	80-122

NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

## Gasoline by GC/MS

Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	09/25/06
Units:	ug/L	Received:	09/26/06

Type: BLANK  
 Lab ID: QC359084  
 Diln Fac: 1.000

Batch#: 118148  
 Analyzed: 10/05/06

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	86	80-120
1,2-Dichloroethane-d4	84	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	99	80-122

Type: BLANK  
 Lab ID: QC359254  
 Diln Fac: 1.000

Batch#: 118188  
 Analyzed: 10/06/06

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-120
1,2-Dichloroethane-d4	84	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	103	80-122



**Gasoline by GC/MS**

Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	09/25/06
Units:	ug/L	Received:	09/26/06

Type:	BLANK	Batch#:	118245
Lab ID:	QC359516	Analyzed:	10/09/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	NA	
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-120
1,2-Dichloroethane-d4	90	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	91	80-122

NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit  
 Page 4 of 4

Date : 05-OCT-2006 18:54

Client ID: DYNA P&T

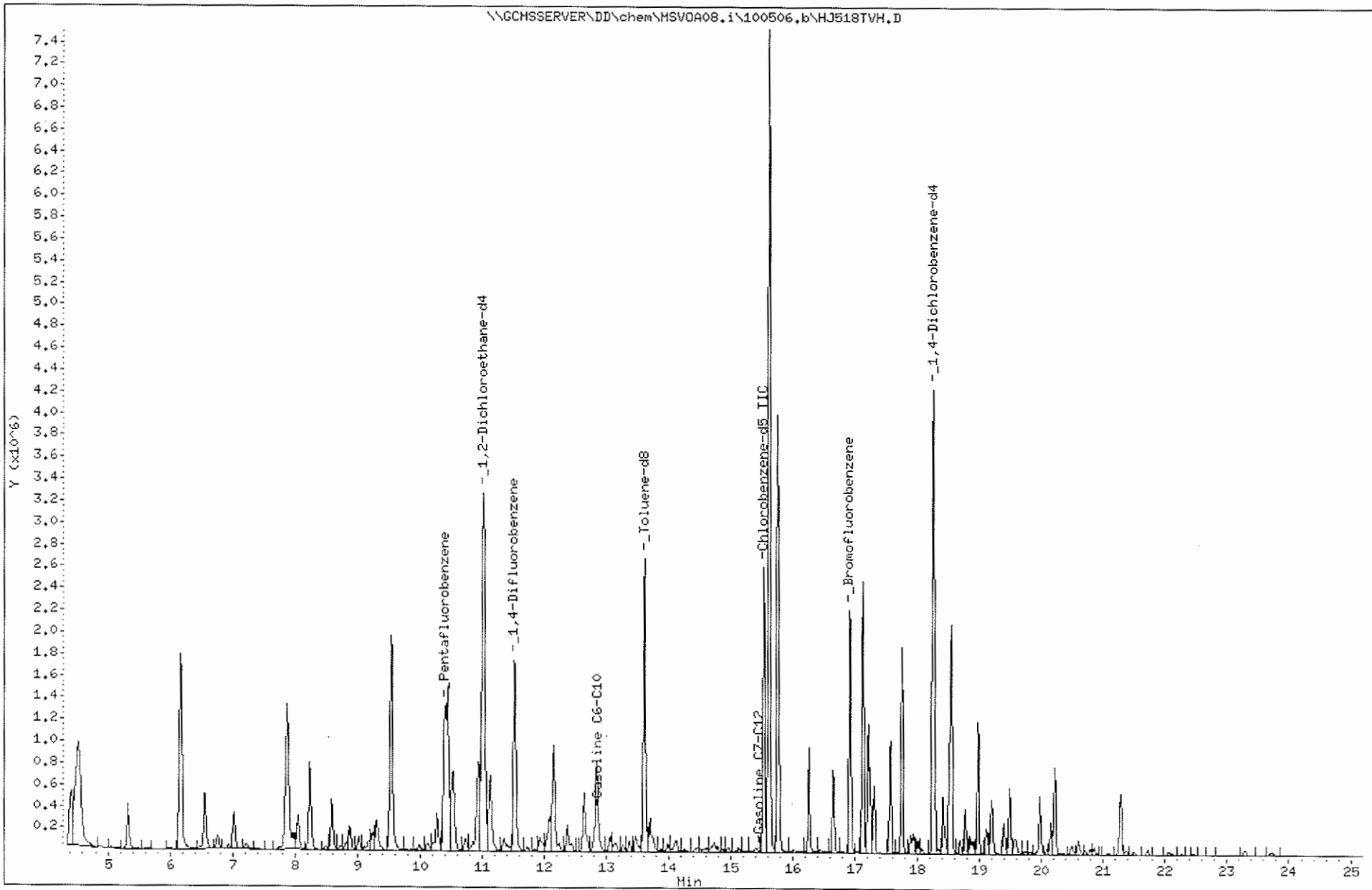
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Instrument: MSV0A08.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 05-OCT-2006 17:02

Client ID: DYNA P&T

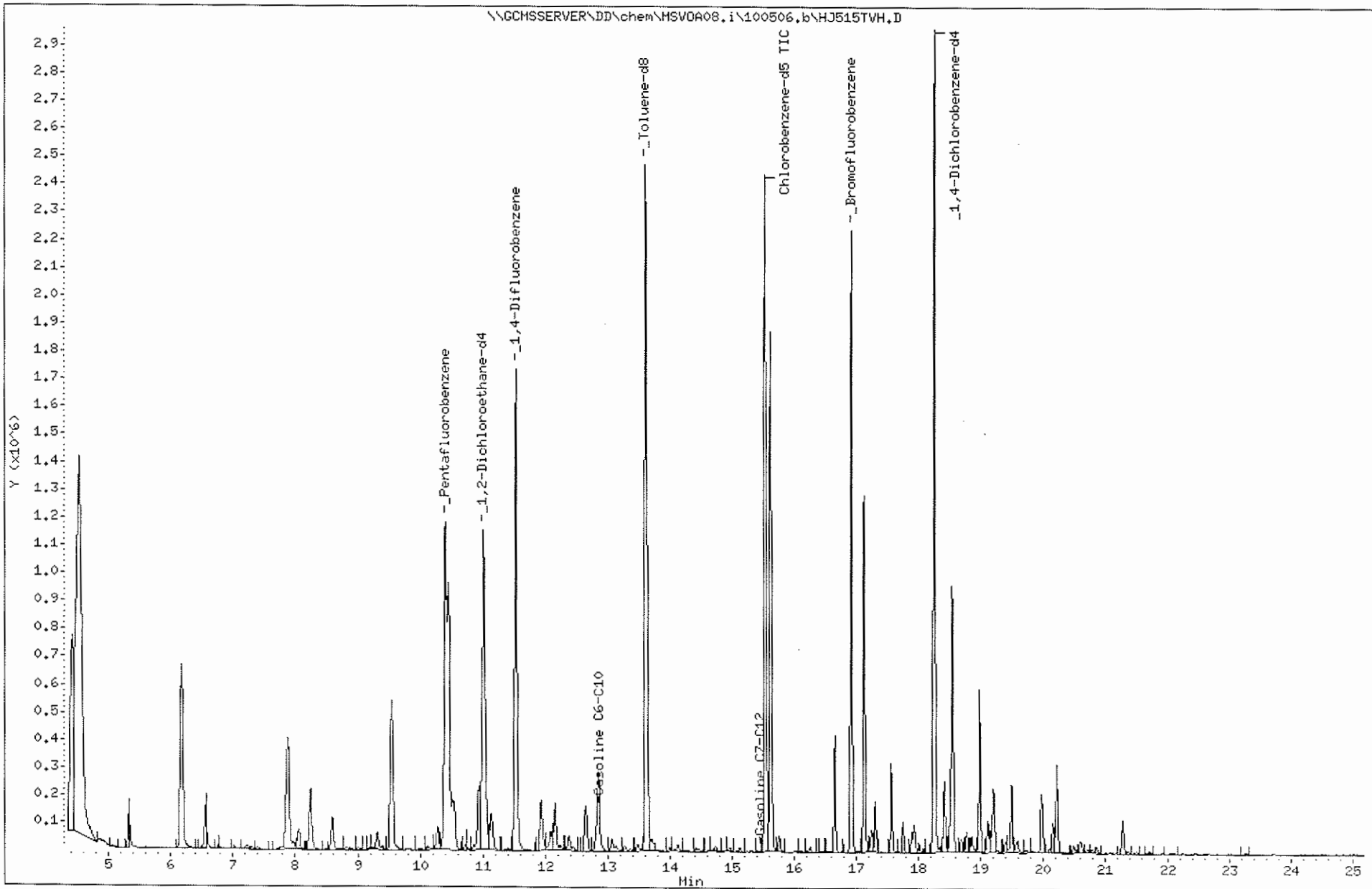
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Instrument: MSV0A08,i

Operator: B0

Column diameter: 2.00

Column phase:



Date : 06-OCT-2006 21:36

Client ID: DYNA P&T

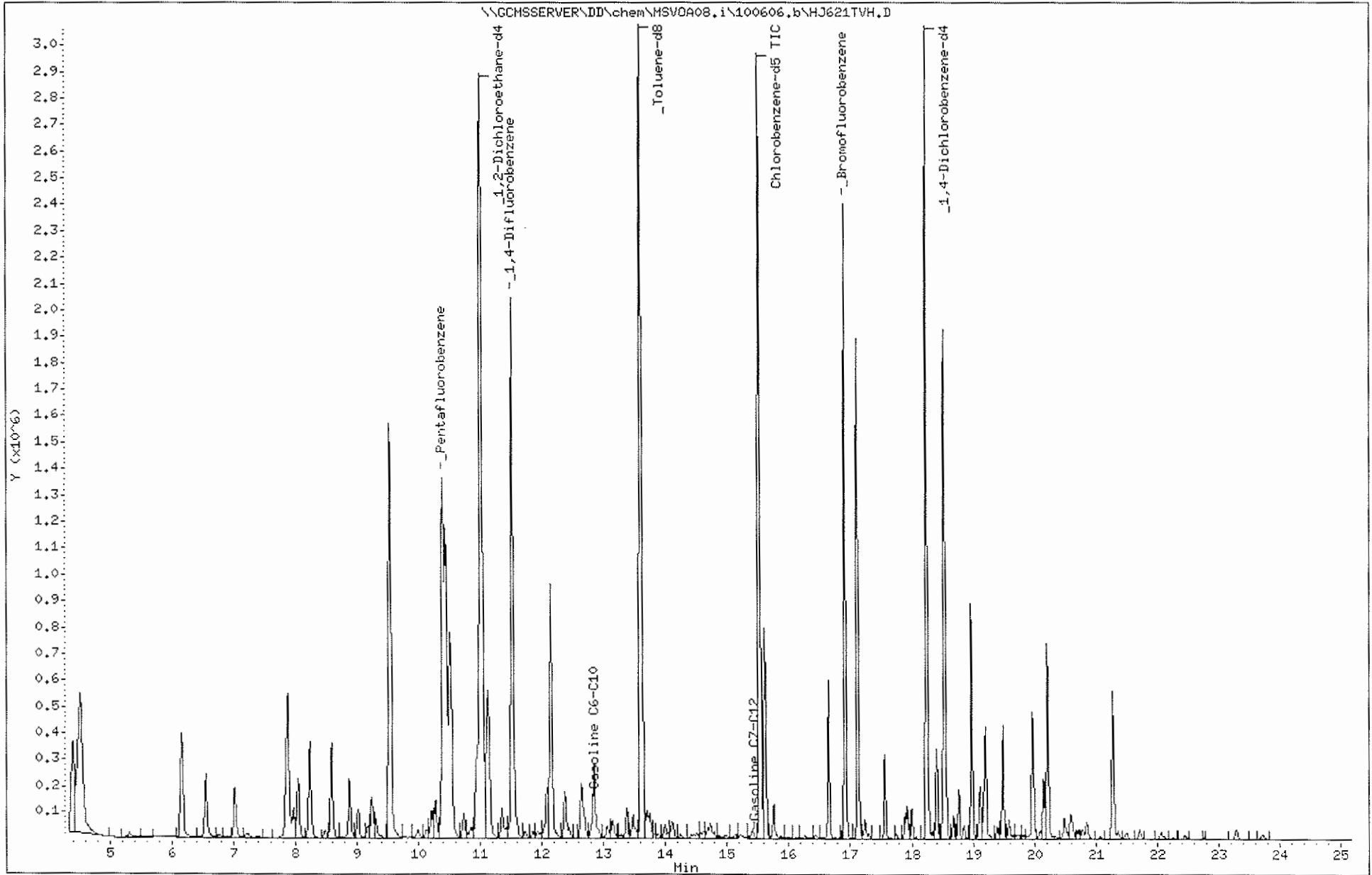
Sample Info: S,189667-027

Instrument: MSVDA08.i

Operator: BD

Column diameter: 2.00

Column phase:



Date : 06-OCT-2006 20:59

Client ID: DYNA P&T

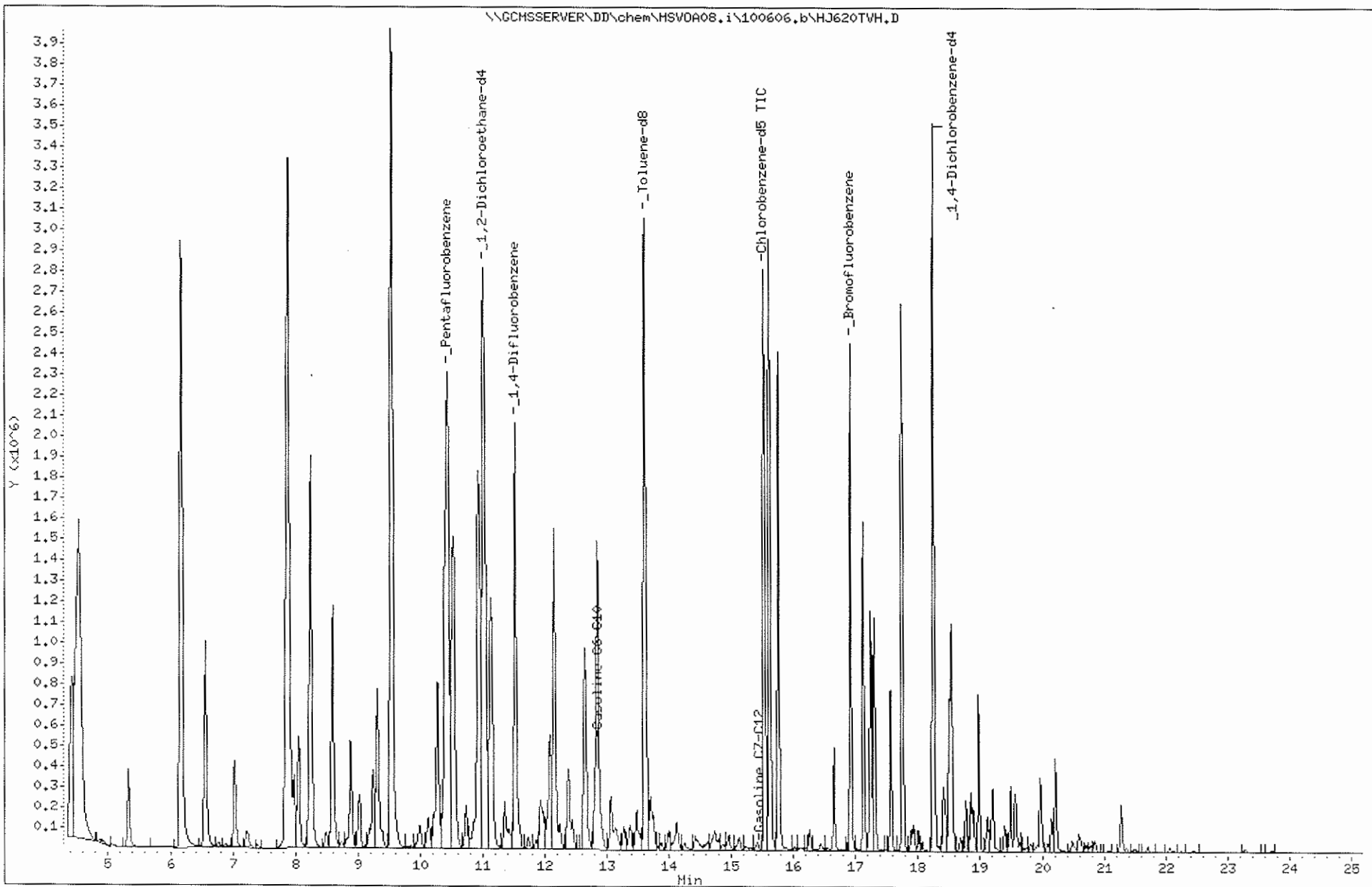
Sample Info: S,189667-028

Instrument: MSV0A08.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 05-OCT-2006 10:47

Client ID:

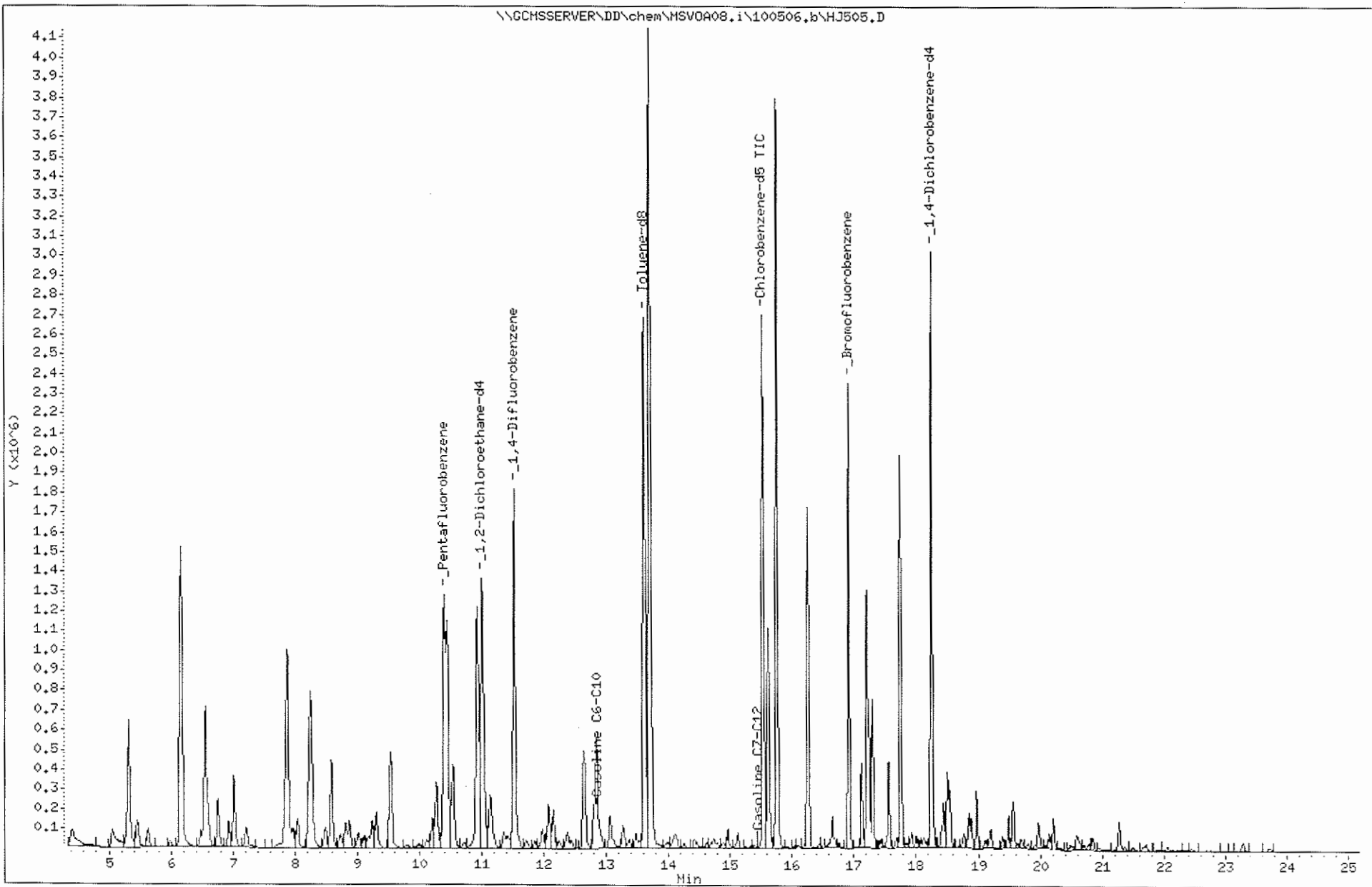
Instrument: MSV0A08.i

Sample Info: CCV,S4120,0.02/100

Operator: BD

Column phase:

Column diameter: 2.00



## Batch QC Report

## Gasoline by GC/MS

Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	118148
Units:	ug/L	Analyzed:	10/05/06
Diln Fac:	1.000		

Type: BS Lab ID: QC359080

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	20.33	81	72-120
Benzene	25.00	24.30	97	80-120
Toluene	25.00	24.89	100	80-120
Ethylbenzene	25.00	29.15	117	80-120
m,p-Xylenes	50.00	58.83	118	80-121
o-Xylene	25.00	29.50	118	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	87	80-120
1,2-Dichloroethane-d4	83	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-122

Type: BSD Lab ID: QC359081

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	20.03	80	72-120	1	20
Benzene	25.00	24.08	96	80-120	1	20
Toluene	25.00	24.27	97	80-120	3	20
Ethylbenzene	25.00	26.25	105	80-120	10	20
m,p-Xylenes	50.00	54.60	109	80-121	7	20
o-Xylene	25.00	27.70	111	80-120	6	20

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-120
1,2-Dichloroethane-d4	89	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-122

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	118148
Units:	ug/L	Analyzed:	10/05/06
Diln Fac:	1.000		

Type: BS Lab ID: QC359082

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,267	113	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	88	80-120
1,2-Dichloroethane-d4	84	80-130
Toluene-d8	94	80-120
Bromofluorobenzene	102	80-122

Type: BSD Lab ID: QC359083

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,173	109	70-130	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	86	80-120
1,2-Dichloroethane-d4	84	80-130
Toluene-d8	96	80-120
Bromofluorobenzene	99	80-122



## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	118188
Units:	ug/L	Analyzed:	10/06/06
Diln Fac:	1.000		

Type: BS Lab ID: QC359252

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	21.13	85	72-120
Benzene	25.00	24.63	99	80-120
Toluene	25.00	24.30	97	80-120
Ethylbenzene	25.00	26.42	106	80-120
m,p-Xylenes	50.00	53.42	107	80-121
o-Xylene	25.00	27.38	110	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	93	80-120
1,2-Dichloroethane-d4	81	80-130
Toluene-d8	96	80-120
Bromofluorobenzene	101	80-122

Type: BSD Lab ID: QC359253

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	20.79	83	72-120	2	20
Benzene	25.00	24.62	98	80-120	0	20
Toluene	25.00	24.13	97	80-120	1	20
Ethylbenzene	25.00	25.84	103	80-120	2	20
m,p-Xylenes	50.00	53.27	107	80-121	0	20
o-Xylene	25.00	27.98	112	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	93	80-120
1,2-Dichloroethane-d4	81	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	101	80-122

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	118188
Units:	ug/L	Analyzed:	10/06/06
Diln Fac:	1.000		

Type: BS Lab ID: QC359255

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,500	1,651	110	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	92	80-120
1,2-Dichloroethane-d4	84	80-130
Toluene-d8	94	80-120
Bromofluorobenzene	102	80-122

Type: BSD Lab ID: QC359256

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,500	1,582	105	70-130	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-120
1,2-Dichloroethane-d4	82	80-130
Toluene-d8	94	80-120
Bromofluorobenzene	103	80-122

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC359517	Batch#:	118245
Matrix:	Water	Analyzed:	10/09/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	18.07	72	72-120
Benzene	25.00	24.06	96	80-120
Toluene	25.00	25.58	102	80-120
Ethylbenzene	25.00	25.68	103	80-120
m,p-Xylenes	50.00	55.58	111	80-121
o-Xylene	25.00	27.57	110	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	88	80-120
1,2-Dichloroethane-d4	84	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	87	80-122

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	189697-001	Batch#:	118245
Matrix:	Water	Sampled:	09/27/06
Units:	ug/L	Received:	09/27/06

Type: MS Analyzed: 10/09/06  
 Lab ID: QC359575

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.06769	25.00	20.50	82	75-120
Benzene	<0.08408	25.00	24.35	97	80-122
Toluene	<0.1415	25.00	27.08	108	80-120
Ethylbenzene	<0.06927	25.00	25.89	104	80-121
m,p-Xylenes	0.1806	50.00	55.29	110	80-121
o-Xylene	0.3662	25.00	28.15	111	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-120
1,2-Dichloroethane-d4	105	80-130
Toluene-d8	106	80-120
Bromofluorobenzene	83	80-122

Type: MSD Analyzed: 10/10/06  
 Lab ID: QC359576

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	19.65	79	75-120	4	20
Benzene	25.00	25.03	100	80-122	3	20
Toluene	25.00	26.70	107	80-120	1	20
Ethylbenzene	25.00	24.92	100	80-121	4	20
m,p-Xylenes	50.00	53.92	107	80-121	3	20
o-Xylene	25.00	27.22	107	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-120
1,2-Dichloroethane-d4	86	80-130
Toluene-d8	103	80-120
Bromofluorobenzene	83	80-122

RPD= Relative Percent Difference

### Gasoline by GC/MS

Lab #: 189667	Location: 300 Hegenberger
Client: ACC Environmental Consultants	Prep: EPA 5030B
Project#: STANDARD	Analysis: EPA 8260B
Matrix: Soil	Sampled: 09/25/06
Basis: as received	Received: 09/26/06

Field ID: B1-4.0	Diln Fac: 500.0
Type: SAMPLE	Batch#: 118022
Lab ID: 189667-001	Analyzed: 10/02/06

Analyte	Result	RL	Units
Gasoline C7-C12	1,700 H	500	mg/Kg
MTBE	ND	2,500	ug/Kg
Benzene	6,900	2,500	ug/Kg
Toluene	ND	2,500	ug/Kg
Ethylbenzene	6,200	2,500	ug/Kg
m,p-Xylenes	ND	2,500	ug/Kg
o-Xylene	ND	2,500	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	84	79-120
1,2-Dichloroethane-d4	89	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-126
Trifluorotoluene (MeOH)	DO	53-133

Field ID: B1-8.0	Diln Fac: 4.545
Type: SAMPLE	Batch#: 117987
Lab ID: 189667-002	Analyzed: 10/02/06

Analyte	Result	RL	Units
Gasoline C7-C12	9.0 H	4.5	mg/Kg
MTBE	ND	23	ug/Kg
Benzene	89	23	ug/Kg
Toluene	ND	23	ug/Kg
Ethylbenzene	ND	23	ug/Kg
m,p-Xylenes	ND	23	ug/Kg
o-Xylene	ND	23	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	97	79-120
1,2-Dichloroethane-d4	99	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-126

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Field ID: B2-4.0  
Type: SAMPLE

Lab ID: 189667-003

Analyte	Result	RL	Units	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	22,000 H	7,100	mg/Kg	7,143	118102	10/04/06
MTBE	ND	20,000	ug/Kg	4,000	118058	10/03/06
Benzene	33,000	20,000	ug/Kg	4,000	118058	10/03/06
Toluene	ND	20,000	ug/Kg	4,000	118058	10/03/06
Ethylbenzene	430,000	36,000	ug/Kg	7,143	118102	10/04/06
m,p-Xylenes	760,000	20,000	ug/Kg	4,000	118058	10/03/06
o-Xylene	ND	20,000	ug/Kg	4,000	118058	10/03/06

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	91	79-120	4,000	118058	10/03/06
1,2-Dichloroethane-d4	94	76-130	4,000	118058	10/03/06
Toluene-d8	97	80-120	4,000	118058	10/03/06
Bromofluorobenzene	96	80-126	4,000	118058	10/03/06
Trifluorotoluene (MeOH)	DO	53-133	4,000	118058	10/03/06

Field ID: B2-8.0  
Type: SAMPLE  
Lab ID: 189667-004

Diln Fac: 125.0  
Batch#: 118058  
Analyzed: 10/03/06

Analyte	Result	RL	Units
Gasoline C7-C12	510 H	130	mg/Kg
MTBE	ND	630	ug/Kg
Benzene	1,700	630	ug/Kg
Toluene	ND	630	ug/Kg
Ethylbenzene	1,400	630	ug/Kg
m,p-Xylenes	ND	630	ug/Kg
o-Xylene	ND	630	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	89	79-120
1,2-Dichloroethane-d4	97	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	97	80-126
Trifluorotoluene (MeOH)	131	53-133

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

DO= Diluted Out

NA= Not Analyzed

ND= Not Detected

RL= Reporting Limit

### Gasoline by GC/MS

Lab #: 189667	Location: 300 Hegenberger
Client: ACC Environmental Consultants	Prep: EPA 5030B
Project#: STANDARD	Analysis: EPA 8260B
Matrix: Soil	Sampled: 09/25/06
Basis: as received	Received: 09/26/06

Field ID: B3-4.0	Diln Fac: 0.9615
Type: SAMPLE	Batch#: 117987
Lab ID: 189667-005	Analyzed: 10/02/06

Analyte	Result	RL	Units
Gasoline C7-C12	ND	0.96	mg/Kg
MTBE	ND	4.8	ug/Kg
Benzene	ND	4.8	ug/Kg
Toluene	ND	4.8	ug/Kg
Ethylbenzene	ND	4.8	ug/Kg
m,p-Xylenes	ND	4.8	ug/Kg
o-Xylene	ND	4.8	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	106	79-120
1,2-Dichloroethane-d4	105	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	94	80-126

Field ID: B3-8.0	Diln Fac: 500.0
Type: SAMPLE	Batch#: 118022
Lab ID: 189667-006	Analyzed: 10/02/06

Analyte	Result	RL	Units
Gasoline C7-C12	880 H	500	mg/Kg
MTBE	ND	2,500	ug/Kg
Benzene	5,500	2,500	ug/Kg
Toluene	ND	2,500	ug/Kg
Ethylbenzene	25,000	2,500	ug/Kg
m,p-Xylenes	3,700	2,500	ug/Kg
o-Xylene	ND	2,500	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	85	79-120
1,2-Dichloroethane-d4	86	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	95	80-126
Trifluorotoluene (MeOH)	DO	53-133

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Field ID: B4-4.0 Diln Fac: 125.0  
 Type: SAMPLE Batch#: 118058  
 Lab ID: 189667-007 Analyzed: 10/03/06

Analyte	Result	RL	Units
Gasoline C7-C12	470 H	130	mg/Kg
MTBE	ND	630	ug/Kg
Benzene	ND	630	ug/Kg
Toluene	ND	630	ug/Kg
Ethylbenzene	1,400	630	ug/Kg
m,p-Xylenes	ND	630	ug/Kg
o-Xylene	ND	630	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	93	79-120
1,2-Dichloroethane-d4	93	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	95	80-126
Trifluorotoluene (MeOH)	114	53-133

Field ID: B4-8.0 Diln Fac: 100.0  
 Type: SAMPLE Batch#: 118058  
 Lab ID: 189667-008 Analyzed: 10/03/06

Analyte	Result	RL	Units
Gasoline C7-C12	250 H	100	mg/Kg
MTBE	ND	500	ug/Kg
Benzene	860	500	ug/Kg
Toluene	ND	500	ug/Kg
Ethylbenzene	6,000	500	ug/Kg
m,p-Xylenes	1,600	500	ug/Kg
o-Xylene	ND	500	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	93	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	97	80-126
Trifluorotoluene (MeOH)	108	53-133

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit



**Gasoline by GC/MS**

Lab #: 189667	Location: 300 Hegenberger
Client: ACC Environmental Consultants	Prep: EPA 5030B
Project#: STANDARD	Analysis: EPA 8260B
Matrix: Soil	Sampled: 09/25/06
Basis: as received	Received: 09/26/06

Field ID: B5-8.0 Diln Fac: 500.0  
 Type: SAMPLE Batch#: 118058  
 Lab ID: 189667-009 Analyzed: 10/03/06

Analyte	Result	RL	Units
Gasoline C7-C12	1,400 H	500	mg/Kg
MTBE	ND	2,500	ug/Kg
Benzene	ND	2,500	ug/Kg
Toluene	ND	2,500	ug/Kg
Ethylbenzene	24,000	2,500	ug/Kg
m,p-Xylenes	38,000	2,500	ug/Kg
o-Xylene	3,500	2,500	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	90	79-120
1,2-Dichloroethane-d4	92	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	97	80-126
Trifluorotoluene (MeOH)	DO	53-133

Field ID: B5-12.0 Diln Fac: 1.000  
 Type: SAMPLE Batch#: 118058  
 Lab ID: 189667-010 Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	2.1 L	1.0	mg/Kg
MTBE	ND	5.0	ug/Kg
Benzene	ND	5.0	ug/Kg
Toluene	ND	5.0	ug/Kg
Ethylbenzene	22	5.0	ug/Kg
m,p-Xylenes	ND	5.0	ug/Kg
o-Xylene	ND	5.0	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	98	79-120
1,2-Dichloroethane-d4	115	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-126

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Field ID: B6-8.0 Diln Fac: 200.0  
 Type: SAMPLE Batch#: 118058  
 Lab ID: 189667-012 Analyzed: 10/03/06

Analyte	Result	RL	Units
Gasoline C7-C12	610 H	200	mg/Kg
MTBE	ND	1,000	ug/Kg
Benzene	ND	1,000	ug/Kg
Toluene	ND	1,000	ug/Kg
Ethylbenzene	ND	1,000	ug/Kg
m,p-Xylenes	ND	1,000	ug/Kg
o-Xylene	ND	1,000	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	94	79-120
1,2-Dichloroethane-d4	91	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-126
Trifluorotoluene (MeOH)	112	53-133

Field ID: B6-12.0 Diln Fac: 166.7  
 Type: SAMPLE Batch#: 118058  
 Lab ID: 189667-013 Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	390 H	170	mg/Kg
MTBE	ND	830	ug/Kg
Benzene	ND	830	ug/Kg
Toluene	ND	830	ug/Kg
Ethylbenzene	12,000	830	ug/Kg
m,p-Xylenes	ND	830	ug/Kg
o-Xylene	ND	830	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	94	79-120
1,2-Dichloroethane-d4	94	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	96	80-126
Trifluorotoluene (MeOH)	113	53-133

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Field ID: B7-12.0 Diln Fac: 1.000  
 Type: SAMPLE Batch#: 118102  
 Lab ID: 189667-014 Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	4.5 H	1.0	mg/Kg
MTBE	ND	5.0	ug/Kg
Benzene	80	5.0	ug/Kg
Toluene	ND	5.0	ug/Kg
Ethylbenzene	8.4	5.0	ug/Kg
m,p-Xylenes	ND	5.0	ug/Kg
o-Xylene	ND	5.0	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	102	79-120
1,2-Dichloroethane-d4	117	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	102	80-126

Field ID: B8-8.0 Diln Fac: 250.0  
 Type: SAMPLE Batch#: 118058  
 Lab ID: 189667-015 Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	870 H	250	mg/Kg
MTBE	ND	1,300	ug/Kg
Benzene	3,200	1,300	ug/Kg
Toluene	ND	1,300	ug/Kg
Ethylbenzene	2,500	1,300	ug/Kg
m,p-Xylenes	ND	1,300	ug/Kg
o-Xylene	ND	1,300	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	92	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-126
Trifluorotoluene (MeOH)	107	53-133

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Field ID: B8-12.0 Diln Fac: 0.9615  
 Type: SAMPLE Batch#: 118102  
 Lab ID: 189667-016 Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	1.7 L	0.96	mg/Kg
MTBE	ND	4.8	ug/Kg
Benzene	84	4.8	ug/Kg
Toluene	ND	4.8	ug/Kg
Ethylbenzene	15	4.8	ug/Kg
m,p-Xylenes	ND	4.8	ug/Kg
o-Xylene	ND	4.8	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	95	79-120
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	100	80-126

Field ID: B9-8.0 Diln Fac: 200.0  
 Type: SAMPLE Batch#: 118058  
 Lab ID: 189667-017 Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	650 H	200	mg/Kg
MTBE	ND	1,000	ug/Kg
Benzene	2,700	1,000	ug/Kg
Toluene	ND	1,000	ug/Kg
Ethylbenzene	8,800	1,000	ug/Kg
m,p-Xylenes	ND	1,000	ug/Kg
o-Xylene	ND	1,000	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	89	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	99	80-126
Trifluorotoluene (MeOH)	106	53-133

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

### Gasoline by GC/MS

Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Field ID:	B9-12.0	Diln Fac:	0.9615
Type:	SAMPLE	Batch#:	118058
Lab ID:	189667-018	Analyzed:	10/03/06

Analyte	Result	RL	Units
Gasoline C7-C12	ND	0.96	mg/Kg
MTBE	ND	4.8	ug/Kg
Benzene	ND	4.8	ug/Kg
Toluene	ND	4.8	ug/Kg
Ethylbenzene	5.7	4.8	ug/Kg
m, p-Xylenes	ND	4.8	ug/Kg
o-Xylene	ND	4.8	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	94	79-120
1,2-Dichloroethane-d4	92	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	95	80-126

Field ID:	B9-16.0	Diln Fac:	0.9091
Type:	SAMPLE	Batch#:	118102
Lab ID:	189667-019	Analyzed:	10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	ND	0.91	mg/Kg
MTBE	ND	4.5	ug/Kg
Benzene	ND	4.5	ug/Kg
Toluene	ND	4.5	ug/Kg
Ethylbenzene	ND	4.5	ug/Kg
m, p-Xylenes	ND	4.5	ug/Kg
o-Xylene	ND	4.5	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	101	79-120
1,2-Dichloroethane-d4	99	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	95	80-126

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Field ID: B10-4.0                      Diln Fac: 625.0  
 Type: SAMPLE                              Batch#: 118058  
 Lab ID: 189667-020                      Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	2,000 H	630	mg/Kg
MTBE	ND	3,100	ug/Kg
Benzene	5,700	3,100	ug/Kg
Toluene	ND	3,100	ug/Kg
Ethylbenzene	3,700	3,100	ug/Kg
m,p-Xylenes	ND	3,100	ug/Kg
o-Xylene	ND	3,100	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	92	79-120
1,2-Dichloroethane-d4	96	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-126
Trifluorotoluene (MeOH)	DO	53-133

Field ID: B10-8.0                      Diln Fac: 100.0  
 Type: SAMPLE                              Batch#: 118058  
 Lab ID: 189667-021                      Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	370 H	100	mg/Kg
MTBE	ND	500	ug/Kg
Benzene	1,100	500	ug/Kg
Toluene	ND	500	ug/Kg
Ethylbenzene	6,200	500	ug/Kg
m,p-Xylenes	6,600	500	ug/Kg
o-Xylene	ND	500	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	92	79-120
1,2-Dichloroethane-d4	96	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	96	80-126
Trifluorotoluene (MeOH)	105	53-133

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

### Gasoline by GC/MS

Lab #: 189667	Location: 300 Hegenberger
Client: ACC Environmental Consultants	Prep: EPA 5030B
Project#: STANDARD	Analysis: EPA 8260B
Matrix: Soil	Sampled: 09/25/06
Basis: as received	Received: 09/26/06

Field ID: B11-4.0  
Type: SAMPLE

Lab ID: 189667-022

Analyte	Result	RL	Units	Diln	Fac	Batch#	Analyzed
Gasoline C7-C12	4.1 H	0.98	mg/Kg	0.9804		118102	10/04/06
MTBE	ND	4.9	ug/Kg	0.9804		118102	10/04/06
Benzene	ND	4.9	ug/Kg	0.9804		118102	10/04/06
Toluene	26	4.9	ug/Kg	0.9804		118102	10/04/06
Ethylbenzene	62	4.9	ug/Kg	0.9804		118102	10/04/06
m,p-Xylenes	280	25	ug/Kg	5.000		118161	10/05/06
o-Xylene	200	25	ug/Kg	5.000		118161	10/05/06

Surrogate	%REC	Limits	Diln	Fac	Batch#	Analyzed
Dibromofluoromethane	103	79-120	0.9804		118102	10/04/06
1,2-Dichloroethane-d4	99	76-130	0.9804		118102	10/04/06
Toluene-d8	99	80-120	0.9804		118102	10/04/06
Bromofluorobenzene	97	80-126	0.9804		118102	10/04/06

Field ID: B11-8.0  
Type: SAMPLE

Lab ID: 189667-023

Analyte	Result	RL	Units	Diln	Fac	Batch#	Analyzed
Gasoline C7-C12	16 H	5.0	mg/Kg	5.000		118161	10/05/06
MTBE	ND	4.9	ug/Kg	0.9804		118102	10/04/06
Benzene	ND	4.9	ug/Kg	0.9804		118102	10/04/06
Toluene	ND	4.9	ug/Kg	0.9804		118102	10/04/06
Ethylbenzene	ND	4.9	ug/Kg	0.9804		118102	10/04/06
m,p-Xylenes	ND	4.9	ug/Kg	0.9804		118102	10/04/06
o-Xylene	ND	4.9	ug/Kg	0.9804		118102	10/04/06

Surrogate	%REC	Limits	Diln	Fac	Batch#	Analyzed
Dibromofluoromethane	98	79-120	0.9804		118102	10/04/06
1,2-Dichloroethane-d4	108	76-130	0.9804		118102	10/04/06
Toluene-d8	97	80-120	0.9804		118102	10/04/06
Bromofluorobenzene	104	80-126	0.9804		118102	10/04/06

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Field ID: B11-12.0 Diln Fac: 0.9259  
 Type: SAMPLE Batch#: 118102  
 Lab ID: 189667-024 Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	ND	0.93	mg/Kg
MTBE	ND	4.6	ug/Kg
Benzene	ND	4.6	ug/Kg
Toluene	ND	4.6	ug/Kg
Ethylbenzene	ND	4.6	ug/Kg
m,p-Xylenes	ND	4.6	ug/Kg
o-Xylene	ND	4.6	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	111	79-120
1,2-Dichloroethane-d4	115	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	95	80-126

Type: BLANK Diln Fac: 1.000  
 Lab ID: QC358408 Batch#: 117987  
 Units: ug/Kg Analyzed: 10/01/06

Analyte	Result	RL
Gasoline C7-C12	NA	
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	90	79-120
1,2-Dichloroethane-d4	81	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	97	80-126

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit



### Gasoline by GC/MS

Lab #: 189667	Location: 300 Hegenberger
Client: ACC Environmental Consultants	Prep: EPA 5030B
Project#: STANDARD	Analysis: EPA 8260B
Matrix: Soil	Sampled: 09/25/06
Basis: as received	Received: 09/26/06

Type: BLANK	Batch#: 117987
Lab ID: QC358424	Analyzed: 10/02/06
Diln Fac: 1.000	

Analyte	Result	RL	Units
Gasoline C7-C12	ND	1.0	mg/Kg
MTBE	ND	5.0	ug/Kg
Benzene	ND	5.0	ug/Kg
Toluene	ND	5.0	ug/Kg
Ethylbenzene	ND	5.0	ug/Kg
m,p-Xylenes	ND	5.0	ug/Kg
o-Xylene	ND	5.0	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	96	79-120
1,2-Dichloroethane-d4	92	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	92	80-126

Type: BLANK	Batch#: 118022
Lab ID: QC358557	Analyzed: 10/02/06
Diln Fac: 1.000	

Analyte	Result	RL	Units
Gasoline C7-C12	ND	1.0	mg/Kg
MTBE	ND	5.0	ug/Kg
Benzene	ND	5.0	ug/Kg
Toluene	ND	5.0	ug/Kg
Ethylbenzene	ND	5.0	ug/Kg
m,p-Xylenes	ND	5.0	ug/Kg
o-Xylene	ND	5.0	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	90	79-120
1,2-Dichloroethane-d4	87	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	96	80-126

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Sampled:	09/25/06
Basis:	as received	Received:	09/26/06

Type: BLANK  
 Lab ID: QC358701  
 Diln Fac: 1.000

Batch#: 118058  
 Analyzed: 10/03/06

Analyte	Result	RL	Units
Gasoline C7-C12	ND	1.0	mg/Kg
MTBE	ND	5.0	ug/Kg
Benzene	ND	5.0	ug/Kg
Toluene	ND	5.0	ug/Kg
Ethylbenzene	ND	5.0	ug/Kg
m,p-Xylenes	ND	5.0	ug/Kg
o-Xylene	ND	5.0	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	98	79-120
1,2-Dichloroethane-d4	100	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	96	80-126

Type: BLANK  
 Lab ID: QC358888  
 Diln Fac: 1.000

Batch#: 118102  
 Analyzed: 10/04/06

Analyte	Result	RL	Units
Gasoline C7-C12	ND	1.0	mg/Kg
MTBE	ND	5.0	ug/Kg
Benzene	ND	5.0	ug/Kg
Toluene	ND	5.0	ug/Kg
Ethylbenzene	ND	5.0	ug/Kg
m,p-Xylenes	ND	5.0	ug/Kg
o-Xylene	ND	5.0	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	103	79-120
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	94	80-120
Bromofluorobenzene	97	80-126

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

**Gasoline by GC/MS**

Lab #: 189667	Location: 300 Hegenberger
Client: ACC Environmental Consultants	Prep: EPA 5030B
Project#: STANDARD	Analysis: EPA 8260B
Matrix: Soil	Sampled: 09/25/06
Basis: as received	Received: 09/26/06

Type: BLANK	Batch#: 118161
Lab ID: QC359121	Analyzed: 10/05/06
Diln Fac: 1.000	

Analyte	Result	RL	Units
Gasoline C7-C12	ND	1.0	mg/Kg
MTBE	ND	5.0	ug/Kg
Benzene	ND	5.0	ug/Kg
Toluene	ND	5.0	ug/Kg
Ethylbenzene	ND	5.0	ug/Kg
m,p-Xylenes	ND	5.0	ug/Kg
o-Xylene	ND	5.0	ug/Kg

Surrogate	%REC	Limits
Dibromofluoromethane	105	79-120
1,2-Dichloroethane-d4	103	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	101	80-126

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 DO= Diluted Out  
 NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit

Date : 02-OCT-2006 20:31

Client ID: DYNA P&T

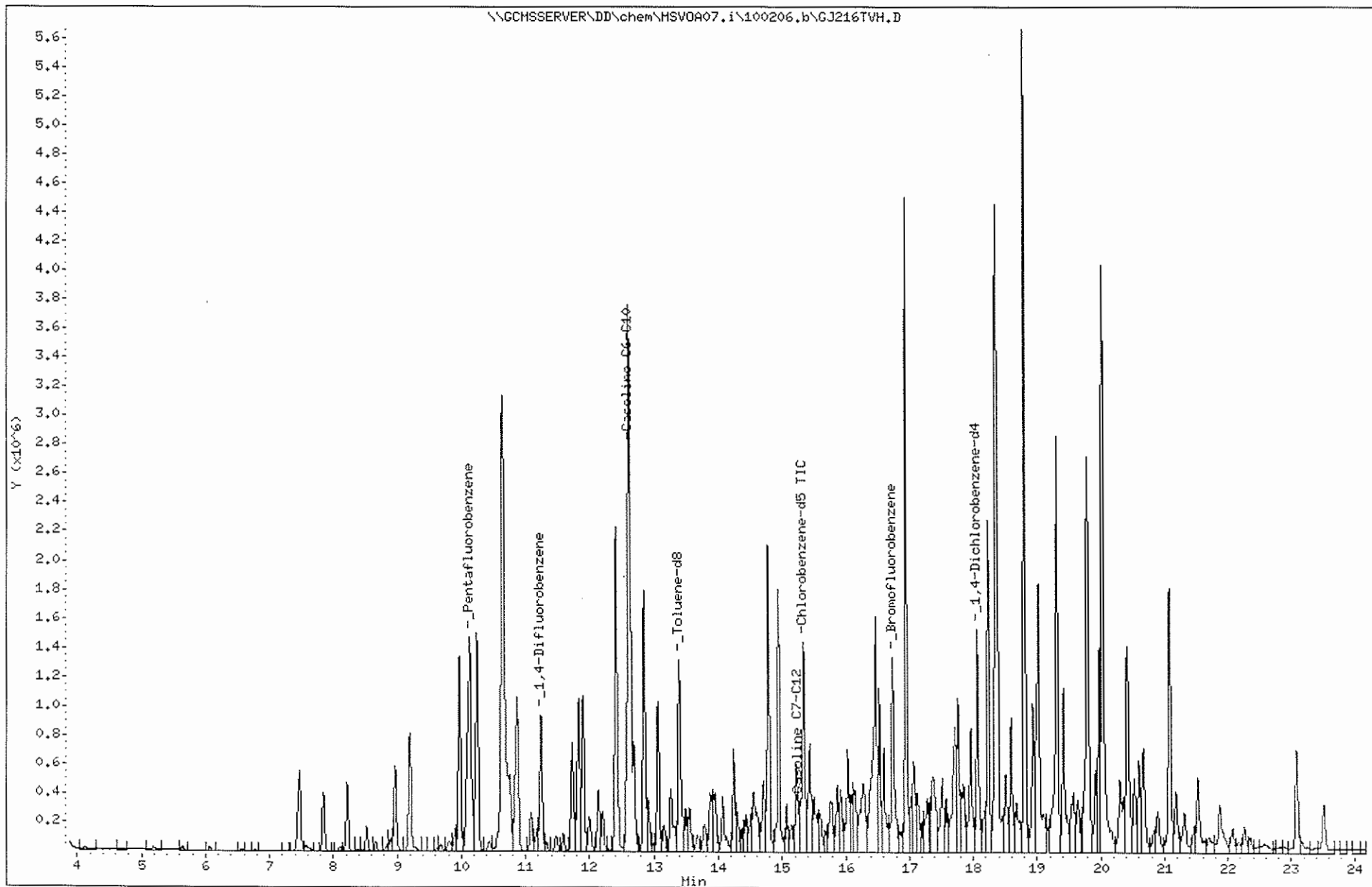
Sample Info: S,189667-001

Instrument: MSV0A07.i

Operator: BO

Column phase:

Column diameter: 2.00



Data File: \\Gcmserver\DD\chem\MSV0A07.i\100106.b\GJ125TVH.D

Date : 02-OCT-2006 04:20

Client ID: DYNA P&T

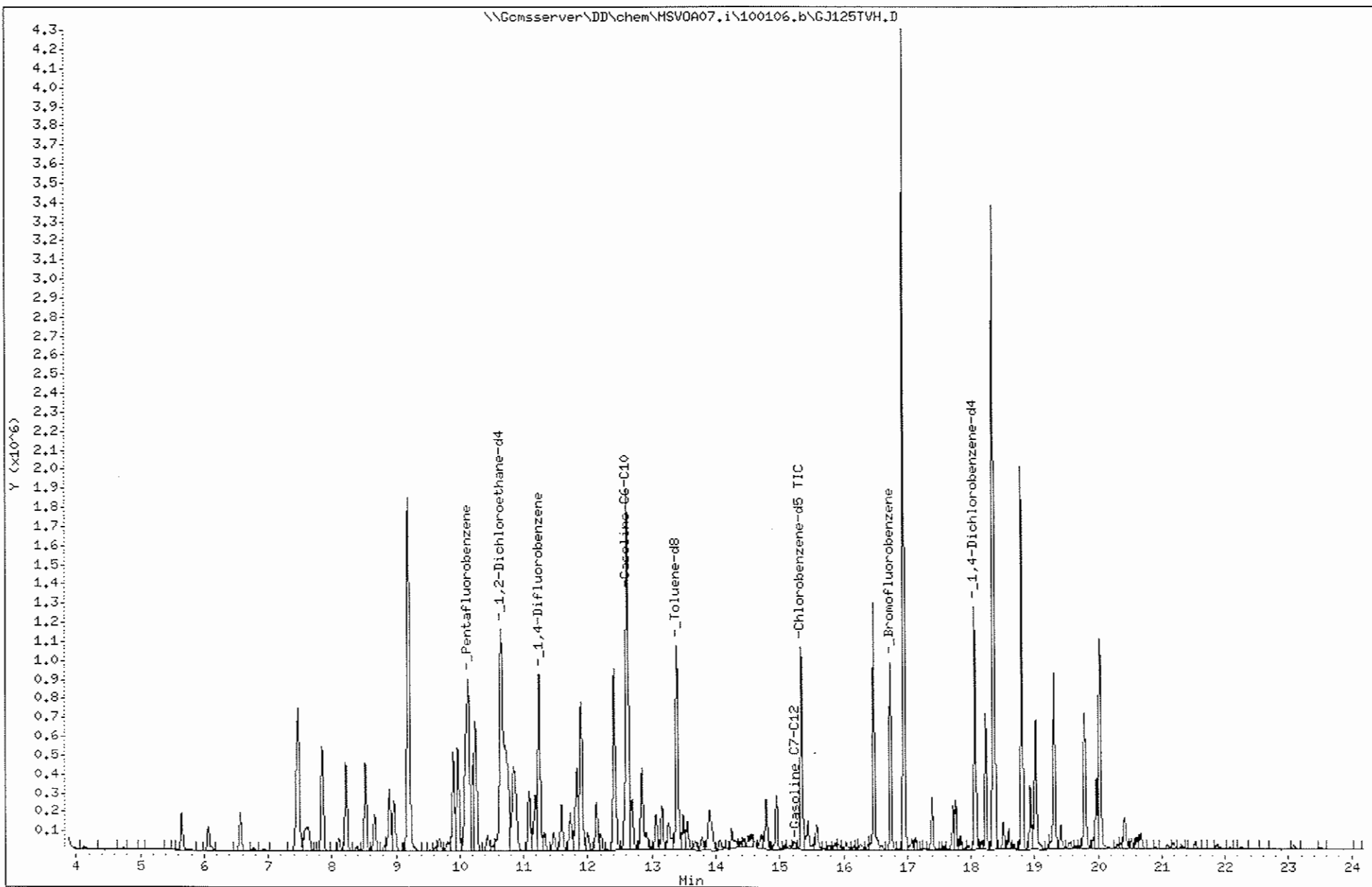
Sample Info: S,189667-002

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 03-OCT-2006 21:01

Client ID: DYNA P&T

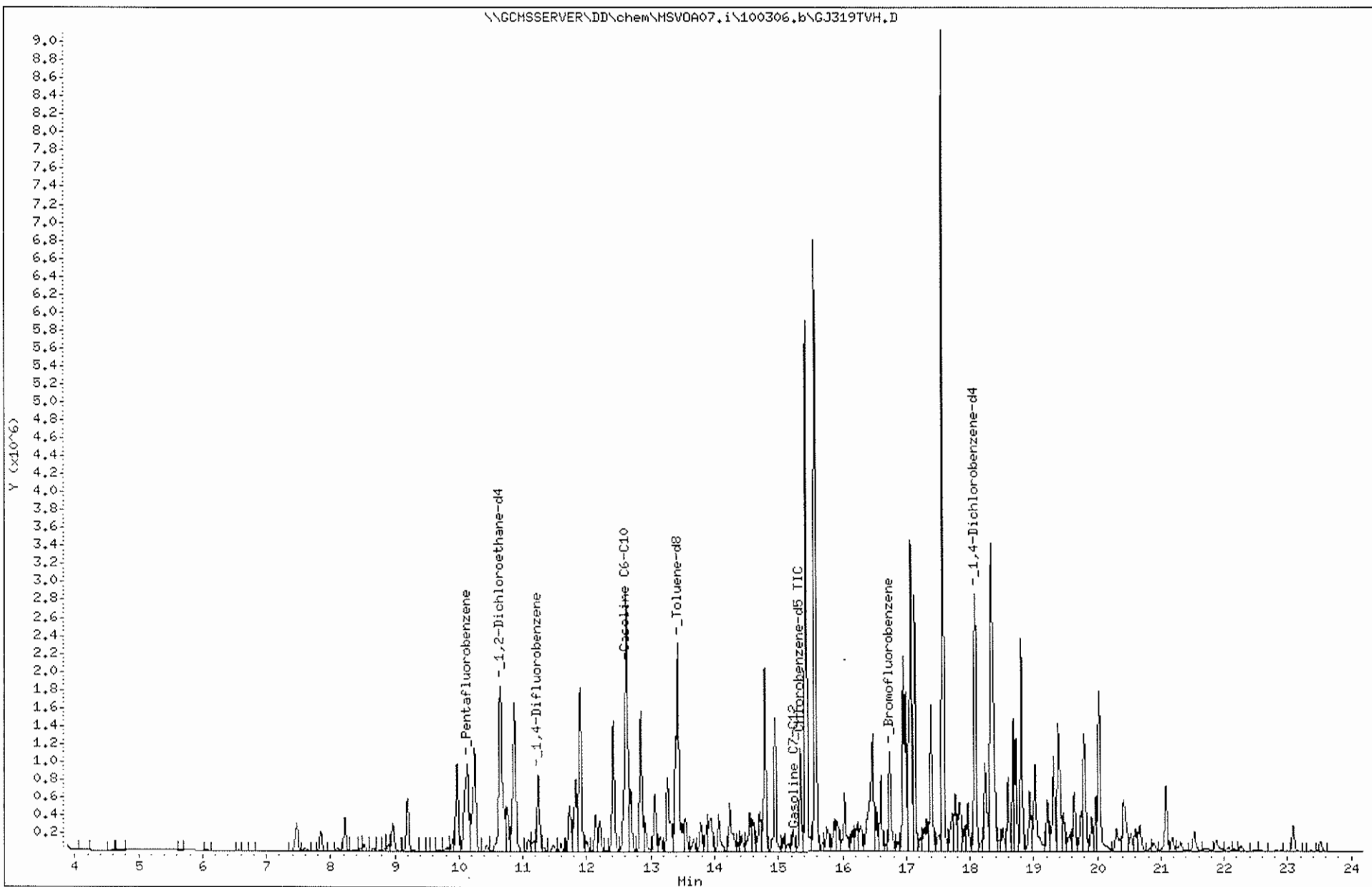
Sample Info: S\_189667-003

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 21:33

Client ID: DYNA P&T

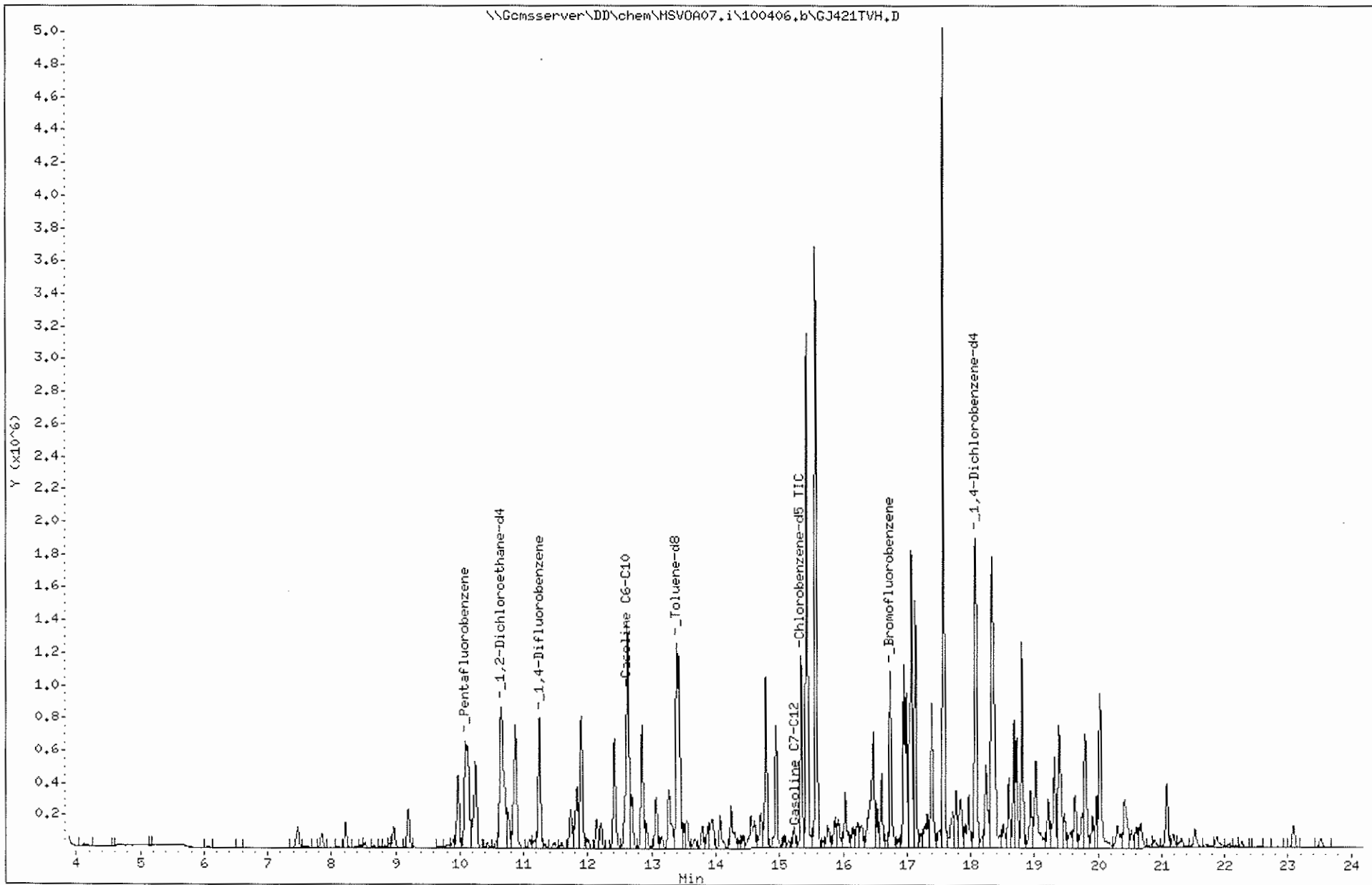
Sample Info: S,189667-003

Instrument: MSV0A07.i

Operator: VOC

Column diameter: 2.00

Column phase:



Date : 03-OCT-2006 21:34

Client ID: DYNA P&T

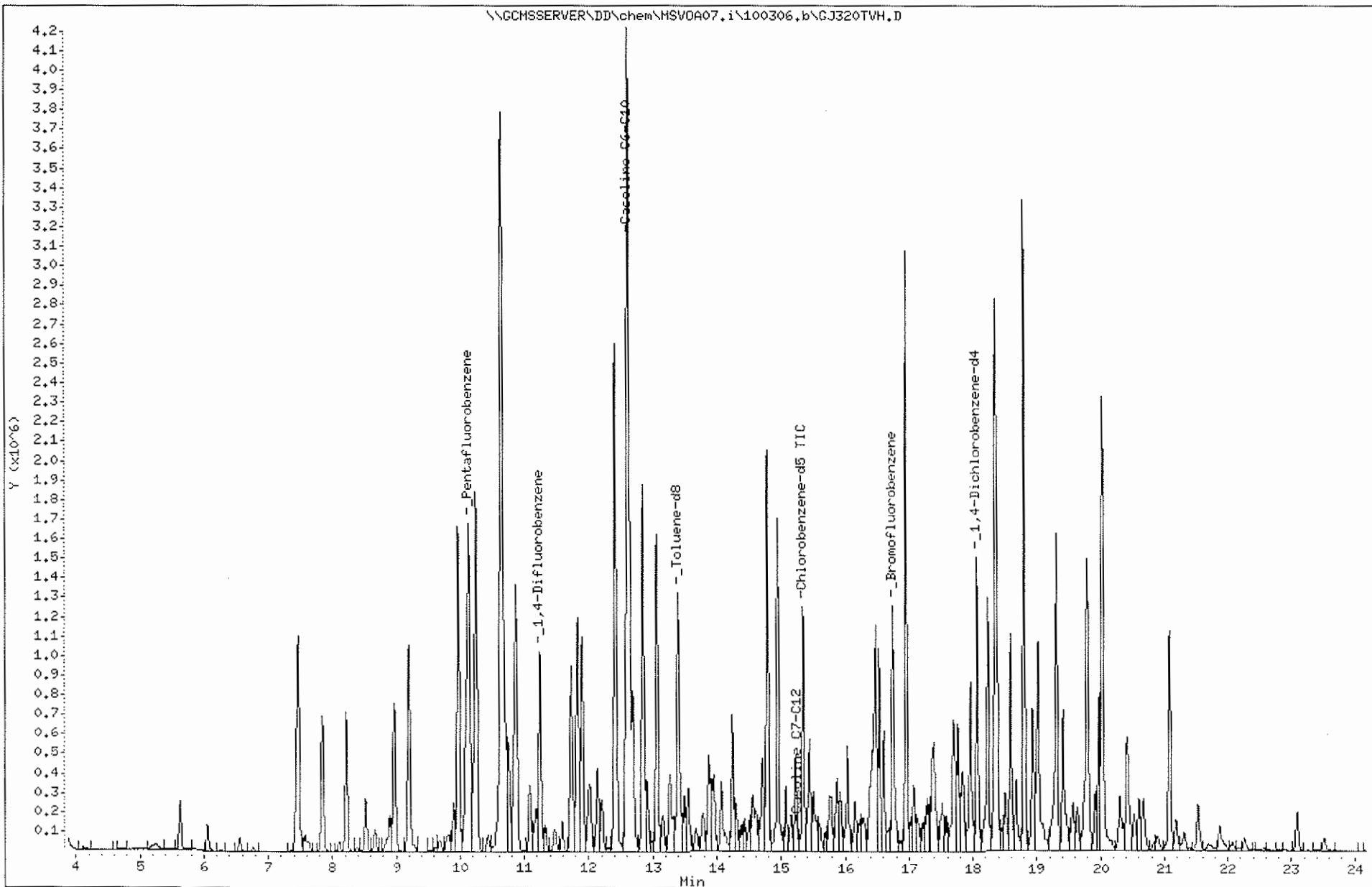
Sample Info: S,189667-004

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:





Date : 03-OCT-2006 22:06

Client ID: DYNA P&T

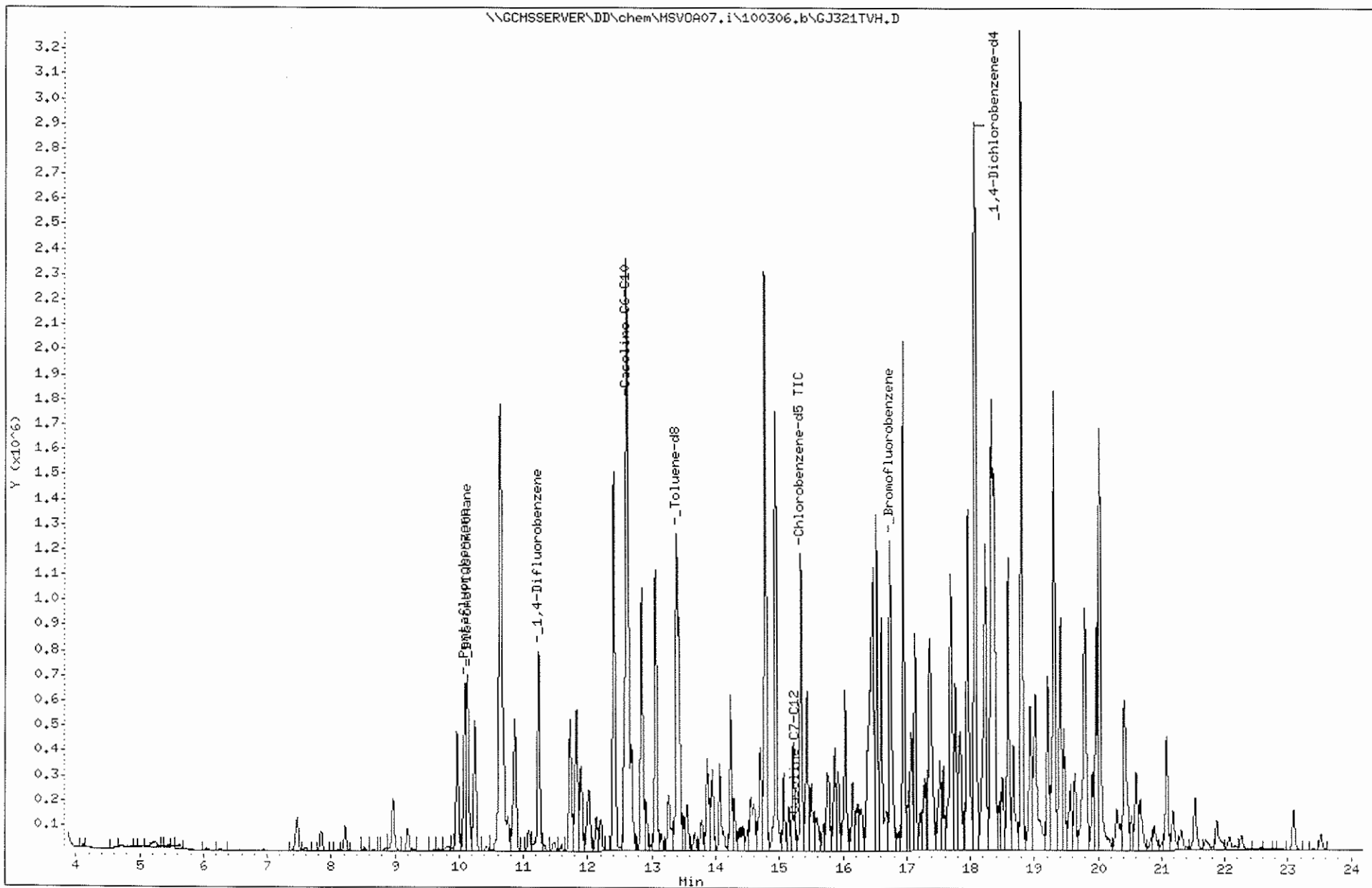
Sample Info: S,189667-007

Instrument: MSV0A07.i

Operator: B0

Column diameter: 2.00

Column phase:



Date : 02-OCT-2006 22:08

Client ID: DYNA P&T

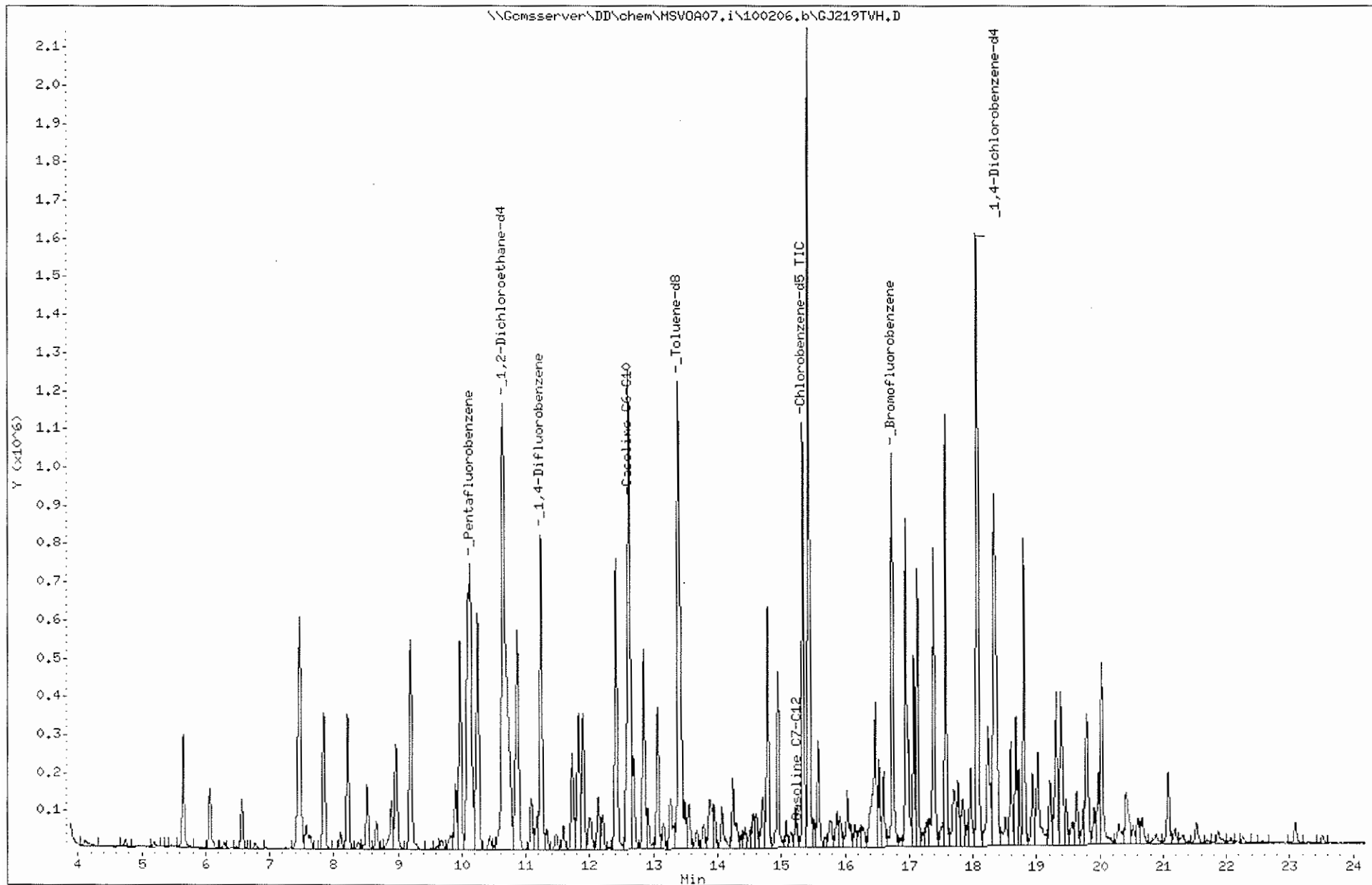
Sample Info: S,189667-006

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 03-OCT-2006 22:39

Client ID: DYNA P&T

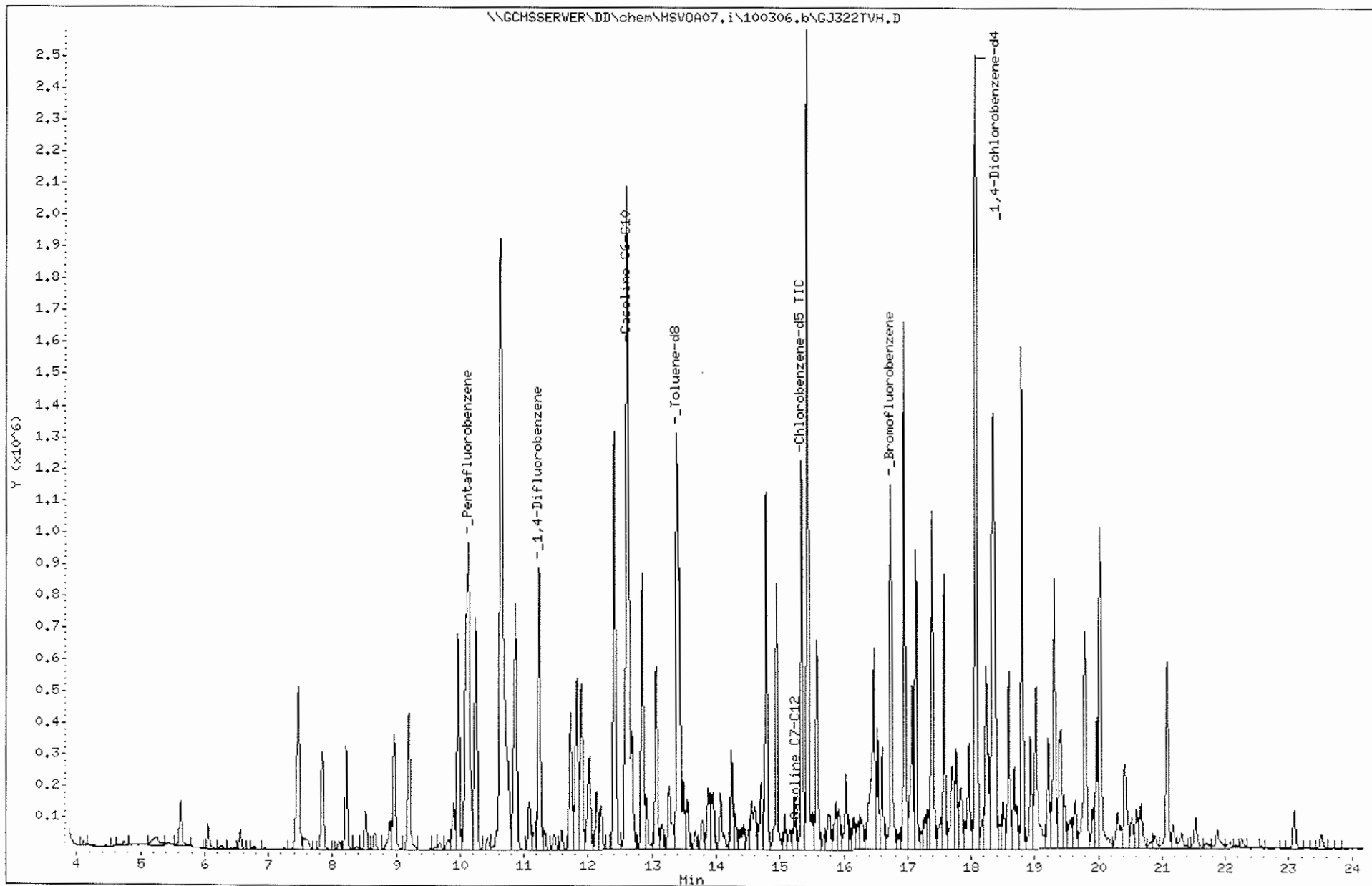
Sample Info: S,189667-008

Instrument: HSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 03-OCT-2006 23:11

Client ID: DYNA P&T

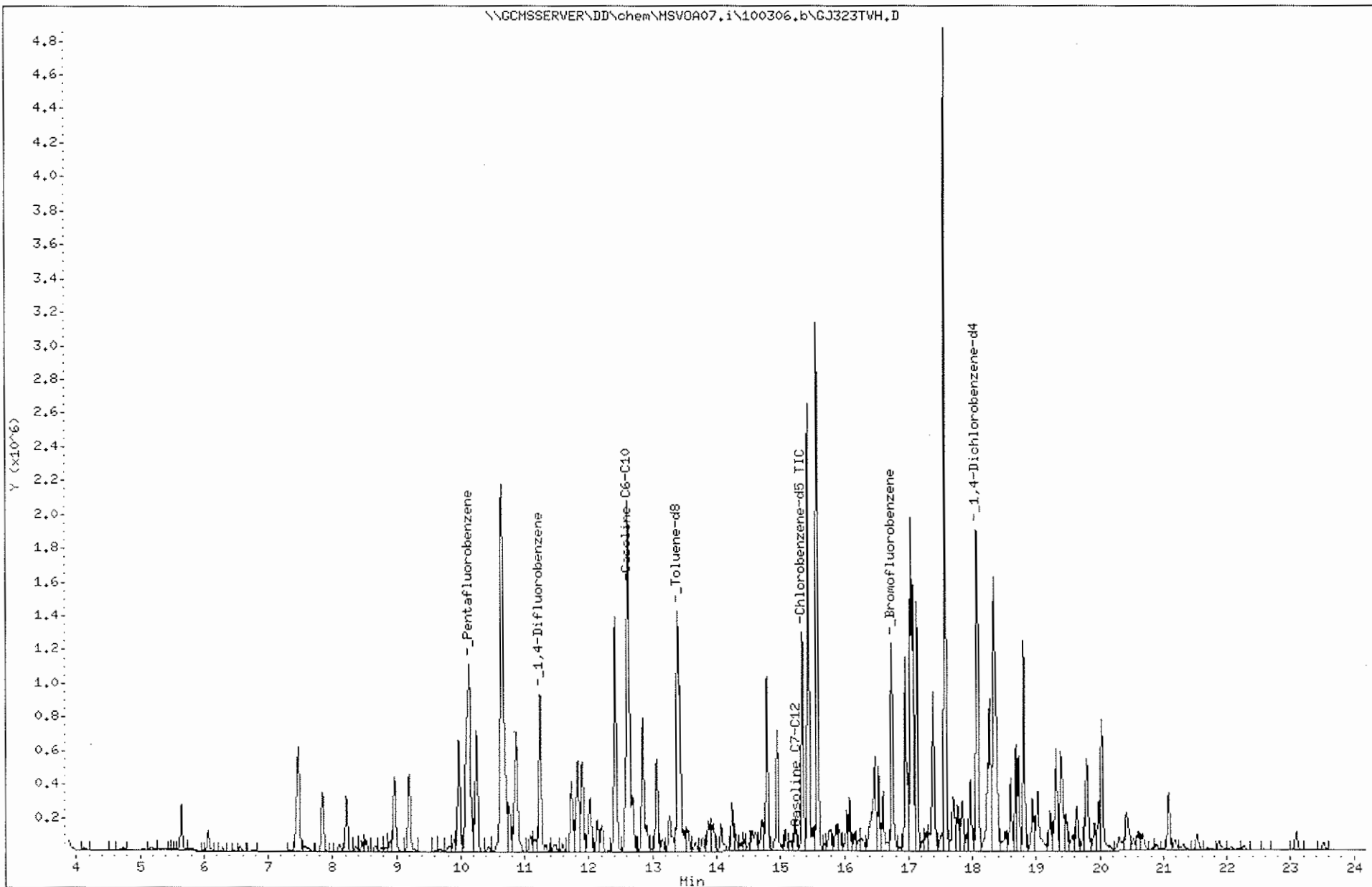
Sample Info: S,189667-009

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 02:57

Client ID: DYNA P&T

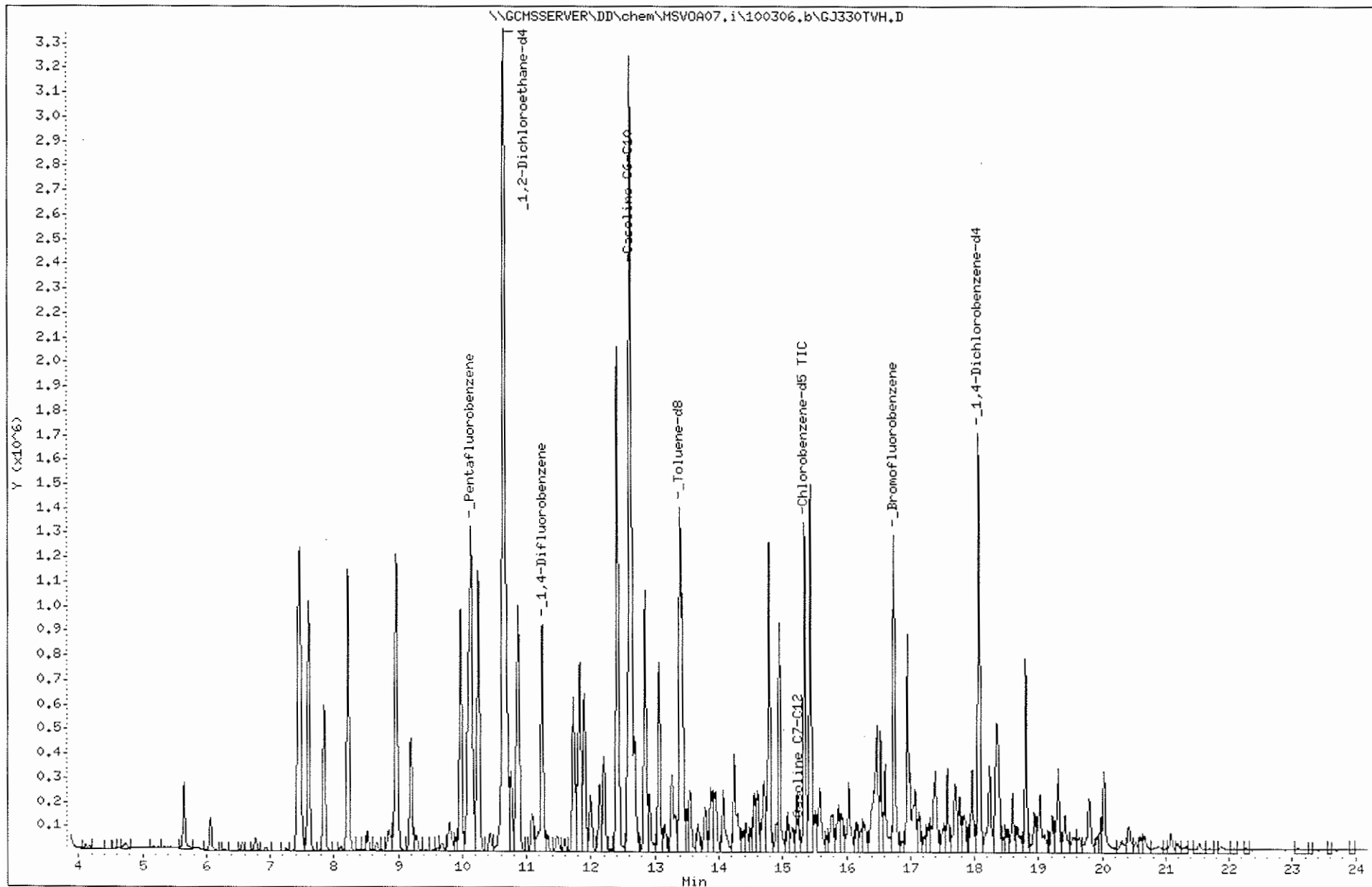
Sample Info: S,189667-010

Instrument: MSV0A07.i

Operator: B0

Column diameter: 2.00

Column phase:



Date : 03-OCT-2006 23:43

Client ID: DYNA P&T

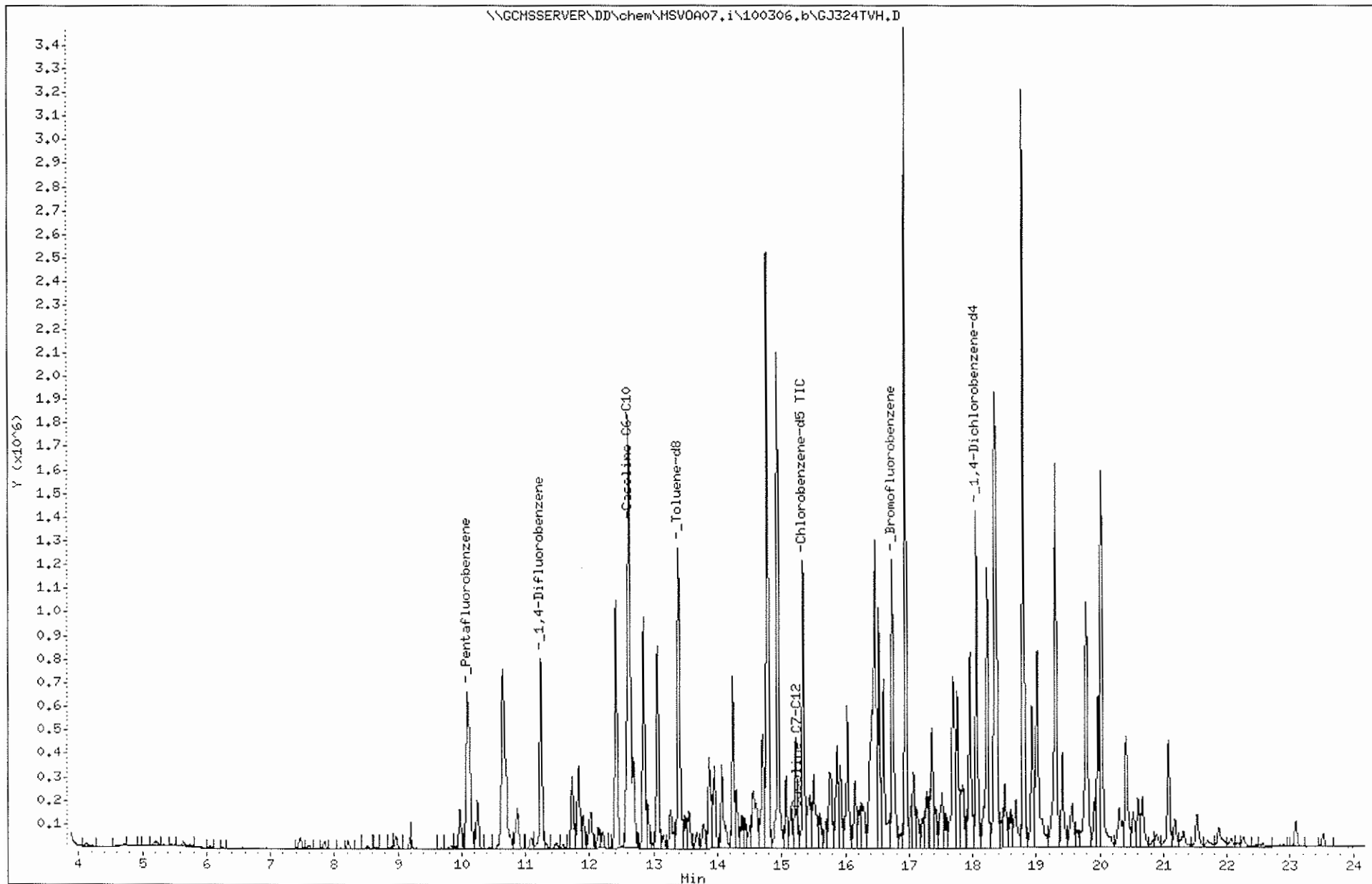
Sample Info: S,189667-012

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 00:16

Client ID: DYNA P&T

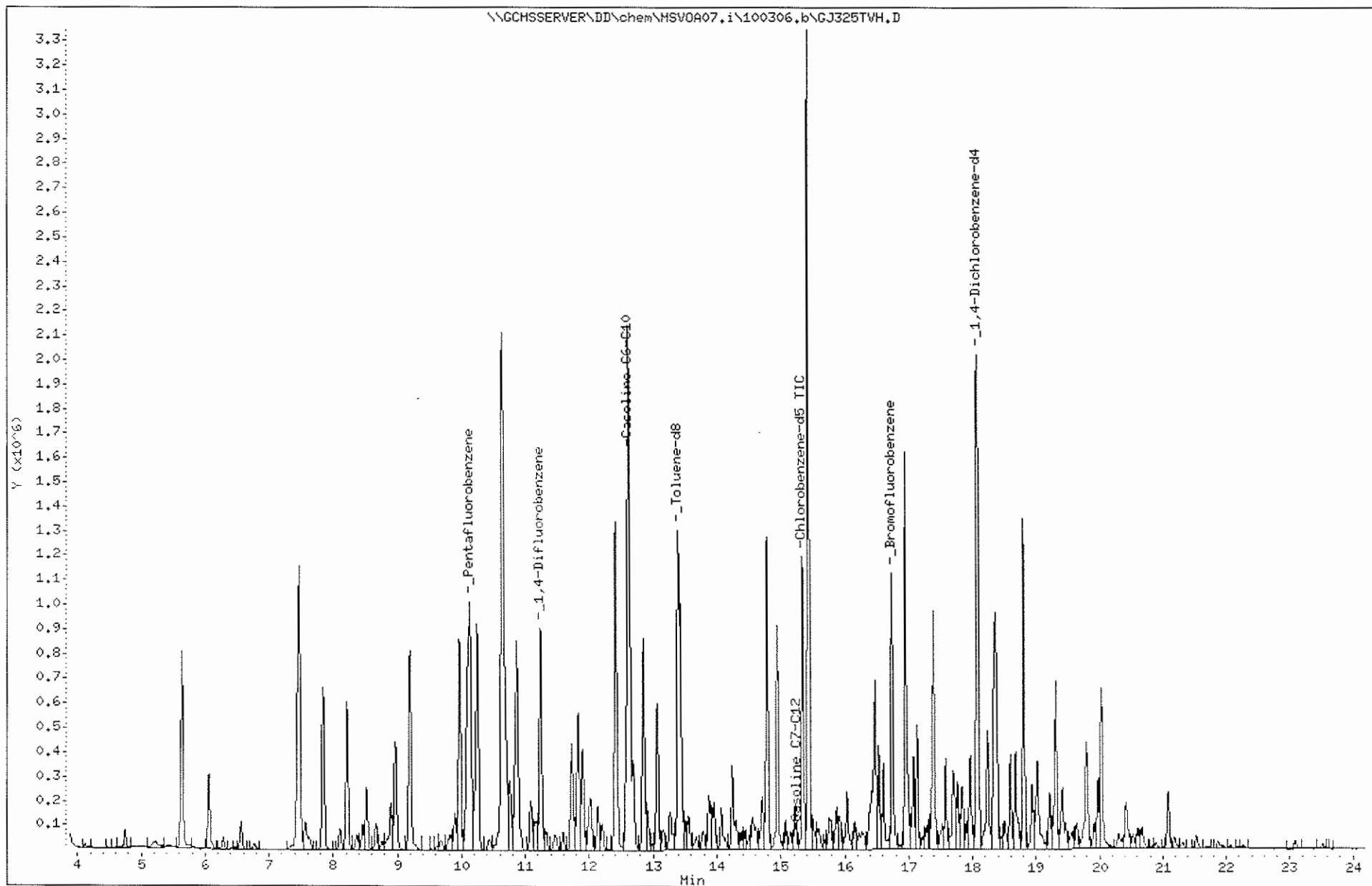
Sample Info: S,189667-013

Instrument: HSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 17:47

Client ID: DYNA P&T

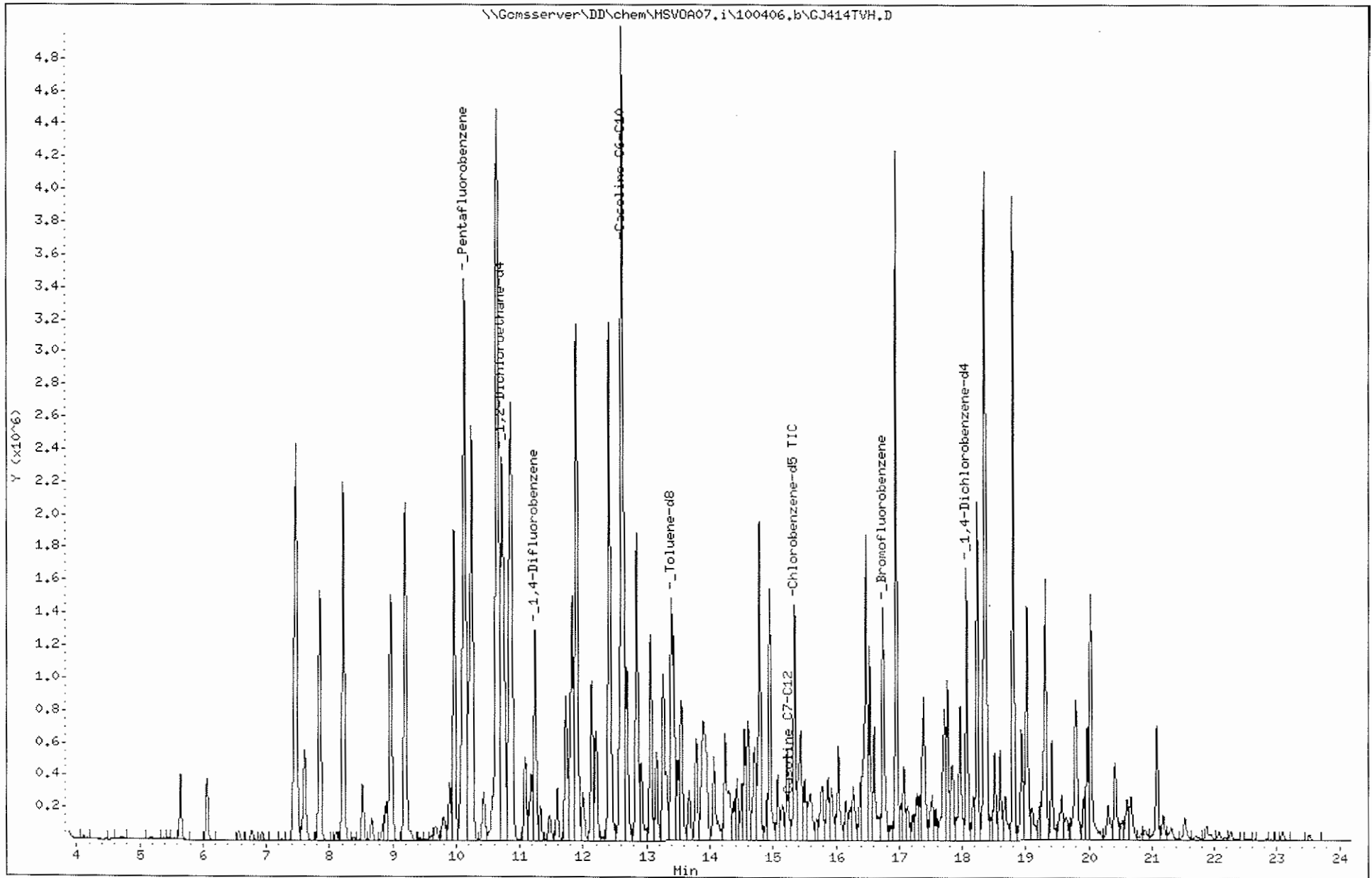
Sample Info: S,189667-014

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:





Date : 04-OCT-2006 00:48

Client ID: DYNA P&T

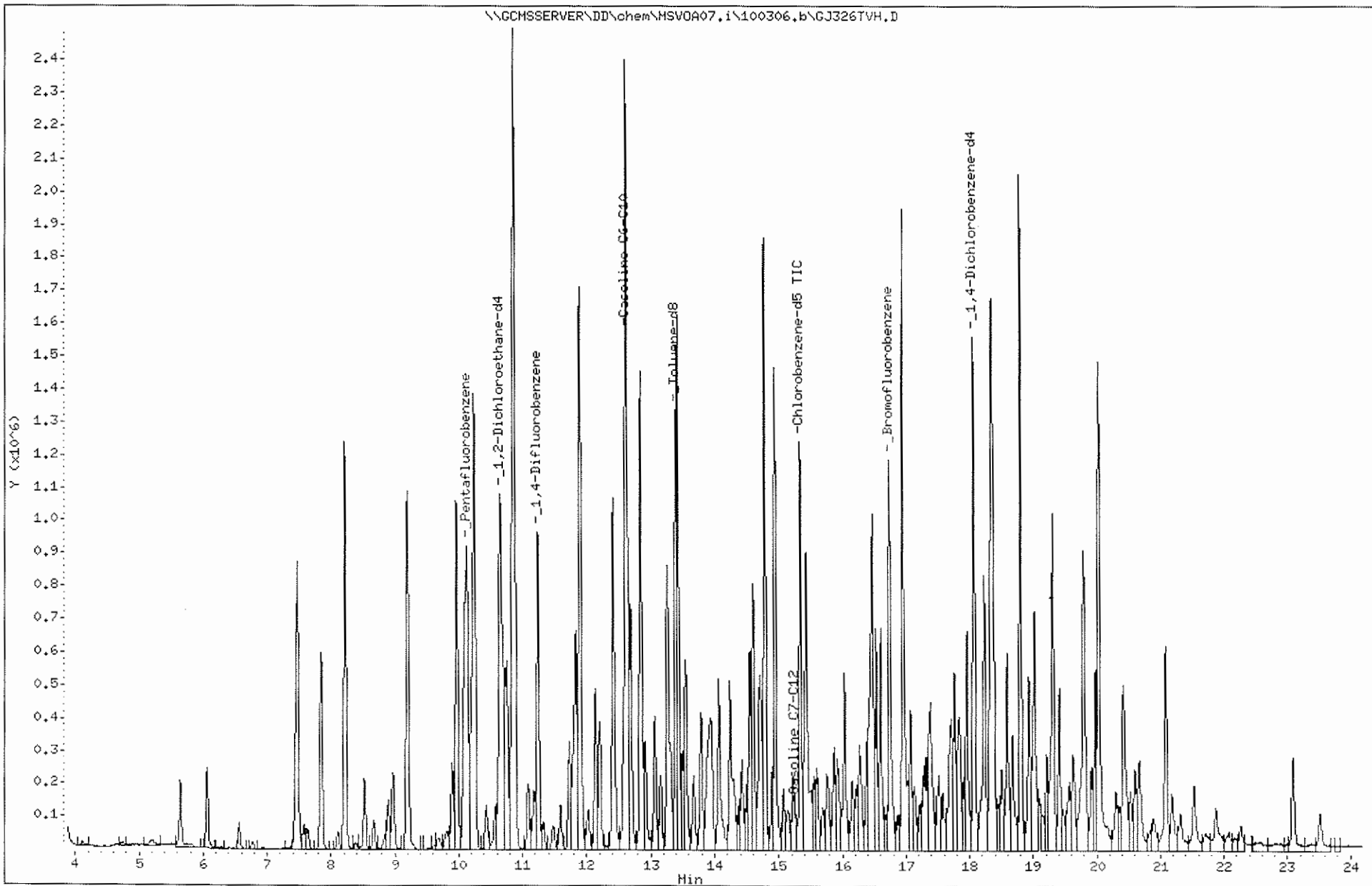
Sample Info: S,189667-015

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 18:20

Client ID: DYNA P&T

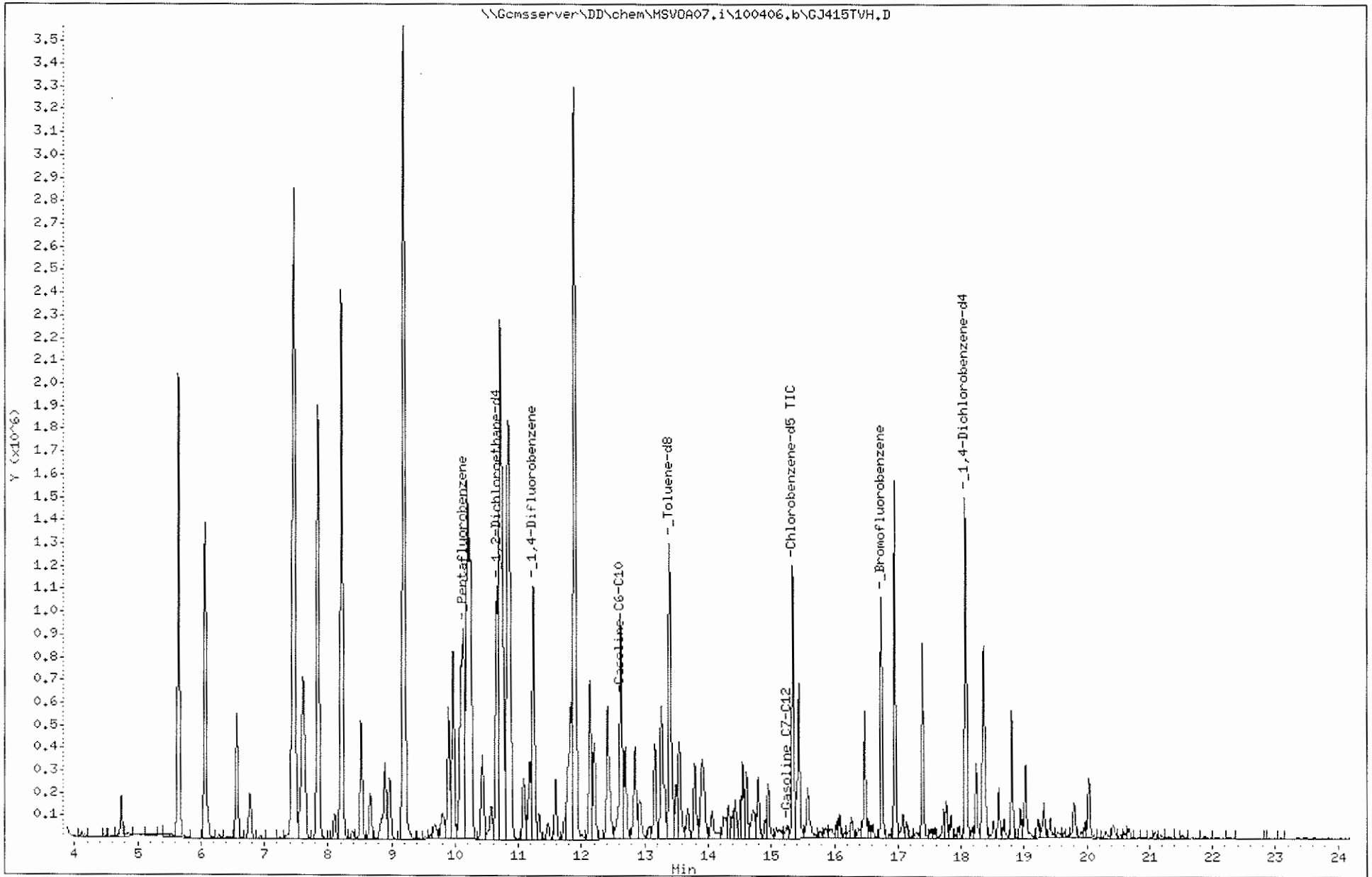
Sample Info: S,189667-016

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 01:20

Client ID: DYNA P&T

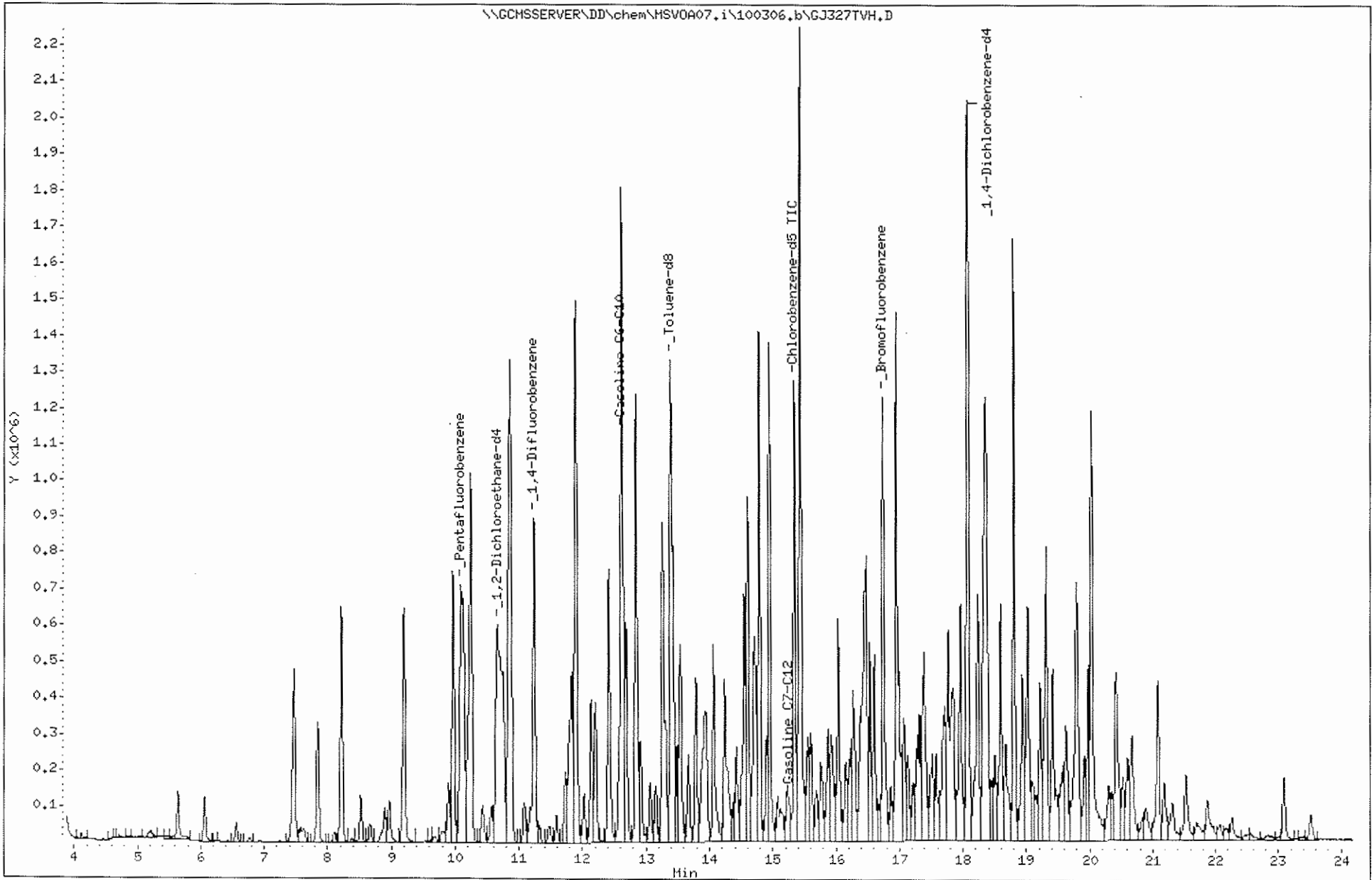
Sample Info: S.189667-017

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 01:52

Client ID: DYNA P&T

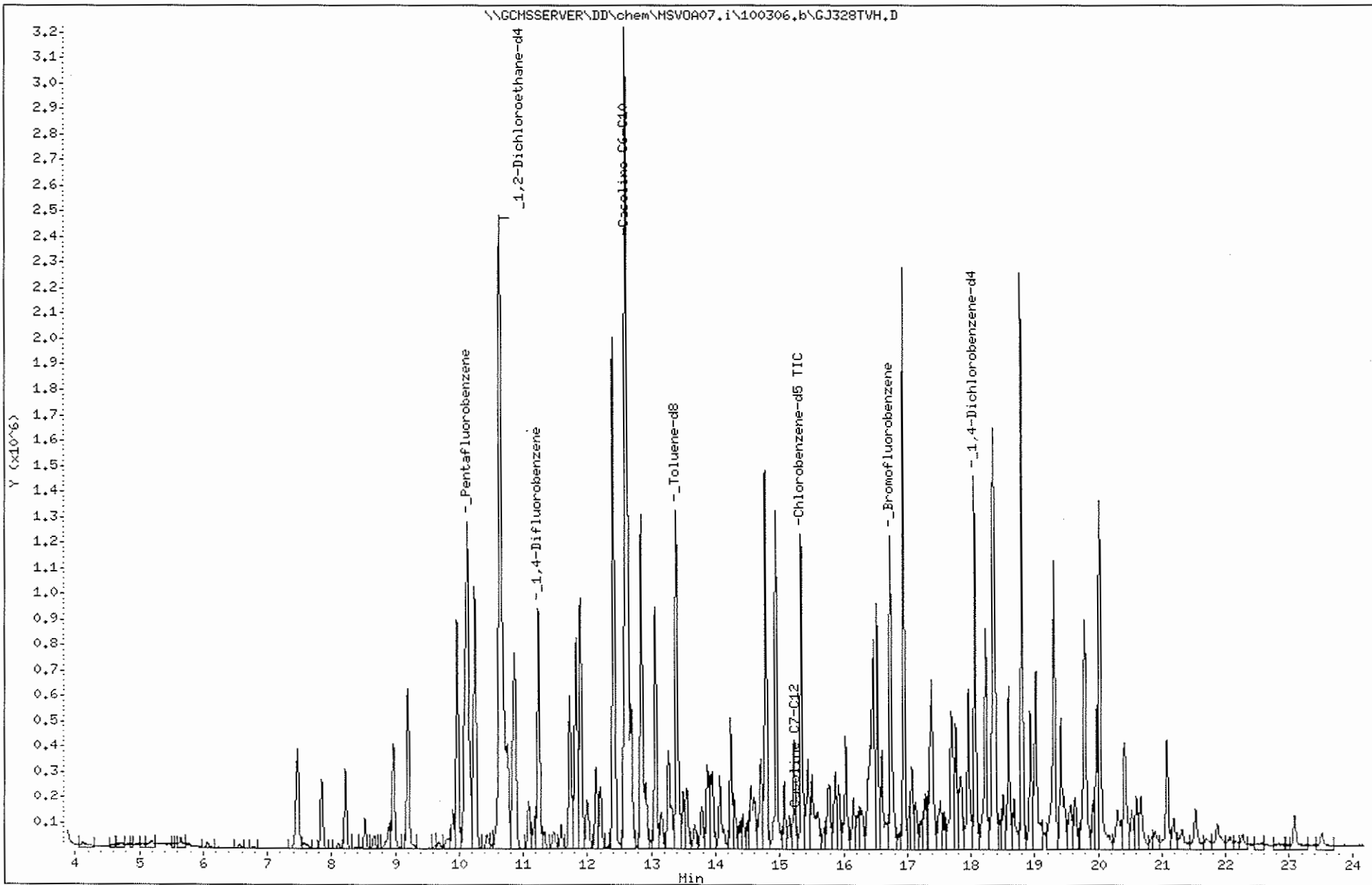
Sample Info: S,189667-020

Instrument: MSV0A07.i

Operator: B0

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 02:25

Client ID: DYNA P&T

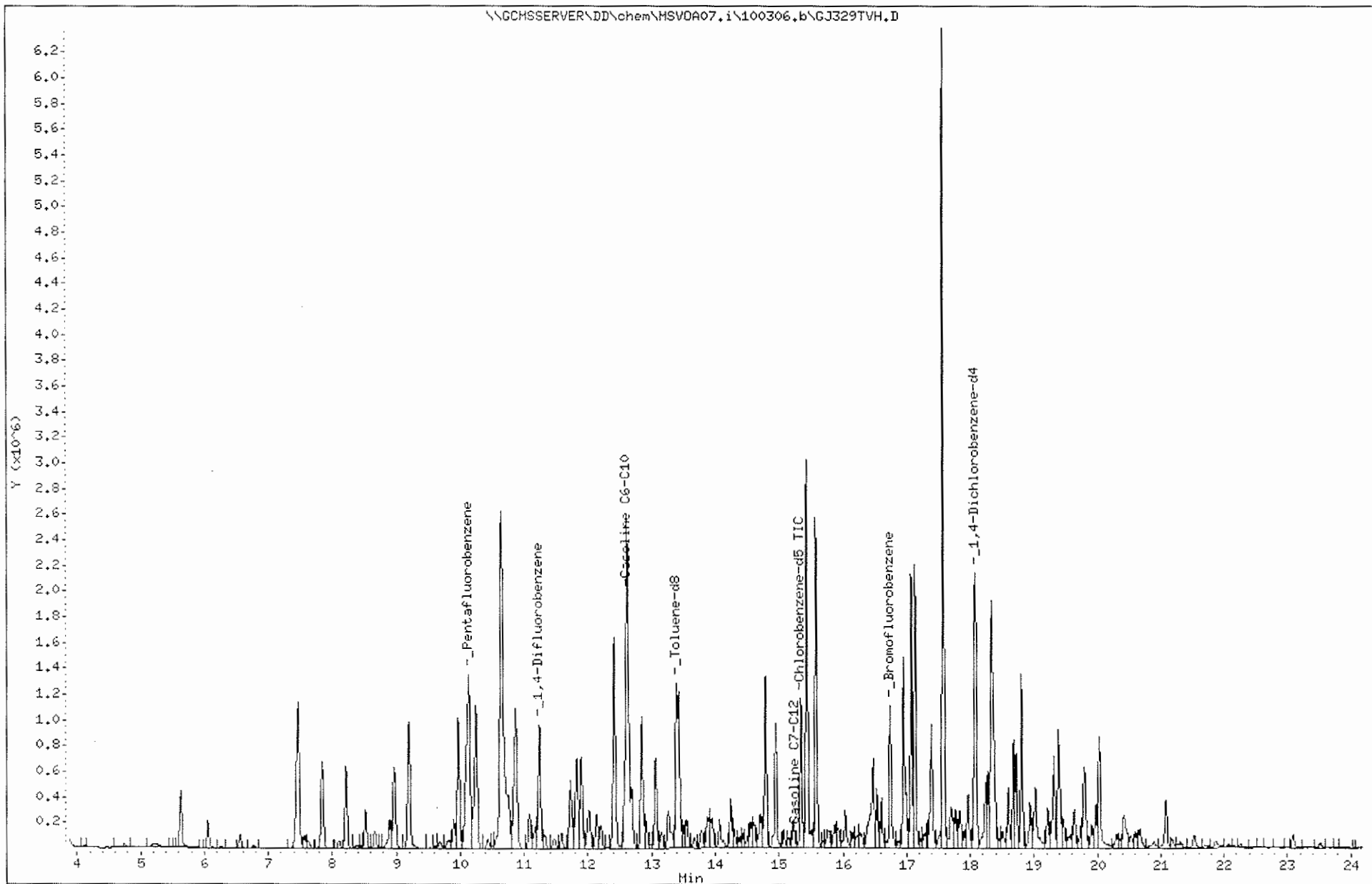
Sample Info: S,189667-021

Instrument: MSV0A07.i

Operator: B0

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 19:24

Client ID: DYNA P&T

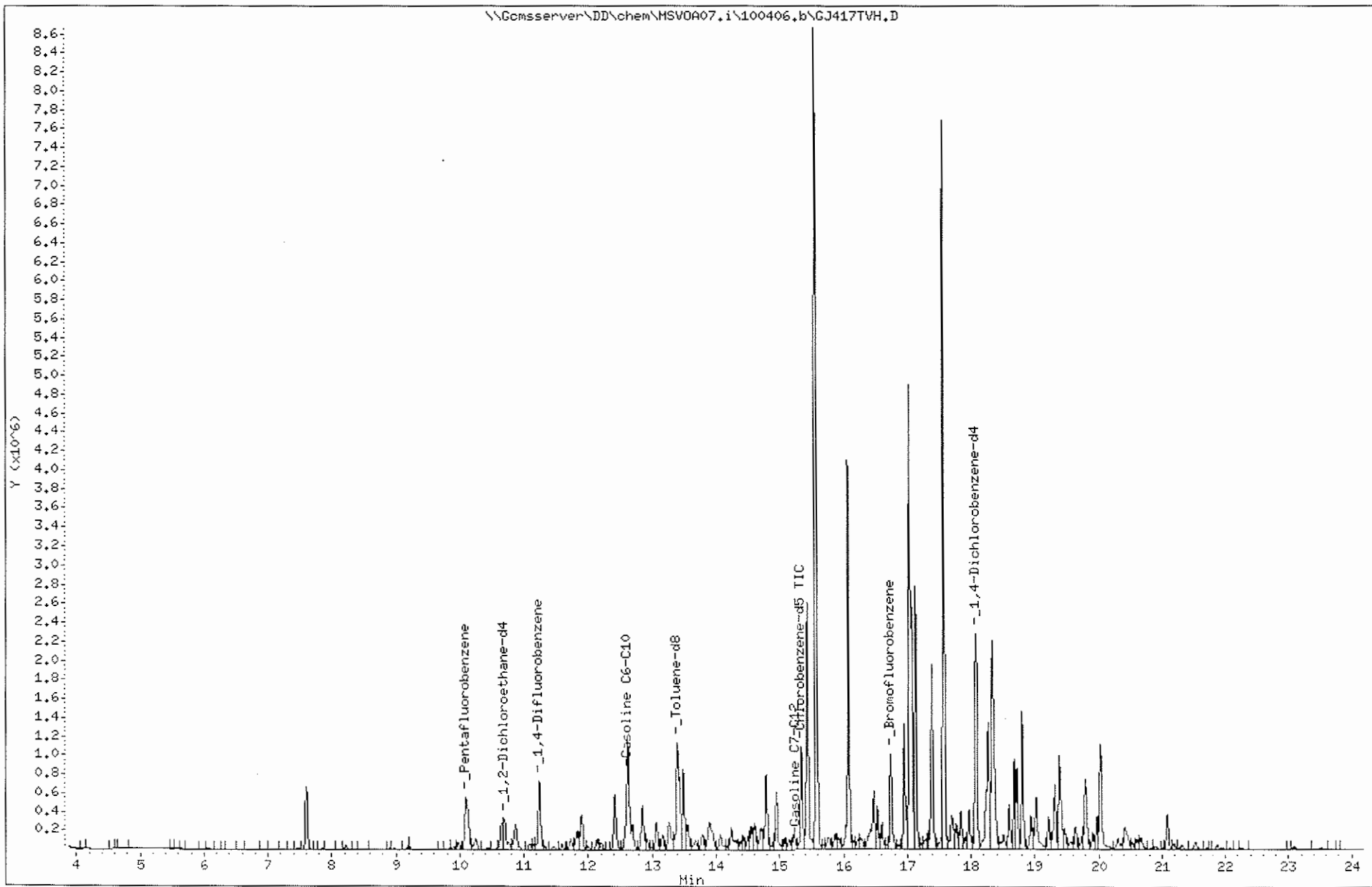
Sample Info: S.189667-022

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 05-OCT-2006 15:02

Client ID: DYNA P&T

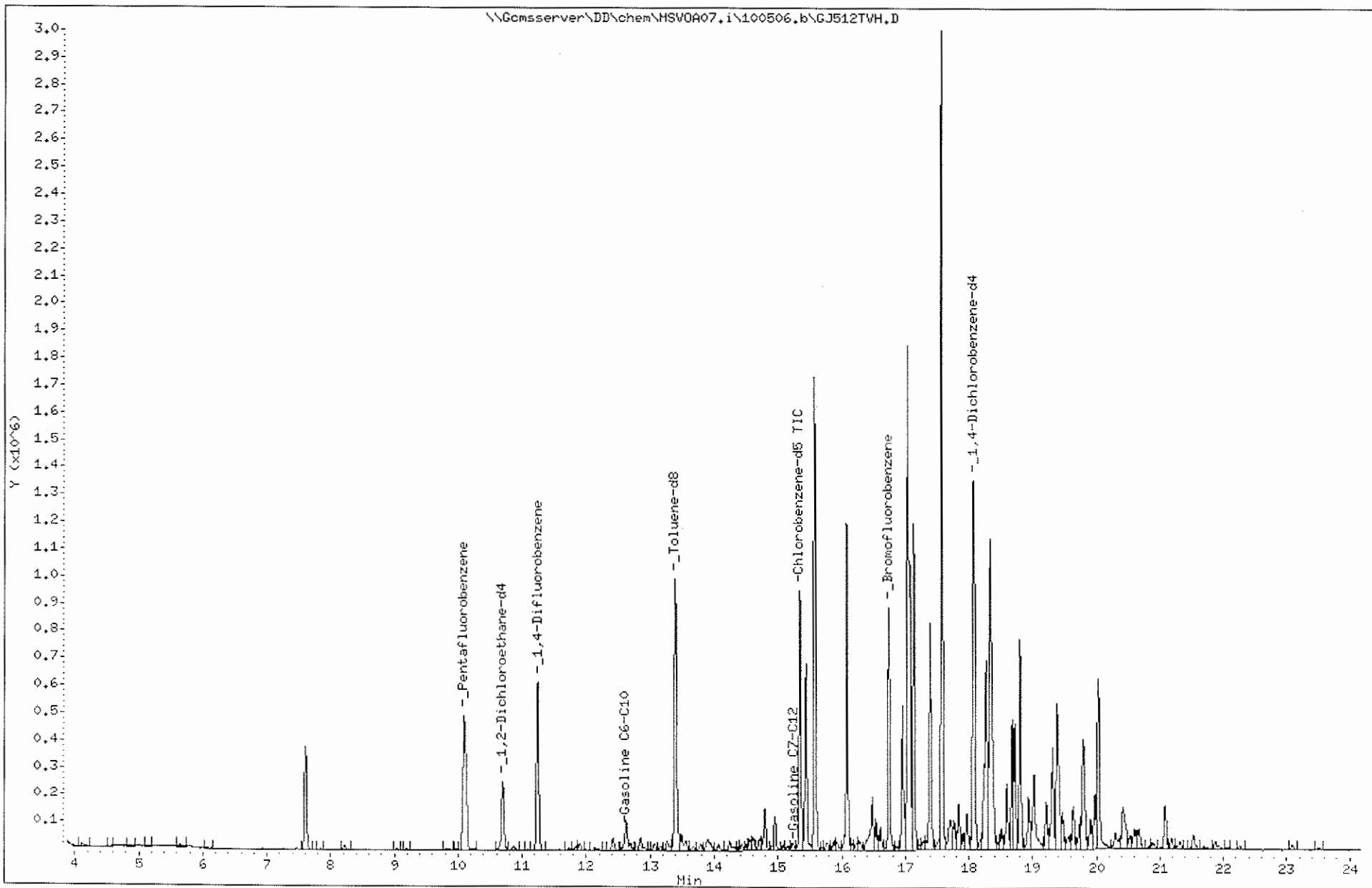
Sample Info: S,189667-022

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 04-OCT-2006 19:57

Client ID: DYNA P&T

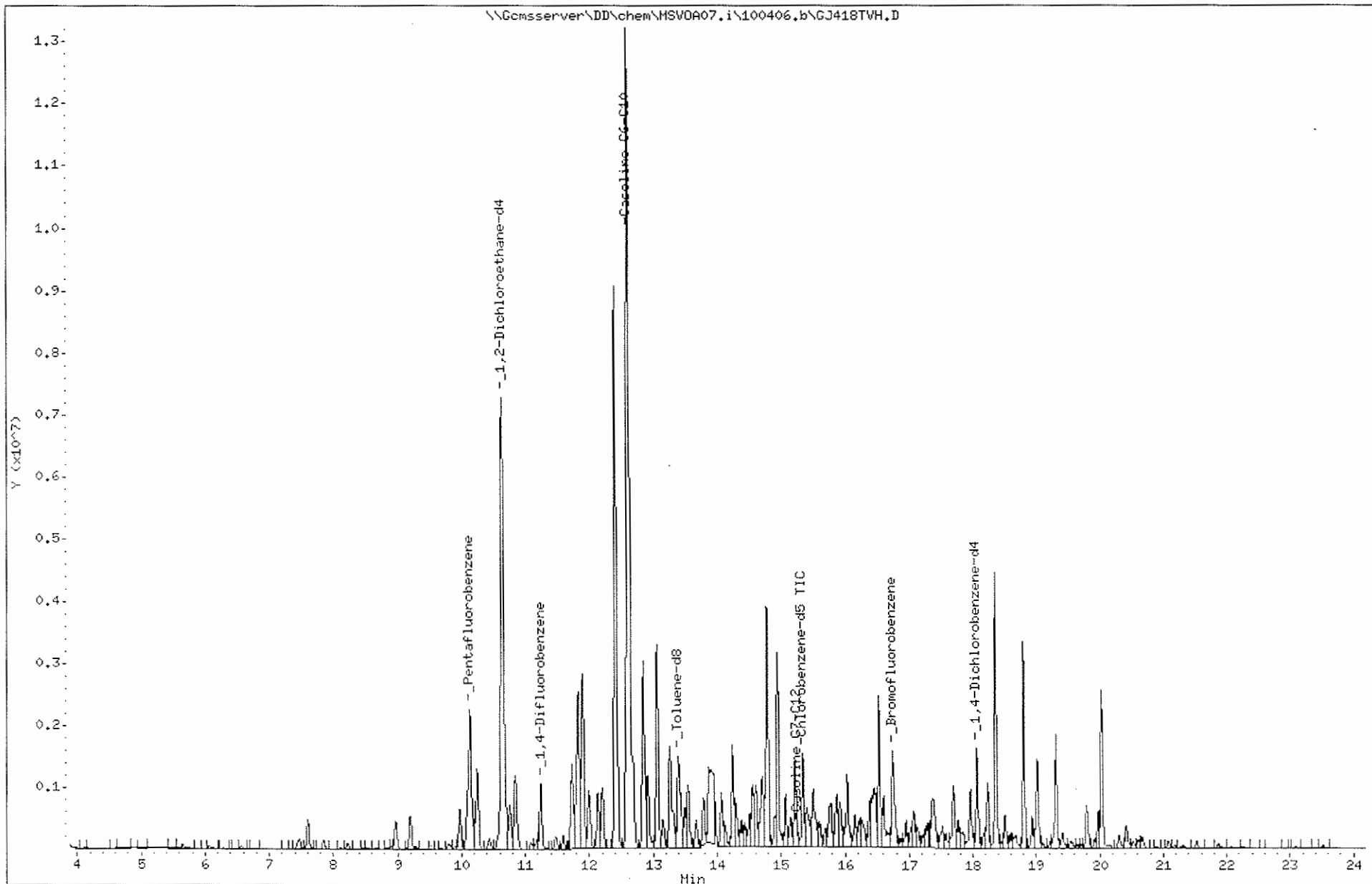
Sample Info: MSS,189667-023

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:





Date : 05-OCT-2006 15:34

Client ID: DYNA P&T

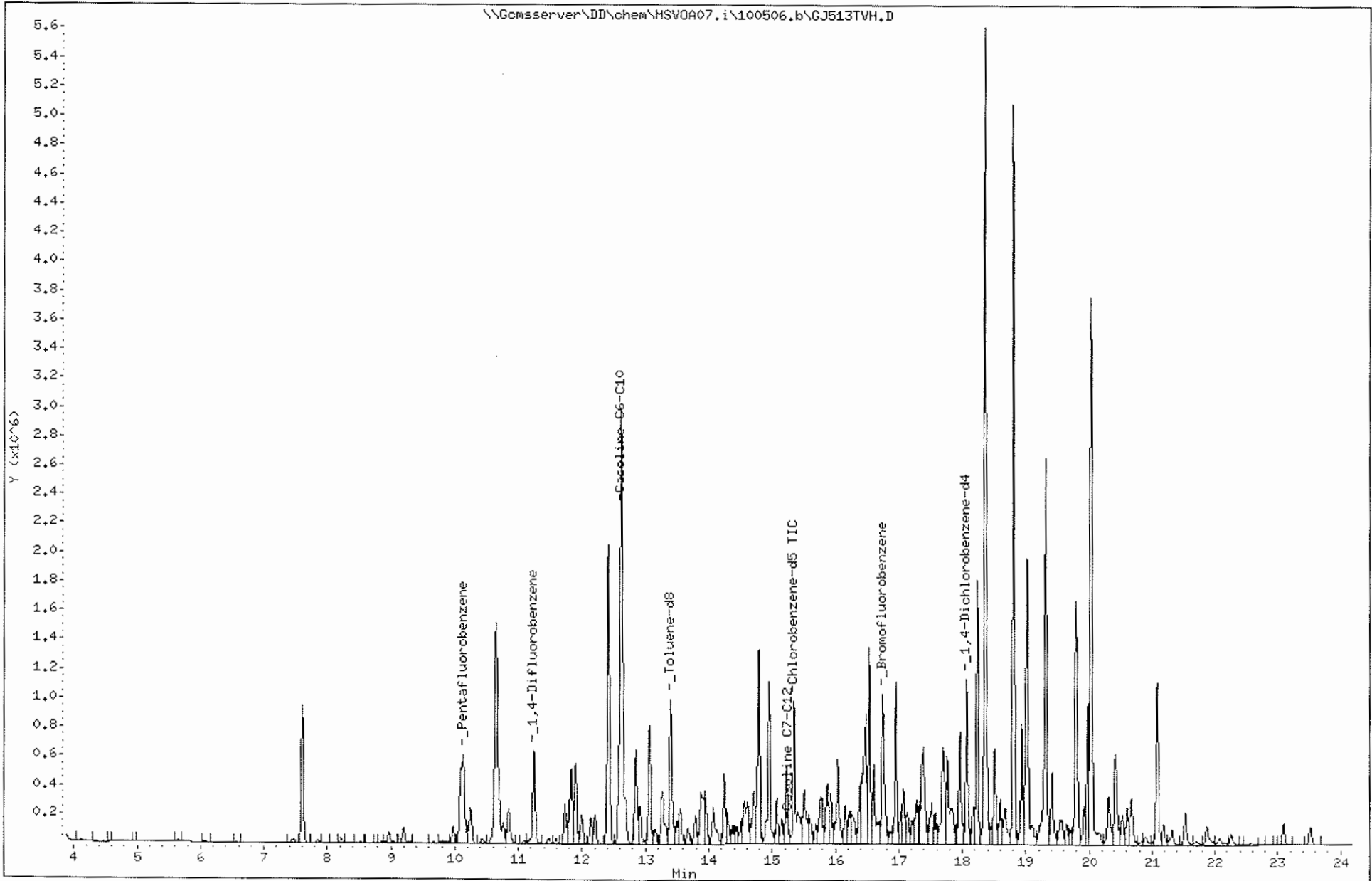
Sample Info: S,189667-023

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



Date : 01-OCT-2006 22:25

Client ID: DYNA P&T

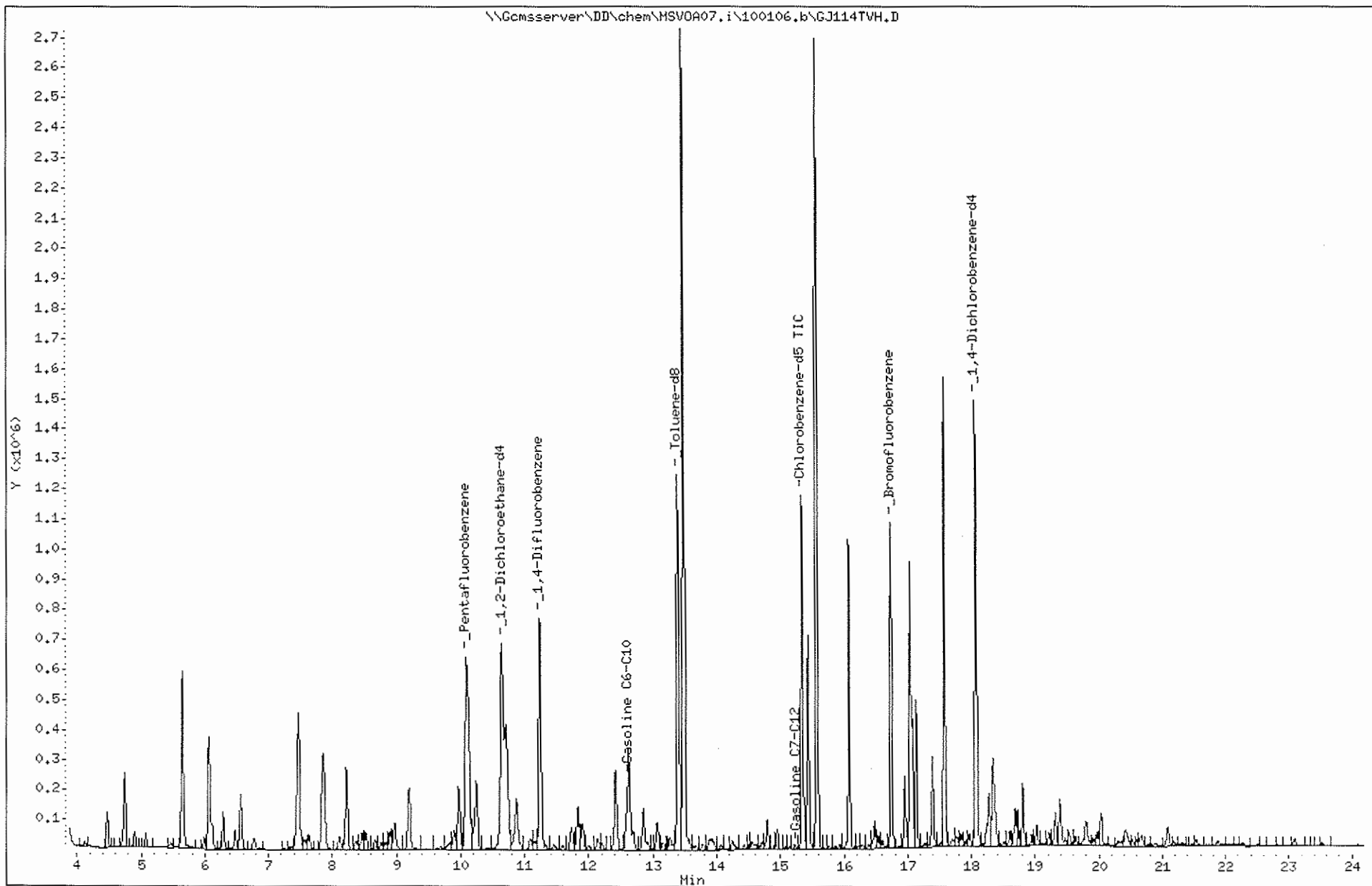
Sample Info: CCV,S4120,0.01/100

Instrument: MSV0A07.i

Operator: BO

Column diameter: 2.00

Column phase:



## Batch QC Report

**Gasoline by GC/MS**

Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC358407	Diln Fac:	1.000
Matrix:	Soil	Batch#:	117987
Units:	ug/Kg	Analyzed:	10/01/06

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	25.38	102	69-120
Benzene	25.00	27.38	110	80-120
Toluene	25.00	28.69	115	80-120
Ethylbenzene	25.00	28.24	113	80-120
m,p-Xylenes	50.00	56.99	114	80-120
o-Xylene	25.00	29.05	116	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	84	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-126

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	117987
Basis:	as received	Analyzed:	10/01/06

Type: BS Lab ID: QC358422

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.155	115	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	90	79-120
1,2-Dichloroethane-d4	87	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	95	80-126

Type: BSD Lab ID: QC358423

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	0.9579	96	70-130	19	30

Surrogate	%REC	Limits
Dibromofluoromethane	89	79-120
1,2-Dichloroethane-d4	83	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	94	80-126

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC358554	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118022
Units:	ug/Kg	Analyzed:	10/02/06

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	23.20	93	69-120
Benzene	25.00	25.92	104	80-120
Toluene	25.00	27.08	108	80-120
Ethylbenzene	25.00	28.30	113	80-120
m,p-Xylenes	50.00	57.35	115	80-120
o-Xylene	25.00	29.77	119	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	85	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-126

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	118022
Basis:	as received	Analyzed:	10/02/06

Type: BS Lab ID: QC358555

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2.000	2.447	122	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	85	79-120
1,2-Dichloroethane-d4	85	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	96	80-126

Type: BSD Lab ID: QC358556

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2.000	2.277	114	70-130	7	30

Surrogate	%REC	Limits
Dibromofluoromethane	86	79-120
1,2-Dichloroethane-d4	86	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-126

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC358700	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118058
Units:	ug/Kg	Analyzed:	10/03/06

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	20.57	82	69-120
Benzene	25.00	24.62	98	80-120
Toluene	25.00	25.28	101	80-120
Ethylbenzene	25.00	27.15	109	80-120
m,p-Xylenes	50.00	53.19	106	80-120
o-Xylene	25.00	27.08	108	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	79-120
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-126

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	118058
Basis:	as received	Analyzed:	10/03/06

Type: BS Lab ID: QC358702

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	0.9818	98	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	94	79-120
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	98	80-126

Type: BSD Lab ID: QC358703

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	1.153	115	70-130	16	30

Surrogate	%REC	Limits
Dibromofluoromethane	92	79-120
1,2-Dichloroethane-d4	97	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	97	80-126

RPD= Relative Percent Difference



## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC358885	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118102
Units:	ug/Kg	Analyzed:	10/04/06

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	20.86	83	69-120
Benzene	25.00	25.75	103	80-120
Toluene	25.00	26.30	105	80-120
Ethylbenzene	25.00	27.30	109	80-120
m,p-Xylenes	50.00	54.08	108	80-120
o-Xylene	25.00	27.12	108	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	97	79-120
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	98	80-126

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	118102
Basis:	as received	Analyzed:	10/04/06

Type: BS Lab ID: QC358886

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2.000	2.599	130	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	97	79-120
1,2-Dichloroethane-d4	101	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-126

Type: BSD Lab ID: QC358887

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2.000	2.592	130	70-130	0	30

Surrogate	%REC	Limits
Dibromofluoromethane	98	79-120
1,2-Dichloroethane-d4	100	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-126

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC359120	Diln Fac:	1.000
Matrix:	Soil	Batch#:	118161
Units:	ug/Kg	Analyzed:	10/05/06

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	23.77	95	69-120
Benzene	25.00	27.98	112	80-120
Toluene	25.00	28.04	112	80-120
Ethylbenzene	25.00	29.50	118	80-120
m,p-Xylenes	50.00	57.18	114	80-120
o-Xylene	25.00	28.44	114	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	79-120
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	104	80-126

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	118161
Basis:	as received	Analyzed:	10/05/06

Type: BS Lab ID: QC359132

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.083	108	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	99	79-120
1,2-Dichloroethane-d4	100	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	103	80-126

Type: BSD Lab ID: QC359133

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	1.134	113	70-130	5	30

Surrogate	%REC	Limits
Dibromofluoromethane	101	79-120
1,2-Dichloroethane-d4	100	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	103	80-126

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.8929
MSS Lab ID:	189703-001	Batch#:	117987
Matrix:	Soil	Sampled:	09/26/06
Units:	ug/Kg	Received:	09/27/06
Basis:	as received		

Type: MS Analyzed: 10/02/06  
 Lab ID: QC358425

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1058	44.64	39.77	89	56-120
Benzene	<0.1753	44.64	34.62	78	67-120
Toluene	<0.2298	44.64	30.28	68	62-120
Ethylbenzene	<0.3243	44.64	27.59	62	60-120
m,p-Xylenes	<0.5331	89.29	53.09	59	58-120
o-Xylene	<0.1589	44.64	28.91	65	58-120

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	89	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-126

Type: MSD Analyzed: 10/03/06  
 Lab ID: QC358426

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	44.64	41.38	93	56-120	4	23
Benzene	44.64	36.69	82	67-120	6	20
Toluene	44.64	32.85	74	62-120	8	20
Ethylbenzene	44.64	30.22	68	60-120	9	21
m,p-Xylenes	89.29	57.93	65	58-120	9	22
o-Xylene	44.64	30.81	69	58-120	6	22

Surrogate	%REC	Limits
Dibromofluoromethane	94	79-120
1,2-Dichloroethane-d4	92	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-126

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9091
MSS Lab ID:	189660-009	Batch#:	118022
Matrix:	Soil	Sampled:	09/26/06
Units:	ug/Kg	Received:	09/26/06
Basis:	as received	Analyzed:	10/03/06

Type: MS Lab ID: QC358576

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	16.80	45.45	40.96	53 *	56-120
Benzene	<0.1785	45.45	37.16	82	67-120
Toluene	<0.2340	45.45	39.99	88	62-120
Ethylbenzene	<0.3302	45.45	40.78	90	60-120
m,p-Xylenes	<0.5428	90.91	81.66	90	58-120
o-Xylene	<0.1618	45.45	41.57	91	58-120

Surrogate	%REC	Limits
Dibromofluoromethane	92	79-120
1,2-Dichloroethane-d4	91	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	95	80-126

Type: MSD Lab ID: QC358577

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	45.45	44.48	61	56-120	8	23
Benzene	45.45	40.71	90	67-120	9	20
Toluene	45.45	43.89	97	62-120	9	20
Ethylbenzene	45.45	44.71	98	60-120	9	21
m,p-Xylenes	90.91	89.07	98	58-120	9	22
o-Xylene	45.45	45.80	101	58-120	10	22

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	90	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	94	80-126

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference



## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	B9-12.0	Diln Fac:	0.9615
MSS Lab ID:	189667-018	Batch#:	118058
Matrix:	Soil	Sampled:	09/25/06
Units:	ug/Kg	Received:	09/26/06
Basis:	as received	Analyzed:	10/04/06

Type: MS Lab ID: QC358818

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1139	24.04	14.64	61	56-120
Benzene	2.073	24.04	21.12	79	67-120
Toluene	<0.2475	24.04	20.71	86	62-120
Ethylbenzene	5.657	24.04	23.18	73	60-120
m,p-Xylenes	<0.5741	48.08	42.33	88	58-120
o-Xylene	<0.1711	24.04	20.90	87	58-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	79-120
1,2-Dichloroethane-d4	95	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-126

Type: MSD Lab ID: QC358819

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	24.04	15.61	65	56-120	6	23
Benzene	24.04	22.87	86	67-120	8	20
Toluene	24.04	21.92	91	62-120	6	20
Ethylbenzene	24.04	26.44	86	60-120	13	21
m,p-Xylenes	48.08	44.99	94	58-120	6	22
o-Xylene	24.04	21.84	91	58-120	4	22

Surrogate	%REC	Limits
Dibromofluoromethane	97	79-120
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-126

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	B11-8.0	Diln Fac:	0.9804
MSS Lab ID:	189667-023	Batch#:	118102
Matrix:	Soil	Sampled:	09/25/06
Units:	ug/Kg	Received:	09/26/06
Basis:	as received	Analyzed:	10/05/06

Type: MS Lab ID: QC358993

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1161	24.51	21.52	88	56-120
Benzene	0.4366	24.51	26.22	105	67-120
Toluene	2.128	24.51	25.62	96	62-120
Ethylbenzene	1.121	24.51	21.41	83	60-120
m,p-Xylenes	1.881	49.02	40.74	79	58-120
o-Xylene	1.960	24.51	21.32	79	58-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	79-120
1,2-Dichloroethane-d4	115	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	107	80-126

Type: MSD Lab ID: QC358994

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	24.51	20.09	82	56-120	7	23
Benzene	24.51	23.02	92	67-120	13	20
Toluene	24.51	22.53	83	62-120	13	20
Ethylbenzene	24.51	19.43	75	60-120	10	21
m,p-Xylenes	49.02	35.93	69	58-120	13	22
o-Xylene	24.51	20.15	74	58-120	6	22

Surrogate	%REC	Limits
Dibromofluoromethane	102	79-120
1,2-Dichloroethane-d4	103	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	106	80-126

RPD= Relative Percent Difference



## Batch QC Report

Gasoline by GC/MS			
Lab #:	189667	Location:	300 Hegenberger
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9615
MSS Lab ID:	189872-001	Batch#:	118161
Matrix:	Soil	Sampled:	10/03/06
Units:	ug/Kg	Received:	10/04/06
Basis:	as received	Analyzed:	10/05/06

Type: MS Lab ID: QC359173

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1139	24.04	25.06	104	56-120
Benzene	<0.1888	24.04	31.89	133 *	67-120
Toluene	<0.2475	24.04	32.10	134 *	62-120
Ethylbenzene	<0.3493	24.04	33.50	139 *	60-120
m,p-Xylenes	<0.5741	48.08	65.19	136 *	58-120
o-Xylene	<0.1711	24.04	31.91	133 *	58-120

Surrogate	%REC	Limits
Dibromofluoromethane	107	79-120
1,2-Dichloroethane-d4	108	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-126

Type: MSD Lab ID: QC359174

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	24.04	22.53	94	56-120	11	23
Benzene	24.04	30.58	127 *	67-120	4	20
Toluene	24.04	30.79	128 *	62-120	4	20
Ethylbenzene	24.04	32.54	135 *	60-120	3	21
m,p-Xylenes	48.08	62.87	131 *	58-120	4	22
o-Xylene	24.04	30.78	128 *	58-120	4	22

Surrogate	%REC	Limits
Dibromofluoromethane	106	79-120
1,2-Dichloroethane-d4	107	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-126

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference



# CHAIN OF CUSTODY

Analyses

**Curtis & Tompkins, Ltd.**  
 Analytical Laboratory Since 1878  
 2323 Fifth Street  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

C&T LOGIN # 189667

Sampler: Dave DeMent (DRD)

Project No: 6748-017.01

Report To: ddement@acenv.com

Project Name: 300 Hegenberger

Company: ACL Environmental

Project P.O.: 6748-017.01

Telephone: (510) 638-8400 X109

Turnaround Time: Normal (10 day OK)

Fax: (510) 638-8404

Lab No.	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative			
			Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE
14	B7-12.0	9/25/06 11:45	X			1				X
15	B8-8.0	11:15	X			1				
16	B8-12.0	11:25	X			1				
17	B9-8.0	10:10	X			1				
18	B9-12.0	10:20	X			1				
19	B9-16.0	10:25	X			1				
20	B10-4.0	14:05	X			1				
21	B10-8.0	14:15	X			1				
22	B11-4.0	15:25	X			1				
23	B11-8.0	15:35	X			1				X
24	B11-12.0	15:45	X			1				X

TPH <sub>9</sub> /BTX/MTBE 8260B																							
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Notes: Most samples have moderate to high gasoline odor	RELINQUISHED BY:		RECEIVED BY:	
	<i>[Signature]</i>	9/26/06 DATE/TIME	<i>[Signature]</i>	9/26/06 1320 DATE/TIME
		DATE/TIME		DATE/TIME

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# CHAIN OF CUSTODY

## Analyses

**Curtis & Tompkins, Ltd.**  
 Analytical Laboratory Since 1878  
 2323 Fifth Street  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

C&T LOGIN # 189667

Project No: 6748-017.01  
 Project Name: 300 Hegenberger  
 Project P.O.: 6748-017.01  
 Turnaround Time: Normal (10 day OK)

Sampler: DAVE DeMent (DAD)  
 Report To: ddement@Accenv.com  
 Company: ACC ENVIRONMENTAL  
 Telephone: (510) 638-8400 X109  
 Fax: (510) 638-8407

Lab No.	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative			
			Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE
<u>25</u>	<u>B5-W</u>	<u>9/25/06 13:50</u>	<u>X</u>	<u>X</u>		<u>2</u>	<u>X</u>		<u>X</u>	
<u>26</u>	<u>B6-W</u>	<u>14:10</u>	<u>X</u>	<u>X</u>		<u>2</u>	<u>X</u>		<u>X</u>	
<u>27</u>	<u>B9-W</u>	<u>11:00</u>	<u>X</u>	<u>X</u>		<u>2</u>	<u>X</u>		<u>X</u>	
<u>28</u>	<u>B10-W</u>	<u>14:50</u>	<u>X</u>	<u>X</u>		<u>2</u>	<u>X</u>		<u>X</u>	

XXXX TPH <sub>9</sub> /BTEX/MTBE 8260B																				

Notes:	RELINQUISHED BY:	RECEIVED BY:
	<u>DAD</u> <u>9/26/06</u> DATE/TIME	<u>Ruby</u> <u>9/26/06 1320</u> DATE/TIME
	DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME	

contact cold RA