Leak Site #: 10868 **Date: 2/7/07**

Site Name: Sinclair Station #22024, 9456 Medicine Lake Rd, Hew Hope, Hennepin Cty 55427

Project Manager: Kate Funk

Hydrologist: Audrey Van Cleve

Consultant: Peer Engineering, Bruce Schaepe and Diane Ruddle (952) 831-3341

Date	Event	Notes
1995	Leak #2433 closed	
10/14/97	Release reported	
8/17/98	LSI report received	
2/24/99	Site closed (leak #10868)	
9/21/05	Reported PID of 240 during removal of tanks	645 CY excavated and landfilled during tank replacement
3/24/06	Site reopened w/ same leak #	
11/15/06	Excavation report received	
11/13/06	LSI report received	

TALES Remarks:

10/22/97 SHV: Energy Ergonomics was doing a site assessment for Sinclair for corrosion upgrade, during assessment punctured a product line. Consultants thought it was more than 5, but less than 10 gals. Not sure. The consultant removed some contaminated soil down to pipe to repair. Contamination also seeped further down into soil. Sinclair will send in analytical regarding the corrosion upgrade. Product released was gasoline, several feet in 4 inch auger hole, former leak here #2433 was closed in 95.

06/16/98: CLM met with Larry Feldsein. He said they are still working out the details on who is going to proceed with the investigation due to the nature of the release.

02/24/99: Note from Steve Geyen (hydro?) to close the site. No other explanation was provided.

9/21/2005 SAL: DO report received for tanks removed at this site, with replacement. States muni, sandy clay, petro odors and staining. High PID of 240ppm. Gave to PM for new number/ reopen decision.

3/24/06: CLM reviewed the report and approve the additional soil removal. The soil was highly contaminated and appeared to be a hot spot removal. However, the site will have to be reopened and an LSI completed.

6/29/06: CLM talked with Bruce Shappe. Based on his review of past site data he is confident that the shallow water found is perched and I tend to agree. He proposed doing auger borings to get deep soil samples to demonstrate that the site contamination is not reaching the regional aquifer which is at about 50 feet. I agreed that this was a reasonable approach.

12/7/06: Site transferred from CLM to KAF.

Emergency Conditions: None

Tank Info:

Tank ID #: 1473

Inspection History: Routine inspection in Sept 05; no violations

In 9/05 removed:

- Three 6,000-gal gasoline tanks (installed in 1964)
- two hydraulic hoists
- pump islands

In 10/05 installed two 12,000-gal FRP 2W USTs; south tank is compartmentalized: 5K gasoline, 7K diesel.

Site Info: Residential; light commercial directly south of site; Highway 169 borders site on west

Release Info:

Leak #2433 closed in 1995

Leak Site #: 10868 **Date: 2/7/07**
Site Name: Sinclair Station #22024, 9456 Medicine Lake Rd, Hew Hope, Hennepin Cty 55427

Leak #10868 closed in 1999
Leak #10868 reopened in September 2005 as a result of tank removal assessment. PID=240 ppm.

Excavation: 645 CY removed during 2005 tank replacement. CLM approved the volume of soil removed and landfilled at Veolia ES Rolling Hills Landfill (formerly Onyx FCR Landfill) in Buffalo.

Soil Investigation:
Vertical extent: Defined
Horizontal extent: Low GRO near property border: G=56 at 11 ft deep in SB-6 near east property boundary and GRO=110 at 11 ft deep in SB-8 at 11 ft deep. GRO=310 at 11 ft deep in SB-7 14 ft from south property boundary; nearby soil-gas sample (SB-7V) at the south property boundary has some low exceedences including B=11.7.
Stratigraphy: Hard silty or sandy clay with a discontinuous sand seam that contains perched water.

Surface Soil Contamination:
PID=21 at 0-2 ft and PID=296 at 2-4 ft in SB-5 located in former tank basin. Peer includes no discussion.
AVC: Given location, the PID reading is not surprising; this is likely limited to the tank basin area.

Groundwater investigation:
Ground elevation: 950 ft above msl
Hydrology:
Depth to GW: Water table elevation: ~885 ft above msl[1]. Limited perched water was encountered in several borings at depths ranging from 4 to 8 feet bgs.
Transmissivity (ft^2/day): N/A
Conductivity (cm/sec) (ft/d): N/A
GW Flow Direction: Water table flow direction to the ENE[1]
Is this an aquifer?: No
[1]Source: Hennepin County Atlas

General geology/stratigraphy:
Uppermost bedrock: St. Peter
Bedrock elevation: 750 ft above msl[1]
Prairie du Chien-Jordan potentiometric level: ~860 ft above msl; flow direction to the east
Surficial geology: Superior lobe glacial loamy till—chiefly loam in texture; few beds and lenses of stratified sediment.
Sensitivity of ground-water systems and water-table system to pollution: moderate to low

Well Receptor Info: No water supply wells within 500 ft. No municipal or industrial wells within ½ mile.

Wellhead Protection/Surface Water Assessment Area: Not in a WPA, SWA area, or DWSMA.

Surface Water Info: None within ¼ mile. Medicine Lake is 1500 feet SW of the site.

Vapor Risk Info: Peer submitted utility location info per my request, received 2/7/07. Based on sanitary line location on south property boundary, Peer conducted a vapor survey of three sanitary manholes to sanitary line on south property boundary. PIDs all ND, LEL zero, O_2 within normal range.

Leak Site #: 10868 **Date: 2/7/07**

Site Name: Sinclair Station #22024, 9456 Medicine Lake Rd, Hew Hope, Hennepin Cty 55427

Vapor Intrusion Assessment:

SB-6V near east property boundary, 45 feet from apartment bldg, benzene=42 ug/m^3. V-5 located within the former tank basin had very high exceedences as shown below. V-5 was collected at 4 feet deep due to shallow water. Peer states that V-5 has a variety of compounds not previously associated with this site and believes these detections were a result of vapors produced by new asphalt and not by the release. SB-1V collected from west side of property was not analyzed because Pace lost the sample. Soil boring in this area was all no detect.

Compound	Result µg/m^3	Residential ISV
Cyclohexane	369,000	6000
Ethylbenzene	31,200	22
4-Ethyl toluene	12,800	NE
n-Heptane	607,000	NE
n-Hexane	2,440,000	700
1,2,4-Trimethylbenzene	18,400	6
1,3,5-Trimethylbenzene	10,200	6
mp-Xylene	33,100	100
o-Xylene	2,430	100

Consultant Discussion:

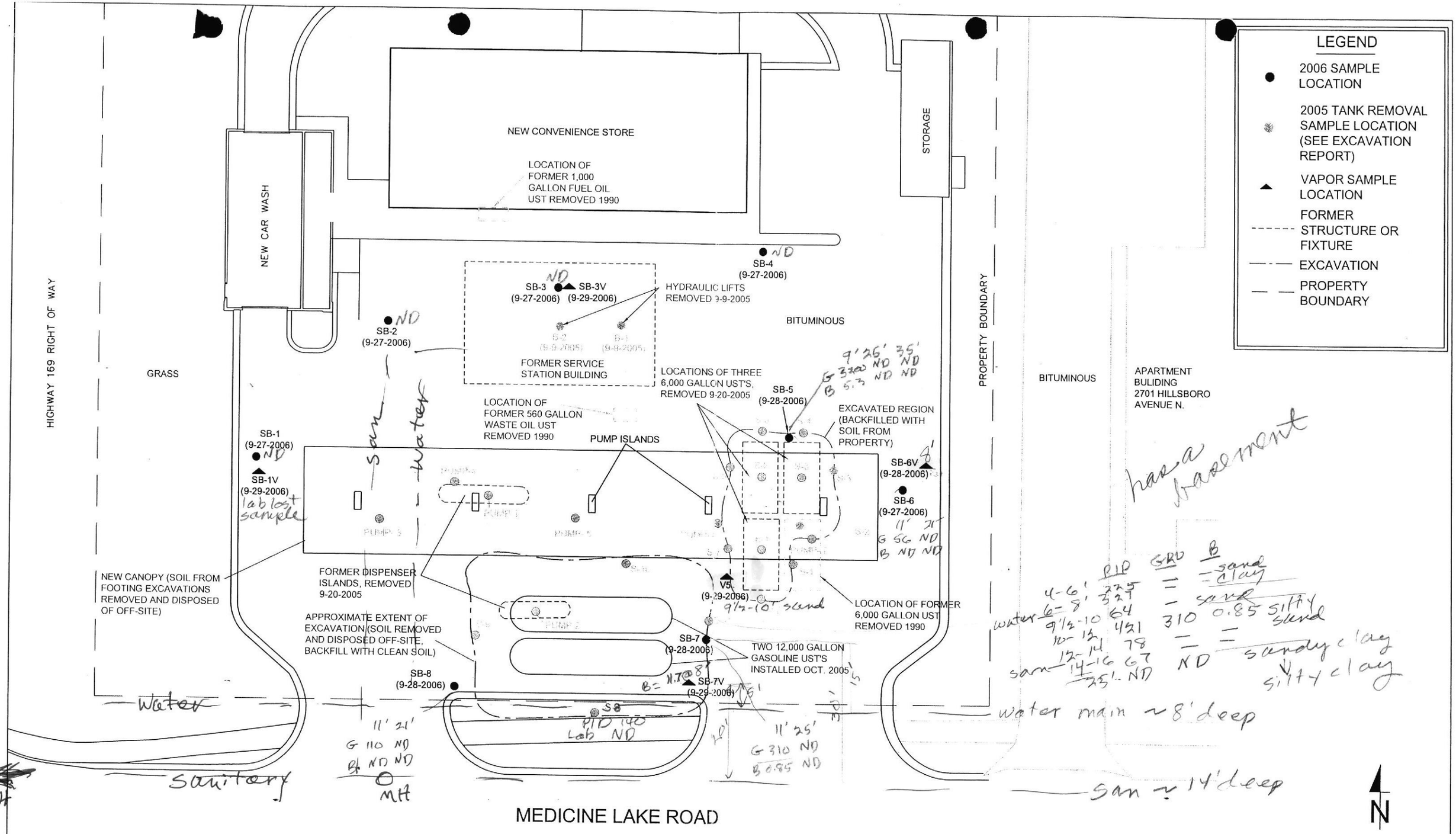
Recommends site closure. Missing utility information—no utilities shown on site drawings.

1/11/06: I left a voice mail message for Bruce Shaepe, Peer Engineering and asked him if he has underground utility info. I need to know if underground utilities are present on the south side of the site along Medicine Lake Road to help me make a closure decision. Please fax us a map with this info. Left my phone # and our fax #. Bruce is out until Monday Jan 15.

2/8/07 Called Bruce Shaepe. Peer didn't collect perched GW samples because the purpose was to assess vertical extent of soil contam to ensure the deeper WT was not impacted. Much of the perched GW was found in backfill added during the recent reconstruction of the site. Regarding utilities, there is an UG gas service line to the site bldg along the E side of the property; these are generally 2 ft deep. Bruce doesn't know the location of service lines to the apt bldg to the east. From utility map, appears they are from Medicine Lk Rd to the SE corner of the apt bldg.

Hydro Comments:

645 CY removed during 2005 tank replacement. In subsequent LSI, high concentrations in soil in former tank basin; GRO=3200 at 9 ft, ND at 25 and 35 ft. High soil-gas exceedences. Near E property boundary GRO=56 ppm at depth of 11 ft; in soil gas benzene=42 ppb in SB-6V at E boundary; apt bldg is 45 ft east of SB-6V. Near S prop boundary GRO=310 at 11 ft, ND at 25 ft in SB-7; this is 15 ft N of water main and 30 ft N of san sewer; soil-gas result in this area is B=11.7 ppb; water main and sanitary sewer run along S prop boundary; PIDs in san sewer MHs all ND; a soil sample collected on the south property boundary during excavation was ND at 3 ft deep. Extent defined to the north and west. Perched GW in several borings at depths ranging from 4 to 8 ft. Soil profile is silty or sandy clay with a sand seam that contains perched water. From Henn Cty Atlas, depth to WT is ~65 ft, flow dir to the ENE, surficial geol is Superior lobe glacial loamy till. Closed leak site at Mobil to the south, across Medicine Lake Rd, and at adjacent apartment to the east from a former fuel oil tank. Consultant should have collected perched GW samples regardless of purpose being to assess impact to deeper WT. However, given clay soils, limited perched water, and lack of receptors, no significant risk. Recommend site closure.



MAP DATA PROVIDED BY SINCLAIR OIL CORPORATION, PEER FIELD DATA AND OBSERVATIONS, AND PREVIOUS REPORTS PRODUCED BY ENECOTECH (REMEDIAL INVESTIGATION/CORRECTIVE ACTION DESIGN REPORT, 2-5-1992; AND THE SUBSURFACE INVESTIGATION REPORT, 8-11-1998).

SCALE IN FEET
0 10 20

15111.02 Recent Investigation Locations.DWG

Peer Engineering

PROJECT #: 15111.02

RECENT INVESTIGATION LOCATIONS	OCT. 2006
SINCLAIR 9456 MEDICINE LAKE ROAD NEW HOPE, MINNESOTA	FIGURE 2

Report Rejection Checklist

Background

Reports that omit important information can waste MPCA staff time and Petrofund money. Lust staff spent considerable time to develop comprehensive guidance to streamline the review process and provide consistency in the way we manage the program. The goal of the checklist is to ensure that the guidance is followed, that reports are reviewed in a timely manner, and that poor quality investigations and reporting are discouraged. One way to achieve these goals is to make sure that consultants are held accountable for failure to follow guidance.

Inadequate reports should be rejected. A rejected report may affect responsible party reimbursement.

Process

The following is a project manager report rejection checklist followed by a hydrologist report rejection checklist. The first checklist is intended for use by the PM to decide whether there is sufficient information to submit the report for hydro review. Following it is a list of rejection criteria for hydrogeologists. When a report is received by the PM, the PM fills out the PM checklist. Unless the PM rejects the report, the PM Checklist is attached to the report and submitted to the hydro for review. The hydro may reject the report for any of the reasons listed in the hydro checklist. Appropriate documentation of report rejections should include Report Tracking documentation, AND Remarks screen documentation (in fact Petrofund staff have indicated that Remarks documentation would be the best way for them to track report rejections for individual sites). The items listed below represent report problems that have been fairly common in recent years. There could be other reasons for rejecting a report such as failure to follow any guidance not referred to below.

A report rejection letter is flexible because sites and situations vary. In some cases a report will be rejected completely for failure to follow several important guidance documents. In most cases a report rejection letter will indicate a specific omission or error so that the responsible party may be eligible for reimbursement for those parts of the report that are acceptable. In order to expedite a project or to avoid delays over small omissions, a request for more work may include a comment indicating which portion of the work is not acceptable. The portion that is not acceptable should also be indicated in the Remarks screen. In some cases there may be a professional difference of opinion between the consultant and staff. For example, a consultant may recommend closure but staff may believe that the extent of contamination is not adequately defined. This may be a difference of opinion which may not be justification for a report rejection. The project team will have to consider whether the consultant is acting in good faith or is clearly ignoring obvious evidence.

PM Report Checklist for LSI or RI Report

The PM should completely review the items below before a hydrogeologist reviews the report. When applicable, the section of the report is referenced. Some items are repeated under the hydro checklist because the hydro may need to look at other technical issues. If the project manager is uncertain about rejecting a report, he/she can indicate this in the margin next to the item so that the hydro may consider it and they can decide together. ["take appropriate action" could mean rejection of the report, request more work, call the consultant for missing info, etc.]

Date: 12/5/06 PM: Kate Funk Hydro: —

Type of Report:

X LSI Soil Only Site
___ LSI Groundwater
___ RI/CAD
___ RI/Monitoring
___ RI/Closure
___ Annual or Semi-Annual Report

1) **Is the report signed, or is the Consultant Information Section unaltered?**
   X Yes
   ___ No (reject report)

2) **Is the report in the most recent MPCA format?**
   X Yes
   ___ No (reject report)

3) **Is there a recommendation made for the site?**
   X Yes
   ___ No (reject report)

4) **Section 1: Is the site an Emergency or High Priority Site?**
   ___ Yes (assign the site as a high priority review in the data base **AND** send the hydro assigned the site a brief FYI email about the report and site)
   X No

5) **Section 4: Extent and Magnitude of Soil Contamination. Did they answer *YES* to the first three questions (4.1-4.3)?**
   X Yes
   ___ No (take appropriate action)

6) **Section 8: Receptor Information/Assessment. Is receptor information complete? (they should list all residences within 500 feet and should try to interview the homeowners or at least visit the the homes that do not respond to letters/cards. It is not sufficient to just verify that city water is available).**

X Yes

____ No (reject report if the table listing the homes is not filled out or if it appears they merely called to determine that there was public water available)

7) **Section 11: Is there an analysis of the data?**

X Yes ____ No (reject report)

8) **Section 12: Conclusions or recommendations provided?**

X Yes ____ No (reject report)

9) **Other: Were full VOCs analyzed?**

X Yes

____ No (reject report)

____ NA (the report was submitted subsequent to the first round of sampling)

10) **Other: Are there missing figures, tables, appendices, or pages of text? Are the figures unreadable?** [*if this is a recurring problem with a certain consultant, then maybe the report should be rejected, otherwise, a call or letter to the consultant may be best*]

____ Yes (take appropriate action) X No

11) **Other: Are major parts of the document missing (e.g., no excavation report, no vapor survey, etc.)?**

____ Yes (reject report) X No

<u>If the site was investigated as a LSI, review is complete. If the report is a RI, please continue.</u>

12) **Section 6.7: Did they answer *YES* to having a clean or nearly clean down gradient well?** [*This item and 6.8 below may be more of a judgment call for hydros rather than a rejection criteria.*]

____ Yes ____ No (take appropriate action)

13) **Section 6.8: Did they answer YES to having a worst case well completed through the source area?**

____ Yes ____ No (reject report)

14) **Based on this checklist is the report ready for hydro review?**

____ Yes ____ No (reject report)

Report Checklist For Hydrologists

1) Are there missing figures, tables, appendices, or pages of text. Are the figures unreadable? [*if this is a recurring problem with a certain consultant, then maybe the report should be rejected, otherwise, a call or letter to the consultant may be best*]

____ Yes (take appropriate action) ✓ No

2) Was a stratigraphic boring done? Was it deep enough? (These are often not performed because the geology was not suitable for push probes and they did not take the geology into consideration prior to the field work).

✓ Yes ____ No (*take appropriate action-rejection maybe if they should have known that a push probe would be inadequate or if they failed to budget for the deep boring)*

3) Soil analytical samples collected at correct depth(s) (see Fact Sheet # 19).

✓ Yes ____ No (*take appropriate action-rejection maybe if they showed very poor judgment in selecting sampling intervals; e.g., sampled only at the water table when there was visible contamination or high PID readings at shallower depth*)

4) Section 8: Receptor Information/Assessment. Is receptor information complete? (they should list all residences within 500 feet and should try to interview the homeowners or at least visit the homes that do not respond to letters/cards. It is not sufficient to just verify that city water is available).

✓ Yes

____ No (reject report if the table listing the homes is not filled out or if it appears they merely called to determine that there was public water available)

5) Are all utilities shown on a site map (with depths)?

____ Yes

✓ No (reject report) left phone msg for consultant

6) Grain size analysis performed? NA - saturated zone not encountered.

____ Yes

____ No (take appropriate action)

7) Section 11: Is there an analysis of the data?

✓ Yes ____ No (reject report)

2/7 received req'ested utility info.

8) Section 12: Conclusions or recommendations provided?

✓ Yes ____ No (reject report)

9) Are the conclusions or recommendations supported by the data? (The data obviously do not support the conclusions or recommendations or there is a glaring misinterpretation of the data).

✓ Yes ____ No (reject report-*this may be a difficult decision because this will appear to be a question of differing professional opinions between the consultant and the MPCA; report rejection would probably only be justified in cases where much of the data was not included in the report, if much of the data failed QAQC, or if the laboratory was not certified.*)

tss073

MPCA Leaksite Rema[redacted]s Screen Leak ID: 10[redacted]

10/22/97 SHV: Energy Ergonomics were doing a site assessment for Sinclair for corrosion upgrade, during assessment punctured a product line. Consultants thought it was more than 5, but less than 10 gls. Not sure. The consultant removed some contamianted soil down to pipe to repair. Contamaination also seeped further down into soil. Sinclair will send in analytical regarding the corrosion upgrade. Product released was gasloine, several feet in 4 inch auger hole, former leak here #2433 was closed in 95.

06/16/98: CLM met with Larry Feldsein. He said they are still working out the details on who is going to procede with the investigation due to the nature of the release.

02/24/99: Note from Steve Geyen to close the site. No other explanation was provided.

Rpt Trkng(F11) Restore(F12) Save(F10) Quit(PF3) >

STATE OF MINNESOTA

DEPARTMENT OF PUBLIC SAFETY - DIVISION OF EMERGENCY MANAGEMENT
B-5 STATE CAPITOL, SAINT PAUL, MN 55155-1049

MINNESOTA DUTY OFFICER
HAZARDOUS MATERIALS INCIDENT REPORT: *SPILLS*

REPORT DATE: 10.14.97 TIME: 1501 DUTY OFFICER: Mark

REPORTED BY:

NAME: Larry Fellsien
C/O: Sinclair Oil
ADDRESS: 6602 Portland Ave So.
CITY: Richfield STATE: MN
PHONE: 869-2436 ZIP: 55423
ALT. PHONE:

RESPONSIBLE PARTY/PROPERTY OWNER:

CONTACT:
C/O: - Same -
ADDRESS:
CITY: STATE:
PHONE: ZIP:
ALT. PHONE:

HAVE LOCAL OFFICIALS BEEN NOTIFIED?: YES / NO
IF EMERGENCY RESPONSE IS NEEDED, HAVE CALLER NOTIFY 911 IMMEDIATLY!

MATERIAL & QUANTITY: Gasoline - < 10 gals. Leak #2433 Tub #1493
INCIDENT DATE: 10.13.97 TIME: 1600 ONGOING?: YES (NO) UNKNOWN
SITE NAME & ADDRESS/LOCATION: Sinclair Sta #22024 - 9456 Medicine Lake Rd - New Hope COUNTY: Hennepin
LEGAL: SECTION: TOWNSHIP: RANGE:

RELEASED TO: (soil) / asphalt / concrete / surface water / well / tile line / groundwater / storm sewer / sanitery sewer
DESCRIBE AREA: URBAN / RURAL / RESIDENTIAL / COMMERCIAL / INDUSTRIAL

(SPILL) / AIR RELEASE / COMPLAINT / DUMPING / MALFUNCTION / SHUTDOWN / PIPELINE LEAK / RAD MATERIAL

NARRATIVE: Energy Economics Inc. (EEI) - Dodge Center MN
1-800-753-2557
Doing site assessment w/ Borings and struck a product line from the U.S.T. to the pump. Mtl. spilled to boring hole. Line has been repaired.

Has Material Escaped The Location Property?: YES (NO) / UNKNOWN
Has The Released Material Been Contained?: (YES) / NO / UNKNOWN
Any State Agency Response?: YES / NO SPECIFY:
***IS THIS A BUSINESS OR GOVERNMENT FACILITY REPORTING IN COMPLIANCE WITH SARA TITLE III, SECTION 304?: YES / NO / UNKNOWN (If "YES", complete page two: SARA SUPPLEMENT)*

DUTY OFFICER NOTIFICATIONS MADE: (AGENCY, NAME, TIME)

MPCA - Fax.	
Hennepin Co. - Fax.	

ANY QUESTIONS? CONTACT THE MINNESOTA DUTY OFFICER AT 649-5451 OR 1-800-422-0798 9/97

10868

Who Took:_____

PM:_____

Priority:_____High
_____Action
_____No action

Action:_____Advise
_____Visit by_____
_____State money spent
_____File
_____No File

REMARKS:

CopyTo?_____

Send Packet?

_____Disposal Packet
_____Reporting Packet
_____Spill Bill Packet
_____VIC Packet
_____VPIC Packet
_____Other_____

Quickie Closure:(circle one)

Why Closed:

1--Referred to LEAKS
2--Referred to RCRA
3--Referred to AQ
4--Referred to WQ
5--Referred to VIC
6--Referred to local/county
7--Referred to Region
8--Referred to GWSW
9--Response Completed
10--No Response Necessary
11--Closed for other reasons (see remarks)
12--AG Lead

SPILL #_____

5

STATE OF MINNESOTA

DEPARTMENT OF PUBLIC SAFETY - DIVISION OF EMERGENCY MANAGEMENT
B-5 STATE CAPITOL, SAINT PAUL, MN 55155-1049

MINNESOTA DUTY OFFICER

HAZARDOUS MATERIAL INCIDENT REPORT: *TANKS*

REPORT DATE: 10/14/97 TIME: DUTY OFFICER:

REPORTED BY:

NAME: See Spill Report
C/O:
ADDRESS:
CITY: STATE: ZIP:
PHONE:
ALT.PHONE:

RESPONSIBLE PARTY/PROPERTY OWNER:

CONTACT: Sinclair Oil
C/O: Larry Feldpien
ADDRESS: 6602 Portland Ave S
CITY: Richfield STATE: MN ZIP: 55423
PHONE: 869 2436
ALT.PHONE:

DISCOVERY DATE: 10/13/97 TIME: PREVIOUSLY REPORTED SITE?: (Y) / N / UNK --- LEAK #: 2433

SITE NAME & ADDRESS: See Spill Report

CITY: ZIP: COUNTY:

NUMBER/SIZE OF TANK(S):	TANK CONTENTS	AGE OF TANKS	TYPES
___@___	(GAS)		U.S.T. / A.S.T. -- STEEL / FIBRE GLAS
___@___			U.S.T. / A.S.T. -- STEEL / FIBRE GLAS
___@___			U.S.T. / A.S.T. -- STEEL / FIBRE GLAS
___@___			U.S.T. / A.S.T. -- STEEL / FIBRE GLAS

NATIVE SOIL TYPE: SURFACE WATER NEARBY? Y / N / UNK
WELLS ON SITE?: Y / N / UNK WATER SOURCE: MUNICIPAL / PRIVATE WELL
CONTAMINATED SOIL EXCAVATED?: Y / N / UNK QUANTITY:
ABLE TO DIG OUT OF CONTAMINATION?: Y / N / UNK
GROUND WATER ENCOUNTERED?: Y / N / UNK DEPTH TO GW:
FREE PRODUCT FOUND?: Y / N ------ STAINED SOIL?: (Y) / N ------ PETROLEUM ODORS: (Y) / N
HIGHEST VAPOR READING: ANALYTICAL RESULTS:

NARRATIVE: See Spill Report

DUTY OFFICER NOTIFICATIONS MADE (AGENCY, NAME, TIME)

MPCA TANKS, ATTN: KIM GREGG - FAX	

QUESTIONS? CONTACT THE MINNESOTA DUTY OFFICER AT 649-5451 OR 1-800-422-0798

This space for MPCA use only.
MPCA PROJECT MANAGER: CLM LEAK NUMBER 10868

Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, MN 55155-4194 | 651-296-6300 | 800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us

February 22, 2007

Mr. Larry Feldsien
Sinclair Marketing, Inc.
1001 East Cliff Road #201
Burnsville, MN 55337

RE: Petroleum Tank Release Site File Closure
Site: Sinclair Station # 22024, 9456 Medicine Lake Road, New Hope
Site ID#: LEAK00010868

Dear Mr. Feldsien:

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) staff has determined that your investigation and/or cleanup has adequately addressed the petroleum tank release at the site listed above. Based on the information provided, the MPCA staff has closed the release site file.

Closure of the file means that the MPCA staff does not require any additional investigation and/or cleanup work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this site. However, the MPCA staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment under current conditions.

The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information, changing regulatory requirements or changed land use make additional work necessary. If you or other parties discover additional contamination (either petroleum or nonpetroleum) that was not previously reported to the MPCA, Minnesota law requires that the MPCA be immediately notified.

You should understand that this letter does not release any party from liability for the petroleum contamination under Minn. Stat. ch. 115C (2002) or any other applicable state or federal law. In addition, this letter does not release any party from liability for nonpetroleum contamination, if present, under Minn. Stat. ch. 115B (2002), the Minnesota Superfund Law.

Please note that as a result of performing the requested work you may be eligible to apply to the Petroleum Tank Release Compensation Fund (Petrofund) for partial reimbursement of the costs you have incurred in investigating and cleaning up this petroleum tank release. The Petrofund is administered by the Petroleum Tank Release Compensation Board (Petro Board) and the Minnesota Department of Commerce. To learn more about who is eligible for reimbursement, the type of work that is eligible for reimbursement, and the amount of reimbursement available, please contact Petrofund staff at 651-297-1119 or 1-800-638-0418.

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present. If petroleum contamination is encountered during future development work, the MPCA staff should be notified immediately.

For specific information regarding petroleum contamination that may remain at this leak site, please call the Petroleum Remediation Program File Request Program at 651/297-8499. The MPCA fact sheet *Request to Bill for Services Performed* must be completed prior to arranging a time for file review.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment. If you have any questions regarding this letter, please call me at 651-297-8380.

Sincerely,

Kate Funk

Kate Funk
Project Manager
Petroleum Remediation Program
Petroleum and Closed Landfill Section
Remediation Division

KF:tf

cc: Peer Engineering, Inc., Eden Prairie, Bruce Schaepe
Valerie Leone, City Clerk, New Hope
Dana Alexon, Fire Chief, New Hope
Dave Jaeger, Hennepin County Solid Waste Officer
Minnesota Department of Commerce Petrofund Staff

Minnesota Pollution Control Agency

February 25, 1999

Mr. Larry Feldsien
Sinclair Marketing
6602 Portland Avenue
Richfield, Minnesota 55423

RE: Petroleum Tank Release Site File Closure
Site: Sinclair Station #22024, 9456 Medicine Lake Road, New Hope
Site ID#: LEAK00010868

Dear Mr. Feldsien:

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) Site Remediation (SR) staff has determined that your investigation and/or cleanup has adequately addressed the petroleum tank release at the site listed above. Based on the information provided, the SR staff has closed the release site file.

Closure of the file means that the SR staff does not require any additional investigation and/or cleanup work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this site. However, the SR staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment.

The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information or changing regulatory requirements make additional work necessary. If you or other parties discover additional contamination (either petroleum or nonpetroleum) that was not previously reported to the MPCA, Minnesota law requires that the MPCA be immediately notified.

You should understand that this letter does not release any party from liability for the petroleum contamination under Minn. Stat. ch. 115C (Supp. 1997) or any other applicable state or federal law. In addition, this letter does not release any party from liability for nonpetroleum contamination, if present, under Minn. Stat. ch. 115B (1996), the Minnesota Superfund Law.

Because you performed the requested work, the state may reimburse you for a major portion of your costs. The Petroleum Tank Release Cleanup Act establishes a fund which may provide partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Department of Commerce Petro Board. Specific eligibility rules are available from the Petro Board at 651/297-1119 or 651/297-4203.

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present. If petroleum contamination is encountered during future development work, the MPCA staff should be notified immediately.

For specific information regarding petroleum contamination that may remain at this leak site, please call the SR File Request Program at 651/297-8499. The MPCA fact sheet #3.35 *Leak/Spill File Request Form* (August 1997) must be completed prior to arranging a time for file review.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment. If you have any questions regarding this letter, please call me at 651/297-8580.

Sincerely,

Chris McLain
Project Manager
Site Remediation
Metro District

CLM:lh

cc: Valerie Leone, City Clerk, New Hope
Kevin McGinty, Fire Chief, New Hope
Phil Eckhert, Hennepin County Solid Waste Officer
James Simonet, EnecoTech, Eagan
Minnesota Department of Commerce Petrofund Staff

EnecoTech Midwest Inc.
2915 Waters Road • Suite 110
Eagan, Minnesota 55121-1562
(612) 405-1033 • Fax (612) 405-1036

EnecoTech
ENVIRONMENTAL CONSULTANTS

August 11, 1998

03-00711-015

Mr. Chris McLain
Minnesota Pollution Control Agency
Hazardous Waste, Tanks, and Emergency Response
560 Lafayette Road
St. Paul, Minnesota 55155

RE: Subsurface Investigation Report
Sinclair Service Station #22024
9456 Medicine Lake Road
New Hope, Minnesota
MPCA Leak #10868

Dear Mr. McLain:

On behalf of Sinclair Oil Corporation (Sinclair), EnecoTech Midwest, Inc. (EnecoTech) is forwarding results from a subsurface investigation conducted at the referenced site (Figure 1 and 2). The subsurface investigation was in response to a petroleum release at the site and was requested by the Minnesota Pollution Control Agency (MPCA) in a correspondence dated October 29, 1997.

Background History

The petroleum release occurred on October 13, 1997 during an evaluation of the subject site's underground storage tank (UST) system. The evaluation completed by a Catholic Protection Contractor, involved installing soil borings and obtaining soil and groundwater samples as part of a Tank Environmental Profile (TEP). While installing a TEP soil boring, a product line associated with the 6,000-gallon UST was damaged. Because the site's product lines are pressurized, only product contained in the line at the time it was damaged was released. Sinclair estimated that approximately 5 to 20 gallons of product was released from the product line after it was damaged. Sinclair immediately decommissioned the product line until its repair which was completed on October 13, 1997.

Where appropriate, data obtained from a previous petroleum release investigation (MPCA Leak #2433) completed at the site has been included with this report. Data associated with Leak #2433 is detailed in EnecoTech's report titled *Remedial Investigation/Corrective Action Design Report* dated February 5, 1992. Leak #2433 was closed by the MPCA on March 30, 1995.

Field Activities

To determine the magnitude of the product line petroleum release, EnecoTech completed the following investigation activities at the site.

- Advanced two Geoprobe soil borings at locations in the immediate vicinity of the product line release (Figure 2);
- Collected soil samples from the borings for organic vapor field screening utilizing a photoionization detector (PID); and,
- Collected three soil samples and one groundwater sample from the borings for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE), and gasoline range organics (GRO) analysis.

Results

On July 10, 1998, two geoprobe soil borings (GP-01 and GP-02) were installed by Bergerson-Caswell of Maple Plain, Minnesota, under the supervision of EnecoTech personnel. The two geoprobe borings were installed in the vicinity of the petroleum release to determine the "worst case" petroleum impacts (Figure). Geoprobe boring logs are included in Attachment 1.

Geoprobe boring GP-01 was installed to a depth of 27 feet below grade. Soil samples were collected continuously for logging and PID screening objectives. A silty to sandy clay unit was recorded from 4 to 27 feet below grade. A saturated gravel lense was documented at 7.5 to 8 feet below grade. Additionally, saturated conditions were also documented at 20 to 27 feet below grade.

PID readings ranging from 512 to 1121 parts per million (ppm) were measured at GP-01. A PID reading of 929 ppm was recorded at the 4- to 8-foot sampling interval, the interval in which saturated conditions were first encountered.

Soil samples were collected for laboratory analysis at GP-01 at the 4- to 8-foot and 16- to 20-foot sampling intervals. GRO concentrations of 1100 and 88 ppm were recorded at these intervals, respectively. Additionally, a groundwater sample was collected at the 27 feet below grade. The groundwater sample exhibited a benzene concentration of 820 parts per billion (ppb). Laboratory analytical reports are presented in Attachment 2.

Geoprobe boring GP-02 was installed approximately five feet southwest of GP-01 to a depth of 16 feet below grade. Geoprobe boring GP-02 was installed to aide in determining whether the petroleum hydrocarbon impacts documented below 8 feet at GP-01 were the result of the product

line petroleum release, preexisting Leak #2433, or a result of transporting petroleum impacts downward during geoprobing drilling activities.

A soil sample was collected at GP-02 at a depth of 14 to 16 feet below grade or the terminus of the boring. The only petroleum hydrocarbon constituents detected in the soil sample were toluene and total xylenes at concentrations of 100 and 120 ppb, respectively (Attachment 2).

Opinions

It is EnecoTech's opinion that no further investigation or corrective action activities are warranted for Leak #10686 and that the project should be closed by the MPCA. This opinion is based on the investigation findings detailed below. Where appropriate, investigation results from the site's earlier Leak #2433 have been included to support project closure. Figure 3 has been included to depict locations of Leak #2433 soil boring and monitoring well locations.

- The petroleum release from the product line was limited to approximately 5 to 20 gallons of product;

- The product line was immediately decommissioned and repaired;

- Statistical Inventory Reconciliation (SIR) records, on-file with Sinclair, indicate that all USTs and associated product lines at the site are tight;

- As a result of the silty to sandy clay soil conditions, lateral and vertical migration of the product line petroleum release should be limited in extent;

- It is difficult to determine whether the soil and groundwater impacts documented at GP-01 are the result of the product line release or the result of preexisting impacts from Leak #2433. Soil and groundwater impacts associated with Leak #2433 were still present at the subject site when the site received project closure from the MPCA. Specifically, SB-02 exhibited PID readings of 965 ppm at a depth of 9 to 11 feet below grade. Groundwater impacts, including benzene concentrations of 1,900 to 3,200 ppb, were recorded at monitoring well MW-02. However, regardless of the source of the impacts at GP-01, because the impacts are not as significant as those documented during the investigation of Leak #2433, project closure should be granted based on the same criteria as Leak #2433;

- Although elevated PID readings were recorded at GP-01 to a depth of 27 feet below grade, laboratory analytical results for the soil sample collected at GP-01 at 16 to 20 feet below grade exhibited GRO concentrations below the MPCA's action limit of 100 ppm. Additionally, laboratory analytical results for the soil sample collected at GP-02 at 14 to 16

feet below grade did not exhibit GRO concentrations above method detection limits. Therefore, vertical migration of the product line petroleum release to a underlying resource aquifer is unlikely based upon over 80 feet of separation distance and the low permeability of subsurface strata;

- Perched saturated conditions identified at the site do not meet the MPCA's classification as a resource aquifer;

- A water well receptor survey conducted during Leak #2433 did not indicate any local water wells installed in the perched saturated zone that underlies the subject site; and,

- Medicine Lake is located approximately 2000 feet west/southwest of the subject site. Due to the low volume (5 to 20 gallons) of the product line petroleum release, the potential for impacting the surface water as a result of the petroleum release is minimal.

Standard of Care

EnecoTech Midwest, Inc., as environmental consultants, respectfully submits this report on behalf of Sinclair Oil Corporation.

The data generated, conclusions and recommendations provided, are based on the scope of work performed. All work was conducted in a manner consistent with currently accepted engineering and hydrogeologic practices exercised by members of the profession practicing under similar conditions. No other warranty, expressed or implied, is made.

If you have any questions regarding this report. please feel free to contact Jim Simonet at (651) 405-1033.

Sincerely,

ENECOTECH MIDWEST, INC.

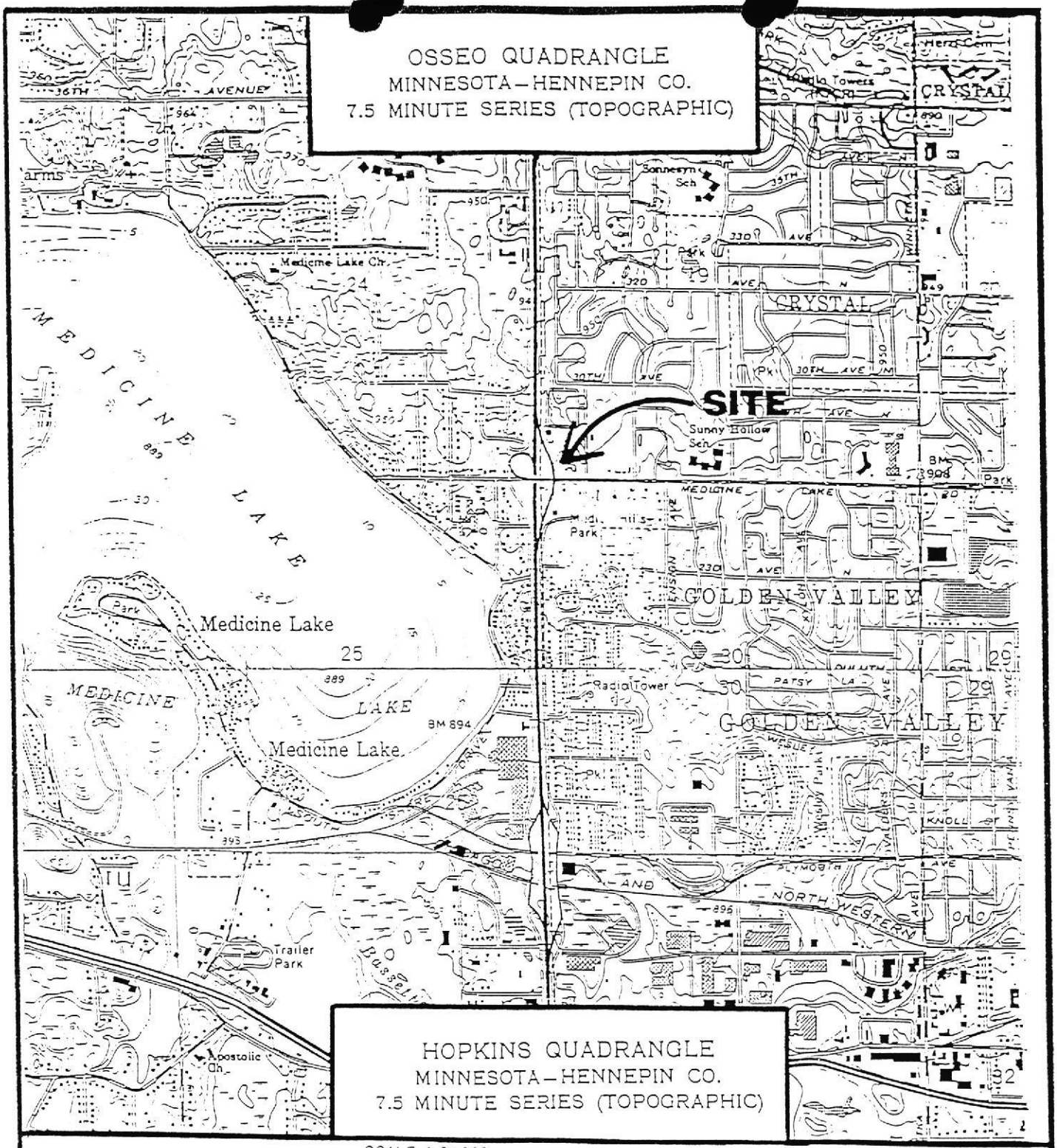
James F. Simonet
Senior Project Hydrogeologist

Todd L. Renville
Associate Hydrogeologist

cc: Mr. Lawrence Feldsien, Sinclair Oil Corporation, Richfield, Minnesota
Mr. Craig Anderson, Sinclair Oil Corporation, Salt Lake City, Utah

U:\docs\sinclair\711-015\si.rpt

FIGURES



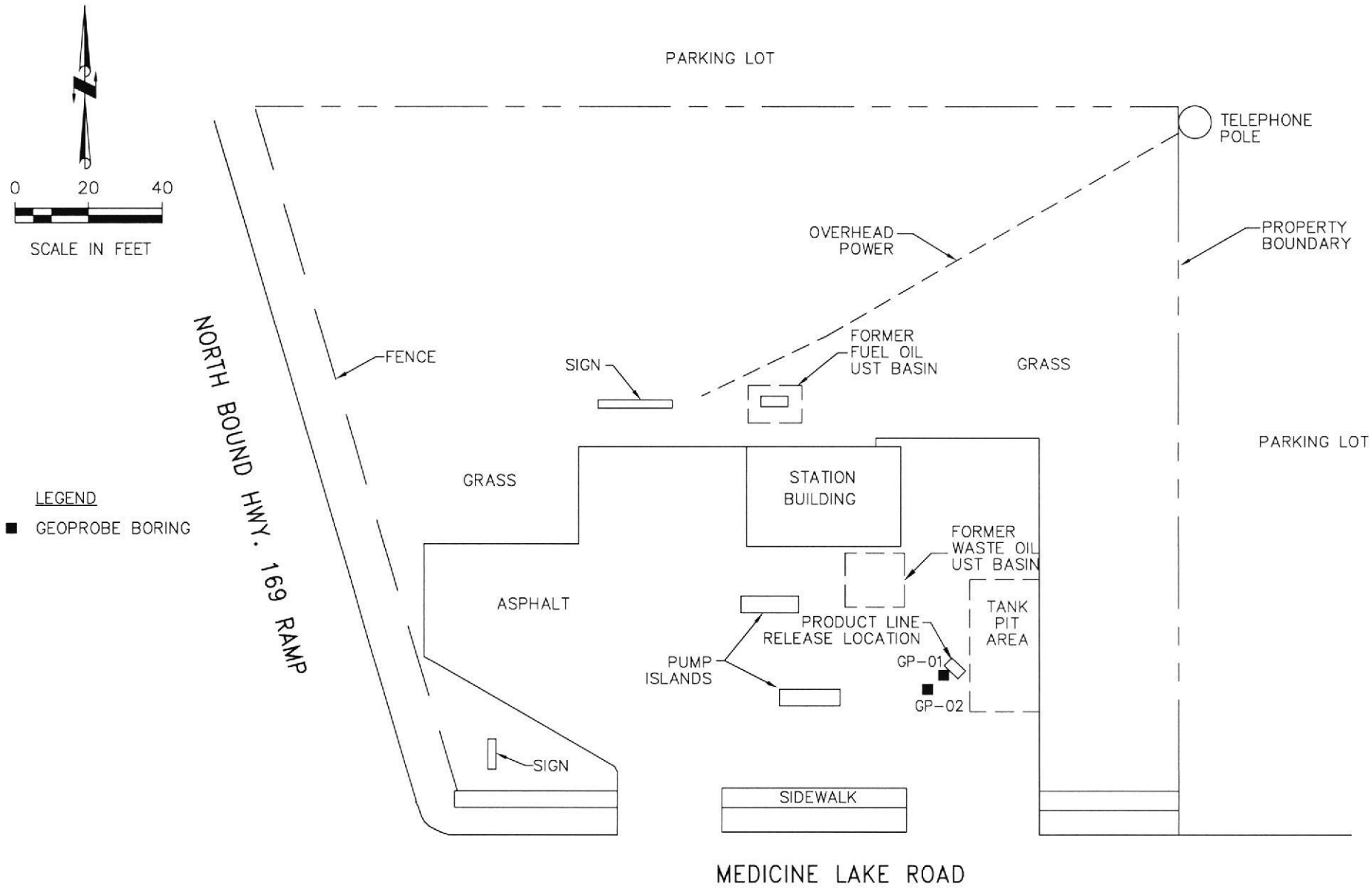
ENECOTECH

BLOOMINGTON, MINNESOTA

PROJECT SINCLAIR SERVICE STATION
9456 MEDICINE LK. RD., NEW HOPE, MINNESOTA

SITE LOCATION MAP

FILE NO.: 711-015 DATE: MAY, 1990 FIGURE NO.: 1



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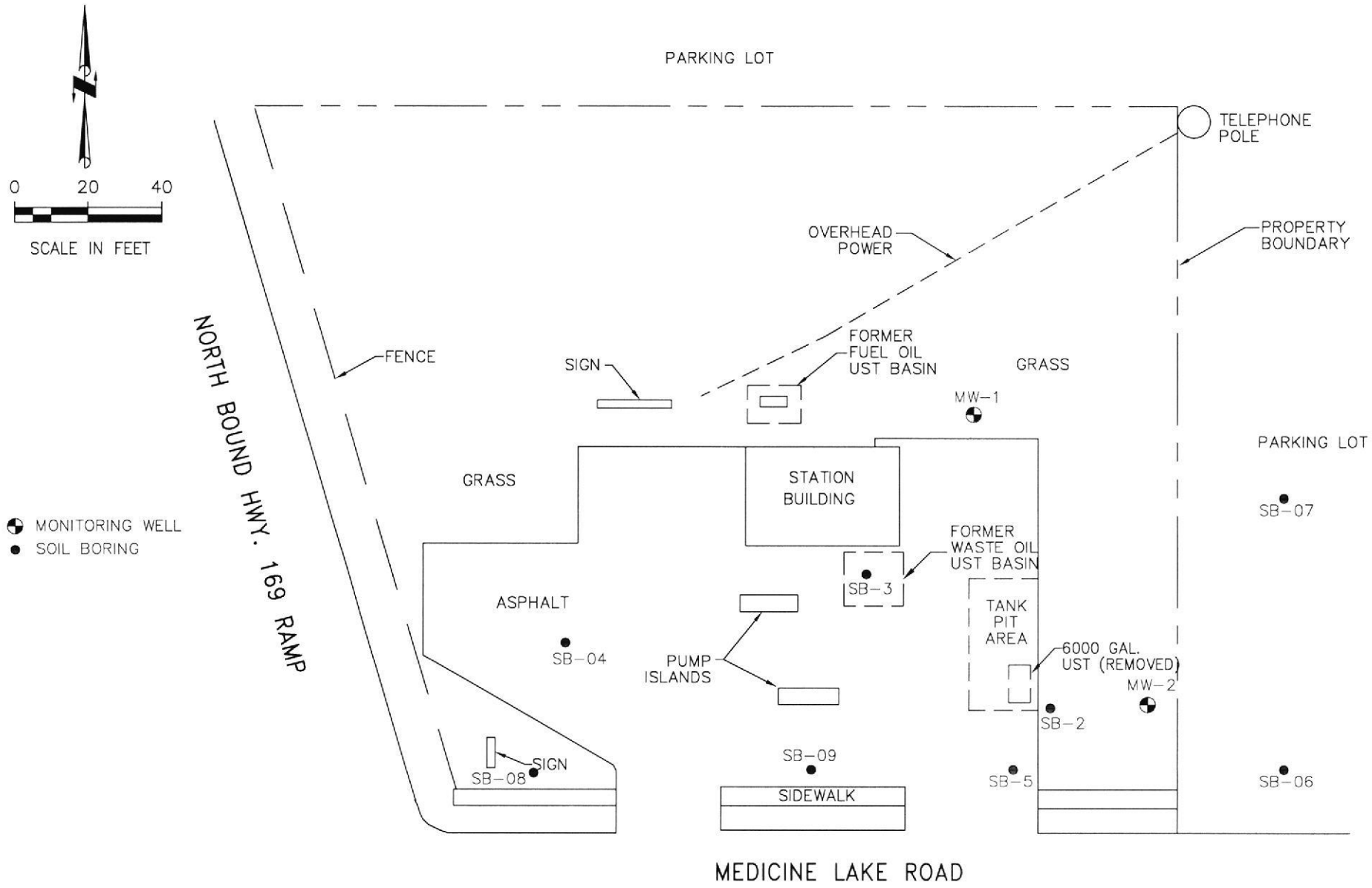
Project: SINCLAIR SERVICE STATION

9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

SITE MAP

File No.:	ACAD No.:	Drawn:	Designed:	Checked:	Approved:	Date:	Rev.:	FIG. NO.:
711-015	711015d1	MRP			JTS	5/93	7/13/98	2



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Project: SINCLAIR SERVICE STATION

9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

PREVIOUS BORING LOCATIONS

File No.: 711-015	ACAD No.: 711015d1	Drawn: MRP	Designed:	Checked:	Approved:	Date: 5/93	Rev.: 7/13/98	FIG. NO.: 3

ATTACHMENT 1

LOCATION MAP:

SEE SITE MAP

EnecoTech
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2915 WATERS ROAD
SUITE 110
EAGAN, MN 55121-1562

TEST HOLE/WELL LOG

PAGE 1 OF 1

TEST/WELL NUMBER: GP-01	PROJECT: SINCLAIR - NEW HOPE
DATE: 7/10/98	PROJECT NUMBER: 03-00711-015
LOGGED BY: CWB	DRILLED BY: BERGERSON-CASWELL

ELEVATION:	DETECTOR: 11.7 PID (OVM)	CALIBRATED TO: 99.7ppm ISOBUTYLENE	BACKGROUND (PPM): 0.0	DRILLING METHOD: GEOPROBE
SAMPLING METHOD: 2' HOLLOW SLEEVES				
GRAVEL PACK:	SEAL: BENTONITE/ASPHALT PATCH		GROUT: CEMENT	
CASING TYPE:	DIAMETER:	LENGTH:	HOLE DIA: 2"	DEPTH TO LIQUID:
SCREEN TYPE:	SLOT:	DIAMETER:	LENGTH:	TOTAL DEPTH: 27'
				DEPTH TO WATER: APPROX. 22'

SOIL/ROCK TYPE	COLOR	MOISTURE	PID READING FIELD	PID READING HEAD-SPACE	ODOR	SAMPLE TYPE	DEPTH	% RECOVERED	BLOW COUNTS	LITHOLOGY / REMARKS	WATER LEVEL:	TIME:	WELL COMPLETION
S CL		SLT MST MST		512		SL	0			2" ASPHALT MEDIUM BROWN SAND WITH COARSE SAND AND LITTLE GRAVEL, SLIGHTLY MOIST GREEN-GRAY SILTY CLAY, MOIST			
CL		MST VRY MST WET		929		SL	5			GRAY-GREEN MOIST CLAY WITH SOME SILT AND BROWN MOTTLING. VERY MOIST NEAR BOTTOM. 6" GRAVEL LENSE FROM 7.5' TO 8', WET			
CL		SLT MST		232		SL	10			BROWN, SILTY CLAY WITH TRACE SAND, SLIGHTLY MOIST			
CL		SLT MST		841		SL	15			VERY TIGHT BROWN-GRAY CLAY WITH SOME SILT, LITTLE GRAVEL, SLIGHTLY MOIST. 3" SANDY CLAY WITH SILT LENSE AT APPROXIMATELY 13'			
CL		SLT MST		449		SL				BROWN SILTY CLAY WITH SOME SAND, VERY TIGHT WITH NO TRUE LENSES. SLIGHTLY MOIST.			
CL		WET		1041		SL	20			WET, BROWN-GRAY SILTY CLAY WITH SAND AND TRACE GRAVEL			
CL		WET		1121		SL	25			SAA TO 25.5', TIGHT BLACK CLAY WITH SOME SAND			
										END OF BORING 27.0' SUBMITTED SOIL SAMPLES FROM 4'-8', 16'-20' GROUNDWATER SAMPLE FROM 27'			

LOCATION MAP:

SEE SITE MAP

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2915 WATERS ROAD
SUITE 110
EAGAN, MN 55121-1562

TEST HOLE/WELL LOG

PAGE 1 OF 1

TEST/WELL NUMBER: GP-02	PROJECT: SINCLAIR - NEW HOPE
DATE: 7/10/98	PROJECT NUMBER: 03-00711-015
LOGGED BY: CWB	DRILLED BY: BERGERSON-CASWELL

ELEVATION:	DETECTOR: 11.7 PID (OVM)	CALIBRATED TO: 99.7ppm ISOBUTYLENE	BACKGROUND (PPM): 0.0	DRILLING METHOD: GEOPROBE	SAMPLING METHOD: 2' SLEEVE DISCREET SAMPLE

GRAVEL PACK:	SEAL: BENTONITE/ASPHALT PATCH	GROUT: CEMENT	
CASING TYPE:	DIAMETER:	LENGTH:	HOLE DIA: 2" / DEPTH TO LIQUID:
SCREEN TYPE:	SLOT:	DIAMETER:	LENGTH:	TOTAL DEPTH: 16' / DEPTH TO WATER:

SOIL/ROCK TYPE	COLOR	MOISTURE	PID READING FIELD	PID READING HEAD-SPACE	ODOR	SAMPLE TYPE	DEPTH	% RECOVERED	BLOW COUNTS	LITHOLOGY / REMARKS	WATER LEVEL:	TIME:	▽	WELL COMPLETION
							0			ASPHALT 2"				
							5							
							10							
CL	DRK BRN	SLT		13.7	NO		15			VERY TIGHT DARK BROWN CLAY AND SILT WITH LITTLE GRAVEL AND TRACE SAND, SLIGHTLY MOIST				
										END OF BORING 16.0' MOISTURE PRESENT ON DRILLING RODS HAD A PETROLEUM ODOR UPON REMOVAL SOIL SAMPLE SUBMITTED FROM 14'-16'				

ATTACHMENT 2

EN CHEM INC.

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800-7-ENCHEM
Fax: 920-469-8827

FILE COPY

- Analytical Report -

Project Name : SINCLAIR-NEW HOPE

Project Number : 03-00711-015

Client: ENECOTECH ENVIRONMENTAL CON

MDH LAB ID : 055-999-334

Report Date : 7/18/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
884122-001	GP-01	7/10/98			
884122-002	GP-01 4-8'	7/10/98			
884122-003	GP-01 16'-20'	7/10/98			
884122-004	GP-02 14'-16'	7/10/98			
884122-005	MEOH BLANK	7/10/98			
884122-006	TRIP BLANK	7/10/98			

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

Nicole Mell

Approval Signature

7/18/98

Date

EN CHEM INC.

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800-7-ENCHEM
Fax: 920-469-8827

Lab#:	TestGroupID:	Comment:
884122-001 GP-01	GRO-W	Sample exhibits hydrocarbon pattern resembling gasoline. Early and late peaks were present outside of window.
884122-002 GP-01 4-8'	GRO-S-ME	Sample exhibits hydrocarbon pattern resembling gasoline. Early and late peaks were present outside of window.
884122-003 GP-01 16'-20'	BT&MT-S-ME	The PVOC surrogate recovery was above limits due to co-elution with non-target compounds.
	GRO-S-ME	Sample exhibits hydrocarbon pattern resembling gasoline. Early and late peaks were present outside of window.
884122-004 GP-02 14'-16'	GRO-S-ME	Low level peaks present in chromatogram.

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- Analytical Report -

Project Name : SINCLAIR-NEW HOPE
Project Number : 03-00711-015
Field ID : GP-01
Lab Sample Number : 884122-001
MDH LAB ID : 055-999-334

Client : ENECOTECH ENVIRONMENTAL CON
Report Date : 7/18/98
Collection Date : 7/10/98
Matrix Type : WATER

Organic Results

BTEX + MTBE - WATER **Prep Method:** SW846 5030 **Prep Date:** 7/14/98 **Analyst:** EGS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	104	---	%Recov		7/16/98	MOD 8021B
Benzene	820	25	ug/l		7/16/98	MOD 8021B
Ethylbenzene	870	25	ug/l		7/16/98	MOD 8021B
Methyl-tert-butyl-ether	30	25	ug/l		7/16/98	MOD 8021B
Toluene	2800	25	ug/l		7/16/98	MOD 8021B
Xylenes, -m, -p	3900	50	ug/l		7/16/98	MOD 8021B
Xylene, -o	1600	25	ug/l		7/16/98	MOD 8021B

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 7/14/98 **Analyst:** EGS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANIC	32000	1300	ug/l		7/16/98	Wi MOD GRO
Blank Spike	98	---	%Recov		7/16/98	Wi MOD GRO
Blank Spike Duplicate	100	---	%Recov		7/16/98	Wi MOD GRO
Blank	< 50	50	ug/l		7/16/98	Wi MOD GRO

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- Analytical Report -

Project Name : SINCLAIR-NEW HOPE
Project Number : 03-00711-015
Field ID : GP-01 4-8'
Lab Sample Number : 884122-002
MDH LAB ID : 055-999-334

Client : ENECOTECH ENVIRONMENTAL CON
Report Date : 7/18/98
Collection Date : 7/10/98
Matrix Type : SOIL

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Solids, percent	81.0		%		7/15/98	SM2540G	SM2540G

Organic Results

BTEX + MTBE - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 7/15/98 **Analyst:** PMS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	106	---	%Recov		7/17/98	MOD 8021B
Benzene	14000	620	ug/kg		7/17/98	MOD 8021B
Ethylbenzene	23000	620	ug/kg		7/17/98	MOD 8021B
Methyl-tert-butyl-ether	2500	620	ug/kg		7/17/98	MOD 8021B
Toluene	83000	620	ug/kg		7/17/98	MOD 8021B
Xylenes, -m, -p	97000	620	ug/kg		7/17/98	MOD 8021B
Xylene, -o	38000	620	ug/kg		7/17/98	MOD 8021B

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 7/15/98 **Analyst:** PMS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	1100	62	mg/kg		7/17/98	Wi MOD GRO
Blank Spike	98	---	%Recov		7/17/98	Wi MOD GRO
Blank Spike Duplicate	94	---	%Recov		7/17/98	Wi MOD GRO
Blank	< 2.5	2.5	mg/kg		7/17/98	Wi MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : SINCLAIR-NEW HOPE

Project Number : 03-00711-015

Field ID : GP-01 16'-20'

Lab Sample Number : 884122-003

MDH LAB ID : 055-999-334

Client : ENECOTECH ENVIRONMENTAL CON

Report Date : 7/18/98

Collection Date : 7/10/98

Matrix Type : SOIL

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Solids, percent	84.8		%		7/15/98	SM2540G	SM2540G

Organic Results

BTEX + MTBE - SOIL/METHANOL Prep Method: SW846 5030 Prep Date: 7/15/98 Analyst: PMS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	132	---	%Recov		7/17/98	MOD 8021B
Benzene	600	29	ug/kg		7/17/98	MOD 8021B
Ethylbenzene	1200	29	ug/kg		7/17/98	MOD 8021B
Methyl-tert-butyl-ether	370	29	ug/kg		7/17/98	MOD 8021B
Toluene	3600	29	ug/kg		7/17/98	MOD 8021B
Xylenes, -m, -p	4900	29	ug/kg		7/17/98	MOD 8021B
Xylene, -o	1900	29	ug/kg		7/17/98	MOD 8021B

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL Prep Method: WI MOD.GRO Prep Date: 7/15/98 Analyst: PMS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	88	2.9	mg/kg		7/17/98	Wi MOD GRO
Blank Spike	98	---	%Recov		7/17/98	Wi MOD GRO
Blank Spike Duplicate	94	---	%Recov		7/17/98	Wi MOD GRO
Blank	< 2.5	2.5	mg/kg		7/17/98	Wi MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : SINCLAIR-NEW HOPE

Project Number : 03-00711-015

Field ID : GP-02 14'-16'

Lab Sample Number : 884122-004

MDH LAB ID : 055-999-334

Client : ENECOTECH ENVIRONMENTAL CON

Report Date : 7/18/98

Collection Date : 7/10/98

Matrix Type : SOIL

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Solids, percent	85.6		%		7/15/98	SM2540G	SM2540G

Organic Results

BTEX + MTBE - SOIL/METHANOL Prep Method: SW846 5030 Prep Date: 7/15/98 Analyst: PMS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	103	---	%Recov		7/17/98	MOD 8021B
Benzene	< 25	25	ug/kg		7/17/98	MOD 8021B
Ethylbenzene	< 25	25	ug/kg		7/17/98	MOD 8021B
Methyl-tert-butyl-ether	< 25	25	ug/kg		7/17/98	MOD 8021B
Toluene	100	29	ug/kg		7/17/98	MOD 8021B
Xylenes, -m, -p	87	29	ug/kg		7/17/98	MOD 8021B
Xylene, -o	33	29	ug/kg		7/17/98	MOD 8021B

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL Prep Method: WI MOD.GRO Prep Date: 7/15/98 Analyst: PMS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.9	2.9	mg/kg		7/17/98	Wi MOD GRO
Blank Spike	98	---	%Recov		7/17/98	Wi MOD GRO
Blank Spike Duplicate	94	---	%Recov		7/17/98	Wi MOD GRO
Blank	< 2.5	2.5	mg/kg		7/17/98	Wi MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

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- Analytical Report -

Project Name : SINCLAIR-NEW HOPE

Project Number : 03-00711-015

Field ID : MEOH BLANK

Lab Sample Number : 884122-005

MDH LAB ID : 055-999-334

Client : ENECOTECH ENVIRONMENTAL CON

Report Date : 7/18/98

Collection Date : 7/10/98

Matrix Type : METHANOL

Organic Results

BTEX + MTBE - METHANOL Prep Method: SW846 5030 Prep Date: 7/15/98 Analyst: PMS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	102	---	%Recov		7/17/98	MOD 8021B
Benzene	< 25	25	ug/l		7/17/98	MOD 8021B
Ethylbenzene	< 25	25	ug/l		7/17/98	MOD 8021B
Methyl-tert-butyl-ether	< 25	25	ug/l		7/17/98	MOD 8021B
Toluene	< 25	25	ug/l		7/17/98	MOD 8021B
Xylenes, -m, -p	< 25	25	ug/l		7/17/98	MOD 8021B
Xylene, -o	< 25	25	ug/l		7/17/98	MOD 8021B

Organic Results

GASOLINE RANGE ORGANICS - METHANOL Prep Method: WI MOD.GRO Prep Date: 7/15/98 Analyst: PMS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2500	2500	ug/L		7/17/98	Wi MOD GRO
Blank Spike	98	---	%Recov		7/17/98	Wi MOD GRO
Blank Spike Duplicate	94	---	%Recov		7/17/98	Wi MOD GRO
Blank	< 50	50	ug/L		7/17/98	Wi MOD GRO

EN CHEM INC.

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800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : SINCLAIR-NEW HOPE
Project Number : 03-00711-015
Field ID : TRIP BLANK
Lab Sample Number : 884122-006
MDH LAB ID : 055-999-334

Client : ENECOTECH ENVIRONMENTAL CON
Report Date : 7/18/98
Collection Date : 7/10/98
Matrix Type : WATER

Organic Results

BTEX + MTBE - WATER Prep Method: SW846 5030 Prep Date: 7/14/98 Analyst: EGS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	102	---	%Recov		7/16/98	MOD 8021B
Benzene	< 1.0	1.0	ug/l		7/16/98	MOD 8021B
Ethylbenzene	< 1.0	1.0	ug/l		7/16/98	MOD 8021B
Methyl-tert-butyl-ether	< 1.0	1.0	ug/l		7/16/98	MOD 8021B
Toluene	< 1.0	1.0	ug/l		7/16/98	MOD 8021B
Xylenes, -m, -p	< 2.0	2.0	ug/l		7/16/98	MOD 8021B
Xylene, -o	< 1.0	1.0	ug/l		7/16/98	MOD 8021B

Organic Results

GASOLINE RANGE ORGANICS - WATER Prep Method: WI MOD.GRO Prep Date: 7/14/98 Analyst: EGS

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANIC	< 50	50	ug/l		7/16/98	Wi MOD GRO
Blank Spike	98	---	%Recov		7/16/98	Wi MOD GRO
Blank Spike Duplicate	100	---	%Recov		7/16/98	Wi MOD GRO
Blank	< 50	50	ug/l		7/16/98	Wi MOD GRO

EnecoTech
ENVIRONMENTAL CONSULTANTS

CHAIN OF CUSTODY RECORD

2915 Waters Road • Suite 110 • Eagan, MN 55121-1562

COC MN # 2822

PROJ. NO.	PROJECT NAME
03-00711-015	SINCLAIR - NEW HOPE

SAMPLERS: (Signature) Curt Bauers

Ship To: E-N Chem

EnecoTech contact: JAKE 405-840-9533

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX/GRO/MTBE	Conductivity	Remarks/Bottle No. 584122
	7/10/98	10:45		X	GP-01	3x40ml	X	1-4oz Bottle	water 001
		10:15		X	GP-01 4'-8'	1-5oz 1x40ml	X		soil 002
		10:20		X	GP-01 16'-20'	1-5oz	X		soil 003
		13:40		X	GP-02 14'-16'		X		soil 004
					MEOH Blank	1-40ml	X		005
					Trip Blank	1-40ml 1x40ml	X	X	006

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Curt N. Bauers	7/10/98 1300	Barb Lutter	Barb Lutter	7-10-98 1500	
	7-13-98	1500 Dunham			
Dunham		Rita Alerts			

Relinquished by: (Signature) — Date/Time — Received for Laboratory by: (Signature) Rita Alerts — Date/Time 7/14/98 0900

Remarks: ROI 3°C

Split Samples ☐ Accepted ☐ Declined — Signature

Distribution: Original Accompanies Shipment, First Copy to Coordinator Field Files, Second Copy to Representative of Inspected Facility

Minnesota Pollution Control Agency

April 27, 1998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Larry Feldsien
Sinclair Marketing
6602 Portland Avenue
Richfield, Minnesota 55423

RE: Petroleum Storage Tank Release Investigation and Corrective Action
Site: Sinclair Station #22024, 9456 Medicine Lake Road, New Hope
Site ID#: LEAK00010868

Dear Mr. Feldsien:

On October 14, 1997, the Minnesota Pollution Control Agency (MPCA) staff was notified that a release of petroleum occurred from storage tank facilities that you own and/or operate at the site referenced above.

A recent review of our files indicates that we have not heard from you whether you intend to investigate and if necessary, cleanup the petroleum contamination at this site.

The MPCA again asks that you respond verbally or in writing to this letter and describe the status of your investigation and/or cleanup, or explain why no action has been taken. You must respond within 30 days of receipt of this letter. Failure to do so may result in reduced reimbursement from the Petrofund and/or enforcement action taken against you by the MPCA.

If you have questions regarding the actions requested by the MPCA, or if you conclude that the release is not from any tank which you have owned or operated, please call me at 612/297-8580. Otherwise, I look forward to receiving your reply.

Sincerely,

Chris McLain
Project Manager
Cleanup Unit I
Tanks and Emergency Response Section

CLM:lh

Minnesota Pollution Control Agency

October 29, 1997

Mr. Larry Feldsien
Sinclair Oil
6602 Portland Avenue South
Richfield, Minnesota 55423

RE: Petroleum Storage Tank Release Investigation and Corrective Action
Site: Sinclair Station #22024, 9456 Medicine Lake Road, New Hope
Site ID#: LEAK00010868

Dear Mr. Feldsien:

Notice of Release

The Minnesota Pollution Control Agency (MPCA) has been informed that a release of petroleum has occurred from storage tank facilities which you own and/or operate. We appreciate your timely notification so this site can be handled in an efficient manner.

Legal Obligations

Federal and state laws require that persons legally responsible for storage tank releases notify the MPCA of the release, investigate the release and, if necessary, clean up the release. A person is considered legally responsible for a tank release if the person owned or operated the tank either during or after the release, unless specifically exempted under the law. If you believe that you are not legally responsible for this storage tank release, please contact the project manager listed below.

If you are not legally responsible for the release, but hold legal or equitable title to the property where the release occurred, you may volunteer to take corrective action. Responsible persons and volunteers who take corrective action may be eligible for reimbursement for a major portion of the costs of corrective action. The legislature has established the Petroleum Tank Release Cleanup Account to reimburse responsible persons and volunteers. The account is administered by the Petro Board which is part of the Minnesota Department of Commerce. Final decisions regarding the amount of reimbursement are made by the Petro Board. All questions about eligibility and reimbursement should be directed to the Petrofund staff at 612/297-1119 or 612/297-4203.

Request to Take Corrective Action

The MPCA staff requests that you take steps to investigate and, if necessary, clean up the release in accordance with the enclosed MPCA fact sheets. The site investigation must fully define the extent and magnitude of the soil and/or ground water contamination caused by the release. A report (excavation report and/or remedial investigation/corrective action design (RI/CAD)) which details the results of the investigation or concludes that excavation was sufficient to clean up the release must be submitted to this office within 10 months of the date of this letter. Please refer to MPCA fact sheets for information pertaining to the amount of work needed at the petroleum release site(s).

Sites with free product (free-floating petroleum), drinking water supply impacts, surface water impacts, indoor vapor impacts, fire or explosion hazards, or ground water impacts which pose a significant threat to public health or the environment, are considered high priority for staff review. If one or more of these situations apply to your site, an RI/CAD report must be submitted within 90 days. In addition, if you know or discover that there is free-product from a well, excavation, or borehole, you must notify the MPCA within 24 hours and IMMEDIATELY begin interim free product recovery.

If you have not already done so, the MPCA recommends that you hire a qualified consulting firm registered with the Petrofund staff that has experience in conducting petroleum release site investigations and in proposing and implementing appropriate corrective actions. A list of registered contractors and consultants is available from the Petrofund staff. The MPCA reserves the right to reject proposed corrective actions if the requirements of the site investigation have not been fulfilled. Please note that, under Minn. R. 2890, you must solicit a minimum of two competitive proposals on a form prescribed by the Petro Board to ensure that the consulting costs are reasonable. Questions about bidding requirements should be directed to Petrofund staff.

Required Response

MPCA staff requests a response to this letter within 30 days. Please tell us whether you intend to proceed with the requested work. If you do not respond within this time frame, the MPCA staff will assume that you do not intend to comply, in which case the MPCA Commissioner may order you to take corrective action. Failure to cooperate with the MPCA in a timely manner may result in reduced reimbursement from the Petro Board. See Minn. R. 2890. The enclosed fact sheets will provide you with the information necessary to complete a successful investigation and cleanup. If you have any questions concerning this letter or need additional information, please contact me at 612/297-8580. Please reference the above LEAK # in all correspondence. If you are call long distance, please call 1/800-657-3864.

Sincerely,

for R.A. Hall

Chris L. McLain
Project Manager
Cleanup Unit I
Tanks and Emergency Response Section

CLM:raf

Enclosures

cc: Thomas Ferber, City Clerk, Richfield
Greg Lie, Hennepin County Solid Waste Officer

MINNESOTA POLLUTION CONTROL AGENCY
COMMISSIONER'S SITE REPORT
TO THE PETROLEUM TANK RELEASE
COMPENSATION BOARD

SITE ID#	RELEASE SITE	APPLICANT	REGION
LEAK00010868	Sinclair Retail Station 22024	Sinclair Marketing, Inc.	Metro
LEAK00015725	Grand Rapids Armory	Department of Military Affairs	Duluth
LEAK00016292	JM Oil Bulk Facility	JM Oil Company	Brainerd
LEAK00016440	Former Selland Motors	CC Motor Sales, LLC	Detroit Lakes
LEAK00016565	Former Pirkl Gas Bulk Plant	Pirkl Gas, Inc.	Rochester
LEAK00016605	Former Bartholmy Body Shop	North St. Paul Land & Development Co., LLC	Metro
LEAK00016673	Hibbing Park Hotel	Improvement Limited Partnership	Duluth
LEAK00016755	LaFave Residence	Joseph LaFave	Metro
Utility Site #42004	Xcel Energy	Xcel Energy	Metro

1. Eligibility Determination

I hereby determine that the corrective action described in the application was appropriate in terms of protecting public health, welfare, and the environment and that the applicant is eligible for Petrofund reimbursement, pursuant to Minn. Stat. § 115C.09, subd. 2, items (a) and (c) (2002).

2. Compliance with Applicable Requirements: **ADEQUATE**

Information readily available to the Minnesota Pollution Control Agency staff shows that the applicant has complied with the applicable requirements of Minn. Stat. § 115C.09, subd. 3(I) (2002).

The determinations in this report are made solely for the purpose of determining eligibility for reimbursement under Minn. Stat. § 115C.09, subds. 2 and 3 (2002). Nothing in this site report releases any person from liability, and the Minnesota Pollution Control Agency does not waive any of its authority to require additional corrective action at the above-referenced site or to enforce other provisions of state law.

Dated: July 13, 2007

Jeff Lewis
Manager, Petroleum Remediation Program
Remediation Division

Recd SAL 7/12/07

07-02-07

REMEDIATION DIVISION
PETROLEUM & CLOSED LANDFILL SECTION
COMMISSIONER'S SITE REORT REQUEST (FOR PETROFUND)

LEAK #: **10868**
APPLICANT: **SINCLAIR MARKETING, INC.**

SITE NAME: **SINCLAIR RETAIL STATION #22024**

REGION: **METRO** OPEN/CLOSED: PROJECT MANAGER: **KATHERINE FUNK**

TANK(S): X UST ___ AST TANK INSPECTOR: Shirley Smith

TANK INSPECTOR REVIEW NEEDED? X YES ___ NO

TANK INSPECTOR REVIEW DONE? X YES ___ NO

DATE COMMERCE REC'D APPLICATION: **06-22-07**

X ADEQUATE ___ INADEQUATE

RETURN BY: **07-17-07**

ok SAL 7/13/07

Petroleum T nk Release Compli ce Checklist

(USE THE FOLLOWING GUIDELINES TO DETERMINE IF THE LEAKING TANK IS IN COMPLIANCE)

SITE NAME Sinclair Station 22024 LEAK000 10868

_____**UNREGULATED TANK(S)**.....[USTs 110 gallons or less; *OR* ASTs 500 gallons or less; *OR* ASTs between 500 – 1,100 gallons if they are greater than 500 feet from surface water; *OR* residential (for non-commercial purposes) and heating oil ASTs/USTs 1,100 gallons or less; *OR* farm USTs 1,100 gallons or less; *OR* any farm AST, regardless of size if used for farming purposes; *OR* ASTs that are on site for less than 30 days (regardless of size)]

_____**STATE REGULATED TANK(S)**.....[heating oil USTs with a capacity more than 1,100 gallons *OR* all ASTs not specified above]

X **FEDERALLY REGULATED TANK(S)**.....[all USTs not specified above]

STATUS OF RESPONSIBLE PARTY: Regular Applicant X Limited Use Applicant_____

UNREGULATED TANKS, STATE TANKS, FEDERAL TANKS

Release Notification: Date release discovered: 10/13/97 Date release reported: 10/14/97

When/how was release discovered (if inadequate)?_____

Was there environmental damage due to delay (if inadequate)? Yes_____ No_____

X **Adequate** ____**Inadequate** Recommend Reduction? Yes_____ No X

Comments: _____

Cooperation Issues: Yes_____ No X (If Yes, please prepare a narrative to be appended to the CSR).

STATE TANKS, FEDERAL TANKS (Should be completed by the PM only if the Tank Inspector does not complete the Tank Inspectors Compliance Checklist)

Corrosion Protection: Tanks: Yes_____ No_____ N/A_____ Piping: Yes_____ No_____ N/A_____
Required on steel piping/steel USTs installed on or after 8/1/85. Steel piping/steel USTs installed *before* 8/1/85 require corrosion protection by 12/22/98, *EXCEPT* heating oil USTs installed before 8/1/85, which don't ever require corrosion protection. Does not apply to ASTs (they require corrosion protection by 11/1/03 but are not subject to a reduction). VIOLATIONS WHICH OCCURRED BEFORE 12/22/98 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

____**Adequate** ____**Inadequate** Recommend Reduction? Yes____ No___

AST Secondary Containment: Yes_____ No_____ N/A_____
Applicable only for dikes or other structures that would contain a spill as required by Minn. R. 7151.6400, subp. 1B (Supp. 1998). Does not apply to impervious liners or other AST safeguards. VIOLATION WHICH OCCURRED PRIOR TO 11/1/98 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

_____**Adequate** _____**Inadequate** Recommend Reduction? Yes____ No____

FEDERAL TANKS (Should be completed by the PM only if the Tank Inspector does not complete the Tank Inspectors Compliance Checklist)

Spill Prevention: Yes_____ No_____ N/A_____
Required on USTs installed on or after 12/22/88. USTs installed before 12/22/88 require spill prevention by 12/22/98. VIOLATIONS WHICH OCCURED PRIOR TO 12/22/98 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

_____**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No_____

Overfill Protection: Yes_____ No_____ N/A_____
Required on USTs installed on or after 12/22/88. USTs installed before 12/22/88 require spill protection by 12/22/98. VIOLATIONS WHICH OCCURED PRIOR TO 12/22/98 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

_____**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No_____

Leak Detection: TANKS: Tank Leak Detection: Yes_____ No_____ N/A_____

Tank Tightness Testing Yes_____ No_____ N/A_____

If tank was installed:	Then the leaks detection deadline is:
before 1965 or unknown	12/22/89
1965-1969	12/22/90
1970-1974	12/22/91
1975-1979	12/22/92
1980-12/22/88	12/22/93

(Tanks installed after 12/22/88 should have leak detection at installation)

PIPING: Pipe leak detection: Yes_____ No_____ N/A_____

Pipe tightness testing: Yes_____ No_____ N/A_____

(Applicable for pressurized piping installed after 12/22/88. Pressurized piping installed before 12/22/88 must have leak detection by 12/22/90.)

VIOLATIONS WHICH OCCURRED BEFORE 12/22/93 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

Audit Program: Has the RP entered the audit program? Yes_____ No_____
If yes, evaluate further to determine if reductions should be waived (for tank violations only). The only time consideration will be given for waiving the tank system violations is when there is ***documented*** enrollment in the audit program ***before*** discovering a release at the site.

_____**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No_____

Completed by (PM/PL) : Kate Funk Date: 7/11/07 3/06

Regional Tank Inspector (Name): Shirley Smith

Tank Inspector Review Needed? (No TI review needed on unregulated tank sites) (YES) NO

Tank Inspector Review Completed? (YES) NO

Compliance Checklist for Tank Inspectors

Please complete the following checklist for each Petrofund application you receive from the Department of Commerce. This document should be completed and returned to the Site Project Manager within 5 days of receiving an application from the Dept of Commerce.

SITE NAME Sinclair Station #22024 LEAK000 10868

_____**UNREGULATED TANK(S)**.....[USTs 110 gallons or less; *OR* ASTs 500 gallons or less; *OR* ASTs between 500 – 1,100 gallons if they are greater than 500 feet from surface water; *OR* residential (for non-commercial purposes) and heating oil ASTs/USTs 1,100 gallons or less; *OR* farm USTs 1,100 gallons or less; *OR* any farm AST, regardless of size if used for farming purposes; *OR* ASTs that are on site for less than 30 days (regardless of size)]

_____**STATE REGULATED TANK(S)**.....[heating oil USTs with a capacity more than 1,100 gallons *OR* all ASTs not specified above]

__X____**FEDERALLY REGULATED TANK(S)**.....[all USTs not specified above]

- **If the tank(s) for the site are UNREGULATED, no further evaluation is needed by the Tank Inspectors. Please email the Site Project Manager to state your evaluation is not needed for this particular site.**

STATE TANKS, FEDERAL TANKS – Complete this section for both State and Federal Tanks

Corrosion Protection: Tanks: Yes__X__ No_____ N/A_____ Piping: Yes_X___ No_____ N/A_____
Required on steel piping/steel USTs installed on or after 8/1/85. Steel piping/steel USTs installed *before* 8/1/85 require corrosion protection by 12/22/98, *EXCEPT* heating oil USTs installed before 8/1/85, which don't ever require corrosion protection. Does not apply to ASTs (they require corrosion protection by 11/1/03 but are not subject to a reduction). VIOLATIONS WHICH OCCURRED BEFORE 12/22/98 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

__X__**Adequate** ____**Inadequate** Recommend Reduction? Yes____ No_X__

AST Secondary Containment: Yes_____ No_____ N/A_____
Applicable only for dikes or other structures that would contain a spill as required by Minn. R. 7151.6400, subp. 1B (Supp. 1998). Does not apply to impervious liners or other AST safeguards. VIOLATION WHICH OCCURRED PRIOR TO 11/1/98 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

_____**Adequate** _____**Inadequate** Recommend Reduction? Yes____ No____

FEDERAL TANKS – Comple' his section for Federal Tanks Or

Spill Prevention: Yes__X__ No_____ N/A_____
Required on USTs installed on or after 12/22/88. USTs installed before 12/22/88 require spill prevention by 12/22/98. VIOLATIONS WHICH OCCURED PRIOR TO 12/22/98 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

__X__**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No__X__

Overfill Protection: Yes__X__ No_____ N/A_____
Required on USTs installed on or after 12/22/88. USTs installed before 12/22/88 require spill protection by 12/22/98. VIOLATIONS WHICH OCCURED PRIOR TO 12/22/98 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

__X__**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No__X__

Leak Detection: TANKS: Tank Leak Detection: Yes__X__ No_____ N/A_____

Tank Tightness Testing Yes_____ No_____ N/A__X__

If tank was installed:	Then the leaks detection deadline is:
before 1965 or unknown	12/22/89
1965-1969	12/22/90
1970-1974	12/22/91
1975-1979	12/22/92
1980-12/22/88	12/22/93

(Tanks installed after 12/22/88 should have leak detection at installation)

__X__**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No__X__

PIPING: Pipe leak detection: Yes__X__ No_____ N/A_____

Pipe tightness testing: Yes_____ No_____ N/A__X__

(Applicable for pressurized piping installed after 12/22/88. Pressurized piping installed before 12/22/88 must have leak detection by 12/22/90.)

VIOLATIONS WHICH OCCURRED BEFORE 12/22/93 SHOULD BE CITED AS INADEQUATE BUT NOT RECOMMENDED FOR REDUCTION.

__X__**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No__X__

Audit Program: Has the RP entered the audit program? Yes_____ No__X__
If yes, evaluate further to determine if reductions should be waived (for tank violations only). The only time consideration will be given for waiving the tank system violations is when there is ***documented*** enrollment in the audit program ***before*** discovering a release at the site.

_____**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No__X__

Completed by: Shirley Smith Date: July 9, 2007 3/06

Please include any comments regarding Inadequate sections here:

The above review was for USTs 4, 5, and 6 which were installed in 1964 and removed in 2005. On June 17, 2004, Shirley Smith conducted an inspection of the 3 USTs. No violations were observed.

DO NOT STAPLE OR BIND APPLICATION MATERIALS — CLIP OR RUBBER BAND ONLY

OFFICE USE ONLY
LEAK # 10868 PHASE ____
ENTERED 7/2/07 ea

MINNESOTA PETROLEUM TANK RELEASE COMPENSATION BOARD

APPLICATION FOR REIMBURSEMENT

This document is available in alternative formats to individuals with disabilities by calling **800-638-0418** *or* **651-296-2860 (TTY).**

I. APPLICANT INFORMATION

Name: **Sinclair Marketing Inc.**

Mailing Address: **1001 E. Cliff Road, Suite 201** JUN 22 2007

City: **Burnsville** State: **MN** Zip: **55337**

E-mail Address: **lfeldsien@sinclairoil.com**

Contact Person (if different from above "Name"): **Larry Feldsien**

Day Phone: **952-707-1056** Ext ____ Fax: **952-736-1141**

Check One

☒ Responsible Person [*list dates applicant owned or operated tank(s)*: **1979** *to* **present**

☐ Volunteer (*list dates applicant owned property*: ____/____/____ *to* ____/____/____)

☐ Other (*see Application Guide*)

Check One

☒ Corporation ☐ Partnership ☐ Individual ☐ Sole Proprietorship

☐ Municipality ☐ State, federal, or other public agency

II. LEAK SITE INFORMATION

MPCA Leak Number: 10868 (reopened) **MPCA Project Manager: Katherine Funk**

Tank Facility Name: **Sinclair Station #22024**

Address: **9456 Medicine Lake Road**

City: **New Hope** MN Zip: **55427**

Day Phone ____ Ext ____

9/19/2005 Date petroleum leak detected 10-13-97 per website closed 2-22-07

9/19/2005 Date petroleum leak reported to the MPCA 10-17-97 per website

691 cubic yards Total amount of contaminated soil excavated at this site

III. MULTIPARTY CHECK REQUEST (if applicable)

If you have requested the issuance of a multiparty check for this application, attach the original request form(s) and list each associated lender, contractor, and consultant below.

N/A

***This application is effective* JULY 1, 2006 – JUNE 30, 2007**

IV. CHRONOLOGY

Please provide a chronological description (including dates) of the clean-up activities covered on this application *(attach additional sheets if necessary)*. **For each drilling or sampling event, list the date and number of borings and wells installed or sampled**.

9/2005 – Existing dispensers, tanks and hydraulic lifts removed
10/2005 – 691 cubic yards contaminated soil disposed
10/2005 – New dispensers and tanks installed
9/2006 – Limited Site Investigation
11/10/2006 – Investigation Report to MPCA

V. SOURCE AND CAUSE

What was the source and cause of the petroleum release at this site? (*see Application Guide*) **Previous leak numbers 2433 and 10868 closed in 1995 and 1999 respectively.**

How was the release discovered? **During removal of USTs during replacement.**

If the release was not reported to the MPCA within 24 hours of discovery, state the reason why. **N/A**

To the best of your knowledge, list all persons other than the applicant who were owners or operators of the tank during or after the petroleum release. **N/A**

☐ Yes ☒ No Did any of the persons listed above incur corrective action costs related to this petroleum release?

If yes, list name(s) and address(es) if known.

VI. COMPETITIVE BIDDING

List all of the written bids and proposals that you obtained for corrective action services at this site (*attach additional sheets if necessary*). **Attach the originals (not copies) of all signed and dated bids and proposals**.

	Bidder Selected*	Name	Amount of Bid	Date of Bid	Task
Consultants	☒	**Peer Engineering**	**15,130.50**	**7/25/06**	**NonStandard LSI**
	☐	**Groundwater & Environmental Services**	**15,128.70**	**9/12/06**	**NonStandard LSI**
	☐				
Contractors	☒	**Griffin Contracting**	**17.00/CY**		**Load and haul soil**
	☐	**Onyx Landfill**	**12.00/ton**	**10/13/05**	**Load and haul soil**
	☐				

*If the lowest bid or proposal was not selected, explain that decision on a separate sheet.

VII. MPCA TANK INFORMATION AND COMPLIANCE

☐ Yes ☒ No **Have you submitted an underground storage tank audit?**

Underground Storage Tanks

Enter the requested information for (a) all underground petroleum storage tanks and piping that were in place at this site at the time the release occurred, and (b) all underground petroleum storage tanks that have been installed at this site since the release occurred (attach additional sheets if necessary). Refer to the MPCA documents "*Do Underground Storage Tank and Piping Requirements Apply to Your Petroleum Tank?"* and "*What Do You Have to Do?/When Do You Have to Act?*" to determine the applicability of leak detection, corrosion protection, and spill/overfill protection requirements. If you are unsure how tank rules apply to your tanks, please call the UST Compliance and Assistance Unit at (651) 297-8679 and tell the receptionist that you have questions about this form.

Tank #	Petroleum Product	Capacity	Tank Material	Date Installed	Date Removed (*if applicable*)
1	Gasoline	6,000	Steel	1964	1990
2	Fuel oil	1000	Steel	1964	1990
3	Waste oil	560	Steel	1964	1990
4	Gasoline	6,000	Steel	1964	2005
5	Gasoline	6,000	Steel	1964	2005
6	Gasoline	6,000	Steel	1964	2005
7	Gasoline	12,000	Fiberglass	2005	---
8	Gasoline	12,000	Fiberglass	2005	---

Tank #	Tank Leak Detection (*select method below*)	Tank Corrosion Protection (*select method below*)	Spill Bucket (*Yes/No*)	Overfill Protection (*select method below*)
1	6	7	Yes	2
2	4	7	Yes	5
3	4	7	Yes	5
4	7	5	Yes	2,3
5	7	5	Yes	2,3
6	7	5	Yes	2,3
7	7	2	Yes	3
8	7	2	Yes	3

Leak detection method (*select all that apply*)
1. None
2. Inventory control plus annual tightness testing
3. Inventory control plus tightness testing every 5 years
4. Manual tank gauging
5. Manual tank gauging plus annual tightness testing
6. Manual tank gauging plus tightness testing every 5 years
7. Statistical inventory reconciliation (SIR)
8. Automatic tank gauging
9. Interstitial monitoring
10. Vapor monitoring
11. Ground water monitoring
12. Other (specify) _____

Corrosion protection method
1. None
2. Fiberglass, jacketed steel or composite tank
3. STI-P 3 tank
4. Anodes installed
5. Impressed current system
6. Lined tank
7. Other (specify): **Not required prior to 1990.**

Overfill protection method
1. None
2. Ball float valve
3. Automatic shutoff
4. Audible alarm
5. Other (specify): **Not required pior to 1990.**

Manual gauging _____

If tank tightness tests were performed, indicate dates of all tests. **1987** _____ **1989** _____

1990 _____ **1991** _____ **1992** _____ **SIR from 1993 to present** _____ _____

Tank #	Piping Leak Detection (*fill out the section applicable to your piping*)			Piping Corrosion Protection (*select method below*)
	Pressurized Piping		*Suction Piping*	
	Continuous Leak Detection (*select method below*)	Periodic Leak Detection (*select method below*)	Check valve located at: ☐ Tank ☐ Pump (*select method below*)	
1	2	2	---	1*
2	Used for furnace		---	1*
3	Gravity fill pipe		---	1*
4	3	3	---	4
5	3	3	---	4
6	3	3	---	4
7	3	3	---	5
8	3	3	---	5

Continuous method
1. None
2. Automatic flow restrictor
3. Automatic shutoff device
4. Continuous alarm

Periodic method
1. None
2. Annual tightness test
3. Statistical inventory reconciliation (SIR)
4. Electronic line leak detector
5. Interstitial monitoring
6. Groundwater monitoring

Suction leak detection method
1. None
2. Tightness test every 3 years
3. Statistical inventory reconciliation (SIR)
4. Interstitial monitoring
5. Vapor monitoring
6. Groundwater monitoring

Corrosion protection method
1. None
2. Steel with anodes
3. Coated steel with anodes
4. Impressed current
5. Fiberglass or flexible piping

*** Removed 1990**

If piping tightness tests were performed, indicate dates of all tests. **1987** _____ **1989** _____

1990 _____ **1991** _____ **1992** _____ **SIR from 1993 to present** _____ _____

Griffin Contracting Identify MPCA-certified tank removal contractor who performed tank excavation

 # 178 Tank removal contractor's MPCA certification number

Aboveground Storage Tanks

Enter the requested information for (a) all aboveground petroleum storage tanks that were in place at this site at the time the release was discovered, and (b) all aboveground petroleum storage tanks that have been installed at this site since the release was discovered (attach additional sheets if necessary). In describing your secondary containment, specify:

- the materials used to construct both the base and the walls, including the type and thickness of materials (e.g., 6" compacted clay; 30 mil HDPE; reinforced concrete slab floor/concrete block walls; none)
- how the material specifications are known (e.g., permeability tests/dates, installation specifications)
- whether the volume of the secondary containment area is adequate for the contents of the largest tank

Tank #	Contents	Capacity	Date Installed	Date Removed	Description of Secondary Containment			
					Walls	Base	Verification	Volume (*Yes/No*)
1								
2								
3								
4								
5								
6								
7								

ATTACHMENT A

STANDARDIZED INVOICE SUMMARY (CURRENT RULES)

Please use this attachment for costs you are submitting for reimbursement that are subject to the current rules.

For each standardized invoice form you are submitting with this application, enter the total invoice amount on the corresponding line in the box below. Add the numbers on each line, subtract the amount of insurance reimbursement you have received, and multiply the resulting total by the appropriate reimbursement rate.

COST SUMMARY

Tank in Transport Release: Use Tank in Transport Release Attachment

Excavation and Soil Disposal Oversight Before Investigation	**$5,442.00**
Limited Site Investigation or Full Remedial Investigation	**$14,357.65**
Active Remediation—initial field testing	$
Active Remediation—site-specific system design	$
Active Remediation—system installation, start-up, and operation & maintenance	$
Active Remediation—system decommissioning	$
Contractor Services	**$21,428.36**
Agricultural Tank Removal	$
Permits, utilities, and public safety access fees (invoiced directly to the applicant)	$
Emergency response costs	$
TOTAL ELIGIBLE COSTS	**$41,228.01**
Insurance Reimbursement (subtract) –	$( )
=	**$41,228.01**
	x 90%*
TOTAL REIMBURSEMENT REQUEST =	**$37,105.21**

* If a different reimbursement rate applies, calculate at that rate. See Application Guide.

CONSULTANT SIGNATURE (*SIGNATURE REQUIRED*)†

I, **Bruce Schaepe** (Individual name), confirm that all costs claimed by **Peer Engineering** (Consultant company) as a part of this application are a true and accurate account of services performed. I further confirm that no costs included in this application that were invoiced by my consulting company are ineligible as listed in Minnesota Rules, Chapter 2890.

Consultant Signature | **/Engineer** Title | 2/9/07 Date

†**Duplicate this section if more than one consultant signature is required.**

APPLICATION PREPARER'S SIGNATURE (*SIGNATURE REQUIRED*)

Bruce Schaepe (Preparer's name)

Preparer's Signature | **/Engineer** Title | 2/9/07 Date

NOTE: SUBMIT CERTIFICATION PAGE CONTAINING ORIGINAL SIGNATURES.

Please send this application and accompanying documents to:

MINNESOTA DEPARTMENT OF COMMERCE – PETROFUND
85 SEVENTH PLACE EAST, SUITE 500
ST. PAUL, MN 55101-2198
(651) 297-1119 / (651) 297-4203 / 800-638-0418

***This application is effective* JULY 1, 2006 – JUNE 30, 2007**

Sinclair 22024
MPCA 10868
3710521

VIII. ATTACHMENTS

The following attachments are included with this application (*see Application Guide*):

Either A, B, or C must be included.

- ☒ **Attachment A** Standardized Invoice Summary (current rules)
- ☐ **Attachment B** Standardized Invoice Summary (former rules)
- ☐ **Attachment C** Itemized Cost Worksheet (pre-10/6/95 rules)

Check any that apply.

- ☐ Agricultural Storage Tank Removal attachment
- ☐ Railroad Right-of-Way Bulk Plant attachment
- ☐ Tank in Transport Release attachment

IX. CERTIFICATION PAGE* (*see Application Guide*)

APPLICANT SIGNATURE and NOTARIZATION (*SIGNATURE AND NOTARIZATION REQUIRED*)

If information contained in this application changes in any material way after this application is submitted to the Petrofund, I will immediately notify the Petrofund in writing of those changes.

I understand that the information used to support this application is subject to audit by the Minnesota Pollution Control Agency and the Minnesota Department of Commerce.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I certify that if I have submitted invoices for costs that I have incurred but that remain unpaid, I will pay those invoices within 30 days of receipt of reimbursement from the board. I understand that if I fail to do so, the board may demand return of all or a part of reimbursement paid to me and that if I fail to comply with the board's demand, that the board may recover the reimbursement, plus administrative and legal expenses in a civil action in district court. I understand that I may also be subject to a civil penalty.

I further certify that I am authorized to sign and submit this application on behalf of Sinclair Marketing, Inc.
Corporation / Partnership / Municipality / Public Agency

Signature _____

Name (print/type) Joseph D. Maffucio

Title V.P. - Ecology, Sinclair Oil Corp.

Date Signed 3/14/07

NOTARIZATION

Subscribed and sworn to before me this 14 day of March, 200 7.

Notary Public Trudy G. Case

(Seal)
TRUDY G. CASE
NOTARY PUBLIC - STATE OF UTAH
550 EAST SOUTH TEMPLE
SALT LAKE CITY, UT 84102
My Comm. Exp. 05/09/2008

My commission expires May 9, 2008

VII. CONSULTANTS/CONTRACTORS

Complete the following for **ALL** contractors, subcontractors, consultants, engineering firms, or others who performed corrective actions at this site and whose work is covered by invoices included in this application (*see Application Guide*).

Consultants/Contractors (*ATTACH ADDITIONAL PAGES IF NECESSARY*)

 # 1005 Petrofund Registration Number

Name of individual or firm **Peer Engineering, Inc.**

Mailing Address: **7615 Golden Triangle Drive, Suite N., Eden Prairie, MN 55344** (City / State / Zip)

Contact Person: **Bruce Schaepe** Phone: **952-831-3341** E-mail Address: **bschaepe@peerengineering.com**

 # 1180 Petrofund Registration Number

Name of individual or firm: **Griffin Petroleum Services, Inc.**

Mailing Address: **8700 Xylite Street Northeast, Blaine, MN 55449** (City / State / Zip)

Contact Person Phone: **763-780-6332** E-mail Address

 # 2500 Petrofund Registration Number

Name of individual or firm: **Onyx FCR Landfill**

Mailing Address: **175 County Road 37 Northeast, Buffalo, MN 55313** (City / State / Zip)

Contact Person: **Tanya Horne** Phone: **320-963-3158** E-mail Address

 # 1252 Petrofund Registration Number

Name of individual or firm: **Braun Intertec**

Mailing Address: **11001 Hampshire Avenue South, Minneapolis, MN 55438** (City / State / Zip)

Contact Person: **Tom Wagner** Phone: **952-942-4936** E-mail Address

 # 1240 Petrofund Registration Number

Name of individual or firm: **Pace Analytical Services**

Mailing Address: **1700 Elm Street, Suite 220, Minneapolis, MN 55414** (City / State / Zip)

Contact Person: Phone: **612-607-1700** E-mail Address

 # 1476 Petrofund Registration Number

Name of individual or firm: **Matrix Environmental LLC**

Mailing Address: **8631 Jefferson Highway, Osseo, MN 55369** (City / State / Zip)

Contact Person: **Jim Dzubay** Phone: **763-424-4803** E-mail Address: **jdzubay@matrix.enchem.com**

Peer Engineering, Inc.
7615 Golden Triangle Dr., Suite N
Eden Prairie, MN 55344
(952) 831-3341 Fax (952) 831-4552

Peer Engineering
Integrated Environmental Solutions

Ms. Audrey Van Cleve
Petroleum Remediation Program
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

February 5, 2007

RECEIVED
FEB 07 2007

RE: Underground Utility Assessment
Sinclair Station
9456 Medicine Lake Road
New Hope, Minnesota
LEAK #10868

Dear Ms. Van Cleve:

Peer Engineering, Inc. (Peer) has prepared this submittal on behalf of our client Sinclair Marketing, Inc. The purpose of the submittal is to provide supplementary information to you regarding underground utilities located near the above referenced Sinclair Station as per your telephone request of January 11, 2007.

We have provided copies of several utility maps obtained from the local municipalities. In addition, we have sketched the approximate locations of the utilities onto a survey map of the property that depicts the site prior to its redevelopment in 2005. We have also interpreted the approximate depths of each of the underground utilities based on the utility maps. The location of the sanitary sewer lateral and main in relation to the observed location of the contaminated soil led us to conclude that the sanitary sewer may be affected by the soil contamination remaining in place.

On February 1, 2007 Peer mobilized to the site to monitor the air vapor in the sanitary sewer that runs past the Sinclair station. Three manholes were monitored along a sanitary sewer pipe that runs in an east-west orientation, just south of the property boundary. Based on utility maps provided to Peer, the three manholes were identified as MH-132, MH-133 and MH-134 (see annotated survey and figure titled Water/Sanitary/Storm).

The manholes were monitored with a photoionization detector (PID) and a gas monitor that reads oxygen (O^2), percent lower explosive limit (% LEL), and methane. The results from the monitoring on February 1st are attached. In summary no volatile vapors were reported by the instruments at any depth in the three manholes.

Our conclusion is that although the sanitary sewer may be in proximity to the contaminated soil, volatile vapors were not observed during the monitoring event on February 1, 2007. Since the source of the release that led to the contaminated soil has been removed, the risk to the existing underground utilities is low. No additional investigation of vapors in utilities is recommended and leak site file closure is requested.

Please contact me if you require additional information.

Sincerely,
Peer Engineering, Inc.

Bruce Schaepe, P.E.

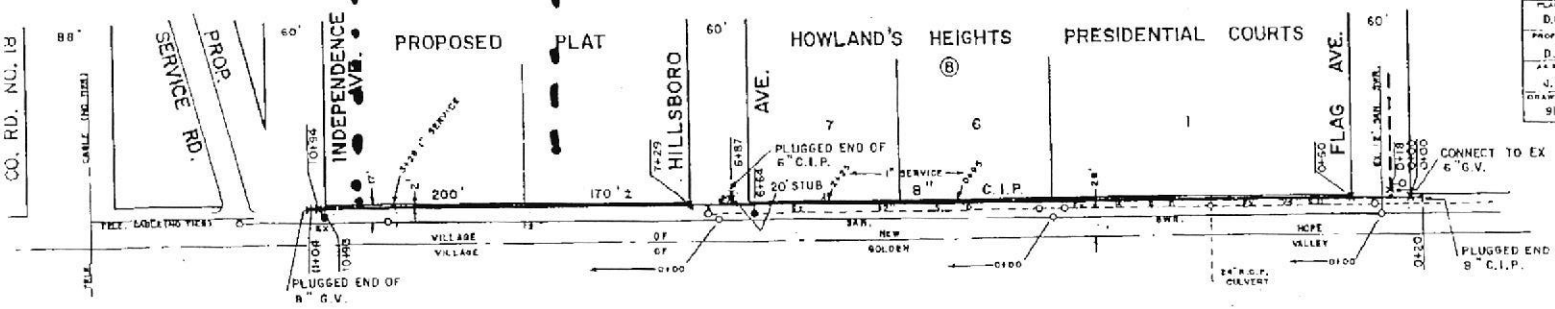
Enclosures (4 utility maps, annotated survey map, and Field Data Sheet 2/1/07)

cc. Mr. Larry Feldsien, Sinclair Marketing, Inc.

952-736-1141

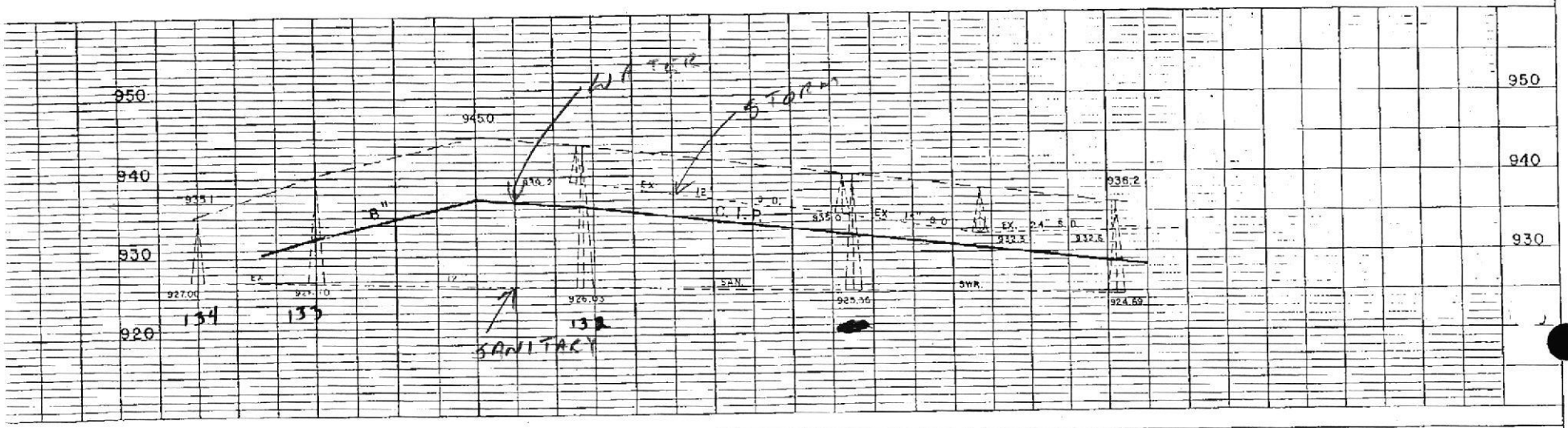
SINCLAIR

MEDICINE → LAKE ROAD



WATER SYSTEM
NEW HOPE, MINNESOTA

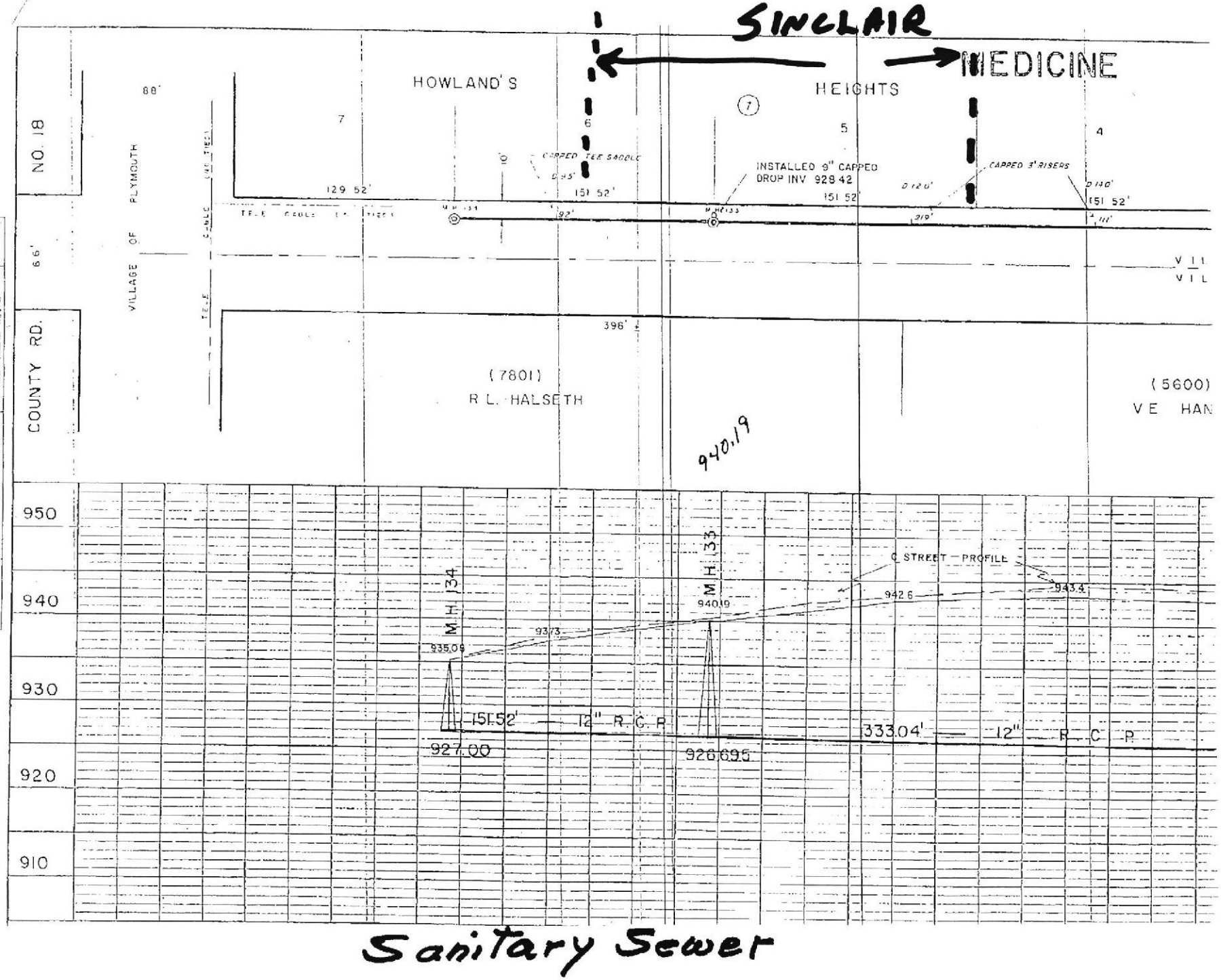
PLAN BY D.O.H.	ORR-SCHELEN-MAYERON & ASSOCIATES, INC. CONSULTING ENGINEERS MINNEAPOLIS, MINNESOTA	CHECKED BY R.J.H.
PROFILE BY D.O.H.		APPROVED BY D.O.H.
AS BUILT V.B.O.		PROJECT NO. 113 A
DRAWING NO. 91 A	DATE NOV. 24, 1964	SCALE: HOR. 1" = 100' VERT. 1" = 10'



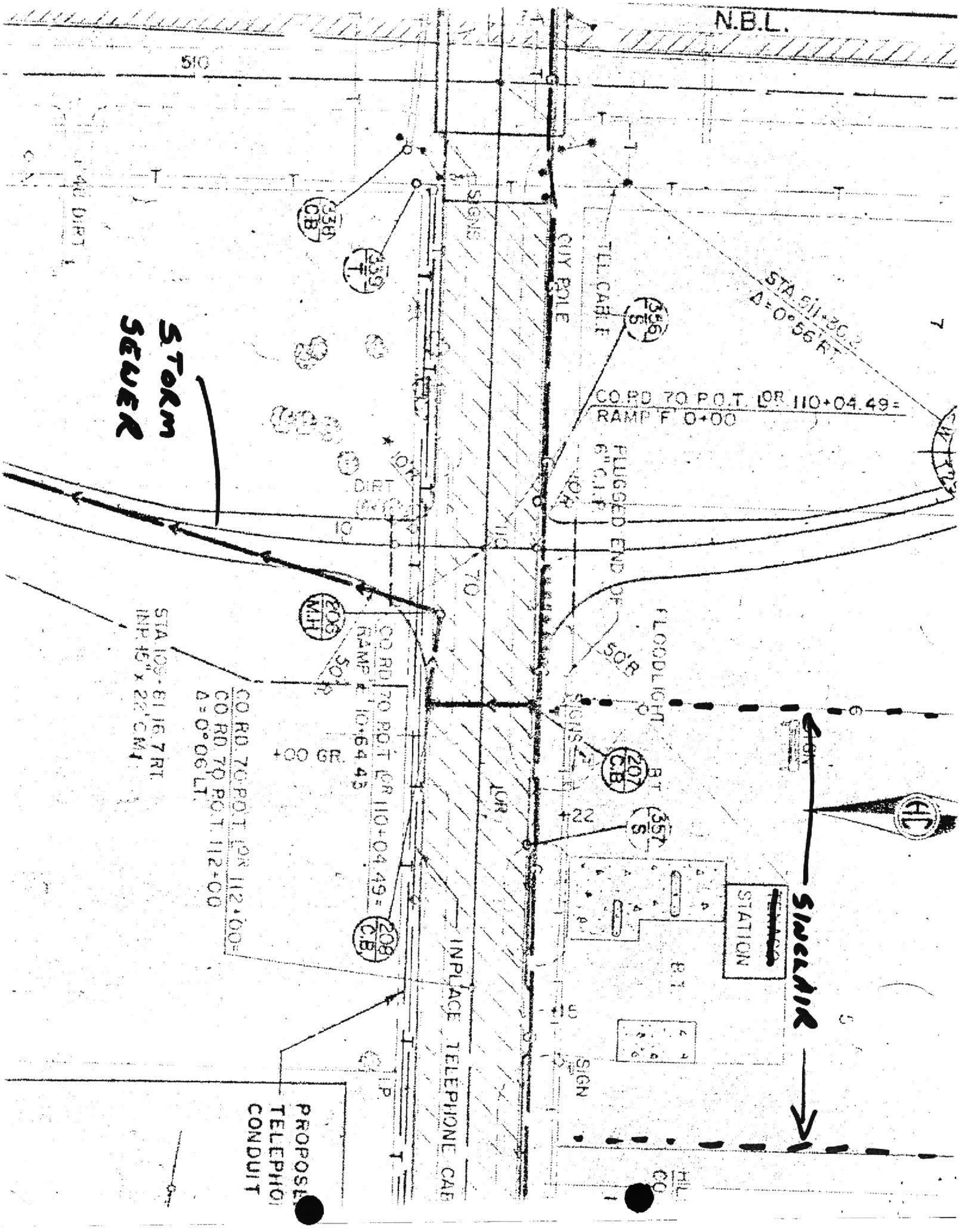
water / Sanitary / Storm

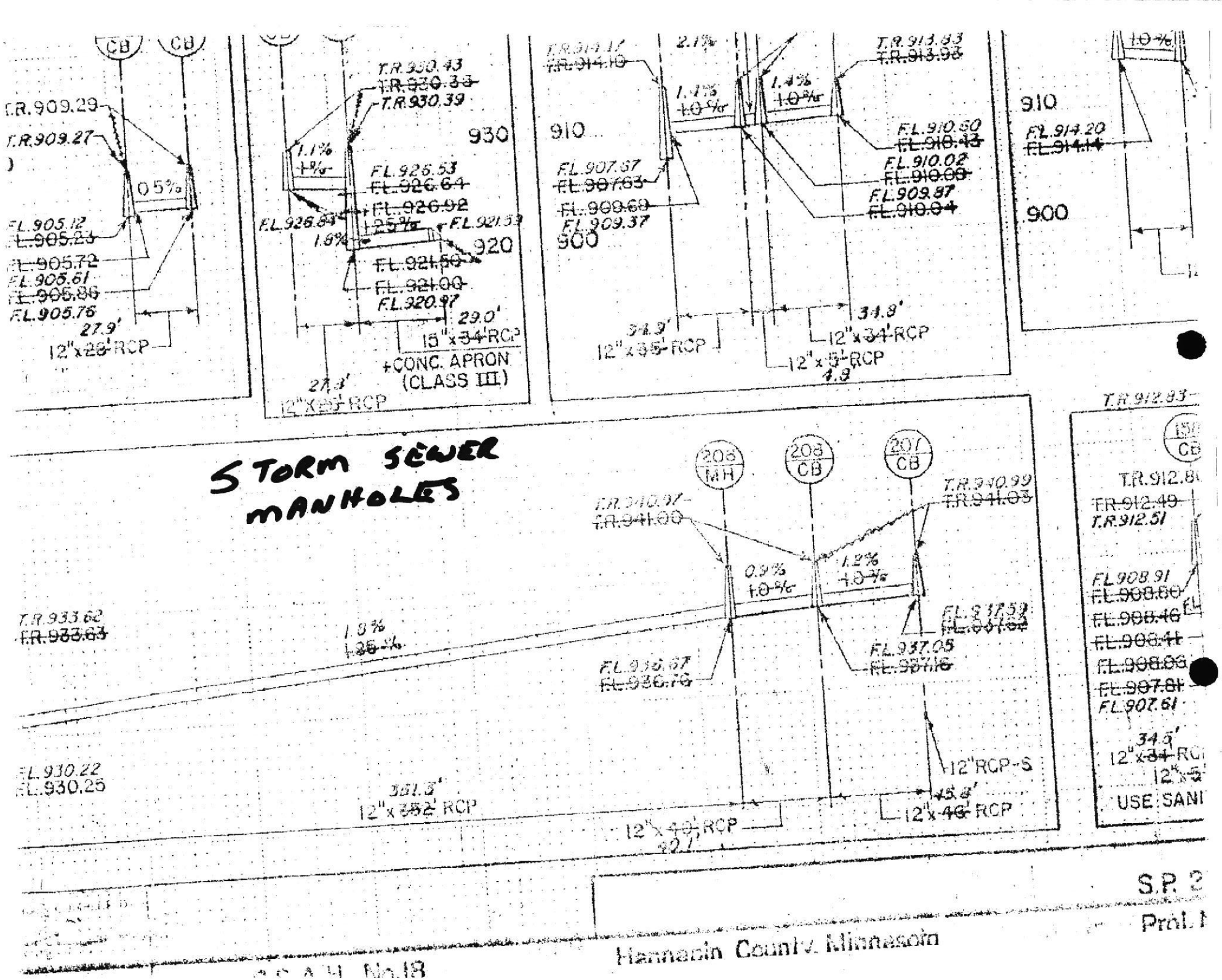
SINCLAIR OIL

Jan 29 07 12:46p



Sanitary Sewer


N.B.L.
STORM SEWER
SINCLAIR
STATION
SIGNS
GUY POLE
TEL CABLE
FLOODLIGHT
PLUGGED END OF 6" C.I.P.
CO.RD. 70 P.O.T. ℄OR 110+04.49= RAMP F 0+00
CO.RD.70 P.O.T. ℄OR 110+04.49= RAMP ℄ 10+64.43
CO.RD.70 P.O.T. ℄OR 112+00= CO.RD.70 P.O.T. 112+00 Δ=0°06' LT.
STA.511+30.2 Δ=0°56' RT.
+00 GR.
INPLACE TELEPHONE CAB
PROPOSE TELEPHO CONDUIT
SIGN



SampleTech

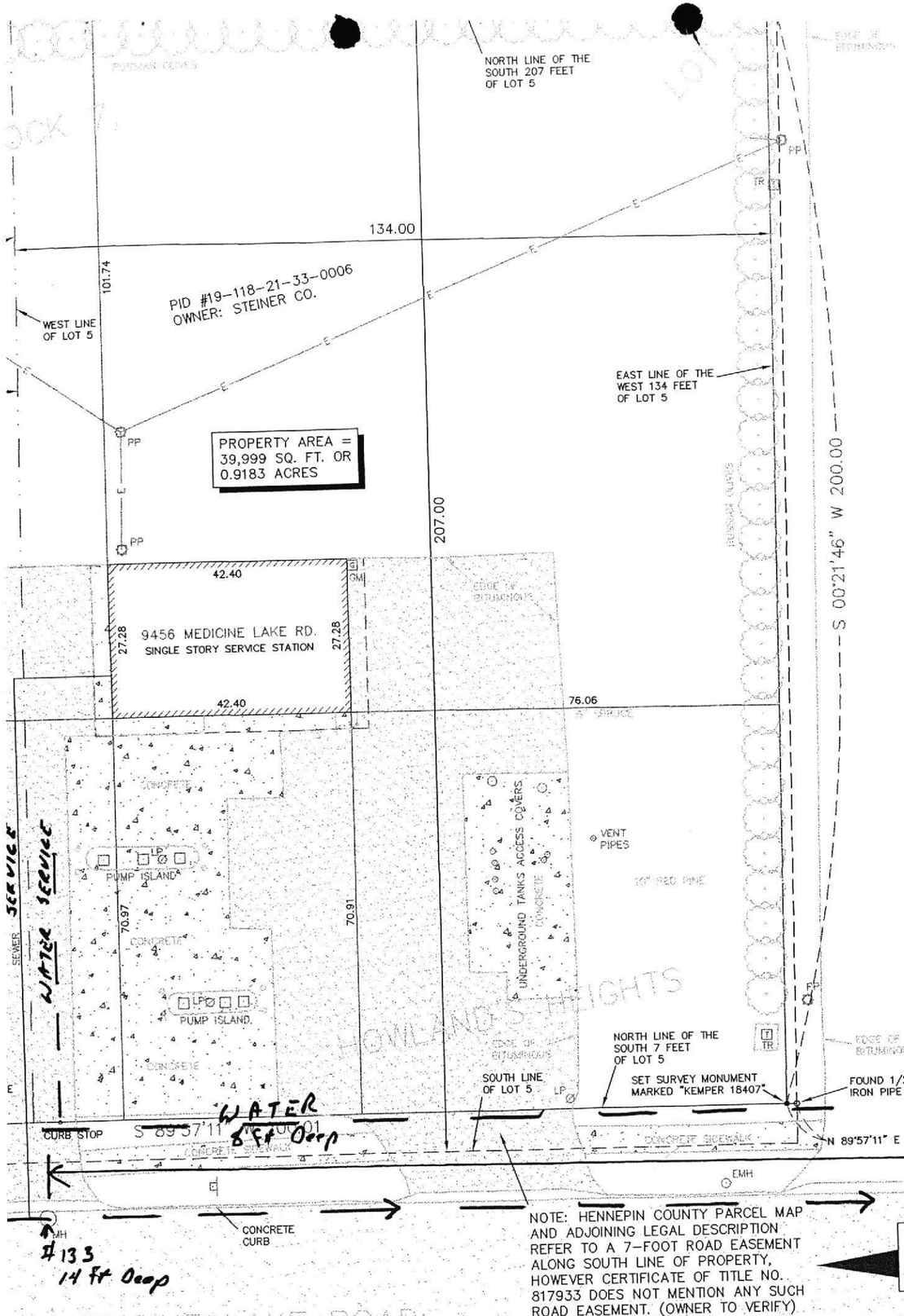
Data Sheet

____ of ____

Client Name: Sinclair (New Hope)	Project No.:	Date: 2-1-2007
Project Title:	Contact:	

		LEL (%)	O2 (%)	Methane (%)	PID (ppm)
MH 134					
	TOP	0	20.8	0	0
	MIDDLE	0	20.8	0	0
	BOTTOM	0	20.8	0	0
MH-133					
	TOP	0	20.8	0	0
	MIDDLE	0	20.8	0	0
	BOTTOM	0	20.8	0	0
MH-132					
	TOP	0	20.8	0	0
	MIDDLE	0	20.8	0	0
	BOTTOM	0	20.8	0	0

Form Completed By: RFF / DKR **Date:** 2-1-2007



utility Interpretations
B. Schaepe
1/29/07
and
2/5/07

LEGAL DESCRIPTION

CERTIFICATE OF TITLE NO. 729115

The South 207 feet of the West 134 feet of Lot 5,
The South 207 feet of the East 66 feet of Lot 6,
Block 7, "Howland's Heights Hennepin Co. Minn"

Subject to a sewer easement over the South 20 feet of above land as contained in instrument of record in Book 2183 of Deeds, page 292.

NOTE: EASEMENT DESCRIBED IN BOOK 2183 OF DEEDS, PAGE 292 (DOCUMENT NO. 3140208), DATED SEPTEMBER 22, 1958, IS A CONSTRUCTION EASEMENT FOR ONE (1) YEAR AFTER THE COMMENCEMENT OF THE CONSTRUCTION OF A SANITARY SEWER, AND THEN TO TERMINATE.

NOTE: THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT. AT SUCH TIME AS A TITLE COMMITMENT IS ORDERED, REVIEW BY THIS SURVEYOR IS RECOMMENDED.

LEGEND

PP	POWER POLE
LP Ø	LIGHT POLE
TR T	TELEPHONE RISER
GM G	GAS METER
CB	CATCH BASIN
MH	MANHOLE
FH	FIRE HYDRANT
SP Ø	SIGNAL POLE
EMH	ELECTRIC MANHOLE

WEST LINE OF THE EAST 66 FEET OF LOT 6

WEST LINE OF LOT 5

101.7

PID #19-118-21-33-0006
OWNER: STEINER CO.

66.00

EAST LINE OF THE WEST 134 FEET OF LOT 5

PROPERTY AREA = 39,999 SQ. FT. OR 0.9183 ACRES

NOTE: BITUMINOUS ENCROACHES 5.8 FEET ONTO ADJOINING PROPERTY.

N 00°21'46" E 200.00

S 00°21'46" W 200.00

207.00

6" SPRUCE

PYLON SIGN

81.28

42.40

9456 MEDICINE LAKE RD.
SINGLE STORY SERVICE STATION

27.28

27.28

81.55

42.40

76.06

12" SPRUCE

6" SPRUCE

EDGE OF BITUMINOUS

CONCRETE

SEWER

WATER SERVICE

70.97

70.91

LP

PUMP ISLAND

UNDERGROUND TANKS ACCESS COVERS

VENT PIPES

10" RED PINE

PP

E

GM

(FORMERLY COUNTY STATE AID HIGHWAY NO. 18)

CONCRETE CURB

CHAIN LINK RIGHT OF WAY FENCE

FLAG POLE

PYLON SIGN

PAY PHONE

NORTH LINE OF THE SOUTH 7 FEET OF LOT 6

FOUND CAST IRON MONUMENT

SOUTH LINE OF LOT 6

7' ROAD EASEMENT (PER COUNTY MAP)

SIGN

EMH

SP

FH

CURB STOP

S 89°57'11" W 1.01

WATER
8 Ft Deep

SANITARY

MH
#134
8 ft Deep

CB
#207
4 Ft Deep

MH
#133
14 Ft Deep

CONCRETE CURB

NOTE: HENNEPIN COUNTY PARCEL MAP AND ADJOINING LEGAL DESCRIPTION REFER TO A 7-FOOT ROAD EASEMENT ALONG SOUTH LINE OF PROPERTY, HOWEVER CERTIFICATE OF TITLE NO. 817933 DOES NOT MENTION ANY SUCH ROAD EASEMENT. (OWNER TO VERIFY)

THIS ISSUE WILL BE RESOLVED PRIOR TO OBTAINING BUILDING PERMIT.

MEDICINE LAKE ROAD
(COUNTY HIGHWAY NO. 70)
(RIGHT OF WAY WIDTH VARIES)

STORM

#208
4 Ft Deep

CONCRETE CURB

HOWLANDS HEIGHTS

NORTH LINE OF THE SOUTH 7 FEET OF LOT 5

SET SURVEY MONUMENT MARKED "KEMPER 18407"

FOUND 1/2" IRON PIPE

SOUTH LINE OF LOT 5

EDGE OF BITUMINOUS

CONCRETE SIDEWALK

N 89°57'11" E 1.85

8" CAST IRON PIPE

utility
Interpret
B. Sch
1/29/
am
2 s

Peer Engineering, Inc.
4801 West 81st Street, Suite 118
Bloomington, Minnesota 55437
952 831-3341 Fax 952 831-4552

Peer Engineering
Integrated Environmental Solutions

RECEIVED
NOV 15 2005

November 14, 2005

Mr. Chris McLain
Petroleum Remediation Program
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

RE: Excavation Report
Sinclair
9456 Medicine Lake Road
New Hope, Minnesota
LEAK #10868

Dear Mr. McLain,

Peer Engineering, Inc. (Peer) has prepared the attached Excavation Report on behalf of our client Sinclair Oil Corporation (Sinclair). The report documents the soil excavation and soil sampling activities completed in September and October 2005 by Sinclair during the upgrade of their retail facility at the above referenced location.

As indicated by the report, contaminated soil was encountered during the excavation of soil to remove the former underground storage tanks and dispenser islands. That contamination was reported to the State Duty Officer on September 20, 2005. Contaminated soil was also encountered during excavation of soil for installation of the new underground tanks, footings for the drive-under canopy, and in trenches to accommodate the new fuel piping. Contaminated soil removed to accommodate the new equipment was characterized and disposed at a nearby landfill. A total of approximately 645 cubic yards of contaminated soil was removed and disposed.

Prior to disposal of the soil, Mr. Larry Feldsien of Sinclair contacted you to discuss the Petrofund reimbursement for characterization, handling, removal, and disposal of all contaminated soil. According to Guidance Document 3.01 and our calculations, 432 cubic yards of soil can be disposed without MPCA approval. Your approval to dispose of the entire 645 cubic yards of soil as a corrective action is requested.

November 14, 2005

We also request your review of the findings of the excavation sampling to determine if the leaksite will require further investigation, or if it can be closed again.

Sincerely,
Peer Engineering, Inc.

Bruce Schaepe, P.E.

Enclosure (General Excavation Report Worksheet)

cc. Mr. Larry Feldsien, Sinclair

Petroleum Remediation Program
Minnesota Pollution Control Agency

http://www.pca.state.mn.us/programs/lust_p.html

General Excavation Report Worksheet

Guidance Document 3-02

Complete the worksheet below to document excavation and treatment of petroleum contaminated soil removed **prior to** a Site Investigation and/or during tank removals and/or upgrades. If soil is excavated as an MPCA-approved corrective action **after** a Site Investigation is conducted, complete Guidance Document 3-02a *Corrective Action Excavation Report Worksheet.* Conduct excavations in accordance with Guidance Document 3-01 *Excavation of Petroleum Contaminated Soil.* Please type or print clearly. Do not revise or delete text or questions from this report form.

The excavation worksheet 3-02 deadline is 10 months from the date of receipt of the MPCA "Petroleum Storage Tank Release Investigation and Corrective Action" letter. MPCA staff may establish a shorter deadline for high priority sites.

PART I: BACKGROUND

A. Site: **Sinclair Station**

MPCA Site ID#: LEAK 10868

Street: **9456 Medicine Lake Road**
City, Zip: **New Hope, 55427**
County: **Hennepin County**
Site location (UTM required): **See Document 1-03a**

B. Tank Owner/Operator: **Sinclair Oil Corporation**

Mailing Address: **Attn: Larry Feldsien**

Street/Box: **1001 East Cliff Road #201**
City, Zip: **Burnsville, 55337**
Telephone: **952-736-1100**

C. Excavating Contractor: **Griffin Contracting**
Contact: **Dave Manders**
Telephone: **763-780-6332**
Tank Contractor Certification Number: **178**

D. Consultant: **Peer Engineering, Inc**
Contact: **Bruce Schaepe**
Street/Box: **4801 West 81st Street, Suite 118**
City, Zip: **Bloomington, 55437**
Telephone: **952-937-0589**

E. Others on-site during site work (e.g., fire marshal, local officials, MPCA staff, etc.): **NA**

F. Site Location Information: Attach Guidance Document 1-03a *Spatial Data Reporting Form* if it has not already been submitted or will not be submitted as part of Guidance Document 4-06 *Investigation Report Form.*

Note: If person other than tank owner and/or operator is conducting the cleanup, provide name, address, and relationship to site on a separate attached sheet.

PART II: DATES

A. Date release reported to MPCA: **9-19-2005**

B. Dates site work performed (tanks removed, piping removed, soil excavation, soil borings, etc.):

Work Performed	Date
Removed 2 Hydraulic Hoists	**9/9/2005**
Pump islands removed	**9/19/2005**
Tanks removed	**9/20/2005**
New tanks installed	**9/20/2005 - 9/23/2005**
New dispenser islands and piping installed	**10/10/2005 – 10/21/2005**

PART III: SITE AND RELEASE INFORMATION

A. Describe the land use and pertinent geographic features within 1,000 feet of the site. (i.e. residential property, industrial, wetlands, etc.)

Land use is mostly residential with some light commercial directly south of the site. Highway 169 is immediately west of the site. Medicine Lake is located 1,500 feet southwest of the site.

B. Provide the following information for all tanks removed and any remaining at the site:

Table 1.

Tank #	UST or AST	Capacity (gallons)	Contents (product type)	Year installed	Tank Status*	Condition of Tank
1	UST	6,000	Gasoline	1964	Removed 9-20-05	Good
2	UST	6,000	Gasoline	1964	Removed 9-20-05	Good
3	UST	6,000	Gasoline	1964	Removed 9-20-05	Good
4	UST	12,000	Gasoline	2005	New Install	New
5	UST	12,000	Gasoline	2005	New Install	New

*Indicate: *removed (date), abandoned in place (date), or currently used, upgraded tank, installation of new tank.*

C. Describe the location and status of the other components of the tank system(s) (i.e., transfer locations, valves, piping and dispensers) for those tanks listed above.

Two hydraulic lifts located in the former service station building were removed on September 9, 2005. The lifts did not show evidence of leaks.

The former dispensers were located approximately 45 and 35 feet west of the former tank basin. Evidence of petroleum contamination was observed in the vicinity of the dispensers.

5 new pump islands were installed, in a line, 20 feet north of the new tanks at an interval of 26 feet apart.

D. Identify and describe the source(s) or suspected source(s) of the release or contamination encountered, and how the release or contamination was discovered.

The contamination was detected during the removal of the former tanks and associated dispensers. The suspected source of the release is believed to be a previous leak at the site. The tanks were in good condition during removal (no holes, significant rust, etc.)

E. Identify any surface soil contamination. **None observed**

F. What was the volume of the release? (if known): **Unknown** gallons

G. Historic contamination present (unknown origin?): **Yes**

The site has two previous MPCA leak site numbers, LEAK# 2433 and 10868. These releases were previously investigated and closed in 1995 and 1999 respectively.

H. When did the release occur? (if known): **Unknown**

I. Describe source of on-site drinking water. **City Water**

PART IV: EXCAVATION INFORMATION

A. Dimensions of excavation(s):
Former tank basin: **Length 41 feet, Width 22 feet, Depth 13 feet**
New tank basin: **Length 55 feet, Width 35 feet, Depth 12 feet**
Trenches for new dispensers and piping: **Length 115 feet, Width 10 feet, Depth 2 feet AND Length 10 feet, Width 10 feet, Depth 2 feet**

B. Original tank backfill material (sand, gravel, etc.), if applicable: **Sand**

C. Native soil type (clay, sand, etc.): **Sandy clay**

D. Quantity of contaminated soil removed for treatment: **967.68 tons* x 1 CY/1.5 ton = 645 CY**
(Indicate on the site map where the petroleum contaminated soil was excavated)
*** Disposal summary included as Appendix B**

How many cubic yards of the removed soil was petroleum saturated? **0**
(Indicate on the site map where the petroleum saturated soil was excavated)

[**Note**: If the volume removed is more than allowed in Guidance Document 3-01 *Excavation of Petroleum Contaminated Soil*, please document MPCA staff approval.]

Mr. Larry Feldsien of Sinclair contacted Chris McLain of the MPCA staff was contacted on October 19, 2005 to request permission to dispose of soil in excess of the volume allowed in Guidance Document 3-01 as a corrective action. Mr. McLain indicated that his decision could not be made at that time and would depend on his review of this Excavation Report.

E. Were new tanks and/or piping and dispensers installed? **Yes** If yes, what volume of contaminated soil was excavated to accommodate the installation of the new tanks and piping?

The new tank basin is located in a different area than the contaminated tank basin. A small portion of the soil that was removed during the preparation for the new tank basin was used to fill in the excavated region for the old tank basin. Contaminated soil was also removed while excavating the footings for the new canopy and to accommodate the piping that connects the new tanks to the five dispenser islands.

F. If contaminated soil was removed to accommodate the installation of new tanks and/or piping, show your calculations for the amount of soil removal allowed using Table 3 in Guidance Document 3-01 *Excavation of Petroleum Contaminated Soil.*

Removal of three 6,000 gallon UST's (3*(-30CY)), installation of two 12,000 gallon tanks (2*240CY) and 125 linear feet of piping trench (125*0.33CY).

3*(-30CY)+(2*240CY)+(125*0.33CY) = 432 CY

G. Was ground water encountered or a suspected perched water layer or was there evidence of a seasonally high ground water table (i.e. mottling)? (Yes/**No**) At what depth?

H. If ground water was not encountered during the excavation, what is the expected depth of ground water? **55 Feet**

I. Additional investigation to determine the need for a Limited Site Investigation is necessary at sites with sandy or silty sandy soil, a water table within 25 feet of the ground surface, and visual or other evidence of soil remaining contamination. See Table 2 in Guidance Document 3-01 *Excavation of Petroleum Contaminated Soil.* If a soil boring is necessary, describe the soil screening and analytical results. Attach the boring logs and laboratory results to this report. **N/A**

J. If no soil boring was performed, explain.

The site is a previously reported MPCA leak site. The most recent investigation was closed by the MPCA on February 25, 1999. The contamination observed at the site is likely due to a past leak. If deemed necessary by MPCA, another limited site investigation will be conducted.

K. If ground water was encountered or if a soil boring was conducted, was there evidence of ground water contamination? (yes/no) Describe this evidence of contamination, e.g., free product (specify thickness), product sheen, ground water in contact with petroleum contaminated soil, water analytical results, etc. **Note**: If you observe free product, contact MPCA staff immediately, as outlined in Guidance Document 2-02 *Free Product: Evaluation and Recovery.*

N/A

L. Was bedrock encountered in the excavation? (☐yes/ ☒**No**) At what depth?

M. Were other unique conditions associated with this site? (☐yes/ ☒**No**) If so, explain.

PART V: SAMPLING INFORMATION

A. Briefly describe the field screening methods used to distinguish contaminated from uncontaminated soil:

Field screening methods are included as Appendix C.

B. List soil vapor headspace analysis results collected during excavation of tanks, lines and dispensers, valves, and transfer locations. (i.e., soils left in place when excavation is complete). Code the samples with sampling depths in parentheses as follows: sidewall samples S-1 (8 feet), S-2 (4 feet), etc.; bottom samples B-1 (13 feet), B-2 (14 feet), removed soil R-1 (4 feet), R-1 (8 feet), etc.; stockpile samples SP-1, etc; line samples L-1, L2, etc.; transfer locations T-1 (4 feet), T-1 (8 feet), etc.; dispensers D-1 (4 feet), etc. **Be sure the sample codes correspond with the site map in part VI, below.**

Sample Code	Soil Type	Reading ppm	Sample Code	Soil Type	Reading ppm
B-1 (9-9-2005) (7')	**Sandy**	**0.0**	**S-4 (4.5-5')**	**Sand**	**197**
B-2 (9-9-2005) (7')	**Sandy**	**0.0**	**S-5 (4.5-5')**	**Sandy Clay**	**141**
B-1 (13-13.5')	**Sandy Clay**	**241**	**S-6 (6-6.5')**	**Sand**	**212**
B-2 (13-13.5')	**Sand**	**151**	**S-7 (10-10.5')**	**Sand**	**179**
B-3 (13-13.5')	**Sand**	**228**	**S-8 (8-8.5')**	**Sandy Clay**	**140**
Pump-1 (1-1.5')	**Sandy Clay**	**45**	**SSP-1**	**Sandy Clay**	**4**
Pump-2 (1-1.5')	**Sandy Clay**	**20**	**SSP-2**	**Sand**	**100**
S-1 (8-8.5')	**Sand**	**81**	**SSP-3**	**Sand**	**266**
S-2 (9-9.5')	**Sand**	**197**	**SSP-4**	**Sand**	**168**
S-3 (10-10.5')	**Sandy Clay**	**87**	**SSP-5**	**Sandy Clay**	**88**
			SSP-6	**Sandy Clay**	**100**

* Closure granted in 1995

* 1998 samples in limited location

* Approved soil excavation due to high levels in soil.

* Need LSI since previous closures are 10 years old.

C. Was the "removed soil" placed back into the excavation basin? (☒**Yes**/ ☐no)
If no, please complete Part VIII: Soil Treatment Information section. If yes, a Limited Site Investigation is necessary (see Guidance Document 4-01 *Soil and Ground Water Assessments Performed during Site Investigations*).

A limited site investigation will be conducted if necessary.

D. Briefly describe the soil analytical sampling and handling procedures used:

Soil analytical sampling and handling procedures are included in Appendix C.

E. List below all soil sample analytical results from bottom and side wall samples collected after excavation of tanks, lines and dispensers, valves, and transfer locations (i.e., soils left in place when excavation is complete). Code the samples with sampling depths in parentheses as follows: sidewall samples S-1 (8 feet), S-2 (4 feet), etc.; bottom samples B-1 (13 feet), B-2 (14 feet), removed soil R-1 (4 feet), R-1 (8 feet), etc.; stockpile samples SP-1, etc; line samples L-1, L2, etc.; transfer locations T-1 (4 feet), T-1 (8 feet), etc.; dispensers D-1 (4 feet), etc.; **Be sure the sample codes correspond to the site map required in part VI.**

Sample Code	GRO/ DRO	Benzene mg/kg	Ethyl-benzene mg/kg	Toluene Mg/kg	Xylene mg/kg	MTBE mg/kg	Lead mg/kg
B-1 (7') (9/9/2005)	**<12/18**	**<0.029**	**<0.029**	**0.033**	**0.071**	**NA**	**NA**
B-2 (7') (9/9/2005)	**<11/88**	**<0.028**	**<0.028**	**0.032**	**0.033**	**NA**	**NA**
B-1 (13-13.5')	**1300/NA**	**4.9**	**22**	**39**	**182**	**NA**	**NA**
B-2 (13-13.5')	**4500/NA**	**4.2**	**12**	**15**	**281**	**NA**	**NA**
B-3 (13-13.5')	**1200/NA**	**3.1**	**16**	**22**	**149**	**NA**	**NA**
Pump-1 (1-1.5')	**170/NA**	**<0.057**	**0.61**	**0.27**	**3.2**	**NA**	**NA**
Pump-2 (1-1.5')	**7300/NA**	**28**	**96**	**170**	**680**	**NA**	**NA**
S-8 (2.5-3)	**<12/NA**	**<0.060**	**<0.060**	**<0.060**	**<0.060**	**<0.060**	**NA**
S-9 (1.5-2)	**43/NA**	**<0.058**	**0.095**	**<0.058**	**0.51**	**<0.058**	**NA**

Sample Code	GRO/ DRO	Benzene mg/kg	Ethyl-benzene mg/kg	Toluene Mg/kg	Xylene mg/kg	MTBE mg/kg	Lead mg/kg
S-10 (3.5-4)	**<11/NA**	**<0.057**	**<0.057**	**<0.057**	**<0.057**	**<0.057**	**NA**
S-11 (1-1.5)	**<12/NA**	**<0.062**	**<0.062**	**<0.062**	**<0.062**	**<0.062**	**NA**
Pump-3 (1.5')	**59/NA**	**<0.058**	**0.49**	**0.47**	**2.49**	**<0.058**	**NA**
Pump-4 (1.5')	**16/NA**	**<0.062**	**0.10**	**0.065**	**0.59**	**<0.062**	**NA**
Pump-5 (1')	**21/NA**	**0.18**	**0.066**	**<0.058**	**0.49**	**<0.058**	**NA**
Pump-6 (1.5')	**29/NA**	**0.082**	**0.095**	**0.11**	**0.39**	**<0.059**	**NA**
Pump-7 (1')	**30/NA**	**<0.057**	**0.19**	**0.12**	**0.90**	**<0.057**	**NA**
SSP-3	**NA/NA**	**1.1**	**7.0**	**4.9**	**38**	**NA**	**6.9**
SSP-4	**NA/NA**	**0.46**	**2.6**	**1.8**	**12.4**	**NA**	**4.5**

Note: **Laboratory reports and chain of custody forms are attached as Appendix D.**
NA= Not Analyzed
SSP= Soil Stockpile

PART VI: FIGURES

Attach the following figures to this report:

1. Site location map.
2. Site map(s) drawn to scale illustrating the following:
   a. Location of all present and former tanks, piping, and dispensers;
   b. Location of surface soil contamination
   c. Location of other structures (buildings, canopies, etc.);
   d. Adjacent city, township, or county roadways;
   e. Dimensions of excavation(s), including contour lines (maximum 2-foot contour intervals) to represent the depths of the final excavation(s);
   f. Location of soil screening samples (e.g. R-1), soil analytical samples (e.g., S-1 or B-1), and any soil borings (e.g., SB-1). Also, attach all boring logs.
   g. North arrow, bar scale and map legend.
   h. Provide location of any on-site water wells. If on-site water wells exist, please provide well logs and/or construction diagrams.
   i. Locations of new tanks, piping and dispensers, if installed.

PART VII: CONCLUSIONS AND RECOMMENDATIONS

Recommendation for site: ☐ site closure
☐ additional investigation

Justify the recommendations for the site. If no further action is necessary, the MPCA staff will review this report following notification of soil treatment.

The contamination is likely related to one of the previous leaks reported at the site. Land use on the site is not changing; it will continue to operate as a gas station. The old tanks have been removed from the site and new tanks have been installed.

PART VIII: SOIL TREATMENT INFORMATION

A. Soil treatment method used (thermal, land application, composting, other). If you choose "other" specify treatment method: **Disposal at solid waste landfill**

B. Location of treatment site/facility: **Onyx FRC Landfill,**
175 County Rd 37 NE
Buffalo, MN 55313

C. Date MPCA approved soil treatment (if thermal treatment was used, indicate date that the MPCA-permitted thermal treatment facility agreed to accept soil): **NA**

D. Identify the location of stockpiled contaminated soil: **See Figure 2**

PART IX: CONSULTANT (OR OTHER) PREPARING THIS REPORT

By signing this document, I/we acknowledge that we are submitting this document on behalf of and as agents of the responsible person or volunteer for this leak site. I/we acknowledge that if information in this document is inaccurate or incomplete, it will delay the completion of remediation and may harm the environment and may result in reduction of reimbursement awards. In addition, I/we acknowledge on behalf of the responsible person or volunteer for this leak site that if this document is determined to contain a false material statement, representation, or certification, or if it omits material information, the responsible person or volunteer may be found to be in violation of Minn. Stat. § 115.075 (1994) or Minn. 7000.0300 (Duty of Candor), and that the responsible person or volunteer may be liable for civil penalties.

MPCA staff are instructed to reject unsigned excavation reports or if the report form has been altered.

Name and Title:	Signature:	Date signed:
Bruce Schaepe, P.E. Environmental Engineer		11/14/05
Diane Ruddle Environmental Professional		11/14/2005

Company and mailing address: Peer Engineering, Inc.
4801 West 81st Street, Suite 118
Bloomington, MN 55437
Phone: 952-831-3341
Fax: 952-831-4552

If additional investigation is not necessary, please mail this form and all necessary attachments to the MPCA project manager. If additional investigation is necessary, include this form as an appendix to Guidance Document 4-06 *Investigation Report Form.* **MPCA staff will not review excavation reports indicating a limited site investigation is necessary unless the limited site investigation has been completed.**

Web pages and phone numbers

MPCA staff	http://pca.state.mn.us/pca/staff/index.cfm
MPCA toll free	**1-800-657-3864**
Petroleum Remediation Program web page	http://www.pca.state.mn.us/programs/lust_p.html
MPCA Infor. Request	http://www.pca.state.mn.us/about/inforequest.html
MPCA Petroleum Brownfields Program	http://www.pca.state.mn.us/programs/vpic_p.html
PetroFund Web Page	http://www.state.mn.us/cgi-bin/portal/mn/jsp/content.do?id=-536881377&agency=Commerce
PetroFund Phone	**651-297-1119**, or **1-800-638-0418**

State Duty Officer 651-649-5451 or 1-800-422-0798

FIGURES

SCALE IN MILES

0 0.5 1.0

0 2000 4000 6000

SCALE IN FEET

N

MAP LOCATION

TAKEN FROM:
OSSEO, MN AND HOPKINS, MN
7.5 MINUTE SERIES
TOPOGRAPHIC MAP
1967 (REVISED 1993)
UNITED STATES GEOLOGICAL SURVEY

15111 Site Location Fig 1.SKF

Peer Engineering

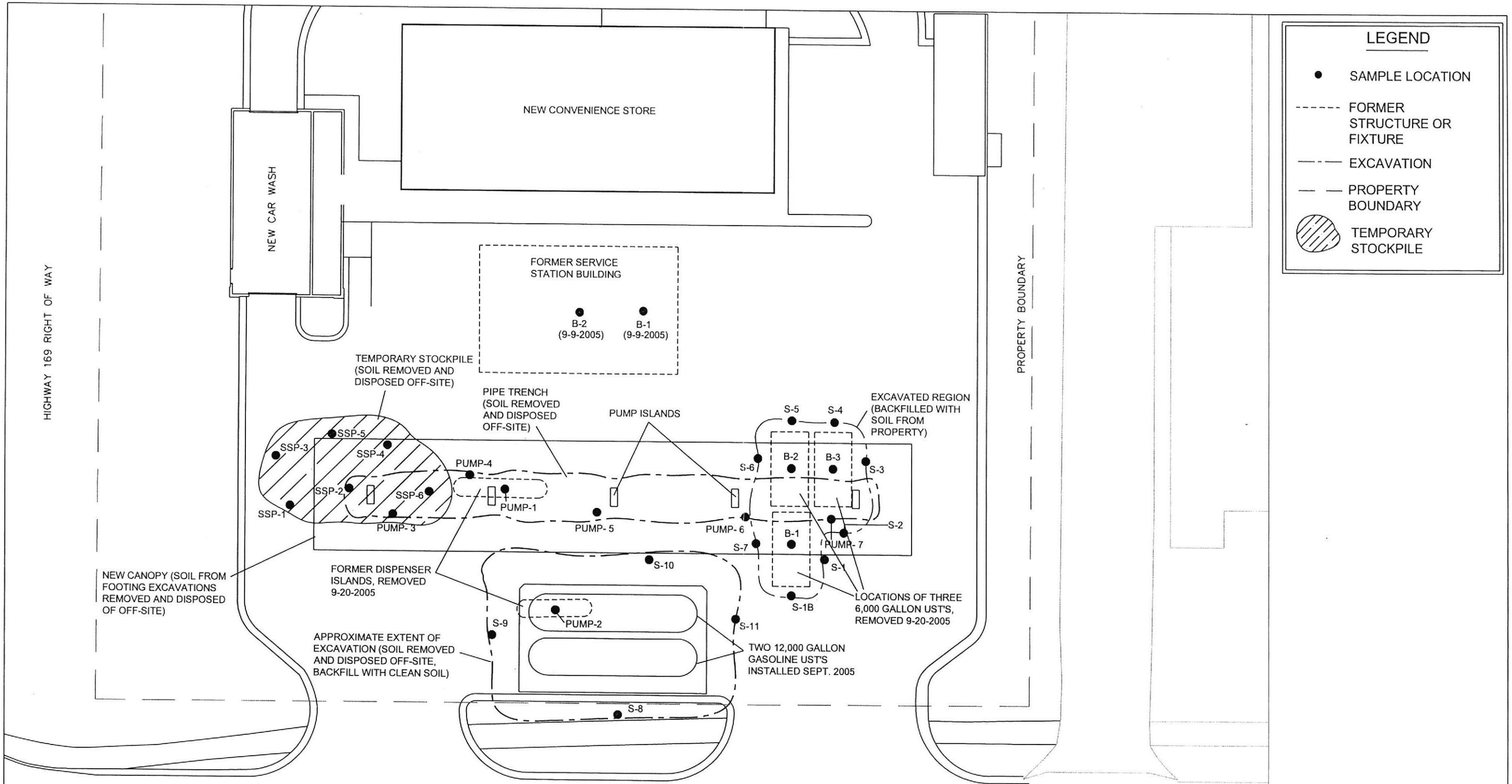
PROJECT #:15111.00

SITE LOCATION MAP

SINCLAIR OIL CORPORATION
9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

NOV. 2005

FIGURE
1



BASE MAP FROM SINCLAIR CAD MAPS DATED 4-7-04 AND PEER FIELD DATA

SCALE IN FEET
0 10 20

15111 All Sampling Locations.DWG

Peer Engineering

PROJECT #: 15111

SITE MAP

SINCLAIR
9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

NOV. 2005

FIGURE
2

APPENDIX A

GUIDANCE DOCUMENT 1-03a

SPATIAL DATA REPORTING FORM

Petroleum Remediation Program
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

Spatial Data Reporting Form

Guidance Document 1-03a
(For complete instructions, see Guidance Document 1-03.)

Part 1. Background

Has a site location data point been submitted for this site (circle/highlight)? YES or NO
If yes, you do not need to complete Part 2 of this form but should complete Part 3 if there are additional site features to report. This form can be submitted electronically if desired (e.g., as an e-mail attachment to the project manager).

MPCA Site ID: **LEAK 10868**
Site Name: **Sinclair Station**
Data Collection Date: **10-6-2005**
Name of Person Who Collected Data: **Jeremy Hanson**
Organization Name: **Peer Engineering, Inc**
Organization Type: **Consulting Firm**

Part 2. Site Location (use one of the three spatial data reporting formats provided)

Point Description: **Old Tank Basin**
Collection Method: **MPCA's "What's In My Neighborhood" Site**
Datum (circle/highlight): WGS84 **NAD83**
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): **468-557.93 E** UTM - Y (Northing): **4-983-879.61 N**
UTM Zone: **15E**

Point Description: **New Tank Basin**
Collection Method: **MPCA's "What's In My Neighborhood" Site**
Datum (circle/highlight): WGS84 **NAD83**
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): **468-538.78 E** UTM - Y (Northing): **4-983-868.58 N**
UTM Zone: **15E**

APPENDIX B

DISPOSAL SUMMARY

CONTRACT ACTIVITY REPORT
From: Oct 16, 2005 To: Oct 25, 2005
Specified Contract: 05049233A

Facility: All Facilities

DETAILED REPORT

Ticket Type: All Ticket Types

Ticket Date	Ticket Number	Customer	Material	Billing Quantity	Minimum Quantity	Maximum Quantity
05049233A						
18 Oct 05	185960-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.58 TN	0.00	0.00
18 Oct 05	186002-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.55 TN	0.00	0.00
18 Oct 05	186132-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.35 TN	0.00	0.00
19 Oct 05	186203-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.31 TN	0.00	0.00
19 Oct 05	186217-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.49 TN	0.00	0.00
19 Oct 05	186250-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	20.85 TN	0.00	0.00
19 Oct 05	186254-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	19.95 TN	0.00	0.00
19 Oct 05	186276-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.74 TN	0.00	0.00
19 Oct 05	186282-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.89 TN	0.00	0.00
19 Oct 05	186285-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	13.79 TN	0.00	0.00
19 Oct 05	186298-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.63 TN	0.00	0.00
19 Oct 05	186312-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	21.48 TN	0.00	0.00
19 Oct 05	186324-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.97 TN	0.00	0.00
19 Oct 05	186328-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	20.73 TN	0.00	0.00
19 Oct 05	186339-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	14.38 TN	0.00	0.00
19 Oct 05	186349-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.87 TN	0.00	0.00
19 Oct 05	186376-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.70 TN	0.00	0.00
19 Oct 05	186421-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	21.29 TN	0.00	0.00
19 Oct 05	186434-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	25.59 TN	0.00	0.00
19 Oct 05	186456-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	15.75 TN	0.00	0.00
19 Oct 05	186460-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.39 TN	0.00	0.00
19 Oct 05	186478-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	19.94 TN	0.00	0.00
19 Oct 05	186483-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.13 TN	0.00	0.00
20 Oct 05	186524-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.51 TN	0.00	0.00
20 Oct 05	186535-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	18.97 TN	0.00	0.00
20 Oct 05	186559-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	15.40 TN	0.00	0.00
20 Oct 05	186575-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.15 TN	0.00	0.00
20 Oct 05	186593-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	20.03 TN	0.00	0.00
20 Oct 05	186600-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	16.93 TN	0.00	0.00
20 Oct 05	186613-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.91 TN	0.00	0.00
20 Oct 05	186644-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	14.75 TN	0.00	0.00
20 Oct 05	186639-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.16 TN	0.00	0.00
20 Oct 05	186646-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.40 TN	0.00	0.00
20 Oct 05	186658-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.66 TN	0.00	0.00
20 Oct 05	186672-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	13.68 TN	0.00	0.00
20 Oct 05	186677-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.02 TN	0.00	0.00
20 Oct 05	186695-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	19.12 TN	0.00	0.00
20 Oct 05	186710-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.82 TN	0.00	0.00
20 Oct 05	186715-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	14.91 TN	0.00	0.00
21 Oct 05	186745-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	18.37 TN	0.00	0.00
21 Oct 05	186751-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	14.51 TN	0.00	0.00
21 Oct 05	186785-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.08 TN	0.00	0.00
21 Oct 05	186792-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.51 TN	0.00	0.00
21 Oct 05	186824-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.60 TN	0.00	0.00
21 Oct 05	186828-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	16.12 TN	0.00	0.00
21 Oct 05	186856-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.49 TN	0.00	0.00
21 Oct 05	186860-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.70 TN	0.00	0.00
21 Oct 05	186900-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	25.53 TN	0.00	0.00

CONTRACT ACTIVITY REPORT
From: Oct 16, 2005 To: Oct 25, 2005
Specified Contract: 05049233A

Facility: All Facilities

DETAILED REPORT

Ticket Type: All Ticket Types

Ticket Date	Ticket Number	Customer	Material	Billing Quantity	Minimum Quantity	Maximum Quantity

CONTRACT TOTALS :

Material Summary	Inbound Weight	Inbound Volume	Outbound Weight	Outbound Volume	Billing Quantity	Contract Ordered	Ordered Variance
C7 - C-Soil/33A,Pet-Ldd G	967.68 TN	0.00 YD	0.00 TN	0.00 YD	967.68 TN	0.00	967.68

APPENDIX C

FIELD PROCEDURES

Standard Operating Procedure 212
Organic Vapor Screening

Purpose

Use this procedure to obtain a fast, general measurement of volatile organic compounds in soil.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with potentially contaminated soil and to reduce the risk of cross-contamination.

- Refer to the site-specific Health and Safety Plan for other safety concerns and applicable personal protective equipment.

Required Equipment

- Photoionization detector (PID) equipped with a 10.6 or an 11.8 eV lamp (refer to the site-specific sampling and analysis plan or proposal for proper lamp size)

- PID calibration equipment

- One quart sealable bags, or soil jars, lids and aluminum foil

- Appropriate log forms or note pad for field notes

- Sharpie or permanent marker

Procedure

1. Select a PID equipped with the proper lamp size the afternoon before the field work is scheduled and charge the battery overnight by plugging in the adapter. As the PIDs have no battery gauge, failure to recharge the battery may leave you with a discharged battery and an unusable PID.

2. Calibrate the PID upon arrival at the site or prior to leaving the office. Record all pertinent information on the calibration record located in the case of each PID and record the calibration on the Field Report form.

3. With a gloved hand, fill a dedicated sealable bag or soil jar approximately half full with soil to be screened. Refer to the site-specific sampling and analysis plan or work plan for appropriate sample container. Manually break up the soil clumps within the bag. Seal the bag, or cover the opening of the soil jar with aluminum foil and screw on a lid. Use a marker to write the sample identifier and depth on the bag or jar lid.

4. Shake the sealed bag or soil jar for approximately 15 seconds, then allow the soil to volatilize for at least 10 minutes in an atmosphere of at least 70°F. On cold days it may be necessary place the bag or soil jar inside a heated room or vehicle.

5. After headspace development, shake the sample for another 15 seconds.

6. Complete organic vapor screening within approximately 20 minutes of sample collection. If using soil jars, remove the lid. Pierce the aluminum foil or plastic bag with the probe of the PID. Record the highest meter response within a time period of two to five seconds.

7. Discard the soil samples on-site and dispose of used bags, soil jars, foil, and lids as trash.

Standard Operating Procedure 215
Collecting Soil Samples for Laboratory Analysis

Purpose

Use this procedure to collect soil or other solid media samples for laboratory analysis. Proper sample collection technique will improve the accuracy of results and will help avoid cross contamination.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with potentially contaminated soil and to reduce the risk of cross-contamination.
- Refer to the site-specific Health and Safety Plan for other safety concerns and applicable personal protective equipment.

Required Equipment

- Laboratory sample containers
- Clean cooler(s)
- Temperature blank bottle
- Trip blank for VOC sampling (SOP 327)
- Ice or frozen cold-packs
- Electronic scale
- Permanent marker
- Sealable bags
- Plastic syringe with end cut off (EPA CRL/CLP samples only)
- Methanol Preservation Record form (EPA CRL/CLP volatile samples only)
- Laboratory chain-of-custody form

Procedure

1. Several days before field work is scheduled to begin, call or FAX the laboratory or other lab supply source to order sample containers. Be sure to order extra bottles to allow for breakage, extra samples, etc. If you are unsure of the required sample volumes or proper laboratory sample containers for specific analytical parameters, ask that a written description be included with the bottle order which clarifies sample requirements.

2. Before you leave for the field, be sure that you have the appropriate sample containers and that extra containers are included. Be sure you are aware of sample volume and container requirements.

3. Place ice or a frozen cold pack into each sample cooler before collecting any samples. Double-bag the ice in sealable gallon bags to avoid potential contact of water in the cooler with sample containers.

4. Place a temperature blank into each cooler and under the ice.

5. If some samples may be analyzed for GRO, BETX, or VOCs include a trip blank in each cooler as described in SOP 327.

6. Before taking a sample, put on a new pair of nitrile gloves.

7. Samples taken for volatile organic analysis are to be taken immediately after the soil is exposed (i.e., directly from the split spoon, excavation side wall, hand auger, etc.). Samples for DRO are to be collected second and samples for non-VOC or non-DRO analysis are taken last.

<u>Standard Sampling</u>

a. Prior to sample collection the scale must be verified to read a mass of greater than 50 grams within one gram of the expected result. Place a weight of known mass (calibration mass or pre-weighed bottle) on the scale and verify the reading. If the reading is within one gram of the expected result the scale is usable. Record the weight verification on the Field Log. If the reading is more than one gram from the expected weight the scale must be re-calibrated (see SOP 218 if applicable) or a scale that is verified to be correct must be used.

b. Samples collected for GRO, BTEX, or VOCs need to be placed into one pre-weighed glass container containing the preservative methanol and one plastic vial (if necessary). Place one empty glass container on the scale and zero the scale. Carefully add approximately 25 grams of soil to the jar. Sample containers with more than 35 grams of soil or less than 20 grams of soil may be rejected or flagged as outside testing parameters by the laboratory. In addition, if there is no non-volatile analysis, fill a plastic vial with soil to be used to by the lab to calculate the moisture content of the soil. The soil in the plastic vial need not be weighed.

c. Samples collected for DRO need to be placed in two pre-weighed glass containers with *no methanol* and one plastic vial (if necessary), using the procedure described in step b, above.

d. Samples for non-volatile analysis (i.e., metals, PCBs, pesticides, semi-VOCs, etc.) are to be thoroughly mixed prior to sampling. Place the sample in a resealable plastic bag and shake the bag for at least 10 seconds. Sample containers should be filled, but not packed, with soil from the bag.

EPA CLP/CRL Program Samples

a. Prior to sample collection the scale must be verified to read a mass of greater than 50 grams within one gram of the expected result. Place a weight of known mass (calibration mass or pre-weighed bottle) on the scale and verify the reading. If the reading is within one gram of the expected result the scale is usable. Record the weight verification on the Field Log. If the reading is more than one gram from the expected weight the scale must be re-calibrated (see SOP 218 if applicable) or a scale that is verified to be correct must be used.

b. Samples collected for GRO, BTEX, or VOCs need to have 10 grams of soil (weights between 9 and 12 grams are acceptable). They will be preserved with a laboratory-prepared vial containing 10 grams (10 ml) of methanol (MeOH).

i) Verify that the methanol vial still contains 10 grams of methanol. Place the pre-weighed vial containing methanol on the scale. If the weight of the methanol is not 10 grams, discard the methanol vial and use another.

ii) Tare an empty syringe on the field balance.

iii) Use the tarred syringe to collect a 10 gram sample of soil, as confirmed by weighing the filled syringe.

iv) Place an empty sample bottle on the field balance. Record the weight of the bottle on the Methanol Preservation Record.

v) Empty the vial of methanol into the sample bottle. Record the weight of the bottle and methanol on the Methanol Preservation Record.

vi) Extrude the soil from the syringe into the bottle. Record the weight of the bottle, methanol, and soil on the Methanol Preservation Record.

vii) In addition, if there is no non-volatile analysis, fill a plastic vial with soil to be used to by the lab to calculate the moisture content of the soil. The soil in the plastic vial need not be weighed.

c. Samples for non-volatile analysis (i.e., metals, PCBs, pesticides, semi-VOCs, etc.) are to be thoroughly mixed prior to sampling. Place the sample in a resealable plastic bag and shake the bag for at least 10 seconds. Sample containers should be filled by hand, but not packed, with soil from the bag.

7. Before placing the lid back on the sample container, clean the jar threads to assure a tight seal.

8. After collecting soil samples, use a permanent marker to label the sample containers with the project name, sample identifier including depth interval, time, date, and your initials.

9. Place the filled sample containers for each location in their own sealable bag. Larger, more fragile containers should be placed in bubble wrap to avoid breakage. Place the sample containers and bags into the cooler immediately. Cover all samples with ice.

10. When all samples are collected, complete the laboratory chain-of-custody form and arrange for shipment to the contract laboratory (as described by SOP 620 – Chain of Custody Procedures, SOP 630 – Sample Shipping – Peer or Local Carrier, and SOP 640 – Sample Shipping – Overnight Carrier).

Standard Operating Procedure 221
Soil Sampling - Hand Tools

Purpose

Use hand tools to collect soil samples near the ground surface for field screening and laboratory analysis.

Safety Equipment

Wear a dedicated pair of nitrile gloves at each sample location to reduce the risk of potential cross-contamination between samples and to reduce the incidence of skin contact with the soil.

Required Equipment

- Measuring tape
- Metal shovel, hand spade, or post hole digger
- Rock hammer or pick (optional)
- Alconox, clean water, brush, and two 5-gallon buckets
- Note pad for field notes

Procedure

1. Ensure all field equipment is clean before starting.
2. Determine the appropriate location and identification prior to sampling. Use a tape measure to determine the distance (within 1 foot) from site landmarks. Identify the sample location with the letter "H" (or other specified identifier) followed by a number unique to the site. Begin with number 1 and sequentially assign numbers for all sample locations at the site.
3. If necessary, use a rock hammer or pick to loosen hard soil at the sample location.
4. Insert a metal shovel, spade, or post hole digger to the appropriate sampling depth at the designated location to obtain a representative soil sample. Withdraw the tool and soil.
5. Use a gloved hand to transfer the soil from near the tip of the tool directly into a sample container as described in SOP 215 – Collecting Soil Samples for Laboratory Analysis.
6. Record the sample identifier, depth, and time of sample collection on the sample container. Examples of properly labeled samples are: H-1 (6") or H-2 (1-2'). Record pertinent information about the sample location and sample content in the field notes.

7. Decontaminate the shovel or spade between sample locations using a brush in a detergent and water wash, followed by a clean water rinse. Discard gloves and use new gloves for the next sample location.

Standard Operating Procedure 227
Soil Stockpile Sampling

Purpose

The purpose of a stockpile sample is to characterize the content of a potentially contaminated soil stockpile.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with contaminated soil and to reduce the risk of cross contamination.
- Consult the site-specific Health and Safety Plan for appropriate personal protective equipment.

Required Equipment

- Soil cup(s)
- One-gallon sealable bag or stainless steel bowl and aluminum foil
- Note pad for field notes
- Wood stake or wire flag and permanent marker
- Laboratory sample containers and clean cooler with ice

Procedure

1. Determine the appropriate sample identification prior to sampling. Label a wood stake or wire flag with the sample number and leave it in the pile; this will reduce potential confusion when it comes time to move the stockpile.
2. Determine the appropriate number of composite samples needed to adequately define the stockpile and the number of equal volume samples (i.e., aliquots) needed to make up each composite sample. This information as well as

information regarding required analysis should be written in the proposal or site-specific work plan.

3. Try to select sample locations in a random fashion to collect an unbiased, representative sample.

4. Scrape off the exposed surface or dig in a few inches to get a fresh surface to sample.

5. Use a soil cup to measure an equal volume of soil for each aliquot location. If volatile organic analyses are required be sure to get soil that has not been exposed to the air. Mark each sample location on a map and/or mark each location with a flag. If "surprising" analytical results are discovered this will aid in potential segregation of more contaminated parts of the pile.

6. If only inorganic analyses are to be completed, place all aliquots into a gallon-sized sealable bag. If semi-volatile or DRO analyses are required, place the aliquots in a clean stainless steel bowl lined with aluminum foil. After all aliquots have been placed into the bag or bowl, mix the soil. Proper and complete mixing is essential when taking a composite sample; it will ensure that all aliquots are represented equally in the final analysis.

7. Fill appropriately labeled laboratory sample containers with the composited soil using a gloved hand as described in SOP 215 – Collecting Soil Samples for Laboratory Analysis.

Standard Operating Procedure 610
Sample Preservation

Purpose

Sample preservation techniques are intended to prevent substantial alteration of the chemical species present in the sample at the moment it was collected.

Required Equipment

- Clean cooler with temperature blank bottle
- Ice or frozen cold packs
- Sample containers with media

Procedure

1. Immediately after media collection, all sample containers will be placed in a clean cooler under ice, to thermally preserve the samples. The cooler must also contain a temperature blank bottle, also kept under the ice.

2. The sample containers will be kept in an environment that is between 0° and 4° Celsius until the laboratory receives the samples. The sample custodian must ensure that some ice remains in the cooler and that excess water from melted ice is drained.

3. In addition, chemical preservatives may be added to individual samples depending on the analytical methods required. In general, the laboratory will supply pre-preserved sample containers for the project and only laboratory-grade preservatives will be used.

Standard Operating Procedure 620
Chain of Custody Procedures

Purpose

The purpose of following chain of custody procedures is to maintain the quality of all samples during collection, transportation, and storage prior to analysis. Chain of custody documentation serves three main purposes:

1. Communication of analytical instructions from Peer to the analytical laboratory.
2. Permanent record of samples provided to the laboratory.
3. Documentation that samples were handled only by authorized personnel and were not available for tampering prior to analysis.

Procedure

Field personnel will complete sample labels and chain of custody forms to be used for tracking samples.

Sample Container Labels

1. Each sample will be assigned a unique identification number that will be affixed to a label on the sample container.
2. Additional information such as sampling location, date and time of collection, and person who collected the sample will also be included on the sample labels.
3. Labeled sample containers, a temperature blank bottle, and ice will be included in each cooler to be shipped to the laboratory.

Chain of Custody Form(s)

If multiple coolers are required to contain all samples from one sampling location, a separate chain of custody form will be prepared for each cooler. At a minimum, the chain of custody form will include the following information:

- Client or project name, or unique identifier, if confidential
- Sample collector's name and signature
- Peer's mailing address and phone number
- Name of project manager or person who will receive data
- Analytical laboratory's name and city

- Description of each sample including
  - Unique identifier and matrix (solid, aqueous, etc.)
  - Date and time of collection
  - Type of analysis required
- Temperature blank listed as a sample
- Dated and timed signatures of persons involved in chain of possession
- Date and method of shipment

Completion of Field Personnel Responsibility

Record all pertinent information about the samples on the field sampling forms or in the field logbook. Upon completion of the chain of custody forms, field personnel will sign the chain of custody forms along with the date and time.

If the field personnel will transfer the custody of the samples to someone other than the laboratory, affix a custody tape to the cooler to prevent the lid from opening. Write the time, date, and initials on the custody tape.

Sample Custody

Each time the custody of a sample or group of samples is transferred, a signature, date, and time will be entered onto the chain of custody form. A sample will be considered to be in custody if it is in any one of the following states:

1. In actual physical possession
2. In view, after being in physical possession
3. In physical possession and locked up so that no one can tamper with it
4. In a secured area such as a locked storage shed or locked vehicle, restricted to authorized personnel

NOTE: While samples are in an individual's custody, they are to ensure that the cooler containing the samples has ice or a frozen cold pack.

Standard Operating Procedure 630
Sample Shipping – Peer or Local Carrier

Purpose

Proper packaging methods and shipment of samples by Peer or a local carrier will 1) minimize the potential for sample breakage, leakage, or cross contamination, and 2) provide a clear record of sample custody from collection to analysis.

Safety Equipment

Wear clean nitrile gloves when handling coolers or sample containers to reduce the incidence of skin contact with contaminants.

Required Equipment

- Coolers or similar shipping containers
- Ice or cold packs
- Temperature blank bottle
- Sample containers with media
- Sealable plastic bags
- Protective wrapping and packaging materials
- Paper towels
- Chain of custody forms

Procedure

1. Verify that each sample container has been labeled with unique sample identification. The sample identification should also correspond to the chain of custody record that will accompany the sample to the laboratory (see SOP 620 Chain-of-Custody Procedures).

2. Ensure that a temperature blank bottle is in each cooler and included on the chain of custody form.

3. Any dirt on the outside of sample containers should be wiped clean with a paper towel.

4. Optionally, place sample containers inside of sealable plastic bags to reduce the potential for cross contamination or breakage during sample transport. If necessary, protective material should be placed between sample containers to prevent breakage during transport.

5. Reusable cold packs or ice placed in sealable plastic bags should be distributed over the top of the samples. Frozen cold packs or ice must remain in the cooler until the samples reach the laboratory.

6. Place the chain of custody record on top of or inside the cooler.

7. The filled cooler and completed chain of custody form must be delivered to the laboratory before the close of the next business day after sample collection (never longer than 72 hours). One of the following methods will be used:

   a. The sampling technician will personally deliver the samples to the laboratory.

   b. The sampling technician will bring the samples to the Peer office for later pickup by laboratory representative or bonded courier. The technician may either contact the laboratory directly to arrange pickup or transfer custody of the samples to the Peer receptionist. If custody is transferred to the receptionist, the receptionist will contact the laboratory and maintain responsibility for the sample custody, sample condition, and timely pickup.

APPENDIX D

LABORATORY REPORTS

BRAUN
INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
4801 West 81st Street Suite 118
Bloomington, MN 55437

September 23, 2005

Work Order #: 0504468

RE: 15111 Sinclair New Hope

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 09/09/05 16:45. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

William R. Dahl For Thomas P. Wagner
Project Manager

Providing engineering and environmental solutions since 1957

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

BRAUN INTERTEC

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Peer Engineering, Inc.	Client Ref: 15111 Sinclair New Hope	Work Order #: 0504468
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: William R. Dahl For T
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: William R. Dahl For T
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Qualifiers and Abbreviations

ho	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the diesel range chromatogram
hj	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the gasoline range chromatogram
B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1 (7')	0504468-01	Soil	09/08/05 14:20	09/09/05 16:45
B-2 (7')	0504468-02	Soil	09/08/05 14:25	09/09/05 16:45

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Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	4.2 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	Yes	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	Yes	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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B-1 (7')

0504468-01 (Soil)

9/8/05 14:20

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94**		% Wt	1	B5I0328	9/20/05	9/21/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.029	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Ethylbenzene	< 0.029	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
m,p-Xylene	**0.034**	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	B
o-Xylene	**0.037**	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Toluene	**0.033**	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Surrogate: 4-FCB	*98.1 %*	*Limits: 80-200%*			*B5I0322*	*9/15/05*	*9/20/05*	*WI GRO (95)*	
Diesel Range Organics (DRO)	**18**	9.9	mg/kg dry	1	B5I0228	9/14/05	9/14/05	WI DRO (95)	ho
Gasoline Range Organics (GRO)	< 12	12	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	

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B-2 (7')

0504468-02 (Soil)

9/8/05 14:25

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**92**		% Wt	1	B5I0328	9/20/05	9/21/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.028	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Ethylbenzene	< 0.028	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
m,p-Xylene	**0.033**	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	B
o-Xylene	< 0.028	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Toluene	**0.032**	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Surrogate: 4-FCB	*102 %*	*Limits: 80-200%*			*B5I0322*	*9/15/05*	*9/20/05*	*WI GRO (95)*	
Diesel Range Organics (DRO)	**88**	8.7	mg/kg dry	1	B5I0228	9/14/05	9/14/05	WI DRO (95)	ho
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	hj

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Classical Chemistry Parameters - Quality Control

Batch B5I0328 - % Solids

Method Blank (B5I0328-BLK1) Prepared: 09/20/05 Analyzed: 09/21/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B5I0328-SRM1) Prepared: 09/20/05 Analyzed: 09/21/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	83.6		% Wt	88.8	NA	94.1	90-110	NA	NA	

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Total Petroleum Hydrocarbons - Quality Control

Batch B5I0228 - WI DRO (95)

Method Blank (B5I0228-BLK1) — Prepared & Analyzed: 09/14/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B5I0228-BS1) — Prepared & Analyzed: 09/14/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	29.4	10	mg/kg	32.0	NA	91.9	70-120	NA	NA	

Laboratory Control Sample Duplicate (B5I0228-BSD1) — Prepared: 09/14/05 Analyzed: 09/15/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	28.9	10	mg/kg	32.0	NA	90.3	70-120	1.72	20	

Batch B5I0322 - WI GRO (95)

Method Blank (B5I0322-BLK1) — Prepared: 09/15/05 Analyzed: 09/19/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	< 0.025	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.025	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylene	0.0328	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.025	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.025	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 4-FCB	*16.0*		*ng/mL*	*16.0*	*NA*	*100*	*80-200*			
Gasoline Range Organics (GRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B5I0322-BS1) — Prepared: 09/15/05 Analyzed: 09/19/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.52	0.025	mg/kg	1.60	NA	95.0	80-120	NA	NA	
Ethylbenzene	1.60	0.025	mg/kg	1.60	NA	100	80-120	NA	NA	
m,p-Xylene	3.13	0.025	mg/kg	3.20	NA	97.8	80-120	NA	NA	
o-Xylene	1.57	0.025	mg/kg	1.60	NA	98.1	80-120	NA	NA	
Toluene	1.58	0.025	mg/kg	1.60	NA	98.8	80-120	NA	NA	
Surrogate: 4-FCB	*17.1*		*ng/mL*	*16.0*	*NA*	*107*	*80-200*			
Gasoline Range Organics (GRO)	16.8	10	mg/kg	16.0	NA	105	80-120	NA	NA	

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952-995-2020 Fax

Peer Engineering, Inc.	Client Ref: 15111 Sinclair New Hope	Work Order #: 0504468
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: William R. Dahl For T
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Total Petroleum Hydrocarbons - Quality Control

Batch B5I0322 - WI GRO (95)

Laboratory Control Sample Duplicate (B5I0322-BSD1) Prepared: 09/15/05 Analyzed: 09/20/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.49	0.025	mg/kg	1.60	NA	93.1	80-120	1.99	20	
Ethylbenzene	1.58	0.025	mg/kg	1.60	NA	98.8	80-120	1.26	20	
m,p-Xylene	3.09	0.025	mg/kg	3.20	NA	96.6	80-120	1.29	20	
o-Xylene	1.55	0.025	mg/kg	1.60	NA	96.9	80-120	1.28	20	
Toluene	1.56	0.025	mg/kg	1.60	NA	97.5	80-120	1.27	20	
Surrogate: 4-FCB	*15.4*		*ng/mL*	*16.0*	*NA*	*96.2*	*80-200*			
Gasoline Range Organics (GRO)	16.5	10	mg/kg	16.0	NA	103	80-120	1.80	20	

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Peer Engineering, Inc. 4801 West 81st Street Suite 118 Bloomington MN, 55437	Client Ref: 15111 Sinclair New Hope Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0504468 Project Mgr: William R. Dahl For T Account ID: CVXX-95-117

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

Bottle orders and sampling inquires:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT
Date Results Requested: ______
Time ______
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote # ______

Page ___ of ___

For Braun Intertec Use Only
Braun Intertec Project No.

REPORT RESULTS TO

Contact Name: Bruce Schaepe	Project ID/Project Name: 1511 Sinclair New Hope
Company: Peer	P.O. #
Mailing Address: 4801 W 81st St	
City, State, Zip: Bloomington, MN	
Telephone #: 831-3341	Fax #: 831-4550
E-mail	

SEND INVOICE TO

Contact Name	Company
Address	
City, State, Zip	
Telephone #	Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	GRO/BETX	DRO	FOR LAB USE ONLY
1	B-1 (7')	9/9/05	1420	S		4		X	X	0504468.01
2	B-2 (7')	9/9/05	1425	S		4		X	X	.02
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

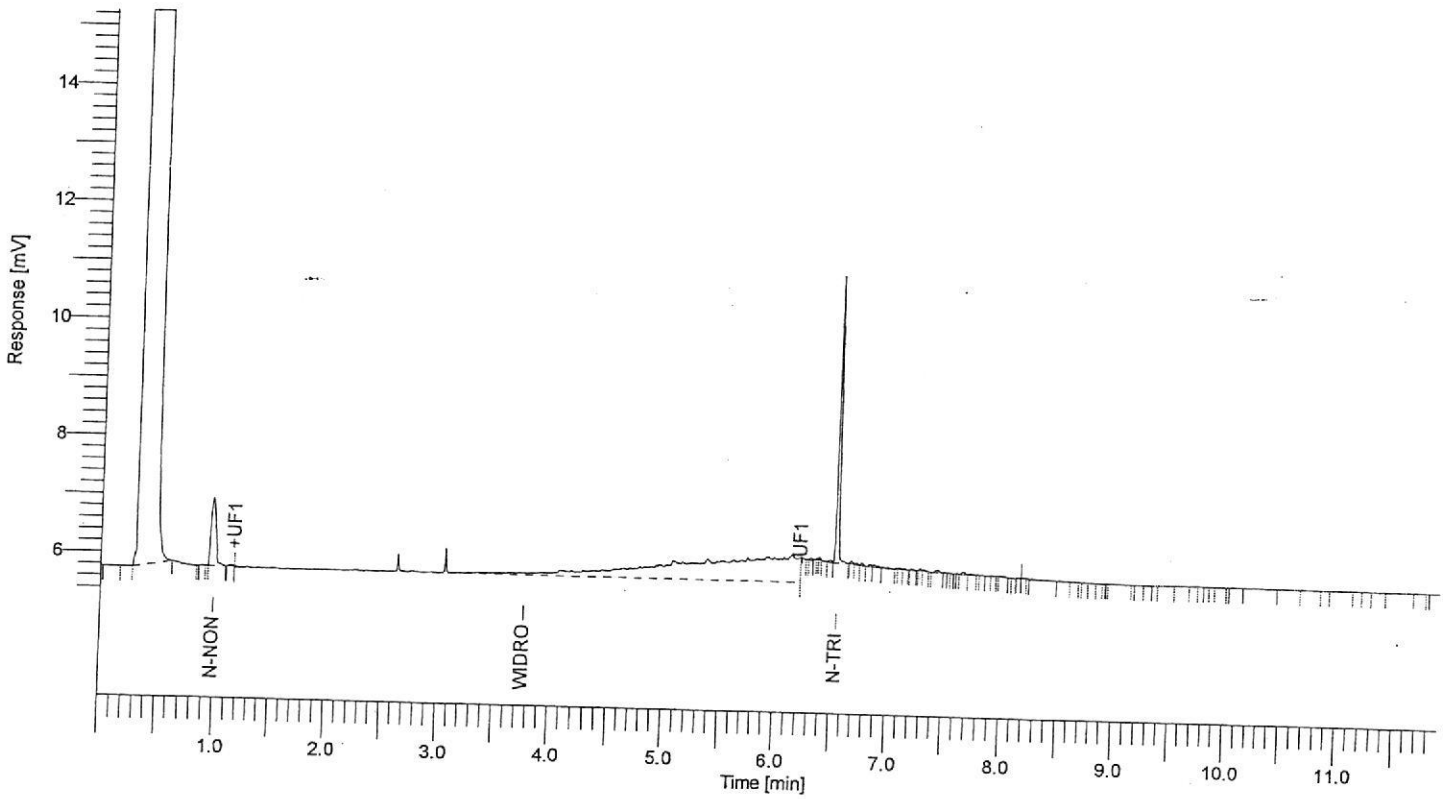
CHAIN OF CUSTODY

Collected by: (Print) Bruce Schaepe		Collector's Signature: [signature]
Relinquished by: [signature]	Date/Time 9/9/05 1515	Received by: [signature] Date/Time 9-9 3:55
Relinquished by:	Date/Time	Received Contents Not Verified: Date/Time
Custody Seal Intact ☐ Yes ☐ No ☐ N/A		Received Contents Verified: [signature] Date/Time 9/09/05 16:45
On Ice ☐ Yes ☐ No		
Temp Blank ☐ Yes ☐ No		Comments: 4.2°
Temp: ____ °C		

Form # CS02.01 F:\Groups\QA-QC\Forms\clientservices\COC-CS02 Effective Date: 2/09/05

Software Version	: 6.3.0.0445	Date	: 9/15/2005 7:24:06 PM
Reprocess Number	: i83571: 2699		
Operator	: TCuser	Sample Name	: 0504468-01
Sample Number	: 073	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: DRO	Channel	: A
Interface Serial #	: NONE	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 11.89 min
Sampling Rate	: 3.1250 pts/s		
Sample Volume	: 1.000000 uL	Area Reject	: 0.000000
Sample Amount	: 26.8200	Dilution Factor	: 1.00
Data Acquisition Time	: 9/14/2005 9:19:06 PM	Cycle	: 4

Raw Data File : \\Mpls-corp01\labdata-prep\P4\Data\5249\kjfa114.raw <Modified>
Result File : \\mpls-corp01\labdata-prep\p4\data\5249\kjfa114.rst
Inst Method : \\mpls-corp01\labdata-prep\p4\method\5241dro from \\Mpls-corp01\labdata-prep\P4\Data\5249\kjfa114.raw
Proc Method : \\mpls-corp01\labdata-prep\p4\method\5241dro.mth from \\mpls-corp01\labdata-prep\p4\data\5249\kjfa114.rst
Calib Method : \\mpls-corp01\labdata-prep\p4\method\5241dro.mth from \\mpls-corp01\labdata-prep\p4\data\5249\kjfa114.rst
Report Format File: \\mpls-corp01\labdata-prep\p4\drorpt.rpt
Sequence File : \\Mpls-corp01\labdata-prep\P4\Data\5249\5249.seq
Sample Notes:
Analysis for Diesel range organics with FID detector.



Diesel Range Organic Report

KF
9/15/05

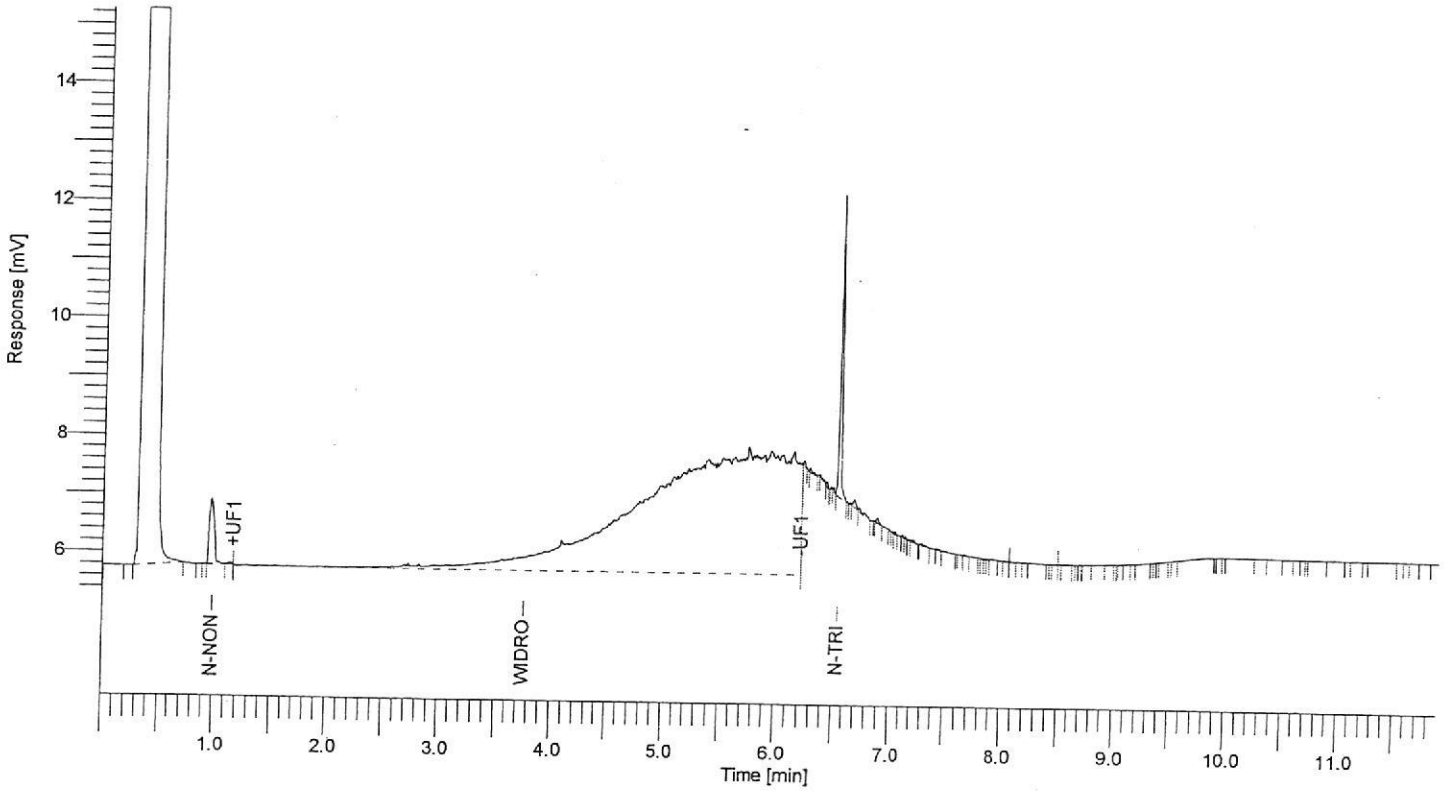
Peak #	Component Name	Concentration mg/kg or ug/L	Raw Amount (ug/mL)	Time [min]	Area [µV·s]	Cal. Range	DRO % Rec.	Surrogate % Rec.	Footnotes
5	n-Non	1.87	50.18	0.98	3521.92		6.27	50.18	
7	WIDRO	16.57	444.52	6.14	35320.23		55.57	444.52	
14	n-tri	3.14	84.28	6.54	6149.44		10.53	84.28	
					44991.59				

ho

Report stored in ASCII file: \\mpls-corp01\labdata-prep\p4\data\5249\kjfa114.TX0

Software Version	: 6.3.0.0445	Date	: 9/15/2005 7:24:08 PM
Reprocess Number	: i83571: 2700		
Operator	: TCuser		
Sample Number	: 074	Sample Name	: 0504468-02
AutoSampler	: NONE	Study	:
Instrument Name	: DRO	Rack/Vial	: 0/0
Interface Serial #	: NONE	Channel	: A
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 11.89 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 31.1700	Area Reject	: 0.000000
Data Acquisition Time	: 9/14/2005 9:37:18 PM	Dilution Factor	: 1.00
		Cycle	: 5

Raw Data File : \\Mpls-corp01\labdata-prep\P4\Data\5249\kjfa115.raw <Modified>
Result File : \\mpls-corp01\labdata-prep\p4\data\5249\kjfa115.rst
Inst Method : \\mpls-corp01\labdata-prep\p4\method\5241dro from \\Mpls-corp01\labdata-prep\P4\Data\5249\kjfa115.raw
Proc Method : \\mpls-corp01\labdata-prep\p4\method\5241dro.mth from \\mpls-corp01\labdata-prep\p4\data\5249\kjfa115.rst
Calib Method : \\mpls-corp01\labdata-prep\p4\method\5241dro.mth from \\mpls-corp01\labdata-prep\p4\data\5249\kjfa115.rst
Report Format File: \\mpls-corp01\labdata-prep\p4\drorpt.rpt
Sequence File : \\Mpls-corp01\labdata-prep\P4\Data\5249\5249.seq
Sample Notes:
Analysis for Diesel range organics with FID detector.



Diesel Range Organic Report

Peak #	Component Name	Concentration mg/kg or ug/L	Raw Amount (ug/mL)	Time [min]	Area [µV·s]	Cal. Range	DRO % Rec.	Surrogate % Rec.	Footnotes
5	n-Non	1.57	49.03	0.98	3442.88		6.13	49.03	
7	WIDRO	80.77	2517.69	5.75	198497.14		314.71	2517.69	
14	n-tri	2.77	86.47	6.55	6312.00		10.81	86.47	
					208252.02				

Report stored in ASCII file: \\mpls-corp01\labdata-prep\p4\data\5249\kjfa115.TX0

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Braun Intertec Corporation
11001 Hampshire Avenue S
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Web: braunintertec.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
4801 West 81st Street Suite 118
Bloomington, MN 55437

October 05, 2005

Work Order #: 0504715

RE: 15111

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 09/20/05 16:40. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Thomas P. Wagner

Thomas P. Wagner
Project Manager

Providing engineering and environmental solutions since 1957

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0504715
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0504715
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Qualifiers and Abbreviations

hj	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the gasoline range chromatogram
hij	The sample chromatogram indicates the presence of lower and higher boiling hydrocarbons than expected in the gasoline range chromatogram.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID:CVXX-95-117

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1 (13-13.5)	0504715-01	Soil	09/20/05 11:20	09/20/05 16:40
B-2 (13-13.5)	0504715-02	Soil	09/20/05 11:22	09/20/05 16:40
B-3 (13-13.5)	0504715-03	Soil	09/20/05 11:24	09/20/05 16:40
Pump 1 (1-1.5)	0504715-04	Soil	09/20/05 12:00	09/20/05 16:40
Pump 2 (1-1.5)	0504715-05	Soil	09/20/05 12:05	09/20/05 16:40
Trip Blank	0504715-06	Soil	09/20/05 00:00	09/20/05 16:40

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	1.6 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	Yes	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	Yes	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

B-1 (13-13.5)

0504715-01 (Soil)

9/20/05 11:20

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**89**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**4.9**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Ethylbenzene	**22**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
m,p-Xylene	**130**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
o-Xylene	**52**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Toluene	**39**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Surrogate: 4-FCB	*98.1 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/27/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**1300**	110	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	hij

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID:CVXX-95-117

B-2 (13-13.5)

0504715-02 (Soil)

9/20/05 11:22

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**91**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**4.2**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Ethylbenzene	**12**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
m,p-Xylene	**190**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
o-Xylene	**91**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Toluene	**15**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Surrogate: 4-FCB	*126 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/23/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**4500**	220	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	hij

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0504715
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

B-3 (13-13.5)

0504715-03 (Soil)

9/20/05 11:24

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**3.1**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Ethylbenzene	**16**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
m,p-Xylene	**100**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
o-Xylene	**49**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Toluene	**22**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Surrogate: 4-FCB	*129 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/23/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**1200**	110	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	hij

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump 1 (1-1.5)

0504715-04 (Soil)

9/20/05 12:00

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**88**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.057	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Ethylbenzene	**0.61**	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
m,p-Xylene	**2.0**	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
o-Xylene	**1.2**	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Toluene	**0.27**	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Surrogate: 4-FCB	*137 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/22/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**170**	11	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	hj

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Bloomington, MN 55438
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952-995-2020 Fax

Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0504715
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump 2 (1-1.5)

0504715-05 (Soil)

9/20/05 12:05

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**83**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**28**	1.2	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Ethylbenzene	**96**	1.2	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	
m,p-Xylene	**440**	3.0	mg/kg dry	50	B5I0382	9/21/05	9/28/05	WI GRO (95)	
o-Xylene	**240**	1.2	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Toluene	**170**	1.2	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Surrogate: 4-FCB	*121 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/27/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**7300**	600	mg/kg dry	50	B5I0382	9/21/05	9/28/05	WI GRO (95)	hj

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0504715
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID:CVXX-95-117

Trip Blank

0504715-06 (Soil)

9/20/05 0:00

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Ethylbenzene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
m,p-Xylene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
o-Xylene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Toluene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Surrogate: 4-FCB	*118 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/22/05*	*WI GRO (95)*	

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Classical Chemistry Parameters - Quality Control

Batch B5I0552 - % Solids

Method Blank (B5I0552-BLK1) Prepared: 09/29/05 Analyzed: 09/30/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B5I0552-SRM1) Prepared: 09/29/05 Analyzed: 09/30/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	83.8		% Wt	88.8	NA	94.4	90-110	NA	NA	

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Total Petroleum Hydrocarbons - Quality Control

Batch B5I0382 - WI GRO (95)

Method Blank (B5I0382-BLK1) Prepared: 09/21/05 Analyzed: 09/22/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 4-FCB	*18.0*		*ng/mL*	*16.0*	*NA*	*112*	*80-200*			
Gasoline Range Organics (GRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B5I0382-BS1) Prepared: 09/21/05 Analyzed: 09/22/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.65	0.050	mg/kg	1.60	NA	103	80-120	NA	NA	
Ethylbenzene	1.78	0.050	mg/kg	1.60	NA	111	80-120	NA	NA	
m,p-Xylene	3.50	0.050	mg/kg	3.20	NA	109	80-120	NA	NA	
o-Xylene	1.73	0.050	mg/kg	1.60	NA	108	80-120	NA	NA	
Toluene	1.73	0.050	mg/kg	1.60	NA	108	80-120	NA	NA	
Surrogate: 4-FCB	*18.3*		*ng/mL*	*16.0*	*NA*	*114*	*80-200*			
Gasoline Range Organics (GRO)	18.2	10	mg/kg	16.0	NA	114	80-120	NA	NA	

Laboratory Control Sample Duplicate (B5I0382-BSD1) Prepared: 09/21/05 Analyzed: 09/23/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.56	0.050	mg/kg	1.60	NA	97.5	80-120	5.61	20	
Ethylbenzene	1.68	0.050	mg/kg	1.60	NA	105	80-120	5.78	20	
m,p-Xylene	3.30	0.050	mg/kg	3.20	NA	103	80-120	5.88	20	
o-Xylene	1.64	0.050	mg/kg	1.60	NA	102	80-120	5.34	20	
Toluene	1.64	0.050	mg/kg	1.60	NA	102	80-120	5.34	20	
Surrogate: 4-FCB	*12.8*		*ng/mL*	*16.0*	*NA*	*80.0*	*80-200*			
Gasoline Range Organics (GRO)	17.8	10	mg/kg	16.0	NA	111	80-120	2.22	20	

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Peer Engineering, Inc. 4801 West 81st Street Suite 118 Bloomington MN, 55437	Client Ref: 15111 Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0504715 Project Mgr: Thomas P. Wagner Account ID: CVXX-95-117

For Braun Intertec Use Only
Braun Intertec Project No.
0504715

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquiries:
labservices@braunintertec.com
Phone: 952-995-2000 Fax: 952-995-2001

IMPORTANT
Date Results Requested: _____
Time _____
Rush Charges Authorized? ____ Yes ____ No
Rush / Quote # _____

Page 1 of 1

REPORT RESULTS TO
Contact Name: Bruce Schaepe
Company: Peer
Mailing Address: 4801 West 81st St Suite 118
City, State, Zip: Bloomington, Mn. 55437
Telephone #: 952-831-3341 Fax #: 952-831-4552
E-mail:

Project ID/Project Name: 15111
P.O. #:

SEND INVOICE TO
Contact Name: Company:
Address: SAME
City, State, Zip:
Telephone #: Fax #:

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petroleum, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	BETX	GRO	FOR LAB USE ONLY
1	B-1 (13-13.5)	9-20-05	11:20	Soil		3		X	X	0504715-01
2	B-2 (13-13.5)	9-20-05	11:22	Soil		3		X	X	-02
3	B-3 (13-13.5)	9-20-05	11:24	Soil		3		X	X	-03
4	Pump 1 (1-1.5)	9-20-05	12:00	Soil		3		X	X	-04
5	Pump 2 (1-1.5)	9-20-05	12:05	Soil		3		X	X	-05
6	Temp Blank	9-20-05				1				
7	Trip Blank	9-20-05				1		X		-06
8										
9										
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY
Collected by: (Print) Jeremy Hansen
Relinquished by: Jeremy Hansen Date/Time 9/20/05 15:30
Relinquished by: Date/Time

Collector's Signature:
Received by: Date/Time 9-20 3:35
Received Contents Not Verified: Date/Time
Received Contents Verified: Date/Time 9/20/05 16:40

Custody Seal Intact: X Yes ☐ No ☐ N/A
On Ice: X Yes ☐ No
Temp Blank: X Yes ☐ No
Temp: 1.6 °C

Comments:
1.6°

Form # CS02.01 F:\Groups\DATA\Cp\Forms\templates\COC-CS02 Effective Date 7/22/05

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
4801 West 81st Street Suite 118
Bloomington, MN 55437

October 12, 2005

Work Order #: 0505133

RE: 15111.00

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 10/10/05 11:55. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Thomas P. Wagner

Thomas P. Wagner
Associate Principal

Providing engineering and environmental solutions since 1957

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

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Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc.	Client Ref: 15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Peer Engineering, Inc.	Client Ref:	15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Qualifiers and Abbreviations

COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr:	Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID:	CVXX-95-117

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SSP-3	0505133-01	Soil	10/10/05 11:05	10/10/05 11:55
SSP-4	0505133-02	Soil	10/10/05 11:15	10/10/05 11:55
Trip Blank	0505133-03	Soil	10/10/05 00:00	10/10/05 11:55

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	3.5 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

SSP-3

0505133-01 (Soil)

10/10/05 11:05

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86**		% Wt	1	B5J0168	10/10/05	10/11/05	ASTM D2216	

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	**6.9**	1.0	mg/kg dry	1	B5J0186	10/11/05	10/11/05	EPA 6010B	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**1.1**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Ethylbenzene	**7.0**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
m,p-Xylene	**26**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
o-Xylene	**12**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Toluene	**4.9**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Surrogate: 4-FCB	*111 %*	*Limits: 80-200%*			*B5J0183*	*10/10/05*	*10/11/05*	*WI GRO (95)*	

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

SSP-4

0505133-02 (Soil)

10/10/05 11:15

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**84**		% Wt	1	B5J0168	10/10/05	10/11/05	ASTM D2216	

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	**4.5**	1.1	mg/kg dry	1	B5J0186	10/11/05	10/11/05	EPA 6010B	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**0.46**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Ethylbenzene	**2.6**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
m,p-Xylene	**9.0**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
o-Xylene	**3.4**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Toluene	**1.8**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Surrogate: 4-FCB	*93.1 %*	*Limits: 80-200%*			*B5J0183*	*10/10/05*	*10/11/05*	*WI GRO (95)*	

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4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr:	Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID:	CVXX-95-117

Trip Blank

0505133-03 (Soil)

10/10/05 0:00

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
Ethylbenzene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
m,p-Xylene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
o-Xylene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
Toluene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
Surrogate: 4-FCB	*97.5 %*	*Limits: 80-200%*			*B5J0183*	*10/10/05*	*10/10/05*	*WI GRO (95)*	

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4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Classical Chemistry Parameters - Quality Control

Batch B5J0168 - % Solids

Method Blank (B5J0168-BLK1) Prepared: 10/10/05 Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B5J0168-SRM1) Prepared: 10/10/05 Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	83.6		% Wt	88.8	NA	94.1	90-110	NA	NA	

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Peer Engineering, Inc.	Client Ref: 15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Metals - Quality Control

Batch B5J0186 - EPA 3050B

Method Blank (B5J0186-BLK1) Prepared & Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B5J0186-BS1) Prepared & Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	202	1.0	mg/kg	200	NA	101	80-120	NA	NA	

Laboratory Control Sample Duplicate (B5J0186-BSD1) Prepared & Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	201	1.0	mg/kg	200	NA	100	80-120	0.496	20	

Standard Reference Material (B5J0186-SRM1) Prepared & Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	69.5	2.4	mg/kg	84.2	NA	82.5	67.3-118	NA	NA	

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Total Petroleum Hydrocarbons - Quality Control

Batch B5J0183 - WI GRO (95)

Method Blank (B5J0183-BLK1) Prepared & Analyzed: 10/10/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 4-FCB	*15.4*		*ng/mL*	*16.0*	*NA*	*96.2*	*80-200*			

Laboratory Control Sample (B5J0183-BS1) Prepared & Analyzed: 10/10/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.44	0.050	mg/kg	1.60	NA	90.0	80-120	NA	NA	
Ethylbenzene	1.67	0.050	mg/kg	1.60	NA	104	80-120	NA	NA	
m,p-Xylene	3.28	0.050	mg/kg	3.20	NA	102	80-120	NA	NA	
o-Xylene	1.63	0.050	mg/kg	1.60	NA	102	80-120	NA	NA	
Toluene	1.59	0.050	mg/kg	1.60	NA	99.4	80-120	NA	NA	
Surrogate: 4-FCB	*15.4*		*ng/mL*	*16.0*	*NA*	*96.2*	*80-200*			

Laboratory Control Sample Duplicate (B5J0183-BSD1) Prepared: 10/10/05 Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.47	0.050	mg/kg	1.60	NA	91.9	80-120	2.06	20	
Ethylbenzene	1.70	0.050	mg/kg	1.60	NA	106	80-120	1.78	20	
m,p-Xylene	3.34	0.050	mg/kg	3.20	NA	104	80-120	1.81	20	
o-Xylene	1.67	0.050	mg/kg	1.60	NA	104	80-120	2.42	20	
Toluene	1.63	0.050	mg/kg	1.60	NA	102	80-120	2.48	20	
Surrogate: 4-FCB	*13.5*		*ng/mL*	*16.0*	*NA*	*84.4*	*80-200*			

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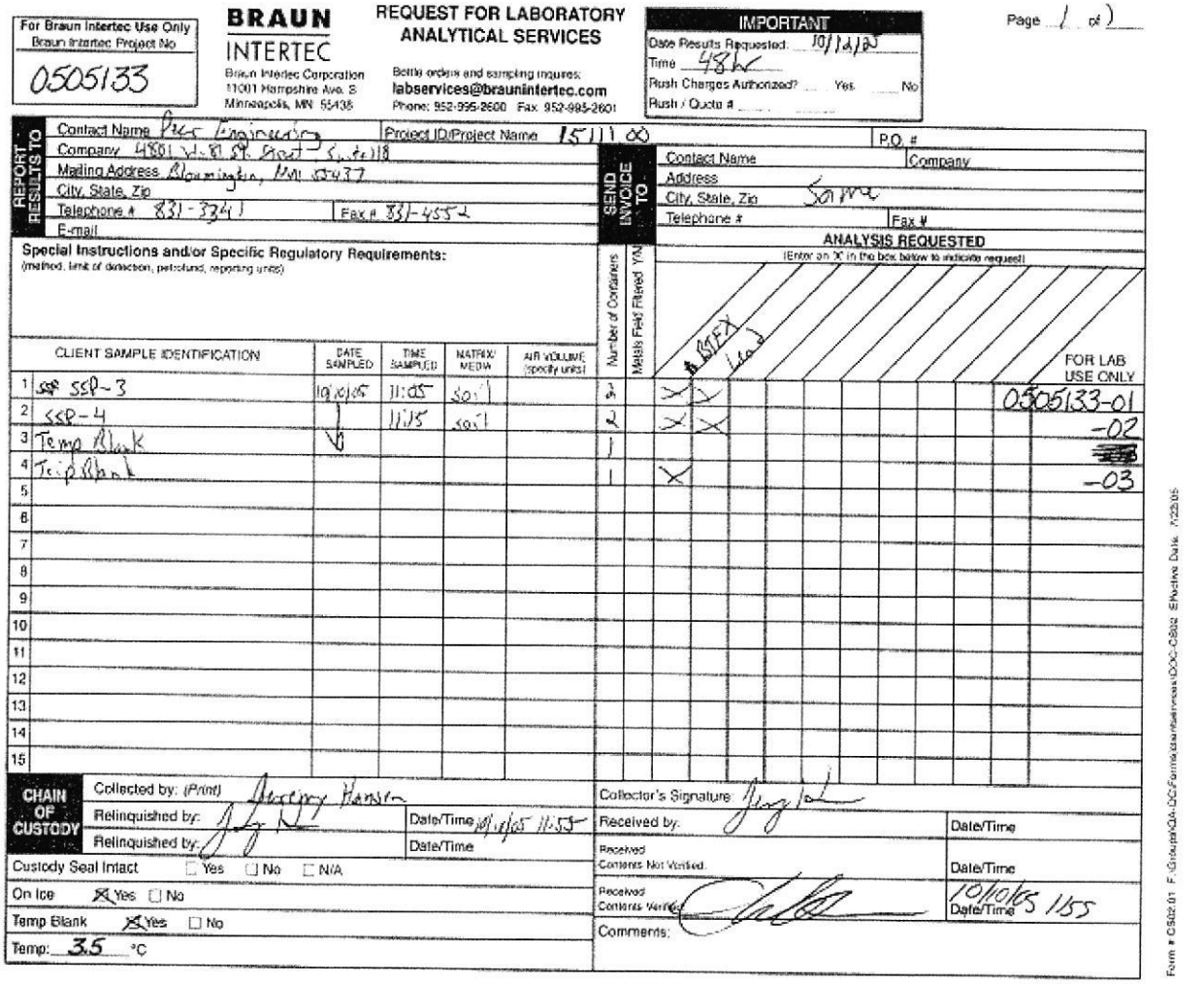
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117



For Braun Intertec Use Only
Braun Intertec Project No: 0505133

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S.
Minneapolis, MN 55438

Bottle orders and sampling inquiries:
labservices@brauntintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT
Date Results Requested: 10/12/05
Time: 48hr
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote #: ___

Page 1 of 1

REPORT RESULTS TO
Contact Name: Peer Engineering
Company: 4801 W. 81st St. Court S. Ste 118
Mailing Address: Bloomington, MN 55437
City, State, Zip:
Telephone #: 831-3341 Fax #: 831-4552
E-mail:

Project ID/Project Name: 15111.00
P.O. #:

SEND INVOICE TO
Contact Name: ___ Company: ___
Address: ___
City, State, Zip: Same
Telephone #: ___ Fax #: ___

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	BTEX	Lead	FOR LAB USE ONLY
1	SSP SSP-3	10/6/05	11:05	soil		3		X	X	0505133-01
2	SSP-4	"	11:15	soil		2		X	X	-02
3	Temp Blank	"				1				[redacted]
4	Trip Blank					1		X		-03
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY
Collected by: (Print) Jeremy Hansen — Collector's Signature: [signature]
Relinquished by: [signature] — Date/Time: 10/6/05 11:55
Relinquished by: ___ — Date/Time: ___
Received by: [signature] — Date/Time: ___
Received Contents Not Verified: ___ — Date/Time: ___
Received Contents Verified: [signature] — Date/Time: 10/10/05 1155

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
On Ice: ☒ Yes ☐ No
Temp Blank: ☒ Yes ☐ No
Temp: 3.5 °C
Comments:

Form # CS02.01 F:\Groups\QA-QC\Forms\client\work\QQC-CS02 Effective Date: 7/25/05

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INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: brauninterteccom

Mr. Bruce Schaepe
Peer Engineering, Inc.
4801 West 81st Street Suite 118
Bloomington, MN 55437

November 02, 2005

Work Order #: 0505439

RE: 15111

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 10/21/05 16:36. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Thomas P. Wagner

Thomas P. Wagner
Associate Principal

Providing engineering and environmental solutions since 1957

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Qualifiers and Abbreviations

hj	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the gasoline range chromatogram
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-8 (2.5-3)	0505439-01	Soil	10/20/05 15:10	10/21/05 16:36
S-9 (1.5-2)	0505439-02	Soil	10/20/05 15:12	10/21/05 16:36
S-10 (3.5-4)	0505439-03	Soil	10/20/05 15:14	10/21/05 16:36
S-11 (1-1.5)	0505439-04	Soil	10/20/05 15:16	10/21/05 16:36
Pump - 3	0505439-05	Soil	10/20/05 15:20	10/21/05 16:36
Pump - 4	0505439-06	Soil	10/20/05 15:22	10/21/05 16:36
Pump - 5	0505439-07	Soil	10/20/05 15:24	10/21/05 16:36
Pump - 6	0505439-08	Soil	10/20/05 15:26	10/21/05 16:36
Trip Blank	0505439-09	Soil	10/20/05 00:00	10/21/05 16:36
Pump - 7	0505439-10	Soil	10/20/05 15:28	10/21/05 16:36

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	1.2 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	Yes	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	Yes	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

S-8 (2.5-3)

0505439-01 (Soil)

10/20/05 15:10

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**83**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 12	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*106 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

S-9 (1.5-2)

0505439-02 (Soil)

10/20/05 15:12

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**43**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.095**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.24**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.27**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*114 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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S-10 (3.5-4)

0505439-03 (Soil)

10/20/05 15:14

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**88**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Benzene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*107 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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S-11 (1-1.5)
0505439-04 (Soil)
10/20/05 15:16

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**80**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 12	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Benzene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*108 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID:CVXX-95-117

Pump - 3

0505439-05 (Soil)

10/20/05 15:20

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**59**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.49**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**1.6**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.89**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	**0.47**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*115 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump - 4

0505439-06 (Soil)

10/20/05 15:22

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**81**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**16**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.10**	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.37**	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.22**	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	**0.065**	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*114 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump - 5

0505439-07 (Soil)

10/20/05 15:24

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**21**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	**0.18**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.066**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.29**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.20**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*107 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump - 6

0505439-08 (Soil)

10/20/05 15:26

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**85**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**29**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	**0.082**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.095**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.25**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.059	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.14**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	**0.11**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*107 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Trip Blank

0505439-09 (Soil)

10/20/05 0:00

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 10	10	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Benzene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Ethylbenzene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
m,p-Xylene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
o-Xylene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Toluene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Surrogate: 4-FCB	*97.5 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/24/05*	*WI GRO (95)*	

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump - 7

0505439-10 (Soil)

10/20/05 15:28

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**30**	11	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.19**	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.61**	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.29**	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	**0.12**	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*107 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Classical Chemistry Parameters - Quality Control

Batch B5J0546 - % Solids

Method Blank (B5J0546-BLK1) Prepared: 10/28/05 Analyzed: 10/31/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B5J0546-SRM1) Prepared: 10/28/05 Analyzed: 10/31/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	84.6		% Wt	88.8	NA	95.3	90-110	NA	NA	

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Total Petroleum Hydrocarbons - Quality Control

Batch B5J0457 - WI GRO (95)

Method Blank (B5J0457-BLK1) Prepared & Analyzed: 10/24/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 4-FCB	*14.8*		*ng/mL*	*16.0*	*NA*	*92.5*	*80-200*			

Laboratory Control Sample (B5J0457-BS1) Prepared & Analyzed: 10/24/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	17.3	10	mg/kg	16.0	NA	108	80-120	NA	NA	
Benzene	1.54	0.050	mg/kg	1.60	NA	96.2	80-120	NA	NA	
Ethylbenzene	1.73	0.050	mg/kg	1.60	NA	108	80-120	NA	NA	
m,p-Xylene	3.39	0.050	mg/kg	3.20	NA	106	80-120	NA	NA	
Methyl-t-butyl ether (MTBE)	1.42	0.050	mg/kg	1.60	NA	88.8	80-120	NA	NA	
o-Xylene	1.66	0.050	mg/kg	1.60	NA	104	80-120	NA	NA	
Toluene	1.63	0.050	mg/kg	1.60	NA	102	80-120	NA	NA	
Surrogate: 4-FCB	*16.7*		*ng/mL*	*16.0*	*NA*	*104*	*80-200*			

Laboratory Control Sample Duplicate (B5J0457-BSD1) Prepared: 10/24/05 Analyzed: 10/25/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	17.0	10	mg/kg	16.0	NA	106	80-120	1.75	20	
Benzene	1.56	0.050	mg/kg	1.60	NA	97.5	80-120	1.29	20	
Ethylbenzene	1.75	0.050	mg/kg	1.60	NA	109	80-120	1.15	20	
m,p-Xylene	3.41	0.050	mg/kg	3.20	NA	107	80-120	0.588	20	
Methyl-t-butyl ether (MTBE)	1.45	0.050	mg/kg	1.60	NA	90.6	80-120	2.09	20	
o-Xylene	1.68	0.050	mg/kg	1.60	NA	105	80-120	1.20	20	
Toluene	1.66	0.050	mg/kg	1.60	NA	104	80-120	1.82	20	
Surrogate: 4-FCB	*14.9*		*ng/mL*	*16.0*	*NA*	*93.1*	*80-200*			

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
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Peer Engineering, Inc. 4801 West 81st Street Suite 118 Bloomington MN, 55437	Client Ref: 15111 Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0505439 Project Mgr: Thomas P. Wagner Account ID: CVXX-95-117

BRAUN INTERTEC

0505439

Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438
Bottle orders and sampling inquires:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT
Date Results Requested:
Time
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote #

Page 1 of 1

For Braun Intertec Use Only
Braun Intertec Project No.

REPORT RESULTS TO
Contact Name Bruce Schape
Project ID/Project Name 15111
P.O. #
Company Peer Eng.
Mailing Address 4801 W. 81st St Suite 118
City, State, Zip Bloomington, Mn 55437
Telephone # (952) 831-3841 Fax # (952) 831-4552
E-mail

SEND INVOICE TO
Contact Name Company
Address
City, State, Zip SAME
Telephone # Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request)

#	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	GRO	MBTEX	FOR LAB USE ONLY
1	S-8 (2.5-3)	10-20-05	3:10	Soil		2		X	X	0505439-01
2	S-9 (1.5-2)	10-20-05	3:12			2		X	X	-02
3	S-10 (3.5-4)	10-20-05	3:14			2		X	X	-03
4	S-11 (1-1.5)	10-20-05	3:16			2		X	X	-04
5	Pump 3	10-20-05	3:20			2		X	X	-05
6	Pump 4	10-20-05	3:22			2		X	X	-06
7	Pump 5	10-20-05	3:24			2		X	X	-07
8	Pump 6	10-20-05	3:26			2		X	X	-08
9	Trip Blank	10-20-05				1		X	X	-09
10	Temp Blank					1				
11	Pump 7	10/20/05	3:28			2		X	X	-10
12										
13										
14										
15										

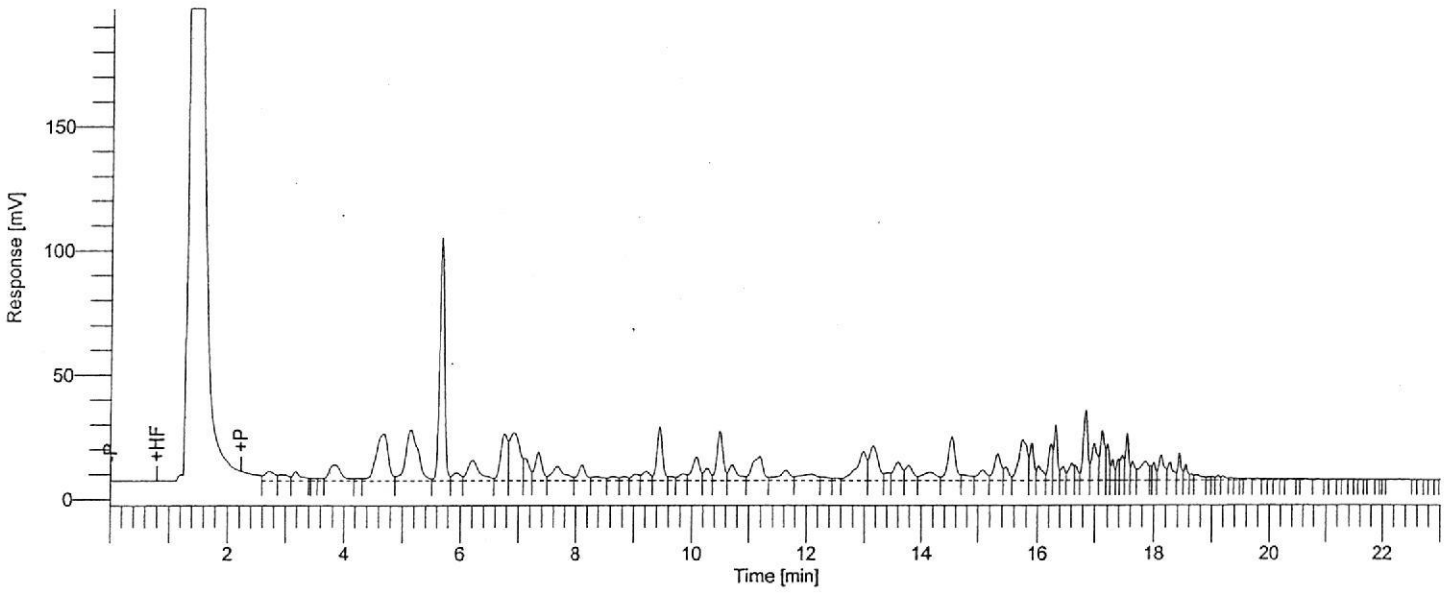
CHAIN OF CUSTODY
Collected by: (Print) Diane K. Ruddle
Collector's Signature: [signature]
Relinquished by: [signature] Date/Time 10 21 05 8:40
Received by: [signature] Date/Time 10/21 3:55
Relinquished by: Date/Time
Received Contents Not Verified: Date/Time
Custody Seal Intact ☒ Yes ☐ No ☐ N/A
On Ice ☒ Yes ☐ No
Received Contents Verified: [signature] Date/Time 12/21/05 16:36
Temp Blank ☒ Yes ☐ No
Temp: 1.2 °C
Comments:

Form # CS02.01 F:Group QC\Forms\clientservices\COC-CS02 Effective Date: 2/09/05

Software Version	: 6.3.0.0445	Date	: 10/25/2005 9:04:02 AM
Reprocess Number	: i83569: 19954		
Operator	: TCuser	Sample Name	: 0505439-05
Sample Number	: 080	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP1	Channel	: B
Interface Serial #	: 9205571178	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 23.50 min
Sampling Rate	: 3.1250 pts/s		
Sample Volume	: 1.000000 uL	Area Reject	: 1000.000000
Sample Amount	: 10.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 10/25/2005 1:19:54 AM	Cycle	: 15

10/25/05
ADW

Raw Data File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\adwb080.raw
Result File : \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb080.rst
Inst Method : \\mpls-corp01\labdata-voc\voc\v3\meth\pvoc\acqmeth5117 from \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\adwb080.raw
Proc Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\5294b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb080.rst
Calib Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\5294b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb080.rst
Report Format File: \\mpls-corp01\labdata-voc\voc\hp1\data\craigb.rpt
Sequence File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\5292.seq



GRO/TPH report

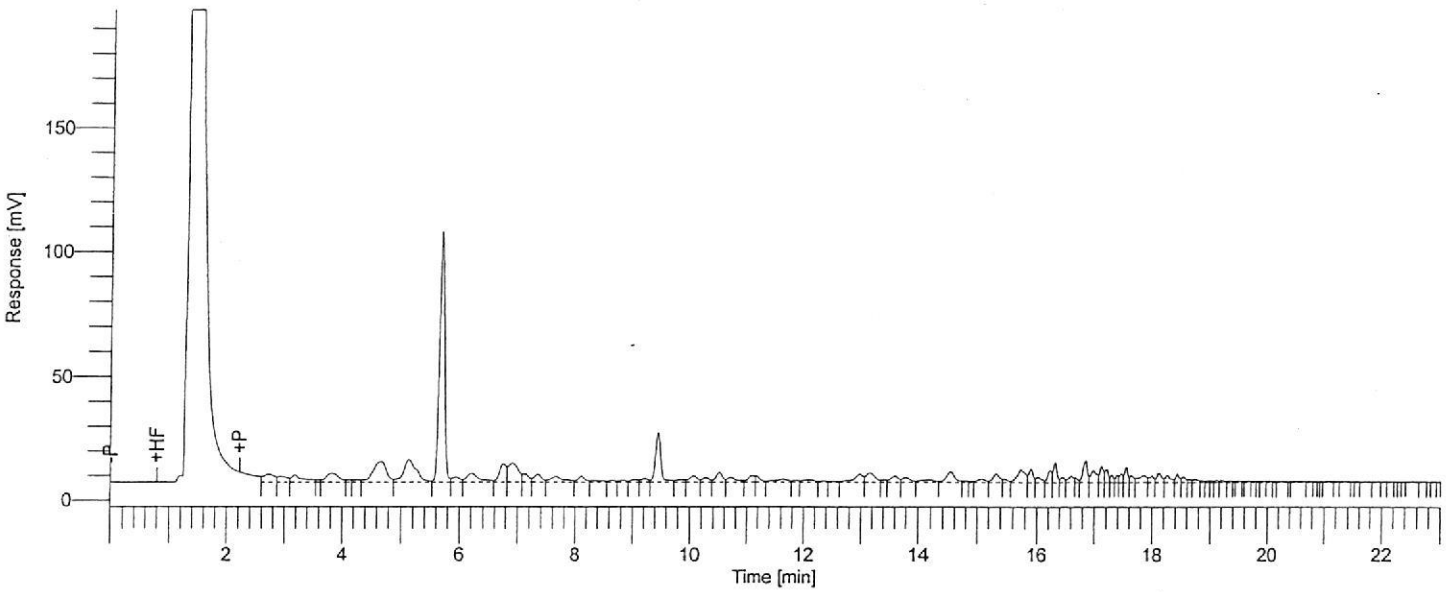
Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	51.156	319.7	5226717	649729	511.559		10.000	

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb080.TX0

Software Version	: 6.3.0.0445	Date	: 10/25/2005 9:04:48 AM
Reprocess Number	: i83569: 19960		
Operator	: TCuser		
Sample Number	: 083	Sample Name	: 0505439-07
AutoSampler	: NONE	Study	:
Instrument Name	: HP1	Rack/Vial	: 0/0
Interface Serial #	: 9205571178	Channel	: B
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 23.50 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 10.0000	Area Reject	: 1000.000000
Data Acquisition Time	: 10/25/2005 2:59:56 AM	Dilution Factor	: 1.00
		Cycle	: 18

10/25/05
ADW

Raw Data File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\adwb083.raw
Result File : \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb083.rst
Inst Method : \\mpls-corp01\labdata-voc\voc\v3\meth\pvoc\acqmeth5117 from \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\adwb083.raw
Proc Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\5294b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb083.rst
Calib Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\5294b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb083.rst
Report Format File: \\mpls-corp01\labdata-voc\voc\hp1\data\craigb.rpt
Sequence File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\5292.seq



GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	17.879	111.7	2457682	315130	178.792		10.000	

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb083.TX0

Software Version	: 6.3.0.0445	Date	: 10/25/2005 9:05:07 AM
Reprocess Number	: i83569: 19962		
Operator	: TCuser	Sample Name	: 0505439-08
Sample Number	: 084	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP1	Channel	: B
Interface Serial #	: 9205571178	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 23.50 min
Sampling Rate	: 3.1250 pts/s		
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10/25/05
ADW

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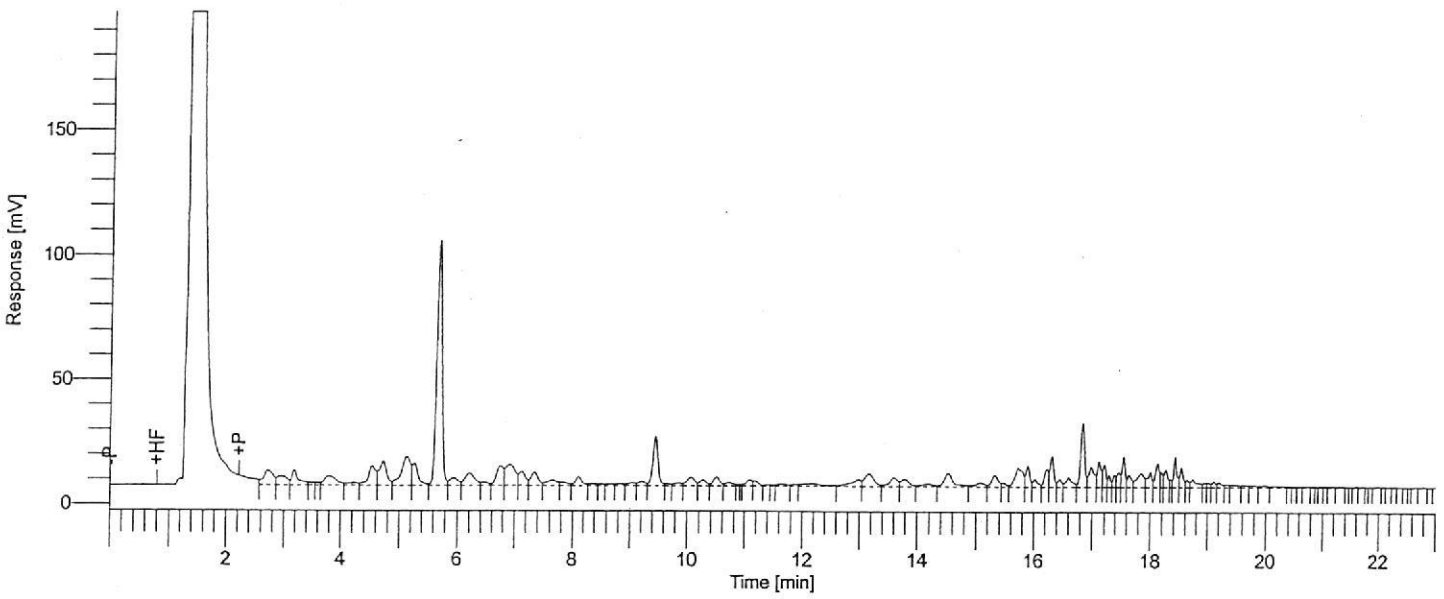

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	24.651	154.1	3021175	415580	246.510		10.000	

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Operator	: TCuser	Sample Name	: 0505439-10
Sample Number	: 086	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP1	Channel	: B
Interface Serial #	: 9205571178	A/D mV Range	: 1000
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Sampling Rate	: 3.1250 pts/s		
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10/25/05
ADW

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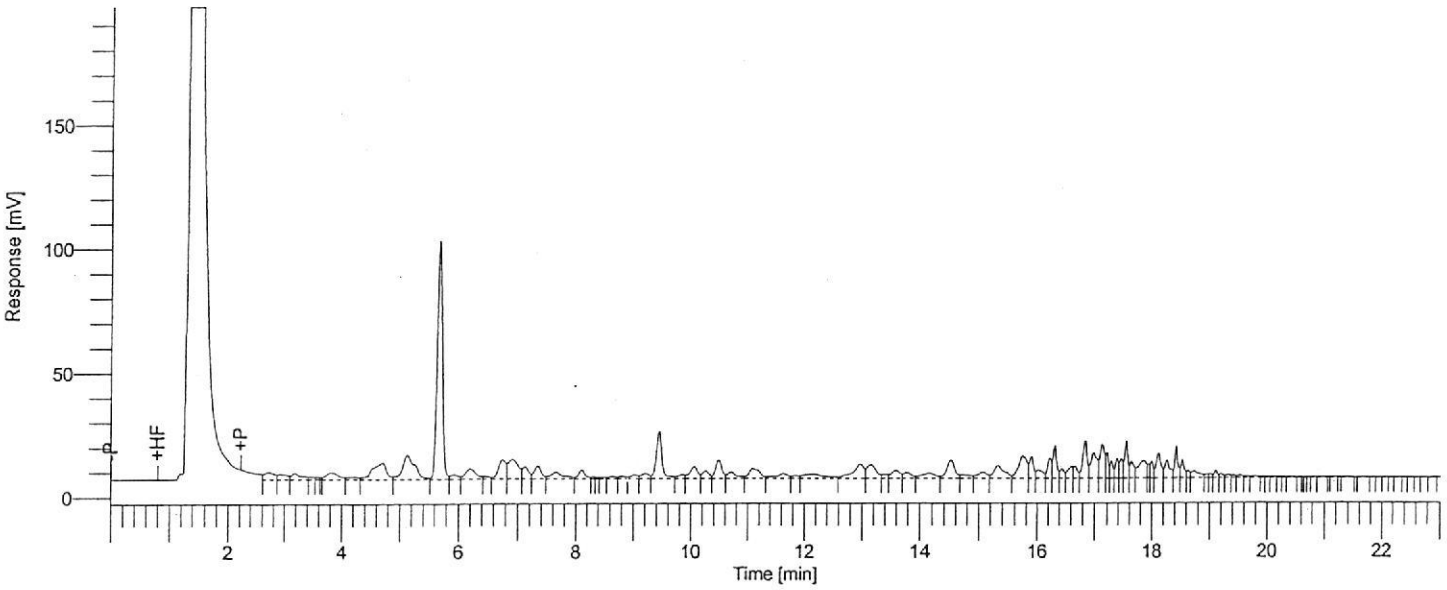

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	25.876	161.7	3123137	408384	258.763		10.000	

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Reprocess Number	: i83569: 20024		
Operator	: TCuser	Sample Name	: 0505439-02RE1
Sample Number	: 100	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP1	Channel	: B
Interface Serial #	: 9205571178	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 23.50 min
Sampling Rate	: 3.1250 pts/s		
Sample Volume	: 1.000000 uL	Area Reject	: 1000.000000
Sample Amount	: 10.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 10/25/2005 6:31:52 PM	Cycle	: 10

10/26/05
ADW

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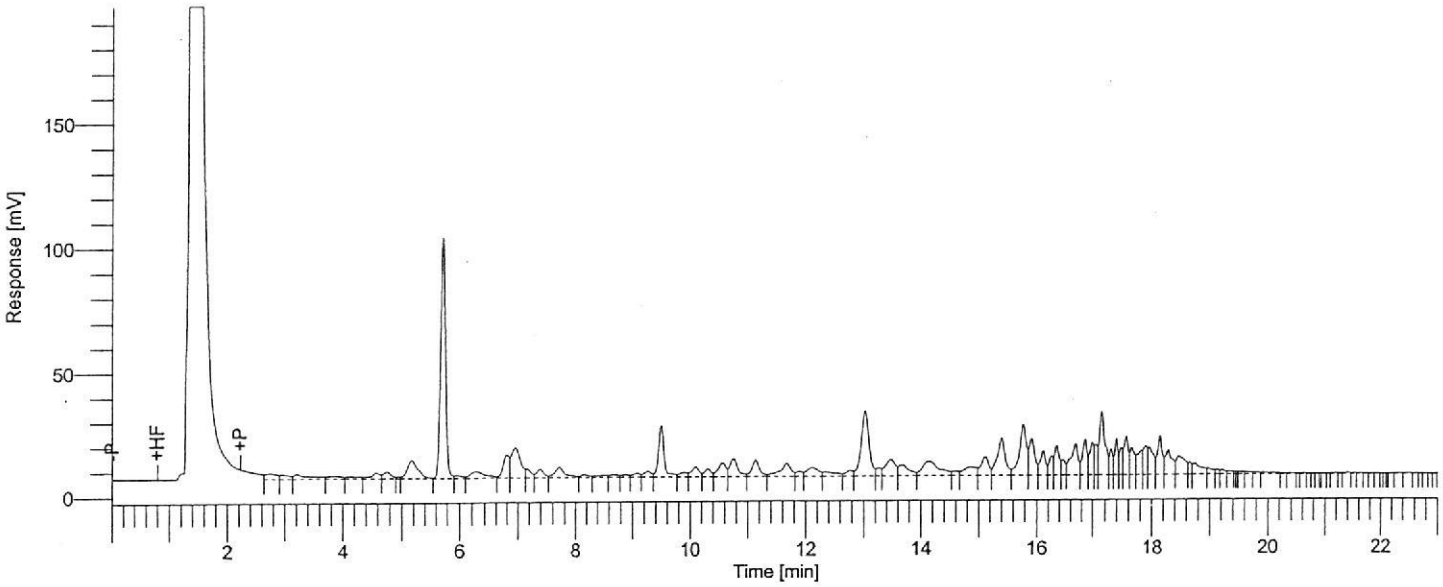

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	37.262	232.9	4070593	530638	372.623		10.000	

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Operator	: TCuser		
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AutoSampler	: NONE	Study	:
Instrument Name	: HP1	Rack/Vial	: 0/0
Interface Serial #	: 9205571178	Channel	: B
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 23.50 min
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Sample Amount	: 10.0000	Area Reject	: 1000.000000
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10/26/05
ADW

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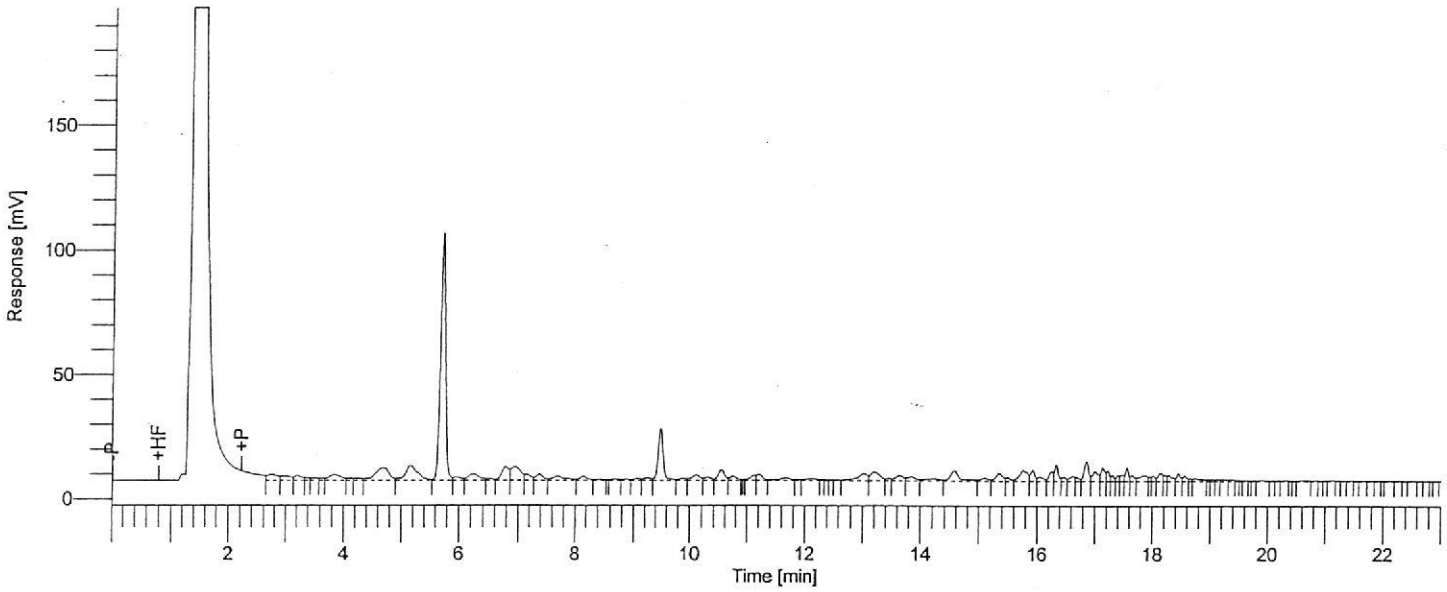

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	13.357	83.5	2081406	279575	133.574		10.000	

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb108.TX0

Peer Engineering, Inc.
7615 Golden Triangle Dr., Suite N
Eden Prairie, MN 55344
(952) 831-3341 Fax (952) 831-4552

Peer Engineering
Integrated Environmental Solutions

November 10, 2006

Mr. Chris McLain
Petroleum Remediation Program
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

RE: Investigation Report
Sinclair Service Station
9456 Medicine Lake Road
New Hope, Minnesota
MPCA Site ID#: LEAK 10868

Dear Mr. McLain:

Enclosed is copy of the Investigation Report for the above referenced leak site. Based on field observations and the laboratory analytical results, petroleum-contaminated soil was encountered at varying concentrations throughout the property. However, contaminant concentrations were in agreement with past results indicating that no new release has occurred. As indicated in the report, the results indicate that there is no significant risk to current structures or other receptors. No further investigation of the site is recommended.

If you have any questions or comments about the report, please contact us at 952-831-3341.

Sincerely,

Peer Engineering, Inc.

Bruce Schaepe, P.E.
Environmental Engineer

cc. Larry Feldsien, Sinclair Marketing, Inc.

Petroleum Remediation Program
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

Investigation Report Form

Guidance Document 4-06

Complete this form to document site investigation activities, including Limited Site Investigations (LSIs) and full Remedial Investigations (RIs). Do not revise or delete any text or questions from this report form. Include any additional information that is important for making a site cleanup decision. If only an LSI is necessary, you may skip Section 6 and Section 7 of this report form.

Refer to Minnesota Pollution Control Agency (MPCA) Guidance Document 1-01 *Petroleum Remediation Program General Policy* for the overall site investigation objectives, and to other MPCA guidance document for details on investigation methods. When a tank has been excavated, refer to Guidance Documents 3-01 *Excavation of Petroleum Contaminated Soil* and 3-02 *General Excavation Report Worksheet* for reporting requirements. Document the occurrence of free product using Guidance Document 2-02 *Free Product: Evaluation and Recovery,* and Guidance Document 2-03 *Free Product Recovery Report Worksheet.*

MPCA Site ID: Leak: **10868**

Date: **November 10, 2006**

Responsible Party: **Sinclair Marketing, Inc. c/o Larry Feldsien**

R.P. phone #: **(952) 707-1056**

Responsible Party Address: **1001 East Cliff Road #201**

City: **Burnsville**

County: **Dakota County**

Zip Code: **55337**

Alternate Contact (if any) for Responsible Party: **NA**

phone #: **NA**

Consultant: **Peer Engineering, Inc**

Consultant phone #: **(952) 831-3341**

Facility Name: **Sinclair Station #22024**

Facility Address: **9456 Medicine Lake Road**

City: **New Hope**

County: **Hennepin**

Zip Code: **55427**

Site Location Information: Complete Guidance Document 1-03a *Spatial Data Reporting Form* and include in Appendix G. **Attached as Appendix G.**

Section 1: Emergency and High Priority Sites

1.1 Is an existing drinking water well impacted or likely to be impacted within a two-year travel time? ☐*Yes*☒*No*

1.2 Are there any existing field-detectable vapor impacts (OVM, explosimeter, odors, etc.)? ☐*Yes*☒*No*

1.3 Is there an existing surface water impact as indicated by 1) a product sheen on the surface water or 2) a product sheen or volatile organic compounds in the part per million (ppm) range in ground water in a well located close to the surface water. ☐*Yes*☒*No*

1.4 Has the release occurred in the last 30 days? ☐*Yes*☒*No*

1.5 Has free product been detected at the site? **If *YES***, attach Guidance Document 2-03 *Free Product Recovery Report Worksheet.* ☐*Yes*☒*No*

1.6 Is a hydrogeologically sensitive aquifer impacted which is tapped by water wells within 500 feet from the release source? **If *YES***, explain: ☐*Yes*☒*No*

1.7 Has the public water supply risk assessment concluded that the site is a high priority site with respect to a public water supply well (see Guidance Document 4-18 *Public Water Supply Risk Assessment at Petroleum Remediation Sites*)? **If *YES***, provide the name of the public water supply system(s) at risk. ☐*Yes*☒*No*

1.8 Did the vapor intrusion assessment detect exceedences of soil gas action levels (see Guidance Document 4-01a *Vapor Intrusion Assessments Performed during Site Investigations*)? ☒*Yes*☐*No*

If you answered *YES* to any of questions 1 through 8 above describe below the actions taken to date to reduce or eliminate the risk posed by the release.

Several soil gas samples exceeded soil gas action levels. None of those samples were collected near occupied structures. See Section 11.

Section 2: Site and Release Information

2.1 Attach Table 1 - Tank Information, listing all past and present tanks. Describe the status of the other components of the tank system(s), (i.e., piping and dispensers).

See attached Figure 2 for a site diagram showing the locations of past and present dispensers and removed hydraulic lifts.

2.2 Describe the land use and pertinent geographic features within 1,000 feet of the site.

Land use is mostly multi-family residential with some light commercial directly sout h of the site. Highway 169 is immediately west of the site. Medicine Lake is located 1,500 feet southwest of the site.

2.3 List other potential leak sources within 500 feet of the site.

A former MPCA leak site (Leak # 183) is located on the south side of Medicine Lake Road, directly across from the Sinclair Station under investigation. According to the MPCA records for Leak # 183, ground water was contaminated and petroleum contaminated soils remained on the site.

2.4 Identify and describe the source or suspected source(s) of the release.

The most recent detection of contamination was during the removal of the former tanks and associated dispensers in 2005. The suspected source of the release is believed to be a previous leak at the site. At the time of their removal in 2005, the tanks that were located within the former tank basin were in good condition and did not appear to be the source of the release.

2.5 What was the volume of the release? (if known): **Unknown** gallons

2.6 When did the release occur? (if known): **Unknown**

2.7 Provide aerial photos and Sanborn Maps of the area for the various time periods they are available.

Provided in Appendix I

Section 3: Excavated Soil Information

3.1 Include the Guidance Document 3-02 *General Excavation Report Worksheet* in Appendix A.

3.2 Was soil excavated for off-site treatment? ☒*Yes* ☐*No*

Date excavated: **October 18 through October 21, 2005.**

Total Volume removed: **645** cubic yards

How much of the Total Volume removed was petroleum saturated: **None**

3.3 Indicate soil treatment type:

☐ land treatment
☐ thermal treatment
☐ composting/biopiling
☒ **other (landfill)**

Name and location of treatment facility:
Veolia ES Rolling Hills Landfill, Inc.
(Formally Onyx FCR Landfill, Inc.)
175 County Road 37 NE
Buffalo, MN 55313

Section 4: Extent and Magnitude of Soil Contamination

4.1 Were soil borings conducted in or immediately adjacent to all likely sources including: ☒ *YES* ☐ *NO*

dispensers,	☒ *yes*	☐ *no*	☐ *not present*
transfer areas,	☐ *yes*	☐ *no*	☒ *not present*
underground storage tank basins,	☒ *yes*	☐ *no*	☐ *not present*
above ground storage tank areas,	☐ *yes*	☐ *no*	☒ *not present*
piping,	☒ *yes*	☐ *no*	☐ *not present*
remote fill pipes,	☐ *yes*	☐ *no*	☒ *not present*
valves	☐ *yes*	☐ *no*	☒ *not present*
known spill areas	☒ *yes*	☐ *no*	☐ *not present*

4.2 To adequately define the vertical extent of contamination, borings should be completed at least ten feet below the deepest measurable (field screening and visual observation) contamination. If the water table is encountered, the boring should be completed a minimum of five feet below the surface of the water table. Were all soil borings completed to the required depth? ☒ *YES* ☐ *NO*

4.3 To adequately evaluate site stratigraphy complete at least one boring to 20 feet below the deepest site contamination. If the water table is encountered, the boring should be completed a minimum of 5 feet below the surface of the water table. If a confining layer is present, drill the boring in an uncontaminated area. Was this done? ☒ *YES* ☐ *NO*

If you answered *NO* to any of the three previous questions, explain why the borings were not conducted in the required locations or to the required depths (see Guidance Document 4-01 *Soil and Ground Water Assessments Performed during Site Investigations* regarding exceptions and MPCA approval for depth of drilling): **Eight probes were advanced on the site. Four probes to 20 feet, and four probes to 40 feet.**

4.4 Indicate the drilling method:

- ☐ hollow-stem auger
- ☐ sonic drilling
- ☒ push probes
- ☐ other.

Note: MPCA staff hydrologist approval is required before use of flight augers

4.5 Discuss soil borings drilled and provide rationale for their locations. Attach boring logs in Appendix D.

SB-1 was collected near the western property boundary.
SB-2 was collected near the south-western corner of the new convenience store.

SB-3 was collected directly in front of the new convenience store, near the former hydraulic lifts.
SB-4 was collected near the south-eastern corner of the new convenience store.
SB-5 was collected on the north side of the former tank basin.
SB-6 was collected near the eastern property boundary, directly east of the former tank basin.
SB-7 was collected outside the southern side of the former tank basin.
SB-8 was collected near the southern property boundary and to the east of the new tank basin.

4.6 Attach Table 2 - Results of Soil Headspace Screening. In Appendix C, discuss soil headspace screening method and describe any deviation from recommended and/or required methods and procedures.

Methods and Procedures are included as Appendix C.

4.7 Attach Table 3 - Analytical Results of Soil Samples. Provide analytical results in Appendix B. In Appendix C, discuss soil sampling and analytical methods used and describe any deviation from recommended and/or required methods and procedures

Methods and Procedures are included as Appendix C.

4.8 Describe the vertical and horizontal extent and magnitude of soil contamination. Provide a plan-view map and two cross-sections that illustrate both soil head space and laboratory analytical results

Samples collected within 20 feet of the cross section lines designated on Figure 3 were included in the cross sections, included as Figures 4, 5 and 6. Both the current investigation and the previous investigation are represented in the cross section figures. When comparing PID readings between the previous investigation and the current investigation, the PID readings correlate well. Areas of contaminated soil are shown on Figure 3 and in the cross section figures.

4.9 Is surface soil contamination present at the site (i.e., soil in the uppermost 2 feet that is visibly stained, contaminated at greater than 10 ppm (PID) or petroleum saturated)? ☒ *Yes* ☐ *No*

If *YES*, attach site map identifying extent(s) of surface soil contamination (Section 14). If borings were used to define extent, complete Table 4.

4.10 Attach Table 5 - Other Contaminants Detected in Soils (Petroleum or Non-petroleum Derived). Discuss the possible sources of these compounds.

All other contaminants detected in soils were compounds commonly associated with petroleum.

4.11 Is contaminated soil in contact with ground water? ☐ *Yes* ☒ *No*

If *YES* or if ground water contamination appears likely, then complete Section 5.

The perched water tables present on the site are discontinuous and sporadic. The perched water tables exist near the former tank basin and other areas that were disturbed during site reconstruction.

The regional water table is believed to occur at a depth of 50 feet or greater. There was no observed contamination at depths below 24 feet.

If *NO* (contaminated soil is not in contact with ground water), what is the distance separating the deepest contamination from the surface of the water table? Was this distance measured during site activities, referenced from geologic information, or estimated based on professional opinion during a site visit? **~ 20 feet**

4.12 Describe observations of any evidence of a fluctuating water table and a seasonal high water table (e.g., mottling). Also, from other sources of information describe the range of natural water table fluctuations in the area.

No evidence of regional ground water fluctuation.

4.13 In your judgment, is there a sufficient distance separating the petroleum contaminated soil (or an impacted non- aquifer) from the underlying aquifer to prevent petroleum contamination of the aquifer? Please explain in detail. In your explanation, consider the data in this section as well as the nature of the petroleum release (i.e., volume, when it occurred, petroleum product). ☒*Yes* ☐*No*

If *YES*, a ground water contamination assessment is not necessary as part of the LSI.

Perched water was observed at the site at depths ranging from 3 to 12 feet bgs. Regional ground water is expected to occur at approximately 55 feet bgs. Regional ground water was not encountered during the investigation.

If *NO*, a ground water contamination assessment is necessary. Complete Section 5.

Section 5: Aquifer Characteristics/Ground Water Contamination Assessment

Complete Section 5 if groundwater has been contaminated or may become contaminated. Aquifer determination is made during the LSI. It is based upon the stratigraphy and a hydraulic conductivity measurement calculated from grain size distribution analysis. The site stratigraphy gives the context within which the hydraulic conductivity measurement can be interpreted.

Please refer to Guidance Document 4-01 *Soil and Ground Water Assessments Performed during Site Investigations* for methods and requirements.

5.1 Provide an average hydraulic conductivity value (K) measured:

K = ft/day

Indicate the method of measurement (i.e., Hazen, Masch and Denny, Kozeny-Carmen, etc.): Grain-size distribution approximations by method(s).

Indicate the locations and depths of soil samples submitted for grain size analyses. Provide the results of grain size analyses and other information used for the determination of K-values in Appendix F.

5.2 Calculate a range for aquifer transmissivity (T) using the equation T = Kb, where b is the thickness of the aquifer:

T_{High} = ft^2/day
T_{Low} = ft^2/day

Determine the aquifer thickness (b) from geologic logs of soil borings, water well logs, and available published information. Attach water well logs in Appendix D. If the transmissivity of a contaminated hydrogeologic unit is greater than 50 ft^2/day, it is considered an aquifer (for the purpose of the Petroleum Remediation Program), and monitoring wells will be necessary.

5.3 Discuss in detail the site geology and stratigraphy, including a discussion of local and regional hydrogeology, using soil boring data and cross sections, geologic logs of near-by water wells, and available published information.

5.4 Attach Table 6- Water Level Measurements and Depths of Water Samples Collected from Borings. Indicate the method used to measure the water levels in borings and the depth water samples were collected from borings. Allow water levels in borings to equilibrate to static conditions and then adjust the effective screened intervals in borings to intercept the static water table prior to water sample collection. Discuss groundwater flow direction.

5.5 Attach Table 7 - Analytical Results of Water Samples Collected from Borings. Summarize the analytical results of groundwater samples collected as part of an LSI. Discuss the extent and magnitude of groundwater contamination. Also provide a discussion on QA/QC, including information on the samples collected and laboratory analyses performed.

5.6 Attach Table 8 - Other Contaminants Detected in Water Samples Collected from Borings (Petroleum or Non-petroleum Derived). Discuss the possible sources of these contaminants and provide a discussion of QA/QC information.

5.7 Laboratory certification number:

Additional Ground Water Investigation

Complete **Section 6** only if: 1*) an aquifer has been impacted at or above Minnesota Department of Health HRLs, 2) an aquifer has been impacted below the HRLs, but the levels are likely to reach the HRLs, or 3) there is an insufficient distance separating the petroleum contaminated soil (or an impacted non- aquifer) from the underlying aquifer.* Complete **Section 7** only if remediation is anticipated. Regardless of whether you are submitting an *LSI* or a *full RI*, all sections following Section 7 must be completed.

Section 6. Extent and Magnitude of Ground Water Contamination

6.1 Discuss drilling and installation of wells, including the rationale for their locations. Attach boring logs in Appendix D.

6.2 Attach Table 9 - Monitoring Well Completion Information.

6.3 Attach Table 10 - Summary of Water Levels Measured in Wells.

6.4 Attach Table 11 - Analytical Results of Water Samples Collected from Wells. Indicate here whether samples were purged or unpurged (see Guidance Document 4-05). If purged, indicate purging method.

6.5 Attach Table 12 - Other Contaminants Detected in Water Samples Collected from Wells (Petroleum or Non-Petroleum Derived). Indicate here whether samples were purged or unpurged (see Guidance Document 4-05). If purged, indicate purging method.

6.6 Describe the extent and magnitude of the ground water contamination. Discuss the presence of non-petroleum compounds, if detected, and identify possible sources of these compounds. Also provide a discussion on QA/QC, including information on the samples collected and laboratory analyses performed.

6.7 Is there a clean or nearly clean (below HRLs) down-gradient monitoring well located along the longitudinal axis of the contaminant plume? (approximately 20 degrees plus or minus the axis) ☐*Yes* ☐*No*

6.8 Is there a worst case well completed through the source area(s) of the release? ☐*Yes* ☐*No*

If you have answered *NO* to any of the above two questions, please explain why a well was not completed in the required location.

6.9 Provide an estimate of the longitudinal length of the dissolved contaminant plume: feet

6.10 Calculate groundwater flow velocity (based on Darcy's Law) using the average K-value, average horizontal hydraulic gradient, and effective porosity. Provide documentation in Appendix F.

Hydraulic Conductivity (K) = Method
Porosity (n) = method/reference
Average horizontal gradient (dh/dl) =
Calculated GW velocity (v) = cm/s ft/day

6.11 Using the calculated groundwater flow velocity (above), is there a receptor within a five-year travel time? ☐*Yes* ☐*No*

If *YES*, provide the unique well number and identify the location of the receptor(s).

6.12 Were any deep monitoring wells completed at the site? ☐*Yes* ☐*No*

If *YES*, list them and indicate their depths:

Contact the MPCA project hydrologist before installing a deep monitoring well. A deep monitoring well may be necessary if: 1) Contamination exists more than 10 feet below the water table or 2) the impacted aquifer is a drinking water aquifer or is hydraulically connected to the aquifer(s) presently utilized by a water supply well located within 500 feet of the release source.

If contamination is present at depth in the aquifer or in deeper aquifers, additional deep wells may be required. Provide the following information if deep wells are installed:

Vertical Gradient (dv/dl)
Inferred GW Flow Direction

Provide the following information for the deep aquifer unit if it appears to be hydrogeologically distinct from the upper unit.

Porosity (n):
Hydraulic Conductivity (K)

Submit this RI report after completing a minimum of *two quarterly sampling events.* Groundwater monitoring should continue until MPCA response is received.

Section 7: Evaluation of Natural Attenuation

Refer to the Guidance Document 4-03 *Assessment of Natural Attenuation at Petroleum Release Sites.* **Note**: Evaluation of natural attenuation is not required unless requested by MPCA staff.

7.1 Attach Table 13 - Natural Attenuation Parameters. Discuss the results. Specifically, compare the concentrations of the inorganic parameters inside and outside the plume.

7.2 In your judgment, is natural biodegradation occurring at this site? Please explain. ☐ *Yes* ☐ *No*

If active remediation is anticipated, discuss reasons why natural attenuation (including biodegradation) can not adequately remediate the contaminants to acceptable risk levels.

Section 8: Well Receptor Information/Assessment

Include in Appendix E, copies of the water supply well logs obtained from MGS, MDH, drillers, and where applicable, from County well management authorities.

8.1 Attach Table 14 - Properties Located Within 500 Feet of the Release Source. The Leak Site property must be included in Table 14. Provide a map (scale of 1inch = 50 to 100 ft.) centered on the release area, identifying the boundaries of the properties listed in Table 14, and associated pertinent features such as roads, buildings, water wells, utilities and surface water.

Table 14 and Figure 7 are provided.

8.2 Were all property owners within 500 feet of the release source successfully contacted to determine if water wells are present? **If *NO***, please explain. ☒*Yes* ☐*No*

Property owners within 500 feet of the release were contacted by mail. Appendix J contains a copy of the letter sent to the owners, a list of the properties, and a copy of the only response received.

8.3 Attach Table 15 - Water Supply Wells Located within 500 Feet of the Release Source and Municipal or Industrial Wells Within ½ Mile. All water wells within 500 ft. of the release source must be listed, even if construction information was not obtained or available. Any available water well logs or other construction documentation must be included in Appendix E.

Table 15 and Figure 8 are provided. No water supply wells were located within 500 feet of the release source.

8.4 Discuss the results of the ground water receptor survey and any analytical results from sampling conducted at nearby water wells. Comment on the risks to water supply wells identified within 500 feet from the release source as well as the risk posed by or to any municipal or industrial wells found within ½ mile. Specifically indicate whether water supply wells identified utilize the impacted aquifer. (Note: an impacted aquifer separated from another aquifer by a clay lens may not be considered a separate aquifer).

8.5 Is municipal water available in the area? ☒*Yes* ☐*No*

8.6 Are there any plans for ground water development in the impacted aquifer within 1/2 mile of the site, or one mile down-gradient of the site if the aquifer is fractured? Please give the name, title and telephone number of the person that was contacted for this information (below). ☐ *Yes* ☒ *No*

Name: **Mark Qaulke**
Title: **Utilities Supervisor**
Telephone **763-592-6762**
- City of New Hope -

Name: **Bert Tracy**
Title: **Utilities Maintenance Supervisor**
Telephone: **763-593-8075**
- City of Golden Valley -

Section 9: Surface Water Risk Assessment

9.1 Are there any surface waters or wetlands located within ¼ mile of the site? ☐ *Yes* ☒ *No*

If *YES*, list them:

Also list any potential pathway such as ditches, drain tiles, storm sewers, etc., that may lead to the identified surface water features.

9.2 If surface water is present down-gradient of the site, is there a clean down-gradient monitoring well (temporary or permanent) located between the site and the surface water?

☐ *YES*
☐ *NO*
☒ *N/A*

9.3 If you answered ***NO*** to question 9.2, we assume that contamination discharges to surface water. Therefore, complete the following information:

Name of receiving water:	
Receiving water classification	
ORVW?	☐ *Yes* ☐ *No*
Plume width, (W):	feet
Plume thickness, (H):	feet
Hydraulic conductivity, (K):	gal/day/ft^2
Horizontal gradient, (dh/dl):	(unitless)
Discharge, (Q) = H*W*K*(dh/dl)/1440	gal/min

Applicable chronic standard (7050 or 7052)	
Applicable max. standard (7050 or 7052)	
Applicable FAV (7050 or 7052)	
Contaminant concentration in ground water	

9.4 If you answered ***YES*** to question 9.2, identify the clean down-gradient boring or monitoring well, the distance to the surface water feature, and discuss the contamination risk potential.

Section 10: Field-Detectable Vapor Risk Assessment/Survey

10.1 Is there a history of vapor impacts in the vicinity of the site? ☐*Yes* ☒*No*

If *YES*, describe:

10.2 Is there any indication that free product or contaminated ground water may be traveling off-site within the utility corridors? ☐*Yes* ☒*No*

If *YES*, utility backfill investigation is required (refer to Guidance Document 4-01). Discuss the investigation rationale and results.

10.3 Discuss the potential for vapor migration/accumulation near the site. Your discussion should consider: Soil types, product type, presence and distribution of free product or high concentrations of dissolved product. Also, using cross-sections to illustrate the relationship, compare the depth of contamination with the location of underground utility lines, location and depth of storm and sanitary sewers, and location of nearby basements and sumps.

The soil surrounding the site is a dense, silty, sandy clay. Little vapor migration would be able to occur through this soil. Vapors would also be unable to migrate up through the soil to the ground surface because the site is covered with asphalt and concrete.

10.4 Conduct a vapor survey if the vapor risk assessment indicated a risk of vapor impacts to buildings or utilities. Ask occupants of nearby buildings if they have smelled petroleum odors. See Guidance Document 4-02 *Potential Receptor Surveys and Risk Evaluation Procedures at Petroleum Release Sites*. Identify all vapor monitoring locations on an attached site map by labeling each monitoring location with a number. Tabulate the list of vapor monitoring locations in Table 16. Vapor monitoring methods, including instruments used, must be discussed in Appendix C. Provide a detailed description of each vapor monitoring location and an interpretation of the vapor monitoring results below.

10.5 Attach Table 16 - Results of Vapor Monitoring.

Section 11: Soil Gas-Based Vapor Intrusion Screening Assessment

11.1 When significant contamination and receptors are present at a site, a vapor intrusion screening assessment must be conducted (See Guidance Document 4-01a *Vapor Intrusion Assessments Performed during Site Investigations*). Soil gas samples must be completed in the worst case area and at four radial points within a 100' radius. The radial points should be located near inhabited buildings, if there are four or less. If not, they should be located uniformly within the 100' radius. Was this done? ☐ *Yes* ☒ *No*

***If NO**, explain why.*

Vapor samples were collected in accordance with the guidance. One of the vapor samples that was collected was lost by the laboratory, therefore only four vapor samples have been included in this report. The vapor sample that was lost (SB-1V) was located farthest from the old tank basin and along the western property boundary which is adjacent to Highway 169. Due to its location near unoccupied property, SB-1V was not re-collected.

11.2 Do any of the soil gas samples from points located near inhabited buildings exceed the action levels found in GD 4-01a? ☐ *Yes* ☒ *No*

If *YES*, is sub-slab vapor or indoor air sampling needed for these buildings? *Describe and discuss locations needing further assessment.* ☐ *Yes* ☐ *No*

11.3 Has sufficient data been collected to propose a conceptual Corrective Action Design (CAD) for buildings that are likely to be impacted by elevated soil gas levels and/or field detectable vapor impacts? *Describe your justification for corrective action and proposed conceptual CAD.* ☐ *Yes* ☒ *No*

11.4 Do any of the soil gas samples from the non-building specific samples within the 100' radius exceed action levels? ☒ *Yes* ☐ *No*

If *YES*, and there are many inhabited buildings nearby, is additional building specific soil gas sampling recommended for all these buildings? *Describe your proposal for additional sampling. **If NO**, explain.* ☐ *Yes* ☒ *No*

The closest vapor sample to the neighboring apartment building contained a benzene concentration of 42 ug/m^3. The distance between the closest vapor sample and the apartment building is approximately forty-five feet. The soil in this area is a dense silty, sandy clay. If vapors from this site were able to migrate the 45 feet to the apartment building, contaminate concentration would most likely be below the residential Intrusion Screening Value. ☐ *Yes* ☐ *No*

Vapor sample V-5 was collected within the former tank basin. Due

to the shallow water table, V-5 was collected at four feet bgs. Laboratory analysis of sample V-5 included a variety of compounds that had previously not been associated with this site. It is believed that these detections were a result of vapors produced by the new asphalt and not by the release.

If ***YES***, are additional soil gas samples recommended to assess the full extent of the soil gas cloud? *Describe your proposal for additional sampling. **If NO**, explain.*

11.5 Were recommended field sampling procedures and QA/QC from Guidance Document 4-01a followed? Were required laboratory QA/QC objectives met? ☒*Yes* ☐*No*
*If **NO**, explain why and discuss implications on data quality.*

11.6 Include a map which shows locations of all soil gas samples and buildings within and at the 100' radius and locations of all soil gas samples exceeding action levels. Include other locational information that may help in evaluating the questions above.

Section 12: Discussion

12.1 Discuss the risks associated with the remaining soil contamination:

Although contaminated soil remains on the site it should not pose a significant risk to public health and safety. The site is covered and bordered on all sides by paved surfaces, a previous leak site with residual contamination to the south, and Highway 169 to the west. The site is projected to continue to operate as a gas station and the old tanks have been removed and new tanks have been installed. When the former tanks were removed they were in good condition, therefore, the contamination is most likely due to a previous release that had occurred on this site.

12.2 Discuss the risks associated with the impacted ground water:

Perched ground water that is located on the site is unlikely to move down to the regional aquifer. The site is underlain by dense silty clay soils. The perched water exists on the site within areas of fill. Regional ground water for this area is expected at approximately 55 feet bgs. Analytical testing of soil has shown that below the former tank basin the soil on the site is clean; this suggests that the contamination is not moving vertically and is not in danger of intercepting the regional ground water.

12.3 Discuss the risks for vapor intrusion associated with any soil gas impacts detected:

Vapor receptors are present on the north side of the parcel (the new convenience store) and along the east side of the parcel (the neighboring apartment building). Due to the shallow perched water table, vapor samples were collected at four feet bgs (with the exception of SB-6V). The concentrations of volatile organic vapors in sample SB-3V, collected in front of the convenience store, were not detected at or above the laboratory reporting limits. The reporting limits for sample SB-3V were elevated, but in viewing the analytical results for soil

sample SB-3 (12.5-15') it is likely that the vapor results for SB-3V would have been low considering that no contamination was detected at or above laboratory reporting limits in the soil sample that was collected next to it.

Vapor intrusion risks for the apartment building located east of the former tank basin are low. SB-6V, collected at eight feet bgs., contained five parameters where contaminate concentrations exceeded their action levels. Considering the analytical results the apartment building is approximately 45 feet east of SB-6V, and the soil surrounding the site is a dense silty sandy clay, the apartment building is at low risk of vapor intrusion from the investigation site.

12.4 Discuss other concerns not mentioned above:

No other concerns are present at this time.

Section 13: Conclusions and Recommendations

13.1 Recommendation for site:

- ☒ site closure
- ☐ additional ground water monitoring
- ☐ additional field detectable vapor monitoring
- ☐ additional soil gas/vapor intrusion investigation
- ☐ corrective action

13.2 Base the recommendation above on Guidance Document 1-01 *Petroleum Remediation Program General Policy*. Describe below how you applied the policy to support your recommendation. If closure is recommended, please summarize significant site investigative events and describe how site specific risk issues have been adequately addressed or minimized to acceptable low risk levels.

When compared with data that had been collected during the previous leak site investigations done on this property in 1992 and 1998, the data that was collected during the current investigation looks very similar. The contamination that is present on the property today is likely the same contamination that was present during the first investigation done on this parcel in 1992. Since the contamination has remained in relatively the same locations for the past fifteen years it is believed that the area of contamination is stable, has not migrated through the dense soil and does not pose a threat to the surrounding community.

13.3 If additional ground water and/or vapor monitoring is recommended, indicate the proposed monitoring schedule and frequency. Conduct quarterly monitoring until the MPCA responds to this report. **NA**

13.4 If additional soil gas/vapor intrusion investigation is recommended, indicate whether there is risk to a specific building or whether additional soil gas definition is necessary. Provide a detailed analysis of the initial soil gas and receptor information leading to these recommendations. Provide details of proposed activities such as sub-slab vapor and/or indoor air sampling, or locations of additional borings for sampling soil gas. If vapor intrusion, or conditions indicative of a high risk of vapor intrusion, has already been established, then corrective action is required. Refer to 13.5 below.

13.5 If corrective action is recommended, provide a conceptual approach by completing Guidance Document 4-19 *Conceptual Corrective Action Design Worksheet* and include it as Appendix H. See Guidance Document 4-10 *Elements of the Corrective Action Design* for more information on the corrective action design process and other requirements. (Note: MPCA staff will review this report at a higher-than-normal priority to determine if corrective action is required.)

Section 14: Figures

Attach the following figures in order of discussion in the text:

☒ Site location map using a U.S. Geological Survey 7.5 minute quadrangle map.

☒ One or more site maps showing:

- Structures
- Locations and depths of on-site buried utilities
- All past and present petroleum storage tanks, piping, dispensers, and transfer areas.
- Extent of soil excavation
- Boring and well locations (including any drinking water wells on site)
- Horizontal extent of soil contamination
- Extent of surface soil contamination
- Soil gas sampling locations and extent of the soil gas cloud
- Horizontal extent of ground water contamination
- Location of end points for all geologic cross sections.
- Potential pathways to surface water features within ¼ mile of the site.

Distinguish sequential elements of investigations by dates, symbols, etc. in the key.

☐ Ground water gradient contour maps (for sites with monitoring wells) for each gauging event.

☒ Well receptor survey map showing 1/2 mile radius, 500 foot radius, water supply wells, other potential sources of contamination, using a U.S. Geological Survey 7.5 minute quadrangle.

☒ Potential receptor map (scale 1 inch = 50 to 100 ft), showing property boundaries and roads, and potential receptors such as buildings, water wells, utilities (distinguish between water, storm sewer and sanitary sewer), surface waters, ditches and any other pertinent items within 500 ft of the release source.

☒ Vapor survey map showing utilities and buildings with basements and monitoring locations within 500 feet (if a survey was required).

☒ Provide at least two (2) geologic cross sections, including utilities.

☒ Vapor intrusion assessment map showing all soil gas boring locations and buildings within and at a 100 feet radius of the worst case soil gas boring

☒ Aerial photos and Sanborn Maps of the immediate area.

Section 15: Tables

Tables are attached.

Section 16: Appendices

Attach the following appendices.

☒	***Appendix A***	**Guidance Document 3-02 *General Excavation Report Worksheet.***
☒	***Appendix B***	**Laboratory Analytical Reports for Soil, Soil Gas/Sub-slab Vapor/Indoor Air/Ambient Air, and Ground Water. Include laboratory QA/QC data, Chromatograms, and laboratory certification number.**
☒	***Appendix C***	**Methodologies and Procedures, Including Field Screening of Soil, Other Field Analyses, Soil Boring, Soil Sampling, Soil Gas/Sub-Slab/Indoor air/Ambient Air Sampling, Well Installation, and Water Sampling.**
☒	***Appendix D***	**Geologic Logs of Soil Borings, Including Construction Diagrams of Temporary and Permanent Wells, and Copies of the Minnesota Department of Health Well Record.**
☐	*Appendix E*	Copies of Water Supply Well Logs With Legible Unique Numbers.
☐	*Appendix F*	Grain Size Analysis, Hydraulic Conductivity Measurements, and Other Calculations.
☒	***Appendix G***	**Guidance Document 1-03a *Spatial Data Reporting Form.***
☐	*Appendix H*	Guidance Document 4-19 *Conceptual Corrective Action Design Worksheet*
☒	***Appendix I***	**Aerial Photograph**
☒	***Appendix J***	**Mail out survey, list of addresses, and responses**

Section 17: Consultant (or other) Information

By signing this document, I/we acknowledge that we are submitting this document on behalf of and as agents of the responsible person or volunteer for this leak site. I/we acknowledge that if information in this document is inaccurate or incomplete, it will delay the completion of remediation and may harm the environment and may result in reduction of reimbursement awards. In addition, I/we acknowledge on behalf of the responsible person or volunteer for this leak site that if this document is determined to contain a false material statement, representation, or certification, or if it omits material information, the responsible person or volunteer may be found to be in violation of Minn. Stat. § 115.075 (1994) or Minn. R. 7000.0300 (Duty of Candor), and that the responsible person or volunteer may be liable for civil penalties.

MPCA staff are instructed to reject unsigned investigation reports or if the report form has been altered.

Name and Title:	Signature:	Date signed:
Bruce Schaepe, P.E. Environmental Engineer	Bruce Schaepe	11/10/06
Diane K. Ruddle Environmental Professional	Bruce Schaepe for DKR	11/10/06

Company and mailing address:

Peer Engineering, Inc
7615 Golden Triangle Drive, Suite N
Eden Prairie, MN 55344

Phone: (952) 831-3341
Fax: (952) 831-4552

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FIGURES

SCALE IN MILES

0 0.5 1.0

0 2000 4000 6000

SCALE IN FEET

MAP LOCATION

N

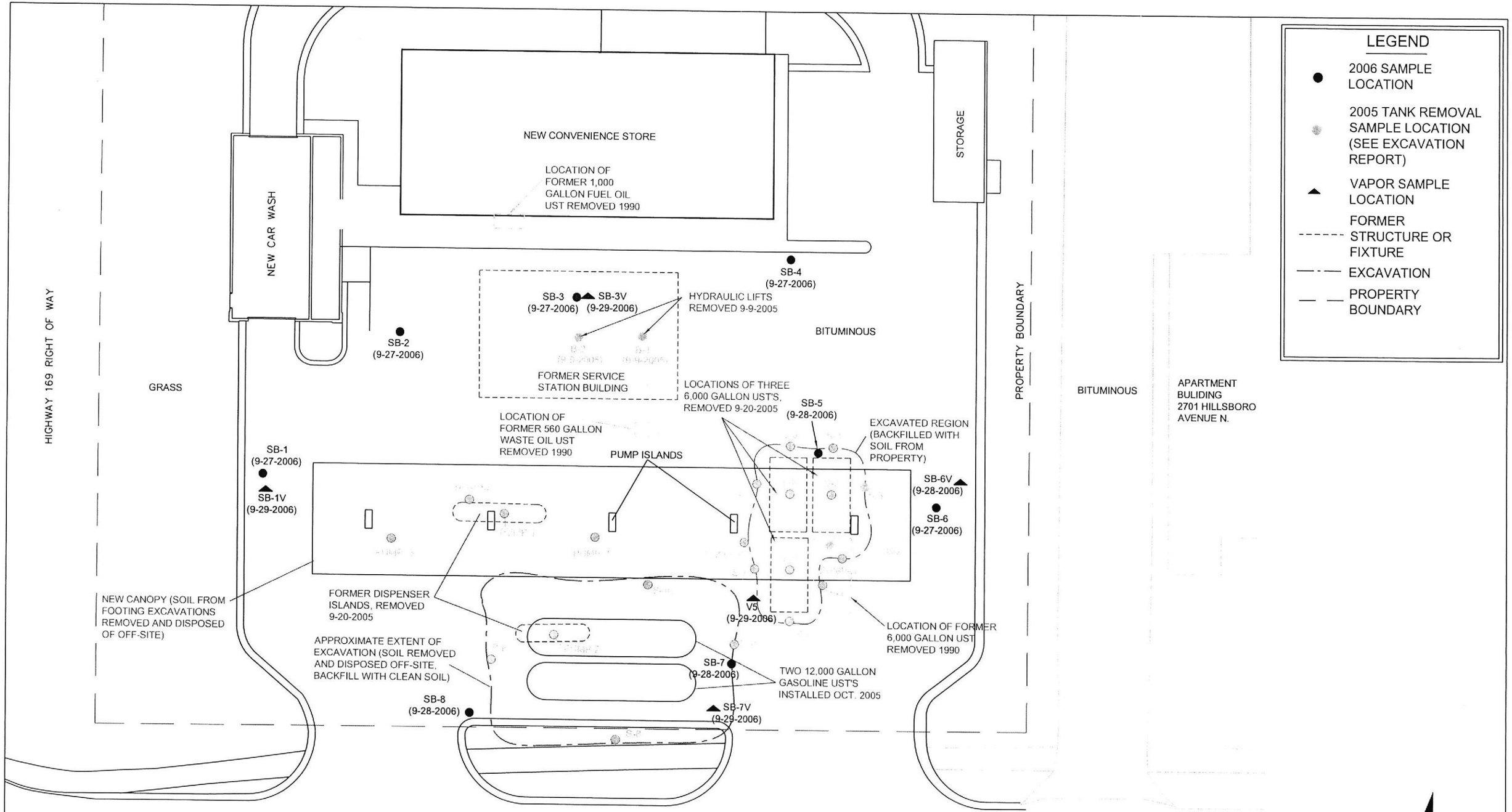
TAKEN FROM:
OSSEO, MN AND HOPKINS, MN
7.5 MINUTE SERIES
TOPOGRAPHIC MAP
1967 (REVISED 1993)
UNITED STATES GEOLOGICAL SURVEY

15111 Site Location Fig 1 SKF

Peer Engineering

PROJECT #:15111.02

SITE LOCATION MAP	OCT. 2006
SINCLAIR MARKETING, INC. 9456 MEDICINE LAKE ROAD NEW HOPE, MINNESOTA	FIGURE 1



MAP DATA PROVIDED BY SINCLAIR OIL CORPORATION, PEER FIELD DATA AND OBSERVATIONS, AND PREVIOUS REPORTS PRODUCED BY ENECOTECH (REMEDIAL INVESTIGATION/CORRECTIVE ACTION DESIGN REPORT, 2-5-1992; AND THE SUBSURFACE INVESTIGATION REPORT, 8-11-1998).

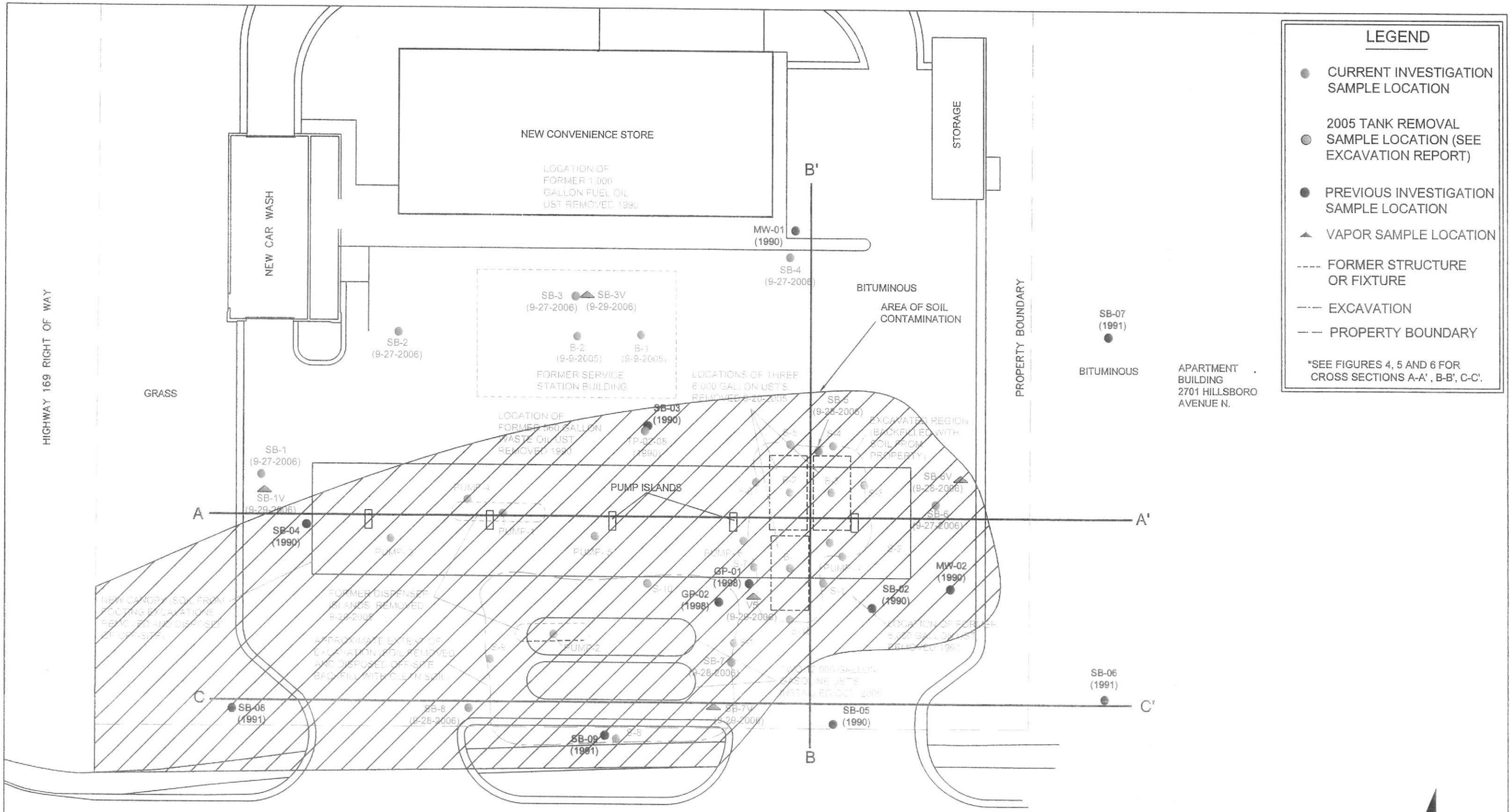
SCALE IN FEET
0 10 20

15111.02 Recent Investigation Locations.DWG

Peer Engineering

PROJECT #: 15111.02

RECENT INVESTIGATION LOCATIONS	OCT. 2006
SINCLAIR 9456 MEDICINE LAKE ROAD NEW HOPE, MINNESOTA	FIGURE 2



LEGEND

- CURRENT INVESTIGATION SAMPLE LOCATION
- 2005 TANK REMOVAL SAMPLE LOCATION (SEE EXCAVATION REPORT)
- PREVIOUS INVESTIGATION SAMPLE LOCATION
- VAPOR SAMPLE LOCATION
- ---- FORMER STRUCTURE OR FIXTURE
- —·— EXCAVATION
- — — PROPERTY BOUNDARY

*SEE FIGURES 4, 5 AND 6 FOR CROSS SECTIONS A-A' , B-B', C-C'.

MEDICINE LAKE ROAD

(COUNTY HIGHWAY NO. 70)

MAP DATA PROVIDED BY SINCLAIR OIL CORPORATION, PEER FIELD DATA AND OBSERVATIONS, AND PREVIOUS REPORTS PRODUCED BY ENECOTECH (REMEDIAL INVESTIGATION/CORRECTIVE ACTION DESIGN REPORT, 2-5-1992; AND THE SUBSURFACE INVESTIGATION REPORT, 8-11-1998).

SCALE IN FEET
0 10 20

15111.02 All Investigation Locations.DWG

Peer Engineering

PROJECT #: 15111.02

PAST AND CURRENT INVESTIGATION LOCATIONS	OCT. 2006
SINCLAIR 9456 MEDICINE LAKE ROAD NEW HOPE, MINNESOTA	FIGURE 3

A
WEST

A'
EAST

CURRENT PUMP CANOPY
(NEW PUMPS ARE LOCATED
AT EACH COLUMN)

SB-1 (2006) | SB-04 (1990) | SB-03 (1990) | GP-01 (1998) | SB-5 (2006) | SB-02 (1990) | SB-6 (2006) | MW-02 (1990)

SAND SEAM

SANITARY SEWER LINE

PUMP-1
PID = 45

TP-02-08
T.H.C. AS FUEL OIL
9,000 mg/kg

S-6
PID = 212

S-2
PID = 197

B-2
PID = 197

B-3
PID = 228

GAS LINE

AREA OF SOIL CONTAMINATION

APPROXIMATE LOCATION OF FORMER 560 GALLON WASTE OIL UST REMOVED 1990

APPROXIMATE LOCATION OF FORMER GASOLINE TANKS REMOVED 1998

(NORTH SIDE OF TANK BASIN)

(EOB 20')
(EOB 26')
(EOB 21')
(EOB 27')
(EOB 36')
(EOB 36')
(EOB 36')
(EOB 26')

LEGEND

- CURRENT INVESTIGATION DATA
- PREVIOUS INVESTIGATION DATA
- FORMER FEATURES (REMOVED 2005)
- (EOB nn') DEPTH AT END OF BORING
- SAMPLE LOCATION

ALL SOIL NOT DISPLAYED AS SAND IS HARD SILTY OR SANDY CLAY.

NUMBERS DISPLAYED ARE PID READINGS IN PPM (PARTS PER MILLION), EXCEPT FOR TP-02-08 WHICH IS T.H.C. AS FUEL OIL IN mg/kg.

ONLY SAMPLE LOCATIONS WITHIN 20 FEET OF THE CROSS SECTION LINE SHOWN IN FIGURE 3 WERE INCLUDED IN THIS CROSS SECTION.

MAP DATA PROVIDED BY SINCLAIR OIL CORPORATION, PEER FIELD DATA AND OBSERVATIONS, AND PREVIOUS REPORTS PRODUCED BY ENECOTECH (REMEDIAL INVESTIGATION/CORRECTIVE ACTION DESIGN REPORT, 2-5-1992; AND THE SUBSURFACE INVESTIGATION REPORT, 8-11-1998)

HORIZONTAL SCALE IN FEET
0 5 10
BELOW GROUND SURFACE
VERTICAL SCALE 2:1

15111.02 Cross Section (A-A').DWG

Peer Engineering

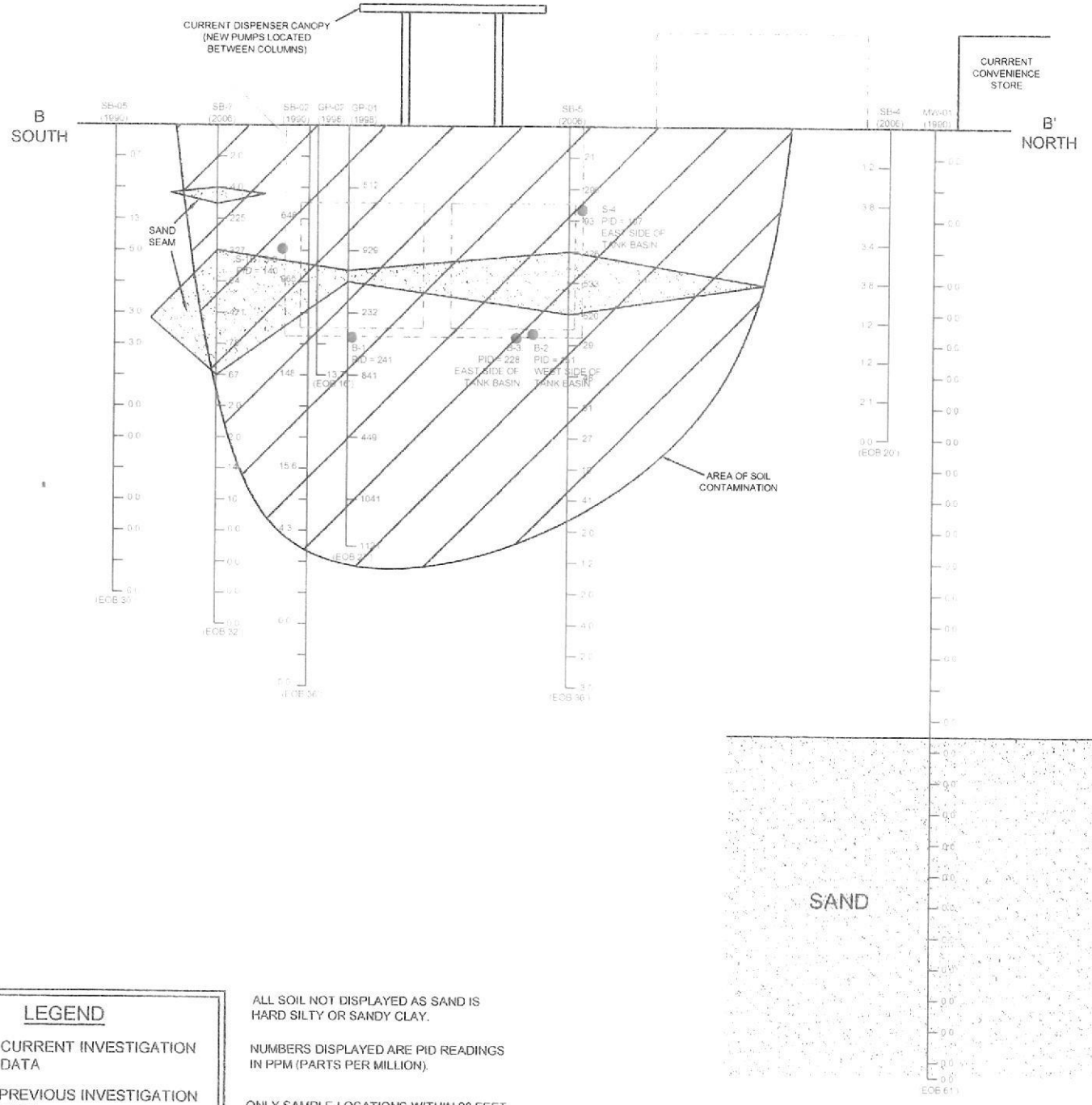
PROJECT #: 15111.02

CROSS SECTION A-A'

SINCLAIR
9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

OCT. 2006

FIGURE
4



LEGEND

- CURRENT INVESTIGATION DATA
- PREVIOUS INVESTIGATION DATA
- FORMER FEATURES (REMOVED 2005)
- (EOB nn') DEPTH AT END OF BORING
- SAMPLE LOCATION

ALL SOIL NOT DISPLAYED AS SAND IS HARD SILTY OR SANDY CLAY.

NUMBERS DISPLAYED ARE PID READINGS IN PPM (PARTS PER MILLION).

ONLY SAMPLE LOCATIONS WITHIN 20 FEET OF THE CROSS SECTION LINE SHOWN IN FIGURE 3 WERE INCLUDED IN THIS CROSS SECTION.

MAP DATA PROVIDED BY SINCLAIR OIL CORPORATION, PEER FIELD DATA AND OBSERVATIONS, AND PREVIOUS REPORTS PRODUCED BY ENECOTECH (REMEDIAL INVESTIGATION/CORRECTIVE ACTION DESIGN REPORT, 2-5-1992; AND THE SUBSURFACE INVESTIGATION REPORT, 8-11-1998).

N

SCALE IN FEET
0 10 20

BELOW GROUND SURFACE
VERTICAL SCALE 2:1'

15111.02 Cross Sections (X-SECTION B-B').dwg

Peer Engineering

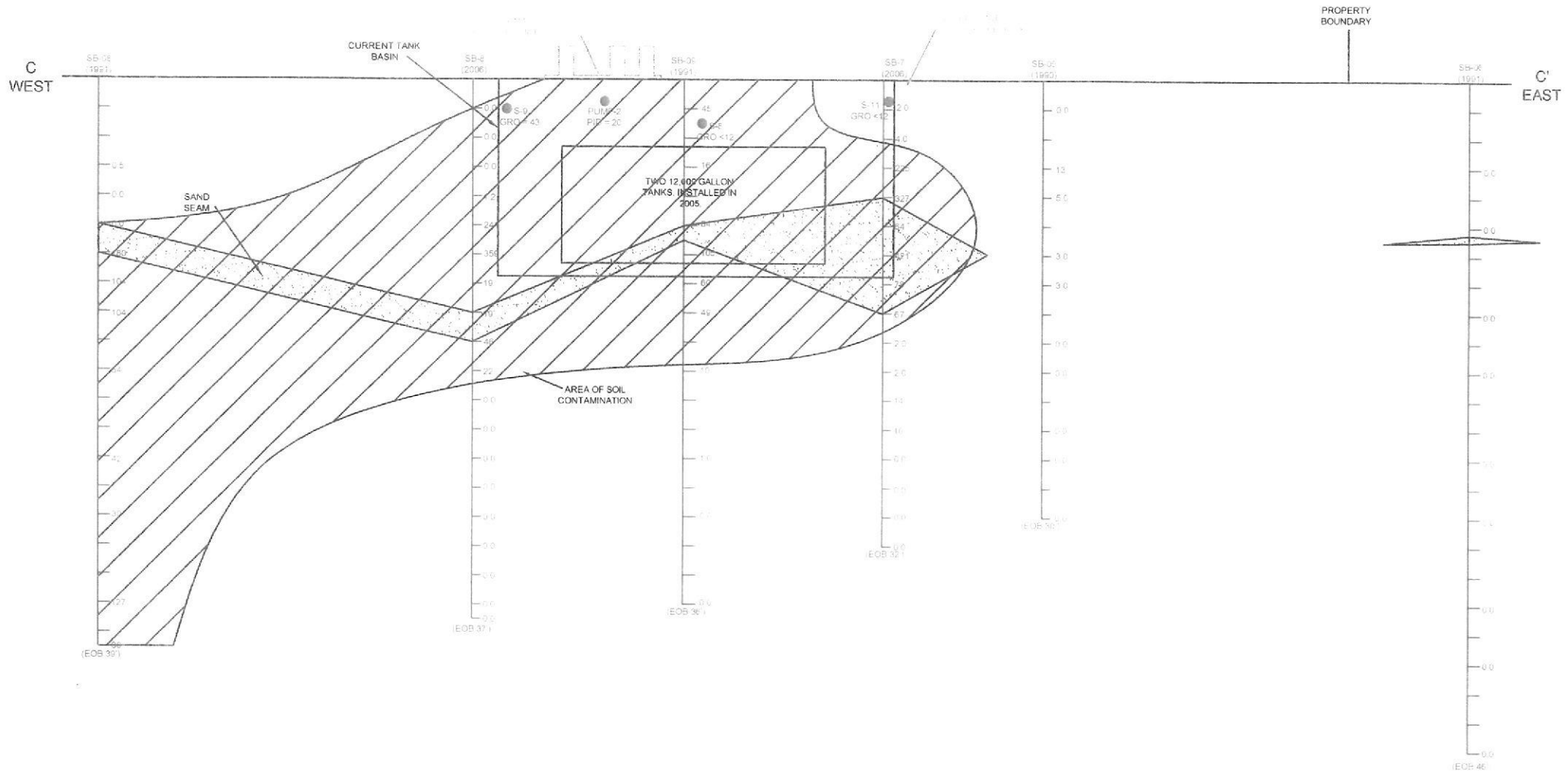
PROJECT #: 15111.02

CROSS SECTION B-B'

OCT. 2006

SINCLAIR
9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

FIGURE
5



LEGEND

- CURRENT INVESTIGATION DATA
- PREVIOUS INVESTIGATION DATA
- FORMER FEATURES (REMOVED 2005)
- (EOB nn') DEPTH AT END OF BORING
- SAMPLE LOCATION

ALL SOIL NOT DISPLAYED AS SAND IS HARD SILTY OR SANDY CLAY.

NUMBERS DISPLAYED ARE PID READINGS IN PPM (PARTS PER MILLION). EXCEPT FOR SAMPLES S-8, 9, AND 11 WHICH ARE GRO IN mg/kg.

ONLY SAMPLE LOCATIONS WITHIN 20 FEET OF THE CROSS SECTION LINE SHOWN IN FIGURE 3 WERE INCLUDED IN THIS CROSS SECTION.

MAP DATA PROVIDED BY SINCLAIR OIL CORPORATION, PEER FIELD DATA AND OBSERVATIONS, AND PREVIOUS REPORTS PRODUCED BY ENECOTECH (REMEDIAL INVESTIGATION/CORRECTIVE ACTION DESIGN REPORT, 2-5-1992; AND THE SUBSURFACE INVESTIGATION REPORT, 8-11-1998).

HORIZONTAL SCALE IN FEET
0 10 20

BELOW GROUND SURFACE:
VERTICAL SCALE 2:1'

15111.02 Cross Section (C-C').DWG

Peer Engineering

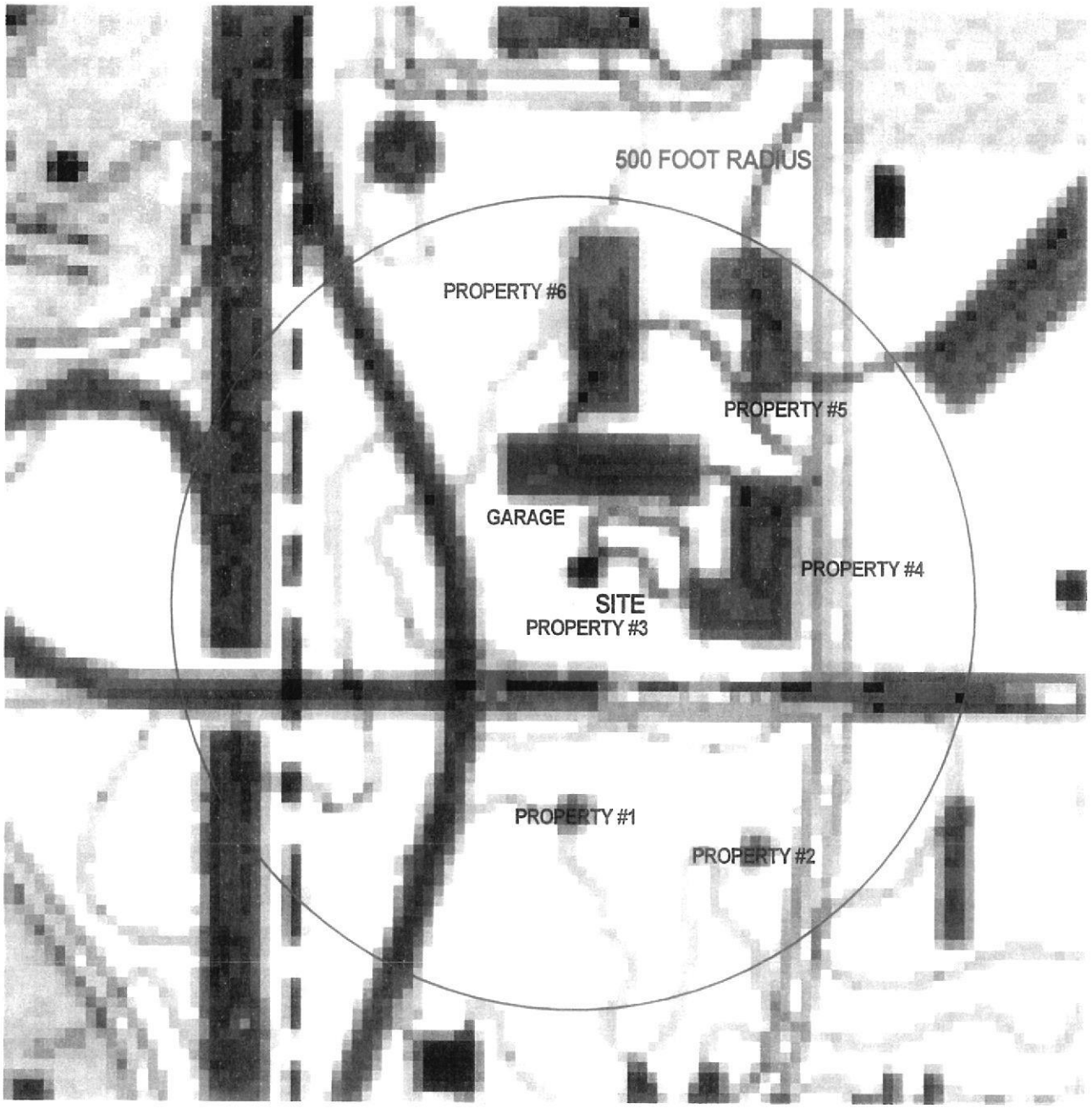
PROJECT #: 15111.02

CROSS SECTION C-C'

OCT. 2006

SINCLAIR
9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

FIGURE
6



REFER TO TABLE 14 FOR PROPERTY NUMBERS.

SCALE IN FEET

0 200

N

TAKEN FROM:
HOPKINS, MN
7.5 MINUTE SERIES
TOPOGRAPHIC MAP
1967 (REVISED 1993)
UNITED STATES GEOLOGICAL SURVEY

15111.02 500 FOOT RECEPTORS.SKF

Peer Engineering

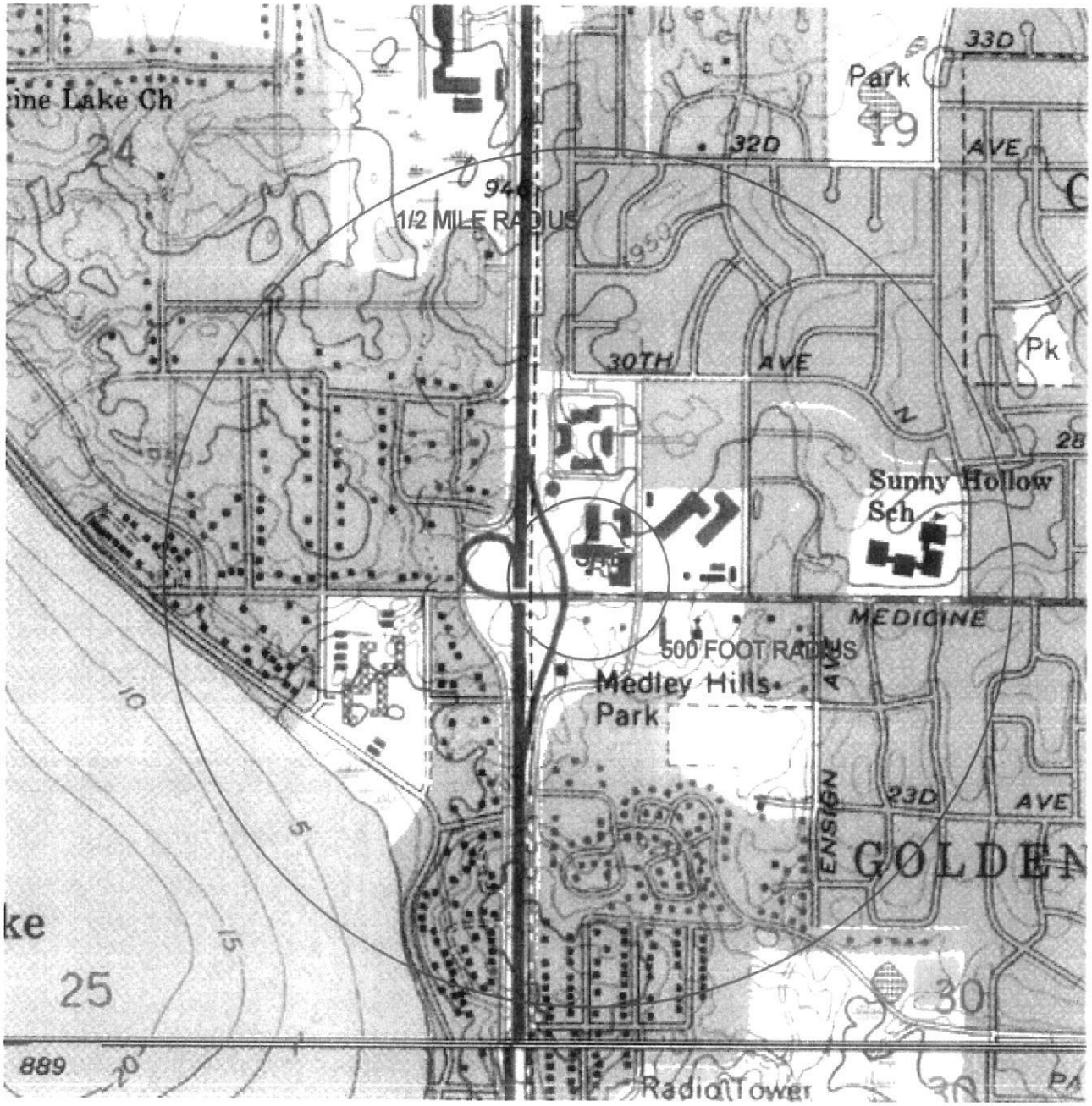
PROJECT #: 15111.02

POTENTIAL RECEPTORS WITHIN 500 FEET OF SITE

SINCLAIR MARKETING, INC.
9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

NOV. 2006

FIGURE
7



REFER TO TABLE 15 FOR UNIQUE WELL NUMBER.

SCALE IN MILES

0 0.25 0.5

0 1000 2000 3000

SCALE IN FEET

MAP LOCATION

N

TAKEN FROM:
OSSEO, MN AND HOPKINS, MN
7.5 MINUTE SERIES
TOPOGRAPHIC MAP
1967 (REVISED 1993)
UNITED STATES GEOLOGICAL SURVEY

Wells 1-2 mile.SKF

Peer Engineering

PROJECT #: 15111.02

WELL RECEPTORS WITHIN 1/2 MILE OF SITE

SINCLAIR MARKETING, INC.
9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

NOV. 2006

FIGURE
8

TABLES

Table 1
Tank Information

Tank #	UST or AST	Capacity (Gallons)	Contents	Year Installed	Status	Condition
1	UST	6000*	Gasoline*	1964*	Removed* 1990	Corrosion indentations observed*
2	UST	1000*	Fuel Oil*	1964*	Removed* 1990	1/8 inch diameter hole at base of tank*
3	UST	560*	Waste Oil*	1964*	Removed* 1990	Good*
4	UST	6,000	Gasoline	1964	Removed 9-20-2005	Good
5	UST	6,000	Gasoline	1964	Removed 9-20-2005	Good
6	UST	6,000	Gasoline	1964	Removed 9-20-2005	Good
7	UST	12,000	Gasoline	2005	Present	Unknown
8	UST	12,000	Gasoline	2005	Present	Unknown

Notes:

* = Indicates information obtained from Appendix A of the Remedial Investigation/ Corrective Action Design Report produced by EnecoTech on 2-5-1992.

Table 2
Results of Soil Headspace Screening

Depth (ft)	Soil Boring 1	2	3	4
(0-2.5')	0	NS	0	1.2
(2.5-5')	0	0	0	3.8
(5-7.5')	0	0	0	3.4
(7.5-10')	0	0	0	3.8
(10-12.5')	0	NS	0	1.2
(12.5-15')	0		0	1.2
(15-17.5')	0	10.7	0	2.1
(17.5-20')	0	0	0	0

Depth (ft)	Soil Boring 5	6	7	8
(0-2')	21	NS	2	0
(2-4')	296	0	4	0
(4-6')	93	0	225	0
(6-8')	426	3	327	1.2
(8-10')	533	269	64	241
(10-12')	520	332	421	359
(12-14')	29	65	78	19
(14-16')	48	2	67	19
(16-18')	31	0	2	46
(18-20')	27	2	2	22
(20-22')	10	0	14	0
(22-24')	41	0	10	0
(24-26')	2	0	0	0
(26-28')	1.2	0	0	0
(28-30')	2	0	0	0
(30-32')	4	0	0	0
(32-34')	2	0		0
(34-36')	3	0		0
(36-38')				0
(38-40')				

Notes:

Soil was screened with a Thermo Environmental model 580 B photoionization detector (PID) equipped with a 10.6 eV lamp.
All readings are in parts per million (ppm) calibrated to a benzene scale.
Bold line indicates termination depth of probe.
Field methods and procedures are included in Appendix C.
Boring and/or probe logs are included in Appendix D.
NS = No Sample Collected

Table 3
Analytical Results of Soil Samples

Boring, Depth (ft)	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylenes	GRO	DRO	Lab Type
SB-1 (12.5-15')	9/27/2006	ND (0.056)	ND (0.056)	ND (0.056)	ND (0.056)	ND (11)	NA	Fixed
SB-2 (17.5-20')	9/27/2006	ND (0.058)	ND (0.058)	ND (0.058)	ND (0.056)	NA	**11**	Fixed
SB -3 (12.5-15')	9/27/2006	ND (0.058)	ND (0.058)	ND (0.058)	ND (0.056)	NA	ND (11)	Fixed
SB-4 (7.5-10')	9/27/2006	ND (0.056)	ND (0.056)	ND (0.056)	ND (0.056)	NA	ND (11)	Fixed
SB-5 (8-10')	9/28/2006	**5.3**	**48**	**28**	**380**	**3,200**	NA	Fixed
SB-5 (24-26')	9/28/2006	ND (0.056)	ND (0.056)	ND (0.056)	ND (0.056)	ND (11)	NA	Fixed
SB-5 (34-36')	9/28/2006	ND (0.056)	ND (0.056)	ND (0.056)	ND (0.056)	ND (11)	NA	Fixed
SB-6 (10-12')	9/28/2006	**0.53**	**0.08**	**1.6**	**9.1**	**56**	NA	Fixed
SB-6 (20-22')	9/28/2006	ND (0.058)	ND (0.058)	ND (0.058)	ND (0.058)	ND (12)	NA	Fixed
SB-7 (10-12')	9/27/2006	**0.85**	**9.5**	**5.6**	**30.2**	**310**	NA	Fixed
SB-7 (24-26')	9/27/2006	ND (0.056)	ND (0.056)	ND (0.056)	ND (0.056)	ND (11)	NA	Fixed
SB-8 (10-12')	9/28/2006	ND (0.062)	ND (0.062)	**0.11**	**0.12**	**110**	NA	Fixed
SB-8 (20-22')	9/28/2006	ND (0.057)	ND (0.057)	ND (0.057)	ND (0.057)	ND (11)	NA	Fixed
Trip Blank	9/27/2006	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (10)	NA	Fixed
Trip Blank	9/28/2006	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	NA	NA	Fixed

Notes:
All readings are in milligrams per kilogram (mg/kg, equivalent to parts per million).
< = Not detected at or above concentration listed.
NA = Sample not analyzed for parameter.

Table 5
Other Contaminants Detected in Soils (Petroleum or Non-petroleum Derived)

Boring, Depth (ft)	Date Sampled	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	4-Isopropyl toluene	Isopropyl benzene	n-Propyl benzene	Napthalene	Lab Type
SB-2 (17.5-20')	9/27/2006	0.12	ND (0.058)	ND (0.058)	ND (0.058)	ND (0.058)	ND (0.058)	Fixed
SB-5 (8-10')	9/28/2006	200	53	2.8	4.4	12	23	Fixed
SB-6 (10-12')	9/28/2006	5.5	1.5	0.062	0.21	0.73	1.5	Fixed
SB-7 (10-12')	9/27/2006	19	4.9	0.3	0.86	3.1	4.7	Fixed
SB-8 (10-12')	9/28/2006	2.5	1.2	0.099	0.18	0.75	0.14	Fixed

Notes:
All readings are in milligrams per kilogram (mg/kg, equivalent to parts per million).
ND = Not detected at or above concentration listed.
NA = Sample not analyzed for parameter.

Table 14
Properties Located Within 500 Feet of Release Source

# (From Map)	Property Address	Water Well (Y or N)	How Determined*	Well Use**	Public Water Supply (Y or N)	Confirmed By City (Y or N)	Basement Or Sumps (Y or N)	Possible Petroleum Sources (Y or N)	Comments (including property use)
1	9405 Medicine Lake Road	N	Assumed	NA	Y	Y	N		
2	9315 Medicine Lake Road	N	Assumed	NA	Y	Y	N		
3	9456 Medicine Lake Road	N	Assumed	NA	Y	N	N		
4	2701 Hillsboro Avenue N	N	Returned Survey	NA	Y	Y	Y	N	Garden Level Apartments
5	2781 Hillsboro Avenue N	N	Returned Survey	NA	Y	Y	Y	N	Garden Level Apartments
6	2715 Hillsboro Avenue N	N	Returned Survey	NA	Y	Y	Y	N	Garden Level Apartments
7									
8									
9									

**The method used to determine the data is provided (e.g., visual observation, personal contact, telephone, returned postcard, assumed).*
***The primary well use as listed in the well record or owner description (e.g., domestic, industrial, municipal, livestock, lawn/gardening, irrigation).*
Notes:

Property locations are displayed on Figure 7.

Assumed = Receptor surveys are sent to the property addresses listed above. In the receptor survey it states that if the survey is not returned it will be assumed that there are no active or abandoned wells or a basement on the referenced property.

Table 15
Water Supply Wells Located Within 500 Feet of the Release Source and Municipal or Industrial Wells Within ½ Mile

Unique Well #	Ground Elevation	Total Depth (ft)	Base of Casing (ft)	Static Elevation	Aquifer	Use	Owner	Distance & Direction from Source
No wells are located within 500 feet of the Site.								

Notes:
No Munipical or Industrial wells located within a half-mile of the Site.

Table 17
Results of Soil Gas Sampling for Vapor Intrusion Screening

Sample Location	SB-3V		SB-6V		SB-7V		V5		Action Level	
Date	9/29/2006		9/28/2006		9/29/2006		9/29/2006		($\mu g/m^3$)	
Depth (feet)	4'		8'		4'		4'			
COMPOUNDS	Result	Report Limit	Result	Report Limit	Result	Report Limit	Result	Report Limit	Residential ISV	Industrial ISV
Acetone	ND	322	51.5	0.66	75.6	0.99	ND	703	350	511
Benzene	ND	436	42	0.9	11.7	1.3	ND	952	4.5	4.5
2-Butanone (MEK)	ND	402	10.7	0.83	16.1	1.2	ND	879	5000	7300
Carbon Disulfide	ND	422	1.6	0.87	1.4	1.3	ND	923	700	1022
Cyclohexane	ND	456	58	0.94	16.8	1.4	369,000	9,960	6000	8760
Dichlorodifluromethane	ND	670	2.1	1.4	2.1	2.1	ND	1,460	NE	-
Ethylbenzene	ND	590	42.6	1.2	20.4	1.8	31,200	1,290	22 ?,	37 ?,
4-Ethyltoluene	ND	1,680	18.5	3.4	40.6	5.2	12,800	3,660	NE	-
n-Heptane	ND	556	70.9	22.9	31	1.7	607,000	12,200	NE	-
n-Hexane	ND	482	116	19.9	25.5	1.5	2,440,000	10,500	700	1022
Naphthalene	ND	1,810	8	3.7	20.8	5.6	ND	3,960	NE	-
Propylene	ND	234	1810	9.7	63.3	0.72	ND	513	3000 ?,	4380 ?,
Tetrachloroethene	ND	938	ND	1.9	25.2	2.9	ND	2,050	8 ?,	14 ?,
Toluene	ND	516	62.6	1.1	61.6	1.6	ND	1,130	400	400
1,2,4-Trimethylbenzene	ND	1,680	41.1	3.4	115	5.2	18,400	3,660	6	9
1,3,5-Trimethylbenzene	ND	1,680	14.4	3.4	32.9	5.2	10,200	3,660	6	9
m&p-Xylene	ND	1,180	106	2.4	146	3.6	33,100	2,580	100	146
o-Xylene	ND	590	29.9	1.2	70.1	1.8	2,430	1,290	100	146

IRIS=1000

<hr HRV=2000

<hr HRV=9

<hr HRV=2000

Notes:

All results reported and action levels listed in micrograms per cubic meter ($\mu g/m^3$).

ND = Not detected at or above the laboratory reporting limit.

NE = Action level not established for this parameter.

ISV = Intrusion Screening Value

APPENDIX A

GENERAL EXCAVATION REPORT

Petroleum Remediation Program
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

General Excavation Report Worksheet

Guidance Document 3-02

Complete the worksheet below to document excavation and treatment of petroleum contaminated soil removed **prior to** a Site Investigation and/or during tank removals and/or upgrades. If soil is excavated as an MPCA-approved corrective action **after** a Site Investigation is conducted, complete Guidance Document 3-02a *Corrective Action Excavation Report Worksheet.* Conduct excavations in accordance with Guidance Document 3-01 *Excavation of Petroleum Contaminated Soil.* Please type or print clearly. Do not revise or delete text or questions from this report form.

The excavation worksheet 3-02 deadline is 10 months from the date of receipt of the MPCA "Petroleum Storage Tank Release Investigation and Corrective Action" letter. MPCA staff may establish a shorter deadline for high priority sites.

PART I: BACKGROUND

A. Site: **Sinclair Station**

MPCA Site ID#: LEAK 10868

Street: **9456 Medicine Lake Road**
City, Zip: **New Hope, 55427**
County: **Hennepin County**
Site location (UTM required): **See Document 1-03a**

B. Tank Owner/Operator: **Sinclair Oil Corporation**

Mailing Address: **Attn: Larry Feldsien**

Street/Box: **1001 East Cliff Road #201**
City, Zip: **Burnsville, 55337**
Telephone: **952-736-1100**

C. Excavating Contractor: **Griffin Contracting**
Contact: **Dave Manders**
Telephone: **763-780-6332**
Tank Contractor Certification Number: **178**

D. Consultant: **Peer Engineering, Inc**
Contact: **Bruce Schaepe**
Street/Box: **4801 West 81st Street, Suite 118**
City, Zip: **Bloomington, 55437**
Telephone: **952-937-0589**

E. Others on-site during site work (e.g., fire marshal, local officials, MPCA staff, etc.): **NA**

F. Site Location Information: Attach Guidance Document 1-03a *Spatial Data Reporting Form* if it has not already been submitted or will not be submitted as part of Guidance Document 4-06 *Investigation Report Form.*

Note: If person other than tank owner and/or operator is conducting the cleanup, provide name, address, and relationship to site on a separate attached sheet.

PART II: DATES

A. Date release reported to MPCA: **9-19-2005**

B. Dates site work performed (tanks removed, piping removed, soil excavation, soil borings, etc.):

Work Performed	Date
Removed 2 Hydraulic Hoists	**9/9/2005**
Pump islands removed	**9/19/2005**
Tanks removed	**9/20/2005**
New tanks installed	**9/20/2005 - 9/23/2005**
New dispenser islands and piping installed	**10/10/2005 – 10/21/2005**

PART III: SITE AND RELEASE INFORMATION

A. Describe the land use and pertinent geographic features within 1,000 feet of the site.
(i.e. residential property, industrial, wetlands, etc.)

Land use is mostly residential with some light commercial directly south of the site. Highway 169 is immediately west of the site. Medicine Lake is located 1,500 feet southwest of the site.

B. Provide the following information for all tanks removed and any remaining at the site:

Table 1.

Tank #	UST or AST	Capacity (gallons)	Contents (product type)	Year installed	Tank Status*	Condition of Tank
1	UST	6,000	Gasoline	1964	Removed 9-20-05	Good
2	UST	6,000	Gasoline	1964	Removed 9-20-05	Good
3	UST	6,000	Gasoline	1964	Removed 9-20-05	Good
4	UST	12,000	Gasoline	2005	New Install	New
5	UST	12,000	Gasoline	2005	New Install	New

*Indicate: *removed (date), abandoned in place (date), or currently used, upgraded tank, installation of new tank.*

C. Describe the location and status of the other components of the tank system(s) (i.e., transfer locations, valves, piping and dispensers) for those tanks listed above.

Two hydraulic lifts located in the former service station building were removed on September 9, 2005. The lifts did not show evidence of leaks.

The former dispensers were located approximately 45 and 35 feet west of the former tank basin. Evidence of petroleum contamination was observed in the vicinity of the dispensers.

5 new pump islands were installed, in a line, 20 feet north of the new tanks at an interval of 26 feet apart.

D. Identify and describe the source(s) or suspected source(s) of the release or contamination encountered, and how the release or contamination was discovered.

The contamination was detected during the removal of the former tanks and associated dispensers. The suspected source of the release is believed to be a previous leak at the site. The tanks were in good condition during removal (no holes, significant rust, etc.)

E. Identify any surface soil contamination. **None observed**

F. What was the volume of the release? (if known): **Unknown** gallons

G. Historic contamination present (unknown origin?): **Yes**

The site has two previous MPCA leak site numbers, LEAK# 2433 and 10868. These releases were previously investigated and closed in 1995 and 1999 respectively.

H. When did the release occur? (if known): **Unknown**

I. Describe source of on-site drinking water. **City Water**

PART IV: EXCAVATION INFORMATION

A. Dimensions of excavation(s):

Former tank basin: **Length 41 feet, Width 22 feet, Depth 13 feet**
New tank basin: **Length 55 feet, Width 35 feet, Depth 12 feet**
Trenches for new dispensers and piping: **Length 115 feet, Width 10 feet, Depth 2 feet AND Length 10 feet, Width 10 feet, Depth 2 feet**

B. Original tank backfill material (sand, gravel, etc.), if applicable: **Sand**

C. Native soil type (clay, sand, etc.): **Sandy clay**

D. Quantity of contaminated soil removed for treatment: **967.68 tons* x 1 CY/1.5 ton = 645 CY**
(Indicate on the site map where the petroleum contaminated soil was excavated)
*** Disposal summary included as Appendix B**

How many cubic yards of the removed soil was petroleum saturated? **0**
(Indicate on the site map where the petroleum saturated soil was excavated)

[**Note:** If the volume removed is more than allowed in Guidance Document 3-01 *Excavation of Petroleum Contaminated Soil*, please document MPCA staff approval.]

Mr. Larry Feldsien of Sinclair contacted Chris McLain of the MPCA staff was contacted on October 19, 2005 to request permission to dispose of soil in excess of the volume allowed in Guidance Document 3-01 as a corrective action. Mr. McLain indicated that his decision could not be made at that time and would depend on his review of this Excavation Report.

E. Were new tanks and/or piping and dispensers installed? **Yes** If yes, what volume of contaminated soil was excavated to accommodate the installation of the new tanks and piping?

The new tank basin is located in a different area than the contaminated tank basin. A small portion of the soil that was removed during the preparation for the new tank basin was used to fill in the excavated region for the old tank basin. Contaminated soil was also removed while excavating the footings for the new canopy and to accommodate the piping that connects the new tanks to the five dispenser islands.

F. If contaminated soil was removed to accommodate the installation of new tanks and/or piping, show your calculations for the amount of soil removal allowed using Table 3 in Guidance Document 3-01 *Excavation of Petroleum Contaminated Soil.*

Removal of three 6,000 gallon UST's (3*(-30CY)), installation of two 12,000 gallon tanks (2*240CY) and 125 linear feet of piping trench (125*0.33CY).

3*(-30CY)+(2*240CY)+(125*0.33CY) = 432 CY

G. Was ground water encountered or a suspected perched water layer or was there evidence of a seasonally high ground water table (i.e. mottling)? (Yes/**No**) At what depth?

H. If ground water was not encountered during the excavation, what is the expected depth of ground water? **55 Feet**

I. Additional investigation to determine the need for a Limited Site Investigation is necessary at sites with sandy or silty sandy soil, a water table within 25 feet of the ground surface, and visual or other evidence of soil remaining contamination. See Table 2 in Guidance Document 3-01 *Excavation of Petroleum Contaminated Soil.* If a soil boring is necessary, describe the soil screening and analytical results. Attach the boring logs and laboratory results to this report. **N/A**

J. If no soil boring was performed, explain.

The site is a previously reported MPCA leak site. The most recent investigation was closed by the MPCA on February 25, 1999. The contamination observed at the site is likely due to a past leak. If deemed necessary by MPCA, another limited site investigation will be conducted.

K. If ground water was encountered or if a soil boring was conducted, was there evidence of ground water contamination? (yes/no) Describe this evidence of contamination, e.g., free product (specify thickness), product sheen, ground water in contact with petroleum contaminated soil, water analytical results, etc. **Note**: If you observe free product, contact MPCA staff immediately, as outlined in Guidance Document 2-02 *Free Product: Evaluation and Recovery*.

N/A

L. Was bedrock encountered in the excavation? (☐yes/ ☒**No**) At what depth?

M. Were other unique conditions associated with this site? (☐yes/ ☒**No**) If so, explain.

PART V: SAMPLING INFORMATION

A. Briefly describe the field screening methods used to distinguish contaminated from uncontaminated soil:

Field screening methods are included as Appendix C.

B. List soil vapor headspace analysis results collected during excavation of tanks, lines and dispensers, valves, and transfer locations. (i.e., soils left in place when excavation is complete). Code the samples with sampling depths in parentheses as follows: sidewall samples S-1 (8 feet), S-2 (4 feet), etc.; bottom samples B-1 (13 feet), B-2 (14 feet), removed soil R-1 (4 feet), R-1 (8 feet), etc.; stockpile samples SP-1, etc; line samples L-1, L2, etc.; transfer locations T-1 (4 feet), T-1 (8 feet), etc.; dispensers D-1 (4 feet), etc. **Be sure the sample codes correspond with the site map in part VI, below.**

Sample Code	Soil Type	Reading ppm	Sample Code	Soil Type	Reading ppm
B-1 (9-9-2005) (7')	**Sandy**	**0.0**	**S-4 (4.5-5')**	**Sand**	**197**
B-2 (9-9-2005) (7')	**Sandy**	**0.0**	**S-5 (4.5-5')**	**Sandy Clay**	**141**
B-1 (13-13.5')	**Sandy Clay**	**241**	**S-6 (6-6.5')**	**Sand**	**212**
B-2 (13-13.5')	**Sand**	**151**	**S-7 (10-10.5')**	**Sand**	**179**
B-3 (13-13.5')	**Sand**	**228**	**S-8 (8-8.5')**	**Sandy Clay**	**140**
Pump-1 (1-1.5')	**Sandy Clay**	**45**	**SSP-1**	**Sandy Clay**	**4**
Pump-2 (1-1.5')	**Sandy Clay**	**20**	**SSP-2**	**Sand**	**100**
S-1 (8-8.5')	**Sand**	**81**	**SSP-3**	**Sand**	**266**
S-2 (9-9.5')	**Sand**	**197**	**SSP-4**	**Sand**	**168**
S-3 (10-10.5')	**Sandy Clay**	**87**	**SSP-5**	**Sandy Clay**	**88**
			SSP-6	**Sandy Clay**	**100**

C. Was the "removed soil" placed back into the excavation basin? (☒**Yes**/ ☐no)
If no, please complete Part VIII: Soil Treatment Information section. If yes, a Limited Site Investigation is necessary (see Guidance Document 4-01 *Soil and Ground Water Assessments Performed during Site Investigations*).

A limited site investigation will be conducted if necessary.

D. Briefly describe the soil analytical sampling and handling procedures used:

Soil analytical sampling and handling procedures are included in Appendix C.

E. List below all soil sample analytical results from bottom and side wall samples collected after excavation of tanks, lines and dispensers, valves, and transfer locations (i.e., soils left in place when excavation is complete). Code the samples with sampling depths in parentheses as follows: sidewall samples S-1 (8 feet), S-2 (4 feet), etc.; bottom samples B-1 (13 feet), B-2 (14 feet), removed soil R-1 (4 feet), R-1 (8 feet), etc.; stockpile samples SP-1, etc; line samples L-1, L2, etc.; transfer locations T-1 (4 feet), T-1 (8 feet), etc.; dispensers D-1 (4 feet), etc.; **Be sure the sample codes correspond to the site map required in part VI.**

Sample Code	GRO/ DRO	Benzene mg/kg	Ethyl-benzene mg/kg	Toluene Mg/kg	Xylene mg/kg	MTBE mg/kg	Lead mg/kg
B-1 (7') (9/9/2005)	**<12/18**	**<0.029**	**<0.029**	**0.033**	**0.071**	**NA**	**NA**
B-2 (7') (9/9/2005)	**<11/88**	**<0.028**	**<0.028**	**0.032**	**0.033**	**NA**	**NA**
B-1 (13-13.5')	**1300/NA**	**4.9**	**22**	**39**	**182**	**NA**	**NA**
B-2 (13-13.5')	**4500/NA**	**4.2**	**12**	**15**	**281**	**NA**	**NA**
B-3 (13-13.5')	**1200/NA**	**3.1**	**16**	**22**	**149**	**NA**	**NA**
Pump-1 (1-1.5')	**170/NA**	**<0.057**	**0.61**	**0.27**	**3.2**	**NA**	**NA**
Pump-2 (1-1.5')	**7300/NA**	**28**	**96**	**170**	**680**	**NA**	**NA**
S-8 (2.5-3)	**<12/NA**	**<0.060**	**<0.060**	**<0.060**	**<0.060**	**<0.060**	**NA**
S-9 (1.5-2)	**43/NA**	**<0.058**	**0.095**	**<0.058**	**0.51**	**<0.058**	**NA**

Sample Code	GRO/ DRO	Benzene mg/kg	Ethyl-benzene mg/kg	Toluene Mg/kg	Xylene mg/kg	MTBE mg/kg	Lead mg/kg
S-10 (3.5-4)	**<11/NA**	**<0.057**	**<0.057**	**<0.057**	**<0.057**	**<0.057**	**NA**
S-11 (1-1.5)	**<12/NA**	**<0.062**	**<0.062**	**<0.062**	**<0.062**	**<0.062**	**NA**
Pump-3 (1.5')	**59/NA**	**<0.058**	**0.49**	**0.47**	**2.49**	**<0.058**	**NA**
Pump-4 (1.5')	**16/NA**	**<0.062**	**0.10**	**0.065**	**0.59**	**<0.062**	**NA**
Pump-5 (1')	**21/NA**	**0.18**	**0.066**	**<0.058**	**0.49**	**<0.058**	**NA**
Pump-6 (1.5')	**29/NA**	**0.082**	**0.095**	**0.11**	**0.39**	**<0.059**	**NA**
Pump-7 (1')	**30/NA**	**<0.057**	**0.19**	**0.12**	**0.90**	**<0.057**	**NA**
SSP-3	**NA/NA**	**1.1**	**7.0**	**4.9**	**38**	**NA**	**6.9**
SSP-4	**NA/NA**	**0.46**	**2.6**	**1.8**	**12.4**	**NA**	**4.5**

Note: **Laboratory reports and chain of custody forms are attached as Appendix D.**
NA= Not Analyzed
SSP= Soil Stockpile

PART VI: FIGURES

Attach the following figures to this report:

1. Site location map.
2. Site map(s) drawn to scale illustrating the following:
   a. Location of all present and former tanks, piping, and dispensers;
   b. Location of surface soil contamination
   c. Location of other structures (buildings, canopies, etc.);
   d. Adjacent city, township, or county roadways;
   e. Dimensions of excavation(s), including contour lines (maximum 2-foot contour intervals) to represent the depths of the final excavation(s);
   f. Location of soil screening samples (e.g. R-1), soil analytical samples (e.g., S-1 or B-1), and any soil borings (e.g., SB-1). Also, attach all boring logs.
   g. North arrow, bar scale and map legend.
   h. Provide location of any on-site water wells. If on-site water wells exist, please provide well logs and/or construction diagrams.
   i. Locations of new tanks, piping and dispensers, if installed.

PART VII: CONCLUSIONS AND RECOMMENDATIONS

Recommendation for site: ☐ site closure
☐ additional investigation

Justify the recommendations for the site. If no further action is necessary, the MPCA staff will review this report following notification of soil treatment.

The contamination is likely related to one of the previous leaks reported at the site. Land use on the site is not changing; it will continue to operate as a gas station. The old tanks have been removed from the site and new tanks have been installed.

PART VIII: SOIL TREATMENT INFORMATION

A. Soil treatment method used (thermal, land application, composting, other). If you choose "other" specify treatment method: **Disposal at solid waste landfill**

B. Location of treatment site/facility: **Onyx FRC Landfill,**
175 County Rd 37 NE
Buffalo, MN 55313

C. Date MPCA approved soil treatment (if thermal treatment was used, indicate date that the MPCA-permitted thermal treatment facility agreed to accept soil): **NA**

D. Identify the location of stockpiled contaminated soil: **See Figure 2**

PART IX: CONSULTANT (OR OTHER) PREPARING THIS REPORT

By signing this document, I/we acknowledge that we are submitting this document on behalf of and as agents of the responsible person or volunteer for this leak site. I/we acknowledge that if information in this document is inaccurate or incomplete, it will delay the completion of remediation and may harm the environment and may result in reduction of reimbursement awards. In addition, I/we acknowledge on behalf of the responsible person or volunteer for this leak site that if this document is determined to contain a false material statement, representation, or certification, or if it omits material information, the responsible person or volunteer may be found to be in violation of Minn. Stat. § 115.075 (1994) or Minn. 7000.0300 (Duty of Candor), and that the responsible person or volunteer may be liable for civil penalties.

MPCA staff are instructed to reject unsigned excavation reports or if the report form has been altered.

Name and Title:	Signature:	Date signed:
Bruce Schaepe, P.E. Environmental Engineer		11/14/05
Diane Ruddle Environmental Professional		11/14/2005

Company and mailing address: Peer Engineering, Inc.
4801 West 81st Street, Suite 118
Bloomington, MN 55437
Phone: 952-831-3341
Fax: 952-831-4552

If additional investigation is not necessary, please mail this form and all necessary attachments to the MPCA project manager. If additional investigation is necessary, include this form as an appendix to Guidance Document 4-06 *Investigation Report Form.* **MPCA staff will not review excavation reports indicating a limited site investigation is necessary unless the limited site investigation has been completed.**

Web pages and phone numbers

MPCA staff	http://pca.state.mn.us/pca/staff/index.cfm
MPCA toll free	**1-800-657-3864**
Petroleum Remediation Program web page	http://www.pca.state.mn.us/programs/lust_p.html
MPCA Infor iRequest	http://www.pca.state.mn.us/about/inforequest.html
MPCA Petroleum Brownfields Program	http://www.pca.state.mn.us/programs/vpic_p.html
PetroFund Web Page	http://www.state.mn.us/cgi-bin/portal/mn/jsp/content.do?id=-536881377&agency=Commerce
PetroFund Phone	**651-297-1119**, or **1-800-638-0418**

State Duty Officer 651-649-5451 or 1-800-422-0798

FIGURES

SCALE IN MILES

0 0.5 1.0

0 2000 4000 6000

SCALE IN FEET

MAP LOCATION

N

TAKEN FROM:
OSSEO, MN AND HOPKINS, MN
7.5 MINUTE SERIES
TOPOGRAPHIC MAP
1967 (REVISED 1993)
UNITED STATES GEOLOGICAL SURVEY

15111 Site Location Fig 1.SKF

Peer Engineering

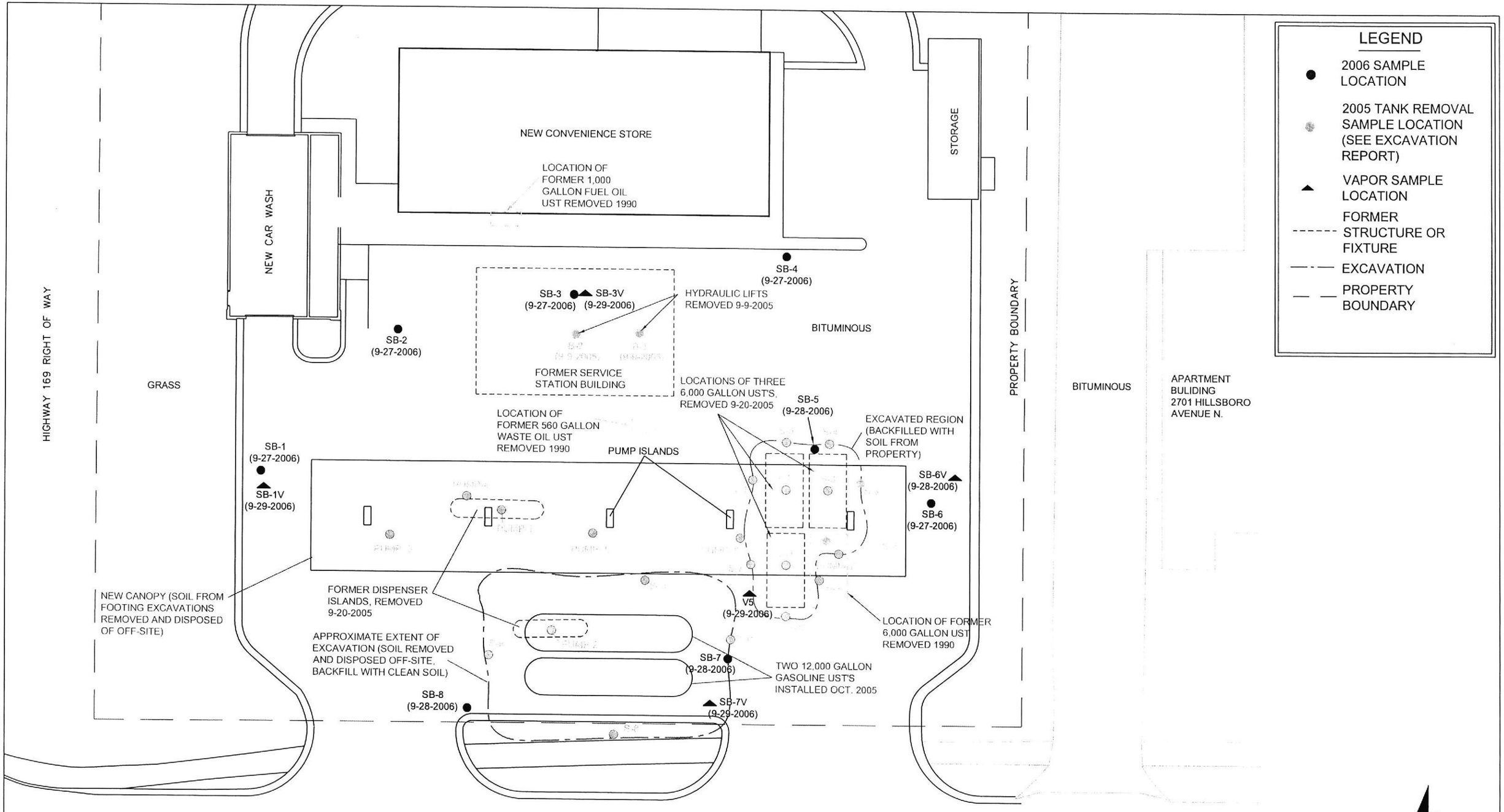
PROJECT #:15111.00

SITE LOCATION MAP

NOV. 2005

SINCLAIR OIL CORPORATION
9456 MEDICINE LAKE ROAD
NEW HOPE, MINNESOTA

FIGURE
1



MAP DATA PROVIDED BY SINCLAIR OIL CORPORATION, PEER FIELD DATA AND OBSERVATIONS, AND PREVIOUS REPORTS PRODUCED BY ENECOTECH (REMEDIAL INVESTIGATION/CORRECTIVE ACTION DESIGN REPORT, 2-5-1992; AND THE SUBSURFACE INVESTIGATION REPORT, 8-11-1998).

SCALE IN FEET
0 10 20

15111.02 Recent Investigation Locations.DWG

Peer Engineering

PROJECT #: 15111.02

RECENT INVESTIGATION LOCATIONS	OCT. 2006
SINCLAIR 9456 MEDICINE LAKE ROAD NEW HOPE, MINNESOTA	FIGURE 2

APPENDIX A

GUIDANCE DOCUMENT 1-03a

SPATIAL DATA REPORTING FORM

Petroleum Remediation Program
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

Spatial Data Reporting Form

Guidance Document 1-03a
(For complete instructions, see Guidance Document 1-03.)

Part 1. Background

Has a site location data point been submitted for this site (circle/highlight)? YES or NO
If yes, you do not need to complete Part 2 of this form but should complete Part 3 if there are additional site features to report. This form can be submitted electronically if desired (e.g., as an e-mail attachment to the project manager).

MPCA Site ID: **LEAK 10868**
Site Name: **Sinclair Station**
Data Collection Date: **10-6-2005**
Name of Person Who Collected Data: **Jeremy Hanson**
Organization Name: **Peer Engineering, Inc**
Organization Type: **Consulting Firm**

Part 2. Site Location (use one of the three spatial data reporting formats provided)

Point Description: **Old Tank Basin**
Collection Method: **MPCA's "What's In My Neighborhood" Site**
Datum (circle/highlight): WGS84 **NAD83**
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): **468-557.93 E** UTM - Y (Northing): **4-983-879.61 N**
UTM Zone: **15E**

Point Description: **New Tank Basin**
Collection Method: **MPCA's "What's In My Neighborhood" Site**
Datum (circle/highlight): WGS84 **NAD83**
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): **468-538.78 E** UTM - Y (Northing): **4-983-868.58 N**
UTM Zone: **15E**

APPENDIX B

DISPOSAL SUMMARY

CONTRACT ACTIVITY REPORT
From: Oct 16, 2005 To: Oct 25, 2005
Specified Contract: 05049233A

Facility: All Facilities

DETAILED REPORT

Ticket Type: All Ticket Types

Ticket Date	Ticket Number	Customer	Material	Billing Quantity	Minimum Quantity	Maximum Quantity
05049233A						
18 Oct 05	185960-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.58 TN	0.00	0.00
18 Oct 05	186002-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.55 TN	0.00	0.00
18 Oct 05	186132-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.35 TN	0.00	0.00
18 Oct 05	186203-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.31 TN	0.00	0.00
19 Oct 05	186217-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.49 TN	0.00	0.00
19 Oct 05	186250-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	20.85 TN	0.00	0.00
19 Oct 05	186254-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	19.95 TN	0.00	0.00
19 Oct 05	186276-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.74 TN	0.00	0.00
19 Oct 05	186282-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.89 TN	0.00	0.00
19 Oct 05	186285-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	13.79 TN	0.00	0.00
19 Oct 05	186298-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.63 TN	0.00	0.00
19 Oct 05	186312-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	21.48 TN	0.00	0.00
19 Oct 05	186324-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.97 TN	0.00	0.00
19 Oct 05	186328-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	20.73 TN	0.00	0.00
19 Oct 05	186339-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	14.38 TN	0.00	0.00
19 Oct 05	186349-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.87 TN	0.00	0.00
19 Oct 05	186376-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.70 TN	0.00	0.00
19 Oct 05	186421-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	21.29 TN	0.00	0.00
19 Oct 05	186434-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	25.59 TN	0.00	0.00
19 Oct 05	186456-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	15.75 TN	0.00	0.00
19 Oct 05	186460-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.39 TN	0.00	0.00
19 Oct 05	186478-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	19.94 TN	0.00	0.00
19 Oct 05	186483-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.13 TN	0.00	0.00
20 Oct 05	186524-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.51 TN	0.00	0.00
20 Oct 05	186535-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	18.97 TN	0.00	0.00
20 Oct 05	186559-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	15.40 TN	0.00	0.00
20 Oct 05	186575-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.15 TN	0.00	0.00
20 Oct 05	186593-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	20.03 TN	0.00	0.00
20 Oct 05	186600-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	16.93 TN	0.00	0.00
20 Oct 05	186613-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.91 TN	0.00	0.00
20 Oct 05	186644-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	14.75 TN	0.00	0.00
20 Oct 05	186639-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.16 TN	0.00	0.00
20 Oct 05	186646-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.40 TN	0.00	0.00
20 Oct 05	186658-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	23.66 TN	0.00	0.00
20 Oct 05	186672-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	13.68 TN	0.00	0.00
20 Oct 05	186677-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.02 TN	0.00	0.00
20 Oct 05	186695-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	19.12 TN	0.00	0.00
20 Oct 05	186710-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.82 TN	0.00	0.00
20 Oct 05	186715-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	14.91 TN	0.00	0.00
21 Oct 05	186745-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	18.37 TN	0.00	0.00
21 Oct 05	186751-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	14.51 TN	0.00	0.00
21 Oct 05	186785-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.08 TN	0.00	0.00
21 Oct 05	186792-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.51 TN	0.00	0.00
21 Oct 05	186824-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	22.60 TN	0.00	0.00
21 Oct 05	186828-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	16.12 TN	0.00	0.00
21 Oct 05	186856-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	17.49 TN	0.00	0.00
21 Oct 05	186860-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	24.70 TN	0.00	0.00
21 Oct 05	186900-00	000771-0001 - SINCLAIR OI	C-Soil/33A,Pet-Ldd G	25.53 TN	0.00	0.00

CONTRACT ACTIVITY REPORT
From: Oct 16, 2005 To: Oct 25, 2005
Specified Contract: 05049233A

Facility: All Facilities

DETAILED REPORT

Ticket Type: All Ticket Types

Ticket Date	Ticket Number	Customer	Material	Billing Quantity	Minimum Quantity	Maximum Quantity

CONTRACT TOTALS :

Material Summary	Inbound Weight	Inbound Volume	Outbound Weight	Outbound Volume	Billing Quantity	Contract Ordered	Ordered Variance
C7 - C-Soil/33A,Pet-Ldd G	967.68 TN	0.00 YD	0.00 TN	0.00 YD	967.68 TN	0.00	967.68

APPENDIX C

FIELD PROCEDURES

Standard Operating Procedure 212
Organic Vapor Screening

Purpose

Use this procedure to obtain a fast, general measurement of volatile organic compounds in soil.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with potentially contaminated soil and to reduce the risk of cross-contamination.

- Refer to the site-specific Health and Safety Plan for other safety concerns and applicable personal protective equipment.

Required Equipment

- Photoionization detector (PID) equipped with a 10.6 or an 11.8 eV lamp (refer to the site-specific sampling and analysis plan or proposal for proper lamp size)

- PID calibration equipment

- One quart sealable bags, or soil jars, lids and aluminum foil

- Appropriate log forms or note pad for field notes

- Sharpie or permanent marker

Procedure

1. Select a PID equipped with the proper lamp size the afternoon before the field work is scheduled and charge the battery overnight by plugging in the adapter. As the PIDs have no battery gauge, failure to recharge the battery may leave you with a discharged battery and an unusable PID.

2. Calibrate the PID upon arrival at the site or prior to leaving the office. Record all pertinent information on the calibration record located in the case of each PID and record the calibration on the Field Report form.

3. With a gloved hand, fill a dedicated sealable bag or soil jar approximately half full with soil to be screened. Refer to the site-specific sampling and analysis plan or work plan for appropriate sample container. Manually break up the soil clumps within the bag. Seal the bag, or cover the opening of the soil jar with aluminum foil and screw on a lid. Use a marker to write the sample identifier and depth on the bag or jar lid.

4. Shake the sealed bag or soil jar for approximately 15 seconds, then allow the soil to volatilize for at least 10 minutes in an atmosphere of at least 70°F. On cold days it may be necessary place the bag or soil jar inside a heated room or vehicle.

5. After headspace development, shake the sample for another 15 seconds.

6. Complete organic vapor screening within approximately 20 minutes of sample collection. If using soil jars, remove the lid. Pierce the aluminum foil or plastic bag with the probe of the PID. Record the highest meter response within a time period of two to five seconds.

7. Discard the soil samples on-site and dispose of used bags, soil jars, foil, and lids as trash.

Standard Operating Procedure 215
Collecting Soil Samples for Laboratory Analysis

Purpose

Use this procedure to collect soil or other solid media samples for laboratory analysis. Proper sample collection technique will improve the accuracy of results and will help avoid cross contamination.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with potentially contaminated soil and to reduce the risk of cross-contamination.
- Refer to the site-specific Health and Safety Plan for other safety concerns and applicable personal protective equipment.

Required Equipment

- Laboratory sample containers
- Clean cooler(s)
- Temperature blank bottle
- Trip blank for VOC sampling (SOP 327)
- Ice or frozen cold-packs
- Electronic scale
- Permanent marker
- Sealable bags
- Plastic syringe with end cut off (EPA CRL/CLP samples only)
- Methanol Preservation Record form (EPA CRL/CLP volatile samples only)
- Laboratory chain-of-custody form

Procedure

1. Several days before field work is scheduled to begin, call or FAX the laboratory or other lab supply source to order sample containers. Be sure to order extra bottles to allow for breakage, extra samples, etc. If you are unsure of the required sample volumes or proper laboratory sample containers for specific analytical parameters, ask that a written description be included with the bottle order which clarifies sample requirements.

2. Before you leave for the field, be sure that you have the appropriate sample containers and that extra containers are included. Be sure you are aware of sample volume and container requirements.

3. Place ice or a frozen cold pack into each sample cooler before collecting any samples. Double-bag the ice in sealable gallon bags to avoid potential contact of water in the cooler with sample containers.

4. Place a temperature blank into each cooler and under the ice.

5. If some samples may be analyzed for GRO, BETX, or VOCs include a trip blank in each cooler as described in SOP 327.

6. Before taking a sample, put on a new pair of nitrile gloves.

7. Samples taken for volatile organic analysis are to be taken immediately after the soil is exposed (i.e., directly from the split spoon, excavation side wall, hand auger, etc.). Samples for DRO are to be collected second and samples for non-VOC or non-DRO analysis are taken last.

<u>Standard Sampling</u>

a. Prior to sample collection the scale must be verified to read a mass of greater than 50 grams within one gram of the expected result. Place a weight of known mass (calibration mass or pre-weighed bottle) on the scale and verify the reading. If the reading is within one gram of the expected result the scale is usable. Record the weight verification on the Field Log. If the reading is more than one gram from the expected weight the scale must be re-calibrated (see SOP 218 if applicable) or a scale that is verified to be correct must be used.

b. Samples collected for GRO, BTEX, or VOCs need to be placed into one pre-weighed glass container containing the preservative methanol and one plastic vial (if necessary). Place one empty glass container on the scale and zero the scale. Carefully add approximately 25 grams of soil to the jar. Sample containers with more than 35 grams of soil or less than 20 grams of soil may be rejected or flagged as outside testing parameters by the laboratory. In addition, if there is no non-volatile analysis, fill a plastic vial with soil to be used to by the lab to calculate the moisture content of the soil. The soil in the plastic vial need not be weighed.

c. Samples collected for DRO need to be placed in two pre-weighed glass containers with *no methanol* and one plastic vial (if necessary), using the procedure described in step b, above.

d. Samples for non-volatile analysis (i.e., metals, PCBs, pesticides, semi-VOCs, etc.) are to be thoroughly mixed prior to sampling. Place the sample in a resealable plastic bag and shake the bag for at least 10 seconds. Sample containers should be filled, but not packed, with soil from the bag.

EPA CLP/CRL Program Samples

a. Prior to sample collection the scale must be verified to read a mass of greater than 50 grams within one gram of the expected result. Place a weight of known mass (calibration mass or pre-weighed bottle) on the scale and verify the reading. If the reading is within one gram of the expected result the scale is usable. Record the weight verification on the Field Log. If the reading is more than one gram from the expected weight the scale must be re-calibrated (see SOP 218 if applicable) or a scale that is verified to be correct must be used.

b. Samples collected for GRO, BTEX, or VOCs need to have 10 grams of soil (weights between 9 and 12 grams are acceptable). They will be preserved with a laboratory-prepared vial containing 10 grams (10 ml) of methanol (MeOH).

i) Verify that the methanol vial still contains 10 grams of methanol. Place the pre-weighed vial containing methanol on the scale. If the weight of the methanol is not 10 grams, discard the methanol vial and use another.

ii) Tare an empty syringe on the field balance.

iii) Use the tarred syringe to collect a 10 gram sample of soil, as confirmed by weighing the filled syringe.

iv) Place an empty sample bottle on the field balance. Record the weight of the bottle on the Methanol Preservation Record.

v) Empty the vial of methanol into the sample bottle. Record the weight of the bottle and methanol on the Methanol Preservation Record.

vi) Extrude the soil from the syringe into the bottle. Record the weight of the bottle, methanol, and soil on the Methanol Preservation Record.

vii) In addition, if there is no non-volatile analysis, fill a plastic vial with soil to be used to by the lab to calculate the moisture content of the soil. The soil in the plastic vial need not be weighed.

c. Samples for non-volatile analysis (i.e., metals, PCBs, pesticides, semi-VOCs, etc.) are to be thoroughly mixed prior to sampling. Place the sample in a resealable plastic bag and shake the bag for at least 10 seconds. Sample containers should be filled by hand, but not packed, with soil from the bag.

7. Before placing the lid back on the sample container, clean the jar threads to assure a tight seal.

8. After collecting soil samples, use a permanent marker to label the sample containers with the project name, sample identifier including depth interval, time, date, and your initials.

9. Place the filled sample containers for each location in their own sealable bag. Larger, more fragile containers should be placed in bubble wrap to avoid breakage. Place the sample containers and bags into the cooler immediately. Cover all samples with ice.

10. When all samples are collected, complete the laboratory chain-of-custody form and arrange for shipment to the contract laboratory (as described by SOP 620 – Chain of Custody Procedures, SOP 630 – Sample Shipping – Peer or Local Carrier, and SOP 640 – Sample Shipping – Overnight Carrier).

Standard Operating Procedure 221
Soil Sampling - Hand Tools

Purpose

Use hand tools to collect soil samples near the ground surface for field screening and laboratory analysis.

Safety Equipment

Wear a dedicated pair of nitrile gloves at each sample location to reduce the risk of potential cross-contamination between samples and to reduce the incidence of skin contact with the soil.

Required Equipment

- Measuring tape
- Metal shovel, hand spade, or post hole digger
- Rock hammer or pick (optional)
- Alconox, clean water, brush, and two 5-gallon buckets
- Note pad for field notes

Procedure

1. Ensure all field equipment is clean before starting.
2. Determine the appropriate location and identification prior to sampling. Use a tape measure to determine the distance (within 1 foot) from site landmarks. Identify the sample location with the letter "H" (or other specified identifier) followed by a number unique to the site. Begin with number 1 and sequentially assign numbers for all sample locations at the site.
3. If necessary, use a rock hammer or pick to loosen hard soil at the sample location.
4. Insert a metal shovel, spade, or post hole digger to the appropriate sampling depth at the designated location to obtain a representative soil sample. Withdraw the tool and soil.
5. Use a gloved hand to transfer the soil from near the tip of the tool directly into a sample container as described in SOP 215 – Collecting Soil Samples for Laboratory Analysis.
6. Record the sample identifier, depth, and time of sample collection on the sample container. Examples of properly labeled samples are: H-1 (6") or H-2 (1-2'). Record pertinent information about the sample location and sample content in the field notes.

7. Decontaminate the shovel or spade between sample locations using a brush in a detergent and water wash, followed by a clean water rinse. Discard gloves and use new gloves for the next sample location.

Standard Operating Procedure 227
Soil Stockpile Sampling

Purpose

The purpose of a stockpile sample is to characterize the content of a potentially contaminated soil stockpile.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with contaminated soil and to reduce the risk of cross contamination.
- Consult the site-specific Health and Safety Plan for appropriate personal protective equipment.

Required Equipment

- Soil cup(s)
- One-gallon sealable bag or stainless steel bowl and aluminum foil
- Note pad for field notes
- Wood stake or wire flag and permanent marker
- Laboratory sample containers and clean cooler with ice

Procedure

1. Determine the appropriate sample identification prior to sampling. Label a wood stake or wire flag with the sample number and leave it in the pile; this will reduce potential confusion when it comes time to move the stockpile.
2. Determine the appropriate number of composite samples needed to adequately define the stockpile and the number of equal volume samples (i.e., aliquots) needed to make up each composite sample. This information as well as

information regarding required analysis should be written in the proposal or site-specific work plan.

3. Try to select sample locations in a random fashion to collect an unbiased, representative sample.

4. Scrape off the exposed surface or dig in a few inches to get a fresh surface to sample.

5. Use a soil cup to measure an equal volume of soil for each aliquot location. If volatile organic analyses are required be sure to get soil that has not been exposed to the air. Mark each sample location on a map and/or mark each location with a flag. If "surprising" analytical results are discovered this will aid in potential segregation of more contaminated parts of the pile.

6. If only inorganic analyses are to be completed, place all aliquots into a gallon-sized sealable bag. If semi-volatile or DRO analyses are required, place the aliquots in a clean stainless steel bowl lined with aluminum foil. After all aliquots have been placed into the bag or bowl, mix the soil. Proper and complete mixing is essential when taking a composite sample; it will ensure that all aliquots are represented equally in the final analysis.

7. Fill appropriately labeled laboratory sample containers with the composited soil using a gloved hand as described in SOP 215 – Collecting Soil Samples for Laboratory Analysis.

Standard Operating Procedure 610
Sample Preservation

Purpose

Sample preservation techniques are intended to prevent substantial alteration of the chemical species present in the sample at the moment it was collected.

Required Equipment

- Clean cooler with temperature blank bottle
- Ice or frozen cold packs
- Sample containers with media

Procedure

1. Immediately after media collection, all sample containers will be placed in a clean cooler under ice, to thermally preserve the samples. The cooler must also contain a temperature blank bottle, also kept under the ice.

2. The sample containers will be kept in an environment that is between 0° and 4° Celsius until the laboratory receives the samples. The sample custodian must ensure that some ice remains in the cooler and that excess water from melted ice is drained.

3. In addition, chemical preservatives may be added to individual samples depending on the analytical methods required. In general, the laboratory will supply pre-preserved sample containers for the project and only laboratory-grade preservatives will be used.

Standard Operating Procedure 620
Chain of Custody Procedures

Purpose

The purpose of following chain of custody procedures is to maintain the quality of all samples during collection, transportation, and storage prior to analysis. Chain of custody documentation serves three main purposes:

1. Communication of analytical instructions from Peer to the analytical laboratory.
2. Permanent record of samples provided to the laboratory.
3. Documentation that samples were handled only by authorized personnel and were not available for tampering prior to analysis.

Procedure

Field personnel will complete sample labels and chain of custody forms to be used for tracking samples.

Sample Container Labels

1. Each sample will be assigned a unique identification number that will be affixed to a label on the sample container.
2. Additional information such as sampling location, date and time of collection, and person who collected the sample will also be included on the sample labels.
3. Labeled sample containers, a temperature blank bottle, and ice will be included in each cooler to be shipped to the laboratory.

Chain of Custody Form(s)

If multiple coolers are required to contain all samples from one sampling location, a separate chain of custody form will be prepared for each cooler. At a minimum, the chain of custody form will include the following information:

- Client or project name, or unique identifier, if confidential
- Sample collector's name and signature
- Peer's mailing address and phone number
- Name of project manager or person who will receive data
- Analytical laboratory's name and city

- Description of each sample including
  - Unique identifier and matrix (solid, aqueous, etc.)
  - Date and time of collection
  - Type of analysis required
- Temperature blank listed as a sample
- Dated and timed signatures of persons involved in chain of possession
- Date and method of shipment

Completion of Field Personnel Responsibility

Record all pertinent information about the samples on the field sampling forms or in the field logbook. Upon completion of the chain of custody forms, field personnel will sign the chain of custody forms along with the date and time.

If the field personnel will transfer the custody of the samples to someone other than the laboratory, affix a custody tape to the cooler to prevent the lid from opening. Write the time, date, and initials on the custody tape.

Sample Custody

Each time the custody of a sample or group of samples is transferred, a signature, date, and time will be entered onto the chain of custody form. A sample will be considered to be in custody if it is in any one of the following states:

1. In actual physical possession
2. In view, after being in physical possession
3. In physical possession and locked up so that no one can tamper with it
4. In a secured area such as a locked storage shed or locked vehicle, restricted to authorized personnel

NOTE: While samples are in an individual's custody, they are to ensure that the cooler containing the samples has ice or a frozen cold pack.

Standard Operating Procedure 630
Sample Shipping – Peer or Local Carrier

Purpose

Proper packaging methods and shipment of samples by Peer or a local carrier will 1) minimize the potential for sample breakage, leakage, or cross contamination, and 2) provide a clear record of sample custody from collection to analysis.

Safety Equipment

Wear clean nitrile gloves when handling coolers or sample containers to reduce the incidence of skin contact with contaminants.

Required Equipment

- Coolers or similar shipping containers
- Ice or cold packs
- Temperature blank bottle
- Sample containers with media
- Sealable plastic bags
- Protective wrapping and packaging materials
- Paper towels
- Chain of custody forms

Procedure

1. Verify that each sample container has been labeled with unique sample identification. The sample identification should also correspond to the chain of custody record that will accompany the sample to the laboratory (see SOP 620 Chain-of-Custody Procedures).
2. Ensure that a temperature blank bottle is in each cooler and included on the chain of custody form.

3. Any dirt on the outside of sample containers should be wiped clean with a paper towel.

4. Optionally, place sample containers inside of sealable plastic bags to reduce the potential for cross contamination or breakage during sample transport. If necessary, protective material should be placed between sample containers to prevent breakage during transport.

5. Reusable cold packs or ice placed in sealable plastic bags should be distributed over the top of the samples. Frozen cold packs or ice must remain in the cooler until the samples reach the laboratory.

6. Place the chain of custody record on top of or inside the cooler.

7. The filled cooler and completed chain of custody form must be delivered to the laboratory before the close of the next business day after sample collection (never longer than 72 hours). One of the following methods will be used:

   a. The sampling technician will personally deliver the samples to the laboratory.

   b. The sampling technician will bring the samples to the Peer office for later pickup by laboratory representative or bonded courier. The technician may either contact the laboratory directly to arrange pickup or transfer custody of the samples to the Peer receptionist. If custody is transferred to the receptionist, the receptionist will contact the laboratory and maintain responsibility for the sample custody, sample condition, and timely pickup.

APPENDIX D

LABORATORY REPORTS

BRAUN
INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: brauninterteC.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
4801 West 81st Street Suite 118
Bloomington, MN 55437

September 23, 2005

Work Order #: 0504468

RE: 15111 Sinclair New Hope

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 09/09/05 16:45. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

William R. Dahl For Thomas P. Wagner
Project Manager

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

BRAUN
INTERTEC

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Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc.	Client Ref: 15111 Sinclair New Hope	Work Order #: 0504468
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: William R. Dahl For T
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Peer Engineering, Inc.	Client Ref:	15111 Sinclair New Hope	Work Order #: 0504468
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: William R. Dahl For T
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Qualifiers and Abbreviations

ho	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the diesel range chromatogram
hj	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the gasoline range chromatogram
B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1 (7')	0504468-01	Soil	09/08/05 14:20	09/09/05 16:45
B-2 (7')	0504468-02	Soil	09/08/05 14:25	09/09/05 16:45

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	4.2 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	Yes	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	Yes	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

B-1 (7')

0504468-01 (Soil)

9/8/05 14:20

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94**		% Wt	1	B5I0328	9/20/05	9/21/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.029	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Ethylbenzene	< 0.029	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
m,p-Xylene	**0.034**	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	B
o-Xylene	**0.037**	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Toluene	**0.033**	0.029	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Surrogate: 4-FCB	*98.1 %*	*Limits: 80-200%*			*B5I0322*	*9/15/05*	*9/20/05*	*WI GRO (95)*	
Diesel Range Organics (DRO)	**18**	9.9	mg/kg dry	1	B5I0228	9/14/05	9/14/05	WI DRO (95)	ho
Gasoline Range Organics (GRO)	< 12	12	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	

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B-2 (7')
0504468-02 (Soil)
9/8/05 14:25

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**92**		% Wt	1	B5I0328	9/20/05	9/21/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.028	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Ethylbenzene	< 0.028	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
m,p-Xylene	**0.033**	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	B
o-Xylene	< 0.028	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Toluene	**0.032**	0.028	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	
Surrogate: 4-FCB	*102 %*	*Limits: 80-200%*			*B5I0322*	*9/15/05*	*9/20/05*	*WI GRO (95)*	
Diesel Range Organics (DRO)	**88**	8.7	mg/kg dry	1	B5I0228	9/14/05	9/14/05	WI DRO (95)	ho
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B5I0322	9/15/05	9/20/05	WI GRO (95)	hj

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Classical Chemistry Parameters - Quality Control

Batch B5I0328 - % Solids

Method Blank (B5I0328-BLK1) Prepared: 09/20/05 Analyzed: 09/21/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B5I0328-SRM1) Prepared: 09/20/05 Analyzed: 09/21/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	83.6		% Wt	88.8	NA	94.1	90-110	NA	NA	

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Total Petroleum Hydrocarbons - Quality Control

Batch B5I0228 - WI DRO (95)

Method Blank (B5I0228-BLK1) Prepared & Analyzed: 09/14/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B5I0228-BS1) Prepared & Analyzed: 09/14/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	29.4	10	mg/kg	32.0	NA	91.9	70-120	NA	NA	

Laboratory Control Sample Duplicate (B5I0228-BSD1) Prepared: 09/14/05 Analyzed: 09/15/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	28.9	10	mg/kg	32.0	NA	90.3	70-120	1.72	20	

Batch B5I0322 - WI GRO (95)

Method Blank (B5I0322-BLK1) Prepared: 09/15/05 Analyzed: 09/19/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	< 0.025	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.025	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylene	0.0328	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.025	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.025	0.025	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 4-FCB	*16.0*		*ng/mL*	*16.0*	*NA*	*100*	*80-200*			
Gasoline Range Organics (GRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B5I0322-BS1) Prepared: 09/15/05 Analyzed: 09/19/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.52	0.025	mg/kg	1.60	NA	95.0	80-120	NA	NA	
Ethylbenzene	1.60	0.025	mg/kg	1.60	NA	100	80-120	NA	NA	
m,p-Xylene	3.13	0.025	mg/kg	3.20	NA	97.8	80-120	NA	NA	
o-Xylene	1.57	0.025	mg/kg	1.60	NA	98.1	80-120	NA	NA	
Toluene	1.58	0.025	mg/kg	1.60	NA	98.8	80-120	NA	NA	
Surrogate: 4-FCB	*17.1*		*ng/mL*	*16.0*	*NA*	*107*	*80-200*			
Gasoline Range Organics (GRO)	16.8	10	mg/kg	16.0	NA	105	80-120	NA	NA	

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Total Petroleum Hydrocarbons - Quality Control

Batch B5I0322 - WI GRO (95)

Laboratory Control Sample Duplicate (B5I0322-BSD1) Prepared: 09/15/05 Analyzed: 09/20/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.49	0.025	mg/kg	1.60	NA	93.1	80-120	1.99	20	
Ethylbenzene	1.58	0.025	mg/kg	1.60	NA	98.8	80-120	1.26	20	
m,p-Xylene	3.09	0.025	mg/kg	3.20	NA	96.6	80-120	1.29	20	
o-Xylene	1.55	0.025	mg/kg	1.60	NA	96.9	80-120	1.28	20	
Toluene	1.56	0.025	mg/kg	1.60	NA	97.5	80-120	1.27	20	
Surrogate: 4-FCB	*15.4*		*ng/mL*	*16.0*	*NA*	*96.2*	*80-200*			
Gasoline Range Organics (GRO)	16.5	10	mg/kg	16.0	NA	103	80-120	1.80	20	

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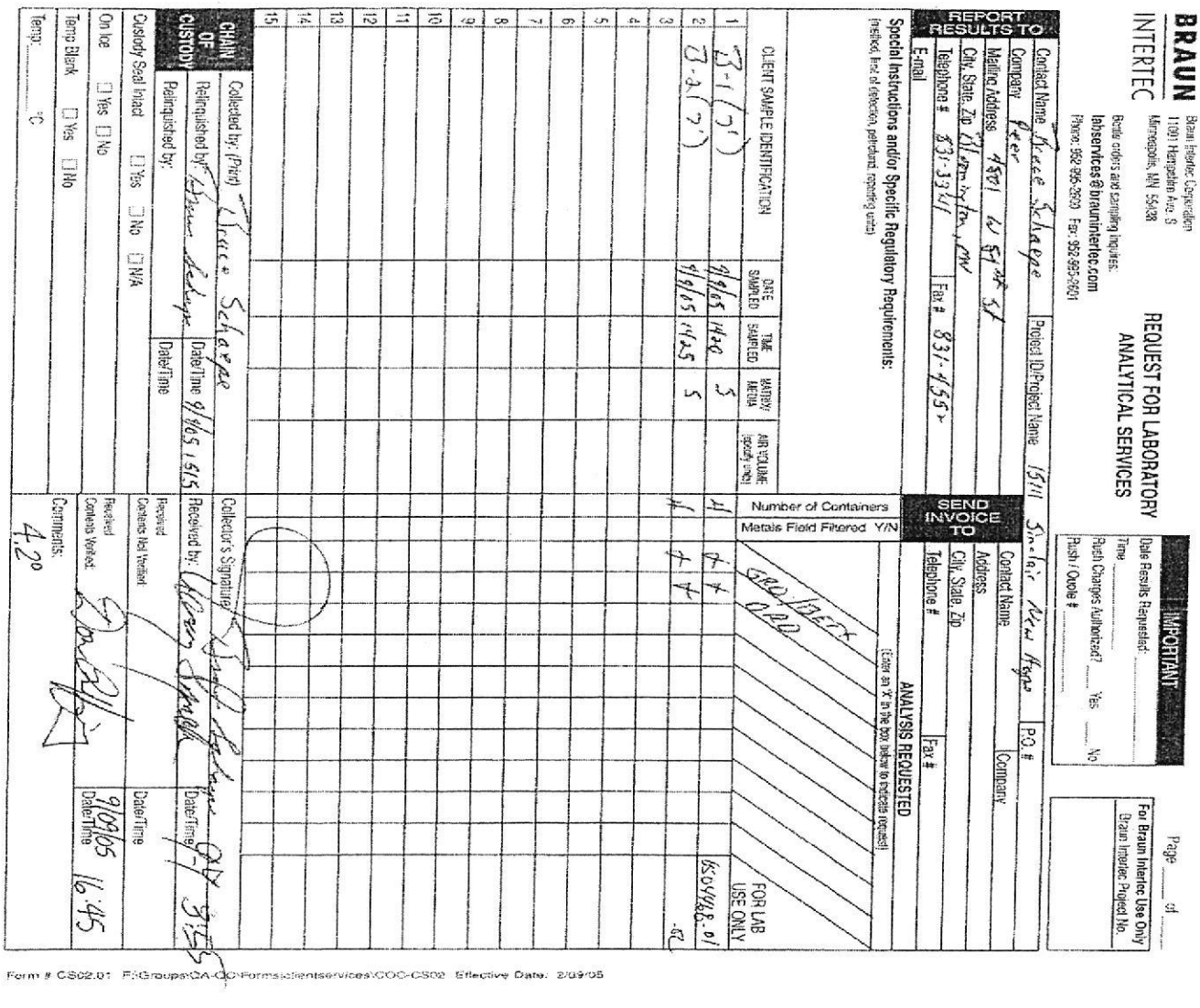
Peer Engineering, Inc. 4801 West 81st Street Suite 118 Bloomington MN, 55437	Client Ref: 15111 Sinclair New Hope Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0504468 Project Mgr: William R. Dahl For T Account ID: CVXX-95-117



BRAUN INTERTEC — Braun Intertec Corporation, 11001 Hampshire Ave. S, Minneapolis, MN 55438. Bottle orders and sampling inquiries: labservices@braunintertec.com. Phone: 952-995-2000 Fax: 952-995-2001

REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT — Date Results Requested: ____ Time: ____ Rush Charges Authorized? ____ Yes ____ No. Rush / Quote #: ____

For Braun Intertec Use Only — Braun Intertec Project No.

Page ____ of ____

REPORT RESULTS TO
Contact Name: Bruce Schaepe
Company: Peer
Mailing Address: 4801 W 81st St
City, State, Zip: Bloomington, MN
Telephone #: 831-3317 Fax #: 831-4555
E-mail

Project ID/Project Name: 15111 Sinclair New Hope

SEND INVOICE TO
Contact Name: P.O. #
Address: Company:
City, State, Zip:
Telephone # Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	GRO/DRO		FOR LAB USE ONLY
1	B-1 (7')	9/9/05	1420	S		1	N	X	X	0504468-01
2	B-2 (7')	9/9/05	1425	S		1	N	X	X	-02
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY

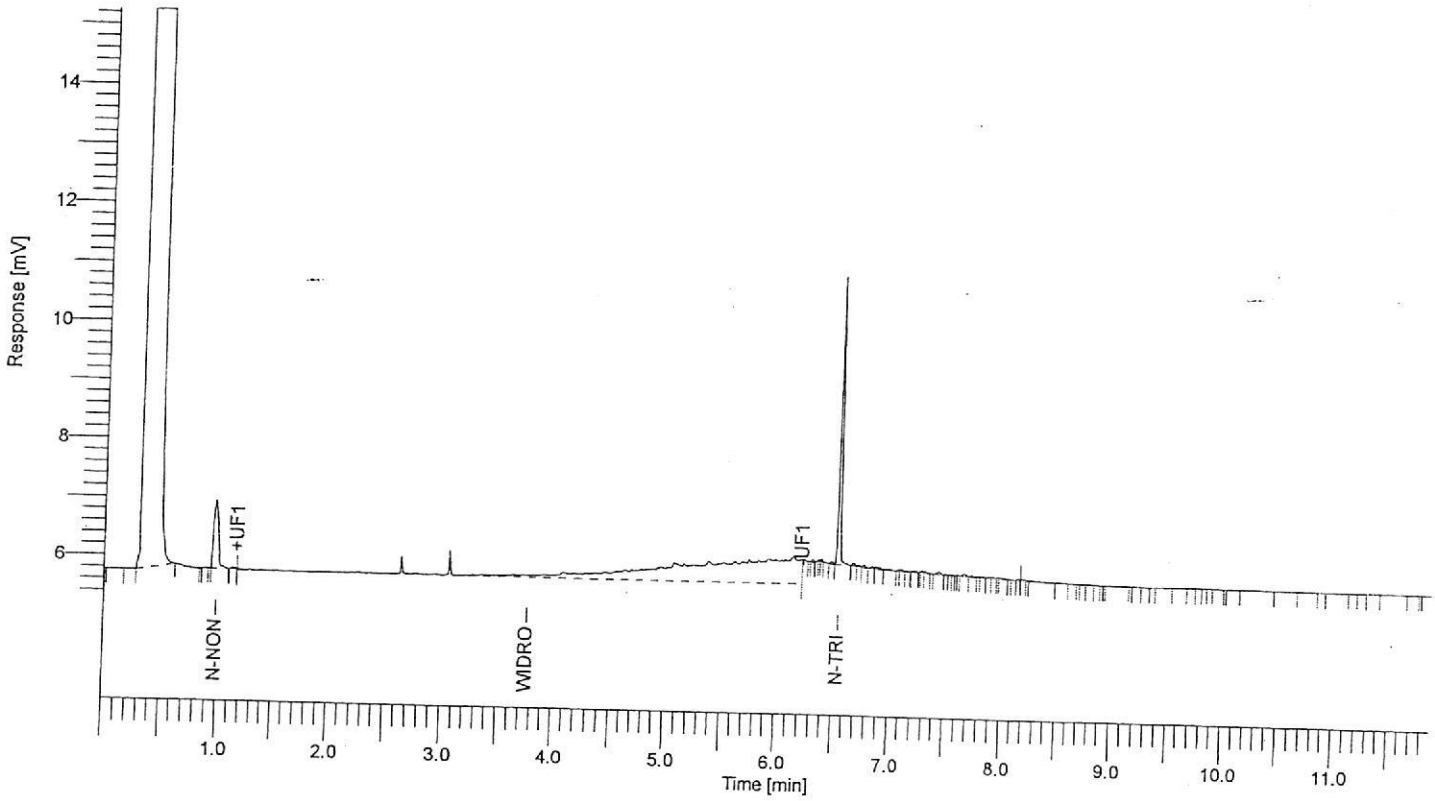
Collected by: (Print) Bruce Schaepe
Collector's Signature: Bruce Schaepe
Relinquished by: Bruce Schaepe — Date/Time: 9/9/05 1515
Received by: — Date/Time:
Relinquished by: — Date/Time:
Received by: — Date/Time:
Relinquished by: — Date/Time:
Received by: — Date/Time: 9/10/05 16:45

Custody Seal Intact ☐ Yes ☐ No ☐ N/A
On Ice ☐ Yes ☐ No
Temp Blank ☐ Yes ☐ No
Temp: °C
Received Containers Not Verified
Received Containers Verified
Comments: 4.2°

Form # CS02.01 F:\Groups\CA-QC\Forms\clientservices\COC-CS02 Effective Date: 2/09/05

Software Version	: 6.3.0.0445	Date	: 9/15/2005 7:24:06 PM
Reprocess Number	: i83571: 2699		
Operator	: TCuser		
Sample Number	: 073	Sample Name	: 0504468-01
AutoSampler	: NONE	Study	:
Instrument Name	: DRO	Rack/Vial	: 0/0
Interface Serial #	: NONE	Channel	: A
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 11.89 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 26.8200	Area Reject	: 0.000000
Data Acquisition Time	: 9/14/2005 9:19:06 PM	Dilution Factor	: 1.00
		Cycle	: 4

Raw Data File : \\Mpls-corp01\labdata-prep\P4\Data\5249\kjfa114.raw <Modified>
Result File : \\mpls-corp01\labdata-prep\p4\data\5249\kjfa114.rst
Inst Method : \\mpls-corp01\labdata-prep\p4\method\5241dro from \\Mpls-corp01\labdata-prep\P4\Data\5249\kjfa114.raw
Proc Method : \\mpls-corp01\labdata-prep\p4\method\5241dro.mth from \\mpls-corp01\labdata-prep\p4\data\5249\kjfa114.rst
Calib Method : \\mpls-corp01\labdata-prep\p4\method\5241dro.mth from \\mpls-corp01\labdata-prep\p4\data\5249\kjfa114.rst
Report Format File: \\mpls-corp01\labdata-prep\p4\drorpt.rpt
Sequence File : \\Mpls-corp01\labdata-prep\P4\Data\5249\5249.seq
Sample Notes:
Analysis for Diesel range organics with FID detector.



Diesel Range Organic Report

KF
9/15/05

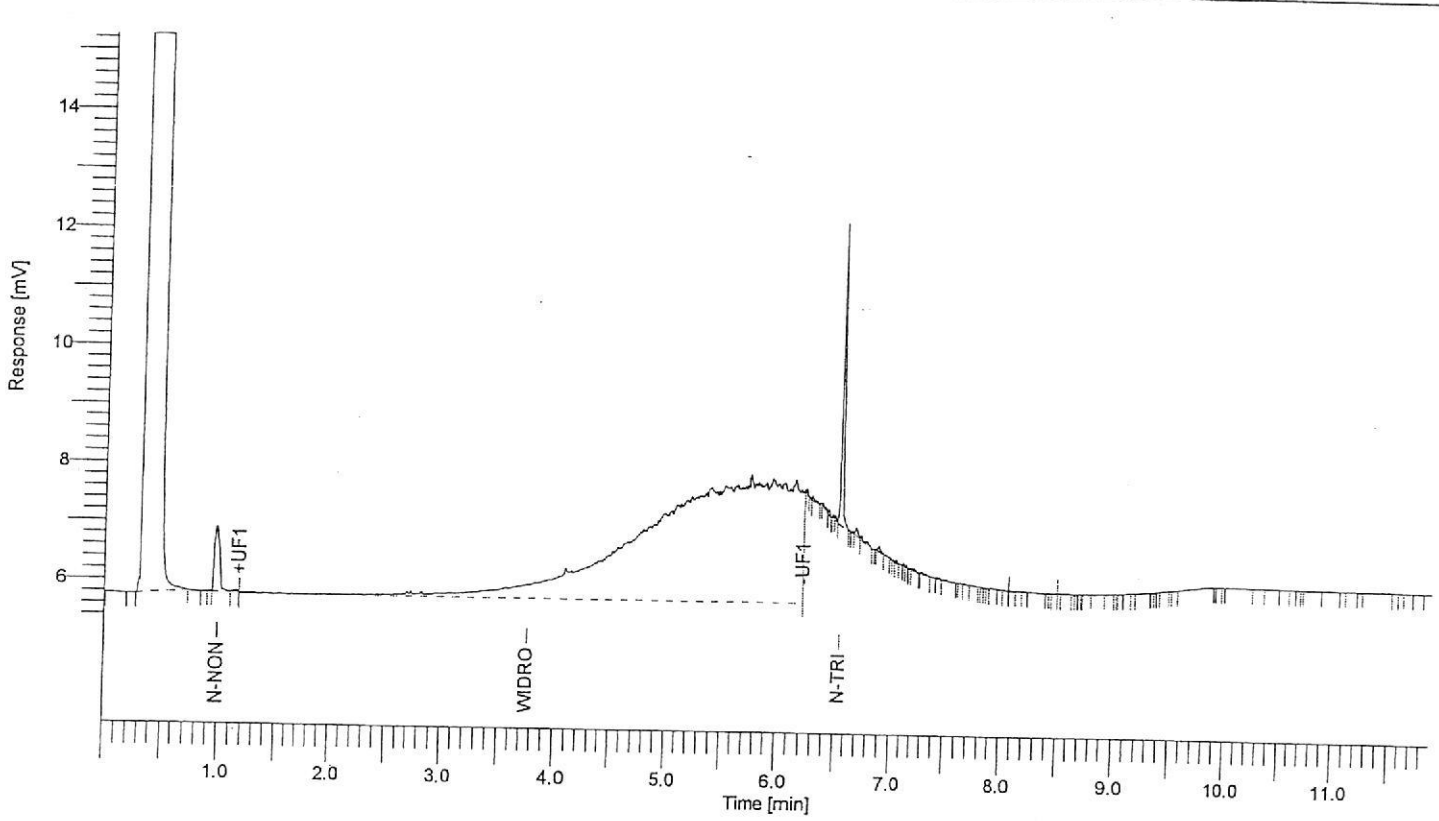
Peak #	Component Name	Concentration mg/kg or ug/L	Raw Amount (ug/mL)	Time [min]	Area [µV·s]	Cal. Range	DRO % Rec.	Surrogate % Rec.	Footnotes
5	n-Non	1.87	50.18	0.98	3521.92		6.27	50.18	
7	WIDRO	16.57	444.52	6.14	35320.23		55.57	444.52	
14	n-tri	3.14	84.28	6.54	6149.44		10.53	84.28	
					44991.59				

ho

Report stored in ASCII file: \\mpls-corp01\labdata-prep\p4\data\5249\kjfa114.TX0

Software Version	: 6.3.0.0445	Date	: 9/15/2005 7:24:08 PM
Reprocess Number	: i83571: 2700		
Operator	: TCuser		
Sample Number	: 074	Sample Name	: 0504468-02
AutoSampler	: NONE	Study	:
Instrument Name	: DRO	Rack/Vial	: 0/0
Interface Serial #	: NONE	Channel	: A
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 11.89 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 31.1700	Area Reject	: 0.000000
Data Acquisition Time	: 9/14/2005 9:37:18 PM	Dilution Factor	: 1.00
		Cycle	: 5

Raw Data File : \\Mpls-corp01\labdata-prep\P4\Data\5249\kjfa115.raw <Modified>
Result File : \\mpls-corp01\labdata-prep\p4\data\5249\kjfa115.rst
Inst Method : \\mpls-corp01\labdata-prep\p4\method\5241dro from \\Mpls-corp01\labdata-prep\P4\Data\5249\kjfa115.raw
Proc Method : \\mpls-corp01\labdata-prep\p4\method\5241dro.mth from \\mpls-corp01\labdata-prep\p4\data\5249\kjfa115.rst
Calib Method : \\mpls-corp01\labdata-prep\p4\method\5241dro.mth from \\mpls-corp01\labdata-prep\p4\data\5249\kjfa115.rst
Report Format File: \\mpls-corp01\labdata-prep\p4\drorpt.rpt
Sequence File : \\Mpls-corp01\labdata-prep\P4\Data\5249\5249.seq
Sample Notes:
Analysis for Diesel range organics with FID detector.



Diesel Range Organic Report

Peak #	Component Name	Concentration mg/kg or ug/L	Raw Amount (ug/mL)	Time [min]	Area [µV·s]	Cal. Range	DRO % Rec.	Surrogate % Rec.	Footnotes
5	n-Non	1.57	49.03	0.98	3442.88		6.13	49.03	
7	WIDRO	80.77	2517.69	5.75	198497.14		314.71	2517.69	
14	n-tri	2.77	86.47	6.55	6312.00		10.81	86.47	
					208252.02				

Report stored in ASCII file: \\mpls-corp01\labdata-prep\p4\data\5249\kjfa115.TX0

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Minneapolis, MN 55438

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Fax: 952.995.2020
Web: brauninterlec.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
4801 West 81st Street Suite 118
Bloomington, MN 55437

October 05, 2005

Work Order #: 0504715

RE: 15111

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 09/20/05 16:40. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Thomas P. Wagner

Thomas P. Wagner
Project Manager

Providing engineering and environmental solutions since 1957

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0504715
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID:CVXX-95-117

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Peer Engineering, Inc.	Client Ref:	15111	Work Order #: 0504715
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Qualifiers and Abbreviations

hj	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the gasoline range chromatogram
hij	The sample chromatogram indicates the presence of lower and higher boiling hydrocarbons than expected in the gasoline range chromatogram.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1 (13-13.5)	0504715-01	Soil	09/20/05 11:20	09/20/05 16:40
B-2 (13-13.5)	0504715-02	Soil	09/20/05 11:22	09/20/05 16:40
B-3 (13-13.5)	0504715-03	Soil	09/20/05 11:24	09/20/05 16:40
Pump 1 (1-1.5)	0504715-04	Soil	09/20/05 12:00	09/20/05 16:40
Pump 2 (1-1.5)	0504715-05	Soil	09/20/05 12:05	09/20/05 16:40
Trip Blank	0504715-06	Soil	09/20/05 00:00	09/20/05 16:40

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Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	1.6 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	Yes	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	Yes	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

B-1 (13-13.5)
0504715-01 (Soil)
9/20/05 11:20

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**89**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**4.9**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Ethylbenzene	**22**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
m,p-Xylene	**130**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
o-Xylene	**52**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Toluene	**39**	0.56	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Surrogate: 4-FCB	*98.1 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/27/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**1300**	110	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	hij

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B-2 (13-13.5)

0504715-02 (Soil)

9/20/05 11:22

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**91**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**4.2**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Ethylbenzene	**12**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
m,p-Xylene	**190**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
o-Xylene	**91**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Toluene	**15**	0.55	mg/kg dry	10	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Surrogate: 4-FCB	*126 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/23/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**4500**	220	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	hij

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B-3 (13-13.5)

0504715-03 (Soil)

9/20/05 11:24

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**3.1**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Ethylbenzene	**16**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
m,p-Xylene	**100**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
o-Xylene	**49**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Toluene	**22**	0.27	mg/kg dry	5	B5I0382	9/21/05	9/23/05	WI GRO (95)	
Surrogate: 4-FCB	*129 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/23/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**1200**	110	mg/kg dry	10	B5I0382	9/21/05	9/27/05	WI GRO (95)	hij

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump 1 (1-1.5)

0504715-04 (Soil)

9/20/05 12:00

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**88**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.057	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Ethylbenzene	**0.61**	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
m,p-Xylene	**2.0**	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
o-Xylene	**1.2**	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Toluene	**0.27**	0.057	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Surrogate: 4-FCB	*137 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/22/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**170**	11	mg/kg dry	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	hj

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump 2 (1-1.5)

0504715-05 (Soil)

9/20/05 12:05

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**83**		% Wt	1	B5I0552	9/29/05	9/30/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**28**	1.2	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Ethylbenzene	**96**	1.2	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	
m,p-Xylene	**440**	3.0	mg/kg dry	50	B5I0382	9/21/05	9/28/05	WI GRO (95)	
o-Xylene	**240**	1.2	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Toluene	**170**	1.2	mg/kg dry	20	B5I0382	9/21/05	9/27/05	WI GRO (95)	
Surrogate: 4-FCB	*121 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/27/05*	*WI GRO (95)*	
Gasoline Range Organics (GRO)	**7300**	600	mg/kg dry	50	B5I0382	9/21/05	9/28/05	WI GRO (95)	hj

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Trip Blank

0504715-06 (Soil)

9/20/05 0:00

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Ethylbenzene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
m,p-Xylene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
o-Xylene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Toluene	< 0.050	0.050	mg/kg	1	B5I0382	9/21/05	9/22/05	WI GRO (95)	
Surrogate: 4-FCB	*118 %*	*Limits: 80-200%*			*B5I0382*	*9/21/05*	*9/22/05*	*WI GRO (95)*	

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Classical Chemistry Parameters - Quality Control

Batch B5I0552 - % Solids

Method Blank (B5I0552-BLK1) Prepared: 09/29/05 Analyzed: 09/30/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B5I0552-SRM1) Prepared: 09/29/05 Analyzed: 09/30/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	83.8		% Wt	88.8	NA	94.4	90-110	NA	NA	

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Total Petroleum Hydrocarbons - Quality Control

Batch B5I0382 - WI GRO (95)

Method Blank (B5I0382-BLK1)

Prepared: 09/21/05 Analyzed: 09/22/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 4-FCB	*18.0*		*ng/mL*	*16.0*	*NA*	*112*	*80-200*			
Gasoline Range Organics (GRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B5I0382-BS1)

Prepared: 09/21/05 Analyzed: 09/22/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.65	0.050	mg/kg	1.60	NA	103	80-120	NA	NA	
Ethylbenzene	1.78	0.050	mg/kg	1.60	NA	111	80-120	NA	NA	
m,p-Xylene	3.50	0.050	mg/kg	3.20	NA	109	80-120	NA	NA	
o-Xylene	1.73	0.050	mg/kg	1.60	NA	108	80-120	NA	NA	
Toluene	1.73	0.050	mg/kg	1.60	NA	108	80-120	NA	NA	
Surrogate: 4-FCB	*18.3*		*ng/mL*	*16.0*	*NA*	*114*	*80-200*			
Gasoline Range Organics (GRO)	18.2	10	mg/kg	16.0	NA	114	80-120	NA	NA	

Laboratory Control Sample Duplicate (B5I0382-BSD1)

Prepared: 09/21/05 Analyzed: 09/23/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.56	0.050	mg/kg	1.60	NA	97.5	80-120	5.61	20	
Ethylbenzene	1.68	0.050	mg/kg	1.60	NA	105	80-120	5.78	20	
m,p-Xylene	3.30	0.050	mg/kg	3.20	NA	103	80-120	5.88	20	
o-Xylene	1.64	0.050	mg/kg	1.60	NA	102	80-120	5.34	20	
Toluene	1.64	0.050	mg/kg	1.60	NA	102	80-120	5.34	20	
Surrogate: 4-FCB	*12.8*		*ng/mL*	*16.0*	*NA*	*80.0*	*80-200*			
Gasoline Range Organics (GRO)	17.8	10	mg/kg	16.0	NA	111	80-120	2.22	20	

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc. 4801 West 81st Street Suite 118 Bloomington MN, 55437	Client Ref: 15111 Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0504715 Project Mgr:Thomas P. Wagner Account ID:CVXX-95-117

For Braun Intertec Use Only — Braun Intertec Project No.: 0504715

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquiries:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested:
Time
Rush Charges Authorized? ____ Yes ____ No
Rush / Quote #

Page 1 of 1

REPORT RESULTS TO
Contact Name: Bruce Schaepe
Company: Peer
Mailing Address: 4801 West 81st St Suite 118
City, State, Zip: Bloomington, Mn. 55437
Telephone #: 952-831-3341 Fax #: 952-831-4552
E-mail:

Project ID/Project Name: 15111
P.O. #

SEND INVOICE TO
Contact Name:
Company:
Address: SAME
City, State, Zip:
Telephone #:
Fax #:

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petroleum, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	BTEX	GRO	FOR LAB USE ONLY
1	B-1 (13-13.5)	9-20-05	11:20	Soil		3		X	X	0504715-01
2	B-2 (13-13.5)	9-20-05	11:22	Soil		3		X	X	-02
3	B-3 (13-13.5)	9-20-05	11:24	Soil		3		X	X	-03
4	Pump 1 (1-1.5)	9-20-05	12:00	Soil		3		X	X	-04
5	Pump 2 (1-1.5)	9-20-05	12:05	Soil		3		X	X	-05
6	Temp Blank	9-20-05				1				
7	Trip Blank	9-20-05				1		X		-06
8										
9										
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY
Collected by: (Print) Jeremy Hansen
Relinquished by: [signature] Date/Time 9/20/05 15:30
Relinquished by: Date/Time
Custody Seal Intact: X Yes ☐ No ☐ N/A
On Ice: X Yes ☐ No
Temp Blank: X Yes ☐ No
Temp: 1.6 °C

Collector's Signature: [signature]
Received by: [signature] Date/Time 9/20 35
Received Contents Not Verified: Date/Time
Received Contents Verified: [signature] 9/20/05 Date/Time 16:40
Comments: 1.6°

Form # CS22.01 F:\Groups\LAB\Qc\Forms\Jobnotes\COC-CS22 Effective Date: 7/22/05

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: brauninterteс.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
4801 West 81st Street Suite 118
Bloomington, MN 55437

October 12, 2005

Work Order #: 0505133

RE: 15111.00

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 10/10/05 11:55. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Thomas P. Wagner

Thomas P. Wagner
Associate Principal

Providing engineering and environmental solutions since 1957

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

BRAUN
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11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc.	Client Ref:	15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc.	Client Ref:	15111.00	Work Order #:	0505133
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr:	Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID:	CVXX-95-117

Qualifiers and Abbreviations

COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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Peer Engineering, Inc.	Client Ref:	15111.00	Work Order #:	0505133
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr:	Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID:	CVXX-95-117

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SSP-3	0505133-01	Soil	10/10/05 11:05	10/10/05 11:55
SSP-4	0505133-02	Soil	10/10/05 11:15	10/10/05 11:55
Trip Blank	0505133-03	Soil	10/10/05 00:00	10/10/05 11:55

BRAUN INTERTEC

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Peer Engineering, Inc.	Client Ref: 15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	3.5 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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Peer Engineering, Inc.	Client Ref: 15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

SSP-3

0505133-01 (Soil)

10/10/05 11:05

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86**		% Wt	1	B5J0168	10/10/05	10/11/05	ASTM D2216	

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	**6.9**	1.0	mg/kg dry	1	B5J0186	10/11/05	10/11/05	EPA 6010B	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**1.1**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Ethylbenzene	**7.0**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
m,p-Xylene	**26**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
o-Xylene	**12**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Toluene	**4.9**	0.38	mg/kg dry	5	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Surrogate: 4-FCB	*111 %*	*Limits: 80-200%*			*B5J0183*	*10/10/05*	*10/11/05*	*WI GRO (95)*	

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952-995-2020 Fax

Peer Engineering, Inc.	Client Ref: 15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

SSP-4

0505133-02 (Soil)

10/10/05 11:15

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**84**		% Wt	1	B5J0168	10/10/05	10/11/05	ASTM D2216	

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	**4.5**	1.1	mg/kg dry	1	B5J0186	10/11/05	10/11/05	EPA 6010B	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**0.46**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Ethylbenzene	**2.6**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
m,p-Xylene	**9.0**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
o-Xylene	**3.4**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Toluene	**1.8**	0.065	mg/kg dry	1	B5J0183	10/10/05	10/11/05	WI GRO (95)	
Surrogate: 4-FCB	*93.1 %*	*Limits: 80-200%*			*B5J0183*	*10/10/05*	*10/11/05*	*WI GRO (95)*	

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Peer Engineering, Inc.	Client Ref:	15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Trip Blank

0505133-03 (Soil)

10/10/05 0:00

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
Ethylbenzene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
m,p-Xylene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
o-Xylene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
Toluene	< 0.050	0.050	mg/kg	1	B5J0183	10/10/05	10/10/05	WI GRO (95)	
Surrogate: 4-FCB	*97.5 %*	*Limits: 80-200%*			*B5J0183*	*10/10/05*	*10/10/05*	*WI GRO (95)*	

BRAUN INTERTEC

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Peer Engineering, Inc.	Client Ref:	15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Classical Chemistry Parameters - Quality Control

Batch B5J0168 - % Solids

Method Blank (B5J0168-BLK1) Prepared: 10/10/05 Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B5J0168-SRM1) Prepared: 10/10/05 Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	83.6		% Wt	88.8	NA	94.1	90-110	NA	NA	

BRAUN INTERTEC

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Bloomington, MN 55438
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Peer Engineering, Inc.	Client Ref:	15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Metals - Quality Control

Batch B5J0186 - EPA 3050B

Method Blank (B5J0186-BLK1) Prepared & Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B5J0186-BS1) Prepared & Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	202	1.0	mg/kg	200	NA	101	80-120	NA	NA	

Laboratory Control Sample Duplicate (B5J0186-BSD1) Prepared & Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	201	1.0	mg/kg	200	NA	100	80-120	0.496	20	

Standard Reference Material (B5J0186-SRM1) Prepared & Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	69.5	2.4	mg/kg	84.2	NA	82.5	67.3-118	NA	NA	

BRAUN INTERTEC

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952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc.	Client Ref: 15111.00	Work Order #: 0505133
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Total Petroleum Hydrocarbons - Quality Control

Batch B5J0183 - WI GRO (95)

Method Blank (B5J0183-BLK1) Prepared & Analyzed: 10/10/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 4-FCB	*15.4*		*ng/mL*	*16.0*	*NA*	*96.2*	*80-200*			

Laboratory Control Sample (B5J0183-BS1) Prepared & Analyzed: 10/10/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.44	0.050	mg/kg	1.60	NA	90.0	80-120	NA	NA	
Ethylbenzene	1.67	0.050	mg/kg	1.60	NA	104	80-120	NA	NA	
m,p-Xylene	3.28	0.050	mg/kg	3.20	NA	102	80-120	NA	NA	
o-Xylene	1.63	0.050	mg/kg	1.60	NA	102	80-120	NA	NA	
Toluene	1.59	0.050	mg/kg	1.60	NA	99.4	80-120	NA	NA	
Surrogate: 4-FCB	*15.4*		*ng/mL*	*16.0*	*NA*	*96.2*	*80-200*			

Laboratory Control Sample Duplicate (B5J0183-BSD1) Prepared: 10/10/05 Analyzed: 10/11/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	1.47	0.050	mg/kg	1.60	NA	91.9	80-120	2.06	20	
Ethylbenzene	1.70	0.050	mg/kg	1.60	NA	106	80-120	1.78	20	
m,p-Xylene	3.34	0.050	mg/kg	3.20	NA	104	80-120	1.81	20	
o-Xylene	1.67	0.050	mg/kg	1.60	NA	104	80-120	2.42	20	
Toluene	1.63	0.050	mg/kg	1.60	NA	102	80-120	2.48	20	
Surrogate: 4-FCB	*13.5*		*ng/mL*	*16.0*	*NA*	*84.4*	*80-200*			

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc. 4801 West 81st Street Suite 118 Bloomington MN, 55437	Client Ref: 15111.00 Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0505133 Project Mgr: Thomas P. Wagner Account ID: CVXX-95-117

For Braun Intertec Use Only
Braun Intertec Project No. 0505133

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquires: labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: 10/12/05
Time: 48hr
Rush Charges Authorized? Yes No
Rush / Quote #

Page 1 of 1

REPORT RESULTS TO
Contact Name: Peer Engineering
Company: 4801 W. 81 St. Street Suite 118
Mailing Address: Bloomington, MN 55437
City, State, Zip
Telephone #: 831-3341
Fax #: 831-4552
E-mail

Project ID/Project Name: 15111.00
P.O. #

SEND INVOICE TO
Contact Name — Company
Address
City, State, Zip: Same
Telephone # — Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, pesticides, reporting units)

ANALYSIS REQUESTED (Enter an X in the box below to indicate request)

#	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	BTEX	Lead	FOR LAB USE ONLY
1	SSP-3	10/10/05	11:05	Soil		2		X	X	0505133-01
2	SSP-4		11:15	Soil		2		X	X	-02
3	Temp Blank	↓				1				
4	Trip Blank					1		X		-03
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY
Collected by: (Print) Jeremy Hansen — Collector's Signature: [signature]
Relinquished by: [signature] — Date/Time 10/10/05 1155 — Received by:
Relinquished by: — Date/Time — Received: Contents Not Verified — Date/Time
Custody Seal Intact ☐ Yes ☐ No ☐ N/A
On Ice ☒ Yes ☐ No — Received: Contents Verified [signature] — Date/Time 10/10/05 1155
Temp Blank ☒ Yes ☐ No
Temp: 3.5 °C — Comments:

Form # CS02.01 Effective Date 7/25/05

BRAUN
INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
4801 West 81st Street Suite 118
Bloomington, MN 55437

November 02, 2005

Work Order #: 0505439

RE: 15111

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 10/21/05 16:36. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Thomas P. Wagner

Thomas P. Wagner
Associate Principal

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Bloomington MN, 55437	PO Number:		Account ID: CVXX-95-117

Qualifiers and Abbreviations

hj	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the gasoline range chromatogram
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-8 (2.5-3)	0505439-01	Soil	10/20/05 15:10	10/21/05 16:36
S-9 (1.5-2)	0505439-02	Soil	10/20/05 15:12	10/21/05 16:36
S-10 (3.5-4)	0505439-03	Soil	10/20/05 15:14	10/21/05 16:36
S-11 (1-1.5)	0505439-04	Soil	10/20/05 15:16	10/21/05 16:36
Pump - 3	0505439-05	Soil	10/20/05 15:20	10/21/05 16:36
Pump - 4	0505439-06	Soil	10/20/05 15:22	10/21/05 16:36
Pump - 5	0505439-07	Soil	10/20/05 15:24	10/21/05 16:36
Pump - 6	0505439-08	Soil	10/20/05 15:26	10/21/05 16:36
Trip Blank	0505439-09	Soil	10/20/05 00:00	10/21/05 16:36
Pump - 7	0505439-10	Soil	10/20/05 15:28	10/21/05 16:36

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Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	1.2 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	Yes	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	Yes	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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S-8 (2.5-3)

0505439-01 (Soil)

10/20/05 15:10

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**83**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 12	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.060	0.060	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*106 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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S-9 (1.5-2)

0505439-02 (Soil)

10/20/05 15:12

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**43**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.095**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.24**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.27**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*114 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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S-10 (3.5-4)

0505439-03 (Soil)

10/20/05 15:14

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**88**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Benzene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*107 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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S-11 (1-1.5)

0505439-04 (Soil)

10/20/05 15:16

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**80**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 12	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Benzene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*108 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump - 3

0505439-05 (Soil)

10/20/05 15:20

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**59**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.49**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**1.6**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.89**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	**0.47**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*115 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Pump - 4

0505439-06 (Soil)

10/20/05 15:22

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**81**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**16**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.10**	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.37**	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.062	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.22**	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	**0.065**	0.062	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*114 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Pump - 5

0505439-07 (Soil)

10/20/05 15:24

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**21**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	**0.18**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.066**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.29**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.20**	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	< 0.058	0.058	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*107 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Pump - 6

0505439-08 (Soil)

10/20/05 15:26

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**85**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**29**	12	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	**0.082**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.095**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.25**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.059	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.14**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	**0.11**	0.059	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*107 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Trip Blank

0505439-09 (Soil)

10/20/05 0:00

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 10	10	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Benzene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Ethylbenzene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
m,p-Xylene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
o-Xylene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Toluene	< 0.050	0.050	mg/kg	1	B5J0457	10/24/05	10/24/05	WI GRO (95)	
Surrogate: 4-FCB	*97.5 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/24/05*	*WI GRO (95)*	

BRAUN
INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Pump - 7

0505439-10 (Soil)

10/20/05 15:28

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87**		% Wt	1	B5J0546	10/28/05	10/31/05	ASTM D2216	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**30**	11	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	hj
Benzene	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Ethylbenzene	**0.19**	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
m,p-Xylene	**0.61**	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Methyl-t-butyl ether (MTBE)	< 0.057	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
o-Xylene	**0.29**	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Toluene	**0.12**	0.057	mg/kg dry	1	B5J0457	10/24/05	10/25/05	WI GRO (95)	
Surrogate: 4-FCB	*107 %*	*Limits: 80-200%*			*B5J0457*	*10/24/05*	*10/25/05*	*WI GRO (95)*	

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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Classical Chemistry Parameters - Quality Control

Batch B5J0546 - % Solids

Method Blank (B5J0546-BLK1) Prepared: 10/28/05 Analyzed: 10/31/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B5J0546-SRM1) Prepared: 10/28/05 Analyzed: 10/31/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	84.6		% Wt	88.8	NA	95.3	90-110	NA	NA	

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Bloomington, MN 55438
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Peer Engineering, Inc.	Client Ref: 15111	Work Order #: 0505439
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117

Total Petroleum Hydrocarbons - Quality Control

Batch B5J0457 - WI GRO (95)

Method Blank (B5J0457-BLK1)

Prepared & Analyzed: 10/24/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 4-FCB	*14.8*		*ng/mL*	*16.0*	*NA*	*92.5*	*80-200*			

Laboratory Control Sample (B5J0457-BS1)

Prepared & Analyzed: 10/24/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	17.3	10	mg/kg	16.0	NA	108	80-120	NA	NA	
Benzene	1.54	0.050	mg/kg	1.60	NA	96.2	80-120	NA	NA	
Ethylbenzene	1.73	0.050	mg/kg	1.60	NA	108	80-120	NA	NA	
m,p-Xylene	3.39	0.050	mg/kg	3.20	NA	106	80-120	NA	NA	
Methyl-t-butyl ether (MTBE)	1.42	0.050	mg/kg	1.60	NA	88.8	80-120	NA	NA	
o-Xylene	1.66	0.050	mg/kg	1.60	NA	104	80-120	NA	NA	
Toluene	1.63	0.050	mg/kg	1.60	NA	102	80-120	NA	NA	
Surrogate: 4-FCB	*16.7*		*ng/mL*	*16.0*	*NA*	*104*	*80-200*			

Laboratory Control Sample Duplicate (B5J0457-BSD1)

Prepared: 10/24/05 Analyzed: 10/25/05

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	17.0	10	mg/kg	16.0	NA	106	80-120	1.75	20	
Benzene	1.56	0.050	mg/kg	1.60	NA	97.5	80-120	1.29	20	
Ethylbenzene	1.75	0.050	mg/kg	1.60	NA	109	80-120	1.15	20	
m,p-Xylene	3.41	0.050	mg/kg	3.20	NA	107	80-120	0.588	20	
Methyl-t-butyl ether (MTBE)	1.45	0.050	mg/kg	1.60	NA	90.6	80-120	2.09	20	
o-Xylene	1.68	0.050	mg/kg	1.60	NA	105	80-120	1.20	20	
Toluene	1.66	0.050	mg/kg	1.60	NA	104	80-120	1.82	20	
Surrogate: 4-FCB	*14.9*		*ng/mL*	*16.0*	*NA*	*93.1*	*80-200*			

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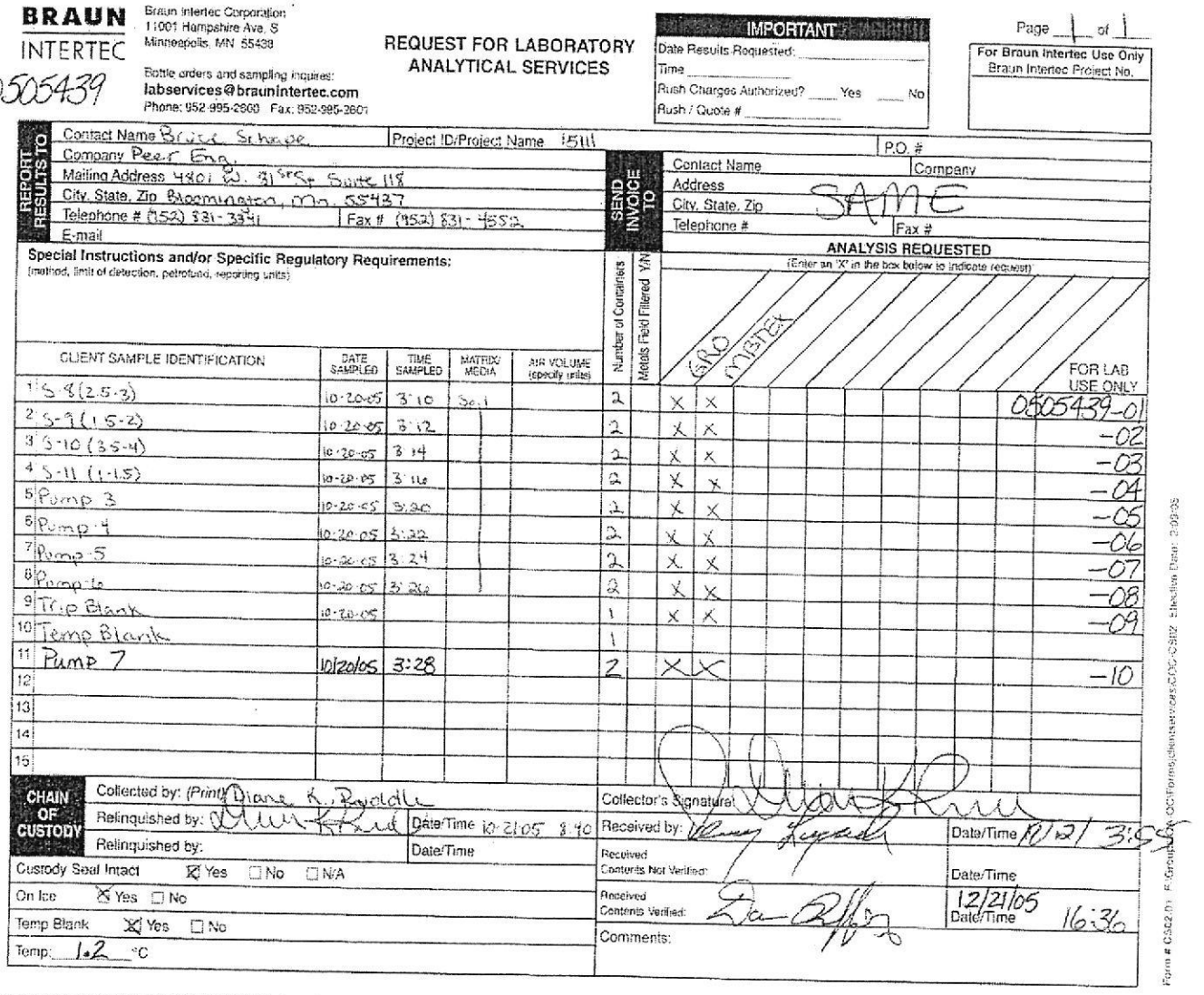
4801 West 81st Street Suite 118	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Bloomington MN, 55437	PO Number:	Account ID: CVXX-95-117



BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438
Bottle orders and sampling inquires:
labservices@brauntintertec.com
Phone: 952-995-2000 Fax: 952-995-2001

0505439

REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT
Date Results Requested:
Time
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote #

Page 1 of 1
For Braun Intertec Use Only
Braun Intertec Project No.

REPORT RESULTS TO
Contact Name Bruce Schaepe
Company Peer Eng.
Mailing Address 4801 W. 81st St Suite 118
City, State, Zip Bloomington, Mn. 55437
Telephone # (952) 831-3341 Fax # (952) 831-4552
E-mail

Project ID/Project Name 15111
P.O. #

SEND INVOICE TO
Contact Name
Company
Address SAME
City, State, Zip
Telephone #
Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	GRO	DRO/BTEX	FOR LAB USE ONLY
1 S-8 (2.5-3)	10-20-05	3:10	Soil		2		X	X	0505439-01
2 S-9 (1.5-2)	10-20-05	3:12			2		X	X	-02
3 S-10 (3.5-4)	10-20-05	3:14			2		X	X	-03
4 S-11 (1-1.5)	10-20-05	3:16			2		X	X	-04
5 Pump 3	10-20-05	3:30			2		X	X	-05
6 Pump 4	10-20-05	3:22			2		X	X	-06
7 Pump 5	10-20-05	3:24			2		X	X	-07
8 Pump 6	10-20-05	3:26			2		X	X	-08
9 Trip Blank	10-20-05				1		X	X	-09
10 Temp Blank					1				
11 Pump 7	10/20/05	3:28			2		X	X	-10
12									
13									
14									
15									

CHAIN OF CUSTODY
Collected by: (Print) Diane K. Ryaldle
Relinquished by: Diane K. Ryaldle Date/Time 10-21-05 8:40
Relinquished by: Date/Time
Collector's Signature:
Received by: Date/Time 10/21/05 3:55
Received Contents Not Verified: Date/Time
Received Contents Verified: Date/Time 12/21/05 16:36
Comments:

Custody Seal Intact ☒ Yes ☐ No ☐ N/A
On Ice ☒ Yes ☐ No
Temp Blank ☒ Yes ☐ No
Temp: 1.2 °C

Form # C562.01 R:\Group\Qc\Forms\client services\COC-C562 Effective Date: 2-99-05

Software Version	: 6.3.0.0445	Date	: 10/25/2005 9:04:02 AM
Reprocess Number	: i83569: 19954		
Operator	: TCuser		
Sample Number	: 080	Sample Name	: 0505439-05
AutoSampler	: NONE	Study	:
Instrument Name	: HP1	Rack/Vial	: 0/0
Interface Serial #	: 9205571178	Channel	: B
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 23.50 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 10.0000	Area Reject	: 1000.000000
Data Acquisition Time	: 10/25/2005 1:19:54 AM	Dilution Factor	: 1.00
		Cycle	: 15

10/25/05
ADW

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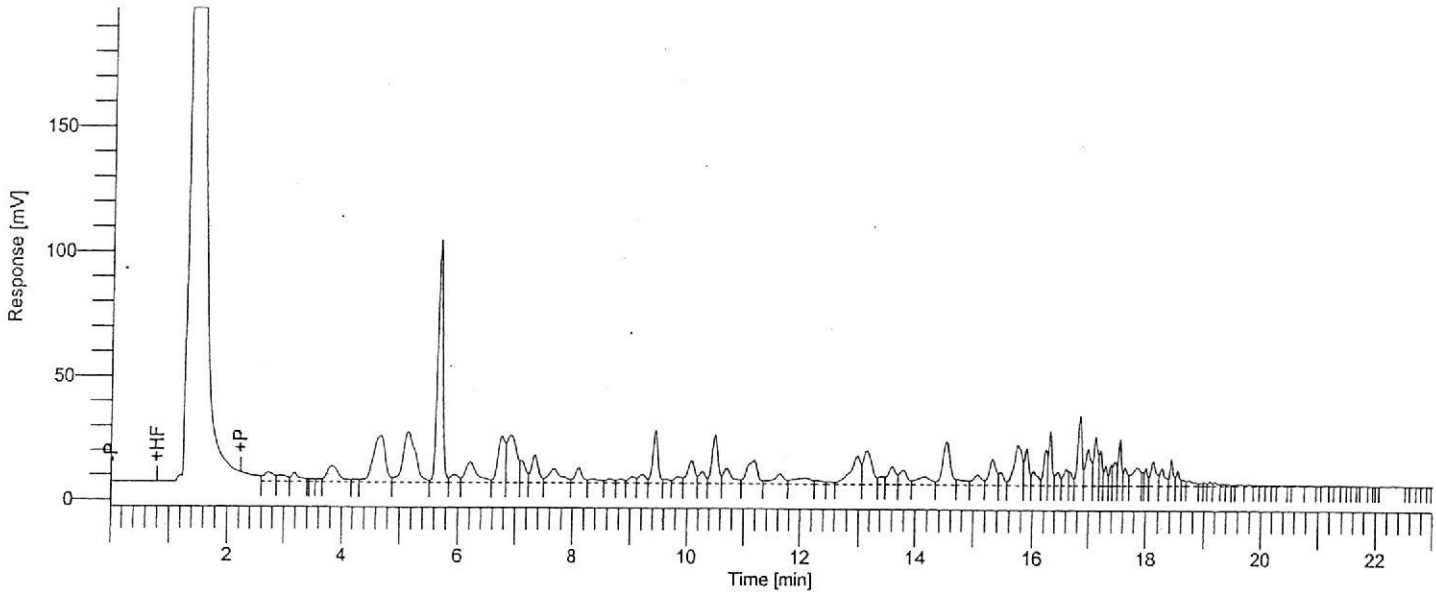

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	51.156	319.7	5226717	649729	511.559		10.000	

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Reprocess Number	: i83569: 19960		
Operator	: TCuser	Sample Name	: 0505439-07
Sample Number	: 083	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP1	Channel	: B
Interface Serial #	: 9205571178	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 23.50 min
Sampling Rate	: 3.1250 pts/s		
Sample Volume	: 1.000000 uL	Area Reject	: 1000.000000
Sample Amount	: 10.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 10/25/2005 2:59:56 AM	Cycle	: 18

10/25/05
ADW

Raw Data File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\adwb083.raw
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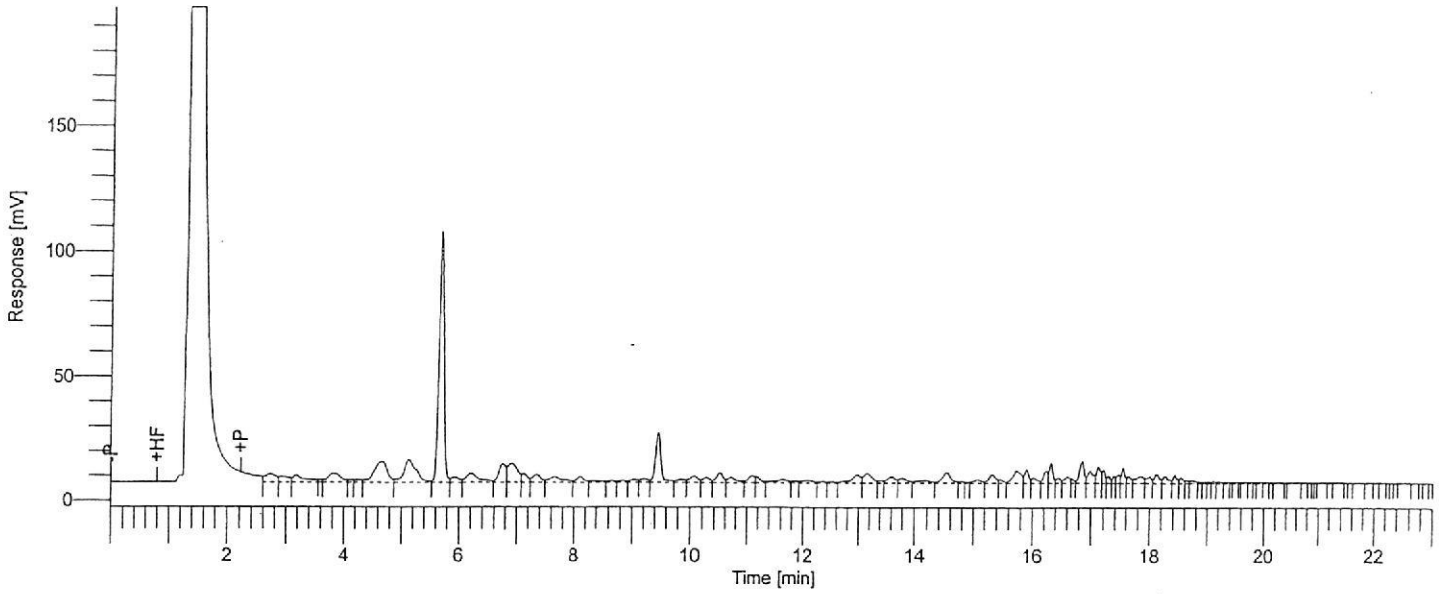

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	17.879	111.7	2457682	315130	178.792		10.000	

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb083.TX0

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Operator	: TCuser		
Sample Number	: 084	Sample Name	: 0505439-08
AutoSampler	: NONE	Study	:
Instrument Name	: HP1	Rack/Vial	: 0/0
Interface Serial #	: 9205571178	Channel	: B
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 23.50 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 10.0000	Area Reject	: 1000.000000
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		Cycle	: 19

10/25/05
ADW

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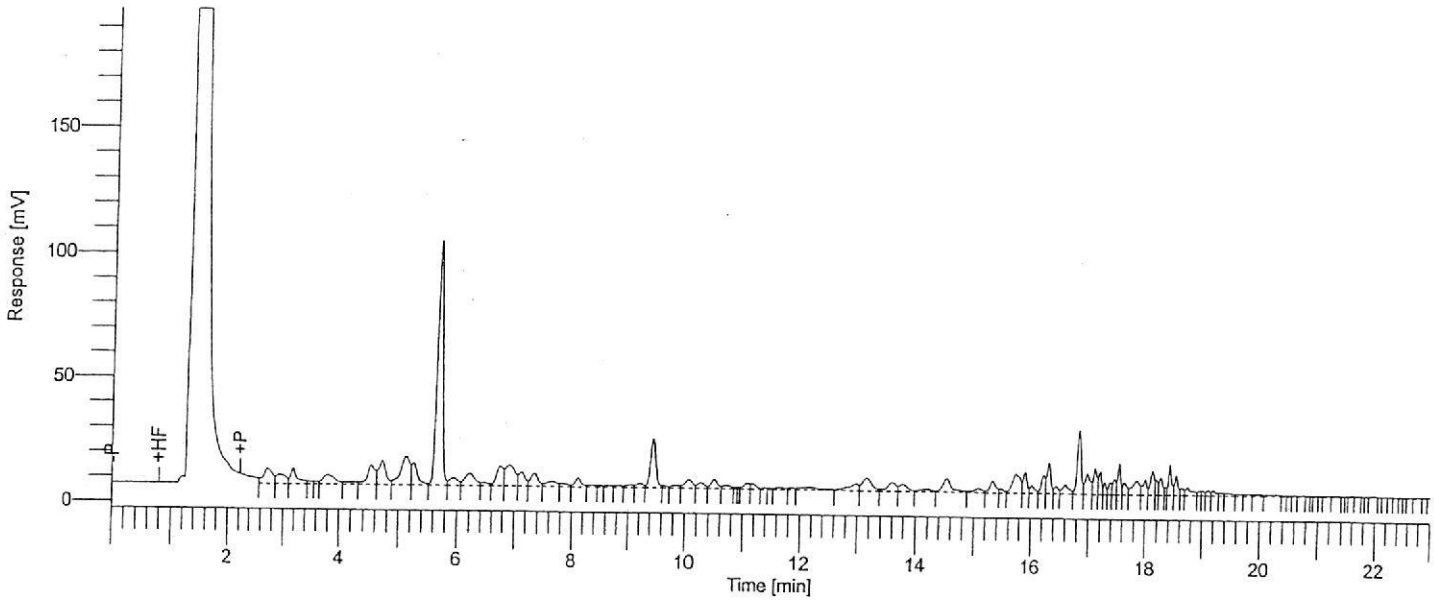

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	24.651	154.1	3021175	415580	246.510		10.000	

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Operator	: TCuser	Sample Name	: 0505439-10
Sample Number	: 086	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP1	Channel	: B
Interface Serial #	: 9205571178	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 23.50 min
Sampling Rate	: 3.1250 pts/s		
Sample Volume	: 1.000000 uL	Area Reject	: 1000.000000
Sample Amount	: 10.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 10/25/2005 4:40:08 AM	Cycle	: 21

10/25/05
ADW

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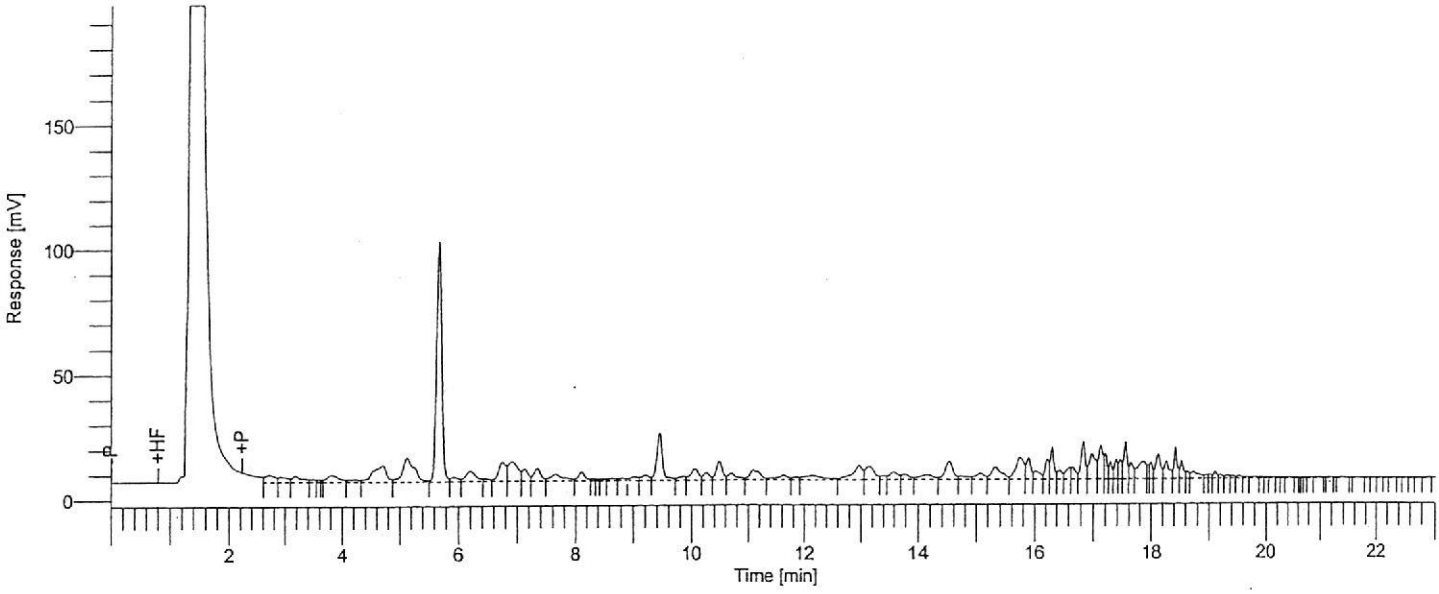

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	25.876	161.7	3123137	408384	258.763		10.000	

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Operator	: TCuser		
Sample Number	: 100	Sample Name	: 0505439-02RE1
AutoSampler	: NONE	Study	:
Instrument Name	: HP1	Rack/Vial	: 0/0
Interface Serial #	: 9205571178	Channel	: B
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 23.50 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 10.0000	Area Reject	: 1000.000000
Data Acquisition Time	: 10/25/2005 6:31:52 PM	Dilution Factor	: 1.00
		Cycle	: 10

10/26/05
ADW

Raw Data File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\adwb109.raw
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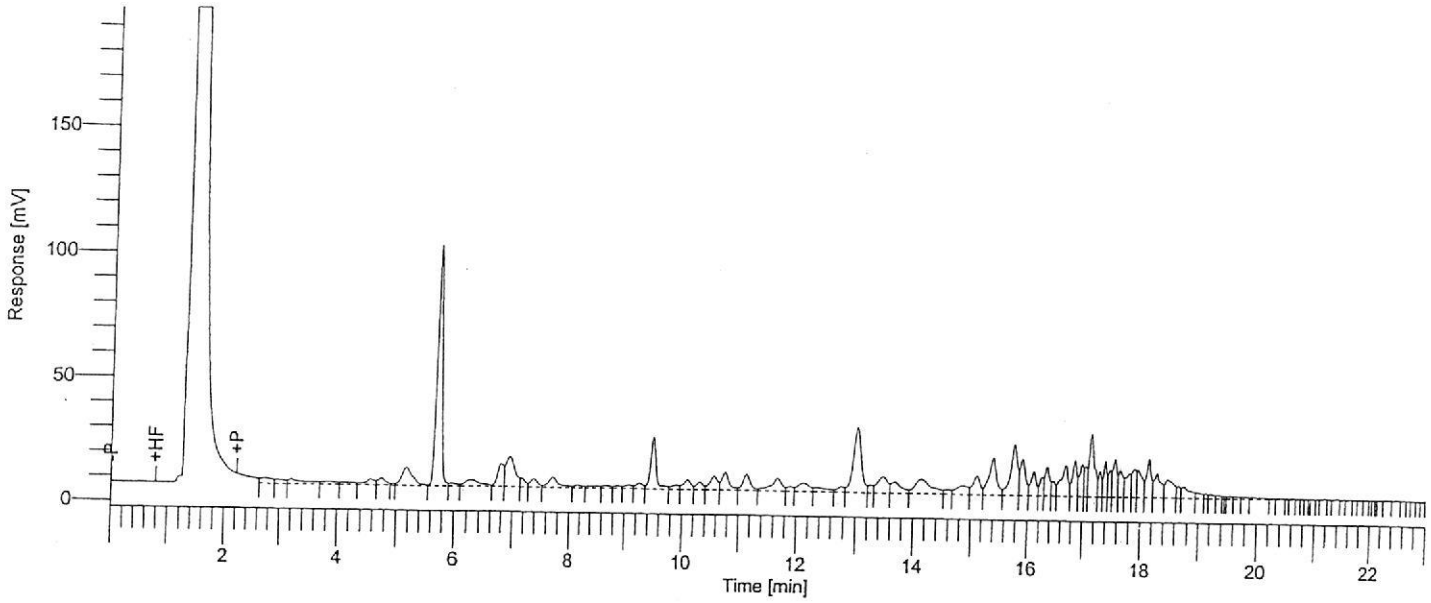

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	37.262	232.9	4070593	530638	372.623		10.000	

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb109.TX0

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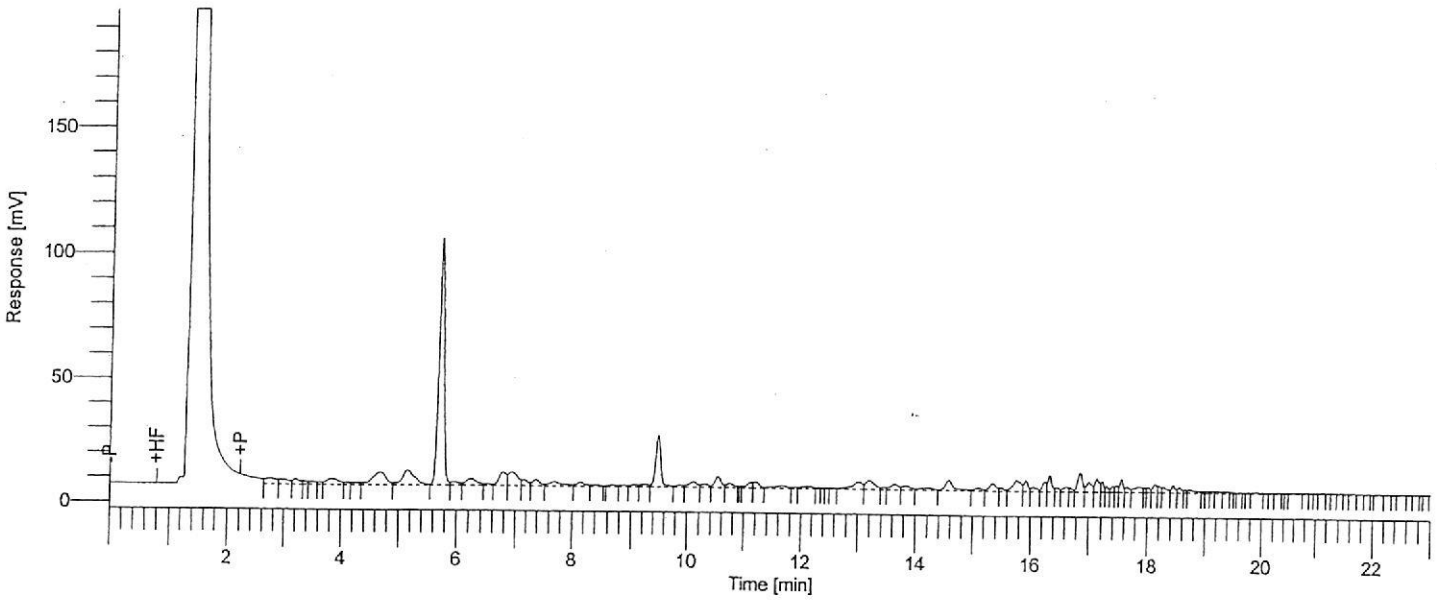
Reprocess Number	: i83569: 20022		
Operator	: TCuser		
Sample Number	: 100	Sample Name	: 0505439-06RE1
AutoSampler	: NONE	Study	:
Instrument Name	: HP1	Rack/Vial	: 0/0
Interface Serial #	: 9205571178	Channel	: B
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 23.50 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 10.0000	Area Reject	: 1000.000000
Data Acquisition Time	: 10/25/2005 5:58:29 PM	Dilution Factor	: 1.00
		Cycle	: 9

10/26/05
ADW

Raw Data File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\adwb108.raw
Result File : \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb108.rst
Inst Method : \\mpls-corp01\labdata-voc\voc\v3\meth\pvoc\acqmeth5117 from \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\adwb108.raw
Proc Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\5294b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb108.rst
Calib Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\5294b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb108.rst
Report Format File: \\mpls-corp01\labdata-voc\voc\hp1\data\craigb.rpt
Sequence File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\5292\5292.seq



GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Concentration ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.075	10.075	WIGRO	13.357	83.5	2081406	279575	133.574		10.000	

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\5292\adwb108.TX0

APPENDIX B

LABORATORY ANALYTICAL REPORTS

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: brauninterteC.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
7615 Golden Triangle Drive, Suite N
Eden Prairie, MN 55344

October 09, 2006

Work Order #: 0605878

RE: 15111.02 - Sinclair New Hope

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 09/28/06 14:19. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Thomas P. Wagner

Thomas P. Wagner
Associate Principal

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

BRAUN
NTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

BRAUN
INTERTEC

11001 Hampshire Ave. S
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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID:P16995

Qualifiers and Abbreviations

vfa	The method reporting limit (MRL) was raised for one or more analytes; a dilution of the sample was necessary due to high analyte levels and/or matrix interferences.
ho	The sample chromatogram indicates the presence of higher boiling hydrocarbons than expected in the diesel range chromatogram
hno	The sample chromatogram indicates the presence of lower and higher boiling hydrocarbons than expected in the diesel range chromatogram.
hij	The sample chromatogram indicates the presence of lower and higher boiling hydrocarbons than expected in the gasoline range chromatogram.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 (12.5-15')	0605878-01	Soil	09/27/06 10:00	09/28/06 14:19
SB-2 (17.5-20')	0605878-02	Soil	09/27/06 13:45	09/28/06 14:19
SB-3 (12.5-15')	0605878-03	Soil	09/27/06 10:45	09/28/06 14:19
SB-4 (7.5-10')	0605878-04	Soil	09/27/06 11:45	09/28/06 14:19
SB-7 (10-12')	0605878-05	Soil	09/27/06 15:00	09/28/06 14:19
SB-7 (24-26')	0605878-06	Soil	09/27/06 15:10	09/28/06 14:19
SB-8 (10-12')	0605878-07	Soil	09/28/06 10:30	09/28/06 14:19
Trip Blank	0605878-08	Soil	09/27/06 00:00	09/28/06 14:19
SB-8 (20-22')	0605878-09	Soil	09/28/06 10:40	09/28/06 14:19

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7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	4.0 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	Yes	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	Yes	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-1 (12.5-15')
0605878-01 (Soil)
9/27/06 10:00

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**89**		% Wt	1	B6I0591	9/29/06	10/2/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B6J0051	10/3/06	10/3/06	WI GRO (95)	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromoethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Butanone (MEK)	< 0.56	0.56	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Isopropyltoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Allyl Chloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

BRAUN INTERTEC

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-1 (12.5-15')
0605878-01 (Soil)
9/27/06 10:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromochloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromodichloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromoform	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Carbon Tetrachloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorodibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroform	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorodifluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethyl Ether	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Isopropylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
m,p-Xylenes	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methylene chloride	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl-t-butyl ether	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Naphthalene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Propylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
o-Xylene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
sec-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Styrene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
tert-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrahydrofuran	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Toluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

BRAUN INTERTEC

11001 Hampshire Ave. S.
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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-1 (12.5-15')

0605878-01 (Soil)

9/27/06 10:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Vinyl chloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*104 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.8 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*99.2 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.0 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID:P16995

SB-2 (17.5-20')
0605878-02 (Soil)
9/27/06 13:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87**		% Wt	1	B6I0591	9/29/06	10/2/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel Range Organics (DRO)	**11**	11	mg/kg dry	1	B6I0580	9/29/06	10/3/06	WI DRO (95)	hno

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trimethylbenzene	**0.12**	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromoethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2,2-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Butanone (MEK)	< 0.58	0.58	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Chlorotoluene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Chlorotoluene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Isopropyltoluene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Acetone	< 1.2	1.2	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Allyl Chloride	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID:P16995

SB-2 (17.5-20')
0605878-02 (Soil)
9/27/06 13:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromochloromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromodichloromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromoform	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromomethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Carbon Tetrachloride	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorodibromomethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroform	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dibromomethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorodifluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorofluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethyl Ether	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Hexachlorobutadiene	< 0.12	0.12	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Isopropylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
m,p-Xylenes	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methylene chloride	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl-t-butyl ether	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Naphthalene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Propylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
o-Xylene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
sec-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Styrene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
tert-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrachloroethene	< 0.12	0.12	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrahydrofuran	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Toluene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-2 (17.5-20')

0605878-02 (Soil)

9/27/06 13:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichlorofluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Vinyl chloride	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*107 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*100 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.0 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.4 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-3 (12.5-15')
0605878-03 (Soil)
9/27/06 10:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87**		% Wt	1	B6I0591	9/29/06	10/2/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel Range Organics (DRO)	< 11	11	mg/kg dry	1	B6I0580	9/29/06	10/3/06	WI DRO (95)	ho

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromoethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2,2-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Butanone (MEK)	< 0.58	0.58	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Chlorotoluene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Chlorotoluene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Isopropyltoluene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Acetone	< 1.2	1.2	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Allyl Chloride	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-3 (12.5-15')
0605878-03 (Soil)
9/27/06 10:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromochloromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromodichloromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromoform	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromomethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Carbon Tetrachloride	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorodibromomethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroform	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dibromomethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorodifluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorofluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethyl Ether	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Hexachlorobutadiene	< 0.12	0.12	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Isopropylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
m,p-Xylenes	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methylene chloride	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl-t-butyl ether	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Naphthalene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Propylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
o-Xylene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
sec-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Styrene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
tert-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrachloroethene	< 0.12	0.12	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrahydrofuran	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Toluene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-3 (12.5-15')

0605878-03 (Soil)

9/27/06 10:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichlorofluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Vinyl chloride	< 0.058	0.058	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*105 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.8 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.8 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*97.2 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID:P16995

SB-4 (7.5-10')
0605878-04 (Soil)
9/27/06 11:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**89**		% Wt	1	B6I0591	9/29/06	10/2/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel Range Organics (DRO)	< 11	11	mg/kg dry	1	B6I0580	9/29/06	10/3/06	WI DRO (95)	ho

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dibromoethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2-Butanone (MEK)	< 0.56	0.56	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
4-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
4-Isopropyltoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Allyl Chloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	

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7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-4 (7.5-10')
0605878-04 (Soil)
9/27/06 11:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromochloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromodichloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromoform	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Carbon Tetrachloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chlorodibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloroform	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dichlorodifluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Ethyl Ether	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Ethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Isopropylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
m,p-Xylenes	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methylene chloride	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methyl-t-butyl ether	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Naphthalene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
n-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
n-Propylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
o-Xylene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
sec-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Styrene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
tert-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Tetrahydrofuran	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Toluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-4 (7.5-10')
0605878-04 (Soil)
9/27/06 11:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Trichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Trichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Vinyl chloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*102 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*93.6 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.4 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.4 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	

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7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-7 (10-12')
0605878-05 (Soil)
9/27/06 15:00

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**90**		% Wt	1	B6I0591	9/29/06	10/2/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**310**	56	mg/kg dry	5	B6J0051	10/3/06	10/4/06	WI GRO (95)	hij, vfa

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,4-Trimethylbenzene	**19**	0.56	mg/kg dry	10	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dibromoethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3,5-Trimethylbenzene	**4.9**	0.56	mg/kg dry	10	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2-Butanone (MEK)	< 0.56	0.56	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
4-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
4-Isopropyltoluene	**0.30**	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Allyl Chloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	

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7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr:Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID:P16995

SB-7 (10-12')
0605878-05 (Soil)
9/27/06 15:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**0.85**	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromochloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromodichloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromoform	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Carbon Tetrachloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chlorodibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloroform	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dichlorodifluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Ethyl Ether	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Ethylbenzene	**5.6**	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Isopropylbenzene	**0.86**	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
m,p-Xylenes	**21**	0.56	mg/kg dry	10	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methylene chloride	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methyl-t-butyl ether	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Naphthalene	**4.7**	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
n-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
n-Propylbenzene	**3.1**	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
o-Xylene	**9.2**	0.56	mg/kg dry	10	B6J0036	10/2/06	10/3/06	EPA 8260B	
sec-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Styrene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
tert-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Tetrahydrofuran	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Toluene	**9.5**	0.56	mg/kg dry	10	B6J0036	10/2/06	10/3/06	EPA 8260B	

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Peer Engineering, Inc. 7615 Golden Triangle Drive, Suite N Eden Prairie MN, 55344	Client Ref: 15111.02 - Sinclair New Hope Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0605878 Project Mgr: Thomas P. Wagner Account ID: P16995

SB-7 (10-12')
0605878-05 (Soil)
9/27/06 15:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Trichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Trichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Vinyl chloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*99.6 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*99.2 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*102 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*99.6 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-7 (24-26')
0605878-06 (Soil)
9/27/06 15:10

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**90**		% Wt	1	B6I0591	9/29/06	10/2/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B6J0051	10/3/06	10/3/06	WI GRO (95)	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dibromoethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2-Butanone (MEK)	< 0.56	0.56	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
4-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
4-Isopropyltoluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Allyl Chloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	

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Peer Engineering, Inc. 7615 Golden Triangle Drive, Suite N Eden Prairie MN, 55344	Client Ref: 15111.02 - Sinclair New Hope Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0605878 Project Mgr:Thomas P. Wagner Account ID:P16995

SB-7 (24-26')

0605878-06 (Soil)

9/27/06 15:10

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromochloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromodichloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromoform	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Carbon Tetrachloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chlorodibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloroethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloroform	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dichlorodifluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Ethyl Ether	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Ethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Isopropylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
m,p-Xylenes	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methylene chloride	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methyl-t-butyl ether	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Naphthalene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
n-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
n-Propylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
o-Xylene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
sec-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Styrene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
tert-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Tetrahydrofuran	< 0.28	0.28	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Toluene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-7 (24-26')

0605878-06 (Soil)

9/27/06 15:10

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Trichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Trichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Vinyl chloride	< 0.056	0.056	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*101 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*95.2 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*95.2 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.0 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-8 (10-12')
0605878-07 (Soil)
9/28/06 10:30

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**80**		% Wt	1	B6I0591	9/29/06	10/2/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**110**	12	mg/kg dry	1	B6J0051	10/3/06	10/3/06	WI GRO (95)	hij

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloroethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloroethene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,1-Dichloropropene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2,4-Trimethylbenzene	**2.5**	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dibromoethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichloroethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,2-Dichloropropane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3,5-Trimethylbenzene	**1.2**	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,3-Dichloropropane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2,2-Dichloropropane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2-Butanone (MEK)	< 0.62	0.62	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
2-Chlorotoluene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
4-Chlorotoluene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
4-Isopropyltoluene	**0.099**	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Acetone	< 1.2	1.2	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Allyl Chloride	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	

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7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-8 (10-12')
0605878-07 (Soil)
9/28/06 10:30

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromobenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromochloromethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromodichloromethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromoform	< 0.31	0.31	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Bromomethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Carbon Tetrachloride	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chlorobenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chlorodibromomethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloroethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloroform	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Chloromethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dibromomethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dichlorodifluoromethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Dichlorofluoromethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Ethyl Ether	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Ethylbenzene	**0.11**	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Hexachlorobutadiene	< 0.12	0.12	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Isopropylbenzene	**0.18**	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
m,p-Xylenes	**0.12**	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.31	0.31	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methylene chloride	< 0.31	0.31	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Methyl-t-butyl ether	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Naphthalene	**0.14**	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
n-Butylbenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
n-Propylbenzene	**0.75**	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
o-Xylene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
sec-Butylbenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Styrene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
tert-Butylbenzene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Tetrachloroethene	< 0.12	0.12	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Tetrahydrofuran	< 0.31	0.31	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Toluene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-8 (10-12')

0605878-07 (Soil)

9/28/06 10:30

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Trichloroethene	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Trichlorofluoromethane	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Vinyl chloride	< 0.062	0.062	mg/kg dry	1	B6J0036	10/2/06	10/3/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*103 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.8 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.8 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.4 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/3/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref:	15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:		Account ID: P16995

Trip Blank
0605878-08 (Soil)
9/27/06 0:00

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 10	10	mg/kg	1	B6J0051	10/3/06	10/3/06	WI GRO (95)	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Chlorotoluene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Chlorotoluene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Acetone	< 1.0	1.0	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Allyl Chloride	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Benzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromobenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromochloromethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromodichloromethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Trip Blank
0605878-08 (Soil)
9/27/06 0:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromoform	< 0.25	0.25	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromomethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorobenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorodibromomethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroform	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloromethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dibromomethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethyl Ether	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethylbenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Hexachlorobutadiene	< 0.10	0.10	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Isopropylbenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
m,p-Xylenes	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.25	0.25	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methylene chloride	< 0.25	0.25	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl-t-butyl ether	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Naphthalene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Butylbenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Propylbenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
o-Xylene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
sec-Butylbenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Styrene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
tert-Butylbenzene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrachloroethene	< 0.10	0.10	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrahydrofuran	< 0.25	0.25	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Toluene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichloroethene	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Vinyl chloride	< 0.050	0.050	mg/kg	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref:	15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:		Account ID: P16995

Trip Blank

0605878-08 (Soil)

9/27/06 0:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	*108 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*97.2 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*101 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*97.6 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	

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7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-8 (20-22')
0605878-09 (Soil)
9/28/06 10:40

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**88**		% Wt	1	B6I0591	9/29/06	10/2/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B6J0051	10/3/06	10/5/06	WI GRO (95)	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,1-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dibromoethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloroethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,2-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,3-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2,2-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Butanone (MEK)	< 0.57	0.57	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
2-Chlorotoluene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Chlorotoluene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
4-Isopropyltoluene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Allyl Chloride	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref:	15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:		Account ID: P16995

SB-8 (20-22')

0605878-09 (Soil)

9/28/06 10:40

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromobenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromochloromethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromodichloromethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromoform	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Bromomethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Carbon Tetrachloride	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chlorodibromomethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloroform	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Chloromethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dibromomethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorodifluoromethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Dichlorofluoromethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethyl Ether	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Ethylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Isopropylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
m,p-Xylenes	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methylene chloride	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Methyl-t-butyl ether	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Naphthalene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Butylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
n-Propylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
o-Xylene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
sec-Butylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Styrene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
tert-Butylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Tetrahydrofuran	< 0.29	0.29	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Toluene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-8 (20-22')

0605878-09 (Soil)

9/28/06 10:40

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichloroethene	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Trichlorofluoromethane	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Vinyl chloride	< 0.057	0.057	mg/kg dry	1	B6J0036	10/2/06	10/2/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*105 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*98.0 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.8 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.8 %*	*Limits: 80-120%*			*B6J0036*	*10/2/06*	*10/2/06*	*EPA 8260B*	

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Classical Chemistry Parameters - Quality Control

Batch B6I0591 - Default Prep GenChem

Method Blank (B6I0591-BLK1) Prepared: 09/29/06 Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B6I0591-SRM1) Prepared: 09/29/06 Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	84.8		% Wt	88.8	NA	95.5	90-110	NA	NA	

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Total Petroleum Hydrocarbons - Quality Control

Batch B6I0580 - WI DRO (95)

Method Blank (B6I0580-BLK1) Prepared: 09/29/06 Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B6I0580-BS1) Prepared: 09/29/06 Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	27.0	10	mg/kg	32.0	NA	84.4	70-120	NA	NA	

Laboratory Control Sample Duplicate (B6I0580-BSD1) Prepared: 09/29/06 Analyzed: 10/03/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel Range Organics (DRO)	26.8	10	mg/kg	32.0	NA	83.8	70-120	0.743	20	

Batch B6J0051 - WI GRO (95)

Method Blank (B6J0051-BLK1) Prepared & Analyzed: 10/03/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B6J0051-BS1) Prepared & Analyzed: 10/03/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	16.4	10	mg/kg	16.0	NA	102	80-120	NA	NA	

Laboratory Control Sample Duplicate (B6J0051-BSD1) Prepared: 10/03/06 Analyzed: 10/04/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	14.8	10	mg/kg	16.0	NA	92.5	80-120	10.3	20	

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Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0036 - EPA 5030B

Method Blank (B6J0036-BLK1) Prepared & Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Acetone	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromoform	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Bromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroform	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	

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Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0036 - EPA 5030B

Method Blank (B6J0036-BLK1) Prepared & Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Hexachlorobutadiene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Styrene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*25.0*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.5*		*ug/L*	*25.0*	*NA*	*98.0*	*80-120*			
Surrogate: Dibromofluoromethane	*24.6*		*ug/L*	*25.0*	*NA*	*98.4*	*80-120*			
Surrogate: Toluene-d8	*25.0*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			

Laboratory Control Sample (B6J0036-BS1) Prepared & Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.42	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
1,1,1-Trichloroethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
1,1,2-Trichloroethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
1,1-Dichloroethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
1,1-Dichloroethene	1.42	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
1,1-Dichloropropene	1.41	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
1,2,3-Trichloropropane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.32	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
1,2-Dibromoethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
1,2-Dichlorobenzene	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
1,2-Dichloroethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	

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Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0036 - EPA 5030B

Laboratory Control Sample (B6J0036-BS1) Prepared & Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloropropane	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
1,3-Dichlorobenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
1,3-Dichloropropane	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
1,4-Dichlorobenzene	1.32	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
2,2-Dichloropropane	1.41	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
2-Butanone (MEK)	1.27	0.50	mg/kg	1.25	NA	102	75-125	NA	NA	
2-Chlorotoluene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
4-Chlorotoluene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
4-Isopropyltoluene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
Acetone	1.32	1.0	mg/kg	1.25	NA	106	75-125	NA	NA	
Allyl Chloride	1.49	0.050	mg/kg	1.25	NA	119	75-125	NA	NA	
Benzene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Bromobenzene	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	
Bromochloromethane	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Bromodichloromethane	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
Bromoform	1.30	0.25	mg/kg	1.25	NA	104	75-125	NA	NA	
Bromomethane	1.51	0.050	mg/kg	1.25	NA	121	70-130	NA	NA	
Carbon Tetrachloride	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
Chlorobenzene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
Chlorodibromomethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
Chloroethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
Chloroform	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Chloromethane	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	
cis-1,2-Dichloroethene	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
cis-1,3-Dichloropropene	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
Dibromomethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
Dichlorodifluoromethane	1.29	0.050	mg/kg	1.25	NA	103	70-130	NA	NA	
Dichlorofluoromethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
Ethyl Ether	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Ethylbenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Hexachlorobutadiene	1.34	0.10	mg/kg	1.25	NA	107	75-125	NA	NA	
Isopropylbenzene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
m,p-Xylenes	2.77	0.050	mg/kg	2.50	NA	111	75-125	NA	NA	
Methyl Isobutyl Ketone	1.33	0.25	mg/kg	1.25	NA	106	75-125	NA	NA	
Methylene chloride	1.37	0.25	mg/kg	1.25	NA	110	75-125	NA	NA	
Methyl-t-butyl ether	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	
Naphthalene	1.32	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
n-Butylbenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
n-Propylbenzene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
o-Xylene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
sec-Butylbenzene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Styrene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
tert-Butylbenzene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
Tetrachloroethene	1.37	0.10	mg/kg	1.25	NA	110	75-125	NA	NA	
Tetrahydrofuran	1.32	0.25	mg/kg	1.25	NA	106	75-125	NA	NA	
Toluene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0036 - EPA 5030B

Laboratory Control Sample (B6J0036-BS1)

Prepared & Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
trans-1,2-Dichloroethene	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
trans-1,3-Dichloropropene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
Trichloroethene	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	
Trichlorofluoromethane	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
Vinyl chloride	1.45	0.050	mg/kg	1.25	NA	116	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*25.2*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.3*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Dibromofluoromethane	*25.3*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Toluene-d8	*25.4*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			

Laboratory Control Sample Duplicate (B6J0036-BSD1)

Prepared & Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	0.707	20	
1,1,1-Trichloroethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	1.43	20	
1,1,2,2-Tetrachloroethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	1.50	20	
1,1,2-Trichloroethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	1.50	20	
1,1,2-Trichlorotrifluoroethane	1.38	0.050	mg/kg	1.25	NA	110	75-125	4.95	20	
1,1-Dichloroethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	2.80	20	
1,1-Dichloroethene	1.42	0.050	mg/kg	1.25	NA	114	75-125	0.00	20	
1,1-Dichloropropene	1.37	0.050	mg/kg	1.25	NA	110	75-125	2.88	20	
1,2,3-Trichlorobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	5.36	20	
1,2,3-Trichloropropane	1.31	0.050	mg/kg	1.25	NA	105	75-125	3.10	20	
1,2,4-Trichlorobenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	4.65	20	
1,2,4-Trimethylbenzene	1.35	0.050	mg/kg	1.25	NA	108	75-125	0.00	20	
1,2-Dibromo-3-chloropropane	1.38	0.050	mg/kg	1.25	NA	110	75-125	1.46	20	
1,2-Dibromoethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	0.00	20	
1,2-Dichlorobenzene	1.29	0.050	mg/kg	1.25	NA	103	75-125	1.54	20	
1,2-Dichloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	0.766	20	
1,2-Dichloropropane	1.35	0.050	mg/kg	1.25	NA	108	75-125	0.738	20	
1,3,5-Trimethylbenzene	1.35	0.050	mg/kg	1.25	NA	108	75-125	0.738	20	
1,3-Dichlorobenzene	1.31	0.050	mg/kg	1.25	NA	105	75-125	2.26	20	
1,3-Dichloropropane	1.34	0.050	mg/kg	1.25	NA	107	75-125	1.48	20	
1,4-Dichlorobenzene	1.31	0.050	mg/kg	1.25	NA	105	75-125	0.760	20	
2,2-Dichloropropane	1.37	0.050	mg/kg	1.25	NA	110	75-125	2.88	20	
2-Butanone (MEK)	1.21	0.50	mg/kg	1.25	NA	96.8	75-125	4.84	20	
2-Chlorotoluene	1.34	0.050	mg/kg	1.25	NA	107	75-125	2.21	20	
4-Chlorotoluene	1.33	0.050	mg/kg	1.25	NA	106	75-125	2.23	20	
4-Isopropyltoluene	1.34	0.050	mg/kg	1.25	NA	107	75-125	1.48	20	
Acetone	1.26	1.0	mg/kg	1.25	NA	101	75-125	4.65	20	
Allyl Chloride	1.49	0.050	mg/kg	1.25	NA	119	75-125	0.00	20	
Benzene	1.36	0.050	mg/kg	1.25	NA	109	75-125	0.733	20	
Bromobenzene	1.32	0.050	mg/kg	1.25	NA	106	75-125	2.25	20	
Bromochloromethane	1.37	0.050	mg/kg	1.25	NA	110	75-125	0.00	20	
Bromodichloromethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	0.712	20	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0036 - EPA 5030B

Laboratory Control Sample Duplicate (B6J0036-BSD1) Prepared & Analyzed: 10/02/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromoform	1.29	0.25	mg/kg	1.25	NA	103	75-125	0.772	20	
Bromomethane	1.41	0.050	mg/kg	1.25	NA	113	70-130	6.85	20	
Carbon Tetrachloride	1.46	0.050	mg/kg	1.25	NA	117	75-125	0.687	20	
Chlorobenzene	1.35	0.050	mg/kg	1.25	NA	108	75-125	0.738	20	
Chlorodibromomethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	1.50	20	
Chloroethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	0.00	20	
Chloroform	1.37	0.050	mg/kg	1.25	NA	110	75-125	0.00	20	
Chloromethane	1.33	0.050	mg/kg	1.25	NA	106	75-125	1.49	20	
cis-1,2-Dichloroethene	1.37	0.050	mg/kg	1.25	NA	110	75-125	2.17	20	
cis-1,3-Dichloropropene	1.37	0.050	mg/kg	1.25	NA	110	75-125	1.45	20	
Dibromomethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	0.760	20	
Dichlorodifluoromethane	1.33	0.050	mg/kg	1.25	NA	106	70-130	3.05	20	
Dichlorofluoromethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	0.00	20	
Ethyl Ether	1.26	0.050	mg/kg	1.25	NA	101	75-125	0.791	20	
Ethylbenzene	1.37	0.050	mg/kg	1.25	NA	110	75-125	0.727	20	
Hexachlorobutadiene	1.29	0.10	mg/kg	1.25	NA	103	75-125	3.80	20	
Isopropylbenzene	1.37	0.050	mg/kg	1.25	NA	110	75-125	0.733	20	
m,p-Xylenes	2.72	0.050	mg/kg	2.50	NA	109	75-125	1.82	20	
Methyl Isobutyl Ketone	1.41	0.25	mg/kg	1.25	NA	113	75-125	5.84	20	
Methylene chloride	1.37	0.25	mg/kg	1.25	NA	110	75-125	0.00	20	
Methyl-t-butyl ether	1.34	0.050	mg/kg	1.25	NA	107	75-125	0.743	20	
Naphthalene	1.31	0.050	mg/kg	1.25	NA	105	75-125	0.760	20	
n-Butylbenzene	1.33	0.050	mg/kg	1.25	NA	106	75-125	3.69	20	
n-Propylbenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	2.21	20	
o-Xylene	1.35	0.050	mg/kg	1.25	NA	108	75-125	0.738	20	
sec-Butylbenzene	1.36	0.050	mg/kg	1.25	NA	109	75-125	0.733	20	
Styrene	1.34	0.050	mg/kg	1.25	NA	107	75-125	2.21	20	
tert-Butylbenzene	1.35	0.050	mg/kg	1.25	NA	108	75-125	0.738	20	
Tetrachloroethene	1.35	0.10	mg/kg	1.25	NA	108	75-125	1.47	20	
Tetrahydrofuran	1.38	0.25	mg/kg	1.25	NA	110	75-125	4.44	20	
Toluene	1.34	0.050	mg/kg	1.25	NA	107	75-125	1.48	20	
trans-1,2-Dichloroethene	1.37	0.050	mg/kg	1.25	NA	110	75-125	2.17	20	
trans-1,3-Dichloropropene	1.37	0.050	mg/kg	1.25	NA	110	75-125	0.733	20	
Trichloroethene	1.36	0.050	mg/kg	1.25	NA	109	75-125	0.738	20	
Trichlorofluoromethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	0.755	20	
Vinyl chloride	1.43	0.050	mg/kg	1.25	NA	114	70-130	1.39	20	
Surrogate: 1,2-Dichloroethane-d4	*24.9*		*ug/L*	*25.0*	*NA*	*99.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.2*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Dibromofluoromethane	*25.7*		*ug/L*	*25.0*	*NA*	*103*	*80-120*			
Surrogate: Toluene-d8	*25.2*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			

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Peer Engineering, Inc. 7615 Golden Triangle Drive, Suite N Eden Prairie MN, 55344	Client Ref: 15111.02 - Sinclair New Hope Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0605878 Project Mgr: Thomas P. Wagner Account ID: P16995

For Braun Intertec Use Only
Braun Intertec Project No. 1105878

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquires: labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: ______
Time ______
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote # ______

Page 1 of 1

REPORT RESULTS TO
Contact Name: Bruce Schaepe
Project ID/Project Name: 15111.02-Sinclair NewHope
P.O. #
Company: Peer Engineering
Mailing Address: 7615 Golden Triangle Dr
City, State, Zip: Eden Prairie MN
Telephone #: 952-831-3341
Fax #: 952-831-4552
E-mail:

SEND INVOICE TO
Contact Name / Company: SAME
Address
City, State, Zip
Telephone #
Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request)

#	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	GRO	VOC	DRO	FOR LAB USE ONLY
1	SB-1(12.5-15)	9-27-06	10:00	Soil		3		X	X		
2	SB-2(17.5-20)	9-27-06	13:45	Soil		4			X	X	
3	SB-3 (12.5-15)	9-27-06	10:45	Soil		4			X	X	
4	SB-4(7.5-10)	9-27-06	11:45	Soil		4			X	X	
5	SB-7(10-12)	9-27-06	15:00	Soil		3		X	X		
6	SB-7(24-26)	9-27-06	15:10	Soil		3		X	X		
7	SB-8(10-12)	9-28-06	10:30	Soil		3		X	X		
8	Trip Blank	9-27-06				1		X	X		
9	SB-8(20-22)	9-28-06	10:40	Soil		3		X	X		
10											
11											
12											
13											
14											
15											

CHAIN OF CUSTODY
Collected by: (Print) Diane Barcelle — Collector's Signature: [signature]
Relinquished by: [signature] — Date/Time 9-28 3/ — Received by: [signature] — Date/Time 9-28 1:26
Relinquished by: — Date/Time — Received Contents Not Verified: TW 09/29/06 — Date/Time 14/9
Custody Seal Intact ☒ Yes ☐ No ☐ N/A — Received Contents Verified: — Date/Time
On Ice ☒ Yes ☐ No
Temp Blank ☒ Yes ☐ No — Comments:
Temp: 4.0 °C

Form # CS02.01 F:\Groups\...\COC-CS02 Effective Date: 7/22/05

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Software Version	: 6.3.0.0443	Date	: 10/3/2006 9:08:15 PM
Reprocess Number	: 83571: 4456		
Operator	: TCuser		
Sample Number	:	Sample Name	: 0605878-02
AutoSampler	: NONE	Study	:
Instrument Name	: HP5890 #5 (DRO)	Rack/Vial	: 0/0
Interface Serial #	: NONE	Channel	: A
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 11.80 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 25.0100	Area Reject	: 0.000000
Data Acquisition Time	: 10/3/2006 1:16:41 AM	Dilution Factor	: 1.00
		Cycle	: 13

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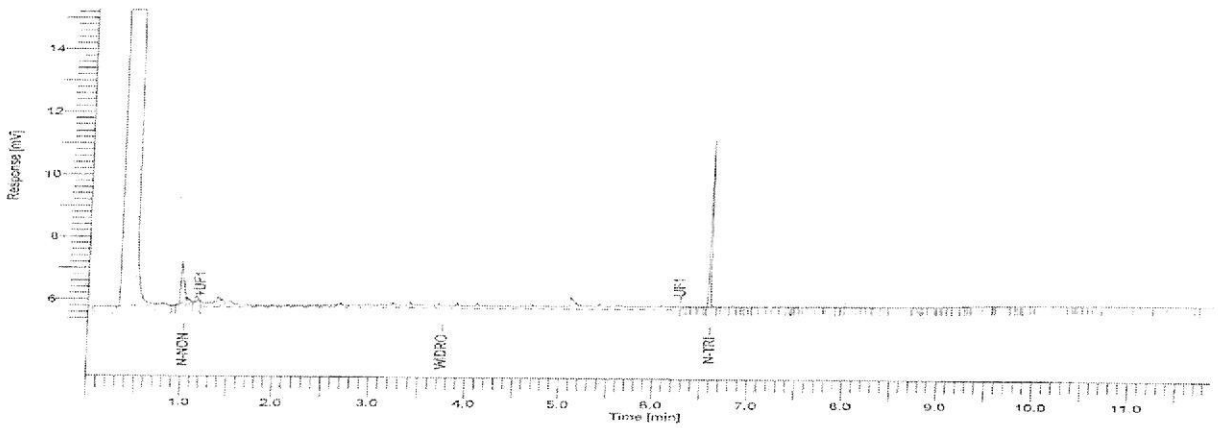
Sample Notes:
Analysis for Diesel range organics with FID detector.



Diesel Range Organic Report

Peak #	Component Name	Final mg/kg or ug/L	Raw Amount (ug/mL)	Time [min]	Area [µV·s]	Cal. Range	DRO % Rec.	Surrogate % Rec.	Footnotes
6	n-Non	1.57	40.68	0.99	3112.00		5.09	40.68	
10	WDRO	9.13	236.43	5.10	28261.58		29.55	236.43	
16	n-tri	2.98	77.31	6.58	6082.24		9.86	77.31	
					37455.82				

Report stored in ASCII file: \\Mpls-corp01\Labdata-Prep\P4\Data\6268\kjfa139.TXO

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Software Version	: 6.3.0.0445	Date	: 10/4/2006 7:46:49 AM
Reprocess Number	: 83569: 12080		
Operator	: TCuser	Sample Name	: 0605878-05
Sample Number	: 100	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP1	Channel	: B
Interface Serial #	: 9205671178	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 23.50 min
Sampling Rate	: 3.1250 pts/s		
Sample Volume	: 1.000000 uL	Area Reject	: 1000.000000
Sample Amount	: 10.0000	Dilution Factor	: 5.00
Data Acquisition Time	: 10/4/2006 12:10:39 AM	Cycle	: 19

10/4/06 AAL

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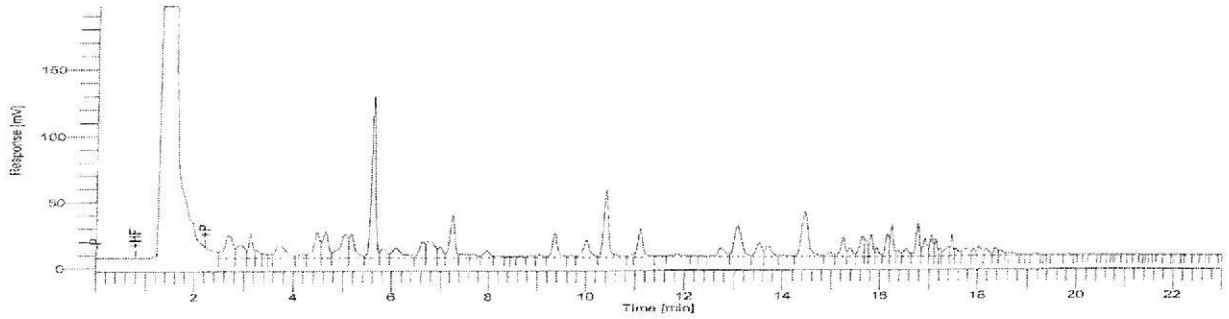

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Final ug/L or mg/kg	Recovery %	Area (uV*sec)	Height	Raw Amount (ng/mL)	Cal Range	Sample Weight	Footnote
	10.000	10.000	WIGRO	276.868	348.1	5902046	791123	553.732		10.000	vfg, L15

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605878
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Software Version	: 6.3.0.0445	Date	: 10/4/2006 7:45:41 AM
Reprocess Number	: (83569: 12040		
Operator	: TCuiser		
Sample Number	: 100	Sample Name	: 0605878-07
AutoSampler	: NONE	Study	:
Instrument Name	: HP1	Rack/Vial	: 6/0
Interface Serial #	: 3205671178	Channel	: B
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 23.50 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 10.0000	Area Reject	: 1000.000000
Data Acquisition Time	: 10/3/2006 6:37:53 PM	Dilution Factor	: 1.00
		Cycle	: 9

10/4/06 mrl

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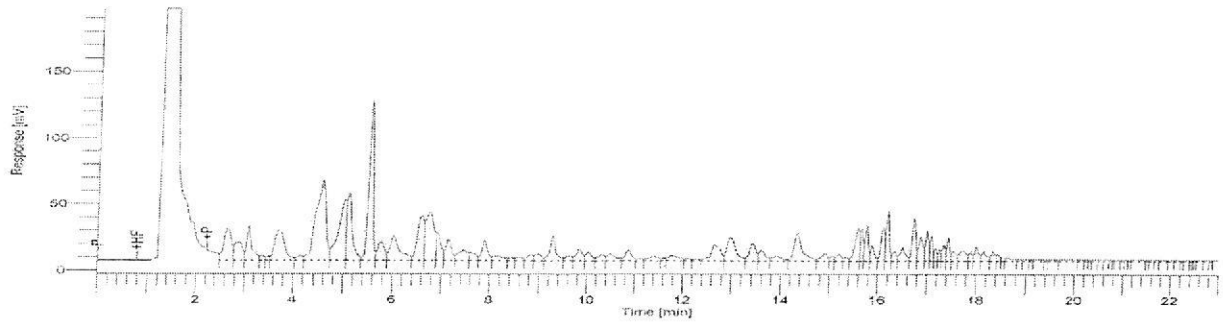

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Final ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.000	10.000	WIGRO	88.818	555.1	8642008	1030113	888.177		10.000	h,j

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6269\adwb101.TXO

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INTERTEC

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Web: braunintertec.com

Mr. Bruce Schaepe
Peer Engineering, Inc.
7615 Golden Triangle Drive, Suite N
Eden Prairie, MN 55344

October 12, 2006

Work Order #: 0605923

RE: 15111.02 - Sinclair New Hope

Dear Mr. Bruce Schaepe

Braun Intertec Corporation received samples for the project identified above on 09/29/06 14:21. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Thomas P. Wagner

Thomas P. Wagner
Associate Principal

Providing engineering and environmental solutions since 1957

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Eden Prairie MN, 55344	PO Number:		Account ID: P16995

Qualifiers and Abbreviations

vfa	The method reporting limit (MRL) was raised for one or more analytes; a dilution of the sample was necessary due to high analyte levels and/or matrix interferences.
hij	The sample chromatogram indicates the presence of lower and higher boiling hydrocarbons than expected in the gasoline range chromatogram.
go	The laboratory control sample recovery is outside of laboratory control limits
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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Eden Prairie MN, 55344	PO Number:		Account ID:P16995

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-6 (10-12)	0605923-01	Soil	09/28/06 16:40	09/29/06 14:21
SB-6 (20-22)	0605923-02	Soil	09/28/06 16:45	09/29/06 14:21
SB-5 (8-10)	0605923-03	Soil	09/28/06 15:35	09/29/06 14:21
SB-5 (24-26)	0605923-04	Soil	09/28/06 15:40	09/29/06 14:21
SB-5 (34-36)	0605923-05	Soil	09/28/06 15:45	09/29/06 14:21
Trip Blank	0605923-06	Soil	09/28/06 00:00	09/29/06 14:21

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Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	1.3 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	Yes
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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SB-6 (10-12)

0605923-01 (Soil)

9/28/06 16:40

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87**		% Wt	1	B6J0163	10/6/06	10/9/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**56**	11	mg/kg dry	1	B6J0104	10/5/06	10/5/06	WI GRO (95)	hij

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	**5.5**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromoethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloroethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	**1.5**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2-Butanone (MEK)	< 0.57	0.57	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
2-Chlorotoluene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Chlorotoluene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Isopropyltoluene	**0.062**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Allyl Chloride	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-6 (10-12)
0605923-01 (Soil)
9/28/06 16:40

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**0.53**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromobenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromochloromethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromodichloromethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromoform	< 0.29	0.29	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromomethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Carbon Tetrachloride	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chlorobenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chlorodibromomethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloroethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chloroform	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloromethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dibromomethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorodifluoromethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorofluoromethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethyl Ether	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethylbenzene	**1.6**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Isopropylbenzene	**0.21**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
m,p-Xylenes	**6.9**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.29	0.29	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methylene chloride	< 0.29	0.29	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl-t-butyl ether	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Naphthalene	**1.5**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Butylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Propylbenzene	**0.73**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
o-Xylene	**2.2**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
sec-Butylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Styrene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
tert-Butylbenzene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrahydrofuran	< 0.29	0.29	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Toluene	**0.080**	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-6 (10-12)

0605923-01 (Soil)

9/28/06 16:40

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,2-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichloroethene	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichlorofluoromethane	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Vinyl chloride	< 0.057	0.057	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*97.2 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*100 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.4 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*99.2 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	

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Eden Prairie MN, 55344	PO Number:		Account ID: P16995

SB-6 (20-22)
0605923-02 (Soil)
9/28/06 16:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86**		% Wt	1	B6J0163	10/6/06	10/9/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 12	12	mg/kg dry	1	B6J0104	10/5/06	10/8/06	WI GRO (95)	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromoethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloroethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2-Butanone (MEK)	< 0.58	0.58	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
2-Chlorotoluene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Chlorotoluene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Isopropyltoluene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Acetone	< 1.2	1.2	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Allyl Chloride	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-6 (20-22)
0605923-02 (Soil)
9/28/06 16:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromobenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromochloromethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromodichloromethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromoform	< 0.29	0.29	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromomethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Carbon Tetrachloride	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chlorobenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chlorodibromomethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloroethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chloroform	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloromethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dibromomethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorodifluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorofluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethyl Ether	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Hexachlorobutadiene	< 0.12	0.12	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Isopropylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
m,p-Xylenes	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.29	0.29	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methylene chloride	< 0.29	0.29	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl-t-butyl ether	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Naphthalene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Propylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
o-Xylene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
sec-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Styrene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
tert-Butylbenzene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrachloroethene	< 0.12	0.12	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrahydrofuran	< 0.29	0.29	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Toluene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-6 (20-22)

0605923-02 (Soil)

9/28/06 16:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichloroethene	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichlorofluoromethane	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Vinyl chloride	< 0.058	0.058	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*103 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.4 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*100 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.8 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-5 (8-10)
0605923-03 (Soil)
9/28/06 15:35

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**92**		% Wt	1	B6J0163	10/6/06	10/9/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	**3200**	220	mg/kg dry	20	B6J0104	10/5/06	10/9/06	WI GRO (95)	hij, vfa

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloropropene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	**200**	2.7	mg/kg dry	50	B6J0110	10/4/06	10/6/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromoethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloroethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloropropane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	**53**	0.55	mg/kg dry	10	B6J0110	10/4/06	10/6/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichloropropane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2-Butanone (MEK)	< 0.55	0.55	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
2-Chlorotoluene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Chlorotoluene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Isopropyltoluene	**2.8**	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Allyl Chloride	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-5 (8-10)

0605923-03 (Soil)

9/28/06 15:35

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**5.3**	0.55	mg/kg dry	10	B6J0110	10/4/06	10/6/06	EPA 8260B	
Bromobenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromochloromethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromodichloromethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromoform	< 0.27	0.27	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromomethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Carbon Tetrachloride	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chlorobenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chlorodibromomethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloroethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chloroform	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloromethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dibromomethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorodifluoromethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorofluoromethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethyl Ether	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethylbenzene	**28**	0.55	mg/kg dry	10	B6J0110	10/4/06	10/6/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Isopropylbenzene	**4.4**	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
m,p-Xylenes	**280**	2.7	mg/kg dry	50	B6J0110	10/4/06	10/6/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.27	0.27	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methylene chloride	< 0.27	0.27	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl-t-butyl ether	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Naphthalene	**23**	0.55	mg/kg dry	10	B6J0110	10/4/06	10/6/06	EPA 8260B	
n-Butylbenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Propylbenzene	**12**	0.55	mg/kg dry	10	B6J0110	10/4/06	10/6/06	EPA 8260B	
o-Xylene	**100**	2.7	mg/kg dry	50	B6J0110	10/4/06	10/6/06	EPA 8260B	
sec-Butylbenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Styrene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
tert-Butylbenzene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrahydrofuran	< 0.27	0.27	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Toluene	**48**	0.55	mg/kg dry	10	B6J0110	10/4/06	10/6/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-5 (8-10)

0605923-03 (Soil)

9/28/06 15:35

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,2-Dichloroethene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichloroethene	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichlorofluoromethane	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Vinyl chloride	< 0.055	0.055	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*95.2 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.0 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*96.4 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*92.0 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-5 (24-26)
0605923-04 (Soil)
9/28/06 15:40

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**89**		% Wt	1	B6J0163	10/6/06	10/9/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B6J0104	10/5/06	10/5/06	WI GRO (95)	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromoethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2-Butanone (MEK)	< 0.56	0.56	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
2-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Isopropyltoluene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Allyl Chloride	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-5 (24-26)
0605923-04 (Soil)
9/28/06 15:40

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromochloromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromodichloromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromoform	< 0.28	0.28	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromomethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Carbon Tetrachloride	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chlorodibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chloroform	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorodifluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethyl Ether	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Isopropylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
m,p-Xylenes	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.28	0.28	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methylene chloride	< 0.28	0.28	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl-t-butyl ether	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Naphthalene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Propylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
o-Xylene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
sec-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Styrene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
tert-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrahydrofuran	< 0.28	0.28	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Toluene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref:	15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:		Account ID: P16995

SB-5 (24-26)

0605923-04 (Soil)

9/28/06 15:40

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Vinyl chloride	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*100 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*94.8 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.8 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*97.6 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	

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7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-5 (34-36)
0605923-05 (Soil)
9/28/06 15:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**89**		% Wt	1	B6J0163	10/6/06	10/9/06	SM 2540G	

Total Petroleum Hydrocarbons

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Organics (GRO)	< 11	11	mg/kg dry	1	B6J0104	10/5/06	10/6/06	WI GRO (95)	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromoethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2-Butanone (MEK)	< 0.56	0.56	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
2-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Chlorotoluene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Isopropyltoluene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Acetone	< 1.1	1.1	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Allyl Chloride	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

SB-5 (34-36)

0605923-05 (Soil)

9/28/06 15:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromochloromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromodichloromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromoform	< 0.28	0.28	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromomethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Carbon Tetrachloride	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chlorobenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chlorodibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloroethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chloroform	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dibromomethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorodifluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethyl Ether	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Isopropylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
m,p-Xylenes	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.28	0.28	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methylene chloride	< 0.28	0.28	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl-t-butyl ether	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Naphthalene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Propylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
o-Xylene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
sec-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Styrene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
tert-Butylbenzene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrahydrofuran	< 0.28	0.28	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Toluene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Eden Prairie MN, 55344	PO Number:		Account ID: P16995

SB-5 (34-36)

0605923-05 (Soil)

9/28/06 15:45

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
trans-1,3-Dichloropropene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichloroethene	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichlorofluoromethane	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Vinyl chloride	< 0.056	0.056	mg/kg dry	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*102 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.4 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.4 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.0 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Trip Blank

0605923-06 (Soil)

9/28/06 0:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
2-Chlorotoluene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Chlorotoluene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Acetone	< 1.0	1.0	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Allyl Chloride	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Benzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromobenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromochloromethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromodichloromethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromoform	< 0.25	0.25	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Bromomethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chlorobenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	

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Peer Engineering, Inc.	Client Ref:	15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:		Account ID: P16995

Trip Blank

0605923-06 (Soil)

9/28/06 0:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chlorodibromomethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloroethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	go
Chloroform	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Chloromethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dibromomethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethyl Ether	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Ethylbenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Hexachlorobutadiene	< 0.10	0.10	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Isopropylbenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
m,p-Xylenes	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.25	0.25	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methylene chloride	< 0.25	0.25	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Methyl-t-butyl ether	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Naphthalene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Butylbenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
n-Propylbenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
o-Xylene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
sec-Butylbenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Styrene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
tert-Butylbenzene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrachloroethene	< 0.10	0.10	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Tetrahydrofuran	< 0.25	0.25	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Toluene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichloroethene	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Vinyl chloride	< 0.050	0.050	mg/kg	1	B6J0110	10/4/06	10/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*102 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.0 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*96.4 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*96.8 %*	*Limits: 80-120%*			*B6J0110*	*10/4/06*	*10/5/06*	*EPA 8260B*	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Classical Chemistry Parameters - Quality Control

Batch B6J0163 - Default Prep GenChem

Method Blank (B6J0163-BLK1) Prepared: 10/06/06 Analyzed: 10/09/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	0.000300		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B6J0163-SRM1) Prepared: 10/06/06 Analyzed: 10/09/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	85.2		% Wt	88.8	NA	95.9	90-110	NA	NA	

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7615 Golden Triangle Drive, Suite N	Client Contact:	Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:		Account ID: P16995

Total Petroleum Hydrocarbons - Quality Control

Batch B6J0104 - WI GRO (95)

Method Blank (B6J0104-BLK1) Prepared & Analyzed: 10/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	< 10	10	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B6J0104-BS1) Prepared & Analyzed: 10/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	17.9	10	mg/kg	16.0	NA	112	80-120	NA	NA	

Laboratory Control Sample Duplicate (B6J0104-BSD1) Prepared: 10/05/06 Analyzed: 10/06/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline Range Organics (GRO)	16.1	10	mg/kg	16.0	NA	101	80-120	10.6	20	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0110 - EPA 5030B

Method Blank (B6J0110-BLK1) Prepared & Analyzed: 10/04/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Acetone	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromoform	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Bromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroform	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0110 - EPA 5030B

Method Blank (B6J0110-BLK1) Prepared & Analyzed: 10/04/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Hexachlorobutadiene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Styrene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*24.9*		*ug/L*	*25.0*	*NA*	*99.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/L*	*25.0*	*NA*	*94.8*	*80-120*			
Surrogate: Dibromofluoromethane	*24.5*		*ug/L*	*25.0*	*NA*	*98.0*	*80-120*			
Surrogate: Toluene-d8	*24.8*		*ug/L*	*25.0*	*NA*	*99.2*	*80-120*			

Laboratory Control Sample (B6J0110-BS1) Prepared & Analyzed: 10/04/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.50	0.050	mg/kg	1.25	NA	120	75-125	NA	NA	
1,1,1-Trichloroethane	1.50	0.050	mg/kg	1.25	NA	120	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,1,2-Trichloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.46	0.050	mg/kg	1.25	NA	117	75-125	NA	NA	
1,1-Dichloroethane	1.47	0.050	mg/kg	1.25	NA	118	75-125	NA	NA	
1,1-Dichloroethene	1.46	0.050	mg/kg	1.25	NA	117	75-125	NA	NA	
1,1-Dichloropropene	1.46	0.050	mg/kg	1.25	NA	117	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
1,2,3-Trichloropropane	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.44	0.050	mg/kg	1.25	NA	115	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
1,2-Dibromoethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
1,2-Dichlorobenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
1,2-Dichloroethane	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0110 - EPA 5030B

Laboratory Control Sample (B6J0110-BS1) Prepared & Analyzed: 10/04/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloropropane	1.44	0.050	mg/kg	1.25	NA	115	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
1,3-Dichlorobenzene	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
1,3-Dichloropropane	1.32	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
1,4-Dichlorobenzene	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	
2,2-Dichloropropane	1.51	0.050	mg/kg	1.25	NA	121	75-125	NA	NA	
2-Butanone (MEK)	0.972	0.50	mg/kg	1.25	NA	77.8	75-125	NA	NA	
2-Chlorotoluene	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
4-Chlorotoluene	1.42	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
4-Isopropyltoluene	1.47	0.050	mg/kg	1.25	NA	118	75-125	NA	NA	
Acetone	1.40	1.0	mg/kg	1.25	NA	112	75-125	NA	NA	
Allyl Chloride	1.52	0.050	mg/kg	1.25	NA	122	75-125	NA	NA	
Benzene	1.44	0.050	mg/kg	1.25	NA	115	75-125	NA	NA	
Bromobenzene	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
Bromochloromethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
Bromodichloromethane	1.55	0.050	mg/kg	1.25	NA	124	75-125	NA	NA	
Bromoform	1.31	0.25	mg/kg	1.25	NA	105	75-125	NA	NA	
Bromomethane	1.58	0.050	mg/kg	1.25	NA	126	70-130	NA	NA	
Carbon Tetrachloride	1.74	0.050	mg/kg	1.25	NA	139	75-125	NA	NA	
Chlorobenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Chlorodibromomethane	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
Chloroethane	1.68	0.050	mg/kg	1.25	NA	134	75-125	NA	NA	
Chloroform	1.42	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Chloromethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
cis-1,2-Dichloroethene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
cis-1,3-Dichloropropene	1.48	0.050	mg/kg	1.25	NA	118	75-125	NA	NA	
Dibromomethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
Dichlorodifluoromethane	1.33	0.050	mg/kg	1.25	NA	106	70-130	NA	NA	
Dichlorofluoromethane	1.54	0.050	mg/kg	1.25	NA	123	75-125	NA	NA	
Ethyl Ether	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Ethylbenzene	1.42	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Hexachlorobutadiene	1.41	0.10	mg/kg	1.25	NA	113	75-125	NA	NA	
Isopropylbenzene	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
m,p-Xylenes	2.79	0.050	mg/kg	2.50	NA	112	75-125	NA	NA	
Methyl Isobutyl Ketone	1.30	0.25	mg/kg	1.25	NA	104	75-125	NA	NA	
Methylene chloride	1.37	0.25	mg/kg	1.25	NA	110	75-125	NA	NA	
Methyl-t-butyl ether	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Naphthalene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
n-Butylbenzene	1.49	0.050	mg/kg	1.25	NA	119	75-125	NA	NA	
n-Propylbenzene	1.44	0.050	mg/kg	1.25	NA	115	75-125	NA	NA	
o-Xylene	1.38	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
sec-Butylbenzene	1.47	0.050	mg/kg	1.25	NA	118	75-125	NA	NA	
Styrene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
tert-Butylbenzene	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
Tetrachloroethene	1.34	0.10	mg/kg	1.25	NA	107	75-125	NA	NA	
Tetrahydrofuran	1.18	0.25	mg/kg	1.25	NA	94.4	75-125	NA	NA	
Toluene	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0110 - EPA 5030B

Laboratory Control Sample (B6J0110-BS1) Prepared & Analyzed: 10/04/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
trans-1,2-Dichloroethene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
trans-1,3-Dichloropropene	1.42	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Trichloroethene	1.41	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
Trichlorofluoromethane	1.55	0.050	mg/kg	1.25	NA	124	75-125	NA	NA	
Vinyl chloride	1.62	0.050	mg/kg	1.25	NA	130	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*25.1*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			
Surrogate: Dibromofluoromethane	*25.3*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Toluene-d8	*24.6*		*ug/L*	*25.0*	*NA*	*98.4*	*80-120*			

Laboratory Control Sample Duplicate (B6J0110-BSD1) Prepared & Analyzed: 10/04/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.44	0.050	mg/kg	1.25	NA	115	75-125	4.08	20	
1,1,1-Trichloroethane	1.44	0.050	mg/kg	1.25	NA	115	75-125	4.08	20	
1,1,2,2-Tetrachloroethane	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	0.810	20	
1,1,2-Trichloroethane	1.25	0.050	mg/kg	1.25	NA	100	75-125	3.15	20	
1,1,2-Trichlorotrifluoroethane	1.42	0.050	mg/kg	1.25	NA	114	75-125	2.78	20	
1,1-Dichloroethane	1.44	0.050	mg/kg	1.25	NA	115	75-125	2.06	20	
1,1-Dichloroethene	1.34	0.050	mg/kg	1.25	NA	107	75-125	8.57	20	
1,1-Dichloropropene	1.39	0.050	mg/kg	1.25	NA	111	75-125	4.91	20	
1,2,3-Trichlorobenzene	1.32	0.050	mg/kg	1.25	NA	106	75-125	9.52	20	
1,2,3-Trichloropropane	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	0.837	20	
1,2,4-Trichlorobenzene	1.31	0.050	mg/kg	1.25	NA	105	75-125	3.10	20	
1,2,4-Trimethylbenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	4.26	20	
1,2-Dibromo-3-chloropropane	1.26	0.050	mg/kg	1.25	NA	101	75-125	3.23	20	
1,2-Dibromoethane	1.25	0.050	mg/kg	1.25	NA	100	75-125	3.92	20	
1,2-Dichlorobenzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	3.03	20	
1,2-Dichloroethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	3.01	20	
1,2-Dichloropropane	1.39	0.050	mg/kg	1.25	NA	111	75-125	3.53	20	
1,3,5-Trimethylbenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	4.95	20	
1,3-Dichlorobenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	3.66	20	
1,3-Dichloropropane	1.27	0.050	mg/kg	1.25	NA	102	75-125	3.86	20	
1,4-Dichlorobenzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	3.77	20	
2,2-Dichloropropane	1.44	0.050	mg/kg	1.25	NA	115	75-125	4.75	20	
2-Butanone (MEK)	0.894	0.50	mg/kg	1.25	NA	71.5	75-125	8.36	20	
2-Chlorotoluene	1.37	0.050	mg/kg	1.25	NA	110	75-125	5.67	20	
4-Chlorotoluene	1.36	0.050	mg/kg	1.25	NA	109	75-125	4.32	20	
4-Isopropyltoluene	1.40	0.050	mg/kg	1.25	NA	112	75-125	4.88	20	
Acetone	1.31	1.0	mg/kg	1.25	NA	105	75-125	6.64	20	
Allyl Chloride	1.44	0.050	mg/kg	1.25	NA	115	75-125	5.41	20	
Benzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	4.26	20	
Bromobenzene	1.33	0.050	mg/kg	1.25	NA	106	75-125	5.13	20	
Bromochloromethane	1.27	0.050	mg/kg	1.25	NA	102	75-125	3.10	20	
Bromodichloromethane	1.49	0.050	mg/kg	1.25	NA	119	75-125	3.95	20	

BRAUN INTERTEC

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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Volatile Organic Compounds - Quality Control

Batch B6J0110 - EPA 5030B

Laboratory Control Sample Duplicate (B6J0110-BSD1) Prepared & Analyzed: 10/04/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromoform	1.30	0.25	mg/kg	1.25	NA	104	75-125	0.766	20	
Bromomethane	1.55	0.050	mg/kg	1.25	NA	124	70-130	1.92	20	
Carbon Tetrachloride	1.66	0.050	mg/kg	1.25	NA	133	75-125	4.71	20	
Chlorobenzene	1.32	0.050	mg/kg	1.25	NA	106	75-125	4.44	20	
Chlorodibromomethane	1.36	0.050	mg/kg	1.25	NA	109	75-125	2.90	20	
Chloroethane	1.62	0.050	mg/kg	1.25	NA	130	75-125	3.64	20	
Chloroform	1.37	0.050	mg/kg	1.25	NA	110	75-125	3.58	20	
Chloromethane	1.38	0.050	mg/kg	1.25	NA	110	75-125	4.95	20	
cis-1,2-Dichloroethene	1.34	0.050	mg/kg	1.25	NA	107	75-125	2.21	20	
cis-1,3-Dichloropropene	1.38	0.050	mg/kg	1.25	NA	110	75-125	6.99	20	
Dibromomethane	1.33	0.050	mg/kg	1.25	NA	106	75-125	4.41	20	
Dichlorodifluoromethane	1.21	0.050	mg/kg	1.25	NA	96.8	70-130	9.45	20	
Dichlorofluoromethane	1.44	0.050	mg/kg	1.25	NA	115	75-125	6.71	20	
Ethyl Ether	1.33	0.050	mg/kg	1.25	NA	106	75-125	2.96	20	
Ethylbenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	5.80	20	
Hexachlorobutadiene	1.40	0.10	mg/kg	1.25	NA	112	75-125	0.712	20	
Isopropylbenzene	1.35	0.050	mg/kg	1.25	NA	108	75-125	3.64	20	
m,p-Xylenes	2.64	0.050	mg/kg	2.50	NA	106	75-125	5.52	20	
Methyl Isobutyl Ketone	1.31	0.25	mg/kg	1.25	NA	105	75-125	0.766	20	
Methylene chloride	1.34	0.25	mg/kg	1.25	NA	107	75-125	2.21	20	
Methyl-t-butyl ether	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
Naphthalene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	5.81	20	
n-Butylbenzene	1.42	0.050	mg/kg	1.25	NA	114	75-125	4.81	20	
n-Propylbenzene	1.39	0.050	mg/kg	1.25	NA	111	75-125	3.53	20	
o-Xylene	1.33	0.050	mg/kg	1.25	NA	106	75-125	3.69	20	
sec-Butylbenzene	1.41	0.050	mg/kg	1.25	NA	113	75-125	4.17	20	
Styrene	1.31	0.050	mg/kg	1.25	NA	105	75-125	3.75	20	
tert-Butylbenzene	1.39	0.050	mg/kg	1.25	NA	111	75-125	4.23	20	
Tetrachloroethene	1.28	0.10	mg/kg	1.25	NA	102	75-125	4.58	20	
Tetrahydrofuran	1.15	0.25	mg/kg	1.25	NA	92.0	75-125	2.58	20	
Toluene	1.29	0.050	mg/kg	1.25	NA	103	75-125	5.28	20	
trans-1,2-Dichloroethene	1.35	0.050	mg/kg	1.25	NA	108	75-125	1.47	20	
trans-1,3-Dichloropropene	1.37	0.050	mg/kg	1.25	NA	110	75-125	3.58	20	
Trichloroethene	1.37	0.050	mg/kg	1.25	NA	110	75-125	2.88	20	
Trichlorofluoromethane	1.50	0.050	mg/kg	1.25	NA	120	75-125	3.28	20	
Vinyl chloride	1.43	0.050	mg/kg	1.25	NA	114	70-130	12.5	20	
Surrogate: 1,2-Dichloroethane-d4	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.5*		*ug/L*	*25.0*	*NA*	*98.0*	*80-120*			
Surrogate: Dibromofluoromethane	*25.5*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: Toluene-d8	*24.4*		*ug/L*	*25.0*	*NA*	*97.6*	*80-120*			

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Peer Engineering, Inc. 7615 Golden Triangle Drive, Suite N Eden Prairie MN, 55344	Client Ref: 15111.02 - Sinclair New Hope Client Contact: Mr. Bruce Schaepe PO Number:	Work Order #: 0605923 Project Mgr: Thomas P. Wagner Account ID: P16995

Page 1 of 1

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BRAUN INTERTEC — Braun Intertec Corporation, 11001 Hampshire Ave. S, Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquires: labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: ______
Time ______
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote # ______

REPORT RESULTS TO
Contact Name Bruce Schaepe
Company Peer Engineering
Mailing Address 7615 Golden Triangle Dr. STE N
City, State, Zip Eden Prairie Mn
Telephone # 952-831-3341 Fax # 952-831-4552
E-mail

Project ID/Project Name 15111.02-Sinclair NewHope P.O. #

SEND INVOICE TO
Contact Name / Company / Address / City, State, Zip / Telephone # / Fax #: SAME

Special Instructions and/or Specific Regulatory Requirements: (method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	VOC	GRO	FOR LAB USE ONLY
1	SB-6(10-12)	9-28-06	16:40	Soil		3		X	X	0605923-1
2	SB-6(20-22)	9-28-06	16:45	Soil		3		X	X	-2
3	SB-5(8-10)	9-28-06	15:35	Soil		3		X	X	-3
4	SB-5(24-26)	9-28-06	15:40	Soil		3		X	X	-4
5	SB-5(34-36)	9-28-06	15:45	Soil		3		X	X	-5
6										
7	Trip Blank	9-28-06				1		X	X	0605923-6
8										
9	Temp Blank (1)									
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY
Collected by: (Print) Diane Riddle — Collector's Signature: [signature]
Relinquished by: [signature] Date/Time 9-30 ... — Received by: [signature] Date/Time 9-30 12...
Relinquished by: Date/Time — Received Contents Not Verified: Date/Time
Custody Seal Intact ☐ Yes ☐ No ☒ N/A — Received Contents Verified: [signature] Date/Time 9/29/06 1421
On Ice ☒ Yes ☐ No
Temp Blank ☒ Yes ☐ No — Comments:
Temp: 1.3 °C

Form # CS02.01 F:\Groups\QA\QC\Forms\clientservices\COC-CS02 Effective Date: 7/22/05

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Bloomington, MN 5543
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Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Software Version	: 6.3.0.0445	Date	: 10/6/2006 8:42:02 AM
Reprocess Number	: i83569; 12193		
Operator	: TCuser	Sample Name	: 0605923-01
Sample Number	: 038	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP1	Channel	: B
Interface Serial #	: 9205571178	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 23.50 min
Sampling Rate	: 3.1250 pts/s		
Sample Volume	: 1.000000 uL	Area Reject	: 1000.000000
Sample Amount	: 10.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 10/5/2006 10:47:02 PM	Cycle	: 16

10/6/06 MV

Raw Data File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\6277\adwb038.raw
Result File : \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6277\adwb038.rst
Inst Method : \\mpls-corp01\labdata-voc\voc\v3\meth\gvoc\acqmeth5117 from \\Mpls-corp01\labdata-voc\VOC\HP1\Data\6277\adwb038.raw
Proc Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\6277b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6277\adwb038.rst
Calib Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\6277b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6277\adwb038.rst
Report Format File: \\mpls-corp01\labdata-voc\voc\hp1\data\gro 1.19.06.rpt
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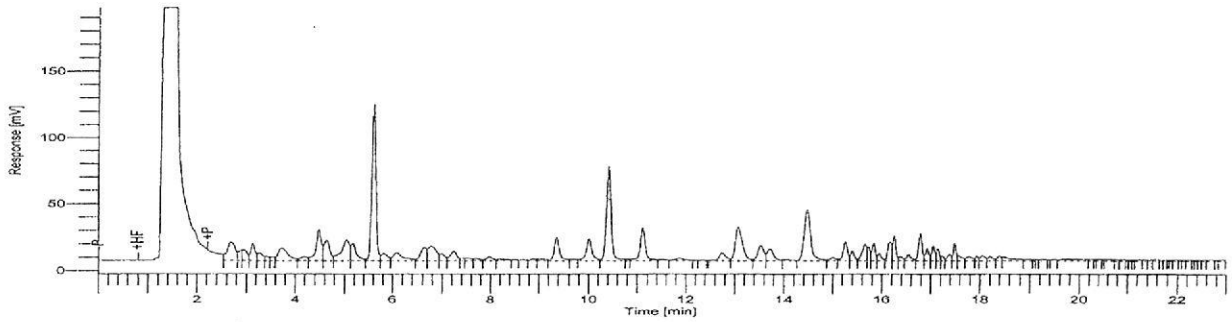

GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Final ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.000	10.000	WIGRO	48.943	305.9	5166093	709091	489.430		10.000	k,s

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6277\adwb038.TXO

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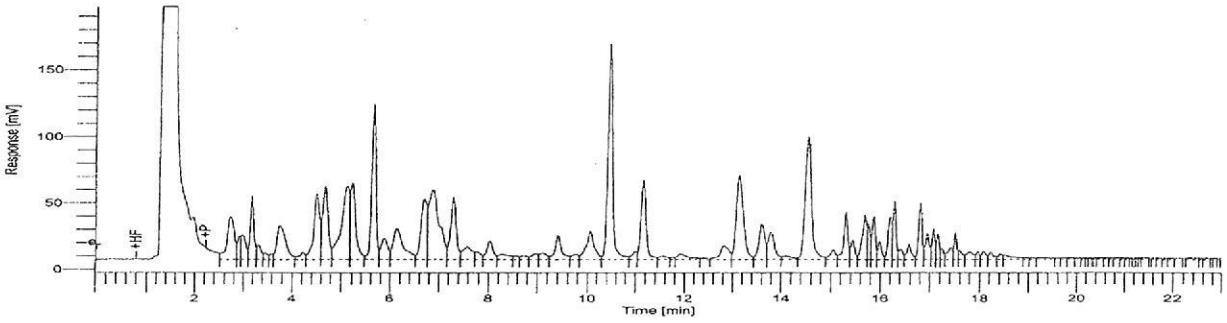
Peer Engineering, Inc.	Client Ref: 15111.02 - Sinclair New Hope	Work Order #: 0605923
7615 Golden Triangle Drive, Suite N	Client Contact: Mr. Bruce Schaepe	Project Mgr: Thomas P. Wagner
Eden Prairie MN, 55344	PO Number:	Account ID: P16995

Software Version	: 6.3.0.0445	Date	: 10/9/2006 8:00:09 AM
Reprocess Number	: I83569: 12308		
Operator	: TCuser		
Sample Number	: 100	Sample Name	: 0605923-03RE1
AutoSampler	: NONE	Study	:
Instrument Name	: HP1	Rack/Vial	: 0/0
Interface Serial #	: 9205571178	Channel	: B
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 3.1250 pts/s	End Time	: 23.50 min
Sample Volume	: 1.000000 uL		
Sample Amount	: 10.0000	Area Reject	: 1000.000000
Data Acquisition Time	: 10/9/2006 6:55:15 AM	Dilution Factor	: 20.00
		Cycle	: 12

Raw Data File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\6277\adwb104.raw
Result File : \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6277\adwb104.rst
Inst Method : \\mpls-corp01\labdata-voc\voc\v3\meth\pvoc\acqmeth5117 from \\Mpls-corp01\labdata-voc\VOC\HP1\Data\6277\adwb104.raw
Proc Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\6277b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6277\adwb104.rst
Calib Method : \\mpls-corp01\labdata-voc\voc\hp1\meth\gro\6277b.mth from \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6277\adwb104.rst
Report Format File: \\mpls-corp01\labdata-voc\voc\hp1\data\gro 1.19.06.rpt
Sequence File : \\Mpls-corp01\labdata-voc\VOC\HP1\Data\6277\6277.seq



GRO/TPH report

Peak #	Time (min)	Method R.T.	Component Name	Final ug/L or mg/kg	Recovery %	Area [uV*sec]	Height	Raw Amount (ng/mL)	Cal. Range	Sample Weight	Footnote
	10.000	10.000	WIGRO	2908.078	908.8	12761804	1840901	1454.039		10.000	vfa, h; s

Report stored in ASCII file: \\Mpls-corp01\Labdata-VOC\VOC\HP1\Data\6277\adwb104.TXO

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October 30, 2006

Revised

Mr. Bruce Schaepe
Peer Engineering, Inc.
7615 Golden Triangle Drive
Suite N
Eden Prairie, MN 55344

RE: Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Dear Mr. Schaepe:
Enclosed are the analytical results for sample(s) received by the laboratory on September 29, 2006. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Seth Jacobson

seth.jacobson@pacelabs.com
Project Manager

Illinois Certification #: 200011
Iowa Certification #: 368
Minnesota Certification #: 027-053-137
Wisconsin Certification #: 999407970

Enclosures

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PROJECT NARRATIVE

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Method: **TO-15**
Description: TO15 MSV AIR
Client: Peer Engineering
Date: October 30, 2006

General Information:
4 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/4675

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 269646)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
- DUP (Lab ID: 269648)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
- LCS (Lab ID: 269647)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
- SB-7V (4') (Lab ID: 1039226001)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)

QC Batch: AIR/4683

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 270202)
  - 2-Butanone (MEK)
  - Acetone
  - Tetrahydrofuran
- DUP (Lab ID: 270204)
  - 2-Butanone (MEK)
  - Acetone
  - Tetrahydrofuran
  - 2-Butanone (MEK)
  - Acetone
  - Tetrahydrofuran
- LCS (Lab ID: 270203)
  - 2-Butanone (MEK)
  - Acetone
  - Tetrahydrofuran
- SB-3V (4') (Lab ID: 1039226005)
  - 2-Butanone (MEK)
  - Acetone
  - Tetrahydrofuran

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PROJECT NARRATIVE

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Method: **TO-15**
Description: TO15 MSV AIR
Client: Peer Engineering
Date: October 30, 2006

QC Batch: AIR/4683

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.
- V5 (4') (Lab ID: 1039226002)
  - 2-Butanone (MEK)
  - Acetone
  - Tetrahydrofuran

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/4644

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.
- SB-6V (8') (Lab ID: 1039226004)
  - Propylene

QC Batch: AIR/4683

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.
- BLANK (Lab ID: 270202)
  - Dichlorodifluoromethane
- DUP (Lab ID: 270204)
  - Dichlorodifluoromethane
  - Dichlorodifluoromethane
- LCS (Lab ID: 270203)
  - Dichlorodifluoromethane
- SB-3V (4') (Lab ID: 1039226005)
  - Dichlorodifluoromethane
- V5 (4') (Lab ID: 1039226002)
  - Dichlorodifluoromethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

QC Batch: AIR/4675

B: Analyte was detected in the associated method blank.
- BLANK (Lab ID: 269646)
  - Methylene Chloride

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Method: **TO-15**
Description: TO15 MSV AIR
Client: Peer Engineering
Date: October 30, 2006

QC Batch: AIR/4675

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 269647)
  - Tetrahydrofuran

QC Batch: AIR/4683

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 270203)
  - Propylene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: AIR/4644

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 266827)
  - 1,2,4-Trimethylbenzene
  - 1,3,5-Trimethylbenzene
  - 4-Ethyltoluene
  - Acetone
  - Ethylbenzene
  - m&p-Xylene
  - n-Hexane
  - o-Xylene

QC Batch: AIR/4675

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 269648)
  - 1,2,4-Trichlorobenzene
  - 1,2,4-Trimethylbenzene
  - 1,3,5-Trimethylbenzene
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Ethyltoluene
  - 4-Methyl-2-pentanone (MIBK)
  - Dichlorodifluoromethane
  - Hexachloro-1,3-butadiene
  - Naphthalene
  - Toluene
  - m&p-Xylene
  - o-Xylene

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PROJECT NARRATIVE

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Method: **TO-15**
Description: TO15 MSV AIR
Client: Peer Engineering
Date: October 30, 2006

QC Batch: AIR/4683

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 270204)
  - n-Heptane
  - Cyclohexane

Additional Comments:

Workorder Comments:

All sample analyses were completed on a DB5 column. 500 cc of sample was concentrated using an Entech 7000/7100 sample concentration system.

Sample Comments:

K3: The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).
- SB-7V (4') (Lab ID: 1039226001)

K1: The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).
- V5 (4') (Lab ID: 1039226002)
- SB-6V (8') (Lab ID: 1039226004)
- SB-3V (4') (Lab ID: 1039226005)

Analyte Comments:

QC Batch: AIR/4644

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- SB-6V (8') (Lab ID: 1039226004)
  - Propylene

QC Batch: AIR/4675

The internal standard response is above criteria. Results may be biased low.
- SB-7V (4') (Lab ID: 1039226001)
  - Dichlorodifluoromethane

C0: Result confirmed by second analysis.
- SB-7V (4') (Lab ID: 1039226001)
  - Dichlorodifluoromethane

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- SB-7V (4') (Lab ID: 1039226001)
  - Propylene

C6: Analyte is a common laboratory contaminant (confirmed by presence in method blank).
- BLANK (Lab ID: 269646)
  - Methylene Chloride

QC Batch: AIR/4683

A3: The sample was analyzed by serial dilution.
- V5 (4') (Lab ID: 1039226002)
  - Cyclohexane

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PROJECT NARRATIVE

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Method: **TO-15**
Description: TO15 MSV AIR
Client: Peer Engineering
Date: October 30, 2006

Analyte Comments:

QC Batch: AIR/4683

A3: The sample was analyzed by serial dilution.
- V5 (4') (Lab ID: 1039226002)
  - n-Heptane

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- V5 (4') (Lab ID: 1039226002)
  - n-Hexane

A3: The sample was analyzed by serial dilution.
- V5 (4') (Lab ID: 1039226002)
  - n-Hexane

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- SB-3V (4') (Lab ID: 1039226005)
  - Dichlorodifluoromethane

This data package has been reviewed for quality and completeness and is approved for release.

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SAMPLE SUMMARY

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1039226001	SB-7V (4')	Air	09/29/06 10:20	09/29/06 13:43
1039226002	V5 (4')	Air	09/29/06 10:30	09/29/06 13:43
1039226003	SB-1V (4')	Air	09/29/06 10:15	09/29/06 13:43
1039226004	SB-6V (8')	Air	09/29/06 05:00	09/29/06 13:43
1039226005	SB-3V (4')	Air	09/29/06 10:00	09/29/06 13:43

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SAMPLE ANALYTE COUNT

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Lab ID	Sample ID	Method	Analytes Reported
1039226001	**SB-7V (4')**	TO-15	58
1039226002	**V5 (4')**	TO-15	58
1039226004	**SB-6V (8')**	TO-15	58
1039226005	**SB-3V (4')**	TO-15	58

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ANALYTICAL RESULTS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Sample: SB-7V (4') **Lab ID: 1039226001** Collected: 09/29/06 10:20 Received: 09/29/06 13:43 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**75.6**	ug/m3	0.99	2.07		10/10/06 19:19	67-64-1	
Benzene	**11.7**	ug/m3	1.3	2.07		10/10/06 19:19	71-43-2	
Bromodichloromethane	ND	ug/m3	2.9	2.07		10/10/06 19:19	75-27-4	
Bromoform	ND	ug/m3	4.3	2.07		10/10/06 19:19	75-25-2	
Bromomethane	ND	ug/m3	1.6	2.07		10/10/06 19:19	74-83-9	
1,3-Butadiene	ND	ug/m3	0.93	2.07		10/10/06 19:19	106-99-0	
2-Butanone (MEK)	**16.1**	ug/m3	1.2	2.07		10/10/06 19:19	78-93-3	
Carbon disulfide	**1.4**	ug/m3	1.3	2.07		10/10/06 19:19	75-15-0	
Carbon tetrachloride	ND	ug/m3	2.7	2.07		10/10/06 19:19	56-23-5	
Chlorobenzene	ND	ug/m3	1.9	2.07		10/10/06 19:19	108-90-7	
Chloroethane	ND	ug/m3	1.1	2.07		10/10/06 19:19	75-00-3	
Chloroform	ND	ug/m3	2.0	2.07		10/10/06 19:19	67-66-3	
Chloromethane	ND	ug/m3	0.87	2.07		10/10/06 19:19	74-87-3	
Cyclohexane	**16.8**	ug/m3	1.4	2.07		10/10/06 19:19	110-82-7	
Dibromochloromethane	ND	ug/m3	3.5	2.07		10/10/06 19:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	3.3	2.07		10/10/06 19:19	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.5	2.07		10/10/06 19:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.5	2.07		10/10/06 19:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.5	2.07		10/10/06 19:19	106-46-7	
Dichlorodifluoromethane	**2.1**	ug/m3	2.1	2.07		10/10/06 19:19	75-71-8	1M,C0
1,1-Dichloroethane	ND	ug/m3	1.7	2.07		10/10/06 19:19	75-34-3	
1,2-Dichloroethane	ND	ug/m3	1.7	2.07		10/10/06 19:19	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.7	2.07		10/10/06 19:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.7	2.07		10/10/06 19:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.7	2.07		10/10/06 19:19	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.9	2.07		10/10/06 19:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.9	2.07		10/10/06 19:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.9	2.07		10/10/06 19:19	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.9	2.07		10/10/06 19:19	76-14-2	
Ethyl acetate	ND	ug/m3	1.5	2.07		10/10/06 19:19	141-78-6	
Ethylbenzene	**20.4**	ug/m3	1.8	2.07		10/10/06 19:19	100-41-4	
4-Ethyltoluene	**40.6**	ug/m3	5.2	2.07		10/10/06 19:19	622-96-8	
n-Heptane	**31.0**	ug/m3	1.7	2.07		10/10/06 19:19	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	4.6	2.07		10/10/06 19:19	87-68-3	
n-Hexane	**25.5**	ug/m3	1.5	2.07		10/10/06 19:19	110-54-3	
2-Hexanone	ND	ug/m3	1.7	2.07		10/10/06 19:19	591-78-6	IC
Methylene Chloride	ND	ug/m3	1.5	2.07		10/10/06 19:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.7	2.07		10/10/06 19:19	108-10-1	IC
Methyl-tert-butyl ether	ND	ug/m3	1.5	2.07		10/10/06 19:19	1634-04-4	
Naphthalene	**20.8**	ug/m3	5.6	2.07		10/10/06 19:19	91-20-3	
Propylene	**63.3**	ug/m3	0.72	2.07		10/10/06 19:19	115-07-1	E
Styrene	ND	ug/m3	1.8	2.07		10/10/06 19:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	2.9	2.07		10/10/06 19:19	79-34-5	
Tetrachloroethene	**25.2**	ug/m3	2.9	2.07		10/10/06 19:19	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.2	2.07		10/10/06 19:19	109-99-9	
Toluene	**61.6**	ug/m3	1.6	2.07		10/10/06 19:19	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.0	2.07		10/10/06 19:19	120-82-1	

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ANALYTICAL RESULTS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Sample: SB-7V (4') **Lab ID: 1039226001** Collected: 09/29/06 10:20 Received: 09/29/06 13:43 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	2.3	2.07		10/10/06 19:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	2.3	2.07		10/10/06 19:19	79-00-5	
Trichloroethene	ND	ug/m3	2.3	2.07		10/10/06 19:19	79-01-6	
Trichlorofluoromethane	ND	ug/m3	2.3	2.07		10/10/06 19:19	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	3.3	2.07		10/10/06 19:19	76-13-1	
1,2,4-Trimethylbenzene	**115**	ug/m3	5.2	2.07		10/10/06 19:19	95-63-6	
1,3,5-Trimethylbenzene	**32.9**	ug/m3	5.2	2.07		10/10/06 19:19	108-67-8	
Vinyl acetate	ND	ug/m3	1.5	2.07		10/10/06 19:19	108-05-4	
Vinyl chloride	ND	ug/m3	1.1	2.07		10/10/06 19:19	75-01-4	
m&p-Xylene	**146**	ug/m3	3.6	2.07		10/10/06 19:19	1330-20-7	
o-Xylene	**70.1**	ug/m3	1.8	2.07		10/10/06 19:19	95-47-6	

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ANALYTICAL RESULTS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Sample: V5 (4') **Lab ID: 1039226002** Collected: 09/29/06 10:30 Received: 09/29/06 13:43 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	703	1465		10/11/06 16:05	67-64-1	IC
Benzene	ND	ug/m3	952	1465		10/11/06 16:05	71-43-2	
Bromodichloromethane	ND	ug/m3	2050	1465		10/11/06 16:05	75-27-4	
Bromoform	ND	ug/m3	3080	1465		10/11/06 16:05	75-25-2	
Bromomethane	ND	ug/m3	1160	1465		10/11/06 16:05	74-83-9	
1,3-Butadiene	ND	ug/m3	659	1465		10/11/06 16:05	106-99-0	
2-Butanone (MEK)	ND	ug/m3	879	1465		10/11/06 16:05	78-93-3	IC
Carbon disulfide	ND	ug/m3	923	1465		10/11/06 16:05	75-15-0	
Carbon tetrachloride	ND	ug/m3	1900	1465		10/11/06 16:05	56-23-5	
Chlorobenzene	ND	ug/m3	1380	1465		10/11/06 16:05	108-90-7	
Chloroethane	ND	ug/m3	791	1465		10/11/06 16:05	75-00-3	
Chloroform	ND	ug/m3	1450	1465		10/11/06 16:05	67-66-3	
Chloromethane	ND	ug/m3	615	1465		10/11/06 16:05	74-87-3	
Cyclohexane	**369000**	ug/m3	9960	14650		10/12/06 22:54	110-82-7	A3
Dibromochloromethane	ND	ug/m3	2490	1465		10/11/06 16:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2340	1465		10/11/06 16:05	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1760	1465		10/11/06 16:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1760	1465		10/11/06 16:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1760	1465		10/11/06 16:05	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1460	1465		10/11/06 16:05	75-71-8	CC
1,1-Dichloroethane	ND	ug/m3	1200	1465		10/11/06 16:05	75-34-3	
1,2-Dichloroethane	ND	ug/m3	1200	1465		10/11/06 16:05	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1190	1465		10/11/06 16:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1190	1465		10/11/06 16:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1190	1465		10/11/06 16:05	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1380	1465		10/11/06 16:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1350	1465		10/11/06 16:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1350	1465		10/11/06 16:05	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2050	1465		10/11/06 16:05	76-14-2	
Ethyl acetate	ND	ug/m3	1070	1465		10/11/06 16:05	141-78-6	
Ethylbenzene	**31200**	ug/m3	1290	1465		10/11/06 16:05	100-41-4	
4-Ethyltoluene	**12800**	ug/m3	3660	1465		10/11/06 16:05	622-96-8	
n-Heptane	**607000**	ug/m3	12200	14650		10/12/06 22:54	142-82-5	A3
Hexachloro-1,3-butadiene	ND	ug/m3	3220	1465		10/11/06 16:05	87-68-3	
n-Hexane	**2440000**	ug/m3	10500	14650		10/12/06 22:54	110-54-3	A3,E
2-Hexanone	ND	ug/m3	1220	1465		10/11/06 16:05	591-78-6	
Methylene Chloride	ND	ug/m3	1040	1465		10/11/06 16:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1220	1465		10/11/06 16:05	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1070	1465		10/11/06 16:05	1634-04-4	
Naphthalene	ND	ug/m3	3960	1465		10/11/06 16:05	91-20-3	
Propylene	ND	ug/m3	513	1465		10/11/06 16:05	115-07-1	
Styrene	ND	ug/m3	1270	1465		10/11/06 16:05	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	2050	1465		10/11/06 16:05	79-34-5	
Tetrachloroethene	ND	ug/m3	2050	1465		10/11/06 16:05	127-18-4	
Tetrahydrofuran	ND	ug/m3	879	1465		10/11/06 16:05	109-99-9	IC
Toluene	ND	ug/m3	1130	1465		10/11/06 16:05	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1450	1465		10/11/06 16:05	120-82-1	

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ANALYTICAL RESULTS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Sample: V5 (4') **Lab ID: 1039226002** Collected: 09/29/06 10:30 Received: 09/29/06 13:43 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1610	1465		10/11/06 16:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1610	1465		10/11/06 16:05	79-00-5	
Trichloroethene	ND	ug/m3	1610	1465		10/11/06 16:05	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1610	1465		10/11/06 16:05	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2340	1465		10/11/06 16:05	76-13-1	
1,2,4-Trimethylbenzene	**18400**	ug/m3	3660	1465		10/11/06 16:05	95-63-6	
1,3,5-Trimethylbenzene	**10200**	ug/m3	3660	1465		10/11/06 16:05	108-67-8	
Vinyl acetate	ND	ug/m3	1040	1465		10/11/06 16:05	108-05-4	
Vinyl chloride	ND	ug/m3	762	1465		10/11/06 16:05	75-01-4	
m&p-Xylene	**33100**	ug/m3	2580	1465		10/11/06 16:05	1330-20-7	
o-Xylene	**2430**	ug/m3	1290	1465		10/11/06 16:05	95-47-6	

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ANALYTICAL RESULTS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Sample: SB-6V (8') **Lab ID: 1039226004** Collected: 09/29/06 05:00 Received: 09/29/06 13:43 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**51.5**	ug/m3	0.66	1.38		10/03/06 18:05	67-64-1	
Benzene	**42.0**	ug/m3	0.90	1.38		10/03/06 18:05	71-43-2	
Bromodichloromethane	ND	ug/m3	1.9	1.38		10/03/06 18:05	75-27-4	
Bromoform	ND	ug/m3	2.9	1.38		10/03/06 18:05	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.38		10/03/06 18:05	74-83-9	
1,3-Butadiene	ND	ug/m3	0.62	1.38		10/03/06 18:05	106-99-0	
2-Butanone (MEK)	**10.7**	ug/m3	0.83	1.38		10/03/06 18:05	78-93-3	
Carbon disulfide	**1.6**	ug/m3	0.87	1.38		10/03/06 18:05	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.8	1.38		10/03/06 18:05	56-23-5	
Chlorobenzene	ND	ug/m3	1.3	1.38		10/03/06 18:05	108-90-7	
Chloroethane	ND	ug/m3	0.75	1.38		10/03/06 18:05	75-00-3	
Chloroform	ND	ug/m3	1.4	1.38		10/03/06 18:05	67-66-3	
Chloromethane	ND	ug/m3	0.58	1.38		10/03/06 18:05	74-87-3	
Cyclohexane	**58.0**	ug/m3	0.94	1.38		10/03/06 18:05	110-82-7	
Dibromochloromethane	ND	ug/m3	2.3	1.38		10/03/06 18:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.2	1.38		10/03/06 18:05	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.7	1.38		10/03/06 18:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.7	1.38		10/03/06 18:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.7	1.38		10/03/06 18:05	106-46-7	
Dichlorodifluoromethane	**2.1**	ug/m3	1.4	1.38		10/03/06 18:05	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.1	1.38		10/03/06 18:05	75-34-3	
1,2-Dichloroethane	ND	ug/m3	1.1	1.38		10/03/06 18:05	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.1	1.38		10/03/06 18:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.1	1.38		10/03/06 18:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.1	1.38		10/03/06 18:05	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.3	1.38		10/03/06 18:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.3	1.38		10/03/06 18:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.3	1.38		10/03/06 18:05	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.9	1.38		10/03/06 18:05	76-14-2	
Ethyl acetate	ND	ug/m3	1.0	1.38		10/03/06 18:05	141-78-6	
Ethylbenzene	**42.6**	ug/m3	1.2	1.38		10/03/06 18:05	100-41-4	
4-Ethyltoluene	**18.5**	ug/m3	3.4	1.38		10/03/06 18:05	622-96-8	
n-Heptane	**70.9**	ug/m3	22.9	27.6		10/04/06 21:49	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.0	1.38		10/03/06 18:05	87-68-3	
n-Hexane	**116**	ug/m3	19.9	27.6		10/04/06 21:49	110-54-3	
2-Hexanone	ND	ug/m3	1.1	1.38		10/03/06 18:05	591-78-6	
Methylene Chloride	ND	ug/m3	0.98	1.38		10/03/06 18:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.1	1.38		10/03/06 18:05	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.0	1.38		10/03/06 18:05	1634-04-4	
Naphthalene	**8.0**	ug/m3	3.7	1.38		10/03/06 18:05	91-20-3	
Propylene	**1810**	ug/m3	9.7	27.6		10/04/06 21:49	115-07-1	CC,E
Styrene	ND	ug/m3	1.2	1.38		10/03/06 18:05	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.9	1.38		10/03/06 18:05	79-34-5	
Tetrachloroethene	ND	ug/m3	1.9	1.38		10/03/06 18:05	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.83	1.38		10/03/06 18:05	109-99-9	
Toluene	**62.6**	ug/m3	1.1	1.38		10/03/06 18:05	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.4	1.38		10/03/06 18:05	120-82-1	

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ANALYTICAL RESULTS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Sample: SB-6V (8') **Lab ID: 1039226004** Collected: 09/29/06 05:00 Received: 09/29/06 13:43 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.5	1.38		10/03/06 18:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.5	1.38		10/03/06 18:05	79-00-5	
Trichloroethene	ND	ug/m3	1.5	1.38		10/03/06 18:05	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.5	1.38		10/03/06 18:05	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.2	1.38		10/03/06 18:05	76-13-1	
1,2,4-Trimethylbenzene	**41.1**	ug/m3	3.4	1.38		10/03/06 18:05	95-63-6	
1,3,5-Trimethylbenzene	**14.4**	ug/m3	3.4	1.38		10/03/06 18:05	108-67-8	
Vinyl acetate	ND	ug/m3	0.98	1.38		10/03/06 18:05	108-05-4	
Vinyl chloride	ND	ug/m3	0.72	1.38		10/03/06 18:05	75-01-4	
m&p-Xylene	**106**	ug/m3	2.4	1.38		10/03/06 18:05	1330-20-7	
o-Xylene	**29.9**	ug/m3	1.2	1.38		10/03/06 18:05	95-47-6	

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ANALYTICAL RESULTS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Sample: SB-3V (4') **Lab ID: 1039226005** Collected: 09/29/06 10:00 Received: 09/29/06 13:43 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	322	670		10/11/06 16:46	67-64-1	IC
Benzene	ND	ug/m3	436	670		10/11/06 16:46	71-43-2	
Bromodichloromethane	ND	ug/m3	938	670		10/11/06 16:46	75-27-4	
Bromoform	ND	ug/m3	1410	670		10/11/06 16:46	75-25-2	
Bromomethane	ND	ug/m3	529	670		10/11/06 16:46	74-83-9	
1,3-Butadiene	ND	ug/m3	302	670		10/11/06 16:46	106-99-0	
2-Butanone (MEK)	ND	ug/m3	402	670		10/11/06 16:46	78-93-3	IC
Carbon disulfide	ND	ug/m3	422	670		10/11/06 16:46	75-15-0	
Carbon tetrachloride	ND	ug/m3	871	670		10/11/06 16:46	56-23-5	
Chlorobenzene	ND	ug/m3	630	670		10/11/06 16:46	108-90-7	
Chloroethane	ND	ug/m3	362	670		10/11/06 16:46	75-00-3	
Chloroform	ND	ug/m3	663	670		10/11/06 16:46	67-66-3	
Chloromethane	ND	ug/m3	281	670		10/11/06 16:46	74-87-3	
Cyclohexane	ND	ug/m3	456	670		10/11/06 16:46	110-82-7	
Dibromochloromethane	ND	ug/m3	1140	670		10/11/06 16:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1070	670		10/11/06 16:46	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	804	670		10/11/06 16:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	804	670		10/11/06 16:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	804	670		10/11/06 16:46	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	670	670		10/11/06 16:46	75-71-8	CC,D3
1,1-Dichloroethane	ND	ug/m3	549	670		10/11/06 16:46	75-34-3	
1,2-Dichloroethane	ND	ug/m3	549	670		10/11/06 16:46	107-06-2	
1,1-Dichloroethene	ND	ug/m3	543	670		10/11/06 16:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	543	670		10/11/06 16:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	543	670		10/11/06 16:46	156-60-5	
1,2-Dichloropropane	ND	ug/m3	630	670		10/11/06 16:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	616	670		10/11/06 16:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	616	670		10/11/06 16:46	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	938	670		10/11/06 16:46	76-14-2	
Ethyl acetate	ND	ug/m3	489	670		10/11/06 16:46	141-78-6	
Ethylbenzene	ND	ug/m3	590	670		10/11/06 16:46	100-41-4	
4-Ethyltoluene	ND	ug/m3	1680	670		10/11/06 16:46	622-96-8	
n-Heptane	ND	ug/m3	556	670		10/11/06 16:46	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	1470	670		10/11/06 16:46	87-68-3	
n-Hexane	ND	ug/m3	482	670		10/11/06 16:46	110-54-3	
2-Hexanone	ND	ug/m3	556	670		10/11/06 16:46	591-78-6	
Methylene Chloride	ND	ug/m3	476	670		10/11/06 16:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	556	670		10/11/06 16:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	489	670		10/11/06 16:46	1634-04-4	
Naphthalene	ND	ug/m3	1810	670		10/11/06 16:46	91-20-3	
Propylene	ND	ug/m3	234	670		10/11/06 16:46	115-07-1	
Styrene	ND	ug/m3	583	670		10/11/06 16:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	938	670		10/11/06 16:46	79-34-5	
Tetrachloroethene	ND	ug/m3	938	670		10/11/06 16:46	127-18-4	
Tetrahydrofuran	ND	ug/m3	402	670		10/11/06 16:46	109-99-9	IC
Toluene	ND	ug/m3	516	670		10/11/06 16:46	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	663	670		10/11/06 16:46	120-82-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Sample: SB-3V (4') **Lab ID: 1039226005** Collected: 09/29/06 10:00 Received: 09/29/06 13:43 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	737	670		10/11/06 16:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	737	670		10/11/06 16:46	79-00-5	
Trichloroethene	ND	ug/m3	737	670		10/11/06 16:46	79-01-6	
Trichlorofluoromethane	ND	ug/m3	737	670		10/11/06 16:46	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1070	670		10/11/06 16:46	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1680	670		10/11/06 16:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1680	670		10/11/06 16:46	108-67-8	
Vinyl acetate	ND	ug/m3	476	670		10/11/06 16:46	108-05-4	
Vinyl chloride	ND	ug/m3	348	670		10/11/06 16:46	75-01-4	
m&p-Xylene	ND	ug/m3	1180	670		10/11/06 16:46	1330-20-7	
o-Xylene	ND	ug/m3	590	670		10/11/06 16:46	95-47-6	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

QC Batch: AIR/4644
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1039226004

METHOD BLANK: 266825
Associated Lab Samples: 1039226004

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.4	
1,1,2-Trichloroethane	ug/m3	ND	1.1	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	
1,1-Dichloroethane	ug/m3	ND	0.82	
1,1-Dichloroethene	ug/m3	ND	0.81	
1,2,4-Trichlorobenzene	ug/m3	ND	0.99	
1,2,4-Trimethylbenzene	ug/m3	ND	2.5	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	
1,2-Dichlorobenzene	ug/m3	ND	1.2	
1,2-Dichloroethane	ug/m3	ND	0.82	
1,2-Dichloropropane	ug/m3	ND	0.94	
1,3,5-Trimethylbenzene	ug/m3	ND	2.5	
1,3-Butadiene	ug/m3	ND	0.45	
1,3-Dichlorobenzene	ug/m3	ND	1.2	
1,4-Dichlorobenzene	ug/m3	ND	1.2	
2-Butanone (MEK)	ug/m3	ND	0.60	
2-Hexanone	ug/m3	ND	0.83	
4-Ethyltoluene	ug/m3	ND	2.5	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	
Acetone	ug/m3	ND	0.48	
Benzene	ug/m3	ND	0.65	
Bromodichloromethane	ug/m3	ND	1.4	
Bromoform	ug/m3	ND	2.1	
Bromomethane	ug/m3	ND	0.79	
Carbon disulfide	ug/m3	ND	0.63	
Carbon tetrachloride	ug/m3	ND	1.3	
Chlorobenzene	ug/m3	ND	0.94	
Chloroethane	ug/m3	ND	0.54	
Chloroform	ug/m3	ND	0.99	
Chloromethane	ug/m3	ND	0.42	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	
Cyclohexane	ug/m3	ND	0.68	
Dibromochloromethane	ug/m3	ND	1.7	
Dichlorodifluoromethane	ug/m3	ND	1.0	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	
Ethyl acetate	ug/m3	ND	0.73	
Ethylbenzene	ug/m3	ND	0.88	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	
m&p-Xylene	ug/m3	ND	1.8	
Methyl-tert-butyl ether	ug/m3	ND	0.73	
Methylene Chloride	ug/m3	ND	0.71	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

METHOD BLANK: 266825

Associated Lab Samples: 1039226004

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
n-Heptane	ug/m3	ND	0.83	
n-Hexane	ug/m3	ND	0.72	
Naphthalene	ug/m3	ND	2.7	
o-Xylene	ug/m3	ND	0.88	
Propylene	ug/m3	ND	0.35	
Styrene	ug/m3	ND	0.87	
Tetrachloroethene	ug/m3	ND	1.4	
Tetrahydrofuran	ug/m3	ND	0.60	
Toluene	ug/m3	ND	0.77	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	
Trichloroethene	ug/m3	ND	1.1	
Trichlorofluoromethane	ug/m3	ND	1.1	
Vinyl acetate	ug/m3	ND	0.71	
Vinyl chloride	ug/m3	ND	0.52	

LABORATORY CONTROL SAMPLE: 266826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	58.3	47.6	82	60-134	
1,1,2,2-Tetrachloroethane	ug/m3	74	66.3	90	55-141	
1,1,2-Trichloroethane	ug/m3	59.4	49.6	84	64-129	
1,1,2-Trichlorotrifluoroethane	ug/m3	81.8	62.8	77	55-137	
1,1-Dichloroethane	ug/m3	43.6	36.0	83	59-136	
1,1-Dichloroethene	ug/m3	41.9	30.4	72	60-137	
1,2,4-Trichlorobenzene	ug/m3	80.6	69.6	86	50-150	
1,2,4-Trimethylbenzene	ug/m3	53	56.1	106	63-137	
1,2-Dibromoethane (EDB)	ug/m3	82.8	73.7	89	61-136	
1,2-Dichlorobenzene	ug/m3	64.8	60.2	93	60-139	
1,2-Dichloroethane	ug/m3	43.6	37.4	86	56-141	
1,2-Dichloropropane	ug/m3	49.4	44.2	90	57-131	
1,3,5-Trimethylbenzene	ug/m3	52.5	54.5	104	61-134	
1,3-Butadiene	ug/m3	24.3	17.8	73	53-140	
1,3-Dichlorobenzene	ug/m3	67.3	57.5	86	59-136	
1,4-Dichlorobenzene	ug/m3	64.2	53.8	84	59-130	
2-Butanone (MEK)	ug/m3	32.4	31.4	97	54-133	
2-Hexanone	ug/m3	45.8	41.8	91	54-139	
4-Ethyltoluene	ug/m3	55	46.0	84	61-138	
4-Methyl-2-pentanone (MIBK)	ug/m3	45.8	43.3	95	53-139	
Acetone	ug/m3	24.4	25.1	103	50-139	
Benzene	ug/m3	34.4	29.6	86	64-125	
Bromodichloromethane	ug/m3	70.9	62.8	89	61-131	
Bromoform	ug/m3	110	99.5	90	66-138	
Bromomethane	ug/m3	40.3	31.0	77	55-135	
Carbon disulfide	ug/m3	33.3	25.2	76	50-150	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

LABORATORY CONTROL SAMPLE: 266826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	67.8	57.6	85	58-135	
Chlorobenzene	ug/m3	49.6	41.8	84	62-139	
Chloroethane	ug/m3	27.1	21.4	79	56-140	
Chloroform	ug/m3	48.7	40.7	84	50-150	
Chloromethane	ug/m3	21	16.8	80	56-144	
cis-1,2-Dichloroethene	ug/m3	42.7	37.4	87	62-135	
cis-1,3-Dichloropropene	ug/m3	48.9	48.4	99	64-133	
Cyclohexane	ug/m3	35.7	28.5	80	54-139	
Dibromochloromethane	ug/m3	95.3	78.9	83	50-150	
Dichlorodifluoromethane	ug/m3	50.8	40.4	79	60-130	
Dichlorotetrafluoroethane	ug/m3	71.8	57.4	80	59-130	
Ethyl acetate	ug/m3	35.9	42.1	117	60-132	
Ethylbenzene	ug/m3	46.4	43.7	94	65-140	
Hexachloro-1,3-butadiene	ug/m3	115	95.1	83	50-150	
m&p-Xylene	ug/m3	92.7	85.4	92	60-132	
Methyl-tert-butyl ether	ug/m3	38.1	38.3	100	50-150	
Methylene Chloride	ug/m3	37.1	31.3	84	56-138	
n-Heptane	ug/m3	43.3	36.5	84	62-135	
n-Hexane	ug/m3	35.8	29.8	83	62-134	
Naphthalene	ug/m3	55.3	50.5	91	70-130	
o-Xylene	ug/m3	46.8	43.6	93	64-132	
Propylene	ug/m3	18.4	15.4	84	56-125	
Styrene	ug/m3	45.9	41.5	90	69-134	
Tetrachloroethene	ug/m3	67.6	58.6	87	60-137	
Tetrahydrofuran	ug/m3	31.5	35.9	114	52-139	
Toluene	ug/m3	41	36.5	89	69-130	
trans-1,2-Dichloroethene	ug/m3	39.9	34.8	87	50-150	
trans-1,3-Dichloropropene	ug/m3	50.8	43.7	86	70-142	
Trichloroethene	ug/m3	56.8	48.1	85	60-134	
Trichlorofluoromethane	ug/m3	57.7	44.7	77	56-141	
Vinyl acetate	ug/m3	38.3	34.7	91	61-142	
Vinyl chloride	ug/m3	26.3	20.8	79	66-132	

SAMPLE DUPLICATE: 266827

Parameter	Units	1039204001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND	0	25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND	0	25	
1,1,2-Trichloroethane	ug/m3	ND	ND	0	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND	0	25	
1,1-Dichloroethane	ug/m3	ND	ND	0	25	
1,1-Dichloroethene	ug/m3	ND	ND	0	25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND	0	25	
1,2,4-Trimethylbenzene	ug/m3	6.9	15.6	78	25	D6
1,2-Dibromoethane (EDB)	ug/m3	ND	ND	0	25	
1,2-Dichlorobenzene	ug/m3	ND	ND	0	25	
1,2-Dichloroethane	ug/m3	ND	ND	0	25	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

SAMPLE DUPLICATE: 266827

Parameter	Units	1039204001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloropropane	ug/m3	ND	ND	0	25	
1,3,5-Trimethylbenzene	ug/m3	2.9	6.7	79	25	D6
1,3-Butadiene	ug/m3	ND	ND	0	25	
1,3-Dichlorobenzene	ug/m3	ND	ND	0	25	
1,4-Dichlorobenzene	ug/m3	ND	ND	0	25	
2-Butanone (MEK)	ug/m3	ND	ND	0	25	
2-Hexanone	ug/m3	ND	ND	0	25	
4-Ethyltoluene	ug/m3	5.1	9.6	61	25	D6
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND	0	25	
Acetone	ug/m3	10.5	6.4	49	25	D6
Benzene	ug/m3	7.8	10	25	25	
Bromodichloromethane	ug/m3	ND	ND	0	25	
Bromoform	ug/m3	ND	ND	0	25	
Bromomethane	ug/m3	ND	ND	0	25	
Carbon disulfide	ug/m3	0.79	0.90	12	25	
Carbon tetrachloride	ug/m3	ND	ND	0	25	
Chlorobenzene	ug/m3	ND	ND	0	25	
Chloroethane	ug/m3	ND	ND	0	25	
Chloroform	ug/m3	ND	ND	0	25	
Chloromethane	ug/m3	0.83	0.80	4	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND	0	25	
cis-1,3-Dichloropropene	ug/m3	ND	ND	0	25	
Cyclohexane	ug/m3	18.1	22.9	24	25	
Dibromochloromethane	ug/m3	ND	ND	0	25	
Dichlorodifluoromethane	ug/m3	2.5	2.7	6	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND	0	25	
Ethyl acetate	ug/m3	ND	ND	0	25	
Ethylbenzene	ug/m3	12.5	19.7	45	25	D6
Hexachloro-1,3-butadiene	ug/m3	ND	ND	0	25	
m&p-Xylene	ug/m3	33.3	52.6	45	25	D6
Methyl-tert-butyl ether	ug/m3	ND	ND	0	25	
Methylene Chloride	ug/m3	ND	ND	0	25	
n-Heptane	ug/m3	50.9	64.3	23	25	
n-Hexane	ug/m3	54.8	71.2	26	25	D6
Naphthalene	ug/m3	ND	ND	0	25	
o-Xylene	ug/m3	8.7	14.2	49	25	D6
Propylene	ug/m3	ND	ND	0	25	
Styrene	ug/m3	ND	ND	0	25	
Tetrachloroethene	ug/m3	ND	ND	0	25	
Tetrahydrofuran	ug/m3	ND	ND	0	25	
Toluene	ug/m3	15.3	18.7	20	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND	0	25	
trans-1,3-Dichloropropene	ug/m3	ND	ND	0	25	
Trichloroethene	ug/m3	ND	ND	0	25	
Trichlorofluoromethane	ug/m3	1.4	1.4	5	25	
Vinyl acetate	ug/m3	ND	ND	0	25	
Vinyl chloride	ug/m3	ND	ND	0	25	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

QC Batch: AIR/4675
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1039226001

METHOD BLANK: 269646
Associated Lab Samples: 1039226001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.4	
1,1,2-Trichloroethane	ug/m3	ND	1.1	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	
1,1-Dichloroethane	ug/m3	ND	0.82	
1,1-Dichloroethene	ug/m3	ND	0.81	
1,2,4-Trichlorobenzene	ug/m3	ND	0.99	
1,2,4-Trimethylbenzene	ug/m3	ND	2.5	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	
1,2-Dichlorobenzene	ug/m3	ND	1.2	
1,2-Dichloroethane	ug/m3	ND	0.82	
1,2-Dichloropropane	ug/m3	ND	0.94	
1,3,5-Trimethylbenzene	ug/m3	ND	2.5	
1,3-Butadiene	ug/m3	ND	0.45	
1,3-Dichlorobenzene	ug/m3	ND	1.2	
1,4-Dichlorobenzene	ug/m3	ND	1.2	
2-Butanone (MEK)	ug/m3	ND	0.60	
2-Hexanone	ug/m3	ND	0.83	IC
4-Ethyltoluene	ug/m3	ND	2.5	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	IC
Acetone	ug/m3	ND	0.48	
Benzene	ug/m3	ND	0.65	
Bromodichloromethane	ug/m3	ND	1.4	
Bromoform	ug/m3	ND	2.1	
Bromomethane	ug/m3	ND	0.79	
Carbon disulfide	ug/m3	ND	0.63	
Carbon tetrachloride	ug/m3	ND	1.3	
Chlorobenzene	ug/m3	ND	0.94	
Chloroethane	ug/m3	ND	0.54	
Chloroform	ug/m3	ND	0.99	
Chloromethane	ug/m3	ND	0.42	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	
Cyclohexane	ug/m3	ND	0.68	
Dibromochloromethane	ug/m3	ND	1.7	
Dichlorodifluoromethane	ug/m3	ND	1.0	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	
Ethyl acetate	ug/m3	ND	0.73	
Ethylbenzene	ug/m3	ND	0.88	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	
m&p-Xylene	ug/m3	ND	1.8	
Methyl-tert-butyl ether	ug/m3	ND	0.73	
Methylene Chloride	ug/m3	1.1	0.71	B,C6

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

METHOD BLANK: 269646

Associated Lab Samples: 1039226001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
n-Heptane	ug/m3	ND	0.83	
n-Hexane	ug/m3	ND	0.72	
Naphthalene	ug/m3	ND	2.7	
o-Xylene	ug/m3	ND	0.88	
Propylene	ug/m3	ND	0.35	
Styrene	ug/m3	ND	0.87	
Tetrachloroethene	ug/m3	ND	1.4	
Tetrahydrofuran	ug/m3	ND	0.60	
Toluene	ug/m3	ND	0.77	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	
Trichloroethene	ug/m3	ND	1.1	
Trichlorofluoromethane	ug/m3	ND	1.1	
Vinyl acetate	ug/m3	ND	0.71	
Vinyl chloride	ug/m3	ND	0.52	

LABORATORY CONTROL SAMPLE: 269647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	58.3	49.3	85	60-134	
1,1,2,2-Tetrachloroethane	ug/m3	74	92.4	125	55-141	
1,1,2-Trichloroethane	ug/m3	59.4	60.2	101	64-129	
1,1,2-Trichlorotrifluoroethane	ug/m3	81.8	100	123	55-137	
1,1-Dichloroethane	ug/m3	43.6	45.4	104	59-136	
1,1-Dichloroethene	ug/m3	41.9	40.6	97	60-137	
1,2,4-Trichlorobenzene	ug/m3	80.6	95.4	118	50-150	
1,2,4-Trimethylbenzene	ug/m3	53	53.9	102	63-137	
1,2-Dibromoethane (EDB)	ug/m3	82.8	80.8	98	61-136	
1,2-Dichlorobenzene	ug/m3	64.8	71.6	110	60-139	
1,2-Dichloroethane	ug/m3	43.6	37.9	87	56-141	
1,2-Dichloropropane	ug/m3	49.4	39.9	81	57-131	
1,3,5-Trimethylbenzene	ug/m3	52.5	52.5	100	61-134	
1,3-Butadiene	ug/m3	24.3	24.1	99	53-140	
1,3-Dichlorobenzene	ug/m3	67.3	66.7	99	59-136	
1,4-Dichlorobenzene	ug/m3	64.2	60.4	94	59-130	
2-Butanone (MEK)	ug/m3	32.4	31.0	96	54-133	
2-Hexanone	ug/m3	45.8	24.9	54	54-139	IC
4-Ethyltoluene	ug/m3	55	71.4	130	61-138	
4-Methyl-2-pentanone (MIBK)	ug/m3	45.8	30.6	67	53-139	IC
Acetone	ug/m3	24.4	30.6	125	50-139	
Benzene	ug/m3	34.4	32.5	94	64-125	
Bromodichloromethane	ug/m3	70.9	73.1	103	61-131	
Bromoform	ug/m3	110	139	126	66-138	
Bromomethane	ug/m3	40.3	39.0	97	55-135	
Carbon disulfide	ug/m3	33.3	25.1	75	50-150	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

LABORATORY CONTROL SAMPLE: 269647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	67.8	57.9	85	58-135	
Chlorobenzene	ug/m3	49.6	44.8	90	62-139	
Chloroethane	ug/m3	27.1	26.0	96	56-140	
Chloroform	ug/m3	48.7	43.7	90	50-150	
Chloromethane	ug/m3	21	22.3	106	56-144	
cis-1,2-Dichloroethene	ug/m3	42.7	40.1	94	62-135	
cis-1,3-Dichloropropene	ug/m3	48.9	39.5	81	64-133	
Cyclohexane	ug/m3	35.7	28.1	79	54-139	
Dibromochloromethane	ug/m3	95.3	95.9	101	50-150	
Dichlorodifluoromethane	ug/m3	50.8	52.1	102	60-130	
Dichlorotetrafluoroethane	ug/m3	71.8	81.7	114	59-130	
Ethyl acetate	ug/m3	35.9	33.1	92	60-132	
Ethylbenzene	ug/m3	46.4	42.0	91	65-140	
Hexachloro-1,3-butadiene	ug/m3	115	141	123	50-150	
m&p-Xylene	ug/m3	92.7	87.2	94	60-132	
Methyl-tert-butyl ether	ug/m3	38.1	37.3	98	50-150	
Methylene Chloride	ug/m3	37.1	38.3	103	56-138	B
n-Heptane	ug/m3	43.3	43.2	100	62-135	
n-Hexane	ug/m3	35.8	29.3	82	62-134	
Naphthalene	ug/m3	55.3	46.7	85	70-130	
o-Xylene	ug/m3	46.8	46.5	99	64-132	
Propylene	ug/m3	18.4	13.2	72	56-125	
Styrene	ug/m3	45.9	34.7	76	69-134	
Tetrachloroethene	ug/m3	67.6	62.3	92	60-137	
Tetrahydrofuran	ug/m3	31.5	65.3	207	52-139	L1
Toluene	ug/m3	41	37.5	91	69-130	
trans-1,2-Dichloroethene	ug/m3	39.9	37.5	94	50-150	
trans-1,3-Dichloropropene	ug/m3	50.8	51.6	102	70-142	
Trichloroethene	ug/m3	56.8	43.7	77	60-134	
Trichlorofluoromethane	ug/m3	57.7	56.0	97	56-141	
Vinyl acetate	ug/m3	38.3	29.8	78	61-142	
Vinyl chloride	ug/m3	26.3	24.7	94	66-132	

SAMPLE DUPLICATE: 269648

Parameter	Units	1039448004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND	0	25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND	0	25	
1,1,2-Trichloroethane	ug/m3	ND	ND	0	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND	0	25	
1,1-Dichloroethane	ug/m3	ND	ND	0	25	
1,1-Dichloroethene	ug/m3	ND	ND	0	25	
1,2,4-Trichlorobenzene	ug/m3	5.0	ND	200	25	D6
1,2,4-Trimethylbenzene	ug/m3	4.3	3.2J	31	25	D6
1,2-Dibromoethane (EDB)	ug/m3	ND	ND	0	25	
1,2-Dichlorobenzene	ug/m3	ND	ND	0	25	
1,2-Dichloroethane	ug/m3	ND	ND	0	25	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

SAMPLE DUPLICATE: 269648

Parameter	Units	1039448004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloropropane	ug/m3	ND	ND	0	25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND	32	25	D6
1,3-Butadiene	ug/m3	ND	ND	0	25	
1,3-Dichlorobenzene	ug/m3	ND	ND	0	25	
1,4-Dichlorobenzene	ug/m3	ND	ND	0	25	
2-Butanone (MEK)	ug/m3	1.9	1.3	35	25	D6
2-Hexanone	ug/m3	2.4	ND	200	25	D6,IC
4-Ethyltoluene	ug/m3	ND	ND	44	25	D6
4-Methyl-2-pentanone (MIBK)	ug/m3	2.5	ND	200	25	D6,IC
Acetone	ug/m3	14.5	12.1	18	25	
Benzene	ug/m3	ND	ND	0	25	
Bromodichloromethane	ug/m3	ND	ND	0	25	
Bromoform	ug/m3	ND	ND	0	25	
Bromomethane	ug/m3	ND	ND	0	25	
Carbon disulfide	ug/m3	2.3	1.8	24	25	
Carbon tetrachloride	ug/m3	ND	ND	0	25	
Chlorobenzene	ug/m3	ND	ND	0	25	
Chloroethane	ug/m3	ND	ND	0	25	
Chloroform	ug/m3	ND	ND	0	25	
Chloromethane	ug/m3	ND	ND	0	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND	0	25	
cis-1,3-Dichloropropene	ug/m3	ND	ND	0	25	
Cyclohexane	ug/m3	ND	ND	0	25	
Dibromochloromethane	ug/m3	ND	ND	0	25	
Dichlorodifluoromethane	ug/m3	3.0	2.2	31	25	D6
Dichlorotetrafluoroethane	ug/m3	ND	ND	0	25	
Ethyl acetate	ug/m3	ND	ND	0	25	
Ethylbenzene	ug/m3	ND	ND	0	25	
Hexachloro-1,3-butadiene	ug/m3	5.3	ND	200	25	D6
m&p-Xylene	ug/m3	4.6	3.5	27	25	D6
Methyl-tert-butyl ether	ug/m3	ND	ND	0	25	
Methylene Chloride	ug/m3	1.6	1.6	2	25	B
n-Heptane	ug/m3	1.7	1.3	23	25	
n-Hexane	ug/m3	1.7	1.6	5	25	
Naphthalene	ug/m3	6.3	ND	200	25	D6
o-Xylene	ug/m3	1.7	1.3	26	25	D6
Propylene	ug/m3	ND	ND	0	25	
Styrene	ug/m3	ND	ND	0	25	
Tetrachloroethene	ug/m3	ND	ND	0	25	
Tetrahydrofuran	ug/m3	ND	ND	0	25	
Toluene	ug/m3	41.2	30.2	31	25	D6
trans-1,2-Dichloroethene	ug/m3	ND	ND	0	25	
trans-1,3-Dichloropropene	ug/m3	ND	ND	0	25	
Trichloroethene	ug/m3	ND	ND	0	25	
Trichlorofluoromethane	ug/m3	ND	ND	0	25	
Vinyl acetate	ug/m3	ND	ND	0	25	
Vinyl chloride	ug/m3	ND	ND	0	25	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

QC Batch: AIR/4683
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1039226002, 1039226005

METHOD BLANK: 270202
Associated Lab Samples: 1039226002, 1039226005

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.4	
1,1,2-Trichloroethane	ug/m3	ND	1.1	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	
1,1-Dichloroethane	ug/m3	ND	0.82	
1,1-Dichloroethene	ug/m3	ND	0.81	
1,2,4-Trichlorobenzene	ug/m3	ND	0.99	
1,2,4-Trimethylbenzene	ug/m3	ND	2.5	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	
1,2-Dichlorobenzene	ug/m3	ND	1.2	
1,2-Dichloroethane	ug/m3	ND	0.82	
1,2-Dichloropropane	ug/m3	ND	0.94	
1,3,5-Trimethylbenzene	ug/m3	ND	2.5	
1,3-Butadiene	ug/m3	ND	0.45	
1,3-Dichlorobenzene	ug/m3	ND	1.2	
1,4-Dichlorobenzene	ug/m3	ND	1.2	
2-Butanone (MEK)	ug/m3	ND	0.60	IC
2-Hexanone	ug/m3	ND	0.83	
4-Ethyltoluene	ug/m3	ND	2.5	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	
Acetone	ug/m3	ND	0.48	IC
Benzene	ug/m3	ND	0.65	
Bromodichloromethane	ug/m3	ND	1.4	
Bromoform	ug/m3	ND	2.1	
Bromomethane	ug/m3	ND	0.79	
Carbon disulfide	ug/m3	ND	0.63	
Carbon tetrachloride	ug/m3	ND	1.3	
Chlorobenzene	ug/m3	ND	0.94	
Chloroethane	ug/m3	ND	0.54	
Chloroform	ug/m3	ND	0.99	
Chloromethane	ug/m3	ND	0.42	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	
Cyclohexane	ug/m3	ND	0.68	
Dibromochloromethane	ug/m3	ND	1.7	
Dichlorodifluoromethane	ug/m3	ND	1.0	CC
Dichlorotetrafluoroethane	ug/m3	ND	1.4	
Ethyl acetate	ug/m3	ND	0.73	
Ethylbenzene	ug/m3	ND	0.88	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	
m&p-Xylene	ug/m3	ND	1.8	
Methyl-tert-butyl ether	ug/m3	ND	0.73	
Methylene Chloride	ug/m3	ND	0.71	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

METHOD BLANK: 270202

Associated Lab Samples: 1039226002, 1039226005

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
n-Heptane	ug/m3	ND	0.83	
n-Hexane	ug/m3	ND	0.72	
Naphthalene	ug/m3	ND	2.7	
o-Xylene	ug/m3	ND	0.88	
Propylene	ug/m3	ND	0.35	
Styrene	ug/m3	ND	0.87	
Tetrachloroethene	ug/m3	ND	1.4	
Tetrahydrofuran	ug/m3	ND	0.60	IC
Toluene	ug/m3	ND	0.77	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	
Trichloroethene	ug/m3	ND	1.1	
Trichlorofluoromethane	ug/m3	ND	1.1	
Vinyl acetate	ug/m3	ND	0.71	
Vinyl chloride	ug/m3	ND	0.52	

LABORATORY CONTROL SAMPLE: 270203

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	58.3	49.9	86	60-134	
1,1,2,2-Tetrachloroethane	ug/m3	74	61.7	83	55-141	
1,1,2-Trichloroethane	ug/m3	59.4	43.4	73	64-129	
1,1,2-Trichlorotrifluoroethane	ug/m3	81.8	97.1	119	55-137	
1,1-Dichloroethane	ug/m3	43.6	47.8	110	59-136	
1,1-Dichloroethene	ug/m3	41.9	49.0	117	60-137	
1,2,4-Trichlorobenzene	ug/m3	80.6	70.9	88	50-150	
1,2,4-Trimethylbenzene	ug/m3	53	47.9	90	63-137	
1,2-Dibromoethane (EDB)	ug/m3	82.8	66.7	80	61-136	
1,2-Dichlorobenzene	ug/m3	64.8	57.0	88	60-139	
1,2-Dichloroethane	ug/m3	43.6	35.9	82	56-141	
1,2-Dichloropropane	ug/m3	49.4	41.5	84	57-131	
1,3,5-Trimethylbenzene	ug/m3	52.5	48.3	92	61-134	
1,3-Butadiene	ug/m3	24.3	24.7	102	53-140	
1,3-Dichlorobenzene	ug/m3	67.3	58.4	87	59-136	
1,4-Dichlorobenzene	ug/m3	64.2	58.5	91	59-130	
2-Butanone (MEK)	ug/m3	32.4	23.1	71	54-133	IC
2-Hexanone	ug/m3	45.8	37.1	81	54-139	
4-Ethyltoluene	ug/m3	55	49.1	89	61-138	
4-Methyl-2-pentanone (MIBK)	ug/m3	45.8	33.0	72	53-139	
Acetone	ug/m3	24.4	12.4	51	50-139	IC
Benzene	ug/m3	34.4	35.2	102	64-125	
Bromodichloromethane	ug/m3	70.9	60.2	85	61-131	
Bromoform	ug/m3	110	99.4	90	66-138	
Bromomethane	ug/m3	40.3	46.6	116	55-135	
Carbon disulfide	ug/m3	33.3	27.3	82	50-150	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

LABORATORY CONTROL SAMPLE: 270203

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	67.8	74.2	109	58-135	
Chlorobenzene	ug/m3	49.6	41.4	84	62-139	
Chloroethane	ug/m3	27.1	30.7	113	56-140	
Chloroform	ug/m3	48.7	41.7	86	50-150	
Chloromethane	ug/m3	21	18.3	87	56-144	
cis-1,2-Dichloroethene	ug/m3	42.7	35.5	83	62-135	
cis-1,3-Dichloropropene	ug/m3	48.9	43.9	90	64-133	
Cyclohexane	ug/m3	35.7	40.0	112	54-139	
Dibromochloromethane	ug/m3	95.3	78.8	83	50-150	
Dichlorodifluoromethane	ug/m3	50.8	44.1	87	60-130	CC
Dichlorotetrafluoroethane	ug/m3	71.8	59.7	83	59-130	
Ethyl acetate	ug/m3	35.9	33.6	94	60-132	
Ethylbenzene	ug/m3	46.4	40.0	86	65-140	
Hexachloro-1,3-butadiene	ug/m3	115	91.7	80	50-150	
m&p-Xylene	ug/m3	92.7	80.0	86	60-132	
Methyl-tert-butyl ether	ug/m3	38.1	33.3	87	50-150	
Methylene Chloride	ug/m3	37.1	43.7	118	56-138	
n-Heptane	ug/m3	43.3	42.5	98	62-135	
n-Hexane	ug/m3	35.8	42.1	117	62-134	
Naphthalene	ug/m3	55.3	51.2	93	70-130	
o-Xylene	ug/m3	46.8	40.9	87	64-132	
Propylene	ug/m3	18.4	27.7	150	56-125	L1
Styrene	ug/m3	45.9	42.8	93	69-134	
Tetrachloroethene	ug/m3	67.6	56.6	84	60-137	
Tetrahydrofuran	ug/m3	31.5	35.1	111	52-139	IC
Toluene	ug/m3	41	35.1	86	69-130	
trans-1,2-Dichloroethene	ug/m3	39.9	46.0	115	50-150	
trans-1,3-Dichloropropene	ug/m3	50.8	45.5	90	70-142	
Trichloroethene	ug/m3	56.8	46.8	82	60-134	
Trichlorofluoromethane	ug/m3	57.7	71.3	123	56-141	
Vinyl acetate	ug/m3	38.3	32.8	86	61-142	
Vinyl chloride	ug/m3	26.3	29.5	112	66-132	

SAMPLE DUPLICATE: 270204

Parameter	Units	1039246003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND	0	25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND	0	25	
1,1,2-Trichloroethane	ug/m3	ND	ND	0	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND	0	25	
1,1-Dichloroethane	ug/m3	ND	ND	0	25	
1,1-Dichloroethene	ug/m3	ND	ND	0	25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND	0	25	
1,2,4-Trimethylbenzene	ug/m3	ND	ND	4	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND	0	25	
1,2-Dichlorobenzene	ug/m3	ND	ND	0	25	
1,2-Dichloroethane	ug/m3	ND	ND	0	25	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

SAMPLE DUPLICATE: 270204

Parameter	Units	1039246003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloropropane	ug/m3	ND	ND	0	25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND	0	25	
1,3-Butadiene	ug/m3	ND	ND	0	25	
1,3-Dichlorobenzene	ug/m3	ND	ND	0	25	
1,4-Dichlorobenzene	ug/m3	ND	ND	0	25	
2-Butanone (MEK)	ug/m3	ND	ND	0	25	IC
2-Hexanone	ug/m3	ND	ND	0	25	
4-Ethyltoluene	ug/m3	ND	ND	0	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND	0	25	
Acetone	ug/m3	ND	ND	0	25	IC
Benzene	ug/m3	ND	ND	0	25	
Bromodichloromethane	ug/m3	ND	ND	0	25	
Bromoform	ug/m3	ND	ND	0	25	
Bromomethane	ug/m3	ND	ND	0	25	
Carbon disulfide	ug/m3	ND	ND	0	25	
Carbon tetrachloride	ug/m3	ND	ND	0	25	
Chlorobenzene	ug/m3	ND	ND	0	25	
Chloroethane	ug/m3	ND	ND	0	25	
Chloroform	ug/m3	ND	ND	0	25	
Chloromethane	ug/m3	ND	ND	0	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND	0	25	
cis-1,3-Dichloropropene	ug/m3	ND	ND	0	25	
Cyclohexane	ug/m3	ND	ND	0	25	
Dibromochloromethane	ug/m3	ND	ND	0	25	
Dichlorodifluoromethane	ug/m3	ND	ND	0	25	CC
Dichlorotetrafluoroethane	ug/m3	ND	ND	0	25	
Ethyl acetate	ug/m3	ND	ND	0	25	
Ethylbenzene	ug/m3	ND	ND	0	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND	0	25	
m&p-Xylene	ug/m3	1750	1390	23	25	
Methyl-tert-butyl ether	ug/m3	ND	ND	0	25	
Methylene Chloride	ug/m3	ND	ND	0	25	
n-Heptane	ug/m3	620	393J	45	25	D6
n-Hexane	ug/m3	647	523	21	25	
Naphthalene	ug/m3	ND	ND	0	25	
o-Xylene	ug/m3	761	700	8	25	
Propylene	ug/m3	ND	ND	0	25	
Styrene	ug/m3	ND	ND	0	25	
Tetrachloroethene	ug/m3	ND	ND	0	25	
Tetrahydrofuran	ug/m3	ND	ND	0	25	IC
Toluene	ug/m3	849	672	23	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND	0	25	
trans-1,3-Dichloropropene	ug/m3	ND	ND	0	25	
Trichloroethene	ug/m3	ND	ND	0	25	
Trichlorofluoromethane	ug/m3	ND	ND	0	25	
Vinyl acetate	ug/m3	ND	ND	0	25	
Vinyl chloride	ug/m3	ND	ND	0	25	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

SAMPLE DUPLICATE: 270205

Parameter	Units	1039380003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND	0	25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND	0	25	
1,1,2-Trichloroethane	ug/m3	ND	ND	0	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND	0	25	
1,1-Dichloroethane	ug/m3	ND	ND	0	25	
1,1-Dichloroethene	ug/m3	ND	ND	0	25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND	0	25	
1,2,4-Trimethylbenzene	ug/m3	12.1	11.8	3	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND	0	25	
1,2-Dichlorobenzene	ug/m3	ND	ND	0	25	
1,2-Dichloroethane	ug/m3	ND	ND	0	25	
1,2-Dichloropropane	ug/m3	ND	ND	0	25	
1,3,5-Trimethylbenzene	ug/m3	ND	2.7J	.4	25	
1,3-Butadiene	ug/m3	ND	ND	0	25	
1,3-Dichlorobenzene	ug/m3	ND	ND	0	25	
1,4-Dichlorobenzene	ug/m3	ND	ND	0	25	
2-Butanone (MEK)	ug/m3	7.5	6.4	17	25	IC
2-Hexanone	ug/m3	ND	ND	0	25	
4-Ethyltoluene	ug/m3	4.7	4.3	8	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND	0	25	
Acetone	ug/m3	31.0	27.5	12	25	IC
Benzene	ug/m3	5.9	5.3	11	25	
Bromodichloromethane	ug/m3	ND	ND	0	25	
Bromoform	ug/m3	ND	ND	0	25	
Bromomethane	ug/m3	ND	ND	0	25	
Carbon disulfide	ug/m3	5.9	5.3	11	25	
Carbon tetrachloride	ug/m3	ND	ND	0	25	
Chlorobenzene	ug/m3	ND	ND	0	25	
Chloroethane	ug/m3	ND	ND	0	25	
Chloroform	ug/m3	ND	ND	0	25	
Chloromethane	ug/m3	ND	ND	0	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND	0	25	
cis-1,3-Dichloropropene	ug/m3	ND	ND	0	25	
Cyclohexane	ug/m3	2.5	1.8	33	25	D6
Dibromochloromethane	ug/m3	ND	ND	0	25	
Dichlorodifluoromethane	ug/m3	2.8	2.5	11	25	CC
Dichlorotetrafluoroethane	ug/m3	ND	ND	0	25	
Ethyl acetate	ug/m3	ND	ND	0	25	
Ethylbenzene	ug/m3	11.8	11.6	2	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND	0	25	
m&p-Xylene	ug/m3	18.3	17.5	5	25	
Methyl-tert-butyl ether	ug/m3	ND	ND	0	25	
Methylene Chloride	ug/m3	ND	ND	0	25	
n-Heptane	ug/m3	5.9	5.3	11	25	
n-Hexane	ug/m3	9.0	7.7	15	25	
Naphthalene	ug/m3	ND	ND	0	25	
o-Xylene	ug/m3	6.8	6.7	1	25	
Propylene	ug/m3	ND	ND	0	25	

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QUALITY CONTROL DATA

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

SAMPLE DUPLICATE: 270205

Parameter	Units	1039380003 Result	Dup Result	RPD	Max RPD	Qualifiers
Styrene	ug/m3	ND	ND	0	25	
Tetrachloroethene	ug/m3	4.1	3.9	4	25	
Tetrahydrofuran	ug/m3	ND	ND	0	25	IC
Toluene	ug/m3	23.0	21.1	9	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND	0	25	
trans-1,3-Dichloropropene	ug/m3	ND	ND	0	25	
Trichloroethene	ug/m3	ND	ND	0	25	
Trichlorofluoromethane	ug/m3	2.6	2.3	13	25	
Vinyl acetate	ug/m3	ND	ND	0	25	
Vinyl chloride	ug/m3	ND	ND	0	25	

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QUALIFIERS

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SAMPLE QUALIFIERS

Sample: 1039226001

[1] The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

Sample: 1039226002

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

Sample: 1039226003

[1] Sample was lost internally at Pace Analytical. The client was notified and the analysis was cancelled for (SB-1V (4'))

Sample: 1039226004

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

Sample: 1039226005

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

ANALYTE QUALIFIERS

A3	The sample was analyzed by serial dilution.
B	Analyte was detected in the associated method blank.
C0	Result confirmed by second analysis.
C6	Analyte is a common laboratory contaminant (confirmed by presence in method blank).
CC	The continuing calibration for this compound is outside of method control limits. The result is estimated.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
IC	The initial calibration for this compound was outside of method control limits. The result is estimated.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
1M	The internal standard response is above criteria. Results may be biased low.

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: (612)607-1700
Fax: (612)607-6444

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 15111.02 SINCLAIR NEW HOPE
Pace Project No.: 1039226

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1039226004	**SB-6V (8')**	TO-15	AIR/4644		
1039226001	**SB-7V (4')**	TO-15	AIR/4675		
1039226002	**V5 (4')**	TO-15	AIR/4683		
1039226005	**SB-3V (4')**	TO-15	AIR/4683		

Data File: \\192.168.10.12\chem\10air7.i\101006.b\28318tic.D
Report Date: 17-Oct-2006 12:36

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 5
Lab Smp Id: 1039226001
Operator : LCW
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 10-OCT-2006 19:19

Client SDG: 102205

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	108-08-7	Pentane, 2,4-dimethyl-	8.661	60.8	NJ
2.	540-84-1	Pentane, 2,2,4-trimethyl-	10.278	194	NJ
3.	592-13-2	Hexane, 2,5-dimethyl-	11.419	35.7	NJ
4.	589-43-5	Hexane, 2,4-dimethyl-	11.508	31.4	NJ
5.	565-75-3	Pentane, 2,3,4-trimethyl-	12.090	121	NJ
6.	560-21-4	Pentane, 2,3,3-trimethyl-	12.290	114	NJ
7.	7098-21-7	Tritetracontane	20.301	37.8	NJ
8.	13151-34-3	Decane, 3-methyl-	21.319	32.7	NJ
9.	13287-23-5	Heptadecane, 8-methyl-	21.819	26.0	NJ
10.	62237-97-2	Decane, 2,2,6-trimethyl-	22.366	38.0	NJ

Data File: \\192.168.10.12\chem\10air7.i\101006.b\28318tic.D
Report Date: 17-Oct-2006 12:36

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\101006.b\28318tic.D
Lab Smp Id: 1039226001
Inj Date : 10-OCT-2006 19:19
Operator : LCW Inst ID: 10air7.i
Smp Info : Sample 5
Misc Info : 4675
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\101006.b\LOWTO15_283.m
Meth Date : 17-Oct-2006 12:33 yariemawan Quant Type: ISTD
Cal Date : 10-OCT-2006 13:00 Cal File: 28310.D
Als bottle: 18
Dil Factor: 2.07000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10EXTRA

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	2.070	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 31 1,4-Difluorobenzene	9.990	7611684	10.000
* 46 Chlorobenzene - d5	15.043	11749628	10.000

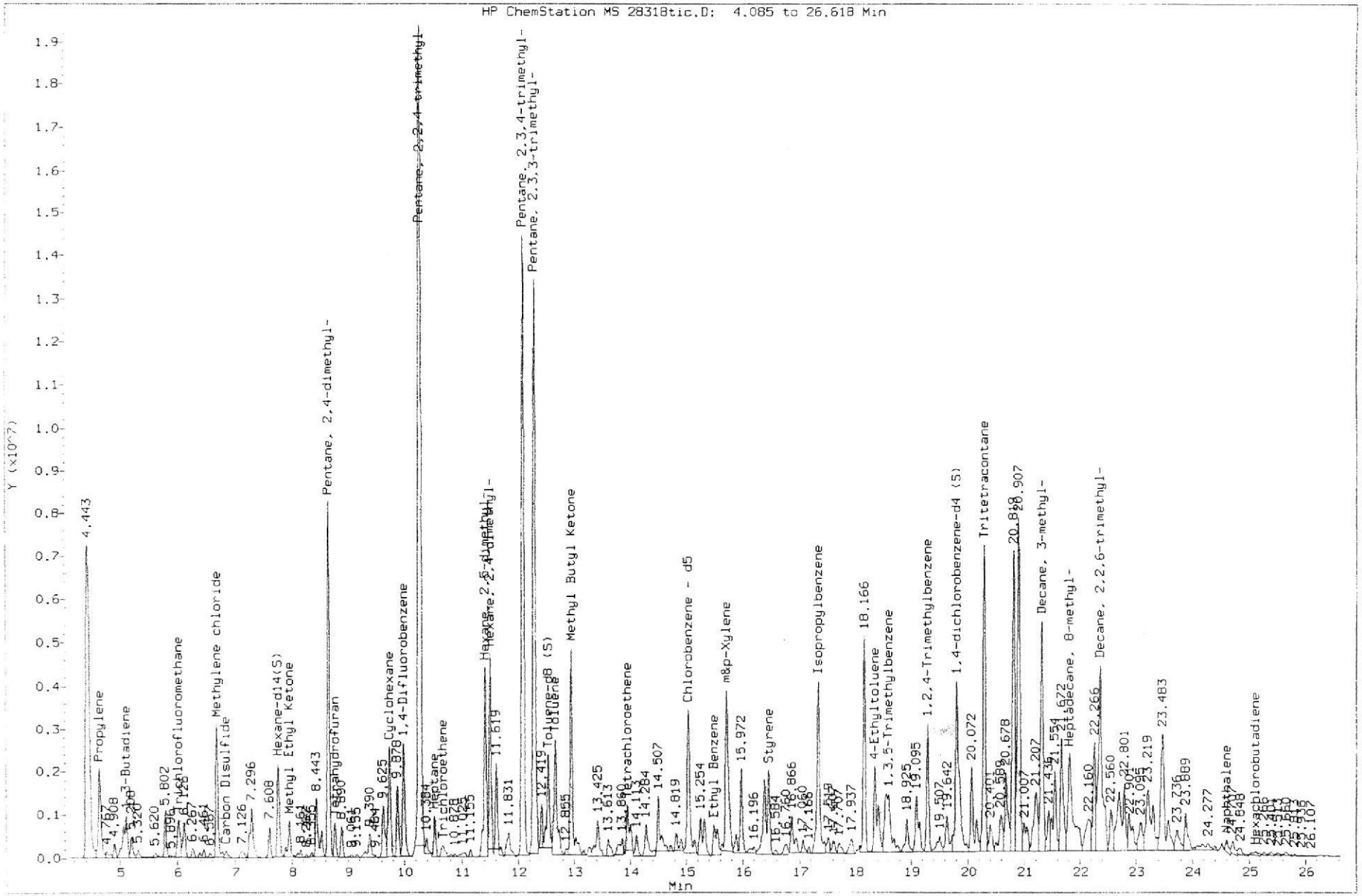
		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Pentane, 2,4-dimethyl-				CAS #: 108-08-7			
8.661	22366273	29.3841313	60.8	91	NBS75K.1	63424	31
Pentane, 2,2,4-trimethyl-				CAS #: 540-84-1			
10.278	71394699	93.7961904	194	83	NBS75K.1	64221	31
Hexane, 2,5-dimethyl-				CAS #: 592-13-2			
11.419	13116501	17.2320617	35.7	87	NBS75K.1	64204	31
Hexane, 2,4-dimethyl-				CAS #: 589-43-5			
11.508	11542274	15.1638891	31.4	83	NBS75K.1	64212	31
Pentane, 2,3,4-trimethyl-				CAS #: 565-75-3			
12.090	44625405	58.6275048	121	90	NBS75K.1	64229	31

Data File: \\192.168.10.12\chem\10air7.i\101006.b\28318tic.D
Report Date: 17-Oct-2006 12:36

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Pentane, 2,3,3-trimethyl-				CAS #: 560-21-4			
12.290	42078079	55.2809041	114	90	NBS75K.1	3088	31
Tritetracontane				CAS #: 7098-21-7			
20.301	21445524	18.2520866	37.8	72	NBS75K.1	60913	46
Decane, 3-methyl-				CAS #: 13151-34-3			
21.319	18559668	15.7959614	32.7	78	NBS75K.1	67315	46
Heptadecane, 8-methyl-				CAS #: 13287-23-5			
21.819	14733460	12.5395112	26.0	78	NBS75K.1	34816	46
Decane, 2,2,6-trimethyl-				CAS #: 62237-97-2			
22.366	21558955	18.3486267	38.0	83	NBS75K.1	18995	46

Data File: \\10samba\chem\10air7.i\101006.b\28318tic.D
Injection Date: 10-OCT-2006 19:19
Instrument: 10air7.i
Client Sample ID:

1039226001



Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 0
Lab Smp Id: 1039226002
Operator : HRG
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-OCT-2006 16:05

Client SDG: 102205

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	78-78-4	Butane, 2-methyl-	5.305	184000	NJ
2.	96-14-0	Pentane, 3-methyl-	7.098	132000	NJ
3.	108-08-7	Pentane, 2,4-dimethyl-	8.146	64600	NJ
4.	96-37-7	Cyclopentane, methyl-	8.245	104000	NJ
5.	565-59-3	Pentane, 2,3-dimethyl-	9.232	129000	NJ
6.	589-34-4	Hexane, 3-methyl-	9.374	112000	NJ
7.	594-82-1	Butane, 2,2,3,3-tetramethyl	9.765	231000	NJ
8.	108-87-2	Cyclohexane, methyl-	10.913	80100	NJ
9.	565-75-3	Pentane, 2,3,4-trimethyl-	11.589	68100	NJ
10.	560-21-4	Pentane, 2,3,3-trimethyl-	11.787	94100	NJ

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air0.i\101106.b\28410tic.D
Lab Smp Id: 1039226002
Inj Date : 11-OCT-2006 16:05
Operator : HRG Inst ID: 10air0.i
Smp Info : Sample 0
Misc Info : 4683
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air0.i\101106.b\LOWTO15_283.m
Meth Date : 17-Oct-2006 12:41 yariemawan Quant Type: ISTD
Cal Date : 10-OCT-2006 11:09 Cal File: 28305.D
Als bottle: 10
Dil Factor: 1465.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10EXTRA

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1465.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

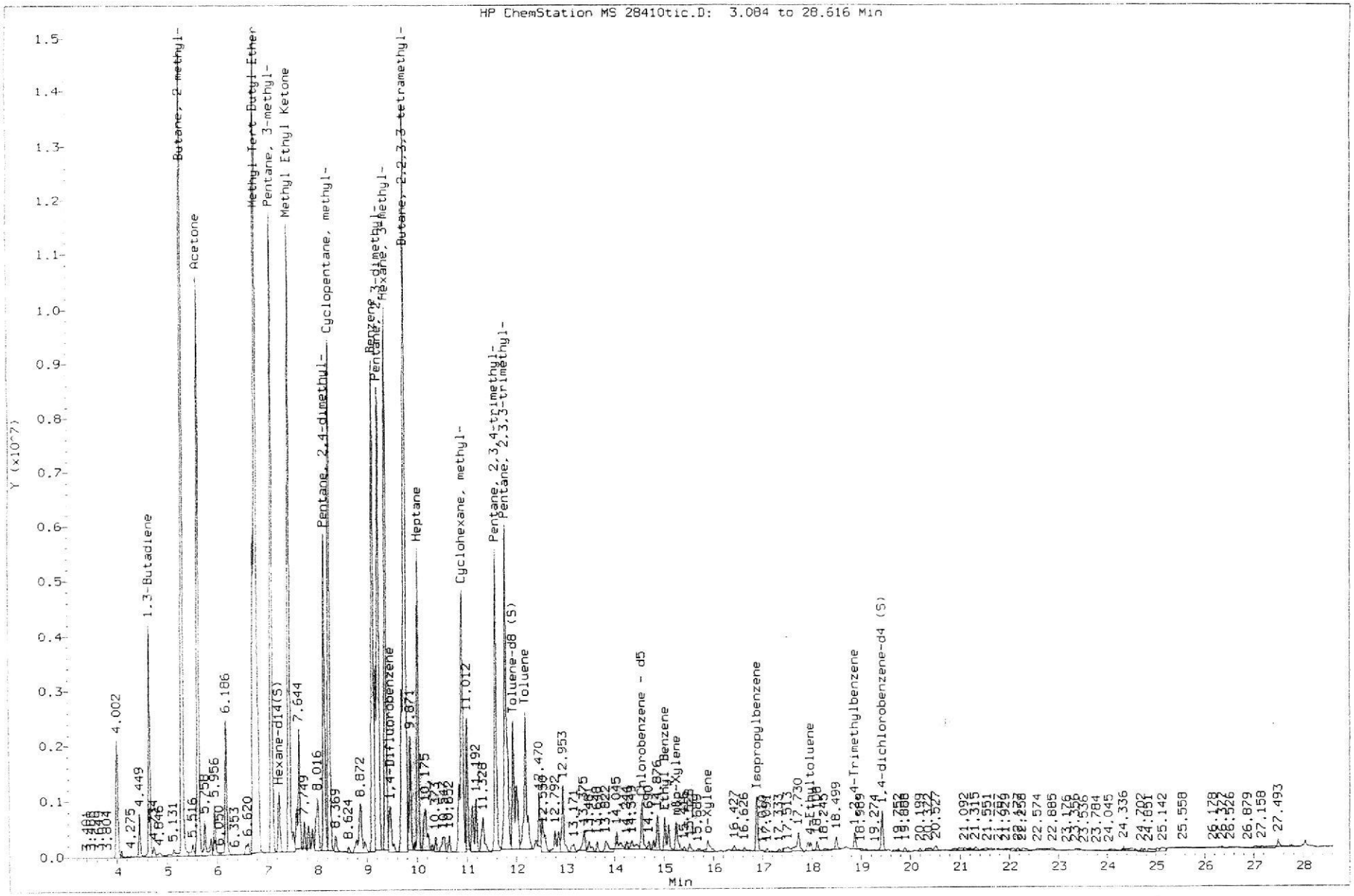
ISTD	RT	AREA	AMOUNT
* 31 1,4-Difluorobenzene	9.474	3190345	10.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Butane, 2-methyl-				CAS #: 78-78-4			
5.305	40154010	125.861018	184000	90	NBS75K.1	62517	31
Pentane, 3-methyl-				CAS #: 96-14-0			
7.098	28803138	90.2821979	132000	91	NBS75K.1	62867	31
Pentane, 2,4-dimethyl-				CAS #: 108-08-7			
8.146	14076828	44.1232128	64600	91	NBS75K.1	63424	31
Cyclopentane, methyl-				CAS #: 96-37-7			
8.245	22726851	71.2363370	104000	90	NBS75K.1	594	31
Pentane, 2,3-dimethyl-				CAS #: 565-59-3			
9.232	28046922	87.9118718	129000	90	NBS75K.1	63432	31
Hexane, 3-methyl-				CAS #: 589-34-4			
9.374	24466423	76.6889499	112000	91	NBS75K.1	63423	31

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Butane, 2,2,3,3-tetramethyl-				CAS #: 594-82-1			
9.765	50319252	157.723532	231000	78	NBS75K.1	64214	31
Cyclohexane, methyl-				CAS #: 108-87-2			
10.913	17440127	54.6653297	80100	80	NBS75K.1	63234	31
Pentane, 2,3,4 trimethyl-				CAS #: 565-75-3			
11.589	14827314	46.4755773	68100	83	NBS75K.1	64229	31
Pentane, 2,3,3-trimethyl-				CAS #: 560-21-4			
11.787	20494299	64.2385002	94100	90	NBS75K.1	3088	31

Data File: \\10samba\chem\10air0.i\101106.b\28410tic.D
Injection Date: 11-OCT-2006 16:05
Instrument: 10air0.i
Client Sample ID:

10392260002



Data File: \\10samba\chem\10air7.i\100306.b\27613tic.D
Report Date: 19-Oct-2006 09:08

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 5
Lab Smp Id: 1039226004
Operator : LCW
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 03-OCT-2006 18:05

Client SDG: 102205

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	78-78-4	Butane, 2-methyl-	5.790	25.4	NJ
2.	75-83-2	Butane, 2,2-dimethyl-	6.684	21.4	NJ
3.	96-14-0	Pentane, 3-methyl-	7.608	29.6	NJ
4.	108-08-7	Pentane, 2,4-dimethyl-	8.655	51.2	NJ
5.	589-34-4	Hexane, 3-methyl-	9.884	29.6	NJ
6.	540-84-1	Pentane, 2,2,4-trimethyl-	10.278	142	NJ
7.	589-43-5	Hexane, 2,4-dimethyl-	11.508	27.6	NJ
8.	565-75-3	Pentane, 2,3,4-trimethyl-	12.090	74.6	NJ
9.	3522-94-9	Hexane, 2,2,5-trimethyl-	12.955	22.1	NJ
10.	62238-01-1	Decane, 2,2,8-trimethyl-	22.366	21.9	NJ

Data File: \\10samba\chem\10air7.i\100306.b\27613tic.D
Report Date: 19-Oct-2006 09:08

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\10samba\chem\10air7.i\100306.b\27613tic.D
Lab Smp Id: 1039226004
Inj Date : 03-OCT-2006 18:05
Operator : LCW Inst ID: 10air7.i
Smp Info : Sample 5
Misc Info : 4644
Comment : Volatile Organic COMPOUNDS in Air
Method : \\10samba\chem\10air7.i\100306.b\LOWTO15_275.m
Meth Date : 19-Oct-2006 08:51 lweinkauf Quant Type: ISTD
Cal Date : 02-OCT-2006 16:53 Cal File: 27507.D
Als bottle: 13
Dil Factor: 1.38000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10EXTRA

Concentration Formula: Amt * DF * Uf * CpndVariable

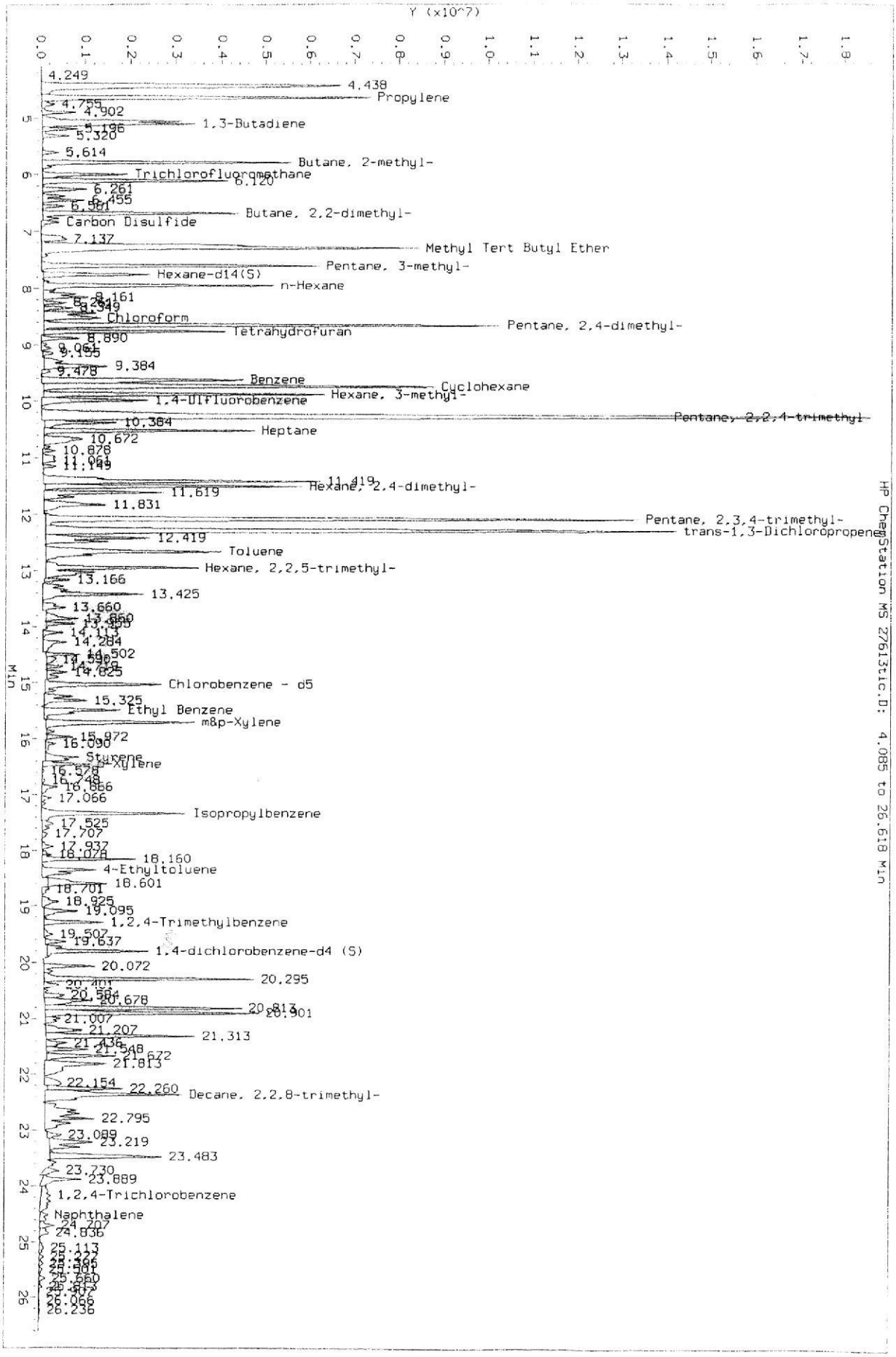
Name	Value	Description
DF	1.380	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 31 1,4-Difluorobenzene	9.990	7875080	10.000
* 46 Chlorobenzene - d5	15.037	8829708	10.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Butane, 2-methyl-				CAS #: 78-78-4			
5.790	14523330	18.4421350	25.4	87	NBS75K.1	62518	31
Butane, 2,2-dimethyl-				CAS #: 75-83-2			
6.684	12232817	15.5335770	21.4	83	NBS75K.1	62862	31
Pentane, 3-methyl-				CAS #: 96-14-0			
7.608	16914810	21.4789039	29.6	91	NBS75K.1	62867	31
Pentane, 2,4-dimethyl-				CAS #: 108-08-7			
8.655	29202752	37.0824807	51.2	91	NBS75K.1	63424	31
Hexane, 3-methyl-				CAS #: 589-34-4			
9.884	16866132	21.4170920	29.6	95	NBS75K.1	63423	31

Data File: \\10samba\chem\10air7.i\100306.b\27613tic.D
Report Date: 19-Oct-2006 09:08

		CONCENTRATIONS			QUANT		
RT	AREA	ON COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Pentane, 2,2,4-trimethyl-				CAS #: 540-84-1			
10.278	80990494	102.844020	142	83	NBS75K.1	64221	31
Hexane, 2,4-dimethyl-				CAS #: 589-43-5			
11.508	15740009	19.9871083	27.6	86	NBS75K.1	64213	31
Pentane, 2,3,4-trimethyl-				CAS #: 565-75-3			
12.090	42594412	54.0875890	74.6	90	NBS75K.1	64229	31
Hexane, 2,2,5-trimethyl				CAS #: 3522-94-9			
12.955	14157314	16.0337280	22.1	83	NBS75K.1	65128	46
Decane, 2,2,8-trimethyl-				CAS #: 62238-01-1			
22.366	14013587	15.8709514	21.9	83	NBS75K.1	19012	46



Data File: \\10samba\chem\10air7.i\100306.b\27613tic.D
Injection Date: 03-OCT-2006 18:05
Instrument: 10air7.i
Client Sample ID:

10392260004

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 1
Lab Smp Id: 1039226005
Operator : HRG
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-OCT-2006 16:46

Client SDG: 102205

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 11

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	78-78-4	Butane, 2-methyl-	5.305	7960	NJ
2.	109-66-0	Pentane	5.628	4200	NJ
3.	79-29-8	Butane, 2,3-dimethyl-	6.732	5380	NJ
4.	74-97-5	Methane, bromochloro-	7.904	4450	NJ
5.	108-08-7	Pentane, 2,4-dimethyl-	8.134	12200	NJ
6.	540-84-1	Pentane, 2,2,4-trimethyl-	9.747	39400	NJ
7.	565-75-3	Pentane, 2,3,4-trimethyl-	11.576	15900	NJ
8.	560-21-4	Pentane, 2,3,3-trimethyl-	11.775	16600	NJ
9.	7154-80-5	Heptane, 3,3,5-trimethyl-	15.937	3500	NJ
10.	1072-85-1	Benzene, 1-bromo-2-fluoro-	16.886	10700	NJ
11.	556-67-2	Cyclotetrasiloxane, octamet	28.008	3790	NJ

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air0.i\101106.b\28411tic.D
Lab Smp Id: 1039226005
Inj Date : 11-OCT-2006 16:46
Operator : HRG Inst ID: 10air0.i
Smp Info : Sample 1
Misc Info : 4683
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air0.i\101106.b\LOWTO15_283.m
Meth Date : 17-Oct-2006 12:48 yariemawan Quant Type: ISTD
Cal Date : 10-OCT-2006 11:09 Cal File: 28305.D
Als bottle: 11
Dil Factor: 670.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10EXTRA

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	670.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

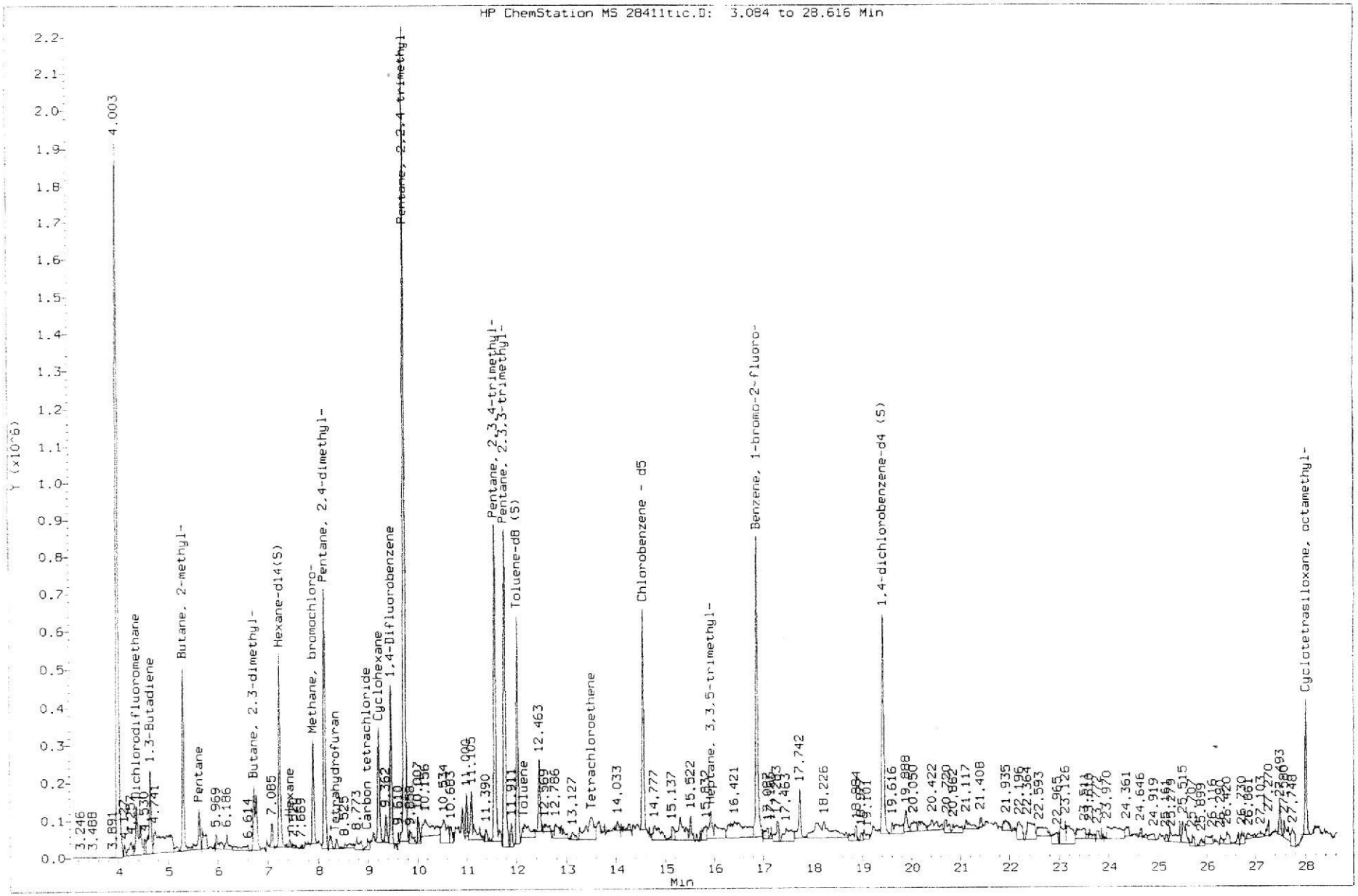
ISTD	RT	AREA	AMOUNT
* 31 1,4-Difluorobenzene	9.467	958848	10.000
* 46 Chlorobenzene - d5	14.554	1409353	10.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Butane, 2-methyl-				CAS #: 78-78-4			
5.305	1138583	11.8744773	7960	87	NBS75K.1	62518	31
Pentane				CAS #: 109-66-0			
5.628	601418	6.27229789	4200	80	NBS75K.1	62516	31
Butane, 2,3-dimethyl-				CAS #: 79-29-8			
6.732	769586	8.02614430	5380	86	NBS75K.1	62871	31
Methane, bromochloro-				CAS #: 74-97-5			
7.904	636497	6.63813920	4450	98	NBS75K.1	4820	31
Pentane, 2,4-dimethyl-				CAS #: 108-08-7			
8.134	1751986	18.2717663	12200	91	NBS75K.1	63424	31

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	============	============	====	=======	=========	======
Pentane, 2,2,4-trimethyl-				CAS #: 540-84-1			
9.747	5644139	58.8637080	39400	83	NBS75K.l	64220	31
Pentane, 2,3,4-trimethyl-				CAS #: 565-75-3			
11.576	2280583	23.7845946	15900	91	NBS75K.l	64228	31
Pentane, 2,3,3-trimethyl-				CAS #: 560-21-4			
11.775	2375225	24.7716334	16600	90	NBS75K.l	3088	31
Heptane, 3,3,5-trimethyl				CAS #: 7154-80-5			
15.937	736609	5.22657656	3500	72	NBS75K.l	8090	46
Benzene, 1-bromo-2-fluoro-				CAS #: 1072-85-1			
16.886	2254496	15.9966718	10700	94	NBS75K.l	68408	46
Cyclotetrasiloxane, octamethyl-				CAS #: 556-67-2			
28.008	797392	5.65785932	3790	83	NBS75K.l	72646	46

Data File: \\10samba\chem\10air0.i\101106.b\28411tic.D
Injection Date: 11-OCT-2006 16:46
Instrument: 10air0.i
Client Sample ID:

1059220005



CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical®

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1039226

Page: 1 of 1

905336

Section A Required Client Information:

Company: Peer Engineering	
Address: 7615 Golden Triangle Dr STE N	
Email To:	
Phone: 952-831-3341 Fax: 952-831-4552	
Requested Due Date/TAT:	

Section B Required Project Information:

Report To: Bruce Schaepe	
Copy To: Diane Ruddle	
Purchase Order No.:	
Project Name: Sinclair - New Hope	
Project Number: 15111.02	

Section C Invoice Information:

Attention:	
Company Name:	
Address: SAME	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ Other_____

SITE LOCATION ☐GA ☐IL ☐IN ☐MI ☒MN ☐NC ☐OH ☐SC ☐WI ☐OTHER_____

Section D Required Client Information

SAMPLE ID

One Character per box (A-Z, 0-9 / -)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis: TO-15 MN List	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	SB-7V(4') PID# 3.1 ppm	AR				9/29	10:20		1											001
2	V5(4') *Perthal Sample PID= 262 ppm	AR				9/29	10:30		1											002
3	~~SB-1V(4')~~	AR				9/29	10:15		1											003
4	SB-6V(8')	AR				9/28	5:00		1											004
5	SB-3V(4')	AR				9/29	10:00		1											005
6	JUNK - contains H_2O																			
7																				
8																				
9																				
10																				
11																				
12																				

Additional Comments:

1. This sample was lost internally at Pace - client was notified and the sample was cancelled. Lori Dunstan 10/23/06

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION
			Shawn Davis	9/29/06	12:27	Y/N Y/N Y/N
			Corey Lund	9-29-06	1343	Y/N Y/N Y/N
						Y/N Y/N Y/N

Temp in °C | Received on Ice Y/N | Custody Sealed Cooler Y/N | Samples Intact Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Diane Ruddle

SIGNATURE of SAMPLER:

DATE Signed (MM / DD / YY): 09-29-06

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3,31Mar05

Sample Condition Upon Receipt

Pace Analytical

Client Name: Peen Engineering Project # 1039226

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Optional: Proj. Due Date: Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 230194010 Type of Ice: Wet Blue (None) ☐ Samples on ice, cooling process has begun

Cooler Temperature Ambient Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: CL 9-29-06

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: Air		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: SDC **Date:** 9/29/06

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

APPENDIX C

METHODOLOGIES AND PROCEDURES

Standard Operating Procedure 110
Field Notes

Purpose

Complete and accurate field notes are essential to the success of both small and large projects. They allow project managers to reconstruct the exact sequence of events and manage data efficiently and accurately.

Required Equipment

- Field Report form and other appropriate field forms as necessary
- Tape measure
- Graph paper or photocopy of existing map for site diagram (optional)

Procedures

1. Fill out a Field Report form for each day in the field. Include any significant correspondence with the client or contractors and a summary of the work completed. Be sure to get the name and affiliation of all site visitors using correct spelling. Obtain business cards if possible.

2. Use as much detail as possible when documenting data on the standard forms (e.g. Boring or Sampling Probe logs, Monitoring Well Sampling Data form, Survey Level Notes form). Details which are not documented in the field can lead to gaps in the final report.

3. Draw a good site map using accurate measurements or revise a photocopy of an existing site map. A good site map will include:

    - Site boundaries (or features such as street curbs, fence lines etc. that can later be related to site boundaries)
    - Street names or other references that can be related to a site location map
    - Boring and well locations with dimensions to site landmarks
    - Major structures with dimensions
    - North arrow
    - Scale

- Date
- Initials of field person

4. When you get back to the office, organize your notes and data. Then place the Field Report form on top of the rest of your notes and staple them together. If necessary, make a photocopy of forms that require word processing.

5. Put the stapled field notes into a file folder that is clearly labeled as containing field notes for the project.

Standard Operating Procedure 211
Field Soil Classification

Purpose

As soil samples are collected in the field, a visual identification and description will be completed in accordance with ASTM D2488-93. Logs are later prepared from the field notes, and since soil samples are not commonly sent to a lab for further identification and verification of the field classification, the proper description of soils in the field becomes even more important.

Required Equipment

- Log form (boring, sampling probe, trench, etc.) or field notebook.

Procedure

When visually describing soils in the field, the following information should be included (in the order shown):

1. A description of the main soil group within the sample in all capitol letters (e.g., SILTY SAND, CLAY, SILT, etc.).
2. If the soil group is sand or gravel (coarse-grained), include a brief description of the particle grain size (e.g., fine, medium, coarse).
3. Any other soil group present should be described based on the percentages present within the sample (e.g., with few gravel, with trace sand).
4. Describe the color of the main soil group (e.g., brown, gray, etc.).
5. Describe the overall moisture of the soil sample using dry, moist, or wet.
6. Describe the consistency of fine-grained soil (e.g., very soft, soft, firm, hard, very hard).
7. If any unusual occurrences are encountered, information should also be included (e.g., bricks, glass, petroleum odor present, fill).

Examples

The following are examples of correct visual soil classifications:

- *SILTY SAND: fine to medium grained, with few gravel, dark brown, moist.*
- *SANDY CLAY: with trace silt, gray, wet, soft, petroleum odor.*

ASTM Group Symbol

Once a field soil classification is completed, a group symbol (e.g., CL, MH) should be assigned to each soil sample in accordance with ASTM D 2488-93. This group symbol should be included on the final sampling log.

Standard Operating Procedure 212
Organic Vapor Screening

Purpose

Use this procedure to obtain a fast, general measurement of volatile organic compounds in soil.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with potentially contaminated soil and to reduce the risk of cross-contamination.
- Refer to the site-specific Health and Safety Plan for other safety concerns and applicable personal protective equipment.

Required Equipment

- Photoionization detector (PID) equipped with a 10.6 or an 11.8 eV lamp (refer to the site-specific sampling and analysis plan or proposal for proper lamp size)
- PID calibration equipment
- One quart sealable bags, or soil jars, lids and aluminum foil
- Appropriate log forms or note pad for field notes
- Sharpie or permanent marker

Procedure

1. Select a PID equipped with the proper lamp size the afternoon before the field work is scheduled and charge the battery overnight by plugging in the adapter. As the PIDs have no battery gauge, failure to recharge the battery may leave you with a discharged battery and an unusable PID.

2. Calibrate the PID upon arrival at the site or prior to leaving the office. Record all pertinent information on the calibration record located in the case of each PID and record the calibration on the Field Report form.

3. With a gloved hand, fill a dedicated sealable bag or soil jar approximately half full with soil to be screened. Refer to the site-specific sampling and analysis plan or work plan for appropriate sample container. Manually break up the soil clumps within the bag. Seal the bag, or cover the opening of the soil jar with aluminum foil and screw on a lid. Use a marker to write the sample identifier and depth on the bag or jar lid.

4. Shake the sealed bag or soil jar for approximately 15 seconds, then allow the soil to volatilize for at least 10 minutes in an atmosphere of at least 70°F. On cold days it may be necessary place the bag or soil jar inside a heated room or vehicle.

5. After headspace development, shake the sample for another 15 seconds.

6. Complete organic vapor screening within approximately 20 minutes of sample collection. If using soil jars, remove the lid. Pierce the aluminum foil or plastic bag with the probe of the PID. Record the highest meter response within a time period of two to five seconds.

7. Discard the soil samples on-site and dispose of used bags, soil jars, foil, and lids as trash.

Standard Operating Procedure 215
Collecting Soil Samples for Laboratory Analysis

Purpose

Use this procedure to collect soil or other solid media samples for laboratory analysis. Proper sample collection technique will improve the accuracy of results and will help avoid cross contamination.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with potentially contaminated soil and to reduce the risk of cross-contamination.
- Refer to the site-specific Health and Safety Plan for other safety concerns and applicable personal protective equipment.

Required Equipment

- Laboratory sample containers
- Clean cooler(s)
- Temperature blank bottle
- Trip blank for VOC sampling (SOP 327)
- Ice or frozen cold-packs
- Electronic scale
- Permanent marker
- Sealable bags
- Laboratory chain-of-custody form
- Sampling syringe (if necessary)

Procedure

1. Several days before field work is scheduled to begin, call or FAX the laboratory or other lab supply source to order sample containers. Be sure to order extra bottles to allow for breakage, extra samples, etc. If you are unsure of the required sample volumes or proper laboratory sample containers for specific analytical parameters, ask that a written description be included with the bottle order which clarifies sample requirements.

2. Before you leave for the field, be sure that you have the appropriate sample containers and that extra containers are included. Be sure you are aware of sample volume and container requirements.

3. Place ice or a frozen cold pack into each sample cooler before collecting any samples. Double-bag the ice in sealable gallon bags to avoid potential contact of water in the cooler with sample containers.

4. Place a temperature blank into each cooler and under the ice.

5. If some samples may be analyzed for GRO, BETX, or VOCs, include a trip blank in each cooler as described in SOP 327.

6. Before taking a sample, put on a new pair of nitrile gloves.

7. A sample taken for volatile organic analysis is to be taken immediately after the soil is exposed (i.e., directly from the probe sleeve or auger split spoon, excavation side wall, hand auger, etc.). Do not disturb or mix a VOC sample. Never collect a sample from the sealable bag used for organic vapor screening (SOP 212). Samples for DRO are to be collected second and samples for non-VOC or non-DRO analysis are taken last.

8. Prior to VOC (step 9) or DRO (step 10) sample collection the scale must be verified to read a mass of greater than 50 grams within one gram of the expected result. Place a weight of known mass (calibration mass or pre-weighed bottle) on the scale and verify the reading. If the reading is within one gram of the expected result the scale is usable. Record the weight verification on the Field Log. If the reading is more than one gram from the expected weight the scale must be re-calibrated (see SOP 218 if applicable) or a scale that is verified to be correct must be used.

9. Samples collected for GRO, BTEX, or VOCs need to be placed into one pre-weighed glass container containing the preservative methanol and one plastic vial (if necessary). Depending on the laboratory the glass container will have a capacity of either 60 ml or 40 ml. 60 ml containers must be filled with approximately 25 grams of soil (can be between 20 and 35 grams) and 40 ml containers must be filled with approximately 10 grams of soil (can be between 8 and 11 grams). Place one glass container on the scale and zero the scale. Carefully add approximately 25 (or 10) grams (depending on laboratory requirements) of soil to the container. During filling, do not mix or aerate the sample. If necessary, use a dedicated syringe to collect the sample and place it into the sample container. Sample containers with more than 35 (or 11) grams of soil or less than 20 (or 8) grams of soil may be rejected or flagged as outside testing parameters by the laboratory. In addition, if there is no non-volatile analysis, fill a plastic vial with soil to be used by the lab to calculate the moisture content of the soil. The soil in the plastic vial need not be weighed.

10. Samples collected for DRO need to be placed in two pre-weighed glass containers with *no methanol* and one plastic vial (if necessary), using the procedure described in step 9, above.

11. Samples for non-volatile analysis (i.e., metals, PCBs, pesticides, semi-VOCs, etc.) are to be thoroughly mixed prior to sampling. Place the sample in a resealable plastic bag and shake the bag for at least 10 seconds. Sample containers should be filled, but not packed, with soil from the bag.

12. Before placing the lid back on the sample container, clean the jar threads to assure a tight seal.

13. After collecting soil samples, use a permanent marker to label the sample containers with the project name, sample identifier including depth interval, time, date, and your initials.

14. Place the filled sample containers for each location in their own sealable bag. Larger, more fragile containers should be placed in bubble wrap to avoid breakage. Place the sample containers and bags into the cooler immediately. Cover all samples with ice.

15. When all samples are collected, complete the laboratory chain-of-custody form and arrange for shipment to the contract laboratory (as described by SOP 620 –

Chain of Custody Procedures, SOP 630 – Sample Shipping – Peer or Local Carrier, and SOP 640 – Sample Shipping – Overnight Carrier).

Standard Operating Procedure 216
Calibration and Verification of a Thermo Environmental Model 580B PID

Purpose

1. Use this procedure to systematically set the output response of the photoionization detector (PID) to a benzene standard.
2. Use the procedure (starting at step 16) to verify that the response of the PID matches the actual concentration of the calibration gas.

Safety Equipment

- Refer to the site-specific Health and Safety Plan for other safety concerns and applicable personal protective equipment.

Required Equipment

- Thermo Environmental Instruments, Inc. model 580B photoionization detector (PID) equipped with a 10.6 or an 11.8 eV lamp (refer to the site-specific sampling and analysis plan or proposal for proper lamp size)

- 100 ppm isobutylene gas cylinder, associated flow regulator, and poly tubing assembly to connect the gas cylinder to the PID

- Photoionization Detector Calibration Record

Procedure

Calibration and verification of the PID is best completed at the job site, however calibration in the office on the day of the work is acceptable.

1. Check the Calibration Record to determine if the appropriate lamp is installed. If not, change the lamp.

2. Check the ceramic filter at the front of the instrument (if present) and the moisture filter in the probe wand. If either filter is dirty, replace with a new filter. Check for dirt in the probe, if it is dirty, clean it and dry it as well as possible.

3. Screw on the probe tip assembly.

4. Push the shorting plug into the back of the instrument and turn the instrument on.

5. Push the MODE/STORE button once. Push the "-" button 5 times to check that the response factor is 0.65, change if necessary. Push the "-" button one more time to check that the lamp setting (10.6 or 11.8) matches the calibration record, change if necessary.

6. Push MODE/STORE twice.

7. Push the "-" button 4 times; Screen says "RESET TO CALIBRATE".

8. Push RESET.

9. Push the "-" button; Screen says "ZERO GAS, RESET WHEN READY".

10. Push RESET (make sure PID is in "zero" air).

11. When "Zeroed" screen says 'SPAN PPM = 0100, "+" TO CONTINUE'. CHECK calibration gas concentration, push RESET to change if necessary.

12. Push (+); Screen says "SPAN GAS - RESET WHEN READY".

13. Attach the gas source to the probe with the poly tubing and completely open the valve on the calibration gas; push RESET.

14. When the instrument has completed its automatic calibration the screen displays "RESET TO CALIBRATE".

15. Push MODE/STORE.

16. Calibration Verification. Close the valve on the calibration gas and check to make sure the instrument reading returns to 0. With the gas source attached to the PID with the poly tubing, open the valve on the calibration gas and check to make sure the instrument reading equals the calibration gas concentration multiplied by the response factor (e.g., 100 ppm x 0.65 = 65 ppm). If the zero air or calibration gas reading varies more the 2 ppm from the expected reading, repeat the calibration starting at step 7.

17. Close the calibration gas valve and disconnect the gas source.

18. Record the date and time of the calibration or verification on the Calibration Record sheet along with the test status.

19. If the calibration does not complete normally, or if the instrument will not produce the expected reading during the calibration verification, note the failure and attempted remedy on the Calibration Record. After attempting a remedy, repeat the calibration from Step #1. If the calibration does not produce the expected result contact the office to obtain instructions for other potential remedies or to obtain a replacement photoionization detector. Do not use a PID that does not calibrate properly.

Standard Operating Procedure 223
Soil Sampling – Sampling Probe

Purpose

Use a sampling probe to collect soil samples for field screening and laboratory analysis.

Safety Equipment

- Steel-toed boots
- Ear plugs (recommended)
- Wear a dedicated pair of nitrile gloves for each sample to reduce the risk of potential cross-contamination between samples and to reduce the incidence of skin contact with the soil.

Required Equipment

- Measuring tape
- Sampling Probe Log forms

Procedure

1. Ensure all field equipment is clean before starting.
2. Determine the appropriate sample location and identification prior to sampling. Use a tape measure to determine the distance (within 1 foot) from site landmarks. Identify the sampling probe location with the letters "SP-" (or other specified identifier) followed by a number unique to that site. Begin with number 1 and sequentially assign numbers for all sampling probes advanced at the site.
3. Advance the probe to the desired sampling depth.
4. A sampling probe is driven into the soil by a hydraulic hammer and ram. The length and inside diameter of the sampler used is determined by the sampling depths or intervals desired. The standard sampler has a length of either two feet (1 inch diameter) or four feet (2 inch diameter).
5. The probe operator will bring the sampler to the surface and remove the inner plastic tube. Record the length (in feet) of sample recovery (length of soil column) in the tube.
6. Cut the tube open lengthwise for sample removal. Use a gloved hand to transfer the soil from the tube directly into a sample container as described in SOP 215 –

Collecting Soil Samples for Laboratory Analysis. If there is a soil change within the tube, a sample should be taken of each stratum and note its location in your notes.

7. Record the sample identifier, depth, and time of sample collection on the sample container. Examples of properly labeled samples are: SP-1 (6") or SP-2 (8-10'). Record pertinent information about the sample location and write a description of the soil samples recovered in Sampling Probe Log form using SOP 211 – Field Soil Classification.

8. Be sure the probe operator decontaminates the sampler between samples to minimize cross contamination using a brush in a detergent and water wash, followed by a clean water rinse. A new plastic tube is used for each sample.

9. Discard gloves and use new gloves for the next sample interval.

Standard Operating Procedure 423
Sampling Soil Vapor for Volatile Organic Compounds

Purpose

Use this procedure to collect a soil vapor sample via a Summa canister. Proper and consistent sample collection technique will improve the accuracy of results.

Required Equipment

- Summa canister with valve (one for each sample)
- 5/16" ID flexible tubing
- Air-stone (Method 2)
- Vinyl tubing (Method 2)
- Sensidyne hand pump
- Photoionization Detector (PID)
- Crescent wrench
- Permanent marker
- Laboratory chain-of custody form

Procedures

1. Before the field work is scheduled to begin, order Summa canisters (one per sample collected) from the laboratory. Allow 2 to 7 days for delivery.
2. Soil vapor samples are collected using two methods.

Method 1 - Soil Sampling Probe

a. The sampling probe operator will advance the sampling probe to the required depth for the soil vapor sample. He will then insert tubing to the base of the sampling probe and seal it off.

b. Follow the instructions provided with the Summa canister to connect the rigid tubing supplied by the laboratory to the Summa canister. Tighten the nut on the top of the canister with the crescent wrench. DO NOT OVER-TIGHTEN.

c. Use the Sensidyne hand pump to purge air out of the sample tubing before taking the soil vapor sample. Connect the hand pump to the sample tubing that is inserted in the sampling probe. Pull the handle on the hand pump two full stokes (until it stops) then pinch off the sample tube and remove the hand pump. This has purged approximately 200 cubic centimeters of air. Be sure to pinch the sample tubing until you are ready to collect the sample so atmospheric air does not re-enter the tubing.

d. Connect the rigid tubing that is connected to the canister to the sample tubing inserted into the sampling probe.

e. Un-pinch the sample tubing and open the valve on the Summa canister. You will notice a hissing sound as the canister is drawing in the soil vapor sample. Wait another minute or two after the hissing has stopped before continuing.

f. After waiting a minute or two after the hissing has stopped, close the valve on the Summa canister and separate the rigid tubing from the sample tubing. The sample is now complete.

g. Turn on the PID. Connect the sample tubing to the PID and allow the reading to stabilize. Record the PID reading in the field notes and also in the Remarks section of the Chain-of-Custody for the associated Summa.

h. Remove the rigid tubing from the Summa canister and put it back in the box with the Summa canister. The laboratory cleans these tubes and re-uses them.

i. Identify the sample with a permanent marker on the tag attached to the Summa canister. Include the date and time the sample was collected, the project name and the sample collector's initials on the tag.

j. Continue to the next location repeating these steps.

Method 2 - Air Stone and Vinyl Tube

a. A hand auger or a hollow stem auger is used to advance a soil boring to the required depth for the soil vapor sample.

b. Connect an air stone to the end of vinyl tubing and drop the air stone to the bottom of the soil boring.

c. Place clean sand in the soil boring to encapsulate the air stone. Add enough to bring the sand approximately one foot above the air stone.

d. Next insert bentonite grout to seal off the soil boring up to 6" below the ground surface.

e. Place bentonite chips in the remainder of the soil boring.

f. Continue by following steps b. through i. for the Soil Sampling Probe method.

g. When done collecting the sample, remove the tubing and air stone.

3. When the samples are collected, complete the laboratory chain-of-custody form. Analyze the samples by the method required by the applicable regulatory agency and sampling plan. The method may be TO-15 MSV – Minnesota Soil Vapor, TO-15, TO-14, or some combination.

4. Arrange for shipment to the contract laboratory (as described by SOP 620 – Chain of Custody Procedures, SOP 630 – Sample Shipping, and SOP 640 – Sample Shipping – Overnight Carrier).

Standard Operating Procedure 610
Sample Preservation

Purpose

Sample preservation techniques are intended to prevent substantial alteration of the chemical species present in the sample at the moment it was collected.

Required Equipment

- Clean cooler with temperature blank bottle
- Ice or frozen cold packs
- Sample containers with media

Procedure

1. Immediately after media collection, all sample containers will be placed in a clean cooler under ice, to thermally preserve the samples. The cooler must also contain a temperature blank bottle, also kept under the ice.

2. The sample containers will be kept in an environment that is between 0° and 4° Celsius until the laboratory receives the samples. The sample custodian must ensure that some ice remains in the cooler and that excess water from melted ice is drained.

3. In addition, chemical preservatives may be added to individual samples depending on the analytical methods required. In general, the laboratory will supply pre-preserved sample containers for the project and only laboratory-grade preservatives will be used.

Standard Operating Procedure 620
Chain of Custody Procedures

Purpose

The purpose of following chain of custody procedures is to maintain the quality of all samples during collection, transportation, and storage prior to analysis. Chain of custody documentation serves three main purposes:

1. Communication of analytical instructions from Peer to the analytical laboratory.
2. Permanent record of samples provided to the laboratory.
3. Documentation that samples were handled only by authorized personnel and were not available for tampering prior to analysis.

Procedure

Field personnel will complete sample labels and chain of custody forms to be used for tracking samples.

Sample Container Labels

1. Each sample will be assigned a unique identification number that will be affixed to a label on the sample container.
2. Additional information such as sampling location, date and time of collection, and person who collected the sample will also be included on the sample labels.
3. Labeled sample containers, a temperature blank bottle, and ice will be included in each cooler to be shipped to the laboratory.

Chain of Custody Form(s)

If multiple coolers are required to contain all samples from one sampling location, a separate chain of custody form will be prepared for each cooler. At a minimum, the chain of custody form will include the following information:

- Client or project name, or unique identifier, if confidential
- Sample collector's name and signature
- Peer's mailing address and phone number
- Name of project manager or person who will receive data
- Analytical laboratory's name and city

- Description of each sample including
  - Unique identifier and matrix (solid, aqueous, etc.)
  - Date and time of collection
  - Type of analysis required
- Temperature blank listed as a sample
- Dated and timed signatures of persons involved in chain of possession
- Date and method of shipment

Completion of Field Personnel Responsibility

Record all pertinent information about the samples on the field sampling forms or in the field logbook. Upon completion of the chain of custody forms, field personnel will sign the chain of custody forms along with the date and time.

If the field personnel will transfer the custody of the samples to someone other than the laboratory, affix a custody tape to the cooler to prevent the lid from opening. Write the time, date, and initials on the custody tape.

Sample Custody

Each time the custody of a sample or group of samples is transferred, a signature, date, and time will be entered onto the chain of custody form. A sample will be considered to be in custody if it is in any one of the following states:

1. In actual physical possession
2. In view, after being in physical possession
3. In physical possession and locked up so that no one can tamper with it
4. In a secured area such as a locked storage shed or locked vehicle, restricted to authorized personnel

NOTE: While samples are in an individual's custody, they are to ensure that the cooler containing the samples has ice or a frozen cold pack.

Standard Operating Procedure 630
Sample Shipping – Peer or Local Carrier

Purpose

Proper packaging methods and shipment of samples by Peer or a local carrier will:

- Minimize the potential for sample breakage, leakage, or cross contamination.
- Provide a clear record of sample custody from collection to analysis.

Safety Equipment

Wear clean nitrile gloves when handling coolers or sample containers to reduce the incidence of skin contact with contaminants.

Required Equipment

- Coolers or similar shipping containers
- Ice or cold packs
- Temperature blank bottle
- Sample containers with media
- Sealable plastic bags
- Protective wrapping and packaging materials
- Paper towels
- Chain of custody forms

Procedure

1. Verify that each sample container has been labeled with unique sample identification. The sample identification should also correspond to the chain of custody record that will accompany the sample to the laboratory (see SOP 620 Chain of Custody Procedures).

2. Ensure that a temperature blank bottle is in each cooler and included on the chain of custody form.

3. Any dirt on the outside of sample containers should be wiped clean with a paper towel.

4. Optionally, place sample containers inside of sealable plastic bags to reduce the potential for cross contamination or breakage during sample transport. If necessary, protective material should be placed between sample containers to prevent breakage during transport.

5. Reusable cold packs or ice placed in sealable plastic bags should be distributed over the top of the samples. Frozen cold packs or ice must remain in the cooler until the samples reach the laboratory.

6. Place the chain of custody record on top of or inside the cooler.

7. The filled cooler and completed chain of custody form must be delivered to the laboratory before the close of the next business day after sample collection (never longer than 72 hours). One of the following methods will be used:

   a. The sampling technician will personally deliver the samples to the laboratory.

   b. The sampling technician will bring the samples to the Peer office for later pickup by laboratory representative or bonded courier. The technician may either contact the laboratory directly to arrange pickup or transfer custody of the samples to the Peer receptionist. If custody is transferred to the receptionist, the receptionist will contact the laboratory and maintain responsibility for the sample custody, sample condition, and timely pickup.

APPENDIX D

SOIL PROBE LOGS

SAMPLING PROBE LOG

Peer Engineering

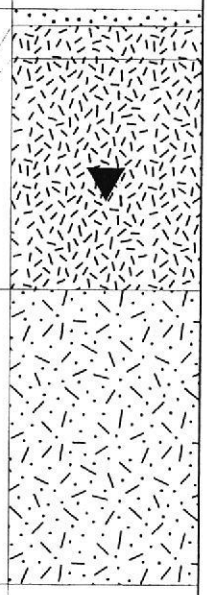
Boring No.: SB-1

Project: Sinclair - New Hope

Contractor/Crew: Matrix | Date Started: 9/27/06 | Date Completed: 9/27/06

Drilling Method: Push Probe | Elevation (ft): 0 | Total Depth (ft): 20 | Depth to Water (ft): 7.5

Elev. (ft)	Depth (ft)	Sample	Rec. (ft)	PID (ppm)	Description	Profile	Remarks
0	0	SB-1 (0-5')	3.1'	0.0	Asphalt and Class V		
	2			0.0	Sand, medium to coarse, poorly sorted, brown, moist		
-4	4				Silty clay, brown, soft, moist		
	6	SB-1 (5-10')	1.11'	0.0	Silty clay, soft, brown with areas of blue/green and rust red		
-8	8			0.0			
	10						
-12	12	SB-1 (10-15')	2.9'	0.0	Clayey sand, medium to coarse, poorly sorted, very dense, light brown, moist, some gravel		
	14			0.0			
-16	16	SB-1 (15-20')	1.1'	0.0			
	18			0.0			
-20	20				Small piece of concrete looking rock End of Probe		
	22						
-24	24						
	26						
-28	28						
	30						
-32	32						
	34						
-36	36						
	38						
-40	40						
	42						
-44	44						
	46						
-48	48						
	50						



Peer Project Number: 15111.02 | Peer Personnel: DKR |

SAMPLING PROBE LOG

Peer Engineering

Boring No.: SB-2

Project: Sinclair - New Hope

Contractor/Crew: Matrix	Date Started: 9/27/06	Date Completed: 9/27/06	
Drilling Method: Push Probe	Elevation (ft): 0	Total Depth (ft): 20	Depth to Water (ft): ---

Elev. (ft)	Depth (ft)	Sample	Rec. (ft)	PID (ppm)	Description	Profile	Remarks
0	0	SB-2 (0-5')	2.9'	0.0	Class V and Asphalt		Piece of black, plastic weave at 23"
	2						
-4	4			0.0	Silty sand, fine to medium, poorly sorted, some gravel, brown, moist		
	6	SB-2 (5-10')	3'	0.0	Silt, soft, light brown with blue/gray and red blotches, moist		
-8	8			0.0	Silty sand, medium to coarse, poorly sorted, some gravel, brown, moist		
	10						
-12	12				No recovery		
	14						
-16	16	SB-2 (15-20')	3.5'		Sandy clay, some gravel, brown		
	18			10.7	Sandy clay, some gravel, blue/gray with odor		
-20	20			0.0	End of Probe		
	22						
-24	24						
	26						
-28	28						
	30						
-32	32						
	34						
-36	36						
	38						
-40	40						
	42						
-44	44						
	46						
-48	48						
	50						

SAMPLING PROBE LOG

Peer Engineering

Boring No.: SB-3

Project: Sinclair - New Hope

Contractor/Crew: Matrix | Date Started: 9/27/06 | Date Completed: 9/27/06

Drilling Method: Push Probe | Elevation (ft): 0 | Total Depth (ft): 20 | Depth to Water (ft): 6

Elev. (ft)	Depth (ft)	Sample	Rec. (ft)	PID (ppm)	Description	Profile	Remarks
0	0			0.0	Class V and Asphalt		
	2	SB-3 (0-5')	3.8'	0.0	Sand, medium to coarse, poorly sorted, some gravel, brown, moist		1" Concrete piece at 36-37"
-4	4						
	6	SB-3 (5-10')	2.9'	0.0	Silty sand, fine to medium, poorly sorted, some gravel, dense, brown with areas of dark brown, moist, wet at approximately 6' for 1"		
-8	8			0.0			
	10						
-12	12	SB-3 (10-15')	1.1'	0.0	Sandy clay, fine to medium, some gravel, brown, moist, very dense		
	14			0.0			
-16	16	SB-3 (15-20')	2.10'	0.0	Sandy clay, fine to medium, trace gravel, brown, moist, very dense		
	18			0.0			
-20	20				End of Probe		
	22						
-24	24						
	26						
-28	28						
	30						
-32	32						
	34						
-36	36						
	38						
-40	40						
	42						
-44	44						
	46						
-48	48						
	50						

SAMPLING PROBE LOG

Peer Engineering

Boring No.: SB-4

Project: Sinclair - New Hope

Contractor/Crew: Matrix | Date Started: 9/27/06 | Date Completed: 9/27/06

Drilling Method: Push Probe | Elevation (ft): 0 | Total Depth (ft): 20 | Depth to Water (ft): 3

Elev. (ft)	Depth (ft)	Sample	Rec. (ft)	PID (ppm)	Description	Profile	Remarks
0	0				Asphalt and Class V		
	2	SB-4 (0-5')	4.7'	1.2	Sand, medium to coarse, poorly sorted, some gravel, black, moist		
					Silt, blue/gray with blotches of red, moist		
				3.8			
-4	4				Silt, blue/gray with blotches of red, wet		
	6	SB-4 (5-10')	3.7'	3.4			
-8	8			3.8	Sandy clay, fine to medium, poorly sorted, brown with blotches of blue/gray, trace fragments of asphalt		
	10						
-12	12	SB-4 (10-15')	2.11'	1.2	Sandy clay, fine to medium, poorly sorted, trace gravel, brown with blotches of blue/gray		
	14			1.2			
-16	16	SB-4 (15-20')	2.13'	2.1	Sandy clay, fine to medium, poorly sorted, dark gray		
	18						
-20	20			0.0	End of Probe		
	22						
-24	24						
	26						
-28	28						
	30						
-32	32						
	34						
-36	36						
	38						
-40	40						
	42						
-44	44						
	46						
-48	48						
	50						

Peer Project Number: 15111.02 | Peer Personnel: DKR |

SAMPLING PROBE LOG

Peer Engineering

Boring No.: SB-5

Project: Sinclair - New Hope

Contractor/Crew: Matrix | Date Started: 9/28/06 | Date Completed: 9/28/06

Drilling Method: Push Probe | Elevation (ft): 0 | Total Depth (ft): 36 | Depth to Water (ft): 6

Elev. (ft)	Depth (ft)	Sample	Rec. (ft)	PID (ppm)	Description	Profile	Remarks
0	0			21			4" Asphalt, 4-14" Class V
	2	SB-5 (0-4')	2.7'	296	Silty clay, brown with areas of blue/gray and rust, trace gravel, petroleum odor		26-28" pieces of concrete
-4	4			93			
	6	SB-5 (4-8')	2.5'	426			Water at 6'
-8	8			533			Layer of coarse sand at 19-19.5"' and 24-25", strong petroleum odor in layers of sand
	10	SB-5 (8-12')	1.10'	520	Sand, medium to coarse, poorly sorted, trace gravel, gray, strong petroleum odor		
-12	12			29			
	14	SB-5 (12-16')	3.7'	48	Sandy silt, fine to medium, trace gravel, brown, very dense, moist, wet at 14' for 3"		
-16	16			31			
	18	SB-5 (16-20')	3.10'	27	Silty sandy clay, fine to medium, trace gravel, gray/brown, wet, very dense, slight petroleum odor		
-20	20			10			
	22	SB-5 (20-24')	3.10'	41	Silty sandy clay, fine to medium, trace gravel, gray/brown, very dense, moist		
-24	24			2			
	26	SB-5 (24-28')	3.9'	1.2			
-28	28			2			
	30	SB-5 (28-32')	3.8'	4	Silty sandy clay, fine to medium, trace gravel, brown, very dense, moist		
-32	32			2			
	34	SB-5 (32-36')	3.6'	3			
-36	36				End of Probe		
	38						
-40	40						
	42						
-44	44						
	46						
-48	48						
	50						

Peer Project Number: 15111.02 | Peer Personnel: DKR |

SAMPLING PROBE LOG

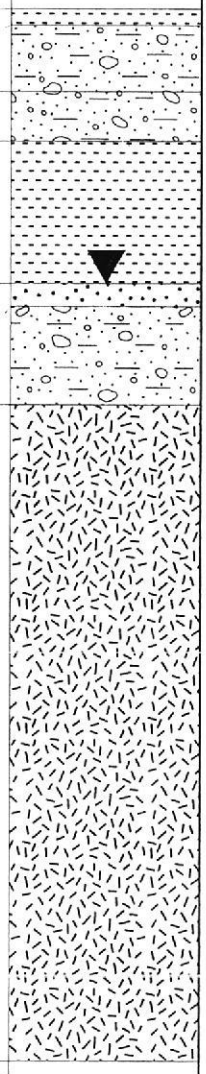
Peer Engineering

Boring No.: SB-6

Project: Sinclair - New Hope

Contractor/Crew: Matrix	Date Started: 9/28/06	Date Completed: 9/28/06	
Drilling Method: Push Probe	Elevation (ft): 0	Total Depth (ft): 36	Depth to Water (ft): 12

Elev. (ft)	Depth (ft)	Sample	Rec. (ft)	PID (ppm)	Description	Remarks
0	0			0		Asphalt and Class V
	2	SB-6 (0-4')	1.3'	0		
-4	4			0	Silt, brown, wet	
	6	SB-6 (4-8')	2.2'	3	Sandy silt, fine to medium, poorly sorted, brown, trace gravel, moist Sandy silt, fine to medium, poorly sorted, blue/gray, moist, petroleum odor	
-8	8			269		
	10	SB-6 (8-12')	2.10'	332	Silt, brown, areas of blue/gray	
-12	12			65	Sand, coase, poorly sorted, some gravel, gray, wet	
	14	SB-6 (12-16')	2.10'	2	Sandy silt, fine to medium, brown, trace gravel, moist	
-16	16			0		
	18	SB-6 (16-20')	3'	2		
-20	20			0		
	22	SB-6 (20-24')	4'	0		
-24	24			0		
	26	SB-6 (24-28')	3.10'	0	Silt clay, dark gray, trace gravel, moist, very dense	
-28	28			0		
	30	SB-6 (28-32')	3.11'	0		
-32	32			0		
	34	SB-6 (32-36')	3.11'	0		
-36	36				End of Probe	
	38					
-40	40					
	42					
-44	44					
	46					
-48	48					
	50					



Peer Project Number: 15111.02 | Peer Personnel: DKR |

SAMPLING PROBE LOG

Peer Engineering

Boring No.: SB-7

Project: Sinclair - New Hope

Contractor/Crew: Matrix | Date Started: 9/27/06 | Date Completed: 9/27/06

Drilling Method: Push Probe | Elevation (ft): 0 | Total Depth (ft): 32 | Depth to Water (ft): 8

Elev. (ft)	Depth (ft)	Sample	Rec. (ft)	PID (ppm)	Description	Profile	Remarks
0	0			2			0-16" Asphalt and Class V
	2	SB-7 (0-4')	1.9'	4	Silty sand, fine to medium, light brown blotches, blue/gray and dark brown, moist, slight petroleum odor		Black plastic weave at 16"
-4	4			225	Sand, medium to coarse, poorly sorted, blue/gray, moist, slight odor		
	6	SB-7 (4-8')	2.3'	327	Sandy clay, fine to medium, soft, gray/blue, strong petroleum odor		
-8	8			64	Silt, soft, wet, blue/gray, slight odor		
	10	SB-7 (8-12')	2.5'	421	Sand, medium to coarse, poorly sorted, medium dense, some gravel, blue/gray, strong odor		
-12	12			78	Silty sand, medium to coarse, poorly sorted, blue/gray, moist, very dense, strong odor		
	14	SB-7 (12-16')	3.8'	67	Silty sand, medium to coarse, poorly sorted, brown, moist, very dense, strong odor		
-16	16			2			
	18	SB-7 (16-20')	3.6'	2			
-20	20			14	Sandy clay, medium to coarse, some gravel, moist, dark brown		
	22	SB-7 (20-24')	3.10'	10			
-24	24			0			
	26	SB-7 (24-28')	4'	0			
-28	28			0	Silty clay, trace gravel, brown, moist		
	30	SB-7 (28-32')	4'	0			
-32	32				End of Probe		
	34						
-36	36						
	38						
-40	40						
	42						
-44	44						
	46						
-48	48						
	50						

Peer Project Number: 15111.02 | Peer Personnel: DKR | Page 1 of 1

SAMPLING PROBE LOG

Peer Engineering

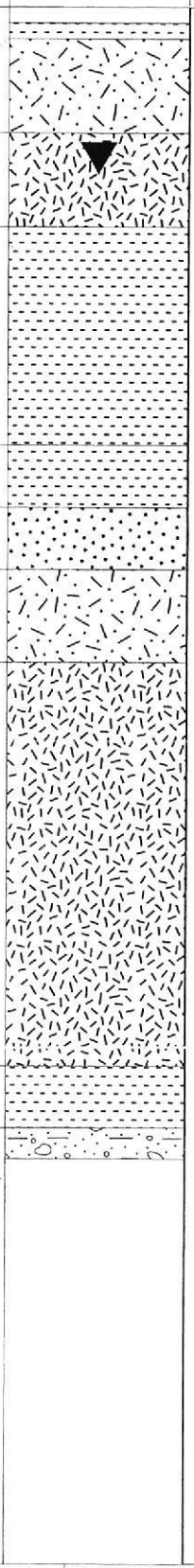
Boring No.: SB-8

Project: Sinclair - New Hope

Contractor/Crew: Matrix | Date Started: 9/28/06 | Date Completed: 9/28/06

Drilling Method: Push Probe | Elevation (ft): 0 | Total Depth (ft): 37 | Depth to Water (ft): 5

Elev. (ft)	Depth (ft)	Sample	Rec. (ft)	PID (ppm)	Description	Remarks
0	0			0	Pea rock	4" Concrete
	2	SB-8 (0-4')	1.10'		Silt, soft, gray, moist	
				0	Sandy clay, fine to medium, soft, brown, moist	
-4	4			0		
	6	SB-8 (4-8')	3.11'		Silty clay, very dense, brown, some gravel, wet	
				1.2		
-8	8			241		
	10	SB-8 (8-12')	3.1'		Silt, brown with blotches blue/gray, moist	
				359		
-12	12			19		Layer of black silt with strong petroleum odor at 8.5'
	14	SB-8 (12-16')	2.11'			
				19	Silt, brown, with some gravel	
-16	16			46	Sand, medium to coarse, poorly sorted, blue/gray, moist	
	18	SB-8 (16-20')	2.8'			
				22	Sandy clay, fine to medium, trace gravel, brown with areas of blue/gray, strong petroleum odor	
-20	20			0		
	22	SB-8 (20-24')	4'			
				0		
-24	24			0		
	26	SB-8 (24-28')	4.1'			
				0	Silty clay, trace gravel, dark brown, moist, very dense	
-28	28			0		
	30	SB-8 (28-32')	3.11'			
				0		
-32	32			0		
	34	SB-8 (32-36')	3.10'			
				0	Silt, brown, trace gravel and rock, moist	
-36	36	SB-8 (36-37')	.9"	0	Silty sand, medium to coarse, poorly sorted, soft, brown	
	38				End of Probe	
-40	40					
	42					
-44	44					
	46					
-48	48					
	50					



Peer Project Number: 15111.02 | Peer Personnel: DKR | Page 1 of 1

APPENDIX G

SPATIAL DATA REPORTING FORM

Petroleum Remediation Program
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

Spatial Data Reporting Form

Guidance Document 1-03a
(For complete instructions, see Guidance Document 1-03.)

Part 1. Background

Has a site location data point been submitted for this site (circle/highlight)? YES or NO
If yes, you do not need to complete Part 2 of this form but should complete Part 3 if there are additional site features to report. This form can be submitted electronically if desired (e.g., as an e-mail attachment to the project manager).

MPCA Site ID: **LEAK 10868**
Site Name: **Sinclair Station**
Data Collection Date: **10-6-2005**
Name of Person Who Collected Data: **Jeremy Hanson**
Organization Name: **Peer Engineering, Inc**
Organization Type: **Consulting Firm**

Part 2. Site Location (use one of the three spatial data reporting formats provided)

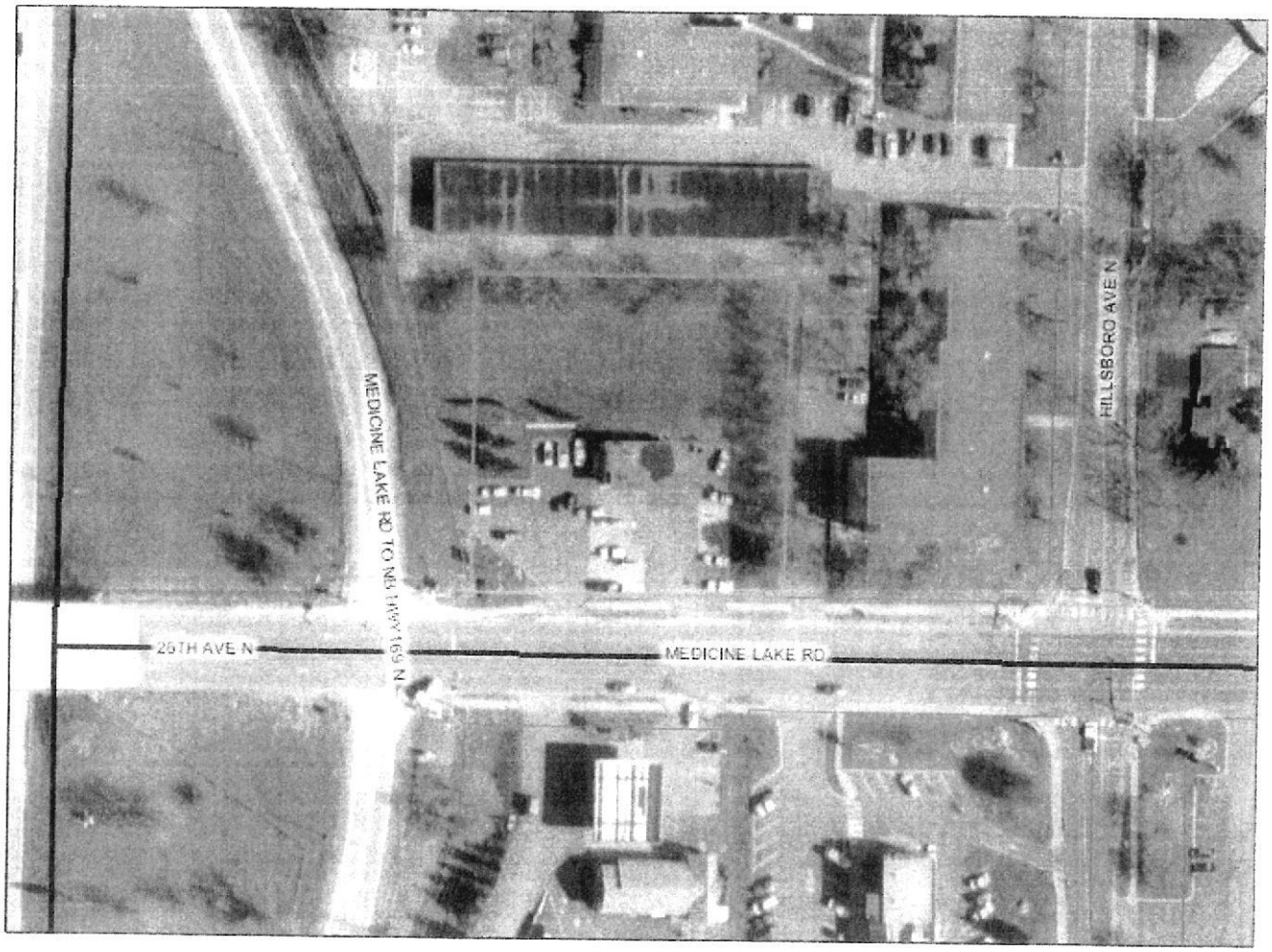
Point Description: **Old Tank Basin**
Collection Method: **MPCA's "What's In My Neighborhood" Site**
Datum (circle/highlight): WGS84 **NAD83**
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): **468557.93 E** UTM - Y (Northing): **4983879.61 N**
UTM Zone: **15E**

Point Description: **New Tank Basin**
Collection Method: **MPCA's "What's In My Neighborhood" Site**
Datum (circle/highlight): WGS84 **NAD83**
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): **468538.78 E** UTM - Y (Northing): **4983868.58 N**
UTM Zone: **15E**

APPENDIX I

AERIAL PHOTOGRAPH

1994 Aerial Photograph



N

Photograph provided by Hennepin County Taxpayer Services; October 17, 2006.

APPENDIX J

RECEPTOR LETTER, ADDRESSES & RESPONSE

Peer Engineering, Inc.
7615 Golden Triangle Dr., Suite N
Eden Prairie, MN 55344
(952) 831-3341 Fax (952) 831-4552

Peer Engineering
Integrated Environmental Solutions

October 17, 2006

Dear Home/Property/Business Owner:

Peer Engineering, Inc. (Peer) has been retained to complete a vapor survey in the vicinity of the property located on 9456 Medicine Lake Road. The survey is being conducted in response to a petroleum release at the site. The survey is a requirement of the Minnesota Pollution Control Agency (MPCA) at petroleum release sites.

Based on the investigation performed to date, there is no indication that petroleum impacts have occurred to your property. This type of survey is typically required to ensure the safety and well being of the nearby residents and occupants of commercial structures.

We would like you to complete the enclosed survey form to provide information to us regarding:

- Confirmation of city water service to the property
- Active or abandoned water wells on your property
- Buried fuel tanks on your property (now or in the past)
- Basements, cellars or sumps on your property

Please take a few minutes to fill out the enclosed survey, then mail it back to me in the enclosed self-addressed, stamped envelope. **If we do not receive a response from you, we will assume that you do not have any active or abandoned wells or a basement on your property.** Thank you for your time and assistance.

If you have any questions, feel free to contact me at (952) 831-3341.

Sincerely,
Peer Engineering, Inc.

Diane K. Ruddle
Environmental Professional

Enclosure

Please complete the following survey and return it in the enclosed envelope to:

Peer Engineering, Inc.
7615 Golden Triangle Dr., Suite N
Eden Prairie, Minnesota 55344

NAME: _____

ADDRESS: _____

_____

PHONE NUMBER: _____

(1) Are you currently hooked up to the city water supply?

(circle one) **Yes** **No** **Don't Know**

(2) To the best of my knowledge, my property **does** / **does not** (*circle one*) have an active private water well.

If you have a well please supply as much information about the well as possible:

Date installed: _____

Depth (below ground surface) the well is completed to: _____

Diameter of well casing: _____

Use (irrigation/industrial/primary water supply): _____

(3) To the best of my knowledge, the property **does** / **does not** *(circle one)* have an abandoned water well. If so, use the back of the form to supply as much information about the well as possible.

(4) To the best of my knowledge, the property **does(did)** / **does not(did not)** (*circle one*) have an underground storage tank (not in basement) containing a petroleum product. If so, use the back of this form to supply information such as the tank contents, size, age and condition.

(5) Is there a sub-grade area (i.e., basement, cellar or sump) on the property?
yes / **no** *(circle one)*

If yes, have you noticed any petroleum vapors in the sub-grade area?
yes / **no** *(circle one)*

Medicine Lake Winner Station	9405 Medicine Lake Road	Golden Valley	55427
McDonalds	9315 Medicine Lake Road	Golden Valley	55427
Hillsboro Court- Main Office	2911 Hillsboro Ave. N.	New Hope	55427

Please complete the following survey and return it in the enclosed envelope to:

Peer Engineering, Inc.
7615 Golden Triangle Dr., Suite N
Eden Prairie, Minnesota 55344

NAME: Hillsboro Court Apts.	Burgundy Apts.
ADDRESS: 2701 - 2731 Hillsboro Ave. N	2911 Hillsboro Ave. N
New Hope, MN 55427	New Hope, MN 55427
PHONE NUMBER: 763-545-0380	763-545-0380

(1) Are you currently hooked up to the city water supply?

(circle one) (Yes) **No** **Don't Know**

(2) To the best of my knowledge, my property **does** / (**does not**) (*circle one*) have an active private water well.

If you have a well please supply as much information about the well as possible:

Date installed: _____

Depth (below ground surface) the well is completed to: _____

Diameter of well casing: _____

Use (irrigation/industrial/primary water supply): _____

(3) To the best of my knowledge, the property **does** / (**does not**) *(circle one)* have an abandoned water well. If so, use the back of the form to supply as much information about the well as possible.

(4) To the best of my knowledge, the property **does(did)** / (**does not(did not)**) (*circle one*) have an underground storage tank (not in basement) containing a petroleum product. If so, use the back of this form to supply information such as the tank contents, size, age and condition.

(5) Is there a sub-grade area (i.e., basement, cellar or sump) on the property?
yes / **no** *(circle one)*

If yes, have you noticed any petroleum vapors in th
yes / **no** *(circle one)*

Kimberley Beto
Property Supervisor

kim@kmsapartments.com

KMS INC MANAGEMENT

5801 S. Cedar Lake Rd.
Suite A
St. Louis Park
MN 55416

TELEPHONE: (952)593-9930 • FAX: (952)544-0599