TRIAD
ENVIRONMENTAL
CONSULTANTS, INC.
AND ASSOCIATES

3519 Clemmons Road
Clemmons, NC 27012
Telephone & Fax
(919) 766-0810

File Code 4
Gu. Co.
Draper Corp.

October 18, 1993

RECEIVED
OCT 19 1993

Ms. Kelly C. Gage
Guilford County Emergency Services
Post Office Box 18807
Greensboro, North Carolina 27419-8807

Re: Site Sensitivity Evaluations:
Former Battery Room Area
Former 20,000 Gallon Diesel UST area
Draper Corporation, 5644 Hornaday Road
Greensboro, North Carolina

Dear Ms. Gage:

Enclosed please find one (1) copy each of the two (2) above referenced Site Sensitivity Evaluations for your review. If you have any questions concerning these reports, please contact me at the above letterhead address or at (919) 766-0810.

Respectfully,

Dan M. Groome

Dan M. Groome, P.G.
TRIAD ENVIRONMENTAL CONSULTANTS, INC.

DMG/kjl
Encl

October 13, 1993

RECEIVED
OCT 19 1993

Site Sensitivity Evaluation
Former 20,000 Gallon Diesel Fuel UST Area
Draper Corporation
5644 Hornaday Road
Greensboro, North Carolina

Prepared for:

Mr. Denny Walker
Draper Corporation
5644 Hornaday Road
Greensboro, North Carolina 27419

Prepared By:

Dan M. Groome, P.G.
Triad Environmental Consultants, Inc.
3519 Clemmons Road
Clemmons, North Carolina 27012

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1.0 INTRODUCTION

On December 11, 1992, a 20,000 gallon steel underground storage tank (UST) was removed from the subject site. Laboratory analysis of a soil sample (BS-3-14) from beneath the UST indicated a Total Petroleum Hydrocarbon (TPH - EPA Method 3550) concentration of 60 parts per million (ppm). Also, a soil sample (HB-4-1) obtained from the dispenser area indicated a concentration of 46 ppm TPH. This report details the results of a Site Sensitivity Evaluation (SSE) prepared in accordance with North Carolina Department of Environmental Management (NCDEM) guidelines.

2.0 INVESTIGATIVE PROCEDURES

In order to assemble information necessary for a SSE, a soil boring (SSE-1) was performed to a depth of twenty (20) feet at the location shown on Figure 1. Continuous split spoon sampling was performed at depths of fourteen (14) to twenty (20) feet. Also, a hand auger boring was performed at the dispenser location of a depth of two (2) feet and a soil sample (SSE-4/2) was obtained.

The soil samples were collected in accordance with Triad Environmental Consultants, Inc.'s standard sampling procedures as presented in Appendix I. The samples were submitted to a subcontract laboratory and analyzed for Total Petroleum Hydrocarbons - Diesel Range by EPA Method 3550 GC and Total Petroleum Fuel Hydrocarbons - Gasoline Range by EPA Method 5030 GC. A copy of the laboratory results and the associated Chain of Custody records are included as Appendix II. A summary of the

laboratory analysis is included in Table 1.

Table 1

Soil Sample Laboratory Results
Former 20,000 Gallon UST Diesel Fuel UST Area
Draper Corporation
5644 Hornaday Road
Greensboro, North Carolina

Sample I.D.	Sample Interval Depth (feet)	EPA Method 3550* TPH-DR (ppm**)	EPA Method 5030+ TPH-GR (ppm)
SSE-1/ 14-16	14-16	14	BDL++
SSE-2/ 16-18	16-18	BDL	75
SSE-3/ 18-20	18-20	23	BDL
SSE-4/2	1.5-2.0	122	BDL

* EPA Method 3530 - Total Petroleum Hydrocarbons
Laboratory Detection Limit = 10 ppm
** ppm = parts per million
\+ EPA Method 5030 - Total Petroleum Fuel Hydrocarbons
Laboratory Detection Limit = 10 ppm
++ BDL = Below Detection Limit

3.0 SITE SENSITIVITY EVALUATION

Based upon the information obtained from the soil borings performed on the site and visual observations during tank removal, a site sensitivity evaluation score of 80 was determined. This yields an initial cleanup level of 60 ppm for the boiling point fuels as measured by EPA Method 5030 and an initial cleanup level of 240 ppm for high boiling point fuels as determined by EPA Method 3550.

No water supply wells are known to be contaminated in the

area. The only known water supply well within 1500 feet of the site is a fire protection water supply well located on site. This well is not presently in use, and is planned to be abandoned in the future by Guilford Mills, the present owner. The area is served by municipal water supplies. Based on these criteria, this site is placed in category O, which places the final cleanup level at 120 ppm for low boiling point fuels and 480 ppm for high boiling point fuels. The highest concentration of petroleum hydrocarbons encountered as measured by EPA Method 5030 was 75 ppm and the high concentration of Petroleum Hydrocarbons encountered as measured by EPA Method 3550 was 12 ppm; therefore, no further remedial action should be required in this area.

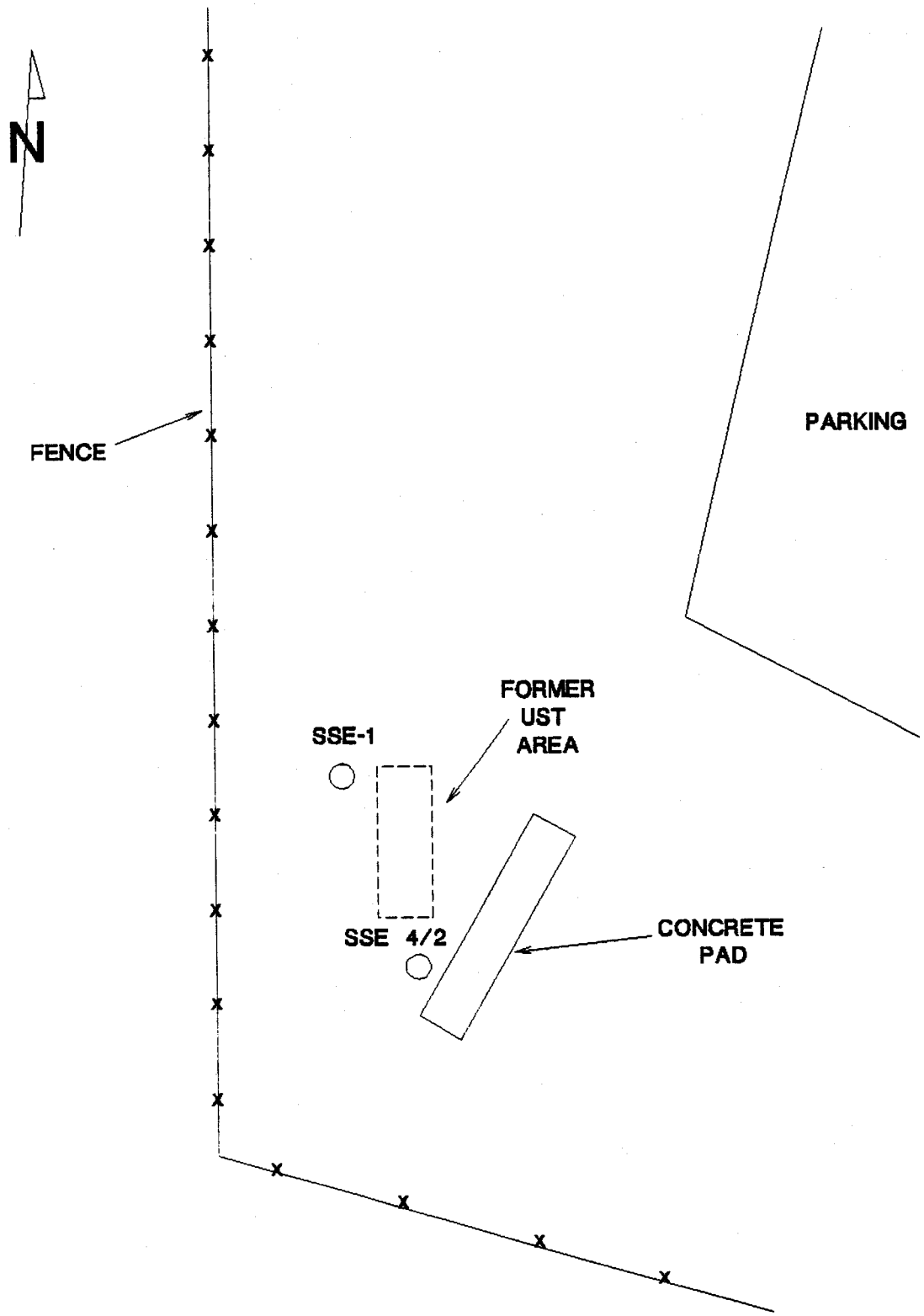

FIGURE 1 - SOIL BORING LOCATIONS

0 40 1" = 40' 80 120

TRIAD ENVIRONMENTAL CONSULTANTS, INC.
2639 CLEMMONS ROAD
CLEMMONS, NC 27012
TELEPHONE AND FAX
(919) 766-0810

DRAPER CORPORATION
HORNADAY ROAD
GREENSBORO, NC

TRIAD ENVIRONMENTAL CONSULTANTS, INC.

STANDARD DECONTAMINATION AND
SAMPLE HANDLING PROCEDURES

EQUIPMENT DECONTAMINATION, SOIL SAMPLE COLLECTION AND FIELD EVALUATION PROCEDURES

Soil samples for this project were collected using a subcontract auger drill rig. The drill rig was used to advance hollow-stem augers into the subsurface at each site. Each boring location was chosen by a Triad Environmental Consultants geologist. The augers and auger head were decontaminated by steam cleaning prior to and between each use. Soil samples were collected at approximately five (5) foot intervals by driving the splitspoon sampler into the undisturbed soil below the auger head with a 140 lb drive hammer falling 30 inches (Standard penetration procedures). The splitspoon sampler was decontaminated prior to and between each use by the following procedure: A soap and water wash, a tap water rinse, a methanol alcohol rinse and a final rinse with deionized water.

Triad Environmental Consultants personnel wore new, disposable latex gloves during each transfer of soil from the splitspoon sampler to the sample containers. All soil samples collected were evaluated at the site using a Foxboro Century Organic Vapor Analyzer (OVA) Model 128. The field evaluation was performed in the following manner: Upon collection, each sample was divided into two (2) representative portions. The first split was tightly packed into a new, laboratory supplied, 120 milliliter glass jar and securely sealed with Teflon lined cap, labeled and stored in a chilled cooler. (See Sample Handling Procedures.) The other portion of the sample was placed in a ziplock bag and sealed to allow the sample to approach vapor equilibrium. The ziplock bag remained sealed for at least five (5) minutes. After this time had elapsed, the probe of the OVA was inserted into the bag and the reading recorded.

SOIL AND WATER SAMPLE HANDLING PROCEDURES

To preserve any volatile organic compounds that may be present in soil and water samples, the samples are handled in the following manner: Immediately after collection, a label is affixed to each sample container. The sample identification number is then noted on the label along with the sampler's name, the time and date of sample collection and type of analysis requested. The samples are then stored in a chilled cooler with frozen reusable ice packs or slush ice for transport to the subcontract laboratory. If transport to laboratory is not immediate, the samples are stored under refrigeration at Triad Environmental Consultants' offices until shipment to the subcontract laboratory can be arranged. The samples are shipped to the laboratory in a chilled cooler to preserve sample integrity. A Chain of Custody record is kept to document sample handling from time of collection until delivery to the laboratory.

Lab Report

PRISM LABORATORIES, INC.

Full Service Analytical & Environmental Solutions

NC WW Cert. #402 NC DW Cert. #37735
SC Lab ID 42002-Organics Certification
SC WW Cert. #99012

August 25, 1993

RECEIVED 8 28 93

Triad Environmental
Attn: Mr. Dan M. Groome
3519 Clemmons Road
Clemmons, NC 27012
Ref: Draper Corp. Job# 079372

Dear Mr. Groome:

Below are results of analysis of 1 sample received for examination on August 16, 1993:

Customer Code: TRIAD Phone Number: (919)766-0810 (fax) 766-0810
LAB I.D. AA16706 Prism ID Number 2733A1 Prism Customer Number 6671
Collection Date: 08/12/93 Collection Time: 13:20
Submittal Date: 08/16/93 Submittal Time: 08:00
Customer Sample I.D#: SSE-4-2'

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
		done	
CALCULATIONS BASED ON DRY WEIGHT		done	
TPH - GASOLINE RANGE	mg/kg	< 1.0	1.0
PREP. METHOD 3550		done	
TPH - DIESEL RANGE	mg/kg	122	10

Please advise should you have questions concerning these data.

Respectfully submitted,

Angela D. Overcash
Laboratory Manager

Main Office: 449 Springbrook Road P.O. Box 240543 Charlotte, NC 28224-0543 Phone: (704) 529-6364 Fax: (803) 525-0409
South Carolina Laboratory: 10471 Asheville Highway, P.O. Box 137, Inman, SC 29349 Phone (803) 472-9046 Fax: (803) 472-5172
All Correspondences and Remittances to the Charlotte Office

Lab Report

PRISM
LABORATORIES, INC.

Main Office:
449 Springbrook Road
P.O. Box 240543
Charlotte, NC 28224-0543
Phone: (704) 529-6364
Fax: (704) 525-0409

Full Service Analytical & Environmental Solutions

STATEMENT OF DATA QUALIFICATIONS

on Analyses Performed by Prism Laboratories, Inc.

Client: Triad Laboratory Group ID No.: 2733A1

_____ All analyses have been validated and comply with our Quality Control Program. No qualifications required.

X The following analyses have been qualified for the reasons cited.

Sample No.(s): 16706 Parameter: GR *Reason: 5

Explanation:

Sample No.(s): Parameter: *Reason:

Explanation:

***REASON:**

1. Sample integrity suspect upon receipt. (Explain)
2. Analysis performed beyond EPA established maximum allowable holding time.
3. Detection limit elevated due to matrix interference.
4. Laboratory control sample value outside established acceptable limits.
5. Matrix spike sample value outside established acceptable limits.
6. Duplicate analysis value outside established acceptable limits.
7. Surrogate/internal standard recoveries outside established acceptable limits.
8. Data point suspect due to potential laboratory contamination. (Explain)
9. Coelutes with the compound cited. Result may represent a combination of both compounds.
10. Other (Explain).

NOTE: This document is included as part of the Analytical Laboratory Report for the above referenced Laboratory ID No. and must be retained as a permanent record thereof.

PAYMENT TERMS: NET 10 DAYS
A 1.5% Interest Rate will be charged on account balances over 30 Days old.
We reserve the right to withhold lab test results on delinquent accounts over 60 days.

All Correspondences and Remittances to the Charlotte Office
South Carolina Laboratory: 10471 Asheville Highway, P.O. Box 137, Inman, SC 29349
Phone: (803) 472-9046 Fax: (803) 472-5172

TRC ENVIRONMENTAL CONSULTANTS, INC. AND ASSOCIATES
3519 Clemmons Road
Clemmons, NC 27012
Telephone & FAX
(919) 766-0810

Chain of Custody Record

PROJECT: Draper Corporation #079372

SITE: Hornaday Rd. Greensboro NC.

COLLECTED BY (Signature): Dan M. Groome

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	TPH-DR EPA 3550	TPH-GR EPA 5030							REMARKS	SAM ID NO. (for lab use only)
SSE-4-2'	Soil	8-12-93/1320	1	✓	✓								16706

REMARKS

RELINQUISHED BY:	DATE	TIME
Dan M. Groome	8-13-93	1700

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
[illegible]	8/13/93	1700	[illegible]	8/16/93	8:00	[illegible]	8/1[illegible]	8:00			

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION

REMARKS:

Chain of Custody Record

TRIAD ENVIRONMENTAL CONSULTANTS, INC. AND ASSOCIATES
3519 Clemmons Road
Clemmons, NC 27012
Telephone & FAX
(919) 766-0810

PROJECT: Draper Corporation #079372

SITE: Hornaday Rd. Greensboro N.C.

COLLECTED BY (Signature): Don M. Simone

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	TPH-DR EPA 3550	TPH-GR EPA 5030							REMARKS	SAM ID NO. (for lab use only)
SSE-4-2'	Soil	8-12-93/1520	1	✓	✓								

REMARKS

RELINQUISHED BY:	DATE	TIME
Don M. Simone	8-13-93	1700

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
[illegible]	8/13/93	1700									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION

REMARKS:

Lab Report

PRISM LABORATORIES, INC.

Full Service Analytical & Environmental Solutions

NC WW Cert. #402 NC DW Cert. #37735
SC Lab ID 42002-Organics Certification
SC WW Cert. #99012

August 10, 1993

RECEIVED 8/14/93

Triad Environmental
Attn: Mr. Dan Groome
3519 Clemmons Road
Clemmons, NC 27012
Ref: Draper/GSO #079372

Dear Mr. Groome:

Below are results of analysis of 3 samples received for examination on July 28, 1993:

Customer Code: TRIAD Phone Number: (919)766-0810 (fax) 766-0810
LAB I.D. AA16406 Prism ID Number 2637A3 Prism Customer Number 6671
Collection Date: 07/26/93 Collection Time: 16:00
Submittal Date: 07/28/93 Submittal Time: 15:45
Customer Sample I.D#: SSE-1/14-16

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
CALCULATIONS BASED ON DRY WEIGHT		done	
PREP. METHOD 3550		done	
TPH - DIESEL RANGE	mg/kg	14	10
PREP. METHOD 5030		done	
TPH - GASOLINE RANGE	mg/kg	< 1.0	1.0

Customer Code: TRIAD Phone Number: (919)766-0810 (fax) 766-0810
LAB I.D. AA16407 Prism ID Number 2637A3 Prism Customer Number 6671
Collection Date: 07/26/93 Collection Time: 16:15
Submittal Date: 07/28/93 Submittal Time: 15:45
Customer Sample I.D#: SSE-2/16-18

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
CALCULATIONS BASED ON DRY WEIGHT		done	
PREP. METHOD 3550		done	
TPH - DIESEL RANGE	mg/kg	< 10	10
PREP. METHOD 5030		done	
TPH - GASOLINE RANGE	mg/kg	75.0	1.0

Lab Report

PRISM LABORATORIES, INC.

Full Service Analytical & Environmental Solutions

Triad Environmental
Page: 2
August 10, 1993

Customer Code: TRIAD Phone Number: (919)766-0810 (fax) 766-0810
LAB I.D. AA16408 Prism ID Number 2637A3 Prism Customer Number 6671
Collection Date: 07/26/93 Collection Time: 16:30
Submittal Date: 07/28/93 Submittal Time: 15:45
Customer Sample I.D#: SSE-3/18-20

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
CALCULATIONS BASED ON DRY WEIGHT		done	
PREP. METHOD 3550		done	
TPH - DIESEL RANGE	mg/kg	23	10
PREP. METHOD 5030		done	
TPH - GASOLINE RANGE	mg/kg	< 1.0	1.0

Please advise should you have questions concerning these data.

Respectfully submitted,

Angela D. Overcash by Robbi Jones

Angela D. Overcash
Laboratory Manager

Lab Report

PRISM
LABORATORIES, INC.
Full Service Analytical & Environmental Solutions

Main Office:
449 Springbrook Road
P.O. Box 240543
Charlotte, NC 28224-0543
Phone: (704) 529-6364
Fax: (704) 525-0409

STATEMENT OF DATA QUALIFICATIONS
on Analyses Performed by Prism Laboratories, Inc.

Client: TRIAD Laboratory Group ID No.: 2637A3

_____ All analyses have been validated and comply with our Quality Control Program. No qualifications required.

✓ The following analyses have been qualified for the reasons cited.

Sample No.(s): AA16406, 16407, 16408 Parameter: TPH GR *Reason: 7

Explanation: _____

Sample No.(s): _____ Parameter: _____ *Reason: _____

Explanation: _____

***REASON:**

1. Sample integrity suspect upon receipt. (Explain)
2. Analysis performed beyond EPA established maximum allowable holding time.
3. Detection limit elevated due to matrix interference.
4. Laboratory control sample value outside established acceptable limits.
5. Matrix spike sample value outside established acceptable limits.
6. Duplicate analysis value outside established acceptable limits.
7. Surrogate/internal standard recoveries outside established acceptable limits.
8. Data point suspect due to potential laboratory contamination. (Explain)
9. Coelutes with the compound cited. Result may represent a combination of both compounds.
10. Other (Explain).

NOTE: This document is included as part of the Analytical Laboratory Report for the above referenced Laboratory ID No. and must be retained as a permanent record thereof.

PAYMENT TERMS: NET 10 DAYS
A 1.5% Interest Rate will be charged on account balances over 30 Days old.
We reserve the right to withhold lab test results on delinquent accounts over 60 days.

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Phone: (803) 472-9046 Fax: (803) 472-5172

TRIAD ENVIRONMENTAL CONSULTANTS, INC. AND ASSOCIATES

3519 Clemmons Road
Clemmons, NC 27012
Telephone & FAX
(919) 766-0810

Chain of Custody Record

Page 1 of ____

PROJECT: Draper / GSC #079372

SITE: Hornaday Road Greensboro, NC

COLLECTED BY (Signature): Dan M. Groome

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	EPA 3550 TPH-DR	EPA 5030 TPH-GR							REMARKS	SAM ID NO. (for lab use only)
SSE-1/UST/14-16	Soil	7-26-93/1600	1	✓	✓								16406
SSE-2/UST/16-18	Soil	7-26-93/1615	1	✓	✓								16407
SSE-3/UST/18-20	Soil	7-26-93/1630	1	✓	✓								16408

REMARKS

RELINQUISHED BY:	DATE	TIME
Dan M. Groome	7-27-93	1500

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Kathryn J. Lane	7/27/93	1500 hrs	Kathryn J. Lane	7/28/93	1400 hrs	James Nelligan J.	7/28/93	1400 hrs	James Nelligan J.	7/28/93	1545 hrs

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION
[illegible]	7/28	1500							

REMARKS: