

WATER QUALITY & HYDROLOGY GROUP (ESH-18)

FAX TRANSMITTAL SHEET

FAX #: (505) 665-9344

VERIFICATION #: (505) 665-0453

DATE: September 11, 2002

LOG NO: ESH-18:02-FAX-

TO: B. Lucas FAX #: (505) 827-0160 PHONE # (505) 827-2933 GRP ORG NMED/SWQ

TO: S. Yanicak FAX #: (505) 672-0466 PHONE # (505) 672-0448 GRP ORG NMED/AIP

TO: G. Turner FAX #: (505) 665-4872 PHONE # (505) 667-5794 GRP ORG DOE/OLASO

TO: Everett Spencer FAX #: (214) 665-6490 PHONE # (214) 665-6080
(214) 665-6475 GRP ORG EPA Region 1

TO: Deb Woitte FAX #: (505) 665-4424 PHONE # (505) 667-3766 GRP ORG LC GEN

TO: Sara H. [unclear] FAX # 667-2964 PHONE # 667-9583 GRP ORG C-FM

TO: John Young FAX #: (505) 827-1544 PHONE # (505) 827-1557 GRP ORG NMED/HRM
L. Winn MVB

TO: Tony Grieggs FAX #: 667-5224 PHONE # 665-0451 GRP ORG DNES-SWR
ESH-T9

TO: Paul Schumann FAX #: (505) 665-4747 PHONE # (505) 667-5840 GRP ORG DNES-R

TO: Cornelius Amindyas (505)-884-9254 DNES

FROM: Mike Saladen, ESH-18, MS K497 PHONE #: (505) 665-6085

Please call if you have questions. Thanks!

NUMBER OF PAGES TO FOLLOW: 5

Cy: WQH
ESH-18 FAX FILE
CRM-4, MS A150
ESH-18, spill file
WQH

GROUP LEADER/TEAM LEADER



RELEASE / DISCHARGE NOTIFICATION

LOS ALAMOS NATIONAL LABORATORY

Permit Number: NM0028355

Calendar Year

2002

NPDES or Operational Spill/Release } Indicate with "X" in appropriate box.
 ER Spill/Release
 Other Spill/Release

Release ID Number:

Responsible Facility/User Group:

Contact Person: Pager #:
 Phone #: Cell Phone #:

Release/Discharge Location:
 TA:
 Building:

If the release/discharge is associated with a NPDES Outfall, Potential Release Site (PRS) or Solid Waste Management Unit (SWMU), indicate the site/unit number and its relationship to the release/discharge:

NPDES Outfall: PRS: SWMU: PRS/SWMU Number:

Indicate with "X" in appropriate box(es)

Relationship of the Discharge to a SWMU or PRS:
 Project was reviewed during the Laboratory's Project ID Process (pre-construction activity). There were no SWMUs identified in the excavation/trench. Map of location attached.

Discharge Occurred: Date & Time
 Discharge Discovered: Date & Time
 Discharge Stopped: Date & Time
 Cleanup Started: Date & Time
 Cleanup Completed: Date & Time

Material(s) Released / Discharged:
 Preliminary analysis shows the presence of several ethyl- and methyl-benzene compounds and naphthalene. Preliminary sampling results were available on 8/7/2. Additional soil sampling for volatile organics, semi-volatile organics and metals are pending. Source of the contamination is unknown at this time.

Release/Discharge Mitigation Method:
 Immediate remediation on 8/6/2 was to cover the soil with a tarp. The length of the trench was covered by wooden pallets and covered with plastic. Sandbags were also placed along the western edge of the area to help divert rainwater away from the trench.

Weather Conditions:

Duration of Release/Discharge, in HOURS: Est. Volume Released/Discharged, in GAL: Est. Volume Recovered, in GAL:

Corrective Actions Taken (ie, type of BMPs, etc):

Nearest Watercourse (Canyon Name)

Release Number 111...N/A...page 2 of 2.

If the release/discharge reached a watercourse, describe the estimated surface area affected, presence of release/discharge now in the watercourse, and the media the release/discharge was detected in:

NA. Mortandad Canyon was not impacted.

Depth to Groundwater, In FT, If known:

Distance to Nearest Drinking Water Well, in FT, if known: Well ID#

24-HOUR RELEASE / DISCHARGE NOTIFICATIONS

	Contact Person	Phone	Fax	Date & Time (or Comment)	
EPA:	E. Spencer	214-665-6475	214-665-6490	8/14/2002	fax
NMED/SWQB:	Bret Lucas	827-2933	827-0160	8/14/2002	fax
NMED/GWQB:	Marcy Leavitt	827-2918	827-2965	8/14/2002	fax
NMED/HRMB:	John Young	428-2538	428-2567	8/8/2002	E-Mail at 1459 hrs.
NMED/DOE-OB:	Steve Yanicak	672-0448	672-0466	8/8/2002	fax
RRES-WQH:	Mike Saladen	665-6085	665-9344	8/7/2002	1500 hrs.
DOE:	Gene Turner	667-5794	505-665-4872	8/8/2002	10:30 hrs.
OTHER:	Ralph Fordschmid	428-2500	827-1544	8/8/2002	1445 hrs.
OTHER:	Anthony Grlaggs	665-0451	667-5224	8/6/2002	1200 hrs.

Comments: Left message with Ron Trublood (660-9530) at 1235 hrs. on 8/8/2.

Form Completed By:

7 DAY RELEASE / DISCHARGE ACTIONS

7 Day Notice 7 Day Notice Date: 7 Day Notice By:

Mark "X" when done.
 Comments: Written information regarding the TA-48-1 soil contamination was provided to John Young, NMED-HRMB, in an E-Mail on 8/8/2.

15 DAY RELEASE / DISCHARGE ACTIONS

15 day Follow-up Due: 15-day Follow-Up By:

Comments: Characterization and remediation work is being performed by GTS Duratek (primary contractor) with SEA and AQ Safety Inc. as subcontractors. GPR and in-situ sampling began 8/19/02 with results due Monday, 8/26/02. Removal of contaminated soil could start at the end of that week. The GPR results seem to indicate a buried VCP pipe in the vicinity of the contaminated soil.

NMED 30 DAY APPROVAL / DISAPPROVAL

NMED 30 Day Response Date:

Comments: The 15 day notification is amended with Attachment 1, dated September 11, 2002.

Ralph Erickson, Director
 Office of Los Alamos Site Operations
 Department of Energy
 Los Alamos, New Mexico 87544
 (505) 667-5105

Beverly Ramsey, RRES Division Director
 University of California
 Los Alamos National Laboratory
 P.O. Box 1663, MS K491
 Los Alamos, New Mexico 87544
 (505) 667-4218

ATTACHMENT 1

On Aug. 8, 2002, pursuant to New Mexico Water Quality Control Commission (WQCC) regulations, we notified your office of the discovery of a small amount of soil contaminated with organic chemicals (see attached). The soil was unearthed during trenching operations east of building 48-1, at Technical Area 48. The trenching, which was being conducted as part of site preparation for a new building, revealed a small area of soil that appeared damp and produced a chemical odor. As a standard precaution, members of the Laboratory's (LANL's) Hazardous Materials Team took samples of the soil. Preliminary analysis of the samples indicated that the soil contained several benzene compounds.

This site was reported to the NMED as a one-time spill at the facility that may have the potential to impact surface or groundwater pursuant to the NMWQCC regulations, in part because our preliminary inquiries strongly supported this as the likely cause. LANL's investigation and cleanup is currently being conducted pursuant to those requirements. We indicated at the time that the contaminated soil does not pose an immediate threat to workers, the public or the environment.

Since its discovery, the Laboratory has worked to fully characterize the nature and the extent of the contamination and to determine its source. NMED was informed of LANL's subsequent activities on August 8, 13, and 21 respectively. Since the initial discovery, FMU-66, RRES, and CST Division personnel arranged for GTS Duratek Inc. to mobilize, investigate, and cleanup the site as needed.

The following activities have been completed at the site to date.

1. A sample was collected from the area of highest contamination encountered during trenching operations and submitted to an external laboratory for waste characterization purposes. The sample was analyzed for VOCs, SVOCs, metals, metals by TCLP, and radionuclides.
2. A ground penetrating radar survey (GPR) was conducted to locate utility lines. During the survey, what appears to be a previously unidentified pipe (possibly a drainline) was located in the area of the contaminated soils, which supports LANL's belief that the contamination originated from an operational release, which falls under the jurisdiction of the Clean Water Act and the WQCC regulations (this question was raised by the Hazardous Waste Bureau in its September 3, 2002 letter to DOE and LANL, same subject).
3. Based on the findings of the GPR survey, a 50 sample surface grid was laid out to define the lateral extent of contamination. The grid encompassed the area where the contaminants were first detected. At each sampling location soil gas was measured for VOC concentrations using EMFLUX collectors provided by BEACON Environmental Services, Inc. The collectors adsorbed VOCs from the soil gas for a period of 3 days then collected and analyzed for VOCs following EPA Method 8020/8015B.
4. Based on the results of the EMFLUX sampling, three boreholes were drilled and sampled for SVOCs and VOCs. The purpose of the drilling was to define the vertical extent of contamination.

ATTACHMENT 1

Following is a summary of the analytical results from the contaminated area east of building 48-1.

A sample was collected from the contaminated area (biased by PID readings in order to capture the highest concentrations of volatile organics) and was submitted to an off-site laboratory for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, metals (by TCLP), and radionuclides. Also, four samples were collected from 3 boreholes, one in the center of the contaminated area and the other two from the north and south of the contaminated area.

Three organic chemicals were detected at elevated concentrations: naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene. Also detected at elevated concentrations were total petroleum hydrocarbons (TPH).

Several organic chemicals were found at much lower but detectable concentrations including ethylbenzene, toluene, xylenes and some polycyclic aromatic hydrocarbons (PAHs) specifically: benzo(a)anthracene, benzo(b&k)fluoranthene, chrysene, fluoranthene, phenanthrene, pyrene, and naphthalene. Benzene was not detected. Metals were not detected at concentrations exceeding background values.

A preliminary risk evaluation was conducted of all of the detected organic chemicals to determine which of the detected contaminants were risk drivers for the site.

- TPH can only be evaluated for potential risk based on its components. The detected TPH components were xylenes, ethylbenzene, toluene, and the polycyclic aromatic hydrocarbons (PAHs): benzo(a)anthracene, benzo(b&k)fluoranthene, chrysene, fluoranthene, phenanthrene, pyrene, and naphthalene. Except for naphthalene the components do not exceed industrial based risk values and are an order of magnitude or more below the target risk levels of a hazard quotient (concentration divided by the risk value) of 1.0 or total cancer risk of 10⁻⁵. Therefore, these chemicals are not the focus of any site remediation.
- Naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene *exceed* industrial risk based values for an outdoor worker based on EPA Region 6 human health medium-specific screening levels (EPA 2001, 71466.1). These are the chemicals determined to be the focus of the cleanup at this site.

EPA Preliminary Remediation Goals (PRGs) were used to determine the levels needed to reduce potential risk and estimate the extent of the removal of contaminated soil.

The EPA values for the three chemicals of potential concern (COPCs) are 240 mg/kg, 210 mg/kg, and 87 mg/kg for naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene, respectively. All three COPCs are noncarcinogens so the total noncancer risk should result in a hazard index (the sum of the hazard quotients for the

ATTACHMENT 1

COPCs) of 1.0. In order to achieve this target level each PRG is reduced by 1/3. The proposed levels are summarized in the following table.

	Maximum Sample Concentration mg/kg	EPA Region 6 PRG* mg/kg	Proposed Cleanup Level mg/kg
naphthalene	360	240	80
1,2,4-trimethylbenzene	540	210	70
1,3,5-trimethylbenzene	580	87	29

** Industrial risk based values for an outdoor worker based on EPA Region 6 human health medium-specific screening levels (EPA 2001, 71466.1)*

If, in the course of the cleanup at this site, other chemicals are detected at concentrations that may pose a potential risk to a worker, additional PRGs and modifications to the proposed cleanup levels will be considered.

Excavation is planned to start Thursday, September 12, 2002 to locate the suspected line and begin removal of the line and contaminated soil. Cleanup activities are expected to be completed by Sunday, September 15. Confirmatory sampling activities are expected to occur on or about Tuesday September 17. Soils will be stored (in roll-off bins) on site until the LANL's waste characterization process is completed and waste can be shipped to an appropriate disposal facility. We will keep you informed of our progress. Please contact me at 665-6085 if you have any questions.

LANL TA 48 2002

TA 48 SPICL RPT.

Confirmation Report - Memory Send

Page : 001
Date & Time: Sep-18-02 06:36
Line 1 : 505 665 3944
Machine ID : LANL ESH-18

Job number : 826
Date : Sep-18 06:34
To : 854747
Number of pages : 008
Start time : Sep-18 06:34
End time : Sep-18 06:36
Pages sent : 008
Status : OK

Job number : 826

*** SEND SUCCESSFUL ***

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

WATER QUALITY & HYDROLOGY GROUP, ESH-18
FAX TRANSMITTAL SHEET

FAX #: (505) 665-9344

VERIFICATION #: (505) 665-0453

DATE: 9/17/02

LOG NO: WQ&H-FAX-02-

FROM: Paula Salazar

PHONE #: 665-6085
609-4-7284

TO: Joe Wier

ORG: NMED-HWB

FAX #: 827-1545

PHONE #:

TO: Paul Salazar

ORG:

FAX #: 665-4747

PHONE #:

TO:

ORG:

FAX #:

PHONE #:

MESSAGE: Per your request.

NUMBER OF PAGES TO FOLLOW: 7

Confirmation Report - Memory Send

Page : 001
Date & Time: Sep-11-02 14:48
Line 1 : 505 665 3944
Machine ID : LANL ESH-18

Job number : 790
Date : Sep-11 14:44
To : 88827016086720466548728121466564905442472
964882715447522454747815058849254
Number of pages : 006
Start time : Sep-11 14:44
End time : Sep-11 14:48
Pages sent : 006
Status : OK
Job number : 790

*** SEND SUCCESSFUL ***

WATER QUALITY & HYDROLOGY GROUP (ESH-18)

FAX TRANSMITTAL SHEET

FAX #: (505) 665-9344

VERIFICATION #: (505) 665-0453

DATE: September 11, 2002

LOG NO: ESH-18:02-FAX

TO:	FAX #:	PHONE #	GRP ORG	OTHER
<u>B. Lucas</u>	<u>(505) 827-0160</u>	<u>(505) 827-2933</u>	<u>GRP ORG</u>	<u>NMED/SWI</u>
<u>S. Yanick</u>	<u>(505) 672-0466</u>	<u>(505) 672-0448</u>	<u>GRP ORG</u>	<u>NMED/AIP</u>
<u>G. Turner</u>	<u>(505) 665-4872</u>	<u>(505) 667-5794</u>	<u>GRP ORG</u>	<u>DOE/OLAS</u>
<u>Everett Spencer</u>	<u>(214) 665-6490</u>	<u>(214) 665-6080 (214) 665-6475</u>	<u>GRP ORG</u>	<u>EPA Region</u>
<u>Deb Wolric</u>	<u>(505) 665-4424</u>	<u>(505) 667-3766</u>	<u>GRP ORG</u>	<u>LC GEN</u>
<u>Sara Hulsbeck</u>	<u>667-2964</u>	<u>667-9583</u>	<u>GRP ORG</u>	<u>C-FM</u>
<u>John Young</u> <u>L. Winn MVB</u>	<u>(505) 827-1544</u>	<u>(505) 827-1557</u>	<u>GRP ORG</u>	<u>NMED/HRM</u>
<u>Tony Grieggs</u>	<u>667-5224</u>	<u>665-0451</u>	<u>GRP ORG</u>	<u>DRGS - SWIK ESH-18</u>
<u>Paul Schwann</u>	<u>(505) 665-4747</u>	<u>(505) 667-5840</u>	<u>GRP ORG</u>	<u>DRGS - R</u>
<u>Cornelius Amundys</u>	<u>(505) 884-9254</u>			<u>AMVD</u>
FROM: <u>Mike Saladen, ESH-18, MS X497</u>				<u>PHONE #: (505) 665-6085</u>

Please call if you have questions. Thanks!

NUMBER OF PAGES TO FOLLOW: 5
Cy: WQH
ESH-18 FAX FILE
CRM-4, MS A150
ESH-18: split file
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