160 Spear Street, Suite 1380
San Francisco, California
94105-1535

415/957-0110

27L22

# ICF TECHNOLOGY INCORPORATED

SFUND RECORDS CTR
139534

## MEMORANDUM

**TO:** Paul La Courreye, U.S. Environmental Protection Agency

**FROM:** Yoon K. Toh, ICF Technology, Incorporated YT

**DATE:** September 27, 1989

**SUBJECT:** Completed Work

**THROUGH:** Chris Lichens, Ecology and Environment, Incorporated JMJ for CL.

**COPY:** Marcia Brooks, Ecology and Environment, Incorporated

This list is for the attached completed:

1 PA(s)

____ PA Review(s)

____ PA Reassessment(s)

____ Other_____

| Site Name | EPA I.D.# | City, County |
|---|---|---|
| Litton Engineering Laboratories | CAD982400533 | Grass Valley, Nevada |

FOR EPA USE ONLY

CERCLIS Lead: F

PA-1 complete
12.28-89

NFRAP

entered
12/29/89
SW

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# ICF TECHNOLOGY INCORPORATED

## PRELIMINARY ASSESSMENT

**DATE:** September 28, 1989

**PREPARED BY:** Yoon K. Toh, ICF Technology, Incorporated 57

**SITE:** Litton Engineering Labs
1300 Main Street East, Unit 10
Grass Valley, Nevada County
California 95945

**TDD#:** F9-8812-024

**PAN#:** FCA 1154PAA

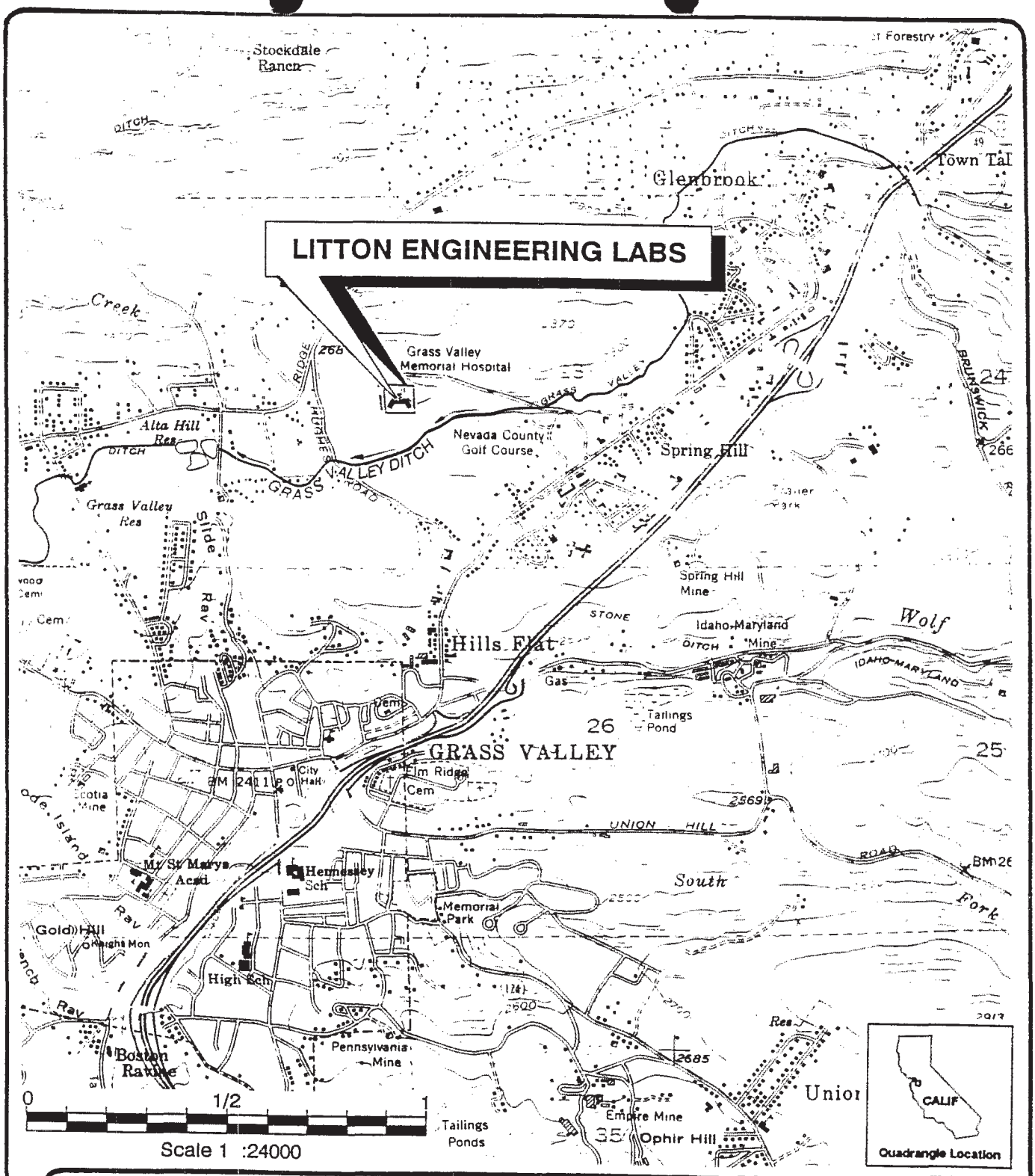
**EPA ID#:** CAD 982 400 533

**COPY:** Steven Ritchie, Regional Water Quality Control Board
Don Plain, Department of Health Services
FIT Master File

### 1. Site Description

Litton Engineering Labs is located at 1300 Main Street East Unit 10, Grass Valley, Nevada County, California (Township 16N, Range 8E, Sections 22 and 23). A site location map is presented as Figure 1. The entire site covers approximately 254 acres and contains a three or four story building located on top of a hill. Public access to the site appears to be restricted by a fence. Lying west and southwest of the site are Ridge Road and Hughes Road respectively. Union Hill School is located one-half mile north-west of the site. The Nevada County Country Club is located on Main Street immediately south of the site. A fire department is located next to the Country Club on Main Street. Much of the site area is currently undeveloped; however, Sierra College is planning to build a "satellite" campus on the site. The proposed development of the approximately 100-acre campus is expected to begin construction by 1991 (2).

The facility, originally named Grass Valley Memorial Hospital (as shown on the 1949 version of the United States Geological Survey topographical map) was built to be used as a hospital; however, the property was never used as such (1). English Mountain Ranch Corporation bought the facility in the 1940s and converted the building into Litton Engineering Labs to manufacture glass lathes and hydrogen furnaces. The property is




# Figure 1 Site Location Map

**LITTON ENGINEERING LAB**
**1300 East Main Unit 10**
**Grass Valley, California 95945**

N

Source: U.S. Department of Interior, Geological Survey. Grass Valley Quadrangle California – Nevada Co. 7.5 minute series, (topographic), 1949. Photo revised 1973.

currently owned by the English Mountain Ranch Corporation and leased to Litton Engineering Labs (1). The laboratory is still in operation although the facility usage has recently been reduced (1). The site used to have five underground tanks: three contained diesel; one contained unleaded gasoline; and one contained regular leaded gasoline. The tanks were installed at a depth of 15 feet below ground surface on the west side of the fenced area of the property next to the helicopter hanger. A facility map is shown as Figure 2.

FIT conducted a drive-by of Litton Engineering Labs on April 7, 1989. There was a sign board indicating that the facility was patrolled by security personnel.

## 2. Apparent Problem

On August 22, 1986, the Nevada County Department of Environmental Health (County Health) discovered a significant leak from on-site underground tanks at Litton Engineering Labs. The suspected contaminants were diesel fuel and gasoline.

According to English Mountain Ranch Corporation, contamination was confined to the immediate ground surface area of 75 feet in radius (15). Approximately 60 tons of contaminated soil were removed and transported off site by Petroleum Waste Incorporated. On September 23, 1986, samples of the contaminated soil were taken by Litton Engineering Labs to California Analytical Laboratories and analyzed for petroleum hydrocarbons and lead (5). Test results showed that the soil samples contained up to 1300 ppm of diesel fuel, 570 ppm of gasoline and 17 ppm of lead (6).

On October 15, 1986, eight additional on-site soil samples were taken by Litton Engineering Labs and sent to California Analytical Laboratories for analysis. Up to 7500 ppm of diesel was found in one sample and 51 ppm of lead was found in another sample (20). Figure 3 shows the sample locations.

On August 3, 1987, English Mountain Ranch Corporation submitted a final report to the County Health. The report disclosed that all of the petroleum tanks were removed by Petroleum Waste Incorporated and sold to an unknown disposal company. There were a total of five underground tanks: two 6000 gallon tanks, one 8000 gallon tank, one 3000 gallon tank, and one 1000 gallon tank.

## 3. HRS Factors

### 3.1 Observed Release

There has not been a documented observed release of hazardous substances from site to the ground water, surface water or air. However, because the leakage of gasoline and diesel fuel was from underground tanks, and on-site soil samples revealed concentrations of diesel fuel, gasoline, and lead, there may be a release of these substances to the ground water.

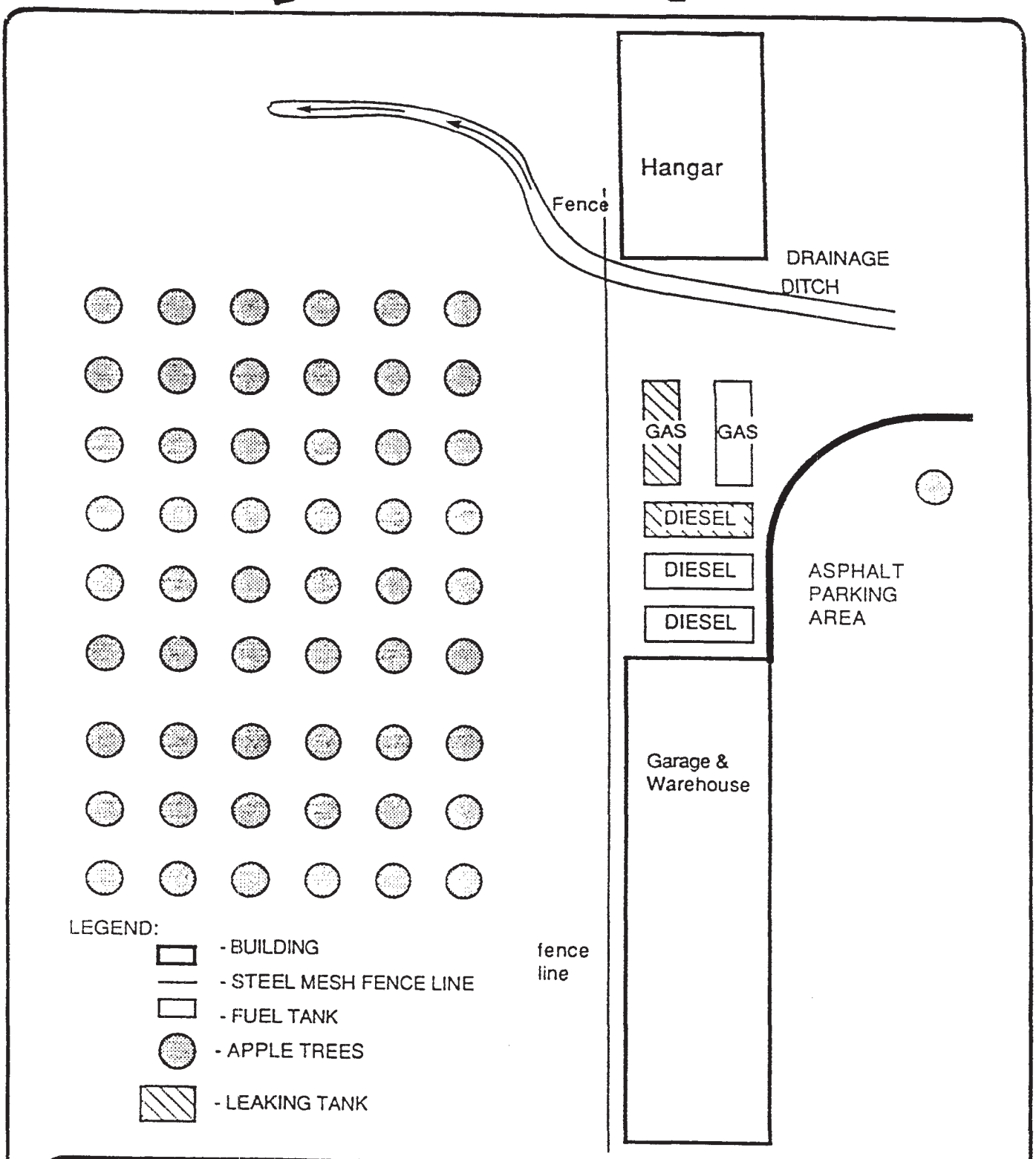



**Figure 2 Facility Layout Map**

**LITTON ENGINEERING LAB**
**1300 East Main Street Unit 10**
**Grass Valley, California 95945**

N

**(Not To Scale)**

Source: Nevada County Department of Environmental Health.
Prepared by LITTON Engineering Lab.

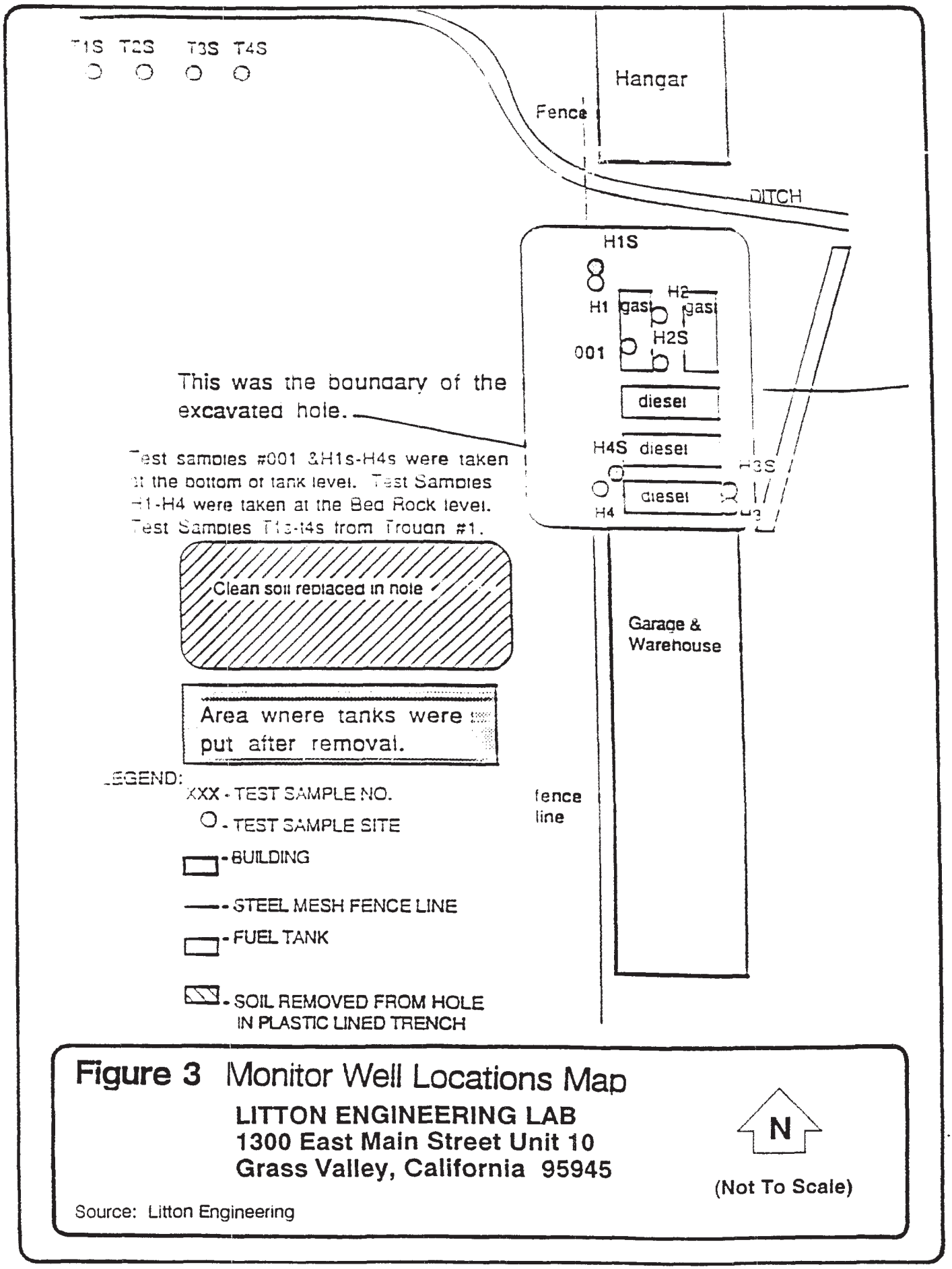



**Figure 3** Monitor Well Locations Map

**LITTON ENGINEERING LAB**
**1300 East Main Street Unit 10**
**Grass Valley, California 95945**

Source: Litton Engineering

## 3.2 Direct Contact/Fire and Explosion

There is no information indicating that direct contact or fire and explosion incidents at the site have occurred. Since the site appears to be restricted in most areas and available file information indicates that the leak occurred below ground, the potential for a direct contact with on-site hazardous substances is low. The potential for fire and explosion is low because the fuel tanks and fuel-contaminated soil have been removed.

## 3.3 Waste Type/Quantity

The five underground storage tanks were used on-site: two 6000 gallon tanks, one 8000 gallon tank, one 3000 gallon tank and one 1000 gallon tank. Three tanks contained diesel fuel; one tank contained unleaded gasoline; and one tank contained regular leaded gasoline. All of the tanks were constructed of carbon steel. Leakage originating from the bottoms of the diesel tank and the regular leaded gasoline tank was detected in the soil. Diesel fuel, leaded and unleaded gasoline are considered petroleum products. According to the CERCLA Section 104 (a) (2) and SARA Section 101 (33) definitions of pollutant or contaminant, the term "hazardous substance" does not include petroleum products or by-products. Therefore, the substances released into the soil are exempted under CERCLA.

There are no known CERCLA hazardous substances handled on-site.

## 3.4 Ground Water

Ground water in the site area is mainly recharged from rainfall. There is one well in the City of Grass Valley. This well is located approximately one mile south from the site and is used only for irrigation purposes (21). No information is available on the number of wells within a three-mile radius. The depth to groundwater is about 80 feet (7). Ground water in the area is not used for drinking purposes because of its poor quality (7). The net precipitation in the area from November through April is approximately 24 inches (11).

## 3.5 Surface Water

The nearest surface water body is Grass Valley Ditch, located approximately one-quarter mile downhill from the site. The ditch is unbermed, exposed to open air, and flows along the foothill towards the west and supplies untreated water to a water treatment plant which is located 0.5 mile west of the site. The water treatment plant is operated by the City of Grass Valley (1). The Nevada County Irrigation District (NID) sells untreated water obtained from Green Valley Creek, Deer Creek, and Slate Creek to the water treatment plant (19). The City of Grass Valley Public Works Department obtains water supply from NID and distributes drinking water to a population of approximately 8,500 in Grass Valley city (1). Nevada City with a population of approximately 2000 also obtains drinking water from NID (19).

The terrain of the site is very steep since it is located on top of a hill and the nearest surface water, Grass Valley Ditch lies right at the foot of the hill. Slate Creek, Deer Creek,

and Rough and Ready Ditch are also located within a two-mile radius of the site. The one-year, 24-hour rainfall for the area is four inches (14).

### 3.6 Air

Available file information does not indicate that a release of contaminants from the site to the atmosphere has occurred. The potential for an air release at the site is low because documented contamination is below ground and known contaminated soil was removed.

### 3.7 Other HRS Factors

The population within a three-mile radius of the site is over 10,000 which includes the population of Grass Valley and Nevada City (16). Two main fishing areas are Deer Creek (located one and one-half mile north-west of the site) and Wolf Creek (located one mile south-east of the site) (18).

## 4. Proposed Revised HRS Considerations

The potential for an observed release to air appears to be low because the contaminated soil has been removed and transported off site. An increase in the ground water target distance to a four-mile radius of the site is not likely to have any significant effect on the target population as the ground water is not used for drinking purposes.

## 5. Other Regulatory Involvement

Currently, the County Health is currently overseeing remedial activities at the site. The County Health has requested a final report concerning the groundwater monitoring tests; however, no report has yet been received. This case remains active (3). The site is not regulated under RCRA (9).

## 6. Removal Considerations

Emergency removal is not necessary as the site does not appear to pose any immediate threat to human health or environment because known contamination has been removed.

## 7. Conclusions

Litton Engineering Labs is located at 1300 Main Street East, Unit 10, Grass Valley, California. The facility has been used to manufacture glass lathes and hydrogen furnaces since it began operations in the 1940s.

On August 22, 1986, significant leakage of petroleum from one of the on-site diesel tanks was reported by the Nevada County Department of Environmental Health. On-site soil

samples revealed presence of diesel fuel, gasoline and lead. Approximately 60 tons of contaminated soil were removed by Petroleum Waste Incorporated and transported off site with approval from the Nevada County Department of Environmental Health.

There has been no observed release of hazardous substances from the site to the ground water, surface water or air. Since the contaminated soil was removed, the potential for the migration of the contaminants to the environment is low. Public access to the site appears to be restricted by a fence. The lead agency for the site investigation is the Nevada County Department of Environmental Health. The Nevada County Department of Environmental Health is still awaiting the final report from Litton Engineering Labs concerning the groundwater monitoring.

Based upon a preliminary screening using the current HRS model, the site does not appear to be eligible for inclusion on the National Priorities List because:

- Diesel fuel, and leaded and unleaded gasoline are considered petroleum products. According to CERCLA Section 104 (a) (2) and SARA Section 101 (C33) under the definition of pollutant or contaminant, the term "hazardous substance" does not include petroleum products or by-products. Therefore, the substances released into the soil are exempted under CERCLA.

- There are no known CERCLA hazardous substances handled on-site.

7. Management Review

8. EPA Recommendation

| | Initial | Date |
|---|---|---|
| No Further Remedial Action Planned | [illegible] | 12.28.89 |
| High Priority SSI | | |
| Medium Priority SSI | | |

Justification:

## REFERENCES


1. Toh, Yoon K., ICF Technology, Incorporated, and Bill Roberts, City Planning, City of Grass Valley. Telephone conversation. April 3, 1989.

2. Toh, Yoon K., ICF Technology, Incorporated, and Ron Whitting, Grass Valley Public Works, Engineering Department, Nevada County. Telephone conversation. April 3, 1989.

3. Toh, Yoon K., ICF Technology, Incorporated, and Tracy Gidel, Nevada County Department of Environmental Health, Nevada City, California. Telephone conversation. April 5, 1989.

4. Nevada County Department of Environmental Health. Hazardous Material Storage Facility Report. April 22, 1986.

5. Litton, Larry, President, English Mountain Ranch Corporation. English Mountain Ranch Cleanup Report. Sept. 19, 1988.

6. Nevada County Department of Environmental Health. California Analytical Laboratories Report for Soil Sample Analysis. Sept. 23, 1986.

7. Toh, Yoon K., ICF Technology, Incorporated, and Betty Swatsenberg, California Water Resources Board. Telephone conversation. April 5, 1989.

8. Nevada County Department of Environmental Health. Final Report from English Mountain Ranch. August 3, 1987.

9. RCRA Database. November 20, 1987.

10. Nevada County Department of Environmental Health. Report Review. September 2, 1988.

11. United States Department of Commerce, Environmental Science Services Administration. Environmental Data Services. Climatic Atlas of the United States, June 1968. Reprinted by the National Oceanic and Atmospheric Administration, 1983.

12. Nevada County Department of Environmental Health. Hazardous Material Storage Facility Report. August 22, 1986.

13. Litton Engineering Laboratories. Site Plan. September 23, 1986.

14. U.S. Department of Commerce Weather Bureau, Cooperative Studies, Hydrologic Services Division. Rainfall Frequency of the Unites States for Durations from 30 Minutes to 24 Hours and Return Periods From 1 to 100 Years. Technical paper no. 40. Washington, D.C.: GPO, 1961.

15. Nevada County Department of Environmental Health. English Mountain Ranch Cleanup Weekly Report. October 6, 1986.

16. Toh, Yoon K., ICF Technology, Incorporated, and Nevada City Council. Telephone conversation. May 10, 1989.

17. Toh, Yoon K., ICF Technology, Incorporated, and Jerry Mersch, Fish and Game Department, Region 2. Telephone conversation. May 11, 1989.

18. Toh, Yoon K., ICF Technology, Incorporated, and Larry Parkinson, Fish and Game Department, Region 2. Telephone conversation. May 16, 1989.

19. Toh, Yoon K., ICF Technology, Incorporated, and Mike Curry, Nevada County Irrigation District. Telephone conversation. June 16, 1989.

20. California Analytical Laboratories. English Mountain Ranch Soil Sample Results. October 21, 1986.

21. Toh, Yoon K., ICF Technology, Incorporated, and Pat Ingram, City of Grass Valley. Telephone conversation. August 7, 1989.

Contact Log

**Facility Name:** Litton Engineering
**Facility ID:** CAD 982 400 533

| Name | Affiliation | Phone # | Date | Information |
|---|---|---|---|---|
| Robert McPeak | Department of Health Services | (916) 324-2440 | 3/31/89 | See Contact Report |
| Bill Roberts | City Planning City of Grass Valley | (916) 273-2462 | 4/3/89 | See Contact Report |
| Tom Leland | Terry Lowell and Associates | (916) 624-0085 | 4/5/89 | See Contact Report |
| Ron Whiting | Engineering Department Grass Valley Public Works | (916) 273-0941 | 4/3/89 | See Contact Report |
| Robert Singleton | Nevada County Irrigation District | (916) 273-6185 | 4/3/89 | See Contact Report |
| Tracy Gidel | Department of Environmental Health | (916) 265-1452 | | |
| Michael Wagoner | Regional Water Quality Control Board | (916) 361-5660 | 3/31/89 | See Contact Report |
| Betty Swatsenberg | California Dept. of Water Resources Board | (916) 322-7171 | 4/3/89 | See Contact Report |
| Jerry Mersch | Fish and Game Dept. | (916) 355-9030 | 5/11/89 | See Contact Report |
| Larry Parkinson | Fish and Game Dept. | (916) 273-1778 | 5/11/89 | See Contact Report |
| Pat Ingram | City of Grass Valley | (916) 273-0941 | 8/7/89 | See Contact Report |

# CONTACT REPORT

Agency/Affiliation: California Dept. of Health Serv. - Toxic Substances Control Division

Department/Region: Region 1

Address/City: 4th Street, 4th Floor, Room #4340/Sacramento

County/State/Zip: Sacramento/California

| CONTACT | TITLE | PHONE |
|---|---|---|
| Robert McPeak | Project Officer | (916) 324-2440 |

ICF Person Making Contact: Yoon K. Toh Date: March 31,1989

Subject: File Search

Site Name: Litton Engineering Labs. EPA ID#: CAD 982400533

A very large, old three to four story building was on site. Litton Engineering Labs plans to move its operations elsewhere. Currently, the facility manufactures hydrogen furnaces, glass works, and assembles electronic parts.

# CONTACT REPORT

Agency/Affiliation: City Planning

Department/Region: City of Grass Valley

Address/City: 125 East Main Street, Grass Valley

County/State/Zip: Nevada County, CA 95945

| CONTACT | TITLE | PHONE |
|---|---|---|
| Bill Roberts | City Planner | (916) 273-1462 |

ICF Person Making Contact: Yoon K. Toh Date: April 3, 1989

Subject: File Search

Site Name: Litton Engineering labs. EPA ID#: CAD982400533

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The site has a three to four story building located on top of a hill. The facility building located on site was originally built to be used as a hospital but was never used as a hospital. The original name of the facility was Grass Valley Memorial Hospital. English Mountain Ranch Corporation bought the facility in the 1940s and turned it into Litton Engineering Labs to manufacture glass lathes. The laboratory is now operated by Mr. Larry Litton.

A high school is located one-quarter mile north of the facility. The facility covers 254 acres. Springs may be present on site.

The population of the City of Grass Valley is 8762.

# CONTACT REPORT

Agency/Affiliation: Terry Lowell and Associates

Department/Region: Consultant Engineer

Address/City: Rockland

County/State/Zip: California

| CONTACT | TITLE | PHONE |
|---|---|---|
| Tom Leland | Engineer | (916) 624-0685 |

ICF Person Making Contact: Yoon K. Toh Date: April 5, 1989

Subject: Water Supply Resources and chemicals used on site.

Site Name: Litton Engineering Labs. EPA ID#: CAD982400533

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The Grass Valley Ditch which flows at the bottom of the hill where the site is located is exposed in many areas. The building was acquired after World War II by Mr. Charles Litton.

Litton Engineering Labs had two different systems in the facility. A reclamation system and a domestic system. They also have glass blowing and lathe machines and laser type facilities as well. They make their own motors, own aluminum castings and electronic equipment. The facility was formerly using septic tanks but has converted to sewage system.

The Nevada County Irrigation District supplies drinking water to the City of Grass Valley. No wells are used for drinking purposes.

# CONTACT REPORT

Agency/Affiliation: Grass Valley Public Works

Department/Region: Engineering Department

Address/City: 125 East Main Street, Grass Valley

County/State/Zip: Nevada County, CA 95945

| CONTACT | TITLE | PHONE |
|---|---|---|
| Ron Whiting | Project Engineer | (916) 273-0941 |

ICF Person Making Contact: Yoon K. Toh Date: April 3, 1989

Subject: File search

Site Name: Litton Engineering Labs. EPA ID#: CAD 982400533

Sierra College plans to build a satellite campus in the undeveloped area on site. The City of Grass Valley Public Works Department gets all the water supply from Nevada County Irrigation District. There is no municipal well in the city of Grass Valley.

Mr. Whiting has been away from the Public Works Department for 20 years and has just returned. Further information may be obtained from the previous city engineer, Tom Leland, Terry Lowell & Associates (916) 624-0685.

# CONTACT REPORT

Agency/Affiliation: Nevada County Irrigation District

Department/Region: Engineering

Address/City: P.O. Box 1019, Grass Valley

County/State/Zip: Nevada County, CA 94945

| CONTACT | TITLE | PHONE |
|---|---|---|
| Mr. Robert Singleton | Project Engineer | (916) 273-6185 |

ICF Person Making Contact: Yoon K. Toh  Date: April 3, 1989

Subject: Surface Water Information

Site Name: Litton Engineering Labs.  EPA ID#: CAD 982400533

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Grass Valley Ditch flows at the bottom of the hill site of Litton Engineering Property. This ditch serves the Grass Valley Treatment Plant formerly named Alta Hill Reservoir. No contamination is noted presently in the ditch. The Grass Valley Treatment plant supplies drinking water to Grass Valley City. There is no other source of water supply.

# CONTACT REPORT

Agency/Affiliation: Department of Environmental Health

Department/Region: Nevada County

Address/City: 950 Maidu Avenue, Nevada City

County/State/Zip: Nevada County, CA 95959

| CONTACT | TITLE | PHONE |
|---|---|---|
| Tracy Gidel | Project Engineer | (916) 265-1452 |

ICF Person Making Contact: Yoon K. Toh  Date: April 5, 1989

Subject: File Search

Site Name: Litton Engineering labs.  EPA ID#: CAD982400533

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Litton Engineering Labs has been downscaling the laboratory. It now looks like a big empty building. Years ago, a lot of chemicals were stored in the facility, but there has been a lot of reduction in the inventory. No information on the chemicals stored on-site is available. There is a warehouse on one side of the facility which is used to store the chemicals. Two years ago, there was a diesel fuel and a gasoline leak from underground tanks. Litton has yet to submit a final report to the Department of Environmental Health (County Health) concerning the groundwater monitoring results and clean-up activities on site. The current levels of contamination can be anywhere from 35 to 135 ppm of petroleum products. The vertical and horizontal extent of the contamination is unknown. The spill occurred at the east of the warehouse maintenance building towards the north-east of the warehouse. The hill slopes towards the north.

Norm Greenberg, manager of County Health is currently investigating this site.

# CONTACT REPORT

Agency/Affiliation: Regional Water Quality Control Board

Department/Region: Sacramento

Address/City: 3443 Routine Road, Sacramento

County/State/Zip: Sacramento, CA 95827

| CONTACT | TITLE | PHONE |
|---|---|---|
| Michael Wagoner | Project Officer | (916) 361-5660 |

ICF Person Making Contact: Yoon K. Toh  Date: March 31, 1989

Subject: File Search

Site Name: Litton Engineering Lab.  EPA ID#: CAD 982400533

No file found at the RWQCB.

# CONTACT REPORT

Agency/Affiliation: California Department of Water Resources Board

Department/Region: Control District

Address/City: 3521 S. Sacramento, Rm. 821, Sacramento

County/State/Zip: Sacramento County, CA 95816

| CONTACT | TITLE | PHONE |
|---|---|---|
| Betty Swatsenberg | | (916) 322-7171 |

ICF Person Making Contact: Yoon K. Toh Date: April 3, 1989

Subject: Hydrogeological Information.

Site Name: Litton Engineering Labs. EPA ID#: CAD 98240533

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The site area has mainly red clay soils and decomposed granite. The bedrock is fractured. There is no information on the interconnection of the aquifer and number of wells within a three-mile radius of the site. Depth to the groundwater is about 80 feet. Ground water is not used for drinking purposes because of its low quality.

# CONTACT REPORT

Agency/Affiliation: California State Resources Agency

Department/Region: Fish and Game

Address/City: 1701 Nimbus Road

County/State/Zip: Rancho Cordova, California

| CONTACT | TITLE | PHONE |
|---|---|---|
| Jerry Mersch | Environmental Services Sup. | (916) 355-7030 |

ICF Person Making Contact: Yoon K. Toh Date: May 11, 1989

Subject: Wildlife in the area

Site Name: Litton Engineering Labs EPA ID#: CAD982400533

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No known endangered species within two miles of the site.

# CONTACT REPORT

Agency/Affiliation: Fish and Game

Department/Region:

Address/City: P. O. Box 714, Nevada City

County/State/Zip: Nevada County, CA 95959

| CONTACT | TITLE | PHONE |
|---|---|---|
| Larry Parkinson | Law Enforcement Officer | (916) 273-1778 |

ICF Person Making Contact: Yoon K. Toh Date: May 16, 1989

Subject: Sensitive Environments

Site Name: Litton Engineering Labs EPA ID#: CAD 982400533

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Two main fishing areas within a 3 mile radius: Deer Creek in Grass Valley and Wolf Creek in Nevada City. Wildlife in the area includes deer, quail, and wild turkey.

Refer to : John Hiscox
Biologist
Fish and Game
(916) 265-3864

# CONTACT REPORT

Agency/Affiliation: City of Grass Valley

Department/Region: Public Works

Address/City: 125 East Main Street, Grass Valley

County/State/Zip: Nevada County, CA 95945

| CONTACT | TITLE | PHONE |
|---|---|---|
| Pat Ingram | City Engineer | (916) 273-0941 |

ICF Person Making Contact: Yoon K. Toh Date: August 7, 1989

Subject: Ground Water Usage

Site Name: Litton Engineering Labs EPA ID#: CAD 982400533

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The City of Grass Valley obtains drinking water from Nevada County Irrigation District which obtains drinking water from surface water bodies. No groundwater wells are used for drinking purposes. The nearest well to Litton Engineering Labs is located approximately one mile south of the site at Vets Memorial Park. This well is used for irrigation purposes only and is the only well in the City of Grass Valley.

# CONTACT REPORT

Agency/Affiliation: Nevada County Irrigation District

Department/Region:

Address/City: P.O. Box 1019, Grass Valley

County/State/Zip: CA 95945

| CONTACT | TITLE | PHONE |
|---|---|---|
| Mike Curry | Operations Technician | (916) 273-6185 |

ICF Person Making Contact: Yoon K. Toh Date: June 15, 1989

Subject: Water Supply to Grass Valley and Nevada City

Site Name: Litton Engineering Labs EPA ID#: CAD982400533

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Grass Valley and Nevada City obtains drinking water from Nevada County Irrigation District (NID). NID obtains drinking water from Creeks in the region. The creeks within a three mile radius of the site include Deer Creek, Grass Valley Creek, Slate Creek, Cascade Canal, and Wolfe Creek. Wolfe Creek does not supply drinking water to NID. Nevada City has a population of approximately 2500.

# APPENDIX

Photo Documentation
for
LITTON ENGINEERING

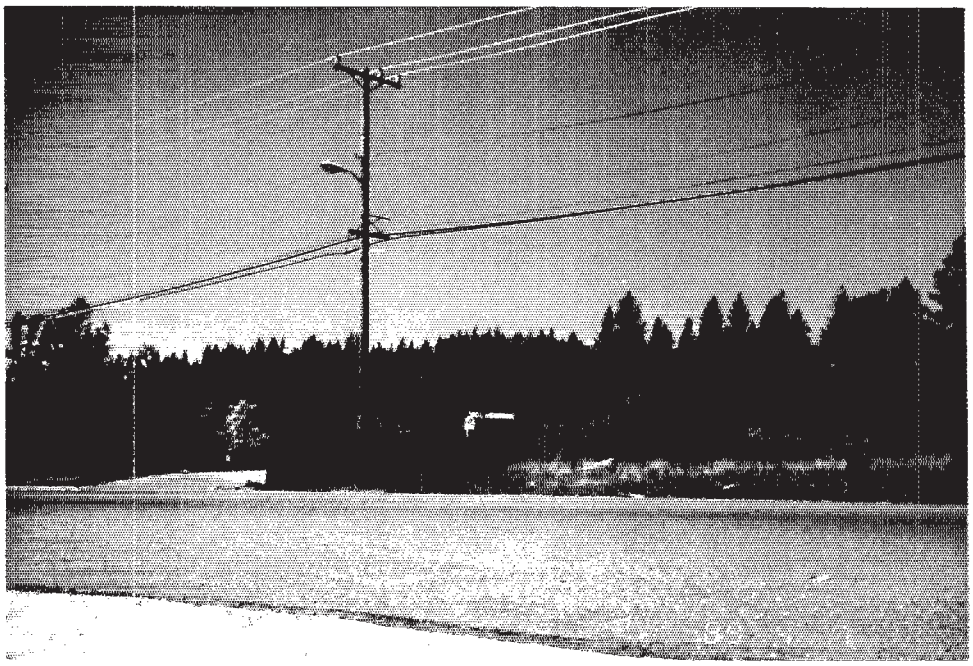

Photo 1 (above): Taken directly across East Main Street from the main entrance leading to the site facility.

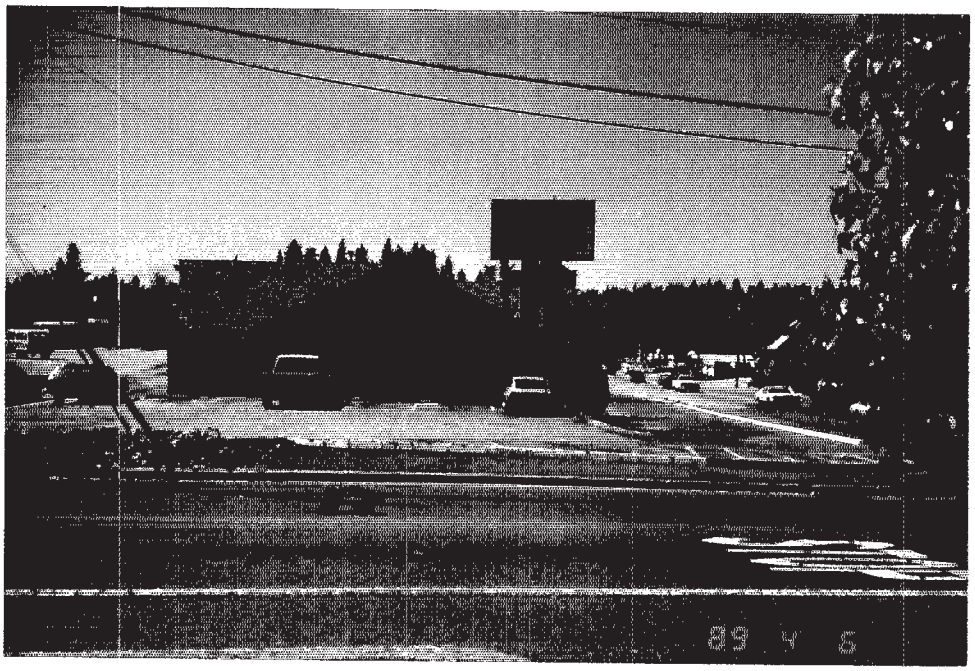


Photo 2 (above): Taken directly opposite of the main entrance of the road leading to the facility. This restaurant is just across the East Main Street.

Photo 3 (above): Taken at the foothill of the site south of the facility. This is the Nevada County Country Club located on East Main Street.

Photo 4 (above): Taken across the East Main Street south of the site. The fire department is located next to the Nevada County Country Club.

Photo 5 (above): Taken Northwest of the site. This is Union High School facility.

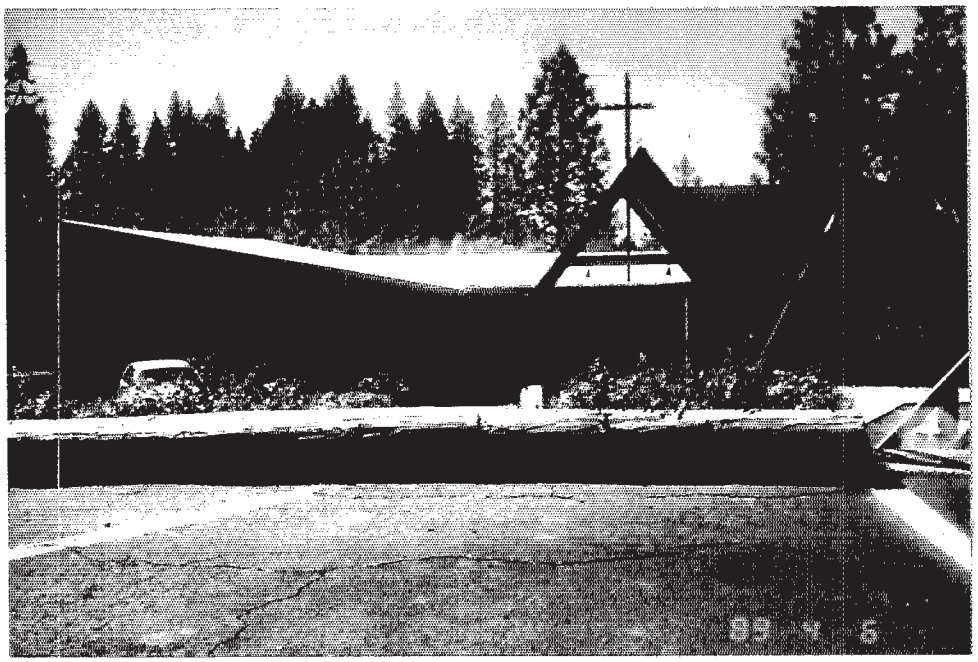

Photo 6 (above): Taken west of the site. This is a Lutheran Church.

Photo 7 (right):

The Grass Valley Ditch running along the foothill appears to be unbermed.