04-09-047561

State of Wisconsin
Department of Natural Resources

TOXIC AND HAZARDOUS SPILL REPORT

Form 4400-91 Rev. 6-86

State Div. Emergency Gov't. (608) 266-3232
U.S. Nat'l. Response Center (800) 424-8802
Chemtrec/Pesticides/Chlorine (800) 424-9300

Spill ID Number
Y Y M M D D 0-99

Date of Incident	Day of Week	Time of Incident		Reported By (Name)	Telephone Number
8/30/92	Sunday	7:05	☒ A.M. ☐ P.M.	Joe Jablonski	(715) 839-3863
Date Reported	**Day of Week**	**Time Reported**		**Agency or Firm Reporting**	**Reported thru Div. Emergen. Gov't.**
8/30/92	Sunday		☐ A.M. ☐ P.M.	Airport fire chief	☐ Yes ☒ No

Substance Involved	Quantity	Units	Person or Firm Responsible
Low-lead Aviation gas	151	gallons	Gibson Aviation
Substance Involved	**Quantity**	**Units**	**Contact Name / Telephone Number**
			Jeff Husby (715) 835-3181

Physical Characteristics

☐ Solid ☒ Liquid Color _____
☐ Semisolid ☐ Gas Odor _____

Address — Street or Route: 3800 Starr Ave
City, State, Zip Code: Eau Claire WI 54703

Cause of Incident: Improper filling of airplane

Exact Location Description (intersection, mileage, etc.): Chippewa Valley Regional Airport - Gibson Aviation

County Location	¼¼, ¼, Section, Town, Range	DNR Dist	DNR Area
Chippewa	SE, SE, 33, T 28 N, R 9W	Western	ECA

Groundwaters Affected: ☐ Yes ☐ No ☒ Potential

Surface Waters Affected: ☐ Yes ☒ No ☐ Potential
Name of Surface Water:

Date District Notified	Day of Week	Time District Notified	
8/31/92	Monday	8:15	☒ A.M. ☐ P.M.
District Person Notified		**Telephone Number**	
John Grump		(715) 839-3775	
Date Investigated	**Day of Week**	**Time Investigated**	
8/31/92	Monday	10:00	☒ A.M. ☐ P.M.
Person Investigating		**Telephone Number**	
John Grump		(715) 839-3775	

Action Taken By DNR

☐ No Action Taken ☒ Investigation ☐ Supervise/Conduct Cleanup
☒ Spiller Required To Take Action; Type _____
☐ Contractor Hired By DNR; Name _____
☐ Amount Recovered _____
☐ 29.29 Enforcement

Other Agencies on Scene

Local _____
State _____
Federal _____

Action Taken By Spiller

☐ No Action Taken ☐ No Notification ☒ Investigate
☐ Containment; Type _____
☐ Cleanup; Method _____
☐ Amount Recovered _____
☐ Monitor _____
☐ Contractor Hired; Name _____
☐ Other Action _____

Spill Location

☐ Industrial Facility/Paper Mill/Chem. Co.
☐ Gas/Service Station/Garage, Auto Dealer, Repair Shop
☐ Ag Coop/Facility/Cheese Factory/Creamery
☐ Other Small Business (bank, grocery, insurance co., etc.)
☒ Public Property (city, county, state, church, school, etc.)
☐ Utility Co., Power Generating/Transfer Facility
☐ Private Property (home/farm)
☐ Pipeline, Terminal, Tank Farm, Oil Jobber/Wholesaler
☐ Transportation Accident, Fuel Supply Tank Spill
☐ Transportation Accident, Load Spill
☐ Construction, Excavation, Wrecking, Quarry, Mine
☐ Other _____

File Elec Eau Claire Co. Spills

Spilled Substance Destination

☐ Air
☒ Soil
☐ Groundwater
☐ Surface Water
☐ Storm Sewer
☐ Sanitary Sewer
☐ Contained/Recovered
☐ Other _____

Person Filing This Report (print name): John P. Grump

Signature: John P. Grump Date Signed: 10/23/92

Additional Comments:

See attached investigation. The investigation failed to substantiate contamination. High vapor pressure of Avgas may explain the assumed evaporation of the majority of the spill.

DISTRICT

WISCONSIN
DEPT. OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

2004 Highland Avenue
Eau Claire, WI 54701-4346
TELEPHONE 715-839-3777

File

August 31, 1992

File Ref: 4440
Chippewa County

Mr. Burt Wright
Chippewa Valley Regional Airport
3800 Starr Avenue
Eau Claire, WI 54703

SUBJECT: Spill of Approximately 151 Gallons of Aviation Fuel at the Chippewa Valley Regional Airport

Dear Mr. Wright:

The Department of Natural Resources has been notified that a spill of no-lead aviation fuel occurred on August 30, 1992 at 7:05 a.m. The purpose of this letter is to inform you of your legal responsibility to address this situation.

Wisconsin Statute 144.76(3) states: "A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state."

We appreciate your timely response to this spill. You have hired Ayres Associates to determine the degree and extent of contamination at the spill site. They will also recommend a remedial action plan if appropriate.

If you have any questions concerning this letter, please contact me at (715) 839-3775.

Sincerely,

John R. Grump
Hydrogeologist

JRG/ah

c: Bill Evans
Dave Lundberg
Dennis Johnson, Ayres
Larry Husby, Gibson

1.0 INTRODUCTION

1.1 PURPOSE

Ayres Associates was retained by the Chippewa Valley Regional Airport, Eau Claire, Wisconsin, to conduct an investigation into an aviation gasoline spill located at the airport. Investigation activities were conducted on August 31 and September 1, 1992. The purpose of this report is to document the technical findings of the investigation and to present recommendations regarding the site status.

This investigation was conducted in accordance with guidelines set forth by Wisconsin Department of Natural Resources (WDNR) LUST Release Publications PUBL-SW-116-REV-March 1992, and PUBL-SW-116-REV-Jan. 1992. Laboratory analytes were determined in a telephone conversation with Mr. John Grump, WDNR, on September 1, 1992.

1.2 SCOPE

The site investigation was conducted on August 31 and September 1, 1992, and included the following activities:

- Installation of 12 hand auger borings and collection of 25 soil samples from the borings;
- Head space screening of containerized soil samples for the presence of organic vapors using a Photovac TIP 1 Photo Ionization Detector (PID);
- Laboratory analysis of two soil samples for Gasoline Range Organics (GRO).

2.0 SITE BACKGROUND

2.1 SPILL LOCATION

The spill occurred at the Chippewa Valley Regional Airport, in the NE 1/4 of the SW 1/4 of Section 33, T28N, R9W, in Chippewa County. Figure 1, "Location Map", shows the regional setting of the site. Surface drainage from the site likely flows to the Chippewa River, approximately 5,000 feet to the west. Based on U.S. Geological Survey quadrangle map contour elevations, the site is approximately 90 feet above the Chippewa River normal water surface.

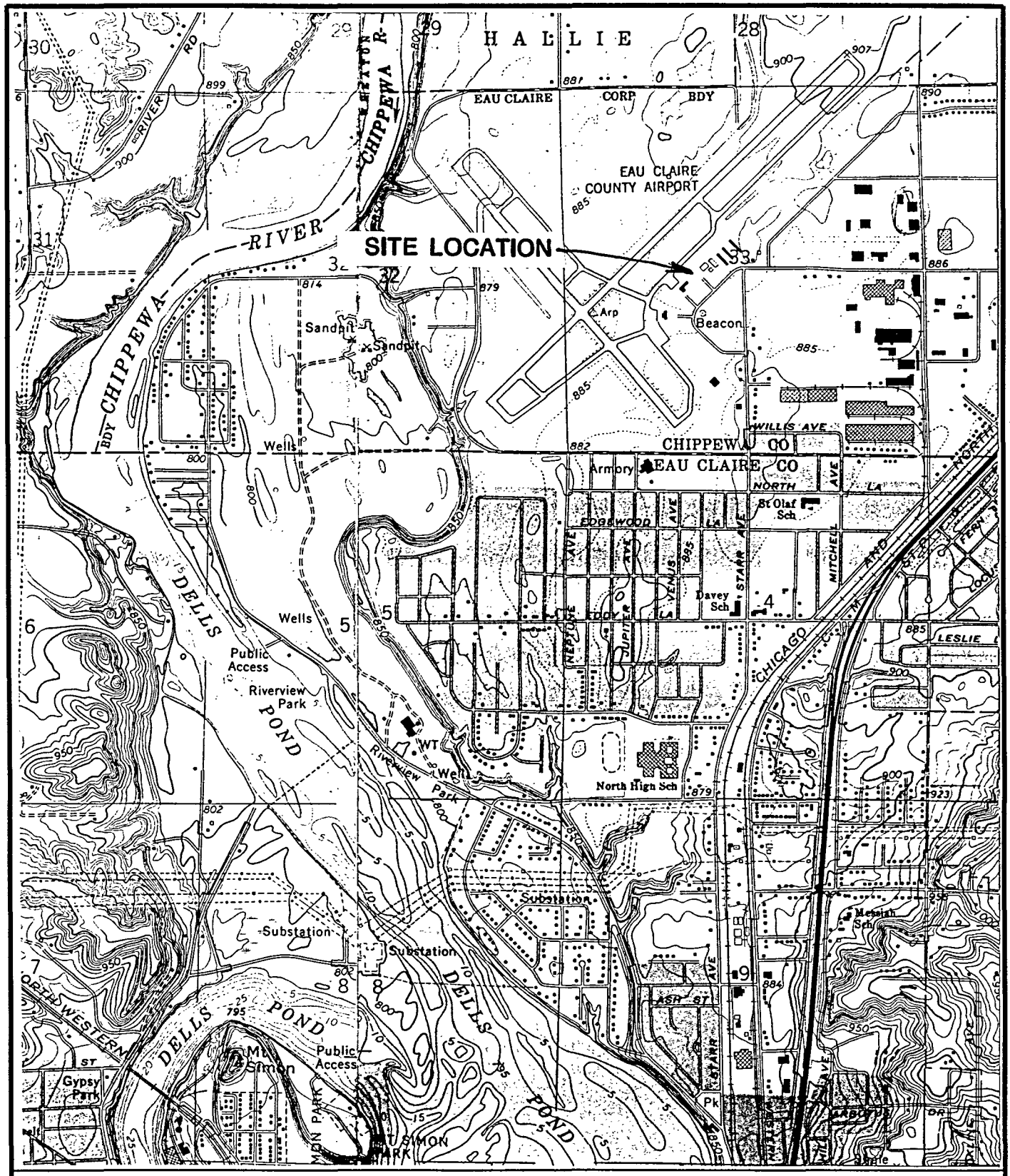
2.2 SITE DESCRIPTION

Figure 2, "Site Plan", shows the spill location relative to the source (airplane), boring locations, taxiways, and hangars. The site is located within the Eau Claire corporate limits, which is served by a municipal sewer and water system.

2.3 SPILL BACKGROUND

On Sunday, August 30, 1992, at 7 a.m., an employee of Gibson Aviation began refueling the right wing tank of a Piper Navajo which was parked on a grassy area between taxiways north of the Gibson terminal. Approximately 151 gallons of Avgas 100 low lead was pumped prior to the employee realizing there was no wing tank in the plane. The area was immediately cordoned off and the WDNR was informed of the spill.

On Monday, August 31, 1992, at 10 a.m., Mr. John Grump (WDNR), Mr Larry Husby (Gibson), Mr. Bert Wright (airport manager), and Mr. Dennis Johnson (Ayres Associates) met at the site to determine a work plan. No visible staining or obvious odor was observed in the soil/vegetation within the cordoned area. An employee of Gibson that was present at the time of the spill described the location of the spill. Weather conditions on the



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

NORTH

SPILL INVESTIGATION CHIPPEWA VALLEY REGIONAL AIRPORT EAU CLAIRE, WISCONSIN	DRN. BY: MLE CHK. BY: JCH DATE: OCT 1992 AYRES ASSOCIATES	LOCATION MAP	FIGURE 1

RUNWAY 04 / 22

TAXIWAY "A"

SPILL

GENERAL AVIATION APRON

HANGAR

AUTOMOBILE PARKING

NORTH

1"=200'

GRASS

TAXIWAY

GRASS

HANGAR

GRASS

HANGAR

NORTH

1"=20'

B-8 B-7 B-10 B-11 B-3 B-2 B-1 B-4 B-5 B-6 B-9 B-12

LEGEND:

●B-1 SOIL BORIING

SITE PLAN

DRN. BY: MLE

CHD. BY: JCH

DATE: OCT 1992

ARES ASSOCIATES

SPILL INVESTIGATION
CHIPPEWA VALLEY REGIONAL AIRPORT
EAU CLAIRE, WISCONSIN

FIGURE 2

4557SITE.DGN

day of the spill included cloudy skies, temperatures around 50 to 60 degrees Fahrenheit and extremely windy and gusty.

3.0 SITE INVESTIGATION

3.1 GENERAL

Soil samples were collected via hand auger borings. Immediately prior to each sample collection, the auger bucket was cleaned in a three step process; a wash in Alconox soap, a rinse in tap water, and a final rinse with distilled water. At each soil sample location, four samples were collected from the auger bucket.

A 16 ounce Mason jar was filled 1/4 to 1/3 full with soil for qualitative screening of head space for organic compounds using a PID. The PID is equipped with a 10.6 eV lamp and was calibrated on the day of sampling to 100 parts per million (ppm) isobutylene gas, according to manufacturer's specifications. The PID responses are relative indications of total ionizable volatile organic compounds present in the atmosphere surrounding the samples and do not necessarily represent the concentration of a specific compound. A 4 ounce plastic jar was also filled with soil from the auger bucket to determine the percent of moisture in the sample. Additionally, two 60 ml laboratory jars were filled with 25 grams each of soil from the bucket. In order to judge the volume of soil required, several soil samples were weighed using a beam scale to establish the approximate volume of soil needed in a 30 milliliter syringe to provide 25 grams of soil sample. The average soil sample size was approximately 15 milliliters, or 25 grams. Then, 25 milliliters of purge and trap grade methanol was added to each of the 25 gram soil samples, using a clean pipette for each sample. Pipettes and syringes were cleaned at the Ayres Associates laboratory using the three step process described in the field cleaning procedure for the hand auger bucket. The laboratory samples were immediately stored

on ice in a cooler to reduce volatilization/biodegradation of the organic compounds. Samples retained overnight were transferred to a refrigerator in the Ayres Associates laboratory until being transported on ice to Waste Research & Reclamation (WDNR Certification No. 618026530) for quantitative analysis of GRO. Waste Research & Reclamation was also supplied with a fresh sample of the spilled product, Avgas 100 low lead, which was used as a standard for laboratory analysis of the soil samples. A fresh Avgas 100 sample was field screened with the PID and registered 106 instrument units.

3.2 FIELD SAMPLING

On August 31, 1992, at 4 p.m., Jim Hicks, Ayres Associates, arrived on site to collect soil samples via hand auger borings to determine the extent of soil contamination due to the Avgas spill. The weather was sunny and approximately 65 degrees Fahrenheit.

An employee of Gibson Aviation assisted in locating the position of the airplane within the cordoned area. A panoramic view of the area is included in Appendix A, "Site Photographs". Figure 2, shows the plane's location superimposed over the boring locations.

Initially, borings B-1 through B-12 were installed to a depth of 1 foot, at a 5 foot horizontal grid pattern. Following sample collection and field screening, the borings were extended to a depth of approximately 5 feet, except B-2. A layer of gravel with cobbles was encountered in B-2 at a depth of approximately 3 feet, preventing installation of hand auger boring beyond the 3 foot depth.

Borings B-1 through B-4 and B-6 through B-8 were drilled, sampled, and backfilled prior to darkness. Borings B-5 and B-9 through B-12 were covered with traffic cones until the following day when drilling and sampling would continue.

On September 1, 1992, Jim Hicks arrived on site at 8:30 a.m. to continue the spill investigation. The weather was sunny and approximately 50 degrees Fahrenheit. Borings B-5 and B-9 through B-12 were drilled and sampled to a depth of 5 feet. Additionally, B-1 was redrilled to a depth of approximately 9.5 feet and sampled. The 16 ounce Mason jar soil samples were allowed to equilibrate in a heated van for approximately 30 minutes, because of the cool ambient temperature.

No odor or staining was observed in any of the soil samples. Based on the hand auger borings, a brief description of the soil profile, a classification based on the Unified Soil Classification System, is defined as follows:

0 to 0.5 ft.	Brown fine sand w/organics (SP)
0.5 to 3 ft.	Brown fine-coarse sand, trace gravel (SP)
3 to 3.5 ft.	Brown fine-coarse sand, with gravel (SP)
3.5 to 9.5 ft.	Brown fine-coarse sand, trace gravel (SP)

No ground water was encountered to the 9.5 foot depth.

4.0 DISCUSSION

4.1 SOILS

Qualitative PID head space screening of all soil samples ranged from 0.5 to 1.0 instrument units (i.u.), as shown in Table 1, "Soil Sample Summary". Since the field screening detected no significant responses from the soil samples, the decision was made to submit two samples from B-1 for quantitative analysis of GRO. According to the Gibson Aviation employees, and a member of the airport fire department, B-1 was located in the center of the spill area. Soil samples B-1, S-2 and B-1, S-3 were collected at depths of 5 feet and 9.3 feet, respectively. The field screening for B-1, S-2 was 0.7 i.u., while

TABLE 1
SOIL SAMPLE SUMMARY

SAMPLE DATE	BORING NO.	AYRES SAMPLE NO.	LAB SAMPLE NO.	DEPTH (FEET)	PID* RESPONSE (mg/kg)	GRO (mg/kg)
08/31/92	B-1	S-1		1.0	0.6	NA
08/31/92	B-1	S-2	1632	5.0	0.7	0.58
09/01/92	B-1	S-3	1633	9.3	0.5	0.12
08/31/92	B-2	S-1		0.5	0.7	NA
08/31/92	B-3	S-1		0.5	0.7	NA
08/31/92	B-3	S-2		5.0	1.0	NA
08/31/92	B-4	S-1		0.5	0.7	NA
08/31/92	B-4	S-2		5.0	1.0	NA
08/31/92	B-5	S-1		0.5	0.7	NA
09/01/92	B-5	S-2		5.0	0.7	NA
09/01/92	B-5	S-3		5.5	0.6	NA
08/31/92	B-6	S-1		0.5	1.0	NA
08/31/92	B-6	S-2		5.0	0.6	NA
08/31/92	B-7	S-1		0.5	0.7	NA
08/31/92	B-7	S-2		5.0	0.6	NA
08/31/92	B-8	S-1		0.5	0.7	NA
08/31/92	B-8	S-2		5.0	0.7	NA
08/31/92	B-9	S-1		0.5	0.7	NA
09/01/92	B-9	S-2		5.0	0.9	NA
08/31/92	B-10	S-1		0.5	0.7	NA
09/01/92	B-10	S-2		5.0	0.7	NA
08/31/92	B-11	S-1		0.5	0.6	NA
09/01/92	B-11	S-2		5.0	0.7	NA
08/31/92	B-12	S-1		0.5	0.6	NA
09/01/92	B-12	S-2		5.0	0.7	NA

* = PID READING AS INSTRUMENT UNITS (i.u.) OF ISOBUTYLENE GAS (e.g., SAMPLE 1632 HAS A FIELD PID RESPONSE OF 0.7 i.u.'s AS ISOBUTYLENE)

NA = NOT ANALYZED

mg/kg = PARTS PER MILLION (PPM)

quantitative lab analysis reported 0.58 parts per million (ppm) as GRO. Field screening of B-1, S-3 recorded 0.5 i.u. on the PID, and the quantitative lab analysis was 0.12 ppm as GRO. Field screening and laboratory results are shown in Table 1, and the complete laboratory report (with chain of custody) is included in Appendix B, "Laboratory Results".

4.2 GROUND WATER

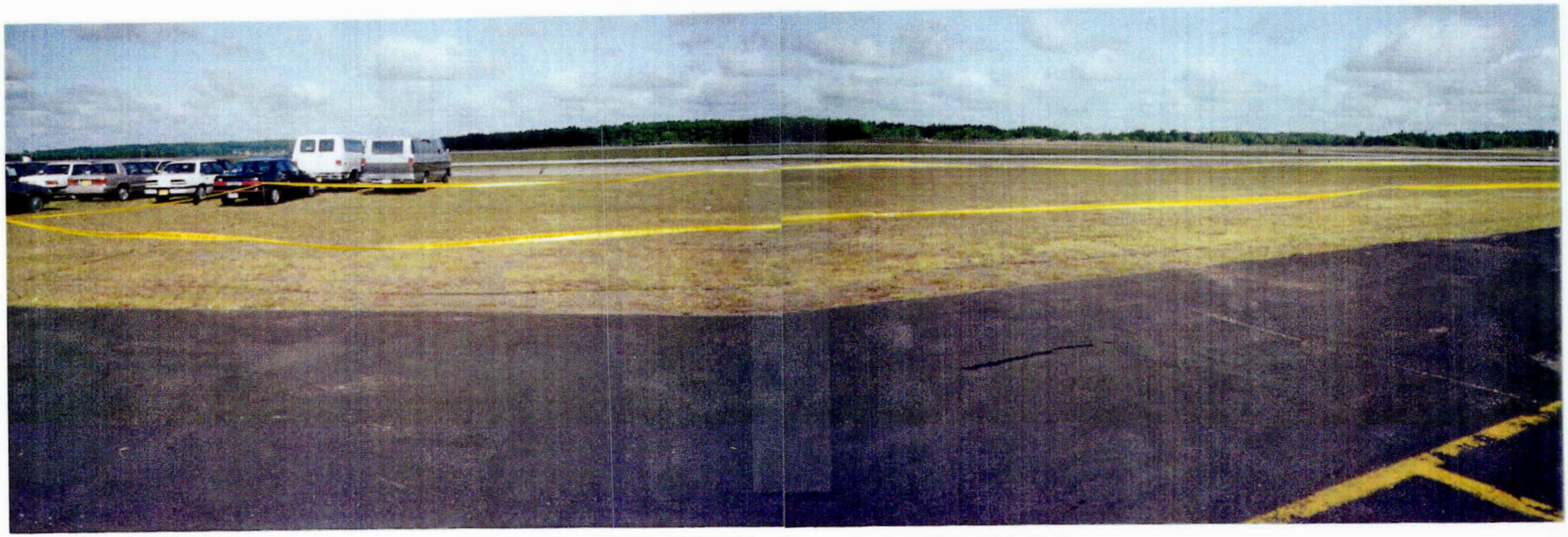
Ground water was not encountered during this investigation. However, monitoring wells have been installed on the airport property for an ongoing ground water study at National Presto Industries. The depth to water in this area is approximately 70 feet, flowing generally to the west.

5.0 CONCLUSIONS AND RECOMMENDATIONS

GRO at 0.58 and 0.12 ppm was reported in the soil samples submitted for laboratory quantitative analysis. No petroleum staining/odor was observed on the ground surface or in the hand auger borings. No PID field screenings exceeded 1.0 i.u.. Since no petroleum contamination was found to exceed the WDNR guideline of 10 ppm in soils, it is recommended that no further investigation or remediation take place at this site. Based on the weather conditions at the time of the spill, and the lack of contamination detected in the soil borings, it is presumed that the majority of the fuel evaporated.

6.0 STANDARD OF CARE

This site investigation is based on data produced by Ayres Associates and their subcontractor through the collection and analysis of soil samples. Soil qualities reported herein apply only to the specific locations and times at which this work was performed. Variations may occur at other locations of the soil samples. conclusions and recommendations made represent our professional engineering judgement in interpreting these data. Ayres' personnel conducting this work are certified under DILHR guidelines for site assessment.



Panoramic View of Spill Area, Looking Northwest