

Received 11/18/98

Binyoti  
TO  
CURT HOFFART

**Letter of Transmittal**

From: Name CURT HOFFART  
 Company Key Engineering Group  
 Address W66 N215 Commerce Court  
Cedarburg, WI 53012  
 Phone (414) 375-4750  
 Date 11/16/98

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Site Name DELOAN SHOPPING CENTER ANNEX  
 Site Address 1011-1025 S. MAIN ST.  
WEST BEND, WI 53095

FID # 267-101400  
 BRRTS # 02-67-151266

To: Wisconsin Department of Natural Resources  
 Southeast Region - Headquarters Office  
 P.O. Box 12436  
 2300 N. Dr. Martin Luther King Jr. Drive  
 Milwaukee, WI 53212  
 Attn: Remediation and Redevelopment Program

Please check the type(s) of documents you have enclosed. Submittals will be tracked and filed based on the information you provide. Be sure to include the FID and BRRTS numbers which have been assigned to the site, and identify the intent of the document(s) you are submitting in order to speed processing.

LUST     ERP     Spill     ACT 453 Purchaser Liability^     ACT 453 Municipal^  
 Other (describe) \_\_\_\_\_

✓ CHECK	PURPOSE OF DOCUMENT/REPORT:	DNR CODE
	Notification of Release	01
	Tank Closure/Site Assessment <i>where release(s) have been detected</i> *	33
	Site Investigation Workplan	35
	Site Investigation Report <input type="checkbox"/> groundwater impacts <input type="checkbox"/> no groundwater impacts	37 76
	Off-Site Determination Request	90
	Remedial Action Plan	39
	Site Specific Clean-Up Goal Proposal	90
	NR 718 Landspreading Request	61
	Copy of Notification to Treat or Dispose of Contaminated Soil or Water	99
	Injection/Infiltration Request	63
X	Quarterly Report or Update	43
	O & M Form 4400-194	92
	Remedial Action Report	41
	Closure Review Request	79
	Simple Site Closure Report <i>using NR700.11 process</i>	79
	Copy of Draft Deed Affidavit or Restriction required for close-out	51/52
	Well Abandonment Form	99
	PECFA Form 4-B (for completed remediation only)	44
	Other (please describe): _____ _____	90/99

\* "Clean" closures should be sent directly to the DNR Remediation and Redevelopment Program, P.O. Box 7921, Madison, WI 53707    attn: Julie Weber

Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_





W66 N215 Commerce Court  
Cedarburg, Wisconsin 53012  
(414) 375-4750  
(800) 645-7365  
Fax (414) 375-9680

November 16, 1998

Mr. Binyoti Amungwafor  
Hydrogeologist  
Wisconsin Department of Natural Resources  
2300 North Dr. Martin Luther King, Jr. Drive  
Post Office Box 12436  
Milwaukee, Wisconsin 53212

Reference: *Project Status Update*  
Decorah Shopping Center Annex  
1011-1025 South Main Street  
West Bend, Wisconsin 53095  
BRRS #: 02-67-151266  
Facility ID #: 267161400 BRR/ERP  
Land Recycling Act, Site #: P-65

KEY ENGINEERING GROUP, LTD.  
File No. 0702007

Dear Mr. Amungwafor:

The purpose of this letter is to provide the Wisconsin Department of Natural Resources (WDNR) with soil and groundwater sample analytical data collected on Ms. Agnes Vorpal's property, and to identify a strategy to complete the site investigation (SI). Two (2) soil samples and one (1) groundwater sample were collected from a soil probe/temporary well (GP-7) placed on Ms. Vorpal's property on October 23, 1998. The location of the soil probe (GP-7) conducted on the Agnes Vorpal property is depicted on Figure 1. The soil and groundwater sample analytical results are summarized on Figures 2 and 3, respectively. A groundwater elevation contour map is provided as Figure 4.

The soil sample analytical results indicated that tetrachloroethene (PCE) was detected in a soil sample collected near the groundwater table (8 to 10 feet). PCE was not detected in shallow soils (2 to 4 feet) at GP-7. Based on the lack of shallow PCE impacts, the PCE impacts detected near the groundwater table are likely associated with the PCE groundwater plume. Benzene was detected at 8 to 10 feet at a concentration exceeding the Wisconsin Administrative Code (WAC) Chapter NR 720 generic residual contaminant level (GRCL). Key Engineering Group, Ltd. (KEY) is not aware of a potential source of benzene contamination on the shopping center property or on Ms. Vorpal's property. It should be noted that the detected benzene concentration is potentially uncertain because it was detected between the limit of detection (LOD) and limit of quantitation (LOQ).

The groundwater sample analytical results indicated that PCE was detected in a groundwater sample collected from a temporary well installed within GP-7 at a concentration exceeding the NR 140 enforcement standard (ES). The PCE concentration exceeded all the PCE concentrations detected in NR 141 groundwater monitoring wells located on the shopping center property; however, it did not exceed the concentration detected at an on-site former temporary well location (GP-4). Benzene was also detected in groundwater at



Mr. Binyoti Amungwafor  
November 16, 1998  
Page 2

GP-7; however, the concentration did not exceed the NR 140 ES and was again detected between the LOD and LOQ.

There appears to be inconsistencies in groundwater data collected from temporary wells (soil probes) and monitoring wells constructed in accordance with NR 141. The PCE concentration detected in groundwater MW-3, located immediately downgradient from the highest PCE concentrations in soil and groundwater (GP-4), did not exceed the NR 140 ES; however, the PCE concentration detected in groundwater at GP-7, located further downgradient, exceeded the NR 140 ES. The groundwater sample analytical data suggests that the groundwater sample collection process from soil probes/temporary wells has resulted in high bias groundwater concentrations (likely due to the advancement of soil impacts to the water table during probe advancement and/or the collection of groundwater samples containing higher volumes of sediment than those collected from NR 141 monitoring wells).


Despite the apparent high bias PCE concentration detected in groundwater at GP-7, KEY anticipates that the WDNR would likely require additional investigation of groundwater impacts further downgradient of the site. Based on the previous difficulties obtaining access to neighboring residential properties, the apparent inconsistencies in groundwater data collected from temporary monitoring wells (soil probes) and NR 141 monitoring wells, and the infeasibility of drilling NR 141 monitoring wells on the adjacent residential properties, KEY proposes installing one (1) additional NR 141 groundwater monitoring well in the Lincoln Drive West right-of-way (ROW) downgradient from the area of highest detected soil and groundwater contaminant concentrations. The approximate proposed well location is depicted on Figure 1.

Due to the significant distance of the proposed monitoring well from the site and the uncertainty of the WDNR's interpretation of the soil probe/temporary well groundwater data, KEY and Continental Properties would appreciate a WDNR review of the collected data and the proposed strategy to determine if the installation of the proposed monitoring well would be sufficient to complete the SI (if the well is not impacted with PCE).

Please call if you have any questions.

Sincerely,

KEY ENGINEERING GROUP, LTD.

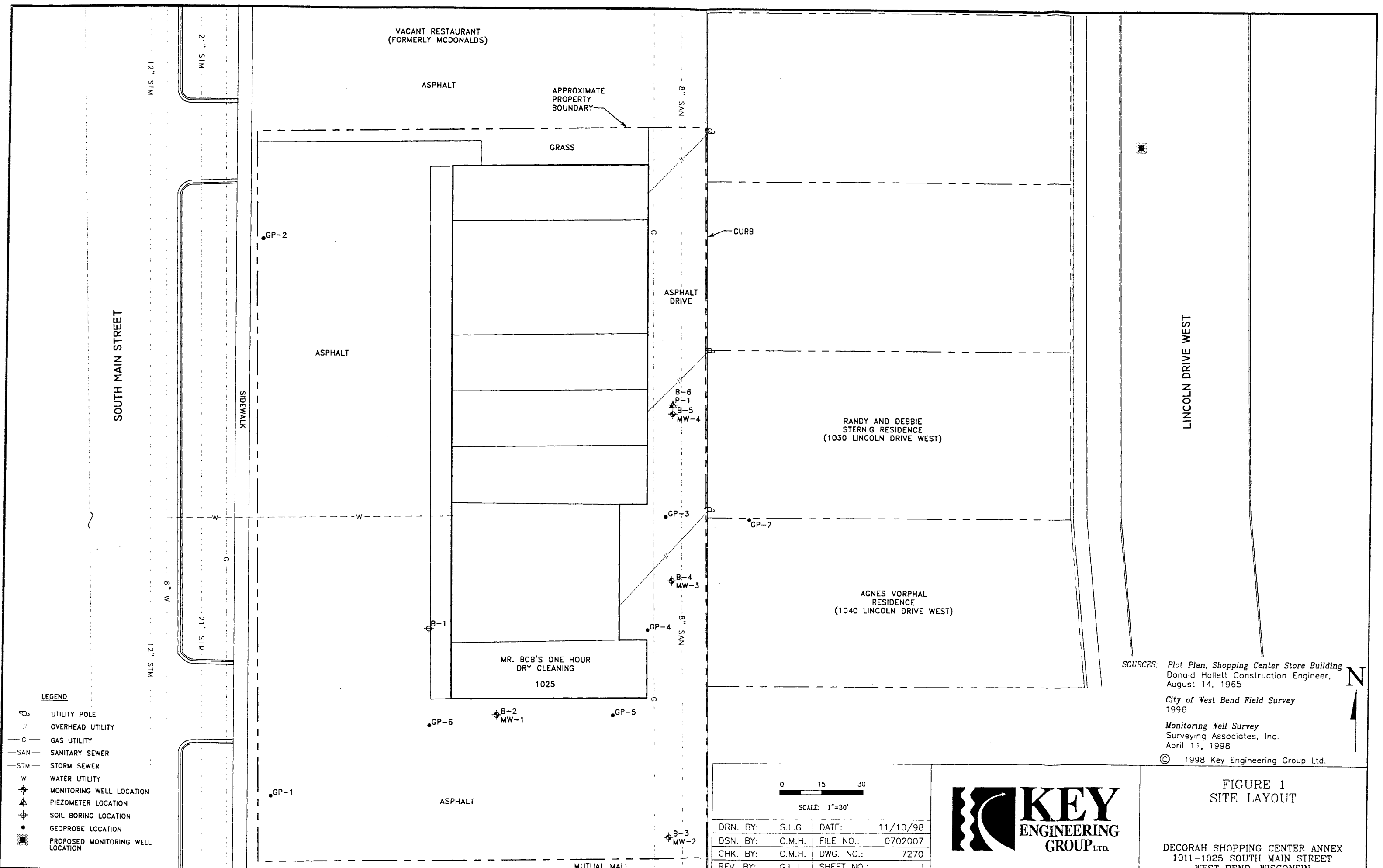
  
Curtis M. Hoffart, CHMM  
Staff Scientist

  
Gregory L. Johnson, CHMM, P.G., P.E.  
Manager of Technical Services

CMH/jml

cc: Mr. Thomas Keenan, Continental Properties Company, Inc.  
Mr. William Roush, Davis & Kuelthau, S.C.

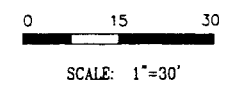
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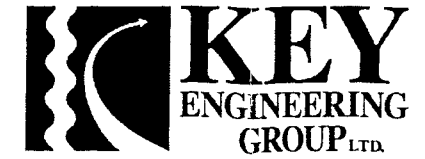
**LEGEND**

- UTILITY POLE
- OVERHEAD UTILITY
- GAS UTILITY
- SAN — SANITARY SEWER
- STM — STORM SEWER
- W — WATER UTILITY
- ⊕ MONITORING WELL LOCATION
- ⊕ PIEZOMETER LOCATION
- ⊕ SOIL BORING LOCATION
- GEOPROBE LOCATION
- ⊕ PROPOSED MONITORING WELL LOCATION

SOURCES: Plot Plan, Shopping Center Store Building  
 Donald Hallett Construction Engineer,  
 August 14, 1965  
 City of West Bend Field Survey  
 1996  
 Monitoring Well Survey  
 Surveying Associates, Inc.  
 April 11, 1998  
 © 1998 Key Engineering Group Ltd.



DRN. BY:	S.L.G.	DATE:	11/10/98
DSN. BY:	C.M.H.	FILE NO.:	0702007
CHK. BY:	C.M.H.	DWG. NO.:	7270
REV. BY:	G.L.J.	SHEET NO.:	1



**FIGURE 1  
 SITE LAYOUT**

DECORAH SHOPPING CENTER ANNEX  
 1011-1025 SOUTH MAIN STREET  
 WEST BEND, WISCONSIN

GP-2	
DEPTH	7'-9'
PID	2
VOCs	ND

B-1	
DEPTH	1'-3' 6'-8'
PID	<1 <1
123-T	30 34
TMB	99 <50
N	51 36 (Q)
X	<50 35
MTBE	<25 43
PCE	<25 <25

GP-1	
DEPTH	7'-9'
PID	3
VOCs	ND

GP-6	
DEPTH	5'-7'
PID	2
VOCs	ND

B-2	
DEPTH	3.5'-5.5'
PID	<1
N	50
PCE	<25

B-5	
DEPTH	1'-3' 6'-8'
PID	<1 <1
N	42 <25
PCE	31 <25

GP-3	
DEPTH	9'-11'
PID	3
PCE	250

GP-7	
DEPTH	2'-4' 8'-10'
PID	<1 <1
B	28 (Q) <25
PCE	<25 107

B-4	
DEPTH	1'-3' 6'-8'
PID	<1 <1
N	42 <25
PCE	79 212

GP-4	
DEPTH	3'-5'
PID	8
PCE	1,500

GP-5	
DEPTH	3'-5'
PID	4
PCE	59 (Q)

B-3	
DEPTH	1'-3'
PID	<1
N	38 (Q)
PCE	<25

**NOTES**  
P.I.D.: PHOTOIONIZATION DETECTOR, I.U.  
I.U.: INSTRUMENT UNITS  
VOCs: VOLATILE ORGANIC COMPOUNDS, ug/kg  
B: BENZENE, ug/kg  
123-T: 1,2,3-TRICHLOROBENZENE, ug/kg  
TMB: TOTAL TRIMETHYLBENZENES, ug/kg  
N: NAPHTHALENE, ug/kg  
X: XYLENES, ug/kg  
MTBE: METHYL-TERT-BUTYL-ETHER, ug/kg  
PCE: TETRACHOROETHENE, ug/kg  
ug/kg: MICROGRAMS PER KILOGRAM  
<: LESS THAN  
ND: NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMITS  
(Q): CONCENTRATION BETWEEN LIMIT OF DETECTION AND LIMIT OF QUANTITATION

- LEGEND**
- ⊕ MONITORING WELL LOCATION
  - ⊙ PIEZOMETER LOCATION
  - ⊕ SOIL BORING LOCATION
  - GEOPROBE LOCATION

0 15 30		
SCALE: 1"=30'		
DRN. BY:	S.L.G.	DATE: 11/10/98
DSN. BY:	C.M.H.	FILE NO.: 0702007
CHK. BY:	C.M.H.	DWG. NO.: 07020075
REV. BY:	G.L.J.	SHEET NO.: 2

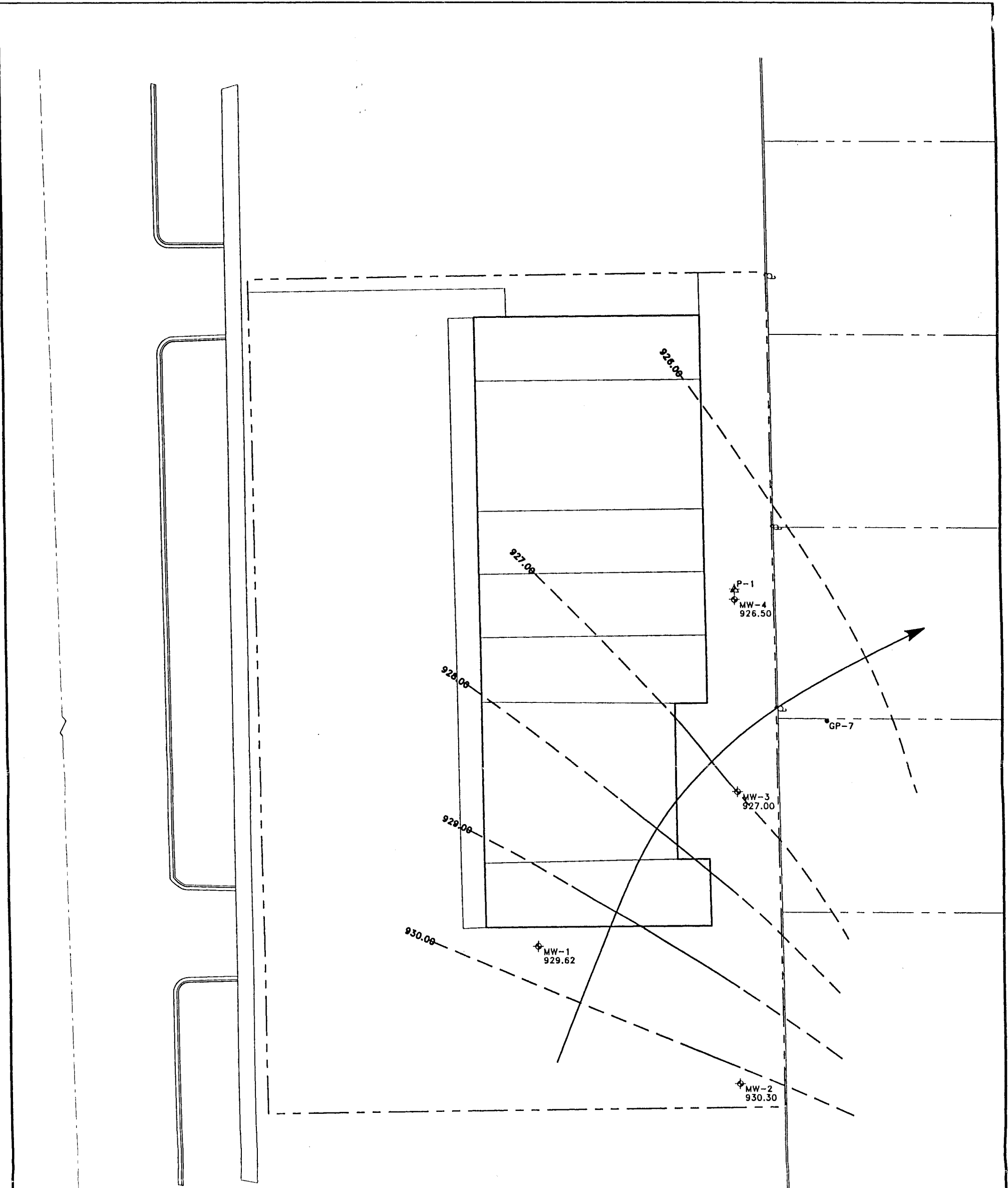


**FIGURE 2**  
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

DECORAH SHOPPING CENTER ANNEX  
1011-1025 SOUTH MAIN STREET  
WEST BEND, WISCONSIN

**SOURCES:** Plot Plan, Shopping Center Store Building  
Donald Hollett Construction Engineer,  
August 14, 1965  
City of West Bend Field Survey  
1996  
Monitoring Well Survey  
Surveying Associates, Inc.  
April 11, 1998  
© 1998 Key Engineering Group Ltd.

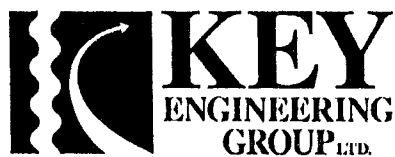




**LEGEND**

- ⊕ MONITORING WELL LOCATION
- ★ PIEZOMETER LOCATION
- GEOPROBE LOCATION
- 930.76 GROUNDWATER ELEVATION (FEET, MSL)  
(7/31/98)
- ← GROUNDWATER FLOW DIRECTION
- CONTOUR INTERVAL = 1 FOOT

<p>SCALE: 1"=30'</p>		
DRN. BY:	S.L.G.	DATE: 11/16/98
DSN. BY:	C.M.H.	FILE NO.: 0702007
CHK. BY:	C.M.H.	DWG. NO.: 07020077
REV. BY:	G.L.J.	SHEET NO.: 4



**SOURCES:** Plot Plan, Shopping Center Store Building  
Donald Hallett Construction Engineer,  
August 14, 1965

City of West Bend Field Survey  
1996

Monitoring Well Survey  
Surveying Associates, Inc.  
April 11, 1998

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**FIGURE 4**  
GROUNDWATER ELEVATION  
CONTOUR MAP  
JULY 31, 1998

DECORAH SHOPPING CENTER ANNEX  
1011-1025 SOUTH MAIN STREET  
WEST BEND, WISCONSIN

