

208188910



July 6, 2009

Mr. Jim Delwiche
Wisconsin Department of Natural Resources
141 NW Barstow Street, Room 180
Waukesha, Wisconsin 53188

RE: Change Order - Monitoring Well Installation
Klinke Cleaners
Fox Run, Waukesha

Dear Mr. Delwiche:

Pursuant to our meeting on March 18, 2009, RSV Engineering, Inc. (RSV) has prepared this change order and cost estimate for installation and sampling of an additional groundwater monitoring well downgradient (east) of well MW-5 (Figure 1) at the Klinke Cleaners facility in the Fox Run shopping center, Waukesha (site). The well was initially recommended in RSV's December 11, 2008 *Additional Site Investigation Summary*. Following our meeting on March 18, you requested an additional round of groundwater elevation measurements be collected in April to confirm the easterly flow of shallow groundwater behind the building. Groundwater elevations were recorded on April 28, 2009 (Table 1) and groundwater elevation contours constructed from those elevations confirm that shallow groundwater flow through the area directly behind the building is to the east, toward monitoring well MW-5 (Figure 2). Groundwater flow maps constructed from February 2009 and November 2008 elevation data also support groundwater flow to the east in that area (Figures 3 and 4, respectively).

Description:

RSV recommends installation of an additional water table monitoring well downgradient (east) of well MW-5 to delineate the downgradient extent of groundwater with concentrations exceeding NR 140 Enforcement Standards. Well drilling will be completed using a truck or track-mounted hollow stem auger drilling rig to a depth approximately 7 feet below the water table, anticipated to be approximately 8 feet bgs, for a total depth of 15 feet. Soil descriptions will be logged by a staff geologist. One to two soil samples will be collected based on field observations and submitted to an analytical laboratory for VOC analyses.

Drill cuttings will be contained in 55 gallon drums pending disposal. The monitoring well will be constructed in accordance with the requirements of Wisconsin Administrative Code ch. NR 141, with

2-inch Schedule 40 flush-threaded PVC and a 10-foot factory-slotted screen. The well will be completed with a lockable flush-mounted traffic-rated protective cover.

The well will be developed by purging and surging, and well construction and development forms will be completed. A minimum of 3 days after development RSV will return to the site to measure the groundwater elevation, purge the well and collect a groundwater sample to be submitted to a WDNR-certified environmental laboratory for analysis of VOCs. Additionally, depth to water measurements and groundwater VOC samples will be collected from all shallow site monitoring wells at that time.

All purge water will be contained in clean DOT-approved 55 gallon drums pending groundwater analyses. After the well is installed, its elevation will be surveyed to the nearest 0.01 foot, relative to a local datum.

Schedule and Cost:

It is estimated that the drilling could be completed in less than 1 day and the sampling can be completed in 1 additional day. The attached Table 2 summarizes the estimated costs for well installation and sampling.

Future Site Activities:

PCE concentrations in site piezometers are below the NR 140 enforcement standard (ES). However, concentrations of PCE have historically been approximately 3 orders of magnitude higher in monitoring well MW-5 than MW-3, and the historic difference between the potentiometric surface elevations in the piezometer and water table well in the MW-3 nest suggests there is a strong downward gradient in the area of these wells (the MW-3 nest was removed during site excavation activities). Consequently, RSV recommends that an additional piezometer be installed downgradient of monitoring well MW-5. However, as the downgradient extent of PCE concentrations in shallow groundwater exceeding the ES remains undefined, RSV recommends that the location of the piezometer be selected following completion of additional shallow groundwater investigation activities, particularly with respect to the utility corridor's potential to act as a preferential pathway for groundwater flow.

RSV is prepared to schedule the work immediately following receipt of WDNR approval of this work scope.

Sincerely,
RSV ENGINEERING, INC.



Paula A. Richardson, P.G.
Project Hydrogeologist



Robert J. Nauta, P.G.
Vice President

Mr. Jim Delwiche
July 6, 2009
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Attachments:

Tables 1 and 2
Figures 1 through 4

cc: Richard Klinke

TABLES

**TABLE 1
KLINKE CLEANERS
FOX RUN SHOPPING CENTER
WAUKESHA, WISCONSIN
GROUNDWATER ELEVATIONS**

Well Location	Date	Top of Casing Elevation (feet)	Depth to Water from TOC (feet)	Water Table Elevation (feet)
MW-1	1/12/2006	101.39	24.60	76.79
	11/3/2008		24.48	76.91
	2/25/2009		23.89	77.50
	4/28/2009		22.05	79.34
MW-2	1/12/2006	100.21	8.68	91.53
	11/3/2008		8.84	91.37
	2/25/2009		8.40	91.81
	4/28/2009		7.57	92.64
MW-3	1/12/2006	99.66	8.16	91.50
	11/3/2008		8.50	91.16
	2/25/2009		8.38	91.28
	4/28/2009		6.98	92.68
P-3	1/12/2006	100.44	32.03	68.41
	11/3/2008		20.89	79.55
	2/25/2009		20.44	80.00
	4/28/2009		19.22	81.22
MW-4	1/12/2006	100.41	23.48	76.93
	11/3/2008		23.43	76.98
	2/25/2009		22.85	77.56
	4/28/2009		21.11	79.3
MW-5	1/12/2006	99.78	9.20	90.58
	11/3/2008		9.48	90.30
	2/25/2009		9.63	90.15
	4/28/2009		8.24	91.54
MW-6	1/12/2006	100.00	8.64	91.36
	11/3/2008		8.80	91.20
	2/25/2009		8.79	91.21
	4/28/2009		8.17	91.83
MW-7	11/3/2008	99.04	8.32	90.72
	2/25/2009		8.47	90.57
	4/28/2009		7.15	91.89
MW-8	11/3/2008	99.83	8.05	91.78
	2/25/2009		8.00	91.83
	4/28/2009		6.61	93.22

TOC : Top of casing.

bgs: Below ground surface.

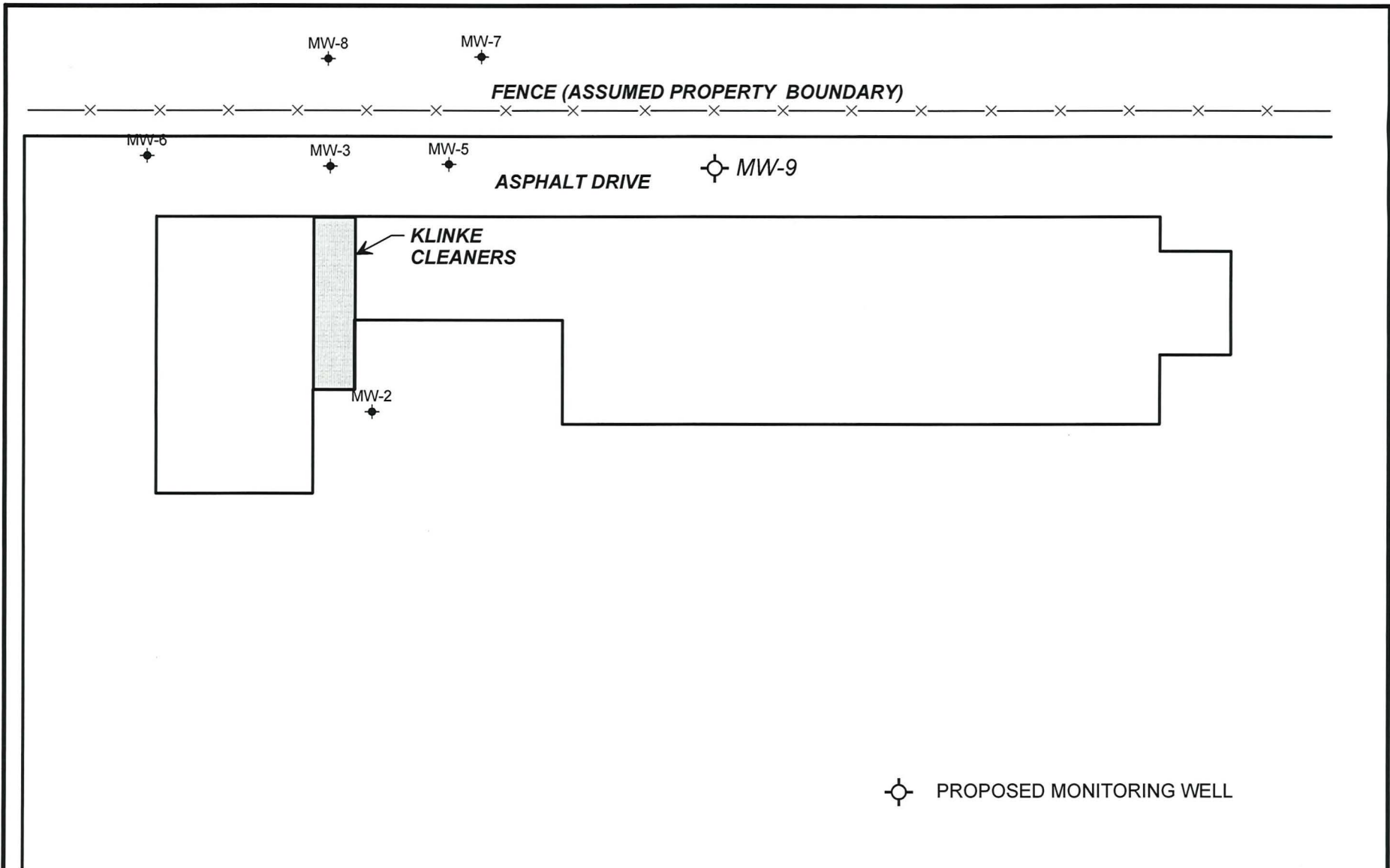
¹ Elevations in feet, referenced to a local datum (top of MW-6).

**TABLE 2
KLINKE CLEANERS
FOX RUN
WAUKESHA, WISCONSIN
WELL INSTALLATION ESTIMATED COSTS**

TASK	UNITS	QTY.	RATE	COST
<i>Task 1: Planning, Reporting & Project Management</i>				
Principal Hydrogeologist	Hours	4	\$125	\$500
Staff Hydrogeologist	Hours	20	\$95	\$1,900
CADD	Hours	4	\$85	\$340
Expenses	Estimate	1	\$150	\$150
Subtotal:				\$2,890
<i>Task 2: Monitoring Well Installation and Sampling</i>				
Staff Hydrogeologist	Hours	14	\$95	\$1,330
Geoprobe	Estimate	1	\$1,250	\$1,250
Laboratory - soil VOCs	Each	2	\$75	\$150
Laboratory - groundwater VOCs	Each	7	\$75	\$525
Investigative Waste Disposal ¹	Estimate	1	\$535	\$535
Expenses	Estimate	1	\$250	\$250
Subtotal:				\$2,980
TOTAL:				\$5,870

¹ Disposal estimate is based on 2 drums of soil and 2 drums of water.


FIGURES

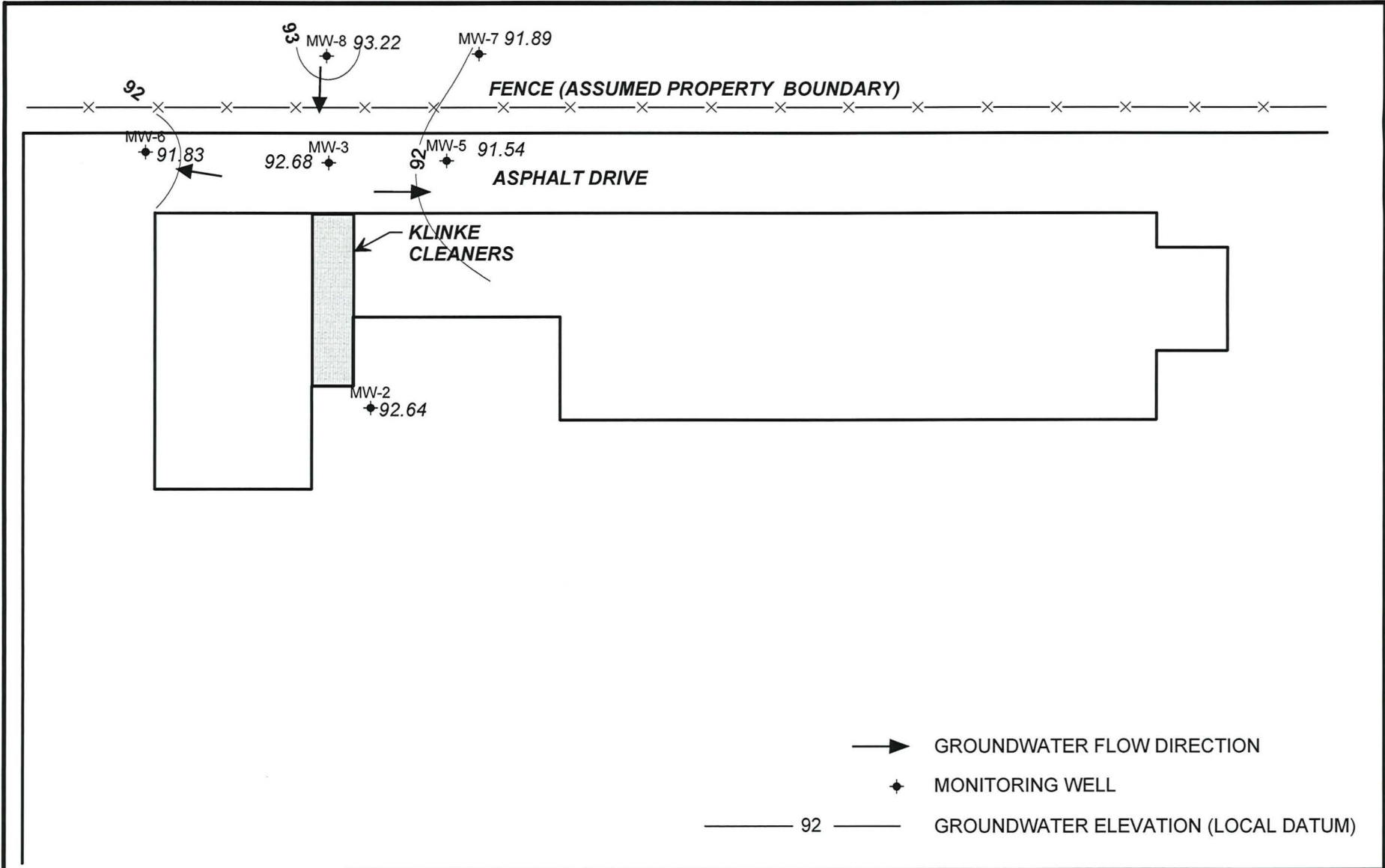


⊕ PROPOSED MONITORING WELL

SCALE IN FEET
 0 20 40 60 80



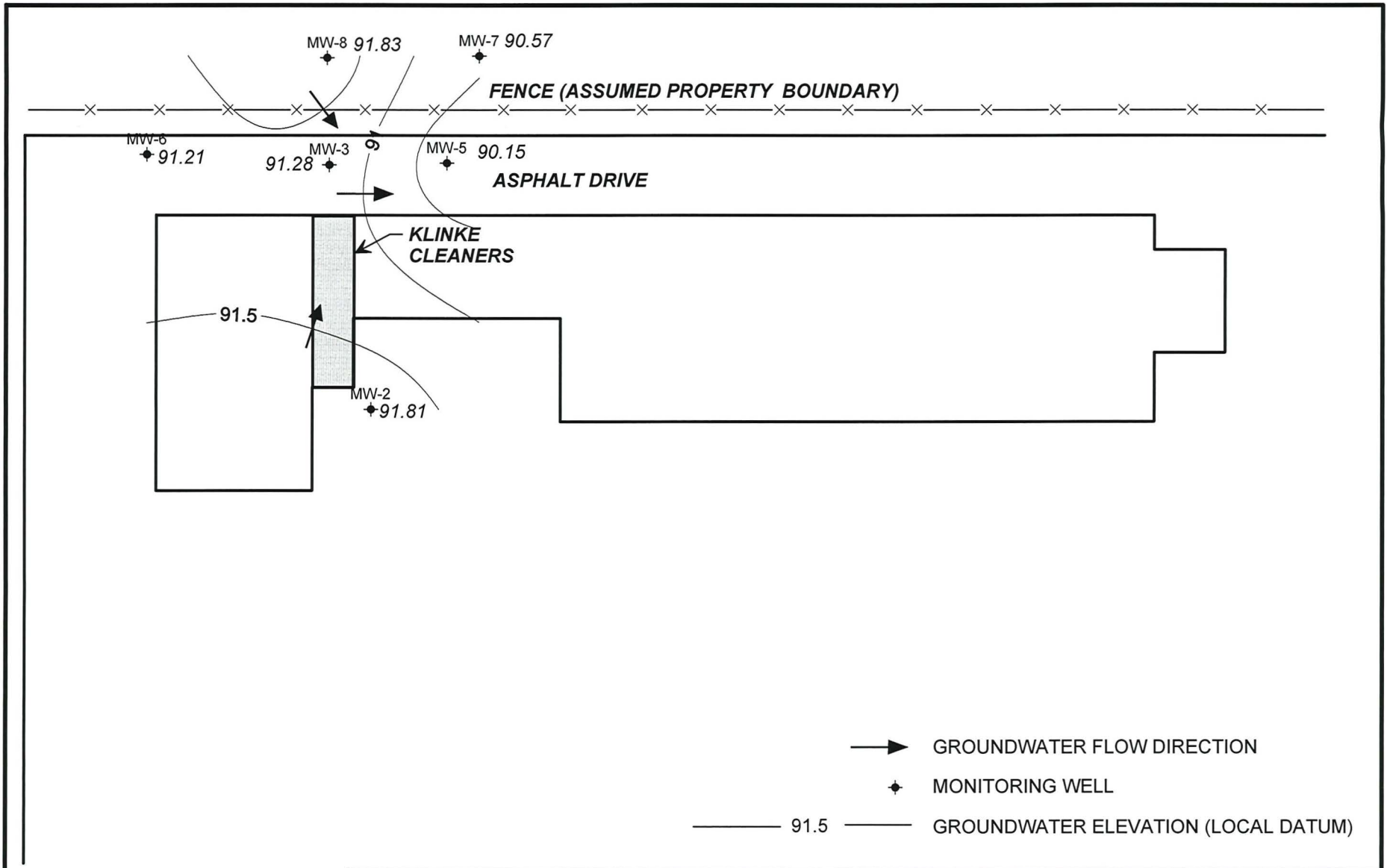
 RSV ENGINEERING, INC. Engineers • Land Surveyors • Environmental Scientists 146 E. MILWAUKEE STREET JEFFERSON, WISCONSIN 53549 (920) 674-3411	KLINKE CLEANERS FOX RUN - WAUKESHA, WISCONSIN PROPOSED WELL LOCATION			FIGURE 1
	DRAWN BY PAR	PROJ. No. 05-529	DATE 02 MAR 09	FILE NAME Prop Well 0309



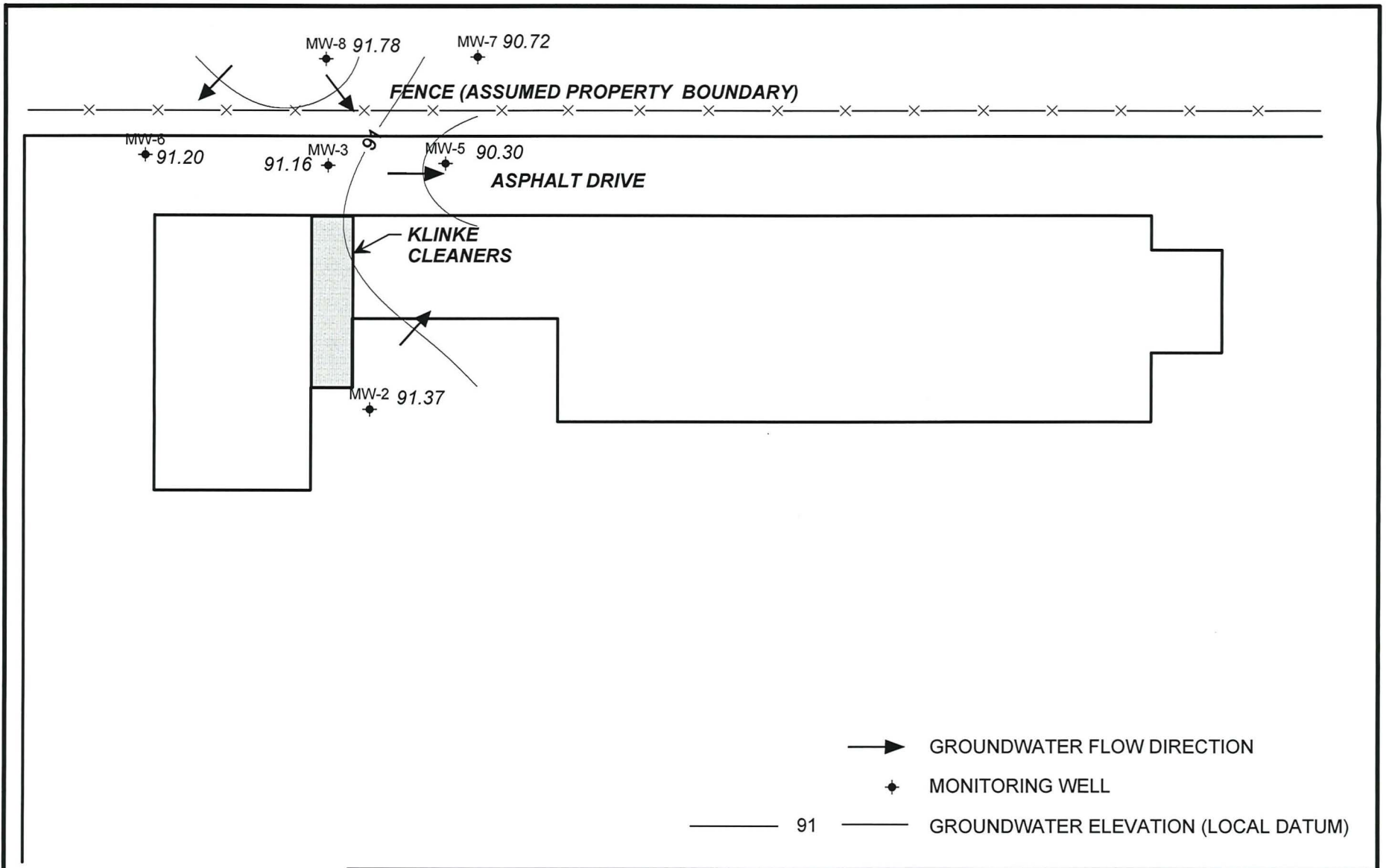
- GROUNDWATER FLOW DIRECTION
- ◆ MONITORING WELL
- 92 —— GROUNDWATER ELEVATION (LOCAL DATUM)



 RSV ENGINEERING, INC. Engineers • Land Surveyors • Environmental Scientists 146 E. MILWAUKEE STREET JEFFERSON, WISCONSIN 53549 (920) 674-3411	KLINKE CLEANERS FOX RUN - WAUKESHA, WISCONSIN WATER TABLE ELEVATION CONTOURS APRIL 28, 2009			FIGURE 2
	DRAWN BY PAR	PROJ. No. 05-529	DATE 11 MAY 09	FILE NAME WTR LVL 0409



 RSV ENGINEERING, INC. Engineers • Land Surveyors • Environmental Scientists 146 E. MILWAUKEE STREET JEFFERSON, WISCONSIN 53549 (920) 674-3411	KLINKE CLEANERS FOX RUN - WAUKESHA, WISCONSIN WATER TABLE ELEVATION CONTOURS FEBRUARY 25, 2009			FIGURE 3
	DRAWN BY PAR	PROJ. No. 05-529	DATE 26 FEB 09	FILE NAME WTR LVL 0209




RSV
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 Engineers • Land Surveyors • Environmental Scientists
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KLINKE CLEANERS FOX RUN - WAUKESHA, WISCONSIN WATER TABLE ELEVATION CONTOURS NOVEMBER 3, 2008		
DRAWN BY	PROJ. No.	DATE
RN	05-529	04 DEC 08

FIGURE 4
FILE NAME
WTR LVL