February 12, 2013

Via E Mail and Federal Express

Mostafa Mehran
Arkansas Department of Environmental Quality
Hazardous Waste Division
5301 Northshore Drive
North Little Rock, Arkansas 72118

Re: Whirlpool Corporation, Fort Smith, Arkansas
January 22, 2013 ADEQ Review of Revised Risk Management Plan
EPA No. ARD042755389 AFIN No. 66-00048

Dear Mr. Mehran:

This follow-up letter is in response to the January 22, 2013 letter discussing ADEQ's review of the Revised Risk Management Plan (RRMP) for the Whirlpool Fort Smith, AR project site. While we understand that trichloroethylene (TCE) concentrations exist off-site in concentrations above maximum contaminant levels (MCL) which will be addressed with institutional controls, we would like to discuss the second sentence of the response letter which states "*the contamination plume appears to still be moving"*.

ENVIRON reviewed groundwater data collected for the site over time and developed the attached groundwater trends figure (Figure 1). This figure depicts four different fall groundwater data collection events from the time period of 2005 through 2012. Data collected between the years of 2005 and 2012 were chosen to represent the most complete data sets, as prior to 2005 many wells had either not yet been installed and/or full rounds of data sets were not available. As shown on Figure 1, the only modification of the original on-site and off-site plume delineation of impacted groundwater is the inclusion of MW-63 in the 2007 and 2011 events.

Groundwater data near the northern flow regime was also reviewed. As discussed within historical documents at the site, a groundwater divide is present just north of the Whirlpool factory building. To address concerns about contamination moving off-site into the residential area, data from wells closest to the northern groundwater divide was reviewed to evaluate potential TCE migration off-site. The data from these monitoring wells are included below in Table 1:

Table 1: Concentration of TCE Near Northern Groundwater Divide

	Sep-05	Oct-06	Sep-07	Oct-09	Oct-11	Oct-12
Sample ID	**TCE (ug/L)**	**TCE (ug/L)**	**TCE (ug/L)**	**TCE (ug/L)**	**TCE (ug/L)**	**TCE (ug/L)**
MW-23	65.8	59	47	45	41	43
MW-27	ND	2	ND	---	ND	ND
MW-28	ND	ND	ND	ND	ND	ND
MW-31	ND	3	ND	---	ND	ND
MW-32	97.6	85	78	105	73	61
MW-33	1030	1300	1700	1200	1000	1300

--- Not Sampled

It is important to note that TCE concentrations at each of the monitoring wells closest to the on-site source, are either stable or decreasing in concentration with time.

Lastly, data from 2005 through 2012 was reviewed for the wells which define the boundaries of the off-site TCE plume. This data is shown below in Table 2. With the exception of MW-63, TCE in the off-site plume boundary wells has consistently been non-detected or below the TCE MCL of 5 ug/L. At MW-63, TCE has either been non-detected, detected below the MCL, or detected slightly above the MCL.

Table 2: Concentration of TCE in Off-Site Monitoring Wells

	Sep-05	Oct-06	Sep-07	Oct-09	Oct-11	Oct-12
Sample ID	**TCE (ug/L)**	**TCE (ug/L)**	**TCE (ug/L)**	**TCE (ug/L)**	**TCE (ug/L)**	**TCE (ug/L)**
Northern Boundary Wells						
MW-50	ND	ND	ND	ND	ND	ND
MW-60	ND	ND	ND	ND	ND	ND
MW-61	ND	ND	ND	ND	ND	2.4 J
Eastern Boundary Wells						
MW-36	ND	ND	ND	ND	ND	ND
MW-62	ND	ND	ND	ND	2	ND
MW-63	ND	4	8	7.7	9.8	ND
MW-66	---	2	4	ND	2	ND
MW-67	---	1	ND	ND	ND	ND
Western Boundary Wells						
MW-39	ND	ND	ND	ND	ND	ND
MW-40	ND	ND	ND	ND	ND	ND
MW-68	---	---	---	ND	ND	ND
Southern Boundary Wells						
MW-26	ND	ND	ND	ND	ND	ND
MW-27	ND	2	ND	---	ND	ND
MW-28	ND	ND	ND	ND	ND	ND
MW-31	ND	3	ND	---	ND	ND

--- Not Sampled
ND Detection Limits Ranged from 1.6 to 2.5 ug/L

Based upon 7 years of data, TCE concentrations appear to be stable to decreasing at the northern flow regime boundary and stable at off-site boundary wells. These data indicate that the TCE plume has a defined delineation and there is no continued migration of TCE further off-site.

The January 22, 2013 ADEQ letter requested that Whirlpool evaluate the potential benefit of additional intrusive on-site controls. As discussed within the RRMP, a containment based approach (i.e. recovery trench or vertical barrier) would not remove impacts from the site but would only reduce migration and/or exposure to constituents of concern in groundwater. As discussed above, TCE concentrations at the northern flow boundary and off-site appear to be defined and are stable to decreasing. Therefore, the benefit to further groundwater control is marginal at best. Also, the January letter requested a review of a vertical barrier for an on-site soil remedy. The impacted soil discussed in the RRMP is located within the southern flow regime and therefore does not pose risk to off-site properties. Our planned use of institutional controls for the on-site impacts will address the current risks on-site. Whirlpool plans to record deed restrictions prohibiting subsurface work within the impact area. This will be done in addition to the City of Ft Smith Groundwater Well Ban that will cover on-site Whirlpool property.

ENVIRON proposes that we have a meeting with ADEQ to address the issues raised above and together develop a path forward. ENVIRON submitted a work plan to begin implementing elements of the final remedy identified in the RRMP and would like to keep the project moving forward.

We welcome the opportunity to discuss this letter and associated concerns with you at your earliest convenience.

Sincerely,

Tamara R. House-Knight

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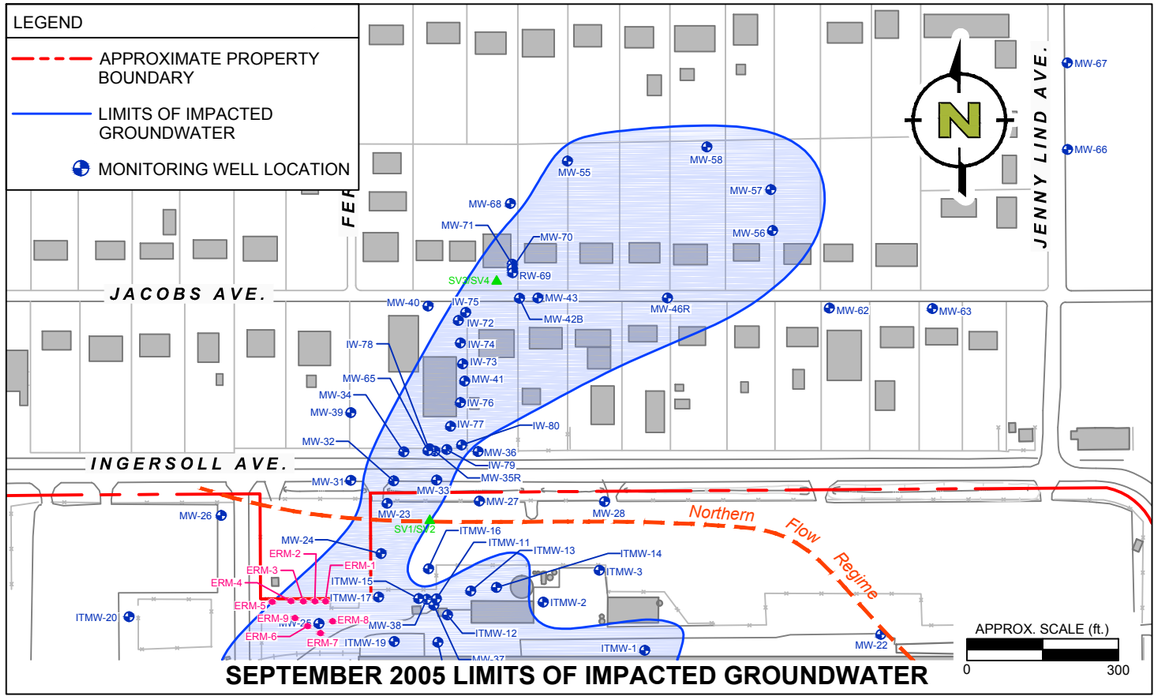
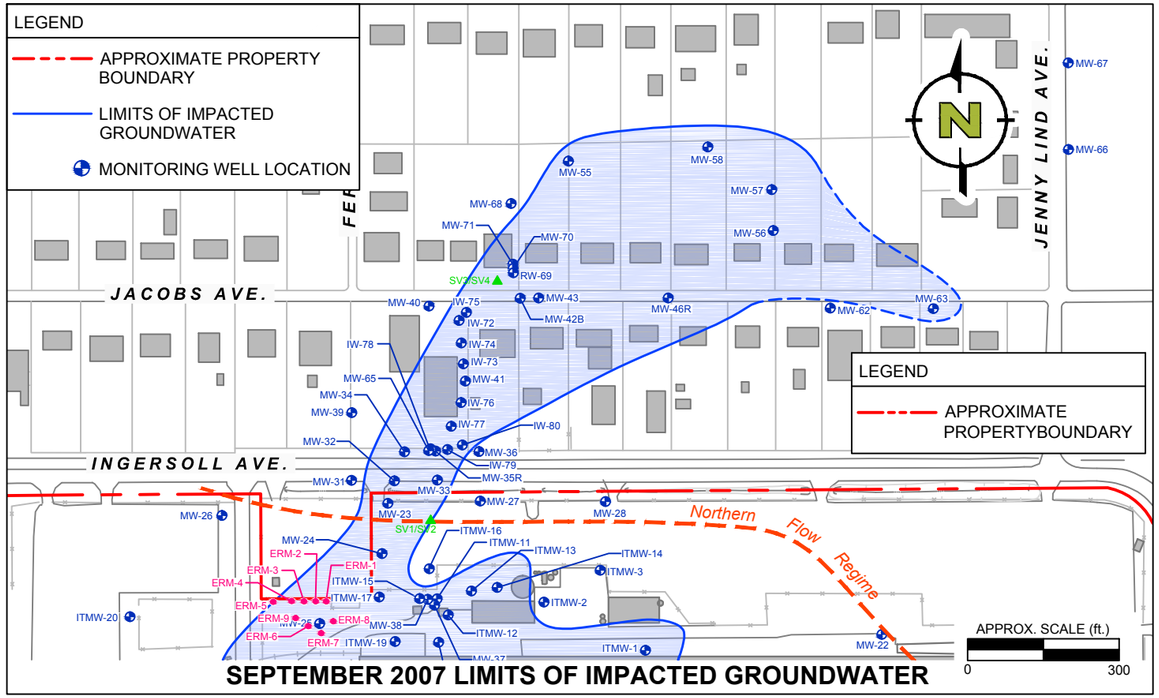
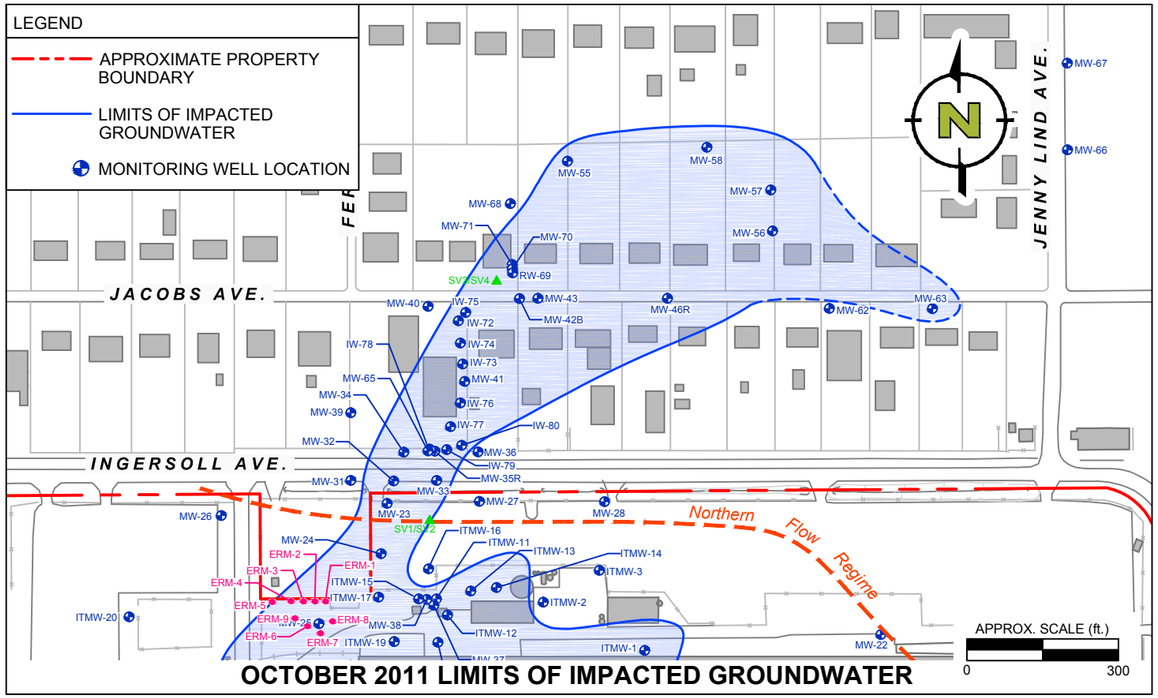
Cc: Robert Karwowski – Whirlpool Corporation



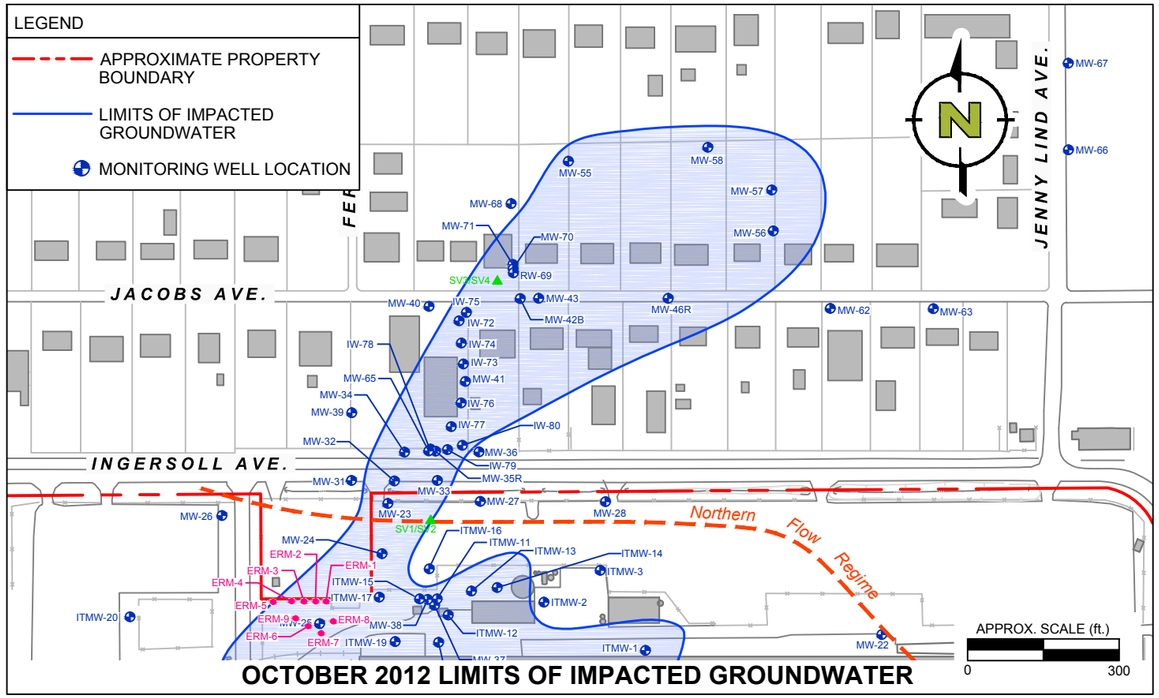
SEPTEMBER 2005 LIMITS OF IMPACTED GROUNDWATER



SEPTEMBER 2007 LIMITS OF IMPACTED GROUNDWATER



OCTOBER 2011 LIMITS OF IMPACTED GROUNDWATER



OCTOBER 2012 LIMITS OF IMPACTED GROUNDWATER

ENVIRON

DRAFTED BY: ELS | DATE: 2/11/13

GROUNDWATER TRENDS
WHIRLPOOL CORPORATION
6400 JUNNY LIND ROAD
FORT SMITH, ARKANSAS

FIGURE
7

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