STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL FOR THE STATE OF MICHIGAN, ex rel, MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY,

Plaintiffs,

v

GELMAN SCIENCES, INC., a Michigan corporation,

Defendant.

File No. 88-34734-CE

Honorable Donald E. Shelton

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PLAINTIFFS' BRIEF IN RESPONSE TO PETITION FOR DISPUTE RESOLUTION

Introduction

Plaintiffs, the Attorney General of the State of Michigan, and the Michigan Department of Environmental Quality (MDEQ), by their undersigned counsel, pursuant to Section XVI.C of the Consent Judgment entered in this matter on October 26, 1992, as amended on September 23, 1996 and October 20, 1999 (Consent Judgment), submit this Brief in Response to Defendant,

Pall Life Sciences, Inc.'s (Defendant or PLS), Petition for Dispute Resolution filed on August 18, 2009 (the "Petition").

This dispute resolution proceeding arises due to Defendant's failure to take actions necessary to ensure the protection of public health, safety, welfare and the environment, in particular its failure to take steps to fully delineate 1,4-dioxane contamination in groundwater at and emanating from Defendant's facility located at 600 S. Wagner in Scio Township, Michigan that extends eastward and north-eastward into the City of Ann Arbor, and westward and north-westward in Scio Township (the Site).

The overall goal of the Consent Judgment is to clean up the area-wide groundwater contamination. The Court has also supplemented the Consent Judgment with several cleanup related orders including, the Opinion and Order Regarding Remediation of the Contamination of the "Unit E" Aquifer ("Unit E Order"), dated December 17, 2004, which modified the requirements with regard to the Western System, in particular the area west of Wagner Road.

The MDEQ has long expressed its concern that the nature and extent of the area wide 1,4-dioxane contamination has not been fully delineated, and that the origin and fate of contamination in certain areas of the Site is unknown. As part of the ongoing response activities in this area, the MDEQ requested, and after much discussion, PLS agreed to install a monitoring well in the South Nancy drive area. However, based solely on results obtained while vertically profiling the boring in which the agreed upon monitoring well was to be installed, PLS reneged on the agreement. The Plaintiffs believe that the information it seeks from the proposed

monitoring well, and more, is needed to carry out the goals of the Consent Judgment and the Unit E order.[1]

As the Court is aware, the Defendant has filed contemporaneously with the Petition, a Motion for Approval of Proposed Modifications to Evergreen and Maple Road Remedial Systems, a Motion to Approve Pall Life Sciences' Comprehensive Proposal to Modify Cleanup Program, and A Brief Regarding Issues in Dispute. This brief is intended to address the issues raised in Defendant's Petition and while it may touch on issues raised in Defendant's other submittals, it is not intended to be an omnibus response. Plaintiffs' will be responding separately to those motions and brief. Plaintiffs are submitting a copy of the Administrative Record[2] as required by the Consent Judgment, which along with any exhibits attached to this Response, and those referenced in Defendant's Petition shall constitute the record for review.[3]

Factual Background

The Consent Judgment required the Defendant to design, install, operate, and maintain several remediation systems to "contain the plumes of groundwater contamination emanating from the [Defendant's] property ... and to extract the contaminated groundwater from the aquifers at designated locations for treatment (as required) and disposal. It also required Defendant to implement a monitoring program to verify the effectiveness of these systems." Consent Judgment, p. 6.

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[1] Plaintiffs have sought relief for additional investigation in this area in their Motion to Enforce Consent Judgment and Request for Additional Response Activity, filed on August 14, 2009.
[2] The bates stamp numbering system for the Administrative Record is NANCYDR-XXXX (where X denotes a number). References to the Administrative Record in this brief will be denoted by [NDXXXX].
[3] Defendant referenced the affidavit of James Brode and few exhibits included in its Joint Appendix to Motions to Modify Cleanup Program.

In May 2001, the Parties determined that the groundwater contamination at the Site was deeper than originally thought, there was no confining layer of clay separating what was known as the Evergreen or "D2" aquifer from what was thought at the time to be a separate aquifer, designated as the "Unit E" aquifer, and that 1,4-dioxane contamination had migrated into the Unit E aquifer in an area east of the PLS property.

The Court held, in the Unit E Order, that the Unit E aquifer was part of the "Western System"[4] and therefore subject to the terms of the Consent Judgment, including its overall objective of cleaning up the area-wide contamination. The Court agreed with MDEQ's rationale "that controlling groundwater contamination at or near its source is more efficient than trying to capture it later as it spreads through the aquifer." Unit E Order, p. 8. However, a determination on whether it was feasible to meet this goal was deferred until after the completion of aquifer performance testing, a preliminary step to a feasibility determination. [ND0008]. In its October 31, 2007 letter, the MDEQ indicated that it was unable to determine if the extraction well TW-18 was capturing all of the contamination because the extent of contamination had not been adequately defined, based on the then available data. [ND0008 and ND0010 to ND0011].

MDEQ requested nested monitoring wells be installed to define the northern extent of the "Unit E" contamination. [ND0009 to ND0012]. The MDEQ also indicated that at least one monitoring well would be needed to assist in investigating the source high concentrations of 1,4-dioxane found in the Dupont Circle area, a concern which was expressed again in the MDEQ's

[4] The Western System was broadly defined as encompassing groundwater contamination outside the "Core" and "Evergreen" System area. [Consent Judgment Section V.C.]

June 23, 2008 letter.[5] MDEQ clearly explained the importance of a monitoring point at Nancy Drive in its October 31, 2007 letter to PLS:

> Mr. Coger's review indicates that the northern extent of the Unit E plume along Wagner Road north of TW-18 (and elsewhere) has not been determined, and that 1,4-dioxane above 85 ppb at MW-105d (932 ppb in July 2007) is not being captured by TW-18. We do not believe it is possible to evaluate if it is practical to capture the entire width of the Unit E plume at Wagner Road until the entire extent of the Unit E plume is determined.
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> * * *
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> The conditions north of TW-18, however raise significant concerns. As indicated in Mr. Coger's review, we do not believe the northern extent of the Unit E plume has been defined. We are concerned that a portion of the Unit E plume may be migrating north of the Prohibition Zone, and possibly outside of the capture zone of the Evergreen System extraction wells. In addition, PLS has acknowledged that the Unit D2 plume and the Unit E plume cannot be distinguished in the area of MW-94s. Any additional loading from the Unit E plume into the Unit D2 plume will lengthen the amount of time required to remediate the Unit D2 plume in the Evergreen System. The lifetime of the transmission pipeline that transports the contamination from the Evergreen System extraction wells is limited, as shown by the failure of the original pipeline in October 2005. The DEQ believes that any groundwater contamination at Wagner Road that is migrating toward the Evergreen Subdivision should be captured at Wagner Road, and that the feasibility of doing so should be examined.
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> * * *

[ND0008]. In the attached memo, Mr. Coger stated that several monitor wells were needed to define the northern extent of the Unit E plume, including one in the Nancy Drive area. The October 2007 letter goes on to advise the Defendant that "[a]s with any investigation, results must be interpreted as they are received, and may result in changes to these recommendations." [ND0009]. Finally, MDEQ believes that there is insufficient data to support Defendant's interpretation of the groundwater flow direction in the Wagner Road area.

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[5] The Defendant seems to assert that the Dupont Circle investigation was the only reason put forth by MDEQ for requesting the monitor well near south Nancy Drive. [Petition, paragraph 8].

After much discussion, most of which was informal,[6] Defendant agreed to install a monitoring well in the Nancy Drive area and requested that MDEQ approve the location, along with its approval of several other monitor well locations. By an email dated October 23, 2008, MDEQ approved the proposed monitoring well on Nancy Drive. [ND0097]. There was never an agreement between the parties that Defendant would only advance a boring to determine if the approved location was appropriate for a monitor well. Nonetheless, after receiving the vertical profile sampling results, Defendant, announced that it would not be putting in a monitor well at the Nancy Drive location and that the northern extent of the Unit E plume had been delineated. [ND0126]. Despite the inconclusiveness of the results, discussed below in more detail, MDEQ was unable to convince the Defendant that the agreed upon monitor well was still needed.

After considering Defendant's comments and a conference call between the Parties on January 6, 2009, the MDEQ by an email dated January 20, 2009, demanded the installation of a nested monitor well at Nancy Drive.[7] [ND0129].

On January 20, 2009, the Defendant, through its counsel, invoked the dispute resolution process of Section XVI of the Consent Judgment. [ND0129]. Pursuant to those procedures the parties attempted to resolve the dispute through informal negotiations, including a conference call between the MDEQ and Defendant's representatives, and the Plaintiffs agreed to several requests by the Defendant to extend the informal negotiation period.

On June 23, 2009, the MDEQ provided Defendant with its proposed resolution of the dispute as provided in Section XVI.B of the Consent Judgment:

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[6] "Informal," in the sense that it mostly involved verbal communication between the parties and email, but no formal written communication.

[7] MDEQ believes that a cluster of three monitoring wells are needed in the Nancy Drive area to accurately measure groundwater flow and contamination in the area. [ND0133].

As the DEQ has previously pointed out, and as PLS has acknowledged, vertical profile results are used as a screening tool and cannot be relied upon to determine the extent of contamination for the following reasons:

1) It is not possible to repeat or confirm a Simulprobe result to ensure it reflects the actual concentration in groundwater at the time of sampling;
2) A one-time sample will not reflect changes to the extent of the contamination as it migrates (because 1,4-dioxane is totally water soluble and moves with the flow of groundwater, it is probable that concentrations will change over time), and
3) PLS contractors routinely add water to the augers during drilling which can dilute the groundwater collected in the next sample (e.g., the boring log for PLS-0807 shows that 20 to 30 gallons of water was added to the auger at five depth intervals, a total of 140 gallons, just nine feet above the next sample collected in all five cases).

The vertical profile of groundwater results from the PLS-08-07 boring showed low concentrations of 1,4-dioxane in samples collected after water had been added to the augers, as indicated above. It is possible that concentrations in the aquifer are considerably higher than the vertical profile results. In fact, PLS has reported several examples of groundwater collected from permanent monitor wells at significantly higher concentrations than detected using the Simulprobe at the same location and depth. In the boring for MW-118, on Ferry Street east of Wagner Road, the vertical profile result at 140 feet, where permanent monitor well MW-118 was screened was reported at 90 ppb. However, the first sample from MW-118, collected about a week later, was 327 ppb. In the six samples collected from monitor well MW-118 since that initial sample, the concentration of 1,4-dioxane has ranged between 418 ppb and 214 ppb.

* * *

The DEQ has considered PLS's arguments against installation of the MW cluster, as detailed in electronic mail from Mr. Fotouhi dated January 6 and 20, 2009, and during the DEQ's conference calls with Mr. Fotouhi and Mr. James Brode on January 6 and April 14, 2009. For the reasons stated above, the DEQ is not convinced by PLS's assertions that a monitoring well cluster is not needed in the Nancy Drive area. Pursuant to Section XVI.B of the Consent Judgment, the DEQ's resolution of the dispute is that PLS install a monitoring well cluster, with three separate wells, each with a five-foot screen, at depths of approximately 40 feet, 80 feet, and 180 feet. Installation of this monitoring well cluster should begin within 30 days of the date of this letter, subject to acquiring access.

[ND0136 to ND0137].

Section XVI.B of the Consent Judgment provides the procedure that the Defendant must follow to obtain judicial review of the MDEQ's proposed resolution of the dispute. It provides:

> Immediately upon expiration of the informal negotiation period (or sooner if upon agreement of the parties), the MDNR shall provide to Defendant a written statement setting forth the MDNR's proposed resolution of the dispute. Such resolution shall be final unless, within 15 days after receipt of the MDNR's proposed resolution (clearly identified as such under this Section), Defendant files a petition for resolution with the Washtenaw County Circuit Court, setting forth the matter in dispute, the efforts made by the Parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of the Consent Judgment.

Defendant requested and Plaintiffs agreed that Defendant could file its Petition within the deadline that the Court established for the parties to file other motions and disputes, which was extended until August 14, 2009. Defendant filed the Petition on August 18, 2009.[8]

Argument

The conduct of the dispute resolution proceeding is governed by Section XVI.D of the Consent Judgment which provides:

> The Court shall uphold the decision of MDEQ on the issue in dispute unless the Court determines that the decision is any of the following:
> 1. Inconsistent with the Consent Judgment;
> 2. Not supported by competent material, and substantial evidence on the record;
> 3. Arbitrary, capricious, or clearly an abuse or unwarranted exercise of discretion; and
> 4. Affected by other substantial and material error of law; ..."

Defendant has the burden of proving that MDEQ's June 23, 2009 resolution should not be upheld based on the criteria listed above. Defendant has not carried its burden and as discussed below, the MDEQ's position is consistent with the Consent Judgment and applicable law.

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[8] On August 14, 2009, Defendant's counsel advised Plaintiffs' counsel, that he would not be able to file Defendant's various Motions and Petition until the following Monday, August 17, 2009. Plaintiffs' counsel indicated that she would probably not object so long as the items were filed by that date, however she reserved the right to object to anything filed after that date.

I. MDEQ's request for installation of the proposed monitor well is consistent with the Consent Judgment, as supplemented by the Unit E order.

The Court explicitly found that "the Unit E contamination is subject to the Consent Judgment in this case." Unit E Order, p. 4. That includes the goal of cleaning up the area wide contamination. Further, one of the Court's defined objectives for the remediation of the "Unit E" plume also included capturing the contamination as close as possible to its source, and therefore, the Court ordered the Defendant to submit a work plan that captures 1,4-dioxane above 85 ppb to the extent feasible before it crosses Wagner Road.

The northern extent of the "Unit E" contamination west of MW-100 has not been adequately defined. [ND0002]. Because of this lack of delineation and the hydraulic communication between the deeper Unit E and the shallower D2 contamination, MDEQ has a valid concern that 1,4-dioxane may be migrating to areas not covered by the Prohibition Zone (PZ) that was established in the Unit E Order, including in the Evergreen Subdivision area. While possible migration to the Dupont Circle area is one of the areas of concern, another area of concern is near MW-100.[9] MDEQ believes that with the proper network of extraction wells, it is feasible to capture 1,4-dioxane at 85 ppb at Wagner Road. However, to ensure that that occurs, the full extent of contamination, especially to the north/northeast and groundwater flow direction, must be determined.

PLS acknowledges that use of an iterative approach to investigations at this Site is appropriate because of the complex geology. [ND0006]. That is the process MDEQ follows at the Site as it constantly assimilates and responds to new information. The Consent Judgment itself, acknowledges that there may be situations in which additional investigation and response activities may be warranted. Section XVIII of the Consent Judgment reserves for MDEQ the

[9] 1,4-dioxane concentrations in MW-100, located in the Evergreen Subdivision, but at the northern boundary of the PZ, has increased steadily and was at 291 ppb in July 2009.

right to initiate actions to seek additional investigation or response activities based on new information. The logical first step in that process is to seek voluntary compliance from the Defendant before resorting to legal action. Finally, this Court, by the entry of various remedial orders, has required the Defendant to perform work beyond that explicitly provided in the Consent Judgment to protect public health, safety, welfare, and the environment.

Defendant cannot credibly assert that MDEQ's request for the completion of a nested monitor well south Nancy Drive location (or for that matter the installation of other monitor wells in the same area), is inconsistent with the Consent Judgment.

II. The monitor well(s) requested by MDEQ's in the south Nancy Drive area are needed to ensure protection of public health, safety, welfare and the environment.

A. One or more nested monitor wells in the south Nancy Drive area will help delineate the northern extent of 1,4-dioxane contamination west of Wagner Road.

Contrary to Defendant's assertion, understanding the nature and extent of the 1,4-dioxane contamination is not merely academic pursuit, but is key to evaluating the remedial measures, necessary for addressing the 1,4-dioxane contamination. [ND0005]. It is a basic scientific principle in a remedial case to fully delineate the contamination to be addressed. Defendant's existing monitor well network is not adequate to complete this task. MW-118, which Defendant relies on to support its contention that northern extent of contamination has been delineated [Petition paragraph 15], was installed on Ferry near Wagner Road, and does not address the MDEQ's concerns with defining the extent further west. That is part of the reason that MDEQ requested the installation of a monitor well at Nancy Drive. There are no deep (Unit E) monitor wells between Wagner Road and monitoring well MW-66 a distance of approximately 2400 feet. [ND0010].

The soil boring log for GSI-98-03 and TW-11 indicates that significant levels of contamination impact the entire saturated interval in the South Nancy Drive area.[10] D2 monitor well MW-13, located approximately 900 feet west of Nancy Drive, and MW-14D located approximately 900 feet northeast of Nancy Drive were not installed using vertical aquifer sampling techniques and there is no way to verify that these wells were screened in the appropriate depth intervals without installing additional wells at these locations, which Plaintiffs are not requesting at this time. Further, these monitor wells are only 136 and 82 feet deep respectively, so they are not deep enough to provide any information about the lithology below those depths. TW-11 is a former extraction well and not designed to monitor contaminant levels from discrete depth intervals.[11]

Properly located and screened monitor wells are needed. Nested monitor wells at Nancy Drive can provide useful data to assist in delineating the northern extent of 1,4 dioxane contamination west of Wagner Road (deep and shallow), and monitoring the extent over time.

B. Nested monitoring wells in the south Nancy Drive area will assist in determining groundwater flow direction.

The mere number of monitoring points west of Wagner Road, is not demonstrative of Defendant's ability to determine groundwater flow in that area. As discussed above, monitor wells must be in the appropriate location to provide useable information. The existing monitor wells are not adequate for determining groundwater flow direction. Defendant's evidence, for its assertion that groundwater flows due east (under pumping and non-pumping conditions), is far from conclusive. Concentrations of 1,4 dioxane was detected at 3,100 ppb in TW-11 and 17,600

[10] At different time figures provided by Defendant has shown iso-concentration counter maps depict contamination at MW-118 in the deep Unit E and the intermediate unit D2, respectively. See, p.4 of MDEQ's June 23, 2008 letter.

[11] TW-11 was last sampled in June 2008, since then Defendant has been unable to use it for monitoring purposes.

in technical boring GSI-98-03, and 1,4-dioxane has been detected in residential well on Elizabeth Street, which is located approximately 2,400 feet north of Nancy Drive.

Rather than rely on Defendant's uncalibrated models and unsubstantiated theories to determine groundwater flow direction, MDEQ believes that a monitor point(s) in the Nancy Drive area will assist in confirming the groundwater flow direction, and the possible migration of 1,4-dioxane outside of the PZ (including, but not limited to the Dupont Circle area and the area near MW-100).[12] Knowing this is especially important when extraction from purge wells are reduced or eliminated. For example, extraction from TW-11, located west of Wagner Road was shut down in June 2008. A monitor well in the Nancy Drive area would monitor any changes in groundwater flow as it reverts back to its pre-extraction flow. Further, Defendant is proposing to add another extraction well near MW-94s. The installation of a monitor well in the Nancy Drive area, even before any changes are implemented, will help establish a baseline against which the future effectiveness of the proposed extraction well and its impact on groundwater flow can be measured.

C. Nested monitoring wells in the south Nancy Drive area will assist in determining whether 1,4-dioxane found in the Dupont Circle area come is migrating from West of Wagner Road.

Defendant's own explanations of the source of the high concentrations of 1,4-dioxane in the Dupont Circle area have been confusing at best. In Defendant's response to MDEQ's June 23, 2008 Memo Regarding Review of PLS Dupont Investigation Report, one paragraph stated that flow direction at MW-100 is not north, but northeast or due east towards Maple Road. A couple of paragraphs later, Defendant states that the plume axis is east of MW-30d and it flows

[12] In paragraph 15, pp. 5-6 of the Petition, Defendant states that the "shape of the plume is consistent with groundwater flow directions." Because the extent of contamination has not been delineated, the shape of the plume is unknown and as discussed herein, groundwater flow has not been confirmed. The statement has no basis in fact.

north towards Dupont Circle. Defendant then concludes that flow from TW-11 (Nancy Drive area) is to the east towards MW-118, but depict deep potentiometric contours (fig 8) oriented northwest/southeast, which puts the source of the Dupont contamination west of Wagner Road, not east of MW-30d. The intermediate (D2) potentiometric contouring (figure 7) depicts the source of contamination at Nancy Drive and Duport as being from the northwest. [ND0053 to ND0061].

MDEQ is simply asking Defendant to investigate whether contamination is migrating north/northeast from the known area of contamination west of Wagner Road and whether it could be migrating through the Nancy Drive area. As discussed, MDEQ does not believe that the vertical profiling data from PLS-08-07 alone is sufficient to conclude that migration from the Wagner Road area is not alone or in conjunction with other sources responsible for the elevated levels found in the Dupont Circle area. And, we may never know, unless an adequate remedial investigation (including follow up monitoring from a permanent nested well installed in the Nancy Drive area) is conducted. The one-shot approach offered by Defendant is far from scientifically conclusive.

D. Defendant's reliance on vertical profiling data only to determine that monitor well is not needed at proposed Nancy Drive location and that the northern extent of the contamination has been delineated is misplaced.

Vertical aquifer profiling (VAP) is a tool used to assist in the proper placement of monitor well screens to optimize the data to be obtained. "VAP sampling is generally conducted during drill stem advancement to assure the proper selection of monitoring well screened interval." Exhibit 5 to Brode Affidavit, p. 2. It alone, is generally not intended to be a basis for confirming water quality data, and clearly is not intended to be used for delineating the extent of contamination. However, this is how the Defendant proposes to use the vertical profile data it obtained at PLS-08-07.

To compound this error, the method employed by Defendant, Simulprobe, has certain deficiencies that call into question the validity of its results, in the absence of confirmation sampling.[13] During drill advancement, the Simulprobe method results in the introduction of hundreds of gallons of water into the boring, which can result in a dilution of the groundwater being sampled (although the water in the aquifer maintains the true higher concentration). The Defendant indicated that approximately 140 gallons of water was introduced during the advancement of PLS-08-07, which undoubtedly influenced subsequent samples taken at the next depth. [ND0120]. Further, Defendant provided no indication that it purged any water to ensure that it collected a representative formation sample. [ND0120]. The literature provided by Defendant confirms that one of the problems with the Simulprobe method is that it "will generally not allow advancement more than a few feet beyond the drill stem and [is] still in the zone of influence of the induced drill fluids. Additionally these limited drive ahead techniques [of which Simulprobe is one] have minimal, if any, purge capabilities."[14] Exhibit 5 to Brode Affidavit, pp.2 and 3.

To illustrate the problem: at the time MW-122 was installed vertical profile results showed the highest level of 1,4-dioxane at 33 ppb however, results from the first sample taken from the permanent well about two weeks later was 109 ppb. A similar situation occurred with

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[13] The Plaintiffs discussed their concerns with the Simulprobe method in more detail in their Brief in Support of Plaintiffs' Motion to Enforce Consent Judgment and Request for Additional Response Activities dated August 14, 2009, in which MDEQ also requested that the Court require Defendant to either use a method of VAP designed to minimize the introduction of water or purge enough water to ensure that samples collected during the VAP process are indicative of the groundwater conditions and not diluted by drilling/induced waters and so Plaintiffs will not revisit those arguments here in detail.

[14] Defendant's consultant James Brode questions the use of rotosonic drilling, which MDEQ has recommended in the past, because of the introduction of drilling water and the need to do extensive purging. Whatever the issues with rotosonic drilling, the ability to purge drilling water and take other corrective actions with regard to the samples collected make it more reliable than Simulprobe method employed by Defendant.

MW-118 where the highest vertical profile results indicated a concentration of 90 ppb for 1,4-dioxane, but results from the first sample taken about two weeks later were 327 ppb, and subsequent samples have ranged between 418 ppb and 214 ppb.[15] Supra at p.7.

Whether MDEQ has allowed Defendant to rely on vertical profile data alone at certain monitor wells does not bind it to doing so now or in the future. And, in any event, MDEQ has no recollection and Defendant has presented nothing more than an unsupported statement, that MDEQ has stated that vertical profile data alone is sufficient to determine the extent of contamination[16] MW-80, which Defendant references as an example of a situation in which MDEQ relied on vertical profile data, was installed during the same mobilization as MW-81 in 2002. The vertical profile results for both monitor wells were non-detect for 1,4-dioxane according to Defendant. It should be noted that MW-81 was completed as a monitor well and the first sample collected approximately four months later indicated 1,4-dioxane concentration of 126 ppb. It was situations such as this, and others, that support MDEQ's position that vertical profile data alone, especially those collected using Simulprobe, is not sufficient to confirm 1,4-dioxane contamination levels in the aquifer. No monitoring well was installed at MW-80 to confirm the non-detect vertical profiling results.

Defendant asserts that its data shows a correlation between vertical profile results and the initial water sampling which supports its position that the Simulprobe data fromPLS-08-07 is a good indicator that 1,4-dioxane is not present in significant concentrations in the Nancy Drive area. MDEQ is not clear that the formula used or the premise fits this situation. In any event, there are specific examples at this Site where vertical profiling data did not reflect water quality

[15] MDEQ is unable to confirm the exact dates because Defendant has refused to provide the sample analysis reports for the vertical profile sampling results.
[16] Defendant asserts that MDEQ has allowed it to rely on vertical profiling data to "help" delineate contamination at certain sampling locations.

in the underlying formation, and this is not a game of averages where one should rely on what is more likely than not, when actual data can be collected to confirm the vertical profiling results. Defendant is charged with cleaning up the site and relying on wrong data simply because it is expedient is not an option.

To defend its conclusion, Defendant seems to assert that future monitoring at that location would only provide a "snapshot" of conditions at some future time, which is ironic because Defendant is relying on a snapshot from an undeveloped well, using inconclusive data from a questionable sampling method to assert that the contamination at PLS-08-07 is of no concern and that the results indicate that the northern extent of contamination in that area has been delineated. Defendant also misses the obvious point that through regular monitoring of a permanent well at that location, you will get a series of snapshots, that together (much like the cells on a reel of film) provide a moving picture of conditions in the area.

Finally, just because MDEQ may have considered vertical profile data in the past, does not mean it is bound or required to consider it only in future, especially, if more reliable data can be obtained, which it believes a monitor well at Nancy Drive will provide.

III. MDEQ's request for a monitor well at the proposed Nancy Drive location is not arbitrary, capricious, or clearly an abuse or unwarranted exercise of discretion.

Under Michigan law, the terms "arbitrary" and "capricious" have defined meanings. In *Bundo v Walled Lake,* the Supreme Court noted[17]:

> Arbitrary is: "[W]ithout adequate determining principle . . . . Fixed or arrived at through an exercise of will or by caprice, without consideration or adjustment with reference to principles, circumstances, or significance, . . . decisive but unreasoned."
>
> Capricious is: "[A]pt to change suddenly; freakish; whimsical; humor some."[18]

[17] *Bundo v Walled Lake*, 395 Mich 679, 703, n 17; 238 NW2d 154 (1976).

With respect to the standard of review on a claim of abuse of discretion, the Supreme Court states:

> The term discretion itself involves the idea of choice, of an exercise of will, of a determination made between competing considerations. In order to have an "abuse" in reaching such determination, the result must be so palpably and grossly violative of fact and logic that it evidences not the exercise of will but perversity of will, not the exercise of judgment but defiance thereof, not the exercise of reason but rather of passion or bias.[19]

Defendant is the liable party at the Site and under the environmental laws, Consent Judgment, and the Court's remedial orders, it is responsible for investigating and remediating the Site, with MDEQ having an oversight role, a fact Defendant continues to overlook as it puts forth specious arguments that the MDEQ has not proven its hypothesis about the source of contamination in the Dupont Circle area or demonstrated that certain conditions do or do not exist at the Site. At the same time, Defendant fails to affirmatively support is own positions.

MDEQ has not stated conclusively that the elevated levels of 1,4-dioxane found in the Dupont Circle area are in fact coming from the Nancy Drive area, however, given the data, or lack thereof, provided by Defendant, understandably questions have arisen. Data shows that 1,4-dioxane concentrations continue to rise in the Dupont Circle area, and Defendant has offered no satisfactory answers. While the data from a monitor well at PLS-0807 may ultimately demonstrate that the source of contamination in the Dupont Circle area does not originate there, vertical sampling data alone is not sufficient to make that determination. At the very least sampling from a permanent monitoring well must be done to confirm the result.

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[18] *United States v Carmack*, 329 US 230, 243; 67 S Ct 252; 91 L Ed 209 (1946). *See also, Dykstra v DNR*, 198 Mich App 482, 491; 400 NW2d 367 (1993), and *Binsfeld v DNR*, 173 Mich App 779, 786; 434 NW2d 245 (1988).

[19] *Spalding v Spalding*, 355 Mich 382, 384-385; 94 NW2d 810 (1959); see also, *Wendel v Swanberg*, 384 Mich 468, 475-476; 185 NW2d 348 (1971).

And, lest we forget, the reasons for investigating the Nancy Drive area are not limited to what may or may not be happening at the Dupont Circle. This area is also important for delineating the plume and confirming groundwater flow direction, which is crucial in determining what measures are needed in the Wagner Road area to ensure protection of the public health, safety, welfare, and the environment site wide.

The Consent Judgment and the Court itself recognize that in certain situations the need for additional investigation may arise, when new conditions and information are discovered or received, which is the case in this matter.[20] The Court explicitly found that "the Unit E contamination, which was unknown at the time the Consent Judgment was entered, is subject to the Consent Judgment in this case." Unit E Order, p. 4. More recently discovered information demonstrates that there is significant communication between the deeper Unit E portion of the formation and the shallower, Unit D2 at Wagner Road with implications Site-wide.

Given the legal framework for the Site, the complexities of the Site, the lack of delineation to the north, the lack of supporting data for Defendant's groundwater flow contours, the unknown origin and fate of 1,4-dioxane in certain areas of the Site, and the MDEQ's efforts to work through these issues with the Defendants, Plaintiff has not been arbitrary or capricious, nor has it abused its discretion in requesting the Defendant install one or more nested monitor wells at the agreed upon south Nancy Drive location.

[20] While the Consent Judgment provides that that the Plaintiffs may initiate proceedings in this case or a new one to enforce this right, an obvious first step would be to approach the Defendant to seek voluntary compliance, which MDEQ did in this case before resorting to judicial action.

Conclusion and Relief Requested

Defendant has failed to establish any of the grounds required under Section XVI.D for overturning the MDEQ's June 23, 2009 resolution of the pending dispute. For all of the reasons provided in this Brief, this Court should uphold the MDEQ's proposed resolution requiring Defendant to complete the install the monitor well cluster at PLS-08-07 and enter an order requiring the same.

Respectfully submitted,

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Dated: August 28, 2009

LF:/Gelman/Brief in Response to Petition