

**Objection to Denial of Formal Request for Review of NFA Status  
State Cleanup Site No. 000-00-208, Moran Electric Service, Inc.,  
Indianapolis, Marion County, Indiana  
2018 OEA 7 (16-W-J-4935)**

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**OFFICIAL SHORT CITATION NAME:** When referring to 2018 OEA 7, cite this case as  
*Moran II, 2018 OEA 7.*

**TOPICS:**

TCE	NFA
PCE	Compound Specific Isotope Analysis (“CSIA”)
Moran	Vertical aquifer profile
Von Duprin	Grab samples
Ertel	Quality assurance
Major Tool	Split samples
Threaded Rod	Relative percent difference values
State cleanup	Relative percent difference
RISC	Plume stability
Risk integrated system of cleanups	DNAPL
Brownfields	Exposure pathway
No further action	

**PRESIDING JUDGE:** Catherine Gibbs

**PARTY REPRESENTATIVES:**

Counsel for IDEM:	April Lashbrook
Counsel for City of Indianapolis:	Alexander Will (Frost, Brown, Todd) Thomas Moore
Petitioner, Moran Electric Services:	Glenn Bowman, Marc Menkveld (Stoll, Keenen, Ogden)

**ORDER ISSUED:**

January 17, 2018

**INDEX CATEGORY:**

Land

**FURTHER CASE ACTIVITY:**

Judicial Review: Marion Superior Court  
Cause No. 49D11-1802-PL-004321

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**Objection to Denial of Formal Request for Review of NFA Status  
 State Cleanup Site No. 000-00-208, Moran Electric Service, Inc.,  
 Indianapolis, Marion County, Indiana  
 2018 OEA 7 (16-W-J-4935)**

STATE OF INDIANA                    )  
                                                   )  
 COUNTY OF MARION                )

BEFORE THE INDIANA OFFICE OF  
 ENVIRONMENTAL ADJUDICATION

IN THE MATTER OF:                    )  
                                                   )  
 OBJECTION TO THE DENIAL OF FORMAL    )  
 REQUEST FOR REVIEW OF NFA STATUS    )            CAUSE NO. 16-S-J-4935  
 STATE CLEANUP SITE NO. 000-00-208    )  
 MORAN ELECTRIC SERVICE, INC.         )  
 INDIANAPOLIS, MARION COUNTY, INDIANA )  
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 Moran Electric Service, Inc.            )  
     Petitioner                                )  
 City of Indianapolis                     )  
     Respondent                               )  
 Indiana Department of Environmental Management )  
     Respondent                               )

**FINDINGS OF FACT, CONCLUSIONS  
 OF LAW AND FINAL ORDER**

The parties appeared by counsel on August 24 and 25, 2017 before the Office of Environmental Adjudication (the “OEA” or the “Court”) for the final hearing in this matter. The presiding Environmental Law Judge (the ELJ), being duly advised and having read the record, motion, briefs, heard the testimony and examined the evidence, now enters the following findings of fact, conclusions of law and final order.

**Summary of Decision**

Moran requested that IDEM revoke the NFA Letter issued to the City of Indianapolis. Moran argues that new data shows that the extent of the contamination was not properly delineated and that contamination continues to migrate off the Ertel facility and onto the Moran property. IDEM argues that this is not the appropriate standard as it issued the NFA based on a risk assessment that showed no threat to human health or the environment. IDEM asserts that it properly denied the request to reconsider the NFA as Moran’s new data does not show a threat to human health and the environment. The ELJ concludes that Moran has failed to show that (1) the new data proves that a substantial threat to human health and the environment exists at the Ertel site under IDEM’s RISC policy<sup>1</sup> or (2) that IDEM failed to properly consider the new data in its decision to deny Moran’s request to revoke the NFA Letter.

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<sup>1</sup> Risk Integrated System of Closure, Non-rule Policy Document # W-0046;  
[http://www.in.gov/idem/files/nrpd\\_waste-0046.pdf](http://www.in.gov/idem/files/nrpd_waste-0046.pdf)

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**Findings of Fact**

1. Ertel Manufacturing Corporation ("Ertel") conducted manufacturing operations at the Former Ertel Manufacturing site, located at 2045 Dr. Andrew J. Brown Avenue, Indianapolis Indiana ("Ertel Site"). Such operations led to the release of hazardous substances, including chlorinated solvents, into the soil and groundwater at the former Ertel site and surrounding properties. The Ertel site consists of three parcels of land in a P-shape with frontage along Dr. Andrew J. Brown Drive. The City took ownership of all three parcels of land making up the Ertel Site.<sup>2</sup>
2. Directly contiguous to the south and to the east of the Ertel site, (i.e., sitting inside the "crook" of the P-shaped parcels), is a parcel of land formerly owned by Zimmer Paper Products, Inc. This parcel is known as the "Zimmer parcel" and was never owned by the City, but was later purchased by another company, Major Tool & Machine, Inc.<sup>3</sup>
3. The former Moran Electric Services, Inc. operated on a site located directly south of the Ertel site that is now also owned by Major Tool & Machine ("Moran site"). Chlorinated solvent impacts, including both TCE<sup>4</sup> and PCE<sup>5</sup>, were found in both the shallow and deep groundwater at the Moran site. Moran Electric used TCE until plant closure in 1995. IDEM considers Moran Electric a responsible party with regard to the Moran site.<sup>6</sup>
4. Von Duprin, LLC and Threaded Rod Corporation operated on a site located at 1929 Columbia Avenue, west of Dr. Andrew J. Brown and located to the southwest of the Ertel site ("Threaded Rod site"). Chlorinated solvent impacts, including TCE and PCE, were found in both the shallow and deep groundwater at the Threaded Rod site.<sup>7</sup>
5. On November 19, 2012, the Indiana Department of Environmental Management (IDEM) issued approval of the City of Indianapolis's request for no further action status (the NFA Letter) at the Ertel Site. Moran Electric Service, Inc. (Moran) filed its Petition for Review of the issuance of the NFA Letter on January 29, 2013. This was assigned Cause No. 13-S-J-4635<sup>8</sup>. On April 7, 2016, the presiding Environmental Law Judge issued Findings of Fact, Conclusions of Law and a Final Order concluding that IDEM had properly issued the NFA Letter under the applicable RISC policy.
6. On November 3, 2016, Moran formally requested that IDEM revoke the NFA Letter. This request was based upon data collected by Moran after the NFA Letter was issued. IDEM

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<sup>2</sup> Findings of Fact #3 & 4, Findings of Fact, Conclusions of Law and Final Order, issued April 6, 2017.

<sup>3</sup> Findings of Fact #5, Findings of Fact, Conclusions of Law and Final Order, issued April 6, 2017.

<sup>4</sup> Trichloroethylene.

<sup>5</sup> Tetrachloroethylene.

<sup>6</sup> Findings of Fact #6, Findings of Fact, Conclusions of Law and Final Order, issued April 6, 2017.

<sup>7</sup> Findings of Fact #7, Findings of Fact, Conclusions of Law and Final Order, issued April 6, 2017.

<sup>8</sup> The proper cause number is 13-S-J-4635; however, the caption on the April 7, 2016 Findings of Fact, Conclusions of Law and Final Order cites Cause No. 12-S-J-4635. This is a typographical error. The cite for this order is *City of Indianapolis*, 2017 OEA 29.

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denied this request on December 15, 2016. Moran filed its appeal of this decision with OEA on December 30, 2016. This is the IDEM action that is the subject of this proceeding.

7. Under I.C. § 4-21.5-3-26(f) and with the agreement of the parties, the OEA takes official notice of and incorporates Findings of Fact 1 through 42 from the April 7, 2017 Findings of Fact, Conclusions of Law, and Final Order in Cause No. 13-S-J-4635 (“Moran I”) as if they were fully stated herein.
8. By agreement of the parties, all testimony and exhibits admitted during the course of Moran I were stipulated to and admitted in this matter as well.
9. Moran hired Acuity Environmental Solutions, LLC to perform groundwater and deep soil sampling on the southern portion of the Ertel Site, within the footprint of the former Ertel building. Moran also hired Pace Analytical to perform a Compound Specific Isotope Analysis (“CSIA”) to determine whether the contamination found at the Ertel and Moran Sites shared an isotopic signature. (Exs. 155 and 156).
10. The new data was the result of samples taken by Acuity on the Ertel, Moran, and Zimmer sites at sampling locations identified as AES-01 through AES-07. In particular, AES-01 through AES-04 were placed along an east/west axis adjacent to the concrete apron currently present along the southern border of the Ertel and Zimmer sites. Irvin Testimony, Hr’g Tr. 24, Aug. 24, 2017. AES-05 through AES-07 were placed “based on the presumption that the core of [a] plume in between a number of Geosyntec samples.” Hr’g Tr. 24, Aug. 24, 2017.
11. The sampling locations were located as follows:
  - Sampling locations AES-01 and AES-02 were located on the Zimmer Parcel;
  - Sampling location AES-03 was located on the Ertel Site, approximately 5 feet from the eastern edge of the Ertel property boundary with the Zimmer Parcel. Hr’g Tr. 107-108, Aug. 24, 2017.
  - Sampling location AES-04 is approximately 30 feet west of AES-03, but is still located on the eastern half of the Ertel Site, i.e., “east of center.” Hr’g Tr. 111, Aug. 24, 2017.
  - Sampling locations AES-05 through AES-07 were located on the Moran property. In particular, AES-05 and AES-06 were within an area of significant soil excavation undertaken on the Moran property by Heartland. Hr’g Tr. 99, Aug. 24, 2017.
12. For each of AES-01 through AES-06, Acuity conducted a “vertical aquifer profile” consisting of collecting “grab samples starting at the top of the groundwater and proceeding down until [they] hit a confining layer,” which was basal clay. Hr’g Tr. 25, Aug. 24, 2017. For AES-07, on the Moran site, Acuity collected only a groundwater sample immediately above the basal clay for use in a CSIA. Hr’g Tr. 24, Aug. 24, 2017. *See also* Exhibit 155.

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Otherwise, for AES-07, Acuity relied upon Geosyntec's vertical aquifer profile sampling from 2015.

13. At the time Acuity did sampling, Major Tool and Machine had hired Soil & Materials Engineering, Inc. ("SME") to take split samples, meaning that Acuity would take a sample, and then SME would take a sample at the same location and depth. Hr'g Tr. 51, Aug. 24, 2017.
14. Vertical aquifer profiling samples, also known as "grab" groundwater samples, show levels of contamination at a specific point in time. Grab groundwater samples are useful for screening, investigative or delineation purposes, but such data is not used for compliance or closure analysis. Hr'g Tr. 33:4-8, Aug. 24, 2017; Hr'g Tr. 227-228, Aug. 24, 2017 and Hr'g Tr. 15, Aug. 25, 2017. These samples are inadequate for compliance or closure purposes because they only show one sampling event in one location and, therefore, are insufficient to show whether a plume is stable or declining over time. Hr'g Tr. 227-228, Aug. 24, 2017 and Hr'g Tr. 11, Aug. 25, 2017.
15. Further, grab groundwater samples typically result in higher concentrations of chlorinated solvents than permanent wells. Hr'g Tr. 14, Aug. 25, 2017. Grab groundwater samples produce "turbid" water samples containing sediment and the contaminants being tested may adhere to the soil particles in the sample. Hr'g Tr. 14, 16, Aug. 25, 2017. This turbidity can interfere with the analysis and cause inaccurate results and are emblematic of the "worst case scenario." Hr'g Tr. 14, 16-17, Aug. 25, 2017. Grab groundwater samples tend to be "biased high" due to this sediment and absorption of contaminants. Hr'g Tr. 150:3-17, Aug. 25, 2017.
16. Use of low flow technology for performing grab sampling can decrease the amount of turbidity in a sample, but it will not eliminate it. Hr'g Tr. 75-76, Aug. 25, 2017.
17. The Acuity and SME split samples also resulted in a few high relative percent difference values than what would be expected for samples collected at the same time and in the same manner, which made IDEM question the reproducibility of the samples. Hr'g Tr. 120:13-21, Aug. 25, 2017. Relative percent difference is a calculation to determine how well two samples compare to one another. Hr'g Tr. 116-117, Aug. 25, 2017. Some split sample comparisons exhibited relative percent difference values of 70% for TCE contamination and 103% for PCE contamination. Hr'g Tr. 121, Aug. 25, 2017.
18. In contrast to grab sampling, sampling from permanent wells is designed to produce clean water samples that are representative of what is expected to be extracted in a residential well. Hr'g Tr. 14, Aug. 25, 2017. Permanent wells also are in a fixed location at a fixed depth and, therefore, allow one to monitor trends over time. Hr'g Tr. 149-151, Aug. 25, 2017. As a result, permanent wells are required for measuring whether a plume of contaminants is stable or declining. Hr'g Tr. 149-151, Aug. 25, 2017.

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19. In order to show that the plume at the Ertel site was stable or declining, IDEM examined ten quarters of groundwater monitoring from permanent wells, including 8 consecutive quarters during 2008 and 2009. Hr’g Tr. 228, Aug. 24, 2017; *see also* Hr’g Tr. 118-119, 179, Aug. 24, 2017. Those sampling events showed evidence that any remaining TCE or other contaminants migrating off the Ertel Site in the groundwater were stable or declining. *See* Moran I, Exhibit 87 at Fig. 3, Tab. 1.
20. The grab groundwater samples taken by Acuity were at different times (July, 2016) and in different locations than the monitoring wells installed by Heartland as part of the closure process. *See* Moran I, Ex. 87 at Tab. 1; Ex. 155 at Tab. 3.
21. CSIA involves examining the ratio of Carbon 13 and Carbon 12 concentrations to determine if a substance is of like chemical makeup, and then examining the ratio between carbon and chlorine to determine what the isotopic signature looks like, and this analysis can demonstrate that certain chemicals, such as TCE, came from the same manufacturer or vendor based upon that sample’s isotopic signature. Hr’g Tr. 55, 136-137, Aug. 24, 2017. Hr’g Tr. 86-87, Aug. 25, 2017. 86-87.
22. For the CSIA, Acuity only took seven samples and all of these were located at along the surface of the basal clay. Hr’g Tr. 147, Aug. 24, 2017. EPA Guidance regarding performing CSIA for plume areas containing several known sources recommends that at least three samples of each of the plume segments should be collected. Hr’g Tr. 109-110, Aug. 25, 2017. EPA Guidance also demonstrates taking samples within a given plume at approximately ten horizontal points and at four different depths for each of those points. Hr’g Tr. 111, Aug. 25, 2017; Exhibit I.
23. The Pace Report’s conclusion was that “the PCE and TCE in the samples originated either from a single source of multiple sources with indistinguishable isotopic signatures.” Exhibit 156, pg. 12 of 13; Hr’g Tr. 112, Aug. 25, 2017.
24. The Pace Report also indicated that the chlorinated solvent contamination at the sites “appeared to be of the same isotopic source. So that means that even though we have this usual difference on this line, the data indicates that more likely than not, all of the people in this area that contributed anything to a release in the soil and groundwater came from the same original manufacturing source . . . .” Hr’g Tr. 60-61, Aug. 24, 2017.
25. The Pace Report also concluded that, “The releases had to occur at two points: AES-7 but also at or up-gradient (northeast) of AES-2.” Exhibit 156, pg. 13 of 13; Hr’g Tr. 112-113, Aug. 25, 2017; Hr’g Tr. 165-166, Aug. 25, 2017.
26. The Acuity report and the Pace Energy CSIA analysis each focus on potential continuing sources of TCE and migration pathways and do not address whether there were open risk exposure pathways or discuss risk analysis. Hr’g Tr. 11, Aug. 25, 2017; Hr’g Tr. 140, Aug. 24, 2017 (relating to vapor intrusion). The data provided in those reports is consistent with what IDEM knew about the Ertel Site at the time of closure. Hr’g Tr. 11, 19, Aug. 25, 2017.

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27. Moran's expert witness, Steve Irvin, admitted that he did not "form any conclusions or opinions in [his] report with regard to the exposure pathways that were presented from the Ertel Site." Hr'g Tr. 138, Aug. 24, 2017.
28. Irvin presented evidence that AES-03 and AES-04 had elevated levels of TCE in the groundwater in the 14-33 foot below ground surface range. Those levels varied between 149 and 618 ppb of TCE and were the same order of magnitude as the levels identified in permanent monitoring well MW-1 at the time of closure.
29. Irvin identified only two potential source areas on the Ertel property which he thought could be contributing to the elevated levels of TCE at sampling locations AES-03 and AES-04. Both were identified from the locations in the 2008 Soil Completion Remediation Report, already admitted as Exhibit 8 (and admitted as Exhibit 157 in this cause) in Moran I. Those potential source areas were:
- Bottom sample (BS)-1 located at Excavation D (7,230 ppb TCE / 3,890 ppb TCE) (*See Ex. 8, Fig. 7E*); and,
  - Bottom sample BS-4 located at Excavation B (16,100 ppb TCE) (*See Ex. 8, Fig. 7C*).
- Hr'g Tr. 78-79, 92, 116, Aug. 24, 2017. In Moran I, the OEA found that these bottoms samples were indicative of groundwater contamination, not soil sources, because these samples were taken below the water table.
30. Irvin also admitted that any potential source area located at BS-1, however, is downgradient and/or crossgradient from AES-03 and AES-04. Hr'g Tr. 114, Aug. 24, 2017. As a result, to contribute to AES-03 or AES-04, TCE at BS-1 would have to be migrating against the flow of groundwater on the actual Ertel property, because all admitted interpretations show a southwesterly groundwater flow. Hr'g Tr. 179-180, Aug. 24, 2017; *see also* Ex. 126, Fig. 2; Ex. 127, Fig. 2; Ex. 129, Fig. 2. As a result, any TCE in the groundwater at BS-1 is likely not migrating to or contributing TCE to sampling locations AES-03 or AES-04.
31. Any remaining contamination (TCE) from BS-1 would accurately be monitored by monitoring well MW-1 which was monitored at 267 ppb TCE at closure and was not sampled by Acuity. Hr'g Tr. 62, Aug. 25, 2017.
32. As to BS-4, Irvin also admitted that this potential area for "further investigation" was located near the eastern border of the Ertel property, due north from AES-03 and AES-04. Hr'g Tr. 115, Aug. 24, 2017. Irvin also admitted that there has been no evidence presented of due south groundwater flow on the Ertel property, including in this area. Hr'g Tr. 91-92, Aug. 24, 2017. As established in Moran I, the flow of groundwater in this area of the actual Ertel Site is southwesterly.
33. Given the groundwater flow direction, the best locations to install monitoring wells to monitor potential contamination associated with BS-4 and Excavation B (both up gradient

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and side gradient) would be at MW-105, MW-106, MW-1 and MW-107D. Hr’g Tr. 53-55, Aug. 25, 2017. Again, the highest TCE level monitored in these three wells was 267 ppb emanating through MW-1 at the time of closure. Hr’g Tr. 53-55, Aug. 25, 2017; *see also* Ex. 87 at Figs. 3, 7.

34. In contrast, the Zimmer Parcel had bottom samples taken with high levels of TCE similar to those in BS-4, but that were also upgradient from the AES-03 and AES-04 sampling locations. Specifically, BS-9 from the Ertel/ Zimmer excavation in 2008, located on the Zimmer parcel and physically closer to and up gradient or possibly side gradient from AES-03 and AES-04, showed a TCE concentration of 6,870 parts per billion. Ex. 8 at Fig. 7E. BS-7 showed a TCE concentration of 9,460 parts per billion. Ex. 8 at Fig. 7E. BS-7 is located near AES-02 and is probably side gradient to, or possibly up gradient from, AES-04. Additionally, BS-9 and BS-7 are up gradient from AES-02, AES-05, AES-06, and AES-07. Hr’g Tr. 43-44, Aug. 25, 2017. Further, BS-10, showing a TCE concentration of 10,100 parts per billion, Ex. 8 at Fig. 7E, is side gradient to AES-02 and up gradient from AES-01 and AES-05. Hr’g Tr. 44, Aug. 25, 2017. This suggests that the Zimmer Parcel was more likely to influence the TCE levels at AES-03 and AES-04.
35. The existence of higher levels of TCE and parent and daughter products at AES-02 and AES-01 suggest that the TCE at AES-03 and AES-04 in the shallow groundwater (14 to 33 ft bgs) is a result of remaining TCE or PCE on the Zimmer Parcel. Hr’g Tr. 171, 178-179, Aug. 25, 2017. As a result, it is more likely that any residual TCE at AES-03 and AES-04 (even in the lower levels of magnitude present at those sampling locations) is likely a result of residual sources on the Zimmer Parcel. Irvin further admitted that the Zimmer Parcel was at least as likely a source for the TCE at AES-03 and AES-04 as his conclusion that BS-4 could have influenced those sampling locations. Hr’g Tr. 134.
36. In addition to the bottom samples at BS-1 and BS-4, Moran argues that a deep soil sample taken at AES-03 at the basal clay layer, measured at 42,400 parts per billion TCE, is evidence of remaining on-site releases on the Ertel site. Hr’g Tr. 45-46, Aug. 24, 2017. The results at AES-04 are not as high. Hr’g Tr. 47-48, Aug. 24, 2017. But, the TCE concentration at AES-02 (on the Zimmer Parcel) at the basal clay was measured at 66,200 parts per billion. Hr’g Tr. 48, Aug. 24, 2017.
37. Acuity’s report states no opinion as to these basal clay numbers. *See* Ex. 155, generally. Irvin admitted that he stated in his discovery deposition that “I don’t have sufficient evidence to develop an opinion on that point as to whether the 42.4 or 42,400 is from Ertel or not.” Hr’g Tr. 75-77, Aug. 24, 2017.
38. Regardless, in spite of this, at the hearing, Irvin stated that the 42,400 ppb at AES-03 “could be” from on-site sources on the Ertel property, possibly the areas surrounding BS-1 and BS-4. Hr’g Tr. 75, Aug. 24, 2017. Irvin stated that it did not have “enough information to conclude absolutely.” Hr’g Tr. 75, Aug. 24, 2017. No credible method of transport for TCE in the groundwater from BS-4 due south to TCE at sampling locations AES-03 and AES-04 has been identified.



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39. But the data from AES-01 and AES-02 is indicative of a source that originated upgradient and migrated vertically down to the top of the basal clay before moving horizontally with groundwater flow. Hr’g Tr. 41-42, Aug. 24, 2017.
40. When considering other evidence such as the TCE level along the basal clay at AES-02 (66,200 ppb TCE), the higher levels of TCE, PCE, and daughter products in the shallow groundwater at AES-02 and AES-01, the existence of a downward “slope” or “dip” running along the clay layer from AES-02 through AES-03 to AES04, and the lack of method of transport from BS-1 or BS-4, the 42,400 at AES-03 more likely migrated from the Zimmer Parcel. Hr’g Tr. 174-79, Aug. 25, 2017.
41. Also, the chlorinated solvent soil contamination concentrations found at AES-03 and noted in Figure 5 of the Acuity report does not impact risk exposure pathway analysis because there is no evidence of any drinking water wells in the area and the contamination depth of 50 feet does not present a vapor intrusion risk or risk to excavation worker safety and health. Hr’g Tr. 21-26, Aug. 25, 2017.
42. Regardless whether the remaining residual TCE emanating from the Ertel Site at sampling locations AES-03 and AES-04 originates at the Zimmer Parcel or not, it is likely that those contaminants are having a slight amount of influence on the Moran Site. Hr’g Tr. 175-176, Aug. 25, 2017.
43. As discussed above, the levels of TCE at AES-03 and AES-04 are not comparable to the results from permanent monitoring wells, such as MW-01 or MW-106 because they were taken at different locations via grab sample. Nonetheless, even if they were comparable, the TCE results at AES-03 and AES-04 are in the same order of magnitude as the levels observed at MW-1 and MW-106. Ex 155 at Figs 6, 9; cf Ex. 87 at Fig. 3.
44. Irvin nonetheless argues that the significantly higher levels of shallow contamination at AES-05, AES-06, and AES-07 is indicative of a release originating at the Ertel site with potential comingling from a release at the Zimmer parcel. Hr’g Tr. 82, Aug. 24, 2017.
45. But, Acuity’s data displays higher TCE contamination at AES-02 (Zimmer), AES-05 and AES-06 (Zimmer), than at AES-03 and AES-04. TCE and other contaminants of concern typically migrate from higher levels to lower levels, not vice versa—with higher concentrations pointing toward a source. Hr’g Tr. 164, 173, Aug. 25, 2017. As a result, this means that it would be “difficult if not impossible to try and conclude that the contamination at AES-05, AES-06 and AES-07 originated [solely] from the Ertel Site.” Hr’g Tr. 175, 1-3, Aug. 25, 2017.
46. Instead, the data shows a migration of TCE contamination along a transect from AES-02 (Zimmer) to AES-07 (Moran). Hr’g Tr. 177-178, Aug. 25, 2017. Furthermore, the data indicates absorbed contaminants within the basal clay which may be acting as a secondary source to groundwater contamination, including some vinyl chloride indicative of naturally occurring dechlorination from the aquifer. Hr’g Tr. 178-179, Aug. 25, 2017.

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47. This data is supported by historical evidence of high TCE concentrations in the excavations at both the Zimmer Parcel and Moran. As discussed above, the Zimmer Parcel has evidence of high historical TCE concentrations in bottom samples at BS-7, BS-9, and BS-10.
48. Similarly, there is historical evidence of high levels of TCE in the soil and groundwater at the Moran property immediately in the vicinity of AES-06 (the site of a prior excavation). Hr’g Tr. 94-102, Aug. 24, 2017. These include soil samples from the Moran excavation at the following levels.

- Soil sample B-3 at 12-14 ft bgs, TCE at 10,500 ppb (Fig. 4A);
- Soil sample B-7 at 14-16 ft bgs, TCE at 10,900 ppb (Fig. 4B);
- Soil sample B-6 at 14-16 ft bgs, TCE at 11,600 ppb (Fig. 4B);

Moran I, Ex. 130.

- Soil sample B-33 at 26-28 ft bgs, TCE at 11,600 ppb (Fig. 5)
- Soil sample B-31 at 18-20 ft bgs, TCE at 3,000 ppb (Fig. 5); and,
- Soil sample B-31 at 48-50 ft bgs, TCE at 8,500 ppb (Fig. 5).

Moran I, Ex. 85.

49. These samples from the Moran property are in the same orders of magnitude as BS-1 and BS-4 from the Ertel Site (as sited by Acuity). Moreover, they are indicative of potential on-site release of TCE on the Moran property that migrated vertically into the groundwater. Hr’g Tr. 35-36, Aug. 25, 2017.
50. Ultimately, Irvin’s testimony at the hearing, the Acuity report and the PACE Energy CSIA focus on sources and migration pathways, and do not address whether there were open risk exposure pathways or discuss risk analysis. Hr’g Tr. 140, Aug. 24, 2017. Moreover, even if some of Acuity’s grab samples show somewhat higher concentrations of TCE at AES-03 and AES-04 and if the OEA could conclude that this was the result of sources originating on Ertel (and not Zimmer), the data provided in those reports is still consistent with what IDEM knew about the Ertel Site at the time of closure. Hr’g Tr. 11, 19, Aug. 25, 2017.
51. When the Acuity report and Pace Energy CSIA reports were submitted and Moran requested IDEM to review the Ertel NFA, IDEM compared the data contained in the Acuity report with what was known of the Ertel site at the time of closure in 2012, and determined that the kind of data was not adequate to change its closure determination. Hr’g Tr. 17, Aug. 25, 2017.
52. A hearing was held on August 24 and 25, 2017. The parties submitted proposed Findings of Fact, Conclusions of Law and Order on October 30, 2017.

**Conclusions of Law**

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1. The IDEM is authorized to implement and enforce specified Indiana environmental laws, and rules promulgated relevant to those laws, per Ind. Code (I.C.) § 13-13, *et seq.* The OEA has jurisdiction over the decisions of the Commissioner of the IDEM and the parties to the controversy pursuant to I.C. § 4-21.5-7-3.
2. Findings of fact that may be construed as conclusions of law and conclusions of law that may be construed as findings of fact are so deemed.
3. This office must apply a *de novo* standard of review to this proceeding when determining the facts at issue. *Indiana Dept. of Natural Resources v. United Refuse Co., Inc.*, 615 N.E.2d 100 (Ind. 1993). Findings of fact must be based exclusively on the evidence presented to the ELJ, and deference to the agency's initial factual determination is not allowed. *Id.*; I.C. § 4-21.5-3-27(d). "*De novo* review" means that "all issues are to be determined anew, based solely upon the evidence adduced at that hearing and independent of any previous findings. *Grisell v. Consol. City of Indianapolis*, 425 N.E.2d 247 (Ind. Ct. App. 1981).
4. Pursuant to I.C. § 4-21.5-3-14(c), the Petitioner, as the person requesting that IDEM revoke the NFA Letter, has the burden of persuasion and the burden of going forward with the evidence supporting their request.
5. There is sufficient evidence to support a conclusion that releases occurred on the Ertel, Zimmer and Moran site. There is also no question that contamination was left on the Ertel site. Moran has presented sufficient evidence to call into question whether upgradient contamination from Ertel or Zimmer has migrated onto the Moran site. But the question before the Court is not whether there is contamination migrating from Ertel to Moran, but whether IDEM properly applied the RISC policy in evaluating the request for NFA status for Ertel, even in light of the new data collected by Moran. So, a conclusion that contamination is migrating does not automatically lead to a conclusion that IDEM erred in issuing the NFA or refusing Moran's request to revoke the NFA based on the data collected by Moran afterwards. The RISC policy does not require a cleanup to zero. RISC considers whether each exposure pathway poses a threat to human health or the environment. In this case, the sites are part of a larger industrial area. Each possible exposure pathway was analyzed under the rules and guidance documents and IDEM determined that, after the remediation undertaken at the Ertel site, none of the pathways posed a hazard to human health or the environment.
6. The three exposure pathways analyzed for Ertel were direct soil contact, ground water and vapor intrusion.
7. The soil contamination was addressed by (1) excavation of the contaminated soil; (2) restrictive covenants on use of the property, including but not limited to the continued operation of the sub-slab vapor extraction mitigation system; and (3) potential exposure

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analysis addressed. On this basis, IDEM determined that there was no exposure pathway for direct soil contact.

8. Drinking water in this area is supplied by the City of Indianapolis so there is no open exposure pathway for ground water.
9. Vapor intrusion is not likely in this area because there are few buildings in the affected area and there are vapor intrusion mitigation devices in those buildings that might be affected.
10. While Moran has provided data that indicates high concentrations of TCE and PCE and even the presence of DNAPL<sup>9</sup>, this data was based on “grab” sampling. This type of sample does not carry the same weight as samples taken from permanent wells over a long period of time. So, the preponderance of the evidence weighs in favor of IDEM’s decision. These grab groundwater samples are not comparable to the data from the permanent wells utilized by Heartland, and they presented insufficient information to revisit the determination as to whether the plume emanating from the Ertel Site was stable or declining. *See Hr’g Tr. 167-168 Aug. 25, 2017.*
11. IDEM was evaluating this site to determine if there were any open exposure pathways. Moran’s evidence, while it shows that contamination still exists, failed to address the risk posed by the remaining contamination. Moran has presented no evidence that a completed exposure pathway exists at the Ertel Site or that the risk-based approach used to close the Ertel Site is no longer effective or that it otherwise presents a risk to human health or the environment.
12. Moran is clearly interested in protecting its interests in not being required to clean up contamination migrating from Ertel. However, this is not a proceeding to (1) determine each responsible party’s contribution to the overall contamination; (2) determine if Moran is or is not responsible for any portion of the contamination; nor (3) a challenge to the Agreed Order and Settlement Agreement. This is a proceeding to determine whether IDEM complied with the statutes, rules and guidance relating to deciding that the City did not need to undertake any further remedial action at the Ertel site<sup>10</sup>. As such, Moran’s arguments that the Ertel site is a continuing source of contamination does not address the heart of this matter and that is whether the NFA was issued in error. If the ELJ assumes that Moran is right and Ertel is a continuing source of contamination, Moran has still failed to present evidence that, under the RISC policy, there is an unacceptable risk to human health and the environment and that further action is necessary to address that threat.

**Final Order**

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<sup>9</sup> Dense non aqueous phase liquids, specifically in this instance, free product rather than dissolved.

<sup>10</sup> At this time. As pointed out, the NFA is not absolute and further action can be required if necessary.

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**IT IS THEREFORE ORDERED, ADJUDGED AND DECREED** judgment is entered in favor of the Indiana Department of Environmental Management and the City of Indianapolis. The Petition for Review is dismissed.

You are further notified that pursuant to provisions of Ind. Code (I.C.) § 4-21.5-7-5, the Office of Environmental Adjudication serves as the ultimate authority in administrative review of decisions of the Commissioner of the Indiana Department of Environmental Management. This is a Final Order subject to Judicial Review consistent with applicable provisions of I.C. § 4-21.5. Pursuant to I.C. § 4-21.5-5-5, a Petition for Judicial Review of this Final Order is timely only if it is filed with a civil court of competent jurisdiction within thirty (30) days after the date this notice is served.

**IT IS SO ORDERED** this 17<sup>th</sup> day of January 2018 in Indianapolis, IN.

Hon. Catherine Gibbs  
Environmental Law Judge