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May 23, 2023

Mrs. Laura Ward, Executive Director
Mrs. Wanda Washington, Executive Director
FOCUS
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Subject: **Response to FDEP Review of RES Florida Consulting, LLC dba E Sciences and Ramboll Letters dated March 6, 2023**
Lockheed Martin Tallevast Site (Former American Beryllium Company Site)
1600 Tallevast Road
Tallevast, Manatee County, Florida
Project Number 1-1440-005
FDEP Site ID# ERIC_11531

Dear Mrs. Ward and Mrs. Washington:

RES Florida Consulting, LLC dba E Sciences (RES) has prepared this letter in response to FDEP's April 5, 2023 Letter to Lockheed Martin Corporation, which provides comments on the October 27, 2022 Remedial Action Status Report (RASR Review Letter) for the Former American Beryllium Company site. The RASR Review Letter states that FDEP's comments are outlined in an attached March 6, 2023 District and Business Support Program (DBSP) Review Memorandum (DBSP Memo). FOCUS provided us with a copy of the RASR Review Letter as it is not posted on OCULUS.

The DBSP Memo first lists nine recommendations from Lockheed Martin's consultant AECOM outlined in the RASR without any FDEP comment on these. The second part of the DBSP review memo lists seven comments and recommendations that FDEP wants addressed by Lockheed Martin. Those comments and recommendations were prepared in response to RASR review comments presented to FDEP by FOCUS in letters prepared by Ramboll and RES, dated January 11, 2023 and February 1, 2023 respectively. DBSP provided point by point responses to Ramboll and RES comments in a letter addressed to FOCUS dated March 6, 2023, herein referred to as the "FOCUS Review Letter").

We are very encouraged and appreciative to FDEP for acknowledging FOCUS' consultants concerns with the 2022 RASR. This indicates that FDEP is considering the information and opinions provided and listening to the community's concerns. While FDEP did not acknowledge all concerns, we view this as a positive step.

In the FOCUS Review Letter FDEP provides point by point responses to Ramboll's letter and then lists seven comments regarding the RES letter. Several of those seven comments lump our comments in with the Ramboll comments. As RES knows you will likely share this communication with FDEP, we, therefore, want to clarify that our review letter and recommendations are solely based on our review, as we do not review the Ramboll review letters or collaborate in any way with them prior to developing our own opinions. Further, Ramboll's role is assigned by consent order and we work directly for the community

and we therefore have differing perspectives. It is interesting to note that our reviews have keyed in on similar deficiencies and concerns, demonstrating the significance of those issues, even though our opinions are developed independently. As such, it may seem that our recommendations are the same. In some instances, they are, however that is not necessarily always the case. Therefore, we would like to provide clarification and further explanation where appropriate.

- We appreciate that the FDEP agrees with us that several of the piezometers in the southeastern portion of the USAS should continue to be monitored. This is a critical element in the monitoring plan's effectiveness of the GRTS' ability to capture and recover the 1,4-dioxane plume in the southeastern direction. However, our comment here also addressed the need for the LSAS to be assessed throughout the southern edge as well as we believe the 1,4-dioxane plume is not properly delineated in the LSAS.

  Specifically, EW-3020 is a LSAS extraction well on the east side of the airport. The capture zone shows that it is recovering groundwater about 300 feet to the west but the closest westerly monitoring well is MW-119, at a distance of more than 1,200 feet away. That means that there is no data to confirm the absence of contamination in the area between the capture zone and MW-119, which spans a distance of approximately 900 feet. The concern is heightened because the plume contour is based upon dynamic samples from the extraction well and not static samples. Further the lack of a monitoring point means that there is no data to draw the extent of the capture zone in this area. At least one LSAS monitoring point should be installed west of EW-3020 to confirm the edge of the plume and the capture zone.

  Secondly, we note that dynamic samples collected from the LSAS extraction well EW-3016 in the golf course exceed the natural attenuation default concentration for 1,4-dioxane. Although this helps with LSAS assessment, there is no vertical delineation well in the AF Gravels within the golf course nor toward the southeast for over 800 feet. We therefore recommend that a vertical delineation well be installed in the golf course, near EW 3016.

  We also note there is a distance of 1,800 feet between LSAS downgradient monitoring wells, leaving a largely unassessed area that is in the downgradient location most critical to ensuring control of the plume. This area between monitoring wells MW-168 and MW-268 is particularly vulnerable to plume migration as it is directly southeast of the facility. Monitoring well MW-268 had a 1,4-dioxane concentration of 3.1 micrograms per liter (ug/L) and monitoring well MW-101 has a 1,4-dioxane concentration of 130 ug/L. Additionally, Lockheed acknowledges this lack of data as it shows the capture zone is inferred due to the lack of monitoring points. This lack of assessment data, coupled with a lack of plume control data is a large data gap that should be filled. We recommend that at least one monitoring well be installed in the LSAS between MW-168 and MW-268.

- We would also like to echo Ramboll's statement about the importance of understanding the influence of the stormwater pond at the Amazon facility located north of PZ-USAS-19. We were unable to locate any modeling or analysis of the impact of the stormwater pond in our review of OCULUS records. This would ordinarily be required for permitting. We request that such analyses be uploaded to OCULUS. If no analysis has been conducted, then it should be specifically required as contaminant transport in this area varies over time and this is a very dynamic and complex remediation project.

- We appreciate FDEP's concurrence that additional assessment in the USAS is warranted in the area south and east of the Lockheed Martin facility and that they have requested that Lockheed Martin conduct direct push assessment in the area between EW-2035 and MW-27. There are no static monitoring wells near EW-2035 so the groundwater

contaminant concentrations are not known. We recommend that a direct push assessment plan be developed for community and FDEP input prior to conducting the assessment. Those well locations are spaced about 700 feet apart and the residential area is largely unassessed. It is our opinion that a 100-foot spaced grid to identify the location of contamination is appropriate and that it should also extend onto the residential properties where people live. Therefore, we recommend that direct push testing also be conducted on residential properties located between 17th Street E, 17th Street Court East, Tallevast Road and 78th Drive East on a 100-foot grid spacing. Further, all groundwater samples in this area should include samples collected from the top of the water table and tested for all COCs to assist in evaluating potential for vapor encroachment impacts to the residents of the community.

- We appreciate the FDEP's position on asking Lockheed Martin to re-run the groundwater model. It will also need to be run once they have implemented additional adjustments to balance between the plume capture and the hydration of TW-6 and should include the influence of the recently constructed stormwater pond located at the Amazon facility.

- We respect FDEP's opinion that review of the potentiometric figures and groundwater model are not necessary; however, in some cases the inferred capture zone extends to outside of all of the data points or hundreds of feet away and in some cases the relative elevations do not support the potentiometric lines. It is unclear how these "inferred" capture zones and curves can be estimated without data to support them. The RASR does not provide sufficient rationale or substance to these capture zone lines. Correct configuration of these lines and knowing the location of the contamination interior to the plume are critical to ensure that the plume is properly controlled and recovered.

- We appreciate FDEP's request for extraction well sampling sheets and hope that FDEP recognizes and will acknowledge that dynamic sampling should not be used to determine lack of contamination in static groundwater conditions. Lockheed Martin pumps a substantial volume of water from the wells when they are out of service before sampling, which biases the results. We recommend that static samples be collected after the wells have not been pumped for several days before concluding that groundwater recovery from these wells should be discontinued or used for plume delineation.

- We appreciate FDEP's request for LMC to provide justification for eliminating private wells. We also requested that the impact of the loss of those data points be provided. We noted on one occasion when Lockheed Martin's RASR recommended removal of private wells, they stated that the reason was because of pump malfunctioning and that groundwater conditions in the area were still being monitored by other monitoring wells. However, upon inspection of well construction details, we learned that those monitoring wells were screened in entirely different zones and at distances from the private well. A proper justification and reason why the data points should not be replaced should be provided. Because these are private water supply wells, a higher level of justification should be provided and higher level of scrutiny should be conducted.

- Finally, we would like to express our concern about the timeliness and availability of public information. While FDEP does copy FOCUS on the RASR review letters, RES endeavors to review OCULUS weekly for new documents to ensure that the community has timely access to the information. The FOCUS letter is dated March 6, 2023 and references that FDEP had requested certain items from Lockheed Martin "in our most recent review", but we were unable to locate any comments issued to Lockheed Martin until FOCUS provided us with a copy of the 2022 RASR Review Letter that is dated one month later (April 5, 2023). This caused considerable confusion and uncertainty in the documentation and record of FDEP's comments. To date, the 2022 RASR Review letter has still not been posted to OCULUS. We understand that FDEP has undergone some significant restructuring, but it is imperative that contaminated communities be able to rely on timely and accurate communications from FDEP regarding these important issues.

We appreciate the opportunity to offer our professional services to you. If you have any questions concerning this letter, please contact us at 954-484-8500.

Sincerely,
RES Florida Consulting, LLC

Kathryn Eisnor
Senior Scientist

Nadia G. Locke, P.E.
Senior Engineer

Cc: Ms. Jeanne Zokovitch Paben