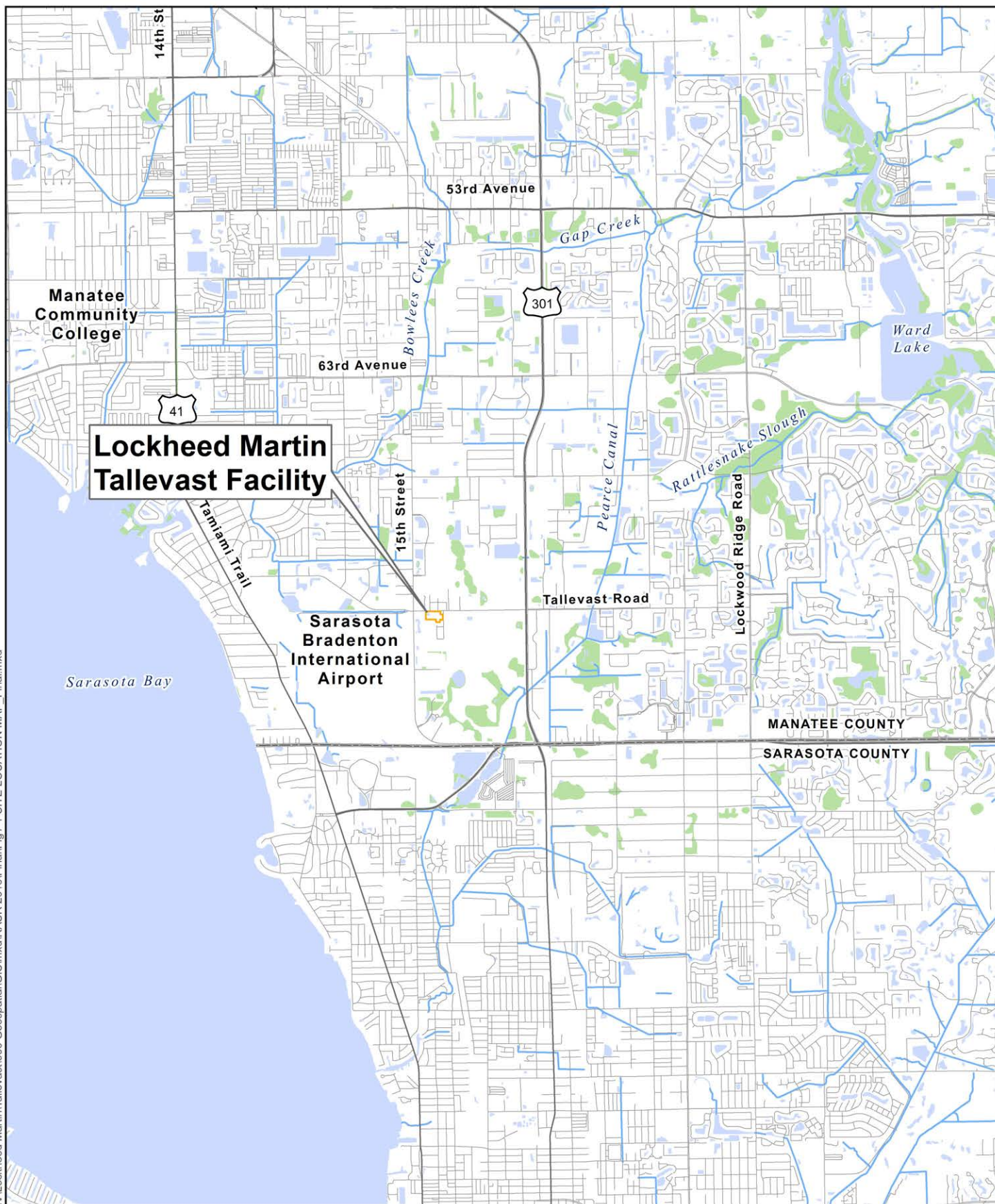


FIGURES

Davies, Lewis

Digitally signed by Davies, Lewis
DN: cn=Davies, Lewis,
o=USSouth, ou=AECOM,
email=lewis.davies@aecom.com,
c=US
Date: 2016.10.28 11:32:41 -04'00'

Document Path: P:\DCS\Projects\ENV\Lockheed Martin\Tallevast\000 Geospatial\GIS\mxd\RASR 2016\Final\Fig1-1 SITE LOCATION MAP_Final.mxd



Legend



Lockheed Martin Tallevast Facility

0 1 Miles



Area Location

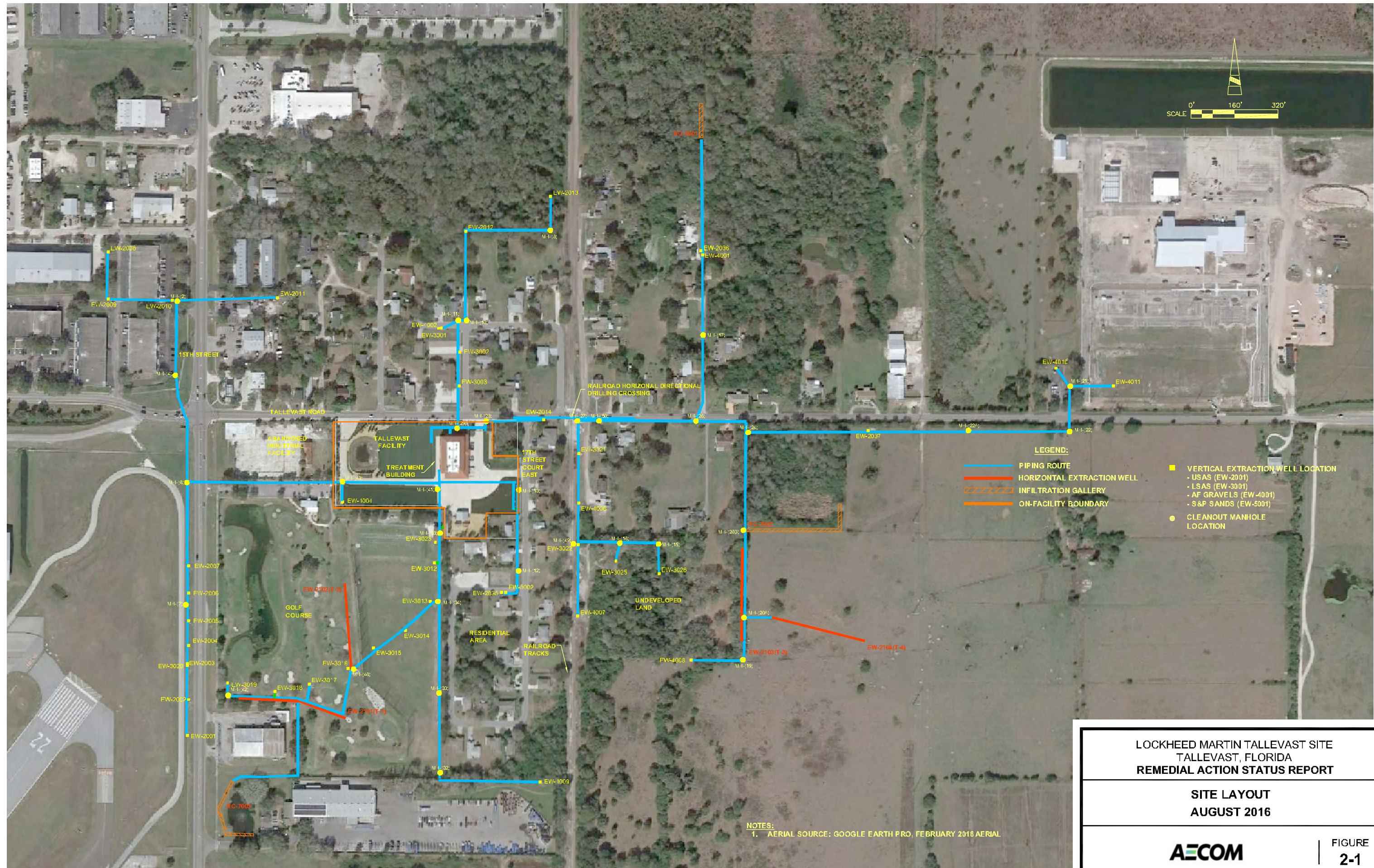
FLORIDA

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

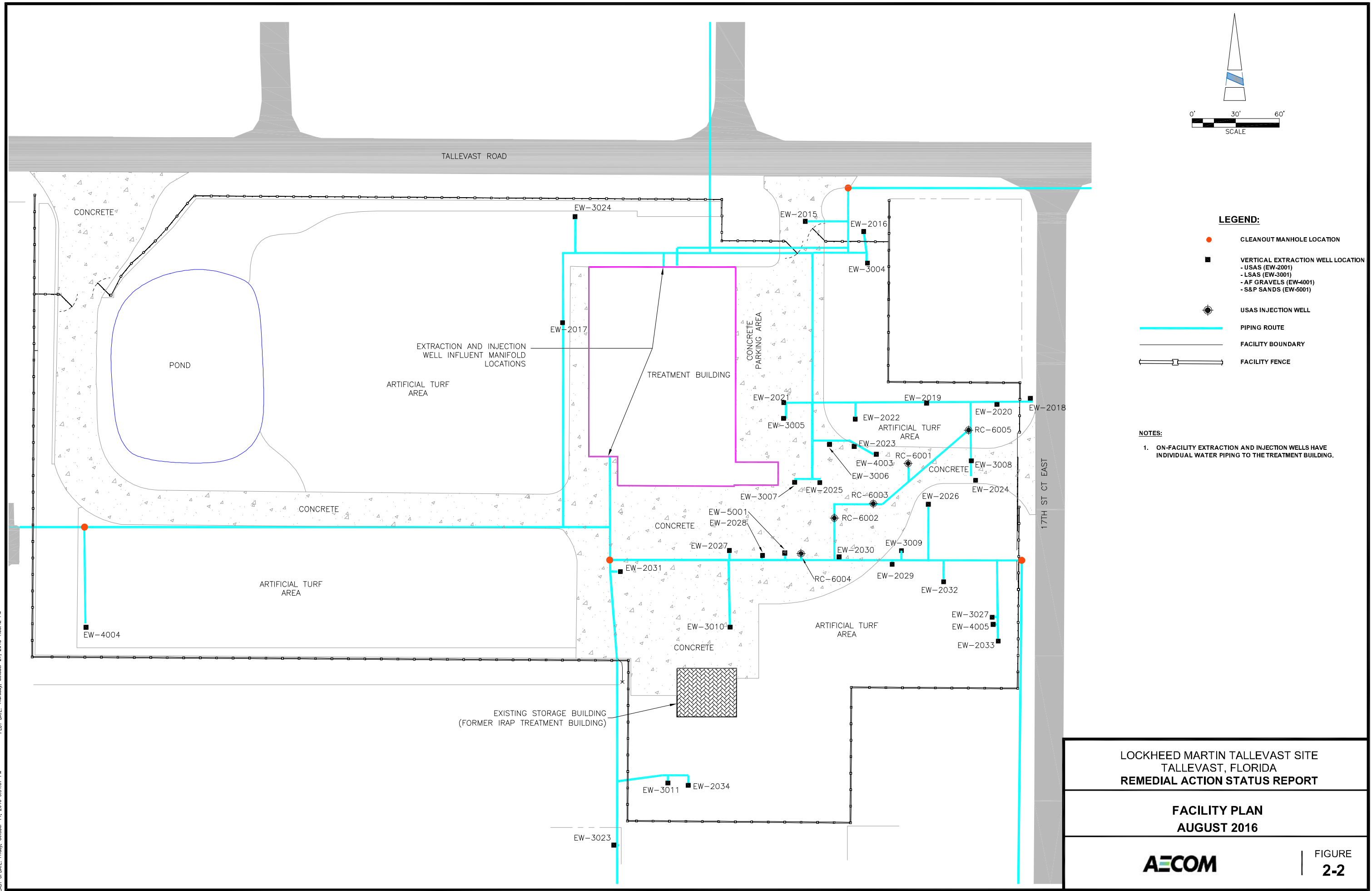
SITE LOCATION MAP
AUGUST 2016

AECOM

FIGURE
1-1



PATH/FILENAME: P:\DCS\PROJECTS\ENM\LOCKHEED MARTIN\TALLEVAST\000 GEOSPATIAL\CAD\RASR 2016 CAD FIGURES\FIG2-2.FACILITY PLAN_FINAL.DWG
LAST UPDATE: Friday, October 14, 2016 3:34:07 PM PLOT DATE: Thursday, October 27, 2016 1:06:42 PM

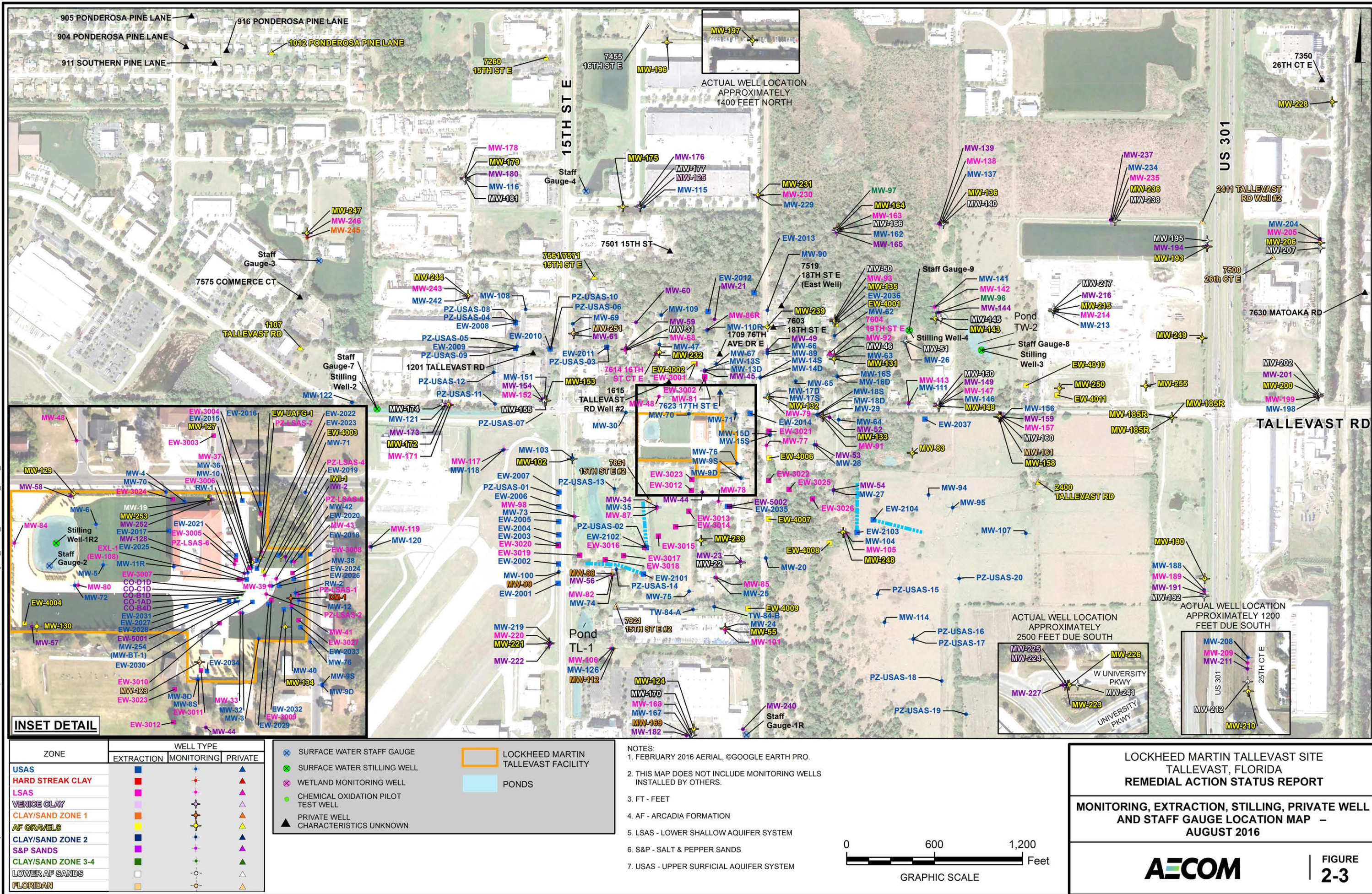


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

FACILITY PLAN
AUGUST 2016

AECOM

FIGURE
2-2



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SYSTEM	QUATERNARY		TERTIARY	LITHO-STRATIGRAPHIC UNIT	HYDRO-STRATIGRAPHIC UNIT	LITHOLOGY	UNIT THICKNESS (FT)	WATER BEARING	DESIGNATED COLOR*
	PLEISTOCENE	HOLOCENE							
			PLIOCENE						
				UNDIFFERENTIATED SURFICIAL DEPOSITS (USD)	SURFICIAL AQUIFER SYSTEM (SAS)	UPPER SURFICIAL AQUIFER SYSTEM (USAS) - A series of undifferentiated (unconsolidated) silica sands with variable clay content and shell fragments. The sands are fine to medium grained and sub-rounded to rounded. Basal sections of the unit contain fine, horizontal laminations of silts and clays.	20-55	√	
				PEACE RIVER FORMATION (PRF)		LOWER SHALLOW AQUIFER SYSTEM (LSAS) - The uppermost portion of the Peace River Formation (PRF) is represented by indurated moldic carbonate termed the Hard Streak, followed by a series of interbedded limestone, clay, and carbonate mudstone units forming the LSAS. These units are often fragmented into angular gravels during drilling.	6-36	√	
						VENICE CLAY - A siliclastic to calcareous clay unit with a distinctive greenish-grey to olive color. A calcirudite/calclutite unit within the Peace River Formation (sometimes described as "Lower PRF Gravels" due to fragmentation during drilling) carries a natural gamma spike believed to result from a high phosphatic content. There is a transitional contact with the underlying Arcadia formation.	5-35		
						CLAY/SAND ZONE 1 - A series of inter-bedded carbonate units, predominantly calcilutites. Vugs, pits and fractures are present within the well-consolidated sections of carbonate beds.	15-50		
						UPPER ARCADIA FORMATION (AF) GRAVELS - A lateral correlation can be made of a calcirudite/calclutite unit, often described as "gravel" due to fragmentation. The unit encountered at approximately 100 feet bgs in the surveyed area and can produce significant groundwater yields. It is associated with a distinctive natural gamma spike that is likely due to high phosphatic content.	5-15	√	
						CLAY/SAND ZONE 2 - A series of inter-bedded carbonate (calcitic/dolomitic) units, predominantly calcilutites. Vugs, pits and fractures are present within the well-consolidated sections of carbonate beds.	10-55		
						SALT & PEPPER (S&P) SANDS - A laterally continuous, quartz-rich sand unit that has a high to moderate phosphatic content. The top of this unit is often approximately 145 feet bgs in the surveyed area. Due to the colorless quartz and black phosphatic sand, the unit has a "salt & pepper" appearance. This S&P sand unit is fine to medium grained and has varying silt and clay content, ranging from well-sorted sand to cohesive clayey sands.	5-15	√	
						CLAY/SAND ZONE 3 - A series of interbedded carbonate units, predominantly calcilutites. Vugs, pits and fractures are present within the well-consolidated sections of carbonate beds.			
						LOWER ARCADIA FORMATION (AF) GRAVELS - A lateral correlation can be made of a calcirudite/calclutite unit. This unit is often encountered between approximately 280 and 290 feet bgs, and carries a distinctive natural gamma spike, which is believed to result from a high phosphatic content.	100-150		
						CLAY/SAND ZONE 4 - A series of inter-bedded carbonate (calcitic/dolomitic) units, predominantly calcilutites.			
						LOWER ARCADIA FORMATION (AF) SANDS - A laterally continuous, quartz-rich sand unit. The sand is fine to medium grained and has varying silt and clay content, ranging from poorly sorted to clayey sands.	1-15	√	
						CLAY/SAND ZONE 5 - Underlying the Lower AF Sands is a series of carbonate units, predominantly calcilutites, which extend to the top of the Floridan Aquifer System.	~ 50		
						UPPER FLORIDAN AQUIFER - A series of heterogeneous limestone and dolomite units with highly developed secondary porosity due to dissolution.		√	

*Designated color assigned to units on conceptual geologic cross-section and used in some other displays to indicate geologic unit.

Source of Figure: "Lockheed Martin Corporation Groundwater Sampling and Analysis Plan - Revision 2", ARCADIS June, 2012.

LOCKHEED MARTIN TALLEVAST SITE TALLEVAST, FLORIDA REMEDIAL ACTION STATUS REPORT

STRATIGRAPHIC COLUMN AUGUST 2016

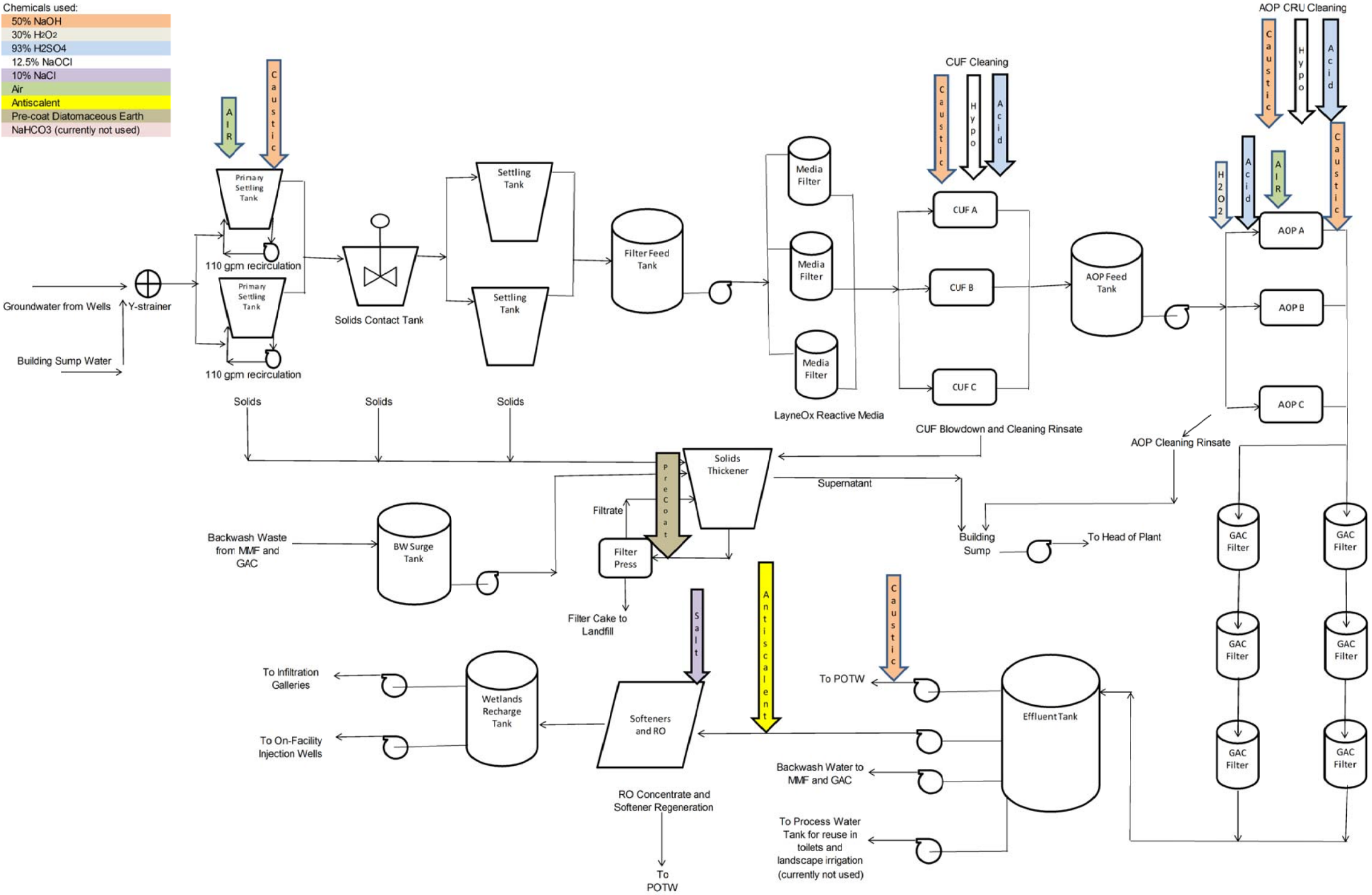
AECOM

FIGURE

2-4

LOCKHEED MARTIN TALLEVAST REMEDIATION - PROCESS DIAGRAM

- Chemicals used:
- 50% NaOH
 - 30% H₂O₂
 - 93% H₂SO₄
 - 12.5% NaOCl
 - 10% NaCl
 - Air
 - Antiscalent
 - Pre-coat Diatomaceous Earth
 - NaHCO₃ (currently not used)

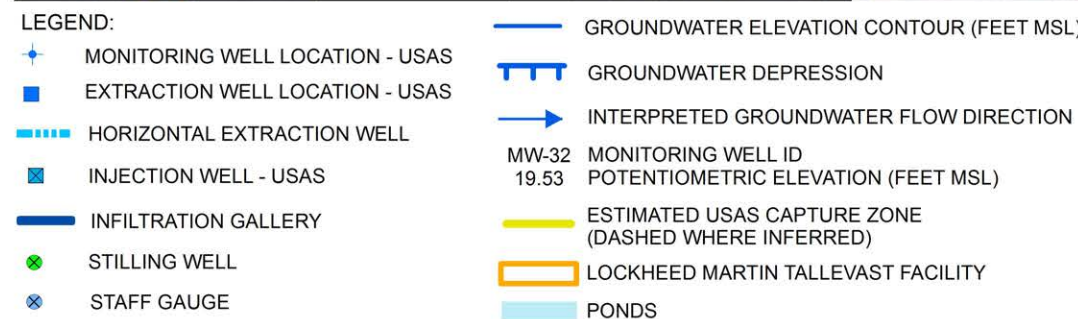
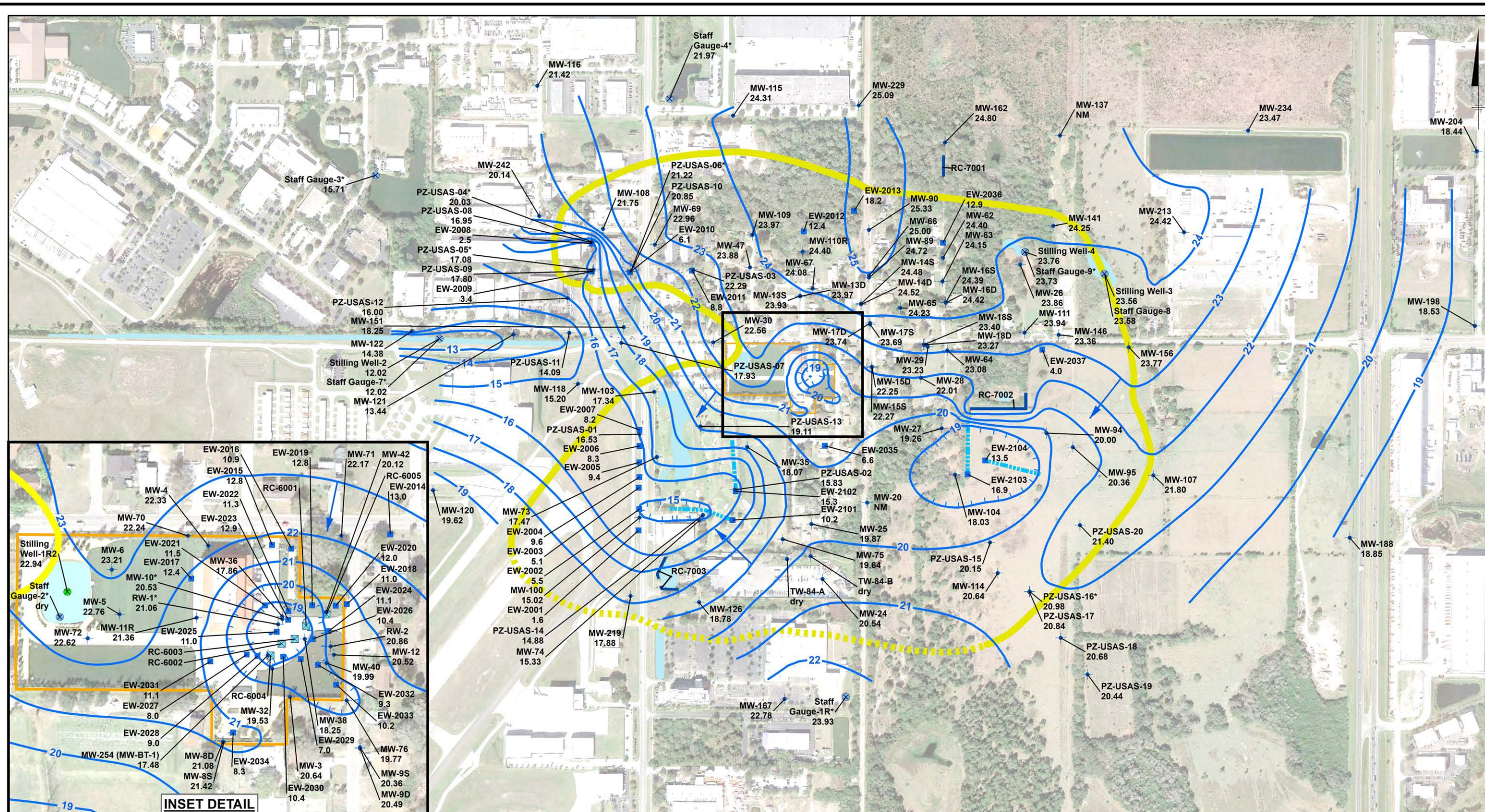


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

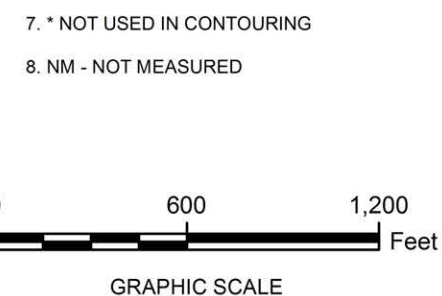
TALLEVAST PROCESS DIAGRAM
AUGUST 2016

AECOM

FIGURE
3-2



- NOTES:**
- FEBRUARY 2016 AERIAL, ©GOOGLE EARTH PRO.
 - VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 - GROUNDWATER ELEVATIONS WERE OBTAINED DURING THE AUGUST 2016 MONITORING EVENT. WATER LEVELS MEASURED ON 08/03/2016.
 - MSL - MEAN SEA LEVEL
 - USAS - UPPER SURFICIAL AQUIFER SYSTEM
 - EXTRACTION WELLS NOT USED IN CONTOURING



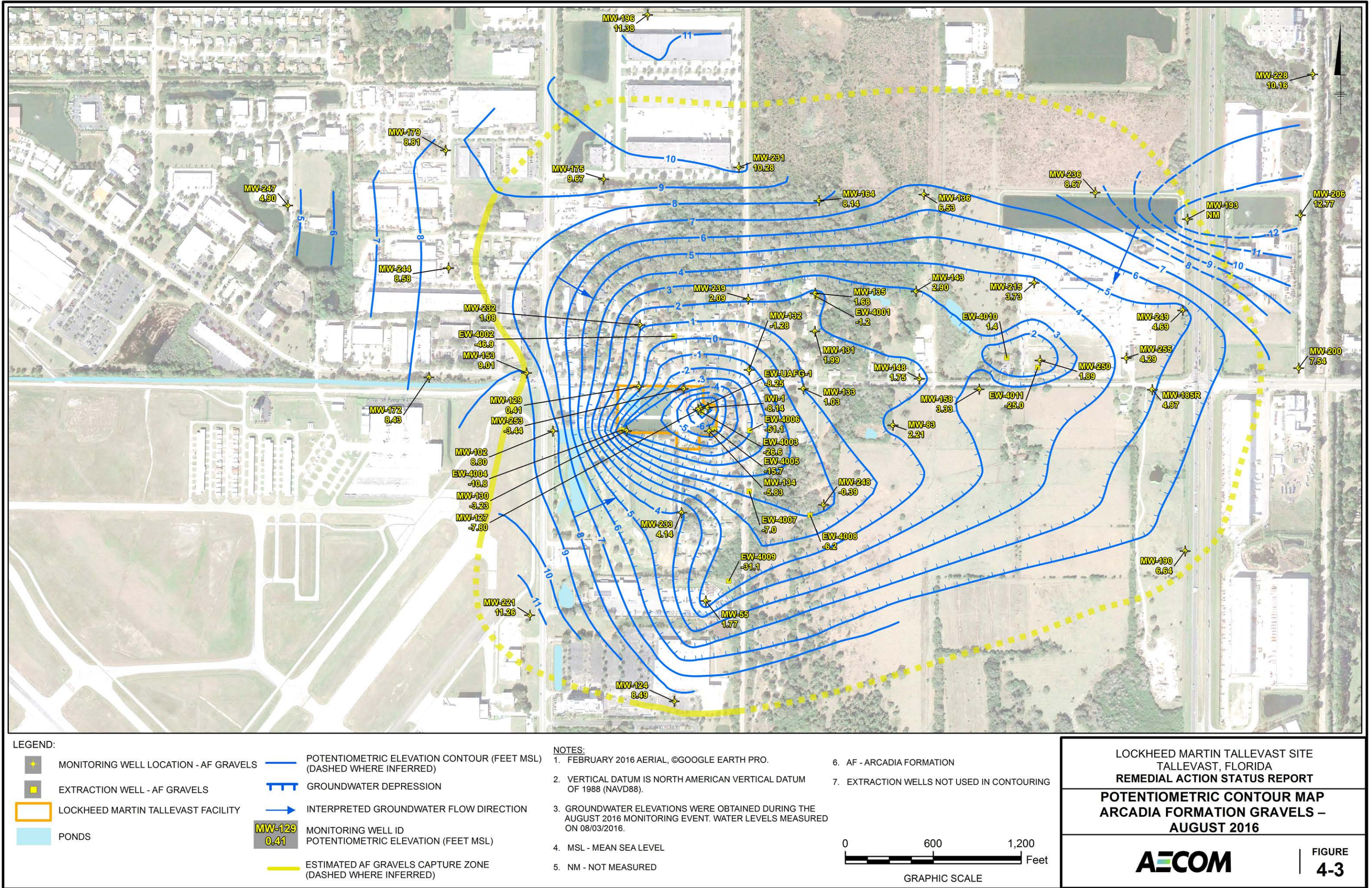
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

GROUNDWATER CONTOUR MAP
UPPER SURFICIAL AQUIFER SYSTEM –
AUGUST 2016

AECOM

FIGURE
4-1

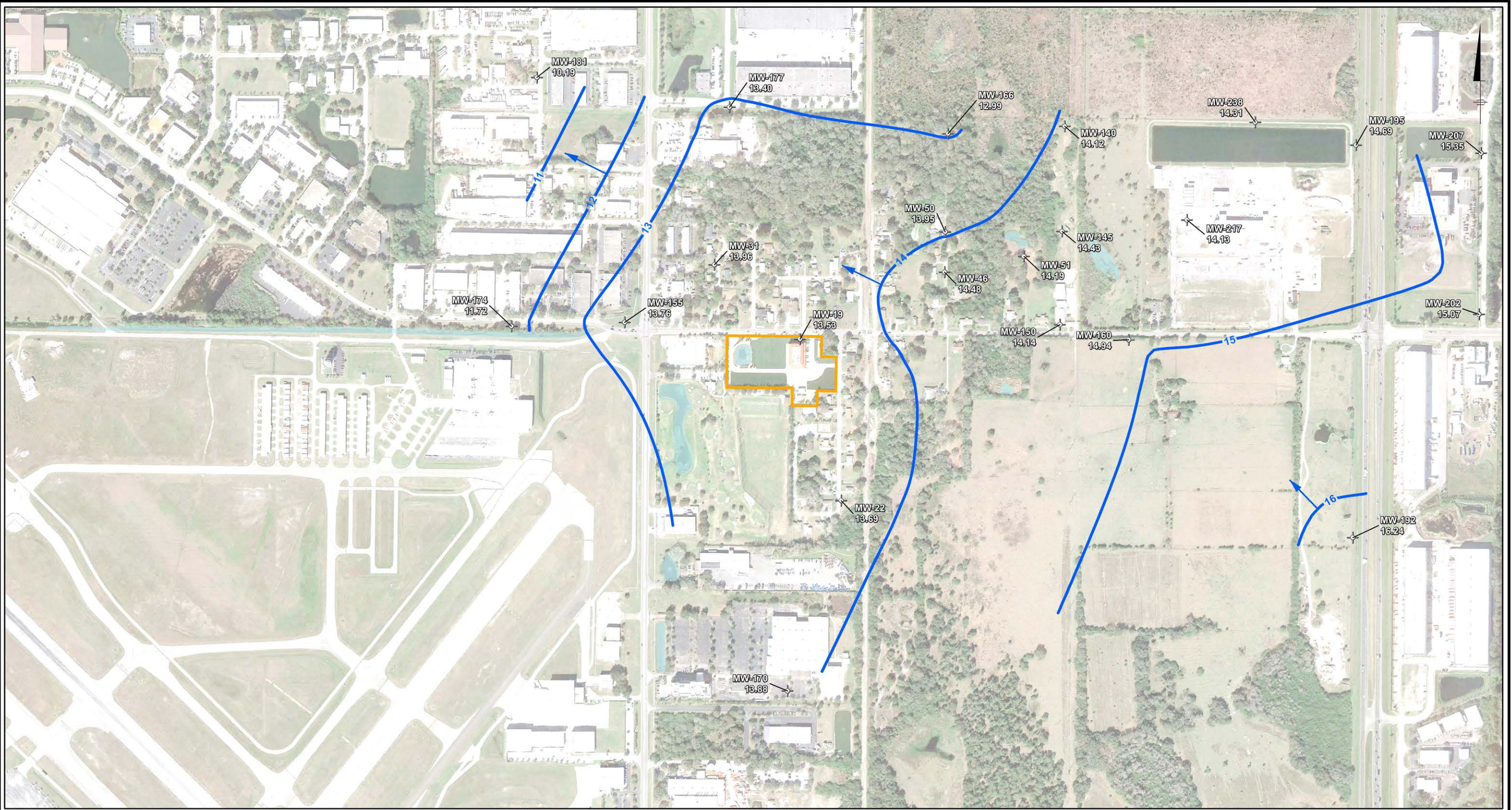
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A horizontal graphic scale bar. It is divided into three equal segments. The first segment is white, the second is black, and the third is white. Above the bar, the numbers 0, 600, and 1,200 are printed at the start, middle, and end respectively. To the right of the bar, the word "Feet" is printed. Below the bar, the words "GRAPHIC SCALE" are printed in all caps.

FIGURE 4-4

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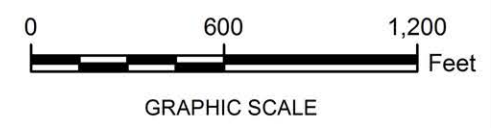


LEGEND:

- MONITORING WELL LOCATION - LOWER AF SANDS
- LOCKHEED MARTIN TALLEVAST FACILITY
- POTENTIOMETRIC ELEVATION CONTOUR (FEET MSL)
- INTERPRETED GROUNDWATER FLOW DIRECTION
- PONDS
- MONITORING WELL ID
POTENTIOMETRIC ELEVATION (FEET MSL)

NOTES:

- FEBRUARY 2016 AERIAL, ©GOOGLE EARTH PRO.
- VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- GROUNDWATER ELEVATIONS WERE OBTAINED DURING THE AUGUST 2016 MONITORING EVENT. WATER LEVELS MEASURED ON 08/03/2016.
- MSL - MEAN SEA LEVEL
- NM - NOT MEASURED
- AF - ARCADIA FORMATION



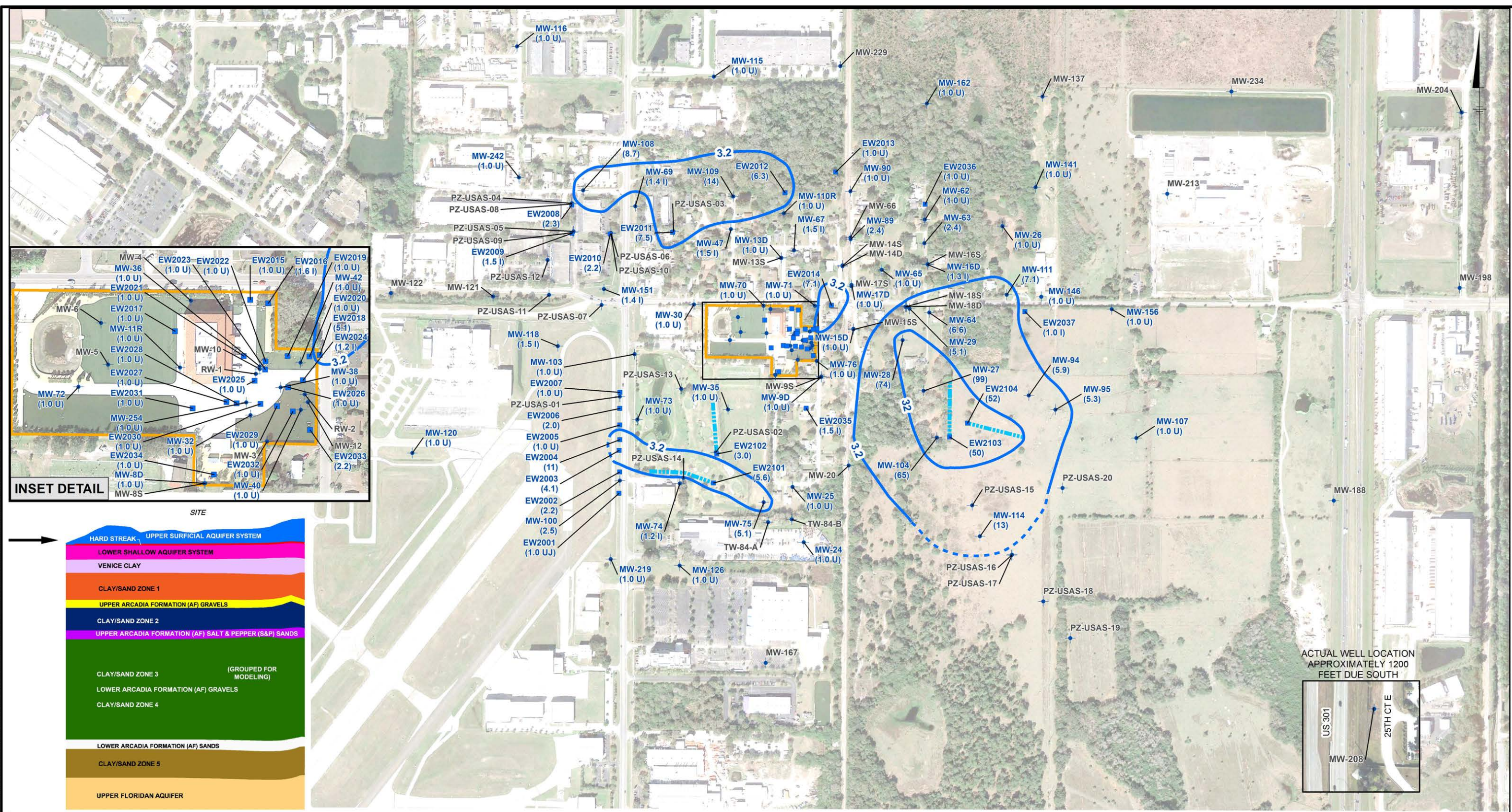
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

**POTENTIOMETRIC CONTOUR MAP
LOWER ARCADIA FORMATION SANDS -
AUGUST 2016**

AECOM

FIGURE
4-5

Path: P:\DCSP\Projects\ENV\Lockheed Martin\Tallevast\000 Geospatial\GIS\mxd\RASR 2016\Final\Figs-01_USAS_0816_14DIOXANE_Final.mxd Date: 10/26/2016 Time: 6:26:50 PM



LEGEND:

USAS MONITORING WELL

USAS EXTRACTION WELL

HORIZONTAL EXTRACTION WELL

LOCKHEED MARTIN TALLEVAST FACILITY

1.0 U 1,4-DIOXANE RESULT VALUE (µg/L)

3.2 1,4-DIOXANE CONTOUR (DASHED WHERE INFERRED) (GCTL)

32 1,4-DIOXANE CONTOUR (10X GCTL)

NOTES:

- FEBRUARY 2016 AERIAL, ©GOOGLE EARTH PRO.
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- I - THE REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND THE LABORATORY PRACTICAL QUANTITATION LIMIT.
- J - THE REPORTING LIMIT IS AN ESTIMATED VALUE.
- µg/L - MICROGRAMS PER LITER
- WELLS SHOWN IN GRAY WERE NOT SAMPLED DURING THE AUGUST 2016 EVENT.
- USAS - UPPER SURFICIAL AQUIFER SYSTEM
- GCTL - GROUNDWATER CLEANUP TARGET LEVEL
- CONTOURING BASED ON MONITORING WELL DATA WITH CONSIDERATION OF OTHER FACTORS, SUCH AS EXTRACTION WELL DATA AND MODELING INFORMATION.

0 600 1,200 Feet

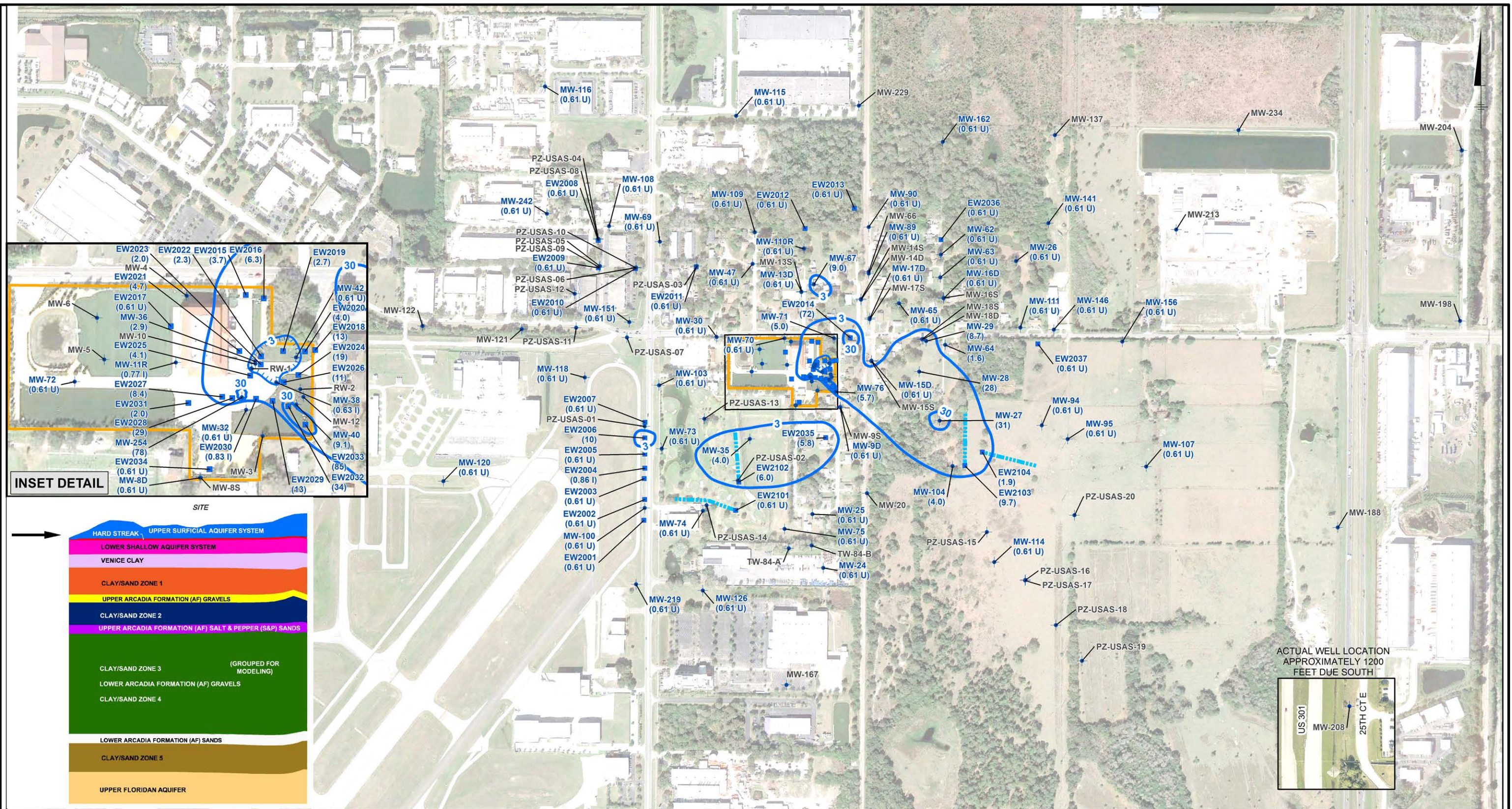
GRAPHIC SCALE

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

1,4-DIOXANE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

FIGURE
5-1

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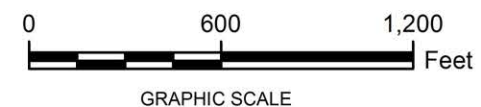


LEGEND:

- | | | | |
|---------|------------------------------------|--------|-------------------------------------|
| MW-32 | USAS MONITORING WELL | 0.61 U | TRICHLOROETHENE RESULT VALUE (µg/L) |
| EW-2005 | USAS EXTRACTION WELL | 3 | TRICHLOROETHENE CONTOUR (GCTL) |
| | HORIZONTAL EXTRACTION WELL | 30 | TRICHLOROETHENE CONTOUR (10X GCTL) |
| | LOCKHEED MARTIN TALLEVAST FACILITY | | |

NOTES:

1. FEBRUARY 2016 AERIAL, ©GOOGLE EARTH PRO.
2. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
3. I - THE REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND THE LABORATORY PRACTICAL QUANTITATION LIMIT.
4. µg/L - MICROGRAMS PER LITER
5. WELLS SHOWN IN GRAY WERE NOT SAMPLED DURING THE AUGUST 2016 EVENT.
6. USAS - UPPER SURFICIAL AQUIFER SYSTEM
7. GCTL - GROUNDWATER CLEANUP TARGET LEVEL
8. CONTOURING BASED ON MONITORING WELL DATA WITH CONSIDERATION OF OTHER FACTORS, SUCH AS EXTRACTION WELL DATA AND MODELING INFORMATION.



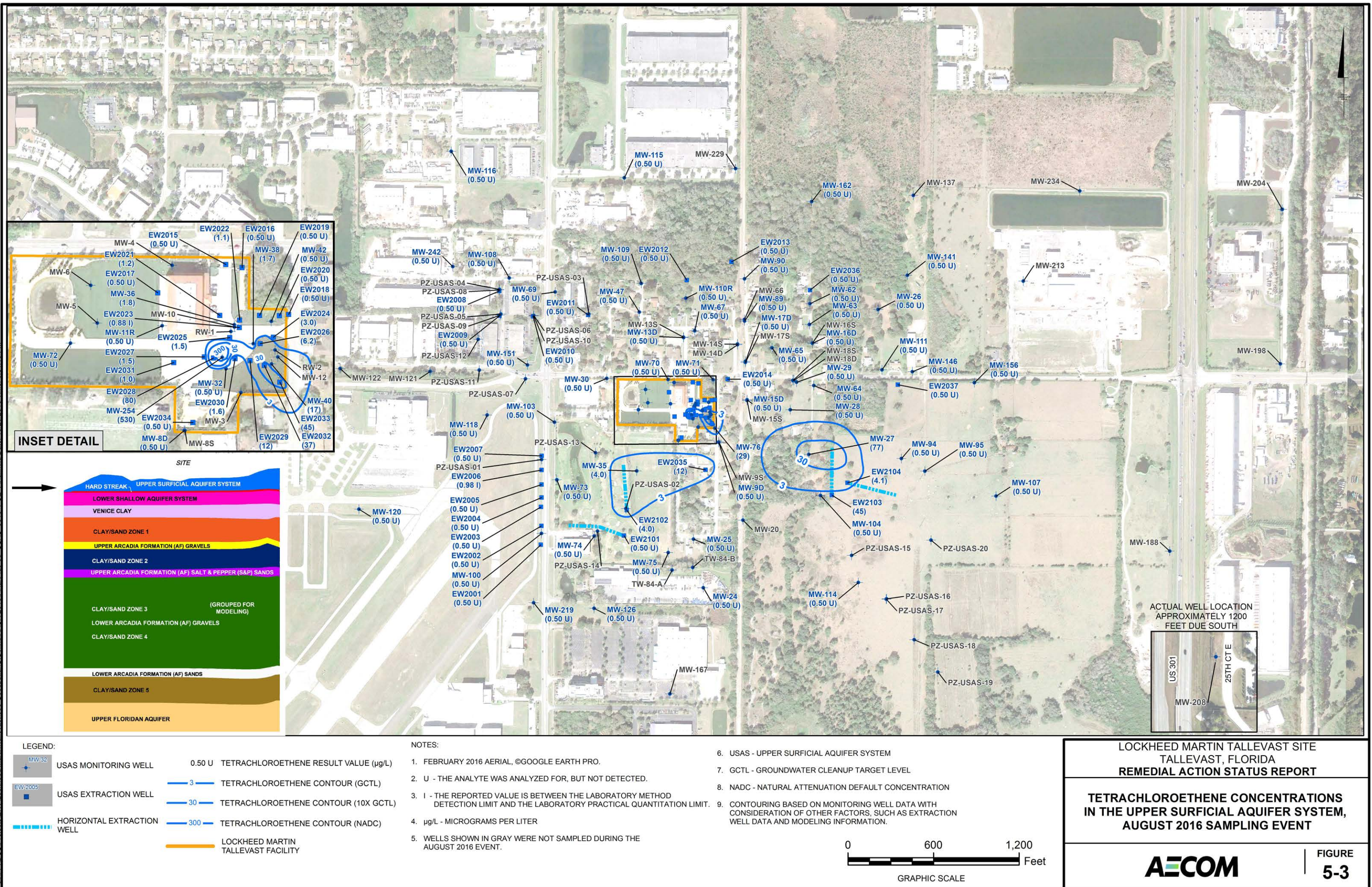
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

TRICHLOROETHENE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

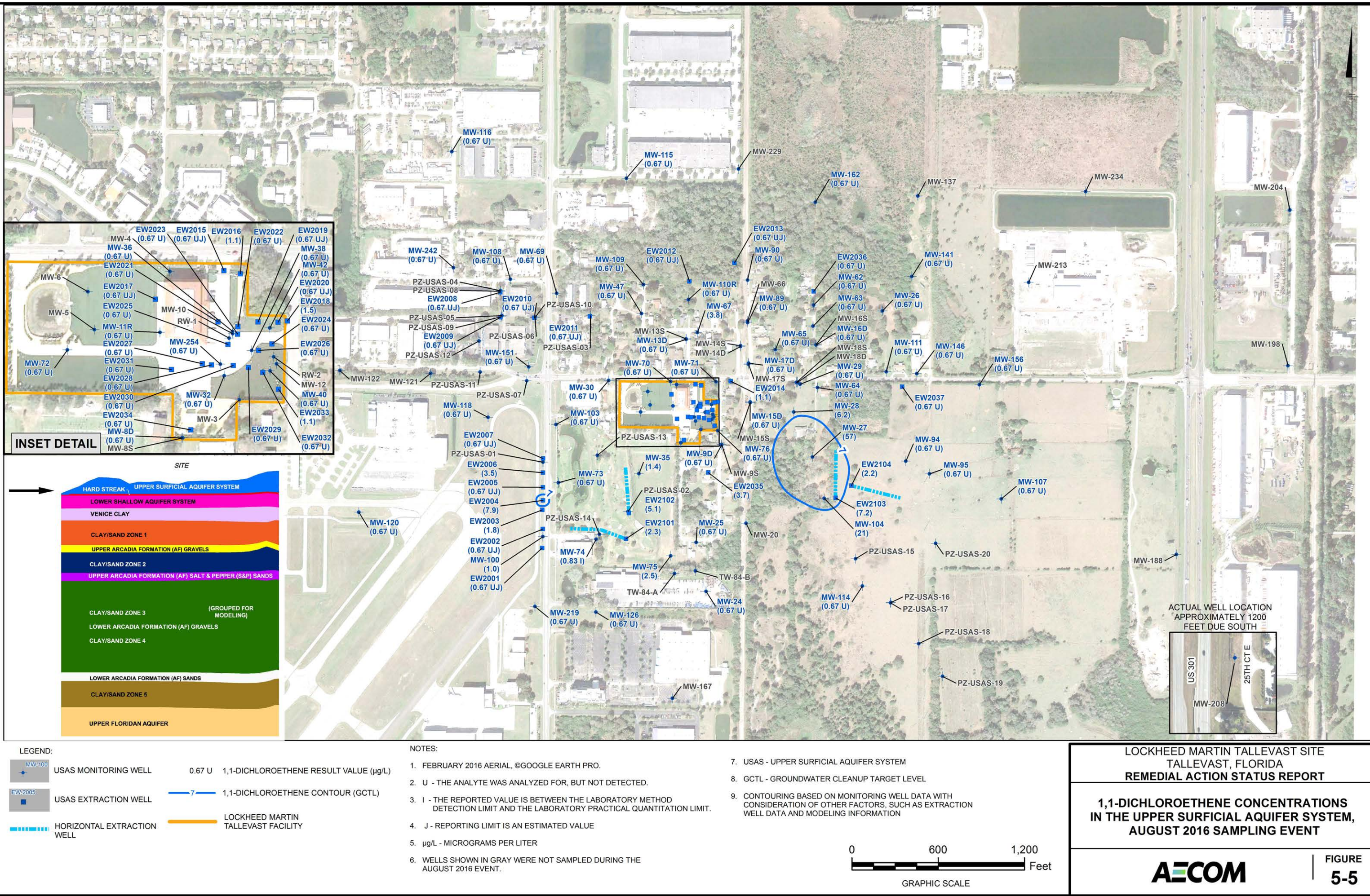
AECOM

FIGURE
5-2

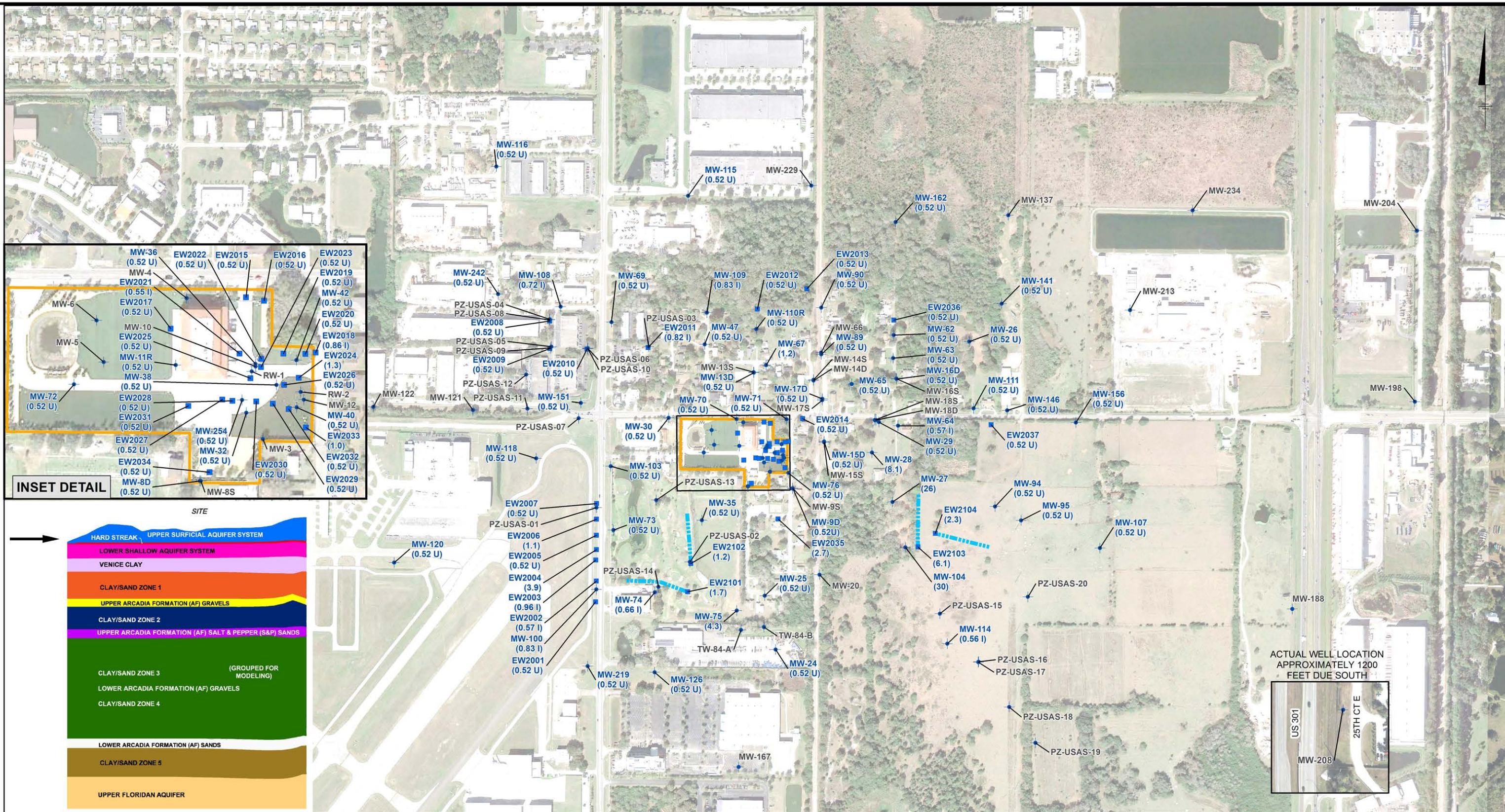
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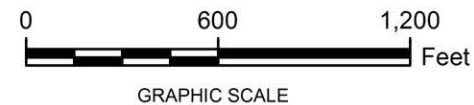


LEGEND:

- MW-100 USAS MONITORING WELL
- EW-2005 USAS EXTRACTION WELL
- HORIZONTAL EXTRACTION WELL
- 0.52 U 1,1-DICHLOROETHANE RESULT VALUE (µg/L)
- LOCKHEED MARTIN TALLEVAST FACILITY

NOTES:

- FEBRUARY 2016 AERIAL, ©GOOGLE EARTH PRO.
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- I - THE REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND THE LABORATORY PRACTICAL QUANTITATION LIMIT.
- µg/L - MICROGRAMS PER LITER
- WELLS SHOWN IN GRAY WERE NOT SAMPLED DURING THE AUGUST 2016 EVENT.
- USAS - UPPER SURFICIAL AQUIFER SYSTEM

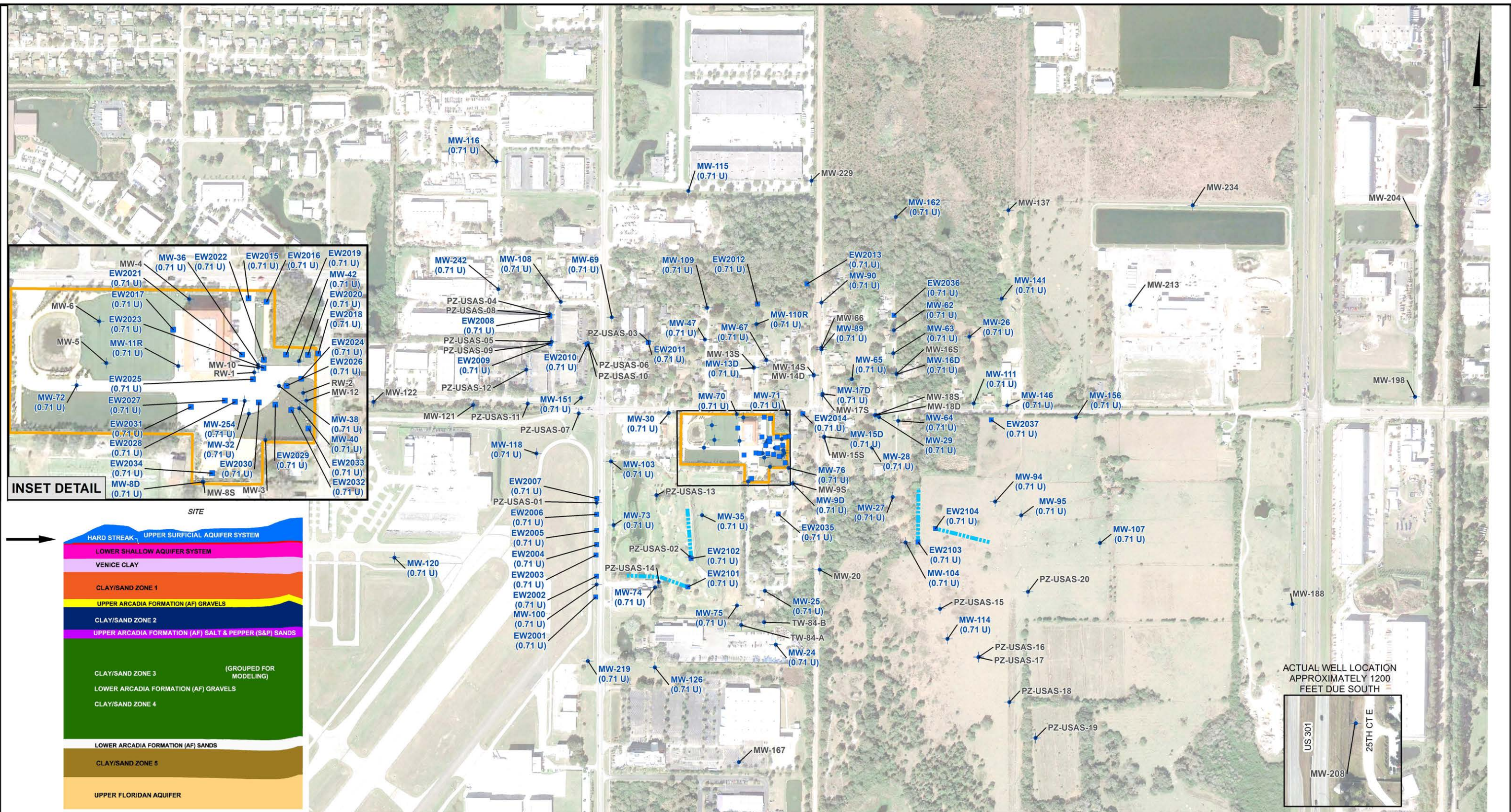


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

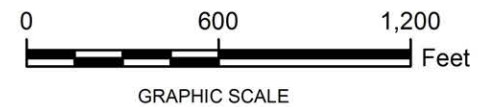
1,1-DICHLOROETHANE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

AECOM

FIGURE
5-6



- NOTES:
- FEBRUARY 2016 AERIAL, ©GOOGLE EARTH PRO.
 - U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 - µg/L - MICROGRAMS PER LITER
 - WELLS SHOWN IN GRAY WERE NOT SAMPLED DURING THE AUGUST 2016 EVENT.
 - USAS - UPPER SURFICIAL AQUIFER SYSTEM



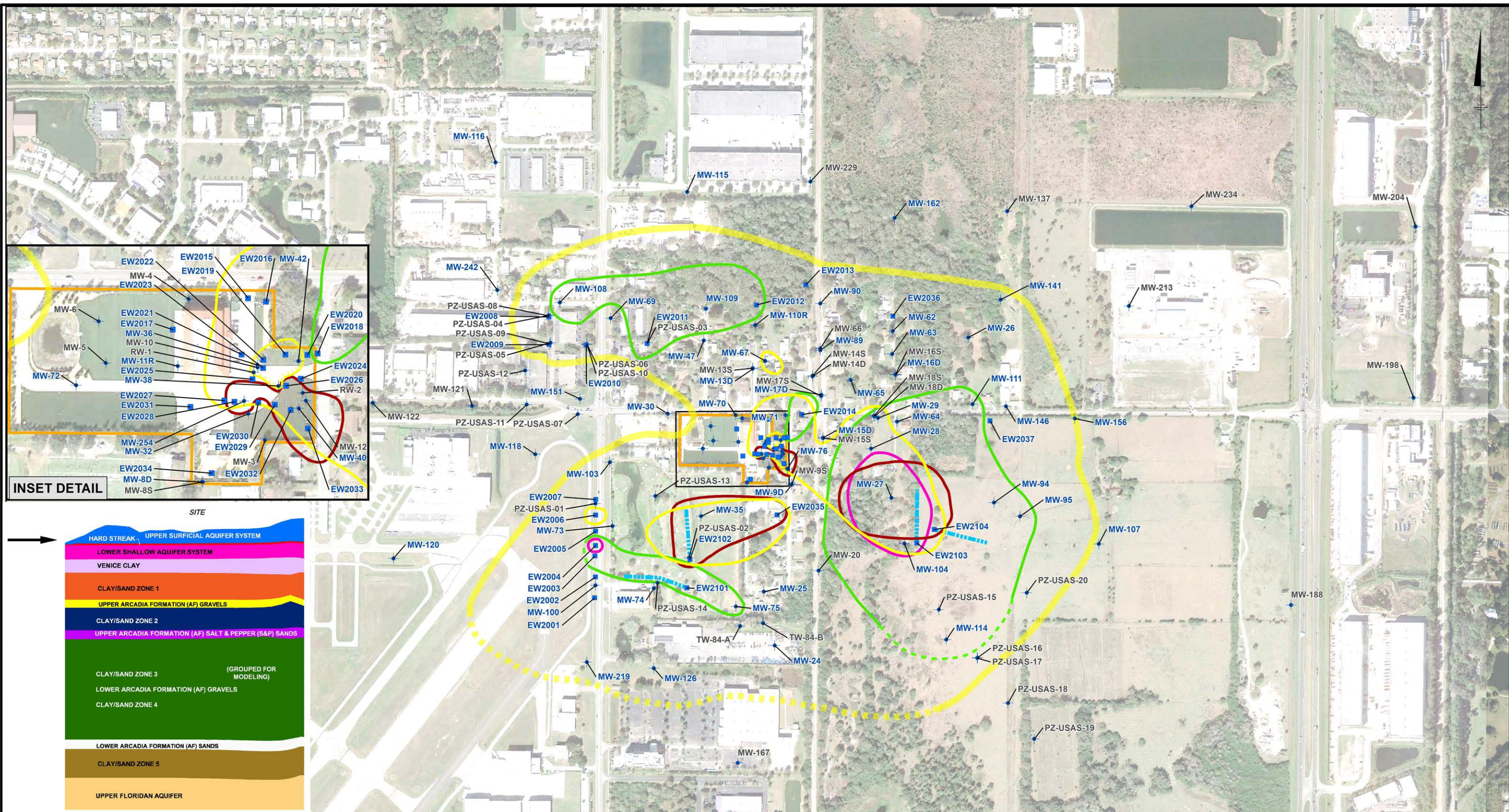
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

VINYL CHLORIDE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

AECOM

FIGURE
5-7

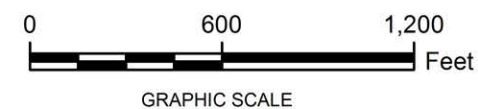
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- LEGEND:
- MW-100 USAS MONITORING WELL
 - EW-2005 USAS EXTRACTION WELL
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - HORIZONTAL EXTRACTION WELL
 - ESTIMATED USAS CAPTURE ZONE (DASHED WHERE INFERRED)

- 3 TETRACHLOROETHENE CONTOUR (GCTL)
- 3 TRICHLOROETHENE CONTOUR (GCTL)
- 7 1,1-DICHLOROETHENE CONTOUR (GCTL)
- 3.2 1,4-DIOXANE CONTOUR (DASHED WHERE INFERRED) (GCTL)

- NOTES:
- FEBRUARY 2016 AERIAL, ©GOOGLE EARTH PRO
 - GCTL - GROUNDWATER CLEANUP TARGET LEVEL (IN MICROGRAMS PER LITER)
 - WELLS SHOWN IN GRAY WERE NOT SAMPLED DURING THE AUGUST 2016 EVENT.
 - CONTOURING BASED ON MONITORING WELL DATA WITH CONSIDERATION OF OTHER FACTORS, SUCH AS EXTRACTION WELL DATA AND MODELING INFORMATION.



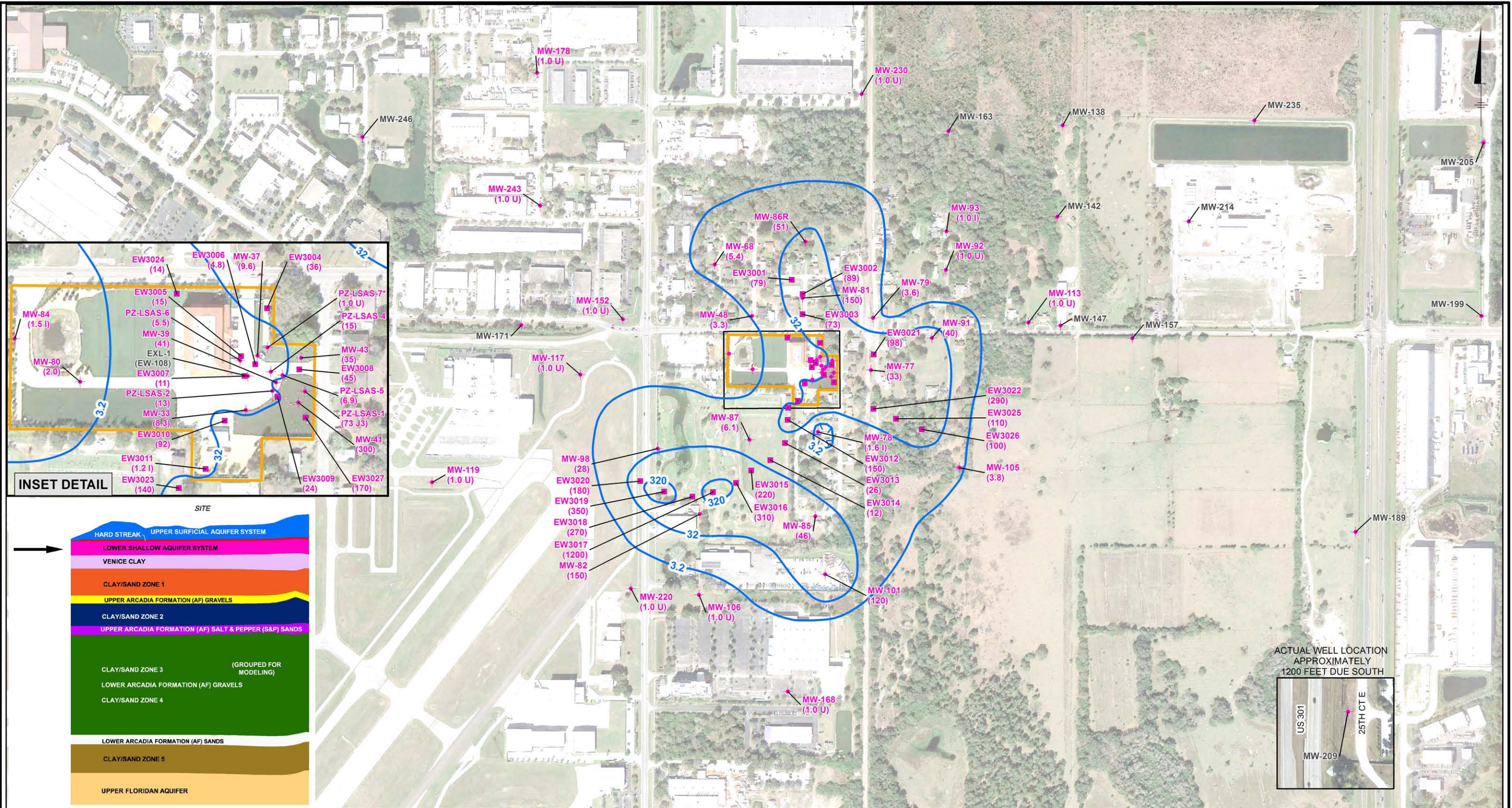
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

COMPOSITE COC CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

AECOM

FIGURE
5-8

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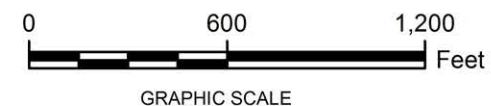
LEGEND:

- | | | | |
|---|----------------------|-------|------------------------------------|
|  | LSAS MONITORING WELL | 1.0 U | 1,4-DIOXANE RESULT VALUE (µg/L) |
|  | LSAS EXTRACTION WELL | 3.2 | 1,4-DIOXANE CONTOUR (GCTL) |
|  | | 32 | 1,4-DIOXANE CONTOUR (10X GCTL) |
|  | | 320 | 1,4-DIOXANE CONTOUR (NADC) |
|  | | | LOCKHEED MARTIN TALLEVAST FACILITY |

NOTES:

1. FEBRUARY 2016 AERIAL, ©GOOGLE EARTH PRO.
2. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
3. I - THE REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND THE LABORATORY PRACTICAL QUANTITATION LIMIT.
4. J3 - ESTIMATED VALUE; VALUE MAY NOT BE ACCURATE. SPIKE RECOVERY OR RPD OUTSIDE OF CRITERIA.
5. µg/L - MICROGRAMS PER LITER
6. WELLS SHOWN IN GRAY WERE NOT SAMPLED DURING THE AUGUST 2016 EVENT.

7. LSAS - LOWER SHALLOW AQUIFER SYSTEM
8. GCTL - GROUNDWATER CLEANUP TARGET LEVEL
9. NADC - NATURAL ATTENUATION DEFAULT CONCENTRATION
10. * - NOT USED IN CONTOURING
11. CONTOURING BASED ON MONITORING WELL DATA WITH CONSIDERATION OF OTHER FACTORS, SUCH AS EXTRACTION WELL DATA AND MODELING INFORMATION.



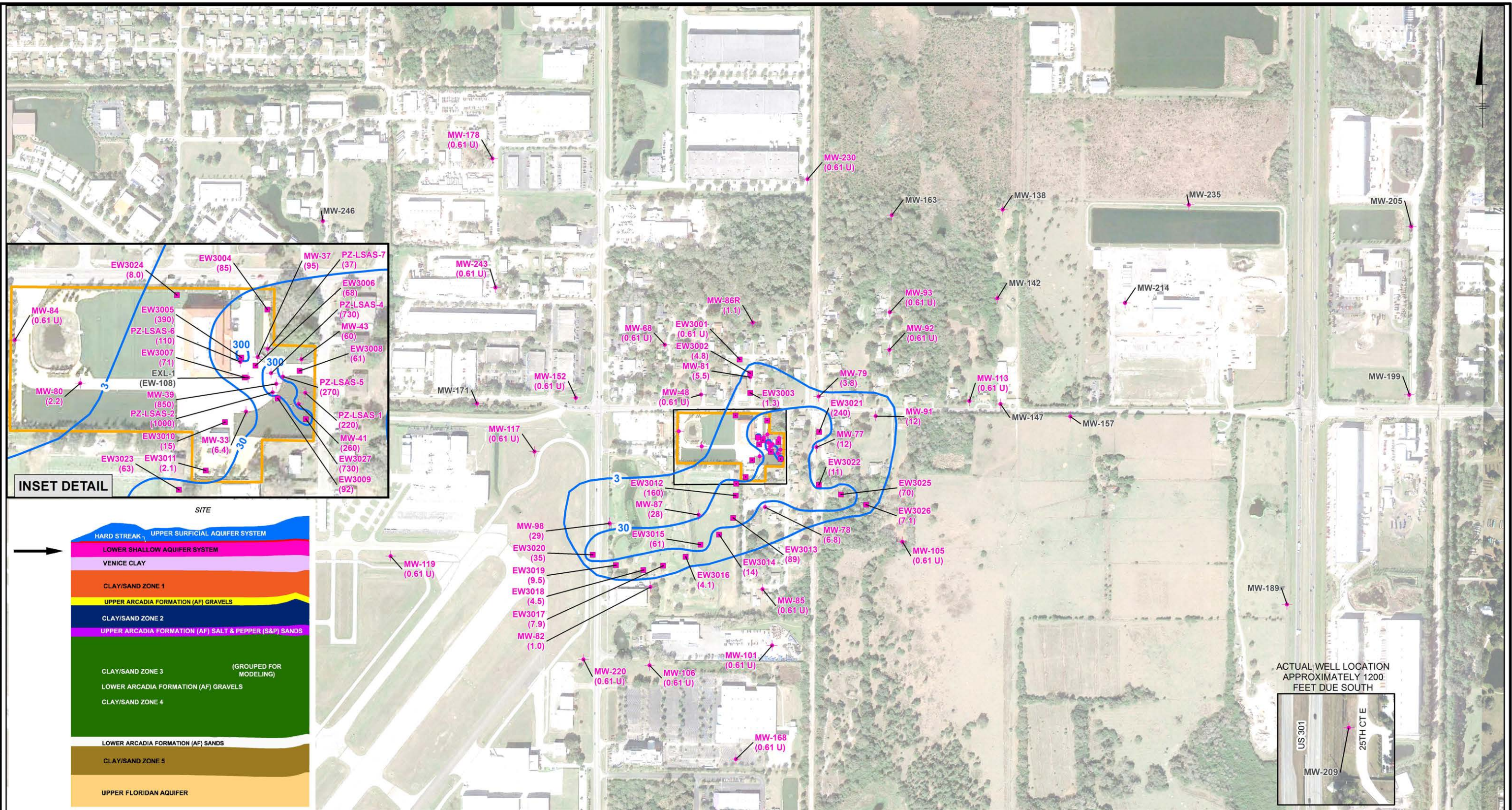
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

1,4-DIOXANE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

AECOM

FIGURE
5-9

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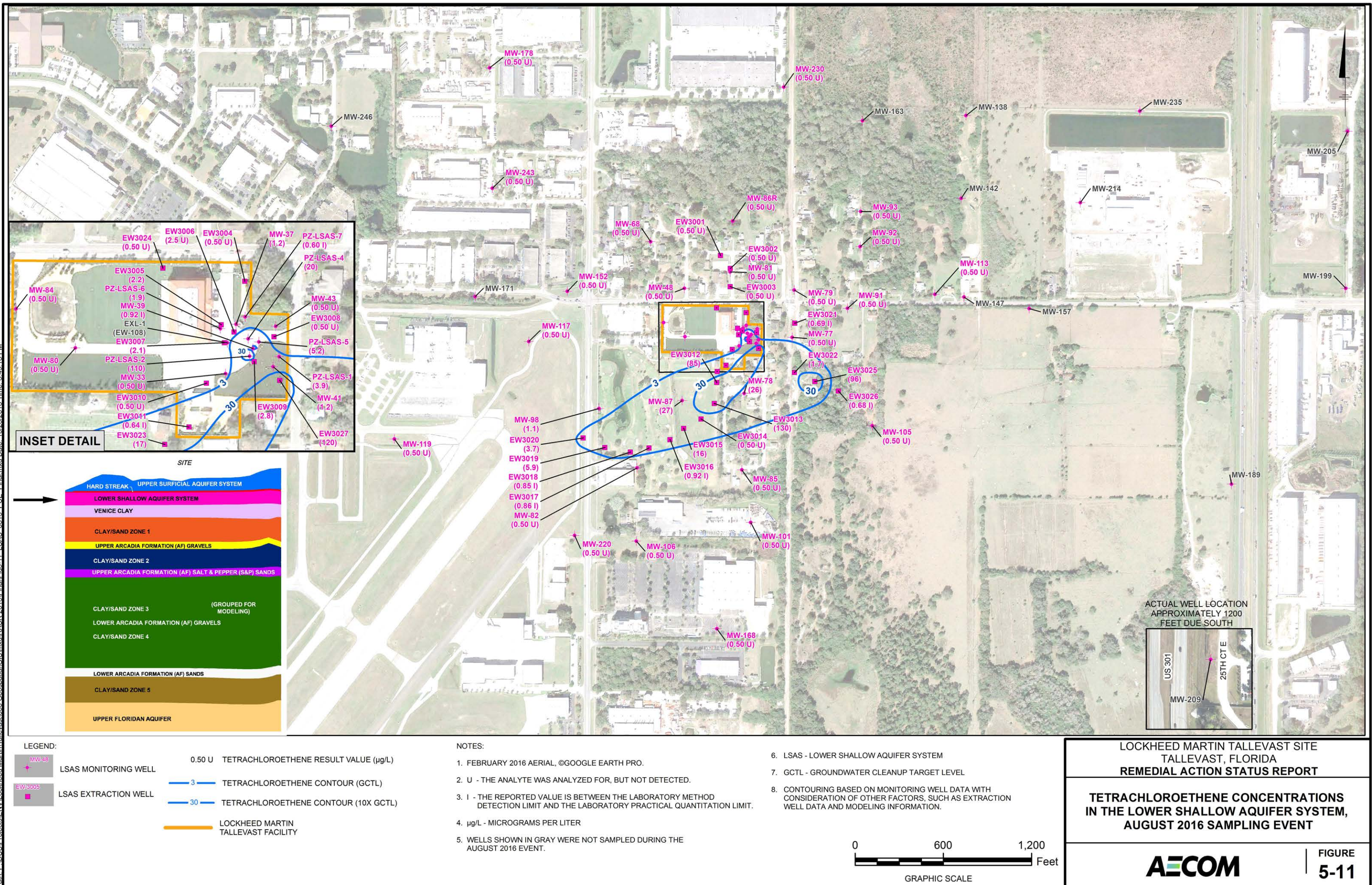


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

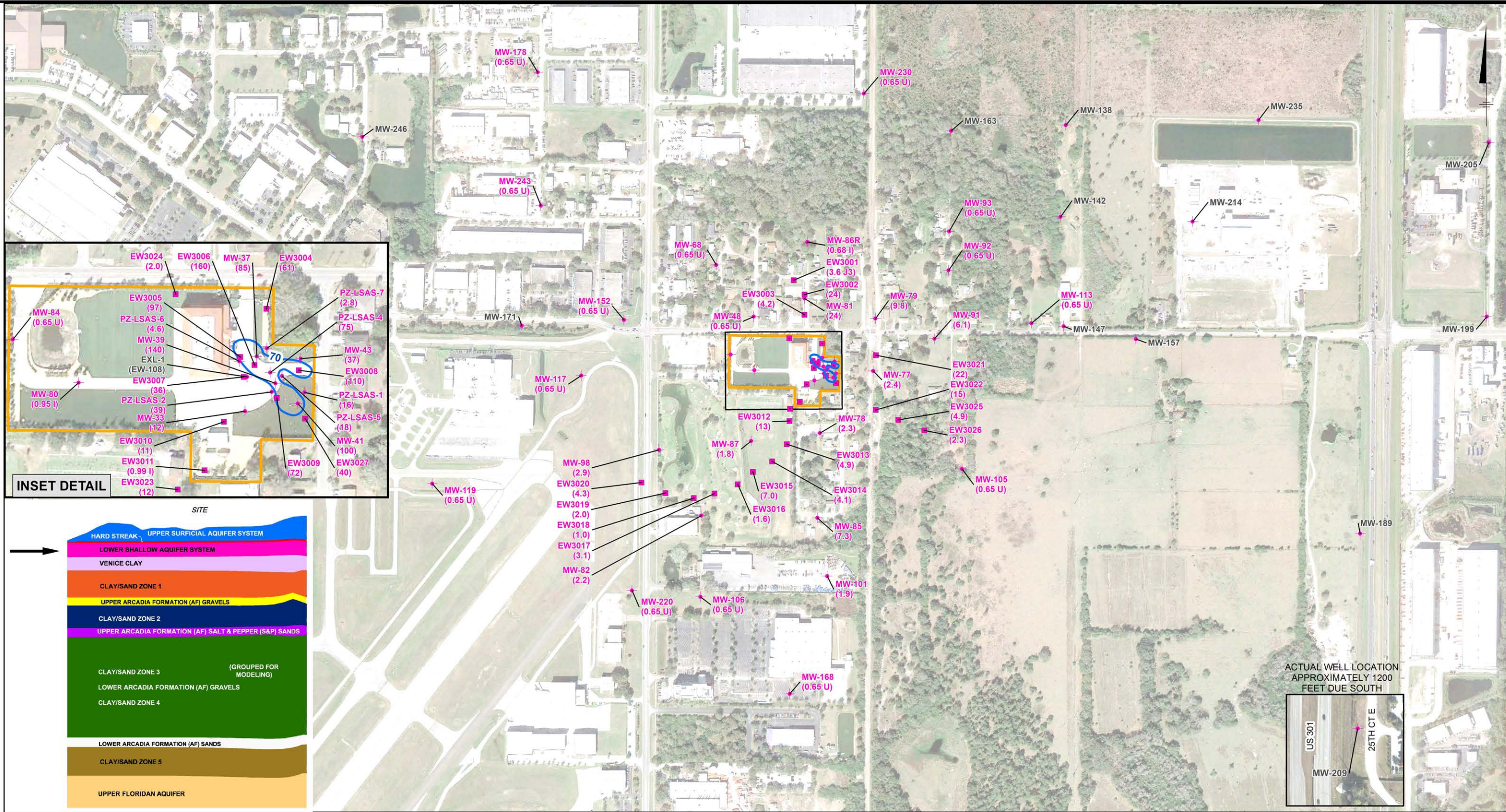
TRICHLOROETHENE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

AECOM

FIGURE
5-10



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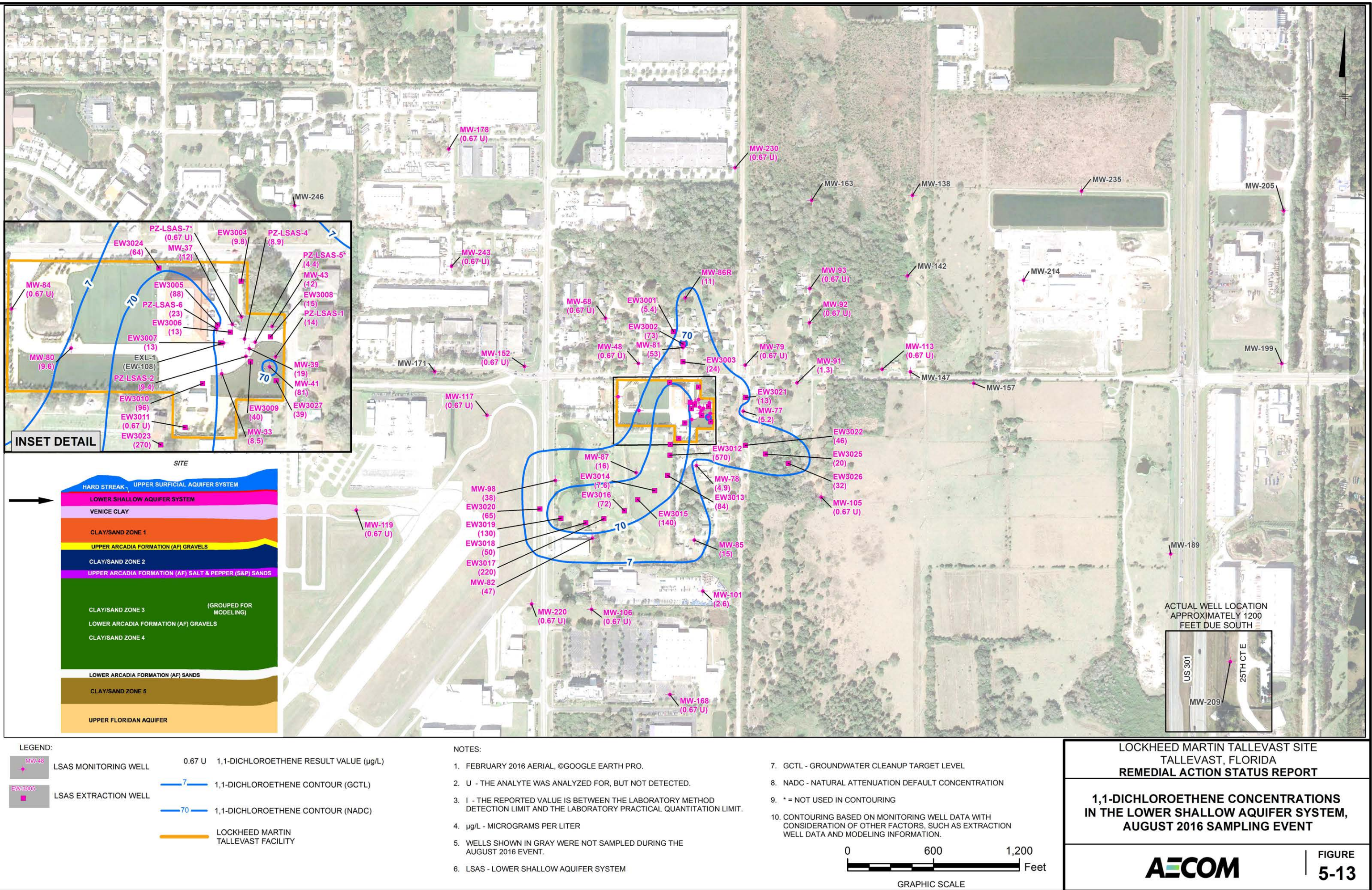
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

CIS-1,2-DICHLOROETHENE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

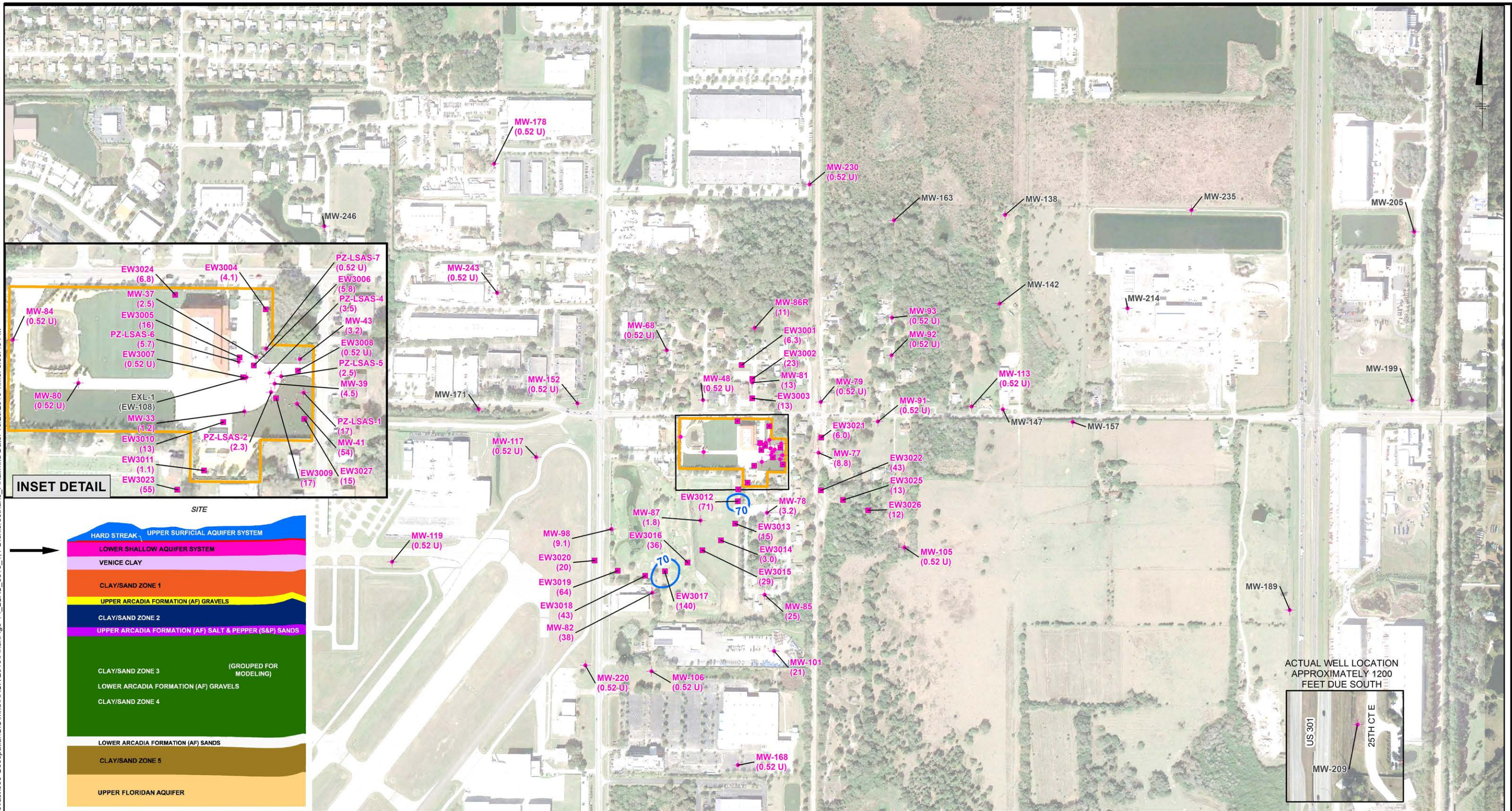
AECOM

FIGURE
5-12

Path: P:\DCS\Projects\ENVI\Lockheed Martin\Tallevast\000_Geospacial\GIS\mxd\BASP 2016\Final\Fig-13_LSAS_0816_11-Dichloroethene_Final.mxd Date: 10/26/2016 Time: 6:55:01 PM



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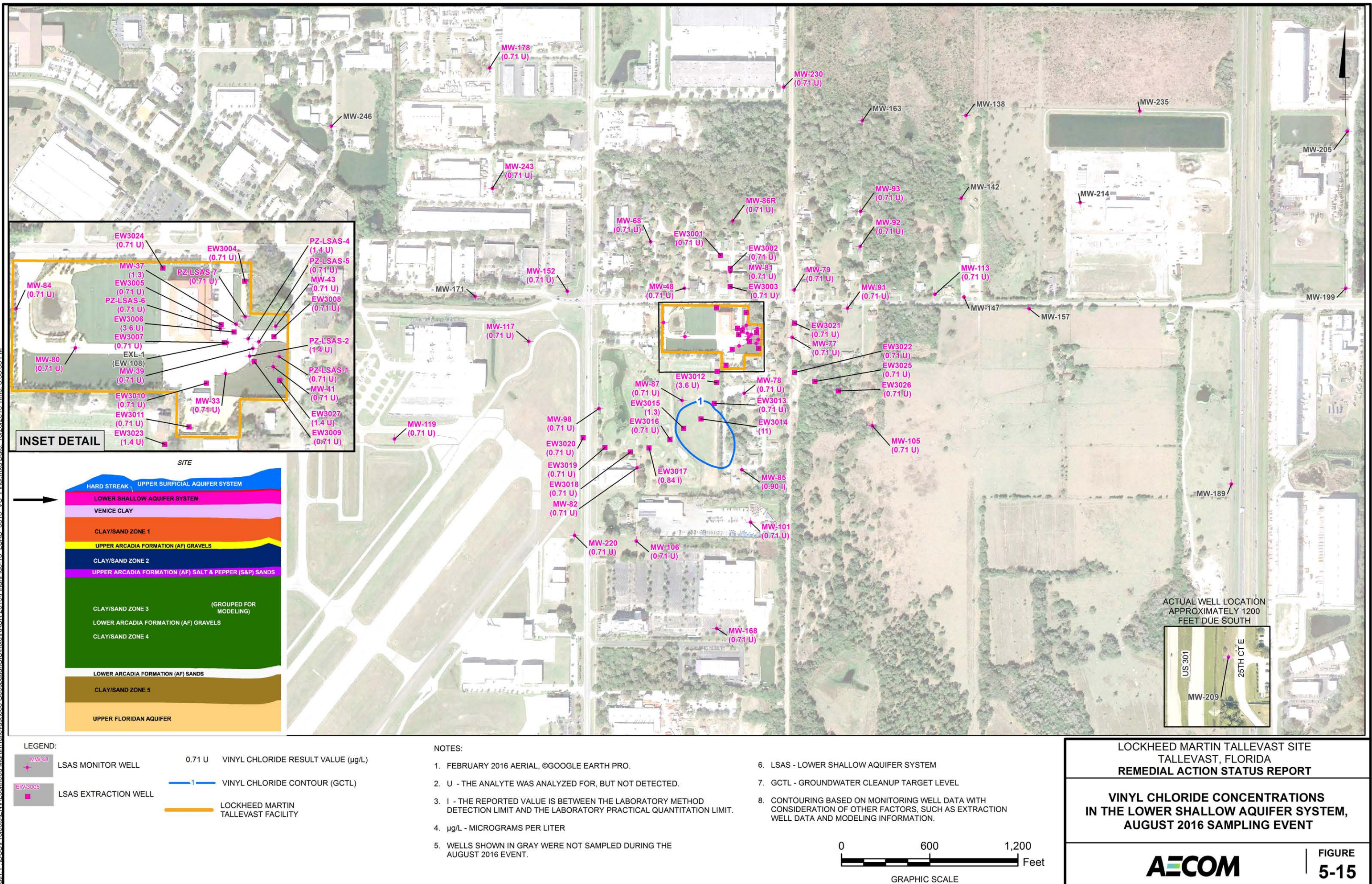


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION STATUS REPORT

1,1-DICHLOROETHANE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
AUGUST 2016 SAMPLING EVENT

AECOM

FIGURE
5-14



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