ABOVEGROUND TANK INSPECTION REPORT

JANUARY 2007

HILLSBOROUGH COUNTY LANDFILL SERVICES

SOUTHEAST LANDFILL

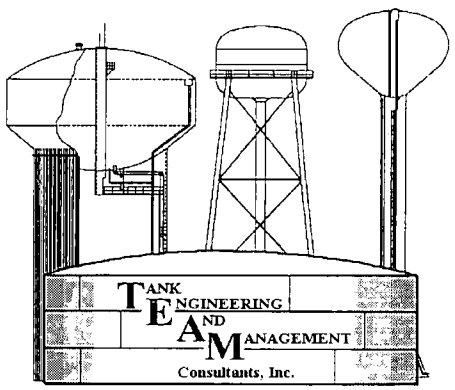
LITHIA, FLORIDA

70' DIAMETER LEACHATE STORAGE TANK

Dept. of Environmental Protection

MAR 0 2 2007

Southwest District



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TANK ENGINEERING AND MANAGEMENT Consultants, Inc.

January 2007

Hillsborough County Landfill Services
Southeast County Landfill
15960 CR 672
Lithia, FL 33503

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
MAR - 2 2007
SOUTHWEST DISTRICT
TAMPA

RE: Assessment Inspection
70' Dia. Leachate Storage Tank
Hillsborough County, Southeast Landfill
TEAM Project No: 06-1023

Gentlemen:

As authorized by your PO Number POSW07612002, *Tank Engineering And Management Consultants, Inc.*, has performed an inspection of the 70' diameter Leachate Storage Tank owned by Hillsborough County and located at their Southeast Landfill in Lithia, Florida. This report represents the results of that inspection.

This inspection was performed on January 25, 2007, by Jeff Kitchen of *TEAM Consultants.* The tank was emptied, cleaned and the shell manway opened upon our arrival.

DEFINITIONS:

Throughout this report, certain subjective terms will be used to describe the condition of various items. These terms are typically meant to imply the following definitions:

Good – Currently in nearly new condition. Minor defects may be present, but do not present a hindrance to the operation of the item.

Fair – Slightly less-than ideal condition. This item has not failed, but is in a state of degradation that will likely result in failure in the near future.

Poor – The item has failed, or is near failure.

The following information was observed or was furnished to us:

GENERAL:

Structure:	Bolted Steel Tank
Dimensions:	70'-0" Dia. x 20'-0" High
Location:	Southeast Landfill – Hillsborough County, Florida
Manufacturer:	A.O. Smith
Year Built:	1993

This tank rests on a concrete slab and is located in a concrete lined containment area with two (2) other leachate tanks and other miscellaneous equipment.

HISTORY:

In 1998 TEAM Consultants inspected this tank to locate corrosion problems and recommend repairs. Following that inspection a Harco internal cathodic inspection system was installed, the existing galvanic anodes were removed, and other minor repairs were performed.

TEAM Consultants also performed an inspection of this tank in March 2001, and February 2004. The reports for those inspections were issued to the County at that time.

INSPECTION RESULTS:

Metal Condition:

The metal was in good condition overall, with some exceptions. No topside pitting was found on the floor. Minor active corrosion was found on the shell plates in three locations. All three locations were at a lap seam. The sealant and coating has peeled away at these locations, allowing the steel to rust. The rust spots have causes stains on the exterior of the tank. No appreciable metal loss was apparent at this time, but the areas should be repaired quickly. Minor corrosion was also noted on the interior influent pipe and the exterior anchor bolt nuts.

Coating Condition:

The coating on the interior and exterior is in very good condition. The coating thickness was found to be the same as the last inspection.

Geodesic Dome Roof:

The aluminum geodesic dome roof appeared to be in good condition. The roof was not leak tested as part of this inspection.

Accessories:

1. **Manway:** The 24" manway was found to be in very good condition.
2. **Ladders:** The interior and exterior ladders were found in good condition.
3. **Overflow**: The overflow pipe is in good condition. Rust spots have left stains on the pipe.
4. **Liquid Level Indicator**: This tank has a target board style liquid level indicator. Minor corrosion was noted around the fittings on the roof.
5. **Bolt Caps**: Some nut protective caps were missing on the interior of the tank. The nuts that were uncovered appeared to be in good condition, though.

RECOMMENDATIONS:

Repairs and Renovations:

1. Mitigate corrosion at shell lap seams in three locations noted on drawing.
2. Replace missing bolt caps on the interior of the tank and re-seal.
3. Maintain proper settings and operation of the cathodic protection system.

CONCLUSIONS:

This Leachate Storage Tank was found to be in good overall condition. With the recommended repairs and continued maintenance, this tank should provide excellent service for many years.

We appreciate the opportunity of performing this inspection service for you.

Should you have any questions regarding the information contained herein, please do not hesitate to contact us.

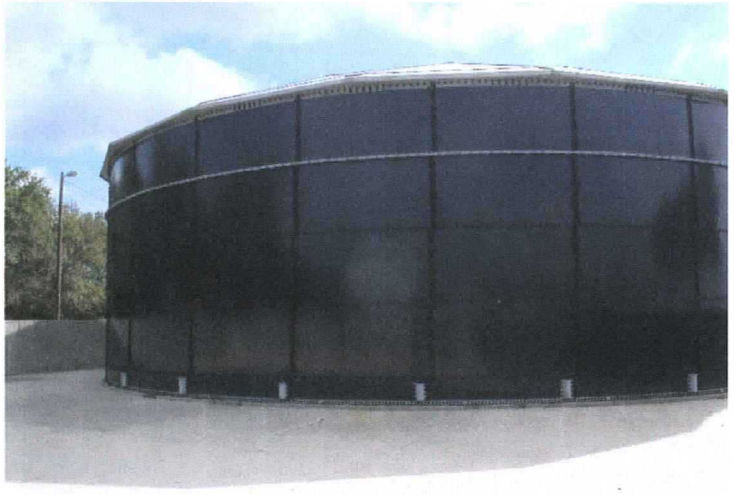
Sincerely,
Tank Engineering And Management Consultants, Inc.,

Jeff Kitchen
NACE Corrosion Technologist #5630

David L. Nickl, P.E.
FL P.E. #60202

1. Tank overall.

2. Tank overall.

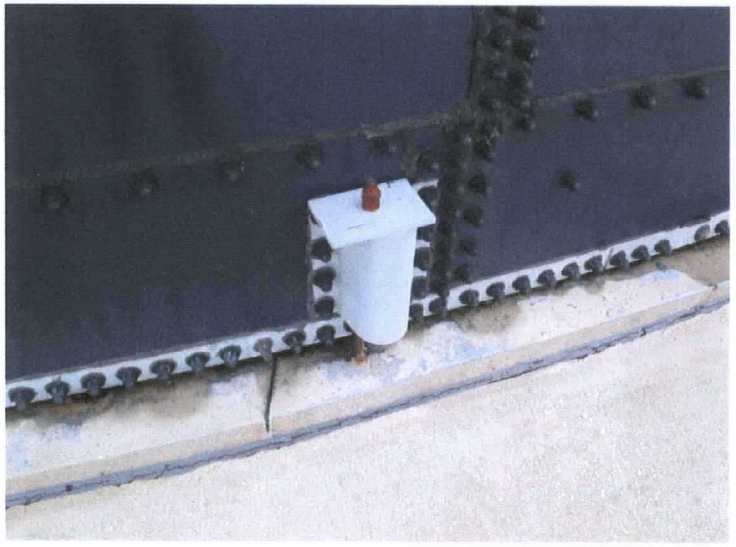


3. Tank overall.

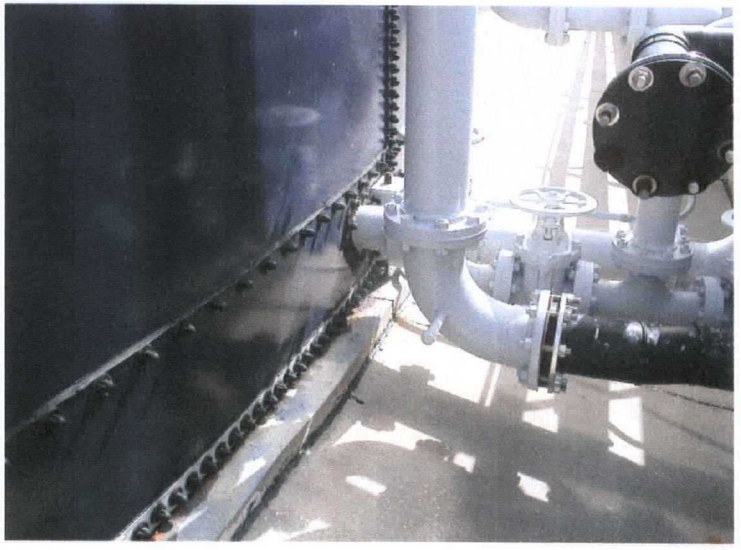
4. Tank overall

5. Tank overall.

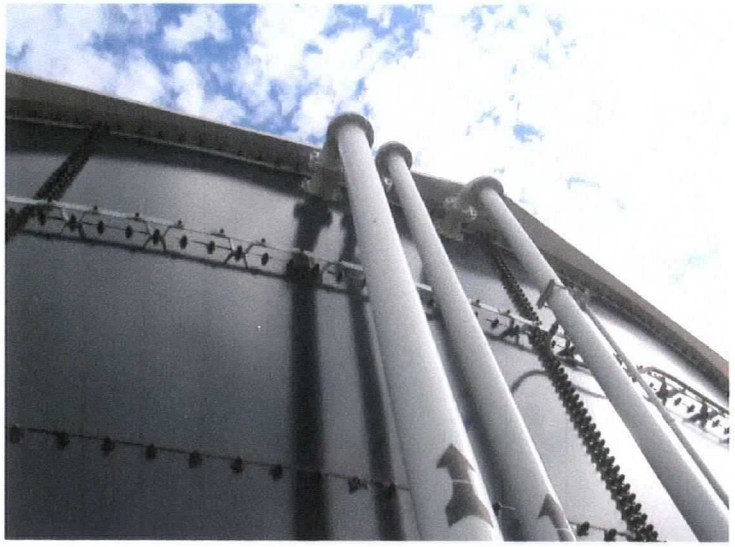
6. Tank overall.



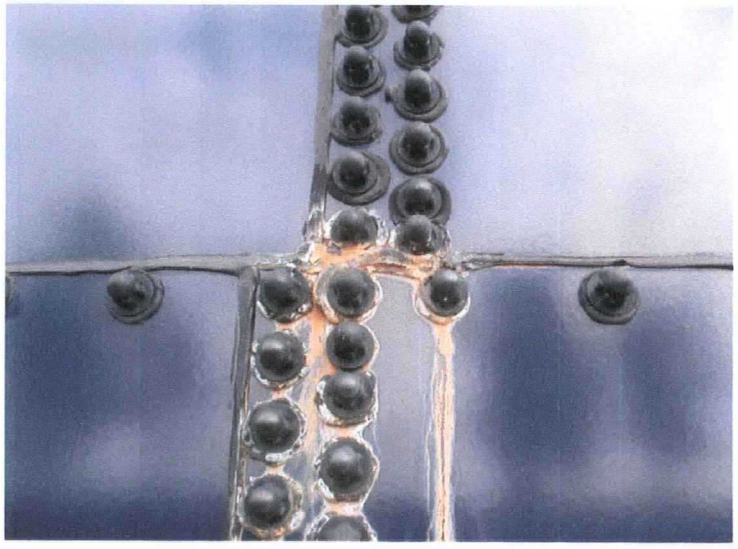
7. Anchor bolt.



8. Exterior piping.



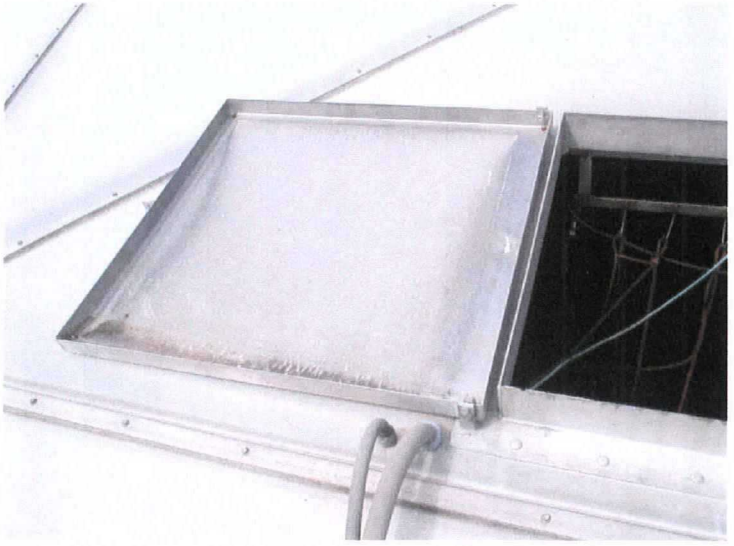
9. Exterior piping top.



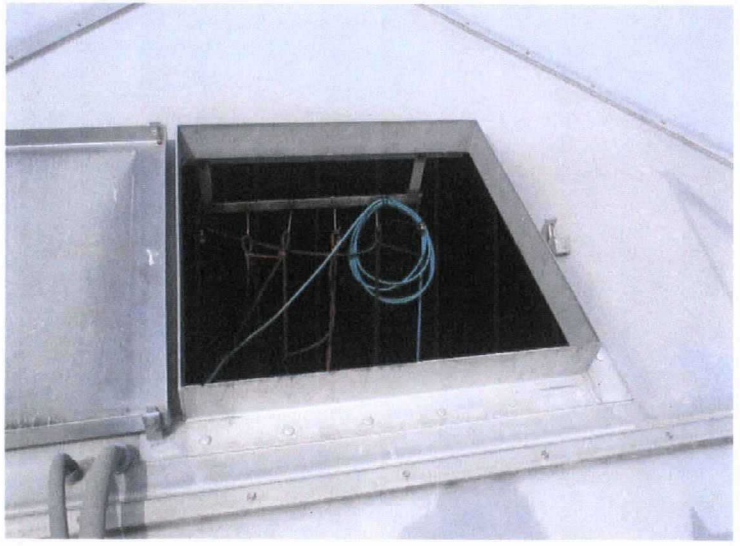
10. Rust stains.

11. Corrosion.

12. Corrosion.



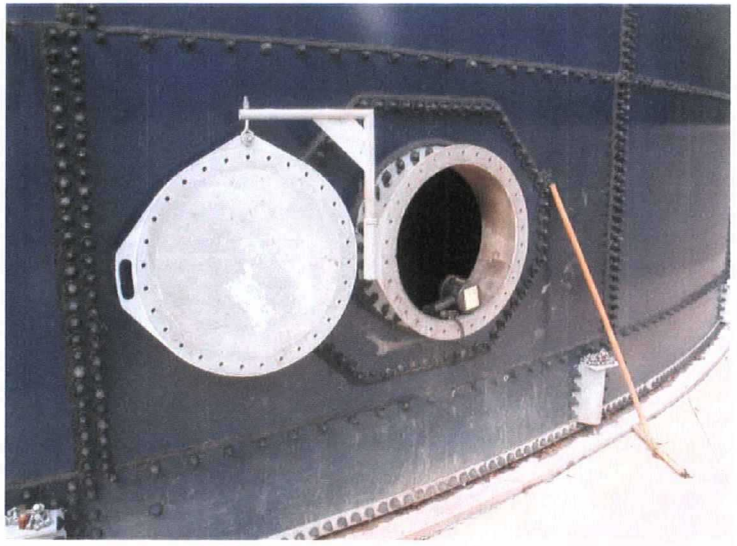
13. Roof hatch lid.



14. Roof hatch.

15. Level indicator fittings.

16. Roof vent.



17. Shell manway.

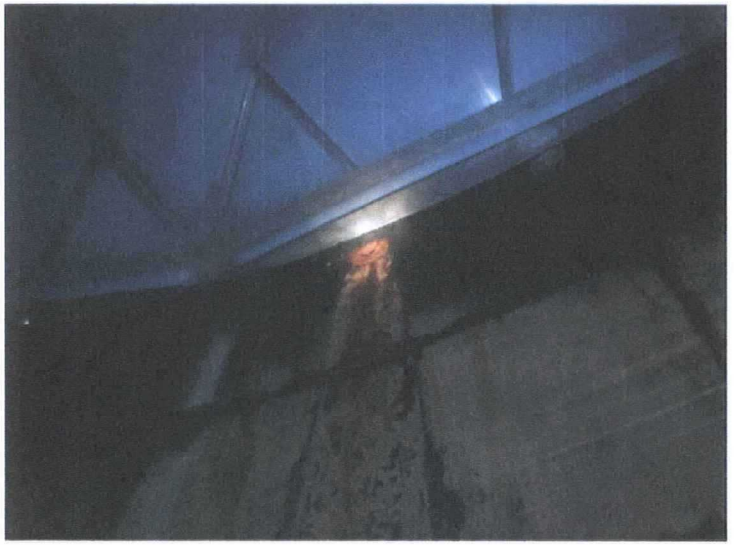
18. Level indicator float.

19. Interior ladder base.

20. Interior ladder top.

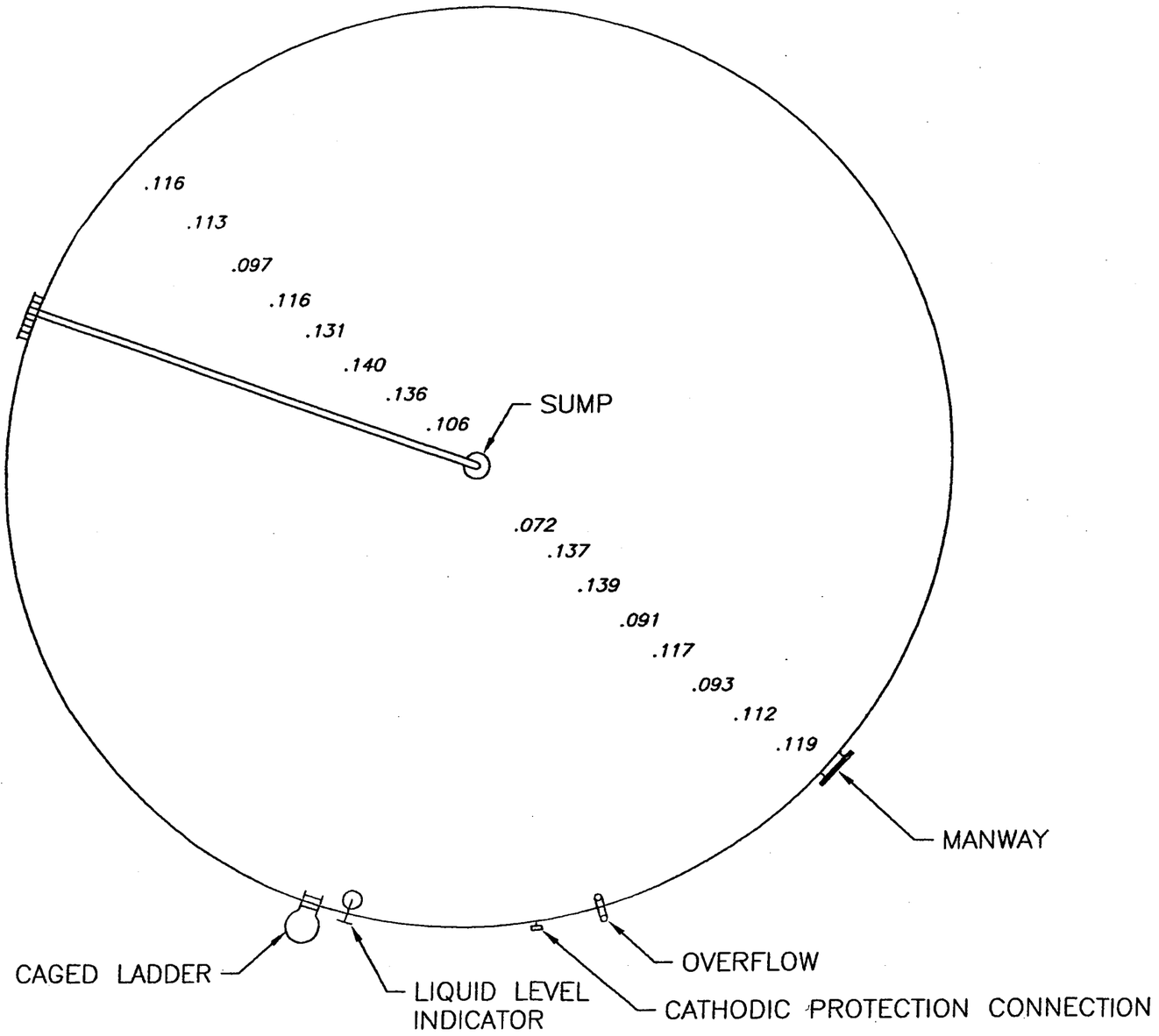
21. Interior shell nozzle.

22. Interior pipe support.



23. Interior fill nozzle.

24. Interior manway.



DRAWN BY:	DAL
CHECKED BY:	JWK
APPROVED BY:	JWK
SCALE:	NTS
DATE:	2/1/07

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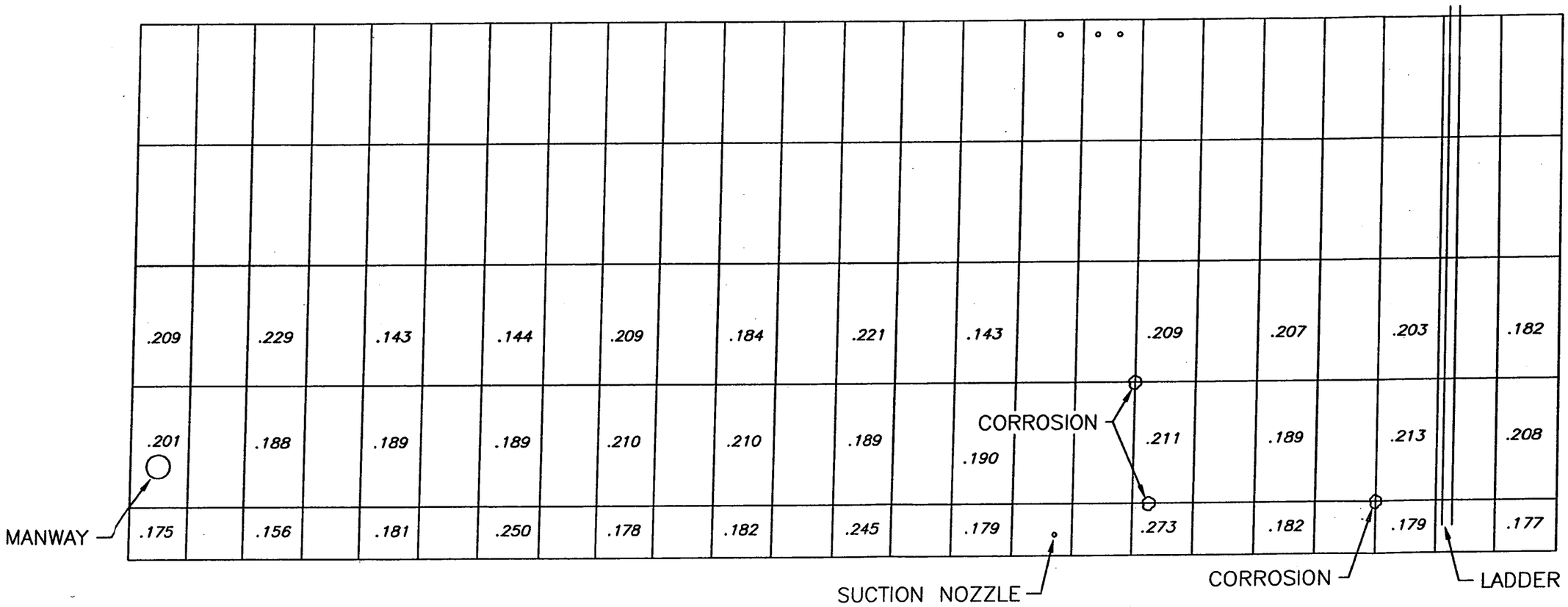
TANK PLAN VIEW
HILLSBOROUGH COUNTY
SOUTHEAST LANDFILL – LEACHATE TANK

ARCHIVE FILE	06-1023-*i2
PROJECT NO.	06-1023
DRAWING NO.	2 OF 2



SHELL PLATE ROLLOUT

DRAWN BY:	DAL
CHECKED BY:	JWK
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SCALE:	NTS
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SHELL PLATE ROLLOUT
HILLSBOROUGH COUNTY
SOUTHEAST LANDFILL – LEACHATE TANK

ARCHIVE FILE	06–1023–i1
PROJECT NO.	06–1023
DRAWING NO.	1 OF 2