

PRELIMINARY CONDITION ASSESSMENT FOR FUEL STORAGE TANKS – PHASE 1



TPT SITE VISIT REPORT COMPLETED IN AUGUST 2022

DOCUMENT REVIEW & ACCEPTANCE

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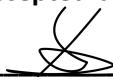
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2. DEFINITIONS & ABBREVIATIONS

- a) NEMA – National Environmental Management Act.
- b) OHS Act – Occupational Health & Safety Act.
- c) NFPA – Standard on Fire Department Occupational Safety, Health and Wellness Program.
- d) SANS – South African National Standards.
- e) API – American Petroleum Institute.
- f) Approved Inspection Authority (AIA).
- g) MHI – Major Hazard Installation.

3. BACKGROUND

TPT has fuel tank facilities across all the terminals to service the equipment and 90% of the facilities were inherited from Transnet Fuel Solutions in 2014. The only facilities that TPT has own from inception is in Nqura Container Terminal and DCT Pier 2. When TPT took over the tanks there was no maintenance plans that were put in place and followed accordingly. Some terminals have been doing minimal maintenance requirements i.e., performing pressure testing; however, this is not enough to ensure that the tanks are fully compliant. Generally, the tanks are now smaller compared to fleet size and increase diesel demand, the tanks are old and non-compliant to Occupational Health & Safety Act, South African National Standards (SANS) and National Environment Management Act National Environment Management Act NEMA.

4. PRELIMINARY CONDITION ASSESSMENT

A preliminary condition assessment that focused on engineering requirements was conducted across all the terminals. The purpose of the assessment was to establish the condition of the tanks, compile scope of work that will be used to appoint the AIA.

Approved Inspection Authority will:

- Mechanically perform condition assessment according to South African National Standards (SANS) and Approved Inspection Authority (AIA).
- Perform critical repairs, obtain compliance certificates, and get the tank registered with the council and energy department.

- Ensure compliance to Occupational Health & Safety Act, SANS and NEMA.

This preliminary condition assessment can be read in conjunction with audits that were conducted by environmental department, energy department and Transnet Fuel Solutions.

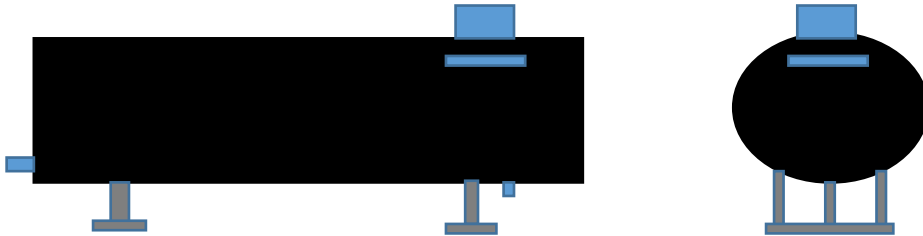
5. TERMINALS

Physical inspections were performed in all Port Terminals. The Current capacity and installation type for each terminal is depicted in the table below:

#	Terminal	Capacity & Fuel Type	Installation Type	Tank Hire
1.	Cape Town	2 x 39 000 = 78 000L	Above ground	No – Multiple tanks available
2.	Saldanha	1 x 23 000 = 23 000L	Above ground	Yes – 23 000L
3.	Ngqura Container Terminal (NCT)	4 x 83 000 = 332 000L	Above ground	No – Multiple tanks available
4.	Port Elizabeth	2 x 23 000 = 66 000L	Above ground	No – Multiple tanks available
5.	East London	2 x 23 000 = 66 000L 1 x 14 000 = 14 000L (Discontinued)	Underground	No - Existing tanks to be decommissioned once the new installation is completed
6.	DCT, Pier 2	3 x 83 000 = 249 000L	Above ground	No – Multiple tanks available
7.	DCT, Pier 1	2 x 23 000 = 46 000L	Underground	No – Existing tanks to be decommissioned once the new installation is completed
8.	Maydon Wharf/ Agri-port	1 x 23 000 = 23 000L	Above ground	Yes – 23 000L
9.	Durban Point	1 x 23 000 = 23 000L	Above ground	Yes – 23 000L
10.	Richards Bay	1 x 63 000 = 63 000L	Above ground	Yes – 65 000L

6. FINDINGS

6.0 DURBAN, MAYDON WHARF



Dimensions of the Tank (2.2 m Diameter X 5.5 m Long)



Photograph of the Tank inside the Bund on site

TANK

- One horizontal tank with 23 000 L capacity.
- Tanks has flat ends.
- Corrosion is severe on the Tank at various places.
- Coating / Painting is in a poor condition.

- Base Plate of the support is in the oily storm water and is rusting heavily.
- Tank manufactured by Forgeweld Engineering (PTY) LTD.
- Gaskets needs to be replaced.
- Level Gauge needs to be installed, as currently level is checked by dip stick.



Base plate and supports are getting corroded in the storm water



Photo of a corrosion on the Tank

PIPING

- Piping was in an average condition and requires to be painted.
- Handles for the valves were corroded.

ELECTRICAL

- Distribution Board / Electrical connections need to be improved and reinstalled.

INSTRUMENTATION

- All instruments need to be tested.
- Dip Stick to be replaced with level gauge.

PLATFORMS, LADDERS AND STRUCTURAL

- Ladder and top landing platform need coating at several areas.
- No stairs and railing to enter the bund area.

CIVIL WORKS

- Bund walls are cracked.
- Distance from Bund wall to Tank does not comply.
- No arrangements are made for diesel Spillage.
- No arrangements are made for storm water drain.
- Bund area was not clean.
- Vegetation was found around the bund area.

FIRE FIGHTING SYSTEM

- Firefighting system needs to be verified as per NFPA, SANS, API and OSH Act requirements.

PUMP

- No maintenance reports or records was found on pumps.

RISK ASSESSMENT

- Risk assessment to be conducted for the entire Tank and the premises.

OIL SKIMMER

- Oil Skimmer and underground Oil spillage drain was not in a working condition.

- Cover was rusted severely at some locations.

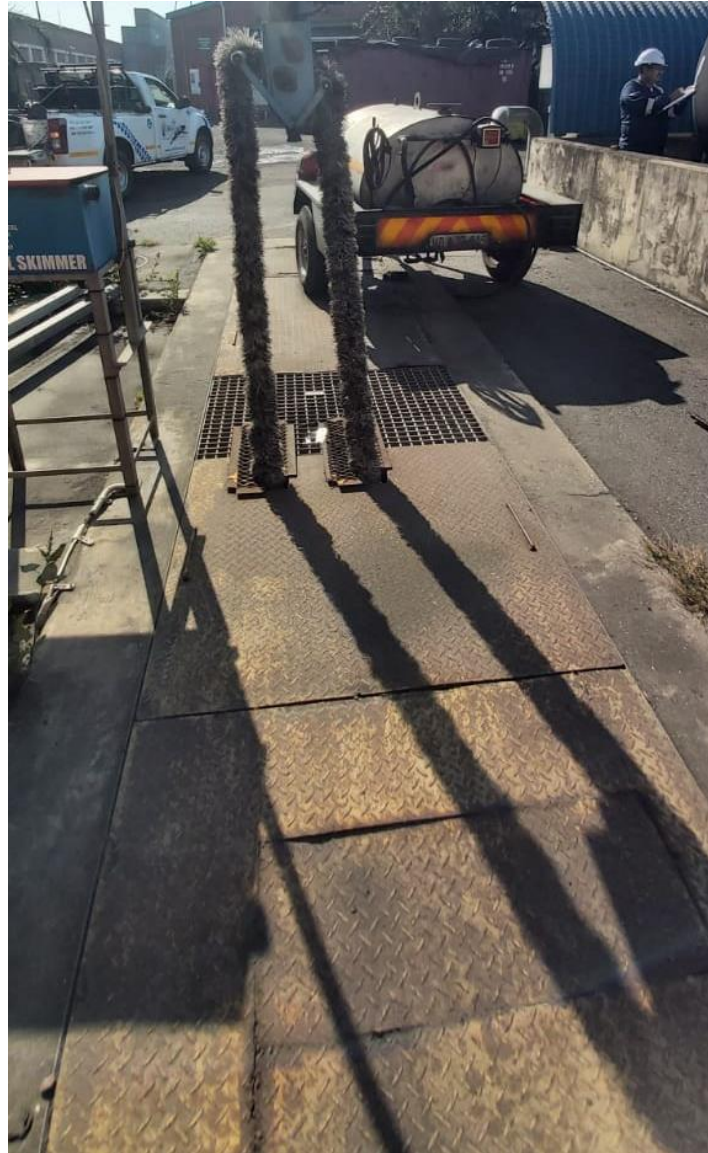


Photo of Rusted Oil Drain Cover

GENERAL OBSERVATION

- Need proper colour coding for Tanks, Pipping, Structural and other accessories.
- Vegetation and untidiness around the Tank and Bund Area.
- Identification, Signage and Marking is required in the area.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.

- No record for calibration of instruments was found.
- No record of operation or maintenance for the facility was found.
- No Drawings, Data books or certificates found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.
- Bund walls are damaged.
- Isolation valves don't have service history.
- Missing earth wires.
- No electrical compliance certificates.
- Tanks are currently not constructed in accordance with SANS specification for petroleum storage.



6.1 DURBAN, PIER 2

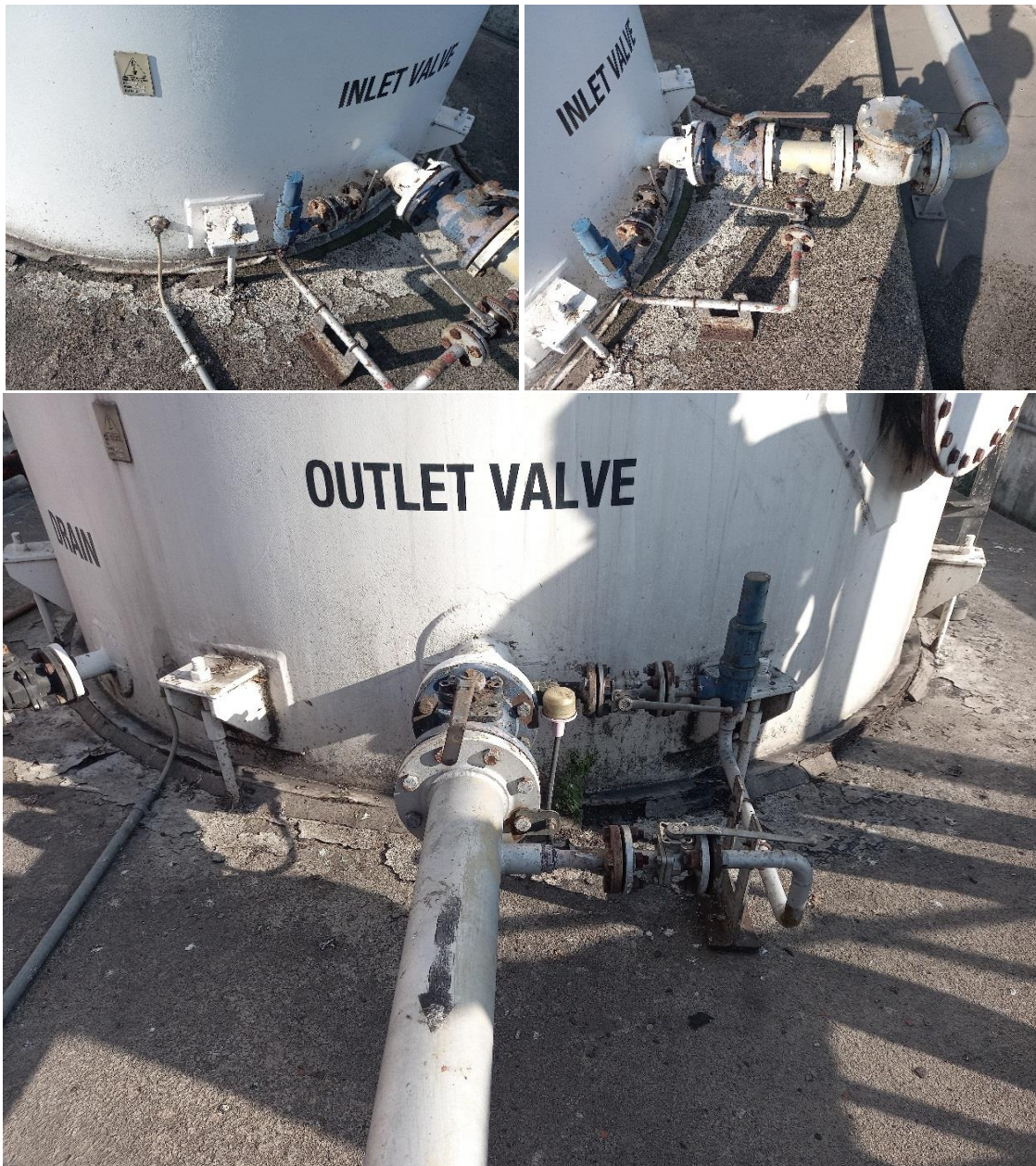


Tank Size: 915 mm diameter x 12.6 meter high: (3 Tanks)

TANKS

- Three 83 000 L Vertical aboveground Tanks were found on site including piping and other accessories.
- Manufactured by Springbok Tank Manufacturing.

- Annual Ring corrosion protection: Denso wrapping was peeled off and the annular to shell joint is exposed severely to the corrosion. This is the most critical joint of the Tank, which can cause a rupture of a Tank, if corroded severely.
- No overfill protection found.



Annular ring is severely corroded along with piping and valves attached to it

PIPING

- Piping was corroded at various locations.



Piping around the Tank and Bunded Area

ELECTRICAL

- Wiring is exposed at several locations.
- Earthing cables are running above ground.

INSTRUMENTATION

- Instruments needs to be tested.
- Overfill system is not working.



Stain on the Tank indicates that overfill system is not working

PUMPS

- Maintenance is required on the pumps.



PLATFORMS, LADDERS AND STRUCTURAL

- Corrosion was observed at various locations.
- Top landing attachments are severely corroded and currently it's unsafe to walk on the top platform.



Tank Anchor Chair is severely corroded

CIVIL WORKS

- Tank Anchor chair is severely corroded and may fail if any action is not taken immediately. This will cause overturning moment of the Tank if there are heavy winds.
- Bund walls are cracked.
- Distance from Bund wall to Tank does not comply.
- Sump Tank for water drain needs to be recoated.



Sump Tank to be coated



Photo of Oil Water Drain system

FIRE FIGHTING

- Firefighting system and foam pourers were present on site, but the operators don't know how to use.

GENERAL OBSERVATION

- Need proper colour coding for Tanks, Pipping, Structural and other accessories.
- Vegetation and untidiness around the Tank and Bund Area.
- Identification, Signage and Marking is required.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.
- No record for calibration of instruments was found.
- No record of operation or maintenance for the Tanks & the facility was found.
- No Drawings, Data books or certificates were found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk Assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.
- Isolation valves don't have service history.
- No electrical compliance certificates were found.

6.2 DURBAN, PIER 1



The capacity for Pier 1 underground tanks is $s \times 23\,000\text{ L}$

Phase 2 of expansion, for the new above ground Tanks is immediately applicable for Pier 1, as both the Tanks are below ground. Engineering team has suggested to clean and slurry fill both the Tanks, which is a common engineering practice in the Petrochemical industries, accepted by Environmental authorities not only in South Africa, but globally.

The terminal has identified three locations for new installation, one of the three locations includes one existing location. If the current location is used the terminal will fence the area to improve security.

6.3 RICHARDSBAY



Photo of 60 000 L Diesel Tank

TANKS

- Two horizontal aboveground Tanks were found on site including piping and other accessories, in which one Tank was for Petrol and one for diesel. The petrol Tank was decommissioned and was not in use.
- Diesel capacity was 60 000 L with size 2.9 m diameter and 9 m long.
- Tank is Manufacturer is unknown.
- Paint/ coating is severely cracked and urgently needs to be re-coated.
- Tank was just mounted on the saddles without any welding, which does not comply any code requirement.



Photo of a Petrol Tank to be demolished along with piping and the bund area

ELECTRICAL

- Wiring is exposed at several locations and DP needs to be reinstalled.
- Earthing cables needs to be organized.

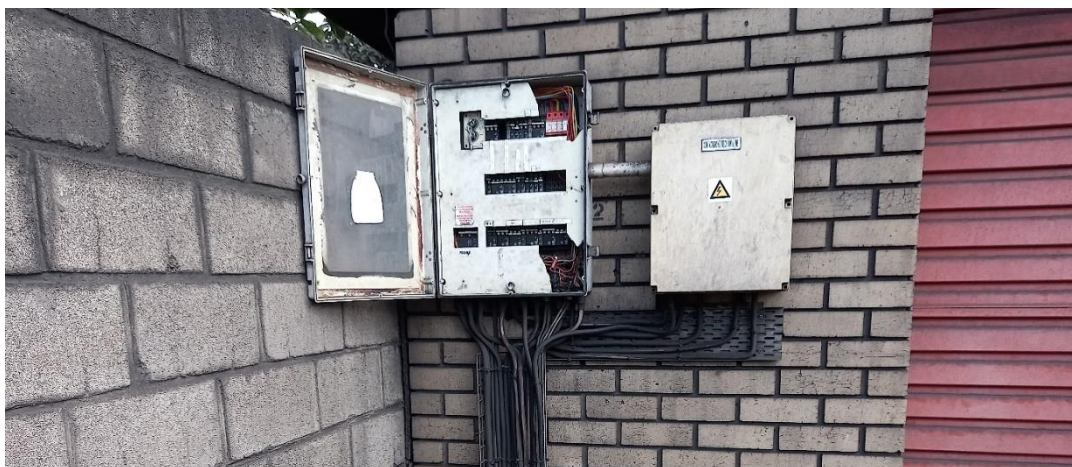


Photo of Electrical cables and the Distribution Board

INSTRUMENTATION

- All Instruments needs to be tested, calibrated, and certified.
- Level indicator/ gauge needs to install.

PLATFORMS, LADDERS AND STRUCTURAL

- Ladder and top landing platform need coating at several areas.
- Supports are severely rusted at various locations.



Photo of a rusted support on the Tank for the landing platform

CIVIL WORKS

- Bund walls are cracked.
- Huge tree is growing behind the Bund wall, which may be the root cause of cracking of the bund wall.
- Distance from Bund wall to Tank does not comply
- No arrangements are made for diesel Spillage.

- No arrangements are made for storm water drain.
- Bund area was not clean.
- Vegetation was found around the bunded area.



Photo of a tree growing adjacent to the Bund-wall



Photo of existing store house and office to demolish



FIRE FIGHTING

- Firefighting system needs to be verified as per NFPA, SANS, API and OSH Act requirements.

PIPING

- Piping needs to be cleaned and coated.



Photo of Piping and Filters

OIL SKIMMER

- Oil Skimmer and underground Oil spillage drain was not in a working condition.
- Cover was rusted severely at some locations.



Photo of Oil skimmer

PUMPS

- Maintenance is required on the pumps.

SHADE/ CANOPY

- Existing shade is corroded and is not in a good condition.
- Site team, operating these tanks has requested a big new canopy.



Photo of an existing canopy

GENERAL OBSERVATION

- Need proper colour coding for Tanks, Pipping, Structural and other accessories.
- Vegetation and untidiness around the Tank and Bund Area.
- Identification, Signage and Marking is required.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.
- No record for calibration of instruments was found.
- No record of operation or maintenance for the Tanks & the facility was found.
- No Drawings, Data books or certificates were found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk Assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.

PHASE 2

- Three locations are proposed for Phase Two, which includes one existing location.



Photo of Phase two: option one: Existing Area



Photo of Phase two: option two:



Photo of Phase two: option three:

6.4 POINT TERMINAL, MPT



Photo of Point Road Diesel Tank and dispensers

TANKS

- One horizontal aboveground Diesel Tanks was visually inspected on site including piping and other accessories.
- Tank is mounted on the structural support.
- Diesel capacity was 23 000 L with size 2.4 m diameter and 5.52 m long.
- Paint/ coating is in an average condition.



Photo of a coating peeling off on the rectangular manway

ELECTRICAL

- Wiring and DP was in a good condition.
- Earthing cables needs to be organized.

INSTRUMENTATION

- All Instruments needs to be tested, calibrated, and certified.
- Level indicator/ gauge needs to be installed.

PLATFORMS, LADDERS AND STRUCTURAL

- Ladder and top landing platform need coating at several areas.
- Stairs and railing to enter the bund area are intact and in a good condition.



Platform, ladder etc. are rusted

CIVIL WORKS

- Bund walls are in a good condition.
- Bund size: 10.54 m long x 5.8 m wide x 840 mm height.
- Bund area was not clean.
- Vegetation was found around the bunded area.



Photo of a Storm water / Diesel Spillage drain

FIRE FIGHTING

- Firefighting system needs to be verified as per NFPA, SANS, API and OSH Act requirements.

OIL SKIMMER

- Oil Skimmer and underground Oil spillage drain was not found.

PUMPS

- Maintenance is required on the pumps.

SHADE/ CANOPY

- Site team, operating these tanks has requested a big new shade.

GENERAL OBSERVATION

- Need proper colour coding for Tanks, Pipping, Structural and other accessories.

- Vegetation and untidiness around the Tank and Bund Area.
- Identification, Signage and Marking is required.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.
- No record for calibration of instruments was found.
- No record of operation or maintenance for the Tanks & the facility was found.
- No Drawings, Data books or certificates were found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk Assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.

PHASE 2



6.5 SALDHANA



23 000 L Tank: Diameter 2.3 m x 5.4 m Long Bund-wall

TANKS

- One horizontal aboveground Diesel Tanks was visually inspected on site including piping and other accessories.
- Tank is mounted on the structural support.
- Diesel capacity was 23 000 L with size 2.4 m diameter and 5.4 m long.
- Tank Manufacturer: No nameplate found
- Paint/ coating was in a worst condition. Tank is constantly under various chemical attack, which are loaded/unloaded in the port with the recent addition of manganese. Big Lumps are formed due to the heavy corrosion.
- Nozzles are severely corroded.

ELECTRICAL

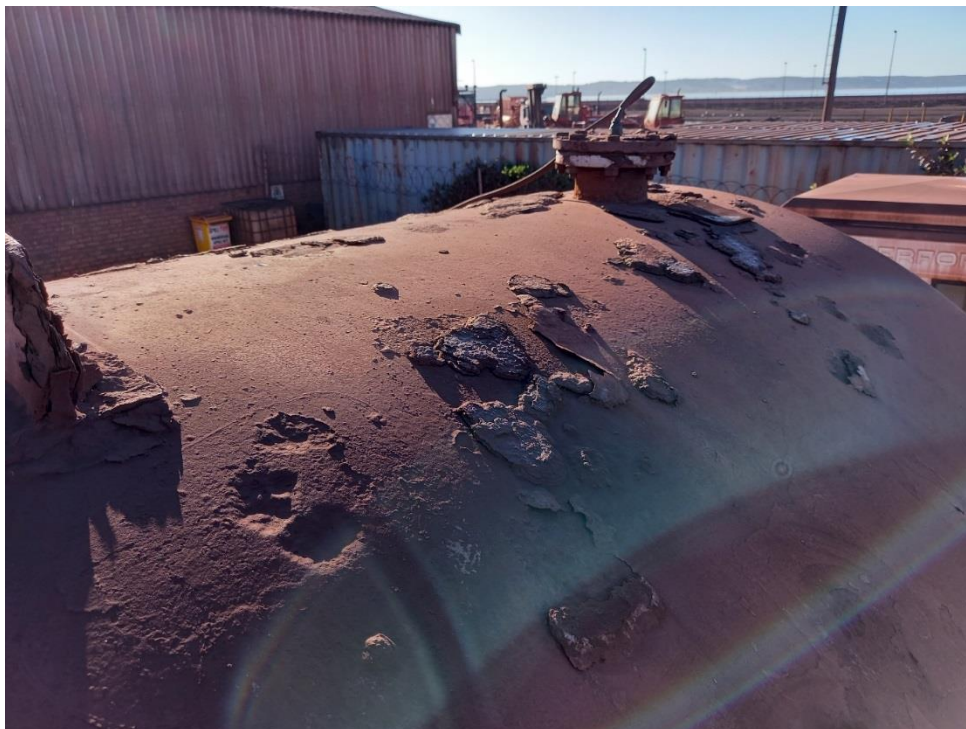
- Wiring and DP was in a good condition. but was installed in a canteen, far away from the facility.
- Earthing cables needs to be organized.

INSTRUMENTATION

- All Instruments needs to be tested, calibrated, and certified.
- Level indicator/ gauge needs to install.
- Breathers need to be tested.

PLATFORMS, LADDERS AND STRUCTURAL

- Ladder needs complete coating.
- No top landing platform was identified.
- No walkway or landing platform was installed.
- Saddle/support was not welded to the Tank.



CIVIL WORKS

- Bund walls are in a good condition.
- Bund size: 6.9 m long x 4.6 m wide x 330 mm height.
- Bund area was not clean.
- Vegetation was found around the bunded area.
- Drain was blocked.



FIRE FIGHTING

- Firefighting system needs to be verified as per NFPA, SANS, API and OSH Act requirements.

OIL SKIMMER

- Oil Skimmer and underground Oil spillage drain was not found.

PUMPS

- Maintenance is required on the pumps.

GENERAL OBSERVATION

- Need proper colour coding for Tanks, Pipping, Structural and other accessories.
- Vegetation and untidiness around the Tank and Bund Area.
- Identification, Signage and Marking is required.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.
- No record for calibration of instruments was found.
- No record of operation or maintenance for the Tanks & the facility was found.
- No Drawings, Data books or certificates were found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk Assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.
- Tank needs to be washed/ rinsed everyday due to excessive corroded condition.



6.6 CAPE TOWN



2 x 39000 L Tank: Diameter 2.82 m x 6 m Long

TANKS

- Two Vertical Aboveground Diesel Tanks were visually inspected on site including piping and other accessories.
- Tank is mounted on the annular ring which had a Denso wrapping.
- Each tank has Diesel capacity 39 000 L with size 2.82 m diameter and 6 m height.
- Tank Manufacturer: Tseba Construction (PTY) LTD.

- Paint/ coating was in a bad condition at multiple locations.
- Top Nozzles are severely corroded.
- Corrosion was spotted at various locations.
- Flange/ bolt sizes were different and incorrect at some places.
- Anchor chair bolts were bent.
- MHI is required.

ELECTRICAL

- Wiring and DP was in a good condition.
- Earthing cables needs to be organized.

INSTRUMENTATION

- All Instruments needs to be tested, calibrated, and certified.
- Level indicator/ gauge needs to install.

PLATFORMS, LADDERS AND STRUCTURAL

- Ladder needs complete coating.
- No top landing platform was identified.

CIVIL WORKS

- Bund walls are in a good condition.
- Bund size: round bund-wall with 900 mm (worst distance)
- Bund area was clean.
- Vegetation was found around the bunded area.
- Drain was not identified.



Name Plate on the Tank

FIRE FIGHTING

- Firefighting system needs to be verified as per NFPA, SANS, API and OSH Act requirements.

OIL SKIMMER

- Oil Skimmer and underground Oil spillage drain was not found.

PUMPS

- Maintenance is required on the pumps.



Photo of inside bunded area reflecting piping and hand railing

GENERAL OBSERVATION

- Need proper colour coding for Tanks, Pipping, Structural and other accessories.
- Vegetation and untidiness around the Tank and Bund Area.
- Identification, Signage and Marking is required.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.
- No record for calibration of instruments was found.
- No record of operation or maintenance for the Tanks & the facility was found.
- No Drawings, Data books or certificates were found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk Assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.
- Tank needs to be washed /rinsed everyday due to excessive corroded condition.

6.7 PORT ELIZABETH



2 x 23 000 L horizontal Aboveground Tank: Diameter 2.3 m x 5.4 m Long

TANKS

- Two horizontal Aboveground Diesel Tanks were visually inspected on site including piping and other accessories.
- Tank is mounted on the support, which was not welded properly.
- Each tank has Diesel capacity 23 000 L with size 2.3 m diameter and 5.4 m long.
- Tank Manufacturer: unknown
- Paint/ coating was in a bad condition at multiple locations.
- Nozzles are in a good condition.
- Corrosion was spotted at various locations.
- MHI is required.

ELECTRICAL

- Wiring and DP was below the dispenser and needs urgent attention to rectify.
- Earthing cables needs to be organized.

INSTRUMENTATION

- All Instruments needs to be tested, calibrated, and certified.

- Level indicator/ gauge needs to install.

PLATFORMS, LADDERS AND STRUCTURAL

- Ladder needs complete coating.
- No top landing platform was identified.
- Steps sizes are incorrect and too small to climb the platform.
- Steps to enter the bund are also small and don't have handrails.

CIVIL WORKS

- Bund walls are in a good condition.
- Bund size: 7.6 m wide x 8 m long x 1 m height
- Bund area was clean.
- No vegetation was found around the bunded area.
- Drain from storm water was identified as a small hole to the bund are.

FIRE FIGHTING

- Firefighting system needs to be verified as per NFPA, SANS, API and OSH Act requirements.
- Firefighting system was blocked by the huge vehicles (photo attached).

OIL SKIMMER

- No Oil/fuel spillage drain was found in the bunded area.
- Oil spillage tank area was in a mess (scrap was found around it).

PUMPS

- Maintenance is required on the pumps.

GENERAL OBSERVATION

- Need proper colour coding for Tanks, Pipping, Structural and other accessories.
- Identification, Signage and Marking is required.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.
- No record for calibration of instruments was found.
- No record of operation or maintenance for the Tanks & the facility was found.

- No Drawings, Data books or certificates were found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk Assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.
- Tank needs to be washed/ rinsed everyday due to excessive corroded condition.



Small size and short steps with no handrails



No extended platform to operate/repair/ maintain the nozzles on the top



Vessel is not welded to the support



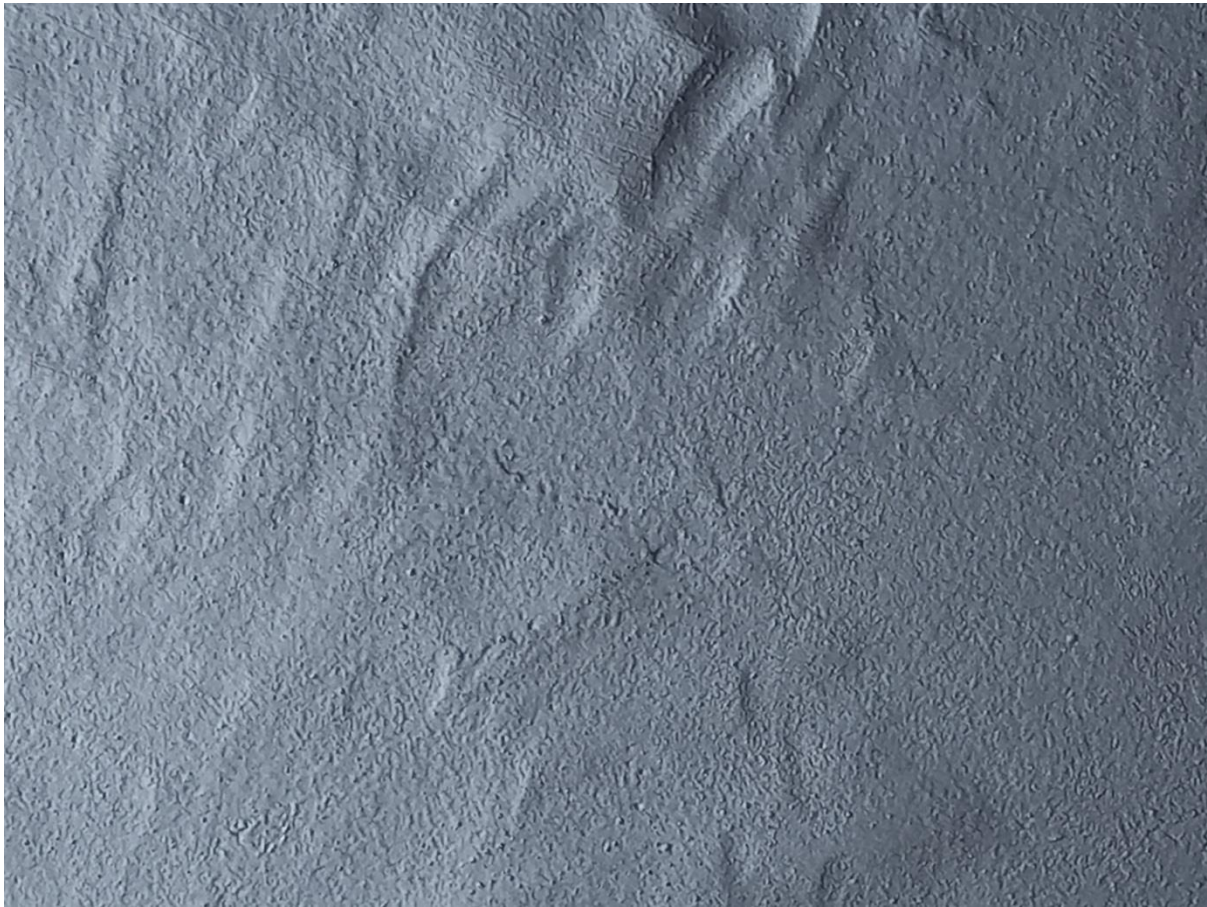
Piping supports needs to be replaced



Storm water drain hole



Shot and small step



Painting in a bad condition: photo of dished end Surface



Oil spillage collection and filter area



Oil spillage collection



Electrical cables: urgent attention is required

6.8 NGQURA CONTAINER TERMINAL (NCT)



63 000 L – 4 x Diesel Tanks

TANKS

- Four Vertical Aboveground Diesel Tanks were visually inspected on site including piping and other accessories.
- Tank is mounted on the annular ring which had a Denso wrapping.
- Each tank has Diesel capacity 63 000 L with unknown size. The capacity written on the Tank and name plate doesn't match with each other.
- Tank Manufacturer: Forgeweld Engineering
- Paint/ coating was in a bad condition at multiple locations.
- Nozzles are corroded.
- Corrosion was spotted at various locations.
- MHI is required.

ELECTRICAL

- Wiring and DP was in a good condition.
- Earthing cables needs to be organized.

INSTRUMENTATION

- All Instruments needs to be tested, calibrated, and certified.
- Level indicator/ gauge needs to install.
- Tanks are getting overfilled.

PLATFORMS, LADDERS AND STRUCTURAL

- Ladder needs complete coating.
- Landing platform was missing.

CIVIL WORKS

- Bund walls are in a good condition.
- Bund area was clean.
- Vegetation was found around the bunded area.
- Storm water drain was full of water.

FIRE FIGHTING

- Firefighting system needs to be verified as per NFPA, SANS, API and OSH Act requirements.

- Foam Water Tank Pumps DP is locked by TNPA; hence we were unable to check the condition.
- Foam water system is getting heavily rusted and urgent attention is required.

OIL SKIMMER/ FILTRATION

- No oil skimmer or oil filtration plant was identified.
- Oil spillage Tank was in a good condition.

PUMPS

- Maintenance is required on the pumps.

GENERAL OBSERVATION

- Need proper colour coding for Tanks, Pipping, Structural and other accessories.
- Vegetation and untidiness around the Tank and Bund Area.
- Identification, Signage and Marking is required.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.
- No record for calibration of instruments was found.
- No record of operation or maintenance for the Tanks & the facility was found.
- No Drawings, Data books or certificates were found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk Assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.
- Tank needs to be washed/ rinsed everyday due to excessive corroded condition.



Close up photo of tanks with annular ring, earthing cables and outlet nozzle



Name Plate of the Tank with 6.3 000 L Capacity



Tank Inlet nozzle



Firefighting piping



Photo of bund area



Strom water drain is choked



Earthing cable cover is broken and in a poor condition



Foam Water supply system

6.9 EAST LONDON



Below ground 4 Tanks: 2 Diesel and 2 Petrol (14 000 L each)

TANKS

- Two horizontal below ground Tanks were identified on site including piping and other accessories.
- 2x Diesel Tanks capacity: 23 000 L each with sizes unknown.
- Both Petrol Tanks failed in the inspection and needs to be removed.
- Tank Manufacturer: unknown

ELECTRICAL

- Wiring and DP was in a good condition.

INSTRUMENTATION

- All Instruments needs to be tested, calibrated, and certified.

PLATFORMS, LADDERS AND STRUCTURAL

- N/A

CIVIL WORKS

- N/A

FIRE FIGHTING

- Firefighting system needs to be verified as per NFPA, SANS, API and OSH Act requirements.

OIL SKIMMER / FILTRATION

- Oil Skimmer and underground Oil spillage drain was not found.
- Storm Water Drain was blocked.

PUMPS

- N/A

GENERAL OBSERVATION

- Alternative area in the same premises was proposed to build the two new Diesel Tanks.
- Need proper colour coding for Tanks, Pipping, Structural and other accessories.
- Vegetation and untidiness around the Tank and Bund Area.
- Identification, Signage and Marking is required.
- No Layout drawing found.
- No record for testing of the Tanks as per regulation was found.
- No record for calibration of instruments was found.
- No record of operation or maintenance for the Tanks & the facility was found.
- No Drawings, Data books or certificates were found.
- No repair and alteration record found.
- No maintenance plan found.
- No Risk Assessment Report found.
- No Environmental compliance report found.
- Fuel Pump calibration certificates not available.
- Tank needs to be washed/ rinsed everyday due to excessive corroded condition.



Four underground Tanks



Distribution Board in an excellent condition was found



New area proposed to build the Tanks: severe cleaning is required.





Alternative area for constructing New Diesel Tanks

7. COST AND SCHEDULE

7.1 COST TABLE

The cost includes repairs to Fuel Tank, Tank Access Platform, Electrical, Instrumentation, Civil Works, Fire Fighting System, Pumps, and hired fuel tank.

#	Item	Total cost
1.	New Installations at Pier 1, East London & Saldanha	
1.1	Supply and install Fuel Tanks <ul style="list-style-type: none"> Pier 1: 50 000L x 2 East London: 35 000L x 1 Saldanha: 35 000L x 1 	R7 500 000
1.2	Remove the existing Tank	R1 250 000
1.3	Civil Work	R3 600 000
1.4	Electrical Work	R1 500 000
1.5	Mechanical Work & Fire System	R2 400 000
2.	Sub Total	R16 250 000
3.	Repairs	
3.1	Repairs to the tank	R8 000 000
3.2	Civil Work	R2 100 000
3.3	Electrical Work	R2 100 000
3.4	Mechanical Work & Fire System	R2 100 000
3.5	Hire Fuel Tank	R890 000
4.	Sub Total	R14 300 000
5.	Preliminaries and General (20%)	R6 110 000
6.	Disbursement (5%)	R1 527 500
7.	Tank Hire	R890 000
8.	Total Direct costs	R39 108 050
9.	Indirect costs	
10.	TPT Project Management Fee (as per Man-plan)	R4 001 893
11.	TPT Contingency (10%)	R3 910 805
12.	Total Indirect costs	R7 912 698
13.	Total cost	R47 020 748

7.2 CASH FLOW

FY	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	TOTAL (Rm)
23/24					3,284	2,585	6,278	3,284	1,5	1,5	3,284	3,154	23,869
24/25	4,528	3,187	4,624	4,273	3,652	1,387	0.5						23,151
Total	4,528	3,187	4,624	4,273	6,936	3,972	6,778	3,284	1,5	1,5	3,284	3,154	47,021

7.3 SCHEDULE

Project Deliverables	Completion Date
ORS Classification	October 2022
Investment Forum	Nov 2022
CAPIC	Jan 2023
LOA	June 2023
Execution	Sept 2024
Project close-out	Nov 2024
CAN Expiry	Oct 2025

8. RECOMMENDATIONS

- Scope of Work to established by the entire team
- Commence with Phase 1 of the project to ensure regulatory compliance
- Award the Project as one contract to ensure uniformity across Terminals
- Finalize Fuel Capacity Strategy to ensure correct Tanks are manufactured if necessary
- Compile Project Execution Plan and share with the Terminals
- Operation and maintenance manuals to be written for each Port separately
- Provide operation and maintenance training after completing each Terminal
- Water and Oil spillage drains, collection Tank, Canopy/ Shade and filtration systems to be handled separately.