





### LEGEND

- MW## MONITORING WELL ID
- MONITORING WELL CASING
- SCREENED INTERVAL OF MONITORING WELL
- SV# SOIL VAPOUR BORE ID
- TEFLON TUBE
- SOIL VAPOUR IMPLANT
- TEFLON TUBE
- SOIL VAPOUR IMPLANT
- ### PID < 100ppm
- ### PID > 100ppm
- ▼ GROUNDWATER STABILISED LEVEL 20 APRIL 2020
- ▼ GAUGED LNAPL LEVEL 20 APRIL 2020
- GRASS SURFACE
- INFERRED GEOLOGICAL CONTACT
- INFERRED GROUNDWATER LEVEL
- CONCRETE
- BITUMEN
- TANK PIT
- TUFF, YELLOW / ORANGE, HIGHLY WEATHERED
- TUFF, GREY / BROWN, MODERATELY WEATHERED TO FRESH ROCK
- TUFF / QUARTZITE FAULT ZONE
- POTENTIAL & INFERRED ZONE OF LNAPL IMPACT

**NOTE**  
 SOIL VAPOUR BORES DRILLED AND INSTALLED 17 & 18 JUNE 2020.  
**GAUGING DATA: 20 APRIL 2020**

WELL ID	Depth to GW (mBTC)	Depth to LNAPL (mBTC)	Apparent LNAPL thickness (m)
MW24	11.011	-	-
MW10	11.113	-	-
RW01	2.59	-	-
EW02	8.447	-	-
MW05	9.337	8.759	0.578
MW16	8.157	8.155	0.002

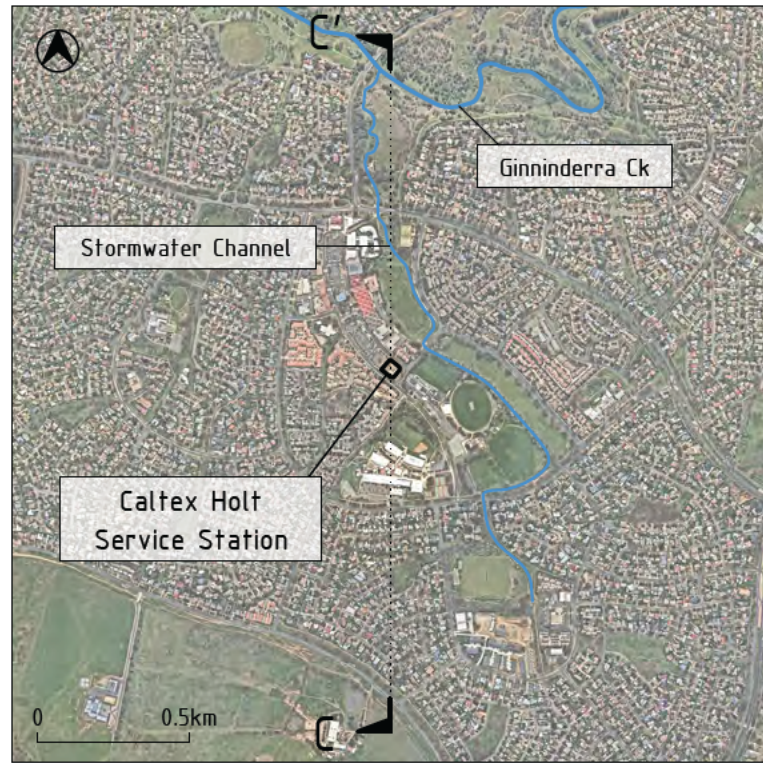
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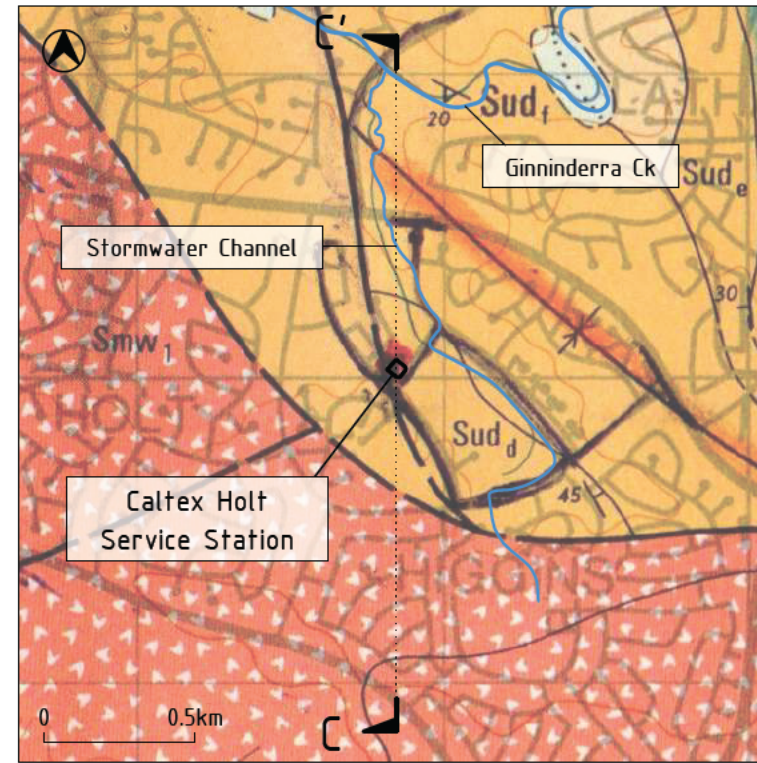
**CALTEX HOLT SERVICE STATION**  
**1 HARDWICK CRESCENT**  
**HOLT ACT**

**FIGURE 5**  
**CROSS SECTION B-B'**

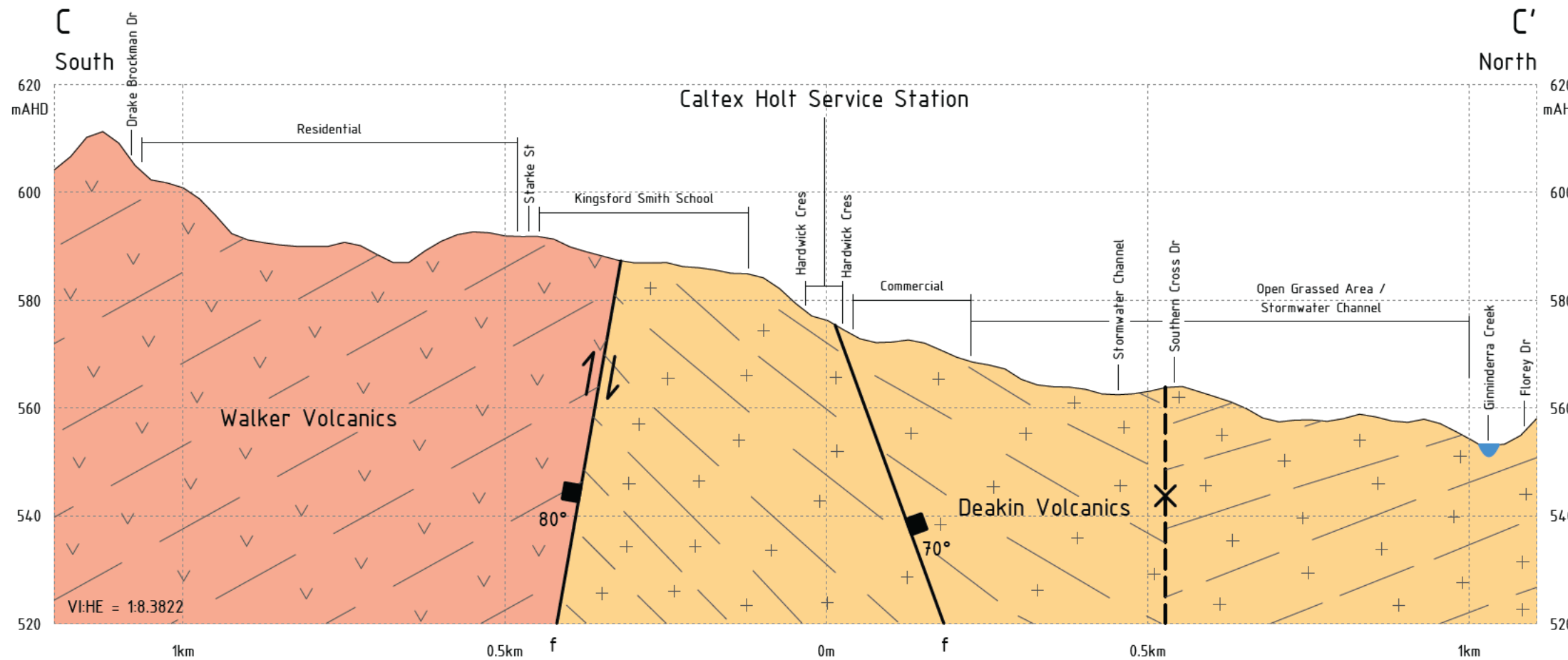
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CROSS SECTION LOCATION - AERIAL



CROSS SECTION LOCATION - GEOLOGICAL MAP



LEGEND

- DACITE - WALKER VOLCANICS
- TUFF - DEAKIN VOLCANICS
- TRACE BEDDING / FLOW ANGLE
- FAULT WITH DIP DIRECTION & ANGLE
- DISPLACEMENT & DIRECTION
- SYNCLINE

NOTE

SURFACE PROFILE HEIGHT DATA EXTRACTED FROM GOOGLE EARTH.

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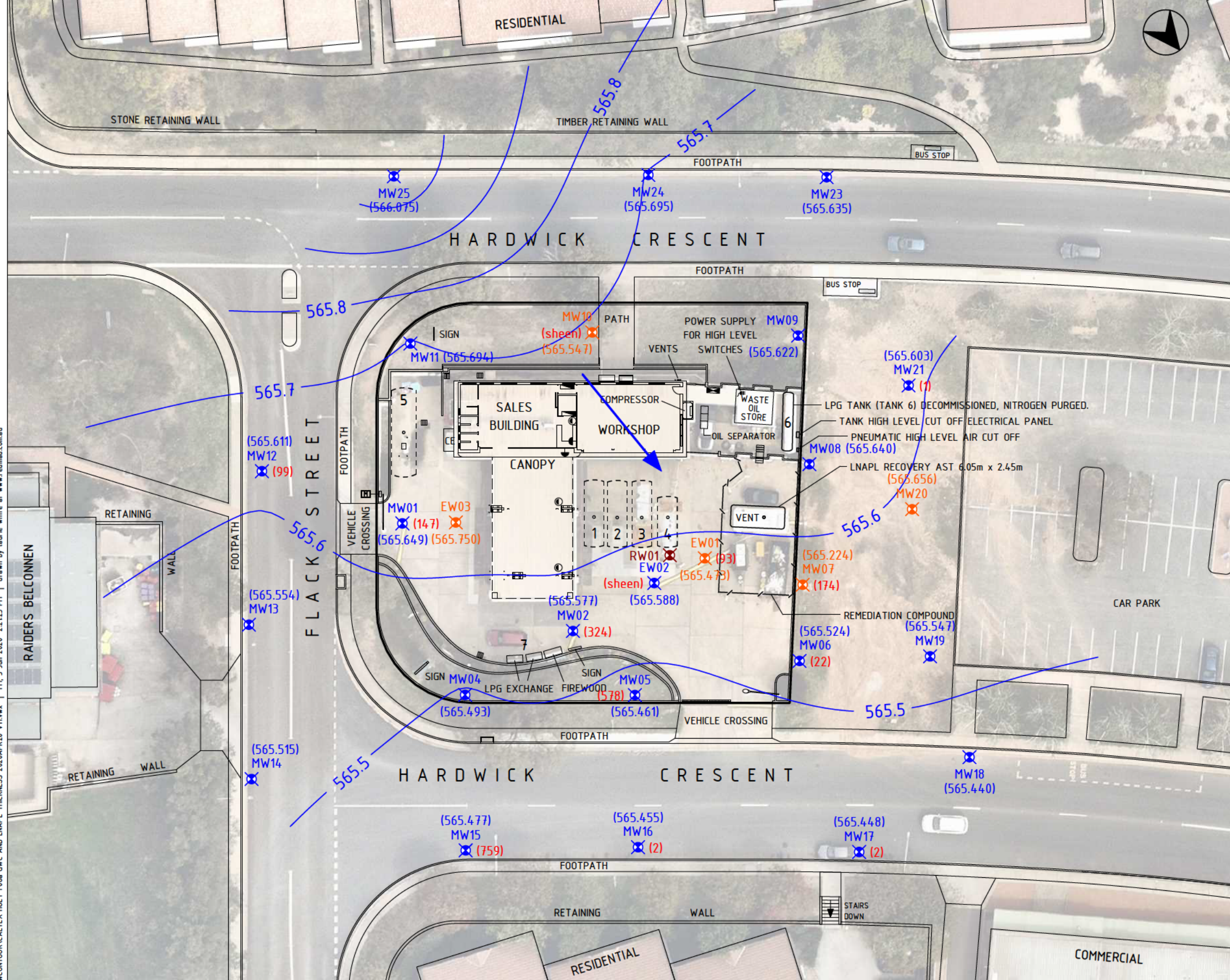
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CALTEX HOLT SERVICE STATION  
1 HARDWICK CRESCENT  
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FIGURE 6  
GEOLOGICAL & TOPOGRAPHIC FEATURES  
CROSS SECTION C-C'





### LEGEND

- SITE BOUNDARY
- EW##** **MW##** GROUNDWATER MONITORING WELL INCLUDED IN GROUNDWATER CONTOUR CREATION
- EW##** **MW##** GROUNDWATER MONITORING WELL OMITTED FROM GROUNDWATER CONTOUR CREATION
- RW##** RECOVERY WELL OMITTED FROM GROUNDWATER CONTOUR CREATION
- SWITCHBOARD
- FIRE HOSE REEL
- MANIFEST BOX - CONTAINING ERP DOCUMENT
- EMERGENCY STOP BUTTON
- CO<sup>2</sup> FIRE EXTINGUISHER
- DRY CHEMICAL FIRE EXTINGUISHER
- FUEL DISPENSER
- GRATED DRAIN / GRATED PIT
- ##** GROUNDWATER ELEVATION CONTOUR IN 0.1m INTERVALS (mAHD)
- (###.###)** GROUNDWATER ELEVATION LEVEL IN MONITORING WELL (mAHD)
- (###.###)** GROUNDWATER ELEVATION LEVEL IN MONITORING WELL (mAHD) OMITTED FROM GROUNDWATER CONTOUR CREATION
- INFERRED DIRECTION OF GROUNDWATER FLOW
- (###)** APPARENT LNAPL THICKNESS (mm)  
20 APRIL 2020

### TANK SCHEDULE

TANK	TYPE	PRODUCT	CLASS	CAPACITY	USAGE
1	UST	V95	3	27,400L	IN USE
2	UST	DIESEL	C1	27,400L	IN USE
3	UST	E10	3	27,400L	IN USE
4	UST	V98	3	20,000L	NOT IN USE
5	UST	ULP	3	59,400L	IN USE
6	AST	LPG	2.1	7,500L	NOT IN USE
7	LPG EXCHANGE		2.1	9x4kg, 42x9kg	IN USE





### NOTE

LPG TANK (TANK 6) DECOMMISSIONED, NITROGEN PURGED.  
 EW01, EW03, MW07, MW10, MW20 & RW01 WERE OMITTED FROM THE 'SURFER' GROUNDWATER CONTOUR CREATION TO PRODUCE AN INTERPRETED CONTOUR ABSENT OF POTENTIAL LNAPL PRESENCE RECOVERY EFFECTS.

0 15m

1:460 AT A3 APPROXIMATE  
 AERIAL IMAGE NEARMAP 13 APRIL 2020.  
 REFERENCE: CALTEX 'DANGEROUS GOODS PLAN' DRAWING NO. 22546-DG REV. B DATED 25/11/2011 SUPPLIED BY CLIENT.

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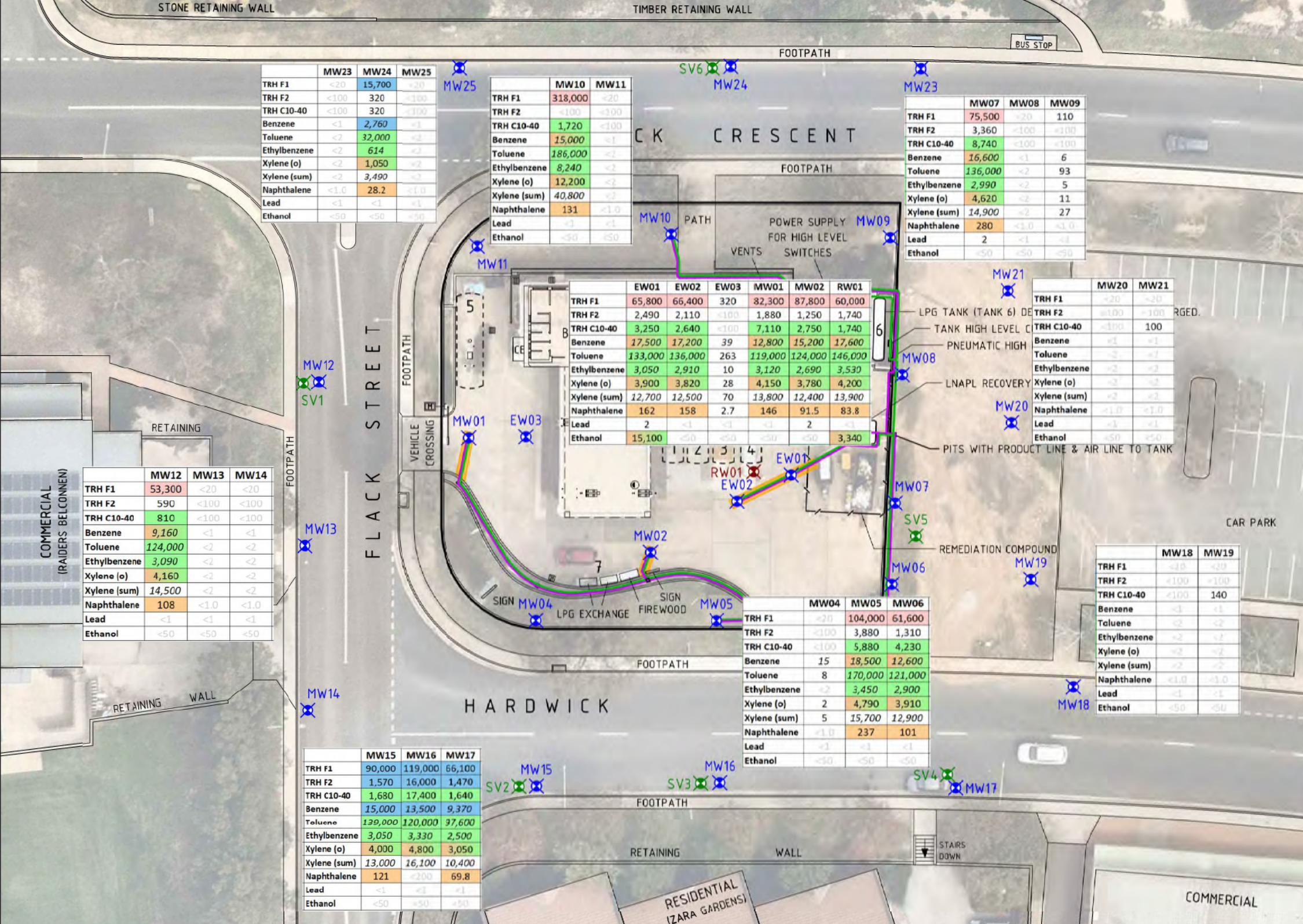
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**FIGURE 8**  
**GROUNDWATER CONTOUR PLAN**  
**20 APRIL 2020**

Applicable site assessment criteria	TRH F1	TRH F2	TRH C10-40	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (sum)	Naphthalene	Lead	Ethanol
ACT Service Station Guidelines 2014	-	-	600	950	300	140	350	-	-	3.4	1,400
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand ≥8 metres	7,000	NL	-	5,000	NL	NL	-	NL	-	-	-
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, ≥8 metres	1,000	1,000	-	900	NL	NL	-	NL	-	-	-
NEPM 2013 Table 1C GILs, Fresh Waters	-	-	-	950	-	-	350	-	16	3.4	1,400
ANZG 2018 Drinking Water Guidelines (in italics)	-	-	-	1	800	300	-	600	-	10	-

### LEGEND

- SITE BOUNDARY
- EW## MW## GROUNDWATER MONITORING WELL
- RW## RECOVERY WELL
- SV## SOIL VAPOUR BORE



- NOTES:**
- 3,250 Concentration exceeds the ACT 2014 Service Station Guidelines
  - 65,800 Concentration exceeds HSL-D criteria (Sand ≥8m)
  - 1,570 Concentration exceeds HSL-A/B criteria (Sand ≥8m)
  - 83.8 Concentration exceeds criteria for protection of freshwater ecosystems
  - 13,000 Italics: Concentrations exceeds drinking water criteria
  - 3,900 Concentration exceeds both ACT EPA and freshwater criteria

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7	LPG EXCHANGE		2.1	9x4kg, 42x9kg	IN USE

**NOTE**

LPG TANK (TANK 6) DECOMMISSIONED, NITROGEN PURGED.  
WELLS CONNECTED TO RECOVERY SYSTEM: MW01, MW02, MW05, MW06, MW07, MW10, EW01 & EW02.

0 15m

1:460 AT A3 APPROXIMATE  
AERIAL IMAGE NEARMAP 13 APRIL 2020.  
REFERENCE: CALTEX 'DANGEROUS GOODS PLAN' DRAWING NO. 22546-DG REV. B DATED 25/11/2011 SUPPLIED BY CLIENT.



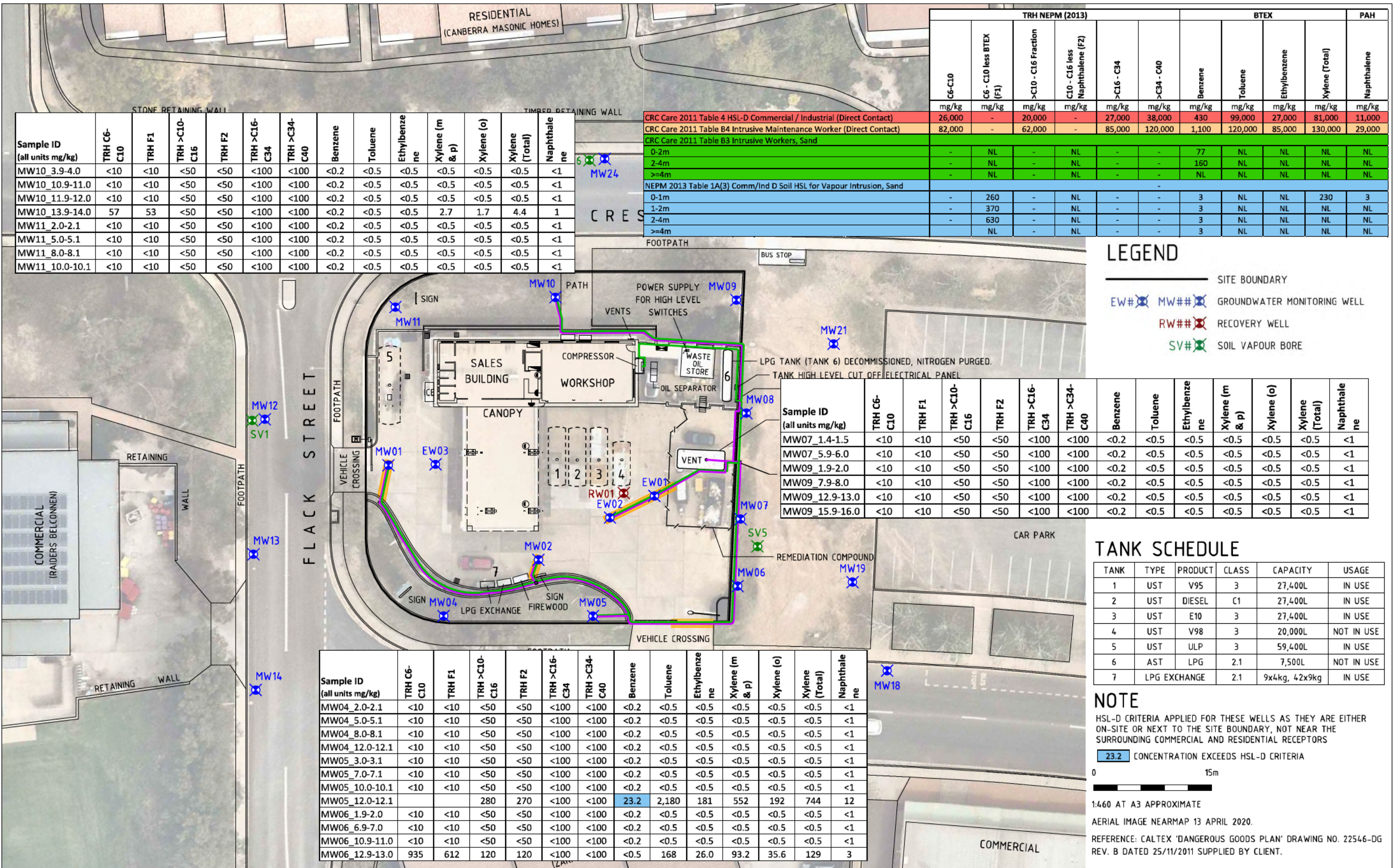



**CALTEX HOLT SERVICE STATION**  
1 HARDWICK CRESCENT  
HOLT ACT

**FIGURE 9**  
**GROUNDWATER CONTAMINANT IMPACT PLAN**  
**GROUNDWATER MONITORING EVENT: 20/21 APRIL 2020**

Figure prepared for WSP by InSite Remediation Services Pty Ltd

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**NOTE**

HSL-D CRITERIA APPLIED FOR THESE WELLS AS THEY ARE EITHER ON-SITE OR NEXT TO THE SITE BOUNDARY, NOT NEAR THE SURROUNDING COMMERCIAL AND RESIDENTIAL RECEPTORS





**23.2** CONCENTRATION EXCEEDS HSL-D CRITERIA

0 15m

1:460 AT A3 APPROXIMATE

AERIAL IMAGE NEARMAP 13 APRIL 2020.

REFERENCE: CALTEX 'DANGEROUS GOODS PLAN' DRAWING NO. 22546-DG REV. B DATED 25/11/2011 SUPPLIED BY CLIENT.

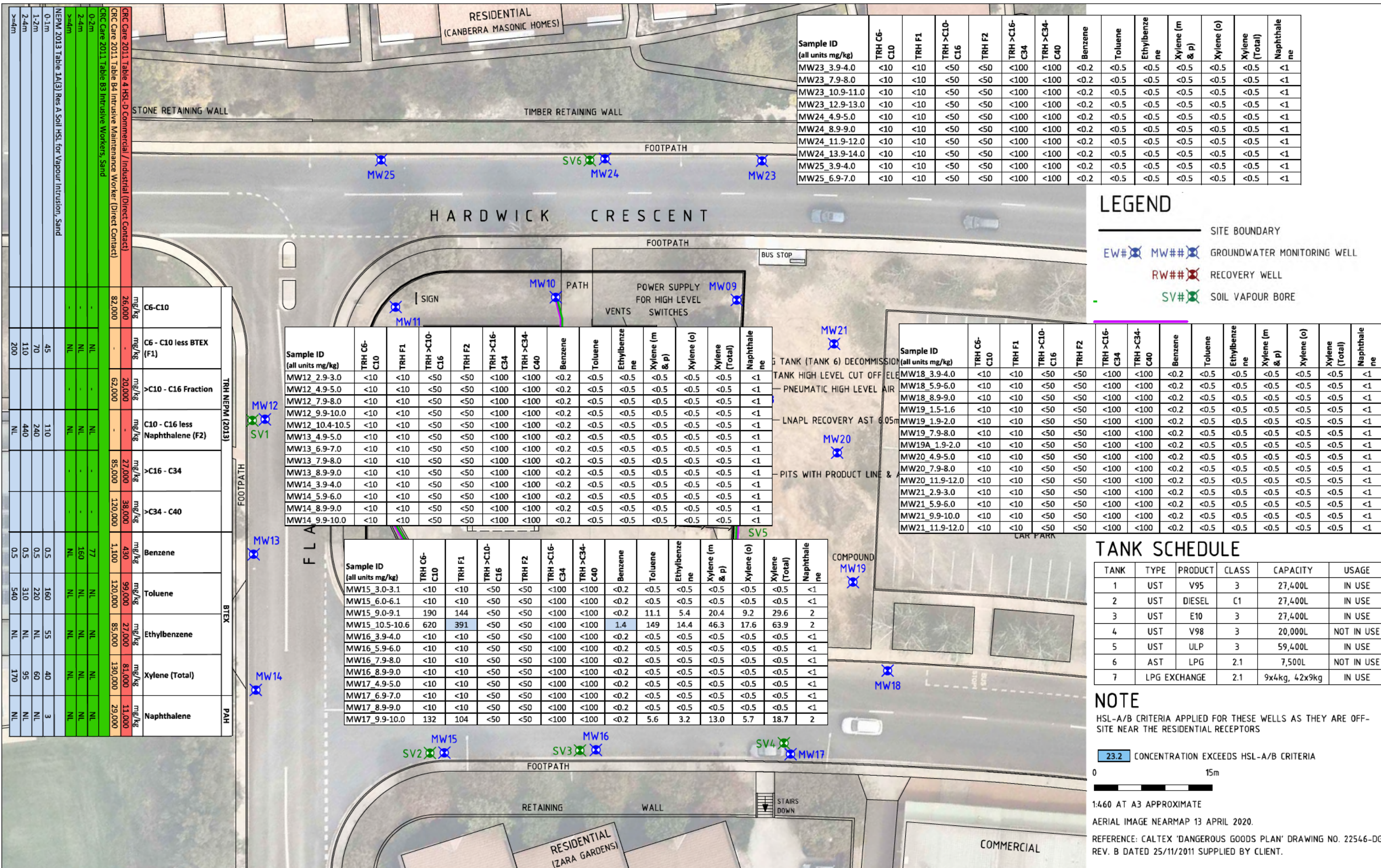









**CALTEX HOLT SERVICE STATION**  
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**FIGURE 10**  
**SOIL CONTAMINANT IMPACT PLAN IN BOREHOLES DRILLED ON-SITE OR NEAR THE SITE BOUNDARY (MW04 TO MW11)**

Figure prepared for WSP by InSite Remediation Services Pty Ltd

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**CALTEX HOLT SERVICE STATION**  
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**FIGURE 11**  
**SOIL CONTAMINANT IMPACT PLAN IN BOREHOLES DRILLED OFF-SITE IN ROADWAYS SURROUNDING THE SITE (MW12 TO MW25)**

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