



Airservices Australia
Mackay Airport
Preliminary Site Investigation

March 2019

Executive summary

Airservices Australia (Airservices) engaged GHD Pty Ltd (GHD) to conduct a Preliminary Site Investigation (PSI) at the Mackay Airport with particular regard to the potential for contamination from per- and poly-fluorinated alkyl substances (PFAS).

Based on the review of available site history information, site inspection and site interviews, the following potential sources of PFAS have been identified:

- Areas in which fire fighting services operate or have historically operated including:
 - The ARFF fire training ground
 - The ARFF fire station and workshop
 - Historical fire training areas
- Other potential sources were:
 - Surface water drainage channels
 - Fire extinguishers within hangars
 - Fire Systems Queensland commercial outlet/depot (fire safety equipment suppliers)

Based on the data obtained in the preliminary and targeted soil, surface water and groundwater sampling, the following summary is made:

- The primary source (use of AFFF containing PFAS) no longer exists. Secondary sources include residual soil and groundwater contamination.
- Soil and sediment results reported PFAS concentrations were either below the laboratory LOR or adopted human health and ecological guidelines, indicating that in the areas sampled, soils and sediments do not present an unacceptable risk to human health and ecological receptors.
- PFHxS+PFOS (sum) concentrations in eight of the nine groundwater samples analysed exceeded the drinking water guidelines and the PFOA concentrations in two groundwater samples (GMW6 and MW03) also exceeded the drinking water guidelines. PFOS concentrations in two samples analysed (GMW3 and GMW6) exceeded the adopted ecological screening criteria. These results indicate that groundwater may pose a potential risk to human health and ecological receptors. However, given that the site is located in an urbanised setting where council water supply is available, it is unlikely that groundwater onsite or in the vicinity is extracted for potable purposes.
- PFHxS+ PFOS (sum) concentrations in two of the three surface water samples analysed reported concentrations exceeding the adopted criteria for consumption of fish from fresh and marine water. Although the samples were collected from drainage lines, the water drains to Shellgrit Creek to the north of the site. It should be noted that the PFOA criteria for the consumption of fish from fresh and marine waters were lower than the laboratory limit of reporting.

A test result higher than a guideline value does not mean the exposure or risk is above unacceptable levels. Rather, it indicates that further investigation is warranted.

This report should be read in accordance with the limitations set out in Section 10.

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1. Introduction

Airservices Australia (Airservices) engaged GHD Pty Ltd (GHD) to conduct a Preliminary Site Investigation (PSI) at the Mackay Airport with particular regard to the potential for contamination from per- and poly-fluorinated alkyl substances (PFAS).

1.1 Background

Aqueous film-forming foam (AFFF) has been used for fire-fighting purposes around Australia for decades. On airports, AFFF has been used at fuel depots, hangars and for operational and fire training purposes.

AFFF has not been used in the provision of aviation rescue and fire-fighting (ARFF) services by Airservices since 2010 but continues to be used by others around fuel depots, hangars etc, at many airports, including the Mackay Airport. AFFF products historically used on airport sites contained PFAS. Depending on the type of AFFF used, the principal PFAS constituents could have included perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) or fluorotelomers such as 6:2 fluorotelomer sulfonate (6:2FtS) and 8:2 fluorotelomer sulfonate (8:2FtS).

1.2 Objectives

The objective of this PSI is to identify where there is potential for PFAS contamination to be present at the Mackay Airport as a result of previous activities by ARFF and other AFFF users. The report also seeks to identify potential sensitive receptors and stakeholders that may be impacted by possible PFAS contamination originating from the Mackay Airport.

1.3 Scope

The scope of work for the PSI included:

- Review of historical aerial photographs to gain an understanding of site development over time and identify potential areas where AFFF may have been used
- Review of current certificates of title and key lessees to identify site activities that may have included the use of AFFF
- Review of published data on geology, hydrology and hydrogeology to gain an understanding of site conditions and identify sensitive receptors
- Search of the groundwater bore database to understand beneficial uses for groundwater in the area
- Review of historical reports provided by Airservices to provide some background to previous investigations and site conditions
- A detailed site inspection to gain an understanding of site condition and inspect areas where there is potential for AFFF to have been used
- Interviews with personnel who have an understanding of current and historical site activities to identify areas where AFFF may have been used
- Preliminary, targeted soil, sediment, surface water and groundwater sample collection
- Development of a Conceptual Site Model (CSM) and potential source, pathway, receptor linkages
- Conclusions

2. Data quality objectives

The Data Quality Objective (DQO) process was applied to the preliminary investigations as described below, to ensure that data collection activities were appropriate and achieved the stated objectives. The DQO steps defined above have been addressed as follows.

Table 1 Data quality objectives

Step	Description
1	State the problem to be resolved Where was AFFF historically used on Mackay Airport? Do possible source, pathway, receptor linkages present an unacceptable risk?
2	Identify the decision/s to be made To address the problem set out in Step 1, the following decisions are required to achieve the task objective and to identify data gaps and additional information that may be required: <ul style="list-style-type: none">• What activities have occurred at the site which may have involved the use of AFFF?• What types of AFFF have been used?• Where was AFFF stored on site?• What is the nature of the contaminant migration pathways, particularly leading off the site?• What sensitive receptors are present at and surrounding the site?
3	Identify the inputs to the decision To inform the decisions and identify key data gaps and needs, the following information is considered necessary: <ul style="list-style-type: none">• Review of site conditions• Review of available history information• Interviews with site personnel• Detailed site inspection• Development of a Conceptual Site Model
4	Define the boundaries of the study The Mackay Airport property boundaries.
5	Develop a decision rule The key decision rules are: Are there areas of the site, outside the current fire station, former fire station, where PFAS may be present and does this present 1) a potential unacceptable risk, or 2) a risk that contamination may be migrating off-site? <ul style="list-style-type: none">• If NO – further investigations can be targeted in these known (source) areas.• If YES – more extensive investigations may be required to target broader areas of the site and understand the potential for off-site contamination.

Step	Description
6 Specify the tolerable limits on decision errors	<p>There is potential for anecdotal information to not always be accurate or to be limited in nature, and it is also difficult to assess site activities from historical aerial photographs based on poor resolution. Where possible, any potential sources of PFAS contamination will be cross checked through multiple lines of evidence.</p> <p>The two decision errors that exist include:</p> <ul style="list-style-type: none"> • False positive – an area identified as potentially containing PFAS does not. • False negative – Areas containing PFAS are not identified. <p>These can be managed through the implementation of a sampling program to confirm the PSI findings.</p>
7 Optimise the design for obtaining the data	<p>The CSM design will be optimised through:</p> <ul style="list-style-type: none"> • Identification of potential PFAS sources from existing information and investigations conducted by others. • A preliminary and high level review of the likely hydraulic characteristics of the upper aquifer to estimate the groundwater flow direction and seepage velocities at various locations of the site. • A review of the surface water pathways (hydrology) across and leaving the site.

3. Site information

3.1 Site location

The site location is outlined in Figure 1 in Appendix A and location details are provided in Table 2.

Table 2 Site identification

Street Address	Boundary Road East, East Mackay, Queensland 4740
Site Area	Approximately 252 hectares
Title Identifiers	Lot 405 SP255594 Lot 2 RP842090 Lot 443 RP724222 Lot 532 SP239851 Lot 1 RP711078 Lot 381 RP711085 Lot 3 RP842090 Lot 1 RP842090
Current Land Use	Airport and associated commercial enterprises

3.2 Lease information

GHD has been provided with the lease information of the Mackay Airport. The current properties within Mackay and relevant lessees are summarised in Table 3 and current certificates of title are provided in Appendix B. The lessees identified are those that are considered to have a major presence on site and/or the potential to undertake activities that could cause contamination. Others are also included on the certificate of title that are not identified here based on their lesser relevance to this investigation.

Table 3 Summary of title lessee information

Owner	Lot/ Plan	Lessee / Date
Queensland Airport Holdings (Mackay) Pty Ltd	Lot 1 RP 711078	Airservices Australia
	Lot 381 RP 711085	
	Lot 443 RP 724222	North Queensland Airports No. 3 (Mackay) Pty Limited. Term: 10 Dec 2008 – 10 Jan 2107
	Lot 3 RP 842090	
	Lot 1 RP 713704	North Queensland Airports No. 3 (Mackay) Pty Limited. Term: 10 Dec 2008 – 10 Jan 2107
	Lot 1 RP 723311	
	Lot 2 RP 723311	(Sub Lease) Mackay Airport Pty Ltd. Term: 10 Dec 2008 – 8 Dec 2107
	Lot 3 RP 723311	
	Lot 1 RP 842090	
	Lot 2 RP 842090	
	Lot 405 CP 842088	(Sub Lease) Peter Geoffrey Forrest Mary Elizabeth Forrest (Peter Forrest & Co Pty Ltd) Term: 1 Oct 1002 – 30 Sep 2002
		(Sub Lease) Australia Air Express Pty Ltd
		(Sub Lease) Helijet Whitsunday Pty Ltd

Owner	Lot/ Plan	Lessee / Date
		<p>Term: 1 Mar 1993 – 30 Nov 2007</p> <p>(Sub Lease) Geoffrey Frank Hunt Beris Agnes Hunt Trustee for the Hunt Family Trust Ronald Victor Hall Beryl Mavis Hall (SE ¼) Barry John Dean (SE ¼) Lacaba Construction Pty Ltd</p> <p>Term: 1 Apr 1993 – 30 Sep 2002</p>
		<p>(Sub Lease) Geoffrey Frank Hunt Beris Agnes Hunt Trustee (1/4) For the Hunt Family Trust Barry John Dean Helen Valmae Dean (SE ¼) Ross Alexander Walz Steven Michael Walz Jason Charles Walz Joint Tenants inter SE ¼ Translift Australia Pty Ltd Tenant in common (1/4) Change of name on 28 November 1995</p>
		<p>(Sub Lease) Geoffrey Frank Hunt Beris Agnes Hunt Trustee (3/8) Barry John Dean Delen Valmae Dean Joint Tenants Inter SE (3/8) Translift Australia Pty Ltd Tenant in common (1/4) Transferred on 08 February 1996</p>
		<p>(Transfer) (Sub Lease) Geoffrey Frank Hunt Beris Agnes Hunt Trustee (3/8) Barry John Dean Helen Valmae Dean Joint Tenants Inter SE 3/8 Transferred on 11 June 1999</p>
		<p>(Transfer) (Sub Lease) Geoffrey Frank Hunt Beris Agnes Hunt Trustee (1/2) Barry John Dean Helen Valmae Dean Joint Tenants Inter SE ½ Transferred 27 September 2000</p>
		<p>(Transfer) (Sub Lease) Geoffrey Frank Hunt Beris Agnes Hunt Trustee (1/2) Roylen Holdings Pty Ltd Tenant in common ½ Transferred 27 September 2000</p>
		<p>(Sub Lease) Australia Airlines Limited. Term: 2 Oct 1992 – 29 Sep 2001</p>
		<p>(Sub Lease) Peter Forrest & Co Pty Ltd. Term: 1 Oct 1992 – 30 Sep 2002</p>
		<p>(Transfer) (Sub Lease) Honora Nominees Pty Ltd Transferred 11 November 1997</p>
		<p>(Sub Lease) Hertz Australia Pty Limited</p>
		<p>(Sub Lease) New Stat. Nominees Pty Ltd. Term: 1 July 1994 – 30 June 1999</p>

Owner	Lot/ Plan	Lessee / Date
		(Sub Lease) Jes Morris Pty Ltd. Term: 1 June 1994 – 30 Sep 1999
		(Sub Lease) Fisher Catering Services Pty Ltd. Term: 1 Aug 1994 – 31 July 1999
		(Sub Lease) Bureau of Meteorology. Term: 1 Sep 1994 – 29 Sep 2041
		(Sub Lease) Whitsunday Helicopter Group Pty Ltd. Term: 1 June 1994 – 30 Sep 1999
		(Sub Lease) Juris Gold Pty Ltd. Term: 1 Jan 1995 – 30 Sep 1999
		(Sub Lease) The Shell Company of Australia Ltd Leased 14 August 1997
		(Sub Lease) Geogas Systems Pty Ltd Leased 13 February 1998
		Peter Forrest & Co Pty Ltd Leased 17 July 2000
		Hertz Australia Pty Ltd Leased 7 July 2000
		Hydro Pilots Australia Pty Ltd Leased 28 November 2000
		Beatrice Jessy Mahlberg Leased 19 July 2000
		BP Australia Ltd Leased 19 July 2000
		JF Garments (QLD) Pty Ltd Leased 7 August 2002
		Telstra Corporation Limited Leased 2 December 2002
		Hydro Pilots Australia Pty Ltd Leased 2 January 2003
		Chrisair Maintenance Pty Ltd Leased 13 October 2003
		Central Queensland Helicopter Rescue Service Limited Leased 14 October 2003
		Airservices Australia 29 November 2004
		Hertz Australia Pty Ltd 9 March 2005
		Compass Group (Australia) Pty Ltd 18 March 2005
		WTH Pty Ltd 24 May 2005

Owner	Lot/ Plan	Lessee / Date
		The Shell Company of Australia. Term: 1 Oct 2005 – 30 Sep 2008
		Central Queensland Helicopter Rescue Service Limited. Term: 1 Oct 2007 – 30 Sep 2008
		North Queensland Airports No. 3 (Mackay) Pty Limited. Term: 10 Dec 2008 – 10 Jan 2107
		(Sub Lease) Mackay Airport Pty Ltd. Term: 10 Dec 2008 – 8 Dec 2107
		(Sub Lease) Newslink Pty Ltd. Term: 13 Dec 2010 – 12 Dec 2015
John Douglas Manzelmann Brian Henry Manzelmann	Lot 2 RP 733682	Mogominster Pty Ltd 17 November 1997
		(Sub Lease) EDM Australia Pty Ltd. Term: 18 Jan 2006 – 11 Jan 2009

3.3 Site description

A site inspection was completed by GHD (accompanied by Airservices) on 18 July 2016. A summary of the findings are provided below and site photographs are included in Appendix C.

Key site features are outlined on Figure 2 in Appendix A and include:

- Runway
- Terminal building in the south western extent of the site
- ARFF fire station and training ground in the central western extent of the site, including fuel and foam storage area
- Air traffic control tower towards the centre of the western site boundary
- Open drainage channel around much of the perimeter of the site
- Mixed commercial units and hangars in the north eastern extent of the site, including the former ARFF fire station

The areas surrounding the major infrastructure on the site generally comprise soft landscaping with much of the site water logged and subject to flooding due to the shallow groundwater table. The drainage channels around much of the perimeter of the site often fill with water during heavy rainfall and are also subject to tidal influence. The drainage channels are shown on the Mackay Airport stormwater drainage plan¹ in Figure 3 in Appendix A.

Runway

Mackay Airport's main runway runs in a north west – south east direction across the site and accommodates approximately 30 flights per day. A smaller runway runs in an approximate east – west orientation across the site.

¹ The stormwater drainage plan was supplied to GHD by North Queensland Airports (NQA)

Terminal building

The airport terminal building is located in the south western extent of the site, at the location of the original (first) former ARFF fire training ground. There is no international terminal at Mackay Airport. Taxiways are located to the east, between the terminal building and the runway. Car hire services are provided at the airport and car parking areas are located to the west and south of the terminal.

ARFF fire station and workshop

The current ARFF fire station is located in the western section of the site, to the north west of the terminal building and to the east of the control tower. The fire station comprises a single storey building with an office, fire truck area and mechanical workshop. Bunded storage units were located to the south of the fire station building in an area of concrete hard standing which contained fuel and foam containers.

Used storage containers were placed in an area between the fire station and the fire training ground. The area immediately surrounding the fire station comprised concrete or asphalt hard standing with a hose drying rack to the north of the fire station building. The wider surrounding area was predominantly open grassed soft landscaping which was water logged at the time of the inspection.

Fire training ground (FTG)

The current FTG contains the following:

- A concrete training pad containing large mock up unit (LMU) – a replica aircraft (the training pad was filled with water at the time of inspection)
- A gravel covered area surrounded the FTG, part of which was occupied by an old aircraft and a number of burnt out cars
- A smoke hut (a two storey brick building located west of the FTG pad and south of the fire station building)

The training pad includes a waste water collection system (two tanks). Waste water from the pad is pumped to another tank close to the bunded storage units and is then collected for disposal (ultimate destination unknown). Run off from the pad enters the surrounding gravel covered area and then into the paddocks to the west.

3.4 Surrounding land uses

Land uses immediately surrounding the airport comprise:

- **North** – Mixed residential and sports grounds
- **East** – Mixed residential properties to the east/north east and undeveloped land to the east/south east that includes a small landfill, beyond which is the Coral Sea
- **South** – Predominantly undeveloped land and some agricultural use (sugar cane and cattle)
- **West** – Mixed residential properties are located to the west/north west, mixed commercial properties to the west/south west, and agricultural use (sugar cane) on the south west boundary

3.5 Key stakeholders

The following key stakeholders have been identified at the site:

- Site lessees
- Nearby residents to the north and west
- Owners and occupiers of commercial units to the west
- Farmers in the south and west

4. Site conditions

4.1 Topography

The Mackay Airport is located on a coastal plain with generally flat topography gently sloping towards the east in the direction of the ocean. The low elevation ranged between 3.5 to 5.2 m Australian Height Datum (mAHD)². The majority of the site has been built up compared to the natural ground level to establish a relatively consistent, flat site.

4.2 Geology

4.2.1 Regional geology

The Queensland Government Minesonlinemap (<https://minesonlinemaps.business.qld.gov.au/>) Map Sheet 11388, Mackay) indicates that the site is underlain by two geological units. The western portion of the site is classified as late tertiary to quaternary aged colluvium while the eastern portion of the site is quaternary aged unconsolidated sediments. The surface soil is characterised as colluvial and residual/estuarine deposit material including clay, silt, sand and gravel.

The geology and hydrogeology details are displayed on Figure 4.

4.2.2 Soil profile

Bore logs from previous reports indicated surface soils at the site are characterised as sandy silt, sandy clay and clayey material (GHD, 2008). These observations are consistent with the published geological maps.

4.3 Hydrology

The nearest surface water bodies adjacent to the site include the following (refer to Figure 2):

- Tidally influenced drain/creek (Shell Grit Creek) to the immediate north east and east of the site
- Wetlands (located approximately 0.3 km east from the site)
- Bakers Creek (located approximately 2.2 km south from the site)
- Pioneer River (located approximately 2.9 km north from the site)
- Coral Sea (located approximately 1 km east from the site)

There are several surface drains on site, surrounding the north, north-west and south boundaries of the airport, and running between the apron and runway. Based on the site topography, all captured stormwater in the surface drains discharges into the adjacent wetlands and eventually into Coral Sea.

² Elevation details were obtained from QLD Globe – Location (assessed on 12 July 2016)

4.4 Hydrogeology

A search of the Department of Natural Resources and Mines 2016, *Groundwater Database – Bore Reports*, Queensland State Government, identified 140 registered bores within 2 km of the site. The groundwater bore data and search results are provided in Appendix D (and the bore locations and numbers are shown on Figure 4 in Appendix A). The search results are summarised below:

- Of the 140 registered bores, 80 were listed with facility roles information, this includes water resources investigation (7), metered bores (4), exploration (3), stratigraphic investigation (26), sub-artesian monitoring (12) and water supply (28).
- Based on the available casing structure information, most registered bores were screened through the shallow unconfined aquifer less than 20 m below ground level (mbgl).
- Standing water levels (SWLs) of the registered bores ranged from 1.5 to 8 mbgl.
- Water analysis information indicated a mixture of slight acidic to alkaline and fresh to saline groundwater environment.
- Five of the 140 registered bores were located on the Mackay Airport site (20401, 20595, 46805, 46807 and 46809). The available information suggested SWLs on the site range from 2.1 mbgl to 2.7 mbgl and sit within a sandy aquifer.

It is important to note that unregistered and private bores may also exist, particularly as signage is not required for wells installed to depths less than 5 m in the Mackay area. Previous groundwater investigations undertaken at the Mackay Airport have identified groundwater at around 2.16 mbgl. The extent of saltwater intrusion and tidal influence is largely not understood.

5. Site history

5.1 Aerial photographs

A review of historical aerial photographs between 1953 and 2016 was completed. A summary of the key findings is outlined in Table 4 and a copy of the photographs is provided in Appendix E.

Table 4 Historical aerial photograph summary

Date	Description
1953	<p>There is visual evidence of two runways, both of which are consistent with the current runway locations. Both appear to be unpaved. Five small buildings were observed at the centre of the site (where current hangars and the Horizon Airways flight school are located) and appear to be in a terminal and apron area. It is known that the original fire station was adjacent to this terminal. The remainder of the site was characterised by cleared bushland, with the northeast corner uncleared. Several access tracks are located throughout the site. Two circular features, which appear to be roads, are located at the northern and southern end of the site. The northern circle appears to be a road (reason unknown, but possibly a navigational aide), while the southern feature appears to be a cleared area around a possible mast. The southern feature is in the location of the current terminal.</p> <p>Uncleared wetland areas were visible to the east along the coast line.</p> <p>Farmland is located to the north, west and south with small houses.</p> <p>The western quadrant between the runways appears to be farmland. A small landfill operation appears to be present to the east of the site.</p> <p>The fire training grounds identified to the south of the site appeared undeveloped.</p>
1962	<p>Additional buildings were visible in the centre of the site. The north west to south east runway is now paved, and an increase in the number of access tracks across the site was observed. A number of drainage canals appeared on the site, directing water in an easterly direction. Additional houses appeared to the north, west and south of the site. A fire training ground is now apparent in the south(west) of the site, adjacent to the southern circular feature, otherwise, the site appeared similar to photo from 1953.</p>
1972	<p>The north west to south east runway was extended in the south east direction into previously unoccupied wetlands towards the coast. The runway in a south west to north east direction was paved and the runways are consistent with the current configuration. Additional buildings and paving were observed in the centre of the site. Significant clearing appeared where the current terminal is located, adjacent to the fire training ground, and in the areas surrounding the runways. An increase in access tracks was observed throughout the site. The air traffic control tower has been built in the west of the site.</p> <p>More formalised open surface water drainage channels were constructed where former drainage channels had been. These are consistent with a number of current drainage channels.</p> <p>Increased housing to the north east, north and west of the site was observed.</p> <p>The municipal landfill operating to the east of the site has shifted further south of the location in the 1962 photo.</p> <p>An access road to the fire training ground was apparent to the south of the site.</p>

Date	Description
1991	<p>A large amount of development had occurred in the area of the current terminal since the 1972 aerial photograph. The main terminal building was visible along with paved access roads and a parking lot. Numerous paved taxi ways around the site were visible.</p> <p>Additional structures were observed in the centre and in the north of the site, and appear consistent with current infrastructure at the site. The farms in the western quadrant between the runways have gone, and the current fire station building is visible.</p> <p>A tidal lagoon was created to the east of the site into which several of the surface water drainage channels eventually feed by way of wetlands.</p> <p>A large portion of the land to the north east, and north west had been developed and are suburbs. Recreational area appeared in the north east corner of the site, and is consistent with the sports fields currently located there.</p> <p>The landfill to the east has increased in area. There are no visible fire training areas although land known to have been used along the southern boundary appears to be cleared of vegetation.</p> <p>Buildings were observed in the location of the current fire training facility, although surrounding land appeared uncleared.</p>
2004	<p>Additional structures appeared in the north of the site which is consistent with current buildings. Similarly, additional buildings appeared in the current terminal location, along with some added clearing and paving in the area of current parking lots.</p> <p>Former fire training ground to the south of the site appeared overgrown and unused.</p> <p>Fire training aides are visible around the fire station, but no formal training area is apparent. The landfill appears to have ceased operator and is becoming overgrown.</p> <p>The current fire training facility was visible.</p>
2009	<p>The site in 2009 appeared similar to that in 2004, except at the current fire training ground, the ground appeared to be cleared and paved or covered with gravel/bitumen, and the LMU can be seen placed within a bunded area in the centre of the training ground.</p>
2015	<p>Google Earth was used to assess the current layout of the site. The site appears similar to the 2004 aerial photograph with slightly more clearing and development in the north section of the site. Similarly, the current terminal area in the south of the site appeared more developed, with land clearing and paving taking place.</p>

5.2 Previous reports

The following reports were provided by Airservices for review. These are outlined below with a summary of the key points.

5.2.1 GHD, 2008

Preliminary Site Contamination Assessment, Mackay Former ARFF Drill Ground, Mackay Airport, Mackay, Qld, GHD Pty Ltd, November 2008

- Discussions with ARFF staff indicated that a Drill Ground database does not exist for the site.
- Former ARFF drill ground site was used between early 1960s to around 1996 for fire training exercises. Exercises included the use of kerosene, petrol, AFFF (3M light Water™), and minor use of fluoro protein foam and dry chemical (K-potassium bicarbonate).

- No environmental control measures (including waste water holding tanks, concrete bunding or separator systems) or environmental procedures were adopted at the former drill ground. Kerosene, petrol and AFFF were understood to have been applied directly to ground surface. At the time of the inspection, the former drill ground site was vacant with no distressed vegetation observed.
- Three boreholes were installed to a maximum of 2 mbgl. One of the boreholes was converted to a groundwater well.
- PFOS concentration in groundwater sample from M-MW1, located within the Former ARFF Drill Ground, was above adopted screening levels. All other samples were below adopted standards for contaminants of concern.
- Two sediment samples were collected from the open drain located to the north of the Former ARFF Drill Ground. PFOS was detected in both samples, at concentrations below the adopted guidelines.

5.2.2 SLR, 2012

Mackay Drill Ground Water and Soil Sampling, Mackay Airport, Mackay, SLR Global Environmental Consulting, 19 June 2012

- Included surface water and soil investigation conducted in 2012 in the Current Drill Ground area.
- Three water samples were collected (including one duplicate) from runoff water from the training pad (RO) and underground storage tank (SW) used to collect runoff water.
- Two soil samples were collected from around the training pad.
- Samples were analysed for PFOS, PFOA, 6:2FtS, total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, xylene (BTEX) and polycyclic aromatic hydrocarbons (PAH).
- Soil samples had detectable concentrations of PFOS and PFOA, yet were below adopted assessment criteria.
- Water sample RO had concentrations of PFOA greater than the adopted assessment criteria while sample SW has concentrations of PFOS, PFOA, TPH and PAH (phenanthrene and fluoranthene) exceeding adopted assessment criteria.

5.2.3 Cardno, 2012

Environmental Contamination Assessment, Mackay ARFF Station, Mackay Airport, Airservices Australia, Cardno, August 2012

- Cardno conducted an environmental contamination assessment which included a site history assessment and intrusive site investigation at the ARFF fire station.
- The site history review indicated that the ARFF site has been managed by Airservices since 1974³.
- There is a sump that collects runoff from the training pad.
- Five soil bores to a maximum of 1 m below ground level (bgl) were drilled around the ARFF fire station area at Mackay airport.

³ GHD understand that Airservices Australia was formed in 1995. Therefore, it is the Aviation Rescue and Fire Fighting (ARFF) Service that has managed the fire station site since 1974.

- The soil encountered at the borehole locations was typically clay, sandy clay or sandy material.
- All soil samples analysed were reported with PFOS concentrations ranging between 0.01 and 4.3 mg/kg.
- PFOA was not detected in any of the soil samples tested for this parameter.
- Groundwater was not tested.

5.3 Operational response system outputs

GHD was provided with one ARFF operational response system (ORS) incident detail report (Incident No. 146) at Mackay Airport which is summarised in Table 5:

Table 5 ORS output summary

Incident date	Incident location and description	Materials used	Actions taken
8 October 2005	To control a hayshed on fire, located adjacent to the airport	9000 L water 120 L foam*	Assisted Mackay Fire and Rescue Service to contain the fire. After service cease, equipment was cleaned and restored back in the ARFF station.

Note:

* Based on Airservices foam use dates, the foam used is likely to be Ansulite.

5.4 Interviews

Site interviews were conducted on 18 July with the following personnel:

- [REDACTED], General manager – People, Communications and Compliance – North Queensland Airports (NQA)
- [REDACTED], General Manager – Mackay Airport
- [REDACTED], General Manager - Property Development – NQA
- [REDACTED], Fire Commander – Mackay ARFF, Airservices

Key findings from the interviews are documented in Sections 5.4.1 and 5.4.2. Transcripts of the interviews are provided in Appendix F.

5.4.1 Mackay Airport Interview

NQA has operated Mackay and Cairns Airports since 2008. At the time of the interview, [REDACTED] had held the role of General Manager at Mackay Airport for over four years. [REDACTED] and [REDACTED] held regional roles responsible for operations at Mackay and Cairns Airports (based at Cairns Airport).

The interviewees were not aware of any investigations into the use of AFFF having been undertaken at Mackay Airport and [REDACTED] stated that no foam was stored or used at the site other than by ARFF and understood that this has always been the case.

In terms of potential incidents that may have required the use of fire fighting foams at the airport, [REDACTED] did not recall any fires or major crashes. There was a plane landing ‘wheels up’ at the runway intersection in 2015 but [REDACTED] did not recall foam being used at this incident.

Other relevant information provided by the interviewees included:

- There has never been AFFF storage or use on site (by the Airport)
- Airport Emergency Planning (AEP) training is organised and run by ARFF every two years⁴
- Historically, the fire station was located in the north western section of the site (in the vicinity of the former terminal)
- Prior to construction of the current concrete fire training pad, training was undertaken on open ground
- Stormwater is not harvested for any purposes from the site and groundwater is not abstracted other than for monitoring purposes

5.4.2 ARFF Fire Commander Interview

[REDACTED] has worked at Mackay ARFF facilities since 1989 (and has worked as an aviation fire fighter since 1987).

The main investigation undertaken at the site that [REDACTED] was aware of was in 2008 where an investigation was undertaken at the former fire training ground (GHD, 2008). This area is located just outside of the main Airport area – in a triangular shaped clearing to the immediate south of the security fence, but remains within the Airport boundary, to the south west of the runway.

A summary of key responses to interview questions is provided below:

- There have not been any crashes or major incidents at the site that have required the use of AFFF.
- All AEP training has been conducted using water, excluding one historical event where AFFF (circa early 1990s) was used at an off site location to the east.
- Up until 1994, AFFF was stored in 200 L drums close to the current fire station. Following construction of the storage facility foam was stored in 1,000 L totes and when the current FTG was constructed (circa 2004) all foam has been stored in a 7,000 L bulk storage tank.
- The new airport terminal building was constructed over a former ARFF FTG (the original FTG). Soil generated during the construction was likely disposed of off site (location not known).
- The current fire station was constructed in approximately 1972/1974.
- Wash down of fire fighting equipment is undertaken out the front of the fire station, close to the entrance. Historically, this area drained directly to the paddocks and into the drainage channels surrounding the site. The waste water now drains into the waste water collection system.
- Historically, excess product from the trucks and extinguishers would be sprayed out directly onto the ground and empty foam drums were taken to landfill. It was considered likely that the empty drums would have been disposed of at local landfill. From circa 2008 (after the introduction of Ansulite AFFF) empty drums and unused supplies were collected from site by Airservices.

⁴ Craig Barnes of Airservices informed GHD that the AEPs are actually run by the Airport (though ARFF do participate in the AEPs)

- Fire extinguishers are present in a number of the hangars on site – training for use of these extinguishers was historically conducted at the FTG. [REDACTED] estimated there would be approximately six left on the airport, though ARFF no longer provide training to use these.
- Historical ARFF training using foams was conducted at a number of areas across the site and in the vicinity. These locations are shown on Figure 5 in Appendix A.
- There was a large kerosene spill at the site circa 2000 - 2002, from underground pipes in the vicinity of the fire station. A large volume of impacted soils was removed from the site following the spill⁵.
- Groundwater is not abstracted at the site.
- During the interview, it was noted that groundwater wells are present at residential properties to the north west.
- Fire Systems Queensland have a base located to the west of the site, opposite the control tower. It was considered possible that AFFF are still used and stored at this location.

5.5 Summary of site history

The site historical review indicates that the airport has been operational since prior to 1953. The current fire station was built in the early 1970s and the former fire station was situated at the location of the former terminal. The current terminal is located at the site of the original fire training ground.

Fire training was historically conducted at a number of different locations on the Mackay Airport and in the immediate surrounding locality. On airport, there have been three formal FTGs (though it is acknowledged that [REDACTED] indicated additional areas had been used for training as shown in Figure 5):

- The original FTG (now the site of the current terminal) used until circa 1990
- An interim (now former) FTG located in the south east of the airport which was used between circa 1990 and 2004
- The current FTG which has been in use since 2004

AFFF has always been stored in the vicinity of the current fire station, near the FTG and within a bunded area since 2002.

Reportable concentrations of PFAS have been detected in previous investigations, in locations of known fire training (at the current and interim FTGs where investigations have been undertaken).

⁵ The information regarding the spill was provided during a walkover of the site and not during the actual interview.

6. Preliminary and targeted sampling

6.1 Scope of work

Based on the outcomes of the PSI, a Sample Analysis and Quality Plan (SAQP) was developed for the investigation (GHD, 2016).

The SAQP was prepared so that the field investigations and analyses were undertaken in a way that enabled the collection and reporting of reliable data on which to base any further soil, groundwater and surface water monitoring programs for specific areas of the site.

The GHD SAQP described drilling methods, sampling equipment, well development strategy, sample collection protocols, sample processing, field and laboratory sample analysis, equipment decontamination and quality-assurance and quality-control (QA / QC) procedures.

The scope of work undertaken, methodology adopted and results of the sampling program are provided in a Preliminary Sampling report (GHD, 2017).

6.2 Results summary

The PFAS results reported in soils and sediments were either less than laboratory LOR or at low detectable levels. All groundwater samples reported PFHxS+PFOS concentrations exceeding the adopted drinking water criteria with the exception of the groundwater sample MW04 in the north-western section of the site. The three surface water samples analysed reported concentrations of PFHxS+PFOS concentrations in excess of the fresh and marine fish consumption HSLs (or the criteria was below the laboratory limits of reporting) but the concentrations were below the adopted recreations guideline values.

7. Conceptual site model

Based on our understanding of the contamination issues and site setting a conceptual site model (CSM) has been generated to identify the potential contamination sources, pathways and receptors, and the potential linkages (or pollutant linkages) between these.

A CSM is a critical element of any PSI and forms the basis for the assessment of contamination risk and prioritisation of any further investigations. As it is based only on limited information at the PSI stage, it is regarded as being preliminary only at this point and as the foundation for the development of a more detailed CSM as site investigations progress. A cross sectional CSM is included as Figure 6 and CSM Pathways are shown in Figure 7 in Appendix A. A representation is also included in Chart 1.

Different land use scenarios have different contamination risk profiles depending on the sensitivity of receptors and the nature and likelihood of potential exposure mechanisms. This CSM assumes a commercial/industrial land use scenario consistent with the site's current and anticipated future use as an airport.

7.1 Sources

As the key contaminant of concern, the focus of the PSI is on the potential sources of PFAS on the Mackay Airport which have been identified as the following:

- Areas in which fire fighting services operate or have historically operated including:
 - The ARFF fire training ground
 - The ARFF fire station and workshop
 - Historical fire training areas (see Figure 5)
- Other potential sources were:
 - Surface water drainage channels
 - Fire extinguishers within hangars
 - Fire Systems Queensland commercial outlet/depot (fire safety equipment suppliers)

7.2 Pathways

7.2.1 Contaminant transport mechanisms

The key mechanisms for contaminant transport at the site have been identified as:

- *Surface water overland flow* – lateral overland flow and migration of contaminants via stormwater during rain events, causing re-deposition of contaminants on other areas of Mackay Airport or off-site. There is the potential for migration of contaminated surface water/storm water from the source in open drainage channels.
- *Groundwater advection/dispersion* - horizontal and vertical migration of contaminants from the Mackay Airport soils into the underlying aquifer and through groundwater to the point of surface water discharge or via uptake in groundwater wells at nearby residential properties.

The sandy geology and shallow water table are conducive of conditions that would be expected to promote surface water and groundwater interactions. This has the potential to increase the contaminant flux both within and off the site. In addition, having generally less clay and organic matter, unconsolidated sandy environments (aquifer materials) are less conducive of

attenuation of PFAS. These factors place the Mackay Airport within a higher risk category in terms of the potential for contaminant migration via surface water and groundwater flow.

7.2.2 Potential exposure mechanisms

Based on the identified receptors and the release and fate and transport characteristics of the contaminants of potential concern, contaminant uptake pathways through which receptors may become exposed to contamination include ingestion and dermal absorption.

- *Ingestion exposure pathway* - Ingestion of contaminants by site workers could occur during site works involving excavation and handling of site soils, stormwater, or groundwater. This is not considered to be of a concern for indoor site workers. Ingestion could also occur for nearby residents via direct contact or use of water for food production (e.g. home grown produce or poultry) in the event that groundwater is being abstracted for these purposes.

Terrestrial and aquatic fauna may ingest contaminants potentially migrating off-site and discharging to the down gradient surface water including the drains/creek and marine receiving environment.

- *Dermal exposure pathway* - Exposure of PFAS may occur via sorption through biological membranes such as skin, based on animal studies. While this has not been confirmed for humans and despite PFOS having a low skin permeability constant, the exposure pathway may be complete as illustrated on the CSM.
- *Inhalation exposure pathway* – PFAS are not considered to be volatile so inhalation is not considered to be a relevant exposure mechanism.

7.3 Receptors

The site is located in a commercial/industrial site setting. The following are the key potential human health and ecological contamination receptors considered to be relevant in the context of the site setting:

- Site workers whose activities may result in exposure to impacted site soils, surface water and groundwater
- Nearby landowners abstracting potentially impacted groundwater from wells for irrigation or other uses
- Consumers of potentially impacted seafood from the down gradient drains/creeks and marine receiving environment who may ingest contaminants
- Recreational users of the potentially impacted down gradient drains/creeks and marine environment that may ingest contaminants or have dermal exposure to contaminants
- Flora and fauna in the potentially impacted hydraulically down-gradient marine surface water receiving environment
- Terrestrial flora and fauna consuming potentially impacted plant material e.g. grasses. This in turn may impact their predators.

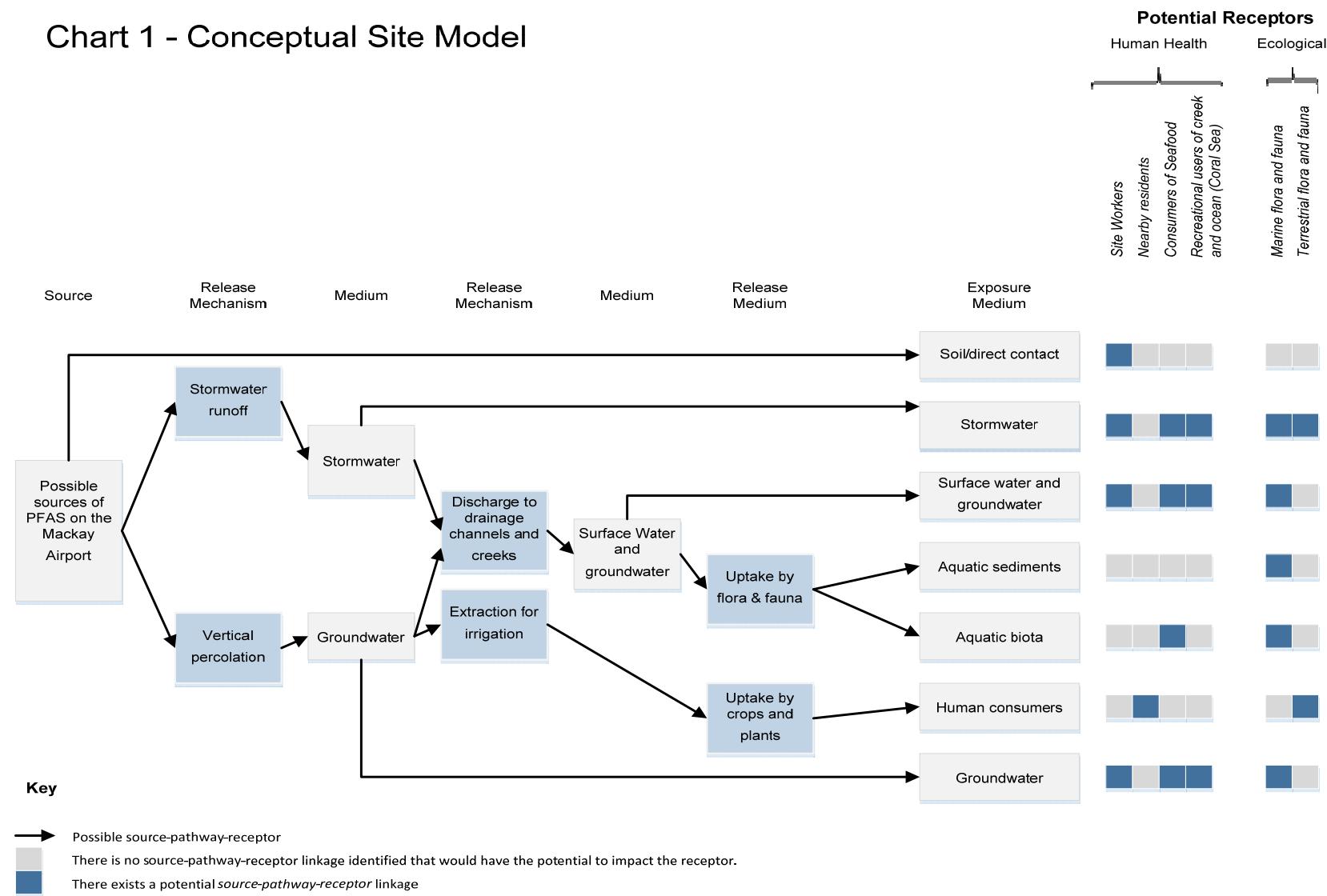
7.4 Potential source-pathway receptor linkages

The CSM has identified a number of potential source-pathway-receptor pollutant linkages which are highlighted in Table 6. These are discussed below in the context of the site setting.

Table 6 PFAS contamination – potential pollutant linkages

Potential pollutant linkages	Key exposure routes and risks
Potential human health risks	
<i>Health risks to site workers who may come into contact with contaminated site media</i>	Day to day activities are not likely to expose site personnel to these media. However, it remains a possibility where workers are involved with excavation and handling of contaminated soil, surface water or groundwater. It is expected that this can be managed through good hygiene practices and task-specific management plans.
<i>Health risks to nearby residents who are exposed to potentially contaminated groundwater through bores at their properties.</i>	The main risk to human health is considered to be through consumption of extracted water and consumption of food produce irrigated by the extracted water. Consumption of impacted drinking water as well as vegetables, fruit or poultry irrigated with water contaminated by PFAS from a groundwater well may lead to bioaccumulation of PFAS in humans. Dermal exposure has not been identified as a dominant exposure pathway for PFAS.
<i>Health risks to consumers of contaminated seafood arising from migration of contaminants through surface water and groundwater to the Coral Sea and bioaccumulation of contaminants in biota.</i>	As PFAS are highly persistent and have a high propensity to bio-accumulate through the food-chain, there is a risk of human exposure to PFAS from consumption of contaminated seafood.
<i>Migration of contaminants through surface water and groundwater to the drains/creeks and marine environment resulting in human health impacts to recreational users of the these surface waters</i>	The main risk is through incidental ingestion of water. Dermal exposure has not been identified as a dominant exposure pathway for PFAS.
Potential ecological risks	
<i>Impacts to the off-site marine ecosystem (flora and fauna) of the Coral Sea from migration of contaminants through surface water and groundwater</i>	There is the potential for PFAS contaminated surface water and groundwater to discharge to the adjacent marine ecosystem where marine biota (invertebrates and macrofauna) may be exposed. Predation of species can lead to a wider distribution of PFAS in the marine environment due to bioaccumulation.
<i>Terrestrial ecology – take up of PFAS in plants and subsequent consumption by fauna plus impact to invertebrates via impacted soil</i>	There is potential for prey species to ingest impacted flora or soil and then be predated by larger animals e.g. eagles, snakes, foxes.

Chart 1 - Conceptual Site Model



8. Conclusions

8.1 Conclusions

Based on the review of available site history information, site inspection and site interviews, the following potential sources of PFAS have been identified:

- Areas in which fire fighting services operate or have historically operated including:
 - The ARFF fire training ground
 - The ARFF fire station and workshop
 - Historical fire training areas (see Figure 5)
- Other potential sources were:
 - Surface water drainage channels
 - Fire extinguishers within hangars
 - Fire Systems Queensland commercial outlet/depot (fire safety equipment suppliers)

The sandy geology and shallow water table are conducive of conditions that would be expected to promote surface water and groundwater interactions, and the unconsolidated sandy environment is expected to be less conducive of attenuation of PFAS. These factors mean that Mackay Airport is sensitively located with respect to the potential for contaminant migration via surface water and groundwater flow.

The following potential sensitive receptors have been identified:

- Site workers whose activities may result in exposure to impacted site soils, surface water and groundwater
- Nearby landowners abstracting potentially impacted groundwater from wells for irrigation or other uses
- Consumers of potentially impacted seafood from the down gradient drains/creeks and marine receiving environment who may ingest contaminants
- Recreational users of the potentially impacted down gradient drains/creeks and marine environment that may ingest contaminants or have dermal exposure to contaminants
- Flora and fauna in the potentially impacted hydraulically down-gradient marine surface water receiving environment
- Terrestrial flora and fauna consuming potentially impacted plant material e.g. grasses. This in turn may impact their predators

8.2 Summary of preliminary sampling program

Based on the data reviewed in this study, the following summary is made:

- The primary source (use of AFFF containing PFAS) no longer exists. Secondary sources include residual soil and groundwater contamination.
- Soil and sediment results reported PFAS concentrations were either below the laboratory LOR or adopted human health and ecological guidelines, indicating that in the areas sampled, soils and sediments do not present an unacceptable risk to human health and ecological receptors.
- PFHxS+PFOS (sum) concentrations in eight of the nine samples analysed exceeded the drinking water guidelines and the PFOA concentrations in two groundwater samples

(GMW6 and MW03) also exceeded the drinking water guidelines. PFOS concentrations in two samples analysed (GMW3 and GMW6) exceeded the adopted ecological screening criteria. These results indicate that groundwater may pose a potential risk to human health and ecological receptors.

- PFHxS+PFOS (sum) concentrations in two of the three surface water samples analysed for the Preliminary Sampling program reported concentrations exceeding the adopted criterial for consumption of fish from fresh and marine water. It should be noted that the PFOA criteria for the consumption of fish from fresh and marine waters were lower than the laboratory limit of reporting.

9. References

- Airports Act 1996
- Airports (Environment Protection) Regulations 1997
- Australian Standard AS 4482.1:2005: Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil
- AS/NZS ISO 31000:2009: Risk management - Principles and guidelines
- Australian Commonwealth Work Health and Safety Act 2011
- Cardno, 2012: Environmental Contamination Assessment, Mackay ARFF Station, Mackay Airport, Airservices Australia, Cardno, August 2012
- Commonwealth Work Health and Safety Regulations 2011
- Department of Infrastructure and Regional Development (DoIRD, 2015): GEM 002 - PFC Management Actions Advice
- GHD, 2008: Airservices Australia – Report for ARFF National Testing Program Preliminary Site Contamination Assessment – Mackay Former ARFF Drill Ground, Mackay Airport
- GHD, 2015: Airservices Interim Contamination Management Strategy and Decision Framework for PFC contamination, June 2015 (the 'Interim Framework')
- GHD, 2016: Airservices Australia – Mackay Airport Sampling and Analysis Quality Plan
- GHD, 2017: Airservices Australia – Mackay Airport Preliminary Sampling
- NEPC, 2013: National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended 2013 (the ASC NEPM)
- SLR, 2012: Mackay Drill Ground Water and Soil Sampling, Mackay Airport, Mackay, 19 June 2012

10. Limitations

This report has been prepared by GHD for Airservices Australia (Airservices) and may only be used and relied on by Airservices for the purpose agreed between GHD and Airservices.

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The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

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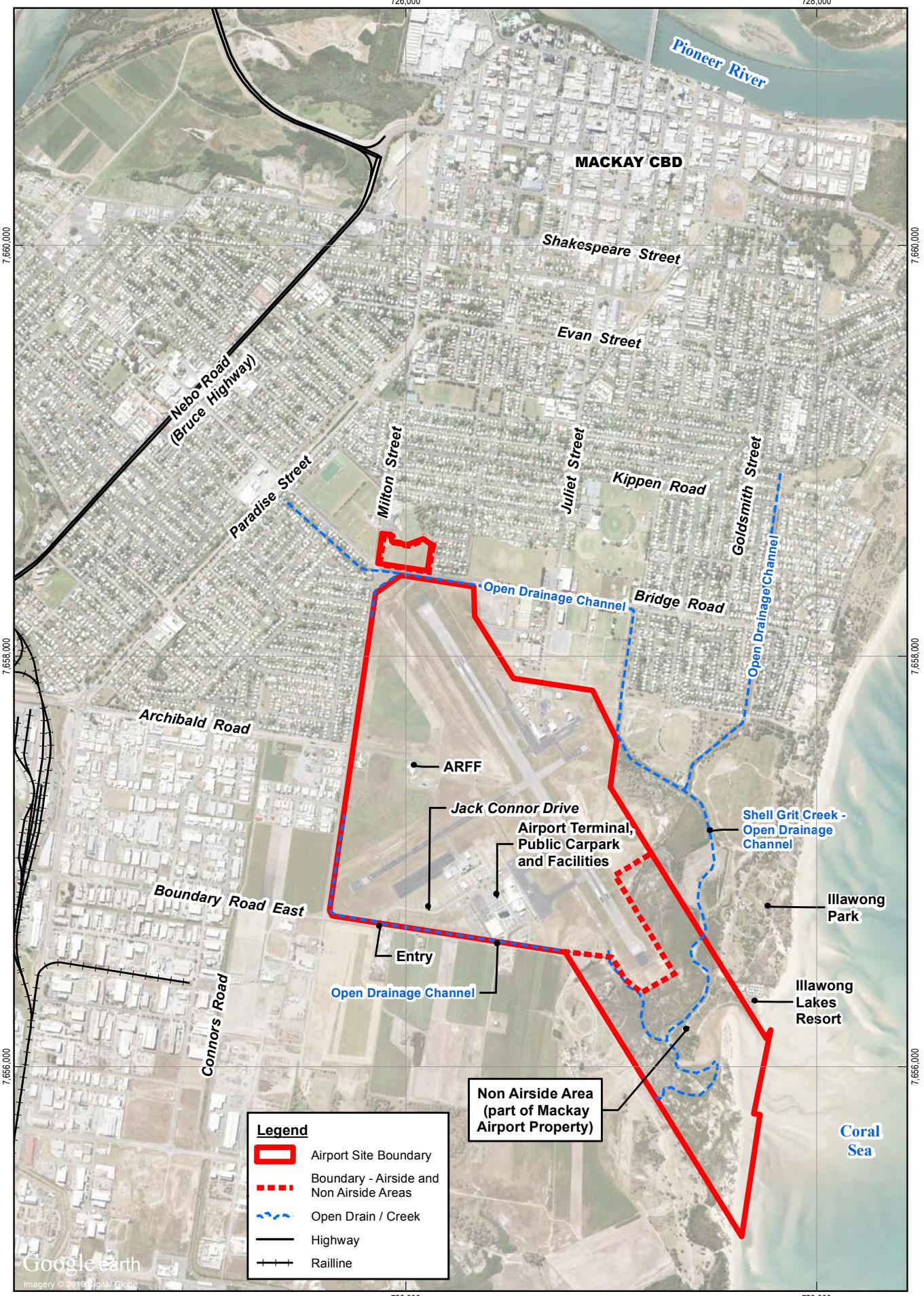
The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

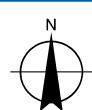
Site conditions (including the presence of hazardous substances and/or site contamination) may change after the date of this Report. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this report if the site conditions change.

Appendices

Appendix A – Figures



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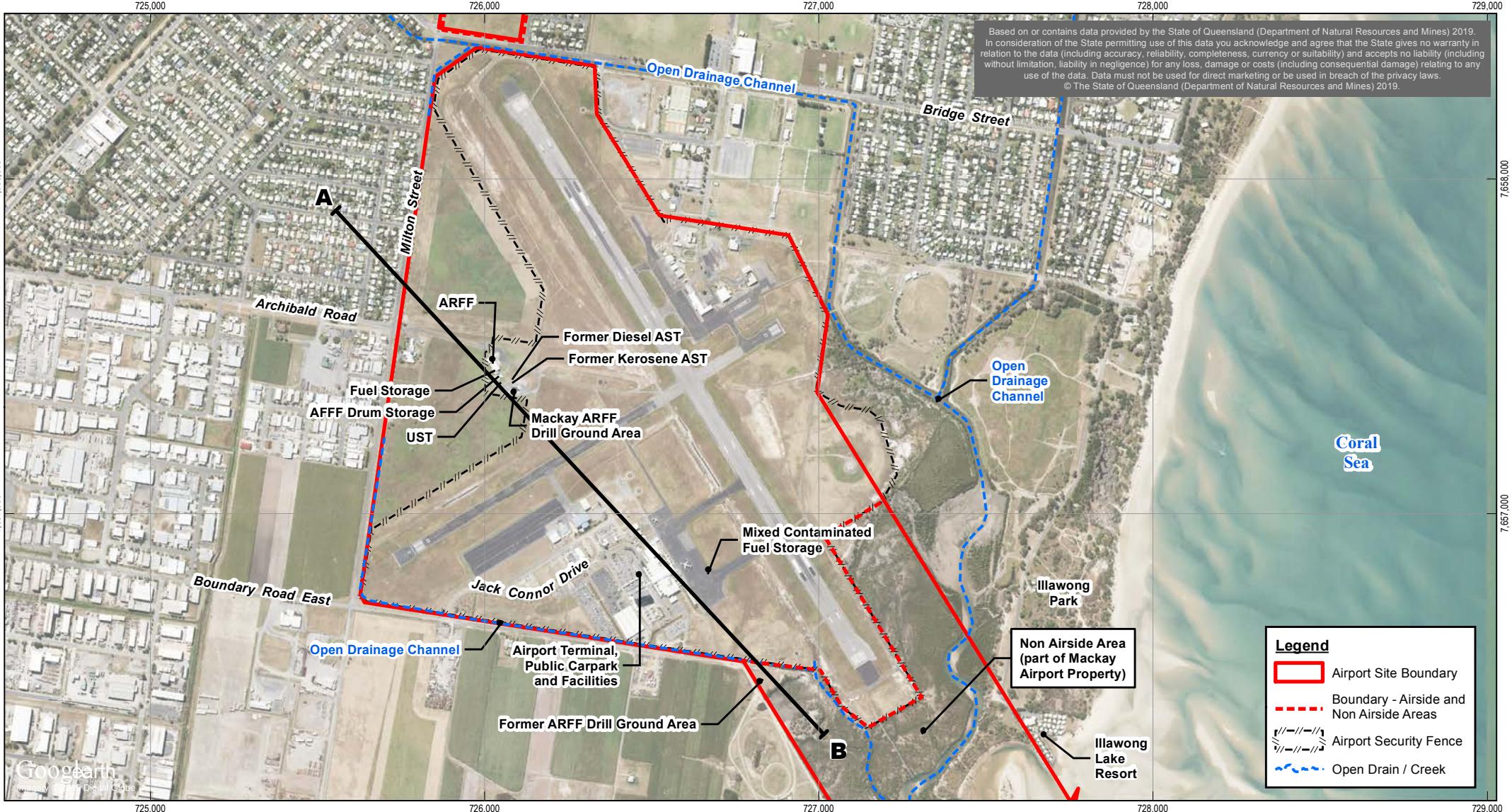


Airservices Australia Pty Ltd
Mackay Airport
Preliminary Site Investigation

Job Number 31-34249
Revision A
Date 19 Feb 2019

Locality Map

Figure 1



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0 200 400 600
metres



Map Projection: Universal Transverse Mercator
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Grid: GDA 1994 MGA Zone 55

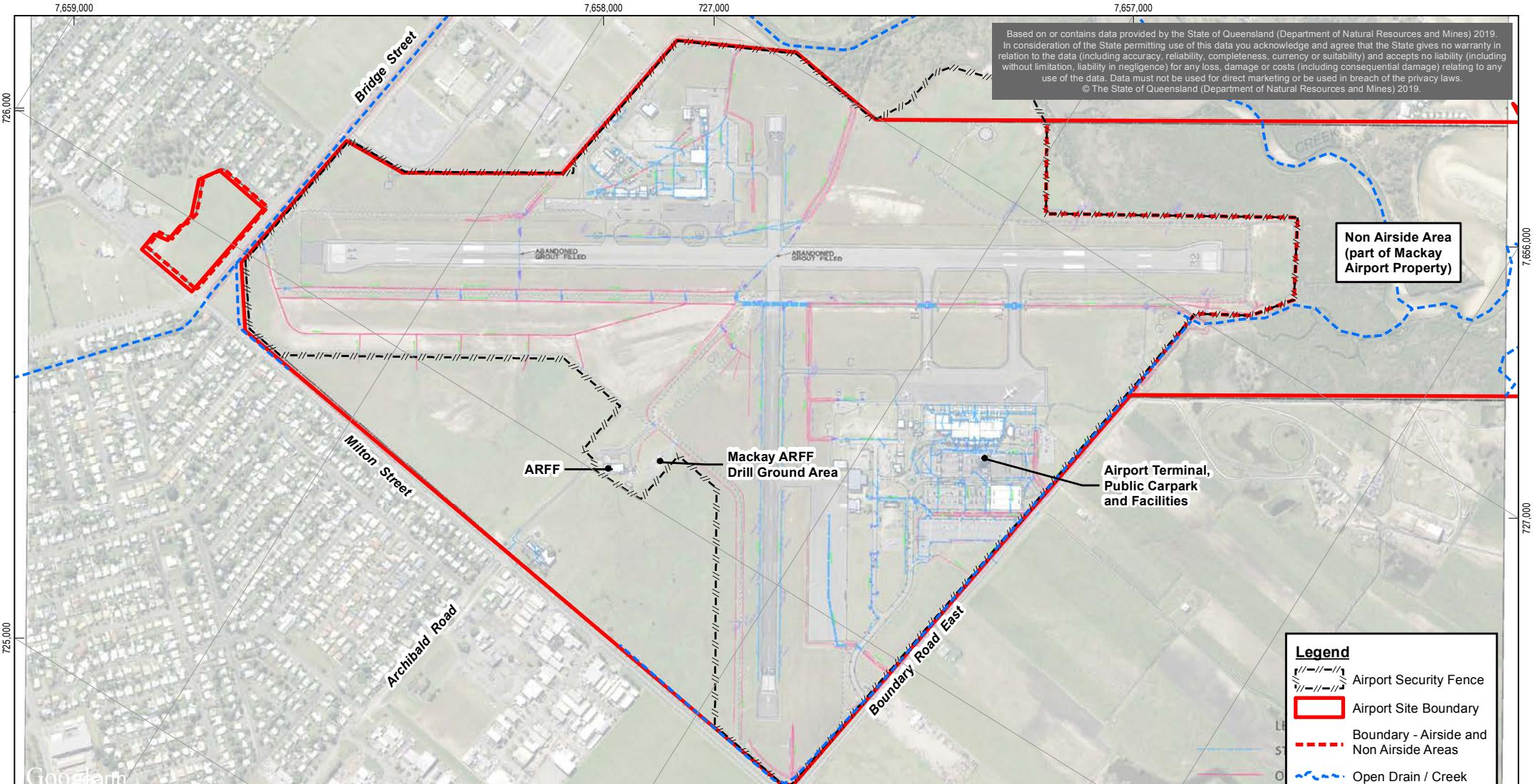


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Revision B
Date 19 Feb 2019

Site Detail

Figure 2



Google Earth

Imagery © 2010 DigitalGlobe

1:12,000 (at A4)

0 100 200 300 400

metres

Map Projection: Universal Transverse Mercator
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Grid: GDA 1994 MGA Zone 55

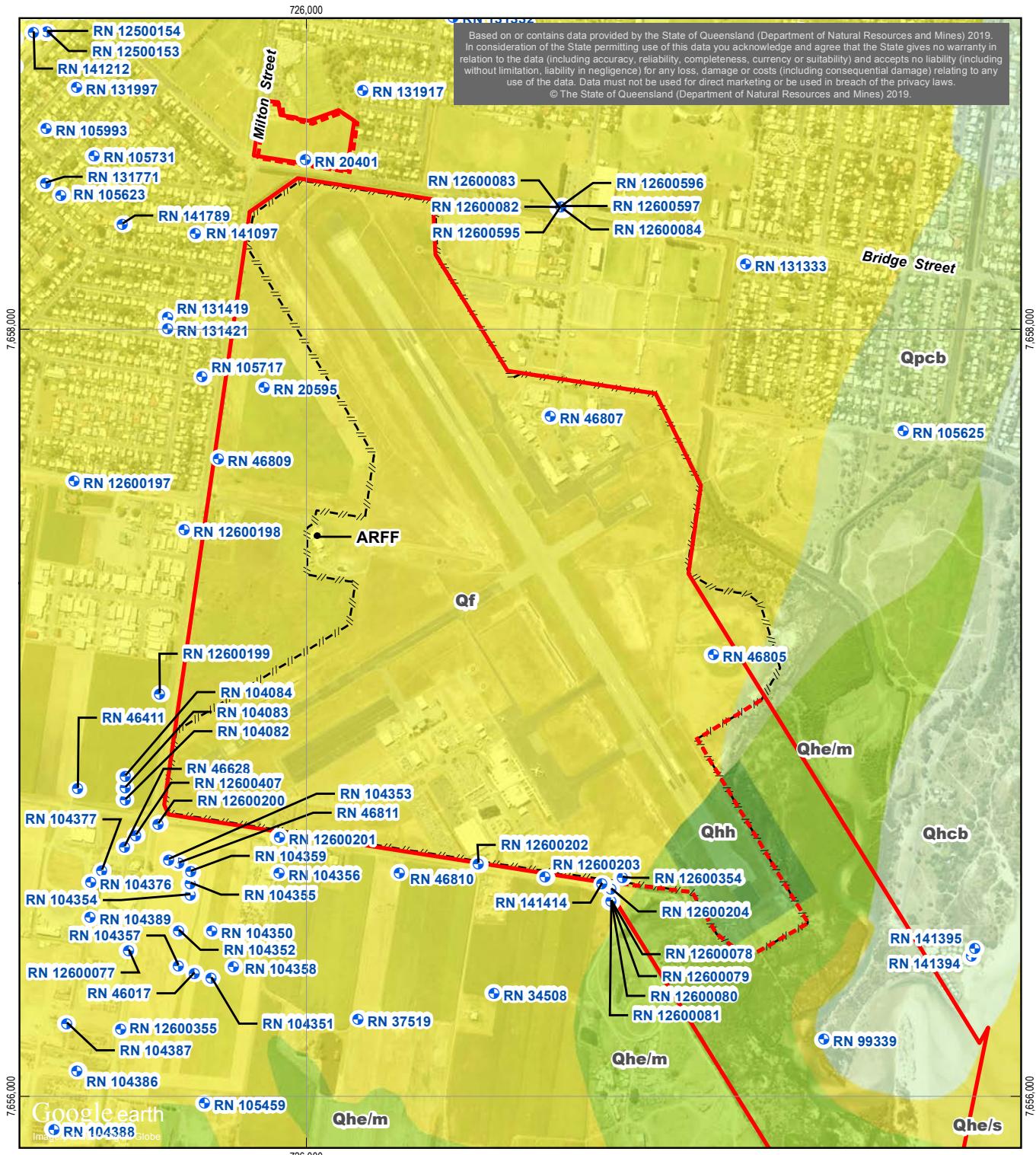


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Job Number 31-34249
Revision B
Date 19 Feb 2019

Stormwater Drainage

Figure 3



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Metres
Map Projection: Universal Transverse Mercator
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Grid: GDA 1994 MGA Zone 55

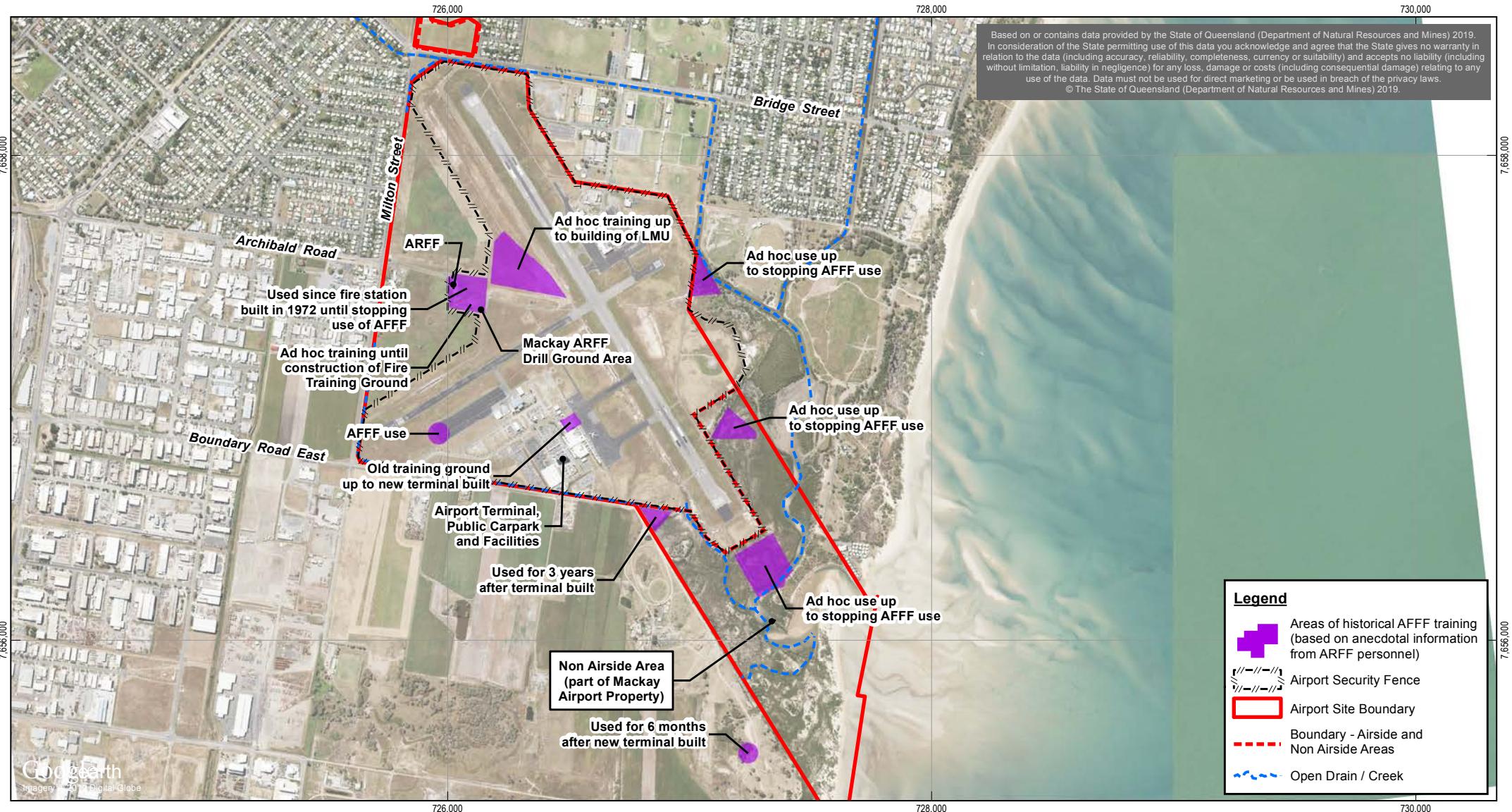


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Preliminary Site Investigation

Job Number 31-34249
Revision A
Date 19 Feb 2019

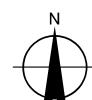
Geology and Hydrogeology

Figure 4



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metres

Map Projection: Universal Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55



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Mackay Airport
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Revision B
Date 19 Feb 2019

Historical Fire Training Locations

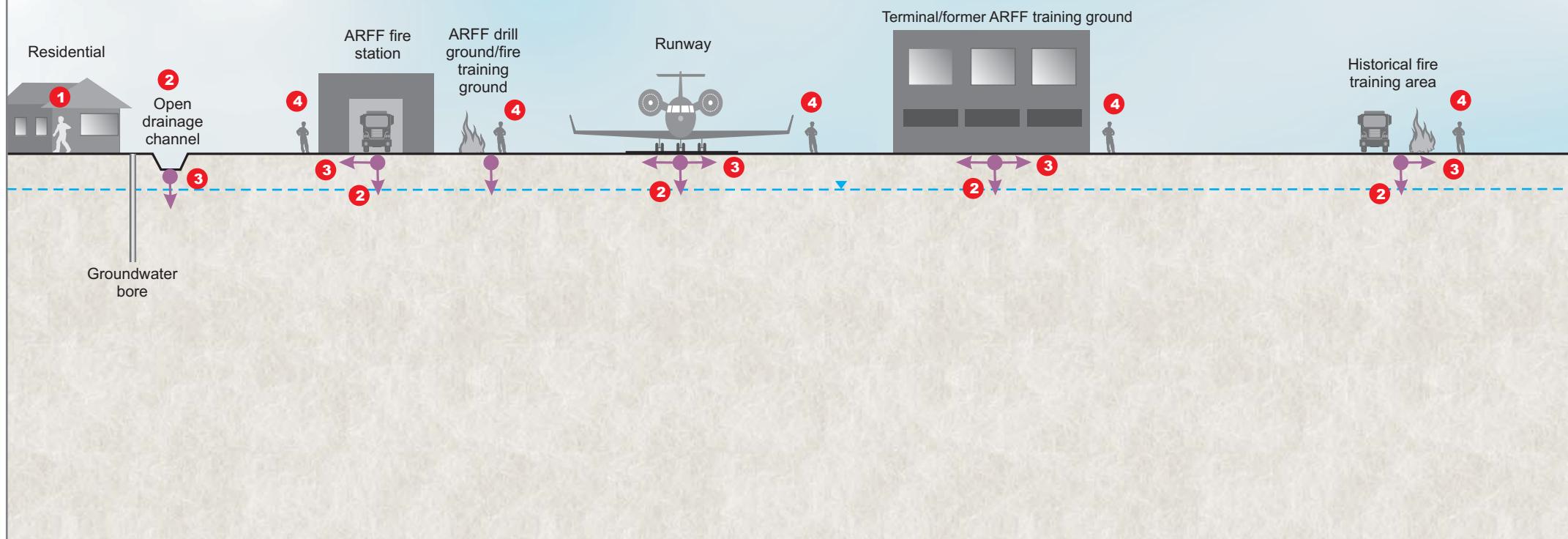
Figure 5

NORTH WEST
A

SOUTH EAST
B

PATHWAYS

- ① Residents exposure to possible impacted groundwater in a groundwater bore through dermal exposure or bioaccumulation in vegetable garden
- ② Migration of contaminants to groundwater and surface water
- ③ Migration of contaminants to surface water and biaccumulation in fauna
- ④ Site workers exposure to impacted soils, surface water and groundwater



LEGEND

Sandy silty/sandy clay

Possible sources of PFAS

Shallow water table

Migration of contaminants

NOTE

Conceptual diagram only -
not to scale



Airservices Australia
Preliminary Site Investigation
Mackay Airport
Conceptual Site Model
(Cross Section A-B)

Job Number | 31-34249
Revision | B
Date | 8 Nov 2017

Figure 6



Appendix B – Certificates of Title

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 20459053

Date Created: 12/02/1952

Previous Title: 20367019

REGISTERED OWNER

Dealing No: 711979861 10/10/2008

QUEENSLAND AIRPORT HOLDINGS (MACKAY) PTY LTD
A.C.N. 132 296 327

ESTATE AND LAND

Estate in Fee Simple

LOT 1	REGISTERED PLAN 711078	
	County of CARLISLE	Parish of HOWARD
	Local Government: MACKAY	
LOT 381	REGISTERED PLAN 711085	
	County of CARLISLE	Parish of HOWARD
	Local Government: MACKAY	

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1. Rights and interests reserved to the Crown by Conveyance No. 601556016 (N326903) (POR 381)
(POR 161)
2. LEASE No 708251802 29/11/2004 at 16:56
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OVER LEASE AR ON SP145080
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NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
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LEASE: 712292437
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
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over
LEASE: 712292437
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ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

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Title Reference: 20459053

Date Created: 12/02/1952

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over
SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

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Title Reference: 20502210

Date Created: 16/11/1954

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REGISTERED OWNER

Dealing No: 711979861 10/10/2008

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ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

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REGISTERED OWNER

Dealing No: 711979861 10/10/2008

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OVER LEASE AP ON SP145080
3. LEASE No 712292437 20/03/2009 at 12:49
NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
4. AMENDMENT OF LEASE No 712292447 20/03/2009 at 12:52
LEASE: 712292437
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
5. MORTGAGE No 712292453 20/03/2009 at 12:55
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
LEASE: 712292437
6. SUB LEASE No 712292466 20/03/2009 at 13:01
LEASE: 712292437
MACKAY AIRPORT PTY LTD A.C.N. 132 228 534
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 08/12/2107 OPTION NIL
7. MORTGAGE No 712292475 20/03/2009 at 13:03
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 21454213

Date Created: 10/12/1990

UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - NO

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Requested By: External Supervisor

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416
Search Date: 17/02/2010 10:38

Title Reference: 21454214
Date Created: 10/12/1990

Previous Title: 20842162

REGISTERED OWNER

Dealing No: 711979861 10/10/2008

QUEENSLAND AIRPORT HOLDINGS (MACKAY) PTY LTD
A.C.N. 132 296 327

ESTATE AND LAND

Estate in Fee Simple

LOT 1 REGISTERED PLAN 723311
County of CARLISLE Parish of HOWARD
Local Government: MACKAY

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Conveyance No. 601452491 (T572983R) (Lot 1 on RP 723311)
2. LEASE No 712292437 20/03/2009 at 12:49
NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
3. AMENDMENT OF LEASE No 712292447 20/03/2009 at 12:52
LEASE: 712292437
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
4. MORTGAGE No 712292453 20/03/2009 at 12:55
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
LEASE: 712292437
5. SUB LEASE No 712292466 20/03/2009 at 13:01
LEASE: 712292437
MACKAY AIRPORT PTY LTD A.C.N. 132 228 534
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 08/12/2107 OPTION NIL
6. MORTGAGE No 712292475 20/03/2009 at 13:03
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416
Search Date: 17/02/2010 10:38

Title Reference: 21454214
Date Created: 10/12/1990

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Requested By: External Supervisor

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 21454215

Date Created: 10/12/1990

Previous Title: 20842163

REGISTERED OWNER

Dealing No: 711979861 10/10/2008

QUEENSLAND AIRPORT HOLDINGS (MACKAY) PTY LTD
A.C.N. 132 296 327

ESTATE AND LAND

Estate in Fee Simple

LOT 2 REGISTERED PLAN 723311
County of CARLISLE Parish of HOWARD
Local Government: MACKAY

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Conveyance No. 601452491 (T572983R) (Lot 2 on RP 723311)
2. LEASE No 712292437 20/03/2009 at 12:49
NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
3. AMENDMENT OF LEASE No 712292447 20/03/2009 at 12:52
LEASE: 712292437
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
4. MORTGAGE No 712292453 20/03/2009 at 12:55
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
LEASE: 712292437
5. SUB LEASE No 712292466 20/03/2009 at 13:01
LEASE: 712292437
MACKAY AIRPORT PTY LTD A.C.N. 132 228 534
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 08/12/2107 OPTION NIL
6. MORTGAGE No 712292475 20/03/2009 at 13:03
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 21454215

Date Created: 10/12/1990

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Requested By: External Supervisor

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 21454216

Date Created: 10/12/1990

Previous Title: 20842164

REGISTERED OWNER

Dealing No: 711979861 10/10/2008

QUEENSLAND AIRPORT HOLDINGS (MACKAY) PTY LTD
A.C.N. 132 296 327

ESTATE AND LAND

Estate in Fee Simple

LOT 3 REGISTERED PLAN 723311
County of CARLISLE Parish of HOWARD
Local Government: MACKAY

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Conveyance No. 601452489 (T508827K) (Lot 3 on RP 723311)
2. LEASE No 712292437 20/03/2009 at 12:49
NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
3. AMENDMENT OF LEASE No 712292447 20/03/2009 at 12:52
LEASE: 712292437
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
4. MORTGAGE No 712292453 20/03/2009 at 12:55
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
LEASE: 712292437
5. SUB LEASE No 712292466 20/03/2009 at 13:01
LEASE: 712292437
MACKAY AIRPORT PTY LTD A.C.N. 132 228 534
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 08/12/2107 OPTION NIL
6. MORTGAGE No 712292475 20/03/2009 at 13:03
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - NO

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 21454216

Date Created: 10/12/1990

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CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50029456

Date Created: 10/11/1994

Previous Title: 20330211

REGISTERED OWNER

Dealing No: 711979861 10/10/2008

QUEENSLAND AIRPORT HOLDINGS (MACKAY) PTY LTD
A.C.N. 132 296 327

ESTATE AND LAND

Estate in Fee Simple

LOT 1 REGISTERED PLAN 842090
County of CARLISLE Parish of HOWARD
Local Government: MACKAY

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 10172063 (POR 161)
2. LEASE No 712292437 20/03/2009 at 12:49
NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
3. AMENDMENT OF LEASE No 712292447 20/03/2009 at 12:52
LEASE: 712292437
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
4. MORTGAGE No 712292453 20/03/2009 at 12:55
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
LEASE: 712292437
5. SUB LEASE No 712292466 20/03/2009 at 13:01
LEASE: 712292437
MACKAY AIRPORT PTY LTD A.C.N. 132 228 534
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 08/12/2107 OPTION NIL
6. MORTGAGE No 712292475 20/03/2009 at 13:03
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50029456

Date Created: 10/11/1994

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ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50029457

Date Created: 10/11/1994

Previous Title: 20495209

REGISTERED OWNER

Dealing No: 711979861 10/10/2008

QUEENSLAND AIRPORT HOLDINGS (MACKAY) PTY LTD
A.C.N. 132 296 327

ESTATE AND LAND

Estate in Fee Simple

LOT 2 REGISTERED PLAN 842090
County of CARLISLE Parish of HOWARD
Local Government: MACKAY

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 10172063 (POR 161)
2. LEASE NO 712292437 20/03/2009 at 12:49
NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
3. AMENDMENT OF LEASE NO 712292447 20/03/2009 at 12:52
LEASE: 712292437
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
4. MORTGAGE NO 712292453 20/03/2009 at 12:55
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
LEASE: 712292437
5. SUB LEASE No 712292466 20/03/2009 at 13:01
LEASE: 712292437
MACKAY AIRPORT PTY LTD A.C.N. 132 228 534
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 08/12/2107 OPTION NIL
6. MORTGAGE No 712292475 20/03/2009 at 13:03
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50029457

Date Created: 10/11/1994

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CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50029458

Date Created: 10/11/1994

Previous Title: 21078007

REGISTERED OWNER

Dealing No: 711979861 10/10/2008

QUEENSLAND AIRPORT HOLDINGS (MACKAY) PTY LTD
A.C.N. 132 296 327

ESTATE AND LAND

Estate in Fee Simple

LOT 3 REGISTERED PLAN 842090
County of CARLISLE Parish of HOWARD
Local Government: MACKAY

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 21078007 (POR 486)
2. LEASE No 708251802 29/11/2004 at 16:56
AIRSERVICES AUSTRALIA
3. LEASE No 712292437 20/03/2009 at 12:49
NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
4. AMENDMENT OF LEASE No 712292447 20/03/2009 at 12:52
LEASE: 712292437
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL
5. MORTGAGE No 712292453 20/03/2009 at 12:55
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
LEASE: 712292437
6. SUB LEASE No 712292466 20/03/2009 at 13:01
LEASE: 712292437
MACKAY AIRPORT PTY LTD A.C.N. 132 228 534
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 08/12/2107 OPTION NIL
7. MORTGAGE No 712292475 20/03/2009 at 13:03
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50029458

Date Created: 10/11/1994

UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

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Requested By: External Supervisor

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50227117

Date Created: 22/07/1998

Previous Title: 40015680

REGISTERED OWNER

Dealing No: 711979861 10/10/2008

QUEENSLAND AIRPORT HOLDINGS (MACKAY) PTY LTD
A.C.N. 132 296 327

ESTATE AND LAND

Estate in Fee Simple

LOT 405 CROWN PLAN 842088
County of CARLISLE Parish of HOWARD
Local Government: MACKAY

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 40015680 (Lot 405 on CP 842088)
2. SUB LEASE No 602821331 (L527071R) 15/06/1993
PETER GEOFFREY FORREST
MARY ELIZABETH FORREST
OVER LEASE T ON PLAN 91274MPA-3 (AIR CARGO FACILITY OFFICE)
TERM: 1/10/1992 TO 30/9/2002
3. AMENDMENT No 705994320 30/09/2002 at 15:34
SUB LEASE: 602821331 (L527071R)
TO TERMINATE ON 30.09.2012.
4. TRANSFER No 707833927 24/06/2004 at 13:11
SUB LEASE: 602821331 (L527071R)
PETER FORREST & CO PTY LTD A.C.N. 009 911 960
5. SUB LEASE No 708605316 22/04/2005 at 14:20
SUB LEASE: 602821331 (L527071R)
AUSTRALIAN AIR EXPRESS PTY LTD A.C.N. 054 307 336
6. SUB LEASE No 602821335 (L625136Y) 30/08/1993
HELIJET WHITSUNDAY PTY LTD
OVER LEASE BE ON PLAN 92608MPA-1 (AIR CHARTER OPERATORS'
TERMINAL)
TERM: 1/3/1993 TO 30/11/2007

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50227117

Date Created: 22/07/1998

EASEMENTS, ENCUMBRANCES AND INTERESTS

7. SUB LEASE No 602821337 (L646492V) 15/09/1993
GEOFFREY FRANK HUNT
BERIS AGNES HUNT
TRUSTEE
FOR THE
HUNT FAMILY TRUST
RONALD VICTOR HALL
BERYL MAVIS HALL
JOINT TENANTS INTER SE 1/4
BARRY JOHN DEAN
HELEN VALMAE DEAN
JOINT TENANTS INTER SE 1/4
LACABA CONSTRUCTIONS PTY. LTD.
PART-LOT AV ON PLAN 92363MPA-3
TERM 1.4.1993 TO 30.9.2002

8. CHANGE OF NAME No 701027637 28/11/1995 at 12:53
of
SUB LEASE: 602821337 (L646492V)
to
GEOFFREY FRANK HUNT
BERIS AGNES HUNT TRUSTEE 1/4
THE HUNT FAMILY TRUST
RONALD VICTOR HALL
BERYL MAVIS HALL JOINT TENANTS INTER SE 1/4
BARRY JOHN DEAN
HELEN VALMAE DEAN JOINT TENANTS INTER SE 1/4
TRANSLIFT AUSTRALIA PTY LTD TENANT IN COMMON 1/4

9. TRANSFER No 701146515 08/02/1996 at 09:17
of
SUB LEASE: 602821337 (L646492V)
to
GEOFFREY FRANK HUNT
BERIS AGNES HUNT TRUSTEE 1/4
FOR THE HUNT FAMILY TRUST
BARRY JOHN DEAN
HELEN VALMAE DEAN JOINT TENANTS INTER SE 1/4
ROSS ALEXANDER WALZ
STEVEN MICHAEL WALZ
JASON CHARLES WALZ JOINT TENANTS INTER SE 1/4
TRANSLIFT AUSTRALIA PTY LTD TENANT IN COMMON 1/4

10. TRANSFER No 703390644 11/06/1999 at 11:51
SUB LEASE: 602821337 (L646492V)
GEOFFREY FRANK HUNT
BERIS AGNES HUNT TRUSTEE 3/8
UNDER INSTRUMENT NO.703390644
BARRY JOHN DEAN
HELEN VALMAE DEAN JOINT TENANTS INTER SE 3/8
TRANSLIFT AUSTRALIA PTY LTD A.C.N. 010 165 693
TENANT IN COMMON 1/4

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50227117

Date Created: 22/07/1998

EASEMENTS, ENCUMBRANCES AND INTERESTS

11. TRANSFER No 704334054 27/09/2000 at 12:15
SUB LEASE: 602821337 (L646492V)
GEOFFREY FRANK HUNT
BERIS AGNES HUNT TRUSTEE 1/2
UNDER INSTRUMENT NO.703390644
BARRY JOHN DEAN
HELEN VALMAE DEAN JOINT TENANTS INTER SE 1/2
12. TRANSFER No 704517750 05/01/2001 at 12:30
SUB LEASE: 602821337 (L646492V)
GEOFFREY FRANK HUNT
BERIS AGNES HUNT TRUSTEE 1/2
UNDER INSTRUMENT NO.703390644
ROYLEN HOLDINGS PTY LTD A.C.N. 074 328 779
TENANT IN COMMON 1/2
13. SUB LEASE No 601044250 (L790083L) 07/01/1994 at 08:57
AUSTRALIAN AIRLINES LIMITED
OVER THE WHOLE OF SUB-LEASE L527069F
TERM: 02/10/1992 TO 29/09/2001
14. SUB LEASE No 602821339 (L965768D) 18/05/1994
AUSTRALIAN AIRLINES LIMITED
OVER LEASE D, E AND M WITHIN THE AIRPORT TERMINAL BUILDING
TERM: 1/4/1993 TO 30/9/2001
15. SUB LEASE No 602821340 (L965769F) 18/05/1994
PETER FORREST & CO. PTY. LTD.
OVER LEASE AU IN LOT 405 ON PLAN CI2522 ON PLAN 92528MPA-1
TERM: 1/10/1992 TO 30/9/2002
16. SUB LEASE No 704776356 22/05/2001 at 14:17
SUB LEASE: 602821340 (L965769F)
LEASE: 704198179
W T H PTY LTD A.C.N. 000 165 855
17. AMENDMENT OF LEASE No 711043371 28/09/2007 at 13:10
SUB LEASE: 704776356
TERM: 01/12/1998 TO 29/09/2012 OPTION NIL
18. AMENDMENT No 705994330 30/09/2002 at 15:35
SUB LEASE: 602821340 (L965769F)
TO TERMINATE ON 30.09.2012.
19. SUB LEASE No 700198570 31/08/1994 at 12:47
JURIS GOLD PTY. LTD.
OVER SUB-LEASE BG ON PLAN 93263MPA-1
TERM: 01/09/1993 TO 30/09/2013
20. TRANSFER No 702327323 11/11/1997 at 11:25
SUB LEASE: 700198570
HONORA NOMINEES PTY LTD A.C.N. 009 941 048

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50227117

Date Created: 22/07/1998

EASEMENTS, ENCUMBRANCES AND INTERESTS

21. AMENDMENT No 702327362 11/11/1997 at 11:29
SUB LEASE: 700198570
22. MORTGAGE No 706972781 10/09/2003 at 11:20
BANK OF QUEENSLAND LIMITED A.C.N. 009 656 740
over
SUB LEASE: 700198570
23. MORTGAGE No 706972791 10/09/2003 at 11:21
BANK OF QUEENSLAND LIMITED A.C.N. 009 656 740
over
SUB LEASE: 700198570
24. SUB LEASE No 707196280 14/11/2003 at 12:12
SUB LEASE: 700198570
HERTZ AUSTRALIA PTY LIMITED A.C.N. 004 407 087
THE WHOLE OF LEASE BG
25. SUB LEASE No 700275174 10/10/1994 at 11:56
NEW STAT. NOMINEES PTY. LTD.
OVER SUBLEASE F ON PLAN 91208MPA-4C
TERM: 01/07/1994 TO 30/06/1999
26. AMENDMENT No 703423326 30/06/1999 at 09:54
SUB LEASE: 700275174
TO TERMINATE ON 30/06/2000.
27. SUBSTITUTE DEALING No 700627937 02/05/1995 at 15:35
A SUBSTITUTE DUPLICATE SUBLEASE WAS ISSUED ON 17/08/1995
28. SUBSTITUTE DEALING No 700627942 02/05/1995 at 15:36
A SUBSTITUTE TRIPPLICATE SUBLEASE WAS ISSUED ON 17/08/1995
29. SUB LEASE No 700739279 06/07/1995 at 15:55
JES MORRIS PTY LTD
OVER PART (LOT X ON PLAN 91274MPA-3)
TERM: 01/06/1994 TO 30/09/1999
30. SUB LEASE No 701026682 28/11/1995 at 10:03
to
GAMMADELL PTY.LTD.
OF PART(LOT BT ON PLAN 94211MPA-1)
TERM:01/02/1995 TO 30/09/2000
31. SUB LEASE No 701066501 15/12/1995 at 16:11
to
FISHER CATERING SERVICES PTY.LTD.
OF PART OF THE GROUND FLOOR OF BUILDING
TERM:01/08/1994 TO 31/07/1999

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50227117

Date Created: 22/07/1998

EASEMENTS, ENCUMBRANCES AND INTERESTS

32. SUB LEASE No 701122109 24/01/1996 at 09:28
to
BUREAU OF METEOROLOGY
OF PART(LOT A ON CP886038)
TERM:01/09/1994 TO 29/09/2041
33. SUB LEASE No 701210079 14/03/1996 at 15:48
to
WHITSUNDAY HELICOPTER GROUP PTY LTD
OF PART(LOT CA ON PLAN 94211MPA-1)
TERM:01/06/1994 TO 30/09/1999
34. SUB LEASE No 701430928 09/07/1996 at 16:50
to
JURIS GOLD PTY LTD ACN 010 998 660
OVER PART OF THE LAND (LOTS AW & BH ON PLAN 94490MPA-2)
TERM: COMMENCING 01/01/1995
TERMINATING 30/09/1999
35. SUB LEASE No 702153787 14/08/1997 at 12:32
to
THE SHELL COMPANY OF AUSTRALIA LTD A.C.N. 004 610 459
OF PART OF THE LAND
36. SUB LEASE No 702506974 13/02/1998 at 17:35
to
GEOGAS SYSTEMS PTY LTD A.C.N. 071 343 292
OF PART, BEING AREA CF ON PLAN 97090MPA-1
37. LEASE No 704198179 17/07/2000 at 14:46
PETER FORREST & CO. PTY LTD A.C.N. 009 911 960
OF PART OF THE LAND (BLOCK BJ)
38. AMENDMENT No 705994324 30/09/2002 at 15:35
LEASE: 704198179
TO TERMINATE ON 30.09.2012 WITH A 1 X 10 YEAR OPTION PERIOD.
39. LEASE No 704198204 17/07/2000 at 14:49
HERTZ AUSTRALIA PTY LTD A.C.N. 004 407 087
OVER PART OF THE LAND (LEASES AW & BH)
40. LEASE No 704448476 28/11/2000 at 09:11
HYDRO PILOTS AUSTRALIA PTY LTD A.C.N. 072 711 785
OVER LEASE P ON SP136313
41. LEASE No 704907313 19/07/2001 at 11:59
BEATRICE JESSY MAHLBERG
OVER LEASE BT ON SP143340
42. LEASE No 704907401 19/07/2001 at 12:10
BP AUSTRALIA LTD A.C.N. 004 085 616
OVER LEASE CC ON SP143340

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50227117

Date Created: 22/07/1998

EAISEMENTS, ENCUMBRANCES AND INTERESTS

43. LEASE NO 705855384 07/08/2002 at 16:48
JF GARMENTS (QLD) PTY LTD A.C.N. 098 212 689
OF PART OF THE LAND [LEASE A].
44. LEASE NO 706164189 02/12/2002 at 16:43
TELSTRA CORPORATION LIMITED A.C.N. 074 196 991
OVER LEASE Q ON SP143341
45. LEASE NO 706240895 02/01/2003 at 13:12
HYDRO PILOTS AUSTRALIA PTY LTD A.C.N. 072 711 785
OVER LEASE A ON SP149599
46. MORTGAGE No 710522236 23/04/2007 at 09:51
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
LEASE: 706240895
47. AMENDMENT OF LEASE No 711137749 31/10/2007 at 10:53
LEASE: 706240895
TERM: 01/09/2002 TO 31/08/2027 OPTION NIL
48. LEASE No 706599836 13/05/2003 at 16:28
GEOFFREY FRANK HUNT
BERIS AGNES HUNT TRUSTEE
UNDER INSTRUMENT 706599836
OVER LEASE AV ON SP154139
49. LEASE No 707080068 13/10/2003 at 15:48
CHRISAIR MAINTENANCE PTY LTD A.C.N. 074 612 678
OVER LEASE F ON SP159344
50. LEASE NO 707082282 14/10/2003 at 12:08
CENTRAL QUEENSLAND HELICOPTER RESCUE SERVICE LIMITED A.C.N.
067 116 670
OVER LEASE H ON SP159345
51. LEASE No 707147096 31/10/2003 at 12:46
THE SHELL COMPANY OF AUSTRALIA LIMITED A.C.N. 004 610 459
OVER LEASE M ON SP163481
52. LEASE No 708251802 29/11/2004 at 16:56
AIRSERVICES AUSTRALIA
OVER LEASE AL ON SP145080
53. LEASE No 708492044 09/03/2005 at 12:02
HERTZ AUSTRALIA PTY LIMITED A.C.N. 004 407 087
OF PART OF THE GROUND FLOOR [LEASE 18]
54. LEASE No 708518780 18/03/2005 at 12:55
COMPASS GROUP (AUSTRALIA) PTY LTD A.C.N. 000 683 125
OF PART OF THE GROUND FLOOR [LEASES 16/17]

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50227117

Date Created: 22/07/1998

EASEMENTS, ENCUMBRANCES AND INTERESTS

55. LEASE NO 708680398 24/05/2005 at 10:10
W.T.H. PTY LTD A.B.N. 15 000 165 855
OVER LEASE A ON SP143342
56. LEASE NO 709235011 20/12/2005 at 12:16
BEATRICE JESSY MAHLBERG
OF LEASE P ON SP136313
TERM: 01/10/2005 TO 30/06/2010 OPTION NIL
57. LEASE NO 709379160 20/02/2006 at 16:07
GERALD NICHOLAS TURNER
ALLAN EDWARD CHINN TRUSTEE
UNDER INSTRUMENT 709379160
OF LEASE T ON SP170239
TERM: 01/01/2006 TO 30/09/2026 OPTION NIL
58. RECORD OF DEATH NO 712802686 19/10/2009 at 11:14
over
LEASE: 709379160
surviving joint tenant
ALLAN EDWARD CHINN TRUSTEE
59. LEASE NO 709379172 20/02/2006 at 16:10
BEATRICE JESSY MAHLBERG TENANT IN COMMON 1/2
PETER YET FOY TENANT IN COMMON 1/2
OF LEASE BT ON SP143340
TERM: 01/10/2005 TO 30/09/2010 OPTION NIL
60. LEASE NO 709513560 11/04/2006 at 15:58
WHITSUNDAY HELICOPTER GROUP PTY LTD A.C.N. 060 789 577
OF LEASE CA ON SP185787
TERM: 01/11/2005 TO 30/09/2010 OPTION NIL
61. LEASE NO 709752189 06/07/2006 at 15:46
THE SHELL COMPANY OF AUSTRALIA LIMITED A.C.N. 004 610 459
OVER LEASE M ON SP163481
TERM: 01.10.2005 TO 30.09.2008 OPTION ONE YEAR
62. LEASE NO 711535753 28/03/2008 at 14:55
CENTRAL QUEENSLAND HELICOPTER RESCUE SERVICE LIMITED A.C.N.
067 116 670
OF LEASE B ON SP143342
TERM: 01/10/2007 TO 30/09/2013 OPTION 5 YEARS
63. LEASE NO 712292437 20/03/2009 at 12:49
NORTH QUEENSLAND AIRPORTS NO. 3 (MACKAY) PTY LIMITED A.C.N.
134 250 454 TRUSTEE
UNDER INSTRUMENT 712292437
OF THE WHOLE OF THE LAND
TERM: 10/12/2008 TO 10/01/2107 OPTION NIL

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609416

Search Date: 17/02/2010 10:38

Title Reference: 50227117

Date Created: 22/07/1998

EASEMENTS, ENCUMBRANCES AND INTERESTS

64. AMENDMENT OF LEASE No 712292447 20/03/2009 at 12:52

LEASE: 712292437

TERM: 10/12/2008 TO 10/01/2107 OPTION NIL

65. MORTGAGE No 712292453 20/03/2009 at 12:55

WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141

over

LEASE: 712292437

66. SUB LEASE No 712292466 20/03/2009 at 13:01

LEASE: 712292437

MACKAY AIRPORT PTY LTD A.C.N. 132 228 534

OF THE WHOLE OF THE LAND

TERM: 10/12/2008 TO 08/12/2107 OPTION NIL

67. MORTGAGE No 712292475 20/03/2009 at 13:03

WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141

over

SUB LEASE: 712292466

ADMINISTRATIVE ADVICES - NIL

UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - NO

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

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Requested By: External Supervisor

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8732680

Search Date: 05/03/2010 08:47

Title Reference: 21144241

Date Created: 06/07/1981

Previous Title: 21023122

REGISTERED OWNER

Interest

Dealing No: 706549381 23/04/2003

JOHN DOUGLAS MANZELMANN
BRIAN HENRY MANZELMANN

1/2
1/2

AS TENANTS IN COMMON

ESTATE AND LAND

Estate in Fee Simple

LOT 2 REGISTERED PLAN 733682
County of CARLISLE Parish of HOWARD
Local Government: MACKAY

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 10356060 (POR 316)
Deed of Grant No. 10356063 (POR 346)
(POR 347)
Deed of Grant No. 10721068 (POR 550)
2. EASEMENT No 601517511 (N508628) 14/05/1964
BURDENING THE LAND
TO SUB 1 ON RP19357
OVER EASEMENT A, B AND C ON RP19357
3. EASEMENT No 601517512 (N654757) 27/09/1971
BURDENING THE LAND
TO SUB 1 ON RP19357
OVER EASEMENT D ON RP24736
4. LEASE No 702339205 17/11/1997 at 16:00
MOGOMINSTER PTY. LTD. A.C.N. 010 962 526
OF PART OF THE LAND AS SHOWN IN SKETCH
5. MORTGAGE No 703063416 14/12/1998 at 14:54
NATIONAL AUSTRALIA BANK LIMITED A.C.N. 004 044 937
over
LEASE: 702339205
6. AMENDMENT OF LEASE No 709334745 02/02/2006 at 12:09
LEASE: 702339205
TERM: 12.06.1997 TO 12.01.2009 OPTION THREE YEARS

CURRENT TITLE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8732680
Search Date: 05/03/2010 08:47

Title Reference: 21144241
Date Created: 06/07/1981

EASEMENTS, ENCUMBRANCES AND INTERESTS

7. SUB LEASE No 709776645 17/07/2006 at 13:51
LEASE: 702339205
EDM AUSTRALIA PTY LTD A.C.N. 111 413 917
OF PART OF THE LAND
TERM: 18/01/2006 TO 11/01/2009 OPTION 3 YEARS
8. MORTGAGE No 709847643 11/08/2006 at 11:29
NATIONAL AUSTRALIA BANK LIMITED A.B.N. 12 004 044 937
over
SUB LEASE: 709776645
9. AMENDMENT OF LEASE No 712366024 24/04/2009 at 15:50
SUB LEASE: 709776645
TERM: 18/01/2006 TO 11/01/2012 OPTION 3 YEARS
10. AMENDMENT OF LEASE No 712243100 25/02/2009 at 14:38
LEASE: 702339205
TERM: 12/06/1997 TO 12/01/2012 OPTION 3 YEARS

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

COPYRIGHT THE STATE OF QUEENSLAND (ENVIRONMENT AND RESOURCE MANAGEMENT) [2010]
Requested By: D APPLICATIONS CITEC CONFIRM

Appendix C – Site photographs



Photo 1	Photograph
Hose drying rack at ARFF fire station	A photograph showing a hose drying rack made of metal railings and wooden slats. A large red hose is coiled across the top of the rack. The rack is situated on a concrete surface next to a yellow building. In the foreground, a silver fire hydrant is visible.
Photo 2	Photo
Former fire training area	A photograph taken from inside a vehicle, looking through the windshield at a chain-link fence. A sign on the fence reads "GATE No. 13". Beyond the fence, there is a grassy field and some industrial buildings in the distance under a cloudy sky.



Photo 3	Photo
Fire training ground	A photograph showing a fire training ground. In the foreground, there is a paved area with some grassy patches. In the middle ground, there is a small wooden building with a corrugated metal roof, a green cylindrical tank, and a white rectangular container. To the right, a small aircraft is parked on a grassy field, and a few people are standing near it. A car is also visible. The background shows a flat, open landscape under a cloudy sky.
Photo 4	Photo
Rear of fire station – smoke hut	A photograph of the rear side of a concrete fire station. The building has a long, low profile with a prominent overhanging section on the right end. A yellow metal walkway or platform is attached to the roofline. There are several doors and windows on the building. It is situated in a grassy field with some dirt paths nearby. The sky is overcast.



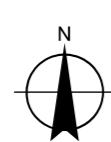
Photo 5	Photo
Water logged area adjacent to the fire station (control tower in background)	 A photograph showing a water-logged area in the foreground, likely a driveway or path, with a chain-link fence running along its edge. Beyond the fence is a grassy field. In the distance, a control tower is visible against a cloudy sky.
Photo 6	Photo
Fuel and foam storage unit at the fire station	 A photograph of a fuel and foam storage unit. The unit is housed under a metal canopy and sits on a concrete foundation. It contains several large white plastic drums. One drum is labeled "DIESEL". There are also smaller containers and equipment visible, including a pump and hoses.

Appendix D – Groundwater data search results



1:12,500 (at A3)
0 60 120 240 360 480
Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55



LEGEND

- Site boundary
- Groundwater well



Airservices Australia
Preliminary Site Investigation

Mackay Airport
Groundwater database search

Job Number | 31-34249
Revision | A
Date | 15/07/2016

Figure
D1

Appendix D
GW Bore Search - Bore Details

Mackay Airport
ASA PSI

Bore_Reg_Number	distance	easting	northing	zone	latitude	longitude
46807	369.258026	726636	7657776	55	-21.1673107	149.182739
46805	611.620483	727061	7657154	55	-21.1728725	149.186905
20595	754.08905	725890	7657851	55	-21.166729	149.175537
46809	780.624939	725770	7657664	55	-21.1684284	149.174423
12600198	811.62915	725703	7657461	55	-21.1700993	149.173584
12600202	848.280823	726459	7656581	55	-21.1778774	149.181091
12600203	882.549744	726640	7656554	55	-21.1781559	149.182755
46810	885.30011	726242	7656585	55	-21.1781139	149.179108
12600082	891.636108	726648	7658309	55	-21.1624203	149.182846
12600083	891.636108	726648	7658309	55	-21.1624317	149.182892
12600084	895.471741	726677	7658308	55	-21.1624603	149.182983
12600595	903.54834	726661	7658319	55	-21.162405	149.182907
12600596	904.698181	726662	7658320	55	-21.1623974	149.182907
12600597	905.848694	726663	7658321	55	-21.1623878	149.182922
105717	905.89624	725728	7657878	55	-21.1665039	149.173981
141414	908.339294	726770	7656556	55	-21.1783085	149.184189
12600354	925.956238	726824	7656555	55	-21.1781559	149.184692
12600204	941.136169	726794	7656529	55	-21.1784325	149.184418
12600201	963.213867	725944	7656651	55	-21.1773224	149.176086
12600080	965.835388	726800	7656505	55	-21.1787109	149.184418
12600199	967.061951	725631	7657033	55	-21.1739883	149.173035
12600081	969.656616	726800	7656501	55	-21.1787109	149.184418
12600078	972.523499	726800	7656498	55	-21.1787109	149.184418
12600079	973.479309	726800	7656497	55	-21.1787109	149.184418
131333	976.088623	727144	7658173	55	-21.163662	149.187576
104356	1014.91058	725932	7656596	55	-21.1781559	149.176086
131421	1048.07764	725638	7658003	55	-21.1653862	149.173096
131419	1064.59277	725639	7658034	55	-21.1651039	149.173096
105625	1086.0946	727555	7657737	55	-21.167551	149.191589
12600197	1110.02515	725415	7657584	55	-21.1689892	149.170807
20401	1139.94019	725998	7658444	55	-21.161356	149.176498
12600200	1140.44202	725639	7656696	55	-21.1770439	149.173035
104084	1141.55432	725531	7656847	55	-21.1759338	149.172195
141097	1150.15686	725711	7658251	55	-21.1631355	149.173767
34508	1155.76904	726489	7656272	55	-21.180912	149.181519
104083	1157.09827	725531	7656817	55	-21.1762104	149.172195
46811	1158.9574	725673	7656630	55	-21.1779575	149.173569
104359	1160.72375	725701	7656599	55	-21.1781559	149.173859
104082	1174.58728	725530	7656786	55	-21.1764889	149.172195
104353	1180.16846	725644	7656630	55	-21.1778774	149.173309
104355	1183.05017	725701	7656568	55	-21.1784325	149.173859
104354	1206.43457	725700	7656537	55	-21.1787109	149.173859
12600407	1211.07935	725569	7656670	55	-21.1773224	149.17247
104350	1241.05872	725757	7656444	55	-21.1795444	149.174423
131917	1252.45728	726147	7658625	55	-21.1597061	149.177917
46628	1255.9541	725526	7656652	55	-21.1775951	149.172195
46411	1256.64392	725415	7656818	55	-21.1762447	149.171005
104358	1284.58777	725813	7656351	55	-21.180378	149.174973
37519	1293.42102	726128	7656193	55	-21.181572	149.178116
104352	1295.19763	725670	7656445	55	-21.1795444	149.173584
141789	1306.20361	725520	7658275	55	-21.1629429	149.171936
104377	1330.88538	725470	7656602	55	-21.1781559	149.171646
104351	1341.76318	725755	7656321	55	-21.1806545	149.174423
12600555	1363.06482	727877	7657430	55	-21.1703491	149.194656
12600556	1363.06482	727877	7657430	55	-21.1703415	149.194656
104357	1366.9198	725669	7656353	55	-21.180378	149.173584
46017	1367.28027	725708	7656323	55	-21.1805439	149.173996
104376	1372.25183	725441	7656572	55	-21.1784325	149.171356
12600353	1377.87952	727879	7657615	55	-21.168726	149.194763
46134	1385.06604	727088	7658688	55	-21.1590233	149.186966
12600553	1391.35437	727905	7657399	55	-21.1704769	149.194931
12600554	1391.35437	727905	7657399	55	-21.1704693	149.194931
131332	1394.75439	726382	7658816	55	-21.1579514	149.180161
104389	1432.82727	725440	7656479	55	-21.179266	149.171356
12600077	1436.21716	725525	7656386	55	-21.1800251	149.172333
12600551	1449.36279	727963	7657398	55	-21.1706581	149.195541
12600552	1449.36279	727963	7657398	55	-21.1706486	149.195541
104380	1477.47876	725212	7656729	55	-21.1770439	149.169144
105623	1477.97974	725360	7658351	55	-21.1622791	149.17038
105731	1481.25354	725447	7658455	55	-21.1613312	149.171204
105978	1507.18298	726013	7658849	55	-21.1577034	149.17659
12600196	1517.39343	725014	7657657	55	-21.1684341	149.166916
63000	1522.23828	725189	7656678	55	-21.1774082	149.168945
99339	1524.83191	727348	7656151	55	-21.1818924	149.189804
131771	1527.95581	725320	7658381	55	-21.1620083	149.169998
105618	1533.08923	726603	7658958	55	-21.1566429	149.182266
104379	1533.26379	725182	7656668	55	-21.1776009	149.168869
85030	1536.13647	724986	7657269	55	-21.1720924	149.166916
104378	1548.85364	725182	7656637	55	-21.1778774	149.168869
46425	1551.54248	724978	7657208	55	-21.1726437	149.166855
141338	1555.73877	727288	7658777	55	-21.1581879	149.188873
104375	1564.90247	725182	7656606	55	-21.178	

Appendix D
GW Bore Search - Bore Details

Mackay Airport
ASA PSI

Bore_Reg_Number	distance	easting	northing	zone	latitude	longitude
131759	1746.90637	725038	7658362	55	-21.1622219	149.167282
105971	1751.00293	725754	7659005	55	-21.1563225	149.174088
20391	1755.17786	726698	7655682	55	-21.1862106	149.183609
12500155	1763.25793	725252	7658659	55	-21.1592674	149.169144
12500157	1767.89233	725107	7658498	55	-21.1609325	149.167755
12500156	1769.70105	725177	7658587	55	-21.160099	149.168579
12500153	1773.45911	725329	7658747	55	-21.1584339	149.169968
12500154	1775.46497	725326	7658747	55	-21.1584339	149.169968
12500152	1784.20557	725420	7658837	55	-21.1576004	149.170807
12500158	1795.12146	725007	7658403	55	-21.1617661	149.166916
131672	1795.52979	726065	7659166	55	-21.1548328	149.177063
46451	1804.78052	725915	7655725	55	-21.185915	149.176071
12500151	1810.08386	725484	7658916	55	-21.1570435	149.171356
104381	1811.9259	725148	7656237	55	-21.181488	149.168579
141212	1821.79138	725289	7658776	55	-21.1584492	149.169632
141211	1832.31885	725348	7658841	55	-21.157856	149.170197
12500150	1833.97681	725544	7658984	55	-21.1564884	149.171921
131309	1834.65039	724969	7656438	55	-21.1796017	149.166855
30946	1835.40491	725233	7656113	55	-21.1825962	149.169373
12500159	1836.08472	724863	7658231	55	-21.1631546	149.165527
131308	1836.57153	724968	7656436	55	-21.1796188	149.166855
131310	1837.65198	724968	7656434	55	-21.1796341	149.166855
141213	1842.04968	725240	7658758	55	-21.158617	149.169159
12500149	1854.20508	725611	7659047	55	-21.1559334	149.17247
12500160	1899.58142	724734	7658091	55	-21.1645451	149.164139
141214	1901.81934	725183	7658786	55	-21.1583748	149.168625
104388	1902.08179	725345	7655927	55	-21.184267	149.170532
12500277	1903.87964	725925	7659238	55	-21.1541996	149.17569
12500275	1904.21326	725927	7659239	55	-21.1541901	149.17572
12500276	1904.52161	725926	7659239	55	-21.1541901	149.175705
12500148	1904.84216	725731	7659164	55	-21.1548214	149.173584
141215	1913.18823	725217	7658834	55	-21.1579361	149.168945
131335	1922.66394	724651	7657903	55	-21.1664104	149.163605
12500147	1928.36108	725771	7659207	55	-21.1542664	149.174133
141216	1930.74072	725294	7658924	55	-21.1571102	149.169662
12500161	1947.70947	724656	7658012	55	-21.1653786	149.163589
12500146	1953.302	725819	7659253	55	-21.1539879	149.174423
104383	1965.10693	725173	7655991	55	-21.183712	149.168869
12600195	1972.01624	724567	7657741	55	-21.1678772	149.16275
12500145	1984.54236	725810	7659283	55	-21.1537113	149.174423
12500143	1988.78357	725858	7659305	55	-21.1534328	149.174973
131337	1988.8269	725124	7658850	55	-21.1578064	149.16803

RN	FACILITY TYPE	OFFICE	SHIRE_CODE	PARISH	DO_FILE	HO_FILE	FACILITY_STATUS	DRILLED_DATE	DRILLER_NAME	DRILLING_COMP	BASIN
20045	SF	MKY	4770	2381	MA1794	L13119B	AD	1/04/1955			1250
20391	SF	MKY	4770	2381	MA0731	L28772B	EX	10/09/1965			1260
20401	SF	MKY	4770	2381	MA1593	L29014B	AD	9/09/1965			1250
20595	SF	MKY	4770	2381	MA0663	L29942B	AD	25/05/1966			1250
30946	SF	MKY	4770	2381	MA1427	L27685B	EX	23/11/1970			1260
34508	SF	MKY	4770	2381	24-Apr	L28772B	EX	28/08/1970			1260
37519	SF	MKY	4770	2381	MA0665	L39553B	EX	19/08/1972			1260
46017	SF	MKY	4770	2381	MA1096	L42406B	EX	14/10/1976	FALTINSKY P	A.FALTINSKY	1260
46134	SF	MKY	4770	2381	MA1635	L10191B	EX	14/02/1975			1250
46411	SF	MKY	4770	2381	MA0665	L39553B	EX	5/09/1977			1260
46425	SF	MKY	4770	2381	MA0518	L28704B	AD	6/11/1976			1260
46451	SF	MKY	4770	2381	468187		EX	17/09/1976			1260
46628	SF	MKY	4770	2381	515/001/0956		EX	1/01/1978			1260
46805	SF	MKY	4770	2381	MKY706		AD				1250
46807	SF	MKY	4770	2381	MKY706		AD				1250
46809	SF	MKY	4770	2381	MKY706		AD				1250
46810	SF	MKY	4770	2381	MKY706		AD				1250
46811	SF	MKY	4770	2381	MKY706		AD				1260
63000	SF	MKY	4770	2381	MA1427	L27685B	EX				1260
81031	SF	MKY	4770	2381	MA3002		EX	26/06/1992			1250
85030	SF	MKY	4770	2381	MA0518		EX	9/03/1987			1260
99339	SF	MKY	4770	2381			AD				1260
104082	SF	MKY	4770	2381			AD	24/11/1976			1260
104083	SF	MKY	4770	2381			AD	23/11/1976			1260
104084	SF	MKY	4770	2381			AD	23/11/1976			1260
104350	SF	MKY	4770	2381			AD	13/11/1974			1260
104351	SF	MKY	4770	2381			AD	14/11/1974			1260
104352	SF	MKY	4770	2381			AD	15/11/1974			1260
104353	SF	MKY	4770	2381			AD	19/11/1974			1260
104354	SF	MKY	4770	2381			AD	20/11/1974			1260
104355	SF	MKY	4770	2381			AD	21/11/1974			1260
104356	SF	MKY	4770	2381			AD	22/11/1974			1260
104357	SF	MKY	4770	2381			AD	23/11/1974			1260
104358	SF	MKY	4770	2381			AD	23/11/1974			1260
104359	SF	MKY	4770	2381			AD	25/11/1974			1260
104375	SF	MKY	4770	2381			AD	21/10/1982			1260
104376	SF	MKY	4770	2381			AD	22/10/1982			1260
104377	SF	MKY	4770	2381			AD	26/10/1982			1260
104378	SF	MKY	4770	2381			AD	27/10/1982			1260
104379	SF	MKY	4770	2381			AD	28/10/1982			1260
104380	SF	MKY	4770	2381			AD	29/10/1982			1260
104381	SF	MKY	4770	2381			AD	3/09/1981			1260
104382	SF	MKY	4770	2381			AD	10/09/1981			1260
104383	SF	MKY	4770	2381			AD	14/09/1981			1260
104386	SF	MKY	4770	2381			AD	25/09/1981			1260
104387	SF	MKY	4770	2381			AD	29/09/1981			1260
104388	SF	MKY	4770	2381			AD	30/09/1981			1260
104389	SF	MKY	4770	2381			AD	21/10/1981			1260
105459	SF	MKY	4770	2381	520/000/0072		EX	5/05/2004	WRIGHT J	JJ & DM WRIGHT	1260
105618	SF	MKY	4770	2381	520/000/0072		EX	17/11/2004	BERNET, EBERHARD MARION	EMA DRILLING PTY LTD	1250
105623	SF	MKY	4770	2381	520/000/0072		EX	5/09/2004	THOMPSON, KEVIN	BACKYARD BORES	1250
105625	SF	MKY	4770	2381	520/000/0072		EX	14/10/2004	WRIGHT, JOSEPH JAMES		1250
105688	SF	MKY	4770	2381	520/000/0072		EX	30/06/2004	THOMPSON, KEVIN	BACKYARD BORES	1250
105689	SF	MKY	4770	2381	520/000/0072		EX	24/04/2004	BERNET, EBERHARD MARION	EMA DRILLING PTY LTD	1250
105717	SF	MKY	4770	2381	520/000/0072		EX	24/11/2004	WRIGHT, JOSEPH JAMES		1260
105721	SF	MKY	4770	2381	520/000/0072		EX	24/10/2004	THOMPSON, KEVIN	BACKYARD BORES	1250
105731	SF	MKY	4770	2381	520/000/0072		EX	23/08/2004	THOMPSON, KEVIN	BACKYARD BORES	1250
105971	SF	MKY	4770	2381	520/000/0072		EX	31/08/2004	THOMPSON, KEVIN	BACKYARD BORES	1250
105978	SF	MKY	4770	2381	520/000/0072		EX	14/01/2004	WRIGHT, JOSEPH JAMES		1250
105993	SF	MKY	4770	2381	520/000/0072		EX	6/12/2004	THOMPSON, KEVIN	BACKYARD BORES	1250
131308	SF	MKY	4770	2381	520/0000072		EX	15/07/2005	THOMPSON, KEVIN	BACKYARD BORES	1260
131309	SF	MKY	4770	2381	520/0000072		EX	15/07/2005	THOMPSON, KEVIN	BACKYARD BORES	1260
131310	SF	MKY	4770	2381	520/0000072		EX	15/07/2005	THOMPSON, KEVIN	BACKYARD BORES	1260
131332	SF	MKY	4770	2381	520/0000072		EX	10/10/2005	WRIGHT, JOSEPH JAMES		1250
131333	SF	MKY	4770	2381	520/0000072		EX	21/06/2005	WRIGHT, JOSEPH JAMES		1250
131335	SF	MKY	4770	2381	520/0000072		EX	23/12/2004	WRIGHT, JOSEPH JAMES		1250
131337	SF	MKY	4770	2381	520/0000072		EX	26/09/2005	WRIGHT, JOSEPH JAMES		1250
131419	SF	MKY	4770	2381	520/0000072		EX	29/11/2005	BERNET, EBERHARD MARION	EMA DRILLING PTY LTD	1260
131421	SF	MKY	4770	2381	520/0000072		EX	24/11/2005	BERNET, EBERHARD MARION	EMA DRILLING PTY LTD	1260
131672	SF	MKY	4770	2381	520/0000072		EX	19/01/2006	WRIGHT, JOSEPH JAMES		1250
131759	SF	MKY	4770	2381	520/0000072		EX	29/01/2006	WRIGHT, JOSEPH JAMES		1250
131771	SF	MKY	4770	2381	520/0000072		EX	3/09/2004	THOMPSON, KEVIN	BACKYARD BORES	1250
131917	SF										

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RN	FACILITY_TYPE	OFFICE	SHIRE_CODE	PARISH	DO_FILE	HO_FILE	FACILITY_STATUS	DRILLED_DATE	DRILLER_NAME	DRILLING_COMP	BASIN
12500152	SF	MKY	4770	2381			AD				1250
12500153	SF	MKY	4770	2381			AD				1250
12500154	SF	MKY	4770	2381			AD				1250
12500155	SF	MKY	4770	2381			AD				1250
12500156	SF	MKY	4770	2381			AD				1250
12500157	SF	MKY	4770	2381			AD				1250
12500158	SF	MKY	4770	2381			AD				1250
12500159	SF	MKY	4770	2381			AD				1250
12500160	SF	MKY	4770	2381			AD				1250
12500161	SF	MKY	4770	2381			AD				1250
12500275	SF	MKY	4770	2381	MAC/520/000(0072)		EX	16/10/2011	MATT, WILLIAM JOHARN	DNR-DERM	1250
12500276	SF	MKY	4770	2381	MAC/520/000(0072)		EX	16/10/2011	MATT, WILLIAM JOHARN	DNR	1250
12500277	SF	MKY	4770	2381	MAC/520/000(0072)		EX	16/10/2011	MATT, WILLIAM JOHARN	DNR	1250
12600077	SF	MKY	4770	2381	MKY721		EX	1/01/1968			1260
12600078	SF	MKY	4770	2381	MKY721		AD	31/12/1968			1260
12600079	SF	MKY	4770	2381	MKY721		AD	1/01/1968			1260
12600080	SF	MKY	4770	2381	MKY721		AD	1/01/1968			1260
12600081	SF	MKY	4770	2381	MKY721		AD	1/01/1968			1260
12600082	SF	MKY	4770	2381	MKY721		EX	20/04/1967			1250
12600083	SF	MKY	4770	2381	MKY721		EX	1/01/1968			1250
12600084	SF	MKY	4770	2381	MKY721		EX	1/01/1968			1250
12600195	SF	MKY	4770	2381			AD				1260
12600196	SF	MKY	4770	2381			AD				1260
12600197	SF	MKY	4770	2381			AD				1260
12600198	SF	MKY	4770	2381			AD				1260
12600199	SF	MKY	4770	2381			AD				1260
12600200	SF	MKY	4770	2381			AD				1260
12600201	SF	MKY	4770	2381			AD				1260
12600202	SF	MKY	4770	2381			AD				1260
12600203	SF	MKY	4770	2381			AD				1260
12600204	SF	MKY	4770	2381			AD				1260
12600353	SF	MKY	4770	2381			EX	4/08/1975			1250
12600354	SF	MKY	4770	2381			AD	29/06/1975			1260
12600355	SF	MKY	4770	2381			EX	1/01/1975			1260
12600407	SF	MKY	4770	2381			EX				1260
12600551	SF	MKY	4770	2381	520/000(0011)		EX	28/04/2004	BERNET B	EMA DRILLING	1260
12600552	SF	MKY	4770	2381	520/000(0011)		EX	4/05/2004	BERNET B	EMA DRILLING	1260
12600553	SF	MKY	4770	2381	520/000(0011)		EX	2/05/2004	BERNET B	EMA DRILLING	1260
12600554	SF	MKY	4770	2381	520/000(0011)		EX	3/05/2004	BERNET B	EMA DRILLING	1260
12600555	SF	MKY	4770	2381	520/000(0011)		EX	28/04/2004	BERNET B	EMA DRILLING	1260
12600556	SF	MKY	4770	2381	520/000(0011)		EX	30/04/2004	BERNET B	EMA DRILLING	1260
12600595	SF	MKY	4770	2381	MAC/520/000(0072)		EX	27/10/2011	MATT, WILLIAM JOHARN	DNR DERM	1250
12600596	SF	MKY	4770	2381	MAC/520/000(0072)		EX	27/10/2011	MATT, WILLIAM JOHARN	DNR-DERM	1250
12600597	SF	MKY	4770	2381	MAC/520/000(0072)		EX	28/10/2011	MATT, WILLIAM JOHARN	DNR-DERM	1250

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RN	METHOD_CONST	SUB_AREA	LOT	PLAN	DESCRIPTION	COUNTY	LAT	LNG	EASTING	NORTHING	ZONE
20045		PBN	97	RP740189	R2 S1 & S2 P96	CARLISLE	21/09/1954	149-09-58	724909	7658044	55
20391	PICK AND SHOVEL	PBS	3	SP156139	L3 RP28108	CARLISLE	21/11/2010	149-11-01	726698	7655682	55
20401	PERCUSSION DRILLER - UNKNOWN	PBN	13	RP800782	R2 S4 P153	CARLISLE	21/09/1941	149-10-36	725998	7658444	55
20595	CABLE TOOL/ PERCUSSION HAMMER	PBN	2	RP842090	S2 R2 S2 & R1 S2 P161	CARLISLE	21/10/2000	149-10-32	725890	7657851	55
30946		PBS	5	SP199187	L2 RP32682	CARLISLE	21/10/1957	149-10-10	725233	7656113	55
34508	CABLE TOOL/ PERCUSSION HAMMER	PBS	3	SP156139	L5 RP23311	CARLISLE	21/10/1951	149-10-54	726489	7656272	55
37519	PERCUSSION HAMMER - J MICHELM	PBS	4	RP858331	L1 RP707612	CARLISLE	21/10/1954	149-10-41	726128	7656193	55
46017	PERCUSSION HAMMER	PBS	2	RP837395	L2 RP27575	CARLISLE	21/10/1950	149-10-26	725708	7656323	55
46134	ROTARY RIG - N BLIESNER	PBN	2	RP723596	L2 RP723596	CARLISLE	21/09/1932	149-11-13	727088	7658688	55
46411	PERCUSSION HAMMER - W HOWLAN	PBS	1	RP740144	L237 PLAN K1241	CARLISLE	21/10/1934	149-10-16	725415	7656818	55
46425	PERCUSSION HAMMER / P FALTINSK	PBS	234	RP900238	L1 RP32033	CARLISLE	21/10/2021	149-10-01	724978	7657208	55
46451	PERCUSSION HAMMER / P FALTINSK	PBS	2	RP718493	S2 R2 S2 P314 & 315	CARLISLE	21/11/2009	149-10-34	725915	7655725	55
46628	ROTARY RIG	PBS	1	RP909285	L1 RP30300	CARLISLE	21/10/1939	149-10-20	725526	7656652	55
46805		PBN	443	RP724222	344	CARLISLE	21/10/2022	149-11-13	727061	7657154	55
46807		PBN	405	CP842088	405	CARLISLE	21/10/2002	149-10-58	726636	7657776	55
46809		PBN	2	RP842090	ROAD RESERVE	CARLISLE	21/10/2006	149-10-28	725770	7657664	55
46810		PBS	4	RP858331	313	CARLISLE	21/10/1941	149-10-45	726242	7656585	55
46811		PBS	2	RP837395	312	CARLISLE	21/10/1940	149-10-25	725673	7656630	55
63000	PERCUSSION HAMMER / W HOWLAND	PBS	7	SP214502	L2 RP32682	CARLISLE	21/10/1938	149-10-08	725189	7656678	55
81031	PERCUSSION DRILLER E M BERNET	PBN	91	CI3330	RESERVE 707 & L91 PLAN CI3330	CARLISLE	21/09/2026	149-10-24	725689	7658917	55
85030	PERCUSSION HAMMER / W HOWLAND	PBS	228	K1241	L1 RP32033	CARLISLE	21/10/2019	149-10-01	724986	7657269	55
99339		PBS	1	RP723311		CARLISLE	21/10/1954	149-11-23	727348	7656151	55
104082		PBS					21/10/1935	149-10-20	725530	7656786	55
104083		PBS					21/10/1934	149-10-20	725531	7656817	55
104084		PBS					21/10/1933	149-10-20	725531	7656847	55
104350		PBS					21/10/1946	149-10-28	725757	7656444	55
104351		PBS					21/10/1950	149-10-28	725755	7656321	55
104352		PBS					21/10/1946	149-10-25	725670	7656445	55
104353		PBS					21/10/1940	149-10-24	725644	7656630	55
104354		PBS					21/10/1943	149-10-26	725700	7656537	55
104355		PBS					21/10/1942	149-10-26	725701	7656568	55
104356		PBS					21/10/1941	149-10-34	725932	7656596	55
104357		PBS					21/10/1949	149-10-25	725669	7656353	55
104358		BSY					21/10/1949	149-10-30	725813	7656351	55
104359		BSY					21/10/1941	149-10-26	725701	7656599	55
104375		PBS					21/10/1941	149-10-08	725182	7656606	55
104376		PBS					21/10/1942	149-10-17	725441	7656572	55
104377		PBS					21/10/1941	149-10-18	725470	7656602	55
104378		PBS					21/10/1940	149-10-08	725182	7656637	55
104379		PBS					21/10/1939	149-10-08	725182	7656668	55
104380		PBS					21/10/1937	149-10-09	725212	7656729	55
104381		PBS					21/10/1953	149-10-07	725148	7656237	55
104382		BSY					21/10/1948	149-10-08	725179	7656391	55
104383		PBS					21/11/2001	149-10-08	725173	7655991	55
104386		PBS					21/10/1958	149-10-16	725405	7656080	55
104387		PBS					21/10/1954	149-10-15	725378	7656203	55
104388		PBS					21/11/2003	149-10-14	725345	7655927	55
104389		PBS					21/10/1945	149-10-17	725440	7656479	55
105459	AUGER	PBS	2	RP718493		CARLISLE	21/11/2001	149-10-27	725721	7655983	55
105618	CABLE TOOL		9	RP706930		CARLISLE	21/09/2024	149-10-56	726603	7658958	55
105623	AUGER		70	RP728853		CARLISLE	21/09/1944	149-10-13	725360	7658351	55
105625	AUGER		3	RP718962		CARLISLE	21/10/2003	149-11-30	727555	7657737	55
105688	AUGER		7	RP723008		CARLISLE	21/09/2024	149-10-28	725800	7658970	55
105689	CABLE TOOL		27	RP715394		CARLISLE	21/09/2019	149-10-48	726379	7659128	55
105717	AUGER		7	RP718400		CARLISLE	21/09/1959	149-10-26	725728	7657878	55
105721	HOUSE BORE		2	RP725680		CARLISLE	21/09/1940	149-10-06	725155	7658481	55
105731	AUGER		76	RP728853		CARLISLE	21/09/1941	149-10-16	725447	7658455	55
105971	AUGER		2	RP749011		CARLISLE	21/09/2023	149-10-27	725754	7659005	55
105978	AUGER		3	GTP70389		CARLISLE	21/09/2028	149-10-36	726013	7658849	55
105993	AUGER		37	RP726638		CARLISLE	21-96-26	149-10-12	725322	7658525	55
131308	AUGER		16	RP735536		CARLISLE	21/10/1947	149-10-01	724968	7656436	55
131309	AUGER		16	RP735536		CARLISLE	21/10/1947	149-10-01	724969	7656438	55
131310	AUGER		16	RP735536		CARLISLE	21/10/1947	149-10-01	724968	7656434	55
131332	AUGER		25	RP717445		CARLISLE	21/09/2029	149-10-49	726382	7658816	55

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RN	METHOD_CONST	SUB_AREA	LOT	PLAN	DESCRIPTION	COUNTY	LAT	LNG	EASTING	NORTHING	ZONE
12500152	HAND AUGER	CRN				CARLISLE	21/09/2027	149-10-15	725420	7658837	55
12500153	HAND AUGER	PBN				CARLISLE	21/09/1930	149-10-12	725329	7658747	55
12500154	HAND AUGER	PBN				CARLISLE	21/09/1930	149-10-12	725326	7658747	55
12500155	HAND AUGER	CRN				CARLISLE	21/09/1933	149-10-09	725252	7658659	55
12500156	HAND AUGER	PBN				CARLISLE	21/09/1936	149-10-07	725177	7658587	55
12500157	HAND AUGER	PBN				CARLISLE	21/09/1939	149-10-04	725107	7658498	55
12500158	HAND AUGER	PBN				CARLISLE	21/09/1942	149-10-01	725007	7658403	55
12500159	HAND AUGER	PBN				CARLISLE	21/09/1947	149-09-56	724863	7658231	55
12500160	HAND AUGER	PBN				CARLISLE	21/09/1952	149-09-51	724734	7658091	55
12500161	HAND AUGER	PBN				CARLISLE	21/09/1955	149-09-49	724656	7658012	55
12500275	ROTARY MUD				SWI-8 PENN ST	CARLISLE	21/09/2015	149-10-33	725927	7659239	55
12500276	ROTARY MUD				SWI-08 PENN ST	CARLISLE	21/09/2015	149-10-33	725926	7659239	55
12500277	ROTARY MUD				SWI-08 PENN ST	CARLISLE	21/09/2015	149-10-33	725925	7659238	55
12600077	CABLE TOOL/ PERCUSSION HAMMER	PBS	4	RP903214		CARLISLE	21/10/1948	149-10-20	725525	7656386	55
12600078	CABLE TOOL/ PERCUSSION HAMMER	PBS				CARLISLE	21/10/1943	149-11-04	726800	7656498	55
12600079	CABLE TOOL/ PERCUSSION HAMMER	PBS				CARLISLE	21/10/1943	149-11-04	726800	7656497	55
12600080	CABLE TOOL/ PERCUSSION HAMMER	PBN				CARLISLE	21/10/1943	149-11-04	726800	7656505	55
12600081	CABLE TOOL/ PERCUSSION HAMMER	PBN				CARLISLE	21/10/1943	149-11-04	726800	7656501	55
12600082	CABLE TOOL/ PERCUSSION HAMMER	PBN				CARLISLE	21/09/1945	149-10-58	726648	7658309	55
12600083	CABLE TOOL/ PERCUSSION HAMMER	PBN				CARLISLE	21/09/1945	149-10-58	726648	7658309	55
12600084	CABLE TOOL/ PERCUSSION HAMMER	PBN				CARLISLE	21/09/1945	149-10-59	726677	7658308	55
12600195	ROTARY RIG	PBN				CARLISLE	21/10/2004	149-09-46	724567	7657741	55
12600196	ROTARY RIG	PBN				CARLISLE	21/10/2006	149-10-01	725014	7657657	55
12600197		PBN				CARLISLE	21/10/2008	149-10-15	725415	7657584	55
12600198	ROTARY RIG	PBN				CARLISLE	21/10/2012	149-10-25	725703	7657461	55
12600199	ROTARY RIG	PBS				CARLISLE	21/10/2026	149-10-23	725631	7657033	55
12600200	ROTARY RIG	PBS				CARLISLE	21/10/1937	149-10-23	725639	7656696	55
12600201	ROTARY RIG	PBS				CARLISLE	21/10/1938	149-10-34	725944	7656651	55
12600202	ROTARY RIG	PBS				CARLISLE	21/10/1940	149-10-52	726459	7656581	55
12600203	CABLE TOOL/PERCUSSION HAMMER	PBS				CARLISLE	21/10/1941	149-10-58	726640	7656554	55
12600204	ROTARY RIG	PBS				CARLISLE	21/10/1942	149-11-04	726794	7656529	55
12600353	ROTARY RIG	PBN	558	SP154088		CARLISLE	21/10/2007	149-11-41	727879	7657615	55
12600354		PBN				CARLISLE	21/10/1941	149-11-05	726824	7656555	55
12600355	ROTARY RIG	PBS				CARLISLE	21/10/1955	149-10-20	725522	7656171	55
12600407		PBS				CARLISLE	21/10/1938	149-10-21	725569	7656670	55
12600551	CABLE TOOL		447	SP154088		CARLISLE	21/10/2014	149-11-44	727963	7657398	55
12600552	CABLE TOOL		447	SP154088		CARLISLE	21/10/2014	149-11-44	727963	7657398	55
12600553	CABLE TOOL		447	SP154088		CARLISLE	21/10/2014	149-11-42	727905	7657399	55
12600554	CABLE TOOL		447	SP154088		CARLISLE	21/10/2014	149-11-42	727905	7657399	55
12600555	CABLE TOOL		447	SP154088		CARLISLE	21/10/2013	149-11-41	727877	7657430	55
12600556	CABLE TOOL		447	SP154088		CARLISLE	21/10/2013	149-11-41	727877	7657430	55
12600595	ROTARY MUD				REPL-02	CARLISLE	21/09/1945	149-10-58	726661	7658319	55
12600596	ROTARY MUD				REPL-02	CARLISLE	21/09/1945	149-10-58	726662	7658320	55
12600597	ROTARY MUD				REPL-02	CARLISLE	21/09/1945	149-10-59	726663	7658321	55

Appendix D
GW Bore Search - Bore Registration

Mackay Airport
ASA

RN	ACCURACY	GIS_LAT	GIS_LNG	CHECKED	MAP_SCALE	MAP_SERIES	MAP_NO	EQUIPMENT	ORIG_NAME_NO	DATA_OWNER	BORE LINE CODE
12500152		-21.15759996	149.1708061	N			K249960	NE	B3L23	DNR	PIS
12500153		-21.15843329	149.1699728	N		N	K249960	NE	B2AL23	DNR	PIS
12500154		-21.15843329	149.1699728	N			K249960	NE	B2L23	DNR	PIS
12500155		-21.15926663	149.1691395	N			K249960	NE	B1L23	DNR	PIS
12500156		-21.16009997	149.1685839	N			K249960	NE	B26L23	DNR	PIS
12500157		-21.16093331	149.1677507	N			K249960	NE	B27L23	DNR	PIS
12500158		-21.16176665	149.1669173	N			K249960	NE	B28L23	DNR	PIS
12500159		-21.16315555	149.1655284	N			K249960	NE	B29L23	DNR	PIS
12500160		-21.16454445	149.1641396	N			K249960	NE	B30L23	DNR	PIS
12500161		-21.16537778	149.1635841	N			K249960	NE	B31L23	DNR	PIS
12500275	GPS	-21.15419028	149.1757163	Y				NE			
12500276	GPS	-21.1541904	149.1757066	Y				NE			
12500277	GPS	-21.15419955	149.1756971	Y				NE			
12600077	GPS	-21.18002567	149.1723293	Y		M	K2-53400	NE	C45	DNR	
12600078		-21.17871093	149.1844171	N		M	K249960	NE	C43	DNR	
12600079		-21.17871093	149.1844171	N		M	K249960	NE	C43A	DNR	
12600080		-21.17871093	149.1844171	N		M	K249960	NE	C43B	DNR	
12600081		-21.17871093	149.1844171	N		M	K249960	NE	C43C	DNR	
12600082	GPS	-21.16241988	149.1828523	Y		M	K2-53400	NE	C1A	DNR	
12600083	GPS	-21.16243081	149.1828895	Y		M	K2-53400	NE	C1B	DNR	
12600084	GPS	-21.16246099	149.18298	Y		M	K2-53400	NE	C1C	DNR	
12600195		-21.16787779	149.1627508	N		N	K249960	NE	B41L17E	DNR	PIQ
12600196		-21.16843331	149.1669173	N		N	K249960	NE	B40L17E	DNR	PIQ
12600197		-21.16898884	149.1708062	N		N	K249960	NE	B39L17E	DNR	PIQ
12600198		-21.17009992	149.1735839	N			K249960	NE	B38L17E	DNR	PIQ
12600199		-21.17398881	149.1730284	N			K249960	NE	B37L17E	DNR	PIQ
12600200		-21.17704436	149.1730284	N			K249960	NE	B36L17E	DNR	PIQ
12600201		-21.17732211	149.1760839	N			K249960	NE	B35L17E	DNR	PIQ
12600202		-21.17787762	149.1810839	N			K249960	NE	B34L17E	DNR	PIQ
12600203		-21.17815539	149.1827505	N			K249960	NE	B49L17E	DNR	PIQ
12600204		-21.17843315	149.1844171	N			K249960	NE	B33L17E	DNR	PIQ
12600353	GPS	-21.1687264	149.1947615	Y		M	K2-53400	NE		DNR	
12600354		-21.17815537	149.1846949	N		M	K249960	NE		DNR	
12600355	GPS	-21.18188373	149.172167	Y		M	K2-53400	NE		DNR	
12600407		-21.17732215	149.1724729	N				C45 P		DNR	
12600551	GPS	-21.17065837	149.1955476	Y							
12600552	GPS	-21.17064872	149.1955468	Y							
12600553	GPS	-21.17047669	149.1949342	Y							
12600554	GPS	-21.17046945	149.1949334	Y							
12600555	GPS	-21.17034967	149.1946497	Y							
12600556	GPS	-21.17034083	149.1946497	Y							
12600595	GPS	-21.16240585	149.1829028	Y				NE			
12600596	GPS	-21.16239669	149.1829122	Y				NE			
12600597	GPS	-21.16238754	149.1829217	Y				NE			

RN	DRILLER_LICENCE NUMBER	LOG_RECEIVED DATE
20045		
20391		
20401		
20595		
30946		
34508		
37519		
46017		
46134		
46411		
46425		
46451		
46628		
46805		
46807		
46809		
46810		
46811		
63000		
81031		
85030		
99339		
104082		
104083		
104084		
104350		
104351		
104352		
104353		
104354		
104355		
104356		
104357		
104358		
104359		
104375		
104376		
104377		
104378		
104379		
104380		
104381		
104382		
104383		
104386		
104387		
104388		
104389		
105459		
105618	2881	18/03/2005
105623	3161	21/03/2005
105625	2766	21/03/2005
105688	3161	12/07/2004
105689	2881	28/06/2004
105717	2766	1/12/2004
105721	3161	16/11/2004
105731	3161	20/09/2004
105971	3161	20/09/2004
105978	2766	2/02/2004
105993	3161	15/02/2005
131308	3161	3/08/2005
131309	3161	3/08/2005
131310	3161	3/08/2005
131332	2766	24/11/2005
131333	2766	24/06/2005
131335	2766	25/02/2005
131337	2766	24/11/2005
131419	2881	8/12/2005
131421	2881	8/12/2005
131672	2766	24/01/2006
131759	2766	28/02/2006
131771	3161	20/09/2004
131917	3161	19/05/2006
131997	3161	15/11/2006
141066	2881	5/02/2007
141093	3161	2/03/2007
141097	3161	2/02/2007
141211	3161	15/11/2007
141212	3161	15/11/2007
141213	3161	15/11/2007
141214	3161	15/11/2007
141215	3161	15/11/2007
141216	3161	
141338	2766	21/07/2008
141394	3161	25/09/2008
141395	3161	25/09/2008
141414	3161	18/08/2008
141789	3161	15/11/2006
12500143		
12500145		
12500146		
12500147		
12500148		
12500149		
12500150		
12500151		

RN	DRILLER_LICENCE NUMBER	LOG_RECEIVED DATE
12500152		
12500153		
12500154		
12500155		
12500156		
12500157		
12500158		
12500159		
12500160		
12500161		
12500275	3106	
12500276	3106	
12500277	3106	
12600077		
12600078		
12600079		
12600080		
12600081		
12600082		
12600083		
12600084		
12600195		
12600196		
12600197		
12600198		
12600199		
12600200		
12600201		
12600202		
12600203		
12600204		
12600353		
12600354		
12600355		
12600407		
12600551		
12600552		
12600553		
12600554		
12600555		
12600556		
12600595	3106	
12600596	3106	
12600597	3106	

Appendix D
GW Bore Search - Aquifer

Mackay Airport
ASA

RN	REC	CONDITION	TOP	BOTTOM	CONTR	FLOW	QUALITY	YIELD	SWL	RDATE	FORM_DESC
20595	1	UC	8	10							ALLUVIUM
20595	2	UC	20	21							ALLUVIUM
30946	1	UC	14	18							BAKERS CREEK ALLUVIUM
34508	1	UC	6	19							PIONEER RIVER ALLUVIUM
37519	1	UC	6.4	10.7							BAKERS CREEK ALLUVIUM
46017	1	UC	12.2	18.9	Y	N	3556US/SM	25.2	-4.27	14/10/1976	PIONEER RIVER ALLUVIUM
46134	1	UC	7	12							PIONEER RIVER ALLUVIUM
46411	1	UC	9	12							BAKERS CREEK ALLUVIUM
46425	1	UC	3.6	12.5							PIONEER RIVER ALLUVIUM
46451	1	UC	11	15							ALLUVIUM
46628	1	UC	6.1	19.2							ALLUVIUM ALUV
63000	1	UC	8	11.5							BAKERS CREEK ALLUVIUM
81031	1	UC	4	9.7							PIONEER RIVER ALLUVIUM
85030	1	UC	9.7	12.8							PIONEER RIVER ALLUVIUM
105459	1	UC	7.92	9.75	N	N	GOOD	1.01	-2.44	5/05/2004	CAMPWYN VOLCANICS
105618	1	UC	10.8	13.4	N	N	POT	1.13	-4	17/11/2004	PIONEER RIVER ALLUVIUM
105623	1	UC	6	11	N	N	POT	0.18	-6	5/09/2004	QUATERNARY - UNDEFINED
105625	1	UC	12.19	15.24	N	N		0.51	-3.05	14/10/2004	PIONEER RIVER ALLUVIUM
105688	1	UC	14	18	Y	N	620 PPM	0.18	-7	30/06/2004	PIONEER RIVER ALLUVIUM
105689	1	UC	12	15.2	Y	N	520 PPM	1.13	-3.6	24/04/2004	PIONEER RIVER ALLUVIUM
105717	1	UC	8.53	9.45	Y	N		0.91	-4.27	24/11/2004	PIONEER RIVER ALLUVIUM
105721	1	UC	9	12	Y	N	190 PPM	0.18	-7	24/10/2004	QUATERNARY - UNDEFINED
105731	1	UC	13	16	Y	N	640 PPM	0.18	-8	23/08/2004	QUATERNARY - UNDEFINED
105971	1	UC	3	6	Y	N	190 PPM	0.2	-3	31/08/2004	PIONEER RIVER ALLUVIUM
105978	1	UC	6.1	7.32	Y	N	POT	1.14	-5.18	14/01/2004	TERTIARY - UNDEFINED
105993	1	UC	6	10	Y	N	270 PPM	0.18	-6	6/12/2004	PIONEER RIVER ALLUVIUM
131308	1	SC	4	6	Y	N					-4 15/07/2005 TERTIARY - UNDEFINED
131309	1	SC	4	6	Y	N					-4 15/07/2005 TERTIARY - UNDEFINED
131332	1	SC	3.05	6.71	Y	N		0.3	-3.05	10/10/2005	TERTIARY - UNDEFINED
131333	1	SC	2.44	8.84	Y	N		0.38	-2.44	21/06/2005	TERTIARY - UNDEFINED
131335	1	UC	8.53	11.89	Y	N	POT	1.14	-1.86	23/12/2004	PIONEER RIVER ALLUVIUM
131337	1	SC	4.88	6.1	Y	N	POT	0.38	-4.57	26/09/2005	PIONEER RIVER ALLUVIUM
131419	1	UC	17	17.7	Y	N	POT	0.56	-4.1	29/11/2005	QUATERNARY - UNDEFINED
131421	1	UC	10	12.8	Y	N	220 PPM	1.13	-2.7	24/11/2005	QUATERNARY - UNDEFINED
131672	1	SC	4.57	6.1	Y	N		0.63	-3.66	19/01/2006	QUATERNARY - UNDEFINED
131759	1	SC	7.62	10.06	Y	N	POT	0	-1.76	29/01/2006	PIONEER RIVER ALLUVIUM
131771	1	UC	5	9	Y	N	360 PPM	0.2	-5	3/09/2004	QUATERNARY - UNDEFINED
131917	1	UC	4	7	Y	N	460 PPM	0.5	-4	5/04/2006	PIONEER RIVER ALLUVIUM
131997	1	UC	5.5	7	Y	N	540 PPM	0.5	-5.5	1/09/2006	PIONEER RIVER ALLUVIUM
141066	1	UC	13	15.2	Y	N		1.14	-3.5	25/10/2006	PIONEER RIVER ALLUVIUM
141093	1	UC	5	7.8	Y	N	280 PPM	0.1	-4	16/12/2006	PIONEER RIVER ALLUVIUM
141097	1	UC	11	12	Y	N	520 PPM	0.1	-6	12/01/2007	PIONEER RIVER ALLUVIUM
141211	1	UC	3	4	N				-2.5	7/06/2007	
141212	1	UC	3	4	Y	N			-2.5	7/06/2007	
141213	1	UC	3	4	Y	N			-2.5	7/06/2007	
141214	1	UC	3	Y	N				-2.5	7/06/2007	
141215	1	UC	3	4	Y	N			-2.5	7/06/2007	
141216	1	UC	3	4	Y	N			-2.5	7/06/2007	
141338	1	UC	3	Y	N	POTABLE	0.5	-3	17/07/2008		
141394	1	UC	3	Y	N				-3	10/09/2008	
141395	1	UC	3	Y	N				-3	10/09/2008	
141414	1	UC	6	8	Y	N	NOT STATED	-6.5	30/07/2008	QUATERNARY - UNDEFINED	
141789	1	UC	6	Y	N	POTABLE	0.5	-4	18/08/2006		
12500143	2	UC	1	2							ALLUVIUM
12500143	1	UC	3	5							ALLUVIUM
12500148	1	UC	2	5							ALLUVIUM
12500152	1	UC	2	6							ALLUVIUM
12500153	2	UC	2	3							ALLUVIUM
12500153	1	UC	10	15							ALLUVIUM
12500154	1	UC	2	3							ALLUVIUM
12500155	1	UC	2	4							ALLUVIUM
12500156	2	UC	2	6							ALLUVIUM
12500156	1	UC	13	15							ALLUVIUM
12500157	1	UC	2	6							ALLUVIUM
12500158	1	UC	2	5							ALLUVIUM
12500159	1	UC	3	4							ALLUVIUM
12500160	2	UC	3	4							ALLUVIUM
12500160	1	UC	13	16							ALLUVIUM
12500161	1	UC	1	4							ALLUVIUM
12500275	1	UC	8.5	9.8	N	N		-2.77	31/10/2011	QUATERNARY - UNDEFINED	
12500275	2	UC	11.5	15	N	N		-2.77	31/10/2011	QUATERNARY - UNDEFINED	
12500275	3	WZ	23	32.75	Y	N		-2.6	31/10/2011	UNDIFFERENTIATED	
12500276	1	UC	8.5	9.8	N	N		-2.77	31/10/2011	QUATERNARY - UNDEFINED	
12500276	2	UC	11.5	15	Y	N		-2.77	31/10/2011	QUATERNARY - UNDEFINED	
12500277	1	UC	8.5	9.8	Y	N		-2.77	31/10/2011	QUATERNARY - UNDEFINED	
12600077	1	UC	15	15							BAKERS CREEK ALLUVIUM
12600078	1	UC	7	10							ALLUVIUM
12600078	2	UC	24	25							ALLUVIUM
12600079	1	UC	13	14							ALLUVIUM
12600079	2	UC	15	20							ALLUVIUM
12600080	1	UC	8	10							ALLUVIUM
12600080	2	UC	13	14							ALLUVIUM
12600081	1	UC	8	11			</				

Appendix D
GW Bore Search - Aquifer

Mackay Airport
ASA

RN	REC	CONDITION	TOP	BOTTOM	CONTR	FLOW	QUALITY	YIELD	SWL	RDATE	FORM_DESC
12600203	1	UC	7	17							ALLUVIUM
12600203	2	UC	21	25							ALLUVIUM
12600204	1	UC	4	16							ALLUVIUM
12600353	1	UC	5	23							ALLUVIUM
12600354	1	UC	6	24							ALLUVIUM
12600355	1	UC	1	3							ALLUVIUM
12600355	2	UC	17	20							ALLUVIUM
12600551	1	UC	7	10	N						
12600551	2	UC	15.5	16	N						
12600551	3	UC	22	23.5	N						
12600552	1	UC	7	10	N						
12600553	1	UC	6.5	10	N						
12600553	2	UC	21.5	22.5	N						
12600554	1	UC	6.5	10	N						
12600555	1	UC	6	8	N						
12600555	2	UC	20	21	N						
12600556	1	UC	6	8	N						
12600595	1	UC	7	10	N	N		-2.13	31/10/2011		
12600595	2	UC	13	16	N	N		-2.23	31/10/2011		
12600595	3	UC	19	20	Y	N		-2.14	2/11/2011		
12600596	1	UC	7	10	N	N		-2.13	31/10/2011		
12600596	2	UC	13	16	Y	N		-2.23	31/10/2011		
12600597	1	UC	7	10	Y	N		-2.13	31/10/2011		

Appendix D
GW Bore Search - Casing

Mackay Airport
ASA

RN	PIPE	RDATE	REC	MATERIAL DESC	MATERIAL SIZE	SIZE_DESC	OUT DIAMETER	TOP	BOTTOM
20045	A	1/04/1955	1	STEL		WT	1066	0	6.1
20045	A	1/04/1955	2	STEL		WT	152	6.1	19.5
20391	A	10/09/1965	1	MASO		WT	1524	0	9.4
20401	A	9/09/1965	1	MASO		WT	1219	0	5.6
20595	A	25/05/1966	1	STEL		WT	101	0	9.6
30946	A	23/11/1970	1	STEL		WT	203	0	15.8
30946	A	23/11/1970	3	GRAV		GR		0	18.3
30946	A	23/11/1970	2	SCRN		2.159 AP		15.3	18.3
34508	A	28/08/1970	1	STEL		WT	152	0	16.9
34508	A	28/08/1970	3	GRAV		9.525 GR			19.8
34508	A	28/08/1970	2	SCRN		2.159 AP	152	16.9	19.8
37519	A	15/08/1972	1	STEL		WT	203	0.6	8.8
37519	A	19/08/1972	2	SCRN		3.048 AP	152	8.8	10.7
46017	A	14/10/1976	1	STEL		WT	203	0	15.8
46017	A	14/10/1976	2	SCRN		AP	203	15.8	18.8
46134	A	14/02/1975	1	PLAS		WT	125	0	9.7
46134	A	14/02/1975	3	GRAV		9.525 GR		0	12
46134	A	14/02/1975	2	PERF		AP		9.7	11.5
46411	A	3/09/1977	1	STEL		WT	203	0.6	10.7
46411	A	3/09/1977	4	GRAV		15.875 GR		0	12.5
46411	A	3/09/1977	2	SCRN		3.1 AP	178	10.7	12.5
46425	A	6/11/1976	1	STEL		WT	304	0	7
46425	A	6/11/1976	3	GRAV		GR			14.6
46425	A	6/11/1976	2	SCRN		2.54 AP	203	6.1	12.5
46451	A	17/09/1976	1	STEL		WT	152	0	13.1
46451	A	17/09/1976	3	GRAV		GR		0	14.9
46451	A	17/09/1976	2	SCRN		AP		12.8	14.6
46628	A	1/01/1978	1	PLAS		WT	127	0	19.2
46628	A	1/01/1978	3	GRAV		GR		0	19.2
46628	A	1/01/1978	2	PERF		AP			19.2
63000	A	9/11/1982	1	STEL		WT	219	0.5	9.2
63000	A	9/11/1982	3	GRAV		9.525 GR		0	11.3
63000	A	9/11/1982	4	GRAV		15.875 GR		0	11.3
63000	A	9/11/1982	2	SCRN		3.81 AP		9.1	11.3
81031	A	26/06/1992	1	STEL		6.4 WT	219	0	7.7
81031	A	26/06/1992	4	STEL		6.4 WT	219	9.7	9.9
81031	B	26/06/1992	5	GRAV		9.5 GR		0	9.9
81031	A	26/06/1992	2	SCRN		2.032 AP	168	7.7	8.7
81031	A	26/06/1992	3	SCRN		2.54 AP	168	8.7	9.7
85030	A	9/03/1987	3	GRAV		9.525 GR			12.8
85030	A	9/03/1987	4	GRAV		15.875 GR			12.8
85030	A	9/03/1987	1	STEL		6.35 WT	219	0.6	9.7
85030	A	9/03/1987	2	SCRN		3.048 AP	168	9.5	12.8
105459	A	5/05/2004	2	PERF			100	6.4	9.45
105459	A	5/05/2004	1	PVC			100	0	9.45
105459	X	5/05/2004	3	GROU			190	0	5
105459	X	5/05/2004	4	FILL			190	1.52	10.06
105618	A	17/11/2004	2	PERF		2 AP	114	11	13.4
105618	A	17/11/2004	1	PVC		5.9 WT	114	0	13.4
105618	X	17/11/2004	3	GRAV		5 GR	170	1.2	13.4
105618	X	17/11/2004	4	GROU			170	0	1.2
105623	A	5/09/2004	2	PERF		AP	114	6	11
105623	A	5/09/2004	1	PVC		5.9 WT	114	0	11
105623	X	5/09/2004	3	GROU			150	0	6
105625	A	14/10/2004	1	PVC		5.9 WT	114	0	14.94
105625	X	14/10/2004	3	GROU			200	0	7.62
105625	A	14/10/2004	2	PERF		AP	114	11.28	14.94
105688	A	30/06/2004	1	PVC		7 WT	114	0	18
105688	X	30/06/2004	3	FILL		GR	150	14	18
105688	X	30/06/2004	4	GRAV		GR	150	13	14
105688	X	30/06/2004	5	GROU			150	0	13
105688	A	30/06/2004	2	PERF		2 AP	114	14	18
105689	A	24/04/2004	1	PVC		7 WT	114	0	15.2
105689	X	24/04/2004	3	GRAV		5 GR	170	1	15.2
105689	X	24/04/2004	4	GROU			170	0	1
105689	A	24/04/2004	2	PERF		2 AP	114	12.2	15.2
105717	A	24/11/2004	2	PERF		AP	114	6.1	10.36
105717	A	24/11/2004	1	PVC		7 WT	114	0	10.36
105717	X	24/11/2004	3	GRAV		10 GR	200	4.27	10.36
105717	X	24/11/2004	4	GROU			200	0	4.27
105721	A	24/10/2004	2	PERF		1 AP	114	7	12
105721	A	24/10/2004	1	PVC		7 WT	114	0	12
105721	X	24/10/2004	3	GRAV		10 GR	150	7	12
105721	X	24/10/2004	4	GROU			150	0	7
105731	A	23/08/2004	2	PERF		0.4 AP	114	8	16
105731	A	23/08/2004	1	PVC		6.9 WT	114	0	16
105731	X	23/08/2004	3	FILL		GR	150	0	16
105971	A	31/08/2004	2	PERF		4 AP	114	3	6
105971	A	31/08/2004	1	PVC		6.8 WT	114	0	6
105971	X	31/08/2004	3	FILL			150	3	6
105971	X	31/08/2004	4	GROU			150	0	3
105978	A	14/01/2004	2	PERF			114	5.49	8.23
105978	A	14/01/2004	1	PVC		6.8 WT	114	0	8.23
105978	X	14/01/2004	3	GRAV		10 GR	175	1.52	8.23
105978	X	14/01/2004	4	GROU			175	0	1.52
105993	A	6/12/2004	2	PERF		1 AP	114	6	10
105993	A	6/12/2004	1	PVC		6.8 WT	114	0	10
105993	X	6/12/2004	3	GRAV		5 GR	150	6	10
105993	X	6/12/2004	4	GROU			150	0	6
131308	A	15/07/2005	2	PERF		0.4 AP	56	4	6
131308	A	15/07/2005	1	PVC		3.1 WT	56	0	6
131308	X								

Appendix D
GW Bore Search - Casing

Mackay Airport
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RN	PIPE	RDATE	REC	MATERIAL DESC	MATERIAL SIZE	SIZE_DESC	OUT DIAMETER	TOP	BOTTOM
131310	A	15/07/2005	2	PERF	0.4	AP	56	2	3
131310	A	15/07/2005	1	PVC	3.1	WT	56	0	3
131310	X	15/07/2005	3	FILL			150	2	3
131310	X	15/07/2005	4	GROU			150	0	2
131332	A	10/10/2005	2	PERF		AP	114	4.87	7.62
131332	A	10/10/2005	1	PVC	6.8	WT	114	0	7.62
131332	X	10/10/2005	3	GRAV	10	GR	200	2.13	7.62
131332	X	10/10/2005	4	GROU			200	0	2.13
131333	A	21/06/2005	2	PERF		AP	114	5.79	8.8
131333	A	21/06/2005	1	PVC	6.8	WT	114	0	8.84
131333	X	21/06/2005	3	GRAV	10	GR	200	4.57	8.84
131333	X	21/06/2005	4	GROU			200	0	4.57
131335	A	23/12/2004	2	PERF		AP	114	10.36	12.7
131335	A	23/12/2004	1	PVC	6.8	WT	114	0	12.8
131335	X	23/12/2004	3	GRAV	10	GR	200	4.57	12.8
131335	X	23/12/2004	4	GROU			200	0	4.57
131337	A	24/11/2005	2	PERF		AP	114	4.87	7
131337	A	24/11/2005	1	PVC	6.8	WT	114	0	7.01
131337	X	24/11/2005	3	GRAV	10	GR	200	3.04	7.01
131337	X	24/11/2005	4	GROU			200	0	3.04
131419	A	29/11/2005	2	PERF		2 AP	114	15.7	17.7
131419	A	29/11/2005	1	PVC	6.8	WT	114	0	17.7
131419	X	29/11/2005	3	GRAV	3	GR	170	1.5	17.7
131419	X	29/11/2005	4	GROU			170	0	1.5
131421	A	24/11/2005	2	PERF		2 AP	114	10.4	12.8
131421	A	24/11/2005	1	PVC	6.8	WT	114	0	12.8
131421	X	24/11/2005	3	GRAV	3	GR	170	1.5	12.8
131421	X	24/11/2005	4	GROU			170	0	1.5
131672	A	19/01/2006	2	PERF		2 AP	114	5.18	8.23
131672	A	19/01/2006	1	PVC	6.8	WT	114	0	8.23
131672	X	19/01/2006	3	GRAV	10	GR	200	3.05	8.23
131672	X	19/01/2006	4	GROU			200	0	3.05
131759	A	29/01/2006	2	PERF		1.5 AP	140	7.62	11.28
131759	A	29/01/2006	1	PVC	7.5	WT	140	0	11.28
131759	X	29/01/2006	3	GRAV	10	GR	200	3.05	11.28
131759	X	29/01/2006	4	GROU			200	0	3.05
131771	A	3/09/2004	2	SCRN	0.4	AP	114	5	9
131771	A	3/09/2004	1	PVC	6.8	WT	114	0	5
131771	X	3/09/2004	3	FILL			150	5	9
131771	X	3/09/2004	4	GROU			150	0	5
131917	A	5/04/2006	2	SCRN	0.4	AP		4	7
131917	A	5/04/2006	1	PVC			100	0	7
131917	A	5/04/2006	3	BNSL				3.5	4
131917	A	5/04/2006	4	GROU			150	0	3.5
131917	A	5/04/2006	5	OPEN				4	7
131997	A	1/09/2006	2	PERF				5.5	7
131997	A	1/09/2006	1	PVC	5.9	WT	100	0	5.5
131997	A	1/09/2006	3	GRAV	10	GR		5	7
131997	A	1/09/2006	4	BNSL				4.5	5
131997	A	1/09/2006	5	GROU			150	0	4.5
131997	A	1/09/2006	6	OPEN				5.5	7
141066	A	25/10/2006	1	PVC	5.81	WT	114	0	15.2
141066	A	25/10/2006	3	FILL				1.5	15.2
141066	A	25/10/2006	4	GROU			170	0	1.5
141066	A	25/10/2006	2	PERF		2 AP		13	15.2
141093	A	16/12/2006	2	PERF				4	7.8
141093	A	16/12/2006	1	PVC	5.9	WT	100	0	4
141093	A	16/12/2006	3	GRAV	10	GR		3.5	7.8
141093	A	16/12/2006	4	BNSL				3	3.5
141093	A	16/12/2006	5	GROU			150	0	3
141093	A	16/12/2006	6	OPEN				4	7.8
141097	A	12/01/2007	2	PERF				6	14.8
141097	A	12/01/2007	1	PVC	5.9	WT	100	0	6
141097	A	12/01/2007	3	GRAV	10	GR		5.5	14.8
141097	A	12/01/2007	4	BNSL				5.5	14.8
141097	A	12/01/2007	5	GROU			150	0	5
141097	A	12/01/2007	6	OPEN				6	14.8
141211	A	7/06/2007	2	SCRN	0.4	AP	50	1.5	3
141211	X	7/06/2007	4	GRAV			150	1.5	3
141211	A	7/06/2007	1	PVC			50	0	1.5
141211	X	7/06/2007	3	GROU			150	0	1.5
141212	A	7/06/2007	2	SCRN	0.4	AP		1.5	4
141212	X	7/06/2007	4	GRAV	10	GR		1.5	4
141212	A	7/06/2007	1	PVC			50	0	1.5
141212	X	7/06/2007	3	GROU			150	0	1.5
141213	A	7/06/2007	2	SCRN	0.4	AP		1.5	4
141213	X	7/06/2007	4	GRAV	10	GR	150	1.5	4
141213	A	7/06/2007	1	PVC			50	0	1.5
141213	X	7/06/2007	3	GROU			150	0	1.5
141214	A	7/06/2007	2	SCRN	0.4	AP		1.5	4
141214	X	7/06/2007	4	GRAV	10	GR	150	1.5	4
141214	A	7/06/2007	1	PVC			50	0	1.5
141214	X	7/06/2007	3	GROU			150	0	1.5
141215	A	7/06/2007	2	SCRN	0.4	AP		1.5	4
141215	X	7/06/2007	4	GRAV	10	GR	150	1.5	4
141215	A	7/06/2007	1	PVC			50	0	1.5
141215	X	7/06/2007	3	GROU			150	0	1.5
141216	A	7/06/2007	2	SCRN				1.5	4
141216	A	7/06/2007	1	PVC			50	0	1.5
141216	X	7/06/2007	3	GRAV	10	GR	150	1.5	4
141216	A	7/06/2007	4	GROU			150	0	1.5
141338	A	17/07/2008	2	PERF				6	9.5
141338	A	17/							

Appendix D
GW Bore Search - Casing

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RN	PIPE	RDATE	REC	MATERIAL DESC	MATERIAL SIZE	SIZE_DESC	OUT DIAMETER	TOP	BOTTOM
141394	X	10/09/2008	3	BNSL			150	2	3
141394	X	10/09/2008	4	GROU			150	0	2
141395	A	10/09/2008	2	SCRN	0.4	AP		3	6
141395	A	10/09/2008	1	PVC			60	0	3
141395	X	10/09/2008	3	BNSL			150	2	3
141395	X	10/09/2008	4	GROU			150	0	2
141414	A	30/07/2008	1	PVC	4.95	WT	60	0	6
141414	A	30/07/2008	3	GRAV	4	GR	150	5.5	8
141414	X	30/07/2008	4	BNSL			150	4.5	5.5
141414	X	30/07/2008	5	GROU			150	0	4.5
141414	A	30/07/2008	2	SCRN				6	8
141789	A	18/08/2006	1	PVC	0.9	WT		0	7
141789	A	18/08/2006	3	GRAV	10	GR	150	6	9
141789	X	18/08/2006	4	BNSL			150	5.5	6
141789	X	18/08/2006	5	GROU			150	0	5.5
141789	A	18/08/2006	2	SCRN				7	9
12500275	A	16/10/2011	1	PVC	3.3	WT	60	0	32.75
12500275	X	16/10/2011	3	GROU			215	0	1
12500275	X	16/10/2011	4	GROU			180	1	6
12500275	X	16/10/2011	5	FILL			180	6	10
12500275	X	16/10/2011	6	BNSL			180	10	11
12500275	X	16/10/2011	7	FILL			180	11	16.5
12500275	X	16/10/2011	8	BNSL			180	16.5	18
12500275	X	16/10/2011	9	GRAV	10	GR	180	18	32.8
12500275	A	16/10/2011	2	PERF	2	AP	60	29.75	32.75
12500276	A	31/10/2011	1	PVC	3.3	WT	60	0	15
12500276	X	31/10/2011	3	GROU			215	0	1
12500276	X	31/10/2011	4	GROU			180	1	5
12500276	X	31/10/2011	5	BNSL			180	5	6
12500276	X	31/10/2011	6	FILL			180	6	10
12500276	X	31/10/2011	7	BNSL			180	10	11
12500276	X	31/10/2011	8	GRAV	10	GR	180	11	16
12500276	A	31/10/2011	2	PERF	2	AP	60	12	15
12500277	A	16/10/2011	1	PVC	3.3	WT	60	0	9.8
12500277	X	16/10/2011	3	GROU			215	0	1
12500277	X	16/10/2011	4	GROU			180	1	6
12500277	X	16/10/2011	5	BNSL			180	6	7
12500277	X	16/10/2011	6	GRAV	10	GR	180	7	10.25
12500277	A	16/10/2011	2	PERF	2	AP	60	8.8	9.8
12600077	A	1/01/1968	1	PLAS	3.048	WT	50	0	16.5
12600077	A	1/01/1968	2	PERF	2.032	AP	50	15.9	16.5
12600078	A	31/12/1968	1	PLAS	3.048	WT	51	0	26.2
12600078	A	31/12/1968	2	PERF	2.032	AP	50	25	26.2
12600079	A	1/01/1968	1	PLAS	3.048	WT	51	0	21
12600079	A	1/01/1968	2	PERF	2.032	AP	50	20.5	21
12600080	A	1/01/1968	1	PLAS			51	0	15.5
12600081	A	1/01/1968	1	PLAS	3.048	WT	51	0	11
12600081	A	1/01/1968	2	PERF	2.032	AP	50	10.4	11
12600082	A	20/04/1967	1	PLAS	3.048	WT	51	0	25.1
12600082	A	20/04/1967	2	PERF	2.032	AP	50	24.6	25.1
12600083	A	1/01/1968	1	PLAS			51	0	16.1
12600084	A	1/01/1968	1	PLAS	3.048	WT	51	0	12.1
12600084	A	1/01/1968	2	PERF	2.032	AP	50	11.3	11.9
12600353	A	4/08/1975	1	PLAS			50	0	23
12600353	C	4/08/1975	3	PLAS				0	9.9
12600353	B	4/08/1975	2	PLAS				0	15
12600354	A	29/06/1975	1	PLAS			51	0	25
12600354	B	29/06/1975	2	PLAS				0	3
12600355	A	1/01/1975	1	PLAS			51	0	20
12600355	B	1/01/1975	2	PLAS				0	7.9
12600551	A	28/04/2004	1	PLAS	50	AP		0	22
12600551	A	28/04/2004	3	BNSL				4	5
12600551	A	28/04/2004	4	BNSL				13.5	14
12600551	A	28/04/2004	5	BNSL				19.5	20
12600551	A	28/04/2004	6	GRAV				5	25.3
12600551	A	28/04/2004	7	FILL				0	4
12600551	A	28/04/2004	8						
12600551	A	28/04/2004	2	PERF	50	AP		22	24
12600552	A	3/05/2004	1	PLAS	50	AP		0	8.3
12600552	A	3/05/2004	3	BNSL				5.5	6
12600552	A	3/05/2004	4	GRAV				6	10.5
12600552	A	3/05/2004	5	FILL				0	5.5
12600552	A	3/05/2004	2	PERF	50	AP		8.3	10.3
12600553	A	2/05/2004	1	PLAS	50	AP		0	20.5
12600553	A	2/05/2004	3	BNSL				5.5	6
12600553	A	2/05/2004	4	BNSL				11	11.5
12600553	A	2/05/2004	5	BNSL				18.5	19
12600553	A	2/05/2004	6	GRAV				6	22.5
12600553	A	2/05/2004	7	FILL				0	5.5
12600553	A	2/05/2004	2	PERF	50	AP		20.5	22.5
12600554	A	3/05/2004	1	PLAS	50	AP		0	8
12600554	A	3/05/2004	3	BNSL				5	5.5
12600554	A	3/05/2004	4	GRAV				5.5	10
12600554	A	3/05/2004	5	FILL				0	5
12600554	A	3/05/2004	2	PERF	50	AP		8	10
12600555	A	28/04/2004	1	PLAS	50	AP		0	19
12600555	A	28/04/2004	3	BNSL				5	5.5
12600555	A	28/04/2004	4	BNSL				13	13.5
12600555	A	28/04/2004	5	BNSL				18	18.5
12600555	A	28/04/2004	6	GRAV				5.5	21.5
12600555	A	28/04/2004	7	FILL				0	5
12600555	A	28/04/2004	2	PERF	50	AP		19	21
1260055									

Appendix D
GW Bore Search - Casing

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RN	PIPE	RDATE	REC	MATERIAL DESC	MATERIAL SIZE	SIZE_DESC	OUT DIAMETER	TOP	BOTTOM
12600556	A	30/04/2004	6	FILL				0	4.5
12600595	A	27/10/2011	1	PVC	4.9	WT	89	0	22
12600595	X	27/10/2011	3	GROU			215	0	1
12600595	X	27/10/2011	4	GROU			180	1	5
12600595	X	27/10/2011	5	FILL			180	5	11
12600595	X	27/10/2011	6	BNSL			180	11	12
12600595	X	27/10/2011	7	FILL			180	12	16
12600595	X	27/10/2011	8	BNSL			180	16	18
12600595	X	27/10/2011	9	GRAV	10	GR	180	18	29
12600595	A	27/10/2011	2	PERF	1	AP	89	19	22
12600596	A	28/10/2011	1	PVC	3.3	WT	60	0	16
12600596	X	28/10/2011	3	GROU			215	0	1
12600596	X	28/10/2011	4	GROU			180	1	12
12600596	X	28/10/2011	5	BNSL			180	12	13
12600596	X	28/10/2011	6	GRAV	10	GR	180	13	16.5
12600596	A	28/10/2011	2	PERF	1	AP	60	13	16
12600597	A	28/10/2011	1	PVC	3.3	WT	60	0	10
12600597	X	28/10/2011	3	GROU			215	0	1
12600597	X	28/10/2011	4	GROU			180	1	5
12600597	X	28/10/2011	5	BNSL			180	5	6
12600597	X	28/10/2011	6	GRAV	10	GR	180	6	10
12600597	A	28/10/2011	2	PERF	1	AP	60	7	10

Appendix D
GW Bore Search - Elevations

Mackay Airport
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RN	PIPE	RDATE	MEAS_POINT	PRECISION	DATUM	ELEVATION	SURVEY_SOURCE
20401	A	31/01/1967	R	SVY	AHD	6.47	
20401	X	31/01/1967	N	SVY	AHD	5.74	
34508	X	5/02/2003	N	EST	AHD	3.91	
37519	X	5/02/2003	N	EST	AHD	3.61	
46134	X	5/02/2003	N	EST	AHD	4.41	
46451	X	5/02/2003	N	EST	AHD	3.25	
46805	A	15/03/1971	R	SVY	STD	6.78	
46805	X	15/03/1971	N	SVY	STD	5.33	
46809	A	19/05/1971	R	SVY	STD	8.48	
46809	X	19/05/1971	N	SVY	STD	7.92	
46810	A	1/01/2100	R	SVY	STD	5.27	
46810	X	1/01/2100	N	SVY	STD	4.2	
81031	X	5/02/2003	N	EST	AHD	5.82	
104350	X	5/02/2003	N	EST	AHD	4.16	
104352	X	5/02/2003	N	EST	AHD	4.29	
104354	X	5/02/2003	N	EST	AHD	4.4	
104355	X	5/02/2003	N	EST	AHD	4.45	
104356	X	5/02/2003	N	EST	AHD	4.26	
104358	X	13/02/2003	N	EST	AHD	3.87	
104375	X	5/02/2003	N	EST	AHD	4.66	
104376	X	5/02/2003	N	EST	AHD	4.61	
104377	X	5/02/2003	N	EST	AHD	4.66	
104381	X	5/02/2003	N	EST	AHD	4.06	
104382	X	5/02/2003	N	EST	AHD	4.36	
104387	X	5/02/2003	N	EST	AHD	3.89	
104389	X	5/02/2003	N	EST	AHD	4.5	
12500143	X	1/01/1949	N	SVY	AHD	5.21	
12500146	X	1/01/1949	N	SVY	AHD	5.39	
12500147	X	1/01/1949	N	SVY	AHD	5.82	
12500148	X	1/01/1949	N	SVY	AHD	5.29	
12500149	X	1/01/1949	N	SVY	AHD	5.86	
12500150	X	1/01/1949	N	SVY	AHD	6.49	
12500151	X	1/01/1949	N	SVY	AHD	6.46	
12500152	X	1/01/1949	N	SVY	AHD	6.71	
12500153	X	1/01/1949	N	SVY	AHD	6.85	
12500154	X	1/01/1949	N	SVY	AHD	6.85	
12500155	X	1/01/1949	N	SVY	AHD	7.08	
12500156	X	1/01/1949	N	SVY	AHD	7.12	
12500157	X	1/01/1949	N	SVY	AHD	7.38	
12500158	X	1/01/1949	N	SVY	AHD	8.05	
12500159	X	1/01/1949	N	SVY	AHD	8.39	
12500160	X	1/01/1949	N	SVY	AHD	8.47	
12500161	X	1/01/1949	N	SVY	AHD	8.4	
12500275	A	31/10/2011	R	SVY	AHD	5.61	WGS 84
12500275	X	31/10/2011	N	SVY	AHD	5.61	
12500276	X	31/10/2011	N	SVY	AHD	5.61	
12500276	A	31/10/2011	R	SVY	AHD	5.61	DERM WGS 84
12500277	A	31/10/2011	R	SVY	AHD	5.63	DERM WGS84
12500277	X	31/10/2011	N	SVY	AHD	5.63	
12600077	A	8/05/1968	R	SVY	AHD	4.82	
12600077	X	8/05/1968	N	SVY	AHD	4.41	
12600078	A	6/03/1968	R	SVY	AHD	5.03	
12600078	X	6/03/1968	N	SVY	AHD	4.6	
12600079	A	6/03/1968	R	SVY	AHD	5.03	
12600079	X	6/03/1968	N	SVY	AHD	4.59	
12600080	A	6/03/1968	R	SVY	AHD	5.02	
12600080	X	6/03/1968	N	SVY	AHD	4.59	
12600081	A	6/03/1968	R	SVY	AHD	4.99	
12600081	X	6/03/1968	N	SVY	AHD	4.57	
12600082	A	8/04/1968	R	SVY	AHD	4.56	
12600082	X	8/04/1968	N	SVY	AHD	4.1	
12600083	A	8/04/1968	R	SVY	AHD	4.49	
12600083	X	8/04/1968	N	SVY	AHD	4.1	
12600084	A	8/04/1968	R	SVY	AHD	4.51	
12600084	X	8/04/1968	N	SVY	AHD	4.1	
12600195	X	1/01/2100	N	SVY	AHD	7.04	
12600196	X	1/01/2100	N	SVY	AHD	5.57	
12600197	X	1/01/1950	N	SVY	AHD	4.87	
12600198	X	1/01/2100	N	SVY	AHD	4.87	
12600199	X	1/01/2100	N	SVY	AHD	5.11	
12600200	X	1/01/2100	N	SVY	AHD	4.8	
12600201	X	1/01/2100	N	SVY	AHD	4.38	
12600202	X	1/01/2100	N	SVY	AHD	4.79	
12600203	X	1/01/2100	N	SVY	AHD	4.26	
12600204	X	1/01/2100	N	SVY	AHD	3.95	
12600353	A	4/08/1975	R	SVY	AHD	5.29	
12600353	B	4/08/1975	R	SVY	AHD	5.29	
12600353	C	4/08/1975	R	SVY	AHD	5.29	
12600353	X	4/08/1975	N	SVY	AHD	4.98	
12600353	A	1/10/2000	R	SVY	AHD	5.59	300MM ABOVE OLD REF PT
12600353	B	1/10/2000	R	SVY	AHD	5.59	300MM ABOVE OLD REF PT
12600353	C	1/10/2000	R	SVY	AHD	5.59	300MM ABOVE OLD REF PT
12600354	A	1/08/1975	R	SVY	AHD	4.79	
12600354	B	1/08/1975	R	SVY	AHD	4.79	
12600354	X	1/08/1975	N	SVY	AHD	4.36	
12600355	A	1/08/1975	R	SVY	AHD	3.86	
12600355	B	1/08/1975	R	SVY	AHD	3.86	
12600355	X	1/08/1975	N	SVY	AHD	3.67	
12600595	A	31/10/2011	R	SVY	AHD	4.14	DERM WGS 84
12600596	A	28/10/2011	R	SVY	AHD	4.14	DERM WGS 84
12600597	A	28/10/2011	R	SVY	AHD	4.12	DERM WGS84

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
20391	A	11/12/1967	R	-0.48		NR	130	NR	NR	NR	
20391	A	13/03/1979	R	-1		NR	130	NR	NR	NR	
20391	A	4/04/1975	R	-1.01		NR	130	NR	NR	NR	
20391	A	24/05/1977	R	-1.02		NR	130	NR	NR	NR	
20391	A	22/02/1978	R	-1.11		NR	130	NR	NR	NR	
20391	A	3/03/1976	R	-1.2		NR	130	NR	NR	NR	
20391	A	1/04/1977	R	-1.2		NR	130	NR	NR	NR	
20391	A	30/03/1967	R	-1.22		NR	130	NR	NR	NR	
20391	A	25/06/1979	R	-1.38		NR	130	NR	NR	NR	
20391	A	22/02/1968	R	-1.52		NR	130	NR	NR	NR	
20391	A	8/03/1971	R	-1.6		NR	130	NR	NR	NR	
20391	A	11/07/1973	R	-1.63		NR	130	NR	NR	NR	
20391	A	15/12/1972	R	-1.7		NR	130	NR	NR	NR	
20391	A	9/06/1978	R	-1.7		NR	130	NR	NR	NR	
20391	A	7/04/1970	R	-1.9		NR	130	NR	NR	NR	
20391	A	29/06/1972	R	-1.92		NR	130	NR	NR	NR	
20391	A	30/06/1975	R	-1.92		NR	130	NR	NR	NR	
20391	A	25/06/1976	R	-1.95		NR	130	NR	NR	NR	
20391	A	5/08/1977	R	-1.95		NR	130	NR	NR	NR	
20391	A	4/03/1970	R	-1.96		NR	130	NR	NR	NR	
20391	A	27/01/1970	R	-1.98		NR	130	NR	NR	NR	
20391	A	7/07/1970	R	-1.98		NR	130	NR	NR	NR	
20391	A	22/12/1976	R	-2		NR	130	NR	NR	NR	
20391	A	20/03/1981	R	-2		NR	130	NR	NR	NR	
20391	A	8/08/1978	R	-2.03		NR	130	NR	NR	NR	
20391	A	30/01/1968	R	-2.06		NR	130	NR	NR	NR	
20391	A	12/03/1973	R	-2.06		NR	130	NR	NR	NR	
20391	A	29/10/1976	R	-2.1		NR	130	NR	NR	NR	
20391	A	1/06/1970	R	-2.13		NR	130	NR	NR	NR	
20391	A	6/03/1968	R	-2.19		NR	130	NR	NR	NR	
20391	A	30/05/1980	R	-2.2		NR	130	NR	NR	NR	
20391	A	8/04/1968	R	-2.21		NR	130	NR	NR	NR	
20391	A	23/11/1977	R	-2.21		NR	130	NR	NR	NR	
20391	A	21/04/1969	R	-2.23		NR	130	NR	NR	NR	
20391	A	1/10/1970	R	-2.24		NR	130	NR	NR	NR	
20391	A	29/09/1967	R	-2.26		NR	130	NR	NR	NR	
20391	A	19/08/1969	R	-2.33		NR	130	NR	NR	NR	
20391	A	3/06/1968	R	-2.39		NR	130	NR	NR	NR	
20391	A	11/10/1968	R	-2.41		NR	130	NR	NR	NR	
20391	A	15/02/1980	R	-2.43		NR	130	NR	NR	NR	
20391	A	30/06/1967	R	-2.44		NR	130	NR	NR	NR	
20391	A	29/09/1969	R	-2.44		NR	130	NR	NR	NR	
20391	A	24/11/1970	R	-2.44		NR	130	NR	NR	NR	
20391	A	11/09/1968	R	-2.49		NR	130	NR	NR	NR	
20391	A	16/10/1978	R	-2.5		NR	130	NR	NR	NR	
20391	A	31/01/1967	R	-2.51		NR	130	NR	NR	NR	
20391	A	11/10/1972	R	-2.67	P	NR	130	NR	NR	NR	
20391	A	11/03/1969	R	-2.67		NR	130	NR	NR	NR	
20391	A	28/07/1980	R	-2.68		NR	130	NR	NR	NR	
20391	A	26/05/1969	R	-2.7		NR	130	NR	NR	NR	
20391	X	10/09/1965	N	-2.7		NR	130	NR	NR	NR	
20391	A	4/08/1971	R	-2.71		NR	130	NR	NR	NR	
20391	A	8/05/1968	R	-2.72		NR	130	NR	NR	NR	
20391	A	22/09/1975	R	-2.73		NR	130	NR	NR	NR	
20391	A	18/07/1969	R	-2.74		NR	130	NR	NR	NR	
20391	A	25/08/1981	R	-2.75		NR	130	NR	NR	NR	
20391	A	31/01/1969	R	-2.85		NR	130	NR	NR	NR	
20391	A	21/11/1975	R	-2.9		NR	130	NR	NR	NR	
20391	A	17/06/1969	R	-2.95		NR	130	NR	NR	NR	
20391	A	27/02/1967	R	-3		NR	130	NR	NR	NR	
20391	A	1/11/1979	R	-3		NR	130	NR	NR	NR	
20391	A	14/08/1968	R	-3.1		NR	130	NR	NR	NR	
20391	A	20/11/1969	R	-3.12		NR	130	NR	NR	NR	
20391	A	13/05/1971	R	-3.29		NR	130	NR	NR	NR	
20391	A	30/05/1967	R	-3.61		NR	130	NR	NR	NR	
20391	A	31/07/1967	R	-3.61		NR	130	NR	NR	NR	
20391	A	2/07/1968	R	-3.63		NR	130	NR	NR	NR	
20391	A	30/11/1971	R	-3.66		NR	130	NR	NR	NR	
20391	A	13/11/1981	R	-3.8		NR	130	NR	NR	NR	
20391	A	19/05/1982	R	-3.85		NR	130	NR	NR	NR	
20391	A	13/11/1980	R	-4.36		NR	130	NR	NR	NR	
20391	A	17/08/1982	R	-4.36		NR	130	NR	NR	NR	
20391	A	18/02/1982	R	-4.4		NR	130	NR	NR	NR	
20391	A	28/10/1982	R	-5.1		NR	130	NR	NR	NR	
20391	A	18/01/1973	R	-5.46		NR	130	NR	NR	NR	
20401	A	4/04/1975	R	-1		NR	130	NR	NR	NR	
20401	A	3/03/1976	R	-1.02		NR	130	NR	NR	NR	
20401	A	1/04/1977	R	-1.2		NR	130	NR	NR	NR	
20401	A	7/04/1970	R	-1.52		NR	130	NR	NR	NR	
20401	A	9/03/1972	R	-1.55		NR	130	NR	NR	NR	
20401	A	8/03/1971	R	-1.69		NR	130	NR	NR	NR	
20401	A	31/05/1977	R	-1.7		NR	130	NR	NR	NR	
20401	A	1/06/1970	R	-1.72		NR	130	NR	NR	NR	
20401	A	4/03/1970	R	-1.8		NR	130				

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
46811A		5/08/1971R	-2.8			NR	130	NR		NR	NR
46811A		30/11/1971R	-3.35			NR	130	NR		NR	NR
46811A		13/05/1971R	-3.46			NR	130	NR		NR	NR
85030A		9/03/1987N	-3.5			NR	130	NR		NR	NR
99339A		1/04/1977R	-3.1			NR	130	NR		NR	NR
99339A		24/05/1977R	-3.18			NR	130	NR		NR	NR
99339A		30/06/1975R	-4.3			NR	130	NR		NR	NR
99339A		3/03/1976R	-4.35			NR	130	NR		NR	NR
99339A		30/06/1967R	-4.37			NR	130	NR		NR	NR
99339A		8/03/1971R	-4.37			NR	130	NR		NR	NR
99339A		22/02/1968	-4.5			NR	130	NR		NR	NR
99339A		4/04/1975R	-4.58			NR	130	NR		NR	NR
99339A		4/08/1977R	-4.6			NR	130	NR		NR	NR
99339A		9/03/1972R	-4.88			NR	130	NR		NR	NR
99339A		28/06/1976R	-4.89			NR	130	NR		NR	NR
99339A		22/12/1976R	-4.92			NR	130	NR		NR	NR
99339A		29/10/1976R	-5			NR	130	NR		NR	NR
99339A		22/09/1975R	-5.1			NR	130	NR		NR	NR
99339A		6/03/1968R	-5.16			NR	130	NR		NR	NR
99339A		27/01/1970R	-5.18			NR	130	NR		NR	NR
99339A		4/03/1970R	-5.18			NR	130	NR		NR	NR
99339A		30/01/1968R	-5.26			NR	130	NR		NR	NR
99339A		8/04/1968R	-5.31			NR	130	NR		NR	NR
99339A		7/04/1970R	-5.33			NR	130	NR		NR	NR
99339A		21/11/1975R	-5.34			NR	130	NR		NR	NR
99339A		1/06/1970R	-5.41			NR	130	NR		NR	NR
99339A		12/03/1973R	-5.52			NR	130	NR		NR	NR
99339A		27/02/1967R	-5.62			NR	130	NR		NR	NR
99339A		11/07/1973R	-5.7			NR	130	NR		NR	NR
99339A		31/01/1967R	-5.72			NR	130	NR		NR	NR
99339A		21/04/1969R	-5.72			NR	130	NR		NR	NR
99339A		31/01/1969R	-5.74			NR	130	NR		NR	NR
99339A		11/12/1967R	-5.77			NR	130	NR		NR	NR
99339A		11/03/1969R	-5.79			NR	130	NR		NR	NR
99339A		29/09/1969R	-5.79			NR	130	NR		NR	NR
99339A		8/05/1968R	-5.8			NR	130	NR		NR	NR
99339A		17/06/1969R	-5.82			NR	130	NR		NR	NR
99339A		13/05/1971R	-5.82			NR	130	NR		NR	NR
99339A		30/03/1967R	-5.87			NR	130	NR		NR	NR
99339A		18/07/1969R	-5.87			NR	130	NR		NR	NR
99339A		19/08/1969R	-5.87			NR	130	NR		NR	NR
99339A		31/07/1967R	-5.89			NR	130	NR		NR	NR
99339A		3/06/1968	-5.92			NR	130	NR		NR	NR
99339A		20/11/1969R	-5.92			NR	130	NR		NR	NR
99339A		11/09/1968R	-5.97			NR	130	NR		NR	NR
99339A		26/05/1969R	-5.97			NR	130	NR		NR	NR
99339A		7/07/1970R	-5.97			NR	130	NR		NR	NR
99339A		24/11/1970R	-5.97			NR	130	NR		NR	NR
99339A		30/11/1971R	-5.97			NR	130	NR		NR	NR
99339A		28/06/1972R	-6			NR	130	NR		NR	NR
99339A		14/08/1968R	-6.02			NR	130	NR		NR	NR
99339A		4/08/1971R	-6.04			NR	130	NR		NR	NR
99339A		11/10/1972R	-6.05			NR	130	NR		NR	NR
99339A		2/07/1968R	-6.07			NR	130	NR		NR	NR
99339A		30/05/1967R	-6.07			NR	130	NR		NR	NR
99339A		3/10/1968R	-6.1			NR	130	NR		NR	NR
99339A		1/10/1970R	-6.4			NR	130	NR		NR	NR
99339A		29/09/1967R	-6.45			NR	130	NR		NR	NR
99339A		15/12/1972R	-6.48			NR	130	NR		NR	NR
99339A		18/01/1973R	-6.58			NR	130	NR		NR	NR
10568A		30/06/2004N	-7			NR	130	NR		NR	NR
10568A		24/04/2004N	-3.6			NR	130	NR		NR	NR
105717A		24/11/2004N	-4.27			NR	130	NR		NR	NR
105721A		24/10/2004N	-7			NR	130	NR		NR	NR
105731A		23/08/2004N	-8			NR	130	NR		NR	NR
105971A		31/08/2005N	-3			NR	130	NR		NR	NR
105978A		14/01/2004N	-5.18			NR	130	NR		NR	NR
105993A		6/12/2004N	-6			NR	130	NR		NR	NR
131308A		15/07/2005N	-4			NR	130	NR		NR	NR
131309A		15/07/2005N	-4			NR	130	NR		NR	NR
131332A		24/11/2005N	-3.04			NR	130	NR		NR	NR
131333A		21/06/2005N	-2.43			NR	130	NR		NR	NR
131335A		23/12/2004N	-6.09			NR	130	NR		NR	NR
131337A		26/09/2005N	-4.57			NR	130	NR		NR	NR
131419A		29/11/2005N	-4.1			NR	130	NR		NR	NR
131421A		24/11/2005N	-2.7			NR	130	NR		NR	NR
131672A		19/01/2006N	-3.65			NR	130	NR		NR	NR
131759A		29/01/2006N	-5.79			NR	130	NR		NR	NR
131771A		3/09/2004N	-5			NR	130	NR		NR	NR
141213A		7/06/2007N	-2.5			NR	130	NR		NR	NR
141214A		7/06/2007N	-2.5			NR	130	NR		NR	NR
141215A		7/06/2007N	-2.5			NR	130	NR		NR	NR
12500275A		16/04/2014R	-1.55			NR	130	NR		NR	NR
12500275A		10/05/2013R									

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600077	A	8/06/2004	R	-1.53		ACT	1	DG	GWAN	REGION	MA
12600077	A	15/06/2011	R	-1.56		NR	130	NR		NR	NR
12600077	A	13/06/2006	R	-1.58		ACT	1	DG	GWAN	REGION	MA
12600077	A	26/06/2009	R	-1.58		ACT	1	DG	GWAN	REGION	MA
12600077	A	10/04/2006	R	-1.6		NR	130	NR		NR	NR
12600077	A	15/06/2001	R	-1.66		NR	130	NR		NR	NR
12600077	A	5/06/1997	R	-1.67		NR	130	NR		NR	NR
12600077	A	12/09/2014	R	-1.67		NR	130	NR		NR	NR
12600077	A	13/09/2007	R	-1.68		ACT	1	DG	GWAN	REGION	MA
12600077	A	12/05/1997	R	-1.71		NR	130	NR		NR	NR
12600077	A	1/04/1977	R	-1.73		NR	130	NR		NR	NR
12600077	A	15/03/2006	R	-1.73		ACT	1	DG	GWAN	REGION	MA
12600077	A	8/03/2002	R	-1.74		NR	130	NR		NR	NR
12600077	A	3/06/1968	R	-1.75		NR	130	NR		NR	NR
12600077	A	23/07/2010	R	-1.75		ACT	1	DG	GWAN	REGION	MA
12600077	A	25/06/1979	R	-1.75		NR	130	NR		NR	NR
12600077	A	19/03/1981	R	-1.76		NR	130	NR		NR	NR
12600077	A	11/06/2008	R	-1.77		ACT	1	DG	GWAN	REGION	MA
12600077	A	12/06/1996	R	-1.78		NR	130	NR		NR	NR
12600077	A	17/06/1998	R	-1.78		NR	130	NR		NR	NR
12600077	A	20/03/1981	R	-1.8		NR	130	NR		NR	NR
12600077	A	24/04/1996	R	-1.81		NR	130	NR		NR	NR
12600077	A	22/05/2008	R	-1.81		ACT	1	DG	GWAN	REGION	MA
12600077	A	2/03/1970	R	-1.83		NR	130	NR		NR	NR
12600077	A	13/05/1971	R	-1.83		NR	130	NR		NR	NR
12600077	A	30/05/1980	R	-1.83		NR	130	NR		NR	NR
12600077	A	16/11/1998	R	-1.83		NR	130	NR		NR	NR
12600077	A	8/03/2005	R	-1.85		NR	130	NR		NR	NR
12600077	A	11/01/1977	R	-1.86		NR	130	NR		NR	NR
12600077	A	19/05/1982	R	-1.86		NR	130	NR		NR	NR
12600077	A	30/06/1975	R	-1.86		NR	130	NR		NR	NR
12600077	A	1/06/1978	R	-1.87		NR	130	NR		NR	NR
12600077	A	20/05/2005	R	-1.88		NR	130	NR		NR	NR
12600077	A	3/06/2002	R	-1.88		NR	130	NR		NR	NR
12600077	A	8/08/1978	R	-1.89		NR	130	NR		NR	NR
12600077	A	28/07/1980	R	-1.9		NR	130	NR		NR	NR
12600077	A	17/03/1994	R	-1.9		NR	130	NR		NR	NR
12600077	A	4/02/1998	R	-1.9		NR	130	NR		NR	NR
12600077	A	5/09/1991	R	-1.9		NR	130	NR		NR	NR
12600077	A	8/05/1968	R	-1.91		NR	130	NR		NR	NR
12600077	A	2/09/2008	R	-1.91		ACT	1	DG	GWAN	REGION	MA
12600077	A	2/07/1968	R	-1.93		NR	130	NR		NR	NR
12600077	A	25/06/1976	R	-1.93		NR	130	NR		NR	NR
12600077	A	10/12/2012	R	-1.94		NR	130	NR		NR	NR
12600077	A	17/06/1994	R	-1.95		NR	130	NR		NR	NR
12600077	A	20/03/1980	R	-1.95		NR	130	NR		NR	NR
12600077	A	14/08/1968	R	-1.96		NR	130	NR		NR	NR
12600077	A	22/10/2013	R	-1.96		NR	130	NR		NR	NR
12600077	A	12/03/1973	R	-1.98		NR	130	NR		NR	NR
12600077	A	11/07/1973	R	-1.98		NR	130	NR		NR	NR
12600077	A	2/11/1976	R	-1.99		NR	130	NR		NR	NR
12600077	A	25/08/1976	R	-2.02		NR	130	NR		NR	NR
12600077	A	4/08/2005	R	-2.02		NR	130	NR		NR	NR
12600077	A	29/06/1972	R	-2.03		NR	130	NR		NR	NR
12600077	A	22/02/1978	R	-2.03		NR	130	NR		NR	NR
12600077	A	6/08/1996	R	-2.03		NR	130	NR		NR	NR
12600077	A	4/08/1971	R	-2.03		NR	130	NR		NR	NR
12600077	A	14/02/2005	R	-2.04		ACT	1	DG	GWAN	REGION	MA
12600077	A	17/08/2015	R	-2.04		ACT	1	DG	GWAN	REGION	MA
12600077	A	11/09/1968	R	-2.06		NR	130	NR		NR	NR
12600077	A	7/04/1970	R	-2.06		NR	130	NR		NR	NR
12600077	A	21/04/1994	R	-2.06		NR	130	NR		NR	NR
12600077	A	24/11/2011	R	-2.06		NR	130	NR		NR	NR
12600077	A	29/10/1976	R	-2.07		NR	130	NR		NR	NR
12600077	A	23/10/2006	R	-2.07		ACT	1	DG	GWAN	REGION	MA
12600077	A	2/09/1996	R	-2.09		NR	130	NR		NR	NR
12600077	A	23/05/1986	R	-2.1		NR	130	NR		NR	NR
12600077	A	25/07/1994	R	-2.1		NR	130	NR		NR	NR
12600077	A	27/06/2005	R	-2.1		NR	130	NR		NR	NR
12600077	A	16/12/2009	R	-2.1		ACT	1	DG	GWAN	REGION	MA
12600077	A	9/09/1999	R	-2.11		NR	130	NR		NR	NR
12600077	A	18/07/1969	R	-2.11		NR	130	NR		NR	NR
12600077	A	2/09/2005	R	-2.13		ACT	1	DG	GWAN	REGION	MA
12600077	A	27/01/1970	R	-2.13		NR	130	NR		NR	NR
12600077	A	16/10/1978	R	-2.14		NR	130	NR		NR	NR
12600077	A	3/11/2006	R	-2.14		NR	130	NR		NR	NR
12600077	A	1/10/1996	R	-2.15		NR	130	NR		NR	NR
12600077	A	17/06/1969	R	-2.16		NR	130	NR		NR	NR
12600077	A	7/07/1970	R	-2.16		NR	130	NR		NR	NR
12600077	A	14/03/1969	R	-2.18		NR	130	NR		NR	NR
12600077	A	10/01/1991	R	-2.2	</td						

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600077	A	27/09/2004	R	-2.81		ACT	1	DG	GWAN	REGION	MA
12600077	A	12/02/1993	R	-2.82		NR	130	NR	NR	NR	NR
12600077	A	29/10/1997	R	-2.83		NR	130	NR	NR	NR	NR
12600077	A	10/12/2003	R	-2.87		ACT	1	DG	GWAN	REGION	MA
12600077	A	11/10/1972	R	-2.88		NR	130	NR	NR	NR	NR
12600077	A	20/11/1987	R	-2.9		NR	130	NR	NR	NR	NR
12600077	A	11/05/1995	R	-2.93		NR	130	NR	NR	NR	NR
12600077	A	22/04/1993	R	-2.93		NR	130	NR	NR	NR	NR
12600077	A	19/02/2003	R	-2.94		NR	130	NR	NR	NR	NR
12600077	A	6/09/1990	R	-2.95		NR	130	NR	NR	NR	NR
12600077	A	29/11/1994	R	-3.08		NR	130	NR	NR	NR	NR
12600077	A	5/11/1974	R	-3.12		NR	130	NR	NR	NR	NR
12600077	A	29/03/1995	R	-3.12		NR	130	NR	NR	NR	NR
12600077	A	23/11/1977	R	-3.15		NR	130	NR	NR	NR	NR
12600077	A	19/04/1995	R	-3.28		NR	130	NR	NR	NR	NR
12600077	A	21/06/1995	R	-3.28		NR	130	NR	NR	NR	NR
12600077	A	1/11/1979	R	-3.47		NR	130	NR	NR	NR	NR
12600077	A	15/12/1972	R	-3.49		NR	130	NR	NR	NR	NR
12600077	A	18/01/1973	R	-3.51		NR	130	NR	NR	NR	NR
12600077	A	13/11/1980	R	-3.85		NR	130	NR	NR	NR	NR
12600077	A	14/12/1976	R	-3.9		NR	130	NR	NR	NR	NR
12600077	A	9/10/1980	R	-3.99		NR	130	NR	NR	NR	NR
12600077	A	8/12/1992	R	-4.16		NR	130	NR	NR	NR	NR
12600077	A	13/11/1981	R	-4.23		NR	130	NR	NR	NR	NR
12600077	A	18/02/1982	R	-4.25		NR	130	NR	NR	NR	NR
12600077	A	26/10/1992	R	-4.62		NR	130	NR	NR	NR	NR
12600077	A	28/10/1982	R	-4.68		NR	130	NR	NR	NR	NR
12600077	A	20/03/1987	R	-5.1		NR	130	NR	NR	NR	NR
12600077	A	15/08/2012	R	-8.87		NR	130	NR	NR	NR	NR
12600078	A	30/03/1999	R	-1.32		NR	130	NR	NR	NR	NR
12600078	A	20/03/1981	R	-1.5		NR	130	NR	NR	NR	NR
12600078	A	23/03/1972	R	-1.6		NR	130	NR	NR	NR	NR
12600078	A	1/04/1977	R	-1.8		NR	130	NR	NR	NR	NR
12600078	A	26/03/1974	R	-1.94		NR	130	NR	NR	NR	NR
12600078	A	30/05/1980	R	-2		NR	130	NR	NR	NR	NR
12600078	A	28/07/1980	R	-2.07		NR	130	NR	NR	NR	NR
12600078	A	29/06/1972	R	-2.16		NR	130	NR	NR	NR	NR
12600078	A	13/03/1979	R	-2.2		NR	130	NR	NR	NR	NR
12600078	A	8/04/1968	R	-2.23		NR	130	NR	NR	NR	NR
12600078	A	13/05/1971	R	-2.32		NR	130	NR	NR	NR	NR
12600078	A	8/03/1971	R	-2.33		NR	130	NR	NR	NR	NR
12600078	A	4/08/1971	R	-2.39		NR	130	NR	NR	NR	NR
12600078	A	4/04/1975	R	-2.41		NR	130	NR	NR	NR	NR
12600078	A	3/03/1976	R	-2.45		NR	130	NR	NR	NR	NR
12600078	A	15/02/1980	R	-2.45		NR	130	NR	NR	NR	NR
12600078	A	7/04/1970	R	-2.46		NR	130	NR	NR	NR	NR
12600078	A	24/05/1977	R	-2.5		NR	130	NR	NR	NR	NR
12600078	A	30/11/1971	R	-2.53		NR	130	NR	NR	NR	NR
12600078	A	9/04/1990	R	-2.55		NR	130	NR	NR	NR	NR
12600078	A	6/03/1968	R	-2.57		NR	130	NR	NR	NR	NR
12600078	A	2/03/1970	R	-2.57		NR	130	NR	NR	NR	NR
12600078	A	23/05/1989	R	-2.58		NR	130	NR	NR	NR	NR
12600078	A	27/01/1970	R	-2.59		NR	130	NR	NR	NR	NR
12600078	A	25/06/1979	R	-2.6		NR	130	NR	NR	NR	NR
12600078	A	14/03/1969	R	-2.61		NR	130	NR	NR	NR	NR
12600078	A	4/08/1983	R	-2.61		NR	130	NR	NR	NR	NR
12600078	A	23/05/1986	R	-2.64		NR	130	NR	NR	NR	NR
12600078	A	22/02/1978	R	-2.66		NR	130	NR	NR	NR	NR
12600078	A	1/06/1978	R	-2.66		NR	130	NR	NR	NR	NR
12600078	A	14/08/1968	R	-2.69		NR	130	NR	NR	NR	NR
12600078	A	8/08/1978	R	-2.7		NR	130	NR	NR	NR	NR
12600078	A	22/12/1976	R	-2.71		NR	130	NR	NR	NR	NR
12600078	A	8/05/1968	R	-2.72		NR	130	NR	NR	NR	NR
12600078	A	30/06/1975	R	-2.73		NR	130	NR	NR	NR	NR
12600078	A	11/09/1968	R	-2.74		NR	130	NR	NR	NR	NR
12600078	A	1/06/1970	R	-2.74		NR	130	NR	NR	NR	NR
12600078	A	3/06/1968	R	-2.77		NR	130	NR	NR	NR	NR
12600078	A	17/06/1969	R	-2.79		NR	130	NR	NR	NR	NR
12600078	A	18/07/1969	R	-2.79		NR	130	NR	NR	NR	NR
12600078	A	29/10/1976	R	-2.8		NR	130	NR	NR	NR	NR
12600078	A	25/06/1976	R	-2.8		NR	130	NR	NR	NR	NR
12600078	A	11/07/1973	R	-2.81		NR	130	NR	NR	NR	NR
12600078	A	31/01/1969	R	-2.82		NR	130	NR	NR	NR	NR
12600078	A	29/09/1969	R	-2.83		NR	130	NR	NR	NR	NR
12600078	A	2/07/1968	R	-2.84		NR	130	NR	NR	NR	NR
12600078	A	7/07/1970	R	-2.86		NR	130	NR	NR	NR	NR
12600078	A	11/10/1968	R	-2.9		NR	130	NR	NR	NR	NR
12600078	A	21/04/1969	R	-2.9		NR	130	NR	NR	NR	NR
12600078	A	13/10/1978	R	-2.9		NR	130	NR	NR	NR	NR

RN	PIPE	RDATe	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600079	A	18/07/1969	R	-2.76		NR	130	NR	NR	NR	
12600079	A	3/06/1968	R	-2.77		NR	130	NR	NR	NR	
12600079	A	17/06/1969	R	-2.79		NR	130	NR	NR	NR	
12600079	A	11/10/1972	R	-2.8	P	NR	130	NR	NR	NR	
12600079	A	25/06/1976	R	-2.8		NR	130	NR	NR	NR	
12600079	A	29/10/1976	R	-2.8		NR	130	NR	NR	NR	
12600079	A	29/09/1969	R	-2.83		NR	130	NR	NR	NR	
12600079	A	30/06/1975	R	-2.83		NR	130	NR	NR	NR	
12600079	A	2/07/1968	R	-2.84		NR	130	NR	NR	NR	
12600079	A	31/01/1969	R	-2.84		NR	130	NR	NR	NR	
12600079	A	21/04/1969	R	-2.84		NR	130	NR	NR	NR	
12600079	A	7/07/1970	R	-2.86		NR	130	NR	NR	NR	
12600079	A	5/08/1974	R	-2.89		NR	130	NR	NR	NR	
12600079	A	11/10/1968	R	-2.9		NR	130	NR	NR	NR	
12600079	A	13/10/1978	R	-2.9		NR	130	NR	NR	NR	
12600079	A	26/05/1969	R	-2.92		NR	130	NR	NR	NR	
12600079	A	17/07/1987	R	-2.92		NR	130	NR	NR	NR	
12600079	A	19/08/1969	R	-2.92		NR	130	NR	NR	NR	
12600079	A	23/03/1983	R	-2.95		NR	130	NR	NR	NR	
12600079	A	12/09/1986	R	-2.95		NR	130	NR	NR	NR	
12600079	A	3/01/1990	R	-2.95		NR	130	NR	NR	NR	
12600079	A	20/11/1969	R	-2.97		NR	130	NR	NR	NR	
12600079	A	5/08/1977	R	-3		NR	130	NR	NR	NR	
12600079	A	29/02/1988	R	-3		NR	130	NR	NR	NR	
12600079	A	24/11/1970	R	-3.05		NR	130	NR	NR	NR	
12600079	A	12/03/1973	R	-3.08		NR	130	NR	NR	NR	
12600079	A	23/11/1977	R	-3.1		NR	130	NR	NR	NR	
12600079	A	20/11/1987	R	-3.1		NR	130	NR	NR	NR	
12600079	A	21/11/1986	R	-3.1		NR	130	NR	NR	NR	
12600079	A	21/11/1975	R	-3.13		NR	130	NR	NR	NR	
12600079	A	1/11/1979	R	-3.2		NR	130	NR	NR	NR	
12600079	A	25/08/1981	R	-3.26		NR	130	NR	NR	NR	
12600079	A	1/10/1970	R	-3.29		NR	130	NR	NR	NR	
12600079	A	22/09/1975	R	-3.34		NR	130	NR	NR	NR	
12600079	A	5/11/1974	R	-3.41		NR	130	NR	NR	NR	
12600079	A	13/11/1980	R	-3.46		NR	130	NR	NR	NR	
12600079	A	6/09/1990	R	-3.6		NR	130	NR	NR	NR	
12600079	A	19/05/1982	R	-3.71		NR	130	NR	NR	NR	
12600079	A	11/07/1973	R	-3.75		NR	130	NR	NR	NR	
12600079	A	18/01/1973	R	-3.76		NR	130	NR	NR	NR	
12600079	A	15/12/1972	R	-3.78		NR	130	NR	NR	NR	
12600079	A	17/11/1988	R	-3.8		NR	130	NR	NR	NR	
12600079	A	13/03/1985	R	-3.88		NR	130	NR	NR	NR	
12600079	A	17/08/1982	R	-3.95		NR	130	NR	NR	NR	
12600079	A	20/03/1987	R	-4.2		NR	130	NR	NR	NR	
12600079	A	19/10/1984	R	-4.2		NR	130	NR	NR	NR	
12600079	A	13/11/1981	R	-4.26		NR	130	NR	NR	NR	
12600079	A	18/02/1982	R	-4.61		NR	130	NR	NR	NR	
12600079	A	28/10/1982	R	-4.66		NR	130	NR	NR	NR	
12600080	A	23/03/1972	R	-1.55		NR	130	NR	NR	NR	
12600080	A	20/03/1981	R	-1.58		NR	130	NR	NR	NR	
12600080	A	1/04/1977	R	-1.7		NR	130	NR	NR	NR	
12600080	A	29/06/1972	R	-1.84		NR	130	NR	NR	NR	
12600080	A	26/03/1974	R	-1.87		NR	130	NR	NR	NR	
12600080	A	4/04/1975	R	-2.11		NR	130	NR	NR	NR	
12600080	A	30/05/1980	R	-2.11		NR	130	NR	NR	NR	
12600080	A	13/03/1979	R	-2.12		NR	130	NR	NR	NR	
12600080	A	28/07/1980	R	-2.2		NR	130	NR	NR	NR	
12600080	A	8/03/1971	R	-2.26		NR	130	NR	NR	NR	
12600080	A	13/05/1971	R	-2.26		NR	130	NR	NR	NR	
12600080	A	4/08/1971	R	-2.3		NR	130	NR	NR	NR	
12600080	A	3/03/1976	R	-2.36		NR	130	NR	NR	NR	
12600080	A	30/11/1971	R	-2.41		NR	130	NR	NR	NR	
12600080	A	7/04/1970	R	-2.46		NR	130	NR	NR	NR	
12600080	A	24/05/1977	R	-2.5		NR	130	NR	NR	NR	
12600080	A	15/02/1980	R	-2.5		NR	130	NR	NR	NR	
12600080	A	23/05/1989	R	-2.5		NR	130	NR	NR	NR	
12600080	A	4/08/1983	R	-2.54		NR	130	NR	NR	NR	
12600080	A	25/06/1979	R	-2.55		NR	130	NR	NR	NR	
12600080	A	9/04/1990	R	-2.55		NR	130	NR	NR	NR	
12600080	A	6/03/1968	R	-2.57		NR	130	NR	NR	NR	
12600080	A	2/03/1970	R	-2.57		NR	130	NR	NR	NR	
12600080	A	14/03/1969	R	-2.59		NR	130	NR	NR	NR	
12600080	A	27/01/1970	R	-2.59		NR	130	NR	NR	NR	
12600080	A	8/04/1968	R	-2.59		NR	130	NR	NR	NR	
12600080	A	1/06/1978	R	-2.6		NR	130	NR	NR	NR	
12600080	A	23/05/1986	R	-2.6		NR	130	NR	NR	NR	
12600080	A	22/12/1976	R	-2.61		NR	130	NR	NR	NR	
12600080	A	22/02/1978	R	-2.63		NR	130	NR	NR	NR	
12600080	A	8/08/1978	R	-2.63		NR	130	NR	NR	NR	
12600080	A	14/08/1968	R	-2.							

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600081A		6/03/1968R		-2.46		NR	130	NR	NR	NR	
12600081A		15/02/1980R		-2.46		NR	130	NR	NR	NR	
12600081A		23/05/1989R		-2.48		NR	130	NR	NR	NR	
12600081A		2/03/1970R		-2.51		NR	130	NR	NR	NR	
12600081A		30/11/1971R		-2.51		NR	130	NR	NR	NR	
12600081A		4/08/1983R		-2.51		NR	130	NR	NR	NR	
12600081A		24/05/1977R		-2.53		NR	130	NR	NR	NR	
12600081A		8/04/1968R		-2.54		NR	130	NR	NR	NR	
12600081A		14/03/1969R		-2.54		NR	130	NR	NR	NR	
12600081A		25/06/1979R		-2.55		NR	130	NR	NR	NR	
12600081A		27/01/1970R		-2.57		NR	130	NR	NR	NR	
12600081A		8/05/1968R		-2.59		NR	130	NR	NR	NR	
12600081A		1/06/1978R		-2.59		NR	130	NR	NR	NR	
12600081A		23/05/1986R		-2.6		NR	130	NR	NR	NR	
12600081A		9/04/1990R		-2.6		NR	130	NR	NR	NR	
12600081A		22/12/1976R		-2.61		NR	130	NR	NR	NR	
12600081A		22/02/1978R		-2.61		NR	130	NR	NR	NR	
12600081A		14/08/1968R		-2.62		NR	130	NR	NR	NR	
12600081A		8/08/1978R		-2.62		NR	130	NR	NR	NR	
12600081A		3/06/1968R		-2.67		NR	130	NR	NR	NR	
12600081A		2/07/1968R		-2.74		NR	130	NR	NR	NR	
12600081A		11/09/1968R		-2.74		NR	130	NR	NR	NR	
12600081A		19/08/1969R		-2.74		NR	130	NR	NR	NR	
12600081A		1/06/1970R		-2.74		NR	130	NR	NR	NR	
12600081A		11/10/1968R		-2.77		NR	130	NR	NR	NR	
12600081A		31/01/1969R		-2.77		NR	130	NR	NR	NR	
12600081A		17/06/1969R		-2.77		NR	130	NR	NR	NR	
12600081A		11/10/1972R		-2.77		NR	130	NR	NR	NR	
12600081A		12/03/1973R		-2.77		NR	130	NR	NR	NR	
12600081A		29/09/1969R		-2.79		NR	130	NR	NR	NR	
12600081A		25/06/1976R		-2.79		NR	130	NR	NR	NR	
12600081A		29/10/1976R		-2.79		NR	130	NR	NR	NR	
12600081A		21/04/1969R		-2.8		NR	130	NR	NR	NR	
12600081A		11/07/1973R		-2.8		NR	130	NR	NR	NR	
12600081A		30/06/1975R		-2.82		NR	130	NR	NR	NR	
12600081A		26/05/1969R		-2.84		NR	130	NR	NR	NR	
12600081A		7/07/1970R		-2.85		NR	130	NR	NR	NR	
12600081A		18/07/1969R		-2.87		NR	130	NR	NR	NR	
12600081A		13/10/1978R		-2.87		NR	130	NR	NR	NR	
12600081A		17/07/1987R		-2.89		NR	130	NR	NR	NR	
12600081A		20/11/1969R		-2.9		NR	130	NR	NR	NR	
12600081A		12/09/1986R		-2.92		NR	130	NR	NR	NR	
12600081A		5/08/1977R		-2.93		NR	130	NR	NR	NR	
12600081A		23/03/1983R		-2.93		NR	130	NR	NR	NR	
12600081A		5/08/1974R		-2.93		NR	130	NR	NR	NR	
12600081A		3/01/1990R		-2.95		NR	130	NR	NR	NR	
12600081A		21/11/1986R		-3		NR	130	NR	NR	NR	
12600081A		24/11/1970R		-3.05		NR	130	NR	NR	NR	
12600081A		29/02/1988R		-3.05		NR	130	NR	NR	NR	
12600081A		21/11/1975R		-3.12		NR	130	NR	NR	NR	
12600081A		23/11/1977R		-3.14		NR	130	NR	NR	NR	
12600081A		1/11/1979R		-3.15		NR	130	NR	NR	NR	
12600081A		20/11/1987R		-3.15		NR	130	NR	NR	NR	
12600081A		1/10/1970R		-3.23		NR	130	NR	NR	NR	
12600081A		25/08/1981R		-3.25		NR	130	NR	NR	NR	
12600081A		22/09/1975R		-3.31		NR	130	NR	NR	NR	
12600081A		5/11/1974R		-3.32		NR	130	NR	NR	NR	
12600081A		6/09/1990R		-3.58		NR	130	NR	NR	NR	
12600081A		18/01/1973R		-3.61		NR	130	NR	NR	NR	
12600081A		19/05/1982R		-3.68		NR	130	NR	NR	NR	
12600081A		15/12/1972R		-3.69		NR	130	NR	NR	NR	
12600081A		13/03/1985R		-3.84		NR	130	NR	NR	NR	
12600081A		13/11/1980R		-3.87		NR	130	NR	NR	NR	
12600081A		17/11/1988R		-3.96		NR	130	NR	NR	NR	
12600081A		17/08/1982R		-4.01		NR	130	NR	NR	NR	
12600081A		19/10/1984R		-4.1		NR	130	NR	NR	NR	
12600081A		20/03/1987R		-4.2		NR	130	NR	NR	NR	
12600081A		13/11/1981R		-4.24		NR	130	NR	NR	NR	
12600081A		18/02/1982R		-4.49		NR	130	NR	NR	NR	
12600082A		13/03/1979R		-0.85		NR	130	NR	NR	NR	
12600082A		26/03/1974R		-1.1		NR	130	NR	NR	NR	
12600082A		8/04/1968R		-1.19		NR	130	NR	NR	NR	
12600082A		9/03/1972R		-1.19		NR	130	NR	NR	NR	
12600082A		4/04/1975R		-1.2		NR	130	NR	NR	NR	
12600082A		24/05/1977R		-1.25		NR	130	NR	NR	NR	
12600082A		8/05/1968R		-1.32		NR	130	NR	NR	NR	
12600082A		3/03/1976R		-1.4		NR	130	NR	NR	NR	
12600082A		3/06/1968R		-1.42		NR	130	NR	NR	NR	
12600082A		2/07/1968R		-1.58		NR	130	NR	NR	NR	
12600082A		13/05/1971R		-1.63		NR	130	NR	NR	NR	
12600082A		23/05/1989R		-1.64		NR	130</				

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600082	A	13/04/2007	R	-2.37		NR	130	NR		NR	NR
12600082	A	22/09/1975	R	-2.38		NR	130	NR		NR	NR
12600082	A	23/03/1983	R	-2.38		NR	130	NR		NR	NR
12600082	A	23/11/1970	R	-2.39		NR	130	NR		NR	NR
12600082	A	23/11/1977	R	-2.4		NR	130	NR		NR	NR
12600082	A	6/09/1990	R	-2.4		NR	130	NR		NR	NR
12600082	A	8/05/1991	R	-2.4		NR	130	NR		NR	NR
12600082	A	8/03/2002	R	-2.41		NR	130	NR		NR	NR
12600082	A	17/08/1982	R	-2.44		NR	130	NR		NR	NR
12600082	A	13/07/1984	R	-2.45		NR	130	NR		NR	NR
12600082	A	15/04/1992	R	-2.45		NR	130	NR		NR	NR
12600082	A	26/06/2009	R	-2.46		ACT	1	DG	GWAN	REGION	MA
12600082	A	20/11/1987	R	-2.5		NR	130	NR		NR	NR
12600082	A	22/03/2001	R	-2.5		NR	130	NR		NR	NR
12600082	A	19/06/2006	R	-2.51		NR	130	NR		NR	NR
12600082	A	5/06/1997	R	-2.52		NR	130	NR		NR	NR
12600082	A	13/09/2007	R	-2.52		ACT	1	DG	GWAN	REGION	MA
12600082	A	11/06/2008	R	-2.53		ACT	1	DG	GWAN	REGION	MA
12600082	A	23/07/2010	R	-2.54		ACT	1	DG	GWAN	REGION	MA
12600082	A	15/03/2006	R	-2.54		ACT	1	DG	GWAN	REGION	MA
12600082	A	20/03/1987	R	-2.55		NR	130	NR		NR	NR
12600082	A	12/05/1997	R	-2.55		NR	130	NR		NR	NR
12600082	A	11/10/1972	R	-2.55		NR	130	NR		NR	NR
12600082	A	8/04/1998	R	-2.58		NR	130	NR		NR	NR
12600082	A	6/05/1993	R	-2.6		NR	130	NR		NR	NR
12600082	A	17/06/1996	R	-2.6		NR	130	NR		NR	NR
12600082	A	2/09/2008	R	-2.6		ACT	1	DG	GWAN	REGION	MA
12600082	A	15/06/2001	R	-2.61		NR	130	NR		NR	NR
12600082	A	15/12/1972	R	-2.64		NR	130	NR		NR	NR
12600082	A	17/03/1994	R	-2.64		NR	130	NR		NR	NR
12600082	A	16/11/1998	R	-2.64		NR	130	NR		NR	NR
12600082	A	3/12/2001	R	-2.64		NR	130	NR		NR	NR
12600082	A	9/09/1999	R	-2.65		NR	130	NR		NR	NR
12600082	A	9/04/1990	R	-2.65		NR	130	NR		NR	NR
12600082	A	3/12/2007	R	-2.65		ACT	1	DG	GWAN	REGION	MA
12600082	A	20/09/2001	R	-2.66		NR	130	NR		NR	NR
12600082	A	17/04/2003	R	-2.69		NR	130	NR		NR	NR
12600082	A	1/07/2005	R	-2.7		NR	130	NR		NR	NR
12600082	A	25/07/1994	R	-2.7		NR	130	NR		NR	NR
12600082	A	2/09/2005	R	-2.71		ACT	1	DG	GWAN	REGION	MA
12600082	A	17/03/2005	R	-2.72		NR	130	NR		NR	NR
12600082	A	9/03/2004	R	-2.73		ACT	1	DG	GWAN	REGION	MA
12600082	A	24/09/1991	R	-2.75		NR	130	NR		NR	NR
12600082	A	18/01/2007	R	-2.75		NR	130	NR		NR	NR
12600082	A	13/11/1981	R	-2.77		NR	130	NR		NR	NR
12600082	A	25/08/1993	R	-2.77		NR	130	NR		NR	NR
12600082	A	19/09/2000	R	-2.78		NR	130	NR		NR	NR
12600082	A	22/12/2006	R	-2.79		NR	130	NR		NR	NR
12600082	A	18/01/1973	R	-2.8		NR	130	NR		NR	NR
12600082	A	20/04/1967	N	-2.8		NR	130	NR		NR	NR
12600082	A	1/12/2008	R	-2.8		NR	130	NR		NR	NR
12600082	A	16/12/2009	R	-2.8		ACT	1	DG	GWAN	REGION	MA
12600082	A	23/06/1995	R	-2.81		NR	130	NR		NR	NR
12600082	A	8/06/2004	R	-2.82		ACT	1	DG	GWAN	REGION	MA
12600082	A	2/11/2009	R	-2.82		ACT	1	DG	GWAN	REGION	MA
12600082	A	18/02/1982	R	-2.85		NR	130	NR		NR	NR
12600082	A	5/12/1995	R	-2.87		NR	130	NR		NR	NR
12600082	A	26/10/1992	R	-2.88		NR	130	NR		NR	NR
12600082	A	3/09/2002	R	-2.88		NR	130	NR		NR	NR
12600082	A	7/10/2003	R	-2.9		NR	130	NR		NR	NR
12600082	A	28/10/1982	R	-2.92		NR	130	NR		NR	NR
12600082	A	22/09/2003	R	-2.94		NR	130	NR		NR	NR
12600082	A	19/10/1984	R	-2.95		NR	130	NR		NR	NR
12600082	A	16/12/1994	R	-3		NR	130	NR		NR	NR
12600082	A	3/10/1994	R	-3.02		NR	130	NR		NR	NR
12600082	A	27/09/2004	R	-3.03		ACT	1	DG	GWAN	REGION	MA
12600082	A	13/11/1980	R	-3.2		NR	130	NR		NR	NR
12600082	A	29/11/1994	R	-3.22		NR	130	NR		NR	NR
12600083	A	26/03/1974	R	-0.95		NR	130	NR		NR	NR
12600083	A	13/03/1979	R	-0.95		NR	130	NR		NR	NR
12600083	A	9/03/1972	R	-0.98		NR	130	NR		NR	NR
12600083	A	4/04/1975	R	-1.1		NR	130	NR		NR	NR
12600083	A	22/02/1979	R	-1.14		NR	130	NR		NR	NR
12600083	A	8/03/1971	R	-1.28		NR	130	NR		NR	NR
12600083	A	8/04/1968	R	-1.3		NR	130	NR		NR	NR
12600083	A	3/03/1976	R	-1.31		NR	130	NR		NR	NR
12600083	A	2/03/1970	R	-1.39		NR	130	NR		NR	NR
12600083	A	24/05/1977	R	-1.41		NR	130	NR		NR	NR
12600083	A	7/04/1970	R	-1.6		NR	130	NR		NR	NR
12600083	A	1/04/1977	R	-1.6		NR	130	NR		NR	NR
12600083	A	8/05/1968	R	-1.65		NR	1				

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600083	A	1/10/1970	R	-2.34		NR	130	NR		NR	NR
12600083	A	22/03/2001	R	-2.35		NR	130	NR		NR	NR
12600083	A	8/03/2002	R	-2.36		NR	130	NR		NR	NR
12600083	A	6/09/1990	R	-2.38		NR	130	NR		NR	NR
12600083	A	23/11/1970	R	-2.39		NR	130	NR		NR	NR
12600083	A	26/06/2009	R	-2.39		ACT	1	DG	GWAN	REGION	MA
12600083	A	23/11/1977	R	-2.4		NR	130	NR		NR	NR
12600083	A	12/09/1986	R	-2.4		NR	130	NR		NR	NR
12600083	A	15/04/1992	R	-2.4		NR	130	NR		NR	NR
12600083	A	17/08/1982	R	-2.4		NR	130	NR		NR	NR
12600083	A	31/01/1969	R	-2.41		NR	130	NR		NR	NR
12600083	A	21/04/1969	R	-2.41		NR	130	NR		NR	NR
12600083	A	19/06/2006	R	-2.41		NR	130	NR		NR	NR
12600083	A	11/06/2008	R	-2.41		ACT	1	DG	GWAN	REGION	MA
12600083	A	14/12/1976	R	-2.42		NR	130	NR		NR	NR
12600083	A	5/06/1997	R	-2.44		NR	130	NR		NR	NR
12600083	A	12/05/1997	R	-2.45		NR	130	NR		NR	NR
12600083	A	3/01/1990	R	-2.45		NR	130	NR		NR	NR
12600083	A	29/02/1988	R	-2.45		NR	130	NR		NR	NR
12600083	A	23/07/2010	R	-2.45		ACT	1	DG	GWAN	REGION	MA
12600083	A	15/06/2001	R	-2.46		NR	130	NR		NR	NR
12600083	A	10/10/1980	R	-2.49		NR	130	NR		NR	NR
12600083	A	21/11/1986	R	-2.5		NR	130	NR		NR	NR
12600083	A	17/07/1987	R	-2.5		NR	130	NR		NR	NR
12600083	A	17/11/1988	R	-2.5		NR	130	NR		NR	NR
12600083	A	2/09/2008	R	-2.5		ACT	1	DG	GWAN	REGION	MA
12600083	A	9/12/1981	R	-2.53		NR	130	NR		NR	NR
12600083	A	17/06/1996	R	-2.53		NR	130	NR		NR	NR
12600083	A	3/06/2002	R	-2.53		NR	130	NR		NR	NR
12600083	A	9/09/1999	R	-2.54		NR	130	NR		NR	NR
12600083	A	18/01/2007	R	-2.54		NR	130	NR		NR	NR
12600083	A	23/03/1983	R	-2.55		NR	130	NR		NR	NR
12600083	A	18/04/1984	R	-2.55		NR	130	NR		NR	NR
12600083	A	16/11/1998	R	-2.55		NR	130	NR		NR	NR
12600083	A	8/04/1998	R	-2.55		NR	130	NR		NR	NR
12600083	A	17/04/2003	R	-2.55		NR	130	NR		NR	NR
12600083	A	11/10/1972	R	-2.56		NR	130	NR		NR	NR
12600083	A	15/03/2006	R	-2.56		ACT	1	DG	GWAN	REGION	MA
12600083	A	6/05/1993	R	-2.57		NR	130	NR		NR	NR
12600083	A	3/12/2007	R	-2.57		ACT	1	DG	GWAN	REGION	MA
12600083	A	20/11/1987	R	-2.6		NR	130	NR		NR	NR
12600083	A	15/12/1972	R	-2.61		NR	130	NR		NR	NR
12600083	A	17/03/1994	R	-2.61		NR	130	NR		NR	NR
12600083	A	1/07/2005	R	-2.61		NR	130	NR		NR	NR
12600083	A	13/07/1984	R	-2.62		NR	130	NR		NR	NR
12600083	A	20/09/2001	R	-2.62		NR	130	NR		NR	NR
12600083	A	9/03/2004	R	-2.63		ACT	1	DG	GWAN	REGION	MA
12600083	A	2/09/2005	R	-2.63		ACT	1	DG	GWAN	REGION	MA
12600083	A	21/09/2000	R	-2.64		NR	130	NR		NR	NR
12600083	A	18/01/1973	R	-2.65		NR	130	NR		NR	NR
12600083	A	25/07/1994	R	-2.65		NR	130	NR		NR	NR
12600083	A	24/09/1991	R	-2.65		NR	130	NR		NR	NR
12600083	A	17/03/2005	R	-2.68		NR	130	NR		NR	NR
12600083	A	25/08/1993	R	-2.7		NR	130	NR		NR	NR
12600083	A	22/12/2006	R	-2.71		NR	130	NR		NR	NR
12600083	A	23/06/1995	R	-2.72		NR	130	NR		NR	NR
12600083	A	3/09/2002	R	-2.72		NR	130	NR		NR	NR
12600083	A	13/11/1981	R	-2.75		NR	130	NR		NR	NR
12600083	A	9/04/1990	R	-2.75		NR	130	NR		NR	NR
12600083	A	2/11/2009	R	-2.75		ACT	1	DG	GWAN	REGION	MA
12600083	A	16/12/2009	R	-2.75		ACT	1	DG	GWAN	REGION	MA
12600083	A	8/06/2004	R	-2.76		ACT	1	DG	GWAN	REGION	MA
12600083	A	3/12/2001	R	-2.79		NR	130	NR		NR	NR
12600083	A	20/03/1987	R	-2.8		NR	130	NR		NR	NR
12600083	A	5/12/1995	R	-2.82		NR	130	NR		NR	NR
12600083	A	7/10/2003	R	-2.82		NR	130	NR		NR	NR
12600083	A	22/09/2003	R	-2.82		NR	130	NR		NR	NR
12600083	A	18/02/1982	R	-2.83		NR	130	NR		NR	NR
12600083	A	19/10/1984	R	-2.83		NR	130	NR		NR	NR
12600083	A	28/10/1982	R	-2.86		NR	130	NR		NR	NR
12600083	A	26/10/1992	R	-2.86		NR	130	NR		NR	NR
12600083	A	16/12/2005	R	-2.92		ACT	1	DG	GWAN	REGION	MA
12600083	A	3/10/1994	R	-2.93		NR	130	NR		NR	NR
12600083	A	16/12/1994	R	-2.93		NR	130	NR		NR	NR
12600083	A	27/09/2004	R	-2.97		ACT	1	DG	GWAN	REGION	MA
12600083	A	29/11/1994	R	-3.16		NR	130	NR		NR	NR
12600083	A	13/11/1980	R	-3.33		NR	130	NR		NR	NR
12600083	A	1/12/2008	R	-7.7		NR	130	NR		NR	NR
12600084	A	13/03/1979	R	-1.15		NR	130	NR		NR	NR
12600084	A	26/03/1974	R	-1.3		NR	130	NR		NR	NR
12600084	A	9/03/1972	R	-1.4	</td						

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETHOD
12600084A		16/05/1988R		-2.32		NR	130	NR		NR	NR
12600084A		17/06/1996R		-2.33		NR	130	NR		NR	NR
12600084A		15/06/2001R		-2.33		NR	130	NR		NR	NR
12600084A		3/06/2002R		-2.34		NR	130	NR		NR	NR
12600084A		4/04/1975R		-2.35		NR	130	NR		NR	NR
12600084A		21/11/1975R		-2.35		NR	130	NR		NR	NR
12600084A		18/01/2007R		-2.35		NR	130	NR		NR	NR
12600084A		6/05/1993R		-2.35		NR	130	NR		NR	NR
12600084A		17/03/1994R		-2.35		NR	130	NR		NR	NR
12600084A		3/10/1968R		-2.36		NR	130	NR		NR	NR
12600084A		16/11/1998R		-2.37		NR	130	NR		NR	NR
12600084A		8/04/1998R		-2.37		NR	130	NR		NR	NR
12600084A		29/09/1969R		-2.38		NR	130	NR		NR	NR
12600084A		25/08/1981R		-2.4		NR	130	NR		NR	NR
12600084A		13/09/2007R		-2.4		ACT	1	DG	GWAN	REGION	MA
12600084A		1/11/1979R		-2.4		NR	130	NR		NR	NR
12600084A		9/09/1999R		-2.41		NR	130	NR		NR	NR
12600084A		25/07/1994R		-2.45		NR	130	NR		NR	NR
12600084A		1/07/2005R		-2.45		NR	130	NR		NR	NR
12600084A		3/12/2007R		-2.45		ACT	1	DG	GWAN	REGION	MA
12600084A		17/08/1982R		-2.46		NR	130	NR		NR	NR
12600084A		20/09/2001R		-2.47		NR	130	NR		NR	NR
12600084A		17/03/2005R		-2.48		NR	130	NR		NR	NR
12600084A		5/11/1974R		-2.5		NR	130	NR		NR	NR
12600084A		23/11/1977R		-2.5		NR	130	NR		NR	NR
12600084A		13/03/1985R		-2.5		NR	130	NR		NR	NR
12600084A		29/02/1988R		-2.5		NR	130	NR		NR	NR
12600084A		6/09/1990R		-2.5		NR	130	NR		NR	NR
12600084A		2/09/2008R		-2.52		ACT	1	DG	GWAN	REGION	MA
12600084A		30/11/1971R		-2.53		NR	130	NR		NR	NR
12600084A		25/08/1993R		-2.53		NR	130	NR		NR	NR
12600084A		23/06/1995R		-2.53		NR	130	NR		NR	NR
12600084A		2/09/2005R		-2.53		ACT	1	DG	GWAN	REGION	MA
12600084A		20/11/1969R		-2.54		NR	130	NR		NR	NR
12600084A		1/12/2008R		-2.54		NR	130	NR		NR	NR
12600084A		16/12/2009R		-2.56		ACT	1	DG	GWAN	REGION	MA
12600084A		17/11/1988R		-2.57		NR	130	NR		NR	NR
12600084A		22/12/2006R		-2.57		NR	130	NR		NR	NR
12600084A		1/10/1970R		-2.58		NR	130	NR		NR	NR
12600084A		8/06/2004R		-2.58		ACT	1	DG	GWAN	REGION	MA
12600084A		12/09/1986R		-2.58		NR	130	NR		NR	NR
12600084A		31/01/1969R		-2.59		NR	130	NR		NR	NR
12600084A		3/01/1990R		-2.6		NR	130	NR		NR	NR
12600084A		23/11/1970R		-2.61		NR	130	NR		NR	NR
12600084A		17/07/1987R		-2.62		NR	130	NR		NR	NR
12600084A		3/09/2002R		-2.62		NR	130	NR		NR	NR
12600084A		5/12/1995R		-2.64		NR	130	NR		NR	NR
12600084A		21/09/2000R		-2.64		NR	130	NR		NR	NR
12600084A		2/11/2009R		-2.64		ACT	1	DG	GWAN	REGION	MA
12600084A		24/09/1991R		-2.68		NR	130	NR		NR	NR
12600084A		18/04/1984R		-2.7		NR	130	NR		NR	NR
12600084A		21/11/1986R		-2.7		NR	130	NR		NR	NR
12600084A		9/04/1990R		-2.7		NR	130	NR		NR	NR
12600084A		23/03/1983R		-2.71		NR	130	NR		NR	NR
12600084A		11/10/1972R		-2.72		NR	130	NR		NR	NR
12600084A		20/11/1987R		-2.72		NR	130	NR		NR	NR
12600084A		7/10/2003R		-2.74		NR	130	NR		NR	NR
12600084A		16/12/1994R		-2.76		NR	130	NR		NR	NR
12600084A		15/12/1972R		-2.77		NR	130	NR		NR	NR
12600084A		22/09/2003R		-2.78		NR	130	NR		NR	NR
12600084A		18/01/1973R		-2.79		NR	130	NR		NR	NR
12600084A		13/11/1981R		-2.8		NR	130	NR		NR	NR
12600084A		22/09/1975R		-2.8		NR	130	NR		NR	NR
12600084A		16/12/2005R		-2.82		ACT	1	DG	GWAN	REGION	MA
12600084A		13/07/1984R		-2.83		NR	130	NR		NR	NR
12600084A		20/03/1987R		-2.87		NR	130	NR		NR	NR
12600084A		3/12/2001R		-2.88		NR	130	NR		NR	NR
12600084A		27/09/2004R		-2.89		ACT	1	DG	GWAN	REGION	MA
12600084A		28/10/1982R		-2.9		NR	130	NR		NR	NR
12600084A		3/10/1994R		-2.92		NR	130	NR		NR	NR
12600084A		26/10/1992R		-2.95		NR	130	NR		NR	NR
12600084A		29/11/1994R		-3.13		NR	130	NR		NR	NR
12600084A		19/10/1984R		-3.2		NR	130	NR		NR	NR
12600084A		13/11/1980R		-3.45		NR	130	NR		NR	NR
12600353A		10/01/1991R		-1.25		NR	130	NR		NR	NR
12600353B		2/09/2008R		-1.52		ACT	1	DG	GWAN	REGION	MA
12600353A		22/02/1979R		-1.55		NR	130	NR		NR	NR
12600353B		22/02/1979R		-1.57		NR	130	NR		NR	NR
12600353B		13/03/1997R		-1.92		NR	130	NR		NR	NR
12600353B		4/03/2003R		-2.19		NR	130	NR		NR	NR
12600353C		13/03/1997R									

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600353	B	20/02/1978	R	-3.59		NR	130	NR		NR	NR
12600353	B	3/03/1976	R	-3.6		NR	130	NR		NR	NR
12600353	C	23/02/1990	R	-3.6		NR	130	NR		NR	NR
12600353	A	4/03/2003	R	-3.6		NR	130	NR		NR	NR
12600353	A	9/12/1981	R	-3.61		NR	130	NR		NR	NR
12600353	C	17/03/2005	R	-3.63		NR	130	NR		NR	NR
12600353	C	25/07/1994	R	-3.65		NR	130	NR		NR	NR
12600353	C	23/06/1995	R	-3.67		NR	130	NR		NR	NR
12600353	C	15/06/2010	R	-3.7		NR	130	NR		NR	NR
12600353	C	17/06/1976	R	-3.71		NR	130	NR		NR	NR
12600353	C	15/04/1992	R	-3.72		NR	130	NR		NR	NR
12600353	C	1/07/2005	R	-3.72		NR	130	NR		NR	NR
12600353	C	5/12/1995	R	-3.74		NR	130	NR		NR	NR
12600353	A	7/01/1976	R	-3.75		NR	130	NR		NR	NR
12600353	A	11/01/1977	R	-3.75		NR	130	NR		NR	NR
12600353	A	16/11/1998	R	-3.75		NR	130	NR		NR	NR
12600353	B	23/02/1990	R	-3.75		NR	130	NR		NR	NR
12600353	C	5/06/1997	R	-3.75		NR	130	NR		NR	NR
12600353	A	17/06/1976	R	-3.76		NR	130	NR		NR	NR
12600353	A	5/12/1995	R	-3.76		NR	130	NR		NR	NR
12600353	A	22/12/2006	R	-3.77		NR	130	NR		NR	NR
12600353	A	18/03/2014	R	-3.77		NR	130	NR		NR	NR
12600353	B	11/01/1977	R	-3.79		NR	130	NR		NR	NR
12600353	C	17/03/1994	R	-3.79		NR	130	NR		NR	NR
12600353	C	9/12/1981	R	-3.79		NR	130	NR		NR	NR
12600353	A	3/03/1976	R	-3.8		NR	130	NR		NR	NR
12600353	B	7/01/1976	R	-3.8		NR	130	NR		NR	NR
12600353	C	23/03/1983	R	-3.8		NR	130	NR		NR	NR
12600353	B	8/05/1991	R	-3.8		NR	130	NR		NR	NR
12600353	C	20/11/1987	R	-3.8		NR	130	NR		NR	NR
12600353	C	12/05/1997	R	-3.8		NR	130	NR		NR	NR
12600353	A	20/12/2000	R	-3.82		NR	130	NR		NR	NR
12600353	C	19/06/2006	R	-3.82		NR	130	NR		NR	NR
12600353	C	16/11/1998	R	-3.84		NR	130	NR		NR	NR
12600353	C	11/03/2002	R	-3.84		NR	130	NR		NR	NR
12600353	A	13/03/2009	R	-3.84	ACT	1 DG	GWAN	REGION	MA		
12600353	B	24/08/1976	R	-3.84	NR	130	NR		NR	NR	
12600353	C	4/08/1975	R	-3.85	NR	130	NR		NR	NR	
12600353	C	20/03/1980	R	-3.85	NR	130	NR		NR	NR	
12600353	C	20/03/1987	R	-3.85	NR	130	NR		NR	NR	
12600353	B	8/04/1998	R	-3.85	NR	130	NR		NR	NR	
12600353	C	26/05/1986	R	-3.85	NR	130	NR		NR	NR	
12600353	C	10/10/1980	R	-3.87	NR	130	NR		NR	NR	
12600353	C	6/04/2000	R	-3.87	NR	130	NR		NR	NR	
12600353	B	11/04/2011	R	-3.87	ACT	1 DG	GWAN	REGION	MA		
12600353	C	22/03/2001	R	-3.88	NR	130	NR		NR	NR	
12600353	C	2/09/2005	R	-3.88	ACT	1 DG	GWAN	REGION	MA		
12600353	A	24/08/1976	R	-3.89	NR	130	NR		NR	NR	
12600353	C	1/02/1984	R	-3.9	NR	130	NR		NR	NR	
12600353	A	25/07/1994	R	-3.9	NR	130	NR		NR	NR	
12600353	C	11/06/2008	R	-3.9	ACT	1 DG	GWAN	REGION	MA		
12600353	B	20/05/2015	R	-3.91	ACT	1 DG	GWAN	REGION	MA		
12600353	A	10/10/1980	R	-3.92	NR	130	NR		NR	NR	
12600353	B	3/10/1975	R	-3.92	NR	130	NR		NR	NR	
12600353	B	1/02/1984	R	-3.92	NR	130	NR		NR	NR	
12600353	A	14/05/2003	R	-3.92	NR	130	NR		NR	NR	
12600353	A	22/11/1977	R	-3.93	NR	130	NR		NR	NR	
12600353	C	20/11/1987	R	-3.93	NR	130	NR		NR	NR	
12600353	B	4/08/1975	R	-3.93	NR	130	NR		NR	NR	
12600353	C	26/10/1992	R	-3.94	NR	130	NR		NR	NR	
12600353	A	2/11/1976	R	-3.95	NR	130	NR		NR	NR	
12600353	A	17/06/1996	R	-3.95	NR	130	NR		NR	NR	
12600353	A	28/11/2012	R	-3.95	NR	130	NR		NR	NR	
12600353	A	26/10/1992	R	-3.95	NR	130	NR		NR	NR	
12600353	B	26/07/1977	R	-3.95	NR	130	NR		NR	NR	
12600353	A	3/03/2008	R	-3.96	NR	130	NR		NR	NR	
12600353	B	26/10/1992	R	-3.97	NR	130	NR		NR	NR	
12600353	C	9/03/2004	R	-3.97	ACT	1 DG	GWAN	REGION	MA		
12600353	B	27/03/2007	R	-3.97	ACT	1 DG	GWAN	REGION	MA		
12600353	C	24/08/1976	R	-3.97	NR	130	NR		NR	NR	
12600353	A	30/09/1976	R	-4	NR	130	NR		NR	NR	
12600353	A	29/10/1976	R	-4	NR	130	NR		NR	NR	
12600353	A	20/03/1987	R	-4	NR	130	NR		NR	NR	
12600353	C	8/04/1998	R	-4	NR	130	NR		NR	NR	
12600353	A	16/12/1994	R	-4	NR	130	NR		NR	NR	
12600353	C	15/12/2009	R	-4	ACT	1 DG	GWAN	REGION	MA		
12600353	B	11/03/2015	R	-4	ACT	1 DG	GWAN	REGION	MA		
12600353	B	9/09/1999	R	-4.01	NR	130	NR		NR	NR	
12600353	C	22/12/2006	R	-4.01	NR	130	NR		NR	NR	
12600353	A	28/11/2012	R	-4.01	NR	130	NR		NR	NR	
12600353	A	24/10/2013	R	-4.02	NR	130	NR		NR	NR	

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600353	B	22/12/2006	R	-4.24		NR	130	NR		NR	NR
12600353	C	14/12/1976	R	-4.24		NR	130	NR		NR	NR
12600353	C	30/09/1976	R	-4.25		NR	130	NR		NR	NR
12600353	C	3/01/1990	R	-4.25		NR	130	NR		NR	NR
12600353	B	24/09/1991	R	-4.25		NR	130	NR		NR	NR
12600353	C	8/05/1991	R	-4.25		NR	130	NR		NR	NR
12600353	B	20/09/2001	R	-4.25		NR	130	NR		NR	NR
12600353	C	29/10/1976	R	-4.26		NR	130	NR		NR	NR
12600353	C	3/11/2014	R	-4.26		NR	130	NR		NR	NR
12600353	C	26/07/1977	R	-4.27		NR	130	NR		NR	NR
12600353	B	23/11/2011	R	-4.27		NR	130	NR		NR	NR
12600353	A	24/09/1991	R	-4.28		NR	130	NR		NR	NR
12600353	C	15/06/2001	R	-4.28		NR	130	NR		NR	NR
12600353	C	5/12/2003	R	-4.28		NR	130	NR		NR	NR
12600353	A	11/06/2008	R	-4.28		ACT	1	DG	GWAN	REGION	MA
12600353	C	26/06/2009	R	-4.28		ACT	1	DG	GWAN	REGION	MA
12600353	A	5/06/1997	R	-4.29		NR	130	NR		NR	NR
12600353	C	3/12/2007	R	-4.29		ACT	1	DG	GWAN	REGION	MA
12600353	B	17/03/2005	R	-4.3		NR	130	NR		NR	NR
12600353	C	2/09/2008	R	-4.3		ACT	1	DG	GWAN	REGION	MA
12600353	A	17/12/2014	R	-4.3		ACT	1	DG	GWAN	REGION	MA
12600353	C	17/12/2014	R	-4.3		ACT	1	DG	GWAN	REGION	MA
12600353	A	23/03/1983	R	-4.31		NR	130	NR		NR	NR
12600353	B	26/10/1978	R	-4.31		NR	130	NR		NR	NR
12600353	B	23/07/2010	R	-4.31		ACT	1	DG	GWAN	REGION	MA
12600353	C	11/03/2015	R	-4.31		ACT	1	DG	GWAN	REGION	MA
12600353	A	27/03/2007	R	-4.32		ACT	1	DG	GWAN	REGION	MA
12600353	A	27/09/1979	R	-4.33		NR	130	NR		NR	NR
12600353	B	3/06/2002	R	-4.33		NR	130	NR		NR	NR
12600353	B	13/09/2007	R	-4.33		ACT	1	DG	GWAN	REGION	MA
12600353	A	13/09/2007	R	-4.33		ACT	1	DG	GWAN	REGION	MA
12600353	B	22/10/2013	R	-4.33		NR	130	NR		NR	NR
12600353	C	18/11/2015	R	-4.33		ACT	1	DG	GWAN	REGION	MA
12600353	B	3/12/2007	R	-4.34		ACT	1	DG	GWAN	REGION	MA
12600353	A	25/08/1993	R	-4.36		NR	130	NR		NR	NR
12600353	A	21/09/2000	R	-4.36		NR	130	NR		NR	NR
12600353	C	6/04/2004	R	-4.36		NR	130	NR		NR	NR
12600353	B	1/07/2005	R	-4.36		NR	130	NR		NR	NR
12600353	B	2/09/2005	R	-4.36		ACT	1	DG	GWAN	REGION	MA
12600353	C	22/11/1977	R	-4.36		NR	130	NR		NR	NR
12600353	A	2/09/2005	R	-4.37		ACT	1	DG	GWAN	REGION	MA
12600353	A	6/05/2013	R	-4.37		NR	130	NR		NR	NR
12600353	A	17/03/1994	R	-4.38		NR	130	NR		NR	NR
12600353	B	8/06/2004	R	-4.38		ACT	1	DG	GWAN	REGION	MA
12600353	B	17/12/2014	R	-4.39		ACT	1	DG	GWAN	REGION	MA
12600353	A	6/09/1990	R	-4.4		NR	130	NR		NR	NR
12600353	C	21/09/2000	R	-4.4		NR	130	NR		NR	NR
12600353	C	30/07/2015	R	-4.4		ACT	1	DG	GWAN	REGION	MA
12600353	A	12/05/1997	R	-4.4		NR	130	NR		NR	NR
12600353	A	15/06/2001	R	-4.41		NR	130	NR		NR	NR
12600353	C	3/06/2002	R	-4.41		NR	130	NR		NR	NR
12600353	A	18/11/2015	R	-4.42		ACT	1	DG	GWAN	REGION	MA
12600353	C	3/08/1984	R	-4.43		NR	130	NR		NR	NR
12600353	A	15/12/2009	R	-4.46		ACT	1	DG	GWAN	REGION	MA
12600353	B	3/12/2001	R	-4.48		NR	130	NR		NR	NR
12600353	A	22/09/2003	R	-4.48		NR	130	NR		NR	NR
12600353	C	8/06/2004	R	-4.48		ACT	1	DG	GWAN	REGION	MA
12600353	A	4/11/2005	R	-4.48		NR	130	NR		NR	NR
12600353	A	23/11/2011	R	-4.49		NR	130	NR		NR	NR
12600353	B	5/12/2003	R	-4.49		NR	130	NR		NR	NR
12600353	A	30/07/2015	R	-4.5		ACT	1	DG	GWAN	REGION	MA
12600353	A	3/12/2001	R	-4.51		NR	130	NR		NR	NR
12600353	A	15/06/2010	R	-4.51		NR	130	NR		NR	NR
12600353	A	8/06/2004	R	-4.51		ACT	1	DG	GWAN	REGION	MA
12600353	B	28/11/2006	R	-4.52		ACT	1	DG	GWAN	REGION	MA
12600353	B	1/12/2008	R	-4.53		NR	130	NR		NR	NR
12600353	A	30/10/2003	R	-4.54		NR	130	NR		NR	NR
12600353	B	30/10/2003	R	-4.54		NR	130	NR		NR	NR
12600353	A	3/12/2007	R	-4.56		ACT	1	DG	GWAN	REGION	MA
12600353	B	18/11/2015	R	-4.57		ACT	1	DG	GWAN	REGION	MA
12600353	A	26/06/2009	R	-4.58		ACT	1	DG	GWAN	REGION	MA
12600353	C	20/09/2001	R	-4.59		NR	130	NR		NR	NR
12600353	A	3/06/2002	R	-4.59		NR	130	NR		NR	NR
12600353	C	28/11/2006	R	-4.59		ACT	1	DG	GWAN	REGION	MA
12600353	C	3/12/2001	R	-4.6		NR	130	NR		NR	NR
12600353	C	30/10/2003	R	-4.6		NR	130	NR		NR	NR
12600353	B	22/09/2003	R	-4.6		NR	130	NR		NR	NR
12600353	B	3/11/2014	R	-4.6		NR	130	NR		NR	NR
12600353	C	7/03/1977	R	-4.6		NR	130	NR		NR	NR
12600353	B	3/09/2002	R	-4.63		NR	130	NR		NR	NR
12600353	C	16/12/2005	R	-4							

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600354	B	14/12/1976	R	-3.11		NR	130	NR		NR	NR
12600354	B	27/09/1979	R	-3.14		NR	130	NR		NR	NR
12600354	A	27/09/1979	R	-3.18		NR	130	NR		NR	NR
12600354	B	9/04/1990	R	-3.25		NR	130	NR		NR	NR
12600354	B	10/10/1980	R	-3.29		NR	130	NR		NR	NR
12600354	A	10/10/1980	R	-3.3		NR	130	NR		NR	NR
12600354	A	6/09/1990	R	-3.3		NR	130	NR		NR	NR
12600354	A	9/04/1990	R	-3.35		NR	130	NR		NR	NR
12600354	B	6/09/1990	R	-3.4		NR	130	NR		NR	NR
12600354	X	29/06/1975	N	-3.5		NR	130	NR		NR	NR
12600354	B	20/03/1987	R	-3.9		NR	130	NR		NR	NR
12600354	A	20/03/1987	R	-4		NR	130	NR		NR	NR
12600354	A	14/12/1976	R	-4.01		NR	130	NR		NR	NR
12600355	B	3/03/1976	R	-0.17		NR	130	NR		NR	NR
12600355	B	7/03/1977	R	-0.28		NR	130	NR		NR	NR
12600355	B	7/01/1976	R	-0.4		NR	130	NR		NR	NR
12600355	B	3/05/2000	R	-0.4		NR	130	NR		NR	NR
12600355	B	29/03/2010	R	-0.43		NR	130	NR		NR	NR
12600355	B	22/02/1979	R	-0.45		NR	130	NR		NR	NR
12600355	B	11/04/2011	R	-0.51	ACT	1 DG	GWAN	REGION	MA		
12600355	B	29/02/2000	R	-0.52		NR	130	NR		NR	NR
12600355	B	1/06/1977	R	-0.53		NR	130	NR		NR	NR
12600355	A	3/03/2008	R	-0.53		NR	130	NR		NR	NR
12600355	B	1/04/1999	R	-0.55		NR	130	NR		NR	NR
12600355	B	11/01/1977	R	-0.56		NR	130	NR		NR	NR
12600355	B	23/01/2001	R	-0.58		NR	130	NR		NR	NR
12600355	B	18/07/2012	R	-0.61		NR	130	NR		NR	NR
12600355	B	21/04/1982	R	-0.62		NR	130	NR		NR	NR
12600355	B	17/06/1976	R	-0.63		NR	130	NR		NR	NR
12600355	B	19/06/2007	R	-0.64	ACT	1 DG	GWAN	REGION	MA		
12600355	B	4/03/1997	R	-0.7		NR	130	NR		NR	NR
12600355	A	7/03/1977	R	-0.72		NR	130	NR		NR	NR
12600355	B	2/11/1976	R	-0.76		NR	130	NR		NR	NR
12600355	B	19/05/1999	R	-0.76		NR	130	NR		NR	NR
12600355	A	6/05/2013	R	-0.76		NR	130	NR		NR	NR
12600355	B	24/02/1999	R	-0.77		NR	130	NR		NR	NR
12600355	B	13/03/2009	R	-0.77	ACT	1 DG	GWAN	REGION	MA		
12600355	B	20/12/2000	R	-0.78		NR	130	NR		NR	NR
12600355	A	22/02/1979	R	-0.79		NR	130	NR		NR	NR
12600355	A	14/05/2014	R	-0.79		NR	130	NR		NR	NR
12600355	A	3/03/1976	R	-0.8		NR	130	NR		NR	NR
12600355	B	20/02/1978	R	-0.8		NR	130	NR		NR	NR
12600355	B	28/06/2000	R	-0.8		NR	130	NR		NR	NR
12600355	B	7/03/1996	R	-0.82		NR	130	NR		NR	NR
12600355	B	6/06/2000	R	-0.84		NR	130	NR		NR	NR
12600355	B	22/03/2001	R	-0.84		NR	130	NR		NR	NR
12600355	B	23/05/1986	R	-0.85		NR	130	NR		NR	NR
12600355	B	15/05/1998	R	-0.85		NR	130	NR		NR	NR
12600355	B	10/01/1991	R	-0.85		NR	130	NR		NR	NR
12600355	B	19/02/2002	R	-0.85	ACT	1 DG	GWAN	REGION	MA		
12600355	B	25/02/2015	R	-0.86	ACT	1 DG	GWAN	REGION	MA		
12600355	B	1/08/1975	R	-0.88		NR	130	NR		NR	NR
12600355	B	1/09/1998	R	-0.9		NR	130	NR		NR	NR
12600355	B	8/01/1999	R	-0.93		NR	130	NR		NR	NR
12600355	B	13/03/2009	R	-0.93	ACT	1 DG	GWAN	REGION	MA		
12600355	B	26/07/1977	R	-0.94		NR	130	NR		NR	NR
12600355	A	29/03/2010	R	-0.94		NR	130	NR		NR	NR
12600355	A	7/01/1976	R	-0.96		NR	130	NR		NR	NR
12600355	B	17/06/1976	R	-0.98		NR	130	NR		NR	NR
12600355	B	22/05/1992	R	-0.98		NR	130	NR		NR	NR
12600355	B	24/08/1976	R	-0.99		NR	130	NR		NR	NR
12600355	B	8/04/1992	R	-1		NR	130	NR		NR	NR
12600355	A	3/05/2000	R	-1		NR	130	NR		NR	NR
12600355	A	12/09/2014	R	-1		NR	130	NR		NR	NR
12600355	B	3/03/2008	R	-1		NR	130	NR		NR	NR
12600355	A	1/06/1977	R	-1.01		NR	130	NR		NR	NR
12600355	B	27/03/2007	R	-1.02	ACT	1 DG	GWAN	REGION	MA		
12600355	B	5/06/1997	R	-1.03		NR	130	NR		NR	NR
12600355	B	29/10/1976	R	-1.04		NR	130	NR		NR	NR
12600355	B	11/03/2002	R	-1.04		NR	130	NR		NR	NR
12600355	B	29/03/2000	R	-1.04		NR	130	NR		NR	NR
12600355	A	11/04/2011	R	-1.05	ACT	1 DG	GWAN	REGION	MA		
12600355	B	15/06/2010	R	-1.06		NR	130	NR		NR	NR
12600355	A	29/02/2000	R	-1.07		NR	130	NR		NR	NR
12600355	A	19/06/2007	R	-1.07	ACT	1 DG	GWAN	REGION	MA		
12600355	B	27/07/2000	R	-1.08		NR	130	NR		NR	NR
12600355	A	21/04/1982	R	-1.08		NR	130	NR		NR	NR
12600355	B	1/04/1999	R	-1.1		NR	130	NR		NR	NR
12600355	B	26/06/2009	R	-1.1	ACT	1 DG	GWAN	REGION	MA		
12600355	B	15/06/2001	R	-1.1		NR	130	NR		NR	NR
12600355	B	13/03/1985	R	-1.1		NR	130	NR		NR	NR</td

Appendix D
GW Bore Search - Water Levels

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600355	B	17/08/2015	R	-1.43		ACT	1	DG	GWAN	REGION	MA
12600355	B	9/05/2002	R	-1.44		NR	130	NR	NR	NR	
12600355	A	19/06/2006	R	-1.44		NR	130	NR	NR	NR	
12600355	B	21/04/1994	R	-1.44		NR	130	NR	NR	NR	
12600355	B	21/11/1986	R	-1.45		NR	130	NR	NR	NR	
12600355	B	9/08/1991	R	-1.45		NR	130	NR	NR	NR	
12600355	A	12/05/1997	R	-1.45		NR	130	NR	NR	NR	
12600355	A	1/09/1998	R	-1.45		NR	130	NR	NR	NR	
12600355	B	24/01/2000	R	-1.45		NR	130	NR	NR	NR	
12600355	B	27/09/1979	R	-1.45		NR	130	NR	NR	NR	
12600355	A	28/07/2000	R	-1.46		NR	130	NR	NR	NR	
12600355	B	1/07/2005	R	-1.46		NR	130	NR	NR	NR	
12600355	B	3/12/2007	R	-1.46		ACT	1	DG	GWAN	REGION	MA
12600355	A	2/09/2008	R	-1.46		ACT	1	DG	GWAN	REGION	MA
12600355	A	11/06/2008	R	-1.46		ACT	1	DG	GWAN	REGION	MA
12600355	A	2/07/1992	R	-1.47		NR	130	NR	NR	NR	
12600355	A	3/06/1991	R	-1.48		NR	130	NR	NR	NR	
12600355	A	24/01/2000	R	-1.48		NR	130	NR	NR	NR	
12600355	B	9/12/1999	R	-1.48		NR	130	NR	NR	NR	
12600355	A	28/08/2000	R	-1.49		NR	130	NR	NR	NR	
12600355	A	9/03/2004	R	-1.49		ACT	1	DG	GWAN	REGION	MA
12600355	B	20/11/1987	R	-1.5		NR	130	NR	NR	NR	
12600355	A	2/07/1991	R	-1.5		NR	130	NR	NR	NR	
12600355	A	22/05/1992	R	-1.5		NR	130	NR	NR	NR	
12600355	A	23/07/2010	R	-1.5		ACT	1	DG	GWAN	REGION	MA
12600355	B	17/12/2014	R	-1.5		ACT	1	DG	GWAN	REGION	MA
12600355	A	9/05/2002	R	-1.51		NR	130	NR	NR	NR	
12600355	A	22/10/2013	R	-1.51		NR	130	NR	NR	NR	
12600355	A	8/04/1992	R	-1.52		NR	130	NR	NR	NR	
12600355	A	15/06/2001	R	-1.52		NR	130	NR	NR	NR	
12600355	B	2/09/2008	R	-1.52		ACT	1	DG	GWAN	REGION	MA
12600355	B	2/09/1996	R	-1.53		NR	130	NR	NR	NR	
12600355	A	1/07/2005	R	-1.54		NR	130	NR	NR	NR	
12600355	A	3/12/2007	R	-1.54		ACT	1	DG	GWAN	REGION	MA
12600355	B	19/03/1981	R	-1.55		NR	130	NR	NR	NR	
12600355	A	9/08/1991	R	-1.55		NR	130	NR	NR	NR	
12600355	B	23/07/1992	R	-1.55		NR	130	NR	NR	NR	
12600355	A	12/06/1996	R	-1.55		NR	130	NR	NR	NR	
12600355	A	17/06/1998	R	-1.55		NR	130	NR	NR	NR	
12600355	B	18/09/1995	R	-1.56		NR	130	NR	NR	NR	
12600355	B	3/05/2005	R	-1.56		NR	130	NR	NR	NR	
12600355	B	16/03/1990	R	-1.57		NR	130	NR	NR	NR	
12600355	A	17/08/2015	R	-1.57		ACT	1	DG	GWAN	REGION	MA
12600355	B	17/08/1994	R	-1.59		NR	130	NR	NR	NR	
12600355	A	2/09/1996	R	-1.59		NR	130	NR	NR	NR	
12600355	A	9/03/1993	R	-1.6		NR	130	NR	NR	NR	
12600355	A	4/02/1998	R	-1.6		NR	130	NR	NR	NR	
12600355	A	25/07/1994	R	-1.6		NR	130	NR	NR	NR	
12600355	A	27/07/1999	R	-1.6		NR	130	NR	NR	NR	
12600355	A	8/06/2004	R	-1.6		ACT	1	DG	GWAN	REGION	MA
12600355	A	13/03/1985	R	-1.6		NR	130	NR	NR	NR	
12600355	A	25/10/1978	R	-1.61		NR	130	NR	NR	NR	
12600355	A	7/08/1996	R	-1.61		NR	130	NR	NR	NR	
12600355	A	16/11/1998	R	-1.62		NR	130	NR	NR	NR	
12600355	A	3/05/2005	R	-1.62		NR	130	NR	NR	NR	
12600355	A	18/11/2015	R	-1.62		ACT	1	DG	GWAN	REGION	MA
12600355	B	22/10/2013	R	-1.63		NR	130	NR	NR	NR	
12600355	A	5/05/2004	R	-1.63		ACT	1	DG	GWAN	REGION	MA
12600355	B	2/09/2005	R	-1.63		ACT	1	DG	GWAN	REGION	MA
12600355	B	25/10/1978	R	-1.64		NR	130	NR	NR	NR	
12600355	B	15/12/2009	R	-1.64		ACT	1	DG	GWAN	REGION	MA
12600355	B	28/11/2012	R	-1.64		NR	130	NR	NR	NR	
12600355	A	28/06/1999	R	-1.65		NR	130	NR	NR	NR	
12600355	A	3/08/1984	R	-1.65		NR	130	NR	NR	NR	
12600355	B	25/08/1993	R	-1.66		NR	130	NR	NR	NR	
12600355	A	9/12/1999	R	-1.66		NR	130	NR	NR	NR	
12600355	B	7/12/1995	R	-1.67		NR	130	NR	NR	NR	
12600355	A	28/11/2012	R	-1.67		NR	130	NR	NR	NR	
12600355	A	17/03/1994	R	-1.68		NR	130	NR	NR	NR	
12600355	A	3/01/1992	R	-1.68		NR	130	NR	NR	NR	
12600355	B	12/02/1993	R	-1.68		NR	130	NR	NR	NR	
12600355	B	4/03/2005	R	-1.68		NR	130	NR	NR	NR	
12600355	B	11/06/2008	R	-1.68		ACT	1	DG	GWAN	REGION	MA
12600355	A	1/10/1996	R	-1.69		NR	130	NR	NR	NR	
12600355	A	4/03/2005	R	-1.69		NR	130	NR	NR	NR	
12600355	A	24/01/1997	R	-1.7		NR	130	NR	NR	NR	
12600355	A	23/07/1992	R	-1.7		NR	130	NR	NR	NR	
12600355	B	1/10/1996	R	-1.71		NR	130	NR	NR	NR	
12600355	B	20/09/2001	R	-1.71		NR	130	NR	NR	NR	
12600355	A	23/11/2011	R	-1.71		NR	130	NR	NR	NR	
12600355	B	1/02/1984	R	-1.72		NR					

RN	PIPE	RDATE	MEAS_POINT	MEASUREMENT	REMARK	MEAS_TYPE	QUALITY	COLLSAMP	PROJECT1	INPUT_FROM	COLLMETH
12600355	B	25/08/1992	R	-2.16		NR	130	NR		NR	NR
12600355	B	18/01/2005	R	-2.16		ACT	1	DG	GWAN	REGION	MA
12600355	B	18/01/2007	R	-2.16		NR	130	NR		NR	NR
12600355	A	27/09/2004	R	-2.16		ACT	1	DG	GWAN	REGION	MA
12600355	A	30/08/1999	R	-2.17		NR	130	NR		NR	NR
12600355	B	21/11/1996	R	-2.17		NR	130	NR		NR	NR
12600355	B	3/12/2001	R	-2.17		NR	130	NR		NR	NR
12600355	B	28/11/2006	R	-2.2		ACT	1	DG	GWAN	REGION	MA
12600355	A	12/02/1993	R	-2.2		NR	130	NR		NR	NR
12600355	A	16/12/1994	R	-2.23		NR	130	NR		NR	NR
12600355	B	31/08/2004	R	-2.25		ACT	1	DG	GWAN	REGION	MA
12600355	A	11/05/1995	R	-2.26		NR	130	NR		NR	NR
12600355	A	25/10/1999	R	-2.27		NR	130	NR		NR	NR
12600355	A	15/04/1998	R	-2.27		NR	130	NR		NR	NR
12600355	B	10/12/2003	R	-2.27		ACT	1	DG	GWAN	REGION	MA
12600355	A	22/04/1993	R	-2.29		NR	130	NR		NR	NR
12600355	A	19/03/1981	R	-2.32		NR	130	NR		NR	NR
12600355	A	10/12/2003	R	-2.32		ACT	1	DG	GWAN	REGION	MA
12600355	B	21/11/1996	R	-2.32		NR	130	NR		NR	NR
12600355	B	20/11/2003	R	-2.34		NR	130	NR		NR	NR
12600355	B	16/12/2005	R	-2.34		ACT	1	DG	GWAN	REGION	MA
12600355	B	26/11/2004	R	-2.34		ACT	1	DG	GWAN	REGION	MA
12600355	A	28/11/2006	R	-2.35		ACT	1	DG	GWAN	REGION	MA
12600355	B	9/10/1980	R	-2.36		NR	130	NR		NR	NR
12600355	A	25/08/1992	R	-2.42		NR	130	NR		NR	NR
12600355	A	18/11/1999	R	-2.44		NR	130	NR		NR	NR
12600355	B	29/10/1997	R	-2.45		NR	130	NR		NR	NR
12600355	A	22/11/1977	R	-2.45		NR	130	NR		NR	NR
12600355	A	27/09/1979	R	-2.48		NR	130	NR		NR	NR
12600355	A	15/09/1994	R	-2.55		NR	130	NR		NR	NR
12600355	B	28/10/1991	R	-2.57		NR	130	NR		NR	NR
12600355	B	27/09/2004	R	-2.58		ACT	1	DG	GWAN	REGION	MA
12600355	A	19/11/1993	R	-2.63		NR	130	NR		NR	NR
12600355	A	31/10/2002	R	-2.64		ACT	1	DG	GWAN	REGION	MA
12600355	A	3/10/1975	R	-2.65		NR	130	NR		NR	NR
12600355	B	8/12/1992	R	-2.66		NR	130	NR		NR	NR
12600355	A	19/04/1995	R	-2.68		NR	130	NR		NR	NR
12600355	A	21/09/2000	R	-2.7		NR	130	NR		NR	NR
12600355	B	3/10/1975	R	-2.75		NR	130	NR		NR	NR
12600355	B	29/11/1994	R	-2.76		NR	130	NR		NR	NR
12600355	B	26/10/1992	R	-2.8		NR	130	NR		NR	NR
12600355	A	29/03/1995	R	-2.82		NR	130	NR		NR	NR
12600355	A	20/11/2003	R	-2.83		NR	130	NR		NR	NR
12600355	B	3/03/1987	R	-2.85		NR	130	NR		NR	NR
12600355	A	29/10/1997	R	-2.95		NR	130	NR		NR	NR
12600355	A	8/12/1992	R	-3.09		NR	130	NR		NR	NR
12600355	A	14/12/1976	R	-3.65		NR	130	NR		NR	NR
12600355	A	29/11/1994	R	-3.71		NR	130	NR		NR	NR
12600355	A	9/10/1980	R	-3.95		NR	130	NR		NR	NR
12600355	A	26/10/1992	R	-4.01		NR	130	NR		NR	NR
12600355	A	28/10/1991	R	-4.54		NR	130	NR		NR	NR
12600355	A	7/08/2002	R	-4.81		NR	130	NR		NR	NR
12600355	A	3/03/1987	R	-4.85		NR	130	NR		NR	NR
12600551	A	18/03/2014	R	-4.78		NR	130	NR		NR	NR
12600551	A	22/10/2013	R	-4.96		NR	130	NR		NR	NR
12600551	A	17/12/2014	R	-5.35		ACT	1	DG	GWAN	REGION	MA
12600551	A	17/11/2015	R	-5.36		ACT	1	DG	GWAN	REGION	MA
12600551	A	29/07/2015	R	-5.72		ACT	1	DG		REGION	MA
12600551	A	4/11/2005	R	-5.84		NR	130	NR		NR	NR
12600552	A	18/03/2014	R	-4.66		NR	130	NR		NR	NR
12600552	A	22/10/2013	R	-4.88		NR	130	NR		NR	NR
12600552	A	17/11/2015	R	-5.32		ACT	1	DG	GWAN	REGION	MA
12600552	A	17/12/2014	R	-5.39		ACT	1	DG	GWAN	REGION	MA
12600552	A	29/07/2015	R	-5.6		ACT	1	DG		REGION	MA
12600552	A	4/11/2005	R	-5.95		NR	130	NR		NR	NR
12600553	A	28/01/2014	R	-0.95		NR	130	NR		NR	NR
12600553	A	18/03/2014	R	-4.83		NR	130	NR		NR	NR
12600553	A	22/10/2013	R	-5		NR	130	NR		NR	NR
12600553	A	17/12/2014	R	-5.26		ACT	1	DG	GWAN	REGION	MA
12600553	A	17/11/2015	R	-5.41		ACT	1	DG	GWAN	REGION	MA
12600553	A	29/07/2015	R	-5.55		ACT	1	DG		REGION	MA
12600553	A	4/11/2005	R	-5.74		NR	130	NR		NR	NR
12600555	A	18/03/2014	R	-5.11		NR	130	NR		NR	NR
12600555	A	4/11/2005	R	-5.16		NR	130	NR		NR	NR
12600555	A	11/03/2015	R	-5.22		ACT	1	DG		REGION	MA
12600555	A	29/07/2015	R	-5.23		ACT	1	DG		REGION	MA
12600555	A	17/12/2014	R	-5.31		ACT	1	DG	GWAN	REGION	MA
12600555	A	22/10/2013	R	-5.34		NR	130	NR		NR	NR
12600555	A	17/11/2015	R	-5.4		ACT	1	DG	GWAN	REGION	MA
12600556	A	18/03/2014	R	-4.24		NR	130	NR		NR	NR
12600556	A	22/10/2013	R								

RN	REC	DESCR	TOP	BOTTOM
20045	1	BLACK SOIL	0	0.61
20045	2	CLAY	0.61	6.1
20045	3	SANDSTONE	6.1	19.51
20045	902	DISCH 000027.3 M 3D ESTIMATE		
20391	902	10/09/1965 SWL -2.70 M TMP NUL C		
20391	903	DISCH 000010.9 M3D ESTIMATE		
20401	902	09/09/1965 SWL -2.70 M TMP NUL C		
20401	903	DISCH 000043.6 M3D DRILLERS TEST		
20595	902	25/05/1966 SWL -2.10 M TMP NUL C		
20595	903	DISCH 000731.6 M3D DRILLERS TEST		
30946	1	TOP SOIL	0	0.3
30946	2	SANDY CLAY	0.3	2.44
30946	3	GREY CLAY	2.44	4.27
30946	4	COARSE SAND AND GRAVEL	4.27	7.01
30946	5	GREY CLAY	7.01	10.67
30946	6	YELLOW CLAY	10.67	14.33
30946	7	COARSE SAND	14.33	15.24
30946	8	GRAVELLY CLAY	15.24	15.54
30946	9	MEDIUM SAND	15.54	17.68
30946	10	COARSE SAND AND GRAVEL	17.68	18.29
34508	1	SOIL DR W TOLCHER PERC	0	0.3
34508	3	GRITTY WHITE CLAY	0.3	1.21
34508	5	GRITTY BROWN CLAY	1.21	2.59
34508	7	DIRTY MEDIUM BROWN SAND	2.59	10.36
34508	9	MEDIUM CLEAN SAND	10.36	14.32
34508	11	CLEAN MEDIUM SAND WITH GRAVEL LAYERS	14.32	19.81
34508	902	28/08/1970 SWL -2.60 M TMP NUL C		
34508	903	DISCH 001296.0 M3D DRILLERS TEST		
37519	1	GLUEPOT SOIL	0	0.61
37519	2	HARD CLAY	0.61	5.49
37519	3	GRAVELLY CLAY	5.49	6.4
37519	4	SAND AND GRAVEL WATER	6.4	10.67
37519	5	CLAY	10.67	11
37519	6	SAND & GRAVEL	11	19.8
37519	902	SWL -1.7M 19/08/1972		
46017	1	SOIL	0	0.61
46017	2	SANDY CLAY	0.61	5.49
46017	3	HARD CLAY	5.49	12.19
46017	4	SAND AND GRAVEL	12.19	18.9
46017	5	HARD CLAY	18.9	19.51
46134	1	TOP SOIL	0	0.5
46134	2	DRY SAND	0.5	1
46134	3	SANDY CLAY	1	2
46134	4	SAND	2	7
46134	5	SANDY BLUE CLAY	7	8
46134	6	SAND AND GRAVEL	8	12
46134	902	SWL -2.0M 13/02/1975		
46134	903	DRILLERS EST = 5.0 LPS		
46411	1	SOIL	0	0.3
46411	2	HARD CLAY	0.3	1.83
46411	3	COARSE SANDY CLAY	1.83	3.1
46411	4	HARD CLAY	3.1	3.7
46411	5	COARSE SANDY CLAY	3.7	9.8
46411	6	SAND AND GRAVEL	9.8	12.5
46411	902	SWL 3/9/77 1.2M		
46411	903	DRILLERS TEST 15.2L/S		
46425	1	SOIL	0	0.3
46425	2	CLAY	0.3	3.05
46425	3	SANDY CLAY	3.05	7.01
46425	4	BROWN AND WHITE SAND	7.01	12.5
46425	5	CLAY	12.5	14.63
46425	902	06/11/1976 SWL -2.40 M TMP NUL C		
46425	903	DISCH 002402.4 M3D DRILLERS TEST		
46451	1	SOIL	0	0.61
46451	2	SANDY CLAY	0.61	5.49
46451	3	HARD CLAY	5.49	10.97
46451	4	SAND	10.97	14.63
46451	5	CLAY	14.63	14.94
46451	902	17/09/1976 SWL -2.40 M TMP NUL C		
46451	903	DISCH 000218.4 M3D DRILLERS TEST		
63000	1	GLUE POT	0	0.6
63000	2	HARD CLAY	0.6	3.05
63000	3	FINE BLACK SANDY CLAY	3.05	3.96
63000	4	FINE SAND	3.96	8.23
63000	5	CLAY	8.23	8.38
63000	6	SAND AND GRAVEL	8.38	9.45
63000	7	SAND	9.45	11.28
63000	901	17 TEST HOLES DRILLED		
63000	902	9/11/1982 SWL 2.74M		
63000	903	DRILLERS EST = 25.745LPS		
81031	1	CLAY	0	3
81031	2	SANDY CLAY	3	4
81031	3	MED/COARSE SAND	4	6
81031	4	SANDY CLAY	6	6.1
81031	5	MED/COARSE SAND	6.1	9.7
81031	6	CLAY	9.7	9.9
81031	902	26-6-1992 SWL 2.5 M		
85030	1	SOIL	0	0.3
85030	3	HARD CLAY	0.3	3.05
85030	5	SANDY CLAY	3.05	9.75
85030	7	SAND	9.75	12.8
85030	9	CLAY	12.8	12.9
85030	902	SWL -3.5M 09/03/1987		
104082	1	SOIL	0	0.3
104082	2	HARD CLAY	0.3	2.44
104082	3	COARSE SANDY CLAY	2.44	3.96
104082	4	HARD CLAY	3.96	4.27
104082	5	FINE SANDY CLAY	4.27	7.62

RN	REC	DESCR	TOP	BOTTOM
104082	6	SAND	7.62	9.75
104082	7	CLAY	9.75	10.06
104082	8	SAND & GRAVEL	10.06	12.19
104083	1	SOIL	0	0.3
104083	2	HARD CLAY	0.3	2.13
104083	3	COARSE SAND CLAY	2.13	3.67
104083	4	HARD CLAY	3.67	4.59
104083	5	FINE SANDY CLAY	4.59	9.14
104083	6	SAND & GRAVEL	9.14	10.06
104083	7	COARSE GRAVEL & CLAY	10.06	12.8
104083	8	.	12.8	
104084	1	SOIL	0	0.3
104084	2	HARD CLAY	0.3	1.83
104084	3	COARSE SANDY CLAY	1.83	3.05
104084	4	FINE SANDY CLAY	3.05	6.4
104084	5	HARD CLAY	6.4	12.19
104084	6	FINE SANDY CLAY	12.19	14.64
104084	7	HARD CLAY	14.64	16.46
104084	8	DECOMPOSED GRANITE	16.46	17.07
104350	1	SOIL(SANDY)	0	0.3
104350	2	HARD CLAY	0.3	1.83
104350	3	SANDY CLAY	1.83	3.05
104350	4	HARD CLAY	3.05	6.1
104350	5	FINE SANDY CLAY	6.1	7.32
104350	6	HARD CLAY	7.32	17.38
104350	7	HARD GRANITE	17.38	18.29
104351	1	SANDY SOIL	0	0.6
104351	2	HARD CLAY	0.6	3.05
104351	3	SANDY CLAY	3.05	4.27
104351	4	SOARSE SANDY CLAY	4.27	6.1
104351	5	HARD CLAY	6.1	13.41
104351	6	SAND & GRAVEL	13.41	19.2
104352	1	SOIL	0	0.6
104352	2	HARD CLAY	0.6	3.67
104352	3	FIONE SANDY CLAY	3.67	6.1
104352	4	HARD CLAY	6.1	12.19
104352	5	SANDY CLAY	12.19	15.85
104352	6	HARD CLAY	15.85	18.29
104352	7	GRANITE	18.29	19.5
104353	1	SANDY SOIL	0	0.6
104353	2	SANDY CLAY	0.6	1.83
104353	3	HARD CLAY	1.83	4.27
104353	4	SANDY CLAY	4.27	7.32
104353	5	HARD CLAY	7.32	15.24
104354	1	SOIL	0	0.3
104354	2	SANDY CLAY	0.3	1.83
104354	3	HARD CLAY	1.83	3.67
104354	4	FINE SANDY CLAY	3.67	6.7
104354	5	COARSE SANDY CLAY	6.7	8.53
104355	1	SOIL	0	0.6
104355	2	SANDY CLAY	0.6	1.83
104355	3	HARD CLAY	1.83	5.79
104355	4	FINE SANDY CLAY	5.79	8.84
104355	5	SAND	8.84	9.14
104355	6	HARD CLAY	9.14	11.28
104356	1	SOIL	0	0.6
104356	2	HARD CLAY	0.6	5.49
104356	3	SANDY CLAY	5.49	9.14
104356	4	HARD CLAY	9.14	15.24
104357	1	SOIL	0	0.6
104357	2	HARD CLAY	0.6	1.83
104357	3	SANDY CLAY	1.83	2.44
104357	4	HARD CLAY	2.44	4.27
104357	5	SANDY CLAY	4.27	6.1
104357	6	SAND AND GRAVEL	6.1	7.62
104358	1	SOIL	0	0.6
104358	2	HARD CLAY	0.6	2.44
104358	3	SANDY CLAY	2.44	6.1
104358	4	SAND AND GRAVEL	6.1	8.53
104358	5	HARD CLAY	8.53	10.67
104359	1	SOIL	0	0.6
104359	2	HARD CLAY	0.6	1.83
104359	3	SANDY CLAY	1.83	2.44
104359	4	HARD CLAY	2.44	4.27
104359	5	SANDY CLAY	4.27	6.1
104359	6	SAND AND GRAVEL	6.1	7.62
104375	1	GLUE POT	0	0.6
104375	2	HARD CLAY	0.6	3.35
104375	3	FINE SANDY CLAY	3.35	5.49
104375	4	SAND	5.49	7.92
104375	5	HARD CLAY	7.92	14.02
104375	6	SANDY CLAY	14.02	18.59
104376	1	SOIL	0	0.3
104376	2	CLAY	0.3	10.36
104376	3	SAND	10.36	11.59
104376	4	CLAY	11.59	15.24
104376	5	SANDY CLAY	15.24	19.2
104377	1	SOIL	0	0.3
104377	2	HARD CLAY	0.3	7.01
104377	3	SANDY CLAY	7.01	8.23
104377	4	CLAY	8.23	15.24
104377	5	SAND	15.24	19.2
104378	1	GLUE POT	0	0.6
104378	2	HARD CLAY	0.6	3.35
104378	3	SANDY CLAY	3.35	6.7
104378	4	SAND	6.7	8.23
104378	5	CLAY	8.23	14.94
104378	6	SANDY CLAY	14.94	19.5

RN	REC	DESCR	TOP	BOTTOM
104379	1	GLUE POT	0	0.6
104379	2	HARD CLAY	0.6	3.05
104379	3	SANDY CLAY	3.05	4.27
104379	4	SAND	4.27	7.62
104379	5	CLAY	7.62	7.92
104379	6	SAND	7.92	10.98
104379	7	CLAY	10.98	12.5
104380	1	GLUE POT	0	0.6
104380	2	HARD CLAY	0.6	3.05
104380	3	SANDY CLAY	3.05	4.57
104380	4	SAND	4.57	9.14
104380	5	CLAY,SAND AND GRAVEL	9.14	11.28
104380	6	CLAY	11.28	13.1
104381	1	SOIL	0	1
104381	2	SANDY CLAY	1	17
104381	3	SAND	17	17.3
104381	4	CLAY	17.3	20.5
104381	5	SILTY CLAY	20.5	24.5
104381	6	GRANITE	24.5	22
104382	1	SOIL	0	1
104382	2	SANDY CLAY	1	4
104382	3	SILT AND SANDY CLAY	4	7
104382	4	SANDY CLAY	7	13
104382	5	CLAY	13	17
104382	6	SILTY CLAY	17	18.3
104383	1	SOIL	0	1
104383	2	SANDY CLAY	1	10
104383	3	CLAY	10	17
104383	4	SILT	17	16.7
104386	1	SOIL	0	1
104386	2	SANDY CLAY	1	5
104386	3	SANDY CLAY AND SILT	5	12
104386	4	CLAY	12	14
104386	5	SILT	14	15
104386	6	CLAY	15	15.8
104386	7	FINE SAND	15.8	17
104386	8	SANDY CLAY	17	17.2
104386	9	MEDIUM SAND	17.2	17.8
104386	10	CLAY	17.8	23.1
104386	11	CEMENTRY SAND	23.1	24
104387	1	SOIL	0	1
104387	2	SANDY CLAY	1	4.5
104387	3	SILT	4.5	6
104387	4	CLAY	6	8
104387	5	FINE TO MED SAND	8	11.6
104387	6	SANDY CLAY	11.6	16
104388	1	SOIL	0	1
104388	2	SANDY CLAY	1	5.5
104388	3	SILT AND CLAY	5.5	12.5
104388	4	CLAY	12.5	14.5
104388	5	SAND AND CLAY BANDS	14.5	16
104389	1	SOIL	0	1
104389	2	SANDY CLAY	1	2
104389	3	CLAY	2	4
104389	4	SILT AND CLAY	4	9.5
104389	5	SAND	9.5	10
104389	6	GRANITE SAND AND CLAY	10	12
104389	7	BROWN CLAY	12	14
104389	8	SILT AND SAND SOFTER CLAY BANDS	14	18.5
104389	9	CLAY	18.5	21.4
105459	1	TOPSOIL	0	0.3
105459	2	YELLOW CLAY	0.3	1.52
105459	3	BROWN SANDY CLAY	1.52	6.1
105459	4	CREAMY CLAY	6.1	7.92
105459	5	SANDY CLAY WET	7.92	9.75
105618	1	SANDY CLAY	0	3
105618	2	GREY CLAY	3	4
105618	3	BROWN CLAY	4	5
105618	4	COARSE SANDY CLAY	5	8
105618	5	GREY CLAY	8	10.8
105618	6	MEDIUM SAND	10.8	13.4
105623	1	TOP SOIL	0	1
105623	2	BROWN CLAY	1	3
105623	3	ORANGE CLAY	3	6
105623	4	SILTY CREAM SAND	6	11
105625	1	TOP SOIL	0	0.3
105625	2	CLAY	0.3	2.44
105625	3	CLAYEY SAND	2.44	7.62
105625	4	CLAY	7.62	12.19
105625	5	SAND AND WATER	12.19	15.24
105688	1	TOP SOIL	0	1
105688	2	LOAMY SOIL	1	5
105688	3	YELLOW DAMP CLAY	5	14
105688	4	SAND/GRAVEL	14	18
105689	1	CLAY	0	5
105689	2	COARSE SANDY CLAY	5	8
105689	3	CLAY	8	12
105689	4	FINE SAND	12	15.2
105717	1	TOP SOIL	0	0.61
105717	2	CLAY	0.61	3.66
105717	3	SAND/WATER	3.66	3.96
105717	4	HARD CLAY	3.96	8.53
105717	5	SAND	8.53	9.45
105717	6	HARD CLAY	9.45	9.75
105721	1	TOP SOIL	0	1
105721	2	BROWN CLAY	1	3
105721	3	BROWN SAND	3	7
105721	4	ORANGE CLAY	7	9

RN	REC	DESCR	TOP	BOTTOM
105721	5	BROWN SAND	9	12
105731	1	TOP SOIL	0	1
105731	2	LOAMY SAND	1	3
105731	3	BROWN CLAY	3	6
105731	4	YELLOW CLAY	6	10
105731	5	GREY CLAY	10	13
105731	6	SAND	13	16
105971	1	TOP SOIL	0	1
105971	2	BROWN CLAY	1	3
105971	3	COARSE SAND	3	6
105978	1	TOP SOIL	0	0.61
105978	2	CLAY	0.61	4.57
105978	3	CLAYEY SAND	4.57	6.1
105978	4	SAND AND WATER	6.1	7.32
105978	5	CLAY	7.32	8.23
105993	1	TOP SOIL	0	1
105993	2	BROWN CLAY	1	4
105993	3	ORANGE CLAY	4	6
105993	4	SAND AND GRAVEL	6	10
131308	1	FILL	0	1
131308	2	BROWN CLAY	1	4
131308	3	BEIGE SILTY CLAY	4	6
131309	1	FILL	0	1
131309	2	BROWN CLAY	1	4
131309	3	BEIGE SILTY CLAY	4	6
131310	1	FILL EX DIESEL TANK HOLE	0	3
131332	1	TOP SOIL	0	0.3
131332	2	CLAY	0.3	1.52
131332	3	SANDY CLAY	1.52	4.57
131332	4	CLAY	4.57	6.71
131332	5	SANDY CLAY	6.71	7.62
131333	1	TOP SOIL	0	0.15
131333	2	SANDY CLAY	0.15	0.91
131333	3	GREY SAND AND CLAY	0.91	4.57
131333	4	HARD CLAY	4.57	6.1
131333	5	SANDY CLAY	6.1	8.84
131333	6	RED CLAY	8.84	9.75
131335	1	TOP SOIL	0	0.3
131335	2	CLAY	0.3	8.53
131335	3	WATER	8.53	11.89
131335	4	CLAY	11.89	12.19
131337	1	TOP SOIL	0	0.3
131337	2	CLAY	0.3	4.57
131337	3	WET CLAYBOUND	4.57	6.1
131337	4	CLAY	6.1	7.01
131419	1	BROWN CLAY	0	2
131419	2	SANSY CLAY	2	2.5
131419	3	BROWN CLAY AND LAYERS OF SANDY CLAY	2.5	7
131419	4	MULTI COLOURED CLAY	7	17
131419	5	FINE SAND	17	17.7
131419	6	SANDY CLAY	17.7	17.8
131421	1	BROWN CLAY	0	1.5
131421	2	COARSE SANDY CLAY	1.5	7
131421	3	GREY CLAY	7	10
131421	4	MED/COARSE SAND	10	12.8
131672	1	TOP SOIL	0	0.3
131672	2	HARD CLAY	0.3	4.57
131672	3	SOFT CLAY	4.57	6.1
131672	4	HARD CLAY	6.1	8.23
131759	1	TOP SOIL	0	0.3
131759	2	CLAY	0.3	4.57
131759	3	SANDY CLAY	4.57	7.62
131759	4	SANDY CLAY AND WATER	7.62	10.06
131759	5	CLAY	10.06	11.28
131771	1	TOP SOIL	0	1
131771	2	BROWN CLAY	1	5
131771	3	SAND/GRAVEL	5	9
131917	1	DAMP FINE BROWN SAND *	0	4
131917	2	WET BROWN SAND	4	7
131997	1	TOP SOIL	0	0.5
131997	2	BROWN CLAY	0.5	5.5
131997	3	SILTY SAND *	5.5	7
141066	1	BROWN CLAY	0	2
141066	2	BROWN SANDY CLAY	2	6.5
141066	3	COARSE SANDY CLAY	6.5	8.5
141066	4	GREY CLAY	8.5	13
141066	5	FINE TO MEDIUM SAND *	13	15.2
141093	1	TOP SOIL	0	1
141093	2	BLACK CLAY	1	5
141093	3	SILTY SAND/CLAY *	5	7.8
141097	1	TOP SOIL	0	1
141097	2	BLACK CLAY	1	6
141097	3	ORANGE CLAY *	6	11
141097	4	SILTY CLAY	11	12
141097	5	SAND/GRAVEL	12	14.87
141211	1	FILL	0	0.2
141211	2	CLAY, BROWN	0.2	3
141211	3	SAND, SILTY; CLAY	3	4
141212	1	GRAVEL/FILL	0	0.2
141212	2	CLAY, BROWN	0.2	3
141212	3	SILTY SAND/CLAY	3	4
141213	1	SAWDUST/FILL	0	0.3
141213	2	CLAY, BROWN	0.3	3
141213	3	CLAY, SILTY	3	4
141214	1	SAWDUST/FILL	0	0.2
141214	2	CLAY, BROWN	0.2	3
141214	3	SAND, SILTY	3	4
141215	1	ROADBASE	0	0.2

RN	REC	DESCR	TOP	BOTTOM
141215	2	CLAY, BROWN	0.2	3
141215	3	SAND, SILTY	3	4
141216	1	TAR/ROADBASE	0	0.2
141216	2	CLAY, BROWN	0.2	3
141216	3	SAND, COARSE	3	4
141338	1	TOPSOIL, SANDY	0	2
141338	2	CLAY	2	4
141338	3	SAND, SLOPPY	4	9.5
141394	1	FILL (SAND)	0	2
141394	2	MUD, MANGROVE	2	2.6
141394	3	SAND, SILTY	2.6	6
141395	1	FILL (SAND)	0	2
141395	2	MUD, MANGROVE	2	2.6
141395	3	SAND, SILTY	2.6	6
141414	1	FILL	0	0.5
141414	2	CLAY, BROWN	0.5	4
141414	3	CLAY, BLACK	4	6
141414	4	SAND, SILTY, GREY	6	8
141789	1	TOPSOIL	0	0.5
141789	2	CLAY, BLACK	0.5	4
141789	3	CLAY, BROWN	4	6
141789	4	CLAY, SILTY	6	7
141789	5	SAND/GRAVEL	7	9
12500143	1	SOIL	0	0.61
12500143	2	LIGHT BROWN CLAY	0.61	1.83
12500143	3	SAND AND CLAY	1.83	2.74
12500143	4	BROWN CLAY	2.74	3.84
12500143	5	SAND AND CLAY	3.84	5.18
12500143	6	BROWN CLAY	5.18	8.84
12500143	7	WET SANDY CLAY	8.84	13.72
12500143	8	GREY GRITTY CLAY	13.72	15.24
12500146	1	SOIL	0	0.61
12500146	2	BROWN CLAY	0.61	5.79
12500146	3	WET SANDY CLAY	5.79	9.75
12500146	4	SANDY CLAY	9.75	14.33
12500146	5	CLAY	14.33	14.63
12500147	1	SOIL	0	0.61
12500147	2	BROWN CLAY	0.61	5.49
12500147	3	WET SANDY CLAY	5.49	9.14
12500147	4	BROWN SANDY CLAY	9.14	14.02
12500148	1	SOIL	0	0.61
12500148	2	BROWN CLAY	0.61	2.44
12500148	3	SAND AND CLAY	2.44	5.49
12500148	4	GREY SANDY CLAY	5.49	10.06
12500148	5	CLAY	10.06	10.36
12500149	1	SOIL	0	0.61
12500149	2	LIGHT BROWN CLAY	0.61	3.96
12500149	3	DARK BROWN CLAY	3.96	5.49
12500149	4	GREY SANDY CLAY	5.49	8.53
12500149	5	WET SANDY CLAY	8.53	12.5
12500149	6	CLAY	12.5	13.11
12500150	1	SOIL	0	0.61
12500150	2	LIGHT BROWN CLAY	0.61	4.27
12500150	3	DARK BROWN CLAY	4.27	10.06
12500150	4	CLAY	10.06	10.67
12500151	1	SOIL	0	0.61
12500151	2	LIGHT BROWN CLAY	0.61	3.66
12500151	3	DARK BROWN CLAY	3.66	8.53
12500151	4	CLAY	8.53	9.45
12500151	5	WET SANDY CLAY	9.45	15.24
12500151	6	CLAY	15.24	15.54
12500152	1	SOIL	0	0.61
12500152	2	LIGHT BROWN CLAY	0.61	2.44
12500152	3	SAND AND CLAY	2.44	3.96
12500152	4	SOFT GREY CLAY	3.96	6.4
12500152	5	CLAY	6.4	7.01
12500153	1	SOIL	0	0.61
12500153	2	LIGHT BROWN CLAY	0.61	2.44
12500153	3	SAND AND CLAY	2.44	3.96
12500153	4	GREY SANDY CLAY	3.96	7.01
12500153	5	WET SANDY CLAY	7.01	10.97
12500153	6	SAND WITH CLAY	10.97	15.85
12500153	7	CLAY	15.85	16.15
12500154	1	SOIL	0	0.61
12500154	2	LIGHT BROWN CLAY	0.61	2.44
12500154	3	SAND WITH CLAY	2.44	3.66
12500154	4	SOFT GREY CLAY	3.66	5.49
12500154	5	CLAY	5.49	5.79
12500155	1	SOIL	0	0.61
12500155	2	LIGHT BROWN CLAY	0.61	2.74
12500155	3	SAND AND CLAY	2.74	4.27
12500155	4	BROWN CLAY	4.27	7.01
12500155	5	WET BROWN CLAY	7.01	9.14
12500156	1	SOIL	0	0.61
12500156	2	LIGHT BROWN CLAY	0.61	2.44
12500156	3	SAND AND CLAY	2.44	4.57
12500156	4	WET SANDY CLAY	4.57	6.1
12500156	5	GREY GRITTY CLAY	6.1	8.53
12500156	6	BROWN AND GREY CLAY	8.53	13.11
12500156	7	FINE SAND WITH CLAY	13.11	15.85
12500156	8	CLAY	15.85	16.15
12500157	1	SOIL	0	0.61
12500157	2	LIGHT BROWN CLAY	0.61	2.74
12500157	3	SAND AND CLAY	2.74	4.88
12500157	4	WET SAND AND CLAY	4.88	6.4
12500157	5	BROWN SANDY CLAY	6.4	13.41
12500157	6	SAND WITH MUCH CLAY	13.41	15.54
12500157	7	CLAY	15.54	15.85

RN	REC	DESCR	TOP	BOTTOM
12500158	1	SOIL	0	0.61
12500158	2	LIGHT BROWN CLAY	0.61	2.74
12500158	3	SAND AND CLAY	2.74	5.18
12500158	4	BROWN CLAY	5.18	10.36
12500158	5	BROWN AND GREY CLAY	10.36	12.8
12500158	6	CLAY	12.8	13.11
12500159	1	SOIL	0	0.79
12500159	2	BROWN CLAY	0.79	3.05
12500159	3	SAND AND CLAY	3.05	4.88
12500159	4	WET CLAY	4.88	6.71
12500159	5	LIGHT BROWN CLAY	6.71	10.67
12500160	1	SOIL	0	0.61
12500160	2	BROWN CLAY	0.61	3.35
12500160	3	FINE SAND	3.35	4.57
12500160	4	BROWN CLAY	4.57	8.53
12500160	5	WET SANDY CLAY	8.53	13.41
12500160	6	SAND AND CLAY	13.41	16.15
12500160	7	CLAY	16.15	16.46
12500161	1	SOIL	0	0.61
12500161	2	BROWN SANDY CLAY	0.61	1.83
12500161	3	SAND AND CLAY	1.83	4.27
12500161	4	BROWN CLAY	4.27	6.71
12500161	5	BROWN SANDY CLAY	6.71	9.14
12500161	6	FINE SAND AND CLAY	9.14	14.63
12500161	7	CLAY	14.63	14.94
12500275	1	GREY SANDY CLAY SOIL	0	1
12500275	2	GREY BROWN CLAYEY VF-F SAND, FE STAINING	1	2
12500275	3	GREY BROWN CLAYEY VF-VC SAND, MINOR GRAVEL, FE STAINING	2	4
12500275	4	GREY BROWN CLAYEY VF-F SAND, FE STAINING	4	6
12500275	5	BROWN SANDY CLAY	6	8.5
12500275	6	LIGHT BROWN VF-F LITHIC SAND; WATER	8.5	9.8
12500275	7	DARK BROWN CLAYEY VF LITHIC SAND	9.8	11
12500275	8	LIGHT BROWN CLAYEY VF-VC LITHIC SAND & GRAVEL, ABUNDANT GRANITIC FRAGMENTS;	11	13
12500275	10	LIGHT BROWN CLAYEY VF-VC LITHIC SAND, ABUNDANT GRANITIC FRAGMENTS; WATER	13	15
12500275	11	LIGHT GREY SANDY CLAY, FE MOTTLING	15	17
12500275	12	LIGHT GREY CLAY	17	21
12500275	13	LIGHT BROWN CLAYEY VF-F LITHIC SAND, GRANITIC FRAGMENTS, MICACEOUS, FE MOTTLING	21	23
12500275	14	LIGHT BROWN BIOTITE MONZOGRANITE, VERY WEATHERED, FRACTURED, FE STAINING; WATER	23	32.75
12500275	15	LIGHT BROWN BIOTITE MONZOGRANITE; POOR SAMPLE RECOVERY	32.75	32.8
12500275	9	WATER FROM 11.5M		
12500276	1	GREY SANDY CLAY SOIL	0	1
12500276	2	GREY BROWN CLAYEY VF-F SAND, FE STAINING	1	2
12500276	3	GREY BROWN CLAYEY VF-VC SAND, MINOR GRAVEL, FE STAINING	2	4
12500276	4	GREY BROWN CLAYEY VF-F SAND, FE STAINING	4	6
12500276	5	BROWN SANDY CLAY	6	8.5
12500276	6	LIGHT BROWN VF-F LITHIC SAND; WATER	8.5	9.8
12500276	7	DARK BROWN CLAYEY VF LITHIC SAND	9.8	11
12500276	8	LIGHT BROWN CLAYEY VF-VC LITHIC SAND & GRAVEL, ABUNDANT GRANITIC FRAGMENTS;	11	13
12500276	10	LIGHT BROWN CLAYEY VF-VC LITHIC SAND, ABUNDANT GRANITIC FRAGMENTS; WATER	13	15
12500276	11	LIGHT GREY SANDY CLAY, FE MOTTLING	15	16
12500276	9	WATER FROM 11.5M		
12500277	1	GREY SANDY CLAY SOIL	0	1
12500277	2	GREY BROWN CLAYEY VF-F SAND, FE STAINING	1	2
12500277	3	GREY BROWN CLAYEY VF-VC SAND, MINOR GRAVEL, FE STAINING	2	4
12500277	4	GREY BROWN CLAYEY VF-F SAND, FE STAINING	4	6
12500277	5	BROWN SANDY CLAY	6	8.5
12500277	6	LIGHT BROWN VF-F LITHIC SAND; WATER	8.5	9.8
12500277	7	DARK BROWN CLAYEY VF LITHIC SAND	9.8	10.25
12600077	1	TOP SOIL	0	0.8
12600077	3	SANDY CLAY	0.8	1.5
12600077	5	BROWN GRITTY CLAY	1.5	4.6
12600077	7	FINE SANDY CLAY	4.6	8.5
12600077	9	BROWN GRITTY CLAY	8.5	10.6
12600077	11	FINE SANDY CLAY	10.6	10.9
12600077	13	BROWN GRITTY CLAY	10.9	14
12600077	15	BROWN SANDY CLAY	14	15.2
12600077	17	FINE TO COARSE SAND	15.2	15.8
12600077	19	BROWN SANDY CLAY	15.8	18.9
12600077	21	WEATHERED GRANITE	18.9	28.6
12600078	1	SAND	0	2.4
12600078	3	BROWN GRITTY CLAY	2.4	7.6
12600078	5	BLUE SAND	7.6	7.9
12600078	7	SANDY CLAY	7.9	10.4
12600078	9	BLUE GRITTY CLAY	10.4	13.7
12600078	11	FINE TO MEDIUM SAND & CLAY	13.7	14.9
12600078	13	BROWN GRITTY CLAY	14.9	16.2
12600078	15	FINE TO MEDIUM SAND & CLAY	16.2	20
12600078	17	BROWN GRITTY CLAY	20	21
12600078	19	FINE TO COARSE SAND	21	21.9
12600078	21	BROWN GRAVELLY CLAY	21.9	24
12600078	23	FINE TO COARSE CLAYEY SAND	24	26
12600078	25	BROWN GRITTY CLAY	26	31
12600078	27	GRANITE	31	32
12600079	1	FINE SAND	0	1.82
12600079	3	BROWN GRITTY CLAY	1.82	7.01
12600079	5	FINE TO MEDIUM CLAYEY SAND	7.01	7.62
12600079	7	SOFT CLAYEY GRAVEL	7.62	10.97
12600079	9	BROWN CLAY	10.97	13.71
12600079	11	FINE TO MEDIUM CLAYEY SAND	13.71	14.93
12600079	13	BROWN CLAY	14.93	15.24
12600079	15	FINE TO MEDIUM CLAYEY SAND	15.24	20.11
12600079	17	BROWN GRITTY CLAY	20.11	21.03
12600080	1	FINE SAND	0	1.82
12600080	3	BROWN GRITTY CLAY	1.82	7.01
12600080	5	FINE TO MEDIUM SAND	7.01	7.92
12600080	7	BLUE CLAY	7.92	8.22
12600080	9	FINE TO COARSE CLAYEY SAND	8.22	10.66
12600080	11	BROWN CLAY	10.66	13.71

RN	REC	DESCR	TOP	BOTTOM
12600080	13	FINE TO COARSE CLAYEY SAND	13.71	14.93
12600080	15	GRAVELLY CLAY	14.93	15.84
12600081	1	BROWN SAND	0	1.82
12600081	3	BROWN GRITTY CLAYS	1.82	7.31
12600081	5	FINE CLAYEY SAND	7.31	7.92
12600081	7	SOFT BLUE CLAY	7.92	8.22
12600081	9	FINE TO COARSE SAND & COBBLES	8.22	11.27
12600081	11	BROWN CLAY	11.27	12.49
12600082	1	TOP SOIL	0	0.3
12600082	3	BROWN CLAY	0.3	3.6
12600082	5	DARK CLAY	3.6	7
12600082	7	BROWN CLAY & SAND	7	11.6
12600082	9	FINE TO MEDIUM CLAYEY SAND	11.6	11.8
12600082	11	BROWN GRITTY CLAY	11.8	14.6
12600082	13	FINE TO COARSE WHITE SAND	14.6	15.2
12600082	15	BLUE GRITTY CLAY	15.2	15.9
12600082	17	BROWN CLAY	15.9	21.3
12600082	19	FINE CLAYEY SAND	21.3	24.4
12600082	21	DECOMPOSED GRANITE	24.4	32
12600082	23	WEATHERED GRANITE	32	33
12600082	25	GRANITE	33	33.5
12600082	902	00/00/0000 SWL -2.80 M TMP NUL C		
12600083	1	TOP SOIL	0	0.3
12600083	3	GRITTY SANDY CLAYS	0.3	13.1
12600083	5	FINE TO COARSE CLAYEY SAND	13.1	15.24
12600083	7	TIGHT BROWN CLAY	15.24	16.15
12600084	1	TOP SOIL	0	0.3
12600084	3	BROWN CLAY	0.3	2.13
12600084	5	FINE CLAYEY SAND	2.13	2.43
12600084	7	BROWN CLAY	2.43	7.01
12600084	9	BLUE SANDY CLAY	7.01	10.97
12600084	11	FINE TO COARSE SAND	10.97	11.58
12600084	13	BROWN CLAY	11.58	12.19
12600195	1	SOIL	0	0.76
12600195	2	LIGHT SANDY CLAY	0.76	1.83
12600195	3	BROWN CLAY	1.83	6.1
12600195	4	SOFT SANDY CLAY	6.1	14.02
12600195	5	RED BLACK CLAY	14.02	15.24
12600196	1	SOIL	0	0.76
12600196	2	LIGHT SANDY SOIL	0.76	1.83
12600196	3	BROWN CLAY	1.83	4.27
12600196	4	GREY CLAY	4.27	9.14
12600197	1	SOIL	0	0.61
12600197	2	DARK BROWN CLAY	0.61	2.44
12600197	3	BROWN SANDY CLAY	2.44	4.88
12600197	4	SLOPPY CLAY	4.88	7.62
12600197	5	DENSE GREY CLAY	7.62	8.84
12600198	1	BROWN SANDY CLAY	0	1.83
12600198	2	SAND AND MUCH CLAY	1.83	3.05
12600198	3	BROWN CLAY	3.05	7.92
12600198	4	SLOPPY CLAY	7.92	12.19
12600198	5	DENSE BROWN CLAY	12.19	13.11
12600199	1	SOIL	0	0.46
12600199	2	BROWN SANDY CLAY	0.46	2.44
12600199	3	SAND AND MUCH CLAY	2.44	3.05
12600199	4	SOFT BROWN CLAY	3.05	12.8
12600199	5	BROWN CLAY DENSE	12.8	13.41
12600200	1	SOIL	0	0.46
12600200	2	BROWN SANDY CLAY	0.46	2.29
12600200	3	SAND AND CLAY	2.29	3.35
12600200	4	SOFT BROWN CLAY	3.35	8.53
12600200	5	SAND AND MUCH CLAY	8.53	11.28
12600200	6	DENSE BROWN CLAY	11.28	12.19
12600201	1	SOIL	0	0.46
12600201	2	BROWN SANDY CLAY	0.46	1.22
12600201	3	SAND CONT. CLAY	1.22	3.66
12600201	4	BROWN CLAY	3.66	9.14
12600201	5	MED SAND AND MUCH CLAY	9.14	11.58
12600201	6	GREY CLAY	11.58	12.19
12600202	1	SOIL	0	0.3
12600202	2	GREY CLAY	0.3	0.91
12600202	3	BROWN SANDY CLAY	0.91	1.83
12600202	4	SAND AND MUCH CLAY	1.83	3.96
12600202	5	BROWN CLAY	3.96	7.62
12600202	6	SLOPPY SAND AND CLAY	7.62	12.19
12600202	7	MEDIUM SAND	12.19	13.72
12600202	8	BROWN CLAY	13.72	14.02
12600203	1	SOIL	0	0.49
12600203	2	LIGHT BROWN CLAY	0.49	1.46
12600203	3	DARK GREY CLAY FEW WTR WORN STONES	1.46	4.57
12600203	4	DARK GREY CLAY	4.57	7.71
12600203	5	BROWN SANDY CLAY	7.71	11.22
12600203	6	GREY SANDY CLAY	11.22	11.92
12600203	7	GREY SANDY CLAY WATER WORN STONES	11.92	14.11
12600203	8	BROWN AND GREY SANDY CLAY	14.11	17.71
12600203	9	BROWN AND GREY CLAY	17.71	21
12600203	10	FINE SAND AND CLAY	21	23.96
12600203	11	SAND AND CLAY WATER WORN STONES	23.96	25.63
12600203	12	BROWN CLAY & WATER WORN STONES	25.63	28.29
12600203	13	BROWN AND GREY CLAY	28.29	30.66
12600203	14	BROWN & GREY CLAY GRIT & SMALL STONES	30.66	36.15
12600203	15	GREY GRITTY CLAY WATER WORN STONES	36.15	38.77
12600203	16	GREY CLAY	38.77	40.26
12600203	17	SAND	40.26	41.45
12600203	18	GRANITE ROCK	41.45	41.54
12600204	1	SOIL	0	0.46
12600204	2	CLAY	0.46	0.91
12600204	3	LIGHT BROWN CLAY	0.91	4.88

RN	REC	DESCR	TOP	BOTTOM
12600204	4	BROWN SANDY CLAY	4.88	7.92
12600204	5	SLOPPY SAND AND CLAY	7.92	16.76
12600353	1	TOP SOIL	0	0.6
12600353	3	SAND	0.6	3.5
12600353	5	BLACK SILTY CLAY	3.5	5
12600353	7	SAND	5	8.9
12600353	9	SAND GRAVEL & CLAY	8.9	14
12600353	11	CLAYBOUND WHITE SAND	14	15.2
12600353	13	SANDY CLAY	15.2	18
12600353	15	CLAYBOUND SAND	18	21.5
12600353	17	SILTY CLAY	21.5	23
12600353	902	00/00/0000 SWL -4.10 M TMP NUL C		
12600354	1	SOIL	0	0.35
12600354	3	SILT	0.35	2.4
12600354	5	FINE SANDY CLAY	2.4	4.4
12600354	7	SILTY CLAY	4.4	5.7
12600354	9	FINE SILTY SAND	5.7	10.5
12600354	11	SAND & GRAVEL	10.5	23.6
12600354	13	SAND GRAVEL & CLAY	23.6	24.4
12600354	15	WEATHERED ROCK	24.4	25
12600354	902	00/00/0000 SWL -3.50 M TMP NUL C		
12600355	1	TOP SOIL	0	0.3
12600355	3	SANDY CLAY	0.3	6
12600355	5	WHITE SILTY SAND	6	8.7
12600355	7	SANDY CLAY	8.7	10.4
12600355	9	SAND	10.4	11.1
12600355	11	SILTY CLAY	11.1	17
12600355	13	SANDY CLAY	17	19.5
12600355	15	WEATHERED GRANITE	19.5	20
12600551	1	FINE SAND VERY WELL SORTED SUBANGULAR	0	1
12600551	3	FINE SANDY LOAM WELL SORTED SUB	1	1.5
12600551	5	FINE SAND WELL SORTED SUBANGULAR	1.5	2
12600551	7	VERY COARSE SAND MOD SORTED W GRAN	2	4
12600551	9	MANGROVE MUD BLACK	4	5.5
12600551	10	COARSE SAND MOD SORTED SOME GRANULES	5.5	6
12600551	12	COARSE SAND MOD SORTED SOME GRANULES	6	7
12600551	14	MEDIUM SAND WELL SORTED SUBANGULAR	7	8
12600551	16	COARSE SAND MOD SORTED SUBROUNDED	8	10
12600551	18	COARSE TO MEDIUM SANDY CLAY GREEN	10	11.5
12600551	20	COARSE SAND WELL SORTED SUBROUNDED	11.5	12
12600551	22	FINE SANDY MUD MOTTLED GREY BROWN	12	15.5
12600551	23	CLEAN MEDIUM SAND WELL SORTED SUB	15.5	16
12600551	25	FINE SANDY CLAY LIGHT BROWN	16	18
12600551	26	VERY COARSE SAND WELL SORTED SUB	18	19
12600551	28	FINE SANDY CLAY YELLOW	19	21
12600551	29	CLAY GREY	21	22
12600551	30	VERY COARSE SAND MOD SORTED SUB	22	22.8
12600551	32	FINE TO MEDIUM SANDY CLAY	22.8	23.2
12600551	33	GRANULES SOME FINE PEBBLES POOR SORT	23.2	23.5
12600551	35	MEDIUM TO COARSE SANDY MUD	23.5	25.3
12600551	36	WEATHERED GRANITE	25.3	
12600551	2	HIGH SPERICITY YELLOW		
12600551	4	ANGULAR HIGH SPERICITY BROWN		
12600551	6	HIGH SPERICITY YELLOW		
12600551	8	ULES SUBROUNDED LOW SPERICITY BROWN		
12600551	11	MINOR MANGROVE MUD COMPONENT GREY		
12600551	13	ANGULAR LOW TO HIGH SPERICITY GREY		
12600551	15	HIGH SPERICITY GREY		
12600551	17	HIGH SPERICITY		
12600551	19	MOTTLED		
12600551	21	HIGH SPERICITY YELLOW		
12600551	24	ANGULAR LOW SPERICITY WHITE		
12600551	27	ROUNDED HIGH SPERICITY GREY		
12600551	31	ROUNDED HIGH SPERICITY BROWN		
12600551	34	SUBROUNDED HIGH - LOW SPERICITY BROWN		
12600552	1	FINE SAND VERY WELL SORTED SUBANGULAR	0	1
12600552	3	FINE SANDY LOAM WELL SORTED SUB	1	1.5
12600552	5	FINE SAND WELL SORTED SUBANGULAR	1.5	2
12600552	7	VERY COARSE SAND MOD SORTED W GRAN	2	4
12600552	9	MANGROVE MUD BLACK	4	5.5
12600552	10	COARSE SAND MOD SORTED SOME GRANULES	5.5	6
12600552	12	COARSE SAND MOD SORTED SOME GRANULES	6	7
12600552	14	MEDIUM SAND WELL SORTED SUBANGULAR	7	8
12600552	16	COARSE SAND MOD SORTED SUBROUNDED	8	10
12600552	18	COARSE TO MEDIUM SANDY CLAY GREEN	10	
12600552	2	HIGH SPERICITY YELLOW		
12600552	4	ANGULAR HIGH SPERICITY BROWN		
12600552	6	HIGH SPERICITY YELLOW		
12600552	8	ULES SUBROUNDED LOW SPERICITY BROWN		
12600552	11	MINOR MANGROVE MUD COMPONENT GREY		
12600552	13	ANGULAR LOW TO HIGH SPERICITY GREY		
12600552	15	HIGH SPERICITY GREY		
12600552	17	HIGH SPERICITY		
12600552	19	MOTTLED		
12600553	1	FINE SAND WELL SORTED SUBANGULAR HIGH	0	1.5
12600553	3	FINE SAND VERY WELL SORTED SUBANGULAR	1.5	2.5
12600553	5	MEDIUM SAND WELL SORTED LIGHT BROWN	2.5	2.8
12600553	6	COARSE TO VERY COARSE SAND WELL SORT	2.8	3.8
12600553	8	VERY COARSE SAND WELL SORTED	3.8	4.6
12600553	9	MANGROVE MUD BLACK	4.6	6.3
12600553	10	COARSE SAND WELL SORTED SUBROUNDED	6.3	6.8
12600553	13	COARSE SAND WELL SORTED SUBROUNDED	6.8	9.5
12600553	15	COARSE SAND WITH MED PEBBLES POORLY	9.5	10
12600553	18	COARSE SANDY CLAY HIGH CLAY CONTENT	10	10.8
12600553	20	MEDIUM TO COARSE SANDY CLAY HIGH SAND	10.8	11.7
12600553	23	MEDIUM SANDY CLAY HIGH SAND CONTENT	11.7	13.8
12600553	25	MEDIUM TO COARSE SANDY CLAY WELL SORT	13.8	14.5
12600553	28	MEDIUM COARSE SANDY CLAY HIGH COARSE	14.5	14.8

RN	REC	DESCR	TOP	BOTTOM
12600553	30	MEDIUM COARSE SANDY CLAY MORE SAND	14.8	16.8
12600553	32	MEDIUM SANDY CLAY MORE SAND THEN CLAY	16.8	17.5
12600553	34	SANDY CLAY MORE CLAY THEN SAND MINOR	17.5	18.5
12600553	36	SILTY CLAY MORE CLAY THEN SILT MOTTLE	18.5	21.5
12600553	37	MEDIUM SAND WITH MINOR FINE PEBBLES	21.5	22.5
12600553	35	VERY COARSE SAND FRACTION		
12600553	38	MOD SORTED SUBANGULAR HIGH SPERICITY		
12600553	2	SPERICITY LIGHT BROWN		
12600553	4	LOW TO HIGH SPERICITY PINK		
12600553	7	ANGULAR LOW SPERICITY BROWN		
12600553	11	HIGH SPERICITY MINOR MANGROVE MUD		
12600553	12	COMPONENT GREY		
12600553	14	HIGH SPERICITY GREY		
12600553	16	SORTED PEBBLES ANGLUAR LOW SPERICITY		
12600553	17	SAND SUBROUNDED HIGH SPERICITY GREY		
12600553	19	SOME PEBBLES GREEN MOTTLING		
12600553	21	CONTENT SAND FRACTION WELL SORTED		
12600553	22	ORANGE		
12600553	24	SAND FRACTION VERY WELL SORTED GREY		
12600553	26	HIGH COARSE FRACTION CLAY INCREASING		
12600553	27	CARBONATE 10% BROWN		
12600553	29	FRACTION MORE SAND THEN CLAY CARB 2%		
12600553	31	THEN CLAY MOTTLING		
12600553	33	CARBONATE 5% MOTTLING		
12600554	1	FINE SAND WELL SORTED SUBANGULAR HIGH	0	1.5
12600554	3	FINE SAND VERY WELL SORTED SUBANGULAR	1.5	2.5
12600554	5	MEDIUM SAND WELL SORTED LIGHT BROWN	2.5	2.8
12600554	6	COARSE TO VERY COARSE SAND WELL SORT	2.8	3.8
12600554	8	VERY COARSE SAND WELL SORTED	3.8	4.6
12600554	9	MANGROVE MUD BLACK	4.6	6.3
12600554	10	COARSE SAND WELL SORTED SUBROUNDED	6.3	6.8
12600554	13	COARSE SAND WELL SORTED SUBROUNDED	6.8	9.5
12600554	15	COARSE SAND WITH MED PEBBLES POORLY	9.5	10
12600554	2	SPERICITY LIGHT BROWN		
12600554	4	LOW TO HIGH SPERICITY PINK		
12600554	7	ANGULAR LOW SPERICITY BROWN		
12600554	11	HIGH SPERICITY MINOR MANGROVE MUD		
12600554	12	COMPONENT GREY		
12600554	14	HIGH SPERICITY GREY		
12600554	16	SORTED PEBBLES ANGULAR LOW SPERICITY		
12600554	17	SAND SUBROUNDED HIGH SPERICITY GREY		
12600555	1	MEDIUM LOAMY SAND SUBANGULAR WELL	0	1.2
12600555	3	MEDIUM TO COARSE SAND WELL SORTED	1.2	2
12600555	5	MEDIUM TO COARSE SAND MOD WELL SORT	2	3.8
12600555	7	MANGROVE MUD BLACK	3.8	6
12600555	8	GRANULES TO FINE PEBBLES WELL SORTED	6	7.8
12600555	10	MEDIUM UNIMODAL SANDY CLAY HIGH SAND	7.8	9.8
12600555	12	MEDIUM SANDY CLAY HIGH CLAY CONTENT	9.8	11.5
12600555	14	MEDIUM SANDY CLAY MOTTLED CARBONATE	11.5	13.4
12600555	16	MEDIUM SANDY CLAY HIGH CLAY CONTENT	13.4	14
12600555	18	MEDIUM SANDY CLAY VERY POORLY SORTED	14	15
12600555	20	MEDIUM TO PEBBLE SANDY CLAY POORLY	15	18
12600555	23	MEDIUM SANDY CLAY MOTTLED	18	21.5
12600555	24	FINE SANDY CLAY WEATHERED LIMESTONE?	21.5	22.5
12600555	25	WEATHERED GRANITE	22.5	
12600555	2	SORTED LOW TO HIGH SPERICITY BROWN		
12600555	4	SUBANGULAR HIGH SPERICITY BROWN		
12600555	6	SUBROUNDED HIGH SPERICITY BROWN		
12600555	9	SUBROUNDED HIGH SPERICITY GREY		
12600555	11	CONTENT		
12600555	13	WELL SORTED FINING UPWARDS MOTTLED		
12600555	15		5%	
12600555	17	MOTTLED		
12600555	19	WITH GRAVEL 10% MOTTLED CARBONATE 5%		
12600555	21	SORT HIGH SAND CONTENT FINING UPWARDS		
12600555	22	LESS MOTTLING CARBONATE 7%		
12600556	1	MEDIUM LOAMY SAND SUBANGULAR WELL	0	1.2
12600556	3	MEDIUM TO COARSE SAND WELL SORTED	1.2	2
12600556	5	MEDIUM TO COARSE SAND MOD WELL SORT	2	3.8
12600556	7	MANGROVE MUD BLACK	3.8	6
12600556	8	GRANULES TO FINE PEBBLES WELL SORTED	6	7.8
12600556	10	MEDIUM UNIMODAL SANDY CLAY HIGH SAND	7.8	9.8
12600556	2	SORTED LOW TO HIGH SPERICITY BROWN		
12600556	4	SUBANGULAR HIGH SPERICITY BRWON		
12600556	6	SUNROUNDED HIGH SPERICITY BROWN		
12600556	9	SUBROUNDED HIGH SPERICITY GREY		
12600556	11	CONTENT		
12600595	1	GREY CLAYEY SAND SOIL	0	1
12600595	2	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHIC, FE STAINING	1	4
12600595	3	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHICQ	4	6
12600595	4	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHIC, FE STAINING	6	7
12600595	5	BROWN CLAYEY VF-VC SAND, QUARTZOFELDSPATHIC	7	8
12600595	6	BROWN CLAYEY, VF-VC SAND & GRAVEL, QUARTZOFELDSPATHIC	8	10
12600595	7	GREY BROWN CLAYEY VF-F SAND, QUARTZOFELDSPATHIC	10	12
12600595	8	GREY BROWN CLAYEY VF-C SAND, QUARTZOFELDSPATHIC, FE STAINING	12	13
12600595	9	GREY CLAYEY VF-VC SAND, QUARTZOFELDSPATHIC, FE STAINING	13	15
12600595	10	GREY CLAYEY VF-VC SAND & GRAVEL, QUARTZOFELDSPATHIC, PEBBLES, FE STAINING	15	16
12600595	11	GREY CLAYEY VF SAND, BLACK MINERAL SAND BANDS	16	19
12600595	12	GREY BROWN CLAYEY VF-VC SAND & GRAVEL, GRANITIC CLASTS	19	21
12600595	13	LIGHT GREY BROWN CLAYEY VF SAND, FE STAINING	21	24
12600595	14	LIGHT GREY BROWN CLAYEY VF-M SAND, FE STAINING	24	27
12600595	15	LIGHT GREY BROWN CLAYEY VF-C SAND, MINOR GRAVEL, FE STAINING	27	29
12600596	1	GREY CLAYEY SAND SOIL	0	1
12600596	2	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHIC, FE STAINING	1	4
12600596	3	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHIC	4	6
12600596	4	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHIC, FE STAINING	6	7
12600596	5	BROWN CLAYEY VF-VC SAND, QUARTZOFELDSPATHIC	7	8
12600596	6	BROWN CLAYEY VF-VC SAND & GRAVEL, QUARTZOFELDSPATHIC	8	10

RN	REC	DESCR	TOP	BOTTOM
12600596	7	GREY BROWN CLAYEY VF-F SAND, QUARTZOFELDSPATHIC	10	12
12600596	8	GREY BROWN CLAYEY VF-C SAND, QUARTZOFELDSPATHIC	12	13
12600596	9	GREY CLAYEY VF-VC SAND, QUARTZOFELDSPATHIC, FE STAINING	13	15
12600596	10	GREY CLAYEY VF-VC SAND & GRAVEL, QUARTZOFELDSPATHIC, PEBBLES, FE STAINING	15	16
12600596	11	GREY BROWN CLAY, FE MOTTLING	16	16.5
12600597	1	GREY CLAYEY SAND SOIL	0	1
12600597	2	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHIC, FE STAINING	1	4
12600597	3	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHIC	4	6
12600597	4	GREY BROWN CLAYEY VF-M SAND, QUARTZOFELDSPATHIC, FE STAINING	6	7
12600597	5	BROWN CLAYEY VF-VC SAND, QUARTZOFELDSPATHIC	7	8
12600597	6	BROWN CLAYEY VF-VC SAND & GRAVEL, QUARTZOFELDSPATHIC	8	10
12600597	7	GREY BROWN CLAYEY VF-F SAND, QUARTZOFELDSPATHIC	10	10.25

Appendix D
GW Bore Search - Stratigraphy

Mackay Airport
ASA

RN	REC	DATA_OWNER	FORM_DESC	TOP	BOTTOM
20595	1	DNR	ALLUVIUM		
20595	2	DNR	ALLUVIUM		
30946	1	DNR	BAKERS CREEK ALLUVIUM		
34508	1	DNR	PIONEER RIVER ALLUVIUM		
37519	1	DNR	BAKERS CREEK ALLUVIUM		
46017	1	DNR	PIONEER RIVER ALLUVIUM		
46134	1	DNR	PIONEER RIVER ALLUVIUM		
46411	1	DNR	BAKERS CREEK ALLUVIUM	0	12.5
46425	1	DNR	PIONEER RIVER ALLUVIUM		
46451	1	DNR	ALLUVIUM		
46628	1	DNR	ALLUVIUM ALUV	0	19.2
63000	1	DNR	BAKERS CREEK ALLUVIUM		
81031	1	DNR	PIONEER RIVER ALLUVIUM	0	9.9
85030	1	DNR	PIONEER RIVER ALLUVIUM	0	12.8
12500143	1	DNR	ALLUVIUM		
12500143	2	DNR	ALLUVIUM		
12500148	1	DNR	ALLUVIUM		
12500152	1	DNR	ALLUVIUM		
12500153	1	DNR	ALLUVIUM		
12500153	2	DNR	ALLUVIUM		
12500154	1	DNR	ALLUVIUM		
12500155	1	DNR	ALLUVIUM		
12500156	1	DNR	ALLUVIUM		
12500156	2	DNR	ALLUVIUM		
12500157	1	DNR	ALLUVIUM		
12500158	1	DNR	ALLUVIUM		
12500159	1	DNR	ALLUVIUM		
12500160	1	DNR	ALLUVIUM		
12500160	2	DNR	ALLUVIUM		
12500161	1	DNR	ALLUVIUM		
12500275	1	DNR	QUATERNARY - UNDEFINED	0	23
12500275	2	DNR	UNDIFFERENTIATED	23	32.8
12500276	1	DNR	QUATERNARY - UNDEFINED	0	16
12500277	1	DNR	QUATERNARY - UNDEFINED	0	10.25
12600077	1	DNR	BAKERS CREEK ALLUVIUM	0	16.5
12600078	1	DNR	ALLUVIUM	0	26.2
12600078	2	DNR	ALLUVIUM		
12600079	1	DNR	ALLUVIUM	0	21
12600079	2	DNR	ALLUVIUM		
12600080	1	DNR	ALLUVIUM	0	15.7
12600080	2	DNR	ALLUVIUM		
12600081	1	DNR	ALLUVIUM	0	11.4
12600082	1	DNR	ALLUVIUM	0	25.1
12600082	2	DNR	ALLUVIUM		
12600083	1	DNR	ALLUVIUM	0	16.1
12600083	2	DNR	ALLUVIUM		
12600084	1	DNR	ALLUVIUM	0	11.9
12600196	1	DNR	ALLUVIUM		
12600197	1	DNR	ALLUVIUM		
12600197	2	DNR	ALLUVIUM		
12600198	1	DNR	ALLUVIUM		
12600199	1	DNR	ALLUVIUM		
12600200	1	DNR	ALLUVIUM		
12600200	2	DNR	ALLUVIUM		
12600201	1	DNR	ALLUVIUM		
12600201	2	DNR	ALLUVIUM		
12600202	1	DNR	ALLUVIUM		
12600203	1	DNR	ALLUVIUM		
12600203	2	DNR	ALLUVIUM		
12600204	1	DNR	ALLUVIUM		
12600353	1	DNR	ALLUVIUM		
12600354	1	DNR	ALLUVIUM		
12600355	1	DNR	ALLUVIUM		
12600355	2	DNR	ALLUVIUM		
12600551	1	DNR	PIONEER RIVER ALLUVIUM	0	25.3
12600552	1	DNR	PIONEER RIVER ALLUVIUM	0	
12600553	1	DNR	PIONEER RIVER ALLUVIUM	0	
12600554	1	DNR	PIONEER RIVER ALLUVIUM	0	
12600555	1	DNR	PIONEER RIVER ALLUVIUM	0	22.5
12600556	1	DME	PIONEER RIVER ALLUVIUM	0	
12600595	1	DNR	QUATERNARY - UNDEFINED	0	29
12600596	1	DNR	QUATERNARY - UNDEFINED	0	16.5
12600597	1	DNR	QUATERNARY - UNDEFINED	0	10.25

Appendix D
 GW Bore Search - Water Analysis

RN	PIPE	RDATE	REC	ANALYST	ANALYSIS NO	SAMP METHOD	SOURCE	PRESMETH1	COLLSAMP	PROJECT1	DEPTH	CONDUCT	PH	COLOUR	TURB	SIO2	HARD	ALK	FIG_MERIT	NA_ADS_RATIO	RES_ALK	TOTAL_IONS	TOTAL_SOLIDs	
30946	A	24/11/1970	1	GCL	47446	PU	GB				16	2350	7.8			206	152	0.3	11.3			1231.35	1137.31	
30946	A	23/11/1970	1	GCL	47445	PU	GB				16	2350	7.5			181	185	0.2	12.1	0.1		1251.3	1136.42	
30946	A	29/08/1972	5	GCL	53759	PU	GB					2100	7			213	155	0.2	11.7			1299.15	1203.08	
30946	A	15/01/1969	1	GCL	41451	PU	GB				6	2000	7			194	180	0.2	11.6			1226.05	1114.22	
30946	A	15/01/1969	2	GCL	41452	PU	GB				6	2360	7.5			368	260	0.4	8.9			1513.35	1352.22	
30946	A	24/04/1995	1	GCL	174620	AI	GB	NL	DG	GWAN	15	2231	6.8	0	0.1	73	289	165	0.4	8.6	0	1271.7	1242.39	
34508	A	23/10/1984	1	BSI		PU	GB				19	1104				149	180	0.3	8.7	0.63		876.3	0	
34508	A	12/04/1985	1	BSI		PU	GB				19	994				157	180	0.3	7.5	0.47		829.5	0	
37519	A	3/11/1997	1	GCL	187319	PU	GB	NL	PR	PR	8.8	1370	7.5	0	0.4	62	189	176	0.4	6.5	0	829.5	783.12	
46017	A	1/12/1982	2	BSI	120750	PU	GB				19	2208				104	236		0.1	20	2.64	1378.6	1232.26	
46017	A	21/09/1977	1	BSI	122363	PU	GB				18	2095	6.9			64	252			22.6	3.76	1294.2	1137.95	
46017	A	24/04/1995	1	GCL	174622	AI	GB	NL	DG	GWAN	17	2856	7.4	0	0	72	181	228	0.2	17.2	0.94	1724.26	1655.48	
46017	A	12/09/1995	1	GCL	174594	PU	GB	NL	DG	GWAN	16.2	3556	7.6	0	1.1	69	262	251	0.2	18	0	2149.73	2064.22	
46134	A	14/02/1975	1	DPI	1	PU	GB				7	1260				248	246	0.6	5			829.4	676.76	
46134	A	4/04/1979	1	BSM	B2142		GB					1711	6.6			252				5.04		950.3	794	
46411	A	5/10/1981	1	BSI		PU	GB				14	1104				168	184	0.4	6.6	0.32		760.7	646.59	
46411	A	26/01/1978	1	BSI	122375	PU	GB				12	585	7			132	128	0.9	2.5			357.4	278	
46411	A	24/04/1995	1	GCL	174643	AI	GB	NL	DG	GWAN	10	824	7.4	0	0.1	50	179	145	0.9	3.2	0	531.09	491.8	
46411	A	9/10/1995	1	GCL	174706	PU	GB	NL	DG	GWAN	10	714	6.9	10	0.2	49	167	136	0.9	2.9	0	472.16	437.18	
63000	A	14/11/1985	1	GCL	112474	PU	GB				11	890	7.9			56	224	129	1.2	2.5		561.11	538.32	
63000	A	15/11/1985	1	GCL	112357	PU	GB				11	1000	7.8			54	258	137	1.2	2.7		636	606.13	
63000	A	24/04/1995	1	GCL	174619	AI	GB	NL	DG	GWAN	10	1351	6.8	0	1.4	52	360	177	1.2	3.1	0	866.91	809.64	
12500275	A	7/02/2012	1	GCL	302586	AI	GB	NL	DG	GWAN	32	695	8.3	3	1	53	40	289	0.1	10	5	565	444	
12500276	A	7/02/2012	1	GCL	302587	AI	GB	NL	DG	GWAN	14	844	7.4	2	24	54	196	226	0.9	3.2	0.6	589	503	
12500277	A	7/02/2012	1	GCL	302588	AI	GB	NL	DG	GWAN	9	933	7.6	2	9	55	234	234	1	3	0	635	546	
12600077	A	1/01/2100	1	GCL	84353		GB					8700	6.6			33	409	375	0.1	35.9		5282.2	5082.91	
12600077	A	20/02/1978	1	GCL	76118		GB					3700	7.2			49	71	360		35.4	5.77	2149.8	1976.16	
12600077	A	22/08/1978	1	GCL	78289		GB					14300	8.1			37	1066	550	0.2	42			9456.6	9152.53
12600077	A	20/09/1978	1	GCL	76911		GB					15000	7.4			5	966	560	0.1	44.9			9835.5	9493.33
12600077	A	25/10/1978	1	GCL	79402		GB					14500	8.1			40	788	630	0.1	43.7			8803.1	8452.73
12600077	A	22/02/1979	1	GCL	80556		GB					12500	7.6			29	701	596	0.1	41.4			7737.2	7396.67
12600077	A	20/03/1980	1	GCL	85858		GB					13000	7.2			41	849	670	0.1	44.6			8993.7	8619.42
12600077	A	9/10/1980	1	GCL	87418	AI	GB					15300	7.6			45	916	596	0.1	47			9849.4	9524.87
12600077	A	19/03/1981	1	GCL	90054	AI	GB				21	3600	6.7			11	196	18	0.2	18.2			2059.1	2058.92
12600077	A	9/12/1981	1	GCL	92302	AI	GB					9310	7.5			52	442	490	0.1	41	0.96		5957.5	5706.04
12600077	A	21/04/1982	1	GCL	93720		GB				17	9900	7.2			54	450	650	0.1	40	4		6226.8	5879.24
12600077	A	23/03/1983	1	GCL	101309	PU	GB					8300	6.8			39	356	374	0.1	34.6	0.35		4463.35	4271.07
12600077	A	1/08/1976	1	GCL	69590		GB					2750	8.1			70	392			28.8	6.42		1744.2	1506.32
12600077	A	1/09/1976	1	GCL	70224		GB					2850	8.2			36	390			40.1	7.09		1746.9	1511.05
12600077	A	1/11/1976	1	GCL	70450		GB					2350	8			44								

Appendix D
GW Bore Search - Water Analysis

Mackay Airport
ASA

RN	PIPE	RDATE	REC	ANALYST	ANALYSIS NO	SAMP METHOD	SOURCE	PRESMETH1	COLLSAMP	PROJECT1	DEPTH	CONDUCT	PH	COLOUR	TURB	SIO2	HARD	ALK	FIG_MERIT	NA ADS RATIO	RES ALK	TOTAL_IONS	TOTAL_SOLIDs
12600083	A	19/03/1981	1	GCL	90018	AI	GB				16	830	7.7			57	39	191	0.1	10.5	3.05	552.8	491.87
12600083	A	9/12/1981	1	GCL	92254	AI	GB					920	8			57	51	212	0.1	10.5	3.21	615.4	542.79
12600083	A	21/04/1982	1	GCL	93684		GB				16	940	8.6			55	70	232	0.2	8.9	3.24	649.5	567.26
12600083	A	23/03/1983	1	GCL	101259	PU	GB					920	8.7			51	49	205	0.1	11.2	3.11	620.02	551.57
12600083	A	25/08/1993	1	GCL	153595	AI	GB				16	777	8.4			55	37	196	0.1	11.4	3.17	550.27	487.63
12600083	A	25/06/1996	1	GCL	180774	PU	GB	NL	DG	GWAN	16.1	821	8.1	10	0.8	53	42	194	0.1	10.7	3.04	559.74	493.73
12600083	A	9/09/1999	1	GCL	196758	PU	GB	NL	DG	GWAN	15.1	786	7.8	4	1.2	56	41	198	0.1	10.9	3.14	558.84	493.35
12600084	A	25/08/1993	1	GCL	153594	AI	GB					590	7.6			10	69	155	0.4	4.4	1.71	405.99	320.24
12600084	A	25/06/1996	1	GCL	180776	PU	GB	NL	DG	GWAN	12.1	1560	8.5	5	7.1	50	157	315	0.3	9.7	3.17	1050.63	912.11
12600084	A	19/03/1997	1	GCL	181674	PG	GB	NL	DG	GWAN	12	7240	7.5	0	13	47	1508	270	0.7	11.9	0	4524.61	4405.6
12600084	A	9/09/1999	1	GCL	196742	PU	GB	NL	DG	GWAN	11.3	6940	7.9	0	46.3	49	1429	266	0.6	11.9	0	4411.03	4298.45
12600203	A	20/09/1999	1	GCL	203600	PU	GB	NL	DG	GWAN	35.15	8000	7.9	0	0.8	56	585	641	0.2	30.1	1.11	5151.59	4816.94
12600353	A	25/08/1993	1	GCL	153447	AI	GB					25900	7.6			48	3769	176	0.3	37.9	0	17901.97	17841.59
12600353	B	25/08/1993	1	GCL	153448	BA	GB					556	8.5			14	109	61	0.8	2.7	0	336.44	314.32
12600353	C	25/08/1993	1	GCL	153445	AI	GB					521	5.2			35	73	2	0.5	3.5	0	278.16	311.43
12600353	B	31/07/1975	1	GCL	65533		GB				15	2040	9.9			362	79		1.2	3.2		656.9	656.09
12600353	B	31/07/1975	2	GCL	65534		GB				10	16800	9.1			1599	13		0.2	33.7		9938.9	9932.8
12600353	B	20/02/1978	1	GCL	76127		GB					315	7.2			34	90	74	1.6	1.2		215.6	203.85
12600353	B	20/02/1978	2	GCL	76128		GB					19100	7.4			12	2150	155	0.3	32.9		11537.3	11453.23
12600353	B	26/10/1978	1	GCL	79411		GB					26500	7.5			40	3746	140	0.3	35.5		17255	17208.08
12600353	B	22/02/1979	1	GCL	80565		GB					122	6.9			13	27	15	0.9	1.1		68.3	72.15
12600353	B	22/02/1979	2	GCL	80566		GB					220	7.5			29	61	40	1.5	1.1		138.7	142.79
12600353	B	27/09/1979	1	GCL	83917		GB					670	8			26	183	105	1.6	1.7		391.5	352.95
12600353	B	27/09/1979	2	GCL	84043		GB					280	8.1			33	85	74	1.9	1		186.1	173.86
12600353	B	20/03/1980	1	GCL	85935		GB					540	7.8			35	135	100	1.3	1.8		338.4	311.9
12600353	B	20/03/1980	2	GCL	86015		GB					8700	6.8			25	1191	34	0.4	17.5		4884.8	4888.96
12600353	B	10/10/1980	1	GCL	87402	AI	GB					3110				37	475	139	0.5	8.6		1759.4	1710.5
12600353	B	10/10/1980	2	GCL	87663		GB				23	27500	7.5			50	4141	190	0.4	36.5		18342	18274.07
12600353	B	19/03/1981	1	GCL	90001	AI	GB				15	195	6.5			20	21	11	0.4	2.4		98.4	111.79
12600353	B	19/03/1981	2	GCL	90071	AI	GB				23	29000	7.6			55	3821	182	0.3	35.9		17474	17416.16
12600353	A	1/08/1975	1	GCL	65538		GB					24500	11.8			1510	424		0.2	48.2		12937.2	12929.52
12600353	A	1/10/1975	1	GCL	66173		GB					25500	11.7			1916	266		0.2	45.7		14010	14008.98
12600353	B	1/10/1975	1	GCL	66174		GB					970	10.5			184	51		0.9	3.1		502.3	496.71
12600353	C	1/10/1975	1	GCL	66175		GB					16900	8			1715	30		0.3	30.8		9911	9892.19
12600353	B	1/01/1976	1	GCL	66972		GB					730	7.6			190	57		1.4	2		452.6	417.02
12600353	C	1/01/1976	1	GCL	66957		GB					16700	6.9			1828	90		0.3	31.1		10110	10054.09
12600353	A	1/01/1976	1	GCL	66991		GB					24700	11.5			1941	437		0.2	47.1		14514.6	14511.75
12600353	A	1/03/1976	1	GCL	1		GB					24600	11.8			1721	60		0.2	50.4		14035.7	14035.7
12600353	B	1/03/1976	1	GCL	1		GB					590	7.2			161	128		1.4	1.8		373	293.71
12600353	C	1/03/1976	1	GCL	1		GB					17000	6.3		</td								

Appendix D
GW Bore Search - Water Analysis

Mackay Airport
ASA

RN	PIPE	RDATE	REC	ANALYST	ANALYSIS NO	SAMP METHOD	SOURCE	PRESMETH1	COLLSAMP	PROJECT1	DEPTH	CONDUCT	PH	COLOUR	TURB	SIO2	HARD	ALK	FIG_MERIT	NA_ADS_RATIO	RES ALK	TOTAL_IONS	TOTAL_SOLIDs	
12600353	B	23/03/1983	1	GCL	101234	PU	GB					530	7.9			31	80	52	0.5	3.7		306.32	305.3	
12600353	B	1/02/1984	1	GCL	104784		GB					23000	7.8			43	3517	172	0.4	29.7		14303	14241.8	
12600353	B	3/08/1984	1	GCL	105714		GB					670	7.2			58	166	86	1.4	1.9		413.41	418.04	
12600353	C	9/12/1981	1	GCL	92016	AI	GB					565	7.4			46	117	69	0.9	2.4		332.5	335.8	
12600353	C	21/04/1982	1	GCL	93670		GB				10	480	7.4			31	103	45	1	2.1		263.5	266.54	
12600353	C	23/03/1983	1	GCL	101221	PU	GB					380	7.5			28	61	52	0.5	3		235.68	231.66	
12600353	C	1/02/1984	1	GCL	104648		GB					320	7.5			31	90	95	1.3	1.5	0.09	226.83	199.38	
12600353	C	3/08/1984	1	GCL	105780	PU	GB					23500	7.7			46	3454	192	0.3	34.1		16127.09	16056.18	
12600353	C	19/03/1997	1	GCL	181667	PG	GB	NL	DG	GWAN	9.6	443	5.9	8	8.6	26	53	15	0.4	3.6	0	239.43	256.16	
12600353	B	19/03/1997	1	GCL	181666	PG	GB	NL	DG	GWAN	14.7	312	6.1	0	14	21	32	21	0.4	3.2	0	175.97	183.92	
12600353	A	19/03/1997	1	GCL	181665	PG	GB	NL	DG	GWAN	22.7	23200	6.8	0	18	51	3423	167	0.3	34.1	0	15559.64	15507.18	
12600353	A	7/01/1976	1	GCL	66991	PU	GB					24700	11.6				1941	437	0.2	47.1			14535.48	14532.63
12600353	A	3/10/1975	1	GCL	66174	PU	GB					970	10.5				184	51	0.9	3.1			502.44	496.85
12600353	A	3/10/1975	2	GCL	66173	PU	GB					25500	11.8				1916	266	0.2	45.7			14010	14008.98
12600353	A	31/07/1975	2	GCL	65532	PU	GB					24500	11.8				1510	414	0.2	48.2			12925	12923.53
12600353	A	7/01/1976	2	GCL	66972	PU	GB					730	7.6				190	57	1.4	2			453.26	417.68
12600353	A	7/01/1976	3	GCL	66957	PU	GB					16700	7				1828	90	0.3	31.1			10116.84	10060.93
12600353	A	3/10/1975	3	GCL	66175	PU	GB					16900	8				1715	30	0.3	30.8			9911	9892.19
12600353	A	31/07/1975	3	GCL	65533	PU	GB					2040	11.6				383	79	1.3	3.1			661.9	661.09
12600353	C	9/09/1999	1	GCL	196743	PU	GB	NL	DG	GWAN	14	258	7	40	24.5	30	43	48	0.6	2.3	0.11	159.61	160.14	
12600353	B	9/09/1999	1	GCL	196746	PU	GB	NL	DG	GWAN		400	7	2	4.5	23	46	32	0.4	3.9	0	221.92	224.5	
12600353	A	9/09/1999	1	GCL	196754	PU	GB	NL	DG	GWAN	22	26000	7.5	1	10	56	4082	186	0.4	35.9	0		18210.32	18152.16
12600354	B	20/02/1978	1	GCL	76130		GB					3250	7.6				31	337	410	0.3	12.5	1.45	1978.1	1756.47
12600354	B	22/02/1979	1	GCL	80568		GB					690	7.6				20	136	200	0.7	3.5	1.28	505.7	402.18
12600354	B	27/09/1979	1	GCL	83963		GB					3750	7.8				31	338	370	0.2	15.3	0.63	2333	2137.3
12600354	B	19/03/1981	1	GCL	90032	AI	GB				3	2200	7.9				32	170	238	0.2	11.9	1.36	1258	1144.12
12600354	A	1/08/1975	1	GCL	65535		GB					2750	7.8				219	182	0.2	14.1			1507.5	1396.18
12600354	A	1/10/1975	1	GCL	66176		GB					26500	7.3				3293	172	0.3	36.4			16302	16195.26
12600354	B	1/10/1975	1	GCL	66177		GB					5500	7.5				440	134	0.2	19.9			3249	3166.15
12600354	A	1/01/1976	1	GCL	66963		GB					2790	8				244	258	0.2	13.1	0.29		1622	1461.89
12600354	A	1/03/1976	1	GCL	1		GB					2600	7.5				230	250	0.2	13	0.39		1530.2	1376.19
12600354	B	1/03/1976	1	GCL	1		GB					5650	8.1				307	240	0.1	26.6			3246	3097.07
12600354	A	1/08/1976	1	GCL	69069		GB					2610	7.8				216	252	0.2	13.4	0.71		1572.7	1418.18
12600354	B	1/08/1976	1	GCL	69072		GB					4500	7.7				224	288	0.1	24.6	1.28		2625.9	2449.01
12600354	A	1/09/1976	1	GCL	70188		GB					2750	8.3				233		0.2	13.5			555	555
12600354	B	1/09/1976	1	GCL	70189		GB					11500	7.8				983	422	0.2	29.6			6863.8	6602.03
12600354	A	1/11/1976	1	GCL	70462		GB					2660	8				226	245	0.2	13	0.37		1532.7	1383.26
12600354	A	1/01/2100	1	GCL	69072		GB					4500	7.8				224	288	0.1	24.6	1.28		2625.9	2449.01
12600354	A	20/02/1978	1	GCL	76129		GB					2400	7.4				66	166	195	0.2	13.6	0.58	1357.9	1303.43
12600354	A	11/10/1978	1	GCL</																				

Appendix D
GW Bore Search - Water Analysis

Mackay Airport
ASA

RN	PIPE	RDATE	REC	ANALYST	ANALYSIS NO	SAMP METHOD	SOURCE	PRESMETH1	COLLSAMP	PROJECT1	DEPTH	CONDUCT	PH	COLOUR	TURB	SIO2	HARD	ALK	FIG_MERIT	NA ADS RATIO	RES ALK	TOTAL_IONS	TOTAL_SOLIDs
12600355	B	1/01/2100	2	GCL	85476	GB					105	6.1			4	10	18	0.3	1.9	0.16	68.1	60.92	
12600355	B	20/02/1978	1	GCL	76132	GB					1800	7.4			60	64	257		18.6	3.86	1109.3	1010.71	
12600355	B	22/08/1978	1	XXX	78303	GB					2100	8.1			38	144	210	0.2	13.7	1.31	1231.6	1142.02	
12600355	B	25/10/1978	1	GCL	79415	GB					1800	8.7			48	68	250		18.1	3.63	1102.2	1005.84	
12600355	B	22/02/1979	1	GCL	80570	GB					1720	8			46	64	235		18.4	3.43	1078.1	980.25	
12600355	B	30/08/1984	2	GCL	101293	GB					2050	8.6			48	161	226	0.2	13	1.29	1324.71	1240.55	
12600355	A	1/10/1975	1	GCL	66178	GB					2850	7.7			272	295		0.3	11.9	0.46	1633	1450.01	
12600355	B	1/10/1975	1	GCL	66179	GB					2350	10.6			142	83		0.2	13.5		1146	1138.88	
12600355	A	1/01/1976	1	GCL	66968	GB					3360	7.8			131	268			24.9	2.75	1985	1818.79	
12600355	B	1/01/1976	1	GCL	66981	GB					1750	7.8			82	264		0.1	16.3	3.64	1089.2	925.53	
12600355	A	1/03/1976	1	GCL	1	GB					1900	8.3			123	285		0.2	13.4	3.24	1171.8	999.99	
12600355	B	1/03/1976	1	GCL	1	GB					1800	7.8			65	255			18.3	3.79	1085.1	928.54	
12600355	A	1/08/1976	1	GCL	69073	GB					1570	8			92	196		0.2	12.4	2.08	915.8	795.84	
12600355	A	1/09/1976	1	GCL	70190	GB					1900	8.4			91	250		0.1	16.2	3.19	1173.3	1023.35	
12600355	B	1/09/1976	1	GCL	70191	GB					1800	7.9			60	255			19.6	3.9	1112.4	956.35	
12600355	B	1/08/1976	1	GCL	69074	GB					1770	7.8			70	256		0.1	17.4	3.72	1088.7	931.13	
12600355	A	20/02/1978	1	GCL	76131	GB					50	6.1			2	4	5	0.4	1	0.02	29.1	28	
12600355	A	22/08/1978	1	GCL	78302	GB					3400	7.8			49	149	225	0.1	23.7	1.52	1980.6	1891.85	
12600355	A	25/10/1978	1	GCL	79414	GB					3500	8			49	131	230		25.7	1.99	2055.7	1964.41	
12600355	A	22/02/1979	1	GCL	80569	GB					44	6.5			1	6		0.6	0.9		30.3	31.3	
12600355	A	27/09/1979	1	GCL	83889	GB					300	7.8			3	72	75	3.8	0.5	0.06	145.6	102.34	
12600355	A	20/03/1980	1	GCL	85976	GB					1740	7.8			62	74	253	0.1	17.7	3.57	1137.3	1043.76	
12600355	A	9/10/1980	1	GCL	87396	AI	GB				2110	8			59	93	237	0.1	17.6	2.87	1285.2	1199.33	
12600355	A	19/03/1981	1	GCL	90025	AI	GB				8	1020	7.9		25	58	159	0.1	11.1	2.02	684.1	611.51	
12600355	A	19/03/1981	2	GCL	90070	AI	GB				25100	7.6			34	2952	79	0.3	38.8		15429.2	15414.4	
12600355	A	9/12/1981	1	GCL	92280	AI	GB				3540	7.9			39	192	156	0.1	21		2076.3	2019.74	
12600355	A	21/04/1982	1	GCL	93710	GB					20	4850	7.9		57	311	229	0.1	23.7		2986.2	2903.42	
12600355	A	23/03/1983	1	GCL	101304	PU	GB				4400	8.3			49	187	242		29.3	1.1	2689.26	2593.39	
12600355	A	1/02/1984	1	GCL	104645	GB					97	7.6			8	12	4	0.5	1.4		53.01	58.62	
12600355	A	3/08/1984	1	GCL	105694	AI	GB				110	6.4			5	13	10	0.5	1.3		66.91	65.81	
12600355	B	9/12/1981	1	GCL	92295	AI	GB				6460	7.8			47	954	102	0.4	15.6		4084.6	4068.57	
12600355	B	21/04/1982	1	GCL	93692	GB					8	2000	8.1		64	102	233	0.1	16	2.64	1229.6	1151.28	
12600355	B	23/03/1983	1	GCL	101293	PU	GB				2050	8.6			48	161	226	0.2	13	1.29	1324.76	1240.6	
12600355	B	1/02/1984	1	GCL	104696	GB					1500	8.2			29	85	109	0.2	11.8	0.48	836.72	799.64	
12600355	B	3/08/1984	1	GCL	105743	AI	GB				2700	7.9			52	214	229	0.2	14.6	0.3	1656.9	1569.12	
12600355	A	23/07/1992	1	GCL	140293	PU	GB				5121	8.5			75	283	238	0.1	25.8	0	3008.86	2944.48	
12600355	A	25/08/1992	1	GCL	140252	AI	GB				5208	8.6			66	289	241	0.1	25.9	0	3054.68	2981.25	
12600355	B	23/07/1992	1	GCL	140294	PU	GB				7611	7.7			57	1058	120	0.4	17.4	0	4744.57	4728.19	
12600355	B	25/08/1992	1	GCL	140251	AI	GB				10625	7.7			47	1834	87	0.5	18	0	6880.67	6874.3	
12600355	A	18/06/1996	1	GCL	180781	PU	GB	NL	DG	GWAN	20	4410	8.3	3	305	62	219	248	0.1	26	0.58	2653.89	2567.43
12600355	B	18/06/1996	1	GCL	180778	PU	GB	NL	DG	GWAN	7.9	7710	8	6	101	51	1231	129	0.4	16.5	0		

Appendix D
GW Bore Search - Water Analysis

RN	NA	K	CA	MG	FE	MN	HCO3	CO3	CL	F	NO3	SO4	ZN	AL	B	CU
30946	373		23	36			185		610	0.35	2	2				
30946	373		36	22			226		590	0.3	0	4				
30946	394		36	30			189		650	0.15						
30946	370		20	35	0.3		220		580	0.75						
30946	393		60	53	0		317		660	0.35		30				
30946	334.8	12.5	34.5	49.3	0	0	201.5	0.1	594.9	0.06	32.5	11.6	0.01	0	0.1	0.04
34508	243.8	10.5	16	26.4			219.6		360							
34508	216.2	10.5	12.8	30.3			219.6		340.1							
37519	204.9	7.2	24.6	31	0	0.22	214	0.5	307.3	0.15	0	39.9	0.03	0	0.1	0.02
46017	469.2	7.8	11.2	18.5			287.9		584							
46017	416.3	6.2	22	2.2			307.4		444.1			96				
46017	532.9	9.6	25.8	28.3	0	0.13	276.8	0.5	694.7	0.19	0	155.5	0	0	0.3	0.02
46017	668	12	43.6	37.3	0	0	304.4	1.1	902.2	0.23	2.4	178.6	0.01	0	0.2	0.06
46134	180.2		28.6	42.9			300.3	0	277.4			0				
46134	250.1	6.6					307.5		347.7			38.4				
46411	197.8	0.8	22.4	27.3			224.5		287.9							
46411	66.2	0.8	26	16.3			156.2		91.9							
46411	97.2	0.8	35.8	21.9	0	0	175.7	0.3	148.2	0.12	22.4	28.7	0.01	0	0	0.01
46411	85.8	0.6	34.2	19.9	0.01	0	165.6	0.1	112.1	0.02	25.7	28.1	0.01	0	0	0.02
63000	87	1.1	45	27	0.01	0	155	0.9	160	0.1	33	52				
63000	98	1.1	52	31	0	0	165	0.8	175	0.1	40	73				
63000	136.4	1.5	75	42.1	0	0.02	215.8	0.1	245.7	0.1	45.9	104.3	0.02	0	0	0.04
12500275	146	4.2	6.3	5.8	0.02	0.01	343	4.4	50	0.39	0.5	4.9	0.01	0.05	0.15	0.03
12500276	104	1.5	40	23	0.01	0.98	275	0.4	120	0.15	1.8	28	0.01	0.05	0.32	0.03
12500277	106	1.6	47	28	0.01	2.4	284	0.8	140	0.12	1	26	0.01	0.05	0.11	0.03
12600077	1670	70	40	75			457	0	2400	0.2	345	225				
12600077	686	30	12	10			438	0.4	815	0.4	100	58				
12600077	3150	100	130	180			671	0	4900	0.3	5.3	320				
12600077	3210	100	90	180			683	0	4960	0.5	12	600				
12600077	2820	75	60	155			768		4390	0.1	5	530				
12600077	2520	70	50	140			727	0	4200	0.2	28	2				
12600077	2990	80	60	170			817	0	4430	0.3	6.4	440				
12600077	3270	95	70	180			727	0	4900	0.4	47	560				
12600077	585	61	21	35			22	0	830	0.1	380	125				
12600077	1980	55	45	80			597	0	2930	0.5	70	200				
12600077	1950	70	40	85			790	1.3	3050	0.5	40	200				
12600077	1500	78	52	55	0.99	0.66	455	0.3	2200	0.4	6	115				
12600077	555	19	15	8			468	4.7	595	0.5	11	68				
12600077	550	24	6	5			464	5.8	592	0.8	9.3	90				
12600077	450	24	6	7			461	0	565	0.7	16	68				
12600077	3321.8	92.5	49.9	159.7	0	0	682.1	35.8	4709	0.47	5	724				
12600077	3719.3	89	63	190.4	0	0	782.8	21.4	5552	0.83	26	753.5				
12600077	3162.2	73.5	44.2	145.4	0.01	0.02	790.8	34	4408	0.69	17.1	653.6	0	0	1.6	0
12600077	2345	63.8	36.3	106.1	0	0.03	665.4	12.3	3227	0.98	9	502.2	0.03	0	1.3	0.02
12600077	2934	62.8	43	141.4	0.01	0	816.5	8.8	3938	1.02	36.2	743.7	0	0	1.6	0
12600077	547	17.4	58	44.9	0	0.2	278.4	1.6	794	1.08	7	155.2	0.06	0	0.4	0.01
12600078	267		10	17			244		330	0.5		11				
12600079	406		6	22			310		496	0.4		36				
12600080	269		0	17			215		308	0.5		41				
12600082	140		22	24			249		160	0.05		26				
12600082	220	8	24	18			388		205			15				
12600082	185	14	6	9.4			266	4	162	0.6	19	12				
12600082	184	10	5	10			275	1.2	155	0.5	11	5				
12600082	171.7	4.1	50.3	45.6	0	0.18	299.7	5.1	285.3	0.21	0.7	20.5				
12600082	156.5	3.8	48.2	44.9	0	0.26	309.8	4	262	0.19	0	23.2	0	0	0.1	0.01
12600082	146.1	2.8	50.1	46.5	0	0	309.7	1.2	238.2	0.21	0	23.1	0	0	0	0
12600083	253		3	10			83		352	0.3		32				
12600083	170	9.5	6	8			273	0.6	145	0.4	3.7	10				
12600083	172	8.5	5	9			248	4.1	140	0.4	0	22				
12600083	162															

Appendix D
GW Bore Search - Water Analysis

RN	NA	K	CA	MG	FE	MN	HCO3	CO3	CL	F	NO3	SO4	ZN	AL	B	CU
12600083	150	6	4	7			232	0.6	128	0.2	14	11				
12600083	173	7.5	6.5	8.5			255	1.6	150	0.3	1	12				
12600083	170	8	13	9			270	6.2	160	0.3	1	12				
12600083	180	8.3	4.5	9.2	0.01	0.01	235	7.2	160	0.3	1.5	14				
12600083	159.4	7.8	3.5	6.9	0	0	231.6	3.4	125	0.32	3.6	8.8				
12600083	158.1	7.1	4	7.7	0.59	0.12	233.3	1.6	136.2	0.3	0	11.5	0.02	0.01	0.2	0.01
12600083	159.2	8.1	3.9	7.5	0.14	0	239.2	0.9	128.9	0.32	0.5	10.3	0.02	0	0.2	0
12600084	84	18.7	17	6.5	0	0	187.6	0.4	72.1	0.12	6.7	12.8				
12600084	278	6.7	28.8	20.6	0	0.05	369.9	7.3	276.5	0.3	5.2	57.4	0.02	0	0.1	0.01
12600084	1062	12.5	287.2	192.5	0.01	0.44	326.8	1	2089	0.14	0	553.5	0	0	0.1	0.01
12600084	1037	10.7	271.8	182.5	0	0.38	318.7	2.8	2050	0.15	0	537.4	0	0	0.1	0
12600203	1676.6	0.5	94.4	85.1	0	0.09	769.3	6.2	2488	0.43	0	31	0	0	0.1	0
12600353	5349	161.1	321.8	721.4	0	5.08	212.4	1.2	9505	0	0	1630				
12600353	64.1	7.9	38.7	3.1	0.01	0	71.7	1.3	103.9	0.01	0.8	44.9				
12600353	68.9	5.1	13.1	9.7	0.01	0.25	2.8	0	113.9	0.03	0	64.6				
12600353	140	18	140	3			1.6	46.3	180			128				
12600353	3100	120	475	100			12	1.9	5370			760				
12600353	26	2.6	25	6.8			90	0.1	37	0.1	10	18				
12600353	3510	110	350	310			189	0	6100	0.1	8.2	960				
12600353	5000	120	330	710			171		9200		4	1720				
12600353	13	0.7	7.7	1.8			18	0	20	0	2.1	5				
12600353	19	2.7	13	7			49	0.1	30	0.2	8.7	9				
12600353	54	2.5	47	16			127	0.4	126	0.1	4.5	14				
12600353	21	1	24	6			89	0.6	31	0.1	1.4	12				
12600353	49	4.8	31	14			121	0.4	80	0.2	10	28				
12600353	1390	32	154	196			41	0	2620	0.1	1.7	450				
12600353	432	16	88	62			169	0.2	851	0.2	6	135				
12600353	5400	170	340	800			232	0	9800	0	0	1600				
12600353	25	0.8	3.7	2.9			13	0	38	0	1	14				
12600353	5100	130	360	710			222	0	9350		2	1600				
12600353	4300	170	600	2.5			15.1	246.6	7250			353				
12600353	4600	160	750	10			2	158	7790			540				
12600353	97	15	73	0.3			11	25	122			159				
12600353	2933	100	500	113			37		5380			848				
12600353	62	12	70	3.6			70		84		11	140				
12600353	3060	100	550	110			110		5380			800				
12600353	4770	150	760	10			5.6	259	8060			500				
12600353	4800	170	680	5			0	36	8000	0.7	0	344				
12600353	53	1.8	33	19			156	0.1	98	0.1	10	2				
12600353	3100	110	520	105			37	0	5440	0.4	19	650				
12600353	4780	150	815	20			0	36	8400	1	3.7	600				
12600353	61	8.4	46	17			182	0.2	80	0.5	12	50				
12600353	2910	65	550	110			673	0	5250	0.8	10	680				
12600353	5000	180	880	10			0	36	8450	0.7	2.7	650				
12600353	40	13	40	17			182	0.4	48	0.9	12	52				
12600353	2850	100	520	100			73	0	4920	0.7	7.5	750				
12600353	144	18	93	9			225	6	235	0.2	3.5	75				
12600353	3150	110	560	130			152	0	5480	0.6	13	800				
12600353	4300	170	600	2.5			2.9	246.6	7250			353				
12600353	16	0.8	23	2.4			73	0.1	25	0	5.7	5				
12600353	33	1.6	33	10			121	0.3	60	0.1	2.8	22				
12600353	50	7.6	33	17			164	0.3	72	0.1	1	28				
12600353	20	1.2	9.8	4.2			37	0	30	0.1	8.8	5				
12600353	54	8	50	16			209	2.1	70	0.2	7	24				
12600353	3860	100	250	550			128	0	7070	0.1	0.4	1180				
12600353	138	3	45	24			124	0.3	250	0	2	41				
12600353	30	2	12	9			33	0	48	0.1	5	49				
12600353	5000	130	300	700			216	0	9420	0	0	1440				
12600353	5100	135	340	700			225	0.5	9700	0	1.5	1700				
12600353	4850	120	365	690	0.44	0.01	210	1.9	8800	0.1	25	1700				
12600353	28	3.2	20	8.3												

Appendix D
GW Bore Search - Water Analysis

RN	NA	K	CA	MG	FE	MN	HCO3	CO3	CL	F	NO3	SO4	ZN	AL	B	CU
12600353	76	1.3	15.5	10	0.01	0.01	63	0.3	110	0.1	1.1	29				
12600353	4050	200	370	630	0.2	0.2	205	2.1	8700	0.1	5.4	140				
12600353	56	10	30	22	0.1	0.01	105	0.1	86	0.2	8	96				
12600353	59	5.2	22	15			84	0.1	97	0.2	5	45				
12600353	48	2.3	23	11			55	0.1	97	0.1	2	25				
12600353	54	2.3	13	7	0.17	0.01	63	0.1	67	0.1	2.5	26.5				
12600353	33	1.5	22	8.5	0.02	0.01	115	0.2	41	0.1	0.6	4.9				
12600353	4600	120	345	630	0.19	0	230	1.9	8700	0	0	1500				
12600353	60.2	4.9	9.6	7	0.03	0.04	18.6	0	76.5	0	0	62.6	0.01	0.05	0.1	0.01
12600353	42.5	4	6.1	4.2	0.02	0.03	25.7	0	53.6	0	0	39.9	0	0.02	0.1	0.01
12600353	4581	131.9	290.7	656.1	0	4.29	202.7	0.2	8275	0	0	1422	0.01	0	1.4	0
12600353	4770	150	760	10			5.6	259	8060	0.88	0	520				
12600353	97	15	73	0.3			11	25	122	0.14	0	159				
12600353	4600	160	750	10			2	158	7790	0	0	540				
12600353	4300	170	600	2.5			2.9	246.6	7250		0	353				
12600353	62	12	70	3.6			70		84	0.66	11	140				
12600353	3060	100	550	110			110		5380	0.84	0	806				
12600353	2933	100	500	113			37		5380	0	0	848				
12600353	140	18	140	8			1.6	46.3	180	0	0	128				
12600353	34.2	3	6.3	6.6	1.44	0	58.8	0	45.3	0.12	1.2	4.1	0.02	0	0.1	0
12600353	59.9	3	4.9	8.1	0	0	39.4	0	89.9	0.02	0.7	16	0.02	0	0.1	0.01
12600353	5271	138.8	335.9	789	0	5.1	224.6	1	9770	0.01	0	1680	0.01	0	1.6	0.09
12600354	526	16	46	54			497	1.3	770	0.5	0.3	67				
12600354	93	7.8	33	13			243	0.6	75	0.1	6.2	34				
12600354	648	24	76	36			446	2.4	900	0.6	3	197				
12600354	355	14	35	20			287	1.4	451	0.6	16	78				
12600354	480	18	25	38			219	1.5	670			56				
12600354	4800	150	330	600			210		8980			1232				
12600354	960	138	120	34			163		1564			270				
12600354	469	12	30	41			315		740			15				
12600354	453	15	23	42			303	0.7	660	0.5	0	33				
12600354	1070	30	70	32			293	0	1500	1	0	250				
12600354	454	13	24	38			304	1.7	700	0.3	2.7	35				
12600354	846	24	50	24			348	1.5	1150	1.4	0	181				
12600354	472	15	29	39							0	0				
12600354	2130	60	130	160			515	0	3340	2.2	6.6	520				
12600354	450	14	23	41			294	2.2	675	0.4	1.1	32				
12600354	846	24	50	24			348	1.5	1150	1.4	0	181				
12600354	404	19	17	30			237	0.4	575	0.2	5.3	70				
12600354	548	20	34	22			317	2.8	670	0.3	24	116				
12600354	830	27	56	34			408	3.1	1140	0.5	4	175				
12600354	236	13	9	16			115	0.3	340	0.2	29	38				
12600354	341	20	9	23			121	0.3	470	0.2	116	58				
12600354	361	17	11	22			223	1.3	490	0.1	0.5	59				
12600354	457	16	6.2	32			135	1.1	610	0.2	98	68				
12600354	300	18	60	17			218	1.4	400	0.3	114	70				
12600354	398	19	18	29			222	0.6	590	0.2	3	75				
12600354	422	17	16	29			214	0.7	593	0.2	25	74				
12600354	410	19	18	34			163	0.4	620	0.2	70	75				
12600354	360	25	20	37			49	0	560	0.3	200	70				
12600354	620	24	33	70	0.2	0.01	210	1.7	940	0.2	30	155				
12600354	490	23	25	50	0.01	0.01	170	1.5	790	0.2	20	90				
12600354	500	23	23	52	0.03	0.27	165	0.5	800	0.2	39	98				
12600354	1600	50	90	135			396	0	2640	0.5	20	370				
12600354	110	9	30	7			110	0.1	110	0.3	80	31				
12600354	1950	51	94	160	1.3	0.13	340	5.9	3150	0.7	6	440				
12600354	2150	54	105	190	0.01	0.01	360	3.7	3500	0.6	15	470				
12600354	1750	50	70	130	0.09	0	315	1.5	2850	0.7	38	405				
12600354	480	18	25	38			332	1.5	670	0		56				
12600354	469	12	30	41			315		740	0.57	0	15				
12600354	960	38	120	34			163</									

Appendix D
GW Bore Search - Water Analysis

RN	NA	K	CA	MG	FE	MN	HCO3	CO3	CL	F	NO3	SO4	ZN	AL	B	CU
12600355	14	2.6	2	1.2			22		20	0.1	4.7	1.5				
12600355	341	13	9	10			312	0.5	400	0.2	8.6	15				
12600355	377	15	33	15			251	2.4	470	0.2	0	68				
12600355	343	12	9	11			284	10	405	0.1	0.1	28				
12600355	338	12	9	10			283	1.8	405	0.1	1.2	18				
12600355	380	15	25	24		0.01	260	7.4	465	0.3	13	135				
12600355	450	16	43	40			360		674			50				
12600355	370	17	55	1			14	43	554			92				
12600355	654	14	16	22			327		850			102				
12600355	339	1.2	18	9			322		400							
12600355	340	14	26	14			338	4.5	410	0.3	0	25				
12600355	340	14	9.6	10			308	1.3	385	0.2	0	17				
12600355	274	14	12	15			236	1.3	318	0.5	0	45				
12600355	355	15	15	13			295	5.1	428	0.6	6.6	40				
12600355	347	14	9	9			307	1.9	398	0.6	0.9	25				
12600355	335	13	10	11			310	1.2	392	0.5	0	16				
12600355	4.8	1	0.8	0.5			6.1	0	8	0.1	2.8	5				
12600355	664	17	20	24			271	1.6	860	0.4	0.6	122				
12600355	676	14	16	22			276	2.2	920	0.1	0.4	129				
12600355	5.3	1.1	1.1	0.9			0	0	18	0.1	0.8	3				
12600355	8.8	1.7	24	3			91	0.3	12	0.1	1.7	3				
12600355	350	14	10	12			306	1.2	410	0.2	5.9	28				
12600355	390	14	11	16			285	2	473	0.2	0	94				
12600355	195	12	10	8			192	0.8	187	0.3	13	66				
12600355	4840	153	210	590			96	0	8440	0.2	0	1100				
12600355	668	12	24	32			188	1.1	970	0.2	1	180				
12600355	960	20	42	50			275	1.9	1400	0.3	7	230				
12600355	920	18	22	32	0.15	0.01	285	4.8	1200	0.3	7	200				
12600355	11	4.5	2.3	1.6	0.5	0.01	4.7	0	14	0.1	7.1	7.2				
12600355	11	4.8	2.4	1.7	0.01	0	12	0	16	0	8	11				
12600355	1110	25	110	165			124	0	1770	0.6	0	780				
12600355	370	14	11	18			280	2.3	470	0.3	4	60				
12600355	380	15	25	24	0.05	0.01	260	7.4	465	0.3	13	135				
12600355	250	14	11	14	0.01	0.01	130	1.5	325	0.2	29	62				
12600355	490	15	23	38	0	0	275	1.9	630	0.4	3.6	180				
12600355	999.4	16.8	36	47.1	0.01	0	273.8	8.2	1379.9	0.28	8	239.3				
12600355	1013.1	18.3	35.4	48.7	0	0	273.7	9.9	1410.2	0.28	1	244				
12600355	1304	29.8	121.2	183.7	0	2.61	145	0.9	1969.6	0.8	8	981.6				
12600355	1775.9	42.7	198	325.9	0	3.87	104.8	0.6	2863	0.72	0	1569				
12600355	883.8	15.4	26.8	36.9	0	0	292.1	4.9	1204.3	0.32	0	189.4	0	0	0.3	0.01
12600355	1330.5	31.2	136.1	216.7	0	2.59	153.5	1.6	2004.6	0.75	1.6	1116.3	0.09	0.01	0.9	0.01
12600355	1180	26.8	105.4	166.3	0.01	2.04	187.4	0.4	1651	0.69	0	942.8	0.06	0.01	0.7	0.01
12600355	988.1	16.7	32.3	43.2	0	0	306.8	2.5	1310	0.32	0	233	0.02	0	0.3	0.26
12600355	790.2	15	21.7	30.3	0	0.28	306.1	1.4	1049	0.31	0	156	0	0.01	0.3	0.01
12600355	339	12	18	9			322		400	0.45	0	0				
12600355	370	17	55	1			14	43	554	0.9	0	92				
12600355	654	14	16	22			327		850	0.69	0	102				
12600355	335	14	4.5	2			100	25	420		0	42				
12600355	700	16	19	27			289	1.6	905		0	130				
12600355	450	16	43	40			360		675	0.36	0	50				
12600551	5200	170	310	600	0.01	3.2	340	1	9100	0.02	0.1	1900	0.05	3.8	1.7	0.01
12600552	1600	100	130	240	0.01	1.2	500	1	3000	0.84	0.1	380	0.02	0.91	1	0.01
12600553	4900	170	220	470	0.01	3.2	330	1	8200	0.02	0.1	1500	0.15	4	1.7	0.01
12600554	730	64	110	100	0.01	0.67	860	1	1200	0.71	0.3	94	0.02	0.36	0.77	0.01
12600555	8500	260	500	920	0.01	3.6	420	1	14000	0.02	0.1	2600	0.19	4.3	2.6	0.01
12600556	2400	110	210	360	0.01	2.6	1200	1	4400	0.02	0.1	730	0.03	1.8	1.2	0.01
12600595	542	7.5	125	85	0.01	1	349	0.9	920	0.2	5	237	0.02	0.05	0.15	0.03
12600596	283	4.9	162	136	0.01	0.9	259	0.7	890	0.3	5	80	0.01	0.05	0.05	0.04
12600597	157	11</td														

RN	PIPE	RDATE	SAMP_METHOD	SOURCE	DEPTH	CONDUCT
30946	A	16/01/1969	PU	GB		2360
30946	A	15/01/1969	PU	GB		2000
30946	A	23/11/1970	PU	GB		2350
30946	A	24/11/1970	PU	GB		2350
30946	A	6/10/1994	PU	GB		2350
30946	A	24/04/1995	PU	GB		2090
30946	A	24/10/2001	PU	GB		2400
30946	A	22/12/2006	PU	GB		2600
34508	A	23/10/1984	PU	GB		1104
34508	A	12/04/1985	PU	GB		994
34508	A	20/11/2006	PU	GB		4880
37519	A	21/11/1997	PU	GB		1130
37519	A	25/09/2002	PU	GB		1350
37519	A	15/11/2006	PU	GB		2170
46017	A	6/10/1994	PU	GB		3200
46017	A	24/04/1995	PU	GB		2580
46017	A	15/10/1995	PU	GB		3330
46134	A	14/02/1975	PU	GB		1260
46134	A	4/04/1979	PU	GB		1711
46134	A	4/08/2004	PU	GB		2580
46134	A	29/07/2004	PU	GB		2890
46134	A	15/07/2004	PU	GB		2820
46134	A	10/08/2004	PU	GB		3440
46134	A	6/11/2006	PU	GB		2930
46134	A	8/10/2008	PU	GB		1940
46411	A	6/10/1994	PU	GB		970
46411	A	13/04/1995	PU	GB		930
46411	A	24/04/1995	PU	GB		780
46411	A	15/10/1995	PU	GB		750
46411	A	1/11/2001	PU	GB		966
46411	A	15/11/2006	PU	GB		955
63000	A	14/11/1985	PU	GB		890
63000	A	15/11/1985	PU	GB		1000
63000	A	6/10/1994	PU	GB		1180
63000	A	24/04/1995	PU	GB		1240
63000	A	22/12/2006	PU	GB		1764
81031	A	1/06/2007	PU	GB		780
81031	A	10/01/2007	PU	GB		855
81031	A	9/10/2015	PU	GB		655
81031	A	31/08/2015	PU	GB		783
81031	A	3/11/2015	PU	GB		731
85030	A	10/10/1994	PU	GB		580
105618	A	22/05/2007	PU	GB		1337
105618	A	24/11/2006	PU	GB		1256
105689	A	31/05/2007	PU	GB		1112
105689	A	23/02/2007	PU	GB		1111
131332	A	27/11/2006	PU	GB		2640
141211	A	7/06/2007	XX	GB	4	313
141212	A	7/06/2007	XX	GB	4	291
141213	A	7/06/2007	XX	GB	4	328
141214	A	7/06/2007	XX	GB	4	313
141215	A	7/06/2007	XX	GB	4	291
141216	A	7/06/2007	PU	GB	4	288
141394	A	10/09/2008	PU	GB	6	3680
141395	A	10/09/2008	PU	GB	6	3680
141414	A	30/07/2008	PU	GB	8	2080
141789	A	18/08/2006	PU	GB	9	576
12500275	A	14/10/2011	AI	GB		701
12500275	A	7/02/2012	PU	GB		702
12500275	A	20/05/2015				677
12500275	A	10/05/2013				690
12500275	A	10/01/2012	PU	GB		700
12500275	A	22/10/2013	PU	GB		679
12500275	A	1/04/2014	PU	GB		680
12500276	A	15/10/2011	AI	GB		824
12500276	A	7/02/2012	AI	GB		860
12500276	A	20/05/2015				986
12500276	A	10/05/2013				930
12500276	A	10/01/2012	PU	GB		849
12500276	A	22/10/2013	PU	GB		992
12500276	A	1/04/2014	PU	GB		999
12500277	A	15/10/2011	AI	GB		1026
12500277	A	7/02/2012	AI	GB		945
12500277	A	20/05/2015				986
12500277	A	10/05/2013				1450
12500277	A	10/01/2012	PU	GB		914
12500277	A	22/10/2013	PU	GB		989
12500277	A	1/04/2014	PU	GB		1180
12600077	A	9/09/1999	PG	GB		3510
12600077	A	7/07/1970		GB		6750
12600077	A	24/11/1970		GB		8600
12600077	A	13/05/1971		GB		6900
12600077	A	4/08/1971		GB		8700
12600077	A	11/10/1972		GB		2400
12600077	A	24/05/1977		GB		4900
12600077	A	22/02/1978		GB		14500
12600077	A	22/02/1979		GB		12000
12600077	A	26/09/1979		GB		8700
12600077	A	20/03/1980		GB		13000
12600077	A	30/05/1980		GB		13500
12600077	A	9/10/1980		GB		15300
12600077	A	19/03/1981		GB		3600
12600077	A	23/03/1983	PU	GB		9000
12600077	A	23/05/1986		GB		5900
12600077	A	21/11/1986	PU	GB		7800
12600077	A	20/03/1987	PU	GB		7500
12600077	A	25/08/1992	AI	GB		13340
12600077	A	1/08/1976	PU	GB		2650

RN	PIPE	RDATE	SAMP_METHOD	SOURCE	DEPTH	CONDUCT
12600077	A	1/09/1976	PU	GB		2850
12600077	A	1/11/1976	PU	GB		2450
12600077	A	20/11/1987	PU	GB		6000
12600077	A	25/08/1993	AI	GB		16360
12600077	A	9/01/1995	AI	GB		1370
12600077	A	18/06/1996	AI	GB		7840
12600077	A	2/10/1997	PU	GB		6340
12600077	A	20/10/2004	PU	GB		6430
12600077	A	3/11/2006	PU	GB		5590
12600077	A	18/01/2007	PU	GB		1660
12600078	A	7/07/1970		GB		2800
12600078	A	24/11/1970		GB		5400
12600078	A	1/04/1975		GB		470
12600078	A	25/09/1975		GB		485
12600078	A	23/05/1986		GB		11300
12600078	A	21/11/1986	PU	GB		11000
12600078	A	20/03/1987	PU	GB		11100
12600078	A	20/11/1987	PU	GB		11000
12600079	A	7/07/1970		GB		2050
12600079	A	29/11/1970		GB		2025
12600079	A	11/07/1973		GB		2500
12600079	A	23/05/1986		GB		7600
12600079	A	21/11/1986	PU	GB		7500
12600079	A	20/03/1987	PU	GB		7500
12600079	A	20/11/1987	PU	GB		7600
12600080	A	7/07/1970		GB		5550
12600080	A	11/07/1973		GB		6200
12600080	A	24/03/1975		GB		650
12600080	A	23/05/1986		GB		9250
12600080	A	14/11/1986	PU	GB		415
12600080	A	21/11/1986	PU	GB		9300
12600080	A	20/03/1987	PU	GB		9200
12600080	A	20/11/1987	PU	GB		9250
12600081	A	7/07/1970		GB		6500
12600081	A	24/11/1970		GB		5800
12600081	A	11/07/1973		GB		8300
12600081	A	23/05/1986	PU	GB		21300
12600081	A	21/11/1986	PU	GB		21200
12600081	A	20/03/1987	PU	GB		21000
12600081	A	20/11/1987	PU	GB		21000
12600081	A	17/04/2003	PU	GB		1250
12600082	A	7/07/1970		GB		5650
12600082	A	23/11/1970		GB		3200
12600082	A	13/05/1971		GB		653
12600082	A	4/08/1971		GB		885
12600082	A	9/03/1972		GB		1550
12600082	A	29/06/1972		GB		1750
12600082	A	11/10/1972		GB		2650
12600082	A	12/03/1973		GB		1725
12600082	A	11/07/1973		GB		1400
12600082	A	5/11/1974		GB		1325
12600082	A	4/04/1975		GB		1300
12600082	A	22/12/1976		GB		1275
12600082	A	24/05/1977		GB		990
12600082	A	21/02/1978		GB		1500
12600082	A	13/03/1979		GB		780
12600082	A	30/05/1980		GB		1350
12600082	A	25/08/1981		GB		1150
12600082	A	21/11/1986	PU	GB		475
12600082	A	20/03/1987	PU	GB		480
12600082	A	1/01/1976	PU	GB		1230
12600082	A	1/08/1976	PU	GB		2720
12600082	A	1/09/1976	PU	GB		1100
12600082	A	1/11/1976	PU	GB		1000
12600082	A	20/11/1987	PU	GB		500
12600082	A	25/08/1993	AI	GB		1366
12600082	A	25/06/1996	AI	GB		1225
12600082	A	19/03/1997	PU	GB		1275
12600082	A	17/04/2003	PU	GB		1570
12600082	A	7/10/2003	PU	GB		1350
12600082	A	13/04/2007	PU	GB		1600
12600082	A	18/01/2007	PU	GB		1421
12600083	A	9/09/1999	PG	GB		853
12600083	A	7/07/1970		GB		1450
12600083	A	23/11/1970		GB		1025
12600083	A	13/05/1971		GB		1000
12600083	A	4/08/1971		GB		2800
12600083	A	9/03/1972		GB		1000
12600083	A	29/06/1972		GB		840
12600083	A	11/10/1972		GB		1050
12600083	A	12/03/1973		GB		1100
12600083	A	11/07/1973		GB		1400
12600083	A	5/11/1974		GB		1300
12600083	A	4/04/1975		GB		1050
12600083	A	22/12/1976		GB		920
12600083	A	24/05/1977		GB		1300
12600083	A	21/02/1978		GB		900
12600083	A	13/03/1979		GB		1350
12600083	A	27/09/1979		GB		755
12600083	A	20/03/1980		GB		790
12600083	A	30/05/1980		GB		810
12600083	A	10/10/1980		GB		805
12600083	A	19/03/1981		GB		830
12600083	A	25/08/1981		GB		810
12600083	A	23/03/1983	PU	GB		930
12600083	A	21/11/1986	PU	GB		700
12600083	A	20/03/1987	PU	GB		695
12600083	A	20/11/1987	PU	GB		710

RN	PIPE	RDATE	SAMP_METHOD	SOURCE	DEPTH	CONDUCT
12600083	A	25/08/1993	AI	GB		782
12600083	A	25/06/1996	AI	GB		870
12600083	A	17/04/2003	PU	GB		810
12600083	A	7/10/2003	PU	GB		900
12600083	A	13/04/2007	PU	GB		1030
12600083	A	18/01/2007	PU	GB		1045
12600084	A	9/09/1999	PG	GB		7440
12600084	A	7/07/1970		GB		1700
12600084	A	23/11/1970		GB		1800
12600084	A	13/05/1971		GB		1210
12600084	A	4/08/1971		GB		1600
12600084	A	9/03/1972		GB		1410
12600084	A	29/06/1972		GB		2250
12600084	A	11/10/1972		GB		1475
12600084	A	12/03/1973		GB		1650
12600084	A	11/07/1973		GB		2450
12600084	A	5/11/1974		GB		3100
12600084	A	4/04/1975		GB		1275
12600084	A	22/12/1976		GB		2800
12600084	A	24/05/1977		GB		1375
12600084	A	21/02/1978		GB		1300
12600084	A	13/03/1979		GB		1000
12600084	A	30/05/1980		GB		1250
12600084	A	25/08/1981		GB		1550
12600084	A	21/11/1986	PU	GB		1210
12600084	A	20/03/1987	PU	GB		1200
12600084	A	20/11/1987	PU	GB		1200
12600084	A	25/08/1993	AI	GB		539
12600084	A	25/06/1996	AI	GB		1460
12600084	A	19/03/1997	PU	GB		6980
12600084	A	7/10/2003	PU	GB		7900
12600084	A	13/04/2007	PU	GB		8090
12600084	A	18/01/2007	PU	GB		8000
12600353	A	9/09/1999	PG	GB		29700
12600353	B	9/09/1999	PG	GB		433
12600353	C	9/09/1999	PG	GB		287
12600353	B	1/08/1975	PU	GB		2040
12600353	B	1/10/1975	PU	GB		970
12600353	B	1/01/1976	PU	GB		730
12600353	B	1/03/1976	PU	GB		590
12600353	B	1/08/1976	PU	GB		590
12600353	B	1/09/1976	PU	GB		570
12600353	B	1/11/1976	PU	GB		1280
12600353	A	1/08/1975	PU	GB		24500
12600353	A	1/10/1975	PU	GB		25500
12600353	A	1/01/1976	PU	GB		24700
12600353	A	1/03/1976	PU	GB		24600
12600353	A	1/08/1976	PU	GB		25500
12600353	A	1/09/1976	PU	GB		26500
12600353	C	1/08/1975	PU	GB		16800
12600353	C	1/10/1975	PU	GB		16900
12600353	C	1/01/1976	PU	GB		16700
12600353	C	1/03/1976	PU	GB		17000
12600353	C	1/08/1976	PU	GB		16500
12600353	C	1/09/1976	PU	GB		15600
12600353	C	1/11/1976	PU	GB		17000
12600353	C	20/11/1987	PU	GB		398
12600353	A	20/11/1987	PU	GB		780
12600353	B	20/11/1987	PU	GB		700
12600353	A	25/08/1993	AI	GB		25700
12600353	B	25/08/1993	BA	GB		490
12600353	C	25/08/1993	AI	GB		480
12600353	A	1/06/1977	PU	GB		335
12600353	A	20/02/1978	PU	GB		1100
12600353	A	22/02/1979	PU	GB		200
12600353	A	27/09/1979	PU	GB		670
12600353	A	20/03/1980	PU	GB		19000
12600353	A	19/03/1981	PU	GB		29000
12600353	A	23/03/1983	PU	GB		25000
12600353	A	1/02/1984	PU	GB		420
12600353	A	3/08/1984	PU	GB		1150
12600353	A	26/05/1986	PU	GB		650
12600353	A	21/11/1986	PU	GB		700
12600353	A	20/03/1987	PU	GB		700
12600353	B	1/06/1977	PU	GB		490
12600353	B	20/02/1978	PU	GB		9600
12600353	B	22/02/1979	PU	GB		125
12600353	B	27/09/1979	PU	GB		280
12600353	B	10/10/1980	PU	GB		1010
12600353	B	19/03/1981	PU	GB		195
12600353	B	23/03/1983	PU	GB		520
12600353	B	1/02/1984	PU	GB		300
12600353	B	3/08/1984	PU	GB		1500
12600353	B	26/05/1986	PU	GB		600
12600353	B	21/11/1986	PU	GB		610
12600353	B	20/03/1987	PU	GB		620
12600353	C	20/02/1978		GB		1800
12600353	C	22/02/1979		GB		225
12600353	C	27/09/1979		GB		640
12600353	C	20/03/1980		GB		540
12600353	C	10/10/1980		GB		3110
12600353	C	19/03/1981		GB		290
12600353	C	23/03/1983	PU	GB		380
12600353	C	1/02/1984	PU	GB		25000
12600353	C	3/08/1984	PU	GB		24000
12600353	C	26/05/1986		GB		350
12600353	C	21/11/1986	PU	GB		380
12600353	C	20/03/1987	PU	GB		380

RN	PIPE	RDATE	SAMP_METHOD	SOURCE	DEPTH	CONDUCT
12600353	A	19/03/1997	PU	GB		19130
12600353	B	19/03/1997	PU	GB		310
12600353	C	10/03/1997	PU	GB		445
12600353	A	4/03/2003	PU	GB		27300
12600353	B	4/03/2003	PU	GB		600
12600353	C	4/03/2003	PU	GB		1143
12600353	A	30/10/2003	PU	GB		29400
12600353	B	30/10/2003	PU	GB		4040
12600353	C	30/10/2003	PU	GB		1700
12600354	A	1/08/1975	PU	GB		2750
12600354	A	1/10/1975	PU	GB		26500
12600354	A	1/01/1976	PU	GB		2790
12600354	A	1/03/1976	PU	GB		2600
12600354	A	1/08/1976	PU	GB		24000
12600354	A	1/09/1976	PU	GB		2750
12600354	A	1/11/1976	PU	GB		2660
12600354	B	1/10/1975	PU	GB		5500
12600354	B	1/03/1976	PU	GB		5650
12600354	B	1/08/1976	PU	GB		4500
12600354	B	1/09/1976	PU	GB		11500
12600354	A	20/11/1987	PU	GB		5500
12600354	B	20/11/1987	PU	GB		7800
12600354	A	1/06/1977		GB		2650
12600354	A	20/02/1978		GB		2800
12600354	A	22/02/1979		GB		1450
12600354	A	27/09/1979		GB		2000
12600354	A	4/02/1980		GB		2410
12600354	A	10/10/1980		GB		2340
12600354	A	19/03/1981		GB		2400
12600354	A	23/03/1983	PU	GB		3300
12600354	A	1/02/1984	PU	GB		3000
12600354	A	3/08/1984	PU	GB		3650
12600354	A	23/05/1986		GB		4400
12600354	A	21/11/1986	PU	GB		4900
12600354	A	20/03/1987	PU	GB		4900
12600354	B	1/06/1977		GB		3750
12600354	B	20/02/1978		GB		3100
12600354	B	22/02/1979		GB		560
12600354	B	27/09/1979		GB		3750
12600354	B	20/03/1980		GB		1930
12600354	B	19/03/1981		GB		2200
12600354	B	23/03/1983	PU	GB		10000
12600354	B	1/02/1984	PU	GB		10500
12600354	B	3/08/1984	PU	GB		9500
12600354	B	23/05/1986		GB		2100
12600354	B	21/11/1986	PU	GB		2250
12600354	B	20/03/1987	PU	GB		2200
12600355	A	3/01/1992	AI	GB		4700
12600355	B	3/01/1992	AI	GB		7230
12600355	A	22/05/1992	AI	GB		4550
12600355	B	22/05/1992	AI	GB		9450
12600355	A	25/08/1992	AI	GB		4530
12600355	B	25/08/1992	AI	GB		9050
12600355	A	23/07/1992	PU	GB		4750
12600355	B	23/07/1992	PU	GB		7120
12600355	A	1/08/1975	PU	GB		3650
12600355	A	1/10/1975	PU	GB		2850
12600355	A	1/01/1976	PU	GB		3360
12600355	A	1/03/1976	PU	GB		1900
12600355	A	1/08/1976	PU	GB		1570
12600355	A	1/09/1976	PU	GB		1900
12600355	B	1/08/1975	PU	GB		1690
12600355	B	1/10/1975	PU	GB		2350
12600355	B	1/01/1976	PU	GB		1750
12600355	B	1/03/1976	PU	GB		1800
12600355	B	1/08/1976	PU	GB		1770
12600355	B	1/09/1976	PU	GB		1800
12600355	A	25/08/1993	AI	GB		3690
12600355	B	25/08/1993	AI	GB		9770
12600355	A	20/11/1987	PU	GB		380
12600355	B	20/11/1987	PU	GB		4150
12600355	A	1/06/1977		GB		1950
12600355	A	20/02/1978		GB		89
12600355	A	22/02/1979		GB		43
12600355	A	27/09/1979		GB		300
12600355	A	20/03/1980		GB		105
12600355	A	9/10/1980		GB		5520
12600355	A	19/03/1981		GB		25100
12600355	A	23/03/1983	PU	GB		4300
12600355	A	1/02/1984	PU	GB		100
12600355	A	3/08/1984	PU	GB		950
12600355	A	23/05/1986		GB		250
12600355	A	21/11/1986	PU	GB		320
12600355	A	20/03/1987	PU	GB		325
12600355	B	1/06/1977		GB		1750
12600355	B	20/02/1978		GB		1800
12600355	B	22/02/1979		GB		1750
12600355	B	27/09/1979		GB		840
12600355	B	20/03/1980		GB		1740
12600355	B	9/10/1980		GB		2110
12600355	B	19/03/1981		GB		1020
12600355	B	23/03/1983	PU	GB		2100
12600355	B	1/02/1984	PU	GB		1500
12600355	B	3/08/1984	PU	GB		3250
12600355	B	23/05/1986		GB		3500
12600355	B	21/11/1986	PU	GB		4000
12600355	B	20/03/1987	PU	GB		4100
12600355	A	18/06/1996	AI	GB		3680

Appendix D
GW Bore Search - Water Quality Field

Mackay Airport
ASA

RN	PIPE	RDATE	SAMP_METHOD	SOURCE	DEPTH	CONDUCT
12600355	B	18/06/1996	AI	GB		5470
12600355	A	11/09/1996	PU	GB		5110
12600355	A	19/03/1997	PU	GB		3930
12600355	A	7/05/1991	AI	GB		5480
12600355	B	7/05/1991	AI	GB		8200
12600355	A	9/08/1991	AI	GB		5410
12600355	B	9/08/1991	AI	GB		4690
12600355	A	1/10/1997	PU	GB		5090
12600355	B	1/10/1997	PU	GB		2400
12600355	A	6/08/2002	PU	GB		4810
12600355	B	6/08/2002	PU	GB		6140
12600355	A	20/10/2004	PU	GB		4420
12600355	B	20/10/2004	PU	GB		2970
12600355	A	19/01/2007	PU	GB		5180
12600355	B	19/01/2007	PU	GB		3000
12600554	A	26/04/2012	PU	GB		420
12600595	A	2/11/2011	DH	GB		1622
12600595	A	7/02/2012	AI	GB		3940
12600595	A	10/01/2011	PU	GB		4040
12600595	A	20/05/2015				4380
12600595	A	31/03/2014	PU	GB		3060
12600595	A	22/10/2013	PU	GB		3920
12600596	A	28/10/2011	AI	GB		2270
12600596	A	7/02/2012	AI	GB		3330
12600596	A	10/01/2012	PU	GB		3020
12600596	A	20/05/2015				4460
12600596	A	31/03/2014	PU	GB		3900
12600596	A	22/10/2013	PU	GB		3890
12600597	A	28/10/2011	AI	GB		946
12600597	A	10/01/2012	PU	GB		1034
12600597	A	20/05/2015				1080
12600597	A	31/03/2014	PU	GB		1020
12600597	A	22/10/2013	PU	GB		976

RN	FACILITY_ROLE
37519	WS
37519	MB
46017	WS
46134	MB
46411	MB
81031	MB
104082	SI
104083	SI
104084	SI
104350	SI
104351	SI
104352	SI
104353	SI
104354	SI
104355	SI
104356	SI
104357	SI
104358	SI
104359	SI
104375	SI
104376	SI
104377	SI
104378	SI
104379	SI
104380	SI
104381	SI
104382	SI
104383	SI
104386	SI
104387	SI
104388	SI
104389	SI
105459	WS
105618	WS
105623	WS
105625	WS
105688	WS
105689	WS
105717	WS
105721	WS
105731	WS
105971	WS
105978	WS
105993	WS
131308	OE
131309	OE
131310	OE
131332	WS
131333	WS
131335	WS
131337	WS
131419	WS
131421	WS
131672	WS
131759	WS
131771	WS
131917	WS
131997	WS
141066	WS
141093	WS
141097	WS
141414	SM
12500275	IN
12500276	SM
12500277	SM
12600077	IN
12600077	SM
12600082	IN
12600082	SM
12600083	IN
12600083	SM
12600084	IN
12600084	SM
12600353	IN
12600353	SM
12600355	IN
12600355	SM
12600595	SM
12600596	SM
12600597	SM

Appendix E – Historical aerial photographs

Document Identification	Run: 12 Film: Q504 Frame: 156 Scale: 1 : 26,000 (Black & White)
Photograph Date	Date: 12 August 1953



Document Identification	Run: 6 Film: Q1291 Frame: 2026 Scale: 1 : 24,000 (Black & White)
Photograph Date	Date: 31 August 1962



Document Identification	Run: 6 Film: Q2527 Frame: 13 Scale: 1 : 25,000 (Black & White)
Photograph Date	Date: 21 May 1972



Document Identification	Run: 5 Film: Qc4937 Frame: 177 Scale: 1 : 25,000 (Colour)
Photograph Date	Date: 17 May 1991



Document Identification	Run: 3 Film: QAP6134 Frame: 104 Scale: 1 : 37,5000 (Colour)
Photograph Date	Date: 28 June 2004



Document Identification	Run: 49B Film: DIG7012 Frame: 6183 Scale: 1 : 30,000 (Colour)
Photograph Date	Date: 16 August 2009



Document Identification	Google Earth (Colour)
Photograph Date	Date: May 2015



Appendix F – Interview transcripts

**Mackay Airport – ARFF Interview Summary – 18/07/2016****Interviewee:**

[REDACTED], Fire Fighter (based at Mackay ARFF since 1989)

Questions and Answers	
1	<p>Are you aware of any PFAS investigations and testing that have been undertaken across the wider Airport?</p> <ul style="list-style-type: none">• Yes – testing undertaken by GHD around the fire training ground in 2008 and also some other random testing undertaken.
2	<p>Is there an incident log that details where actual fires and fuel spills have been attended that required the use of firefighting foams?</p> <ul style="list-style-type: none">• Kerosene spills were logged.• No foam has been used for any spills or crashes at the Airport.
3	<p>If there is not an inventory, can you recall any fires or fuel spills at the Airport? Dates?</p> <ul style="list-style-type: none">• No.
4	<p>Is there an inventory of AFFF storage within the Airport?</p> <ul style="list-style-type: none">• No. ARFF stored AFFF near the fire station in 200 L drums and after in 1,000 L totes. When the current fire training ground was constructed (~2002) foam was stored in a 7,000 L holding tank.• Fire extinguishers likely to contain AFFF remain in hangars around the Airport (probably only around six, majority of extinguishers will be DCP).
5	<p>Are you aware of any AFFF use outside of the Airport but within the general vicinity?</p> <ul style="list-style-type: none">• Fire Systems Queensland, located on Milton Road (opposite the control tower) – understood to still use ansulite foam.• Chubb (located behind Fire Systems Queensland) may also store foams.
6	<p>Is there any AFFF still stored within the Airport? If so, where and for what purpose?</p> <ul style="list-style-type: none">• No.
7	<p>Has training involving AFFF (e.g. extinguishers, Airport Emergency Planning (AEP) exercises) been undertaken in areas outside of the current fire station and/or training ground? If so, where?</p> <ul style="list-style-type: none">• Former fire training ground was located in the footprint of the current terminal.• AEP exercises used water for training, with the exception of one AEP off site training exercise where foam was used – at a site to the east of the Airport, near the Creek.• Rare training exercises undertaken in remote, off site locations.



Appendix F1 – Mackay Airport ARFF Interview

Questions and Answers	
8	<p>What is the age of the current fire station and fire training ground? What was the previous use of these sites?</p> <ul style="list-style-type: none">• The current fire station was constructed circa 1972 - 1974.• The current fire training ground was constructed in 2002.• Both sites were previously undeveloped land.
9	<p>When AFFF was used in training, how often and for how long did this occur?</p> <ul style="list-style-type: none">• Depended on training requirements.
10	<p>When AFFF was used in training, what volumes were used and what was the methodology for wash down of waste and equipment?</p> <ul style="list-style-type: none">• Many thousands of litres.• Historically waste water went to sewage but is now pumped out and collected by contractor.
11	<p>How widely was the AFFF dispersed aerially? Photos?</p> <ul style="list-style-type: none">• No photos. Foam used liberally in training areas.
12	<p>Was wash down of fire fighting equipment restricted to the fire training areas?</p> <ul style="list-style-type: none">• Original wash down area out the front of the fire station.
13	<p>Where did the wash down water end up? Do any drains discharge off-site and, if so, where?</p> <ul style="list-style-type: none">• Old wash down areas all drained to surrounding paddocks.• All drainage to channels around the perimeter of the site (in all directions).
14	<p>Has there been any significant bulk earth works (relevant to AFFF use) on the site that resulted in soil being relocated from one area of the airport to another?</p> <ul style="list-style-type: none">• No. Not known where the spoil that would have been generated during the terminal construction (in the area of the former training ground) was taken. Tony considers it likely that this was taken to landfill.
16	<p>How were spent drums or excess product disposed of?</p> <ul style="list-style-type: none">• Excess product was sprayed out at training areas or fire station.• Used drums taken to landfill historically (ansulite drums were more recently collected by contractor).
17	<p>Does groundwater 'daylight' in areas of the site?</p> <ul style="list-style-type: none">• Ground very waterlogged and where water can be seen, often represents the actual groundwater table (very shallow).
18	<p>What was the location of ARFF sites?</p> <ul style="list-style-type: none">• As previous.



Appendix F1 – Mackay Airport ARFF Interview

Questions and Answers	
19	Is stormwater harvested within the Airport and if so, for what purposes and where? <ul style="list-style-type: none">• No.
20	Is groundwater abstracted within the Airport and if so, for what purposes and where? <ul style="list-style-type: none">• No, not on site though houses to the west/north west of the site do have wells.



Appendix F2 – Mackay Airport NQA Interview

Mackay Airport– NQA Interview Summary - 18/07/2016

Interviewees:

[REDACTED], General Manager – People, Communications & Compliance

[REDACTED], Property Manager

[REDACTED], General Manager – Mackay Airport

Questions and Answers	
1	Are you aware of any PFAS investigations and testing that have been undertaken across the wider Airport (i.e. outside of ARFF site)? <ul style="list-style-type: none">• No.
2	Is there an incident log that details where actual fires and fuel spills have been attended that required the use of firefighting foams? <ul style="list-style-type: none">• No.
3	If there is not an inventory, can you recall any fires or fuel spills at the Airport? Dates? <ul style="list-style-type: none">• In 2015, there was a 'wheels up' aircraft landing at the runway intersection.
4	Is there an inventory of AFFF storage within the Airport? <ul style="list-style-type: none">• No.
5	Are you aware of any AFFF use outside of the Airport but within the general vicinity? <ul style="list-style-type: none">• No.
6	Is there any AFFF still stored within the Airport? If so, where and for what purpose? <ul style="list-style-type: none">• No.
7	Has training involving AFFF (e.g. extinguishers, Airport Emergency Planning (AEP) exercises) been undertaken in areas outside of the current fire station and/or training ground? If so, where? <ul style="list-style-type: none">• Training has historically been undertaken in the area to the east of the runway.• Emergency training undertaken every two years (run by ARFF¹). AFFF not understood to have been used in AEP exercises.
8	What is the age of the current fire station and fire training ground? What was the previous use of these sites? <ul style="list-style-type: none">• Check age of facilities with Airservices.• The ARFF sites were previously undeveloped land within the Airport.

¹ Airservices informed GHD that the AEPs are run by the Airport (ARFF participate in AEPs but do not run them)



Appendix F2 – Mackay Airport NQA Interview

Questions and Answers	
9	When AFFF was used in training, how often and for how long did this occur? <ul style="list-style-type: none">• Refer to Airservices.
10	When AFFF was used in training, what volumes were used and what was the methodology for wash down of waste and equipment? <ul style="list-style-type: none">• A daily vehicle check was undertaken outside the fire station – equipment tested ‘ad hoc’.
11	How widely was the AFFF dispersed aerially? Photos? <ul style="list-style-type: none">• Refer to Airservices.
12	Was wash down of fire fighting equipment restricted to the fire training areas? <ul style="list-style-type: none">• Refer to Airservices.
13	Where did the wash down water end up? Do any drains discharge off-site and, if so, where? <ul style="list-style-type: none">• Refer to Airservices.
14	Has there been any significant bulk earth works (relevant to AFFF use) on the site that resulted in soil being relocated from one area of the airport to another? <ul style="list-style-type: none">• No.
16	How were spent drums or excess product disposed of? <ul style="list-style-type: none">• Refer to Airservices.
17	Does groundwater ‘daylight’ in areas of the site? <ul style="list-style-type: none">• No.
18	What was the location of ARFF sites? <ul style="list-style-type: none">• Former fire training ground was located in the vicinity of the current terminal.
19	Is stormwater harvested within the Airport and if so, for what purposes and where? <ul style="list-style-type: none">• No.
20	Is groundwater abstracted within the Airport and if so, for what purposes and where? <ul style="list-style-type: none">• No, except for monitoring purposes.

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