SARFIIP SMM Preliminary Investigations: Pike Floodplain and Katarapko Floodplain bore audit 2014



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1 Introduction

1.1 Overview

The South Australian Riverland Floodplains Integrated Infrastructure Program (SARFIIP) is a large-scale infrastructure project to enable floodplain inundation for the South Australian Riverland region between the border and Lock 1, with particular focus on the Pike and Katarapko Floodplains. Commencing in 2012, the program aims to restore the vegetation health of floodplains at Pike and Katarapko (or Katfish Reach study area).

SARFIIP is being delivered for the Australian Government's Murray–Darling Basin Authority (MDBA) by the River Murray Operations and Major Projects (RMOMP) Branch of the Department of Environment, Water and Natural Resources (DEWNR), and in partnership with Natural Resources SAMDB and the Science, Monitoring and Knowledge (SMK) branch of DEWNR. SMK will support RMOMP through the delivery of scientific and technical services to assist with the assessment of floodplain and salinity management options, including data management, field investigations and modelling. Collectively these tasks are referred to as the SARFIIP Science Program.

This report summarises the implementation and outcomes of a groundwater bore audit conducted on the Pike Floodplain and Katarapko Floodplain by the SMK Resource Monitoring Unit (RMU) as part of the SARFIIP SMM Preliminary Investigations Project (Project 1).

1.2 Floodplains

The Pike Floodplain (Fig. 1) covers 6500 hectares and contains approximately 70 kilometres of permanent anabranch water is located between Paringa and Lyrup (south of Renmark) in the Riverland region of South Australia. Lock 5 is located in the north of the area.

Groundwater salinity impacts to the River Murray and floodplain are currently mitigated through the operation of the Pike River Salt Interception Scheme (SIS), which has four operational production wells located south of the floodplain within the audited area.

The Katarapko Floodplain proper encompasses Gurra Gurra Lake to the north and Katarapko Island. However, for this survey a smaller section of the floodplain was defined (as Katarapko) which is the section of the floodplain bounded by the Berri Disposal Basin to the north and Loxton to the south (Fig. 2). This section covers approximately 4000 hectares and contains approximately 35 kilometres of permanent anabranch water. It should be noted that the Katarapko Floodplain associated with this anabranch system bypasses Lock 4.

Groundwater salinity impacts to the river and floodplain are currently mitigated through the operation of the Bookpurnong and Loxton SIS, which have approximately 27 operational production wells and a highland horizontal drainage well located east of the floodplain adjacent to the audited area.

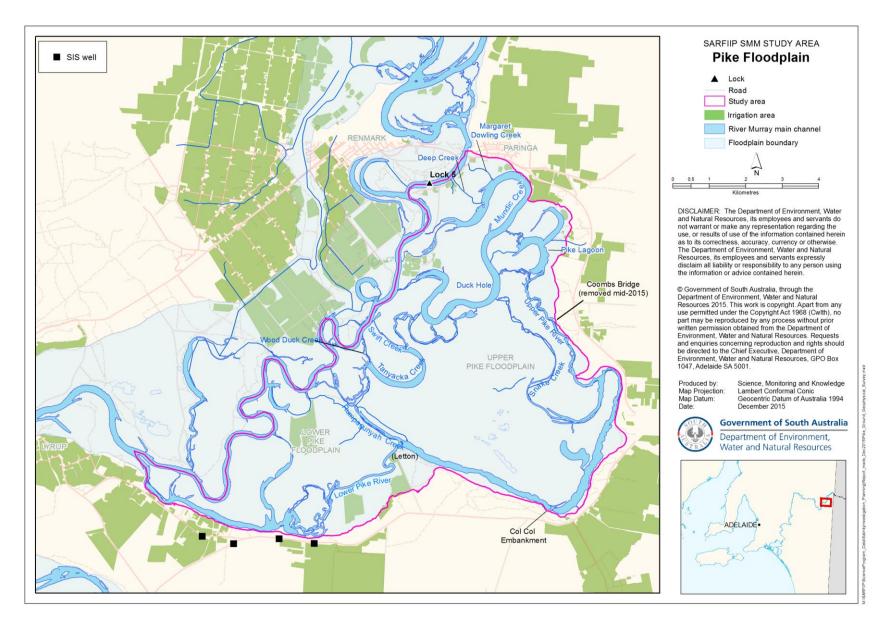


Figure 1 Location of Pike Floodplain study area

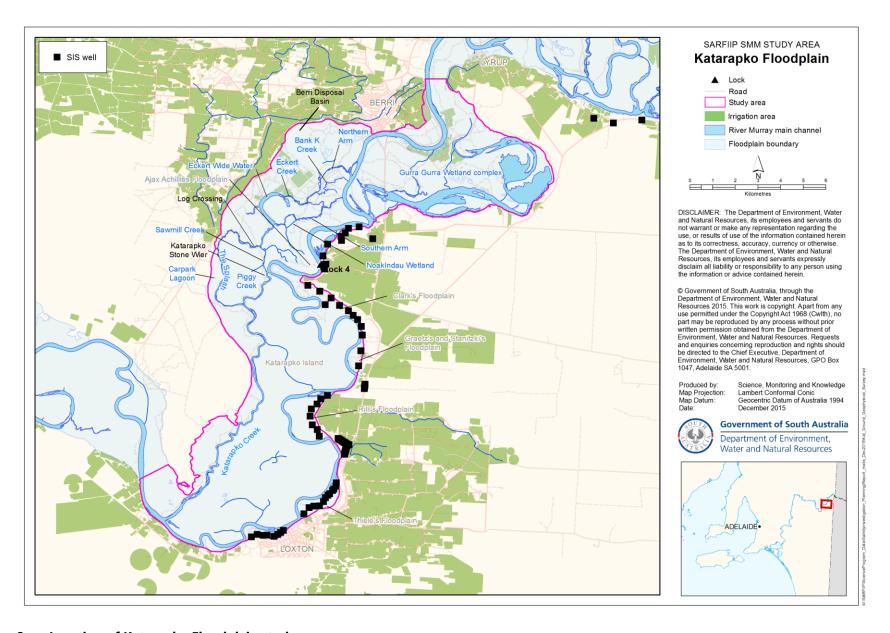


Figure 2 Location of Katarapko Floodplain study area

2 Methodology

A groundwater bore audit of the Pike and Katarapko Floodplain study areas was completed to identify and confirm existing groundwater infrastructure (i.e. groundwater wells) and the condition of such infrastructure for use in the SARFIIP SMM project to aid in establishing monitoring and field investigation requirements such as drilling. The information gathered from this survey will be most useful for other field investigations under the Salinity Investigations project, such as establishment of a groundwater monitoring network and the provision of additional drilling.

The area of interest for the SARFIIP SMM bore audit area was defined by a one kilometre buffer applied to each of the Pike and Katarapko Floodplain study areas. The buffer was applied in order to capture groundwater information that may reside outside of the floodplain itself, which will prove beneficial to the project as field investigations may be required on the fringes of the study area.

All registered water well records located within this area were extracted from the state groundwater database and audited.

The bore audit was undertaken by navigating to the identified well location using a hand held GPS, where the following well attributes were surveyed:

- Spatial coordinates (accuracy verification)
- Well casing condition (material, diameter, headworks, surface seal)
- Cap identification
- Standpipe condition and cementing
- Reference point type and elevation (above ground level)
- Depth to water
- Total well depth
- Current status and purpose of use
- Presence of logging devices
- Access constraints.

The data was captured electronically in the field and included multiple digital photographs of each well. Where relevant, attribute descriptions were aligned with those used in the state groundwater database and captured using validation lists. Where a well was not found at the specified location (after a period of searching) a well status of "Not Located" was assigned. Any additional wells located during the audit and not registered in the state groundwater database were identified as "new wells", they were surveyed and a new record was created in the database.

Due to resourcing, budget and time constraints, groundwater (salinity) sampling was not undertaken as a component of this audit

The bore audit provided valuable information for planning of future field activities and input into numerical groundwater modelling tasks as part of the SARFIIP SMM investigations, including:

- Verification of well location and status; providing efficiency for planning and designing drilling and sampling programs
- Water level data for developing potentiometric surfaces to aid initial groundwater modelling and drilling program well design (i.e. design length and position of screen)
- Identification of access issues/feasibility for future ground-based activities such as geophysical surveys and drilling operations
- Verification of whether the well would be prone to surface water inundation from the condition (or absence) of surface
 cement, if the casing height was below the height of any future inundation level or if a cap was absent during the audit,
 a cap was installed.

3 Results

Groundwater bore audit surveys for Pike and Katarapko floodplains are now complete. Data has been collated, filed electronically and (where relevant) data uploaded to the state groundwater database (i.e. location, status, water level) for project and public access.

3.1 Pike Floodplain

The Pike Floodplain groundwater bore audit (Fig. 3) was undertaken over six (non-continuous) days during August and September 2014 with 117 water wells identified within the Pike Floodplain and additional 1 km buffer (excluding wells identified as backfilled). In total, 120 wells were audited including three newly identified wells (Table 1). Existing well spatial coordinates generally proved to be accurate, however of the 120 wells, 21 wells were not located. Of the 99 wells located and surveyed, 57 wells are located within the 1956 River Murray flood inundation area.

The typical casing material identified was PVC, with casing diameter ranging in size from 50 mm to 200 mm. Eighty-seven wells surveyed had casing diameter less than 100 mm and eight had a casing diameter equal to, or greater than 100 mm.

The depth to water (i.e. groundwater level) below the reference point (typically the well casing) ranged from less than 1 m up to 41 m. The largest depth to water was typically recorded for the highland wells that are located at a higher elevation than the floodplain.

The average depth of wells was 20 metres.

Data loggers were found to be present in 15 wells.

The Pike Floodplain bore audit area included an island where four wells were located on Lower Pike:

- 7029-1187
- 7029-1188
- 7029-1189
- 7029-1190

Access to these wells was only by boat and from Rumpagunyah Creek.

It should be noted that access to two wells (7029-1811 and 7029-1612) required a key from the landowner and one well (7029-1136) required a four wheel drive for access. Four SIS Production wells (7029-2616, 7029-2641, 7029-2642 and 7029-2643) were located within locked enclosures and were not accessed for the audit.

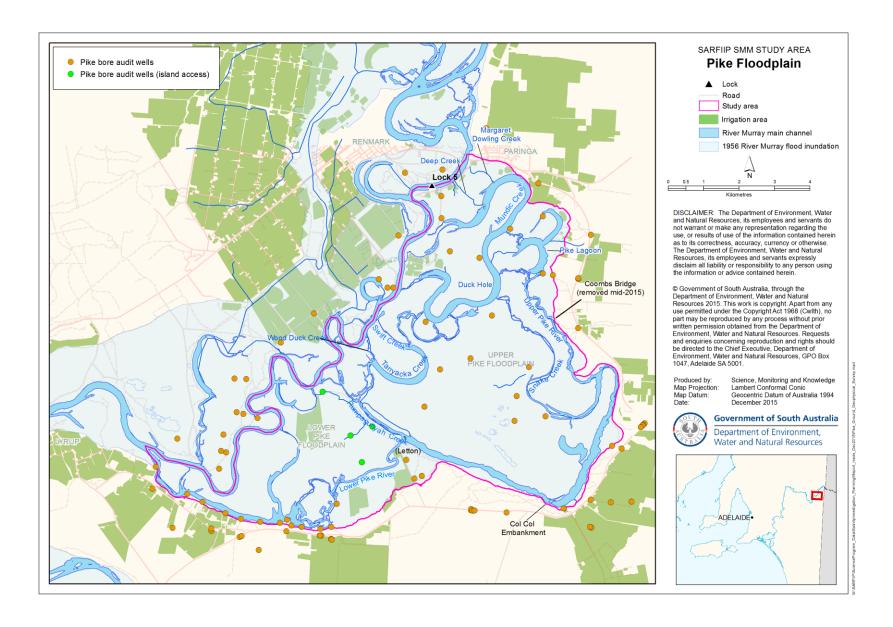


Figure 3 Pike Floodplain bore audit 2014 surveyed wells

3.2 Katarapko Floodplain

The Katarapko Floodplain groundwater bore audit (Fig. 4) was undertaken over 21 (non-continuous) days during September and October 2014 with 355 water wells identified within the Katarapko Floodplain and additional 1 km buffer (excluding wells identified as backfilled). In total, 381 wells were audited including 26 newly identified wells (Table 1). However of the 381 wells, 124 wells were not located; with the majority of those subsequently identified as being drilled and backfilled. Further scrutiny found that no status had been recorded in the state groundwater database for drilled and backfilled wells and consequently, all have now been assigned a status of backfilled through the audit process. Existing spatial coordinates proved to be generally accurate. The coordinates of one new well was not obtained due to inundation and access constraints. Of the 257 wells located and surveyed, 180 wells are located within the 1956 River Murray flood inundation area.

The typical casing material identified was PVC, with casing diameter ranging in size from 50 mm to 200 mm. One hundred and seventy wells surveyed had casing diameter less than 100 mm, with 45 wells having a casing diameter equal to, or greater than 100 mm.

The depth to water (i.e. groundwater level) below the reference point (typically the well casing) ranged from less than 1 m to 41 m. The largest depth to water was typically recorded for the highland wells that are located at a higher elevation than the floodplain.

The average depth of wells was 14.8 m.

Data loggers were found to be present in 27 wells although it was unknown whether these loggers are still operational.

The Bookpurnong and Loxton SIS's operate within the Katarapko Floodplain area. Approximately 30 equipped SIS production wells were encountered during the survey and a number of unequipped production wells. The equipped wells were typically located within locked enclosures and a detailed survey could not be undertaken.

The Katarapko Floodplain bore audit area included an island where three wells were located:

- 7029-2109
- 7029-2110
- 7029-2111

It should be noted that a gate key and landowner permission may be required to access wells located on Clark's Floodplain, and vehicle movement was constrained to existing tracks to protect recent regrowth of floodplain vegetation. Also a significant number of highland wells are located on the grounds of the Costa Group (Solara) within and around the citrus orchards. Access to this property should only occur following attendance at the office on Bookpurnong Road, as spraying and other regimes occur on these premises.

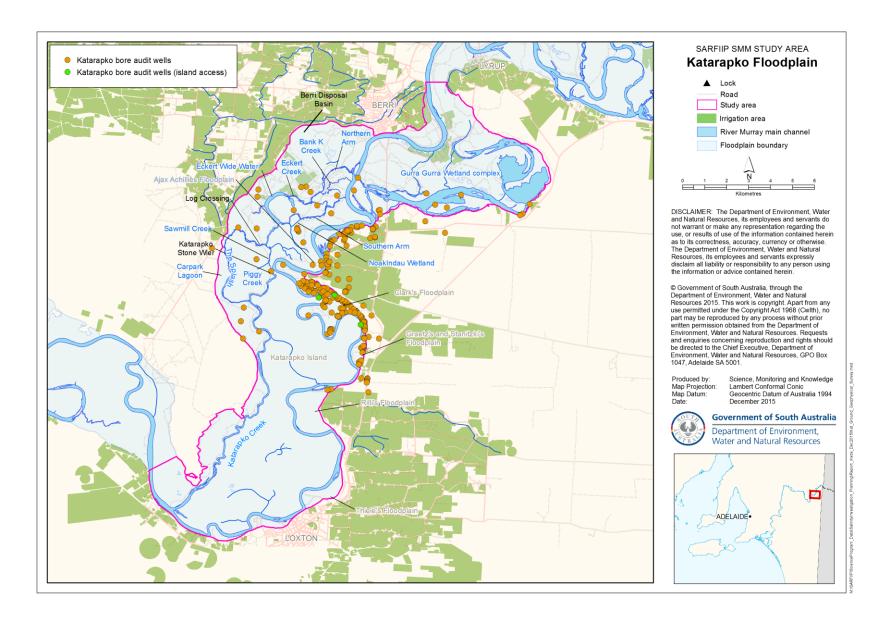


Figure 4 Katarapko Floodplain bore audit 2014 surveyed wells

 Table 1
 Summary of bore audit survey results

Flood- plain	No Wells Identified in Database	No New Wells Located	No Wells Surveyed	No Wells NL	No Wells BKF OR BLK	No WLs Recorded	No Wells Located on the Island	No Wells 50 mm diameter	No Wells 75-90 mm diameter	No Wells 100+ mm diameter	No Wells Req Maintenance (subjective)
Pike	117	3	120	21	2	83 (12 dry)	4	60	27	8	25
Katarapko	355	26	381	124	4	207 (11 dry)	3	98	72	45	132

Not located (NL)

Water level (WL)

Backfilled (BKF)

Blocked (BLK)

4 Conclusions and recommendations

In total, 472 water wells (117 at Pike and 355 at Katarapko) were identified for the floodplain study areas according to the state groundwater database. In total the bore audit surveyed 501 well locations (120 at Pike and 381 at Katarapko) with 29 new wells found during the survey. It should be noted that 145 wells were not located.

Depth to water measurements were recorded and provide useful background data for designing drilling programs, particularly for well construction (i.e. screen intervals), and to allow creation of groundwater potentiometric surface maps of the floodplains.

As noted earlier, groundwater salinity sampling was outside the scope of this program, however casing diameter information will help to inform future sampling programs as casing diameters of greater than 80 mm are desirable for pump access.

Casing condition information is subjective (especially the lack of cement at the surface noted in many wells), however it should be noted that further analysis of casing condition along with a review of casing elevation against theoretical inundation level will be necessary to determine maintenance requirements for the future use of surveyed wells.

Location information will also aid in drilling program design and to establish groundwater monitoring networks for the floodplains.

It is recommended that:

- Floodplain access tracks be classified as "dry weather access only"
- Additional resourcing and boat access requirements be considered if incorporating wells located on the islands in monitoring networks
- Groundwater monitoring network wells selection consider SIS production well operation and radial impact on water levels
- Landowner and cultural consultation is recommended to confirm preferred access routes to wells
- A trial of well constructions could be undertaken to inform future groundwater monitoring programs. A trial may test
 the capacity of various construction designs to withstand repetitive inundation cycles and swelling clay environments,
 with a particular focus on testing casing/standpipe cement and bore head design.

5 Appendix – Bore audit survey summary

5.1 Pike Floodplain

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-27	-	29-Aug-14	54						NL
7029-626	Highland	29-Aug-14	54	482746	6214556	0.87	19.69	100+	
7029-760	-	29-Aug-14	54						NL
7029-767	-	26-Aug-14	54						NL
7029-768	-	26-Aug-14	54						NL
7029-769	-	26-Aug-14	54						NL
7029-770	-	26-Aug-14	54						NL
7029-771	-	26-Aug-14	54						NL
7029-785	-	26-Aug-14	54						NL
7029-786	-	26-Aug-14	54						NL
7029-912	Highland	28-Aug-14	54	483507	6207567	0.6	26.235	66.5	Drainage well
7029-923	-	26-Aug-14	54						NL
7029-924	-	26-Aug-14	54						NL
7029-1040	Floodplain	27-Aug-14	54	476169	6207176	0.86	3.01	30.855	
7029-1127	-	28-Aug-14	54						NL
7029-1128	Floodplain	28-Aug-14	54	475041	6207154	0.91	2.565	7.85	
7029-1129	Floodplain	28-Aug-14	54	474714	6207211	0.905	1.53	7.07	
7029-1130	Floodplain	28-Aug-14	54	475865	6207103	0.02	1.935	5.52	
7029-1131	Floodplain	27-Aug-14	54	473607	6207261	-0.08	1.555	5.33	
7029-1132	Floodplain	26-Aug-14	54	473157	6207394	0	1.145	7.75	MR
7029-1133	Floodplain	25-Aug-14	54	472055	6207881	0.57	1.49	7.09	MR
7029-1134	Floodplain	25-Aug-14	54	472498	6207680	0.07	1.35	11.67	
7029-1135	- -	25-Aug-14	54	.,50	0207000	0.07	2.00	22.07	NL
7029-1136	Floodplain	25-Aug-14	54	471121	6208594	0.82	2.425	11.1	Access
7029-1137	Highland	27-Aug-14	54	474162	6206416	0.02	18.64	22.9	MR
7029-1138	-	27-Aug-14	54	17 1102	0200110		10.01	22.5	NL
7029-1139	Highland	27-Aug-14	54	476180	6206836	0.045	5.69	6.49	MR
7029-1184	Floodplain	28-Aug-14	54	478645	6208755	0.51	3.485	3.58	17117
7029-1185	Floodplain	28-Aug-14	54	478440	6208670	0.24	2.31	2.635	
7029-1186	Floodplain	28-Aug-14	54	478177	6209184	0.24	3.75	4.58	
7029-1180	Floodplain	26-Aug-14 26-Sep-14	54	476928	6209047	0.285	2.995	3.29	Boat access
7029-1187	•	26-Sep-14	54	477169	6210066	0.285		3.64	Boat access
7029-1188	Floodplain Floodplain	26-Sep-14 26-Sep-14	54 54	477169	6209785	0.363	Dry 3.195	3.04	Boat access
	=	· ·							
7029-1190	Floodplain	26-Sep-14	54 54	475714	6210974	0.265	Dry	2.34	Boat access NL
7029-1191	- Eloodalaia	26-Sep-14		400267	6212205	0.22	D :	2.02	INL
7029-1192	Floodplain	28-Aug-14	54 54	480367	6213385	0.32	Dry	2.02	
7029-1193	Floodplain	28-Aug-14	54 54	479835	6212148	0.315	Dry	2.94	
7029-1194	Floodplain	28-Aug-14	54 54	478992 478610	6211783	0.265	Dry	3.1	
7029-1195	Floodplain	28-Aug-14	54	478610	6210712	0.23	Dry	2.32	
7029-1196	Floodplain	28-Aug-14	54	481495	6211993	0.24	2.47	3.68	
7029-1197	Floodplain	28-Aug-14	54	482037	6210632	0.37	Dry	1.75	
7029-1198	Floodplain	29-Aug-14	54	482024	6214620	0.46	1.7	3.345	
7029-1199	Floodplain	29-Aug-14	54	481739	6214650	0.25	2.165	2.5	MR
7029-1200	Floodplain	28-Aug-14	54	478755	6216675	0.3	Dry	2.13	

Unit No	Floodplain/	Audit Date	Zone	Easting	Northing	Ref. Point from NS	DTW (m)	Depth (m)	Comment
	Highland	Date				(m)	(111)	(111)	
7029-1201	Floodplain	28-Aug-14	54	478791	6216046	0.27	2.615	2.9	
7029-1208	Floodplain	28-Aug-14	54	482697	6208061	0.78	4.985	13.74	MR
7029-1209	Highland	25-Aug-14	54	471059	6207973	0.86	19.515	29.18	
7029-1211	Highland	29-Aug-14	54	483964	6209903	0.9	3.69	18.54	
7029-1214	Highland	28-Aug-14	54	483463	6207583	0.7	26.595	32.15	
7029-1215	Highland	29-Aug-14	54	484596	6208358	0.81	13.81	13.89	MR
7029-1219	Highland	27-Aug-14	54	476200	6206822	0.8	4.655	4.69	
7029-1221	Highland	26-Aug-14	54	472796	6206872	0.105	29.53	34.98	
7029-1232	Highland	26-Aug-14	54	471692	6206901	0.41	Dry	2.37	MR
7029-1252	Highland	26-Aug-14	54	472794	6206874	0.105	2.7	2.71	
7029-1355	Floodplain	28-Aug-14	54	482693	6208061	0.505	0.865	61.61	
	·	3					8.05 /	75.19 /	
7029-1541	Highland	29-Aug-14	54	484847	6210593	0.26	9.395	64	
7029-1592	Floodplain	27-Aug-14	54	473084	6209110	0.96	3.74	4.16	MR
7029-1593	-	26-Aug-14	54						NL
7029-1607	-	26-Aug-14	54						NL
7029-1608	-	26-Aug-14	54						NL
7029-1609	Floodplain	28-Aug-14	54	478512	6213105	0.72	3.32	3.32	
7029-1610	Floodplain	28-Aug-14	54	481169	6210455	0.77	4.42	4.92	
7029-1611	Floodplain	28-Aug-14	54	481193	6211156	0.845	4.13	4.65	
7029-1612	Floodplain	29-Aug-14	54	481651	6216263	0.86	2.355	2.77	Access
7029-1625	Floodplain	27-Aug-14	54	473915	6210132	1	2.135	3.25	7100033
7029-1799	Floodplain	26-Aug-14	54	477690	6217273	0.065	1.25	3.45	MR
7029-1809	Floodplain	28-Aug-14	54	479926	6214990	0.63	3.57	5	MR
7029-1810	Floodplain	28-Aug-14	54	479085	6215126	0.11	2.79	4.95	MR
7029-1810	Floodplain	29-Aug-14 29-Aug-14	54	480748	6215857	0.77	Dry	2.515	Access
7029-1811	Пооцріант	29-Aug-14 29-Aug-14	54	400740	0213037	0.77	Diy	2.313	NL
7029-1812	- Highland	-	54	482746	6214568	0.77	27	35.83	INL
	Highland	29-Aug-14		482740	0214508	0.77	21	33.63	NII
7029-1982	-	29-Aug-14	54	40 401 2	C210F4C	0.21	12 555	24.01	NL
7029-1983	Highland	22-Jan-15	54	484812	6210546	0.31	12.555	34.81	NAD
7029-1984	Highland	29-Aug-14	54	484789	6210524	0.75	13.015	34.91	MR
7029-1985	Highland	29-Aug-14	54	484777	6210510	0.7	12.88	34.88	MR
7029-1986	Highland	29-Aug-14	54	484747	6210475	0.735	12.895	34.72	MR
7029-1987	Highland	29-Aug-14	54	484791	6210526	0.71	12.61	25.84	MR
7029-1988	Highland	29-Aug-14	54	484745	6210474	0.755	12.855	25.72	MR
7029-1989	Highland	29-Aug-14	54	484237	6209845	0.15	18.11	38.5	
7029-1992	Highland	28-Aug-14	54	480083	6207862	0.34	29.215	44.15	
7029-1993	Highland	28-Aug-14	54	480120	6207865	0.79	29.71	42.62	
7029-1994	Highland	28-Aug-14	54	480138	6207864	0.78	29.83	42.66	
7029-1995	Highland	28-Aug-14	54	480181	6207861	0.75	29.61	42.61	
7029-1996	Highland	28-Aug-14	54	480083	6207898	0.78	29.42	42.45	
7029-1997	Highland	28-Aug-14	54	480120	6207861	0.76	29.705	33.89	
7029-1998	Highland	28-Aug-14	54	480182	6207860	0.74	29.52	33.86	
7029-1999	Highland	28-Aug-14	54	481090	6207861	0	27.51	42	MR
7029-2276	Floodplain	26-Aug-14	54	477608	6215497	0.84	4.04	8.64	
7029-2277	Floodplain	27-Aug-14	54	475349	6213163	0.95	5.23	11.24	
7029-2278	Floodplain	27-Aug-14	54	474454	6212293	0.85	5.24	13.23	
7029-2330	Floodplain	26-Aug-14	54	477124	6214229	0.6	1.15	4.5	MR
7029-2331	-	26-Aug-14	54						NL
7029-2332	Floodplain	26-Aug-14	54	477538	6214014	0.47	Dry	2.35	
7029-2333	Floodplain	26-Aug-14	54	477376	6214006	0.45	1.64	2	
7029-2395	Highland	28-Aug-14	54	479915	6218652	0.625	40.86	52.89	
	2	2		483034	6215819	0	30.59	59.5	

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-2413	Highland	29-Aug-14	54	481469	6217184	0	26.22	43.5	
7029-2414	Highland	27-Aug-14	54	473600	6206750	0	31.02	41.88	
7029-2416	Highland	29-Aug-14	54	482824	6213170	0	27.015	52.62	
7029-2420	Floodplain	26-Aug-14	54	478744	6217420	0.56	2.26	6.15	BLK
7029-2614	Highland	27-Aug-14	54	475907	6206918	0.85	36.605	48.06	MR
7029-2615	Highland	27-Aug-14	54	475857	6206917	0.45	30.455	94.5	MR
7029-2616	Highland	27-Aug-14	54	475864	6206915				SIS well
7029-2641	Highland	27-Aug-14	54	474906	6206988				SIS well
7029-2642	Highland	27-Aug-14	54	473659	6206779				SIS well
7029-2643	Highland	26-Aug-14	54	472782	6206942				SIS well
7029-2702	Floodplain	26-Aug-14	54	471687	6209421	0.675	Dry	3.72	
7029-2704	Floodplain	27-Aug-14	54	472939	6209147	0.69	3.11	3.22	
	Floodplain	27-Aug-14	54	472984	6209608	0.64	3.01	4.2	
7029-2706	Floodplain	27-Aug-14	54	473317	6210262	0.68	3.34	4.27	
7029-2707	Floodplain	27-Aug-14	54	473515	6210224	0.715	3.335	4.01	
7029-2708	Floodplain	27-Aug-14	54	473204	6211207	0.77	2.59	3.36	
7029-2709	Floodplain	27-Aug-14	54	473536	6211207	0.72	3.62	4.48	
7029-2733	Floodplain	28-Aug-14	54	475330	6207131	0.92	2.545	24.35	
7029-2734	Floodplain	27-Aug-14	54	474156	6207210	0.72	3.55	20.97	
7029-2735	Floodplain	28-Aug-14	54	476286	6207837	0.725	2.94	20.31	
7029-2736	Floodplain	28-Aug-14	54	474909	6207314	0.91	2.02	24.71	
7029-2790	Highland	29-Aug-14	54	484013	6208306	0.38	24.445	36.04	New well
7029-2791	Highland	29-Aug-14	54	483449	6208351	0.55	12.37	16.75	New well
7029-2792	Floodplain	26-Aug-14	54	472916	6208641	0.685	1.325	3.77	New well

Potential access issues (Access)

Blocked (BLK)

Depth to water (DTW)

Potential maintenance required (MR)

Natural surface (NS)

Not located (NL)

5.2 Katarapko Floodplain

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-122	-	13-Oct-14	54			` ,			NL
7029-135	-	23-Sep-14	54						NL
7029-136	-	23-Sep-14	54						NL
7029-137	-	23-Sep-14	54						NL
7029-616	Highland	18-Sep-14	54	455938	6200173	0.901	17.690	122.15	MR
7029-637	-	15-Oct-14	54						NL
7029-638	_	15-Oct-14	54						NL
7029-639	Highland	15-Oct-14	54	462252	6198744				Drainage well
7029-653	Floodplain	23-Sep-14	54	457579	6196146	0.720	6.695	14.40	MR
7029-664	-	23-Sep-14	54	137373	02302.0	0.720	0.000		NL
7029-674	_	23-Sep-14	54						NL
7029-074	Floodplain	19-Sep-14	54	465543	6203215	-0.380	Dry	1.455	MR
7029-792		· ·							
	Floodplain	19-Sep-14	54 54	465543	6203215	-0.330 0.350	1.610	12.020	MR MR
7029-794 7029-911	Floodplain	19-Sep-14	54 54	465543	6203215	-0.350	1.590	19.020	
	-	15-Oct-14							NL NI
7029-913	-	15-Oct-14	54						NL NI
7029-957	-	15-Oct-14	54						NL
7029-1029	-	15-Oct-14	54	4604 :-	C4 0 0 = :=	2 25 5	40 = :-	2.5	NL
7029-1035	Highland	15-Oct-14	54	462143	6198545	-0.030	13.540	24.21	MR
7029-1036	Highland	09-Oct-14	54	461674	6199706	0.000	28.700	38.12	
7029-1037	Floodplain	20-Oct-14	54	462661	6197690	0.030	3.280	9.23	MR
7029-1038	Floodplain	22-Oct-14	54	462624	6197647	0.980	3.500	6.12	MR
7029-1039	-	20-Oct-14	54						NL
7029-1202	Floodplain	27-Oct-14	54	462138	6198011	0.340	4.125	11.28	MR
7029-1203	Floodplain	27-Oct-14	54	461863	6198177	0.620	3.810	10.64	
7029-1204	Floodplain	30-Oct-14	54	461653	6198352	0.250	2.400	9.78	
7029-1205	Floodplain	30-Oct-14	54	461412	6198506	0.500	2.660	10.64	
7029-1206	Floodplain	30-Oct-14	54	460992	6198625	0.210	3.395	12.03	MR
7029-1296	Floodplain	23-Sep-14	54	469979	6202527	1.310	2.660	3.57	
7029-1297	Highland	23-Sep-14	54	470270	6202980	0.545	3.975	10.59	
7029-1298	Highland	29-Sep-14	54	465572	6201944	-0.100	19.145	27.91	
7029-1299	Highland	07-Oct-14	54	463108	6201035	-0.090	35.205	40.27	MR
7029-1302	Floodplain	30-Oct-14	54	461639	6198369	0.100	2.665	6.83	MR
7029-1303	Floodplain	30-Oct-14	54	461605	6198422	0.650	2.880	10.63	
7029-1304	Floodplain	30-Oct-14	54	461577	6198239	0.610	3.100	10.36	MR
7029-1305	Floodplain	30-Oct-14	54	461101	6198382	0.690	4.040	10.46	
7029-1306	Floodplain	28-Oct-14	54	461151	6197847	0.720	4.435	10.59	MR
7029-1307	Floodplain	28-Oct-14	54	460499	6197368	0.900	3.225	10.28	
7029-1308	Floodplain	08-Oct-14	54	461354	6200827	0.690	3.660	10.42	
7029-1308	Floodplain	30-Oct-14	54	460096	6198686	0.090	3.195	10.42	MR
7029-1309	Floodplain	18-Sep-14	54	460098	6203214	0.730	3.610	5.78	IVIIX
7029-1324	•	18-Sep-14	54 54		6203214	0.734	5.050	6.14	
	Floodplain	•		459842					
7029-1332	Highland	13-Oct-14	54 54	462054	6200643	0.640	34.805	61.97	MD
7029-1333	Highland	13-Oct-14	54 54	463370	6197520	0.610	31.180	54.57	MR
7029-1347	Floodplain	22-Oct-14	54	462637	6197680	0.870	3.575	11.30	
7029-1348	Floodplain	22-Oct-14	54	462647	6197675	0.650	3.340	11.88	
7029-1349	Floodplain	22-Oct-14	54	462642	6197663	0.650	3.300	12.05	MR
7029-1357	-	29-Sep-14	54						NL
7029-1364	Floodplain	07-Oct-14	54	462531	6201507	0.590	1.555	13.93	SIS well
7029-1365	Floodplain	07-Oct-14	54	462471	6201491	1.035	2.095	11.60	SIS well

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-1366	Floodplain	07-Oct-14	54	462473	6201565	1.055	2.860	10.87	
7029-1367	Highland	20-Oct-14	54	463079	6197061	0.700	5.590	11.50	SIS well/MR
7029-1368	Highland	20-Oct-14	54	463061	6197104	0.800	5.380	12.21	SIS well
7029-1369	Highland	20-Oct-14	54	463020	6197092	0.835	4.810	12.82	
7029-1370	Floodplain	08-Oct-14	54	461351	6200801	0.600	3.555	16.21	
7029-1371	Floodplain	08-Oct-14	54	461342	6200745	0.510	4.150	14.55	SIS well/MR
7029-1372	Floodplain	29-Oct-14	54	460569	6198875				SIS well/MR
7029-1373	Floodplain	16-Oct-14	54	462909	6195370	1.010	2.810	10.83	SIS well/MR
7029-1374	Floodplain	16-Oct-14	54	462945	6195335	0.520	1.970	11.05	SIS well/MR
7029-1375	Floodplain	22-Sep-14	54	463429	6202316	0.520	1.085	10.70	SIS well/MR
7029-1376	Floodplain	22-Sep-14	54	463469	6202342	0.880	1.650	12.13	SIS well
7029-1377	Floodplain	16-Oct-14	54	462971	6196038	0.570	2.015	13.89	SIS well
7029-1378	Floodplain	16-Oct-14	54	463023	6196032	0.700	2.245	11.32	SIS well
7029-1379	-	08-Oct-14	54						NL
7029-1380	-	16-Oct-14	54						NL
7029-1381	Floodplain	29-Oct-14	54	460538	6198911	0.450	4.485	10.90	SIS well/MR
7029-1423	Highland	20-Oct-14	54	463079	6197224	0.860	9.780	13.85	MR
7029-1425	Highland	29-Sep-14	54	463207	6201446	0.560	35.440	100+	
7029-1426	Highland	29-Sep-14	54	463206	6201438	1.000	14.870	15.31	MR
7029-1427	Highland	29-Sep-14	54	463210	6201460	0.870	38.735	53.92	
7029-1428	Highland	29-Sep-14	54	463207	6201436	0.240	38.255	52.08	MR
7029-1429	Highland	29-Sep-14	54	463206	6201444	0.350	37.080	78.65	
7029-1430	Highland	15-Oct-14	54	462257	6199131	0.650	27.270	52.48	MR
7029-1432	Highland	20-Oct-14	54	463045	6197150	0.700	6.665	12.22	
7029-1433	Highland	20-Oct-14	54	463008	6197239	0.650	7.220	12.45	
7029-1434	Floodplain	20-Oct-14	54	462966	6197330	0.530	5.580	11.06	SIS well/MR
7029-1435	Highland	17-Oct-14	54	462924	6197422	0.490	5.055	10.03	
7029-1436	Highland	20-Oct-14	54	463032	6197201	0.160	7.825	12.49	MR
7029-1437	Highland	20-Oct-14	54	462985	6197288	0.450	6.520	11.83	MR
7029-1438	Floodplain	17-Oct-14	54	462944	6197376	0.600	5.890	12.11	
7029-1439	Highland	17-Oct-14	54	462895	6197464	0.570	4.800	9.76	
7029-1440	Floodplain	30-Oct-14	54	461637	6198358	0.550	0.870	33.61	MR
7029-1441	Floodplain	30-Oct-14	54	461630	6198358	0.000	-2.200		MR
7029-1503	Highland	29-Sep-14	54	466501	6201470	0.765	29.330	39.40	
7029-1505	Highland	16-Oct-14	54	463060	6194646	0.730	12.780	24.35	
7029-1506	Highland	15-Oct-14	54	463417	6194031	0.430	22.660	39.90	
7029-1545	Highland	09-Oct-14	54	461218	6199822				SIS well
7029-1546	Highland	09-Oct-14	54	461264	6199649				SIS well
7029-1547	Highland	17-Oct-14	54	463294	6196549	0.810	25.615	41.24	
7029-1548	Highland	17-Oct-14	54	463764	6196493	0.490	33.650	51.30	MR
7029-1549	Highland	09-Oct-14	54	461665	6200199	0.860	34.755	57.39	MR
7029-1550	Highland	15-Oct-14	54	461336	6199284	0.600	26.370	44.60	MR
7029-1551	Highland	15-Oct-14	54	461747	6199082	0.650	19.450	41.01	
7029-1552	Highland	16-Oct-14	54	462970	6197955	0.650	36.480	60.45	
7029-1554	Floodplain	29-Oct-14	54	460314	6198883	0.750	Dry	4.91	MR
7029-1555	Floodplain	29-Oct-14	54	460199	6199244	0.550	4.545	4.66	MR
7029-1556	-	08-Oct-14	54	46460=	6204422	0.470	2.242	2.65	NL MB
7029-1557	Floodplain	08-Oct-14	54	461697	6201132	0.470	2.240	3.61	MR
7029-1558	Floodplain	22-Sep-14	54	463506	6202146	1.210	1.985	3.58	MR
7029-1559	Floodplain	16-Oct-14	54	463055	6195827	0.000	2.460	3.43	MR
7029-1560	Floodplain	17-Oct-14	54	463089	6196134	0.870	2.580	4.02	MR
7029-1561	Floodplain	17-Oct-14	54	463064	6196484	0.770	3.270	4.25	MR
7029-1562	Floodplain	20-Oct-14	54	463058	6196941	0.910	5.130	5.27	MR

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS	DTW (m)	Depth (m)	Comment
						(m)			
7029-1563	Floodplain	17-Oct-14	54	462871	6197447	0.850	4.130	4.87	MR
7029-1564	Floodplain	22-Oct-14	54	462456	6197747	0.720	3.310	3.57	MR
7029-1565	Floodplain	27-Oct-14	54	462332	6197966	0.720	1.780	3.57	. 45
7029-1566	Floodplain	30-Oct-14	54	461266	6198649	0.100	2.740	3.57	MR
7029-1567	Floodplain	16-Oct-14	54	462982	6195308	1.170	2.380	3.58	MR
7029-1568	Floodplain	29-Oct-14	54	460824	6198799	0.730	4.270	5.03	MR
7029-1573	Floodplain	20-Oct-14	54	463100	6196865	0.530	5.535	15.54	MR
7029-1575	Floodplain	20-Oct-14	54	463098	6196914	0.700	5.895	13.03	DLIZ
7029-1576	Highland	20-Oct-14	54	463077	6197017	0.240	Dry	0.72	BLK
7029-1577	Floodplain	20-Oct-14 09-Oct-14	54 54	463093	6196966	0.760	6.795	13.67	MR
7029-1579	Highland		54	461230	6199784	0.750	16.995	20.49	MD
7029-1580	Floodplain	18-Sep-14	54 54	457897	6202963		3.465	3.74	MR
7029-1581	Floodplain	18-Sep-14		461501	6202893		Dry	3.79	MR
7029-1582	Floodplain	16-Sep-14	54	461276	6202064	0.540	3.130	4.11	MR
7029-1584	Floodplain	22-Sep-14	54 E4	462404	6203745	0.540	Dry	2.27	
7029-1585 7029-1587	Floodplain	22-Sep-14 23-Sep-14	54 54	462252 467129	6203163 6203238	0.790 0.820	1.865 2.005	2.92 4.70	
7029-1588	Floodplain	18-Sep-14	54 54	457081	6203236	0.020	2.790	4.70	MR
7029-1589	Floodplain	18-Sep-14	54 54	460275	6202985		2.790	3.56	MR
7029-1589	Floodplain Floodplain	16-Sep-14 16-Sep-14	54 54	458694	6199279		5.160	6.14	MR
7029-1597	Floodplain	18-Sep-14	54	457533	6197562		4.830	5.31	MR
7029-1597	· ·	18-Sep-14	54 54	457555	6196519			5.13	MR
7029-1398	Floodplain Floodplain	16-Sep-14	54	460078	6200672		Dry 3.360	5.16	MR
7029-1600	Floodplain	29-Oct-14	54	459218	6199607	1.140	4.430	5.64	Access/MR
7029-1601	Floodplain	16-Sep-14	54	460561	6199680	1.140	3.250	4.21	MR
7029-1603	Floodplain	28-Oct-14	54	461405	6196567	0.860	3.750	3.84	IVIIX
7029-1606	Floodplain	16-Sep-14	54	457988	6199784	0.800	4.280	4.93	MR
7029-1630	Highland	15-Oct-14	54	462109	6198546	0.640	13.775	25.75	IVIIX
7029-1631	Highland	13-Oct-14	54	461176	6199371	0.700	30.135	4.00	
7029 1031 7029-1632	Highland	13-Oct-14	54	461151	6199354	0.400	30.495	33.58	MR
7029-1633	Highland	09-Oct-14	54	461258	6199680	0.460	19.630	33.18	IVIIX
7029 1633	-	08-Oct-14	54	401230	0133000	0.000	13.030	33.10	NL
7029-1648	_	08-Oct-14	54						NL
7029-1649	_	08-Oct-14	54						NL
7029-1650	Floodplain	08-Oct-14	54	461494	6200883	0.360	1.430	7.08	142
7029-1651	Floodplain	08-Oct-14	54	461345	6200744	0.500	2.150	7.00	SIS well
7029 1051 7029-1652	Floodplain	08-Oct-14	54	461303	6200567	1.340	3.780	15.69	SIS well
7029 1052	Floodplain	08-Oct-14	54	461169	6200222	2.5 10	5.700	_5.55	SIS well
7029-1053	Floodplain	08-Oct-14 08-Oct-14	54	461153	6200037	0.800	2.060	13.20	SIS well
7029 1054	Floodplain	29-Oct-14	54	460168	6198919	0.660	3.705	14.62	SIS well
7029 1656	Floodplain	29-Oct-14	54	460574	6198877	3.000	00	5 L	SIS well
7029-1657	Floodplain	30-Oct-14	54	461118	6198645				SIS well
7029-1658	Floodplain	30-Oct-14	54	461633	6198374				SIS well
7029-1659	Floodplain	27-Oct-14	54	462025	6198072				SIS well
7029-1660	Floodplain	22-Oct-14	54	462430	6197858				SIS well
7029-1661	Floodplain	20-Oct-14	54	462643	6197668				SIS well
7029-1662	Floodplain	17-Oct-14	54	462851	6197497				SIS well
7029-1663	Highland	20-Oct-14	54	463032	6197200				SIS well
7029-1664	Highland	20-Oct-14	54	463069	6197014	0.650	5.925	13.37	SIS well
7029-1665	Floodplain	20-Oct-14	54	463100	6196821	0.000	3.3 2 3	_0.5,	SIS well
7029-1666	Floodplain	17-Oct-14	54	463093	6196456	0.620	3.285	15.82	SIS well
7029-1667	Floodplain	17-Oct-14	54	463074	6196130	3.020	=	_3.32	SIS well
		16-Oct-14	٠.	. 3557 1	6195819	0.800	3.210	10.82	SIS well

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-1669	Floodplain	16-Oct-14	54	463007	6195458				SIS well
7029-1670	Floodplain	16-Oct-14	54	462910	6195270	0.680	2.005	11.98	SIS well
7029-1671	-	09-Oct-14	54						NL
7029-1672	-	09-Oct-14	54						NL
7029-1673	-	09-Oct-14	54						NL
7029-1674	-	09-Oct-14	54						NL
7029-1675	-	13-Oct-14	54						NL
7029-1676	-	13-Oct-14	54						NL
7029-1677	-	29-Sep-14	54						NL
7029-1678	-	29-Sep-14	54						NL
7029-1679	-	01-Oct-14	54						NL
7029-1680	-	01-Oct-14	54						NL
7029-1681	-	01-Oct-14	54						NL
7029-1682	-	07-Oct-14	54						NL
7029-1683	-	09-Oct-14	54						NL
7029-1684	-	09-Oct-14	54						NL
7029-1685	-	07-Oct-14	54						NL
7029-1686	-	08-Oct-14	54						NL
7029-1687	-	09-Oct-14	54						NL
7029-1688	Highland	29-Sep-14	54	463205	6201444	0.420	38.345	55.39	
7029-1689	-	13-Oct-14	54						NL
7029-1690	-	13-Oct-14	54						NL
7029-1691	-	13-Oct-14	54						NL
7029-1692	-	13-Oct-14	54						NL
7029-1693	-	08-Oct-14	54						NL
7029-1694	Floodplain	29-Oct-14	54	460845	6198765	0.650	3.890	14.87	SIS well
7029-1695	Floodplain	27-Oct-14	54	461796	6198184	0.800	4.480	13.25	SIS well
7029-1696	Floodplain	27-Oct-14	54	462217	6197959	0.820	4.295	13.49	SIS well
7029-1697	Floodplain	22-Oct-14	54	462527	6197766	0.670	5.680	15.37	SIS well
7029-1698	Floodplain	20-Oct-14	54	462741	6197589	0.420	3.705	12.39	SIS well
7029-1699	Floodplain	07-Oct-14	54	462698	6201586				SIS well
7029-1700	-	07-Oct-14	54						NL
7029-1701	-	07-Oct-14	54						NL
7029-1702	Floodplain	07-Oct-14	54	462222	6201498				SIS well
7029-1703	-	01-Oct-14	54						NL
7029-1704	-	08-Oct-14	54						NL
7029-1705	-	07-Oct-14	54						NL
7029-1706	-	08-Oct-14	54						NL
7029-1707	-	08-Oct-14	54						NL
7029-1708	-	08-Oct-14	54						NL NI
7029-1709	-	13-Oct-14	54						NL NI
7029-1710	-	13-Oct-14	54						NL NI
7029-1711	-	13-Oct-14	54						NL NI
7029-1712	-	13-Oct-14	54						NL
7029-1713	-	29-Sep-14	54						NL
7029-1714	-	29-Sep-14	54						NL NI
7029-1715	-	29-Sep-14	54						NL NI
7029-1716	-	29-Sep-14	54						NL NI
7029-1717	-	29-Sep-14	54						NL
7029-1718	-	29-Sep-14	54						NL NI
7029-1719	-	29-Sep-14	54						NL
7029-1720	-	29-Sep-14	54						NL NI
7029-1736	-	15-Oct-14	54						NL

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-1737	-	15-Oct-14	54						NL
7029-1770	-	16-Oct-14	54						NL
7029-1771	-	16-Oct-14	54						NL
7029-1772	-	15-Oct-14	54						NL
7029-1773	-	15-Oct-14	54						NL
7029-1774	-	15-Oct-14	54						NL
7029-1775	-	15-Oct-14	54						NL
7029-1803	Floodplain	28-Oct-14	54	461548	6197558	0.780	4.445	4.93	
7029-1804	Floodplain	27-Oct-14	54	461939	6197769	0.890	4.055	5.02	MR
7029-1921	Highland	29-Sep-14	54	463334	6201577	0.200	Dry	14.20	MR
7029-1922	-	09-Oct-14	54						NL
7029-1923	-	07-Oct-14	54						NL
7029-1924	-	29-Sep-14	54						NL
7029-1925	-	07-Oct-14	54						NL
7029-1926	-	07-Oct-14	54						NL
7029-1927	-	08-Oct-14	54						NL
7029-1928	-	13-Oct-14	54						NL
7029-1929	-	13-Oct-14	54						NL
7029-1930	-	09-Oct-14	54						NL
7029-1931	-	09-Oct-14	54						NL
7029-1932	-	09-Oct-14	54						NL
7029-1933	-	09-Oct-14	54						NL
7029-1934	-	15-Oct-14	54						NL
7029-1935	-	09-Oct-14	54						NL
7029-1936	-	09-Oct-14	54						NL
7029-1937	-	15-Oct-14	54						NL
7029-1938	-	01-Oct-14	54						NL
7029-1939	-	01-Oct-14	54						NL
7029-1940	-	07-Oct-14	54						NL
7029-1941	-	08-Oct-14	54						NL
7029-1942	-	08-Oct-14	54						NL
7029-1943	-	08-Oct-14	54						NL
7029-1944	-	08-Oct-14	54						NL
7029-1945	-	13-Oct-14	54						NL
7029-1946	-	13-Oct-14	54						NL
7029-1947	-	13-Oct-14	54 54						NL
7029-1948	-	13-Oct-14	54 54						NL
7029-1949	-	13-Oct-14	54 E4						NL NI
7029-1950	-	09-Oct-14	54 E4						NL NI
7029-1951	-	09-Oct-14	54 E4						NL NI
7029-1952	-	09-Oct-14 13-Oct-14	54 54						NL NI
7029-1953	-		54 54						NL NI
7029-1954	-	13-Oct-14	54 54						NL NI
7029-1955	-	29-Sep-14	54 54						NL NI
7029-1956 7029-1957	-	29-Sep-14 29-Sep-14	54 54						NL NL
	-	<u>=</u> '							
7029-1958	-	29-Sep-14	54 54						NL NL
7029-1959	-	29-Sep-14	54 54						NL NL
7029-1960 7029-1961	-	29-Sep-14	54 54						NL NL
	-	29-Sep-14							
7029-1962	-	29-Sep-14	54 E4						NL NI
7029-1963	-	29-Sep-14	54 54						NL NI
7029-1964	-	29-Sep-14	54						NL

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-1965	-	01-Oct-14	54						NL
7029-1966	-	01-Oct-14	54						NL
7029-1967	-	01-Oct-14	54						NL
7029-1968	-	07-Oct-14	54						NL
7029-1969	-	09-Oct-14	54						NL
7029-1970	-	09-Oct-14	54						NL
7029-2023	Floodplain	28-Oct-14	54	461840	6197398	0.510	3.840	12.80	SIS well
7029-2024	-	30-Oct-14	54						NL
7029-2025	Floodplain	28-Oct-14	54	461800	6197430	0.710	3.835	11.72	MR
7029-2026	Floodplain	28-Oct-14	54	461881	6197385	0.770	4.325	15.97	MR
7029-2027	Floodplain	30-Oct-14	54	461028	6198388	0.830	4.470	14.43	
7029-2028	Highland	29-Sep-14	54	463210	6201486	0.590	38.170	40.75	
7029-2097	Highland	09-Oct-14	54	461265	6199610	0.910	23.055	30.48	
7029-2098	Highland	09-Oct-14	54	461197	6199888	0.710	11.400	16.34	Access
7029-2099	Highland	09-Oct-14	54	461270	6199821	0.910	19.620	25.02	
7029-2100	Highland	09-Oct-14	54	461229	6199740				SIS well
7029-2101	Highland	08-Oct-14	54	461960	6201044	0.800	39.665	44.97	
7029-2102	Highland	13-Oct-14	54	461919	6200858	0.940	38.505	45.00	
7029-2103	Highland	08-Oct-14	54	461958	6201244	0.830	36.640	41.94	
7029-2104	Highland	07-Oct-14	54	462243	6201248	0.810	40.575	42.63	
7029-2105	Highland	08-Oct-14	54	461917	6201112				SIS well
7029-2106	Highland	08-Oct-14	54	462098	6201275	0.100	39.200	60.84	SIS well
7029-2107	Floodplain	18-Sep-14	54	460928	6199850			4.21	Blocked
7029-2108	Floodplain	16-Sep-14	54	460969	6199669	0.775	5.140	10.57	MR
7029-2109	Floodplain	26-Sep-14	54	460929	6198210	0.890	3.465	31.80	Boat access/MR
7029-2110	Floodplain	26-Sep-14	54	460922	6198211	0.960	4.185	11.75	Boat access/MR
7029-2111	Floodplain	26-Sep-14	54	462895	6197085	0.920	1.875	11.40	Boat access/MR
7029-2112	Highland	15-Oct-14	54	462108	6198540	0.720	19.320	51.51	MR
7029-2137	Floodplain	30-Oct-14	54	461035	6198386	1.030	4.730	6.77	MR
7029-2138	Floodplain	30-Oct-14	54	461050	6198436	1.000	4.255	5.74	MR
7029-2139	Floodplain	30-Oct-14	54	461107	6198497	0.970	4.025	5.64	MR
7029-2140	Floodplain	30-Oct-14	54	461185	6198261	0.880			MR
7029-2141	Floodplain	30-Oct-14	54	461181	6198266	0.870			MR
7029-2142	Floodplain	30-Oct-14	54	461249	6198321	0.900			MR
7029-2143	Floodplain	30-Oct-14	54	461312	6198375	0.990	3.415	7.25	MR
7029-2144	Floodplain	29-Oct-14	54	461227	6198060	1.000	4.285	6.73	MR
7029-2145	Floodplain	29-Oct-14	54	461226	6198060	0.950	4.345	12.41	MR
7029-2146	Floodplain	29-Oct-14	54	461297	6198061	0.920	3.945	6.73	MR
7029-2147	Floodplain	29-Oct-14	54	461296	6198061	0.950	3.985	13.33	MR
7029-2148	Floodplain	29-Oct-14	54	461330	6198062	0.930	3.965	7.08	MR
7029-2149	Floodplain	28-Oct-14	54	461132	6197899	0.890	4.595	8.29	MR
7029-2150	Floodplain	28-Oct-14	54	461132	6197898	0.930	4.595	11.44	
7029-2151	Floodplain	28-Oct-14	54	461150	6197841	0.830	4.565	6.41	MR
7029-2152	Floodplain	28-Oct-14	54	461214	6197780	0.790	4.565	8.00	
7029-2153	Floodplain	28-Oct-14	54	461869	6197389	0.890	4.295	5.83	MR
7029-2154	Floodplain	27-Oct-14	54	462151	6197607	0.990	3.290	12.59	
7029-2155	Floodplain	22-Oct-14	54	462379	6197646	0.820	3.440	13.56	MR
7029-2156	Floodplain	20-Oct-14	54	462591	6197617	0.870	3.400	13.64	MR
7029-2157	Floodplain	27-Oct-14	54	462090	6197782	0.940	4.100	4.33	MR
7029-2158	Floodplain	29-Oct-14	54	461382	6198065				SIS well
7029-2159	Floodplain	30-Oct-14	54	459997	6198800	1.040	3.830	6.15	MR
7029-2160	Floodplain	30-Oct-14	54	460312	6198683	1.060	2.980	5.20	MR
7023 2100									

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-2162	Floodplain	30-Oct-14	54	460266	6198583	1.050	3.315	4.55	MR
7029-2163	Floodplain	29-Oct-14	54	460559	6198636	0.980	4.635	5.70	MR
7029-2164	Floodplain	29-Oct-14	54	460526	6198579	1.000	3.915	4.94	MR
7029-2165	Floodplain	29-Oct-14	54	460468	6198491	1.000	3.250	4.20	MR
7029-2166	Floodplain	29-Oct-14	54	460443	6198451	0.880	2.950	3.46	MR
7029-2167	Floodplain	29-Oct-14	54	460755	6198500	0.980	5.150	6.04	MR
7029-2168	Floodplain	29-Oct-14	54	460734	6198474	1.000	2.560	3.62	MR
7029-2169	Floodplain	29-Oct-14	54	460687	6198392	0.840	2.710	4.15	MR
7029-2170	Floodplain	29-Oct-14	54	460565	6198745	1.030	5.340	7.00	MR
7029-2179	Floodplain	16-Sep-14	54	459837	6201157		2.020	3.97	MR
7029-2180	Floodplain	16-Sep-14	54	459770	6201321		3.255	4.63	MR
7029-2181	Floodplain	16-Sep-14	54	459794	6201214		2.175	4.23	MR
7029-2182	Floodplain	16-Sep-14	54	459755	6201256		3.140	4.74	MR
7029-2232	Floodplain	29-Oct-14	54	461419	6198054	1.080	4.150	11.62	MR
7029-2238	Floodplain	28-Oct-14	54	461526	6196795	0.730	3.605	12.96	Access/MR
7029-2239	Floodplain	28-Oct-14	54	461545	6196796	0.890	3.155	8.46	Access/MR
7029-2240	Floodplain	28-Oct-14	54	461575	6196800	1.010	3.145	8.47	Access/MR
7029-2241	Floodplain	28-Oct-14	54	461624	6196801	1.100	3.185	3.53	Blocked
7029-2242	Floodplain	28-Oct-14	54	461528	6196778	0.700	2.975	8.43	Access/MR
7029-2243	Floodplain	28-Oct-14	54	461526	6196731	0.820	2.655	8.39	Access/MR
7029-2244	Floodplain	28-Oct-14	54	461528	6196646	1.080	3.340	3.48	BLK
7029-2249	Floodplain	15-Oct-14	54	461706	6194078				SIS well
7029-2251	Floodplain	15-Oct-14	54	461549	6194040	0.410	4.680	17.33	SIS well
7029-2441	-	15-Oct-14	54						NL
7029-2452	-	16-Oct-14	54						NL
7029-2453	-	16-Oct-14	54						NL
7029-2528	-	15-Oct-14	54						NL
7029-2549	Highland	07-Oct-14	54	463322	6201083				Access
7029-2550	Highland	07-Oct-14	54	463316	6201080				Access
7029-2551	Highland	07-Oct-14	54	463324	6201086				SIS well
7029-2552	Highland	29-Sep-14	54	463206	6201445				Access
7029-2561	Highland	15-Oct-14	54	463326	6194586	0.080	27.195	36.01	
7029-2562	Highland	16-Oct-14	54	463335	6194641	0.000	26.645	34.54	MR
7029-2578	Highland	16-Oct-14	54	463336	6194663				SIS well
7029-2579	Highland	16-Oct-14	54	463331	6194615				SIS well
7029-2580	Highland	15-Oct-14	54	463324	6194553				SIS well
7029-2581	Highland	15-Oct-14	54	463320	6194512				SIS well
7029-2582	Highland	15-Oct-14	54	463314	6194462				SIS well
7029-2620	Highland	13-Oct-14	54	461944	6200936		00-00		SIS well
7029-2737	Highland	01-Oct-14	54	463315	6201102	0.840	38.720	44.82	
7029-2793	Floodplain	23-Sep-14	54	465985	6202724	0.740	1.895	2.43	New Well/MR
7029-2794	Floodplain	16-Sep-14	54	460616	6202391		2.970	5.94	New Well/MR
7029-2795	Floodplain	18-Sep-14	54	457929	6201189		2.660	5.10	New Well/MR
7029-2796	Floodplain	23-Sep-14	54	466519	6202617	0.355	0.755	3.30	New Well/MR
7029-2797	Highland	23-Sep-14	54	469869	6202453	0.650	3.760	10.11	New Well
7029-2798	Highland	09-Oct-14	54	461323	6199858	0=:-			New Well
7029-2799	Floodplain	27-Oct-14	54	461793	6198188	0.740	4.300	5.28	New Well
7029-2800	Floodplain	27-Oct-14	54	462116	6198065	0.570	2.495	4.73	New Well/MR
7029-2801	Floodplain	27-Oct-14	54	462108	6198077	0.830	2.565	4.44	New Well/MR
7029-2802	Floodplain	27-Oct-14	54	462106	6198078	0.830	2.640	5.00	New Well/MR
7029-2803	Floodplain	27-Oct-14	54	462041	6197765	0.730	3.765	3.96	New Well/MR
7029-2804	Floodplain	27-Oct-14	54	462020	6197561	0.970	3.290	3.94	New Well/MR
7029-2805	Floodplain	28-Oct-14	54	461847	6197400	0.330	3.780	11.83	New Well

Unit No	Floodplain/ Highland	Audit Date	Zone	Easting	Northing	Ref. Point from NS (m)	DTW (m)	Depth (m)	Comment
7029-2806	Floodplain	29-Oct-14	54	461244	6198102	0.730	3.935	4.19	New Well/MR
7029-2807	Floodplain	28-Jan-15	54	459563	6202111	0.75	4.31	5.46	New Well
7029-2808	Floodplain	07-Mar-15	54	457443	6196927	0.76	4.085	5.36	New Well
7029-2809	Floodplain	05-May-15	54	457874	6202635	0.69	3.37	5.08	New Well
7029-2810	Floodplain	30-Mar-15	54	462211	6198055	0.650	1.130	6.21	New Well/Access
7029-2811	Floodplain	30-Mar-15	54	462112	6198113	1.020	1.100	5.66	New Well/Access
7029-2812	Floodplain	30-Mar-15	54	461973	6198172				New Well/Access
7029-2813	Floodplain	30-Mar-15	54	461831	6198250	1.200	1.780	2.30	New Well/Access
7029-2814	Floodplain	30-Mar-15	54	461717	6198315	0.73	1.49	5.28	New Well/Access
7029-2883	Highland	08-Oct-14	54	461930	6201175	0.255	Dry	1.69	New Well
7029-2884	Highland	08-Oct-14	54	462126	6201301	0.970	Dry	3.90	New Well/MR
7029-2885	Highland	08-Oct-14	54	462158	6201347	0.925	Dry	2.73	New Well/MR
7029-2886	Highland	08-Oct-14	54	462058	6201320	0.920	Dry	3.73	New Well/MR

Potential access issues (Access)

Blocked (BLK)

Depth to water (DTW)

Potential maintenance required (MR)

Natural surface (NS)

Not located (NL)

