

Table 1 provides a summary of the EPA monitoring points for the Rangers Valley Feedlot. This table has been reproduced from Section 2 of Environmental Protection Licence No. 3864. Click on the EPA number to view the monitoring results collected (if available).

**Table 1: Summary of EPA Monitoring Points**

<b>EPA No.</b>	<b>Type of monitoring point</b>	<b>Type of discharge point</b>	<b>Description of location</b>
EPA Monitoring Point 2	Surface water quality monitoring		Surface water monitoring point (S2) at Cam Creek causeway on Deepwater Road at "Nant Park" labelled as EPA Point 2 on map titled Environmental Monitoring Points - Location of Surface Water Monitoring points dated 1 <sup>st</sup> May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 3	Surface water quality monitoring		Surface water monitoring point (S3) at grassed waterway in Old 2 paddock labelled as EPA Point 3 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 4	Surface water quality monitoring		Surface water monitoring point (S4) at Cam Creek bridge on Rangers Valley Road labelled as EPA Point 4 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 5	Surface water quality monitoring		Surface water monitoring point (S5) at Severn River Bridge on the Yarraford Road labelled as EPA Point 5 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 6	Surface water quality monitoring		Surface water monitoring point (S6) at Severn River Bridge on the Emmaville Road labelled as EPA Point 6 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 7	Surface water quality monitoring		Surface water monitoring point (S7) at Beardy Waters causeway on the Haul Rd (2 <sup>nd</sup> causeway) -

			upstream of confluence with Severn River, labelled as EPA Point 7 on map titled Env MP -Location of Surface Water MP dated 1st May 2007. (Fig 1).
EPA Monitoring Point 8	Surface water quality monitoring		Surface water monitoring point (S8) at Severn River causeway on the Haul Road (first causeway) labelled as EPA Point 8 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
10	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal pond and spillway servicing Pivot 3A and 3B including pump labelled as EPA Point 10 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 250832A1/10.
EPA Monitoring Point 11	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Final effluent holding pond (on eastern side of the feedlot, known as E2) including spillway and irrigation pumps labelled as EPA Point 11 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2. 250832A1/10.
13	Wet weather discharge. Discharge quality monitoring.	Wet weather discharge. Discharge quality monitoring	Spillway for effluent holding pond known as W2 (on western side of feedlot) labelled as EPA Point 13 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 250832A1/10.
14	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal pond and spillway servicing Pivot 1 and located in the paddock Bottom Swamp including pump labelled as EPA Point 14 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. see Fig 2 250832A1/10.
EPA Monitoring Point 20	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring.	Effluent holding pond (on western side of feedlot, known as W4) including spillway and irrigation pump labelled as EPA Point 20 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. see Fig 2 250832A1/10.

	Discharge to utilisation area.	Discharge to utilisation area.	
22	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal pond and spillway servicing Rye East and Rye West known as W5 including pump labelled as EPA Point 22 on map titled Env MPs-Location of Effluent MP dated 1 <sup>st</sup> May 2007. see Fig 2 250832A1/10.
EPA Monitoring Point 24	Manure quality monitoring. Mass monitoring.		Manure stockpile and composting area containing screened and unscreened manure and labelled as EPA Point 24 on map titled Env MPs-Location of Effluent MP dated 1 <sup>st</sup> May 2007. see Fig 2 250832A1/10.
EPA Monitoring Point 26	Discharge quality monitoring.		Dam located in the bottom corner of "Washpool Road" (13) paddock labelled as EPA Point 26 on map titled Env MPs-Location of Effluent MP dated 1 <sup>st</sup> May 2007. see Fig 2 250832A1/10.
EPA Monitoring Point 27	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Pivot 1 labelled as EPA Point 27 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 28	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Pivot 3A labelled as EPA Point 28 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 29	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Pivot 3B labelled as EPA Point 29 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 30	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Rye East labelled as EPA Point 30 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 31	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Rye West labelled as EPA Point 31 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 34	Groundwater quality monitoring.		Groundwater monitoring bore (34 located in corner paddock) labelled as EPA Point 34 on map titled Env MP-Location of piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3

EPA Monitoring Point 35	Groundwater quality monitoring.		Groundwater monitoring bore (35 located in the laneway north of Rye East paddock) labelled as EPA Point 35 on map titled Env MP-Location of piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 36	Groundwater quality monitoring.		Groundwater monitoring bore (36 located between ponds W3 and W4) labelled as EPA Point 36 on map titled Env MP-Location of piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 38	Groundwater quality monitoring.		Groundwater monitoring bore (38 located on eastern point of effluent pond E2) labelled as EPA Point 38 on map titled Env MP-Location of piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 40	Groundwater quality monitoring.		Groundwater monitoring bore (40 located on adjoining fence line between Pivot 3A/3B) on map titled Env MP-Location of piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 41	Groundwater quality monitoring.		Groundwater monitoring bore (41 below EPA point 14 in paddock Bottom Swamp) labelled as EPA Point 41 on map titled Env MP-Location of piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 42	Groundwater quality monitoring.		Groundwater monitoring bore (42 located in laneway between Pivot 1 and effluent pond E2) labelled as EPA Point 42 on map titled Env MP-Location of piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 43	Soil quality monitoring. Mass monitoring		Utilisation area identified as the 'solid utilisation areas as identified on drawing No 19045-05 as quoted in the consent conditions' on map titled "Map 1 - Rangers Valley Cattle Station" submitted with a letter to the EPA on 25 October 2006.
EPA Monitoring Point 44	Groundwater quality monitoring.		Groundwater monitoring bore (44 located in the north eastern grassed area of the paddock known as Old 2) labelled as EPA point 44 on map titled Env MP-Location of Peizometer MP dated 1 <sup>st</sup> May 2007. see Fig 3. 250832A1/10.
EPA Monitoring Point 45	Groundwater quality monitoring.		Groundwater monitoring bore (45 located on eastern boundary of the paddock known as "Donnelly's Elect" labelled as EPA point 45 on map Titled Env MP

			location of Piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 46	Groundwater quality monitoring.		Groundwater monitoring bore (46 located in paddock known as "Oaks Road") labelled as EPA point 46 on map Titled Env MP-location of Piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 47	Groundwater quality monitoring.		Groundwater monitoring bore (47 located in paddock known as "Horse") labelled as EPA point 47 on map Titled Env MP-location of Piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
48	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal Pond One and spillway servicing Pivot 2c located in the paddock known as Spillway including pump labelled as EPA Point 48 on map Titled Environmental Monitoring Points-location of Effluent MP dated 1 <sup>st</sup> May 2007. see Fig 2
49	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal Pond Two and spillway servicing Pivot 2B and located in paddock known as Pivot 2B including pump labelled as EPA Point 49 on map Titled Env MP-location of Effluent MP dated 1 <sup>st</sup> May 2007. see Fig 2
50	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal Pond 3 and spillway servicing Pivot 2B and 2C located in the paddock known as "wally's" including pump labelled as EPA Point 50 on map Titled Env MP-location of Effluent MP dated 1 <sup>st</sup> May 2007. Fig 2
EPA Monitoring Point 51	Soil quality monitoring. Mass monitoring		Effluent utilisation area known as Pivot 2B labelled as EPA Point 51 on map titled "Rangers Valley Cattle Station" Site Plan date 30.07.03
EPA Monitoring Point 52	Soil quality monitoring. Mass monitoring		Effluent utilisation known as Pivot 2C labelled as EPA Point 52 on map titled "Rangers Valley Cattle Station Site Plan date 30.07.03

EPA Monitoring Point 53	Groundwater quality monitoring.		Groundwater monitoring bore (53 located west of Terminal Pond 1 in the paddock known as spillway) labelled as EPA point 53 on map Titled Env MP-location of Piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 54	Groundwater quality monitoring.		Groundwater monitoring bore (54 located north of Terminal Pond Two in the paddock known as Pivot 2b) labelled as EPA point 54 on map Titled Env MP location of Piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 55	Groundwater quality monitoring.		Groundwater monitoring bore (55 located south of Terminal Pond Three in the paddock known as Wallys) labelled as EPA point 55 on map Titled Env MP-location of Piezometer MP dated 1 <sup>st</sup> May 2007. see Fig 3
EPA Monitoring Point 56	Groundwater quality monitoring.		Groundwater monitoring bore (56 located south of the northern holding pond N1 in the paddock known as Irrigation 1) labelled as EPA point 56 on map titled Env MP dated 1 <sup>st</sup> May 2007. see Fig 3. 250832A1/10
EPA Monitoring Point 57	Effluent Quality and Volume monitoring. Discharge to utilisation area.		Effluent holding pond (known as N1) irrigation pump labelled as EPA point 57 on map titled Env MP-Location of Effluent MP dated 1 <sup>st</sup> May 2007. see Fig 2. 250832A1/10.

## EPA MONITORING POINT 2

Surface water monitoring point (S2) at Cam Creek causeway on Deepwater Road at "Nant Park" labelled as EPA Point 2 on map titled Environmental Monitoring Points - Location of Surface Water Monitoring points dated 1<sup>st</sup> May 2007. See Fig 1 - 250832A1/10.

### SURFACE WATER ANALYSIS RESULTS (EPA POINT 2)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Chloride	mg/L	56	86	66	59
Nitrate	mg/L	<0.005	<0.005	<0.005	<0.005
Total Kjeldahl Nitrogen	mg/L	4.2	0.8	2.0	3.7
pH	-	7.8	8.0	8.0	8.4
Conductivity	µS/cm	720	830	770	510
SAR	-	2.4	3.2	2.2	2.2
Phosphorus (Reactive)	mg/L	0.15	0.035	0.03	0.25
Nitrogen (Total)	mg/L	4.2	0.8	2.0	3.7
Suspended Solids	mg/L	53	10	15	51
Calcium	mg/L	29	36	41	22
Potassium	mg/L	8.6	5.8	7.1	15
Magnesium	mg/L	22	24	28	14
Sodium	mg/L	70	100	76	55
Phosphorus (Total)	mg/L	0.8	0.08	0.1	0.9
Nitrogen (Ammonia)	mg/L	<0.005	<0.005	0.028	0.020

# Collected during pond overflow event.

### EPA MONITORING POINT 3

Surface water monitoring point (S3) at grassed waterway in Old 2 paddock labelled as EPA Point 3 on map titled Environmental Monitoring Points  
 -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

#### SURFACE WATER ANALYSIS RESULTS (EPA POINT 3)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020		
Published		2-Apr-2020	26-Jun-2020		
Pollutant	Unit of measure		Result	Result	Result
Chloride	mg/L				
Nitrate	mg/L				
Total Kjeldahl Nitrogen	mg/L				
pH	-				
Conductivity	µS/cm				
SAR	-				
Phosphorus (Reactive)	mg/L				
Nitrogen (Total)	mg/L	DRY	DRY	DRY	
Suspended Solids	mg/L				
Calcium	mg/L				
Potassium	mg/L				
Magnesium	mg/L				
Sodium	mg/L				
Phosphorus (Total)	mg/L				
Nitrogen (Ammonia)	mg/L				

# Collected during pond overflow event.



## EPA MONITORING POINT 4

Surface water monitoring point (S4) at Cam Creek bridge on Rangers Valley Road labelled as EPA Point 4 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

### SURFACE WATER ANALYSIS RESULTS (EPA POINT 4)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Chloride	mg/L		110	120	17
Nitrate	mg/L		<0.005	0.078	<0.005
Total Kjeldahl Nitrogen	mg/L		0.8	2.7	1
pH	-		7.7	7.9	7.2
Conductivity	µS/cm		800	990	170
SAR	-		2.3	2.5	1.4
Phosphorus (Reactive)	mg/L		1.4	0.74	0.11
Nitrogen (Total)	mg/L	DRY	1.6	2.8	1
Suspended Solids	mg/L		8	<5	11
Calcium	mg/L		37	48	6.4
Potassium	mg/L		27	19	5.1
Magnesium	mg/L		22	32	4.2
Sodium	mg/L		71	92	19
Phosphorus (Total)	mg/L		1.5	0.8	0.2
Nitrogen (Ammonia)	mg/L		<0.005	0.31	0.063

# Collected during pond overflow event.

## EPA MONITORING POINT 5

Surface water monitoring point (S5) at Severn River Bridge on the Yarraford Road labelled as EPA Point 5 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

### SURFACE WATER ANALYSIS RESULTS (EPA POINT 5)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Chloride	mg/L	13	15	16	10
Nitrate	mg/L	<0.005	<0.005	0.02	0.24
Total Kjeldahl Nitrogen	mg/L	1.3	0.5	1.1	1.1
pH	-	7.4	7.7	7.6	7.4
Conductivity	µS/cm	140	120	150	150
SAR	-	1.3	1.3	1.1	0.60
Phosphorus (Reactive)	mg/L	0.12	0.038	0.04	0.24
Nitrogen (Total)	mg/L	1.4	0.5	1.1	1.3
Suspended Solids	mg/L	5	6	6	10
Calcium	mg/L	3.9	4.0	6.5	8.7
Potassium	mg/L	3.9	2.1	2.6	5.1
Magnesium	mg/L	2.6	2.4	4.2	6.9
Sodium	mg/L	14	13	15	9.8
Phosphorus (Total)	mg/L	0.2	0.1	0.09	0.3
Nitrogen (Ammonia)	mg/L	<0.005	0.007	0.019	0.17

# Collected during pond overflow event.

## EPA MONITORING POINT 6

Surface water monitoring point (S6) at Severn River Bridge on the Emmaville Road labelled as EPA Point 6 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

### SURFACE WATER ANALYSIS RESULTS (EPA POINT 6)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Chloride	mg/L	13	18	12	8
Nitrate	mg/L	<0.005	<0.005	<0.005	0.15
Total Kjeldahl Nitrogen	mg/L	1.3	0.7	1.2	1.1
pH	-	8.0	8.2	8.2	7.6
Conductivity	µS/cm	280	370	250	150
SAR	-	0.74	0.98	0.60	0.45
Phosphorus (Reactive)	mg/L	0.23	0.031	0.04	0.36
Nitrogen (Total)	mg/L	1.3	0.7	1.2	1.2
Suspended Solids	mg/L	40	6	<5	<5
Calcium	mg/L	13	21	16	8.8
Potassium	mg/L	4.8	3.2	3.1	5.9
Magnesium	mg/L	11	17	13	7.1
Sodium	mg/L	15	25	13	7.4
Phosphorus (Total)	mg/L	0.4	0.1	0.1	0.4
Nitrogen (Ammonia)	mg/L	0.007	<0.005	1.2	0.054

# Collected during pond overflow event.

## EPA MONITORING POINT 7

Surface water monitoring point (S7) at Beardy Waters causeway on the Haul Rd (2<sup>nd</sup> causeway) - upstream of confluence with Severn River, labelled as EPA Point 7 on map titled Env MP -Location of Surface Water MP dated 1st May 2007. See Fig 1.

### SURFACE WATER ANALYSIS RESULTS (EPA POINT 7)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Chloride	mg/L	9	8	12	8
Nitrate	mg/L	0.05	0.084	<0.005	0.13
Total Kjeldahl Nitrogen	mg/L	1.1	0.7	1.1	1.1
pH	-	8.1	8.1	8.3	7.5
Conductivity	µS/cm	270	220	310	150
SAR	-	0.82	220	0.48	0.52
Phosphorus (Reactive)	mg/L	0.34	0.068	0.05	0.35
Nitrogen (Total)	mg/L	1.2	0.7	1.1	1.3
Suspended Solids	mg/L	8	8	8	6
Calcium	mg/L	13	12	21	8.5
Potassium	mg/L	4.5	2.6	3.3	5.8
Magnesium	mg/L	11	10	18	6.7
Sodium	mg/L	12	9.7	13	8.4
Phosphorus (Total)	mg/L	0.4	0.1	0.1	0.4
Nitrogen (Ammonia)	mg/L	0.012	<0.005	0.016	0.11

# Collected during pond overflow event.

## EPA MONITORING POINT 8

Surface water monitoring point (S8) at Severn River causeway on the Haul Road (first causeway) labelled as EPA Point 8 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

### SURFACE WATER ANALYSIS RESULTS (EPA POINT 8)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Chloride	mg/L	12	10	13	320
Nitrate	mg/L	0.062	0.059	<0.005	<0.005
Total Kjeldahl Nitrogen	mg/L	1.4	0.7	12	56
pH	-	7.9	8.0	8.2	8.0
Conductivity	µS/cm	210	220	240	2500
SAR	-	0.82	0.64	0.64	2.3
Phosphorus (Reactive)	mg/L	0.23	0.098	0.03	12
Nitrogen (Total)	mg/L	1.4	0.7	12	56
Suspended Solids	mg/L	11	8	9	250
Calcium	mg/L	9.0	12	15	75
Potassium	mg/L	4.4	2.7	3.1	330
Magnesium	mg/L	7.5	9.4	11	59
Sodium	mg/L	14	12	14	110
Phosphorus (Total)	mg/L	0.3	0.1	0.1	18
Nitrogen (Ammonia)	mg/L	0.024	0.047	0.017	25

# Collected during pond overflow event.

## EPA MONITORING POINT 11

Final effluent holding pond (on eastern side of the feedlot, known as E2) including spillway and irrigation pumps labelled as EPA Point 11 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 - 250832A1/10.

### EFFLUENT ANALYSIS RESULTS (EPA POINT 11)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (Ammonia)	mg/L	62	13	16	0.048
Chloride	mg/L	460	260	290	250
Nitrate	mg/L	0.01	<0.005	<0.005	<0.005
Phosphorus (Reactive)	mg/L	14	19	15	4.1
pH	-	7.7	7.6	7.4	7.8
Conductivity	µS/cm	3600	2200	2500	1400
SAR	-	3.2	2.0	1.8	3.4
Phosphorus (Total)	mg/L	28	20	32	6.2
Nitrogen (Total)	mg/L	70	24	76	5.6
TKN	mg/L	70	24	76	5.6
Suspended Solids	mg/L	320	220	660	120
Calcium	mg/L	48	90	97	37
Potassium	mg/L	560	250	300	150
Magnesium	mg/L	57	51	65	21
Sodium	mg/L	140	97	1.8	110

# Collected during pond overflow event.

## EPA MONITORING POINT 20

Effluent holding pond (on western side of feedlot, known as W4) including spillway and irrigation pump labelled as EPA Point 20 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 - 250832A1/10.

### EFFLUENT ANALYSIS RESULTS (EPA POINT 20)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (Ammonia)	mg/L	0.77	1.8	0.15	64
Chloride	mg/L	200	170	160	650
Nitrate	mg/L	0.078	<0.005	0.01	<0.05
Phosphorus (Reactive)	mg/L	5.7	9.4	11	22
pH	-	7.8	7.6	8.0	8.0
Conductivity	µS/cm	1100	1200	1100	3800
SAR	-	2.5	2.4	2.2	4.0
Phosphorus (Total)	mg/L	6.3	9.1	11	54
Nitrogen (Total)	mg/L	5.1	5.6	57	120
TKN	mg/L	5.0	5.6	57	120
Suspended Solids	mg/L	33	12	10	430
Calcium	mg/L	20	35	39	70
Potassium	mg/L	160	130	96	500
Magnesium	mg/L	15	18	18	65
Sodium	mg/L	60	70	68	200

# Collected during pond overflow event.

## EPA MONITORING POINT 24

Manure stockpile and composting area containing screened and unscreened manure and labelled as EPA Point 24 on map titled Env MPs- Location of Effluent MP dated 1<sup>st</sup> May 2007. See Fig 2 250832A1/10.

### MANURE ANALYSIS RESULTS (EPA POINT 24)

<b>Sampled</b>		<b>16-Mar-20</b>	<b>16-Mar-20</b>	<b>15-Sept-2020</b>	<b>15-Sept-2020</b>
<b>Obtained</b>		<b>25-Mar-20</b>	<b>25-Mar-20</b>	<b>16-Sept-2020</b>	<b>16-Sept-2020</b>
<b>Published</b>		<b>6-Apr-20</b>	<b>6-Apr-20</b>	<b>25-Sept-2020</b>	<b>25-Sept-2020</b>
<b>Pollutant</b>	<b>Unit of measure</b>	<b>Unscreened Result</b>	<b>Screened Result</b>	<b>Unscreened Result</b>	<b>Screened Result</b>
Moisture	%	26	35	33.7	29.8
Nitrate	mg/kg	0.5	<2.5	594	682
Nitrogen (Total)	mg/kg	21000	14000	1.69	1.98
pH	-	7.2	7.4	8.07	7.89
Calcium	mg/kg	25000	15000	19000	20300
Phosphorus (Total)	mg/kg	8500	4800	7400	7300
Organic Carbon	%	32	38	21.8	15.1
Potassium	mg/kg	24000	17000	19400	24800
Magnesium	mg/kg	7800	4600	6000	6900
Sodium	mg/kg	5600	3900	3700	4600
Conductivity	µS/cm	12000	9700	9530	12000
SAR	-	31	21	36.8	40.3
Sulphur	mg/kg	5100	4000	4300	5600
Chloride	mg/kg	12000	10000	10200	12200
Zinc	mg/kg	190	140	194	235



## EPA MONITORING POINT 26

Dam located in the bottom corner of "Washpool Road" (13) paddock labelled as EPA Point 26 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 - 250832A1/10.

### EFFLUENT ANALYSIS RESULTS (EPA POINT 26)

Sampled		3-Sept-18	25-Sept-19	16-Mar-20	15-Sept-2020
Obtained		13-Sept-18	4-Oct-19	25-Mar-20	24-Sept-2020
Published		24-Sept-18	28-Oct-19	6-Apr-20	17-Oct-2020
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (Ammonia)	mg/L	0.39		0.052	0.91
Chloride	mg/L	140		14	26
Nitrate	mg/L	0.03		4.0	3.8
Phosphorus (Reactive)	mg/L	0.73		0.73	1.6
pH	-	8.4		7.8	7.4
Conductivity	µS/cm	810		230	310
SAR	-	2.6	DRY	230	1.8
Phosphorus (Total)	mg/L	3.6		1.3	2.4
Nitrogen (Total)	mg/L	11		4.5	8.5
TKN	mg/L	11		0.5	4.3
Suspended Solids	mg/L	460		1500	95
Calcium	mg/L	20		1.6	7.4
Potassium	mg/L	92		9.2	19
Magnesium	mg/L	15		1.4	5.1
Sodium	mg/L	64		33	27

# Collected during pond overflow event.

## EPA MONITORING POINT 27

Effluent utilisation area known as Pivot 1 labelled as EPA Point 27 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

### SOIL ANALYSIS RESULTS (EPA POINT 27 - PIVOT 1)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2019 - 2020	
			0-30cm	60-90cm
pH	-	4A1	7.07	7.09
Nitrogen (Total)	mg/kg	Dumas (Leco)	864	154
Nitrogen (Nitrate)	mg/kg	7B1	28.4	13.5
Phosphorous (Colwell)	mg/kg	9B1	176	13.0
Organic Carbon	%	6A1	0.80	0.10
Conductivity	µS/cm	3A1	0.13	0.12
Chloride	mg/kg	5A1	43.5	30.3
Cation Exchange Capacity	cmol(+)/kg	15D3	8.88	9.59
Exchangeable Sodium	cmol(+)/kg	15D3	0.59	1.26
Exchangeable Potassium	cmol(+)/kg	15D3	0.66	1.28
Exchangeable Calcium	cmol(+)/kg	15D3	5.51	3.85
Exchangeable Magnesium	cmol(+)/kg	15D3	2.11	3.20
Exchangeable Sodium Percentage	%	15D3	6.61	13.1
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	374	356
Aggregate Stability (Emerson)	EAT	-	3b	2

## EPA MONITORING POINT 28

Effluent utilisation area known as Pivot 3A labelled as EPA Point 28 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

### SOIL ANALYSIS RESULTS (EPA POINT 28 - PIVOT 3A)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2019 - 2020	
			0-30cm	60-90cm
pH	-	4A1	7.28	6.88
Nitrogen (Total)	mg/kg	Dumas (Leco)	803	148
Nitrogen (Nitrate)	mg/kg	7B1	18.4	17
Phosphorous (Colwell)	mg/kg	9B1	83.3	7.45
Organic Carbon	%	6A1	0.79	0.14
Conductivity	µS/cm	3A1	0.21	0.22
Chloride	mg/kg	5A1	106	107
Cation Exchange Capacity	cmol(+)/kg	15D3	10	9.82
Exchangeable Sodium	cmol(+)/kg	15D3	0.97	1.59
Exchangeable Potassium	cmol(+)/kg	15D3	2.03	0.66
Exchangeable Calcium	cmol(+)/kg	15D3	3.94	5.49
Exchangeable Magnesium	cmol(+)/kg	15D3	3.08	2.07
Exchangeable Sodium Percentage	%	15D3	9.71	16.2
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	312	533
Aggregate Stability (Emerson)	EAT	-	3b	5

## EPA MONITORING POINT 29

Effluent utilisation area known as Pivot 3B labelled as EPA Point 29 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

### SOIL ANALYSIS RESULTS (EPA POINT 29 - PIVOT 3B)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2019 - 2020	
			0-30cm	60-90cm
pH	-	4A1	6.69	6.82
Nitrogen (Total)	mg/kg	Dumas (Leco)	700	394
Nitrogen (Nitrate)	mg/kg	7B1	15.5	8.39
Phosphorous (Colwell)	mg/kg	9B1	35.8	4.22
Organic Carbon	%	6A1	0.65	0.41
Conductivity	µS/cm	3A1	0.12	0.15
Chloride	mg/kg	5A1	53.9	69.4
Cation Exchange Capacity	cmol(+)/kg	15D3	7.11	18
Exchangeable Sodium	cmol(+)/kg	15D3	0.50	1.16
Exchangeable Potassium	cmol(+)/kg	15D3	1.42	1.71
Exchangeable Calcium	cmol(+)/kg	15D3	3.48	9.54
Exchangeable Magnesium	cmol(+)/kg	15D3	1.70	5.58
Exchangeable Sodium Percentage	%	15D3	7.03	6.43
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	311	701
Aggregate Stability (Emerson)	EAT	-	3b	5

## EPA MONITORING POINT 30

Effluent utilisation area known as Rye East labelled as EPA Point 30 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

### SOIL ANALYSIS RESULTS (EPA POINT 30 - RYE EAST)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2019 - 2020	
			0-30cm	60-90cm
pH	-	4A1	6.78	7.55
Nitrogen (Total)	mg/kg	Dumas (Leco)	843	393
Nitrogen (Nitrate)	mg/kg	7B1	3.09	2.71
Phosphorous (Colwell)	mg/kg	9B1	67.7	1.90
Organic Carbon	%	6A1	1.13	0.69
Conductivity	µS/cm	3A1	0.11	0.24
Chloride	mg/kg	5A1	28.8	190
Cation Exchange Capacity	cmol(+)/kg	15D3	9.73	24.1
Exchangeable Sodium	cmol(+)/kg	15D3	0.50	1.50
Exchangeable Potassium	cmol(+)/kg	15D3	1.83	0.37
Exchangeable Calcium	cmol(+)/kg	15D3	5.25	14.6
Exchangeable Magnesium	cmol(+)/kg	15D3	2.14	7.63
Exchangeable Sodium Percentage	%	15D3	5.18	6.24
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	324	611
Aggregate Stability (Emerson)	EAT	-	3b	5

## EPA MONITORING POINT 31

Effluent utilisation area known as Rye West labelled as EPA Point 31 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

### SOIL ANALYSIS RESULTS (EPA POINT 31 - RYE WEST)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2019 - 2020	
			0-30cm	60-90cm
pH	-	4A1	6.30	6.73
Nitrogen (Total)	mg/kg	Dumas (Leco)	2.62	1.59
Nitrogen (Nitrate)	mg/kg	7B1	2.62	1.59
Phosphorous (Colwell)	mg/kg	9B1	115	14.2
Organic Carbon	%	6A1	0.76	0.22
Conductivity	µS/cm	3A1	0.07	0.15
Chloride	mg/kg	5A1	15.9	83.1
Cation Exchange Capacity	cmol(+)/kg	15D3	5.89	19.3
Exchangeable Sodium	cmol(+)/kg	15D3	0.16	0.95
Exchangeable Potassium	cmol(+)/kg	15D3	1.20	0.44
Exchangeable Calcium	cmol(+)/kg	15D3	3.00	13.0
Exchangeable Magnesium	cmol(+)/kg	15D3	1.53	4.95
Exchangeable Sodium Percentage	%	15D3	2.74	4.91
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	315	652
Aggregate Stability (Emerson)	EAT	-	3b	5

## EPA MONITORING POINT 51

### SOIL ANALYSIS RESULTS (EPA POINT 51 - PIVOT 2B)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2019 - 2020	
			0-30cm	60-90cm
pH	-	4A1	5.75	6.80
Nitrogen (Total)	mg/kg	Dumas (Leco)	860	298
Nitrogen (Nitrate)	mg/kg	7B1	13	5.05
Phosphorous (Colwell)	mg/kg	9B1	90.5	11.5
Organic Carbon	%	6A1	0.58	0.36
Conductivity	µS/cm	3A1	0.14	0.16
Chloride	mg/kg	5A1	43.6	132
Cation Exchange Capacity	cmol(+)/kg	15D3	7.69	14.5
Exchangeable Sodium	cmol(+)/kg	15D3	0.54	0.73
Exchangeable Potassium	cmol(+)/kg	15D3	2.25	0.27
Exchangeable Calcium	cmol(+)/kg	15D3	3.02	9.94
Exchangeable Magnesium	cmol(+)/kg	15D3	1.87	3.57
Exchangeable Sodium Percentage	%	15D3	7.07	5.03
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	372	513
Aggregate Stability (Emerson)	EAT	-	3b	5

## EPA MONITORING POINT 52

### SOIL ANALYSIS RESULTS (EPA POINT 52 - PIVOT 2C)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2019 - 2020	
			0-30cm	60-90cm
pH	-	4A1	6.22	6.57
Nitrogen (Total)	mg/kg	Dumas (Leco)	1112	850
Nitrogen (Nitrate)	mg/kg	7B1	7.80	14.8
Phosphorous (Colwell)	mg/kg	9B1	202	101
Organic Carbon	%	6A1	1.08	0.73
Conductivity	μS/cm	3A1	0.13	0.14
Chloride	mg/kg	5A1	22.4	80.2
Cation Exchange Capacity	cmol(+)/kg	15D3	10.8	12
Exchangeable Sodium	cmol(+)/kg	15D3	0.44	0.66
Exchangeable Potassium	cmol(+)/kg	15D3	2.59	1.09
Exchangeable Calcium	cmol(+)/kg	15D3	4.97	6.77
Exchangeable Magnesium	cmol(+)/kg	15D3	2.78	3.50
Exchangeable Sodium Percentage	%	15D3	4.11	5.46
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	447	431
Aggregate Stability (Emerson)	EAT	-	3b	3b



## EPA MONITORING POINT 34

Groundwater monitoring bore (34 located in corner paddock) labelled as EPA Point 34 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 34)

<b>Sampled</b>		<b>10-April-19</b>	<b>9-Oct-19</b>	<b>15-May-20</b>	<b>21-Oct-20</b>
<b>Obtained</b>		<b>23-April-19</b>	<b>18-Oct-19</b>	<b>27-May-20</b>	<b>29-Oct-20</b>
<b>Published</b>		<b>16-May-19</b>	<b>28-Oct-19</b>	<b>19-June-20</b>	<b>11-Nov-20</b>
<b>Pollutant</b>	<b>Unit of measure</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>
Nitrogen (ammonia)	mg/L	<0.005	<0.005	<0.005	0.008
Nitrogen (nitrate)	mg/L	35	30	60	48
Phosphorus (Reactive)	mg/L	0.094	0.085	0.12	0.12
pH	-	7.4	7.4	7.7	7.8
Conductivity	µS/cm	1300	1300	1600	1600
Phosphorus (total)	mg/L	0.1	0.1	0.2	0.4
Nitrogen (total)	mg/L	42	42	89	60
Suspended Solids	mg/L	42	110	75	140

## EPA MONITORING POINT 35

Groundwater monitoring bore (35 located in the laneway north of Rye East paddock) labelled as EPA Point 35 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 35)

Sampled		10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained					
Published					
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L				
Nitrogen (nitrate)	mg/L				
Phosphorus (Reactive)	mg/L				
pH	-	DRY	DRY	DRY	DRY
Conductivity	µS/cm				
Phosphorus (total)	mg/L				
Nitrogen (total)	mg/L				
Suspended Solids	mg/L				

## EPA MONITORING POINT 36

Groundwater monitoring bore (36 located between ponds W3 and W4) labelled as EPA Point 36 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 36)

Sampled		10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained		23-April-19	18-Oct-19	27-May-20	29-Oct-20
Published		16-May-19	28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.005	<0.005	<0.005	0.006
Nitrogen (nitrate)	mg/L	4.5	4.4	4.7	3.7
Phosphorus (Reactive)	mg/L	0.15	0.098	0.12	0.10
pH	-	7.7	7.6	7.6	7.7
Conductivity	µS/cm	5100	4700	4900	4600
Phosphorus (total)	mg/L	0.4	0.08	0.2	0.2
Nitrogen (total)	mg/L	4.7	4.4	6.5	4.7
Suspended Solids	mg/L	520	110	26	46

## EPA MONITORING POINT 38

Groundwater monitoring bore (located on eastern point of effluent pond E2) labelled as EPA Point 38 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 38)

Sampled		10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained		23-April-19	18-Oct-19	27-May-20	29-Oct-20
Published		16-May-19	28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.005	0.021	0.022	0.012
Nitrogen (nitrate)	mg/L	16	12	14	12
Phosphorus (Reactive)	mg/L	0.15	0.11	0.093	0.080
pH	-	6.8	6.8	6.8	6.9
Conductivity	µS/cm	1600	1300	1300	1200
Phosphorus (total)	mg/L	0.1	0.06	0.2	0.1
Nitrogen (total)	mg/L	16	13	19	15
Suspended Solids	mg/L	44	40	24	40

## EPA MONITORING POINT 40

Groundwater monitoring bore (40 located on adjoining fence line between Pivot 3A/3B) on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 40)

Sampled		10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained		23-April-19	18-Oct-19	27-May-20	29-Oct-20
Published		16-May-19	28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.005	0.011	0.009	0.007
Nitrogen (nitrate)	mg/L	16	18	15	20
Phosphorus (Reactive)	mg/L	0.060	0.062	0.047	0.04
pH	-	7.3	7.2	7.1	7.2
Conductivity	µS/cm	1600	1300	1900	1500
Phosphorus (total)	mg/L	0.06	<0.05	0.1	0.07
Nitrogen (total)	mg/L	16	20	20	24
Suspended Solids	mg/L	<5	20	22	16

## EPA MONITORING POINT 41

Groundwater monitoring bore (41 below EPA point 14 in paddock Bottom Swamp) labelled as EPA Point 41 on map titled Env MP Location of piezometer MP dated 1st May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 41)

Sampled		10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained			18-Oct-19	27-May-20	29-Oct-20
Published			28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L		1.4	0.16	0.15
Nitrogen (nitrate)	mg/L		1.5	10	3.3
Phosphorus (Reactive)	mg/L		<0.005	0.027	0.03
pH	-	<b>DRY</b>	7.1	7.3	7.2
Conductivity	µS/cm		2900	2600	2800
Phosphorus (total)	mg/L		0.2	0.3	0.2
Nitrogen (total)	mg/L		3.0	14	4.2
Suspended Solids	mg/L		120	720	350

## EPA MONITORING POINT 42

Groundwater monitoring bore (42 located in laneway between Pivot 1 and effluent pond E2) labelled as EPA Point 42 on map titled Env MP- Location of piezometer MP dated 1<sup>st</sup> May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 42)

Sampled		10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained		23-April-19	18-Oct-19	27-May-20	29-Oct-20
Published		16-May-19	28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	0.022	0.034	0.017	0.054
Nitrogen (nitrate)	mg/L	2.2	2.0	3.9	4.9
Phosphorus (Reactive)	mg/L	0.024	0.023	0.018	0.02
pH	-	6.8	6.7	6.8	6.7
Conductivity	µS/cm	2600	2600	2300	2600
Phosphorus (total)	mg/L	<0.05	0.06	0.09	0.2
Nitrogen (total)	mg/L	2.6	2.6	5.8	5.9
Suspended Solids	mg/L	260	120	46	400

## EPA MONITORING POINT 43

The following tables are a summary of the analysis results of the soil quality in the utilisation areas identified as the 'solid utilisation areas as identified on drawing No 19045-05 as quoted in the consent conditions' on map titled "Map 1 - Rangers Valley Cattle Station" submitted with a letter to the EPA on 25 October 2006 (EPA Point 43).

Monitoring has been undertaken at Special Frequency 7, in accordance with the frequency required in accordance with Section M2 of Environmental Protection Licence No. 3864.

### SOIL ANALYSIS RESULTS (CROUCHES)

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.90	6.40
Nitrogen (Total)	mg/kg	846	469
Nitrogen (Nitrate)	mg/kg	43.3	8.25
Phosphorous (Colwell)	mg/kg	114	4.60
Organic Carbon	%	0.68	0.30
Conductivity	µS/cm	0.12	0.08
Chloride	mg/kg	6.60	5.65
Cation Exchange Capacity	cmol(+)/kg	8.38	20.1
Exchangeable Sodium	cmol(+)/kg	0.18	0.58
Exchangeable Potassium	cmol(+)/kg	0.39	0.36
Exchangeable Calcium	cmol(+)/kg	5.95	13.6
Exchangeable Magnesium	cmol(+)/kg	1.85	5.52
Exchangeable Sodium Percent	%	2.13	2.88
Phosphorus Sorption Capacity	PSC mg/kg	402	866
Aggregate Stability (Emerson)	-	5	5



**SOIL ANALYSIS RESULTS (BACK)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	6.76	7.76
Nitrogen (Total)	mg/kg	1880	119
Nitrogen (Nitrate)	mg/kg	24.3	11.4
Phosphorous (Colwell)	mg/kg	563	2.93
Organic Carbon	%	0.86	0.08
Conductivity	$\mu$ S/cm	0.19	0.27
Chloride	mg/kg	44.6	200
Cation Exchange Capacity	cmol(+)/kg	15.1	15.5
Exchangeable Sodium	cmol(+)/kg	0.43	4.20
Exchangeable Potassium	cmol(+)/kg	1.58	0.19
Exchangeable Calcium	cmol(+)/kg	8.89	3.78
Exchangeable Magnesium	cmol(+)/kg	4.21	7.33
Exchangeable Sodium Percent	%	2.87	27.1
Phosphorus Sorption Capacity	PSC mg/kg	822	284
Aggregate Stability (Emerson)	-	5	2

**SOIL ANALYSIS RESULTS (BANKS)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.70	6.51
Nitrogen (Total)	mg/kg	806	183
Nitrogen (Nitrate)	mg/kg	5.06	2.60
Phosphorous (Colwell)	mg/kg	55.9	2.67
Organic Carbon	%	0.71	0.15
Conductivity	μS/cm	0.04	0.04
Chloride	mg/kg	10.4	3.14
Cation Exchange Capacity	cmol(+)/kg	5.18	17.4
Exchangeable Sodium	cmol(+)/kg	0.26	1.08
Exchangeable Potassium	cmol(+)/kg	0.24	0.40
Exchangeable Calcium	cmol(+)/kg	3.23	8.92
Exchangeable Magnesium	cmol(+)/kg	1.45	6.95
Exchangeable Sodium Percent	%	5.08	6.24
Phosphorus Sorption Capacity	PSC mg/kg	287	350
Aggregate Stability (Emerson)	-	5	3b

**SOIL ANALYSIS RESULTS (BULL)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.80	6.20
Nitrogen (Total)	mg/kg	903	326
Nitrogen (Nitrate)	mg/kg	7.45	2.55
Phosphorous (Colwell)	mg/kg	84.5	6.41
Organic Carbon	%	1.07	0.20
Conductivity	$\mu$ S/cm	0.07	0.06
Chloride	mg/kg	21.9	26.8
Cation Exchange Capacity	cmol(+)/kg	7.42	18.6
Exchangeable Sodium	cmol(+)/kg	0.30	0.60
Exchangeable Potassium	cmol(+)/kg	0.87	0.31
Exchangeable Calcium	cmol(+)/kg	4.35	11
Exchangeable Magnesium	cmol(+)/kg	1.88	6.71
Exchangeable Sodium Percent	%	4.07	3.24
Phosphorus Sorption Capacity	PSC mg/kg	318	598
Aggregate Stability (Emerson)	-	3b	5

**SOIL ANALYSIS RESULTS (FOUR MILE)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.57	4.25
Nitrogen (Total)	mg/kg	1137	208
Nitrogen (Nitrate)	mg/kg	1.56	1.04
Phosphorous (Colwell)	mg/kg	62.7	6.93
Organic Carbon	%	1.28	0.18
Conductivity	$\mu$ S/cm	0.05	0.06
Chloride	mg/kg	8.30	26.2
Cation Exchange Capacity	cmol(+)/kg	4.98	7.16
Exchangeable Sodium	cmol(+)/kg	0.28	2.07
Exchangeable Potassium	cmol(+)/kg	0.37	0.37
Exchangeable Calcium	cmol(+)/kg	3.18	0.66
Exchangeable Magnesium	cmol(+)/kg	1.14	3.45
Exchangeable Sodium Percent	%	5.55	29.0
Phosphorus Sorption Capacity	PSC mg/kg	346	514
Aggregate Stability (Emerson)	-	5	2

**SOIL ANALYSIS RESULTS (FRONTAGE)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.86	8.35
Nitrogen (Total)	mg/kg	1666	181
Nitrogen (Nitrate)	mg/kg	8.99	3.40
Phosphorous (Colwell)	mg/kg	146	2.93
Organic Carbon	%	1.47	0.19
Conductivity	μS/cm	0.13	0.78
Chloride	mg/kg	32.8	705
Cation Exchange Capacity	cmol(+)/kg	12.4	52.4
Exchangeable Sodium	cmol(+)/kg	1.95	13.8
Exchangeable Potassium	cmol(+)/kg	0.74	0.44
Exchangeable Calcium	cmol(+)/kg	7.59	20
Exchangeable Magnesium	cmol(+)/kg	2.10	18.2
Exchangeable Sodium Percent	%	15.8	26.3
Phosphorus Sorption Capacity	PSC mg/kg	451	511
Aggregate Stability (Emerson)	-	3b	5

### SOIL ANALYSIS RESULTS (HORSE)

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.94	7.47
Nitrogen (Total)	mg/kg	717	234
Nitrogen (Nitrate)	mg/kg	15.5	2.30
Phosphorous (Colwell)	mg/kg	93.9	20.1
Organic Carbon	%	0.62	0.26
Conductivity	$\mu$ S/cm	0.08	0.12
Chloride	mg/kg	19.9	7.99
Cation Exchange Capacity	cmol(+)/kg	9.94	23.7
Exchangeable Sodium	cmol(+)/kg	0.79	3.51
Exchangeable Potassium	cmol(+)/kg	0.80	0.46
Exchangeable Calcium	cmol(+)/kg	5.52	8.87
Exchangeable Magnesium	cmol(+)/kg	2.83	10.9
Exchangeable Sodium Percent	%	7.91	14.8
Phosphorus Sorption Capacity	PSC mg/kg	357	311
Aggregate Stability (Emerson)	-	3b	2

**SOIL ANALYSIS RESULTS (IRRIGATION 1)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	6.70	6.91
Nitrogen (Total)	mg/kg	2312	309
Nitrogen (Nitrate)	mg/kg	5.55	14.5
Phosphorous (Colwell)	mg/kg	362	9.02
Organic Carbon	%	1.96	0.16
Conductivity	μS/cm	0.18	0.08
Chloride	mg/kg	25.8	13.5
Cation Exchange Capacity	cmol(+)/kg	17.4	10.6
Exchangeable Sodium	cmol(+)/kg	0.57	0.56
Exchangeable Potassium	cmol(+)/kg	1.79	0.26
Exchangeable Calcium	cmol(+)/kg	10.9	6.51
Exchangeable Magnesium	cmol(+)/kg	4.21	3.23
Exchangeable Sodium Percent	%	3.26	5.31
Phosphorus Sorption Capacity	PSC mg/kg	650	424
Aggregate Stability (Emerson)	-	7	5

**SOIL ANALYSIS RESULTS (JUNCTION)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.08	6.20
Nitrogen (Total)	mg/kg	988	191
Nitrogen (Nitrate)	mg/kg	40.9	4.59
Phosphorous (Colwell)	mg/kg	69.2	42.3
Organic Carbon	%	0.71	0.13
Conductivity	μS/cm	0.11	0.05
Chloride	mg/kg	11.9	9.81
Cation Exchange Capacity	cmol(+)/kg	5.94	12
Exchangeable Sodium	cmol(+)/kg	0.33	0.65
Exchangeable Potassium	cmol(+)/kg	0.58	0.37
Exchangeable Calcium	cmol(+)/kg	3.76	6.43
Exchangeable Magnesium	cmol(+)/kg	1.27	4.59
Exchangeable Sodium Percent	%	5.52	5.41
Phosphorus Sorption Capacity	PSC mg/kg	306	482
Aggregate Stability (Emerson)	-	5	3b



**SOIL ANALYSIS RESULTS (MIDDLE SWAMP)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	6.45	8.31
Nitrogen (Total)	mg/kg	2023	558
Nitrogen (Nitrate)	mg/kg	7.06	2.54
Phosphorous (Colwell)	mg/kg	14.5	1.07
Organic Carbon	%	2.18	0.89
Conductivity	μS/cm	0.09	0.58
Chloride	mg/kg	22.3	617
Cation Exchange Capacity	cmol(+)/kg	24.1	49.7
Exchangeable Sodium	cmol(+)/kg	1.05	8.74
Exchangeable Potassium	cmol(+)/kg	1.14	0.57
Exchangeable Calcium	cmol(+)/kg	12.3	24.9
Exchangeable Magnesium	cmol(+)/kg	9.68	15.6
Exchangeable Sodium Percent	%	4.34	17.6
Phosphorus Sorption Capacity	PSC mg/kg	303	352
Aggregate Stability (Emerson)	-	3b	3b

**SOIL ANALYSIS RESULTS (OAKS RIVER)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	6.26	5.87
Nitrogen (Total)	mg/kg	1602	174
Nitrogen (Nitrate)	mg/kg	4.88	21.8
Phosphorous (Colwell)	mg/kg	270	6.80
Organic Carbon	%	1.54	0.10
Conductivity	$\mu$ S/cm	0.11	0.17
Chloride	mg/kg	27.3	45.6
Cation Exchange Capacity	cmol(+)/kg	10.2	17.3
Exchangeable Sodium	cmol(+)/kg	0.53	4.58
Exchangeable Potassium	cmol(+)/kg	0.49	0.29
Exchangeable Calcium	cmol(+)/kg	6.31	3.61
Exchangeable Magnesium	cmol(+)/kg	2.88	8.77
Exchangeable Sodium Percent	%	5.19	26.5
Phosphorus Sorption Capacity	PSC mg/kg	306	482
Aggregate Stability (Emerson)	-	5	3b

**SOIL ANALYSIS RESULTS (OLD 5)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.81	6.16
Nitrogen (Total)	mg/kg	856	294
Nitrogen (Nitrate)	mg/kg	5.31	1.55
Phosphorous (Colwell)	mg/kg	43.9	6.41
Organic Carbon	%	0.68	0.19
Conductivity	$\mu$ S/cm	0.06	0.06
Chloride	mg/kg	19.8	3.86
Cation Exchange Capacity	cmol(+)/kg	5.22	10.2
Exchangeable Sodium	cmol(+)/kg	0.22	0.43
Exchangeable Potassium	cmol(+)/kg	0.54	0.24
Exchangeable Calcium	cmol(+)/kg	3.21	7.19
Exchangeable Magnesium	cmol(+)/kg	1.25	2.36
Exchangeable Sodium Percent	%	4.14	4.17
Phosphorus Sorption Capacity	PSC mg/kg	303	352
Aggregate Stability (Emerson)	-	3b	3b

**SOIL ANALYSIS RESULTS (OXBOW)**

Parameter	Unit	Annual Return 2019 – 2020	
		0-30 cm	60-90 cm
pH	-	5.99	6.48
Nitrogen (Total)	mg/kg	1645	257
Nitrogen (Nitrate)	mg/kg	18.8	3.25
Phosphorous (Colwell)	mg/kg	138	5.51
Organic Carbon	%	1.37	0.21
Conductivity	μS/cm	0.09	0.04
Chloride	mg/kg	18	4.98
Cation Exchange Capacity	cmol(+)/kg	9.84	21
Exchangeable Sodium	cmol(+)/kg	0.28	0.52
Exchangeable Potassium	cmol(+)/kg	0.64	0.39
Exchangeable Calcium	cmol(+)/kg	6.56	14.5
Exchangeable Magnesium	cmol(+)/kg	2.35	5.55
Exchangeable Sodium Percent	%	2.88	2.49
Phosphorus Sorption Capacity	PSC mg/kg	375	391
Aggregate Stability (Emerson)	-	5	5

**SOIL ANALYSIS RESULTS (PERKINS 2)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.87	6.25
Nitrogen (Total)	mg/kg	846	199
Nitrogen (Nitrate)	mg/kg	29.9	3.28
Phosphorous (Colwell)	mg/kg	81	1.13
Organic Carbon	%	0.87	0.23
Conductivity	µS/cm	0.11	0.03
Chloride	mg/kg	12.2	3.65
Cation Exchange Capacity	cmol(+)/kg	7.84	15
Exchangeable Sodium	cmol(+)/kg	0.22	1.06
Exchangeable Potassium	cmol(+)/kg	1.05	0.47
Exchangeable Calcium	cmol(+)/kg	4.81	9
Exchangeable Magnesium	cmol(+)/kg	1.75	4.46
Exchangeable Sodium Percent	%	2.82	7.05
Phosphorus Sorption Capacity	PSC mg/kg	284	335
Aggregate Stability (Emerson)	-	7	3b

**SOIL ANALYSIS RESULTS (PERKINS 3)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.45	6.11
Nitrogen (Total)	mg/kg	662	126
Nitrogen (Nitrate)	mg/kg	16.2	3.49
Phosphorous (Colwell)	mg/kg	31.8	2.93
Organic Carbon	%	0.54	0.18
Conductivity	µS/cm	0.07	0.04
Chloride	mg/kg	11.6	8.40
Cation Exchange Capacity	cmol(+)/kg	5.07	13.3
Exchangeable Sodium	cmol(+)/kg	0.83	0.40
Exchangeable Potassium	cmol(+)/kg	0.39	0.33
Exchangeable Calcium	cmol(+)/kg	2.92	7.53
Exchangeable Magnesium	cmol(+)/kg	0.93	5.03
Exchangeable Sodium Percent	%	16.3	2.99
Phosphorus Sorption Capacity	PSC mg/kg	246	338
Aggregate Stability (Emerson)	-	5	3b

**SOIL ANALYSIS RESULTS (PERKINS 4)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	6.44	6.39
Nitrogen (Total)	mg/kg	798	140
Nitrogen (Nitrate)	mg/kg	16.8	9.64
Phosphorous (Colwell)	mg/kg	105	2.67
Organic Carbon	%	0.79	0.12
Conductivity	µS/cm	0.10	0.07
Chloride	mg/kg	25.5	17.6
Cation Exchange Capacity	cmol(+)/kg	6.48	15.7
Exchangeable Sodium	cmol(+)/kg	0.25	0.69
Exchangeable Potassium	cmol(+)/kg	0.56	0.27
Exchangeable Calcium	cmol(+)/kg	3.85	8.05
Exchangeable Magnesium	cmol(+)/kg	1.81	6.67
Exchangeable Sodium Percent	%	3.88	4.38
Phosphorus Sorption Capacity	PSC mg/kg	308	409
Aggregate Stability (Emerson)	-	7	5

### SOIL ANALYSIS RESULTS (RIXONS)

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	6.00	6.92
Nitrogen (Total)	mg/kg	1472	218
Nitrogen (Nitrate)	mg/kg	76.6	1.87
Phosphorous (Colwell)	mg/kg	144	4.22
Organic Carbon	%	1.58	0.39
Conductivity	µS/cm	0.26	0.06
Chloride	mg/kg	32.3	10.5
Cation Exchange Capacity	cmol(+)/kg	10.1	18.4
Exchangeable Sodium	cmol(+)/kg	0.05	0.50
Exchangeable Potassium	cmol(+)/kg	1.12	0.49
Exchangeable Calcium	cmol(+)/kg	5.85	11.4
Exchangeable Magnesium	cmol(+)/kg	3.08	5.96
Exchangeable Sodium Percent	%	0.45	2.72
Phosphorus Sorption Capacity	PSC mg/kg	335	556
Aggregate Stability (Emerson)	-	5	5



**SOIL ANALYSIS RESULTS (SHOW)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.71	6.27
Nitrogen (Total)	mg/kg	1033	405
Nitrogen (Nitrate)	mg/kg	52.9	24.3
Phosphorous (Colwell)	mg/kg	165	20.4
Organic Carbon	%	1.04	0.31
Conductivity	µS/cm	0.20	0.14
Chloride	mg/kg	15.1	17.4
Cation Exchange Capacity	cmol(+)/kg	8.54	20.3
Exchangeable Sodium	cmol(+)/kg	0.09	0.95
Exchangeable Potassium	cmol(+)/kg	0.59	0.36
Exchangeable Calcium	cmol(+)/kg	6.04	12.1
Exchangeable Magnesium	cmol(+)/kg	1.81	6.92
Exchangeable Sodium Percent	%	1.08	4.67
Phosphorus Sorption Capacity	PSC mg/kg	411	772
Aggregate Stability (Emerson)	-	5	6

**SOIL ANALYSIS RESULTS (SILO)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.46	6.29
Nitrogen (Total)	mg/kg	1304	468
Nitrogen (Nitrate)	mg/kg	58.9	4.46
Phosphorous (Colwell)	mg/kg	169	2.73
Organic Carbon	%	1.35	0.74
Conductivity	µS/cm	0.17	0.06
Chloride	mg/kg	17.7	6.91
Cation Exchange Capacity	cmol(+)/kg	7.34	14.4
Exchangeable Sodium	cmol(+)/kg	0.27	0.28
Exchangeable Potassium	cmol(+)/kg	0.62	0.33
Exchangeable Calcium	cmol(+)/kg	4.78	9.85
Exchangeable Magnesium	cmol(+)/kg	1.65	3.93
Exchangeable Sodium Percent	%	3.73	1.95
Phosphorus Sorption Capacity	PSC mg/kg	400	491
Aggregate Stability (Emerson)	-	5	5

### SOIL ANALYSIS RESULTS (TOP SUGARLOAF)

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	6.06	6.46
Nitrogen (Total)	mg/kg	1092	248
Nitrogen (Nitrate)	mg/kg	17.6	5.35
Phosphorous (Colwell)	mg/kg	46.7	11.8
Organic Carbon	%	1.04	0.19
Conductivity	μS/cm	0.11	0.06
Chloride	mg/kg	18.8	11.5
Cation Exchange Capacity	cmol(+)/kg	14.5	21.5
Exchangeable Sodium	cmol(+)/kg	0.35	0.69
Exchangeable Potassium	cmol(+)/kg	0.73	0.35
Exchangeable Calcium	cmol(+)/kg	9.31	13.6
Exchangeable Magnesium	cmol(+)/kg	4.13	6.77
Exchangeable Sodium Percent	%	2.38	3.20
Phosphorus Sorption Capacity	PSC mg/kg	548	625
Aggregate Stability (Emerson)	-	5	5

**SOIL ANALYSIS RESULTS (WESTERN 2)**

Parameter	Unit	Annual Return 2019 - 2020	
		0-30 cm	60-90 cm
pH	-	5.81	6.93
Nitrogen (Total)	mg/kg	1762	367
Nitrogen (Nitrate)	mg/kg	20.3	17.1
Phosphorous (Colwell)	mg/kg	161	8.58
Organic Carbon	%	2.02	0.34
Conductivity	$\mu$ S/cm	0.10	0.12
Chloride	mg/kg	16.7	28.2
Cation Exchange Capacity	cmol(+)/kg	8.85	16.6
Exchangeable Sodium	cmol(+)/kg	0.42	0.93
Exchangeable Potassium	cmol(+)/kg	1.08	0.57
Exchangeable Calcium	cmol(+)/kg	5.88	10.5
Exchangeable Magnesium	cmol(+)/kg	1.45	4.66
Exchangeable Sodium Percent	%	4.77	5.57
Phosphorus Sorption Capacity	PSC mg/kg	350	571
Aggregate Stability (Emerson)	-	5	5

## EPA MONITORING POINT 44

Groundwater monitoring bore (44 located in the north eastern grassed area of the paddock known as Old 2) labelled as EPA point 44 on map titled Env MP-Location of Peizometer MP dated 1st May 2007. See Fig 3 - 250832A1/10.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 44)

Sampled		11-Oct-18	10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained		23-Oct-18	23-April-19	18-Oct-19	27-May-20	29-Oct-20
Published		6-Nov-18	16-May-19	28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	0.008	<0.005	<0.005	0.017	0.026
Nitrogen (nitrate)	mg/L	0.78	0.96	0.68	0.72	1.0
Phosphorus (Reactive)	mg/L	0.092	0.097	0.091	0.077	0.091
pH	-	7.2	7.2	7.0	7.0	7.1
Conductivity	µS/cm	610	640	610	670	650
Phosphorus (total)	mg/L	0.1	0.1	0.06	0.2	0.1
Nitrogen (total)	mg/L	0.7	1.0	0.7	0.9	1.2
Suspended Solids	mg/L	140	19	30	68	26

## EPA MONITORING POINT 45

Groundwater monitoring bore (45 located on eastern boundary of the paddock known as "Donnellys Elect" labelled as EPA point 45 on map titled Env MP location of Piezometer MP dated 1st May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 45)

Sampled		11-Oct-18	10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained		23-Oct-18	23-April-19	18-Oct-19	27-May-20	29-Oct-20
Published		6-Nov-18	16-May-19	28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	0.043	0.005	0.007	0.01	0.031
Nitrogen (nitrate)	mg/L	3.8	2.6	2.9	3.4	2.7
Phosphorus (Reactive)	mg/L	0.030	0.037	0.034	0.019	0.067
pH	-	7.2	7.2	7.1	7.0	7.2
Conductivity	µS/cm	350	360	360	380	370
Phosphorus (total)	mg/L	<0.05	<0.05	<0.05	0.09	0.09
Nitrogen (total)	mg/L	4.2	2.9	2.9	4.5	3.8
Suspended Solids	mg/L	40	14	16	26	41

## EPA MONITORING POINT 46

Groundwater monitoring bore (46 located in paddock known as "Oaks Road") labelled as EPA point 46 on map Titled Env MP-location of Piezometer MP dated 1<sup>st</sup> May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 46)

<b>Sampled</b>		<b>11-Oct-18</b>	<b>10-April-19</b>	<b>9-Oct-19</b>	<b>15-May-20</b>	<b>21-Oct-20</b>
<b>Obtained</b>		<b>23-Oct-18</b>	<b>23-April-19</b>	<b>18-Oct-19</b>	<b>27-May-20</b>	<b>29-Oct-20</b>
<b>Published</b>		<b>6-Nov-18</b>	<b>16-May-19</b>	<b>28-Oct-19</b>	<b>19-June-20</b>	<b>11-Nov-20</b>
<b>Pollutant</b>	<b>Unit of measure</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>
Nitrogen (ammonia)	mg/L	0.022	<0.005	<0.005	<0.005	0.011
Nitrogen (nitrate)	mg/L	10	9.7	9.2	11	9.8
Phosphorus (Reactive)	mg/L	0.015	0.033	0.031	0.020	0.03
pH	-	7.5	7.5	7.3	7.3	7.4
Conductivity	µS/cm	1400	1500	1400	1400	1400
Phosphorus (total)	mg/L	<0.05	<0.05	<0.05	0.07	<0.05
Nitrogen (total)	mg/L	12	10	10	15	11
Suspended Solids	mg/L	12	29	16	26	5

## EPA MONITORING POINT 47

Groundwater monitoring bore 47 located in paddock known as "Horse" labelled as EPA point 47 on map Titled Env MP-location of Piezometer MP dated 1<sup>st</sup> May 2007. See Fig 3.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 47)

Sampled		11-Oct-18	10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained						
Published						
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L					
Nitrogen (nitrate)	mg/L					
Phosphorus (Reactive)	mg/L					
pH	-	DRY	DRY	DRY	DRY	DRY
Conductivity	µS/cm					
Phosphorus (total)	mg/L					
Nitrogen (total)	mg/L					
Suspended Solids	mg/L					



## EPA MONITORING POINT 53

Groundwater monitoring bore 53 located west of Terminal Pond 1 in the paddock known as spillway labelled as EPA point 53 on map Titled Env MP-location of Piezometer MP dated 1st May 2007. See Fig 3. 250832A1/10.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 53)

Sampled		11-Oct-18	10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained		23-Oct-18	23-April-19	18-Oct-19	27-May-20	29-Oct-20
Published		6-Nov-18	16-May-19	28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	0.032	0.007	<0.005	<0.005	0.008
Nitrogen (nitrate)	mg/L	0.14	0.04	0.03	0.092	0.02
Phosphorus (Reactive)	mg/L	0.027	0.023	0.031	1.021	0.03
pH	-	7.4	7.4	7.2	7.2	7.3
Conductivity	µS/cm	590	610	580	610	590
Phosphorus (total)	mg/L	<0.05	<0.05	<0.05	0.06	<0.05
Nitrogen (total)	mg/L	0.2	0.1	<0.1	0.2	0.1
Suspended Solids	mg/L	18	34	18	12	22

## EPA MONITORING POINT 54

Groundwater monitoring bore 54 located north of Terminal Pond Two in the paddock known as Pivot 2b labelled as EPA point 54 on map titled Env MP location of Piezometer MP dated 1st May 2007. See Fig 3. 250832A1/10.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 54)

<b>Sampled</b>		<b>11-Oct-18</b>	<b>10-April-19</b>	<b>9-Oct-19</b>	<b>15-May-20</b>	<b>21-Oct-20</b>
<b>Obtained</b>		<b>23-Oct-18</b>	<b>23-April-19</b>	<b>18-Oct-19</b>	<b>27-May-20</b>	<b>29-Oct-20</b>
<b>Published</b>		<b>6-Nov-18</b>	<b>16-May-19</b>	<b>28-Oct-19</b>	<b>19-June-20</b>	<b>11-Nov-20</b>
<b>Pollutant</b>	<b>Unit of measure</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>
Nitrogen (ammonia)	mg/L	0.14	0.86	0.20	0.024	0.01
Nitrogen (nitrate)	mg/L	1.2	1.1	3.5	4.4	3.7
Phosphorus (Reactive)	mg/L	0.059	0.15	0.008	0.040	0.054
pH	-	6.8	6.8	6.6	6.7	6.8
Conductivity	µS/cm	640	660	590	630	600
Phosphorus (total)	mg/L	0.09	0.1	0.08	0.1	0.07
Nitrogen (total)	mg/L	1.3	2.3	3.7	6.0	4.8
Suspended Solids	mg/L	40	500	73	60	21

## EPA MONITORING POINT 55

Groundwater monitoring bore 55 located south of Terminal Pond Three in the paddock known as “Wallys” labelled as EPA point 55 on map titled Env MP-location of Piezometer MP dated 1st May 2007. See Fig 3. 250832A1/10.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 55)

Sampled		11-Oct-18	10-April-19	9-Oct-19	15-May-20	21-Oct-20
Obtained		23-Oct-18	23-April-19	18-Oct-19	27-May-20	29-Oct-20
Published		6-Nov-18	16-May-19	28-Oct-19	19-June-20	11-Nov-20
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	0.013	<0.005	<0.005	<0.005	0.011
Nitrogen (nitrate)	mg/L	0.05	0.01	3.5	0.02	0.04
Phosphorus (Reactive)	mg/L	0.057	0.048	0.045	0.058	0.053
pH	-	7.3	7.3	7.2	7.2	7.3
Conductivity	µS/cm	510	510	500	540	580
Phosphorus (total)	mg/L	0.1	0.1	<0.05	0.1	0.1
Nitrogen (total)	mg/L	<0.1	0.1	<0.1	<0.1	<0.1
Suspended Solids	mg/L	280	510	62	95	84

## EPA MONITORING POINT 56

Groundwater monitoring bore (56 located south of the northern holding pond N1 in the paddock known as Irrigation 1) labelled as EPA point 56 on map titled Env MP dated 1st May 2007. See Fig 3. 250832A1/10.

### GROUNDWATER ANALYSIS RESULTS (EPA POINT 56)

<b>Sampled</b>		<b>11-Oct-18</b>	<b>10-April-19</b>	<b>9-Oct-19</b>	<b>15-May-20</b>	<b>21-Oct-20</b>
<b>Obtained</b>		<b>23-Oct-18</b>	<b>23-April-19</b>	<b>18-Oct-19</b>	<b>27-May-20</b>	<b>29-Oct-20</b>
<b>Published</b>		<b>6-Nov-18</b>	<b>16-May-19</b>	<b>28-Oct-19</b>	<b>19-June-20</b>	<b>11-Nov-20</b>
<b>Pollutant</b>	<b>Unit of measure</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>
Nitrogen (ammonia)	mg/L	0.017	<0.005	0.012	0.006	0.007
Nitrogen (nitrate)	mg/L	17	12	7.4	12	10
Phosphorus (Reactive)	mg/L	0.022	0.023	0.026	0.019	0.03
pH	-	7.1	7.1	6.9	6.9	7.0
Conductivity	µS/cm	1700	1600	1400	1400	1300
Phosphorus (total)	mg/L	<0.05	<0.05	<0.05	0.07	<0.05
Nitrogen (total)	mg/L	19	12	11	16	13
Suspended Solids	mg/L	17	37	12	10	17

## EPA MONITORING POINT 57

Effluent holding pond (known as N1) irrigation pump labelled as EPA point 57 on map titled Env MP- Location of Effluent MP dated 1st May 2007. See Fig 2 - 250832A1/10.

### EFFLUENT ANALYSIS RESULTS (EPA POINT 57)

Sampled		16-Mar-2020	17-Jun-2020	15-Sept-2020	8-Dec-2020
Obtained		25-Mar-2020	19-Jun-2020	24-Sept-2020	18-Dec-2020
Published		2-Apr-2020	26-Jun-2020	17-Oct-2020	7-Jan-2021
Pollutant	Unit of measure	Result	Result	Result	Result
Nitrogen (Ammonia)	mg/L	10	80	54	0.062
Chloride	mg/L	460	460	500	71
Nitrate	mg/L	<0.005	<0.005	<0.025	0.008
Phosphorus (Reactive)	mg/L	7.9	31	19	0.18
pH	-	8.4	8	8.0	9.8
Conductivity	µS/cm	2700	3600	3700	630
SAR	-	4.4	3.5	3.3	3.2
Phosphorus (Total)	mg/L	8.9	44	41	0.2
Nitrogen (Total)	mg/L	17	110	160	2.1
TKN	mg/L	17	110	160	2.0
Suspended Solids	mg/L	49	290	280	<10
Calcium	mg/L	43	69	74	18
Potassium	mg/L	340	440	450	11
Magnesium	mg/L	55	58	62	21
Sodium	mg/L	190	170	160	85

# Collected during pond overflow event.