

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**

EPA No.	Type of monitoring point	Type of discharge point	Description of location
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 No.	Type of monitoring point	Type of discharge point	Description of location
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.

<b>EPA No.</b>	<b>Type of monitoring point</b>	<b>Type of discharge point</b>	<b>Description of location</b>
EPA Monitoring Point 20	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.	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.
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.

<b>EPA No.</b>	<b>Type of monitoring point</b>	<b>Type of discharge point</b>	<b>Description of location</b>
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 No.	Type of monitoring point	Type of discharge point	Description of location
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 "Donnellys 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

<b>EPA No.</b>	<b>Type of monitoring point</b>	<b>Type of discharge point</b>	<b>Description of location</b>
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 Pont 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 No.	Type of monitoring point	Type of discharge point	Description of location
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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-14
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-14
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Chloride	mg/L			99		67
Nitrate	mg/L			<1.0		1.2
Total Kjeldahl Nitrogen	mg/L			<1		<1
pH	-			7.58		6.83
Conductivity	µS/cm			1050		444
SAR	-			2		3
Phosphorus (Reactive)	mg/L	<b>DRY</b>	<b>DRY</b>	<0.1	<b>DRY</b>	0.6
Nitrogen (Total)	mg/L			<1		<1
Suspended Solids	mg/L			<10		95
Calcium	mg/L			58		18
Potassium	mg/L			5		11
Magnesium	mg/L			43		13
Sodium	mg/L			94		60
Phosphorus (Total)	mg/L			7		<1
Nitrogen (Ammonia)	mg/L			0.4		<0.1

# 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Chloride	mg/L					21
Nitrate	mg/L					<1.0
Total Kjeldahl Nitrogen	mg/L					17
pH	-					6.64
Conductivity	µS/cm					350
SAR	-					<1
Phosphorus (Reactive)	mg/L	<b>DRY</b>	<b>DRY</b>	<b>DRY</b>	<b>DRY</b>	4.0
Nitrogen (Total)	mg/L					17
Suspended Solids	mg/L					652
Calcium	mg/L					13
Potassium	mg/L					57
Magnesium	mg/L					9
Sodium	mg/L					6
Phosphorus (Total)	mg/L					6
Nitrogen (Ammonia)	mg/L					9.8

\* 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Chloride	mg/L	130		130	92	42
Nitrate	mg/L	<1.0		<1.0	<1.0	1.3
Total Kjeldahl Nitrogen	mg/L	6		<1	<1	<1
pH	-	7.42		7.68	8.23	6.77
Conductivity	µS/cm	732		907	918	329
SAR	-	3		2	2	2
Phosphorus (Reactive)	mg/L	<1.0	<b>DRY</b>	<0.1	0.2	1.1
Nitrogen (Total)	mg/L	6		1	2	<1
Suspended Solids	mg/L	11		19	<10	50
Calcium	mg/L	24		50	52	18
Potassium	mg/L	7		20	10	9
Magnesium	mg/L	32		37	41	11
Sodium	mg/L	88		89	98	35
Phosphorus (Total)	mg/L	<1		<1	<1	1
Nitrogen (Ammonia)	mg/L	0.2		0.4	0.2	<0.1

\* 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	4-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Chloride	mg/L	32	31	29	40	48
Nitrate	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Total Kjeldahl Nitrogen	mg/L	<1	<1	<1	<1	<1
pH	-	7.64	9.11	7.98	7.88	7.31
Conductivity	µS/cm	263	477	316	289	292
SAR	-	1	2	2	2	2
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<0.1	<0.1	<0.1
Nitrogen (Total)	mg/L	<1	<1	<1	<1	<1
Suspended Solids	mg/L	11	10	<10	<10	28
Calcium	mg/L	9	24	13	13	11
Potassium	mg/L	3	5	3	3	4
Magnesium	mg/L	11	25	10	10	8
Sodium	mg/L	21	66	31	32	42
Phosphorus (Total)	mg/L	<1	<1	<1	<1	<1
Nitrogen (Ammonia)	mg/L	0.2	0.5	<0.1	<0.1	<0.1

\* 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Chloride	mg/L	26	48	30	32	36
Nitrate	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Total Kjeldahl Nitrogen	mg/L	<1	<1	<1	<1	<1
pH	-	8.35	9.1	8.17	8.35	8.97
Conductivity	µS/cm	427	454	404	438	369
SAR	-	<1	1	1	1	1
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<0.1	<0.1	<0.1
Nitrogen (Total)	mg/L	<1	<1	<1	<1	<1
Suspended Solids	mg/L	11	<10	<10	<10	29
Calcium	mg/L	19	21	24	24	13
Potassium	mg/L	3	4	4	3	4
Magnesium	mg/L	34	36	24	27	26
Sodium	mg/L	20	45	30	31	34
Phosphorus (Total)	mg/L	<1	<1	<1	<1	<1
Nitrogen (Ammonia)	mg/L	0.2	9.1	<0.1	<0.1	<0.1

\* 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Chloride	mg/L	9.9	23	22	14	26
Nitrate	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Total Kjeldahl Nitrogen	mg/L	<1	2	<1	<1	1
pH	-	8.62	7.47	8.49	8.51	7.45
Conductivity	µS/cm	361	440	416	412	377
SAR	-	<1	<1	<1	<1	<1
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<0.1	<0.1	0.1
Nitrogen (Total)	mg/L	<1	2	<1	<1	1
Suspended Solids	mg/L	11	12	<10	<10	19
Calcium	mg/L	17	28	27	27	18
Potassium	mg/L	3	6	3	3	4
Magnesium	mg/L	32	43	33	32	28
Sodium	mg/L	15	29	23	22	27
Phosphorus (Total)	mg/L	<1	<1	<1	<1	<1
Nitrogen (Ammonia)	mg/L	0.2	9.9	<0.1	<0.1	<0.1

\* 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Chloride	mg/L	16	87	20	28	58
Nitrate	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Total Kjeldahl Nitrogen	mg/L	<1	1	<1	<1	1
pH	-	8.43	7.72	8.29	8.36	7.43
Conductivity	µS/cm	351	743	381	406	443
SAR	-	<1	2	<1	<1	2
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<0.1	<0.1	<0.1
Nitrogen (Total)	mg/L	<1	1	<1	<1	1
Suspended Solids	mg/L	12	14	<10	<10	19
Calcium	mg/L	15	23	26	24	21
Potassium	mg/L	2	8	3	3	5
Magnesium	mg/L	29	53	29	27	19
Sodium	mg/L	16	95	24	26	50
Phosphorus (Total)	mg/L	<1	<1	<1	<1	<1
Nitrogen (Ammonia)	mg/L	0.2	9.9	0.1	<0.1	<0.1

\* 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Oct-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (Ammonia)	mg/L	26		66	79	39
Chloride	mg/L	960		460	200	160
Nitrate	mg/L	480		<1.0	<1.0	<1.0
Phosphorus (Reactive)	mg/L	51		13	28	3.6
pH	-	7.97		7.56	7.20	7.00
Conductivity	µS/cm	4960		3490	2240	1820
SAR	-	3		2	2	2
Phosphorus (Total)	mg/L	88	<b>DRY</b>	39	34	18
Nitrogen (Total)	mg/L	422		68	84	81
TKN	mg/L	396		68	84	81
Suspended Solids	mg/L	11		163	117	326
Calcium	mg/L	71		153	86	59
Potassium	mg/L	1080		571	264	283
Magnesium	mg/L	120		130	69	47
Sodium	mg/L	200		160	83	64

# 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (Ammonia)	mg/L	9.8		34	4.4	7.5
Chloride	mg/L	960		530	130	160
Nitrate	mg/L	480		<1.0	<1.0	<1.0
Phosphorus (Reactive)	mg/L	20		7.2	9.8	8.5
pH	-	8.83		8.11	7.62	7.05
Conductivity	µS/cm	3090		3280	1280	1250
SAR	-	3	<b>DRY</b>	3	2	3
Phosphorus (Total)	mg/L	15		36	10	9
Nitrogen (Total)	mg/L	14		64	40	2
TKN	mg/L	4		64	40	2
Suspended Solids	mg/L	11		349	35	116
Calcium	mg/L	21		95	50	29
Potassium	mg/L	541		683	166	208
Magnesium	mg/L	53		96	37	26
Sodium	mg/L	110		160	70	86

\* 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)

Sampled		9-Dec-13	18-Mar-14	18-Mar-14	16-Sept-14	16-Sept-14
Obtained		12-Dec-13	16-Apr-14	16-Apr-14	13-Oct-14	13-Oct-14
Published		23-Jan-14	14-May-14	14-May-14	27-Oct-14	27-Oct-14
Pollutant	Unit of measure	Screened Result	Unscreened Result	Screened Result	Unscreened Result	Screened Result
Moisture	%	36.4	36.9	23.3	43.5	22.5
Nitrate	mg/kg	<200	<200	<200	<200	<200
Nitrogen (Total)	mg/kg	25000	24100	23200	2460	1660
pH	-	8.78	8.60	8.01	7.76	8.64
Calcium	mg/kg	21300	11500	12700	24000	20000
Phosphorus (Total)	mg/kg	8660	5000	5590	8700	6900
Organic Carbon	%	39.2	40.1	36.3	37.7	25.5
Potassium	mg/kg	17400	12900	13000	15000	16000
Magnesium	mg/kg	7620	4490	5100	8200	7100
Sodium	mg/kg	2820	2050	2070	3600	2500
Conductivity	µS/cm	3520	3950	3950	6380	6550
SAR	-	4	4	4	5	4
Sulphur	mg/kg	5730	3180	3390	5100	4300
Chloride	mg/kg	25	13100	12800	8800	5800
Zinc	mg/kg	250	140	160	260	220

## 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		11-Sep-12	19-Mar-13	10-Sept-13	18-Mar-14	16-Sept-14
Obtained		26-Sep-12	10-Apr-13	22-Oct-13	16-Apr-14	24-Oct-14
Published		09-Oct-12	8-May-13	14-Nov-13	14-May-14	27-Oct-14
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (Ammonia)	mg/L	<1	2	12	170	0.6
Chloride	mg/L	260	80	140	560	340
Nitrate	mg/L	1.9	<1.0	<1.0	<1.0	<1.0
Phosphorus (Reactive)	mg/L	3.8	7.4	1.6	2.6	1.3
pH	-	7.83	7.64	7.90	8.03	8.35
Conductivity	µS/cm	967	618	946	2620	1580
SAR	-	2	1	2	5	3
Phosphorus (Total)	mg/L	6	7	5	3	2
Nitrogen (Total)	mg/L	11	7	13	11	35
TKN	mg/L	11	7	13	11	35
Suspended Solids	mg/L	128	23	16	76	52
Calcium	mg/L	15	18	19	46	30
Potassium	mg/L	153	127	154	452	237
Magnesium	mg/L	16	16	20	51	31
Sodium	mg/L	57	31	46	210	110

\* 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 2013 - 2014	
			0-30cm	60-90cm
pH	-	4A1	7.16	8.42
Nitrogen (Total)	mg/kg	Dumas (Leco)	948	-
Nitrogen (Nitrate)	mg/kg	7B1	54	8
Phosphorous (Colwell)	mg/kg	9B1	261	8
Organic Carbon	%	6A1	2.2	<0.1
Conductivity	µS/cm	3A1	0.21	0.16
Chloride	mg/kg	5A1	18	4
Cation Exchange Capacity	cmol(+)/kg	15D3	11.5	13.6
Exchangeable Sodium	cmol(+)/kg	15D3	0.40	1.62
Exchangeable Potassium	cmol(+)/kg	15D3	1.07	1.82
Exchangeable Calcium	cmol(+)/kg	15D3	7.37	5.01
Exchangeable Magnesium	cmol(+)/kg	15D3	2.71	5.17
Exchangeable Sodium Percentage	%	15D3	3.4	11.9
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	<1	108
Aggregate Stability (Emerson)	EAT	-	3(1)	1

## 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 2013 - 2014	
			0-30cm	60-90cm
pH	-	4A1	7.33	8.71
Nitrogen (Total)	mg/kg	Dumas (Leco)	973	-
Nitrogen (Nitrate)	mg/kg	7B1	32	2
Phosphorous (Colwell)	mg/kg	9B1	37	4
Organic Carbon	%	6A1	0.8	0.2
Conductivity	µS/cm	3A1	0.15	0.15
Chloride	mg/kg	5A1	<1	12
Cation Exchange Capacity	cmol(+)/kg	15D3	11.9	22.7
Exchangeable Sodium	cmol(+)/kg	15D3	0.36	4.00
Exchangeable Potassium	cmol(+)/kg	15D3	1.88	0.76
Exchangeable Calcium	cmol(+)/kg	15D3	6.56	8.75
Exchangeable Magnesium	cmol(+)/kg	15D3	3.09	9.16
Exchangeable Sodium Percentage	%	15D3	3.1	17.6
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	63	90
Aggregate Stability (Emerson)	EAT	-	1	1

## 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 2013 - 2014	
			0-30cm	60-90cm
pH	-	4A1	7.70	6.97
Nitrogen (Total)	mg/kg	Dumas (Leco)	903	-
Nitrogen (Nitrate)	mg/kg	7B1	3	<1
Phosphorous (Colwell)	mg/kg	9B1	68	2
Organic Carbon	%	6A1	1.0	0.4
Conductivity	µS/cm	3A1	0.13	0.14
Chloride	mg/kg	5A1	62	12
Cation Exchange Capacity	cmol(+)/kg	15D3	8.33	21.0
Exchangeable Sodium	cmol(+)/kg	15D3	0.37	1.30
Exchangeable Potassium	cmol(+)/kg	15D3	1.87	0.79
Exchangeable Calcium	cmol(+)/kg	15D3	4.14	12.2
Exchangeable Magnesium	cmol(+)/kg	15D3	1.94	6.78
Exchangeable Sodium Percentage	%	15D3	4.5	6.2
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	23	148
Aggregate Stability (Emerson)	EAT	-	3(4)	3(1)

## 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 2013 - 2014	
			0-30cm	60-90cm
pH	-	4A1	7.51	7.89
Nitrogen (Total)	mg/kg	Dumas (Leco)	751	-
Nitrogen (Nitrate)	mg/kg	7B1	4	<1
Phosphorous (Colwell)	mg/kg	9B1	215	7
Organic Carbon	%	6A1	1.4	0.3
Conductivity	µS/cm	3A1	0.15	0.16
Chloride	mg/kg	5A1	27	36
Cation Exchange Capacity	cmol(+)/kg	15D3	9.01	22.6
Exchangeable Sodium	cmol(+)/kg	15D3	0.31	1.26
Exchangeable Potassium	cmol(+)/kg	15D3	2.39	0.74
Exchangeable Calcium	cmol(+)/kg	15D3	4.25	12.7
Exchangeable Magnesium	cmol(+)/kg	15D3	2.06	7.89
Exchangeable Sodium Percentage	%	15D3	3.5	5.6
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	<1	124
Aggregate Stability (Emerson)	EAT	-	3(4)	3(1)

## 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 2013 - 2014	
			0-30cm	60-90cm
pH	-	4A1	7.77	7.27
Nitrogen (Total)	mg/kg	Dumas (Leco)	864	-
Nitrogen (Nitrate)	mg/kg	7B1	2	<1
Phosphorous (Colwell)	mg/kg	9B1	36	4
Organic Carbon	%	6A1	0.7	0.4
Conductivity	µS/cm	3A1	0.11	0.15
Chloride	mg/kg	5A1	7	53
Cation Exchange Capacity	cmol(+)/kg	15D3	6.84	22.6
Exchangeable Sodium	cmol(+)/kg	15D3	0.22	0.90
Exchangeable Potassium	cmol(+)/kg	15D3	2.14	0.61
Exchangeable Calcium	cmol(+)/kg	15D3	3.08	15.4
Exchangeable Magnesium	cmol(+)/kg	15D3	1.40	5.63
Exchangeable Sodium Percentage	%	15D3	3.3	4.0
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	36	149
Aggregate Stability (Emerson)	EAT	-	1	5

## 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>25-Oct-12</b>	<b>12-Apr-13</b>	<b>8-Apr-14</b>	<b>29-Oct-14</b>	
<b>Obtained</b>		<b>23-Nov-12</b>	<b>26-Apr-13</b>	<b>11-Apr-14</b>	<b>20-Jan-15</b>	
<b>Published</b>		<b>30-Nov-12</b>	<b>8-May-13</b>	<b>19-May-14</b>	<b>21-Jan-15</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	0.1	3.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	72	27	4.3	90	
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<1	<0.1	
pH	-	7.67	7.57	8.57	7.64	
Conductivity	µS/cm	1240	1090	1230	1130	
Phosphorus (total)	mg/L	<1	1	<1	<1	
Nitrogen (total)	mg/L	17	11	13	17	
Suspended Solids	mg/L	<10	286	33	21	



## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13			
Published		30-Nov-12	8-May-13			
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	0.2			
Nitrogen (nitrate)	mg/L	8.4	<1.0			
Phosphorus (Reactive)	mg/L	<1.0	<1.0			
pH	-	6.69	6.68	DRY	DRY	
Conductivity	µS/cm	1190	1330			
Phosphorus (total)	mg/L	2	<1			
Nitrogen (total)	mg/L	5	2			
Suspended Solids	mg/L	1720	150			

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	38	35	2.4	36	
Phosphorus (Reactive)	mg/L	1.2	<1.0	<0.1	<0.1	
pH	-	8.16	8.11	8.70	8.13	
Conductivity	µS/cm	3240	3290	3950	3810	
Phosphorus (total)	mg/L	<1	<1	<1	<1	
Nitrogen (total)	mg/L	8	8	6	9	
Suspended Solids	mg/L	<10	<10	<10	279	

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	160	160	4.3	160	
Phosphorus (Reactive)	mg/L	1.5	<1.0	<0.1	<0.1	
pH	-	6.50	6.31	8.19	7.02	
Conductivity	µS/cm	1030	1730	2060	2060	
Phosphorus (total)	mg/L	<1	<1	<1	<1	
Nitrogen (total)	mg/L	34	36	30	32	
Suspended Solids	mg/L	16	<10	<10	<10	

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	39	35	5.6	68	
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<0.1	<0.1	
pH	-	7.38	7.42	8.38	7.41	
Conductivity	µS/cm	1220	1200	1490	1560	
Phosphorus (total)	mg/L	<1	<1.0	<1	<1	
Nitrogen (total)	mg/L	8	9	7	12	
Suspended Solids	mg/L	11	23	<10	<10	

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	48	40	15	39	
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<0.1	<0.1	
pH	-	7.00	6.89	8.05	7.17	
Conductivity	µS/cm	2910	2910	3200	3210	
Phosphorus (total)	mg/L	<1	<1	<1	<1	
Nitrogen (total)	mg/L	10	9	7	17	
Suspended Solids	mg/L	31	19	39	897	

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	85	40	23	6.5	
Phosphorus (Reactive)	mg/L	14	<1.0	<0.1	<0.1	
pH	-	6.70	6.62	7.96	6.92	
Conductivity	µS/cm	2530	2560	2910	2570	
Phosphorus (total)	mg/L	<1	<1	<1	<1	
Nitrogen (total)	mg/L	21	10	3	2	
Suspended Solids	mg/L	15	10	11	1220	

## 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 (BANKS)

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	6.60	9.00
Nitrogen (Total)	mg/kg	1170	-
Nitrogen (Nitrate)	mg/kg	16	6
Phosphorous (Colwell)	mg/kg	67	2
Organic Carbon	%	0.9	<0.1
Conductivity	µS/cm	0.08	0.15
Chloride	mg/kg	18	80
Cation Exchange Capacity	cmol(+)/kg	7.30	19.9
Exchangeable Sodium	cmol(+)/kg	0.43	3.69
Exchangeable Potassium	cmol(+)/kg	0.40	0.35
Exchangeable Calcium	cmol(+)/kg	3.95	7.34
Exchangeable Magnesium	cmol(+)/kg	2.51	8.51
Exchangeable Sodium Percent	%	6.0	18.6
Aggregate Stability (Emerson)	-	2(1)	1
Phosphorus Sorption Capacity	PSC mg/kg	22	97

**SOIL ANALYSIS RESULTS (BOTT TIP)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	5.64	7.40
Nitrogen (Total)	mg/kg	838	-
Nitrogen (Nitrate)	mg/kg	4	1
Phosphorous (Colwell)	mg/kg	54	2
Organic Carbon	%	1.2	0.4
Conductivity	µS/cm	0.03	0.04
Chloride	mg/kg	39	36
Cation Exchange Capacity	cmol(+)/kg	4.65	20.3
Exchangeable Sodium	cmol(+)/kg	0.01	0.76
Exchangeable Potassium	cmol(+)/kg	0.23	0.39
Exchangeable Calcium	cmol(+)/kg	3.48	11.9
Exchangeable Magnesium	cmol(+)/kg	0.93	7.28
Exchangeable Sodium Percent	%	0.2	3.8
Aggregate Stability (Emerson)	-	3(3)	5
Phosphorus Sorption Capacity	PSC mg/kg	48	148



**SOIL ANALYSIS RESULTS (BULL)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	6.06	6.72
Nitrogen (Total)	mg/kg	763	-
Nitrogen (Nitrate)	mg/kg	9	<1
Phosphorous (Colwell)	mg/kg	26	2
Organic Carbon	%	1.7	0.9
Conductivity	µS/cm	0.05	0.03
Chloride	mg/kg	46	29
Cation Exchange Capacity	cmol(+)/kg	11.5	25.9
Exchangeable Sodium	cmol(+)/kg	0.10	0.40
Exchangeable Potassium	cmol(+)/kg	0.49	0.52
Exchangeable Calcium	cmol(+)/kg	7.31	16.5
Exchangeable Magnesium	cmol(+)/kg	3.59	8.40
Exchangeable Sodium Percent	%	0.9	1.6
Aggregate Stability (Emerson)	-	3(1)	5
Phosphorus Sorption Capacity	PSC mg/kg	101	148

**SOIL ANALYSIS RESULTS (CORNER)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	6.76	7.58
Nitrogen (Total)	mg/kg	983	-
Nitrogen (Nitrate)	mg/kg	3	1
Phosphorous (Colwell)	mg/kg	99	3
Organic Carbon	%	1.8	0.3
Conductivity	μS/cm	0.05	0.06
Chloride	mg/kg	33	29
Cation Exchange Capacity	cmol(+)/kg	8.12	25.7
Exchangeable Sodium	cmol(+)/kg	<0.01	0.69
Exchangeable Potassium	cmol(+)/kg	0.95	0.56
Exchangeable Calcium	cmol(+)/kg	5.30	16.1
Exchangeable Magnesium	cmol(+)/kg	1.86	8.42
Exchangeable Sodium Percent	%	<0.1	2.7
Aggregate Stability (Emerson)	-	3(2)	5
Phosphorus Sorption Capacity	PSC mg/kg	24	149

**SOIL ANALYSIS RESULTS (FRONTAGE)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	7.84	9.43
Nitrogen (Total)	mg/kg	832	-
Nitrogen (Nitrate)	mg/kg	8	<1
Phosphorous (Colwell)	mg/kg	109	5
Organic Carbon	%	2.4	<0.1
Conductivity	μS/cm	0.14	0.37
Chloride	mg/kg	21	1
Cation Exchange Capacity	cmol(+)/kg	16.0	38.1
Exchangeable Sodium	cmol(+)/kg	2.95	16.8
Exchangeable Potassium	cmol(+)/kg	0.52	0.66
Exchangeable Calcium	cmol(+)/kg	4.17	3.23
Exchangeable Magnesium	cmol(+)/kg	8.40	17.4
Exchangeable Sodium Percent	%	18.4	44.1
Aggregate Stability (Emerson)	-	3(4)	1
Phosphorus Sorption Capacity	PSC mg/kg	91	81

### SOIL ANALYSIS RESULTS (HORSE)

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	6.91	8.62
Nitrogen (Total)	mg/kg	1100	-
Nitrogen (Nitrate)	mg/kg	25	5
Phosphorous (Colwell)	mg/kg	106	6
Organic Carbon	%	0.8	0.1
Conductivity	μS/cm	0.10	0.10
Chloride	mg/kg	73	42
Cation Exchange Capacity	cmol(+)/kg	9.52	18.8
Exchangeable Sodium	cmol(+)/kg	0.36	3.44
Exchangeable Potassium	cmol(+)/kg	0.51	0.30
Exchangeable Calcium	cmol(+)/kg	6.12	7.23
Exchangeable Magnesium	cmol(+)/kg	2.53	7.80
Exchangeable Sodium Percent	%	3.8	18.4
Aggregate Stability (Emerson)	-	2(1)	1
Phosphorus Sorption Capacity	PSC mg/kg	30	80

**SOIL ANALYSIS RESULTS (IRRIGATION 1)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	6.32	7.37
Nitrogen (Total)	mg/kg	1200	-
Nitrogen (Nitrate)	mg/kg	32	9
Phosphorous (Colwell)	mg/kg	103	5
Organic Carbon	%	2.9	0.5
Conductivity	μS/cm	0.21	0.06
Chloride	mg/kg	47	<1
Cation Exchange Capacity	cmol(+)/kg	10.9	9.41
Exchangeable Sodium	cmol(+)/kg	0.23	0.23
Exchangeable Potassium	cmol(+)/kg	0.90	0.21
Exchangeable Calcium	cmol(+)/kg	7.18	5.69
Exchangeable Magnesium	cmol(+)/kg	2.55	3.27
Exchangeable Sodium Percent	%	2.2	2.5
Aggregate Stability (Emerson)	-	3(1)	2(1)
Phosphorus Sorption Capacity	PSC mg/kg	20	112

**SOIL ANALYSIS RESULTS (JUNCTION)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	5.21	6.26
Nitrogen (Total)	mg/kg	744	-
Nitrogen (Nitrate)	mg/kg	47	6
Phosphorous (Colwell)	mg/kg	57	34
Organic Carbon	%	1.7	0.4
Conductivity	μS/cm	0.11	0.03
Chloride	mg/kg	24	<1
Cation Exchange Capacity	cmol(+)/kg	6.88	9.53
Exchangeable Sodium	cmol(+)/kg	<0.01	0.05
Exchangeable Potassium	cmol(+)/kg	0.92	0.48
Exchangeable Calcium	cmol(+)/kg	4.33	5.48
Exchangeable Magnesium	cmol(+)/kg	1.55	3.52
Exchangeable Sodium Percent	%	<0.1	0.5
Aggregate Stability (Emerson)	-	3(2)	3(1)
Phosphorus Sorption Capacity	PSC mg/kg	82	141

**SOIL ANALYSIS RESULTS (OAKS RIVER)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	7.24	6.59
Nitrogen (Total)	mg/kg	868	-
Nitrogen (Nitrate)	mg/kg	3	2
Phosphorous (Colwell)	mg/kg	85	5
Organic Carbon	%	1.0	0.2
Conductivity	$\mu$ S/cm	0.07	0.23
Chloride	mg/kg	25	50
Cation Exchange Capacity	cmol(+)/kg	7.63	15.9
Exchangeable Sodium	cmol(+)/kg	0.76	4.74
Exchangeable Potassium	cmol(+)/kg	0.56	0.21
Exchangeable Calcium	cmol(+)/kg	3.78	3.44
Exchangeable Magnesium	cmol(+)/kg	2.54	7.53
Exchangeable Sodium Percent	%	9.9	29.8
Aggregate Stability (Emerson)	-	1	1
Phosphorus Sorption Capacity	PSC mg/kg	64	120

**SOIL ANALYSIS RESULTS (OLD 5)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	6.10	6.76
Nitrogen (Total)	mg/kg	932	-
Nitrogen (Nitrate)	mg/kg	5	5
Phosphorous (Colwell)	mg/kg	31	5
Organic Carbon	%	0.9	0.7
Conductivity	$\mu$ S/cm	0.06	0.06
Chloride	mg/kg	28	37
Cation Exchange Capacity	cmol(+)/kg	7.93	15.8
Exchangeable Sodium	cmol(+)/kg	0.63	0.28
Exchangeable Potassium	cmol(+)/kg	0.33	0.27
Exchangeable Calcium	cmol(+)/kg	4.43	11.0
Exchangeable Magnesium	cmol(+)/kg	2.54	4.25
Exchangeable Sodium Percent	%	7.9	1.8
Aggregate Stability (Emerson)	-	3(4)	3(1)
Phosphorus Sorption Capacity	PSC mg/kg	70	151



### SOIL ANALYSIS RESULTS (OXBOW)

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	7.03	8.86
Nitrogen (Total)	mg/kg	971	-
Nitrogen (Nitrate)	mg/kg	33	7
Phosphorous (Colwell)	mg/kg	171	13
Organic Carbon	%	2.2	0.1
Conductivity	μS/cm	0.19	0.30
Chloride	mg/kg	39	8
Cation Exchange Capacity	cmol(+)/kg	14.8	24.5
Exchangeable Sodium	cmol(+)/kg	1.78	9.39
Exchangeable Potassium	cmol(+)/kg	1.54	0.29
Exchangeable Calcium	cmol(+)/kg	7.13	5.66
Exchangeable Magnesium	cmol(+)/kg	4.34	9.15
Exchangeable Sodium Percent	%	12.0	38.3
Aggregate Stability (Emerson)	-	1	1
Phosphorus Sorption Capacity	PSC mg/kg	64	71

**SOIL ANALYSIS RESULTS (PERKINS 2)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	6.37	7.31
Nitrogen (Total)	mg/kg	1110	-
Nitrogen (Nitrate)	mg/kg	14	<1
Phosphorous (Colwell)	mg/kg	79	7
Organic Carbon	%	1.9	0.6
Conductivity	μS/cm	0.10	0.04
Chloride	mg/kg	62	26
Cation Exchange Capacity	cmol(+)/kg	10.6	19.8
Exchangeable Sodium	cmol(+)/kg	0.11	0.55
Exchangeable Potassium	cmol(+)/kg	1.15	0.43
Exchangeable Calcium	cmol(+)/kg	6.47	12.0
Exchangeable Magnesium	cmol(+)/kg	2.87	6.76
Exchangeable Sodium Percent	%	1.1	2.8
Aggregate Stability (Emerson)	-	3(4)	3(4)
Phosphorus Sorption Capacity	PSC mg/kg	22	119

**SOIL ANALYSIS RESULTS (SHOW)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	5.68	6.69
Nitrogen (Total)	mg/kg	788	-
Nitrogen (Nitrate)	mg/kg	98	9
Phosphorous (Colwell)	mg/kg	81	3
Organic Carbon	%	1.8	0.5
Conductivity	μS/cm	0.29	0.05
Chloride	mg/kg	61	58
Cation Exchange Capacity	cmol(+)/kg	10.7	20.9
Exchangeable Sodium	cmol(+)/kg	0.10	0.41
Exchangeable Potassium	cmol(+)/kg	0.84	0.46
Exchangeable Calcium	cmol(+)/kg	7.45	14.5
Exchangeable Magnesium	cmol(+)/kg	2.29	5.51
Exchangeable Sodium Percent	%	1.0	2.0
Aggregate Stability (Emerson)	-	3(1)	5
Phosphorus Sorption Capacity	PSC mg/kg	60	154

### SOIL ANALYSIS RESULTS (SILO)

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	6.38	6.98
Nitrogen (Total)	mg/kg	1020	-
Nitrogen (Nitrate)	mg/kg	9	2
Phosphorous (Colwell)	mg/kg	102	2
Organic Carbon	%	1.5	0.4
Conductivity	μS/cm	0.05	0.09
Chloride	mg/kg	20	24
Cation Exchange Capacity	cmol(+)/kg	8.96	20.4
Exchangeable Sodium	cmol(+)/kg	<0.01	0.42
Exchangeable Potassium	cmol(+)/kg	0.65	0.46
Exchangeable Calcium	cmol(+)/kg	6.11	13.6
Exchangeable Magnesium	cmol(+)/kg	2.20	5.91
Exchangeable Sodium Percent	%	<0.1	2.1
Aggregate Stability (Emerson)	-	3(2)	5
Phosphorus Sorption Capacity	PSC mg/kg	37	152

### SOIL ANALYSIS RESULTS (WESTERN 1)

Parameter	Unit	Annual Return 2013 – 2014	
		0-30 cm	60-90 cm
pH	-	5.62	6.19
Nitrogen (Total)	mg/kg	971	-
Nitrogen (Nitrate)	mg/kg	7	4
Phosphorous (Colwell)	mg/kg	6	2
Organic Carbon	%	0.8	<0.1
Conductivity	µS/cm	0.04	0.03
Chloride	mg/kg	61	16
Cation Exchange Capacity	cmol(+)/kg	3.54	8.33
Exchangeable Sodium	cmol(+)/kg	0.04	0.78
Exchangeable Potassium	cmol(+)/kg	0.50	0.18
Exchangeable Calcium	cmol(+)/kg	2.11	4.15
Exchangeable Magnesium	cmol(+)/kg	0.89	3.22
Exchangeable Sodium Percent	%	1.0	9.3
Aggregate Stability (Emerson)	-	3(3)	2(3)
Phosphorus Sorption Capacity	PSC mg/kg	56	116

### SOIL ANALYSIS RESULTS (WESTERN 2)

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	7.47	7.28
Nitrogen (Total)	mg/kg	761	-
Nitrogen (Nitrate)	mg/kg	5	1
Phosphorous (Colwell)	mg/kg	200	10
Organic Carbon	%	2.7	0.5
Conductivity	μS/cm	0.09	0.10
Chloride	mg/kg	<1	<1
Cation Exchange Capacity	cmol(+)/kg	12.6	17.9
Exchangeable Sodium	cmol(+)/kg	<0.01	0.37
Exchangeable Potassium	cmol(+)/kg	1.15	0.69
Exchangeable Calcium	cmol(+)/kg	9.95	11.6
Exchangeable Magnesium	cmol(+)/kg	1.49	5.25
Exchangeable Sodium Percent	%	<0.1	2.1
Aggregate Stability (Emerson)	-	3(4)	5
Phosphorus Sorption Capacity	PSC mg/kg	3	146

**SOIL ANALYSIS RESULTS (SUGARLOAF EAST)**

Parameter	Unit	Annual Return 2013 - 2014	
		0-30 cm	60-90 cm
pH	-	5.73	7.30
Nitrogen (Total)	mg/kg	774	-
Nitrogen (Nitrate)	mg/kg	23	1
Phosphorous (Colwell)	mg/kg	56	7
Organic Carbon	%	1.4	0.4
Conductivity	μS/cm	0.07	0.06
Chloride	mg/kg	27	45
Cation Exchange Capacity	cmol(+)/kg	5.58	19.6
Exchangeable Sodium	cmol(+)/kg	0.03	0.30
Exchangeable Potassium	cmol(+)/kg	0.47	0.56
Exchangeable Calcium	cmol(+)/kg	3.80	12.9
Exchangeable Magnesium	cmol(+)/kg	1.29	5.82
Exchangeable Sodium Percent	%	0.5	1.5
Aggregate Stability (Emerson)	-	3(2)	5
Phosphorus Sorption Capacity	PSC mg/kg	24	149

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	0.2	<0.1	
Nitrogen (nitrate)	mg/L	4.3	4.4	23	4.4	
Phosphorus (Reactive)	mg/L	1.0	<1.0	<0.1	<0.1	
pH	-	7.15	7.04	8.44	7.30	
Conductivity	µS/cm	582	574	136	531	
Phosphorus (total)	mg/L	<1	<1.0	<1	<1	
Nitrogen (total)	mg/L	2	3	2	2	
Suspended Solids	mg/L	16	17	15	52	



## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	15	22	2.7	15	
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<0.1	<0.1	
pH	-	7.15	7.24	8.23	7.23	
Conductivity	µS/cm	335	332	347	322	
Phosphorus (total)	mg/L	<1	<1	<1	<1	
Nitrogen (total)	mg/L	4	4	3	4	
Suspended Solids	mg/L	13	<10	<10	23	

## 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)

Sampled		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	12	18	6.7	28	
Phosphorus (Reactive)	mg/L	1.4	<1.0	<0.1	<0.1	
pH	-	7.53	7.52	8.36	7.64	
Conductivity	µS/cm	1010	990	1010	1240	
Phosphorus (total)	mg/L	<1	<1	<1	<1	
Nitrogen (total)	mg/L	3	6	4	7	
Suspended Solids	mg/L	12	22	38	20	

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		DRY	DRY	DRY	DRY	
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	
Conductivity	µS/cm					
Phosphorus (total)	mg/L					
Nitrogen (total)	mg/L					
Suspended Solids	mg/L					

## EPA MONITORING POINT 51

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

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2013 - 2014	
			0-30cm	60-90cm
pH	-	4A1	7.25	7.34
Nitrogen (Total)	mg/kg	Dumas (Leco)	772	-
Nitrogen (Nitrate)	mg/kg	7B1	25	3
Phosphorous (Colwell)	mg/kg	9B1	86	5
Organic Carbon	%	6A1	0.8	0.2
Conductivity	µS/cm	3A1	0.15	0.13
Chloride	mg/kg	5A1	<1	9
Cation Exchange Capacity	cmol(+)/kg	15D3	7.95	17.6
Exchangeable Sodium	cmol(+)/kg	15D3	0.31	0.84
Exchangeable Potassium	cmol(+)/kg	15D3	2.15	0.54
Exchangeable Calcium	cmol(+)/kg	15D3	3.65	11.7
Exchangeable Magnesium	cmol(+)/kg	15D3	1.84	4.45
Exchangeable Sodium Percentage	%	15D3	3.9	4.8
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	33	137
Aggregate Stability (Emerson)	EAT	-	3(3)	5

## EPA MONITORING POINT 52

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

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2013 - 2014	
			0-30cm	60-90cm
pH	-	4A1	6.37	7.63
Nitrogen (Total)	mg/kg	Dumas (Leco)	964	-
Nitrogen (Nitrate)	mg/kg	7B1	60	<1
Phosphorous (Colwell)	mg/kg	9B1	105	2
Organic Carbon	%	6A1	2.1	0.4
Conductivity	µS/cm	3A1	0.21	0.13
Chloride	mg/kg	5A1	58	61
Cation Exchange Capacity	cmol(+)/kg	15D3	11.7	22.2
Exchangeable Sodium	cmol(+)/kg	15D3	0.39	1.26
Exchangeable Potassium	cmol(+)/kg	15D3	1.69	0.63
Exchangeable Calcium	cmol(+)/kg	15D3	6.42	13.1
Exchangeable Magnesium	cmol(+)/kg	15D3	3.24	7.26
Exchangeable Sodium Percentage	%	15D3	3.3	5.7
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	56	142
Aggregate Stability (Emerson)	EAT	-	3(2)	3(2)

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	<1.0	<1.0	4.9	3.0	
Phosphorus (Reactive)	mg/L	1.0	<1.0	<0.1	<0.1	
pH	-	7.38	7.35	8.40	7.48	
Conductivity	µS/cm	536	479	539	501	
Phosphorus (total)	mg/L	<1	<1	<1	<1	
Nitrogen (total)	mg/L	1	<1	<1	2	
Suspended Solids	mg/L	<10	<10	<10	<10	

## 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)

Sampled		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	22	27	4.3	27	
Phosphorus (Reactive)	mg/L	1.3	<1.0	<0.1	<0.1	
pH	-	6.85	6.82	8.11	6.89	
Conductivity	µS/cm	480	412	459	505	
Phosphorus (total)	mg/L	<1	<1	<1	<1	
Nitrogen (total)	mg/L	5	5	5	10	
Suspended Solids	mg/L	30	75	<10	24	

## 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		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	<0.1	<0.1	<0.1	<0.1	
Nitrogen (nitrate)	mg/L	<1.0	<1.0	6.6	2.3	
Phosphorus (Reactive)	mg/L	1.0	<1.0	<0.1	<0.1	
pH	-	7.28	7.25	8.33	7.42	
Conductivity	µS/cm	469	452	428	439	
Phosphorus (total)	mg/L	<1	<1.0	<1	<1	
Nitrogen (total)	mg/L	1	<1	<1	<1	
Suspended Solids	mg/L	<10	14	93	418	



## 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)

Sampled		25-Oct-12	12-Apr-13	8-Apr-14	29-Oct-14	
Obtained		23-Nov-12	26-Apr-13	11-Apr-14	20-Jan-15	
Published		30-Nov-12	8-May-13	19-May-14	21-Jan-15	
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (ammonia)	mg/L	0.2	<0.1	0.1	<0.1	
Nitrogen (nitrate)	mg/L	17	22	3.0	44	
Phosphorus (Reactive)	mg/L	<1.0	<1.0	<0.1	<0.1	
pH	-	7.11	7.48	8.32	7.23	
Conductivity	µS/cm	835	825	1110	1130	
Phosphorus (total)	mg/L	<1	<1.0	<1	<1	
Nitrogen (total)	mg/L	6	5	9	12	
Suspended Solids	mg/L	35	11	25	142	

## 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		9-Dec-13	18-Mar-14	16-Jun-14	16-Sept-14	9-Dec-14
Obtained		12-Dec-13	16-Apr-14	29-Jul-14	24-Oct-14	4-Feb-15
Published		23-Jan-14	14-May-14	29-Jul-14	27-Oct-14	5-Feb-15
Pollutant	Unit of measure	Result	Result	Result	Result	Result
Nitrogen (Ammonia)	mg/L	1.2	310	16	0.8	0.2
Chloride	mg/L	310	220	270	240	280
Nitrate	mg/L	<1.0	<1.0	<1.0	11	5.3
Phosphorus (Reactive)	mg/L	17	6.5	3.5	4.3	3.3
pH	-	8.45	8.46	8.60	8.98	7.99
Conductivity	µS/cm	1810	1790	1930	1770	1750
SAR	-	3	3	3	3	4
Phosphorus (Total)	mg/L	17	8	11	5	4
Nitrogen (Total)	mg/L	7	10	19	37	13
TKN	mg/L	6	10	19	26	12
Suspended Solids	mg/L	11	54	16	21	144
Calcium	mg/L	23	27	47	43	38
Potassium	mg/L	255	295	260	223	217
Magnesium	mg/L	52	66	63	60	49
Sodium	mg/L	99	130	130	130	150

\* Collected during pond overflow event.