

LORIS H HASSALL TRADING PTY LTD – FORBES



ANNUAL PERFORMANCE SYSTEM REPORT 2016

EPL # 12765

REPORTING PERIOD:

12-NOV-2015 to 11-NOV-2016

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LITRES IRRIGATED

POINT 1 , 2 , 5 MONTHLY ph / Conductivity

MAP OF 5 MONITORING POINTS

EPA MONITORING FREQUENCY

POINT 1,2,5				
	Pollutant	Units of measure	Frequency	Sampling Method
<u>1</u>	BOD	milligrams per litre	Quarterly	Grab Sample
<u>2</u>	Chloride	milligrams per litre	Quarterly	Grab Sample
<u>3</u>	CONDUCTIVITY	deciSiemens per metre	Monthly/Quarterly	In situ
<u>4</u>	NITROGEN (total)	milligrams per litre	Quarterly	Grab Sample
<u>5</u>	OIL AND GREASE	milligrams per litre	Quarterly	Grab Sample
<u>6</u>	p H	p H	Monthly/Quarterly	In situ
<u>7</u>	PHOSPHORUS (total)	milligrams per litre	Quarterly	Grab Sample
<u>8</u>	POTASSIUM	milligrams per litre	Quarterly	Grab Sample
<u>9</u>	SODIUM	milligrams per litre	Quarterly	Grab Sample

POINT 3				
	Pollutant	Units of measure	Frequency	Sampling Method
<u>1</u>	CONDUCTIVITY	milligrams per litre	Quarterly	In situ
<u>2</u>	NITROGEN (total)	milligrams per litre	Quarterly	Grab Sample
<u>3</u>	p H	p H	Quarterly	In situ
<u>4</u>	PHOSPHORUS (total)	milligrams per litre	Quarterly	Grab Sample

POINT 4				
	Pollutant	Units of measure	Frequency	Sampling Method
<u>1</u>	AVAILABLE PHOSPHORUS	milligrams per kilogram	Yearly	Speical Method 1
<u>2</u>	CONDUCTIVITY	microsiemens per centimetre	Yearly	Speical Method 1
<u>3</u>	Exchangeable sodium %	percent	Yearly	Speical Method 1
<u>4</u>	NITRATE	milligrams per litre	Yearly	Speical Method 1
<u>5</u>	NITROGEN (total)	milligrams per kilogram	Yearly	Speical Method 1
<u>6</u>	p H	p H	Yearly	Speical Method 1

POINT 1 =- IRRIGATION PIT

TURN ON AND SAMPLE IS COLLECTED AT BOTTOM OF PIT. TIP PART INTO EACH BOTTLE. REPEAT EVERY 1/2 HOUR UNTIL SESL BOTTLES ARE FULL

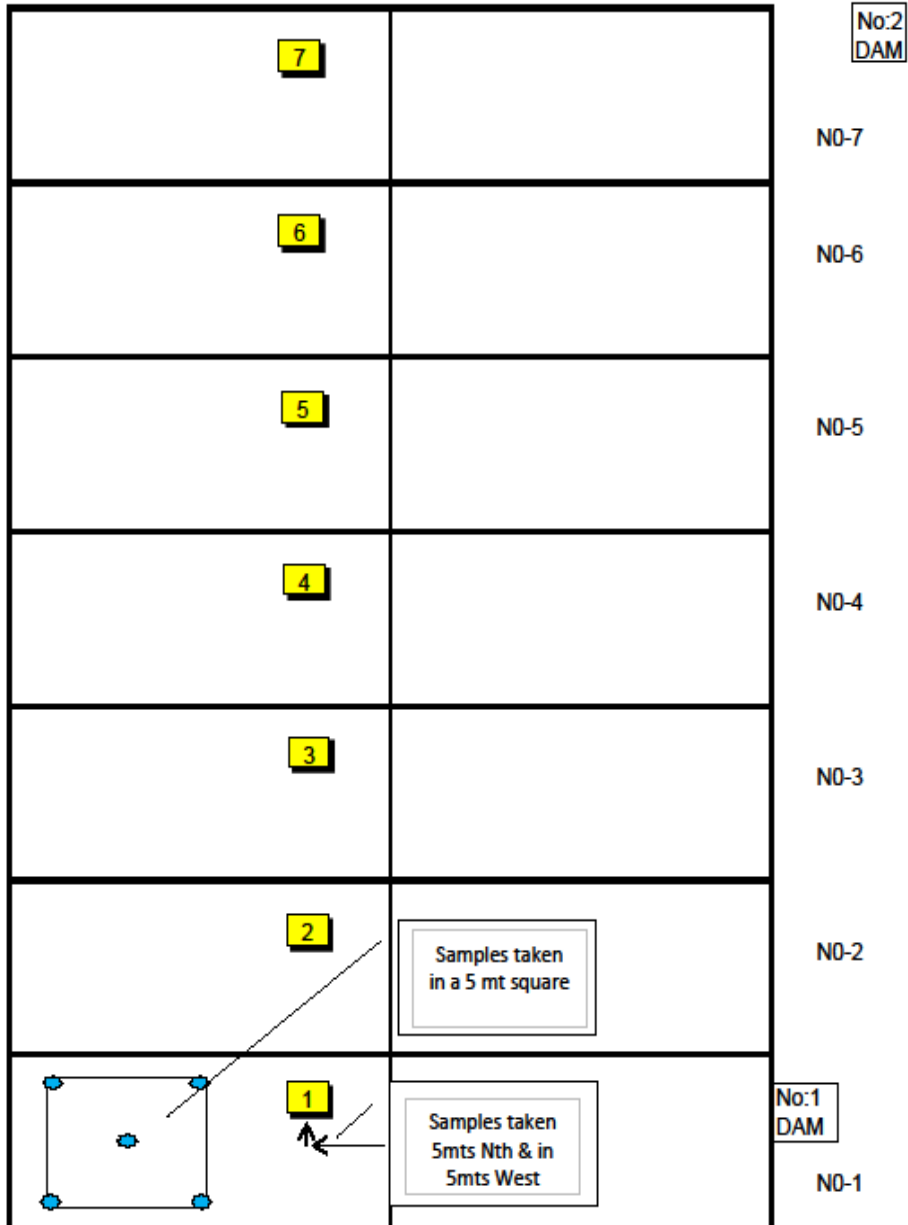
POINT 2 & 5= EVAP DAMS.

TAKE SAMPLE FROM DEEP AS POSSIBLE , TIP PART INTO EACH BOTTLE. REPEAT AT HALF DEPTH AND THEN JUST BELOW SURFACE UNTIL SESL BOTTLES ARE FULL, SEAL AND LABEL

COMPOSITE SOIL POINT 4

5 SAMPLES TO BE TAKEN
 25m2 AREA x 7 BAYS AT
 DEPTHS OF 0>10 CM +
 10>40CM
 SEAL AND LABEL

SOIL SAMPLING SITES



LH HASSALL TRADING P/L 812 PARKES RD. FORBES NSW

APPENDIX: G

EPA REGISTER LINK:

<https://apps.epa.nsw.gov.au/prpocapp>

EFFLUENT ANALYSIS RECORD SHEET

[LICENCE # 12765](#)

REVISION:0

Refer **NEW POINTS FOR TESTING SITE PLAN AUG-18**

DATE: 30/11/2016

PUBLISHED: 11/10/2018



POINT 1 - IRRIGATION PIT							
UNIT OF MEASURE	27/01/2016	15/04/2016	22/08/2016	15/11/2016	HIGH	LOW	AVE
BOD - mg/L	4600	5200	1900	2610	5200	1900	3578
Chloride - mg/L	10800	1900	2120	5860	10800	1900	5170
Total Kjeldahl Nitrogen - mg/L	850	860	570	822	860	570	776
Oil & Grease (LLE) - mg/L	15	<5	<5	33	33	<5	14.5
Total Phosphorus - mg/L	35	24	12	21.5	35	12	23
Potassium mg/L	210	104	76.9	117	210	76.9	127
Conductivity -decisiemens / MT	68.1	0	0	0	0	0	68
Conductivity -microsiemens/per cm		12300	10090	19410	19410	10090	13933
Sodium - mg/L	13800	2770	1960	3810	13800	1960	5585
(Ph)	8.2	12	11.6	11.8	11.8	8.2	10.9
Calcium - mg/L		179	213	231	231	179	208
Magnesium - mg/L		3	.887	1.36	3	0.887	1.7
Sodium Absorption Ratio		56	37	69	69	37	54

DATE TAKEN:

TIME TAKE:

TAKEN BY:

SESL REPORT:

27/01/2016	15/04/2016	22/08/2016	15/11/2016
8:00 AM	7:00 AM	7:00 AM	6:45 AM
MARK	MARK	MARK	MARK
17/02/2016	28/04/2016	22/09/2016	30/11/2016

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EPA REGISTER LINK:

<https://apps.epa.nsw.gov.au/prpoeoapp>

EVAPORATION DAM MONITORING RECORD

LICENCE # 12765

REVISIONS:

Refer NEW POINTS FOR TESTING SITE PLAN AUG-18

DATE: **30/11/2016**

PUBLISHED: 11/10/2018

APPENDIX - C



POINT 2 - EVAPORATION DAM					SML LINED		
UNIT OF MEASURE	27/01/2016	15/04/2016	22/08/2016	15/11/2016	HIGH	LOW	AVE
BOD - mg/L	9500	30000	3400	1860	30000	1860	11190
Chloride - mg/L	65300	90700	18200	85400	90700	18200	64900
Total Kjeldahl Nitrogen - mg/L	1200	2100	510	490	2100	490	1075
Oil & Grease (LLE) - mg/L	9	<5	<5	39	39	<5	15
Total Phosphorus - mg/L	220	340	73	105	340	73	185
Potassium mg/L	1680	3840	818	691	3840	691	1757
Conductivity -decisiemens / MT	400				0	0	400
Conductivity -microsiemens/per cm		577000	1900	254000	577000	254000	277633
Sodium - mg/L	76300	107000	30900	42600	107000	30900	64200
(Ph)	7.2	6.4	7.26	7.33	7.33	6.4	7
Calcium - mg/L		129	89.6	108	129	89.6	109
Magnesium - mg/L		167	41.6	43.5	167	41.6	84
Sodium Absorption Ratio		1470	676	875	1470	676	1007

DATE TAKEN:

TIME TAKE:

TAKEN BY:

SESL REPORT:

27/01/2016	15/04/2016	22/08/2016	15/11/2016
8.30 am	7.15 am	7.30 am	7.15 am
MARK	MARK	MARK	MARK
17/02/2016	28/04/2016	22/09/2016	30/11/2016

POINT 5 - EVAPORATION DAM					LGE LINED		
UNIT OF MEASURE	27/01/2016	15/04/2016	22/08/2016	15/11/2016	HIGH	LOW	AVE
BOD - mg/L	19000	39000	7000	4180	39000	4180	17295
Chloride - mg/L	75600	87665	20700	91500	91500	75600	68866
Total Kjeldahl Nitrogen - mg/L	2300	3100	1200	926	3100	926	1882
Oil & Grease (LLE) - mg/L	6	84	<5	21	84	<5	29
Total Phosphorus - mg/L	390	680	150	154	680	150	344
Potassium mg/L	2500	4670	1070	1230	2500	1070	2368
Conductivity -decisiemens / MT	472				0	0	400
Conductivity -microsiemens/per cm		582000	2280	269000	582000	2280	284427
Sodium - mg/L	89000	98500	43600	47600	98500	43600	69675
(Ph)	7.3	6.6	6.57	7.2	7.7	6.57	7
Calcium - mg/L		169	126	159	169	126	151
Magnesium - mg/L		152	44.4	54.7	152	44.4	84
Sodium Absorption Ratio		1320	852	830	1320	830	1001

DATE TAKEN:

TIME TAKE:

TAKEN BY:

SESL REPORT:

27/01/2016	15/04/2016	22/08/2016	15/11/2016
9:00 AM	7.30 am	8:00 AM	7:00 AM
MARK	MARK	MARK	MARK
17/02/2016	28/04/2016	22/09/2016	30/11/2016

LH HASSALL TRADING P/L 812 PARKES RD. FORBES NSW

EPA REGISTER LINK: <https://apps.epa.nsw.gov.au/omr000000>

PIEZOMETER ANALYSIS RECORD LICENCE # 12765

REVISION: 0 PUBLISHED: 11/10/2018

REVISION: 0

26/11/2016



POINT 3 - PIZOMETERS

ANALYSIS	PIEZOMETER 1					PIEZOMETER 2				
	Mar-16	Sep-16	HIGH	LOW	AVE	Mar-16	Sep-16	HIGH	LOW	AVE
Chromium Total - mg/L										
Electrical Conductivity - µS/m										
Nitrogen Total - mg/L										
pH - pH units										
Phosphorus Total - mg/L										
Redox Potential										
Standing Water Level - m										
Sulphide - mg/L										
ANALYSIS	PIEZOMETER 3					PIEZOMETER 4				
	Mar-16	Sep-16	HIGH	LOW	AVE	Mar-16	Sep-16	HIGH	LOW	AVE
Chromium Total - mg/L										
Electrical Conductivity - µS/m										
Nitrogen Total - mg/L										
pH - pH units										
Phosphorus Total - mg/L										
Redox Potential										
Standing Water Level - m										
Sulphide Total - mg/L										
ANALYSIS	PIEZOMETER 5					PIEZOMETER 6				
	Mar-16	Sep-16	HIGH	LOW	AVE	Mar-16	Sep-16	HIGH	LOW	AVE
Chromium Total - mg/L										
Electrical Conductivity - µS/m										
Nitrogen Total - mg/L										
pH - pH units										
Phosphorus Total - mg/L										
Redox Potential										
Standing Water Level - m										
Sulphide Total - mg/L										

DATE TAKEN:	23/03/2016	18/09/2016
TIME TAKE:	10:00 AM	11:00 AM
TAKEN BY:	MARK	MARK
SESL REPORT:	NA	NA

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EPA REGISTER LINK:

<https://aops.epa.nsw.gov.au/aop/aopsapp>

EFFLUENT IRRIGATED POINT 1

LICENCE # 12765



REVISION: 0

30/11/2016

RECORDS DONE DAILY BY WHO EVER
 IS IN CHARGE TO DO IRRIGATING.
 REFER IRRIGATION RECORD SHEETS
 KEPT IN OFFICE.

	<i>Lts</i>	<i>kilo/lts</i>	<i>No of days</i>	<i>low</i>	<i>kilo/lts</i>	<i>high</i>	<i>kilo/lts</i>
	520677	520.677	7	57072	57.072	84289	84.289
	512129	512.129	7	36939	36.939	107594	107.594
	609838	609.838	7	67757	67.757	105993	105.993
	510860	510.86	7	20702	20.702	167712	167.712
	561429	561.429	7	56260	56.26	118130	118.13
	644575	644.575	7	67554	67.554	127932	127.932
	555388	555.388	6	68747	68.747	94356	94.356
	473515	473.515	6	34161	34.161	89300	89.3
	509600	509.6	6	41821	41.821	112815	112.815
	465755	465.755	6	47759	47.759	92162	92.162
	416981	416.981	6	58606	58.606	81403	81.403
	209199	209.199	3	53675	53.675	80412	80.412
	580887	580.887	6	78727	78.727	122838	122.838
	576969	576.969	7	60108	60.108	121883	121.883
	589982	589.982	7	54662	54.662	126860	126.86
	649534	649.534	6	62784	62.784	185873	185.873
	531338	531.338	6	57887	57.887	116173	116.173
	572288	572.288	7	52134	52.134	164992	164.992
	590389	590.389	6	49706	49.706	143082	143.082
	420565	420.565	6	38031	38.031	113393	113.393
	391842	391.842	5	26632	26.632	156794	156.794
	584212	584.212	7	64239	64.239	137015	137.015
	619784	619.784	5	82892	82.892	167979	167.979
	601810	601.81	7	59845	59.845	145059	145.059
	502762	502.762	5	57372	57.372	150949	150.949
		<i>kilo/lts</i>					
Total Lts	13,202,308	13,202.31	155				
No. times irrigated	155						
Ave: Lts	85176.2	85.18					

