

Annual Review - 2016

Stolthaven Bulk Fuel Storage Facility, Mayfield



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1.0 Introduction

This Annual Review has been prepared by AECOM Australia Pty Ltd (AECOM) on behalf of Stolthaven Australia Pty Ltd (Stolthaven) to assess the environmental performance of the fuel import, storage and dispatch facility (the Site) on industrial land managed by the Port of Newcastle (PON), Newcastle, New South Wales. The Site is operated under the State Significant Development (SSD) development consent SSD_6664 issued on 16 April 2015 under Part 4 of the *Environmental Planning and Assessment Act* (EP&A Act). The Site was originally approved under the now superseded Part 3A of the EP&A Act, under Project Approval MP08_130 which has now been relinquished.

In accordance with Schedule 4 Condition 5 of SSD_6664 (as modified) this Annual Review has been prepared to assess the environmental performance of the Site to the satisfaction of the Director-General. This Annual Review includes the reporting period from 1 January – 31 December 2016.

This Annual Review provides:

- An overview of the Site (**Section 2.0**);
- A description of the operations carried out over the past calendar year (2016) which represents the reporting period (**Section 2.2**);
- Analysis of the environmental monitoring results for the reporting period and a comparison of these results with relevant performance criteria and previous data (**Sections 3.0 to 7.0**);
- Identification of any non-compliances throughout the reporting period and actions taken to rectify the issue (**Section 9.0**);
- Identification of trends in monitoring data over the life of the Site (**Sections 3.0 to 7.0**); and
- A summary of recommendations to improve the environmental performance of the Site (**Section 11.0**).

Construction of the Site was largely completed in December 2013, with operations commencing in the same month. Monitoring data for the environmental parameters assessed in this report are therefore only available from the completion of construction. Any trends identified in monitoring data will be limited to the available data set. As monitoring continues over the life of the Site, the reliability of any trends identified in monitoring data will improve with larger data sets being available.

1.1 Site Location and Description

The Site is located on part of the former BHP Steelworks Site, approximately 5 km north-west of Newcastle CBD. The land on which the Site is located is leased from the PON and is currently subject to concept approval MP 09_0096 by PON (Mayfield Concept Approval Submission). The Site is located within the Port of Newcastle, and the area surrounding the Site is characterised by a mixture of port related activities, industrial uses and residential and commercial areas. The Site is situated on the southern bank of the South Arm of the Hunter River, opposite industrial and port operations on Kooragang Island (**Figure 1**). The site and adjoining land is topographically flat and lies at approximately 1.89m Australian Height Datum.

The storage terminal consists of:

- Ship unloading facilities at the Mayfield Berth 4 (M4) wharf facility (outside the project approval area);
- A delivery pipeline from M4 to the terminal;
- Nine (9) storage tanks from 535m³ to 18,003m³ as summarised in **Table 1**;
- A four (4) bay automated truck loading and unloading facility;
- Pumping capacity for bulk tanker (truck loading);
- Appropriate drainage and spill containment systems; and
- Fire protection systems.

The approved terminal layout is provided in **Figure 2**.

Table 1 Schedule of Fuels Storage Tanks

Tank ID No.	Design Product	Tank Diameter (m)	Shell Height (m)	Maximum Storage Volume (m ³)
1	Diesel	36.6	17.1	17,703
2	Diesel	36.6	17.1	17,695
3	Diesel	36.6	17.1	17,691
4	Biodiesel	7.6	12	535
5	Diesel	36.6	17.1	17,584
6	Diesel	36.6	17.1	17,611
7	Biodiesel	18	17	4,242
8	Diesel	36.6	17.1	17,998
9	Diesel	36.6	17.1	18,003

1.2 Site History

The Site is located on part of the former BHP Steelworks Site. BHP was located on the site from 1915 to 1999. In 2002, ownership of that part of the former Steelworks Site known as the Closure Area Site was transferred to the State Government. In March 2007, the Hunter Development Corporation (HDC) (formerly the Regional Land Management Corporation Pty Ltd) was created by the Government to manage the day-to-day activities of the former BHP site and other Crown lands in the Lower Hunter Region, including remedial and redevelopment works for the Closure Area Site (SKM 2004).

On 14 June 2001, under former Section 21 of the *Contaminated Land Management Act 1997* (CLM Act), the Environment Protection Authority (EPA) declared the Closure Area Site to be a remediation site. A Remediation Action Plan (RAP) was prepared by SKM in 2004 to address contamination issues associated with soils and groundwater. A Voluntary Remediation Agreement (VRA No 26025) for the remediation of the Site was issued by the EPA on 30 August 2005. HDC undertook to fulfil these remediation commitments.

In March 2008, a Contaminated Site Management Plan (CSMP) for the Closure Area Site was prepared by HDC. The CSMP provided a common framework to be applied across the whole of the site for the design, implementation, completion, use and maintenance of remediation and project works. In mid-2008, HDC completed Stage 1 of the remediation works. Stage 2 of the remediation works were subsequently completed in 2013.

Following a handover in ownership to the Newcastle Port Corporation (NPC), now PON, a Concept Plan application for the future strategic development of the former BHP site was approved by the Minister for Planning in July 2012. The Concept Plan approval made provision for the future development of part of the former BHP site for bulk liquid related industries.

Stolthaven was the first, and is the only, operation currently active on the former BHP site, having received initial approval for their Site in June 2012. PON also operates Mayfield No.4 berth (M4) within the Concept Plan area, which is a general purposes berth currently used by Stolthaven for the import of fuels.

1.3 Operations and Approval

The Site operates in accordance with SSD_6664 issued on 16 April 2015 under Part 4 of the EP&A Act. The Site was originally approved under Project Approval MP 08_0130, issued on 8 June 2012 under the former Part 3A (repealed) of the EP&A Act. Site operations are described below in sequence of approval history.

1.3.1 Original Project Approval MP08_0130

The original Project Approval MP08_0130 was approved by the Minister for Planning on 8 June 2012 under Part 3A (repealed) of the EP&A Act. In summary, the original project comprised the following elements:

- Use of an existing ship berthing facility via M4 to deliver fuels from bulk tankers. Fuel to be pumped along a 300 mm diameter steel pipeline from M4 to the Site;
- Storage of bulk fuels in above ground tanks (3 x 18ML diesel and 3ML biodiesel) with a total permitted annual throughput of 300 ML combined;
- Distribution of fuels by road tankers; and
- Ancillary components including site office, car parking and truck loading gantry.

Construction of the Site as approved under the original Project Approval was completed in late 2013, with the first shipment of fuels commencing 19 November 2013.

Subsequent modification to the original Project Approval included the following:

- MOD 1 – Two additional 18ML diesel tanks, one additional 4.2ML biodiesel tank and an additional 100ML pa throughput. Approved 26 July 2013;
- MOD 2 – Paper modification to the wording of Condition 6 to remove reference to the Department of Health. i.e. no changes to the composition of the approved Facility. Approved 15 November 2013; and
- MOD 3 – Increase throughput from 400ML pa to a total of 500ML pa. No additional tanks or infrastructure. Approved 10 July 2014.

1.3.2 Current Development Consent SSD_6664

Stolthaven operate under SSD development consent 6664 (SSD_6664) which was issued under Part 4 of the EP&A Act following a request for increase to the throughput of the facility and to construct two additional storage tanks. The current SSD_6664 consent transferred the Site from a Part 3A approval to an SSD approval. One of the conditions of SSD_6664 included the requirement to surrender Project Approval MP08_0130. SSD_6664 Modification 1 was also approved. The current SSD_6664 consent permitted the Facility's capacity to be increased through an additional:

- Two 18ML diesel storage tanks; and
- Throughput to total 1,300ML pa.

Subsequent modification to SSD_6664 that occurred during the reporting period is detailed in **Section 2.2**.

1.3.3 Development Consent SSD_7065

During the reporting year Stolthaven applied to expand its existing fuel storage at Mayfield. This expansion involved:

- Increasing the throughput of the facility from 1,300ML to 3,500ML per year
- Importing flammable fuels (petroleum, ethanol and jet fuel), in addition to combustibles (diesel and biodiesel) already imported;
- 17 new fuel storage tanks and bunds, in addition to the 10 existing tanks;
- A marine loading arm, pumps and dual pipeline to transfer fuels to the terminal from ships docking at the new Mayfield No.7 berth; and
- A new six bay truck loading gantry, vapour control system, office and firefighting systems.

DP&E approved the application on 15 December 2016 and results in a consolidated development consent (SSD_7065) which the Site will operate under. SSD_7065 was not in force during the reporting period as the increase of throughput of combustible liquids beyond 1,300ML throughput per

year, or the ability to store flammable liquids will not occur until SSD_6664 has been surrendered and an amended EPL issued.

It is expected that construction of the additional tanks approved as part of SSD_7065 would occur during the next (2017) reporting period. Stolthaven will consult with DP&E regarding any approval required for the construction or operation of future stages of the terminal.

1.3.4 Licence

The Site operates under Environment Protection Licence (EPL) 20193 which is administered by the NSW EPA under the *Protection of the Environment Operations Act 1997* (POEO Act). EPL 20193 permits the scheduled activities of Chemical Storage and Shipping in Bulk on the site.

1.3.5 Other relevant approvals

Concept Plan (MP09_0096) was approved by the Minister under Section 75M of the EP&A Act on 16 July 2012 to enable development of the former BHP Steelworks site (known as the Closure Area or Concept Plan area), a 90 hectare portside portion of land on the South Arm of the Hunter River within which the Site sits. The Concept Plan area is to be developed progressively in stages to accommodate anticipated future trade needs over a 20-25 year timeframe.

Development Consent DA-293-08-00 MOD 9, dated 29 August 2013, is applicable to the M4 berth, and ships filling or depositing at this berth must comply with relevant conditions of this consent (e.g. operational noise limits).





G:\ENV\GIS\Projects\60326869\Stolthaven\FIGURES\3500\ML Modification\EIS\60326869 F4 Approved Terminal Layout_30.11.2015 TO

KEY

- Existing terminal boundary (fenced)
- Proposed terminal boundary
- Pipeline connection

0 50 100m



APPROVED TERMINAL LAYOUT
Bulk Fuel Storage Facility
State Significant Development - Stolthaven Stage 3

FIGURE 2

2.0 Site Operations

2.1 Description of Operations

Operations undertaken at the Site include the receipt, storage and dispatch of bulk diesel and biodiesel loading, as well as bulk tanker loading at M4. The Site operates 24 hours a day, seven days a week. The Site is partially automated and manned with Stolthaven personnel undertaking daily inspections. Primary operations include:

- The bulk storage of diesel and biodiesel at the site in the storage tanks listed in **Table 1**;
- The bulk transfer of diesel fuel from berthed ships to the site's above ground storage tanks; and
- The filling of road tankers with diesel and biodiesel products for transfer to customers.

2.2 Major Operational Changes in 2016

Following the issue of a new SSD development consent on 16 April 2015 the facility now operates under SSD development consent 6664 (SSD_6664). Following the approval of SSD_6664, Stolthaven made a modification to SSD_6664 to increase the annual throughput from 1,010 ML to 1,300 ML per year. The modification does not require an increase in storage capacity at the Site nor does it require construction of additional fuel storage tanks or associated infrastructure. This modification was approved on 28 September 2015 and was subsequently captured in the Sites EPL 20193 on 2 October 2015.

A variation to the EPL 20193 was granted on 22 April 2016 following a request by the Site. The variation included updates to the premises description and location of all discharge and monitoring points to reference the updated plan of the premises.

3.0 Groundwater

3.1 Groundwater Monitoring

Groundwater quality at the Site is managed in accordance with a groundwater monitoring program, adherence to the Site's Groundwater Management Plan (GMP) and the conditions of EPL 20193. Groundwater beneath the Site discharges into the Hunter River via groundwater migration.

Four groundwater monitoring wells were installed by Stolthaven in October 2013 (identified as Monitoring Points 1-4 in EPL 20193) and are identified as MW01, MW02, MW03 and MW04 in this report. The groundwater monitoring program consists of quarterly data collection and samples from the groundwater wells. Monitoring events are scheduled so that groundwater conditions beneath the Site are investigated during both wet and dry seasons. The schedule of groundwater monitoring wells is provided in **Table 2**.

Table 2 Groundwater Monitoring Points at the Site

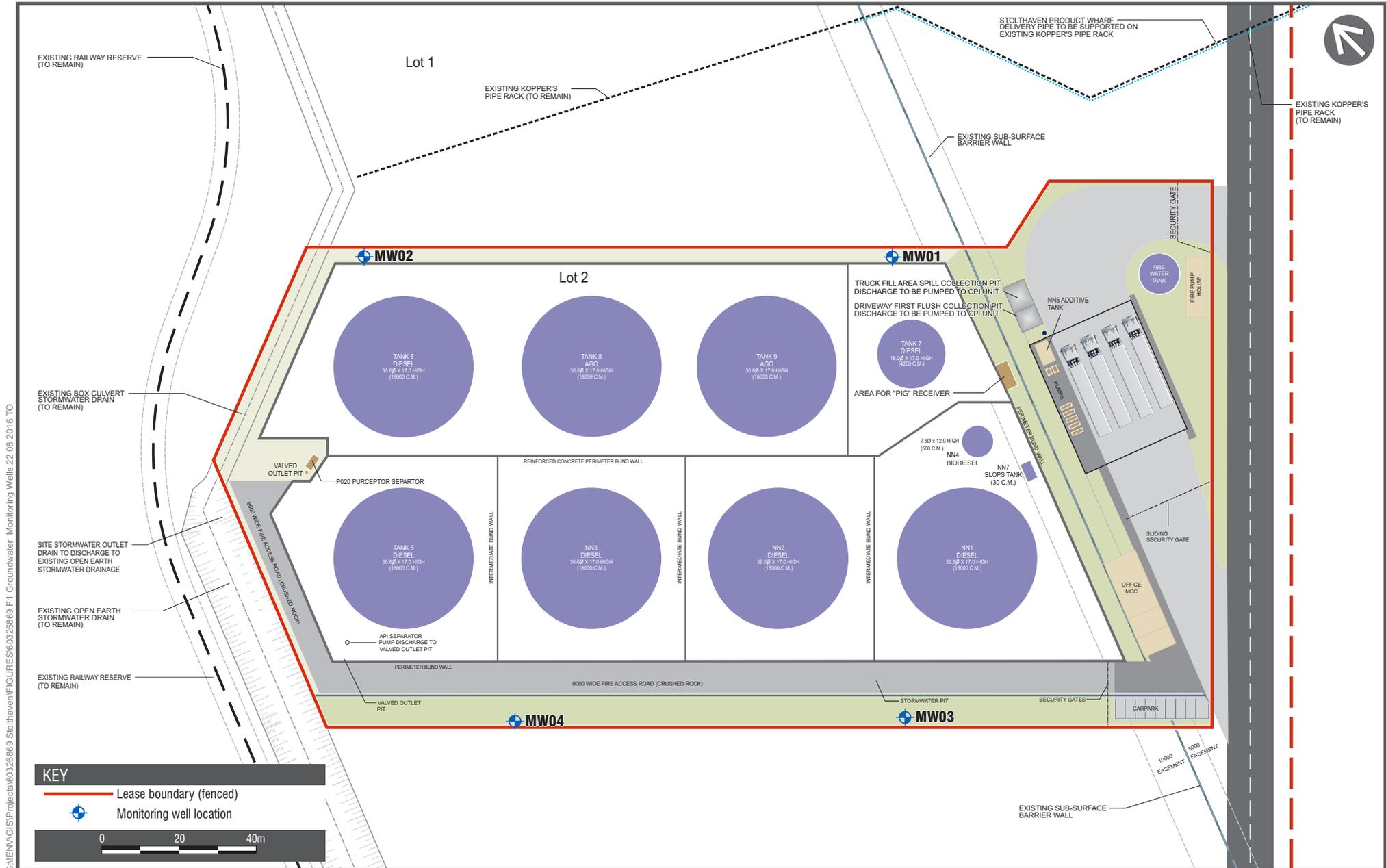
EPA Identification Number	Type of Monitoring Point	Sampling Frequency
1	Groundwater	Quarterly
2	Groundwater	Quarterly
3	Groundwater	Quarterly
4	Groundwater	Quarterly

Background monitoring was conducted prior to initial site operations in 2013 to assess the condition of groundwater entering and leaving the Site (particularly for the presence of petroleum hydrocarbons) in order to establish baseline groundwater quality within the Site before the commencement of operations. The results of background monitoring are included alongside groundwater monitoring results for the reporting period in **Section 3.2**.

Groundwater monitoring results are assessed against the site's Groundwater Assessment Criteria (GAC) as part of the GMP, and the background concentrations established in 2013. The thresholds that form the GAC are sourced from the ANZECC (2000) *Australia New Zealand Water Quality Guidelines for Fresh and Marine Waters*, 95% Species Protection for Marine Waters Criterion. Where trigger values have not been published, ANZECC (2000) low reliability trigger values were adopted. There are no groundwater quality requirements under the Site's EPL. The GAC is set out in **Table 3**.

Samples are analysed for pollutants by a NATA accredited laboratory. Indicators of potential adverse groundwater quality impact will include (but are not limited to) the following:

- Evidence of non-aqueous phase liquid (NAPL) (e.g. a separate fuel layer) on the groundwater table;
- Changes in clarity, colour and odour of groundwater; and
- Increases in concentrations of dissolved hydrocarbons.



G:\ENVA\GIS\Projects\60326869 Stolthaven\FIGURES\60326869 F-1 Groundwater Monitoring Wells 22.08.2016 TO

Table 3 Groundwater Assessment Criteria

Compound	Units	ANZECC (2000) 95% Low Reliability Values	ANZECC (2000) 95% Trigger Values	EPL Concentration Limit
BTEX				
Benzene	(µg/L)	-	500	-
Ethylbenzene	(µg/L)	80	-	-
Toluene	(µg/L)	180	-	-
o-xylene	(µg/L)	350	-	-
p-xylene	(µg/L)	200	-	-
m-xylene	(µg/L)	80	-	-
Total Xylene	(µg/L)	-	-	-
Total Recoverable Hydrocarbons				
C6-C10 Fraction	(µg/L)	-	-	-
C6-C10 - BTEX	(µg/L)	-	-	-
>C10-C16 Fraction	(µg/L)	-	-	-
>C16-C34 Fraction	(µg/L)	-	-	-
>C34-C40 Fraction	(µg/L)	-	-	-
>C10-C16 Fraction – Naphthalene	(µg/L)	-	-	-

3.2 Groundwater Monitoring Results

Groundwater monitoring results are presented in **Table 4** to **Table 7** with commentary on the analysis provided below in **Section 3.3**.

3.2.1 MW01

Table 4 Groundwater Monitoring Results for MW01

Analyte	Laboratory Limit of Reporting	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Background Range	GAC
pH							
pH	0.01	9.34	9.28	9.74	8.77	7.0 – 9.79	-
BTEX (µg/L)							
Benzene	1	<1	<1	<1	<1	<1 to 5	500
Ethylbenzene	2	<2	<2	<2	<2	<2	80
Toluene	2	<2	<2	<2	<2	<2	180
Xylene (o)	2	<2	<2	<2	<2	<2	350
Xylene (m&p)	2	<2	<2	<2	<2	<2	80*

Analyte	Laboratory Limit of Reporting	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Background Range	GAC
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	20	<20	<20	<20	<20	<20	-
C6-C10 minus BTEX (F1)	20	<20	<20	<20	<20	<20	-
>C10-C16 Fraction	100	<100	<100	<100	<100	<100	-
>C16-C34 Fraction	100	<100	<100	<100	<100	<100 to 380	-
>C34-C40 Fraction	100	<100	<100	<100	<100	<100	-
>C10-C16 Fraction – Naphthalene	100	<100	<100	<100	<100	<100	-

*Lesser value of m-xylene adopted as GAC

3.2.2 MW02

Table 5 Groundwater Monitoring Results for MW02

Analyte	Laboratory Limit of Reporting	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Background Range	GAC
pH							
pH	0.01	7.58	7.59	7.64	7.47	7.0 to 9.79	-
BTEX (µg/L)							
Benzene	1	<1	<1	<1	<1	<1 to 5	500
Ethylbenzene	2	<2	<2	<2	<2	<2	80
Toluene	2	<2	<2	<2	<2	<2	180
Xylene (o)	2	<2	<2	<2	<2	<2	350
Xylene (m&p)	2	<2	<2	<2	<2	<2	80*
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	20	<20	<20	<20	<20	<20	-
C6-C10 minus BTEX	20	<20	<20	<20	<20	<20	-

Analyte	Laboratory Limit of Reporting	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Background Range	GAC
(F1)							
>C10-C16 Fraction	100	<100	<100	<100	<100	<100	-
>C16-C34 Fraction	100	<100	<100	<100	<100	<100 to 380	-
>C34-C40 Fraction	100	<100	<100	<100	<100	<100	-
>C10-C16 Fraction – Naphthalene	100	<100	999 29<1	<100	<100	<100	-

3.2.3 MW03

Table 6 Groundwater Monitoring Results for MW03

Analyte	Laboratory Limit of Reporting	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Background Range	GAC
pH							
pH	0.01	8.04	8	8.2	8.06	7.0 to 9.79	-
BTEX (µg/L)							
Benzene	1	<1	<1	<1	<1	<1 to 5	500
Ethylbenzene	2	<2	<2	<2	<2	<2	80
Toluene	2	<2	<2	<2	<2	<2	180
Xylene (o)	2	<2	<2	<2	<2	<2	350
Xylene (m&p)	2	<2	<2	<2	<2	<2	80*
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	20	<20	<20	<20	<20	<20	-
C6-C10 minus BTEX (F1)	20	<20	<20	<20	<20	<20	-
>C10-C16 Fraction	100	<100	<100	<100	<100	<100	-
>C16-C34 Fraction	100	<100	<100	<100	<100	<100 to 380	-

Analyte	Laboratory Limit of Reporting	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Background Range	GAC
>C34-C40 Fraction	100	<100	<100	<100	<100	<100	-
>C10-C16 Fraction – Naphthalene	100	<100	<100	<100	<100	<100	-

3.2.4 MW04

Table 7 Groundwater Monitoring Results for MW04

Analyte	Laboratory Limit of Reporting	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Background Range	GAC
pH							
pH	0.01	8.39	8.08	8.56	8.23	7.0 to 9.79	-
BTEX (µg/L)							
Benzene	1	<1	<1	<1	<1	<1 to 5	500
Ethylbenzene	2	<2	<2	<2	<2	<2	80
Toluene	2	<2	<2	<2	<2	<2	180
Xylene (o)	2	<2	<2	<2	<2	<2	350
Xylene (m&p)	2	<2	<2	<2	<2	<2	80*
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	20	<20	<20	<20	<20	<20	-
C6-C10 minus BTEX (F1)	20	<20	<20	<20	<20	<20	-
>C10-C16 Fraction	100	<100	<100	<100	<100	<100	-
>C16-C34 Fraction	100	<100	<100	<100	<100	<100 to 380	-
>C34-C40 Fraction	100	<100	<100	<100	<100	<100	-
>C10-C16 Fraction – Naphthal	100	<100	<100	<100	<100	<100	-

Analyte	Laboratory Limit of Reporting	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Background Range	GAC
ene							

3.3 Analysis of Results

A statistical trend analysis was undertaken for selected analytes at the four monitoring locations to determine if any trends were apparent in the dataset. An upper confidence level of 95% was set in order to determine if any trends identified were statistically significant.

Published guidance states that a minimum of six data points are required to perform statistical trend analysis, with greater sample sizes resulting in greater confidence in any trends that are identified. As of this Annual Review, fifteen data points are available for trend analysis with monitoring at the Site having commenced in October 2013.

3.3.1 MW01

Recorded pH levels at MW01 for this reporting period ranged from 8.77 – 9.74, remaining within background levels recorded at the Site. Trend analysis concluded there was insufficient statistical evidence of a significant trend in pH at MW01 (refer **Figure 4**).

Total Recoverable Hydrocarbons (TRH) concentrations were below Laboratory Limits of Reporting (LOR) at MW01 and were consistent with background levels established for the Site. TRH concentrations at MW01 have been consistently below the laboratory LOR since monitoring records began in October 2013.

BTEX concentrations were also below the LOR at this monitoring point and it appears that BTEX concentrations are stable below the LOR at MW01.

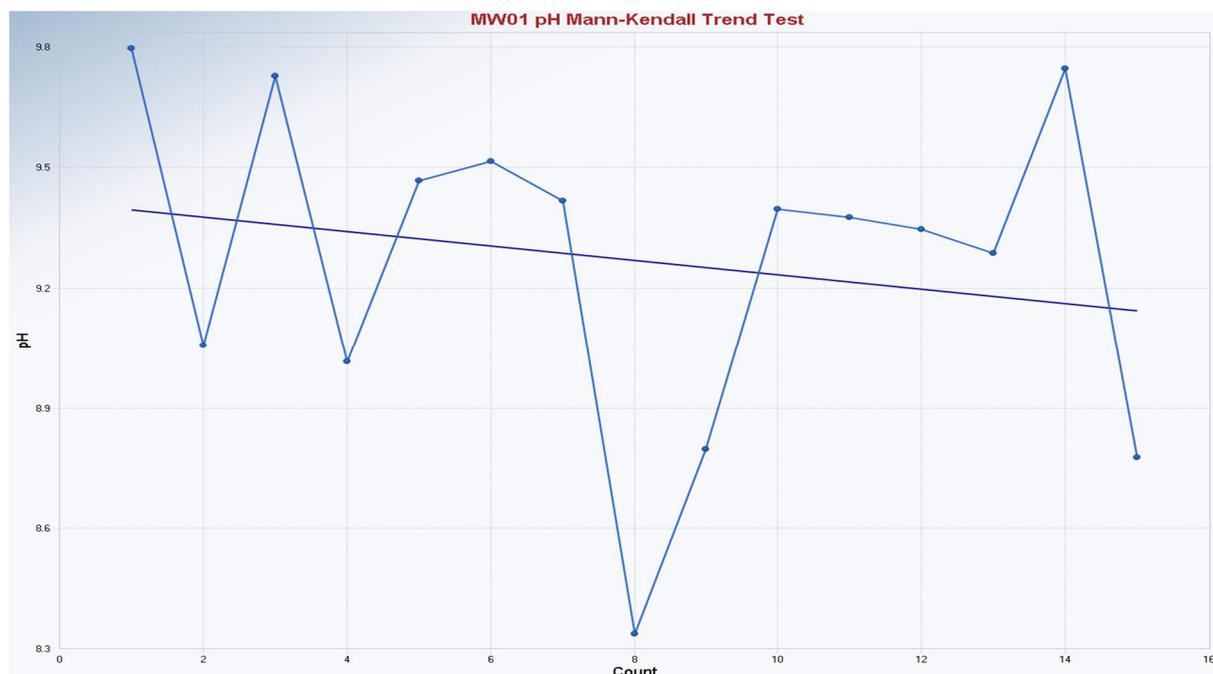


Figure 4 Statistical trend analysis for pH levels at MW01

3.3.2 MW02

Recorded pH levels at MW02 for this reporting period ranged from 7.47 – 7.64, remaining within background levels recorded at the Site. Trend analysis showed statistically significant evidence of a decreasing trend in pH at MW02 (refer **Figure 5**).

TRH concentrations were below the LOR at MW02 and were consistent with background levels established for the Site. TRH fractions have generally not been recorded at MW02 since monitoring at the Site began, apart from one recorded low concentration in the >C16-C34 fraction (380 µg/L) in October 2013. Overall, TRH concentrations appear to be stable at below LOR concentrations.

Consistent with the previous analysis undertaken since August 2015, BTEX concentrations were also below the LOR at this monitoring point. Trend analysis determined that statistically significant evidence of a decreasing trend was evident in the dataset (refer **Figure 6**).

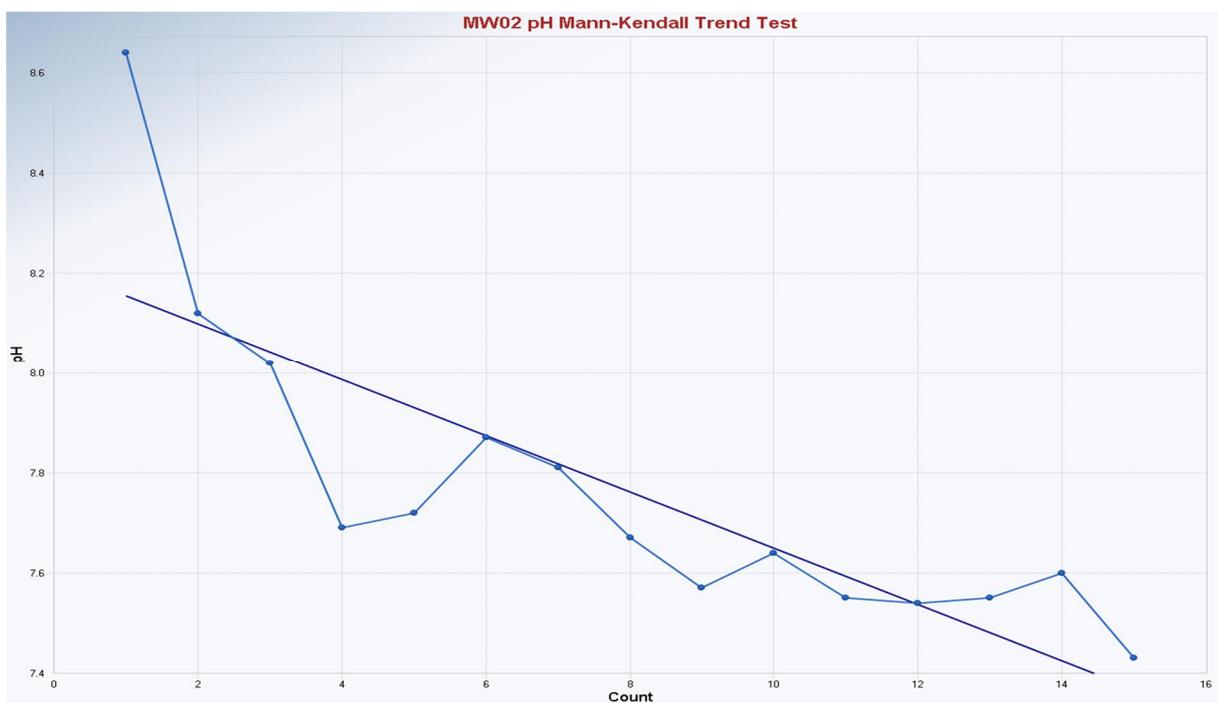


Figure 5 Statistical trend analysis for pH levels at MW02

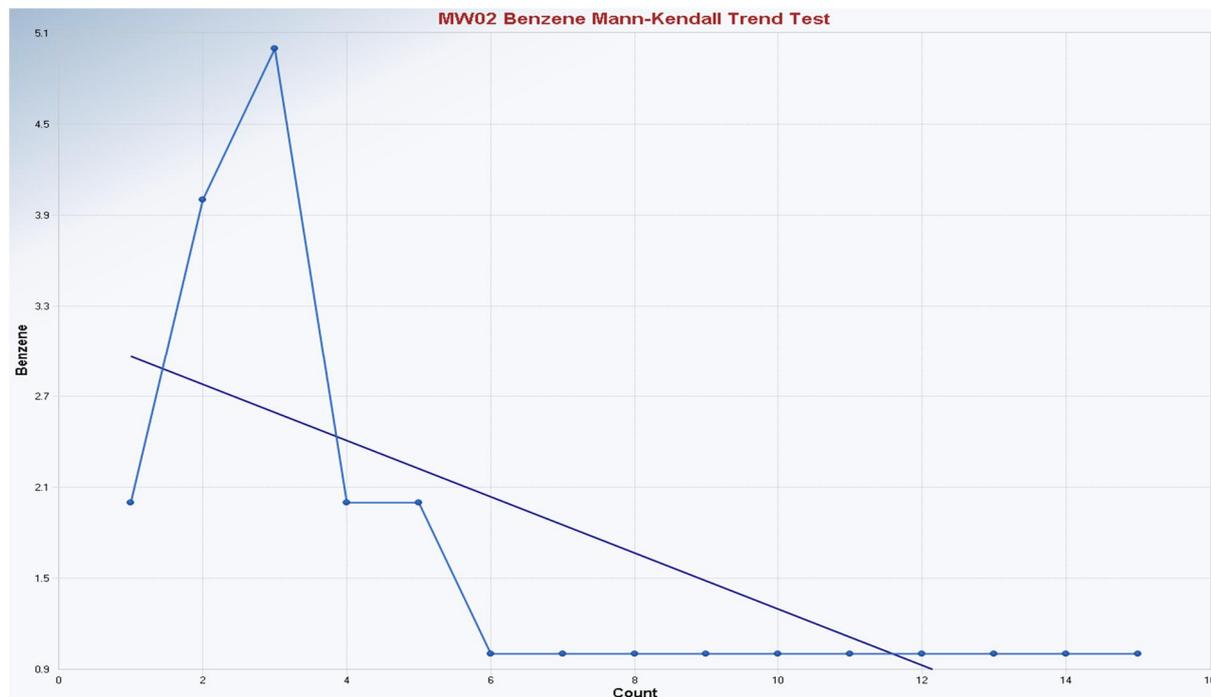


Figure 6 Statistical trend analysis for Benzene levels at MW02

3.3.3 MW03

Recorded pH levels at MW03 for this reporting period ranged from 8 – 8.2, remaining within background levels recorded at the Site. The pH values at this location had increased steadily since monitoring began; however, during the previous two monitoring event the pH value had decreased. At the August GME the pH value has again increased and is continuing its upward trend. **Figure 7** below shows, there is evidence of an increasing trend in the data. This apparent upward trend should be confirmed by further monitoring events.

TRH concentrations were below the LOR at MW03 and were consistent with background levels established for the Site. TRH fractions have generally not been recorded at MW03 since monitoring at the Site began, apart from one recorded low concentration in the >C16-C34 fraction (180 µg/L) in October 2013. Overall, TRH concentrations appear to be stable at below LOR concentrations.

BTEX concentrations were also below the LOR at this monitoring point and it appears that BTEX concentrations are stable below the LOR at MW03.



Figure 7 Statistical trend analysis for pH levels at MW03

3.3.4 MW04

Recorded pH levels at MW04 for this reporting period ranged from 8.08 – 8.56, remaining within background levels recorded at the Site. Trend analysis showed statistically significant evidence of a downward trend in pH at MW04 (refer **Figure 8**).

TRH concentrations were below the LOR at MW04 and were consistent with background levels established for the Site.

BTEX concentrations were also below the LOR at this monitoring point and it appears that BTEX concentrations are stable below the LOR at MW04.



Figure 8 Statistical trend analysis for pH levels at MW04

3.4 Summary of Groundwater Results

Where appropriate, statistical trend analysis was undertaken on individual analytes at selected monitoring wells using an upper confidence level of 95%.

Trends in TRH and BTEX concentrations were largely non-calculable given the small dataset available and the high proportion of Non-Detect values in the data (caused by data points with results below LOR concentrations). A decreasing trend in benzene concentration was identified at MW02, however it is noted that benzene concentrations at MW02 appear to have stabilised at below LOR concentrations over the past ten monitoring events.

Some preliminary trends were identified for pH levels, including a decreasing trend at MW02 and MW04 and an increasing trend at MW03. Further data obtained during future monitoring events will confirm the reliability of the preliminary trends identified above.

4.0 Stormwater

4.1 Stormwater Monitoring

Monitoring of stormwater discharges is undertaken as part of the Site's Stormwater Management Plan (SWMP) to assess the efficiency of stormwater runoff quality controls implemented at the Site.

Monitoring of stormwater at the Site consists of:

- Visual inspection of the site and areas receiving runoff from the site; and
- Water quality is monitored after rainfall events.

Indicators of potential adverse water quality impacts as assessed through water quality monitoring include:

- Evidence of erosion and scouring around the stormwater pipe discharge outlets;
- Changes in clarity, colour and odour of receiving waters;
- Presence of debris and rubbish;
- Evidence of stress on flora or fauna;
- Presence of an oily film on water surfaces; and
- Orange/brown coating on banks, water surfaces or substrate.

There are currently eight concrete bund walls around the Site's bulk storage area designed to contain any spills onsite and prevent environmental harm. The bunds are referred to as Bund 1, Bund 2, Bund 3, Bund 5, Bund 6, Bund 7, Bund 8 and Bund 9, with Bunds 8 and 9 coming into commission in mid-2016. After every rainfall event all bunds are sampled and tested before release through the Puraceptor on Site according to the SWMP. In order to ensure the quality of stormwater collected from the bunds, the outlet from the bunds is kept closed at all times.

The Puraceptor is a water quality and hydrocarbon detector located at the Site's licenced discharge point at the Hunter River. In order to confirm that stormwater measures implemented at the site do not adversely impact on the Hunter River, samples are collected following a rainfall event that results in sufficient stormwater discharge to collect surface water samples.

The water samples at Point 5 are analysed prior to discharge for the pollutants as shown in **Table 8**. Concentration limits are taken from EPL 20193. Once water quality results are obtained for the water in the Puraceptor, water is discharged into the Hunter River via an outfall drain. If water quality is found to be noncompliant with the parameters prescribed in the site's EPL it is treated further and then retested until the water is of an acceptable quality to be discharged. It is noted that Biological Oxygen Demand (BOD) was removed from the EPL criteria on 27 August 2015 and was not sampled during the 2016 reporting period.

Table 8 Water Quality Criteria (EPL 20193)

Pollutant	Units of Measure	Frequency	Method	100 percentile concentration limit
Dissolved Oxygen	Milligrams per litre	Weekly during any discharge	Grab sample	>2
Oil and Grease	Milligrams per litre	Weekly during any discharge	Grab sample	10
pH	pH	Weekly during any discharge	Grab sample	6.5 – 8.5
Total Suspended Solids	Milligrams per litre	Weekly during any discharge	Grab sample	30
Volume	Megalitres per day	Continuous during discharge	Special Method 1	-

4.2 Stormwater Monitoring Results

Results from stormwater monitoring are presented below. Water quality results from the Site's licenced discharge point are presented in **Table 9** and water quality results from bund water sampling are summarised in **Table 10**. A full copy of the data from stormwater monitoring is provided in **Appendix A**.

Table 9 Discharged Water Quality Results (EPA Point 5)

Sample Date	Dissolved Oxygen (mg/L)	Oil and Grease (mg/L)	pH	Total Suspended Solids (mg/L)	Volume discharged (L)
Concentration Limit	>2	10	6.5-8.5	30	-
4/01/2016	6.78	< 2	7.30	20	35,000
21/01/2016	7.23	< 2	7.20	14	35,000
25/01/2016	6.78	< 2	7.50	6	35,000
10/02/2016	5.71	< 2	7.60	8	35,000
17/03/2016	5.89	8	7.20	1	35,000
15/04/2016	6.13	< 2	7.50	8	35,000
2/06/2016	8.38	< 2	7.00	25	35,000
20/06/2016	8.54	< 2	7.40	26	35,000
12/07/2016	7.08	3	7.40	16	35,000
21/07/2016	8.03	< 2	7.90	26	20,000
11/04/2016	7.76	< 2	7.40	33	Nil release
11/08/2016	8.90	< 2	7.40	14 ¹	35,000
2/09/2016	7.75	< 2	7.30	35	Nil release
6/09/2016	6.93	< 2	7.20	14 ¹	35,000
16/09/2016	3.97	3	7.15	34	Nil release
20/09/2016	4.93	< 2	7.34	7 ¹	35,000
11/10/2016	5.55	< 2	7.30	10	35,000
24/10/2016	5.63	< 2	7.00	14	30,000
1/11/2016	6.59	< 2	7.20	1	35,000
10/11/2016	6.71	< 2	7.39	41	Nil release
14/11/2016	6.11	< 2	7.06	26 ¹	35,000
1/12/2016	6.72	< 2	7.22	11	15,000

Bold indicates an exceedance of the criteria

Note 1: ¹Indicates a retest. Retest sample complied with criteria.

Table 10 Bund Water Quality Results

Parameter	Minimum	Maximum	Average
pH	6.0	9.28	7.51
Total Dissolved Solids (ppm)	9.2	110	33.02
Dissolved Oxygen (mg/L)	6.4	87.7	51.97
Conductivity (µS/cm)	14.2	222.7	52.59

4.3 Analysis of Results

4.3.1 Discharged Water Quality Results

The water quality results recorded at EPA Monitoring Point 5 are summarised in **Table 9** and are analysed below. While the water sampling identified some exceedances of the EPA criteria, any water which exceeded EPA criteria was resampled and retested and met the allowable limits. Should any water sample exceed EPA criteria twice Site procedures require the removal of this water by a licenced contractor. There had not been a requirement for any water to be removed offsite by a licenced contractor during the reporting period and water discharged from the site was compliant with all conditions of the Site's EPL.

The following sections identify trends that have emerged for each of the parameters. Considering the small sample size of available water quality data, it should be noted that only preliminary trends have been identified in the data and these trends could be subject to significant change in later reporting periods.

Dissolved Oxygen

The dissolved oxygen levels recorded at Monitoring Point 5 complied with the Site's EPL criteria, with all results above the prescribed minimum concentration limit of 2 mg/L. No exceedances of the criteria were recorded during the reporting period. The results for the reporting period are shown in **Figure 9** along with historical data. The average dissolved oxygen level recorded during the reporting year was 51.97 mg/L, with a minimum level of 6.4 mg/L. The historical results indicate that dissolved oxygen at Monitoring Point 5 is variable, with no apparent trend identified.

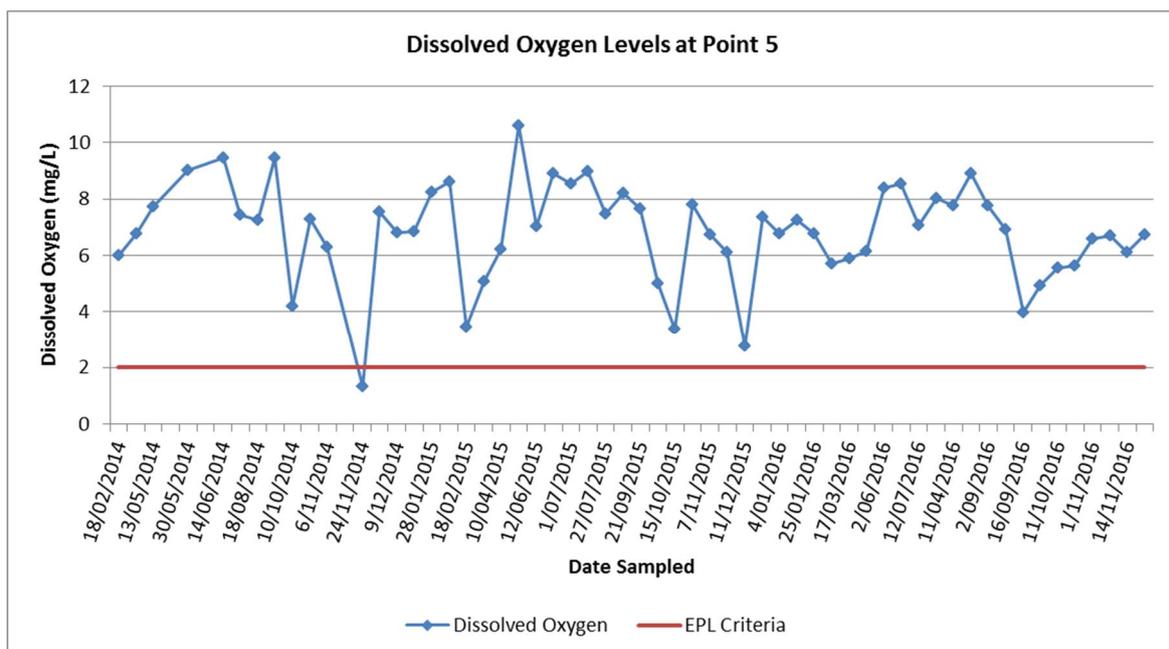


Figure 9 Dissolved Oxygen levels at Monitoring Point 5

Oil and Grease

The oil and grease levels recorded at Monitoring Point 5 during the reporting period were compliant with the EPL concentration limit of 10 mg/L. There were no exceedances of the criterion recorded during the reporting period. The results for the reporting period are shown in **Figure 10** along with the historical results for oil and grease levels recorded at Monitoring Point 5. The average level of oil and grease recorded during the reporting period was 1.50 mg/L, with a maximum of 8mg/L. The results shown in **Figure 10** indicate that oil and grease levels generally remain < 2 mg/L.

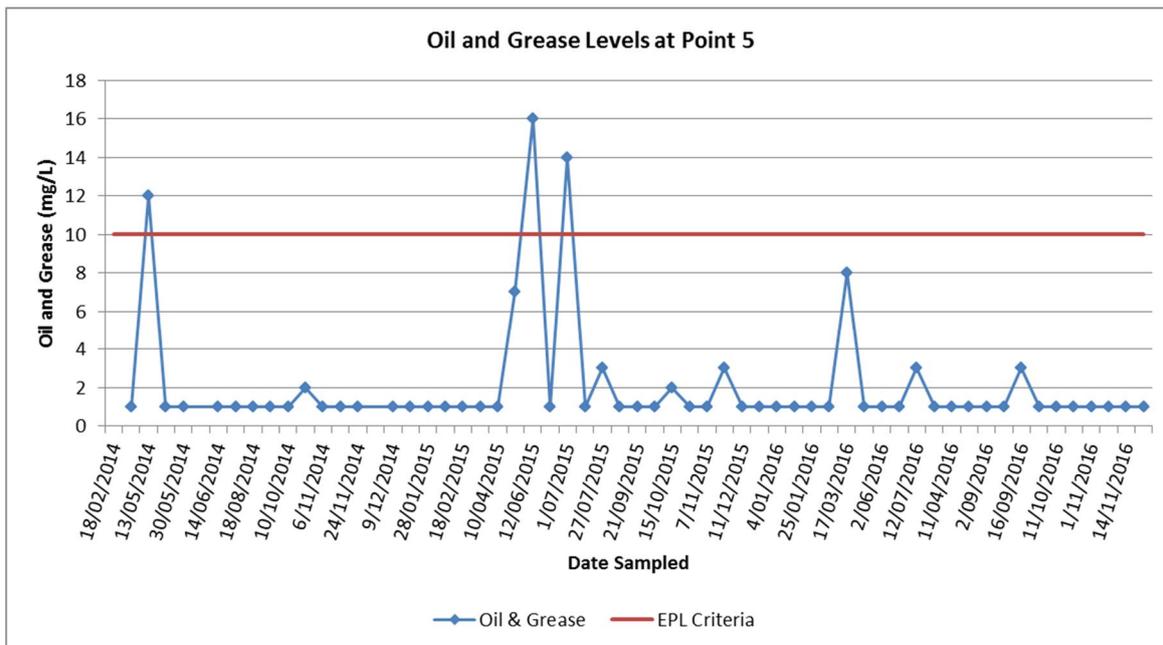


Figure 10 Oil and Grease levels at Monitoring Point 5

Note: Concentrations recorded as below the LOR for Oil and Grease (<2 mg/L) are represented as 1 mg/L

pH

The pH levels recorded at Monitoring Point 5 complied with the Site's EPL criteria, remaining within the prescribed pH range of 6.5 – 8.5. The results for the reporting period are shown in **Figure 11** along with the historical results for pH levels recorded at Monitoring Point 5. During the reporting period, the average pH level recorded was 7.32. The historical results indicate that pH levels at Monitoring Point 5 generally remain within the range of 7 to 8.

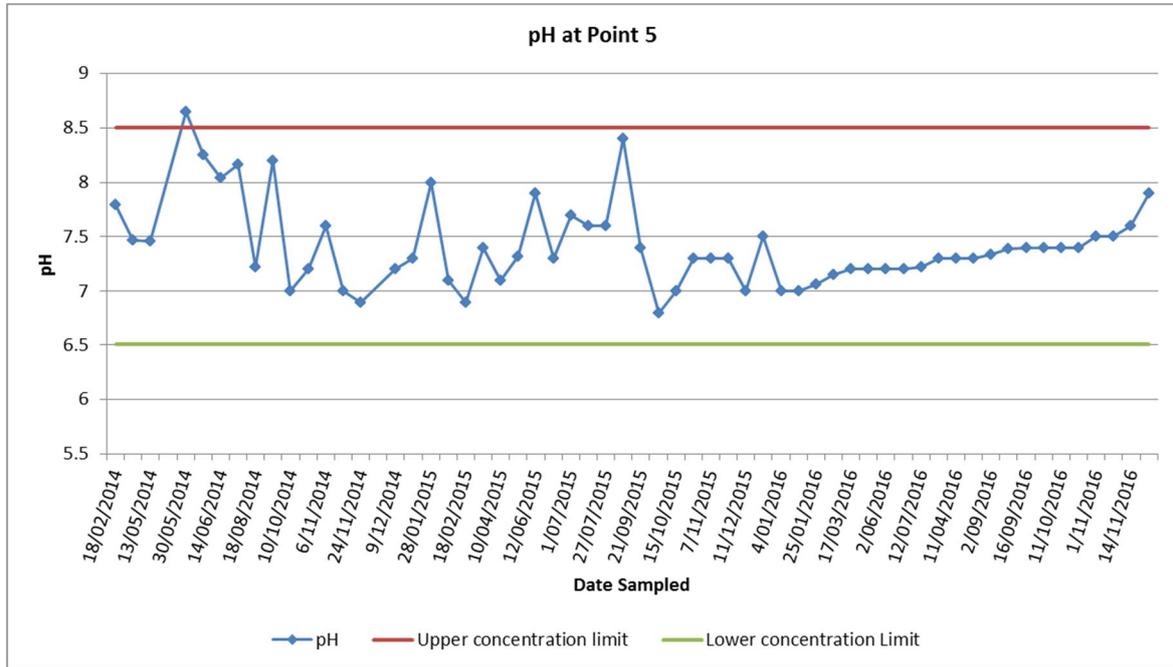


Figure 11 pH levels at Monitoring Point 5

Total Suspended Solids

The total suspended solids levels recorded at Monitoring Point 5 varied throughout the reporting period. On four occasions the affected water was treated, retested and subsequently complied with the EPL limit.

Results for the reporting period are shown in **Figure 12** along with the historical results for total suspended solids levels recorded at Monitoring Point 5. During the reporting period, the average level of total suspended solids was 23.7, with a maximum recording of 87.0 mg/L. The historical results indicate that the level of total suspended solids at Monitoring Point 5 is variable, with no apparent trend identified.

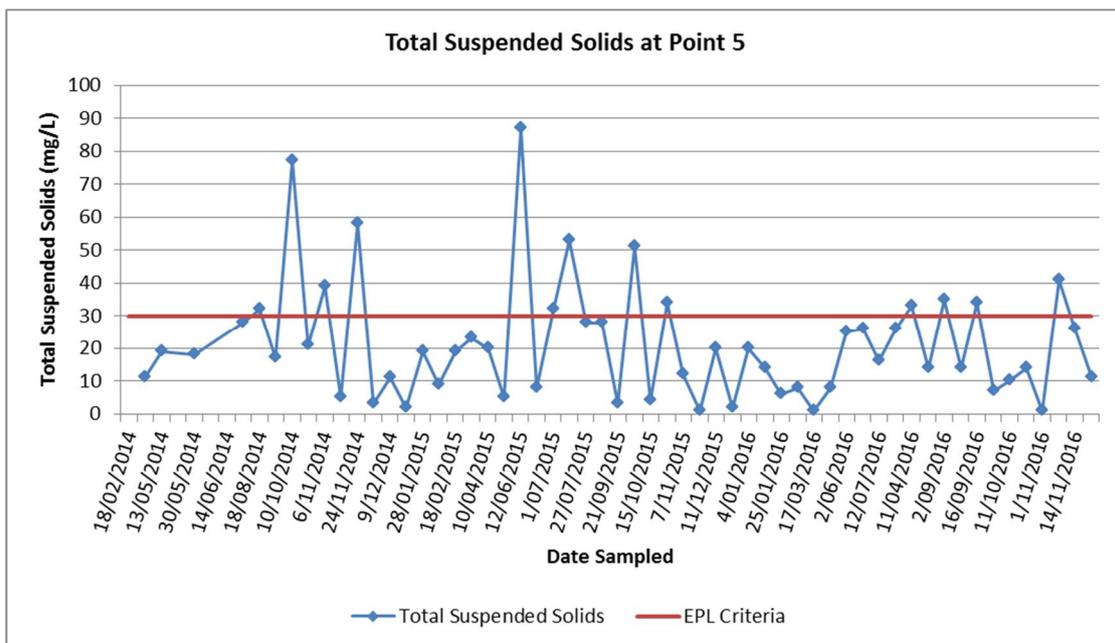


Figure 12 Total suspended solids levels at Monitoring Point 5

4.3.2 Bund Water Quality Results

The water quality results recorded for bund water following rainfall events are summarised in **Table 10** and are analysed below. There are currently no specific limits for bund water quality as they do not discharge into waterways. Bund water is sampled following rainfall and then treated before it is released through the Puraceptor out of the Site’s licenced discharge point (Point 5) after water quality analysis confirms the water can be safely discharged into the Hunter River.

The following sections identify trends that have emerged for each of the parameters. Bund water quality has been compared against the Site’s own baseline data and significant deviations from this baseline data are highlighted and assessed. In future reporting periods, the data series will grow in accuracy and bund water quality trends and issues will be identified with greater confidence and appropriate management measures can be recommended to address any issues identified.

pH

The pH levels recorded in the bund water during the reporting period ranged from 6.0 to 9.28, with an average pH of 7.51. Results for the reporting period are shown in **Figure 13** along with historical results. The pH levels during the reporting period were generally within the pH range of 6.5 – 8.5 prescribed in EPL criteria for the licensed discharge point (Monitoring Point 5). On four occasions, pH was recorded as being above the maximum pH limit of 8.5 (pH of 8.51 on , pH of 8.7 on , pH of 9.0 on and pH of 9.28 on and 8.58 on 17 December 2015). Consistent with the 2015 Annual Return findings there is a very slight increasing linear trend in pH. This increase remains not presently of concern considering the magnitude of the trend and the treatment measures in place to control the pH of water discharged from the Site. Nonetheless, this trend should be closely monitored during future monitoring events.

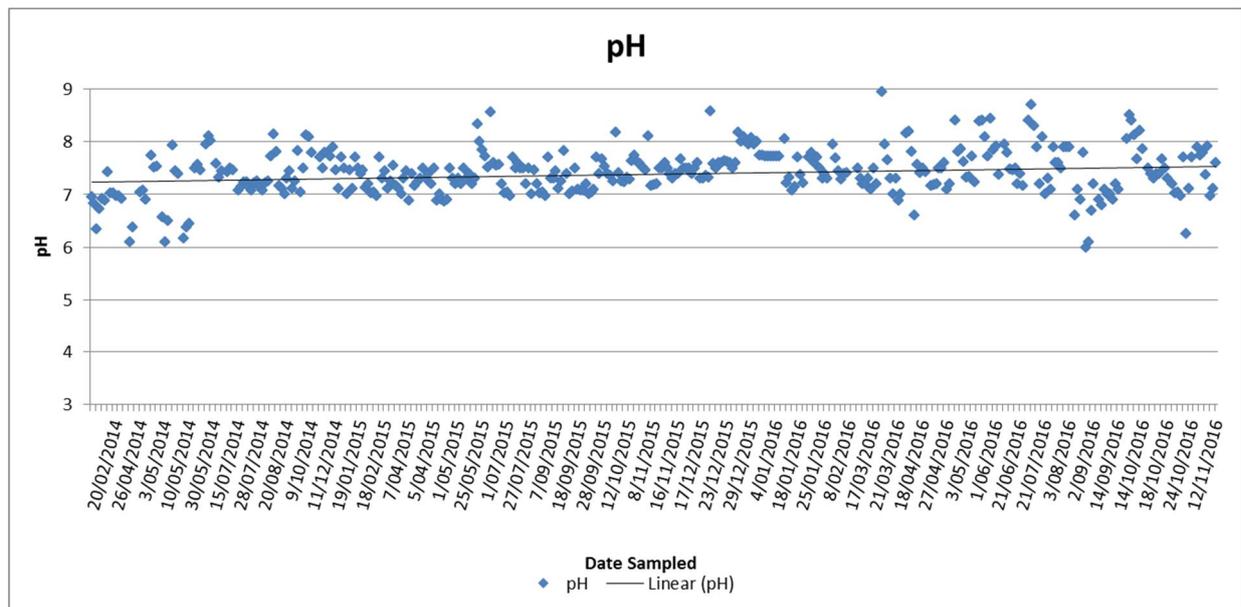


Figure 13 pH levels recorded in bund water at the Site

Total Dissolved Solids (TDS)

TDS levels in bund water during the reporting period ranged from 9.2 to 110 ppm, with an average of 33.02 ppm. Results for the reporting period are shown in **Figure 14** along with historical results. TDS levels at the Site during the reporting period were consistent with historic samples which have been relatively stable between 0 -100 ppm, with the exception of occasional samples with higher levels. During the current reporting period only one sample recorded a level higher than 100 ppm (110 ppm on 27 April 2016). Comparison of historic and 2016 data reveal a slight decrease linear trend in TDS levels recorded in bund water at the Site.

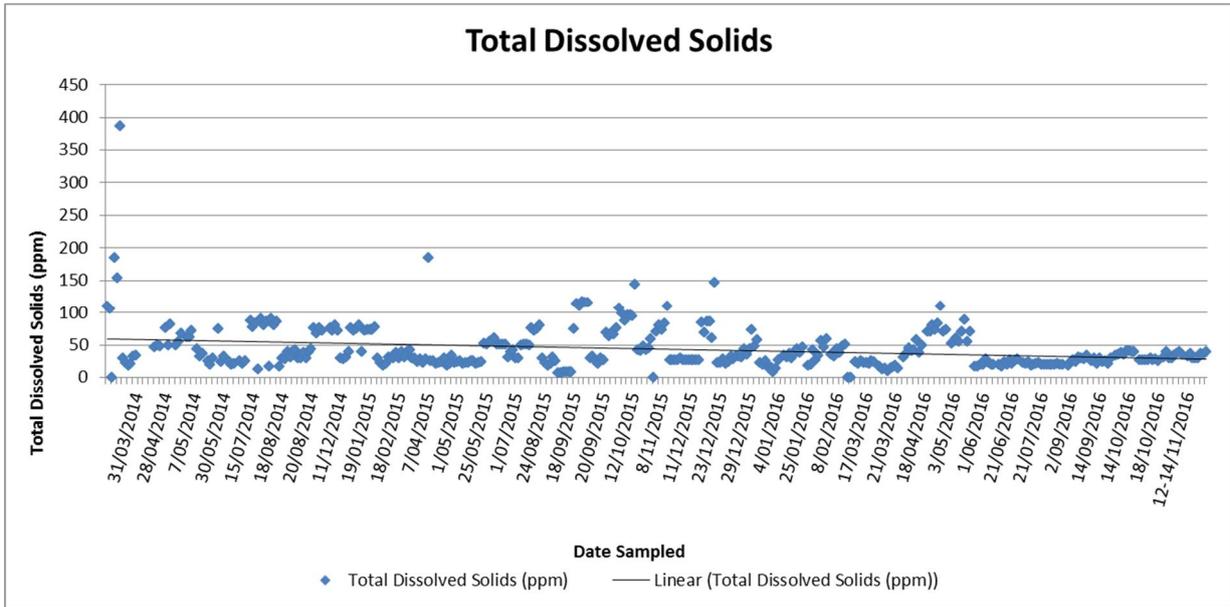


Figure 14 Total Dissolved Solids concentrations recorded in bund water at the Site

Dissolved Oxygen

Dissolved oxygen concentrations in bund water during the reporting period ranged from 6.4 to 87.7 mg/L, with an average concentration of 51.97 mg/L. Results for the reporting period are shown in **Figure 15** along with historical results. While dissolved oxygen concentrations were varied throughout the reporting period, an increasing linear trend was identified which can indicate increasing water quality.

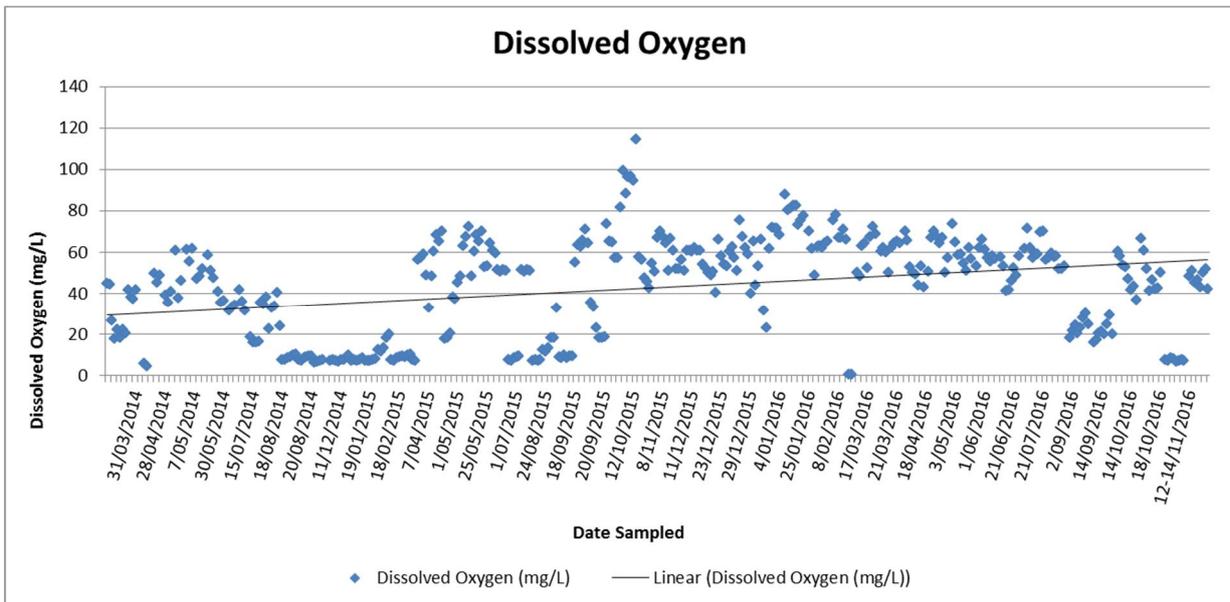


Figure 15 Dissolved oxygen levels in bund water at the Site

Conductivity

Conductivity levels in bund water during the reporting period ranged from 14.2 to 222.7 $\mu\text{S/cm}$, with an average conductivity of 52.59 $\mu\text{S/cm}$. Results for the reporting period are shown in **Figure 16** along with historical results. While conductivity levels varied during the reporting period, a decreasing linear trend was identified which may indicate a decrease in dissolved salts and other inorganic chemicals. This trend is not of great concern at present, given the small data sample size (two years) and the

treatment measures in place to control the water quality parameters for water discharged from the Site. Nonetheless, this trend should be closely monitored during future monitoring events.

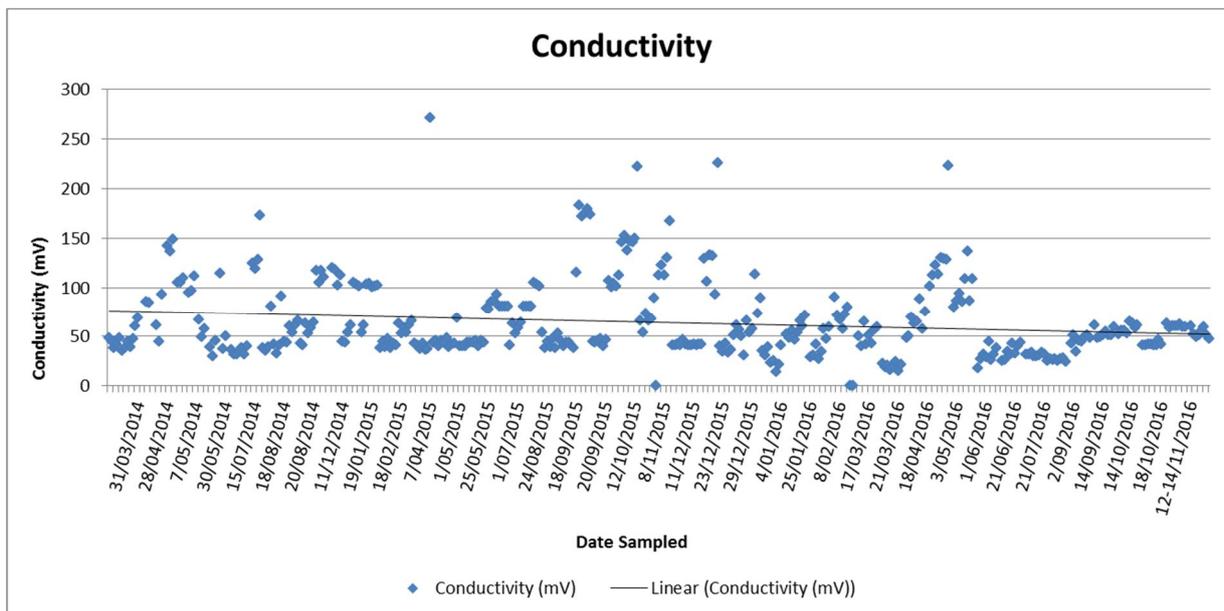


Figure 16 Conductivity levels in bund water at the Site

4.4 Summary of Stormwater Results

Stormwater management and monitoring measures implemented at the Site have been successful in preventing environmental harm in this reporting period. Sampling identified less exceedances of the EPL criteria than the previous reporting period. The source of exceedances is potentially from airborne material which have been blown onto the Stolthaven site, or potentially tracked in or sources from tyres of trucks moving through the site. Management measures implemented by Stolthaven, such as investing in a sweeper unit to manage materials on the sites driveway areas, appear to be successfully ensuring that all stormwater discharged from the Site is compliant with the requirements of EPL 20193.

Consistent future monitoring of bund water after rainfall events will improve the Site’s available baseline data and ability to identify trends and issues as well as to identify necessary environmental management measures to improve the environmental performance of the Site.

5.0 Noise

5.1 Operational Noise

Operational noise generation is managed and monitored according to the Site's Noise Management Plan. The main noise sources at the site are summarised in **Table 11**. During operations, haulage ships at dock at M4 and pump fuel into storage tanks to be blended and held on site. Haulage trucks receive the blended fuels and transport it through an access road leading to the intersection of Industrial Drive and Ingall Street. All these operations have the potential to result in noise emissions.

Table 11 Noise emitters at the Site

Operational Activity	Noise Source
Internal Private Access Roads	Moving trucks, idling trucks
Industrial Noise Sources*	Fuel pumps
	Haulage tanker trucks filling

*Ships in berth and transferring fuel fall under the provisions of DA-293-08-00 as modified.

The nearest residential areas to the site are located to the south-west of the Facility at Mayfield, with the closest receivers in Crebert Street, approximately 900 m away. To the south east there are residential receivers located in Carrington, approximately 2 km away. To the south east there are residential receivers located in Stockton, approximately 3 km away.

Operational noise levels at the Site are required to be within limits set out in Condition L5.1 of EPL 20193. The operational noise criteria that have to be met as prescribed by the EPL are shown in **Table 12**.

The SSD_6664 consent requires operational noise levels at the Site to comply with the relevant noise goals contained in the Mayfield Concept Plan MP09_0096, or any noise quota established by the PON for the development. A methodology to deal with cumulative noise from the entire Mayfield Concept Plan area is currently in development and is yet to be finalised. Therefore, noise quota levels have not yet been issued for the facility.

Table 12 Operational Noise Criteria

Receiver	Location	Day	Evening	Night	
		L _{Aeq} (15min)	L _{Aeq} (15min)	L _{Aeq} (15min)	LA1 (1min)
R1, R2, R3, R4, R6, R7	Mayfield	48	43	42	52
R5	Carrington	48	43	42	54
R8	Mayfield	49	48	44	54
R9	Stockton	52	51	51	61
R10	Mayfield East	45	N/A	N/A	N/A

5.2 Noise Modelling Results

Attended noise measurements were undertaken on 22 and 23 November 2016 at the closest nearby residential receiver locations. It was found that it was not possible to directly measure the impact of noise arising from operations at the Facility due to the influence from extraneous noise sources, i.e. existing industrial noise from other industrial areas unrelated to the Facility and traffic noise on Industrial Drive. The compliance assessment was therefore carried out using SoundPLAN noise modelling software, based upon on-site attended and unattended noise measurements, in accordance

with the NSW EPA Industrial Noise Policy (INP). Noise emissions were assessed under worst case prevailing wind and temperature inversion conditions in two different operations scenarios on site. The results of this assessment are provided in **Table 13** to **Table 16**.

Table 13 Predicted noise levels - Reasonable worst case intrusiveness scenario (15 minute period)

Receiver	Operational noise limits ¹ L _{Aeq} (15min), dB(A)	Neutral			3 m/s source to receiver wind			Temperature Inversion (F-Class, 3° C/100 m)		
		Predicted noise level, L _{Aeq} (15 min), dB(A)		Compliance	Predicted noise level, L _{Aeq} (15 min), dB(A)		Compliance	Predicted noise level, L _{Aeq} (15 min), dB(A)		Compliance
		Predicted noise level (Worst case site operations)	Predicted noise level (Worst case truck operations)		Predicted noise level (Worst case site operations)	Predicted noise level (Worst case truck operations)		Predicted noise level (Worst case site operations)	Predicted noise level (Worst case truck operations)	
R1	42	26	25	Yes	31	30	Yes	30	29	Yes
R2	42	27	27	Yes	32	31	Yes	31	30	Yes
R3	42	28	28	Yes	33	32	Yes	32	32	Yes
R4	42	36	34	Yes	41	39	Yes	40	39	Yes
R5	42	35	33	Yes	40	38	Yes	39	38	Yes
R6	42	36	35	Yes	40	39	Yes	39	38	Yes
R7	42	23	23	Yes	26	26	Yes	26	25	Yes
R8	44	17	16	Yes	22	21	Yes	22	21	Yes
R9	51	16	15	Yes	22	21	Yes	22	21	Yes
R10	45 ³	25	24	Yes	30	29	Yes	29	28	Yes

Notes:

- Operational noise limits are based on the most stringent operational noise limits (i.e. night-time period).
- Assessment of temperature inversion does not apply during the daytime period.
- The school noise limit only applies during the daytime period when school is in use.

Table 14 Predicted noise levels – Reasonable worst case amenity scenario (Whole of assessment period), Neutral meteorological condition

Period			Day		Evening			Night	
Receiver	Predicted noise level	MCP overall noise goals, L _{Aeq} (Period)	Compliance	Predicted noise level	MCP overall noise goals, L _{Aeq} (Period)	Compliance	Predicted noise level	MCP overall noise goals, L _{Aeq} (Period)	Compliance
Trucks through the Facility on 22/23 November 2016									
A	20	60	Yes	20	49	Yes	21	43	Yes
B	29	60	Yes	29	50	Yes	30	43	Yes
C	9	57	Yes	10	44	Yes	11	45	Yes
D	9	55	Yes	10	37	Yes	11	37	Yes
Reasonable worst case trucks through the Facility - 2016									
A	21	60	Yes	24	49	Yes	21	43	Yes
B	30	60	Yes	32	50	Yes	30	43	Yes
C	10	57	Yes	17	44	Yes	11	45	Yes
D	10	55	Yes	17	37	Yes	11	37	Yes

Table 15 Predicted noise levels – Reasonable worst case amenity scenario (Whole of assessment period), Temperature inversion meteorological condition

Period		Day			Evening			Night	
Receiver	Predicted noise level	MCP overall noise goals, L _{Aeq} (Period)	Compliance	Predicted noise level	MCP overall noise goals, L _{Aeq} (Period)	Compliance	Predicted noise level	MCP overall noise goals, L _{Aeq} (Period)	Compliance
Trucks through the Facility on 22/23 November 2016									
A	N/A ¹	N/A ¹	N/A ¹	24	49	Yes	25	43	Yes
B	N/A ¹	N/A ¹	N/A ¹	33	50	Yes	34	43	Yes
C	N/A ¹	N/A ¹	N/A ¹	15	44	Yes	16	45	Yes
D	N/A ¹	N/A ¹	N/A ¹	16	37	Yes	17	37	Yes
Reasonable worst case trucks through the Facility - 2016									
A	N/A ¹	N/A ¹	N/A ¹	28	49	Yes	25	43	Yes
B	N/A ¹	N/A ¹	N/A ¹	36	50	Yes	34	43	Yes
C	N/A ¹	N/A ¹	N/A ¹	23	44	Yes	17	45	Yes
D	N/A ¹	N/A ¹	N/A ¹	23	37	Yes	17	37	Yes

Notes

1. Assessment of temperature inversion does not apply during the day-time period.

Table 16 Sleep disturbance assessment

Receiver	Criteria dB(A)	Neutral		3 m/s source to receiver wind		Temperature inversion (F-Class, 3°C/100 m)	
		Predicted noise level, L _{Aeq} (15 min), dB(A)	Compliance	Predicted noise level, L _{Aeq} (15 min), dB(A)	Compliance	Predicted noise level, L _{Aeq} (15 min), dB(A)	Compliance
R1	52	40	Yes	43	Yes	44	Yes
R2	52	45	Yes	48	Yes	48	Yes
R3	52	46	Yes	48	Yes	49	Yes
R4	52	45	Yes	48	Yes	49	Yes
R5	54	43	Yes	46	Yes	47	Yes
R6	52	48	Yes	51	Yes	51	Yes
R7	52	45	Yes	47	Yes	48	Yes
R8	54	23	Yes	29	Yes	29	Yes
R9	61	23	Yes	30	Yes	30	Yes

5.3 Analysis of Results

Compliance has been found against the requirements of all site approval documents, at all receiver locations, during all assessment periods under all prevailing meteorological conditions.

A Noise and Vibration Impacts Assessment was prepared as part of the Environmental Impact Statement (EIS) for the SSD_6664 modification application to increase throughput to 1,300 ML per year. A Noise and Vibration Assessment was also prepared for the subsequent Modification application to increase annual throughput to 1,300ML. Noise modelling was undertaken to examine the noise and vibration impacts of the construction and operational phases of the Project, as well as the cumulative impacts which may result from each phase of the proposed facility. The assessment concluded that there would be no exceedance of the noise criteria under all operational scenarios, for day and night activities. The results of noise modelling undertaken during this reporting period indicate that the Site is operating in accordance with the predictions made in the EIS.

Noise limits set out in EPL 20193 were amended during the 2015 reporting period, and as such a comparison to previous years' compliance assessment is not presented however the noise and vibration assessment conducted in November 2016 concluded that noise impacts were found to be consistent with operations in previous years.

6.0 Fuel Storage and Transport

6.1 Fuel Storage

Approximately 969 ML was received on site and 1,000 ML was transported off site during the reporting period. A breakdown of fuel stored, received, and dispatched is provided in **Table 17**. On balance, the combined volume of fuel initially stored at the start of the reporting period plus the volume of fuel received during the reporting period should approximately equal the combined volume of fuel dispatched throughout the reporting period plus the volume of fuel stored at the end of the reporting period. It should be noted however that site measurement equipment has a tolerance of 0.5% which over the course of a year can lead to these amounts not matching. Other factors that contribute to the discrepancy include:

- Product volume onsite is accounted for by a daily and monthly reconciliation process;
- Some variation is caused by the heating and cooling of products being received and the temperature and therefore density at the different times of measurement/pumping; and
- Bulk tanks are manually dipped by a third party Surveyor before and after every shipping receipt.

Gantry meters are calibrated on a 6 monthly schedule to minimise potential for measurement errors.

Table 17 Volume of fuel stored, received and dispatched

Fuel type	Volume Stored (at start of reporting period)	Volume Received (during reporting period)	Volume Dispatched (during reporting period)	Volume Stored (at end of reporting period)
Diesel (L)	39,861,750	969,835,087	985,817,452	15,776,573
Biodiesel (L)	4,558,141	149,785	13,377,174	0
Additive (L)	22,724	0	975,625	22,370
Slops (L)	20,265	*	325,800	10,603
Total (L)	44,462,880	969,984,872	1,000,496,051	15,809,546

**note that slops are not transported to Site but are generated onsite as a result of site activities.*

The annual throughput approved under SSD_6664 was increased via modification from 1,010 ML to 1,300 ML on 28 September 2015. The annual throughput approved under the EPL was amended on 2 October 2015 with the current annual throughput limit approved under Condition A1.4 of the EPL being 1,300 ML. No exceedances of throughput limits occurred during the reporting period.

6.2 Truck Movements

Over the reporting period there were a total of 41,979 truck movements at an average of approximately 3,498 each month. This equates to approximately 115 truck movements per day. A breakdown of hourly truck movements is provided at **Appendix B**.

A Traffic Impact Assessment (TIA) was conducted as part of the EIS for the SSD_6664 modification application to increase throughput to 1,300ML per year. The TIA assessed a worst case potential operational traffic scenario of 200 truck movements per day. Although there are no specific traffic movement requirements in either the Project approval or EPL, assessment of average daily truck movements at the site for this reporting period indicates compliance with this predicted traffic volume for all months.

Monthly traffic movements for the reporting period compared to those of the previous reporting years is provided in **Figure 17**.

6.2.1 Mayfield Concept Plan Traffic Movements

Condition 2.3 of the Mayfield Concept Plan Approval provides that the following truck numbers should not be exceeded prior to additional traffic monitoring being undertaken and any potential impacts to the road networks operation of infrastructure requirements identified:

- Total Mayfield Concept Plan Truck Movements per day – 1,268; and
- Total Mayfield Concept Plan Truck Movements per hour – 95.

During the busiest month of operations throughout the review period (February 2016), movements from Stolthaven averaged up to 65 movements per day which is the equivalent of approximately 3 per hour. This is well within the Concept Plan’s initial limits listed above.

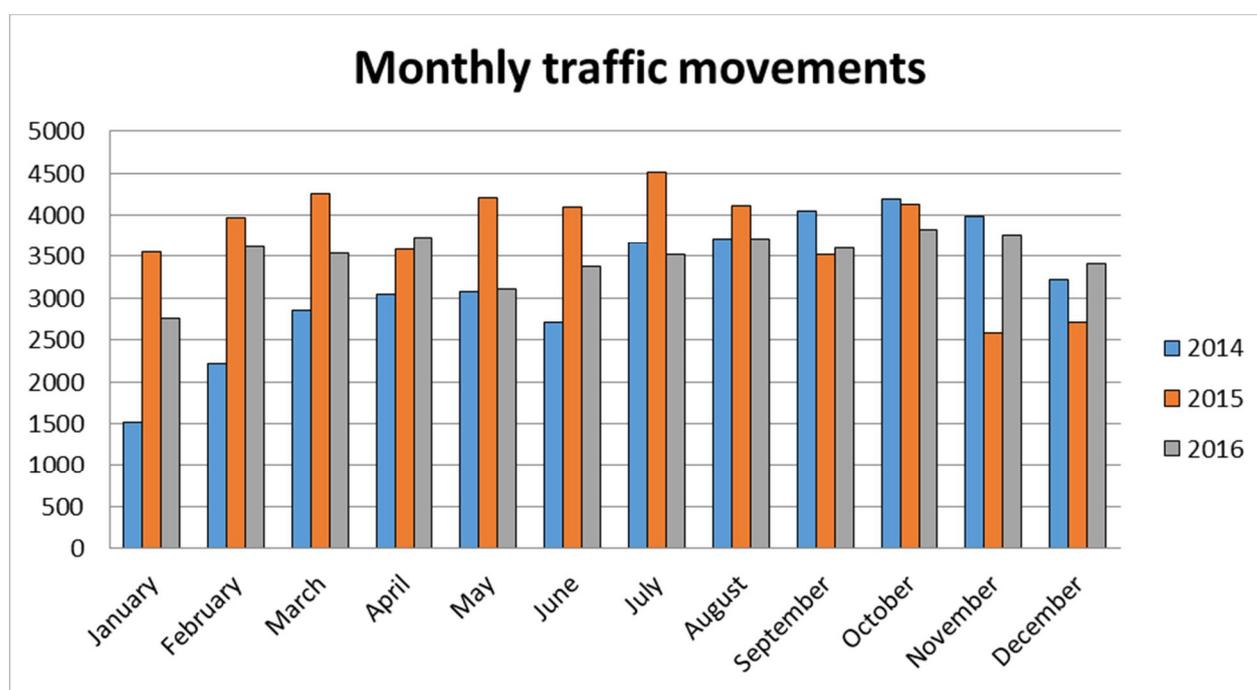


Figure 17 Comparison of monthly truck movements

7.0 Waste

Waste is managed according to the Site's Waste Management Plan (WMP) and is minimised or recycled where possible. Solid waste is disposed of in appropriate receptacles and removed by local waste contractors.

Liquid waste generated on site is stored in the tanks listed in **Table 18**. Waste is discharged from the site once it has been treated to an acceptable quality or is disposed of by an appropriately licence waste collector. Waste removed from the Site in the current reporting period is summarised in **Table 18**.

Table 18 Waste Removal Totals

Tank	Date	Volume (L)
Septic Tank (Effluent)	7/01/2016	3,000
	15/01/2016	2,500
	22/01/2016	3,000
	29/01/2016	2,000
	5/02/2016	2,500
	11/02/2016	2,500
	18/02/2016	3,300
	25/02/2016	3,300
	3/03/2016	3,300
	10/03/2016	3,300
	17/03/2016	3,000
	24/03/2016	3,300
	1/04/2016	3,300
	7/04/2016	1,800
	14/04/2016	3,000
	21/04/2016	3,300
	29/04/2016	3,000
	5/05/2016	3,300
	12/05/2016	3,000
	19/05/2016	3,000
	26/05/2016	3,000
	2/06/2016	3,000
	10/06/2016	3,000
16/06/2016	2,500	
24/06/2016	3,000	

Tank	Date	Volume (L)
	30/06/2016	3,000
	7/07/2016	3,000
	14/07/2016	3,300
	21/07/2016	3,000
	28/07/2016	3,000
	5/08/2016	4,000
	11/08/2016	2,000
	18/08/2016	2,800
	25/08/2016	3,500
	1/09/2016	3,500
	8/09/2016	3,300
	15/09/2016	3,000
	22/09/2016	1,500
	29/09/2016	3,500
	6/10/2016	3,000
	13/10/2016	3,000
	20/10/2016	3,000
	27/10/2016	3,000
	3/11/2016	3,000
	10/11/2016	3,000
	17/11/2016	3,000
	25/11/2016	3,000
	1/12/2016	3,500
	8/12/2016	3,000
	15/12/2016	2,000
	22/12/2016	3,000
	30/12/2016	1,800
	Total (Septic Tank)	152,900
Slops Tank*	12/01/2016	22,900
	1/02/2016	22,500
	26/02/2016	23,000

Tank	Date	Volume (L)
	16/03/2016	17,200
	24/03/2016	8,800
	31/03/2016	14,800
	6/04/2016	24,500
	14/04/2016	7,200
	10/05/2016	16,000
	31/05/2016	9,700
	27/06/2016	20,200
	29/06/2016	5,000
	25/07/2016	19,000
	17/08/2016	17,600
	19/09/2016	21,900
	17/10/2016	19,400
	3/11/2016	5,700
	14/11/2016	22,400
	5/12/2016	20,000
	20/12/2016	8,000
	TOTAL (Slops)	325,800

*slops consists of a mix of diesel, motor spirit and water

7.1 Spills and Site Contamination

Records of reportable spills and site contamination are described in the incident register provided in **Appendix C**. Following incidents, Stolthaven prepares an Incident Report in accordance with their internal Incident Investigation procedure. These reports are saved against the incident in the Incident Register.

No non-compliances or reportable incidents in relation to spills and site contamination occurred during the reporting period. All incidents relating to potential spills and site contamination were minor and effectively managed on site.

8.0 Aesthetic

Weed control and vegetation management activities are conducted monthly according to the Site's maintenance checklist and in accordance with the site's Landscape Management Plan. These controls ensure fire and safety risks are managed effectively at the site through the prevention of any vegetation build-up. No complaints were received by Stolthaven regarding aesthetic issues at the Site.

9.0 Compliance

No non-compliances or reportable incidents were identified during the reporting period.

9.1 Pipeline Integrity

An Annual Pipeline Pressure Test was conducted at the Stolthaven Terminal on the wharf pipeline on the 31 October 2016 by Hancock & Owen Services. The test confirmed the integrity of the pipeline. A copy of the test report is included in **Appendix D**.

10.0 Complaints

No complaints were received by Stolthaven during the reporting period.

11.0 Conclusion and Recommendations

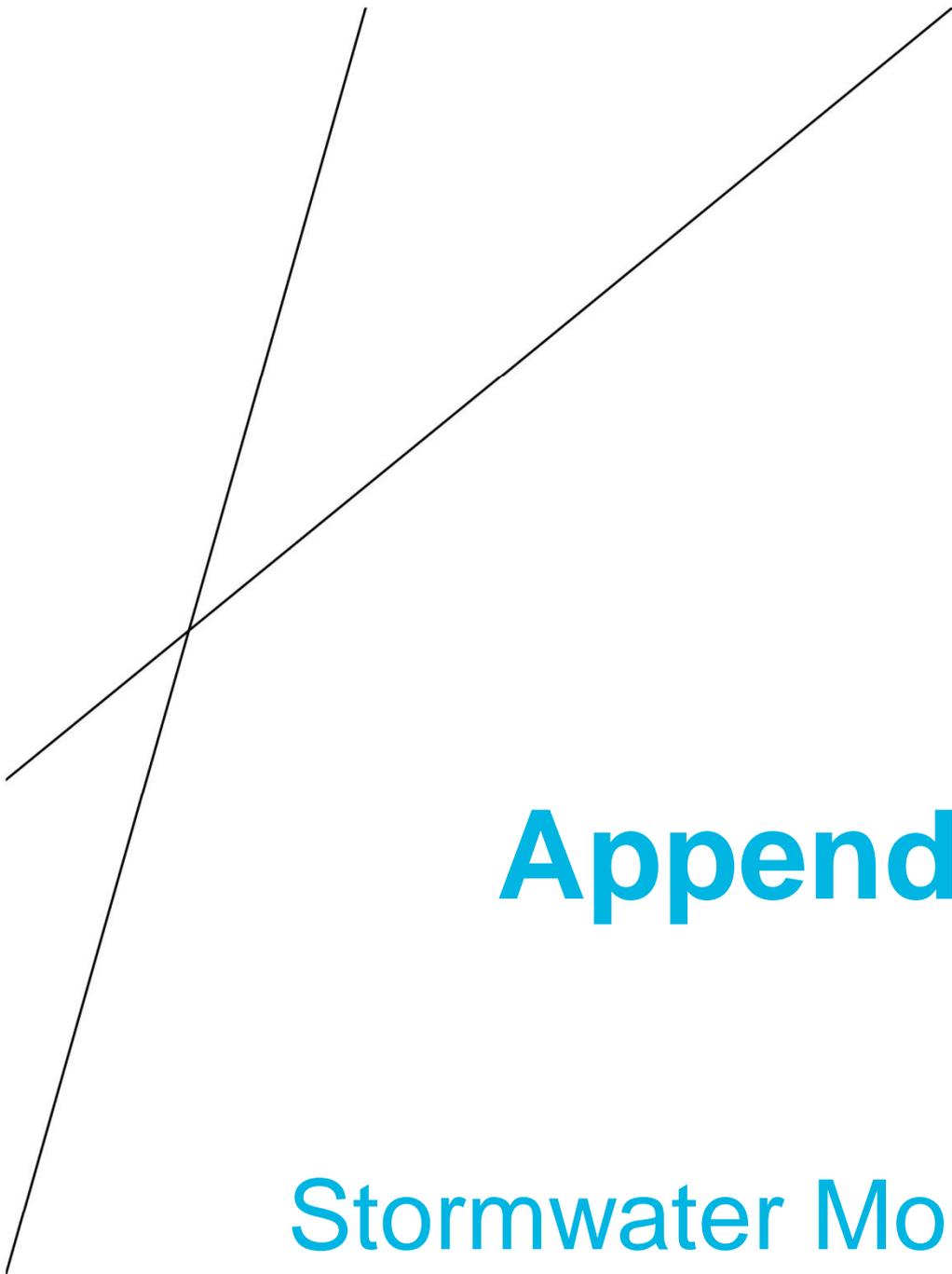
The data collected and reviewed for the reporting period indicates that the Site's impact on the surrounding environment is of an acceptable level and in accordance with the SSD_6664 consent and the site Operational Environmental Management Plan. This level of environmental performance can be attributed to the design and operation of the facility as well as to the environmental management plans and measures undertaken at the Site.

Monitoring data collected and analysed during this reporting period has been analysed against baseline monitoring data for the Site. However, the dataset available is still relatively small given that the Site has only been operational since November 2013. In future reporting periods as the amount of monitoring data available for analysis increases, trends in monitoring data will be able to be identified with greater confidence. From the limited data available for this reporting period, no significant trends were identified that would necessitate environmental management actions from Stolthaven for the Site.

Data from the groundwater monitoring program could not identify trends in TRH and BTEX as concentrations were largely non-calculable given the small dataset available for analysis and the high proportion of Non-Detect values in the data (caused by data points with results below LOR concentrations). Some preliminary trends were identified for pH levels, including a decreasing trend at MW02 and MW04 and an increasing trend at MW03. Results of groundwater monitoring will continue to be analysed quarterly to assess the development of these trends.

Stormwater management and monitoring measures implemented at the Site have been successful in preventing environmental harm in this reporting period. All stormwater discharged from the Site was compliant with the requirements of EPL 20193. Consistent future monitoring of bund water after rainfall events will improve the Site's available baseline data and ability to identify trends and issues as well as to identify necessary environmental management measures to improve the environmental performance of the Site.

Noise monitoring identified compliance with all site approval documents at all receiver locations. Truck movements during the reporting period remain consistent with the predictions made in the EIS for the SSD_6664 application as modified.



Appendix A

Stormwater Monitoring

Appendix A Stormwater Monitoring

2016 FIRST FLUSH RESULTS



Samples Collected:	Samples Tested:	Dissolved Oxygen (mg/L)	Oil and Grease (mg/L)	pH	Total Suspended Solids (TSS)	Volume (L)	Comments
4/01/2016	4/01/2015	6.78	< 2	7.30	20	35,000	
21/01/2016	21/01/2016	7.23	< 2	7.20	14	35,000	
25/01/2016	25/01/2016	6.78	< 2	7.50	6	35,000	
10/02/2016	10/02/2016	5.71	< 2	7.60	8	35,000	
17/03/2016	17/03/2016	5.89	8	7.20	1	35,000	
15/04/2016	15/04/2016	6.13	< 2	7.50	8	35,000	
2/06/2016	7/08/2016	8.38	< 2	7.00	25	35,000	
20/06/2016	20/06/2016	8.54	< 2	7.40	26	35,000	
12/07/2016	12/07/2016	7.08	3	7.40	16	35,000	
21/07/2016	21/07/2016	8.03	< 2	7.90	26	20,000	
11/04/2016	11/04/2016	7.76	< 2	7.40	33	Nil release	Retest
11/08/2016	11/08/2016	8.90	< 2	7.40	14	35,000	Pass result
2/09/2016	2/09/2016	7.75	< 2	7.30	35	Nil release	Retest
6/09/2016	6/09/2016	6.93	< 2	7.20	14	35,000	Pass result
16/09/2016	16/09/2016	3.97	3	7.15	34	Nil release	Retest
20/09/2016	20/09/2016	4.93	< 2	7.34	7	35,000	Pass result
11/10/2016	11/10/2016	5.55	< 2	7.30	10	35,000	
24/10/2016	24/10/2016	5.63	< 2	7.00	14	30,000	
1/11/2016	1/11/2016	6.59	< 2	7.20	1	35,000	
10/11/2016	10/11/2016	6.71	< 2	7.39	41	Nil release	Retest
14/11/2016	14/11/2016	6.11	< 2	7.06	26	35,000	Pass result
1/12/2016	1/12/2016	6.72	< 2	7.22	11	15,000	

2016 BUND WATER RESULTS



Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (% SAT)	Conductivity (uS/cm)	Appearance
4/01/2016	4/01/2016	Bund 1	23.8	7.74	22.8	65.7	35.2	Clear
		Bund 2	22.9	7.74	20	31.1	30.5	Clear
		Bund 3	23.8	7.73	25.2	22.8	38.8	Clear
		Bund 5	23.8	7.73	15.1	61.5	23.4	Clear
		Bund 6	23.7	7.73	16.2	71.9	25.1	Clear
		Bund 7	23.6	7.73	9.2	71.1	14.2	Clear
		Bund 8	23.5	7.73	14.3	71.1	21.8	Clear
		Bund 9	23.8	7.73	26.5	68.1	41	Clear
18/01/2016	18/01/2016	Bund 1	25.5	8.05	33.8	87.7	52.6	Clear
		Bund 2	25.3	7.22	31	80.3	48.1	Clear
		Bund 3	25.4	7.33	36.5	80.8	55.8	Clear
		Bund 5	25.3	7.07	30.2	82.3	46.7	Clear
		Bund 6	25.6	7.15	35.2	82.5	53.8	Clear
		Bund 7	25.4	7.71	43.5	73.0	66.1	Clear
		Bund 8	25.3	7.37	38.8	75.4	60.4	Clear
		Bund 9	25.3	7.21	46.9	77.4	71.8	Clear
25/01/2016	25/01/2016	Bund 1	27.2	7.70	19.1	70.1	29.4	Clear
		Bund 2	27.4	7.80	19.90	61.40	30.40	Clear
		Bund 3	27.0	7.60	41.8	48.6	41.9	Clear
		Bund 5	27.3	7.70	27.1	62.5	27.2	Clear
		Bund 6	27.4	7.50	33.4	62.8	34.1	Clear
		Bund 7	27.9	7.30	57.1	62.0	57.8	Clear

2016 BUND WATER RESULTS



Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (% SAT)	Conductivity (uS/cm)	Appearance
		Bund 8	27.4	7.40	47.2	64.0	47.3	Clear
		Bund 9	27.2	7.31	59.2	65.0	59.7	Clear
8/02/2016	8/02/2016	Bund 1	25.8	7.95	35.1	75.4	90.2	Clear
		Bund 2	26.3	7.69	32.6	78.1	71.4	Clear
		Bund 3	26.5	7.45	43.3	67.0	66.8	Clear
		Bund 5	26.5	7.29	38.8	66.8	57.7	Clear
		Bund 6	26.5	7.39	47.4	70.6	73	Clear
		Bund 7	26.4	7.41	50.5	65.8	80	Clear
		Bund 8	N/A	N/A	N/A	N/A	N/A	N/A
		Bund 9	N/A	N/A	N/A	N/A	N/A	N/A
17/03/2016	17/03/2016	Bund 1	25.6	7.5	24.0	50.0	50.0	Clear
		Bund 2	25.0	7.3	21.8	48.0	40.0	Clear
		Bund 3	24.8	7.2	25.3	63.0	65.0	Clear
		Bund 5	25.2	7.2	22.0	64.3	42.0	Clear
		Bund 6	25.4	7.3	23.0	52.0	51.0	Clear
		Bund 7	24.9	7.1	21.7	67.1	43.0	Clear
		Bund 8	25.0	7.5	25.0	72.1	57.0	Clear
		Bund 9	26.0	7.2	24.3	68.7	60.0	Clear
21/03/2016	21/03/2016	Bund 1	22.9	9.0	16.4	60.1	22.5	Clear
		Bund 2	22.6	8.0	12.3	61.8	19.1	Clear
		Bund 3	22.4	7.7	13.6	59.9	20.9	Clear
		Bund 5	22.8	7.3	10.4	50.0	15.9	Clear

2016 BUND WATER RESULTS



Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (% SAT)	Conductivity (uS/cm)	Appearance
		Bund 6	22.8	7.0	14.4	61.9	19.9	Clear
		Bund 7	22.9	7.3	16.1	64.0	24.8	Clear
		Bund 8	22.9	6.9	19.0	65.0	15.4	Clear
		Bund 9	22.7	7.0	13.7	64.3	21.2	Clear
18/04/2016	18/04/2016	Bund 1	22.6	8.2	31.8	70.0	48.5	Clear
		Bund 2	22.6	8.2	36.4	65.5	50.0	Clear
		Bund 3	22.5	7.8	44.8	52.5	69.5	Clear
		Bund 5	22.4	6.6	41.5	50.1	63.2	Clear
		Bund 6	22.5	7.6	42.6	48.9	65.2	Clear
		Bund 7	22.9	7.4	57.6	43.8	88.1	Clear
		Bund 8	22.5	7.5	37.7	53.1	58.1	Clear
		Bund 9	23.5	7.4	49.4	42.8	75.5	Clear
27/04/2016	27/04/2016	Bund 1	23.3	7.2	70.2	50.2	101.0	Clear
		Bund 2	23.0	7.2	71.1	67.0	112.9	Clear
		Bund 3	22.7	7.2	80.7	69.9	122.9	Clear
		Bund 5	22.7	7.5	73.7	67.3	113.8	Clear
		Bund 6	22.8	7.5	84.0	64.0	130.0	Clear
		Bund 7	22.6	7.6	110.0	67.0	129.3	Clear
		Bund 8	23.2	7.1	70.2	50.0	128.4	Clear
		Bund 9	22.9	7.2	72.9	57.0	222.7	Clear
3/05/2016	3/05/2016	Bund 1	25.2	8.4	52.3	73.4	80.5	Clear
		Bund 2	25.6	7.8	55.7	64.5	86.2	Clear

2016 BUND WATER RESULTS



Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (% SAT)	Conductivity (uS/cm)	Appearance
		Bund 3	26.0	7.9	61.4	58.2	94.3	Clear
		Bund 5	26.2	7.6	55.5	58.8	86.0	Clear
		Bund 6	26.7	7.3	71.1	54.2	108.8	Clear
		Bund 7	23.3	7.3	89.4	50.8	136.9	Clear
		Bund 8	24.6	7.7	55.3	61.8	86.3	Clear
		Bund 9	23.7	7.2	70.3	56.6	108.6	Clear
1/06/2016	1/06/2016	Bund 1	19.0	8.4	17.5	52.9	18.2	Clear
		Bund 2	18.5	8.4	17.1	62.0	27.1	Clear
		Bund 3	18.5	8.1	19.7	66.1	31.4	Clear
		Bund 5	18.4	7.7	19.2	61.0	29.3	Clear
		Bund 6	18.4	8.5	28.7	57.2	45.1	Clear
		Bund 7	19.0	7.9	22.3	55.1	26.4	Clear
		Bund 8	18.5	7.9	19.8	58.1	32.1	Clear
		Bund 9	18.5	7.4	19.2	56.4	38.6	Clear
21/06/2016	21/06/2016	Bund 1	16.1	8.0	19.6	57.5	24.9	Clear
		Bund 2	16.1	7.8	16.8	52.9	26.0	Clear
		Bund 3	16.1	7.5	23.5	41.0	34.6	Clear
		Bund 5	16.0	7.5	20.3	41.6	31.7	Clear
		Bund 6	16.2	7.5	27.5	46.0	42.5	Clear
		Bund 7	16.8	7.2	20.9	52.0	32.4	Clear
		Bund 8	16.5	7.4	25.6	48.5	40.4	Clear
		Bund 9	16.3	7.2	28.2	58.0	43.4	Clear

2016 BUND WATER RESULTS



Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (% SAT)	Conductivity (uS/cm)	Appearance
21/07/2016	21/07/2016	Bund 1	20.1	8.4	23.0	61.3	32.2	Clear
		Bund 2	20.9	8.7	21.5	71.1	32.0	Clear
		Bund 3	20.6	8.3	23.7	62.0	33.2	Clear
		Bund 5	19.0	7.9	19.0	57.1	29.5	Clear
		Bund 6	19.9	7.2	19.8	59.3	30.1	Clear
		Bund 7	21.0	8.1	21.0	58.7	31.2	Clear
		Bund 8	22.1	7.0	23.1	69.3	33.7	Clear
		Bund 9	19.8	7.3	19.9	70.1	32.0	Clear
3/08/2016	3/08/2016	Bund 1	17.9	7.1	19.3	56.1	24.9	Clear
		Bund 2	17.5	7.9	20.2	57.0	26.7	Clear
		Bund 3	18.0	7.6	19.4	59.3	26.0	Clear
		Bund 5	17.3	7.6	19.4	57.4	26.7	Clear
		Bund 6	17.3	7.5	20.1	58.0	25.3	Clear
		Bund 7	18.0	7.9	20.6	51.7	27.2	Clear
		Bund 8	18.1	7.9	20.3	51.9	28.0	Clear
		Bund 9	17.8	7.9	20.1	53.0	24.3	Clear
2/09/2016	2/09/2016	Bund 1	19.6	6.6	18.4	17.9	42.6	Clear
		Bund 2	19.2	7.1	23.6	21.6	51.0	Clear
		Bund 3	20.4	6.9	27.1	24.1	34.3	Clear
		Bund 5	20.1	7.8	24.8	20.0	45.6	Clear
		Bund 6	19.8	6.0	31.6	22.7	45.0	Clear
		Bund 7	19.8	6.1	29.2	27.9	49.7	Clear

2016 BUND WATER RESULTS

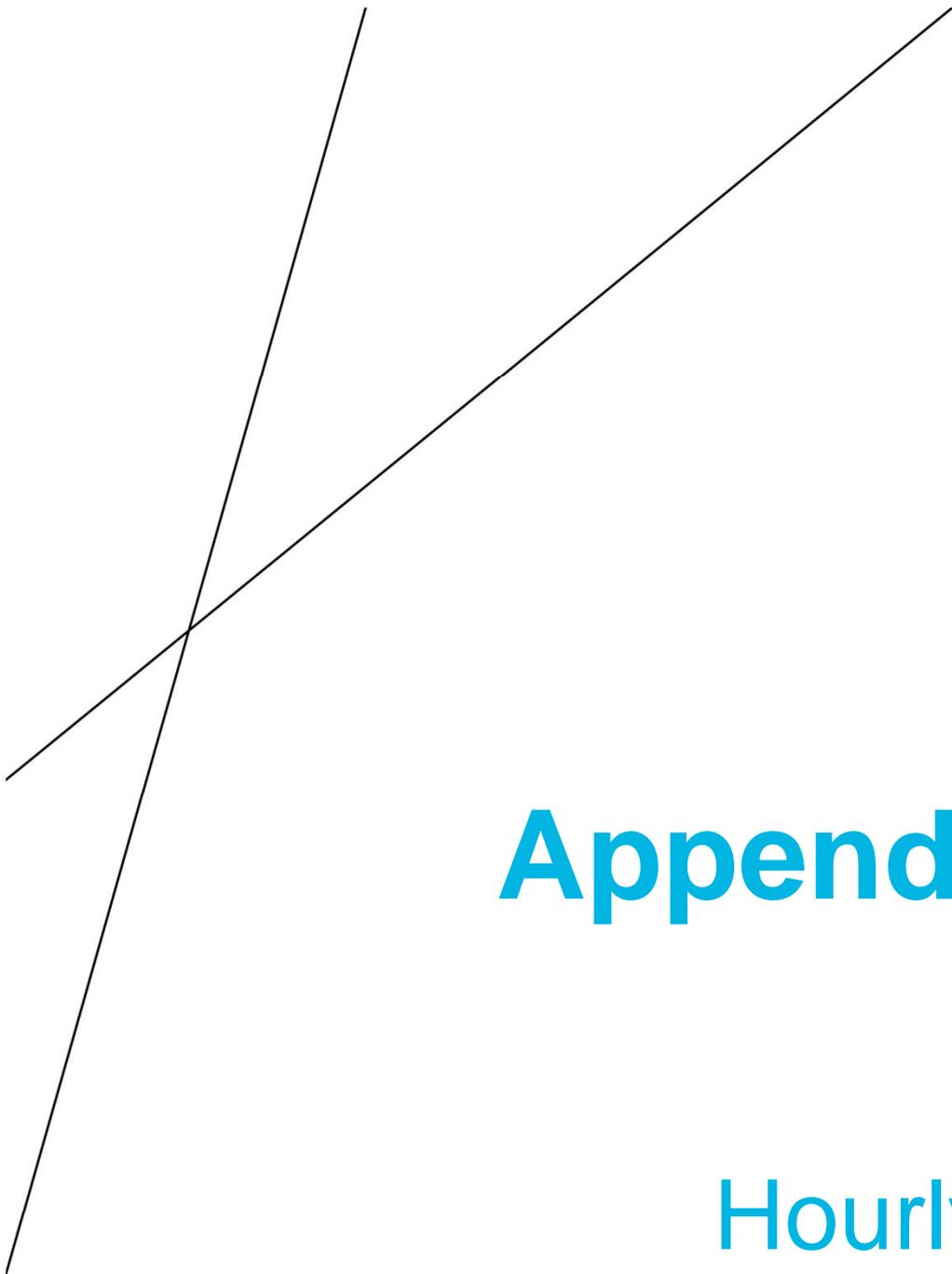


Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (% SAT)	Conductivity (uS/cm)	Appearance
		Bund 8	17.2	6.7	28.7	30.1	51.7	Clear
		Bund 9	18.9	7.2	34.3	24.6	48.3	Clear
14/09/2016	14/09/2016	Bund 1	14.9	6.9	26.2	15.9	61.4	Clear
		Bund 2	15.2	6.8	29.4	17.2	48.3	Clear
		Bund 3	15.0	7.1	21.6	20.3	49.2	Clear
		Bund 5	15.0	7.0	29.8	21.2	51.6	Clear
		Bund 6	15.6	7.0	24.6	19.7	55.3	Clear
		Bund 7	15.4	6.9	25.2	24.8	51.7	Clear
		Bund 8	15.2	7.2	21.7	29.2	51	Clear
		Bund 9	15.0	7.1	29.1	19.7	59.7	Clear
14/10/2016	14/10/2016	Bund 1	18.4	9.28	33.9	60.3	52.2	Clear
		Bund 2	18.1	8.05	35.8	58.0	56.0	Clear
		Bund 3	17.8	8.51	37.7	53.6	56.2	Clear
		Bund 5	17.9	8.4	35.2	52.4	53.4	Clear
		Bund 6	17.7	8.1	41.7	46.8	64.9	Clear
		Bund 7	17.6	7.7	41.6	41.5	63.2	Clear
		Bund 8	17.8	8.2	39.0	43.1	59.1	Clear
		Bund 9	17.7	7.86	39.7	36.8	61.7	Clear
18/10/2016	18/10/2016	Bund 1	22.1	7.5	26.4	66.4	41.3	Clear
		Bund 2	21.9	7.4	26.7	60.5	41.3	Clear
		Bund 3	21.6	7.3	26.7	51.8	41.7	Clear
		Bund 5	21.7	7.4	26.6	40.9	41.9	Clear

2016 BUND WATER RESULTS



Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (% SAT)	Conductivity (uS/cm)	Appearance
		Bund 6	21.6	7.4	30.1	46.3	40.9	Clear
		Bund 7	22.9	7.7	27.4	41.8	41.5	Clear
		Bund 8	22.0	7.5	28.3	42.3	46.6	Clear
		Bund 9	21.8	7.3	26.0	50.0	42.0	Clear
24/10/2016	24/10/2016	Bund 1	23.2	7.20	31.0	7.2	63.2	Clear
		Bund 2	24.0	7.02	39.9	7.0	58.9	Clear
		Bund 3	23.0	7.05	29.4	8.3	61.0	Clear
		Bund 5	23.1	6.98	29.2	7.9	60.4	Clear
		Bund 6	23.9	7.71	33.4	6.4	60.7	Clear
		Bund 7	23.8	6.25	36.8	6.9	62.0	Clear
		Bund 8	24.1	7.12	39.2	7.1	59.7	Clear
		Bund 9	24.6	7.70	34.8	7.0	59.8	Clear
12-14/11/2016	14/11/2016	Bund 1	22.2	7.9	32	48.3	61	Clear
		Bund 2	21.8	7.75	36.3	50.8	52.1	Clear
		Bund 3	21.9	7.8	29.4	45	49.3	Clear
12/11/2016	12/11/2016	Bund 5	21.6	7.38	29.2	46.3	51.6	Clear
		Bund 6	21.6	7.92	30.4	42.6	55.3	Clear
		Bund 7	22	6.98	36.9	50	59.7	Clear
		Bund 8	22.1	7.12	34.8	51.6	51.2	Clear
		Bund 9	22.3	7.6	39.2	42.1	48	Clear



Appendix B

Hourly Truck Movements

Appendix B Hourly Truck Movements



REPORTING PERIOD: January 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	16	27	25	23	28	22	21	26	21	18	21	12
Bay 2	12	18	22	28	20	26	10	18	23	14	15	12
Bay 3	17	12	10	13	16	17	17	11	11	14	9	24
Bay 4	10	7	3	10	9	6	10	9	8	13	9	18
Total	55	64	60	74	73	71	58	64	63	59	54	66

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	25	24	28	24	27	18	16	16	23	17	13	5
Bay 2	13	19	25	20	18	15	12	2	14	9	5	3
Bay 3	14	18	14	16	11	12	9	8	12	11	14	3
Bay 4	13	9	11	7	6	8	1	5	6	8	13	1
Total	65	70	78	67	62	53	38	31	55	45	45	12

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/01/2016	1	2	1	0	2	2	3	1	1	1	2	5
2/01/2016	2	3	0	1	2	3	1	4	0	2	0	1
3/01/2016	2	2	2	1	1	1	3	3	1	1	0	3
4/01/2016	4	4	1	1	3	4	2	1	2	0	4	2
5/01/2016	1	2	2	5	5	2	3	2	3	1	1	5
6/01/2016	0	2	1	3	1	1	1	5	3	4	0	3
7/01/2016	0	1	2	2	2	3	3	8	2	2	2	4
8/01/2016	0	1	2	2	2	4	3	0	0	4	4	3
9/01/2016	1	4	1	3	5	2	2	1	3	2	2	1
10/01/2016	3	1	0	0	4	1	2	1	3	3	0	1
11/01/2016	4	2	6	4	4	1	4	4	2	4	1	2
12/01/2016	4	4	1	6	3	1	2	3	2	2	4	0
13/01/2016	2	3	5	3	5	4	0	3	2	6	3	3
14/01/2016	0	3	1	7	4	4	3	2	3	3	2	5
15/01/2016	2	3	1	2	4	5	2	1	4	4	2	2
16/01/2016	3	1	5	1	3	2	2	3	3	1	1	2
17/01/2016	1	0	1	4	3	3	2	2	3	1	0	4
18/01/2016	2	6	4	5	1	4	2	5	4	0	3	3
19/01/2016	2	2	6	3	2	2	2	0	4	1	1	0
20/01/2016	2	2	1	4	2	1	2	1	0	4	3	0
21/01/2016	1	2	2	4	4	2	1	1	2	2	3	4
22/01/2016	2	1	3	3	3	2	1	3	2	0	5	3
23/01/2016	2	0	1	1	2	2	3	2	2	0	2	1
24/01/2016	2	2	0	0	1	1	1	1	1	0	2	0
25/01/2016	2	2	3	2	1	1	3	1	2	3	1	4
26/01/2016	3	1	1	1	2	3	0	2	2	2	1	0
27/01/2016	2	3	2	1	0	1	2	1	2	1	2	2
28/01/2016	1	1	2	4	0	4	0	1	2	1	1	1
29/01/2016	2	2	1	1	1	3	1	1	3	2	1	2
30/01/2016	2	2	2	0	1	2	2	1	0	2	1	0
31/01/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	55	64	60	74	73	71	58	64	63	59	54	66

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/01/2016	5	3	3	3	2	1	2	1	2	1	4	0
2/01/2016	4	3	0	0	1	3	1	1	1	2	1	0
3/01/2016	1	2	1	1	1	1	1	2	2	2	2	0
4/01/2016	1	1	4	3	4	1	1	1	1	0	1	0
5/01/2016	0	2	2	1	3	4	0	0	0	0	0	0
6/01/2016	2	2	3	1	0	0	2	0	0	0	0	2
7/01/2016	1	3	3	2	3	0	0	3	3	1	0	0
8/01/2016	3	0	3	3	3	3	3	0	2	3	1	1
9/01/2016	3	1	4	1	1	2	1	2	3	1	1	1
10/01/2016	5	1	2	2	2	0	2	0	2	3	1	0
11/01/2016	2	6	4	2	3	2	1	3	4	0	2	0
12/01/2016	2	1	7	4	2	2	1	3	3	1	2	0
13/01/2016	2	3	5	5	3	4	1	4	3	4	0	0
14/01/2016	2	3	4	5	4	4	1	2	3	2	3	2
15/01/2016	2	2	3	3	3	6	1	1	1	2	2	1
16/01/2016	5	1	2	2	3	0	1	1	3	3	1	0
17/01/2016	2	2	1	2	1	3	1	1	1	2	1	0
18/01/2016	3	6	1	4	2	1	2	2	3	1	3	0
19/01/2016	1	3	2	1	2	1	3	0	1	1	3	0
20/01/2016	1	1	1	3	3	1	0	1	0	5	2	0
21/01/2016	0	2	2	3	4	0	1	1	1	4	0	0
22/01/2016	1	0	0	3	0	4	3	1	0	0	3	1
23/01/2016	1	3	2	2	0	0	1	0	2	1	0	0
24/01/2016	2	1	2	1	0	2	0	1	2	0	1	1
25/01/2016	3	4	5	3	2	1	1	0	4	1	1	0
26/01/2016	0	3	3	0	2	2	1	2	1	0	1	1
27/01/2016	2	3	3	4	1	0	2	1	1	0	3	0
28/01/2016	3	0	5	0	1	4	1	0	2	3	1	0
29/01/2016	3	4	1	2	4	0	1	0	1	1	1	2
30/01/2016	3	4	0	1	2	1	2	0	2	2	0	0
31/01/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	65	70	78	67	62	53	38	31	55	45	45	12



REPORTING PERIOD: February 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	22	26	32	30	32	31	21	23	20	24	15	16
Bay 2	14	26	32	28	27	26	18	19	17	23	9	14
Bay 3	13	8	12	20	28	25	17	13	19	29	26	30
Bay 4	19	7	11	15	23	14	10	15	11	23	17	23
Total	68	67	87	93	110	96	66	70	67	99	67	83

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	20	31	30	32	31	24	14	16	21	20	16	0
Bay 2	16	28	30	23	27	19	10	10	12	13	9	0
Bay 3	15	19	17	34	24	18	10	18	21	16	14	4
Bay 4	19	11	17	24	21	14	10	12	15	13	18	2
Total	70	89	94	113	103	75	44	56	69	62	57	6

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/02/2016	3	2	4	3	5	2	4	2	3	2	2	4
2/02/2016	2	4	4	1	3	5	1	5	4	1	3	2
3/02/2016	0	2	3	1	5	4	1	4	0	6	3	4
4/02/2016	2	3	5	2	8	2	1	6	2	5	3	3
5/02/2016	0	2	6	3	4	2	2	3	2	2	2	3
6/02/2016	1	2	4	3	3	2	0	2	2	4	2	1
7/02/2016	1	3	1	2	2	2	0	2	0	5	4	0
8/02/2016	4	1	5	3	4	6	3	2	3	2	3	4
9/02/2016	3	4	4	2	6	5	3	1	0	0	0	0
10/02/2016	2	2	4	3	5	7	2	2	2	3	6	3
11/02/2016	2	1	5	4	3	4	2	2	3	3	2	4
12/02/2016	3	2	4	5	6	4	1	2	1	3	4	3
13/02/2016	3	0	2	3	3	5	3	1	1	4	0	7
14/02/2016	0	0	2	2	1	1	2	1	4	2	3	1
15/02/2016	1	4	6	2	4	4	3	2	3	6	2	1
16/02/2016	3	2	5	3	4	3	2	6	2	2	4	4
17/02/2016	4	4	2	2	3	4	5	2	2	4	2	5
18/02/2016	4	4	2	3	5	3	3	3	3	1	5	4
19/02/2016	6	2	3	4	5	2	4	1	2	6	2	2
20/02/2016	1	1	0	5	4	4	2	0	5	3	2	4
21/02/2016	0	4	0	2	0	2	2	1	3	2	0	2
22/02/2016	5	4	3	4	4	3	3	3	2	7	1	3
23/02/2016	3	1	1	6	4	3	3	1	2	3	3	3
24/02/2016	4	3	2	5	4	2	2	3	3	4	1	3
25/02/2016	0	0	4	4	4	2	1	1	3	5	2	1
26/02/2016	2	2	2	6	5	3	2	4	3	6	2	3
27/02/2016	5	2	0	3	0	5	1	4	2	3	1	3
28/02/2016	2	2	1	2	2	2	3	0	3	2	2	1
29/02/2016	2	4	3	5	4	3	5	4	2	3	1	5
1/03/2016	0	0	0	0	0	0	0	0	0	0	0	0
2/03/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	68	67	87	93	110	96	66	70	67	99	67	83

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/02/2016	2	5	3	1	2	2	0	1	4	0	4	0
2/02/2016	3	2	3	6	4	1	1	1	1	4	2	1
3/02/2016	1	6	0	2	5	6	0	3	2	2	3	0
4/02/2016	4	0	4	5	2	4	0	2	5	3	2	0
5/02/2016	2	1	2	4	2	3	2	1	1	1	3	0
6/02/2016	4	1	1	3	3	3	1	0	2	0	3	0
7/02/2016	2	2	2	2	3	2	1	2	1	1	3	0
8/02/2016	1	4	4	5	5	3	0	3	5	2	2	0
9/02/2016	4	6	4	6	3	2	4	1	6	0	0	0
10/02/2016	4	2	4	3	5	5	1	1	5	3	3	0
11/02/2016	2	8	6	7	5	0	1	1	3	2	1	2
12/02/2016	2	2	4	6	5	3	3	1	2	4	2	0
13/02/2016	2	1	4	2	6	3	0	0	0	5	1	0
14/02/2016	1	4	2	2	1	3	1	1	3	5	1	0
15/02/2016	3	3	3	4	4	4	0	4	3	1	4	0
16/02/2016	3	5	4	5	4	3	5	2	2	1	2	0
17/02/2016	2	3	4	4	5	0	2	4	2	2	0	0
18/02/2016	2	6	4	6	3	3	3	4	3	1	1	1
19/02/2016	2	1	1	4	8	4	3	2	1	6	2	0
20/02/2016	1	2	1	5	2	2	1	1	1	1	2	0
21/02/2016	3	2	4	4	0	0	0	4	2	2	0	0
22/02/2016	3	4	6	3	3	4	4	2	2	2	3	0
23/02/2016	3	1	3	2	4	5	0	4	3	2	2	0
24/02/2016	2	1	4	4	5	3	1	0	2	5	3	1
25/02/2016	0	3	3	5	5	3	1	0	2	3	1	0
26/02/2016	3	6	4	2	3	0	2	3	3	2	1	0
27/02/2016	4	4	3	1	2	1	2	3	0	1	1	0
28/02/2016	4	1	4	5	2	1	2	1	1	1	2	0
29/02/2016	1	3	3	5	2	2	3	4	2	0	3	1
1/03/2016	0	0	0	0	0	0	0	0	0	0	0	0
2/03/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	70	89	94	113	103	75	44	56	69	62	57	6



REPORTING PERIOD: March 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	15	25	32	30	34	24	11	22	21	27	17	16
Bay 2	11	20	25	27	29	21	10	13	21	14	16	12
Bay 3	15	18	21	20	28	18	21	22	15	30	22	33
Bay 4	8	10	10	15	13	11	13	6	7	20	19	25
Total	49	73	88	92	104	74	55	63	64	91	74	86

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	16	28	34	25	33	29	19	17	22	23	15	4
Bay 2	19	20	31	25	27	25	16	12	13	16	9	2
Bay 3	25	20	26	23	20	18	18	22	18	19	18	8
Bay 4	12	20	16	14	6	11	10	11	12	9	13	5
Total	72	88	107	87	86	83	63	62	65	67	55	19

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/03/2016	4	5	3	5	1	2	2	4	3	0	2	1
2/03/2016	1	2	1	5	6	2	2	3	1	4	3	2
3/03/2016	0	2	6	6	3	2	2	1	2	4	4	0
4/03/2016	2	1	4	4	3	1	1	2	4	5	1	1
5/03/2016	3	0	3	5	3	1	0	2	3	2	1	3
6/03/2016	2	0	2	1	3	2	2	1	3	3	3	2
7/03/2016	1	3	4	5	2	1	3	1	2	5	1	7
8/03/2016	1	2	3	4	3	3	0	3	2	3	3	2
9/03/2016	1	2	4	2	5	4	2	1	4	5	1	3
10/03/2016	0	3	4	4	1	5	3	1	1	5	3	3
11/03/2016	2	3	2	3	7	5	1	0	2	3	4	2
12/03/2016	0	2	5	0	4	2	3	2	1	2	3	2
13/03/2016	1	1	0	0	4	1	2	2	4	4	1	2
14/03/2016	3	3	1	5	2	1	5	1	1	3	4	5
15/03/2016	3	3	2	3	4	3	3	1	3	3	2	4
16/03/2016	3	4	3	4	2	1	1	4	1	4	0	0
17/03/2016	3	2	3	2	5	4	0	3	2	2	2	4
18/03/2016	1	1	2	3	5	2	1	2	2	2	5	2
19/03/2016	0	1	5	1	3	1	2	4	1	2	2	3
20/03/2016	1	1	0	0	0	2	1	3	2	0	4	2
21/03/2016	2	3	5	4	5	1	2	2	2	4	0	3
22/03/2016	0	3	2	5	4	3	0	3	2	2	2	3
23/03/2016	2	2	0	3	4	4	2	2	3	2	4	3
24/03/2016	2	5	1	3	5	5	1	1	0	2	6	4
25/03/2016	2	4	2	3	7	1	4	1	0	6	0	5
26/03/2016	0	2	4	1	1	3	2	2	2	1	2	3
27/03/2016	2	0	2	2	2	2	2	2	1	1	1	2
28/03/2016	2	3	4	1	2	2	2	3	0	5	1	4
29/03/2016	1	2	6	2	3	4	0	3	5	3	5	1
30/03/2016	2	5	2	4	3	1	1	3	3	1	2	4
31/03/2016	2	3	3	2	2	3	3	0	2	3	2	4
Total	49	73	88	92	104	74	55	63	64	91	74	86

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/03/2016	3	4	6	1	3	2	2	3	3	2	2	0
2/03/2016	1	5	3	2	4	4	0	2	4	2	2	0
3/03/2016	3	2	1	4	3	2	2	2	1	4	1	0
4/03/2016	1	6	5	4	6	5	1	3	2	2	3	1
5/03/2016	3	1	4	2	3	1	1	1	2	2	3	1
6/03/2016	4	2	4	2	0	4	2	0	3	3	1	1
7/03/2016	2	2	4	5	3	1	2	2	4	3	0	1
8/03/2016	1	1	5	5	2	1	2	2	3	2	2	0
9/03/2016	3	2	5	3	6	3	4	1	3	1	2	1
10/03/2016	0	0	5	4	4	4	3	4	1	0	3	1
11/03/2016	2	4	7	2	5	4	3	2	3	3	1	2
12/03/2016	0	3	2	1	2	0	2	2	0	2	1	0
13/03/2016	5	4	5	1	1	1	3	3	2	2	0	0
14/03/2016	2	4	3	4	3	2	2	4	1	1	1	1
15/03/2016	3	3	3	3	4	4	4	3	2	5	2	1
16/03/2016	2	4	3	2	2	3	1	2	2	3	0	1
17/03/2016	2	3	4	3	2	4	2	3	0	3	3	2
18/03/2016	2	4	0	3	3	4	2	2	2	1	3	1
19/03/2016	2	2	2	0	1	3	3	1	0	2	2	0
20/03/2016	6	3	0	1	1	1	1	2	1	1	0	0
21/03/2016	3	4	3	5	1	3	4	2	3	1	4	0
22/03/2016	1	3	5	3	4	3	1	0	2	7	3	0
23/03/2016	2	2	5	2	1	5	2	4	1	1	3	1
24/03/2016	2	5	2	3	4	4	2	1	2	3	2	2
25/03/2016	1	4	2	1	5	2	1	3	3	1	4	0
26/03/2016	4	1	2	1	2	0	2	0	3	1	0	0
27/03/2016	3	3	2	1	0	0	1	3	3	0	0	2
28/03/2016	3	2	5	1	2	3	2	1	3	1	3	0
29/03/2016	4	1	3	7	0	3	1	3	3	1	1	0
30/03/2016	1	3	6	6	4	3	4	1	2	2	2	0
31/03/2016	1	1	2	5	5	4	1	0	1	5	1	0
Total	72	88	108	87	86	83	63	62	65	67	55	19



REPORTING PERIOD: April 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	17	26	24	26	24	19	15	13	31	24	15	12
Bay 2	13	19	20	29	21	23	9	11	22	14	14	10
Bay 3	19	17	17	17	23	24	29	16	13	24	17	23
Bay 4	9	6	12	10	7	12	20	11	8	11	10	13
Total	58	68	73	82	75	78	73	51	74	73	56	58

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	18	25	35	28	28	19	20	23	11	22	16	7
Bay 2	10	22	31	17	23	14	13	17	10	12	10	0
Bay 3	34	21	26	19	22	23	16	24	21	22	25	6
Bay 4	21	12	10	12	11	11	6	12	7	14	11	3
Total	83	80	102	76	84	67	55	76	49	70	62	16

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/04/2016	1	2	1	4	6	4	3	1	4	4	5	1
2/04/2016	3	2	4	2	2	1	1	1	4	1	2	2
3/04/2016	1	1	4	2	1	1	3	0	4	2	0	0
4/04/2016	2	2	2	4	3	4	1	1	3	3	0	3
5/04/2016	4	3	1	4	0	2	2	1	2	3	3	1
6/04/2016	4	3	0	3	2	4	1	1	3	4	1	2
7/04/2016	0	3	1	3	3	3	3	1	3	0	2	2
8/04/2016	2	0	7	2	2	2	5	1	1	1	1	3
9/04/2016	0	0	0	2	2	1	1	0	4	1	0	1
10/04/2016	3	0	2	0	0	1	1	1	1	1	1	0
11/04/2016	1	3	4	1	2	3	0	3	3	1	1	2
12/04/2016	4	3	4	3	5	3	2	2	1	3	4	1
13/04/2016	1	6	2	2	5	4	1	2	2	6	2	1
14/04/2016	0	5	3	2	3	4	4	3	1	4	3	2
15/04/2016	3	2	4	3	2	3	3	1	4	3	6	3
16/04/2016	1	4	3	3	2	2	0	0	0	0	0	0
17/04/2016	1	0	0	3	3	2	1	1	2	1	3	0
18/04/2016	1	1	3	4	5	5	4	2	5	2	4	2
19/04/2016	2	3	0	4	3	2	3	1	1	3	3	3
20/04/2016	2	3	1	5	3	2	4	2	3	3	1	3
21/04/2016	4	1	3	4	4	4	4	4	2	2	0	2
22/04/2016	2	1	1	1	3	7	3	4	2	6	2	3
23/04/2016	1	2	4	1	1	3	2	1	5	3	2	2
24/04/2016	3	2	3	1	1	0	4	3	3	2	1	2
25/04/2016	2	3	3	1	2	3	3	2	0	1	6	2
26/04/2016	3	2	1	5	0	3	4	2	1	3	0	4
27/04/2016	3	3	3	1	3	3	3	3	2	2	1	1
28/04/2016	1	5	2	4	3	1	3	1	1	5	2	3
29/04/2016	2	2	4	5	2	1	1	2	4	2	0	5
30/04/2016	1	1	3	3	2	0	3	4	3	1	0	2
1/05/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	58	68	73	82	75	78	73	51	74	73	56	58

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/04/2016	3	3	4	3	3	2	4	2	2	5	1	1
2/04/2016	4	1	4	2	1	2	0	4	1	1	1	1
3/04/2016	2	3	2	2	2	1	4	0	3	2	1	0
4/04/2016	2	4	5	7	3	1	1	2	2	5	3	1
5/04/2016	0	1	4	2	5	1	0	3	2	3	3	1
6/04/2016	2	2	3	2	2	1	1	1	1	2	3	0
7/04/2016	4	1	6	2	3	2	2	1	4	3	1	0
8/04/2016	2	1	4	3	3	3	3	1	2	6	4	0
9/04/2016	3	0	5	0	1	0	0	2	1	1	1	0
10/04/2016	1	3	1	1	0	0	3	2	1	2	0	2
11/04/2016	2	3	5	4	2	2	1	1	1	1	4	0
12/04/2016	3	3	5	3	6	2	0	4	1	2	4	0
13/04/2016	3	2	4	3	6	4	3	1	2	3	2	0
14/04/2016	3	4	5	5	3	4	1	5	2	2	3	1
15/04/2016	3	4	5	4	4	3	1	3	2	4	0	0
16/04/2016	0	0	0	0	4	4	0	1	0	6	3	0
17/04/2016	3	0	2	3	1	0	3	4	0	2	3	0
18/04/2016	5	4	3	3	4	2	4	3	4	2	0	1
19/04/2016	5	3	4	2	4	3	2	4	1	2	2	2
20/04/2016	5	4	2	2	5	4	6	2	2	0	1	1
21/04/2016	4	3	2	4	5	4	2	7	1	2	5	0
22/04/2016	5	4	3	1	3	5	2	3	0	2	2	1
23/04/2016	0	5	3	2	2	1	3	1	1	1	0	0
24/04/2016	4	2	1	2	0	0	2	1	1	0	1	0
25/04/2016	3	4	2	3	2	1	3	2	0	3	1	0
26/04/2016	4	4	3	2	2	2	2	3	0	3	3	0
27/04/2016	5	3	6	2	2	3	3	4	3	3	1	2
28/04/2016	1	2	3	4	4	5	1	1	5	3	3	0
29/04/2016	1	2	2	2	2	2	1	1	3	2	1	2
30/04/2016	1	5	4	1	0	1	1	3	1	0	1	0
1/05/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	83	80	102	76	84	67	55	76	49	70	62	16



REPORTING PERIOD: May 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	14	21	20	18	12	8	18	26	38	33	24	17
Bay 2	16	12	14	10	12	2	14	23	33	23	17	10
Bay 3	16	18	17	21	19	4	14	16	7	17	14	14
Bay 4	10	11	7	11	6	2	13	7	8	14	9	8
Total	56	62	58	60	49	16	59	72	86	87	64	49

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	16	25	29	16	14	18	23	25	38	25	31	18
Bay 2	14	15	15	16	8	4	10	21	32	23	21	17
Bay 3	18	20	19	11	20	28	22	23	16	18	13	19
Bay 4	15	12	11	7	13	14	18	16	9	6	9	8
Total	63	72	74	50	55	64	73	85	95	72	74	62

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
2/05/2016	0	0	0	0	0	0	3	2	1	2	0	0
3/05/2016	2	1	1	4	0	0	1	3	4	4	1	0
4/05/2016	2	3	0	2	1	2	3	2	2	1	5	1
5/05/2016	4	2	0	3	1	2	1	2	2	4	1	2
6/05/2016	2	1	1	1	2	0	7	1	1	4	6	2
7/05/2016	4	3	1	2	1	1	2	3	3	2	1	2
8/05/2016	3	4	3	1	1	0	5	3	1	1	3	2
9/05/2016	1	2	4	0	3	0	3	1	0	0	1	0
10/05/2016	2	1	2	3	0	0	2	4	3	5	3	3
11/05/2016	3	3	3	3	1	0	4	3	4	6	2	1
12/05/2016	2	4	2	1	2	0	0	3	6	4	2	1
13/05/2016	2	3	2	1	4	1	1	2	4	3	1	2
14/05/2016	3	2	4	1	1	0	1	2	4	4	1	3
15/05/2016	1	3	2	3	3	2	2	3	2	4	0	3
16/05/2016	3	2	4	1	1	0	3	0	4	0	1	0
17/05/2016	3	1	1	5	1	0	3	2	2	2	3	2
18/05/2016	1	0	4	4	4	2	0	2	3	3	3	1
19/05/2016	2	0	3	2	1	0	1	3	5	4	5	3
20/05/2016	1	1	0	3	3	0	1	1	4	4	3	0
21/05/2016	1	3	1	1	0	1	4	3	2	4	1	3
22/05/2016	4	1	4	1	2	0	1	2	4	0	1	2
23/05/2016	1	0	0	0	2	0	1	2	1	0	2	0
24/05/2016	2	1	0	1	1	1	2	1	4	5	1	0
25/05/2016	1	0	3	2	2	1	1	4	3	3	2	2
26/05/2016	0	5	0	2	5	1	0	4	1	3	5	2
27/05/2016	1	1	2	2	3	0	0	2	3	4	2	3
28/05/2016	2	3	2	4	1	0	2	2	3	4	1	2
29/05/2016	0	3	1	1	0	0	1	1	2	1	2	1
30/05/2016	0	4	1	1	0	0	0	2	2	1	1	0
31/05/2016	1	2	2	3	0	1	1	4	4	4	3	3
1/06/2016	0	0	4	0	2	0	3	3	2	1	1	3
Total	54	59	57	58	48	15	59	72	86	87	64	49

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
2/05/2016	4	3	5	0	0	2	4	3	2	0	2	2
3/05/2016	3	5	3	1	2	3	4	3	3	3	2	1
4/05/2016	5	1	2	3	3	4	2	3	4	0	2	4
5/05/2016	4	2	3	1	4	1	6	2	4	0	5	3
6/05/2016	2	2	1	3	3	2	4	2	3	4	4	1
7/05/2016	2	4	3	3	0	3	2	4	6	2	3	3
8/05/2016	2	2	1	0	3	1	4	3	1	0	0	0
9/05/2016	3	3	1	2	0	3	3	4	3	1	2	0
10/05/2016	4	2	1	3	1	4	3	3	2	6	3	2
11/05/2016	3	5	3	2	1	3	3	4	4	5	5	0
12/05/2016	4	5	2	1	2	4	2	4	4	2	1	2
13/05/2016	2	1	1	5	3	3	3	3	3	4	3	4
14/05/2016	1	3	3	1	6	4	3	0	7	6	4	3
15/05/2016	4	3	3	0	0	3	2	3	0	1	3	1
16/05/2016	0	3	2	1	1	1	3	4	3	3	3	1
17/05/2016	3	2	3	1	3	1	4	2	5	6	4	0
18/05/2016	0	4	1	2	3	1	1	3	3	2	4	2
19/05/2016	2	2	2	4	0	0	3	1	2	2	4	4
20/05/2016	2	4	4	2	2	4	0	4	4	3	2	3
21/05/2016	1	3	3	1	4	2	2	0	5	2	2	4
22/05/2016	1	2	2	1	1	1	1	1	3	0	0	1
23/05/2016	3	0	1	0	0	2	1	3	1	1	2	1
24/05/2016	2	1	2	1	2	2	1	5	2	2	3	3
25/05/2016	1	2	3	4	1	1	2	3	4	2	5	0
26/05/2016	1	1	2	0	5	2	1	4	1	6	0	3
27/05/2016	0	0	2	5	1	1	0	2	4	4	2	3
28/05/2016	1	1	7	2	1	0	1	3	3	0	0	4
29/05/2016	1	2	2	0	0	2	2	2	1	0	1	1
30/05/2016	1	2	1	0	1	1	2	2	1	1	1	0
31/05/2016	0	1	4	0	1	2	1	4	2	1	1	3
1/06/2016	1	1	1	1	1	1	3	1	5	3	1	3
Total	63	72	74	50	55	64	73	85	95	72	74	62



REPORTING PERIOD: June 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	26	22	18	11	19	22	30	26	24	20	19	20
Bay 2	20	13	12	11	13	25	33	21	24	18	7	9
Bay 3	19	21	23	33	29	24	22	24	20	19	20	22
Bay 4	9	15	21	20	17	22	16	16	13	14	13	16
Total	74	71	74	75	78	93	101	87	81	71	59	67

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	21	13	14	2	26	20	29	25	26	16	16	25
Bay 2	12	8	4	2	9	15	29	27	21	16	5	17
Bay 3	20	17	14	6	18	16	19	22	21	10	26	27
Bay 4	16	6	15	3	14	8	13	11	18	10	15	18
Total	69	44	47	13	67	59	90	85	86	52	62	87

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
2/06/2016	0	0	0	0	0	0	0	0	0	0	0	0
3/06/2016	2	0	1	2	0	4	1	2	3	1	2	1
4/06/2016	0	2	2	4	1	7	5	4	3	3	1	5
5/06/2016	7	3	4	2	3	3	5	2	3	2	4	3
6/06/2016	3	0	2	0	3	3	2	0	1	0	2	1
7/06/2016	2	1	0	2	4	3	1	1	1	0	1	1
8/06/2016	4	2	2	1	2	4	3	5	2	2	2	1
9/06/2016	1	3	3	4	4	2	4	4	4	3	1	2
10/06/2016	2	2	3	1	7	5	4	1	2	4	2	1
11/06/2016	3	4	0	5	2	5	5	2	5	1	5	2
12/06/2016	4	2	2	4	3	2	3	2	1	5	2	2
13/06/2016	1	2	3	0	5	2	1	1	3	2	0	3
14/06/2016	2	2	3	2	3	3	3	1	2	3	2	0
15/06/2016	2	3	1	4	4	1	4	4	4	5	4	3
16/06/2016	3	3	3	4	3	2	7	7	5	2	1	3
17/06/2016	2	3	2	4	3	1	1	3	5	3	2	1
18/06/2016	0	4	6	2	1	0	3	2	5	5	1	1
19/06/2016	1	4	7	2	3	3	3	4	7	2	2	3
20/06/2016	2	2	1	2	2	2	3	2	2	1	2	2
21/06/2016	2	2	0	0	2	5	3	2	2	0	3	2
22/06/2016	2	3	5	2	1	3	2	1	4	4	1	1
23/06/2016	5	2	2	3	3	3	6	3	2	2	2	1
24/06/2016	2	3	2	1	4	3	5	5	1	2	3	4
25/06/2016	4	3	1	1	3	2	5	5	1	2	5	4
26/06/2016	3	0	4	3	1	4	4	3	2	4	2	1
27/06/2016	0	2	0	4	2	4	1	2	1	0	1	4
28/06/2016	4	2	2	5	0	3	2	1	1	2	0	3
29/06/2016	3	2	2	2	3	2	3	3	2	3	1	2
30/06/2016	1	2	7	3	0	5	4	6	1	2	2	3
1/07/2016	3	4	2	3	3	4	4	4	3	4	1	3
2/07/2016	4	4	2	3	3	3	4	5	3	2	2	4
Total	74	71	74	75	78	93	101	87	81	71	59	67

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
2/06/2016	0	0	0	0	1	2	4	2	3	1	0	2
3/06/2016	2	0	2	0	2	4	3	1	1	3	2	1
4/06/2016	3	2	2	0	1	2	6	5	1	4	0	2
5/06/2016	0	4	2	0	3	1	3	2	0	1	0	3
6/06/2016	1	1	1	0	1	2	0	1	1	0	4	0
7/06/2016	2	0	0	0	1	3	2	1	1	1	0	2
8/06/2016	3	1	3	2	4	2	3	2	3	2	3	4
9/06/2016	4	2	2	0	1	3	2	3	3	1	0	5
10/06/2016	4	4	1	2	2	2	4	5	3	1	3	2
11/06/2016	2	1	3	1	2	1	3	6	5	4	1	5
12/06/2016	1	2	3	1	3	1	2	2	1	1	3	5
13/06/2016	3	0	2	0	4	1	0	2	3	1	2	3
14/06/2016	1	1	2	0	4	4	6	2	2	2	3	2
15/06/2016	4	1	1	1	4	2	3	3	6	1	4	3
16/06/2016	1	1	1	1	0	1	3	1	4	3	0	4
17/06/2016	4	2	3	0	5	2	3	4	3	3	2	2
18/06/2016	3	3	1	1	3	0	2	3	7	3	2	2
19/06/2016	3	3	0	0	2	2	4	0	1	1	3	3
20/06/2016	1	0	2	0	1	1	1	5	0	1	2	4
21/06/2016	1	0	1	0	1	3	5	4	5	1	1	3
22/06/2016	1	0	2	0	3	0	1	3	3	4	4	1
23/06/2016	5	2	1	0	1	3	4	4	0	0	1	0
24/06/2016	2	0	1	0	4	3	2	3	3	2	1	4
25/06/2016	1	1	1	0	0	2	5	5	3	2	4	4
26/06/2016	0	1	1	0	4	2	2	2	2	2	4	4
27/06/2016	2	0	1	0	1	2	0	2	4	0	3	2
28/06/2016	1	1	2	1	2	1	7	3	4	1	3	3
29/06/2016	1	3	2	0	3	3	5	2	5	2	4	4
30/06/2016	4	3	1	0	4	1	3	4	5	1	3	4
1/07/2016	6	2	1	3	0	3	2	3	4	3	0	4
2/07/2016	3	3	2	0	0	0	0	0	0	0	0	0
Total	69	44	47	13	67	59	90	85	86	52	62	87



REPORTING PERIOD: July 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	15	25	28	23	30	11	23	21	24	23	14	7
Bay 2	5	23	29	28	22	22	16	19	20	16	14	7
Bay 3	26	14	29	13	19	18	29	29	11	21	23	30
Bay 4	17	16	25	11	9	8	19	28	10	21	19	27
Total	63	78	111	75	80	59	87	97	65	81	70	71

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	19	30	27	28	28	20	12	23	22	13	13	5
Bay 2	16	23	27	28	27	13	11	16	14	9	9	3
Bay 3	28	24	28	19	21	20	18	19	14	22	16	8
Bay 4	30	23	20	13	11	20	10	11	7	10	10	6
Total	93	100	102	88	87	73	51	69	57	54	48	22

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
30/06/2016	0	0	0	0	0	0	0	0	0	0	0	0
1/07/2016	4	3	1	4	0	1	4	3	2	1	3	2
2/07/2016	3	2	2	3	4	1	3	3	2	1	2	1
3/07/2016	0	4	1	1	1	1	3	2	1	0	3	3
4/07/2016	3	2	3	1	2	3	3	6	3	0	5	5
5/07/2016	2	4	4	2	4	5	1	3	1	4	3	3
6/07/2016	2	2	6	1	2	2	1	2	5	4	3	1
7/07/2016	1	2	5	5	2	2	2	4	0	2	3	2
8/07/2016	4	3	5	3	3	2	3	6	0	2	3	2
9/07/2016	2	2	2	2	2	0	2	2	1	3	1	1
10/07/2016	2	2	1	0	3	2	5	0	1	1	7	4
11/07/2016	2	2	6	3	3	1	3	3	2	2	4	3
12/07/2016	3	1	4	0	4	1	3	1	3	2	1	2
13/07/2016	3	4	3	3	0	3	3	4	1	3	1	2
14/07/2016	4	2	5	3	4	3	4	3	6	2	4	2
15/07/2016	2	2	1	5	4	1	5	3	4	5	1	1
16/07/2016	0	2	3	0	4	0	2	3	0	3	3	1
17/07/2016	1	0	3	2	1	0	3	4	3	2	1	2
18/07/2016	0	4	6	4	1	5	3	3	3	3	0	5
19/07/2016	6	2	5	4	5	2	2	5	1	3	4	3
20/07/2016	4	1	6	5	2	1	4	1	1	2	0	3
21/07/2016	1	3	1	3	3	1	2	5	1	1	1	2
22/07/2016	2	5	3	1	2	3	3	5	1	0	5	0
23/07/2016	2	3	2	2	2	1	3	5	2	3	0	3
24/07/2016	1	1	3	2	2	1	4	3	1	2	2	2
25/07/2016	2	3	5	2	3	4	1	2	2	5	0	1
26/07/2016	1	4	5	5	3	2	3	3	4	4	2	5
27/07/2016	0	4	4	3	3	2	4	2	2	2	3	1
28/07/2016	1	0	8	2	3	2	4	4	4	5	2	4
29/07/2016	1	5	4	1	5	4	1	3	3	6	0	4
30/07/2016	2	2	3	2	2	2	2	2	1	6	1	1
Total	61	76	110	74	79	58	86	95	61	79	68	71

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
30/06/2016	0	0	0	0	0	0	0	0	0	0	0	1
1/07/2016	5	2	4	2	4	4	2	2	1	2	5	0
2/07/2016	3	2	2	1	3	0	1	1	4	1	0	1
3/07/2016	6	4	3	1	4	1	2	2	1	2	3	0
4/07/2016	4	3	2	2	5	5	2	0	1	1	3	0
5/07/2016	4	3	4	3	1	2	3	3	2	1	0	0
6/07/2016	5	4	1	0	4	4	1	3	2	2	2	0
7/07/2016	3	4	0	5	1	3	2	4	1	2	1	0
8/07/2016	2	3	5	3	2	4	1	3	0	1	2	0
9/07/2016	1	2	6	1	0	1	0	1	4	0	1	0
10/07/2016	3	3	1	3	1	2	1	2	1	2	1	0
11/07/2016	1	3	4	5	5	2	0	3	2	2	2	1
12/07/2016	1	4	3	6	2	2	2	2	3	1	2	1
13/07/2016	1	5	1	4	5	1	4	2	3	2	2	0
14/07/2016	1	5	4	4	6	3	2	2	3	4	1	1
15/07/2016	2	6	5	4	3	3	1	2	1	3	3	2
16/07/2016	2	3	5	2	1	3	2	0	1	2	2	0
17/07/2016	3	2	3	1	0	1	0	3	3	0	2	0
18/07/2016	2	4	6	3	5	2	2	1	3	2	0	2
19/07/2016	2	2	5	3	6	0	4	2	0	3	1	3
20/07/2016	1	1	5	4	3	5	2	3	0	4	2	3
21/07/2016	3	2	4	4	4	2	4	3	4	1	2	0
22/07/2016	5	4	3	2	2	2	4	1	1	1	1	1
23/07/2016	5	3	2	1	1	0	0	1	1	1	0	0
24/07/2016	3	2	2	0	1	2	0	3	1	0	1	0
25/07/2016	3	2	5	2	2	2	0	2	5	1	1	1
26/07/2016	3	6	4	5	5	2	3	3	2	2	5	0
27/07/2016	4	3	3	4	6	3	0	5	2	3	2	2
28/07/2016	4	3	1	4	2	4	3	3	2	1	2	1
29/07/2016	5	4	3	4	2	4	1	0	3	4	0	2
30/07/2016	3	3	3	4	2	1	3	2	0	2	1	0
Total	90	97	99	87	86	72	51	65	54	54	48	22



REPORTING PERIOD: August 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	19	28	27	22	31	17	19	21	17	20	19	12
Bay 2	11	17	27	25	26	23	18	16	16	19	9	10
Bay 3	22	23	24	15	21	19	26	25	17	27	28	30
Bay 4	21	18	17	14	7	14	14	26	15	22	13	27
Total	73	86	95	76	85	73	77	88	65	88	69	79

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	27	20	31	32	33	26	20	20	25	19	14	7
Bay 2	13	22	23	30	30	14	11	13	12	5	9	2
Bay 3	30	32	21	20	20	21	30	22	13	19	21	4
Bay 4	27	26	18	11	16	14	18	16	13	11	13	6
Total	97	100	93	93	99	75	79	71	63	54	57	19

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/08/2016	3	6	5	3	2	4	0	3	5	6	0	2
2/08/2016	3	3	5	2	3	4	1	3	4	2	1	2
3/08/2016	1	3	4	5	4	2	4	1	4	3	1	2
4/08/2016	2	1	4	4	3	1	1	4	2	5	2	2
5/08/2016	2	2	0	4	4	1	2	2	0	2	3	1
6/08/2016	2	1	0	1	3	4	1	0	1	4	1	1
7/08/2016	3	1	1	0	1	1	2	4	1	0	1	3
8/08/2016	3	6	4	0	2	2	4	4	1	3	2	4
9/08/2016	4	2	6	3	4	4	5	4	1	7	3	0
10/08/2016	4	5	5	5	3	1	3	5	0	2	1	2
11/08/2016	5	4	5	4	3	3	2	2	0	5	7	2
12/08/2016	4	3	4	0	4	1	6	4	4	1	2	3
13/08/2016	4	2	2	2	3	1	4	3	1	3	1	3
14/08/2016	3	2	0	0	3	1	3	4	1	1	2	2
15/08/2016	5	2	3	3	4	2	5	3	4	1	3	5
16/08/2016	0	7	4	4	2	2	1	3	3	3	2	2
17/08/2016	2	2	4	5	2	3	1	2	4	6	2	2
18/08/2016	3	2	2	3	5	6	2	1	2	4	4	1
19/08/2016	1	3	1	4	4	2	4	5	4	2	2	4
20/08/2016	2	2	3	3	1	3	3	2	0	2	2	3
21/08/2016	1	1	1	2	2	1	2	2	0	2	1	0
22/08/2016	1	4	4	2	3	4	2	3	3	2	3	4
23/08/2016	1	5	1	1	4	4	3	1	5	2	3	5
24/08/2016	2	4	1	2	1	3	3	3	1	2	2	4
25/08/2016	2	0	1	0	2	0	1	1	4	5	3	0
26/08/2016	0	2	2	3	4	0	2	0	2	3	4	3
27/08/2016	1	2	1	3	5	0	2	1	0	3	3	3
28/08/2016	2	1	4	0	0	2	2	5	0	1	1	3
29/08/2016	2	3	6	3	1	5	2	6	3	0	3	5
30/08/2016	1	3	6	4	2	4	2	2	2	5	3	4
31/08/2016	4	2	6	1	1	2	2	5	3	1	1	2
Total	73	86	95	76	85	73	77	88	65	88	69	79

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/08/2016	2	5	5	6	3	2	2	3	3	2	3	1
2/08/2016	3	2	2	4	6	4	3	2	2	0	5	2
3/08/2016	1	2	4	3	4	2	2	2	5	2	1	1
4/08/2016	1	2	2	3	4	2	1	3	3	1	2	0
5/08/2016	5	2	2	1	3	4	2	1	1	0	1	2
6/08/2016	1	1	0	2	1	1	1	0	1	2	0	0
7/08/2016	5	3	1	1	2	1	3	1	0	2	1	1
8/08/2016	5	3	4	5	6	2	2	2	2	3	1	1
9/08/2016	3	3	3	5	4	1	4	3	1	2	0	0
10/08/2016	5	3	3	3	1	3	2	5	0	1	3	0
11/08/2016	2	2	5	3	5	2	5	2	2	2	4	0
12/08/2016	4	5	2	5	1	6	3	4	2	0	3	0
13/08/2016	3	3	4	0	0	2	2	3	1	1	1	0
14/08/2016	7	2	1	0	1	1	3	0	3	0	0	0
15/08/2016	5	2	5	3	3	2	4	3	3	1	1	1
16/08/2016	2	5	6	5	4	3	5	4	3	3	4	0
17/08/2016	2	3	3	5	4	4	3	3	3	3	1	1
18/08/2016	4	4	2	7	5	2	3	2	2	2	6	1
19/08/2016	2	4	2	3	3	3	2	5	2	0	2	1
20/08/2016	0	5	3	2	3	0	2	1	2	1	1	1
21/08/2016	3	4	1	3	2	0	2	2	1	2	2	0
22/08/2016	3	8	6	2	3	4	3	5	5	1	1	0
23/08/2016	3	2	3	1	4	6	2	3	1	4	1	1
24/08/2016	2	2	4	0	5	3	1	3	2	2	2	0
25/08/2016	2	1	2	4	2	3	1	1	0	2	3	0
26/08/2016	4	5	3	4	4	3	2	2	3	2	3	1
27/08/2016	3	4	1	3	1	0	0	2	1	1	0	0
28/08/2016	4	2	3	0	0	4	1	1	1	1	1	1
29/08/2016	3	6	5	3	2	3	4	1	1	5	2	2
30/08/2016	4	2	3	4	6	0	5	1	5	3	1	1
31/08/2016	4	3	3	3	7	2	4	1	2	3	1	0
Total	97	100	93	93	99	75	79	71	63	54	57	19



REPORTING PERIOD: September 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	19	21	32	20	26	26	18	20	32	17	13	15
Bay 2	9	20	27	23	21	19	11	23	26	13	8	13
Bay 3	19	15	30	23	12	22	27	31	18	22	23	34
Bay 4	11	4	21	12	11	13	22	23	15	19	20	29
Total	58	60	110	78	70	80	78	97	91	71	64	91

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	16	29	29	27	32	19	23	18	18	15	12	9
Bay 2	23	22	20	26	31	15	20	11	13	13	10	9
Bay 3	25	26	30	25	18	20	18	20	13	15	19	3
Bay 4	23	22	20	14	11	12	14	12	9	13	11	2
Total	87	99	99	92	92	66	75	61	53	56	52	23

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/09/2016	3	3	5	5	1	3	1	1	4	1	1	3
2/09/2016	4	2	2	2	2	2	3	2	6	1	3	2
3/09/2016	0	0	1	1	1	3	3	0	1	3	2	4
4/09/2016	3	0	0	0	0	0	2	3	1	2	2	4
5/09/2016	1	3	3	2	2	2	2	0	4	1	2	7
6/09/2016	1	1	5	2	2	3	3	2	4	2	1	3
7/09/2016	1	2	5	1	5	1	1	5	3	3	3	2
8/09/2016	3	3	3	5	2	3	3	5	6	1	2	3
9/09/2016	2	3	1	2	5	5	4	2	3	3	1	3
10/09/2016	3	2	4	3	0	3	1	3	2	1	3	1
11/09/2016	0	2	3	1	2	2	2	3	0	1	3	1
12/09/2016	2	4	7	3	5	4	2	3	4	3	5	4
13/09/2016	5	1	5	2	2	5	5	7	4	1	1	3
14/09/2016	2	3	2	4	2	2	5	1	4	6	1	1
15/09/2016	1	0	6	3	2	2	3	4	2	4	1	4
16/09/2016	2	1	3	1	2	2	3	3	3	3	2	1
17/09/2016	2	1	3	1	2	2	3	4	2	1	2	2
18/09/2016	2	2	1	0	0	0	3	3	1	0	3	0
19/09/2016	1	3	5	4	3	1	1	7	2	1	5	5
20/09/2016	2	2	6	2	3	4	3	2	4	2	1	2
21/09/2016	1	2	5	6	4	3	2	3	6	5	1	4
22/09/2016	1	2	4	4	2	4	4	1	2	5	2	2
23/09/2016	1	3	2	5	4	4	6	5	2	2	0	7
24/09/2016	1	1	6	3	0	1	3	3	3	0	1	2
25/09/2016	4	2	0	3	0	1	3	4	1	3	1	3
26/09/2016	0	5	6	2	3	1	3	6	2	5	3	2
27/09/2016	2	1	6	2	4	4	1	6	5	3	3	5
28/09/2016	3	2	4	1	2	3	2	3	5	2	4	6
29/09/2016	2	2	3	3	6	5	0	2	2	4	1	4
30/09/2016	3	2	4	5	2	5	1	4	3	2	4	1
1/10/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	58	60	110	78	70	80	78	97	91	71	64	91

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/09/2016	7	2	6	4	3	4	1	2	5	1	1	1
2/09/2016	2	2	2	3	1	2	0	2	2	2	3	0
3/09/2016	3	2	2	1	3	0	1	3	0	1	1	0
4/09/2016	1	3	0	1	1	1	1	2	0	0	2	2
5/09/2016	2	5	4	2	4	5	2	1	1	2	5	0
6/09/2016	5	5	3	3	3	2	8	1	3	1	2	2
7/09/2016	1	6	6	1	3	3	2	3	1	4	0	0
8/09/2016	2	3	5	2	3	4	3	3	1	5	1	1
9/09/2016	2	2	1	5	3	3	2	1	2	4	2	0
10/09/2016	1	4	2	2	4	1	0	1	1	1	2	1
11/09/2016	2	2	1	1	3	1	0	3	2	0	1	0
12/09/2016	4	4	2	4	3	5	4	2	2	3	0	0
13/09/2016	3	4	4	5	3	1	6	3	5	4	2	1
14/09/2016	1	0	4	8	3	2	1	3	2	1	4	0
15/09/2016	5	5	3	3	4	2	2	2	2	3	2	0
16/09/2016	3	6	2	2	3	1	2	3	3	1	0	0
17/09/2016	0	2	2	1	2	1	2	2	0	3	0	0
18/09/2016	4	1	3	0	1	0	1	0	1	0	1	0
19/09/2016	2	2	2	6	5	2	3	2	1	2	1	1
20/09/2016	2	6	3	3	4	4	2	5	1	4	1	3
21/09/2016	0	2	5	2	3	4	2	3	6	0	1	0
22/09/2016	4	2	3	3	6	5	2	2	3	2	2	1
23/09/2016	5	2	6	2	2	3	4	2	1	0	2	3
24/09/2016	4	2	2	2	2	0	4	0	2	1	2	0
25/09/2016	3	2	2	1	1	1	2	2	0	1	3	0
26/09/2016	4	6	5	5	5	0	3	2	1	3	2	1
27/09/2016	4	4	4	5	2	1	5	1	4	1	1	3
28/09/2016	3	4	5	6	5	2	3	3	0	3	2	1
29/09/2016	2	4	5	4	5	2	6	0	0	1	3	2
30/09/2016	6	5	5	5	2	4	1	2	1	2	3	0
1/10/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	87	99	99	92	92	66	75	61	53	56	52	23



REPORTING PERIOD: October 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	22	24	32	27	28	13	24	22	25	16	12	17
Bay 2	8	23	24	24	29	18	20	14	18	17	11	10
Bay 3	26	29	27	8	23	22	32	31	24	20	33	36
Bay 4	12	14	12	5	12	17	23	21	18	12	24	27
Total	68	90	95	64	92	70	99	88	85	65	80	90

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	24	27	38	29	36	26	24	21	21	12	19	6
Bay 2	20	14	32	27	29	18	15	13	10	8	3	4
Bay 3	37	28	29	16	22	23	20	19	15	20	20	7
Bay 4	26	27	16	10	15	19	15	14	10	19	21	2
Total	107	96	115	82	102	86	74	67	56	59	63	19

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/10/2016	3	1	2	1	2	3	4	1	4	1	2	1
2/10/2016	0	0	0	1	2	1	2	0	1	4	1	2
3/10/2016	1	3	3	1	5	3	2	4	4	3	3	2
4/10/2016	3	3	5	2	4	1	4	2	4	3	5	3
5/10/2016	1	3	5	1	5	1	4	4	2	1	6	1
6/10/2016	1	3	3	2	4	4	2	4	3	5	3	2
7/10/2016	1	2	4	4	3	3	6	3	5	2	4	3
8/10/2016	4	5	1	4	1	2	0	0	0	0	0	0
9/10/2016	1	2	3	2	2	0	2	2	5	3	0	1
10/10/2016	2	6	4	1	2	2	2	6	3	4	2	4
11/10/2016	2	3	3	3	5	3	2	2	4	4	4	4
12/10/2016	1	4	5	4	2	0	4	3	4	0	4	0
13/10/2016	3	3	4	2	3	1	5	3	2	1	1	2
14/10/2016	2	3	3	4	4	2	1	4	8	2	2	3
15/10/2016	3	3	5	1	1	0	3	5	0	1	0	2
16/10/2016	2	1	1	0	0	1	5	1	1	0	1	3
17/10/2016	1	4	2	0	6	4	3	1	3	1	3	3
18/10/2016	2	2	4	1	4	6	1	5	1	4	2	4
19/10/2016	2	4	3	1	7	5	2	2	5	3	2	3
20/10/2016	0	5	2	3	2	2	5	2	2	2	6	4
21/10/2016	5	3	2	3	5	4	4	2	2	3	4	3
22/10/2016	2	2	4	2	0	2	3	2	1	0	1	3
23/10/2016	1	4	1	1	1	2	3	2	1	2	3	3
24/10/2016	2	5	5	3	4	4	3	3	2	2	2	5
25/10/2016	5	3	2	3	2	3	3	5	2	4	5	2
26/10/2016	0	3	3	3	4	1	2	6	4	2	1	3
27/10/2016	4	3	4	4	1	0	4	2	5	0	1	9
28/10/2016	2	2	5	4	3	3	6	3	1	2	4	4
29/10/2016	3	1	3	0	4	3	3	3	1	2	2	2
30/10/2016	5	0	1	0	1	2	5	1	0	1	2	3
31/10/2016	4	4	3	3	3	2	4	5	5	3	4	6
Total	68	90	95	64	92	70	99	88	85	65	80	90

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/10/2016	3	2	3	1	3	1	0	2	0	3	0	0
2/10/2016	5	3	3	2	1	1	1	3	2	2	1	0
3/10/2016	6	4	5	2	4	0	3	2	5	0	2	0
4/10/2016	4	3	6	2	4	5	3	1	2	1	2	3
5/10/2016	1	6	6	1	2	4	5	4	3	0	4	0
6/10/2016	5	4	2	4	4	2	4	0	3	0	3	1
7/10/2016	6	3	5	2	5	6	2	3	1	3	4	0
8/10/2016	0	0	0	0	4	6	0	0	2	2	2	1
9/10/2016	2	1	3	1	1	1	1	5	0	1	2	0
10/10/2016	1	5	3	3	3	3	4	4	2	4	2	1
11/10/2016	5	2	5	0	5	4	5	1	1	5	2	2
12/10/2016	1	4	5	5	3	2	0	4	2	2	1	0
13/10/2016	4	4	6	5	2	3	3	3	6	2	0	0
14/10/2016	3	5	5	3	2	2	4	1	6	2	1	0
15/10/2016	4	2	1	0	4	0	3	1	1	0	3	1
16/10/2016	2	5	1	3	2	2	3	1	2	1	3	0
17/10/2016	5	5	7	5	4	2	4	4	1	2	3	2
18/10/2016	4	4	5	3	2	4	2	1	4	0	1	1
19/10/2016	5	3	3	2	5	5	0	0	1	4	3	1
20/10/2016	3	2	4	2	4	3	3	3	1	3	3	2
21/10/2016	3	4	4	3	6	3	0	2	3	1	3	0
22/10/2016	2	2	3	1	3	1	1	1	1	3	0	0
23/10/2016	3	1	1	0	2	1	1	3	0	1	3	0
24/10/2016	4	3	6	3	3	4	2	3	1	2	2	0
25/10/2016	5	2	3	5	5	1	3	3	1	2	3	2
26/10/2016	4	5	3	4	3	5	4	3	2	3	2	1
27/10/2016	4	3	5	3	5	6	3	3	1	2	3	0
28/10/2016	5	2	5	5	4	3	1	1	2	0	2	0
29/10/2016	1	3	0	4	3	1	3	2	0	3	1	0
30/10/2016	5	2	0	3	1	1	3	0	0	3	1	0
31/10/2016	2	2	7	5	3	4	3	3	0	2	1	1
Total	107	96	115	82	102	86	74	67	56	59	63	19



REPORTING PERIOD: November 2016

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	21	25	28	23	26	23	27	29	21	14	17	10
Bay 2	10	19	25	29	26	21	26	20	16	10	11	11
Bay 3	22	24	22	13	24	15	33	22	17	21	26	31
Bay 4	16	14	13	22	12	13	19	15	16	13	14	26
Total	69	82	88	87	88	72	105	86	70	58	68	78
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	30	21	29	32	40	25	18	18	22	20	14	4
Bay 2	16	19	23	27	34	22	12	14	10	11	6	7
Bay 3	25	30	24	22	28	27	15	22	19	30	24	7
Bay 4	24	17	14	12	20	12	14	14	14	17	21	7
Total	95	87	90	93	122	86	59	68	65	78	65	25

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/11/2016	3	3	2	1	4	8	8	4	2	4	3	5
2/11/2016	4	2	3	5	4	3	0	0	0	0	0	0
3/11/2016	1	4	5	3	5	2	3	4	3	2	5	2
4/11/2016	1	4	1	4	1	5	5	2	4	3	2	5
5/11/2016	2	2	2	1	2	1	2	3	3	2	1	2
6/11/2016	1	0	2	2	0	1	2	1	2	2	0	3
7/11/2016	3	2	2	2	4	5	3	4	0	2	4	3
8/11/2016	2	3	4	2	3	2	4	2	4	3	2	5
9/11/2016	1	2	6	4	5	1	3	2	3	2	3	2
10/11/2016	4	4	5	2	1	1	4	3	4	3	1	1
11/11/2016	4	7	2	4	2	1	3	2	2	5	1	0
12/11/2016	2	2	1	4	2	0	4	1	1	3	2	2
13/11/2016	3	3	0	1	3	2	4	2	2	1	3	3
14/11/2016	2	3	4	4	4	3	5	2	2	1	3	5
15/11/2016	4	4	4	1	3	2	4	3	2	2	2	2
16/11/2016	2	3	1	6	4	4	2	5	3	2	3	2
17/11/2016	1	1	7	5	4	3	5	4	2	3	4	3
18/11/2016	3	3	5	3	2	5	2	4	3	3	3	3
19/11/2016	2	2	4	0	2	2	2	2	5	0	1	3
20/11/2016	6	0	2	2	0	1	4	1	3	0	1	1
21/11/2016	2	6	5	2	1	0	4	5	2	2	3	3
22/11/2016	6	1	2	1	7	3	3	4	0	1	5	4
23/11/2016	1	4	2	5	5	0	2	4	3	2	1	0
24/11/2016	0	3	2	2	5	2	4	1	1	2	3	4
25/11/2016	0	3	2	8	4	2	5	3	2	2	5	1
26/11/2016	2	2	1	2	2	3	4	1	2	0	1	3
27/11/2016	1	1	1	0	2	2	3	2	1	1	2	1
28/11/2016	3	2	3	2	3	3	3	4	4	2	0	3
29/11/2016	2	2	3	5	3	2	4	6	0	2	1	5
30/11/2016	1	4	5	4	1	3	4	5	5	1	3	2
1/12/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	69	82	88	87	88	72	105	86	70	58	68	78
Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/11/2016	6	3	2	2	5	3	2	4	2	2	2	1
2/11/2016	0	0	1	3	6	5	0	3	2	1	4	0
3/11/2016	2	2	3	2	4	8	1	2	2	5	1	0
4/11/2016	7	2	4	2	2	3	2	6	2	4	2	0
5/11/2016	7	3	1	1	0	3	3	1	0	4	0	0
6/11/2016	2	2	0	1	3	1	1	1	0	4	2	1
7/11/2016	2	3	3	4	5	2	2	3	2	2	3	1
8/11/2016	3	3	4	5	6	3	1	3	5	1	0	2
9/11/2016	1	5	6	1	4	2	3	5	3	1	1	0
10/11/2016	3	1	6	6	4	2	1	6	4	1	1	1
11/11/2016	2	4	3	4	8	3	1	4	3	4	5	2
12/11/2016	3	2	2	1	2	4	3	2	1	2	2	1
13/11/2016	5	0	2	2	3	3	2	0	2	3	3	0
14/11/2016	5	5	3	3	3	5	3	2	1	3	1	0
15/11/2016	3	1	4	5	7	2	4	2	4	4	2	2
16/11/2016	5	7	4	3	6	2	5	1	1	2	4	4
17/11/2016	5	2	4	3	5	3	2	1	1	4	1	1
18/11/2016	4	4	2	4	6	1	2	4	4	0	3	0
19/11/2016	2	3	1	5	2	2	4	3	1	1	2	0
20/11/2016	5	2	0	3	3	1	2	1	4	2	3	0
21/11/2016	2	6	8	5	5	1	2	3	4	6	0	1
22/11/2016	1	3	4	4	4	1	1	1	4	3	5	0
23/11/2016	2	5	0	8	5	1	2	0	1	1	3	0
24/11/2016	2	6	1	3	2	3	1	1	3	2	4	0
25/11/2016	2	1	5	2	3	2	2	2	2	0	3	1
26/11/2016	0	2	3	3	2	2	2	2	1	2	3	3
27/11/2016	4	0	1	2	3	4	2	0	2	3	2	2
28/11/2016	4	4	4	0	4	4	1	3	1	4	1	1
29/11/2016	0	3	4	4	3	5	0	2	1	4	0	0
30/11/2016	6	3	5	2	7	5	2	0	2	3	2	1
1/12/2016	0	0	0	0	0	0	0	0	0	0	0	0
Total	95	87	90	93	122	86	59	68	65	78	65	25



REPORTING PERIOD: December 2016

Bay Occupancy Data

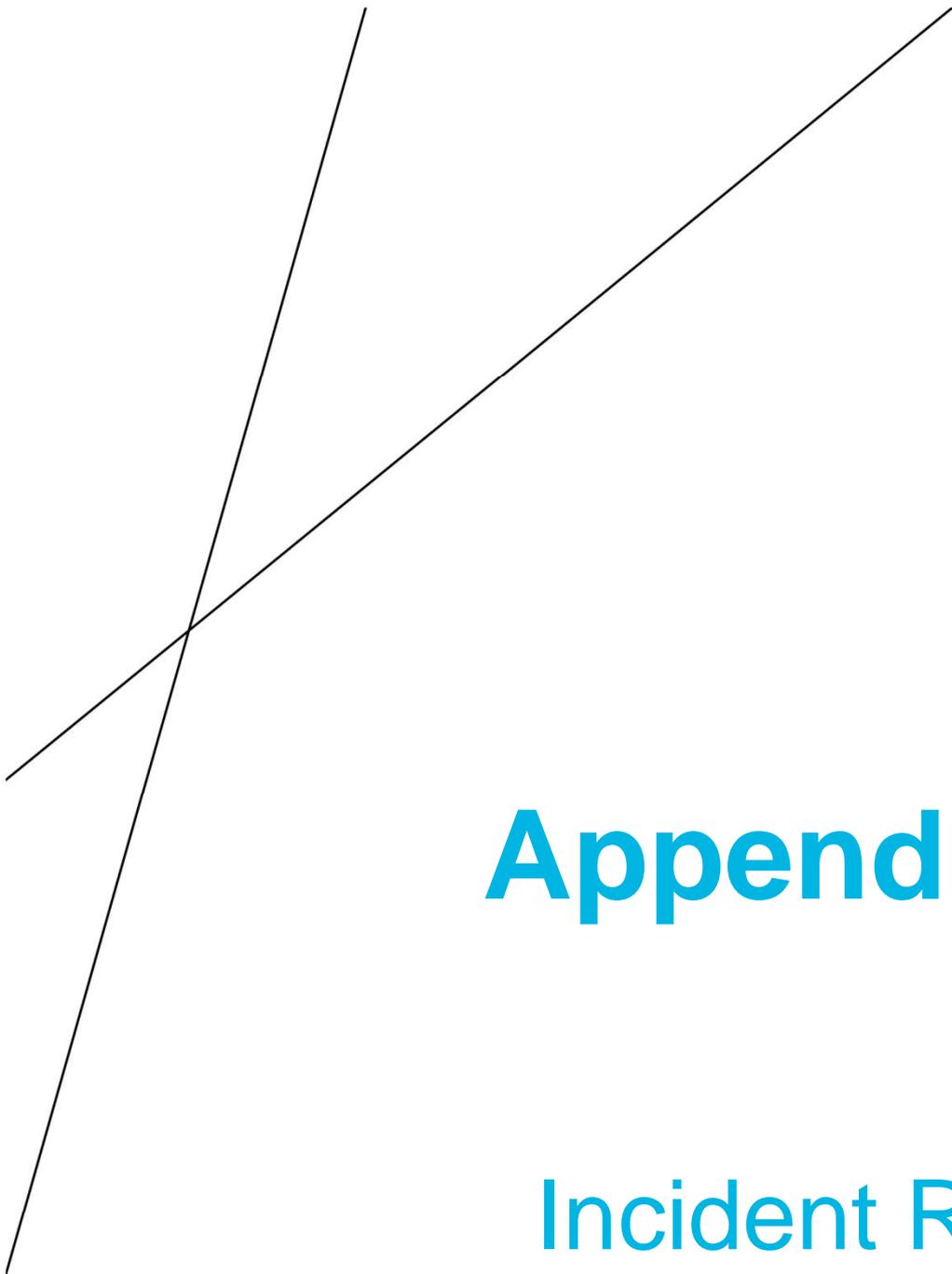
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	23	23	35	28	26	17	27	24	28	23	10	14
Bay 2	16	24	32	30	23	14	20	20	23	19	8	7
Bay 3	30	20	20	15	10	16	28	19	15	23	17	21
Bay 4	25	12	14	7	6	8	13	16	18	11	19	16
Total	94	79	101	80	65	55	88	79	84	76	54	58

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	21	24	33	26	27	23	23	23	18	12	7	4
Bay 2	18	25	24	26	24	19	19	16	13	7	5	0
Bay 3	23	27	24	21	20	21	18	18	19	19	24	6
Bay 4	11	13	10	13	6	8	8	7	16	9	14	1
Total	73	89	91	86	77	71	68	64	66	47	50	11

Traffic Movement Assessment Data

Start	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/12/2016	4	3	3	5	4	3	3	4	4	4	2	3
2/12/2016	7	5	4	3	4	3	1	5	1	4	2	1
3/12/2016	2	3	4	1	4	0	1	5	4	2	0	1
4/12/2016	3	2	3	2	1	0	4	2	3	3	1	2
5/12/2016	4	4	7	3	1	4	4	5	3	1	2	2
6/12/2016	3	2	5	4	2	2	3	3	4	1	3	1
7/12/2016	4	2	5	3	4	3	4	6	1	2	4	5
8/12/2016	5	4	2	1	5	3	5	4	3	2	2	4
9/12/2016	3	1	4	2	3	3	7	4	1	3	2	2
10/12/2016	1	1	3	0	1	0	3	2	1	1	1	2
11/12/2016	1	0	2	0	0	1	3	2	1	2	0	2
12/12/2016	3	1	5	4	1	4	1	1	4	5	0	2
13/12/2016	3	5	3	2	1	4	4	3	3	3	2	1
14/12/2016	2	3	3	6	3	1	4	2	3	4	1	2
15/12/2016	3	5	3	5	2	2	1	1	3	6	2	2
16/12/2016	2	1	4	5	5	3	2	0	5	4	2	2
17/12/2016	3	4	1	1	1	0	2	3	0	0	2	1
18/12/2016	2	3	5	0	2	0	3	4	1	3	0	1
19/12/2016	5	2	3	2	1	1	5	3	6	3	1	3
20/12/2016	1	3	1	9	3	2	4	1	3	1	6	2
21/12/2016	3	4	2	2	3	1	3	5	4	1	1	2
22/12/2016	4	4	4	4	2	4	2	2	4	5	4	3
23/12/2016	2	3	4	3	3	1	3	2	3	1	3	2
24/12/2016	5	1	4	2	2	0	1	1	2	2	2	0
25/12/2016	0	0	0	0	0	0	0	0	0	0	0	0
26/12/2016	0	1	1	2	1	1	0	0	2	0	1	1
27/12/2016	3	3	4	4	2	1	4	2	3	3	3	3
28/12/2016	5	2	4	0	0	1	4	4	4	2	1	1
29/12/2016	5	5	4	1	1	5	2	1	6	3	2	1
30/12/2016	2	2	2	2	2	2	3	1	1	3	2	1
31/12/2016	4	0	2	2	1	0	2	1	1	2	0	3
Total	94	79	101	80	65	55	88	79	84	76	54	58

Start	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/12/2016	6	3	3	4	3	4	3	3	3	1	1	0
2/12/2016	1	4	2	3	2	4	6	2	1	5	1	2
3/12/2016	2	3	4	3	2	2	1	3	4	0	3	0
4/12/2016	2	2	3	1	4	1	2	2	2	3	2	0
5/12/2016	4	7	5	6	3	2	1	5	4	0	3	0
6/12/2016	3	6	7	2	4	5	4	5	2	1	3	1
7/12/2016	3	5	2	2	5	1	5	1	1	2	2	1
8/12/2016	3	1	1	2	3	5	3	3	4	4	1	1
9/12/2016	1	5	3	2	0	3	2	1	1	2	2	0
10/12/2016	5	1	3	4	1	1	1	0	2	2	0	0
11/12/2016	5	0	5	0	1	1	2	0	2	1	0	0
12/12/2016	4	2	3	4	3	4	2	1	2	1	0	0
13/12/2016	1	4	4	7	2	0	1	4	5	1	2	0
14/12/2016	1	4	2	1	4	6	2	4	2	3	1	1
15/12/2016	2	2	2	6	5	4	2	0	1	2	4	0
16/12/2016	1	2	1	4	1	2	1	2	2	0	1	0
17/12/2016	3	2	3	1	4	2	4	2	2	2	3	0
18/12/2016	3	0	3	3	0	0	2	5	2	0	3	0
19/12/2016	5	3	4	3	6	1	4	1	2	1	2	0
20/12/2016	1	1	4	5	1	5	2	1	4	3	1	1
21/12/2016	3	4	5	1	2	6	4	3	4	1	2	0
22/12/2016	1	1	3	7	3	4	1	4	4	3	2	2
23/12/2016	0	5	2	4	6	2	1	2	2	1	2	0
24/12/2016	1	2	1	0	0	0	0	0	0	0	0	0
25/12/2016	0	0	0	0	0	0	0	0	1	0	0	0
26/12/2016	0	0	1	2	3	0	0	0	1	3	2	0
27/12/2016	4	5	2	2	2	1	4	1	1	0	1	1
28/12/2016	5	2	4	3	1	1	2	4	2	0	2	1
29/12/2016	0	6	3	2	4	2	3	2	0	2	3	0
30/12/2016	1	4	3	1	1	1	1	1	2	2	0	0
31/12/2016	2	3	3	1	1	1	2	2	1	1	1	0
Total	73	89	91	86	77	71	68	64	66	47	50	11



Appendix C

Incident Register

Appendix C Incident Register

Stolthaven Australia Pty Ltd

Incident Registers - Incident / Near Miss - NEWCASTLE

Report Period 01/01/2016 to 31/12/2016

ID	Date	Type	Description
622	5/1/2016	Incident	<p>Tanker discharge Emerald Express stop at 22:45 05/01/16 due to wind speed exceeding 30 knots. Discharged recommenced at 10:50 06/01/16 when winds had returned to safe levels.</p> <p>Ship remained safely berth during the stoppage.</p>
624	7/1/2016	Incident	<p>Ncl Tank NN6 (Diesel) was found to be offspec on filter blocking tendency following the discharge from the Emerald Express. Tank results on FBT were 2.69. All other tests on NN6 were in acceptable ranges. Discharge was stopped for approx. 21 hours awaiting instruction from customer.</p>
626	9/1/2016	Incident	<p>Tanker Leopard Star was secured at Mayfield 4 at 06:48 09/01. At approx. 07:20 the vessel pulled away from the berth by approx. 2m. The cause of the movement was due to excessive fresh water in the harbour from recent heavy rain and the passing of another vessel. Note, no discharge hoses were connected at this time.</p> <p>Additional lines were requested and linesmen arranged to secure. Another ship movement past the Leopard Star was assessed , with little movement and hoses were connected.</p> <p>Stolt agreed with vessel to stop discharge prior to any coal vessel movement past the Leopard Star until clear for entire discharge.</p>
627	9/1/2016	Incident	<p>Hazy Diesel received of the Tanker Leopard Star. Pre-discharge samples of the Leopard Star tanks showed signs of free water droplets. Discharge planned to start into NN1 until all ships tanks are clear (de-bottomed) then move to NN3 - NN1 - NN2.</p> <p>NN1 to remain quarantined until on-specification. LOP to be issued to vessel.</p>

640 30/01/2016 Incident

On commencement of Vessel discharge Pacific Vega discharging from ships tanks 2W 6W it was noticed during line sampling the product appeared Hazy with a Haze Rating of 6 discharge was Stopped at 17:54 and customer was contacted and informed of the Issue. At 2145 on advice from customer discharge was restarted and pumping was at reduced rates for the completion of the discharge. The Pacific Vega was issued a Letter of Protest for the Hazy product and delays.

645 12/2/2016 Incident

During tank ship discharge a Stolthaven contractor was found by wharf security personnel, to be smoking in a non-smoking area on the wharf. Although the area was outside of the hazardous zone, Stolthaven have stipulated smoking areas to control these hazards.

The contractor was stood down until further notice.

646 12/2/2016 Incident

On 15/02/16 at approximately 11:00hrs during discharge of Siteam Leader on Mayfield 4 Wharf a small weep was noticed inside the hose crimp collar connected to the wharf manifold. The discharge was immediately stopped and the product in the hose was blown clear and then the hose was disconnected from the ship for rectification.

A 6" hose was put in place and pressure tested , discharge resumed at 13:00hrs

650 22/02/2016 Incident

ON 22/02/16 at approximately 07:30 it was noticed that the Koppers Pipeline which crosses over Stolthaven leased land near the construction area driveway entrance behind the demandable buildings. A Koppers maintenance team have ahad a spill of Pitch at some time over the weekend, It appears that a section of Koppers pipeline was removed and the ends plastic wrapped to contain and residue leakage. Koppers staff have been advised of their spill and are in the process of rectifying.

- 660 10/3/2016 Incident Pre-discharge results on 5W of the STI Regina failed on density. Intertek reported results 5P 822.0 & 5S 821.9 compare to COQ 827.9 - 828.2. All other test results were within acceptable ranges.
- Customer was informed. Intertek requested to send 5W samples to Sydney lab to test for Sulphur. 5 wings not to be discharged until results received and cleared by customer.
- 662 12/3/2016 Incident
- A dropper hose started Weeping from its collar on Army 3 in load bay 1. The Arm was immediately drained and isolated from use for the remainder of the weekend. Upon startup on 14/03/16 a new dropper hose was installed to Arm 3 then returned to service.
- 665 20/03/2016 Incident Driver reported spill in gantry. Approx 2-3 lts of Diesel spilt to gantry floor containment from overflow from compartment 1. Driver cleaned up spill using gantry spill equipment and captured product coming from the valance drains using a bucket.
- 674 13/04/2016 Incident
- Product quality complaint received from customer carrier company. Load number 147893 & 147892 reported contamination in Diesel loads. Driver reported observation of brown contamination coming from dry break fitting on completion of unloading at customer site. Upon inspection of the truck compartments from the top hatch, sediment was also noted in the rear trailer unit.
- Vehicle returned to site for Site Manager to inspect draining's. Contamination appears to be "free" water with a rusty appearance. Investigation underway.
- 675 12/4/2016 Incident Lowes Driver reported breakdown in bay 4 of the Ncl loading gantry. Failure of air system prevented vehicle from moving out of the load bay. Lowes mechanic was called to inspect the issue. Inspection found the vehicle height control valve was not engaged in vehicle cab.
- Downtime in bay 4 1 hour and 15 mins.

- 676 13/04/2016 Incident Wharf attendant reported weep on wharf shipping hose during discharge of ST Marien. Hose was showing a damp patch approx. 300mm from the ferrule.
- Discharge stopped and hose string isolated. Remainder of discharge to continue through one hose string (2 hours left). Defective hose to be removed and repaired.
- 681 16/04/2016 Incident Power shut down planned for annual substation maintenance (Stolthaven and Onesteel substations). When power to the site was isolated, a fire Alarm was activated. Site Manager contacted emergency services to advise of false alarm. NSWFR attended site and confirmed non emergency.
- Form 1 (Fire system maintenance contactor) contacted and requested to immediately investigate why a power outage has caused a Fire alarm.
- 688 24/04/2016 Incident Call received from Driver at 01:40, loads in Bay 3 & 4 unable to load. RDK attended site, Driver in Bay 1 also complained system was operating slow and no paperwork received. Paperwork was forced for driver. Fuels Manager system checked and no faults found. Both Drivers requested to load again with success. No cause of fault found.
- Call received from Driver at 05:00. Bay 1 stopped working. RDK attended site and found Bay 1 was unable to proceed with loading. The Fuels Manager system was found to be operating at a very slow speed. Bay 1 Accuload and Fuels Manager was powered down and rebooted. System returned to normal operation/speed. BOL volumes for part load were not correct, and amended manually. Next 5 loads were supervised without fault.
- Varec engaged to investigate.

690	25/04/2016	Near Miss	<p>Call received from JLP carrier, vehicle BI67JF unable to start in bay 2 after loading A trailer, flat battery suspected. Tow truck arranged. RDK attended site. Bay out of service for approx. 1.5 hours.</p>
697	16/05/2016	Incident	<p>At approx. 10:00 16/5/16 a Form1 employee reversed into the bollard in the car park adjacent to the admin building. Causing minor damage to the bollard and the contractors vehicle.</p> <p>Form1 was notified of the incident.</p>
703	3/6/2016	Incident	<p>At approximately 08:45am a J L Pierce driver reported that Arm 2 Bay 2 Loading Arm dropper hose appears to be weeping near the bottom flange.</p> <p>Operations personnel inspected the arm and subsequently locked it out from further use until repairs/replacement can be undertaken.</p>
708	7/6/2016	Near Miss	<p>On starting Shift on 07/06/16 NMC's laptop has had a power failure and failed to start Hp have been approached regarding a warranty issue</p>
711	13/06/2016	Incident	<p>Alpine Legend discharge at Newcastle. All discharge tanks sampled and tested prior, results within specs, traces of free water noted by Intertek. Commenced discharge from 1W with results of Haze 3-5 over the first hour and cleared to haze 1 shortly after.</p> <p>Customer contacted and advised. All discharge tanks to be de-bottomed into NN7 & NN8 before discharging into NN5 & NN6.</p>
716	16/06/2016	Incident	<p>Letter of Protest issued to vessel.</p> <p>While receiving diesel from the Pro Emerald, Intertek reported a low Conductivity level of 51 pS/m in shore Tank NN3, which was required as the duty tank for normal operations to the gantry. Customer advised and plan discussed. This resulted in a ship stop and a recirculation and additional stadis dosing process, which took approximately two hours.</p> <p>Post tankship results revealed similar issues in shore Tank NN1 and NN2.</p>

717 23/06/2016 Incident

Stolthaven Newcastle switch room doors have deteriorated and are no longer fit for purpose. The doors are waterlogged and with recent wind gusts, blown apart at the upper dead bolt. The doors are soft/swollen and out of alignment offering little security and weather protection to the switch room.

Urgent replacement is now required.

722 6/7/2016 Incident

On 06/07/16 @ 07:15 prior to ship sign on it was noticed that the ship was not hard up against the wharf fenders after the pilot/ports authority and lines men had left, it was approx. 1m off at the stern of the ship. At sign up of the Gulf Juremirah we spoke to the Chief and the Master about the position of the ship along side the berth, it was noted due to the high winds 32kn when the tug left the side after they had tightened the mooring lines the ship was pushed back due to the high winds. The Master contacted the agent and VTIC to request a pilot and tugs to push the ship back against the berth. When the ship was all fast again 12:30pm. At this time the winds had picked up to 35kn after checking the ships alignment with the berth it was moving off the berth approx.500mm and back in again due to the winds. We monitored the wind speed until we had an 1/2 hour of under 30kn to allow for connection. connection was made at 17:00 and pumping was started at 18:20. These events caused a delay of 11hrs. we completed discharge with no further wind/movement incidents at 07:00 7/7/16.

723 1/7/2016 Incident

It was noticed upon passing that the suction gauge on Pump 22 (NN8) had a reading of over 300Kpa, which is quite high.

727 12/7/2016 Incident

During Wharf set up, operations were advised by Hancock and Owen contractors that a plastic bottle had been dropped into the wharf line. This bottle up until this point has been used to bail out excess water from the recessed concrete pit that houses the 12" wharf line connection point for the wharf manifold.

- 728 14/07/2016 Near Miss During commissioning of tank NN8 to the gantry (supervised truck loading), the first three compartments loaded onto vehicle Y00683 "trailer A" resulted in hazy product (haze 3). The compartments were sampled and haze appeared to be caused by aeration. Customer was contacted and decision made to pump back product into NN7 and reload. Remaining compartments, trailer B were C&B. The pump off and reload was completed and driver left site at approx 13:40.
- Note, Diesel from NN8 had been circulated through each bay for 45 mins prior to this commissioning event.
- 729 14/07/2016 Incident At 03:00 14/07/2016 the intertek surveyor reported to me that the sample cage rope snapped whilst he was tacking a middle sample on NN5. resulting in the cage now being at the bottom of NN5.
- 730 19/07/2016 Incident A new sample cage will need to be sourced. While receiving diesel from the Pro Emerald, Intertek reported a low Conductivity level of 50 pS/m in shore Tank NN3, which was required as the duty tank during NN2 & NN1 discharge.
- Customer advised and plan discussed to recirculate NN3 with the addition of 1.5 ppm, which would require a ship stop.
- 731 19/07/2016 Incident Site advised by Customer that their carrier did not accept BOL #153068 loading volume (from midnight reports) and that the stock accounting for Saturday 16th had a significant variance.
- Varec was engaged to investigate the issue further and correct BOL paperwork and lifting reports.

732 19/07/2016 Incident

During discharge of Pro Emerald it was noted that radio communications between the Terminal and the Wharf were "Patchy" or ineffective due to radio coverage over the 1100meter distance and also potential interference factors between the Wharf and terminal. This radio interference can continue for an extended period rendering the radios ineffective as a primary means of communication. This issue has been present on numerous instances during shipping. Whilst loading in Bay 3 of the Bulk Loading Gantry a Lowes Petroleum driver experienced an issue completing his load at the Accuload Bay Controller. The driver called the after hours number for help where the issue was resolved and the driver departed site.

740 26/07/2016 Incident

741 14/07/2016 Incident

Loads 152916 (14/07) & 153126 (18/07) exceeded 60 min load time due to intermitted faults with the Bay 1 overflow protection lead.

742 20/07/2016 Incident

The overflow protection lead has since been replaced. Load 5571238 exceeded 60 min load time due to order number issues.

744 2/8/2016 Incident

During the process of modifying Air and Additive lines in Bay 2 of the loading Gantry, it was noticed that the contractors performing the works (RIG) were about to undertake in an unsafe act.

The scaffolding had been set up on uneven ground incorrectly, leaving it extremely unstable and leaving access to the job difficult.

I intervened and after a short discussion with the contractors, the scaffolding was repositioned, leveled and tied off to a structural beam.

Also instruction to ensure the use of harnesses and fall protection if any reaching outside of the scaffold was required.

745 4/8/2016 Incident

At 07:00 04/08/16 It was noticed that a drip tray had been run over in Bay 3. the driver had written in the diary his name, time and date of the incident. the carrier company was contacted and a new drip tray has been ordered to replace the one that had been squashed.

752 11/8/2016 Incident

Approx 07:15 driver under training in Bay 4 accidentally pushed the ESD button instead of the Deadman Timer reset button. Full ESD activation and shutdown of loading process. Site reset, driver / trainer debriefed and loading recommenced.

Driver apologetic and treated as genuine error.

New EcoPortal incident reporting system commenced system

61 19/08/2016

Advised by Hopes driver (Bay 3) that he had an issue at the loading bay, which had stopped his loading. Further investigation found that a JLP driver in Bay 1 also had an issue with their BOL paperwork.

63 19/08/2016

Intertek contractor advised the duty Shore Officer (JAI) that the Pensky Martin test unit had been damaged. Upon inspection it was found the pipe feeding the gas inlet block had broken. The damaged had been caused by the contractor whilst he was trying release the hatch.

64 22/08/2016

During the initial safety meeting for discharge of the NCC Maha, the Chief Officer had requested the Terminal for the preferred management of the ship's discharge method (use of Nitrogen or not for inerting of combustible liquids) The cargo owner customer, was contacted by Stolthaven during the meeting for guidance. It was then conveyed to the Chief Officer that the safe discharge management was to be decided by the vessel and charter

- 73 28/08/2016 At approx. 12:15pm Sun 29 Aug 2016 driver called Duty Mobile to report loss of containment above Diesel Pump P16 in the gantry. The On-Call Duty Operator requested driver cease loading (which he'd done) and put a drip tray under the leak along with spill pads in immediate area to soak up product. The On-Call Duty Operator then proceeded into the Terminal.
- 76 31/08/16 During the annual fire system flow test, the Form 1 contractor advised that he was unable to close the hydrant valve. The ring main was isolated and hydrant disassembled. Failure was found to be caused by a large lump of dross (galv) which had lodge in the valve body bent the washer. The hydrant was replaced with an onsite spare.
- 84 8/9/2016 As part of the site maintenance program a check of the filter / strainers (immediately pre-meter on the loading rack) was being undertaken across the gantry. On Bay 3 Arms 1 & 3 the stainless gauze filter on the downstream side was found to be deformed and had failed.
- 85 8/9/2016 At approximately 23:09pm on the 7th September 2016 I received a call from an IOR Tanker driver who had arrived at the Terminal. The driver advised that he could hear a fire pump running and a siren.
- 88 12/9/2016 Loading Time exceeded 60min:

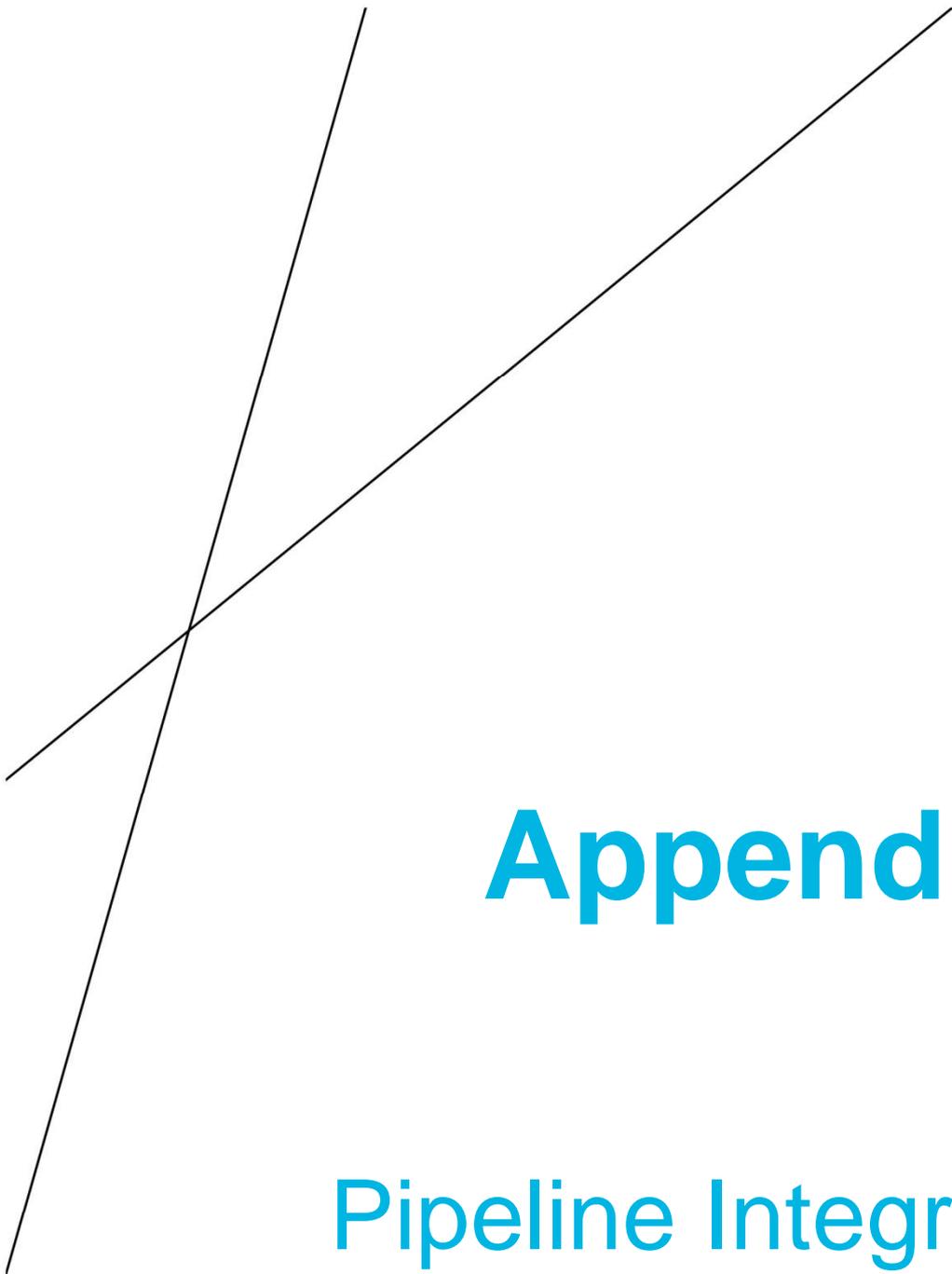
At 07:00 15/08/2016 driver reported to operators that he was having scully issues in Bay 2 after testing it was found that the scully lead had a intermitted fault.
- 89 12/9/2016 Load Time Exceeded 60min:

At 10:35 a driver reported to operational staff that he had an issue with the scully on his B trailer.
- 90 12/9/2016 Load time exceeded 60min:

Actual pump running time to load was 23min.

- 95 20/09/2016 As part of internal tank transfer and wet commissioning trials, a second batch transfer was being undertaken after a successful wet test and transfer on the 16 Sept on Pumps P23. Whilst undertaking the second batch transfer of 2,000kls diesel using P24, from NN9 to NN5, within 6-7 mins of estimated completion the Fuels Manager alarm page highlighted a valve fault alarm - non descriptive as to physical location.
- 99 26/9/2016 Intertek pre-discharge Diesel samples from vessel Cabo Negro II found traces of small droplets of water.
- 102 6/10/2016 During the SCADA automated running change from tank NN6 to NN8 (discharge of Chang Hang Tan Suo - Diesel cargo) a solenoid fault illuminated on the alarms page during the closure phase of NN6 actuated valve.
- 108 5/10/2016 Bay 4 - on completion of loading B trailer compartment 6 using loading arm 1 driver disconnected arm and immediately noted product leaking around API. Loading arm re-attached and emergency shut-off of the trailer internals.
- 110 06/410/2016 Load exceeded 60 mins - driver called "Stolt on-call" number to report loading issues in bay 3. Driver attempting to load B5 (Viva grade) in bay 3.
- 114 12/10/2016 During a site start up (re-energize) following an 8 hour site wide planned outage, it was noted NN3 tank gauging had failed. This was the duty tank prior to the shut down and failure prevented the tank from being assigned to the load bay.
- 119 15/10/2016 Received a call from a driver advising the terminal fire pump and alarm was active. This is the second occurrence where the fire pump has been activated when the terminal is unmanned.
- 133 31/10/2016 H&O contractor advised the portable shipping manifold has received damage during transit.

140	4/11/2016	Power failure (Ausgrid supply at site / Brief power interruption) on site at 04:10 causing all ESD / Site alarms to sound
143	8/11/2016	Diesel transfer line behind Pump P5 observed to have small leak at flange connection downstream of closed valve
150	11/11/2016	Driver reported arriving at site and being unable to get left hand gates to open. Lightening reported in area at time.
151	12/1/2016	During period of heavy rain an ESD activation shutdown operations. Suspected that floodwater had found it's way into the puraceptor pit and tripped the probe.
167	25/11/2016	After reconnection of firewater lines to Firewater Tank No.1 (offline clean and refurb) a broken piece of old gasket was found seated under the new full face flange gasket on the recirc line allowing water to escape when line pressurized.
170	29/11/2016	Duplication of Open Order in customer SAP system, caused by Stolts Fuels Manager
175	6/12/2016	Driver had attended induction at Terminal and whilst leaving car park reversed his ute into the bright yellow high viz bollard protecting the Muster Area.
176	6/12/2016	Whilst inspecting the wharf temporary bunding stored at the Mayfield Berth a tear was discovered on one of the new replacement sections.
181	12/12/2016	During discharge of the Nave Velocity at Mayfield 4 berth the ship suffered a suspected electrical fault causing the ships horn to operate unintentionally



Appendix D

Pipeline Integrity Test Report

Appendix D Pipeline Integrity Test Report

Hancock & Owen Services Pty Ltd

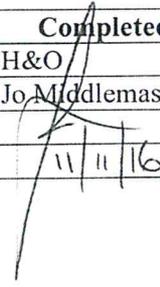
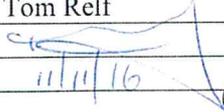
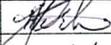
PIPELINE PRESSURE TEST CERTIFICATE	
Customer Site: Stolthaven	Certificate No. HO311016

Project Name: Wharf Line	System:
Flow Medium: Diesel	Location: Newcastle
Site Drawing No. (s) :	

Piping Code: ASME B31.3	Design Temp.: 0-40deg C
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Test Medium: Diesel	Test Pressure: 1500 kPa		
Test Duration: 1 hour	Start 9.30am	Finish 10.30am	
Test Date: 31/10/16	Testing Officer Kenny Sutton		
ISO No.	LINE No.		

Gauge No: HO01

	Completed By	Approved By	Accepted By
Company	H&O	H&O	Stolthaven
Name	Jo Middlemas	Tom Relf	Ryan Duckmanton
Signature			
Date	11/11/16	11/11/16	11/11/16

