

**UNDER**

the Resource Management Act 1991

**AND**

**IN THE MATTER**

of the resource consent application by Mobil Oil New Zealand Limited for discharge of hazardous waste / hazardous substance under the Regional Plan: Waste for Otago and Regional Plan: Water for Otago.

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**LEGAL SUBMISSIONS ON BEHALF OF MOBIL OIL NEW ZEALAND LIMITED  
26 JANUARY 2023**

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## Background

1. Mobil Oil New Zealand Limited ("**Mobil**") formerly operated a bulk storage terminal at 199 Fryatt Street, Dunedin ("**Site**"). Mobil ceased operations at the Site in 1995 and decommissioned the facility between 1996 and 2007.
2. The Site is located within an industrial area of Dunedin and is surrounded by commercial and industrial land uses. The nearest surface water body is Otago Harbour, located approximately 60 metres from the Site.
3. Following Mobil ceasing operations at the Site, Mobil engaged experts to progressively undertake environmental site assessment works ("**ESA**") both on-Site and off-Site. The ESA works were undertaken from 1992 to 2017. Phase 1 of the ESA reports identified potential sources of contamination as bulk storage above ground storage tanks, rail car loading / unloading rack, drum storage, small tanker wagon fill station and tank sludge.<sup>1</sup>
4. The ESA works documented the presence of residual petroleum hydrocarbon impacts at the Site<sup>2</sup> and formed the basis for development of a robust Conceptual Site Model ("**CSM**"). The CSM was developed to identify potentially complete source-pathway-receptor relationships and to determine the risk posed to human health and the environment. The CSM, based on the ESA works, supported the position that no further active remediation is required given the assessed risks.<sup>3</sup> Based on ESA works and CSM, a Closure Report was prepared in 2019, which established that no further remediation was required.<sup>4</sup>

## Application for Resource Consent

5. Based on the ESA findings, CSM and Closure Report, Mobil sought resource consent from Otago Regional Council ("**ORC**") for the ongoing discharge of residual petroleum hydrocarbon impacts onto or into land from the Site. Specifically, resource consent is required under the following plan rules:
  - (a) A discharge permit for the discharge of hazardous waste onto or into land in circumstances that may result in that hazardous waste entering water, pursuant to Rule 5.6.1(3) (discretionary activity) of the Regional Plan: Waste for Otago.

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<sup>1</sup> Evidence of Andrew Hart at [17].

<sup>2</sup> Evidence of Andrew Hart at [20].

<sup>3</sup> Evidence of Andrew Hart at [63].

<sup>4</sup> Evidence of Andrew Hart at [64].

- (b) A discharge permit for the discharge of any hazardous substance to water or onto or into land in circumstances which may result in that substance entering water, pursuant to Rule 12.B.4.2 (discretionary activity) of the Regional Plan: Water for Otago.

(together the "**Discharge**").

6. The Discharge therefore requires discretionary activity consent. The resource consent application for the Discharge<sup>5</sup> and the Section 42A Report<sup>6</sup> contain detailed summary of the relevant planning framework. The Reporting Planner concludes in section 6.3 of the Section 42A Report that the application is consistent with the relevant planning provisions.

### **Assessment of Effects**

7. Mobil has pre-filed evidence from Mr Andrew Hart, Technical Principal - Contaminated Land at WSP New Zealand Limited. Mr Hart's evidence sets out the considerable assessment and analysis that has been undertaken with respect to any actual and potential effects arising from the Discharge.<sup>7</sup>
8. As a result of the ESA works, Mobil's experts have a detailed understanding of the extent of residual impacts to soil, groundwater and soil vapour and the associated risks to human health and the environment. Mr Hart has concluded that the Discharge does not represent an unacceptable risk to the environment and human health and that residual impacts can be managed through the two Environmental Management Plans ("**EMP**") proposed for on-Site and off-Site.<sup>8</sup> Specifically, Mr Hart has made the following key findings:

#### *Risks to the Environment*

- (a) Light Non-Aqueous Phase Liquid ("**LNAPL**") (predominantly diesel with some petrol) is present in several monitoring wells located across the southern half of the Site.<sup>9</sup> Overall, the evidence shows that the lateral extent of LNAPL is continuing to contract over time.<sup>10</sup>

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<sup>5</sup> Section 5 of Part B of the Resource Consent Application and Assessment of Effects on the Environment – Former Mobil Terminal –199 Fryatt St, Dunedin prepared by Golder Associates (NZ) Limited, dated February 2022.

<sup>6</sup> Section 42A Report, section 6.3.

<sup>7</sup> Evidence of Andrew Hart at [6].

<sup>8</sup> Evidence of Andrew Hart at [117].

<sup>9</sup> Evidence of Andrew Hart at [34].

<sup>10</sup> Evidence of Andrew Hart at [35].

- (b) Dissolved phase contaminants are present in groundwater beneath the Site and off-Site to the south beneath Fryatt Street and to a lesser extent Halsey St.<sup>11</sup> Monitoring of dissolved phase contaminants shows a decreasing trend. Additionally, the dissolved phase contaminants are being effectively attenuated through biodegradation.<sup>12</sup> Mr Hart's evidence finds that given the decreasing trends and the relatively short extent of impacts, the dissolved phase contaminants are unlikely to migrate beyond the current extent and are unlikely to pose a future risk to the Otago Harbour.<sup>13</sup>
- (c) There are two stormwater lines within Dunedin City Council's ("**DCC**") stormwater network located beneath Halsey Street adjacent to the Site.<sup>14</sup> Mr Hart has assessed the risk to these stormwater lines from the Discharge.<sup>15</sup> In Mr Hart's opinion, given the measured groundwater levels in monitoring wells adjacent to the stormwater lines, there is no evidence that the stormwater lines are acting as a groundwater sink and preferential pathway for the migration of petroleum hydrocarbon impacted groundwater from the Site.<sup>16</sup> Mobil commissioned further stormwater sampling in December 2022. Petroleum hydrocarbon compounds were below the adopted ANZG (2018) marine guideline values in the samples collected.<sup>17</sup>
- (d) The available information on per- and polyfluoroalkyl substances ("**PFAS**") suggests that the application of Class B foams at the Site would have likely been limited,<sup>18</sup> and indicates a low potential for soil and groundwater contamination to be present at levels likely to result in adverse environmental effects.<sup>19</sup> Mr Hart's evidence is that the management framework proposed in the EMP is appropriate for the management of potential PFAS impacts.<sup>20</sup>

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<sup>11</sup> Evidence of Andrew Hart at [36].

<sup>12</sup> Evidence of Andrew Hart at [51].

<sup>13</sup> Evidence of Andrew Hart at [39].

<sup>14</sup> Evidence of Andrew Hart at [68].

<sup>15</sup> Evidence of Andrew Hart at [68] – [87].

<sup>16</sup> Evidence of Andrew Hart at [74].

<sup>17</sup> Evidence of Andrew Hart at [83].

<sup>18</sup> Evidence of Andrew Hart at [59].

<sup>19</sup> Evidence of Andrew Hart at [60].

<sup>20</sup> Evidence of Andrew Hart at [61].

### *Risks to Human Health*

- (e) Although some exceedances of MfE (2011) Tier 1 All Pathways acceptance criteria were identified for soil petroleum hydrocarbon concentrations, no exceedances of dermal, soil ingestion and outdoor inhalation pathways were identified.<sup>21</sup> Mr Hart's evidence is that there is no unacceptable risk to human health, and that any residual hazards can be addressed through the implementation of the EMPs and the Health and Safety at Work Act 2015 requirements.<sup>22</sup>

### **Section 42A Report**

9. There is almost complete alignment between Mobil's expert and the Council's. With respect to the risk to human health, the Reporting Planner concluded:<sup>23</sup>

Mr Beardmore concluded that the controls outlined in the EMPs are comprehensive and appropriate for the site.

I adopted this expert opinion and concluded that the adverse effects on the health of future users, occupiers, and workers both on-site and off-site within the MMA would be less than minor.

10. With respect to water quality effects, the Reporting Planner concluded:<sup>24</sup>

The Applicant states that for these reasons, the dissolved phase hydrocarbons are unlikely to migrate beyond the current extent and unlikely to are unlikely to migrate beyond the current extent and unlikely to pose a future risk to Otago Harbour.

In a technical audit of the application on behalf of ORC, Mr Beardmore agreed with this assessment. I accepted this assessment and concluded that adverse effects on water quality were likely to be less than minor.

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This information [with respect to PFAS] was technically audited by Mr Beardmore on behalf of Council, and he stated that the conclusions were reasonable and supported by the available information. Based on this, I conclude that adverse effects of PFAS on water quality are likely to be less than minor.

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<sup>21</sup> Evidence of Andrew Hart at [40].

<sup>22</sup> Evidence of Andrew Hart at [41], [45].

<sup>23</sup> Section 42A report, p13.

<sup>24</sup> Section 42A report, pp14-15.

In response, the Applicant identified that measured concentrations of total PAH (which incorporate the contaminants of interest) discharged from the Halsey Street stormwater catchment into Otago Harbour are at least two orders of magnitude lower than both the measured dissolved phase contaminant levels in groundwater and the ANZG (2018) guideline values for 95% species protection. These data were obtained from the DCC monitoring reports. Therefore, ingress of contaminants into these pipes is unlikely to be occurring.

Expert evidence from Simon Beardmore of E3, appended to this report, evaluates the likelihood of contaminant ingress to the stormwater pipes and considers this is unlikely to be occurring in significant quantities. Suggestions for possible ways in which more information could be obtained are included within the evidence; however, if ingress were to occur, Mr Beardmore concludes that impacts on Otago Harbour would be less than minor.

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I have considered the points raised in the DCC submission, the new information provided by the Applicant in response, and the expert evidence of Mr Beardmore. In my opinion, adverse effects on water quality remain less than minor.

11. Mr Hart has suggested some changes to the conditions proposed in the Section 42A Report. These changes are minor and more in the nature of clarification or strengthening of particular conditions, rather than being indicative of any differences of expert opinion. As set out in Mr Hart's evidence, Mobil supports the conditions proposed in the Section 42A Report subject to the following:
  - (a) An amendment to condition 5 to include a table of critical monitoring wells as set out in Appendix C to Mr Hart's evidence.
  - (b) An amendment to condition 6 to provide that any updated EMPs shall also be provided to the parties listed in that condition.

#### **Submitters**

12. DCC was the only submitter on the resource consent application. DCC's submission raised concerns regarding:
  - (a) the presence of dissolved phase hydrocarbons within the off-Site management area with the potential to have adverse effects on Otago Harbour via the stormwater network;

- (b) the adequacy of mitigation measures proposed to be implemented through conditions of resource consent; and
  - (c) financial implications imposed on DCC through the implementation of the EMP.
13. As advised in the memorandum of counsel on behalf of DCC dated 25 January 2023, DCC and Mobil have now reached resolution of DCC's concerns. Mobil confirms that it is happy to make the amendments sought by DCC to the off-site EMP.
14. Given that DCC was the only submitter on the resource consent application for the Discharge and the alignment between Mobil and the Reporting Planner, Mobil respectfully submits that the Commissioner has sufficient information to grant consent for the Discharge on the basis of the Reporting Planner's proposed conditions (subject to the minor clarificatory amendments proposed by Mr Hart). On this basis, the hearing could be vacated. However, Mobil and its representatives remain available to attend the scheduled hearing in the event that the Commissioner has questions for Mobil.

### **Conclusion**

15. Mobil has undertaken progressive ESA works in relation to the Site. These works provide a clear understanding of the extent of the residual impacts to soil, groundwater soil vapour and any associated risks to the environment or human health. The evidence supports the position that any residual petroleum hydrocarbon impacts do not present an unacceptable risk to the environment or human health and can be managed via the conditions of consent and EMPs.
16. Mobil seeks consent is granted on the conditions set out in the Section 42A Report subject to the amendments suggested by Mr Hart.

**K L Gunnell**

**26 January 2023**