



June 5, 2019

Attn: Neeky Noor-Ali

Re: LPG Bullet at Northland Transport Yard

Neeky,

It is the findings of the writer that after travelling to the Northland Transport Yard and completing a visual inspection of a mark on the head of the LPG bullet that the mark in question is superficial and has no effect on the integrity of the vessel. As found in Photograph 3 the mark appears to be from rubbing on another object sometime during the life of the vessel. The mark in question shows clear signs of being caused by a rubbing effect with no metal loss at point of the rub or gouging or impact marks, only the removal of the surface paint and a slight flattening of the head end curvature with the deviation noted in Photographs 1 and 2 to be less than 4-5 mm in depth. Further review of photographs at the time of the removal of the bullet from the 7-33 Altagas location clearly shows the mark was present on the vessel at the time of its last operating state as shown in Photograph 4 and time of transport in Photograph 5. As the vessel was in service and undergone routine in service inspection it is a fair assumption that the vessel has passed inspections related to the integrity of the head end.

Regards,

Darrin Staal

President D.L.C. Services LTD.

Oilfield Consulting Group

PHOTOGRAPH 1

Depth of deformity shown to be no greater than 4-5 mm as found June 3/19



PHOTOGRAPH 2

Length of rub mark shown to be around 10" long. June 3/19



PHOTOGRAPH 3

End view of rub/scuff mark. Close visual inspection shows no gouging or metal loss just appearance of a rub mark which removed paint. June 3/19



PHOTOGRAPH 4

View of bullet on piles at 7-33 AltaGas location in service with rub mark clearly visible.



PHOTOGRAPH 5

Bullet loaded at 7-33 Altgas location for transport to Northland yard. Mark visible on bullet on trailer.

