GLENN SPRINGS HOLDINGS, INC.

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September 7, 1999

Steve Scharf, P.E.
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-3501

Dear Mr. Scharf:

Re: Draft Groundwater Feasibility Study
Northrop and Navy Sites, Hicksville, New York

Glenn Springs Holdings, Inc. (GSHI) has reviewed New York State Department of Environmental Conservation (NYSDEC) responses on the GSHI comments submitted June 3, 1999 on the Draft Groundwater Feasibility Study dated February 1999 for the Northrop and Navy sites. GSHI has the following comments on the NYSDEC responses.

Comment A

No comment needed.

Comment B

Bullet i)

Northrop Plant No. 12 was used as a centralized maintenance operation, tire shop, welding shop and for painting, fabricating and assembly. These operations would have used chlorinated solvents which would have contributed to the chemicals present in the groundwater as shown by samples collected January 1999 which showed 1,1,1-TCA, 1,1-DCA, and TCE present in the groundwater. It is agreed that the Northrop RI did not identify the Plant 12 area as a source of chemicals. However, the RI soil and groundwater data were collected in the early 1990s and thus are representative of that time period. It is unknown what the Plant 12 soil conditions were during the period of operation prior to collection of the RI data. It is possible that the soils, once discharges/spills stopped, cleaned up relatively rapidly, similar to the relatively rapid decrease in chemical concentrations observed between the 1989 Hooker/Ruco Site RI data and the December 1998 OU-1 Predesign results as described in the OU-1 Predesign report. Although the current concentrations in the shallow groundwater in the Plant 12 area are low, the soils beneath the Plant 12 property have had the benefit of

flushing over the years just as has occurred at the Hooker/Ruco facility where only low concentrations of VOCs remain.

With regard to addressing the VCM, GSHI is committed to implementing a remedy at the earliest possible time allowed following the EPA documentation/review process.

With regard to the remainder of the VOC/TIC plume west of South Oyster Bay Road, GSHI is merely stating that OxyChem will not accept any Parties claim that the Hooker/Ruco Site is responsible for all of the chemicals in this area. Of the chemicals released at the Hooker/Ruco facility, VCM is the most prevalent and the most mobile. Therefore, any chemicals outside the VCM subplume are likely sourced from other areas. In this regard, Plant 12 is a likely suspect.

Northrop and the Navy extracted groundwater from numerous locations throughout the Northrop and Navy sites including some locations that would have contained significant VOC concentrations from Northrop and the Navy. The discharge of the water (following use for cooling or other purposes) occurred throughout the Northrop and Navy sites, possibly including the recharge basins located south of Plant 12.

The most likely scenario with respect to pumpage, usage and recharge of groundwater is that groundwater pumped from the Northrop production wells would be put into the distribution system and used by the Northrop/Navy plants in the general vicinity of the wells and then discharged to recharge basins in the same general area of the plants. This is supported by the large number of Northrop production wells (i.e., 14) and recharge basins and their areal distribution throughout the Northrop/Navy sites. Thus, it is possible that groundwater from wells GP-8, GP-14, and GP-5, which contained high PCE and TCE concentrations sourced from the Northrop/Navy sites (e.g., NH-24 area, historic TCE at 58000 µg/L) were discharged to the sumps south of Plant 12. Consequently Northrop and the Navy would have contributed to the spreading of their own chemicals throughout the area including the area west of South Oyster Bay Road.

Bullet ii)

The chemical patterns described in the June 3, 1999 comments were regional patterns and thus are not small anomalies.

VCM outside of the VCM subplume is not attributable to the Hooker/Ruco Site. Reasons to support this position will be presented in a new appendix to the Hooker/Ruco Site OU-3 RI report.

Bullet iii)

The last sentence of the first paragraph of the June 3, 1999 comment stated the estimated concentration (i.e., 2800 to 3000 µg/L) at which VCM was discharged to the sumps thereby interfering that VCM was introduced directly as VCM.

The PDIR report shows an area of reducing conditions in the groundwater from the southern portion of the Hooker/Ruco Site (MW-50) to the area of MW-52S exists. In this zone, PCE and TCE would be more vigorously degraded than VCM. Also, VCM is the more mobile compound. Thus, for chemicals migrating from the MW-50 area, it is expected that the leading edge of the VCM plume is the leading edge of chemicals which migrated from the groundwater underlying the Hooker/Ruco Site.

It is agreed that the analytical data and the current understanding of area conditions are sufficient to evaluate remedial technologies in an FS report.

Section 5.3 of the OU-3 RI identified that 2-ethylhexanoic acid was detected at 6J µg/L in MW-53D2 (Phase I) and octanoic acid was detected at 3J µg/L in MW-53I (Phase II). These are tentatively identified compounds. Also, octanic acid is a carboxylic acid. Carboxylic acids have been identified as being sourced from the Navy site in the Draft Northrop FS and a potential migration pathway for groundwater from the Navy site, which also contains PCE and TCE, to the MW-53 area is described in Comment B, Bullet i). Thus, the presence of a tentative compound at such low concentration does not substantiate that the PCE and TCE detected in well MW-53 were sourced from the Hooker/Ruco Site.

Bullet iv)

OxyChem is not claiming responsibility for all the chemicals contained within the VCM subplume. OxyChem has agreed to address the chemicals within the VCM subplume. Allocation and cost recovery issues will be negotiated among OxyChem/GSHI, Northrop and the Navy. The NYSDEC's statement assigning such responsibility to OxyChem is not consistent with the agreements reached during the June 24 meeting, as acknowledged in the NYSDEC Response C and must be retracted.

Pursuant to the agreements reached during the June 24 meeting, all references to potential sources from the three sites to specific portions of the TVOC plume are to be deleted in RI, FS, and monitoring reports produced by Northrop, Navy and OxyChem. Thus, the dashed lines along South Oyster Bay Road should be replaced by lines which show the entire TVOC plume. OxyChem agrees that the areal extent of the VCM subplume can be shown but no references to potential sources are to be made.

A potential route of chemicals introduced to the groundwater from the Plant 12 area is described in Comment B, Bullet i).

Comment C

OxyChem agrees that chemicals from the groundwater underlying the Hooker/Ruco Site have not migrated to the Bethpage Water District wells.

The uncertainties in the modeled migration times is to be addressed by groundwater monitoring. The modeled results will be used for estimating purposes in the FS.

Comment D

No comment needed.

Please contact me at (606) 543-2175 or email at steve_whyte@oxy.com if you have any questions or comments.

Sincerely yours,

Klaus Schmidtke

for Steve Whyte
Project Manager

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Encl.

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