

April 12, 2007



Mr. Dennis Benson  
Technical Assistance Manager  
NPDES Permits Section - Water Division  
Arkansas Department of Environmental Quality  
8001 National Drive  
Little Rock, Arkansas 72219-8913

RE: Quarterly Report – First Quarter 2007, CAO LIS 98-119

Dear Mr. Benson:

This letter serves as the referenced Quarterly Report. During this quarter there continued to be significant actions regarding the NPDES permit for El Dorado Chemical Company (EDCC). As related in previous quarterly reports, these actions centered on projects and studies related to compliance with our current NPDES permit as well as the continued development of the project to construct a pipeline to the Ouachita River. The following paragraphs present details regarding these activities.

1. Hydrologic Study

As related in previous quarterly reports, EDCC submitted a hydrologic study plan for the storm water outfalls. This plan was approved by ADEQ and then subsequently revised to modify the location of the background monitor for Outfalls 006 and 007. During the 3rd quarter of 2006 the hydrologic study was completed and the final report submitted to the ADEQ. During the 1st quarter of 2007, EDCC received comments dated January 5, 2007 and met with ADEQ to discuss those comments. Subsequent to that meeting, GBMc received a permitting options letter for which EDCC is preparing a response.

2. Retention Basin Temperature Study

Pursuant to the requirements of the final NPDES permit, EDCC submitted a temperature study plan for the purpose of determining the influence of ambient conditions on the temperature regime of the retention basin at EDCC. The study report was completed and submitted to the ADEQ during the 4<sup>th</sup> quarter of 2005. During the 1<sup>st</sup> quarter of 2007, there continued to be no permitting action based on the final study report. However, EDCC received approval of the temperature study in a letter dated January 5, 2007 and the temperature limit will be removed from the permit upon renewal or modification of the existing permit.

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### 3. Storm Water Outfall Compliance

During the 1st quarter of 2007 the following activities were accomplished or continue to effectuate compliance with storm water discharges from Outfalls 004, 005, 006 and 007.

- Engineering work to redirect rainfall from Outfalls 006 and 007 drainage areas and route to the wastewater treatment system was completed and the internal authorization to construct was issued during the 1<sup>st</sup> quarter of 2007.
- As mentioned in earlier reports, Outfall 004 has been plugged and is no longer operative. The pumps diverting the Outfall 004 water continue to transport stormwater to the wastewater treatment system via Lake Lee. ADEQ deleted Outfall 004 from our existing NPDES permit effective January 5, 2007.
- As mentioned in earlier reports, the stormwater runoff from the industrial areas of Outfall 005 and part of Outfall 006 continue to be routed into Lake Lee.
- Outfall 005 was physically eliminated and a request to delete it from our NPDES permit was sent to the ADEQ during the first quarter of 2006. ADEQ has deleted Outfall 005 from our existing NPDES permit effective January 5, 2007.
- During the 1<sup>st</sup> quarter of 2007, EDCC addressed identified storm water sampling issues and met with ADEQ to discuss resolution of those issues. Subsequently, a proposed CAO was developed and submitted to ADEQ for consideration to resolve the issues.
- During the 1<sup>st</sup> quarter of 2007, EDCC set up an automated sampling system for Outfalls 006 and 007 to ensure the collection of samples representative of flow resulting from rain events.

### 4. Source Reduction Activities

During the 1<sup>st</sup> quarter of 2007, source reduction activities continued, including:

- Process improvements in the Nitrate Plant and Acid Plant areas continue to be implemented to reduce waste loading to the wastewater system. These efforts

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have paid-off with major reductions in the nitrate and ammonia concentrations in the wastewater measured in Lake Lee. In the 1st quarter of 2007, Lake Lee effluent averaged 24.9 mg/L Ammonia-N and 34.8 mg/L Nitrate-N down from 2005's average of 120 mg/L Ammonia-N and 178 mg/L Nitrate-N. In the 1st quarter of 2007, Outfall 001 averaged 14.76 mg/L Ammonia-N and 21.05 mg/L Nitrate-N down from 2005's average of 70 mg/L Ammonia-N and 142 mg/L Nitrate-N.

- Efforts continue to identify and repair piping and collection sumps in the Nitrate Plant area and Acid Plant area to reduce waste loading to the wastewater system.

#### 5. Wastewater System

During the 1st quarter of 2007, EDCC continued use of the AquaMats in Lake Lee and Lake Kildeer. AquaMats are membranes for sustaining colonies of nitrifying and denitrifying bacteria.

#### 6. Wastewater Treatment Bio-augmentation

As discussed in previous quarterly reports, during the 1st quarter of 2007, EDCC continued implementation of the alternative wastewater treatment technology. We continue the collection of performance data to determine the efficacy of the organisms in our wastewater treatment system.

The data that EDCC has collected so far indicates that the addition of various microbes has had a positive impact on the wastewater treatment system. The biomonitoring results from Outfall 001 continue to demonstrate improvement with the 1<sup>st</sup> quarter 2007 tests passing at 100% effluent water for lethality. The concentrations of contaminants such as ammonia-nitrogen and nitrate also continue to decline as well.

The charts attached show the source reduction the plant has accomplished to date.

#### 7. Ground Water Study

During the 1st quarter of 2007, EDCC continued groundwater activities as directed by CAO LIS No. 06-153 which was finalized on Nov. 16, 2006.

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#### 8. Joint Pipeline Activities

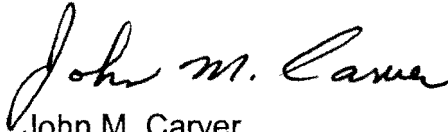
During the 1st quarter of 2007, EDCC, in support of the joint pipeline, continued to be active in the finalization of the joint pipeline related NPDES permits by supplying additional Ouachita River dissolved oxygen modeling information to ADEQ through GBMc & Associates. This information was requested by ADEQ to address concerns raised by the State of Louisiana. The NPDES permits related to the joint pipeline were finalized during the 1st quarter of 2007.

#### 9. Water Quality (4g) Study for Dissolved Minerals

During the 1st quarter of 2007, there was no significant action on EDCC's Third Party Rulemaking request to amend the dissolved minerals criteria and the designated domestic water supply use for the unnamed tributary into which Outfall 001 discharges. This was due to the Legislative Session. We anticipate completion of the Third Party Rulemaking during the 2<sup>nd</sup> or 3<sup>rd</sup> quarters of 2007, dependent on the State administrative process timeframes.

Hopefully, this letter has adequately explained the status of our NPDES compliance efforts during the 1st quarter of 2007. Should you have any questions, please feel free to call me at (405) 235-4546.

Sincerely,

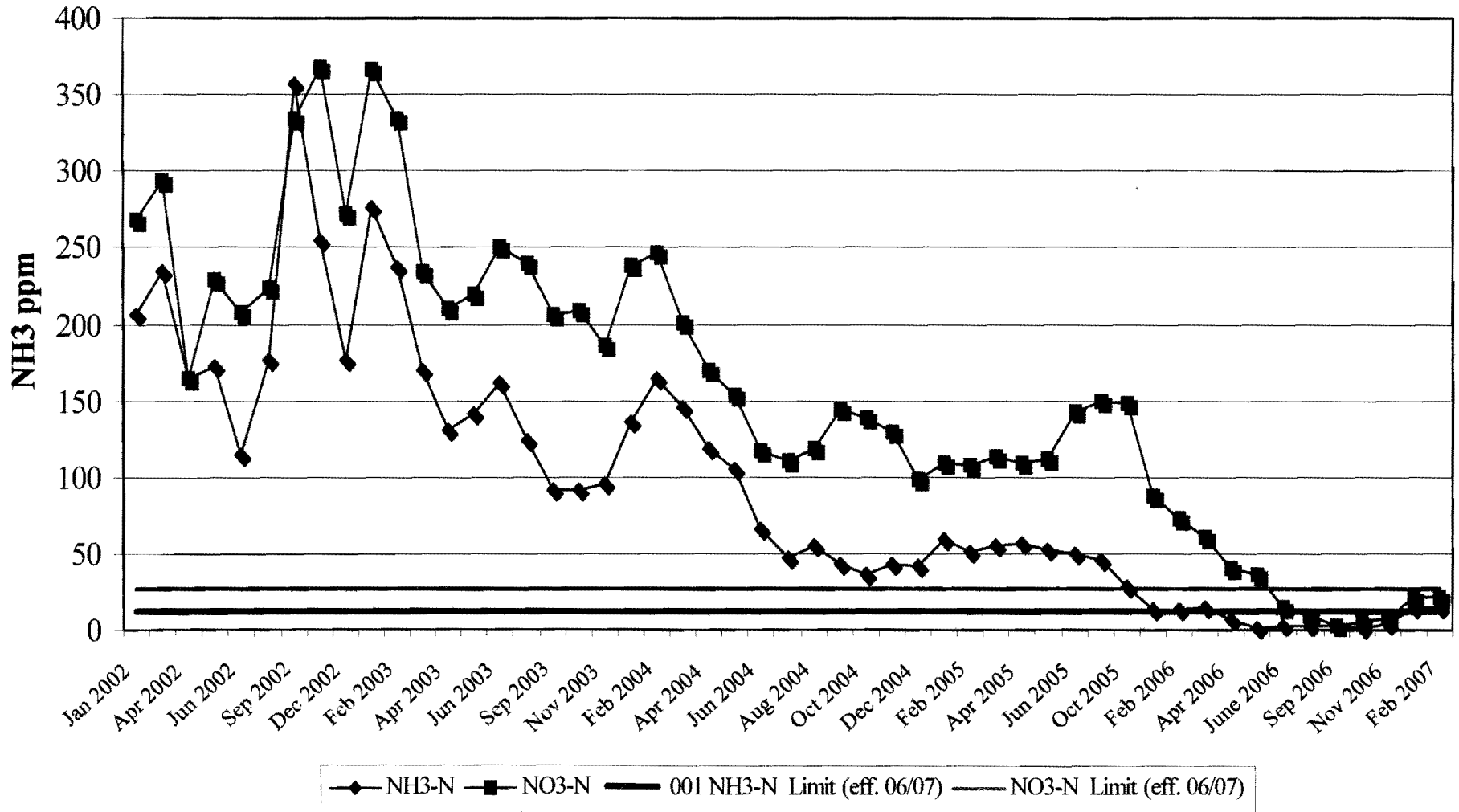


John M. Carver  
Vice President Safety and  
Environmental Compliance

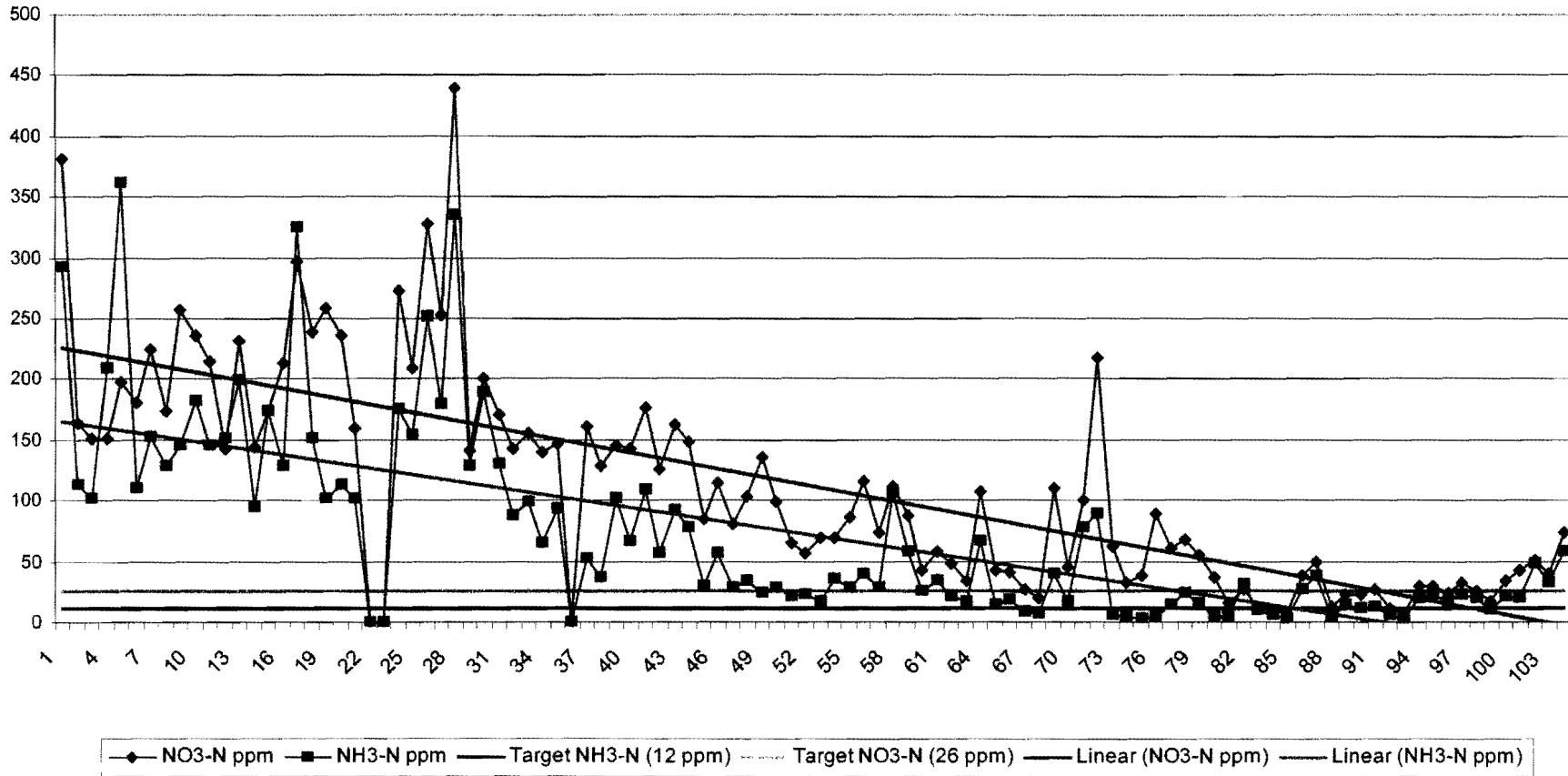
JMC/ymq

cc: Belinda Colby, Enforcement Coordinator, Hazardous Waste Division  
Keith Brown, Manager, State Permits, Water Division  
Martin Maner, Chief, Water Division

# EDCC's Outfall 001 Monthly Averages 2002 - 2007



EL Dorado Chemcial  
 Lake Lee Weekly  
 Average 2005 - 2006 YTD



### EDCC's Lake Lee Weekly Averages 2006 - 2007

