



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2013_BJAST_8279
Title of the Manuscript:	Estimation of environmental chemical pollution of Al-Baiji Oil Refinery in Iraq

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
Abstract 'Acceptable concentrations of H₂S (4.16) ppm and CO (29.5) ppm were recorded, while those of NO₂ (0.108) ppm and O₂ (20.6%) ppm'. Your statement quoted above refers: Not only in abstract but also throughout the manuscript, parametric units should go directly with figures e.g. H₂S (4.16ppm). For oxygen, you must be definite on unit of measurement i.e. % or ppm and never both at the same time. In this case your measurement is expected to be in the unit the measuring instrument was calibrated. However, 20.6 % (approximately 21%) is the standard concentration of oxygen in air, relative to other gases. I doubt if this is your own measurement, since the instrument you used is expected to give result in ppm(or was it not calibrated in ppm like those for other gases?). Your statement 'Inhalation of metal particles might be more dangerous than other routes like digestive system or skin' could be better as= Inhalation of metal particles might be more dangerous than through gastrointestinal tract(GIT) or dermal routes Introduction: A good literature base is still required to build a good foundation that will enable you make solid discussion of your result, because you would have created good background for comparison of your results. For instance, being an assessment of chemical pollutants, one expects wide literature coverage of chemical pollutants possible in such environment(Not just the ones you hope to measure); information on possible effects or toxicological impacts on humans, other fauna and flora as well as other ecosystemic effects, because materials and/or effluents from that refinery 'must' find their way into the general air environment, water bodies and ultimately the underground water resources- this is a dynamic natural cycle of relationship between the three basic environmental media- air, water and soil. Results & Discussion "The continuous emission of pollutant gases resulted pathophysiology of respiratory system and produced impaired pulmonary function for workers (Dales <i>et al.</i>, 1989; Bauer <i>et al.</i>, 1986)." "It was concluded from the present study that chemical pollutants studied were highly correlated and interacted (Melia <i>et al.</i>, 1982)". Quoted above refers: Was there human sampling for the parameters and was correlation analyses done on such result (if any) to justify this statement and	Authors' response to final evaluator's comments 1With respect I gone through your valuable comments which made me seriously thinking to revise many of our design steps before going ahead in any future project. Some of your comments are applicable for the present study and considered. Anyhow, the present paper is part of Phthisis carried out by one of my students. 2. My dear reviewer, I do not think there is a complete study anywhere but we trying to carry out a piece of work in a possible series of study on one aspect to finalize our expected useful conclusion. 3. I respect your opinion in this piece of work inspite of your final decision.



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the cited literature? There is no evidence of correlation analyses anywhere in the manuscript to warrant such conclusion Conclusion: “It was concluded that concentrations of heavy metals in soil and water of oil refinery were higher than the maximum allowable levels recommended by WHO. Gases of Al-Baiji oil refinery of Iraq especially NO₂ were elevated too. These high levels of chemical pollutants might be due to lacking of efficient control measures taking in the refinery and consequently this situation might lead to pathophysiological changes of human body systems particularly the respiratory tract of refinery workers and the vicinity community”. Quoted above refers: The author still did not address the issue of standardization raised previously, which would have given him firmer or sufficient background to make this sweeping conclusion. Either he introduced control samples from a distance /remote site with little or preferably no industrial activities, the result of which when found to be less than those established for the refinery, will give justification for such sweeping statement of conclusion. An alternative to this would have been baseline Iraqi data on the parameters in question from a previous national survey. USEPA or WHO recommended limits though necessary for regulatory guidance, can never replace the need for internal control. Haven not done so, this your conclusion lacks any solid foundation, more so, when you still did not state whether your quoted limits or standards were for water or soil or air- for a matching environmental media comparisons. Again there were no results that suggest that the author took an inventory or made functional evaluation of the company’s control equipment to declare ‘lack of efficient control’. Hence, the statement “These high levels of chemical pollutants might be due to lacking of efficient control measures taking in the refinery” could better be stated as: These high levels of chemical pollutants suggest a lack of efficient control measures in the refinery.	
FINAL COMMENTS: Though this stage of evaluation may not warrant fresh Statements that may suggest this to be the first round review. But my idea of review is to assist the author get the best out of it, which will make the manuscript (if published eventually), to make a readable paper that will give the author an image of a good scientist. This informed inclusion of some more observations not hitherto expressed in the first round review, because they escaped my notice. However, my final verdict is that despite the author’s effort so far, the manuscript still needs further improvements technically and grammatically to come to shape, if it must be published.	