

MARS ROVER ROBOT: DATA SPECIFICATIONS SHEET

Team Information

Members: _____

Section: _____

Recitation TA _____

Samples Traveled To (yes/no exact locations of these on the manual):

- Water _____
- pH Soil Sample _____
- Soil Analysis Sample _____

Questions and Answers:

Salinity Test

- What are the salinities of the three samples?
 - _____ ppt
 - _____ ppt
 - _____ ppt
- The salinity of the great lakes is at most 0.60 ppt, the salinity of the atlantic ocean is 37ppt. Just based on salinity is it reasonable to suspect that fish can survive in the salinity conditions of these waters?

- Name 3 examples of how salinity impacts the environment on Earth? Both on land and in water.

pH Test

- What is the number on the sample's beaker?
 - _____
- What is the pH of the sample?
 - _____
- Can plants survive in this pH? If so, name three plants that could potentially be planted

Fuel Test

- What are the two numbers on the samples' bags?
 - _____ & _____
 - How much Fe_2O_3 (in grams) was found in the sample?
 - _____ g
 - How much Fe_3O_4 (in grams) was found in the sample?
 - _____ g
 - How much fuel (H_2) can be produced (in grams) by the Fe_2O_3 and Fe_3O_4 found in the sample? Show calculations.
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- How much Fe_2O_3 (in kilograms) is needed to produce 5kg of H_2 ? Show calculations.