**SPIKE RECOVERY AND DETERMINING A METHOD DETECTION LIMIT (Fe-Bipyridyl)**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Course\_\_\_\_\_\_Section\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_

**Calibration Curve** (*Actual*)

|  |  |  |
| --- | --- | --- |
|  | Concentration (mg/L) | Average Absorbance |
| Standard 1 |  |  |
| Standard 2 |  |  |
| Standard 3 |  |  |
| Standard 4 |  |  |
| Standard 5 |  |  |
| Standard 6 |  |  |
| Standard 7 |  |  |
| Equation from Excel: | | |

**MDL** (*Best Solution*)

|  |  |  |
| --- | --- | --- |
|  | Absorbance | Concentration (mg/L) |
| Aliquot 1 |  |  |
| Aliquot 2 |  |  |
| Aliquot 3 |  |  |
| Aliquot 4 |  |  |
| Aliquot 5 |  |  |
| Aliquot 6 |  |  |
| Aliquot 7 |  |  |

Standard Deviation of Replicate Aliquots (mg/L) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Determined MDL (mg/L) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Is the method sensitive enough? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Spike Recovery**

(Expected) Concentration increase from spike (mg/L) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Measured Fe in the sample solution (mg/L) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Measured Fe in spiked sample solution (mg/L) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Percent Recovery (%) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Sample Information** (*Measured*)

Amount of Fe in the sample tablet (mg) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Percent Fe compared to label value (%) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_