**Appendix A: Detailed JLab report**

**Report Period of Performance:**

10/1/2021 –12/31/2021

**Co-Principal Investigator:**

Riad Suleiman, with Joe Grames and Matt Poelker (Jefferson Lab), and Eric Voutier (IJCLab, Orsay, France)

**Work-scope Highlights:**

Jefferson Lab’s contribution to this project is to provide a Compton Transmission Polarimeter, which will be used to measure beam polarization when SRF photogun employs a GaAs photocathode. IJCLab is contributing to Jefferson Lab’s effort.

**Q1 FY22 Brief summary of activity issues, concerns, successes:**

*Activity successes:*

1. Started weekly meetings with the Jefferson Lab team, IJClab collaborator, magnet designer
2. Identify an ODU Ph.D. student who will be joining us in the summer
3. We have a plan to install the polarimeter at the Upgraded Injector Test Facility (UITF) by the end of summer
4. We started procurement of DAQ components
5. We plan to test the polarimeter before end of year
6. Magnet engineer started design of electro-magnet with iron core

*Issues and concerns:*

1. Need to find out which designer from BNL will work with our designer for layout there.

**Milestones**

1. Design of polarimeter and new portable data acquisition system (DAQ) is completed
2. No-Cost-Extension for one more year was approved

**Budget**

Summary of total expenditures:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID # | **Item/Task** | **Baseline**  **Total Cost**  (AY$) | **Costed &**  **Committed**  (AY$) | **Estimate**  **To Complete**  (AY$) | **Estimated**  **Total Cost**  (AY$) |
| COMTRA | Compton Trans Polarimeter | $400,200 | $10,930 | $389,270 | $400,200 |
|  | Totals: | **$400,200** | **$10,930** | **$389,270** | **$400,200** |

*Notes:*

* *Costed and Committed numbers are as of December 31st, 2021.*

Summary of expenditures by fiscal year (FY):

|  |  |  |  |
| --- | --- | --- | --- |
|  | **FY 2020** | **FY 2021** | **FY2022** |
| a) Funds allocated | $200,100 | $200,100 | $400,200 |
| b) Actual costs to date | $5,501 | $0 | $5,501 |
| c) Uncosted commitments | $5,429 | $0 | $5,429 |
| d) Uncommitted funds | $189,170 | $200,100 | $389,270 |