**Red River Manufacturing**

**Student Instructions**

1. Build an Excel workbook containing four separate worksheets: Excavator-NPV, Boat Motors-NPV, Excavator Scenario Analysis, and Boat Motors Scenario Analysis.
2. Prepare a 1-page memorandum with exhibits that addresses the questions raised.

**Submit both the Excel and Word files through the course Moodle site.**

**Recommended NPV Template**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Year 15** | |
|  | **Initial** | **Quarter 3** | **Quarter 4** |
| **Initial Cash Flows** |  |  |  |
| Land | $$$ |  |  |
| Building | $$$ |  |  |
| Equipment | $$$ |  |  |
| Initial change in NWC | $$$ |  |  |
|  |  |  |  |
| **Recurring Cash Flows** |  |  |  |
| Sales |  | $$$ | $$$ |
| Cost of sales |  | $$$ | $$$ |
| Non-traceable factory costs |  | $$$ | $$$ |
| Selling costs |  | $$$ | $$$ |
| Administration costs |  | $$$ | $$$ |
| Research & development |  | $$$ | $$$ |
| Investment tax credit |  | $$$ | $$$ |
| Income tax |  | $$$ | $$$ |
| Net operating cash flows |  | $$$ | $$$ |
| CCA |  | $$$ | $$$ |
| Ongoing change in NWC |  | $$$ |  |
|  |  |  |  |
| **Terminal Cash Flows** |  |  |  |
| Sale of land |  |  | $$$ |
| Capital gains tax |  |  | $$$ |
| Sale of the building |  |  | $$$ |
| Recapture/terminal loss |  |  | $$$ |
| Sale of equipment |  |  | $$$ |
| PV of future CCA deduction |  |  | $$$ |
| Terminal change in NWC |  |  | $$$ |
|  |  |  |  |
| **Net Cash Flow** | $$$ | $$$ | $$$ |
| **Discount Rate** | %%% |  |  |
| **Quarterly NPV** | $$$ | $$$ | $$$ |
|  |  |  |  |
| **Total NPV** | $$$ |  |  |
| **Quarterly IRR** | %%% |  |  |
| **Annual IRR** | %%% |  |  |
| **Discounted Payback** | Year, Quarter | $$$ | $$$ |

**Evaluation Rubric**

**Total: \_\_\_\_\_\_\_\_\_ / 100**

**Letter Grade: \_\_\_\_\_\_\_\_\_**

**Quality of Spreadsheet: 20%**

|  |  |
| --- | --- |
| Physical Appearance | /5 |
| Input Section | /5 |
| Automation | /10 |

# Thoroughness of Analysis: 60%

|  |  |
| --- | --- |
| NPV – Excavator | /20 |
| Scenario Manager - Excavators | /5 |
| NPV – Boat Motors | /20 |
| Scenario Manager – Boat Motors | /5 |
| Project Recommendations | /10 |

# Memo Layout and Writing Quality: 20%

|  |  |
| --- | --- |
| Layout | /5 |
| Grammatical and Spelling Errors | /5 |
| Writing Style | /10 |

# Comments

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_