

Minerals Processing Solutions

Iron Ore Sweden, Tapuli Plant

Project type: Pre-Feasibility Study (PFS), for a new concentrator plant at a green field site, at Tapuli mine site, nearby the the village of Pajala in Sweden

Customer: Customer: Northland Resources – Sweden. Tapuli Plant

Plant: Greenfield Crushing and Concentrator plant

Ore: Iron ore

Scope of supply: The PFS was reported in middle of 2009 and included complete document deliveries required for the PFS design. Engineering scope was basically the new concentrator plant and all related new infrastructures and site services with, tailing systems.

The initial PFS engineering was to establish design criteria's, flowsheets & mass balances and equipment list for equipment selection in cooperation with client.

The later PFS engineering included P&ID's, load lists, and plant layouts as main documents and an overall 3D model, (Navis), of the crushing and wet process plant.

Examples of other deliverables (drawings & documents) for the PFS:

- process & service piping
- internal steel
- plate work
- all required electrical, instrument and control systems (EIC)
- all materials take-offs

These above-mentioned deliverables were a basis for to obtain equipment and material and supply/installation quotes for to establish investment costs including EPCM with related project implementation schedule.

The PFS also included estimates with supportive information from Northland regarding:

- operative costs estimates for labor, power, - maintenance and consumables

Equipment & process

Gyratory Crusher 42-65
 6 units Feeders, Grizzly ore screen & 2 units Grinding circuit screens
 AG mill 8,4 x 4,2m with 4,6MW frequency drive
 2 sets with 3-stage 1:y LIMS WS1236CR
 4 units 2:y mills VTM-1250-WB
 4 sets with 3-stage 2:y LIMS WS1236CTC-3
 2 units, filters type VPA 2040-54
 1 unit tailings thickener LTC2300-16,5F
 2 sets of 4 serial tailings pumps VASA HD507-150
 Furthermore, all pumps, conditioners and service equipment required for the process

Benefits:

The main benefit with the PFS is to establish early professional and trustful relation with the client, for to be kept at later basic/detail engineering and Project implementation with services to plant operation

The PFS also create a early design template that match Metso equipment range and configurations with related guarantees.

The PFS has, since handed over to client, been forwarded in the direction of the later Project Order for Kaunisvaara (Tapuli) Project, where Metso are the complete plant systems provider with guarantees, also including a LCS contract.

Comments:

A greenfield magnetite ore project with big focus during the PFS, to enable a later short project implementation schedule.

Year:

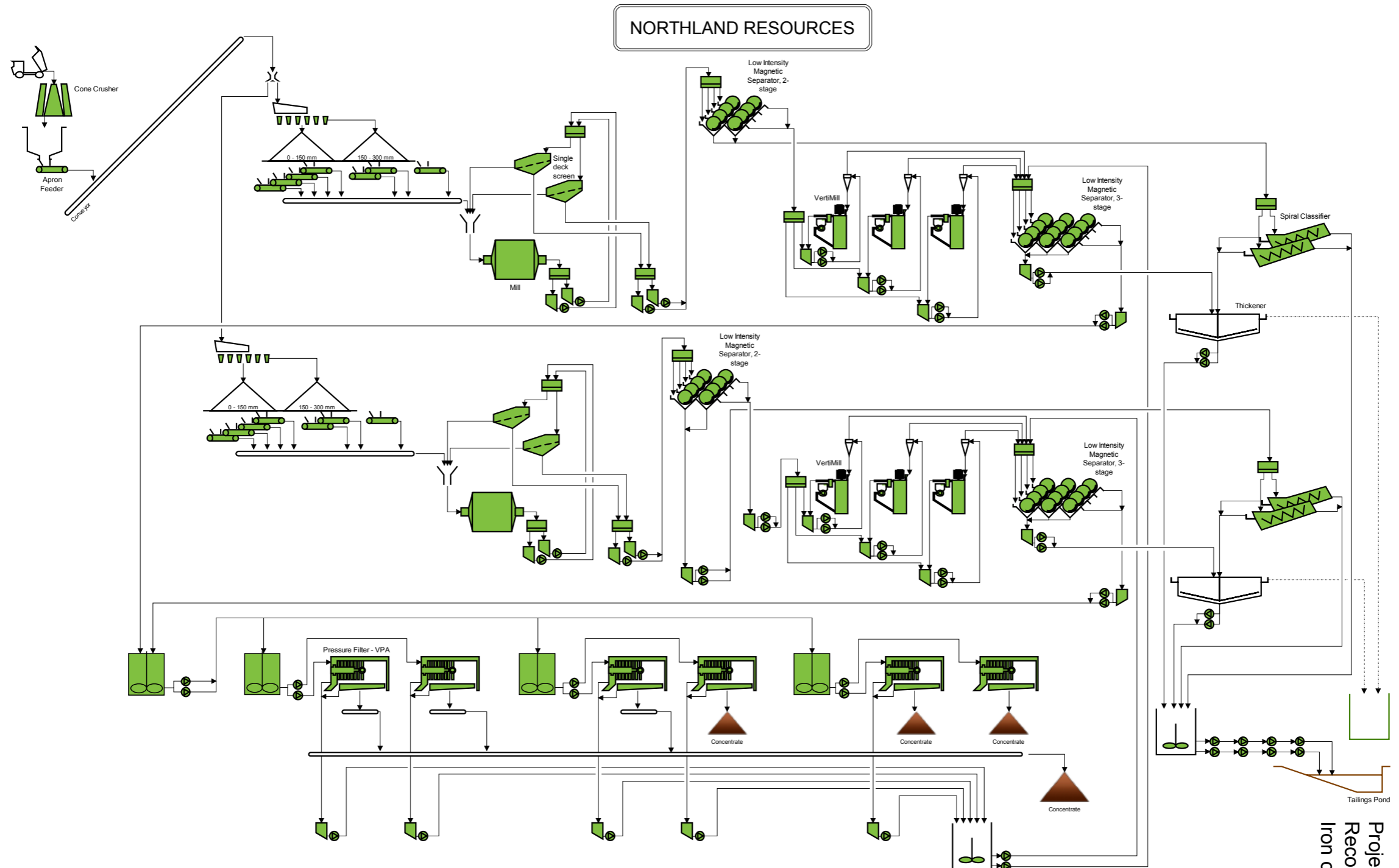
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