

Sample tower

I was asked to provide as much information as possible to aid in the relocation of the sample tower. My experience with the sample tower is mainly on the operating and commissioning & mothballing of the tower

The bulk sample tower consists of three major components:

1. Feed bin
2. Lifting conveyor
3. Tower

Before the disassembly steps listed below can be conducted it is assumed that all electrical connections and conveyor pull cords have been severed and removed. The same applies to all safety screens that might interfere with the disassembly process. The components are held together by bolting and anchored to concrete slabs by threaded resin anchors.

The disassembly of the sample tower into its three major components requires that the belt of the lifting conveyor be cut. Once this belt is cut and secured the lifting conveyor frame can be removed by crane and the sample tower is separated into its major components. Cribbing must be available for supporting the lifting conveyor when it has been removed and is stored in the horizontal position to avoid damage to the rollers.

The tower itself can be transported in the horizontal position but before it can be placed in the horizontal position all the drive gear boxes must be drained of oil to avoid spills. Reject stream material handling hoses must be coiled (should be replaced as they are worn) Sampling buckets must be immobilized and all loose objects on the tower must be secured, and landings removed. The tower was erected with severe difficulty using two 400 series excavators so it is recommended that a crane of sufficient capacity is used rather than two excavators when lifting and placing the tower in the horizontal position for transport. Again cribbing must be available to lay the tower on when it is in the horizontal position.

The tower arrived to site on a single lowbed truck, and it is expected that the tower can be placed back as a single load on a lowbed truck.

I have included pictures as well as a few videos of when the tower was put together, I have also included a contact list of most of the people and companies that I remember being involved with the construction and erecting of the sample tower.

It should be mentioned that the tower is in need of a major overhaul before it is ready for use again. The main areas that need service are

1. All wear liners in the tower and on the sampling buckets are badly worn and should be replaced before re-commissioning.

2. The PLC controller has been stored through 3 Manitoba winters without power to the cabinet heater so there is a very high probability that the system will not boot. There is also a fairly high possibility that some of the PLC controllers and VFD drives might have suffered damage.
3. There are a few design flaws on the tower that should preferably be corrected before re-commissioning. The suggested changes can be found in memo by consultant D. F. Bongarcon from 2019.

Before any planning the move please provide notice so servomotors and other delicate components that are kept in warm storage can be located and packaged for shipment.

Respectfully submitted

Johan D. Krebs
Geologist
Lalor mine

List of contractors involved with the sample tower project:

Design engineer

Jim Schaming. Unfortunately Jim Schaming has since left Halyard and is now working for SSR mining projects but his previous contact information is included

Jim Schaming *P.Eng*
Project Engineer

Office +1 416 292 5505
Mobile +1 647 970 7359
Web www.halyard.ca
110 Yonge St., Suite 400, Toronto, ON M5C 1T4

Please note we will be moving offices on January 26th, 2018. Update your records with our new address as seen below.

212 King St. W, Suite 501, Toronto, ON M5H 1K5

Company that did the iron work on the tower/conveyors

Assinck Limited
Phone: [\(888\) 801-4700](tel:8888014700)
830 Passmore Avenue,
Scarborough, ON – M1X 1C8

Company that delivered the cone and jaw crusher mounted in the sample tower

Titan Process Equipment Ltd.

Att: Brian Burrows

Phone: (905) 331-2910

Fax: (905) 331-2895

Address:

2186 Mountain Grove Ave. #401,

Burlington Ont. Canada L7P 4X4

Company that vulcanized the conveyor belts after tower assembly

Belterra

44 Bunting Street

Winnipeg, MB, R2X 2P6

winnipeg@belterra.ca

Tel: 204.694.3322

Fax: 204.694.2101

Toll Free: 1.866.694.3322

Company that provided heavy equipment and assisted in assembly and erecting sampling tower

Strilkiwski Contracting Ltd.

P.O.Box 578

Dauphin, MB

R7N 2V4

Canada

Company that did the concrete work and provided minor assistance in connection with assembly and erecting sampling tower

Bob's Contracting

109 Callinan Street Flin flon, MB R8A1M9

Phone (204) 687-7961

Fax (204) 687-5927