

2025/07/29

Operations Division Update for the SEF

Richard Ford

Director of Operations

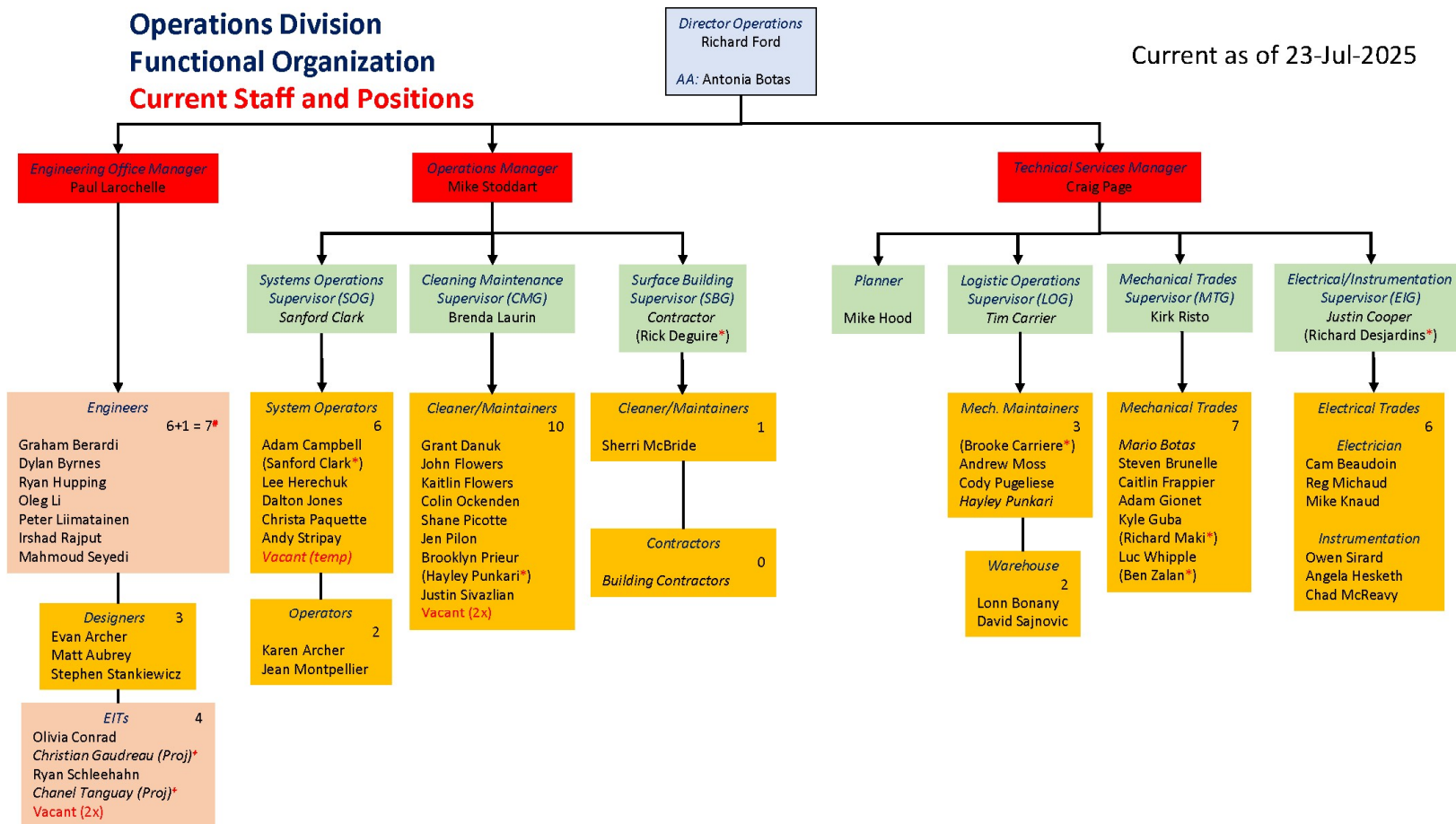


Operations Division Current Staff



Operations Division Functional Organization Current Staff and Positions

Current as of 23-Jul-2025

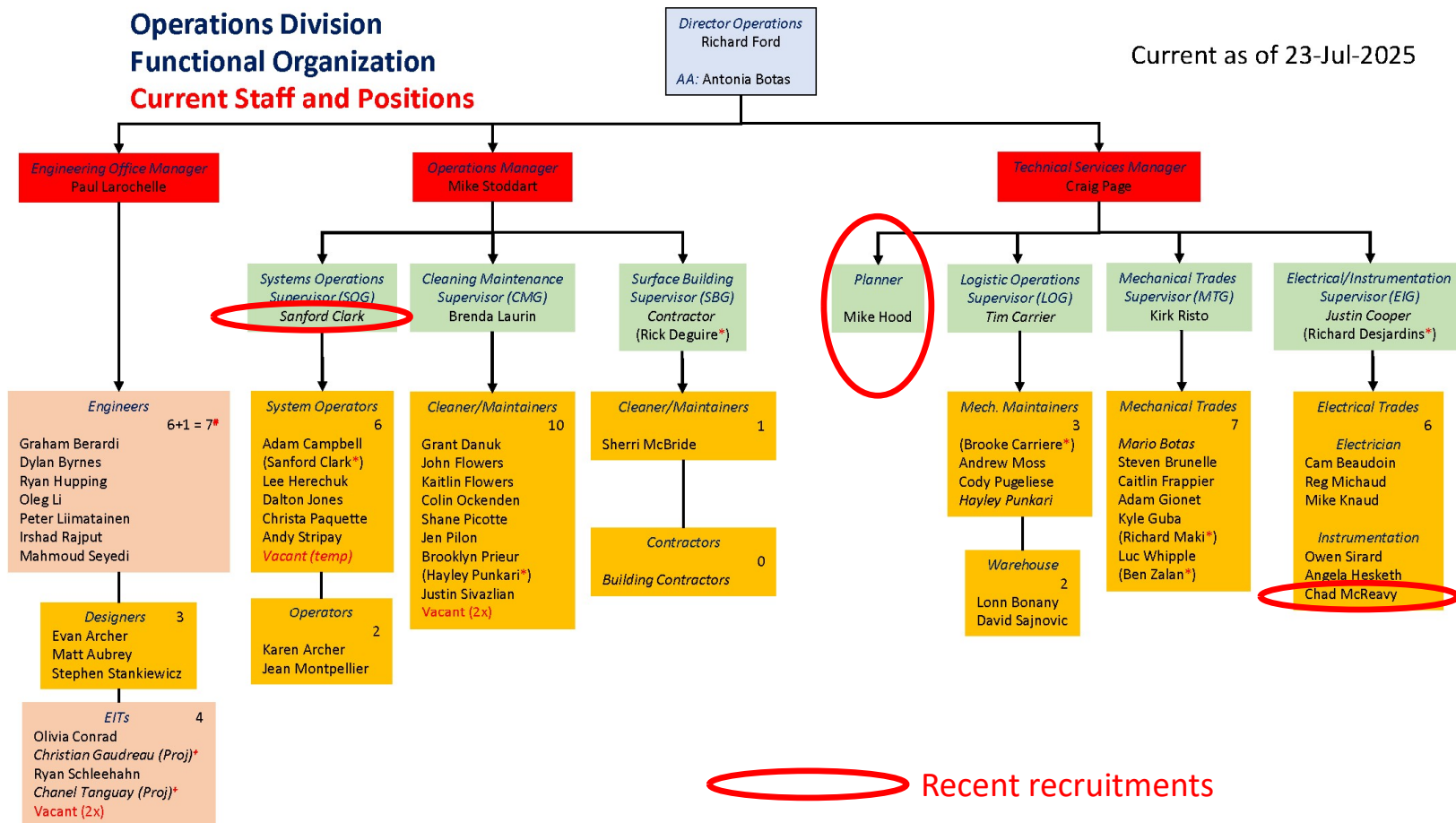


Operations Division Current Staff



Operations Division Functional Organization Current Staff and Positions

Current as of 23-Jul-2025



Service Disruptions

SNOLAB Outages



See all

<div> + Add new item Edit Edit in grid view Share Copy link Delete 1 selected All Items* </div>							
Past/Futur...	Start of Outage	End of Outage	Planne...	Impact	Affected Service	Mitigation	Description of Eve
Past	7/24/2025 3:00 PM	7/24/2025 3:01 PM	Unplanned	Minor Impact	Electrical	None. All SNOLAB systems stayed on-line. DEAP liquifier didn't restart however	Brief electrical pow storm
Past	5/27/2025 11:00 AM		Unplanned	High Impact	Electrical		Power outage
Past	5/17/2025 12:00 AM	5/20/2025 12:00 AM	Unplanned	High Impact	Chiller	With Ch3 still running, stopped AHU 1, 8,9,10, 11,14 to shed all possible loads to enable S-CDMS and DEAP to stay running	Chillers 1,2,4,5 cont
Past	5/14/2025 3:17 AM	5/14/2025 4:07 AM	Unplanned	No Impact	Compressed Air	SNOLAB backup compressor ran as designed from 3:22am to 4:27am in order to maintain supply air pressure	VALE lost 3 air corr
Past	5/9/2025 6:30 AM	5/9/2025 8:30 AM	Unplanned	High Impact	Cage Access	2 hour cage delay due to unplanned shaft maintenance at start of day shift	Cage delay
Past	4/23/2025 9:00 AM	4/23/2025 9:10 AM	Unplanned	No Impact	Compressed Air		10-min drop in Vale SNOLAB compress as planned
Past	4/7/2025 2:30 PM	4/8/2025 6:30 AM	Unplanned	High Impact	Cage Access		U/G shift cancelled work (rope cuts)
Past	2/11/2025 9:00 AM	2/11/2025 9:45 AM	Unplanned	No Impact	Compressed Air		Around 9:30am 15-Vale air pressure, S compressor respon planned
Past	2/8/2025 5:00 AM	2/10/2025 8:40 AM	Unplanned	Minor Impact	Electrical		MPC-01 Significant amperage (275A cc

July, 2025							^	v
Su	Mo	Tu	We	Th	Fr	Sa		
29	30	1	2	3	4	5		
6	7	8	9	10	11	12		
13	14	15	16	17	18	19		
20	21	22	23	24	25	26		
August, 2025							^	v
Su	Mo	Tu	We	Th	Fr	Sa		
27	28	29	30	31	1	2		
3	4	5	6	7	8	9		
10	11	12	13	14	15	16		
17	18	19	20	21	22	23		
24	25	26	27	28	29	30		
September, 2025							^	v
Su	Mo	Tu	We	Th	Fr	Sa		
31	1	2	3	4	5	6		
7	8	9	10	11	12	13		
14	15	16	17	18	19	20		
21	22	23	24	25	26	27		
28	29	30	1	2	3	4		
5	6	7	8	9	10	11		

Vale 2025 PMP



- The 2025 Vale Planned Maintenance Period (PMP) is from July 23rd to Sept 6th (6-1/2 weeks).
- Vale planning was a bit chaotic with many changes.
- Daily access, but very restricted:
 - Dayshift - Cage down at 6:30 am. Cage up at 5:45 pm
 - 3x SNOLAB Operations Staff (+1x backup)
 - Nightshift - Cage down at 5:30 pm, Cage up at 4:30 am
 - 3x SNOLAB operations staff
 - 3x Experiment users and staff (+1x backup)
 - MONDAYS 9x Experiment users and staff (+1x backup)
- UG lab is maintaining operations.
- Limited operations for experiments.
- Surface projects:
 - Renovate warehouse mezzanine for electrical/electronics shops
 - Repair/redo the north side warehouse concrete apron
 - Longish list of maintenance and small jobs

Utilities - Chillers and Fluid Cooler

- All chillers in service over last 6 months.
- Outage of 4 chillers May 17-20 (holiday weekend) due to control failure. The problem was fixed and control connections upgraded to prevent re-occurrence.
- All fluid-cooler fans now have new bearings, auto-greasers, and vibration monitor sensors on BAS.
- Air flow sensors install in drifts and in the fluid cooler.
- 6600L fans now connected and controlled on SNOLAB BAS.
- Chilled water P11 drive system has been upgraded and now running with high reliability with no trips. We now plan to upgrade the twin pump P12 in the same way.

Utilities - Electrical

- In last period had one outage (~ 1 hr) on MPC-03 due to breaker trip during P11 drive installation work. Discovered that contractor Eaton had left MPC breakers in “ARMS” mode following the remote breaker install work.
- One brief power “blip” due to electrical storm. All SNOLAB systems fine, but DEAP fill system failed to restart.
- A planned outage required in the fall to complete MPC remote breakers project.
- An electrical safety program is in development. We have consulted with CNL in this program development.
- Engineering contractor Makami have started the Power Reliability study. Monitoring equipment will be installed in September to conduct power analysis and harmonic distortion measurements. Report and recommendation will be completed by November 2025.

Utilities – Compressed Air

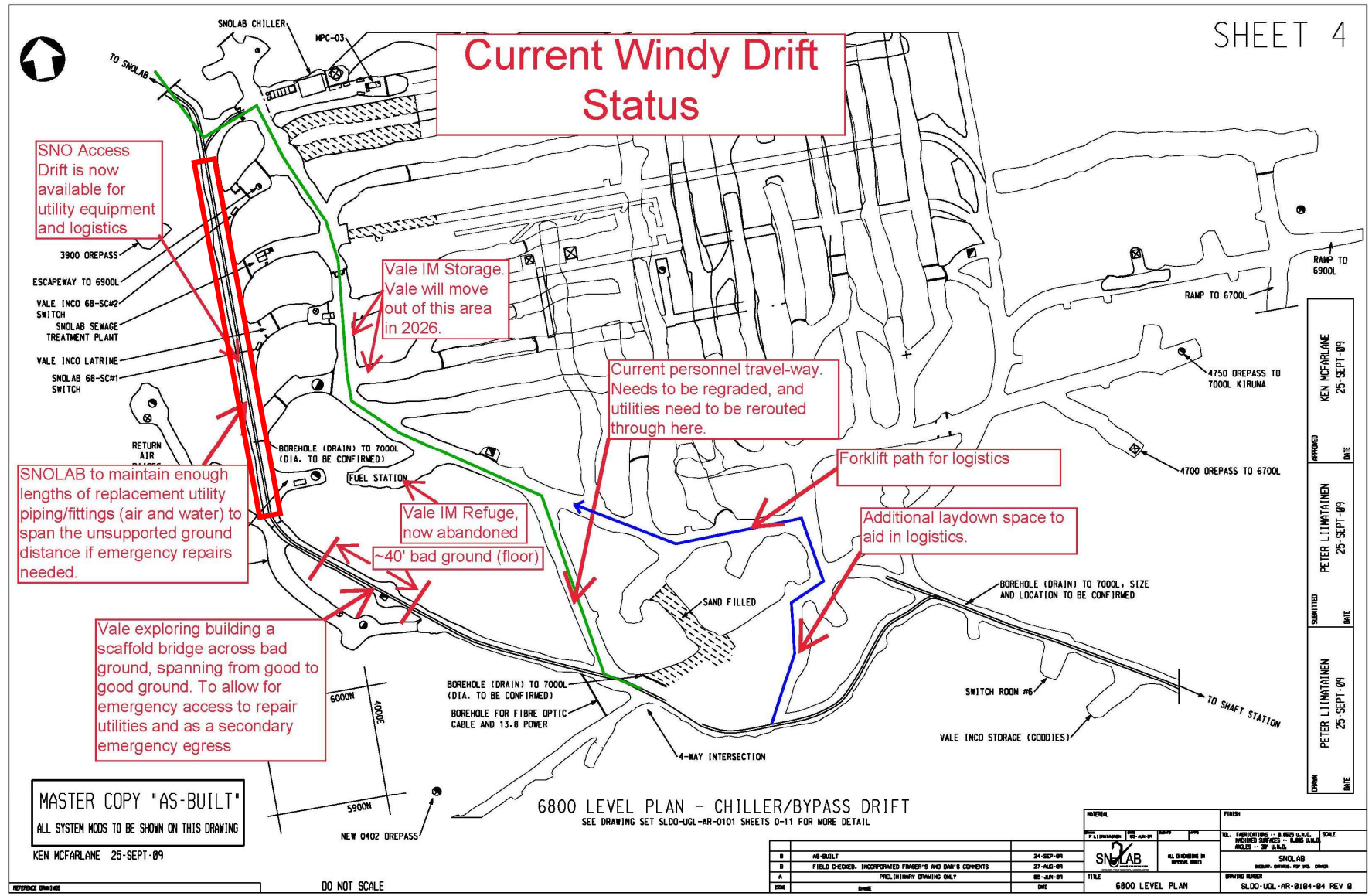
- The new compressed air back-up skid is now fully operational and TSSA registration completed.
- The system has worked reliably, but starts more often than expected due to periods of low pressure in the Vale system. We are exploring options to increase ballast storage capacity to bridge these periods. The compressor skid draws from ambient mine air which is higher in radon.

Utilities – UPW

- Running well. 100% online(only 3 hours down last period)
- Quality on specification.
- Improved cooling capacity over the last year following the chilled water piping upgrades last year.
- Working on improved alarms and remote controls.

Liquid Nitrogen

- Instrumentation upgraded and new PSA columns and air-dryer installed.
- Quality and reliability improved and now within specification, however we are still working on understanding the issues that lead to pre-mature degrading of the PSA columns.
- Working with vendor Fabram to design upgrades to system to increase throughput.



[Academic use only]

End - Questions