

Training New Professionals; Providing a Clear & Comprehensive Path Forward for Employer and Employee

Karissa Grenfell

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Introduction - George Fisher Mine

- **George Fisher Mine is located ~22km's north of Mt Isa, Nth West QLD.**
- **GF is a residential site**
- **GF is an underground mine producing base metals zinc, lead and silver**
- **Annual production rate of 2.6 Million tonnes**
- **GF Mine is broken into two sections, GF North and GF South**
- **GF Mine is positioned in a geologically complex area**



George Fisher Geology Group



- Large geology team – 17 Xstrata personnel and 4-7 contractors
- Geology department broken into several areas, one of these is the Short Term Geology Group (STGG)
- STGG works with operations to provide geology information for all activities underground
- Mine geologists work a Mon – Fri week, consisting of 10hr days, 7am to 5pm
- Task specific, overtime is required on an as needs basis
- Mine geologists within the STGG have an on call roster for weekend coverage – providing 365 days a year support for mining operations

Mine Geologists Role - An Insight



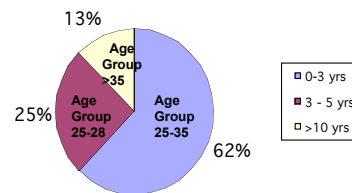
- Mine geologists role is a demanding one
- Consistently high work rate environment
- Good time management skills are imperative
- Ability to switch between tasks, and prioritise
- Work well in a team environment as well as complete tasks individually
- Ability to build good working relationships
- The mine geology role is rotated within the GFN and GFS groups on a monthly basis
- Designated mine geologist spends half to two-thirds of each day underground

A Diverse Group!



- The STGG includes a range of experience from graduates up to > 10 yrs
- Total current experience ~30 years, an improvement on past where a majority geologists graduates
- Age of group more widely spread 25 to >35
- 50 : 50 ratio of male to females – unique
- Only 2 personnel have families (both male) – difficult role to maintain if primary carer of a family unit

Years Experience within the Short Term Geology Group

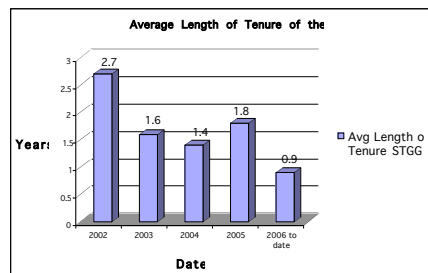


Recruitment – An on going Process?

"Stability within our workforce gives our people a bit of a break from continually having to train. (This mine site is) already very lean. So any vacancy puts a load on the people who remain." (Breach, Breerton and Cliff, 2002)



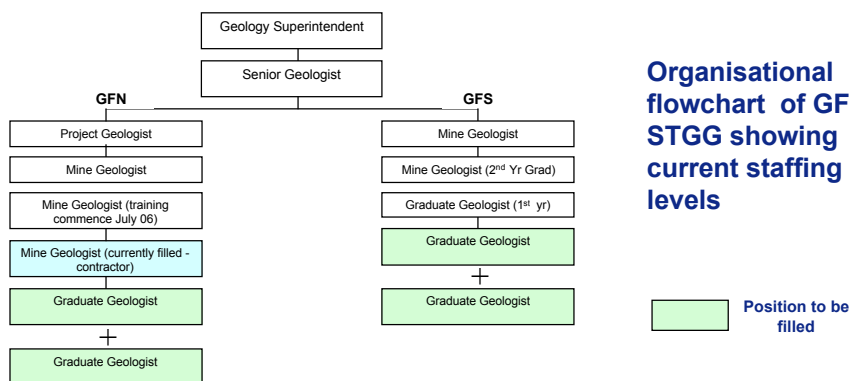
- STGG currently understaffed – rare to maintain desired staffing levels
- Reflection of current mining boom – difficult to attract/retain people with required qualifications and experience
- Cyclical nature of the group – large number of opportunities currently available for geologists in the mining industry
- GF STGG in a position where staying 12-18 months is becoming the norm – detrimental to the group and significant cost to the company
- Fly in/Fly out vs Residential



Recruitment – An on going Process?



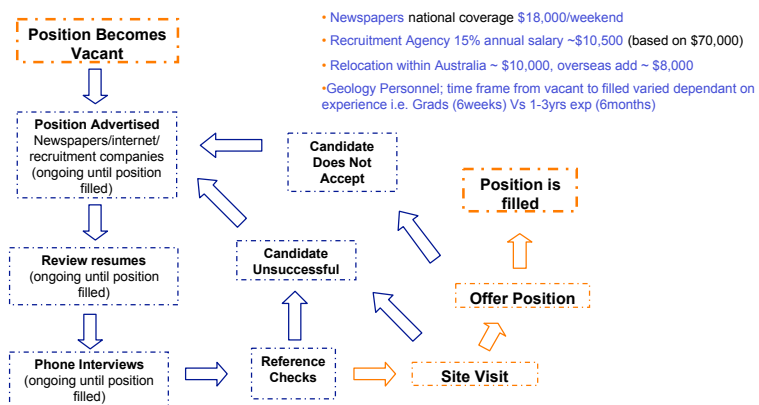
There are 10 allocated staff positions for the STGG, 9 mine geologists (5 GFN, 4 GFS) & 1 Senior Geologist



Recruitment – An on going Process?



Recruitment requires significant input from the geology group



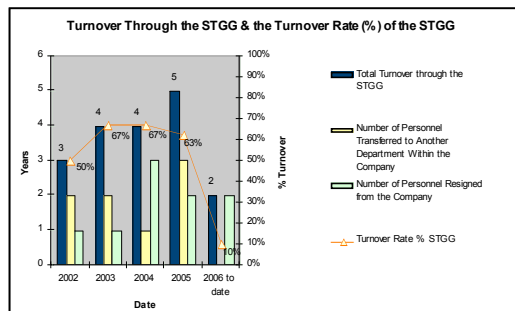
Recruitment – An on going Process?



High Turnover rate of staff

Creates a two fold problem – already overworked staff get bogged down by additional work leading to higher turnover, lower morale and lower productivity.

- Can cause further loss of staff – department resembles a revolving door
- Brain Drain is difficult to place a \$\$ value on



The Idea; to Implement a Training Plan

“At four sites in the study HR managers reported frustration at their inability to implement effective strategies to reduce and contain turnover. At the sites that had achieved relatively low turnover management attributed this to a combination of....commitment to training and skills development” (Breach, Brereton and Cliff, 2002).



The Idea – Implement a Training Plan (TP)

Benefits

- Gives the trainer direction and an ideal flow of training
- Breakdown of knowledge to be imparted to the trainee
 - Adds structure to the training
- Provides a basis for consistency in delivering training
 - Sets a basic standard for training mine geologists
- Highlights areas where work manuals/procedures were required
 - Setup training tools to be implemented prior to training
- include learning opportunities outside of the day to day grind but would be useful

Implementing a Training Plan



Benefits

- Provides trainee with a comprehensive framework of skills to be learnt and developed
 - A basis for the employer to highlight what skills they value
 - Allows employer to be open with expectations
- Enables employer and employee to have shared goals & easily monitor progress
 - Trainee can see how they are contributing to the group
 - TP is a visual reminder for the employee how far they have progressed with the company
- Provides a clear path for performance appraisal & discussion on poor performance
 - Ensures annual peer review process is transparent

Implementing a Training Plan



**End result is improving skill retention
for the
STGG and the company in the medium
to long term**

Training Plan



Aim: To identify what skills are highly valued by the group, and ensure all new employees receive the training required to gain and/or improve these skills

Training Plan



Position: Mine Geologist

Employee Name : _____ Pay Number : _____
 Start Date: _____ Review Date: _____ Next Review: _____

- The diagram below indicates the ideal flow of training for nominated position/role.
- Each title represents a training course, resource, licence, program or competency.
- Employee training plan will indicate training required to perform in the nominated position/role.
- Employee may receive training and competency in skills above their current role without organisational advancement.
- NOTE: Not all tasks will be completed to Stage 5 by the trainee, boxes containing are only completed to the stage indicated
- Pre-requisites: do not include safety inductions/training or relevant operation notes

Stages of Training

1. Read appropriate procedure for task
2. Shown how to perform task (in house training)
3. Can perform task with supervision or intermittent assistance, task is checked when completed (when applicable)
4. Can complete task without supervision (task may be checked when completed)
5. Ready for assessment (this is determined by the trainee)

Stage					Underground Stage 2: 4 weeks min Stage 3: 4 weeks min	Procedure No. (if applicable)	Expiry	Date Competent	Assessed By	Comments
1	2	3	4	5						
					General Underground					
					Daily Geo Sheet					
					UO time with Shiftbosses					
					Risk Assessments					
					Ore call					
					Weekly Grades					
					Weekend On call – UG					
					Weekend On call – DD					
					Weekend Hand-over					
					EOM Hand-over					

Training Plan



Advantages in Design:

- Specific tasks can be restricted to a certain learning stage. For example; graduates are restricted to Learning Stage 3 for Risk Assessments and must be accompanied until they have a certain amount of experience
- Training Plan can be adapted to geologists with different levels of experience – the task list remains the same however for more experienced geologists the learning time frames would expect to be shorter.
- It is possible to include specific projects or areas where the trainee would like to gain experience, this can assist the trainee in planning a career path within the company

Training Plan



Accompanying the Training Plan is a set of pre-requisites;

- Stipulate what basic tasks should be completed to what learning stage
- More advanced tasks can be restricted to ensure all pre-requisite basic tasks have been completed to Learning Stage 4
- Unfortunately not always able to be followed – need to provide flexibility
- Training can occur on an as needs basis

Pre Requisites:

- Pre-requisites assist in providing a logical progression for tasks in which training will be provided.
- Not all tasks will have pre-requisites – such as the basic underground and core logging tasks.
- It is assumed that tasks not included in this list do not require pre-requisites

Task	Pre-Requisites
Underground	
Daily Geo Sheet	<ul style="list-style-type: none"> • Stage 2 General Underground
UG time with Shiftboss	<ul style="list-style-type: none"> • 4 weeks General Underground
Weekly Grades (To Stage 2 ONLY)	<ul style="list-style-type: none"> • Stage 3 PiRAM and Grades Sheet
Risk Assessments (To Stage 2 ONLY)	<ul style="list-style-type: none"> • Stage 3 General Mining • Stage 3 Xcut Inspections • Stage 3 Face Pictures and Markups • Stage 3 Slope/Bench Inspections

Safety and the Training Plan



All employees complete QLD generic induction and GF site specific inductions

Specific safety information is learnt on the job

This is addressed in the Training Plan through...

- Risk assessment training and attendance are individual tasks on the TP for each work area
- New employees spend time underground on shift with the crews
- Trainer must have strong sense of personal safety, and let the trainee know if not following procedure or best practice
- Trainee will spend time underground with more than one geologist prior to working unsupervised

Sharing of safety information and ideas is encouraged at George Fisher

Feedback



An important component of training is feedback

Feedback is sought throughout the training process in several different forms

- **Formal documentation, includes performance review and space for comments/ideas on how to improve training initiatives**
- **Verbal feedback through regular sitdown sessions with trainer and supervisor**
- **One on one discussion when signing off on particular tasks**
- **Group discussion at weekly geology meetings**

The training plan is a dynamic and continually improving process, constructive feedback is an important tool to facilitate this

Moving Forward



The training plan process is not complete!

- **Design and implementation of assessments for all tasks**
- **Currently being integrated as part of a specific program for graduates**
- **Other departments may look at adapting a similar training format**

In the future the George Fisher Short Term Geology Group aims to build an effective team of mine geologists through a training program that assists in long term retention of staff whilst creating a tool to safely manage new employees.

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Questions?