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Access Office, SHG

St Helena Airport

Largest blast so far



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Basil Read carried out a blast on Thursday, 20 September 2012 at Clingham's Quarry, having entered into an agreement with the owner. This was the largest blast for the Airport Project to date, and is in fact the largest blast that has taken place on St Helena.

7 Tonnes (7000kg) of explosive was used to blast 12,500m³ of rock; this equates to approximately 31,250 tonnes. The blasted rock material will be crushed for concrete aggregates. When blasting operations commence at Prosperous Bay Plain, Basil Read will need to blast 20,000m³ per day in order to keep up with 4 Load and Haul Teams (each Load and Haul Team consists of 1 x 70 tonne Excavator and 5 x 40 tonnes Articulated Dump Trucks (ADTs)). This means that approximately 16 tonnes of explosives will be used per day which will equate to approximately 416 tonnes per month. The explosives are shipped on the NP Glory 4 monthly and stored in the designated zones within the Airport Development Area.

In April 2012, four Saints Paul Stroud, Patrick Crowie, Stephen Fowler and Merrill Crowie were selected to undergo Drill Operator training in South Africa and are now fully qualified to operate the drill rig machines . Patrick and Paul were involved in drilling the 164 holes required to set the explosives at Clingham's Quarry. We have included job profiles for Patrick and Paul overleaf, explaining their training programme and how they contribute to the project now.

Each blast carried out by Basil Read is closely monitored for noise, dust and vibrations. All of the blasts to date have been within the acceptable limits defined in the project's Environmental Management Plan. The blasting team is very skilled and all of the blasts are very controlled.

See overleaf for a sequence of photos of the blast and for Patrick and Paul's job profiles.

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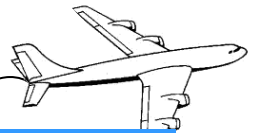
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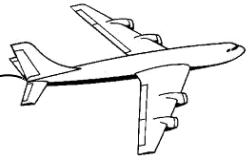


7 Tonne Blast at Clingham's Quarry



Further information and photos on this blast and the blast on Ruperts Hill today can be found on our website
www.sainthelenaaccess.com

• Job Profiles



Name: Paul Stroud

Job Title: Qualified Drill Rig Operator

Training: I recently undertook three months training in South Africa to become a qualified Drill Rig Operator. The training was provided by Basil Read and Atlas Copco in East Johannesburg.

The Modules covered during the course were:

Machine and general safety aspects
Correct start up and tramming procedures
Correct boom handling techniques
Inspecting of drill area
Correct set procedures and drilling procedures
Correct park and shut down procedures
Theory diagnostic and summative tests
Practical diagnostic and summative evaluation

I spent one week in class doing theory work and a week's practical work in Durban. On training we specialised in aggregate rock drilling for material using a 16 tonne drill rig – ECM 660 IV Hydraulic Top Hammer – Crawler Rig.

After this training we were separated and I went to work in Bloemfontein in a quarry called Olive Hill run by a French Company called Lafarge. There I worked on the bench with more operators and was able to pick up some 'tricks of the trade' while also being taught the safety practices required when working in a quarry like edge management etc.

I passed my overall training with a 96/100 pass mark.

Current Work: Last Thursday I was a part of the blast that took place at Clingham's Quarry, Horse Point. Here I was able to put my skills into practice. When charging the hoses I also utilized all the safety measures that I had learnt. I felt everything went off okay and was very positive.

At the moment we haven't really started any of the big blasts but it will come during the rest of the project. The excitement is very high which also motivates me to keep doing my job and because our jobs are top of production if we don't produce then the programme will be halted.

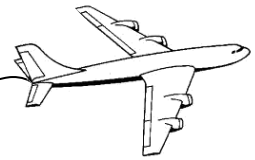
Personal Comments: The training was a bit daunting at first as it was like going back to school after 30 years! However I soon got into it and achieved what I set out to do. I am very proud of my achievement and am now putting into practice everything that I have learnt. I felt that I made a good career move when I chose to join Basil Read.

Although I don't have much time to socialise anymore I am really into the project and have committed myself to my job. I am out on the drill rig everyday and I hope to in future pass on some of my skills to the other workers. I would like to stay in this job to learn as much as I can about all different kinds of drills.

I would like to say thank you to Basil Read both here and in South Africa for giving us the opportunity to undertake this training. Also to B & E (Blasting and Excavating) and Lafarge for having us, we were well looked after and everything was a good experience.



• Job Profiles



Name: Patrick Crowie

Job Title: Qualified Drill Rig Operator

Training: I also undertook three months training in South Africa but was based in Durban. I commenced training with Mid Mar Crushers for three weeks working on the drill rig machine there before travelling to Johannesburg for one week of classroom work which I found to be very beneficial.

Topics covered in the classroom were:

- Machine and general safety aspects
- Correct start up and tramming procedures
- Correct boom handling techniques
- Inspecting of drill area
- Correct set procedures and drilling procedures
- Correct park and shut down procedures
- Theory diagnostic and summative tests
- Practical diagnostic and summative evaluation

I then went out to Zimbabwe Quarry for a week to do some practical work on the ECM 660 – Mark 4 drill rig before returning to Durban to spend another week's practical on the machine at Ninians Quarry in Zulu Land, where we also had our final assessment and passing out. My overall assessment score was 97/100 and I feel that I did very well to have achieved this.

After we passed out the rest of the training time was used for gaining further experience on the machines.

Current Work: I was also a part of the blast which took place at Clingham's Quarry last Thursday and drilled the 164 hole pattern which took me around 4.5 – 5 days to complete. The depth of the holes started from 6 metres and the further back I worked and the steeper the hill the deeper the holes were, the deepest hole was 12.6 m.

After the holes were drilled they were then charged using easy detonators and boosters and filled with fertilizers and then stemmed. The timing was set and then the delay between each blast was a matter of milliseconds.

The blast was very controlled and perfect timing made sure that there wasn't a lot of fly rock.

The machine which we use at the moment is for mine work and has two levers with eight functions and a number of other switches and buttons. To operate the drill rig you need to use the two leavers simultaneously with the other functions, switches and buttons, but you must be very fast; one mistake will cost the company a lot of money because after the drilling everything has to come out of the ground: no rods must be left behind. There is a lot to take into consideration in a very short amount of time.

I was very proud of what I achieved with this blast as this was my first drill pattern and it was the biggest muck pile that I had ever seen. It was a spectacular sight but nothing compared to what is to come. At Prosperous Bay Plain we will be blasting on a much larger scale using around 300 holes.

Typical Day: A typical day's work for me would be starting out at 7.30am doing a pre-start check list to see if our machines are suitable to do a day's work. We weren't taught to fix the machines but we were taught to identify problems and were trained to listen to our machines for any faults.

The pattern is then set for the drilling and we get on with drilling the pattern. I work to 7pm without stopping; we even eat in the cab. I enjoy what I do and am currently using a Power Rock T-45, 16 tonne which uses the same principle as the machine that I learnt on.

Personal Comments: I am definitely happy that I joined Basil Read. I will continue with doing the best that I can and am looking forward to continuing with the drilling.

I would like to thank Lucas Masimine the operator who trained me (he was one of the best at B&E), B & E and Atlas Copco and everyone else who were involved in my training. Thank you to Basil Read in general for giving me this opportunity. The greatest achievement has been accomplishing what we got sent for and we now have an internationally recognised certificate to show for it.

When I left Durban their operators were drilling at 17 m per hour which was very good, myself and another Saint operator were drilling at 23 m per hour which is why they asked us to stay. However, since I returned I have been drilling at 38 m per hour which is really good and I am aiming to beat that and to keep improving on my time.