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## Surface Blasting Audit

Date:		Division:	
Auditors:			
	YES	NO	COMMENTS
Are all employees on the job aware of the Surface Blasting Policy?			
Has the site designated at Responsible FCX Employee?			This person must be an Exempt Employee.
Have numbered blue cones been placed to mark the blocking position?			This must be done prior to the pre-blast meeting.
Has a risk assessment and blast site inspection been performed prior to the blasting process?			During the inspection, blast site access and egress routes will be evaluated and appropriate actions taken to ensure safety prior to blast initiation. Blockers and Sweepers will attend this meeting.
At the pre-blast meeting, did the Responsible FCX Employee ask the Blockers/Sweepers to repeat their assignments and responsibilities back to them?			This is a requirement per the Policy.
Do the Blockers and Sweepers have documented training?			Check training records
Does the site have an established BSST?			The BSST will consist of members per section 3.6 of the policy.
Has the site audited the blasting process quarterly as per the FCX policy and did the audits consist of the requirements of section 3.6 "Audit Frequency" of the policy? Were the audits posted to the Share Point?			
Does the site have a Safe Operating Procedure (SOP) regarding inspection for unlabeled holes and unsafe conditions? <b>Note:</b> This is a requirement per the Policy.			
Is timing software being used?			
Has the blast site been secured with yellow cones or yellow tape and warning signs to block all access to the			

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blast pattern?			
Are the hole stakes numbered per the site SOP?			
If there are holes not being loaded, are they identified with a stake instructing personnel not to load the hole?			
Has the blasting crew conducted and documented a pre-shift meeting that meets all of the elements per Section 4.2 of the Policy?			
Have the holes been measured for depth and water prior to priming?			
If there was an interruption in the loading process, was it documented and communicated to the Responsible FCX Employee?			
Is there a record for every hole loaded?			
Has the Responsible FCX Employee verified the blast plan map is accurate and a physical inventory been taken of boosters and detonators used for the blast been checked against the blast plan map count?			
Was the stemming material strategically placed at the blast site using a spotter?			
Where any "problem holes" or "bad" holes reported on the Blast Summary paperwork?			
Has a person assigned responsibility for managing the magazines for explosive storage?			Name:
Have fire extinguishers been clearly marked around the explosive storage?			
Are the magazines fitted with a lightning protection system and has the lightning protection system had its yearly grounding check?			

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Is sufficient signage around the magazines from each point of approach per Section 4.4 of the Policy?			Signs will be placed so bullets fired at the signs will not impact the magazines. These signs will be in the primary language of the country as well as English.
Do the magazines contain a book or similar method for record keeping of all explosive's movements in and out of the magazine and current inventories?			All magazines will contain an updated copy of authorization, permits or licenses.
Are magazines located per Section 4.4 "Magazine Location" of the Policy?			
Have the locks on the magazines by rotated per regulatory standards and do they comply with BATF standards?			Once per year
Has there been a change of personnel? If so, have the locks been rekeyed?			
Within the quarter, has the site received any shortages or overages in the boxes from the manufacturer or otherwise? If so, review the steps the site took to correct the issue and the documentation regarding those steps to ensure the proper steps were taken per the Policy.			
Are day boxes used exclusively for explosive material locked in transit?			
Do the transport vehicles for the explosive have proper signage and flagging?			
Is the transport vehicle equipped with two multipurpose dry fire extinguishers?			
Has the Responsible FCX Employee generated a tie-in sequence diagram of every blast hole?			
After the tie-in was complete, did two individuals independently check the pattern to verify completeness and verify that the pattern matched the blast map?			Names: If the blast is all electronic detonators then this can be done by looking at the blast box on the pattern
Was all potentially affected personnel informed of the blast by an "all call" on the radio or other site specific method approximately 30 minutes prior to the blast?			

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Was the blast initiation taken from a safe location away from hazards resulting from the blast?			
Did the Responsible FCX Employee verify all clearing and blocking activities were complete?			
Was the blast videoed?			If possible, the blast should be taped.
Was a post blast inspection performed under the supervision of the Responsible FCX Employee?			
<i>Following the audit discuss the above items with employees.</i>			