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EXITO and the industries it supports are indebted to Chris for the enthusiasm and professionalism she brought to the task.

## EXITO's Report on the National Survey of the New Zealand China Clays Mining Industry

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## **1. Executive Summary**

### **Industry Response**

It has been a pleasure to carry out the survey work with the China Clays Mining industry. Everyone involved was most helpful. This was much appreciated.

Thank you to all participants for your commitment to the survey. You have ensured we received data that provided many insights into the staffing and training and development needs of the industry which will impact very significantly on future planning for China Clays industry training.

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### **Purpose of Survey**

During June and July 2004 the Extractive Industries Training Organisation (EXITO) national China Clays Mining Industry survey was conducted throughout New Zealand.

The Tertiary Education Commission had charged all Industry Training Organisations to take a leadership role in identifying and meeting future skill needs in the industries they represent. As a result the Extractive Industry Training Organisation (EXITO) decided to conduct a national survey of the China Clays Mining Industry to carry out research to enable planning of the future training needs of the industry.

It is envisaged at the completion of this project that EXITO will be able to improve its responsiveness to the needs of the China Clays mining industry in terms of current and future skill needs.

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### **Methodology**

Firstly a draft questionnaire was designed and circulated to the EXITO Executive Director and industry experts for their comment. Amendments were made based on their feedback.

Next a pilot-test was conducted. Finally the questionnaire was amended to take account of all the pilot-test information and as a result 2 questionnaires were produced – one for operators/miners and one for managers, professionals and technical staff.

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### **Survey Response Rate**

The design and pilot-testing of the questionnaire made it easy for respondents to participate fully. There were very few questionnaires missing specific data. The response rate from the miners/operators questionnaire was pleasing with a 75% return. Of the managers and professionals we canvassed we achieved a 50% response rate.

Response rate is the single most important indicator of how much confidence can be placed on the results of a survey. When conducting a survey at least 10% of the survey population must be included. Professional surveyors find an acceptable questionnaire response rate of fifty percent or higher difficult to achieve. Given this we decided to conduct the survey on site and collect in the questionnaires immediately after completion.

We have surveyed 62.5% of the total China Clays industry population – enough to ensure confidence in the results.

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### **Demographic Data – New Zealand China Clays Industry**

Men made up 92% and women 8% of the China Clays operators/miners population. For the managers/professionals population men made up 87.5% and women 12.5%.

Respondents' ethnicity percentages differed greatly depending on whether they were operators/miners or managers/professionals. For operators/miners Pakeha made up 16 %, Maori 69%, with very small percentages coming from other ethnic groups. For managers/professionals Pakeha made up 88%, Maori none, with a small percentage coming from other ethnic groups.

The average age of both groups was 46 years.

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### **Gender**

Only 8% of the operators/managers workforce is made up of women. This is an area for development. Women could be a useful source of new employees when operators/miners retire or move on to other employment.

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### **Ethnicity**

There are no barriers to the employment of Maori within this industry - 69% of operators/miners are of Maori ethnicity.

Over the last 20 years Maori have made very significant changes to their educational achievement levels, particularly Maori women. One would expect to see some Maori working as managers/professionals in this industry.

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### **Age of Work Force**

The age of the workforce is not a major issue for the China Clays mining industry. The average age of operators/miners was 45 years and 47 years for managers/professionals. Despite this succession planning is an important factor when employees retire or leave the workforce.

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### **Relevant Experience/Qualifications before Entering the Industry**

Almost half of the respondent group had relevant experience prior to entering the industry and just over half did not. Given this situation what could EXITO do to train new employees who do not have relevant experience so that they become productive sooner?

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### **Encouraged to take On-Site Responsibility**

53% of operators/miners are encouraged to take on-site responsibility. Some respondents are eager to learn the skills required to move into supervisory or management roles.

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### **Training**

Operators/miners are very keen to undertake training in this industry and clearly understand the benefits of training for themselves and the company. Given this enthusiasm to improve skill levels what can be done to take advantage of this?

Respondents also report how training is sold to them has a big impact on whether they are motivated to participate in training. Respondents who are told to attend training are less enthusiastic about it than those who were able to participate more in making the decision.

Respondents also report that setting training goals beforehand gives them a better idea about what to expect, it makes them more interested and therefore increases their motivation to train.

These 2 factors provide a very cost-effective solution for managers to help raise motivation prior to and during training.

More needs to be done to ensure that career aspirations match employee and company needs.

### **Training and Professional Development Deficits**

Respondents report very few training and professional development deficits; however there is a need to develop further specific training for managers/professionals.

It is apparent that trainers' style and delivery methods are crucial to effective learning. Selecting appropriate trainers has a large impact on motivation levels – this in turn affects the cost benefit to companies.

Half of respondents say there is a match between their professional development needs and what the company perceives as their needs. This is of concern as motivation levels are likely to be affected when there is not a perceived match of needs.

Of those doing training or professional development only half said professional development added value. The reasons for this situation need to be addressed so that maximum benefit is gained for both the employee and the company.

Only 25% of respondents say they do enough professional development while 75% say they do not. The reason for this situation needs clarifying so that appropriate measures can be taken to address a perceived lack of professional development.

### **Future Delivery for EXITO**

Respondents look on EXITO favourably but have a range of suggestions they think could improve industry mining training.

### **Recruitment and Retention**

Staff retention is not a problem within the China Clays industry. Trade skills and electronic skills are difficult to recruit for within the industry.

### **Training Issues for the Company**

All respondents appear to experience a range of barriers to the adequate provision of training. The biggest problem is maintaining production while employees are in training. Further support needs to be found to address this difficulty.

Respondents identified that leadership development skills were needed by those managing staff.

Half of managers/professionals reported that external trainers/consultants do not keep up to date with new company standards. This needs to be addressed immediately to ensure adequate cost-benefit returns for the company when using external trainers/consultants.

Respondents would like EXITO to provide more site specific training and improvements as to how unit standards link to real on-job work.

A strong need was expressed for a group of unit standards to make up a qualification for geological field technicians, mine surveyors and samplers.

Significant literacy problems are occurring. Funding is available from EXITO to address this.

Combining training programmes with other companies would be one way to support training provision in this small industry.

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## 2. Overview

During June and July 2004 the Extractive Industries Training Organisation (EXITO) Industrial Minerals Mining Industry survey was conducted throughout New Zealand including, China Clays, Iron Sands, Bentonite and Zeolite.

The Tertiary Education Commission had charged all Industry Training Organisations to take a leadership role in identifying and meeting future skill needs in the industries they represent. As a result the Extractive Industry Training Organisation (EXITO) decided to conduct a national survey to carry out research to enable planning to be carried out on the future training needs of the industry.

One site was surveyed.

The purpose of the research was to:

- Identify industry skill needs for the future
- Identify areas of skill shortage/skill gaps
- Identify how to ensure equity of access to all learners
- Identify how to extend industry training to more trainees
- Gather accurate information to establish a system of training which responds to current and future skill needs for the China Clays mining industry.

It is envisaged at the completion of this project that EXITO will be able to improve its responsiveness to the needs of the China Clays mining industry in terms of current and future skill needs. It will continue to have an ongoing strategic dialogue with the coal industry to:

- Carry out strategic planning for China Clays mining industry training, including establishing a Charter and Profile which have clearly-articulated missions and plans which match identified industry needs
- Evaluate current EXITO services – to enable comparison and evaluation of services rather than making ad hoc decisions based on incomplete data and to build upon existing strengths by identifying opportunities outlined by the industry
- Increase the quality of training and identify new services which focus on identified industry skill gaps
- Provide ongoing targeted services
- Allocate resources
- Carry out operational planning
- Continually improve effectiveness and efficiency of delivery

### **Equity of Access for Learners**

The current skill shortage in many industries throughout New Zealand is of concern and is the reason the research was conducted. Consequently all avenues needed to be explored to enhance recruitment and access to training for those groups under-represented in the China Clays mining industry. The project researched the numbers of women, Maori and Pacific Island people in the industry to find out how under-represented groups within the China Clays mining workforce could take up training to help alleviate some of the current and future skill shortages.

### **Consultation**

During initial consultation mine managers voiced concerns about China Clays operators/miners with literacy difficulties having to complete a questionnaire. They did not want such staff to be put on the spot. As a result the surveyor offered a choice to respondents when introducing the survey by explaining that the process could be completed more quickly by the surveyor asking the questions and filling in the answers or respondents could complete the questionnaire themselves.

Each participating mine manager and/or contact person has been thanked personally for their contribution to this work and all mine managers involved will receive a copy of the final report once the EXITO Board has released it.

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### **3. Methodology**

#### **Data Collection Method**

A group administered written questionnaire was used to collect the data because it was cost effective and delivered large stores of useful information quickly and efficiently. Also questionnaires are familiar to most people and usually do not cause apprehension. Questionnaires also reduce bias because of uniform question presentation and no middle-person bias or influence. Questionnaires are an excellent method to use when:

- The need is to collect the same type of information from a large number of people.
- The collectors of the information are more interested in what a group thinks as a whole than in what a particular individual has to say.

The EXITO survey needs met these 2 requirements.

#### **Data Requirements**

The EXITO Executive Director and Board directed the surveyor to research specific information based on strategies outlined by the Tertiary Education Commission. This information was to be used by EXITO to plan for ensuring a sustainable and skilled workforce for the China Clays mining industry.

Industry experts were initially interviewed to canvass their ideas about:

- the focus and content of the research
- how to conduct the research

Initially this phase took longer than planned as the list of people to consult grew. The surveyor kept the Executive Director (EXITO) informed and together they decided when to draw this phase to a close.

Based on industry consultation a draft questionnaire was designed. It was exceptionally long. This was due in part to the enthusiasm of the initial industry experts who had been consulted. They came up with an enormous amount and range of questions to include – 16 typed pages in all! We knew this would be far too cumbersome and would deter potential participants from participating in the survey.

The questionnaire was amended based on industry feedback and as a result we produced 2 questionnaires – one for operators (including China Clays miners, operators, etc) and one for managers, professionals and technical staff. This was a sensible solution.

#### **Pilot-Testing the Questionnaire**

The questionnaire was piloted with a cross-section of mine workers who fitted the profile of the final group to be surveyed.

A short introduction outlining the purpose of the survey was given by the surveyor on site and face to face with the pilot-test group. Participants' confidence was enlisted by providing information and answering their questions about the purpose of the survey. Minimal information was given

about how to fill in the questionnaire, as we wanted to find out where any problem areas occurred. This meant that pilot-test respondents completed the survey without any special instructions. Instead they were responding to the written text of the questionnaire, not to guidance from the surveyor.

The questionnaire was distributed, completed and collected immediately after completion.

Respondents were timed from start to finish. After completion they were asked for their reactions to the survey based on the following questions:

- Was the survey clear and easy to understand?
- Were you comfortable answering the questions?
- How comfortable were you with the time it took to complete?
- What other comments do you have?

The respondents' answers were recorded. The resulting data was used to determine whether it was the kind of information we were seeking. We considered:

- Were there responses that should have been included but were not?
- Were some of the questions redundant?
- Were questions being answered with 'don't know'?
- Were there any questions that were too complicated?
- How long did it take respondents to complete the questionnaire?

The main finding of the pilot-test was the problematic question about questionnaire length. The operator questionnaire was 3 pages in length and could be completed within 10-20 minutes. But the managers, professionals and technical questionnaire was still too long. Further amendments were made and finally a 5 page questionnaire was finalised for this group.

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#### **4. Response Rate**

Response rate is the single most important indicator of how much confidence can be placed in the results of a survey. When conducting a survey at least 10% of the survey population must be included. We have surveyed 62.5% of the China Clays industry population – enough to assure confidence in the results.

Professional surveyors find an acceptable questionnaire response rate of fifty percent or higher difficult to achieve. Given this we decided to conduct the survey on site and collect the questionnaires immediately after completion.

We were able to achieve a 75% yield with the operator/miner questionnaire. Of all the managers/professionals we canvassed we achieved a 50% yield. Despite being extremely busy the mine manager completed the questionnaire. We are very grateful to them all for making the time to be involved.

The survey was conducted anonymously. Respondents were informed of the purpose of collecting the information (i.e. the questionnaire) and that the use and disclosure of the information would be limited to what was necessary to fulfill the survey purpose. We did not ask for people's names. The survey responses cannot be used to identify an individual because no personal information has been used that would enable identification of the survey respondent.

This was a wise decision as it encouraged survey participants to be more open – they knew their opinions and comments were not linked to them as individuals.

The final design of the questionnaire made it easy for respondents to participate. There were few questions missing specific data. Occasionally some people did not include their age or pay band rate.

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## 5. Results of the Survey

### Section 1 - China Clay Miners/Operators

During the survey, respondents actively engaged in in-depth conversations about their work. This meant a lot of information was gathered which was not part of the questionnaire but which was germane to it. At other times the conversations focused directly on survey questions. When this was the case some of the information has been included in the report. Respondent comment has been taken 'as is' from questionnaires and is italicised.

#### Part 1 – Demographic Data

<b>Number of Sites surveyed</b>	one
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<b>Gender</b>	
<b>Male</b>	92%
<b>Female</b>	8%

<b>Ethnicity</b>	
<b>Pakeha</b>	16%
<b>Maori</b>	69%
<b>Cook Islands Maori</b>	5%
<b>Indian</b>	5%
<b>Other European</b>	5%

<b>Average Age</b>	45
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<b>Average Hours Worked Per Week</b>	48
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**Reasons for Entering the China Clays Mining Industry**

53% of respondents indicated that location was the major reason for entering the industry in that the mine was close to where they lived. 38% said the mine offered the prospect of possible long-term employment. Other reasons included physical work, good hours, parents both worked there and money.

<b>Relevant Experience/Qualifications before Entering the China Clays Industry</b>	
<b>Yes</b>	46%
<b>No</b>	54%

The relevant experience included:

- *Loader and forklift driving*
- *Fitting and Turning Engineer*
- *Machine operation – Tradesman Assistant Electrical*
- *Forklift and truck licences*
- *Plumbing, driving, fitting*
- *Driving machines*

<b>Average number of years worked in the China Clays mining industry</b>	
<b>0 to 2 years:</b>	9%
<b>2 to 5 years</b>	9%
<b>5 to 10 years</b>	9%
<b>10 to 15 years</b>	24%
<b>15 to 25 years and over</b>	39%
<b>25 years and over</b>	9%

<b>Percentage encouraged to take on-site supervisory roles</b>	
<b>Yes</b>	53%
<b>No</b>	47%

<b>Future Career Aspirations</b>	
<b>Continue work in company</b>	73%
<b>Develop skills and move into supervisory role in company</b>	18%
<b>Find work in different industry</b>	9%

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## **Part 2 - Training**

### **The Attraction and Benefits of Training**

Predominantly respondents believed the main purpose of training was to ensure everyone was working safely. Other reasons given included:

- *To upgrade your skills on technology and machinery.*
- *A better understanding of the job.*
- *To understand and perform your role better.*
- *To become competent – Upskilling*
- *Help with the job.*
- *Make you better at your job.*
- *To teach the same aspects for all to follow.*
- *For the worker to be able and confident operator.*
- *To work more efficiently*
- *To give extra skills and confidence in different aspects of mining.*
- *Is the company's responsibility to make us safe*

76% of respondents are attracted to doing training. They saw many benefits in undergoing training. Primarily these fell into 4 categories including:

1. To do the job efficiently, confidently and competently.
2. To ensure more job satisfaction for the worker.
3. To learn as much as possible so one's skills level is increased.
4. To keep up with procedures and legislation.

### **Training Needs**

Training needs varied widely and included the need for health and safety training, machine operation, environmental and administration training.

46% of respondents indicate they are consulted about their training needs while 54% say they are not. The match between the training needs of respondents and what the company perceives are their training needs occurs for 61% of respondents.

### **Finding Out About Training**

The majority of respondents would go to management if they needed to find out about training. Others would approach union organisers, the Engineers' Union, the polytechnic or school. Two respondents did not know where they could find out about training.

62% of respondents felt supported to participate in training while 38% did not.

### **Selling Training to Employees**

Respondents' reports on how training is sold to them has a big impact on whether they are motivated to participate. They indicated a variety of ways training is sold to them ranging from being ordered to attend, (*Just told to do it*) to asking employees what they would like to participate in. (*We are asked first and given reasons for its importance.*)

The respondents who were told to attend training were less enthusiastic about it than those who were able to participate more in making the decision. One respondent said they were, *Not asked, but would participate if asked.*

### **Training Goals**

53% % of respondents participating in training indicated training goals were set with them before they undertook training while 47% of respondents said they were not. This appears to be a very important factor for training success as respondents report that setting training goals beforehand gives them a better idea about what to expect, makes them more interested and therefore increases their motivation to train.

### **Amount of Training**

46% of respondents felt they are receiving enough training - 54% said they did not. Every one who does training felt that it was relevant. Half of respondents said that the training they received does fit with where they want to go in their mining careers.

### **Organising Training**

Respondents want to do training during work hours and be consulted about what training is relevant for them.

### **Training Gaps**

The majority of respondents report very few training gaps i.e. areas that are not covered by training. However the gaps that are reported are:

- *Computer training*
- *Survey vehicle operation*
- *Next step repercussions e.g. what customers receive and how they use it.*

### **Training Attended While Working in the China Clay Mining Industry**

- *Forklift, Loader, Fire Hazard, First Aid.*
- *EXITO fire extinguisher.*
- *Most areas of plant.*
- *First aid.*
- *First Aid, Forklift.*
- *Forklift, loader, first-aid.*
- *Machine, factory, crushing, roading, first-aid, health and safety.*
- *Process worker operator.*
- *Bearing course, pneumatic course, first-aid, forklift, loader driving instruction, Fire extinguisher, mechanical seal installation, Training the Trainer instruction.*
- *Forklift driving, forklift loading (but already knew), first-aid, fire extinguisher.*

### **Future Delivery for EXITO**

Many respondents are positive about EXITO training but they want it to be more available. The areas respondents indicated need improvement fall into 4 categories:

1. Ensure theory and practical learning is done within a closer time frame so that new learning does not get forgotten.
  2. Develop more practical training modules. *(They really have to do the practical side with everybody, not just the paperwork. The paperwork alone doesn't mean anything.)*
  3. Encourage a greater uptake of apprenticeships in all trades areas now.
  4. Being more accessible and available to mine sites and more frequent on-site visits.
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### **Part 3 -Training Delivery**

Predominantly the type of training respondents say works best is on-site, face to face practical training where staff all have the opportunity to try things out rather than just watch a demonstration. Other methods respondents find useful are self-paced learning (from a training booklet at one's own pace) theory presentations and videos. One respondent commented, *Apprenticeship is the only way.*

A large amount of feedback was provided on what makes an effective trainer. The qualities and skills of trainers are a most important factor for respondents.

Trainer professionalism was seen as the most important factor which gives trainees confidence in how and what they are learning.

- *The trainer should be down to earth, easy to get on with, informative but in an easy-going way - not too pushy*
- *Not rushing and expecting too much straight away*
- *Not trying to push through too fast*
- *Helping us retain what's learnt – not rushing through*
- *Have reasonable amount of time to learn with quality trainers in all areas*
- *You have to do the practical learning*
- *Give practical examples*
- *Interesting and using an adult style, as we've all been there before*
- *Good interesting presentation*
- *The way the trainer presents the job – well thought through – well organised*
- *Not to be too complicated*
- *To help us be more aware of our actions*
- *Trainers should always be prepared to learn too. Knowledge is valuable, can prepare for anything that might come along.*

Effective communication skills were identified as important.

- *Clear understanding and communication*
- *Good communicator*
- *Clarity of delivery*
- *Easy to understand in what he is saying*

- *Trainers who can talk so people can understand*

Personal qualities were also important. Respondents were clear that no amount of subject knowledge will make up for an inability to get alongside trainees and treat them respectfully.

- *Easy-going and respectful*
- *Good attitude trainer/trainee*
- *Be fair and respect others*
- *Make it enjoyable and fun*

Most respondents indicate there is a short length of time between getting the training and using the new learning. This is very positive as it means training gains are maximised.

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**4. Results of the Survey**

**Part 1 – Managers and Professionals**

**Demographic Data**

<b>Ethnicity</b>	
<b>Pakeha</b>	87.5
<b>Maori</b>	nil
<b>Other European</b>	12.5%
<b>Gender</b>	
<b>Male</b>	87.5%
<b>Female</b>	12.5%
<b>Average age</b>	47
<b>Work Hours</b>	
<b>Average hours worked per week</b>	40 - 50 hours
<b>Experience/Qualifications</b>	
<b>Relevant Experience/Qualifications before entering industry</b>	50%
<b>Company Experience</b>	
<b>Average number of China Clays mining companies worked in</b>	87.5% worked in one company only
<b>Industry Experience</b>	
<b>Average number of years worked in China Clays mining industry</b>	17.5 years

**Reasons for Entering the China Clays Mining Industry**

A wide variety of reasons was given as to why respondents were attracted into the China Clays mining industry. They included:

- *Career programme at secondary school – interesting visiting mining engineer.*
- *A slump in available jobs in 1982 prevented getting work overseas / lifestyle.*
- *Technical work.*
- *Office work is flexible – not specific to mining industry.*
- *Employment in area.*
- *Income, offered employment.*
- *Contract money.*
- *Redundancy – search for technical work.*

Percentage of managers who worked their way up to management from the 'coal face'	Gained a degree and started China Clays mining work at management/professional level
40%	60%

## **Part 2 - Professional Development**

### **Professional Development Needs**

There is an even split about whether there is a match between respondents' professional development needs and what the company perceives as their needs. Half say there is a match while the other half says there is not. *Yes there is a match. The government's reduction in funding for geological sciences effectively precluded any employment in that sector. The current position is the best available use of skills. As the position gives little scope for advance, and as employment stability in this location is more important than career (and as there are few openings elsewhere for above reason) professional development has become redundant.*

The following explanations are given as to why there is not a match.

- *No. Company doesn't promote professional development actively.*
- *No. Lack of courses, training, professional development, experience in other operations.*
- *No. Need more mineral / ceramic training. Almost all management leadership training has been through organizations outside of the industry. Company has provided 'quality management' training.*

### **Support for Professional Development**

75% of respondents say they are encouraged to participate in professional development while 25% say they are not.

### **Professional Development Goals and Outcomes**

37.5% of respondents say professional development goals are set with them prior to undertaking it. All of those who do undertake professional development say the goals match what they actually want from professional development.

Of those doing training or professional development the vast majority says their understanding of what they thought they would get was the same as the actual learning they received. Of this group 75% said the professional development added value. The others commented that it only added value some of the time. For one person it added no value.

Most respondents elected to undertake professional development themselves while 2 people did it because they were told to.

- *I did it because I wanted to and without support from the company, at my cost.*
- *When I have elected to undertake professional development it has been motivational.*
- *Usually instructed.*
- *Willingly accepted what was offered, additional requests supported.*
- *Most training is by personal selection rather than recommendation.*

Only 25% of respondents say they do enough professional development while 75% say they do not. There is a wide variety of opinion about whether or not professional development fits with their mining careers. Two respondents say it does not. Other comments include:

- *Part of multi-national with potential career opportunities in 36 countries.*
- *With only 15 years of working life left and no possibility for movement, expectation of move to more responsibility is unrealistic.*

### **Organising Professional Development**

A small group of respondents would like professional development to be organised within normal work time. The rest of the respondents would like it organised out of work time and have the company pay for it.

- *All developments should be within normal work times.*
- *Correspondence and block courses.*
- *Make it available so you can keep your job at the post-graduate level. Structured so that the company would pay and give time to course.*
- *Along with practical experience.*
- *Night classes.*
- *Given more responsibility to use skills gained or to be gained.*

### **Professional Development Deficits**

Two respondents say there are no professional development skill gaps. For those who say there is professional development skill gaps the following areas emerge:

1. Finance
  2. Mine manager cert - A/B grade
  3. Ceramics and mineral processing
- *Some financial training in 'high' finance areas – i.e. corporate would be beneficial.*
  - *Yes – mine manager A/B grade not available; that's not good when you are a mine manager.*
  - *Yes. Mostly due to cost of courses. Areas required are usually covered by overseas courses.*
  - *Yes. Ceramics and mineral processing, exposure to other methods / industries.*

## Improving Professional Development

A very wide range of solutions were identified as ways to improve professional development problem areas.

- *Suggestions to senior management.*
- *Financial, project management.*
- *Make it like other professional groups, i.e. accountants, where a certain amount has to be done each year to retain professional qualifications.*
- *Provide greater range of technical courses, i.e. Instrumentation etc. in Northland.*
- *Government to be more supportive of mining instead of making it subject to conservation – give both aspects equal and relevant value rather than favour one to the detriment of the other. Favour geological research and development equally with conservation, not annihilate it as it has done in the past 20 years.*
- *Range of papers not available in north.*
- *Interaction with other technical personnel. Too isolated where we are – no stimulation.*

## Training Delivery

The factors identified that make training delivery successful fall into 3 broad areas.

1. An interactive tutoring style
  2. Approachable and enthusiastic tutor
  3. Knowledge and understanding of the industry
- *Understanding of industry – one to one, face to face training.*
  - *N.Z. knowledge, i.e. legislative framework, culture.*
  - *Interactive classroom style.*
  - *Being available and the company supporting it. The tutor is irrelevant.*
  - *Sense of humour, examples by anecdote of experience etc. Varied delivery of information.*
  - *Approachable, enthusiastic tutor*
  - *Interest in the subject on my part, equal enthusiasm on theirs.*
  - *Enthusiasm, knowledge, hands on. Not chalk and talk.*

There is very good take-up between receiving professional development and using the new learning.

- *Seamless.*

- *Short time.*
- *Same time.*
- *Initial good use, but due to common lack of relevance new learning tends to be dropped.*
- *Immediate, if applicable to position.*
- *Instant.*
- *Depends on course, applicability to current work.*

### **Ways to Improve Operator Training**

A variety of ideas emerged for improving the way training is delivered to operators.

- *Make it more relevant to particular industry niche.*
  - *Interactive, practical.*
  - *EXITO seem to be doing that but not at varsity post-grad level.*
  - *On-site courses. Specific to clays industry.*
  - *Operators need varied training in all different areas.*
  - *Fun, exciting, hands-on. Not chalk and talk.*
-

### **Part 3 - Recruitment and Retention**

#### **Recruitment Gaps**

The most difficult occupations to fill within the industry are those in the trades area followed by electronics.

- *Skilled tradespersons.*
- *Good trades groups. Not many well-trained industry based tradesmen.*
- *Electronic experts (PLC computer know-how). National shortage – lack of training in these areas in past years.*
- *Professional experts. We don't pay enough.*
- *Office work is generic.*

#### **Future Skill Supply**

##### **a. Undersupplied**

- *Skilled technicians, electronic experts.*
- *Engineers, fitters. Supervisory skills.*
- *Tradesmen, electricians, engineers. Not enough apprenticeships in industry.*
- *Technicians with good all-round computer / mining / problem solving skills.*

##### **b.) Over-supplied**

- *Semi-skilled labour.*
- *Labourers, technical staff.*
- *General science and engineering.*
- *Base operators, unskilled positions.*

#### **Recruitment Strategies**

When asked to what extent the industry will need to recruit employees who are different from those recruited in the past, to meet the demand for labour most respondents agreed there was a strong need to attract younger people. One respondent also made the comment that, *It is more a case of industry adapting to accept persons who have enthusiasm and are willing to commit to the industry.*

Half of the respondents thought it was feasible to fill short-term skill shortages by recruiting staff from under-represented groups, other industries, out of the labour force or from overseas to remedy short-term skill shortages while New Zealanders are receiving the formal training they need to take up future vacancies. However this could only be done provided training, support and resources

were made available. A respondent commented that, *there is plenty of interest from overseas mineral professionals but hard to assess suitability without trial.*

### **Apprenticeships**

Most respondents are very positive about apprenticeships.

- *Yes. Works well in engineering area.*
- *Yes. Excellent – mixture of formal and on the job training.*
- *Yes. Good.*
- *Yes – engineers only.*
- *Yes. Seems okay.*
- *Yes. Having come through an apprentice system, it is very good.*

### **Staff Retention**

Staff retention is not a problem.

- *Not a problem on this site, but a happy, well-rewarded staff tend to develop loyalty.*
- *We have no problem with staff retention.*
- *Retention is good.*
- *No staff turnover.*

### **Attracting People into the Industry**

How the minerals industry is marketed appears to be a key factor in whether people are attracted into the industry. *Need more positive spin on the minerals industry – not a 'bad' industry but essential.* One respondent also suggested that, *Greater mobility within the company could be organised in terms of both job role and working in other company divisions. Possibly a cadetship.*

Respondents say the company encourages people into the industry by providing site tours – particularly school groups, and encourage projects on their operations and provides a positive professional image about mining.

### **Attracting Women into the Industry**

Ideas for attracting more women into the operator side of the industry included providing more childcare facilities on-site and women as miners getting more acceptance from macho males. One respondent made the comment, *Employ them.*

## Part 4 – Training Issues for the Company

### Barriers to the Provision of Training

- All respondents appear to experience a range of barriers to the adequate provision of training. The biggest problem is maintaining production while employees are in training. *Conflict between time for production and time for training – looking to the future and providing for must be budgeted for by senior management.* Other reasons included:
- *Shift work / lack of interest, i.e. 'what will it do for me.' Unused to learning environment.*
- *Lack of courses that are extra-mural and at the right level, company commitment, time and money.*
- *Distance from learning centres. Possible development of correspondence courses.*
- *Isolation of location.*

### Training Delivery

There is a high degree of agreement on the factors which are critical to the successful delivery of training. Respondents indicate the most important factors include the company's commitment to training and the trainer's style and enthusiasm.

- *Enthusiasm and commitment of leaders.*
- *Being available, and the company not being totally against it.*
- *Training has to have some relevance to the trainees. Trainer's personality and delivery style makes a big difference.*
- *Interest.*
- *Enthusiasm, needs base training.*

### Leadership Development

Respondents identified a variety of skills related to managing people; work relationships and leadership were needed by those managing staff. These included:

- *Coming down to trainee's level. Understanding cultural factors.*
- *People skills.*
- *Knowledge, respect, and the support of peers and the rest of the company.*
- *Need to fit into the culture.*
- *Team building, group dynamics understanding.*

### **Attracting Staff to undertake Professional Development**

The specific training needed for supervisors to make the transition from operational work to managing staff included:

- *Reporting skills. Taking real responsibility – less buck passing.*
- *Technical training,*
- *Having the support of peers and company.*
- *Exposure to management systems and 'inside view.'*
- *Need company loyalty.*
- *Understanding people and motivation.*

Attracting staff into training is done by making courses available and paying for training costs. Other ideas included:

- *A way to retain their jobs.*
- *Some elements of training for personal development as well as company benefit.*
- *A way to up-skill.*
- *Make it interesting and desirable.*

### **Training Outcomes**

Almost all managers/professionals respondents indicate they are getting what they want from staff being trained. Only one respondent made the comment, *Yes and no. Older staff in job for number of years are difficult to motivate.*

### **Entry Levels**

There was a large degree of variability about the proportion of staff who are entry-level trained and require on-job experience to be of relative value. (Compared to those who are immediately job ready and/or able to move into more senior or highly skilled positions). The variability ranged between 40% and 90%.

**Types of Training**

<b>Percentage of Types of Training</b>		
<b>EXITO Training</b>	<b>Non-EXITO company training run by own staff (or ex-staff who are now tutors)</b>	<b>Non-EXITO training run by external consultants</b>
25%	10%	65%

Half of the respondents indicate that external trainers/consultants keep up to date with new company standards while the other half said they did not.

**Unit Standards/Qualifications**

Respondents were not positive about how well unit standards link to real on-the-job work. Comments included:

- *Could be better, with more site-specific unit standards.*
- *There aren't very many that are relevant. I think the system is confusing for many people, i.e. units that could be relevant are missed.*
- *For me, none.*
- *Vague.*

Respondents had 2 views on how often unit standards need to be revised because of changes in technology. Half of them indicated every 3 – 5 years while the other half said constantly or very regularly.

Two thirds of respondents indicated there is a need for a group of unit standards to make up a qualification for geological field technicians, mine surveyors and samplers. Other qualifications respondents indicated were needed were:

- *Yes. Diploma in industry minerals processing.*
- *Laboratory technical skills / computer skills.*
- *Mine planning, resource valuation, modeling, environmental management, exploration.*
- *Laboratory technician.*

## **Computer Training**

Respondents were in complete agreement that with the advances in computer technology all levels of staff within the industry will need to become familiar with computers.

- *All staff need some computer use knowledge – just to operate machines.*
- *Supervisors and upwards, but also operators.*
- *All levels. Everyone here has to or should be using a computer.*
- *Everyone - it should help personal development.*
- *All levels of staff will need to be familiar with some form of data collection and processing or problem-solving.*

## **Environmental Management and Health and Safety Training**

Respondents were asked to ascertain the importance of environmental management and health and safety training in the future.

### **a.) Environmental Management**

Respondents were asked to identify what environmental management training needs to be put in place for the future. Most agreed that it needs to be driven by the company. *Driven from H.Q. corporate aims on sustainable development – translated into local situation. Will be driven by senior staff on-site who are following best practice.* One respondent commented that, *It is well covered by other qualifications and training courses – awareness / recommendation of what is available and suitable.* Other ideas included the need for, *Practical, case studies. A realistic education on what standards are required and increased awareness and methods.*

### **b.) Health and Safety**

Respondents were asked to identify what changes to Health and Safety training should be put in place for the future. Again most respondents indicate it needs to be driven by the company. *To be driven by H.Q. – plus strong health and safety culture developed by wide on-site participation in system.* One respondent commented that, *It is well covered by other qualifications and training courses – awareness / recommendation of what is available and suitable.* Another respondent said, *Health and Safety training is well covered at present.*

## **Literacy - Core Generic Skills**

There was agreement among most respondents that literacy problems were significant for 20% – 30% of staff. Most agreed there was not sufficient investment in training to improve core generic skills (e.g. literacy, numeracy, problem-solving, and relationship management skills)

### Mining Engineers

Half of respondents indicate the best way to bring more mining engineers into the industry is to increase salaries. Other ideas included:

- *Train within N.Z. – scholarships, cadetships.*
- *Provide engineering courses extramurally.*

### Future Industry Output

The China Clay industry has planned and anticipated its production growth requirements for the next 5 years.

### Impact of Technology

In answer to the question will future technological solutions substitute the human resource most respondents agreed that it will be the operator, manual type work and office work which will be affected.

A significant proportion of respondents agree that over the next 5 years there will be major technological advances which will mean additional training resources will be required. The areas they identify that will be affected are:

- Processing technology.
- Automation and Bagging automation.
- Mineral processing design.

To keep up to date with these technological advances respondents identify the need to train internal operators and skilled technicians, plus further trades training.

<b>Forecasted Growth for Existing Professional Occupations</b>	
<b>Occupation</b>	<b>Likely Growth (did not give percentages)</b>
<b>Technicians</b>	Growth
<b>Geologists</b>	Static
<b>Mining Engineers</b>	Growth
<b>Senior Management</b>	Static
<b>Computer/Electrical engineers</b>	10% Growth

More critical is the need for electronic and instrument staff and programme logic controllers. It is very difficult to recruit these staff.

Respondents were asked to identify non-existent skill sets or occupations needed in the future. They identified:

- *More cross-over into environmental management in all areas.*
- *Electrical / engineering.*
- *Managers.*

### **Remedying Forecast Skill Shortages**

All respondents indicated that training and education was the key to rectifying any forecast skills shortages. The predominant idea was the need for; *Internal and external education. Need highly trained mining engineers to lead the charge.* The ability to be able to take technical courses extramurally without it impacting negatively on work and the encouragement of getting people into apprenticeships was also seen as important.

### **Training Provision in Small Companies**

A range of ideas emerged to support small companies which traditionally have more difficulty in training staff. Ideas included:

- *Consolidation and combination of training programmes.*
- *Train up one person to do their own training. If the company is really small this person should be from their own staff.*
- *Advertising – make certain technical courses available, 3-4 year gaps.*
- *Use skilled and experienced staff from other companies.*

### **Adequacy of National Infrastructures**

Respondents identified the following upgrades will be needed to future national infrastructures to ensure the viability of their industry.

- *Roading.*
- *RMA overhaul. Refer NZMIA strategy.*
- *Being able to use rail network in closer proximity to the mine.*
- *Roading, port facilities at reasonable cost.*

### **Future EXITO Industry Training and Skills Development**

By 2010 respondents identify that EXITO industry training and skills development need to:

- *Produce professional N.Z. trained mining engineers / planners and 'economic geologists.'*
  - *I think the training needs to come from within the company. A lot of money is spent on getting trainers to come some distance to deliver training that could be delivered in-house by dedicated staff. EXITO could offer employer subsidies to internal trainees and/or apprentices.*
  - *Provide professional courses extramurally, that keep up with development.*
  - *Provide more emphasis on top end. Professionals to lead the industry and work to add growth to it.*
  - *As well as the basic level, provide or support professional training to the consultant level. Resources like the latest software, legal requirements (environmental, health and safety, industrial relations). Use training to keep staff up to the current law and standards required.*
-

## 6. Recommendations

Recommendations have been made but are not prescriptive. Recommendation topics include a list of questions to prompt and extend the thinking and options generated for future training improvements.

### Part 1 – Demographic Data

#### Gender

Only 8% of the workforce is made up of women. This is an area for development. Women could be a useful source of new employees when people retire or move on to other employment.

#### Questions to ask:

1. Why are there not more women in China Clays mining in New Zealand?
2. How could employers be encouraged to consider both genders when undertaking recruitment?
3. What could be done differently to publicise China Clays mining careers to women?
4. What additional recruitment methods may be needed to attract women?
5. What can be learned from the women who work in the industry?

#### Ethnicity

There are no barriers to the employment of Maori within this industry. 69% of operators/miners are of Maori ethnicity.

Over the last 20 years Maori have made very significant changes to their educational achievement levels, particularly Maori women. With this greater knowledge and qualification uptake one would expect to see this reflected in the proportion of Maori working as managers/professionals. However this industry is sited in an isolated area and as such the range of choice when recruiting may be much more limited.

#### Questions to ask:

1. Why aren't there more Maori people working as Managers/Professionals in China Clays mining in New Zealand?
2. How could employers be encouraged to consider selecting more widely when undertaking recruitment?
3. What could be done differently to publicise China Clays mining careers to Maori and Pacific people?

### **Age of Work Force**

The age of the workforce is not a major issue for the China Clays mining industry. The average age of operators/miners was 45 years and 47 years for managers/professionals. Despite this succession planning is an important factor when employees retire or leave the workforce.

#### **Questions to ask:**

- 1. How are the knowledge and skills of very experienced operators/miners and managers/professionals passed on to younger employees before they retire?**
- 2. What is the impact of this (see the above question) on how training needs are planned?**

### **Pay Rates and Conditions**

Pay rates were a not major factor in attracting people into the industry,

#### **Questions to ask:**

- 1. How can pay rates and job conditions be used in tandem to attract professionals and new miners into the China Clays industry?**
- 2. How can the non-financial reasons for being attracted into the industry be promoted to those who may wish to take up employment in the China Clays mining industry?**
- 3. How can the opportunity to drive large machinery be used to attract prospective employees?**

### **Future Career Aspirations**

A large proportion of miners/operators wish to remain in the industry in the future. A very small proportion of respondents intend to move on to other employment.

#### **Questions to ask:**

- 1. What can be done to encourage those employees who are unclear about their future career direction so that they remain productive and committed miners/operators?**
- 2. Given that miners/operators want to have much greater access to training to develop their skills, what could be done with training provision to motivate employees to remain in the industry?**

### **Relevant Experience before Entering the Industry**

Almost half of the respondent group had relevant experience prior to entering the industry. Given this how could EXITO support the industry to train new employees when they start the job so that they become productive sooner?

#### **Questions to ask:**

- 1. Could specialist pre-employment programmes speed up the process of becoming a operator/miner?**
- 2. How could EXITO support more people to obtain the appropriate licences?**

### **Encouraged to take On-Site Responsibility**

53% of operators/miners are encouraged to take on-site responsibility. There are some respondents who are eager to learn the skills required to move into supervisory or management roles.

#### **Questions to ask:**

- 1. How does the company identify who is supervisor/management material and how do they support staff to train towards this role?**
- 2. Is further support needed from EXITO to support the development of managers, supervisors?**

## **Part 2 – Training**

Operators/miners are very keen to undertake training in this industry and clearly understand the benefits of training for themselves and the company. Given this enthusiasm to improve skill levels what can be done to take advantage of this?

Respondents' also report how training is sold to them has a big impact on whether they are motivated to participate in training. Respondents who are told to attend training are less enthusiastic about it than those who were able to participate more in making the decision.

Respondents also report that setting training goals beforehand gives them a better idea beforehand about what to expect, it makes them more interested and therefore increases their motivation to train.

These 2 factors provide a very cost effective solution for managers to help raise motivation prior to and during training.

More needs to be done to ensure that career aspirations match employee and company needs.

### **Questions to ask:**

- 1. What can be done to improve financial support for training?**
- 2. How can the China Clays industry be supported to provide more training?**
- 3. How can training be made accessible to all China Clays mining employees?**
- 4. How can managers be encouraged to sell training collaboratively thereby ensuring better 'participant warm-up' to training? What could be done by companies to change from the 'telling' approach to the consultation approach?**
- 5. How can managers be encouraged to set training goals collaboratively thereby ensuring increased motivation during training?**
- 6. What could be done to sell the importance of training to those who do not yet understand its benefits?**
- 7. How are accurate training needs established?**
- 8. What could be done to include all staff in the process of training needs identification?**
- 9. How will companies and EXITO connect to the new Health and Safety Council to ensure they work collaboratively and identify appropriate training?**
- 10. What factors need to be in place to enable small companies to take advantage of training being offered? How could these factors be realised?**

### **Training and Professional Development Deficits**

Respondents report very few training and professional development deficits; however there is a need to develop further specific training for managers/professionals.

#### **Questions to ask:**

- 1. What needs to be done to develop new areas of specialist training for the China Clays industry?**
- 2. How could training/professional development in management/people skills training, computer training and communication skills be made more available?**
- 3. What does EXITO need to do to identify the additional training required for major technological advances occurring over the next 5 years?**
- 4. How could EXITO support further provision of training for qualified trades' people?**

### **Training Delivery**

It is apparent that trainers' style and delivery methods are crucial to effective learning. Selecting appropriate trainers has a large impact on motivation levels – this in turn affects the cost benefit.

Only half of respondents say there is a match between their professional development needs and what the company perceives as their needs. This is of concern as motivation levels are likely to be affected when there is not a perceived match of needs.

Of those doing training or professional development only half said professional development added value. The reasons for this situation need to be addressed so that maximum benefit is gained for both the employee and the company.

Only 25% of respondents say they do enough professional development while 75% say they do not. The reason for this situation needs clarifying so that appropriate measures can be taken to address a perceived lack of professional development.

#### **Questions to ask:**

- 1. Are effective induction programmes started as soon as new employees begin their mining careers?**
- 2. How are effective trainers identified and recruited? What is done during the recruitment process to ascertain whether trainers possess the factors identified above and have the relevant knowledge and experience?**
- 3. What training and development is available for trainers to improve their teaching/training skills and knowledge?**

**Questions to ask:**

- 4. How are trainers supported by EXITO and the industry when they are working across a range of companies?**
- 5. How can more professional development be made available?**
- 6. What can be done to ensure more staff experience professional development as adding value?**

**Future Delivery for EXITO**

Respondents look on EXITO favourably but have a range of suggestions they think could improve industry mining training.

**Questions to ask:**

- 1. What can be done to provide training immediately a new employee enters the China Clays mining industry?**
- 2. What can be done to improve the work practices and skills of more experienced employees?**
- 3. How can practical on-the-job training be made more accessible to the industry?**
- 4. How can theory and practical training be more integrated so that trainees reach acceptable levels of competence back on the job?**
- 5. How can EXITO further promote China Clays mining careers?**
- 6. What needs to be done to develop further unit standard qualifications for the China Clays mining industry?**
- 7. How can regular and on-going communication between EXITO and the China Clays mining industry be improved to ensure response levels are high?**
- 8. What is EXITO doing to identify the skills required for computer training and environmental management training?**

### **Part 3 - Recruitment and Retention**

Staff retention is not a problem within the China Clays industry.

When recruiting for operators/miners, family connections often mean that new employees are found relatively easily. However trade skills and electronic skills are difficult to recruit for within the industry.

#### **Questions to ask:**

- 1. What further strategies can EXITO implement which boost the amount of training for trades people/electronics so that adequate skill levels are achieved relatively quickly?**
- 2. What improvements could be made to how managers/professionals' roles and miners/operators roles are promoted to those who are contemplating a career in the China Clays mining industry?**
- 3. What suggestions for the recruitment of women have not yet been tried and what promotion strategies have worked for the companies that do currently employ women operators/miners?**
- 4. What role could EXITO take to promote pan-industry knowledge about successful recruitment, promotion and advertising practices?**

#### **Part 4 – Training Issues for the Company**

All respondents appear to experience a range of barriers to the adequate provision of training. The biggest problem is maintaining production while employees are in training. Further support needs to be found to address this difficulty.

Respondents identified leadership development skills were needed by those managing staff.

Half of managers/professionals reported that external trainers/consultants do not keep up to date with new company standards. This needs to be addressed immediately to ensure adequate cost benefits returns for the company when using external trainers/consultants.

Respondents would like EXITO to provide more site specific training and improvements as to how unit standards link to real on-job work.

There was a strong need expressed for a group of unit standards to make up a qualification for geological field technicians, mine surveyors and samplers.

Significant literacy problems are occurring. Funding is available from EXITO to address this.

Combining training programmes with other companies would be one way to support training provision in this small industry.

National infrastructure upgrades for this industry are required.

#### **Questions to ask:**

- 1. How could the company and EXITO remove barriers to the adequate provision of training?**
- 2. What type of leadership training and development will be most effective for managers/professionals - formal qualifications, on-the-job training, secondments, peer support, individual coaching or mentoring?**
- 3. What needs to be done to ensure external trainers/consultants keep up to date with new company standards?**
- 4. How could EXITO provide more site specific training and improvements to how unit standards link to real on-job work?**
- 5. What could be done to develop a group of unit standards to make up qualifications for geological field technicians, mine surveyors and samplers?**
- 6. What could be done to expedite EXITO funding to address literacy problems?**
- 7. How could training programmes be run in conjunction with other companies as a way to support training provision in this small industry.**
- 8. What type of lobbying could be jointly undertaken by EXITO and the industry to address the China Clays national infrastructure requirements?**

**Questions to ask:**

- 9. What can EXITO do to help support the need for tertiary trained specialists for this industry?**
-

## **7. Distribution of Results**

The results of the survey will be distributed to all EXITO Board members, those who contributed to the survey and other interested China Clays mining industry personnel.

There may also be other interest groups who might share a curiosity about the outcomes of the project. The spectrum of possible audiences may include:

- The local press and other media
  - Government Departments
  - Professional Associations
-

8. Appendices

# Questionnaire for Operators

**EXITO (The Extractive Industries Training Organisation) has developed this confidential questionnaire to gather information about the China Clays mining industry. Your answers will help us understand how to provide the kind of training you think the industry needs to meet the demands placed on it in the future.**

**Thank you very much for taking part in this confidential survey. We really appreciate your help.**

**Part 1 - General Questions**

1. Name of Company: \_\_\_\_\_ Job Title \_\_\_\_\_

2. Your Age: \_\_\_\_\_

3. Is it an exploration company only?   
Is it a mining company only?   
Is it a mining and exploration company?

4. Do you work in:  
▪ alluvial mining   
▪ hard rock mining

5. Ethnicity: (mark appropriate box/es)

- |                         |                      |
|-------------------------|----------------------|
| NZ European/Pakeha      | NZ Maori             |
| Other European          | Samoan               |
| Cook Island Maori       | Tongan               |
| Niuean                  | Tokelauan            |
| Fijian                  | Other Pacific Island |
| Indian                  | South East Asian     |
| Other Asian             | Chinese              |
| Latin American/Hispanic | American             |
| Middle Eastern          | African              |

6. Male  Female

7. How many hours do you work per week? \_\_\_\_\_

8. What attracted you into the China Clays mining industry? \_\_\_\_\_  
\_\_\_\_\_

9a.) Did you have 'relevant' experience, qualifications or licences before you started working in China Clays mining? \_\_\_\_\_ If yes – what? \_\_\_\_\_

9b.) did you work in other mining industry jobs before working in China Clays mining? \_\_\_\_\_  
If yes – what? \_\_\_\_\_

10. How many China Clays mining companies have you worked in? \_\_\_\_\_

11. Give your total time in the China Clays mining industry: \_\_\_\_\_

12. Have you been encouraged to take on site responsibility or supervisory or management roles? \_\_\_\_\_

If yes – what? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13. Wages - what is your expectation re wages? Circle which:

\$30,000 - \$40,000      \$40,000 - \$50,000      \$50,000 - \$60,000      \$60,000 - \$70,000  
\$70,000 - \$80,000      \$90,000 or above

14. What work future do you see for yourself – what do you aspire to? \_\_\_\_\_  
\_\_\_\_\_

**Part 2 - Training Questions**

1. What do you understand about why training is done? \_\_\_\_\_  
\_\_\_\_\_

2. Are you attracted to doing training? \_\_\_\_\_ What are the benefits of training for you? \_\_\_\_\_  
\_\_\_\_\_

3. What are your training needs? \_\_\_\_\_  
\_\_\_\_\_

4. Are you consulted about your training needs? \_\_\_\_\_ Is there a match between your training needs and what the company perceives are your training needs? \_\_\_\_\_  
\_\_\_\_\_

If not please explain. \_\_\_\_\_  
\_\_\_\_\_

5. If you don't know about training where would you go to find out? \_\_\_\_\_  
\_\_\_\_\_

6. How supported are you to participate in training?

- Encouraged?
- Not encouraged?

7. If training is suggested for you how is it sold to you? \_\_\_\_\_  
\_\_\_\_\_

8. Are training goals set with you before you do training? \_\_\_\_\_ If not how does this affect the training you do? \_\_\_\_\_  
\_\_\_\_\_

If yes, do the training goals match what you actually want from the training? \_\_\_\_\_  
\_\_\_\_\_

9. Do you do enough training? \_\_\_\_\_ Is it relevant? \_\_\_\_\_  
Does it fit with where you want to go in your mining career? \_\_\_\_\_  
\_\_\_\_\_

10. How should training be organised, to best fit in with your work and production needs? \_\_\_\_\_

\_\_\_\_\_

11. Are there any training gaps – i.e. skills needed not being trained for? \_\_\_\_\_

If yes, what are they? \_\_\_\_\_

\_\_\_\_\_

12. What training have you done while working in the China Clays mining industry? \_\_\_\_\_

\_\_\_\_\_

13. By 2010 what does EXITO industry training and skills development need to be doing? Please comment.

\_\_\_\_\_

\_\_\_\_\_

### **Part 3 - Training Delivery Questions**

1. What type of training delivery works best for you? – Self-paced (learning from a training booklet at your own pace) presentations, on-site, videos etc. \_\_\_\_\_

\_\_\_\_\_

2. Think about the trainer. What factors make training delivery successful for you? \_\_\_\_\_

\_\_\_\_\_

3. When you have completed your training what length of time is there between getting the training and using the new skill? \_\_\_\_\_

4. What are your ideas for improving the way training is delivered? \_\_\_\_\_

\_\_\_\_\_

5. Have you experienced distance learning? (I.e. learning by correspondence) \_\_\_\_\_ Was it a useful way to learn? \_\_\_\_\_

\_\_\_\_\_

6. Does training delivery have the right mix between practice and theory? \_\_\_\_\_ If not please explain. \_\_\_\_\_

\_\_\_\_\_

# Questionnaire for Managers/Professionals

**EXITO (The Extractive Industries Training Organisation) has developed this confidential questionnaire to gather information about the China Clays mining industry. Your answers will help us understand how to provide the kind of training you think the industry needs to meet the demands placed on it in the future.**

**Thank you very much for taking part in this confidential survey. We really appreciate your help.**

**Part 1- Background Information**

1. Name of Company: \_\_\_\_\_ Job Title \_\_\_\_\_

2. Your Age: \_\_\_\_\_

3. Is it an exploration company only?   
Is it a mining company only?   
Is it a mining and exploration company?

4. Do you work in:  
Alluvial mining   
Hard rock mining

5. Ethnicity: (mark appropriate box)

NZ European/Pakeha	NZ Maori
Other European	Samoan
Cook Island Maori	Tongan
Niuean	Tokelauan
Fijian	Other Pacific Island
Indian	South East Asian
Other Asian	Chinese
Latin American/Hispanic	American
African	Middle Eastern

6. Male  Female

7. How many hours do you work per week? \_\_\_\_\_

8. What attracted you into the China Clays mining industry? \_\_\_\_\_  
\_\_\_\_\_

9a.) Did you have 'relevant' experience, qualifications or licences before you started working in China Clays mining? \_\_\_\_\_ If yes – what were they and in which country were they obtained? \_\_\_\_\_

9b.) Did you work in other mining industry jobs before working in China Clays mining? \_\_\_\_\_

10. How many China Clays mining companies have you worked in? \_\_\_\_\_

11. Give your total time in the China Clays mining industry: \_\_\_\_\_

12. Wages - what is your expectation re wages? Circle which:  
\$30,000 - \$40,000      \$40,000 - \$50,000      \$50,000 - \$60,000      \$60,000 - \$70,000  
\$70,000 - \$80,000      \$80,000 - \$90,000      \$90,000 - \$100,000      \$100,000 or above

**Part 2 - Professional Development**

1. Is there a match between your professional development needs and what the company perceives are your needs? \_\_\_\_\_ If not please explain. \_\_\_\_\_

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2. How supported are you to participate in professional development?

- a. Encouraged?   
b. Not encouraged?

3a.) Are professional development goals set with you before you undertake it? \_\_\_\_\_

3b.) Do they match what you actually want from professional development? \_\_\_\_\_

4. After training or professional development did you get what you thought you would get? I.e. was your understanding of what you would get the same as the actual learning you received? \_\_\_\_\_

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5. Did the professional development add value? \_\_\_\_\_ Did you elect to do it or did you do it because you were told to? Say which. \_\_\_\_\_

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6. Do you do enough professional development? \_\_\_\_\_ Does it fit with where you want to go in your mining career? \_\_\_\_\_

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7. How could professional development be structured to best fit in with your work? \_\_\_\_\_

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8. Are there any gaps in professional development areas – i.e. skills needed which are not being addressed? \_\_\_\_\_

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9. What ideas do you have for solutions to any professional development problem areas? \_\_\_\_\_

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10. Think about the lecturer/trainer/tutor. What factors make training delivery successful for you? \_\_\_\_\_

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11. When you have completed any professional development what length of time is there between receiving it and using the new learning? \_\_\_\_\_

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12. What are your ideas for improving the way training is delivered to operators? \_\_\_\_\_

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**Part 3 – Recruitment and Retention**

1a. What occupations within the industry do you have difficulty filling? Consider all levels i.e. operators, technicians, professional experts, managers. \_\_\_\_\_

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1b. What is the reason for this? \_\_\_\_\_

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2. What types of skills/occupations are likely to be most significantly under or over-supplied in the future and why? a. Under-supplied \_\_\_\_\_

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b. Over-supplied \_\_\_\_\_

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3. To what extent will the industry need to recruit employees who are different from those recruited in the past, to meet the demand for labour – e.g. gender, ethnicity, age, disability \_\_\_\_\_

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4. How feasible will it be to fill short-term skill shortages by recruiting staff from under-represented groups, other industries, out of the labour force or from overseas to remedy short-term skill shortages while New Zealanders are receiving the formal training they need to take up future vacancies? \_\_\_\_\_

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5. Is there the possibility to do an apprenticeship in your company? \_\_\_\_\_ What do you think of this system? \_\_\_\_\_

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6. What can be done to improve staff retention? \_\_\_\_\_

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7. What are your own ideas for attracting people into the industry? \_\_\_\_\_

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8. Does your company encourage people into the industry? \_\_\_\_\_ If yes – how? \_\_\_\_\_

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9. How could more women be attracted into the operator side of the industry? \_\_\_\_\_

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#### **Part 4 - Training Issues for the Company**

1. What are the barriers to adequate *provision* of training? \_\_\_\_\_

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2. What factors are critical to the successful *delivery* of training? \_\_\_\_\_

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3. What skills related to managing people, work relationships and leadership are needed? \_\_\_\_\_

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4. What training is needed for supervisors to make the transition from operational work to managing staff? \_\_\_\_\_

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5. How do you attract staff into training? \_\_\_\_\_

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6. Are you getting what you want from your staff being trained? \_\_\_\_\_ If not why not? \_\_\_\_\_

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7. What proportion of your staff are entry-level trained and require on-job experience to be of relative value \_\_\_\_\_ compared to those who are immediately job ready and/or able to move into more senior or highly skilled positions? \_\_\_\_\_

\_\_\_\_\_

8. Of your total training what percentage is:

EXITO training \_\_\_\_\_

Non-EXITO company training run by your own staff \_\_\_\_\_

Non-EXITO training run by outside training consultants \_\_\_\_\_

9. Do outside trainers/consultants keep up to date with new company standards? \_\_\_\_\_

\_\_\_\_\_

10. How well do unit standards link to real on-the-job work? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

11. How often do unit standards need to be revised because of changes in technology? \_\_\_\_\_

\_\_\_\_\_

12. Is there a need for a group of unit standards to make up a qualification for a:

geological field technician? \_\_\_\_\_

mine surveyor? \_\_\_\_\_

sampling? \_\_\_\_\_

other? \_\_\_\_\_

13. With the advances in computer technology what level of staff will need to become familiar with computers? (Think about all levels - operators, technicians, professional experts, managers and the interface with technology and using the intranet \_\_\_\_\_

\_\_\_\_\_

14. The importance of environmental management and health and safety is increasing. What is needed for future training in these 2 areas? a.) Environmental Management \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b.) Health and Safety \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

15. For what proportion of staff is literacy a problem when training? \_\_\_\_\_

\_\_\_\_\_

16. Is there sufficient investment in training to improve core generic skills (e.g. literacy, numeracy, problem-solving, and relationship management skills) so the quality of employee output is assured? \_\_\_\_\_

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17. What is the best way to bring more mining engineers into the industry? \_\_\_\_\_

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18. How is industry output expected to grow over the next five years? \_\_\_\_\_

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19a.) Are there future technological solutions that will substitute the human resource? \_\_\_\_\_

19b.) If so, what occupations will be affected? \_\_\_\_\_

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20a.) What major technological changes do you expect to impact upon the industry over the next 5 years? \_\_\_\_\_

20b.) What will need to be done to ensure training is up to date with these technological advances? \_\_\_\_\_

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21. What change in growth do you forecast over the next 5 to 10 years for existing professional occupations? Occupation \_\_\_\_\_ Likely Growth \_\_\_\_\_

Occupation \_\_\_\_\_ Likely Growth \_\_\_\_\_

Occupation \_\_\_\_\_ Likely Growth \_\_\_\_\_

Occupation \_\_\_\_\_ Likely Growth \_\_\_\_\_

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22. What non-existent skill sets or occupations will be needed? \_\_\_\_\_

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23. What could be done to remedy any forecast skill shortages? \_\_\_\_\_

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24. Small companies have more difficulty in training staff – what are your ideas to overcome this difficulty? \_\_\_\_\_

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25a.) How effective is the match between forecast industry needs for unskilled and skilled labour and what the education and training delivery system currently delivers? \_\_\_\_\_

25b.) How could it be improved? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

26. What upgrades are needed for future national infrastructures to ensure the viability of your industry? E.g. railways, ports, shipping services, roading etc. \_\_\_\_\_  
\_\_\_\_\_

**Please attach any evidence you have re question 26 above.**

27. By 2010 what does EXITO industry training and skills development need to be doing? Please comment. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Questions in Italics for Managers Only**

*1. If you are a manager did you work your way up to management from the 'mine face' or did you get management qualification/professional qualification and start China Clays mining work as a manager?* \_\_\_\_\_

*2. Total number of operators in this mine? Include all types of workers in the mine.* \_\_\_\_\_

*3. Total number of supervisory positions in this mine?* \_\_\_\_\_

*4. Total number of administration and support positions in this mine?* \_\_\_\_\_

*5. Total number of management positions in this mine?* \_\_\_\_\_

*6. What is the average age of your workers?* \_\_\_\_\_

*7. What future changes may need to be made to the role of the ITO, its structure, capabilities and resources to support you - the industry stakeholders?* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_