



DCN Drilling Induction Presentation

*Business Management Systems, Human
Resources and Health Safety and Environment
Overview*

Induction Contents



- Business Management Framework**
- Mission, Values & Our Client Commitments**
- HR Policy Documents**
- HSE Management Systems programs**
- Legislation**
- Site safe induction**
- First aid training**
- On-site orientation drilling operations**
- DCN Drilling SOPs**
- DCN Drilling JHAs**
- Training logs**
- Competency based training program**

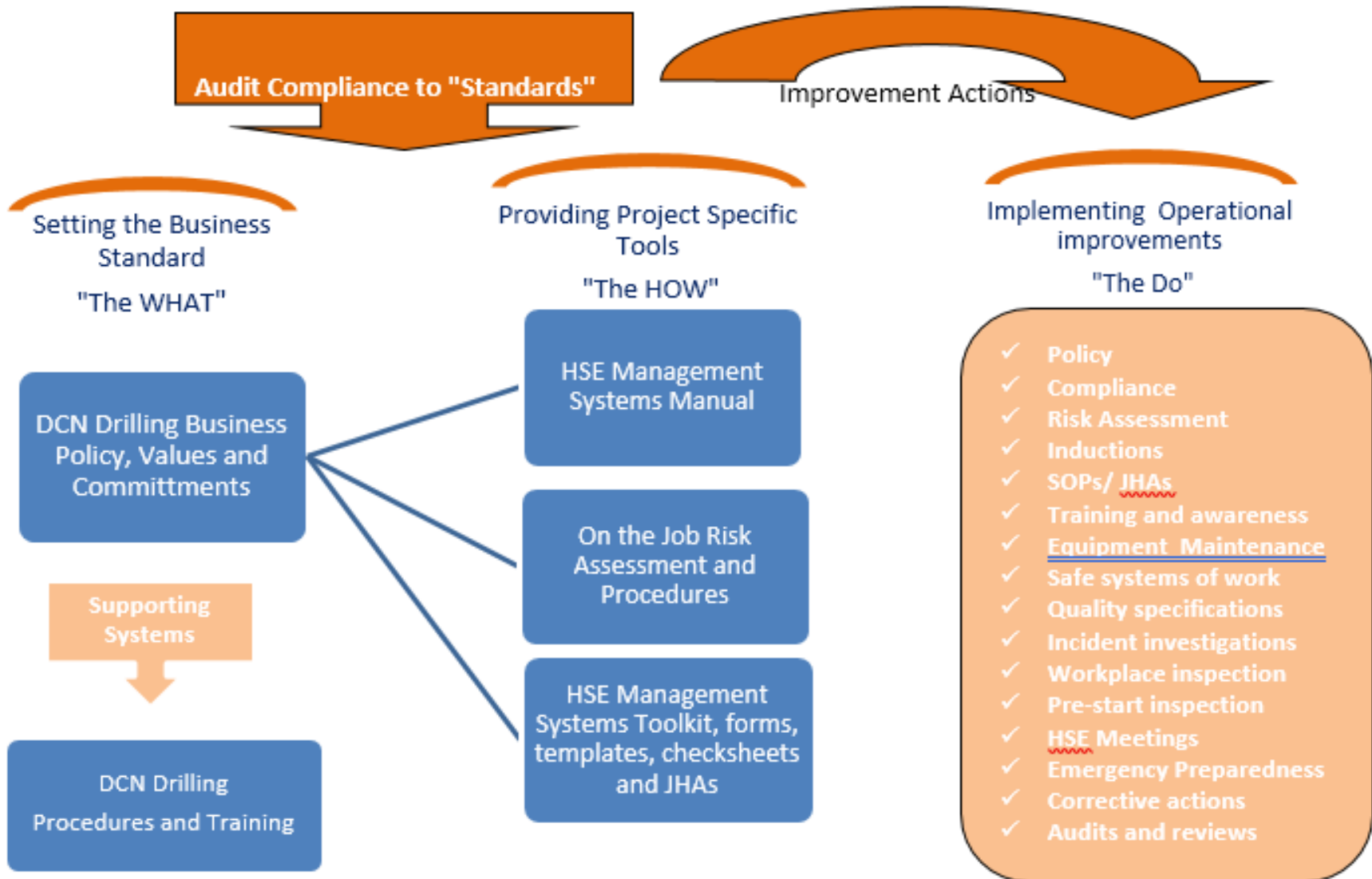
Business Management Systems



Key focus of DCN Drilling Management Systems

- ❑ The safety of employees, customers and surrounding environments
- ❑ Risk identification and control reducing both business and HSE risk
- ❑ Effective business planning and delivery of objectives and targets
- ❑ Demonstration of legal and regulatory compliance
- ❑ Reduction of incidents and illness, therefore reducing downtime
- ❑ Engagement and motivated staff with better, safer working conditions
- ❑ Adoption of innovative and forward thinking approach
- ❑ Increased efficiencies
- ❑ Robust maintenance management systems
- ❑ Quality competency based training programs
- ❑ Efficient management of environmental footprint
- ❑ Effective performance monitoring and audit
- ❑ Improved stakeholder satisfaction, greater credibility with legislators and industry peers

DCN Drilling Management System Approach



Professional Business Promotions



DCN Drilling Drilling and Engineering Specialist



Health, Safety and Environment
Management Systems



DCN Drilling Drilling and Engineering Specialist

Providing our customers with quick, responsive, cost effective engineering solutions, a wide scope of drilling services and a full range of modern machinery and equipment.



Working all areas within New Zealand and Internationally DCN Drilling proudly members of Drilling Industry Associations.



1. HSE Management Systems



HSE Management Systems



- ❑ Definition of insanity is doing the same thing over again and expecting a different outcome
- ❑ Industry works on a continuous improvement model successful businesses have to keep up
- ❑ Aligned to AS/NZ 4801 and ISO 14001 Framework – future certification
- ❑ Promote professional drilling expertise, drilling services, equipment and technical expertise with stakeholders
- ❑ Ensure compliance to changing NZ Legislation
- ❑ Introduction of formal auditing and performance monitoring
- ❑ Meeting existing and future client expectations and support contract tender process
- ❑ Alignment to industry leading practice
- ❑ Being part of a successful well respected business and contributing to that success provides work satisfaction
- ❑ Ultimately most of us like to do a good job and take pride in our work

“Change is a coming within legislation, industry, client expectations – its best to embrace it, participate and contribute to the changes than fight against the inevitable – your inputs will ensure successful implementation of any improvement project”

Continual Improvement



MISSION STATEMENT

To be recognised as the most efficient and capable provider of quality drilling services and geotechnical drilling solutions delivering projects safely, efficiently, on time and within cost constraints

OUR VALUES

To treat each other, our clients and stakeholders with respect, adopt efficient work methodology and technical solutions and create a culture of continuous improvement

OUR CLIENT COMMITMENT

Our DCN Drilling Team are committed to:

- *Leading in health, safety, environment management systems and compliance*
- *Delivering on time, on budget*
- *Exemplary customer service*
- *Professional and experienced drillers and support staff*
- *Efficient identification and management of risks*
- *Maintaining a modern, efficient fleet*
- *Adopting innovative technical solutions*
- *Maintaining the highest ethical standards*

ALIGNMENT TO LEGISLATION AND STANDARDS



This DCN Drilling Health Safety and Environment Management Systems in conjunction with the overarching DCN Drilling Business Management System is designed to meet the intent of the following legislation, standards and associated codes of practice:

- Health and Safety at Work Act (HSW Act 2015)
- Health and Safety in Employment Regulations (HSE Regs 1995)
- HSW – General risk and Workplace Management Regs 2016
- HSW- Worker Engagement Participation & Representation Regs 2016
- HSW – Hazardous Substance Regs 2016

In addition the following National and International Standards:

- ISO: 14001 - Environmental Management Systems
- AS/NZ: 4801 - Occupational Health and Safety Management

Relevant Standards and Codes of Practice that may be required dependent on each Project scope of work and risk profile shall be scheduled within the DCN Drilling Legal Compliance Register.

New Health and Safety at Work Act



Introduction of the Health and Safety at Work Act 2015 – major change to NZ health and safety system - Aimed at 25% reduction in workplace injuries and deaths by 2020

- ❑ Introduces the concept of a Person Conducting a Business or Undertaking, known as a PCBU.**
- ❑ PCBUs are in the best position to control risks to work health and safety as they are the ones carrying out the business or undertaking. This is why the PCBU will have the primary duty under the new law.**

On average each year in NZ:

- ❑ 75 people die on the job**
- ❑ 1 in 10 is harmed**
- ❑ 600 to 900 die from work related disease**
- ❑ Costing NZ \$3.5 billion per year**

PCBU Primary Duties



The primary duty of care requires all PCBUs to ensure, so far as is reasonably practicable:

- ❑ the health and safety of workers employed or engaged
- ❑ that the health and safety of other people is not put at risk from work carried out as part of the conduct of the business or undertaking (for example visitors and customers).

The PCBU's specific obligations, so far as is reasonably practicable:

- ❑ providing and maintaining a work environment, plant and systems of work that are without risks to health and safety
- ❑ ensuring the safe use, handling and storage of plant, structures and substances
- ❑ providing adequate facilities at work for the welfare of workers, including ensuring access to those facilities
- ❑ providing information, training, instruction or supervision necessary to protect workers and others from risks to their health and safety
- ❑ monitoring the health of workers and the conditions at the workplace for the purpose of preventing illness or injury.

Workers Duties



- ❑ Workers have specific health and safety duties when they are at work. Other people in the workplace, such as visitors or customers, also have some health and safety duties – it's all about taking your share of the responsibility for what you can control.
- ❑ The inclusion of health and safety duties of workers and other persons at a workplace ensures that every workplace participant has a statutory duty for health and safety and must take reasonable care to fulfil that duty. This underlines the idea that health and safety at work is the responsibility of everyone who is there.

Workers Duties Under the Law



Health and Safety duty to:	Workers	Other people at workplace
Take reasonable care for his or her own health and safety	✓	✓
Take reasonable care that his or her acts or omissions do not adversely affect the health and safety of other persons	✓	✓
Comply , so far as reasonably able, with any reasonable instruction that is given to them by the PCBU to allow the PCBU to comply with the law	✓	✓
Cooperate with any reasonable policy or procedure of the PCBU relating to health or safety at the workplace that has been notified to workers	✓	X

Offences relating to Health and Safety Duties



			MAX. PRISON TERM	MAX. FINE
Offence of reckless conduct in respect of a health and safety duty (clause 42)	Offence of reckless conduct in respect of a health and safety duty (clause 42)	Individual (eg a worker or a self-employed PCBU)	5 years and/or	\$300,000
		Officer of a PCBU	5 years and/or	\$600,000
		Body Corporate (eg a company)	-	\$3 million
Offence of failing to comply with a health and safety duty that exposes individual to risk of death or serious injury or illness (clause 43)	Offence of failing to comply with a health and safety duty that exposes individual to risk of death or serious injury or illness (clause 43)	Individual (eg a worker or a self-employed PCBU)	-	\$150,000
		Officer of a PCBU	-	\$300,000
		Body Corporate (eg a company)	-	\$1.5 million
Offence of failing to comply with a health and safety duty (clause 44)	Offence of failing to comply with a health and safety duty (clause 44)	Individual (eg a worker or a self-employed PCBU)	-	\$50,000
		Officer of a PCBU	-	\$100,000
		Body Corporate (eg a company)	-	\$500,000



2. Risk Management

Risk Management



DCN Drilling undertake as part of business planning a formal business risk assessment that addresses potential major impacts to business operations including:

- ❑ Business and financial
- ❑ Legal and licensing
- ❑ Company reputation, community and social
- ❑ Health and safety
- ❑ Environmental aspects

Risk assessment are reviewed annually by senior management team and include:

- ❑ Team based risk assessment
- ❑ Development of operational based risk register (WRAC template)
- ❑ Identification of any specific major hazards
- ❑ Identification and evaluation of environmental aspects and associated impacts
- ❑ Identification of risk controls
- ❑ Incorporation of any additional risk controls into HSE Management Plan

Operational Risk



Operational risk management processes in place across DCN Drilling and address health and safety hazards and environmental aspects and include:

- Job Hazard analysis (JHA)**
- Workplace inspections**
- Environmental monitoring (where required)**
- Internal/external audits**
- Pre-start meetings**
- HSE communication and consultation meetings**
- Incident investigations**
- Hazard reports**

Job Hazard Analysis



A Job Hazard Analysis (JHA) shall capture all health and safety hazard and environmental outcomes and be used as a consolidated risk and aspect management tool. A JHA shall be completed when a task or activity is to be performed relating to:

- ❑ Prior to and during start-up of new plant or pieces of equipment
- ❑ Prior to and during any changes or alterations to plant or equipment
- ❑ When irregular work tasks are being carried out
- ❑ As part of the progressive review of existing jobs
- ❑ For tasks that are not covered by existing SOPs
- ❑ After a hazardous incident where procedures were a contributing factor
- ❑ In the development of new or revision of existing procedures
- ❑ JHA approach shall be used as a systematic way of formulating Safe Operating Procedures (SOPs).

JHA Form



- Link to Job Hazard Analysis Form Template**
- Link to Job Hazard Analysis Training Presentation**

Tips for Effective JHAs



- ✓ ***Use a selection of workers to carry out the JHA***
- ✓ ***Do not allow a tick and flick, ensure your crew closely examine the hazards***
- ✓ ***Challenge the controls to make sure the identified hazards are reduced***
- ✓ ***Encourage suggestions from workers regarding on the job safety***
- ✓ ***Ensure all workers understand the risks and the associated controls, and formally sign off on the JHA prior to commencing the task***

Training and Competency



- ❑ [Link to HSE-05 Induction Training and Competency](#)

DCN Drilling Policies



Employees must read, understand and agree to HR-01 DCN Drilling Policy Documents Including:

- ❑ 1. HSE Policy
- ❑ 2. Bullying and Harassment Policy
- ❑ 3. Drug and Alcohol Policy
- ❑ 4. Company Vehicle Use
- ❑ 5. General HR Rules
 - Company Mobile Phones
 - Company Uniforms
 - Working Away

Communication & Consultation



Programs in place

- Pre-shift meetings
- Monthly safety/toolbox meetings
- HSE inductions and site orientations
- Competency based training programs
- Risk management tools and systems
- Incident reporting and investigation
- Hazard identification and rectification
- SOP development
- Job Hazard Analysis
- Emergency planning and testing

Pre-start meetings



Pre-start meeting includes review of the following with outcomes document on the Hazard Id / Pre start duplicate book on each rig.

- ❑ Pre-start hazard review with drill team**
- ❑ Pre-start discussions and hazard review with Client**
- ❑ Pre-start equipment checks**
- ❑ Work through identified hazards and nominate controls to be in place**

Monthly Tool Box Meetings



- ❑ Monthly Toolbox meetings are attended by employees and provide an opportunity to work through risk assessment, present awareness campaigns and enable a broader forum for discussion between all levels of the Business.
- ❑ Active participation from all employees is encouraged.
- ❑ Hazards or identified risks are to be reported and mitigated as they arise – don't wait for a monthly tool box meeting.
- ❑ Tool box meetings can be used to discuss the outcomes of and controls put in place for hazards identified.

Notice Boards



Notice boards that communicate HSE Information to employees are located in at the yards, they display:

- ❑ Safety alerts
- ❑ Industry accident/incident alerts
- ❑ Legislation information
- ❑ Electrical tagging updates
- ❑ HSE meeting minutes
- ❑ HSE awareness information
- ❑ Statistical analysis & performance reports
- ❑ Emergency procedures and contacts
- ❑ Industrial hygiene or environmental monitoring results

Client Communication



Drill crews on the job positive and collaborative client interaction is imperative to the representation of the business and assists with:

- ❑ Early intervention with any issue resolution**
- ❑ Positive open communications in relation to contractual issues**
- ❑ Aligned risk programs and strategies**
- ❑ Communications and alignment between client and DCN Drilling HSE Management**
- ❑ Shared learning of site accident/incident events**
- ❑ Collective and/or aligned emergency preparedness plans and systems**



3. HSE Management Systems – Operational Control

Operational Controls



- ❑ **Project Mobilisation – Link to HSE-01 Project Mobilisation Template**

SOPs



Link to listing of Standard Operating Procedures Employees need to read, understand and sign off.

- ❑ SOP-100 Rigging Up & Drilling Operations**
- ❑ SOP-101 Underground Service Identification Procedure**
- ❑ Job Hazard Analysis for Each Rig and Operations as works are undertaken.**

Mobile & Rig Equipment



All mobile equipment shall be checked and inspected prior to being approved for use on a DCN Drilling Project. Mobile equipment inspections shall include requirements for the provision of maintenance history, service records, licences and appropriate safe operating features including:

- ❑ Licence and certification requirements
- ❑ Fire protection, detection and suppression systems
- ❑ Access / egress operator protection
- ❑ Personnel restraining devices (lap or body seat belts)
- ❑ Secondary braking systems, fail safe emergency stops and shut downs
- ❑ Remote control systems if required
- ❑ Fluid systems level indicators
- ❑ Tire management (unplanned release of pressure, ejection of tyre components, tyre fires)
- ❑ Operator exposures vibration, noise, dust, heat, cold
- ❑ Warning devices pre-start, reverse, lights, beacons, reflector strips
- ❑ Power steering manual devices in the event of engine/power failure
- ❑ Guards and shields
- ❑ Electrical component protection

General Tools & Equipment



All tools and equipment planned for use shall be maintained in safe working condition and meet and inspection, certification or licensing conditions including:

- Electrical equipment tagged with current inspection tags**
- Hand tools in safe working order**
- Guards and safety devices fitted to tools and equipment**
- Lifting equipment, hooks and lanyards have current inspection tags**
- Tools and equipment shall only be used by trained and competent operators.**

Chemical Storage & Handling



Storage, handling and transport of hazardous substances shall be in compliance Hazardous Substance and New Organisms (HSNO) Act and include:

- ❑ Approved storage facilities for hazardous substances**
- ❑ Up to date copies of Safety Data Sheets (SDS) registered**
- ❑ Register of all hazardous substances and approximate quantities held**
- ❑ Process for sub-contractors compliance with hazardous substance management**
- ❑ Hazardous substance transportation records system to comply with Hazardous Substance (Tracking) Regulations 2001**
- ❑ Where required, the use of HSNO “Approved Handlers”**
- ❑ Where required, HSNO Stationary Contain System test certificates issued and maintained**

Maintenance System



The maintenance management system shall be based on quality maintenance program in accordance with Original Equipment Manufacturer (OEMs) and include:

- ❑ Preventative maintenance
- ❑ Planned replacements
- ❑ Exploratory and diagnostic measures

Registered plant and statutory inspections

- ❑ Registers of all equipment requiring certification and/or statutory inspection shall be maintained these include:
 - ❑ Item registered plant
 - ❑ Pressure vessels and associated equipment
 - ❑ Cranes and lifting equipment
 - ❑ Forklifts and ancillary equipment
 - ❑ Man lifts and ancillary equipment
 - ❑ Electrical equipment
 - ❑ Emergency medical equipment

Emergency Preparedness



- Emergency contacts in all Drill Rig Folders**
- Familiarise with Emergency Equipment**
 - **Emergency shut offs & rig shut down**
 - **Fire equipment**
 - **Site evacuation**
- Maintain all emergency equipment and report any defects**
- Familiarise with Emergency Procedure**
- Participate in emergency drills**
- Maintain first aid certification**
- Attend fire fighting training**

Accident Incident Reporting



- All accident / incidents & Hazard are reported including minor injuries & equipment damage
- Telephone reporting to Manager of all accident / incident events
- Accident Incident Forms are completed and investigations undertaken
- Corrective actions are implemented to prevent reoccurrence
- All events are discussed at monthly toolbox to share learnings.
- Serious incidents photos and preservation of the accident scene
- Check to see if serious incidents are reportable to WorkSafe

Inspection, Monitoring & Audit



- Daily shift inspection of all areas of operation**
- Daily rig inspections and pre start checks**
- Weekly inspections of equipment tool stores / first aid equipment / rig checks**
- Rectify deficiencies as you identify them where possible and schedule other deficiencies within the maintenance or corrective actions system**
- Document and maintain records of the inspection**
- Discuss inspection outcomes at the following shift pre-shift meeting creating an awareness of hazards identified**
- High risk hazards need to be isolated during the inspection**
- Look outside the square and try and see behind the day to day production pressures during your inspection, hazards are present and to walk past them is to condone unsafe operations**
- Monthly audits in place by Supervisors/Managers to ensure all HSE Systems and safe work practices are adhered to.**

PPE



DCN Drilling ensure all new employees are supplied with relevant personal protective equipment (PPE) for the task they are required to perform.

Employees are required to wear uniform issue and basic PPE whilst in operational works areas these include:

- Standard issue uniform maintained clean and tidy**
- Steel capped safety boots**
- Hearing protection**
- Protective eyewear**
- Overalls**
- Hard hats**
- Other protective equipment required is identified during risk assessments for each Project.**

Fitness for Work



It is a condition of employment for all employees to present themselves for work in a fit and healthy manner. Employees presenting for work under the influence of drugs or alcohol will not be tolerated and may result in termination of employment conditions.

DCN Drilling support a proactive Drug and Alcohol policy that provides for:

- Pre-employment testing**
- Probably cause testing**
- Post Incident testing**
- Random testing**

Routine duties of Drill Crews



- ❑ The following list the routine duties expected from drill crews along with nominated timeframes

DCN Drilling Supervisors Tasks (Daily, Weekly and Monthly)

Frequency	Duty/Responsibility	Task	Verification Method	Comments
Daily Duties	Pre-Start Checks	Complete Daily Shift Pre-start	Monthly <u>HSE</u> Compliance Sheet Check	Ensure all equipment pre-starts are checked. Vehicle defects/hazards identified must be actioned and tracked using Guardian Hazard/Defect
	Driller / Off Sider Time Sheets	Complete Time Sheets	Check and sign for close off	Supervisor must ensure all timesheets are signed off.
	Risk Assessments as required	Job <u>JSA</u> and/ or more detailed Risk Assessment Form	Monthly <u>HSE</u> Compliance Sheet Check	Hard copies maintained on rig Copies maintained admin
	Services Carried out on Vehicles/Plant	Check Maintenance schedule for required services / maintenance. Review Spreadsheet for Plant hours/km usage. Check schedule for renewed diesel tax / registration Ensure purchase orders are raised and estimates attached for all service/repairs to be undertaken	Maintenance register completed vs scheduled Monthly <u>HSE</u> Compliance Sheet Check	Ensure all drills, plant, trucks, trailers are services, licences, inspections, certification, registrations and diesel <u>tax</u> are scheduled and are within scheduled timeframes.
	Vehicle Defect/Hazard Reports	Vehicle Defect reported within pre-start inspection books. Defects scheduled for rectification during maintenance Defects effecting safe operations to be rectified immediately prior to operations	Entry of information into Vehicle pre-start book and schedule within maintenance register. Monthly <u>HSE</u> Compliance Sheet Check	Defects to be reported and scheduled within maintenance register.
	Inductions (all Workers)	<u>DCN</u> Drilling Induction program and site familiarisation	Monthly <u>HSE</u> Compliance Sheet Check	Completed Site Induction Acknowledgement Forms submitted to Admin personal records
Near Miss & Incident Reporting	Immediate Notification Form and Incident Report Form	Immediate reporting required	Completion of all documentation and discuss with Manager. All results from previous month's incident investigations shall be relayed at next	

DCN Drilling Supervisors Tasks (Daily, Weekly and Monthly)

Frequency	Duty/Responsibility	Task	Verification Method	Comments
				Toolbox Meeting and noted in minutes.
	JSA (Job Safety Analysis)	Undertake JSA risk assessment documentation with team where works not covered by SOP is being planned.	Completed JSA available at work site and signed off by all workers involved	JSA filed at site. If job is repeated on a regular basis then JSA should be converted into SOP documentation and presented to entire workforce, signed and documented.
Weekly Duties	Plant Hrs/ <u>Kms</u> to Maintenance Spread Sheet	Inputs/ submission into maintenance spread sheet	Entry Monday by 10.00 am	Also include Plant/Vehicles that have not been used.
	Fuel Usage	Log fuel usage weekly on pre-start inspection sheet	Fuel usage log submitted weekly for entry into maintenance schedule Monday <u>10am</u> .	
	Employees time sheets (employee hours)	Submit all time sheets to Admin	All employee times to be entered for final pay close out.	To be completed no later than 9.00 am on Mondays for previous week. Leave Forms to be sent to Admin.
	Vehicle Defect/Hazard Reports	Check Vehicle Defect/Hazard Book and Maintenance Register to ensure all defects are rectified or scheduled to be rectified.	Entry of information into Vehicle Defect/Hazard Book and Maintenance Register update and completion	Management of Vehicle Defects/Hazards by use of Vehicle Defect/Hazard Book and Electronic Register. Completed tasks must be entered in book and copy of completed form returned to initiator.
	Services Carried out on Vehicles/Plant	Check maintenance spread sheet for scheduled services. Review Spread sheet for Plant hours/km usage. Ensure purchase orders are raised and estimates attached for all service/repairs to be undertaken	Maintenance spreadsheet Complied vs Triggered Compliance Monthly <u>HSE</u> Compliance Sheet	Ensure all plant, trucks, trailers are serviced as scheduled and are within scheduled timeframes.
	Vehicle, plant and equipment clean down	Complete vehicle, plant and drill clean down ensuring all equipment is maintained.	Pre-start equipment check log weekly clean up. Monthly <u>HSE</u> Compliance Sheet	



Monthly Duties

Skills Matrix Updated	Skills Matrix and Training. Check Monthly and Co-ordinate Competency Training with admin	Skills Matrix up to date and all licences current.	All workers current licences sent to admin personal files including any training certificates. Training requirements to be co-ordinated through admin
Building Yard/Inspections	Inspections Forms Completed	Monthly <u>HSE</u> Compliance Sheet Check	Hard copies retained in yard file
Toolbox Meetings	Run and minute Toolbox Meetings including previous months incidents	Electronic copy on file and hard copy of minutes displayed including attendees Monthly <u>HSE</u> Compliance Sheet Check	Run and minute Monthly Toolbox Meetings. All results from previous month's incident investigations shall be relayed at next Toolbox Meeting and noted in minutes. Electronic copies and hard copy displayed in yard notice board
Vehicle/Plant Inspections	Monthly Drill, Vehicle, Plant and Trailer Inspections	Equipment Inspection Form Monthly <u>OH&S</u> Compliance Sheet	All items of plant, truck and trailer checked by Supervisor once per month for visual safety compliance.
Service Carried Out on Vehicles/Plant	Check maintenance scheduled for scheduled services, review maintenance register for plant hrs/kms	Maintenance register completed vs scheduled Monthly <u>HSE</u> Compliance Sheet	Ensure all plant, truck and trailers are serviced as scheduled and within scheduled timeframe.
Monthly <u>HSE</u> Compliance Report	Complete Monthly <u>HSE</u> Compliance Report	Compliance with all requirements of Monthly <u>HSE</u> Compliance Sheet	Electronic copy filled in and sent to Admin Report outcomes of compliance checks at tool box meeting