

## Practice

USA Division P3 Project  
Revision No.: 00

Date last revised: 08/15/2013

## Purpose

Safety performance is a core value and goal of Encana. At Encana, pressure and other hazardous energy sources are significant hazards that exist in a variety of oil and gas worksites and therefore require management. One aspect of this management is the formation of “Restricted Access Zones”, otherwise known as “No Go Zones”.

The purpose of this Restricted Access Standard is to:

- set out the responsibilities of Encana personnel and its service providers
- set out the various zones to limit access
- assist in the management of pressure and other hazardous energy
- limit personnel in the line of fire

This standard applies to pressure and other hazardous energy sources during pressure testing, pumping and operations as they occur in drilling, completions and production disciplines within Encana.

## Definitions

Term	Definition
Hazardous energy	Any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal, gravitational or other energy that has the potential to cause injury, illness or death.
Service Provider	A company Encana has selected to perform a service without specifying the individuals who provide the service (e.g., Ensign Drilling or Halliburton).
Staff	Includes all Encana employees and contractors hired to conduct work on Encana’s behalf.

## Requirements

Pressure and other hazardous energy sources exist on many oil and gas worksites; however, hazards associated with our early lifecycle well development are typically greater because of the transient nature of the equipment, the high pressures involved, changing environments, and associated risk that may be present. Please be aware

## Practice

**USA Division P3 Project**  
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that the presence of pressure and other hazardous energy sources is subject to change on location depending on the nature of the operations, situations and tasks.

Before initiating work, a hazard assessment of pressure and other hazardous energy sources shall be undertaken and documented. Remember to always consider line of fire.

Please note that hazards associated with areas, tasks and events must all be considered. Worksites shall designate pressure areas into one of three hazard groups:

Red Zone	High hazard area, no access unless approved by Encana supervisor and service provider supervisor with additional limitations.
Yellow Zone	Moderate hazard area, access limited to essential personnel
White Zone	Limited hazards present – no restrictions

Restricted access zones shall be designated with the colour red for high hazards and the colour yellow for moderate hazards in a clear and consistent manner that may include banner tape, pylons, signage, barricades, etc. when adjacent personnel are likely to be present or impacted by the hazards.

All reasonable efforts shall be made to limit Red Zone access. Red zone access shall be limited to the following:

- limited in duration
- restricted to select tool tasks
- limited to routine tasks
- limited to trained and experienced personnel only

Tasks conducted inside red zones are critical tasks and, as such procedures shall exist. A variety of safety management mechanisms likely already exist that will meet this need, such as JSAs. A map of the site is required to identify high hazard areas (red and yellow zones) where feasible.

Examples of restricted access areas/tasks/events are provided in Appendix I. Examples of red and yellow

## Accountabilities

**Encana staff and contractors** working on drilling, completions and production sites are responsible to have read, understand and adhere to the expectations and controls detailed in this Standard.

## Practice

USA Division P3 Project  
Revision No.: 00

Date last revised: 08/15/2013

**Encana staff** are responsible to provide potentially impacted service providers with this Standard and enforce its implementation on their worksites.

**Contractors** are expected to meet or exceed the expectations of this Standard.

## Competency requirements

The restricted access zones shall be discussed and documented in site work permit or daily safety meetings.

## Practice

USA Division P3 Project  
Revision No.: 00

Date last revised: 08/15/2013

## Appendix I

### Red Zone Examples:

- pressure testing equipment such as wellheads, flow lines, pipelines, and well control equipment
- during hydraulic fracturing operations from high pressure pumping equipment and treating iron to the wellhead
- wellheads and pressure piping that are open during active operations such as snubbing, e-line, slick-line, coil tubing, fracturing, acidizing, flow back, etc
- rig floor, piping, and truck pump-end during cementing, acidizing operations or non-routine operations such as fishing
- area around wireline truck and wellhead while setting gun charges, loading/unloading radioactive sources, perforating, and while TIH/TOH with tools
- around coiled tubing and wellhead while rigging up or moving, spooling, suspended loads areas and activities managing hydrates
- pig launchers/receivers during pigging operations
- areas within swing radius of lift operations, no closer than tag line
- drilling, completions and production environments that are under a well control event
- drilling operations using compressed air or compressed gases such as the compressor area and the Blewie line area
- non-destructive testing equipment using radioactive sources
- plant start-up (re-energized with gas flow typically following a turnaround)
- areas where H<sub>2</sub>S and flammable atmospheres are expected

### Yellow Zone Examples:

- from saddle tanks of pumping equipment to the front of the truck
- wellheads, production equipment and flowlines during normal operating conditions
- drilling rigs under normal operating conditions including any fluid separation equipment
- flowback separation equipment
- snubbing unit under normal operating conditions

## Practice

USA Division P3 Project  
Revision No.: 00

Date last revised: 08/15/2013

- workover rigs under normal operating conditions
- pumping of chemicals down hole in operations such as batching, hydrate inhibition etc.
- frac proppant (sand) moving equipment including trucks, site storage equipment, conveyors and telebelts and associated silica dust
- disturbance of NORM-containing materials as outlined in Divisional practices
- extremely loud noise areas, e.g. >105 dBA

**Note:** The list above is not all-inclusive and may include other activities and equipment considered to have elevated risk by operations personnel.

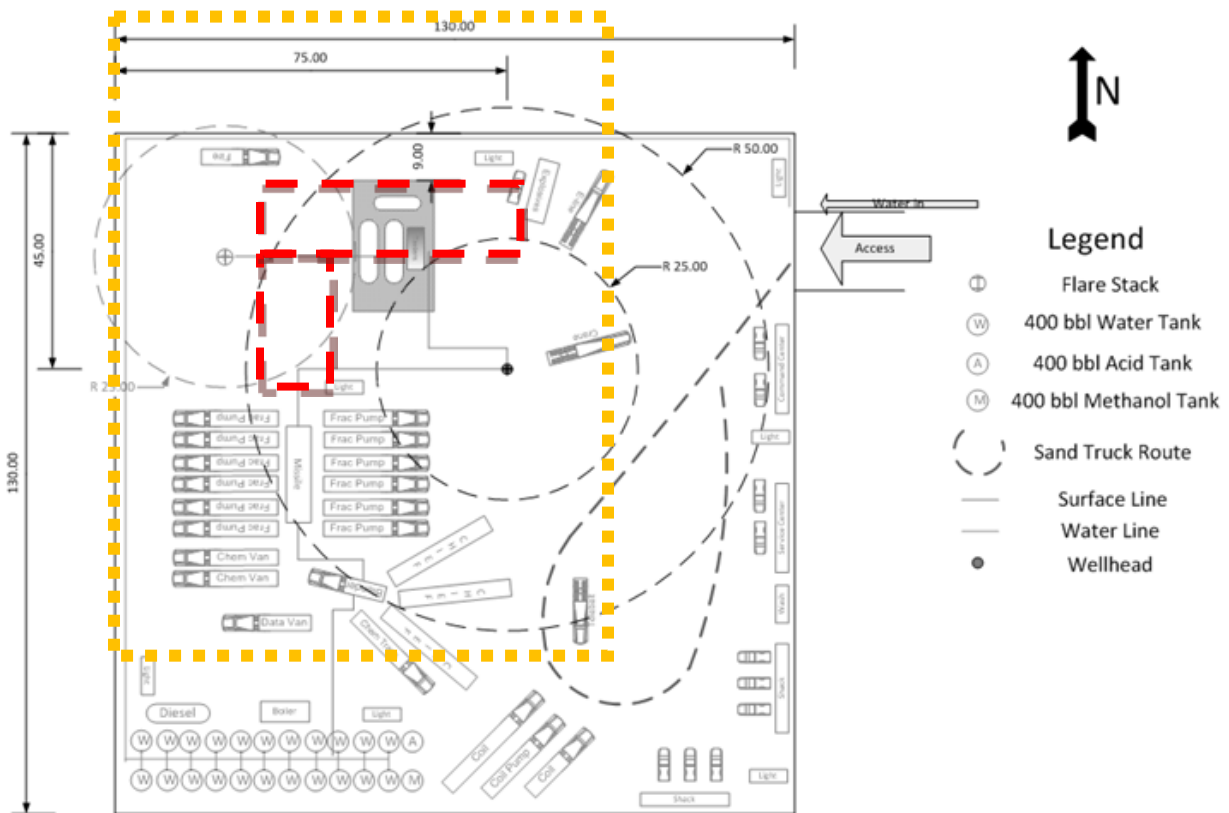
**Practice**

USA Division P3 Project  
Revision No.: 00

Date last revised: 08/15/2013

**Appendix II**

Figure 1. Frac example.



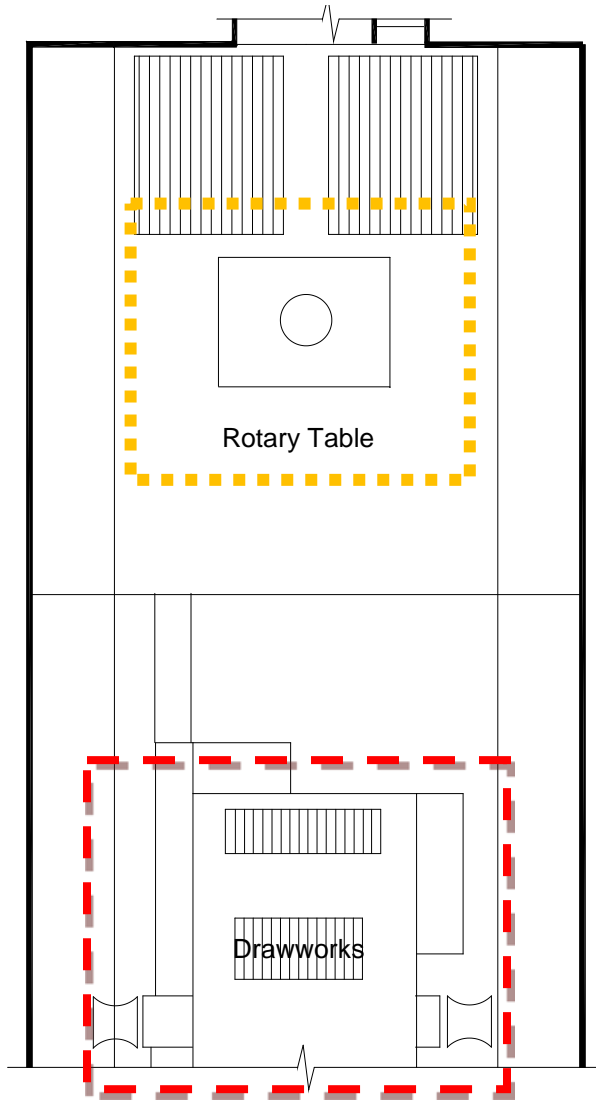
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Practice

USA Division P3 Project  
Revision No.: 00

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Figure 2. Drilling rig example.



(Image provided courtesy of Precision Drilling Corp.)

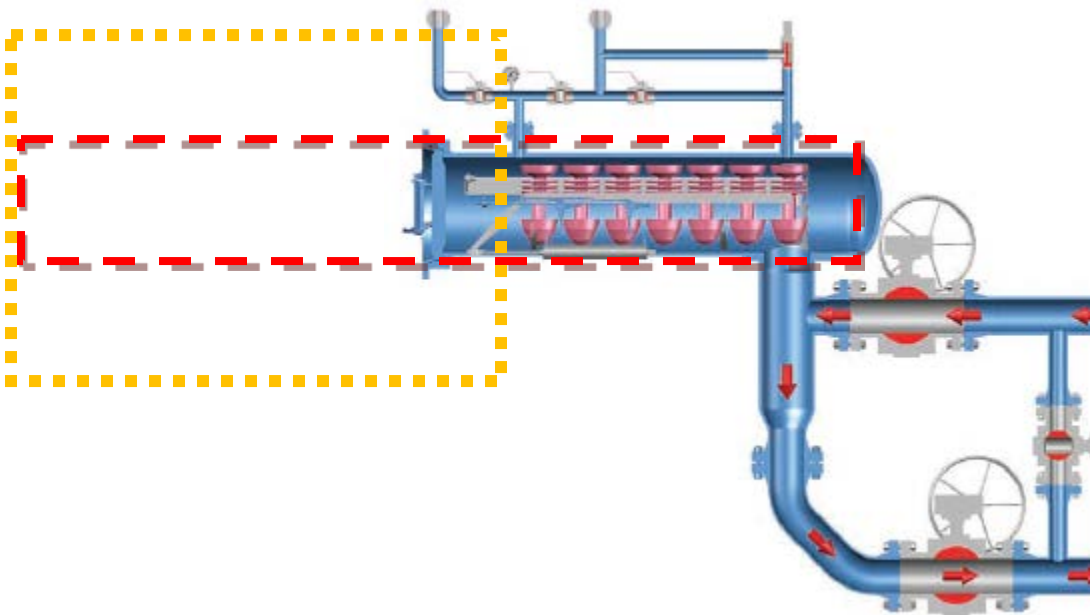
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Practice

USA Division P3 Project  
Revision No.: 00

Date last revised: 08/15/2013

Figure 3. Pigging example (production).



(Image provided courtesy of Roto-Launch Inc.)

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