

# FATALITY NARRATIVE

Harvey Montoya  
Central Valley Tong  
W9202/SO4302/303668537/100980564

## Date & Time of Accident:

August 6, 2002 at approximately 2:45 PM

## Notification:

Fatality was reported via OSHA Hotline on August 6, 2002 at 10:50 PM.  
Bill Meyer, Sublette County Coroner, also reported fatality on August 6, 2002 at 8:20 PM.

## The Investigation:

On Wednesday, August 7, 2002 following notification of the fatality and assignment of the case, investigators John Watterson and Lenny Brewer from Wyoming Workers' Safety traveled to Well 12-28 Pinedale Anticline, Sublette County, Wyoming, arriving on site at approximately 4:30 PM.

Upon arrival on location, investigators met with Bob Jones, Operations Manager for Shell Exploration & Production Company Rocky Mountain Production, LLC. Also present were Warren Hubler Health, Safety and Environmental Vice President for Helmerich & Payne International Drilling Company and Randy Ridgeway, District Manager for Central Valley Tong.

An opening conference was conducted in the Rig Manager's trailer with the representatives of all companies involved, with the exception of Frank's Westates Services Incorporated, who had no representative on site that day. All operations had ceased pending the arrival of OSHA investigators. Upon receiving verbal permission from Bob Jones, Operations Manager for Shell, investigators took still photos and video of the accident scene. A re-enactment of the accident was staged and video was taken of this re-enactment. In order to accommodate both Helmerich & Payne International Drilling Company and Central Valley Tong, two re-enactments were staged. Due to the late hour when the re-enactments were concluded, 8:30 PM, the inspectors decided to keep the site secured until the next morning, when further photos could be taken during daylight. At 10:00 AM on August 8, 2002, the site was released for work to resume.

Arrangements were made to interview employees who may have been involved with or had knowledge of the events leading to and including the accident. Interviews were conducted on location on August 8, 2002 and August 28, 2002. Further interviews were conducted at the Casper Field Office on August 13, 2002, with still further interviews conducted at the Rock Springs Field Office on August 21 and 28, 2002. Mike Niguard was interviewed at his residence in Evanston on August 27, 2002. A Coroner's Report with photos, toxicology report, Sublette County Sheriff's report and ambulance run report from the Pinedale Ambulance Service were obtained and are included in this investigation file.

The photos, videos, reports and testimony are on file at the Wyoming Workers' Safety office in Cheyenne.

#### **Points of Clarification:**

There are four companies involved with this fatality investigation.

They are:

1. Shell Exploration & Production Company Rocky Mountain Production, LLC:  
Owner of the well and prime contractor on location.  
**Henceforth referred to as: Shell**

2. Helmerich & Payne International Drilling Company: drilling company drilling the natural gas well for Shell (a subcontractor for Shell).  
**Henceforth referred to as: H&P Drilling**

3. Central Valley Tong: casing crew, running casing in the hole drilled by H&P (subcontractor for Shell).  
**Henceforth referred to as: CVT**

4. Frank's Westates Services Incorporated: supplying filler tool equipment and one operator (subcontractor to Shell).  
**Henceforth referred to as: Frank's**

#### **Definitions:**

\*Note: This is not an attempt to give detailed in depth descriptions of the entire functions of personnel or equipment, just a brief description of basic functions.

#### **Stabbing Board**

This is a platform that is installed within the rig derrick that provides the **Casing**

**Crew Stabber** a place to stand while he is positioning the casing in preparation for making the connection. While he is on this platform, he is protected by fall protection.

### **Stabbing Basket**

This device has taken the place of the old type stabbing board. It consists of a shop made elevated work platform, having guardrails on three sides, and rides within a thirty foot track system that is attached to the inside of one of the rig legs. This device allows the stabber to adjust his working elevation (within a 30 foot track system) via an attached air operated winch system. This movable platform allows the stabber to compensate for different lengths of casing that he is handling. He is required to wear fall protection while in this basket.

### **Stabber**

This is a member of the **Casing Crew** that is positioned above and in close proximity to the drilled hole. He is responsible for guiding the next joint of casing as it is raised into position above the last joint of casing, so that it can be lowered into position (**Stabbed**) and (threaded together) **Made Up** with the **Power Tongs** (large mechanical pipe wrench owned and operated by the **Casing Crew**).

### **Flex Rig**

This is a technologically advanced and designed drilling rig that was designed, built and operated by H&P Drilling.

### **Draw works**

This is the working heart of the drilling rig. It is basically a very large vertical winch system, that resembles the working characteristics of a large crane. All tools used in the drilling operation are raised, lowered, or held in position by the draw works.

### **Blocks**

The blocks are attached to the lower most portion of the draw works. It is a very large heavy duty lifting device. It has several sheaves that allow for the lifting cable that is operated by the draw works to be threaded through. The cable from the draw works is run through these sheaves called parts or multiple part lines. Each time additional parts are added the lifting capacity of the draw works is increased. At the bottom of the blocks is a large lifting hook, where all of the tools used in the drilling

operation are hung.

**Stand**

This is a section of pipe, which can be of different lengths or diameters.

**V door**

This is an opening on the **Rig Drilling Floor** where all **Stands** of pipe pass through as they are pulled and lifted from the ground up the **Beaver Slide** onto the **Drilling Floor**.

**Lay down machine**

This is a truck mounted horizontal winch mechanism that is owned and operated by the **Casing Crew**. Its purpose is to transfer the casing from the ground level **Pipe Racks**, up the **Beaver Slide**, and through the **V Door**.

**Deceased:**

Harvey Montoya (39 years old)

**Address:**

1240 North Milo  
Porterville, California 93257

**Occupation:**

Casing Crew Stabber

**Employer:**

Central Valley Tong  
Hire Date: March 24, 1998

**Accident Site:**

Pinedale Anticline  
NE1/4, SW1/4, of Section 28, T 32 N, R 109W, 6<sup>th</sup> P.M. Sublette County  
Well 12-28 Shell Rocky Mountain Production, LLC

**Employees Present at the Time of the Accident:**

<b>Name</b>	<b>Firm</b>	<b>Job Title</b>
Russell Davis	Central Valley Tong	Operations Manager
Randy Ridgeway	Central Valley Tong	District Manager
Jose Trujillo	Central Valley Tong	Crew Leader/Tong Operator
D. J. Ridgeway	Central Valley Tong	Laborer
Steven Mensing	Central Valley Tong	Floor Hand
Michael Nygard	Central Valley Tong	Relief Stabber
Romiro Gutierrez	Central Valley Tong	Tong Operator
Ted Dowell	Frank's Westates Sev. Inc.	Fill Tool Operator
Terry Elliott	Helmerich & Payne Drilling Co.	Rig Manager
Todd Goodon	Helmerich & Payne Drilling Co.	Driller
Bill Millay	Helmerich & Payne Drilling Co.	Pit Hand

**Employees Interviewed during the Investigation:**

<b>Name</b>	<b>Firm</b>	<b>Job Title</b>
Russell Davis	Central Valley Tong	Operations Manager
Randy Ridgeway	Central Valley Tong	District Manager
Jose Trujillo	Central Valley Tong	Crew Leader/Tong Operator
D. J. Ridgeway	Central Valley Tong	Laborer
Steven Mensing	Central Valley Tong	Floor Hand
Michael Nygard	Central Valley Tong	Relief Stabber
Romiro Gutierrez	Central Valley Tong	Tong Operator
Ted Dowell	Frank's Westates Sev. Inc.	Fill Tool Operator
Gene McFarland	Frank's Westates Sev. Inc.	President
Terry Elliott	Helmerich & Payne Drilling Co.	Rig Manager
Todd Goodon	Helmerich & Payne Drilling Co.	Driller
Warren Hubler	Helmerich & Payne Drilling Co.	VP for HSE
Jeffrey Flaherty	Helmerich & Payne Drilling Co.	Operations Manager
Bill Millay	Helmerich & Payne Drilling Co.	Pit Hand

**Events Leading up to the Accident:**

On the morning of August 6, 2002, crews assembled at Mesa Well 12-28. The well owner is Shell Exploration & Production Company Rocky Mountain Production, LLC. The well is located Southwest of Pinedale, Wyoming in an area referred to as "The Mesa" in Sublette County.

On this particular morning crews representing the following companies were present:

1. Shell Exploration & Production Company Rocky Mountain Production, LLC,  
Well owner and Prime Contractor
2. Helmerich & Payne International Drilling Company  
Drilling Company and Subcontractor to Shell
3. Central Valley Tong  
Casing Crew and Subcontractor to Shell
4. Frank's Westates Services Incorporated  
Filler Tool Company and Subcontractor to Shell

The task for the day was to run casing. Prior to starting work, the Rig Manager, Terry Elliot, held a pre-tower safety meeting in the Tool Pusher's trailer with the members of all crews working the upcoming tower. The driller for H&P, Todd Goodon, was not at the meeting because he was not yet on location. During this safety meeting, numerous topics were discussed. One main concern expressed was the size of the tools being used on this smaller rig and the limited clearances and workspace this would create on the rig floor. Concerns were expressed during this meeting that CVT had no written JSA (job safety analysis) or SOP's (standard operating procedures) for the upcoming operations as were required by Shell of other companies on site. On the direction of Marshal King (Shell Site Foreman), a brief JSA was written on the back of a Shell safety booklet. This booklet could not be accounted for after the accident. The safety meeting lasted about 30 minutes after which the crews went to work.

Prior to Shell hiring CVT as the casing crew for this job, H&P expressed concern to Shell supervision that they were not comfortable with CVT and would prefer to have a company that they were more familiar with doing this casing job. However, that company was not available. H&P Rig Manager, Terry Elliot, stated in his interview that he had worked with Randy Ridgeway (CVT District Manager) when Randy was supervising casing crews for another company. He stated that he was satisfied with the crew's performance but not with Randy's safety attitude. He stated that he felt that Randy was always "In a hurry and a rush". It was brought up during interviews that a safety requirement variance was issued to CVT by Shell for this job. When the question was asked about why this variance was issued, the response was no one else was available to do the job at the time. This was the first job given to CVT by Shell and CVT and their supervisors were eager to make a good impression.

CVT fielded a split crew. They had 8 employees on site, which is more than the normal casing crew. The reason for this was that the California crew had been brought in to familiarize the Wyoming crew with CVT equipment. Four members of the crew were from California. Three had driven directly to the location from California. Rusty Davis (owner) had flown into the area. The other four crewmembers were from Evanston, including Randy Ridgeway (District Manager). The two crews had never worked together on a casing job. This was the first job for the Evanston crew as CVT. This was the first time the Evanston crew had worked with CVT equipment. The CVT equipment used on this location is larger in dimension than some of its competitors. As with most of the casing industry, CVT's stabbing board equipment is shop made in their facilities. The Evanston part of the crew was required to attend Shell's Rig Orientation Safety Training prior to working on Shell's location, the California crew was not. All of Frank's and CVT's equipment was safety inspected by H&P safety personnel prior to its attachment to H&P equipment. H&P safety personnel did not ask to see documentation of shop made equipment used for overhead work. The deceased was working under the direct supervision of Randy Ridgeway (Evanston District Manager) at the time of the accident.

After the safety meeting held on the morning of August 6, 2002, the crews left the Rig Manager's trailer and started rigging up equipment needed to run casing. During rig up, compatibility (clearance problems) were encountered between CVT, Frank's and H&P equipment due to the size of the tools versus the smaller rig floor and the working space discussed in the safety meeting. The stabbing board and associated guides were rigged up. The filler tool and bail stabilizers were hung on the blocks. The air-operated

elevators were installed and the airline to the elevators was attached. During rig up, the H&P and CVT crews were dealing with the clearance problems. At one point, the blocks had to be repositioned to allow the bail stabilizer on Frank's equipment to be turned to allow for additional clearance between an air nipple on the elevators and the stabbing board. With the problems encountered, rig up time took 1 to 1.5 hours longer than normal. Rig up problems were compounded by the unfamiliarity of some of the members of the mixed crew fielded by CVT, (at least with CVT equipment) which was supervised by Randy Ridgeway of Evanston. Interviews with other rig personnel indicated that tension, friction, intimidation, lack of understanding, and communication problems had developed between CVT personnel. This was compounded by the supervisor's frustration over the problems being encountered and supervision's desire to make a good first impression with Shell. Randy Ridgeway told the CVT crew "Don't stop unless it's broken". The one tool that was causing the most problems was the bail stabilizer associated with Frank's filler tool equipment that was suspended below the blocks. This stabilizer is a one size fits all and was much longer than it needed to be for this operation. The filler tool equipment, mainly the bail stabilizer, had to be rotated from its normal and preferred operational position during rig up to allow for needed clearances. The operator of the filler tool allowed the H&P Rig Manager and CVT supervision to manipulate and change the position of the bail stabilizer without his direct involvement. The filler tool bail stabilizer was much larger than needed, and Frank's does not have a smaller bail stabilizer available nor was there any attempt made to modify the oversized bail stabilizer that was used. The bail stabilizer is not specialized equipment and could have simply been shortened with a cutting torch to reduce the hazard. The tong operator for CVT, a rig hand for H&P, and the deceased had a conversation during rig up concerning the removal of the fold down step attached to the stabbing basket, thus allowing for more clearance between the blocks, bail stabilizer, and stabbing board. The removal of this step would have provided an additional 1.5 to 2 inches of clearance. The deceased decided not to take the fold down step off.

### **The Accident:**

After rig-up and after all adjustments that could be made had been made to allow for as much clearance between H&P blocks and the associated equipment of Frank's and CVT, the Rig Manager and CVT supervisor on the rig floor agreed that they could live with the existing clearances. The running of the casing ensued. At one point prior to the accident, an air hose was snagged, hung up and broken due to clearance problems. Twenty-one joints of casing were run in the hole. As the twenty-second stand was being drug through the V door, just prior to it being lifted vertically, the bail stabilizer



associated with Frank's filler tool equipment hooked the bottom of the stabbing basket. The bail stabilizer made contact with the bottom of the stabbing board just past the angle iron attachment point of the fold down step. The deceased immediately started yelling for the driller to stop raising the blocks. Within a few seconds, the entire crew working the floor was yelling at the driller to stop. The driller neither saw contact being made nor did he hear the crew yelling for him to stop.

After the bail stabilizer hooked the bottom of the stabbing basket, its continued upward movement carried the stabbing basket up its rail guides. The deceased was wearing a full body harness tied off to the back of the derrick with a double shock absorbing lanyard system, all part of the fall protection system that he was required to wear. As the stabbing basket was raised by the rig's draw works system, the deceased's safety lanyards became pinned between the inside of the derrick and the guide rails of the stabbing basket. Initially, as the basket was raised, the shock absorbing lanyards extended. However, the extension limits were quickly reached and the nylon lanyards attached to the full body harness tightened as the deceased was further raised. The draw works continued to raise the stabbing basket and the deceased's safety harness and lanyards forced him down and into the left rear corner of the basket, pinning, trapping and crushing him into the basket itself. At some point the bail stabilizer slipped and dislodged from the bottom of the stabbing basket. With nothing holding the basket, the basket fell, shock loading and breaking its lifting cable on the way down. It is unclear whether the basket was ripped out of the top rail guides, or if it traveled back down the rail guides until it hit the bottom of the rail guides, broke out of the guides, and continued until it hit the rig floor. Physical evidence suggests the latter. The driller now realizing that something was wrong, stopped the upward movement of the draw works.

As the stabbing basket fell, the deceased came out of the top of the basket and fell approximately 15-20 feet. His fall protection equipment arrested his fall before he hit the rig floor. However, this was a fall of considerable distance without the assistance of the shock absorbing lanyards, as they had already been fully extended prior to his fall. To compound the fall, the deceased fell in a pendulum motion slamming the left side of his body against the derrick as he came to the end of the fall. Rescuers attached the rig air hoist to his body harness, disconnected his lanyards and left them in place, and lowered him to the rig floor. Once he reached the rig floor, the deceased was placed in a Stokes stretcher and taken to ground level via the rig steps. Once on the ground, Randy Ridgeway had him sit up and get into the front seat of his pickup with the intention of meeting the ambulance that had already been dispatched or transporting to

the Pinedale Clinic if needed. The deceased could not stand this position, so he was placed back in the stretcher. Then Randy wanted him placed in the back of his pickup to transport. This was abandoned and the deceased was taken to the Rig Manager's Office to wait for the ambulance. Air Idaho Rescue was initially requested to go to the scene, then diverted to Pinedale Clinic. The Pinedale Ambulance was dispatched at 14:41, enroute by 14:47, arrived on location at 15:21, and delivered the deceased to the Pinedale Clinic at 15:55. While at the clinic, a chest tube was inserted and a large amount of blood was evacuated to relieve tension pneumothorax involving the left lung. He was also given morphine for pain. At 16:43 care was taken over by Air Idaho Rescue. During the flight, at 17:16, the deceased lost consciousness, developed bradycardia, and CPR was initiated. Continued efforts at resuscitation at Eastern Idaho Regional Medical Center emergency room were unsuccessful. Harvey Montoya was pronounced dead at 17:50 on August 6<sup>th</sup>, 2002.

#### **Findings:**

- The deceased was 39 years old.
- The deceased was initially hired by CVT on March 24, 1998.
- CVT could not provide any proof of required documentation of fall protection training for its personnel.
- CVT working with split crew.
- CVT had 8 employees on site.
- Four CVT crewmembers were from California. With the exception of Rusty Davis, who had flown into the area, all the others had driven directly to the location from California.
- The other four CVT members were from Evanston.
- The two CVT crews had never worked together.
- This was the first job for the Evanston crew as CVT.
- This was the first time that the Evanston CVT crew had worked with CVT equipment.
- CVT equipment used on site is larger in dimension than some of its competitors.
- CVT stabbing board equipment is shop made in their shop.
- Deceased was working under the direct supervision of Randy Ridgeway, Evanston District Manager, at the time of the accident.
- CVT was hired as a subcontractor by Shell.
- The Evanston part of the casing crew was required to attend Shell's Rig Orientation Safety Training, the California segment of the crew was not.
- Shell has what they call an SSE process. SSE stands for Short Service Employee

Process. Contractor personnel with less than six (6) months in the same job type or with his/her present employer shall be considered a Short Service Employee (SSE).

1. This was the first casing job the Evanston CVT crew had performed while working for CVT.
  2. This was the first casing job the Evanston crew had performed using CVT equipment
  3. This was the first job the Evanston CVT crew had done for Shell.
  4. This was the first job the Evanston CVT crew had performed on an H&P Flex Rig.
- Prior to work starting on the morning of 8/6/02, a safety meeting was held with all members of all companies involved with the upcoming casing operation with the exception of H&P's driller, Todd Goodon, who was not yet on location.
  - During this safety meeting, concern was expressed with the size of the tools being used on this smaller rig, and the limited clearances and workspace this would create on the rig floor.
  - The concerns were answered with "We will just have to be careful".
  - Concerns were expressed during this meeting that CVT had no written JSA or SOP's for the upcoming operations as were required by Shell of the other companies on site.
  - H&P expressed concern to Shell in that they were not comfortable with CVT.
  - H&P rig manager stated in his interview that he had worked with Randy Ridgeway when he was supervising casing crews for another company. He said that he was satisfied with the crew's performance but not with Randy's safety attitude. He stated that he felt that Randy was always "In a hurry and a rush".
  - It was brought up during interviews that a safety requirement variance was issued to CVT by Shell for this job.
  - When the question was asked about why this variance was issued, the response was no one else was available at the time.
  - A brief JSA was written on the back of a Shell safety pamphlet during the meeting. \* Note: This pamphlet could not be accounted for.
  - This was the first job given to CVT by Shell and CVT and its supervisors were eager to make a good impression.
  - All of CVT's equipment was safety inspected by H&P safety personnel prior to its attachment to H&P equipment. \*Note: H&P safety personnel did not ask to see certification documentation of shop made equipment used for overhead work.
  - During rig up, compatibility (clearance) problems were encountered between

CVT, Frank's, and H&P equipment due to the size of the tools versus the smaller rig floor and working space discussed at the safety meeting. The decision was made by all involved to make it work.

- With the problems that were encountered, normal rig up time was greatly exceeded.
- Rig up problems were compounded by the unfamiliarity of some members of the mixed crew fielded by CVT, (at least with CVT equipment) which was supervised by Randy Ridgeway of Evanston.
- Interviews with other rig personnel indicated that tension, friction, intimidation, lack of understanding, and communication problems had developed between CVT personnel. This was compounded by the supervisor's frustration over the problems being encountered and supervision's desire to make a good first impression with Shell.
- One air hose had been snagged, hung up and broken, due to clearance problems prior to the accident.
- CVT supervisor on the rig floor shouted to the crew "Don't stop unless it's broken".
- The filler tool equipment supplied and operated by Frank's are supported and suspended over the rig floor by the blocks of H&P's rig.
- The filler tool equipment of Frank's is a one size fits all with no compensation allowed for the smaller rig.
- The filler tool bail stabilizer had to be rotated from its normal and preferred operational position during rig up to allow for needed clearances.
- Frank's operator of the filler tool allowed the H&P rig manager and CVT supervision to manipulate and change the position of the filler tool bail stabilizer without his direct involvement.
- The filler tool bail stabilizer was much larger than needed, and Frank's does not have a smaller bail stabilizer available nor was there any attempt made to modify the oversized bail stabilizer that was used.
- The bail stabilizer is not specialized equipment and could have been simply shortened with a cutting torch to reduce the hazard.
- The tong operator for CVT and the deceased had a discussion during rig up about removing the fold down step that is attached to the stabbing basket to allow an additional 1.5 to 2 inches of clearance.
- The deceased declined to remove the folding step and thus gain the additional clearance.
- The angle iron of the folding step was a point of contact between the stabbing

basket and the bail stabilizer.

- During rig-up, after all adjustments that could be made had been made to allow for as much clearance between the H&P blocks and the associated equipment of Frank's and CVT, the rig manager and CVT supervisor on the rig floor agreed that they could live with the existing clearances.
- The bail stabilizer holding the filler tool equipment were what made contact with the stabbing basket resulting in the fatality.
- The driller did not see the bail stabilizer make contact with the stabbing basket.
- The driller never went out on the rig floor to personally observe the clearances in question.
- The design of new Flex Rig has the driller in an enclosed, sound proof, climate controlled room with limited visibility through a heavy glass window.
- Driller is isolated from rig floor crew and rig floor operations.
- From his operating station, the driller, in best of conditions due to his view being blocked by equipment, can only see the hands of the man in the stabbing basket.
- Driller was distracted by:
  1. Showing Filler Tool Operator how and when to turn on the pumps which are controlled from the driller's touch screen control panel. The Filler Tool Operator was working over driller's left shoulder.
  2. Relief Casing Crew Stabber had just climbed up the inside of the A leg to relieve the deceased just immediately prior to the accident. H&P policy is this practice is not allowed while the blocks are in operation.
- Intercom system on drilling floor was not working and had not worked since initial rig up on this location.
- When asked about the intercom system being nonoperational, the driller stated, "The intercom hadn't worked and was an old issue and I did not want to push".
- The supervisor for CVT knew that the intercom system on the drilling floor was broken but did not inform his crew. The only communications between the men on the rig floor and the driller were hand signals.
- The CVT crew on the rig floor had previous problems getting the driller's attention prior to the accident, however they thought he could hear them.
- The insulated door between the rig floor and the driller's station had remained open during rig up so some viable communications could pass, but after crew began running casing the door was closed.
- Driller stated that everyone assumed that he knew that the clearances were close but no one ever told him directly. \*Note: His not being at the safety meeting that morning compounded this.

- CVT Safety Program requires the following: “ When operating or working off platform be sure to tie off safety lanyards to derrick DO NOT TIE OFF TO PERSONAL BASKET. Tie off with enough travel to reach length of travel of stabbing board”.
- The deceased was required to wear full body harness with double shock absorbing lanyard as fall protection.
- Tear away on shock absorbing lanyards start to activate at 450 pounds of force each.
- After the accident, the deceased was suspended in his harness until rescued.
- The fall protection equipment kept deceased from falling to rig floor.
- Rescuers climbed up to deceased from inside derrick, hooked him to the air tigger line, unhooked his lanyard (leaving it attached to the rig) and lowered him to the rig floor.
- Rescue crew found deceased’s dual lanyards clipped hook to hook around the derrick iron.
- Deceased was placed in a metal Stokes stretcher and removed from the rig floor via the stairway.
- After getting to ground level, Randy Ridgeway had deceased sit up and placed him in the front seat of his pickup with the idea of transporting him to the Pinedale Clinic or going to meet the ambulance.
- Deceased could not stand this position so he was placed back in the stretcher, after which Randy wanted him placed in the back of his pickup to transport. This was abandoned and deceased was taken to the Rig Manager’s Office to wait for the ambulance.
- Air Idaho Rescue was initially requested to go to scene, then diverted to Pinedale Clinic.
- Pinedale Ambulance dispatched at 14:41
- Pinedale Ambulance enroute at 14:47
- Pinedale Ambulance arrived scene 15:21
- Pinedale Ambulance arrived Pinedale Clinic 15:55
- A chest tube was inserted and a large amount of blood was evacuated at Pinedale Clinic to relieve tension pneumothorax involving left lung. He was also given morphine for pain.
- At 16:43 care was taken over by Air Idaho Rescue.
- At 17:16, deceased lost consciousness developed bradycardia, and CPR was initiated.
- Continued efforts at resuscitation at Eastern Idaho Regional Medical Center

emergency room were unsuccessful.

- Harvey Montoya was pronounced dead at 17:50 on August 6<sup>th</sup>, 2002.
- Autopsy Findings:

1. Abrasion to back and chest with belt web marks.
2. Left clavicle fracture.
3. 8cm laceration of left lung.
4. Fracture at T4 with no separation of spinal cord.
5. Broken left ribs 3 and 4.
6. Coroner's note: " Surprising small amount of blood in body".

#### **Analysis & Conclusions:**

There are many significant factors that are related to this fatality:

- Close tolerances of related tools were unacceptable causing the bail stabilizer of Frank's filler tools to make contact with the stabbing basket of CVT as they were being raised by the draw works of the H&P drilling rig during the casing operation.
- No fall protection training was provided to the CVT crew.
  1. The deceased should have hooked his fall protection harness to an overhead retractable lanyard.
  2. There was no Safety Evaluation done concerning where and how the stabber was required by CVT's written safety program to hook his safety lanyard. The ramifications of a worst-case fall scenario were not evaluated.
  3. The deceased connected the hooks of his lanyards into each other, which is not an acceptable practice according to the manufacturer's recommendations. According to the manufacturer, by running one of the lanyard legs around the anchorage and connecting it to the second lanyard leg, you effectively have attached both lanyard legs to the anchorage point (in other words both lanyard legs are running parallel to one another). When the lanyards are clipped together in this arrangement, the static force required to extend the energy-absorbing feature is twice what it would be if the lanyard were used in it's standard, recommended configuration. The force required to extend the

energy absorbing features will be 450 pounds minimum times 2, or 900 pounds minimum. The ANSI Z359.1-1992 fall protection system standards specifies that an energy-absorbing device not deploy under a static load until a load of at least 450 pounds is applied

In a dynamic loading situation, like a person free falling, the lanyard would limit the arresting forces to 900 pounds or less when used in a standard, recommended configuration. With the lanyard attached where the legs are parallel, the lanyard would limit the arresting force to 1800 pounds or less (or 900 pounds times 2).

This reflects the lack of fall protection training.

- Safety attitude of CVT supervisor, tension, lack of communication, and intimidation.
- Possible fatigue of certain members of the CVT crew due to extensive travel just prior to the accident.
- Unfamiliarity of CVT crew with this type of rig.
- The intercom communication system was not working on the rig floor.
- CVT supervisor did not inform all the members of his crew that the intercom on the rig floor was not working.
- The Driller was not at the Pre-Tower Safety Meeting.
- The Rig Manager for H&P did not brief the driller on what was discussed at the safety meeting that he missed.
- The Rig Manager did not make sure that the driller knew of the close tolerances that he would be operating with.
- Isolation of the driller on this technologically advanced drill rig.
- Limited vision of the driller.
- Operator error on the part of the driller:
  1. Driller should have checked and observed that the operating clearances were tight.
  2. Driller should have opened the door of the operator station so some voice communication from the floor could have been heard.
  3. Driller allowed himself to be distracted by other activity in the operator's station, which caused him not to notice the contact with the stabbing basket.
- The driller may have been distracted by the relief stabber climbing up the inside of the derrick to relieve the deceased, or the actions of the Filler Tool Operator working over his left shoulder turning pumps on and off from the driller's touch screen computer control panel. The operator's station of this technologically advanced rig resembles a cocoon environment. The operator of this rig is enclosed in an environmentally controlled and sound proofed room. A very thick



glass windshield, that he views the rig floor through, limits his vision. His hearing is limited to what he hears through an open intercom system from the rig floor. The intercom was not working and had not worked since the rig was set up on this hole (five weeks). The casing crew supervisor knew that the intercom was not working but he did not inform his crew of this fact. The casing crew had previous problems getting the driller's attention on numerous occasions prior to the accident, but attributed it to his not paying attention to them or being distracted by the Filler Tool Operator. They did not know that he could not hear them and was operating from their hand signals only.

- The use of oversized tools on this smaller rig floor, especially the bail stabilizer of Frank's filler tool equipment.
- Operator of Frank's filler tool equipment left the positioning of his bail stabilizers to CVT and H&B. He lost track of the position of his equipment.
- The bail stabilizers were much larger than needed.
- No attempt was made by Frank's to use smaller bail stabilizers or modify the ones used.

### **Recommendations**


- Establish policy that a detailed Job Safety Analysis (JSA) is done prior to starting any job.
- More training in the recognition and evaluation of potential hazards.
- Train personnel to do a new hazard assessment when plans are changed.
- Discourage the practice of employee intimidation.
- Ensure that all personnel required to use fall protection equipment are properly trained.
- Provide a pre-work indoctrination to all personnel working on these technologically advanced rigs, especially the isolation factor of the driller.
- Retractable lanyards should be used for this application.
- The driller's vision and communication needs improvement. Closed circuit cameras would improve his vision of the rig floor and direct two-way communication between the stabber and the driller would greatly improve communications between the two.
- Reevaluate the use of the stabbing basket. There must be a better way to reduce the hazards to the stabber; even with the old stabbing board he had a place to escape.
- Discourage any activity that could distract the driller.
- Brief all employees on the facts and circumstances of this accident.

This report, together with its incorporated findings, relate specifically to this particular incident. The employer and employees continue to have the responsibility for inspection and investigation towards compliance with safe operating practices as outlined in the applicable rules and regulations.

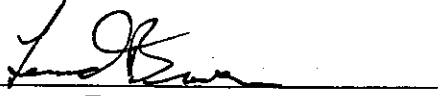
The above investigation and findings of the accident occurring to:

Harvey Montoya  
1240 North Milo  
Porterville, California 93257

Is set down and attested to this date:

  
\_\_\_\_\_  
John R. Watterson  
Safety Compliance Officer

Date: 11/6/02

  
\_\_\_\_\_  
Lenny Brewer  
Safety Compliance Officer

Date: 11-12-02