



# WELL RESCUE: GREAT NECK, NEW YORK

BY RAY DOWNEY

It was a day just like any other for a group of Great Neck, New York, high school students on their lunch break, except that on this day—March 3, 1992—they decided to take a new shortcut across a vacant lot, where a house had stood a week before. During the house's demolition, someone discovered an open well and placed

an old door over its opening. Friends walking with 15-year-old student Robert Levine said that while attempting to move the heavy old door covering the well, Levine suddenly disappeared. The teenager had fallen feet-first into an abandoned well and landed at the bottom—60 feet below grade. The well was 24 feet from the curb and of all-brick construction.

Levine's fellow students ran for help, immediately notifying firefighters from the Great Neck (NY) Alert Volunteer Fire Department. Great Neck, a suburban community contiguous to the borough of Queens in New York City, is protected by two separate volunteer fire departments—the Great Neck Alerts and the Great Neck Vigilants—who often work together and provide mutual aid to each other and other nearby communities.

#### OPERATIONS

Ex-Chief Anthony Rypka (Great

Neck Alerts) arrived on the scene first and started to gather available resources and personnel. Ex-Chief Lee Ielpi (Great Neck Vigilants) arrived soon thereafter and made verbal contact with the victim, informing him that help was on the scene and reassuring him that he would be successfully rescued from the well. Great Neck Alerts Chief Richard Faraci arrived and assumed command of the incident. He assigned Ielpi, an experienced veteran of the fire service, the duties of operational adviser. In formulating his operational plan, Faraci had a number of considerations to address:

- How deep was the well?
- What was the victim's physical and mental condition?
- What was the oxygen level in the well?
- Were there any toxins, chemicals, or other hazards in the well?
- Was there water at the bottom of

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Photos by Michael Penchina.

the well, and if so, was it affecting the victim, how deep was it, and was it moving?

- What was the condition of the ground area surrounding the well?
- How close to the well could apparatus be positioned?
- What was the condition of the

interior lining of the well?

- What types of equipment/tools/apparatus would be needed at the scene?
- Who would be lowered into the well for the rescue—and how?
- How would the victim be removed?

Fortunately, the immediate response of numerous department members, as well as members' experience, dedication, and training, would help answer many of these questions and be the key to successfully rescuing Levine.

Because of the condition of the ground area surrounding the well, command decided to limit the number of workers at the well opening. This safety move would limit the possibilities of collapse of the wall lining and of knocking soil, debris, tools, or equipment into the hole and onto the victim.

Ielpi informed Levine that he would be lowering a helmet for his protection and a portable radio for communications while rescue efforts were underway. Because of the severity of the victim's injuries, however, he was unable to use the helmet.

Ielpi continued his verbal communications with the victim. Remember that maintaining verbal contact is the first and longest-lasting victim treatment.

First Assistant Chief George Motchkavitz was designated as the rescuer who would be lowered to the victim. Motchkavitz, an EMT and experienced firefighter, was secured in a fireman's rescue knot (bowline on a bite with half-hitch at the chest) in preparation for being lowered. Extreme care was taken in preparing Motchkavitz for descent.

Meanwhile, an aerial ladder was positioned strategically as close as safely possible to the well, with a bed ladder extended over the well opening; it would be used to provide a lowering point for the hauling system used in the rescue operation. The work area was secured for rescue workers only, lighting was provided at the opening, a backup team was staged, all rescue equipment and ropes were double-checked for safety, and medical personnel were staged, with the Vigilants ambulance standing by for transport. AEMT Joel Rosenzweig was positioned at the well opening and was designated medical liaison, and Lieutenant Raymond Hoey was medical equipment coordi-

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nator, Captain Kevin Petersen gathered information (a vital component of every rescue operation).

After evaluating and assessing the situation, Faraci and Motchkavitz decided on an operational plan for the rescue. Firefighter Michael Penchina, experienced in rope rescue operations, was designated as the control (lowering) person for Motchkavitz. Penchina, using a rescue life belt harness, secured himself and the assembly to a large tree, which would serve as the anchoring point.

The interior dimensions of the well—approximately 32 inches in diameter—dictated lowering only a single rescuer. A snatch block was secured to the rung of the aerial ladder and centered over the hole and would facilitate directional change for the lowering operation and rope protection. On a prearranged signal, Penchina would begin lowering Motchkavitz into the well. Close coordination and communications among the rescuer, operations adviser, control person, and incident commander would be essential to ensure a safe and smooth descent into the well.

It now had been at least 15 minutes since fire department arrival. Prior to commencing the lowering operation, Ielpi again made contact with the victim, who was fully conscious and lucid. He indicated that he was able to

breathe without difficulty, had not noticed any unusual odors, and was experiencing severe pain from injuries received as a result of the 60-foot fall. Since donning an SCBA assembly would have negated the rescuer's ability to effect a rescue in such a tight space and since both an oxygen meter and an in-line breathing system were unavailable, Faraci and Ielpi formulated a plan to facilitate an air breathing system if the circumstances dictated. With safety precautions addressed to the greatest possible extent, the lowering operation was begun.

As Motchkavitz was nearing the victim's location, he noticed the size of the well narrowed. The well opening was 32 inches at the top but 28 inches at the bottom. While the numerical difference doesn't appear to be large, it can have a dramatic impact on rescue operations taking place in such a limited working space. The lowering had to be done with extreme caution so the lowering person would not lose control, possibly injuring the rescuer or further injuring the victim. Communications were essential.

### REACHING THE VICTIM

Motchkavitz made physical contact with the victim, and after reassuring him that they both would be successfully removed from the well, began a medical evaluation. Levine was in the fetal sitting position. He complained of numbness in his legs, back pain, and

pain in his right arm and leg. He had multiple abrasions and contusions and possible head and neck injuries. Because of the victim's position and the possibility that he had been seriously injured, Motchkavitz had to use extreme caution. The narrow working space eliminated the option of using a rescue basket or stokes stretcher. Relying on his experience and background as an EMT, he decided the safest possible means of securing the victim and protecting him from further injury would be to use a KED™, or Kendrick extrication device.

Motchkavitz informed the other rescuers that the air was breathable and that there did not appear to be any noticeable hazardous or toxic fumes. He also stated that safely securing the victim in the KED™ would require extra time because of the size of the hole and position of the victim. During the entire rescue operation, it continually was reinforced that the firefighter in control of the lowering procedure would have to maintain a secure hold on the rescuer. The procedure used allowed the lowering person to maintain the rescuer's position with relative ease.

Motchkavitz reported that on reaching the bottom of the well and after assessing the victim and the surrounding area, he felt a crack—a hollow area of unknown depth beneath the victim and rescuer. Could the well continue down farther? One



Fire department personnel monitor operations in the well as the rescuer provides medical support to and packages the victim. The lowering system employed allowed the lowering person, anchored to a tree, to control the descent of the rescuer and hold him in position with relative ease.

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of the first actions Motchkavitz took was to call for a rescue rope from above and secure the victim should conditions at the bottom unexpectedly change.

The victim's condition was a primary concern of the chief. Motchkavitz applied a cervical collar to the victim before beginning the difficult task of strapping him into the KED™. Assured that the victim was safely strapped in, the chief readied the victim for removal using a fireman's rescue knot. Using the KED™ and the fireman's rescue knot ensured that the victim

would experience minimal discomfort while being hauled up and out of the well.

Again, communications would be essential during the removal operation. Motchkavitz relayed instructions to the rescuers at the top of the well, and both victim and chief were hauled up and out. The victim carefully was removed from the hauling system, placed on a long board, and given immediate medical attention.

An extremely well-coordinated rescue operation successfully was completed through the efforts of 40 Great Neck volunteer firefighters. The entire operation lasted just under one hour, with Motchkavitz spending

nearly 45 minutes safely securing the victim.

### KEYS TO SUCCESS

What were some ingredients that made such an extraordinary and extremely difficult rescue a success?

- Communications—among rescuers and with the victim.
- Coordination—above and below.
- An effective management system; maintaining a strong command function.
- Defining a strategy beforehand.
- Assigning and delegating duties, including operations/safety adviser, scene information officer, and medical support.
- Securing the work area.
- Providing the safest possible work environment, including frequent safety checks.
- Employing a lowering system to maximize control of rescuer and victim, once secured.
- A slow and careful technique to secure the injured victim.
- Utilizing the resources at hand.
- Mutual aid between companies.
- Backup rescuers, equipment, tools, and ropes; all positions filled by backup personnel.

These and other "lessons reinforced" were included in a department critique of this operation. In addition to the importance of rescuers utilizing resources at hand to the best of their ability, the reliance on specialized equipment in rescue situations was noted. The need for additional equipment to enhance safety and efficiency at similar types of incidents is an important department objective. Proper equipment should be seen as a means to satisfy standards intended to increase rescuer safety. Remember, however, that training, experience, and ingenuity are the most vital ingredients to the successful conclusion of a rescue incident.

As Robert Levine recovers, we salute Chief Faraci and all of the Great Neck volunteer firefighters for their efforts in making this rescue a success and, in particular, First Assistant Chief Motchkavitz for his heroism under extraordinary conditions. ■



About an hour after department arrival, rescuer and victim emerged from the well, and the victim was handed over to awaiting medical personnel staged at the scene.