McElligott Consulting

Report of Release
and
Interim Remedial Actions Report
for
Diesel Fuel Release
located at:

FCI DUBLIN
Federal Correctional Institution
5701 8th st - Camp Parks
Dublin, CA

Prepared for

Federal Correctional Institution
Dublin, California

FCI DUBLIN
Federal Correctional Institution
5701 8th st - Camp Parks
Dublin, CA 94568

by
McElligott Consulting
June 10, 2008

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1.0 Introduction

The Federal Correctional Institution – Dublin (FCI-Dublin) retained Marcor Remediation, Inc. (Marcor) and its subcontractor, McElligott Consulting, to respond to a release of diesel fuel from the facility's backup emergency generator building located on the south west side of complex. This report summarizes the release and the interim remedial actions performed by FCI-Dublin staff and Marcor personnel, as well as providing site specific information to inform decision making on the next actions to take.

This report also serves as the facility's request for contamination site oversight from the Alameda County Health Care Services Agency – Environmental Cleanup Oversight Programs. A fee deposit for this service in the amount of $6,000 has been made (June 10, 2008) by Marcor on behalf of FCI Dublin.

Project Contacts

The following persons are involved in this project:

Name	Title	Project Roll	Phone(s)	Address
Mr. Mike Goldstein	Safety Manager/Recruiter	Facility Responsible Party	925-833-7500 x387	FCI-Dublin 5701 8th Street Dublin, CA 94568
Noah Ceteras	Project Manager	Project Manager	Ph: 925-307-1500 Fax: 925-307-1510 Noah cell: 510-376-7765	MARCOR Remediation, Inc 6644 Sierra Lane Dublin, CA 94568
Tony McElligott, P.E.	Consulting Engineer	Cleanup Consultant	510-207-4626	McElligott Consulting 41547 Chadbourne Drive, Fremont, CA 94539

Tab 1 contains location, topographic, and detail maps and diagrams of the site of release.

2.0 Background

FCI-Dublin is equipped with a emergency backup generator, and an associated 3,000 gallon capacity diesel fuel aboveground storage tank, located on the south west side of the facility. The system is housed in a concrete masonry unit (CMU) block building constructed on a concrete slab on grade. The building is set in a complex of buildings, adjacent to an assembly building (Q) to the north and a loading dock to the west. A low retaining wall extends along the north and west sides of the building, separating it from the higher ground to the north, sloping south.

The diesel engine and generator set is located in a separate room on the north end of the building. The engine is supplied via a day tank (about 40 gallons), that is in turn supplied by a recirculation pump connected to the main fuel storage tank.

Genset information:
Cummins Generator (HP: 675@1500 RPM & 760@1800 RPM)
Model #: VTA28GS1
Engine #: 37112179
Fuel consumption rate: 112 gal/hour (est at full load)

The genset is exercised periodically to ensure operation in the event of a power outage. During testing, the unit is run for about 30 minutes.

3.0 Summary of Release

During the routine generator testing on April 25, 2008, the day tank supplying the emergency backup generator overflowed into the generator room, and then through the door sill on the north and ventilation opening on the west side of the generator room. The diesel fuel then flowed along the asphalt walkway between the building on the north and west sides, some of which entered the cold joints between the building foundation and walkway and the retaining wall and walkway, and into the underlying soil. Some of the fuel flowed along the west walkway south to the driveway and to the loading dock to the west. Some fuel migrated through the aspalt paving, and some entered the storm water collection trench running parallel to the dock. No fuel was observed in the catch basin serving the dockwell.

FCI-Dublin personnel responded to the release immediately upon discovery, shutting down the genset and fuel pump, and began spill response operations by deploying absorbent material.

A time line of Marcor's emergency response is provided in Tab 2.

The overflow condition lasted for about 30 minutes. Based on an estimated refill pump flow rate of 220 gallons per hour (twice the full load fuel consumption rate of the genset), the amount released to the room and surroundings was about 100 gallons.

The root cause of the release is believed to be the failure of the flow switch of the emergency generator day tank to shutdown the refill pump. Due to the failure of the switch, the refill pump continued to pump diesel from the main 3,000-gallon storage tank located in the adjacent room of the emergency generator building and caused the day tank to overflow. Diesel escaped from the day tank through the cap vent hole and the tank vent pipe.

4.0 Interim Remedial Actions

MARCOR initially responded to a report of a diesel overflow at the FCI Dublin site on April 25, 2008. Diesel impacted asphalt and soil were removed during our emergency response. The spill originated at the facilities generator building and impacted soil around the building. Four feet of soil was removed from around the generator building, and digging around the building was stopped at the limit of the slab foundation to keeping the buildings structural integrity intact.

Additional soil was excavated along the north and west sides of the building in May. A small amount of soil was also removed from under the foundation on the north side, and in the trench on the north side to allow visual and olfactory inspection of the soil. In both locations (about 1 foot laterally under the foundation and to about six feet in the trench), diesel contamination was visible and fresh hydrocarbon odor present.

5.0 Findings

Approximately 100 bank (in place) cubic yards of soil and asphalt cover have been removed in the interim remedial action. Residual contamination exists along the north and west sides of the generator building. Based on observation (appearance and odor only, no analytical), the area south of the building extending to the loading dock well show no residual diesel contamination. This area was not as severely affected as the walkway area on the north and west sides of the building, where free product collected until absorbed with spill clean-up materials (Pig brand Lite Dri.)

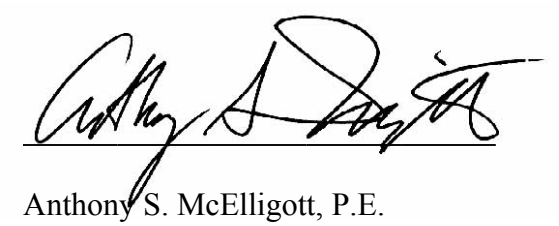
Potential impact to groundwater has not been established. The nearest site in LOP records (BAY COUNTIES PETROLEUM Case# : RO0002862 6310 Houston Pl, Dublin, CA 94568, approximately 4,900 feet to the south west, 13^{o} cross gradient) shows a groundwater elevation 327 ft amsl, with the ground surface at 335. The groundwater gradient was calculated to be 0.0024 ft/ft on April 23, 2008. If the gradient remains constant to the subject site, the estimated groundwater elevation is 339 ft amsl, for a depth to groundwater of about 21 feet. Complicating estimating depth to groundwater is the presence of a pond at the facility about 400 feet to the north east of the generator building. There is also an intermittent stream shown on the topographic map that flows just east of the generator building. Surface water at the site is managed in culverts and swales along the perimeter of the facility. A small dam is visible on the topographic map and satellite photo on Camp Parks property about 2,000 feet due north of the generator building.

6.0 Recommendations

The next step in this project is develop the Site Conceptual Model to guide the additional sampling and analysis and cleanup goals for this site. The primary goals of the SCM is to evaluate groundwater status (location, uses, impact), and appropriate cleanup levels for residual diesel fuel that may be underneath the slab foundation of the building.

7.0 Responsible Professionals

This Release and Interim Remedial Actions Report was prepared by:



Anthony S. McElligott, P.E.
(C040931 exp 3/31/09)
Principal
McElligott Consulting
June 10, 2008

Tab 1
FIGURES

Figure 1: FCI Dublin location Map (Google Satellite)

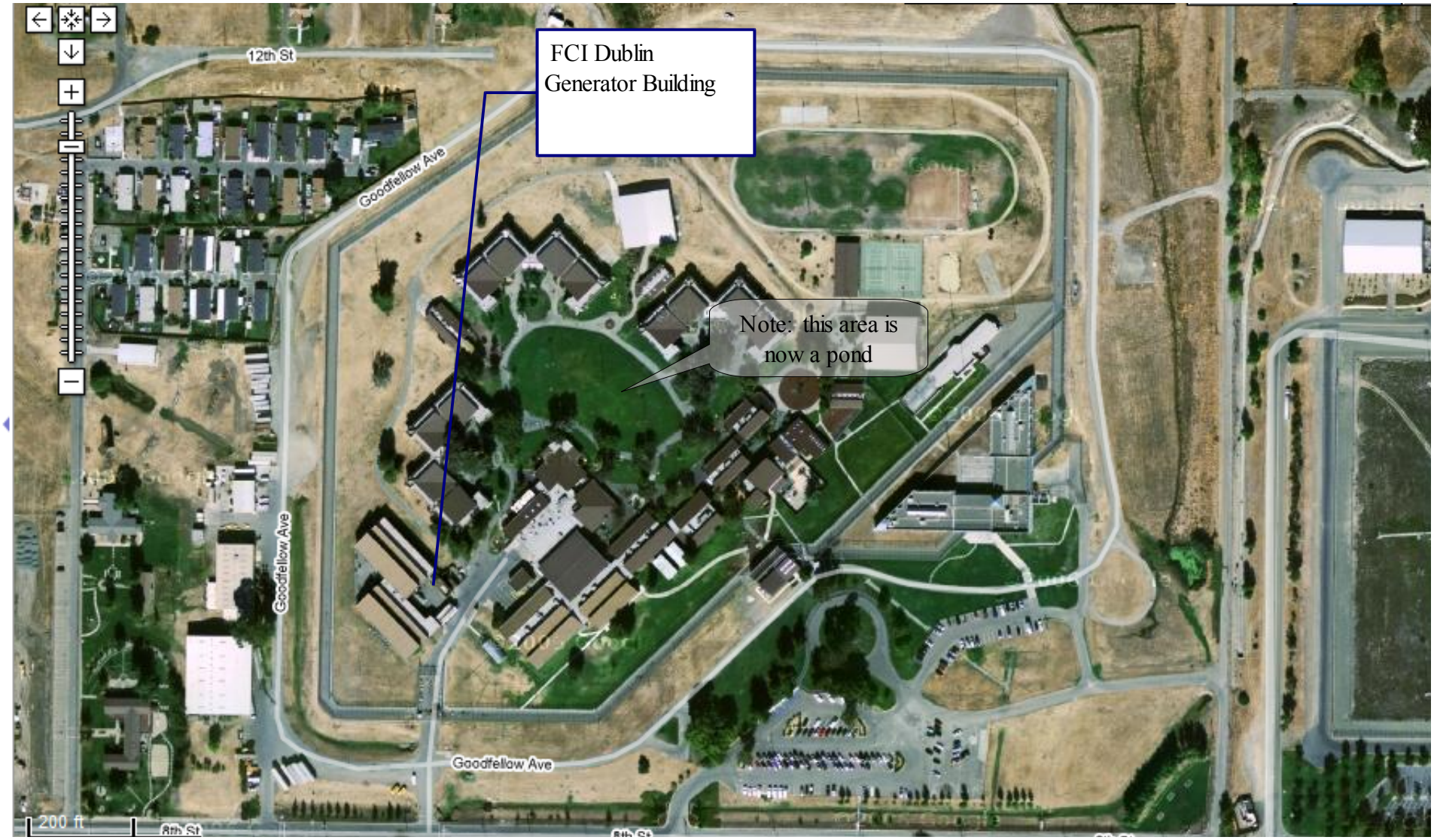


Figure 2: Facility Map, FCI Dublin

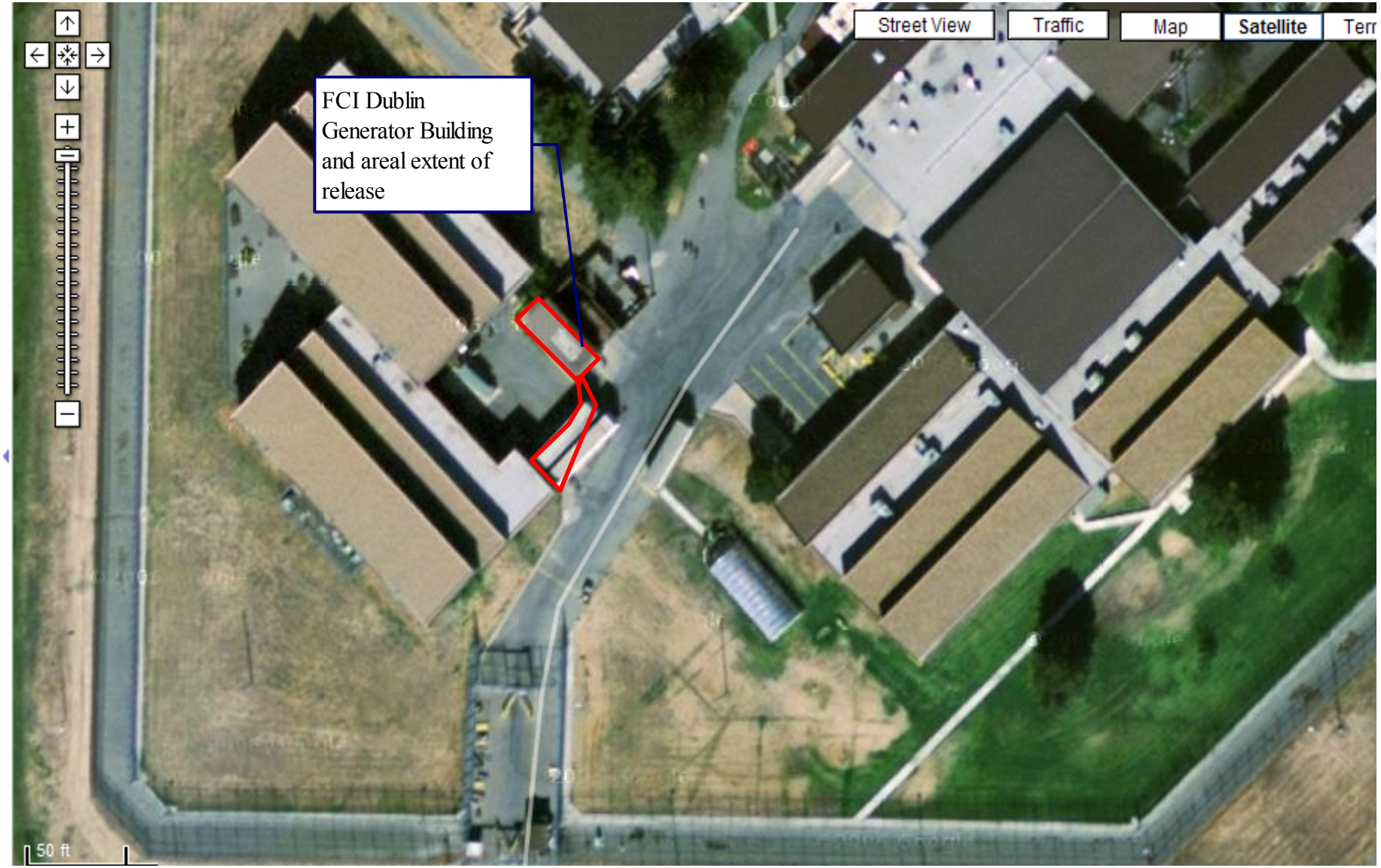


Figure 3: Site of Release, Generator Building, FCI Dublin

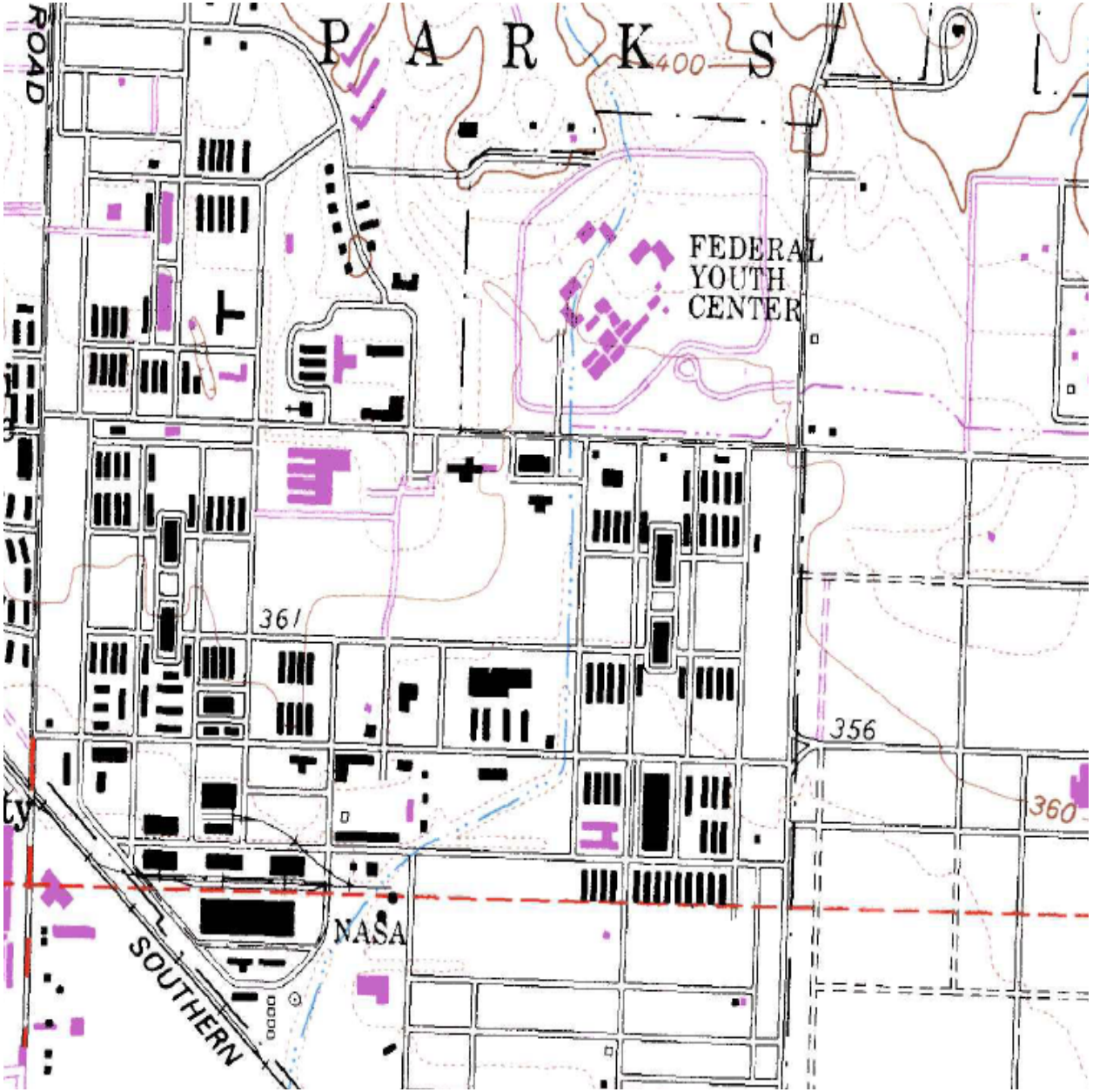


Figure 4: Topographic Map Detail, FCI Dublin and closest groundwater reference site. Release site is at approximately 360 ft amsl.

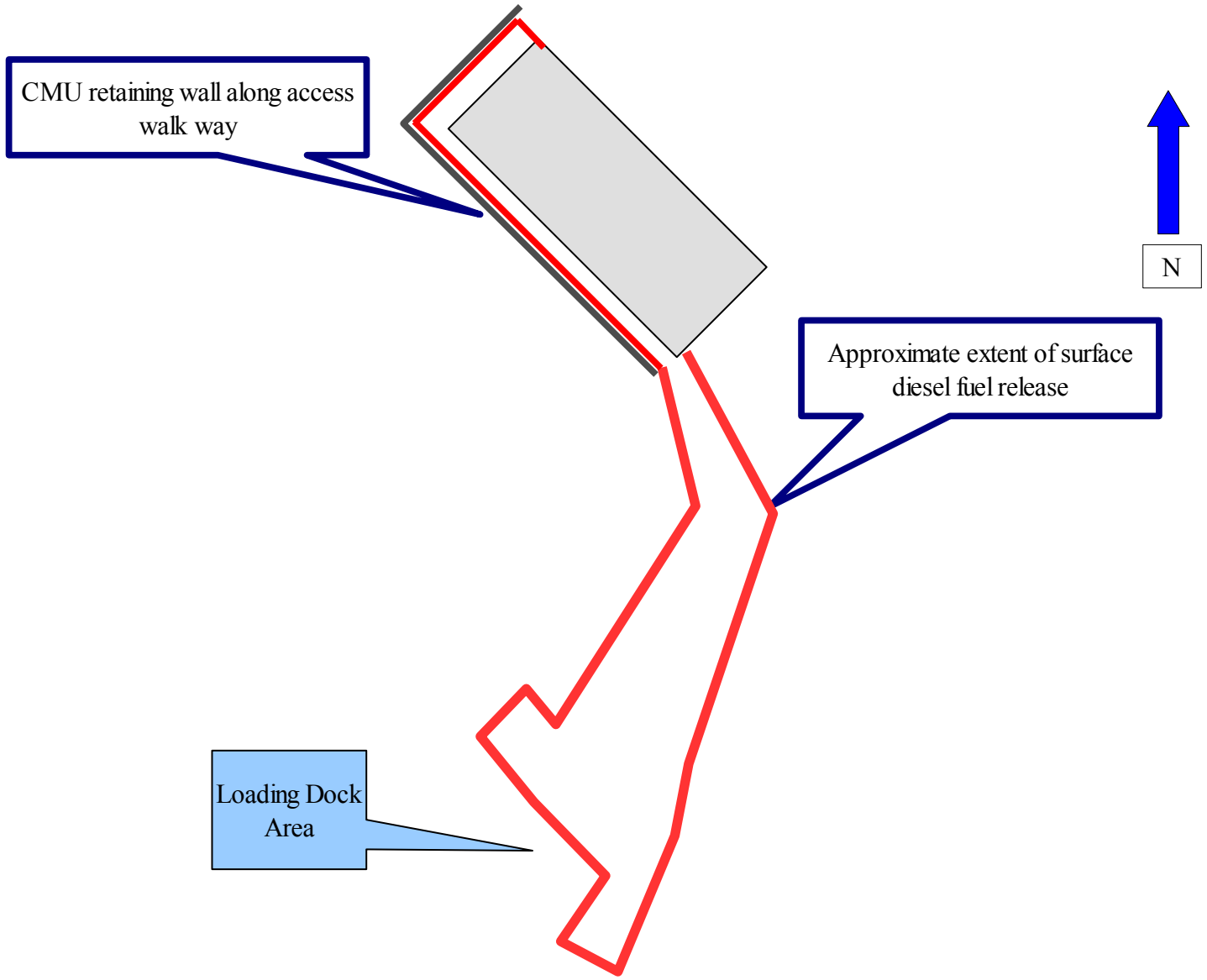


Figure 5: Detail sketch of area of release. Generator building (including storage tank) is 26 ft wide by 40 ft long
Approximate Scale: 1” = 20'

Tab – 2
Emergency Response Timeline

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800-888-9501
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CA License #736681

May 8, 2008

FCI Dublin/Emergency Diesel Spill Recap:

April 25, 2008:
*MARCOR is contacted by Mike Goldstein from FCI Dublin (Federal Correctional Institute) to respond to a diesel spill that had taken place earlier in the day from an above ground diesel storage tank that fed a back-up generator to the facility.
*Mr. Goldstein reported that an overflow valve became stuck after performing a routine check on the system. Mr. Goldstein estimated that approximately 100 gallons of diesel spilled out onto the surrounding grounds.
*MARCOR responded an hour later to assess the situation.
*At approximately 8PM MARCOR began mitigating the fuel spill by cutting out the surrounding asphalt that had been contaminated, and excavating the bare soil that had been impacted surrounding the back up generator shed.
*MARCOR placed all contaminated soil on 10-mil poly sheeting that was placed near the work site. The soil pile was demarcated with cones and caution tape and covered with poly. All gross removal (primarily diesel impacted asphalt) was performed into the early hours of the morning.

April 28, 2008:
*MARCOR re-mobilized to the site to perform additional hand digging and excavation around the contaminated areas. Additional areas of an asphalt walkway surrounding the generator building were excavated.

April 29, 2008:
*MARCOR continued cleaning the surrounding diesel impacted areas, using Simple Green to clean the generator pad and surrounding building components.

May 1, 2008:
*MARCOR completed cleaning of the surrounding areas when FCI Dublin personnel instructed MARCOR to stop work.

May 2, 2008:
*MARCOR personnel perform sampling of the diesel impacted soil debris piles for waste profiling.

May 5th, 2008:
*MARCOR received soil/debris sample results from TestAmerica indicating that the BTEX level was at 4100 PPM.

May 6th, 2008
*A site visit was performed by Robert Weston with the Alameda County Department of Environmental Health.
*ACDEH informed FCI Dublin personnel that additional excavation needed to be performed until they reached zero detection.

May 8th, 2008:
*MARCOR was contracted by FCI Dublin to re-mobilize to the site to perform soil excavation until a level of zero detection was accomplished.
*MARCOR began additional excavation.

May 9th, 2008:
*MARCOR plans to continue excavation and possibly complete by end of day.

Tab - 3
Photographs

Tab - 3
FCI Dublin Diesel Fuel Release Photos

Photo 1: FCI-Dublin Generator Building on right behind chain link gate enclosure. Loading dock well in center, main gate to left. View is to west.

Photo 2: Generator Building behind chain link gate enclosure. Building Q to right, main gate to left. View is to west southwest.

Photo 3: Day tank level sensor refill pump shutoff.

Photo 4: Day tank showing overlow to 55 gallon drum. Emergency response included deployment of absorbent.

Photo 5: Generator Building floor showing shallow pool of fuel before deployment of absorbent.

Photo 6: Generator Building, north side, access door on east end. Fuel collected against retaining wall. View is to the east.

Photo 7: Generator Building, north side. Fuel collected against retaining wall. View is to the southeast.

Photo 8: Generator Building, west side, fresh air ventilation wall penetration with screen in center of photo. Radiator of generator is visible through screen. View is to the east.

Photo 9: Building Q, south side; Generator Building is to left, showing walkway and low retaining wall. Fuel has flowed to the south along the wall. View is to the north.

Photo 10: Generator Building, south side. View is to the north.

Photo 11: Generator Building, south west corner. Fuel has flowed toward dockwell to west. View is to the northeast.

Photo 12: Loading dock and dockwell. View is to the north west.

Photo 13: Dock well storm water collection trench and catch basin. View is to the northwest, parallel to dock.

Photo 14: Dock well storm water catch basin. View is to the southwest, parallel to dock.

Photo 15: Dock well storm water catch basin detail. Pipe at top right corner conveys storm water from south trench segment to catch basin. Half-buried larger pipe at top center is catch basin connector to site storm water system. View is to south west.