District
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road Aztec, NM 87410
District IV
1220 S. St. Lyancis, Dr., Santa Fe, NIM 87505

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# State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 For drilling and production facilities, submit to appropriate NMOCD District Office For downstream facilities, submit to Santa Fe office

	anta Fe, NM 87505 on Orice and Tank Registration or Clo	
Is pit or below-grade tan	ik covered by a "general plan"? Yes [] I or below-grade tank 🖾 Closure of a pit or below-	No 🖾
acility or well name, Rock Queen Unit Tract 7Tank Battery API #		
it.	Below-grade tank	
<u>yne</u> Drilling □ Production □ Disposal □ Workover □ Emergency ⊠ med ⊠ Unlined □	Volumebbl Type of fluid Construction material Double-walled, with leak detection? Yes 🗌 If not, explain why not	
Liner type: None Thickness Unknown mit Clay  Pit Volume 2.000 bbl		
Tepth to ground water (vertical distance from bottom of pit to seasonal ligh water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	. (20 points) (10 points) (-0 points) <b>-0</b>
Fellhead protection area (Less than 200 feet from a private domestic ater source, or less than 1000 feet from all other water sources )	Yes No	(20 points) ( 0 points) 0
Distance to surface water (horizontal distance to all wetlands, playas, rigation, canals ditches, and perennial and ephemeral watercourses )	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) '( 0 points) <b>0</b>
· · · · · · · · · · · · · · · · · · ·	Ranking Score (Total Points)	()
this is a pit closure: (1) Attach a diagram of the facility showing the pit out are burying in place) onsite i offsite i If offsite, name of facility_ mediation start date and end date (4) Groundwater encountered. No i ) Attach soil sample results and a diagram of sample locations and excava Additional Comments. This registration is for information purposes only. This pit is out of service and a work plan for closure is being prepared.	(3) Attach a gene Yes I If yes, show depth below ground surface_ ations	ral description of remedial action taken includingft_ and attach sample results
hereby certify that the information above is true and complete to the bes as been/will be constructed or closed according to NMOCD guidelin	t of my knowledge and belief I further certify thes [], a general permit [], or an (attached) after	hat the above-described pit or below-grade tank evnative OC'D-approved plan []. See above 🛛
Date, <b>6-15-2007</b> Printed Name/Fitle <b>Bruce Woodard, Engineer</b> Your certification and NMOCD approval of this application/closure does wherwise endanger public health or the environment – Nor does it relieve	Signature	tents of the pit or tank contaminate ground water o rith any other federal, state, or local laws and/or
egulations. 	Signature_ENVIRONMENTAL E	
Printed Name/Title	Signature	RP# 1645



# Highlander Environmental Corp.

Midland, Texas

CERTIFIED MAIL RETURN RECIEPT NO. 7004 2510 0001 1869 0781

October 8, 2007

Mr. Larry Johnson Oil Conservation Division- District I 1625 N. French Drive Hobbs, New Mexico 88240



# RE: INVESTIGATION & CHARACTERIZATION WORK PLAN, CELERO ENERGY II, LP, ROCK QUEEN UNIT TRACT 7 TANK BATTERY, UNIT I, SECTION 22, T-13-S, R-31-E, CHAVES COUNTY, NEW MEXICO.

Mr. Johnson:

Celero Energy II, LP (Celero) has retained Highlander Environmental Corp. (Highlander) to address potential environmental concerns at the above-referenced site. In response, Highlander presents the following Investigation and Characterization Plan (ICP) for assessment and closure of an open pit.

# **BACKGROUND & PREVIOUS WORK**

Celero retained Highlander Environmental (Highlander) of Midland, Texas to investigate this site as part of a due diligence in an acquisition of property operated by Palisades Asset Holding Company, LLC (Palisades). This production was originally developed in the mid-1950's. The primary surface owner in this Unit is the State of New Mexico, with the exception of one section of fee ownership. The site is shown on Figures 1 and 2.

## Hydrology

Chaves County is located in the southeastern corner of New Mexico. The area is located in the High Plains Valley section of the Great Plains physiographic province. Rocks of Quaternary, Tertiary, and Triassic age are exposed and contain the principal aquifers. The most prominent aquifer is the Ogallala formation, which underlies the Llano Estacado and forms outliers south of it. Below the Cenozoic rocks are sandstones and shales of the Dockum group of Late Triassic age, from which small quantities of water are obtained. No usable groundwater is obtained from rocks older than the Triassic.

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The Ogallala formation consists chiefly of sediments deposited by streams that had their headwaters in the mountainous regions to the west and northwest. The Ogallala formation rests unconformably upon an erosional surface of the underlying Triassic and Cretaceous rocks. The Ogallala is made of beds and lenses of clay, silt, sand, and gravel. Caliche occurs as a secondary deposit in many places in the formation.

Uncontaminated water from the Ogallala formation is high in silica (49 to 73 ppm), and contains moderate concentrations of calcium and magnesium. The dissolved solids content is relatively low, being typically less than 1,100 ppm. Water wells east of Mescalero Ridge derive their water from the Ogallala. The reported depth to groundwater in this area ranges from 100' to 200'. Water wells west of Mescalero Ridge derive water from the Triassic Dockum or Quaternary alluvium. No reported depths to groundwater were found for this area.

#### Regulatory

Neither the New Mexico State Engineer's Office database nor the USGS database show any wells in Section 22, Township 13 South, Range 31 East. Monitor wells installed near this site had depths to groundwater of greater than 100'. A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

#### Task 1 - Dewater Pit

The Tract 7 Tank Battery pit is currently being dewatered. The residual sludge, tank bottom materials and liner will be removed. The fluids will be placed into an existing SWD system or taken to disposal, while the sludge, tank bottom materials and liner will be disposed of at the Gandy-Marley, Inc. landfill site in Lovington, New Mexico.

### Task 2 - Evaluate Concentrations of Constituents of Concern in Soil

Upon completion of the removal of the fluids, sludge and liner, the underlying soils will be visually inspected for obvious signs of impact. Any soils excavated will be hauled to Gandy-Marley, Inc. for disposal. If necessary, the pit will be excavated to a point where the subsoil will support a soil boring rig that will be utilized to determine vertical extents. Additionally, soil boring may be performed around the perimeter of the pits to determine horizontal extents of impact. The information gathered will be required at the Site. A copy of the NMOCD C-144 Pit Registration Form is attached.

## Task 3 – Groundwater Investigation/Closure Plan Preparation

Once Task 2 is completed, if the data indicates the potential for groundwater impact, one monitoring well will be installed at the site to evaluate groundwater. A pit closure plan will be presented to the NMOCD for this site.

Should you have any questions, please contact me at (432) 682-4559. Your prompt review of this submission is appreciated. Thank you for your attention to this matter.

Highlander Environmental Corp.

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Timothy M. Reed, P.G. Vice President

cc: Wayne Price - NMOCD, Santa Fe





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