

District I
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 Francis Dr, Santa Fe, NM 87505

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

Form C-144
March 12, 2004

OCT 31 2007
OCD-ARTESIA

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

SEP 10 2007
OCD-ARTESIA

Operator: **Marbob Energy Corporation**

Telephone **505-748-3303**

e-mail address **land2@marbob.com**

Address **PO Box 227, Artesia, NM 88211-0227**

1320' FNL & 660' FEL

Facility or well name **Red Ryder State Com #1**

API # **30-015-35150**

U/L or Qtr/Qtr **NENE** Sec **25** T **25S** R **27E**

County **Eddy**

Latitude _____ Longitude _____ NAD 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☒ Private ☐ Indian ☐

Pit

Type Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type Synthetic ☒ Thickness **12** mil Clay ☐ Volume _____ bbl

Below-grade tank

Volume _____ bbl Type of fluid _____

Construction material _____

Double-walled, with leak detection? Yes ☐ If not, explain why not _____

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more

(0 points)

0 points

Wellhead protection area (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources)

Yes

(20 points)

No

(0 points)

0 points

Distance to surface water (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more

(0 points)

0 points

Ranking Score (Total Points)

0 points

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks (2) Indicate disposal location.

onsite ☐ offsite ☐ If offsite, name of facility _____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered No ☐ Yes ☐ If yes, show depth below ground surface _____ ft and attach sample results (5) Attach soil sample results and a diagram of sample locations and excavations

I hereby certify that the information above is true and complete to the best of my knowledge and belief I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒, or an (attached) alternative OCD-approved plan ☐.

Date **September 5, 2007**

Printed Name/Title: **Gerald Herrera**

Signature *G. Herrera*

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations

Approval Date **SEP 20 2007**

Signed By *Mike Brannan*

Printed Name/Title _____ Signature _____

Closure attached

NOTIFY OCD 24 HOURS PRIOR to beginning closure and 24 HOURS PRIOR to obtaining samples. Samples are to be obtained from pit area and analyses submitted to OCD prior to back-filling.

** Sampling completed and closed. See Field Notes*

Accepted for record
NMOCD
PIT CLOSED
10/29/07
ms

Marbob Energy Corporation
Attachment to OCD Form C-144

Pit or Below-Grade Tank Registration or Closure

SEP 10 2007
OCD-ARTESIA

Pit Closure

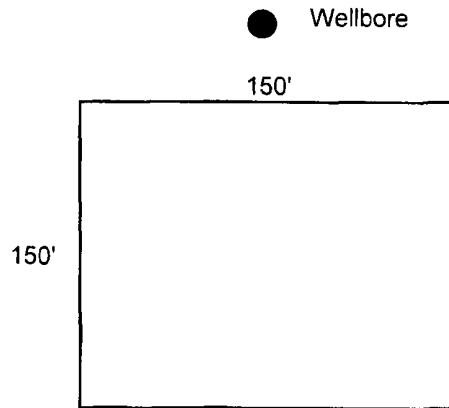
Red Ryder State Com #1

1320' FNL & 660' FEL

Section 25 T-25S R-27E

Eddy County, New Mexico

(1) Facility diagram



2. Disposal location:
Truck and haul cuttings to approved disposal.
3. General description of remedial action:
 - a. Use caliche from road and pad to fill pit.
 - b. Use stock piled dirt to cover pit, reseed per specifications.
4. Groundwater encountered:
No
5. Soil sample:
As per required.



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
ATTN: CLIFF BRUNSON
P.O. BOX 805
HOBBS, NM 88241
FAX TO: (575) 397-0397**

Receiving Date: 10/28/07
Reporting Date: 10/29/07
Project Owner: MARBOB
Project Name: RED RYDER
Project Location: MALAGA, NM

Analysis Date: 10/29/07
Sampling Date: 10/22/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cr (mg/kg)
H13596-1	PIT BOTTOM	1,020
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods 4500-C/B

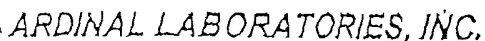
Note: Analysis performed on a 1:4 w:v aqueous extract.

Chemist

Date

H13596 BBC

PLEASE NOTE. **Liability and Damages** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



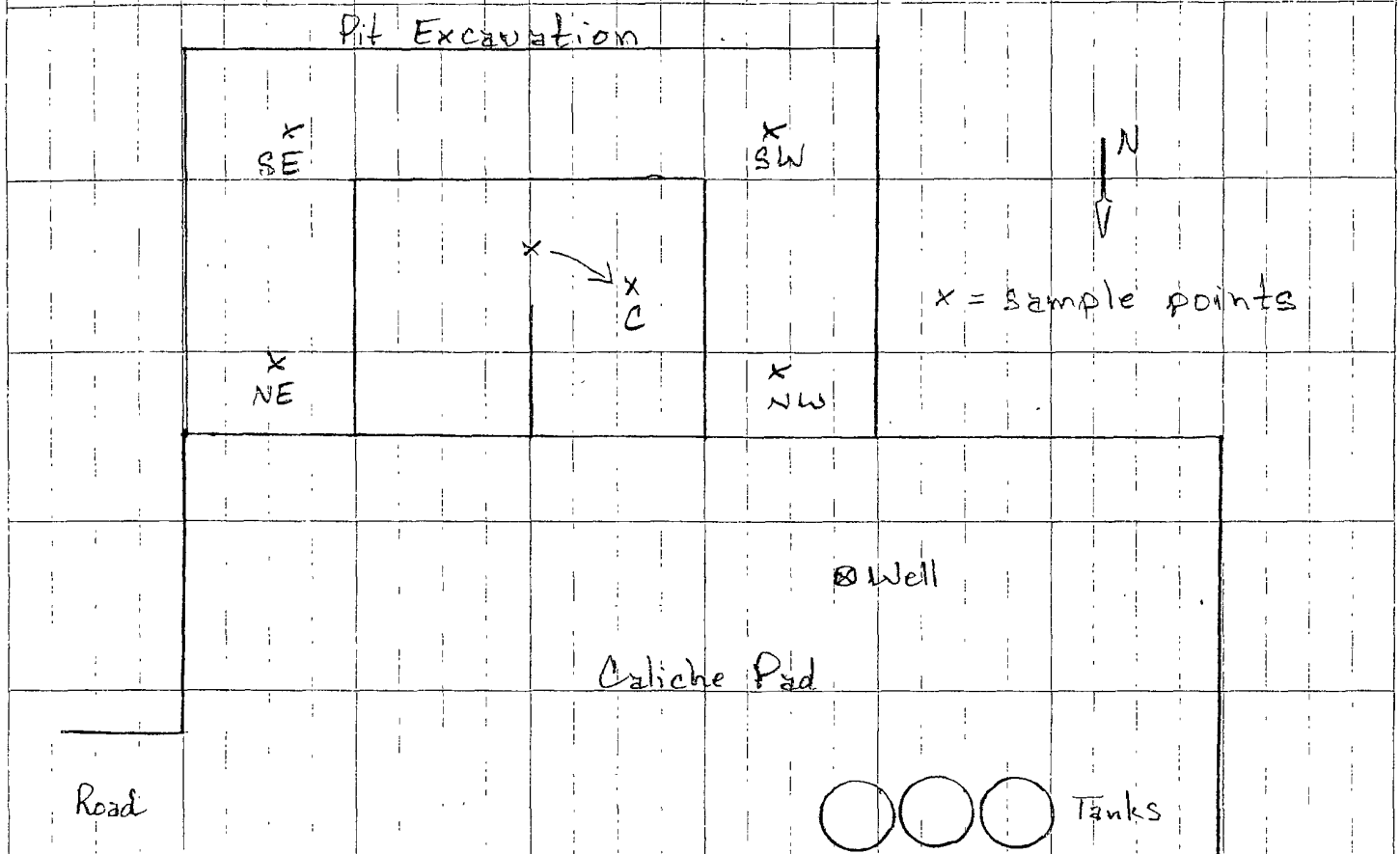
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

[illegible]

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2478.

Field Chloride Screens on Pit Bottom



Note: Collected first samples from existing pit floor. Site and pit wet with areas of standing water from previous day's rain. bgs = below ground surface

NW	6' bgs	13,800 ppm (parts per million Cl ⁻) Dark brown sandy clay, ~25-30% clay, <5% rock
NE	6' bgs	5,400 ppm Red brown sandy clay, ~30-35% clay, ~10% rock
SW	6' bgs	3,800 ppm Light yellow tan sand, <20% clay, ~10% rock
SE	6' bgs	5,400 ppm Light tan sand, ~25% clay, ~15-20% rock

Note: Did not collect C sample. Either area contained water or was solid rock. Excavator trenched all

Field Chloride Screens (Continued)

: Sample points. Was necessary to move the C sample due to bedrock. Moved northwest.

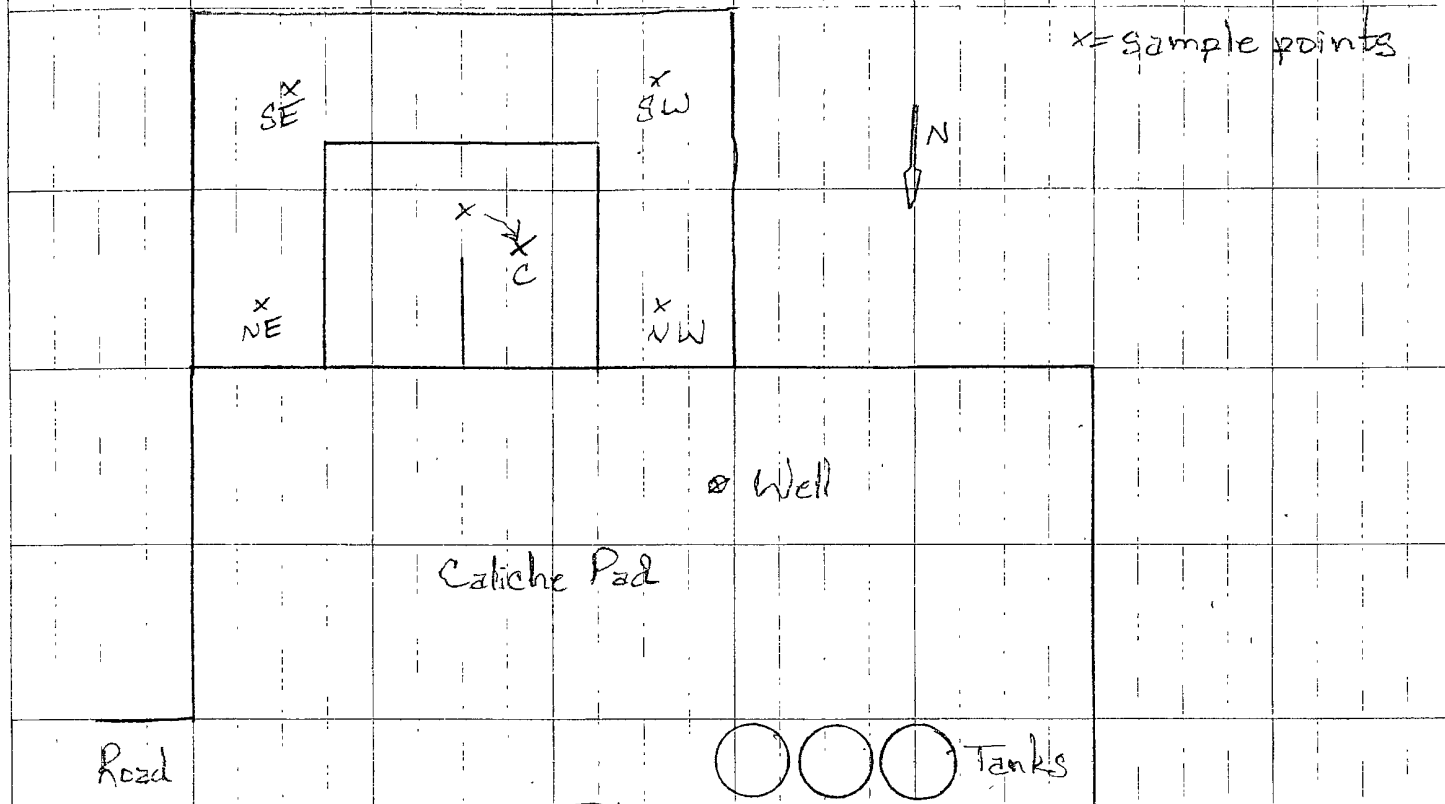
NW	10' bgs	4,800 ppm	Reddish brown sand, ~20-25% clay, <5% rock
NE	10' bgs	4,400 ppm	Dark red brown sand, ~20-25% clay, <5% rock
SW	10' bgs	5,000 ppm	Light yellow tan sand, ~20% clay, ~10-15% rock
SE	10' bgs	2,000 ppm	Light tan sand, ~20% clay, ~5% rock
C	10' bgs	13,200 ppm	Dark red brown sandy clay, ~30-35% clay, <5% rock

Note: Trenched all sample points further. Was not able to collect a NE sample due to an unyielding trench.

NW	14' bgs	1,200 ppm	Reddish brown sand, ~5% rock
SW	14' bgs	1,200 ppm	Light yellow tan sand, <20% clay, 15-20% rock
SE	14' bgs	2,800 ppm	Light tan sand, <20% clay, <5% rock
C	14' bgs	11,000 ppm	Red brown sandy clay, ~25-30% clay, 5% rock

Note: Will return to site to continue screens.

Field Chloride Screens on Pit Bottom



Note: Trenches were deepened over the weekend for further sampling. bgs = below ground surface

NW 19' bgs 3,400 bgs ppm (parts per million Cl-)

Moist red brown sand

NE 19' bgs 600 ppm

Red brown sand

SW 19' bgs 5,200 ppm

SE 19' bgs Light tan sand with green tint, ~35-40% rock.

1400 ppm

Olive colored sand, ~35-40% rock.

C 19' bgs 9,600 ppm

Red brown sand, <25% clay.

Marbob Energy / Red Ryder

9/24/07

Field Chloride Screens (continued)

Note: Trenches were deepened except NE. Will hold that sample for a composite.

NW 21' bgs 16,000 ppm
Sample water saturated. Water standing in trench bottom. Grey-green sand with ~30% small rock fragments.

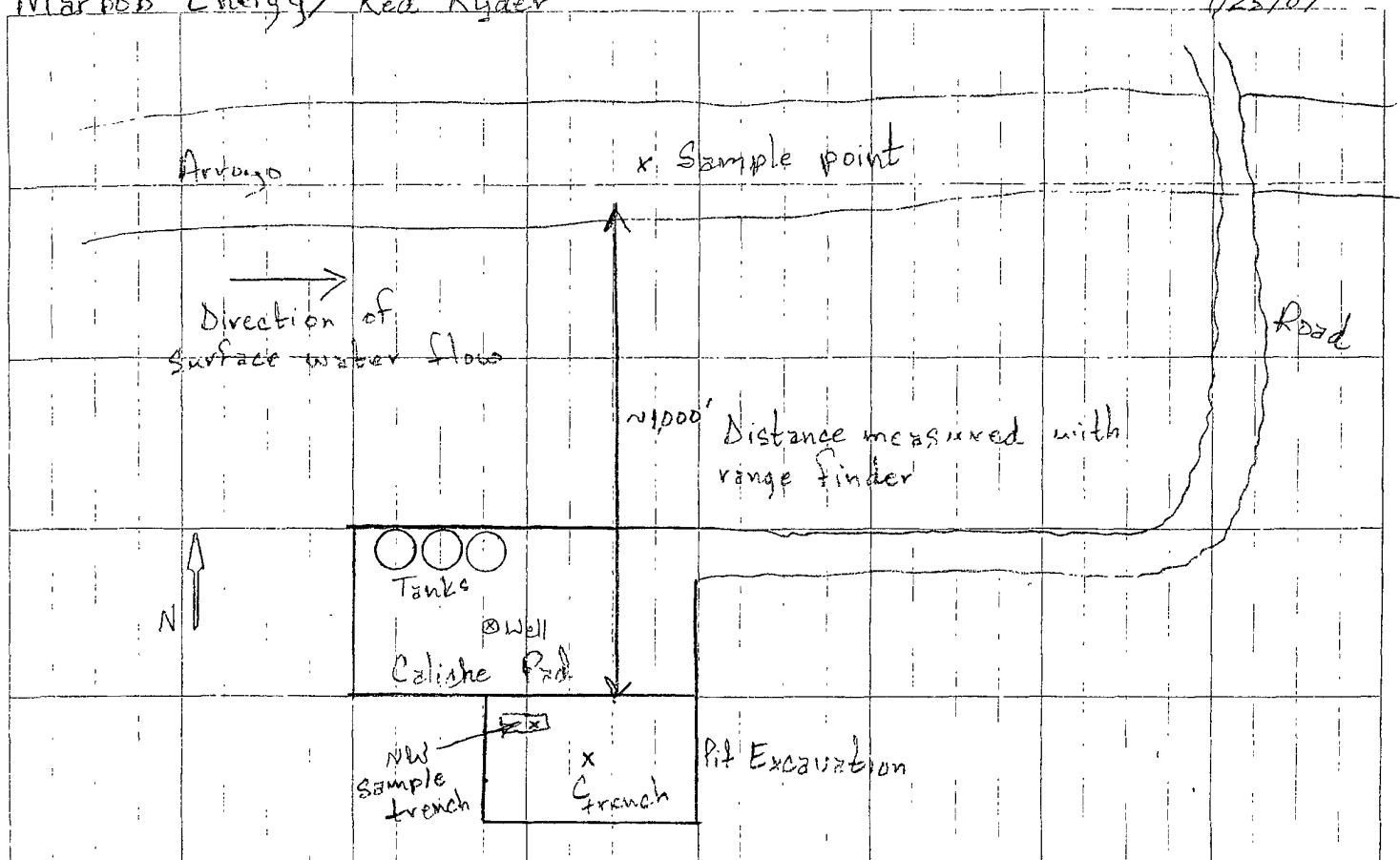
SW 21' bgs 2000 ppm
Light yellow tan sand, ~35-40% rock

SE 16' bgs 1000 ppm
Light tan sand, ~35-40% rock

18' bgs 500 ppm
Light brown sand (fine sand), ~25-30% rock

C 21' bgs 7,200 ppm
Red brown fine sand, ~35-40% clay

Note: Encountered water at ~20-21' bgs in the NW trench.



Trackhoe operator soaked up water in NW trench by placing 4 buckets full of clean soil into it.

Rand French, Gerald Herrera (of Marbob), and I collected a sample of the standing surface water in the arroyo and a soil sample from the ~~bank~~ bank. Only kept the samples to run a chloride field screen.

When we arrived back at the excavation, the operator had removed the soil in the bottom of the NW trench.

As water seeped into the pit, ^{trench (NW)} a sample of the water was collected for a chloride field screen.

NW trench water	> 25,000 ppm Cl^-
Soil from arroyo bank	680 ppm Cl^-
Water from arroyo	100 ppm Cl^-

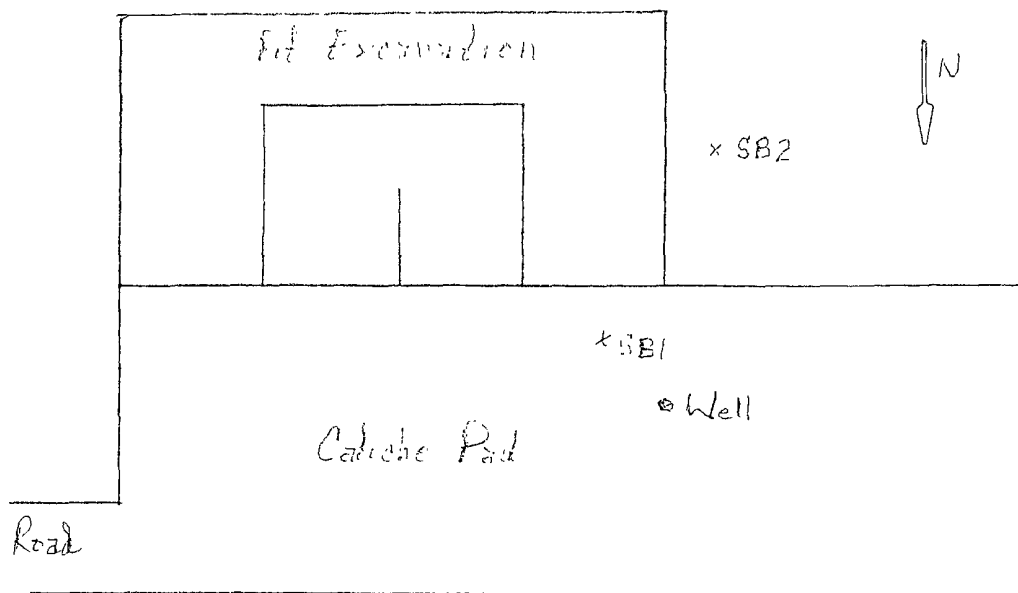
A little standing water was also found in the C trench.

Marbob Energy / Rod. Ryder

10/1/07

Drilling and Chloride Field Screenings

Amy Ruth
Gustaf Herrera
White Drilling
- 3 man crew



SB1

- 837 4'-5' bgs sample collected
Cl⁻ 360
- 842 9'-10' bgs (below ground surface) sample collected
Cl⁻ 1160
- 854 14'-15' bgs sample collected
Cl⁻ 1280
- 902 19'-20' bgs sample collected
Cl⁻ 560
- 913 24'-25' bgs sample collected
Cl⁻ 320

Note: Called Ken to discuss results of screening.
Stop SB1, begin SB2.

SB2

- 1000 4'-5' bgs sample collected
Cl⁻ 1360
- 1005 9'-10' bgs sample collected
Cl⁻ 600

Marbob Energy / Red Ryder

10/9/07

Drilling + Field Chloride Screens (Cont'd)

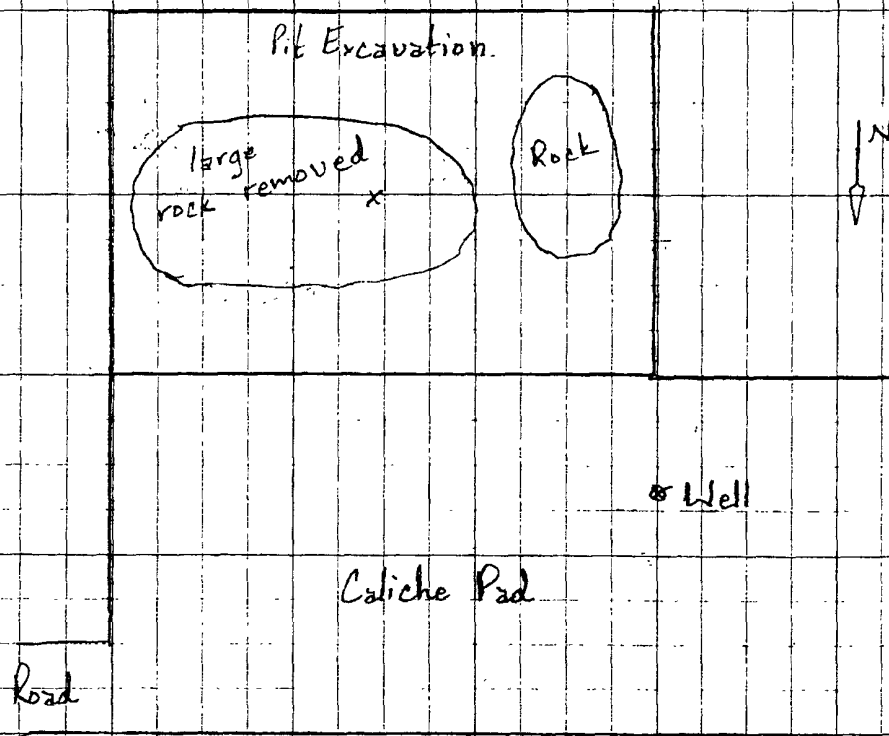
SB21013 14'-15' bgs Sample collected
CI- 4801022 19'-20' bgs Sample collected
~~CI- 480~~ 5601035 24'-25' bgs Sample collected
CI- 5601107 29'-30' bgs Sample collected, moist
CI- 440

Marbob Energy / Red Ryder

30-015-35150

10/17/07

Field Chloride Screen

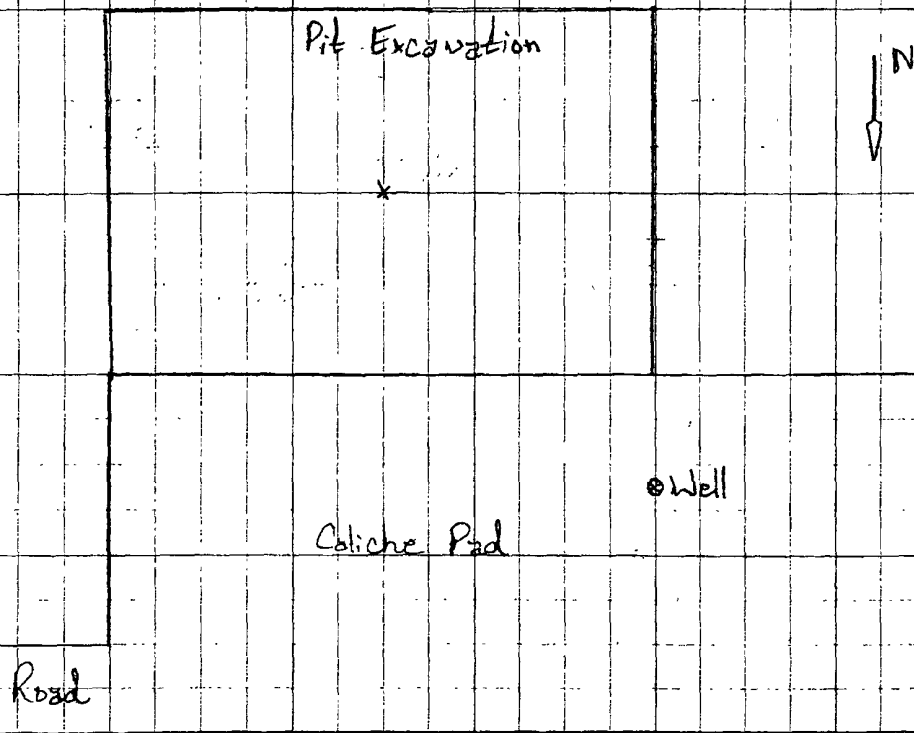


Large area of rock removed ($\frac{1}{3}$ of west end of rock) and sample was collected. Reddish brown clayey sand $\sim 10,600$ ppm (parts per million) chloride.

Marbob Energy / Red Ryder

10/18/07

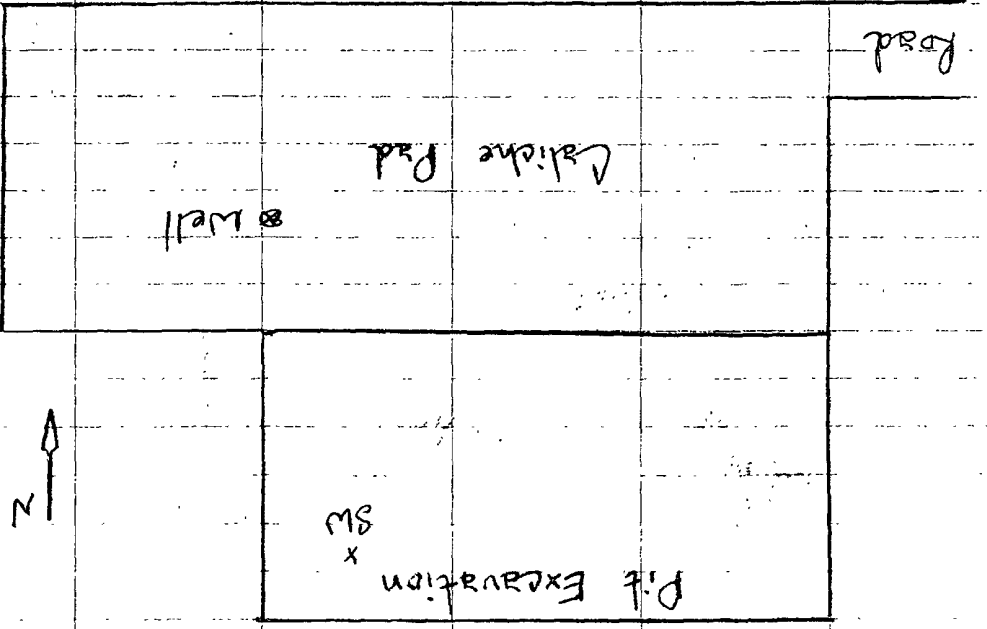
Field Chloride Screen



Collected sample from the center of the pit in the same location as the previous sample collected on 10/17/07. Though this sample was taken at 30 ft bgs (below ground surface). Field screen was 400 ppm Cl^- (parts per million Chloride). Fine red sand, ~20% clay.

Marbab Energy / Red Ryder 10/22/07

Field Chloride Screen on Pit Bottom



Note: NMDC on location today.

One sample collected from the SW (southwest) point at 29' below ground surface. Light tan caliche and sand with greenish tint, ~20% clay (or caliche particles), 2000 parts per million in chloride.

Note: Mike Bratcher (OCD) observed excavation activities and chloride field screening. He indicated that he would study our data and consider the site carefully before calling Rand French (Marbab).

Note: Pit was closed according to sampling requirements and communications discussing operational difficulties with OCD. Pit liner installed in bottom.

Marbob Energy / Red Ryder

10/26/07

Amy Ruth

During the composite process, I discovered that the sample I was going to include from the northwest corner of the excavation had been disposed of accidentally. The remaining four composite sample points are what comprised the sample submitted to the laboratory today. The field screen on the missing sample showed 3,400 ppm chloride.

The samples included in the lab composite showed field screens as follows: 800 ppm, 600 ppm, 400 ppm, and 2,000 ppm.

This is to document that I informed Rand French (Marbob) today of BBC's unintentional loss of the northwest sample and that BBC would include this fact in our notes. Rand encouraged documentation of this as well in an effort to maintain integrity in their relations with NMDCD.