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ACT/007/012 #2

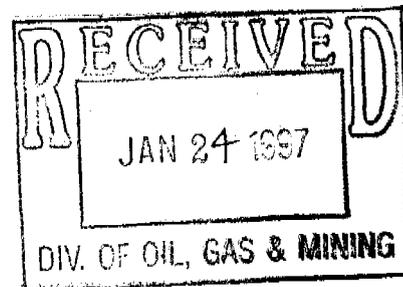
ENVIRONMENTAL INDUSTRIAL SERVICES

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JANUARY 22, 1997

MR. LOWELL BRAXTON
UTAH DIVISION OF OIL, GAS & MINING
1594 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84114-5801

RE: WELLINGTON PREPARATION PLANT
ACT # 007-012



DEAR MR. BRAXTON:

Relative to our conversation on January 20, 1997, please find attached an overview of Earthco's projected plans for the Wellington Prep Plant (CVR ACT # 007-012).

Earthco has begun reclamation activities in the form of demolition of a number of the facilities. At this time, their intent is to activate the permit to allow both the loading and processing of refuse coal. I have attached a cursory outline of the process they wish to test (Attachment 1).

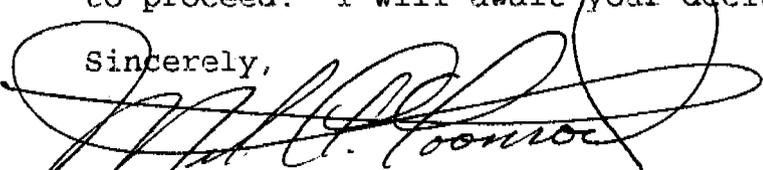
The outcome of the test separation procedure will define the scope and methodology of the reclamation activities. It is Earthco's intent to remine and reclaim the refuse piles, slurry ponds as well as salvage a marketable product. The percentage of the coal that can be recovered will redefine both the amount of the refuse to be buried, as well as the method and extent of the operation. Earthco, has retained our firm to rewrite the permit based on these findings.

The test equipment can be set up on the first floor of the semi-demolished washer plant; this will allow for near total containment of fugitive dust. This will not affect the existing permit disturbed area, drainage area or bond amount in any way.

The testing of the slurry pond material, coarse refuse and fine refuse will take between 90 and 120 days. During this period, reclamation activities and the abatement of outstanding NOV's will continue, as well as the rewriting of the permit to bring it current.

Earthco would like to begin testing by February 1, 1997 and request Utah Division of Oil, Gas & Mining approval to allow this activity to proceed. I will await your decision on this matter.

Sincerely,



Melvin A. Coonrod
President, EIS

OPERATION PLAN: GENERAL REQUIREMENTS

The refuse recovery program proposed by Earthco, would maximize the utilization of coal resources by exploring the possibility of using existing coal processing refuse as a fuel source. The experimental program would determine the cost of recovery and, if there is large enough amount of refuse, to develop a market. As part of the 120 day experimental test proposed by Earthco, 250,000 tons of fine coal refuse from the slurry ponds and coarse refuse from the Coarse Refuse Pile, will be removed. If successful, this pilot program could provide a basis for recovery of most of the refuse coal material in place at the Wellington facility.

Out of necessity, the operation plan contains many options for material handling. One major objective of this program is to find feasible ways for marketing refuse material out of slurry ponds and coarse refuse piles. The following ideas will be tried in sequence and/or in combination. If a feasible and economically attractive method of handling the refuse can be developed, it will be detailed in any subsequent application for full scale recovery of refuse from the slurry ponds and or refuse piles.

Since the refuse is often wet; generally containing 10 to 15 percent moisture, there is significant risk of equipment becoming grounded. For this reason, a crawler tractor (with winch and cable) will be kept on hand to retrieve equipment. The experimental plan has not committed to any other specific equipment, but instead, has identified the following equipment that could be utilized during the test.

1. Front End Loaders
2. Front End Loaders with balloon tires
3. Scrapers
4. Paddle-Wheel Scrapers
5. Back-Hoes
6. Draglines
7. Dredges
8. Shovels
9. Crawler Tractors

This equipment could be used from the edge of the ponds, pond surface, original topography at the bottom of the pond, or on a layer of coarse refuse/rock waste. The selected equipment will feed either trucks or air hoppers. If trucks are used, they would be either loaded directly or from established refuse piles along the edge of the pond. If a pneumatic system/feed hopper is used, then the loading devices will either feed the hopper directly or place material in stockpiles along the edge of the pond, which will then be fed to the hopper.

If hoppers are used, refuse will be blown back to the old preparation plant through the existing slurry line. Drying of refuse may be accomplished by, or combination of, air injection, air drying pile(s), and/or thermal dryers at the existing prep

plant. Air drying piles, less than 20,000 tons in size, will be located on the pad area.

Maximum daily production rate will be approximately 2,500 tons. The refuse contains enough carbonaceous material to have heating value. As such, the preferred disposal method is sales to coal using industries. Refuse will either be sold to customers that can burn the material directly or will be mixed with binding agents, and shipped to markets.

Land and vegetation in the area affected by the operation plan is described in the MRP. A detailed breakdown of each portion of the proposed experimental test operation plan is as follows:

MAPS

All maps required for a permit application are found in the existing Operation and Reclamation Plan. Figure 1 and Figure 2 show the location of the slurry ponds, loading facilities, roads, and pipelines that may play a role in this refuse removal experiment.

REFUSE TRANSPORTATION

No new transportation facilities are proposed other than access routes across the pond surface. Haul trucks will drive over the pond and existing access roads to the county road and join the existing plant access road. Refuse will either be carried by truck directly to market, to the load-out area for mixing with incoming coal, loaded directly to railcar, or used in combination with a bonding agent(s) and sold as a new product. If the refuse product is transported by truck away from the site, they will drive from the ponds, north on the county road, on to the Ridge Road, then on to U.S. Highway 6. If the refuse is to be mixed with incoming coal or loaded onto railcars, trucks will drive the Ridge Road to where it intersects the existing plant access road (Class I haul road), and to the load-out site. No public roads will be relocated in connection with the refuse removal experiment.

In the event that the test proves successful, a pneumatic system to move refuse material to the loadout site will be installed. The same system will also be used to move waste material generated from the refuse back to the waste disposal area.

EXISTING STRUCTURES

Facilities at the Wellington Preparation Plant and Load-out are described in the existing MRP. The recent demolition has more than offset any potential bond increase the mobile/modular equipment, brought on-site to conduct the test run, could incur.

Figure 1 shows the location of roads and structures to be used as part of this experimental program. Figure 2 shows the Clearwater Pond, Upper and Lower Refuse Ponds, and refuse recovery facilities.

The load-out pad and equipment plan was submitted to DOGM previously.

The preparation plant and thermal dryer are already permitted for use in coal drying and dewatering. In addition, the loading equipment, located at the load-out, has an approved permit for use in coal loading. No changes in use are anticipated as part of this program. These facilities will be run according to rules of their respective permits.

HANDLING AND STORAGE

The refuse material, composed in part of coal fines and coarse material, will be removed, handled, and stored as described previously. Small stockpiles may be built for reloading along the edge of the pond and a stockpile no larger than 20,000 tons may be set up on the pad area just south of the existing preparation plant. The roads and slurry lines considered for haulage are already in existence. Similarly, the existing first floor will accommodate the modular equipment needed to run the experimental separation and handling of this material: the existing MRP addresses final disposal of these facilities where applicable.

AIR POLLUTION CONTROL PLAN

The refuse in the slurry ponds has about 15 percent moisture, so loading operations should not be a major dust generator. Some of the haul roads are dirt or gravel and these roads would be watered or treated with magnesium chloride. Attempts will be made to minimize airborne coal fines. Wind erosion or dry fines stockpiles will be controlled by restricting size to no more than 20,000 tons and by spraying water or dust suppressant on the surface if needed. Conveyors at the load-out site are already covered. Additional information can be found in the Bureau of Air Quality Permits for the Wellington Load-Out and for fines recovery. The Air Quality Permit will be modified to accommodate this new operation.

WATER POLLUTION CONTROL FACILITIES

Water pollution control systems for the slurry ponds already exist and discharge permits have been obtained. Existing drainage control structures at the Wellington facility will be maintained and are sufficient to control drainage of the temporarily stored refuse material. No new systems or diversions are planned as part of this experiment.

The slurry ponds already have approved dams and embankments. No new dams or embankments would be built or modified during the test program. If the recovery method proves successful, the Clearwater Pond embankment would be modified for waste disposal, and new diversions and ponds could be created. Removal of refuse from the Lower Refuse Pond may create depressions in the pond which could collect runoff. Since the ponds were previously filled with water during the operation of the cleaning plant, water will be impounded

in areas previously used for water impoundment.

OVERBURDEN AND TOPSOIL HANDLING

Because this plan creates no new disturbed areas and will not affect areas in which usable topsoil material is immediately available, there will be no new topsoil piles anticipated. Fill material within the bottom of the Clearwater Pond would, however, be tested and salvaged (if acceptable) prior to use of the pond for waste disposal. Salvaged material will not require expansion of the existing disturbance area.

DISPOSAL OF REFUSE WASTE

The proposed experimental program will not produce coal waste in excess of what is presently on site. Preliminary tests indicate that 40 to 60 percent of the coarse refuse, and/or slurry pond refuse is marketable. Upon commencement of the 120 day experimental test in the Lower Refuse Pond, any remaining waste left from the separation of the usable product would be transported by truck to the Clearwater Pond. Prior to deposition of waste material into the pond, all potentially usable soil/fill material in the pond will be removed. This material will be tested for suitability as fill or as topsoil before being transported to either the existing topsoil storage area or an adjacent fill storage area.

If the proposed methodology proves successful, refuse will be removed from the southern end of the Lower Refuse Pond via truck haul or pneumatic system. Waste material will be returned to the Clearwater Pond via pneumatic system. As refuse is removed in the Lower Refuse Pond and the original topography is exposed, the eastern embankment of the Clearwater Pond will be removed and drifted over the waste material to a depth of 48 inches. By removing the embankment, the existing soil within the foundation can be utilized for cover and the waste disposal area can be expanded to the mined area of the refuse pond. The area of proposed for waste disposal is shown as Figure 2.

Waste material will be deposited in 18 inch lifts within the disposal area. Waste material will be wetted to facilitate adequate compaction by a D-9 Class, or larger crawler. On-going sampling will be conducted on each 20 foot lift to insure that deposited material is non-toxic, less than 20 percent combustible, and not a fire hazard.

NONCOAL WASTES

If noncoal waste is produced, the existing MRP specifies disposal methods. Such wastes would likely be limited to waste oil from oil changes of loading and hauling equipment, spare parts for the same equipment, and possibly some routine office waste.

RECLAMATION PLAN : GENERAL REQUIREMENTS

The proposed refuse removal is to be considered one step in reclamation of areas previously disturbed by coal washing activities of the property's previous owners. Reclamation of this area is described in the existing MRP for the property. The current plan describes the slurry ponds to be reclaimed by burial with 48 inches of unconsolidated fill, followed by covering with topsoil, then revegetated. The refuse removal experiment will determine whether the refuse can be removed, thus eliminating problem spoils that may hinder revegetation. With the refuse removed, it will be possible to examine more closely the underlying original topography and potential growth media. The results of the attempts to load refuse and examine the original surface will furnish information for use in determining how best to reclaim the ponds.

Since a prime purpose of the proposed refuse removal experiment is to obtain information on how to best reclaim the ponds, no detailed reclamation plan is submitted with this amendment. Several possible findings are outlined and the actions that would be taken with each finding are suggested. Since Earthco wishes to begin the experiment in February of 1997, at least some information should be available for use in the revision of the MRP which is scheduled for completion in the Spring of 1997.

The refuse removal experiment and any subsequent full scale refuse removal will be permitted through the Bureau of Air Quality and air quality would be protected by following the conditions of that approval order.

RESULTS OF EXPERIMENTAL REFUSE REMOVAL

Several outcomes may result from the refuse removal experiment. Some of these are listed below.

(1) It may be found unsafe, unfeasible, or too costly to remove refuse from the ponds. If this were found, the ponds would likely have to be reclaimed in the manner proposed in the existing MRP.

(2) It may be found that the refuse can be removed, but the original topography would be so contaminated with leached salts and so saturated and unstable that it must be covered in order to operate equipment for recovery. In this case, the original topography would be cleared of salt refuse and covered with coarse rock waste as a routine part of the experimental operation. This would leave the coarse refuse pad in place and ready for topsoiling, as described in the existing Operation and Reclamation Permit. The added benefit would be that the first step of reclamation would be complete for areas from which refuse had been removed, and also the chance for successful revegetation would be improved, since a major salt source would be removed.

(3) It may be found that the original topography has been

contaminated with salts leached from the refuse. If this were the case, the ponds would be ready for reclamation similar to the methods described in the existing MRP. However, even if contaminated, the original topography would probably be less concentrated with salt and other toxins than the existing refuse. Thus, the chances for successful revegetation could be enhanced.

(4) It is possible that the original topography may be covered with usable topsoil material that was never recovered (the ponds were put in 1957-58 before topsoil recovery was required), but the surface is so saturated that the equipment to be utilized for refuse removal cannot be operated on its surface. If this is the case, topsoil can be removed and stockpiled as recovery proceeds and before placement of a coarse refuse working pad. This would leave a coarse refuse pad with a topsoil stockpile ready for placement and revegetation. If usable topsoil is found, DOGM will be contacted for approval of a topsoil storage plan that will be developed when the quality and quantity of topsoil is known.

(5) It is possible that removal will find stable uncontaminated topsoil on which equipment can operate. If this were the case, the experiment will leave an area of open topsoil ready for revegetation. If the topsoil is compacted by equipment operating on the surface, it can be ripped prior to reseeding.

SAMPLING PLAN

Preliminary sampling of the refuse material suggest that they may be difficult to reclaim. Because this plan implies that the refuse may be used for combustion or as a mixture in combustible material, sampling this material to determine revegetation potential would be unnecessary during extraction procedures. It would, however, be necessary to sample the level to be reclaimed if refuse removal is successful. If removal procedures are successful, the exposed "topsoil" will be sampled and analyzed for reclamation feasibility. Parameters will include, but not be limited to, the following: pH, EC, SAR, Se, acid base potential, Organic C, B, and texture. Sample design, parameters, and frequency will be preapproved by DOGM.

PROTECTION OF HYDROLOGIC BALANCE

The hydrologic balance should be basically unaffected by the refuse removal. No diversions or changes to the drainage pattern are anticipated other than the possible collection of water in low areas of the slurry pond created by removal. No new ponds, impoundments, bank, dams, or embankments are currently planned.

The following is an example of the proposed MRP changes for the Earthco operation:

522 COAL RECOVERY (R645-301-522)

Refuse material (fines) was deposited on the Wellington site by previous owners who conducted coal cleaning activities. The current plant describes the slurry ponds to be reclaimed by burial with coarse refuse, and our subsoil followed by covering with topsoil, then revegetation. As an alternative to this reclamation procedures, the operator is currently conducting investigations as to the feasibility of removing the fines and a large portion of the refuse beforehand.

The previous operator was granted authorization by the State of Utah, Division of Oil, Gas & Mining (DOGGM) to conduct a pilot study to remove coal slurry fines from the pond areas at the Wellington site. Prior to DOGGM approval (August 23, 1991), an application was submitted as an permit amendment (April 25, 1991) and deficiencies subsequently addressed (July 15, 1991). Refer to Appendix B of the Mining & Reclamation Plan (MRP) for these documents.

Primary purpose of the pilot study was to compare methodologies and costs for fines removal for reclamation and/or marketability. The refuse removal experiment was a effort to determine whether the fine refuse could be removed - thus eliminating problem spoils that may hinder revegetation. With the refuse removed, it would be possible to examine more closely the underlying original topography and potential growing media. The results of these tests were taken into consideration when Earthco optioned to operate the NEICO site. The preliminary results indicated the process was not economically feasible in 1993. However, with the advent of new technologies (air separation and transport) and a potential expanded market with co-generation facilities. The prospect of remining and separation of coal is a realistic option.

With authorization from DOGGM, the operator agree's to comply with several environmental and engineering provisions previously outlined in the submittal dated July 15, 1991. One of the stipulations was to present monthly reports to DOGGM summarizing the past month's activities, plus an outline of activities planned for the following month. These reports would be submitted to DOGGM on a monthly basis.

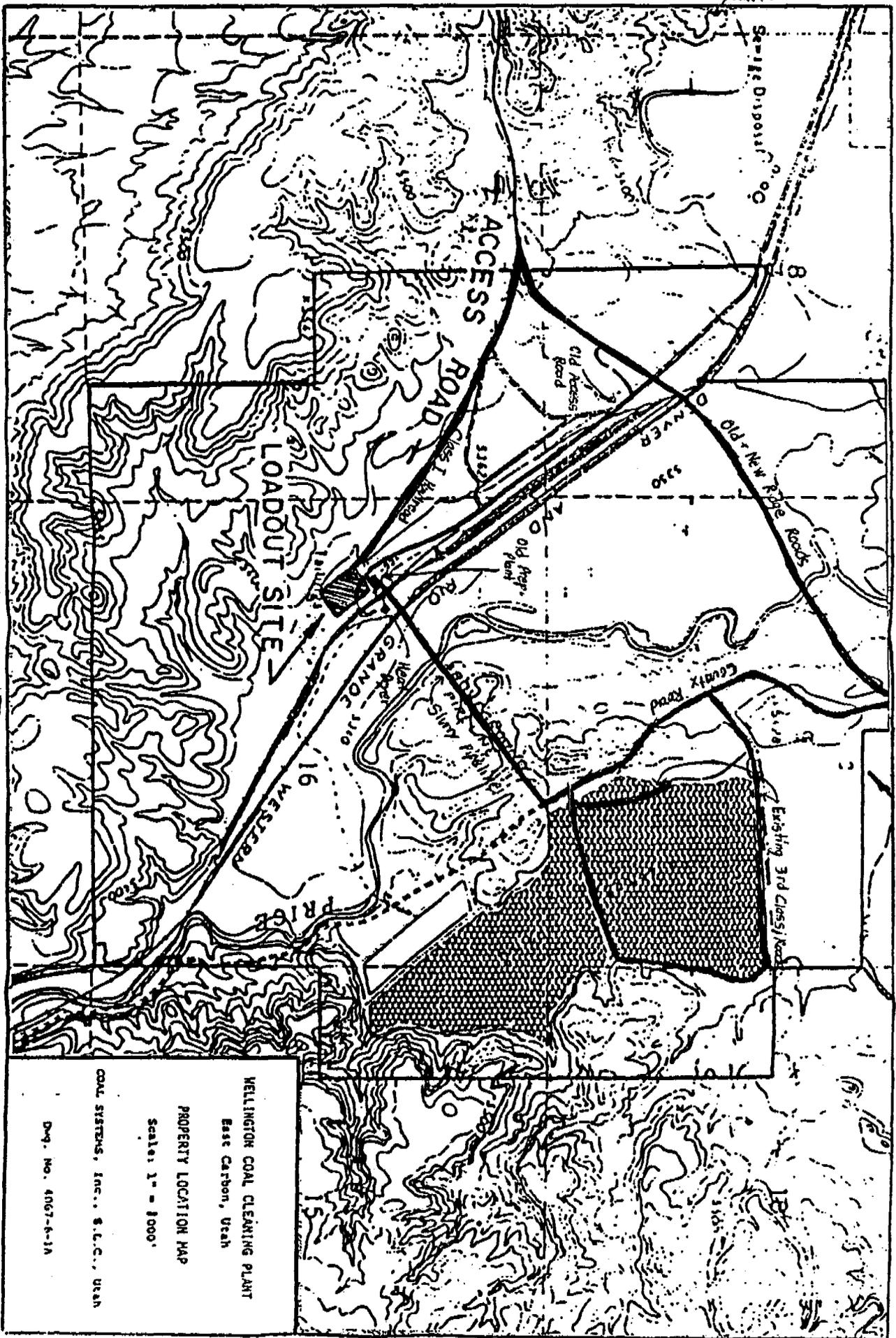
Because the feasibility for removal of the coal from the refuse and fines is still conceptual, specific methods for recovery have not yet been finalized. If it is determined a viable alternative to reclamation to the present plan, the operator will submit a description of the measures to be used to maximize the use and conservation of the coal resource. The description will assure that coal mining and reclamation operations are conducted so as to maximize the utilization and conservation of the coal, while utilizing the best technology currently available to maintain environmental integrity, so that re-affecting the land in the

future through coal mining and reclamation operations is minimized.

Earthco, is optimistic the procedures they have developed will produce a marketable product, reduce the amount of refuse at the Wellington site by as much as 50 percent, greatly reducing the environmental impact of the status quo.

If the methodologies utilized prove successful on this site, the potential for other refuse piles, not only in Utah but throughout the coal producing areas of the country, is substantial.

Fig.



WELLINGTON COAL CLEANING PLANT
 Base Carbon, Utah

PROPERTY LOCATION MAP
 Scale: 1" = 1000'

COAL SYSTEMS, Inc., S.L.C., Utah
 Proj. No. 4067-6-1A

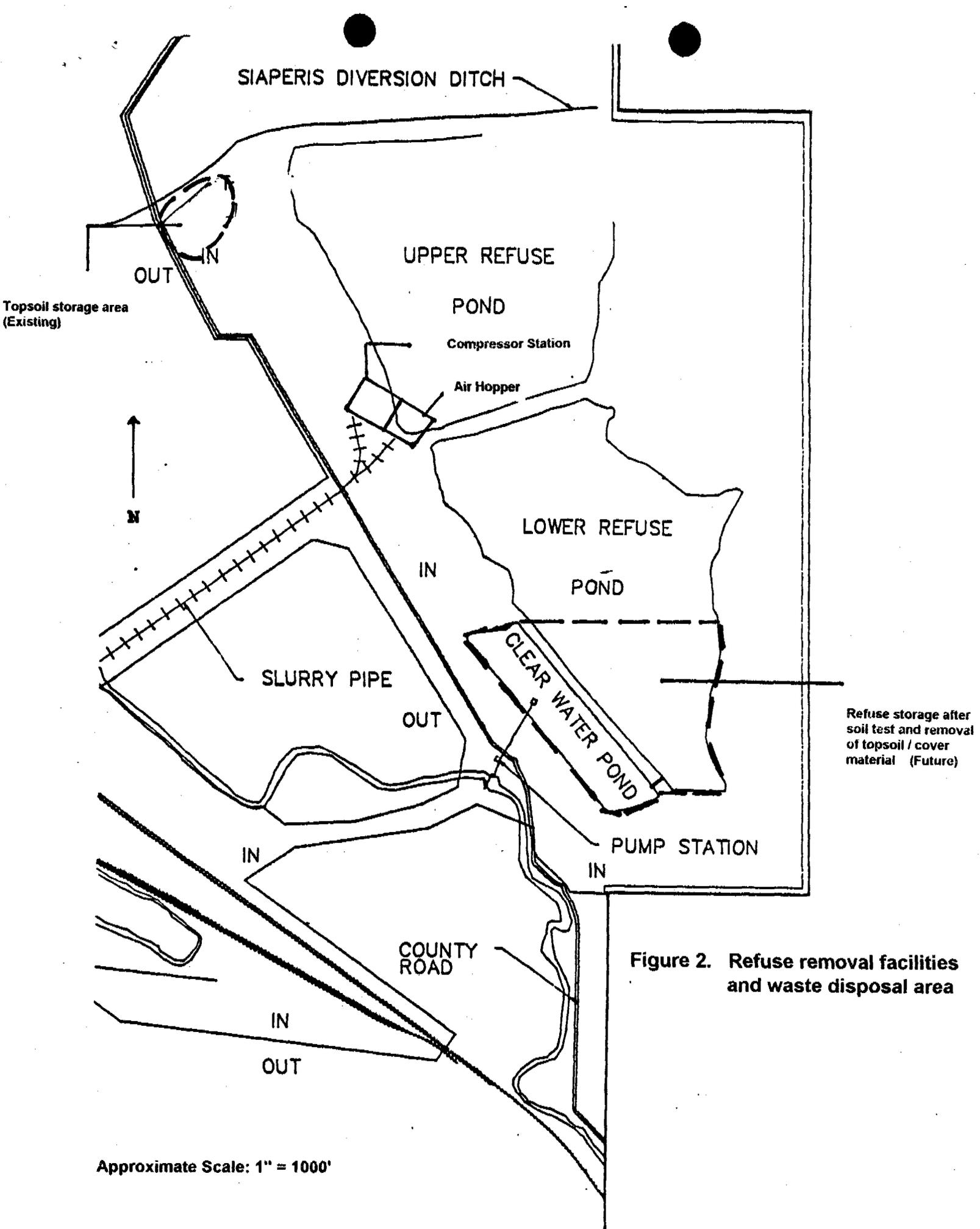


Figure 2. Refuse removal facilities and waste disposal area

An overview of Earthco's long range objectives are as follows:

- (A) Reclaim all existing facilities excluding:
 - (1) Railroad spur
 - (2) Lower portion of existing Preparation Plant
- (B) Redefine the permit boundary to allow for the development of
 - (1) a planned community, (2) a subdivision, (3) an industrial park and (4) agriculture and farm grazing operations.
- (C) To utilize a coal waste product and convert an environmental liability into an economic asset.

Over the next few months the feasibility and time frame for each of the above objectives will be finalized. Until these determinations are made the present MRP will be utilized as the ongoing day to day operation plan.

LYNTEK

Computation Sheet

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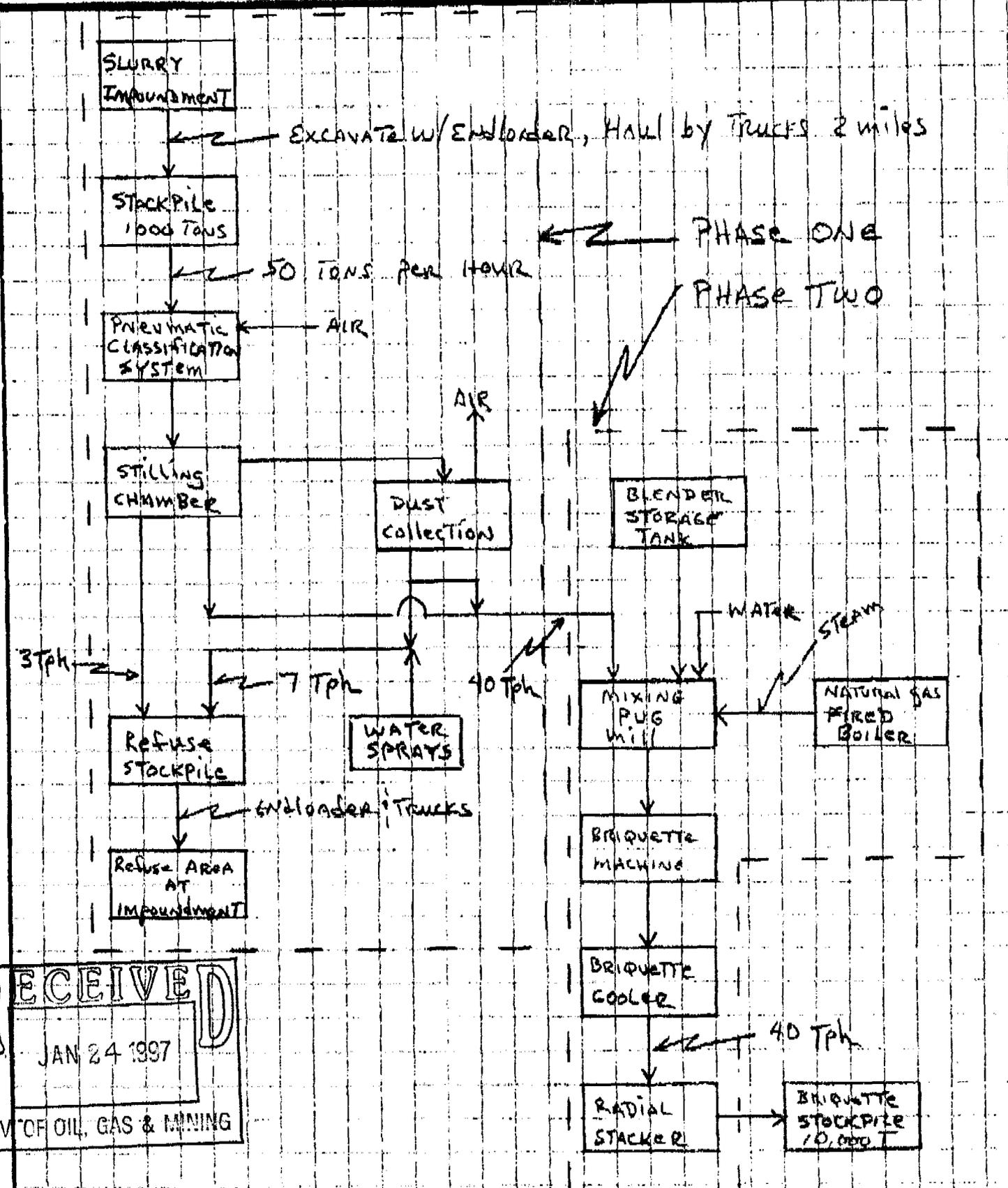
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Client EARTHCO Job No. 97010

Subject WELLINGTON EXPERIMENTAL PILOT PLANT FLOWCHART



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JAN 24 1997

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