

**NM2 - 4**

# **INSPECTIONS & DATA**



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

July 3, 2000

**CERTIFIED MAIL**

**RETURN RECEIPT NO. Z-559-573-320**

Mr. Albert Greer  
Benson-Montin-Greer Drilling Corporation  
4900 College Boulevard  
Farmington, NM 87402

**RE: Surface Waste Management Facility Inspection Report: Permit NM-02-0004  
Benson-Montin-Greer Drilling Corporation  
NW/4 NW/4 Section 20, Township 25 North, Range 1 East, NMPM  
Rio Arriba County, New Mexico**

Dear Mr. Greer:

The New Mexico Oil Conservation Division (OCD) inspected the Benson-Montin-Greer Drilling Corporation (BMG) centralized surface waste management facility at the above location on May 15, 2000.

Overall the OCD found BMG to have a well maintained produced water evaporation and landfarm facility with good security. The OCD inspection and file review of BMG indicates some permit deficiencies. Attachment 1 lists the permit deficiencies found at BMG during the inspection and file review. Attachment 2 contains photographs taken during the inspection. BMG shall provide OCD with a detailed description of how the corrections will be made and a time table of when each of the corrections will be completed. BMG must respond to the permit deficiencies by August 3, 2000.

A review BMG's financial assurance finds that the \$25,000 cash bond and assignment of cash collateral deposit for bond No. 01-082086-27 is current and active.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling  
Environmental Geologist

Attachments

xc: Aztec OCD Office

ATTACHMENT 1  
INSPECTION REPORT  
PERMIT NM-02-0004  
BENSON-MONTIN-GREER DRILLING CORPORATION  
NW/4 NW/4 Section 20, Township 25 North, Range 1 East, NMPM  
Rio Arriba County, New Mexico  
(July 3, 2000)

1. Fencing and Signs: The facility will be fenced and have a sign at the entrance. The sign shall be maintained in good condition and shall be legible from at least fifty (50) feet and contain the following information : a) name of facility, b) location by section, township and range, and c) emergency phone number.

**Facility is secured with fence and locking gate and has a sign at the entrance (see photo 1).**

2. Berming: An adequate berm will be constructed and maintained to prevent runoff and runoff for that portion of the facility containing contaminated soils.

**The landfarm facility is bermed, however the berms on the east and north sides are low and need to be rebuilt (see photos 4 and 5). Headward erosion at the east edge of the landfarm has created a deep trench that if not repaired may breach the landfarm berm (see photo 3). Runoff in this area should be diverted, the trench filled and the berm increased. The landfarm and produced water facility are fenced.**

4. Soil Spreading, Disking and Lift Thickness: All contaminated soils received at the facility will be spread and disked within 72 hours of receipt. Soils will be spread on the surface in six inch lifts or less. Soils will be disked to enhance biodegradation of contaminants.

**At the time of inspection, soils had been spread and disked accordingly (see photo 2).**

5. Trash and Potentially Hazardous Materials: All trash and potentially hazardous materials should be properly disposed of.

**Trash and plastic within the landfarm must be removed.**

6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable pad within the berm so that leaks can be identified.

The above ground tank was surrounded by a very erroded berm that is not capable of holing the required volume (see photo 9).

7. Sumps and Valve Catchments: All sumps and catchments must be kept empty so that leaks can be identified and to prevent overflow onto the ground. All pre-existing below grade sumps or catchments must demonstrate integrity on an annual basis. Integrity tests must include visual inspections of cleaned out sumps or catchments. All new below grade sumps or catchments must have secondary containment .

The hose at the produced water tank has been draining directly onto the ground. Valve and/or hose catchments should be installed to catch drips and leaks from hoses and valve. Soil contaminated by drips and overflows must be cleaned up by either off site landfarming or on site remediation. Facility inspections must be conducted on at least a weekly basis and sumps and catchments emptied. Sumps and catchments should be cleaned and inspected for integrity on an annual basis.

8. Equipment Maintenance: Equipment, tanks, pipe valves and connections must be inspected on a regular basis and repairs made as needed.

**Tank and pipeing were in good repair.**

9. Evaporation Pond Inspection and Maintanece: The pond must be inspected on a weekly basis or immediately following any consequential rainstrom or windstorm. If any defects are noted repairs must be made as soon as possible .

The evaporation pond spray system must be inspected and modified to assure that it is working correctly. The sprayers have been releasing spray to the exterior berms around the pond (see photo 7). Evaporation and enhanced evaporation must be confined within the lined berm area.

**BMG must propose a modification to their current design to avoid overspray of produced water.**

10. Pond Freeboard: The pond shall have a minimum freeboard of two feet. A device shall be installed or a marker painted on the pond liner to accurately measure freeboard.

**Free board marking was not visible (see photos 6, 7 and 8).**

**BMG must mark the liner or install some devise to note the two foot freeboard.**

11. Pond Sludge Thickness: Sludge thickness in the base of the pond will be measured annually. Any build-up in excess of 12 inches will be removed and landfarmed.

**No records existed as to the last time sludge was measured or removed.**

**BMG must measure and remove sludge if in excess of 12 inches.**

12. Leak Detection System Inspection: The leak detection system must be inspected monthly and if fluid is present samples of the fluid will be compared with the fluids in the pond. Results must be recorded and maintained for OCD review.

**A record inspection shows that the leak detection system has been monitored monthly. Water has been pumped out of the system and the level has steadily increased. The water should be compared to the pond water and the monitoring tube pumped dry on a regular basis.**

**BMG must determine the source of this water whether it is condensation of fresh water, the accumulation of produced water from over spray, or a leak in the liner.**

13. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad and curb type containment.

**There were no drums or other chemicals stored at the evaporation pond or landfarm. However the yard storage area has a surplus of empty and/or unmarked drums some of which are improperly stored.**

14. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

**There were no saddle tanks at the landfarm or evaporation facility.**

15. Tank Labeling: All tanks, drums and containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill or ignite.

**The produced water tank was not labeled to identify the contents and hazards (see photos 9). Placards or stencils must be placed on all tanks.**

16. Migratory Bird Protection: All tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted, covered or otherwise rendered not hazardous to migratory birds.

**The pond contained very little oil mostly a foam or algae. The pond must be kept free of oil or other material that may harm migratory birds.**

**BMB must remove the floating oil, foam, and algae and monitor and prevent its return.**

17. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 to the appropriate OCD District Office.

**At the time of inspection, there were no spills evident at this facility.**

18. Regular Facility Inspections: Facility inspections and maintenance must be conducted on at least a weekly basis and immediately following each consequential rainstorm or windstorm.

**Inspections including any maintenance work performed should be recorded.**

19. H<sub>2</sub>S Screening: If H<sub>2</sub>S is ever detected at the BMG facility, H<sub>2</sub>S testing must be conducted on a weekly basis and results recorded and maintained.

**To date H<sub>2</sub>S has not been detected and screening or testing has not been required or performed.**

20. Waste Acceptance and Disposal Documentation: Comprehensive records of all material disposed of at the surface waste management facility must be maintained for each load. Records may include: 1) generator; 2) origin; 3) date received; 4) quantity; 5) certification; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of treatment chemicals.

**Records were not Reviewed at this time.**

21. Documentation Review: Form C-133 "Authorization to Move Produced Water"

**BMG filed a Form C-133 with the Division and it was approved on December 7, 1994.**



Photo 1 May 15, 2000  
Facility sign at runway landfarm.



Photo 4 May 15, 2000  
Low berm east edge of landfarm.



Photo 2 May 15, 2000  
Runway landfarm looking east.



Photo 5 May 15, 2000  
Low berm north edge of landfarm.



Photo 3 May 15, 2000  
Erosional cut east edge of landfarm outside of berm  
that drains to arroyo.



Photo 6 May 15, 2000  
Foam or algae on evaporation pond.





Photo 7 May 15, 2000  
Over spray onto ponds south berm.



Photo 8 May 15, 2000  
Foam or algae on pond.



Photo 9 May 15, 2000  
Produce water receiving tank with inadequate berm,  
no labeling and some spills.





**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

August 13, 1997

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-321**

Mr. Albert R. Greer  
Benson-Montin-Greer Drilling Corp.  
501 Airport Dr., Suite 221  
Farmington, NM 87401

**RE: Evaporation Pond and Landfarm Inspection  
Benson-Montin-Greer Drilling Corp.  
NW/4 of Section 20, Township 25 North, Range 1 East, NMPM  
Rio Arriba County, New Mexico**

Dear Mr. Greer:

The New Mexico Oil Conservation Division (OCD), inspected Benson-Montin-Greer Drilling Corp. (BMG) evaporation pond and landfarm located in the NW/4 of Section 20, Township 25 North, Range 1 East, NMPM Rio Arriba County, New Mexico, on June 9, 1997.

Overall the OCD found BMG to have a well maintained evaporation pond and landfarm. The OCD inspection and current file review of BMG indicates some permit deficiencies. Attachment 1 lists the permit deficiencies found at BMG during the inspection and the new Rule 711 requirements that are not on file. Attachment 2 contains photographs taken during the inspection. BMG shall provide OCD with a detailed description of how the corrections will be made and a time table of when each of the corrections will be completed. A response is required by BMG to these deficiencies by October 13, 1997.

Pursuant to Order R-10411-B the OCD General Rule 711 has been revised. The OCD is currently in the process of re-permitting all surface waste management facilities under the new Rule 711. BMG's waste management facility is included under the new Rule 711. A copy of Order R-10411-B along with the new bond forms is included with this report. A permit application, Form C-137 (attachment 3), shall be filed with the OCD according to the instructions in Attachment 1, Section 21.

Please be advised that the bonding requirements have changed under the new Rule 711. All centralized facilities are now required to submit acceptable financial assurance in the amount of \$25,000. BMG must have a new bond in place for the approved closure amount prior to receiving

Mr. Albert R. Greer

August 13, 1997

Page 2

a new waste management facility permit.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

A handwritten signature in cursive script, reading "Martyne J. Kieling".

Martyne J. Kieling

Environmental Geologist

Attachments

xc: Aztec OCD Office

**ATTACHMENT 1  
INSPECTION REPORT**

**JUNE 9, 1997**

**BENSON-MONTIN-GREER DRILLING CORP.**

**(NW/4 of Section 20, Township 25 North, Range 1 East, NMPM)**

**RIO ARriba COUNTY, NEW MEXICO**

1. **Pond Freeboard:** Liner markings or some other device shall be installed to accurately measure freeboard. Pond freeboard shall be a minimum two (2) feet below the top of the lowest point on the levee. The pond must be maintained below freeboard level at all times.

**The pond level was below freeboard. However, there was no marker that accurately measures the two (2) foot freeboard height (see pictures 1, 2, and 3).**

2. **Pond Levee:** The top of the levee shall be level, ponding of water should not occur, and the outside grade of the levee should be maintained to minimize erosion and maintain proper levee width.

**The levee top and sides were in excellent condition (see pictures 1, 2, and 3).**

3. **Leak Detection System:** The top of the leak detection monitor well must be above the top of the levee. The monitor well should be covered. In addition, the leak detection monitor well shall be inspected no less than two times per month.

**The leak detection monitor well was extended well above the levee and was covered. Reporting shows that the monitor well has been inspected regularly. The appearance of any additional fluids within the well should be sampled and comparison analysis made to the contents within the pond.**

4. **Sludge Build-up:** Any sludge build-up in the bottom of the pond in excess of twelve inches (12") will be removed and disposed of at an OCD approved disposal facility.

**Sludge thickness at the bottom of the pond should be measured.**

5. **Security:** The facility shall be secured when no attendant is present, to prevent any unauthorized dumping. Securing the facility may include locks on tank valves, a perimeter fence and locked gate or other similar security measures.

**Facility has a perimeter fence and locking gate (see pictures 1, 2, 3, and 4).**

6. **Signs:** The facility shall have a sign in a conspicuous place at the facility. The sign shall be maintained in legible condition and shall be legible from at least fifty (50) feet and contain the following information: a) name of facility, b) location by quarter-quarter section, township and range, and c) emergency phone number.

**Facility has a clearly labeled sign posted within view (see picture 4).**

7. **Drum Storage:** All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad and curb type containment.

**Empty drums and/or drums containing fluids were located at the facility (see picture 4).**

All drums and chemical containers should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill or ignite.

8. **Process Area:** All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

**Good yard maintenance practices were evident in the process areas.**

9. **Above Ground Tanks:** All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm so that leaks can be identified.

**The above ground tank at the evaporation pond has proper berming with sufficient volume (see picture 4).**

10. **Open Top Tanks and Pits:** To protect migratory birds, all tanks exceeding 16 feet in diameter, and exposed pits and ponds shall be screened, netted or covered.

**The evaporation pond was free of oil (see pictures 1, 2, and 3). Netting is not required on this pond.**

11. **Above Ground Saddle Tanks:** Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at

atmospheric temperature and pressure.

**NA There were no above ground saddle tanks at the facility.**

12. **Tank Labeling:** All tanks, drums and containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill or ignite.

**The above ground tanks and drums are not labeled as to their contents or the hazards of the contents (see picture 4).**

13. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing and/or visual inspection of cleaned out tanks or sumps, or other OCD approved methods.

**NA There were no below grade tanks/sumps at the facility.**

14. **Underground Process/Wastewater Lines:** All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter. Companies may propose various methods for testing such as pressure testing or other OCD approved methods.

**NA There were no underground process/wastewater pipelines at the facility.**

15. **Housekeeping:** All systems designed for spill collection/prevention should be inspected frequently to ensure proper operation and to prevent overtopping or system failure.

**The facility tank was free of over topping stains (see picture 6). Overall yard maintenance and spill prevention/cleanup was good. The landfarm area was fairly well maintained.**

16. **Trash and Potentially Hazardous Materials:** All trash and potentially hazardous materials should be properly disposed of.

**There was very little trash at this facility, with the exception of the unmarked drums (see picture 4).**

17. **Spill Reporting:** All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the appropriate OCD District Office.

**There were no spills evident at this facility.**

18. **Berming** : An adequate berm will be constructed and maintained to prevent runoff and runoff for that portion of the facility containing contaminated soils.

**Landfarm cell berms are in good shape and well maintained (see picture 5 and 6).**

19. **Soil Spreading, Disking and Lift Thickness**: All contaminated soils received at the facility will be spread and disked within 72 hours of receipt. Soils will be spread on the surface in six inch lifts or less. Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.

**At the time of inspection, contaminated soils on the runway had not been disked accordingly (see picture 5).**

20. **Free Liquids**: No free liquids or soils with free liquids will be accepted at the landfarm facility.

**NA There were no free liquids at the landfarm.**

21. **Application Requirements for Permit Under the New Rule 711**: An application, Form C-137, for a permit renewal shall be filed in DUPLICATE with the Santa Fe Office of the Division and ONE COPY with the Hobbs OCD district office. The application shall comply with Division guidelines and shall include:

- (a) The names and addresses of the applicant and all principal officers of the business if different from the applicant;

**Please submit with C-137 application.**

- (b) A plat and topographic map showing the location of the facility in relation to governmental surveys (1/4 1/4 section , township, and range), highways or roads giving access to the facility site, watercourses, water sources, and dwellings within one (1) mile of the site;

**This is already on file with the OCD.**

- (c) The names and addresses of the surface owners of the real property on which the management facility is sited and surface owners of the real property of record within one mile of the site;

**Please submit with C-137 application.**

- (d) A description of the facility with a diagram indicating location of fences and cattle guards, and detailed construction/installation diagrams of any pits, liner, dikes, piping, sprayers, and tanks on the facility;

**This is already on file with the OCD.**

- (e) A plan for management of approved wastes;

**Please submit with C-137 application.**

- (f) A contingency plan for reporting a cleanup of spills or releases;

**This is already on file with the OCD.**

- (g) A routine inspection and maintenance plan to ensure permit compliance;

**This is already on file with the OCD.**

- (h) A Hydrogen Sulfide (H<sub>2</sub>S) Prevention and Contingency Plan to protect public health;

**Please submit with C-137 application.**

- (i) A closure Plan including a cost estimate sufficient to close the facility to protect public health and the environment; said estimate to be based upon the use of equipment normally available to a third party contractor;

**Please submit with C-137 application.**

- (j) Geological/hydrological evidence, including depth to and quality of groundwater beneath the site, demonstrating that disposal of oil field wastes will not adversely impact fresh water;

**Depth to ground water is already on file with the OCD. However, information regarding the quality of the ground water at this location must be submitted with the C-137 application.**

- (l) Certification by an authorized representative of the applicant that information submitted in the application is true, accurate and complete to the best of the applicant's knowledge.

**Please submit with C-137 application.**



**BENSON-MONTIN-GREER 711 FACILITY INSPECTION (PHOTOS BY OCD)**

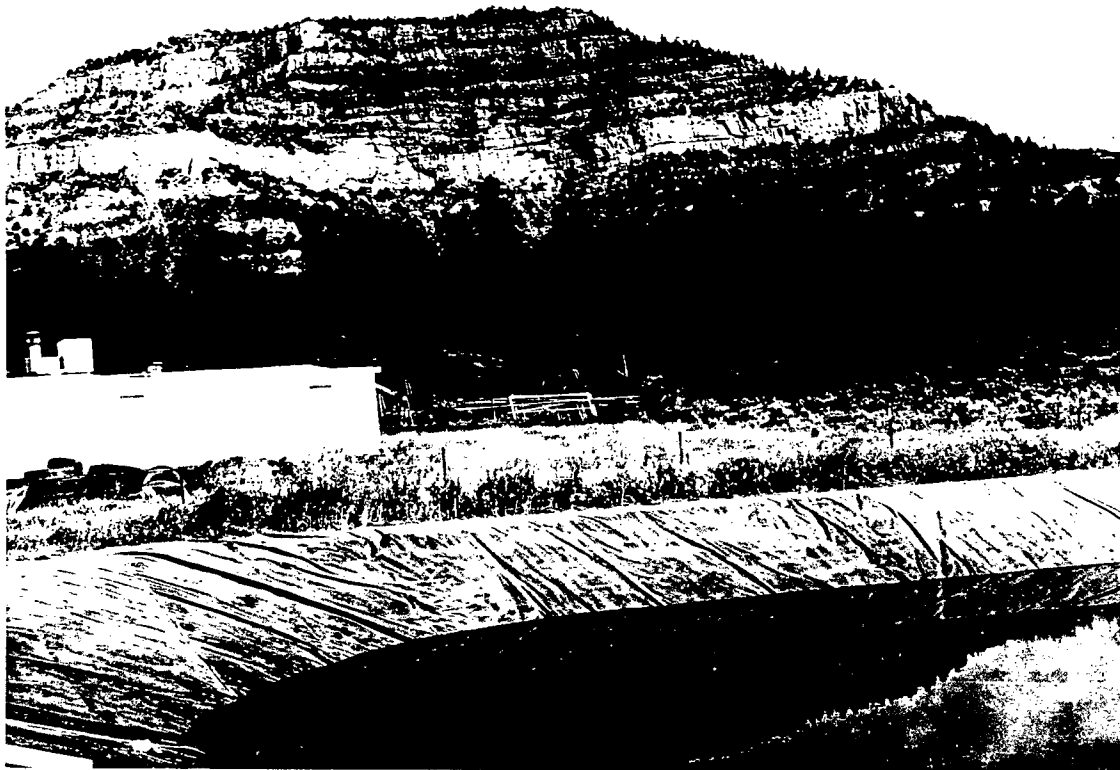


**PHOTO NO. 1      DATE: 06/09/97**



**PHOTO NO. 2      DATE: 06/09/97**

**BENSON-MONTIN-GREER 711 FACILITY INSPECTION (PHOTOS BY OCD)**



**PHOTO NO. 3**

**DATE: 06/09/97**



**PHOTO NO. 4**

**DATE: 06/09/97**

**BENSON-MONTIN-GREER 711 FACILITY INSPECTION (PHOTOS BY OCD)**



**PHOTO NO. 5**

**DATE: 06/09/97**



**PHOTO NO. 6**

**DATE: 06/09/97**



Bm 6 ~~4~~ Inspection

6/9/97

Evap Pit.



BMG Inspection

6/9/97

Runway Land Farm





BMG Inspection

Evap Pit 6/9/97



Bm6 Inspection

6/9/57

Evap Pit

**BENSON-MONTIN-GREER**  
DRILLING CORP.

CANADA OJITOS UNIT EVAPORATION POND  
NW NW SEC. 20-25N-1E  
RIO ARriba COUNTY, NM

IN CASE OF EMERGENCY, CALL B-M-G  
1-800-821-8982 (Office) or 505-326-2617 (Radio Dispatch)

BMG Inspection

6/9/97

EVAP PIT





BmG Inspection 6/9/97  
Runway Land Farm

**BENSON-MONTIN-GREER**  
DRILLING CORP.

CANADA OJITOS UNIT EVAPORATION POND  
NW NW SEC. 20-25N-1E  
RIO ARriba COUNTY, NM

IN CASE OF EMERGENCY, CALL 8-86-0  
1-800-621-9882 (TOLLFREE) OR 505-326-2617 (Radio Dispatch)

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Benson - Montin - Greer

Canada Ojitos Unit

Nw, Nw, Sec 20, 25 N, 1 E



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Benson - Montin - Green

Canada Ojitos Unit

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Benson - Montin Greer  
Canada Ojitos Unit  
NW, NW, Sec 20, 25N, 1E





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Benson - Montin - Greer

Canada Ojitos Unit

NW, NW, Sec 20, 25N, 1E