

DRILLING WELL PROGNOSIS

WELL NAME Mudge 303
 TYPE WELL Development
 FIELD/AREA Bisti, New Mexico

APPROX. LOCATION (SUBJECT TO SURVEY) SE NW 1/4 NE Sec. 16, T25N, R11W, San Juan County

EST. G. L. ELEVATION 6430 PROJECTED TD 6050 OBJECTIVE Dakota "B" Sandstone

| LE E | CASING PROGRAM | LOGGING PROGRAMS | MAX DEV. | DEPTHS AND FORMATION TOPS | SPECIAL INSTRUCTIONS |
|---------|-------------------|---------------------|-------------|---------------------------------|---|
| 1/4 | 8 5/8 | | | Ojo Alamo 555' | SAMPLES: 30': Surf to 4860 10': 4860 to TD |
| | | | | 600' | |
| | | | | Pictured Cliffs 1405' | CORES: 60' Dakota "B" Approx 5510-5570 |
| | | | | | DST's: None |
| | | | | | DEVIATION CONTROL 1° per 1000' Max Dogleg severity not to exceed 1-1/2° |
| 7/8" | 4-1/2" | | | | CEMENT 8-5/8 circulate to surface W.O.C. 4 hrs Prod. csg prognosis to follow later |
| | | | | Gallup Sd 4860 | MUD 0' to 4750': Water 4750 to TD: Nondispersed low solids |
| | | | | Greenhorn 5650 | |
| | | | | Dakota 5745 | |
| | | | | T.D. 6050 | |

ORIGINATOR: D. E. Amundson DATE 12/4/75

ENGINEERING APPROVAL:

OPERATIONS APPROVAL:

PETROLEUM:

DIV. DRILLING SUPT.

OPERATIONS:

DEVELOPMENT PLAN FOR LAND USE SHELL-MUDGE 303

Basin Dakota Gas Pool (Bisti Field)
San Juan County, New Mexico

1. Existing roads including location of the exit from the main highway.

The existing road off the main highway south of Carson Trading Post will be used and as shown on the attached vicinity map a short section of new road will be constructed to the well site located 970' FNL and 1735' FEL, Section 16-T25N-R11W, Basin Dakota Gas Pool (Bisti Field), San Juan County, New Mexico.

2. Planned access roads.

The only planned access roads are as in #1 above. All construction will be planned to minimize dirt work and surface disturbance.

3. Location of existing wells.

Existing wells are shown on the attached topo and vicinity maps.

4. Lateral roads to well locations.

These roads are shown on the attached maps.

5. Location of tank batteries and flow lines.

There will be no tank battery. Production from the well will flow through a small gas sales unit located on the prepared drill site. A buried pipeline will be constructed from the sales unit in an easterly direction and tie into an existing line in Section 17-T25N-R11W.

6. Location and type of water supply (rivers, creeks, lakes, ponds, wells, etc.)

Water for drilling this well will be obtained from a Shell operated water source well in SE/4 Section 13-T25N-R12W, San Juan County.

7. Methods of handling waste disposal.

Human waste will be handled by either a chemical toilet or conventional outdoor privy. All other trash will be disposed of by sanitary land fill as directed by the BLM.

8. Location of camps.

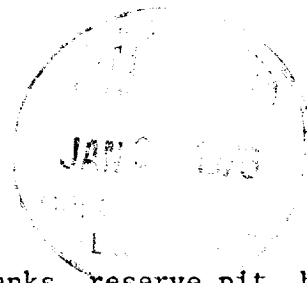
There will be no camps.

9. Location of airstrips.

There will be no airstrips.

10. Location of layout to include position of the rig, mud tanks, reserve pit, burn pits, pipe racks, etc.

See attached rig layout sheet.



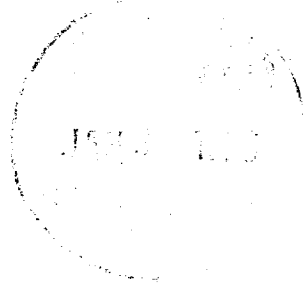
11. Plans for restoration of the surface.

Care will be taken to disturb as little of the surface as possible. After drilling operations are completed and the sales unit is set the surface will be restored to nearly as possible to its original condition as directed by the BLM.

12. Any other information.

Before operations are started any questions concerning location preparations, drilling operations, etc., should be directed to Mr. B. G. Jones, Drilling Superintendent, Shell Oil Company, 1700 Broadway, Denver, Colorado 80202, phone 303-572-2525. After operations are commenced a drilling foreman will be assigned to this well and his name, address and phone number will be furnished the interested governmental agencies.

C. L. Creager





SHELL OIL
COMPANY

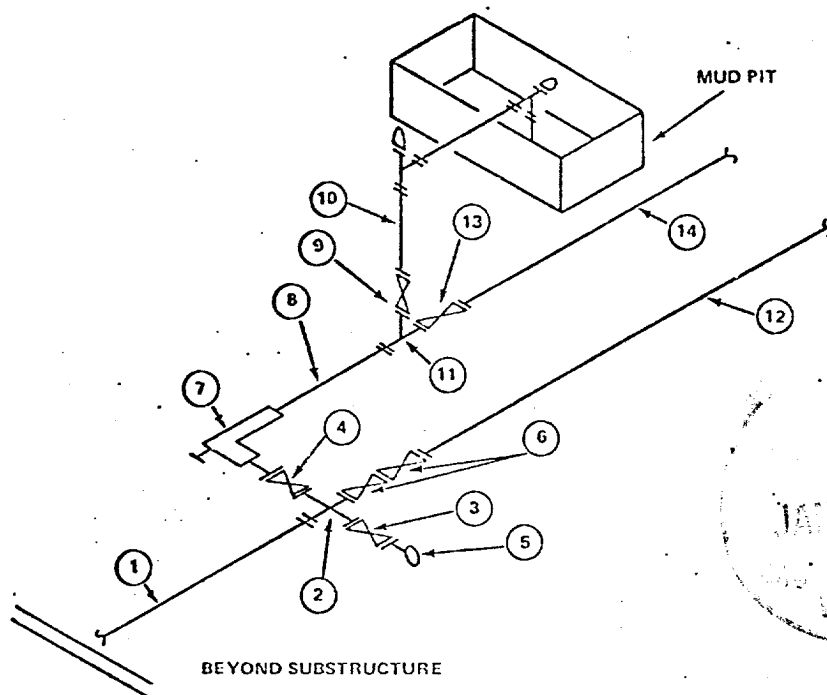
DRAWING NO. 201
SHELL CLASS 2M
2,000 psi Working Pressure

Well Mudge 303

Attachment #

Casing Size 8 5/8

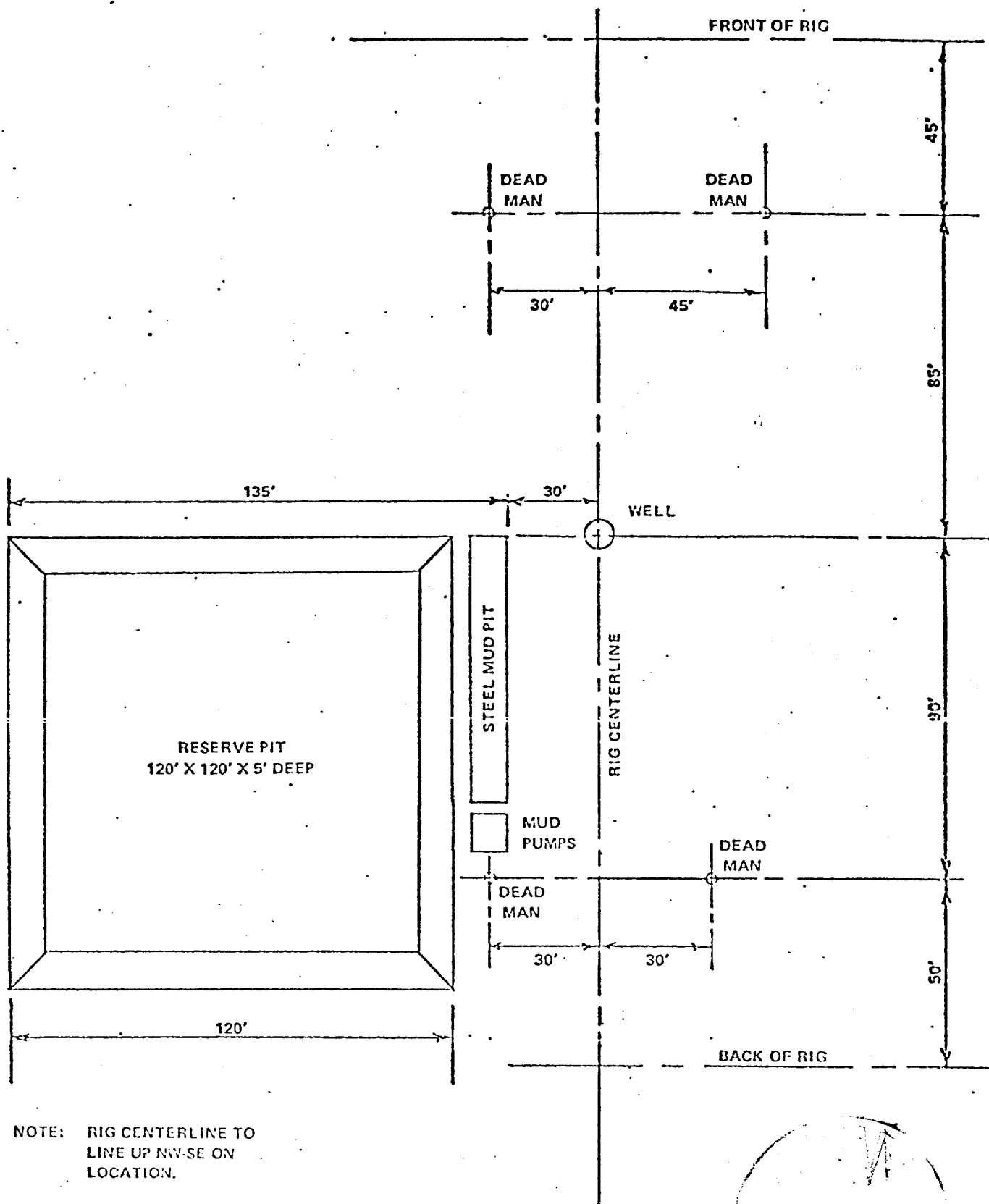
to
Bid Sheet & Drilling Order



| SHELL MINIMUM REQUIREMENTS | | | | | | | |
|----------------------------|---|--------------|--------------|------------------|------|--------------|-------|
| No. | Item | Min. I.D. | Min. Nom. | Press. Rating | Type | Furnished By | |
| | | | | | | Contr. | Oper. |
| 1 | Line from drilling spool | | 2" | 2000 | | X | |
| 2 | Cross 2" x 2" Cross 2" x 2" | | | 2000 | | X | |
| 3 | Valve Gate <input checked="" type="checkbox"/> Plug <input checked="" type="checkbox"/> | 1 13/16" | | 2000 | | X | |
| 4 | Valve Gate <input checked="" type="checkbox"/> Plug <input checked="" type="checkbox"/> | 1 13/16" | | 2000 | | X | |
| 5 | Compound Pressure Gauge | | | | | X | |
| 6 | Valves Gate <input checked="" type="checkbox"/> Plug <input checked="" type="checkbox"/> | 1 13/16" | | 2000 | | X | |
| 7 | Adjustable Choke | 1" | | 2000 | | X | |
| 8 | Line | | 2" | 2000 | | X | |
| 9 | Valve Gate <input checked="" type="checkbox"/> Plug <input checked="" type="checkbox"/> | 1 13/16" | | 2000 | | X | |
| 10 | Line | | 2" | 500 | | X | |
| 11 | Tee | | 2" | 2000 | | X | |
| 12 | Line to Reserve Pit | | 2" | 500 | | X | |
| 13 | Valve Gate <input checked="" type="checkbox"/> Plug <input checked="" type="checkbox"/> | 1 13/16" | | 2000 | | X | |
| 14 | Line to Reserve Pit | | 2" | 500 | | X | |

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating. Low pressure lines downstream from a choke can contain screwed connections.
2. All flanges to be API 6B and ring gaskets shall be API 6X.
3. All lines shall be securely anchored.
4. Choke to be equipped with tungsten carbide seat and needle and replacement parts shall be available on location.
5. Line from drilling spool to choke manifold to be straight as possible. Line downstream from chokes shall make turns by large radius bend or 90° bends using bull plugged tees.
6. Discharge line from choke, and choke bypass, should vent as far as practical from the well.
7. Additional specifications for Sour Service and Air/Gas Service are given in Shell Well Control Manual, Appendix 5.20 and Appendix 5.21.



SHELL OIL COMPANY
ROCKY MOUNTAIN DIVISION

DRILLING RIG REQUIREMENTS

