

AMERADA HESS CORPORATION

STANDARD PROCEDURES

FOR

BLOW OUT PREVENTION

AND CONTROL

EQUIPMENT

The following blow out prevention, monitoring and control equipment is to be installed on all AHC operated drilling wells.*

1. Minimum of 2 ram type B.O.P.'s with pipe rams in lower preventor and blind rams in the upper preventor with a flow cross flanged between. A third B.O.P. should be required when operating with a tapered drill string. The B.O.P.'s should have at least the same pressure rating as the well head on which they are installed. The preventors are to be operated hydraulically by an adequate opening and closing system. Manual hand wheels with extensions are to be attached to the B. O. P. 's.
2. 1-bag type B.O.P., hydraulically operated as above, with an element in good condition, and to be of at least the same pressure rating as the ram type B.O.P. -- up to 10,000 PSI.
3. B.O.P. manifold with hydraulic and manual inside valves and with two choke lines and one open line with proper block valves. All piping and valves to be of at least the same pressure rating as the B.O.P. stack.
4. Pit level monitoring device with at least one read out device at the driller's station.
5. Flow rate monitoring device with pump stroke counters connected to both pumps and with automatic trip fill up device with total read out device at the driller's station.

In addition to the equipment listed above, the following equipment is to be installed on any AHC operated drilling well that expects to drill an abnormally pressured zone, or is considered a wildcat well:

6. Hydraulically operated adjustable choke of at least the same pressure rating as the manifold to which it is connected.
7. Adequate mud gas atmospheric separator and mechanical degasser.
8. Automatic mud weighing device with chart read out recording at least the return mud weight.

(EQUIPMENT-cont'd.)

9. Chart read out of the flow rate, and pit volume totalizer devices listed above.
10. At least a portable mud gas detector and shale density kit, or when conditions or expectations warrant -- a complete mud logging unit is to be installed.
11. Adequate mixing facilities and storage for bulk barite materials.

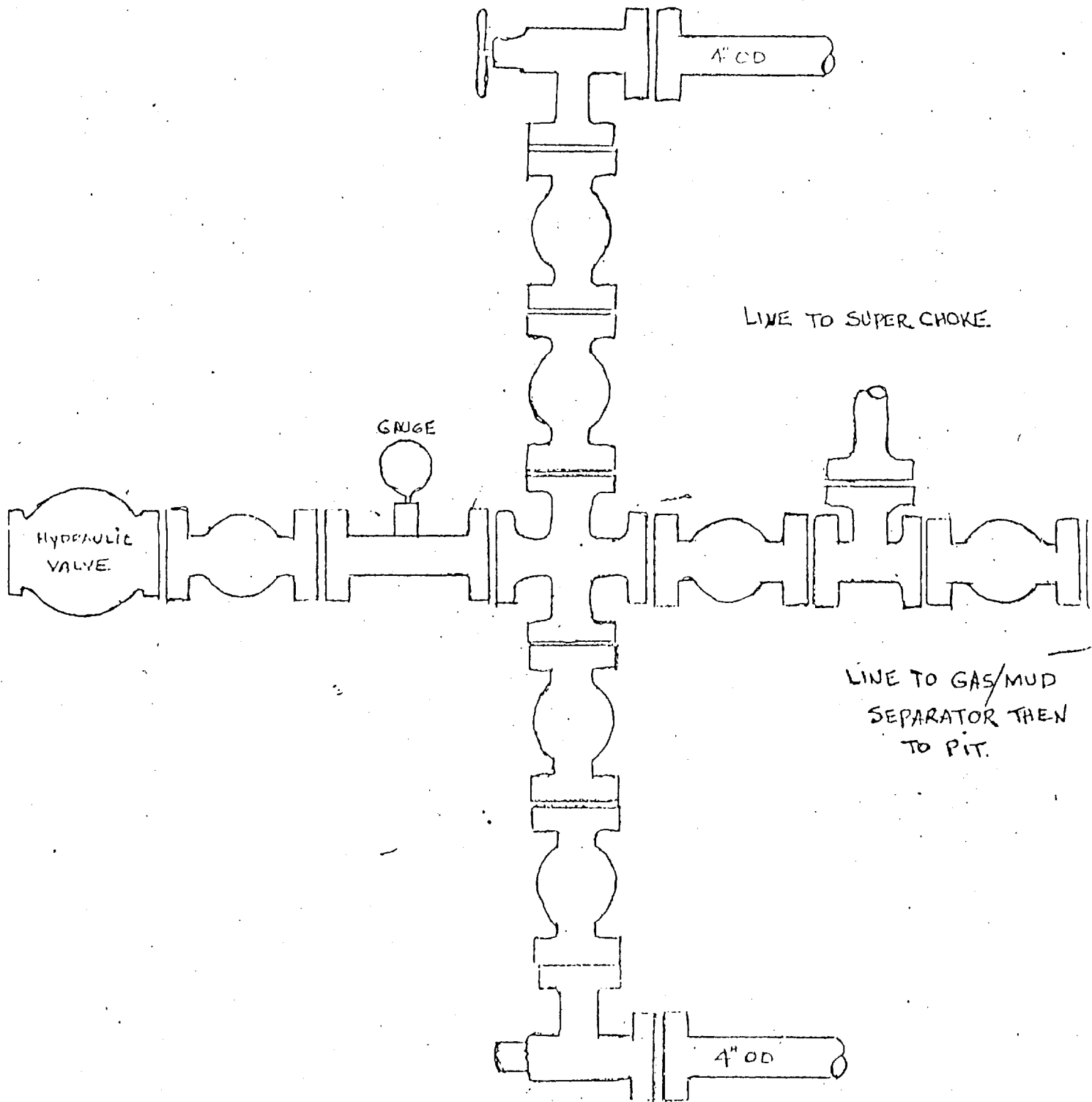
* Items 1 through 5 may be subject to some variations, as unusual conditions arise.

PRECAUTIONS

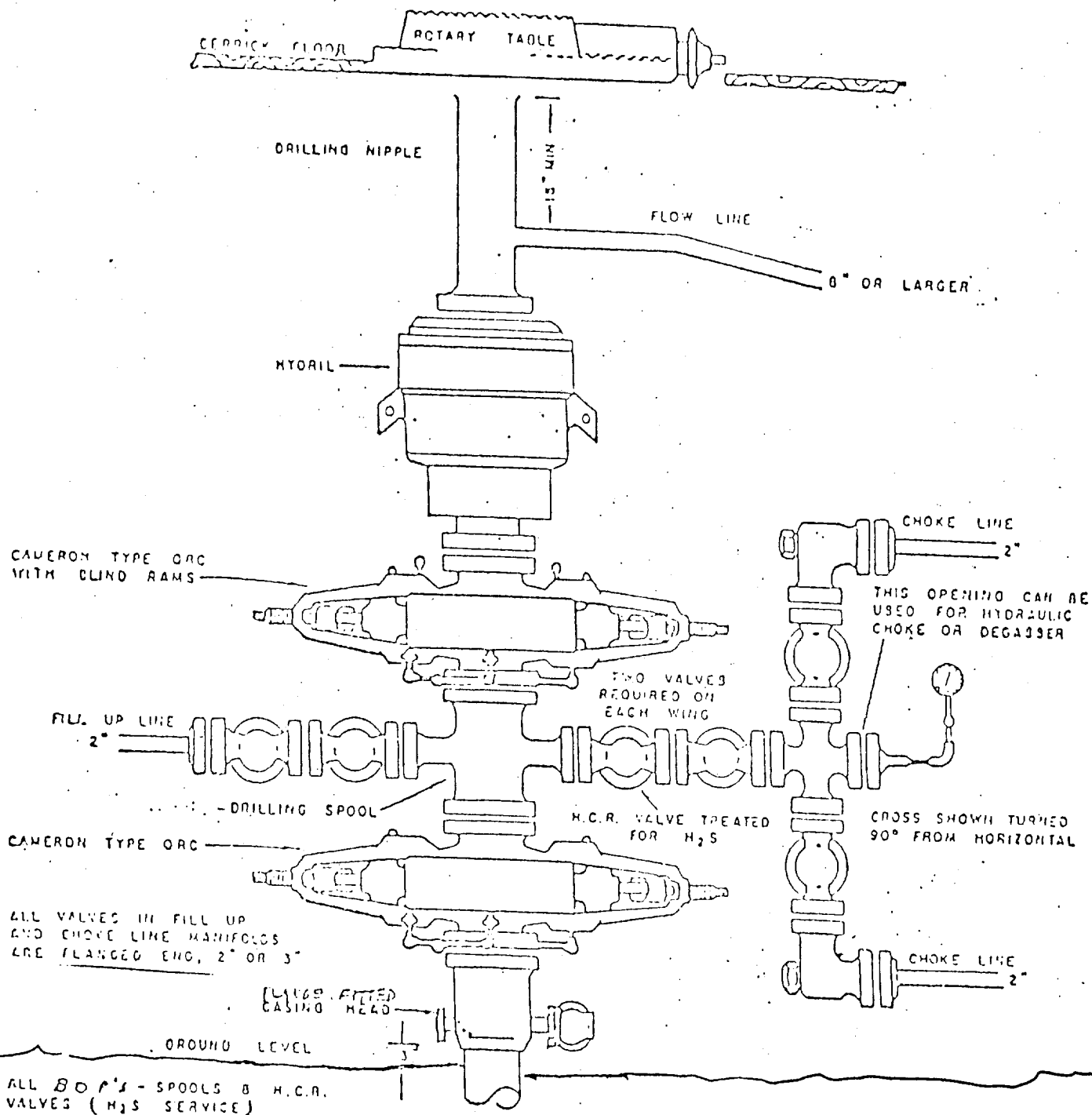
1. Properly rated and perfectly operating blow out preventors and control equipment are installed on the well.
2. At least the following devices are installed and monitored: Pit volume totalizer, flow rate recorder, and trip fill up counter. In addition, pump strokes, pump pressure, mud weight, and bit weight are analyzed for unusual values. On some of the more complex wells, an adjustable choke, degasser, mud weighing device, mud logging unit and bulk barite facilities will also be installed and monitored.
3. Drilling breaks are checked for flow at 3 feet and 10 feet into the break. If the break is of considerable magnitude, it is circulated out, especially if drilling in the proximity of a transition zone.
4. Gas cut mud is considered as a warning, and its cause and extent examined to satisfaction.
5. The hole is filled each 5 stands while pulling out of the hole and pump strokes and pit level decrease are measured and compared against calculated displacement values.
6. Formation pore pressures and fracture pressures are calculated from electric logs and used to aid in proper casing seat selection and mud weight ranges.

CHOKE. MANIFOLD ASSEMBLY
5000 PSI W.P. 10,000

ADJUSTABLE CHOKE.



POSITIVE CHOKE.



AMERADA HESS CORPORATION'S

LAYOUT PLAN FOR REQUIRED
BLOWOUT PREVENTER
ASSEMBLY

PREPARATIONS

1. Maximum safe pressure valves are calculated and made known for surface equipment and all casing strings, along with fracture pressure at deepest casing shoe or weakest exposed formation.
2. Conduct regularly scheduled (every 5-7 days or as conditions warrant) pressure tests of blow out preventors and control equipment to maximum working pressure with clear water. Check flange bolts for tightness.
3. Work blow out preventors, hydraulic valves, and adjustable choke every trip and pump through choke manifold every other trip.
4. Have choke lines tied into a stack (atmospheric) separator.
5. Establish who has the responsibility for detecting a kick and shutting the well in. This should include checking fill up on trips and watching the hole while other operations are being conducted.
6. Establish who will do what during the killing operations explain to all why each job is important to the success of killing the well.
7. Conduct surprise drills on kick detection and shut in procedures.
8. For maximum safety it is important that pipe rams be placed in the bottom ram type preventor so the well can be shut in if something cuts out in the upper section of the B.O.P. stack or if it is necessary to change rams.
9. Use clean hydraulic oil in the accumulator unit and check level weekly.
10. Each person who is to operate the hydraulic adjustable choke should be completely familiar with the mechanics and operation of the choke.
11. In order to provide necessary data for the killing operation, pump pressures are recorded each tour for pump speeds of 20 and 30 strokes per minute. This data is also repeated if the mud weight is increased during a tour.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE*
(Other instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

Lease Contract #9

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jic. Apache

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Jic. Apache "A"

9. WELL NO.

10

10. FIELD AND POOL, OR WILDCAT

Otero, Dakota

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Sec. 35, T25N, R5W

12. COUNTY OR PARISH 13. STATE

Rio Arriba

New Mexico

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

Amerada Hess Corporation

3. ADDRESS OF OPERATOR

Box 2040 - Tulsa, Oklahoma 74102

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

890' FNL, 1750' FEL

14. PERMIT NO.

Verbal

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6935 GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

Drilling Completion

REPAIRING WELL

ALTERING CASING

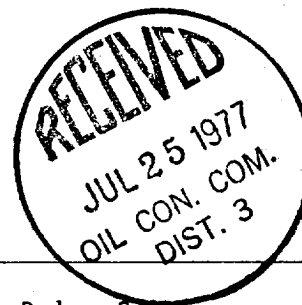
ABANDONMENT*

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

M.I. & R.U. Aztec Rig #24 and Spudded 13 3/4" hole @ 10:00 PM 6-11-77.
Drld. from 0'-365'. RU, Ran & cemented 8 jts. 9 5/8" OD 32# H40 csg. @ 365' w/350
sx Cl. "B" cmt. - Plug down @ 12:30 PM 6-11-77. WOC. Drilled float collar and out
from under 9 5/8" csg. to 7575' T.D. RU Go-Wireline Serv. & logged interval 7575'
to 2600' w/IEL w/SP, CDL, GR & Calipre. RD loggers. Circ. & cond. f/5 1/2" csg.

RU, Ran & cemented 188 jts. 5 1/2" OD 15.5# & 17# K55 8RL & 8RS csg. set at 7569'
and cemented in 2-stages: 1st stage w/520 sx. 50-50 Poz. plug down at 3:50 PM
6-30-77 - Cmt. 2 nd stage w/325 sx. 65-35 Poz. Displaced plug to 5785' - Plug down at
5:15 PM 6-30-77. Landed 5 1/2" csg. on type RS-7 Gulfco slips in Type Rs. csg. head.
Backed out landing jt. and ND BOP's.
Rig released at 9:00 PM 6-30-77
Well turned to Production Dept. f/completion
Final Report From Drilling Services.



18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE Admin. Assist. Drlg. Svcs. DATE 7-1-77

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side