



UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
Minerals Management Service
South Central Region
P.O. Box 26124
Albuquerque, New Mexico 87125

IN REPLY REFER TO:

RECEIVED

FEB 4 1982

O. C. D.
ARTESIA, OFFICE

FEB 03 1982

Bel-Dyn, Inc.
P.O. Box 136
Lovington, New Mexico 88260

Gentlemen:

Your application for Permit to Drill well No. 1 Hale Federal in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 19 S., R. 30 E., Eddy County, New Mexico, lease NM-0560353, to a depth of 3500 feet to test the Queen formation in the oil-potash area, is hereby approved as amended by stipulations attached to the application.

One copy of the application is returned herewith. Please notify the District Supervisor, Geological Survey, Roswell, New Mexico, in sufficient time for a representative to witness all cementing operations.

Sincerely yours,

~~(ORIG. SCD.) GENE F. DANIEL~~
~~(ORIG. SCD.) MICHAEL F. REITZ~~
FOR Gene F. Daniel
Deputy Minerals Manager
Oil and Gas

Enclosure

CC:
INMOCD (2)
BLM - Carlsbad
CM, SCR
DCM - Mining (2)
Regional Files
Roswell District Files
Artesia Sub-district
Suspense File
ARF
RCF

RACHapman:mvd:1/29/82

SUPPLEMENTAL DRILLING DATA

BEL-DYN, INC.
WELL #1 HALE FEDERAL
NE $\frac{1}{4}$ SW $\frac{1}{4}$ SEC. 1-19S-30E
EDDY COUNTY, NEW MEXICO

1. SURFACE FORMATION: Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Salt	600'	Queen	3050'
Base Salt	1950'	Penrose	3280'
Yates	2170'		

3. ANTICIPATED POROSITY ZONES:

Water	Less than 150'
Oil	2540 - 2570'
Oil	3050 - 3080'

4. CASING DESIGN:

<u>Size</u>	<u>Interval</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>	<u>Condition</u>
7 "	0 - 750'	17.0#	H-40	STC	Used
4 $\frac{1}{2}$ "	0 - 3500'	9.5#	K-55	STC	Used

5. SURFACE CONTROL EQUIPMENT: Pressure control valve and oil saver.

6. CIRCULATING MEDIUM: Not applicable for cable tool hole.

7. AUXILIARY EQUIPMENT: None considered necessary on shallow development well.

8. LOGGING PROGRAM: Gamma Ray Log will be run to TD.

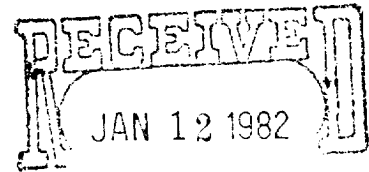
9. ABNORMAL PRESSURES, TEMPERATURES OR GASES: None anticipated.

10. ANTICIPATED STARTING DATE: It is planned that operations will commence about January 15, 1982. Duration of drilling and completion operations should be 30 to 90 days.

SURFACE USE PLAN

FOR

DRILLING, COMPLETING AND PRODUCING



OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

BEL-DYN, INC.
WELL #1 HALE FEDERAL
1980' FSL & 1980' FWL SEC. 1-19S-30E
EDDY COUNTY, NEW MEXICO

LOCATED: 9½ air miles south-southeast of Loco Hills, N. M.

FEDERAL LEASE NUMBER: NM 0560353

LEASE ISSUED: 11-1-47 for a primary term of 5 years and will continue for life of production on NM 0560353 and/or LC 063613.

RECORD LESSEE: Estate of Mabel E. Hale

OPERATOR'S AUTHORITY: Designation of Operator (to be furnished at a later date)

BOND COVERAGE: Lessee's bond.

ACRES IN LEASE: 2160.32

SURFACE OWNER: U. S. Government with grazing permit issued to Slash-X Ranch, % M. D. Irwin, P. O. Box 68-A, Logan, New Mexico 88246

POOL: Shugart (Y, SR, Q, Gb) Ext.

WELL SPACING: 40-acre

EXHIBITS:

- A. County Road Map
- B. Topographic Map
- C. Oil & Gas Map
- D. Sketch of Well Pad

ROAD LOG TO PROPOSED DRILLSITE

STARTING POINT is 5.2 miles east of Loco Hills, New Mexico at the intersection of State Highway NM-31 with Federal Highway US-82.

- 0.00 Turn south and proceed on NM-31 in a southerly direction for a distance of 7.13 miles. On the right side of the road, there is a sign marked "Hondo Oil & Gas Co.--Culvin Queen Unit".
- 7.13 Turn right (west) on old pipeline road and proceed in a west-southwesterly direction toward the large water storage tank of Amax Potash Co. for a distance of 2.60 miles.
- 9.73 Turn left (south) on old lease road and proceed in a southerly direction for a distance of 0.67 mile.
- 10.40 Turn right (west) on old ranch road and proceed in a westerly direction for a distance of 0.23 mile.
- 10.63 New road will start at this point. Turn left (south) and proceed in a south-southwesterly direction for a distance of 0.07 mile to the east edge of the proposed drillsite.
- 10.70 PROPOSED DRILLSITE. (Well #1 Hale Federal).

THIRTEEN POINT PROGRAM

1. EXISTING ROADS: Existing roads, which lead to the proposed drillsite, are shown on Exhibits "A" & "C".
2. PROPOSED NEW ROAD: Proposed new access road will be 0.07 mile in length. Exhibit "C" shows proposed route which will originate at mileage-10.63 on the road log and will terminate at the east edge of the proposed drill pad. The center of the proposed new road has been staked and flagged.
 - A. Width: 12 feet.
 - B. Surfacing Material: The new road will not be surfaced.
 - C. Maximum Grade: Less than one percent.
 - D. Turnouts: None necessary.

- E. Road Design: No road construction is planned. Roadway will be cleared of mesquite and yucca bushes.
- F. Culverts: None necessary.
- G. Gates, Cattleguards: None necessary.
- 3. LOCATION OF EXISTING WELLS: Existing wells in the vicinity of the proposed drillsite are shown on Exhibit "C".
- 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
 - A. Bel-Dyn has no production facilities on the leasehold.
 - B. If the well is productive, production and storage facilities will be constructed on the well pad area.
- 5. LOCATION AND TYPE OF WATER SUPPLY: It is not planned to drill a water supply well. Water for leasehold operations will be trucked to the drillsite.
- 6. SOURCE OF CONSTRUCTION MATERIALS: Well pad will be constructed from material on location. Only minimum amount of surface will be disturbed for preparing well pad and cable tool pit.
- 7. METHODS OF HANDLING WASTE DISPOSAL:
 - A. Drill cuttings will be disposed of in the drilling pits.
 - B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
 - C. Water produced during tests will be disposed of in the drilling pits.
 - D. Oil produced during tests will be produced into temporary test tanks.
 - E. Trash, waste paper, garbage, and junk will be buried in a trash pit and covered with a minimum of 24 inches of dirt or hauled from the location. All waste material will be contained to prevent scattering by the wind.
 - B. All trash and debris will be buried or removed from the wellsite within 30 days after finishing each drilling and/or completion operation.

8. ANCILLARY FACILITIES: None anticipated.

9. WELLSITE LAYOUT:

- A. The wellsite has been surveyed and a 400' x 400' area has been staked and flagged.
- B. The dimensions and relative location of the drill pad and mud pit, with respect to the well bore are shown on Exhibit "D".
- C. The well pad area is relatively level and no cut or fill is planned for the small cable tool rig.
- D. The well pad area will be cleared of mesquite and yucca bushes and will not be surfaced.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment, all equipment, trash and junk will be removed and the location cleaned. Any special rehabilitation and/or special revegetation requirements of the BLM will be complied with and accomplished as expeditiously as possible.

11. OTHER INFORMATION:

- A. Topography: The undisturbed wellsite is at an elevation of 3528 Feet and is relatively level. The terrain at the well pad slopes to the northwest and regional slope is to the southeast toward the Pecos River.
- B. Soil: Top soil at the wellsite is sandy loam.
- C. Land Type & Use: The vicinity surrounding the drillsite is semi-arid rangeland and its primary use is for grazing.
- D. Flora: Vegetative cover is moderately sparse. Flora consists primarily of range grasses interspersed with mesquite, yucca, broomweed and other desert plants.

- E. Fauna: No wildlife was observed, however fauna for this type of habitat usually consists of rabbits, rodents, coyotes, skunks, lizards, snakes, quail, dove, and other small birds.
- F. Ponds & Streams: None.
- G. Water Wells: There are no water wells within one mile of the drillsite.
- H. Residences & Other Structures: Nearest occupied dwelling is 2 miles to the northwest.
- I. Archaeological, Historical & Cultural Sites: Agency for Conservation Archaeology of Portales, New Mexico has made a survey of the proposed drillsite and new road areas and has recommended that the proposed construction work be approved.

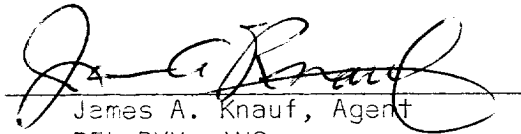
12. OPERATOR'S REPRESENTATIVE: Representative responsible for assuring compliance with the approved Surface Use Plan:

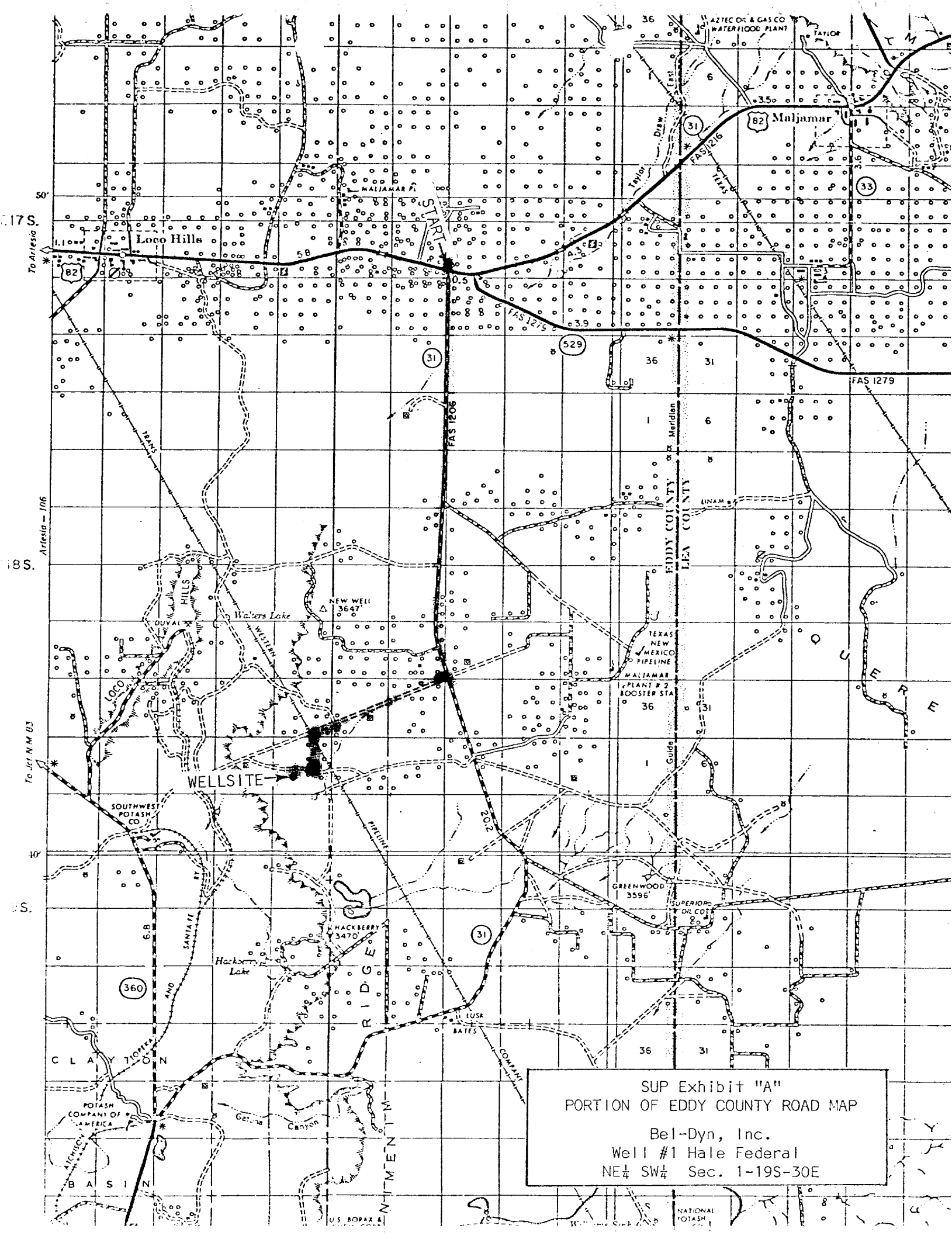
Don Bell
President, Bel-Dyn, Inc.
P. O. Box 136
Lovington, New Mexico 88260
Phone 505-396-3572

13. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by BEL-DYN, INC. and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

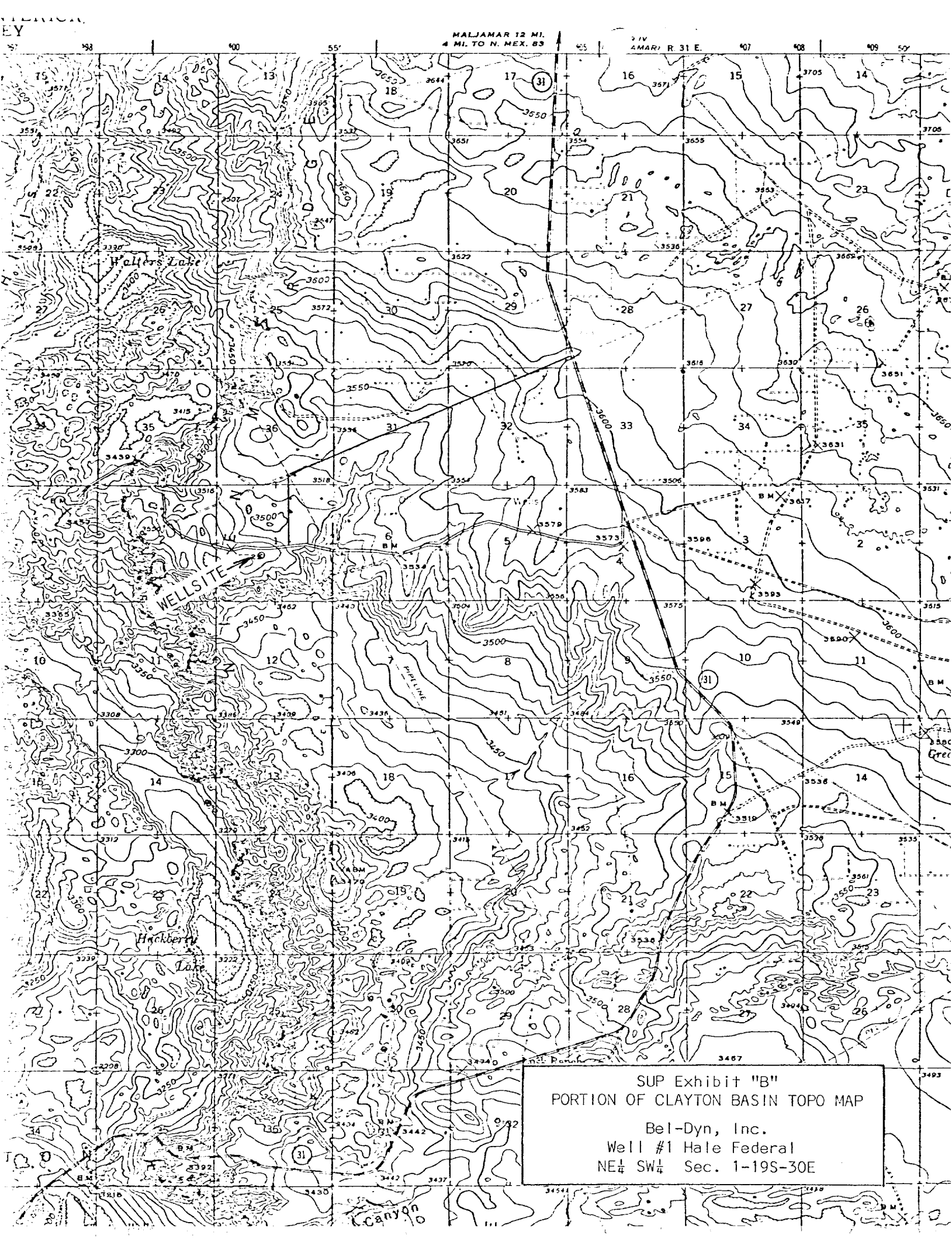
January 8, 1982
Date


James A. Knauf, Agent
BEL-DYN, INC.



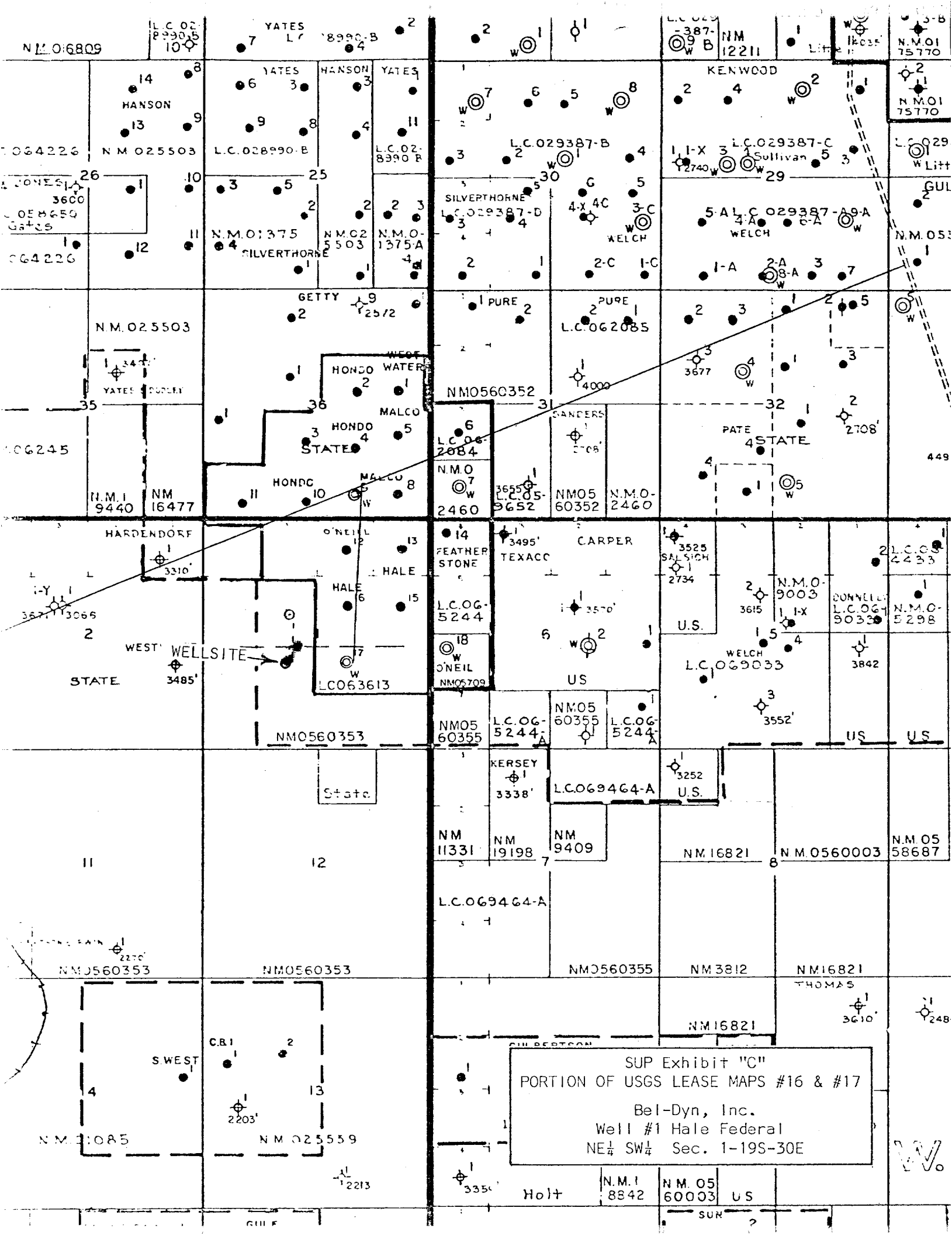
SUP Exhibit "A"
PORTION OF EDDY COUNTY ROAD MAP

Bel-Dyn, Inc.
Well #1 Hale Federal
NE 1/4 SW 1/4 Sec. 1-19S-30E

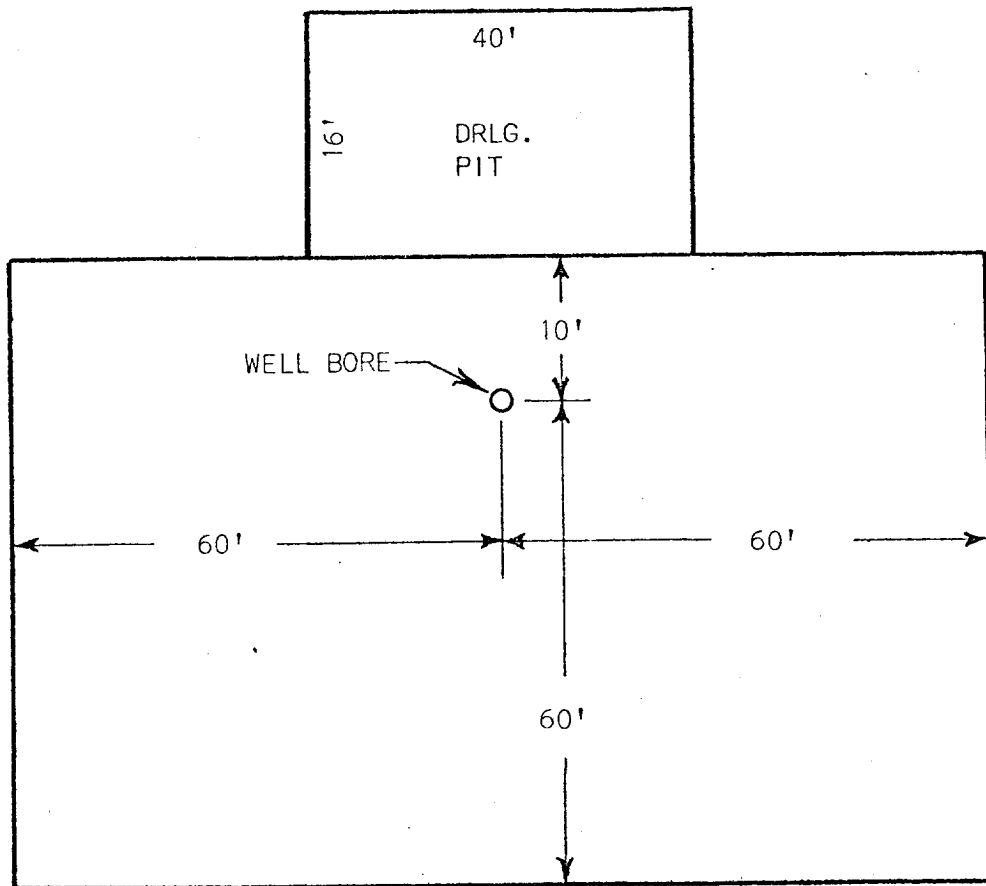


SUP Exhibit "B"
PORTION OF CLAYTON BASIN TOPO MAP

Bel-Dyn, Inc.
Well #1 Hale Federal
NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 1-19S-30E



CABLE TOOL DRILL PAD



SUP Exhibit "D"
SKETCH OF WELL PAD

Bel-Dyn, Inc.
Well #1 Hale Federal
NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 1-19S-30E