N. M. Oil Cons. Division
811 S. 1ST ST.
ARTESIA, NM 88210-2

Form 3160-3
(July 1992)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

(Other instructions on reverse side)

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: SL-NM-02887D/BHL-NM-02953C

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: JAMES RANCH UNIT

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [X]

8. FARM OR LEASE NAME, WELL NO.: JAMES RANCH UNIT #24 (17860)

2. NAME OF OPERATOR: Bass Enterprises Production Co. (1801)

9. API WELL NO.: 30-015-31030

3. ADDRESS AND TELEPHONE NO.: P.O. Box 2760, Midland, TX 79702-2760 — 915-683-2277

10. FIELD AND POOL, OR WILDCAT: LOS MEDANOS [redacted] & WOLFCAMP); South

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 200' FNL,1295' FEL, SECTION 6, T23S, R31E Lot 1, (Unit A)
At proposed prod. zone: BHL: 1980' FSL, 660' FEL, SECTION 31, T22S, R31E (Unit I)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SURF: SEC 6, T23S, R31E

12. COUNTY OR PARISH: EDDY — 13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 38 MILES EAST OF CARLSBAD, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	320	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
1320'	11382' TVD/11840' MD	ROTARY (Post 3-24-00)

21. ELEVATIONS (Show whether DF,RT, GR, etc.): 3329' GR

CARLSBAD CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*: UPON APPROVAL

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
*14-3/4"	11-3/4", WC40	42#	WITNESS 700'	390 SX CIRC TO SURFACE
11"	8-5/8", K55	32#	WITNESS 4000'	1010 SX CIRC TO SURFACE
7-7/8"	5-1/2", P110	17#	WITNESS 11,840'	1765 SX CIRC TO SURFACE. DV TOOL @ 5500'.

*SURFACE TO BE SET IN THE RUSTLER ANHYDRITE.
DRILLING PROCEDURE, BOPE DIAGRAM, ANTICIPATED TOPS AND SURFACE PLANS ATTACHED.
THIS WILL BE A CONTROLLED DIRECTIONAL WELL. KOP @ APPROX 5200', BUILDING ANGLE AT APPROX 2.0 DEG/100' TO 18.88 DEG AT 6144' AND HOLDING THAT ANGLE TO 10,394' WHERE WE WILL BEGIN TO BUILD AT 2.0 DEG/100' TO 36.15 DEG AT 11,257' AND HOLD THAT ANGLE TO PTD. THE LEASE LINE WILL NOT BE CROSSED PRIOR TO 6000' TVD AND ALL OBJECTIVES BELOW 11,011' TVD WILL BE SITHIN ORTHODOX SPACING LIMITS.

**(ALL DEPTH MEASURED DEPTH EXCEPT WHEN SPECIFIED OTHERWISE.)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

THIS WELL IS LOCATED WITHIN THE R-111P POTASH AREA AND ALL POTASH LEASE OWNERS WITH A MILE OF THE PROPOSED LOCATION WILL BE NOTIFIED OF THE DRILLING OF THIS WELL. POTASH NOTIFICATIONS WILL BE SENT UNDER SEPARATE COVER.

R-111-P POTASH SECRETARY'S POTASH

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED William R. Dannels — TITLE W. R. DANNELS, DIVISION DRILLING SUPT. — DATE 12-29-99

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /S/ F Splendoria — TITLE Acting STATE DIRECTOR — DATE 3-14-00

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Notify OCD at SPUD & TIME to witness cementing the


RECEIVED
JAN 05 2000
BLM
ROSWELL, NM

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		LOS MEDANOS (WOLFCAMP & BONE SPRING)

Property Code	Property Name	Well Number
	JAMES RANCH UNIT	24

OGRID No.	Operator Name	Elevation
001801	BASS ENTERPRISES PRODUCTION COMPANY	3329'

Surface Location

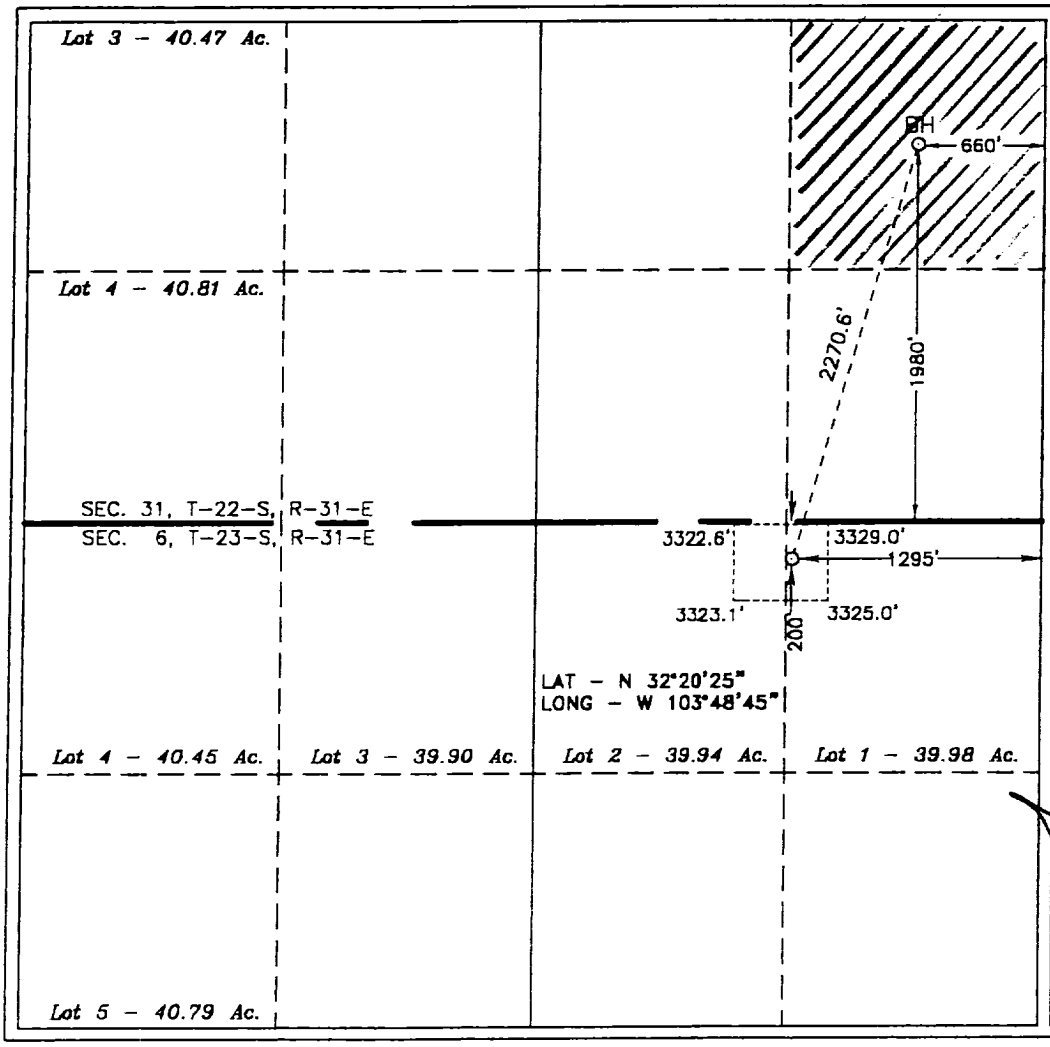
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 1	6	23 S	31 E		200	NORTH	1295	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	31	22 S	31 E		1980	SOUTH	660	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40	Y		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

William R. Dannels
Signature

William R. Dannels
Printed Name

Division Drilling Supt.
Title

12-29-99
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

November 16, 1999
Date Surveyed

Signature & Seal of Professional Surveyor

NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

W.O. No. 9487

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

EIGHT POINT DRILLING PROGRAM
BASS ENTERPRISES PRODUCTION CO.

NAME OF WELL: JAMES RANCH UNIT #24

LEGAL DESCRIPTION - SURFACE: 200' FNL & 1295' FEL, Section 6, T-23-S, R-31-E, Eddy County, New Mexico.

Bottom Hole Location: 1980' FSL & 660' FEL, Section 31, T22S, R31E, Eddy County, New Mexico.

POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3345' (est)
GL 3329'

FORMATION	ESTIMATED TOP FROM KB		ESTIMATED SUBSEA TOP	BEARING
	TVD	MD	TVD	
T/Rustler	630'	630'	+2,715'	None
T/Salt	730'	730'	+2,615'	None
B/Salt	3,630'	3,630'	- 285'	None
T/Ramsey	4,020'	4,020'	- 675'	None
T/Delaware 'C'	7,308'	7,392'	- 3,963'	Oil & Gas
T/Delaware 'D'	7,548'	7,646'	- 4,203'	Oil & Gas
T/Bone Spring	7,841'	7,955'	- 4,496'	Oil & Gas
T/3rd Bone Spring	11,011'	11,381'	- 7,666'	Oil & Gas
T/Wolfcamp	11,137'	11,537'	- 7,792'	Oil & Gas
TD	11,382'	11,840'	- 8,037'	

POINT 3: CASING PROGRAM

TYPE	INTERVALS	PURPOSE	CONDITION
16"	0' - 40'	Conductor	New
11-3/4", 42#, H-40, STC	0' - 700'	Surface	New
8-5/8", 32#, K-55, STC	0' - 4,000'	Intermediate	New
5-1/2", 17#, P-110, LTC	0' – 11,840'	Production	New

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

A BOP equivalent to Diagram 1 will be nippled up on the surface casing head. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. will be hydro-tested to the lowest rated working pressure of the equipment being tested. In addition to the rated working pressure test, a low pressure (200 psi) test will be required. These tests will be performed:

a) Upon installation
b) After any component changes
c) Fifteen days after a previous test
d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip. See the attached Diagram 1 for the minimum criteria for the choke manifold.

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - 700'	FW Spud Mud	8.5 - 9.2	35-40	NC	NC	NC	NC
700' - 4,000'	BW	9.8 - 10.2	29-30	NC	NC	NC	NC
4,000' - 7,800'	FW/Starch	8.4 - 8.8	29-31	NC	NC	NC	9.5 - 10.5
7,800' - 11,840'	CBW/Polymer	8.6 - 9.8	34-45	10-14	12-18	15-18	9.5 - 10.5

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

Drill stem tests will be performed on significant shows in zones of interest.

B) LOGGING

GR-CNL-LDT, GR-DLL-MSFL run from TD to 4000', GR-CNL intermediate casing shoe to surface.

C) CORING

No cores are anticipated.

D) CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE Circ to surface Lead (100% excess)	±290	575	Class C + 4% Gel + 2% $CaCl_2$ + 1/4 ppg Celloflake	9.17	13.50	1.75
Tail (100% excess)	±100	125	Class C + 2% $CaCl_2$ + 1/4 ppg Celloflake	6.36	14.80	1.34

POINT 6: TECHNICAL STAGES OF OPERATION Con't...

D) CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT³/SX
INTERMEDIATE						
Circ to surface						
Lead	±760	3370	50/50 Poz C + 10% Gel + 5% Salt	12.09	12.59	2.24
(100% excess)						
Tail	±250	630	Class C + 1% $CaCl_2$	6.34	14.80	1.34
(100% excess)						

PRODUCTION (Two stage w/DV tool @ 5500' and circulate cement to surface.)

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT³/SX
1st Stage						
5500'-11,840'	1215	6340	Poz H + 0.5% FL-25 + 0.5% FL-52 + 2 pps Salt	6.36	14.00	1.36
(50% excess)						
2nd Stage						
LEAD						
0'-5000'	450	5000	Poz H + 10% Gel + 5% Salt + 0.2% FL-52	12.09	12.59	2.24
(50% excess)						
TAIL						
5000'-5500'	100	500	Class C Neat	6.34	14.80	1.34
(50% excess) (50% excess)						

E) DIRECTIONAL DRILLING (See attached directional plan.)

A straight hole will be drilled to 5200' TVD. A gyro or multi-shot directional survey will be taken at 100' intervals from 5200' to surface.

Directional surveys will be provided at least every 200' from TD to 5200' detailing hole location.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout the Delaware section. The Bone Spring expected BHP is 6000 (max) or an equivalent mud weight of 10.0 ppg @ TD. Due to the tight nature of the reservoir rock (high pressure, low volume), the well will be drilled under balanced utilizing a rotating head. The expected BHT at TD is 170°F. Prior to penetrating the abnormal pressures in the Bone Spring and Wolfcamp, mud-monitoring equipment will be installed and operative. No H_2S is anticipated.

POINT 8: OTHER PERTINENT INFORMATION

A) Auxiliary Equipment

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

31 days drilling operations

15 days completion operations

JCW/mac
December 29, 1999

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: JAMES RANCH UNIT #24

LEGAL DESCRIPTION - SURFACE: 200' FNL & 1295' FEL, Section 6, T-23-S, R-31-E, Eddy County, New Mexico.

Bottom Hole Location: 1980' FSL & 660' FEL, Section 31, T22S, R31E, Eddy County, New Mexico.

POINT 1: EXISTING ROADS

A) Proposed Well Site Location:

See Exhibit "A".

B) Existing Roads:

From Jal, New Mexico, go west on Hwy 128 approximately 47 miles (10 miles east of Hwy 31 & Hwy 128). Go North on paved WIPP road for 3/4 mile. Turn right and go East 1/2 mile on lease road then north 1/4 mile, then east into location.

C) Existing Road Maintenance or Improvement Plan:

See Exhibit "A".

POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location:

See Exhibit "A". If this well is the first well on the 5 well location pad, the new road from existing JRU #65 location will be 12' wide and approximately 800' long. The road will be constructed of watered and compacted caliche. If not the first well on the location pad, no new road will be required.

B) Width

Not applicable

C) Maximum Grade

Not applicable.

D) Turnout Ditches

None.

POINT 2: NEW PLANNED ACCESS ROUTE – Con't...

E) Culverts, Cattle Guards, and Surfacing Equipment

None.

POINT 3: LOCATION OF EXISTING WELLS

Exhibit "A-1" indicates existing wells within the surrounding area.

POINT 4: LOCATION OF EXISTING OR PROPOSED FACILITIES

A) Existing facilities within one mile owned or controlled by lessee/operator:

Production facilities and wells are shown on Exhibit "A-1" at:

James Ranch Unit #1
James Ranch Unit #4
James Ranch Unit #7
James Ranch Unit #10
James Ranch Unit #13
James Ranch Unit #19
James Ranch Unit #29

B) New Facilities in the Event of Production:

Will build new facilities at new James Ranch Unit #22, 23, 24, & 25 surface pad and lay a flowline to those facilities.

C) Rehabilitation of Disturbed Areas Unnecessary for Production:

Those access areas required for continued production will be graded to provide drainage and minimize erosion. The areas unnecessary for use will be graded to blend in the surrounding topography – See Point 10.

POINT 5: LOCATION AND TYPE OF WATER SUPPLY

A) Location and Type of Water Supply

Brine water will be hauled form commercial facilities. Fresh water to be hauled from Diamond and a Half Meter Station, 35 miles east of Carlsbad, New Mexico or from Mills Ranch.

B) Water Transportation System

Water hauling to the location will be over the existing and proposed roads.

POINT 6: SOURCE OF CONSTRUCTION MATERIALS

A) Materials

Surface caliche will be used if possible. Closest alternate caliche source is indicated on Exhibit "A".

B) Land Ownership

Federally owned for both surface and bottom hole locations.

C) Materials Foreign to the Site

No construction materials foreign to this area are anticipated for this drill site.

D) Access Roads

See Exhibit "A".

POINT 7: METHODS FOR HANDLING WASTE MATERIAL

A) Cuttings

Cuttings will be contained in the plastic lined reserve pit.

B) Drilling Fluids

Drilling fluids will be contained in the plastic lined reserve pit.

C) Produced Fluids

Water production will be contained in the plastic lined reserve pit.

Hydrocarbon fluid or other fluids that may be produced during testing will be retained in test tanks. Prior to cleanup operations, any hydrocarbon material in the reserve pit will be removed by skimming or burning as the situation would dictate.

D) Sewage

Current laws and regulations pertaining to the disposal of human waste will be complied with.

E) Garbage

Portable containers will be utilized for garbage disposal during the drilling of this well.

POINT 7: METHODS FOR HANDLING WASTE MATERIAL – Con't...

F) Cleanup of Well Site

Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate a completion rig if electric log analysis indicate potential productive zones. In any case, the "mouse" hole and the "rat" hole will be filled and covered. The reserve pit will be bird netted and fenced. The fence will be maintained until the pit is backfilled. Reasonable cleanup will be performed prior to the final restoration of the site.

POINT 8: ANCILLARY FACILITIES

None required.

POINT 9: WELL SITE LAYOUT

A) Rig Orientation and Layout

Exhibit "C" shows the dimensions of the well pad and reserve pits, and the location of major rig components. Only minor leveling of the well site will be required. No significant cuts or fills will be necessary.

B) Locations of Pits and Access Road

See Exhibits "A" and "C".

C) Lining of the Pits

The reserve pits will be lined with plastic.

POINT 10: PLANS FOR RESTORATION OF THE SURFACE

A) Reserve Pit Cleanup

Pits will be fenced immediately after spudding and maintained until backfilled. Prior to back-filling, any hydrocarbon material on the pit surfaces shall be removed. The fluids and solids contained in the pits shall be backfilled with soil excavated from the site and soil adjacent to the reserve pits. The restored surface of the pits shall be contoured to prevent impoundment of surface water flow. Water-bars will be constructed as needed to prevent excessive erosion. Topsoil, as available, shall be placed over the restored surface in a uniform layer. The area will be seeded to Bureau of Land Management stipulations in the appropriate season following restoration.

POINT 10: PLANS FOR RESTORATION OF THE SURFACE – Con't...

B) Restoration Plans - Production Developed

Reserve pits will be backfilled and restored as described above under Item A. In addition, those areas not required for production will be graded to blend with the surrounding topography. Topsoil, as available, will be placed upon those areas and seeded. The portion of the site required for production will be graded to minimize erosion and provide access during inclement conditions. Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C.

C) Restoration Plans - No Production Developed

Reserve pits will be restored as described above. With no production developed, the entire surface disturbed by construction of the well site will be restored. The site will be contoured to blend with the surrounding topography and provide drainage of surface water. The topsoil, as available, shall be replaced in a uniform layer and seeded according to the Bureau of Land Management's stipulations.

D) Rehabilitation's Time table

Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work.

POINT 11: OTHER INFORMATION

A) Terrain

Relatively flat.

B) Soil

Caliche and sand.

C) Vegetation

Sparse, primarily grasses and mesquite with very little grass.

D) Surface Use

Primarily grazing.

E) Surface Water

There are no ponds, lakes, streams or rivers within several miles of the wellsite.

POINT 11: OTHER INFORMATION – Con't...

F) Water Wells

Mills Ranch has a water well.

G) Residences and Buildings

Ranch house is approximately 1 to 1-1/2 miles south of location.

H) Historical Sites

None observed.

I) Archeological Resources

An archeological survey will be obtained for this area. Before any construction begins, a full and complete archeological survey will be submitted to the Bureau of Land Management. Any location or construction conflicts will be resolved before construction begins.

J) Surface Ownership

The well site and new access road is on federally owned land. No ROW will be required.

K) Well signs will be posted at the drilling site.

L) Open Pits

All pits containing liquid or mud will be fenced and bird netted.

POINT 12: OPERATOR'S FIELD REPRESENTATIVE

(Field personnel responsible for compliance with development plan for surface use).

DRILLING
William R. Dannels
Box 2760
Midland, Texas 79702
(915) 683-2277

PRODUCTION
Mike Waygood
3104 E. Green St.
Carlsbad, New Mexico 88220
(505) 887-7329

Keith E. Bucy
Box 2760
Midland, Texas 79702
(915) 683-2277

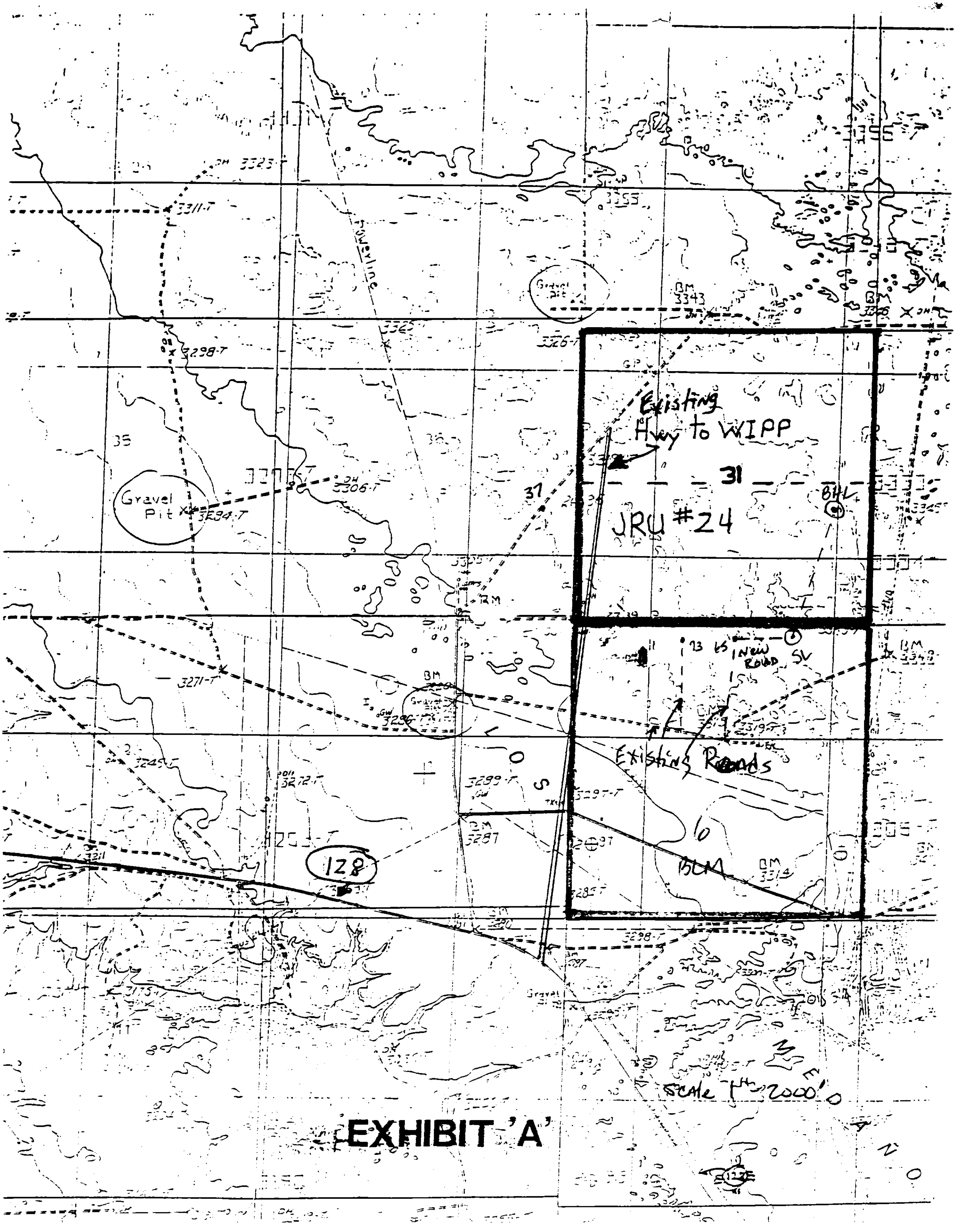
POINT 13: CERTIFICATION

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Bass Enterprises Production Co. and it's contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

12-29-99
Date

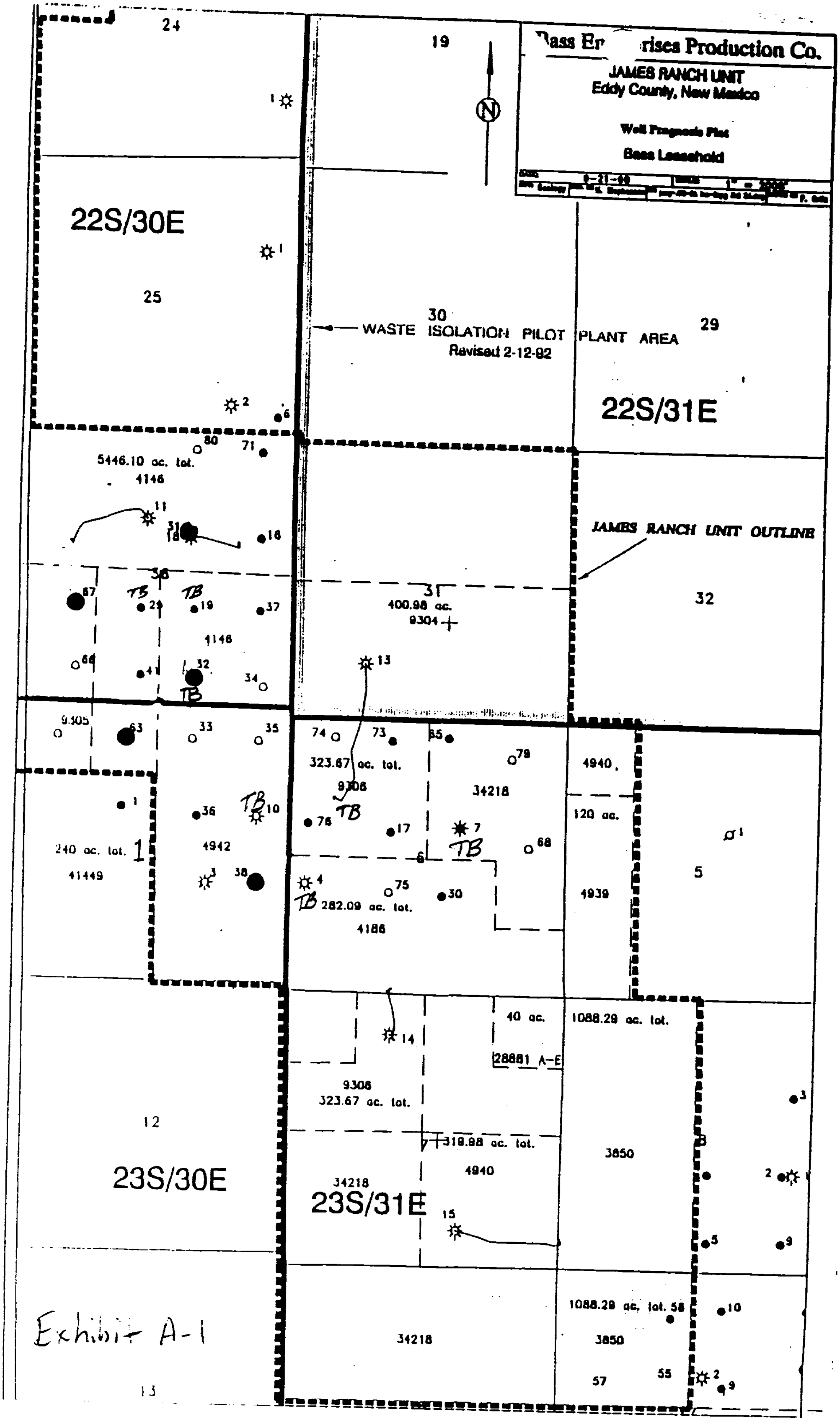
William R. Dannels
William R. Dannels

WRD/JCW:mac

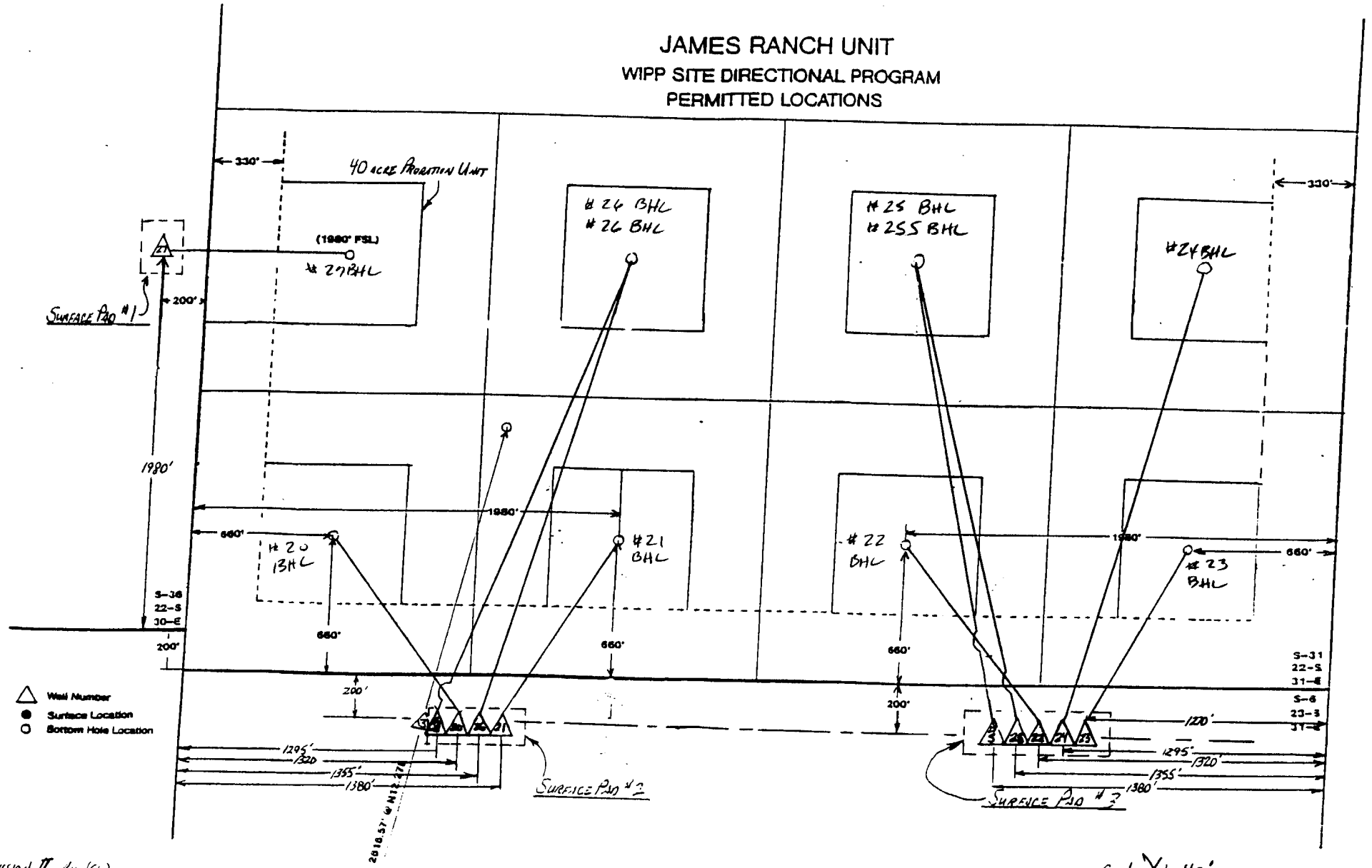


Existing Hwy to WIPP
31
JRU #24
BHL
Gravel Pit
Gravel Pit
Powerline
NEW ROAD
Existing Roads
BLM
128
scale 1" = 2000'

EXHIBIT 'A'



Bass Enterprises Production Co.
JAMES RANCH UNIT
Eddy County, New Mexico
Well Prognosis Plat
Bass Leasehold
22S/30E
22S/31E
23S/30E
23S/31E
WASTE ISOLATION PILOT PLANT AREA
Revised 2-12-92
JAMES RANCH UNIT OUTLINE
5446.10 ac. tot.
400.98 ac.
323.67 ac. tot.
240 ac. tot.
282.09 ac. tot.
120 ac.
40 ac.
1088.29 ac. tot.
319.98 ac. tot.
Exhibit A-1

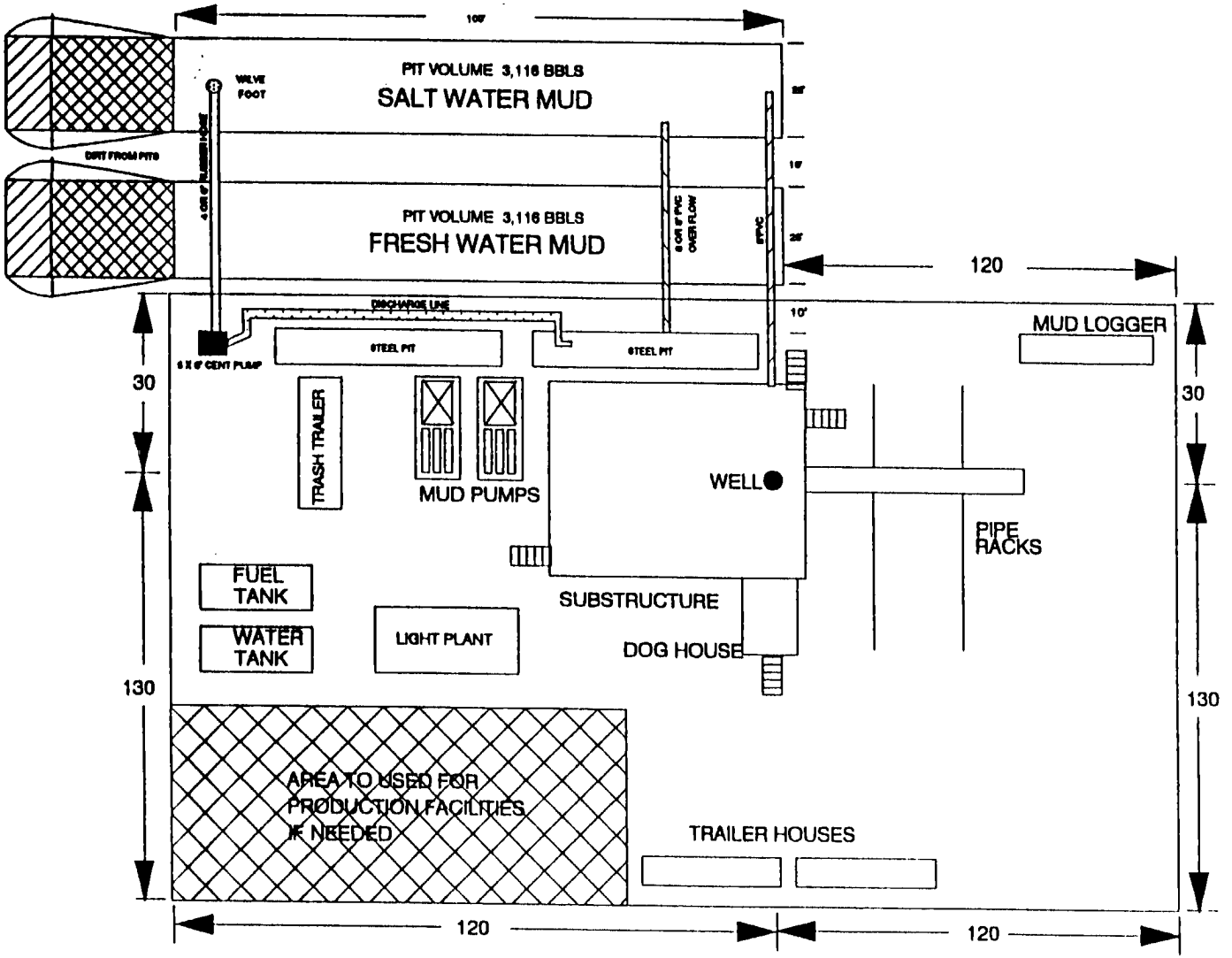


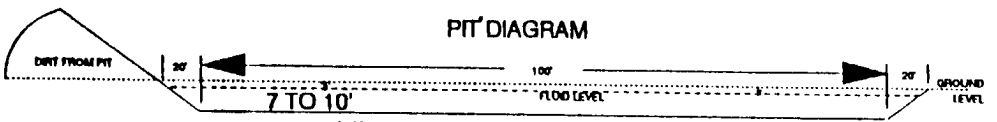
Revision II by JCW

Exhibit B

Scale: ~~1" = 40'~~

This has been reduced.





LINE PITS WITH 20 MILL PLASTIC

NORTH

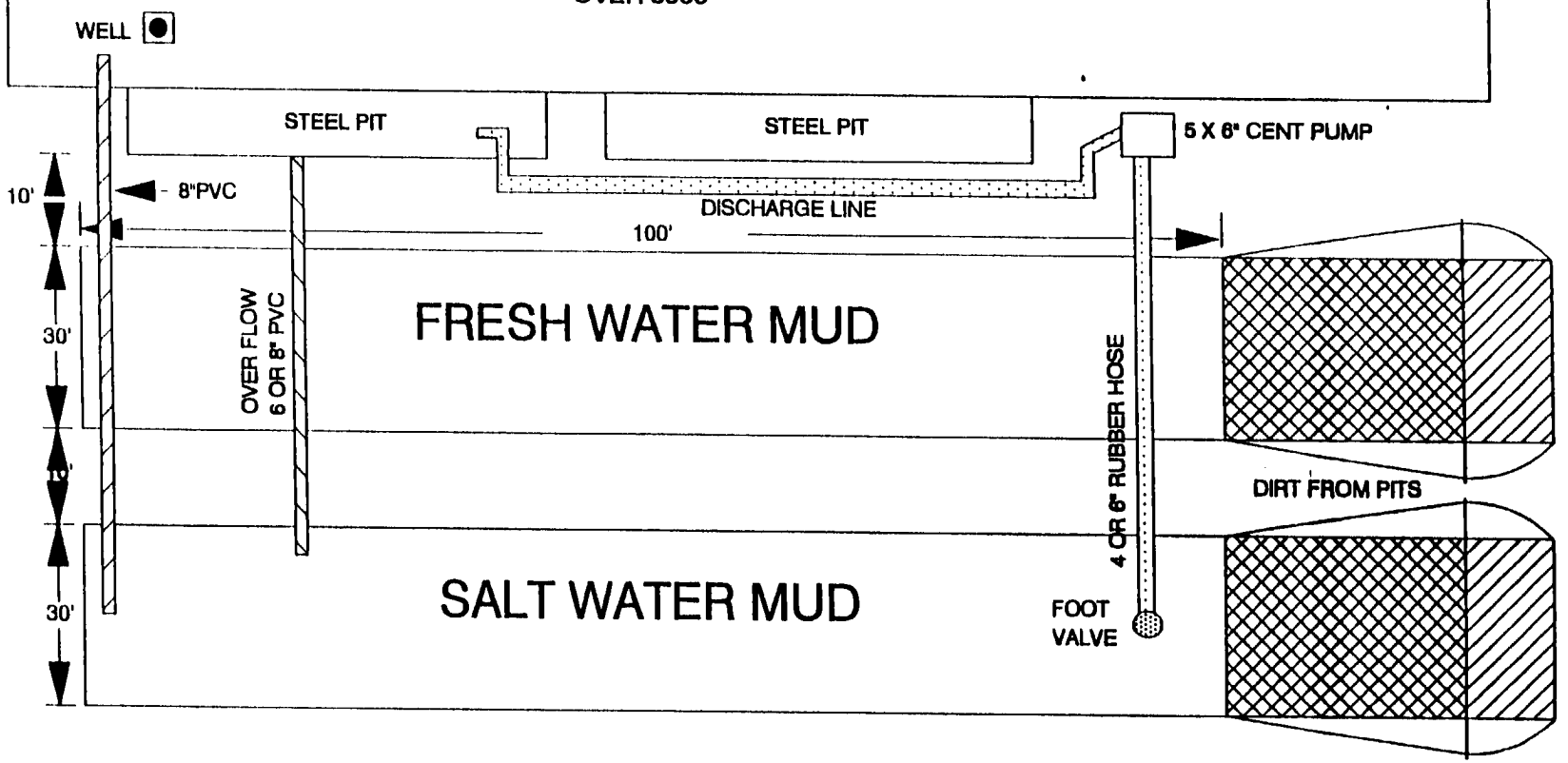
EXHIBIT "C"

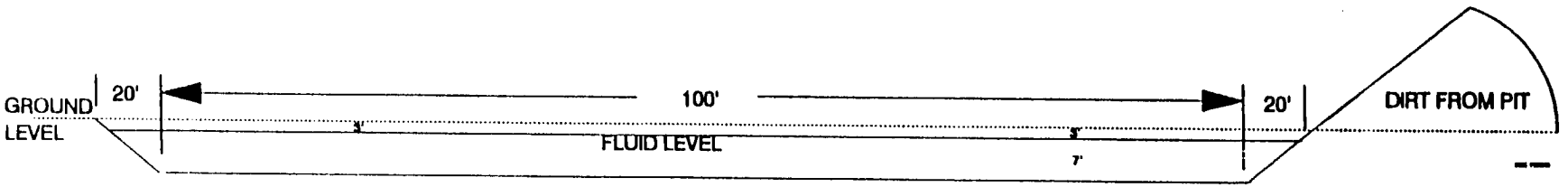
11/17/93 BGH

BASS ENTERPRISES PRODUCTION COMPANY

PIT DIAGRAM

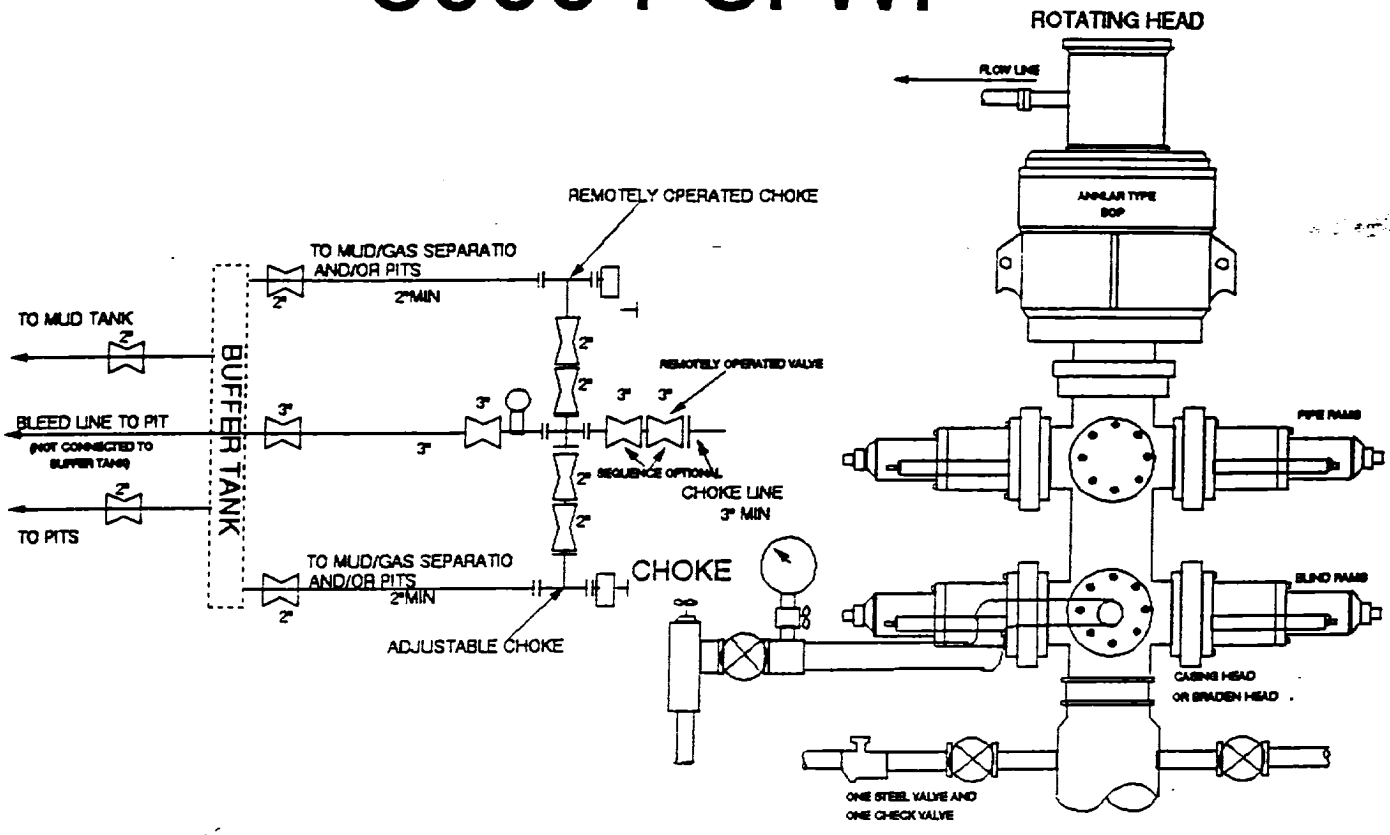
OVER 8500'





LINE PITS WITH 20 MILL PLASTIC

5000 PSI WP



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

A. One double gate blowout preventer with lower rams for pipe and upper rams blind, all hydraulically controlled.

B. Opening on preventers between rams to be flanged, studded or clamped and at least two inches in diameter.

C. All connections from operating manifold to preventers to be all steel hose or tube a minimum of one inch in diameter.

D. The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate (close, open, and re-close) the preventers.

E. All connections to and from preventers to have a pressure rating equivalent to that of the BOP's.

F. Manual controls to be installed before drilling cement plug.

G. Valve to control flow through drill pipe to be located on rig floor.

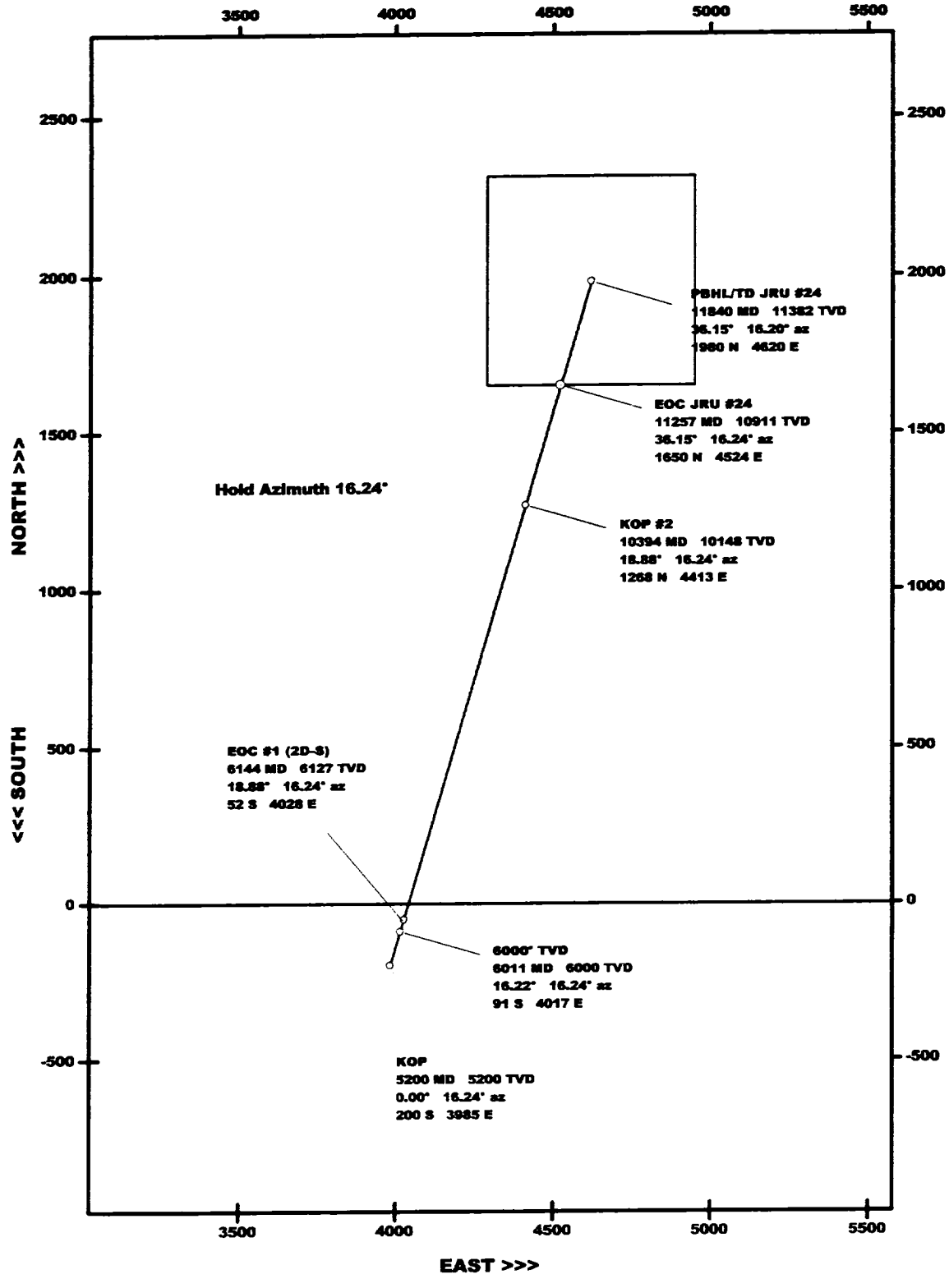
H. All chokes will be adjustable. Choke spool may be used between rams.

DIAGRAM 1

Schlumberger

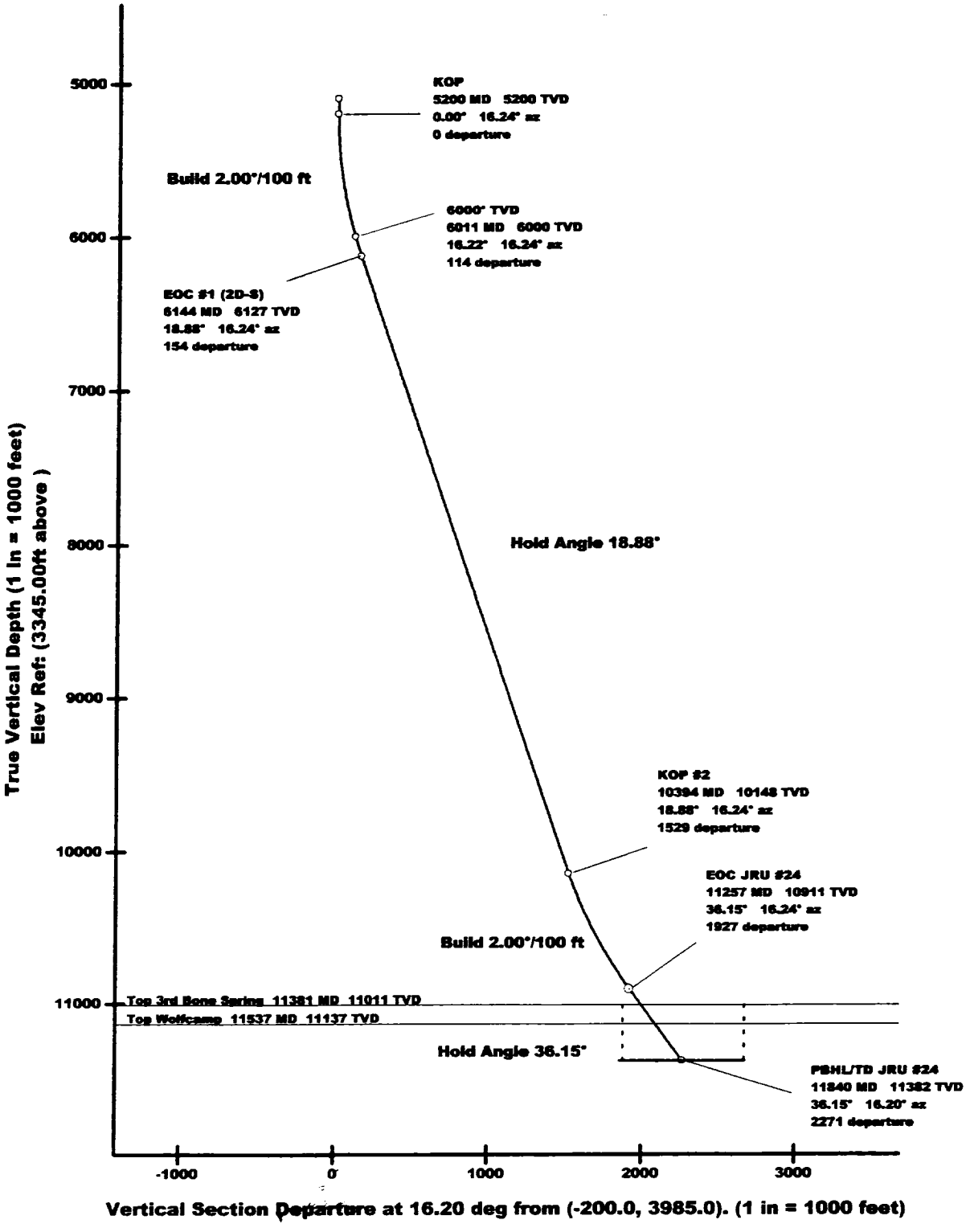
PLAN VIEW

Client:	Bass Enterprises Production Company
Well:	JRU #24
Field:	Eddy County, NM
Structure:	James Ranch Unit
Scale:	1 in = 500 ft
Date:	27-Dec-1999



Schlumberger

VERTICAL SECTION VIEW
Client: Bass Enterprises Production Company
Well: JRU #24
Field: Eddy County, NM
Structure: James Ranch Unit
Section At: 16.20 deg
Date: December 27, 1999



Schlumberger

Proposed Well Profile

Client:	Bass Enterprises Production Company	**Survey Computation Method:**	Minimum Curvature
Field:	Eddy County, NM	**DLS Computation Method:**	Lubinski
Structure:	James Ranch Unit	**Vertical Section Azimuth:**	16.200°
Well:	JRU #24	**Vertical Section Origin:**	S 200.000 ft, E 3985.000 ft
Borehole:	JRU #24	**TVD Reference:**	
UWI/API#:			3329.0 ft above
Date:	December 28, 1999	**Magnetic Declination:**	8.823°
Grid Convergence:	0.26286466°	**Total Field Strength:**	48575.897 nT
Scale Factor:	0.99993997	**Dip:**	58.629°
		Declination Date:	December 27, 1999
Location:	N 30 20 21.038, W 103 48 46.590	**Magnetic Declination Model:**	BGGM 1999
:	S 239951.405 ftUS, E 664159.297 ftUS	**North Reference:**	True North
Coordinate System:	NAD27 New Mexico State Planes, Eastern Zone, US Feet	**Coordinate Reference To:**	Structure Reference Point

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
Tie-In	5100.00	0.00	16.2	5100.00	0.00	-200.00	3985.00	0.00	92.87	0.00	16.2MTF
KOP	5200.00	0.00	16.2	5200.00	0.00	-200.00	3985.00	0.00	92.87	0.00	16.2MTF
	5300.00	2.00	16.2	5299.98	1.75	-198.32	3985.49	1.75	92.85	2.00	16.2MTF
	5400.00	4.00	16.2	5399.84	6.98	-193.30	3986.95	6.98	92.78	2.00	16.2MTF
	5500.00	6.00	16.2	5499.45	15.69	-184.93	3989.39	15.69	92.65	2.00	0.0
	5600.00	8.00	16.2	5598.70	27.88	-173.23	3992.80	27.88	92.48	2.00	0.0
	5700.00	10.00	16.2	5697.47	43.52	-158.21	3997.17	43.52	92.27	2.00	0.0
	5800.00	12.00	16.2	5795.62	62.60	-139.90	4002.51	62.60	92.00	2.00	0.0

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
	5900.00	14.00	16.2	5893.06	85.10	-118.30	4008.80	85.10	91.69	2.00	0.0
	6000.00	16.00	16.2	5989.64	110.98	-93.45	4016.04	110.98	91.33	2.00	0.0
6000' TVD	6010.78	16.22	16.2	6000.00	113.97	-90.58	4016.88	113.97	91.29	2.00	0.0
	6100.00	18.00	16.2	6085.27	140.21	-65.38	4024.22	140.21	90.93	2.00	0.0
EOC #1 (2D-S)	6143.94	18.88	16.2	6126.95	154.11	-52.04	4028.11	154.11	90.74	2.00	0.0
KOP #2	10393.73	18.88	16.2	10148.13	1529.20	1268.16	4412.75	1529.20	73.97	0.00	0.0
	10400.00	19.00	16.2	10154.06	1531.24	1270.11	4413.32	1531.24	73.94	2.00	0.0
	10500.00	21.00	16.2	10248.02	1565.44	1302.95	4422.89	1565.44	73.59	2.00	0.0
	10600.00	23.00	16.2	10340.73	1602.91	1338.92	4433.37	1602.91	73.20	2.00	0.0
	10700.00	25.00	16.2	10432.08	1643.59	1377.98	4444.75	1643.59	72.78	2.00	0.0
	10800.00	27.00	16.2	10521.95	1687.43	1420.07	4457.01	1687.43	72.33	2.00	0.0
	10900.00	29.00	16.2	10610.24	1734.38	1465.15	4470.14	1734.38	71.85	2.00	0.0
	11000.00	31.00	16.2	10696.83	1784.38	1513.15	4484.13	1784.38	71.35	2.00	0.0
	11100.00	33.00	16.2	10781.63	1837.38	1564.03	4498.95	1837.38	70.83	2.00	0.0
	11200.00	35.00	16.2	10864.52	1893.30	1617.72	4514.60	1893.30	70.29	2.00	0.0
EOC JRU #24	11257.15	36.15	16.2	10911.00	1926.55	1649.64	4523.89	1926.55	69.97	2.00	-90.0
	11300.00	36.15	16.2	10945.61	1951.83	1673.91	4530.97	1951.83	69.72	0.00	-90.0
Top 3rd Bone Spring	11380.98	36.15	16.2	11011.00	1999.59	1719.77	4544.33	1999.59	69.27	0.00	-90.0
	11400.00	36.15	16.2	11026.36	2010.81	1730.54	4547.47	2010.81	69.17	0.00	-90.0
	11500.00	36.15	16.2	11107.11	2069.80	1787.17	4563.96	2069.80	68.62	0.00	-90.0
Top Wolfcamp	11537.02	36.15	16.2	11137.00	2091.63	1808.14	4570.07	2091.63	68.41	0.00	-90.0
	11600.00	36.15	16.2	11187.86	2128.78	1843.81	4580.46	2128.78	68.07	0.00	-90.0
	11700.00	36.15	16.2	11268.61	2187.77	1900.44	4596.96	2187.77	67.54	0.00	-90.0
	11800.00	36.15	16.2	11349.36	2246.76	1957.07	4613.46	2246.76	67.01	0.00	-90.0
PBHL/TD JRU #24	11840.42	36.15	16.2	11382.00	2270.60	1980.00	4620.00	2270.60	66.80	0.00	0.0

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)

Survey Program: *(No Error Model Selected)*