[redacted]

Kerrigan, Inc. (Buckeye Gas Prod.)
N/W/4 Sec. 3-T-18-N-R-26-E Apache Cty. 607

COUNTY Apache AREA 16 mi. E of Holbrook LEASE NO. Williams Energy Fee

WELL NAME Buckeye Gas Products Co ~~WILLIAMS ENERGY COMPANY WELL~~ NO. 6 ~~LPG~~

LOCATION NW/NW SEC 8 TWP 18N RANGE 24E FOOTAGE 750 S & 900 E of NW/corner

ELEV 5324.84 GR 5329 KB SPUD DATE 2-15-73 STATUS LPG Storage COMP. DATE ~~2-26-73~~ 3-2 TOTAL DEPTH 1120

CONTRACTOR J. O. Barnes Drilling Service

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH
13 3/8	161	150 sks	
9 5/8	921	450 sks	

DRILLED BY ROTARY X
DRILLED BY CABLE TOOL
PRODUCTIVE RESERVOIR
INITIAL PRODUCTION

FORMATION TOPS	DEPTHS	SOURCE L.L.	SOURCE E.L.	REMARKS
Coconino	346		X	Sample Description in file
Salt	911		X	

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS
Compensated Neutron ~1	Open Hole	

SAMPLE LOG
SAMPLE DESCRP. X
SAMPLE NO. 1719
CORE ANALYSIS
DSTs

REMARKS LPG Storage Well

APP. TO PLUG
PLUGGING REP.
COMP. REPORT 3-27-73

WATER WELL ACCEPTED BY

BOND CO. ~~The Aetna Casualty + Surety~~ ~~Federal Insurance Company~~ ~~Leader~~ ~~N7786~~ St. Paul Fire + Marine Ins. Co. BOND NO. ~~8047-02-65~~ S40-32083 DATE 1-15-80

BOND AMT. $ 25,000 CANCELLED ORGANIZATION REPORT 11-21-72

FILING RECEIPT 2945 LOC. PLAT X WELL BOOK X PLAT BOOK X

API NO. 02-001-20181 DATE ISSUED 2-2-73 DEDICATION NA

PERMIT NUMBER 607

(over)

DRILL STEM TEST

NO.	FROM	TO	RESULTS
			None

CORE RECORD

NO.	FROM	TO	RECOVERY	REMARKS
				No cores reported

REMEDIAL HISTORY

DATE STARTED	COMPLETED	WORK PERFORMED	NEW PERFORATIONS

ADDITIONAL INFORMATION

When washing is completed, operators will furnish drawing showing approximate size and shape of reservoir.

RECEIVED

JUN 22 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well [X] Work-Over [ ] Deepen [ ] Plug Back [ ] Same Reservoir [ ] Different Reservoir [ ] Oil [ ] Gas [ ] Dry [ ]

DESCRIPTION OF WELL AND LEASE

Operator: BUCKEYE GAS PRODUCTS CO.	Address: P.O. BOX 3478 TULSA, OK. 74101
Federal, State or Indian Lease Number or name of lessor if free lease: BUCKEYE GAS PRODUCTS CO.	Well Number: C6 / Field & Reservoir: ADAMANA, AZ.
Location: 750.00 FSL - 900.00 FWL	County: APACHE
Sec. TWP-Range or Block & Survey: SEC. 8, T-18N R-24E G. & S.R. B. & M.	

Date spudded	Date total depth reached	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.)	Elevation of casing hd. flange
2-15-73	3-2-73	3-2-73	5325 feet	3229 feet

Total depth	P.B.T.D.	Single, dual or triple completion?	If this is a dual or triple completion, furnish separate report for each completion.
1120	-	SALT SOLUTION	

Producing interval (s) for this completion	Rotary tools used (interval)	Cable tools used (interval)
925 TO 1110	G.L. TO T.D.	

Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
NO	NO	NO	-

Type of electrical or other logs run (check logs filed with the commission): GAMMA RAY NEUTRON LOG, CEMENTED BOND, SONIC-GAMMA RAY — Date filed:

CASING RECORD

Casing (report all strings set in well -- conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
SURFACE	17½	13 3/8	48 lbs.	165	150	0
PROTECTION	12¼	9 5/8	32.3	925	450	0
INTERMEDIATE	12¼	7	20	933	HUNG-UNCEMENTED	933'
SOLUTION	12¼	4½	9.5	~~1110~~ 1020.75	HUNG-UNCEMENTED	

March 20, 1982

TUBING RECORD			LINER RECORD				
Size in.	Depth set ft.	Packer set at ft.	Size in.	Top ft.	Bottom ft.	Sacks cement	Screen (ft)

PERFORATION RECORD			ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD	
Number per ft.	Size & type	Depth Interval	Am't. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production: | Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
			bbls.	MCF	bbls.	°API (Corr)

Tubing pressure	Casing pressure	Cal'ted rate of Production per 24 hrs.	Oil	Gas	Water	Gas--oil ratio
			bbls.	MCF	bbls.	

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Mgr. of the Buckeye (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

6-28-82
Date

Amanda Padilla
Signature

Permit No. 607

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Well Completion or Recompletion Report and Well Log
File One Copy
Form No. 4

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION*
SURFACE SOIL	0	20	SAND
	20	50	RED CLAY
	50	134	CLAY AND SAND SHELLS
	134	180	SAND SHELLS AND CLAY
	180	218	SNAD
	218	307	SANDY SHALE
	307	346	SHALEY SAND
COCONINO	346	800	COCONINO
	800	830	SHALE
	830	835	ANHYDRITE
	835	838	SHALE
	838	856	ANHYDRITE
	856	864	SHALE
	864	868	ANHYDRITE
	868	870	SHALE
	870	881	SALT
	881	885	SHALE
	885	888	ANHYDRITE
	888	891	SHALE
	891	897	SALT
	897	906	POTASH
	906	911	SANDY SHALE
	911	1108	SALT
	1108	1120	SHALE

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion re[illegible] and well log shall be filed with the State of Arizona [illegible] & Gas Conservation Commission not later than thirty days after project completion.

Form No. 4

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well [X] Work-Over [ ] Deepen [ ] Plug Back [ ] Same Reservoir [ ] Different Reservoir [ ] Oil [ ] Gas [ ] Dry [X]

DESCRIPTION OF WELL AND LEASE

Operator: Williams Energy Company	Address: P. O. Box 3478, Tulsa, Oklahoma 74101
Federal, State or Indian Lease Number or name of lessor if fee lease: Williams Energy Company	Well Number: 6 / Field & Reservoir: Unnamed
Location: 750.0' South & 900.0' East of N.W. Corner	County: Apache
Sec. TWP-Range or Block & Survey: Sec. 8, T-18-N, R-24-E, G. & S.R.B. & M.	

Date spudded	Date total depth reached	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet	Elevation of casing hd. flange feet
2/15/73	2/24/73	Dry	5324.8	5327.0

Total depth	P.B.T.D.	Single, dual or triple completion?	If this is a dual or triple completion, furnish separate report for each completion.
1120'	---	Salt-solution well	

Producing interval (s) for this completion	Rotary tools used (interval)	Cable tools used (interval)
N/A	0' - 1120'	None

Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
NO	N/A	N/A	N/A

Type of electrical or other logs run (check logs filed with the commission)	Date filed
Compensated Neutron Log	With this report

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Surface	17½	13 5/8	48	161'	150	0
Protection	12¼"	9 5/8"	32.75	921'	450	0
Solution	12¼"	7 "	20.0	929'	Hung-uncemented	
Solution	---	4 1/2"	9.5	1106'	Hung-uncemented	

TUBING RECORD

Size	Depth set	Packer set at
in.	ft.	ft.

LINER RECORD

Size	Top	Bottom	Sacks cement	Screen (ft.)
in.	ft.	ft.		

PERFORATION RECORD

Number per ft.	Size & type	Depth Interval

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Amt. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production	Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)
N/A	N/A

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
N/A	N/A	N/A	N/A bbls.	N/A MCF	N/A bbls.	N/A °API (Corr)

Tubing pressure	Casing pressure	Cal'ted rate of Production per 24 hrs.	Oil	Gas	Water	Gas-oil ratio
N/A	N/A	N/A	N/A bbls.	N/A MCF	N/A bbls.	N/A

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Manager of Operations of the Williams Energy Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

3/27/73
Date

Robert Wirth
Signature

RECEIVED
MAR 28 1973
O & G CONS. COMM.

Permit No. 607

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Well Completion or Recompletion Report and Well Log
File One Copy
Form No. 4

(Complete Reverse Side)

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Surface	0	20	Surface Soil
	20	50	Red Clay
	50	134	Clay and Sand Shells
	134	180	Sand Shells and Clay
	180	218	Sand
	218	307	Sandy Shale
	307	346	Shaley Sand - Top Coconino Zone
Coconino	346	800	Sand - Top Coconino
	800	830	Shale
	830	835	Anhydrite
	835	838	Shale
	838	856	Anhydrite
	856	864	Shale
	864	868	Anhydrite
	868	870	Shale
	870	881	Salt
	881	885	Shale
	885	888	Anhydrite
	888	891	Shale
	891	897	Salt
	897	906	Potash
	906	911	Sandy Shale
	911	1108	Salt
	1108	1120	Shale

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.

Form No. 4

P.O. Drawer 3337, 700 S. Tucker, Farmington, New Mexico 87499
(505) 327-4961 • 24-Hour Dispatch (505) 325-6892 • (505) 327-0416

PLEASE REMIT TO: BIG A WELL SERVICE

INVOICE #: 14033

MARCH 21, 1997

TO: FERRELLGAS
P. O. BOX 1024
HOLBROOK, AZ 86025

WELL: ADAMANA STG TRM #6
LOCATION: APACHE AZ
UNIT NO.: 17
OPERATOR: NICK JAMES
~~34-ST-Y~~

P/N 607

FOR: TO CHARGE YOU FOR WORKOVER OPERATIONS

DATE	WORKORDER #	RIG TIME	TRAVEL TIME
03/19/97	67629	9.5	0.5
03/20/97	67630	8.5	1.0
03/21/97	67633	1.5	0.5
		19.5	2.0

RIG TIME	19.5	HOURS @	129.00	$ 2,515.50
CREW TRAVEL TIME	2.0	HOURS @	74.00	148.00
PICK-UP	3	DAYS @	74.00	222.00
POWER TONGS	1	DAY @	125.00	125.00
SPIDERS & SLIPS	1	DAY @	30.00	30.00
ELEVATORS	1	DAY @	30.00	30.00
SUBSISTANCE/4MEN	8	HOURS EA @	60.00	480.00
TOOLPUSHER/1 MA	2	DAYS @	240.00	480.00
				$ 4,030.50
		ARIZONA NO TAX		0.00
				$ 4,030.50

THANK YOU

SIGNED James Spigner

INTEREST CHARGED AT THE RATE OF 1.5% PER MONTH OR 18% PER ANNUM ON ACCOUNTS NOT PAID WITHIN 30 DAYS. ALL COSTS AND REASONABLE ATTORNEY FEES FOR COLLECTION WILL BE PAID BY PURCHASER.

COMPANY Ferrell Gas

LEASE Navajo Storage Terminal

WELL NUMBER 6

STATE/COUNTY AZ Apache

SEC. ____ TS ____ R ____

NW ☐ OW ☐ INC. ☐ COMP ☐

14038

BIG A WELL SERVICE

P. O. DRAWER 3337
FARMINGTON, N.M. 87499
PHONE: (505) 327-4961

67629
1322

UNIT # 17

34-St-Y

DAILY OPERATIONS

DATE Mar 19, 97 Wed

FROM	TO	
6:00-		Loaded 4½" equitment, Roaded rig From Farmington n.m. yard, to
	3:30	well site. Spotted in rig, & rigged up. Set up seals to lay tubing on,
3:30-	4:00	Travel to Holbrook.
		sub pay at 60.00 per man per day 240.00
		Tool pusher charge per day 240.00

BIG A	RENTAL	Loc is clean	COST	BIG A	RENTAL		COST
111		PICKUP	74.00			STRIPPER RUBBERS	
		POWER TONGS				SWAB CUPS SIZE TYPE	
		STRIPPER HEAD RECTOR HYDRAULIC				OIL SAVER RUBBERS	
		COMPANION FLANGE				TONG DIES	
		B.O.P.				SLIP SEGMENTS	
		CLOSING UNIT				OIL SAVER BRASS	
		POWER SWIVEL USED ☐ STO-BY ☐				PIPE DOPE ( ) CANS	
		PUMP & PIT					
		HOSES (HIGH PRESS.) NUMBER ( )				DIESEL GALS.	
		PIPE RACKS					
		CATWALK					
		SWAB TOOLS					
		SWAB JARS					
		TONG HEADS 1¼☐ 1½☐ 3½☐ 4½☐					
		DEPTHOMETER					
		SPIDER & SLIPS 1"☐ 1¼☐ 1½☐ 2 1/16☐					
		3½☐ 4½☐					
		ELEVATORS LYT☐ 3½☐					
		STEEL LINE FOR B.O.P.					
		BLOW LINE, STANDS & FLOW TEE					
		B.O.P. RAMS ADDITIONAL 2½☐					
		MUD PIT ADDITIONAL					
		STANDING VALVE ( ) DROPS					
		ROD STRIPPER HEAD					
		ROD FISHING TOOLS					
		SAND PUMP					
		PARAFFIN KNIFE					

EMPLOYEES TIME	HOURS	
RIG TIME at 129.00 per hr.	9½	$1225.50
TRAVEL TIME at 74.00 per hr	½	
OPR. Nick James	10	37.00
DRK. Alex Valencia	10	
F.H. Vernon Begay	10	
F.H. Gilbert Bennette	10	
F.H.		

OPR. SIGNATURE Nick James

TOOL PUSHER SIG. ____

ACCEPTED BY: D. L. Thomas

TOTAL DAILY COST $ 1816.50

N.A

san juan repro Form 525-2

P/N 607

COMPANY Ferrell Gas

LEASE Arizona Storage Terminal

WELL NUMBER 6

STATE/COUNTY Az Apache

SEC. ____ TS ____ R ____

NW ☐ OW ☐ INC. ☐ COMP ☐

BIG A WELL SERVICE

P. O. DRAWER 3337
FARMINGTON, N.M. 87499
PHONE: (505) 327-4961

67630
1322

UNIT # 17

34-ST-Y

DAILY OPERATIONS

DATE Mar 20, 97 Thur

FROM	TO	
6:30	7:00	Travel
7:00-	9:30	Speared into 4½" tubeing & pulled doughnut and 1 jt, tubeing was dragging 5-15 thou over string wt. R.V. floor tongs, L.O. 1st jt, changed over elevators to pull 4½". Elevators were wrong ones.
9:30-	1:30	Waited on another set, (no charge)
1:30-		POOH with tubeing, still dragging, last jt was bent up. Found out 2 jts were still down hole. RIH with 9 jts out of hole & 15 new jts found tight spot at 942', jarred thru & tagged up at 1025', speared
	7:30	pipe with 2 subs & land tubeing on doughnut at 1020.75'. Shut down.
7:30-	8:00	Travel
		Sub pay at 60.00 per man per day 240.00
		Toolpusher charge per day 240.00

BIG A	RENTAL		COST	BIG A	RENTAL		COST
///		PICKUP	74.00			STRIPPER RUBBERS	
✓		POWER TONGS	125.00			SWAB CUPS SIZE TYPE	
		STRIPPER HEAD RECTOR HYDRAULIC				OIL SAVER RUBBERS	
✓		COMPANION FLANGE	N.C.			TONG DIES	
		B.O.P.				SLIP SEGMENTS	
		CLOSING UNIT				OIL SAVER BRASS	
		POWER SWIVEL USED ☐ STO-BY ☐				PIPE DOPE ( ) CANS	
		PUMP & PIT					
		HOSES (HIGH PRESS.) NUMBER ( )				DIESEL GALS.	
		PIPE RACKS					
		CATWALK					
		SWAB TOOLS					
		SWAB JARS					
✓		TONG HEADS 1¼☐ 1½☐ 3½☐ 4½☒	N.C.				
		DEPTHOMETER					
		SPIDER & SLIPS 1"☐ 1¼☐ 1½☐ 2 1/16☐					
✓		3½☐ 4½☒	30.00				
✓		ELEVATORS LYT☐ 4½☒	30.00				
		STEEL LINE FOR B.O.P.					
		BLOW LINE, STANDS & FLOW TEE					
		B.O.P. RAMS ADDITIONAL 2⅞☐					
		MUD PIT ADDITIONAL					
		STANDING VALVE ( ) DROPS					
		ROD STRIPPER HEAD					
		ROD FISHING TOOLS					
		SAND PUMP					
		PARAFFIN KNIFE					

EMPLOYEES TIME	HOURS	
RIG TIME At 129.00 per hr	8 ½	$1096.50
TRAVEL TIME At 74.00 per hr	1	
OPR. Nick James	9 ½	74.00
DRK. Alex Valencia	9 ½	
F.H. Gilbert Bennette	9 ½	
F.H. Vernon Begay	9 ½	
F.H.		

OPR. SIGNATURE Nick James

TOOL PUSHER SIG. ____

ACCEPTED BY: Dale Allen

TOTAL DAILY COST $ 1909.50

N.A

san juan repro Form 525-2

P/N 607

COMPANY Ferrell Gas

LEASE Armand Storage terminal

WELL NUMBER 6

STATE/COUNTY AZ Apache

SEC. _____ TS _____ R _____

NW ☐ OW ☐ INC. ☐ COMP ☐

BIG A WELL SERVICE

P. O. DRAWER 3337
FARMINGTON, N.M. 87499
PHONE: (505) 327-4961

67633

UNIT # 17

34-St-Y

DAILY OPERATIONS

DATE mar 21, 97 Fri

FROM	TO	
6:30-	7:00	Travel
7:00-	8:30	R.D. Floor & tongs, put away all Equipment, & R.D. rig.

Final ticket

BIG A	RENTAL		COST
III		PICKUP	74.00
		POWER TONGS	
		STRIPPER HEAD RECTOR HYDRAULIC	
		COMPANION FLANGE	
		B.O.P.	
		CLOSING UNIT	
		POWER SWIVEL USED ☐ STD-BY ☐	
		PUMP & PIT	
		HOSES (HIGH PRESS.) NUMBER ( )	
		PIPE RACKS	
		CATWALK	
		SWAB TOOLS	
		SWAB JARS	
		TONG HEADS 1¼☐ 1½☐ 3½☐ 4½☐	
		DEPTHOMETER	
		SPIDER & SLIPS 1"☐ 1¼☐ 1½☐ 2 1/16☐ 3½☐ 4½☐	
		ELEVATORS LYT☐ 3½☐	
		STEEL LINE FOR B.O.P.	
		BLOW LINE, STANDS & FLOW TEE	
		B.O.P. RAMS ADDITIONAL 2½☐	
		MUD PIT ADDITIONAL	
		STANDING VALVE ( ) DROPS	
		ROD STRIPPER HEAD	
		ROD FISHING TOOLS	
		SAND PUMP	
		PARAFFIN KNIFE	

BIG A	RENTAL		COST
		STRIPPER RUBBERS	
		SWAB CUPS SIZE TYPE	
		OIL SAVER RUBBERS	
		TONG DIES	
		SLIP SEGMENTS	
		OIL SAVER BRASS	
		PIPE DOPE ( ) CANS	
		DIESEL GALS.	

EMPLOYEES TIME	HOURS	
RIG TIME	1½	$193.50
TRAVEL TIME	½	
OPR. Nick James	2	37.00
DRK. Alex Valencia	2	
F.H. Vernon Begay	2	
F.H. Gilbert Bennette	2	
F.H.		

OPR. SIGNATURE Nick James

TOOL PUSHER SIG. _____

ACCEPTED BY: D. L. Thomas

TOTAL DAILY COST $ 304.50

D. A.

san juan repro Form 525-2

P/N 607

3-1-73 WP

Samples on the following wells have been received.

Williams Energy Co, #3 - #4 - #5 - #6
Sec.8-18N-24E
Apache C. Arix.

Permit # 602-603-606-607

Jo Kelly

Four Corners Sample Cut

RECEIVED
MAR 05 1973
O & G CONS. COMM.

607

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL X RE-ENTER OLD WELL ☐

Williams Energy Company
NAME OF COMPANY OR OPERATOR

P. O. Box 3478 | Tulsa | Oklahoma
Address | City | State

J. O. Barnes Drilling Service
Drilling Contractor

P. O. Box 141 | Casa Grande, Arizona 85222
Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor	Well number	Elevation (ground)
Williams Energy Company	6	5324.84

Nearest distance from proposed location to property or lease line:	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease:
750.00 feet	300.00 feet

Number of acres in lease:	Number of wells on lease, including this well, completed in or drilling to this reservoir:
114	6

If lease, purchased with one or more wells drilled, from whom purchased: Name: N/A Address:

Well location (give footage from section lines)	Section—township—range or block and survey	Dedication (Comply with Rule 105)
750.00 South & 900.00 East of N.W. Corner	Sec. 8 T 18N, R 24E, G & S.R.B.	& M

Field and reservoir (if wildcat, so state)	County
Unnamed	Apache

Distance, in miles, and direction from nearest town or post office
16 miles west to Holbrook, Arizona

Proposed depth:	Rotary or cable tools	Approx. date work will start
1100	Rotary	February 15, 1973
Bond Status Amount	Organization Report On file Yes Or attached	Filing Fee of $25.00 Attached Yes

Remarks:

Request that Commission grant an exception to Rule 105 describing minimum distances since these wells are part of a propane storage cavern complex in a salt strata

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Manager of Operations of the Williams Energy (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

RECEIVED
FEB 0 3 1973
O & G CONS. COMM.

Signature: Robert J Wyrath
Date: 1/22/73

Permit Number: 607
Approval Date: 2-5-73
Approved By: W B Allen

Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Drill or Re-enter
File Two Copies

Form No. 3

(Complete Reverse Side)

1. Operator shall outline the dedicated acreage for *both* oil and gas wells on the plat.

2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.

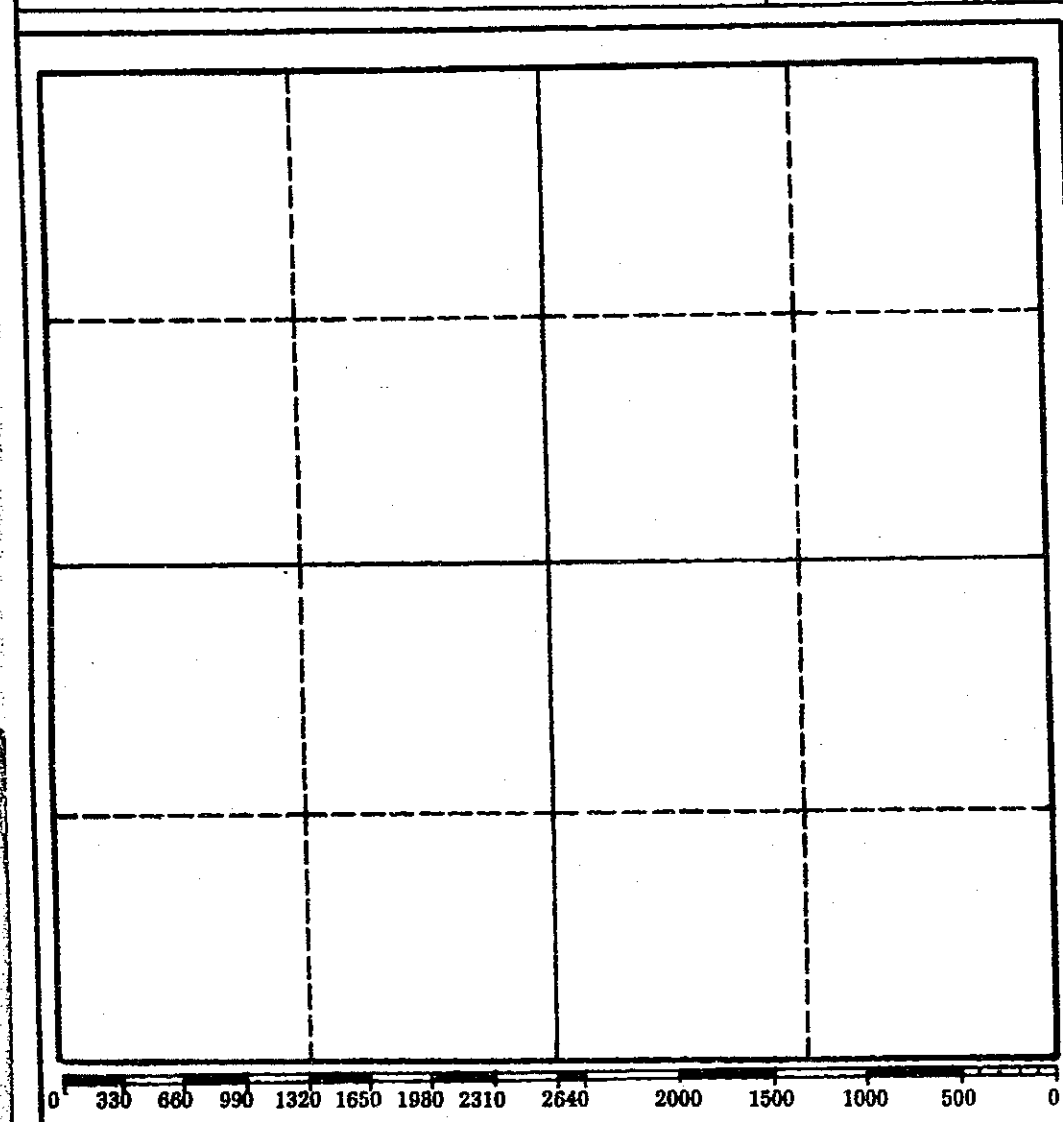
3. All distances shown on the plat must be from the outer boundaries of the Section.

4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES_X____NO_____.

5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES_____NO_____. If answer is "yes," Type of Consolidation_____

6. If the answer to question four is "no," list all the owners and their respective interests below:

Owner	Land Description



CERTIFICATION

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

Name

Position

Company

Date

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

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
13 3/8"	48	H-40	G.L.	150'	Top To Bottom	
9 5/8"	32.3	H-[illegible]	G.L.	900'	Top To Bo[illegible]m	

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: WILLIAMS ENERGY COMPANY
(OPERATOR)

to drill a well to be known as

WILLIAMS ENERGY COMPANY WELL NO. 6
(WELL NAME)

located 750.00 South & 900.00 East of N.W. Corner

Section 8 Township 18N Range 24E, Apache County, Arizona.

The NA (LPG STORAGE WELL) of said Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 2nd day of February, 19 73.

OIL AND GAS CONSERVATION COMMISSION

By W. E. [illegible]
EXECUTIVE SECRETARY

PERMIT Nº 607

RECEIPT NO. 2945
API NO. 02-001-20181

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

SAMPLES ARE REQUIRED

DOWELL

BURLETT GAS PRODUCTS COMPAN
WELL NO. 6
BERMUDA GAS FLOODING
APRIL 12, 1966

SONAR CALIPER REPORT

DOWELL SONAR CALIPER SURVEY

TREATMENT NO: 11-42-499 JOB NO: 382

WELL DATA

c

T.D. DOWELL:	1024 FT	T.D. OPERATOR:	1025 FT
CASING SIZE:	9-5/8 IN	CASING DEPTH:	923 FT
INTERMEDIATE SIZE:	7 IN	INTER. DEPTH:	10 FT
TUBING SIZE:	4-1/2 IN	TUBING DEPTH:	OUT 1024

BUCKEYE GAS PRODUCTS COMPANY
WELL NO. 6
ADAMANA UGS TERMINAL
APRIL 12,1980

607

GENERAL COMMENTS:

ZERO AT THE BHF.

MAILING ADDRESS:

PO BOX 849
HOLBROOK, ARIZONA
86025
ATTENTION: MR. ARMANDO PADILLA

CUSTOMER REP:

MR. GREG GREER

DOWELL ENGINEER:

HL VAN METRE

DOWELL SONAR CALIPER SURVEY

BUCKEYE GAS PRODUCTS COMPANY — APRIL 12,1980

WELL NO. 6 — ADAMANA UGS TERMINAL — JOB NO: 382

VOLUME CALCULATIONS

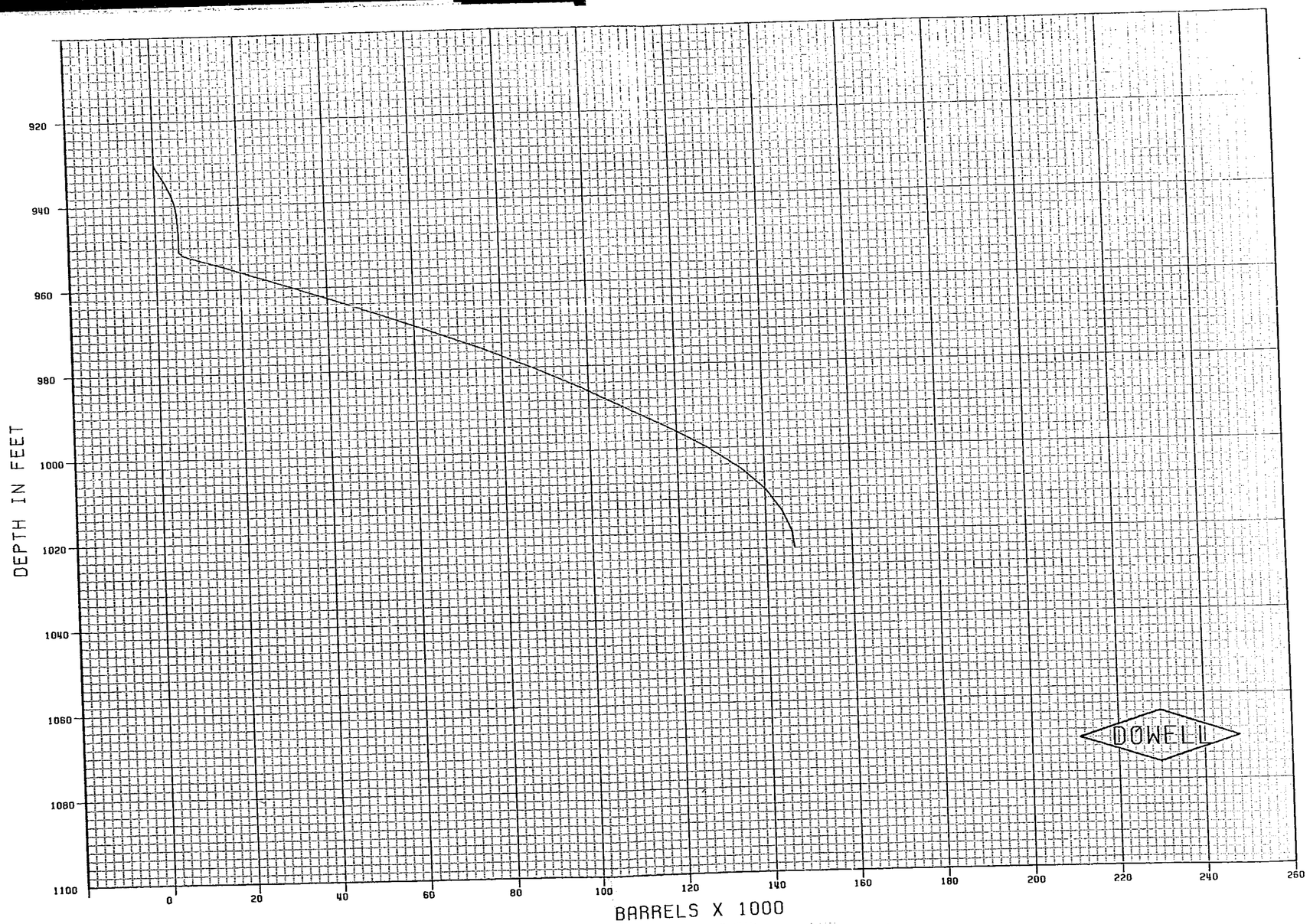
DEPTH	INCR CU FT	TOTAL CU FT	INCR BBLS	BBLS
924	0.	0.	0.	0.
925	12.	12.	2.	2.
926	5.	16.	1.	3.
927	3.	19.	0.	3.
928	19.	38.	3.	7.
929	60.	98.	11.	17.
930	70.	168.	13.	30.
931	1370.	1539.	244.	274.
933	7077.	8615.	1260.	1534.
935	6820.	15436.	1215.	2749.
937	5537.	20973.	986.	3735.
940	5207.	26180.	927.	4663.
942	2040.	28220.	363.	5026.
945	1243.	29463.	221.	5248.
947	153.	29616.	27.	5275.
948	33.	29649.	6.	5281.
950	30.	29679.	5.	5286.
951	4.	29683.	1.	5287.
952	6771.	36454.	1206.	6493.
955	58560.	95014.	10430.	16923.
960	87585.	182600.	15600.	32522.
965	81158.	263758.	14455.	46977.
970	80359.	344117.	14313.	61290.
975	75210.	419327.	13395.	74685.
980	67997.	487324.	12111.	86796.
985	63069.	550393.	11233.	98029.
990	57777.	608170.	10291.	108320.
995	55490.	663660.	9883.	118203.
1000	50569.	714229.	9007.	127210.
1005	40713.	754942.	7251.	134461.
1010	31558.	786500.	5621.	140082.
1015	20971.	807471.	3735.	143817.
1020	12279.	819750.	2187.	146004.

VOLUME CALCULATIONS

DEPTH	INCR CU FT	TOTAL CU FT	INCR BBLS	BBLS
1Ø24	2549.	822299.	454.	146458.

DEPTH VS. VOLUME

ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980



Gas Prod.)
Apache Cty 607

DOWELL SONAR CALIPER SURVEY

BUCKEYE GAS PRODUCTS COMPANY

APRIL 12,1980

WELL NO. 6

JOB NO: 382

RADII IN FEET

DEPTH	ANGLE	N	S	E	W	NE	SW	SE	NW
924	90	2.2	2.2	3.4	2.4	2.0	2.4	3.4	2.2
925	90	1.1	1.6	1.3	0.9	1.1	1.7	1.2	1.2
926	90	1.2	1.1	0.9	1.3	1.1	1.2	1.0	1.4
927	90	0.5	0.5	0.3	0.9	0.4	0.8	0.3	0.8
928	90	4.2	4.7	1.7	4.0	3.2	4.9	4.5	4.4
929	90	5.6	4.0	3.4	5.4	4.4	5.5	3.7	5.5
930	90	5.3	3.8	3.5	5.7	4.5	5.5	2.6	5.6
931	90	29.3	35.2	34.0	38.7	27.5	39.8	33.0	29.9
933	90	29.7	35.3	33.6	38.7	27.3	40.2	33.1	29.8
935	90	24.3	33.3	31.9	37.5	25.3	38.8	33.4	28.6
937	90	19.1	30.2	26.4	31.1	21.1	32.5	28.4	24.8
940	90	14.0	23.2	19.3	21.7	15.4	25.4	21.6	16.8
942	90	11.2	17.1	14.8	19.5	12.4	20.3	16.6	14.1
945	90	6.4	5.8	6.1	6.7	5.1	7.6	5.4	5.7
947	90	3.5	3.0	3.2	3.9	2.9	3.9	3.3	4.1
948	90	2.9	2.6	2.1	3.5	2.0	3.1	2.4	3.8
950	90	1.2	1.4	0.9	1.8	1.2	1.7	1.0	1.8
951	90	0.7	1.0	0.5	1.0	0.5	1.0	0.9	1.0
952	90	71.5	84.7	81.9	76.8	81.8	92.6	79.3	69.9
955	90	68.4	83.6	77.6	77.2	74.2	92.3	77.3	68.2
960	90	71.0	72.7	73.8	70.3	70.8	79.1	72.8	67.4
965	90	67.0	77.0	73.4	69.3	73.1	79.3	76.7	66.3
970	90	69.5	68.4	72.3	69.8	73.6	65.1	77.8	68.8
975	90	64.3	69.9	67.5	66.3	65.1	69.9	70.0	64.8
980	90	62.8	64.0	65.3	64.2	64.3	63.7	65.1	63.1
985	90	70.4	64.1	59.0	64.5	58.6	59.6	60.8	65.9
990	90	69.3	54.1	53.4	60.9	56.0	53.6	57.4	61.7
995	90	72.3	48.0	64.3	58.7	54.8	44.6	72.0	59.0
1000	90	66.2	41.1	57.7	53.2	52.3	37.1	61.5	53.0
1005	90	59.1	33.3	49.3	49.6	58.0	30.6	51.8	49.9
1010	90	51.1	21.9	42.9	45.8	51.1	21.7	39.6	45.4
1015	90	42.5	10.6	33.5	26.0	39.4	11.6	25.6	39.1

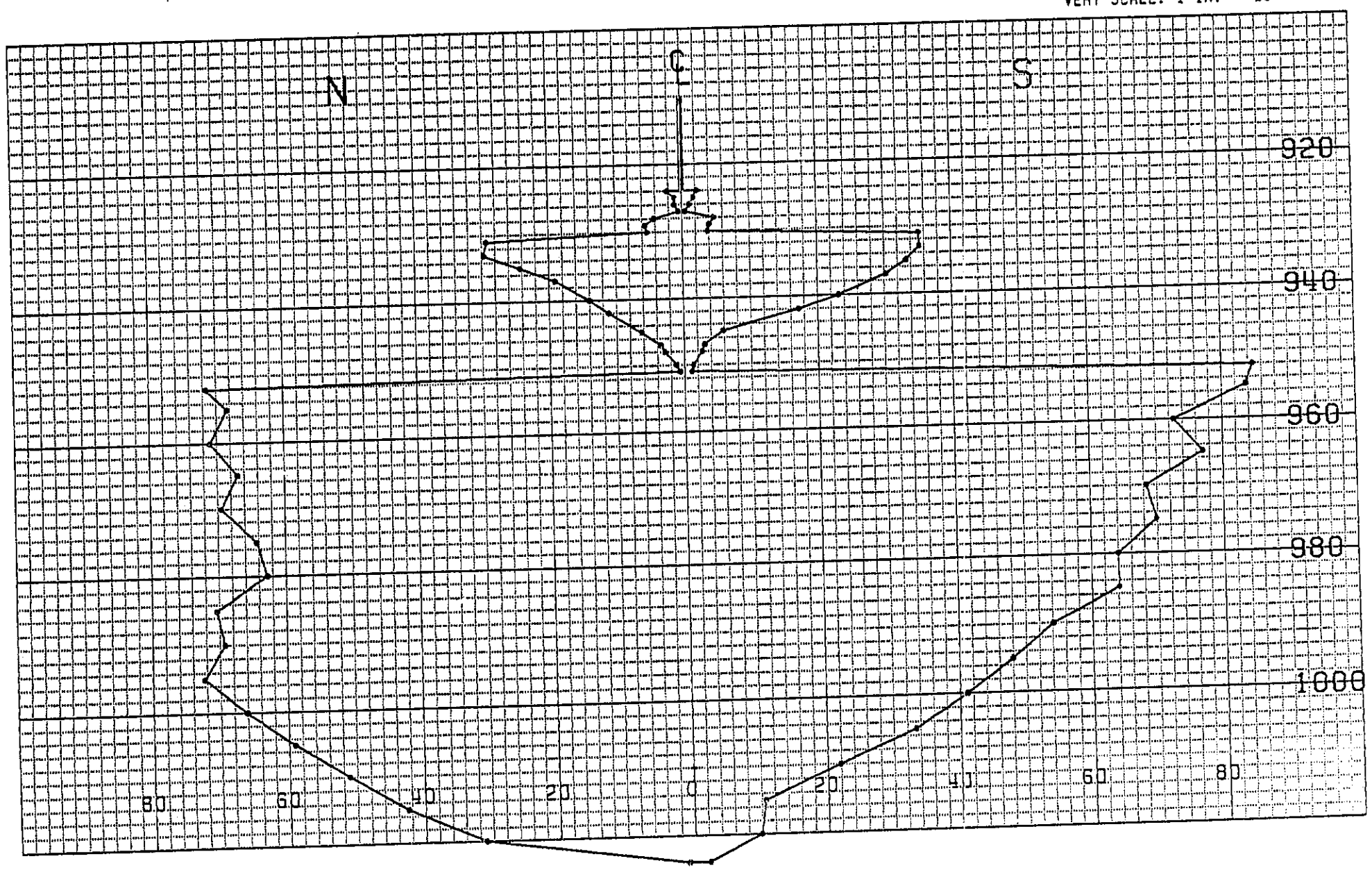
RADII IN FEET

DEPTH	ANGLE	N	S	E	W	NE	SW	SE	NW
1020	90	31.0	9.9	26.6	17.5	27.1	8.9	22.7	33.3
1024	90	0.9	2.1	1.6	1.7	1.4	2.3	1.7	1.0

21-APR-80 18:48:16

BUCKEYE GAS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980
HORZ SCALE: 1 IN. = 20 FEET
VERT SCALE: 1 IN. = 20 FEET

VERTICAL CROSS SECTION



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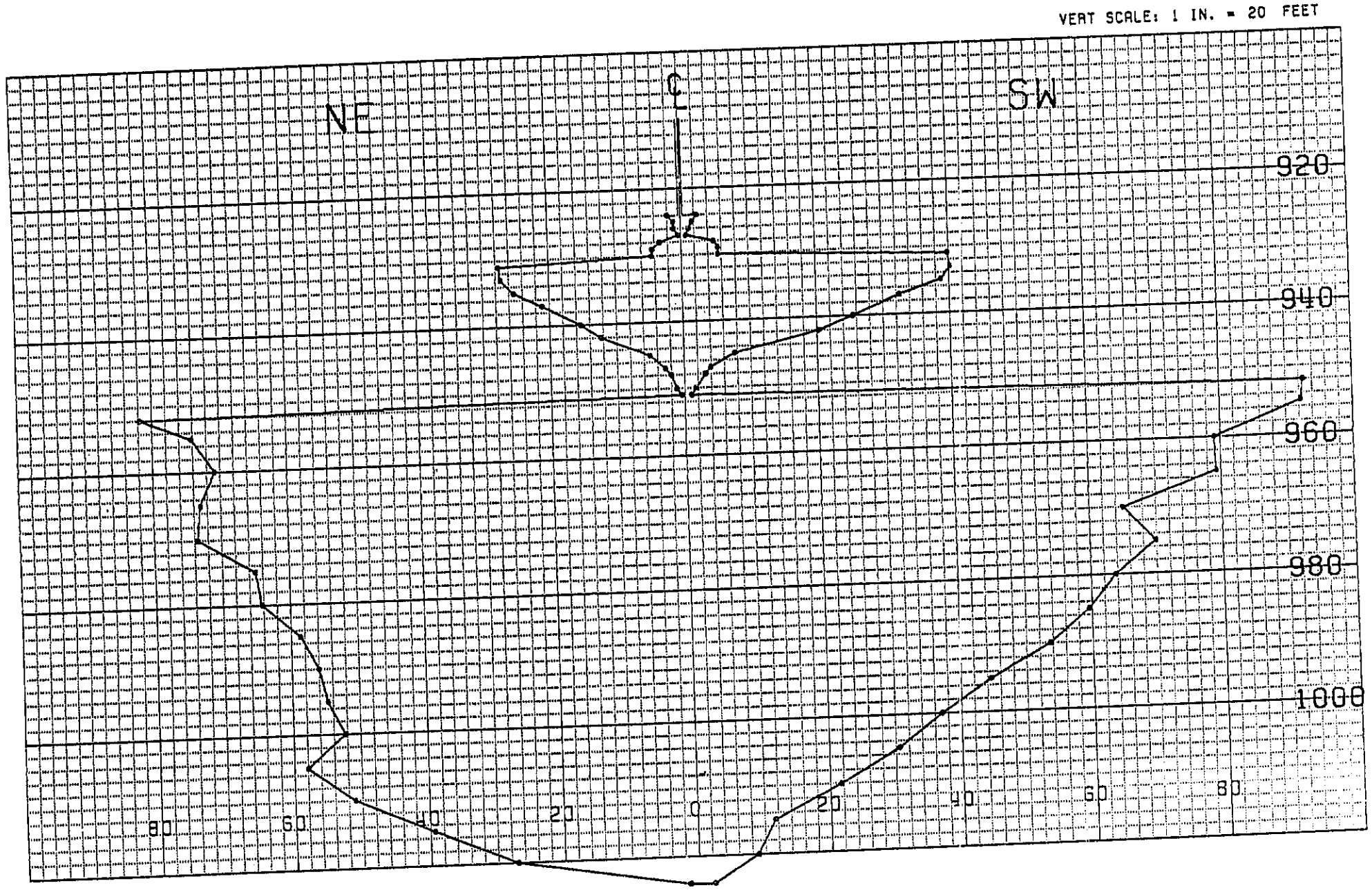
BUCKEYE GAS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980
HORZ SCALE: 1 IN. = 20 FEET
VERT SCALE: 1 IN. = 20 FEET

VERTICAL CROSS SECTION



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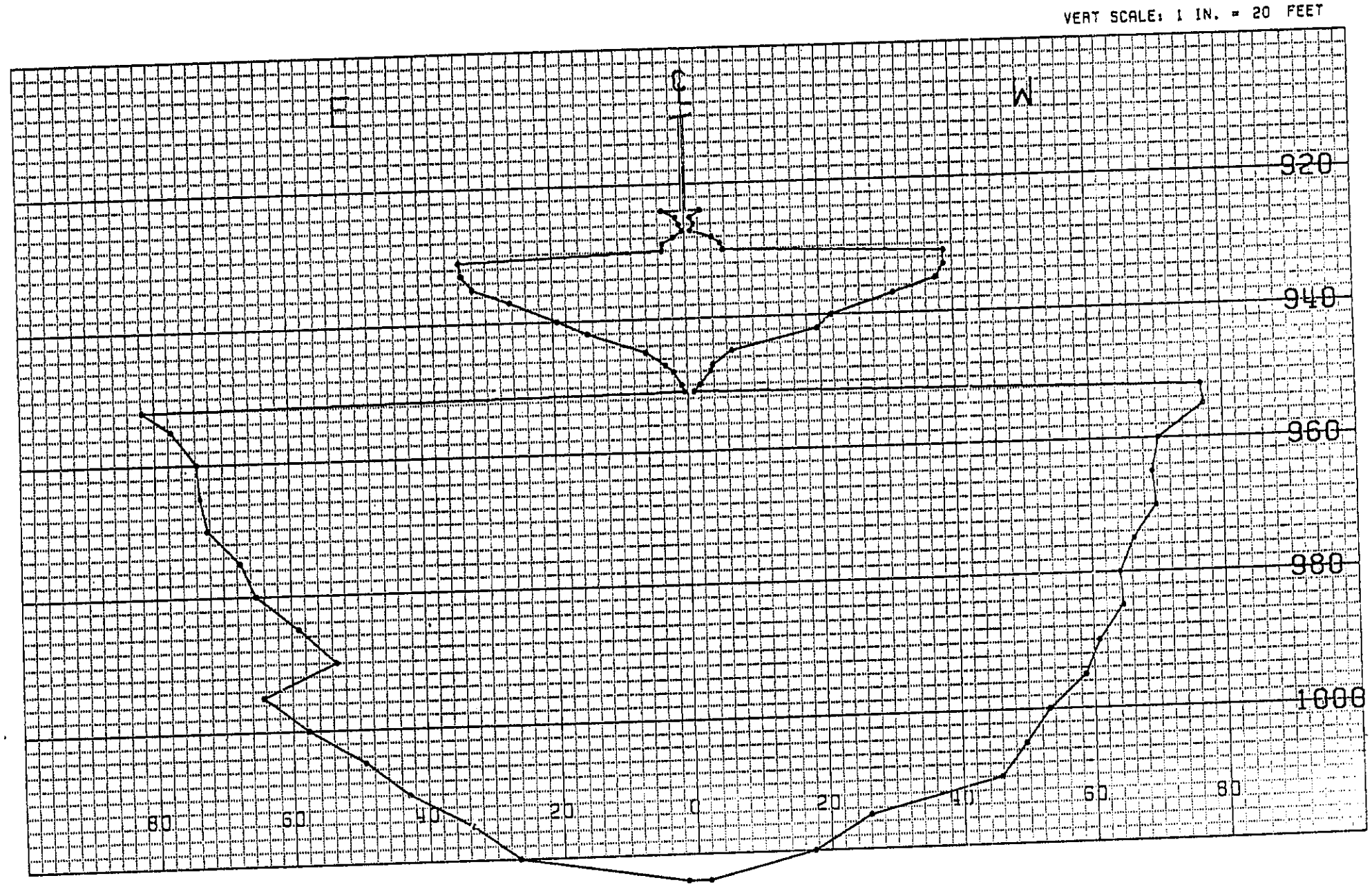
BUCKEYE GAS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980
HORZ SCALE: 1 IN. = 20 FEET
VERT SCALE: 1 IN. = 20 FEET

VERTICAL CRØSS SECTIØN



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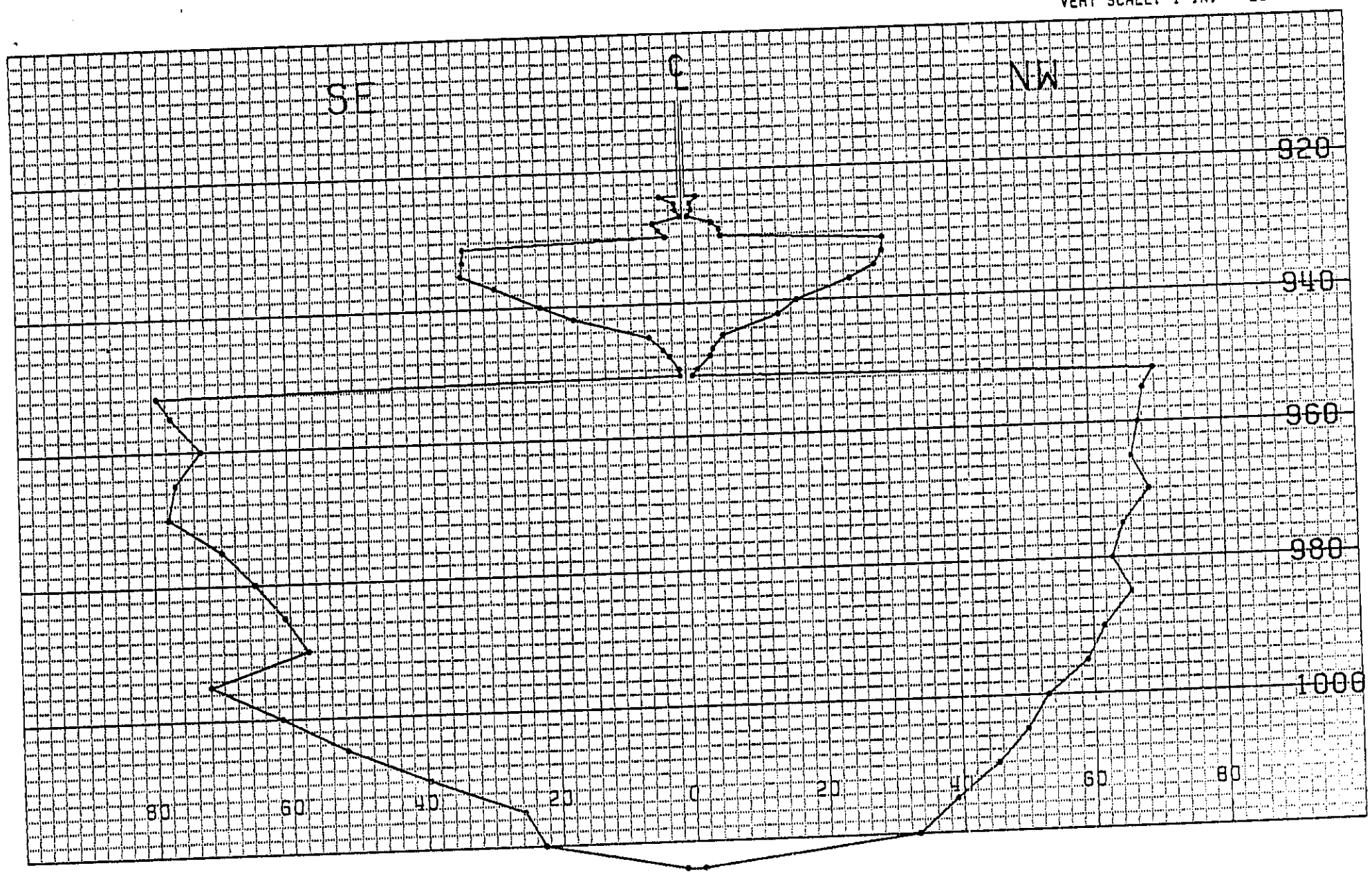
BUCKEYE GAS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980
HORZ SCALE: 1 IN. = 20 FEET
VERT SCALE: 1 IN. = 20 FEET

VERTICAL CROSS SECTION



MAX RADII REPORT

ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980

FROM DEPTH-923
THRU DEPTH-1030

AZM	RANGE	DEPTH	AZM	RANGE	DEPTH	AZM	RANGE	DEPTH	AZM	RANGE	DEPTH
0	72.3	995	45	81.8	952	90	81.9	952	135	79.3	952
1	72.3	995	46	82.1	952	91	81.7	952	136	79.4	952
2	72.0	995	47	82.6	952	92	81.5	952	137	79.7	952
3	71.7	995	48	82.5	952	93	81.1	952	138	79.3	952
4	71.5	995	49	82.8	952	94	81.1	952	139	79.7	952
5	71.6	952	50	82.8	952	95	81.3	952	140	79.7	952
6	71.6	952	51	83.1	952	96	80.8	952	141	80.0	952
7	71.7	952	52	82.5	952	97	80.5	952	142	80.1	952
8	71.9	952	53	82.3	952	98	80.3	952	143	80.1	952
9	71.9	952	54	81.8	952	99	80.0	952	144	80.4	952
10	72.1	952	55	81.3	952	100	79.8	952	145	80.2	952
11	72.3	952	56	81.1	952	101	79.8	952	146	80.6	952
12	72.6	952	57	80.7	952	102	79.5	952	147	81.0	952
13	73.0	952	58	80.2	952	103	79.3	952	148	80.9	952
14	72.9	952	59	78.9	952	104	79.0	952	149	80.2	952
15	73.3	952	60	78.8	952	105	79.2	952	150	80.1	952
16	73.4	952	61	78.4	952	106	79.1	952	151	80.6	952
17	73.4	952	62	78.4	952	107	79.1	952	152	80.6	952
18	73.3	952	63	78.4	952	108	79.5	952	153	80.6	952
19	73.1	952	64	77.6	952	109	79.6	952	154	80.6	952
20	73.2	952	65	77.9	952	110	79.6	952	155	80.7	952
21	73.4	952	66	77.7	952	111	79.7	952	156	81.0	952
22	73.3	952	67	77.8	952	112	79.6	952	157	81.1	952
23	73.6	952	68	78.3	952	113	79.7	952	158	81.2	952
24	73.7	952	69	78.4	952	114	79.7	952	159	81.1	952
25	74.0	952	70	78.8	952	115	79.6	952	160	81.3	952
26	74.2	952	71	79.3	952	116	79.2	952	161	81.4	952
27	74.6	952	72	79.6	952	117	79.0	952	162	81.4	952
28	75.0	952	73	79.8	952	118	78.9	952	163	81.7	952
29	75.2	952	74	80.0	952	119	79.0	952	164	81.7	952
30	76.0	952	75	80.8	952	120	79.0	952	165	81.5	952
31	76.5	952	76	81.3	952	121	78.7	952	166	81.6	952
32	77.5	952	77	82.0	952	122	78.6	952	167	81.6	952
33	77.6	952	78	82.0	952	123	78.6	952	168	82.0	952
34	77.9	952	79	82.4	952	124	78.8	952	169	82.2	952
35	77.9	952	80	82.5	952	125	78.7	952	170	82.4	952
36	78.4	952	81	82.7	952	126	78.8	952	171	82.8	952
37	79.3	952	82	82.7	952	127	78.9	952	172	83.0	952
38	79.5	952	83	82.9	952	128	78.8	952	173	83.6	952
39	80.4	952	84	82.5	952	129	78.4	952	174	83.6	952
40	80.5	952	85	82.6	952	130	78.6	952	175	83.8	952
41	80.7	952	86	82.5	952	131	78.7	952	176	84.3	952
42	80.9	952	87	82.6	952	132	78.9	952	177	84.5	952
43	81.5	952	88	82.7	952	133	79.3	952	178	84.6	952
44	81.8	952	89	82.3	952	134	79.1	952	179	84.7	952

MAX RADII REPORT

ROAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980

PR- 18 6
FROM DEPTH- 923
THRU DEPTH- 1030

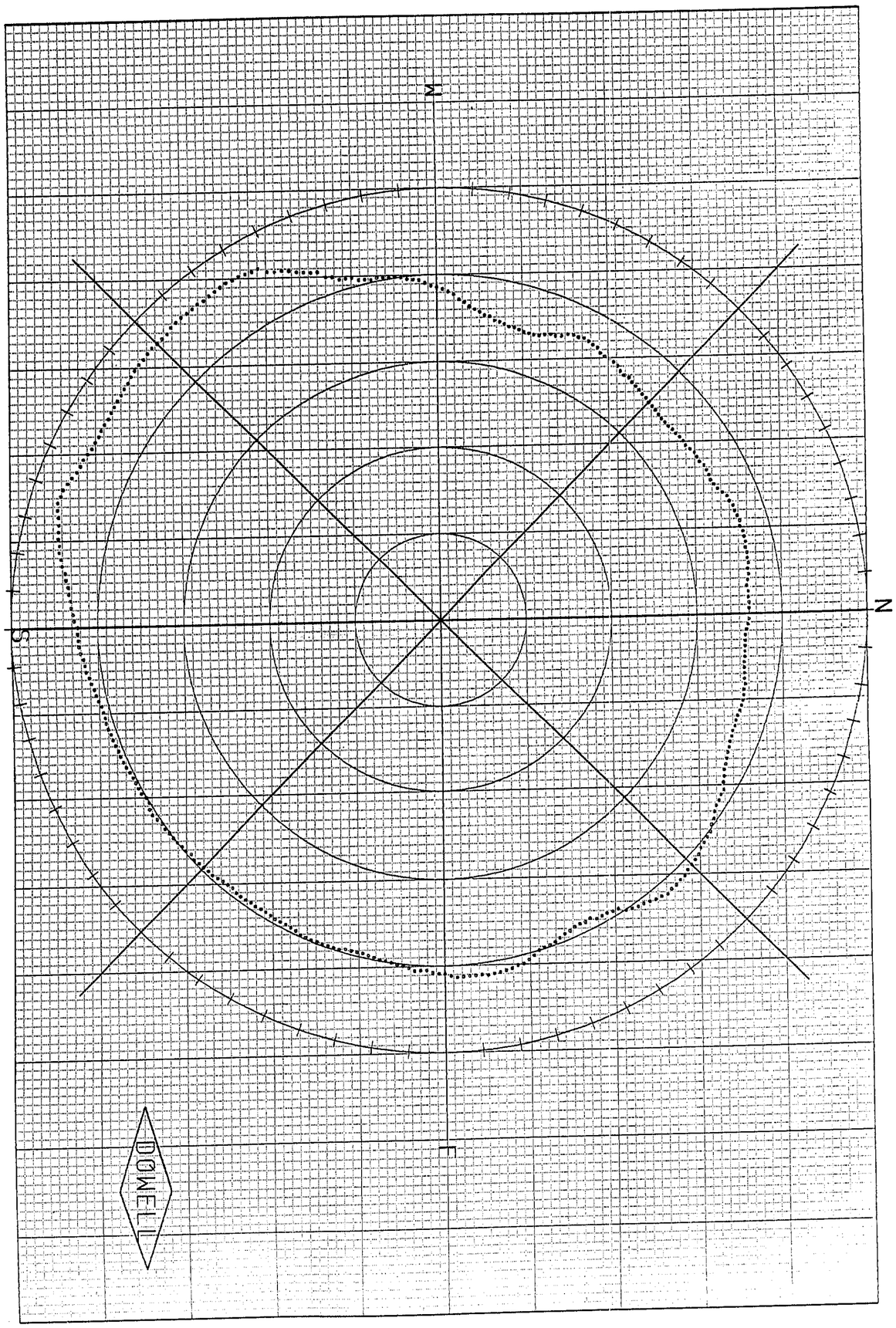
AZM	RANGE	DEPTH	AZM	RANGE	DEPTH	AZM	RANGE	DEPTH	AZM	RANGE	DEPTH	AZM	RANGE	DEPTH	AZM	RANGE	DEPTH	AZM	RANGE	DEPTH	AZM	RANGE	DEPTH
0	72.3	995	45	81.8	952	90	81.9	952	135	79.3	952	180	84.7	952	225	92.6	952	270	77.2	955	315	69.9	952
1	72.3	995	46	82.1	952	91	81.7	952	136	79.4	952	181	85.5	952	226	92.6	952	271	76.7	955	316	69.8	952
2	72.0	995	47	82.6	952	92	81.5	952	137	79.7	952	182	85.8	952	227	92.6	952	272	76.1	955	317	69.8	952
3	71.7	995	48	82.5	952	93	81.1	952	138	79.3	952	183	86.2	952	228	93.1	955	273	75.6	955	318	69.5	952
4	71.5	995	49	82.8	952	94	81.1	952	139	79.7	952	184	86.5	952	229	93.2	955	274	74.4	955	319	69.4	952
5	71.6	952	50	82.8	952	95	81.3	952	140	79.7	952	185	87.0	952	230	93.2	955	275	73.9	955	320	69.4	952
6	71.6	952	51	83.1	952	96	80.8	952	141	80.0	952	186	87.3	952	231	93.0	955	276	73.0	955	321	69.4	952
7	71.7	952	52	82.5	952	97	80.5	952	142	80.1	952	187	87.9	952	232	93.0	955	277	72.5	955	322	69.7	952
8	71.9	952	53	82.3	952	98	80.3	952	143	80.1	952	188	88.3	952	233	93.2	952	278	72.0	955	323	69.7	952
9	71.9	952	54	81.8	952	99	80.0	952	144	80.4	952	189	89.3	952	234	92.9	952	279	71.4	955	324	69.9	952
10	72.1	952	55	81.3	952	100	79.8	952	145	80.2	952	190	89.6	952	235	93.0	955	280	71.3	955	325	70.0	952
11	72.3	952	56	81.1	952	101	79.8	952	146	80.6	952	191	90.4	952	236	93.0	952	281	70.5	955	326	69.8	952
12	72.6	952	57	80.7	952	102	79.5	952	147	81.0	952	192	90.6	952	237	93.1	952	282	70.4	952	327	70.3	952
13	73.0	952	58	80.2	952	103	79.3	952	148	80.9	952	193	91.3	952	238	93.2	952	283	70.2	955	328	70.7	952
14	72.9	952	59	78.9	952	104	79.0	952	149	80.2	952	194	91.5	952	239	93.0	952	284	69.8	955	329	70.6	952
15	73.3	952	60	78.8	952	105	79.2	952	150	80.1	952	195	91.8	952	240	92.9	952	285	70.0	955	330	70.5	952
16	73.4	952	61	78.4	952	106	79.1	952	151	80.6	952	196	92.4	952	241	92.5	952	286	69.8	955	331	71.1	952
17	73.4	952	62	78.4	952	107	79.1	952	152	80.6	952	197	93.1	952	242	92.2	952	287	69.6	952	332	71.0	952
18	73.3	952	63	78.4	952	108	79.5	952	153	80.6	952	198	93.5	952	243	92.2	952	288	69.6	952	333	71.0	952
19	73.1	952	64	77.6	952	109	79.6	952	154	80.6	952	199	93.3	952	244	90.6	955	289	69.6	955	334	70.8	952
20	73.2	952	65	77.9	952	110	79.6	952	155	80.7	952	200	93.3	952	245	89.8	955	290	69.8	955	335	71.1	952
21	73.4	952	66	77.7	952	111	79.7	952	156	81.0	952	201	92.8	952	246	89.2	952	291	70.5	952	336	71.4	952
22	73.3	952	67	77.8	952	112	79.6	952	157	81.1	952	202	92.2	952	247	88.5	952	292	71.0	952	337	72.1	952
23	73.6	952	68	78.3	952	113	79.7	952	158	81.2	952	203	91.7	952	248	87.6	955	293	71.1	952	338	72.7	952
24	73.7	952	69	78.4	952	114	79.7	952	159	81.1	952	204	91.5	952	249	86.9	955	294	71.6	952	339	72.8	952
25	74.0	952	70	78.8	952	115	79.6	952	160	81.3	952	205	91.5	952	250	86.2	955	295	72.6	952	340	73.3	952
26	74.2	952	71	79.3	952	116	79.2	952	161	81.4	952	206	91.2	952	251	85.8	955	296	72.9	952	341	73.2	952
27	74.6	952	72	79.6	952	117	79.0	952	162	81.4	952	207	90.8	952	252	84.0	955	297	73.0	952	342	73.4	952
28	75.0	952	73	79.8	952	118	78.9	952	163	81.7	952	208	90.7	952	253	83.6	955	298	73.3	952	343	73.6	952
29	75.2	952	74	80.0	952	119	79.0	952	164	81.7	952	209	90.6	952	254	82.5	955	299	73.2	952	344	73.2	952
30	76.0	952	75	80.8	952	120	79.0	952	165	81.5	952	210	90.8	952	255	82.2	955	300	73.0	952	345	73.6	952
31	76.5	952	76	81.3	952	121	78.7	952	166	81.6	952	211	90.9	952	256	82.1	955	301	72.9	952	346	73.6	952
32	77.5	952	77	82.0	952	122	78.6	952	167	81.6	952	212	90.8	952	257	81.2	955	302	72.1	952	347	73.6	952
33	77.6	952	78	82.0	952	123	78.6	952	168	82.0	952	213	91.0	952	258	81.0	955	303	71.9	952	348	73.2	952
34	77.9	952	79	82.4	952	124	78.8	952	169	82.2	952	214	91.1	952	259	80.5	955	304	72.1	952	349	73.3	952
35	77.9	952	80	82.5	952	125	78.7	952	170	82.4	952	215	91.4	955	260	80.8	955	305	72.0	952	350	73.1	952
36	78.4	952	81	82.7	952	126	78.8	952	171	82.8	952	216	91.4	955	261	80.5	955	306	71.8	952	351	73.2	952
37	79.3	952	82	82.7	952	127	78.9	952	172	83.0	952	217	91.7	955	262	80.3	955	307	71.2	952	352	72.8	952
38	79.5	952	83	82.9	952	128	78.8	952	173	83.6	952	218	91.7	955	263	80.2	955	308	71.0	952	353	72.8	952
39	80.4	952	84	82.5	952	129	78.4	952	174	83.6	952	219	92.2	952	264	79.9	955	309	71.3	952	354	72.4	952
40	80.5	952	85	82.6	952	130	78.6	952	175	83.8	952	220	92.4	952	265	79.4	955	310	70.9	952	355	72.1	952
41	80.7	952	86	82.5	952	131	78.7	952	176	84.3	952	221	92.5	952	266	79.1	952	311	70.7	952	356	72.3	995
42	80.9	952	87	82.6	952	132	78.9	952	177	84.5	952	222	92.4	952	267	78.9	955	312	70.6	952	357	72.2	995
43	81.5	952	88	82.7	952	133	79.3	952	178	84.6	952	223	92.7	952	268	78.3	955	313	70.2	952	358	72.4	995
44	81.8	952	89	82.3	952	134	79.1	952	179	84.7	952	224	92.8	952	269	77.5	952	314	70.2	952	359	72.3	995

...ne Gas Prod.)
...12A, Apache Cty
607

PR-8 18 3

MAXIMUM RADII

UCKE RS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980
SCALE: 1 IN. = 20 FEET



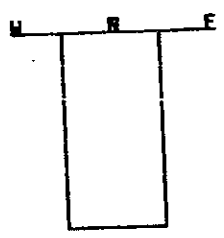
...ype Gas Prod.)
...ec Section 243, Apache Cty 607

CUSTOMER INFORMATION
ISOMETRIC VIEW

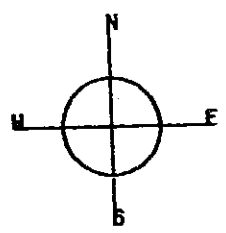
THE FOLLOWING PLOTS, WHICH WE CALL "ISOMETRIC VIEWS", ARE A METHOD OF SHOWING A 3-DIMENSIONAL OBJECT ON 2-DIMENSIONAL PAPER. OUR GOAL IS TO ILLUSTRATE ON PAPER THE SAME SURVEY INFORMATION AND PERSPECTIVE THAT YOU WOULD GET FROM VIEWING ONE OF OUR PLASTIC MODELS.

TO DEMONSTRATE WHAT THE ISOMETRIC VIEW IS SHOWING, IMAGINE HOW YOU COULD PLOT A CYLINDER:

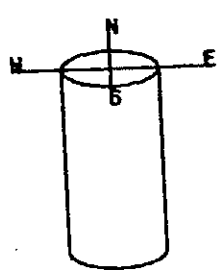
A VERTICAL CROSS SECTION (VIEWED FROM THE SOUTH) WOULD LOOK LIKE:



A TOP VIEW (WE CALL THEM "PLAN VIEWS") WOULD LOOK LIKE:



IF YOU STOOD BACK AND VIEWED THE CYLINDER FROM ABOVE AND DOWNWARD, (FROM THE SOUTH), IT WOULD LOOK LIKE:



THIS IS AN "ISOMETRIC VIEW"

THE ISOMETRIC VIEW OF THE CAVITY IS COMPUTER GENERATED FROM INTERPRETED SONAR SURVEY DATA. DOWELL USES AN INTERACTIVE GRAPHICS SYSTEM TO REVIEW AND PROCESS THE ISOMETRIC IMAGES, WHICH ARE THEN PLOTTED. THE DETAILS ABOUT THIS PRESENTATION THAT YOU SHOULD BE AWARE OF:

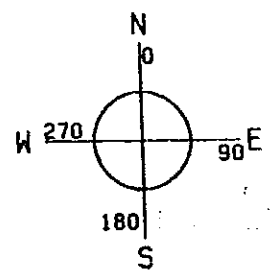
VIEW SELECTION - THE SONAR ENGINEER THAT PERFORMED THE SURVEY, WILL SELECT THE "VIEWING ANGLE" TO BEST ILLUSTRATE THE FEATURES OF THE CAVITY. THE IMAGE CAN BE ROTATED AROUND THE CAVITY CENTER LINE, AS WELL AS VIEWED FROM NUMEROUS ANGLES.

DATA PRESENTED - TYPICALLY ALL OF THE "HORIZONTAL" SURVEY DATA ARE INCLUDED IN THE ISOMETRIC. THEY WILL APPEAR AS HORIZONTAL SLICES LIKE THE CYLINDER'S TOP OR BOTTOM.

SCALE - YOU CAN'T EASILY MEASURE THE ISOMETRIC VIEW FOR REAL DIMENSIONS, HOWEVER, THE RELATIVE SCALES USED ARE PRINTED IN THE UPPER LEFT HAND CORNER. ALSO, YOU MAY REFERENCE THE COMPASS CYLINDER WHICH APPEARS IN THE UPPER LEFT HAND CORNER. THIS CYLINDER IS 1 INCH LONG BY 1/2 INCH DIAMETER, SO YOU CAN GET A SENSE FOR REAL DIMENSION. IN SOME CASES WE WILL EXPAND OR COMPRESS THE SCALE (FOR EXAMPLE: HORZION EQUAL 150 FEET/INCH, VERTICAL EQUAL 50 FEET/INCH) TO BETTER ILLUSTRATE CAVITY FEATURES.

ORIENTATION - THE ORIENTATION OF THE ISOMETRIC VIEW (WITH REFERENCE TO MAGNETIC NORTH) IS SHOWN BY THE COMPASS CYLINDER AND THE VALUE OF "VIEWING AZIMUTH" IN THE UPPER LEFT-HAND CORNER.

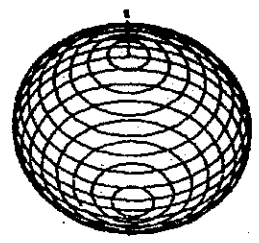
THE AZIMUTH VALUE IS THE COMPASS DEGREE AT THE FRONT OF THE ISOMETRIC IMAGE. THIS IS A TOP-VIEW REFERENCE FOR OUR NUMBERING SYSTEM:



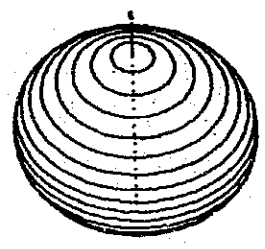
CENTER LINE - WE WILL SHOW THE PLUMB LINE OF THE SURVEY AS A SOLID CENTERLINE ABOVE THE CAVITY ISOMETRIC. INSIDE THE CAVITY, WE WILL MARK THE CENTERLINE OF EACH "HORIZONTAL" SECTION WITH A DOT.

HIDDEN LINES - WE HAVE REMOVED THE LINES OF THE ISOMETRIC THAT YOU COULD NOT SEE IF THE SECTIONS WERE MADE OF OPAQUE PLASTIC.

IF THE HIDDEN LINES OF A SPHERE WERE NOT REMOVED, IT WOULD BE CONFUSING:



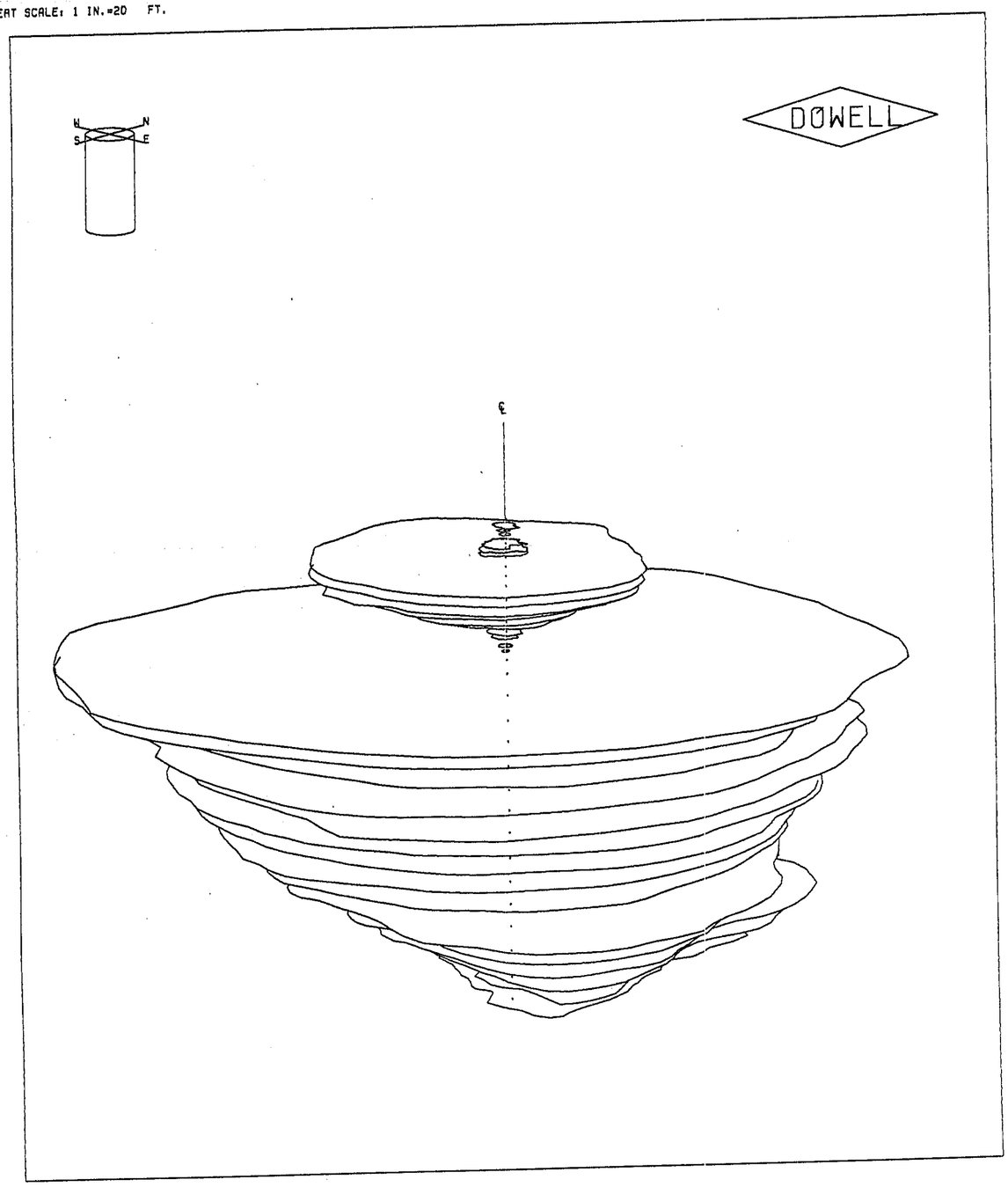
BUT WITH THE HIDDEN LINES REMOVED, IT BECOMES VISIBLE:



21-APR-80 18:32
FROM DEPTH: 923
THRU DEPTH: 1030
VIEWING AZIMUTH: 135
HORZ SCALE: 1 IN.=20 FT.
VERT SCALE: 1 IN.=20 FT.

ISOMETRIC VIEW

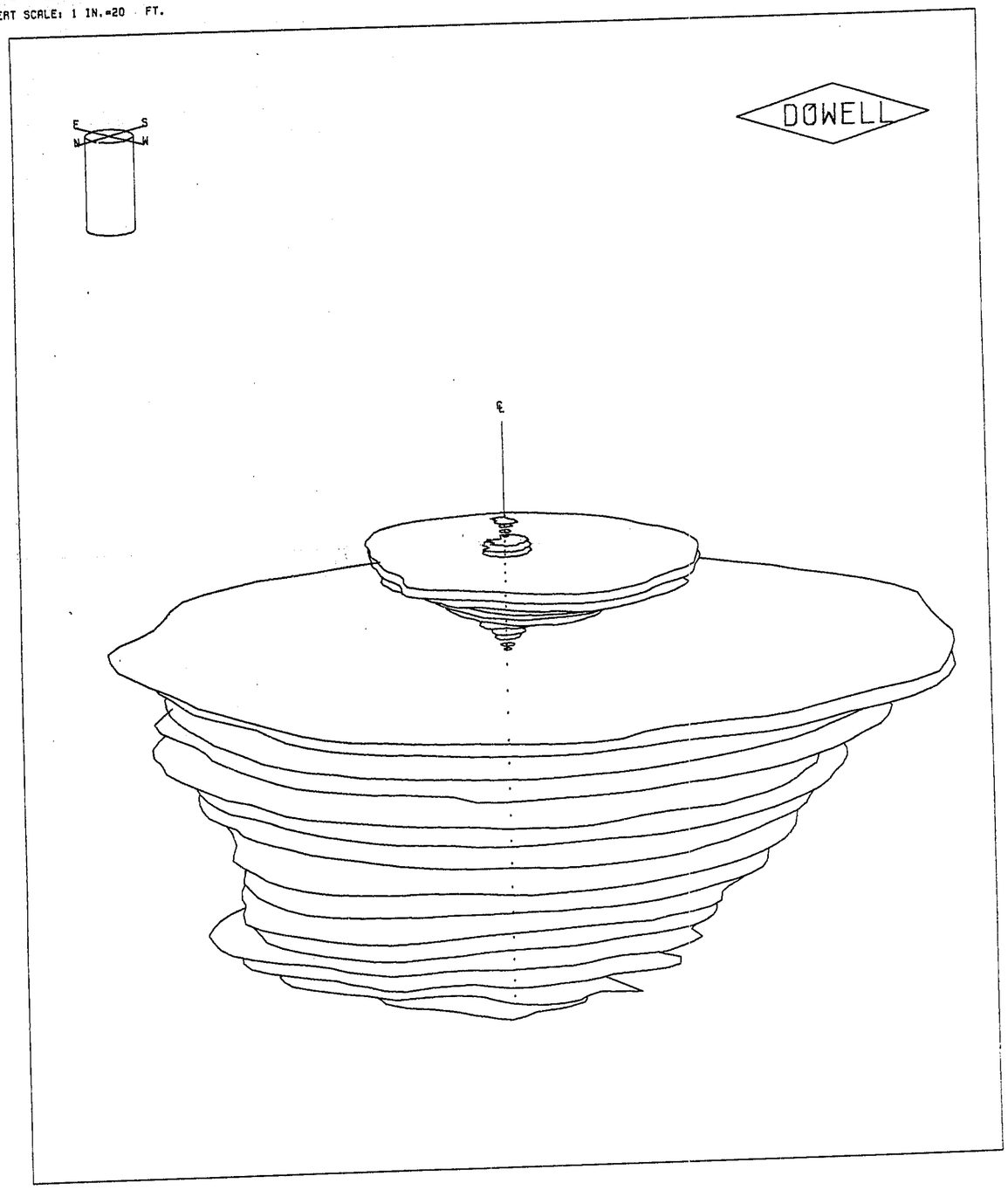
BUCKEYE GAS PRODUCTS COMPANY
ROAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980



21-APR-80 18:36
FROM DEPTH: 923
THRU DEPTH: 1030
VIEWING AZIMUTH: 315
HORZ SCALE: 1 IN.=20 FT.
VERT SCALE: 1 IN.=20 FT.

ISOMETRIC VIEW

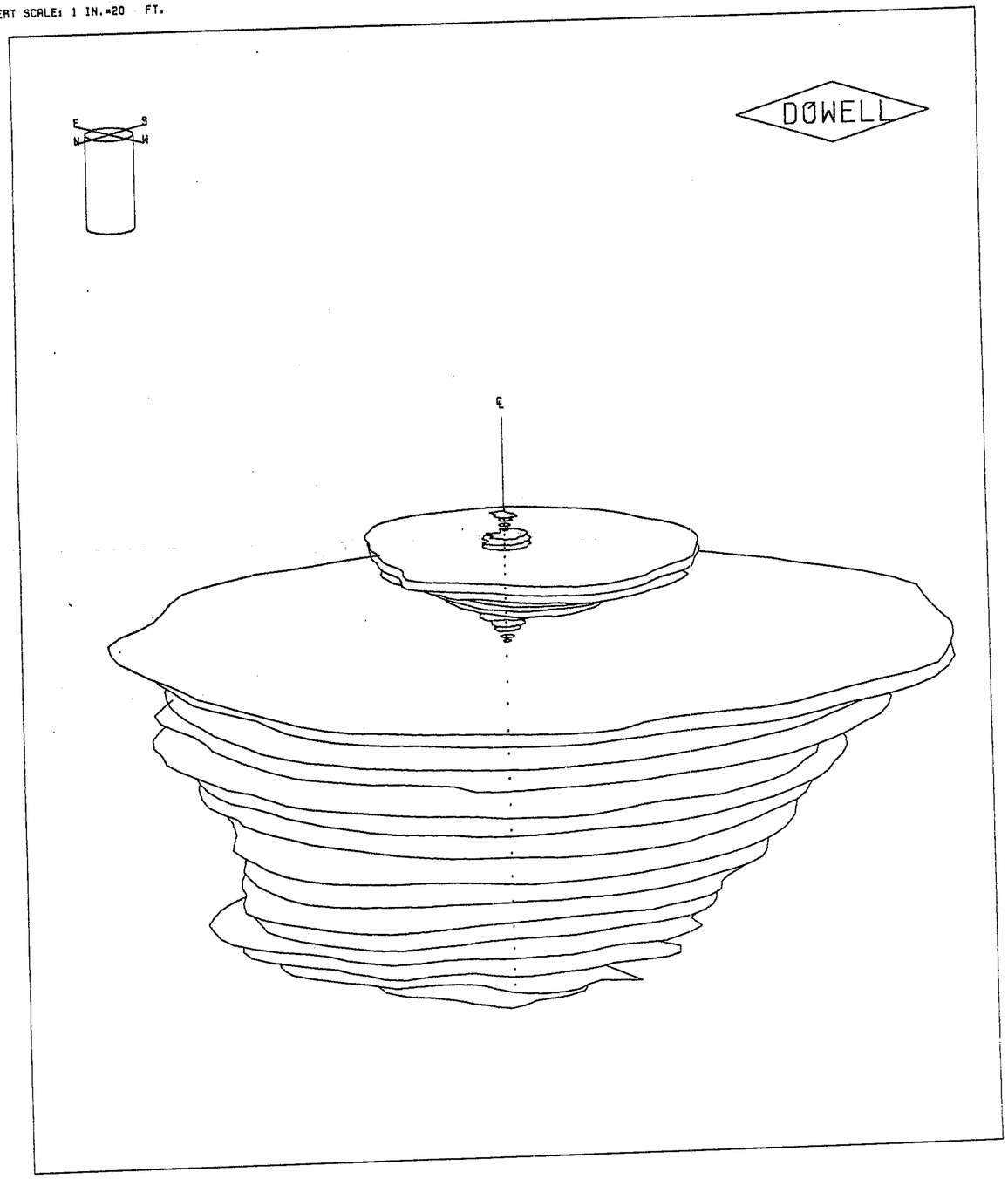
BUCKEYE GAS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980



21-APR-80 18:36
FROM DEPTH: 923
THRU DEPTH: 1030
VIEWING AZIMUTH: 315
HORZ SCALE: 1 IN.=20 FT.
VERT SCALE: 1 IN.=20 FT.

ISOMETRIC VIEW

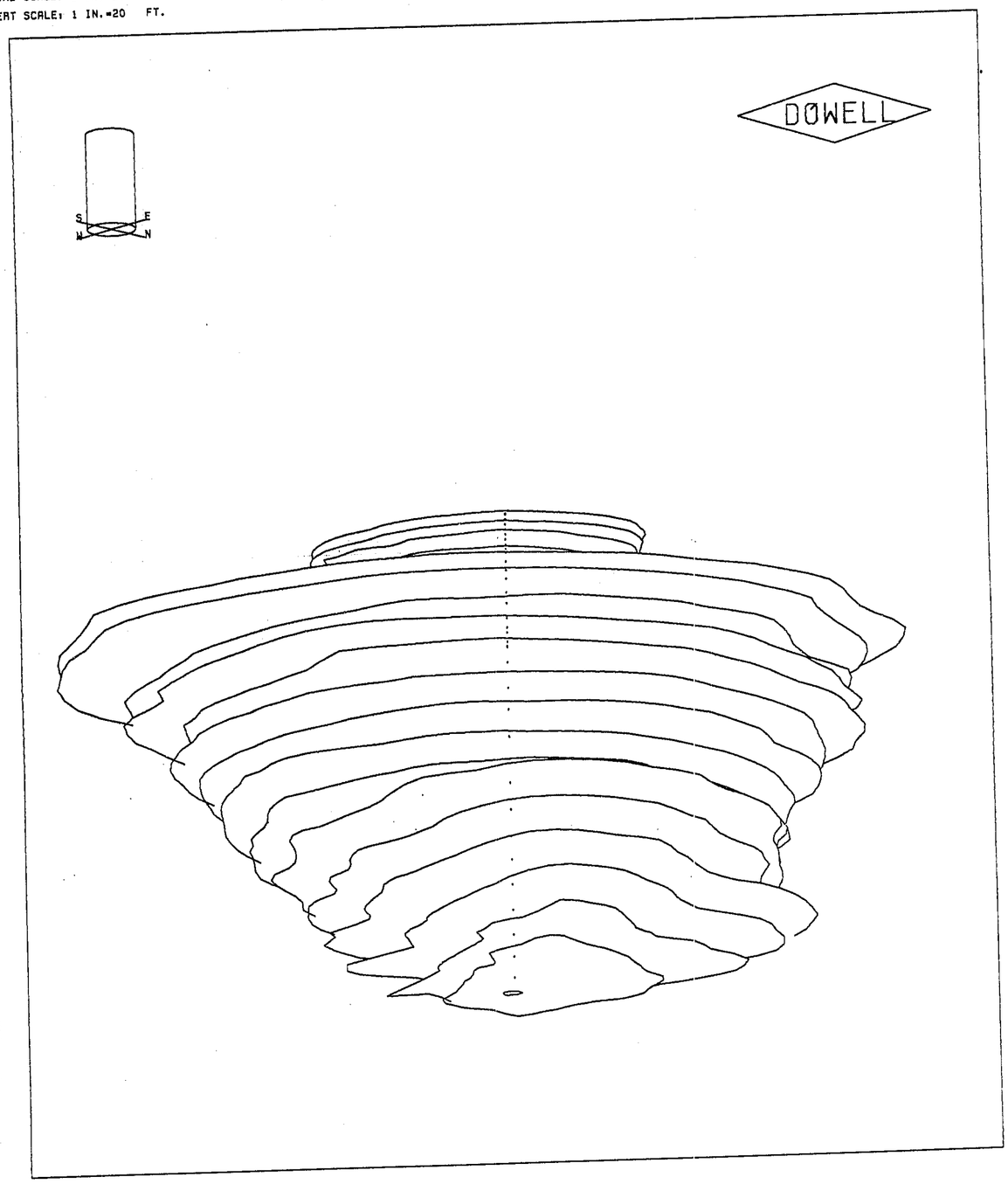
BUCKEYE GAS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980



21-APR-80 18:39
FROM DEPTH: 923
THRU DEPTH: 1030
VIEWING AZIMUTH: 135
HORZ SCALE: 1 IN.=20 FT.
VERT SCALE: 1 IN.=20 FT.

ISOMETRIC VIEW

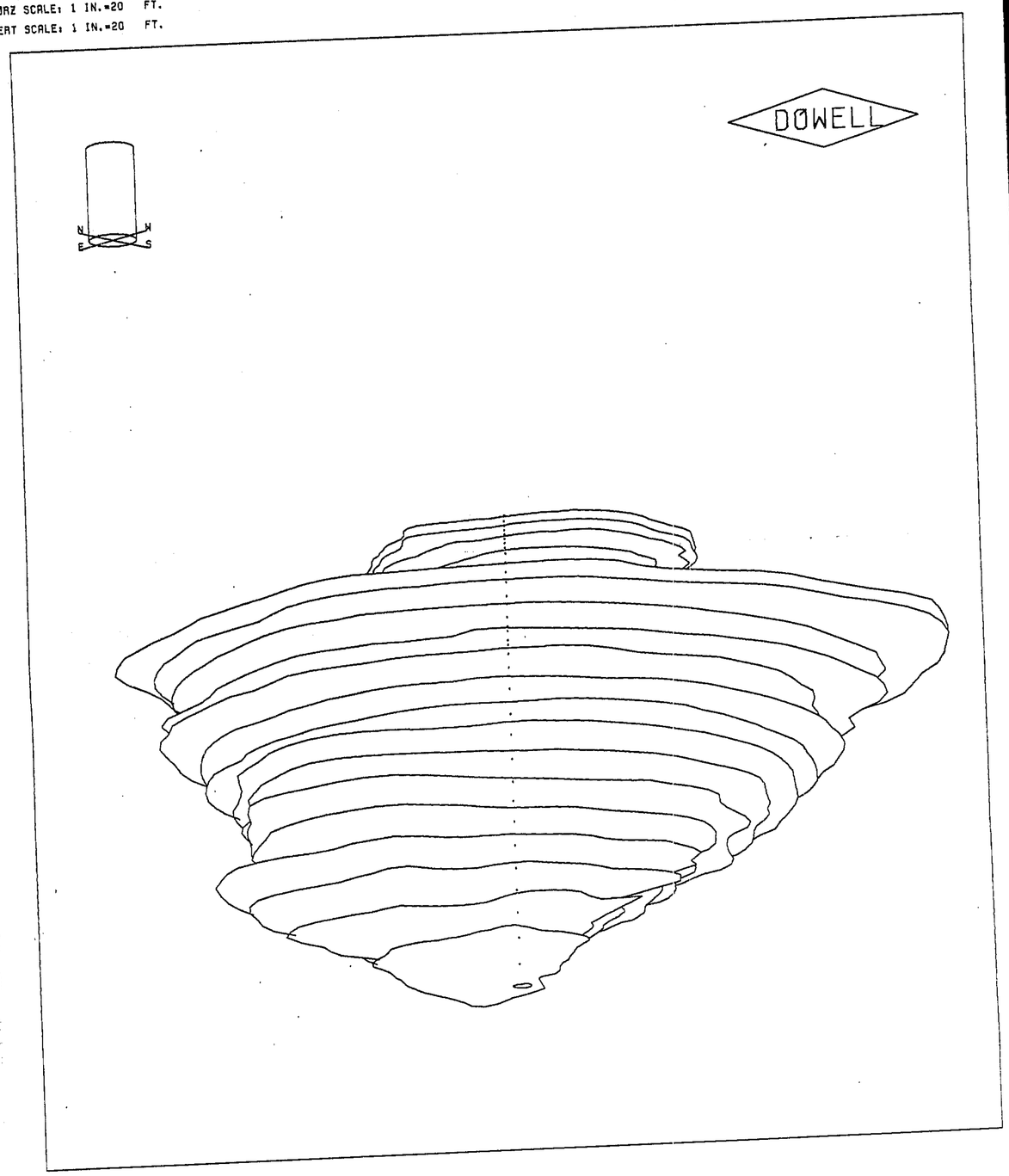
BUCKEYE GAS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980



21-APR-80 16:43
FROM DEPTH: 923
THRU DEPTH: 1030
VIEWING AZIMUTH: 315
HORZ SCALE: 1 IN.=20 FT.
VERT SCALE: 1 IN.=20 FT.

ISOMETRIC VIEW

BUCKEYE GAS PRODUCTS COMPANY
ADAMANA UGS TERMINAL
WELL NO. 6
APRIL 12,1980



DIGITAL SURVEYS, INC.

SONAR SURVEY

AZ OIL & GAS
CONSERVATION COMMISSION

JUL 3 1991

FERRELLGAS

WELL NO. 6

MAY 29,1991

P/N 607

ADAMANA ARIZONA

SONAR OPERATOR:	JEFF A. CHILDRESS
HOIST OPERATOR:	JEFF A. CHILDRESS
JOB NO.:	223
PERMANENT DATUM:	B.H.F.
ZERO POINT:	B.H.F.
CASING DIA.:	9.625"
CASING DEPTH:	924.0'
INTERMEDIATE DIA.:	4.50"
INTERMEDIATE DEPTH:	1024'
TUBING DIA.:	N/A
TUBING DEPTH:	N/A
TOTAL DEPTH:	1027.0'
GAGE T.D.:	1027.0'
SONAR T.D.:	1027.0'

REMARKS: SONAR WAS PERFORMED THROUGH 4.50" TUBING

DIGITAL SURVEYS, INC. 10700 CORPORATE DR. STE.100 STAFFORD, TX 77477
TELEPHONE (713)240-6777 FAX (713)240-6129

VOLUME REPORT

DEPTH feet	DEPTH meters	INCR ft^3	TOTAL ft^3	INCR m^3	TOTAL m^3	INCR bbls	TOTAL bbls
924	281.6	0	0	0.0	0	0.0	0
928	282.8	81	81	2.2	2	14.4	14
932	284.0	385	466	10.9	13	68.5	82
934	284.6	1822	2288	51.5	64	324.4	407
936	285.2	6756	9045	191.3	256	1203.2	1610
938	285.9	9565	18611	270.8	527	1703.5	3314
940	286.5	8397	27008	237.8	764	1495.5	4810
942	287.1	6949	33958	196.7	961	1237.6	6047
944	287.7	5455	39413	154.4	1116	971.5	7019
946	288.3	3877	43291	109.7	1226	690.4	7710
948	288.9	2597	45888	73.5	1299	462.5	8172
950	289.5	1366	47255	38.6	1338	243.2	8416
952	290.1	515	47770	14.5	1352	91.7	8507
954	290.7	288	48059	8.1	1361	51.2	8559
956	291.3	596	48655	16.8	1377	106.1	8665
958	291.9	8422	57077	238.5	1616	1499.9	10165
960	292.6	30665	87743	868.4	2484	5461.4	15627
962	293.2	45104	132847	1277.3	3762	8033.0	23660
964	293.8	46068	178916	1304.6	5066	8204.7	31864
966	294.4	43232	222148	1224.3	6291	7699.6	39564
968	295.0	40270	262418	1140.4	7431	7172.0	46736
970	295.6	40578	302997	1149.1	8580	7226.9	53963
972	296.2	39466	342463	1117.6	9698	7028.8	60992
974	296.8	38151	380615	1080.4	10779	6794.6	67787
976	297.4	37451	418066	1060.6	11839	6670.0	74457
978	298.0	36549	454616	1035.0	12874	6509.3	80967
980	298.7	35294	489911	999.5	13874	6285.8	87253
982	299.3	34311	524222	971.6	14845	6110.7	93363
984	299.9	33394	557616	945.7	15791	5947.4	99311
986	300.5	32629	590246	924.0	16715	5811.2	105122
988	301.1	32255	622501	913.4	17629	5744.6	110867
990	301.7	31627	654129	895.6	18524	5632.7	116500
992	302.3	31672	685802	896.9	19421	5640.7	122141
994	302.9	31096	716899	880.6	20302	5538.1	127679
996	303.5	29744	746643	842.3	21144	5297.4	132977
998	304.1	29277	775921	829.1	21974	5214.2	138191
1000	304.8	29858	805779	845.5	22819	5317.7	143509
1002	305.4	30024	835804	850.2	23669	5347.2	148856
1004	306.0	29256	865060	828.5	24498	5210.4	154067
1006	306.6	28922	893983	819.0	25317	5151.0	159218
1008	307.2	29377	923361	831.9	26149	5232.0	164450
1010	307.8	29649	953010	839.6	26989	5280.4	169731
1012	308.4	29608	982619	838.4	27827	5273.1	175004
1014	309.0	28879	1011499	817.8	28645	5143.3	180147
1016	309.6	27278	1038777	772.5	29418	4858.2	185006
1018	310.2	23579	1062356	667.7	30085	4199.4	189205
1020	310.8	20939	1083296	592.9	30678	3729.2	192935
1022	311.5	19165	1102461	542.7	31221	3413.2	196348
1024	312.1	13492	1115954	382.0	31603	2402.9	198751
1026	312.7	8931	1124885	252.9	31856	1590.6	200342
1027	313.0	1784	1126669	50.5	31907	317.7	200659

MAJOR COMPASS RADII

Depth & Radii in feet

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
924	90	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
928	90	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
932	90	7.9	6.8	7.7	6.3	6.2	6.9	6.9	8.2
934	90	24.7	23.7	23.8	25.7	27.3	24.4	24.6	26.1
936	90	39.1	38.7	44.3	46.3	37.8	34.9	36.4	36.4
938	90	36.0	40.6	44.2	46.1	31.5	32.9	36.0	40.9
940	90	35.9	36.3	41.5	42.8	32.4	25.8	27.1	33.5
942	90	30.3	35.0	36.6	37.8	31.3	23.6	24.7	28.9
944	90	28.4	29.9	30.2	32.8	28.9	21.7	21.0	23.6
946	90	22.8	23.9	25.0	26.9	22.7	17.2	16.0	19.7
948	90	18.5	18.5	21.4	22.9	18.9	14.1	15.1	15.9
950	90	9.3	10.4	12.1	11.3	11.4	11.5	10.7	9.4
952	90	6.4	7.4	6.9	6.8	7.4	7.0	6.5	7.2
954	90	6.0	6.0	6.3	6.0	6.7	6.5	6.2	6.4
956	90	17.8	15.5	15.4	6.7	7.2	5.5	4.4	5.5
958	90	86.5	89.6	57.2	27.8	29.7	30.2	29.7	34.3
960	90	86.6	87.9	86.3	92.3	80.6	77.0	77.9	85.7
962	90	86.6	87.9	86.3	92.3	80.6	77.0	77.9	85.7
964	90	88.5	89.8	88.2	94.2	82.3	78.7	79.5	87.5
966	90	85.8	78.8	78.0	73.6	75.8	81.6	81.2	83.4
968	90	87.2	80.1	79.3	74.8	77.0	82.9	82.5	84.8
970	90	86.1	74.8	77.2	78.6	74.4	79.1	80.8	84.6
972	90	85.9	74.6	77.6	77.6	73.5	77.0	77.6	85.2
974	90	83.3	77.6	76.1	75.5	70.3	77.0	77.8	83.8
976	90	77.0	75.2	76.3	71.2	76.9	77.2	80.1	82.1
978	90	77.2	73.7	78.2	72.5	73.5	76.5	79.1	78.2
980	90	75.7	71.4	76.5	75.4	68.2	75.0	77.0	77.0
982	90	74.2	69.9	73.5	76.7	73.1	72.1	75.4	75.5
984	90	74.4	66.3	72.7	76.5	72.7	67.6	71.6	75.2
986	90	74.6	64.8	70.1	74.2	78.0	69.7	70.3	74.8
988	90	76.5	62.3	68.8	74.6	79.1	71.4	68.9	72.5
990	90	68.2	55.7	67.1	70.3	83.8	71.4	70.8	72.1
992	90	69.5	56.8	68.3	71.6	85.4	72.7	72.1	73.5
994	90	62.2	54.2	66.1	68.2	83.8	71.0	67.2	76.3
996	90	62.2	52.5	66.9	68.2	82.9	69.7	67.4	76.3
998	90	60.8	47.6	64.2	66.7	81.2	69.1	69.5	77.2
1000	90	56.9	49.9	67.5	68.1	84.2	70.1	75.4	76.0
1002	90	53.2	46.3	64.8	66.0	81.7	69.5	73.8	77.0
1004	90	51.1	44.0	66.9	66.7	83.8	71.4	76.1	70.8
1006	90	49.0	46.1	71.2	72.0	79.1	72.3	73.7	61.0
1008	90	49.9	63.9	75.9	69.1	77.2	72.5	74.2	65.5
1010	90	71.8	61.2	49.5	56.3	84.2	69.5	81.0	71.6
1012	90	73.1	50.5	35.2	54.0	88.2	72.0	82.1	69.9
1014	90	75.9	53.5	38.2	54.0	86.3	71.6	77.4	68.6
1016	90	68.4	49.1	42.0	66.9	80.8	73.3	76.1	65.2
1018	90.	69.1	46.5	35.0	27.8	53.1	69.7	75.7	67.4
1020	90	67.8	44.2	36.9	29.5	54.0	61.6	75.9	72.0
1022	90	64.8	41.8	32.7	32.2	44.4	52.9	72.9	67.1
1024	90	38.4	41.2	27.3	17.7	31.6	36.9	40.7	58.4
1026	90	38.2	38.8	13.1	17.1	18.4	36.1	37.1	51.4

MAJOR COMPASS RADII

Depth & Radii in feet

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
1027	90	9.0	8.1	8.6	9.0	9.2	9.4	10.1	10.3

5 DEGREE RADII REPORT

Radii in feet

DEPTH: 924 ft TILT: 90 degrees

AZ									
0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
45	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
90	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
135	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
180	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
225	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
270	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
315	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

DEPTH: 928 ft TILT: 90 degrees

AZ									
0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
45	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
90	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
135	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
180	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
225	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
270	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
315	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7

DEPTH: 932 ft TILT: 90 degrees

AZ									
0	7.9	7.8	7.7	7.6	7.0	7.2	7.4	7.2	7.1
45	6.8	6.6	6.7	6.9	7.1	7.4	7.5	7.7	7.8
90	7.7	7.5	7.4	7.2	7.1	7.0	6.8	6.6	6.5
135	6.3	6.2	6.1	5.9	5.7	5.6	5.7	5.9	6.1
180	6.2	6.3	6.3	6.4	6.6	6.8	6.9	6.9	6.9
225	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
270	6.9	7.0	7.2	7.4	7.5	7.7	7.8	7.9	8.2
315	8.2	8.3	8.4	8.5	8.6	8.5	8.3	8.2	8.0

DEPTH: 934 ft TILT: 90 degrees

AZ									
0	24.7	24.5	24.3	24.1	23.9	23.6	23.5	23.5	23.5
45	23.7	23.8	23.9	24.2	24.3	24.4	24.1	24.0	23.8
90	23.8	23.6	23.5	22.9	22.8	22.8	23.0	23.1	23.3
135	25.7	28.4	31.5	31.9	29.5	28.6	28.2	27.8	27.5
180	27.3	26.9	26.7	26.5	26.3	25.6	25.0	24.8	24.5
225	24.4	24.2	23.9	23.8	23.6	23.6	24.0	24.3	24.4
270	24.6	24.8	25.0	25.0	25.3	25.5	25.8	26.0	26.0
315	26.1	26.1	25.9	25.8	25.9	26.0	25.9	25.8	25.5

DEPTH: 936 ft TILT: 90 degrees

AZ									
0	39.1	38.2	37.9	38.0	38.3	38.3	38.5	38.9	38.7
45	38.7	38.9	40.1	42.3	42.4	42.9	43.6	44.7	44.0
90	44.3	44.4	45.5	45.6	45.9	46.3	46.4	46.5	46.5
135	46.3	46.1	46.3	48.5	49.0	49.3	48.7	43.9	39.9
180	37.8	34.5	32.6	31.8	31.6	31.7	32.3	32.8	33.1
225	34.9	35.6	36.3	37.6	37.8	38.1	38.1	37.6	37.4
270	36.4	35.7	34.9	34.8	35.1	35.2	35.7	35.8	36.2
315	36.4	37.1	37.4	38.1	38.6	38.9	39.1	39.4	39.1

5 DEGREE RADII REPORT

Radii in feet

AZ DEPTH: 938 ft TILT: 90 degrees

0	36.0	36.7	37.9	38.0	37.1	37.9	39.0	38.9	40.6
45	40.6	43.3	40.9	41.7	41.5	42.7	44.5	44.3	43.9
90	44.2	44.4	44.5	44.7	45.1	45.3	45.5	45.7	46.0
135	46.1	41.4	37.7	35.9	35.5	33.9	33.0	32.1	31.8
180	31.5	31.3	31.2	30.9	31.3	31.5	31.8	32.1	32.7
225	32.9	33.1	33.1	33.2	33.4	33.6	34.5	34.6	34.8
270	36.0	36.0	37.6	39.1	40.4	40.4	41.3	41.3	41.1
315	40.9	38.6	38.0	35.4	36.0	36.5	35.7	35.6	35.0

AZ DEPTH: 940 ft TILT: 90 degrees

0	35.9	36.4	37.0	36.5	36.1	36.0	36.0	36.0	36.0
45	36.3	36.8	38.2	38.5	38.8	39.0	39.1	39.3	39.5
90	41.5	41.7	42.0	42.1	42.3	42.5	42.7	42.9	43.0
135	42.8	42.6	42.4	40.8	39.3	38.2	37.1	34.7	34.5
180	32.4	30.8	30.2	29.8	29.7	29.4	28.3	27.3	26.3
225	25.8	25.5	26.3	26.3	26.3	26.3	26.3	26.1	25.7
270	27.1	27.2	27.2	27.5	28.5	29.7	32.2	32.2	33.3
315	33.5	33.7	33.9	34.3	34.6	34.9	35.1	35.2	35.6

AZ DEPTH: 942 ft TILT: 90 degrees

0	30.3	32.1	33.3	33.3	34.4	34.5	34.4	34.4	34.8
45	35.0	35.3	35.5	35.5	35.4	35.7	35.9	36.3	36.5
90	36.6	36.8	37.0	37.2	37.5	37.6	37.8	37.8	37.9
135	37.8	36.9	35.9	35.7	35.5	34.8	34.4	33.6	33.1
180	31.3	29.9	27.9	27.2	26.1	25.3	24.6	23.9	23.7
225	23.6	23.5	23.5	23.7	23.9	24.1	24.2	24.4	24.5
270	24.7	24.7	24.9	25.0	25.1	25.9	26.8	27.5	28.1
315	28.9	30.6	31.4	31.6	31.6	30.5	30.3	30.2	30.1

AZ DEPTH: 944 ft TILT: 90 degrees

0	28.4	28.6	28.8	28.9	29.1	29.3	29.5	29.7	29.8
45	29.9	30.1	30.3	30.5	30.5	30.4	30.3	30.3	30.1
90	30.2	30.4	30.6	30.8	31.5	31.7	32.4	32.6	32.7
135	32.8	32.9	32.6	32.2	31.9	31.7	31.4	31.3	31.0
180	28.9	27.4	26.0	24.9	23.5	23.0	22.4	22.3	22.3
225	21.7	20.6	20.3	20.0	20.3	20.4	20.5	20.8	21.0
270	21.0	20.7	20.7	20.5	20.5	20.6	20.8	21.5	23.1
315	23.6	24.2	25.1	26.2	26.3	27.0	27.9	28.1	28.2

AZ DEPTH: 946 ft TILT: 90 degrees

0	22.8	24.0	24.5	24.9	25.2	25.0	24.9	24.6	24.2
45	23.9	24.1	24.4	24.7	24.7	24.5	24.6	24.9	25.0
90	25.0	24.6	24.6	24.9	25.6	25.6	25.7	26.1	26.4
135	26.9	26.9	27.2	27.0	26.7	25.9	25.0	24.8	23.8
180	22.7	21.6	21.3	21.0	19.7	18.8	18.6	17.7	17.4
225	17.2	17.7	17.7	17.6	17.3	17.2	16.4	16.3	16.0
270	16.0	16.1	16.3	17.3	17.4	17.5	17.8	17.7	19.7
315	19.7	19.5	20.0	20.1	21.2	21.5	22.0	22.5	22.7

5 DEGREE RADII REPORT

Radii in feet

AZ DEPTH: 948 ft TILT: 90 degrees

0	18.5	18.7	18.8	18.7	18.6	18.6	18.8	18.6	18.5
45	18.5	18.8	18.8	19.5	19.9	20.3	20.6	20.9	21.1
90	21.4	21.6	21.4	21.2	21.4	21.5	21.8	22.6	22.9
135	22.9	22.8	22.4	22.2	21.7	21.1	20.4	20.3	19.5
180	18.9	18.0	17.0	16.6	15.8	15.2	15.0	14.7	14.4
225	14.1	14.3	14.5	14.3	14.2	14.5	14.9	14.9	14.7
270	15.1	14.9	14.8	14.5	14.3	14.4	14.3	15.6	15.7
315	15.9	16.1	16.9	17.2	17.4	17.6	17.8	18.0	18.2

AZ DEPTH: 950 ft TILT: 90 degrees

0	9.3	9.5	9.8	9.8	10.2	10.3	10.3	10.3	10.3
45	10.4	10.8	10.9	11.2	11.5	11.5	11.6	11.8	11.7
90	12.1	11.9	11.8	12.0	11.8	11.5	11.3	11.7	11.6
135	11.3	11.1	10.9	11.1	11.2	11.2	11.0	11.2	11.4
180	11.4	11.6	12.1	12.4	12.5	12.3	12.1	11.8	11.6
225	11.5	11.6	11.6	11.4	11.2	11.1	10.7	10.9	10.9
270	10.7	10.4	9.9	9.3	9.0	9.0	9.4	9.4	9.4
315	9.4	9.5	9.9	9.8	9.5	9.8	9.9	9.7	9.4

AZ DEPTH: 952 ft TILT: 90 degrees

0	6.4	6.5	6.6	6.7	6.8	6.7	6.3	6.8	7.2
45	7.4	6.7	6.7	6.6	6.8	6.8	7.3	7.1	6.8
90	6.9	6.7	6.9	6.8	6.7	6.6	6.9	7.0	7.0
135	6.8	6.8	7.2	7.0	6.8	7.0	7.2	7.1	7.2
180	7.4	7.4	7.2	7.8	8.0	7.8	7.4	7.6	7.5
225	7.0	7.6	7.7	7.1	6.7	6.7	7.1	7.1	6.7
270	6.5	7.1	7.3	7.2	7.0	6.8	7.1	7.3	7.4
315	7.2	6.9	7.1	7.0	6.9	6.9	7.0	6.6	6.6

AZ DEPTH: 954 ft TILT: 90 degrees

0	6.0	6.1	6.1	6.0	6.2	6.1	6.2	6.4	5.9
45	6.0	6.2	6.7	6.8	6.5	6.2	6.6	6.8	6.2
90	6.3	6.1	6.1	6.7	6.2	5.9	6.3	6.0	6.2
135	6.0	6.8	6.5	6.6	6.8	6.4	6.3	6.5	6.6
180	6.7	6.4	6.9	6.8	6.9	6.6	6.6	6.7	6.7
225	6.5	6.7	6.7	7.1	6.6	6.6	6.3	6.4	6.3
270	6.2	6.6	6.3	6.2	6.7	6.2	6.5	6.2	6.4
315	6.4	6.4	6.3	6.3	6.1	5.8	6.0	6.3	6.2

AZ DEPTH: 956 ft TILT: 90 degrees

0	17.8	26.8	33.9	34.3	34.0	32.8	31.7	31.7	18.6
45	15.5	15.3	15.1	15.3	15.6	15.8	16.1	15.8	15.6
90	15.4	14.5	8.9	7.3	7.1	6.7	6.5	6.2	6.5
135	6.7	7.0	7.3	7.2	7.2	7.2	7.2	7.2	7.2
180	7.2	7.2	7.2	7.2	7.2	7.2	7.2	6.7	6.2
225	5.5	6.5	4.5	4.4	4.5	4.7	4.8	4.7	4.6
270	4.4	4.7	4.6	4.7	5.1	4.7	5.3	4.6	5.1
315	5.5	5.1	4.3	4.3	4.7	5.1	6.0	6.1	10.7

5 DEGREE RADII REPORT

Radii in feet

AZ DEPTH: 958 ft TILT: 90 degrees

0	86.5	85.9	86.2	86.9	86.3	87.3	87.4	88.3	89.1
45	89.6	90.1	89.1	89.3	86.7	86.4	80.4	70.8	63.9
90	57.2	50.6	44.1	39.8	37.6	33.9	32.4	31.2	29.3
135	27.8	27.1	27.1	27.3	27.4	27.9	28.3	28.6	29.4
180	29.7	29.7	30.6	30.5	30.8	30.9	30.9	30.7	30.5
225	30.2	30.1	29.8	29.9	29.9	29.8	29.7	29.8	29.8
270	29.7	29.9	30.1	30.3	30.3	30.3	30.5	31.5	32.6
315	34.3	40.9	48.6	86.2	85.9	85.7	86.1	86.5	86.8

AZ DEPTH: 960 ft TILT: 90 degrees

0	86.6	86.1	86.1	86.3	85.7	86.7	87.0	86.5	87.1
45	87.9	88.4	89.2	89.2	88.2	87.9	86.6	88.1	87.0
90	86.3	88.1	89.5	90.8	91.4	91.6	91.8	92.0	92.2
135	92.3	92.4	92.2	90.3	87.4	86.1	83.6	82.2	81.9
180	80.6	80.3	80.1	79.9	79.0	78.7	78.5	78.3	77.3
225	77.0	76.8	76.6	76.7	76.8	77.1	77.3	77.5	77.7
270	77.9	79.0	80.2	81.4	82.3	81.0	81.3	83.5	84.3
315	85.7	86.4	85.9	86.3	86.5	87.2	86.0	85.9	85.9

AZ DEPTH: 962 ft TILT: 90 degrees

0	86.6	86.1	86.1	86.3	85.7	86.7	87.0	86.5	87.1
45	87.9	88.4	89.2	89.2	88.2	87.9	86.6	88.1	87.0
90	86.3	88.1	89.5	90.8	91.4	91.6	91.8	92.0	92.2
135	92.3	92.4	92.2	90.3	87.4	86.1	83.6	82.2	81.9
180	80.6	80.3	80.1	79.9	79.0	78.7	78.5	78.3	77.3
225	77.0	76.8	76.6	76.7	76.8	77.1	77.3	77.5	77.7
270	77.9	79.0	80.2	81.4	82.3	81.0	81.3	83.5	84.3
315	85.7	86.4	85.9	86.3	86.5	87.2	86.0	85.9	85.9

AZ DEPTH: 964 ft TILT: 90 degrees

0	88.5	88.0	87.9	88.2	87.5	88.6	88.8	88.4	88.9
45	89.8	90.3	91.1	91.1	90.1	89.8	88.5	90.0	88.8
90	88.2	90.0	91.4	92.7	93.4	93.6	93.7	93.9	94.1
135	94.2	94.3	94.1	92.2	89.2	87.9	85.4	84.0	83.7
180	82.3	82.0	81.8	81.6	80.7	80.4	80.2	79.9	79.0
225	78.7	78.5	78.2	78.4	78.5	78.8	79.0	79.2	79.3
270	79.5	80.7	81.9	83.1	84.0	82.7	83.0	85.3	86.1
315	87.5	88.3	87.7	88.2	88.4	89.0	87.8	87.7	87.7

AZ DEPTH: 966 ft TILT: 90 degrees

0	85.8	84.0	82.3	79.7	81.6	76.0	74.7	74.3	74.3
45	78.8	79.9	79.7	78.8	77.9	78.4	79.0	79.2	78.6
90	78.0	77.5	77.1	76.6	76.2	75.6	75.3	74.7	74.3
135	73.6	73.2	73.0	73.0	73.0	73.0	73.0	73.0	75.4
180	75.8	76.6	76.6	77.7	79.0	79.5	79.0	79.2	79.5
225	81.6	78.6	78.6	80.6	80.5	80.5	81.2	81.8	81.8
270	81.2	80.8	81.9	82.5	82.9	83.2	84.2	84.9	82.7
315	83.4	84.4	84.7	84.9	84.5	86.8	86.6	86.6	86.4

5 DEGREE RADII REPORT

Radii in feet

AZ DEPTH: 968 ft TILT: 90 degrees

0	87.2	85.3	83.6	81.0	82.9	77.2	75.9	75.5	75.5
45	80.1	81.2	81.0	80.1	79.1	79.7	80.3	80.4	79.9
90	79.3	78.7	78.4	77.8	77.4	76.9	76.5	75.9	75.5
135	74.8	74.4	74.2	74.2	74.2	74.2	74.2	74.2	76.7
180	77.0	77.8	77.8	78.9	80.3	80.8	80.3	80.4	80.8
225	82.9	79.9	79.9	81.9	81.8	81.8	82.5	83.1	83.1
270	82.5	82.1	83.3	83.8	84.2	84.6	85.5	86.3	84.0
315	84.8	85.7	86.1	86.3	85.9	88.2	88.0	88.0	87.8

AZ DEPTH: 970 ft TILT: 90 degrees

0	86.1	86.3	85.0	85.3	84.6	79.5	77.8	78.0	75.9
45	74.8	75.7	76.7	78.4	80.1	78.6	77.4	76.5	77.4
90	77.2	78.0	78.6	79.1	79.9	80.3	80.1	79.5	79.1
135	78.6	78.2	77.4	77.0	76.5	76.1	75.5	75.2	74.6
180	74.4	75.0	75.0	75.0	76.5	77.2	77.4	78.7	78.6
225	79.1	79.5	78.7	80.3	80.1	80.3	80.3	81.0	79.9
270	80.8	81.2	81.8	81.4	81.0	80.4	80.1	85.2	85.5
315	84.6	84.8	86.1	85.5	85.5	85.3	86.1	85.9	88.0

AZ DEPTH: 972 ft TILT: 90 degrees

0	85.9	82.1	83.1	81.0	78.9	78.6	77.0	75.5	74.8
45	74.6	74.0	74.4	76.3	77.6	77.8	77.2	76.3	77.0
90	77.6	78.0	78.6	78.9	78.6	78.0	77.8	77.8	78.2
135	77.6	77.2	76.7	76.3	75.7	75.4	74.8	74.4	73.8
180	73.5	72.9	73.3	73.8	74.4	74.8	75.5	76.7	77.0
225	77.0	77.4	77.8	78.2	76.3	78.0	78.0	77.4	76.9
270	77.6	77.2	77.6	78.7	80.3	78.9	81.0	84.6	85.0
315	85.2	92.7	84.8	84.6	82.3	83.3	85.0	85.2	85.9

AZ DEPTH: 974 ft TILT: 90 degrees

0	83.3	82.7	83.3	82.7	82.1	80.6	79.1	78.7	77.6
45	77.6	74.8	75.9	75.5	75.0	78.0	77.8	76.5	77.8
90	76.1	75.4	77.4	75.7	77.0	77.4	77.0	76.7	75.2
135	75.5	76.7	71.4	70.1	70.3	70.8	71.2	71.0	70.4
180	70.3	69.7	69.3	68.8	68.4	67.8	67.4	71.2	77.0
225	77.0	77.4	77.8	78.4	77.6	78.0	78.7	78.0	78.4
270	77.8	77.4	80.1	80.6	80.6	81.4	81.8	82.5	82.7
315	83.8	82.1	83.6	83.8	82.9	81.9	81.8	81.9	81.8

AZ DEPTH: 976 ft TILT: 90 degrees

0	77.0	77.6	76.3	77.8	78.2	77.4	76.1	75.7	75.5
45	75.2	74.8	74.4	74.4	75.0	75.4	76.1	76.5	77.0
90	76.3	77.2	77.0	77.4	76.5	76.9	76.1	76.5	75.4
135	71.2	76.3	70.4	68.4	70.3	70.1	74.2	72.3	75.0
180	76.9	74.2	70.3	68.0	69.7	75.0	76.1	78.2	77.4
225	77.2	77.8	78.2	78.0	78.0	78.0	77.8	78.6	79.7
270	80.1	81.2	81.4	80.8	81.2	83.1	82.9	82.5	82.7
315	82.1	81.6	80.4	80.6	78.6	78.2	78.9	79.7	78.4

5 DEGREE RADII REPORT

Radii in feet

AZ DEPTH: 978 ft TILT: 90 degrees

0	77.2	76.7	76.7	75.4	75.5	75.9	73.8	74.4	73.1
45	73.7	73.3	73.7	74.8	74.6	74.2	75.5	76.9	77.6
90	78.2	77.8	77.6	77.6	76.7	77.8	74.6	74.4	74.0
135	72.5	71.8	71.6	70.4	70.4	70.8	72.0	72.1	71.2
180	73.5	68.4	67.2	60.3	61.2	73.5	74.0	76.1	76.1
225	76.5	76.9	76.5	77.8	77.4	78.2	79.1	79.9	79.9
270	79.1	79.1	78.6	78.6	79.1	81.2	80.1	79.7	79.1
315	78.2	78.9	78.6	78.6	75.9	75.0	78.2	75.9	76.1

AZ DEPTH: 980 ft TILT: 90 degrees

0	75.7	75.9	75.0	74.0	74.0	73.1	73.3	72.3	71.2
45	71.4	72.7	72.1	72.1	72.7	72.5	73.7	73.7	75.0
90	76.5	77.0	77.4	77.8	77.8	78.0	77.2	78.0	77.4
135	75.4	74.2	72.5	72.1	70.4	70.8	71.0	70.8	71.0
180	68.2	68.6	65.7	64.8	63.7	66.1	68.9	72.3	75.9
225	75.0	75.4	76.3	76.5	75.7	77.2	77.4	77.4	76.9
270	77.0	76.9	76.1	75.9	75.4	76.7	77.4	79.9	77.6
315	77.0	76.1	77.2	76.3	75.7	74.4	75.0	75.2	75.7

AZ DEPTH: 982 ft TILT: 90 degrees

0	74.2	74.8	73.1	73.1	71.8	71.4	70.4	71.2	71.6
45	69.9	68.8	69.1	71.2	70.4	69.9	70.3	72.0	72.0
90	73.5	75.7	77.6	76.5	76.9	77.8	77.2	76.1	76.7
135	76.7	77.2	75.0	74.0	73.7	74.4	73.1	74.4	73.3
180	73.1	70.1	68.4	65.9	64.8	64.2	67.1	68.0	68.2
225	72.1	73.3	74.4	74.4	75.0	75.0	74.4	75.9	75.2
270	75.4	74.0	74.8	72.5	73.8	75.0	76.1	77.2	76.3
315	75.5	75.5	75.7	76.3	75.5	75.4	75.0	75.5	74.6

AZ DEPTH: 984 ft TILT: 90 degrees

0	74.4	73.8	72.3	70.4	70.1	69.5	69.5	69.7	68.0
45	66.3	66.9	67.8	67.4	67.1	68.0	70.1	70.1	71.6
90	72.7	75.4	75.4	74.8	75.9	76.7	76.3	76.7	77.0
135	76.5	76.5	76.1	74.6	75.0	75.0	75.2	75.5	75.0
180	72.7	72.1	70.3	68.8	69.9	69.9	68.8	68.6	68.2
225	67.6	67.1	71.4	71.6	72.0	72.9	73.1	73.3	72.3
270	71.6	70.6	70.6	71.2	72.0	73.7	73.7	74.6	75.0
315	75.2	75.2	74.4	73.7	73.7	73.8	74.4	74.8	73.7

AZ DEPTH: 986 ft TILT: 90 degrees

0	74.6	74.2	71.8	71.2	70.6	68.2	67.8	66.3	66.3
45	64.8	63.5	64.0	64.8	63.1	65.2	64.6	64.6	64.6
90	70.1	72.0	73.1	73.5	73.7	73.7	74.8	74.8	76.3
135	74.2	75.5	76.5	76.3	77.0	79.1	77.8	80.6	76.5
180	78.0	76.3	73.7	72.3	71.4	70.1	70.4	68.6	69.5
225	69.7	70.4	70.4	72.9	72.5	71.2	71.4	71.2	70.4
270	70.3	68.9	72.5	69.7	70.1	71.2	72.3	73.8	74.6
315	74.8	74.8	73.7	73.8	72.9	72.0	73.3	73.7	73.7

5 DEGREE RADII REPORT

Radii in feet

AZ DEPTH: 988 ft TILT: 90 degrees

0	76.5	74.0	73.3	70.4	68.6	66.3	64.6	63.7	61.4
45	62.3	62.2	62.0	60.3	60.6	61.2	62.0	63.1	65.0
90	68.8	69.9	71.0	72.3	72.5	72.7	74.0	73.8	75.9
135	74.6	73.7	75.5	74.6	76.5	77.4	78.4	79.3	81.9
180	79.1	80.3	78.9	78.2	78.2	75.7	73.8	73.1	72.3
225	71.4	69.5	71.0	72.1	69.5	68.6	69.9	69.5	69.7
270	68.9	69.3	70.1	70.1	70.6	71.0	70.8	70.3	71.4
315	72.5	74.4	74.2	72.7	72.9	72.5	74.2	78.6	75.7

AZ DEPTH: 990 ft TILT: 90 degrees

0	68.2	66.1	66.1	65.4	62.7	60.5	58.6	57.4	55.7
45	55.7	55.4	54.2	54.8	55.4	55.7	58.8	60.6	63.5
90	67.1	68.6	69.3	69.7	69.1	68.4	69.1	68.9	68.4
135	70.3	73.1	70.4	73.3	73.8	75.7	78.4	81.9	81.8
180	83.8	84.6	84.2	84.6	82.3	79.9	70.3	70.3	73.8
225	71.4	72.3	70.4	69.3	68.0	68.0	68.4	68.4	70.8
270	70.8	70.8	69.1	68.6	68.9	67.2	66.9	69.5	72.7
315	72.1	73.1	79.9	77.8	79.3	77.8	78.6	77.4	70.4

AZ DEPTH: 992 ft TILT: 90 degrees

0	69.5	67.3	67.3	66.6	63.9	61.6	59.7	58.5	56.8
45	56.8	56.4	55.2	55.8	56.4	56.8	59.9	61.8	64.7
90	68.3	69.8	70.6	71.0	70.4	69.6	70.4	70.2	69.6
135	71.6	74.4	71.8	74.6	75.2	77.1	79.8	83.5	83.3
180	85.4	86.2	85.8	86.2	83.9	81.4	71.6	71.6	75.2
225	72.7	73.7	71.8	70.6	69.3	69.3	69.6	69.6	72.1
270	72.1	72.1	70.4	69.8	70.2	68.5	68.1	70.8	74.1
315	73.5	74.4	81.4	79.2	80.8	79.2	80.0	78.9	71.8

AZ DEPTH: 994 ft TILT: 90 degrees

0	62.2	61.6	61.2	57.4	56.3	53.9	53.5	52.9	52.5
45	54.2	52.7	52.5	51.4	53.3	56.1	60.3	66.1	65.9
90	66.1	68.0	67.8	68.0	69.7	66.9	67.2	67.1	67.4
135	68.2	68.4	69.1	72.0	72.1	76.7	80.3	82.9	83.6
180	83.8	84.0	84.0	80.6	78.7	75.4	74.2	72.0	71.6
225	71.0	69.5	69.7	69.5	67.2	66.7	65.9	67.1	66.7
270	67.2	66.9	66.5	67.1	65.5	65.7	65.5	69.3	74.2
315	76.3	82.1	82.1	82.5	82.5	79.9	73.8	70.6	65.5

AZ DEPTH: 996 ft TILT: 90 degrees

0	62.2	61.0	59.5	56.7	54.4	52.4	51.8	50.8	52.2
45	52.5	51.6	51.2	51.4	54.2	55.7	59.3	62.2	65.7
90	66.9	66.5	67.4	67.1	67.2	65.2	65.2	66.5	67.1
135	68.2	69.7	70.4	73.1	69.7	74.6	78.2	80.1	82.1
180	82.9	81.9	80.8	79.7	77.6	75.9	74.2	72.9	70.8
225	69.7	69.3	68.4	68.4	67.4	66.9	66.5	66.1	67.4
270	67.4	69.3	70.4	70.1	72.3	73.5	75.0	75.4	75.9
315	76.3	76.9	77.2	76.9	76.3	75.7	73.7	72.1	62.9

5 DEGREE RADII REPORT

Radii in feet

AZ DEPTH: 998 ft TILT: 90 degrees

0	60.8	59.1	56.9	54.6	52.0	50.5	49.1	48.4	48.4
45	47.6	47.5	47.5	48.4	51.8	56.7	58.2	62.7	63.9
90	64.2	65.5	65.7	65.7	65.2	63.9	64.8	64.8	65.5
135	66.7	66.9	66.9	71.2	74.8	78.6	79.7	80.1	82.1
180	81.2	80.8	81.4	79.9	77.0	74.6	73.7	72.7	69.7
225	69.1	68.6	68.2	68.2	67.6	67.4	67.1	68.0	69.1
270	69.5	70.3	70.6	72.3	73.7	77.4	79.1	78.2	77.8
315	77.2	76.7	78.4	75.7	75.4	70.6	67.1	65.0	61.8

AZ DEPTH: 1000 ft TILT: 90 degrees

0	56.9	55.2	52.2	51.6	49.5	47.9	47.7	47.5	48.1
45	49.9	50.1	53.4	54.4	58.5	61.7	63.6	65.4	67.0
90	67.5	66.6	66.8	65.6	66.2	66.0	66.2	67.0	67.3
135	68.1	73.2	77.8	79.1	79.9	81.1	84.1	83.9	83.5
180	84.2	83.9	81.9	80.5	80.1	80.1	77.0	75.6	71.1
225	70.1	68.7	69.1	71.9	70.7	70.9	72.3	73.2	72.9
270	75.4	77.0	78.2	82.1	83.5	83.7	84.6	82.5	79.5
315	76.0	71.9	69.3	68.1	66.2	63.2	60.7	58.9	58.9

AZ DEPTH: 1002 ft TILT: 90 degrees

0	53.2	52.0	49.5	48.7	47.3	47.5	46.7	47.7	46.9
45	46.3	48.3	49.5	51.4	53.8	58.5	61.1	63.4	64.8
90	64.8	65.6	65.4	64.0	63.8	63.8	65.0	64.6	66.2
135	66.0	67.7	71.1	72.7	75.6	78.2	79.3	80.1	82.3
180	81.7	82.1	82.7	81.1	80.1	80.1	77.2	73.8	72.1
225	69.5	69.3	68.3	68.9	70.3	71.3	71.3	72.9	72.5
270	73.8	75.8	77.4	78.6	82.3	81.9	83.9	82.3	79.5
315	77.0	71.7	69.3	68.3	66.2	63.2	60.3	59.5	57.5

AZ DEPTH: 1004 ft TILT: 90 degrees

0	51.1	48.9	47.9	46.4	44.8	45.2	44.0	44.0	43.6
45	44.0	45.4	49.1	52.3	54.2	56.4	58.4	63.1	66.9
90	66.9	66.1	66.1	66.3	67.5	65.9	65.9	65.7	65.7
135	66.7	70.8	72.6	75.7	77.5	77.9	80.3	80.9	82.0
180	83.8	84.0	83.8	82.6	82.6	78.9	76.9	74.5	72.8
225	71.4	71.0	70.2	70.8	70.8	71.4	72.8	72.6	73.8
270	76.1	77.7	79.5	81.6	81.8	84.2	82.8	78.1	76.9
315	70.8	66.3	66.3	63.5	61.7	59.8	58.2	55.2	54.2

AZ DEPTH: 1006 ft TILT: 90 degrees

0	49.0	48.4	49.3	43.1	43.3	42.4	41.2	42.2	43.9
45	46.1	60.3	67.6	68.8	68.8	71.8	74.0	73.3	71.6
90	71.2	65.7	65.4	63.5	63.3	63.1	62.9	62.3	64.8
135	72.0	74.6	74.6	74.6	75.5	75.2	76.1	76.1	77.6
180	79.1	79.3	79.5	79.5	79.1	78.6	78.2	75.0	72.7
225	72.3	72.1	70.1	71.0	70.6	71.8	71.0	72.5	73.3
270	73.7	75.4	79.7	79.7	78.9	77.4	70.8	68.2	67.1
315	61.0	62.3	60.3	57.4	58.6	57.3	54.6	51.2	49.1

5 DEGREE RADII REPORT

Radii in feet

AZ	DEPTH: 1008 ft				TILT: 90 degrees				
0	49.9	49.3	49.0	48.4	48.0	47.5	47.1	58.8	63.5
45	63.9	66.3	68.0	70.8	72.7	74.2	74.2	74.2	75.5
90	75.9	75.4	75.0	74.4	68.4	67.8	67.4	67.1	67.6
135	69.1	71.0	72.9	74.4	75.0	75.5	75.9	76.5	76.9
180	77.2	78.0	78.7	79.3	79.5	79.5	79.9	75.9	75.4
225	72.5	70.3	69.1	68.9	69.1	69.5	69.9	70.3	71.2
270	74.2	75.9	78.0	78.4	78.7	74.8	68.9	68.8	66.7
315	65.5	62.7	62.0	61.0	58.6	58.2	55.0	54.6	53.9

AZ	DEPTH: 1010 ft				TILT: 90 degrees				
0	71.8	72.1	71.8	68.9	66.5	65.5	65.0	64.2	62.5
45	61.2	58.4	55.7	52.9	52.4	50.3	50.1	50.7	49.9
90	49.5	45.8	44.6	44.1	43.3	42.9	45.0	47.3	52.9
135	56.3	60.5	67.1	77.8	85.7	89.7	89.1	88.5	87.6
180	84.2	72.5	69.1	68.4	68.0	67.2	66.9	67.4	68.4
225	69.5	72.5	75.4	77.6	78.0	78.2	78.6	80.1	80.6
270	81.0	80.6	80.3	79.7	79.3	78.7	78.2	76.9	74.4
315	71.6	68.6	66.9	66.7	68.9	69.9	70.3	70.6	71.2

AZ	DEPTH: 1012 ft				TILT: 90 degrees				
0	73.1	72.1	68.9	64.4	62.2	57.4	55.6	53.5	53.1
45	50.5	48.8	50.8	44.8	44.6	42.6	42.7	37.1	36.0
90	35.2	38.2	35.8	35.8	35.6	35.0	36.3	54.4	54.0
135	54.0	84.2	84.2	86.1	86.5	86.8	87.2	87.8	88.0
180	88.2	87.6	87.4	81.8	76.3	71.8	71.4	71.8	72.1
225	72.0	72.1	72.3	74.4	75.9	76.3	77.4	80.1	81.8
270	82.1	82.1	81.9	81.6	78.7	76.9	74.8	73.7	72.9
315	69.9	68.8	68.6	69.3	69.9	69.9	71.8	72.3	72.7

AZ	DEPTH: 1014 ft				TILT: 90 degrees				
0	75.9	75.2	74.8	73.1	67.8	60.3	61.2	58.6	55.2
45	53.5	51.0	50.8	47.3	46.7	46.3	45.8	45.4	41.6
90	38.2	35.2	34.8	34.3	33.9	33.5	40.1	47.8	54.0
135	54.0	62.9	68.0	73.8	78.9	80.4	79.5	81.8	82.1
180	86.3	86.7	85.7	85.7	85.7	78.0	69.9	68.2	71.0
225	71.6	72.7	68.9	68.8	69.5	68.9	70.4	72.0	72.5
270	77.4	75.9	75.5	75.2	76.1	75.9	73.8	75.7	69.3
315	68.6	69.9	68.2	69.1	68.9	71.2	72.1	73.1	72.5

AZ	DEPTH: 1016 ft				TILT: 90 degrees				
0	68.4	68.2	65.5	59.0	56.1	53.1	53.1	51.8	51.4
45	49.1	45.6	45.0	44.4	42.7	41.0	40.5	40.1	41.6
90	42.0	41.2	38.2	32.4	32.2	32.2	31.8	31.1	54.2
135	66.9	79.3	81.4	81.2	79.9	79.3	79.1	79.3	80.6
180	80.8	78.9	80.3	81.9	71.2	69.7	72.5	71.0	72.5
225	73.3	69.1	67.6	67.4	68.2	69.5	73.1	73.7	75.2
270	76.1	76.5	76.7	76.5	76.1	75.5	75.2	70.8	65.7
315	65.2	64.8	64.2	65.9	66.7	67.6	67.8	68.0	68.2

5 DEGREE RADII REPORT

Radii in feet

AZ DEPTH: 1018 ft TILT: 90 degrees

0	69.1	68.0	65.0	59.9	57.8	52.9	52.2	49.9	49.5
45	46.5	46.1	44.2	41.0	40.5	36.7	34.8	34.8	34.8
90	35.0	35.0	31.2	30.7	30.3	29.7	29.4	28.8	28.4
135	27.8	27.8	29.2	29.5	51.2	51.2	51.6	52.2	52.5
180	53.1	53.5	54.2	54.4	54.8	57.1	63.5	68.0	69.5
225	69.7	68.8	68.2	69.9	72.0	74.8	75.0	75.4	75.7
270	75.7	76.1	76.5	77.0	76.9	76.3	75.7	75.4	69.7
315	67.4	65.7	65.7	66.3	68.8	69.9	69.9	69.9	69.3

AZ DEPTH: 1020 ft TILT: 90 degrees

0	67.8	64.4	60.1	56.9	53.3	49.7	49.5	46.9	46.5
45	44.2	43.9	43.3	43.1	42.7	40.7	39.2	38.8	37.3
90	36.9	36.5	32.7	30.7	27.5	27.5	27.5	27.5	29.4
135	29.5	36.7	49.9	53.7	54.8	55.6	55.4	55.2	54.4
180	54.0	51.0	50.7	50.1	51.4	53.7	55.9	59.9	61.0
225	61.6	61.0	61.4	62.5	68.0	71.0	72.5	75.0	75.4
270	75.9	76.3	76.7	76.5	76.1	75.5	75.2	74.6	74.2
315	72.0	68.4	67.8	67.8	68.0	68.4	68.8	69.3	69.3

AZ DEPTH: 1022 ft TILT: 90 degrees

0	64.8	58.8	54.6	52.4	49.5	46.3	45.6	43.3	42.4
45	41.8	41.4	40.5	40.3	39.7	39.3	38.8	38.4	36.0
90	32.7	29.2	27.3	24.6	24.3	23.3	26.2	29.4	29.4
135	32.2	33.3	33.3	33.5	48.6	44.1	45.6	43.3	42.7
180	44.4	44.6	45.4	44.8	44.4	45.2	46.3	47.3	47.3
225	52.9	55.9	56.3	59.0	63.9	70.1	69.7	73.7	73.1
270	72.9	73.1	73.1	73.1	73.8	73.3	72.7	72.1	72.9
315	67.1	64.6	64.8	68.0	64.6	65.7	65.5	66.5	65.7

AZ DEPTH: 1024 ft TILT: 90 degrees

0	38.4	38.6	38.4	39.0	39.3	47.5	46.3	45.8	45.2
45	41.2	40.9	39.3	37.5	38.8	38.4	37.7	33.9	33.3
90	27.3	23.9	20.9	20.3	19.9	19.4	19.0	18.4	18.0
135	17.7	17.3	16.7	16.3	34.1	33.7	33.1	32.6	32.0
180	31.6	36.0	39.5	37.3	35.6	36.0	36.0	36.0	36.0
225	36.9	36.9	37.8	37.8	39.7	38.6	38.8	39.0	40.7
270	40.7	42.0	43.3	48.8	49.3	55.6	56.5	58.4	58.4
315	58.4	58.2	56.7	56.1	52.9	51.6	47.5	41.8	39.2

AZ DEPTH: 1026 ft TILT: 90 degrees

0	38.2	37.5	36.5	36.9	36.9	37.5	38.0	38.2	38.6
45	38.8	39.3	39.5	39.9	40.1	40.1	39.5	17.7	13.5
90	13.1	13.9	14.7	15.2	15.6	15.6	16.0	16.3	16.7
135	17.1	17.7	18.0	18.4	18.4	18.4	18.4	18.4	18.4
180	18.4	18.4	40.3	39.7	38.8	38.2	37.8	37.1	36.7
225	36.1	35.6	35.8	36.3	36.3	36.3	36.9	37.3	37.1
270	37.1	37.5	38.0	43.1	45.8	47.8	48.6	49.1	50.5
315	51.4	55.2	55.4	54.4	54.2	49.9	44.4	43.3	40.3

5 DEGREE RADII REPORT

Radii in feet

DEPTH: 1027 ft TILT: 90 degrees

AZ									
0	9.0	8.6	8.2	7.7	7.5	7.9	8.2	8.1	7.9
45	8.1	8.6	9.2	10.3	10.7	9.9	8.8	8.2	8.1
90	8.6	8.8	9.4	9.8	9.4	8.6	7.7	8.2	9.0
135	9.0	9.6	9.8	10.1	9.9	9.8	9.2	9.0	9.0
180	9.2	9.2	8.8	8.4	8.2	7.9	8.4	8.6	9.2
225	9.4	9.9	10.1	10.7	10.3	9.9	9.6	9.8	10.1
270	10.1	9.8	10.1	10.5	10.9	11.3	11.4	11.1	10.9
315	10.3	9.9	9.6	9.4	9.2	9.8	10.1	9.8	9.4

MAXIMUM HORIZONTAL RADII

AZM deg	RADIUS ft	DEPTH ft
0	88.5	964
2	88.0	964
4	88.3	964
6	87.7	964
8	87.8	964
10	87.9	964
12	87.8	964
14	87.9	964
16	88.5	964
18	88.1	964
20	87.5	964
22	88.2	964
24	88.3	964
26	88.8	964
28	89.1	964
30	88.8	964
32	88.8	964
34	88.8	958
36	88.7	964
38	89.0	964
40	89.1	958
42	90.3	958
44	89.6	964
46	90.1	964
48	90.2	964
50	90.3	964
52	91.2	964
54	91.0	964
56	91.2	964
58	91.1	964
60	91.1	964
62	89.9	964
64	90.1	964
66	90.1	964
68	89.8	964
70	89.8	964
72	88.9	964
74	87.5	964
76	89.5	964
78	90.0	964
80	90.0	964
82	89.8	964
84	88.9	964
86	88.8	964
88	88.3	964

AZM deg	RADIUS ft	DEPTH ft
90	88.2	964
92	88.8	964
94	90.1	964
96	90.0	964
98	89.9	964
100	91.4	964
102	92.6	964
104	92.7	964
106	92.8	964
108	93.2	964
110	93.4	964
112	93.5	964
114	93.6	964
116	93.6	964
118	93.6	964
120	93.7	964
122	93.8	964
124	93.9	964
126	93.9	964
128	94.0	964
130	94.1	964
132	94.1	964
134	94.2	964
136	94.3	964
138	94.4	964
140	94.3	964
142	94.3	964
144	94.2	964
146	94.1	964
148	93.0	964
150	92.2	964
152	91.2	964
154	89.9	964
156	88.7	964
158	88.0	964
160	89.7	1010
162	89.3	1010
164	89.5	1010
166	88.7	1010
168	88.9	1010
170	88.5	1010
172	88.5	1010
174	88.4	1010
176	88.2	1012
178	88.4	1012

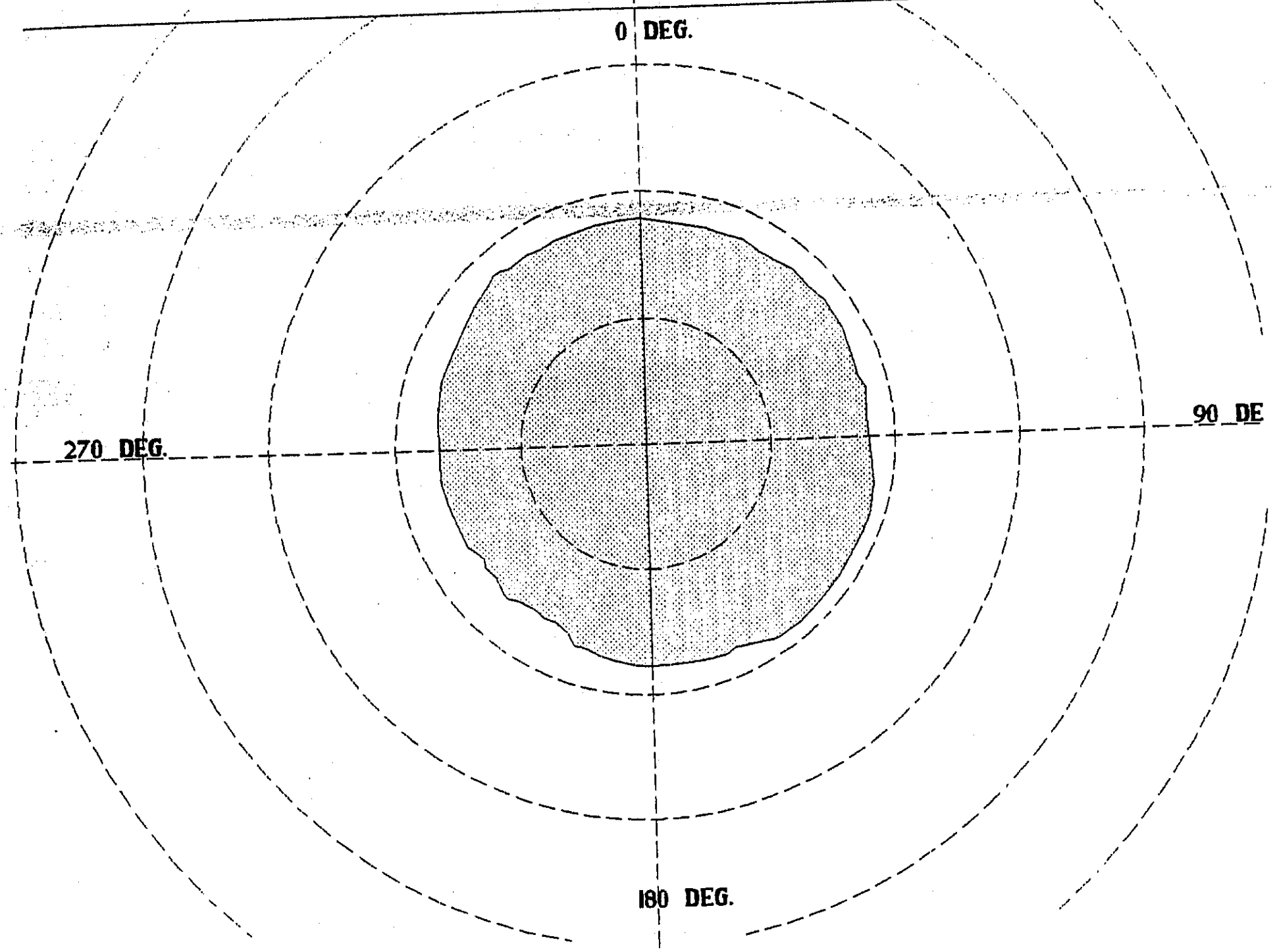
MAXIMUM HORIZONTAL RADII

AZM deg	RADIUS ft	DEPTH ft
180	88.2	1012
182	88.0	1012
184	87.8	1012
186	87.6	1012
188	87.4	1012
190	87.4	1012
192	86.7	992
194	87.1	992
196	85.5	1014
198	84.8	992
200	85.7	1014
202	85.2	1014
204	81.7	992
206	81.0	992
208	80.3	964
210	80.3	968
212	80.8	968
214	80.3	968
216	80.8	968
218	81.2	968
220	80.8	968
222	81.6	968
224	83.3	968
226	82.5	968
228	80.4	968
230	79.9	968
232	80.8	968
234	80.8	968
236	79.1	968
238	79.9	970
240	81.9	968
242	81.0	968
244	81.8	968
246	81.8	968
248	81.8	968
250	81.8	968
252	81.8	968
254	82.5	968
256	82.7	968
258	82.9	968
260	83.1	968
262	83.1	968
264	83.3	968
266	82.9	968
268	82.7	968
270	82.5	968
272	82.3	968
274	82.3	1012
276	82.1	968
278	82.9	968
280	83.3	968
282	83.5	968
284	83.6	968
286	84.0	968
288	85.0	964
290	84.2	968
292	84.4	968
294	84.6	968
296	85.0	1004
298	84.6	968
300	85.5	968
302	85.9	968
304	85.9	970
306	87.4	968
308	86.1	964
310	86.1	964
312	86.1	964
314	88.8	964
316	86.3	968
318	87.7	964
320	92.7	972
322	88.6	964
324	87.2	964
326	88.3	964
328	88.8	964
330	88.2	964
332	88.2	964
334	88.4	964
336	88.4	964
338	88.7	964
340	89.0	964
342	88.0	964
344	88.0	964
346	88.0	968
348	88.4	968
350	88.0	968
352	88.4	968
354	88.4	970
356	88.0	968
358	88.8	964

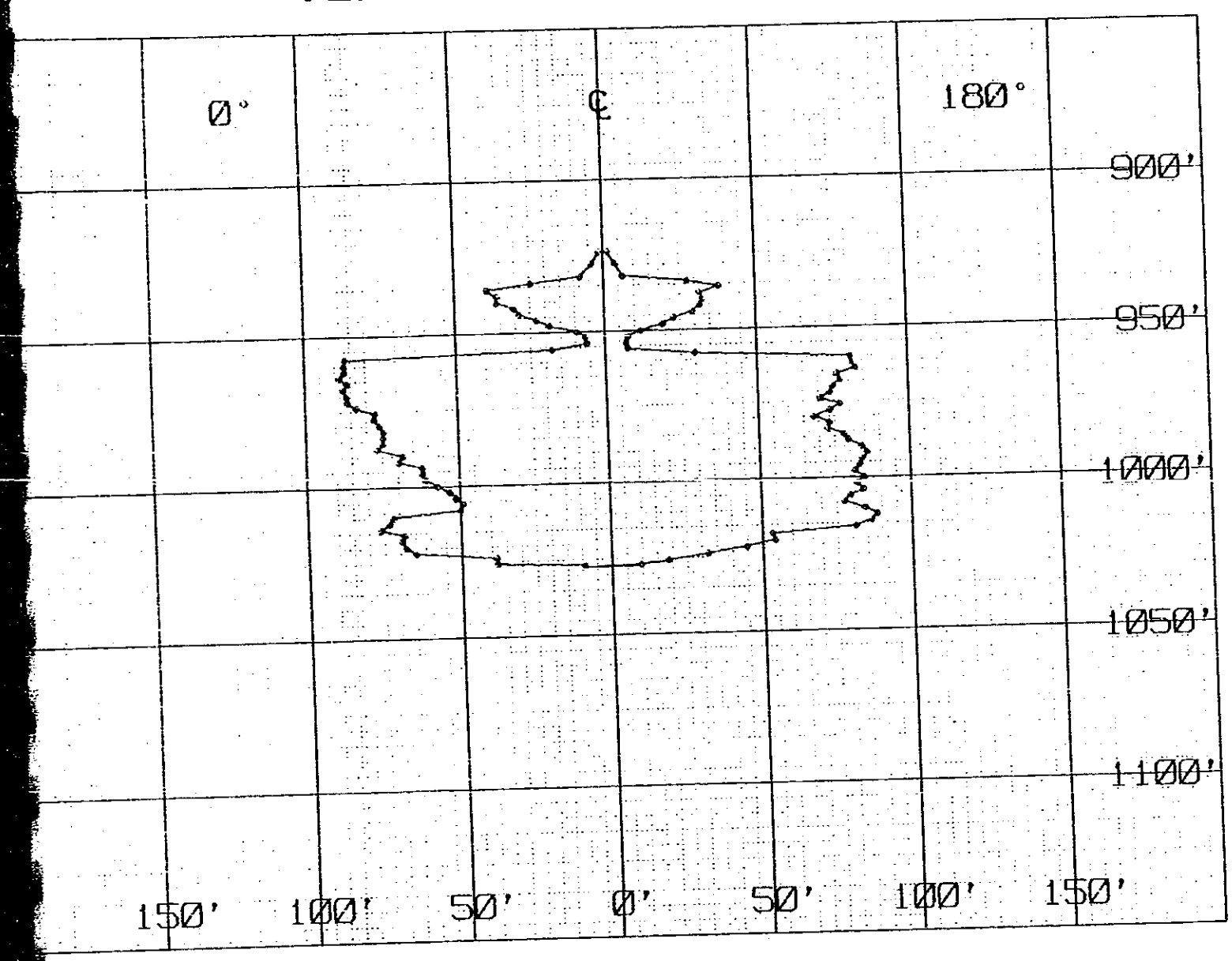
Maximum radius : 94.4
on Azmuth deg : 138

SCALE : 1" = 50'

MAXIMUM RADIUS PLOT



VERTICAL CROSS SECTION



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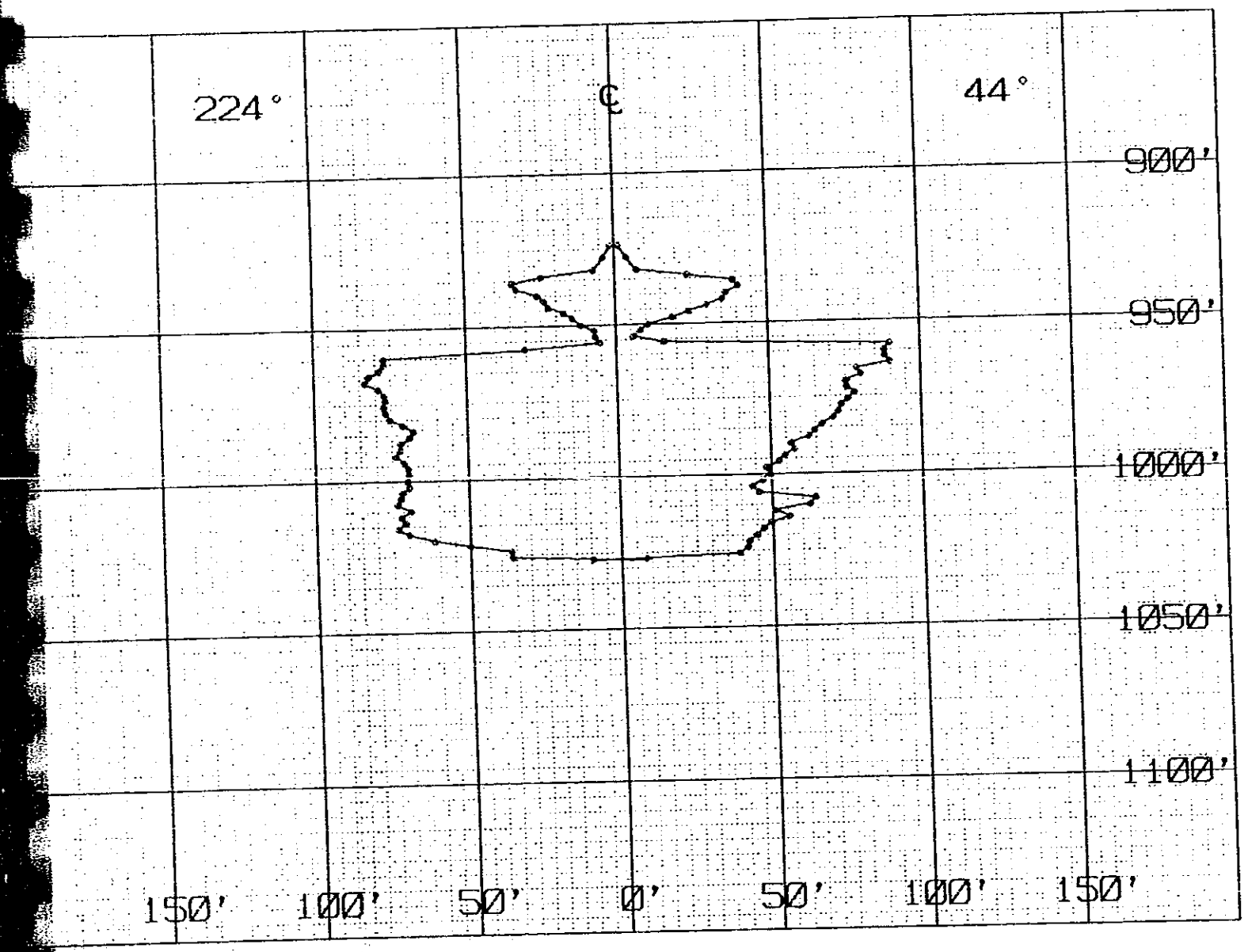
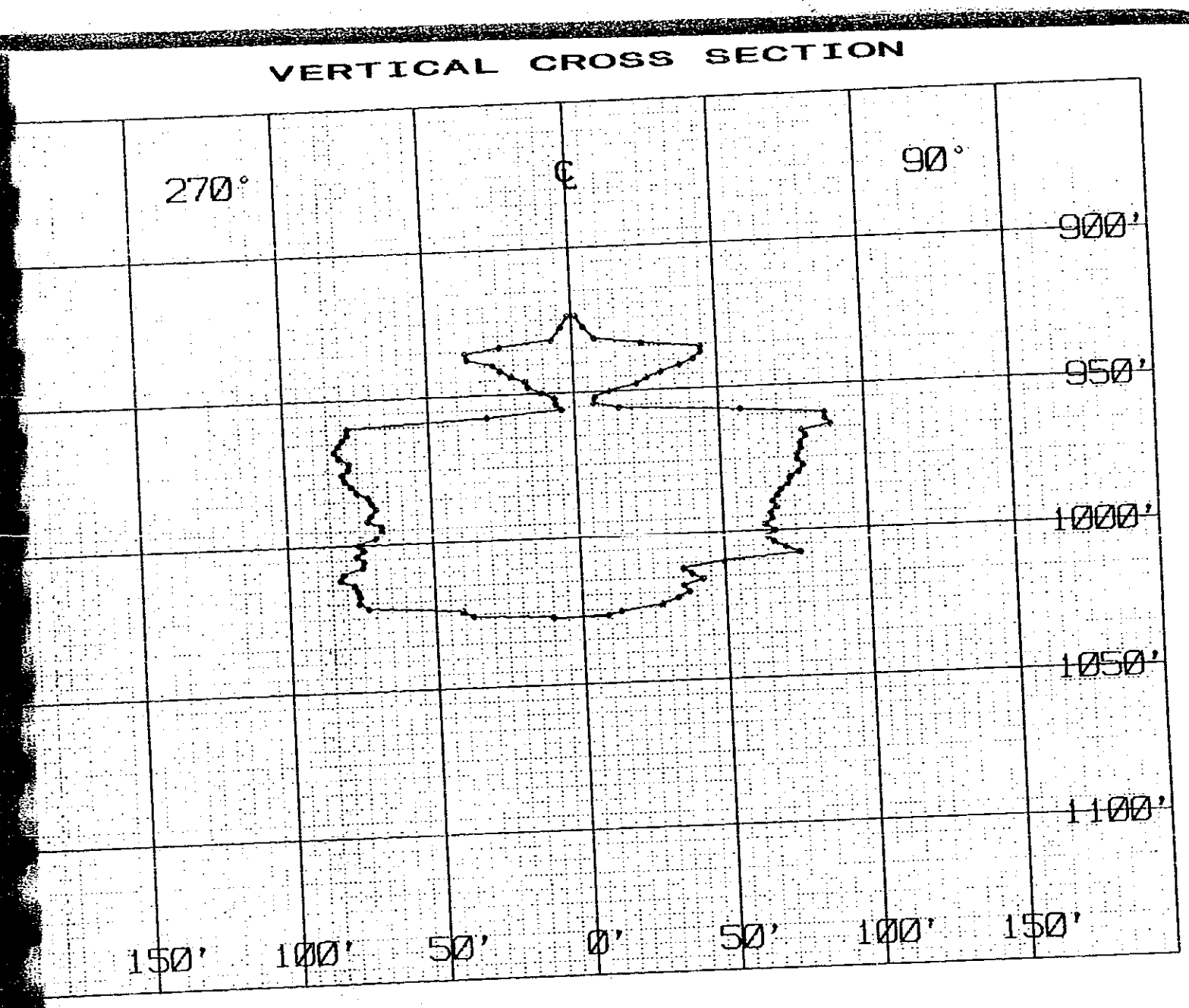
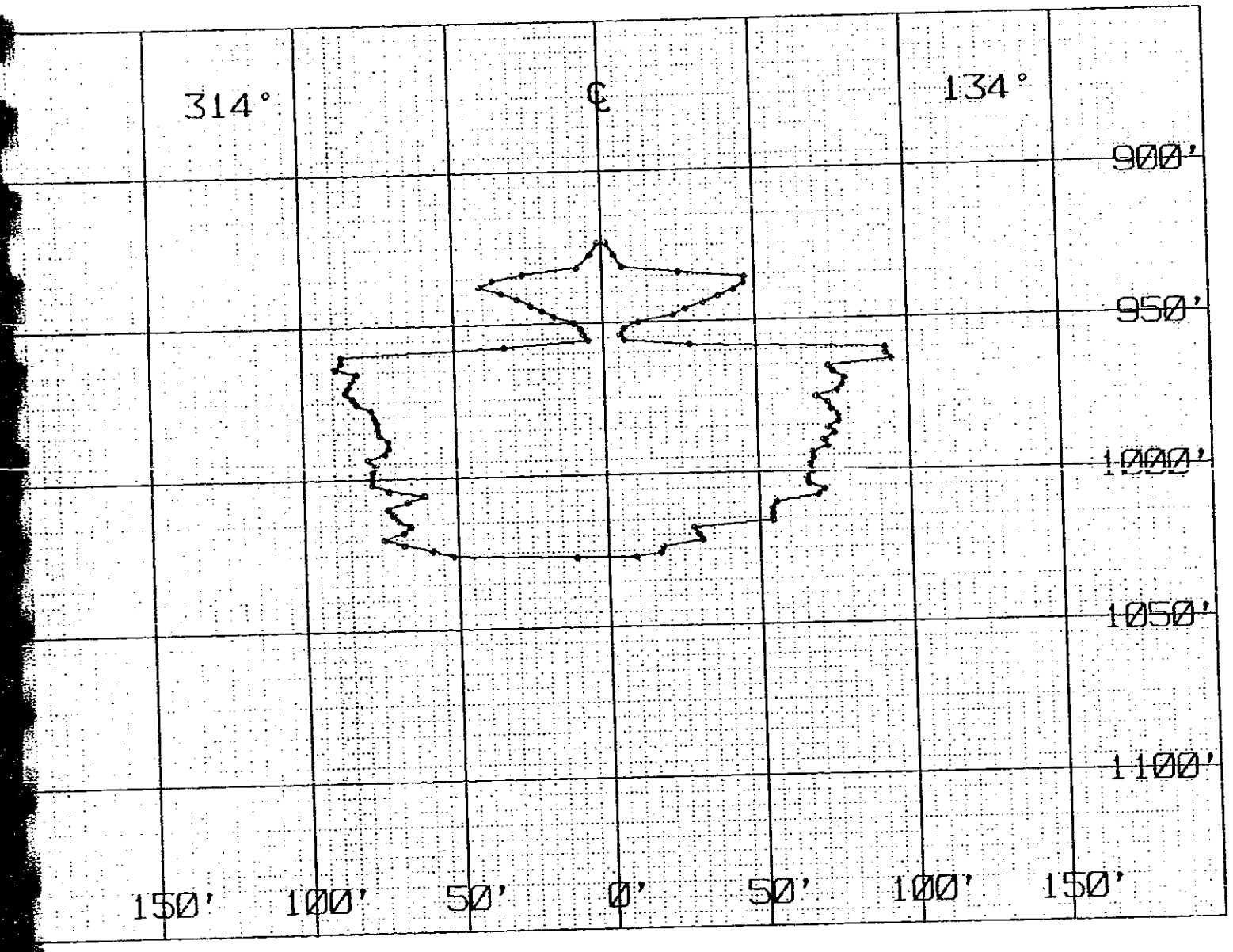



VERTICAL CROSS SECTION
270°
℄
90°
900'
950'
1000'
1050'
1100'
150'
100'
50'
0'
50'
100'
150'

VERTICAL CROSS SECTION



DIGITAL SURVEYS, INC.

05/29/91

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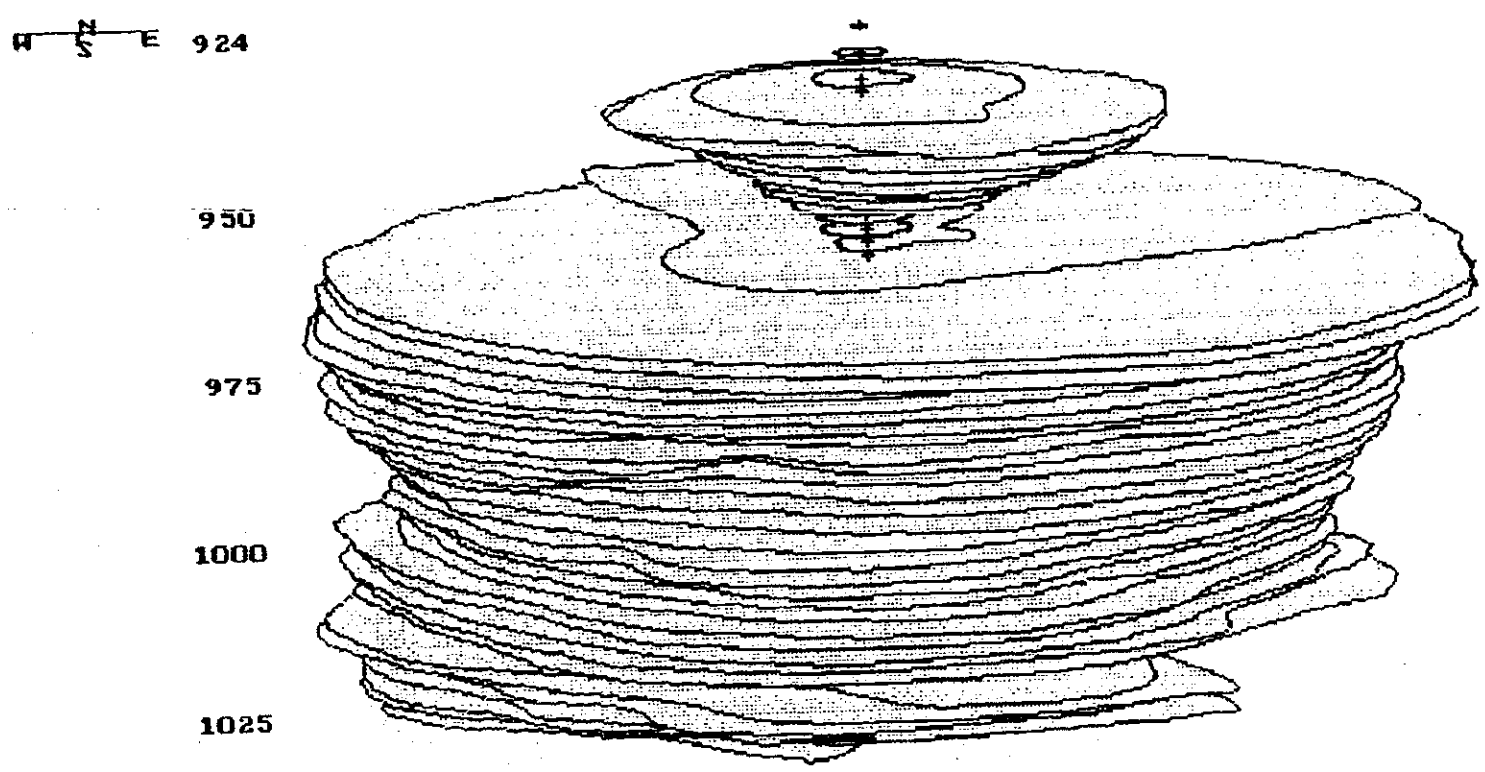

FERRELLGAS WELL 6

DIGITAL SURVEYS, INC.

05/29/91

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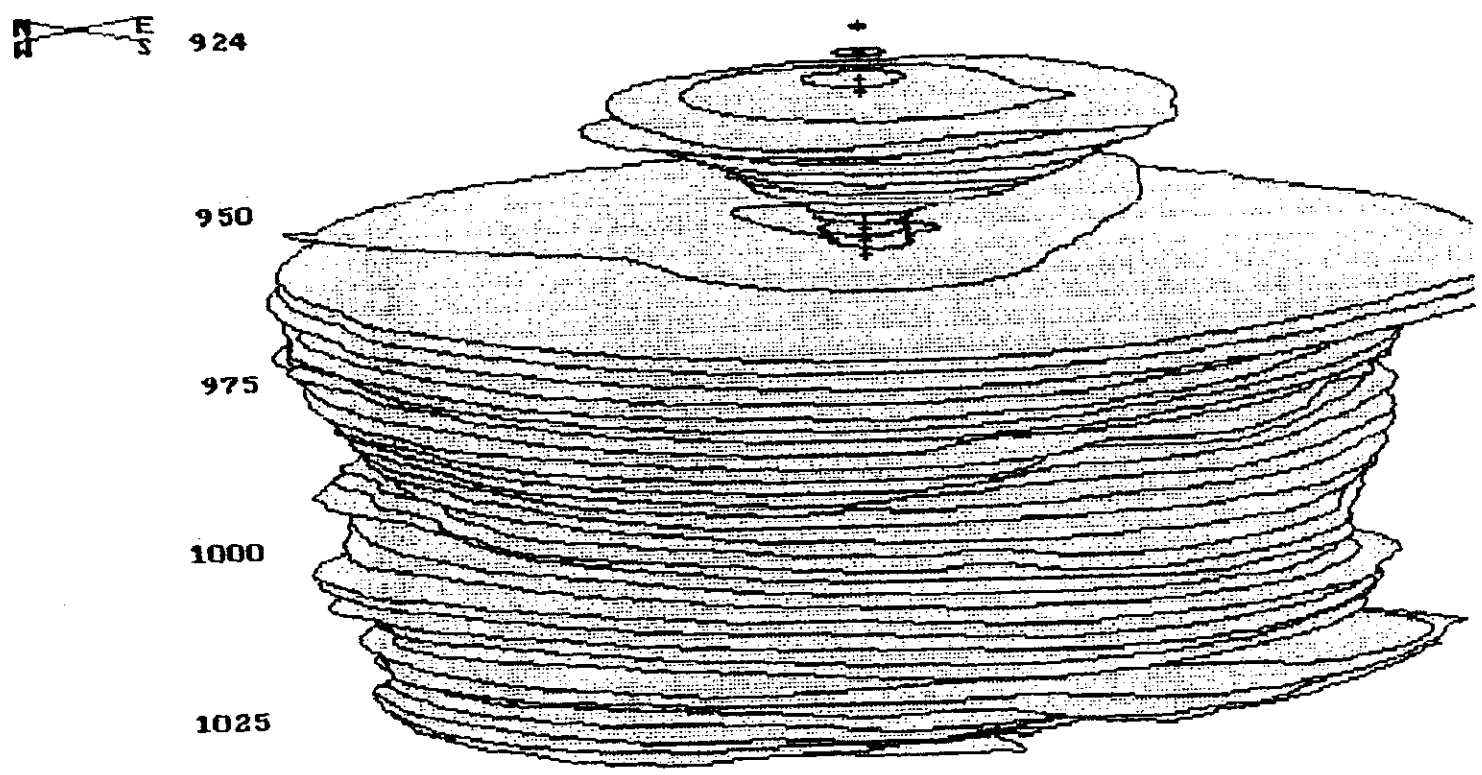

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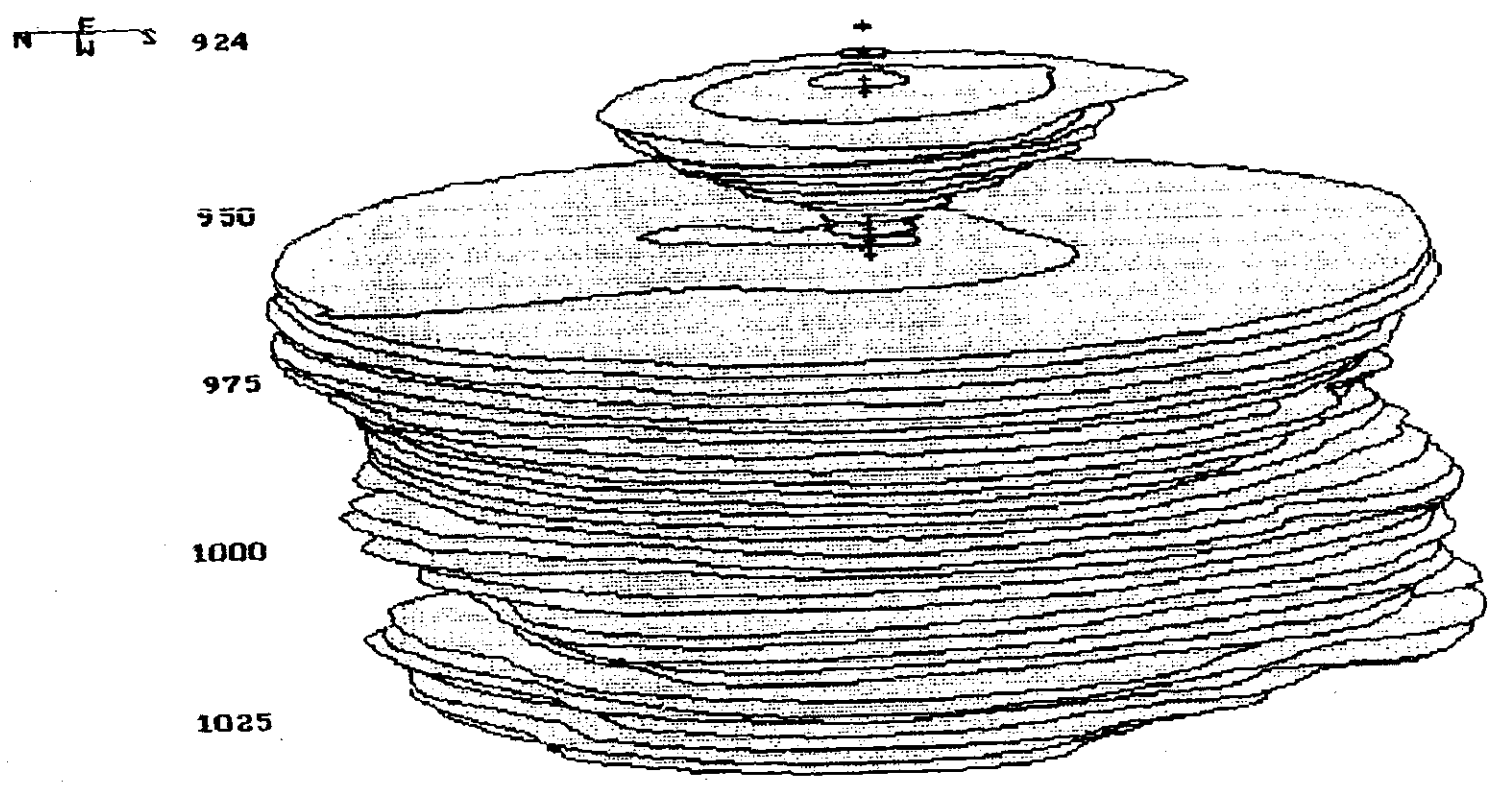

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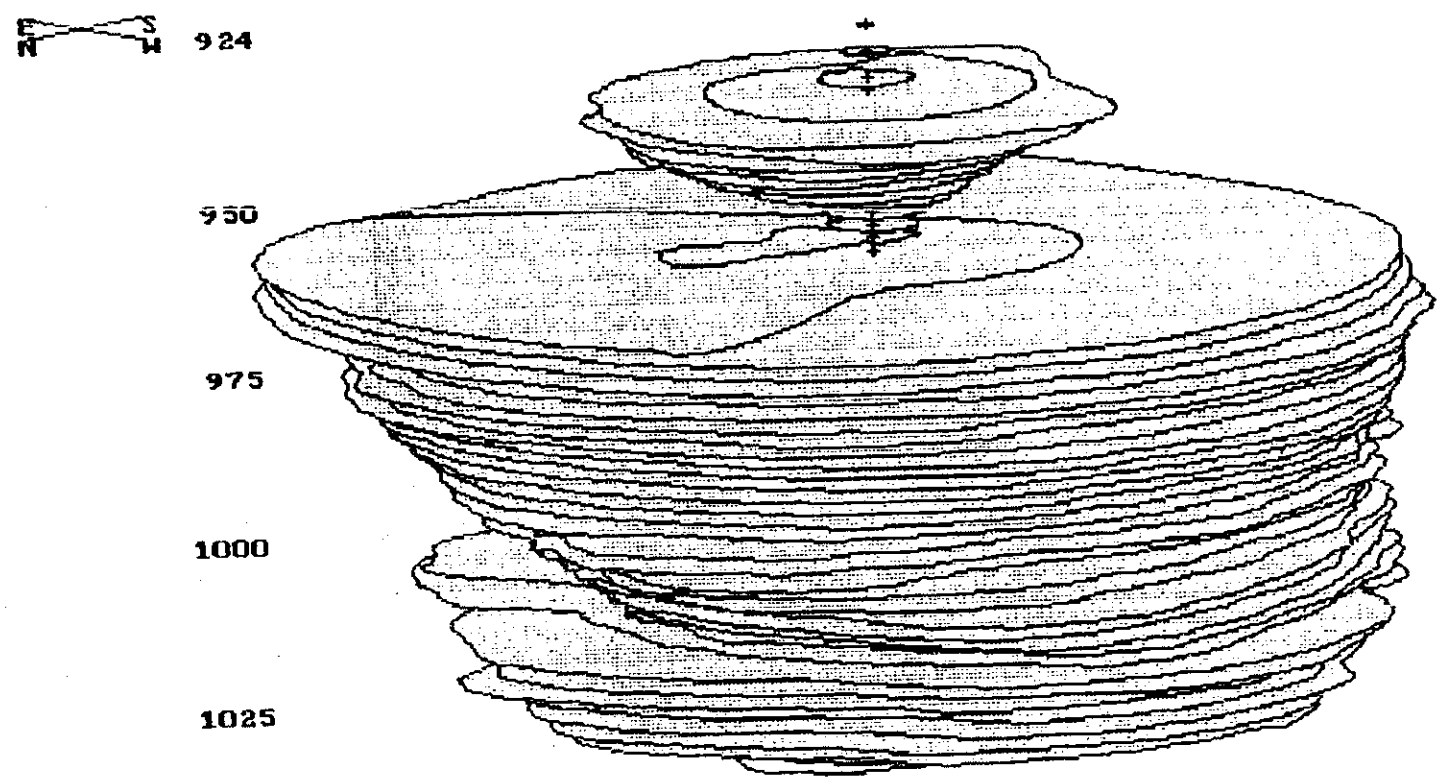

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05/29/91

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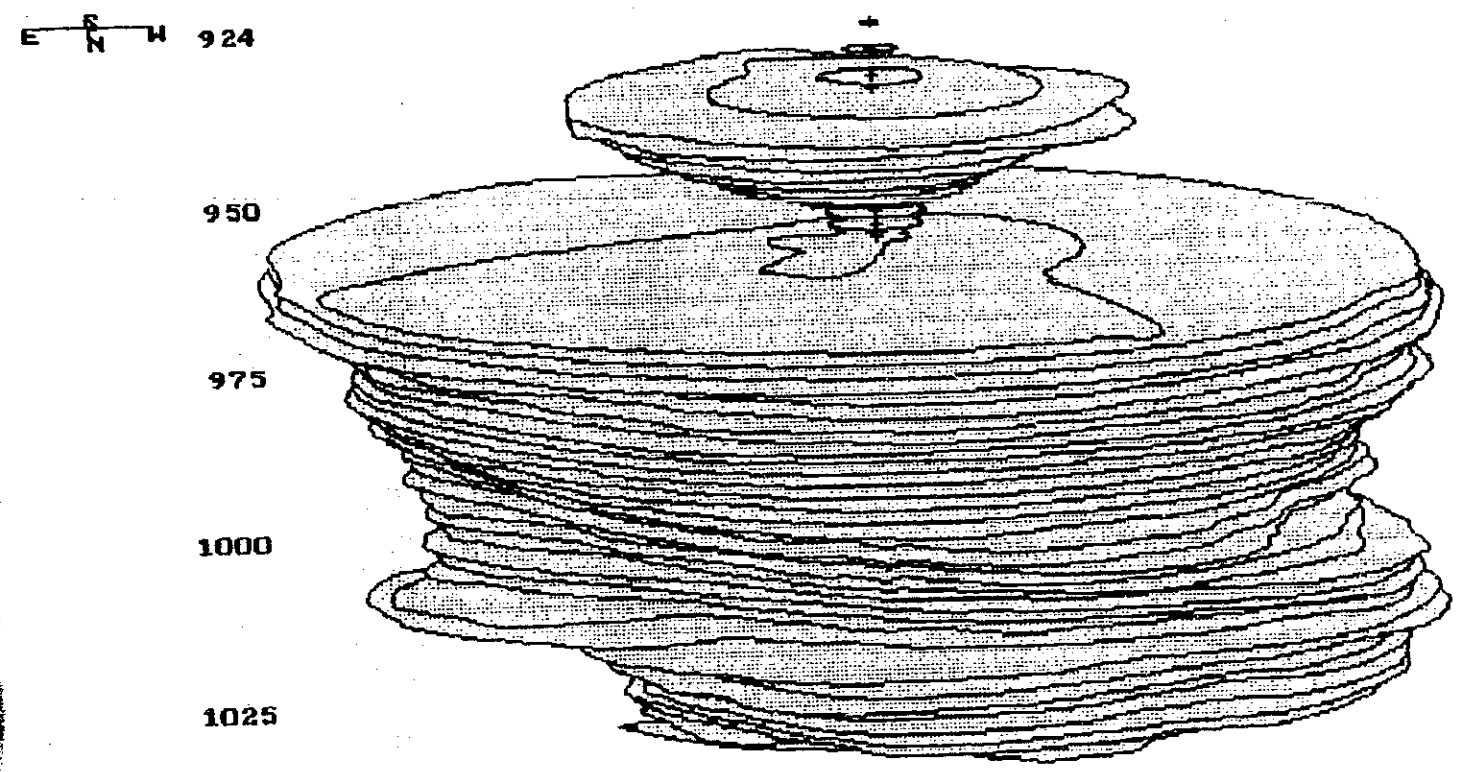

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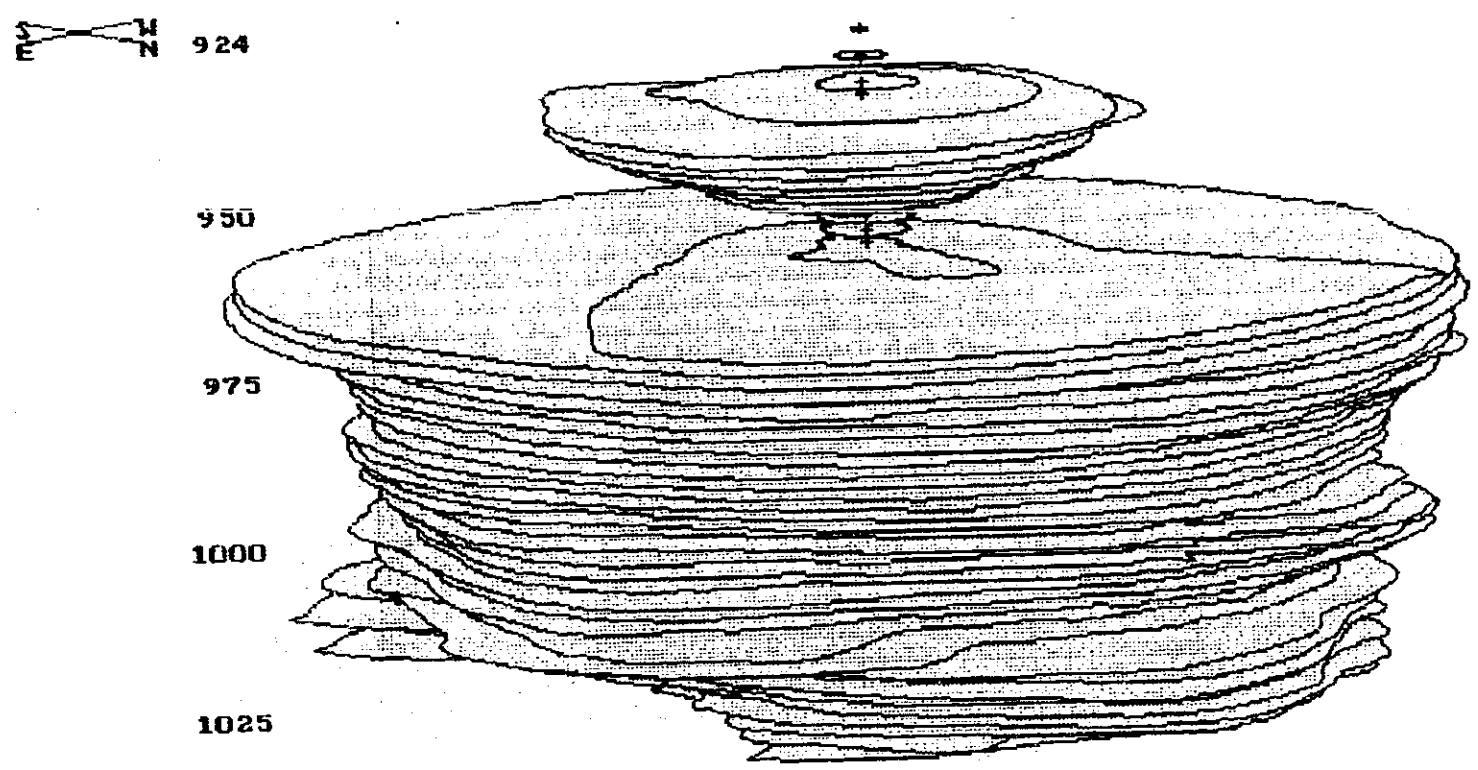

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05/29/91

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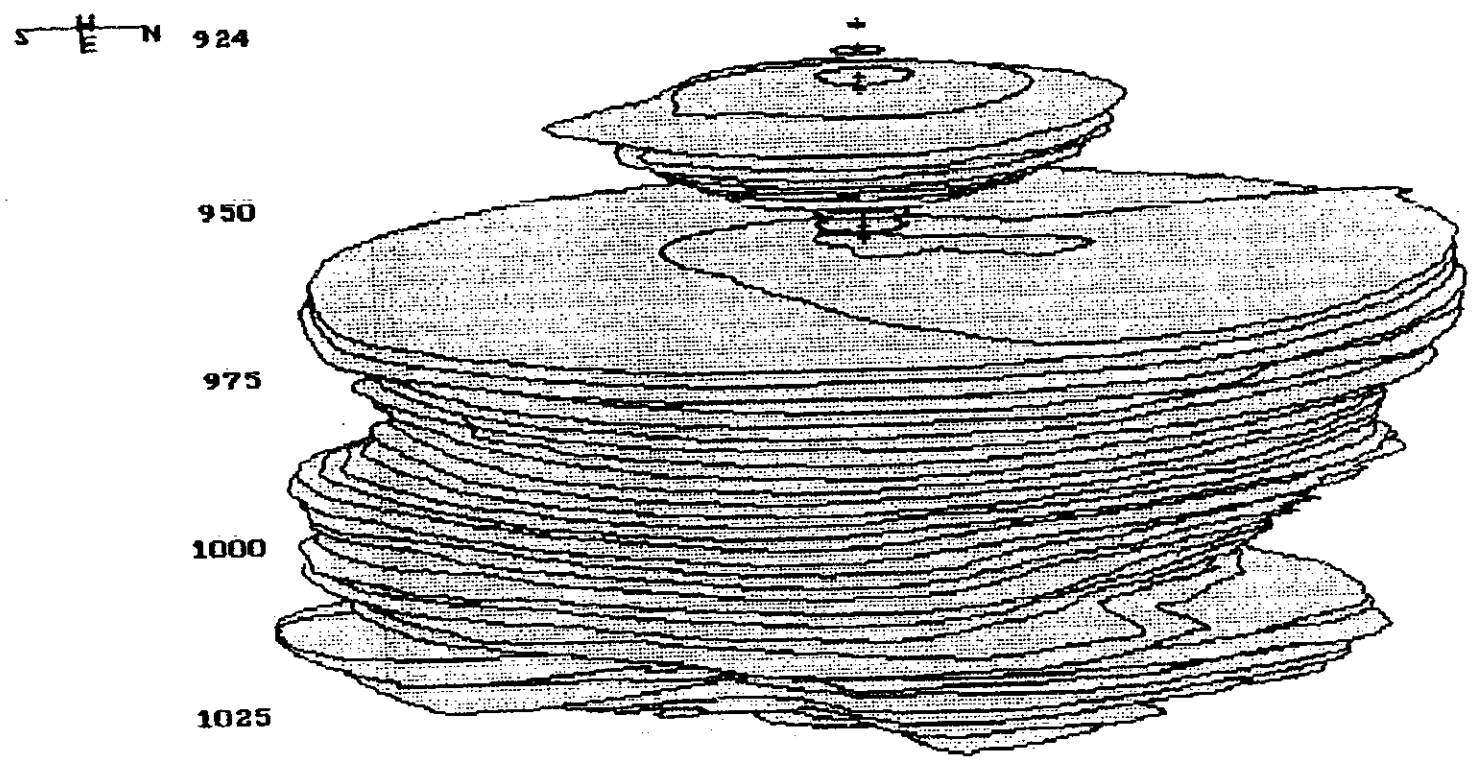

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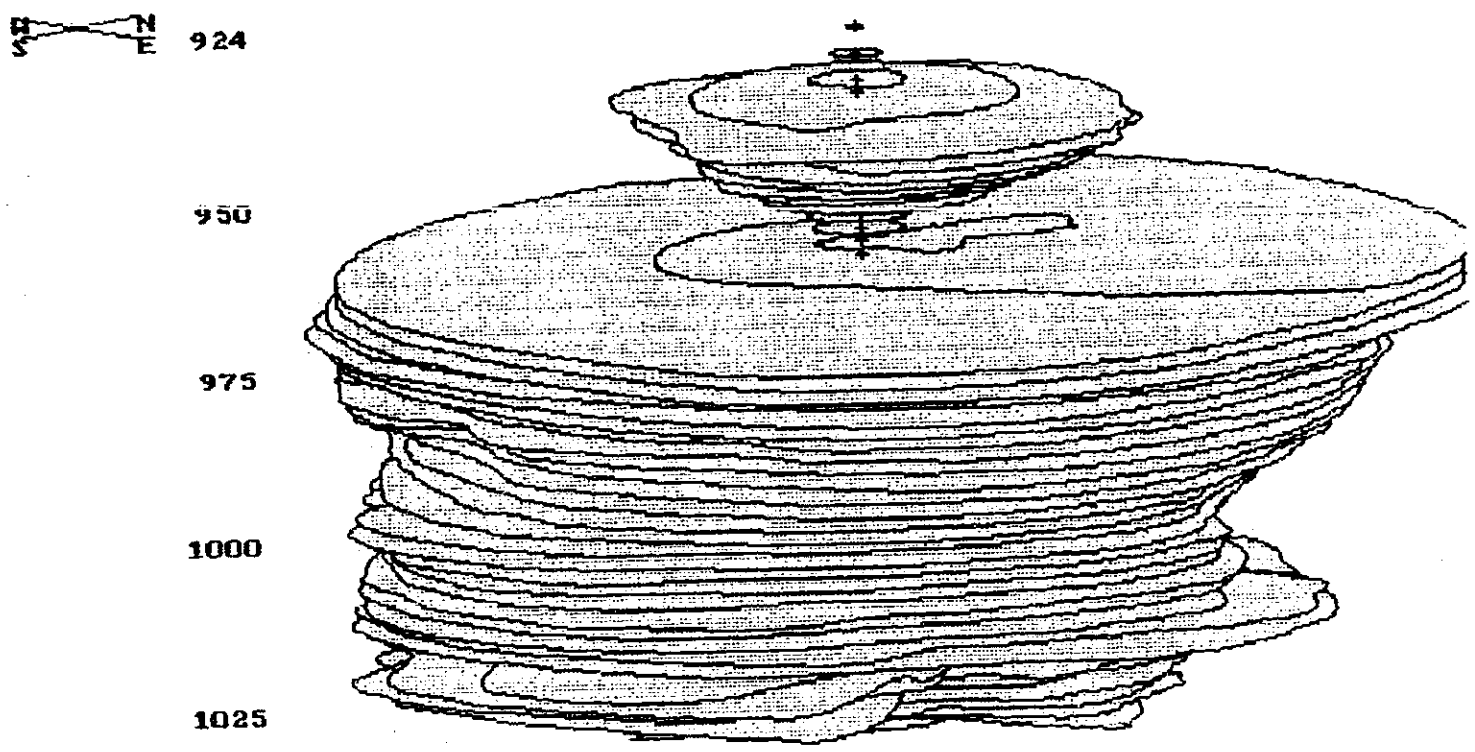

FERRELLGAS WELL 6

DIGITAL SURVEYS, INC.

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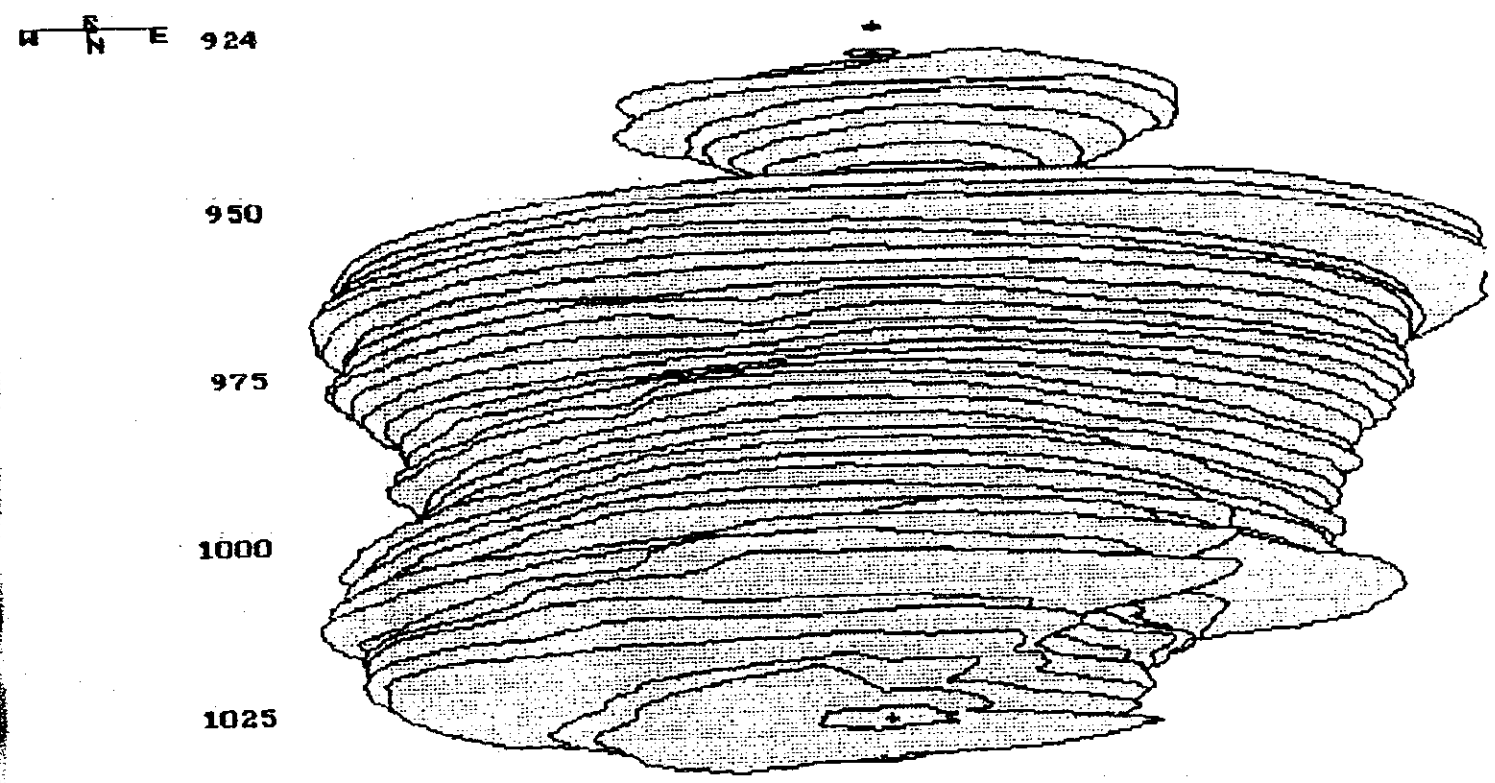

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DIGITAL SURVEYS, INC.

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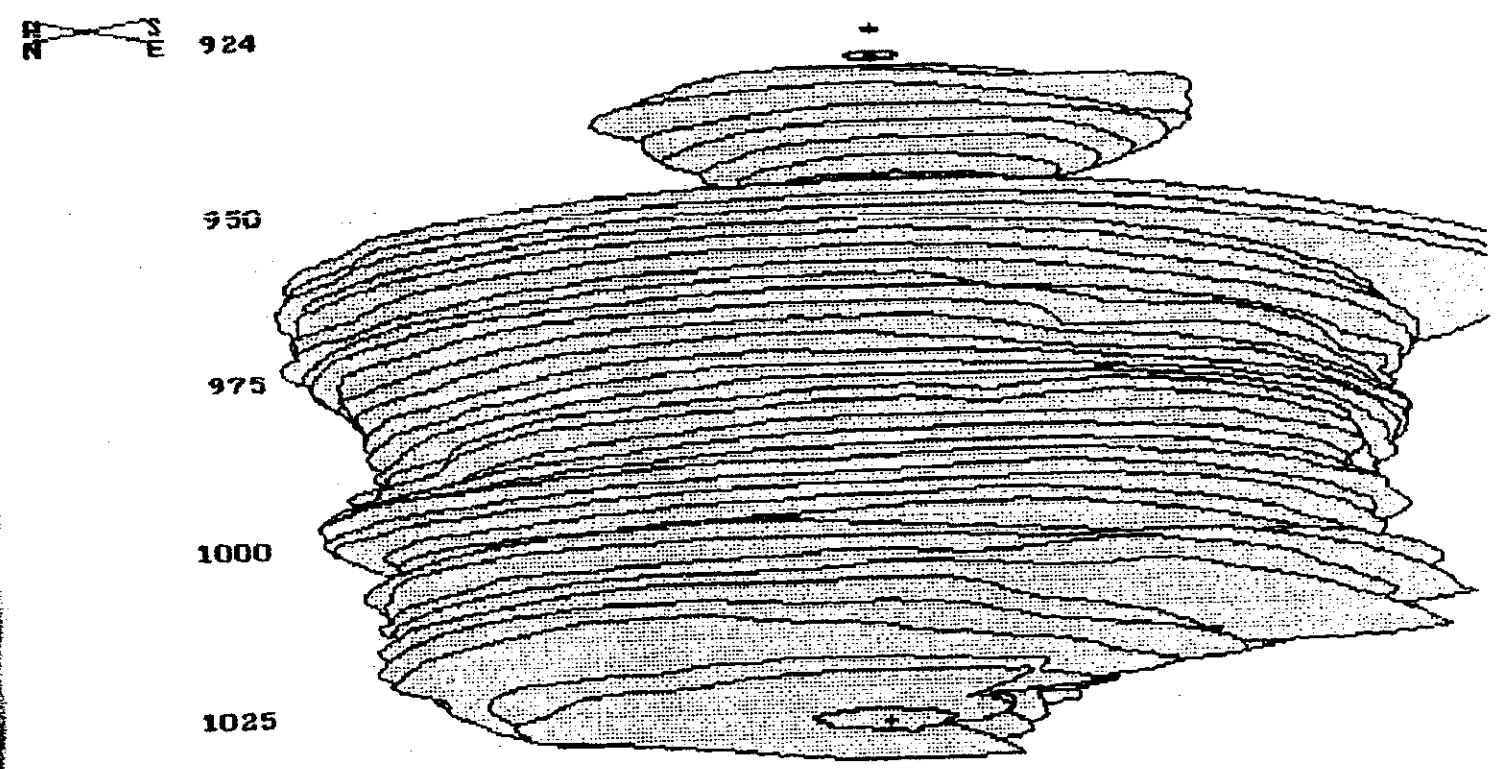

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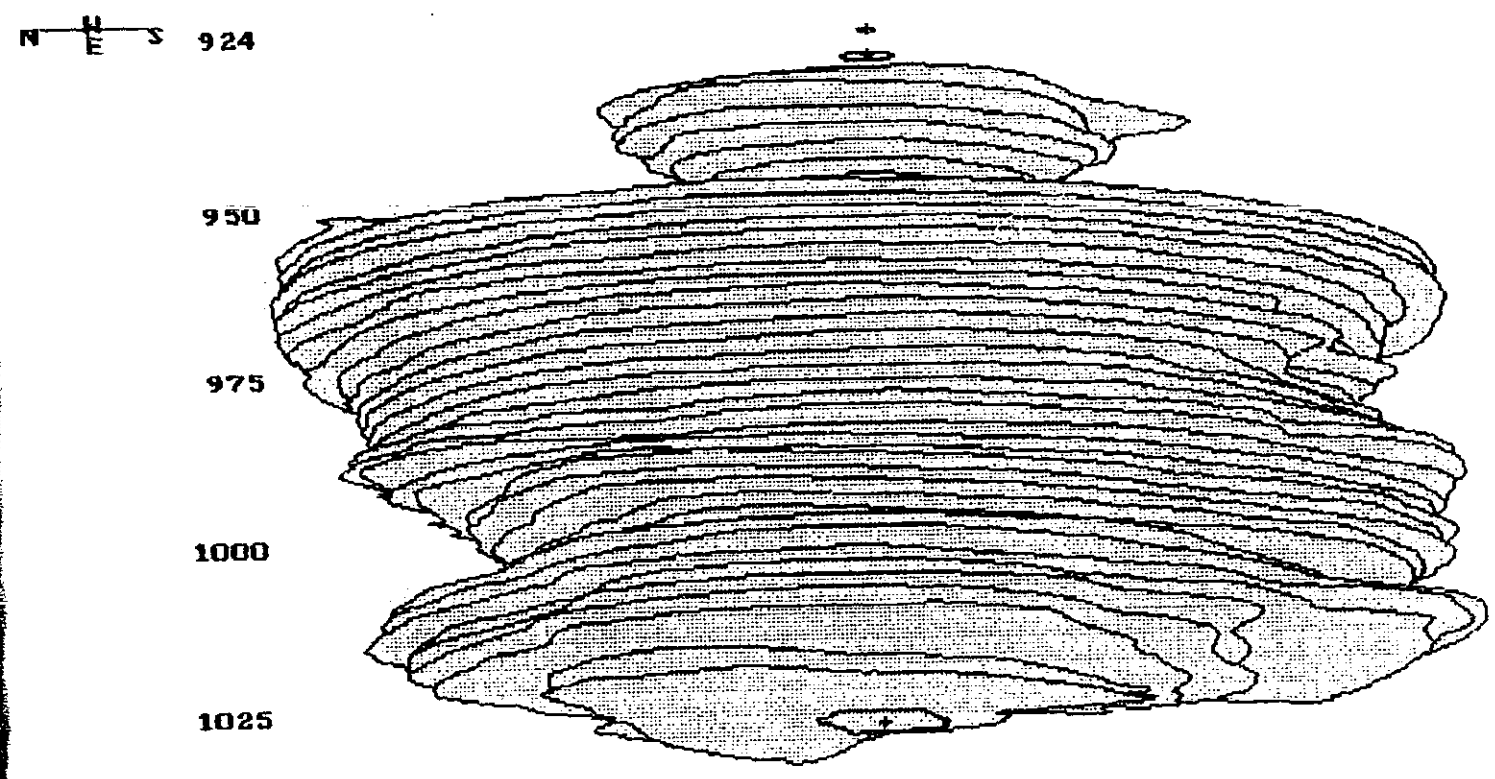

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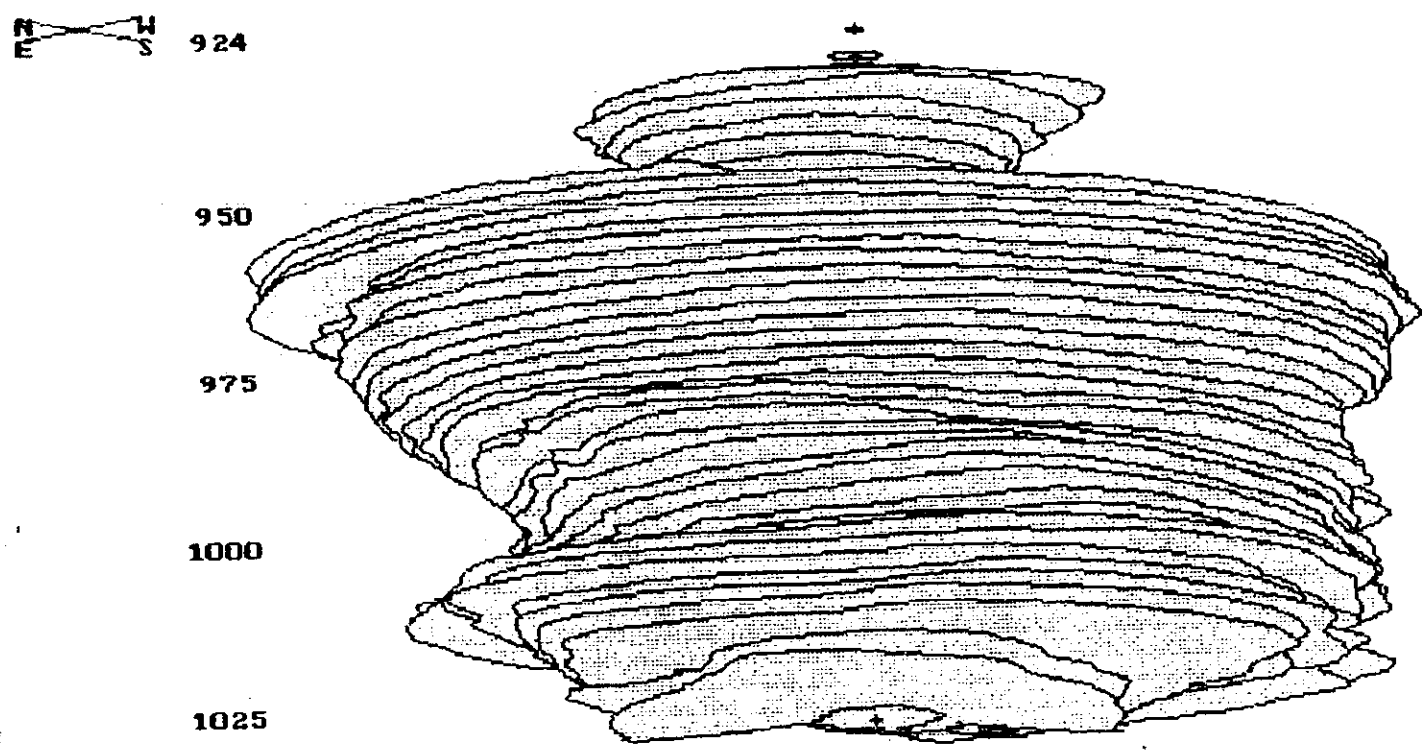

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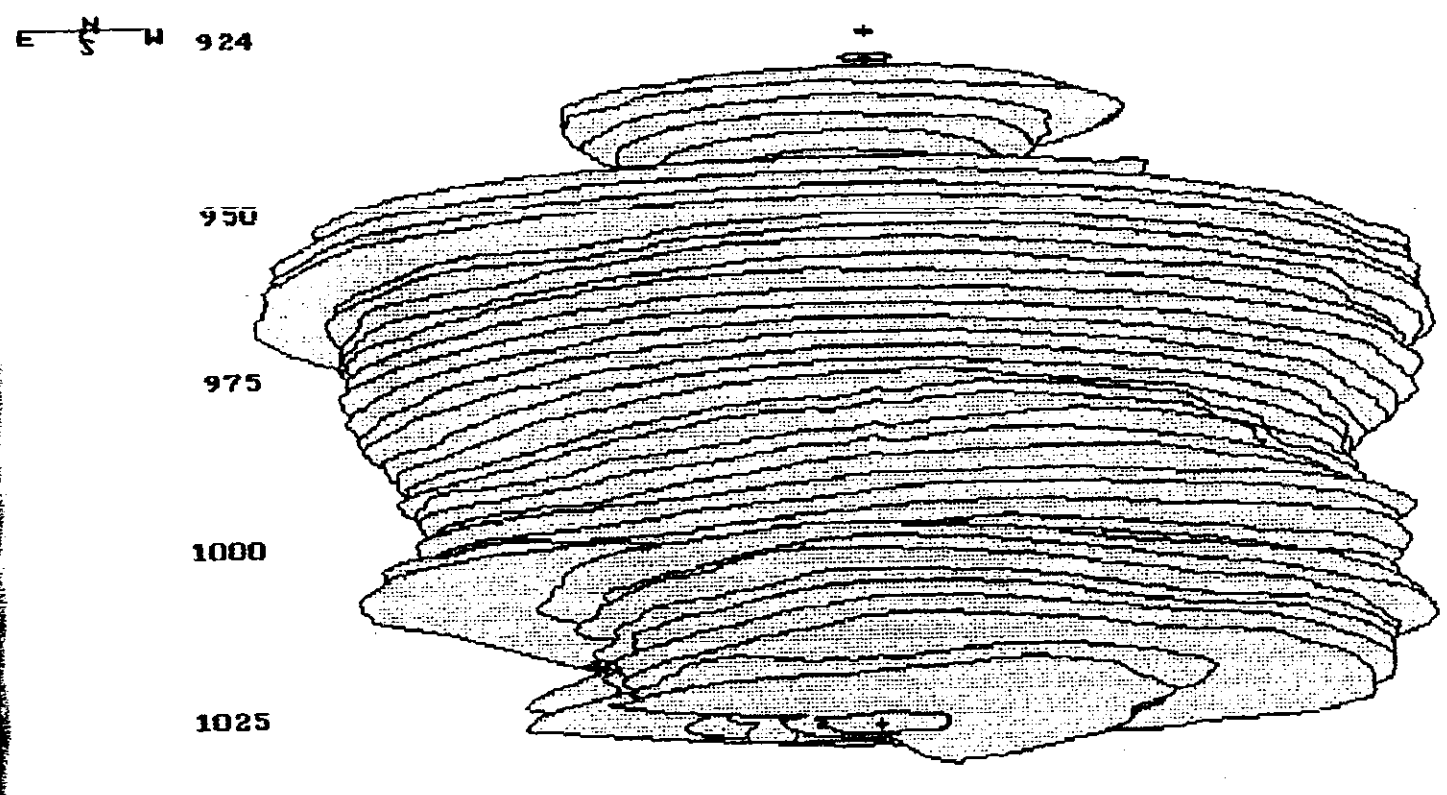

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DIGITAL SURVEYS, INC.

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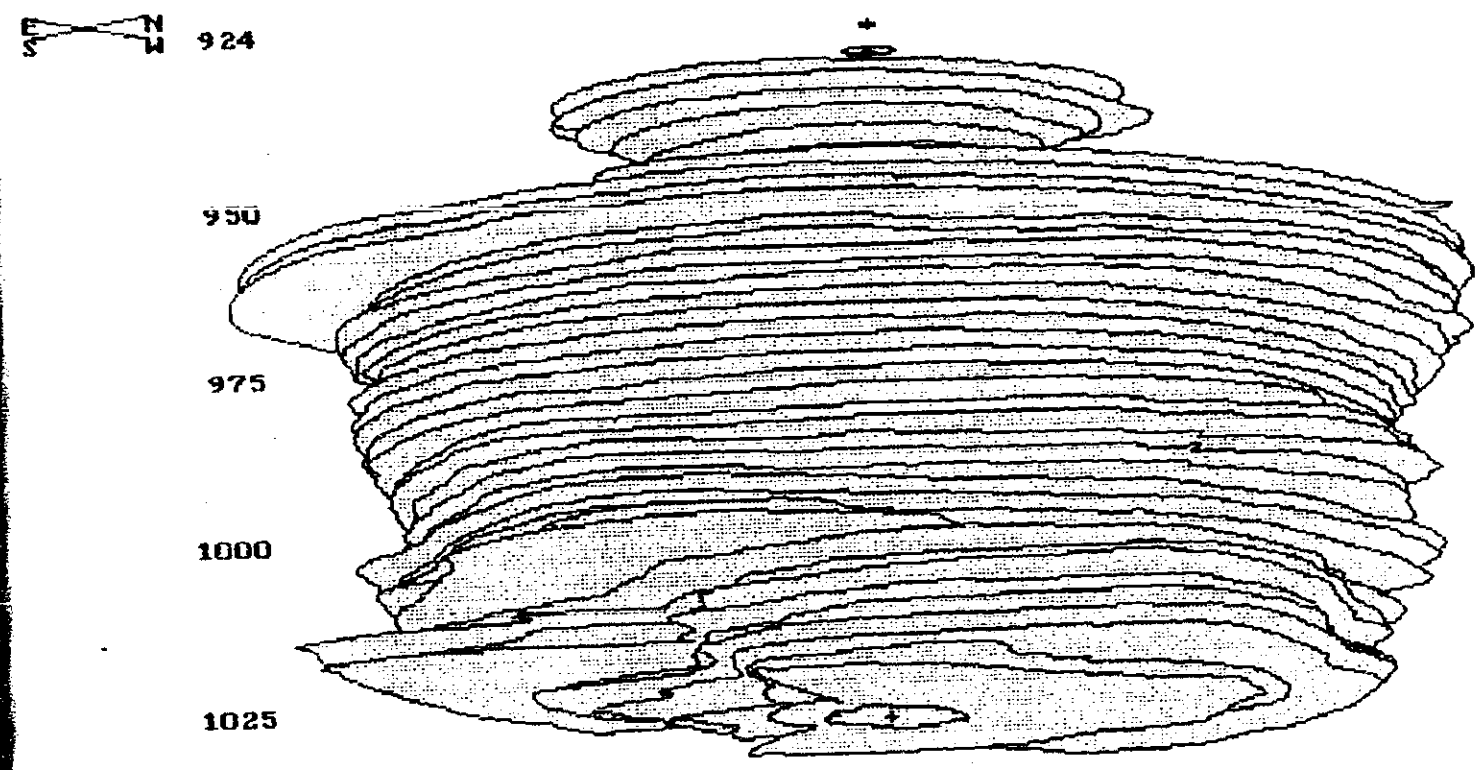

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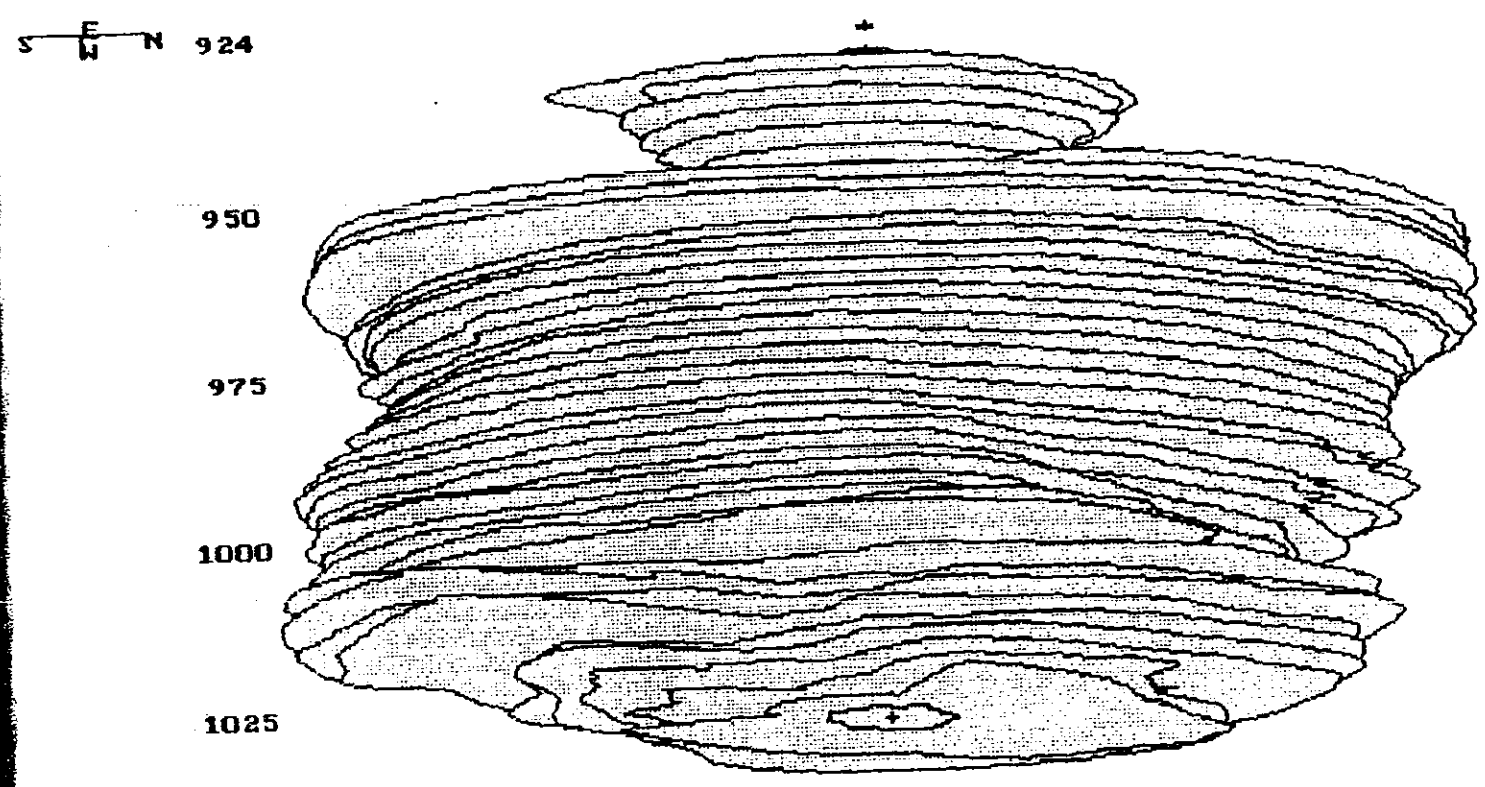

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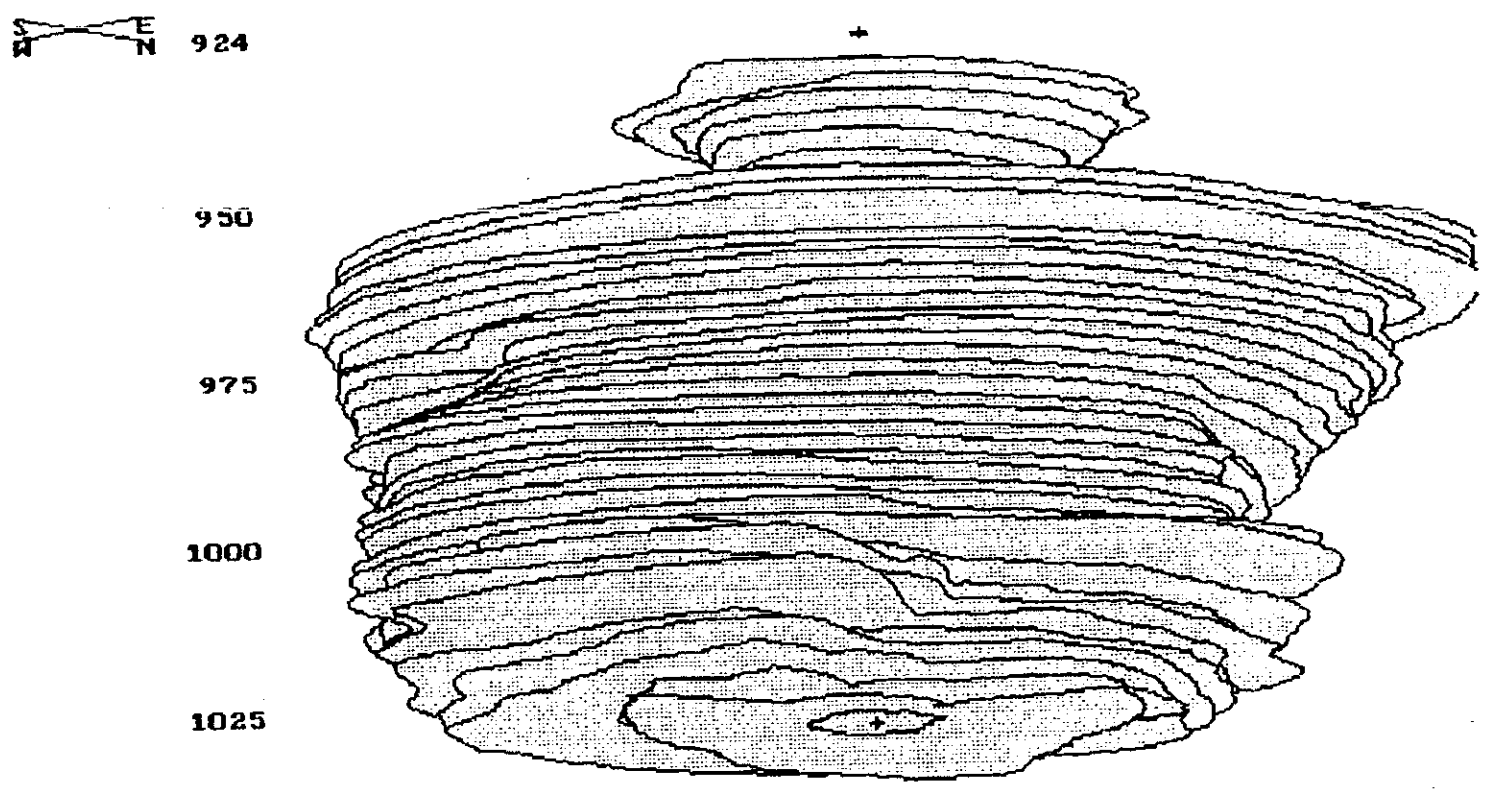


FERRELLGAS WELL 6

SONARWIRE

FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
MARCH 12, 1996
SONAR THRU-PIPE SURVEY

SONARWIRE
INC.

SONARWIRE, INC.
P.O. BOX 576
ABITA SPRINGS, LA 70420

(504) 893-9221

Survey conducted by: Gary McCool

FERRELLGAS P/N 607
HOLBROOK, AZ
STORAGE WELL NO. 6
MARCH 12, 1996
SONAR-THRU-PIPE SURVEY

APR 1996
ARIZONA GEOLOGICAL SURVEY

Survey from 956 ft. to 1026 ft.
Sonar T.D. at 1026 ft.
9 5/8 inch cemented casing at 921 ft.
4 1/2 inch tubing at 1025 ft.
Zero sonar tool at B.H.F.
Site personnel: Mr. Dale Thompson

SONARWIRE INC.
Depth versus Volume

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Tue, Mar 12, 1996

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
922	0.9	0.9	0.2	0.2
923	58.4	59.3	10.4	10.6
924	62.5	121.8	11.1	21.7
925	66.8	188.6	11.9	33.6
926	71.3	259.9	12.7	46.3
927	75.9	335.8	13.5	59.8
928	80.7	416.4	14.4	74.2
929	85.6	502.0	15.2	89.4
930	90.7	592.7	16.2	105.6
931	96.0	688.6	17.1	122.7
932	101.4	790.0	18.1	140.7
933	107.0	897.0	19.1	159.8
934	1610.5	2507.5	286.8	446.6
935	4893.8	7401.3	871.6	1318.2
936	4807.7	12209.0	856.3	2174.5
937	4724.1	16933.1	841.4	3015.9
938	4465.6	21398.7	795.4	3811.3
939	4215.1	25613.9	750.8	4562.0
940	3940.9	29554.8	701.9	5263.9
941	3676.8	33231.6	654.9	5918.8
942	3411.8	36643.4	607.7	6526.5
943	3157.4	39800.8	562.4	7088.8
944	2919.8	42720.6	520.0	7608.9
945	2692.1	45412.7	479.5	8088.4
946	2456.3	47869.0	437.5	8525.8
947	2231.8	50100.8	397.5	8923.3
948	2020.1	52121.0	359.8	9283.1
949	1819.7	53940.6	324.1	9607.2
950	1634.2	55574.9	291.1	9898.3
951	1459.4	57034.2	259.9	10158.2
952	1304.4	58338.6	232.3	10390.6
953	1158.6	59497.3	206.4	10596.9
954	1013.4	60510.7	180.5	10777.4
955	878.2	61388.9	156.4	10933.8
956	757.3	62146.2	134.9	11068.7
957	645.6	62791.8	115.0	11183.7
958	6234.2	69026.0	1110.4	12294.1
959	17586.4	86612.4	3132.3	15426.3
960	19802.9	106415.2	3527.0	18953.4
961	22242.2	128657.4	3961.5	22914.9
962	21894.1	150551.5	3899.5	26814.4
963	21551.9	172103.4	3838.6	30652.9
964	21505.6	193608.9	3830.3	34483.2
965	21464.7	215073.7	3823.0	38306.3
966	21151.1	236224.8	3767.2	42073.5
967	20848.1	257072.9	3713.2	45786.7
968	19459.0	276531.9	3465.8	49252.5

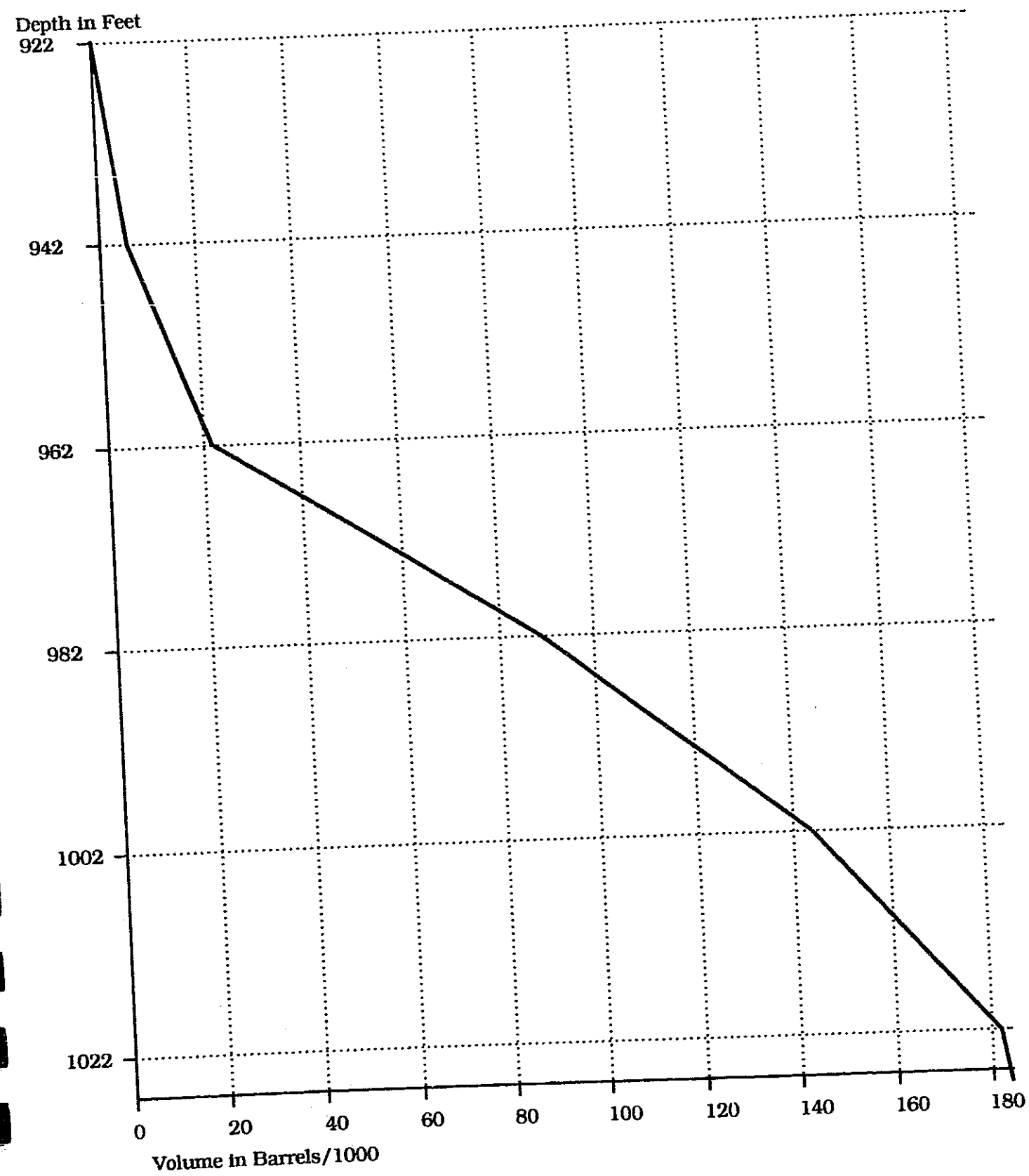
Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
969	18124.1	294656.0	3228.0	52480.5
970	18506.7	313162.7	3296.2	55776.7
971	18900.3	332063.0	3366.3	59143.0
972	19275.5	351338.5	3433.1	62576.1
973	19664.0	371002.5	3502.3	66078.4
974	19093.1	390095.6	3400.6	69479.0
975	18538.6	408634.3	3301.9	72780.9
976	17769.2	426403.5	3164.8	75945.7
977	17023.8	443427.3	3032.1	78977.8
978	16994.4	460421.7	3026.8	82004.6
979	16970.2	477391.8	3022.5	85027.2
980	16634.5	494026.3	2962.7	87989.9
981	16305.8	510332.1	2904.2	90894.1
982	16014.3	526346.5	2852.3	93746.4
983	15756.8	542103.3	2806.4	96552.8
984	15549.9	557653.2	2769.6	99322.3
985	15355.4	573008.6	2734.9	102057.3
986	15271.9	588280.5	2720.0	104777.3
987	15191.6	603472.1	2705.7	107483.0
988	14457.4	617929.5	2575.0	110058.0
989	13746.6	631676.1	2448.4	112506.4
990	14759.8	646436.0	2628.8	115135.2
991	15955.2	662391.2	2841.7	117977.0
992	16923.3	679314.5	3014.2	120991.2
993	17965.0	697279.5	3199.7	124190.9
994	18101.5	715381.0	3224.0	127414.9
995	18268.9	733649.8	3253.8	130668.7
996	17668.4	751318.3	3146.9	133815.6
997	17084.4	768402.7	3042.9	136858.4
998	17145.3	785548.0	3053.7	139912.2
999	17213.6	802761.6	3065.9	142978.0
1000	16953.9	819715.6	3019.6	145997.7
1001	16705.5	836421.1	2975.4	148973.0
1002	16611.0	853032.0	2958.5	151931.6
1003	16519.0	869551.1	2942.2	154873.8
1004	16084.1	885635.2	2864.7	157738.5
1005	15657.6	901292.7	2788.7	160527.2
1006	11242.5	912535.2	2002.4	162529.6
1007	7778.5	920313.8	1385.4	163915.0
1008	7036.4	927350.2	1253.2	165168.2
1009	6360.7	933710.9	1132.9	166301.1
1010	5994.9	939705.8	1067.7	167368.9
1011	5659.0	945364.8	1007.9	168376.8
1012	5378.8	950743.6	958.0	169334.8
1013	5141.5	955885.0	915.7	170250.5
1014	4660.9	960545.9	830.1	171080.6
1015	4231.0	964777.0	753.6	171834.2
1016	3781.8	968558.7	673.6	172507.8
1017	3414.5	971973.3	608.2	173115.9
1018	2829.3	974802.6	503.9	173619.9
1019	2318.1	977120.7	412.9	174032.7
1020	1959.3	979079.9	349.0	174381.7
1021	1654.3	980734.2	294.6	174676.3
1022	2537.8	983272.0	452.0	175128.3

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1023	4195.5	987467.6	747.3	175875.6
1024	3016.1	990483.6	537.2	176412.8
1025	2060.4	992544.1	367.0	176779.8
1026	637.4	993181.4	113.5	176893.3

FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Depth vs Volume

STORAGE WELL NO. 6
Tue, Mar 12, 1996



SONARWIRE INC.
Max Radius & Depth vs Bearing

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Tue, Mar 12, 1996

This table lists the maximum radius (in feet) found at each of the 128 bearings at which soundings were taken. Also listed after each radius, (separated by ':'), is the depth (in feet) at which that maximum radius was found. Bearings are shown, (in degrees), for each row of four 'radius : depth' pairs.

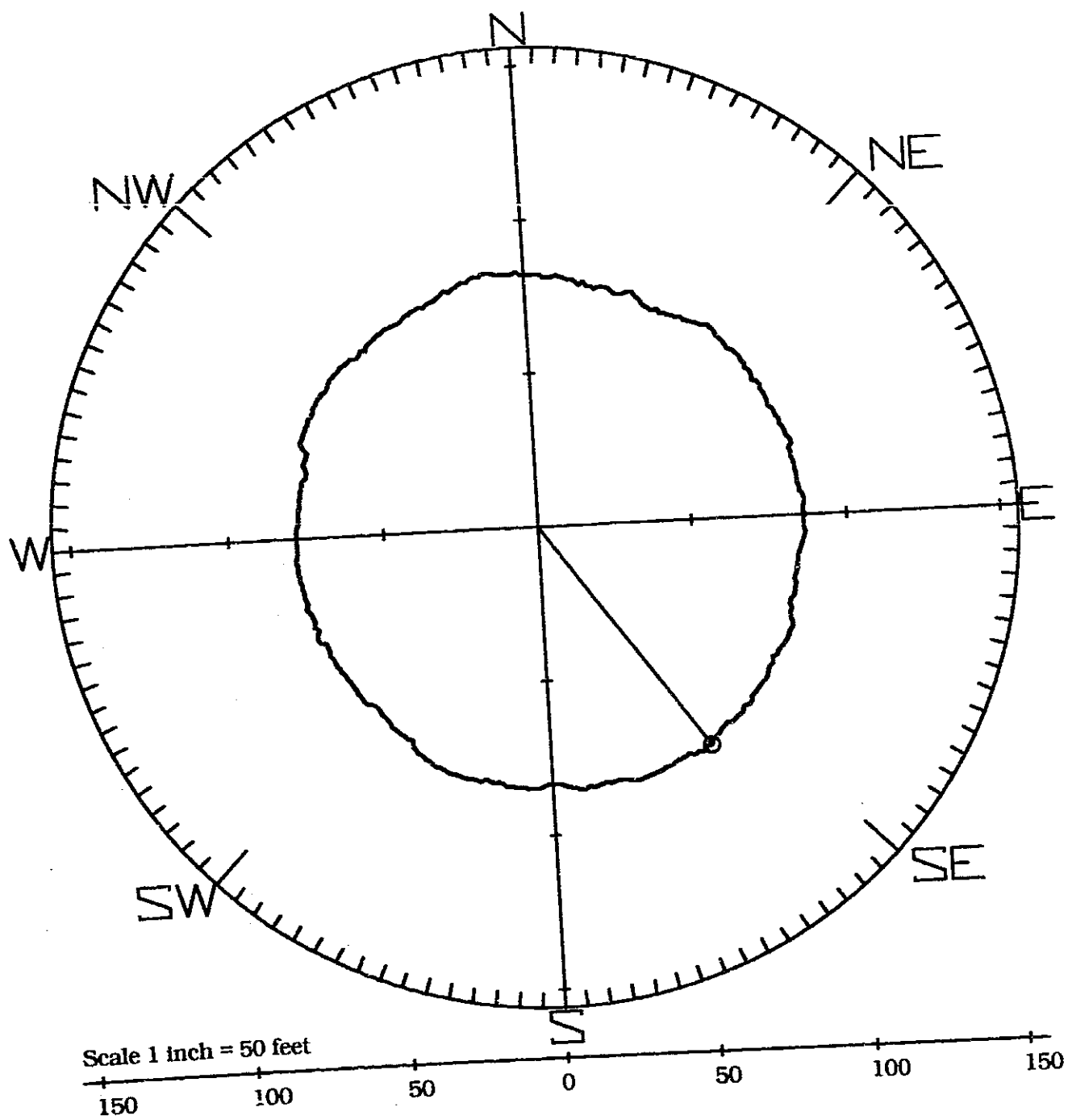
Bearing	+0.0		+2.8		+5.6		+8.4	
0.0	82.4:	990	82.4:	990	82.4:	992	82.4:	992
11.3	81.7:	992	81.7:	994	81.0:	994	81.7:	960
22.5	81.0:	960	83.0:	960	82.3:	960	80.3:	966
33.8	81.7:	996	82.3:	964	83.7:	960	85.0:	960
45.0	86.4:	960	85.7:	960	86.4:	960	86.4:	960
56.3	86.4:	960	85.7:	960	86.4:	960	85.7:	960
67.5	85.7:	960	86.4:	960	87.1:	960	87.1:	960
78.8	85.7:	960	85.7:	960	85.7:	960	87.1:	960
90.0	87.1:	960	86.4:	960	87.1:	960	85.7:	960
101.3	85.1:	966	85.1:	966	85.7:	960	85.7:	960
112.5	87.1:	964	88.4:	964	88.4:	964	87.7:	964
123.8	87.7:	964	88.4:	964	88.4:	964	89.1:	964
135.0	89.1:	966	89.1:	962	88.4:	960	89.1:	1006
146.3	90.4:	1006	89.7:	1006	88.4:	960	88.4:	960
157.5	88.4:	960	88.4:	962	88.4:	962	86.4:	962
168.8	86.4:	962	86.4:	1008	86.4:	1008	85.7:	1008
180.0	83.7:	960	85.0:	960	85.0:	960	85.0:	960
191.3	85.0:	960	84.4:	960	85.0:	962	85.0:	962
202.5	85.0:	962	85.0:	962	85.0:	962	84.4:	962
213.8	83.0:	962	81.0:	962	81.0:	962	80.3:	962
225.0	79.6:	962	80.3:	962	80.3:	962	79.6:	962
236.3	79.6:	962	79.7:	966	79.7:	966	80.3:	1020
247.5	80.3:	1020	79.7:	1020	79.7:	1016	79.0:	966
258.8	79.0:	966	79.0:	966	79.0:	966	78.3:	966
270.0	78.3:	966	78.3:	966	77.6:	966	77.6:	966
281.3	77.6:	966	77.6:	966	77.6:	972	78.3:	988
292.5	81.7:	988	81.7:	988	81.7:	988	82.4:	988
303.8	82.4:	988	82.4:	988	82.4:	988	82.4:	988
315.0	81.7:	988	81.0:	984	81.0:	974	81.0:	974
326.3	81.0:	974	80.3:	990	81.0:	990	81.0:	990
337.5	81.0:	990	81.7:	990	82.4:	990	83.0:	990
348.8	83.7:	990	84.4:	990	83.7:	990	83.0:	990

Between 921 and 1026 foot depths, maximum radius
was 90.4 feet at bearing 144.4 at 1006.0 foot depth

FERRELLGAS
STORAGE WELL NO. 6
HOLBROOK, AZ

SONARWIRE, INC
Max Range vs Bearing

Tue, Mar 12, 1996
Azimuth=144.4 deg
Max Radius= 90.4 ft.
Depth=1006 ft.



SONARWIRE INC.
Wall Ranges versus Depth (ft.)

FERRELLGAS
HOLBROOK, AZ

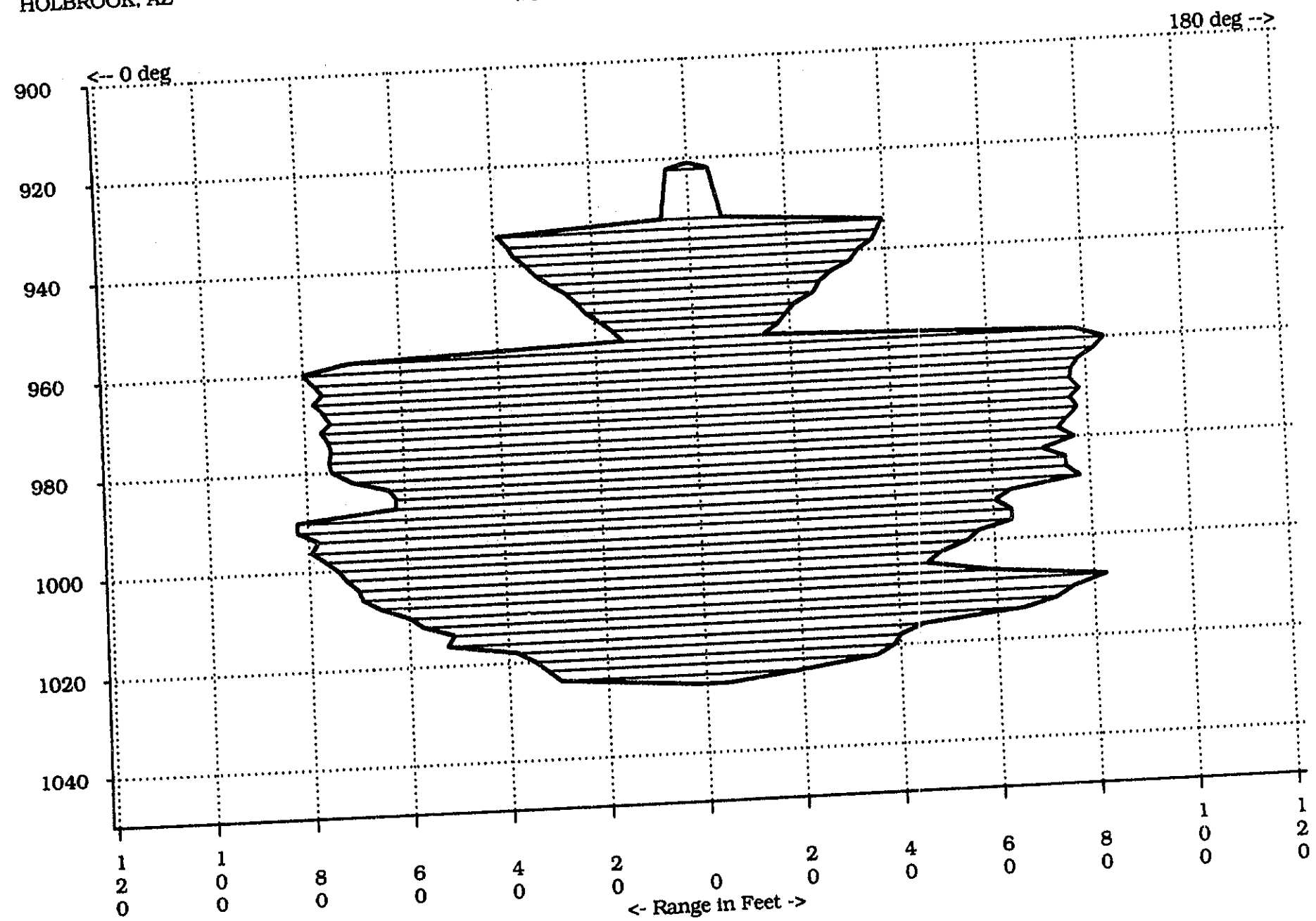
STORAGE WELL NO. 6
Tue, Mar 12, 1996

Depth	Tilt	N	NE	E	SE	S	SW	W	NW
921	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
922	0	4.4	4.4	4.4	4.2	4.2	4.4	4.3	4.4
932	0	5.9	5.9	6.3	5.5	6.7	5.9	4.6	5.5
934	0	39.7	39.7	40.5	41.3	39.2	39.7	39.2	39.7
936	0	37.5	38.0	38.4	38.8	38.4	38.4	38.4	39.7
938	0	36.3	35.4	37.1	36.7	37.1	36.3	35.9	36.7
940	0	34.2	35.4	34.6	35.4	34.2	33.7	34.6	34.2
942	0	32.1	30.8	30.8	32.9	32.5	31.2	31.2	30.4
944	0	29.1	30.0	29.5	30.0	28.7	29.5	29.5	28.3
946	0	26.2	27.4	26.6	27.4	26.2	27.4	26.6	25.7
948	0	23.6	24.5	23.6	23.2	24.9	23.6	24.0	24.5
950	0	21.9	21.9	21.5	21.5	21.1	21.1	21.5	21.5
952	0	19.4	19.4	18.6	19.4	19.0	19.4	18.6	19.0
954	0	16.9	16.9	16.5	16.5	17.3	16.5	16.9	16.5
956	0	14.8	14.3	13.9	14.3	14.3	14.3	14.3	13.9
958	0	70.9	74.9	76.9	81.7	77.6	76.9	74.9	72.9
960	0	80.3	86.4	87.1	88.4	83.7	77.6	74.9	74.2
962	0	78.3	82.3	86.4	87.7	81.7	79.0	75.6	76.9
964	0	76.3	83.7	82.3	89.1	78.3	76.3	73.6	74.9
966	0	78.3	78.3	83.7	86.4	77.0	78.3	78.3	71.6
968	0	76.3	75.6	79.0	80.3	76.3	75.6	75.6	77.0
970	0	74.9	77.6	79.6	82.3	78.3	76.3	75.6	78.3
972	0	76.9	76.9	80.3	81.7	76.3	76.3	76.3	75.6
974	0	75.6	75.6	76.9	79.6	77.6	76.3	74.2	79.6
976	0	74.9	72.2	73.6	77.6	75.6	74.9	72.2	78.3
978	0	75.6	72.2	74.3	76.3	73.6	70.2	73.6	75.6
980	0	74.9	70.2	71.6	77.0	77.0	70.9	70.9	74.3
982	0	70.9	64.8	75.6	77.0	70.2	68.9	72.9	74.9
984	0	63.5	68.2	74.3	81.0	74.9	68.9	72.9	78.3
986	0	62.1	68.8	72.2	81.7	74.9	67.5	71.5	75.6
988	0	62.1	62.8	71.6	81.7	77.6	66.8	68.9	81.7
990	0	82.4	67.5	66.2	86.4	63.5	55.4	70.2	72.9
992	0	82.4	68.2	78.3	81.0	60.1	52.0	67.5	70.2
994	0	78.3	72.2	74.3	81.0	63.5	47.9	65.5	66.2
996	0	79.7	66.2	70.2	73.6	63.5	45.9	63.5	66.2
998	0	77.0	72.9	71.6	75.6	56.7	43.2	63.5	64.1
1000	0	74.3	75.7	67.6	73.6	54.1	42.6	62.8	64.9
1002	0	72.9	74.9	67.5	70.9	48.6	40.5	60.8	61.4
1004	0	70.2	72.9	66.8	68.2	45.9	35.8	61.4	61.4
1006	0	69.5	45.9	33.7	83.0	58.7	66.8	76.2	60.7
1008	0	66.1	41.8	32.4	83.7	82.3	65.5	73.6	65.5
1010	0	60.1	38.5	29.7	83.0	75.6	66.1	70.9	59.4
1012	0	57.4	35.8	26.3	82.3	72.2	64.8	70.2	58.7
1014	0	51.3	31.7	22.9	76.2	65.4	63.4	70.2	54.6
1016	0	52.7	29.7	20.3	53.3	44.6	62.1	75.6	58.1
1018	0	38.5	26.3	18.2	45.2	39.8	58.1	75.6	62.8
1020	0	35.1	21.6	14.9	40.5	38.5	56.0	54.0	65.5
1022	0	32.4	21.6	14.2	25.0	35.1	52.7	47.9	46.6
1024	0	29.7	15.5	12.8	16.9	19.6	32.4	35.1	30.4
1026	0	2.1	2.5	3.0	5.5	5.1	4.2	3.0	2.5

FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Vertical Cross-Section

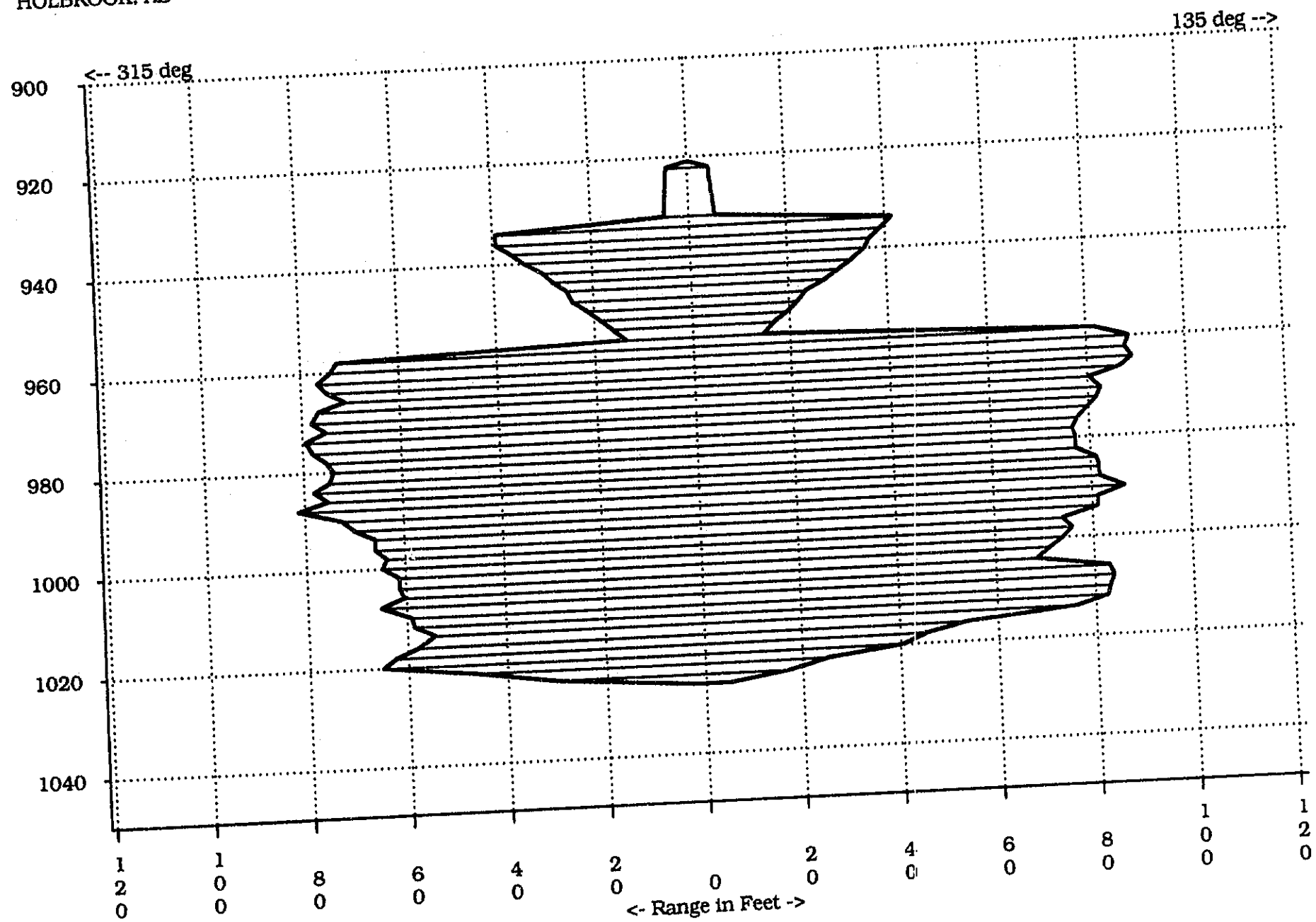
STORAGE WELL NO. 6
Tue, Mar 12, 1996



FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Vertical Cross-Section

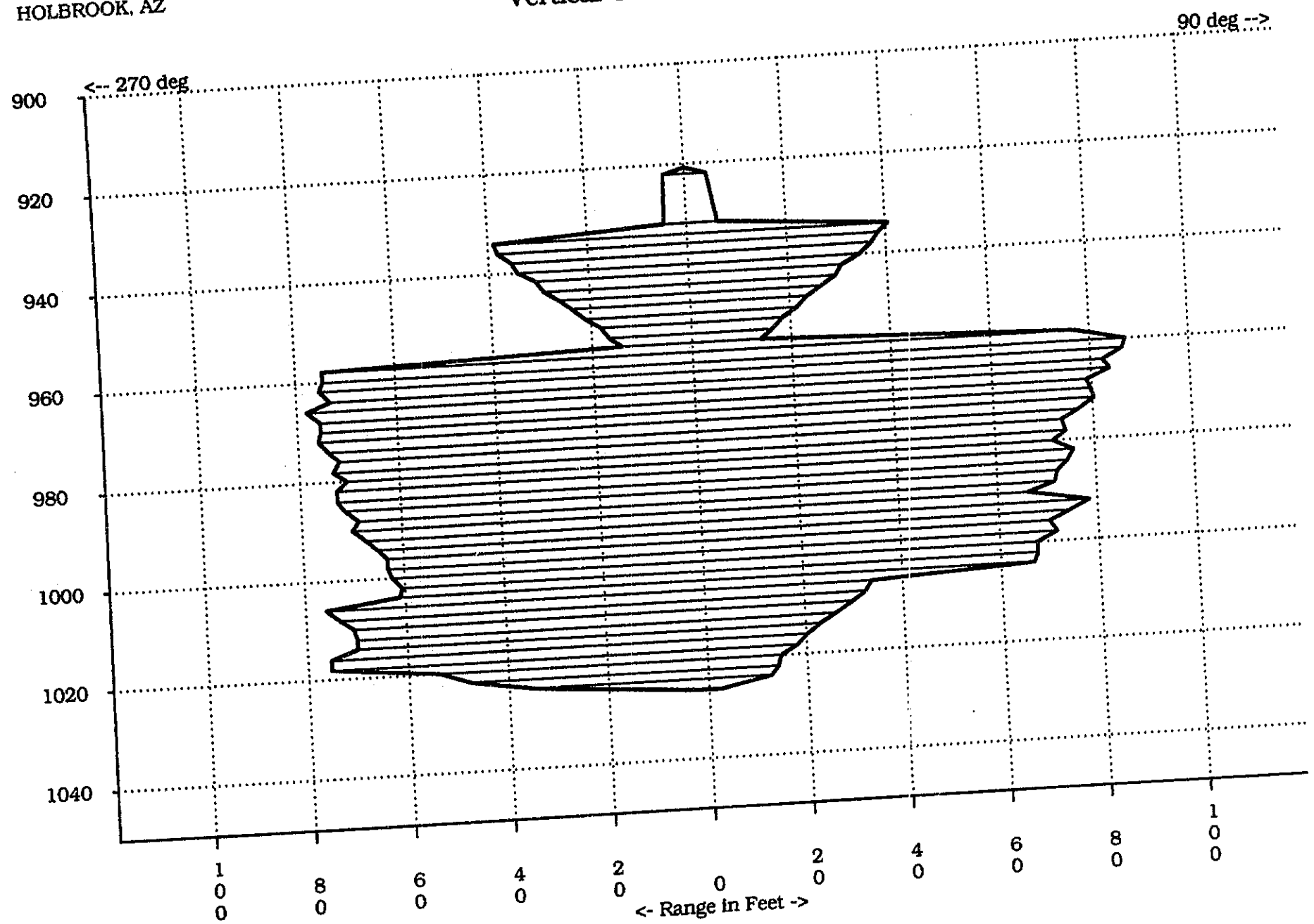
STORAGE WELL NO. 6
Tue, Mar 12, 1996



FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Vertical Cross-Section

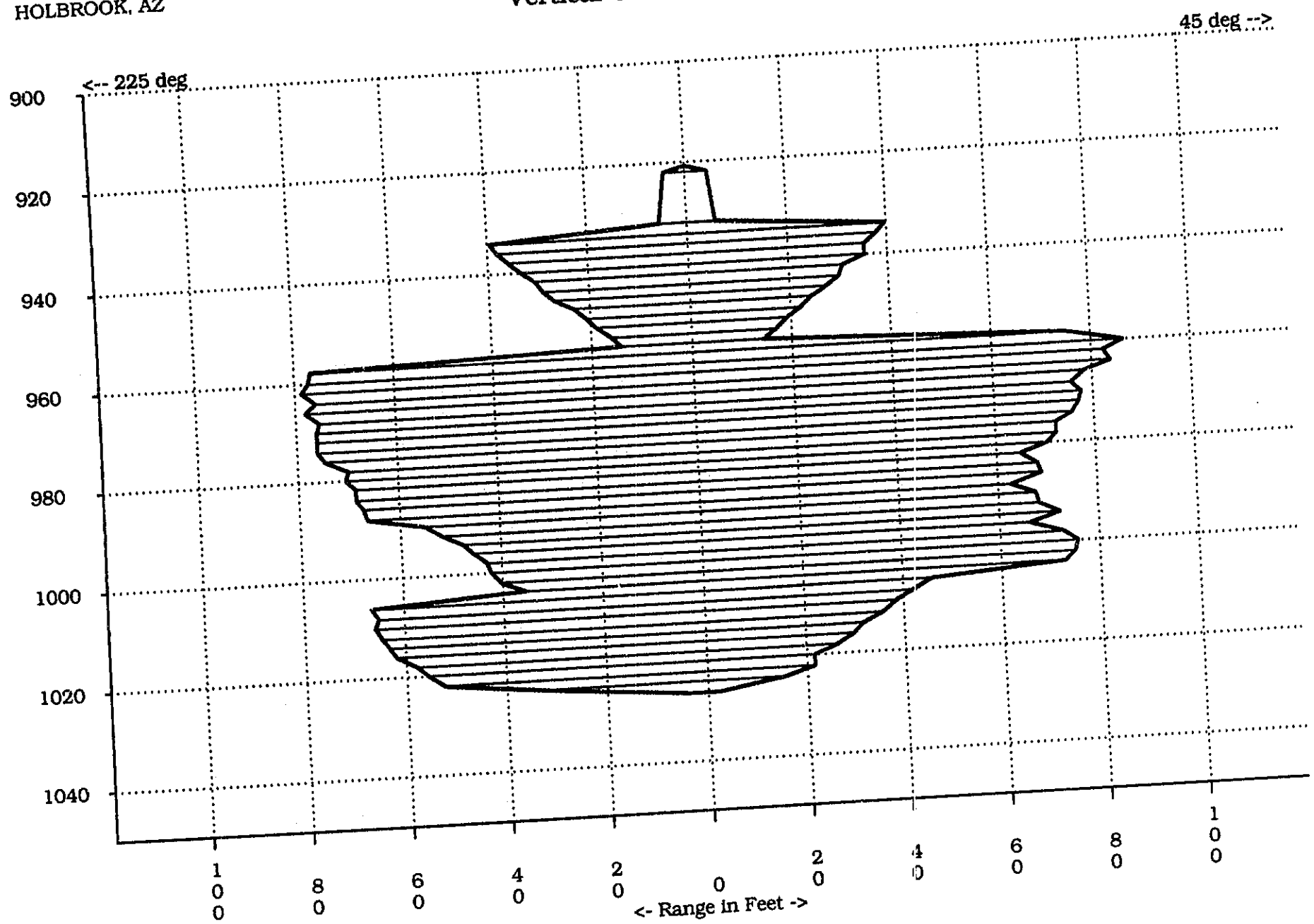
STORAGE WELL NO. 6
Tue, Mar 12, 1996



FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Vertical Cross-Section

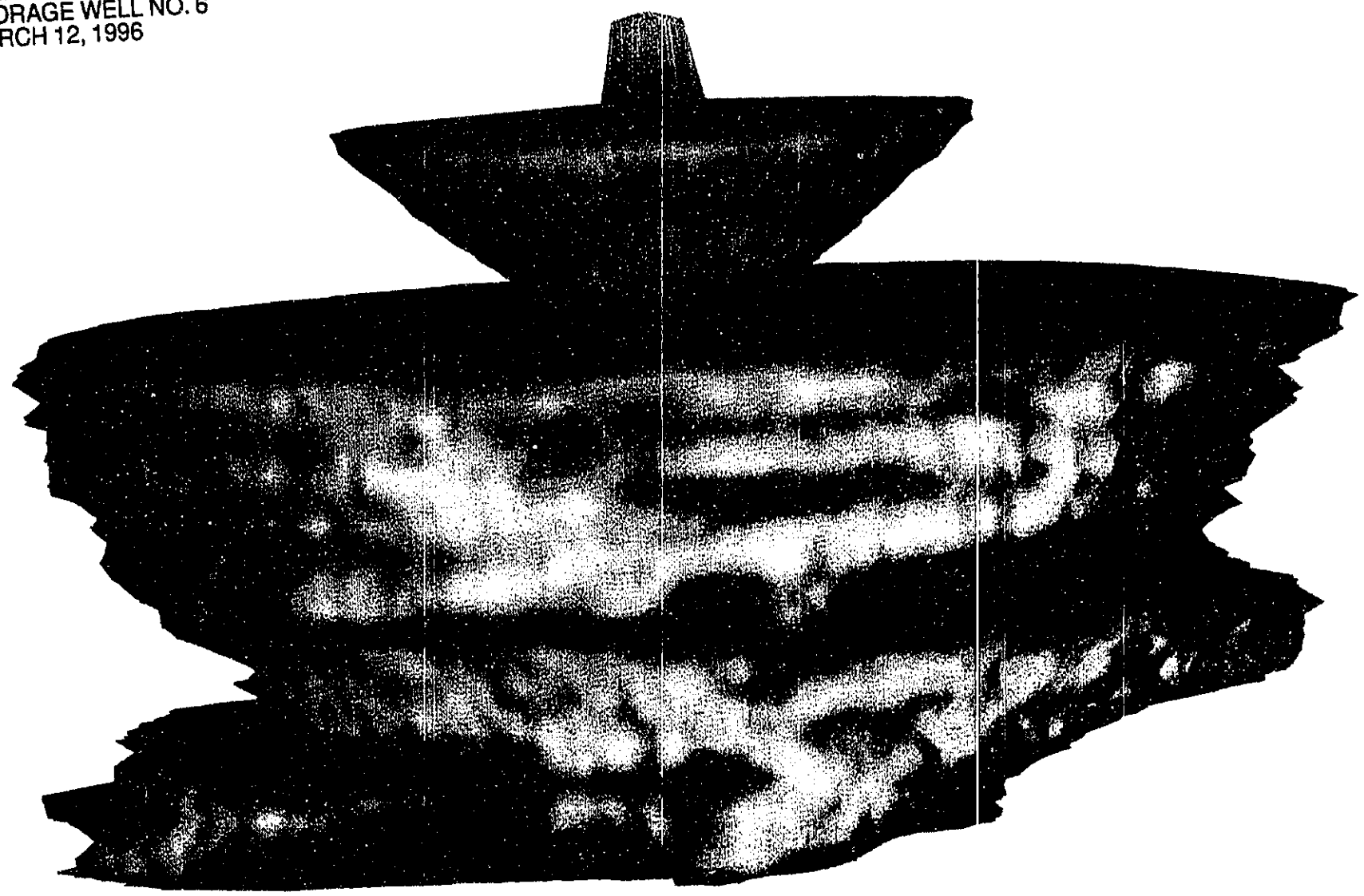
STORAGE WELL NO. 6
Tue, Mar 12, 1996



3D SHADE PLOT

VIEWING AZIMUTH: 45
AXIS TILT: -5 DEG

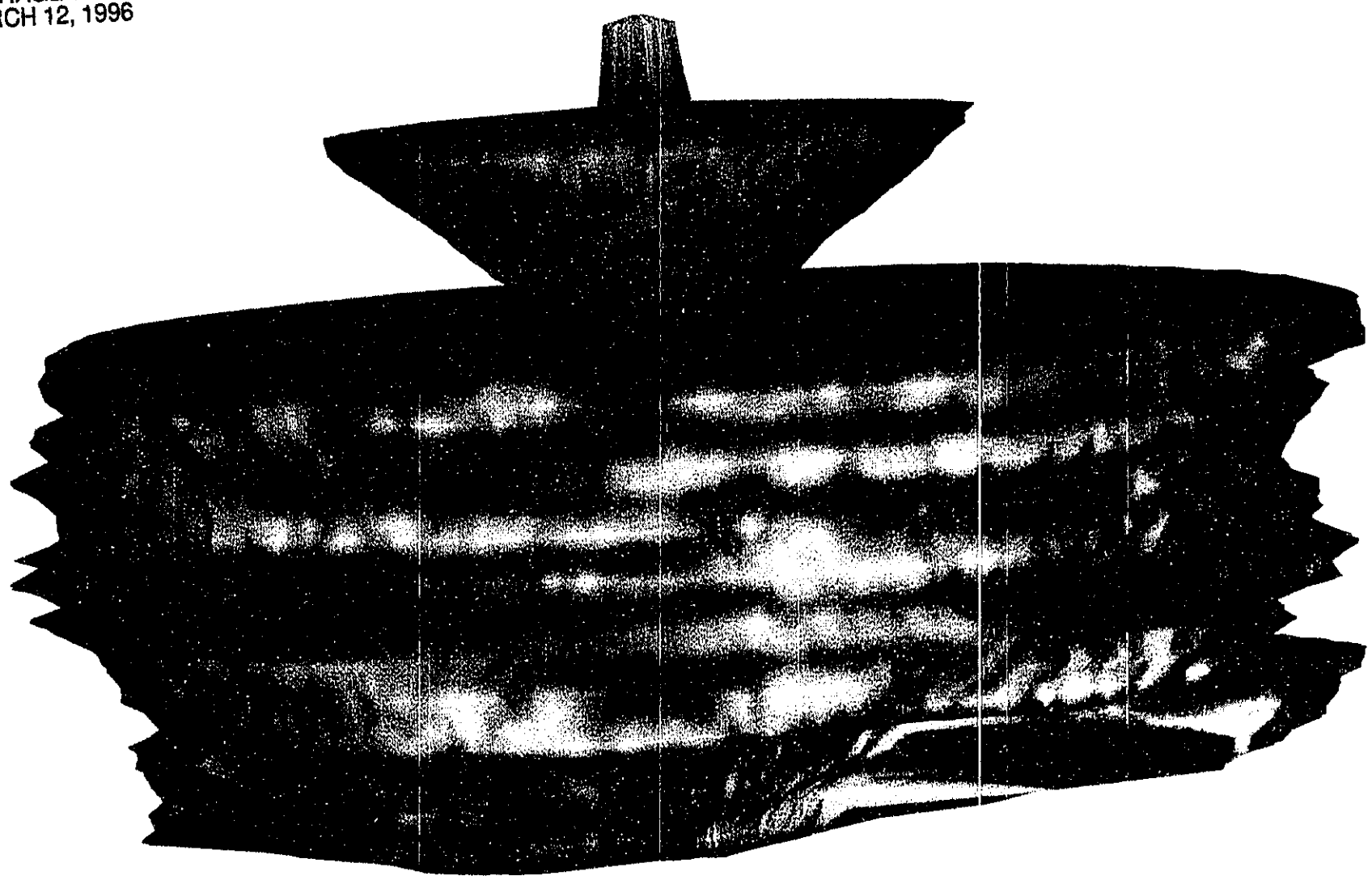
FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
MARCH 12, 1996



3D SHADE PLOT

VIEWING AZIMUTH: 135
AXIS TILT: -5 DEG

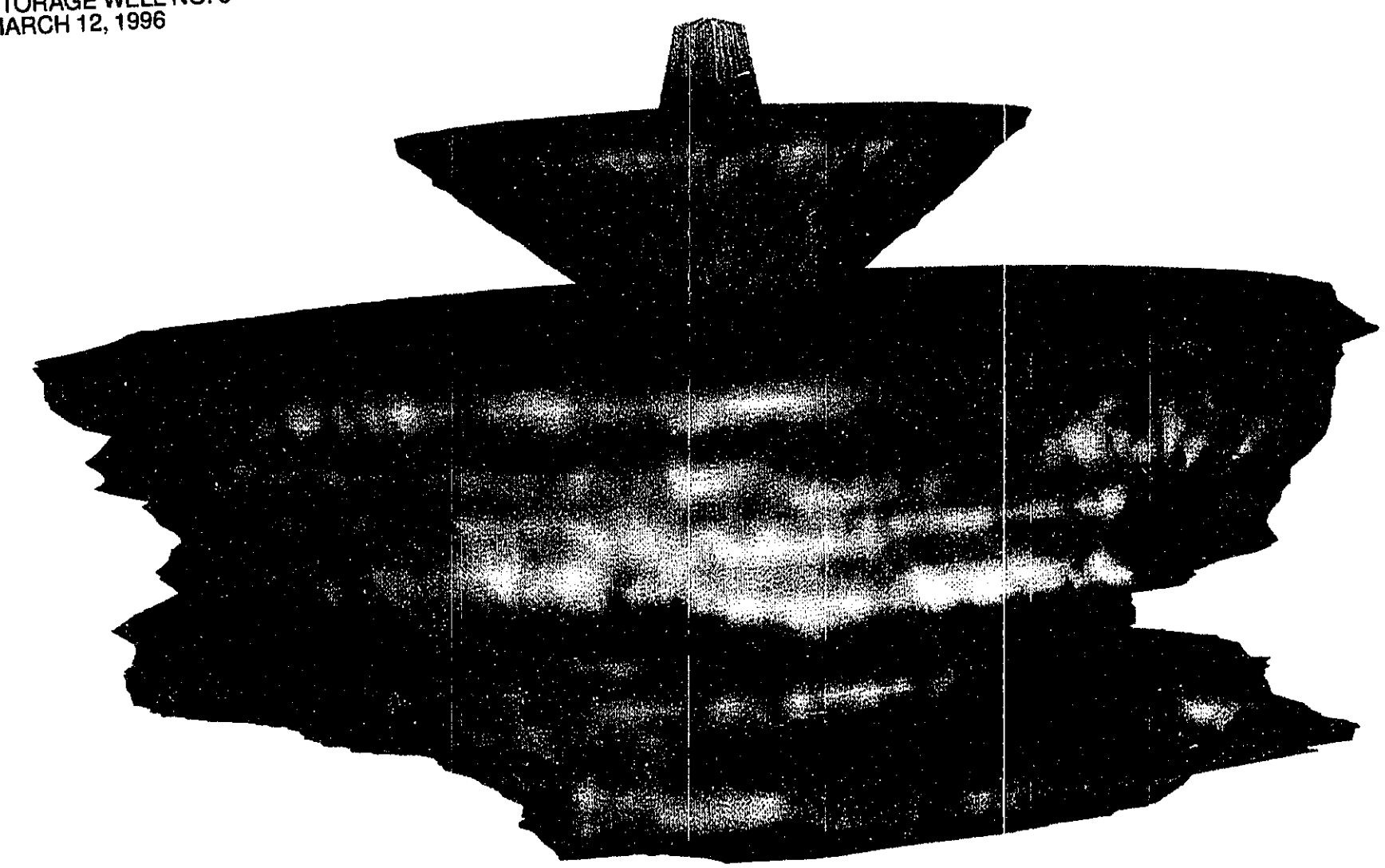
FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
MARCH 12, 1996



3D SHADE PLOT

VIEWING AZIMUTH: 225
AXIS TILT: -5 DEG

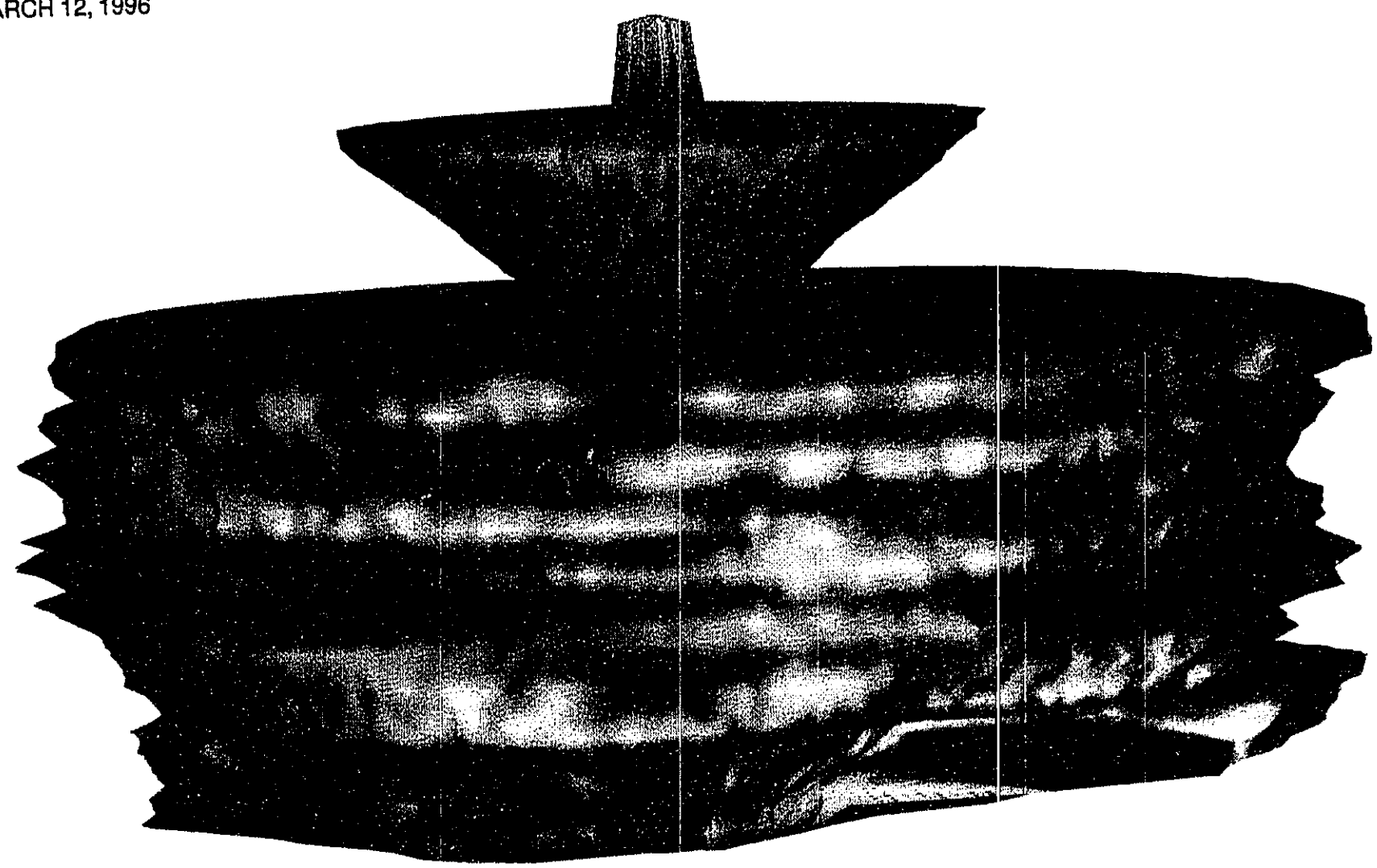
FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
MARCH 12, 1996



3D SHADE PLOT

FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
MARCH 12, 1996

VIEWING AZIMUTH: 315
AXIS TILT: -5 DEG



SONARWIRE INC.
Wall Ranges versus Depth (ft.)

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Tue, Mar 12, 1996

Depth: 921 Tilt: 0 Range: 25.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
22.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
45.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
90.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
112.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
135.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
157.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
180.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
202.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
225.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
247.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
270.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
292.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
315.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
337.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Depth: 922 Tilt: 0 Range: 25.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	4.4	4.2	4.1	4.3	4.3	4.3	4.4	4.3
22.5	4.2	4.2	4.2	4.3	4.4	4.3	4.3	4.3
45.0	4.4	4.3	4.3	4.2	4.3	4.3	4.3	4.4
67.5	4.3	4.3	4.2	4.2	4.3	4.2	4.3	4.3
90.0	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.2
112.5	4.2	4.3	4.4	4.5	4.3	4.4	4.3	4.3
135.0	4.2	4.2	4.4	4.4	4.4	4.2	4.2	4.1
157.5	4.3	4.2	4.3	4.3	4.3	4.2	4.4	4.3
180.0	4.2	4.3	4.2	4.3	4.2	4.2	4.2	4.1
202.5	4.1	4.1	4.1	4.3	4.3	4.3	4.2	4.4
225.0	4.4	4.3	4.2	4.3	4.3	4.2	4.2	4.3
247.5	4.2	4.3	4.4	4.3	4.3	4.3	4.3	4.2
270.0	4.3	4.4	4.3	4.3	4.3	4.2	4.3	4.2
292.5	4.2	4.2	4.3	4.2	4.3	4.3	4.3	4.4
315.0	4.4	4.4	4.4	4.3	4.3	4.3	4.2	4.2
337.5	4.3	4.4	4.4	4.3	4.3	4.4	4.4	4.4

Depth: 932 Tilt: 0 Range: 100.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	5.9	5.9	5.5	5.5	5.5	5.5	5.1	5.5
22.5	5.5	5.5	5.5	5.9	6.3	6.3	6.3	5.9
45.0	5.9	6.3	6.7	6.7	6.3	6.3	6.3	6.3
67.5	6.3	6.3	6.3	5.9	6.3	6.3	6.3	6.3
90.0	6.3	6.3	5.9	5.9	5.9	5.9	5.9	6.3
112.5	6.3	6.3	5.9	5.9	5.9	5.9	5.5	5.5
135.0	5.5	5.5	5.9	5.9	5.9	5.9	6.3	6.3
157.5	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.7
180.0	6.7	6.7	6.7	6.7	6.3	6.3	6.3	6.3
202.5	6.3	6.3	6.3	6.3	6.3	5.9	5.9	5.9
225.0	5.9	5.9	5.5	5.5	5.5	5.1	5.1	5.1
247.5	5.1	4.6	4.6	4.6	4.6	4.2	4.2	4.6
270.0	4.6	4.6	5.1	5.1	5.1	5.1	5.5	5.5
292.5	5.5	5.5	5.5	5.5	5.1	5.1	5.1	5.1
315.0	5.5	5.5	5.5	5.5	5.5	5.5	5.9	5.9
337.5	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9

Depth: 934 Tilt: 0 Range: 100.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	39.7	39.2	39.2	38.8	38.4	38.8	38.0	37.6
22.5	37.1	37.1	37.6	38.4	38.4	38.4	38.8	38.8
45.0	39.7	39.7	40.1	40.1	40.1	40.5	40.9	41.3
67.5	40.5	40.1	39.7	39.7	39.2	39.7	39.7	40.1
90.0	40.5	40.5	40.5	40.9	40.5	40.5	40.1	39.2
112.5	39.7	38.8	39.2	39.7	40.1	40.5	40.1	40.1
135.0	41.3	41.3	40.9	40.5	39.7	39.2	39.2	40.5
157.5	40.1	39.7	39.2	39.2	39.2	39.2	39.2	39.2
180.0	39.2	39.2	39.7	39.7	39.7	40.5	40.5	40.5
202.5	40.5	40.5	40.1	39.7	39.2	39.7	40.1	39.7
225.0	39.7	39.2	38.8	38.8	38.4	38.8	38.0	37.6
247.5	37.1	37.1	37.6	38.0	38.0	38.4	38.4	39.2
270.0	39.2	38.8	38.4	38.4	38.0	38.0	38.4	39.2
292.5	38.8	38.8	38.8	39.2	39.2	38.8	39.7	40.1
315.0	39.7	40.1	40.1	40.1	40.1	40.5	40.5	40.1
337.5	39.7	39.7	40.1	40.5	40.5	40.5	40.5	40.5

Depth: 936 Tilt: 0 Range: 100.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	37.5	38.4	38.8	38.8	39.2	39.2	39.2	39.2
22.5	38.4	37.5	38.4	38.4	39.2	39.2	38.8	39.7
45.0	38.0	38.4	39.7	39.7	38.4	38.4	38.4	38.4
67.5	38.8	38.8	38.8	39.2	39.7	39.2	39.7	39.7
90.0	38.4	38.8	38.8	38.8	38.4	38.0	38.8	38.8
112.5	39.2	39.2	38.8	39.2	39.2	39.7	40.1	40.1
135.0	38.8	38.8	38.8	39.2	38.4	38.4	38.8	38.8
157.5	38.8	38.4	38.0	38.4	38.8	38.8	38.0	38.4
180.0	38.4	38.4	38.4	38.4	39.2	38.0	38.4	38.4
202.5	38.8	38.8	38.0	38.8	38.8	39.2	38.8	38.4
225.0	38.4	38.8	38.8	38.8	38.8	38.0	38.4	38.4
247.5	39.2	38.8	39.2	39.7	39.2	39.7	38.8	38.8
270.0	38.4	38.4	38.4	38.4	38.8	38.4	38.4	38.0
292.5	38.4	38.4	38.4	38.4	38.0	38.4	39.2	39.7
315.0	39.7	39.7	38.8	38.8	38.8	38.8	38.8	39.7
337.5	39.2	38.8	38.8	38.8	39.2	38.8	38.4	38.0

Depth: 938 Tilt: 0 Range: 100.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	36.3	37.1	37.1	37.1	36.7	36.7	37.1	37.5
22.5	37.1	36.3	36.3	35.4	37.1	36.7	35.9	35.9
45.0	35.4	36.7	36.7	36.3	37.1	36.3	36.3	36.7
67.5	36.7	36.7	36.3	36.3	36.7	36.3	36.7	37.1
90.0	37.1	37.1	36.7	37.1	36.7	37.1	36.3	36.7
112.5	37.1	37.1	36.7	37.5	37.1	36.7	36.7	37.1
135.0	36.7	37.1	37.1	36.7	37.1	37.1	36.3	36.3
157.5	36.7	37.1	36.7	37.1	36.3	35.4	35.9	36.7
180.0	37.1	36.3	35.9	35.9	35.4	36.3	36.3	35.4
202.5	36.3	36.3	36.3	36.3	35.4	35.4	36.3	35.9
225.0	36.3	36.3	36.7	36.7	36.3	36.7	36.3	36.3
247.5	36.7	37.1	37.1	37.1	36.3	35.9	37.1	36.7
270.0	35.9	36.7	37.1	36.7	35.4	35.9	36.7	37.5
292.5	36.3	36.3	36.3	36.3	36.3	36.7	37.1	37.1
315.0	36.7	37.5	37.5	37.1	36.7	36.7	36.7	37.1
337.5	37.1	37.5	37.5	37.5	36.7	36.7	37.1	37.1

Depth: 940 Tilt: 0 Range: 100.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	34.2	34.2	34.6	35.0	34.6	33.3	33.3	33.7
22.5	34.2	34.2	35.0	35.0	35.4	34.6	34.6	34.6
45.0	35.4	34.2	34.2	34.6	34.2	34.6	34.2	33.7
67.5	35.0	34.6	33.7	33.7	34.2	34.2	34.2	34.6
90.0	34.6	33.7	35.0	34.6	34.2	34.2	34.2	34.2
112.5	34.6	34.6	34.6	34.6	34.2	34.6	35.4	35.0
135.0	35.4	34.6	34.2	34.2	34.2	35.0	34.6	34.2
157.5	35.0	34.6	33.7	33.7	34.2	34.2	34.2	34.2
180.0	34.2	33.7	34.6	34.6	34.6	34.2	34.2	33.7
202.5	33.7	34.2	33.7	34.2	34.2	33.3	33.3	34.2
225.0	33.7	33.3	32.9	34.2	33.7	34.2	33.3	32.9
247.5	33.7	33.7	33.7	34.6	35.0	34.2	33.7	34.2
270.0	34.6	33.7	34.2	34.2	33.7	34.2	34.2	33.7
292.5	34.6	33.3	34.2	34.6	34.6	34.2	34.2	34.2
315.0	34.2	34.6	34.6	33.3	33.7	33.7	34.2	34.2
337.5	35.0	34.2	34.2	33.3	33.7	33.7	33.3	34.2

Depth: 942 Tilt: 0 Range: 100.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	32.1	32.1	31.2	31.6	31.2	31.2	31.2	31.2
22.5	31.6	31.6	31.6	31.2	31.6	31.2	31.6	30.8
45.0	30.8	32.1	32.5	32.1	32.1	32.1	32.5	32.5
67.5	32.5	32.1	32.1	31.6	31.6	31.2	30.8	31.2
90.0	30.8	31.6	31.2	30.8	31.2	31.2	31.6	32.1
112.5	32.1	32.1	32.1	32.1	31.6	31.6	32.1	32.9
135.0	32.9	31.6	31.6	31.2	32.1	32.1	31.2	31.6
157.5	31.6	32.1	31.2	31.6	32.1	32.5	32.5	32.5
180.0	32.5	32.1	32.5	32.1	31.6	31.6	31.2	31.2
202.5	32.1	32.1	32.1	32.1	31.6	31.2	32.1	32.1
225.0	31.2	30.8	31.2	31.6	32.1	32.1	31.6	32.5
247.5	32.1	32.1	31.6	31.6	31.2	31.6	31.2	30.8
270.0	31.2	31.6	32.1	32.1	32.1	32.1	31.6	30.8
292.5	31.6	31.6	31.2	31.6	31.2	32.1	31.2	30.8
315.0	30.4	32.1	32.1	31.6	31.2	31.2	31.6	32.1
337.5	32.1	31.6	32.1	31.6	31.6	31.6	31.6	32.1

Depth: 944 Tilt: 0 Range: 100.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	29.1	29.1	29.1	28.7	28.7	28.7	28.7	29.1
22.5	29.5	29.1	29.5	29.5	29.1	28.7	29.1	29.5
45.0	30.0	30.0	29.5	29.5	29.5	29.1	30.0	30.0
67.5	30.4	30.0	29.1	29.1	29.1	29.1	30.0	29.5
90.0	29.5	29.5	29.5	29.5	29.5	29.5	29.5	30.4
112.5	29.5	28.7	28.7	29.5	30.0	29.1	29.1	30.0
135.0	30.0	30.0	29.1	28.7	28.7	28.7	29.1	29.1
157.5	29.1	29.1	29.1	28.7	28.7	28.7	29.1	28.7
180.0	28.7	29.5	29.5	29.1	30.0	29.5	29.1	29.5
202.5	29.5	29.5	30.0	29.5	30.0	29.5	29.1	29.1
225.0	29.5	29.5	29.5	30.0	30.4	29.5	29.1	29.1
247.5	29.1	29.5	29.1	29.5	29.5	29.1	28.7	28.7
270.0	29.5	30.0	28.7	29.1	28.7	29.1	29.5	29.5
292.5	29.5	29.5	29.5	29.1	28.7	28.7	28.7	28.3
315.0	28.3	28.3	29.1	28.7	29.1	29.5	28.7	28.7
337.5	28.7	29.1	30.0	30.0	28.7	29.1	29.1	29.1

Depth: 946 Tilt: 0 Range: 100.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	26.2	26.6	26.6	26.6	26.6	27.4	27.4	27.0
22.5	26.6	27.0	27.0	26.2	26.6	27.0	27.4	27.0
45.0	27.4	27.0	27.0	26.6	27.4	27.0	27.0	27.4
67.5	26.6	26.2	27.0	26.6	26.6	26.2	26.2	26.2
90.0	26.6	26.2	26.2	27.0	26.6	26.2	26.6	27.0
112.5	26.6	25.7	25.7	26.6	26.6	27.0	27.4	27.0
135.0	27.4	27.0	26.6	27.0	26.2	26.6	27.0	26.6
157.5	26.6	25.7	25.7	25.7	26.2	26.2	26.2	26.6
180.0	26.2	26.6	27.0	27.0	27.4	26.6	26.6	26.2
202.5	26.6	26.6	27.0	26.6	26.6	26.6	26.6	26.6
225.0	27.4	27.4	27.4	27.0	27.4	26.6	27.0	26.6
247.5	27.0	27.4	26.6	26.6	26.6	26.6	27.4	27.0
270.0	26.6	27.4	26.6	27.0	26.6	27.0	26.6	26.6
292.5	27.0	27.0	27.4	27.0	26.6	26.6	26.6	26.2
315.0	25.7	26.2	26.6	26.2	26.6	26.6	26.6	25.7
337.5	25.7	25.7	26.2	26.2	26.6	26.6	25.7	26.2

Depth: 948 Tilt: 0 Range: 100.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	23.6	24.5	24.0	24.0	24.0	24.5	23.6	23.6
22.5	24.5	24.5	23.6	23.6	25.3	24.9	24.5	24.5
45.0	24.5	24.0	23.6	24.5	24.0	24.0	24.5	23.2
67.5	23.6	24.5	24.5	24.0	24.0	24.0	24.5	24.5
90.0	23.6	24.0	24.5	24.5	24.5	24.9	24.0	24.5
112.5	24.0	24.5	24.0	24.0	24.0	24.0	23.6	23.2
135.0	23.2	23.2	23.6	24.0	23.6	23.2	23.6	24.5
157.5	23.6	24.0	23.2	23.6	23.6	24.0	24.0	24.0
180.0	24.9	24.5	24.5	24.0	24.5	24.0	24.0	24.0
202.5	24.5	24.9	24.0	24.0	24.5	24.5	24.9	24.0
225.0	23.6	24.5	24.9	23.6	24.0	24.0	24.0	24.5
247.5	24.0	24.0	25.3	24.0	24.5	24.5	24.0	24.5
270.0	24.0	24.5	24.5	24.0	24.0	24.0	23.6	24.0
292.5	23.6	23.2	23.6	23.6	23.6	24.5	23.6	23.6
315.0	24.5	24.5	23.6	23.6	23.2	24.0	23.6	24.5
337.5	24.5	24.9	22.8	23.2	23.6	23.2	24.0	23.6

Depth: 950 Tilt: 0 Range: 100.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	21.9	22.4	21.9	21.9	21.1	21.5	21.5	21.9
22.5	21.5	22.4	21.9	21.5	22.4	21.5	21.1	21.5
45.0	21.9	21.9	21.9	22.4	21.9	21.5	21.9	21.5
67.5	21.1	21.5	21.9	21.5	21.5	21.9	21.9	21.9
90.0	21.5	21.1	20.7	21.1	21.5	21.5	21.1	21.5
112.5	21.5	21.5	21.5	21.1	20.7	21.1	20.7	21.5
135.0	21.5	21.5	21.1	21.5	21.1	21.1	21.9	21.9
157.5	21.5	21.5	21.5	21.5	20.7	21.5	21.5	21.5
180.0	21.1	21.1	21.5	21.9	21.9	21.5	21.9	21.5
202.5	22.4	21.5	21.5	21.9	21.5	21.1	20.7	20.7
225.0	21.1	21.1	21.5	22.4	21.5	21.1	21.5	21.5
247.5	21.9	21.5	21.1	21.5	21.5	21.1	22.4	22.8
270.0	21.5	21.5	21.5	21.5	21.5	21.1	21.9	20.7
292.5	20.3	20.7	20.7	20.7	21.1	21.9	21.5	21.5
315.0	21.5	21.9	21.9	21.5	21.9	21.9	21.5	21.9
337.5	22.4	21.9	21.5	21.5	21.5	22.8	22.4	21.5

Depth: 952 Tilt: 0 Range: 100.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	19.4	19.4	19.0	19.8	19.8	19.4	19.8	19.8
22.5	19.4	19.4	19.4	19.8	19.4	19.0	19.8	19.0
45.0	19.4	19.0	19.4	19.4	19.4	19.0	19.8	19.4
67.5	19.4	19.0	19.4	19.0	19.4	19.4	19.0	19.0
90.0	18.6	18.6	19.0	19.0	18.6	19.0	19.4	19.4
112.5	19.4	19.8	19.4	19.4	18.6	19.0	19.4	19.4
135.0	19.4	19.4	18.6	19.0	19.0	19.4	19.8	18.6
157.5	19.0	19.0	19.0	19.4	19.4	19.4	19.4	19.0
180.0	19.0	18.6	19.4	19.4	19.0	19.0	19.4	19.8
202.5	19.0	19.0	18.6	19.0	19.4	19.0	19.4	19.4
225.0	19.4	19.0	19.0	19.0	19.0	19.4	19.0	19.0
247.5	18.1	19.4	19.0	19.4	18.1	19.0	19.0	19.0
270.0	18.6	19.0	19.0	19.4	19.4	19.0	19.0	19.4
292.5	19.0	19.0	19.0	19.4	19.4	19.0	19.4	19.4
315.0	19.0	18.6	19.4	19.8	19.0	19.0	19.0	19.0
337.5	19.4	19.8	19.4	19.4	19.4	19.8	19.4	19.0

Depth: 954 Tilt: 0 Range: 100.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	16.9	16.5	17.3	17.3	17.3	16.9	16.9	16.5
22.5	16.9	17.3	17.7	16.9	16.9	16.9	16.5	16.9
45.0	16.9	16.9	16.5	16.9	16.9	16.5	16.0	16.9
67.5	16.5	15.6	16.0	16.5	16.9	16.9	16.5	16.5
90.0	16.5	16.5	16.0	16.0	16.0	16.0	16.0	16.5
112.5	16.0	16.5	16.5	16.5	16.5	17.3	17.3	16.9
135.0	16.5	16.9	16.9	16.5	16.5	16.9	16.9	16.9
157.5	16.9	17.3	16.9	16.9	16.5	16.9	16.5	16.9
180.0	17.3	16.5	16.5	16.9	16.9	16.9	16.9	16.9
202.5	16.5	16.9	16.9	16.9	16.9	16.9	16.9	16.5
225.0	16.5	17.3	16.9	16.5	16.9	16.9	17.3	17.3
247.5	16.9	17.3	16.5	16.5	16.5	16.5	16.9	16.9
270.0	16.9	16.5	16.5	17.3	16.9	16.9	16.9	16.9
292.5	16.5	16.5	16.5	16.9	17.3	16.5	16.0	16.5
315.0	16.5	16.5	16.5	16.5	16.9	16.5	16.5	16.0
337.5	16.9	16.5	17.3	17.3	16.9	17.3	16.9	16.9

Depth: 956 Tilt: 0 Range: 100.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	14.8	13.9	14.8	14.8	14.3	14.3	14.3	14.3
22.5	14.3	13.9	14.8	14.3	13.9	14.8	14.3	14.3
45.0	14.3	14.8	15.2	14.3	14.3	14.8	14.8	14.3
67.5	13.9	13.9	14.3	14.8	14.8	14.3	14.3	14.3
90.0	13.9	13.9	13.9	14.3	14.3	14.8	14.8	14.8
112.5	14.3	13.5	13.9	14.3	13.9	14.3	14.3	13.9
135.0	14.3	14.3	13.9	14.3	14.3	13.9	14.3	14.8
157.5	14.3	13.9	13.9	14.3	14.3	14.3	14.3	14.3
180.0	14.3	14.3	14.3	13.9	14.3	14.3	14.8	14.8
202.5	14.8	14.3	14.3	14.8	14.3	13.9	13.9	13.9
225.0	14.3	13.9	14.8	14.8	14.8	14.3	14.3	14.8
247.5	13.9	14.3	13.9	14.3	14.3	14.3	14.3	14.3
270.0	14.3	13.9	14.3	14.8	14.8	14.3	13.9	13.9
292.5	13.9	14.3	13.9	14.3	14.3	14.8	14.3	14.3
315.0	13.9	14.3	14.3	14.3	14.3	14.8	14.3	14.3
337.5	13.9	13.9	14.8	13.9	14.3	14.8	13.9	14.3

Depth: 958 Tilt: 0 Range: 160.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	70.9	70.9	70.9	70.2	70.2	70.2	71.5	72.2
22.5	73.6	74.9	75.6	76.9	76.9	76.3	75.6	74.9
45.0	74.9	74.2	73.6	72.9	72.9	72.2	71.5	72.2
67.5	72.9	73.6	74.2	74.2	74.9	75.6	75.6	76.3
90.0	76.9	77.6	78.3	78.3	79.0	79.6	79.6	79.6
112.5	80.3	80.3	81.7	80.3	79.6	78.3	80.3	82.3
135.0	81.7	81.0	81.7	81.0	80.3	79.0	78.3	80.3
157.5	77.6	77.6	78.3	78.3	77.6	77.6	78.3	77.6
180.0	77.6	77.6	79.0	79.0	79.6	79.0	79.0	79.0
202.5	78.3	77.6	77.6	77.6	77.6	77.6	76.9	76.9
225.0	76.9	76.3	75.6	75.6	75.6	74.9	74.9	74.9
247.5	74.9	74.9	74.2	74.2	74.2	74.2	74.2	74.2
270.0	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.2
292.5	74.2	74.2	74.2	74.2	73.6	73.6	73.6	72.9
315.0	72.9	72.9	72.9	72.9	72.2	72.2	72.2	72.2
337.5	72.2	72.2	71.5	71.5	71.5	71.5	70.9	70.9

Depth: 960 Tilt: 0 Range: 160.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	80.3	81.7	81.7	80.3	78.3	79.0	80.3	81.7
22.5	81.0	83.0	81.0	79.0	79.6	81.0	83.7	85.0
45.0	86.4	85.7	86.4	86.4	86.4	85.7	85.7	84.4
67.5	85.7	86.4	87.1	85.7	85.7	85.0	85.7	86.4
90.0	87.1	86.4	86.4	85.0	85.0	85.0	85.7	85.0
112.5	85.0	85.7	85.7	85.7	86.4	87.1	87.1	87.7
135.0	88.4	88.4	88.4	88.4	88.4	87.7	88.4	88.4
157.5	87.7	87.1	86.4	83.0	81.7	81.0	81.0	82.3
180.0	83.7	85.0	85.0	85.0	84.4	83.7	83.7	82.3
202.5	81.7	81.7	79.6	77.6	77.6	77.6	77.6	77.6
225.0	77.6	77.6	76.9	76.9	79.0	79.0	78.3	78.3
247.5	77.6	77.6	77.6	76.3	75.6	74.9	74.9	75.6
270.0	74.9	74.2	73.6	74.2	74.9	75.6	75.6	76.3
292.5	76.9	76.9	77.6	77.6	77.6	77.6	76.9	75.6
315.0	74.2	74.9	75.6	74.2	75.6	76.3	76.3	78.3
337.5	78.3	77.6	78.3	79.0	78.3	79.0	78.3	79.6

Depth: 962 Tilt: 0 Range: 160.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	78.3	78.3	78.3	78.3	77.6	76.9	77.6	78.3
22.5	78.3	79.0	79.6	80.3	80.3	81.0	81.0	81.0
45.0	82.3	85.0	85.0	83.7	84.4	85.0	83.7	85.0
67.5	85.7	85.0	85.0	85.7	85.0	85.7	85.7	87.1
90.0	86.4	86.4	83.7	84.4	83.7	85.0	85.7	84.4
112.5	84.4	85.7	85.7	85.7	85.0	85.7	86.4	87.7
135.0	87.7	89.1	87.7	87.7	87.1	87.1	87.1	88.4
157.5	88.4	88.4	87.1	86.4	85.7	85.7	84.4	83.0
180.0	81.7	81.7	83.7	84.4	84.4	84.4	85.0	85.0
202.5	85.0	85.0	84.4	83.7	81.0	81.0	81.0	79.6
225.0	79.0	80.3	79.6	79.6	79.6	79.0	79.0	78.3
247.5	78.3	77.6	77.6	77.6	76.9	76.9	76.3	76.3
270.0	75.6	74.9	74.2	73.6	74.2	74.2	74.2	74.9
292.5	74.9	74.9	75.6	75.6	76.3	76.3	76.3	76.9
315.0	76.9	76.9	76.9	76.9	75.6	75.6	74.9	76.3
337.5	76.3	76.3	76.3	77.6	77.6	78.3	78.3	79.0

Depth: 964 Tilt: 0 Range: 160.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	76.3	76.3	77.6	79.6	78.3	79.0	79.6	79.0
22.5	77.6	79.0	78.3	79.6	81.7	82.3	83.7	84.4
45.0	83.7	84.4	84.4	83.7	85.0	85.7	85.7	85.0
67.5	85.7	83.7	84.4	83.0	83.0	81.7	81.7	83.7
90.0	82.3	83.7	82.3	83.7	83.7	83.7	83.7	85.0
112.5	87.1	88.4	88.4	87.7	87.7	88.4	88.4	89.1
135.0	89.1	89.1	86.4	85.0	82.3	81.7	81.0	81.0
157.5	80.3	81.7	79.6	79.6	78.3	78.3	78.3	79.0
180.0	78.3	78.3	78.3	78.3	77.6	77.6	77.6	78.3
202.5	79.0	79.0	78.3	78.3	77.6	77.6	76.9	76.9
225.0	76.3	76.3	76.3	76.3	76.9	76.3	76.3	75.6
247.5	75.6	75.6	74.9	74.9	74.2	73.6	73.6	74.2
270.0	73.6	73.6	74.2	74.9	74.2	74.2	73.6	74.9
292.5	74.9	73.6	76.9	77.6	76.3	73.6	72.2	72.9
315.0	74.9	74.9	76.3	76.3	75.6	75.6	75.6	76.9
337.5	76.9	79.0	79.0	77.6	74.9	74.2	76.3	78.3

Depth: 966 Tilt: 0 Range: 160.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	78.3	77.0	77.0	78.3	77.6	76.3	76.3	77.0
22.5	77.6	79.0	80.3	79.7	78.3	79.0	79.0	78.3
45.0	78.3	79.0	81.7	81.7	81.7	83.0	82.4	83.0
67.5	82.4	83.0	84.4	85.1	84.4	84.4	85.1	85.1
90.0	83.7	83.7	82.4	84.4	84.4	84.4	84.4	84.4
112.5	83.7	83.7	85.1	85.7	85.1	85.7	84.4	88.4
135.0	86.4	84.4	84.4	83.7	83.0	83.0	83.0	81.0
157.5	80.3	80.3	79.0	78.3	77.6	79.7	79.0	77.0
180.0	77.0	75.6	76.3	74.9	72.9	73.6	74.3	76.3
202.5	77.6	77.6	77.6	77.6	77.6	78.3	77.0	77.6
225.0	78.3	78.3	79.0	79.0	79.0	79.7	79.0	79.0
247.5	79.0	79.0	79.0	79.0	79.0	79.0	79.0	78.3
270.0	78.3	77.6	77.6	77.6	77.6	77.6	75.6	74.3
292.5	74.3	75.6	74.9	73.6	70.9	70.2	71.6	70.9
315.0	71.6	72.9	73.6	73.6	72.9	72.9	72.2	74.3
337.5	74.3	74.3	74.9	75.6	74.9	74.3	75.6	77.0

Depth: 968 Tilt: 0 Range: 160.0 VOS: 5959

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	76.3	76.3	76.3	76.3	74.3	74.3	73.6	71.6
22.5	70.2	70.9	70.9	71.6	71.6	71.6	72.9	74.3
45.0	75.6	75.6	76.3	76.3	76.3	76.3	76.3	76.3
67.5	76.3	76.3	78.3	77.6	77.6	77.6	79.0	79.7
90.0	79.0	77.6	78.3	78.3	77.0	77.0	77.6	79.7
112.5	79.7	78.3	78.3	78.3	80.3	80.3	81.7	79.7
135.0	80.3	81.0	79.0	79.0	77.6	78.3	78.3	76.3
157.5	75.6	75.6	75.6	75.6	75.6	75.6	74.9	74.9
180.0	76.3	76.3	76.3	75.6	74.9	75.6	74.9	74.3
202.5	72.9	74.3	76.3	77.0	76.3	77.0	77.0	77.0
225.0	75.6	74.3	74.3	73.6	72.2	72.2	73.6	72.9
247.5	72.9	72.9	74.3	74.3	75.6	74.3	73.6	73.6
270.0	75.6	75.6	75.6	74.3	74.3	75.6	76.3	77.6
292.5	77.6	75.6	75.6	76.3	76.3	75.6	76.3	77.0
315.0	77.0	77.6	77.6	77.6	77.6	76.3	76.3	77.0
337.5	77.0	76.3	76.3	77.6	77.0	76.3	76.3	76.3

Depth: 970 Tilt: 0 Range: 159.9 VOS: 5959

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	74.9	74.2	74.2	73.6	73.6	72.2	69.5	70.2
22.5	70.2	72.2	73.6	74.2	74.9	76.3	76.3	77.6
45.0	77.6	77.6	77.6	77.6	77.6	77.6	78.3	79.0
67.5	79.0	78.3	79.6	80.3	80.3	80.3	80.3	79.6
90.0	79.6	80.3	79.6	81.0	81.0	80.3	81.0	81.7
112.5	83.0	83.0	82.3	82.3	82.3	84.4	81.0	82.3
135.0	82.3	83.0	83.7	83.7	83.7	84.4	82.3	82.3
157.5	80.3	80.3	78.3	76.9	77.6	76.9	77.6	78.3
180.0	78.3	78.3	78.3	77.6	78.3	79.0	78.3	77.6
202.5	77.6	76.9	75.6	76.9	76.3	76.9	76.9	76.9
225.0	76.3	75.6	74.9	75.6	74.9	75.6	76.3	76.9
247.5	76.3	77.6	76.3	75.6	75.6	75.6	76.3	75.6
270.0	75.6	76.3	76.3	76.3	76.9	76.9	76.9	77.6
292.5	77.6	77.6	77.6	78.3	79.0	79.0	78.3	79.0
315.0	78.3	78.3	77.6	77.6	76.9	77.6	77.6	77.6
337.5	76.9	76.9	76.3	76.3	75.6	75.6	75.6	74.9

Depth: 972 Tilt: 0 Range: 160.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	76.9	76.9	76.9	77.6	77.6	76.9	76.9	77.6
22.5	77.6	77.6	77.6	77.6	77.6	78.3	78.3	77.6
45.0	76.9	78.3	80.3	80.3	78.3	77.6	76.3	79.0
67.5	79.0	79.0	80.3	79.0	79.6	79.0	79.6	79.6
90.0	80.3	80.3	81.0	81.0	81.7	82.3	83.0	83.0
112.5	83.0	82.3	81.7	81.7	82.3	82.3	83.0	82.3
135.0	81.7	80.3	80.3	79.6	80.3	79.6	79.0	78.3
157.5	76.9	76.9	77.6	77.6	76.9	76.9	77.6	78.3
180.0	76.3	77.6	77.6	77.6	78.3	77.6	77.6	76.9
202.5	76.9	76.3	76.3	76.9	76.9	75.6	75.6	76.3
225.0	76.3	75.6	75.6	75.6	75.6	76.3	76.9	76.3
247.5	76.9	76.3	76.3	76.9	75.6	75.6	76.3	76.3
270.0	76.3	76.9	76.9	76.9	77.6	76.9	77.6	78.3
292.5	77.6	77.6	77.6	77.6	76.9	76.9	76.3	74.9
315.0	75.6	75.6	75.6	75.6	74.9	75.6	74.9	75.6
337.5	75.6	75.6	75.6	75.6	75.6	75.6	76.3	76.3

Depth: 974 Tilt: 0 Range: 160.0 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	75.6	75.6	74.9	74.2	74.2	74.2	74.2	73.6
22.5	73.6	72.9	72.9	73.6	74.2	74.9	74.9	75.6
45.0	75.6	75.6	75.6	76.9	78.3	79.6	81.0	81.0
67.5	81.0	80.3	79.6	79.6	78.3	77.6	78.3	77.6
90.0	76.9	76.9	76.9	76.9	76.9	76.9	79.0	78.3
112.5	78.3	79.0	79.0	79.0	79.6	80.3	81.0	81.7
135.0	79.6	80.3	79.6	79.6	79.6	80.3	79.0	81.7
157.5	80.3	81.0	79.6	79.6	79.0	78.3	78.3	77.6
180.0	77.6	76.3	74.9	76.3	76.9	75.6	75.6	74.9
202.5	74.9	76.3	75.6	75.6	76.3	75.6	76.3	76.3
225.0	76.3	76.3	76.3	75.6	76.3	75.6	76.3	76.3
247.5	74.9	75.6	74.9	74.9	74.2	74.2	74.9	74.2
270.0	74.2	73.6	72.9	75.6	74.9	74.9	74.9	75.6
292.5	76.3	76.9	76.9	77.6	77.6	77.6	78.3	79.6
315.0	79.6	80.3	81.0	81.0	81.0	79.6	78.3	78.3
337.5	78.3	77.6	77.6	76.9	76.9	76.3	76.3	75.6

Depth: 976 Tilt: 0 Range: 159.9 VOS: 5960

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	74.9	74.9	74.2	72.9	72.2	72.9	73.6	73.6
22.5	70.2	70.9	71.5	71.5	71.5	71.5	72.2	72.2
45.0	72.2	70.9	70.2	72.2	72.2	72.9	72.9	73.6
67.5	73.6	72.2	74.9	74.2	74.2	74.2	74.9	74.9
90.0	73.6	72.9	74.2	75.6	75.6	76.9	74.9	76.9
112.5	77.6	77.6	77.6	78.3	78.3	79.6	78.9	77.6
135.0	77.6	76.9	78.9	78.3	76.9	76.3	76.3	76.3
157.5	76.9	76.3	76.3	76.3	75.6	75.6	75.6	75.6
180.0	75.6	74.2	74.9	74.2	74.9	75.6	75.6	75.6
202.5	74.9	75.6	75.6	74.9	75.6	74.9	74.9	74.9
225.0	74.9	76.3	74.9	74.2	73.6	72.9	72.9	73.6
247.5	74.2	73.6	72.9	72.2	73.6	72.9	72.2	71.5
270.0	72.2	72.2	72.9	73.6	74.9	74.2	74.9	74.9
292.5	76.3	76.3	76.3	76.9	76.9	77.6	77.6	78.3
315.0	78.3	78.3	77.6	77.6	76.9	76.3	76.3	76.3
337.5	75.6	75.6	74.9	74.9	74.2	76.3	76.3	75.6

Depth: 978 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	75.6	74.3	74.3	73.6	74.3	73.6	72.9	73.6
22.5	72.9	72.2	72.2	72.9	73.6	72.2	71.6	71.6
45.0	72.2	72.9	72.9	71.6	70.9	69.5	70.2	69.5
67.5	70.2	72.2	71.6	71.6	72.2	72.2	73.6	74.3
90.0	74.3	75.6	76.3	77.0	77.0	78.3	77.6	78.3
112.5	76.3	76.3	76.3	78.3	77.6	78.3	78.3	77.0
135.0	76.3	75.6	75.6	76.3	75.6	74.9	74.3	75.6
157.5	76.3	74.9	74.9	74.9	74.9	75.6	74.9	74.3
180.0	73.6	72.9	71.6	70.2	70.9	70.9	71.6	71.6
202.5	72.2	72.2	71.6	72.2	72.9	73.6	73.6	73.6
225.0	70.2	69.5	69.5	68.9	70.2	70.9	71.6	71.6
247.5	72.9	74.3	74.9	75.6	74.3	74.9	73.6	74.3
270.0	73.6	73.6	74.3	74.3	74.9	75.6	76.3	76.3
292.5	75.6	77.6	77.0	76.3	75.6	75.6	75.6	76.3
315.0	75.6	76.3	75.6	75.6	75.6	74.9	74.9	74.9
337.5	74.9	74.9	74.9	75.6	75.6	75.6	74.3	75.6

Depth: 980 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	74.9	74.9	74.9	75.6	73.6	74.3	72.2	72.9
22.5	72.9	73.6	72.2	72.9	72.2	71.6	71.6	70.2
45.0	70.2	70.9	70.9	70.9	70.2	69.5	68.9	68.2
67.5	68.9	68.9	69.5	68.9	68.2	68.9	69.5	70.9
90.0	71.6	72.9	73.6	73.6	73.6	73.6	74.9	74.9
112.5	74.9	74.9	75.6	76.3	77.6	77.6	77.0	76.3
135.0	77.0	77.0	76.3	76.3	77.0	76.3	76.3	77.0
157.5	76.3	77.0	76.3	76.3	76.3	76.3	77.0	77.0
180.0	77.0	76.3	75.6	72.9	72.2	72.9	73.6	72.2
202.5	72.2	68.9	68.9	70.2	70.2	70.9	70.9	70.2
225.0	70.9	70.9	71.6	71.6	69.5	68.2	68.9	68.9
247.5	70.2	70.9	70.9	70.9	70.2	70.9	70.9	70.9
270.0	70.9	70.2	70.9	72.2	72.9	72.9	72.9	72.9
292.5	73.6	74.3	74.9	74.3	74.3	74.9	75.6	75.6
315.0	74.3	74.3	74.3	74.9	75.6	74.3	74.9	74.9
337.5	74.9	74.9	74.9	74.9	75.6	75.6	75.6	74.9

Depth: 982 Tilt: 0 Range: 160.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	70.9	70.9	68.9	68.9	67.5	66.2	65.5	66.2
22.5	67.5	67.5	66.8	66.2	65.5	64.8	63.5	64.1
45.0	64.8	66.2	68.2	68.9	68.9	69.5	70.9	72.2
67.5	72.2	72.2	72.9	73.6	74.3	74.9	74.9	74.9
90.0	75.6	75.6	74.9	75.6	74.9	74.9	74.9	75.6
112.5	75.6	74.9	75.6	76.3	75.6	76.3	77.6	79.0
135.0	77.0	77.6	77.6	78.3	79.0	82.4	82.4	83.0
157.5	83.7	84.4	83.7	82.4	83.0	71.6	69.5	69.5
180.0	70.2	70.2	70.2	70.9	71.6	71.6	72.2	71.6
202.5	70.9	70.2	69.5	68.9	69.5	69.5	70.9	69.5
225.0	68.9	69.5	69.5	69.5	69.5	69.5	70.2	68.9
247.5	70.2	70.2	70.9	71.6	72.2	71.6	72.2	72.2
270.0	72.9	73.6	73.6	74.3	73.6	74.3	74.3	75.6
292.5	76.3	75.6	74.9	74.3	74.9	74.9	74.9	74.3
315.0	74.9	74.9	74.3	75.6	76.3	75.6	75.6	75.6
337.5	75.6	74.9	74.9	74.9	74.9	72.9	73.6	72.2

Depth: 984 Tilt: 0 Range: 160.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	63.5	62.8	64.1	63.5	64.1	62.8	62.8	61.4
22.5	62.1	62.8	62.8	62.8	64.8	66.2	66.8	67.5
45.0	68.2	67.5	69.5	70.2	70.2	71.6	71.6	72.9
67.5	72.9	74.3	72.9	73.6	74.3	74.9	74.9	74.3
90.0	74.3	74.3	72.9	74.3	74.9	74.3	74.3	74.3
112.5	75.6	75.6	76.3	77.0	77.6	79.0	79.7	81.0
135.0	81.0	82.4	83.7	84.4	84.4	83.7	84.4	84.4
157.5	84.4	83.7	83.0	81.7	81.7	80.3	79.7	77.6
180.0	74.9	74.3	74.3	74.3	73.6	72.2	71.6	70.2
202.5	70.9	69.5	68.9	68.9	68.9	68.9	68.2	68.2
225.0	68.9	68.9	70.2	70.2	70.9	70.9	71.6	71.6
247.5	72.2	70.9	70.2	70.9	71.6	70.9	71.6	72.2
270.0	72.9	74.9	75.6	75.6	75.6	74.3	74.3	74.9
292.5	75.6	76.3	76.3	75.6	75.6	75.6	78.3	77.6
315.0	78.3	81.0	79.0	77.0	75.6	74.9	74.9	73.6
337.5	72.9	70.9	70.2	69.5	68.9	68.2	66.8	63.5

Depth: 986 Tilt: 0 Range: 160.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	62.1	62.1	62.1	61.4	60.1	61.4	61.4	62.1
22.5	62.1	62.8	62.8	62.8	64.8	66.8	67.5	68.2
45.0	68.8	69.5	71.5	72.2	71.5	72.9	72.9	73.6
67.5	73.6	74.2	74.2	73.6	72.9	72.9	72.2	72.9
90.0	72.2	72.9	73.6	73.6	74.2	72.9	73.6	72.9
112.5	73.6	74.9	74.9	75.6	76.3	79.6	81.7	81.7
135.0	81.7	83.0	83.0	84.4	85.7	85.0	85.0	85.0
157.5	85.0	84.4	83.0	82.3	81.7	81.0	78.3	75.6
180.0	74.9	73.6	70.9	70.9	70.9	70.9	70.9	70.2
202.5	68.8	68.8	68.2	68.2	67.5	67.5	67.5	67.5
225.0	67.5	68.2	68.8	68.8	69.5	69.5	69.5	68.8
247.5	68.2	68.8	68.8	69.5	69.5	68.8	70.2	70.9
270.0	71.5	72.9	73.6	74.9	74.9	74.9	75.6	75.6
292.5	75.6	75.6	76.3	75.6	78.3	79.0	78.3	78.3
315.0	75.6	74.9	74.9	73.6	72.9	71.5	70.2	67.5
337.5	66.8	66.8	67.5	67.5	66.1	64.8	62.1	61.4

Depth: 988 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	62.1	60.8	60.1	58.7	58.7	57.4	56.7	56.7
22.5	56.0	56.7	58.1	58.7	59.4	60.1	60.8	62.8
45.0	62.8	64.1	65.5	67.5	70.2	69.5	70.2	69.5
67.5	70.9	70.9	70.2	70.2	70.2	70.2	70.9	70.2
90.0	71.6	71.6	70.9	70.2	70.2	70.2	70.9	70.9
112.5	71.6	72.2	72.9	74.3	74.3	74.3	75.6	79.7
135.0	81.7	81.0	81.7	83.7	83.7	83.7	84.4	85.1
157.5	83.7	83.0	83.0	83.0	82.4	83.0	83.0	80.3
180.0	77.6	74.9	72.9	71.6	70.9	70.2	70.2	70.9
202.5	70.9	70.9	70.2	70.2	69.5	68.2	66.8	66.8
225.0	66.8	66.8	66.2	66.8	66.8	67.5	67.5	68.2
247.5	68.2	68.2	68.2	68.2	68.9	68.2	68.2	68.2
270.0	68.9	70.9	72.9	74.9	74.9	75.6	76.3	78.3
292.5	81.7	81.7	81.7	82.4	82.4	81.7	82.4	82.4
315.0	81.7	79.7	78.3	76.3	72.9	72.2	72.2	71.6
337.5	70.9	68.9	67.5	66.2	65.5	64.1	64.1	63.5

Depth: 990 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	82.4	81.7	80.3	79.7	79.0	78.3	77.6	76.3
22.5	75.6	74.3	72.2	69.5	68.9	68.9	68.2	67.5
45.0	67.5	66.8	66.8	67.5	67.5	68.2	68.2	68.2
67.5	68.2	68.9	68.9	68.9	67.5	66.2	66.2	65.5
90.0	66.2	64.1	64.1	64.8	68.2	69.5	70.9	74.9
112.5	77.6	79.0	79.7	83.7	85.7	86.4	87.1	86.4
135.0	86.4	85.1	82.4	81.0	81.0	78.3	76.3	76.3
157.5	74.3	72.9	71.6	69.5	68.9	66.8	66.2	64.8
180.0	63.5	61.4	60.1	60.1	59.4	58.7	57.4	56.0
202.5	56.0	56.0	55.4	54.7	54.0	54.7	54.7	55.4
225.0	55.4	56.0	56.0	56.7	58.1	60.1	61.4	63.5
247.5	65.5	68.2	69.5	69.5	70.2	70.2	70.2	69.5
270.0	70.2	70.2	68.9	68.9	68.9	68.2	67.5	67.5
292.5	68.9	67.5	68.9	68.9	68.9	70.2	70.9	72.2
315.0	72.9	72.9	73.6	74.9	77.0	80.3	81.0	81.0
337.5	81.0	81.7	82.4	83.0	83.7	84.4	83.0	83.0

Depth: 992 Tilt: 0 Range: 160.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	82.4	82.4	81.7	82.4	81.0	80.3	79.7	78.3
22.5	74.9	74.3	71.6	70.9	68.9	67.5	68.2	67.5
45.0	68.2	68.2	68.2	68.2	68.9	70.2	69.5	69.5
67.5	70.2	70.2	71.6	72.9	72.9	74.3	75.6	77.6
90.0	78.3	79.7	80.3	81.7	82.4	82.4	83.0	83.0
112.5	82.4	81.7	82.4	83.0	83.7	83.7	81.0	81.7
135.0	81.0	77.6	78.3	77.6	76.3	74.3	72.9	71.6
157.5	69.5	69.5	68.9	66.8	64.1	62.8	60.8	60.8
180.0	60.1	59.4	58.1	56.7	56.0	54.7	53.3	52.7
202.5	52.7	53.3	52.7	51.3	51.3	51.3	51.3	51.3
225.0	52.0	52.7	53.3	56.0	56.7	56.7	58.1	60.8
247.5	63.5	66.2	66.2	66.8	66.8	67.5	66.2	66.8
270.0	67.5	68.2	67.5	67.5	66.8	66.2	66.2	66.2
292.5	66.8	67.5	67.5	68.2	68.2	68.9	68.9	70.2
315.0	70.2	70.9	70.9	72.9	74.3	74.9	75.6	76.3
337.5	77.6	77.6	77.6	79.0	79.7	79.7	80.3	81.0

Depth: 994 Tilt: 0 Range: 160.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	78.3	79.7	79.7	81.0	81.7	81.7	80.3	80.3
22.5	79.7	79.0	79.0	78.3	77.6	77.6	77.0	75.6
45.0	72.2	70.9	70.9	71.6	71.6	72.2	72.2	72.9
67.5	72.9	72.9	72.9	72.2	72.2	72.9	73.6	73.6
90.0	74.3	74.9	76.3	76.3	77.0	78.3	79.7	79.7
112.5	79.0	79.0	79.7	81.0	82.4	84.4	82.4	82.4
135.0	81.0	81.7	82.4	82.4	80.3	79.0	77.0	72.9
157.5	72.2	71.6	71.6	70.2	69.5	68.9	68.9	66.8
180.0	63.5	63.5	62.1	60.8	58.7	57.4	55.4	54.0
202.5	53.3	50.6	50.0	50.0	48.6	48.6	47.9	47.9
225.0	47.9	48.6	48.6	47.9	48.6	50.6	52.0	52.7
247.5	53.3	54.0	57.4	62.8	63.5	64.1	64.1	64.8
270.0	65.5	64.8	64.8	64.8	65.5	66.2	66.2	65.5
292.5	64.8	64.8	64.8	66.2	66.8	66.2	66.8	66.8
315.0	66.2	66.8	67.5	67.5	67.5	68.9	72.9	72.9
337.5	73.6	74.9	76.3	77.0	77.0	78.3	79.0	80.3

Depth: 996 Tilt: 0 Range: 160.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	79.7	79.0	78.3	77.6	77.6	79.0	78.3	79.7
22.5	79.7	79.7	79.7	79.7	77.0	75.6	74.3	70.9
45.0	66.2	65.5	66.2	66.8	68.2	68.2	68.2	69.5
67.5	70.2	68.9	68.9	69.5	68.9	68.9	70.2	69.5
90.0	70.2	70.9	72.2	75.6	74.9	76.3	76.3	77.0
112.5	77.0	77.6	76.3	77.0	76.3	76.3	74.9	74.3
135.0	73.6	73.6	72.9	71.6	70.9	70.2	69.5	68.9
157.5	67.5	66.8	66.8	66.2	65.5	64.1	64.1	64.1
180.0	63.5	59.4	58.1	57.4	57.4	57.4	55.4	53.3
202.5	50.6	50.0	49.3	47.9	47.3	46.6	45.2	45.9
225.0	45.9	45.9	45.2	45.2	45.9	47.3	48.6	52.0
247.5	54.0	54.7	57.4	58.1	60.1	61.4	62.1	64.1
270.0	63.5	64.1	63.5	64.1	64.1	64.1	65.5	63.5
292.5	63.5	63.5	65.5	65.5	65.5	65.5	65.5	66.2
315.0	66.2	66.2	67.5	70.2	70.2	70.9	71.6	72.2
337.5	73.6	73.6	74.3	73.6	74.9	76.3	76.3	79.0

Depth: 998 Tilt: 0 Range: 160.0 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	77.0	76.3	76.3	77.0	78.3	77.0	78.3	78.3
22.5	79.7	79.0	79.0	78.3	77.6	74.3	71.6	72.2
45.0	72.9	70.9	69.5	70.2	68.9	68.2	67.5	68.9
67.5	68.2	68.2	67.5	68.2	68.9	67.5	68.9	70.9
90.0	71.6	72.2	73.6	74.3	77.0	77.6	77.6	79.0
112.5	80.3	79.0	79.7	80.3	77.6	77.6	77.6	77.0
135.0	75.6	76.3	74.3	72.2	70.9	70.9	69.5	66.2
157.5	66.8	64.1	64.8	64.1	61.4	59.4	56.7	58.1
180.0	56.7	57.4	54.7	54.0	52.0	50.6	49.3	46.6
202.5	45.2	44.6	44.6	44.6	43.9	43.9	43.2	43.2
225.0	43.2	43.2	43.2	43.2	43.9	44.6	45.2	49.3
247.5	54.7	56.0	57.4	58.7	60.8	62.8	64.1	63.5
270.0	63.5	63.5	64.1	64.1	64.1	63.5	62.8	62.1
292.5	62.1	62.1	63.5	64.1	62.8	63.5	62.8	63.5
315.0	64.1	64.1	63.5	63.5	67.5	68.9	69.5	70.2
337.5	72.2	73.6	74.3	74.3	74.9	74.9	76.3	76.3

Depth: 1000 Tilt: 0 Range: 160.1 VOS: 5961

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	74.3	75.0	74.3	75.7	75.7	76.3	76.3	77.7
22.5	78.4	78.4	79.1	79.1	78.4	77.7	77.7	77.0
45.0	75.7	75.0	70.9	68.2	68.2	68.9	68.2	66.9
67.5	66.2	64.9	64.2	64.2	65.5	66.2	66.9	66.2
90.0	67.6	69.6	72.3	73.0	74.3	75.0	75.7	77.0
112.5	75.7	77.0	76.3	76.3	75.7	75.7	75.7	75.7
135.0	73.6	73.0	74.3	73.6	71.6	69.6	67.6	66.2
157.5	64.9	63.5	59.5	59.5	56.1	52.7	54.7	54.1
180.0	54.1	53.4	52.7	49.3	46.6	45.3	44.6	43.2
202.5	43.9	43.2	43.9	41.9	42.6	41.2	41.2	41.9
225.0	42.6	42.6	41.9	41.9	41.2	43.2	45.3	47.3
247.5	51.3	52.7	55.4	56.8	57.4	58.8	60.8	62.2
270.0	62.8	62.2	62.8	62.2	62.8	62.2	62.2	62.2
292.5	60.8	60.8	60.8	61.5	61.5	62.8	64.2	64.2
315.0	64.9	64.9	65.5	66.2	67.6	68.9	70.3	70.9
337.5	71.6	70.9	72.3	73.0	73.6	73.0	73.6	74.3

Depth: 1002 Tilt: 0 Range: 160.0 VOS: 5956

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	72.9	74.9	74.9	75.6	75.6	75.6	77.0	77.0
22.5	77.0	78.3	79.0	78.3	78.3	77.0	77.0	77.0
45.0	74.9	73.6	74.3	70.9	70.9	68.2	66.8	66.2
67.5	63.5	62.1	63.5	64.8	64.1	64.8	67.5	66.8
90.0	67.5	69.5	70.2	71.6	72.9	72.2	74.9	75.6
112.5	77.0	77.6	76.3	74.3	73.6	72.2	72.9	72.2
135.0	70.9	72.2	70.9	68.9	66.8	63.5	63.5	62.1
157.5	61.4	58.1	56.0	52.7	52.0	50.6	49.3	49.3
180.0	48.6	47.9	46.6	45.2	43.9	41.2	41.2	42.5
202.5	41.9	41.2	41.2	39.8	39.2	38.5	37.8	37.8
225.0	40.5	41.2	39.8	40.5	40.5	41.2	43.9	46.6
247.5	47.9	51.3	53.3	55.4	56.7	58.1	59.4	60.1
270.0	60.8	61.4	62.1	62.1	61.4	61.4	60.8	59.4
292.5	58.7	60.1	60.1	60.1	60.8	60.1	60.1	61.4
315.0	61.4	62.8	64.1	64.8	65.5	66.2	65.5	67.5
337.5	67.5	67.5	70.2	71.6	72.2	72.2	72.2	72.2

Depth: 1004 Tilt: 0 Range: 160.0 VOS: 5956

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	70.2	70.9	71.6	71.6	72.2	74.9	74.9	75.6
22.5	77.0	75.6	75.6	76.3	77.0	76.3	74.9	74.3
45.0	72.9	73.6	71.6	69.5	68.2	65.5	63.5	62.8
67.5	62.1	60.8	61.4	62.1	63.5	64.8	65.5	67.5
90.0	66.8	68.9	69.5	70.2	70.2	71.6	72.2	72.9
112.5	74.3	74.3	72.9	72.2	70.9	72.2	69.5	67.5
135.0	68.2	66.8	64.1	62.8	60.1	60.1	58.7	56.7
157.5	55.4	55.4	50.0	48.6	47.9	48.6	48.6	47.3
180.0	45.9	44.6	43.2	40.5	39.2	39.2	37.8	35.1
202.5	35.8	36.5	36.5	36.5	36.5	36.5	35.8	35.8
225.0	35.8	37.1	39.2	39.8	41.2	43.9	47.9	50.6
247.5	52.7	54.0	55.4	56.7	61.4	62.8	62.8	61.4
270.0	61.4	61.4	60.8	60.1	59.4	58.7	58.7	58.7
292.5	58.7	58.1	58.1	59.4	59.4	59.4	59.4	59.4
315.0	61.4	63.5	64.1	62.1	63.5	63.5	63.5	65.5
337.5	66.2	66.2	68.2	70.2	69.5	70.2	68.9	69.5

Depth: 1006 Tilt: 0 Range: 159.9 VOS: 5956

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	69.5	68.1	68.1	67.5	65.4	64.8	63.4	60.7
22.5	59.4	56.7	56.0	56.0	54.7	52.0	48.6	47.2
45.0	45.9	44.5	44.5	45.2	43.9	43.2	41.8	39.8
67.5	37.8	35.1	33.7	33.1	33.1	33.7	34.4	34.4
90.0	33.7	34.4	34.4	33.7	35.1	35.8	39.8	54.7
112.5	56.7	59.4	74.9	77.6	78.9	79.6	80.3	82.3
135.0	83.0	85.7	88.4	89.1	90.4	88.4	88.4	86.4
157.5	86.4	83.7	81.6	56.7	56.7	56.0	57.3	58.0
180.0	58.7	58.7	57.3	58.0	60.0	60.0	59.4	58.7
202.5	58.0	61.4	63.4	65.4	64.8	64.8	65.4	66.8
225.0	66.8	67.5	67.5	68.8	70.2	67.5	68.8	69.5
247.5	70.2	72.9	73.5	74.2	75.6	75.6	75.6	76.2
270.0	76.2	74.9	74.2	74.9	71.5	70.8	70.2	67.5
292.5	66.1	66.8	63.4	59.4	58.7	60.0	59.4	61.4
315.0	60.7	60.0	63.4	62.7	64.8	66.8	68.8	69.5
337.5	70.2	69.5	70.8	71.5	72.2	71.5	68.8	70.2

Depth: 1008 Tilt: 0 Range: 160.0 VOS: 5958

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	66.1	63.4	58.7	58.0	58.0	58.0	55.3	54.0
22.5	51.3	49.9	47.2	45.9	43.9	43.9	44.5	43.2
45.0	41.8	41.2	40.5	37.8	35.8	33.7	33.1	33.7
67.5	32.4	31.0	31.0	31.0	31.0	31.7	32.4	32.4
90.0	32.4	32.4	31.0	31.7	32.4	32.4	54.7	56.0
112.5	56.7	58.0	60.7	77.6	77.6	79.0	82.3	84.4
135.0	83.7	84.4	87.7	87.1	87.1	85.0	83.7	82.3
157.5	82.3	84.4	83.7	85.0	85.7	85.7	85.7	84.4
180.0	82.3	67.5	58.7	59.4	60.1	61.4	60.7	58.0
202.5	60.1	62.8	64.8	64.1	62.8	64.8	64.8	64.8
225.0	65.5	65.5	65.5	66.1	67.5	67.5	69.5	71.5
247.5	72.9	74.2	72.9	72.9	72.9	72.9	72.9	73.6
270.0	73.6	72.9	73.6	70.9	66.8	65.5	64.8	64.1
292.5	62.8	60.1	58.7	59.4	59.4	60.7	62.8	63.4
315.0	65.5	66.1	66.8	67.5	66.1	67.5	68.2	68.2
337.5	70.9	70.9	69.5	68.8	68.8	69.5	66.8	66.1

Depth: 1010 Tilt: 0 Range: 160.0 VOS: 5958

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	60.1	60.1	60.1	55.3	53.3	52.0	49.9	48.6
22.5	47.2	45.2	42.5	41.8	41.8	41.2	40.5	39.8
45.0	38.5	37.8	35.8	35.1	33.7	32.4	32.4	31.7
67.5	29.7	29.7	29.7	29.0	29.0	28.3	29.0	29.0
90.0	29.7	29.7	29.7	30.4	30.4	31.7	33.7	56.7
112.5	57.4	60.7	74.2	76.9	79.0	81.0	81.0	82.3
135.0	83.0	83.7	81.7	81.7	81.0	81.0	79.6	79.6
157.5	80.3	81.7	83.7	83.7	83.7	82.3	78.3	78.3
180.0	75.6	74.9	72.9	69.5	66.8	64.8	60.7	61.4
202.5	62.1	62.1	64.1	63.4	61.4	60.7	62.1	65.5
225.0	66.1	66.1	66.1	66.8	68.2	68.8	70.9	72.2
247.5	72.2	72.9	71.5	71.5	72.2	73.6	72.9	70.9
270.0	70.9	68.2	67.5	66.1	64.8	62.8	58.0	55.3
292.5	54.7	55.3	54.0	54.0	54.0	54.0	55.3	57.4
315.0	59.4	62.8	64.1	64.8	66.1	66.8	66.1	66.1
337.5	66.1	66.8	66.8	66.1	65.5	65.5	64.1	62.8

Depth: 1012 Tilt: 0 Range: 160.0 VOS: 5958

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	57.4	56.0	53.3	52.0	51.3	48.6	47.2	46.6
22.5	45.2	42.5	41.2	39.1	39.1	38.5	36.4	35.8
45.0	35.8	33.7	33.1	32.4	30.4	29.0	29.0	28.3
67.5	27.7	27.7	27.0	25.6	26.3	25.6	26.3	26.3
90.0	26.3	26.3	27.7	29.0	29.0	30.4	31.7	35.8
112.5	68.8	72.9	72.9	74.9	76.3	79.0	81.0	81.7
135.0	82.3	81.7	81.7	81.7	82.3	81.0	79.6	79.6
157.5	79.6	80.3	79.6	81.0	79.0	77.6	74.9	72.9
180.0	72.2	72.2	70.9	70.2	68.2	66.1	66.1	64.8
202.5	64.1	63.4	61.4	60.1	60.1	60.1	62.1	64.8
225.0	64.8	64.8	66.1	69.5	70.2	71.5	72.2	72.9
247.5	72.9	72.9	72.9	73.6	72.9	73.6	72.2	71.5
270.0	70.2	68.8	68.8	69.5	68.2	66.8	65.5	65.5
292.5	66.8	64.1	56.0	54.0	54.0	54.0	55.3	56.0
315.0	58.7	60.1	62.8	64.1	64.8	66.1	66.1	65.5
337.5	65.5	64.1	62.8	62.1	62.1	60.1	60.1	60.1

Depth: 1014 Tilt: 0 Range: 159.9 VOS: 5958

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	51.3	51.3	49.9	49.2	46.5	45.2	43.2	42.5
22.5	40.5	40.5	39.8	37.1	36.4	34.4	33.7	32.4
45.0	31.7	31.7	30.4	29.0	27.7	27.7	27.0	27.0
67.5	26.3	25.0	24.3	22.3	22.3	21.6	22.3	22.3
90.0	22.9	24.3	25.6	25.0	26.3	26.3	27.0	27.7
112.5	62.7	70.2	72.2	74.9	76.2	76.2	76.2	76.2
135.0	76.2	76.2	76.9	77.6	76.9	76.2	76.2	76.2
157.5	76.2	74.9	74.9	74.2	73.5	72.2	70.8	68.1
180.0	65.4	63.4	63.4	62.7	60.0	58.7	58.7	56.7
202.5	56.7	56.7	56.0	56.0	56.0	56.7	58.7	60.0
225.0	63.4	78.9	78.2	76.9	76.2	76.9	77.6	78.2
247.5	78.9	78.2	77.6	76.9	76.2	75.6	73.5	70.8
270.0	70.2	70.2	69.5	68.1	64.8	56.0	54.6	54.6
292.5	54.6	54.6	54.0	52.6	51.9	52.6	51.9	54.0
315.0	54.6	58.0	62.7	63.4	64.1	63.4	64.8	64.1
337.5	63.4	62.7	61.4	59.4	54.0	53.3	51.9	51.3

Depth: 1016 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	52.7	52.0	50.6	47.9	45.2	43.2	39.8	38.5
22.5	37.1	35.8	35.1	32.4	32.4	31.7	30.4	31.1
45.0	29.7	28.4	29.0	26.3	26.3	26.3	25.7	25.0
67.5	24.3	23.6	21.6	20.9	21.6	20.3	20.3	20.3
90.0	20.3	20.3	20.3	21.6	21.6	21.6	23.0	22.3
112.5	25.7	29.7	70.9	68.9	67.5	64.8	59.4	58.1
135.0	53.3	51.3	50.0	50.6	50.0	50.0	50.0	50.0
157.5	49.3	48.6	47.9	47.9	47.9	45.9	43.9	43.9
180.0	44.6	45.2	45.9	45.9	45.9	48.6	47.3	49.3
202.5	50.0	50.6	53.3	54.0	52.7	53.3	56.0	58.7
225.0	62.1	76.3	77.6	76.3	73.6	74.3	74.3	74.3
247.5	76.3	77.0	79.7	78.3	77.0	75.6	74.3	75.6
270.0	75.6	75.6	74.9	72.9	66.8	64.1	58.7	56.0
292.5	55.4	56.7	56.0	56.0	57.4	53.3	54.7	55.4
315.0	58.1	61.4	63.5	66.2	65.5	65.5	66.2	66.2
337.5	66.2	66.2	66.8	66.2	65.5	62.8	60.1	56.0

Depth: 1018 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	38.5	39.2	37.1	37.1	36.5	35.8	34.4	32.4
22.5	31.1	29.7	31.1	31.1	29.0	28.4	27.7	27.0
45.0	26.3	26.3	24.3	24.3	22.3	21.6	20.3	18.2
67.5	18.2	16.9	16.9	16.9	17.6	16.9	18.2	18.2
90.0	18.2	16.9	17.6	17.6	18.9	19.6	20.9	20.3
112.5	22.3	50.6	50.0	50.0	50.0	49.3	48.6	45.9
135.0	45.2	43.9	45.2	45.9	44.6	43.9	43.2	43.2
157.5	41.2	40.5	39.2	37.1	36.5	37.1	37.1	37.8
180.0	39.8	39.8	41.9	43.9	43.9	43.9	45.2	45.2
202.5	45.9	47.9	47.9	50.0	50.6	53.3	55.4	56.0
225.0	58.1	56.0	56.7	56.7	58.1	58.7	59.4	68.2
247.5	79.0	78.3	79.0	77.6	76.3	76.3	74.9	75.6
270.0	75.6	72.2	69.5	55.4	46.6	45.2	45.2	45.2
292.5	43.9	41.2	41.9	41.9	43.2	45.2	47.9	52.0
315.0	62.8	64.1	64.1	64.8	63.5	63.5	55.4	54.0
337.5	52.7	50.6	48.6	45.9	43.9	42.5	41.2	40.5

Depth: 1020 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	35.1	35.1	35.1	33.1	33.1	32.4	30.4	29.0
22.5	29.0	28.4	27.0	26.3	25.7	25.7	25.0	23.6
45.0	21.6	21.6	18.9	17.6	17.6	15.5	14.9	14.2
67.5	14.2	14.2	14.9	14.9	14.9	14.9	14.9	15.5
90.0	14.9	14.9	14.9	15.5	18.2	18.9	19.6	20.3
112.5	22.3	23.6	24.3	39.2	39.2	39.2	39.2	39.8
135.0	40.5	40.5	39.8	39.8	39.2	39.2	38.5	37.8
157.5	36.5	35.8	35.8	35.1	35.8	36.5	37.1	37.8
180.0	38.5	38.5	39.8	40.5	41.2	41.9	42.5	44.6
202.5	45.2	46.6	49.3	50.0	49.3	50.6	54.7	54.7
225.0	56.0	56.0	56.7	57.4	56.7	55.4	54.7	80.3
247.5	79.0	78.3	77.6	77.6	77.0	77.0	64.8	60.1
270.0	54.0	50.0	39.8	39.8	39.8	39.2	39.2	39.8
292.5	39.8	40.5	39.8	40.5	42.5	47.3	49.3	51.3
315.0	65.5	66.8	66.2	62.8	57.4	52.7	50.0	45.9
337.5	41.9	39.8	38.5	35.8	35.1	34.4	34.4	33.8

Depth: 1022 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	32.4	32.4	32.4	32.4	33.1	30.4	28.4	27.7
22.5	27.7	27.0	25.7	25.0	24.3	23.6	23.0	21.6
45.0	21.6	20.9	19.6	15.5	14.2	14.2	14.2	14.2
67.5	13.5	12.8	12.8	12.8	12.8	12.2	12.8	13.5
90.0	14.2	14.9	15.5	16.2	16.9	17.6	18.2	18.9
112.5	20.3	20.9	21.6	21.6	23.0	23.6	25.0	25.0
135.0	25.0	25.0	29.7	32.4	35.1	35.1	35.1	35.1
157.5	34.4	34.4	33.8	33.8	33.8	33.8	33.8	34.4
180.0	35.1	35.8	36.5	37.1	38.5	39.2	39.8	40.5
202.5	41.2	41.9	43.2	45.2	47.3	47.3	47.3	51.3
225.0	52.7	52.0	53.3	54.0	54.7	55.4	55.4	54.7
247.5	55.4	56.0	57.4	60.1	60.8	60.8	56.0	49.3
270.0	47.9	47.3	41.9	38.5	38.5	37.8	37.8	37.8
292.5	37.8	37.8	37.8	37.8	40.5	40.5	40.5	41.9
315.0	46.6	47.9	48.6	48.6	47.9	46.6	44.6	41.9
337.5	39.2	37.1	37.1	37.1	33.8	33.1	33.1	32.4

Depth: 1024 Tilt: 0 Range: 160.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	29.7	29.0	28.4	24.3	20.9	16.9	16.9	16.9
22.5	16.9	16.9	16.2	15.5	14.9	14.2	14.9	15.5
45.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	14.9
67.5	14.9	13.5	13.5	13.5	12.8	12.8	12.8	12.8
90.0	12.8	13.5	13.5	13.5	13.5	13.5	13.5	13.5
112.5	13.5	13.5	14.2	14.2	16.2	16.2	16.9	16.9
135.0	16.9	18.2	18.9	19.6	19.6	20.3	20.3	19.6
157.5	18.9	18.2	17.6	18.9	18.9	18.9	18.9	18.9
180.0	19.6	20.3	21.6	22.3	22.3	23.0	23.6	25.0
202.5	25.0	26.3	26.3	29.0	29.7	30.4	31.1	31.7
225.0	32.4	33.1	33.8	34.4	35.8	36.5	37.1	37.1
247.5	36.5	36.5	37.1	37.8	38.5	38.5	38.5	35.8
270.0	35.1	34.4	33.1	32.4	31.7	30.4	31.1	30.4
292.5	29.7	29.7	30.4	31.1	30.4	30.4	31.1	30.4
315.0	30.4	32.4	33.1	33.8	34.4	34.4	34.4	35.1
337.5	35.1	35.1	34.4	33.8	33.1	32.4	31.7	30.4

Depth: 1026 Tilt: 0 Range: 100.0 VOS: 5962

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
22.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
45.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
67.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.0
90.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2
112.5	5.5	6.3	6.3	5.5	5.9	5.9	5.5	5.5
135.0	5.5	5.5	5.5	5.1	5.5	5.1	5.5	5.5
157.5	5.5	5.1	5.1	5.5	5.5	4.6	4.6	4.6
180.0	5.1	5.5	4.2	4.2	4.6	4.6	4.6	4.6
202.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.2
225.0	4.2	4.2	4.2	4.2	4.2	4.2	3.8	3.8
247.5	3.8	3.8	3.8	3.8	3.8	3.4	3.4	3.4
270.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
292.5	3.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
315.0	2.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1
337.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.7

SONARWIRE

SONARWIRE

INC.

SONARWIRE, INC.
P.O. BOX 576
ABITA SPRINGS, LA 70420

(504) 893-9221

Survey conducted by: Sean McCool

FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
JANUARY 25, 1998
SONAR-THRU-PIPE SURVEY

P/N 607

Survey from 921 ft. to 1021 ft.
Sonar T.D. at 1021 ft.
9 5/8 inch cemented casing at 921 ft.
4 1/2 inch tubing at 1021 ft.
Zero sonar tool at B.H.F.
Site personnel: Mr. Dale Thompson

APR 1998
ARIZONA GEOLOGICAL SURVEY

SONARWIRE INC.
Depth versus Volume

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Sun, Jan 25, 1998

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
922	16.7	16.7	3.0	3.0
923	12.4	29.1	2.2	5.2
924	14.9	44.0	2.6	7.8
925	163.9	207.9	29.2	37.0
926	394.2	602.1	70.2	107.2
927	798.4	1400.5	142.2	249.4
928	1235.0	2635.5	220.0	469.4
929	1805.2	4440.7	321.5	790.9
930	2586.8	7027.5	460.7	1251.7
931	3716.1	10743.6	661.9	1913.5
932	3329.7	14073.4	593.1	2506.6
933	2968.6	17041.9	528.7	3035.3
934	2731.1	19773.0	486.4	3521.7
935	2509.1	22282.1	446.9	3968.6
936	1938.0	24220.1	345.2	4313.8
937	1456.0	25676.1	259.3	4573.1
938	1025.9	26702.0	182.7	4755.8
939	698.4	27400.4	124.4	4880.2
940	334.7	27735.0	59.6	4939.8
941	126.9	27861.9	22.6	4962.4
942	68.3	27930.3	12.2	4974.6
943	34.4	27964.6	6.1	4980.7
944	30.2	27994.8	5.4	4986.1
945	34.5	28029.2	6.1	4992.2
946	17.4	28046.6	3.1	4995.3
947	6.2	28052.8	1.1	4996.4
948	9.8	28062.6	1.7	4998.2
949	14746.2	42808.8	2626.4	7624.6
950	15661.7	58470.5	2789.5	10414.0
951	17098.6	75569.1	3045.4	13459.4
952	19148.2	94717.3	3410.4	16869.9
953	22540.5	117257.8	4014.6	20884.5
954	22477.4	139735.2	4003.4	24887.9
955	22427.8	162163.0	3994.6	28882.5
956	22064.3	184227.3	3929.8	32812.3
957	21726.3	205953.6	3869.6	36681.9
958	21517.6	227471.2	3832.4	40514.4
959	21311.0	248782.2	3795.6	44310.0
960	21088.1	269870.3	3756.0	48066.0
961	20869.5	290739.8	3717.0	51783.0
962	20707.4	311447.2	3688.1	55471.1
963	20555.5	332002.6	3661.1	59132.2
964	20378.3	352380.9	3629.5	62761.8
965	20210.3	372591.2	3599.6	66361.4
966	19521.9	392113.1	3477.0	69838.4
967	18857.7	410970.8	3358.7	73197.1

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Sun, Jan 25, 1998

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
968	18342.8	429313.6	3267.0	76464.1
969	17867.0	447180.6	3182.2	79646.3
970	17634.8	464815.5	3140.9	82787.2
971	17408.7	482224.2	3100.6	85887.8
972	17335.8	499560.0	3087.6	88975.5
973	17266.4	516826.4	3075.3	92050.8
974	17275.8	534102.2	3077.0	95127.7
975	17290.0	551392.2	3079.5	98207.2
976	17485.5	568877.7	3114.3	101321.5
977	17701.6	586579.3	3152.8	104474.3
978	17646.6	604225.9	3143.0	107617.3
979	17600.1	621826.0	3134.7	110752.0
980	17731.8	639557.9	3158.2	113910.2
981	17874.9	657432.7	3183.7	117093.8
982	17799.2	675231.9	3170.2	120264.0
983	17731.6	692963.5	3158.1	123422.1
984	17500.9	710464.4	3117.0	126539.2
985	17278.3	727742.7	3077.4	129616.6
986	16957.4	744700.2	3020.3	132636.8
987	16654.1	761354.3	2966.2	135603.1
988	16142.8	777497.1	2875.2	138478.2
989	15652.7	793149.7	2787.9	141266.1
990	15216.9	808366.6	2710.2	143976.3
991	14790.9	823157.5	2634.4	146610.7
992	14389.5	837547.0	2562.9	149173.6
993	13997.8	851544.8	2493.1	151666.7
994	13643.9	865188.8	2430.1	154096.8
995	13298.6	878487.4	2368.6	156465.4
996	12848.2	891335.6	2288.4	158753.7
997	12409.1	903744.8	2210.2	160963.9
998	12006.4	915751.2	2138.4	163102.3
999	11613.6	927364.8	2068.5	165170.8
1000	11342.7	938707.5	2020.2	167191.0
1001	11079.1	949786.6	1973.3	169164.3
1002	10812.4	960599.0	1925.8	171090.1
1003	10568.5	971167.5	1882.3	172972.4
1004	10386.3	981553.8	1849.9	174822.3
1005	10239.1	991792.9	1823.7	176646.0
1006	9919.7	1001712.6	1766.8	178412.7
1007	10043.4	1011756.0	1788.8	180201.6
1008	9727.0	1021483.0	1732.4	181934.0
1009	9458.5	1030941.6	1684.6	183618.6
1010	8766.5	1039708.0	1561.4	185180.0
1011	8185.9	1047894.0	1458.0	186638.0
1012	6742.6	1054636.6	1200.9	187838.9
1013	5681.9	1060318.5	1012.0	188850.9
1014	4390.8	1064709.3	782.0	189632.9
1015	3464.8	1068174.1	617.1	190250.0

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Sun, Jan 25, 1998

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1016	3409.9	1071584.0	607.3	190857.4
1017	3405.1	1074989.1	606.5	191463.9
1018	991.0	1075980.1	176.5	191640.4
1019	26.1	1076006.3	4.7	191645.0
1020	13.8	1076020.0	2.5	191647.5
1021	7.0	1076027.0	1.2	191648.7

SONARWIRE INC.
Max Radius & Depth vs Bearing

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Sun, Jan 25, 1998

This table lists the maximum radius (in feet) found at each of the 128 bearings at which soundings were taken. Also listed after each radius, (separated by ':'), is the depth (in feet) at which that maximum radius was found. Bearings are shown, (in degrees), for each row of four 'radius : depth' pairs.

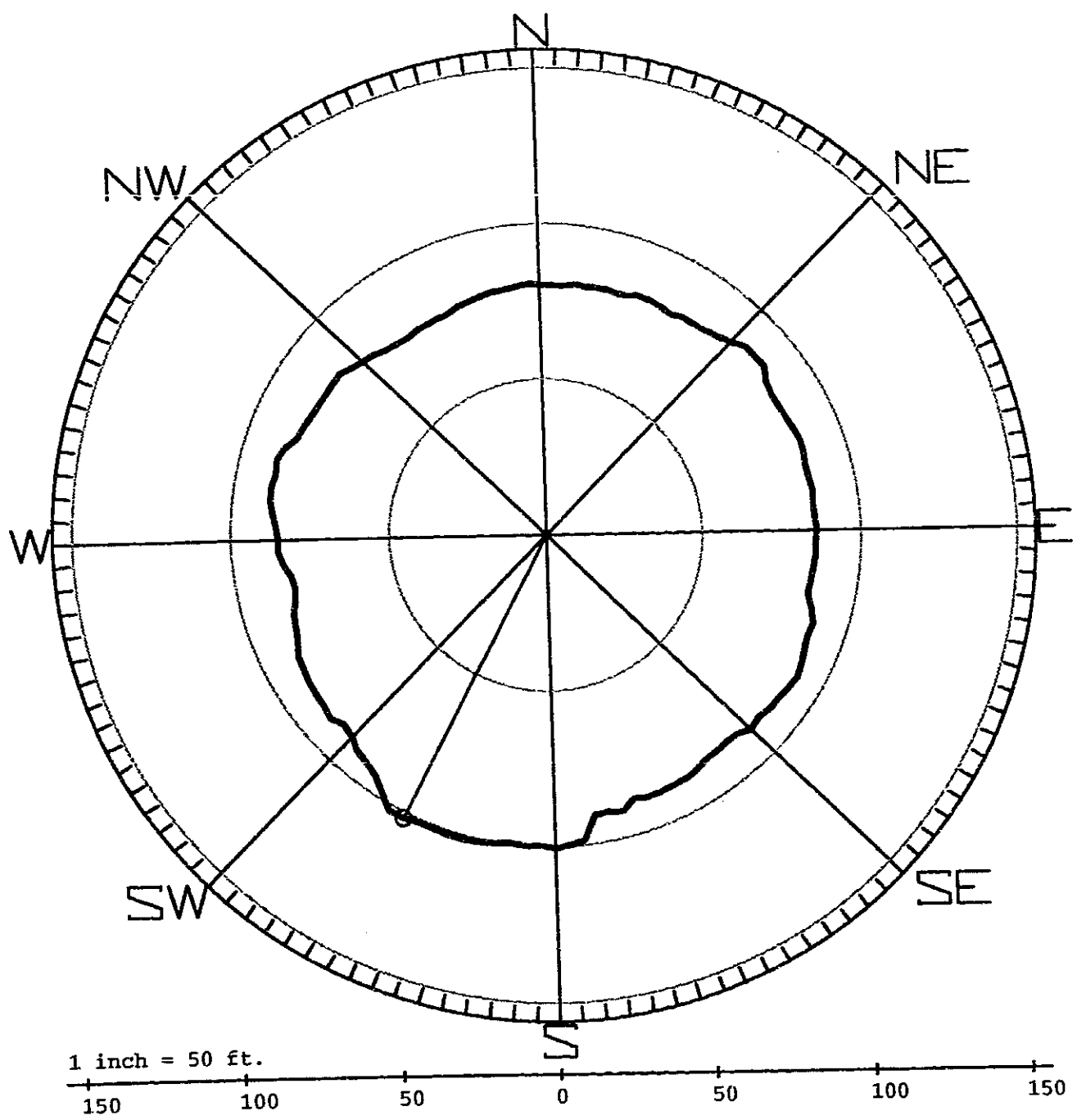
Bearing	+0.0	+2.8	+5.6	+8.4
0.0	80.4: 956	80.4: 956	80.4: 954	81.0: 952
11.3	81.0: 952	81.0: 952	81.0: 952	81.0: 952
22.5	82.3: 952	82.9: 952	82.3: 952	81.6: 952
33.8	82.9: 954	82.9: 954	83.5: 1006	84.8: 1006
45.0	86.1: 1006	88.6: 1008	88.6: 1006	88.6: 1006
56.3	86.1: 1006	85.4: 952	85.4: 952	85.4: 952
67.5	86.1: 956	86.7: 962	86.7: 956	86.1: 952
78.8	86.1: 1006	86.1: 1006	85.4: 952	86.1: 954
90.0	86.1: 956	86.1: 956	86.1: 962	85.4: 954
101.3	85.4: 954	85.4: 954	87.3: 964	89.2: 964
112.5	89.2: 964	89.9: 964	91.1: 964	91.8: 964
123.8	91.1: 964	90.5: 964	90.5: 964	89.2: 964
135.0	89.9: 964	88.0: 960	88.0: 954	88.0: 954
146.3	88.0: 954	89.2: 952	89.9: 956	89.9: 952
157.5	89.9: 954	89.9: 954	89.2: 954	91.8: 952
168.8	91.1: 952	91.1: 952	98.7: 952	100.0: 952
180.0	100.6: 952	100.0: 952	100.0: 952	100.0: 952
191.3	100.6: 952	101.3: 952	101.9: 952	101.9: 952
202.5	101.3: 952	101.3: 954	102.5: 954	102.5: 954
213.8	98.7: 952	94.9: 952	93.7: 952	92.4: 950
225.0	90.5: 948	89.2: 950	91.1: 954	89.9: 954
236.3	89.9: 954	89.2: 954	88.6: 954	88.0: 954
247.5	86.1: 954	85.4: 954	84.2: 954	82.9: 954
258.8	81.6: 982	82.3: 982	84.2: 984	85.4: 984
270.0	85.4: 984	86.1: 984	87.3: 984	88.0: 984
281.3	88.6: 984	88.0: 984	88.6: 984	87.3: 984
292.5	84.8: 982	84.2: 982	83.5: 982	82.9: 982
303.8	82.9: 982	82.9: 980	82.9: 980	81.6: 980
315.0	80.4: 980	79.1: 980	77.8: 980	77.2: 980
326.3	76.6: 956	77.2: 956	77.2: 956	77.2: 956
337.5	77.2: 956	78.5: 964	78.5: 964	79.1: 956
348.8	79.7: 956	79.7: 956	80.4: 964	81.0: 964

Between 921 and 1021 foot depths, maximum radius was 102.5 feet at bearing 208.1 at 954.0 foot depth

FERRELLGAS
STORAGE WELL NO. 6
HOLBROOK, AZ

SONARWIRE, INC
Max Range vs Bearing

Sun, Jan 25, 1998
Azimuth=208.1 deg
Max Radius=102.5 ft.
Depth= 954 ft.



SONARWIRE INC.
Wall Ranges versus Depth (ft.)

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Sun, Jan 25, 1998

Depth	Tilt	N	NE	E	SE	S	SW	W	NW
921	0	3.0	2.6	1.9	1.9	1.6	1.5	1.6	1.6
922	0	4.0	1.2	0.7	0.7	0.7	0.7	0.7	1.4
923	0	5.3	4.3	0.8	0.8	0.8	0.8	0.8	1.8
924	0	11.0	9.4	10.5	1.3	0.9	1.1	1.3	10.4
926	0	13.9	18.0	10.4	6.3	7.0	6.0	12.7	25.0
928	0	29.4	31.9	16.1	13.6	9.2	11.1	25.9	34.8
930	0	35.4	43.3	43.3	30.7	24.7	24.7	33.5	35.8
932	0	32.9	37.0	37.0	28.2	22.8	22.8	29.7	31.6
934	0	31.8	33.3	36.0	22.3	20.4	20.7	23.0	29.1
936	0	27.8	28.5	27.4	13.5	13.7	17.7	15.6	24.5
938	0	21.9	22.3	10.1	6.7	12.0	9.1	9.7	20.7
940	0	9.3	15.2	1.5	1.3	2.8	1.3	1.5	5.3
942	0	6.1	5.7	0.6	0.6	0.6	0.6	0.6	1.6
944	0	4.3	3.1	2.5	3.0	2.7	3.0	3.1	3.6
946	0	1.9	1.5	1.4	1.3	1.3	1.3	1.3	1.3
947	0	1.7	1.9	1.7	1.3	1.9	2.1	1.9	1.6
948	0	7.6	77.8	74.0	86.1	97.4	90.5	11.4	8.9
950	0	20.9	79.8	82.9	85.4	92.4	89.9	76.6	19.6
952	0	79.7	81.6	85.4	87.3	100.6	89.2	77.2	74.7
954	0	79.1	82.3	85.4	86.1	90.5	88.6	79.1	75.9
956	0	80.4	81.6	86.1	86.7	86.7	87.3	77.2	76.6
958	0	79.7	80.4	85.4	88.0	86.7	86.7	75.3	75.3
960	0	78.5	81.6	84.8	88.0	87.3	84.8	72.8	70.9
962	0	79.1	82.9	86.1	88.0	78.5	81.0	75.9	73.4
964	0	79.1	82.3	85.4	89.9	75.3	81.0	75.9	70.9
966	0	77.8	80.4	82.3	79.7	73.4	78.5	76.6	68.3
968	0	78.5	73.4	77.2	75.9	66.4	75.9	79.1	77.2
970	0	77.8	74.7	76.6	74.7	67.7	73.4	77.2	75.3
972	0	75.3	74.0	74.7	74.7	69.6	72.1	73.4	75.9
974	0	74.0	71.5	76.6	75.3	71.5	72.1	74.7	75.3
976	0	71.5	70.9	76.6	77.2	81.6	72.1	74.7	76.6
978	0	69.0	69.0	75.9	79.1	81.6	70.9	74.0	78.5
980	0	67.1	68.3	75.9	80.4	84.2	70.9	80.4	80.4
982	0	63.9	67.1	74.7	82.3	82.9	71.5	84.2	77.8
984	0	61.4	64.5	70.2	80.4	83.5	72.8	85.4	75.9
986	0	57.0	62.7	69.0	81.0	82.9	72.1	83.5	72.8
988	0	53.8	62.0	65.8	78.5	84.2	72.1	82.3	65.8
990	0	50.6	60.1	64.5	75.3	83.5	69.0	78.5	62.7
992	0	45.6	60.8	63.9	74.7	81.7	67.1	76.6	58.2
994	0	41.8	59.5	63.3	74.0	79.7	65.8	73.4	56.3
996	0	39.9	56.3	61.4	70.2	78.5	63.9	70.9	53.8
998	0	38.0	53.8	59.5	68.3	76.6	59.5	68.3	50.0
1000	0	34.2	53.8	58.9	69.0	76.6	58.9	65.2	48.1
1002	0	29.7	54.4	56.3	63.3	75.9	59.5	58.9	42.4
1004	0	25.9	56.9	55.0	60.1	76.5	54.4	53.1	39.9
1006	0	22.8	86.1	79.7	59.5	61.4	43.0	51.9	34.8
1008	0	18.3	85.4	75.9	53.8	59.5	41.8	50.0	31.6

FERRELLGAS
HOLBROOK, AZ

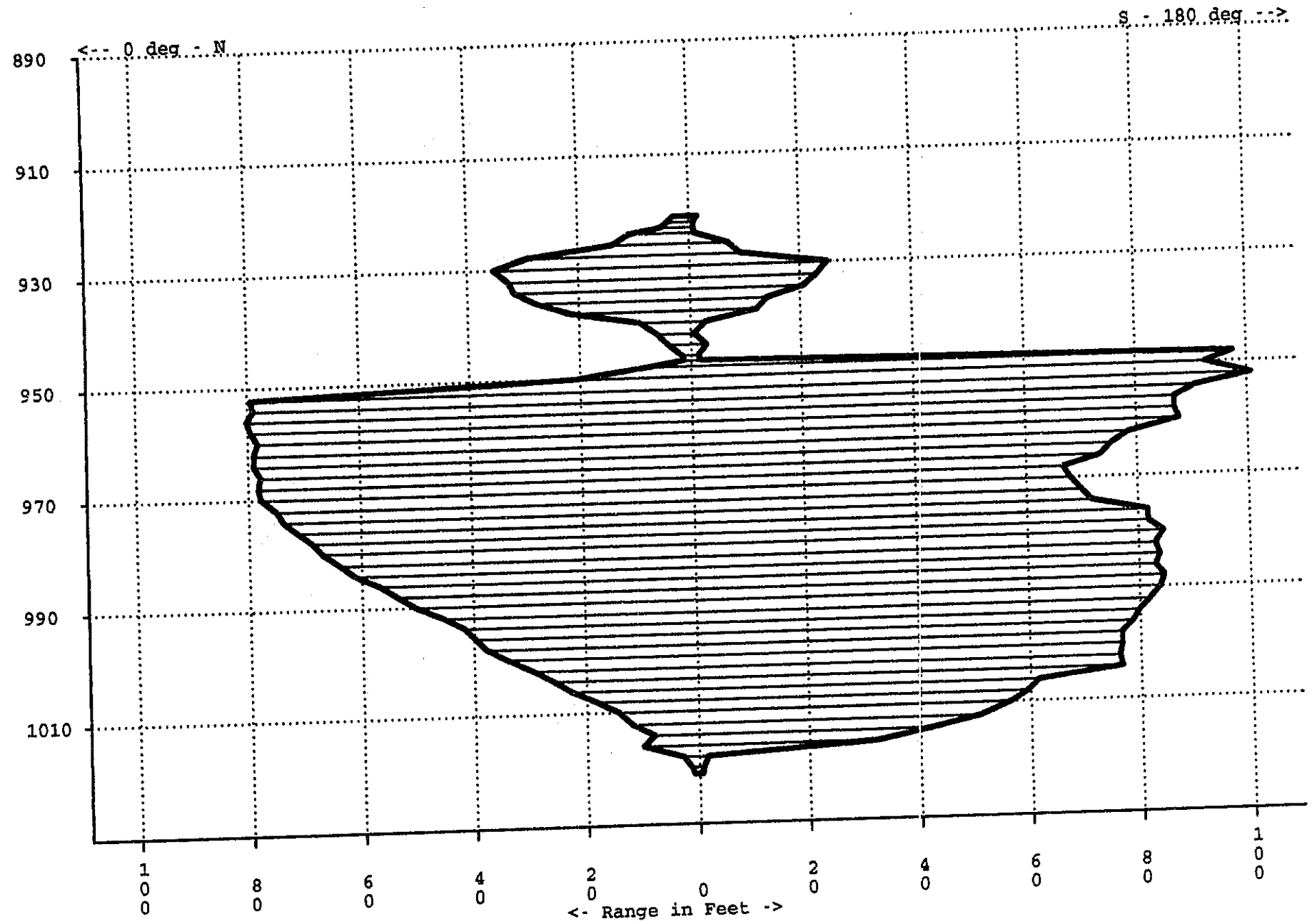
STORAGE WELL NO. 6
Sun, Jan 25, 1998

Depth	Tilt	N	NE	E	SE	S	SW	W	NW
1010	0	14.6	85.4	78.5	50.6	56.3	39.2	43.7	27.2
1012	0	12.0	81.0	46.2	44.3	50.6	38.0	37.3	24.0
1014	0	8.2	22.2	41.1	36.7	41.8	34.2	34.2	20.9
1016	0	10.1	21.5	43.0	39.2	32.3	34.2	38.6	32.3
1018	0	3.1	2.7	2.6	1.9	1.7	3.2	3.7	3.7
1020	0	1.6	2.7	1.8	0.9	0.7	0.6	0.5	0.8
1021	0	1.2	1.2	1.1	0.7	0.6	0.4	0.5	0.9

FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Vertical Cross-Section

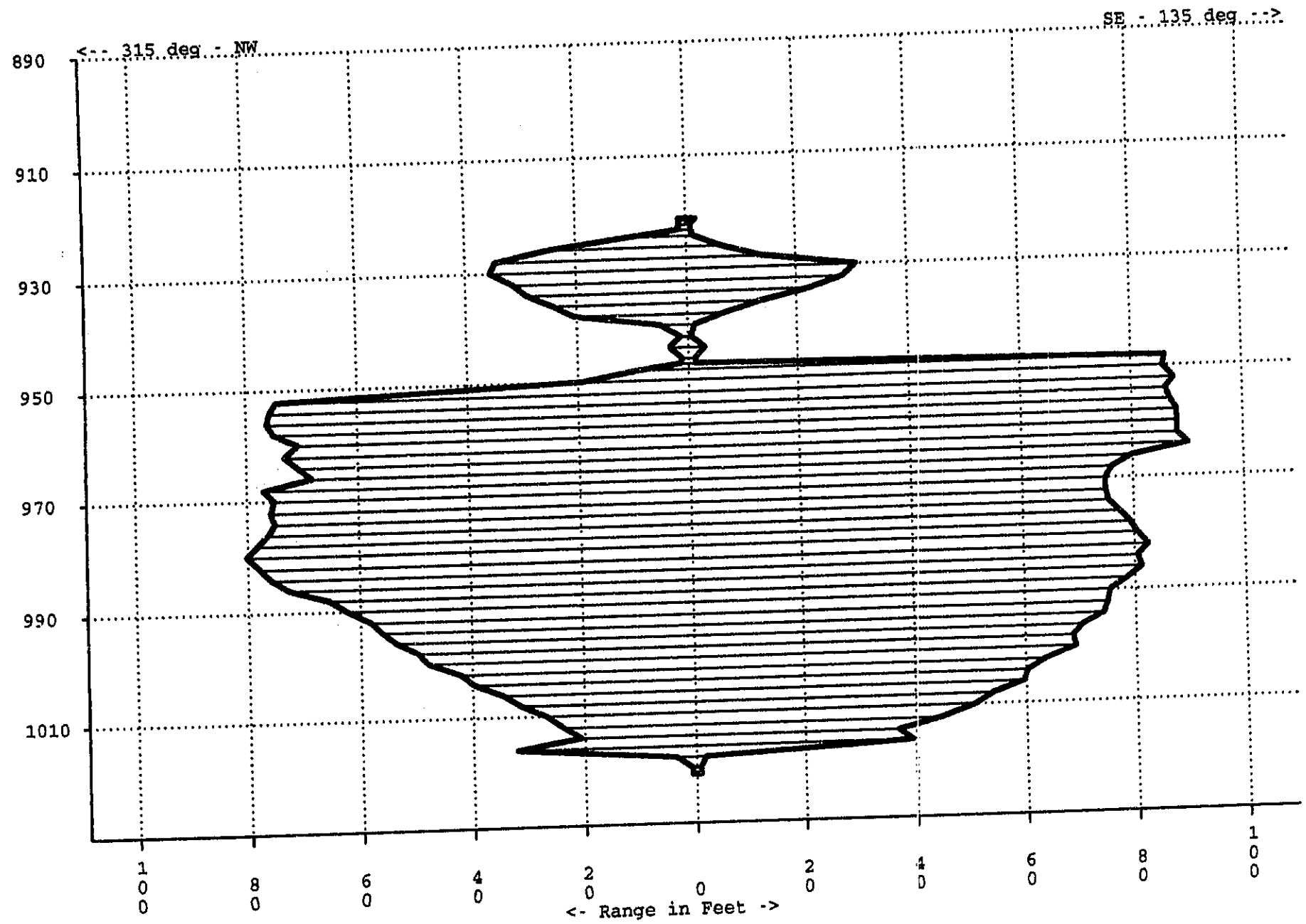
STORAGE WELL NO. 6
Sun, Jan 25, 1998



FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Vertical Cross-Section

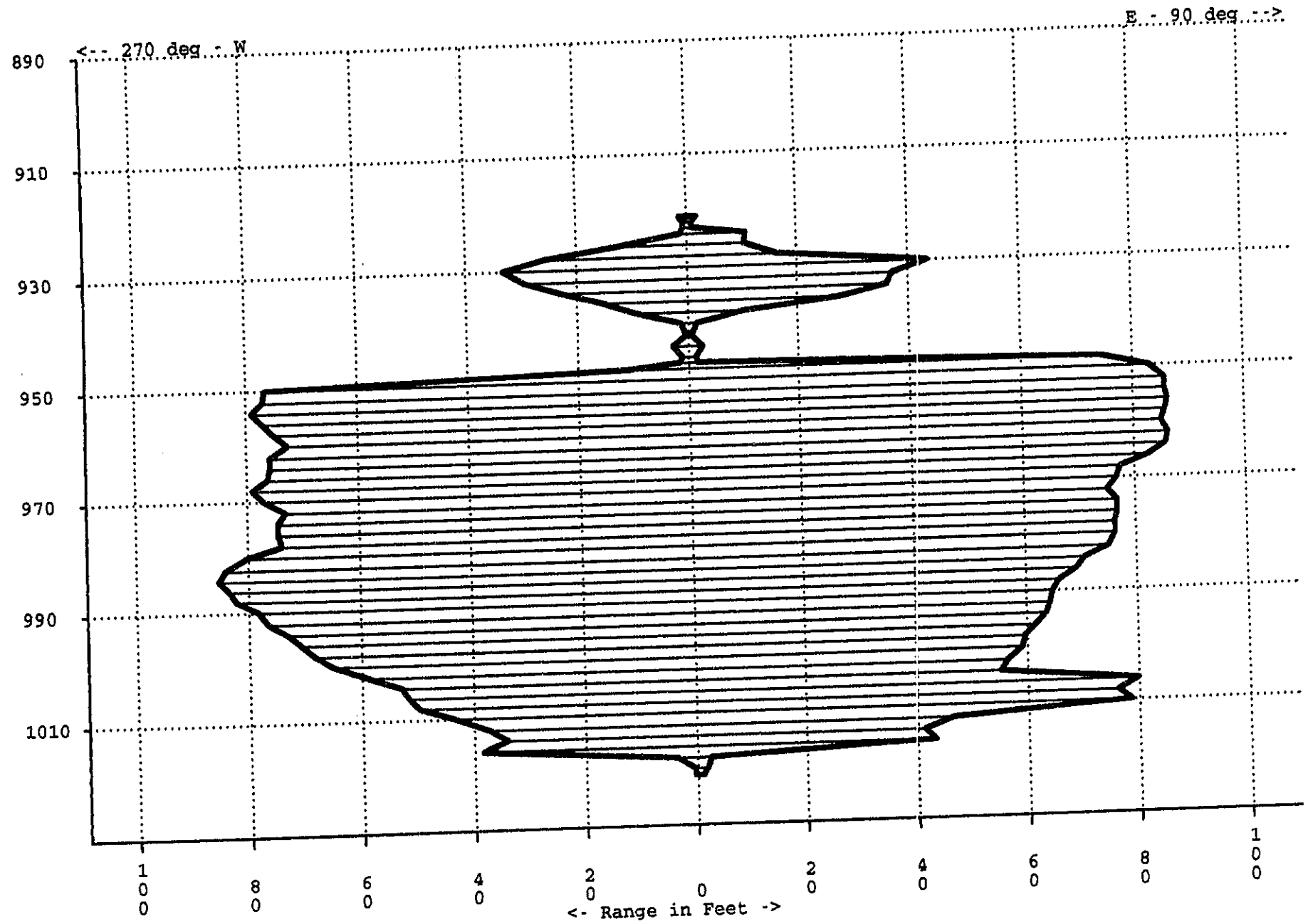
STORAGE WELL NO. 6
Sun, Jan 25, 1998



FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Vertical Cross-Section

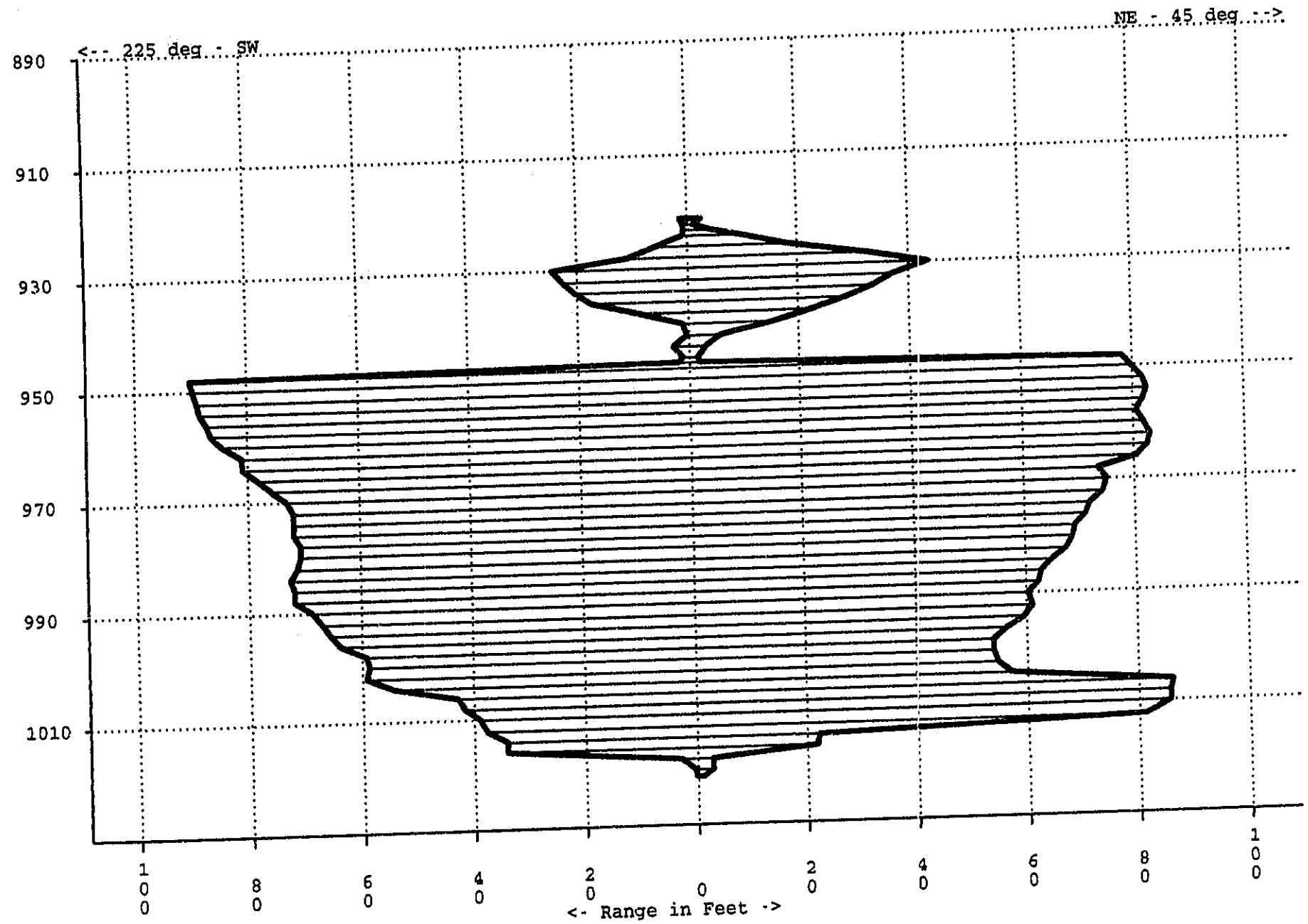
STORAGE WELL NO. 6
Sun, Jan 25, 1998



FERRELLGAS
HOLBROOK, AZ

SONARWIRE, INC
Vertical Cross-Section

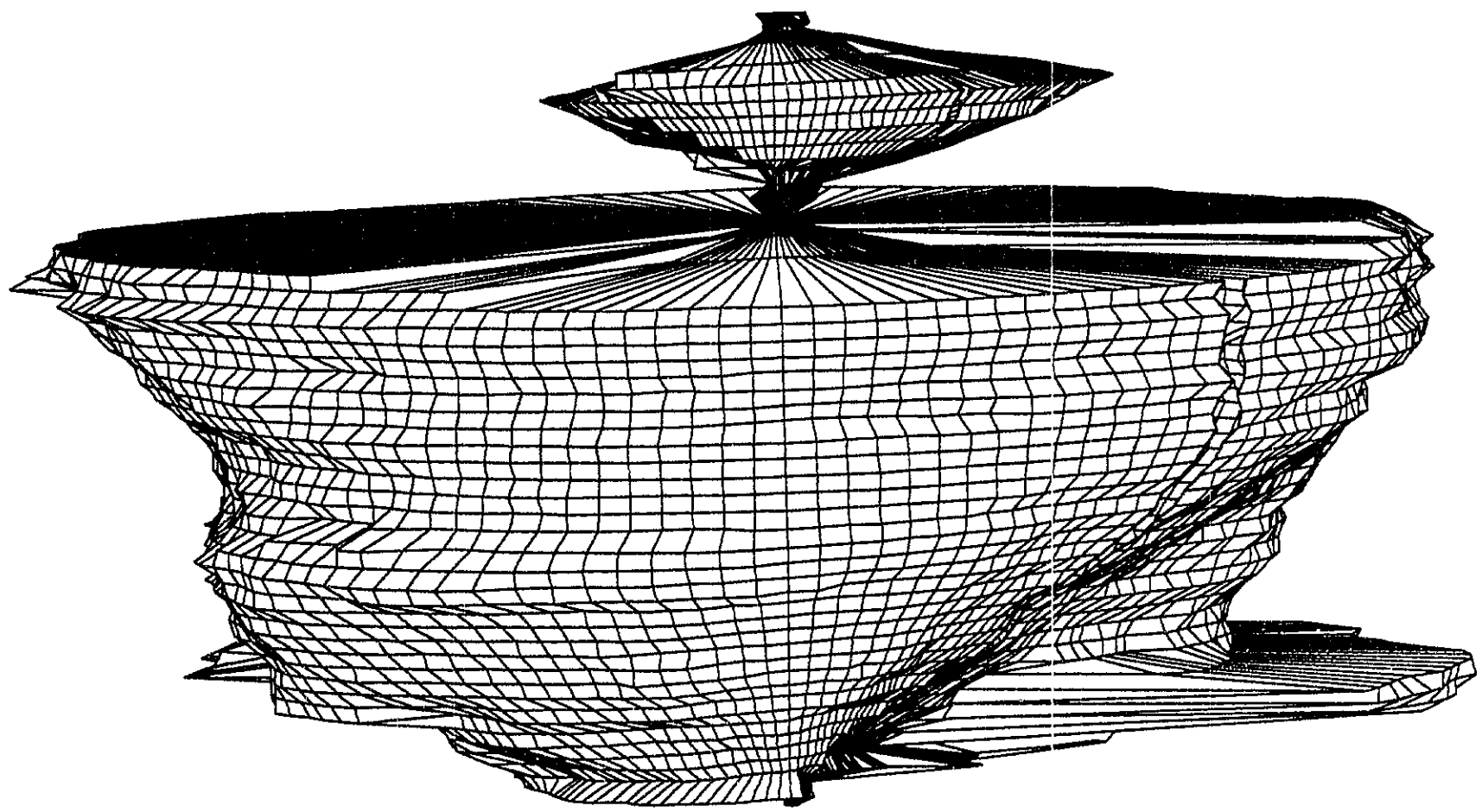
STORAGE WELL NO. 6
Sun, Jan 25, 1998



3D WIREFRAME PLOT

VIEWING AZIMUTH: 45
AXIS TILT: -5 DEGS.

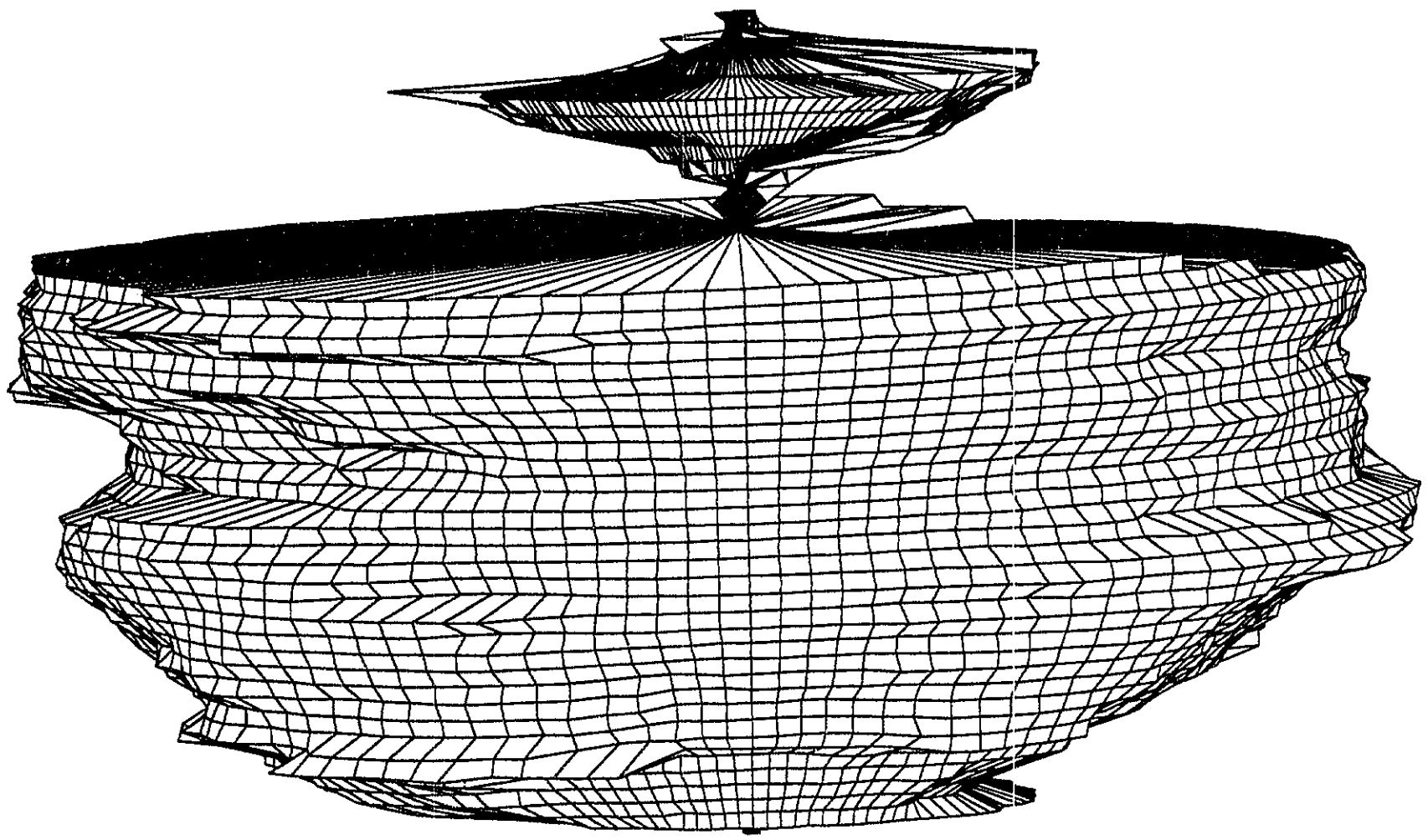
FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
SUN, JAN 25, 1998



3D WIREFRAME PLOT

FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
SUN, JAN 25, 1998

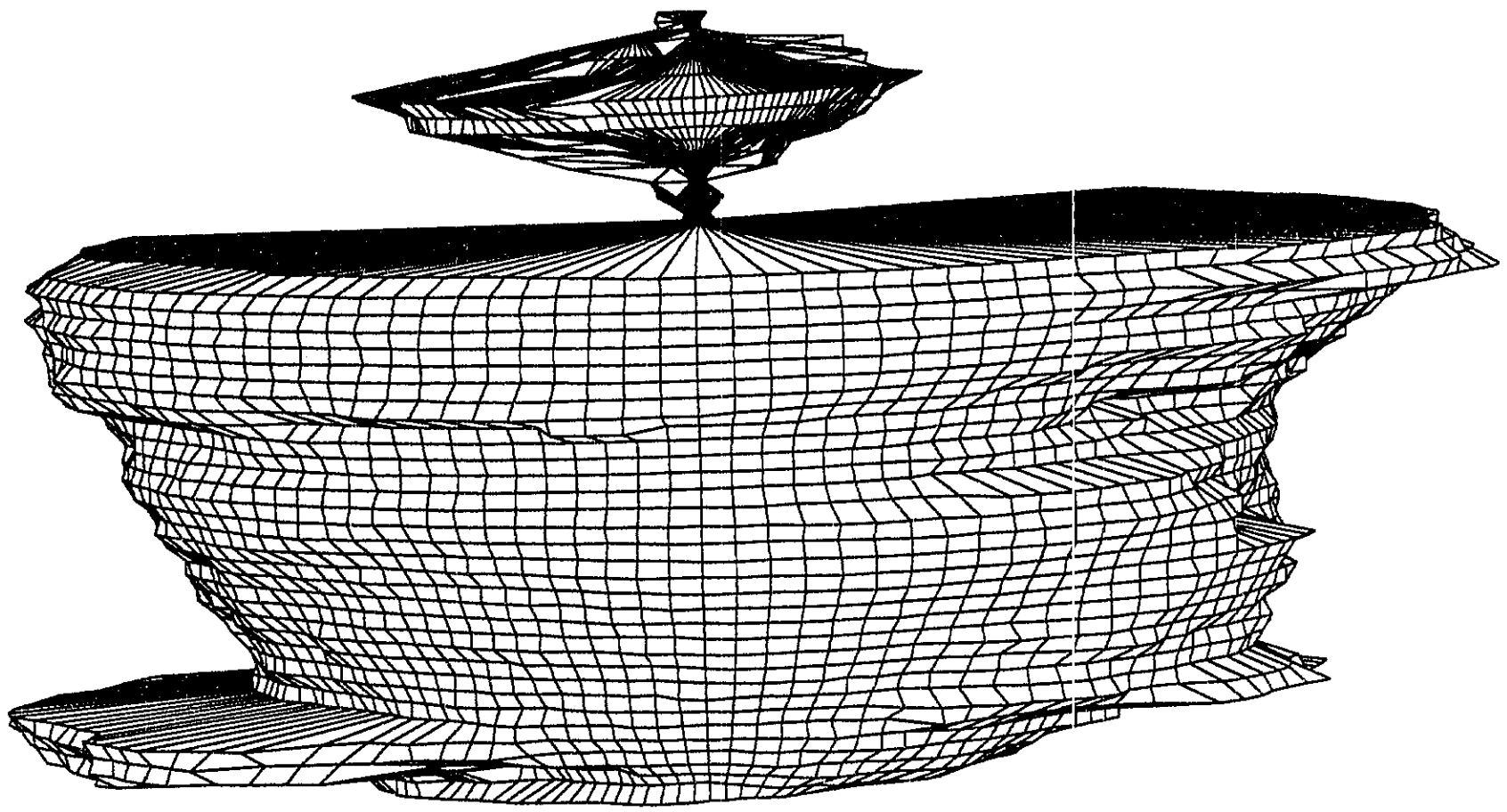
VIEWING AZIMUTH: 135
AXIS TILT: -5 DEGS.



3D WIREFRAME PLOT

FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
SUN, JAN 25, 1998

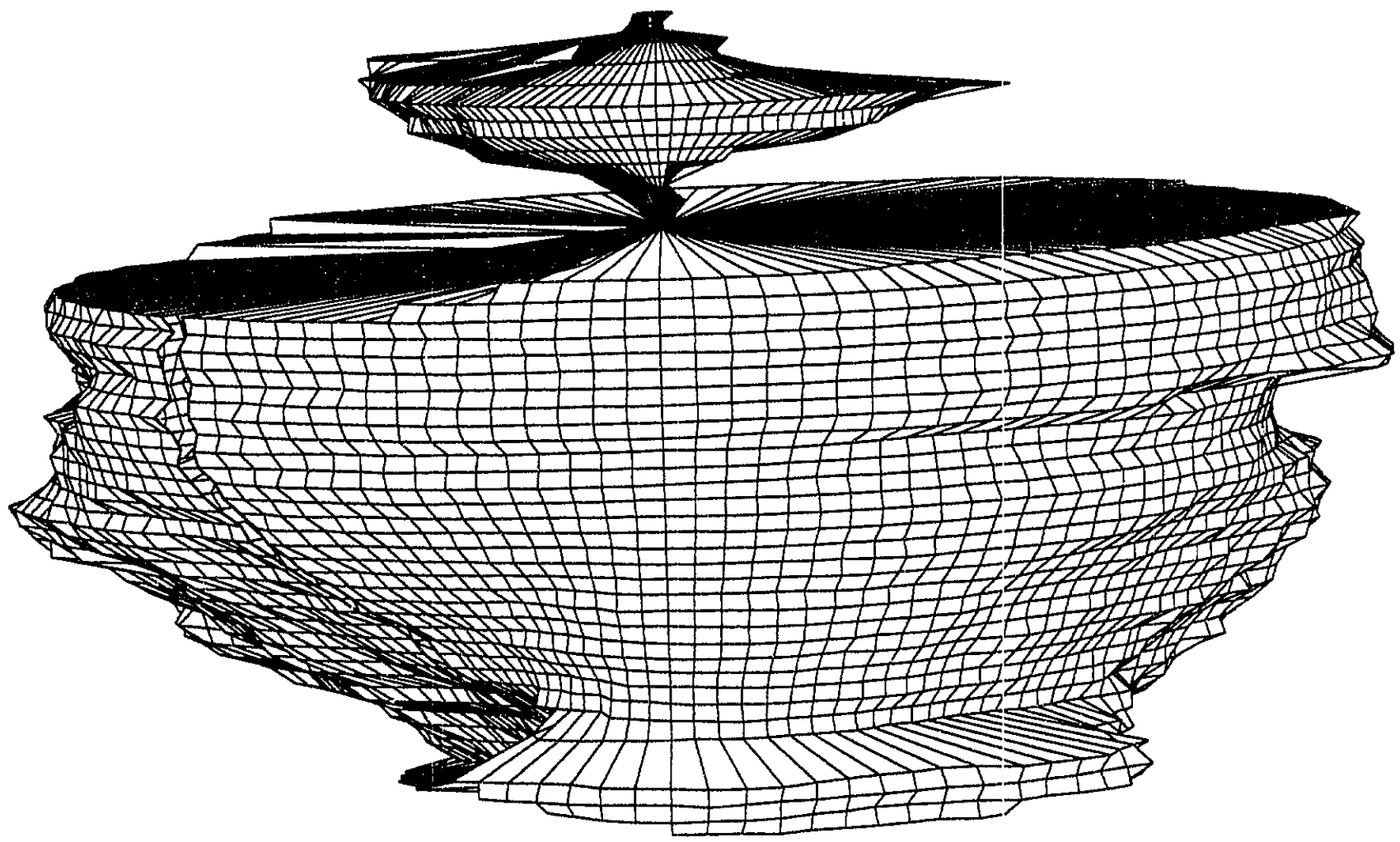
VIEWING AZIMUTH: 225
AXIS TILT: -5 DEGS.



3D WIREFRAME PLOT

FERRELLGAS
HOLBROOK, AZ
STORAGE WELL NO. 6
SUN, JAN 25, 1998

VIEWING AZIMUTH: 315
AXIS TILT: -5 DEGS.



SONARWIRE INC.
Wall Ranges versus Depth (ft.)

FERRELLGAS
HOLBROOK, AZ

STORAGE WELL NO. 6
Sun, Jan 25, 1998

DEPTH: 921 TILT: 0 RANGE: 11.2 VOS: 2657

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	3.0	3.3	3.4	4.6	4.6	4.6	4.8	4.6
22.5	4.6	4.6	4.6	4.5	4.6	4.4	4.5	4.4
45.0	2.6	2.5	2.3	2.3	2.3	2.3	2.3	2.2
67.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
90.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8
112.5	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9
135.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
157.5	1.9	1.8	1.8	1.8	1.7	1.7	1.6	1.6
180.0	1.6	1.5	1.6	1.6	1.6	1.6	1.5	1.5
202.5	1.5	1.5	1.5	1.4	1.4	1.5	1.5	1.5
225.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
247.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6
270.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
292.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
315.0	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.0
337.5	2.1	2.2	2.6	2.7	2.7	2.8	2.8	2.9

DEPTH: 922 TILT: 0 RANGE: 25.0 VOS: 5906

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	4.0	4.5	5.0	5.2	5.2	5.3	5.2	5.1
22.5	5.1	5.0	5.1	5.0	5.0	1.4	1.4	1.3
45.0	1.2	1.2	1.2	1.1	1.1	0.9	0.8	0.7
67.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
90.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
112.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
135.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
157.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
180.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
225.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
247.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
270.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
292.5	0.7	0.8	0.9	1.3	1.3	1.4	1.4	1.4
315.0	1.4	1.5	1.6	1.7	1.7	1.7	1.7	2.6
337.5	2.6	2.7	3.0	3.5	3.7	3.7	3.8	3.9

DEPTH: 923 TILT: 0 RANGE: 25.0 VOS: 5906

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	5.3	5.3	5.2	5.2	5.0	4.8	4.7	4.5
22.5	4.5	4.4	4.2	4.2	4.2	4.4	4.4	4.4
45.0	4.3	1.2	1.1	0.9	0.9	0.8	0.8	0.9
67.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
90.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
112.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
135.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
157.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
180.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
202.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
225.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
247.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
270.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9
292.5	1.1	1.3	1.6	1.6	1.7	1.7	1.8	1.8
315.0	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.1
337.5	2.2	2.3	2.5	2.7	3.8	5.3	5.4	5.2

DEPTH: 924 TILT: 0 RANGE: 25.0 VOS: 5905

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	11.0	10.7	10.9	10.7	10.7	10.4	10.4	10.2
22.5	10.2	10.0	10.0	10.0	9.9	9.6	9.5	9.5
45.0	9.4	9.6	9.8	9.8	10.0	10.0	10.3	10.3
67.5	10.4	10.4	10.3	10.3	10.3	10.3	10.4	10.4
90.0	10.5	10.5	10.7	10.5	10.4	10.3	1.1	1.5
112.5	1.3	1.2	1.1	1.2	1.3	1.3	1.3	1.3
135.0	1.3	1.5	1.4	1.1	1.2	1.2	1.2	1.2
157.5	1.3	1.3	1.2	0.9	0.8	0.9	0.9	0.9
180.0	0.9	0.9	1.1	1.3	1.3	1.4	1.2	0.9
202.5	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.1
225.0	1.1	0.9	0.9	0.9	0.9	0.9	0.9	1.1
247.5	1.1	1.1	1.2	1.3	1.3	1.3	1.3	1.3
270.0	1.3	1.4	1.4	1.4	1.4	1.4	1.4	4.7
292.5	4.8	4.8	11.2	10.7	10.7	10.7	10.5	10.4
315.0	10.4	10.5	10.6	10.6	10.5	10.5	10.5	10.7
337.5	10.7	10.9	10.9	11.0	11.0	10.9	10.9	10.7

DEPTH: 926 TILT: 0 RANGE: 75.0 VOS: 5905

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	13.9	14.2	14.5	14.5	19.9	20.6	20.9	20.9
22.5	21.5	21.2	20.6	20.6	20.2	19.9	19.6	19.0
45.0	18.0	18.0	18.0	18.0	18.0	19.0	19.0	18.7
67.5	15.8	15.8	15.8	15.5	14.5	13.3	12.0	11.4
90.0	10.4	9.5	8.9	8.2	7.9	7.6	7.3	7.6
112.5	7.6	7.0	7.0	6.6	7.0	6.6	6.3	6.3
135.0	6.3	6.3	6.3	6.0	6.0	6.0	6.0	6.0
157.5	6.0	6.3	6.3	6.6	6.6	6.3	6.6	7.0
180.0	7.0	6.6	7.0	6.6	6.6	6.6	7.0	6.6
202.5	7.0	7.0	7.0	6.3	6.6	6.6	6.6	6.3
225.0	6.0	6.0	6.6	6.6	7.0	6.6	7.0	7.6
247.5	7.9	8.9	7.9	8.5	8.9	9.8	10.8	11.7
270.0	12.7	13.9	14.9	15.5	22.8	25.0	40.8	39.9
292.5	39.5	38.6	35.1	32.9	25.6	25.6	25.6	25.3
315.0	25.0	24.4	23.7	21.8	19.3	17.4	18.0	18.7
337.5	19.3	19.6	19.6	19.3	12.7	13.0	13.3	13.6

DEPTH: 928 TILT: 0 RANGE: 75.0 VOS: 5905

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	29.4	29.1	28.8	29.1	30.0	30.0	30.0	29.7
22.5	29.4	28.8	28.8	28.8	29.4	31.0	31.3	31.6
45.0	31.9	33.2	33.2	31.3	30.0	27.2	26.3	25.6
67.5	25.3	26.3	26.3	26.3	16.4	16.1	16.1	16.1
90.0	16.1	16.1	14.9	14.9	14.9	14.9	14.9	14.9
112.5	14.5	14.5	15.2	15.2	14.9	14.5	14.2	14.2
135.0	13.6	13.0	13.0	11.7	11.4	11.1	10.8	10.4
157.5	10.1	9.8	9.8	9.8	9.8	9.5	9.5	9.2
180.0	9.2	9.5	8.5	8.2	8.2	8.2	8.5	8.5
202.5	8.9	9.2	9.5	9.8	9.8	10.1	10.4	10.8
225.0	11.1	11.4	11.4	11.4	11.4	11.4	11.7	12.0
247.5	12.3	13.0	13.3	13.6	13.9	14.9	17.1	25.9
270.0	25.9	26.6	35.1	35.7	38.9	41.7	40.8	39.9
292.5	38.9	38.3	37.6	37.0	37.0	37.3	37.3	35.7
315.0	34.8	34.8	34.5	34.2	33.8	33.5	33.5	33.2
337.5	33.2	31.9	31.6	30.7	30.4	30.0	29.7	29.7

DEPTH: 930 TILT: 0 RANGE: 75.0 VOS: 5907

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	35.4	36.1	36.4	36.7	37.7	38.0	38.3	38.6
22.5	38.9	39.5	39.9	40.2	40.8	41.8	42.7	43.0
45.0	43.3	43.3	43.0	43.0	43.3	43.3	43.3	43.3
67.5	43.0	42.7	42.4	41.1	40.5	40.5	41.4	42.7
90.0	43.3	44.0	43.0	42.1	42.4	43.0	47.8	47.5
112.5	33.2	32.9	32.3	31.6	31.3	30.7	31.0	31.0
135.0	30.7	30.1	29.4	29.1	28.8	26.9	26.6	26.3
157.5	25.9	25.6	25.6	25.6	24.4	24.4	24.0	24.4
180.0	24.7	25.3	25.3	25.6	25.3	25.0	24.4	24.4
202.5	24.4	24.4	24.4	24.7	24.7	24.7	24.7	24.7
225.0	24.7	25.0	25.0	25.0	25.3	26.9	28.5	30.1
247.5	30.4	31.0	32.9	32.6	32.9	32.9	33.2	33.5
270.0	33.5	33.5	33.9	33.5	33.9	32.9	32.9	32.6
292.5	33.5	36.1	36.4	36.7	36.7	35.8	35.1	35.8
315.0	35.8	35.8	35.8	35.4	34.8	35.1	35.1	35.4
337.5	35.1	34.5	35.1	35.8	35.1	35.1	35.1	35.1

DEPTH: 932 TILT: 0 RANGE: 75.0 VOS: 5907

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	32.9	33.2	33.5	34.5	34.8	34.8	35.1	35.1
22.5	35.4	36.7	37.0	38.3	38.3	38.3	37.7	37.7
45.0	37.0	37.7	38.0	37.7	37.7	37.7	38.0	37.7
67.5	38.0	38.6	39.2	38.9	38.6	37.7	37.0	37.0
90.0	37.0	37.3	37.0	37.0	35.8	35.8	35.8	32.3
112.5	28.8	28.2	28.5	27.8	27.8	27.8	28.2	28.2
135.0	28.2	27.8	27.5	26.3	25.9	25.6	25.3	25.0
157.5	24.7	24.0	24.0	24.0	23.7	23.4	23.1	23.1
180.0	22.8	22.5	22.1	22.5	22.8	23.1	22.8	22.1
202.5	22.5	22.1	22.5	23.7	23.7	23.4	22.5	22.8
225.0	22.8	22.5	22.5	22.8	22.8	22.8	24.4	25.3
247.5	26.3	26.6	27.5	27.8	27.8	28.8	30.1	30.1
270.0	29.7	29.7	30.4	30.4	30.1	30.1	30.1	30.4
292.5	30.4	30.7	30.7	31.6	31.6	31.3	31.0	31.0
315.0	31.6	32.3	32.3	32.6	32.3	32.0	32.0	31.6
337.5	31.6	32.0	32.3	32.3	32.6	32.6	32.9	32.9

DEPTH: 934 TILT: 0 RANGE: 50.0 VOS: 5907

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	31.8	32.9	33.1	33.3	33.5	33.7	34.4	34.4
22.5	34.4	34.4	34.4	34.2	33.9	33.5	33.3	33.1
45.0	33.3	33.7	33.9	35.2	36.3	36.9	37.5	37.7
67.5	37.7	37.9	38.2	38.6	38.8	37.9	37.5	36.9
90.0	36.0	34.8	34.8	33.5	32.5	31.8	30.8	29.7
112.5	27.6	26.1	24.9	24.7	24.5	23.2	22.6	22.8
135.0	22.3	21.9	21.9	21.9	23.8	23.6	23.2	23.0
157.5	23.0	22.6	21.9	22.1	21.1	20.7	20.7	20.4
180.0	20.4	20.2	20.2	19.8	20.0	20.0	20.0	20.0
202.5	20.0	20.2	20.7	21.1	21.1	21.5	21.5	20.9
225.0	20.7	20.7	21.1	21.1	21.3	21.1	21.5	22.1
247.5	22.6	23.2	23.6	24.0	24.5	24.7	24.9	24.7
270.0	23.0	23.0	22.8	22.8	22.8	26.8	26.8	26.8
292.5	26.4	26.6	27.2	27.6	27.8	28.0	28.0	28.5
315.0	29.1	29.5	29.9	29.9	30.6	31.4	32.3	32.3
337.5	31.2	31.0	31.0	30.8	30.8	31.0	31.6	31.8

DEPTH: 936 TILT: 0 RANGE: 50.0 VOS: 5907

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	27.8	28.7	28.7	28.2	28.0	28.0	27.6	27.8
22.5	27.8	27.8	27.4	27.4	27.6	27.6	27.8	28.2
45.0	28.5	28.5	28.5	28.7	29.3	29.3	29.1	28.7
67.5	28.9	28.7	28.9	29.1	29.5	29.3	28.5	27.6
90.0	27.4	27.4	18.1	18.3	17.5	17.5	17.3	16.7
112.5	16.2	15.0	14.5	14.5	13.9	13.9	13.7	13.5
135.0	13.5	13.7	13.7	13.7	13.7	13.3	13.3	13.1
157.5	12.9	12.9	14.1	14.5	15.0	14.8	14.5	14.5
180.0	13.7	13.7	13.5	13.5	13.3	13.3	13.3	13.3
202.5	13.1	13.3	13.3	14.1	14.8	15.4	16.7	17.3
225.0	17.7	17.9	17.9	18.1	18.1	18.1	18.6	19.0
247.5	18.6	17.5	16.7	16.2	16.2	16.2	16.0	15.6
270.0	15.6	15.8	15.8	15.8	16.0	16.2	16.4	16.9
292.5	23.6	23.8	23.8	24.2	25.7	25.9	25.1	24.5
315.0	24.5	24.2	25.5	25.9	25.3	25.3	25.5	25.1
337.5	25.5	25.9	25.7	25.7	25.9	26.1	26.1	27.6

DEPTH: 938 TILT: 0 RANGE: 50.0 VOS: 5907

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	21.9	21.9	21.9	21.9	21.9	22.1	21.9	21.9
22.5	21.9	21.5	21.9	22.1	22.3	22.3	22.3	22.3
45.0	22.3	22.6	22.3	22.6	22.8	22.8	23.0	23.0
67.5	11.6	11.4	11.4	11.4	11.0	10.8	10.3	10.3
90.0	10.1	10.1	10.1	9.7	9.5	8.2	7.8	7.8
112.5	7.6	7.8	7.6	7.6	7.6	7.6	7.6	7.6
135.0	6.7	6.7	6.5	6.3	6.3	6.3	6.7	6.7
157.5	6.7	7.2	7.6	7.8	8.2	10.1	12.2	12.2
180.0	12.0	11.4	11.4	11.4	11.6	11.8	12.0	12.4
202.5	12.2	12.0	9.9	9.9	9.9	9.7	9.3	9.3
225.0	9.1	8.4	8.4	8.2	8.0	8.0	8.0	8.2
247.5	8.2	8.4	8.4	9.1	9.3	9.3	9.5	9.5
270.0	9.7	9.7	9.7	9.7	9.7	9.7	9.9	9.9
292.5	10.1	10.5	10.8	11.0	20.4	20.0	19.6	19.6
315.0	20.7	20.4	20.4	20.4	20.7	22.6	22.3	22.3
337.5	22.1	22.1	21.9	21.9	21.9	21.9	21.9	21.9

DEPTH: 940 TILT: 0 RANGE: 35.0 VOS: 5906

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	9.3	9.3	9.2	9.2	9.3	9.3	9.9	10.2
22.5	11.7	12.0	13.1	14.0	14.3	15.2	15.4	15.1
45.0	15.2	15.9	3.2	3.4	3.4	3.4	2.4	2.2
67.5	3.2	2.2	2.1	1.8	1.8	1.2	1.9	1.5
90.0	1.5	1.3	1.2	1.0	1.0	1.0	1.0	1.3
112.5	1.3	1.5	1.2	1.2	1.2	1.2	1.3	1.3
135.0	1.3	1.3	1.2	1.2	1.8	1.8	1.9	2.1
157.5	2.5	2.7	2.1	2.5	2.7	2.7	2.7	2.8
180.0	2.8	3.0	10.3	10.5	10.5	10.6	6.8	6.8
202.5	6.9	10.0	9.9	10.2	6.8	10.2	7.1	1.3
225.0	1.3	1.8	1.8	1.9	1.9	2.1	1.9	1.8
247.5	1.8	1.9	1.8	1.8	1.8	1.6	1.6	1.6
270.0	1.5	1.6	1.5	1.6	1.6	1.2	1.5	1.0
292.5	1.2	1.2	1.2	1.5	5.2	1.5	1.6	1.6
315.0	5.3	5.6	5.6	5.8	6.2	10.2	6.9	10.0
337.5	9.6	9.3	1.3	9.4	9.4	9.2	9.2	9.2

DEPTH: 942 TILT: 0 RANGE: 25.0 VOS: 5906

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	6.1	6.1	6.2	6.1	6.1	6.1	6.2	6.2
22.5	6.2	6.3	6.3	6.3	6.2	6.2	6.1	5.8
45.0	5.7	5.7	5.7	5.7	5.8	0.6	0.6	0.6
67.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
90.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
112.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
135.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
157.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
180.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
202.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
225.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
247.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
270.0	0.6	0.6	0.6	0.6	0.6	0.6	0.7	1.4
292.5	0.6	0.6	0.6	0.6	0.6	0.6	6.6	6.5
315.0	1.6	1.9	6.4	6.5	6.4	6.6	6.3	6.1
337.5	6.5	6.5	6.5	6.3	6.3	6.4		

DEPTH: 944 TILT: 0 RANGE: 25.0 VOS: 5906

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	4.3	4.5	4.8	5.1	5.3	5.5	5.4	5.6
22.5	5.6	5.3	4.6	3.7	3.2	3.2	3.2	3.1
45.0	3.1	3.1	3.1	3.1	2.8	2.7	2.8	2.8
67.5	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.5
90.0	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.8
112.5	2.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0
135.0	3.0	3.0	3.0	2.8	2.8	2.7	2.7	2.6
157.5	2.6	2.7	2.6	2.7	2.7	2.7	2.7	2.6
180.0	2.7	2.7	2.6	2.7	2.8	2.7	2.7	2.7
202.5	2.6	2.7	2.7	2.7	3.0	2.8	3.0	3.1
225.0	3.0	3.0	3.1	3.3	3.3	3.3	3.2	3.1
247.5	3.0	3.1	3.2	3.2	3.2	3.3	3.2	3.2
270.0	3.1	3.4	3.4	3.3	3.5	3.5	3.5	3.5
292.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.5
315.0	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7
337.5	3.7	3.7	3.7	3.7	3.8	3.9	3.9	3.9

DEPTH: 946 TILT: 0 RANGE: 25.0 VOS: 5905

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9
22.5	1.7	1.6	1.6	1.6	1.6	1.6	1.5	1.5
45.0	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4
67.5	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.4
90.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3
112.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
135.0	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5
157.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3
180.0	1.3	1.3	1.4	1.4	1.4	1.3	1.4	1.4
202.5	1.3	1.3	1.2	1.3	1.3	1.3	1.3	1.3
225.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
247.5	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3
270.0	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4
292.5	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3
315.0	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4
337.5	1.5	1.5	1.5	1.5	1.6	1.7	1.8	1.8

DEPTH: 947 TILT: 0 RANGE: 25.0 VOS: 5906

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	1.7	1.7	1.7	1.4	1.2	1.5	1.8	1.8
22.5	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
45.0	1.9	2.1	2.1	2.1	1.9	1.9	1.9	1.9
67.5	1.9	1.9	1.9	1.9	1.7	1.5	1.7	1.7
90.0	1.7	1.6	1.4	1.6	1.6	1.6	1.6	1.7
112.5	1.6	1.5	1.5	2.1	1.9	1.4	1.4	1.4
135.0	1.3	1.3	1.4	1.5	1.5	1.5	1.9	1.9
157.5	1.9	1.9	1.8	1.7	1.6	1.7	1.8	2.0
180.0	1.9	1.9	1.9	2.1	1.8	1.9	1.8	1.8
202.5	1.9	1.9	1.8	1.9	1.9	2.0	1.9	2.1
225.0	2.1	1.9	2.0	2.0	2.1	2.0	1.9	1.9
247.5	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9
270.0	1.9	1.9	1.7	1.8	1.9	1.7	1.6	1.6
292.5	1.4	1.6	1.4	1.6	1.5	1.5	1.5	1.5
315.0	1.6	1.7	1.7	1.8	1.9	1.8	1.8	1.8
337.5	2.0	1.9	1.8	1.6	1.5	1.6	1.6	1.6

DEPTH: 948 TILT: 0 RANGE: 150.0 VOS: 5905

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	7.6	8.2	9.5	7.6	8.2	8.2	8.9	8.9
22.5	8.9	8.9	8.9	75.3	75.9	75.9	75.9	76.6
45.0	77.8	77.8	77.8	77.8	78.5	77.8	77.2	75.9
67.5	72.1	72.1	72.1	71.5	71.5	71.5	71.5	72.1
90.0	74.0	76.6	76.6	75.9	76.6	77.2	77.8	77.8
112.5	77.8	77.8	77.8	80.4	81.6	82.9	85.4	86.7
135.0	86.1	86.1	86.1	86.1	86.7	87.3	88.0	88.0
157.5	88.0	87.3	87.3	87.3	89.2	89.2	89.9	92.4
180.0	97.4	97.4	98.1	98.1	98.1	99.3	100.0	100.0
202.5	98.7	95.5	94.3	93.6	94.3	93.6	91.7	91.1
225.0	90.5	88.6	86.7	86.7	85.4	84.2	83.5	81.6
247.5	79.1	78.5	77.8	76.6	77.2	77.2	77.2	76.6
270.0	11.4	11.4	10.8	10.8	10.8	10.8	7.6	7.6
292.5	8.2	8.2	8.2	8.2	8.2	8.9	8.9	8.9
315.0	8.9	8.9	9.5	9.5	10.1	8.9	8.9	9.5
337.5	9.5	9.5	8.9	8.2	8.2	8.9	8.9	8.9

DEPTH: 950 TILT: 0 RANGE: 150.0 VOS: 5905

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	20.9	20.9	21.5	21.5	21.5	21.5	21.5	21.5
22.5	79.1	80.4	81.0	81.0	80.4	80.4	79.8	80.4
45.0	79.8	79.8	81.0	82.3	82.9	83.5	83.5	83.5
67.5	83.5	83.5	84.2	83.5	84.2	84.8	84.2	83.5
90.0	82.9	82.9	82.9	82.9	82.9	83.5	84.2	83.5
112.5	83.5	82.9	83.5	84.2	84.2	84.2	84.2	84.8
135.0	85.4	85.4	85.4	85.4	85.4	86.1	87.3	88.0
157.5	88.0	88.0	88.0	88.0	89.2	89.9	89.9	91.1
180.0	92.4	95.6	96.8	98.1	96.8	96.8	98.7	99.4
202.5	98.7	98.7	98.1	93.7	93.7	93.7	93.0	92.4
225.0	89.9	89.2	88.0	87.3	86.1	85.4	85.4	84.8
247.5	82.3	81.0	78.5	77.2	77.2	77.2	76.6	76.6
270.0	76.6	74.7	72.2	72.2	72.2	25.3	24.7	24.7
292.5	24.1	24.1	23.4	22.8	22.2	21.5	20.9	20.3
315.0	19.6	19.6	19.6	20.3	20.9	20.3	19.6	19.6
337.5	19.0	19.0	19.0	19.0	19.6	20.9	20.9	20.9

DEPTH: 952 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	79.7	79.7	79.7	81.0	81.0	81.0	81.0	81.0
22.5	82.3	82.9	82.3	81.6	81.6	81.0	81.0	81.6
45.0	81.6	82.9	84.8	84.8	85.4	85.4	85.4	85.4
67.5	85.4	85.4	85.4	86.1	85.4	85.4	85.4	85.4
90.0	85.4	85.4	85.4	84.8	84.2	84.8	84.8	84.2
112.5	84.8	84.8	84.8	85.4	85.4	86.1	86.7	86.7
135.0	87.3	86.7	86.7	87.3	87.3	89.2	89.2	89.9
157.5	89.2	88.6	88.6	91.8	91.1	91.1	98.7	100.0
180.0	100.6	100.0	100.0	100.0	100.6	101.3	101.9	101.9
202.5	101.3	98.7	99.4	98.7	98.7	94.9	93.7	90.5
225.0	89.2	88.6	88.6	88.0	85.4	86.1	84.8	82.9
247.5	81.6	80.4	79.7	78.5	78.5	78.5	78.5	78.5
270.0	77.2	75.9	75.3	75.3	74.0	74.0	74.0	75.9
292.5	75.3	74.7	75.9	75.9	75.3	74.0	73.4	74.7
315.0	74.7	75.3	75.3	75.3	75.9	75.3	75.9	75.3
337.5	75.9	76.6	75.9	77.2	77.2	78.5	79.1	79.7

DEPTH: 954 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	79.1	79.7	80.4	80.4	80.4	80.4	81.0	80.4
22.5	80.4	80.4	80.4	81.6	82.9	82.9	82.9	82.3
45.0	82.3	81.6	82.3	82.3	82.3	83.5	84.8	84.2
67.5	84.8	84.8	84.8	84.2	84.8	84.8	84.8	86.1
90.0	85.4	84.8	84.8	85.4	85.4	85.4	86.1	85.4
112.5	85.4	85.4	84.8	84.2	84.8	85.4	85.4	86.1
135.0	86.1	87.3	88.0	88.0	88.0	87.3	87.3	89.2
157.5	89.9	89.9	89.2	89.2	90.5	89.2	89.2	90.5
180.0	90.5	89.9	91.1	100.0	100.0	100.0	100.6	100.6
202.5	100.6	101.3	102.5	102.5	88.0	87.3	87.3	88.0
225.0	88.6	89.2	91.1	89.9	89.9	89.2	88.6	88.0
247.5	86.1	85.4	84.2	82.9	81.0	80.4	79.7	79.7
270.0	79.1	79.1	79.1	77.2	76.6	76.6	76.6	76.6
292.5	77.2	77.2	77.2	77.2	76.6	75.9	76.6	76.6
315.0	75.9	76.6	76.6	76.6	75.9	75.9	75.9	75.9
337.5	75.9	75.9	77.2	76.6	77.2	76.6	76.6	77.8

DEPTH: 956 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	80.4	80.4	80.4	79.7	81.0	81.0	80.4	81.0
22.5	81.6	82.3	81.0	81.0	80.4	81.6	81.0	81.0
45.0	81.6	82.9	84.8	85.4	85.4	85.4	84.8	85.4
67.5	86.1	86.1	86.7	86.1	85.4	85.4	85.4	86.1
90.0	86.1	86.1	85.4	85.4	84.8	84.8	84.8	84.8
112.5	86.1	85.4	85.4	85.4	86.1	86.7	87.3	87.3
135.0	86.7	87.3	86.7	87.3	88.0	89.2	89.9	88.6
157.5	88.0	88.0	88.0	86.1	86.1	85.4	85.4	86.1
180.0	86.7	86.7	86.7	86.7	86.7	87.3	88.6	88.6
202.5	88.0	87.3	88.0	88.6	88.6	89.9	89.2	87.3
225.0	87.3	88.0	88.0	85.4	85.4	85.4	84.8	82.3
247.5	82.3	81.0	79.7	79.1	78.5	79.1	78.5	77.8
270.0	77.2	77.2	77.2	77.2	77.8	77.8	77.8	77.8
292.5	77.2	76.6	75.9	76.6	77.2	75.9	76.6	76.6
315.0	76.6	75.9	75.9	76.6	76.6	77.2	77.2	77.2
337.5	77.2	77.8	77.8	79.1	79.7	79.7	79.7	80.4

DEPTH: 958 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	79.7	80.4	79.1	79.1	79.1	79.1	79.1	79.7
22.5	80.4	81.0	81.6	80.4	80.4	79.7	79.7	79.7
45.0	80.4	81.6	82.3	82.9	82.9	84.2	84.2	83.5
67.5	84.2	84.8	84.8	84.8	84.8	85.4	84.8	85.4
90.0	85.4	85.4	85.4	85.4	84.8	84.8	84.2	84.8
112.5	85.4	85.4	84.8	85.4	86.1	86.7	88.0	88.0
135.0	88.0	87.3	86.7	86.7	88.0	88.6	87.3	88.0
157.5	87.3	87.3	86.7	86.1	86.1	86.1	86.1	86.7
180.0	86.7	86.7	85.4	86.7	88.0	88.0	88.0	88.0
202.5	87.3	88.0	87.3	88.0	88.0	88.0	86.1	86.7
225.0	86.7	86.7	85.4	84.8	84.2	83.5	83.5	81.6
247.5	81.0	79.1	78.5	77.8	77.8	77.2	77.2	76.6
270.0	75.3	75.3	75.9	75.9	76.6	76.6	76.6	77.2
292.5	77.2	76.6	75.9	75.9	75.9	75.9	75.9	75.9
315.0	75.3	75.9	75.3	75.3	75.3	75.9	75.9	75.9
337.5	75.9	76.6	77.2	77.2	78.5	78.5	79.1	79.7

DEPTH: 960 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	78.5	78.5	77.8	77.8	77.8	77.8	78.5	80.4
22.5	80.4	79.7	79.7	79.7	79.7	80.4	80.4	81.0
45.0	81.6	82.3	82.3	82.9	83.5	82.9	83.5	83.5
67.5	84.2	84.8	85.4	85.4	85.4	85.4	85.4	85.4
90.0	84.8	84.8	84.8	84.8	85.4	85.4	85.4	85.4
112.5	85.4	84.8	85.4	85.4	86.1	88.0	88.6	88.0
135.0	88.0	88.0	88.0	87.3	88.0	88.0	87.3	87.3
157.5	86.7	86.1	84.8	84.2	84.2	85.4	86.7	86.7
180.0	87.3	87.3	88.0	89.2	88.6	84.8	85.4	85.4
202.5	86.1	85.4	85.4	86.1	84.2	83.5	83.5	84.8
225.0	84.8	84.8	83.5	83.5	83.5	82.9	81.6	80.4
247.5	79.1	78.5	78.5	77.2	77.2	76.6	74.0	72.1
270.0	72.8	72.8	75.3	75.3	75.3	75.3	75.3	75.3
292.5	74.7	74.7	74.7	75.3	75.3	74.7	75.3	71.5
315.0	70.9	71.5	72.8	72.8	74.0	74.0	74.0	74.0
337.5	74.0	75.3	74.7	74.7	75.9	77.8	78.5	79.1

DEPTH: 962 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	79.1	78.5	77.8	79.1	79.7	80.4	80.4	80.4
22.5	80.4	80.4	81.6	81.6	81.6	81.6	81.0	82.3
45.0	82.9	82.3	82.3	82.3	82.9	82.9	83.5	84.2
67.5	86.1	86.7	85.4	85.4	84.8	84.8	85.4	84.8
90.0	86.1	86.1	86.1	85.4	84.2	84.8	86.1	86.1
112.5	86.1	88.0	88.6	89.2	88.6	88.0	88.0	88.0
135.0	88.0	87.3	87.3	87.3	87.3	85.4	84.8	83.5
157.5	83.5	82.3	82.9	83.5	82.3	78.5	78.5	78.5
180.0	78.5	81.6	82.9	84.2	84.2	83.5	83.5	84.2
202.5	83.5	82.9	82.3	80.4	80.4	81.6	81.6	81.6
225.0	81.0	81.0	81.6	80.4	81.0	81.0	81.0	80.4
247.5	80.4	79.7	79.7	79.7	79.7	77.2	75.9	76.6
270.0	75.9	75.9	75.9	74.7	74.7	75.3	74.7	72.8
292.5	73.4	72.8	74.0	74.0	70.9	71.5	73.4	73.4
315.0	73.4	73.4	72.8	72.1	70.9	70.9	72.8	73.4
337.5	75.3	75.9	76.6	77.2	77.8	78.5	77.8	78.5

DEPTH: 964 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	79.1	78.5	79.7	79.7	79.7	79.7	79.7	80.4
22.5	80.4	81.6	81.6	81.6	81.0	81.6	81.6	81.6
45.0	82.3	82.3	82.3	82.3	82.9	82.9	83.5	84.8
67.5	84.2	84.2	84.2	83.5	83.5	84.8	84.8	85.4
90.0	85.4	84.2	82.9	82.9	82.9	84.2	87.3	89.2
112.5	89.2	89.9	91.1	91.8	91.1	90.5	90.5	89.2
135.0	89.9	86.7	85.4	83.5	82.3	81.0	81.0	80.4
157.5	81.0	79.7	75.9	75.9	75.3	74.7	74.7	74.7
180.0	75.3	77.2	78.5	79.7	80.4	82.3	81.6	77.8
202.5	77.2	78.5	78.5	79.1	78.5	79.1	79.7	81.6
225.0	81.0	81.0	81.0	80.4	79.7	79.1	79.1	79.7
247.5	79.1	79.1	79.1	79.7	80.4	80.4	77.2	77.2
270.0	75.9	75.3	75.3	75.3	75.9	75.3	74.7	74.7
292.5	74.0	74.0	73.4	74.7	74.0	74.7	73.4	73.4
315.0	70.9	70.2	69.6	70.2	71.5	71.5	74.0	75.3
337.5	77.2	78.5	78.5	79.1	79.1	79.1	80.4	81.0

DEPTH: 966 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	77.8	77.8	77.8	78.5	78.5	78.5	78.5	78.5
22.5	79.7	79.7	79.7	80.4	79.1	79.7	79.7	80.4
45.0	80.4	80.4	79.1	78.5	79.1	80.4	82.3	82.3
67.5	82.9	81.6	81.0	81.6	81.0	81.6	82.9	82.3
90.0	82.3	80.4	75.9	75.9	76.6	76.6	77.8	77.8
112.5	77.8	78.5	78.5	78.5	89.2	89.8	89.8	79.1
135.0	79.7	79.7	80.4	79.7	76.6	75.3	75.3	76.6
157.5	75.9	74.7	74.7	73.4	74.0	74.0	72.1	71.5
180.0	73.4	75.9	77.8	79.1	79.1	77.2	76.6	75.9
202.5	74.7	75.9	74.7	75.3	74.7	75.9	76.6	77.2
225.0	78.5	78.5	78.5	79.1	78.5	77.8	77.8	77.2
247.5	78.5	78.5	78.5	78.5	78.5	78.5	77.2	77.2
270.0	76.6	75.3	75.3	75.9	76.6	75.9	75.9	75.9
292.5	75.3	75.3	74.7	75.3	74.7	74.0	72.1	70.2
315.0	68.3	67.1	67.1	67.7	69.0	72.1	71.5	72.8
337.5	77.2	77.8	77.8	77.2	77.8	77.8	77.2	78.5

DEPTH: 968 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	78.5	78.5	78.5	77.2	75.9	75.3	75.3	75.9
22.5	75.9	74.7	74.7	75.3	74.0	74.0	74.0	74.0
45.0	73.4	74.7	75.3	75.9	76.6	75.9	75.3	74.7
67.5	74.0	73.4	73.4	74.0	74.0	74.0	75.3	76.6
90.0	77.2	77.8	78.5	79.1	77.8	77.2	77.2	77.2
112.5	77.2	77.2	76.6	76.6	76.6	76.6	75.9	75.9
135.0	75.9	75.9	75.9	75.9	76.6	77.2	75.9	75.9
157.5	74.7	74.0	74.0	74.7	74.0	72.8	70.2	69.6
180.0	66.4	62.0	62.0	66.4	65.8	67.7	69.6	70.9
202.5	72.1	74.7	75.3	75.3	75.3	74.7	76.6	75.9
225.0	75.9	75.3	75.9	75.9	76.6	76.6	75.9	75.3
247.5	76.6	76.6	76.6	76.6	77.2	77.2	77.8	77.8
270.0	79.1	78.5	77.8	78.5	77.2	75.9	75.3	75.9
292.5	75.9	76.6	77.2	76.6	77.2	76.6	76.6	76.6
315.0	77.2	76.6	75.3	74.7	74.7	75.9	76.6	75.9
337.5	75.6	77.2	77.2	77.2	77.2	77.8	77.2	77.2

DEPTH: 970 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	77.8	76.6	75.9	75.3	75.3	75.3	75.3	76.6
22.5	75.9	75.3	75.3	74.7	74.7	74.0	74.7	74.0
45.0	74.7	74.7	75.3	75.3	74.7	74.7	74.7	74.7
67.5	74.7	74.0	74.0	73.4	73.4	74.0	74.7	75.9
90.0	76.6	76.6	75.9	76.6	76.6	76.6	75.9	76.6
112.5	76.6	76.6	75.9	75.9	75.9	75.3	75.3	75.3
135.0	74.7	74.7	74.7	74.7	74.7	74.7	74.7	73.4
157.5	72.1	72.1	72.1	72.1	71.5	69.0	67.7	66.4
180.0	67.7	70.9	70.2	67.1	67.1	67.7	68.3	70.9
202.5	74.0	72.8	72.8	72.8	72.1	72.1	72.8	73.4
225.0	73.4	74.0	74.7	74.7	73.4	72.8	72.8	72.8
247.5	73.4	72.8	72.8	74.0	74.7	74.7	75.3	75.3
270.0	77.2	76.6	77.2	77.2	76.6	75.9	75.9	76.6
292.5	75.9	75.9	75.9	76.6	75.9	75.9	75.3	75.3
315.0	75.3	75.3	74.7	74.7	75.3	75.3	75.9	75.9
337.5	75.9	75.9	75.9	75.9	76.6	76.6	76.6	77.8

DEPTH: 972 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	75.3	75.9	75.9	76.6	75.9	75.9	75.3	75.9
22.5	75.9	75.9	75.3	74.7	75.3	74.7	74.7	74.7
45.0	74.0	73.4	73.4	73.4	73.4	72.8	73.4	74.7
67.5	74.7	74.7	74.7	74.7	75.3	74.7	74.7	74.7
90.0	74.7	74.7	75.3	75.3	75.9	76.6	75.9	75.3
112.5	75.3	75.3	75.3	75.3	75.3	75.3	75.3	74.7
135.0	74.7	75.3	75.3	75.3	74.7	74.0	74.0	74.0
157.5	75.3	74.7	74.7	72.8	72.1	71.5	70.9	70.9
180.0	69.6	68.3	69.6	70.9	70.9	70.9	70.9	71.5
202.5	71.5	70.9	70.9	71.5	71.5	72.1	72.1	72.1
225.0	72.1	72.1	72.8	72.1	72.1	72.8	72.1	72.1
247.5	72.1	71.5	71.5	72.1	72.1	72.8	72.8	72.8
270.0	73.4	74.7	74.7	74.7	75.9	75.3	75.3	75.3
292.5	75.9	75.9	75.9	75.9	75.9	76.6	76.6	76.6
315.0	75.9	75.9	75.9	76.6	75.3	75.3	74.7	74.7
337.5	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.9

DEPTH: 974 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	74.0	74.0	73.4	73.4	73.4	73.4	73.4	74.0
22.5	73.4	72.1	72.8	72.1	72.1	72.1	72.1	71.5
45.0	71.5	72.1	72.1	72.8	74.0	74.0	74.7	74.7
67.5	74.7	75.3	74.7	75.3	76.6	75.9	75.9	76.6
90.0	76.6	76.6	76.6	75.9	75.9	75.3	75.9	75.9
112.5	75.9	76.6	75.9	75.3	75.3	75.9	75.9	75.3
135.0	75.3	75.3	74.7	74.7	75.3	75.3	74.7	74.0
157.5	71.5	72.1	72.1	72.8	72.1	71.5	71.5	70.9
180.0	71.5	72.8	75.3	75.9	75.9	74.7	74.7	74.0
202.5	73.4	73.4	73.4	73.4	73.4	72.8	72.8	72.1
225.0	72.1	71.5	71.5	71.5	71.5	71.5	71.5	71.5
247.5	71.5	71.5	71.5	72.8	74.0	74.0	74.0	74.7
270.0	74.7	74.7	74.0	75.3	75.3	75.9	76.6	77.2
292.5	77.2	77.2	76.6	75.9	75.3	75.3	75.9	75.9
315.0	75.3	75.3	75.3	75.9	75.3	75.3	74.7	74.7
337.5	74.7	74.7	74.7	75.3	74.7	74.0	74.0	74.0

DEPTH: 976 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	71.5	70.9	71.5	71.5	70.2	69.6	69.6	70.2
22.5	70.2	70.2	70.2	69.6	69.6	69.6	70.2	70.2
45.0	70.9	72.1	72.8	73.4	73.4	74.7	74.7	75.3
67.5	75.3	75.3	75.9	76.6	76.6	77.2	77.2	77.2
90.0	76.6	76.6	76.6	76.6	75.9	76.6	76.6	76.6
112.5	77.2	76.6	75.9	75.9	75.9	75.9	75.9	76.6
135.0	77.2	78.5	78.5	77.2	77.8	77.8	77.8	77.8
157.5	79.7	85.4	85.4	86.1	85.4	84.2	83.5	83.5
180.0	81.6	79.1	78.5	77.2	76.6	74.7	74.7	74.0
202.5	73.4	74.0	73.4	72.8	72.8	71.5	71.5	71.5
225.0	72.1	71.5	71.5	70.9	70.9	71.5	70.9	72.1
247.5	73.4	74.0	73.4	73.4	74.0	74.0	75.3	75.9
270.0	74.7	74.0	74.7	75.9	76.6	76.6	76.6	75.9
292.5	75.9	77.2	76.6	75.9	75.9	75.9	75.9	75.9
315.0	76.6	75.9	75.3	75.3	74.7	74.7	74.7	74.7
337.5	74.7	72.8	71.5	72.1	72.1	72.1	72.1	71.5

DEPTH: 978 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	69.0	70.2	69.0	67.7	68.3	68.3	67.7	67.1
22.5	66.4	66.4	66.4	67.1	67.1	67.7	68.3	68.3
45.0	69.0	69.6	71.5	72.1	72.8	73.4	74.0	74.7
67.5	74.7	75.3	75.3	75.3	75.3	75.9	75.9	75.9
90.0	75.9	76.6	76.6	75.9	76.6	76.6	75.9	76.6
112.5	76.6	76.6	76.6	76.6	77.2	78.5	78.5	79.7
135.0	79.1	81.0	80.4	82.9	84.2	84.8	84.8	84.2
157.5	86.1	86.1	84.8	86.1	84.8	85.4	84.8	83.5
180.0	81.6	80.4	77.2	75.9	74.7	74.0	74.0	73.4
202.5	73.4	72.8	72.1	71.5	70.9	70.9	70.9	69.6
225.0	70.9	69.6	69.6	70.2	69.6	70.9	70.2	70.9
247.5	72.1	73.4	75.3	76.6	76.6	75.9	72.8	73.4
270.0	74.0	74.0	79.1	78.5	76.6	76.6	77.2	77.2
292.5	77.2	77.2	77.2	76.6	75.9	75.3	75.9	79.1
315.0	78.5	77.2	75.9	76.6	75.3	74.0	74.0	71.5
337.5	70.9	69.0	69.0	68.3	67.7	67.7	67.7	68.3

DEPTH: 980 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	67.1	67.7	66.4	65.2	64.5	64.5	64.5	64.5
22.5	64.5	63.9	63.3	63.9	63.9	64.5	65.2	67.7
45.0	68.3	69.0	69.6	70.9	70.9	71.5	71.5	72.1
67.5	72.8	73.4	74.0	74.0	74.0	74.7	74.7	75.3
90.0	75.9	75.9	76.6	75.3	75.3	74.0	74.0	75.3
112.5	75.3	75.9	75.9	76.6	77.2	76.6	77.8	79.7
135.0	80.4	80.4	79.7	81.0	82.3	83.5	85.4	86.1
157.5	85.4	86.7	86.1	86.1	86.1	87.3	86.1	84.8
180.0	84.2	82.3	81.0	79.1	79.1	75.3	74.7	73.4
202.5	72.8	72.8	72.1	72.1	71.5	71.5	71.5	71.5
225.0	70.9	70.2	70.9	71.5	71.5	70.9	71.5	72.1
247.5	72.1	75.3	75.9	76.6	77.2	77.2	81.6	81.0
270.0	80.4	80.4	84.8	85.4	82.3	79.7	79.7	81.0
292.5	81.6	81.6	81.6	82.3	82.3	82.9	82.9	81.6
315.0	80.4	79.1	77.8	77.2	74.7	74.7	73.4	72.8
337.5	71.5	70.2	68.3	67.7	67.1	67.1	67.1	67.1

DEPTH: 982 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	63.9	63.3	62.7	62.0	61.4	61.4	62.0	61.4
22.5	61.4	62.0	62.0	62.7	62.7	63.3	64.5	65.8
45.0	67.1	67.7	68.3	68.3	69.0	70.2	70.2	72.1
67.5	73.4	73.4	72.8	72.8	73.4	74.0	74.0	74.7
90.0	74.7	74.0	73.4	72.8	72.1	72.1	72.1	72.1
112.5	73.4	74.0	74.0	75.3	75.9	77.8	78.5	79.7
135.0	82.3	82.9	82.3	82.3	84.2	84.8	85.4	85.4
157.5	85.4	85.4	86.1	86.1	85.4	85.4	84.8	83.5
180.0	82.9	83.5	82.9	81.0	79.1	75.9	72.8	71.5
202.5	70.9	71.5	71.5	71.5	72.1	72.8	72.1	71.5
225.0	71.5	72.1	72.1	72.1	72.8	73.4	73.4	75.3
247.5	76.6	77.2	77.8	81.0	81.6	82.3	82.9	82.9
270.0	84.2	84.8	84.8	84.8	84.8	84.8	84.8	84.8
292.5	84.8	84.2	83.5	82.9	82.9	82.3	81.6	81.0
315.0	77.8	75.9	75.3	74.7	73.4	72.1	70.9	70.2
337.5	69.6	68.3	65.2	63.9	62.7	62.7	63.9	63.9

DEPTH: 984 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	61.4	59.5	58.2	58.9	58.9	58.9	58.9	58.2
22.5	58.2	57.6	58.2	58.2	59.5	60.8	61.4	64.5
45.0	64.5	65.8	67.1	67.1	67.7	69.0	70.2	70.9
67.5	70.9	70.9	70.9	71.5	72.1	72.1	71.5	70.9
90.0	70.2	70.2	70.2	69.6	69.6	70.2	70.9	72.1
112.5	73.4	72.8	74.0	75.3	77.2	78.5	80.4	80.4
135.0	80.4	81.6	81.6	82.9	84.8	84.2	84.8	84.8
157.5	84.8	85.4	84.8	84.2	84.2	83.5	83.5	83.5
180.0	83.5	83.5	83.5	78.5	76.6	73.4	70.9	69.6
202.5	69.6	69.6	70.2	71.5	72.1	72.1	72.8	72.8
225.0	72.8	72.8	72.1	72.8	74.0	74.0	75.3	75.9
247.5	77.8	80.4	81.6	81.6	81.6	82.3	84.2	85.4
270.0	85.4	86.1	87.3	88.0	88.6	88.0	88.6	87.3
292.5	84.2	82.9	82.3	82.9	82.3	79.7	79.7	77.2
315.0	75.9	74.7	72.1	70.9	70.9	69.0	68.3	67.7
337.5	65.2	63.9	62.0	60.8	60.1	59.5	60.1	60.8

DEPTH: 986 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	57.0	57.0	57.0	56.3	55.7	55.1	55.7	55.1
22.5	55.1	55.1	54.4	54.4	56.3	58.2	60.8	62.0
45.0	62.7	63.3	63.9	64.5	65.2	65.8	67.7	68.3
67.5	67.7	67.7	68.3	69.6	69.6	69.6	68.3	68.3
90.0	69.0	68.3	68.3	69.6	69.0	68.3	68.3	69.0
112.5	69.6	70.2	71.5	72.8	74.0	76.6	77.2	79.7
135.0	81.0	81.0	81.0	82.3	82.9	84.2	83.5	83.5
157.5	82.9	82.9	82.9	83.5	82.9	82.3	82.3	82.9
180.0	82.9	83.5	83.5	83.5	82.9	82.9	82.3	82.3
202.5	81.6	77.2	74.7	72.8	72.8	72.8	72.1	72.1
225.0	72.1	71.5	71.5	71.5	71.5	70.9	72.1	73.4
247.5	74.7	74.7	78.5	80.4	80.4	81.6	83.5	84.2
270.0	83.5	83.5	83.5	86.1	87.3	86.7	86.1	83.5
292.5	82.3	82.3	80.4	79.7	79.7	77.8	77.2	77.2
315.0	72.8	72.8	66.4	65.2	64.5	64.5	64.5	64.5
337.5	63.9	62.0	59.5	59.5	58.2	58.2	57.0	57.6

DEPTH: 988 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	53.8	53.8	53.2	52.5	52.5	52.5	51.9	51.3
22.5	50.0	51.3	52.5	54.4	57.0	57.6	61.4	62.0
45.0	62.0	63.3	63.9	65.2	66.4	67.1	67.7	67.7
67.5	67.7	67.1	67.7	67.7	66.4	66.4	66.4	65.8
90.0	65.8	65.8	66.4	66.4	66.4	67.1	67.7	68.3
112.5	69.6	70.2	71.5	70.9	72.8	75.9	75.9	79.1
135.0	78.5	79.1	79.7	80.4	81.0	81.6	81.0	81.0
157.5	81.0	81.6	81.0	81.6	81.6	81.6	82.3	82.9
180.0	84.2	83.5	82.3	81.6	81.6	81.6	81.0	76.6
202.5	74.7	73.4	73.4	74.0	74.0	74.0	72.1	71.5
225.0	72.1	70.9	71.5	71.5	72.8	74.7	74.7	75.3
247.5	76.6	77.8	78.5	79.7	81.0	82.3	83.5	83.5
270.0	82.3	81.6	79.1	79.1	77.8	77.2	77.2	75.3
292.5	74.0	72.1	72.8	73.4	72.1	71.5	67.7	67.7
315.0	65.8	63.9	62.0	62.0	62.0	62.0	61.4	61.4
337.5	58.2	57.0	56.3	55.1	53.2	53.2	53.8	53.8

DEPTH: 990 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	50.6	49.4	48.7	48.7	48.7	48.7	48.7	49.4
22.5	48.7	48.7	50.0	51.3	54.4	55.7	58.9	59.5
45.0	60.1	62.0	63.3	64.5	65.2	65.8	65.8	65.8
67.5	65.8	66.4	66.4	67.1	65.8	64.5	64.5	63.9
90.0	64.5	64.5	65.2	65.2	65.8	65.8	66.4	67.1
112.5	67.7	69.0	69.0	70.2	72.1	74.0	74.7	74.7
135.0	75.3	77.2	77.2	78.5	78.5	78.5	79.7	78.5
157.5	79.1	79.1	79.7	79.7	81.0	81.6	82.3	82.9
180.0	83.5	82.3	81.6	81.0	81.0	80.4	79.7	79.1
202.5	79.1	77.2	74.7	73.4	71.5	70.9	70.2	68.3
225.0	69.0	68.3	69.0	68.3	69.6	69.6	70.9	72.1
247.5	74.0	75.3	77.2	78.5	79.1	79.1	79.1	79.7
270.0	78.5	77.8	76.6	75.9	74.7	73.4	72.8	72.1
292.5	71.5	71.5	70.9	70.9	70.2	69.0	65.8	64.5
315.0	62.7	60.8	60.1	60.1	60.1	58.9	57.6	57.0
337.5	55.1	55.1	53.2	51.9	51.9	51.3	51.9	50.6

DEPTH: 992 TILT: 0 RANGE: 150.0 VOS: 5904

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	45.6	46.2	44.9	44.3	44.3	45.6	45.6	44.9
22.5	44.9	46.2	48.1	49.4	51.9	55.1	57.0	59.5
45.0	60.8	62.7	63.3	64.6	65.2	65.2	64.6	65.2
67.5	63.9	64.6	65.2	64.6	63.9	63.3	63.3	63.3
90.0	63.9	63.9	65.2	65.2	64.6	65.2	65.2	65.8
112.5	66.5	67.1	67.7	69.6	70.3	70.3	70.9	71.5
135.0	74.7	76.0	76.0	76.6	77.2	76.6	76.6	76.6
157.5	76.6	77.2	77.2	79.1	80.4	81.7	81.7	82.9
180.0	81.7	81.0	80.4	80.4	79.8	79.1	79.1	79.1
202.5	77.9	76.0	74.1	71.5	70.3	68.4	66.5	65.8
225.0	67.1	67.7	66.5	67.1	67.1	69.0	70.9	72.8
247.5	74.7	75.3	76.0	77.2	78.5	78.5	77.9	77.2
270.0	76.6	74.1	74.1	71.5	71.5	70.9	69.6	69.6
292.5	69.0	68.4	69.0	68.4	66.5	63.9	61.4	60.1
315.0	58.2	58.2	57.6	56.3	56.3	55.1	54.4	53.2
337.5	51.3	50.6	48.7	48.7	48.7	48.1	46.2	45.6

DEPTH: 994 TILT: 0 RANGE: 150.0 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	41.8	42.4	41.8	42.4	42.4	41.8	43.0	44.3
22.5	45.6	46.8	48.1	50.6	52.5	54.4	56.3	57.6
45.0	59.5	60.7	61.4	62.0	62.6	62.6	62.0	61.4
67.5	63.3	63.3	63.3	62.0	61.4	61.4	62.6	63.9
90.0	63.3	63.3	63.3	62.6	63.3	63.9	64.5	65.8
112.5	66.4	67.1	68.3	67.7	68.3	69.6	72.1	72.1
135.0	74.0	75.3	75.3	74.7	75.3	75.3	74.7	74.0
157.5	75.9	77.8	79.7	79.7	80.4	81.6	80.4	80.4
180.0	79.7	79.1	79.7	79.1	78.5	78.5	77.2	75.9
202.5	74.7	73.4	72.1	69.0	65.8	63.9	64.5	66.4
225.0	65.8	65.2	65.2	65.8	66.4	70.9	72.1	72.8
247.5	74.0	74.7	74.7	75.3	75.9	75.3	75.3	74.7
270.0	73.4	72.1	69.6	69.0	69.0	68.3	68.3	67.1
292.5	67.1	67.7	65.8	63.3	61.4	59.5	57.6	57.6
315.0	56.3	55.1	53.8	53.2	53.2	52.5	50.6	50.0
337.5	47.5	46.8	46.2	45.6	44.9	44.3	43.7	42.4

DEPTH: 996 TILT: 0 RANGE: 150.0 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	39.9	38.6	39.2	39.2	39.9	39.2	39.2	40.5
22.5	41.8	43.7	45.6	46.8	48.7	50.0	52.5	54.4
45.0	56.3	57.6	58.2	59.5	60.7	61.4	60.1	60.7
67.5	60.7	60.7	60.7	60.1	59.5	58.9	60.7	61.4
90.0	61.4	61.4	62.0	61.4	61.4	61.4	61.4	62.0
112.5	62.0	65.2	64.5	65.2	65.8	66.4	66.4	67.7
135.0	70.2	72.8	72.8	72.8	72.8	72.8	72.8	72.8
157.5	72.8	74.7	74.7	76.6	79.1	80.4	81.6	81.0
180.0	78.5	78.5	76.6	75.9	76.6	76.6	77.2	77.2
202.5	75.3	73.4	72.1	67.7	67.7	62.0	61.4	61.4
225.0	63.9	63.9	63.9	63.9	65.2	65.8	67.1	69.6
247.5	70.9	72.1	72.1	72.8	74.0	74.0	73.4	71.5
270.0	70.9	69.6	69.0	67.7	65.8	65.8	65.2	64.5
292.5	63.3	63.9	64.5	64.5	63.3	58.9	55.7	55.7
315.0	53.8	52.5	51.9	51.9	51.3	50.0	49.4	46.8
337.5	45.6	43.7	42.4	42.4	42.4	41.8	41.1	40.5

DEPTH: 998 TILT: 0 RANGE: 150.0 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	38.0	36.7	37.3	36.7	36.7	36.7	37.3	38.6
22.5	39.2	39.9	41.1	43.7	44.9	48.1	51.9	52.5
45.0	53.8	54.4	56.3	57.6	58.9	59.5	58.9	59.5
67.5	59.5	59.5	59.5	58.9	58.2	58.2	58.2	58.9
90.0	59.5	59.5	59.5	59.5	59.5	59.5	60.1	61.4
112.5	61.4	62.0	62.6	62.6	63.3	64.5	63.9	66.4
135.0	68.3	69.6	70.9	70.9	71.5	69.6	70.9	69.6
157.5	70.2	72.8	74.0	74.7	75.3	76.6	76.6	77.2
180.0	76.6	77.2	76.6	76.6	77.2	77.2	75.9	75.9
202.5	74.7	73.4	73.4	69.0	67.1	59.5	58.9	60.1
225.0	59.5	60.1	58.9	58.9	60.7	63.3	65.2	68.3
247.5	69.0	70.2	70.9	71.5	71.5	70.9	70.9	70.9
270.0	68.3	67.1	65.8	65.8	64.5	63.3	63.3	62.6
292.5	61.4	61.4	64.5	62.0	60.1	58.2	55.1	51.3
315.0	50.0	50.0	50.0	50.0	46.2	47.5	46.2	44.3
337.5	41.8	39.2	39.2	39.2	38.6	38.0	38.0	38.0

DEPTH: 1000 TILT: 0 RANGE: 150.0 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	34.2	34.2	34.2	34.2	34.8	34.8	35.4	37.3
22.5	38.6	39.2	41.8	43.0	43.7	48.7	50.0	51.3
45.0	53.8	55.7	56.3	57.0	58.2	58.2	58.2	58.9
67.5	59.5	59.5	59.5	58.2	57.6	57.6	58.2	58.2
90.0	58.9	58.2	58.2	58.9	58.9	59.5	59.5	60.7
112.5	60.7	60.7	60.1	61.4	62.0	63.3	62.6	67.1
135.0	69.0	67.7	67.1	68.3	68.3	69.0	68.3	67.7
157.5	69.6	70.9	72.8	75.3	76.6	77.2	76.6	75.9
180.0	76.6	76.6	75.9	75.9	76.6	75.9	75.3	74.7
202.5	73.4	71.5	71.5	67.7	62.0	58.9	59.5	59.5
225.0	58.9	58.2	58.2	58.9	60.1	62.6	64.5	68.3
247.5	69.0	70.2	70.9	70.2	70.2	69.0	67.7	67.1
270.0	65.2	64.5	63.3	62.0	62.0	62.0	61.4	60.7
292.5	60.1	60.1	59.5	58.9	56.3	52.5	50.0	48.7
315.0	48.1	46.8	44.9	46.2	45.6	43.7	41.8	40.5
337.5	38.6	36.7	34.8	34.2	34.8	34.8	34.2	34.8

DEPTH: 1002 TILT: 0 RANGE: 150.0 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	29.7	29.7	29.7	30.4	31.0	31.6	32.9	38.6
22.5	39.9	41.1	41.8	43.0	43.7	50.0	51.3	53.2
45.0	54.4	55.1	57.0	58.2	57.6	57.0	57.0	57.0
67.5	57.0	56.3	55.7	55.7	55.7	55.1	55.7	55.7
90.0	56.3	57.0	57.0	57.6	58.2	59.5	59.5	58.9
112.5	58.2	57.6	59.5	60.7	62.0	62.0	62.6	63.3
135.0	63.3	64.5	63.9	63.9	64.5	65.2	65.8	70.2
157.5	73.4	74.0	76.6	75.9	77.2	78.5	78.5	75.9
180.0	75.9	77.2	81.0	81.6	81.6	81.6	81.0	79.7
202.5	77.8	77.8	69.6	63.3	61.4	61.4	58.9	59.5
225.0	59.5	59.5	58.2	58.2	60.1	62.6	67.1	68.3
247.5	69.0	69.0	68.3	68.3	67.7	66.4	62.6	62.0
270.0	58.9	58.2	58.2	58.9	58.2	56.3	55.7	55.7
292.5	54.4	53.2	53.2	50.0	46.8	45.6	44.3	43.0
315.0	42.4	41.8	41.8	41.1	39.2	38.6	36.1	33.5
337.5	31.6	30.4	29.1	29.1	29.7	29.7	29.7	29.1

DEPTH: 1004 TILT: 0 RANGE: 149.9 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	25.9	25.9	25.9	25.9	27.2	27.2	27.2	27.2
22.5	27.2	49.3	54.4	55.0	55.7	55.7	56.3	56.9
45.0	56.9	56.3	57.6	58.2	58.2	57.6	57.6	57.6
67.5	57.6	56.3	55.0	55.7	55.0	54.4	54.4	55.0
90.0	55.0	56.3	56.9	56.9	56.9	57.6	58.8	60.1
112.5	60.7	59.5	58.8	58.8	58.8	61.4	61.4	60.7
135.0	60.1	60.7	61.4	60.7	61.4	61.4	63.9	63.9
157.5	74.0	72.1	71.5	70.9	70.9	70.9	71.5	73.4
180.0	76.5	83.5	84.1	84.1	82.9	82.9	83.5	84.8
202.5	78.4	79.1	79.1	79.1	79.1	53.1	53.1	53.8
225.0	54.4	54.4	55.0	55.7	56.9	56.9	60.7	67.7
247.5	69.0	68.3	67.1	67.1	66.4	65.8	52.5	53.1
270.0	53.1	53.8	55.0	55.7	55.0	54.4	53.1	51.2
292.5	51.2	50.6	50.0	47.4	44.9	43.7	42.4	41.1
315.0	39.9	39.2	39.2	38.6	36.7	35.4	33.5	31.6
337.5	30.4	29.1	27.8	27.2	27.2	26.6	27.2	25.9

DEPTH: 1006 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	22.8	22.8	22.1	22.8	23.4	24.0	24.0	24.0
22.5	23.4	76.6	77.2	77.8	78.5	79.7	83.5	84.8
45.0	86.1	87.9	88.6	88.6	86.1	84.2	82.9	82.9
67.5	81.6	82.9	86.7	86.1	86.1	86.1	82.9	81.0
90.0	79.7	69.6	65.2	65.2	65.2	62.0	60.7	60.7
112.5	60.7	56.9	57.6	57.6	57.6	57.6	58.8	58.2
135.0	59.5	58.8	59.5	60.7	62.0	63.9	62.6	62.0
157.5	62.0	63.3	64.5	64.5	63.3	62.6	62.0	61.4
180.0	61.4	60.7	60.7	60.7	60.7	48.7	48.1	47.5
202.5	46.8	46.8	46.2	43.0	43.0	43.7	43.7	43.0
225.0	43.0	43.0	43.0	44.9	48.1	50.0	50.0	48.7
247.5	48.7	49.4	50.0	50.6	51.9	51.9	51.9	51.9
270.0	51.9	51.9	50.0	49.4	48.7	46.2	44.3	42.4
292.5	40.5	39.9	39.2	38.6	37.3	36.7	36.1	35.4
315.0	34.8	31.6	30.4	29.1	27.2	25.3	25.3	24.7
337.5	24.0	23.4	22.8	22.1	22.8	22.8	22.1	22.8

DEPTH: 1008 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	18.3	19.0	19.0	19.0	19.6	20.9	21.5	22.1
22.5	22.1	22.1	77.2	79.1	80.4	82.3	83.5	84.2
45.0	85.4	88.6	87.3	86.1	86.1	84.8	84.8	84.2
67.5	83.5	84.8	85.4	84.8	84.8	84.2	84.2	84.2
90.0	75.9	73.4	70.2	68.3	64.5	63.3	62.6	62.0
112.5	56.9	53.8	53.8	52.5	52.5	53.8	53.8	53.8
135.0	53.8	53.8	56.9	58.2	57.6	60.1	60.7	62.0
157.5	62.0	61.4	60.7	60.7	61.4	60.7	60.7	60.1
180.0	59.5	60.7	60.7	60.7	60.7	48.1	47.5	45.6
202.5	45.6	44.3	43.7	43.0	43.7	42.4	41.8	42.4
225.0	41.8	41.1	41.8	43.0	43.7	44.3	44.3	44.9
247.5	46.8	47.5	48.1	49.4	48.7	49.4	49.4	50.0
270.0	50.0	50.0	48.7	45.6	44.9	43.7	41.1	38.6
292.5	38.6	37.3	36.7	36.7	33.5	32.9	32.9	32.9
315.0	31.6	30.4	27.2	25.9	24.0	23.4	22.8	22.1
337.5	21.5	20.9	20.9	20.9	20.9	19.6	19.0	18.3

DEPTH: 1010 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	14.6	15.2	14.6	14.6	15.8	15.2	16.5	16.5
22.5	17.1	20.9	21.5	21.5	74.7	77.8	81.6	84.2
45.0	85.4	85.4	86.1	85.4	83.5	82.9	81.0	81.0
67.5	82.3	82.9	86.1	84.8	85.4	85.4	84.8	80.4
90.0	78.5	75.9	74.0	53.8	52.5	51.9	51.9	51.9
112.5	51.9	51.9	51.3	50.6	51.3	51.3	50.6	50.6
135.0	50.6	51.3	53.8	56.3	56.3	55.0	55.7	55.7
157.5	57.6	57.6	58.8	58.8	58.2	57.6	56.3	56.3
180.0	56.3	53.1	51.9	46.8	46.2	45.6	43.7	43.7
202.5	43.0	43.0	41.8	39.9	39.9	40.5	39.9	39.2
225.0	39.2	39.9	40.5	41.1	42.4	42.4	42.4	42.4
247.5	43.0	46.2	46.8	46.2	43.7	43.0	43.7	44.3
270.0	43.7	43.7	43.0	42.4	41.1	39.2	37.3	36.1
292.5	35.4	33.5	32.3	29.7	29.7	29.1	29.7	29.1
315.0	27.2	25.9	24.7	23.4	22.1	21.5	19.6	19.6
337.5	19.6	18.3	17.1	16.5	15.8	15.2	15.2	15.2

DEPTH: 1012 TILT: 0 RANGE: 150.0 VOS: 5903

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	12.0	12.0	11.4	11.4	11.4	11.4	11.4	12.0
22.5	11.4	11.4	12.0	12.7	12.7	13.3	13.3	15.2
45.0	81.0	81.6	82.3	84.2	82.3	82.3	82.3	81.6
67.5	81.0	83.5	82.3	48.1	48.1	48.1	46.8	46.2
90.0	46.2	46.2	36.7	36.7	37.3	37.3	38.0	38.6
112.5	39.2	38.6	38.6	41.1	44.3	44.3	43.7	43.7
135.0	44.3	45.6	46.8	48.1	50.6	53.1	53.8	52.5
157.5	52.5	52.5	53.8	55.0	55.0	53.8	52.5	51.3
180.0	50.6	50.6	49.4	46.2	43.7	41.8	41.1	40.5
202.5	40.5	39.9	39.2	38.6	38.0	38.0	37.3	37.3
225.0	38.0	38.0	38.0	37.3	38.6	39.9	39.2	39.2
247.5	39.9	41.8	42.4	39.2	38.0	38.0	38.0	38.0
270.0	37.3	37.3	37.3	36.7	36.1	36.1	35.4	34.8
292.5	33.5	32.3	30.4	28.5	25.9	25.3	25.9	25.3
315.0	24.0	23.4	22.8	21.5	20.2	19.6	16.5	15.8
337.5	13.3	12.7	12.0	11.4	11.4	10.8	11.4	11.4

DEPTH: 1014 TILT: 0 RANGE: 150.0 VOS: 5906

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	8.2	8.2	8.2	8.2	8.9	8.9	8.9	11.4
22.5	12.0	13.3	13.9	14.6	19.6	21.5	22.2	22.2
45.0	22.2	23.4	23.4	23.4	24.7	24.7	44.9	46.2
67.5	46.8	46.8	46.8	45.6	45.6	45.6	41.1	41.1
90.0	41.1	41.1	41.1	40.5	39.9	39.2	38.6	38.6
112.5	38.0	38.0	37.3	38.0	38.6	38.0	37.3	36.7
135.0	36.7	38.6	40.5	43.0	45.6	44.9	44.3	46.8
157.5	45.6	46.2	46.2	48.1	48.1	47.5	44.9	42.4
180.0	41.8	41.8	41.8	41.8	39.9	38.6	38.0	38.0
202.5	38.0	36.7	36.7	33.5	34.2	34.8	34.8	34.2
225.0	34.2	34.2	34.2	34.8	34.8	34.8	36.1	36.1
247.5	36.1	37.3	36.7	36.1	34.8	32.9	33.5	34.2
270.0	34.2	32.9	32.9	32.3	31.0	30.4	30.4	31.0
292.5	29.1	28.5	26.6	24.7	23.4	22.8	22.2	22.2
315.0	20.9	20.3	17.7	17.1	16.5	17.1	8.2	7.6
337.5	7.6	8.2	7.6	7.6	7.6	8.2	7.6	8.2

DEPTH: 1016 TILT: 0 RANGE: 150.0 VOS: 5950

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	10.1	10.8	10.8	10.8	10.8	10.8	12.7	13.3
22.5	13.3	13.3	24.0	25.3	24.7	20.9	19.6	20.2
45.0	21.5	22.8	23.4	24.7	24.7	24.7	43.0	42.4
67.5	44.9	44.9	44.9	45.6	45.6	44.9	44.3	43.7
90.0	43.0	42.4	42.4	42.4	42.4	41.8	41.1	40.5
112.5	39.9	39.9	40.5	41.1	41.8	41.8	41.1	40.5
135.0	39.2	39.2	38.0	38.0	38.6	38.6	37.3	36.7
157.5	36.1	35.4	34.8	34.2	32.9	32.9	32.9	32.9
180.0	32.3	32.3	32.3	33.5	34.8	34.2	34.2	32.9
202.5	32.9	33.5	33.5	34.2	34.2	34.2	33.5	33.5
225.0	34.2	34.8	34.2	34.2	33.5	34.2	34.8	35.4
247.5	35.4	35.4	35.4	35.4	36.1	36.7	37.3	38.0
270.0	38.6	38.6	38.6	37.3	36.7	38.0	38.0	38.0
292.5	36.7	36.7	36.1	35.4	35.4	34.2	32.9	32.3
315.0	32.3	32.3	11.4	10.8	10.8	10.8	10.8	10.8
337.5	10.8	10.1	10.1	9.5	9.5	9.5	8.9	9.5

DEPTH: 1018 TILT: 0 RANGE: 25.0 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	3.1	3.1	2.9	2.9	2.8	2.8	2.8	2.7
22.5	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6
45.0	2.7	2.7	2.6	2.6	2.6	2.6	2.7	2.6
67.5	2.7	2.6	2.6	2.5	2.4	2.4	2.5	2.5
90.0	2.6	2.7	2.6	2.5	2.5	2.4	2.3	2.3
112.5	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.0
135.0	1.9	1.8	1.7	1.6	1.5	1.5	1.6	1.7
157.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
180.0	1.7	1.7	1.7	1.8	1.9	2.0	2.0	2.1
202.5	2.2	2.2	2.3	2.2	2.5	2.6	2.6	2.8
225.0	3.2	3.3	3.3	3.4	3.4	3.5	3.6	3.6
247.5	3.5	3.5	3.5	3.4	3.4	3.4	3.5	3.6
270.0	3.7	3.8	4.0	4.0	4.1	4.1	4.1	4.2
292.5	4.3	4.2	4.1	4.0	4.0	3.8	3.7	3.7
315.0	3.7	3.8	3.6	3.6	3.6	3.5	3.4	3.2
337.5	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1

DEPTH: 1020 TILT: 0 RANGE: 25.0 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	1.6	1.8	2.0	2.1	2.2	2.3	2.4	2.6
22.5	2.8	3.2	3.1	2.9	2.8	2.8	2.7	2.9
45.0	2.7	2.6	2.5	2.4	2.5	2.4	2.3	2.4
67.5	2.2	2.3	2.2	2.4	2.1	2.2	2.0	1.8
90.0	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.4
112.5	1.4	1.3	1.3	1.3	1.2	1.1	0.9	0.9
135.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
157.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
180.0	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
202.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
225.0	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
247.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
270.0	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
292.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
315.0	0.8	0.9	1.1	1.2	1.3	1.3	1.3	1.3
337.5	1.3	1.3	1.3	1.4	1.5	1.6	1.6	1.6

DEPTH: 1021 TILT: 0 RANGE: 25.0 VOS: 5902

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
22.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
45.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
67.5	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1
90.0	1.1	1.1	0.9	0.9	0.9	0.9	0.9	0.8
112.5	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7
135.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
157.5	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
180.0	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
202.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
225.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
247.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
270.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
292.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8
315.0	0.9	0.9	0.9	0.9	0.9	0.9	1.1	1.1
337.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

FERRELLGAS LPG FACILITY

Operator: Ferrellgas Inc.

Bond Company: Travelers Casualty and Surety Co. of America

Bond No.: 030 S 103626358 BCM

Amount: $25,000.00

Date approved: 8/01/96

Permits covered by this bond:

556 (Cavern 01)
557 (Cavern 02)
562 (Water well)
602 (Cavern 03)
603 (Cavern 04)
606 (Cavern 05)
✓ 607 (Cavern 06)
646 (Cavern 07)
647 (Cavern 08)
648 (Cavern 09)
671 (Cavern 10)
672 (Cavern 11)
776 (Cavern 12 – not developed)
777 (Expired)
778* (Expired)

* Bond in Permit #778

(607)

1-13-98 Dale Thompson (FGI)

Emptied Cavern 6 & lost 10,000 bbls.
Replaced tbg in hole last summer & was bent.
possibly roof caved in and left void w/ trapped gas.
Plans to run GR-density-Neutron to locate lost product
Plan to run logs this weekend
Will Keep us advised and provide copies of all logs

1-30-98 Dale Thompson

Ran Sonar Caliper, density log & video Camera
Faxed sonar picture 1996 & 1998.
Notable constriction between upper & lower cavities
Also also tight when tbg hit last summer.
Probably upper roof caved & piled up around constriction.
Plan to try and shoot constriction ~ 3rd week Feb.

May 20, 1996

Memo to Ferrellgas files
From: Steve Rauzi SR
Re: Discussion of volume verification in May 17, 1996 Commission meeting

All of the Commissioners present agreed that the sonar method was the best available technology to determine cavity shapes. They agreed that accepting volumetric measurements would be appropriate as long as sonar measurements continued to be used. Dr. Nations noted that sonar determinations could be waived in individual cases in appropriate situations.

State of Arizona
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500

Fife Symington
Governor

Larry D. Fellows
Director and State Geologist

May 1, 1996

Memo: Dale Thompson, Ferrellgas, Adamana — 9 pages total
Fax #: 524-2635
From: SP Steve Rauzi, Oil & Gas Administrator
Re: Volume verification surveys pursuant to A.A.C. R12-7-182(D)

I examined the sonar surveys on several of your storage wells after receiving the three sonar surveys run in March 1996. My analysis indicates that sonar surveys do not provide an exact picture of the shape and change of shape from survey to survey. On the other hand, sonar surveys, even when run by different companies and tools, do provide a good picture of the general shape and change in shape of a cavity as shown on the attached Exhibits 3 through 8.

The increase then decrease in sonar-determined volume for cavities 3 and 6 on Exhibit 1 is of special concern to me. I'm not sure if the discrepancy is due to running sonar in open hole versus through-pipe, different companies and tools, differences in tool design or calculation parameters, or improved technology through time. One way to verify sonar-determined volumes would be to complement them with volumetric measurements. The generally consistent cavity shape, change in shape, and rate of maximum radius increase over the last 16 years shown by the sonar survey results on the attached Exhibits 2 through 8 confirms the general integrity of the shape your caverns.

However, in light of the increase then decrease in sonar-determined volume in cavities 3 and 6 shown on Exhibit 1, it would be beneficial and appropriate to complement the sonar-determined volume verifications with volumetric measurements. As a result, I plan to recommend that the Oil and Gas Conservation Commission accept volumetric measurements and sonar surveys run on alternate five year cycles to provide a more accurate tracking and verification of cavity volumes; alternatively, to accept volumetric measurements annually complemented with sonar surveys at least every ten years or whenever a cavity is reentered and worked over, starting a new ten-year cycle.

Please feel free to comment on any aspect my analysis or reasoning. Also, I look forward to receiving your latest volumetric measurements pursuant to our discussion before the Commission's next meeting on May 17.

ADAMANA SONAR METHOD VOLUME VERIFICATION HISTORY

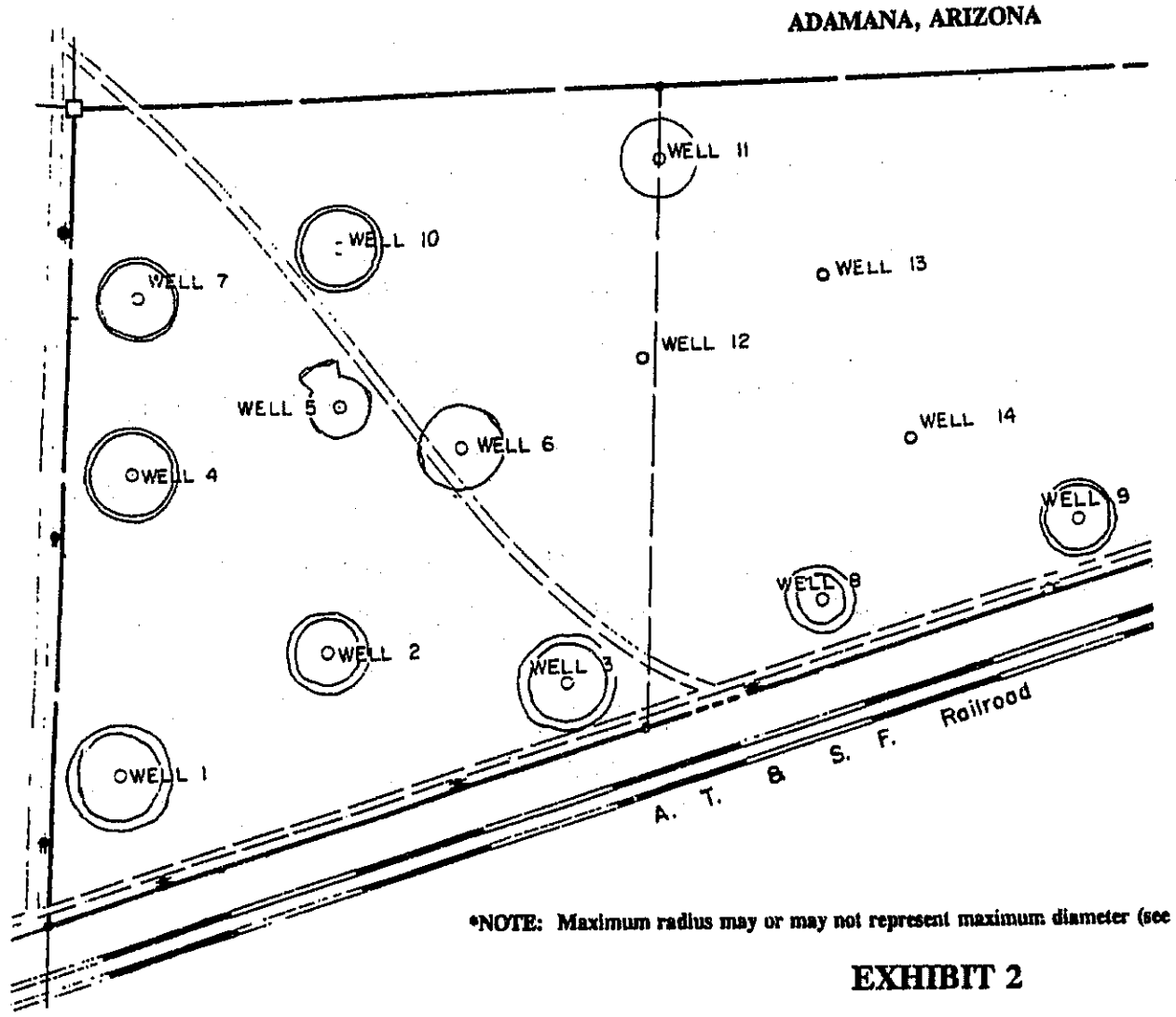
Permit	Well No.	TD	Cavern	Initial Sonar	Max Radius	Sonar Volume	Second Sonar	Max Radius	Sonar Volume	Third Sonar	Max Radius	Sonar Volume
556	1	1101'	900-985'	4/79 Dowell	99'@942'	150,532 bbls	3/92 Digital*	118'@944'	176,119 bbls			
557	2	1112'	906-995'	4/79 Dowell	74'@958'	149,008 bbls	2/89 MicroGage	90'@970'	193,563 bbls	2/95 Sonarwire**	89'@938'	197,559 bbls
602	3	1140'	944-1008'	4/79 Dowell	87'@995'	145,550 bbls	5/91 Digital*	104'@986'	195,355 bbls	3/96 Sonarwire*	104'@982'	185,607 bbls
603	4	1120'	950-1007'	4/80 Dowell	97'@945'	158,244 bbls	3/92 Digital	102'@978'	189,616 bbls			
606	5	1119'	938-1035'	---		---	3/89 MicroGage	100'@1026'	165,922 bbls	3/95 Sonarwire**	101'@1026'	169,615 bbls
607	6	1120'	924-1027'	4/80 Dowell	93'@952'	146,458 bbls	5/91 Digital*	94'@964'	200,659 bbls	3/96 Sonarwire*	90'@1006'	176,893 bbls
646	7	1152'	951-1079'	4/80 Dowell	84'@1055'	171,283 bbls	5/91 Digital	90'@1074'	179,122 bbls	3/96 Sonarwire**	90'@1066'	199,654 bbls
647	8	1132'	956-1069'	4/80 Dowell	57'@1060'	110,892 bbls	3/92 Digital*	72'@1054'	140,952 bbls			
648	9	1125'	973-1065'	4/80 Dowell	71'@1030'	108,222 bbls	3/92 Digital*	81'@1015'	168,797 bbls			
671	10	1150'	978-1042'	4/79 Dowell	85'@988'	128,541 bbls	3/89 MicroGage	99'@990'	164,567 bbls	2/95 Sonarwire**	98'@988'	168,792 bbls
672	11	1176'	960-1101'	---		---	3/89 MicroGage	84'@1070'	227,718 bbls	3/95 Sonarwire**	84'@1070'	244,537 bbls
776	12	1200'	Cavern not developed									
TOTAL CAPACITY									2,031,123 bbls 85,307,166 gallons			

* Sonar through one string of pipe
** Sonar through two strings of pipe

EXHIBIT 1

CAVERN MAXIMUM RADIUS* PLOT, FERRELLGAS LPG-STORAGE FACILITY

ADAMANA, ARIZONA



INDICATED RADIUS INCREASE THROUGH TIME BY SONAR MEASUREMENT

Well No.	TD	Cavern	Initial Sonar	Max Radius	Latest Sonar	Max Radius	Sonar Volume	Indicated net Increase
1	1101'	900-985'	4/79	99'@942'	3/92	118'@944'	176,119 bbls	19'/13yr (1.5'/yr)
2	1112'	906-995'	4/79	74'@958'	2/95	89'@938'	197,559 bbls	15'/16yr (1'/yr)
3	1140'	944-1008'	4/79	87'@995'	3/96	104'@982'	185,607 bbls	17'/17yr (1'/yr)
4	1120'	950-1007'	4/80	97'@945'	3/92	102'@978'	189,616 bbls	5'/12yr (.5'/yr)
5	1119'	938-1035'	3/89	100'@1026'	3/95	101'@1026'	169,615 bbls	1'/6yr (.2'/yr)
6	1120'	924-1027'	4/80	93'@952'	3/96	94'@1006'	176,893 bbls	1'/16yr (.06'/yr)
7	1152'	951-1079'	4/80	84'@1055'	3/96	90'@1066'	199,654 bbls	6'/16yr (.4'/yr)
8	1132'	956-1069'	4/80	57'@1060'	3/92	72'@1054'	140,952 bbls	39'/12yr (3'/yr)
9	1125'	973-1065'	4/80	71'@1030'	3/92	81'@1015'	168,797 bbls	10'/12yr (.8'/yr)
10	1150'	978-1042'	4/79	85'@988'	2/95	98'@988'	168,792 bbls	13'/16yr (.8'/yr)
11	1176'	960-1101'	3/89	84'@1070'	3/95	84'@1070'	244,537 bbls	0'/6yr (--/yr)
12	1200'	Cavern not developed						

*NOTE: Maximum radius may or may not represent maximum diameter (see Well 5 above & Exhibits 3-5)

EXHIBIT 2

SLR APR '96

SCALE : 1" = 50'

MAXIMUM RADIUS PLOT

FERRELLGAS WELL 5

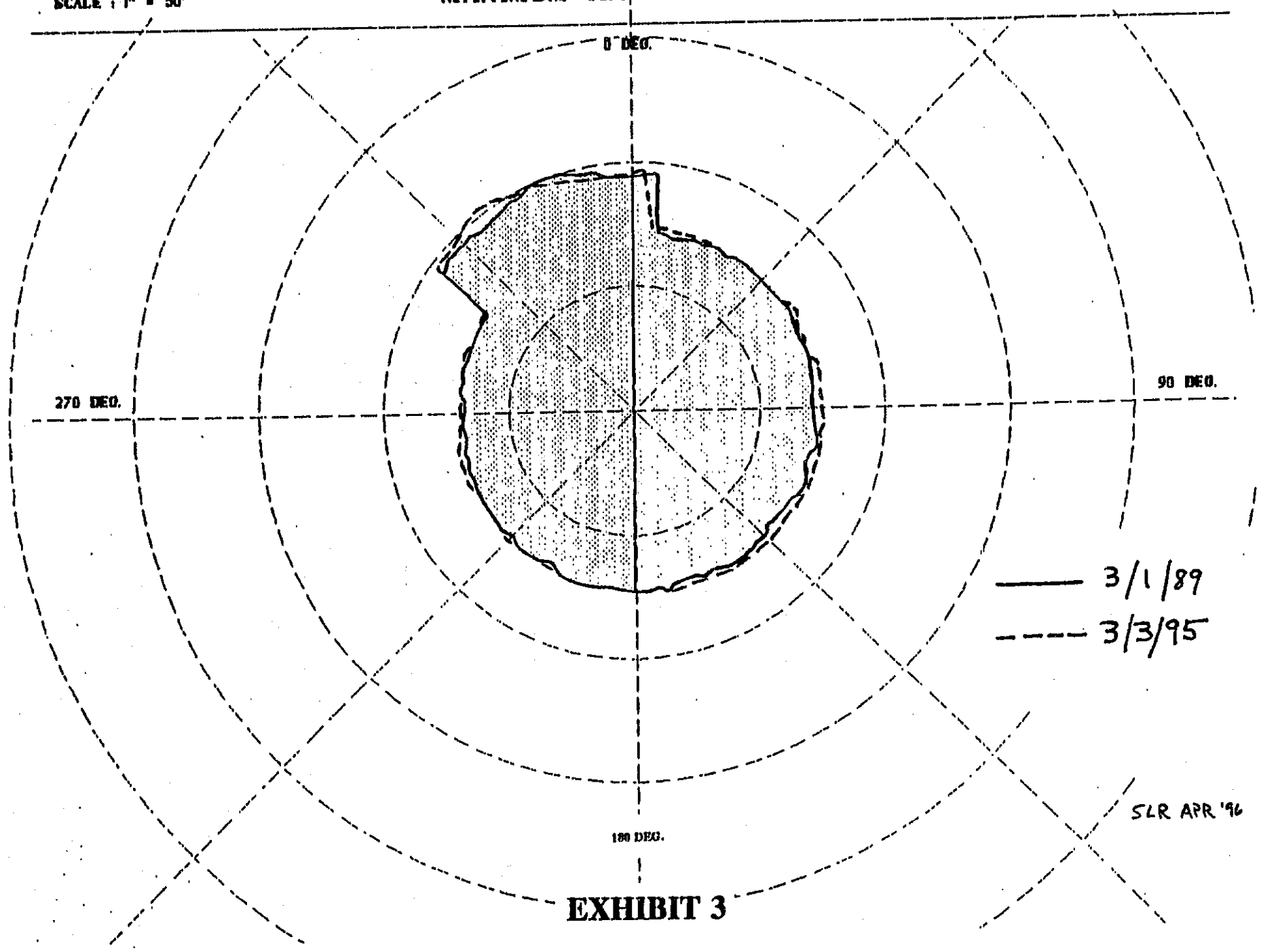


EXHIBIT 3

VERTICAL CROSSECTION

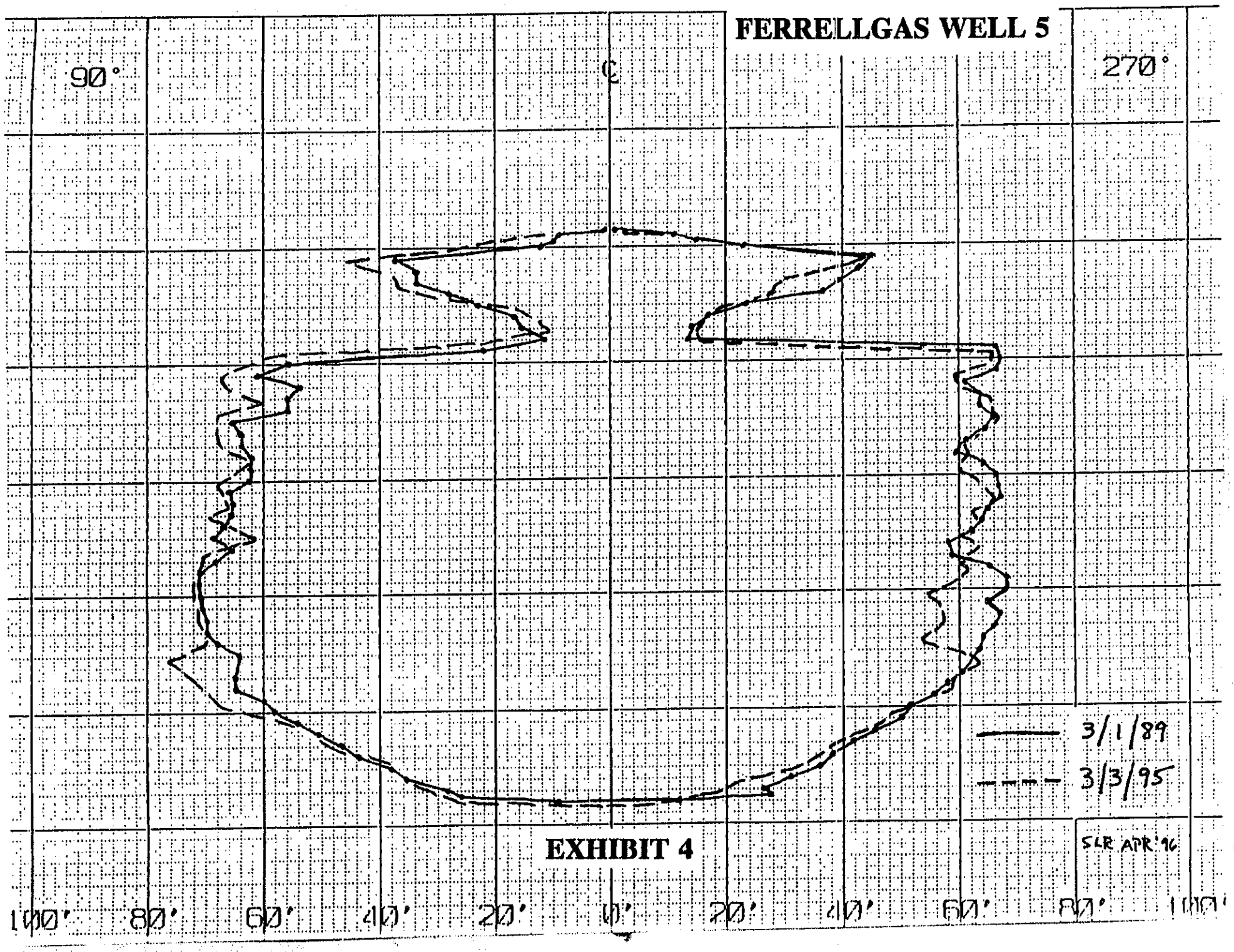


EXHIBIT 4

VERTICAL CROSSECTION

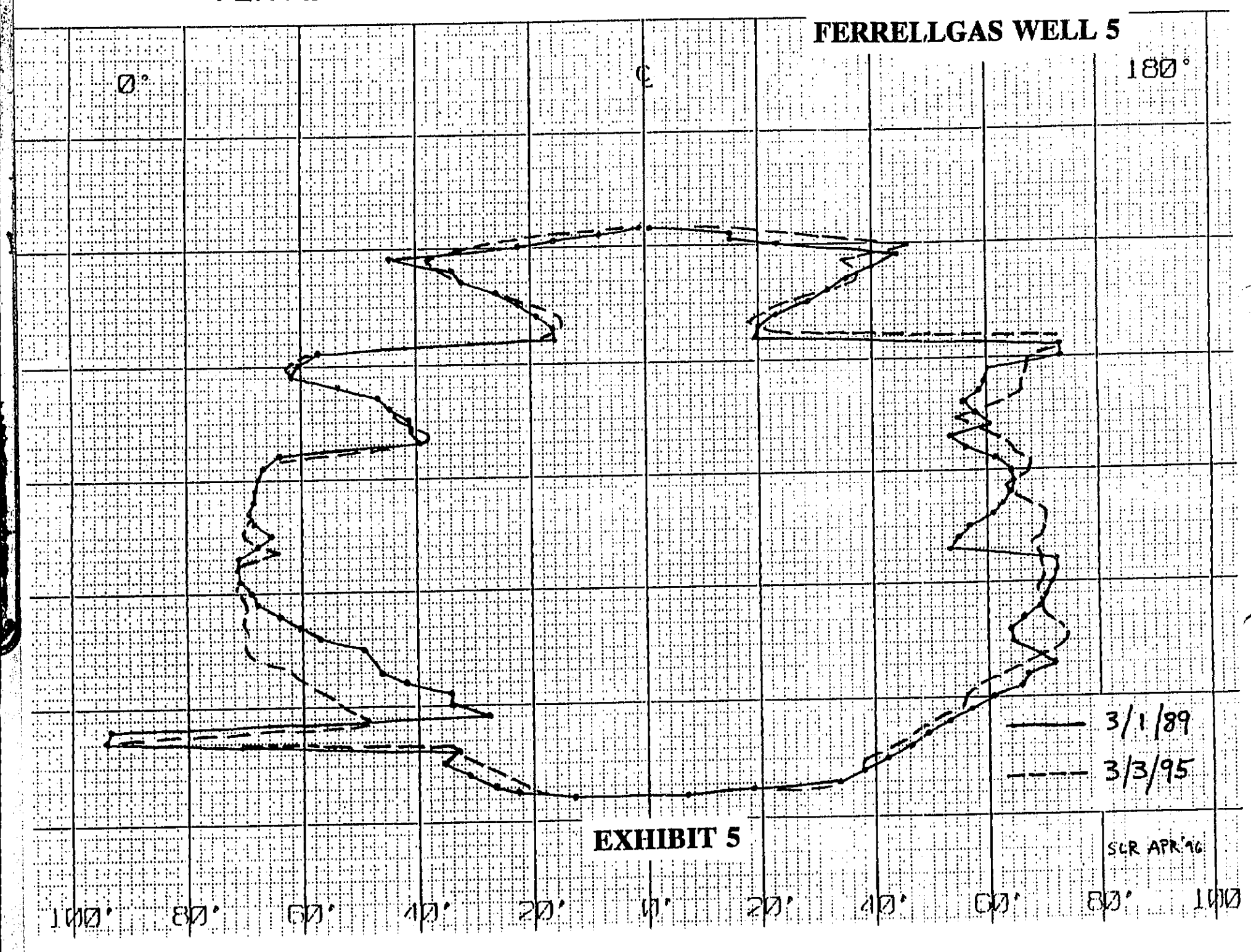


EXHIBIT 5

SCALE : 1" = 50'

MAXIMUM RADIUS PLOT

FERRELLGAS WELL 6

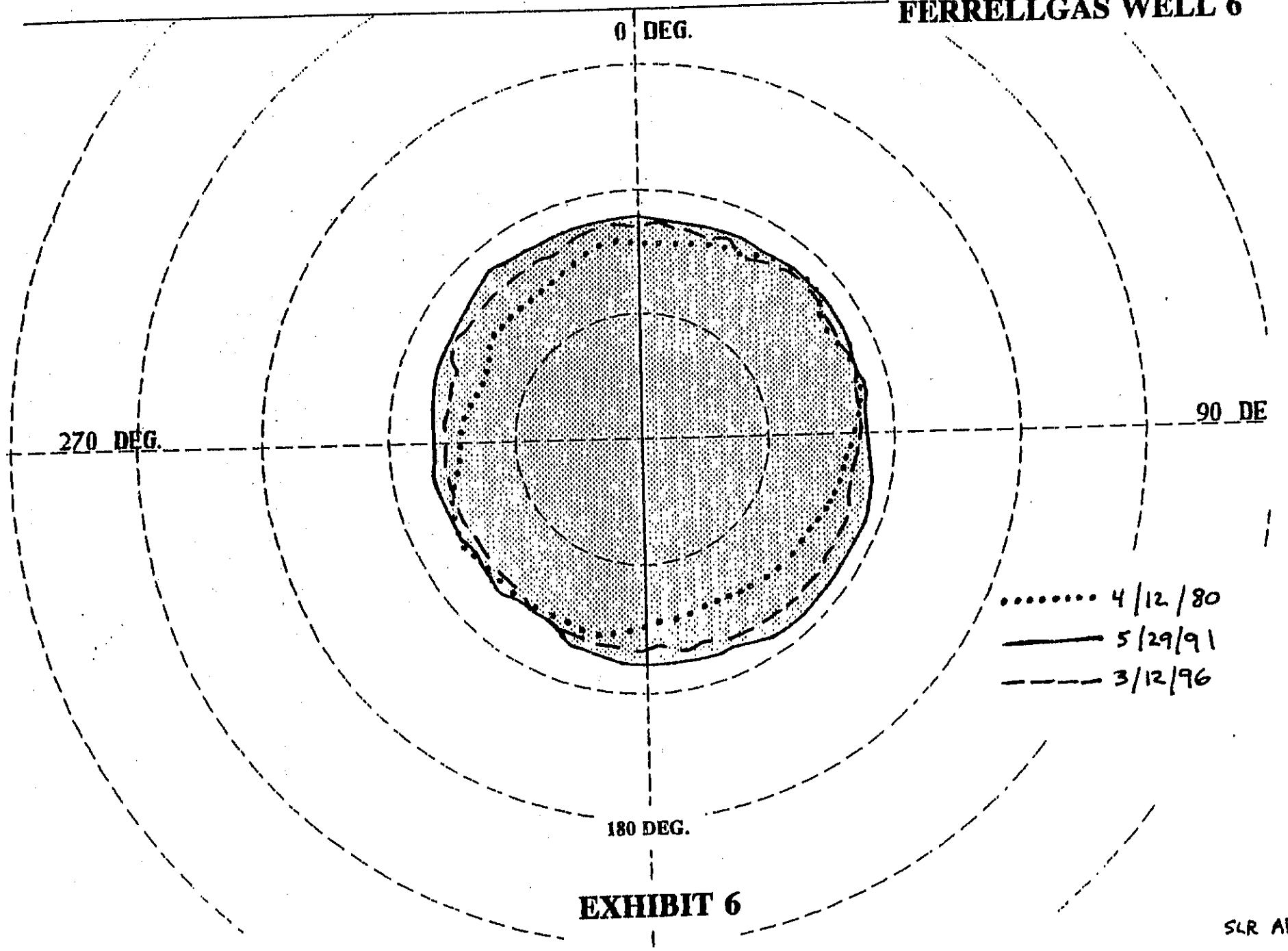


EXHIBIT 6

SLR APR '96

FERRELLGAS WELL 6

180 DEG. **0 DEG.**

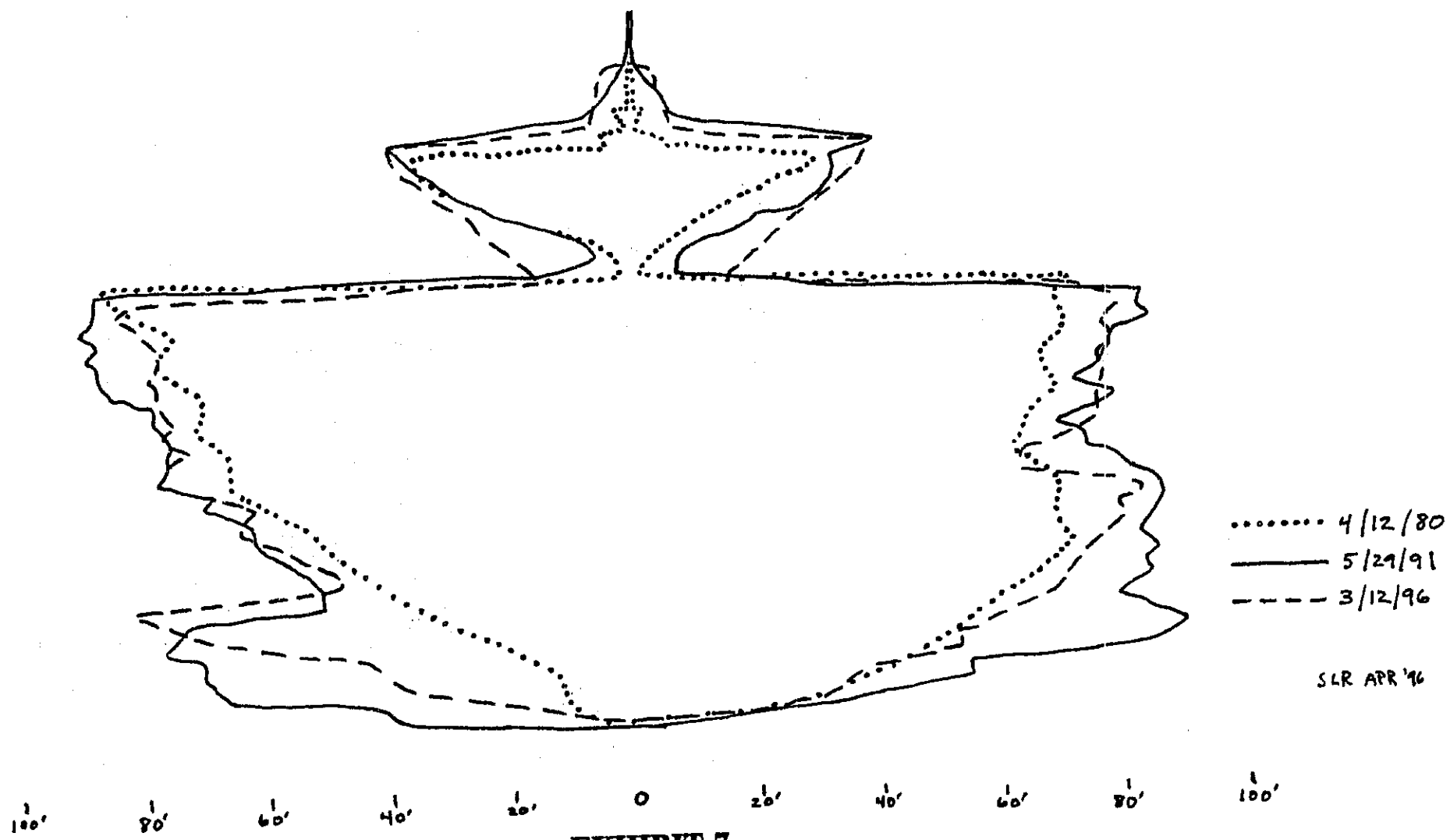


EXHIBIT 7

FERRELLGAS WELL 6

270 DEG.

90 DEG.

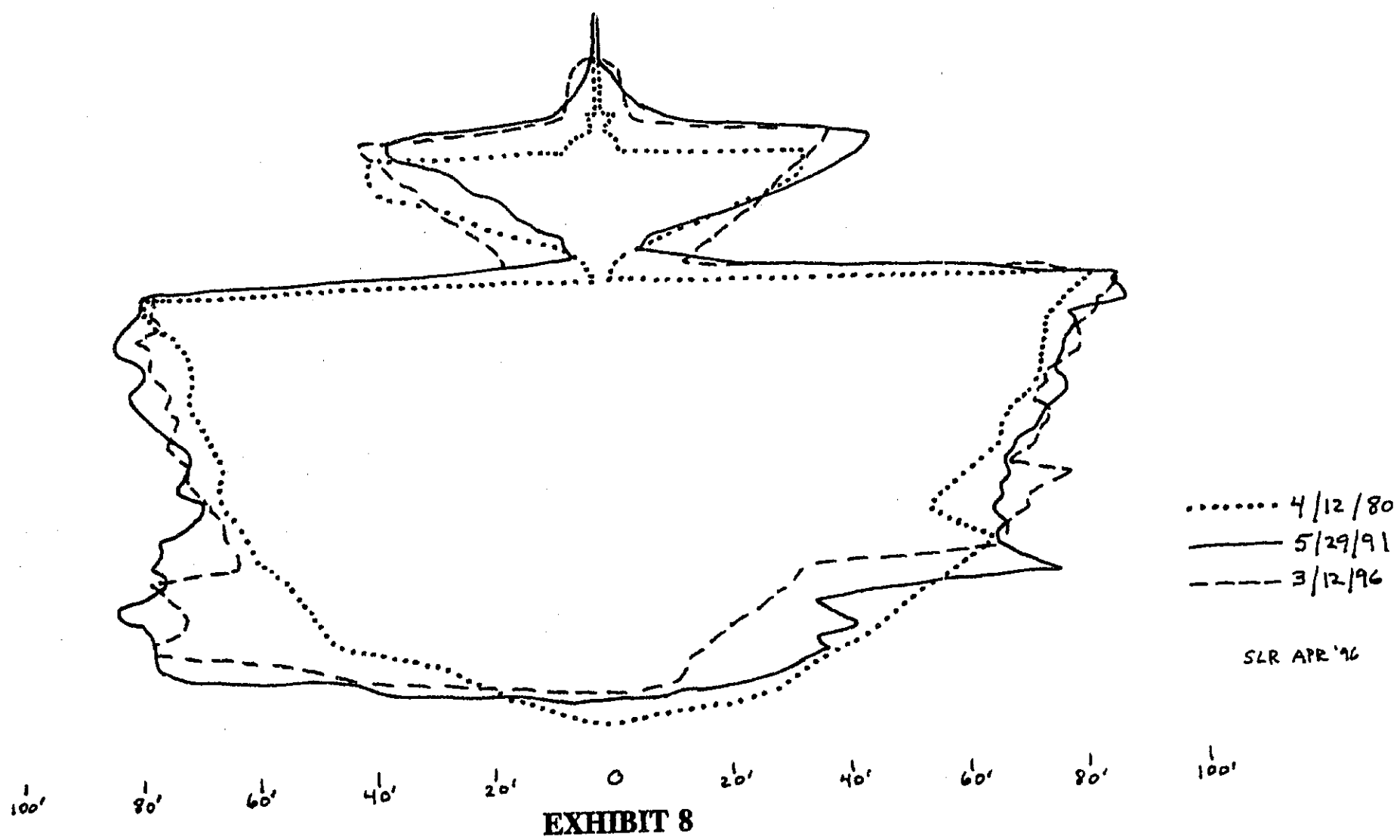


EXHIBIT 8

Ferrellgas

April 24, 1996

To: Steve Rauzi
Arizona Geological Survey

From: Dale Thompson
Ferrell North America

Subject: Cavern Capacities

Steve, as of October 30, 1996 these are the last known capacities on all the Caverns at the Adamana Storage Facility. (Capacities are in gallons).

Cavern #1	8,496,730
Cavern #2	6,900,978
Cavern #3	7,368,738
Cavern #4	8,676,071
Cavern #5	6,884,626
Cavern #6	7,886,657
Cavern #7	8,068,158
Cavern #8	6,349,044
Cavern #9	6,969,816
Cavern #10	7,792,578
Cavern #11	10,601,992

607

If we can be of further assistance please contact us at (520) 524-3229.

Sincerely,

Dale Thompson

Adamana Road • P.O. Box 1624 • Holbrook, Arizona 86025 • 602-524-3229

Ferrellgas

April 9, 1996

file 607

Steve L. Rauzi, Administrator
Oil and Gas Program
5150 N. 16th St., Ste. B141
Phoenix, Arizona 85016

APR 1996
ARIZONA GEOLOGICAL SURVEY

Dear Steve,

After our discussion on March 11, 1996 about "volumetric measurement" of our storage caverns I did some research.

Our past records on last known capacities indicate a more exact method of yearly cavern measurement. Due to the fact that almost all of our caverns are filled and emptied on a yearly basis, I feel this would be more accurate and more often a "yearly" measurement program.

Considering the reasons stated above, I would like to request the Adamana Facility perform the volumetric measurement program on a yearly basis and sonar measurement method every "ten years".

Steve, as you can see by our past sonar reports any increase in size has been very minute over the years. With the acceptance of the commission, my plan would be to sonar any cavern that had to be worked over; otherwise, all caverns would receive the sonar method on a "ten year" basis. All "volumetric measurement" information on our Adamana caverns can be submitted to your office on a yearly or five and/or ten year basis whichever you and the commission would prefer.

Steve, please let me know what you think and how to resolve this matter. Thank you for your time and consideration.

Sincerely,

Dale Thompson
Terminal Manager

Adamana Road • P.O. Box 1024 • Holbrook, Arizona 86025 • 602-524-3229

State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Fife Symington
Governor

Larry D. Fellows
Director and State Geologist

July 13, 1993

Ms. Brenda Davis, Mail Drop 5
Ferrellgas
One Liberty Plaza
Liberty, Missouri 64068

Re: Ferrellgas wells in Arizona
Approval of blanket bond #U1665522, United Pacific Insurance Company
Release of blanket bond #400 GV 7009, St. Paul Fire and Marine Insurance Company

Dear Ms. Davis:

I have enclosed an approved copy of the referenced blanket bond #U1665522 effective July 16, 1993, for all wells operated by Ferrellgas in Arizona.

This letter represents the Oil and Gas Conservation Commission's approval to release the referenced blanket bond #400 GV 7009 effective July 16, 1993.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosure

c Ms. Mary T. Flanigan, St. Paul Seaboard, Overland Park, Kansas

State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Fife Symington
Governor

Larry D. Fellows
Director and State Geologist

June 29, 1993

607

Ms. Kathy Cordera
Martin Insurance
P. O. Box 8418
Prairie Village, Kansas 66208-0418

FAX 913-676-9145 one copy of bond form No 2 6/29 @ 7:20 am SLR

Dear Ms. Cordera:

In response to your telephone call this morning, I have enclosed two blank copies of the Oil and Gas Conservation Commission's Performance Bond. File two copies of the completed bond form to my attention at the letterhead address.

Our records show that Ferrellgas currently has twelve storage wells and one freshwater well under bond.

Let me know if I can be of further assistance.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures

State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Fife Symington
Governor

Larry D. Fellows
Director and State Geologist

May 20, 1993

Ms. Mary T. Flanigan
~~Attorney-in-Fact~~
St. Paul Seaboard
P. O. Box 935
Overland Park, Kansas 66201-0935

607

Re: Ferrellgas, Inc. blanket performance Bond No. 400 GV 7009

Dear Ms. Flanigan:

I received your certified letter No. P 105-228-862 requesting the St. Paul Fire and Marine Insurance Company's release from obligation under the captioned bond because the captioned bond is being replaced by United Pacific Insurance Company Bond #U1665502 effective June 25, 1993.

A.A.C. R12-7-103 requires a performance bond to remain in effect until (1) the wells under the bond have been plugged and abandoned as approved by the Oil and Gas Conservation Commission, or (2) the a new blanket bond is posted for the wells. I have not received or approved a replacement bond for the captioned bond.

As a result, I cannot release St. Paul Fire and Marine Insurance Company's obligation under the captioned bond until the United Pacific Insurance Company Bond #U1665502 is received by this office and approved.

Please let me know if I can be of further assistance in this matter.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

c Mr. Greg Greer, Ferrellgas, P.O. Box 4644, Houston, Texas 77216
Mr. Dale Thompson, Ferrellgas, P.O. Box 1024, Holbrook, Arizona 86025

ADAMANA VOLUME VERIFICATION SURVEYS
(all by the sonar method)

Permit	Well	Survey Date	Survey Date	Current Status
556	1	4/79	3/92	In compliance
557	2	4/79	2/89	In compliance
602	3	4/79	5/91	In compliance
603	4	4/80	3/92	In compliance
606	5	---	3/89	In compliance
607	6	4/80	5/91	In compliance
646	7	4/80	5/91	In compliance
647	8	4/80	3/92	In compliance
648	9	4/80	3/92	In compliance
671	10	4/79	3/89	In compliance
672	11	---	3/89	In compliance
776	12			CAVERN NOT DEVELOPED

Ferrellgas

May 21, 1991

AZ OIL & GAS
CONSERVATION COMMISSION

MAY 24 1991

Mr. Dan Brennan
Executive Director
Oil & Gas Commission
State of Arizona
5150 N. 16TH ST.
Phoenix, Az 85016

Re: Sonaring of Ferrellgas Adamana, Arizona LPG Underground Storage Wells #3, #6 & #7

Dear Mr. Brennan:

Pursuant to our conversation of May 21, I have ordered the sonaring of Adamana Wells #3, #6 & #7 to commence as soon as possible. This work will be scheduled in the next 30 to 60 days. We will inform your office in advance of the exact date so that you can witness, if you so desire.

As discussed, wells #1, #4, #8 and #9 will be sonared at the earliest possible time. As you know these wells are currently active and we must wait for the winter outhaul season before the product can be removed. This should be done by next February 28 and we will schedule the sonar activity for these wells at that time.

If you have any questions please feel free to call me at (713)876-5515.

Best Regards,

Richard M. Gehring
Manager
Storage Operations

	Permit #
# 1	556
3	602
4	603
6	607
7	646
8	647
9	648

xc: Brad Mallory - Moab
Dale Thompson - Adamana

P.O. Box 4644, Houston, Texas 77210
16800 Greenspoint Park Drive • Suite 225 - South Atrium • Houston, Texas 77060 • Telephone: 713/874-9494

607

Oil and Gas Conservation Commission
STATE OF ARIZONA
3110 N. 19th AVENUE, SUITE 190
PHOENIX, ARIZONA 85015
PHONE: (602) 255-5161

January 11, 1989

Mr. Glenn Mace
Ferrellgas
Granada Building, Suite 216
3316 East 32nd Street
Tulsa, OK 74135

Dear Mr. Mace:

As we discussed during your visit yesterday, Oil and Gas Conservation Commission Rule 12-7-181.1.i requires that "...a flare or other safety system shall be installed at or near each brine pit..." As you know, the Ferrellgas facility at Adamana does not have a flare installed at present since the dismantling of the rusted-out older system.

Thus it appears that your operation is not in compliance with this rule. Therefore, it is necessary for Ferrellgas to install such a device to come into compliance. Failure to comply would cause the Commission to invoke R12-7-181.1.i which involves shutting down the operation.

You indicated that it will take some time to design, fabricate, and install the flare system. We would hope that this can be completed before the next scheduled inspection of the facility which will be around the end of May 1989.

Although we did not specifically discuss this issue, Rule 12-7-181.1.i.v requires verification of the capacity of each storage cavern every five years. This has not been accomplished since 1979 and 1980. Thus your operation is not in compliance with this rule. It will be necessary for Ferrellgas to begin to verify these capacities very soon. I realize this is the busy season, but as soon as activity declines and caverns are shut in for a few days, the logs can be run.

I was thinking about the possible problem with liquid propane in extremely cold weather. One way to solve the problem is to include an oil-water separator in the flow line from the caverns to the pits. A simple "drip" system might work, or an actual oil-water separator such as is used at gas-condensate wells. We sure don't want to burn up any pit liners.

We will expect to hear from you regularly concerning your progress in the matter of the flare and the sonar.

Very truly yours,

Daniel J. Brennan
Executive Director

WILLIAMS ENERGY COMPANY
9 EAST FOURTH STREET
P. O. BOX 3478
TULSA, OKLAHOMA 74101
PHONE: (918) 583-1711

DJD:1:75

January 2, 1975

See Adamana Project File

Mr. W. E. Allen
Director, Enforcement Section
Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear Bill:

Attached are prints reflecting the well development history for the Adamana underground storage. Please note that wells #1 and #2 had no additional washing since last year report, as 1974 washing activity was concentrated on the smaller new caverns. We have placed LPG in all six wells to meet the 1974/1975 winter demand.

Upon depletion of LPG from wells three through six, it is our intent to initiate washing until resumption of storage in 1975. Should the season not allow time to develop these wells to optimum size, some washing may continue in 1976.

I wish to thank you for your assistance while I was stationed in Arizona, and I look forward to working with you through my new position in Tulsa.

Very truly yours,

WILLIAMS ENERGY COMPANY

Dan J. Dougherty

Dan J. Dougherty
Operations Department

DJD:ak

RECEIVED
JAN 1975
O & G CONS. COMM.

Uregas

DOXOL

ONE OF THE WILLIAMS COMPANIES

WILLIAMS ENERGY COMPANY
9 East Fourth Street
P. O. Box 3478
Tulsa, Oklahoma 74101
Phone: (918) 583-1711

January 2, 1974

RJW:3:74

Mr. W. E. Allen
Director, Enforcement Section
Oil and Gas Conservation Commission
State of Arizona
4515 North Seventh Avenue
Phoenix, Arizona 85013

See Adamana Project File

Dear Bill:

Attached are copies of drawings showing the well development history for Adamana Underground Storage installation. You will note that we have placed propane in all wells, except number three, and this well continued to wash during the fall and winter of 1973. It is our intention that upon depletion of propane from wells four thru six, we will again initiate washing. It is our intent to take all six wells to 150,000 barrels.

In reviewing our schedule, it appears that obtaining this goal in all wells prior to the resumption of storage in 1974 is optimistic. Therefore, some washing may continue in 1975.

I also wish to advise you that Williams Energy Company has contracted with Fenix & Scisson of Tulsa, Oklahoma to conduct sonar surveys on some of the wells at Adamana. This engineering work will commence during the month of March, and will provide some structural information that we feel is necessary. Should you desire to observe any of this work, please feel free to stop by. Also, if we find any information that we feel may be of interest to you, I will pass the same on.

Thank you for your assistance, and I look forward to working with you in 1974.

DRAWINGS OF WELLS USED FOR UNDERGROUND STORAGE ARE FILED IN NO. 607A.

Very truly yours,

WILLIAMS ENERGY COMPANY

R. J. Wiruth
Manager of Operations

RJW:dh

Enclosures

RECEIVED
JAN 1974
O & G CONS. COMM.

#607A

DOXOL

ONE OF THE WILLIAMS COMPANIES

Uregas

June 2, 1978

Mr. Bob Larsen
Williams Energy Company
P.O. Box 3478
Mail Drop #33-1
Tulsa, Oklahoma 74101

Dear Mr. Larsen:

During a visit yesterday to your LPG storage area at Adamana, Mr. Sam Snyder informed me that you have replaced Dan Dougherty as Manager of Storage Terminals.

The purpose of my visit to this terminal was to discuss our Rule 706. This rule was recently adopted by the Arizona Oil and Gas Conservation Commission at a public hearing. Mr. Dougherty attended this hearing.

Rule 706, as adopted, doesn't affect your storage terminal as it now exists, except Sections C and D. These sections primarily pertain to safety features. The safety feature of immediate concern to this commission is the installation of a flare system.

This Commission does not intend to dictate or even recommend a particular design for this system. We do retain the right to approve the system that you select. The system that Mr. Snyder has discussed with you is not acceptable to the Commission.

We are enclosing a copy of Rule 706, together with a copy of the general rules and regulations of the Commission. You will note that some of these general rules also pertain to your operation.

This Commission has enjoyed a very pleasant working relationship with Williams Energy and be assured that we want to cooperate with you and your staff to the fullest extent.

Your prompt attention to the installation of the flare system will be much appreciated.

Let us know if we can be of any help whatsoever.

Very truly yours,

W. E. Allen
Director
Enforcement Section

WEA/vb

Enc.

March 28, 1978

Mr. Dan J. Dougherty
Manager of Storage Terminal
Williams Energy Company
P.O. Box 3478
Tulsa, Oklahoma 74101

Dear Dan:

Recent developments connected with the underground storage of LPG in Arizona have caused this Commission to make a study of various safety devices which would tend to prevent any accidents from occurring during the pumping of LPG into a storage reservoir. It has been concluded that a flare system, properly installed and operated in a proper manner, would be the safest and most economical of all safety systems.

These conclusions make it necessary that this Commission request all operators of LPG storage projects within the State to install a flare system at their respective storage sites as quickly as possible. The Commission does not intend to dictate to the operator the technical design of this system, but does retain the right to approve the system selected.

Your full and early cooperation in the installation of such a safety system is expected.

Very truly yours,

W. E. Allen
Director
Enforcement Section

WEA/vb

Williams Energy has completed their 9th well for LPG storage at Adamana. Williams Energy had a bad primary cement job on their No. 8 well. I plan to check on the repair of this cementing job tomorrow and then go on to the Dineh-Bi-Keyah and check Kerr-McGee's progress on their waterflood installations.

607

Williams Energy has completed the drilling of 2 additional storage wells in the Adamana area and they have one permit outstanding.

RECEIVED
SEP 1 0 1975
O & G CONS. COMM.

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

January 20, 1975

Mr. R. J. Wiruth
Manager of Operations
Williams Energy Company
P. O. Box 3478
Tulsa, Oklahoma 74101

Re: Adamana Storage Project

You are aware that this office occasionally inspects all field operations including storage projects. We find your project at Adamana to be in first class condition and your supervisor, Mr. Sam Snyder is always most cooperative. It is indeed a pleasure to work with people like Sam.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

WILLIAMS ENERGY COMPANY

9 East Fourth Street
P. O. Box 3478
Tulsa, Oklahoma 74101
Phone: (918) 583-1711

January 2, 1974

RJW:3:74

Mr. W. E. Allen
Director, Enforcement Section
Oil and Gas Conservation Commission
State of Arizona
4515 North Seventh Avenue
Phoenix, Arizona 85013

Dear Bill:

Attached are copies of drawings showing the well development history for Adamana Underground Storage installation. You will note that we have placed propane in all wells, except number three, and this well continued to wash during the fall and winter of 1973. It is our intention that upon depletion of propane from wells four thru six, we will again initiate washing. It is our intent to take all six wells to 150,000 barrels.

In reviewing our schedule, it appears that obtaining this goal in all wells prior to the resumption of storage in 1974 is optimistic. Therefore, some washing may continue in 1975.

I also wish to advise you that Williams Energy Company has contracted with Fenix & Scisson of Tulsa, Oklahoma to conduct sonar surveys on some of the wells at Adamana. This engineering work will commence during the month of March, and will provide some structural information that we feel is necessary. Should you desire to observe any of this work, please feel free to stop by. Also, if we find any information that we feel may be of interest to you, I will pass the same on.

Thank you for your assistance, and I look forward to working with you in 1974.

DRAWINGS OF WELLS USED FOR UNDERGROUND STORAGE ARE FILED IN NO. 607A.

Very truly yours,

WILLIAMS ENERGY COMPANY

R. J. Wiruth
Manager of Operations

RJW:dh

Enclosures

RECEIVED
JAN 1974
O & G CONS. COMM.

#607

DOXOL

ONE OF THE WILLIAMS COMPANIES

Uregas

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

April 16, 1973

Mr. D. J. Doughtery
Williams Energy Company
P. O. Box 35
Holbrook, Arizona 86025

RE: LPG STORAGE PROJECT

Dear Mr. Doughtery:

On a recent visit to your storage project at Adamana, it was noticed that at times brine was allowed to flow directly from the well to the ground. This brine or salt water then collected in a low spot just north of your fence line and also just north of the railroad right of way. This is in violation of Rule 306 and 307 of the Rules and Regulations of the Oil and Gas Conservation Commission. This situation has been called to the attention of both Mr. Greer and Mr. Sam Snyder.

If at times it is necessary to purge your wells in this manner, the brine or salt water must be contained in a suitable vessel or pit that has been prepared in such a manner that it is impervious to seepage.

Please instruct your employees to stop the practice of allowing the brines or salt water to escape to the ground.

Should you have any questions regarding this matter, please feel free to contact this office.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Enclosure

607

WILLIAMS ENERGY COMPANY
9 EAST FOURTH STREET
P. O. BOX 3478
TULSA, OKLAHOMA 74101
PHONE: (918) 583-1711

March 27, 1973

RJW:232:73

Mr. W. E. Allen
Director, Enforcement Section
Oil & Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear Mr. Allen:

Enclosed you will find the completion reports and compensated neutron logs for wells number 3, 4, 5, and 6. I trust that this will complete the reporting requirements for these wells until our washing report is due.

Our schedule calls for us to store propane in three of these wells starting in August, even though they will not be completed. They will be empty sometime in December, and washing will resume with completion forecasted in May 1974.

Yours very truly,

WILLIAMS ENERGY COMPANY

R. J. Wiruth

R. J. Wiruth
Manager of Operations

RJW:dh

Enclosures

RECEIVED
MAR 29 1973
O & G CONS. COMM.

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

March 5, 1973

Mr. Robert Wiruth
Williams Energy Company
P. O. Box 3478
Tulsa, Oklahoma 74101

Re: Williams Energy Well Nos. 3, 4, 5, & 6
NW/NW Sec 3-T18N-R24E
Apache County
Permit Nos. 602, 603, 606 & 607

Dear Mr. Wiruth:

Since the samples for the above referenced wells have been delivered to Four Corners Sample Cut in Farmington, New Mexico, we are assuming that these wells have been completed in so far as the drilling and casing of the wells are concerned. Please refer to Rules 107, 108 & 109, of the Rules and Regulations of the Arizona Oil and Gas Conservation Commission and submit the necessary reports; Form 25, on the cementing of the casing strings in these holes and Form 4, Completion Report.

At the time you have completed enlarging the reservoir for LPG Storage, we will need to be advised of the approximate capacity and shapes of the storage areas.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

February 2, 1973

Mrs. Jo Ratcliff
Four Corners Sample Cut Association
P. O. Box 899
Farmington, New Mexico 87401

Dear Mrs. Ratcliff:

The following permits were issued since January 15, 1973.

Williams Energy Company Well No. 5 & 6
NW/NW Sec 8-T18N-R24E
Apache County
Permit Nos. 606 & 607

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

February 2, 1973

Mr. Frank Getscher
P. O. Box 98
Scottsdale, Arizona 85252

Dear Mr. Getscher:

The following permits were issued since January 15, 1973.

Williams Energy Company Well No. 5 & 6
NW/NW Sec 8-T18N-R24E-
Apache County
Permit Nos. 606 & 607

The above are LPG Storage Wells.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEArlb

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

February 2, 1973

Mr. Robert Wiruth
Williams Energy Company
P. O. Box 3478
Tulsa, Oklahoma 74101

Re: Williams Energy Company Well No. 5 & 6
NW/NW Sec 8-T18N-R24E
Apache County
Permit Nos. 606 & 607

Dear Mr. Wiruth:

Enclosed please find Receipt Nos. 2944 and 2945 covering the $25 filing fee, a copy of your approved Applications for Permit to Drill and Permit to Drill Nos. 606 and 607.

Also enclosed are miscellaneous instruction sheets concerning samples and other Commission requirements.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Encs.

WILLIAMS ENERGY COMPANY
9 EAST FOURTH STREET
P. O. BOX 3478
TULSA, OKLAHOMA 74101
PHONE: (918) 583-1711

January 24, 1973

RJW:50:73

Mr. W. E. Allen
Director, Enforcement Section
Oil & Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear Mr. Allen:

I regret that I missed you when I called on January 17, 1973 to obtain verbal permission to locate our rig on Well Number 5. I discussed the problem with Mr. Bannister and he granted permission.

Enclosed are the applications to drill Wells Number 5 and 6 on our property along with the $25 filing fee. Also attached is a plant showing the location of these holes.

Very truly yours,

WILLIAMS ENERGY COMPANY

R. J. Wiruth
Manager of Operations

RJW:sw

Enclosures

RECEIVED
FEB 1973
O & G CONS. COMM.

Susan Watkinson

WILLIAMS ENERGY COMPANY No. 57935

Uregas

DOXOL

Permit 607

Batch 23

VOUCHER		INVOICE			INVOICE AMOUNT	DISCOUNT AMOUNT	NET AMOUNT
MO.	NUMBER	MO.	DAY	NUMBER			
		01	24	6104			25 00

REMITTANCE STATEMENT - PLEASE DETACH CHECK BEFORE DEPOSITING